ALS Environmental
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www.alsglobal.com

February 09, 2016

Analytical Report for Service Request No: K1600673

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

RE: Red Hill Bulk Fuel Storage / 150037

Dear Marvin,

Enclosed are the results of the sample(s) submitted to our laboratory January 22, 2016
For your reference, these analyses have been assigned our service request number **K1600673.**

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.
Client Services
Manager

ALS Environmental
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Table of Contents

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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www.alsglobal.com

ALS ENVIRONMENTAL

Client:	Element Environmental, LLC	**Service Request No.:**	K1600673
Project:	Red Hill Bulk Fuel Storage/ 150037	**Date Received:**	01/22/16
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 deliverables including summary forms for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Fifteen water samples were received for analysis at ALS Environmental on 01/22/16. 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.

Total and Dissolved Metals

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

EDB and DBCP by EPA Method 8011

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

Gasoline Range Organics by EPA Method 8015

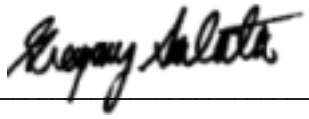
Sample Notes and Discussion:
Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory 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.

Diesel 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

Calibration Verification Exceptions:
The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) J:\MS46\00122F011.D: Bromomethane. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

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.

Surrogate Exceptions:
The upper control criterion was exceeded for 1,2-Dichloroethane-d4 in samples ERH019. No target analytes were detected in the sample. The error associated with an elevated recovery equated to a high bias. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

Matrix Spike Recovery Exceptions:
The matrix spike recovery of several analytes for sample ERH018 was outside control criteria. Positive detections in the parent sample are flagged, as per the DOD QAPP. No further corrective action was appropriate.

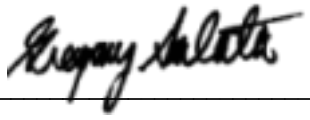
No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260 -SIM

Calibration Verification Exceptions:
The ALS minimum relative response factor criterion for 1,1,2,2-Tetrachloroethane was not met in Continuing Calibration Verification (CCV) J:\MS27\0129F006.D and J:\MS27\0129F030.D. In accordance with ALS standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verified instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question the data quality was not significantly affected. No further corrective action was appropriate.

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) J:\MS27\00201F004.D: Toluene-d8. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Surrogate Exceptions:
The control criteria were exceeded for Toluene-d8 in LCS KWG1600798-3, and KWG1600835-3 and Matrix Spike/Duplicate Matrix Spike Batch QC. The associated matrix spike recoveries of target compounds were in control, indicating the analysis was in control. The surrogate outlier was flagged accordingly. No further corrective action was appropriate.

Approved by 

The upper control criterion was exceeded for Toluene-d8 in all samples and Method Blanks KWG1600798-4 and KWG1600835-4. The upper control criterion was exceeded for 4-Bromofluorobenzene in samples ERH025. No target analytes associated with these surrogates were detected in the samples. The error associated with an elevated recovery equated to a high bias. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

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

Internal Standard Exceptions:
The internal standard recovery of Acenaphthene-d10 in sample ERH025 was outside control criteria because of matrix interferences. The sample was reanalyzed and reported at dilution for the compounds associate with the internal standard in question. The results quantified using this internal standard were flagged to indicate the dilution.

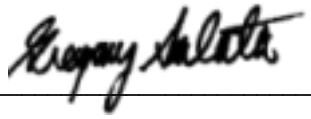
Matrix Spike Recovery Exceptions:
Due to a laboratory error, the replicate Matrix Spikes (MS/DMS) KWG1600624-1 and KWG1600624-2 were not spike with the compounds of interest. The recoveries in the replicate Laboratory Control Samples (LCS/DLCS) KWG1600624-3 and KWG1600624-4 were acceptable, which indicated the analytical batch was in control. A re-analysis was not performed because insufficient sample was available. No further corrective action was possible.

Elevated Detection Limits:
The detection limit was elevated for Acenaphthylene in sample ERH025. The chromatogram indicated the presence of non-target background components. The result was flagged to indicate the matrix interference.

Sample Notes and Discussion:
The results reported for several analytes in sample ERH024 may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples. The results were flagged with "X" to indicate the issue.

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 

Chain of Custody

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SR# K160673

COC Set____of____

COC#_____

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www.alsglobal.com

Project Name	RED HILL BULK FUEL STORAGE
Project Number	150037
Project Manager	MATHEW NEAL
Company	ELEMENT ENVIRONMENTAL, LLC
Address	98-030 HEKAHA ST. UNIT 9, AIEA, HI 96701
Phone #	(808) 479-6075
email	mneal@ezhi.com
Sampler Signature	
Sampler Printed Name	AUSTIN LUTEY BERNICE BALETE

CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix	NUMBER OF CONTAINERS	7D 8015C / DRO RRO	7D 8270D / PAH SIM	14D 504.1 / EDB DBCP 50ml	14D 8015C / VOC GRO	14D 8260C / VOC FP	14D 8260C / VOC SIM FP	180D 6020A / Metals D *	180D 6020A / Metals T 200.8	1	2	3	4	5	Remarks
1. ERH-015		1/19/2016	0940	GW	11	X	X	X	X	X	X	X							
2. ERH-016		1/19/2016	1117	GW	11	X	X	X	X	X	X	X							
3. ERH-017		1/19/2016	1226	GW	11	X	X	X	X	X	X	X							
4. ERH-018		1/19/2016	1416	GW	33	X	X	X	X	X	X	X							MS/MSD
5. ERH-019		1/19/2016	1555	GW	11	X	X	X	X	X	X	X							
6. ERH-020		1/19/2016	1630	GW	11	X	X	X	X	X	X	X							
7. ERH-021		1/20/2016	1020	GW	11	X	X	X	X	X	X		X						
8. ERH-022		1/20/2016	1200	GW	11	X	X	X	X	X	X	X							
9. ERH-023		1/20/2016	1230	GW	11	X	X	X	X	X	X	X							
10. ERH-024		1/20/2016	1315	GW	11	X	X	X	X	X	X	X							

Report Requirements

- __ I. Routine Report: Method Blank, Surrogate, as required
- __ II. Report Dup., MS, MSD as required
- X III. CLP Like Summary (no raw data)
- __ IV. Data Validation Report
- __ V. EDD

Invoice Information

P.O.# 150037

Bill To: MATHEW NEAL

mneal@ezhi.com

Turnaround Requirements

- __ 24 hr.
- __ 48 hr.
- __ 5 Day
- X Standard

Requested Report Date

Circle which metals are to be analyzed

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe (Pb) Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe (Pb) Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Special Instructions/Comments:

*FIELD FILTERED

*Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other____(Circle One)

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: BERNICE BALETE	Printed Name: Tracie Sober	Printed Name: Tracie Sober	Printed Name: Kelly Reed	Printed Name	Printed Name
Firm: ELEMENT ENVIRONMENTAL, LLC	Firm: ALS	Firm: ALS	Firm: ALS	Firm	Firm
Date/Time: 1/21/2016 0900	Date/Time: 1/21/16 0900	Date/Time: 1/21/16 1130	Date/Time: 1/22/16 930	Date/Time	Date/Time

ALS Environmental

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SR# K1600075

COC Set____ of____

COC#_____

Page 1 of 1

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068
www.alsglobal.com

Project Name: REO HILL BULK FUEL STORAGE	Project Number: 150037
Project Manager: MATTHEW NEAL	
Company: ELEMENT ENVIRONMENTAL, LLC	
Address: 98-030 HEKAHA ST, UNIT 9, AIEA, HI 96701	
Phone #: (808) 479-6075	email: mneal@ezhi.com
Sampler Signature:	Sampler Printed Name: AUSTIN LUTEY, BERNICE BALETE

CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix	NUMBER OF CONTAINERS	7D: 8015C / DRO RRO	7D: 8270D / PAH SIM	14D: 8011 / EDB DBCP	14D: 8015C / VOC GRO	14D: 8260C / VOC FP	14D: 8260C / VOC SIM FP	180D: 6020A / Metals D	180D: 6020A / Metals T	1	2	3	4	5	Remarks
1. ERH025		1/20/2016	1440	GW	11	X	X	X	X	X	X	X							
2. ERH026		1/20/2016	1545	GW	11	X	X	X	X	X	X	X							
3. ERH027		1/21/2016	0800	GW	11	X	X	X	X	X	X	X							
4. ERH028		1/21/2016	0830	GW	11	X	X	X	X	X	X	X							
5. TRIP BLANK					6				X	X	X								
6.																			
7.																			
8.																			
9.																			
10.																			

Report Requirements

- __ I. Routine Report: Method Blank, Surrogate, as required
- __ II. Report Dup., MS, MSD as required
- X III. CLP Like Summary (no raw data)
- __ IV. Data Validation Report
- __ V. EDD

Invoice Information

P.O.# 150037

Bill To: Matthew Neal

mneal@ezhi.com

Turnaround Requirements

- __ 24 hr.
- __ 48 hr.
- __ 5 Day
- X Standard

Requested Report Date

Circle which metals are to be analyzed

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe (Pb) Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe (Pb) Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Special Instructions/Comments:

*FIELD FILTERED

*Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other____(Circle One)

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature:	Signature:	Signature	Signature
Printed Name: BERNICE BALETE	Printed Name: Tracie Sober	Printed Name: Tracie Sober	Printed Name: Kelly Reed	Printed Name	Printed Name
Firm: ELEMENT ENVIRONMENTAL, LLC	Firm: ALS	Firm: ALS	Firm: ALS	Firm	Firm
Date/Time: 1/21/2016 @ 0900	Date/Time: 1/21/16 0900	Date/Time: 1/21/16 1130	Date/Time: 1/22/16 935	Date/Time	Date/Time

PC brey

Cooler Receipt and Preservation Form

Client / Project: Element Environmental Service Request ~~K15~~-K16 00673

Received: 1/22/16 Opened: 1/22/16 By: KR Unloaded: 1/22/16 By: KR

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 F
   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
6.0	5.9	3.3	3.2	-0.1	359	5 of 6	775470937420	
0	0	1.4	1.4	0	328	4 of 6	775470937198	
-0.9	1.1	0.4	0.6	+0.2	363	1 of 6	775470937051	
-0.6	-0.4	0.5	0.3	-0.2	360	2 of 6	775470937073	
-0.8	-0.5	2.1	1.8	-0.3	371	3 of 6	775470937360	

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: _____

PC Grey

Cooler Receipt and Preservation Form

Client Element Environmental Service Request *K16* 00673

Received: 1/22/16 Opened: 1/22/16 By: KR Unloaded: 1/22/16 By: KR

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 F
   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
1.1	1.0	1.4	1.3	-0.1	354	6 of 6	7754 7093 7658	

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: _____

Metals

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

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/19/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH015** **Lab Code:** **K1600673-001DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.273**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/19/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH016** **Lab Code:** **K1600673-002DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.040**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/19/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH017** **Lab Code:** **K1600673-003DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.015**	**J**	

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/19/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH018** **Lab Code:** **K1600673-004DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.010**	**J**	

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/19/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH019** **Lab Code:** **K1600673-005DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.037**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/19/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH020** **Lab Code:** **K1600673-006DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.072**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/20/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH021** **Lab Code:** **K1600673-007**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**200.8**	**0.020**	**0.010**	**0.004**	**1.0**	**02/03/16**	**02/04/16**	**0.036**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/20/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH022** **Lab Code:** **K1600673-008DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.018**	**J**	

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/20/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH023** **Lab Code:** **K1600673-009DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.026**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/20/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH024** **Lab Code:** **K1600673-010DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.035**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/20/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH025** **Lab Code:** **K1600673-011DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.030**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/20/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH026** **Lab Code:** **K1600673-012DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.093**		

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/21/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH027** **Lab Code:** **K1600673-013DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.013**	**J**	

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	01/21/16
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	01/22/16
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **ERH028** **Lab Code:** **K1600673-014DISS**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.013**	**J**	

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **Method Blank** **Lab Code:** **KQ1600881-01**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**6020A**	**0.020**	**0.010**	**0.004**	**1.0**	**02/01/16**	**02/04/16**	**0.008**	**J**	

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Date Collected:**	
Project Name:	Red Hill Bulk Fuel Storage	**Date Received:**	
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: **Method Blank** **Lab Code:** **KQ1600937-01**

Analyte	Analysis Method	LOQ	LOD	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Lead	**200.8**	**0.020**	**0.010**	**0.004**	**1.0**	**02/03/16**	**02/04/16**	**0.010**	**U**	

Comments:

Metals
- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

ICV Source: Inorganic Ventures **CCV Source:** ALS MIXED

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	Method
Lead	25.0	24.9	100	25.0	25.1	100	25.0	100	6020A

Metals
- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

ICV Source: Inorganic Ventures **CCV Source:** ALS MIXED

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	Method
Lead				25.0	25.6	102	25.4	102	6020A

Metals

- 2a -

LOW LEVEL INITIAL CALIBRATION AND LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Client: Element Environmental, LLC **SDG No.:** K1600673

Contract: 150037 **Lab Code:** ALSK **Case No.:** **SAS No.:**

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: ALS MIXED

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICVW1									
	Lead	0.021	0.02	105	80.0 - 120.0	MS	02/04/16	06:42	020416AMS
LLCCVW1									
	Lead	0.023	0.02	115	70.0 - 130.0	MS	02/04/16	08:43	020416AMS

Metals

- 3 -

BLANKS

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Method
Lead	0.008	J	0.004	U	0.006	J	0.007	J	6020A

Metals

- 3 -

BLANKS

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Method
Lead			0.006	J					6020A

Metals

- 4 -

ICP INTERFERENCE CHECK SAMPLE

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

ICP ID Number: **K-ICP-MS-03** **ICS Source:** **Inorganic Ventures**

Concentration Units): **ug/L**

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Lead	0.0		0.10	0.09				

Metals
- 5A -
SPIKE SAMPLE RECOVERY

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage **Basis:** NA

Matrix: WATER **% Solids:** 0.0

Sample Name: ERH018S **Lab Code:** K1600673-004DISSS

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	88 - 115	47.9		0.010	J	50.00	96		6020A

An empty field in the Control Limit column indicates the control limit is not applicable

Metals
- 5A -
SPIKE SAMPLE RECOVERY

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage **Basis:** NA

Matrix: WATER **% Solids:** 0.0

Sample Name: ERH018SD **Lab Code:** K1600673-004DISSSD

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	88 - 115	47.9		0.010	J	50.00	96		6020A

An empty field in the Control Limit column indicates the control limit is not applicable

Metals
- 5A -
SPIKE SAMPLE RECOVERY

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage **Basis:** NA

Matrix: WATER **% Solids:** 0.0

Sample Name: **ERH021S** **Lab Code:** **K1600673-007S**

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	88 - 115	49.0		0.036		50.00	98		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals
- 5A -
SPIKE SAMPLE RECOVERY

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage **Basis:** NA

Matrix: WATER **% Solids:** 0.0

Sample Name: ERH021SD **Lab Code:** K1600673-007SD

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	88 - 115	49.0		0.036		50.00	98		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals
- 5B -
POST SPIKE SAMPLE RECOVERY

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage **Basis:** NA

Matrix: WATER

Sample Name: ERH018A **Lab Code:** K1600673-004DISSA

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	75 - 125	20.217		0.010	J	20.0	101		6020A

Metals

- 6 -

DUPLICATES

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project No.:	150037	**Units:**	UG/L
Project Name:	Red Hill Bulk Fuel Storage	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: **ERH018SD** **Lab Code:** **K1600673-004DISSSD**

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	20	47.9		47.9		0.0		6020A

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage **Basis:** NA

Matrix: WATER **% Solids:** 0.0

Sample Name: **ERH021SD** **Lab Code:** **K1600673-007SD**

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead	20	49.0		49.0		0.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

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LABORATORY CONTROL SAMPLE

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

Aqueous LCS Source: **ALS MIXED** **Solid LCS Source:**

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Lead	**50**	**49.6**	**99**					

Metals

- 7 -

LABORATORY CONTROL SAMPLE

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

Aqueous LCS Source: **ALS MIXED** **Solid LCS Source:**

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Lead	50	49.8	100					

Metals

- 9 -

ICP SERIAL DILUTIONS

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Units:** UG/L

Project Name: Red Hill Bulk Fuel Storage

Sample Name: **ERH018L** **Lab Code:** **K1600673-004DISSL**

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Lead	0.010	J	0.020	U	100.0		MS

Metals

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DETECTION LIMITS

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

ICP/ICP-MS ID #: **K-ICP-MS-03**

GFAA ID #: **AA ID #:**

Analyte	Isotope	Back-ground	LOQ ug/L	LOD ug/L	MDL ug/L	M
Lead	208		0.020	0.010	0.004	MS

Comments:

Metals
-12-
ICP LINEAR RANGES (QUARTERLY)

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

ICP ID Number: **K-ICP-MS-03**

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Lead	15.000	2000	6020A

Comments:

Metals
-13-
PREPARATION LOG

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

Method: MS

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
K1600673-001DISS	02/01/16	25.0	25.0
K1600673-002DISS	02/01/16	25.0	25.0
K1600673-003DISS	02/01/16	25.0	25.0
K1600673-004DISS	02/01/16	25.0	25.0
K1600673-004DISSS	02/01/16	25.0	25.0
K1600673-004DISSSD	02/01/16	25.0	25.0
K1600673-005DISS	02/01/16	25.0	25.0
K1600673-006DISS	02/01/16	25.0	25.0
K1600673-008DISS	02/01/16	25.0	25.0
K1600673-009DISS	02/01/16	25.0	25.0
K1600673-010DISS	02/01/16	25.0	25.0
K1600673-011DISS	02/01/16	25.0	25.0
K1600673-012DISS	02/01/16	25.0	25.0
K1600673-013DISS	02/01/16	25.0	25.0
K1600673-014DISS	02/01/16	25.0	25.0
KQ1600881-01	02/01/16	25.0	25.0
KQ1600881-02	02/01/16	25.0	25.0

Metals

-13-

PREPARATION LOG

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037

Project Name: Red Hill Bulk Fuel Storage

Method: MS

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
K1600673-007	02/03/16	25.0	25.0
K1600673-007S	02/03/16	25.0	25.0
K1600673-007SD	02/03/16	25.0	25.0
KQ1600937-01	02/03/16	25.0	25.0
KQ1600937-02	02/03/16	25.0	25.0

Metals

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ANALYSIS RUN LOG

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Run Number:** 020416AMS03

Project Name: Red Hill Bulk Fuel Storage

Instrument ID Number: K-ICP-MS-03 **Method:** MS

Start Date: 02/04/16 **End Date:** 02/04/16

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Cal. Blk	1.0	06:24													X												
Cal. Stn	1.0	06:27													X												
ICV1	1.0	06:29													X												
CCV1	1.0	06:31													X												
ICB1	1.0	06:35													X												
CCB1	1.0	06:40													X												
LLICVW1	1.0	06:42													X												
LRSTD	1.0	06:51													X												
ICS-A1	1.0	06:58													X												
ICS-AB1	1.0	07:03													X												
KQ1600881-01	1.0	07:14													X												
K1600673-004DISS	1.0	07:18													X												
K1600673-004DISSL	5.0	07:20													X												
K1600673-004DISSA	1.0	07:22													X												
K1600673-004DISSS	1.0	07:25													X												
K1600673-004DISSSD	1.0	07:28													X												
KQ1600881-02	1.0	07:30													X												
K1600673-001DISS	1.0	07:36													X												
K1600673-002DISS	1.0	07:39													X												
K1600673-003DISS	1.0	07:42													X												
CCV2	1.0	07:44													X												
CCB2	1.0	07:51													X												
K1600673-005DISS	1.0	07:53													X												
K1600673-006DISS	1.0	07:56													X												
K1600673-008DISS	1.0	07:58													X												
K1600673-009DISS	1.0	08:00													X												
K1600673-010DISS	1.0	08:03													X												
K1600673-011DISS	1.0	08:05													X												
K1600673-012DISS	1.0	08:08													X												
K1600673-013DISS	1.0	08:10													X												
K1600673-014DISS	1.0	08:13													X												
CCV3	1.0	08:15													X												

*** - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14**

Metals

- 14 -

ANALYSIS RUN LOG

Client: Element Environmental, LLC **Service Request:** K1600673

Project No.: 150037 **Run Number:** 020416AMS03

Project Name: Red Hill Bulk Fuel Storage

Instrument ID Number: K-ICP-MS-03 **Method:** MS

Start Date: 02/04/16 **End Date:** 02/04/16

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
CCB3	1.0	08:19													X															
KQ1600937-01	1.0	08:21													X															
K1600673-007	1.0	08:24													X															
K1600673-007S	1.0	08:26													X															
K1600673-007SD	1.0	08:29													X															
KQ1600937-02	1.0	08:32													X															
CCV4	1.0	08:34													X															
ZZZZZZ	1.0	08:39																												
CCB4	1.0	08:41													X															
LLCCVW1	1.0	08:43													X															

*** - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14**

Metals

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: ALS Group USA, Corp. Contract: 150037

Lab Code: ALSK Case No.: _____ NRAS No.: _____ SDG NO.: K1600673

ICP-MS Instrument ID: K-ICP-MS-03 Start Date: 02/04/2016 End Date: 02/04/2016

Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Tm_169	Q	Element Lu_175	Q	Element	Q	Element	Q	Element	Q	Element	Q
Cal. Blk	Cal. Blk	0624	100		100									
Cal. Stn	Cal. Stn	0627	101		102									
ICV1	ICV1	0629	100		101									
CCV1	CCV1	0631	101		101									
ICB1	ICB1	0635	98		99									
CCB1	CCB1	0640	97		98									
LLICVW1	LLICVW1	0642	98		99									
LRSTD	LRSTD	0651	99		99									
ICS-A1	ICSA	0658	90		92									
ICS-AB1	ICSAB	0703	92		93									
KQ1600881-01	Method Blank	0714	102		101									
K1600673-004DISS	ERH018	0718	93		94									
K1600673-004DISS	ERH018L	0720	98		99									
K1600673-004DISS	ERH018A	0722	95		95									
K1600673-004DISS	ERH018S	0725	94		96									
K1600673-004DISS	ERH018SD	0728	95		96									
KQ1600881-02	Lab Control	0730	103		103									
K1600673-001DISS	ERH015	0736	93		94									
K1600673-002DISS	ERH016	0739	95		96									
K1600673-003DISS	ERH017	0742	96		97									
CCV2	CCV2	0744	104		104									
CCB2	CCB2	0751	100		99									
K1600673-005DISS	ERH019	0753	96		97									
K1600673-006DISS	ERH020	0756	96		97									
K1600673-008DISS	ERH022	0758	95		96									
K1600673-009DISS	ERH023	0800	95		97									
K1600673-010DISS	ERH024	0803	96		98									
K1600673-011DISS	ERH025	0805	96		97									
K1600673-012DISS	ERH026	0808	95		96									
K1600673-013DISS	ERH027	0810	100		100									
K1600673-014DISS	ERH028	0813	97		98									
CCV3	CCV3	0815	97		97									
CCB3	CCB3	0819	95		95									
KQ1600937-01	Method Blank	0821	95		96									
K1600673-007	ERH021	0824	92		93									
K1600673-007S	ERH021S	0826	94		95									
K1600673-007SD	ERH021SD	0829	93		95									
KQ1600937-02	Lab Control	0832	97		98									
CCV4	CCV4	0834	95		97									
ZZZZZZ	ZZZZZZ	0839												
CCB4	CCB4	0841	93		95									
LLCCVW1	LLCCVW1	0843	93		94									

EPA Method 8011

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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Cover Page - Organic Analysis Data Package
EPA Method 8011

Sample Name	Lab Code	Date Collected	Date Received
ERH015	K1600673-001	01/19/2016	01/22/2016
ERH016	K1600673-002	01/19/2016	01/22/2016
ERH017	K1600673-003	01/19/2016	01/22/2016
ERH018	K1600673-004	01/19/2016	01/22/2016
ERH019	K1600673-005	01/19/2016	01/22/2016
ERH020	K1600673-006	01/19/2016	01/22/2016
ERH021	K1600673-007	01/20/2016	01/22/2016
ERH022	K1600673-008	01/20/2016	01/22/2016
ERH023	K1600673-009	01/20/2016	01/22/2016
ERH024	K1600673-010	01/20/2016	01/22/2016
ERH025	K1600673-011	01/20/2016	01/22/2016
ERH026	K1600673-012	01/20/2016	01/22/2016
ERH027	K1600673-013	01/21/2016	01/22/2016
ERH028	K1600673-014	01/21/2016	01/22/2016
ERH018MS	KWG1600649-1	01/19/2016	01/22/2016
ERH018DMS	KWG1600649-2	01/19/2016	01/22/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH015	**Units:**	ug/L
Lab Code:	K1600673-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0098	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH016	**Units:**	ug/L
Lab Code:	K1600673-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH017	**Units:**	ug/L
Lab Code:	K1600673-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH019	**Units:**	ug/L
Lab Code:	K1600673-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH020	**Units:**	ug/L
Lab Code:	K1600673-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0098	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH021	**Units:**	ug/L
Lab Code:	K1600673-007	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH022	**Units:**	ug/L
Lab Code:	K1600673-008	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH023	**Units:**	ug/L
Lab Code:	K1600673-009	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH024	**Units:**	ug/L
Lab Code:	K1600673-010	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH025	**Units:**	ug/L
Lab Code:	K1600673-011	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH026	**Units:**	ug/L
Lab Code:	K1600673-012	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0096	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH027	**Units:**	ug/L
Lab Code:	K1600673-013	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

EPA Method 8011

Sample Name:	ERH028	**Units:**	ug/L
Lab Code:	K1600673-014	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0098	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

EPA Method 8011

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1600649-5	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0099	0.0040	0.0030	1	01/25/16	01/26/16	KWG1600649	

Comments:

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/26/2016

Matrix Spike/Duplicate Matrix Spike Summary
EPA Method 8011

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011	**Extraction Lot:**	KWG1600649

		ERH018MS KWG1600649-1 Matrix Spike			ERH018DMS KWG1600649-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	ND	0.222	0.243	91	0.212	0.243	87	60-140	5	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/26/2016

Lab Control Spike Summary
EPA Method 8011

Extraction Method:	METHOD	**Units:**	ug/L
Analysis Method:	8011	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600649

	Lab Control Sample KWG1600649-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	0.216	0.250	86	60-140

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/26/2016

Lab Control Spike Summary
EPA Method 8011

Extraction Method:	METHOD	**Units:**	ug/L
Analysis Method:	8011	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600649

	Lab Control Sample KWG1600649-4 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	0.223	0.250	89	60-140

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/26/2016
		Time Analyzed:	12:06

Method Blank Summary
EPA Method 8011

Sample Name:	Method Blank	**Instrument ID:**	GC33
Lab Code:	KWG1600649-5	**File ID:**	J:\GC33\DATA\012616-504\0126007.D
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011	**Extraction Lot:**	KWG1600649

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1600649-3	J:\GC33\DATA\012616-504\0126005.D	01/26/16	11:19
Lab Control Sample	KWG1600649-4	J:\GC33\DATA\012616-504\0126006.D	01/26/16	11:43
ERH015	K1600673-001	J:\GC33\DATA\012616-504\0126008.D	01/26/16	12:30
ERH016	K1600673-002	J:\GC33\DATA\012616-504\0126009.D	01/26/16	12:54
ERH017	K1600673-003	J:\GC33\DATA\012616-504\0126010.D	01/26/16	13:17
ERH018	K1600673-004	J:\GC33\DATA\012616-504\0126011.D	01/26/16	13:41
ERH018MS	KWG1600649-1	J:\GC33\DATA\012616-504\0126012.D	01/26/16	14:04
ERH018DMS	KWG1600649-2	J:\GC33\DATA\012616-504\0126013.D	01/26/16	14:28
ERH019	K1600673-005	J:\GC33\DATA\012616-504\0126014.D	01/26/16	14:52
ERH020	K1600673-006	J:\GC33\DATA\012616-504\0126015.D	01/26/16	15:15
ERH021	K1600673-007	J:\GC33\DATA\012616-504\0126016.D	01/26/16	15:39
ERH022	K1600673-008	J:\GC33\DATA\012616-504\0126017.D	01/26/16	16:03
ERH023	K1600673-009	J:\GC33\DATA\012616-504\0126020.D	01/26/16	17:14
ERH024	K1600673-010	J:\GC33\DATA\012616-504\0126021.D	01/26/16	17:37
ERH025	K1600673-011	J:\GC33\DATA\012616-504\0126022.D	01/26/16	18:01
ERH026	K1600673-012	J:\GC33\DATA\012616-504\0126023.D	01/26/16	18:24
ERH027	K1600673-013	J:\GC33\DATA\012616-504\0126024.D	01/26/16	18:48
ERH028	K1600673-014	J:\GC33\DATA\012616-504\0126025.D	01/26/16	19:12

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/26/2016
		Time Analyzed:	11:19

Lab Control Sample Summary
EPA Method 8011

Sample Name:	Lab Control Sample	**Instrument ID:**	GC33
Lab Code:	KWG1600649-3	**File ID:**	J:\GC33\DATA\012616-504\0126005.D
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011	**Extraction Lot:**	KWG1600649

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1600649-5	J:\GC33\DATA\012616-504\0126007.D	01/26/16	12:06
ERH015	K1600673-001	J:\GC33\DATA\012616-504\0126008.D	01/26/16	12:30
ERH016	K1600673-002	J:\GC33\DATA\012616-504\0126009.D	01/26/16	12:54
ERH017	K1600673-003	J:\GC33\DATA\012616-504\0126010.D	01/26/16	13:17
ERH018	K1600673-004	J:\GC33\DATA\012616-504\0126011.D	01/26/16	13:41
ERH018MS	KWG1600649-1	J:\GC33\DATA\012616-504\0126012.D	01/26/16	14:04
ERH018DMS	KWG1600649-2	J:\GC33\DATA\012616-504\0126013.D	01/26/16	14:28
ERH019	K1600673-005	J:\GC33\DATA\012616-504\0126014.D	01/26/16	14:52
ERH020	K1600673-006	J:\GC33\DATA\012616-504\0126015.D	01/26/16	15:15
ERH021	K1600673-007	J:\GC33\DATA\012616-504\0126016.D	01/26/16	15:39
ERH022	K1600673-008	J:\GC33\DATA\012616-504\0126017.D	01/26/16	16:03

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/26/2016
		Time Analyzed:	11:43

Lab Control Sample Summary
EPA Method 8011

Sample Name:	Lab Control Sample	**Instrument ID:**	GC33
Lab Code:	KWG1600649-4	**File ID:**	J:\GC33\DATA\012616-504\0126006.D
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011	**Extraction Lot:**	KWG1600649

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH023	K1600673-009	J:\GC33\DATA\012616-504\0126020.D	01/26/16	17:14
ERH024	K1600673-010	J:\GC33\DATA\012616-504\0126021.D	01/26/16	17:37
ERH025	K1600673-011	J:\GC33\DATA\012616-504\0126022.D	01/26/16	18:01
ERH026	K1600673-012	J:\GC33\DATA\012616-504\0126023.D	01/26/16	18:24
ERH027	K1600673-013	J:\GC33\DATA\012616-504\0126024.D	01/26/16	18:48
ERH028	K1600673-014	J:\GC33\DATA\012616-504\0126025.D	01/26/16	19:12

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/25/2016

Initial Calibration Summary
EPA Method 8011

Calibration ID: CAL14554 **Column:** RTX-CLP
Instrument ID: GC33

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\012516-504\0125004.D	F	J:\GC33\Data\012516-504\0125009.D
B	J:\GC33\Data\012516-504\0125005.D	G	J:\GC33\Data\012516-504\0125010.D
C	J:\GC33\Data\012516-504\0125006.D	H	J:\GC33\Data\012516-504\0125011.D
D	J:\GC33\Data\012516-504\0125007.D		
E	J:\GC33\Data\012516-504\0125008.D		

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
1,2-Dibromoethane (EDB)	A	0.075	1.98E+6	B	0.13	1.77E+6	C	0.25	2.02E+6	D	0.63	2.19E+6	E	1.3	2.09E+6
	F	3.8	1.96E+6	G	5.0	1.89E+6	H	10	1.76E+6						

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/25/2016

Initial Calibration Summary
EPA Method 8011

Calibration ID: CAL14554 **Column:** RTX-CLP
Instrument ID: GC33

Analyte Name	Compound Type	Calibration Evaluation: Fit Type	Eval.	Eval. Result	Q	Control Criteria
1,2-Dibromoethane (EDB)	MS	AverageRF	% RSD	7.5		≤ 10

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

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Calibration Date:**	01/25/2016
		Date Analyzed:	01/25/2016

Second Source Calibration Verification
EPA Method 8011

Calibration Type:	External Standard	**Calibration ID:**	CAL14554
Analysis Method:	8011	**Units:**	ppb
File ID:	J:\GC33\Data\012516-504\0125012.D	**Column ID:**	RTX-CLP

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	1.3	1.3	1960000	2100000	7	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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/25/2016

Initial Calibration Summary
EPA Method 8011

Calibration ID: CAL14554 **Column:** RTX-CLP2
Instrument ID: GC33

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\012516-504\0125004.D\0125004c.d	F	J:\GC33\Data\012516-504\0125009.D\0125009c.d
B	J:\GC33\Data\012516-504\0125005.D\0125005c.d	G	J:\GC33\Data\012516-504\0125010.D\0125010c.d
C	J:\GC33\Data\012516-504\0125006.D\0125006c.d	H	J:\GC33\Data\012516-504\0125011.D\0125011c.d
D	J:\GC33\Data\012516-504\0125007.D\0125007c.d		
E	J:\GC33\Data\012516-504\0125008.D\0125008c.d		

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
1,2-Dibromoethane (EDB)	A	0.075	1.79E+6	B	0.13	1.66E+6	C	0.25	1.90E+6	D	0.63	1.92E+6	E	1.3	1.82E+6
	F	3.8	1.66E+6	G	5.0	1.56E+6	H	10	1.48E+6						

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/25/2016

Initial Calibration Summary
EPA Method 8011

Calibration ID: CAL14554 **Column:** RTX-CLP2
Instrument ID: GC33

		Calibration Evaluation				
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**
1,2-Dibromoethane (EDB)	MS	AverageRF	% RSD	9.3		≤ 10

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

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Calibration Date: 01/25/2016
Date Analyzed: 01/25/2016

Second Source Calibration Verification
EPA Method 8011

Calibration Type: External Standard
Analysis Method: 8011

Calibration ID: CAL14554
Units: ppb

File ID: J:\GC33\Data\012516-504\0125012.D\0125012c.d

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	1.3	1.3	1720000	1830000	6	NA	± 20 %	AverageRF

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/150037

Service Request: K1600673
Date Analyzed: 01/26/2016

Continuing Calibration Verification Summary
EPA Method 8011

Calibration Type: External Standard
Analysis Method: 8011

Calibration Date: 01/25/2016
Calibration ID: CAL14554
Analysis Lot: KWG1600708
Units: ppb

File ID: J:\GC33\DATA\012616-504\0126003.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	1.3	1.2	1960000	1830000	-6	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/150037

Service Request: K1600673
Date Analyzed: 01/26/2016

Continuing Calibration Verification Summary
EPA Method 8011

Calibration Type: External Standard
Analysis Method: 8011

Calibration Date: 01/25/2016
Calibration ID: CAL14554
Analysis Lot: KWG1600708
Units: ppb

File ID: J:\GC33\DATA\012616-504\0126003.D\0126003C.D

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	1.3	1.3	1720000	1860000	8	NA	± 20	AverageRF

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

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Analyzed:**	01/26/2016

Continuing Calibration Verification Summary
EPA Method 8011

Calibration Type:	External Standard	**Calibration Date:**	01/25/2016
Analysis Method:	8011	**Calibration ID:**	CAL14554
		Analysis Lot:	KWG1600708
		Units:	ppb
File ID:	J:\GC33\DATA\012616-504\0126018.D	**Column ID:**	RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	5.0	4.2	1960000	1630000	-17	NA	± 20	AverageRF

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

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Analyzed:**	01/26/2016

Continuing Calibration Verification Summary
EPA Method 8011

Calibration Type:	External Standard	**Calibration Date:**	01/25/2016
Analysis Method:	8011	**Calibration ID:**	CAL14554
		Analysis Lot:	KWG1600708
		Units:	ppb
File ID:	J:\GC33\DATA\012616-504\0126018.D\0126018C.D	**Column ID:**	RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	5.0	4.6	1720000	1590000	-8	NA	± 20	AverageRF

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

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Analyzed:**	01/26/2016

Continuing Calibration Verification Summary
EPA Method 8011

Calibration Type:	External Standard	**Calibration Date:**	01/25/2016
Analysis Method:	8011	**Calibration ID:**	CAL14554
		Analysis Lot:	KWG1600708
		Units:	ppb
File ID:	J:\GC33\DATA\012616-504\0126033.D	**Column ID:**	RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	1.3	1.3	1960000	2020000	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/150037

Service Request: K1600673
Date Analyzed: 01/26/2016

Continuing Calibration Verification Summary
EPA Method 8011

Calibration Type: External Standard
Analysis Method: 8011

Calibration Date: 01/25/2016
Calibration ID: CAL14554
Analysis Lot: KWG1600708
Units: ppb

File ID: J:\GC33\DATA\012616-504\0126033.D\0126033C.D

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dibromoethane (EDB)	1.3	1.3	1720000	1840000	7	NA	± 20	AverageRF

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

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
EPA Method 8011

Analysis Method: 8011 **Analysis Lot:** KWG1600708
Instrument ID: GC33
Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
\0126003.D	Continuing Calibration Verification	KWG1600708-1	1/26/2016	10:32		1/26/2016	10:49
\0126004.D	Instrument Blank	KWG1600708-2	1/26/2016	10:56		1/26/2016	11:12
\0126005.D	Lab Control Sample	KWG1600649-3	1/26/2016	11:19		1/26/2016	11:36
\0126006.D	Lab Control Sample	KWG1600649-4	1/26/2016	11:43		1/26/2016	12:00
\0126007.D	Method Blank	KWG1600649-5	1/26/2016	12:06		1/26/2016	12:23
\0126008.D	ERH015	K1600673-001	1/26/2016	12:30		1/26/2016	12:47
\0126009.D	ERH016	K1600673-002	1/26/2016	12:54		1/26/2016	13:10
\0126010.D	ERH017	K1600673-003	1/26/2016	13:17		1/26/2016	13:34
\0126011.D	ERH018	K1600673-004	1/26/2016	13:41		1/26/2016	13:58
\0126012.D	ERH018MS	KWG1600649-1	1/26/2016	14:04		1/26/2016	14:21
\0126013.D	ERH018DMS	KWG1600649-2	1/26/2016	14:28		1/26/2016	14:45
\0126014.D	ERH019	K1600673-005	1/26/2016	14:52		1/26/2016	15:09
\0126015.D	ERH020	K1600673-006	1/26/2016	15:15		1/26/2016	15:32
\0126016.D	ERH021	K1600673-007	1/26/2016	15:39		1/26/2016	15:56
\0126017.D	ERH022	K1600673-008	1/26/2016	16:03		1/26/2016	16:19
\0126018.D	Continuing Calibration Verification	KWG1600708-3	1/26/2016	16:26		1/26/2016	16:43
\0126019.D	Instrument Blank	KWG1600708-4	1/26/2016	16:50		1/26/2016	17:07
\0126020.D	ERH023	K1600673-009	1/26/2016	17:14		1/26/2016	17:30
\0126021.D	ERH024	K1600673-010	1/26/2016	17:37		1/26/2016	17:54
\0126022.D	ERH025	K1600673-011	1/26/2016	18:01		1/26/2016	18:18
\0126023.D	ERH026	K1600673-012	1/26/2016	18:24		1/26/2016	18:41
\0126024.D	ERH027	K1600673-013	1/26/2016	18:48		1/26/2016	19:05
\0126025.D	ERH028	K1600673-014	1/26/2016	19:12		1/26/2016	19:28
\0126032.D	ZZZZZZ	ZZZZZZ	1/26/2016	21:57		1/26/2016	22:14
\0126033.D	Continuing Calibration Verification	KWG1600708-5	1/26/2016	22:21		1/26/2016	22:38
\0126034.D	Instrument Blank	KWG1600708-6	1/26/2016	22:45		1/26/2016	23:01

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 01/25/2016

Extraction Prep Log
EPA Method 8011

Extraction Method: METHOD
Analysis Method: 8011

Extraction Lot: KWG1600649
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH015	K1600673-001	01/19/16	01/22/16	35.65	2ml	NA	
ERH016	K1600673-002	01/19/16	01/22/16	35.95	2ml	NA	
ERH017	K1600673-003	01/19/16	01/22/16	35.77	2ml	NA	
ERH018	K1600673-004	01/19/16	01/22/16	35.88	2ml	NA	
ERH019	K1600673-005	01/19/16	01/22/16	35.96	2ml	NA	
ERH020	K1600673-006	01/19/16	01/22/16	35.71	2ml	NA	
ERH021	K1600673-007	01/20/16	01/22/16	35.98	2ml	NA	
ERH022	K1600673-008	01/20/16	01/22/16	35.78	2ml	NA	
ERH023	K1600673-009	01/20/16	01/22/16	35.88	2ml	NA	
ERH024	K1600673-010	01/20/16	01/22/16	36.07	2ml	NA	
ERH025	K1600673-011	01/20/16	01/22/16	35.83	2ml	NA	
ERH026	K1600673-012	01/20/16	01/22/16	36.12	2ml	NA	
ERH027	K1600673-013	01/21/16	01/22/16	35.99	2ml	NA	
ERH028	K1600673-014	01/21/16	01/22/16	35.61	2ml	NA	
Method Blank	KWG1600649-5	NA	NA	35.00	2ml	NA	
ERH018MS	KWG1600649-1	01/19/16	01/22/16	35.94	2ml	NA	
ERH018DMS	KWG1600649-2	01/19/16	01/22/16	36.05	2ml	NA	
Lab Control Sample	KWG1600649-3	NA	NA	35.00	2ml	NA	
Lab Control Sample	KWG1600649-4	NA	NA	35.00	2ml	NA	

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

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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Cover Page - Organic Analysis Data Package
Gasoline Range Organics

Sample Name	Lab Code	Date Collected	Date Received
ERH015	K1600673-001	01/19/2016	01/22/2016
ERH016	K1600673-002	01/19/2016	01/22/2016
ERH017	K1600673-003	01/19/2016	01/22/2016
ERH018	K1600673-004	01/19/2016	01/22/2016
ERH019	K1600673-005	01/19/2016	01/22/2016
ERH020	K1600673-006	01/19/2016	01/22/2016
ERH021	K1600673-007	01/20/2016	01/22/2016
ERH022	K1600673-008	01/20/2016	01/22/2016
ERH023	K1600673-009	01/20/2016	01/22/2016
ERH024	K1600673-010	01/20/2016	01/22/2016
ERH025	K1600673-011	01/20/2016	01/22/2016
ERH026	K1600673-012	01/20/2016	01/22/2016
ERH027	K1600673-013	01/21/2016	01/22/2016
ERH028	K1600673-014	01/21/2016	01/22/2016
ERH018MS	KWG1600692-1	01/19/2016	01/22/2016
ERH018DMS	KWG1600692-2	01/19/2016	01/22/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH015	**Units:**	ug/L
Lab Code:	K1600673-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/25/16	01/25/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	85	80-107	01/25/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH016	**Units:**	ug/L
Lab Code:	K1600673-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/25/16	01/25/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	86	80-107	01/25/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH017	**Units:**	ug/L
Lab Code:	K1600673-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/25/16	01/25/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	80-107	01/25/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/25/16	01/25/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	80-107	01/25/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH019	**Units:**	ug/L
Lab Code:	K1600673-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	90	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH020	**Units:**	ug/L
Lab Code:	K1600673-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH021	**Units:**	ug/L
Lab Code:	K1600673-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH022	**Units:**	ug/L
Lab Code:	K1600673-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	90	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH023	**Units:**	ug/L
Lab Code:	K1600673-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH024	**Units:**	ug/L
Lab Code:	K1600673-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH025	**Units:**	ug/L
Lab Code:	K1600673-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	**36**	J	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH026	**Units:**	ug/L
Lab Code:	K1600673-012	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH027	**Units:**	ug/L
Lab Code:	K1600673-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	89	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Gasoline Range Organics

Sample Name:	ERH028	**Units:**	ug/L
Lab Code:	K1600673-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/26/16	01/26/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	80-107	01/26/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Gasoline Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1600692-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	25	8.3	1	01/25/16	01/25/16	KWG1600692	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	80-107	01/25/16	Acceptable

Comments:

QA/QC Report

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037
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
ERH015	K1600673-001	85
ERH016	K1600673-002	86
ERH017	K1600673-003	87
ERH018	K1600673-004	87
ERH019	K1600673-005	90
ERH020	K1600673-006	88
ERH021	K1600673-007	88
ERH022	K1600673-008	90
ERH023	K1600673-009	88
ERH024	K1600673-010	88
ERH025	K1600673-011	87
ERH026	K1600673-012	88
ERH027	K1600673-013	89
ERH028	K1600673-014	87
Method Blank	KWG1600692-4	88
ERH018MS	KWG1600692-1	88
ERH018DMS	KWG1600692-2	89
Lab Control Sample	KWG1600692-3	92

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.

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/25/2016

Matrix Spike/Duplicate Matrix Spike Summary
Gasoline Range Organics

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1600692

		ERH018MS KWG1600692-1 Matrix Spike			ERH018DMS KWG1600692-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Gasoline Range Organics (GRO)	ND	541	500	108	585	500	117	78-122	8	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/25/2016

Lab Control Spike Summary
Gasoline Range Organics

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8015C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600692

	Lab Control Sample KWG1600692-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Gasoline Range Organics (GRO)	489	500	98	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/25/2016
		Time Analyzed:	22:56

Method Blank Summary
Gasoline Range Organics

Sample Name:	Method Blank	**Instrument ID:**	GC39
Lab Code:	KWG1600692-4	**File ID:**	J:\GC39\DATA\0125B16\0123BF016.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1600692

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH015	K1600673-001	J:\GC39\DATA\0125B16\0123BF009.D	01/25/16	20:09
ERH016	K1600673-002	J:\GC39\DATA\0125B16\0123BF010.D	01/25/16	20:33
ERH017	K1600673-003	J:\GC39\DATA\0125B16\0123BF011.D	01/25/16	20:57
ERH018	K1600673-004	J:\GC39\DATA\0125B16\0123BF012.D	01/25/16	21:21
ERH018MS	KWG1600692-1	J:\GC39\DATA\0125B16\0123BF013.D	01/25/16	21:45
ERH018DMS	KWG1600692-2	J:\GC39\DATA\0125B16\0123BF014.D	01/25/16	22:08
Lab Control Sample	KWG1600692-3	J:\GC39\DATA\0125B16\0123BF015.D	01/25/16	22:32
ERH019	K1600673-005	J:\GC39\DATA\0125B16\0123BF019.D	01/26/16	00:08
ERH020	K1600673-006	J:\GC39\DATA\0125B16\0123BF020.D	01/26/16	00:32
ERH021	K1600673-007	J:\GC39\DATA\0125B16\0123BF021.D	01/26/16	00:56
ERH022	K1600673-008	J:\GC39\DATA\0125B16\0123BF022.D	01/26/16	01:20
ERH023	K1600673-009	J:\GC39\DATA\0125B16\0123BF023.D	01/26/16	01:44
ERH024	K1600673-010	J:\GC39\DATA\0125B16\0123BF024.D	01/26/16	02:07
ERH025	K1600673-011	J:\GC39\DATA\0125B16\0123BF025.D	01/26/16	02:31
ERH026	K1600673-012	J:\GC39\DATA\0125B16\0123BF026.D	01/26/16	02:55
ERH027	K1600673-013	J:\GC39\DATA\0125B16\0123BF027.D	01/26/16	03:19
ERH028	K1600673-014	J:\GC39\DATA\0125B16\0123BF028.D	01/26/16	03:43

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/25/2016
		Time Analyzed:	22:32

Lab Control Sample Summary
Gasoline Range Organics

Sample Name:	Lab Control Sample	**Instrument ID:**	GC39
Lab Code:	KWG1600692-3	**File ID:**	J:\GC39\DATA\0125B16\0123BF015.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1600692

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH015	K1600673-001	J:\GC39\DATA\0125B16\0123BF009.D	01/25/16	20:09
ERH016	K1600673-002	J:\GC39\DATA\0125B16\0123BF010.D	01/25/16	20:33
ERH017	K1600673-003	J:\GC39\DATA\0125B16\0123BF011.D	01/25/16	20:57
ERH018	K1600673-004	J:\GC39\DATA\0125B16\0123BF012.D	01/25/16	21:21
ERH018MS	KWG1600692-1	J:\GC39\DATA\0125B16\0123BF013.D	01/25/16	21:45
ERH018DMS	KWG1600692-2	J:\GC39\DATA\0125B16\0123BF014.D	01/25/16	22:08
Method Blank	KWG1600692-4	J:\GC39\DATA\0125B16\0123BF016.D	01/25/16	22:56
ERH019	K1600673-005	J:\GC39\DATA\0125B16\0123BF019.D	01/26/16	00:08
ERH020	K1600673-006	J:\GC39\DATA\0125B16\0123BF020.D	01/26/16	00:32
ERH021	K1600673-007	J:\GC39\DATA\0125B16\0123BF021.D	01/26/16	00:56
ERH022	K1600673-008	J:\GC39\DATA\0125B16\0123BF022.D	01/26/16	01:20
ERH023	K1600673-009	J:\GC39\DATA\0125B16\0123BF023.D	01/26/16	01:44
ERH024	K1600673-010	J:\GC39\DATA\0125B16\0123BF024.D	01/26/16	02:07
ERH025	K1600673-011	J:\GC39\DATA\0125B16\0123BF025.D	01/26/16	02:31
ERH026	K1600673-012	J:\GC39\DATA\0125B16\0123BF026.D	01/26/16	02:55
ERH027	K1600673-013	J:\GC39\DATA\0125B16\0123BF027.D	01/26/16	03:19
ERH028	K1600673-014	J:\GC39\DATA\0125B16\0123BF028.D	01/26/16	03:43

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **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/150037

Service Request: K1600673
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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Analyzed:**	01/25/2016

Continuing Calibration Verification Summary
Gasoline Range Organics

Calibration Type:	External Standard	**Calibration Date:**	08/06/2015
Analysis Method:	8015C	**Calibration ID:**	CAL14201
		Analysis Lot:	KWG1600691
		Units:	ug/L
File ID:	J:\GC39\DATA\0125B16\0123BF003.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	-1	NA	± 20	AverageRF
1,4-Difluorobenzene	100	88	120000	105000	-12	NA	± 20	AverageRF

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

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Analyzed:**	01/25/2016

Continuing Calibration Verification Summary
Gasoline Range Organics

Calibration Type:	External Standard	**Calibration Date:**	08/06/2015
Analysis Method:	8015C	**Calibration ID:**	CAL14201
		Analysis Lot:	KWG1600691
		Units:	ug/L
File ID:	J:\GC39\DATA\0125B16\0123BF017.D	**Column ID:**	DB-624

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Gasoline Range Organics (GRO)	500	460	113000	103000	-8	NA	± 20	AverageRF
1,4-Difluorobenzene	100	89	120000	108000	-11	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/150037

Service Request: K1600673
Date Analyzed: 01/26/2016

Continuing Calibration Verification Summary
Gasoline Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration Date: 08/06/2015
Calibration ID: CAL14201
Analysis Lot: KWG1600691
Units: ug/L

File ID: J:\GC39\DATA\0125B16\0123BF029.D

Column ID: DB-624

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Gasoline Range Organics (GRO)	500	460	113000	104000	-8	NA	± 20	AverageRF
1,4-Difluorobenzene	100	91	120000	110000	-9	NA	± 20	AverageRF

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

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Gasoline Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1600691
Instrument ID: GC39
Column: DB-624

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
123BF003.D	Continuing Calibration Verification	KWG1600691-1	1/25/2016	17:46		1/25/2016	18:01
123BF004.D	Instrument Blank	KWG1600691-5	1/25/2016	18:09		1/25/2016	18:24
123BF005.D	ZZZZZZ	ZZZZZZ	1/25/2016	18:33		1/25/2016	18:48
123BF007.D	ZZZZZZ	ZZZZZZ	1/25/2016	19:21		1/25/2016	19:36
123BF008.D	ZZZZZZ	ZZZZZZ	1/25/2016	19:45		1/25/2016	20:00
123BF009.D	ERH015	K1600673-001	1/25/2016	20:09		1/25/2016	20:24
123BF010.D	ERH016	K1600673-002	1/25/2016	20:33		1/25/2016	20:48
123BF011.D	ERH017	K1600673-003	1/25/2016	20:57		1/25/2016	21:12
123BF012.D	ERH018	K1600673-004	1/25/2016	21:21		1/25/2016	21:36
123BF013.D	ERH018MS	KWG1600692-1	1/25/2016	21:45		1/25/2016	22:00
123BF014.D	ERH018DMS	KWG1600692-2	1/25/2016	22:08		1/25/2016	22:23
123BF015.D	Lab Control Sample	KWG1600692-3	1/25/2016	22:32		1/25/2016	22:47
123BF016.D	Method Blank	KWG1600692-4	1/25/2016	22:56		1/25/2016	23:11
123BF017.D	Continuing Calibration Verification	KWG1600691-2	1/25/2016	23:20		1/25/2016	23:35
123BF018.D	Instrument Blank	KWG1600691-6	1/25/2016	23:44		1/25/2016	23:59
123BF019.D	ERH019	K1600673-005	1/26/2016	00:08		1/26/2016	00:23
123BF020.D	ERH020	K1600673-006	1/26/2016	00:32		1/26/2016	00:47
123BF021.D	ERH021	K1600673-007	1/26/2016	00:56		1/26/2016	01:11
123BF022.D	ERH022	K1600673-008	1/26/2016	01:20		1/26/2016	01:35
123BF023.D	ERH023	K1600673-009	1/26/2016	01:44		1/26/2016	01:59
123BF024.D	ERH024	K1600673-010	1/26/2016	02:07		1/26/2016	02:22
123BF025.D	ERH025	K1600673-011	1/26/2016	02:31		1/26/2016	02:46
123BF026.D	ERH026	K1600673-012	1/26/2016	02:55		1/26/2016	03:10
123BF027.D	ERH027	K1600673-013	1/26/2016	03:19		1/26/2016	03:34
123BF028.D	ERH028	K1600673-014	1/26/2016	03:43		1/26/2016	03:58
123BF029.D	Continuing Calibration Verification	KWG1600691-3	1/26/2016	04:07		1/26/2016	04:22
123BF030.D	Instrument Blank	KWG1600691-7	1/26/2016	04:31		1/26/2016	04:46
123BF032.D	ZZZZZZ	ZZZZZZ	1/26/2016	10:36		1/26/2016	10:51
123BF033.D	Continuing Calibration Verification	KWG1600691-4	1/26/2016	11:00		1/26/2016	11:15
123BF034.D	Instrument Blank	KWG1600691-8	1/26/2016	11:24		1/26/2016	11:39

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 01/25/2016

Extraction Prep Log
Gasoline Range Organics

Extraction Method: EPA 5030B
Analysis Method: 8015C

Extraction Lot: KWG1600692
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH015	K1600673-001	01/19/16	01/22/16	10ml	10ml	NA	
ERH016	K1600673-002	01/19/16	01/22/16	10ml	10ml	NA	
ERH017	K1600673-003	01/19/16	01/22/16	10ml	10ml	NA	
ERH018	K1600673-004	01/19/16	01/22/16	10ml	10ml	NA	
ERH019	K1600673-005	01/19/16	01/22/16	10ml	10ml	NA	
ERH020	K1600673-006	01/19/16	01/22/16	10ml	10ml	NA	
ERH021	K1600673-007	01/20/16	01/22/16	10ml	10ml	NA	
ERH022	K1600673-008	01/20/16	01/22/16	10ml	10ml	NA	
ERH023	K1600673-009	01/20/16	01/22/16	10ml	10ml	NA	
ERH024	K1600673-010	01/20/16	01/22/16	10ml	10ml	NA	
ERH025	K1600673-011	01/20/16	01/22/16	10ml	10ml	NA	
ERH026	K1600673-012	01/20/16	01/22/16	10ml	10ml	NA	
ERH027	K1600673-013	01/21/16	01/22/16	10ml	10ml	NA	
ERH028	K1600673-014	01/21/16	01/22/16	10ml	10ml	NA	
Method Blank	KWG1600692-4	NA	NA	10ml	10ml	NA	
ERH018MS	KWG1600692-1	01/19/16	01/22/16	10ml	10ml	NA	
ERH018DMS	KWG1600692-2	01/19/16	01/22/16	10ml	10ml	NA	
Lab Control Sample	KWG1600692-3	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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

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

Sample Name	Lab Code	Date Collected	Date Received
ERH015	K1600673-001	01/19/2016	01/22/2016
ERH016	K1600673-002	01/19/2016	01/22/2016
ERH017	K1600673-003	01/19/2016	01/22/2016
ERH018	K1600673-004	01/19/2016	01/22/2016
ERH019	K1600673-005	01/19/2016	01/22/2016
ERH020	K1600673-006	01/19/2016	01/22/2016
ERH021	K1600673-007	01/20/2016	01/22/2016
ERH022	K1600673-008	01/20/2016	01/22/2016
ERH023	K1600673-009	01/20/2016	01/22/2016
ERH024	K1600673-010	01/20/2016	01/22/2016
ERH025	K1600673-011	01/20/2016	01/22/2016
ERH026	K1600673-012	01/20/2016	01/22/2016
ERH027	K1600673-013	01/21/2016	01/22/2016
ERH028	K1600673-014	01/21/2016	01/22/2016
ERH018MS	KWG1600636-1	01/19/2016	01/22/2016
ERH018DMS	KWG1600636-2	01/19/2016	01/22/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH015	**Units:**	ug/L
Lab Code:	K1600673-001	**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)	**43**	J	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**63**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	86	56-125	01/28/16	Acceptable
n-Triacontane	86	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH016	**Units:**	ug/L
Lab Code:	K1600673-002	**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)	**320**	Z	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**69**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	70	56-125	01/28/16	Acceptable
n-Triacontane	74	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH017	**Units:**	ug/L
Lab Code:	K1600673-003	**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)	**28**	J	53	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**44**	J	110	53	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	74	56-125	01/28/16	Acceptable
n-Triacontane	75	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**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)	**21**	J	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**28**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	75	56-125	01/28/16	Acceptable
n-Triacontane	78	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH019	**Units:**	ug/L
Lab Code:	K1600673-005	**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)	**36**	J	56	23	13	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**52**	J	120	56	22	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	56-125	01/28/16	Acceptable
n-Triacontane	88	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH020	**Units:**	ug/L
Lab Code:	K1600673-006	**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)	**29**	J	53	21	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**33**	J	110	53	20	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	56-125	01/28/16	Acceptable
n-Triacontane	82	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH021	**Units:**	ug/L
Lab Code:	K1600673-007	**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)	**21**	J	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**33**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	56-125	01/28/16	Acceptable
n-Triacontane	83	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH022	**Units:**	ug/L
Lab Code:	K1600673-008	**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)	**27**	J	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**45**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	90	56-125	01/28/16	Acceptable
n-Triacontane	92	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH023	**Units:**	ug/L
Lab Code:	K1600673-009	**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	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**44**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	56-125	01/28/16	Acceptable
n-Triacontane	86	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH024	**Units:**	ug/L
Lab Code:	K1600673-010	**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)	**430**	Y	57	23	13	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**60**	J	120	57	22	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	79	56-125	01/28/16	Acceptable
n-Triacontane	82	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH025	**Units:**	ug/L
Lab Code:	K1600673-011	**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)	**6500**	Y	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**340**	L	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	90	56-125	01/28/16	Acceptable
n-Triacontane	90	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH026	**Units:**	ug/L
Lab Code:	K1600673-012	**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)	**150**	Y	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**160**	L	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	56-125	01/28/16	Acceptable
n-Triacontane	91	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH027	**Units:**	ug/L
Lab Code:	K1600673-013	**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)	**34**	J	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**47**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	86	56-125	01/28/16	Acceptable
n-Triacontane	88	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Diesel and Residual Range Organics

Sample Name:	ERH028	**Units:**	ug/L
Lab Code:	K1600673-014	**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)	**31**	J	54	22	12	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**42**	J	110	54	21	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	86	56-125	01/28/16	Acceptable
n-Triacontane	87	54-136	01/28/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1600636-4	**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)	**19**	J	50	20	11	1	01/25/16	01/28/16	KWG1600636	
Residual Range Organics (RRO)	**40**	J	100	50	19	1	01/25/16	01/28/16	KWG1600636	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	70	56-125	01/28/16	Acceptable
n-Triacontane	70	54-136	01/28/16	Acceptable

Comments:

QA/QC Report

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037
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
ERH015	K1600673-001	86	86
ERH016	K1600673-002	70	74
ERH017	K1600673-003	74	75
ERH018	K1600673-004	75	78
ERH019	K1600673-005	89	88
ERH020	K1600673-006	81	82
ERH021	K1600673-007	81	83
ERH022	K1600673-008	90	92
ERH023	K1600673-009	84	86
ERH024	K1600673-010	79	82
ERH025	K1600673-011	90	90
ERH026	K1600673-012	89	91
ERH027	K1600673-013	86	88
ERH028	K1600673-014	86	87
Method Blank	KWG1600636-4	70	70
ERH018MS	KWG1600636-1	90	89
ERH018DMS	KWG1600636-2	86	84
Lab Control Sample	KWG1600636-3	86	85

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/28/2016

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

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1600636

		ERH018MS KWG1600636-1 Matrix Spike			ERH018DMS KWG1600636-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	21	2820	3370	83	2570	3370	76	36-132	9	30
Residual Range Organics (RRO)	28	1520	1680	88	1800	1680	105	41-113	17	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/28/2016

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:	KWG1600636

	Lab Control Sample KWG1600636-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	2640	3200	83	36-132
Residual Range Organics (RRO)	1390	1600	87	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/28/2016
		Time Analyzed:	13:17

Method Blank Summary
Diesel and Residual Range Organics

Sample Name:	Method Blank	**Instrument ID:**	GC21
Lab Code:	KWG1600636-4	**File ID:**	J:\GC21\DATA\012816B\0128F017.D
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1600636

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1600636-3	J:\GC21\DATA\012816B\0128F015.D	01/28/16	12:55
ERH015	K1600673-001	J:\GC21\DATA\012816B\0128F019.D	01/28/16	13:39
ERH016	K1600673-002	J:\GC21\DATA\012816B\0128F021.D	01/28/16	14:01
ERH017	K1600673-003	J:\GC21\DATA\012816B\0128F023.D	01/28/16	14:24
ERH018	K1600673-004	J:\GC21\DATA\012816B\0128F025.D	01/28/16	14:46
ERH018MS	KWG1600636-1	J:\GC21\DATA\012816B\0128F027.D	01/28/16	15:08
ERH018DMS	KWG1600636-2	J:\GC21\DATA\012816B\0128F029.D	01/28/16	15:30
ERH019	K1600673-005	J:\GC21\DATA\012816B\0128F031.D	01/28/16	15:52
ERH020	K1600673-006	J:\GC21\DATA\012816B\0128F033.D	01/28/16	16:15
ERH021	K1600673-007	J:\GC21\DATA\012816B\0128F035.D	01/28/16	16:37
ERH022	K1600673-008	J:\GC21\DATA\012816B\0128F037.D	01/28/16	16:59
ERH023	K1600673-009	J:\GC21\DATA\012816B\0128F045.D	01/28/16	18:27
ERH024	K1600673-010	J:\GC21\DATA\012816B\0128F047.D	01/28/16	18:49
ERH025	K1600673-011	J:\GC21\DATA\012816B\0128F049.D	01/28/16	19:11
ERH026	K1600673-012	J:\GC21\DATA\012816B\0128F051.D	01/28/16	19:33
ERH027	K1600673-013	J:\GC21\DATA\012816B\0128F053.D	01/28/16	19:55
ERH028	K1600673-014	J:\GC21\DATA\012816B\0128F055.D	01/28/16	20:18

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	01/28/2016
		Time Analyzed:	12:55

Lab Control Sample Summary
Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Instrument ID:**	GC21
Lab Code:	KWG1600636-3	**File ID:**	J:\GC21\DATA\012816B\0128F015.D
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1600636

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1600636-4	J:\GC21\DATA\012816B\0128F017.D	01/28/16	13:17
ERH015	K1600673-001	J:\GC21\DATA\012816B\0128F019.D	01/28/16	13:39
ERH016	K1600673-002	J:\GC21\DATA\012816B\0128F021.D	01/28/16	14:01
ERH017	K1600673-003	J:\GC21\DATA\012816B\0128F023.D	01/28/16	14:24
ERH018	K1600673-004	J:\GC21\DATA\012816B\0128F025.D	01/28/16	14:46
ERH018MS	KWG1600636-1	J:\GC21\DATA\012816B\0128F027.D	01/28/16	15:08
ERH018DMS	KWG1600636-2	J:\GC21\DATA\012816B\0128F029.D	01/28/16	15:30
ERH019	K1600673-005	J:\GC21\DATA\012816B\0128F031.D	01/28/16	15:52
ERH020	K1600673-006	J:\GC21\DATA\012816B\0128F033.D	01/28/16	16:15
ERH021	K1600673-007	J:\GC21\DATA\012816B\0128F035.D	01/28/16	16:37
ERH022	K1600673-008	J:\GC21\DATA\012816B\0128F037.D	01/28/16	16:59
ERH023	K1600673-009	J:\GC21\DATA\012816B\0128F045.D	01/28/16	18:27
ERH024	K1600673-010	J:\GC21\DATA\012816B\0128F047.D	01/28/16	18:49
ERH025	K1600673-011	J:\GC21\DATA\012816B\0128F049.D	01/28/16	19:11
ERH026	K1600673-012	J:\GC21\DATA\012816B\0128F051.D	01/28/16	19:33
ERH027	K1600673-013	J:\GC21\DATA\012816B\0128F053.D	01/28/16	19:55
ERH028	K1600673-014	J:\GC21\DATA\012816B\0128F055.D	01/28/16	20:18

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/19/2016

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL14546 **Column:** ZB-1
Instrument ID: GC21

Level ID	File ID
A	J:\GC21\DATA\011916B\0119F017.D
B	J:\GC21\DATA\011916B\0119F019.D
C	J:\GC21\DATA\011916B\0119F021.D
D	J:\GC21\DATA\011916B\0119F023.D
E	J:\GC21\DATA\011916B\0119F025.D
F	J:\GC21\DATA\011916B\0119F027.D
G	J:\GC21\DATA\011916B\0119F035.D
H	J:\GC21\DATA\011916B\0119F037.D
I	J:\GC21\DATA\011916B\0119F039.D
J	J:\GC21\DATA\011916B\0119F041.D
K	J:\GC21\DATA\011916B\0119F043.D
L	J:\GC21\DATA\011916B\0119F051.D
M	J:\GC21\DATA\011916B\0119F053.D
N	J:\GC21\DATA\011916B\0119F055.D
O	J:\GC21\DATA\011916B\0119F057.D
P	J:\GC21\DATA\011916B\0119F059.D
Q	J:\GC21\DATA\012016B\0120F013.D
R	J:\GC21\DATA\012016B\0120F015.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)	A	200	1140	B	500	1170	C	2000	1150	D	5000	1090	E	20000	963
	F	50000	971												
				Q	20	1230	R	50	1190						
Residual Range Organics (RRO)															
				G	50	705	H	200	607	I	500	614	J	2000	593
	K	5000	590												
o-Terphenyl	A	10	1540	B	25	1540	C	100	1560	D	250	1420			
				Q	1.0	1640	R	2.5	1570						
n-Triacontane	A	10	1320	B	25	1310	C	100	1360	D	250	1230			
				Q	1.0	1380	R	2.5	1350						

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/19/2016

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL14546 **Column:** ZB-1
Instrument ID: GC21

		Calibration Evaluation				
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**
Diesel Range Organics (DRO)	MS	AverageRF	% RSD	8.9		≤ 20
Residual Range Organics (RRO)	MS	AverageRF	% RSD	7.7		≤ 20
o-Terphenyl	SURR	AverageRF	% RSD	4.7		≤ 20
n-Triacontane	SURR	AverageRF	% RSD	4.0		≤ 20

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

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Calibration Date: 01/19/2016
Date Analyzed: 01/19/2016 - 01/22/2016

Second Source Calibration Verification
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration ID: CAL14546
Units: ppm

File ID: J:\GC21\DATA\011916B\0119F047.D
J:\GC21\DATA\011916B\0119F063.D
J:\GC21\DATA\012216B\0122F015.D

Column ID: ZB-1

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	1110	1120	1	NA	± 20 %	AverageRF
Residual Range Organics (RRO)	1000	910	622	565	-9	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/150037

Service Request: K1600673
Date Analyzed: 01/28/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration Date: 01/19/2016
Calibration ID: CAL14546
Analysis Lot: KWG1600783
Units: ppm

File ID: J:\GC21\DATA\012816B\0128F009.D
J:\GC21\DATA\012816B\0128F011.D

Column ID: ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	1110	1130	1	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	980	622	611	-2	NA	± 20	AverageRF
o-Terphenyl	50	53	1540	1620	5	NA	± 20	AverageRF
n-Triacontane	50	54	1330	1420	7	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/150037

Service Request: K1600673
Date Analyzed: 01/28/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration Date: 01/19/2016
Calibration ID: CAL14546
Analysis Lot: KWG1600783
Units: ppm

File ID: J:\GC21\DATA\012816B\0128F039.D
J:\GC21\DATA\012816B\0128F041.D

Column ID: ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	880	1110	976	-12	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	880	622	548	-12	NA	± 20	AverageRF
o-Terphenyl	50	45	1540	1400	-9	NA	± 20	AverageRF
n-Triacontane	50	46	1330	1220	-8	NA	± 20	AverageRF

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

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 01/28/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration Date: 01/19/2016
Calibration ID: CAL14546
Analysis Lot: KWG1600783
Units: ppm

File ID: J:\GC21\DATA\012816B\0128F057.D
J:\GC21\DATA\012816B\0128F059.D

Column ID: ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	890	1110	992	-11	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	1000	622	648	4	NA	± 20	AverageRF
o-Terphenyl	50	46	1540	1410	-8	NA	± 20	AverageRF
n-Triacontane	50	46	1330	1210	-9	NA	± 20	AverageRF

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1600783
Instrument ID: GC21
Column: ZB-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0128F009.D	Continuing Calibration Verification	KWG1600783-1	1/28/2016	11:48		1/28/2016	12:04
0128F011.D	Continuing Calibration Verification	KWG1600783-1	1/28/2016	12:10		1/28/2016	12:26
0128F013.D	Instrument Blank	KWG1600783-4	1/28/2016	12:33		1/28/2016	12:49
0128F015.D	Lab Control Sample	KWG1600636-3	1/28/2016	12:55		1/28/2016	13:11
0128F017.D	Method Blank	KWG1600636-4	1/28/2016	13:17		1/28/2016	13:33
0128F019.D	ERH015	K1600673-001	1/28/2016	13:39		1/28/2016	13:55
0128F021.D	ERH016	K1600673-002	1/28/2016	14:01		1/28/2016	14:17
0128F023.D	ERH017	K1600673-003	1/28/2016	14:24		1/28/2016	14:40
0128F025.D	ERH018	K1600673-004	1/28/2016	14:46		1/28/2016	15:02
0128F027.D	ERH018MS	KWG1600636-1	1/28/2016	15:08		1/28/2016	15:24
0128F029.D	ERH018DMS	KWG1600636-2	1/28/2016	15:30		1/28/2016	15:46
0128F031.D	ERH019	K1600673-005	1/28/2016	15:52		1/28/2016	16:08
0128F033.D	ERH020	K1600673-006	1/28/2016	16:15		1/28/2016	16:31
0128F035.D	ERH021	K1600673-007	1/28/2016	16:37		1/28/2016	16:53
0128F037.D	ERH022	K1600673-008	1/28/2016	16:59		1/28/2016	17:15
0128F039.D	Continuing Calibration Verification	KWG1600783-2	1/28/2016	17:21		1/28/2016	17:37
0128F041.D	Continuing Calibration Verification	KWG1600783-2	1/28/2016	17:43		1/28/2016	17:59
0128F043.D	Instrument Blank	KWG1600783-5	1/28/2016	18:05		1/28/2016	18:21
0128F045.D	ERH023	K1600673-009	1/28/2016	18:27		1/28/2016	18:43
0128F047.D	ERH024	K1600673-010	1/28/2016	18:49		1/28/2016	19:05
0128F049.D	ERH025	K1600673-011	1/28/2016	19:11		1/28/2016	19:27
0128F051.D	ERH026	K1600673-012	1/28/2016	19:33		1/28/2016	19:49
0128F053.D	ERH027	K1600673-013	1/28/2016	19:55		1/28/2016	20:11
0128F055.D	ERH028	K1600673-014	1/28/2016	20:18		1/28/2016	20:34
0128F057.D	Continuing Calibration Verification	KWG1600783-3	1/28/2016	20:40		1/28/2016	20:56
0128F059.D	Continuing Calibration Verification	KWG1600783-3	1/28/2016	21:02		1/28/2016	21:18
0128F061.D	Instrument Blank	KWG1600783-6	1/28/2016	21:24		1/28/2016	21:40

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 01/25/2016

Extraction Prep Log
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015C

Extraction Lot: KWG1600636
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH015	K1600673-001	01/19/16	01/22/16	470ml	1ml	NA	
ERH016	K1600673-002	01/19/16	01/22/16	470ml	1ml	NA	
ERH017	K1600673-003	01/19/16	01/22/16	475ml	1ml	NA	
ERH018	K1600673-004	01/19/16	01/22/16	470ml	1ml	NA	
ERH019	K1600673-005	01/19/16	01/22/16	450ml	1ml	NA	
ERH020	K1600673-006	01/19/16	01/22/16	480ml	1ml	NA	
ERH021	K1600673-007	01/20/16	01/22/16	470ml	1ml	NA	
ERH022	K1600673-008	01/20/16	01/22/16	470ml	1ml	NA	
ERH023	K1600673-009	01/20/16	01/22/16	470ml	1ml	NA	
ERH024	K1600673-010	01/20/16	01/22/16	445ml	1ml	NA	
ERH025	K1600673-011	01/20/16	01/22/16	470ml	1ml	NA	
ERH026	K1600673-012	01/20/16	01/22/16	470ml	1ml	NA	
ERH027	K1600673-013	01/21/16	01/22/16	470ml	1ml	NA	
ERH028	K1600673-014	01/21/16	01/22/16	470ml	1ml	NA	
Method Blank	KWG1600636-4	NA	NA	500ml	1ml	NA	
ERH018MS	KWG1600636-1	01/19/16	01/22/16	475ml	1ml	NA	
ERH018DMS	KWG1600636-2	01/19/16	01/22/16	475ml	1ml	NA	
Lab Control Sample	KWG1600636-3	NA	NA	500ml	1ml	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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
ERH015	K1600673-001	01/19/2016	01/22/2016
ERH016	K1600673-002	01/19/2016	01/22/2016
ERH017	K1600673-003	01/19/2016	01/22/2016
ERH018	K1600673-004	01/19/2016	01/22/2016
ERH019	K1600673-005	01/19/2016	01/22/2016
ERH020	K1600673-006	01/19/2016	01/22/2016
ERH021	K1600673-007	01/20/2016	01/22/2016
ERH022	K1600673-008	01/20/2016	01/22/2016
ERH023	K1600673-009	01/20/2016	01/22/2016
ERH024	K1600673-010	01/20/2016	01/22/2016
ERH025	K1600673-011	01/20/2016	01/22/2016
ERH026	K1600673-012	01/20/2016	01/22/2016
ERH027	K1600673-013	01/21/2016	01/22/2016
ERH028	K1600673-014	01/21/2016	01/22/2016
TRIP BLANK	K1600673-015	01/19/2016	01/22/2016
ERH018MS	KWG1600614-1	01/19/2016	01/22/2016
ERH018DMS	KWG1600614-2	01/19/2016	01/22/2016

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/19/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH015
Lab Code: K1600673-001

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	**0.090**	J	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	ND	U	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	**0.24**	J	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH015	**Units:**	ug/L
Lab Code:	K1600673-001	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	103	81-118	01/22/16	Acceptable
Toluene-d8	99	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	85	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/19/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH016
Lab Code: K1600673-002

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	**0.17**	J	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	**34**		20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	**0.11**	J	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	**0.18**	J	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH016	**Units:**	ug/L
Lab Code:	K1600673-002	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	102	81-118	01/22/16	Acceptable
Toluene-d8	99	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	86	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/19/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH017
Lab Code: K1600673-003

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	**4.8**	J	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	ND	U	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH017	**Units:**	ug/L
Lab Code:	K1600673-003	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	106	81-118	01/22/16	Acceptable
Toluene-d8	99	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	87	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/19/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH018
Lab Code: K1600673-004

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	ND	U	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	**0.10**	J	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	104	81-118	01/22/16	Acceptable
Toluene-d8	99	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	86	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/19/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH019
Lab Code: K1600673-005

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	**4.1**	J	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	ND	U	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH019	**Units:**	ug/L
Lab Code:	K1600673-005	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	123	81-118	01/22/16	Outside Control Limits
Toluene-d8	100	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	87	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH020	**Units:**	ug/L
Lab Code:	K1600673-006	**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
Chloromethane	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	**3.7**	J	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	**0.11**	J	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH020	**Units:**	ug/L
Lab Code:	K1600673-006	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	105	81-118	01/22/16	Acceptable
Toluene-d8	100	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	86	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH021	**Units:**	ug/L
Lab Code:	K1600673-007	**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
Chloromethane	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	**3.6**	J	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	**0.16**	J	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH021	**Units:**	ug/L
Lab Code:	K1600673-007	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	104	81-118	01/22/16	Acceptable
Toluene-d8	98	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	88	85-114	01/22/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/20/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH022
Lab Code: K1600673-008

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	**3.9**	J	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.18**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH022	**Units:**	ug/L
Lab Code:	K1600673-008	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	104	81-118	01/23/16	Acceptable
Toluene-d8	99	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	87	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/20/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH023
Lab Code: K1600673-009

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	ND	U	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.12**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH023	**Units:**	ug/L
Lab Code:	K1600673-009	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	103	81-118	01/23/16	Acceptable
Toluene-d8	99	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	86	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/20/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH024
Lab Code: K1600673-010

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	ND	U	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.17**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH024	**Units:**	ug/L
Lab Code:	K1600673-010	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	107	81-118	01/23/16	Acceptable
Toluene-d8	100	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	87	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH025	**Units:**	ug/L
Lab Code:	K1600673-011	**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
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	ND	U	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	**0.080**	J	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.070**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	**0.14**	J	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	**0.21**	J	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH025	**Units:**	ug/L
Lab Code:	K1600673-011	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	108	81-118	01/23/16	Acceptable
Toluene-d8	101	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	91	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/20/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH026
Lab Code: K1600673-012

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	**3.4**	J	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.14**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH026	**Units:**	ug/L
Lab Code:	K1600673-012	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	102	81-118	01/23/16	Acceptable
Toluene-d8	99	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	88	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/21/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH027
Lab Code: K1600673-013

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	**7.8**	J	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.23**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	**0.050**	J	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH027	**Units:**	ug/L
Lab Code:	K1600673-013	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	101	81-118	01/23/16	Acceptable
Toluene-d8	99	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	86	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: 01/21/2016
Date Received: 01/22/2016

Volatile Organic Compounds

Sample Name: ERH028
Lab Code: K1600673-014

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	**7.7**	J	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.20**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	**0.050**	J	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH028	**Units:**	ug/L
Lab Code:	K1600673-014	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	105	81-118	01/23/16	Acceptable
Toluene-d8	100	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	87	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	TRIP BLANK	**Units:**	ug/L
Lab Code:	K1600673-015	**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
Chloromethane	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/23/16	01/23/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/23/16	01/23/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/23/16	01/23/16	KWG1600614	
Acetone	**3.9**	J	20	10	3.3	1	01/23/16	01/23/16	KWG1600614	
Methylene Chloride	**0.25**	J	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/23/16	01/23/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/23/16	01/23/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/23/16	01/23/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/23/16	01/23/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/23/16	01/23/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/23/16	01/23/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/23/16	01/23/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/23/16	01/23/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/23/16	01/23/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/23/16	01/23/16	KWG1600614	
Toluene	**0.19**	J	0.50	0.10	0.054	1	01/23/16	01/23/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/23/16	01/23/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/23/16	01/23/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/23/16	01/23/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/23/16	01/23/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/23/16	01/23/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/23/16	01/23/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/23/16	01/23/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/23/16	01/23/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/23/16	01/23/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	TRIP BLANK	**Units:**	ug/L
Lab Code:	K1600673-015	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/23/16	01/23/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/23/16	01/23/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/23/16	01/23/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/23/16	01/23/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	80-119	01/23/16	Acceptable
1,2-Dichloroethane-d4	107	81-118	01/23/16	Acceptable
Toluene-d8	100	89-112	01/23/16	Acceptable
4-Bromofluorobenzene	87	85-114	01/23/16	Acceptable

Comments:

Analytical Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Service Request: K1600673
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1600614-4

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
Vinyl Chloride	ND	U	0.50	0.10	0.075	1	01/22/16	01/22/16	KWG1600614	
Bromomethane	ND	U	0.50	0.30	0.16	1	01/22/16	01/22/16	KWG1600614	
Chloroethane	ND	U	0.50	0.20	0.16	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethene	ND	U	0.50	0.20	0.080	1	01/22/16	01/22/16	KWG1600614	
Acetone	ND	U	20	10	3.3	1	01/22/16	01/22/16	KWG1600614	
Methylene Chloride	**0.15**	J	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Methyl tert-Butyl Ether	ND	U	0.50	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	
trans-1,2-Dichloroethene	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1-Dichloroethane	ND	U	0.50	0.20	0.077	1	01/22/16	01/22/16	KWG1600614	
cis-1,2-Dichloroethene	ND	U	0.50	0.20	0.067	1	01/22/16	01/22/16	KWG1600614	
2-Butanone (MEK)	ND	U	20	4.0	1.9	1	01/22/16	01/22/16	KWG1600614	
Chloroform	ND	U	0.50	0.20	0.072	1	01/22/16	01/22/16	KWG1600614	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.20	0.075	1	01/22/16	01/22/16	KWG1600614	
Carbon Tetrachloride	ND	U	0.50	0.20	0.096	1	01/22/16	01/22/16	KWG1600614	
Benzene	ND	U	0.50	0.10	0.062	1	01/22/16	01/22/16	KWG1600614	
Trichloroethene (TCE)	ND	U	0.50	0.10	0.10	1	01/22/16	01/22/16	KWG1600614	
1,2-Dichloropropane	ND	U	0.50	0.20	0.095	1	01/22/16	01/22/16	KWG1600614	
cis-1,3-Dichloropropene	ND	U	0.50	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
4-Methyl-2-pentanone (MIBK)	ND	U	20	10	2.6	1	01/22/16	01/22/16	KWG1600614	
Toluene	ND	U	0.50	0.10	0.054	1	01/22/16	01/22/16	KWG1600614	
trans-1,3-Dichloropropene	ND	U	0.50	0.20	0.068	1	01/22/16	01/22/16	KWG1600614	
1,1,2-Trichloroethane	ND	U	0.50	0.40	0.14	1	01/22/16	01/22/16	KWG1600614	
Tetrachloroethene (PCE)	ND	U	0.50	0.20	0.099	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
Chlorobenzene	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	01/22/16	01/22/16	KWG1600614	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.20	0.11	1	01/22/16	01/22/16	KWG1600614	
Xylenes, Total	ND	U	1.0	0.20	0.18	1	01/22/16	01/22/16	KWG1600614	
Styrene	ND	U	0.50	0.20	0.089	1	01/22/16	01/22/16	KWG1600614	
Bromoform	ND	U	0.50	0.50	0.16	1	01/22/16	01/22/16	KWG1600614	
1,2,3-Trichloropropane	ND	U	0.50	0.50	0.20	1	01/22/16	01/22/16	KWG1600614	
1,3-Dichlorobenzene	ND	U	0.50	0.20	0.10	1	01/22/16	01/22/16	KWG1600614	
1,4-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1600614-4	**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
1,2-Dichlorobenzene	ND	U	0.50	0.20	0.12	1	01/22/16	01/22/16	KWG1600614	
1,2-Dibromo-3-chloropropane	ND	U	2.0	0.80	0.22	1	01/22/16	01/22/16	KWG1600614	
1,2,4-Trichlorobenzene	ND	U	2.0	0.30	0.096	1	01/22/16	01/22/16	KWG1600614	
Hexachlorobutadiene	ND	U	2.0	0.30	0.11	1	01/22/16	01/22/16	KWG1600614	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	80-119	01/22/16	Acceptable
1,2-Dichloroethane-d4	102	81-118	01/22/16	Acceptable
Toluene-d8	99	89-112	01/22/16	Acceptable
4-Bromofluorobenzene	85	85-114	01/22/16	Acceptable

Comments:

QA/QC Report

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037
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
ERH015	K1600673-001	104	103		99	85
ERH016	K1600673-002	104	102		99	86
ERH017	K1600673-003	104	106		99	87
ERH018	K1600673-004	104	104		99	86
ERH019	K1600673-005	106	123	*	100	87
ERH020	K1600673-006	105	105		100	86
ERH021	K1600673-007	104	104		98	88
ERH022	K1600673-008	105	104		99	87
ERH023	K1600673-009	106	103		99	86
ERH024	K1600673-010	106	107		100	87
ERH025	K1600673-011	105	108		101	91
ERH026	K1600673-012	102	102		99	88
ERH027	K1600673-013	101	101		99	86
ERH028	K1600673-014	107	105		100	87
TRIP BLANK	K1600673-015	106	107		100	87
Method Blank	KWG1600614-4	104	102		99	85
ERH018MS	KWG1600614-1	103	98		98	88
ERH018DMS	KWG1600614-2	100	103		101	90
Lab Control Sample	KWG1600614-3	105	106		100	95

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	80-119
Sur2	=	1,2-Dichloroethane-d4	81-118
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.

QA/QC Report

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 01/22/2016
Time Analyzed: 18:19

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS46\DATA\012216\0122F011.D
Instrument ID: GCMS46
Analysis Method: 8260C

Lab Code: KWG1600615-2
Analysis Lot: KWG1600615

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	611,503	6.60	250,925	10.07	264,907	12.65
	Upper Limit ==>	1,223,006	6.77	501,850	10.24	529,814	12.82
	Lower Limit ==>	305,752	6.43	125,463	9.90	132,454	12.48
	ICAL Result ==>	966,910	6.61	402,970	10.07	390,622	12.66
Associated Analyses							
Lab Control Sample	KWG1600614-3	615,936	6.60	258,516	10.07	271,283	12.65
ERH018MS	KWG1600614-1	653,105	6.61	329,418	10.07	348,259	12.65
ERH018DMS	KWG1600614-2	651,125	6.61	327,409	10.07	358,886	12.65
Method Blank	KWG1600614-4	603,458	6.61	308,917	10.07	324,992	12.65
ERH018	K1600673-004	605,026	6.61	310,994	10.07	329,241	12.65
ERH015	K1600673-001	601,496	6.61	310,355	10.07	323,864	12.65
ERH016	K1600673-002	585,726	6.60	298,105	10.07	314,892	12.65
ERH017	K1600673-003	596,065	6.60	305,984	10.07	323,245	12.65
ERH019	K1600673-005	716,609	6.61	372,757	10.07	403,179	12.65
ERH020	K1600673-006	582,409	6.60	302,531	10.07	314,293	12.65
ERH021	K1600673-007	592,447	6.60	301,832	10.07	317,773	12.65
ERH022	K1600673-008	576,480	6.60	297,864	10.07	304,425	12.65
ERH023	K1600673-009	582,720	6.61	299,742	10.07	314,976	12.65
ERH024	K1600673-010	584,466	6.60	302,340	10.07	321,786	12.65
ERH025	K1600673-011	576,067	6.61	315,194	10.07	337,568	12.65
ERH026	K1600673-012	609,359	6.61	310,648	10.07	333,342	12.65
ERH027	K1600673-013	602,120	6.61	311,732	10.07	326,829	12.65
ERH028	K1600673-014	570,334	6.61	293,643	10.07	312,568	12.65
TRIP BLANK	K1600673-015	574,892	6.61	294,464	10.07	317,517	12.65

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

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/22/2016
Sample Matrix:	Water	**Date Analyzed:**	01/22/2016

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1600614

		ERH018MS KWG1600614-1 Matrix Spike				ERH018DMS KWG1600614-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**		**Result**	**Spike Amount**	**%Rec**		**%Rec Limits**	**RPD**	**RPD Limit**
Chloromethane	ND	11.3	10.0	113		10.8	10.0	108		50-139	5	20
Vinyl Chloride	ND	12.4	10.0	124		11.4	10.0	114		58-137	8	20
Bromomethane	ND	13.0	10.0	130		12.2	10.0	122		53-141	7	20
Chloroethane	ND	13.5	10.0	135		12.7	10.0	127		60-138	6	20
1,1-Dichloroethene	ND	11.3	10.0	113		11.3	10.0	113		71-131	0	20
Acetone	ND	46.7	50.0	93		52.0	50.0	104		39-160	11	20
Methylene Chloride	ND	10.6	10.0	106		10.3	10.0	103		74-124	2	20
Methyl tert-Butyl Ether	ND	9.80	10.0	98		10.3	10.0	103		71-124	5	20
trans-1,2-Dichloroethene	ND	11.1	10.0	111		10.5	10.0	105		75-124	6	20
1,1-Dichloroethane	ND	11.3	10.0	113		10.8	10.0	108		77-125	4	20
cis-1,2-Dichloroethene	ND	9.92	10.0	99		9.82	10.0	98		78-123	1	20
2-Butanone (MEK)	ND	45.8	50.0	92		48.5	50.0	97		56-143	6	20
Chloroform	ND	11.2	10.0	112		10.9	10.0	109		79-124	3	20
1,1,1-Trichloroethane (TCA)	ND	11.2	10.0	112		10.6	10.0	106		74-131	5	20
Carbon Tetrachloride	ND	11.6	10.0	116		10.9	10.0	109		72-136	6	20
Benzene	ND	10.3	10.0	103		9.70	10.0	97		79-120	6	20
Trichloroethene (TCE)	ND	10.5	10.0	105		10.2	10.0	102		79-123	3	20
1,2-Dichloropropane	ND	9.71	10.0	97		9.50	10.0	95		78-122	2	20
cis-1,3-Dichloropropene	ND	9.58	10.0	96		9.53	10.0	95		75-124	1	20
4-Methyl-2-pentanone (MIBK)	ND	44.6	50.0	89		49.0	50.0	98		67-130	9	20
Toluene	0.10	10.3	10.0	102		10.0	10.0	99		80-121	3	20
trans-1,3-Dichloropropene	ND	7.70	10.0	77		7.66	10.0	77		73-127	1	20
1,1,2-Trichloroethane	ND	8.15	10.0	82		8.48	10.0	85		80-119	4	20
Tetrachloroethene (PCE)	ND	9.74	10.0	97		9.63	10.0	96		74-129	1	20
1,2-Dibromoethane (EDB)	ND	7.76	10.0	78		8.33	10.0	83		77-121	7	20
Chlorobenzene	ND	8.59	10.0	86		8.46	10.0	85		82-118	2	20
Ethylbenzene	ND	8.51	10.0	85		8.18	10.0	82		79-121	4	20
1,1,1,2-Tetrachloroethane	ND	8.34	10.0	83		8.26	10.0	83		78-124	1	20
Xylenes, Total	ND	25.3	30.0	84		24.5	30.0	82		79-121	3	20
Styrene	ND	7.45	10.0	75	*	7.20	10.0	72	*	78-123	3	20
Bromoform	ND	7.76	10.0	78		7.90	10.0	79		66-130	2	20
1,2,3-Trichloropropane	ND	6.96	10.0	70	*	7.53	10.0	75		73-122	8	20
1,3-Dichlorobenzene	ND	7.94	10.0	79	*	7.62	10.0	76	*	80-119	4	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.

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/22/2016
Sample Matrix:	Water	**Date Analyzed:**	01/22/2016

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1600614

		ERH018MS KWG1600614-1 Matrix Spike			ERH018DMS KWG1600614-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,4-Dichlorobenzene	ND	7.84	10.0	78 *	7.52	10.0	75 *	79-118	4	20
1,2-Dichlorobenzene	ND	7.86	10.0	79 *	7.75	10.0	78 *	80-119	1	20
1,2-Dibromo-3-chloropropane	ND	6.64	10.0	66	6.73	10.0	67	62-128	1	20
1,2,4-Trichlorobenzene	ND	7.44	10.0	74	7.89	10.0	79	69-130	6	20
Hexachlorobutadiene	ND	8.52	10.0	85	8.41	10.0	84	66-134	1	20

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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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/22/2016
Sample Matrix:	Water	**Date Analyzed:**	01/22/2016

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600614

Lab Control Sample
KWG1600614-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Chloromethane	10.8	10.0	108	50-139
Vinyl Chloride	11.2	10.0	112	58-137
Bromomethane	12.5	10.0	125	53-141
Chloroethane	12.7	10.0	127	60-138
1,1-Dichloroethene	10.7	10.0	107	71-131
Acetone	51.4	50.0	103	39-160
Methylene Chloride	10.4	10.0	104	74-124
Methyl tert-Butyl Ether	9.85	10.0	99	71-124
trans-1,2-Dichloroethene	10.2	10.0	102	75-124
1,1-Dichloroethane	11.0	10.0	110	77-125
cis-1,2-Dichloroethene	9.72	10.0	97	78-123
2-Butanone (MEK)	45.2	50.0	90	56-143
Chloroform	10.8	10.0	108	79-124
1,1,1-Trichloroethane (TCA)	10.4	10.0	104	74-131
Carbon Tetrachloride	10.6	10.0	106	72-136
Benzene	9.81	10.0	98	79-120
Trichloroethene (TCE)	10.2	10.0	102	79-123
1,2-Dichloropropane	9.81	10.0	98	78-122
cis-1,3-Dichloropropene	9.46	10.0	95	75-124
4-Methyl-2-pentanone (MIBK)	46.6	50.0	93	67-130
Toluene	9.57	10.0	96	80-121
trans-1,3-Dichloropropene	9.20	10.0	92	73-127
1,1,2-Trichloroethane	10.0	10.0	100	80-119
Tetrachloroethene (PCE)	10.9	10.0	109	74-129
1,2-Dibromoethane (EDB)	9.53	10.0	95	77-121
Chlorobenzene	10.0	10.0	100	82-118
Ethylbenzene	9.62	10.0	96	79-121
1,1,1,2-Tetrachloroethane	9.74	10.0	97	78-124
Xylenes, Total	29.0	30.0	97	79-121
Styrene	9.40	10.0	94	78-123
Bromoform	9.20	10.0	92	66-130
1,2,3-Trichloropropane	8.72	10.0	87	73-122
1,3-Dichlorobenzene	9.57	10.0	96	80-119
1,4-Dichlorobenzene	9.43	10.0	94	79-118
1,2-Dichlorobenzene	9.61	10.0	96	80-119

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/22/2016
Sample Matrix:	Water	**Date Analyzed:**	01/22/2016

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600614

Lab Control Sample
KWG1600614-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
1,2-Dibromo-3-chloropropane	8.19	10.0	82	62-128
1,2,4-Trichlorobenzene	9.37	10.0	94	69-130
Hexachlorobutadiene	10.1	10.0	101	66-134

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/22/2016
Sample Matrix:	Water	**Date Analyzed:**	01/22/2016
		Time Analyzed:	20:49

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	GCMS46
Lab Code:	KWG1600614-4	**File ID:**	J:\MS46\DATA\012216\0122F016.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1600614

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1600614-3	J:\MS46\DATA\012216\0122F012.D	01/22/16	18:53
ERH018MS	KWG1600614-1	J:\MS46\DATA\012216\0122F013.D	01/22/16	19:30
ERH018DMS	KWG1600614-2	J:\MS46\DATA\012216\0122F014.D	01/22/16	19:56
ERH018	K1600673-004	J:\MS46\DATA\012216\0122F017.D	01/22/16	21:15
ERH015	K1600673-001	J:\MS46\DATA\012216\0122F018.D	01/22/16	21:41
ERH016	K1600673-002	J:\MS46\DATA\012216\0122F019.D	01/22/16	22:07
ERH017	K1600673-003	J:\MS46\DATA\012216\0122F020.D	01/22/16	22:33
ERH019	K1600673-005	J:\MS46\DATA\012216\0122F021.D	01/22/16	22:59
ERH020	K1600673-006	J:\MS46\DATA\012216\0122F022.D	01/22/16	23:26
ERH021	K1600673-007	J:\MS46\DATA\012216\0122F023.D	01/22/16	23:52
ERH022	K1600673-008	J:\MS46\DATA\012216\0122F024.D	01/23/16	00:18
ERH023	K1600673-009	J:\MS46\DATA\012216\0122F025.D	01/23/16	00:44
ERH024	K1600673-010	J:\MS46\DATA\012216\0122F026.D	01/23/16	01:10
ERH025	K1600673-011	J:\MS46\DATA\012216\0122F027.D	01/23/16	01:36
ERH026	K1600673-012	J:\MS46\DATA\012216\0122F028.D	01/23/16	02:02
ERH027	K1600673-013	J:\MS46\DATA\012216\0122F029.D	01/23/16	02:29
ERH028	K1600673-014	J:\MS46\DATA\012216\0122F030.D	01/23/16	02:55
TRIP BLANK	K1600673-015	J:\MS46\DATA\012216\0122F031.D	01/23/16	03:21

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/22/2016
Sample Matrix:	Water	**Date Analyzed:**	01/22/2016
		Time Analyzed:	18:53

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	GCMS46
Lab Code:	KWG1600614-3	**File ID:**	J:\MS46\DATA\012216\0122F012.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1600614

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH018MS	KWG1600614-1	J:\MS46\DATA\012216\0122F013.D	01/22/16	19:30
ERH018DMS	KWG1600614-2	J:\MS46\DATA\012216\0122F014.D	01/22/16	19:56
Method Blank	KWG1600614-4	J:\MS46\DATA\012216\0122F016.D	01/22/16	20:49
ERH018	K1600673-004	J:\MS46\DATA\012216\0122F017.D	01/22/16	21:15
ERH015	K1600673-001	J:\MS46\DATA\012216\0122F018.D	01/22/16	21:41
ERH016	K1600673-002	J:\MS46\DATA\012216\0122F019.D	01/22/16	22:07
ERH017	K1600673-003	J:\MS46\DATA\012216\0122F020.D	01/22/16	22:33
ERH019	K1600673-005	J:\MS46\DATA\012216\0122F021.D	01/22/16	22:59
ERH020	K1600673-006	J:\MS46\DATA\012216\0122F022.D	01/22/16	23:26
ERH021	K1600673-007	J:\MS46\DATA\012216\0122F023.D	01/22/16	23:52
ERH022	K1600673-008	J:\MS46\DATA\012216\0122F024.D	01/23/16	00:18
ERH023	K1600673-009	J:\MS46\DATA\012216\0122F025.D	01/23/16	00:44
ERH024	K1600673-010	J:\MS46\DATA\012216\0122F026.D	01/23/16	01:10
ERH025	K1600673-011	J:\MS46\DATA\012216\0122F027.D	01/23/16	01:36
ERH026	K1600673-012	J:\MS46\DATA\012216\0122F028.D	01/23/16	02:02
ERH027	K1600673-013	J:\MS46\DATA\012216\0122F029.D	01/23/16	02:29
ERH028	K1600673-014	J:\MS46\DATA\012216\0122F030.D	01/23/16	02:55
TRIP BLANK	K1600673-015	J:\MS46\DATA\012216\0122F031.D	01/23/16	03:21

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 01/22/2016
Time Analyzed: 17:45

Tune Summary
Volatile Organic Compounds

File ID: J:\MS46\DATA\012216\0122F010.D
Instrument ID: GCMS46
Column:

Analysis Method: 8260C
Analysis Lot: KWG1600615

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	19.2	15624	PASS
75	95	30	60	48.0	39177	PASS
95	95	100	100	100.0	81576	PASS
96	95	5	9	6.4	5185	PASS
173	174	0	2	1.3	1022	PASS
174	95	50	120	95.6	77970	PASS
175	174	5	9	8.5	6604	PASS
176	174	95	101	97.8	76226	PASS
177	176	5	9	5.8	4431	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1600615-2	J:\MS46\DATA\012216\0122F011.D	01/22/2016	18:19	
Lab Control Sample	KWG1600614-3	J:\MS46\DATA\012216\0122F012.D	01/22/2016	18:53	
ERH018MS	KWG1600614-1	J:\MS46\DATA\012216\0122F013.D	01/22/2016	19:30	
ERH018DMS	KWG1600614-2	J:\MS46\DATA\012216\0122F014.D	01/22/2016	19:56	
Method Blank	KWG1600614-4	J:\MS46\DATA\012216\0122F016.D	01/22/2016	20:49	
ERH018	K1600673-004	J:\MS46\DATA\012216\0122F017.D	01/22/2016	21:15	
ERH015	K1600673-001	J:\MS46\DATA\012216\0122F018.D	01/22/2016	21:41	
ERH016	K1600673-002	J:\MS46\DATA\012216\0122F019.D	01/22/2016	22:07	
ERH017	K1600673-003	J:\MS46\DATA\012216\0122F020.D	01/22/2016	22:33	
ERH019	K1600673-005	J:\MS46\DATA\012216\0122F021.D	01/22/2016	22:59	
ERH020	K1600673-006	J:\MS46\DATA\012216\0122F022.D	01/22/2016	23:26	
ERH021	K1600673-007	J:\MS46\DATA\012216\0122F023.D	01/22/2016	23:52	
ERH022	K1600673-008	J:\MS46\DATA\012216\0122F024.D	01/23/2016	00:18	
ERH023	K1600673-009	J:\MS46\DATA\012216\0122F025.D	01/23/2016	00:44	
ERH024	K1600673-010	J:\MS46\DATA\012216\0122F026.D	01/23/2016	01:10	
ERH025	K1600673-011	J:\MS46\DATA\012216\0122F027.D	01/23/2016	01:36	
ERH026	K1600673-012	J:\MS46\DATA\012216\0122F028.D	01/23/2016	02:02	
ERH027	K1600673-013	J:\MS46\DATA\012216\0122F029.D	01/23/2016	02:29	
ERH028	K1600673-014	J:\MS46\DATA\012216\0122F030.D	01/23/2016	02:55	
TRIP BLANK	K1600673-015	J:\MS46\DATA\012216\0122F031.D	01/23/2016	03:21	
Continuing Calibration Verification	KWG1600615-3	J:\MS46\DATA\012216\0122F032.D	01/23/2016	03:47	

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/05/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14525 **Column:** MS
Instrument ID: GCMS46

Level ID	File ID	Level ID	File ID
A	J:\MS46\DATA\010516\0105F018.D	G	J:\MS46\DATA\010516\0105F024.D
B	J:\MS46\DATA\010516\0105F019.D	H	J:\MS46\DATA\010516\0105F025.D
C	J:\MS46\DATA\010516\0105F020.D	I	J:\MS46\DATA\010516\0105F026.D
D	J:\MS46\DATA\010516\0105F021.D	J	J:\MS46\DATA\010516\0105F027.D
E	J:\MS46\DATA\010516\0105F022.D	K	J:\MS46\DATA\010516\0105F028.D
F	J:\MS46\DATA\010516\0105F023.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Chloromethane							C	0.50	0.399	D	1.0	0.393	E	2.0	0.405
	F	5.0	0.388	G	10	0.378	H	20	0.374	I	40	0.366	J	60	0.370
	K	80	0.376												
Vinyl Chloride				B	0.20	0.376	C	0.50	0.340	D	1.0	0.369	E	2.0	0.345
	F	5.0	0.341	G	10	0.318	H	20	0.338	I	40	0.337	J	60	0.335
	K	80	0.341												
Bromomethane							C	0.50	0.220	D	1.0	0.193	E	2.0	0.187
	F	5.0	0.178	G	10	0.176	H	20	0.187	I	40	0.193	J	60	0.203
	K	80	0.209												
Chloroethane							C	0.50	0.177	D	1.0	0.194	E	2.0	0.203
	F	5.0	0.193	G	10	0.179	H	20	0.188	I	40	0.186	J	60	0.183
	K	80	0.185												
1,1-Dichloroethene							C	0.50	0.338	D	1.0	0.312	E	2.0	0.294
	F	5.0	0.294	G	10	0.268	H	20	0.294	I	40	0.290	J	60	0.287
	K	80	0.291												
Acetone	A	4.0	0.0475	B	8.0	0.0476	C	20	0.0372	D	40	0.0385	E	80	0.0358
	F	100	0.0365	G	200	0.0367	H	400	0.0398	I	800	0.0379	J	1600	0.0367
	K	2000	0.0357												
Methylene Chloride							C	0.50	0.385	D	1.0	0.367	E	2.0	0.336
	F	5.0	0.319	G	10	0.314	H	20	0.316	I	40	0.306	J	60	0.309
	K	80	0.310												
Methyl tert-Butyl Ether	A	0.20	0.724	B	0.40	0.787	C	1.0	0.688	D	2.0	0.686	E	4.0	0.674
	F	10	0.680	G	20	0.709	H	40	0.713	I	80	0.708	J	120	0.715
	K	160	0.711												
trans-1,2-Dichloroethene				B	0.20	0.461	C	0.50	0.340	D	1.0	0.338	E	2.0	0.317
	F	5.0	0.321	G	10	0.321	H	20	0.328	I	40	0.322	J	60	0.323
	K	80	0.328												
1,1-Dichloroethane				B	0.20	0.728	C	0.50	0.588	D	1.0	0.615	E	2.0	0.567
	F	5.0	0.550	G	10	0.556	H	20	0.566	I	40	0.552	J	60	0.553
	K	80	0.564												

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

† **SPCC Compound** ‡ **CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/05/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14525 **Column:** MS
Instrument ID: GCMS46

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
cis-1,2-Dichloroethene				B	0.20	0.498	C	0.50	0.400	D	1.0	0.368	E	2.0	0.383
	F	5.0	0.343	G	10	0.358	H	20	0.367	I	40	0.353	J	60	0.355
	K	80	0.359												
2-Butanone (MEK)				B	8.0	0.0161	C	20	0.0160	D	40	0.0169	E	80	0.0155
	F	100	0.0157	G	200	0.0169	H	400	0.0180	I	800	0.0173	J	1600	0.0172
	K	2000	0.0170												
Chloroform	A	0.10	0.641	B	0.20	0.667	C	0.50	0.658	D	1.0	0.598	E	2.0	0.588
	F	5.0	0.576	G	10	0.578	H	20	0.593	I	40	0.576	J	60	0.574
	K	80	0.584												
1,1,1-Trichloroethane (TCA)				B	0.20	0.661	C	0.50	0.577	D	1.0	0.585	E	2.0	0.546
	F	5.0	0.555	G	10	0.534	H	20	0.563	I	40	0.555	J	60	0.551
	K	80	0.566												
Carbon Tetrachloride				B	0.20	0.547	C	0.50	0.506	D	1.0	0.504	E	2.0	0.491
	F	5.0	0.480	G	10	0.464	H	20	0.506	I	40	0.505	J	60	0.508
	K	80	0.520												
Benzene	A	0.10	1.75	B	0.20	1.45	C	0.50	1.44	D	1.0	1.37	E	2.0	1.32
	F	5.0	1.32	G	10	1.35	H	20	1.37	I	40	1.33	J	60	1.33
	K	80	1.35												
Trichloroethene (TCE)				B	0.20	0.440	C	0.50	0.404	D	1.0	0.392	E	2.0	0.371
	F	5.0	0.355	G	10	0.358	H	20	0.371	I	40	0.362	J	60	0.360
	K	80	0.370												
1,2-Dichloropropane				B	0.20	0.395	C	0.50	0.359	D	1.0	0.327	E	2.0	0.333
	F	5.0	0.336	G	10	0.340	H	20	0.346	I	40	0.333	J	60	0.334
	K	80	0.338												
cis-1,3-Dichloropropene				B	0.20	0.569	C	0.50	0.504	D	1.0	0.522	E	2.0	0.495
	F	5.0	0.500	G	10	0.525	H	20	0.543	I	40	0.533	J	60	0.542
	K	80	0.549												
4-Methyl-2-pentanone (MIBK)				B	8.0	0.0590	C	20	0.0601	D	40	0.0622	E	80	0.0609
	F	100	0.0611	G	200	0.0647	H	400	0.0661	I	800	0.0647	J	1600	0.0636
	K	2000	0.0626												
Toluene	A	0.10	0.940	B	0.20	0.985	C	0.50	0.872	D	1.0	0.918	E	2.0	0.876
	F	5.0	0.863	G	10	0.866	H	20	0.885	I	40	0.865	J	60	0.867
	K	80	0.887												
trans-1,3-Dichloropropene				B	0.20	1.22	C	0.50	0.955	D	1.0	0.927	E	2.0	0.973
	F	5.0	0.958	G	10	1.04	H	20	1.08	I	40	1.06	J	60	1.07
	K	80	1.06												

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/05/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14525 **Column:** MS
Instrument ID: GCMS46

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,1,2-Trichloroethane				B	0.20	0.499	C	0.50	0.479	D	1.0	0.485	E	2.0	0.473
	F	5.0	0.486	G	10	0.500	H	20	0.496	I	40	0.491	J	60	0.490
	K	80	0.485												
Tetrachloroethene (PCE)	A	0.10	0.843	B	0.20	0.714	C	0.50	0.750	D	1.0	0.806	E	2.0	0.772
	F	5.0	0.795	G	10	0.760	H	20	0.799	I	40	0.795	J	60	0.800
	K	80	0.799												
1,2-Dibromoethane (EDB)				B	0.20	0.639	C	0.50	0.529	D	1.0	0.564	E	2.0	0.534
	F	5.0	0.552	G	10	0.571	H	20	0.585	I	40	0.574	J	60	0.580
	K	80	0.574												
Chlorobenzene	A	0.10	2.68	B	0.20	2.35	C	0.50	2.35	D	1.0	2.43	E	2.0	2.33
	F	5.0	2.25	G	10	2.34	H	20	2.36	I	40	2.33	J	60	2.34
	K	80	2.33												
Ethylbenzene	A	0.10	1.48	B	0.20	1.42	C	0.50	1.35	D	1.0	1.34	E	2.0	1.26
	F	5.0	1.26	G	10	1.29	H	20	1.30	I	40	1.29	J	60	1.28
	K	80	1.28												
1,1,1,2-Tetrachloroethane	A	0.10	1.04	B	0.20	0.799	C	0.50	0.762	D	1.0	0.721	E	2.0	0.768
	F	5.0	0.780	G	10	0.824	H	20	0.843	I	40	0.859	J	60	0.861
	K	80	0.862												
m,p-Xylenes	A	0.20	1.73	B	0.40	1.62	C	1.0	1.55	D	2.0	1.67	E	4.0	1.61
	F	10	1.58	G	20	1.59	H	40	1.61	I	80	1.59	J	120	1.57
	K	160	1.56												
o-Xylene	A	0.10	1.82	B	0.20	1.72	C	0.50	1.65	D	1.0	1.61	E	2.0	1.47
	F	5.0	1.50	G	10	1.53	H	20	1.55	I	40	1.53	J	60	1.52
	K	80	1.52												
Styrene							C	0.50	1.24	D	1.0	1.15	E	2.0	1.19
	F	5.0	1.21	G	10	1.23	H	20	1.25	I	40	1.23	J	60	1.23
	K	80	1.21												
Bromoform				B	0.20	0.380	C	0.50	0.342	D	1.0	0.348	E	2.0	0.333
	F	5.0	0.357	G	10	0.385	H	20	0.414	I	40	0.431	J	60	0.451
1,2,3-Trichloropropane							C	0.50	0.212	D	1.0	0.242	E	2.0	0.215
	F	5.0	0.200	G	10	0.208	H	20	0.207	I	40	0.199	J	60	0.198
	K	80	0.199												
1,3-Dichlorobenzene	A	0.10	2.31	B	0.20	2.12	C	0.50	2.11	D	1.0	1.96	E	2.0	1.96
	F	5.0	1.91	G	10	2.03	H	20	2.04	I	40	1.96	J	60	1.97
	K	80	2.00												

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/05/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14525 **Column:** MS
Instrument ID: GCMS46

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,4-Dichlorobenzene	A	0.10	2.39	B	0.20	2.19	C	0.50	1.98	D	1.0	2.00	E	2.0	2.04
	F	5.0	1.91	G	10	2.02	H	20	2.05	I	40	1.96	J	60	1.97
	K	80	2.01												
1,2-Dichlorobenzene				B	0.20	1.93	C	0.50	1.70	D	1.0	1.75	E	2.0	1.77
	F	5.0	1.71	G	10	1.78	H	20	1.83	I	40	1.74	J	60	1.73
	K	80	1.77												
1,2-Dibromo-3-chloropropane							C	0.50	0.0830	D	1.0	0.0985	E	2.0	0.0910
	F	5.0	0.0808	G	10	0.0868	H	20	0.0903	I	40	0.0861	J	60	0.0891
	K	80	0.0919												
1,2,4-Trichlorobenzene				B	0.20	1.17	C	0.50	1.06	D	1.0	1.02	E	2.0	1.04
	F	5.0	1.06	G	10	1.11	H	20	1.16	I	40	1.10	J	60	1.13
	K	80	1.19												
Hexachlorobutadiene							C	0.50	0.498	D	1.0	0.473	E	2.0	0.455
	F	5.0	0.480	G	10	0.475	H	20	0.506	I	40	0.495	J	60	0.502
	K	80	0.536												
Dibromofluoromethane										D	4.0	0.284	E	6.0	0.272
	F	8.0	0.269	G	10	0.283	H	12	0.293	I	14	0.283	J	16	0.289
	K	20	0.300												
1,2-Dichloroethane-d4										D	4.0	0.299	E	6.0	0.284
	F	8.0	0.285	G	10	0.298	H	12	0.301	I	14	0.288	J	16	0.294
	K	20	0.301												
Toluene-d8										D	4.0	1.09	E	6.0	1.01
	F	8.0	1.06	G	10	1.11	H	12	1.14	I	14	1.11	J	16	1.11
	K	20	1.17												
4-Bromofluorobenzene										D	4.0	1.02	E	6.0	0.974
	F	8.0	1.00	G	10	1.04	H	12	1.07	I	14	1.04	J	16	1.04
	K	20	1.05												

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/05/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14525 **Column:** MS
Instrument ID: GCMS46

		Calibration Evaluation					RRF Evaluation		
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**	**Average RRF**	**Q**	**Minimum RRF**
Chloromethane	MS	AverageRF	% RSD	3.5		≤ 15	0.383		0.100
Vinyl Chloride	MS	AverageRF	% RSD	4.9		≤ 15	0.344		0.100
Bromomethane	MS	AverageRF	% RSD	7.4		≤ 15	0.194		0.100
Chloroethane	MS	AverageRF	% RSD	4.3		≤ 15	0.188		0.100
1,1-Dichloroethene	MS	AverageRF	% RSD	6.5		≤ 15	0.296		.100
Acetone	MS	AverageRF	% RSD	11.2		≤ 15	0.0391		0.01
Methylene Chloride	MS	AverageRF	% RSD	8.6		≤ 15	0.329		0.100
Methyl tert-Butyl Ether	MS	AverageRF	% RSD	4.3		≤ 15	0.709		0.100
trans-1,2-Dichloroethene	MS	AverageRF	% RSD	12.7		≤ 15	0.340		0.100
1,1-Dichloroethane	MS	AverageRF	% RSD	9.3		≤ 15	0.584		.200
cis-1,2-Dichloroethene	MS	AverageRF	% RSD	11.9		≤ 15	0.378		0.100
2-Butanone (MEK)	MS	AverageRF	% RSD	4.9		≤ 15	0.0167		0.01
Chloroform	MS	AverageRF	% RSD	5.8		≤ 15	0.603		0.200
1,1,1-Trichloroethane (TCA)	MS	AverageRF	% RSD	6.3		≤ 15	0.569		.100
Carbon Tetrachloride	MS	AverageRF	% RSD	4.4		≤ 15	0.503		0.100
Benzene	MS	AverageRF	% RSD	8.8		≤ 15	1.40		0.500
Trichloroethene (TCE)	MS	AverageRF	% RSD	7.0		≤ 15	0.378		0.200
1,2-Dichloropropane	MS	AverageRF	% RSD	5.8		≤ 15	0.344		0.100
cis-1,3-Dichloropropene	MS	AverageRF	% RSD	4.5		≤ 15	0.528		0.200
4-Methyl-2-pentanone (MIBK)	MS	AverageRF	% RSD	3.6		≤ 15	0.0625		0.01
Toluene	MS	AverageRF	% RSD	4.4		≤ 15	0.893		0.400
trans-1,3-Dichloropropene	MS	AverageRF	% RSD	8.3		≤ 15	1.03		0.100
1,1,2-Trichloroethane	MS	AverageRF	% RSD	1.7		≤ 15	0.488		.100
Tetrachloroethene (PCE)	MS	AverageRF	% RSD	4.3		≤ 15	0.785		0.200
1,2-Dibromoethane (EDB)	MS	AverageRF	% RSD	5.4		≤ 15	0.570		0.100
Chlorobenzene	MS	AverageRF	% RSD	4.7		≤ 15	2.37		0.500
Ethylbenzene	MS	AverageRF	% RSD	5.3		≤ 15	1.32		0.100
1,1,1,2-Tetrachloroethane	MS	AverageRF	% RSD	10.0		≤ 15	0.829		.01
m,p-Xylenes	MS	AverageRF	% RSD	3.3		≤ 15	1.61		0.100
o-Xylene	MS	AverageRF	% RSD	6.7		≤ 15	1.58		0.300
Styrene	MS	AverageRF	% RSD	2.5		≤ 15	1.21		0.300
Bromoform	MS	AverageRF	% RSD	11.0		≤ 15	0.382		0.100
1,2,3-Trichloropropane	MS	AverageRF	% RSD	6.7		≤ 15	0.209		0.01
1,3-Dichlorobenzene	MS	AverageRF	% RSD	5.5		≤ 15	2.04		0.600
1,4-Dichlorobenzene	MS	AverageRF	% RSD	6.5		≤ 15	2.05		0.500
1,2-Dichlorobenzene	MS	AverageRF	% RSD	3.9		≤ 15	1.77		0.400
1,2-Dibromo-3-chloropropane	MS	AverageRF	% RSD	5.9		≤ 15	0.0886		0.025
1,2,4-Trichlorobenzene	MS	AverageRF	% RSD	5.3		≤ 15	1.10		0.200
Hexachlorobutadiene	MS	AverageRF	% RSD	4.8		≤ 15	0.491		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	3.6		≤ 15	0.284		0.01
1,2-Dichloroethane-d4	SURR	AverageRF	% RSD	2.5		≤ 15	0.294		0.01
Toluene-d8	SURR	AverageRF	% RSD	4.4		≤ 15	1.10		0.01

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/05/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14525 **Column:** MS
Instrument ID: GCMS46

		Calibration Evaluation					RRF Evaluation		
Analyte Name	Compound Type	Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.0		≤ 15	1.03		0.01

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Calibration Date: 01/05/2016
Date Analyzed: 01/06/2016

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL14525
Units: PPB

File ID: J:\MS46\DATA\010516\0105F031.D
J:\MS46\DATA\010516\0105F032.D
J:\MS46\DATA\010516\0105F033.D
J:\MS46\DATA\010616\0106F005.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	10	10	0.383	0.393	3	NA	± 20 %	AverageRF
Vinyl Chloride	10	9.9	0.344	0.340	-1	NA	± 20 %	AverageRF
Bromomethane	10	11	0.194	0.205	6	NA	± 20 %	AverageRF
Chloroethane	10	11	0.188	0.201	7	NA	± 20 %	AverageRF
1,1-Dichloroethene	10	9.9	0.296	0.293	-1	NA	± 20 %	AverageRF
Acetone	50	53	0.0391	0.0416	6	NA	± 20 %	AverageRF
Methylene Chloride	10	9.9	0.329	0.327	-1	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	10	10	0.709	0.719	1	NA	± 20 %	AverageRF
trans-1,2-Dichloroethene	10	9.6	0.340	0.325	-4	NA	± 20 %	AverageRF
1,1-Dichloroethane	10	10	0.584	0.595	2	NA	± 20 %	AverageRF
cis-1,2-Dichloroethene	10	9.5	0.378	0.360	-5	NA	± 20 %	AverageRF
2-Butanone (MEK)	50	52	0.0167	0.0172	3	NA	± 20 %	AverageRF
Chloroform	10	10	0.603	0.610	1	NA	± 20 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	9.6	0.569	0.547	-4	NA	± 20 %	AverageRF
Carbon Tetrachloride	10	9.8	0.503	0.495	-2	NA	± 20 %	AverageRF
Benzene	10	9.7	1.40	1.36	-3	NA	± 20 %	AverageRF
Trichloroethene (TCE)	10	9.8	0.378	0.371	-2	NA	± 20 %	AverageRF
1,2-Dichloropropane	10	9.7	0.344	0.335	-3	NA	± 20 %	AverageRF
cis-1,3-Dichloropropene	10	9.6	0.528	0.509	-4	NA	± 20 %	AverageRF
4-Methyl-2-pentanone (MIBK)	50	54	0.0625	0.0675	8	NA	± 20 %	AverageRF
Toluene	10	9.6	0.893	0.860	-4	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	9.5	1.03	0.978	-5	NA	± 20 %	AverageRF
1,1,2-Trichloroethane	10	9.8	0.488	0.476	-2	NA	± 20 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.785	0.804	2	NA	± 20 %	AverageRF
1,2-Dibromoethane (EDB)	10	9.6	0.570	0.548	-4	NA	± 20 %	AverageRF
Chlorobenzene	10	9.8	2.37	2.33	-2	NA	± 20 %	AverageRF
Ethylbenzene	10	9.6	1.32	1.27	-4	NA	± 20 %	AverageRF
1,1,1,2-Tetrachloroethane	10	9.5	0.829	0.784	-5	NA	± 20 %	AverageRF
m,p-Xylenes	20	20	1.61	1.57	-2	NA	± 20 %	AverageRF
o-Xylene	10	9.7	1.58	1.54	-3	NA	± 20 %	AverageRF
Styrene	10	9.2	1.21	1.12	-8	NA	± 20 %	AverageRF
Bromoform	10	9.6	0.382	0.366	-4	NA	± 20 %	AverageRF
1,2,3-Trichloropropane	10	9.3	0.209	0.194	-7	NA	± 20 %	AverageRF
1,3-Dichlorobenzene	10	9.6	2.04	1.96	-4	NA	± 20 %	AverageRF
1,4-Dichlorobenzene	10	9.6	2.05	1.97	-4	NA	± 20 %	AverageRF
1,2-Dichlorobenzene	10	9.9	1.77	1.75	-1	NA	± 20 %	AverageRF
1,2-Dibromo-3-chloropropane	10	9.4	0.0886	0.0832	-6	NA	± 20 %	AverageRF

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/150037

Service Request: K1600673
Calibration Date: 01/05/2016
Date Analyzed: 01/06/2016

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL14525
Units: PPB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
1,2,4-Trichlorobenzene	10	10	1.10	1.10	0	NA	± 20 %	AverageRF
Hexachlorobutadiene	10	10	0.491	0.496	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/150037

Service Request: K1600673
Date Analyzed: 01/22/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 01/05/2016
Calibration ID: CAL14525
Analysis Lot: KWG1600615
Units: PPB

File ID: J:\MS46\DATA\012216\0122F011.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D		%Drift	Criteria	Curve Fit
Chloromethane	10	10	0.100	0.383	0.384	0		NA	± 20	AverageRF
Vinyl Chloride	10	11	0.100	0.344	0.369	7		NA	± 20	AverageRF
Bromomethane	10	12	0.100	0.194	0.238	23	*	NA	± 20	AverageRF
Chloroethane	10	11	0.100	0.188	0.215	15		NA	± 20	AverageRF
1,1-Dichloroethene	10	10	.100	0.296	0.303	2		NA	± 20	AverageRF
Acetone	200	190	0.01	0.0391	0.0380	-3		NA	± 20	AverageRF
Methylene Chloride	10	11	0.100	0.329	0.354	8		NA	± 20	AverageRF
Methyl tert-Butyl Ether	20	20	0.100	0.709	0.716	1		NA	± 20	AverageRF
trans-1,2-Dichloroethene	10	10	0.100	0.340	0.346	2		NA	± 20	AverageRF
1,1-Dichloroethane	10	11	.200	0.584	0.618	6		NA	± 20	AverageRF
cis-1,2-Dichloroethene	10	10	0.100	0.378	0.388	3		NA	± 20	AverageRF
2-Butanone (MEK)	200	190	0.01	0.0167	0.0160	-4		NA	± 20	AverageRF
Chloroform	10	11	0.200	0.603	0.661	10		NA	± 20	AverageRF
1,1,1-Trichloroethane (TCA)	10	10	.100	0.569	0.594	4		NA	± 20	AverageRF
Carbon Tetrachloride	10	10	0.100	0.503	0.521	4		NA	± 20	AverageRF
Benzene	10	10	0.500	1.40	1.40	0		NA	± 20	AverageRF
Trichloroethene (TCE)	10	10	0.200	0.378	0.387	2		NA	± 20	AverageRF
1,2-Dichloropropane	10	9.8	0.100	0.344	0.337	-2		NA	± 20	AverageRF
cis-1,3-Dichloropropene	10	10	0.200	0.528	0.526	0		NA	± 20	AverageRF
4-Methyl-2-pentanone (MIBK)	200	190	0.01	0.0625	0.0586	-6		NA	± 20	AverageRF
Toluene	10	10	0.400	0.893	0.892	0		NA	± 20	AverageRF
trans-1,3-Dichloropropene	10	9.8	0.100	1.03	1.02	-2		NA	± 20	AverageRF
1,1,2-Trichloroethane	10	11	.100	0.488	0.520	6		NA	± 20	AverageRF
Tetrachloroethene (PCE)	10	11	0.200	0.785	0.889	13		NA	± 20	AverageRF
1,2-Dibromoethane (EDB)	10	11	0.100	0.570	0.603	6		NA	± 20	AverageRF
Chlorobenzene	10	11	0.500	2.37	2.56	8		NA	± 20	AverageRF
Ethylbenzene	10	10	0.100	1.32	1.34	1		NA	± 20	AverageRF
1,1,1,2-Tetrachloroethane	10	11	.01	0.829	0.891	8		NA	± 20	AverageRF
m,p-Xylenes	20	21	0.100	1.61	1.68	4		NA	± 20	AverageRF
o-Xylene	10	9.9	0.300	1.58	1.56	-1		NA	± 20	AverageRF
Styrene	10	10	0.300	1.21	1.26	3		NA	± 20	AverageRF
Bromoform	10	10	0.100	0.382	0.385	1		NA	± 20	AverageRF
1,2,3-Trichloropropane	10	9.3	0.01	0.209	0.194	-7		NA	± 20	AverageRF
1,3-Dichlorobenzene	10	10	0.600	2.04	2.06	1		NA	± 20	AverageRF
1,4-Dichlorobenzene	10	10	0.500	2.05	2.07	1		NA	± 20	AverageRF
1,2-Dichlorobenzene	10	10	0.400	1.77	1.84	4		NA	± 20	AverageRF
1,2-Dibromo-3-chloropropane	10	9.0	0.025	0.0886	0.0796	-10		NA	± 20	AverageRF
1,2,4-Trichlorobenzene	10	10	0.200	1.10	1.11	1		NA	± 20	AverageRF
Hexachlorobutadiene	10	11	0.01	0.491	0.535	9		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/150037

Service Request: K1600673
Date Analyzed: 01/22/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 01/05/2016
Calibration ID: CAL14525
Analysis Lot: KWG1600615
Units: PPB

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dibromofluoromethane	10	10	0.01	0.284	0.298	5	NA	± 20	AverageRF
1,2-Dichloroethane-d4	10	10	0.01	0.294	0.307	4	NA	± 20	AverageRF
Toluene-d8	10	9.8	0.01	1.10	1.08	-2	NA	± 20	AverageRF
4-Bromofluorobenzene	10	9.6	0.01	1.03	0.991	-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/150037

Service Request: K1600673
Date Analyzed: 01/23/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 01/05/2016
Calibration ID: CAL14525
Analysis Lot: KWG1600615
Units: PPB

File ID: J:\MS46\DATA\012216\0122F032.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	10	10	0.100	0.383	0.394	3	NA	± 50 %	AverageRF
Vinyl Chloride	10	11	0.100	0.344	0.389	13	NA	± 50 %	AverageRF
Bromomethane	10	11	0.100	0.194	0.207	7	NA	± 50 %	AverageRF
Chloroethane	10	12	0.100	0.188	0.234	25	NA	± 50 %	AverageRF
1,1-Dichloroethene	10	11	.100	0.296	0.315	6	NA	± 50 %	AverageRF
Acetone	200	210	0.01	0.0391	0.0409	5	NA	± 50 %	AverageRF
Methylene Chloride	10	11	0.100	0.329	0.372	13	NA	± 50 %	AverageRF
Methyl tert-Butyl Ether	20	21	0.100	0.709	0.744	5	NA	± 50 %	AverageRF
trans-1,2-Dichloroethene	10	11	0.100	0.340	0.358	5	NA	± 50 %	AverageRF
1,1-Dichloroethane	10	11	.200	0.584	0.615	5	NA	± 50 %	AverageRF
cis-1,2-Dichloroethene	10	11	0.100	0.378	0.403	7	NA	± 50 %	AverageRF
2-Butanone (MEK)	200	200	0.01	0.0167	0.0170	2	NA	± 50 %	AverageRF
Chloroform	10	11	0.200	0.603	0.677	12	NA	± 50 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	.100	0.569	0.613	8	NA	± 50 %	AverageRF
Carbon Tetrachloride	10	11	0.100	0.503	0.536	6	NA	± 50 %	AverageRF
Benzene	10	10	0.500	1.40	1.44	3	NA	± 50 %	AverageRF
Trichloroethene (TCE)	10	11	0.200	0.378	0.419	11	NA	± 50 %	AverageRF
1,2-Dichloropropane	10	10	0.100	0.344	0.357	4	NA	± 50 %	AverageRF
cis-1,3-Dichloropropene	10	9.8	0.200	0.528	0.520	-2	NA	± 50 %	AverageRF
4-Methyl-2-pentanone (MIBK)	200	200	0.01	0.0625	0.0611	-2	NA	± 50 %	AverageRF
Toluene	10	10	0.400	0.893	0.928	4	NA	± 50 %	AverageRF
trans-1,3-Dichloropropene	10	9.2	0.100	1.03	0.954	-8	NA	± 50 %	AverageRF
1,1,2-Trichloroethane	10	11	.100	0.488	0.519	6	NA	± 50 %	AverageRF
Tetrachloroethene (PCE)	10	11	0.200	0.785	0.868	11	NA	± 50 %	AverageRF
1,2-Dibromoethane (EDB)	10	11	0.100	0.570	0.604	6	NA	± 50 %	AverageRF
Chlorobenzene	10	11	0.500	2.37	2.51	6	NA	± 50 %	AverageRF
Ethylbenzene	10	9.8	0.100	1.32	1.30	-2	NA	± 50 %	AverageRF
1,1,1,2-Tetrachloroethane	10	10	.01	0.829	0.853	3	NA	± 50 %	AverageRF
m,p-Xylenes	20	20	0.100	1.61	1.62	1	NA	± 50 %	AverageRF
o-Xylene	10	9.6	0.300	1.58	1.53	-4	NA	± 50 %	AverageRF
Styrene	10	10	0.300	1.21	1.23	2	NA	± 50 %	AverageRF
Bromoform	10	9.7	0.100	0.382	0.370	-3	NA	± 50 %	AverageRF
1,2,3-Trichloropropane	10	9.1	0.01	0.209	0.190	-9	NA	± 50 %	AverageRF
1,3-Dichlorobenzene	10	10	0.600	2.04	2.06	1	NA	± 50 %	AverageRF
1,4-Dichlorobenzene	10	10	0.500	2.05	2.06	0	NA	± 50 %	AverageRF
1,2-Dichlorobenzene	10	10	0.400	1.77	1.78	0	NA	± 50 %	AverageRF
1,2-Dibromo-3-chloropropane	10	7.9	0.025	0.0886	0.0696	-21	NA	± 50 %	AverageRF
1,2,4-Trichlorobenzene	10	10	0.200	1.10	1.10	0	NA	± 50 %	AverageRF
Hexachlorobutadiene	10	10	0.01	0.491	0.505	3	NA	± 50 %	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/150037

Service Request: K1600673
Date Analyzed: 01/23/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 01/05/2016
Calibration ID: CAL14525
Analysis Lot: KWG1600615
Units: PPB

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dibromofluoromethane	10	10	0.01	0.284	0.294	4	NA	± 50 %	AverageRF
1,2-Dichloroethane-d4	10	11	0.01	0.294	0.321	9	NA	± 50 %	AverageRF
Toluene-d8	10	9.9	0.01	1.10	1.09	-1	NA	± 50 %	AverageRF
4-Bromofluorobenzene	10	9.4	0.01	1.03	0.967	-6	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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C **Analysis Lot:** KWG1600615
Instrument ID: GCMS46

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0122F010.D	GC/MS Tuning - Bromofluorobenzene	KWG1600615-1	1/22/2016	17:45		1/22/2016	18:02
0122F011.D	Continuing Calibration Verification	KWG1600615-2	1/22/2016	18:19		1/22/2016	18:36
0122F012.D	Lab Control Sample	KWG1600614-3	1/22/2016	18:53		1/22/2016	19:10
0122F013.D	ERH018MS	KWG1600614-1	1/22/2016	19:30		1/22/2016	19:47
0122F014.D	ERH018DMS	KWG1600614-2	1/22/2016	19:56		1/22/2016	20:13
0122F016.D	Method Blank	KWG1600614-4	1/22/2016	20:49		1/22/2016	21:06
0122F017.D	ERH018	K1600673-004	1/22/2016	21:15		1/22/2016	21:32
0122F018.D	ERH015	K1600673-001	1/22/2016	21:41		1/22/2016	21:58
0122F019.D	ERH016	K1600673-002	1/22/2016	22:07		1/22/2016	22:24
0122F020.D	ERH017	K1600673-003	1/22/2016	22:33		1/22/2016	22:50
0122F021.D	ERH019	K1600673-005	1/22/2016	22:59		1/22/2016	23:16
0122F022.D	ERH020	K1600673-006	1/22/2016	23:26		1/22/2016	23:43
0122F023.D	ERH021	K1600673-007	1/22/2016	23:52		1/23/2016	00:09
0122F024.D	ERH022	K1600673-008	1/23/2016	00:18		1/23/2016	00:35
0122F025.D	ERH023	K1600673-009	1/23/2016	00:44		1/23/2016	01:01
0122F026.D	ERH024	K1600673-010	1/23/2016	01:10		1/23/2016	01:27
0122F027.D	ERH025	K1600673-011	1/23/2016	01:36		1/23/2016	01:53
0122F028.D	ERH026	K1600673-012	1/23/2016	02:02		1/23/2016	02:19
0122F029.D	ERH027	K1600673-013	1/23/2016	02:29		1/23/2016	02:46
0122F030.D	ERH028	K1600673-014	1/23/2016	02:55		1/23/2016	03:12
0122F031.D	TRIP BLANK	K1600673-015	1/23/2016	03:21		1/23/2016	03:38
0122F032.D	Continuing Calibration Verification	KWG1600615-3	1/23/2016	03:47		1/23/2016	04:04

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 01/22/2016

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Extraction Lot: KWG1600614
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH015	K1600673-001	01/19/16	01/22/16	10ml	10ml	NA	
ERH016	K1600673-002	01/19/16	01/22/16	10ml	10ml	NA	
ERH017	K1600673-003	01/19/16	01/22/16	10ml	10ml	NA	
ERH018	K1600673-004	01/19/16	01/22/16	10ml	10ml	NA	
ERH019	K1600673-005	01/19/16	01/22/16	10ml	10ml	NA	
ERH020	K1600673-006	01/19/16	01/22/16	10ml	10ml	NA	
ERH021	K1600673-007	01/20/16	01/22/16	10ml	10ml	NA	
ERH022	K1600673-008	01/20/16	01/22/16	10ml	10ml	NA	
ERH023	K1600673-009	01/20/16	01/22/16	10ml	10ml	NA	
ERH024	K1600673-010	01/20/16	01/22/16	10ml	10ml	NA	
ERH025	K1600673-011	01/20/16	01/22/16	10ml	10ml	NA	
ERH026	K1600673-012	01/20/16	01/22/16	10ml	10ml	NA	
ERH027	K1600673-013	01/21/16	01/22/16	10ml	10ml	NA	
ERH028	K1600673-014	01/21/16	01/22/16	10ml	10ml	NA	
TRIP BLANK	K1600673-015	01/19/16	01/22/16	10ml	10ml	NA	
Method Blank	KWG1600614-4	NA	NA	10ml	10ml	NA	
ERH018MS	KWG1600614-1	01/19/16	01/22/16	10ml	10ml	NA	
ERH018DMS	KWG1600614-2	01/19/16	01/22/16	10ml	10ml	NA	
Lab Control Sample	KWG1600614-3	NA	NA	10ml	10ml	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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
ERH015	K1600673-001	01/19/2016	01/22/2016
ERH016	K1600673-002	01/19/2016	01/22/2016
ERH017	K1600673-003	01/19/2016	01/22/2016
ERH018	K1600673-004	01/19/2016	01/22/2016
ERH019	K1600673-005	01/19/2016	01/22/2016
ERH020	K1600673-006	01/19/2016	01/22/2016
ERH021	K1600673-007	01/20/2016	01/22/2016
ERH022	K1600673-008	01/20/2016	01/22/2016
ERH023	K1600673-009	01/20/2016	01/22/2016
ERH024	K1600673-010	01/20/2016	01/22/2016
ERH025	K1600673-011	01/20/2016	01/22/2016
ERH026	K1600673-012	01/20/2016	01/22/2016
ERH027	K1600673-013	01/21/2016	01/22/2016
ERH028	K1600673-014	01/21/2016	01/22/2016
TRIP BLANK	K1600673-015	01/19/2016	01/22/2016
ERH018MS	KWG1600835-1	01/19/2016	01/22/2016
ERH018DMS	KWG1600835-2	01/19/2016	01/22/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH015	**Units:**	ng/L
Lab Code:	K1600673-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	77-123	01/29/16	Acceptable
Toluene-d8	122	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	104	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH016	**Units:**	ng/L
Lab Code:	K1600673-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	**9.6**	J	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	109	77-123	01/29/16	Acceptable
Toluene-d8	121	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	104	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH017	**Units:**	ng/L
Lab Code:	K1600673-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	77-123	01/29/16	Acceptable
Toluene-d8	121	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	103	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH018	**Units:**	ng/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	02/01/16	02/01/16	KWG1600835	
Dibromochloromethane	ND	U	20	8.8	1	02/01/16	02/01/16	KWG1600835	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	02/01/16	02/01/16	KWG1600835	
Bromodichloromethane	**6.2**	J	20	3.4	1	02/01/16	02/01/16	KWG1600835	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	114	77-123	02/01/16	Acceptable
Toluene-d8	118	74-112	02/01/16	Outside Control Limits
4-Bromofluorobenzene	100	46-118	02/01/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH019	**Units:**	ng/L
Lab Code:	K1600673-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	77-123	01/29/16	Acceptable
Toluene-d8	121	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	102	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH020	**Units:**	ng/L
Lab Code:	K1600673-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	77-123	01/29/16	Acceptable
Toluene-d8	121	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	101	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH021	**Units:**	ng/L
Lab Code:	K1600673-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	112	77-123	01/29/16	Acceptable
Toluene-d8	119	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	103	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH022	**Units:**	ng/L
Lab Code:	K1600673-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	77-123	01/29/16	Acceptable
Toluene-d8	119	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	101	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH023	**Units:**	ng/L
Lab Code:	K1600673-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	77-123	01/29/16	Acceptable
Toluene-d8	120	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	101	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH024	**Units:**	ng/L
Lab Code:	K1600673-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	77-123	01/29/16	Acceptable
Toluene-d8	120	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	111	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH025	**Units:**	ng/L
Lab Code:	K1600673-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	**6.7**	J	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	112	77-123	01/29/16	Acceptable
Toluene-d8	124	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	120	46-118	01/29/16	Outside Control Limits

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH026	**Units:**	ng/L
Lab Code:	K1600673-012	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	77-123	01/29/16	Acceptable
Toluene-d8	120	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	102	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH027	**Units:**	ng/L
Lab Code:	K1600673-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	**6.4**	J	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	77-123	01/29/16	Acceptable
Toluene-d8	119	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	101	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	ERH028	**Units:**	ng/L
Lab Code:	K1600673-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	**8.3**	J	20	5.8	1	02/01/16	02/01/16	KWG1600835	
Dibromochloromethane	ND	U	20	8.8	1	02/01/16	02/01/16	KWG1600835	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	02/01/16	02/01/16	KWG1600835	
Bromodichloromethane	ND	U	20	3.4	1	02/01/16	02/01/16	KWG1600835	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	115	77-123	02/01/16	Acceptable
Toluene-d8	116	74-112	02/01/16	Outside Control Limits
4-Bromofluorobenzene	102	46-118	02/01/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Volatile Organic Compounds

Sample Name:	TRIP BLANK	**Units:**	ng/L
Lab Code:	K1600673-015	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	**6.2**	J	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	113	77-123	01/29/16	Acceptable
Toluene-d8	120	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	103	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1600798-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	01/29/16	01/29/16	KWG1600798	
Dibromochloromethane	ND	U	20	8.8	1	01/29/16	01/29/16	KWG1600798	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	01/29/16	01/29/16	KWG1600798	
Bromodichloromethane	ND	U	20	3.4	1	01/29/16	01/29/16	KWG1600798	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	112	77-123	01/29/16	Acceptable
Toluene-d8	120	74-112	01/29/16	Outside Control Limits
4-Bromofluorobenzene	102	46-118	01/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1600835-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichloroethane	ND	U	20	5.8	1	02/01/16	02/01/16	KWG1600835	
Dibromochloromethane	ND	U	20	8.8	1	02/01/16	02/01/16	KWG1600835	
1,1,2,2-Tetrachloroethane	ND	U	20	8.7	1	02/01/16	02/01/16	KWG1600835	
Bromodichloromethane	ND	U	20	3.4	1	02/01/16	02/01/16	KWG1600835	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	115	77-123	02/01/16	Acceptable
Toluene-d8	118	74-112	02/01/16	Outside Control Limits
4-Bromofluorobenzene	101	46-118	02/01/16	Acceptable

Comments:

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037
Sample Matrix: Water

Surrogate Recovery Summary
Volatile Organic Compounds

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

Sample Name	Lab Code	Sur1	Sur2		Sur3	
Batch QC	K1600554-002	114	122	*	129	*
ERH015	K1600673-001	108	122	*	104	
ERH016	K1600673-002	109	121	*	104	
ERH017	K1600673-003	111	121	*	103	
ERH018	K1600673-004	114	118	*	100	
ERH019	K1600673-005	111	121	*	102	
ERH020	K1600673-006	111	121	*	101	
ERH021	K1600673-007	112	119	*	103	
ERH022	K1600673-008	113	119	*	101	
ERH023	K1600673-009	113	120	*	101	
ERH024	K1600673-010	113	120	*	111	
ERH025	K1600673-011	112	124	*	120	*
ERH026	K1600673-012	111	120	*	102	
ERH027	K1600673-013	113	119	*	101	
ERH028	K1600673-014	115	116	*	102	
TRIP BLANK	K1600673-015	113	120	*	103	
Method Blank	KWG1600798-4	112	120	*	102	
Method Blank	KWG1600835-4	115	118	*	101	
Batch QCMS	KWG1600798-1	109	123	*	130	*
Batch QCDMS	KWG1600798-2	108	123	*	129	*
ERH018MS	KWG1600835-1	111	122	*	115	
ERH018DMS	KWG1600835-2	110	123	*	113	
Lab Control Sample	KWG1600798-3	108	122	*	114	
Lab Control Sample	KWG1600835-3	111	121	*	115	

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	77-123
Sur2	=	Toluene-d8	74-112
Sur3	=	4-Bromofluorobenzene	46-118

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

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

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 01/29/2016
Time Analyzed: 11:47

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS27\DATA\012916_SIM\0129F006.D
Instrument ID: MS27
Analysis Method: 8260C SIM

Lab Code: KWG1600796-2
Analysis Lot: KWG1600796

		Fluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**
	Results ==>	70,324	6.54	50,521	9.70
	Upper Limit ==>	140,648	6.71	101,042	9.87
	Lower Limit ==>	35,162	6.37	25,261	9.53
	ICAL Result ==>	70,142	6.54	51,361	9.70
Associated Analyses					
Lab Control Sample	KWG1600798-3	71,666	6.54	52,732	9.70
Batch QCMS	KWG1600798-1	71,903	6.54	52,950	9.70
Batch QCDMS	KWG1600798-2	74,291	6.54	55,078	9.70
Method Blank	KWG1600798-4	68,793	6.54	48,905	9.70
TRIP BLANK	K1600673-015	68,896	6.54	48,661	9.70
Batch QC	K1600554-002	67,587	6.54	49,164	9.70
ERH025	K1600673-011	70,028	6.54	51,667	9.70
ERH015	K1600673-001	71,724	6.54	51,328	9.70
ERH016	K1600673-002	71,890	6.54	51,344	9.70
ERH017	K1600673-003	68,883	6.54	49,229	9.70
ERH019	K1600673-005	69,037	6.54	48,659	9.70
ERH020	K1600673-006	69,461	6.54	49,181	9.70
ERH021	K1600673-007	69,020	6.54	48,626	9.70
ERH022	K1600673-008	68,241	6.54	48,060	9.70
ERH023	K1600673-009	67,595	6.54	47,939	9.70
ERH024	K1600673-010	67,300	6.54	48,038	9.70
ERH026	K1600673-012	67,901	6.54	48,185	9.70
ERH027	K1600673-013	68,820	6.54	48,628	9.70

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

QA/QC Report

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/01/2016
Time Analyzed: 10:31

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS27\DATA\020116_SIM\0201F004.D
Instrument ID: MS27
Analysis Method: 8260C SIM

Lab Code: KWG1600834-2
Analysis Lot: KWG1600834

		Fluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**
	Results ==>	68,355	6.54	49,999	9.70
	Upper Limit ==>	136,710	6.71	99,998	9.87
	Lower Limit ==>	34,178	6.37	25,000	9.53
	ICAL Result ==>	70,142	6.54	51,361	9.70
Associated Analyses					
Lab Control Sample	KWG1600835-3	70,125	6.54	51,629	9.70
ERH018MS	KWG1600835-1	69,428	6.54	50,764	9.70
ERH018DMS	KWG1600835-2	70,834	6.54	51,754	9.70
Method Blank	KWG1600835-4	66,778	6.54	47,410	9.70
ERH018	K1600673-004	67,287	6.54	47,820	9.70
ERH028	K1600673-014	66,254	6.54	46,349	9.70

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

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/29/2016
Sample Matrix:	Water	**Date Analyzed:**	01/29/2016

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ng/L
Lab Code:	K1600554-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM	**Extraction Lot:**	KWG1600798

		Batch QCMS KWG1600798-1 Matrix Spike			Batch QCDMS KWG1600798-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dichloroethane	81	1720	2000	82	1630	2000	77	70-130	6	20
Dibromochloromethane	ND	1650	2000	82	1550	2000	78	70-130	6	20
1,1,2,2-Tetrachloroethane	ND	1780	2000	89	1680	2000	84	70-130	6	20
Bromodichloromethane	ND	1570	2000	78	1480	2000	74	70-130	6	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.

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	02/01/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	ERH018	**Units:**	ng/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM	**Extraction Lot:**	KWG1600835

		ERH018MS KWG1600835-1 Matrix Spike			ERH018DMS KWG1600835-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dichloroethane	ND	2070	2000	103	2000	2000	100	70-130	3	20
Dibromochloromethane	ND	2050	2000	102	2000	2000	100	70-130	2	20
1,1,2,2-Tetrachloroethane	ND	1920	2000	96	1940	2000	97	70-130	1	20
Bromodichloromethane	6.2	2070	2000	103	1970	2000	98	70-130	5	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/29/2016
Sample Matrix:	Water	**Date Analyzed:**	01/29/2016

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ng/L
Analysis Method:	8260C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600798

Lab Control Sample
KWG1600798-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
1,2-Dichloroethane	1990	2000	99	75-124
Dibromochloromethane	1980	2000	99	63-135
1,1,2,2-Tetrachloroethane	1890	2000	95	70-128
Bromodichloromethane	1960	2000	98	74-121

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	02/01/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ng/L
Analysis Method:	8260C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1600835

	Lab Control Sample KWG1600835-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
1,2-Dichloroethane	1860	2000	93	75-124
Dibromochloromethane	1850	2000	92	63-135
1,1,2,2-Tetrachloroethane	1720	2000	86	70-128
Bromodichloromethane	1840	2000	92	74-121

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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/29/2016
Sample Matrix:	Water	**Date Analyzed:**	01/29/2016
		Time Analyzed:	14:32

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	MS27
Lab Code:	KWG1600798-4	**File ID:**	J:\MS27\DATA\012916_SIM\0129F012.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM	**Extraction Lot:**	KWG1600798

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1600798-3	J:\MS27\DATA\012916_SIM\0129F007.D	01/29/16	12:14
Batch QCMS	KWG1600798-1	J:\MS27\DATA\012916_SIM\0129F008.D	01/29/16	12:42
Batch QCDMS	KWG1600798-2	J:\MS27\DATA\012916_SIM\0129F009.D	01/29/16	13:10
TRIP BLANK	K1600673-015	J:\MS27\DATA\012916_SIM\0129F013.D	01/29/16	15:00
Batch QC	K1600554-002	J:\MS27\DATA\012916_SIM\0129F015.D	01/29/16	15:55
ERH025	K1600673-011	J:\MS27\DATA\012916_SIM\0129F018.D	01/29/16	17:17
ERH015	K1600673-001	J:\MS27\DATA\012916_SIM\0129F019.D	01/29/16	17:45
ERH016	K1600673-002	J:\MS27\DATA\012916_SIM\0129F020.D	01/29/16	18:13
ERH017	K1600673-003	J:\MS27\DATA\012916_SIM\0129F021.D	01/29/16	18:40
ERH019	K1600673-005	J:\MS27\DATA\012916_SIM\0129F022.D	01/29/16	19:08
ERH020	K1600673-006	J:\MS27\DATA\012916_SIM\0129F023.D	01/29/16	19:35
ERH021	K1600673-007	J:\MS27\DATA\012916_SIM\0129F024.D	01/29/16	20:03
ERH022	K1600673-008	J:\MS27\DATA\012916_SIM\0129F025.D	01/29/16	20:30
ERH023	K1600673-009	J:\MS27\DATA\012916_SIM\0129F026.D	01/29/16	20:58
ERH024	K1600673-010	J:\MS27\DATA\012916_SIM\0129F027.D	01/29/16	21:25
ERH026	K1600673-012	J:\MS27\DATA\012916_SIM\0129F028.D	01/29/16	21:53
ERH027	K1600673-013	J:\MS27\DATA\012916_SIM\0129F029.D	01/29/16	22:21

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	02/01/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016
		Time Analyzed:	13:46

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	MS27
Lab Code:	KWG1600835-4	**File ID:**	J:\MS27\DATA\020116_SIM\0201F011.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM	**Extraction Lot:**	KWG1600835

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1600835-3	J:\MS27\DATA\020116_SIM\0201F005.D	02/01/16	10:58
ERH018MS	KWG1600835-1	J:\MS27\DATA\020116_SIM\0201F006.D	02/01/16	11:28
ERH018DMS	KWG1600835-2	J:\MS27\DATA\020116_SIM\0201F007.D	02/01/16	11:56
ERH018	K1600673-004	J:\MS27\DATA\020116_SIM\0201F012.D	02/01/16	14:13
ERH028	K1600673-014	J:\MS27\DATA\020116_SIM\0201F013.D	02/01/16	14:41

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/29/2016
Sample Matrix:	Water	**Date Analyzed:**	01/29/2016
		Time Analyzed:	12:14

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	MS27
Lab Code:	KWG1600798-3	**File ID:**	J:\MS27\DATA\012916_SIM\0129F007.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM	**Extraction Lot:**	KWG1600798

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QCMS	KWG1600798-1	J:\MS27\DATA\012916_SIM\0129F008.D	01/29/16	12:42
Batch QCDMS	KWG1600798-2	J:\MS27\DATA\012916_SIM\0129F009.D	01/29/16	13:10
Method Blank	KWG1600798-4	J:\MS27\DATA\012916_SIM\0129F012.D	01/29/16	14:32
TRIP BLANK	K1600673-015	J:\MS27\DATA\012916_SIM\0129F013.D	01/29/16	15:00
Batch QC	K1600554-002	J:\MS27\DATA\012916_SIM\0129F015.D	01/29/16	15:55
ERH025	K1600673-011	J:\MS27\DATA\012916_SIM\0129F018.D	01/29/16	17:17
ERH015	K1600673-001	J:\MS27\DATA\012916_SIM\0129F019.D	01/29/16	17:45
ERH016	K1600673-002	J:\MS27\DATA\012916_SIM\0129F020.D	01/29/16	18:13
ERH017	K1600673-003	J:\MS27\DATA\012916_SIM\0129F021.D	01/29/16	18:40
ERH019	K1600673-005	J:\MS27\DATA\012916_SIM\0129F022.D	01/29/16	19:08
ERH020	K1600673-006	J:\MS27\DATA\012916_SIM\0129F023.D	01/29/16	19:35
ERH021	K1600673-007	J:\MS27\DATA\012916_SIM\0129F024.D	01/29/16	20:03
ERH022	K1600673-008	J:\MS27\DATA\012916_SIM\0129F025.D	01/29/16	20:30
ERH023	K1600673-009	J:\MS27\DATA\012916_SIM\0129F026.D	01/29/16	20:58
ERH024	K1600673-010	J:\MS27\DATA\012916_SIM\0129F027.D	01/29/16	21:25
ERH026	K1600673-012	J:\MS27\DATA\012916_SIM\0129F028.D	01/29/16	21:53
ERH027	K1600673-013	J:\MS27\DATA\012916_SIM\0129F029.D	01/29/16	22:21

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	02/01/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016
		Time Analyzed:	10:58

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	MS27
Lab Code:	KWG1600835-3	**File ID:**	J:\MS27\DATA\020116_SIM\0201F005.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C SIM	**Extraction Lot:**	KWG1600835

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH018MS	KWG1600835-1	J:\MS27\DATA\020116_SIM\0201F006.D	02/01/16	11:28
ERH018DMS	KWG1600835-2	J:\MS27\DATA\020116_SIM\0201F007.D	02/01/16	11:56
Method Blank	KWG1600835-4	J:\MS27\DATA\020116_SIM\0201F011.D	02/01/16	13:46
ERH018	K1600673-004	J:\MS27\DATA\020116_SIM\0201F012.D	02/01/16	14:13
ERH028	K1600673-014	J:\MS27\DATA\020116_SIM\0201F013.D	02/01/16	14:41

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 01/29/2016
Time Analyzed: 11:17

Tune Summary
Volatile Organic Compounds

File ID: J:\MS27\DATA\012916_SIM\0129F005.D
Instrument ID: MS27
Column:

Analysis Method: 8260C SIM
Analysis Lot: KWG1600796

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.0	9559	PASS
75	95	30	60	48.9	22240	PASS
95	95	100	100	100.0	45506	PASS
96	95	5	9	6.2	2830	PASS
173	174	0	2	1.3	497	PASS
174	95	50	120	86.3	39277	PASS
175	174	5	9	6.5	2539	PASS
176	174	95	101	98.0	38498	PASS
177	176	5	9	5.9	2257	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1600796-2	J:\MS27\DATA\012916_SIM\0129F006.D	01/29/2016	11:47	
Lab Control Sample	KWG1600798-3	J:\MS27\DATA\012916_SIM\0129F007.D	01/29/2016	12:14	
Batch QCMS	KWG1600798-1	J:\MS27\DATA\012916_SIM\0129F008.D	01/29/2016	12:42	
Batch QCDMS	KWG1600798-2	J:\MS27\DATA\012916_SIM\0129F009.D	01/29/2016	13:10	
Method Blank	KWG1600798-4	J:\MS27\DATA\012916_SIM\0129F012.D	01/29/2016	14:32	
TRIP BLANK	K1600673-015	J:\MS27\DATA\012916_SIM\0129F013.D	01/29/2016	15:00	
Batch QC	K1600554-002	J:\MS27\DATA\012916_SIM\0129F015.D	01/29/2016	15:55	
ERH025	K1600673-011	J:\MS27\DATA\012916_SIM\0129F018.D	01/29/2016	17:17	
ERH015	K1600673-001	J:\MS27\DATA\012916_SIM\0129F019.D	01/29/2016	17:45	
ERH016	K1600673-002	J:\MS27\DATA\012916_SIM\0129F020.D	01/29/2016	18:13	
ERH017	K1600673-003	J:\MS27\DATA\012916_SIM\0129F021.D	01/29/2016	18:40	
ERH019	K1600673-005	J:\MS27\DATA\012916_SIM\0129F022.D	01/29/2016	19:08	
ERH020	K1600673-006	J:\MS27\DATA\012916_SIM\0129F023.D	01/29/2016	19:35	
ERH021	K1600673-007	J:\MS27\DATA\012916_SIM\0129F024.D	01/29/2016	20:03	
ERH022	K1600673-008	J:\MS27\DATA\012916_SIM\0129F025.D	01/29/2016	20:30	
ERH023	K1600673-009	J:\MS27\DATA\012916_SIM\0129F026.D	01/29/2016	20:58	
ERH024	K1600673-010	J:\MS27\DATA\012916_SIM\0129F027.D	01/29/2016	21:25	
ERH026	K1600673-012	J:\MS27\DATA\012916_SIM\0129F028.D	01/29/2016	21:53	
ERH027	K1600673-013	J:\MS27\DATA\012916_SIM\0129F029.D	01/29/2016	22:21	
Continuing Calibration Verification	KWG1600796-3	J:\MS27\DATA\012916_SIM\0129F030.D	01/29/2016	22:48	

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

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/01/2016
Time Analyzed: 10:00

Tune Summary
Volatile Organic Compounds

File ID: J:\MS27\DATA\020116_SIM\0201F003.D
Instrument ID: MS27
Column:

Analysis Method: 8260C SIM
Analysis Lot: KWG1600834

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.1	8787	PASS
75	95	30	60	46.6	20330	PASS
95	95	100	100	100.0	43632	PASS
96	95	5	9	6.4	2771	PASS
173	174	0	2	0.8	328	PASS
174	95	50	120	89.5	39032	PASS
175	174	5	9	8.3	3242	PASS
176	174	95	101	96.4	37624	PASS
177	176	5	9	6.3	2387	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1600834-2	J:\MS27\DATA\020116_SIM\0201F004.D	02/01/2016	10:31	
Lab Control Sample	KWG1600835-3	J:\MS27\DATA\020116_SIM\0201F005.D	02/01/2016	10:58	
ERH018MS	KWG1600835-1	J:\MS27\DATA\020116_SIM\0201F006.D	02/01/2016	11:28	
ERH018DMS	KWG1600835-2	J:\MS27\DATA\020116_SIM\0201F007.D	02/01/2016	11:56	
Method Blank	KWG1600835-4	J:\MS27\DATA\020116_SIM\0201F011.D	02/01/2016	13:46	
ERH018	K1600673-004	J:\MS27\DATA\020116_SIM\0201F012.D	02/01/2016	14:13	
ERH028	K1600673-014	J:\MS27\DATA\020116_SIM\0201F013.D	02/01/2016	14:41	
Continuing Calibration Verification	KWG1600834-3	J:\MS27\DATA\020116_SIM\0201F014.D	02/01/2016	15:56	

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/27/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14562 **Column:** MS
Instrument ID: MS27

Level ID	File ID	Level ID	File ID
A	J:\MS27\DATA\012716_SIM\0127F007.D	G	J:\MS27\DATA\012716_SIM\0127F013.D
B	J:\MS27\DATA\012716_SIM\0127F008.D	H	J:\MS27\DATA\012716_SIM\0127F014.D
C	J:\MS27\DATA\012716_SIM\0127F009.D	I	J:\MS27\DATA\012716_SIM\0127F015.D
D	J:\MS27\DATA\012716_SIM\0127F010.D	J	J:\MS27\DATA\012716_SIM\0127F016.D
E	J:\MS27\DATA\012716_SIM\0127F011.D	K	J:\MS27\DATA\012716_SIM\0127F017.D
F	J:\MS27\DATA\012716_SIM\0127F012.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				B	10	0.360	C	20	0.381	D	50	0.355	E	100	0.372
	F	500	0.369	G	1000	0.357	H	2000	0.364	I	5000	0.357	J	7000	0.346
	K	10000	0.358												
Dibromochloromethane				B	10	0.210	C	20	0.236	D	50	0.220	E	100	0.222
	F	500	0.225	G	1000	0.214	H	2000	0.220	I	5000	0.224	J	7000	0.220
	K	10000	0.232												
1,1,2,2-Tetrachloroethane							C	20	0.358	D	50	0.325	E	100	0.336
	F	500	0.336	G	1000	0.312	H	2000	0.323	I	5000	0.309	J	7000	0.308
	K	10000	0.323												
Dibromofluoromethane										D	200	0.252	E	400	0.236
	F	600	0.228	G	800	0.215	H	1000	0.191	I	2000	0.237	J	2400	0.230
	K	4000	0.232												
Toluene-d8										D	200	0.742	E	400	0.655
	F	600	0.667	G	800	0.687	H	1000	0.574	I	2000	0.826	J	2400	0.828
	K	4000	0.839												
4-Bromofluorobenzene										D	200	0.422	E	400	0.372
	F	600	0.376	G	800	0.367	H	1000	0.334	I	2000	0.446	J	2400	0.448
	K	4000	0.459												
Bromodichloromethane	A	5.0	0.473	B	10	0.334	C	20	0.346	D	50	0.318	E	100	0.341
	F	500	0.340	G	1000	0.332	H	2000	0.328	I	5000	0.340	J	7000	0.334
	K	10000	0.343												

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/27/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14562 **Column:** MS
Instrument ID: MS27

		Calibration Evaluation					RRF Evaluation		
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**	**Average RRF**	**Q**	**Minimum RRF**
1,2-Dichloroethane	MS	AverageRF	% RSD	2.8		≤ 15	0.362		0.1
Dibromochloromethane	MS	AverageRF	% RSD	3.5		≤ 15	0.222		0.1
1,1,2,2-Tetrachloroethane	MS	AverageRF	% RSD	4.9		≤ 15	0.326		0.3
Dibromofluoromethane	SURR	AverageRF	% RSD	7.9		≤ 15	0.228		0.01
Toluene-d8	SURR	AverageRF	% RSD	13.4		≤ 15	0.727		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	11.5		≤ 15	0.403		0.01
Bromodichloromethane	MS	AverageRF	% RSD	12.1		≤ 15	0.348		0.2

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/150037

Service Request: K1600673
Calibration Date: 01/27/2016
Date Analyzed: 01/27/2016

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C SIM

Calibration ID: CAL14562
Units: ng/L

File ID: J:\MS27\DATA\012716_SIM\0127F022.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dichloroethane	2000	2000	0.362	0.356	-1	NA	± 20 %	AverageRF
Dibromochloromethane	2000	1900	0.222	0.208	-7	NA	± 20 %	AverageRF
1,1,2,2-Tetrachloroethane	2000	1900	0.326	0.301	-7	NA	± 20 %	AverageRF
Bromodichloromethane	2000	1900	0.348	0.335	-4	NA	± 20 %	AverageRF

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/150037

Service Request: K1600673
Date Analyzed: 01/29/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C SIM

Calibration Date: 01/27/2016
Calibration ID: CAL14562
Analysis Lot: KWG1600796
Units: ng/L

File ID: J:\MS27\DATA\012916_SIM\0129F006.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF		%D	%Drift	Criteria	Curve Fit
1,2-Dichloroethane	2000	1800	0.1	0.362	0.323		-11	NA	± 20	AverageRF
Dibromochloromethane	2000	1700	0.1	0.222	0.194		-13	NA	± 20	AverageRF
1,1,2,2-Tetrachloroethane	2000	1700	0.3	0.326	0.277	*	-15	NA	± 20	AverageRF
Dibromofluoromethane	1000	1100	0.01	0.228	0.248		9	NA	± 20	AverageRF
Toluene-d8	1000	1200	0.01	0.727	0.867		19	NA	± 20	AverageRF
4-Bromofluorobenzene	1000	1100	0.01	0.403	0.460		14	NA	± 20	AverageRF
Bromodichloromethane	2000	1700	0.2	0.348	0.302		-13	NA	± 20	AverageRF

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/150037

Service Request: K1600673
Date Analyzed: 01/29/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C SIM

Calibration Date: 01/27/2016
Calibration ID: CAL14562
Analysis Lot: KWG1600796
Units: ng/L

File ID: J:\MS27\DATA\012916_SIM\0129F030.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF		%D	%Drift	Criteria	Curve Fit
1,2-Dichloroethane	2000	2100	0.1	0.362	0.389		7	NA	± 50 %	AverageRF
Dibromochloromethane	2000	2100	0.1	0.222	0.232		4	NA	± 50 %	AverageRF
1,1,2,2-Tetrachloroethane	2000	1800	0.3	0.326	0.290	*	-11	NA	± 50 %	AverageRF
Dibromofluoromethane	1000	1100	0.01	0.228	0.254		12	NA	± 50 %	AverageRF
Toluene-d8	1000	1200	0.01	0.727	0.894		23	NA	± 50 %	AverageRF
4-Bromofluorobenzene	1000	1100	0.01	0.403	0.458		14	NA	± 50 %	AverageRF
Bromodichloromethane	2000	2100	0.2	0.348	0.363		4	NA	± 50 %	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/150037

Service Request: K1600673
Date Analyzed: 02/01/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C SIM

Calibration Date: 01/27/2016
Calibration ID: CAL14562
Analysis Lot: KWG1600834
Units: ng/L

File ID: J:\MS27\DATA\020116_SIM\0201F004.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D		%Drift	Criteria	Curve Fit
1,2-Dichloroethane	2000	2100	0.1	0.362	0.381	5		NA	± 20	AverageRF
Dibromochloromethane	2000	2100	0.1	0.222	0.234	5		NA	± 20	AverageRF
1,1,2,2-Tetrachloroethane	2000	1900	0.3	0.326	0.311	-4		NA	± 20	AverageRF
Dibromofluoromethane	1000	1100	0.01	0.228	0.254	12		NA	± 20	AverageRF
Toluene-d8	1000	1200	0.01	0.727	0.879	21	*	NA	± 20	AverageRF
4-Bromofluorobenzene	1000	1200	0.01	0.403	0.470	17		NA	± 20	AverageRF
Bromodichloromethane	2000	2100	0.2	0.348	0.372	7		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/150037

Service Request: K1600673
Date Analyzed: 02/01/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C SIM

Calibration Date: 01/27/2016
Calibration ID: CAL14562
Analysis Lot: KWG1600834
Units: ng/L

File ID: J:\MS27\DATA\020116_SIM\0201F014.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dichloroethane	2000	2200	0.1	0.362	0.389	8	NA	± 50 %	AverageRF
Dibromochloromethane	2000	2100	0.1	0.222	0.234	5	NA	± 50 %	AverageRF
1,1,2,2-Tetrachloroethane	2000	1800	0.3	0.326	0.300	-8	NA	± 50 %	AverageRF
Dibromofluoromethane	1000	1100	0.01	0.228	0.259	14	NA	± 50 %	AverageRF
Toluene-d8	1000	1200	0.01	0.727	0.866	19	NA	± 50 %	AverageRF
4-Bromofluorobenzene	1000	1100	0.01	0.403	0.450	12	NA	± 50 %	AverageRF
Bromodichloromethane	2000	2200	0.2	0.348	0.375	8	NA	± 50 %	AverageRF

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

† SPCC Compound **‡ CCC Compound**

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C SIM **Analysis Lot:** KWG1600796
Instrument ID: MS27

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0129F005.D	GC/MS Tuning - Bromofluorobenzene	KWG1600796-1	1/29/2016	11:17		1/29/2016	11:34
0129F006.D	Continuing Calibration Verification	KWG1600796-2	1/29/2016	11:47		1/29/2016	12:04
0129F007.D	Lab Control Sample	KWG1600798-3	1/29/2016	12:14		1/29/2016	12:31
0129F008.D	Batch QCMS	KWG1600798-1	1/29/2016	12:42		1/29/2016	12:59
0129F009.D	Batch QCDMS	KWG1600798-2	1/29/2016	13:10		1/29/2016	13:27
0129F012.D	Method Blank	KWG1600798-4	1/29/2016	14:32		1/29/2016	14:49
0129F013.D	TRIP BLANK	K1600673-015	1/29/2016	15:00		1/29/2016	15:17
0129F014.D	ZZZZZZ	ZZZZZZ	1/29/2016	15:27		1/29/2016	15:44
0129F015.D	Batch QC	K1600554-002	1/29/2016	15:55		1/29/2016	16:12
0129F016.D	ZZZZZZ	ZZZZZZ	1/29/2016	16:23		1/29/2016	16:40
0129F017.D	ZZZZZZ	ZZZZZZ	1/29/2016	16:50		1/29/2016	17:07
0129F018.D	ERH025	K1600673-011	1/29/2016	17:17		1/29/2016	17:34
0129F019.D	ERH015	K1600673-001	1/29/2016	17:45		1/29/2016	18:02
0129F020.D	ERH016	K1600673-002	1/29/2016	18:13		1/29/2016	18:30
0129F021.D	ERH017	K1600673-003	1/29/2016	18:40		1/29/2016	18:57
0129F022.D	ERH019	K1600673-005	1/29/2016	19:08		1/29/2016	19:25
0129F023.D	ERH020	K1600673-006	1/29/2016	19:35		1/29/2016	19:52
0129F024.D	ERH021	K1600673-007	1/29/2016	20:03		1/29/2016	20:20
0129F025.D	ERH022	K1600673-008	1/29/2016	20:30		1/29/2016	20:47
0129F026.D	ERH023	K1600673-009	1/29/2016	20:58		1/29/2016	21:15
0129F027.D	ERH024	K1600673-010	1/29/2016	21:25		1/29/2016	21:42
0129F028.D	ERH026	K1600673-012	1/29/2016	21:53		1/29/2016	22:10
0129F029.D	ERH027	K1600673-013	1/29/2016	22:21		1/29/2016	22:38
0129F030.D	Continuing Calibration Verification	KWG1600796-3	1/29/2016	22:48		1/29/2016	23:05

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C SIM **Analysis Lot:** KWG1600834
Instrument ID: MS27

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0201F003.D	GC/MS Tuning - Bromofluorobenzene	KWG1600834-1	2/1/2016	10:00		2/1/2016	10:17
0201F004.D	Continuing Calibration Verification	KWG1600834-2	2/1/2016	10:31		2/1/2016	10:48
0201F005.D	Lab Control Sample	KWG1600835-3	2/1/2016	10:58		2/1/2016	11:15
0201F006.D	ERH018MS	KWG1600835-1	2/1/2016	11:28		2/1/2016	11:45
0201F007.D	ERH018DMS	KWG1600835-2	2/1/2016	11:56		2/1/2016	12:13
0201F011.D	Method Blank	KWG1600835-4	2/1/2016	13:46		2/1/2016	14:03
0201F012.D	ERH018	K1600673-004	2/1/2016	14:13		2/1/2016	14:30
0201F013.D	ERH028	K1600673-014	2/1/2016	14:41		2/1/2016	14:58
0201F014.D	Continuing Calibration Verification	KWG1600834-3	2/1/2016	15:56		2/1/2016	16:13

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 01/29/2016

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C SIM

Extraction Lot: KWG1600798
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH015	K1600673-001	01/19/16	01/22/16	10ml	10ml	NA	
ERH016	K1600673-002	01/19/16	01/22/16	10ml	10ml	NA	
ERH017	K1600673-003	01/19/16	01/22/16	10ml	10ml	NA	
ERH019	K1600673-005	01/19/16	01/22/16	10ml	10ml	NA	
ERH020	K1600673-006	01/19/16	01/22/16	10ml	10ml	NA	
ERH021	K1600673-007	01/20/16	01/22/16	10ml	10ml	NA	
ERH022	K1600673-008	01/20/16	01/22/16	10ml	10ml	NA	
ERH023	K1600673-009	01/20/16	01/22/16	10ml	10ml	NA	
ERH024	K1600673-010	01/20/16	01/22/16	10ml	10ml	NA	
ERH025	K1600673-011	01/20/16	01/22/16	10ml	10ml	NA	
ERH026	K1600673-012	01/20/16	01/22/16	10ml	10ml	NA	
ERH027	K1600673-013	01/21/16	01/22/16	10ml	10ml	NA	
TRIP BLANK	K1600673-015	01/19/16	01/22/16	10ml	10ml	NA	
Method Blank	KWG1600798-4	NA	NA	10ml	10ml	NA	
Batch QC	K1600554-002	NA	NA	10ml	10ml	NA	
Batch QCMS	KWG1600798-1	NA	NA	10ml	10ml	NA	
Batch QCDMS	KWG1600798-2	NA	NA	10ml	10ml	NA	
Lab Control Sample	KWG1600798-3	NA	NA	10ml	10ml	NA	

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 02/01/2016

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C SIM

Extraction Lot: KWG1600835
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH018	K1600673-004	01/19/16	01/22/16	10ml	10ml	NA	
ERH028	K1600673-014	01/21/16	01/22/16	10ml	10ml	NA	
Method Blank	KWG1600835-4	NA	NA	10ml	10ml	NA	
ERH018MS	KWG1600835-1	01/19/16	01/22/16	10ml	10ml	NA	
ERH018DMS	KWG1600835-2	01/19/16	01/22/16	10ml	10ml	NA	
Lab Control Sample	KWG1600835-3	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:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
ERH015	K1600673-001	01/19/2016	01/22/2016
ERH016	K1600673-002	01/19/2016	01/22/2016
ERH017	K1600673-003	01/19/2016	01/22/2016
ERH018	K1600673-004	01/19/2016	01/22/2016
ERH019	K1600673-005	01/19/2016	01/22/2016
ERH020	K1600673-006	01/19/2016	01/22/2016
ERH021	K1600673-007	01/20/2016	01/22/2016
ERH022	K1600673-008	01/20/2016	01/22/2016
ERH023	K1600673-009	01/20/2016	01/22/2016
ERH024	K1600673-010	01/20/2016	01/22/2016
ERH025	K1600673-011	01/20/2016	01/22/2016
ERH026	K1600673-012	01/20/2016	01/22/2016
ERH027	K1600673-013	01/21/2016	01/22/2016
ERH028	K1600673-014	01/21/2016	01/22/2016
ERH018MS	KWG1600624-1	01/19/2016	01/22/2016
ERH018DMS	KWG1600624-2	01/19/2016	01/22/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH015	**Units:**	ug/L
Lab Code:	K1600673-001	**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	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	92	46-114	02/01/16	Acceptable
Fluoranthene-d10	94	51-121	02/01/16	Acceptable
Terphenyl-d14	95	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH016	**Units:**	ug/L
Lab Code:	K1600673-002	**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	**0.024**		0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	**0.020**		0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	**0.030**		0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	**0.0063**	J	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	**0.0063**	J	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	104	46-114	02/01/16	Acceptable
Fluoranthene-d10	110	51-121	02/01/16	Acceptable
Terphenyl-d14	96	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH017	**Units:**	ug/L
Lab Code:	K1600673-003	**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	**0.0038**	J	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	**0.0077**	J	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	**0.0046**	J	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0030**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	99	46-114	02/01/16	Acceptable
Fluoranthene-d10	112	51-121	02/01/16	Acceptable
Terphenyl-d14	104	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**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	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	92	46-114	02/01/16	Acceptable
Fluoranthene-d10	107	51-121	02/01/16	Acceptable
Terphenyl-d14	100	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH019	**Units:**	ug/L
Lab Code:	K1600673-005	**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	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0029**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	91	46-114	02/01/16	Acceptable
Fluoranthene-d10	104	51-121	02/01/16	Acceptable
Terphenyl-d14	100	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/19/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH020	**Units:**	ug/L
Lab Code:	K1600673-006	**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	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0030**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	93	46-114	02/01/16	Acceptable
Fluoranthene-d10	107	51-121	02/01/16	Acceptable
Terphenyl-d14	100	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH021	**Units:**	ug/L
Lab Code:	K1600673-007	**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	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0030**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	92	46-114	02/01/16	Acceptable
Fluoranthene-d10	98	51-121	02/01/16	Acceptable
Terphenyl-d14	99	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH022	**Units:**	ug/L
Lab Code:	K1600673-008	**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	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	**0.0031**	J	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0028**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	98	46-114	02/01/16	Acceptable
Fluoranthene-d10	106	51-121	02/01/16	Acceptable
Terphenyl-d14	103	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH023	**Units:**	ug/L
Lab Code:	K1600673-009	**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	**0.0046**	J	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	**0.0039**	J	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0028**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	95	46-114	02/01/16	Acceptable
Fluoranthene-d10	110	51-121	02/01/16	Acceptable
Terphenyl-d14	100	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH024	**Units:**	ug/L
Lab Code:	K1600673-010	**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	**0.18**		0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	**0.023**	X	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	**0.029**	X	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	**0.0077**	JX	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	**0.028**		0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	**0.031**		0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	**0.020**		0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	**0.018**	J	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	**0.015**	JX	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0082**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	**0.0089**	J	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	**0.0063**	J	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	**0.0061**	J	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	**0.0042**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	**0.0034**	J	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	95	46-114	02/01/16	Acceptable
Fluoranthene-d10	110	51-121	02/01/16	Acceptable
Terphenyl-d14	101	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH025	**Units:**	ug/L
Lab Code:	K1600673-011	**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	**120**	D	0.99	0.25	0.19	50	01/25/16	02/02/16	KWG1600624	
2-Methylnaphthalene	**7.9**	D	0.099	0.025	0.012	5	01/25/16	02/02/16	KWG1600624	
1-Methylnaphthalene	**48**	D	0.099	0.025	0.018	5	01/25/16	02/02/16	KWG1600624	
Acenaphthylene	ND	Ui	0.25	0.25	0.25	5	01/25/16	02/02/16	KWG1600624	
Acenaphthene	**0.51**	D	0.099	0.025	0.022	5	01/25/16	02/02/16	KWG1600624	
Fluorene	**0.28**	D	0.099	0.025	0.019	5	01/25/16	02/02/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0029**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	87	46-114	02/02/16	Acceptable
Fluoranthene-d10	95	51-121	02/01/16	Acceptable
Terphenyl-d14	93	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/20/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH026	**Units:**	ug/L
Lab Code:	K1600673-012	**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	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	**0.0074**	J	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	**0.0086**	J	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0064**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	**0.0065**	J	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	**0.0042**	J	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	**0.0026**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	94	46-114	02/01/16	Acceptable
Fluoranthene-d10	103	51-121	02/01/16	Acceptable
Terphenyl-d14	95	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH027	**Units:**	ug/L
Lab Code:	K1600673-013	**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	**0.0082**	J	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	96	46-114	02/01/16	Acceptable
Fluoranthene-d10	105	51-121	02/01/16	Acceptable
Terphenyl-d14	104	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	01/21/2016
Sample Matrix:	Water	**Date Received:**	01/22/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH028	**Units:**	ug/L
Lab Code:	K1600673-014	**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	**0.0080**	J	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	**0.0027**	J	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	94	46-114	02/01/16	Acceptable
Fluoranthene-d10	104	51-121	02/01/16	Acceptable
Terphenyl-d14	102	58-132	02/01/16	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1600624-5	**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	01/25/16	02/01/16	KWG1600624	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	01/25/16	02/01/16	KWG1600624	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	01/25/16	02/01/16	KWG1600624	
Acenaphthylene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Acenaphthene	ND	U	0.020	0.0050	0.0044	1	01/25/16	02/01/16	KWG1600624	
Fluorene	ND	U	0.020	0.0050	0.0038	1	01/25/16	02/01/16	KWG1600624	
Phenanthrene	ND	U	0.020	0.0050	0.0050	1	01/25/16	02/01/16	KWG1600624	
Anthracene	ND	U	0.020	0.0050	0.0036	1	01/25/16	02/01/16	KWG1600624	
Fluoranthene	ND	U	0.020	0.020	0.010	1	01/25/16	02/01/16	KWG1600624	
Pyrene	ND	U	0.020	0.010	0.0053	1	01/25/16	02/01/16	KWG1600624	
Benz(a)anthracene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Chrysene	ND	U	0.020	0.0050	0.0034	1	01/25/16	02/01/16	KWG1600624	
Benzo(b)fluoranthene†	ND	U	0.020	0.0050	0.0041	1	01/25/16	02/01/16	KWG1600624	
Benzo(k)fluoranthene	ND	U	0.020	0.0050	0.0030	1	01/25/16	02/01/16	KWG1600624	
Benzo(a)pyrene	ND	U	0.020	0.0050	0.0043	1	01/25/16	02/01/16	KWG1600624	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0050	0.0026	1	01/25/16	02/01/16	KWG1600624	
Dibenz(a,h)anthracene	ND	U	0.020	0.0050	0.0025	1	01/25/16	02/01/16	KWG1600624	
Benzo(g,h,i)perylene	ND	U	0.020	0.0050	0.0029	1	01/25/16	02/01/16	KWG1600624	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	98	46-114	02/01/16	Acceptable
Fluoranthene-d10	104	51-121	02/01/16	Acceptable
Terphenyl-d14	100	58-132	02/01/16	Acceptable

† **Analyte Comments**

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037
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	Sur2	Sur3
ERH015	K1600673-001	92	94	95
ERH016	K1600673-002	104	110	96
ERH017	K1600673-003	99	112	104
ERH018	K1600673-004	92	107	100
ERH019	K1600673-005	91	104	100
ERH020	K1600673-006	93	107	100
ERH021	K1600673-007	92	98	99
ERH022	K1600673-008	98	106	103
ERH023	K1600673-009	95	110	100
ERH024	K1600673-010	95	110	101
ERH025	K1600673-011	87 D	95	93
ERH026	K1600673-012	94	103	95
ERH027	K1600673-013	96	105	104
ERH028	K1600673-014	94	104	102
Method Blank	KWG1600624-5	98	104	100
ERH018MS	KWG1600624-1	96	103	103
ERH018DMS	KWG1600624-2	99	107	105
Lab Control Sample	KWG1600624-3	93	103	92
Duplicate Lab Control Sample	KWG1600624-4	97	106	96

Surrogate Recovery Control Limits (%)

Sur1	=	Fluorene-d10	46-114
Sur2	=	Fluoranthene-d10	51-121
Sur3	=	Terphenyl-d14	58-132

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/150037

Service Request: K1600673
Date Analyzed: 02/01/2016
Time Analyzed: 08:19

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\020116\0201F003.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1600877-2
Analysis Lot: KWG1600877

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	55,758	4.69	27,190	6.28	50,359	7.52
	Upper Limit ==>	111,516	4.86	54,380	6.45	100,718	7.69
	Lower Limit ==>	27,879	4.52	13,595	6.11	25,180	7.35
Associated Analyses							
Continuing Calibration VerificationCCV	KWG1600877-2	78,101	4.66	36,942	6.27	71,222	7.51
Method Blank	KWG1600624-5	71,730	4.67	35,994	6.27	66,992	7.51
Lab Control Sample	KWG1600624-3	69,539	4.66	32,473	6.27	59,999	7.51
Duplicate Lab Control Sample	KWG1600624-4	65,235	4.66	31,026	6.27	57,570	7.51
ERH018MS	KWG1600624-1	64,354	4.66	32,721	6.27	60,969	7.51
ERH018DMS	KWG1600624-2	62,771	4.66	31,953	6.27	59,362	7.51
ERH018	K1600673-004	63,971	4.66	32,288	6.26	57,800	7.51
ERH015	K1600673-001	63,403	4.66	32,185	6.27	61,994	7.51
ERH016	K1600673-002	60,736	4.67	30,930	6.27	57,479	7.51
ERH017	K1600673-003	60,381	4.66	31,132	6.27	56,322	7.51
ERH019	K1600673-005	59,508	4.67	30,338	6.27	57,914	7.51
ERH020	K1600673-006	61,049	4.66	30,943	6.27	56,216	7.51
ERH021	K1600673-007	59,757	4.67	30,779	6.27	58,698	7.51
ERH022	K1600673-008	58,578	4.66	29,864	6.27	57,076	7.51
ERH023	K1600673-009	58,114	4.66	29,839	6.27	53,996	7.51
ERH024	K1600673-010	57,564	4.66	29,694	6.27	58,092	7.51
ERH025	K1600673-011	61,278	4.68	74,212*	6.27	67,515	7.52
ERH026	K1600673-012	59,132	4.66	30,151	6.27	58,848	7.51
ERH027	K1600673-013	57,718	4.67	29,706	6.26	56,127	7.51
ERH028	K1600673-014	58,441	4.66	30,203	6.26	56,381	7.51

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

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/01/2016
Time Analyzed: 08:19

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\020116\0201F003.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1600877-2
Analysis Lot: KWG1600877

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	ICAL Result ==>	58,109	10.03	56,410	13.05
	Upper Limit ==>	116,218	10.20	112,820	13.22
	Lower Limit ==>	29,055	9.86	28,205	12.88
Associated Analyses					
Continuing Calibration VerificationCCV	KWG1600877-2	84,773	10.03	77,658	13.06
Method Blank	KWG1600624-5	75,575	10.02	71,510	13.06
Lab Control Sample	KWG1600624-3	72,451	10.02	65,231	13.05
Duplicate Lab Control Sample	KWG1600624-4	69,575	10.02	61,663	13.05
ERH018MS	KWG1600624-1	66,811	10.02	60,338	13.05
ERH018DMS	KWG1600624-2	65,143	10.02	59,554	13.05
ERH018	K1600673-004	66,676	10.02	60,636	13.05
ERH015	K1600673-001	68,387	10.02	59,275	13.05
ERH016	K1600673-002	68,899	10.02	60,987	13.04
ERH017	K1600673-003	66,162	10.02	61,139	13.04
ERH019	K1600673-005	65,256	10.02	59,383	13.04
ERH020	K1600673-006	65,599	10.02	59,380	13.04
ERH021	K1600673-007	63,443	10.02	56,578	13.04
ERH022	K1600673-008	63,150	10.02	56,544	13.04
ERH023	K1600673-009	64,465	10.02	57,298	13.04
ERH024	K1600673-010	71,082	10.02	62,486	13.04
ERH025	K1600673-011	76,883	10.03	71,113	13.05
ERH026	K1600673-012	71,110	10.02	64,684	13.05
ERH027	K1600673-013	63,181	10.02	56,937	13.04
ERH028	K1600673-014	63,729	10.02	56,204	13.04

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

QA/QC Report

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/02/2016
Time Analyzed: 06:12

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\020216\0202F003.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1600865-2
Analysis Lot: KWG1600865

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	55,758	4.69	27,190	6.28	50,359	7.52
	Upper Limit ==>	111,516	4.86	54,380	6.45	100,718	7.69
	Lower Limit ==>	27,879	4.52	13,595	6.11	25,180	7.35
Associated Analyses							
Continuing Calibration VerificationCCV	KWG1600865-2	63,736	4.67	30,555	6.27	59,786	7.51
ERH025DL	K1600673-011	60,292	4.67	35,162	6.27	66,130	7.51
ERH025DL	K1600673-011	62,240	4.66	30,439	6.27	59,098	7.51

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

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/02/2016
Time Analyzed: 06:12

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\020216\0202F003.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1600865-2
Analysis Lot: KWG1600865

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	ICAL Result ==>	58,109	10.03	56,410	13.05
	Upper Limit ==>	116,218	10.20	112,820	13.22
	Lower Limit ==>	29,055	9.86	28,205	12.88
Associated Analyses					
Continuing Calibration VerificationCCV	KWG1600865-2	72,912	10.02	66,745	13.05
ERH025DL	K1600673-011	80,131	10.02	69,748	13.04
ERH025DL	K1600673-011	66,208	10.02	59,837	13.05

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

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH018	**Units:**	ug/L
Lab Code:	K1600673-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1600624

		ERH018MS KWG1600624-1 Matrix Spike			ERH018DMS KWG1600624-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	ND	ND	2.45	0 *	ND	2.40	0 *	43-114	NC	20
2-Methylnaphthalene	ND	ND	2.45	0 *	ND	2.40	0 *	39-114	NC	20
1-Methylnaphthalene	ND	ND	2.45	0 *	ND	2.40	0 *	41-115	NC	20
Acenaphthylene	ND	ND	2.45	0 *	ND	2.40	0 *	35-121	NC	20
Acenaphthene	ND	ND	2.45	0 *	ND	2.40	0 *	48-114	NC	20
Fluorene	ND	ND	2.45	0 *	ND	2.40	0 *	50-118	NC	20
Phenanthrene	ND	ND	2.45	0 *	ND	2.40	0 *	53-115	NC	20
Anthracene	ND	ND	2.45	0 *	ND	2.40	0 *	53-119	NC	20
Fluoranthene	ND	ND	2.45	0 *	ND	2.40	0 *	58-120	NC	20
Pyrene	ND	ND	2.45	0 *	ND	2.40	0 *	53-121	NC	20
Benz(a)anthracene	ND	ND	2.45	0 *	0.00380	2.40	0 *	59-120	NC	20
Chrysene	ND	ND	2.45	0 *	ND	2.40	0 *	57-120	NC	20
Benzo(b)fluoranthene	ND	ND	2.45	0 *	ND	2.40	0 *	53-126	NC	20
Benzo(k)fluoranthene	ND	ND	2.45	0 *	ND	2.40	0 *	54-125	NC	20
Benzo(a)pyrene	ND	ND	2.45	0 *	ND	2.40	0 *	53-120	NC	20
Indeno(1,2,3-cd)pyrene	ND	ND	2.45	0 *	ND	2.40	0 *	48-130	NC	20
Dibenz(a,h)anthracene	ND	ND	2.45	0 *	ND	2.40	0 *	44-131	NC	20
Benzo(g,h,i)perylene	ND	ND	2.45	0 *	ND	2.40	0 *	44-128	NC	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016

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:	KWG1600624

	Lab Control Sample KWG1600624-3 Lab Control Spike			Duplicate Lab Control Sample KWG1600624-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	2.05	2.50	82	2.13	2.50	85	43-114	4	20
2-Methylnaphthalene	1.89	2.50	76	1.99	2.50	80	39-114	5	20
1-Methylnaphthalene	1.86	2.50	75	1.98	2.50	79	41-115	6	20
Acenaphthylene	2.11	2.50	84	2.18	2.50	87	35-121	3	20
Acenaphthene	2.06	2.50	82	2.13	2.50	85	48-114	3	20
Fluorene	2.06	2.50	83	2.15	2.50	86	50-118	4	20
Phenanthrene	2.03	2.50	81	2.08	2.50	83	53-115	2	20
Anthracene	2.16	2.50	86	2.18	2.50	87	53-119	1	20
Fluoranthene	2.16	2.50	86	2.24	2.50	90	58-120	4	20
Pyrene	1.97	2.50	79	2.05	2.50	82	53-121	4	20
Benz(a)anthracene	1.90	2.50	76	1.95	2.50	78	59-120	3	20
Chrysene	2.19	2.50	87	2.25	2.50	90	57-120	3	20
Benzo(b)fluoranthene	2.03	2.50	81	2.04	2.50	82	53-126	0	20
Benzo(k)fluoranthene	2.24	2.50	90	2.30	2.50	92	54-125	3	20
Benzo(a)pyrene	1.95	2.50	78	2.04	2.50	82	53-120	4	20
Indeno(1,2,3-cd)pyrene	1.94	2.50	78	1.98	2.50	79	48-130	2	20
Dibenz(a,h)anthracene	1.97	2.50	79	2.04	2.50	82	44-131	4	20
Benzo(g,h,i)perylene	1.97	2.50	79	2.01	2.50	80	44-128	2	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:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016
		Time Analyzed:	08:50

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Instrument ID:**	MS14
Lab Code:	KWG1600624-5	**File ID:**	J:\MS14\DATA\020116\0201F004.D
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1600624

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1600624-3	J:\MS14\DATA\020116\0201F009.D	02/01/16	11:06
Duplicate Lab Control Sample	KWG1600624-4	J:\MS14\DATA\020116\0201F010.D	02/01/16	11:32
ERH018MS	KWG1600624-1	J:\MS14\DATA\020116\0201F011.D	02/01/16	11:58
ERH018DMS	KWG1600624-2	J:\MS14\DATA\020116\0201F012.D	02/01/16	12:23
ERH018	K1600673-004	J:\MS14\DATA\020116\0201F013.D	02/01/16	12:47
ERH015	K1600673-001	J:\MS14\DATA\020116\0201F014.D	02/01/16	13:11
ERH016	K1600673-002	J:\MS14\DATA\020116\0201F015.D	02/01/16	13:34
ERH017	K1600673-003	J:\MS14\DATA\020116\0201F016.D	02/01/16	13:57
ERH019	K1600673-005	J:\MS14\DATA\020116\0201F017.D	02/01/16	14:20
ERH020	K1600673-006	J:\MS14\DATA\020116\0201F018.D	02/01/16	14:43
ERH021	K1600673-007	J:\MS14\DATA\020116\0201F019.D	02/01/16	15:06
ERH022	K1600673-008	J:\MS14\DATA\020116\0201F020.D	02/01/16	15:29
ERH023	K1600673-009	J:\MS14\DATA\020116\0201F021.D	02/01/16	15:52
ERH024	K1600673-010	J:\MS14\DATA\020116\0201F022.D	02/01/16	16:15
ERH025	K1600673-011	J:\MS14\DATA\020116\0201F023.D	02/01/16	16:37
ERH026	K1600673-012	J:\MS14\DATA\020116\0201F024.D	02/01/16	17:00
ERH027	K1600673-013	J:\MS14\DATA\020116\0201F025.D	02/01/16	17:23
ERH028	K1600673-014	J:\MS14\DATA\020116\0201F026.D	02/01/16	17:46
ERH025	K1600673-011	J:\MS14\DATA\020216\0202F005.D	02/02/16	06:58
ERH025	K1600673-011	J:\MS14\DATA\020216\0202F010.D	02/02/16	08:57

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1600673
Project:	Red Hill Bulk Fuel Storage/150037	**Date Extracted:**	01/25/2016
Sample Matrix:	Water	**Date Analyzed:**	02/01/2016
		Time Analyzed:	11:06

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Instrument ID:**	MS14
Lab Code:	KWG1600624-3	**File ID:**	J:\MS14\DATA\020116\0201F009.D
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1600624

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1600624-5	J:\MS14\DATA\020116\0201F004.D	02/01/16	08:50
ERH018MS	KWG1600624-1	J:\MS14\DATA\020116\0201F011.D	02/01/16	11:58
ERH018DMS	KWG1600624-2	J:\MS14\DATA\020116\0201F012.D	02/01/16	12:23
ERH018	K1600673-004	J:\MS14\DATA\020116\0201F013.D	02/01/16	12:47
ERH015	K1600673-001	J:\MS14\DATA\020116\0201F014.D	02/01/16	13:11
ERH016	K1600673-002	J:\MS14\DATA\020116\0201F015.D	02/01/16	13:34
ERH017	K1600673-003	J:\MS14\DATA\020116\0201F016.D	02/01/16	13:57
ERH019	K1600673-005	J:\MS14\DATA\020116\0201F017.D	02/01/16	14:20
ERH020	K1600673-006	J:\MS14\DATA\020116\0201F018.D	02/01/16	14:43
ERH021	K1600673-007	J:\MS14\DATA\020116\0201F019.D	02/01/16	15:06
ERH022	K1600673-008	J:\MS14\DATA\020116\0201F020.D	02/01/16	15:29
ERH023	K1600673-009	J:\MS14\DATA\020116\0201F021.D	02/01/16	15:52
ERH024	K1600673-010	J:\MS14\DATA\020116\0201F022.D	02/01/16	16:15
ERH025	K1600673-011	J:\MS14\DATA\020116\0201F023.D	02/01/16	16:37
ERH026	K1600673-012	J:\MS14\DATA\020116\0201F024.D	02/01/16	17:00
ERH027	K1600673-013	J:\MS14\DATA\020116\0201F025.D	02/01/16	17:23
ERH028	K1600673-014	J:\MS14\DATA\020116\0201F026.D	02/01/16	17:46
ERH025	K1600673-011	J:\MS14\DATA\020216\0202F005.D	02/02/16	06:58
ERH025	K1600673-011	J:\MS14\DATA\020216\0202F010.D	02/02/16	08:57

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/01/2016
Time Analyzed: 07:13

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\020116\0201F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1600877

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	38.9	113320	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	41.7	121436	PASS
70	69	0	2	0.8	982	PASS
127	198	10	80	45.4	132472	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	60.4	291557	PASS
199	198	5	9	6.8	19838	PASS
275	198	10	60	33.0	96258	PASS
365	442	1	50	2.6	12594	PASS
441	443	0	100	76.6	71349	PASS
442	442	100	100	100.0	482861	PASS
443	442	15	24	19.3	93165	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1600877-2	J:\MS14\DATA\020116\0201F003.D	02/01/2016	08:19	
Method Blank	KWG1600624-5	J:\MS14\DATA\020116\0201F004.D	02/01/2016	08:50	
Lab Control Sample	KWG1600624-3	J:\MS14\DATA\020116\0201F009.D	02/01/2016	11:06	
Duplicate Lab Control Sample	KWG1600624-4	J:\MS14\DATA\020116\0201F010.D	02/01/2016	11:32	
ERH018MS	KWG1600624-1	J:\MS14\DATA\020116\0201F011.D	02/01/2016	11:58	
ERH018DMS	KWG1600624-2	J:\MS14\DATA\020116\0201F012.D	02/01/2016	12:23	
ERH018	K1600673-004	J:\MS14\DATA\020116\0201F013.D	02/01/2016	12:47	
ERH015	K1600673-001	J:\MS14\DATA\020116\0201F014.D	02/01/2016	13:11	
ERH016	K1600673-002	J:\MS14\DATA\020116\0201F015.D	02/01/2016	13:34	
ERH017	K1600673-003	J:\MS14\DATA\020116\0201F016.D	02/01/2016	13:57	
ERH019	K1600673-005	J:\MS14\DATA\020116\0201F017.D	02/01/2016	14:20	
ERH020	K1600673-006	J:\MS14\DATA\020116\0201F018.D	02/01/2016	14:43	
ERH021	K1600673-007	J:\MS14\DATA\020116\0201F019.D	02/01/2016	15:06	
ERH022	K1600673-008	J:\MS14\DATA\020116\0201F020.D	02/01/2016	15:29	
ERH023	K1600673-009	J:\MS14\DATA\020116\0201F021.D	02/01/2016	15:52	
ERH024	K1600673-010	J:\MS14\DATA\020116\0201F022.D	02/01/2016	16:15	
ERH025	K1600673-011	J:\MS14\DATA\020116\0201F023.D	02/01/2016	16:37	
ERH026	K1600673-012	J:\MS14\DATA\020116\0201F024.D	02/01/2016	17:00	
ERH027	K1600673-013	J:\MS14\DATA\020116\0201F025.D	02/01/2016	17:23	
ERH028	K1600673-014	J:\MS14\DATA\020116\0201F026.D	02/01/2016	17:46	
Continuing Calibration Verification	KWG1600877-3	J:\MS14\DATA\020116\0201F027.D	02/01/2016	18:09	

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

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage/150037

Service Request: K1600673
Date Analyzed: 02/02/2016
Time Analyzed: 05:26

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\020216\0202F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1600865

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	39.5	88746	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	41.8	93928	PASS
70	69	0	2	0.6	563	PASS
127	198	10	80	45.1	101285	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	53.4	224496	PASS
199	198	5	9	6.9	15400	PASS
275	198	10	60	33.9	76136	PASS
365	442	1	50	2.7	11504	PASS
441	443	0	100	77.0	62786	PASS
442	442	100	100	100.0	420245	PASS
443	442	15	24	19.4	81568	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1600865-2	J:\MS14\DATA\020216\0202F003.D	02/02/2016	06:12	
ERH025	K1600673-011	J:\MS14\DATA\020216\0202F005.D	02/02/2016	06:58	
ERH025	K1600673-011	J:\MS14\DATA\020216\0202F010.D	02/02/2016	08:57	
Continuing Calibration Verification	KWG1600865-3	J:\MS14\DATA\020216\0202F011.D	02/02/2016	09:19	

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

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **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
Acenaphthylene	A	2.0	2.12	B	4.0	1.93	C	8.0	2.07	D	20	2.02	E	100	2.09
	F	200	2.08	G	400	1.84	H	1000	2.16	I	1600	2.11	J	2000	2.14
Acenaphthene	A	2.0	1.24	B	4.0	1.09	C	8.0	1.21	D	20	1.18	E	100	1.18
	F	200	1.18	G	400	1.05	H	1000	1.22	I	1600	1.19	J	2000	1.21
Fluorene	A	2.0	1.50	B	4.0	1.34	C	8.0	1.50	D	20	1.49	E	100	1.47
	F	200	1.46	G	400	1.28	H	1000	1.47	I	1600	1.44	J	2000	1.47
Phenanthrene	A	2.0	1.26	B	4.0	1.17	C	8.0	1.23	D	20	1.17	E	100	1.18
	F	200	1.17	G	400	1.03	H	1000	1.19	I	1600	1.15	J	2000	1.18
Anthracene	A	2.0	1.14	B	4.0	1.01	C	8.0	1.13	D	20	1.08	E	100	1.12
	F	200	1.12	G	400	0.987	H	1000	1.14	I	1600	1.10	J	2000	1.11
Fluoranthene	A	2.0	1.39	B	4.0	1.25	C	8.0	1.37	D	20	1.32	E	100	1.34
	F	200	1.34	G	400	1.19	H	1000	1.36	I	1600	1.32	J	2000	1.33
Pyrene	A	2.0	1.33	B	4.0	1.22	C	8.0	1.33	D	20	1.26	E	100	1.25
	F	200	1.22	G	400	1.08	H	1000	1.27	I	1600	1.25	J	2000	1.26
Benz(a)anthracene	A	2.0	1.43	B	4.0	1.19	C	8.0	1.20	D	20	1.11	E	100	1.12
	F	200	1.12	G	400	0.990	H	1000	1.20	I	1600	1.17	J	2000	1.18
Chrysene	A	2.0	1.10	B	4.0	0.991	C	8.0	1.07	D	20	1.03	E	100	1.04
	F	200	1.04	G	400	0.919	H	1000	1.09	I	1600	1.07	J	2000	1.09
Benzo(b)fluoranthene	A	2.0	1.38	B	4.0	1.18	C	8.0	1.29	D	20	1.25	E	100	1.24
	F	200	1.28	G	400	1.14	H	1000	1.38	I	1600	1.30	J	2000	1.33
Benzo(k)fluoranthene	A	2.0	1.29	B	4.0	1.11	C	8.0	1.30	D	20	1.25	E	100	1.23
	F	200	1.27	G	400	1.13	H	1000	1.33	I	1600	1.27	J	2000	1.29

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **Calibration Date:** 01/11/2016

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

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

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(a)pyrene				B	4.0	1.35	C	8.0	1.35	D	20	1.19	E	100	1.15
	F	200	1.15	G	400	1.01	H	1000	1.21	I	1600	1.18	J	2000	1.19
Indeno(1,2,3-cd)pyrene	A	2.0	1.28	B	4.0	1.01	C	8.0	1.10	D	20	1.07	E	100	1.11
	F	200	1.16	G	400	1.01	H	1000	1.18	I	1600	1.14	J	2000	1.15
Dibenz(a,h)anthracene	A	2.0	1.08	B	4.0	1.03	C	8.0	1.21	D	20	1.15	E	100	1.18
	F	200	1.15	G	400	0.993	H	1000	1.14	I	1600	1.09	J	2000	1.09
Benzo(g,h,i)perylene	A	2.0	1.54	B	4.0	1.20	C	8.0	1.37	D	20	1.30	E	100	1.28
	F	200	1.28	G	400	1.13	H	1000	1.27	I	1600	1.21	J	2000	1.20
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
Fluoranthene-d10	A	2.0	1.05	B	4.0	0.900	C	8.0	1.02	D	20	1.01	E	100	1.03
	F	200	1.04	G	400	0.928	H	1000	1.10	I	1600	1.07	J	2000	1.09
Terphenyl-d14	A	2.0	0.782	B	4.0	0.684	C	8.0	0.764	D	20	0.741	E	100	0.739
	F	200	0.723	G	400	0.640	H	1000	0.752	I	1600	0.728	J	2000	0.737

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037 **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
Acenaphthylene	MS	AverageRF	% RSD	4.9		≤ 15	2.06		0.90
Acenaphthene	MS	AverageRF	% RSD	5.1		≤ 15	1.17		0.90
Fluorene	MS	AverageRF	% RSD	5.2		≤ 15	1.44		0.90
Phenanthrene	MS	AverageRF	% RSD	5.1		≤ 15	1.17		0.70
Anthracene	MS	AverageRF	% RSD	4.9		≤ 15	1.09		0.70
Fluoranthene	MS	AverageRF	% RSD	4.5		≤ 15	1.32		0.60
Pyrene	MS	AverageRF	% RSD	5.7		≤ 15	1.25		0.60
Benz(a)anthracene	MS	AverageRF	% RSD	9.5		≤ 15	1.17		0.80
Chrysene	MS	AverageRF	% RSD	5.3		≤ 15	1.04		0.70
Benzo(b)fluoranthene	MS	AverageRF	% RSD	6.1		≤ 15	1.28		0.70
Benzo(k)fluoranthene	MS	AverageRF	% RSD	5.8		≤ 15	1.25		0.70
Benzo(a)pyrene	MS	AverageRF	% RSD	8.6		≤ 15	1.20		0.70
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	7.4		≤ 15	1.12		0.50
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	6.0		≤ 15	1.11		0.40
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	8.9		≤ 15	1.28		0.50
Fluorene-d10	SURR	AverageRF	% RSD	8.1		≤ 15	1.10		0.05
Fluoranthene-d10	SURR	AverageRF	% RSD	6.3		≤ 15	1.02		0.05
Terphenyl-d14	SURR	AverageRF	% RSD	5.6		≤ 15	0.729		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/150037

Service Request: K1600673
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
Acenaphthylene	400	400	2.06	2.07	0	NA	± 20 %	AverageRF
Acenaphthene	400	410	1.17	1.20	3	NA	± 20 %	AverageRF
Fluorene	400	410	1.44	1.46	2	NA	± 20 %	AverageRF
Phenanthrene	400	390	1.17	1.15	-2	NA	± 20 %	AverageRF
Anthracene	400	400	1.09	1.10	1	NA	± 20 %	AverageRF
Fluoranthene	400	390	1.32	1.30	-1	NA	± 20 %	AverageRF
Pyrene	400	380	1.25	1.18	-6	NA	± 20 %	AverageRF
Benz(a)anthracene	400	380	1.17	1.11	-6	NA	± 20 %	AverageRF
Chrysene	400	410	1.04	1.06	2	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	400	430	1.28	1.37	8	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	400	430	1.25	1.33	7	NA	± 20 %	AverageRF
Benzo(a)pyrene	400	390	1.20	1.16	-3	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	410	1.12	1.15	2	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	400	410	1.11	1.13	2	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	400	410	1.28	1.31	3	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/150037

Service Request: K1600673
Date Analyzed: 02/01/2016

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: KWG1600877
Units: ng/ml

File ID: J:\MS14\DATA\020116\0201F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	400	0.70	1.01	1.02	1	NA	± 20	AverageRF
2-Methylnaphthalene	400	380	0.40	0.690	0.656	-5	NA	± 20	AverageRF
1-Methylnaphthalene	400	370	0.05	0.601	0.561	-7	NA	± 20	AverageRF
Acenaphthylene	400	390	0.90	2.06	2.01	-2	NA	± 20	AverageRF
Acenaphthene	400	390	0.90	1.17	1.16	-1	NA	± 20	AverageRF
Fluorene	400	390	0.90	1.44	1.39	-3	NA	± 20	AverageRF
Phenanthrene	400	370	0.70	1.17	1.08	-8	NA	± 20	AverageRF
Anthracene	400	400	0.70	1.09	1.10	1	NA	± 20	AverageRF
Fluoranthene	400	400	0.60	1.32	1.31	-1	NA	± 20	AverageRF
Pyrene	400	380	0.60	1.25	1.18	-5	NA	± 20	AverageRF
Benz(a)anthracene	400	370	0.80	1.17	1.08	-8	NA	± 20	AverageRF
Chrysene	400	410	0.70	1.04	1.07	2	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	380	0.70	1.28	1.23	-4	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	420	0.70	1.25	1.32	6	NA	± 20	AverageRF
Benzo(a)pyrene	400	390	0.70	1.20	1.15	-4	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	410	0.50	1.12	1.16	4	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	400	0.40	1.11	1.12	1	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	390	0.50	1.28	1.24	-3	NA	± 20	AverageRF
Fluorene-d10	400	380	0.05	1.10	1.05	-5	NA	± 20	AverageRF
Fluoranthene-d10	400	410	0.05	1.02	1.06	3	NA	± 20	AverageRF
Terphenyl-d14	400	380	0.05	0.729	0.694	-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/150037

Service Request: K1600673
Date Analyzed: 02/01/2016

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: KWG1600877
Units: ng/ml

File ID: J:\MS14\DATA\020116\0201F027.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	410	0.70	1.01	1.03	2	NA	± 50 %	AverageRF
2-Methylnaphthalene	400	390	0.40	0.690	0.670	-3	NA	± 50 %	AverageRF
1-Methylnaphthalene	400	390	0.05	0.601	0.581	-3	NA	± 50 %	AverageRF
Acenaphthylene	400	390	0.90	2.06	2.01	-2	NA	± 50 %	AverageRF
Acenaphthene	400	400	0.90	1.17	1.18	0	NA	± 50 %	AverageRF
Fluorene	400	400	0.90	1.44	1.43	-1	NA	± 50 %	AverageRF
Phenanthrene	400	370	0.70	1.17	1.08	-7	NA	± 50 %	AverageRF
Anthracene	400	400	0.70	1.09	1.10	1	NA	± 50 %	AverageRF
Fluoranthene	400	400	0.60	1.32	1.33	1	NA	± 50 %	AverageRF
Pyrene	400	380	0.60	1.25	1.18	-6	NA	± 50 %	AverageRF
Benz(a)anthracene	400	360	0.80	1.17	1.04	-11	NA	± 50 %	AverageRF
Chrysene	400	410	0.70	1.04	1.07	3	NA	± 50 %	AverageRF
Benzo(b)fluoranthene	400	380	0.70	1.28	1.22	-5	NA	± 50 %	AverageRF
Benzo(k)fluoranthene	400	420	0.70	1.25	1.30	4	NA	± 50 %	AverageRF
Benzo(a)pyrene	400	370	0.70	1.20	1.11	-7	NA	± 50 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	380	0.50	1.12	1.07	-5	NA	± 50 %	AverageRF
Dibenz(a,h)anthracene	400	400	0.40	1.11	1.10	-1	NA	± 50 %	AverageRF
Benzo(g,h,i)perylene	400	390	0.50	1.28	1.25	-2	NA	± 50 %	AverageRF
Fluorene-d10	400	380	0.05	1.10	1.05	-4	NA	± 50 %	AverageRF
Fluoranthene-d10	400	420	0.05	1.02	1.07	5	NA	± 50 %	AverageRF
Terphenyl-d14	400	380	0.05	0.729	0.693	-5	NA	± 50 %	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/150037

Service Request: K1600673
Date Analyzed: 02/02/2016

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: KWG1600865
Units: ng/ml

File ID: J:\MS14\DATA\020216\0202F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	410	0.70	1.01	1.03	2	NA	± 20	AverageRF
2-Methylnaphthalene	400	380	0.40	0.690	0.664	-4	NA	± 20	AverageRF
1-Methylnaphthalene	400	380	0.05	0.601	0.572	-5	NA	± 20	AverageRF
Acenaphthylene	400	390	0.90	2.06	2.02	-2	NA	± 20	AverageRF
Acenaphthene	400	400	0.90	1.17	1.18	1	NA	± 20	AverageRF
Fluorene	400	400	0.90	1.44	1.42	-1	NA	± 20	AverageRF
Phenanthrene	400	370	0.70	1.17	1.09	-7	NA	± 20	AverageRF
Anthracene	400	410	0.70	1.09	1.11	1	NA	± 20	AverageRF
Fluoranthene	400	400	0.60	1.32	1.33	1	NA	± 20	AverageRF
Pyrene	400	380	0.60	1.25	1.19	-5	NA	± 20	AverageRF
Benz(a)anthracene	400	360	0.80	1.17	1.05	-10	NA	± 20	AverageRF
Chrysene	400	410	0.70	1.04	1.08	4	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	380	0.70	1.28	1.22	-5	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	420	0.70	1.25	1.30	5	NA	± 20	AverageRF
Benzo(a)pyrene	400	370	0.70	1.20	1.12	-7	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	390	0.50	1.12	1.10	-2	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	400	0.40	1.11	1.12	1	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	400	0.50	1.28	1.26	-1	NA	± 20	AverageRF
Fluorene-d10	400	390	0.05	1.10	1.06	-4	NA	± 20	AverageRF
Fluoranthene-d10	400	420	0.05	1.02	1.06	4	NA	± 20	AverageRF
Terphenyl-d14	400	380	0.05	0.729	0.697	-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/150037

Service Request: K1600673
Date Analyzed: 02/02/2016

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: KWG1600865
Units: ng/ml

File ID: J:\MS14\DATA\020216\0202F011.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	410	0.70	1.01	1.03	2	NA	± 50 %	AverageRF
2-Methylnaphthalene	400	380	0.40	0.690	0.661	-4	NA	± 50 %	AverageRF
1-Methylnaphthalene	400	380	0.05	0.601	0.571	-5	NA	± 50 %	AverageRF
Acenaphthylene	400	390	0.90	2.06	2.02	-2	NA	± 50 %	AverageRF
Acenaphthene	400	400	0.90	1.17	1.18	1	NA	± 50 %	AverageRF
Fluorene	400	400	0.90	1.44	1.42	-1	NA	± 50 %	AverageRF
Phenanthrene	400	370	0.70	1.17	1.09	-7	NA	± 50 %	AverageRF
Anthracene	400	410	0.70	1.09	1.11	1	NA	± 50 %	AverageRF
Fluoranthene	400	410	0.60	1.32	1.34	2	NA	± 50 %	AverageRF
Pyrene	400	380	0.60	1.25	1.19	-4	NA	± 50 %	AverageRF
Benz(a)anthracene	400	360	0.80	1.17	1.04	-11	NA	± 50 %	AverageRF
Chrysene	400	420	0.70	1.04	1.08	4	NA	± 50 %	AverageRF
Benzo(b)fluoranthene	400	370	0.70	1.28	1.19	-7	NA	± 50 %	AverageRF
Benzo(k)fluoranthene	400	410	0.70	1.25	1.28	3	NA	± 50 %	AverageRF
Benzo(a)pyrene	400	370	0.70	1.20	1.11	-7	NA	± 50 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	390	0.50	1.12	1.10	-2	NA	± 50 %	AverageRF
Dibenz(a,h)anthracene	400	390	0.40	1.11	1.07	-4	NA	± 50 %	AverageRF
Benzo(g,h,i)perylene	400	390	0.50	1.28	1.25	-2	NA	± 50 %	AverageRF
Fluorene-d10	400	380	0.05	1.10	1.05	-5	NA	± 50 %	AverageRF
Fluoranthene-d10	400	420	0.05	1.02	1.07	4	NA	± 50 %	AverageRF
Terphenyl-d14	400	380	0.05	0.729	0.693	-5	NA	± 50 %	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1600865
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0202F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1600865-1	2/2/2016	05:26		2/2/2016	05:45
0202F003.D	Continuing Calibration Verification	KWG1600865-2	2/2/2016	06:12		2/2/2016	06:31
0202F004.D	ZZZZZZ	ZZZZZZ	2/2/2016	06:35		2/2/2016	06:54
0202F005.D	ERH025	K1600673-011	2/2/2016	06:58		2/2/2016	07:17
0202F006.D	ZZZZZZ	ZZZZZZ	2/2/2016	07:21		2/2/2016	07:40
0202F007.D	ZZZZZZ	ZZZZZZ	2/2/2016	07:44		2/2/2016	08:03
0202F008.D	ZZZZZZ	ZZZZZZ	2/2/2016	08:07		2/2/2016	08:26
0202F010.D	ERH025	K1600673-011	2/2/2016	08:57		2/2/2016	09:16
0202F011.D	Continuing Calibration Verification	KWG1600865-3	2/2/2016	09:19		2/2/2016	09:38

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

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1600673
Project: Red Hill Bulk Fuel Storage/150037

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1600877
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0201F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1600877-1	2/1/2016	07:13		2/1/2016	07:32
0201F003.D	Continuing Calibration Verification	KWG1600877-2	2/1/2016	08:19		2/1/2016	08:38
0201F004.D	Method Blank	KWG1600624-5	2/1/2016	08:50		2/1/2016	09:09
0201F005.D	ZZZZZZ	ZZZZZZ	2/1/2016	09:18		2/1/2016	09:37
0201F006.D	ZZZZZZ	ZZZZZZ	2/1/2016	09:45		2/1/2016	10:04
0201F007.D	ZZZZZZ	ZZZZZZ	2/1/2016	10:13		2/1/2016	10:32
0201F008.D	ZZZZZZ	ZZZZZZ	2/1/2016	10:40		2/1/2016	10:59
0201F009.D	Lab Control Sample	KWG1600624-3	2/1/2016	11:06		2/1/2016	11:25
0201F010.D	Duplicate Lab Control Sample	KWG1600624-4	2/1/2016	11:32		2/1/2016	11:51
0201F011.D	ERH018MS	KWG1600624-1	2/1/2016	11:58		2/1/2016	12:17
0201F012.D	ERH018DMS	KWG1600624-2	2/1/2016	12:23		2/1/2016	12:42
0201F013.D	ERH018	K1600673-004	2/1/2016	12:47		2/1/2016	13:06
0201F014.D	ERH015	K1600673-001	2/1/2016	13:11		2/1/2016	13:30
0201F015.D	ERH016	K1600673-002	2/1/2016	13:34		2/1/2016	13:53
0201F016.D	ERH017	K1600673-003	2/1/2016	13:57		2/1/2016	14:16
0201F017.D	ERH019	K1600673-005	2/1/2016	14:20		2/1/2016	14:39
0201F018.D	ERH020	K1600673-006	2/1/2016	14:43		2/1/2016	15:02
0201F019.D	ERH021	K1600673-007	2/1/2016	15:06		2/1/2016	15:25
0201F020.D	ERH022	K1600673-008	2/1/2016	15:29		2/1/2016	15:48
0201F021.D	ERH023	K1600673-009	2/1/2016	15:52		2/1/2016	16:11
0201F022.D	ERH024	K1600673-010	2/1/2016	16:15		2/1/2016	16:34
0201F023.D	ERH025	K1600673-011	2/1/2016	16:37		2/1/2016	16:56
0201F024.D	ERH026	K1600673-012	2/1/2016	17:00		2/1/2016	17:19
0201F025.D	ERH027	K1600673-013	2/1/2016	17:23		2/1/2016	17:42
0201F026.D	ERH028	K1600673-014	2/1/2016	17:46		2/1/2016	18:05
0201F027.D	Continuing Calibration Verification	KWG1600877-3	2/1/2016	18:09		2/1/2016	18:28

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/150037
Sample Matrix: Water

Service Request: K1600673
Date Extracted: 01/25/2016

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270D SIM

Extraction Lot: KWG1600624
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH015	K1600673-001	01/19/16	01/22/16	1000ml	5ml	NA	
ERH016	K1600673-002	01/19/16	01/22/16	1000ml	5ml	NA	
ERH017	K1600673-003	01/19/16	01/22/16	1000ml	5ml	NA	
ERH018	K1600673-004	01/19/16	01/22/16	1020ml	5ml	NA	
ERH019	K1600673-005	01/19/16	01/22/16	1000ml	5ml	NA	
ERH020	K1600673-006	01/19/16	01/22/16	1020ml	5ml	NA	
ERH021	K1600673-007	01/20/16	01/22/16	1000ml	5ml	NA	
ERH022	K1600673-008	01/20/16	01/22/16	1000ml	5ml	NA	
ERH023	K1600673-009	01/20/16	01/22/16	1000ml	5ml	NA	
ERH024	K1600673-010	01/20/16	01/22/16	1000ml	5ml	NA	
ERH025	K1600673-011	01/20/16	01/22/16	1020ml	5ml	NA	
ERH025DL	K1600673-011	01/20/16	01/22/16	1020ml	5ml	NA	
ERH026	K1600673-012	01/20/16	01/22/16	1000ml	5ml	NA	
ERH027	K1600673-013	01/21/16	01/22/16	1020ml	5ml	NA	
ERH028	K1600673-014	01/21/16	01/22/16	1000ml	5ml	NA	
Method Blank	KWG1600624-5	NA	NA	1040ml	5ml	NA	
ERH018MS	KWG1600624-1	01/19/16	01/22/16	1020ml	5ml	NA	
ERH018DMS	KWG1600624-2	01/19/16	01/22/16	1040ml	5ml	NA	
Lab Control Sample	KWG1600624-3	NA	NA	1000ml	5ml	NA	
Duplicate Lab Control Sample	KWG1600624-4	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

Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
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Preparation Information Benchsheet

Prep Run: 254748
Team: Metals
Analyst: Anna Cheatley
Prep Workflow: MetDigAqMS
Prep Method: EPA CLP-METALS ILM04.0
Rush/NPDES: N/A
Status: Prepped
Current Step: Digestion
Prep Date: 02/01/2016 13:42
Due Date: 02/08/2016
Hold Date: 07/17/2016

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1600881-01	Method Blank		25 mL	25 mL			Metals D, Metals T	1%HNO3 ULTREX
KQ1600881-02	Lab Control Sample		25 mL	25 mL	0.25 mL 0.25 mL 0.25 mL 0.05 mL	83963 85714 86112 87681	Metals D, Metals T	1%HNO3 ULTREX
K1600673-001	ERH015	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-002	ERH016	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-003	ERH017	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-004	ERH018	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-004: KQ1600881-03	Matrix Spike	.09	25 mL	25 mL	0.25 mL 0.25 mL 0.25 mL 0.05 mL	83963 85714 86112 87681	Metals D	1%HNO3 ULTREX
K1600673-004: KQ1600881-04	Duplicate Matrix Spike	.09	25 mL	25 mL	0.25 mL 0.25 mL 0.25 mL 0.05 mL	83963 85714 86112 87681	Metals D	1%HNO3 ULTREX
K1600673-005	ERH019	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-006	ERH020	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-008	ERH022	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-009	ERH023	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-010	ERH024	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-011	ERH025	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-012	ERH026	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-013	ERH027	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX
K1600673-014	ERH028	.09	25 mL	25 mL			Metals D	1%HNO3 ULTREX

17 Total Samples consisting of 13 Client Samples, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET Mo/U 10ppm	Spike	87681	5/23/2016	k-met 1/100 QCP-CICV-3	Spike	85714	5/4/2016
k-met 1/100 QCP CICV-1	Spike	86112	5/21/2016	k-met Sb 5ug/mL Sb	Spike	83963	3/2/2016

Preparation Materials

Step	Name	ID
Digestion	K-MET 50ml Centrifuge Tube	86108

Step	Name	ID
Digestion	K-MET HNO3 ULTREX	86437

Preparation Hardware / Equipment

Step	Name	Property	Value	
Digestion	K-BlockDigester-05	Corrected Temperature	96	deg C
Digestion	K-BlockDigester-05	Correction Factor	0	deg C
Digestion	K-BlockDigester-05	Observed Temperature 211918066	96	deg C

Step	Name	Property	Value	
Digestion	K-BlockDigester-05	Thermometer ID 1108396		NONE
Digestion	K-BlockDigester-05	Thermometer Location	35	NONE

Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	01-FEB-16 13:42	01-FEB-16 15:42	Anna Cheatley		N	

Comments

Review

Reviewed by: _____ Date: 2/4/16

Preparation Information Benchsheet

Prep Run: 254851
Team: Metals
Analyst: Anna Cheatley
Prep Workflow: MetDigAqMS
Prep Method: EPA CLP-METALS ILM04.0
Rush/NPDES: N/A
Status: Prepped
Current Step: Digestion
Prep Date: 02/03/2016 10:56
Due Date: 02/08/2016
Hold Date: 07/18/2016

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1600937-01	Method Blank		25 mL	25 mL			Metals T	1%HNO3 ULTREX
KQ1600937-02	Lab Control Sample		25 mL	25 mL	0.25 mL 0.25 mL 0.25 mL 0.05 mL	83963 85714 86112 87681	Metals T	1%HNO3 ULTREX
K1600673-007	ERH021	.09	25 mL	25 mL			Metals T	1%HNO3 ULTREX
K1600673-007: KQ1600937-03	Matrix Spike	.09	25 mL	25 mL	0.25 mL 0.25 mL 0.25 mL 0.05 mL	83963 85714 86112 87681	Metals T	1%HNO3 ULTREX
K1600673-007: KQ1600937-04	Duplicate Matrix Spike	.09	25 mL	25 mL	0.25 mL 0.25 mL 0.25 mL 0.05 mL	83963 85714 86112 87681	Metals T	1%HNO3 ULTREX

5 Total Samples consisting of 1 Client Sample, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET Mo/U 10ppm	Spike	87681	5/23/2016	k-met 1/100 QCP-CICV-3	Spike	85714	5/4/2016
k-met 1/100 QCP CICV-1	Spike	86112	5/21/2016	k-met Sb 5ug/mL Sb	Spike	83963	3/2/2016

Preparation Materials

Step	Name	ID	Step	Name	ID
Digestion	K-MET 50ml Centrifuge Tube	86108	Digestion	K-MET HNO3 ULTREX	86437

Preparation Hardware / Equipment

Step	Name	Property	Value		Step	Name	Property	Value	
Digestion	K-BlockDigester-05	Corrected Temperature	95	deg C	Digestion	K-BlockDigester-05	Thermometer ID 1108396		NONE
Digestion	K-BlockDigester-05	Correction Factor	0	deg C	Digestion	K-BlockDigester-05	Thermometer Location	36	NONE
Digestion	K-BlockDigester-05	Observed Temperature 211918066	95	deg C					

Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	03-FEB-16 10:56	03-FEB-16 12:56	Anna Cheatley		N	

Comments

Review

Reviewed by: _____ Date: 2/4/16

ICP-MS LCSW AND SPIKING SOLUTIONS

5.00mL to 500mL Dilution of Inorganics Ventures QCP-CICV-1

k-met 1/100 QCP-CICV-1

Analyte	Concentration in solution (ppb)	Concentration in digest (ppb)
Al	10000	100
Ag	1250	12.5
Ba	10000	100
Be	250	2.5
Ca	25000	250
Co	2500	25
Cu	1250	12.5
Cr	1000	10
Fe	5000	50
K	25000	250
Mg	25000	250
Mn	2500	25
Na	25000	250
Ni	2500	25
V	2500	25
Zn	2500	25

2.50mL to 500mL Dilution of 1000ppm Sb

k-met 5ug/mL Sb

Analyte	Concentration in solution (ppb)	Concentration in digest (ppb)
Sb	5000	50

5.00mL to 500mL Dilution of Inorganics Ventures QCP-CICV-3

k-met 1/100 QCP-CICV-3

Analyte	Concentration in solution (ppb)	Concentration in digest (ppb)
As	5000	50
Pb	5000	50
Se	5000	50
Tl	5000	50
Cd	2500	25

2.00mL to 200mL Dilution of 1,000 ppm Mo and 1,000 ppm U

k-met Mo/U 10ppm

Analyte	Concentration in solution (ppb)	Concentration in digest (ppb)
Mo	10000	20
U	10000	20

Service Request # K1600673
Calibration 020416AMS03
QC in calibration 020416AMS03
QC Service Request # K1600673
STARLIMS run # ~~408603~~ 482603
Cal Std: MS19-86E 2/4/16 ICSA Std: MS19-85F
ICV Std: MS19-85C ICSAB Std: MS19-85F
LLICV Std: MS19-85D I.S. Solution: MS19-2H

6020A DoD 5.0 Data Review Form

	Yes	No	NA
1. Mass calibration <0.1 amu?	X		
2. Resolution <0.9 amu at 10% peak height?	X		
3. Stability RSD ≤5% for five replicates?	X		
4. Appropriate standardization completed?	X		
5. ICV within 10% of true value?	X		
6. CCV's within 10% of true?	X		
7. ICB/CCB's <LOD?	X		
8. Initial Low-level cal. check ± 20%	X		
9. ICSA/ICSAB within ± 20%	X		
10. Method blank <½ the LOQ?	X		
11. LCS within DoD 5.0 limit?	X		
12. Spikes within DoD 5.0 limit?	X		
13. Duplicate Spike RPD <20% DoD limit?	X		
14. Serial dilution within 10%?	X		
15. Post spike within 80-120% DoD limit?	X		
16. Internal standards within 70-120%?	X		
17. Linear range established with LRS?	X		
18. Adequate rinse out time allowed?	X		
20. Interferences checked?	X		
21. Se over MRL?		X	
22. Cd Correction Applied?			X
23. Was run prematurely stopped, If so why?		X	

Comments:

Primary Review by _____ Date 2/4/16
Secondary Review by _____ Date 2/8/16

R:\icp\misc\data review forms\6020 DoD Review Checklist

Data Review Form

Service Request #:	**K1600673**
Instrument ID#:	**K-ICP-MS-03**
DataFile Name:	**R:\ICP\WIP\DATA\K-ICP-MS-03 (X-Series) \020416AMS03.csv**
RUNNO:	**482603**

There are no issues to report.

Primary Approver: 2/4/16

Secondary Approver:

Sample List

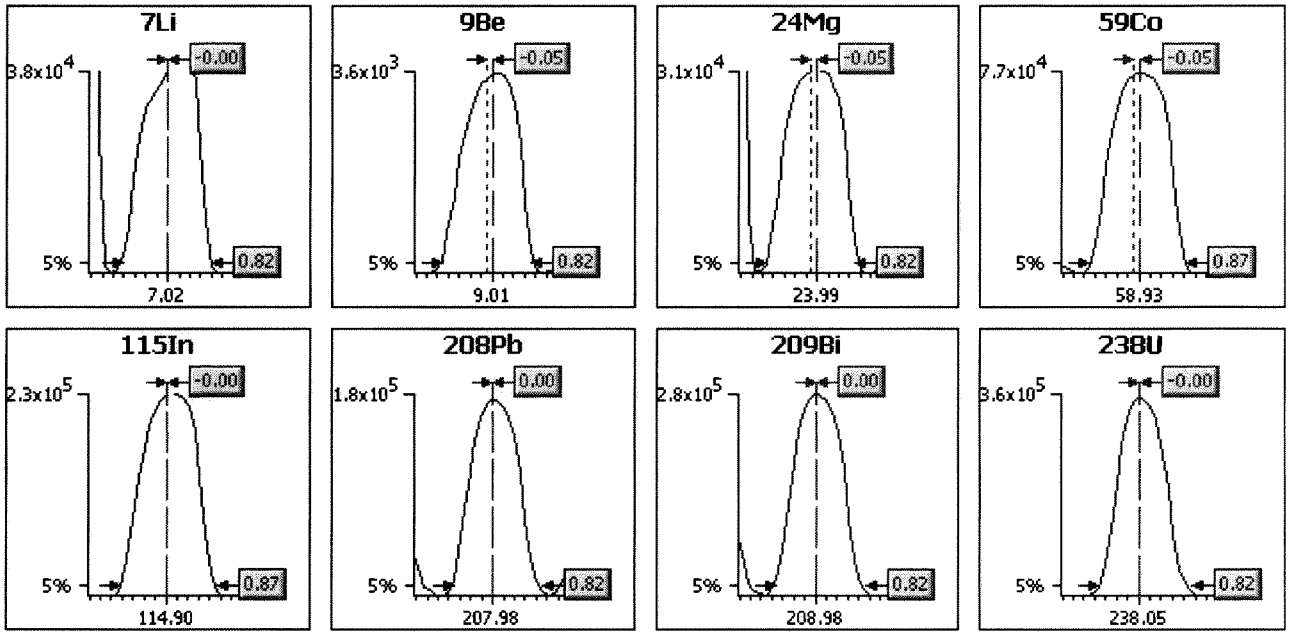
No	Label	Type	Weight	Rack	Row	Col	Height
1	Cal. Blk	Blank	1.000	0	1	1	145
2	Cal. Stn	Fully Quant Standard	1.000	0	1	2	145
3	ICV1	Unknown	1.000	0	1	3	145
4	CCV1	Unknown	1.000	0	1	2	145
5	ICB1	Unknown	1.000	0	1	1	145
6	CCB1	Unknown	1.000	0	1	1	145
7	LLICVW	Unknown	1.000	0	1	4	145
8	LRSTD	Unknown	1.000	2	1	1	145
9	ICSA	Unknown	1.000	0	1	5	145
10	ICSAB	Unknown	1.000	0	1	6	145
11	KQ1600881-01	Unknown	1.000	1	1	1	145
12	K1600673-004 DISS	Unknown	1.000	1	1	3	145
13	K1600673-004L DISS	Unknown	1.000	1	1	4	145
14	K1600673-004A DISS	Unknown	1.000	1	1	5	145
15	K1600673-004S DISS	Unknown	1.000	1	1	6	145
16	K1600673-004SD DISS	Unknown	1.000	1	1	7	145
17	KQ1600881-02	Unknown	1.000	1	1	2	145
18	K1600673-001 DISS	Unknown	1.000	1	1	8	145
19	K1600673-002 DISS	Unknown	1.000	1	1	9	145
20	K1600673-003 DISS	Unknown	1.000	1	1	10	145
21	CCV2	Unknown	1.000	0	1	2	145
22	CCB2	Unknown	1.000	0	1	1	145
23	K1600673-005 DISS	Unknown	1.000	1	1	11	145
24	K1600673-006 DISS	Unknown	1.000	1	1	12	145
25	K1600673-008 DISS	Unknown	1.000	1	2	1	145
26	K1600673-009 DISS	Unknown	1.000	1	2	2	145
27	K1600673-010 DISS	Unknown	1.000	1	2	3	145
28	K1600673-011 DISS	Unknown	1.000	1	2	4	145
29	K1600673-012 DISS	Unknown	1.000	1	2	5	145
30	K1600673-013 DISS	Unknown	1.000	1	2	6	145
31	K1600673-014 DISS	Unknown	1.000	1	2	7	145
32	CCV3	Unknown	1.000	0	1	2	145
33	CCB3	Unknown	1.000	0	1	1	145
34	KQ1600937-01	Unknown	1.000	1	2	8	145
35	K1600673-007	Unknown	1.000	1	2	10	145
36	K1600673-007D	Unknown	1.000	1	2	11	145
37	K1600673-007S	Unknown	1.000	1	2	12	145
38	KQ1600937-02	Unknown	1.000	1	2	9	145
39	CCV4	Unknown	1.000	0	1	2	145
40	CCB4	Unknown	1.000	0	1	1	145
41	CCB4	Unknown	1.000	0	1	1	145
42	LLCCVW	Unknown	1.000	0	1	4	145

Performance Report

Sample details
Acquired at : 2/4/2016 5:59:41 AM
Report name : Kelso Performance Report 3 [8/24/2011 10:10:34 AM]

Mass Calibration verification

Acquisition parameters
Sweeps : 100
Dwell : 1.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
7Li	0.90	0.60	0.10	0.82	-0.00
9Be	0.90	0.60	0.10	0.82	-0.05
24Mg	0.90	0.60	0.10	0.82	-0.05
59Co	0.90	0.60	0.10	0.87	-0.05
115In	0.90	0.60	0.10	0.87	-0.00
208Pb	0.90	0.60	0.10	0.82	0.00
209Bi	0.90	0.60	0.10	0.82	0.00
238U	0.90	0.60	0.10	0.82	-0.00

Sample details
Acquired at : 2/4/2016 5:59:41 AM
Report name : Kelso Performance Report 3 [8/24/2011 10:10:34 AM]

Tune conditions

Major	
Extraction	-122
Lens 1	2.9
Focus	18.8
D1	-39.2
Pole Bias	0.4
Hexapole Bias	0.3
Nebuliser	0.79
Sampling Depth	63

Minor	
Lens 2	-18.0
Lens 3	-198.4
Forward power	1349
Horizontal	144
Vertical	325
D2	-151
DA	-32.2
Cool	13.0
Auxiliary	0.80

Global	
Standard resolution	110
High resolution	71
Analogue Detector	1930
PC Detector	2975

Add. Gases

Sensitivity and stability results

Acquisition parameters
Sweeps : 400

Run	Time	5Bkg	7Li	9Be	24Mg	59Co	115In	140Ce	156Ce O	208Pb
Dwell (mSecs)		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	5.0%	-	-	5.0%
	Countrate	-	>1000	>1000	>1000	>1000	>1000	-	-	>1000
1	6:00:12 AM	0.250	39163.175	3447.904	30962.387	77231.420	230319.59	254283.50	3116.034	180634.94
2	6:01:25 AM	0.250	39950.590	3451.405	31149.525	76931.393	229490.52	253521.66	3190.310	180137.21
3	6:02:38 AM	0.000	41028.375	3537.438	31135.979	76887.020	228250.63	252135.40	3241.578	180575.78
4	6:03:50 AM	0.000	41628.343	3614.969	31167.085	76730.203	228931.43	252239.99	3147.295	180370.77
5	6:05:02 AM	0.000	41995.777	3579.955	31202.958	76819.704	228977.32	252941.33	3173.804	179791.72
x		0.100	40753.252	3526.334	31123.587	76919.948	229193.90	253024.38	3173.804	180302.08
σ		0.14	1178.77	75.20	93.55	189.92	768.23	900.71	47.19	345.72
%RSD		136.931	2.892	2.133	0.301	0.247	0.335	0.356	1.487	0.192

Run	Time	209Bi	220Bkg	238U
Dwell (mSecs)		10.0	10.0	10.0
Limits	%RSD	5.0%	-	5.0%
	Countrate	>1000	-	>1000
1	6:00:12 AM	284087.53	0.000	364258.82
2	6:01:25 AM	285254.22	0.000	363859.54
3	6:02:38 AM	284820.17	0.250	364570.18
4	6:03:50 AM	284873.04	0.000	363058.71
5	6:05:02 AM	283649.93	0.000	363431.94
x		284536.98	0.050	363835.84
σ		651.24	0.11	609.47
%RSD		0.229	223.607	0.168

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0300
1	6:00:12 AM	0.012
2	6:01:25 AM	0.013
3	6:02:38 AM	0.013
4	6:03:50 AM	0.012
5	6:05:02 AM	0.013
x		0.0125
σ		0.00
%RSD		1.7269

Result : The performance report passed.

Dilution Corrected Concentrations

Cal. Blk 2/4/2016 6:24:52 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:24:52	99.8%	100.3%	0.0004	0.0005	0.0003
2	06:25:04	100.8%	99.7%	0.0001	0.0000	0.0001
3	06:25:16	99.4%	100.1%	-0.0005	-0.0005	-0.0004
x		100.0%	100.0%	-0.0000	0.0000	-0.0000
σ		0.7%	0.3%	0.0004	0.0005	0.0004
%RSD		0.7	0.3	0.0000	0.0000	0.0000

Cal. Stn 2/4/2016 6:27:01 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:27:01	99.5%	101.3%	25.0415	24.8729	25.0451
2	06:27:13	101.0%	102.1%	24.9270	24.8793	24.9323
3	06:27:25	101.5%	101.7%	25.0314	25.2477	25.0226
x		100.7%	101.7%	25.0000	25.0000	25.0000
σ		1.0%	0.4%	0.0634	0.2146	0.0597
%RSD		1.0	0.4	0.2536	0.8582	0.2388

ICV1 2/4/2016 6:29:16 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:29:16	99.1%	100.1%	24.3364	25.2489	24.9364
2	06:29:28	100.3%	101.0%	24.6051	25.1817	24.8523
3	06:29:41	100.3%	100.5%	24.8362	25.3602	24.9421
x		99.9%	100.5%	24.5925	25.2636	24.9103
σ		0.7%	0.5%	0.2501	0.0901	0.0503
%RSD		0.7	0.5	1.0171	0.3568	0.2018

CCV1 2/4/2016 6:31:18 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:31:18	100.5%	100.4%	25.2439	25.0478	24.9937
2	06:31:30	100.6%	100.7%	25.3800	25.3185	25.1649
3	06:31:42	100.7%	101.7%	25.1553	25.3348	25.0610
x		100.6%	100.9%	25.2597	25.2337	25.0732
σ		0.1%	0.7%	0.1132	0.1612	0.0863
%RSD		0.1	0.7	0.4480	0.6389	0.3440

ICB1 2/4/2016 6:35:21 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:35:21	97.8%	99.4%	0.0050	0.0053	0.0055
2	06:35:33	98.6%	98.9%	0.0107	0.0079	0.0086
3	06:35:45	98.8%	99.3%	0.0109	0.0092	0.0091
x		98.4%	99.2%	0.0089	0.0075	0.0077
σ		0.5%	0.2%	0.0034	0.0020	0.0020
%RSD		0.5	0.2	37.9510	26.7952	25.2157

CCB1 2/4/2016 6:40:33 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:40:33	95.6%	97.2%	0.0023	0.0016	0.0026
2	06:40:46	97.7%	97.6%	0.0030	0.0059	0.0040
3	06:40:58	99.0%	99.6%	0.0041	0.0045	0.0039
x		97.4%	98.1%	0.0031	0.0040	0.0035
σ		1.7%	1.3%	0.0009	0.0022	0.0008
%RSD		1.7	1.3	29.5259	55.6277	23.2991

LLICVW 2/4/2016 6:42:57 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:42:57	96.2%	98.2%	0.0198	0.0228	0.0205
2	06:43:09	99.3%	98.1%	0.0227	0.0202	0.0213
3	06:43:22	98.8%	99.8%	0.0219	0.0199	0.0212
x		98.1%	98.7%	0.0215	0.0209	0.0210
σ		1.7%	0.9%	0.0015	0.0016	0.0004
%RSD		1.7	1.0	7.0892	7.5135	1.9649

LRSTD 2/4/2016 6:51:23 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:51:23	98.6%	98.3%	202.7673	203.5727	202.4987
2	06:51:35	98.2%	98.4%	205.3735	205.6560	204.0166
3	06:51:47	98.8%	99.2%	202.2647	203.1951	202.4161
x		98.5%	98.7%	203.4685	204.1413	202.9771
σ		0.3%	0.5%	1.6688	1.3253	0.9012
%RSD		0.3	0.5	0.8202	0.6492	0.4440

ICSA 2/4/2016 6:58:22 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	06:58:22	89.6%	90.4%	0.0993	0.0950	0.0951
2	06:58:34	90.3%	92.9%	0.0932	0.0888	0.0921
3	06:58:47	90.8%	92.8%	0.0958	0.1014	0.0979
x		90.2%	92.0%	0.0961	0.0951	0.0950
σ		0.6%	1.4%	0.0031	0.0063	0.0029
%RSD		0.7	1.5	3.2103	6.6201	3.0054

ICSAB 2/4/2016 7:03:14 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:03:14	91.0%	92.3%	0.0976	0.0990	0.0927
2	07:03:26	92.8%	92.3%	0.1002	0.0909	0.0937
3	07:03:38	92.5%	93.2%	0.0996	0.0951	0.0938
x		92.1%	92.6%	0.0992	0.0950	0.0934
σ		1.0%	0.5%	0.0014	0.0041	0.0006
%RSD		1.1	0.6	1.3892	4.3134	0.6377

KQ1600881-01 2/4/2016 7:14:48 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:14:48	99.9%	99.5%	0.0073	0.0066	0.0068
2	07:15:00	102.0%	100.6%	0.0067	0.0060	0.0069
3	07:15:12	102.6%	102.5%	0.0104	0.0089	0.0088
x		101.5%	100.9%	0.0081	0.0072	0.0075
σ		1.4%	1.6%	0.0020	0.0015	0.0012
%RSD		1.4	1.5	24.1269	21.4909	15.3501

K1600673-004 DISS 2/4/2016 7:18:03 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:18:03	91.9%	92.9%	0.0093	0.0106	0.0099
2	07:18:15	93.6%	93.5%	0.0105	0.0105	0.0100
3	07:18:27	93.9%	94.2%	0.0116	0.0096	0.0108
x		93.1%	93.5%	0.0105	0.0102	0.0102
σ		1.1%	0.7%	0.0011	0.0006	0.0005
%RSD		1.1	0.7	10.8451	5.4089	4.6509

K1600673-004L DISS 2/4/2016 7:20:27 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:20:27	97.1%	99.5%	0.0041	0.0043	0.0036
2	07:20:39	98.1%	98.6%	0.0023	0.0037	0.0028
3	07:20:52	97.8%	99.4%	0.0037	0.0025	0.0030
x		97.7%	99.2%	0.0034	0.0035	0.0032
σ		0.5%	0.5%	0.0010	0.0009	0.0004
%RSD		0.5	0.5	28.3136	25.9352	13.1807

K1600673-004A DISS 2/4/2016 7:22:34 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:22:34	94.7%	94.0%	20.5458	20.5757	20.3348
2	07:22:47	94.5%	94.7%	20.4119	20.4112	20.3112
3	07:22:59	95.2%	96.1%	20.1510	20.2723	20.0050
x		94.8%	94.9%	20.3696	20.4197	20.2170
σ		0.4%	1.1%	0.2008	0.1519	0.1840
%RSD		0.4	1.1	0.9857	0.7438	0.9099

K1600673-004S DISS 2/4/2016 7:25:47 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:25:47	93.8%	94.8%	46.6810	49.0037	47.9315
2	07:25:59	94.2%	95.3%	47.3982	48.6636	48.2455
3	07:26:11	93.8%	97.1%	46.2416	48.0914	47.4059
x		93.9%	95.7%	46.7736	48.5862	47.8610
σ		0.2%	1.2%	0.5839	0.4610	0.4242
%RSD		0.2	1.2	1.2483	0.9489	0.8864

K1600673-004SD DISS 2/4/2016 7:28:04 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:28:04	95.0%	95.7%	46.8738	48.8839	47.6877
2	07:28:17	95.3%	96.2%	47.1046	48.3915	48.0337
3	07:28:29	95.5%	96.3%	47.3377	48.5593	47.9424
x		95.3%	96.1%	47.1054	48.6116	47.8879
σ		0.3%	0.3%	0.2320	0.2503	0.1793
%RSD		0.3	0.3	0.4924	0.5150	0.3745

KQ1600881-02 2/4/2016 7:30:22 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:30:22	101.9%	102.8%	48.3154	49.8198	49.2641
2	07:30:34	103.9%	102.1%	49.3230	50.9639	50.1234
3	07:30:46	102.7%	103.6%	48.1496	50.1770	49.5355
x		102.8%	102.8%	48.5960	50.3202	49.6410
σ		1.0%	0.8%	0.6350	0.5853	0.4392
%RSD		1.0	0.8	1.3067	1.1632	0.8848

K1600673-001 DISS 2/4/2016 7:36:04 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:36:04	92.5%	93.0%	0.2809	0.2781	0.2790
2	07:36:17	93.3%	94.9%	0.2836	0.2690	0.2701
3	07:36:29	94.1%	95.3%	0.2701	0.2678	0.2700
x		93.3%	94.4%	0.2782	0.2716	0.2730
σ		0.8%	1.2%	0.0071	0.0056	0.0051
%RSD		0.8	1.3	2.5576	2.0608	1.8825

K1600673-002 DISS 2/4/2016 7:39:08 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:39:08	93.1%	94.1%	0.0359	0.0333	0.0458
2	07:39:20	96.0%	96.6%	0.0362	0.0359	0.0350
3	07:39:32	95.3%	96.8%	0.0399	0.0378	0.0377
x		94.8%	95.8%	0.0373	0.0356	0.0395
σ		1.5%	1.5%	0.0023	0.0023	0.0056
%RSD		1.6	1.6	6.0972	6.3131	14.1231

K1600673-003 DISS 2/4/2016 7:42:07 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:42:07	94.9%	96.7%	0.0153	0.0151	0.0144
2	07:42:20	95.2%	97.4%	0.0139	0.0115	0.0137
3	07:42:32	96.8%	97.7%	0.0147	0.0137	0.0162
x		95.6%	97.3%	0.0146	0.0134	0.0147
σ		1.0%	0.5%	0.0007	0.0018	0.0013
%RSD		1.1	0.5	4.8603	13.4342	8.6375

CCV2 2/4/2016 7:44:28 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:44:28	104.0%	103.4%	25.1539	25.3129	24.9678
2	07:44:40	103.1%	104.6%	25.1343	24.9481	25.0910
3	07:44:53	105.0%	104.5%	24.9507	25.2743	24.8947
x		104.0%	104.2%	25.0796	25.1784	24.9845
σ		1.0%	0.7%	0.1121	0.2004	0.0992
%RSD		0.9	0.6	0.4468	0.7959	0.3972

CCB2 2/4/2016 7:51:06 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:51:06	99.2%	98.8%	0.0035	0.0052	0.0048
2	07:51:19	100.3%	99.8%	0.0072	0.0065	0.0062
3	07:51:31	100.6%	99.4%	0.0079	0.0080	0.0076
x		100.1%	99.3%	0.0062	0.0066	0.0062
σ		0.7%	0.5%	0.0024	0.0014	0.0014
%RSD		0.7	0.5	38.0097	21.6379	22.6330

K1600673-005 DISS 2/4/2016 7:53:33 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:53:33	94.7%	96.4%	0.0395	0.0367	0.0372
2	07:53:45	95.8%	97.4%	0.0405	0.0342	0.0359
3	07:53:58	96.8%	96.3%	0.0384	0.0374	0.0381
x		95.8%	96.7%	0.0395	0.0361	0.0371
σ		1.1%	0.6%	0.0010	0.0017	0.0011
%RSD		1.1	0.6	2.6552	4.6942	2.9121

K1600673-006 DISS 2/4/2016 7:56:03 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:56:03	96.5%	95.4%	0.0735	0.0748	0.0721
2	07:56:15	95.8%	97.2%	0.0721	0.0688	0.0703
3	07:56:27	96.1%	97.2%	0.0762	0.0717	0.0734
x		96.1%	96.6%	0.0739	0.0718	0.0719
σ		0.3%	1.1%	0.0021	0.0030	0.0015
%RSD		0.4	1.1	2.8120	4.2271	2.1290

K1600673-008 DISS 2/4/2016 7:58:31 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	07:58:31	94.3%	94.5%	0.0206	0.0179	0.0186
2	07:58:43	95.0%	95.6%	0.0177	0.0189	0.0187
3	07:58:55	94.9%	96.4%	0.0195	0.0178	0.0177
x		94.7%	95.5%	0.0193	0.0182	0.0183
σ		0.4%	0.9%	0.0015	0.0006	0.0005
%RSD		0.4	1.0	7.6053	3.2789	2.9716

K1600673-009 DISS 2/4/2016 8:00:53 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:00:53	94.2%	96.9%	0.0288	0.0257	0.0265
2	08:01:05	95.4%	97.0%	0.0270	0.0235	0.0262
3	08:01:17	95.2%	97.8%	0.0263	0.0265	0.0263
x		94.9%	97.2%	0.0274	0.0252	0.0264
σ		0.6%	0.5%	0.0013	0.0016	0.0002
%RSD		0.6	0.5	4.7302	6.2150	0.6505

K1600673-010 DISS 2/4/2016 8:03:19 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:03:19	95.9%	97.7%	0.0369	0.0337	0.0343
2	08:03:32	96.7%	98.0%	0.0327	0.0354	0.0348
3	08:03:44	96.5%	97.8%	0.0340	0.0346	0.0347
x		96.3%	97.8%	0.0345	0.0346	0.0346
σ		0.4%	0.2%	0.0022	0.0008	0.0003
%RSD		0.4	0.2	6.2618	2.3570	0.7644

K1600673-011 DISS 2/4/2016 8:05:46 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:05:46	94.8%	96.1%	0.0284	0.0294	0.0289
2	08:05:58	96.6%	96.7%	0.0334	0.0285	0.0312
3	08:06:10	96.2%	97.0%	0.0311	0.0304	0.0291
x		95.8%	96.6%	0.0310	0.0294	0.0297
σ		0.9%	0.5%	0.0025	0.0009	0.0012
%RSD		1.0	0.5	8.0697	3.2222	4.1470

K1600673-012 DISS 2/4/2016 8:08:12 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:08:12	93.7%	95.0%	0.0982	0.0960	0.0938
2	08:08:24	95.7%	96.5%	0.0960	0.0927	0.0927
3	08:08:36	95.4%	96.0%	0.0935	0.0939	0.0934
x		94.9%	95.8%	0.0959	0.0942	0.0933
σ		1.1%	0.8%	0.0023	0.0016	0.0006
%RSD		1.1	0.8	2.4343	1.7473	0.5910

K1600673-013 DISS 2/4/2016 8:10:39 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:10:39	97.6%	98.5%	0.0129	0.0105	0.0124
2	08:10:52	100.5%	99.5%	0.0118	0.0123	0.0127
3	08:11:04	101.3%	100.8%	0.0124	0.0117	0.0130
x		99.8%	99.6%	0.0124	0.0115	0.0127
σ		1.9%	1.1%	0.0006	0.0009	0.0003
%RSD		1.9	1.1	4.5540	8.0066	2.2700

K1600673-014 DISS 2/4/2016 8:13:04 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:13:04	96.4%	97.8%	0.0145	0.0114	0.0126
2	08:13:16	97.4%	98.2%	0.0126	0.0124	0.0127
3	08:13:29	98.2%	98.7%	0.0137	0.0131	0.0133
x		97.3%	98.2%	0.0136	0.0123	0.0129
σ		0.9%	0.4%	0.0009	0.0008	0.0004
%RSD		0.9	0.5	6.9066	6.8379	2.7643

CCV3 2/4/2016 8:15:32 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:15:32	96.7%	96.3%	25.7881	25.9026	25.6393
2	08:15:44	97.0%	97.6%	25.7012	25.6483	25.5145
3	08:15:56	97.7%	97.6%	25.7244	25.5316	25.5421
x		97.1%	97.2%	25.7379	25.6942	25.5653
σ		0.5%	0.8%	0.0450	0.1897	0.0656
%RSD		0.5	0.8	0.1747	0.7383	0.2565

CCB3 2/4/2016 8:19:15 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:19:15	93.9%	93.9%	0.0049	0.0062	0.0053
2	08:19:27	96.1%	95.3%	0.0076	0.0054	0.0068
3	08:19:40	95.9%	95.9%	0.0085	0.0071	0.0076
x		95.3%	95.0%	0.0070	0.0062	0.0065
σ		1.2%	1.0%	0.0019	0.0008	0.0012
%RSD		1.3	1.1	26.6743	13.1564	18.1409

KQ1600937-01 2/4/2016 8:21:45 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:21:45	94.5%	95.3%	0.0036	0.0029	0.0031
2	08:21:58	96.8%	95.7%	0.0036	0.0042	0.0036
3	08:22:11	94.2%	95.9%	0.0041	0.0032	0.0040
x		95.2%	95.6%	0.0038	0.0034	0.0036
σ		1.4%	0.3%	0.0003	0.0007	0.0005
%RSD		1.5	0.4	7.0447	19.5423	13.3774

K1600673-007 2/4/2016 8:24:10 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:24:10	91.4%	93.1%	0.0396	0.0346	0.0360
2	08:24:23	92.2%	93.3%	0.0383	0.0402	0.0368
3	08:24:35	92.6%	93.7%	0.0325	0.0336	0.0344
x		92.1%	93.4%	0.0368	0.0361	0.0357
σ		0.6%	0.3%	0.0038	0.0035	0.0012
%RSD		0.7	0.3	10.2657	9.7886	3.3680

0075 2/4/16

K1600673-007D 2/4/2016 8:26:37 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:26:37	92.6%	94.7%	47.8125	49.3851	48.9281
2	08:26:49	94.2%	95.2%	48.2618	49.9078	48.8698
3	08:27:01	94.1%	94.7%	48.6020	49.8840	49.1236
x		93.6%	94.9%	48.2254	49.7257	48.9738
σ		0.9%	0.3%	0.3960	0.2952	0.1330
%RSD		0.9	0.3	0.8211	0.5936	0.2715

0075D

2/4/16

K1600673-007S 2/4/2016 8:29:54 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:29:54	92.8%	93.8%	48.0788	50.2209	49.0163
2	08:30:06	93.0%	94.9%	47.9406	50.1832	49.1307
3	08:30:19	93.8%	95.9%	47.9345	49.2767	48.8352
x		93.2%	94.9%	47.9846	49.8936	48.9941
σ		0.5%	1.0%	0.0816	0.5346	0.1490
%RSD		0.6	1.1	0.1700	1.0715	0.3041

KQ1600937-02 2/4/2016 8:32:14 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:32:14	95.9%	97.9%	48.7774	50.2707	49.8234
2	08:32:27	96.5%	98.2%	48.8996	50.5257	49.8519
3	08:32:39	97.7%	98.4%	49.1145	50.0096	49.7595
x		96.7%	98.2%	48.9305	50.2687	49.8116
σ		0.9%	0.2%	0.1706	0.2581	0.0473
%RSD		0.9	0.2	0.3487	0.5133	0.0950

CCV4 2/4/2016 8:34:46 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:34:46	94.9%	96.5%	25.3144	25.2926	25.2767
2	08:34:59	95.7%	96.0%	25.8474	25.5256	25.5982
3	08:35:11	95.5%	97.6%	25.2349	25.3806	25.2047
x		95.4%	96.7%	25.4656	25.3996	25.3599
σ		0.4%	0.8%	0.3331	0.1176	0.2095
%RSD		0.4	0.8	1.3080	0.4631	0.8262

CCB4 2/4/2016 8:39:12 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:39:12	92.8%	93.1%	0.0081	0.0068	0.0076
2	08:39:24	92.4%	94.4%	0.0108	0.0110	0.0106
3	08:39:36	92.7%	94.2%	0.0112	0.0139	0.0123
x		92.6%	93.9%	0.0100	0.0106	0.0102
σ		0.2%	0.7%	0.0017	0.0035	0.0024
%RSD		0.2	0.8	17.2514	33.5316	23.7126

2/4/16

✓ → COD See Rev

CCB4 2/4/2016 8:41:36 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:41:36	91.7%	94.2%	0.0063	0.0052	0.0051
2	08:41:49	93.3%	94.0%	0.0069	0.0076	0.0057
3	08:42:01	93.9%	95.4%	0.0066	0.0066	0.0067
x		93.0%	94.5%	0.0066	0.0065	0.0058
σ		1.1%	0.8%	0.0003	0.0012	0.0008
%RSD		1.2	0.8	5.1006	18.7035	13.8239

LLCCVW 2/4/2016 8:43:57 AM

User Pre-dilution: 1.000

Run	Time	169Tm	175Lu	206Pb	207Pb	208Pb
		ppb	ppb	ppb	ppb	ppb
1	08:43:57	93.2%	93.1%	0.0221	0.0230	0.0228
2	08:44:09	93.2%	93.9%	0.0218	0.0206	0.0217
3	08:44:22	93.7%	94.6%	0.0246	0.0251	0.0247
x		93.4%	93.9%	0.0228	0.0229	0.0231
σ		0.3%	0.7%	0.0015	0.0023	0.0015
%RSD		0.3	0.8	6.6529	9.8443	6.6690

EPA Method 8011

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:\GC33\DATA\012616-504\0126008.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 12:30
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: _____

Printed: 01/27/2016 07:46:58
u:\Stealth\Crystal.rpt\except2.rpt

Exception Report

Data File: J:\GC33\DATA\012616-504\0126008.D\0126008C.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 12:30
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126008.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126008.D\0126008c.d			**Vial:**	14
Acqu Date:	01/26/2016 12:30	**Quant Date:**	01/26/2016 15:51	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-001				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496050	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.65	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 12:30:31
Operator : AM
Sample : K1600673-001
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:22 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

Target Compounds

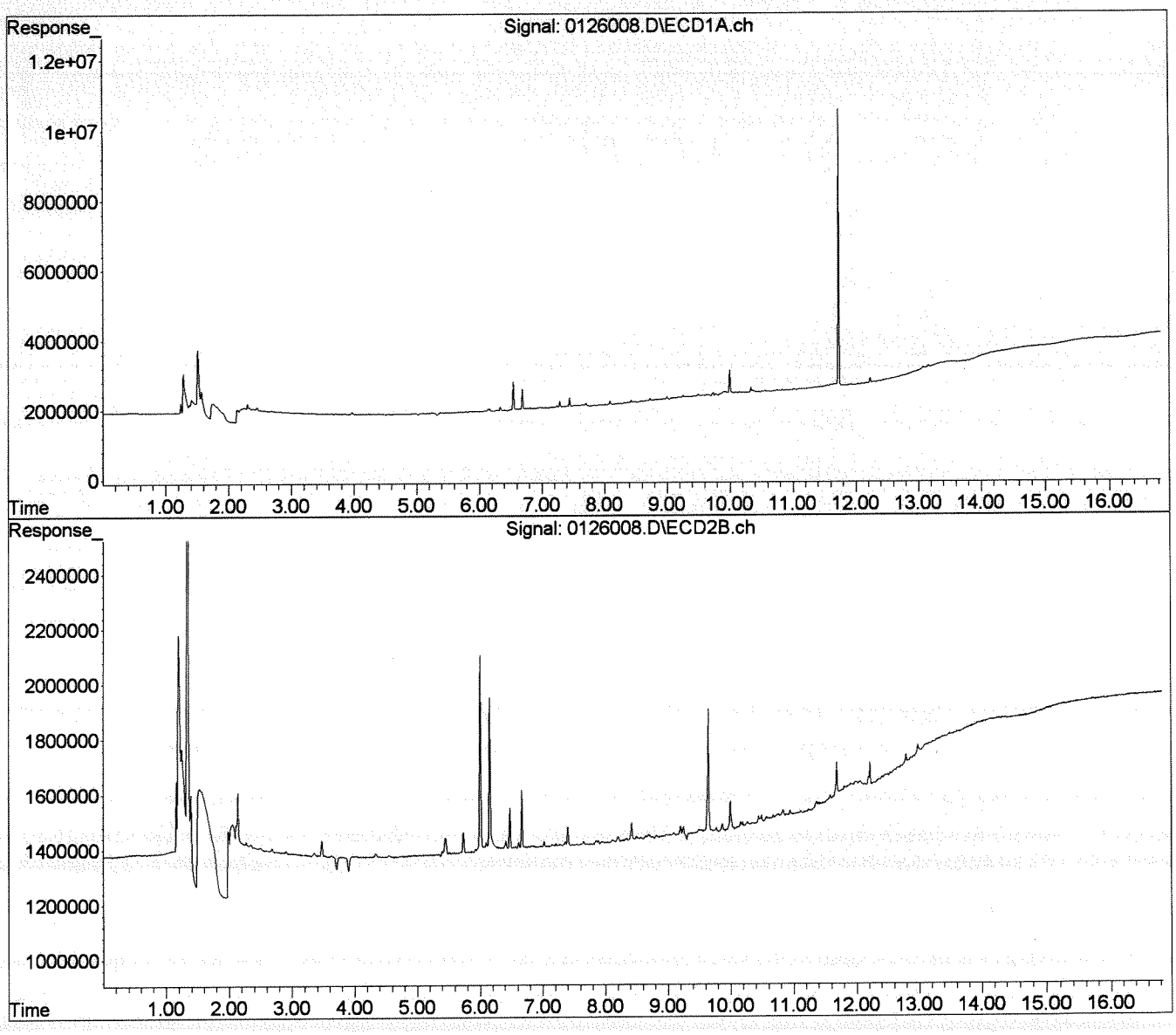
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126008.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 12:30:31
Operator : AM
Sample : K1600673-001
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:22 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126009.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 12:54
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: M

Exception Report

Data File: J:\GC33\DATA\012616-504\0126009.D\0126009C.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 12:54
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: MJ

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126009.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126009.D\0126009c.d			**Vial:**	15
Acqu Date:	01/26/2016 12:54	**Quant Date:**	01/26/2016 15:51	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-002				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
		Prep Date:	01/25/2016		
Prep Ref:	1496051				

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.95	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 12:54:06
Operator : AM
Sample : K1600673-002
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:37 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

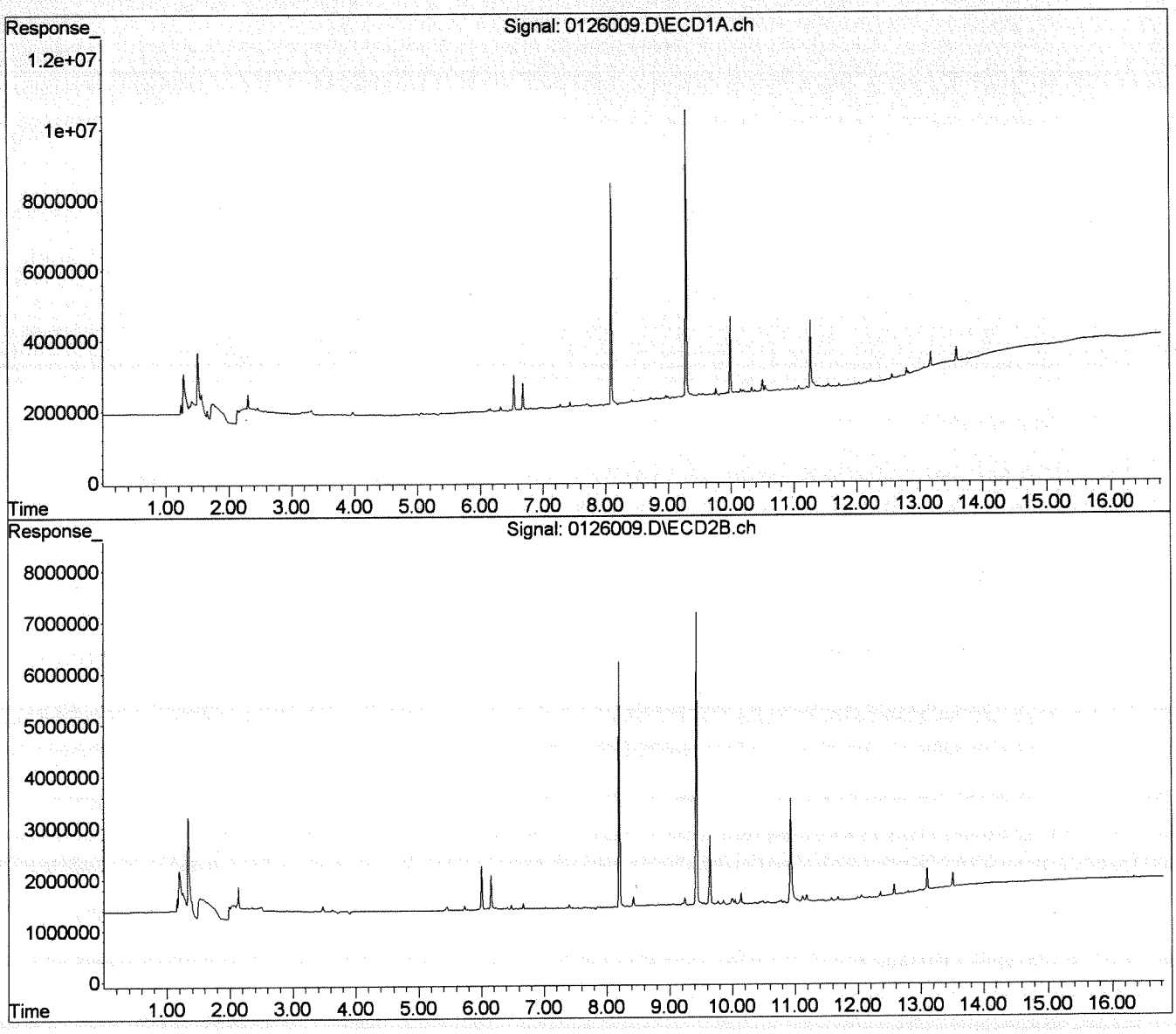
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126009.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 12:54:06
Operator : AM
Sample : K1600673-002
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:37 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126010.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 13:17
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: 1/27/16

Secondary Review:

Printed: 01/27/2016 07:47:10
u:\Stealth\Crystal.rpt\except2.rpt

Exception Report

Data File: J:\GC33\DATA\012616-504\0126010.D\0126010C.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 13:17
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: MD

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126010.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126010.D\0126010c.d			**Vial:**	16
Acqu Date:	01/26/2016 13:17	**Quant Date:**	01/26/2016 15:51	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-003				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
		Prep Date:	01/25/2016		
Prep Ref:	1496052				

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.77	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126010.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 13:17:48
Operator : AM
Sample : K1600673-003
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:45 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

Target Compounds

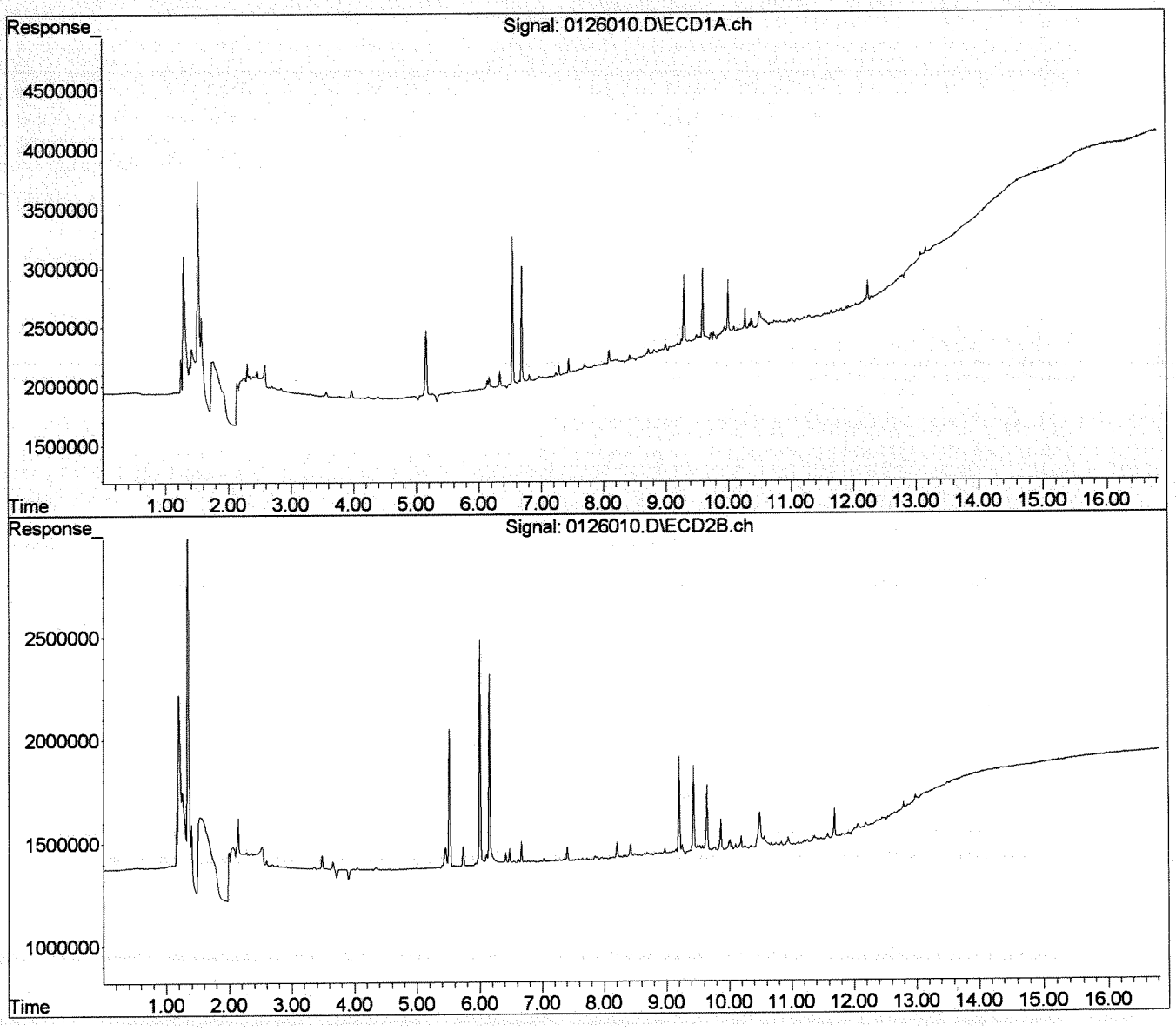
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126010.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 13:17:48
Operator : AM
Sample : K1600673-003
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:45 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126011.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 13:41
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: 1/27/16

Secondary Review:

Printed: 01/27/2016 07:47:16
u:\Stealth\Crystal.rpt\except2.rpt

Exception Report

Data File: J:\GC33\DATA\012616-504\0126011.D\0126011C.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 13:41
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126011.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126011.D\0126011c.d			**Vial:**	17
Acqu Date:	01/26/2016 13:41	**Quant Date:**	01/26/2016 15:51	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-004				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496053	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.88	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126011.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 13:41:23
Operator : AM
Sample : K1600673-004
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:59 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

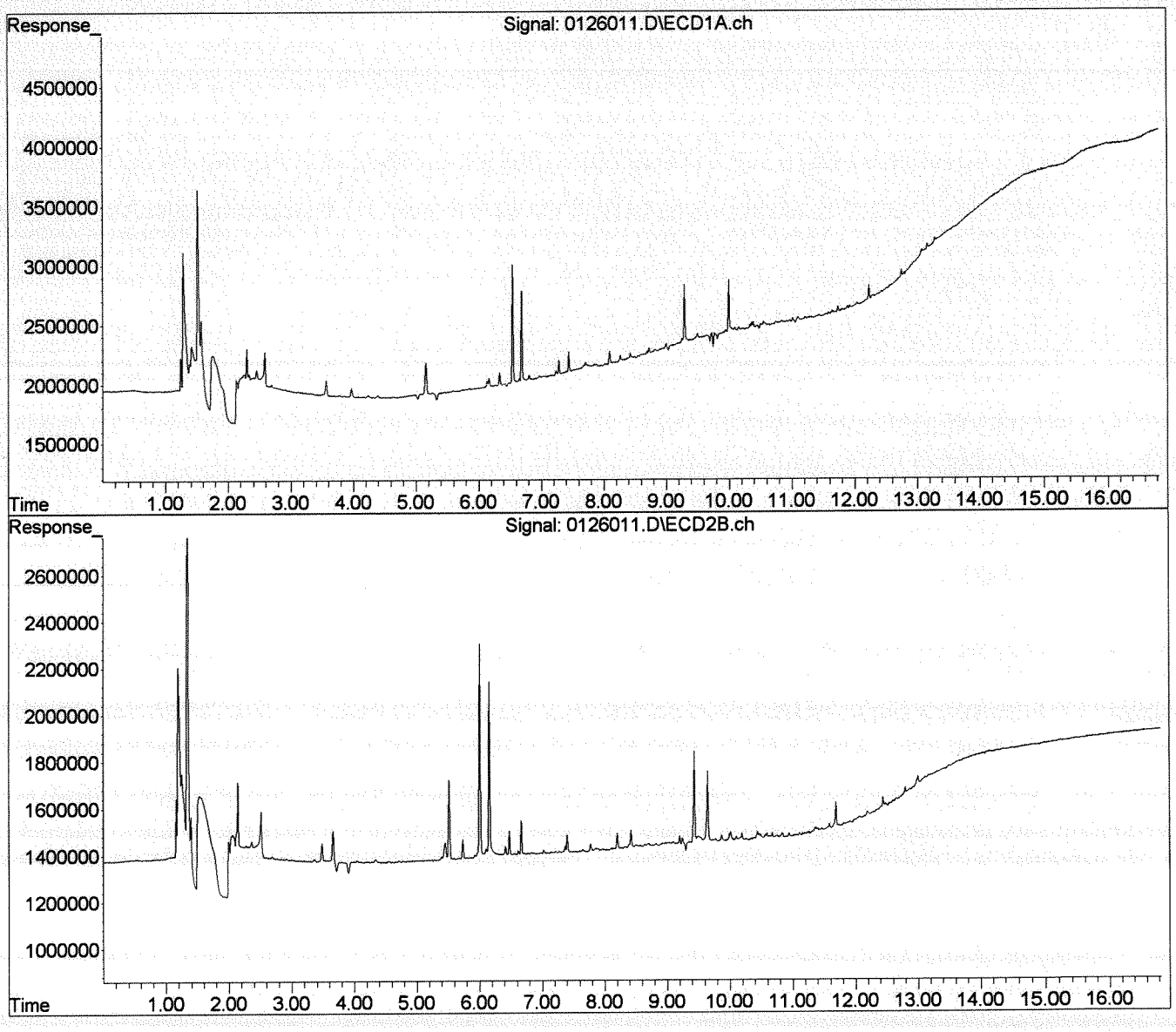
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126011.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 13:41:23
Operator : AM
Sample : K1600673-004
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:59 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126014.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 14:52
Date Quantitated: 01/26/2016 15:52
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126014.D\0126014C.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 14:52
Date Quantitated: 01/26/2016 15:52
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: AM 1/27/16

Secondary Review: MH

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126014.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126014.D\0126014c.d			**Vial:**	20
Acqu Date:	01/26/2016 14:52	**Quant Date:**	01/26/2016 15:52	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-005				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496054	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.96	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:52:15
Operator : AM
Sample : K1600673-005
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:52:41 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

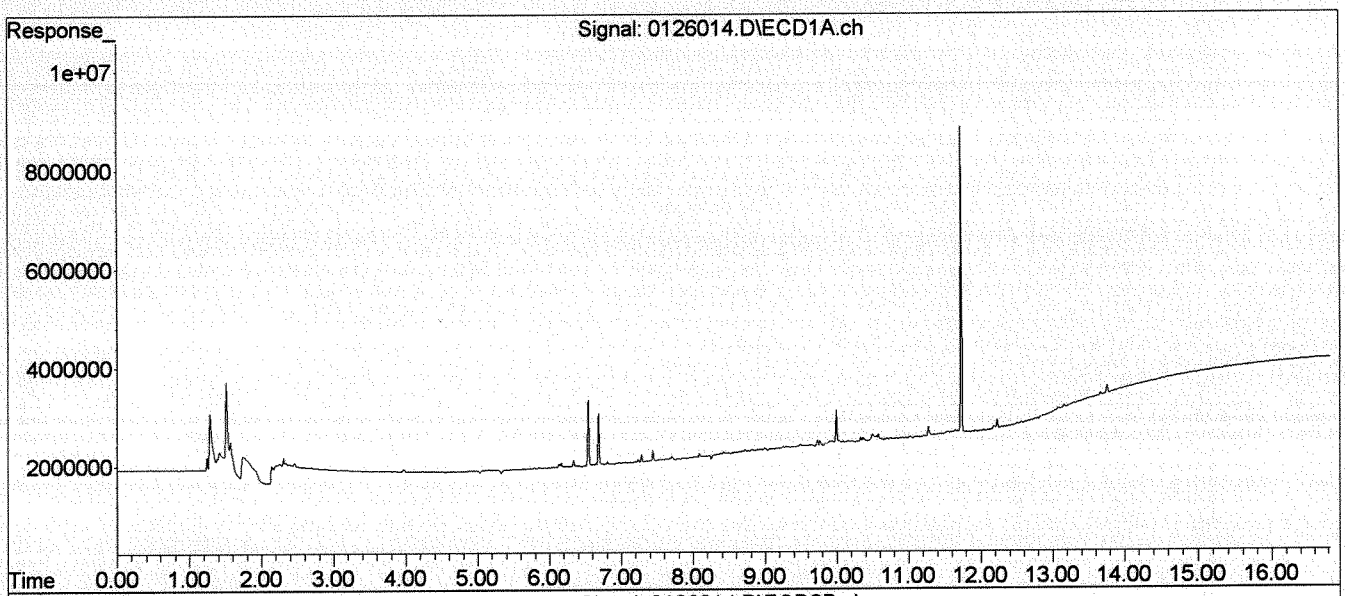
Target Compounds

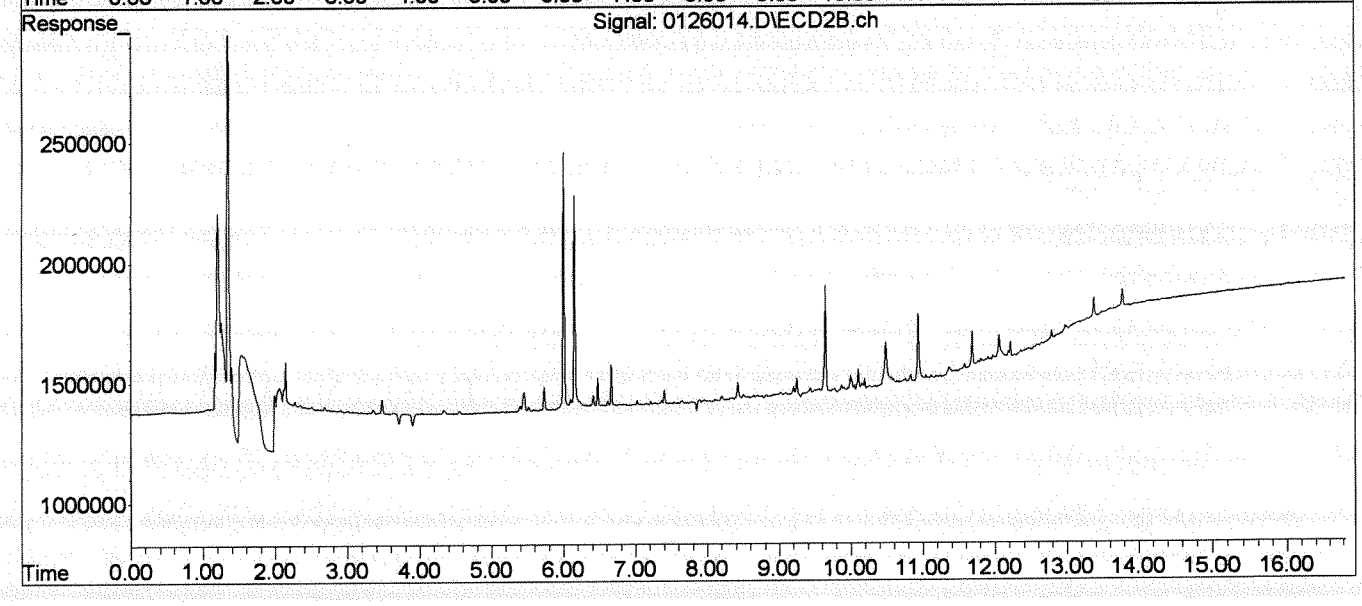
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:52:15
Operator : AM
Sample : K1600673-005
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:52:41 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





Exception Report

Data File: J:\GC33\DATA\012616-504\0126015.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 15:15
Date Quantitated: 01/26/2016 15:52
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: MM

Exception Report

Data File: J:\GC33\DATA\012616-504\0126015.D\0126015C.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 15:15
Date Quantitated: 01/26/2016 15:52
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126015.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126015.D\0126015c.d			**Vial:**	21
Acqu Date:	01/26/2016 15:15	**Quant Date:**	01/26/2016 15:52	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-006				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496055	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.71	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126015.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 15:15:53
Operator : AM
Sample : K1600673-006
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:52:54 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

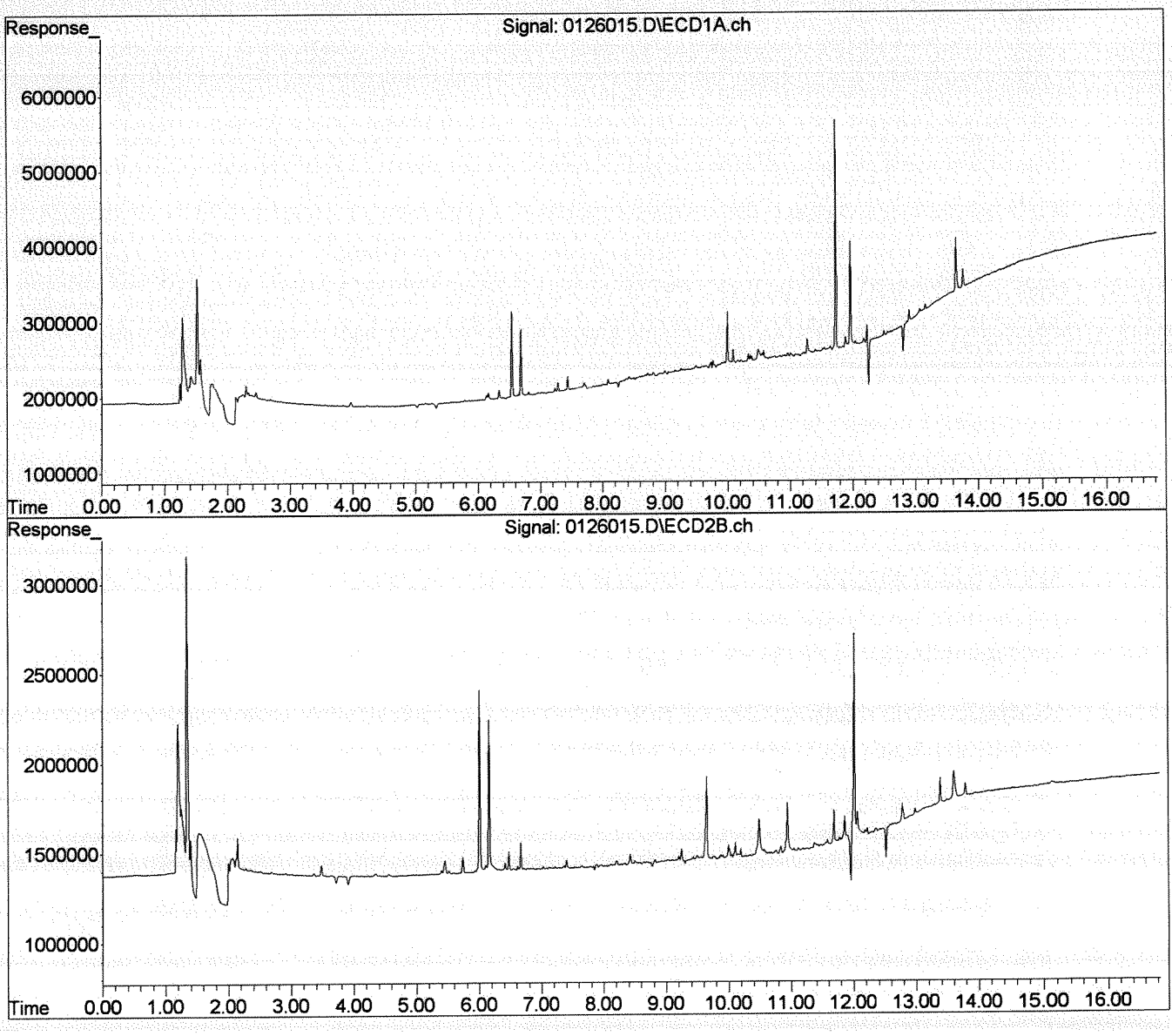
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126015.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 15:15:53
Operator : AM
Sample : K1600673-006
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:52:54 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126016.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 15:39
Date Quantitated: 01/26/2016 15:59
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: cm 1/27/16

Secondary Review: NM

Exception Report

Data File: J:\GC33\DATA\012616-504\0126016.D\0126016C.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 15:39
Date Quantitated: 01/26/2016 15:59
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: M

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126016.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126016.D\0126016c.d			**Vial:**	22
Acqu Date:	01/26/2016 15:39	**Quant Date:**	01/26/2016 15:59	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-007				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496056	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.98	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126016.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 15:39:35
Operator : AM
Sample : K1600673-007
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:59:24 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

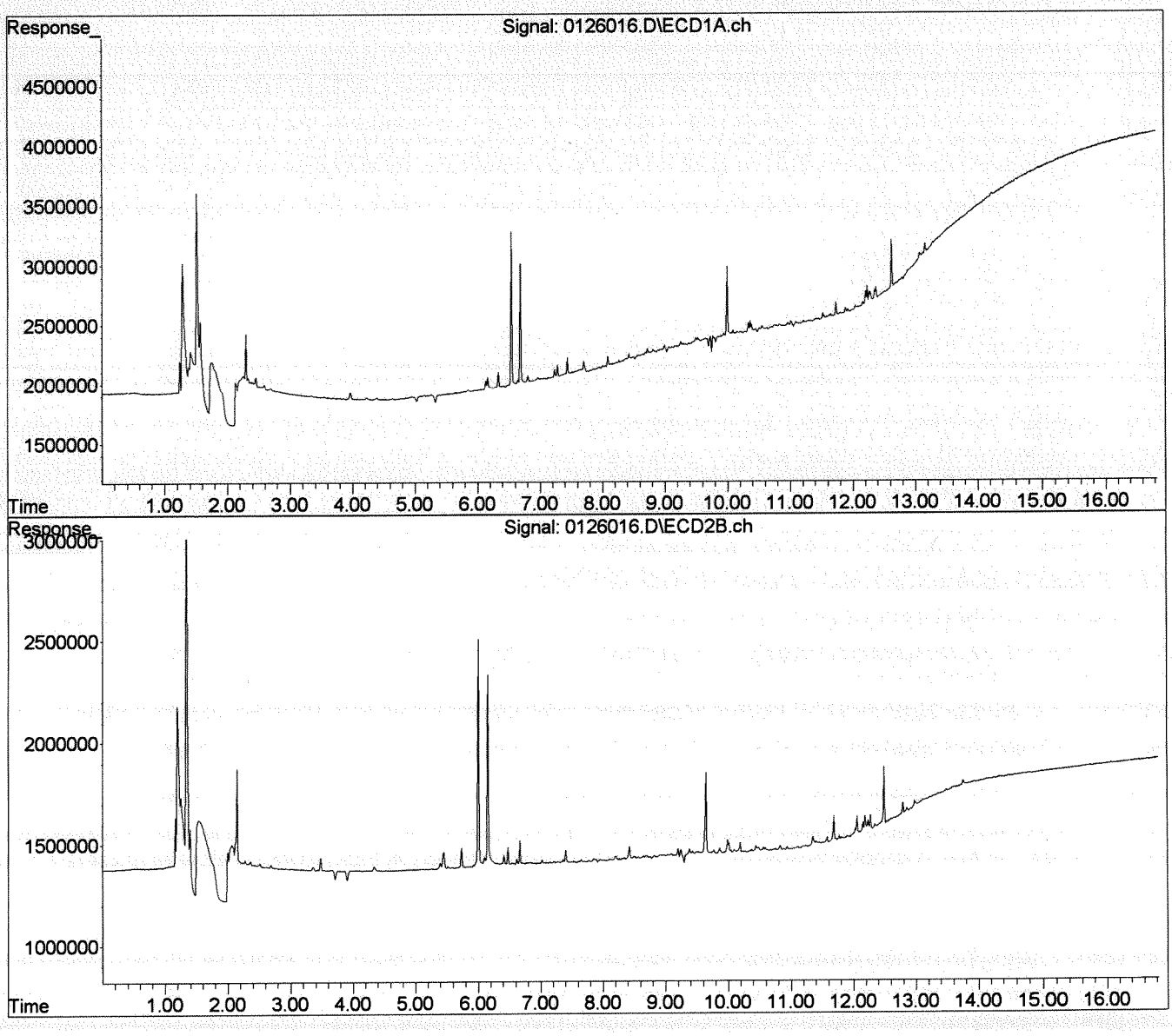
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126016.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 15:39:35
Operator : AM
Sample : K1600673-007
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:59:24 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126017.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 16:03
Date Quantitated: 01/27/2016 06:34
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: MJ

Exception Report

Data File: J:\GC33\DATA\012616-504\0126017.D\0126017C.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 16:03
Date Quantitated: 01/27/2016 06:34
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Qm 1/27/16

Secondary Review: M

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126017.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126017.D\0126017c.d			**Vial:**	23
Acqu Date:	01/26/2016 16:03	**Quant Date:**	01/27/2016 06:34	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-008				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496057	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.78	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:03:07
Operator : AM
Sample : K1600673-008
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:34:30 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

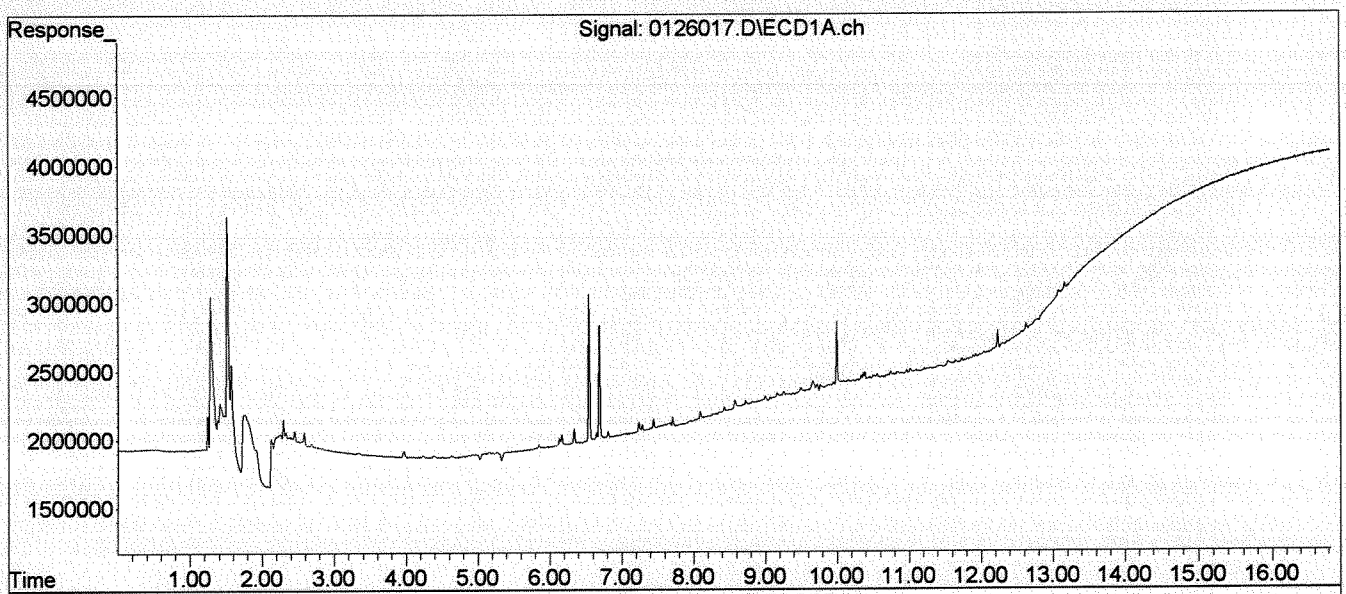
Target Compounds

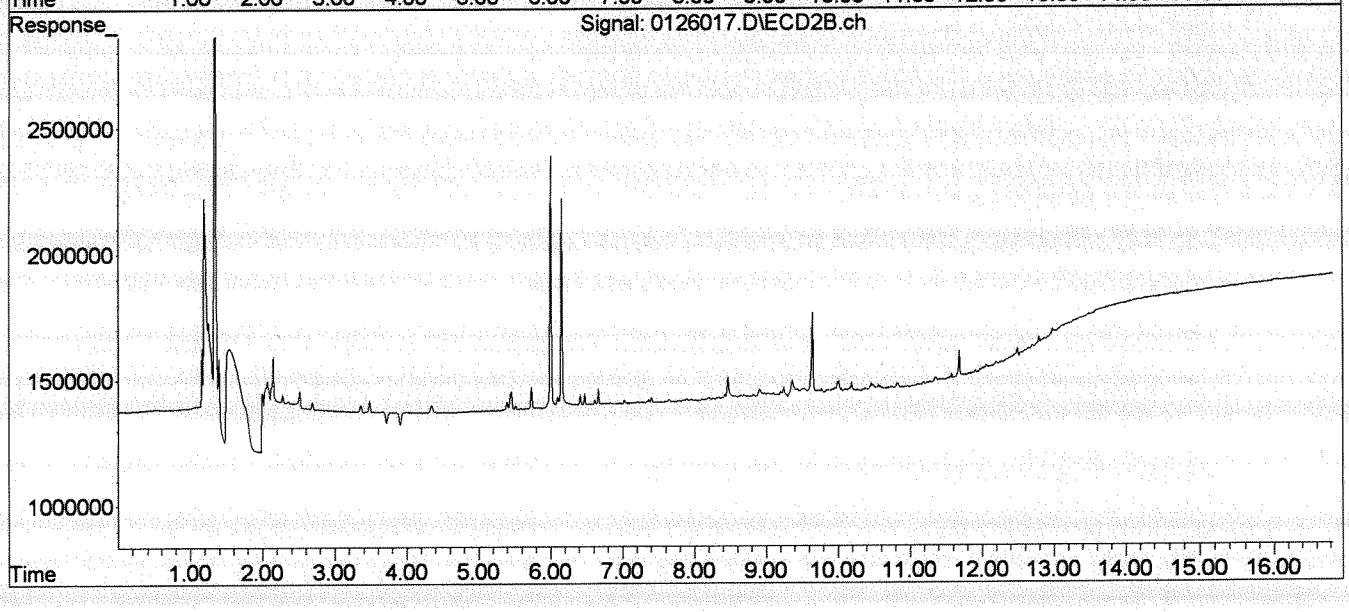
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126017.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:03:07
Operator : AM
Sample : K1600673-008
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:34:30 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP
Signal #1 Info : 320 x 0.50 um
Signal #2 Phase: RTX-CLP2
Signal #2 Info : 320 x 0.25 um





Exception Report

Data File: J:\GC33\DATA\012616-504\0126018.D
Lab ID: KWG1600708-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 16:26
Date Quantitated: 01/27/2016 06:49
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: M

Exception Report

Data File: J:\GC33\DATA\012616-504\0126020.D
Lab ID: K1600673-009
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 17:14
Date Quantitated: 01/27/2016 06:35
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126020.D\0126020C.D
Lab ID: K1600673-009
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 17:14
Date Quantitated: 01/27/2016 06:35
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126020.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126020.D\0126020c.d			**Vial:**	24
Acqu Date:	01/26/2016 17:14	**Quant Date:**	01/27/2016 06:35	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-009				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496058	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.88	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126020.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 17:14:03
Operator : AM
Sample : K1600673-009
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:35:53 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

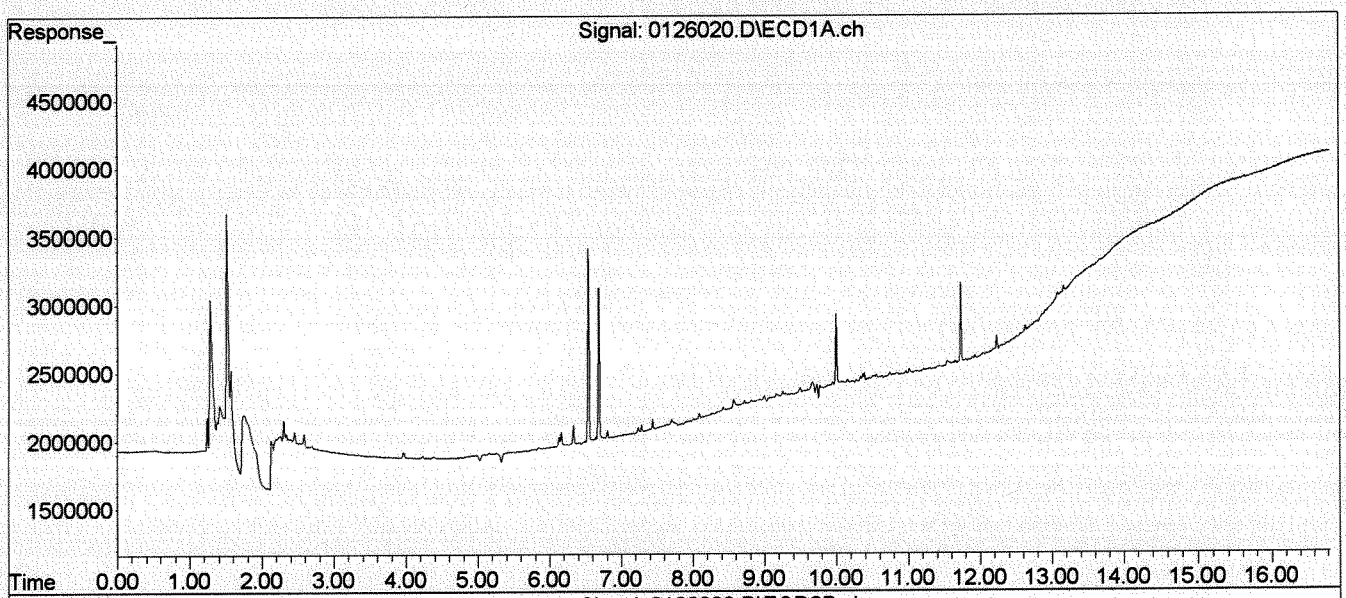
Target Compounds

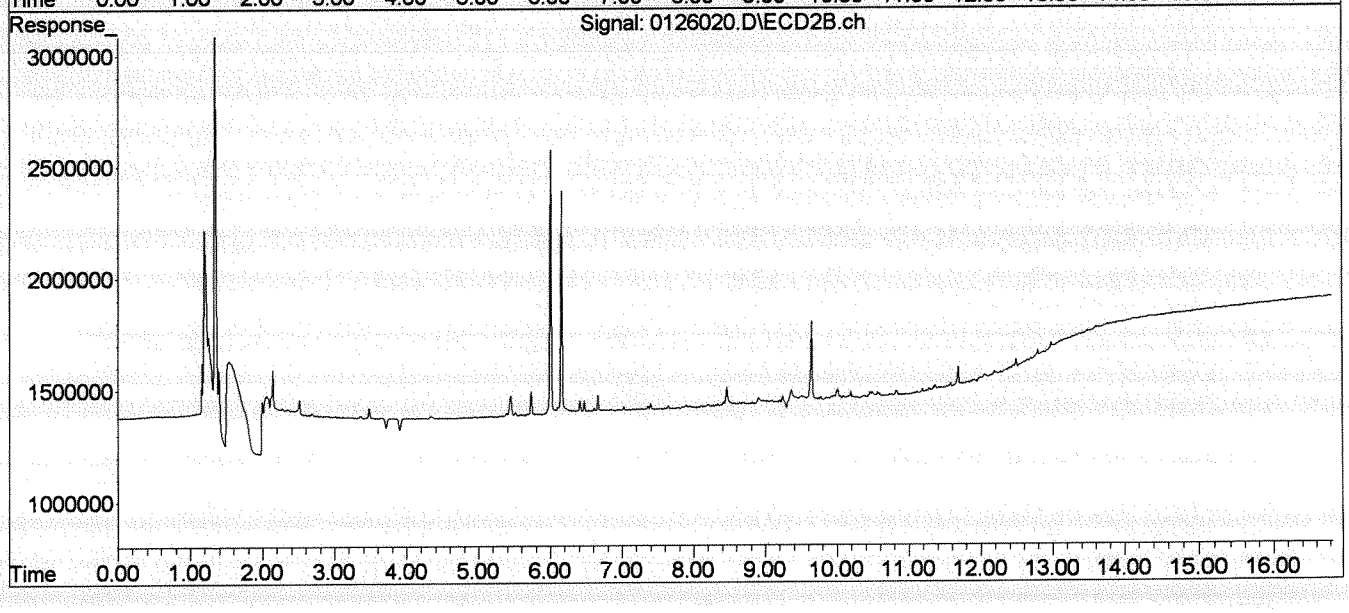
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126020.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 17:14:03
Operator : AM
Sample : K1600673-009
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:35:53 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





Exception Report

Data File:	J:\GC33\DATA\012616-504\0126021.D	**Date Acquired:**	01/26/2016 17:37
Lab ID:	K1600673-010	**Date Quantitated:**	01/27/2016 06:36
RunType:	SMPL	**Batch ID:**	KWG1600708
Matrix:	WATER	**Analysis Method:**	8011
		ListJoinID:	LJ17653

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: cm 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126021.D\0126021C.D
Lab ID: K1600673-010
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 17:37
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: cm 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126021.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126021.D\0126021c.d			**Vial:**	25
Acqu Date:	01/26/2016 17:37	**Quant Date:**	01/27/2016 06:36	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-010				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496059	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	36.07	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126021.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 17:37:41
Operator : AM
Sample : K1600673-010
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:06 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

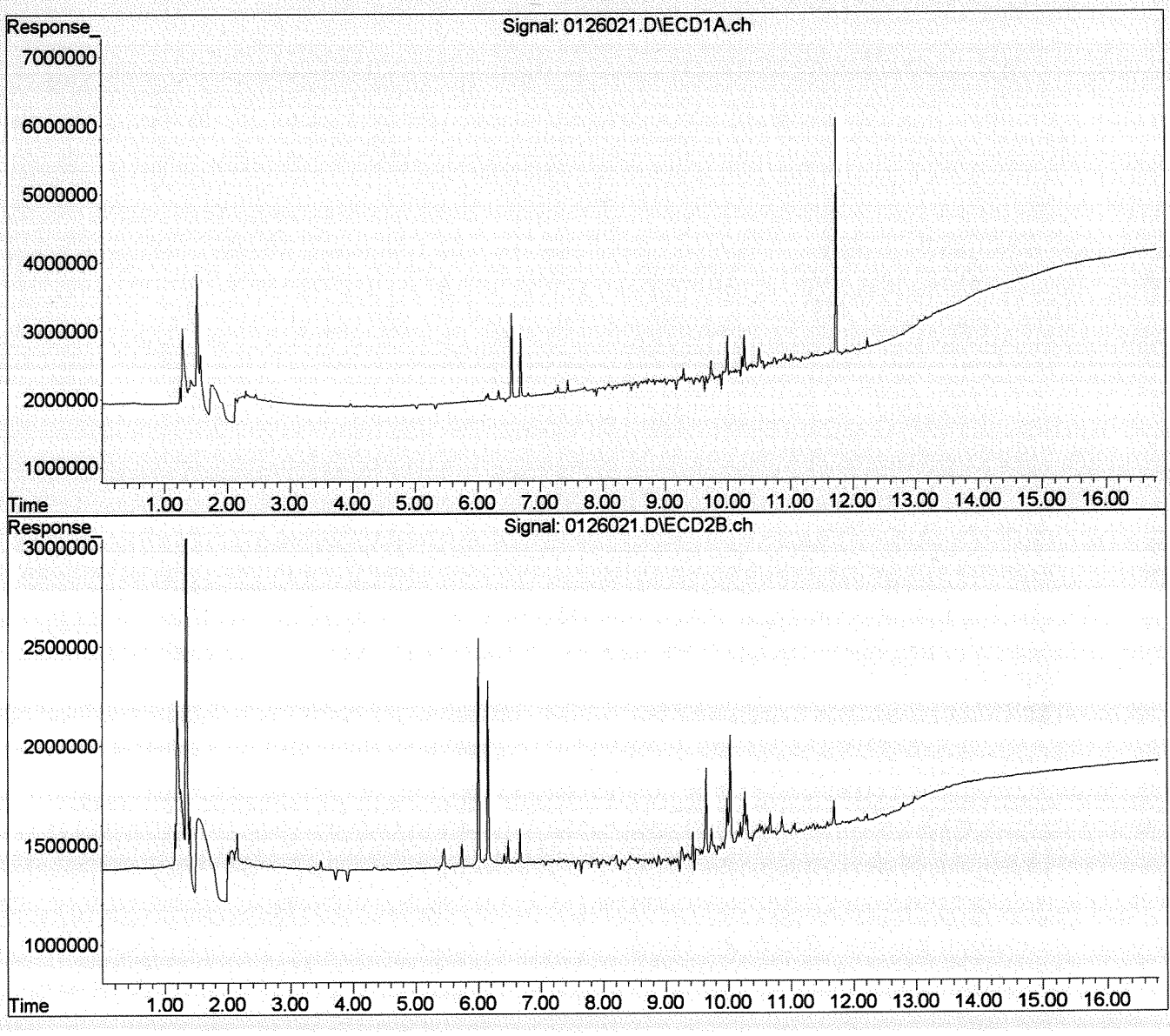
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126021.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 17:37:41
Operator : AM
Sample : K1600673-010
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:06 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126022.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 18:01
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126022.D\0126022C.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 18:01
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126022.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126022.D\0126022c.d			**Vial:**	26
Acqu Date:	01/26/2016 18:01	**Quant Date:**	01/27/2016 06:36	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-011				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496060	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.83	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126022.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 18:01:21
Operator : AM
Sample : K1600673-011
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:26 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

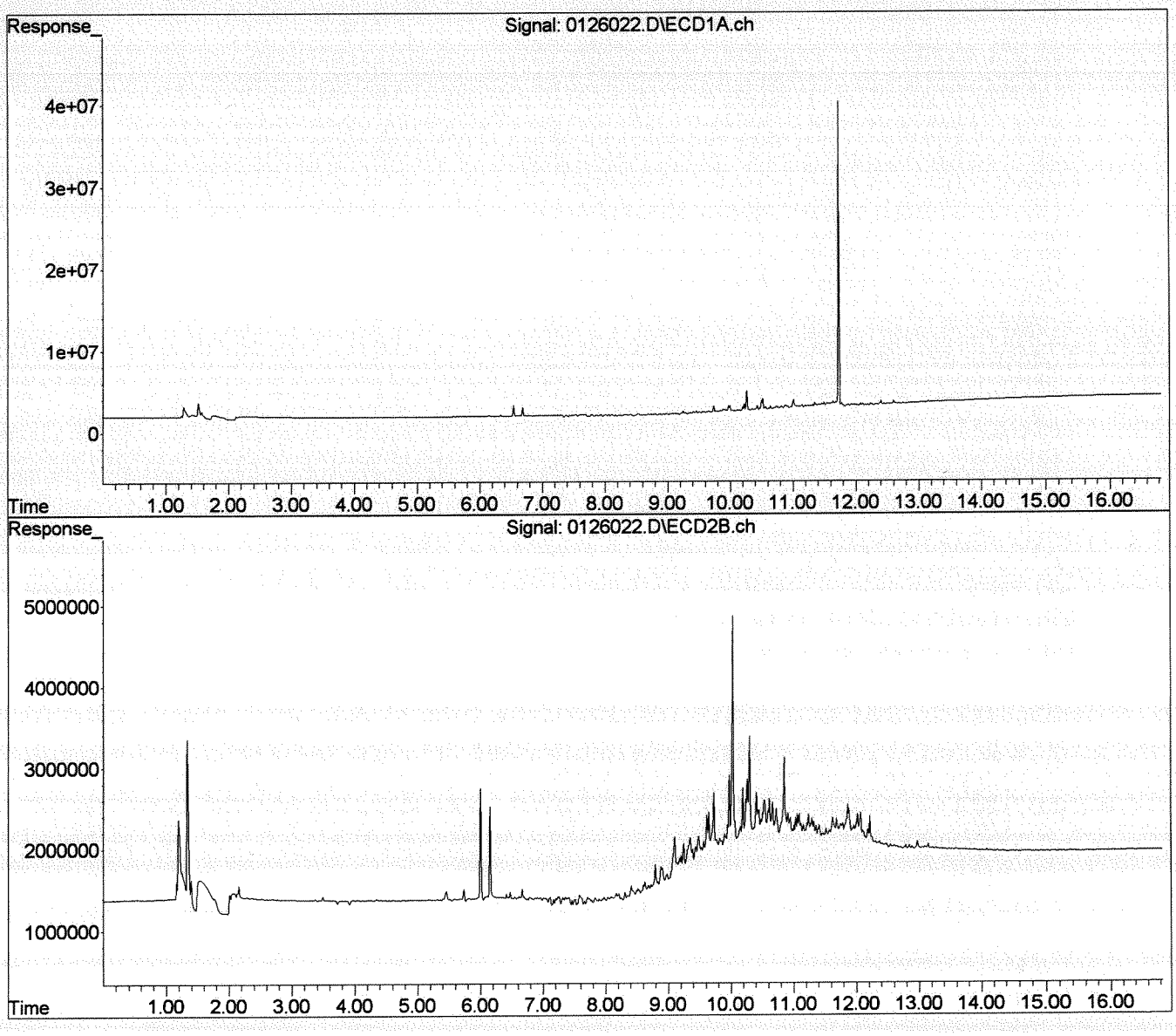
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126022.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 18:01:21
Operator : AM
Sample : K1600673-011
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:26 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126023.D
Lab ID: K1600673-012
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 18:24
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: MM

Exception Report

Data File: J:\GC33\DATA\012616-504\0126023.D\0126023C.D
Lab ID: K1600673-012
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 18:24
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: MM

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126023.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126023.D\0126023c.d			**Vial:**	27
Acqu Date:	01/26/2016 18:24	**Quant Date:**	01/27/2016 06:36	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-012				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496061	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	36.12	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126023.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 18:24:56
Operator : AM
Sample : K1600673-012
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:35 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

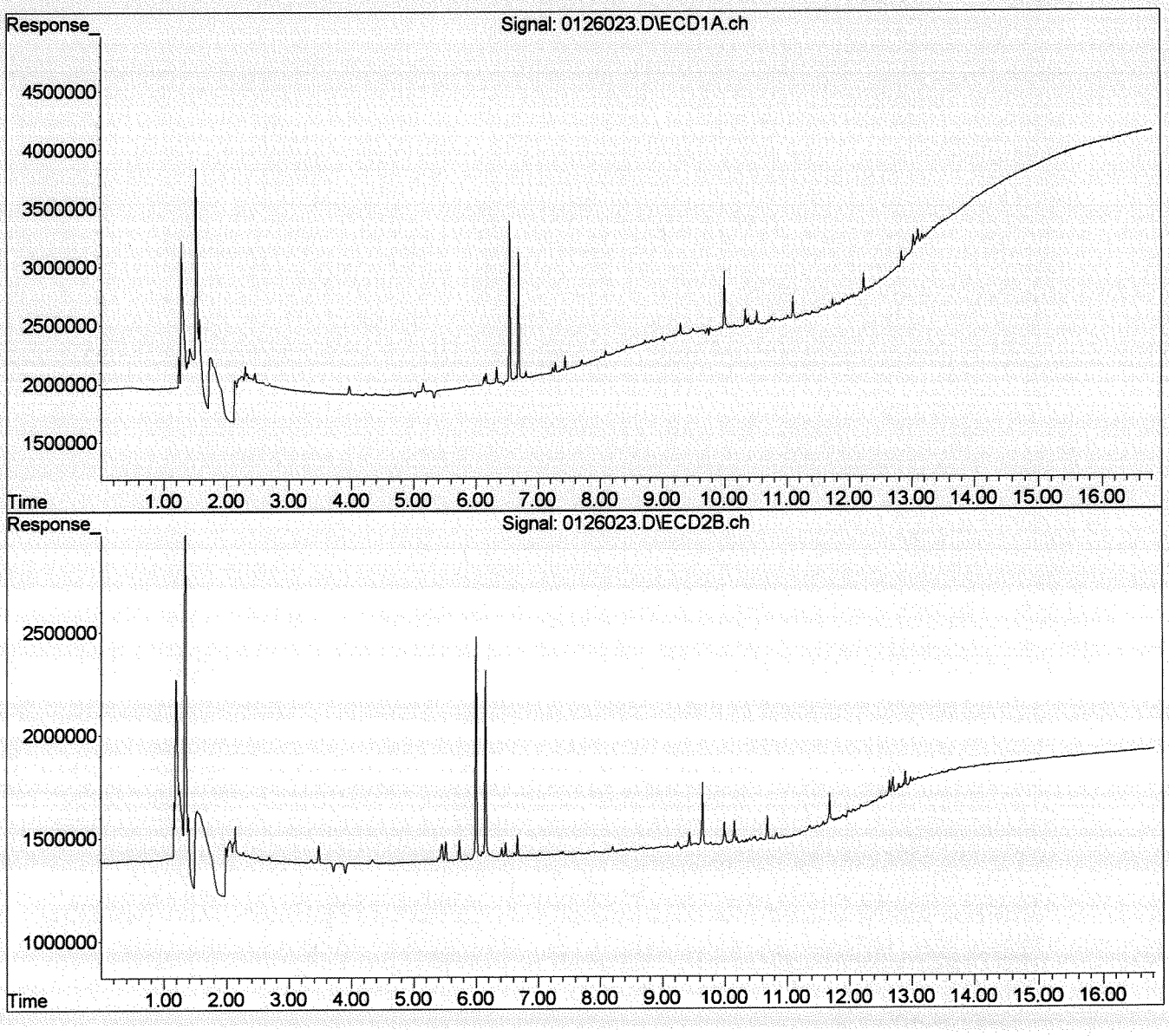
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126023.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 18:24:56
Operator : AM
Sample : K1600673-012
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:35 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126024.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 18:48
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: am 1/27/16

Secondary Review: MM

Exception Report

Data File: J:\GC33\DATA\012616-504\0126024.D\0126024C.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 18:48
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Qm 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126024.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126024.D\0126024c.d			**Vial:**	28
Acqu Date:	01/26/2016 18:48	**Quant Date:**	01/27/2016 06:36	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-013				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496062	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.99	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126024.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 18:48:33
Operator : AM
Sample : K160673-0013
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:48 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

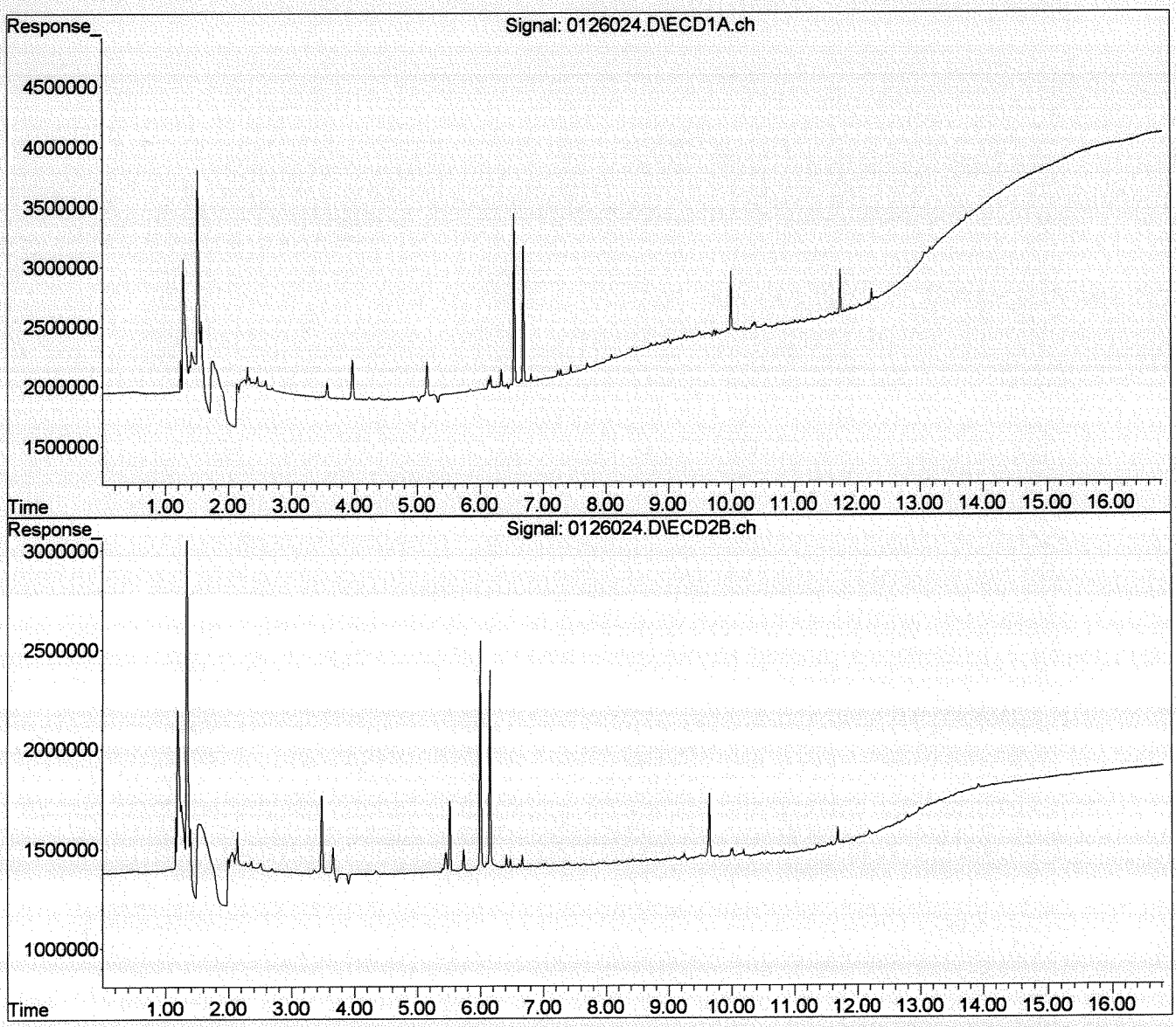
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126024.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 18:48:33
Operator : AM
Sample : K160673-0013
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:48 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126025.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 19:12
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Am 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126025.D\0126025C.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 19:12
Date Quantitated: 01/27/2016 06:36
Batch ID: KWG1600708
Analysis Method: 8011
ListJoinID: LJ17653

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: Qm 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126025.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126025.D\0126025c.d			**Vial:**	29
Acqu Date:	01/26/2016 19:12	**Quant Date:**	01/27/2016 06:36	**Dilution:**	1.0
Run Type:	SMPL			**Soln Conc. Units:**	ppb
Lab ID:	K1600673-014				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	K1600673
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496063	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:	EPA Method 8011	**Report List ID:**	LJ17653
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1580
		Quant based on Report List	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.0030U	0.0030U	0.0030U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.61	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126025.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 19:12:08
Operator : AM
Sample : K1600673-014
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:58 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

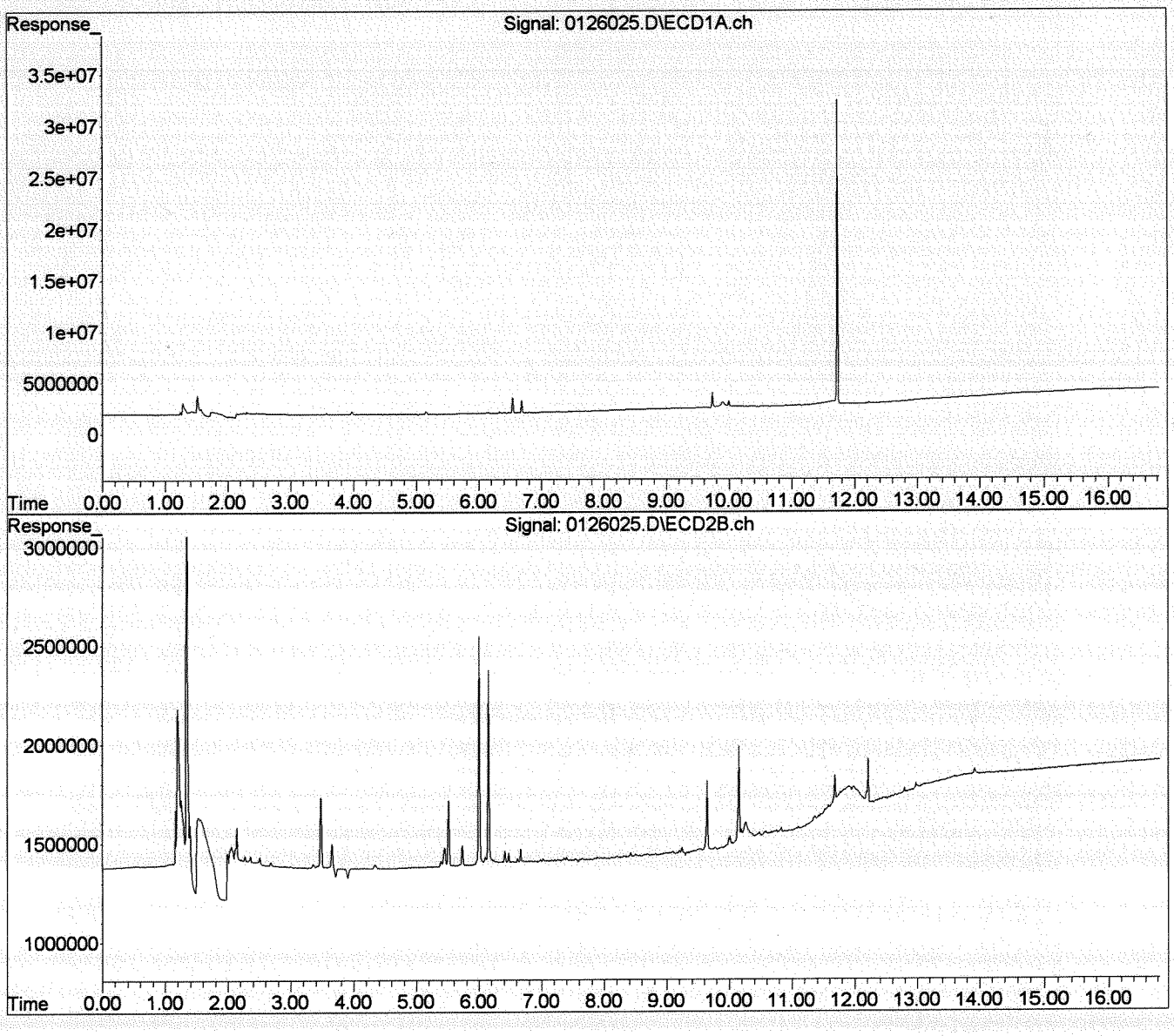
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126025.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 19:12:08
Operator : AM
Sample : K1600673-014
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:36:58 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126007.D
Lab ID: KWG1600649-5
RunType: MB
Matrix: WATER

Date Acquired: 01/26/2016 12:06
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: Am 1/27/16

Secondary Review: MM

Exception Report

Data File: J:\GC33\DATA\012616-504\0126007.D\0126007C.D
Lab ID: KWG1600649-5
RunType: MB
Matrix: WATER

Date Acquired: 01/26/2016 12:06
Date Quantitated: 01/26/2016 15:51
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: RM 1/27/16

Secondary Review: NM

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126007.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126007.D\0126007c.d			**Vial:**	13
Acqu Date:	01/26/2016 12:06	**Quant Date:**	01/26/2016 15:51	**Dilution:**	1.0
Run Type:	MB			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600649-5				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/25/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496068	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000	0.00300U	0.00300U	0.00300U
1,2-Dibromo-3-chloropropa			0	0d	0.0000	0.0000	0.00360U	0.00360U	0.00360U

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.00	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 12:06:56
Operator : AM
Sample : 012516 MB
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:11 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

Target Compounds

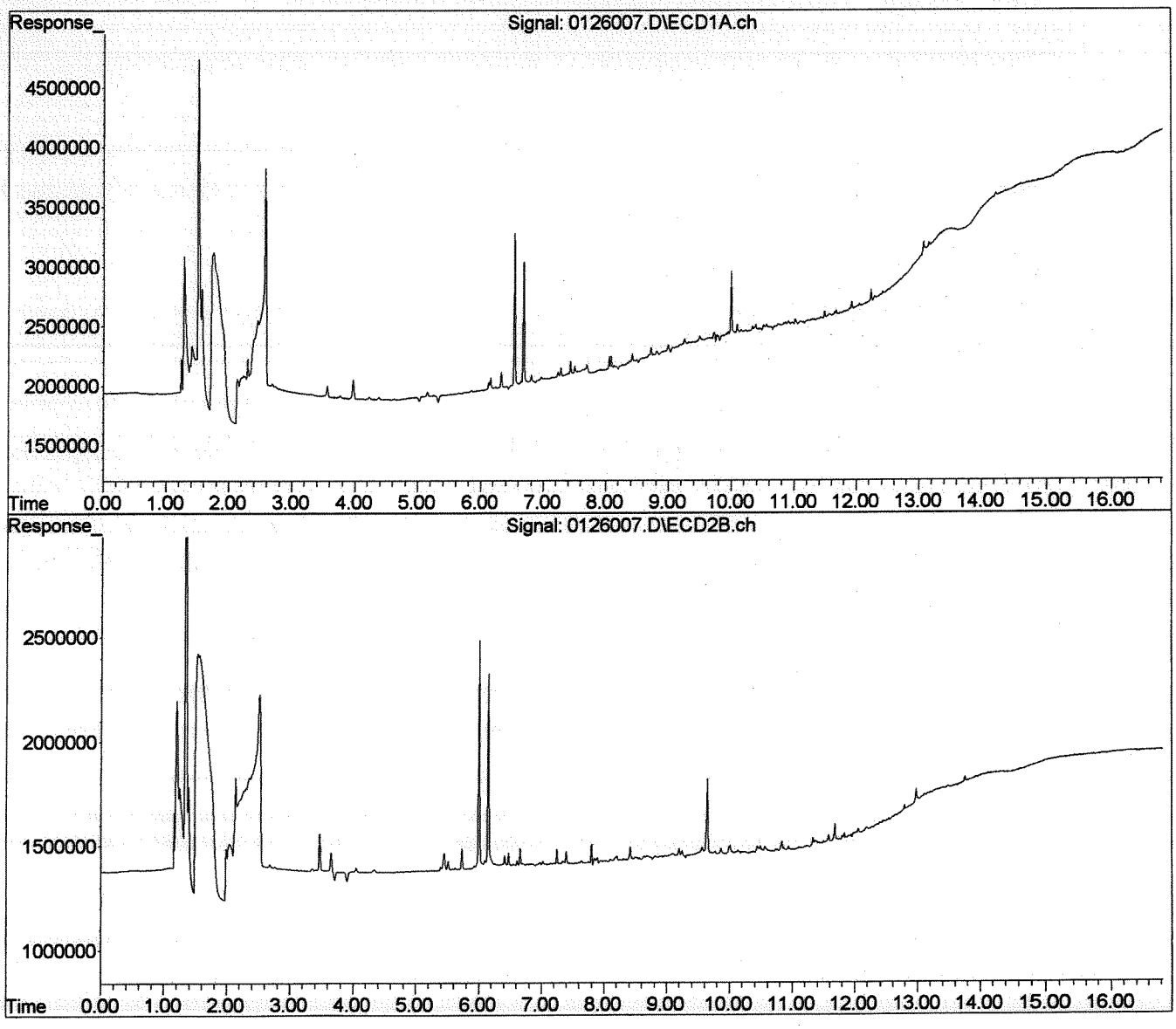
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126007.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 12:06:56
Operator : AM
Sample : 012516 MB
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:51:11 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126012.D
Lab ID: KWG1600649-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 01/26/2016 14:04
Date Quantitated: 01/27/2016 06:47
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: Qm 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126012.D\0126012C.D
Lab ID: KWG1600649-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 01/26/2016 14:04
Date Quantitated: 01/27/2016 06:47
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: 1/27/16

Secondary Review:

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126012.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126012.D\0126012c.d			**Vial:**	18
Acqu Date:	01/26/2016 14:04	**Quant Date:**	01/27/2016 06:47	**Dilution:**	1.0
Run Type:	MS			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600649-1 -- K1600673-004MS				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/25/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496064	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.17 +0.01	3.99	7821496m	7133974m	4.00	4.14	0.222	0.230	**0.222**
1,2-Dibromo-3-chloropropa	7.85	7.79	14276098	14339884	4.06	4.55	0.226	0.253	**0.226**

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.94	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:04:58
Operator : AM
Sample : K1600673-004MS
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:47:39 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

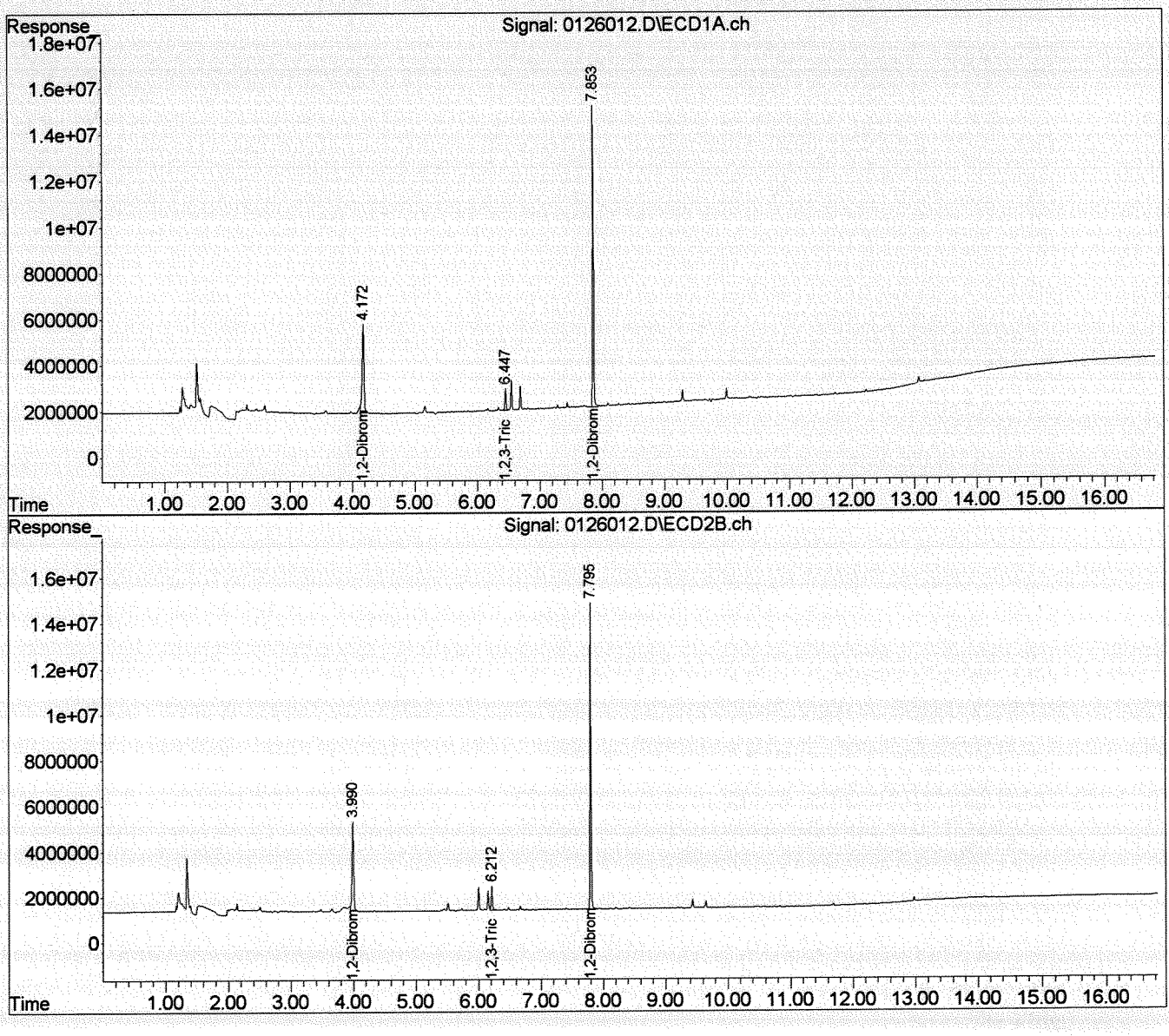
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.172	3.990	7821496	7133974	3.995m	4.141m
2)	M 1,2,3-Tri...	6.447	6.212	1227706	1370267	3.930	4.809
3)	M 1,2-Dibro...	7.853	7.795	14276098	14339884	4.062	4.548

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:04:58
Operator : AM
Sample : K1600673-004MS
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:47:39 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

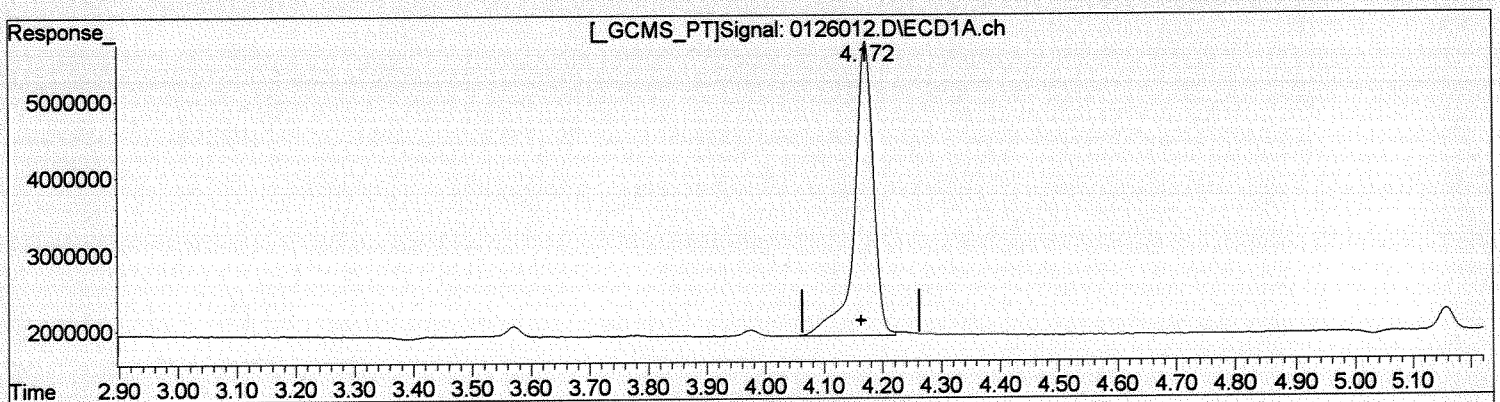


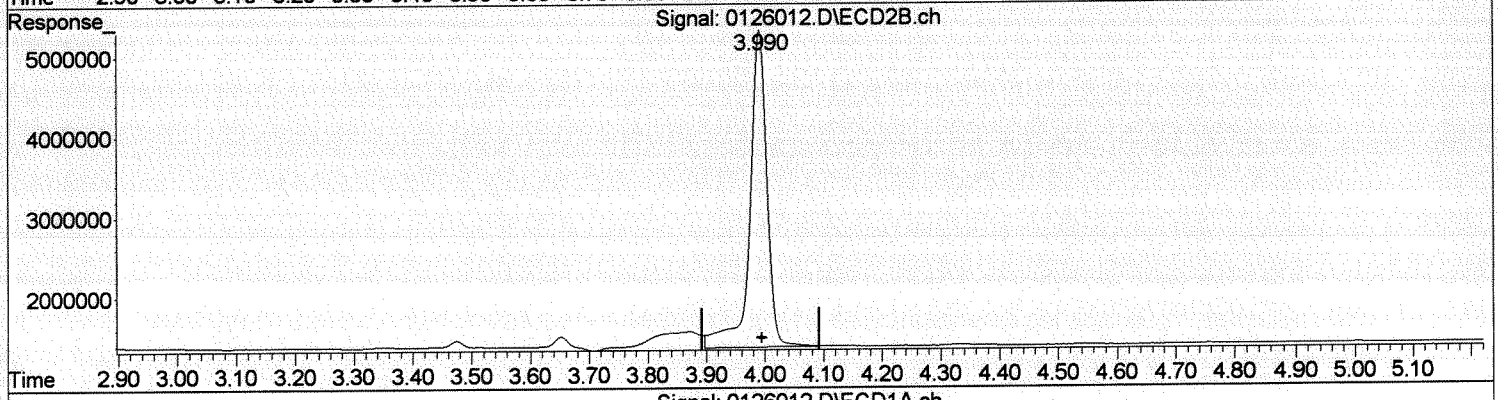
Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:04:58
Operator : AM
Sample : K1600673-004MS
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:13 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





Signal: 0126012.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.172min 4.463 ppb
response 8738146

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.990min 4.674 ppb
response 8053797

Manual Integration:
Before

01/27/16

(+) = Expected Retention Time

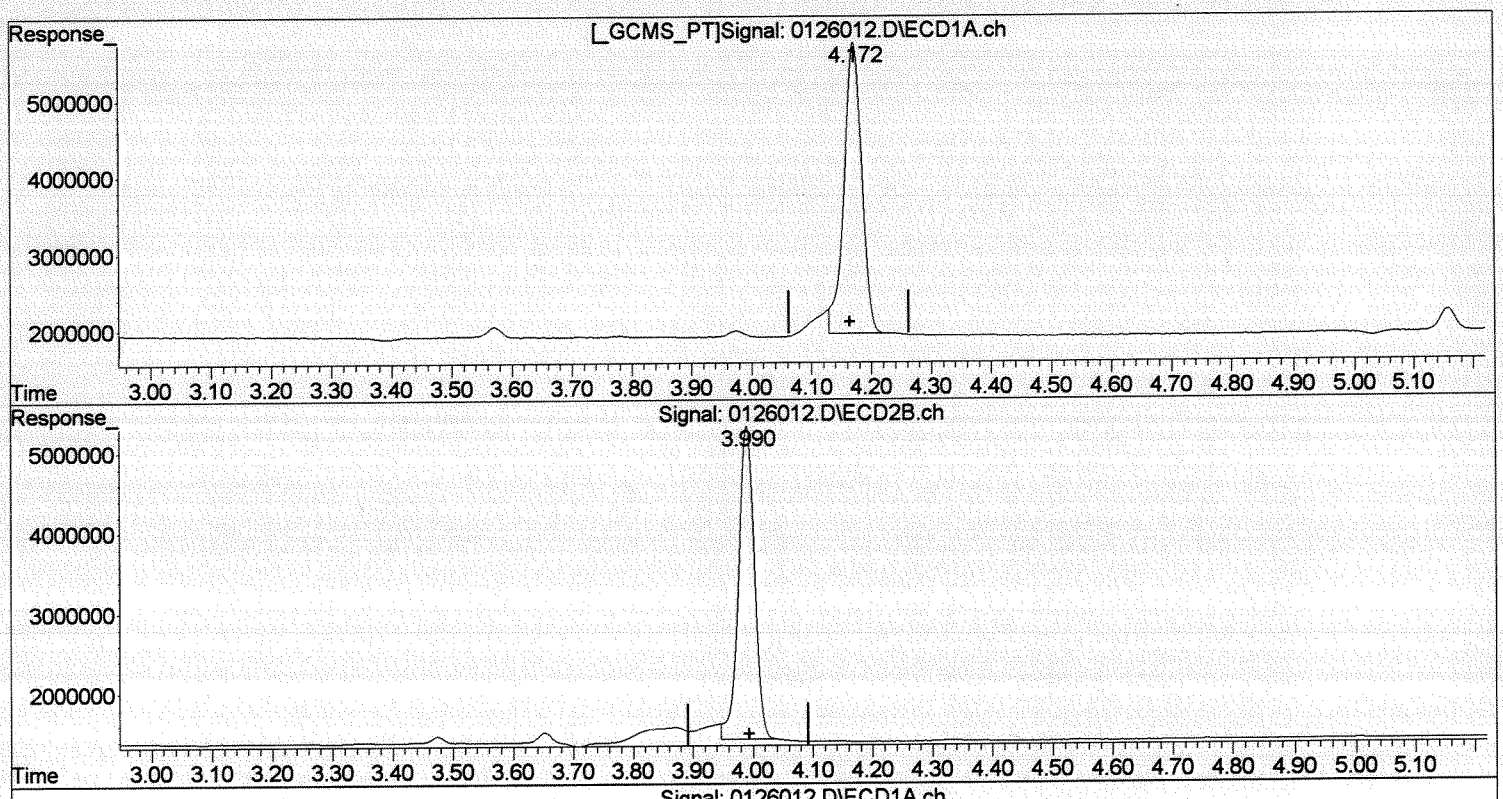
012616_504_8011.M Wed Jan 27 06:46:56 2016 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126012.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:04:58
Operator : AM
Sample : K1600673-004MS
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:13 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126012.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.172min 3.995 ppb m
response 7821496

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.990min 4.141 ppb m
response 7133974

Manual Integration:
After
Baseline/Shoulder
01/27/16

(+) = Expected Retention Time

012616_504_8011.M Wed Jan 27 06:47:43 2016 Page: 1

Exception Report

Data File:	J:\GC33\DATA\012616-504\0126013.D	**Date Acquired:**	01/26/2016 14:28
Lab ID:	KWG1600649-2 -- K1600673-004DMS	**Date Quantitated:**	01/27/2016 06:48
RunType:	DMS	**Batch ID:**	KWG1600708
Matrix:	WATER	**Analysis Method:**	8011
		MethodJoinID:	MJ1546

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: AM 1/27/16

Secondary Review: MW

Exception Report

Data File:	J:\GC33\DATA\012616-504\0126013.D\0126013C.D	**Date Acquired:**	01/26/2016 14:28
Lab ID:	KWG1600649-2 -- K1600673-004DMS	**Date Quantitated:**	01/27/2016 06:48
RunType:	DMS	**Batch ID:**	KWG1600708
Matrix:	WATER	**Analysis Method:**	8011
		MethodJoinID:	MJ1546

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: AM 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126013.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126013.D\0126013c.d			**Vial:**	19
Acqu Date:	01/26/2016 14:28	**Quant Date:**	01/27/2016 06:48	**Dilution:**	1.0
Run Type:	DMS			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600649-2 -- K1600673-004DMS				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/25/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496065	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.17 +0.01	4.00 +0.01	7492247m	7283096m	3.83	4.23	0.212	0.235	**0.212**
1,2-Dibromo-3-chloropropa	7.85	7.79	13930409	14294648	3.96	4.53	0.220	0.252	**0.220**

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	36.05	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:28:42
Operator : AM
Sample : K1600673-004DMS
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:48:21 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

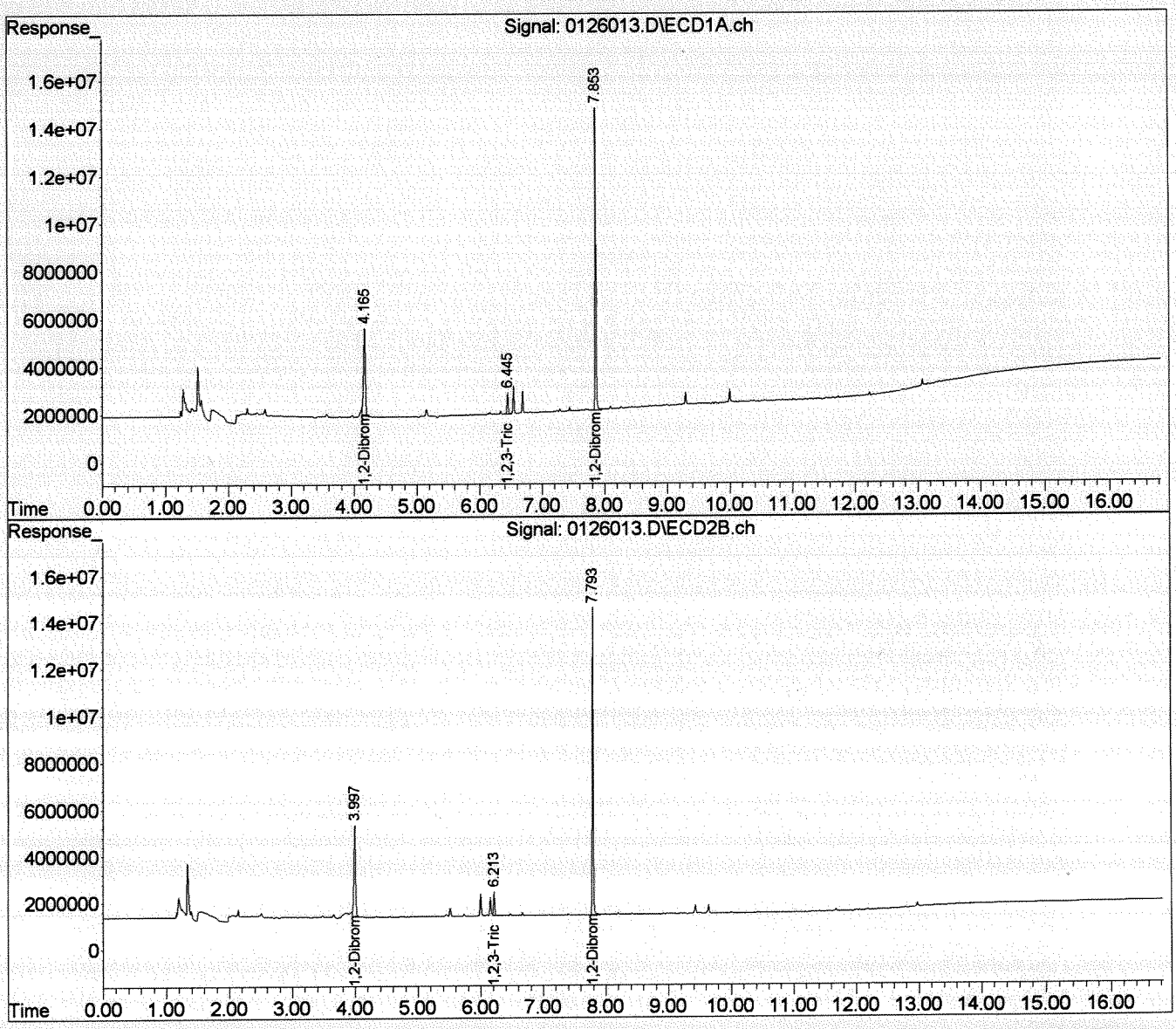
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.165	3.997	7492247	7283096	3.827m	4.227m
2)	M 1,2,3-Tri...	6.445	6.213	1221153	1391780	3.909	4.888 #
3)	M 1,2-Dibro...	7.853	7.793	13930409	14294648	3.963	4.534

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:28:42
Operator : AM
Sample : K1600673-004DMS
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:48:21 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

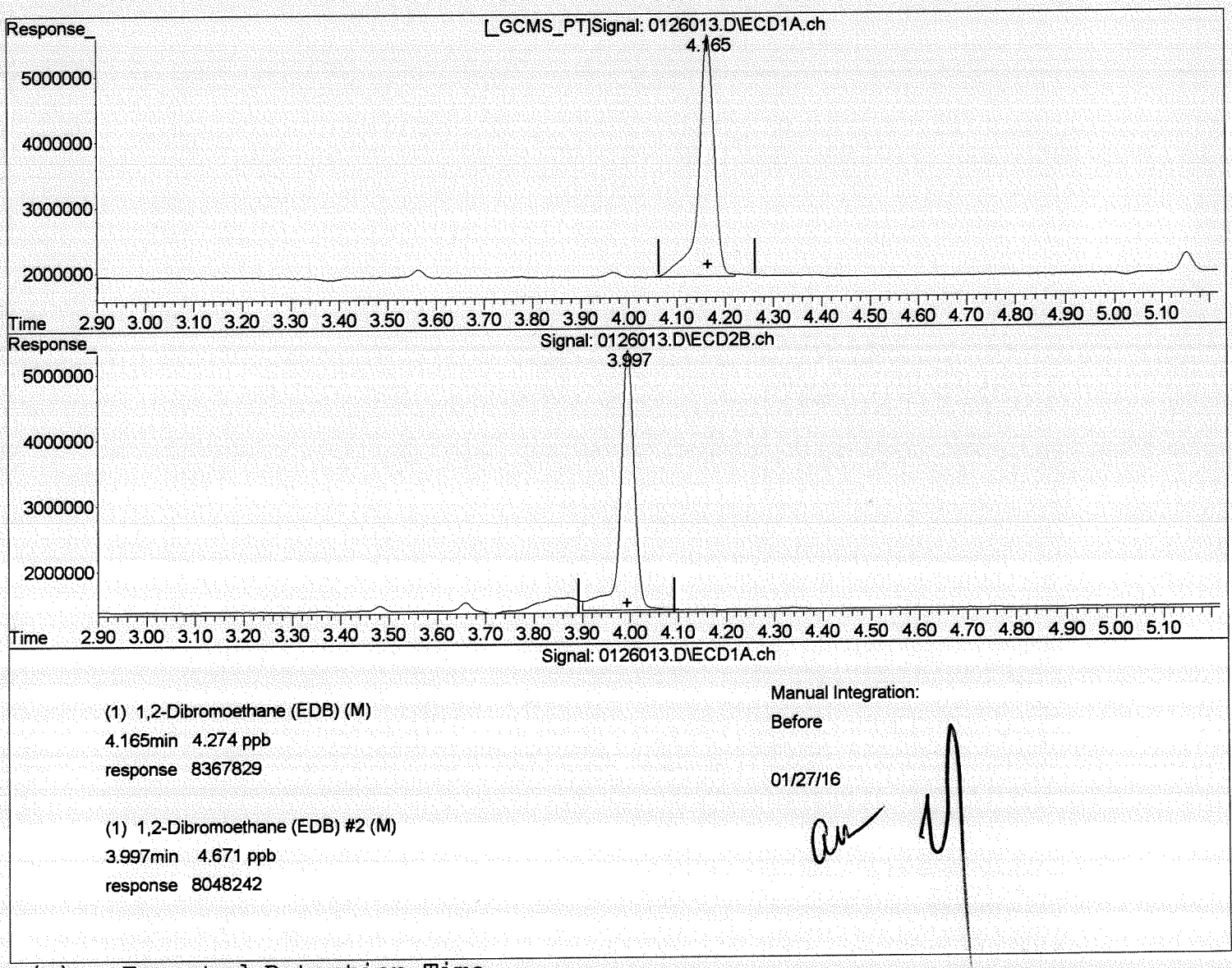


Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:28:42
Operator : AM
Sample : K1600673-004DMS
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:15 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



(+) = Expected Retention Time

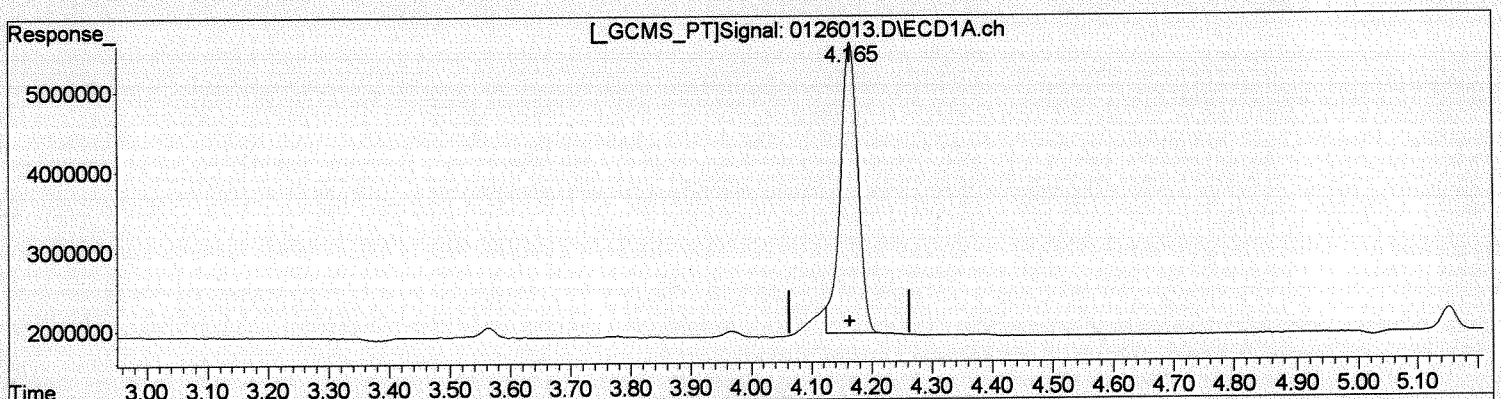
012616_504_8011.M Wed Jan 27 06:47:55 2016 Page: 1

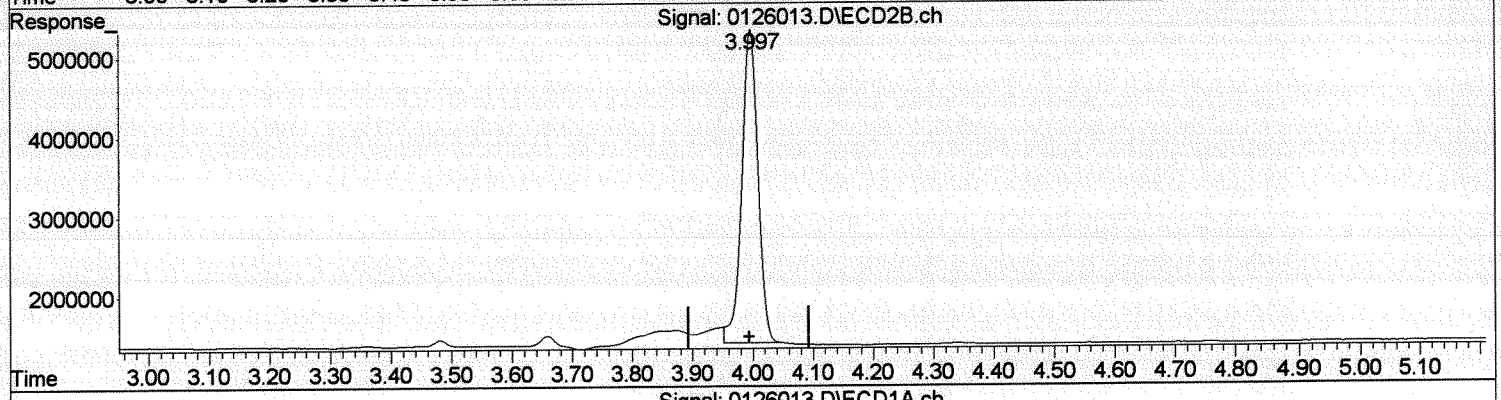
Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126013.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 14:28:42
Operator : AM
Sample : K1600673-004DMS
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:15 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





Signal: 0126013.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.165min 3.827 ppb m
response 7492247

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.997min 4.227 ppb m
response 7283096

Manual Integration:
After
Baseline/Shoulder
01/27/16

(+) = Expected Retention Time

012616_504_8011.M Wed Jan 27 06:48:25 2016 Page: 1

Exception Report

Data File: J:\GC33\DATA\012616-504\0126005.D
Lab ID: KWG1600649-3
RunType: LCS
Matrix: WATER

Date Acquired: 01/26/2016 11:19
Date Quantitated: 01/27/2016 06:44
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: M

Exception Report

Data File: J:\GC33\DATA\012616-504\0126005.D\0126005C.D
Lab ID: KWG1600649-3
RunType: LCS
Matrix: WATER

Date Acquired: 01/26/2016 11:19
Date Quantitated: 01/27/2016 06:44
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126005.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126005.D\0126005c.d			**Vial:**	11
Acqu Date:	01/26/2016 11:19	**Quant Date:**	01/27/2016 06:44	**Dilution:**	1.0
Run Type:	LCS			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600649-3				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/25/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496066	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.16	4.00 +0.01	7396261m	7209847m	3.78	4.19	0.216	0.239	**0.216**
1,2-Dibromo-3-chloropropa	7.85	7.79	13420213	14731822	3.82	4.67	0.218	0.267	**0.218**

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.00	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126005.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:19:40
Operator : AM
Sample : 012516 LCS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:44:35 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.162	3.995	7396261	7209847	3.778m	4.185m
2)	M 1,2,3-Tri...	6.445	6.212	1137199	1408751	3.640	4.950 #
3)	M 1,2-Dibro...	7.853	7.793	13420213	14731822	3.816	4.674

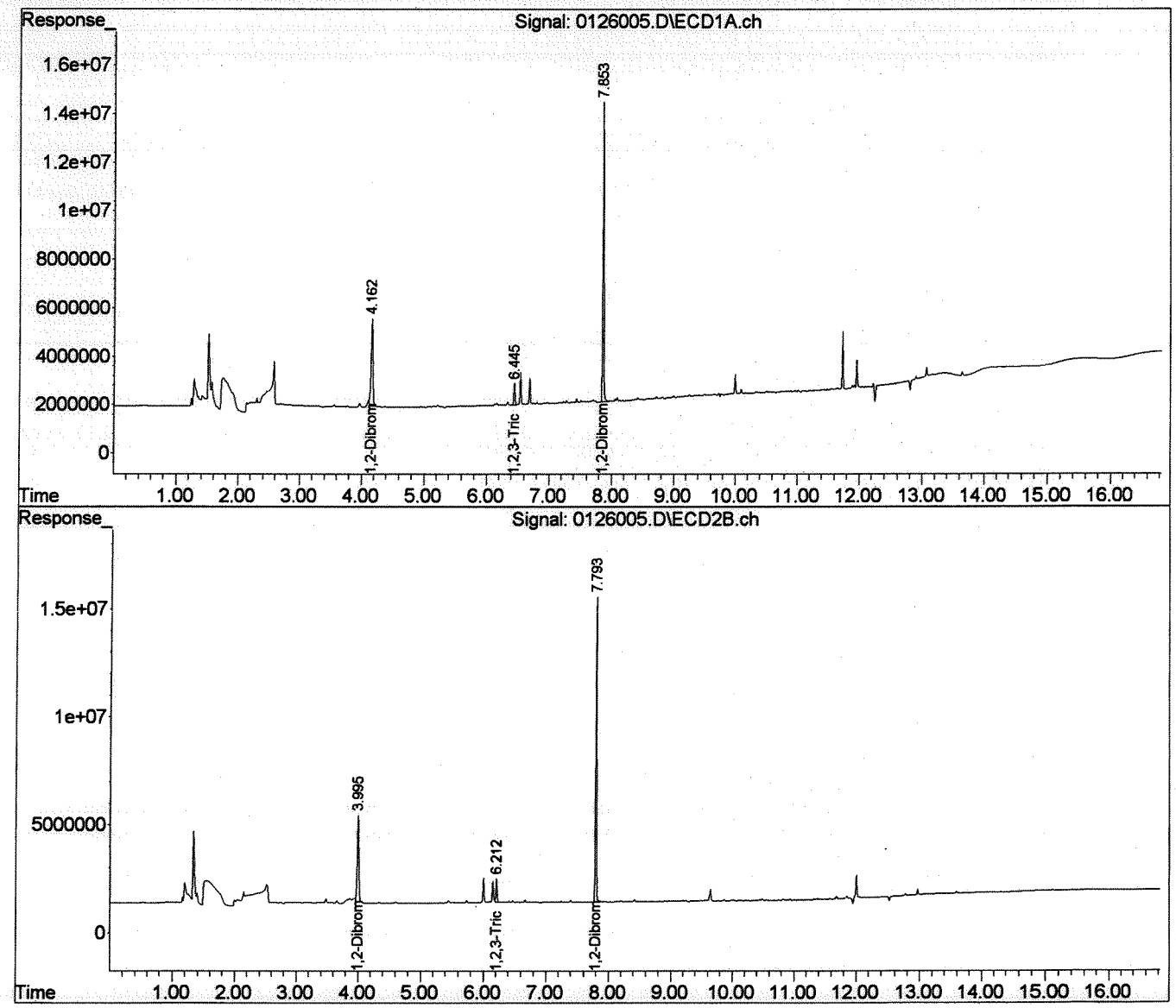
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126005.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:19:40
Operator : AM
Sample : 012516 LCS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:44:35 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

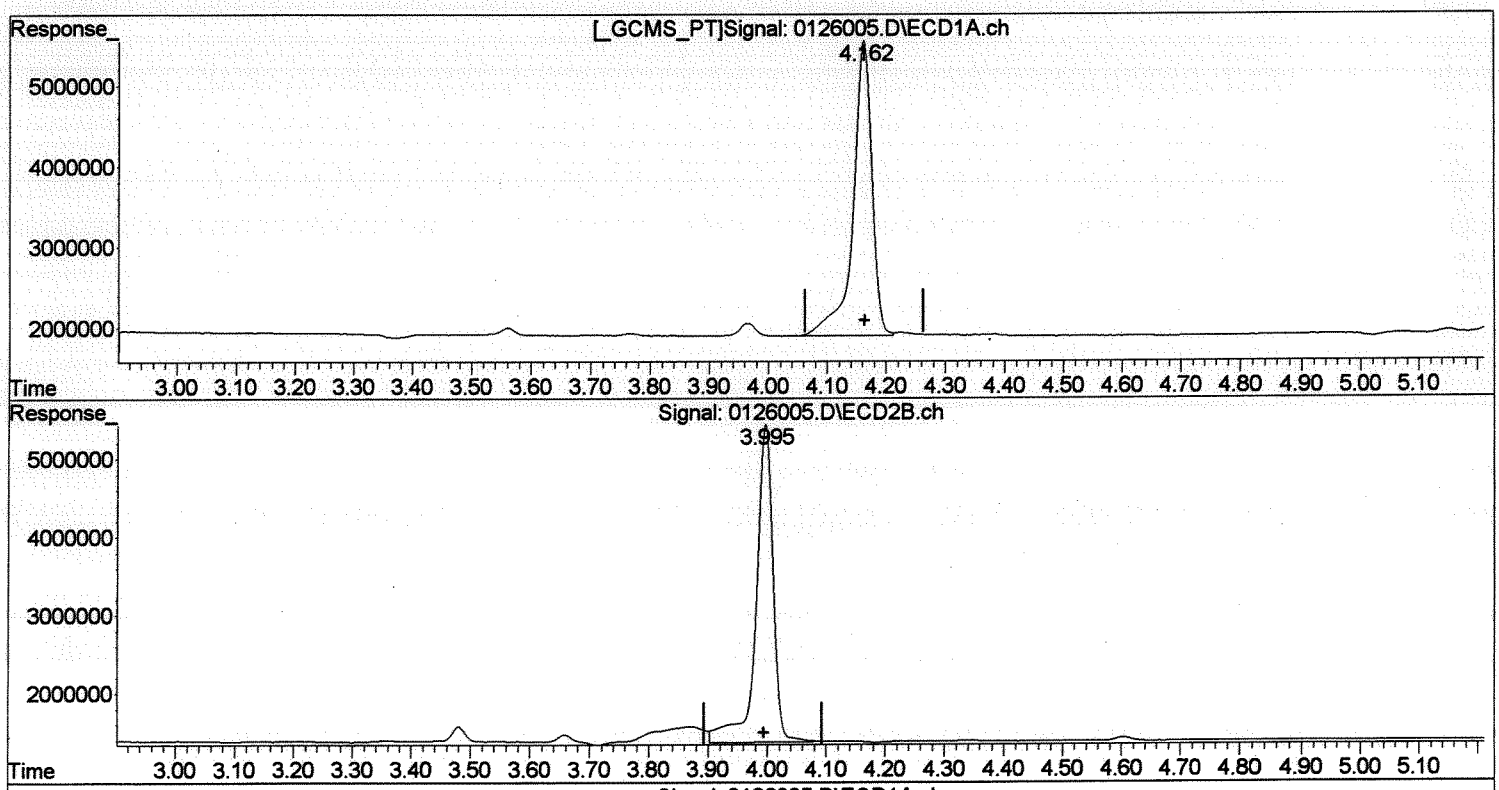


Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126005.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:19:40
Operator : AM
Sample : 012516 LCS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:49:58 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126005.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.162min 4.174 ppb
response 8171072

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.995min 4.782 ppb
response 8239441

Manual Integration:
Before

01/27/16

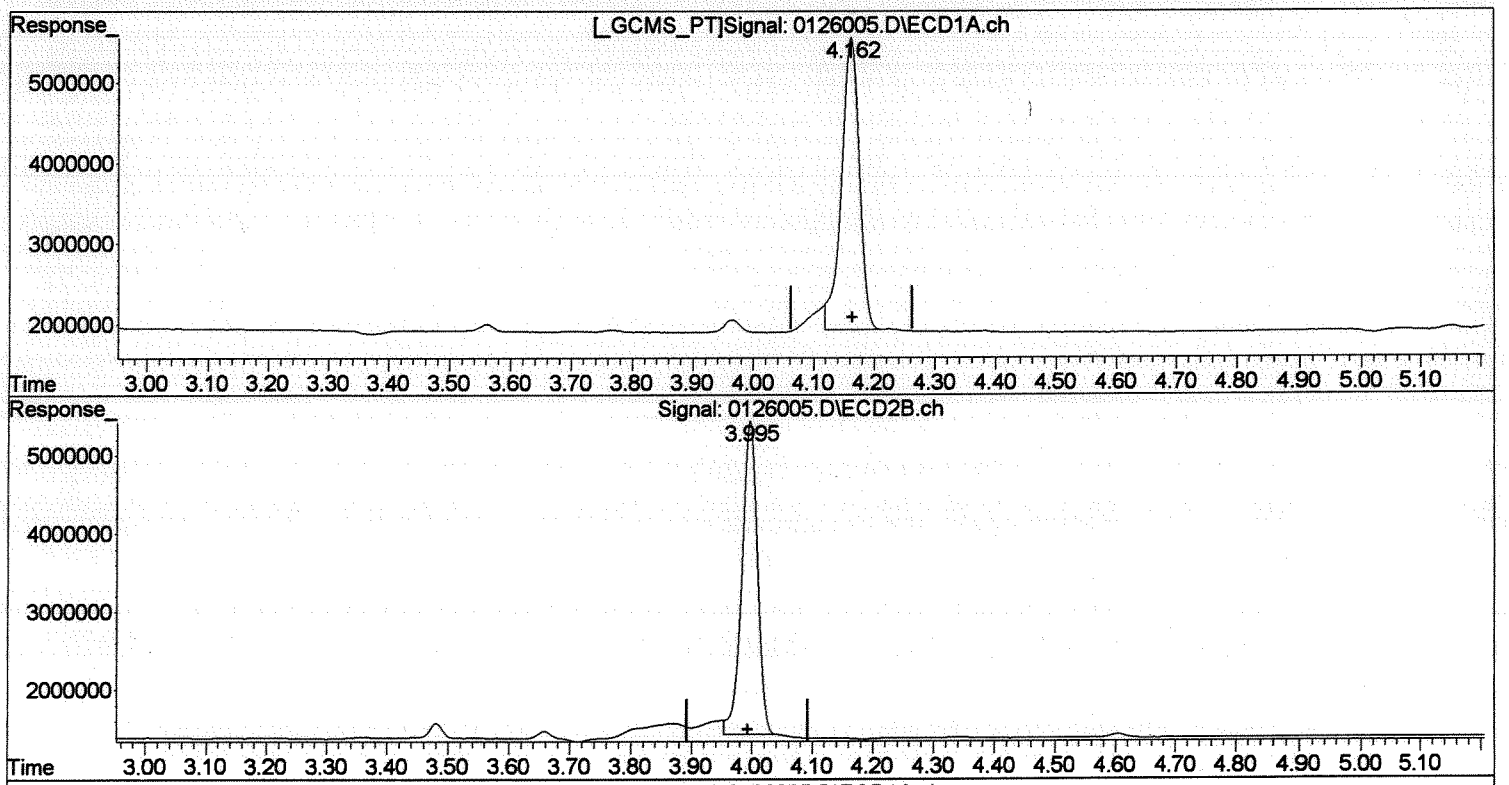
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126005.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:19:40
Operator : AM
Sample : 012516 LCS1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:49:58 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126005.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.162min 3.778 ppb m
response 7396261

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.995min 4.185 ppb m
response 7209847

Manual Integration:
After
Baseline/Shoulder
01/27/16

(+) = Expected Retention Time

Exception Report

Data File: J:\GC33\DATA\012616-504\0126006.D
Lab ID: KWG1600649-4
RunType: LCS
Matrix: WATER

Date Acquired: 01/26/2016 11:43
Date Quantitated: 01/27/2016 06:45
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: _____

Exception Report

Data File: J:\GC33\DATA\012616-504\0126006.D\0126006C.D
Lab ID: KWG1600649-4
RunType: LCS
Matrix: WATER

Date Acquired: 01/26/2016 11:43
Date Quantitated: 01/27/2016 06:45
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: CM 1/27/16

Secondary Review: MJ

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126006.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126006.D\0126006c.d			**Vial:**	12
Acqu Date:	01/26/2016 11:43	**Quant Date:**	01/27/2016 06:45	**Dilution:**	1.0
Run Type:	LCS			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600649-4				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/25/2016

Analysis Lot:	KWG1600708	**Prep Lot:**	KWG1600649	**Report Group:**	
Analysis Method:	8011	**Prep Method:**	METHOD		
Prep Ref:	1496067	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:	J:\GC33\DATA\012616-504\0126007.D	**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.17 $^{+0.01}$	3.99	7634214m	6997867m	3.90	4.06	0.223	0.232	**0.223**
1,2-Dibromo-3-chloropropa	7.85	7.79	14005777	14259134	3.99	4.52	0.228	0.258	**0.228**

The -/+ after Retention Time symbolize the direction of the RT shift

Prep Amount:	35.00	**Dilution:**	1.0
Prep Final Vol:	2 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 Path : J:\GC33\Data\012616-504\
Data File : 0126006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:43:15
Operator : AM
Sample : 012516 LCS2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:45:16 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.167	3.992	7634214	6997867	3.900m	4.062m
2)	M 1,2,3-Tri...	6.445	6.212	1221029	1348707	3.908	4.729
3)	M 1,2-Dibro...	7.853	7.793	14005777	14259134	3.985	4.522

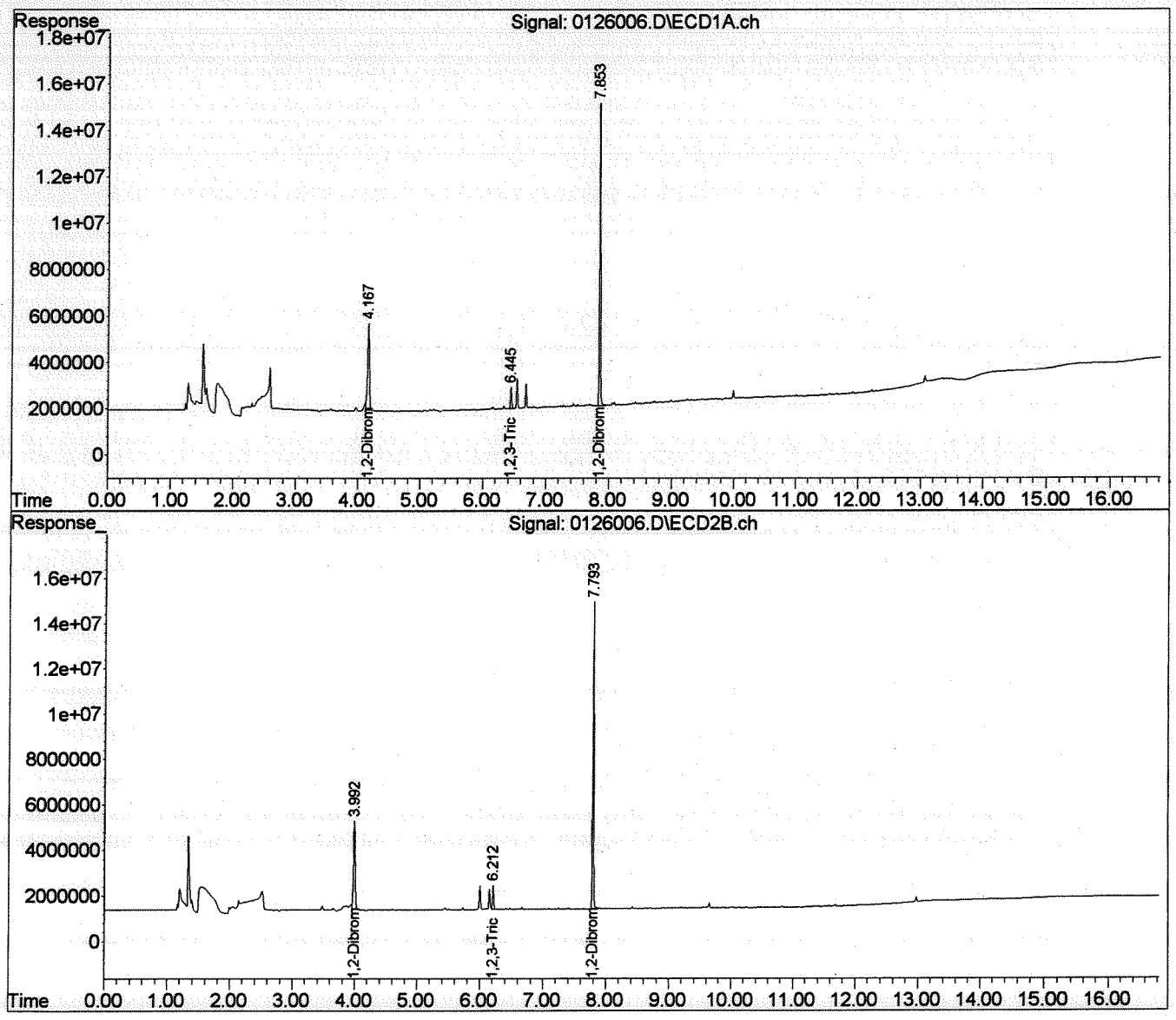
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:43:15
Operator : AM
Sample : 012516 LCS2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:45:16 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

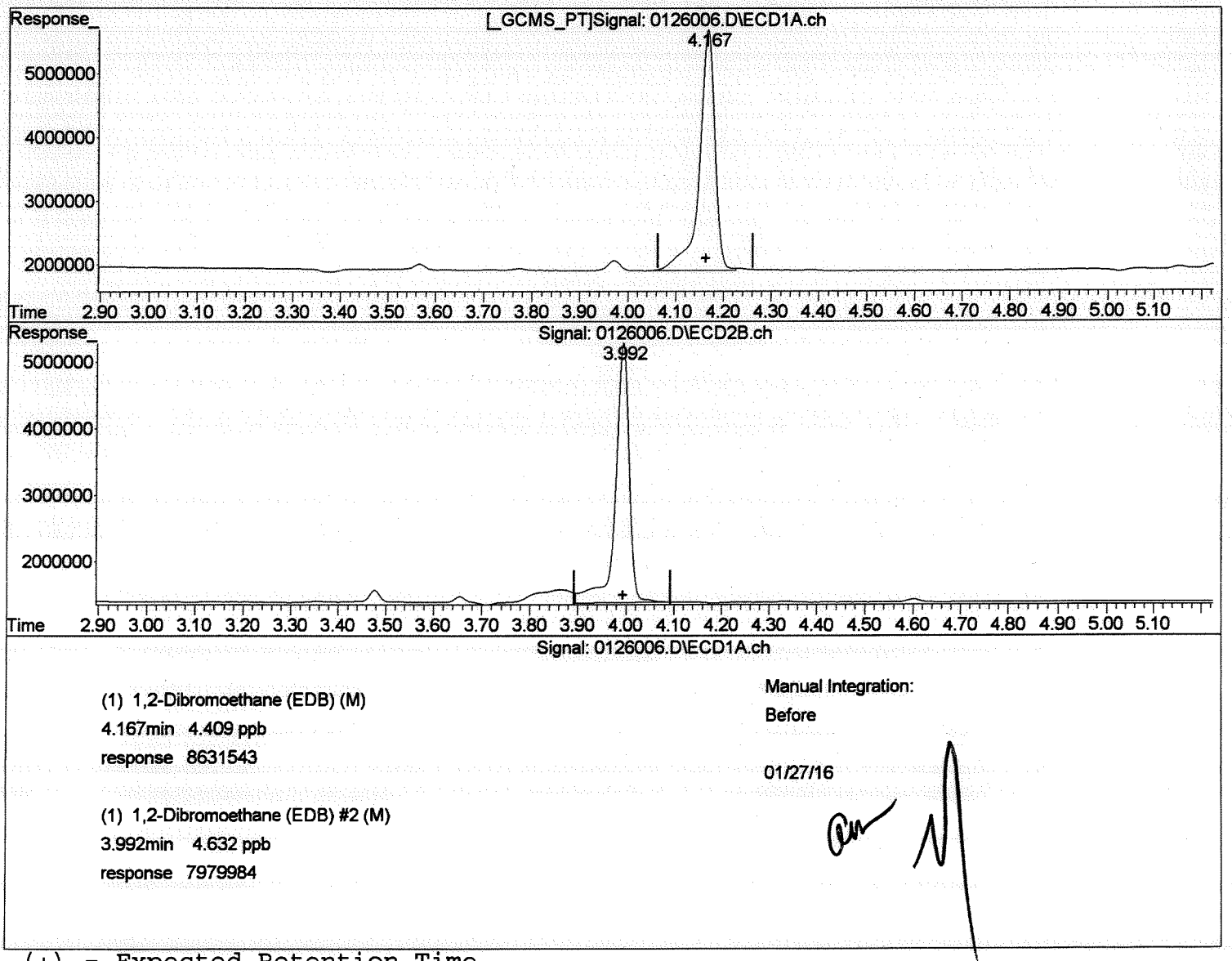


Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:43:15
Operator : AM
Sample : 012516 LCS2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:00 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



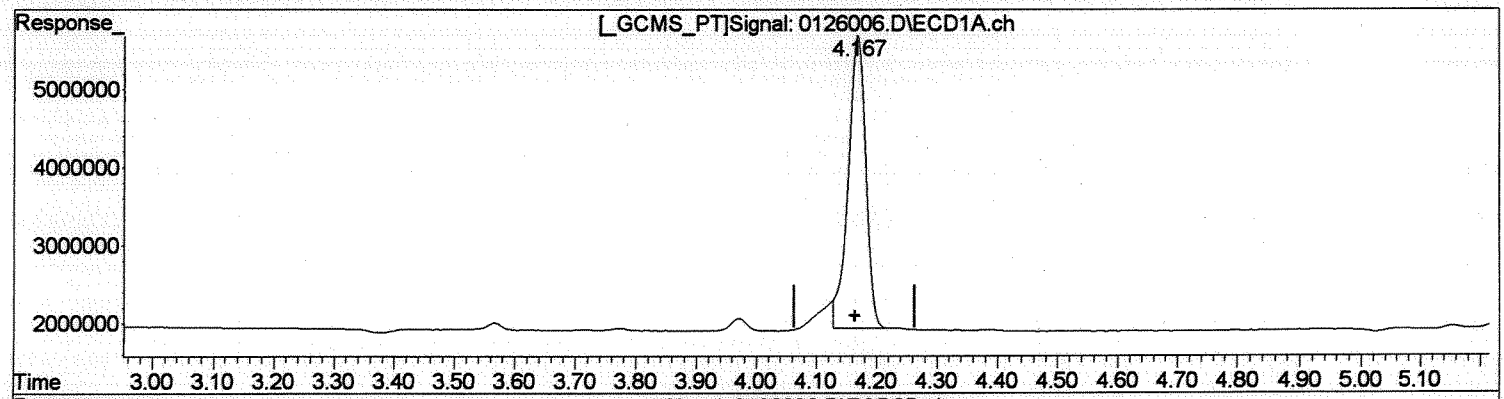
(+) = Expected Retention Time

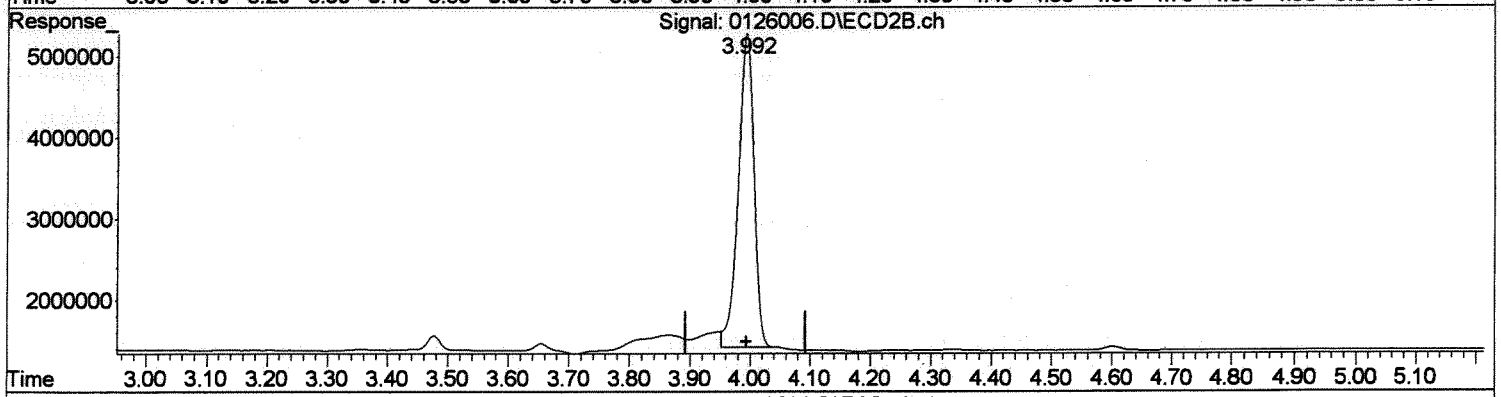
Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126006.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 11:43:15
Operator : AM
Sample : 012516 LCS2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:00 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





Signal: 0126006.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.167min 3.900 ppb m
response 7634214

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.992min 4.062 ppb m
response 6997867

Manual Integration:
After
Baseline/Shoulder
01/27/16

(+) = Expected Retention Time

8011 Data

Run 481484
CAL 14554
KWG 1600708

Sel	Run	Location	Method / Sample Name	Datafile	SeqTable	Calib:RF:RT
No	1	Vial 94	504-1 PRIMER MEOH	0126001	F:01:01	
No	2	Vial 95	504-1 PRIMER HEXANE	0126002	F:02:01	
No	3	Vial 6	504-1 012516 LEV5 OK,OK	0126003	F:03:01	
No	4	Vial 1	504-1 IB	0126004	F:04:01	
No	5	Vial 11	504-1 012516 LCS1	0126005	F:05:01	
No	6	Vial 12	504-1 012516 LCS2	0126006	F:06:01	
No	7	Vial 13	504-1 012516 MB	0126007	F:07:01	
No	8	Vial 14	504-1 K1600673-001	0126008	F:08:01	
No	9	Vial 15	504-1 K1600673-002	0126009	F:09:01	
No	10	Vial 16	504-1 K1600673-003	0126010	F:10:01	
No	11	Vial 17	504-1 K1600673-004	0126011	F:11:01	
No	12	Vial 18	504-1 K1600673-004MS	0126012	F:12:01	
No	13	Vial 19	504-1 K1600673-004DMS	0126013	F:13:01	
No	14	Vial 20	504-1 K1600673-005	0126014	F:14:01	
No	15	Vial 21	504-1 K1600673-006	0126015	F:15:01	
No	16	Vial 22	504-1 K1600673-007	0126016	F:16:01	
No	17	Vial 23	504-1 K1600673-008	0126017	F:17:01	
No	18	Vial 8	504-1 012516 LEV7 OK,OK	0126018	F:18:01	
No	19	Vial 1	504-1 IB	0126019	F:19:01	
No	20	Vial 24	504-1 K1600673-009	0126020	F:20:01	
No	21	Vial 25	504-1 K1600673-010	0126021	F:21:01	
No	22	Vial 26	504-1 K1600673-011	0126022	F:22:01	
No	23	Vial 27	504-1 K1600673-012	0126023	F:23:01	
No	24	Vial 28	504-1 K160673-0013	0126024	F:24:01	

Sel	Run	Location	Method Sample Name	Datafile	SeqTable	Calib:RF:RT
No	25	Vial 29	504-1 K1600673-014	0126025	F:25:01	
No	26	Vial 30	504-1 KWG1600650-1LCS	0126026	F:26:01	
No	27	Vial 31	504-1 KWG1600650-2DLCS	0126027	F:27:01	
No	28	Vial 32	504-1 KWG1600650-3MB	0126028	F:28:01	
No	29	Vial 33	504-1 K1600527-025	0126029	F:29:01	
No	30	Vial 34	504-1 K1600527-025 10X	0126030	F:30:01	
No	31	Vial 35	504-1 K1600538-045 NR	0126031	F:31:01	
No	32	Vial 36	504-1 K1600538-045 10X	0126032	F:32:01	
No	33	Vial 6	504-1 012516 LEV5 OK, OK	0126033	F:33:01	
No	34	Vial 1	504-1 IB	0126034	F:34:01	
No	35	none	PARK PARK	0126035	F:35:01	

Processed Separately

Exception Report

Data File: J:\GC33\DATA\012616-504\0126003.D
Lab ID: KWG1600708-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 10:32
Date Quantitated: 01/26/2016 11:02
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: 1/27/16

Secondary Review:

Exception Report

Data File: J:\GC33\DATA\012616-504\0126003.D\0126003C.D
Lab ID: KWG1600708-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 10:32
Date Quantitated: 01/26/2016 11:02
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: 1/27/16

Secondary Review:

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126003.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126003.D\0126003c.d			**Vial:**	6
Acqu Date:	01/26/2016 10:32	**Quant Date:**	01/26/2016 11:02	**Dilution:**	1.0
Run Type:	CCV			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600708-1				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/27/2016

Analysis Lot:	KWG1600708	**Prep Lot:**		**Report Group:**	
Analysis Method:	8011	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.16	3.99	2288768m	2319873m	1.17	1.35			
1,2-Dibromo-3-chloropropa	7.85	7.79	4283811	4342520	1.19	1.34			

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 Path : J:\GC33\Data\012616-504\
Data File : 0126003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 10:32:25
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 11:02:55 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

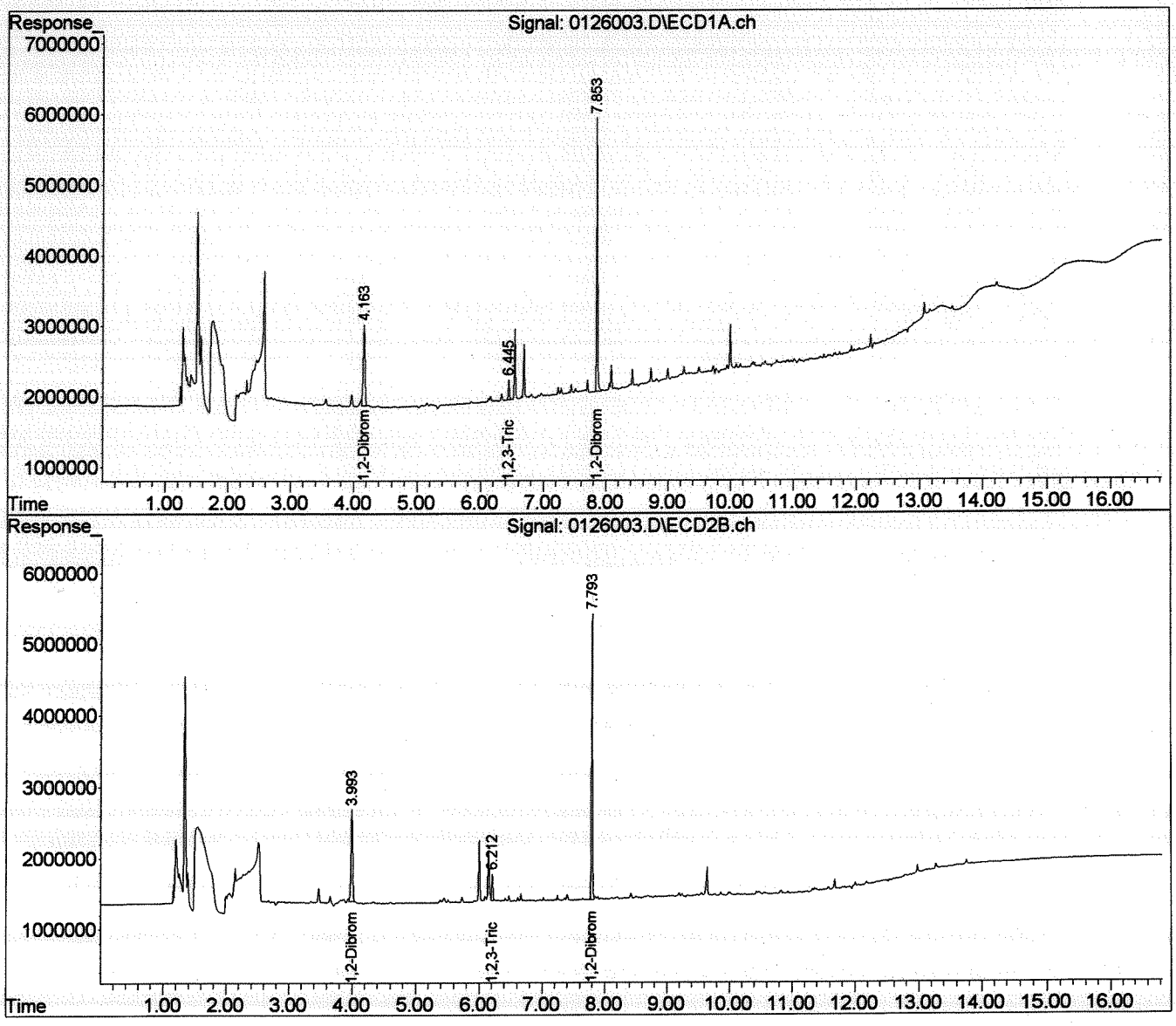
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.163	3.993	2288768	2319873	1.169m	1.346m
2)	M 1,2,3-Tri...	6.445	6.212	366764	455732	1.174	1.437
3)	M 1,2-Dibro...	7.853	7.793	4283811	4342520	1.186	1.335

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 10:32:25
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 11:02:55 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

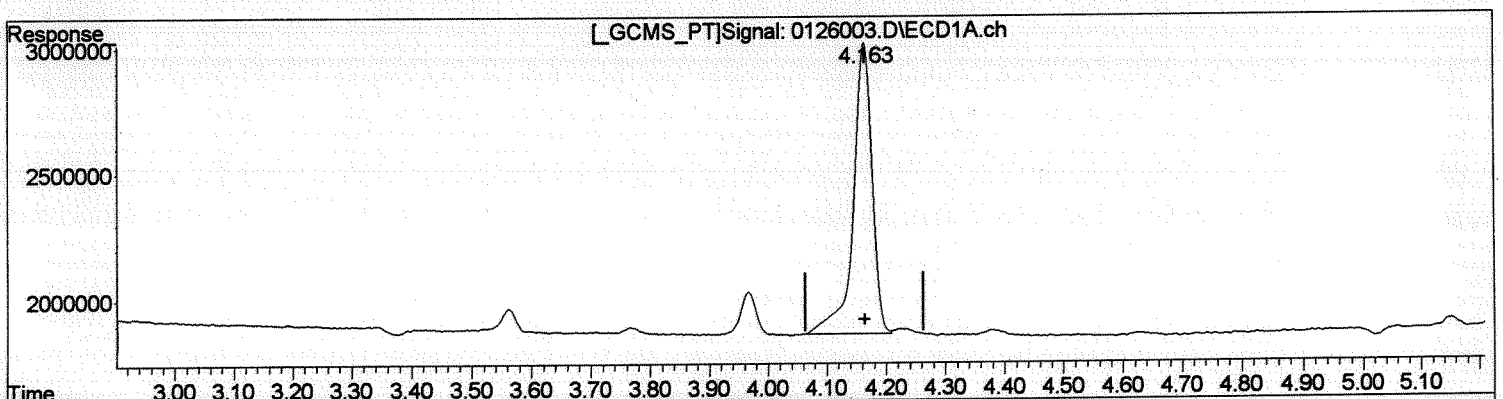


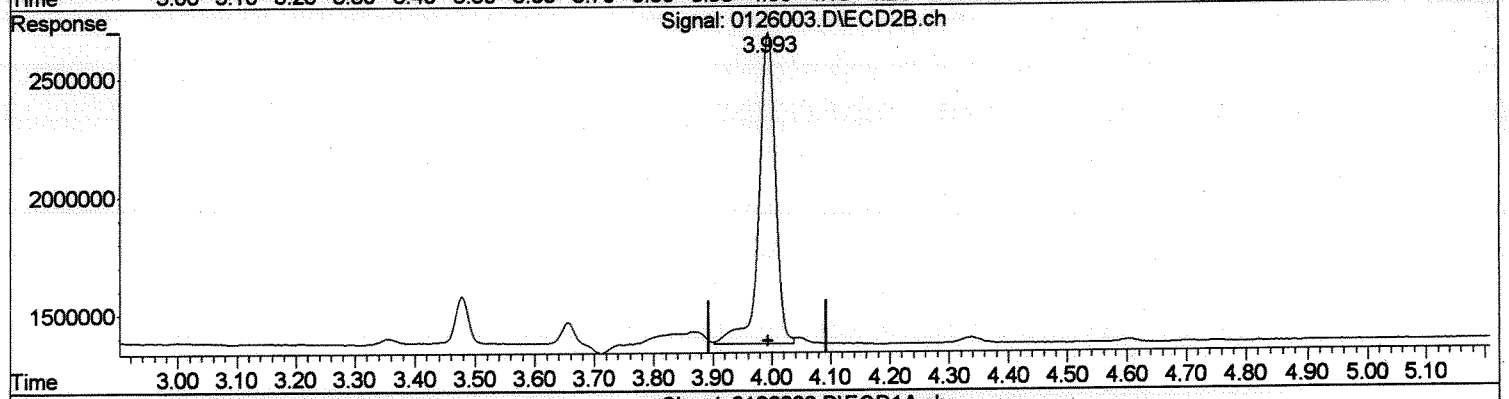
Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 10:32:25
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 11:02:24 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





Signal: 0126003.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.163min 1.290 ppb
response 2525573

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.993min 1.490 ppb
response 2567953

Manual Integration:
Before

01/26/16

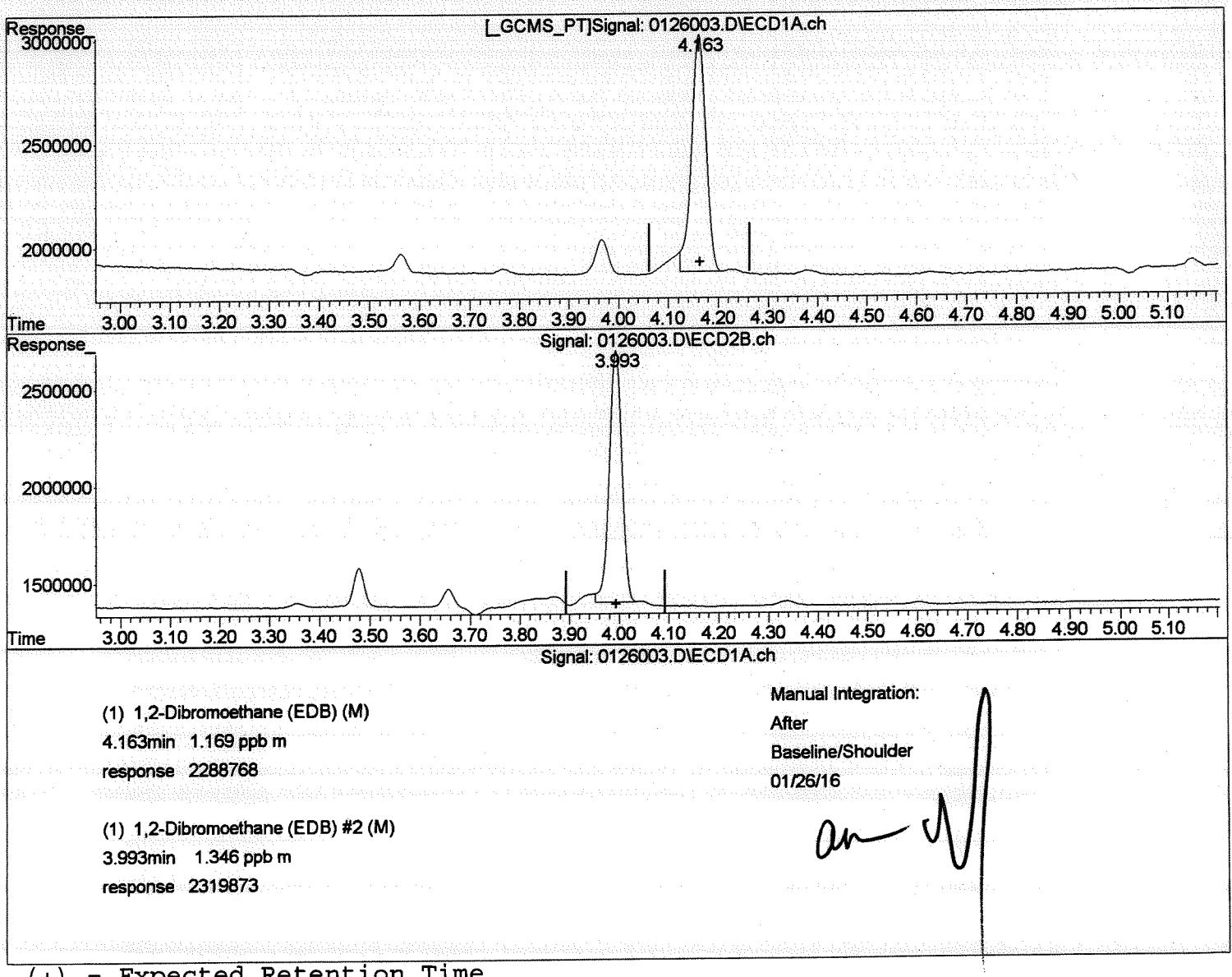
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126003.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 10:32:25
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 11:02:24 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



(+) = Expected Retention Time
012616_504_8011.M Tue Jan 26 11:02:59 2016 Page: 1

Exception Report

Data File:	J:\GC33\DATA\012616-504\0126004.D	**Date Acquired:**	01/26/2016 10:56
Lab ID:	KWG1600708-2	**Date Quantitated:**	01/26/2016 15:50
RunType:	IB	**Batch ID:**	KWG1600708
Matrix:	NOT APPLICABLE	**Analysis Method:**	8011
		MethodJoinID:	MJ1546

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: am 1/27/16

Secondary Review: MW

Exception Report

Data File: J:\GC33\DATA\012616-504\0126004.D\0126004C.D
Lab ID: KWG1600708-2
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 10:56
Date Quantitated: 01/26/2016 15:50
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: AM 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126004.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126004.D\0126004c.d			**Vial:**	1
Acqu Date:	01/26/2016 10:56	**Quant Date:**	01/26/2016 15:50	**Dilution:**	1.0
Run Type:	IB			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600708-2				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/27/2016

Analysis Lot:	KWG1600708	**Prep Lot:**		**Report Group:**	
Analysis Method:	8011	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000			
1,2-Dibromo-3-chloropropa			0	0	0.0000	0.0000			

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 Path : J:\GC33\Data\012616-504\
Data File : 0126004.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 10:56:07
Operator : AM
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:40 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

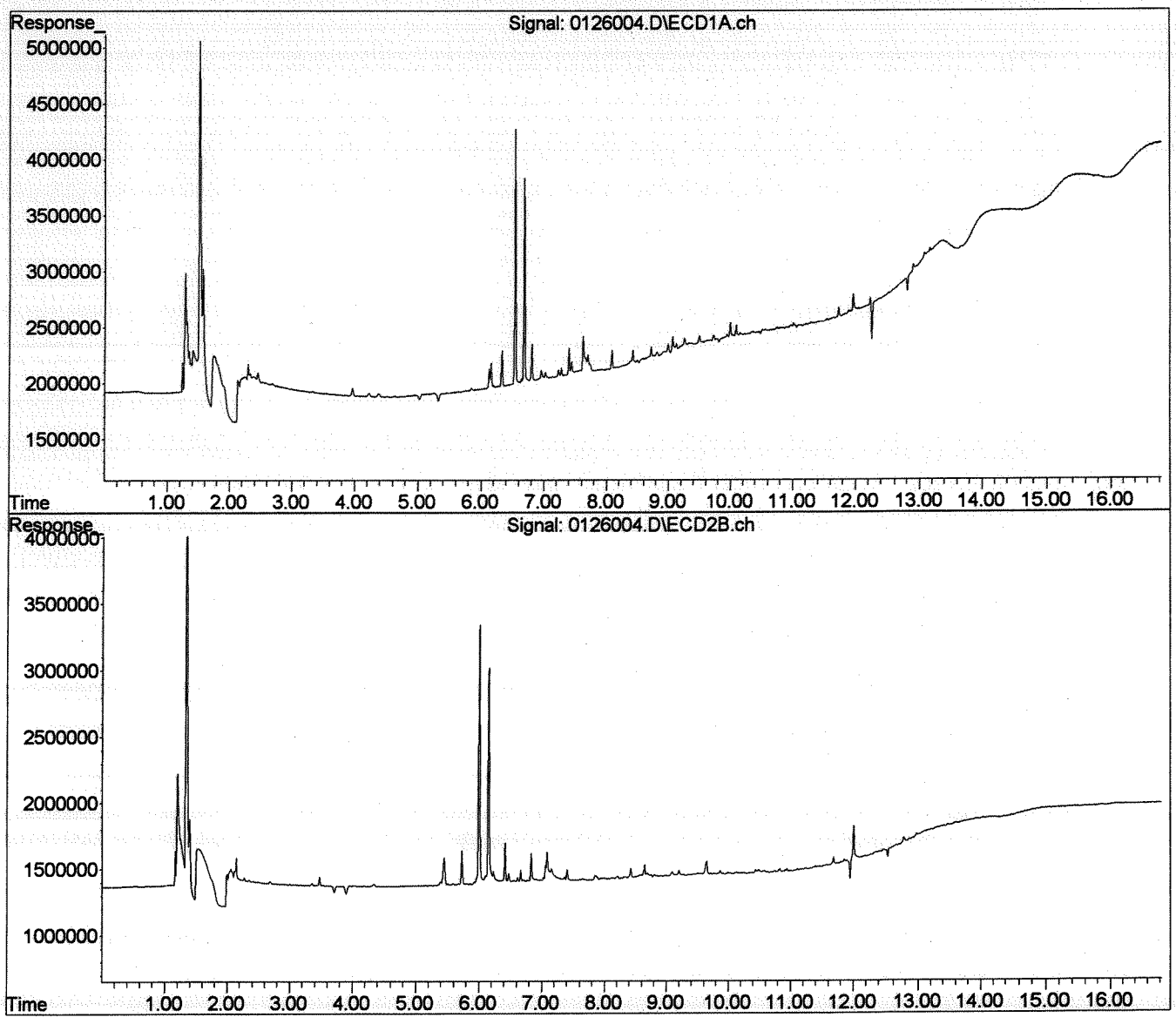
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126004.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 10:56:07
Operator : AM
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 26 15:50:40 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP
Signal #1 Info : 320 x 0.50 um
Signal #2 Phase: RTX-CLP2
Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126018.D\0126018C.D
Lab ID: KWG1600708-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 16:26
Date Quantitated: 01/27/2016 06:49
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: MM

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126018.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126018.D\0126018c.d			**Vial:**	8
Acqu Date:	01/26/2016 16:26	**Quant Date:**	01/27/2016 06:49	**Dilution:**	1.0
Run Type:	CCV			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600708-3				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/27/2016

Analysis Lot:	KWG1600708	**Prep Lot:**		**Report Group:**	
Analysis Method:	8011	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.17	4.00	8161439m	7962757m	4.17	4.62			
1,2-Dibromo-3-chloropropa	7.85	7.79	15504411	16685141	4.42	5.30			

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 (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126018.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:26:44
Operator : AM
Sample : 012516 LEV7
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:49:28 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.165	3.995	8161439	7962757	4.169m	4.622m
2)	M 1,2,3-Tri...	6.445	6.212	1359678	1548906	4.352	5.467 #
3)	M 1,2-Dibro...	7.853	7.795	15504411	16685141	4.416	5.302

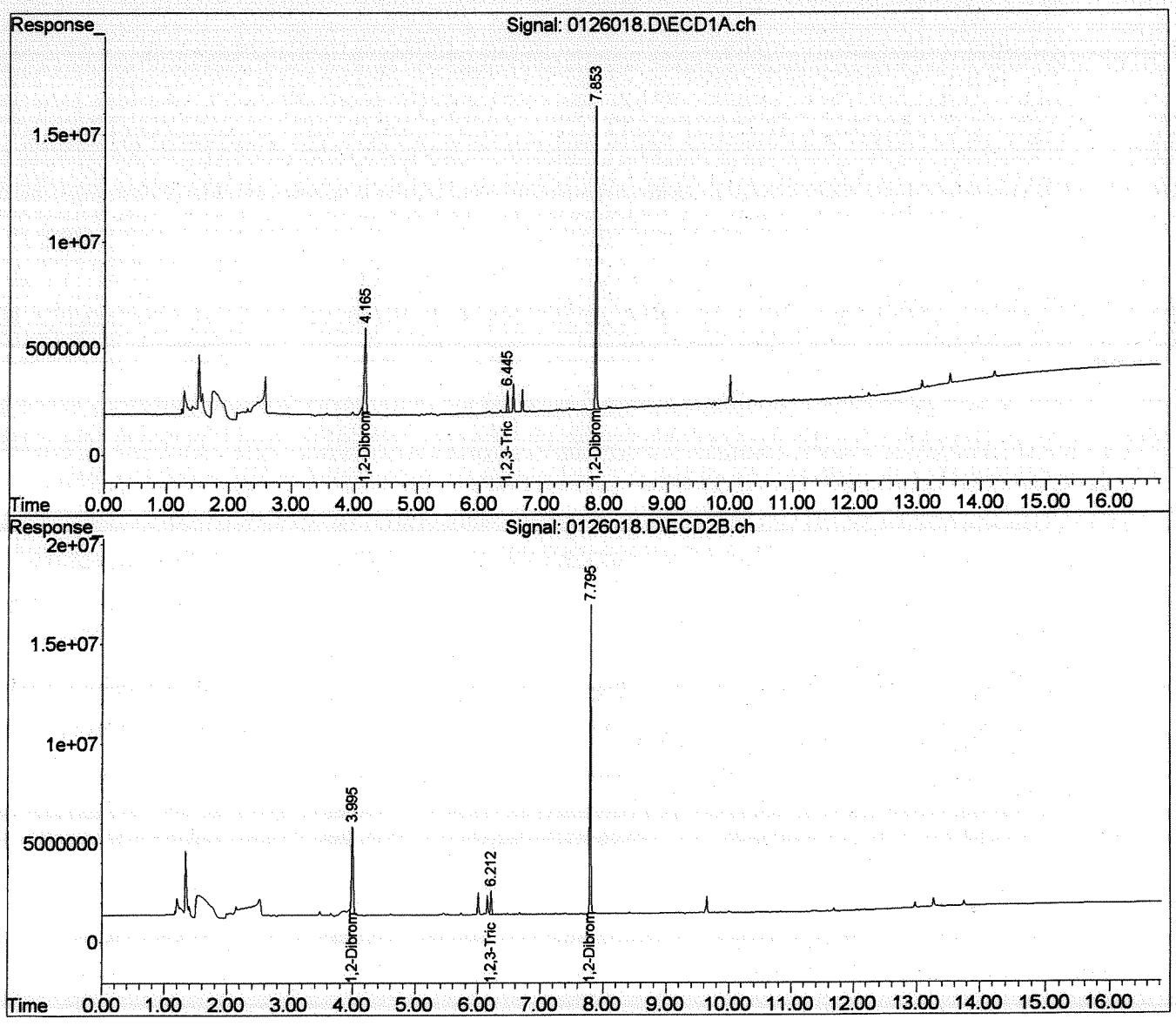
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126018.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:26:44
Operator : AM
Sample : 012516 LEV7
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:49:28 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

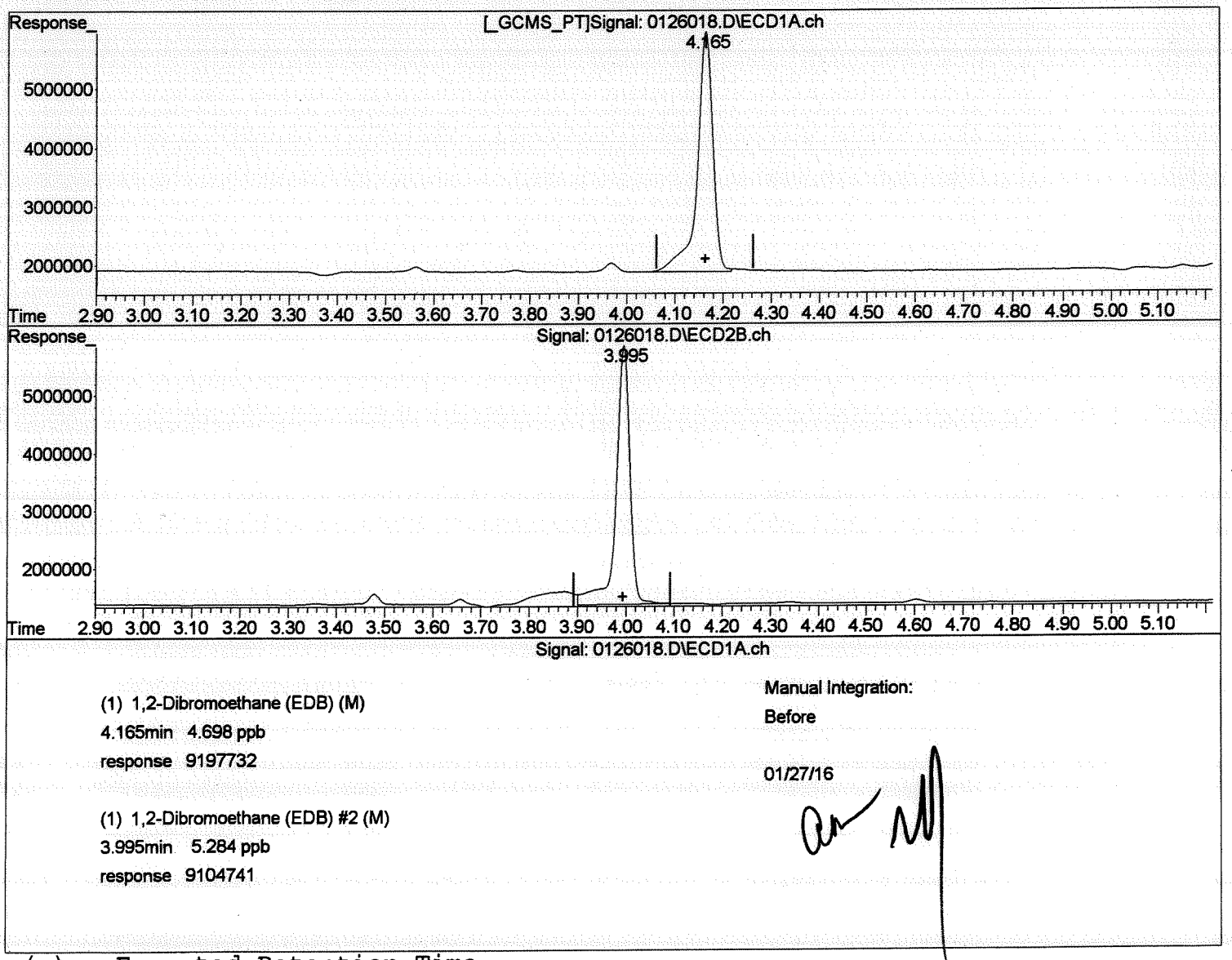


Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126018.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:26:44
Operator : AM
Sample : 012516 LEV7
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:31:25 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126018.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.165min 4.698 ppb
response 9197732

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.995min 5.284 ppb
response 9104741

Manual Integration:
Before

01/27/16

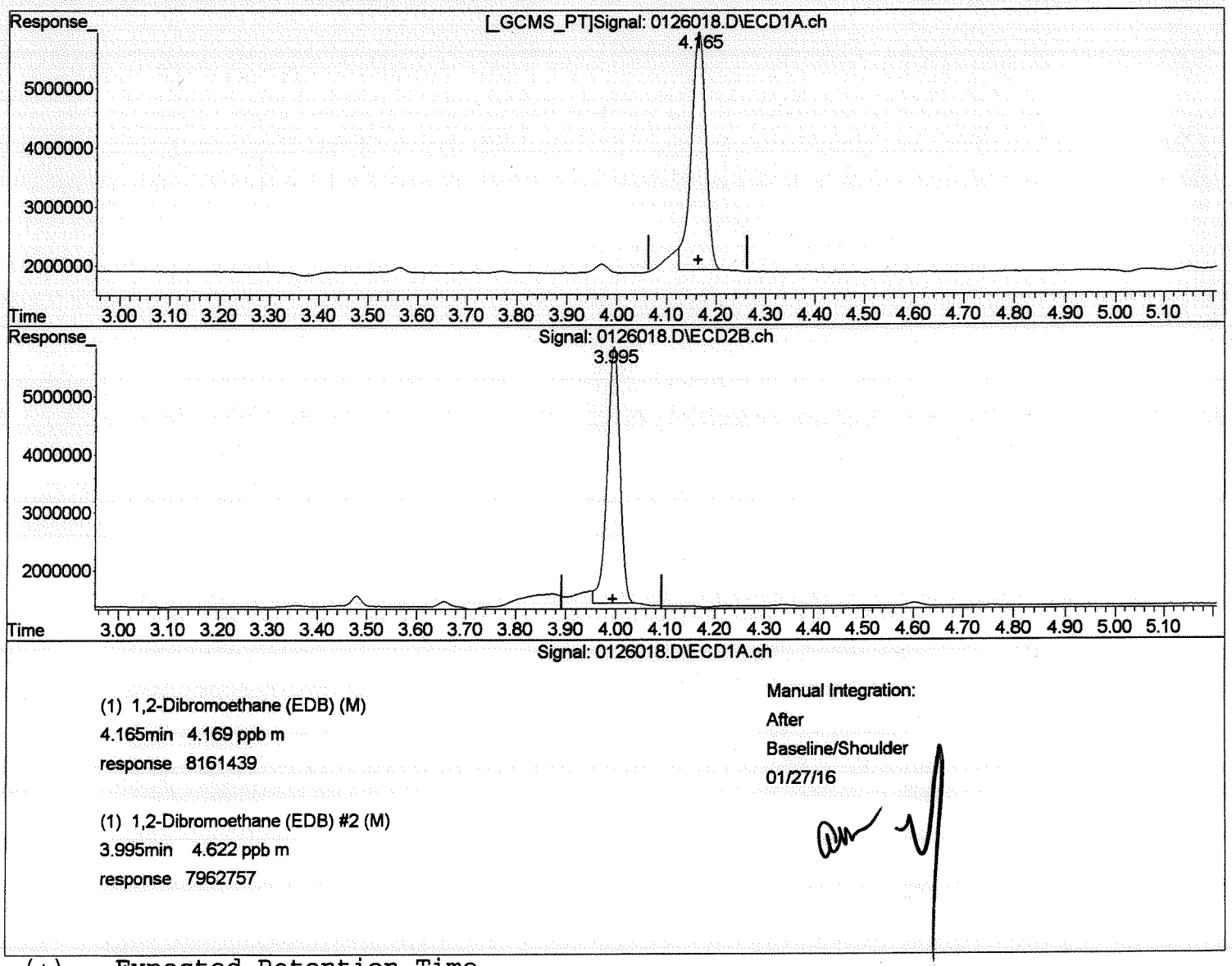
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126018.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:26:44
Operator : AM
Sample : 012516 LEV7
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:31:25 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126018.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.165min 4.169 ppb m
response 8161439

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.995min 4.622 ppb m
response 7962757

Manual Integration:
After
Baseline/Shoulder
01/27/16

(+) = Expected Retention Time

Exception Report

Data File: J:\GC33\DATA\012616-504\0126019.D
Lab ID: KWG1600708-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 16:50
Date Quantitated: 01/27/2016 06:49
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: AM 1/27/16

Secondary Review: M

Exception Report

Data File: J:\GC33\DATA\012616-504\0126019.D\0126019C.D
Lab ID: KWG1600708-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 16:50
Date Quantitated: 01/27/2016 06:49
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: 1/27/16

Secondary Review:

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126019.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126019.D\0126019c.d			**Vial:**	1
Acqu Date:	01/26/2016 16:50	**Quant Date:**	01/27/2016 06:49	**Dilution:**	1.0
Run Type:	IB			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600708-4				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/27/2016

Analysis Lot:	KWG1600708	**Prep Lot:**		**Report Group:**	
Analysis Method:	8011	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000			
1,2-Dibromo-3-chloropropa			0	0	0.0000	0.0000			

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 Path : J:\GC33\Data\012616-504\
Data File : 0126019.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:50:28
Operator : AM
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:49:48 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

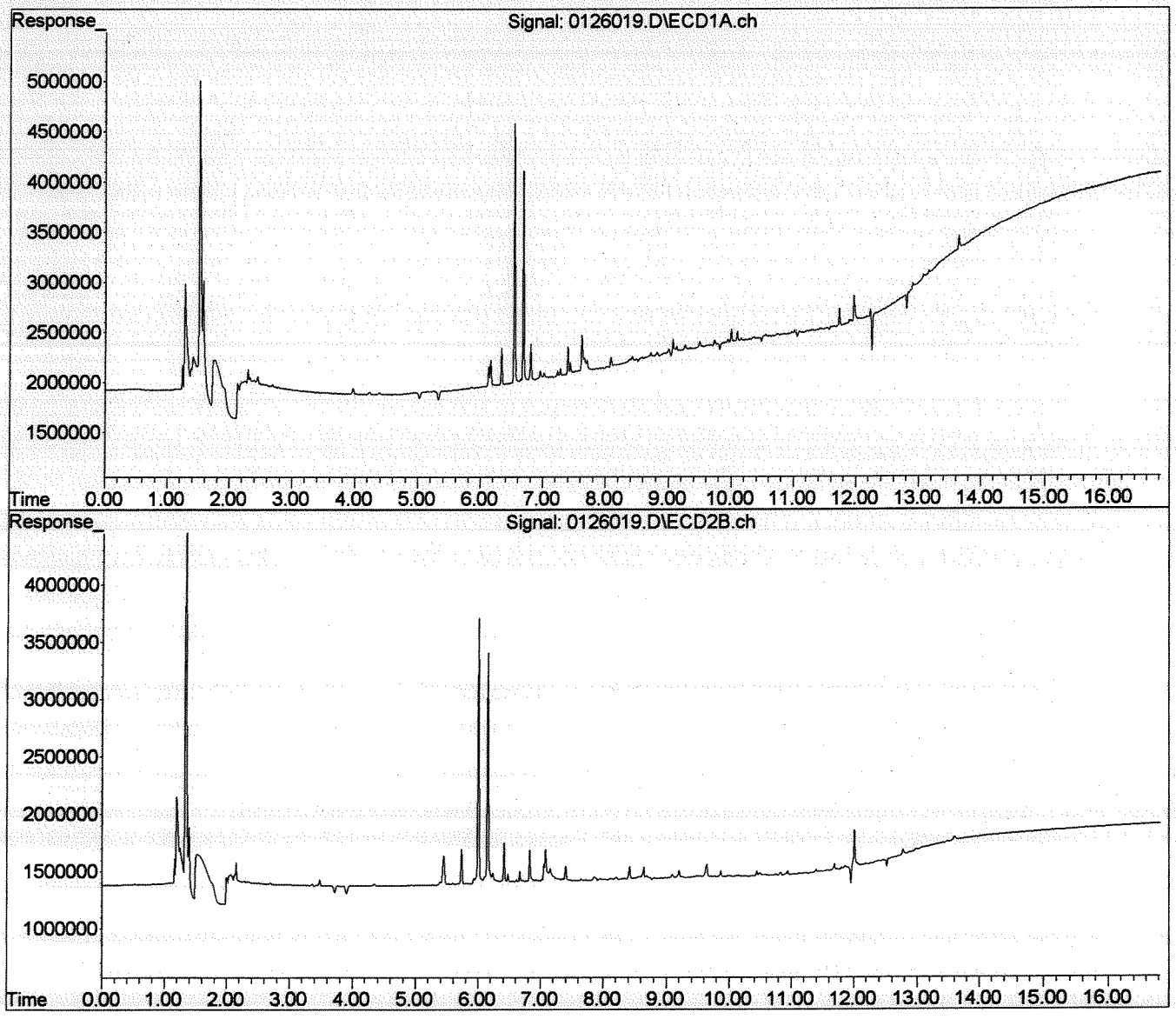
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126019.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 16:50:28
Operator : AM
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:49:48 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Exception Report

Data File: J:\GC33\DATA\012616-504\0126033.D
Lab ID: KWG1600708-5
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 22:21
Date Quantitated: 01/27/2016 06:55
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: MF

Exception Report

Data File:	J:\GC33\DATA\012616-504\0126033.D\0126033C.D	**Date Acquired:**	01/26/2016 22:21
Lab ID:	KWG1600708-5	**Date Quantitated:**	01/27/2016 06:55
RunType:	CCV	**Batch ID:**	KWG1600708
Matrix:	NOT APPLICABLE	**Analysis Method:**	8011
		MethodJoinID:	MJ1546

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: AM 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126033.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126033.D\0126033c.d			**Vial:**	6
Acqu Date:	01/26/2016 22:21	**Quant Date:**	01/27/2016 06:55	**Dilution:**	1.0
Run Type:	CCV			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600708-5				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/27/2016

Analysis Lot:	KWG1600708	**Prep Lot:**		**Report Group:**	
Analysis Method:	8011	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)	4.17	3.99	2526398m	2301882m	1.29	1.34			
1,2-Dibromo-3-chloropropa	7.85	7.79	5039633	4499366	1.40	1.39			

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

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126033.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 22:21:29
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:55:23 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	M 1,2-Dibro...	4.168	3.992	2526398	2301882	1.290m	1.336m
2)	M 1,2,3-Tri...	6.447	6.212	404213	463619	1.294	1.466
3)	M 1,2-Dibro...	7.853	7.793	5039633	4499366	1.403	1.385

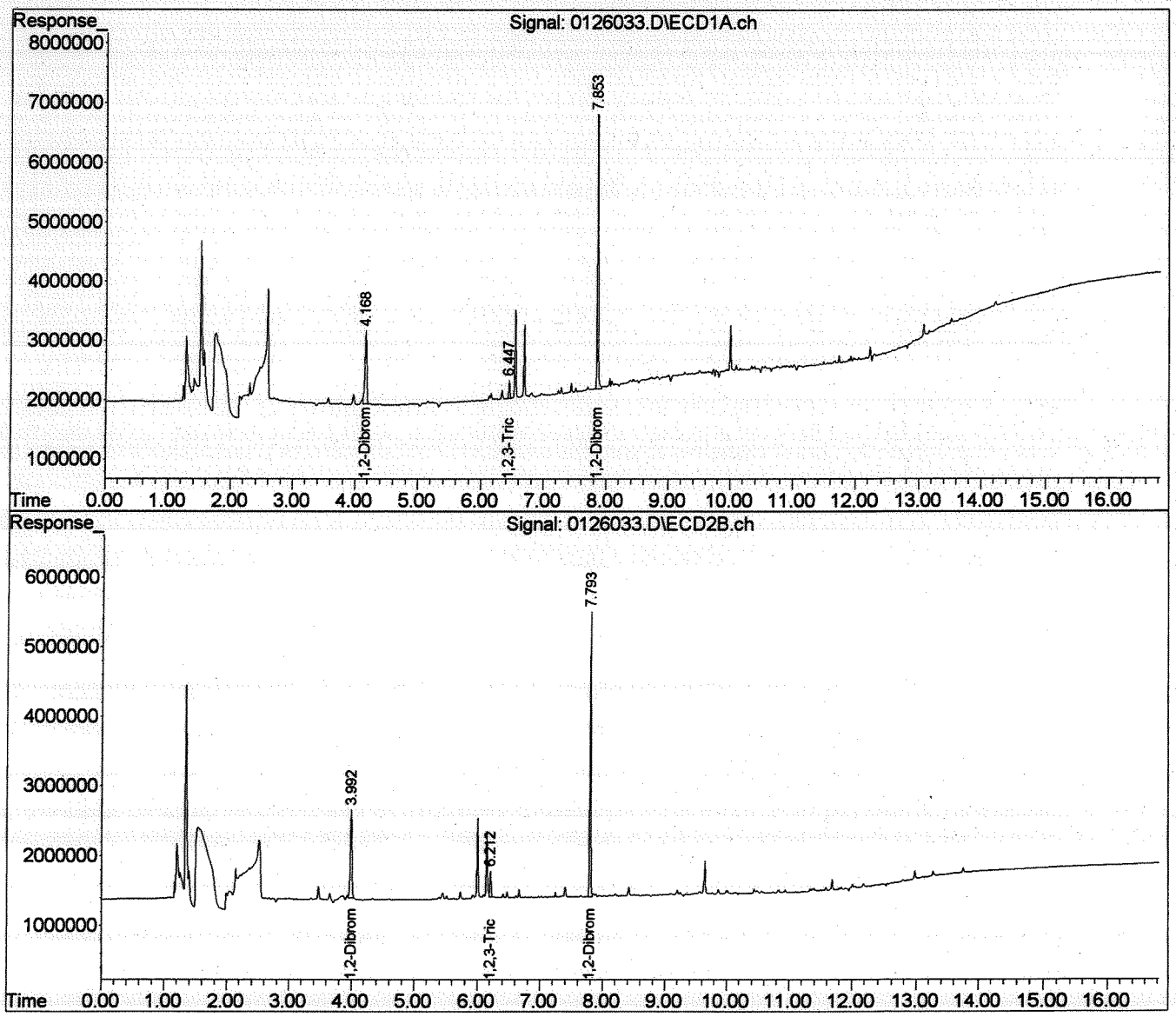
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126033.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 22:21:29
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:55:23 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

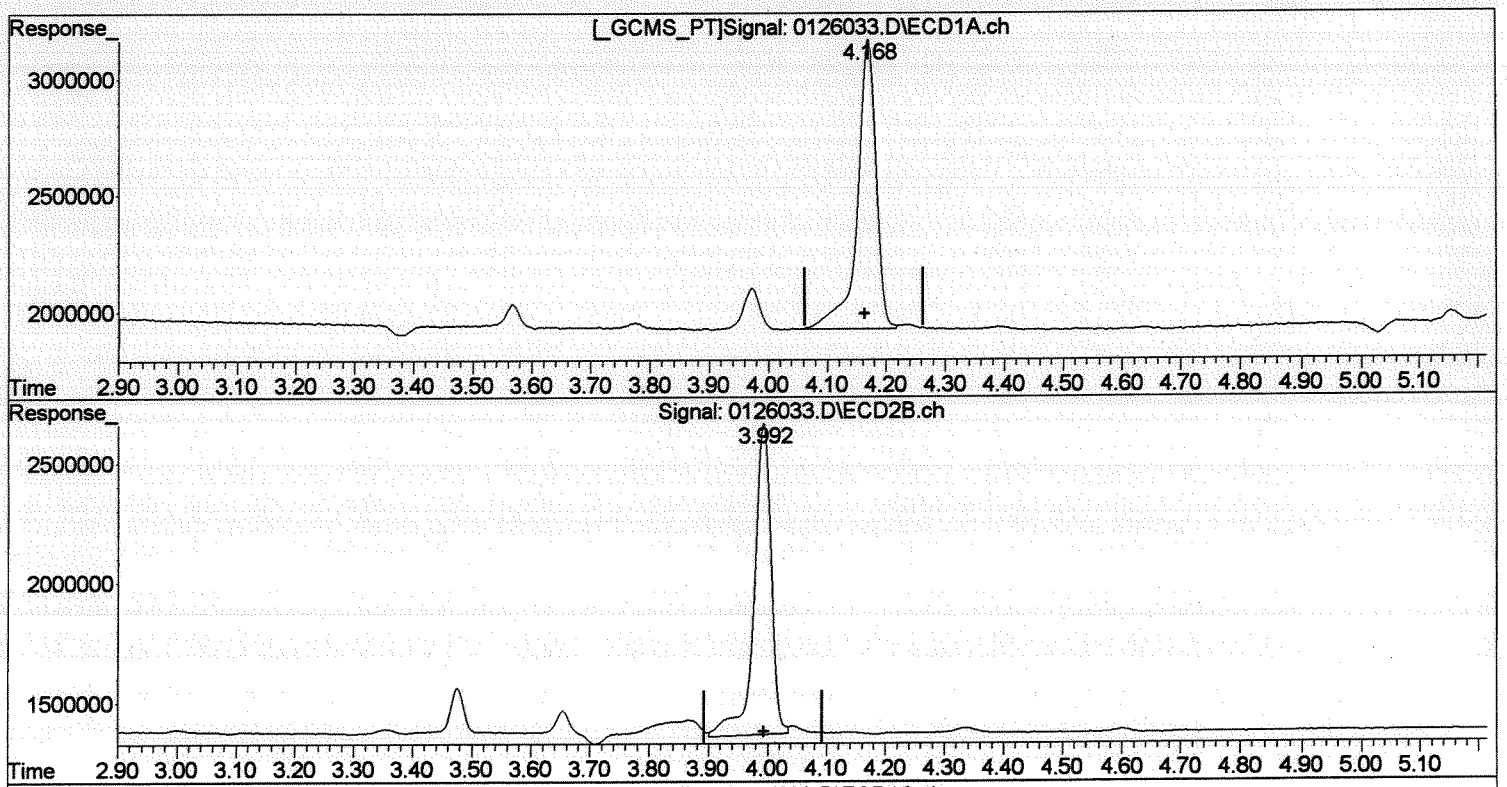


Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126033.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 22:21:29
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:31:55 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126033.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.168min 1.411 ppb
response 2762758

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.992min 1.521 ppb
response 2619888

Manual Integration:
Before

01/27/16

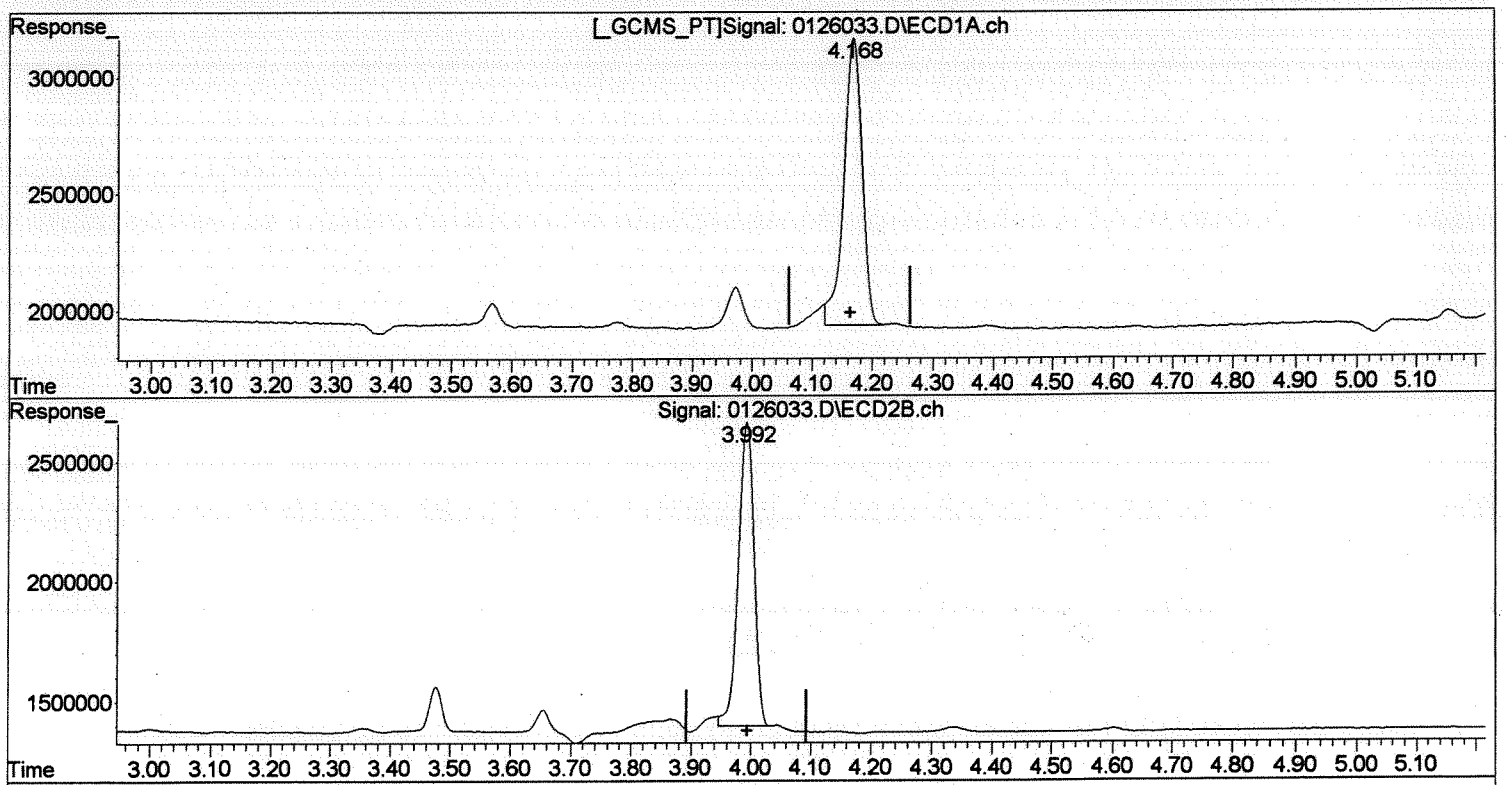
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC33\Data\012616-504\
Data File : 0126033.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 22:21:29
Operator : AM
Sample : 012516 LEV5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:31:55 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Signal: 0126033.D\ECD1A.ch

(1) 1,2-Dibromoethane (EDB) (M)
4.168min 1.290 ppb m
response 2526398

(1) 1,2-Dibromoethane (EDB) #2 (M)
3.992min 1.336 ppb m
response 2301882

Manual Integration:
After
Baseline/Shoulder
01/27/16

(+) = Expected Retention Time

Exception Report

Data File: J:\GC33\DATA\012616-504\0126034.D
Lab ID: KWG1600708-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 22:45
Date Quantitated: 01/27/2016 06:39
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: AM 1/27/16

Secondary Review: MM

Exception Report

Data File: J:\GC33\DATA\012616-504\0126034.D\0126034C.D
Lab ID: KWG1600708-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/26/2016 22:45
Date Quantitated: 01/27/2016 06:39
Batch ID: KWG1600708
Analysis Method: 8011
MethodJoinID: MJ1546

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: am 1/27/16

Secondary Review: _____

Quantitation Report

Data File #1:	J:\GC33\DATA\012616-504\0126034.D			**Instrument:**	GC33
Data File #2:	J:\GC33\Data\012616-504\0126034.D\0126034c.d			**Vial:**	1
Acqu Date:	01/26/2016 22:45	**Quant Date:**	01/27/2016 06:39	**Dilution:**	1.0
Run Type:	IB			**Soln Conc. Units:**	ppb
Lab ID:	KWG1600708-6				
Signal #1:	RTX-CLP	**Signal #2:**	RTX-CLP2		

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8011 EDB_DBCP	**Collect Date:**		**Receive Date:**	01/27/2016

Analysis Lot:	KWG1600708	**Prep Lot:**		**Report Group:**	
Analysis Method:	8011	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC33\METHODS\012616_504_8	**Calibration ID:**	CAL14554
Title:			
MB Ref:		**Method ID:**	MJ1546
		Quant based on Method	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ppb #1	ppb #2	ug/L #1	ug/L #2	Rpt
1,2-Dibromoethane (EDB)			0d	0d	0.0000	0.0000			
1,2-Dibromo-3-chloropropa			0	0	0.0000	0.0000			

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 Path : J:\GC33\Data\012616-504\
Data File : 0126034.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 22:45:06
Operator : AM
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:39:16 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

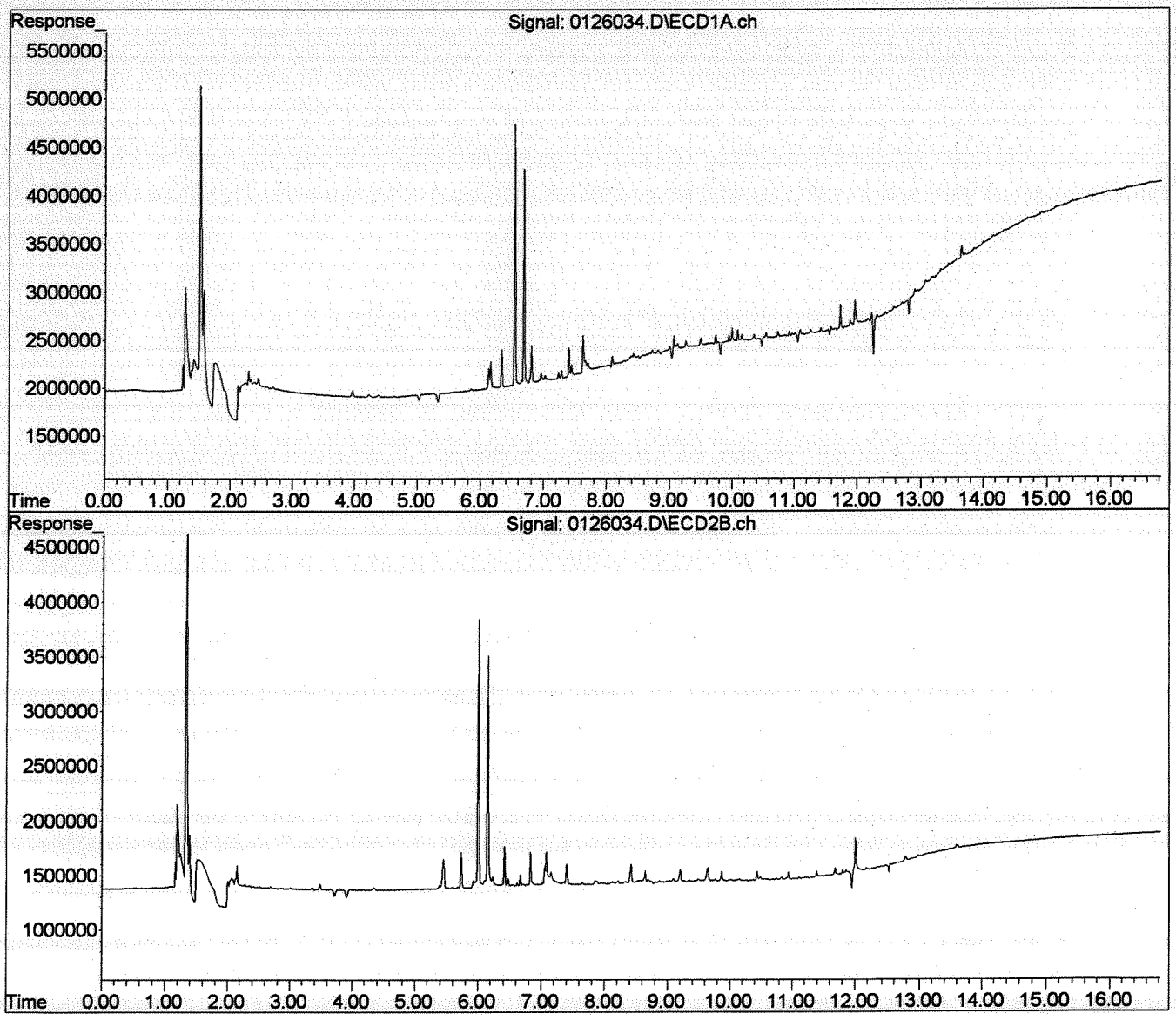
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : J:\GC33\Data\012616-504\
Data File : 0126034.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 26-Jan-2016, 22:45:06
Operator : AM
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Jan 27 06:39:16 2016
Quant Method : J:\GC33\Methods\012616_504_8011.M
Quant Title : 012616_504_8011.M MJ480_MJ1489 CAL14554
QLast Update : Tue Jan 26 10:43:29 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 5 uL
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



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\0125B16\0123BF009.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 01/25/2016 20:09
Date Quantitated: 01/26/2016 09:41
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: KA 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF009.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 20:09	**Quant Date:**	01/26/2016 09:41	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496301	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10285083	85.43	85	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)	2.30		396681	3.52	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF009.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 8:09 pm
Operator : SC 673 SC 1/26/16
Sample : K1600~~667~~-001
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:41:26 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	4.493	10285083	85.428	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	359103	3.628	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	396681	3.521	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	498757	7.199	ug/L

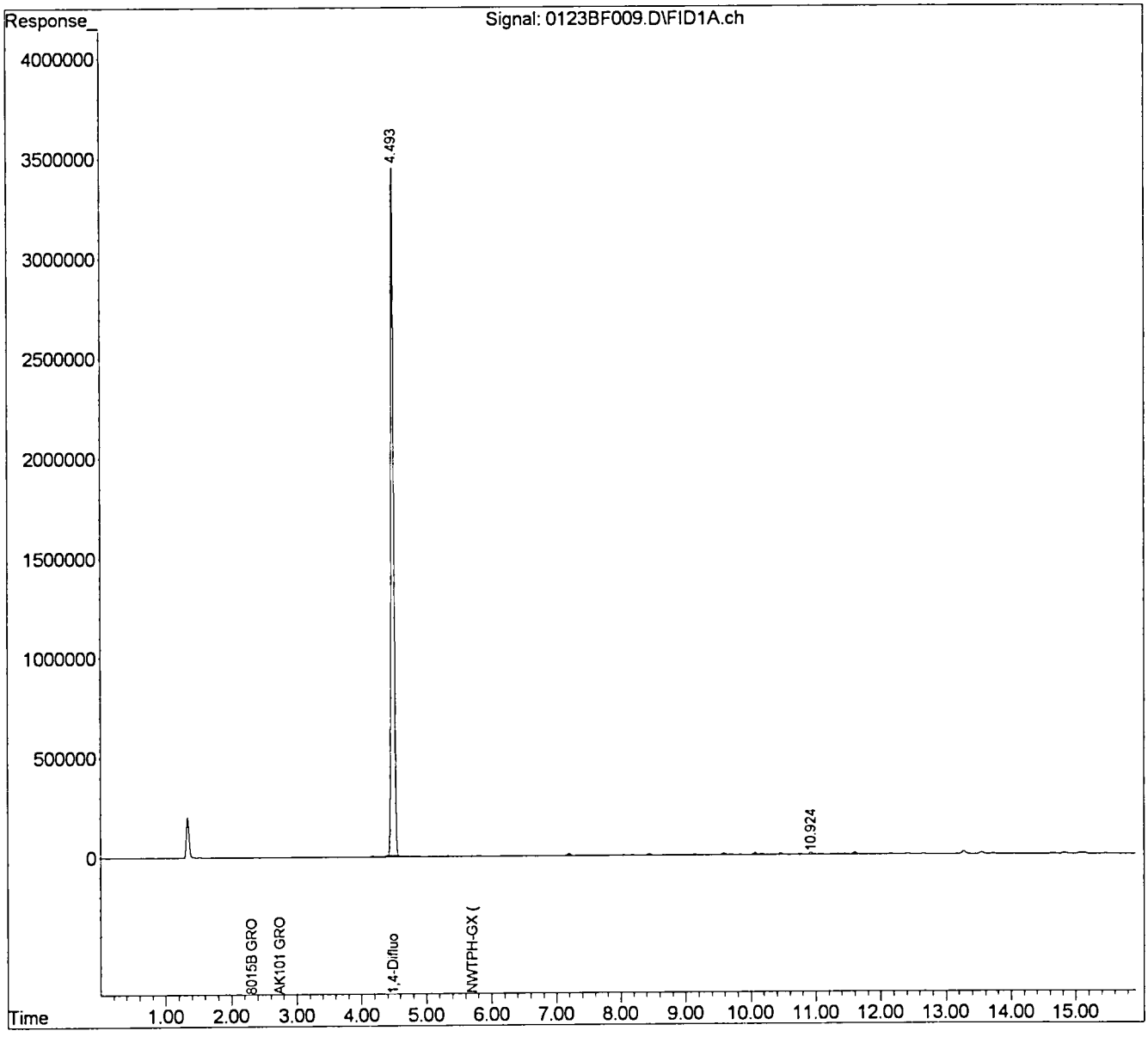
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF009.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 8:09 pm
Operator : SC
Sample : K1600667-001
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:41:26 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\0125B16\0123BF010.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/25/2016 20:33
Date Quantitated: 01/26/2016 09:41
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [illegible] 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF010.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 20:33	**Quant Date:**	01/26/2016 09:41	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-002			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496302	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10325132	85.76	86	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)	2.30		351913	3.12	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF010.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 8:33 pm
Operator : SC 673 SC 1/26/16
Sample : K1600~~667~~-002
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:41:38 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	4.493	10325132	85.761	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	316451	3.197	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	351913	3.124	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	363431	5.246	ug/L

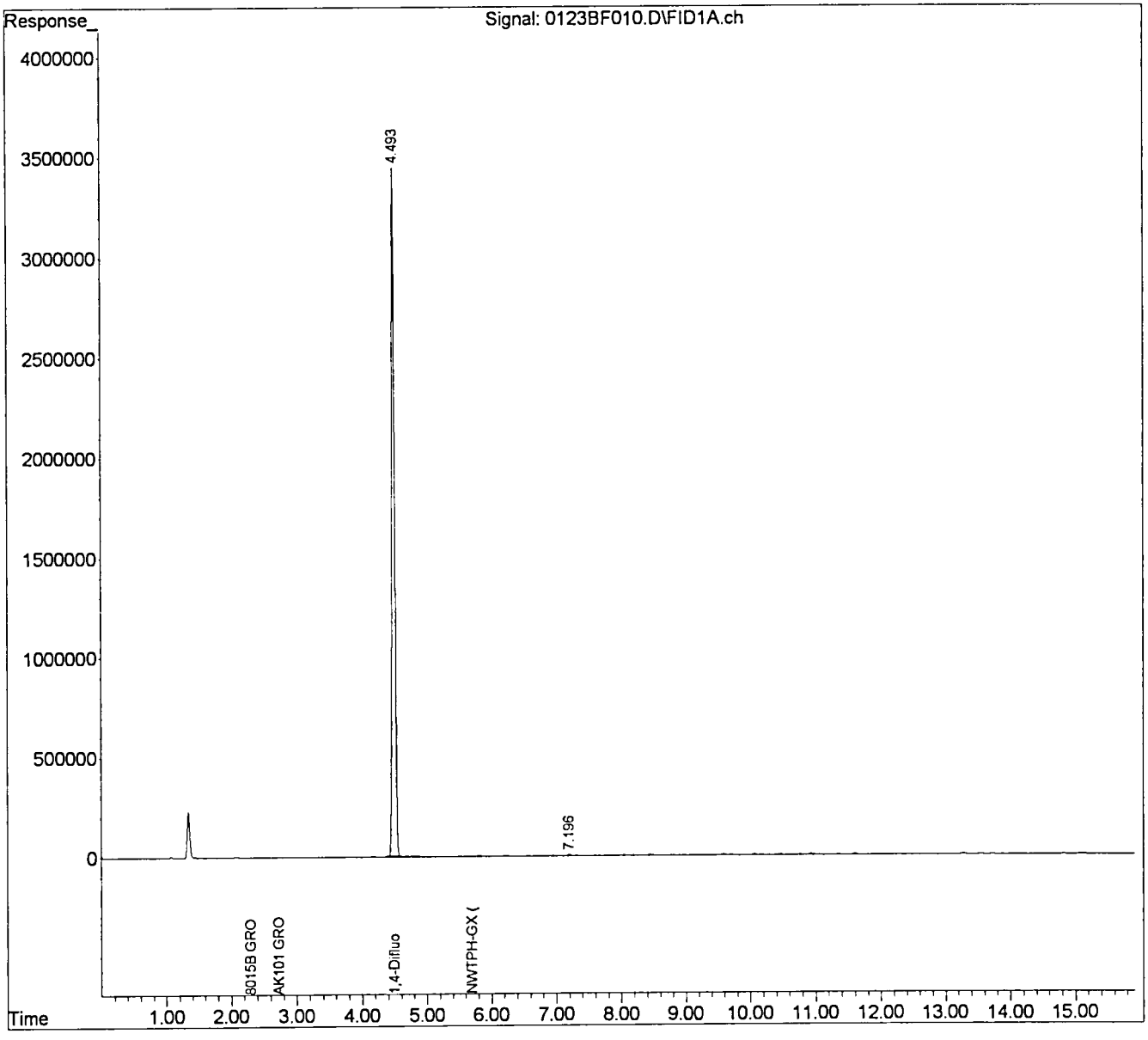
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF010.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 8:33 pm
Operator : SC
Sample : K1600667-002
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:41:38 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\0125B16\0123BF011.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 01/25/2016 20:57
Date Quantitated: 01/26/2016 09:41
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: KN 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF011.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 20:57	**Quant Date:**	01/26/2016 09:41	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496303	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10458420	86.87	87	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)	2.30		287950	2.56	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF011.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 8:57 pm
Operator : SC 673 SC 1/26/16
Sample : K1600~~667~~-003
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:41:59 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	4.493	10458420	86.868 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	262604	2.653 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	287950	2.556 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	242831	3.505 ug/L

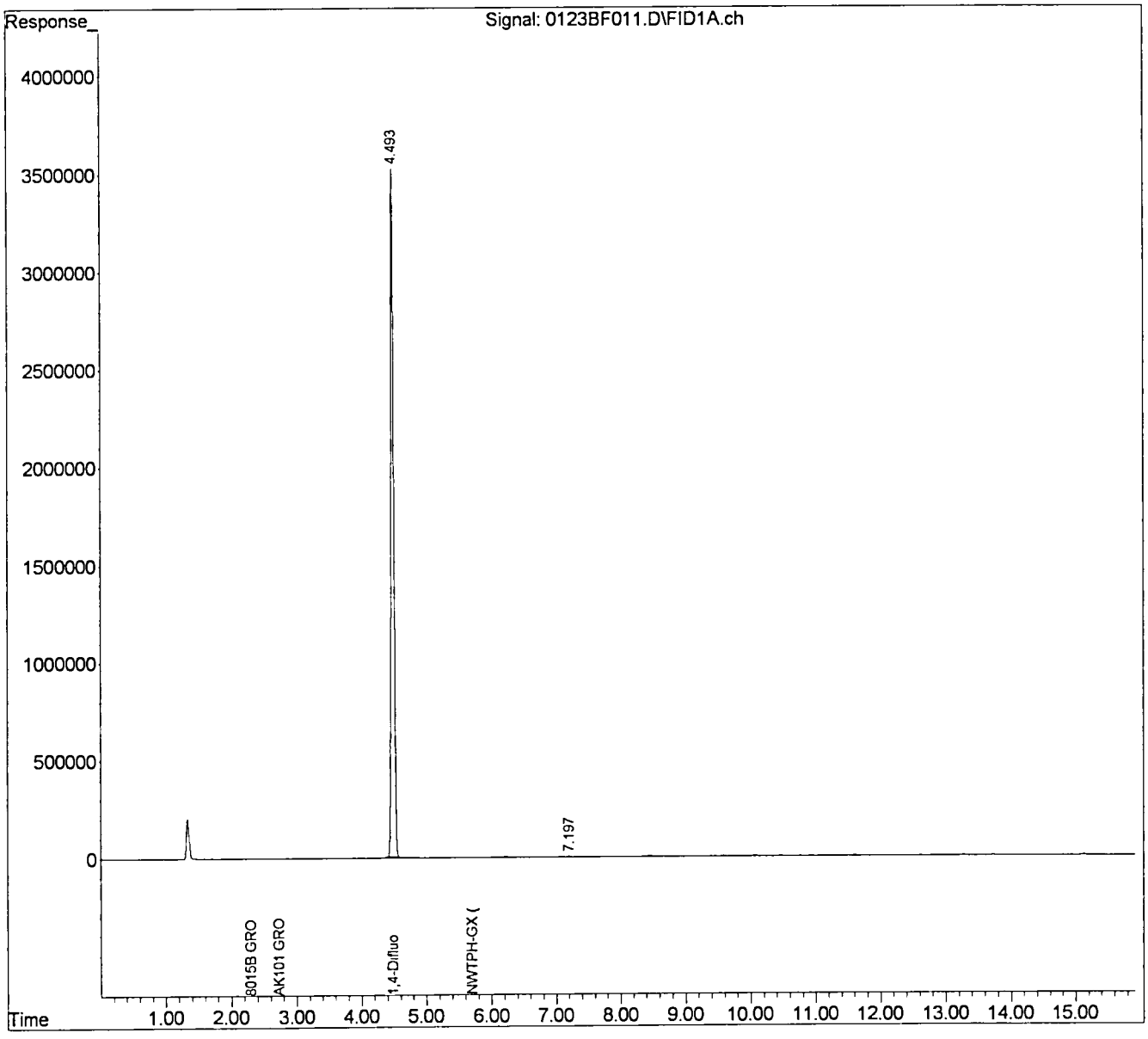
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF011.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 8:57 pm
Operator : SC
Sample : K1600667-003
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:41:59 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\0125B16\0123BF012.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 01/25/2016 21:21
Date Quantitated: 01/26/2016 09:42
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [signature]

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF012.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 21:21	**Quant Date:**	01/26/2016 09:42	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	01/25/2016		
Prep Ref:	1496304				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10508124	87.28	87	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)	2.30		278119	2.47	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF012.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 9:21 pm
Operator : SC 623 SC 1/26/16
Sample : K1600~~667~~-004
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:42:11 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	4.494	10508124	87.281	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	256470	2.591	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	278119	2.469	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	209856	3.029	ug/L

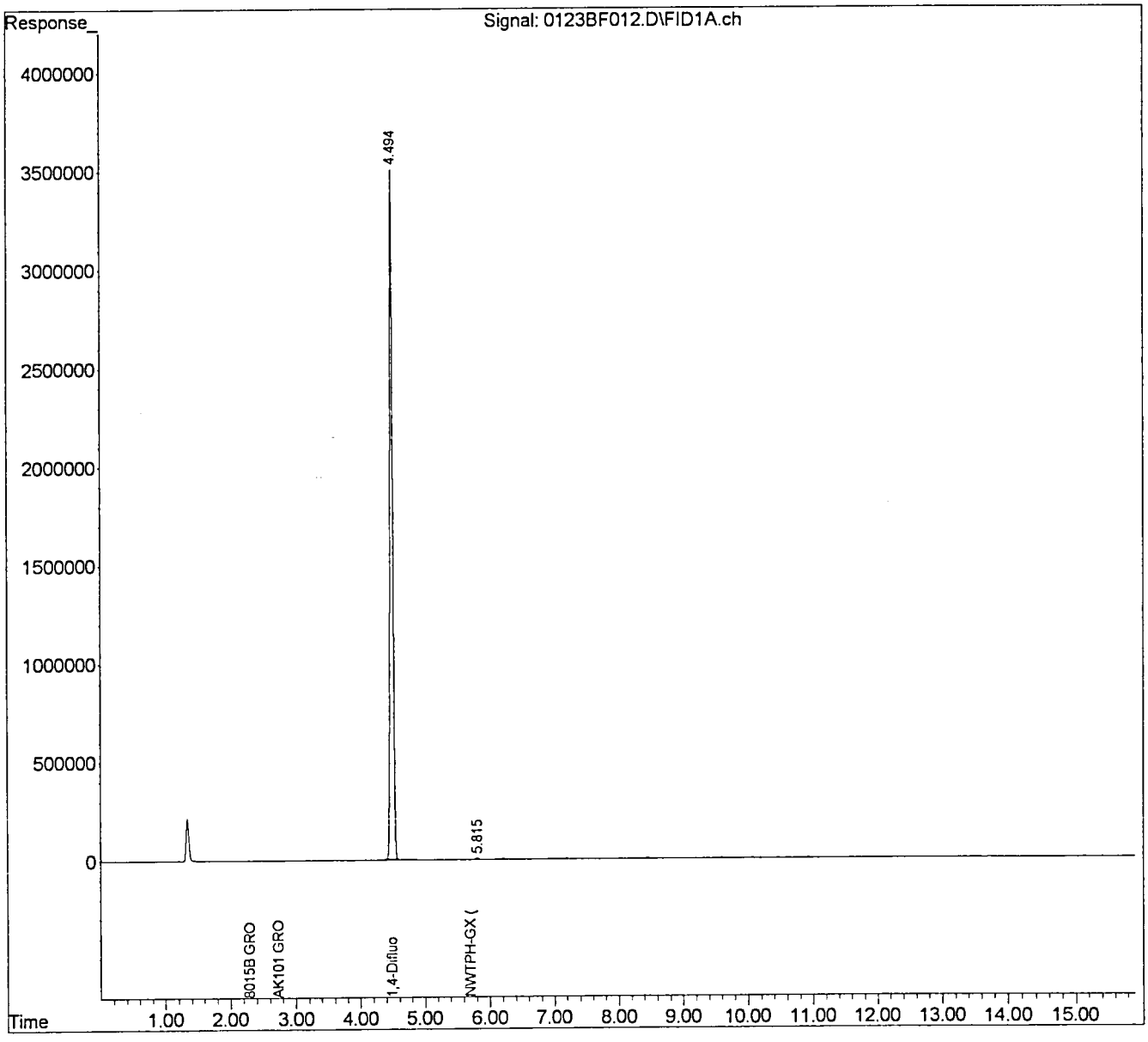
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF012.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 9:21 pm
Operator : SC
Sample : K1600667-004
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:42:11 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\0125B16\0123BF019.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 00:08
Date Quantitated: 01/26/2016 09:43
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: KA 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF019.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 00:08	**Quant Date:**	01/26/2016 09:43	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496305	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10884504	90.41	90	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)	2.30		312877	2.78	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF019.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 12:08 am
Operator : SC 673 SC 1/26/16
Sample : K1600~~667~~-005
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:56 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	4.494	10884504	90.407	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	284784	2.878	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	312877	2.777	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	220361	3.181	ug/L

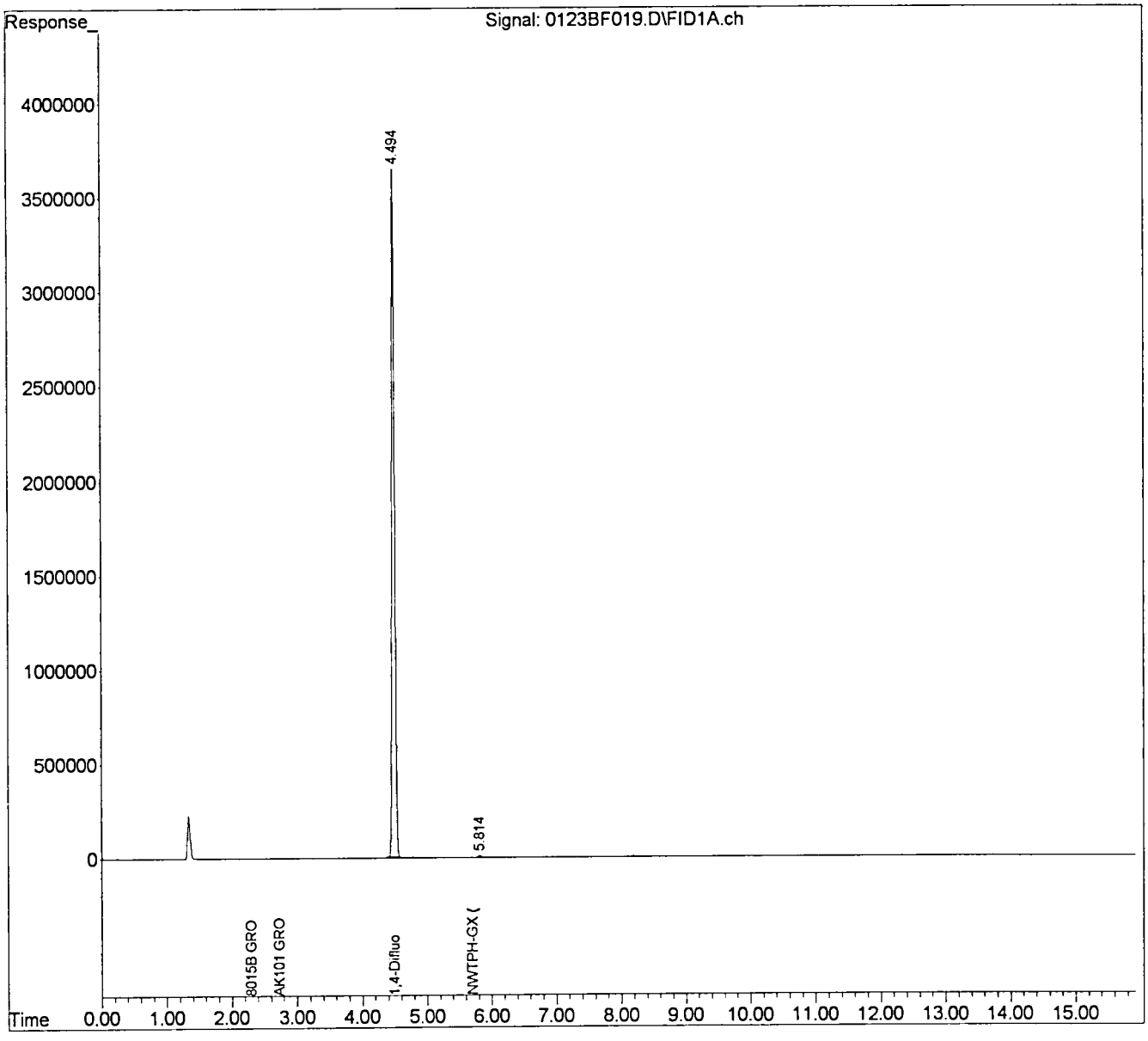
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF019.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 12:08 am
Operator : SC
Sample : K1600667-005
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:56 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\0125B16\0123BF020.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 00:32
Date Quantitated: 01/26/2016 09:44
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [illegible] 1/26/16

Printed: 01/26/2016 12:08:19
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF020.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 00:32	**Quant Date:**	01/26/2016 09:44	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496306	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10556375	87.68	88	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)	2.30		287559	2.55	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF020.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 12:32 am
Operator : SC GC3 SC 1/26/16
Sample : K1600~~667~~-006
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:08 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	4.493	10556375	87.682	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	265653	2.684	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	287559	2.553	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	192474	2.778	ug/L

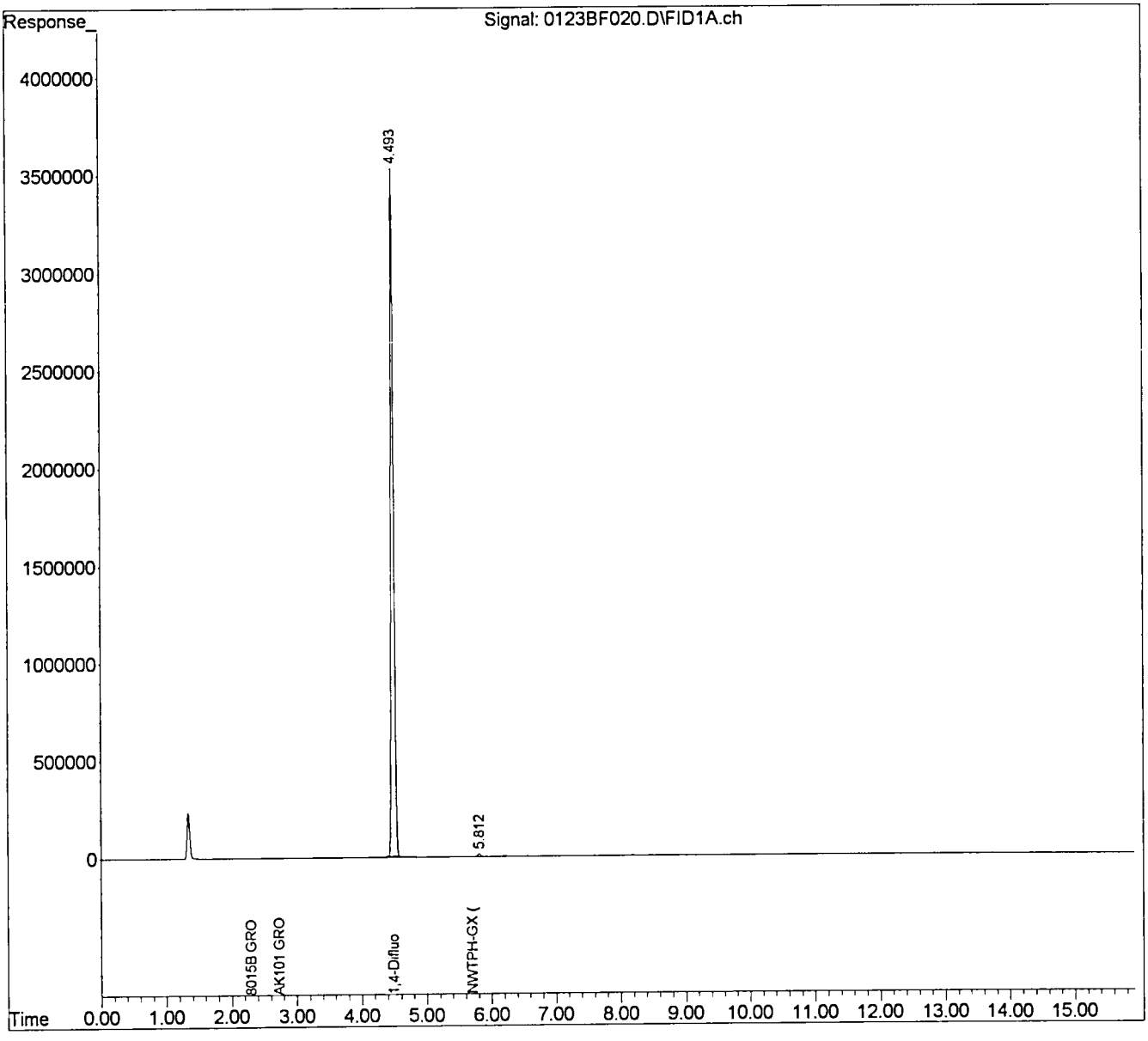
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF020.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 12:32 am
Operator : SC
Sample : K1600667-006
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:08 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\0125B16\0123BF021.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 00:56
Date Quantitated: 01/26/2016 09:44
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: KR 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF021.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 00:56	**Quant Date:**	01/26/2016 09:44	**Vial:**	21
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496307	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10568440	87.78	88	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)	2.30		262624	2.33	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF021.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 12:56 am
Operator : SC GJ SC 1/26/16
Sample : K1600667-007
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:19 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	4.493	10568440	87.782	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	242251	2.448	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	262624	2.331	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	166589	2.405	ug/L

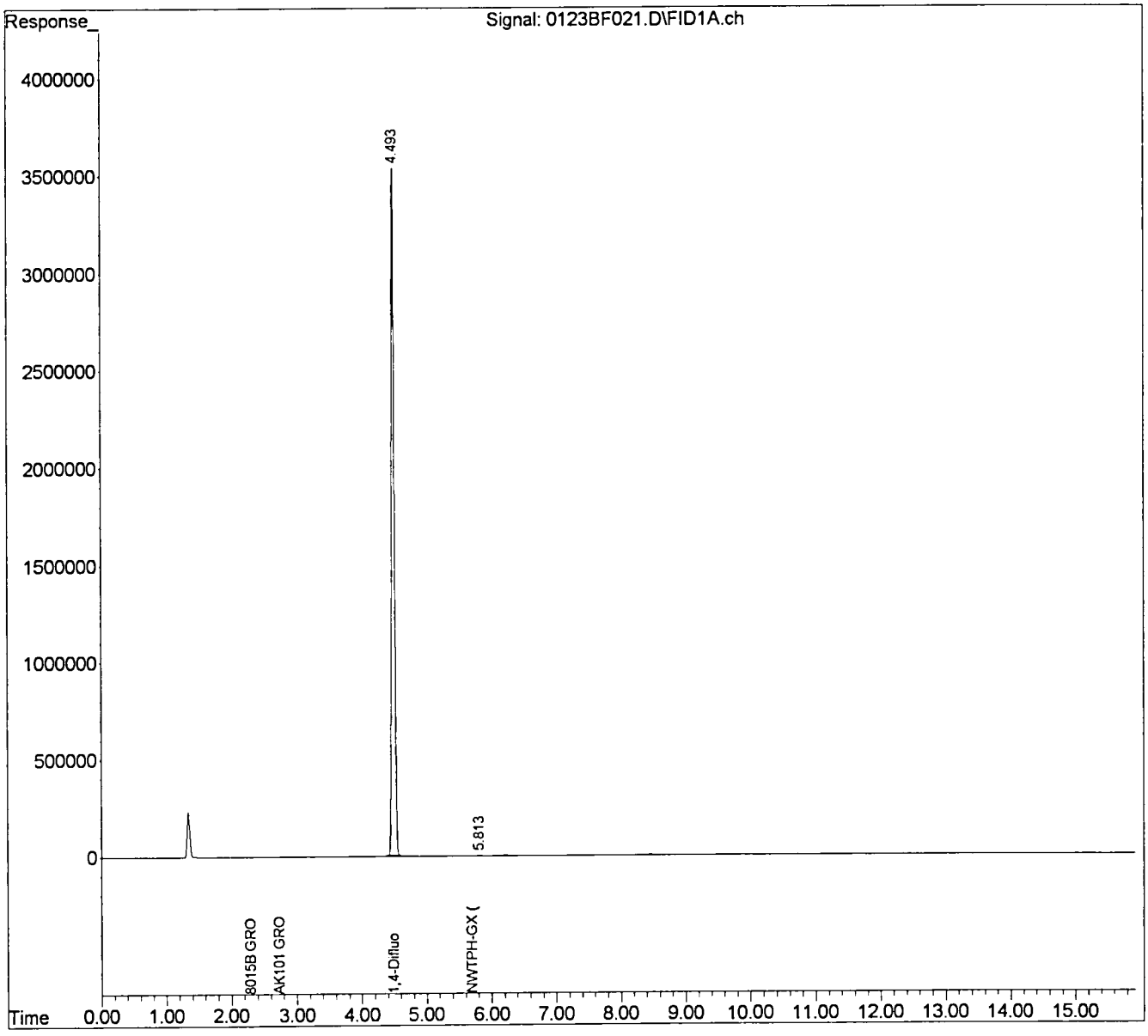
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF021.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 12:56 am
Operator : SC
Sample : K1600667-007
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:19 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\0125B16\0123BF022.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 01:20
Date Quantitated: 01/26/2016 09:44
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF022.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 01:20	**Quant Date:**	01/26/2016 09:44	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496308	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10784646	89.58	90	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)	2.30		271943	2.41	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF022.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 1:20 am
Operator : SC G.23 SC 1126/16
Sample : K1600~~667~~-008
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:32 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	4.493	10784646	89.578 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	250178	2.528 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	271943	2.414 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	180782	2.610 ug/L

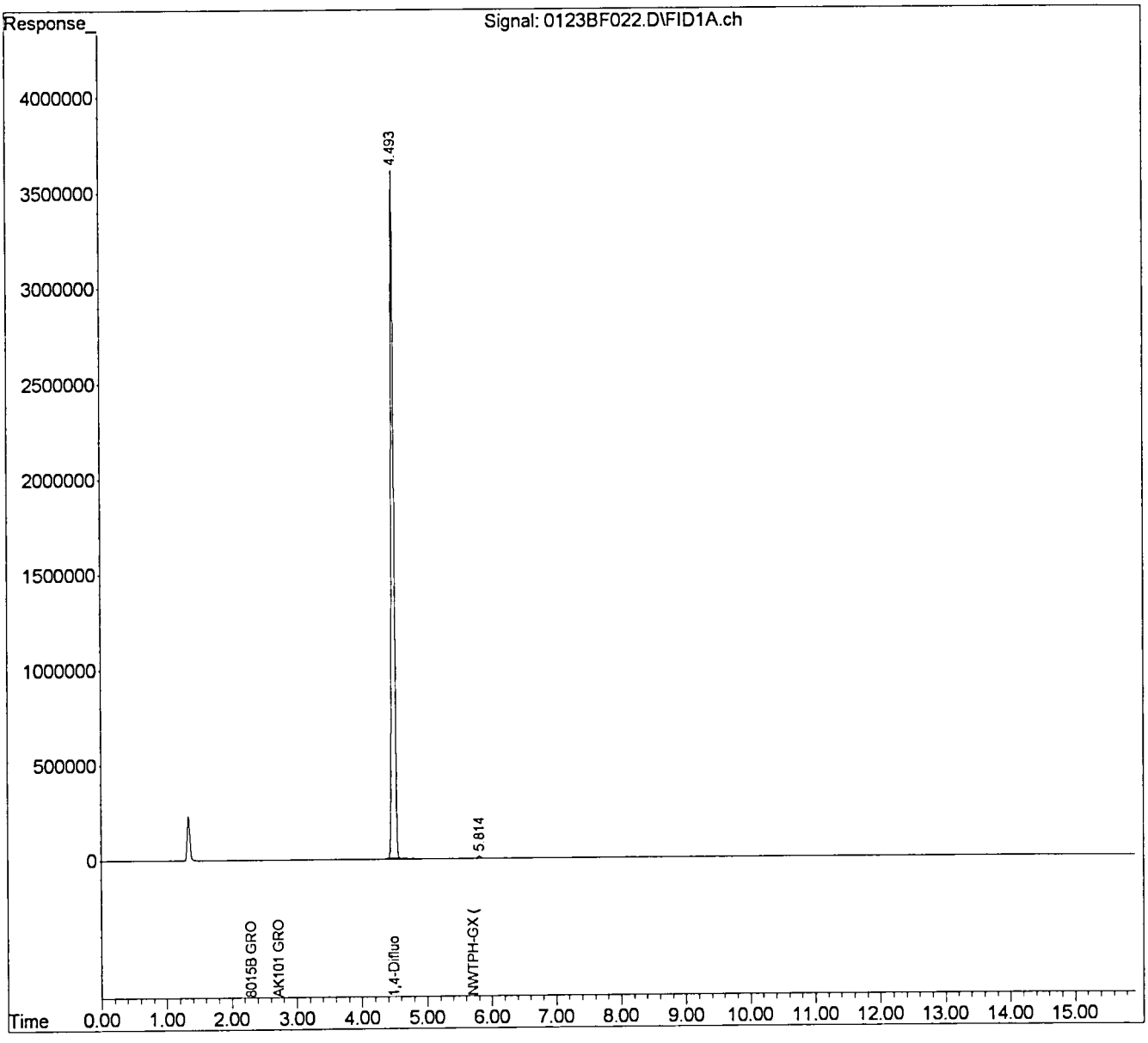
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF022.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 1:20 am
Operator : SC
Sample : K1600667-008
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:32 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\0125B16\0123BF023.D
Lab ID: K1600673-009
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 01:44
Date Quantitated: 01/26/2016 09:44
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: KM 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF023.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 01:44	**Quant Date:**	01/26/2016 09:44	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496309	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10632301	88.31	88	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)	2.30		273521	2.43	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF023.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 1:44 am
Operator : SC 673 SC 1126/16
Sample : K1600667-009
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:44 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	4.493	10632301	88.312	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	251550	2.542	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	273521	2.428	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	178190	2.572	ug/L

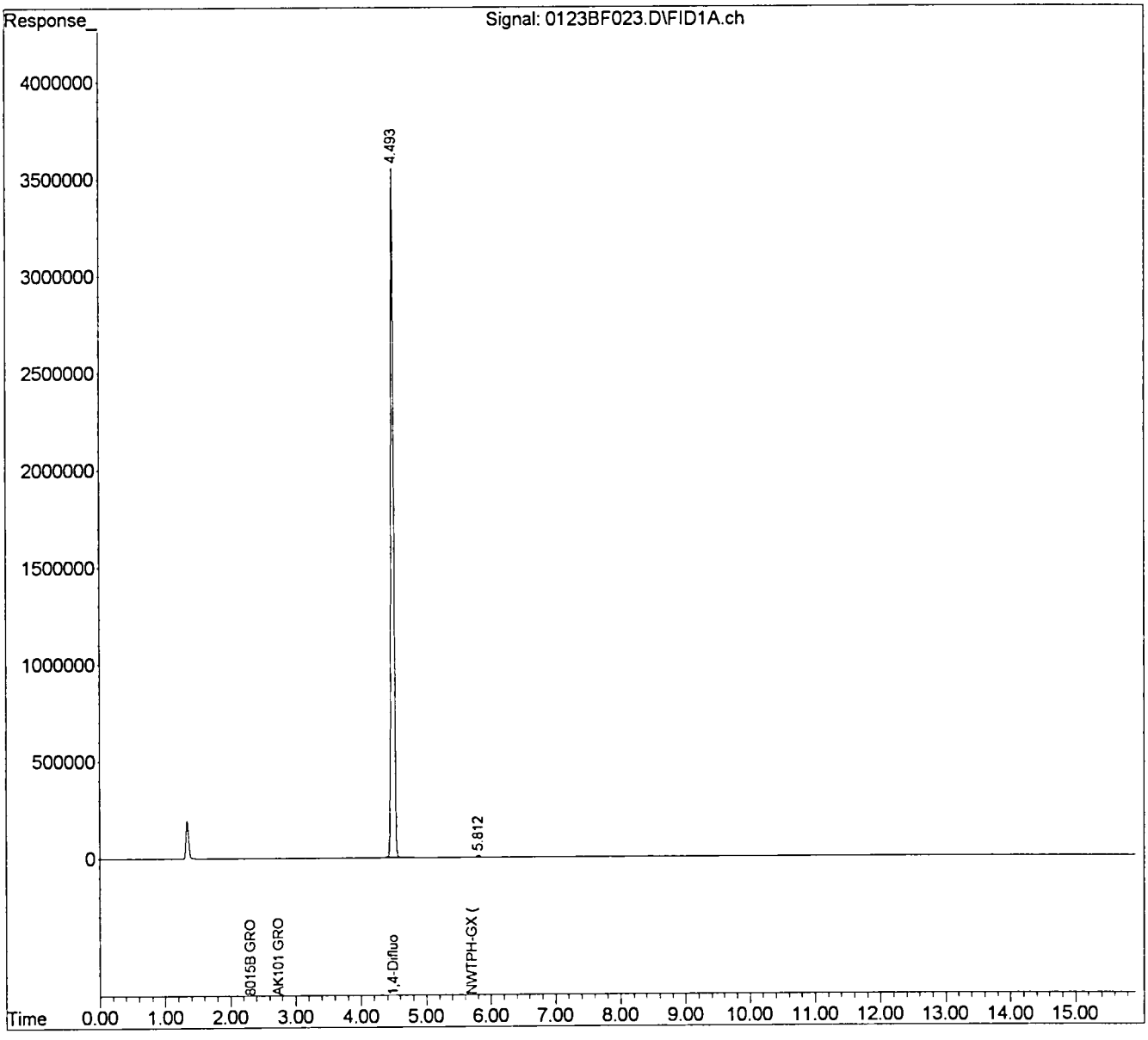
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF023.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 1:44 am
Operator : SC
Sample : K1600667-009
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:44:44 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\0125B16\0123BF024.D
Lab ID: K1600673-010
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 02:07
Date Quantitated: 01/26/2016 09:45
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [illegible]

Printed: 01/26/2016 12:08:36
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF024.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 02:07	**Quant Date:**	01/26/2016 09:45	**Vial:**	24
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	1V	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496310	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10585919	87.93	88	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)	2.30		474797	4.22	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF024.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 2:07 am
Operator : SC G73 SC 1/26/16
Sample : K1600~~667~~-010
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:04 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	4.494	10585919	87.927 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L d
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	376633	3.806 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	474797	4.215 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	1837213	26.520 ug/L

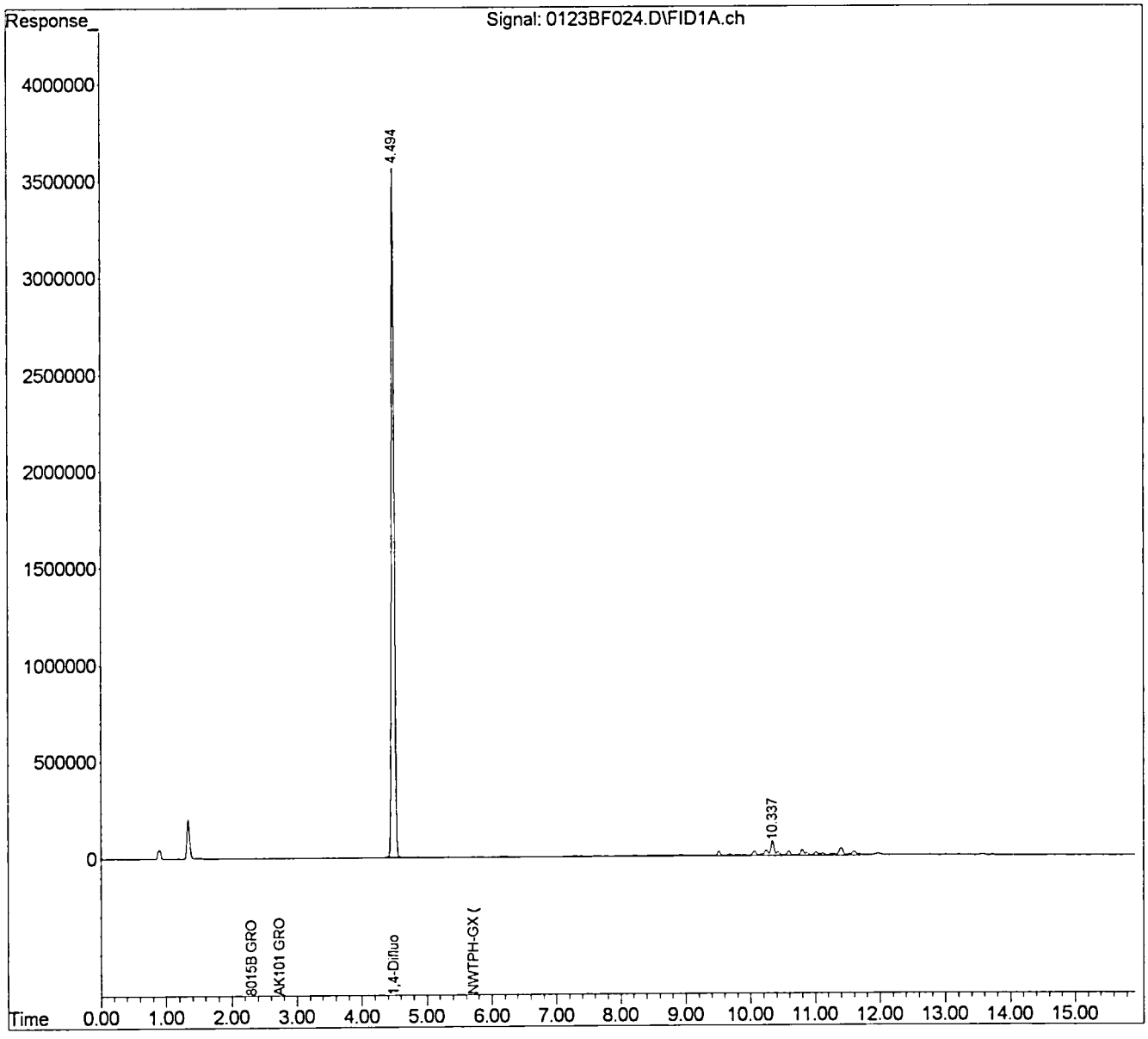
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF024.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 2:07 am
Operator : SC
Sample : K1600667-010
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:04 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\0125B16\0123BF025.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 02:31
Date Quantitated: 01/26/2016 09:45
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF025.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 02:31	**Quant Date:**	01/26/2016 09:45	**Vial:**	25
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496311	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10451853	86.81	87	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)	2.30		4013917	35.63	36	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 (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF025.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 2:31 am
Operator : SC GC73 SC 1126116
Sample : K1600667-011
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:22 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	4.494	10451853	86.813 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L d
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	3356959	33.919 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	4013917	35.632 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	33481700	483.297 ug/L

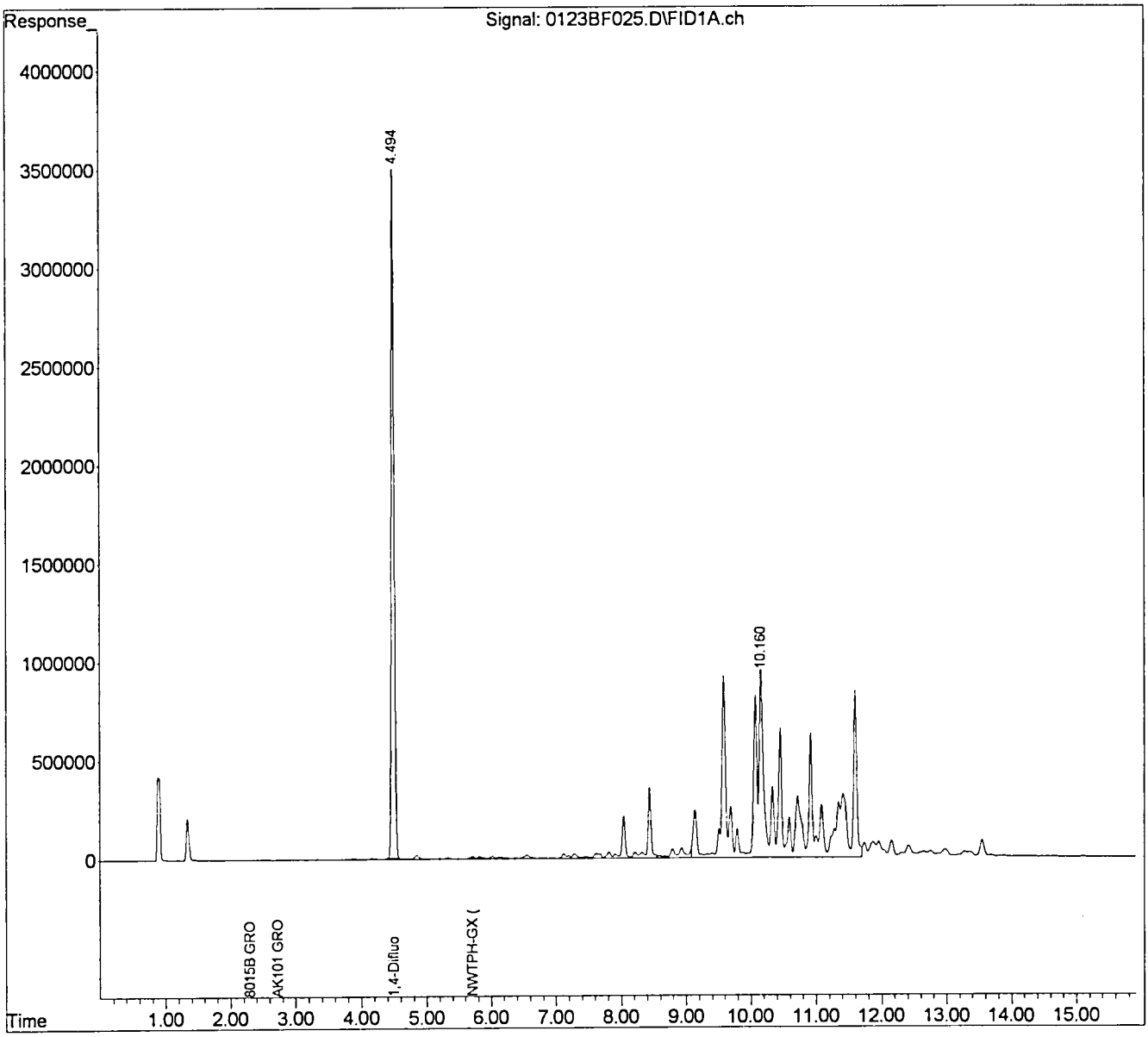
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF025.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 2:31 am
Operator : SC
Sample : K1600667-011
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:22 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\0125B16\0123BF026.D
Lab ID: K1600673-012
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 02:55
Date Quantitated: 01/26/2016 09:45
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [signature]

Printed: 01/26/2016 12:08:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF026.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 02:55	**Quant Date:**	01/26/2016 09:45	**Vial:**	26
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496312	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10623361	88.24	88	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)	2.30		280921	2.49	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF026.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 2:55 am
Operator : SC 673 SC 1/26/16
Sample : K1600667-012
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:28 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	4.493	10623361	88.238	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	245302	2.479	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	280921	2.494	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	686330	9.907	ug/L

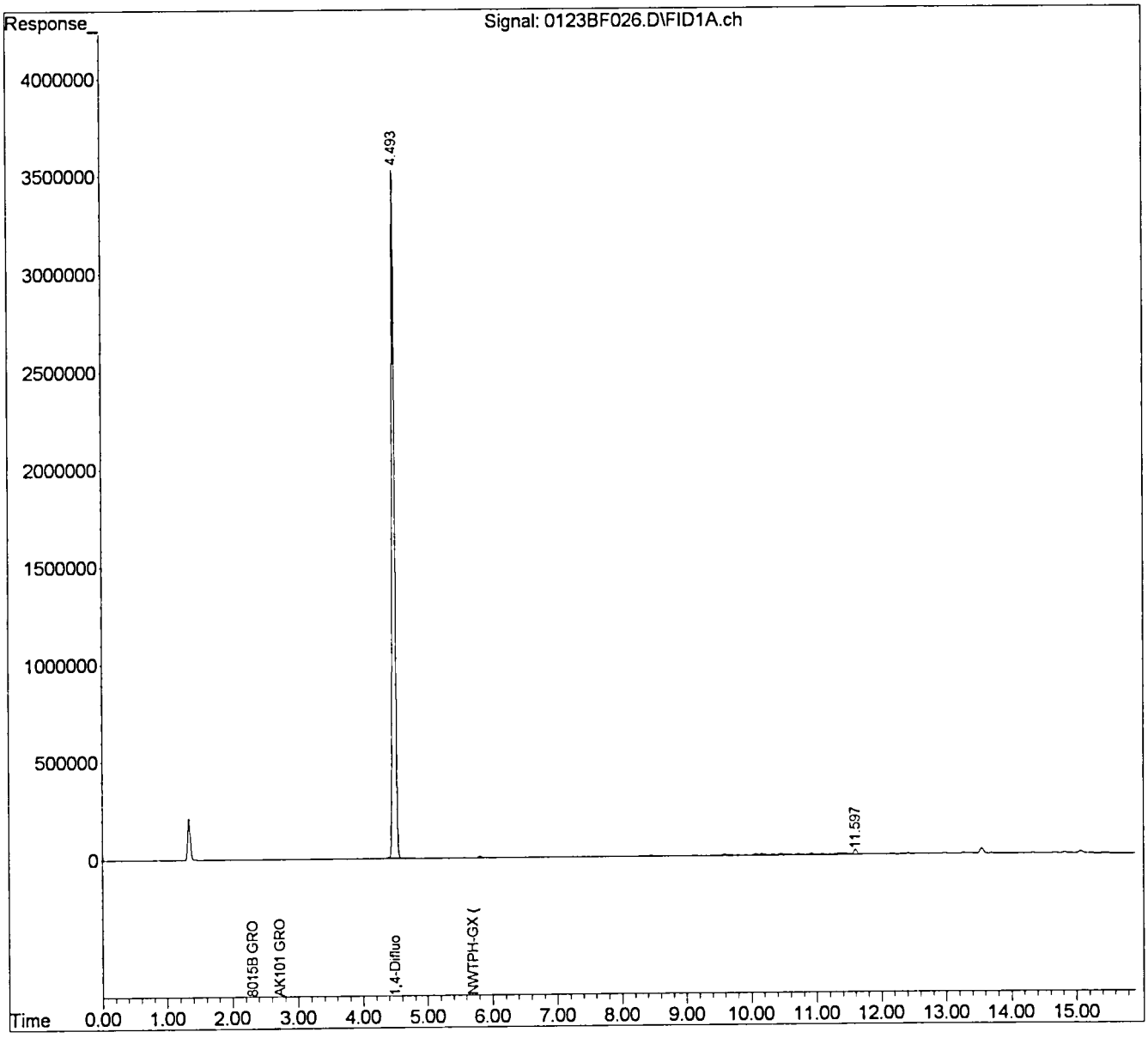
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF026.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 2:55 am
Operator : SC
Sample : K1600667-012
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:28 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\0125B16\0123BF027.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 03:19
Date Quantitated: 01/26/2016 09:45
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: KA 1/27/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF027.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 03:19	**Quant Date:**	01/26/2016 09:45	**Vial:**	27
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496313	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10673967	88.66	89	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)	2.30		299576	2.66	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF027.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 3:19 am
Operator : SC 673 SC 112616
Sample : K1600~~667~~-013
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:41 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	4.494	10673967	88.658	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	271224	2.740	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	299576	2.659	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	286745	4.139	ug/L

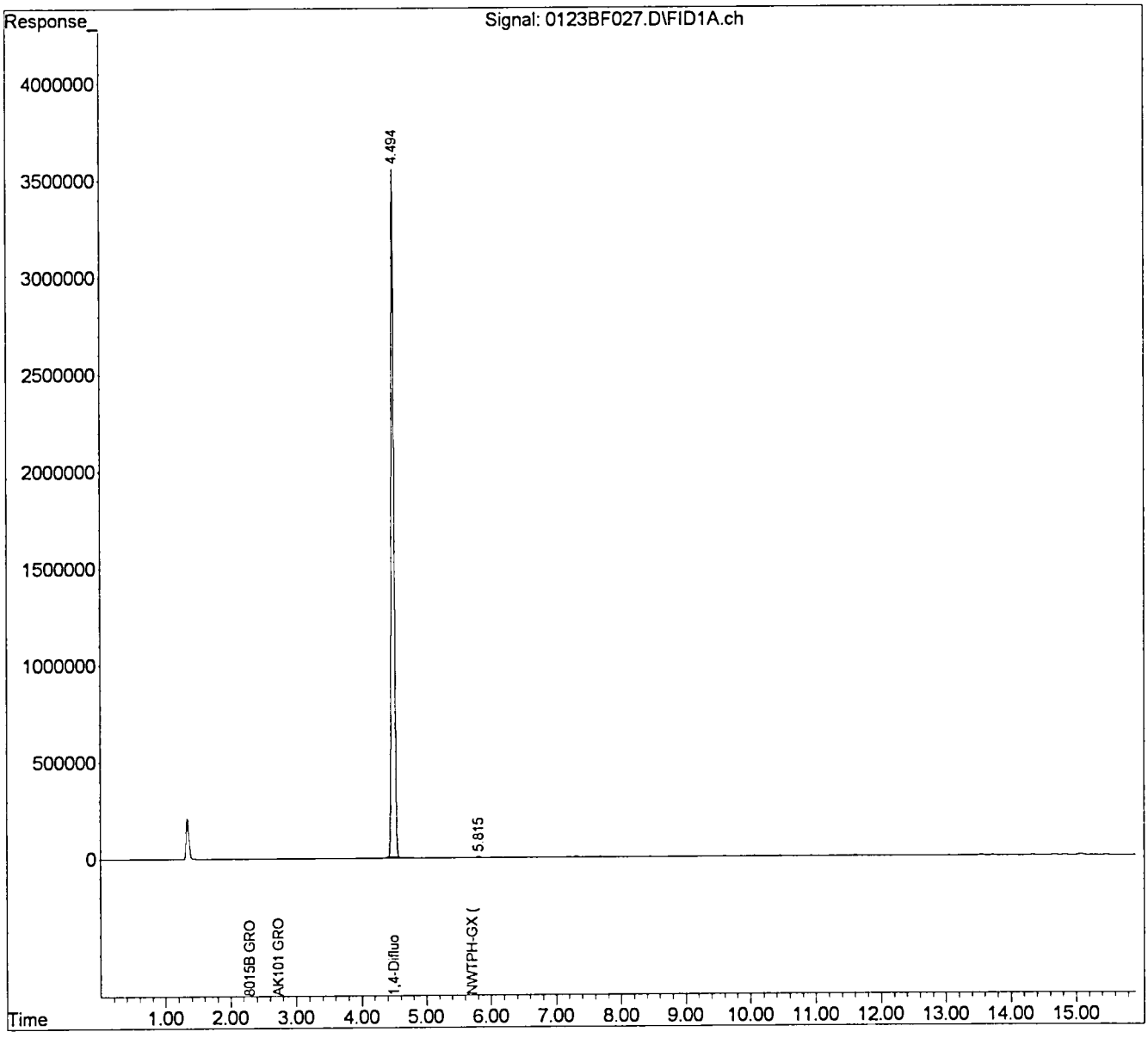
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF027.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 3:19 am
Operator : SC
Sample : K1600667-013
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:41 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\0125B16\0123BF028.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 01/26/2016 03:43
Date Quantitated: 01/26/2016 09:45
Batch ID: KWG1600691
Analysis Method: 8015C
ListJoinID: LJ17026

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: SC 1/26/16

Secondary Review: [signature]

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF028.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 03:43	**Quant Date:**	01/26/2016 09:45	**Vial:**	28
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1496314	**Prep Date:**	01/26/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ17026
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10485932	87.10	87	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)	2.30		326805	2.90	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF028.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 3:43 am
Operator : SC 673 SC 1/26/16
Sample : K1600~~667~~-014
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:53 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	4.494	10485932	87.096 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	301595	3.047 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	326805	2.901 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	260570	3.761 ug/L

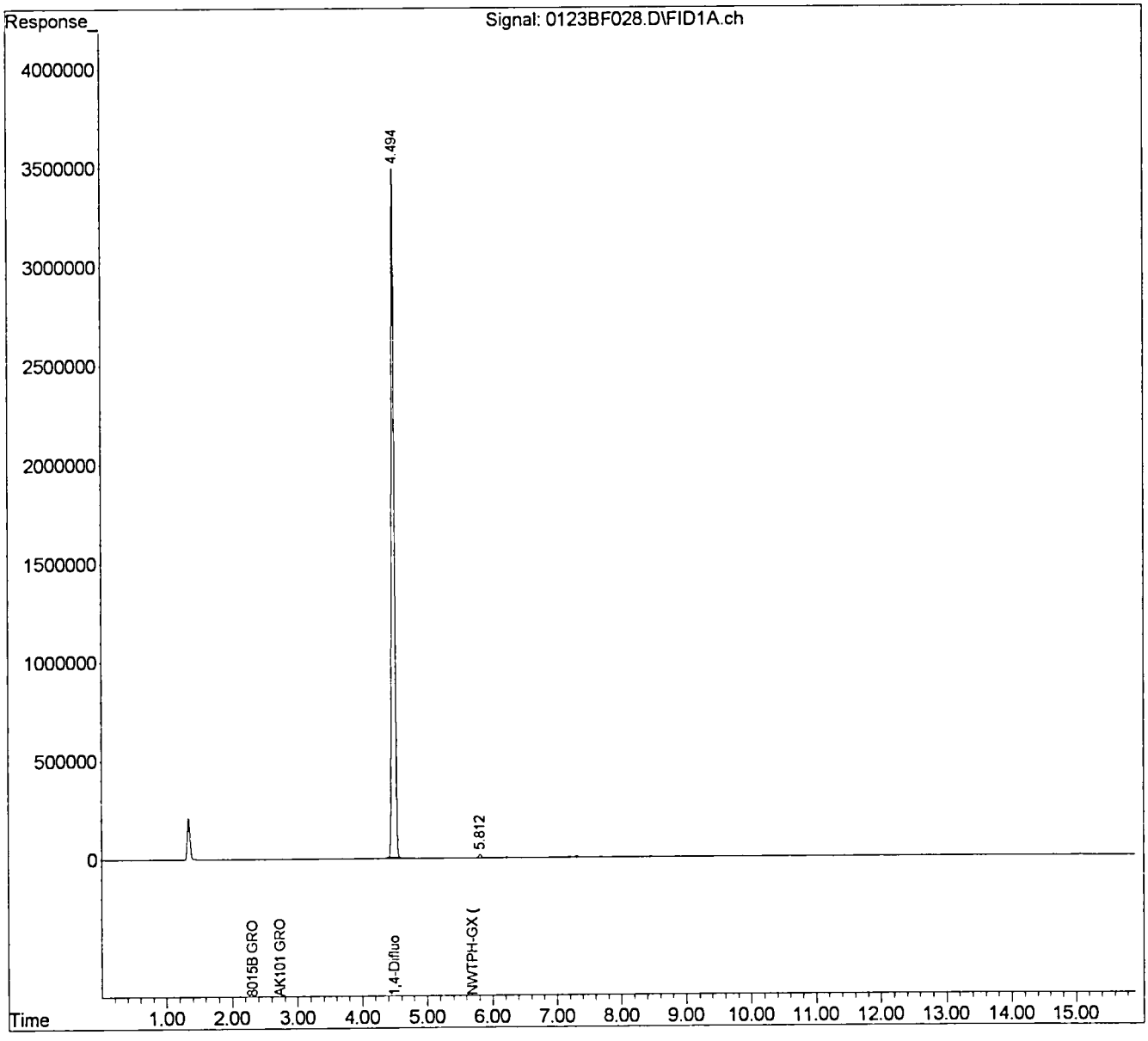
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF028.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 3:43 am
Operator : SC
Sample : K1600667-014
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:45:53 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\0125B16\0123BF016.D
Lab ID: KWG1600692-4
RunType: MB
Matrix: WATER

Date Acquired: 01/25/2016 22:56
Date Quantitated: 01/26/2016 09:43
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: [illegible]

Printed: 01/26/2016 12:08:02
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF016.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 22:56	**Quant Date:**	01/26/2016 09:43	**Vial:**	16
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600692-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	01/25/2016		
Prep Ref:	1496318				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ1504
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	10594432	88.00	88	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		523598	5.29	8.3	U	
Gasoline Range Organics (GRO)	2.30		579151	5.14	8.3	U	
Gasoline Range Organics-NWTP	5.71		364139	5.26	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

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF016.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 22:56	**Quant Date:**	01/26/2016 09:43	**Vial:**	16
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600692-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	01/25/2016		
Prep Ref:	1496318				

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	10594432	88.00	88	80-107	OK	
4-Bromofluorobenzene			0		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	2.73		523598	5.29	8.3	U	
Gasoline Range Organics (GRO)	2.30		579151	5.14	8.3	U	
Gasoline Range Organics-NWTP	5.71		364139	5.26	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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF016.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 10:56 pm
Operator : SC 0623 SC 1/26/16
Sample : MB 0663/~~0667~~
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:17 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	4.494	10594432	87.998	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	523598	5.291	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	579151	5.141	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	364139	5.256	ug/L

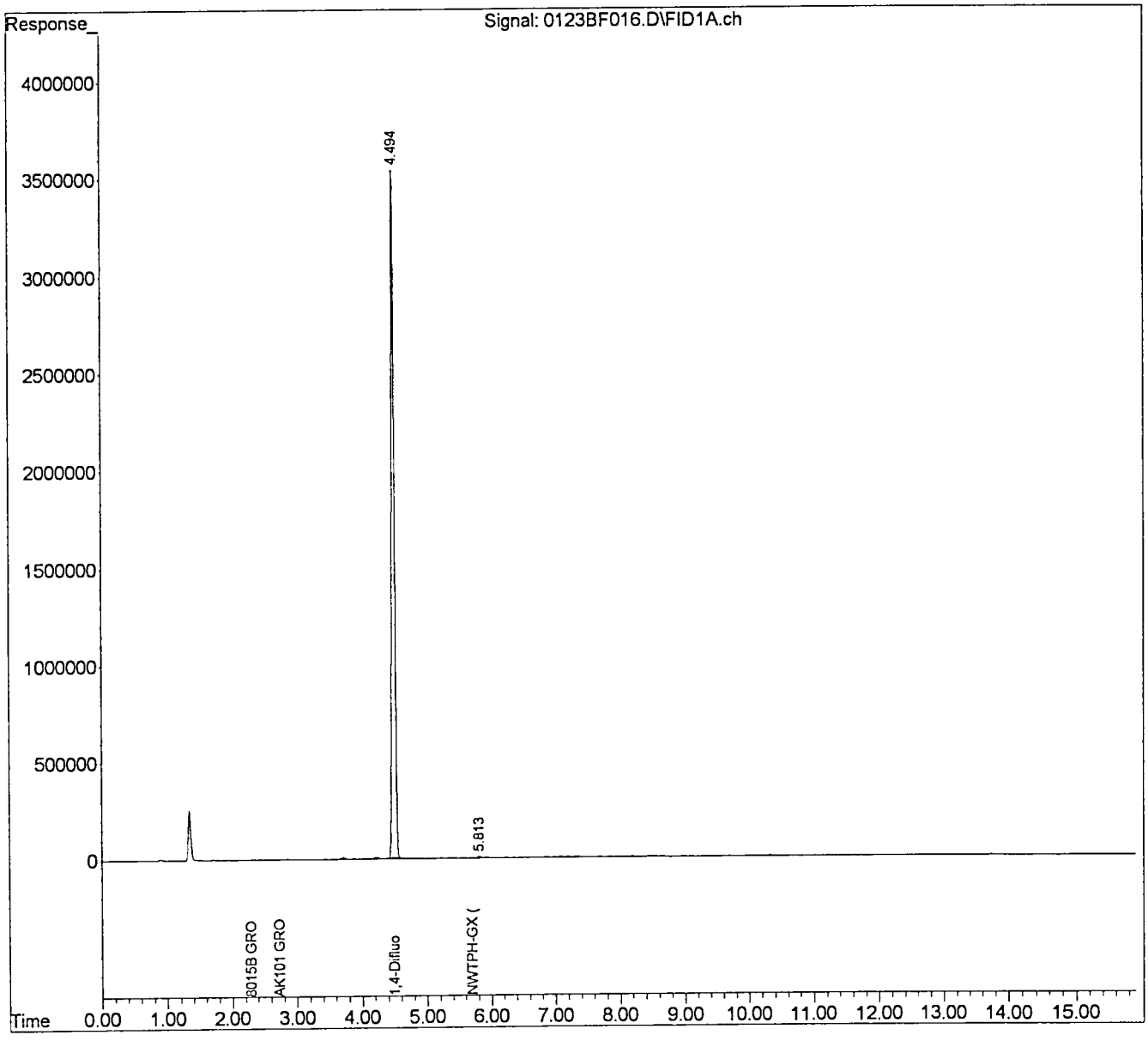
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF016.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 10:56 pm
Operator : SC
Sample : MB 0663/0667
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:17 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\0125B16\0123BF013.D
Lab ID: KWG1600692-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 01/25/2016 21:45
Date Quantitated: 01/26/2016 09:42
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: KA 1/27/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF013.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 21:45	**Quant Date:**	01/26/2016 09:42	**Vial:**	13
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600692-1 -- K1600673-004MS			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	01/25/2016		
Prep Ref:	1496315				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10654308	88.50	88	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		53220425	537.75	538		
Gasoline Range Organics (GRO)	2.30		60988754	541.40	541		
Gasoline Range Organics-NWTP	5.71		36524803	527.22	527		

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 Path : J:\GC39\Data\0125B16\
Data File : 0123BF013.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 9:45 pm
Operator : SC 673 SC 1/26/16
Sample : K1600~~667~~-004 MS
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:42:34 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	4.494	10654308	88.495	ug/L	
2)	S 4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
	Target Compounds					
3)	H AK101 GRO (C6-C10)	2.730	53220425	537.748	ug/L	
4)	H 8015B GRO (2mp-1,2,4tmb)	2.304	60988754	541.400	ug/L	
5)	H NWTPH-GX (Tol.-Naph.)	5.708	36524803	527.223	ug/L	

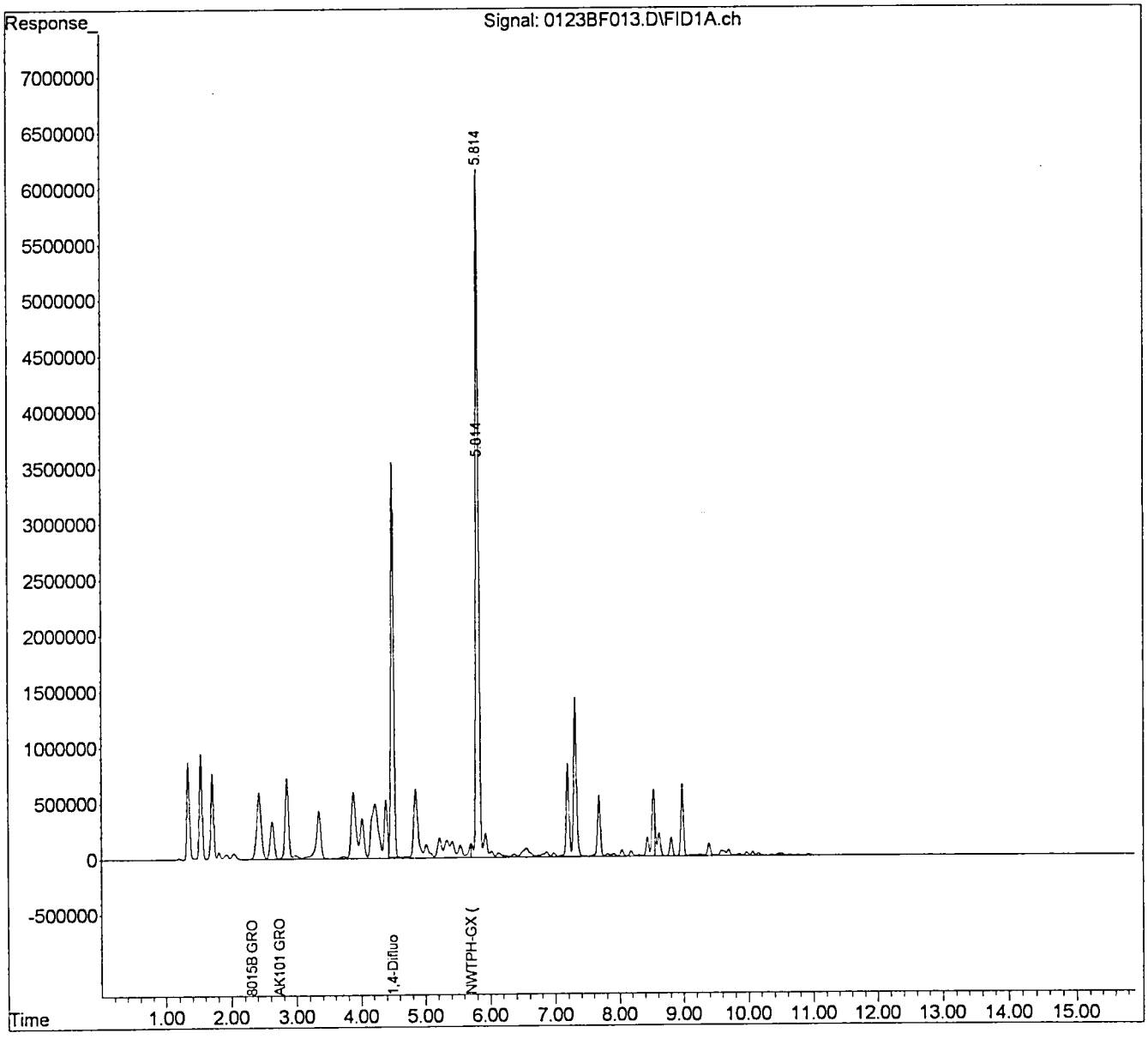
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF013.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 9:45 pm
Operator : SC
Sample : K1600667-004 MS
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:42:34 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\0125B16\0123BF014.D
Lab ID: KWG1600692-2 -- K1600673-004DMS
RunType: DMS
Matrix: WATER

Date Acquired: 01/25/2016 22:08
Date Quantitated: 01/26/2016 09:42
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: CC 1/26/16

Secondary Review: [illegible] 1/26/16

Printed: 01/26/2016 12:07:53
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF014.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 22:08	**Quant Date:**	01/26/2016 09:42	**Vial:**	14
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600692-2 -- K1600673-004DMS			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	01/25/2016		
Prep Ref:	1496316				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	10693899	88.82	89	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		57536810	581.36	581		
Gasoline Range Organics (GRO)	2.30		65900540	585.00	585		
Gasoline Range Organics-NWTP	5.71		39174732	565.47	565		

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 Path : J:\GC39\Data\0125B16\
Data File : 0123BF014.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 10:08 pm
Operator : SC 1/26/16
Sample : K1600667-004 DMS
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:42:52 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	4.494	10693899	88.824	ug/L
2) S 4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds				
3) H AK101 GRO (C6-C10)	2.730	57536810	581.362	ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.304	65900540	585.002	ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.708	39174732	565.473	ug/L

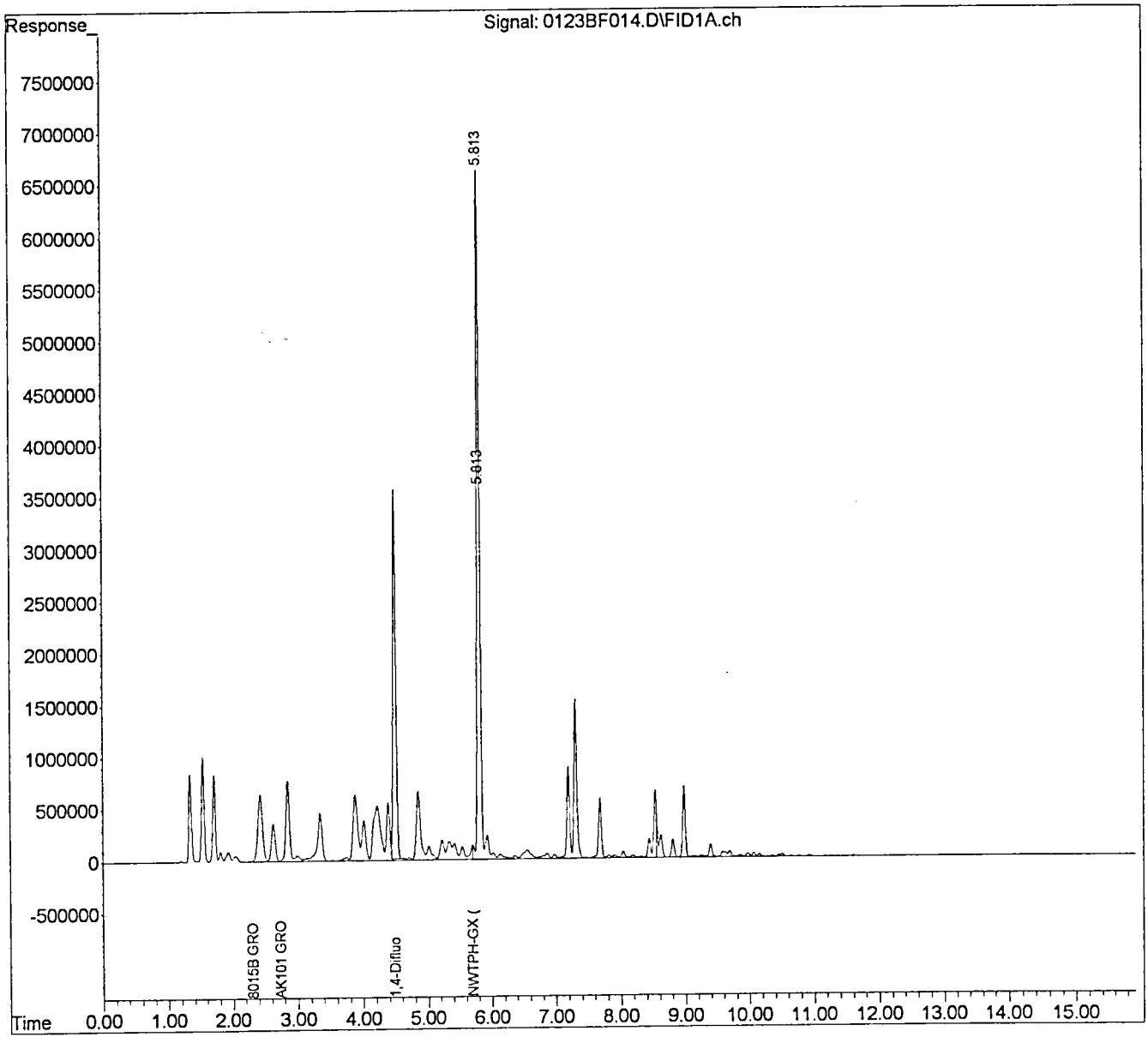
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF014.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 10:08 pm
Operator : SC
Sample : K1600667-004 DMS
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:42:52 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\0125B16\0123BF015.D
Lab ID: KWG1600692-3
RunType: LCS
Matrix: WATER

Date Acquired: 01/25/2016 22:32
Date Quantitated: 01/26/2016 09:43
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF015.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 22:32	**Quant Date:**	01/26/2016 09:43	**Vial:**	15
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600692-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**Prep Lot:**	KWG1600692	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	01/25/2016		
Prep Ref:	1496317				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ1504
MB Ref:	J:\GC39\DATA\0125B16\0123BF016.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	11046951	91.76	92	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		48167905	486.70	487		
Gasoline Range Organics (GRO)	2.30		55036731	488.56	489		
Gasoline Range Organics-NWTP	5.71		34129733	492.65	493		

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 Path : J:\GC39\Data\0125B16\
Data File : 0123BF015.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 10:32 pm
Operator : SC 0673 SC 1/26/16
Sample : LCS 0663/~~0667~~
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:10 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	4.494	11046951	91.756	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	48167905	486.697	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	55036731	488.564	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	34129733	492.651	ug/L

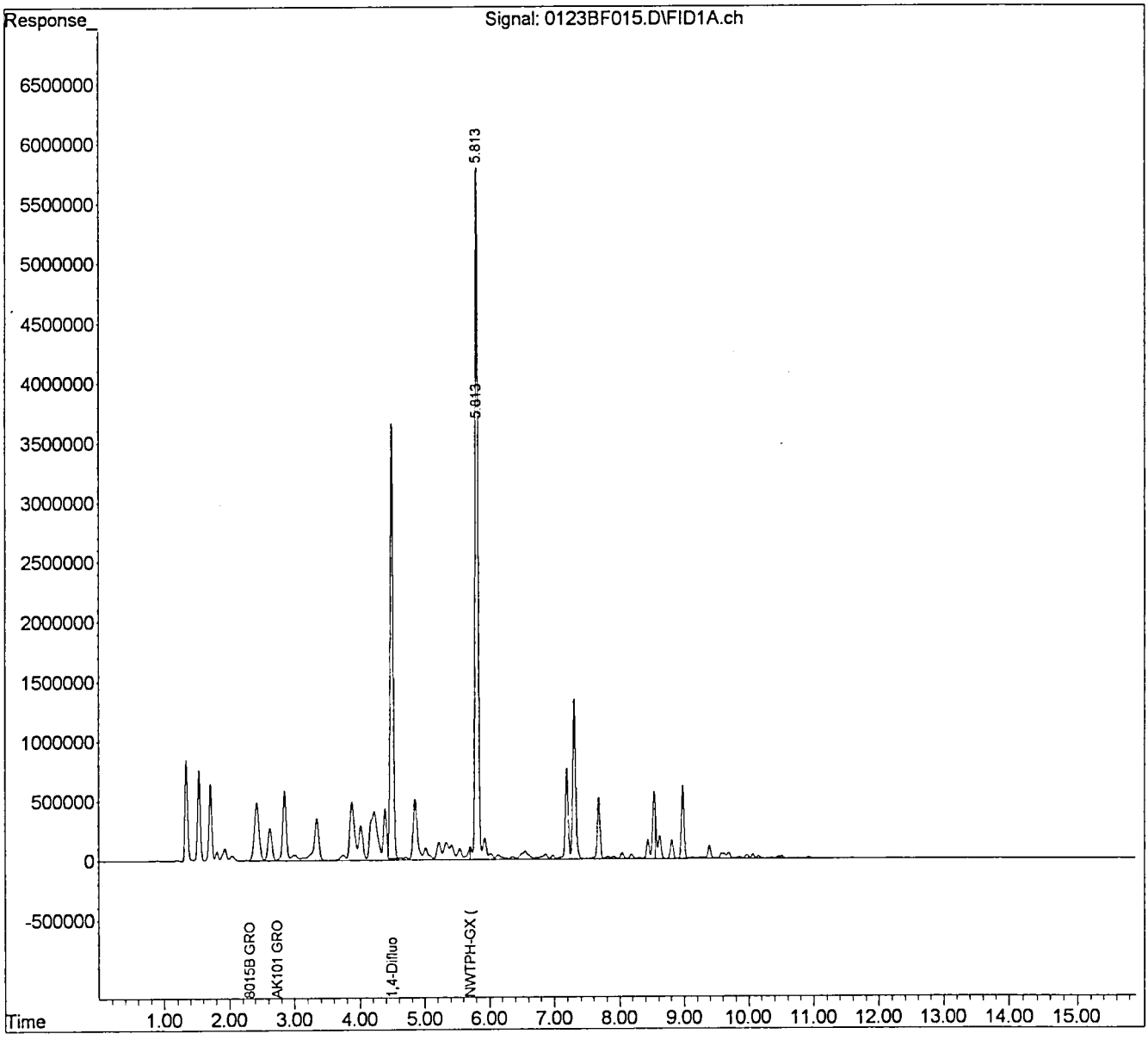
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF015.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 10:32 pm
Operator : SC
Sample : LCS 0663/0667
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:10 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: 1125/16

By: SC

IS/SS Std. ID: HCV7-46D 2/11/16

CCV Std ID: ——

MS/DMS/LCS/ICV Std ID: ——

Marker Std. ID: HCV7-42D NIH

ALS Environmental
Injection Log
GC39 Agilent 7890B

Pg 1 of 2

LIMS ID 451278

ICAL Date: 3/6/15, 0AL14201

Second RV: KL 1/26/16

Stealth ID: KWG1600671-002 KWG1600672-002

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	Marker	0125BF002	8015C	10 µl → 50 ml		HCV7-46M 1/26/16
2	CCV	003		50/20 µl → 50 ml		HCV7-46N 1/26/16
3	IB	004				
4	KL600663-001	005			5	
5	-002	006			6	NR Carry Over
6	-003	007			6	
7	-004	008			5	
8	KL600673-001	009			✓	
9	-002	010			✓	
10	-003	011			✓	
11	-004	012			✓	
12	-004MS	013			✓	
13	-004DMS	014			✓	
14	LCS 0663/0673	015				
15	MB 0663/0673	016				
16	CCV	017		50/20 µl → 50 ml		HCV7-46N 1/26/16
17	IB	018				
18	KL600673-005	019			✓	
19	-006	020			✓	
20	-007	021			✓	
21	-008	022			✓	
22	-009	023			✓	
23	-010	024			✓	
24	-011	025			✓	
25	-012	026			✓	
26	-013	027			✓	
27	-014	028			✓	

Date: 11/25/16

By: SC

IS/SS Std. ID:

CCV Std ID:

MS/DMS/LCS/ICV Std ID: See Pg 1

Marker Std. ID:

ALS Environmental
Injection Log
GC39 Agilent 7890B

LIMS ID

ICAL Date:

Second RV:

Stealth ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	CCV	0125BF029	8015C	50/20ml→50ml		HC07-46N 11/26/16
2	IB	030				
3	IB	031				NR
4	K1600663-002	032			5	
5	CCV	033		50/20ml→50ml		HC07-46N 11/26/16
6	IB	034				
7						
8						
9						
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27						

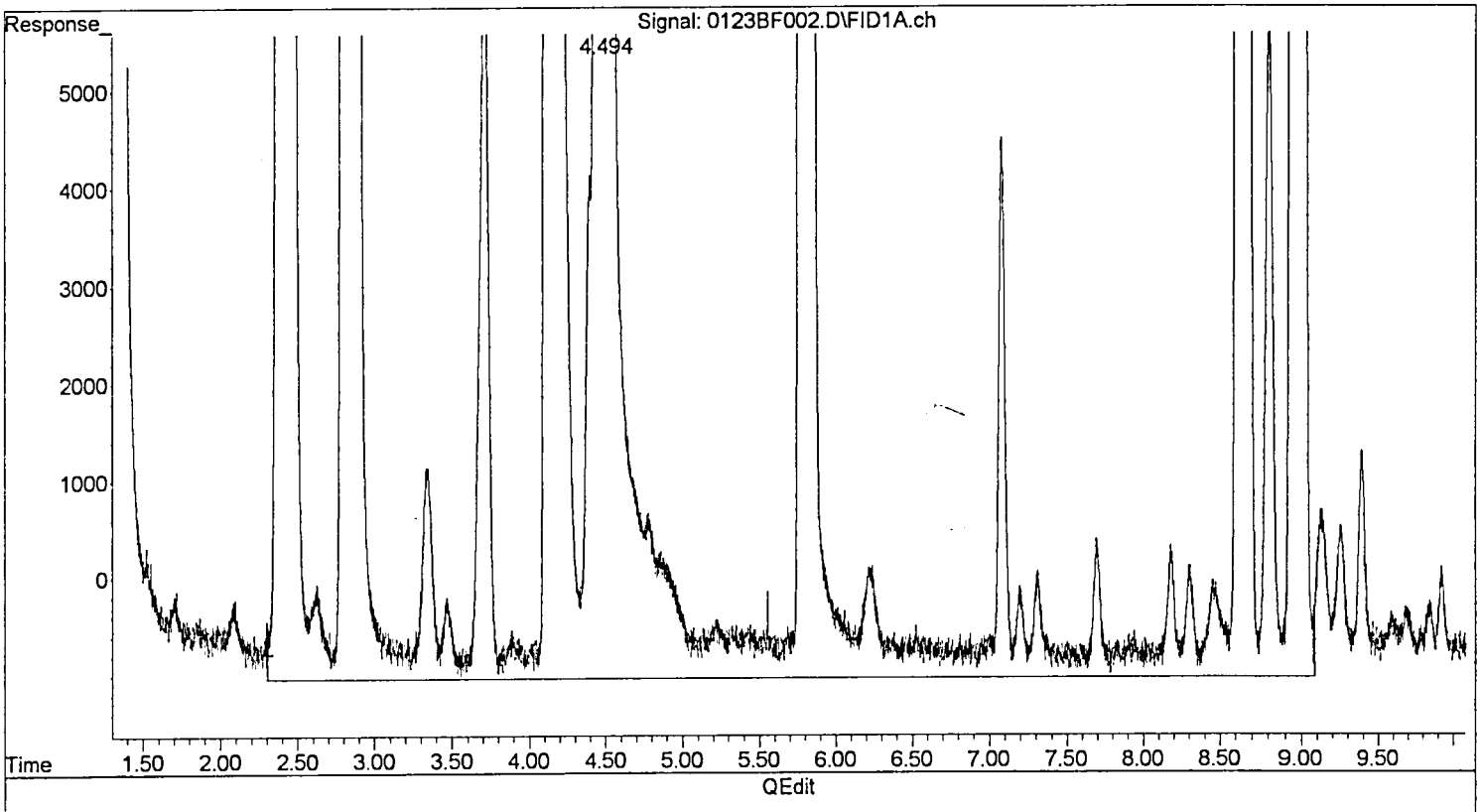
C:\Documents and Settings\scott.chappelle\Desktop\INJLOG_GC39_Rev1.XLS

Quantitation Report (Qedit)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF002.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 5:22 pm
Operator : SC
Sample : MARKER HCV7-46M 1/26/16
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:35:58 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)
2.304min 99.715 ug/L m
response 11232864

SC
1/26/16

(+) = Expected Retention Time
080615GAS_GC39.M Tue Jan 26 12:00:08 2016 Page: 1

Preparation Information

Group ID:	KWG1600692	**Prep Method:**	EPA 5030B	**Prep Date:**	01/25/16 00:00
Department:	VOA GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K1600663-001	MW6-5Q	8015C VOC GRO Unp	WATER	10ml	10ml
K1600663-002	MW7-5Q	8015C VOC GRO Unp	WATER	10ml	10ml
K1600663-003	MW11-5Q	8015C VOC GRO Unp	WATER	10ml	10ml
K1600663-004	Trip 20160120	8015C VOC GRO Unp	WATER	10ml	10ml
K1600673-001	ERH015	8015C VOC GRO	WATER	10ml	10ml
K1600673-002	ERH016	8015C VOC GRO	WATER	10ml	10ml
K1600673-003	ERH017	8015C VOC GRO	WATER	10ml	10ml
K1600673-004	ERH018	8015C VOC GRO	WATER	10ml	10ml
K1600673-005	ERH019	8015C VOC GRO	WATER	10ml	10ml
K1600673-006	ERH020	8015C VOC GRO	WATER	10ml	10ml
K1600673-007	ERH021	8015C VOC GRO	WATER	10ml	10ml
K1600673-008	ERH022	8015C VOC GRO	WATER	10ml	10ml
K1600673-009	ERH023	8015C VOC GRO	WATER	10ml	10ml
K1600673-010	ERH024	8015C VOC GRO	WATER	10ml	10ml
K1600673-011	ERH025	8015C VOC GRO	WATER	10ml	10ml
K1600673-012	ERH026	8015C VOC GRO	WATER	10ml	10ml
K1600673-013	ERH027	8015C VOC GRO	WATER	10ml	10ml
K1600673-014	ERH028	8015C VOC GRO	WATER	10ml	10ml
KWG1600692-1	Matrix Spike	8015C VOC GRO	WATER	10ml	10ml
KWG1600692-2	Duplicate Matrix Spike	8015C VOC GRO	WATER	10ml	10ml
KWG1600692-3	Lab Control Sample	8015C VOC GRO	WATER	10ml	10ml
KWG1600692-4	Method Blank	8015C VOC GRO	WATER	10ml	10ml

Lab Code	Parent Lab Code	Comments
KWG1600692-1	K1600673-004	
KWG1600692-2	K1600673-004	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1600663-001	1496297	HCV7-46D 2/11/1	5uL			
K1600663-002	1496298	HCV7-46D 2/11/1	5uL			
K1600663-003	1496299	HCV7-46D 2/11/1	5uL			
K1600663-004	1496300	HCV7-46D 2/11/1	5uL			
K1600673-001	1496301	HCV7-46D 2/11/1	5uL			
K1600673-002	1496302	HCV7-46D 2/11/1	5uL			
K1600673-003	1496303	HCV7-46D 2/11/1	5uL			
K1600673-004	1496304	HCV7-46D 2/11/1	5uL			

Comments:

Started By: SChappel Assisted By: _____ Training Yes No

Completed By: SChappel Assisted By: _____ Yes No

Reviewed By: _____ Date: _____ Storage: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined Yes No

Received By: _____ Date: _____

Group ID:	KWG1600692	**Prep Method:**	EPA 5030B	**Prep Date:**	01/25/16 00:00
Department:	VOA GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1600673-005	1496305	HCV7-46D 2/11/1	5uL			
K1600673-006	1496306	HCV7-46D 2/11/1	5uL			
K1600673-007	1496307	HCV7-46D 2/11/1	5uL			
K1600673-008	1496308	HCV7-46D 2/11/1	5uL			
K1600673-009	1496309	HCV7-46D 2/11/1	5uL			
K1600673-010	1496310	HCV7-46D 2/11/1	5uL			
K1600673-011	1496311	HCV7-46D 2/11/1	5uL			
K1600673-012	1496312	HCV7-46D 2/11/1	5uL			
K1600673-013	1496313	HCV7-46D 2/11/1	5uL			
K1600673-014	1496314	HCV7-46D 2/11/1	5uL			
KWG1600692-1	1496315	HCV7-46D 2/11/1	5uL	HCV7-46I 1/28/1	43uL	
KWG1600692-2	1496316	HCV7-46D 2/11/1	5uL	HCV7-46I 1/28/1	43uL	
KWG1600692-3	1496317	HCV7-46D 2/11/1	5uL	HCV7-46I 1/28/1	50uL	
KWG1600692-4	1496318	HCV7-46D 2/11/1	5uL			

Comments:

Started By: SChappel Assisted By: Training Yes No

Completed By: SChappel Assisted By: Yes No

Reviewed By: Date: Storage:

Chain of Custody

Relinquished By: Date: Extracts Examined

Received By: Date: Yes No

Exception Report

Data File: J:\GC39\DATA\0125B16\0123BF003.D
Lab ID: KWG1600691-1
RunType: CCV
Matrix: WATER

Date Acquired: 01/25/2016 17:46
Date Quantitated: 01/26/2016 09:36
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: KN 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF003.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 17:46	**Quant Date:**	01/26/2016 09:36	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-1			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10539921	87.55		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		48598745	491.05			
Gasoline Range Organics (GRO)	2.30		55570221	493.30			
Gasoline Range Organics-NWTP	5.71		34026434	491.16			

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: MJ1504
DataFile: J:\GC39\DATA\0125B16\0123BF003.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	9.7E+4	-2			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-12			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.8E+4	-2			

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF003.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 5:46 pm
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:36:26 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	4.495	10539921	87.545	ug/L
2) S	4-Bromofluorobenzene	8.181	6401036	98.291	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	48598745	491.050	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	55570221	493.300	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	34026434	491.160	ug/L

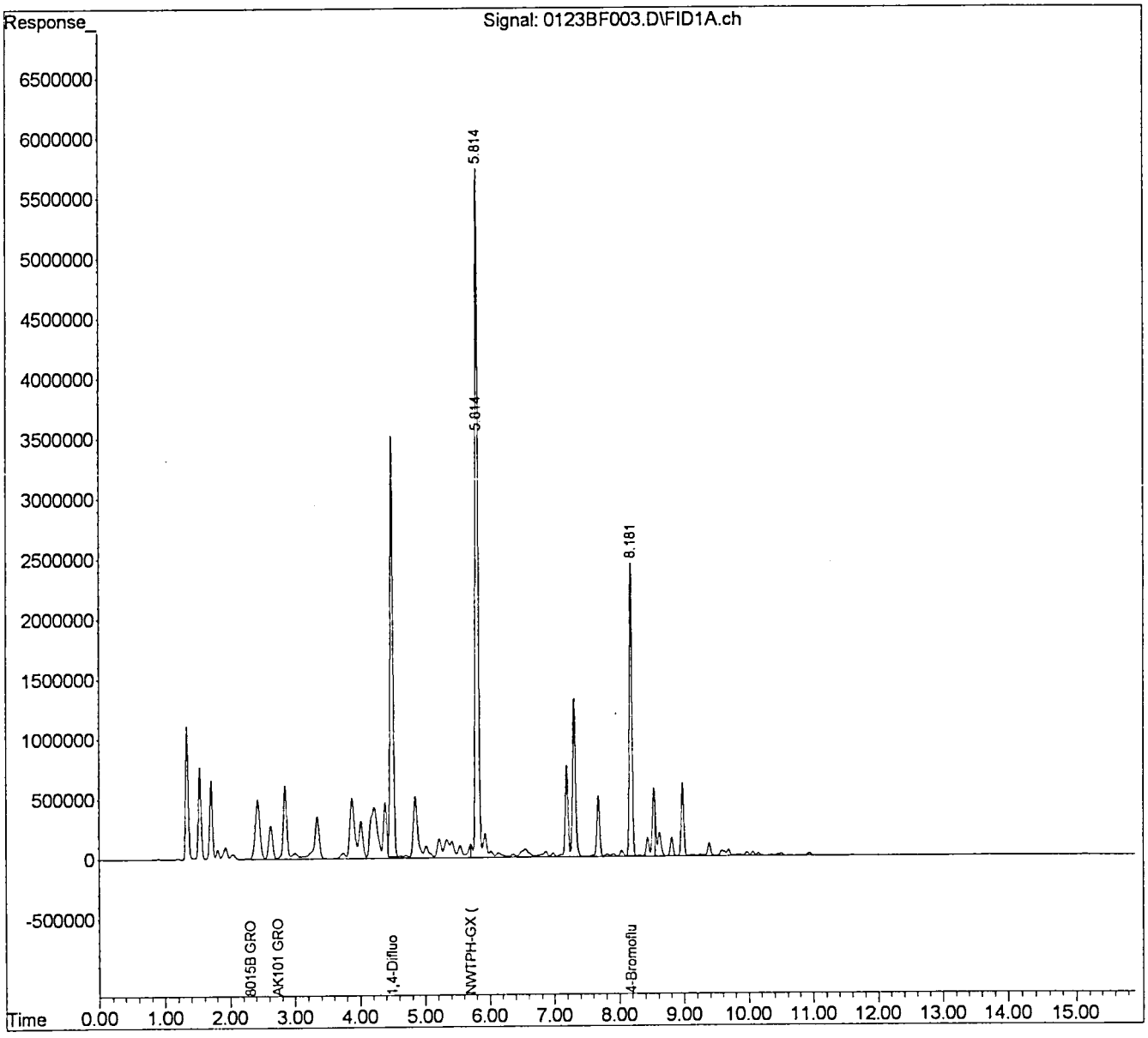
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF003.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 5:46 pm
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:36:26 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\0125B16\0123BF004.D
Lab ID: KWG1600691-5
RunType: IB
Matrix: WATER

Date Acquired: 01/25/2016 18:09
Date Quantitated: 01/26/2016 09:36
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: KA 1/26/16

Printed: 01/26/2016 12:07:06
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF004.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 18:09	**Quant Date:**	01/26/2016 09:36	**Vial:**	4
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10398815	86.37		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		496847	5.02			
Gasoline Range Organics (GRO)	2.30		562502	4.99			
Gasoline Range Organics-NWTP	5.71		357780	5.16			

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\0125B16\0123BF004.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 18:09	**Quant Date:**	01/26/2016 09:36	**Vial:**	4
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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		10398815	86.37		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	2.73		496847	5.02			
Gasoline Range Organics (GRO)	2.30		562502	4.99			
Gasoline Range Organics-NWTP	5.71		357780	5.16			

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 Path : J:\GC39\Data\0125B16\
Data File : 0123BF004.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 6:09 pm
Operator : SC
Sample : IB
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:36:47 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	4.494	10398815	86.373	ug/L
2) S 4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds				
3) H AK101 GRO (C6-C10)	2.730	496847	5.020	ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.304	562502	4.993	ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.708	357780	5.164	ug/L

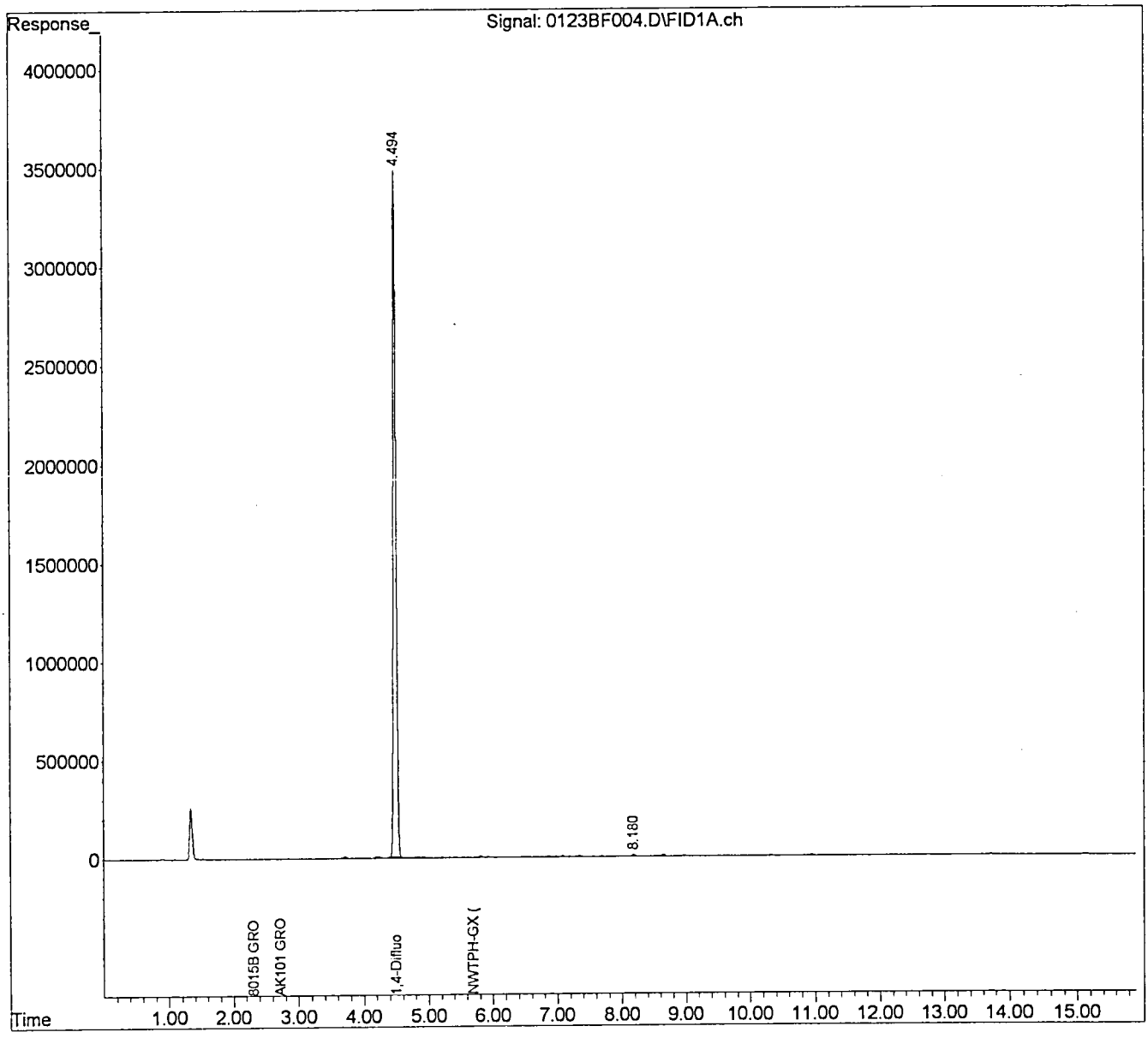
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF004.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 6:09 pm
Operator : SC
Sample : IB
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:36:47 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



Exception Report

Data File: J:\GC39\DATA\0125B16\0123BF017.D
Lab ID: KWG1600691-2
RunType: CCV
Matrix: WATER

Date Acquired: 01/25/2016 23:20
Date Quantitated: 01/26/2016 09:43
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: KA 1/26/16

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF017.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 23:20	**Quant Date:**	01/26/2016 09:43	**Vial:**	17
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10750362	89.29		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		45294365	457.66			
Gasoline Range Organics (GRO)	2.30		51728970	459.20			
Gasoline Range Organics-NWTP	5.71		32158055	464.19			

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: MJ1504
DataFile: J:\GC39\DATA\0125B16\0123BF017.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	1.0E+5	-8			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.1E+4	-8			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-11			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.4E+4	-7			

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF017.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 23:20	**Quant Date:**	01/26/2016 09:43	**Vial:**	17
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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		10750362	89.29		80-107	NA	
4-Bromofluorobenzene	8.18		6344868	97.43		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	2.73		45294365	457.66			
Gasoline Range Organics (GRO)	2.30		51728970	459.20			
Gasoline Range Organics-NWTP	5.71		32158055	464.19			

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\0125B16\0123BF017.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	1.0E+5	-8			
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.1E+4	-8			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-11			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.4E+4	-7			
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.3E+4	-3 *			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF017.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 11:20 pm
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:29 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	4.493	10750362	89.293	ug/L
2) S	4-Bromofluorobenzene	8.181	6344868	97.429	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	45294365	457.662	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	51728970	459.201	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	32158055	464.190	ug/L

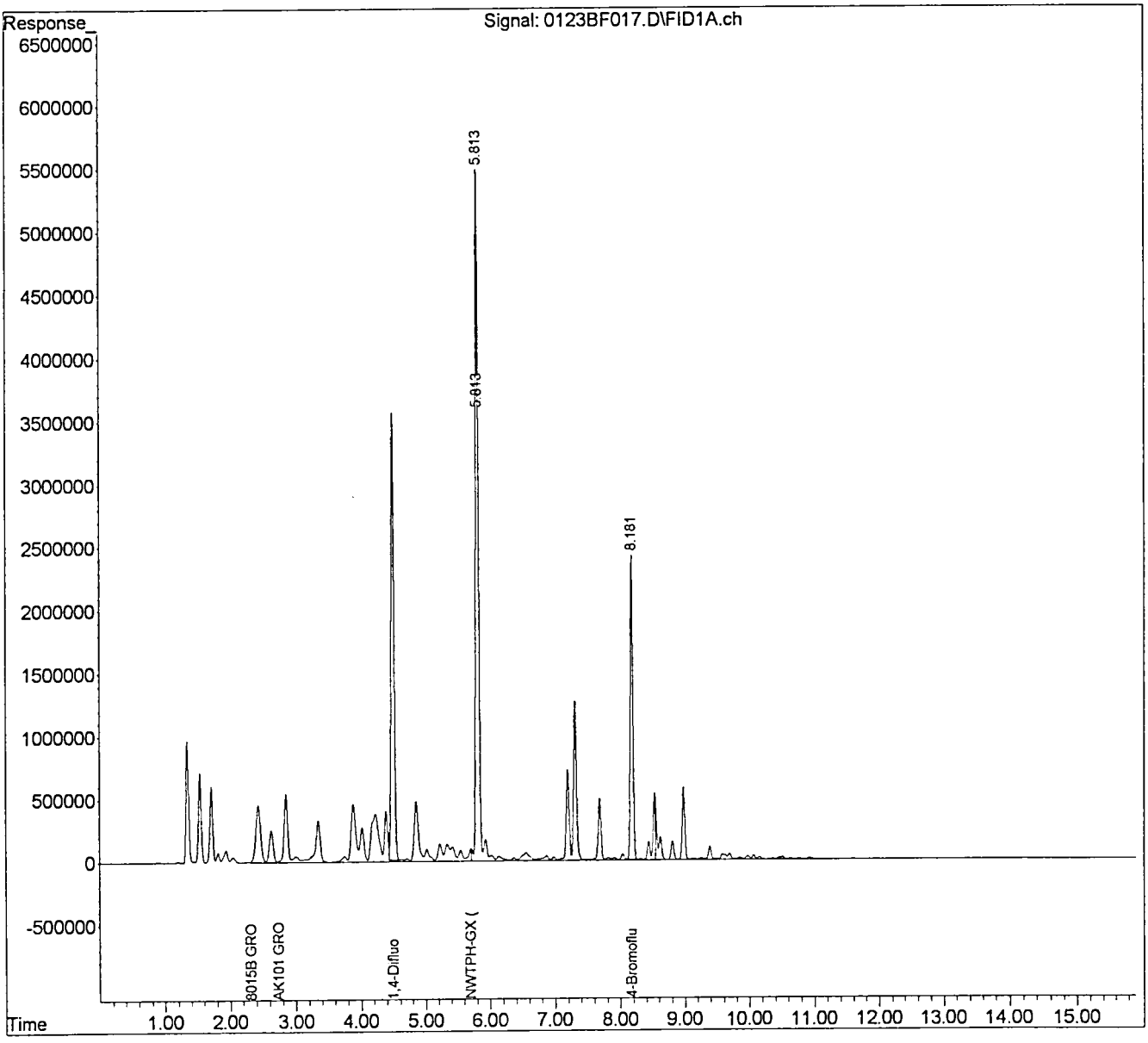
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF017.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 11:20 pm
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:29 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\0125B16\0123BF018.D
Lab ID: KWG1600691-6
RunType: IB
Matrix: WATER

Date Acquired: 01/25/2016 23:44
Date Quantitated: 01/26/2016 09:43
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: KA 1/26/16

Printed: 01/26/2016 12:08:11
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF018.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 23:44	**Quant Date:**	01/26/2016 09:43	**Vial:**	18
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10754902	89.33		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		471268	4.76			
Gasoline Range Organics (GRO)	2.30		517509	4.59			
Gasoline Range Organics-NWTP	5.71		308696	4.46			

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

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF018.D			**Instrument:**	GC39
Acqu Date:	01/25/2016 23:44	**Quant Date:**	01/26/2016 09:43	**Vial:**	18
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG160069I	**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		10754902	89.33		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	2.73		471268	4.76			
Gasoline Range Organics (GRO)	2.30		517509	4.59			
Gasoline Range Organics-NWTP	5.71		308696	4.46			

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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF018.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 11:44 pm
Operator : SC
Sample : IB
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:49 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	4.493	10754902	89.330	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	471268	4.762	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	517509	4.594	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	308696	4.456	ug/L

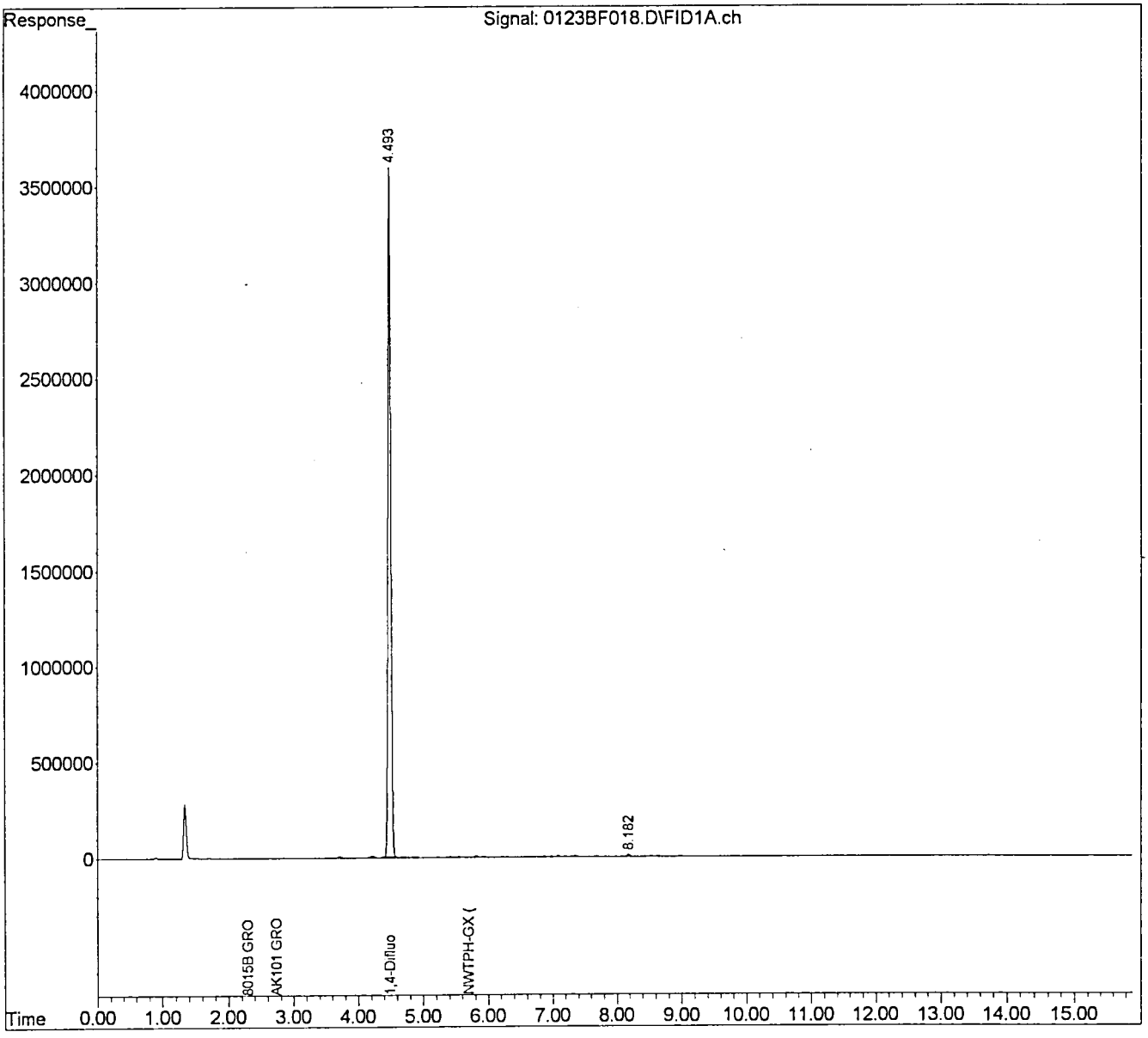
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF018.D
Signal(s) : FID1A.ch
Acq On : 25 Jan 2016 11:44 pm
Operator : SC
Sample : IB
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:43:49 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\0125B16\0123BF029.D
Lab ID: KWG1600691-3
RunType: CCV
Matrix: WATER

Date Acquired: 01/26/2016 04:07
Date Quantitated: 01/26/2016 09:46
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF029.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 04:07	**Quant Date:**	01/26/2016 09:46	**Vial:**	29
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:	MJ1504
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		11003707	91.40		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		45318423	457.91			
Gasoline Range Organics (GRO)	2.30		51852889	460.30			
Gasoline Range Organics-NWTP	5.71		32309197	466.37			

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: MJ1504
DataFile: J:\GC39\DATA\0125B16\0123BF029.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	1.0E+5	-8			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.1E+4	-8			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-9			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.5E+4	-7			

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF029.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 04:07	**Quant Date:**	01/26/2016 09:46	**Vial:**	29
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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		11003707	91.40		80-107	NA	
4-Bromofluorobenzene	8.18		6428219	98.71		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	2.73		45318423	457.91			
Gasoline Range Organics (GRO)	2.30		51852889	460.30			
Gasoline Range Organics-NWTP	5.71		32309197	466.37			

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

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183
DataFile: J:\GC39\DATA\0125B16\0123BF029.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	1.0E+5	-8				
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.1E+4	-8				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-9				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.5E+4	-7				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.4E+4	-1	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF029.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 4:07 am
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:46:06 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	4.494	11003707	91.397	ug/L
2) S 4-Bromofluorobenzene	8.180	6428219	98.709	ug/L
Target Compounds				
3) H AK101 GRO (C6-C10)	2.730	45318423	457.905	ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.304	51852889	460.301	ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.708	32309197	466.372	ug/L

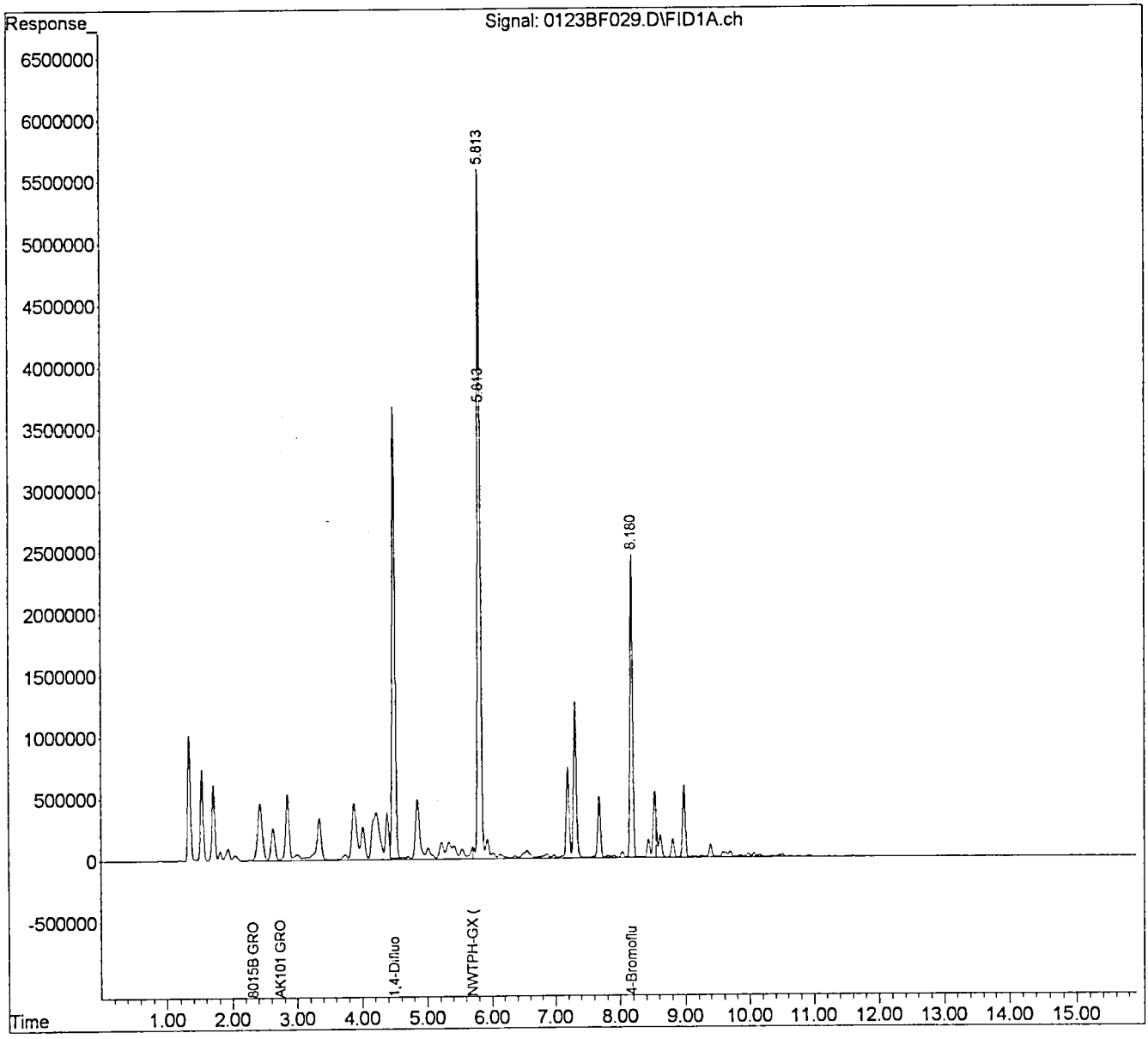
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF029.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 4:07 am
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:46:06 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\0125B16\0123BF030.D
Lab ID: KWG1600691-7
RunType: IB
Matrix: WATER

Date Acquired: 01/26/2016 04:31
Date Quantitated: 01/26/2016 09:46
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review: [illegible]

Printed: 01/26/2016 12:09:01
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF030.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 04:31	**Quant Date:**	01/26/2016 09:46	**Vial:**	30
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10706243	88.93		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		437298	4.42			
Gasoline Range Organics (GRO)	2.30		478602	4.25			
Gasoline Range Organics-NWTP	5.71		283998	4.10			

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

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF030.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 04:31	**Quant Date:**	01/26/2016 09:46	**Vial:**	30
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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		10706243	88.93		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	2.73		437298	4.42			
Gasoline Range Organics (GRO)	2.30		478602	4.25			
Gasoline Range Organics-NWTP	5.71		283998	4.10			

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

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF030.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 4:31 am
Operator : SC
Sample : IB
Misc :
ALS Vial : 30 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:46:25 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	4.494	10706243	88.926	ug/L	
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
	Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	437298	4.419	ug/L	
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	478602	4.249	ug/L	
5) H	NWTPH-GX (Tol.-Naph.)	5.708	283998	4.099	ug/L	

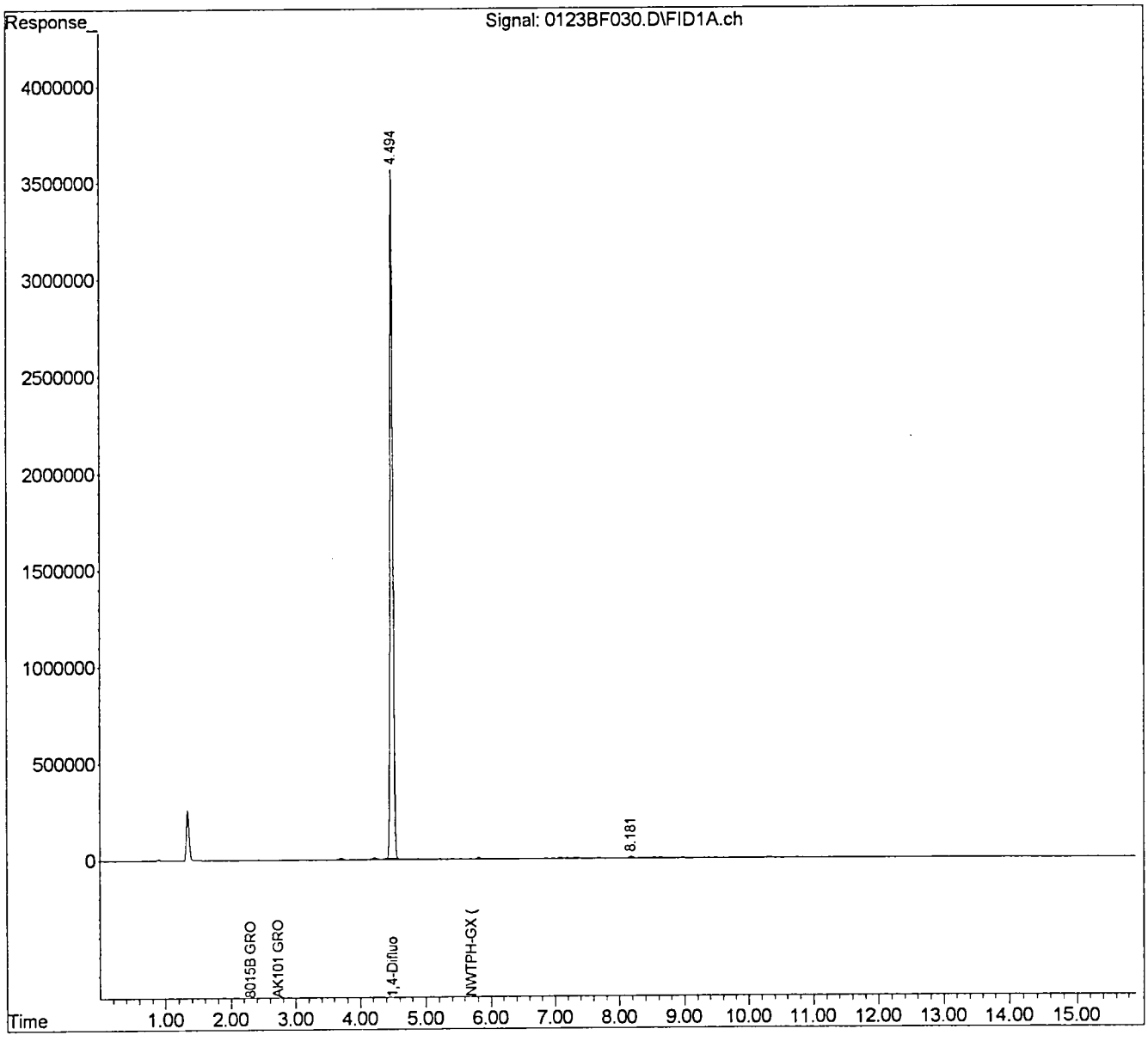
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF030.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 4:31 am
Operator : SC
Sample : IB
Misc :
ALS Vial : 30 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 09:46:25 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



Exception Report

Data File: J:\GC39\DATA\0125B16\0123BF033.D
Lab ID: KWG1600691-4
RunType: CCV
Matrix: WATER

Date Acquired: 01/26/2016 11:00
Date Quantitated: 01/26/2016 11:17
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1126/16

Secondary Review: [illegible]

Printed: 01/26/2016 12:09:10
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF033.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 11:00	**Quant Date:**	01/26/2016 11:17	**Vial:**	33
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10696879	88.85		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		46639314	471.25			
Gasoline Range Organics (GRO)	2.30		53380060	473.86			
Gasoline Range Organics-NWTP	5.71		32840755	474.05			

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

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ1504
DataFile: J:\GC39\DATA\0125B16\0123BF033.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	9.3E+4	-6			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-11			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.6E+4	-5			

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF033.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 11:00	**Quant Date:**	01/26/2016 11:17	**Vial:**	33
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600691-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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		10696879	88.85		80-107	NA	
4-Bromofluorobenzene	8.18		6004538	92.20		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	2.73		46639314	471.25			
Gasoline Range Organics (GRO)	2.30		53380060	473.86			
Gasoline Range Organics-NWTP	5.71		32840755	474.05			

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

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183
DataFile: J:\GC39\DATA\0125B16\0123BF033.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	9.3E+4	-6				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.1E+5	-11				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.6E+4	-5				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.0E+4	-8	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF033.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 11:00 am
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 11:17:04 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	4.494	10696879	88.849	ug/L
2) S 4-Bromofluorobenzene	8.181	6004538	92.203	ug/L
Target Compounds				
3) H AK101 GRO (C6-C10)	2.730	46639314	471.252	ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.304	53380060	473.857	ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.708	32840755	474.045	ug/L

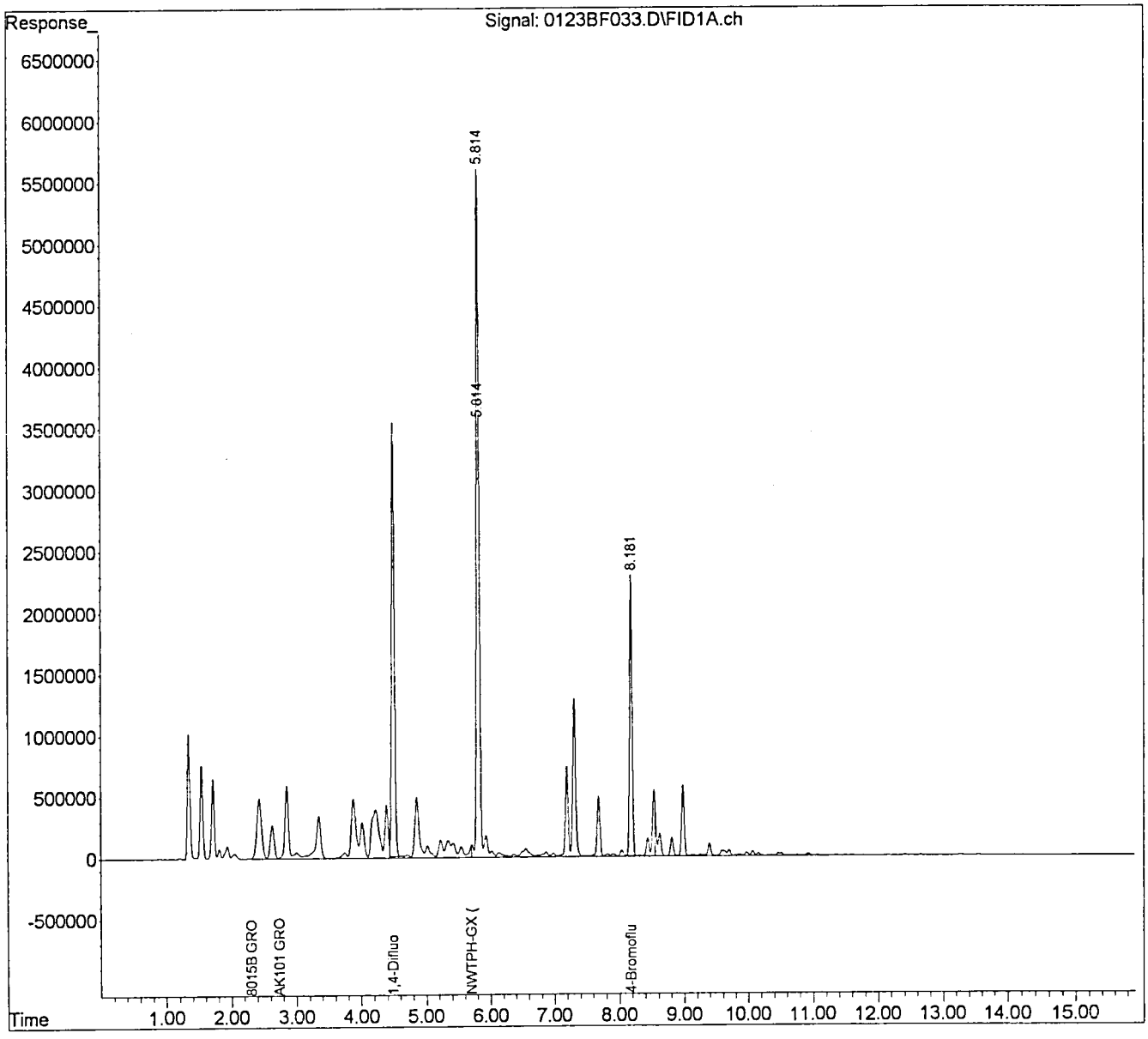
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF033.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 11:00 am
Operator : SC
Sample : CCV HCV7-46N 1/26/16
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 11:17:04 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\0125B16\0123BF034.D
Lab ID: KWG1600691-8
RunType: IB
Matrix: WATER

Date Acquired: 01/26/2016 11:24
Date Quantitated: 01/26/2016 11:44
Batch ID: KWG1600691
Analysis Method: 8015C
MethodJoinID: MJ1504

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: SC 1/26/16

Secondary Review:

Printed: 01/26/2016 12:09:14
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\0125B16\0123BF034.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 11:24	**Quant Date:**	01/26/2016 11:44	**Vial:**	34
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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:**	MJ1504
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		10392009	86.32		80-107	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.73		466192	4.71			
Gasoline Range Organics (GRO)	2.30		514234	4.57			
Gasoline Range Organics-NWTP	5.71		340751	4.92			

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\0125B16\0123BF034.D			**Instrument:**	GC39
Acqu Date:	01/26/2016 11:24	**Quant Date:**	01/26/2016 11:44	**Vial:**	34
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600691-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600691	**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		10392009	86.32		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	2.73		466192	4.71			
Gasoline Range Organics (GRO)	2.30		514234	4.57			
Gasoline Range Organics-NWTP	5.71		340751	4.92			

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 Path : J:\GC39\Data\0125B16\
Data File : 0123BF034.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 11:24 am
Operator : SC
Sample : IB
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 11:44:14 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	4.494	10392009	86.316	ug/L	
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
Target Compounds						
3) H	AK101 GRO (C6-C10)	2.730	466192	4.710	ug/L	
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	514234	4.565	ug/L	
5) H	NWTPH-GX (Tol.-Naph.)	5.708	340751	4.919	ug/L	

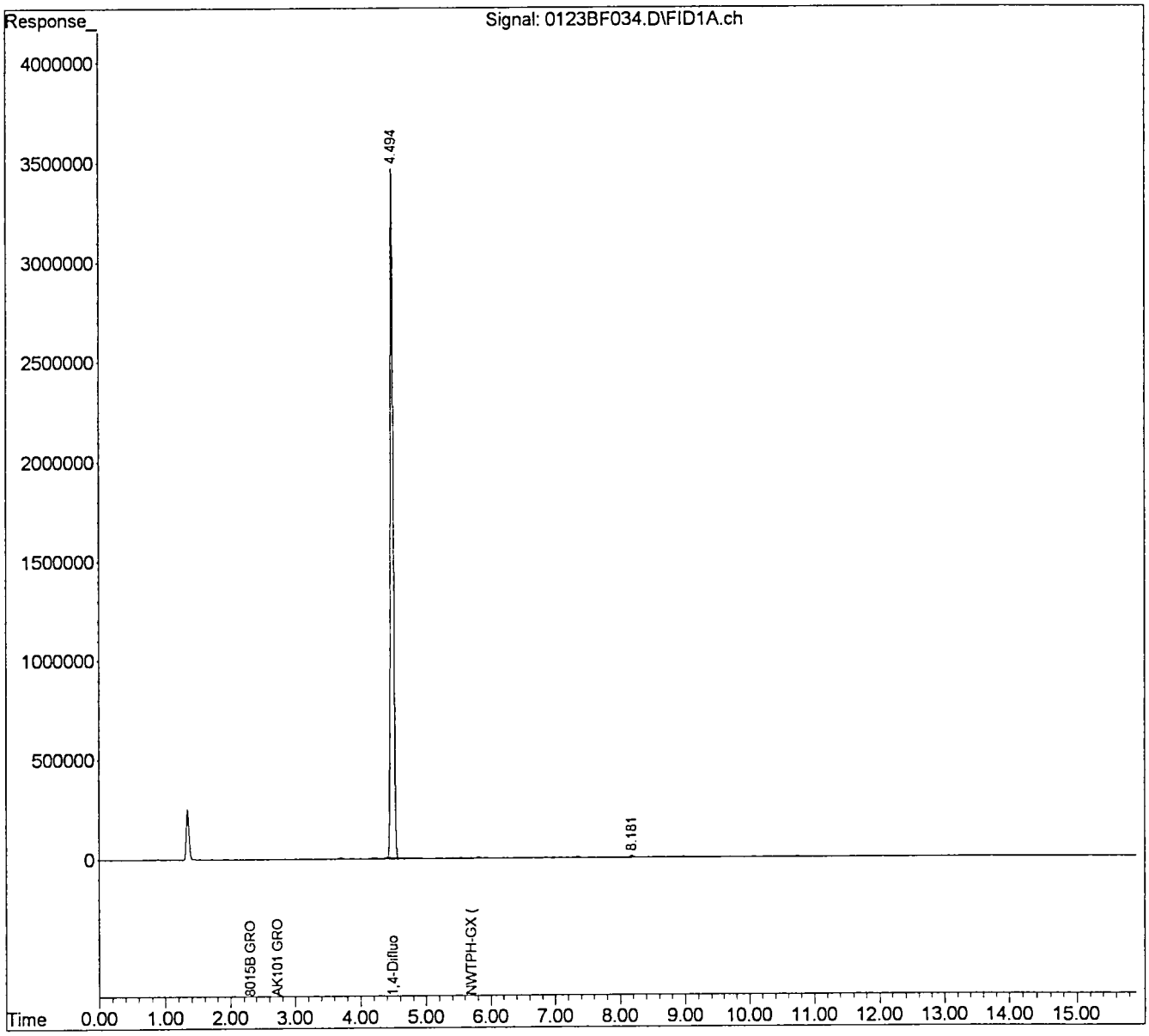
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\0125B16\
Data File : 0123BF034.D
Signal(s) : FID1A.ch
Acq On : 26 Jan 2016 11:24 am
Operator : SC
Sample : IB
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Jan 26 11:44:14 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



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

Exception Report

Data File: J:\GC21\DATA\012816B\0128F019.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 13:39
Date Quantitated: 01/28/2016 15:07
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:20
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F019.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 13:39	**Quant Date:**	01/28/2016 15:07	**Vial:**	3
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495955	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	66409	43.00	86	56-125	OK	
n-Triacontane	7.71	0.00?	57061	43.05	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		22432	20.17	43	J	
Residual Range Organics (RRO)	6.73		18431	29.65	63	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F019.D Vial: 3
Acq On : 28 Jan 2016 1:39 pm Operator: CHARVEY
Sample : K1600673-001 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:07:19 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	24321	32.532	ppm
Spiked Amount	50.000	Recovery	=	65.06%	
2)	S o-Terphenyl	5.56	66409	43.003	ppm
Spiked Amount	50.000	Recovery	=	86.01%	
3)	S n-Triacontane	7.71	57061	43.047	ppm
Spiked Amount	50.000	Recovery	=	86.09%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	29246	20.852	ppm
5)	H C10-C25ex DRO [AK102]	3.24	26991	20.726	ppm
6)	H C10-C28in DRO [8015]	3.34	32942	24.722	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	22432	20.166	ppm
8)	H C10-C32in DRO	3.24	39343	28.950	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	18431	29.646	ppm
10)	H C25-C36in RRO [AK103]	6.83	18431	24.699	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	37217	35.522	ppm

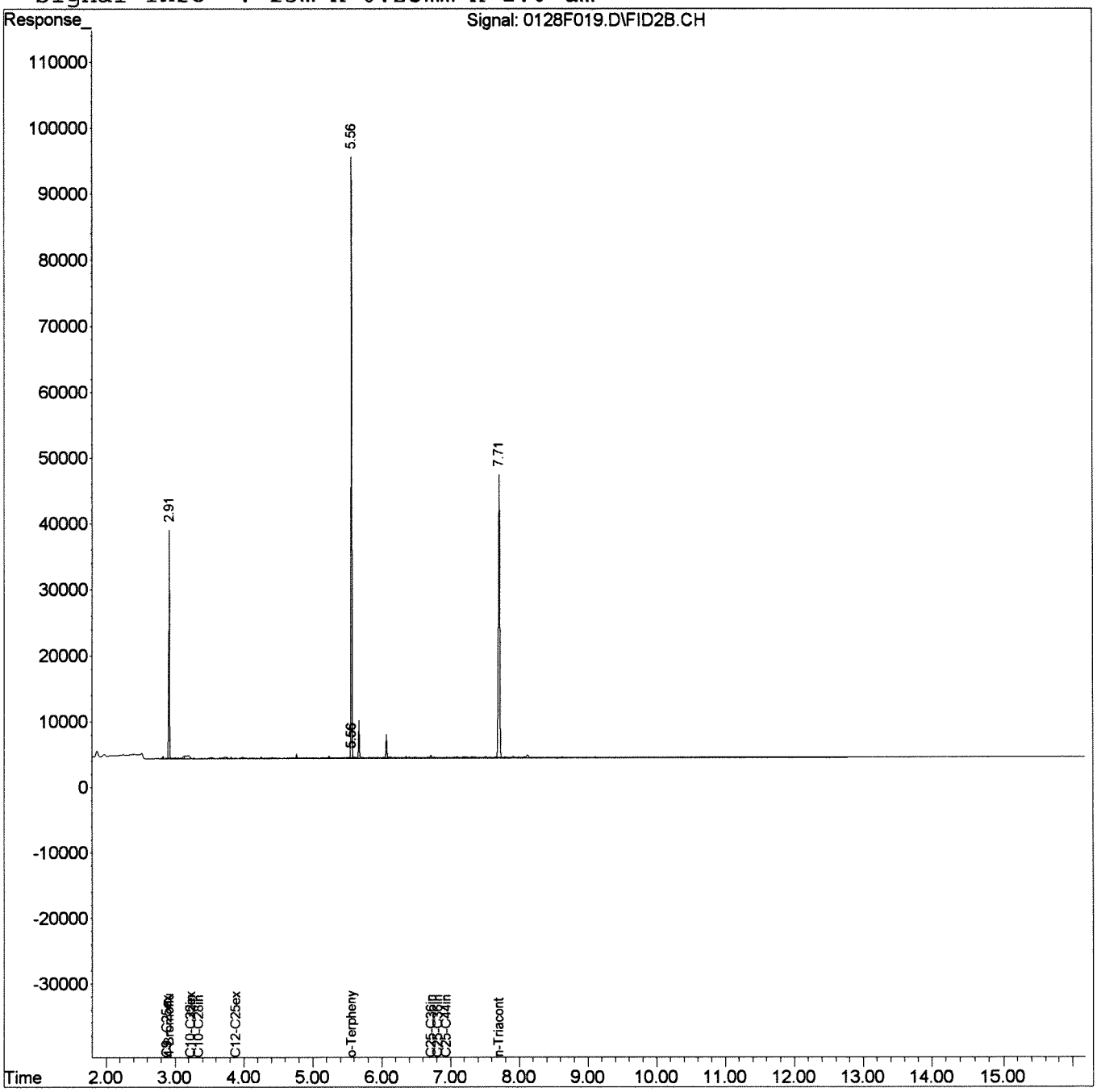
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F019.D Vial: 3
Acq On : 28 Jan 2016 1:39 pm Operator: CHARVEY
Sample : K1600673-001 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:07 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F021.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 14:01
Date Quantitated: 01/28/2016 15:07
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F021.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 14:01	**Quant Date:**	01/28/2016 15:07	**Vial:**	4
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-002			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495956	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	54258	35.14	70	56-125	OK	
n-Triacontane	7.71	0.00?	48976	36.95	74	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		167498	150.58	320	Z	
Residual Range Organics (RRO)	6.73		20187	32.47	69	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F021.D Vial: 4
Acq On : 28 Jan 2016 2:01 pm Operator: CHARVEY
Sample : K1600673-002 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:07:49 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	20342	27.210	ppm
Spiked Amount	50.000	Recovery	=	54.42%	
2)	S o-Terphenyl	5.56	54258	35.135	ppm
Spiked Amount	50.000	Recovery	=	70.27%	
3)	S n-Triacontane	7.71	48976	36.947	ppm
Spiked Amount	50.000	Recovery	=	73.89%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	186278	132.811	ppm
5)	H C10-C25ex DRO [AK102]	3.24	175990	135.140	ppm
6)	H C10-C28in DRO [8015]	3.34	186021	139.604	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	167498	150.580	ppm
8)	H C10-C32in DRO	3.24	191286	140.756	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	20187	32.470	ppm
10)	H C25-C36in RRO [AK103]	6.83	20187	27.052	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	29888	28.527	ppm

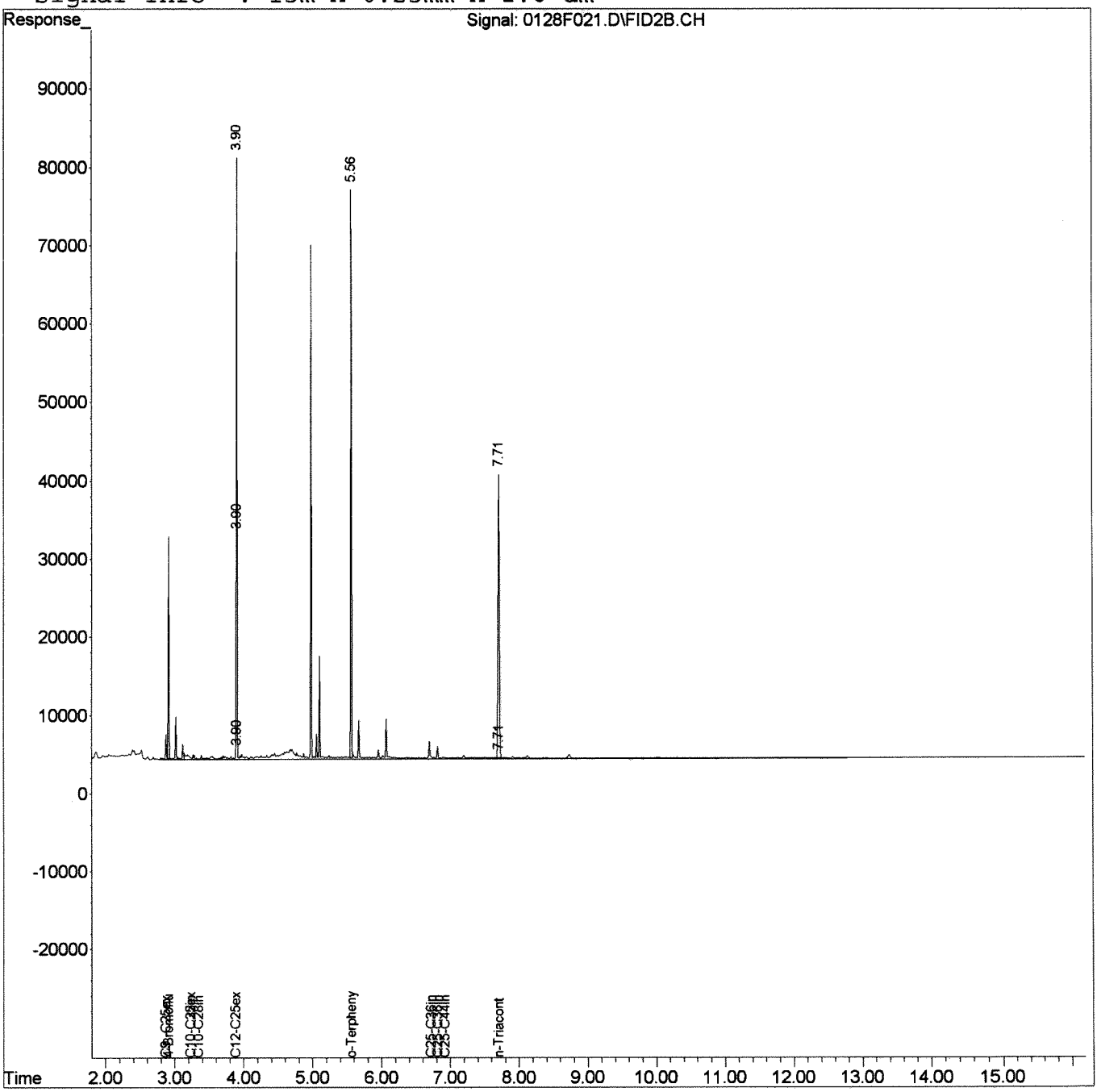
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F021.D Vial: 4
Acq On : 28 Jan 2016 2:01 pm Operator: CHARVEY
Sample : K1600673-002 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:07 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F023.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 14:24
Date Quantitated: 01/28/2016 15:08
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 1/29/16

Printed: 01/29/2016 07:53:26
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F023.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 14:24	**Quant Date:**	01/28/2016 15:08	**Vial:**	5
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495957	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	57134	37.00	74	56-125	OK	
n-Triacontane	7.71	0.00?	49853	37.61	75	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		14715	13.23	28	J	
Residual Range Organics (RRO)	6.73		12935	20.81	44	J	

Prep Amount:	475 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)

Data File : J:\GC21\DATA\012816B\0128F023.D Vial: 5
Acq On : 28 Jan 2016 2:24 pm Operator: CHARVEY
Sample : K1600673-003 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:08:53 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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

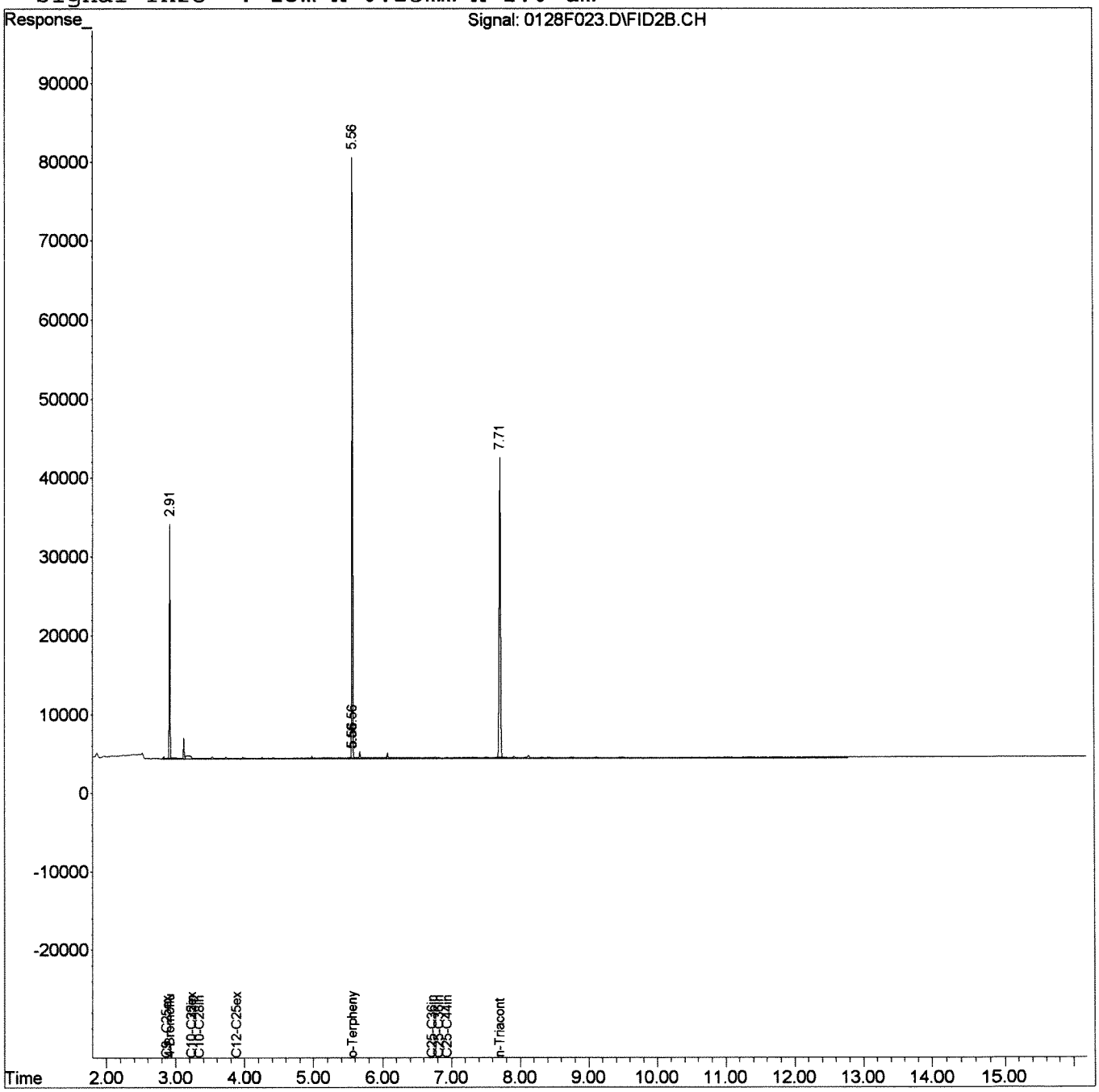
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	2.91	20885	27.936	ppm
Spiked Amount	50.000	Recovery	=	55.87%	
2)	S o-Terphenyl	5.56	57134	36.997	ppm
Spiked Amount	50.000	Recovery	=	73.99%	
3)	S n-Triacontane	7.71	49853	37.609	ppm
Spiked Amount	50.000	Recovery	=	75.22%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	22422	15.986	ppm
5)	H C10-C25ex DRO [AK102]	3.24	18801	14.437	ppm
6)	H C10-C28in DRO [8015]	3.34	22693	17.031	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	14715	13.229	ppm
8)	H C10-C32in DRO	3.24	27325	20.107	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	12935	20.805	ppm
10)	H C25-C36in RRO [AK103]	6.83	12935	17.334	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	28974	27.654	ppm

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

Data File : J:\GC21\DATA\012816B\0128F023.D Vial: 5
Acq On : 28 Jan 2016 2:24 pm Operator: CHARVEY
Sample : K1600673-003 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:08 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F025.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 14:46
Date Quantitated: 01/28/2016 15:09
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:29
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F025.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 14:46	**Quant Date:**	01/28/2016 15:09	**Vial:**	6
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495958	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	58048	37.59	75	56-125	OK	
n-Triacontane	7.71	0.00?	51679	38.99	78	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		11124	10.00	21	J	
Residual Range Organics (RRO)	6.73		8302	13.35	28	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F025.D Vial: 6
Acq On : 28 Jan 2016 2:46 pm Operator: CHARVEY
Sample : K1600673-004 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:09:29 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	21214	28.376	ppm
Spiked Amount	50.000	Recovery	=	56.75%	
2)	S o-Terphenyl	5.56	58048	37.589	ppm
Spiked Amount	50.000	Recovery	=	75.18%	
3)	S n-Triacontane	7.71	51679	38.987	ppm
Spiked Amount	50.000	Recovery	=	77.97%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	17411	12.414	ppm
5)	H C10-C25ex DRO [AK102]	3.24	15284	11.736	ppm
6)	H C10-C28in DRO [8015]	3.34	17698	13.282	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	11124	10.000	ppm
8)	H C10-C32in DRO	3.24	20763	15.278	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	8302	13.353	ppm
10)	H C25-C36in RRO [AK103]	6.83	8302	11.125	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	19223	18.347	ppm

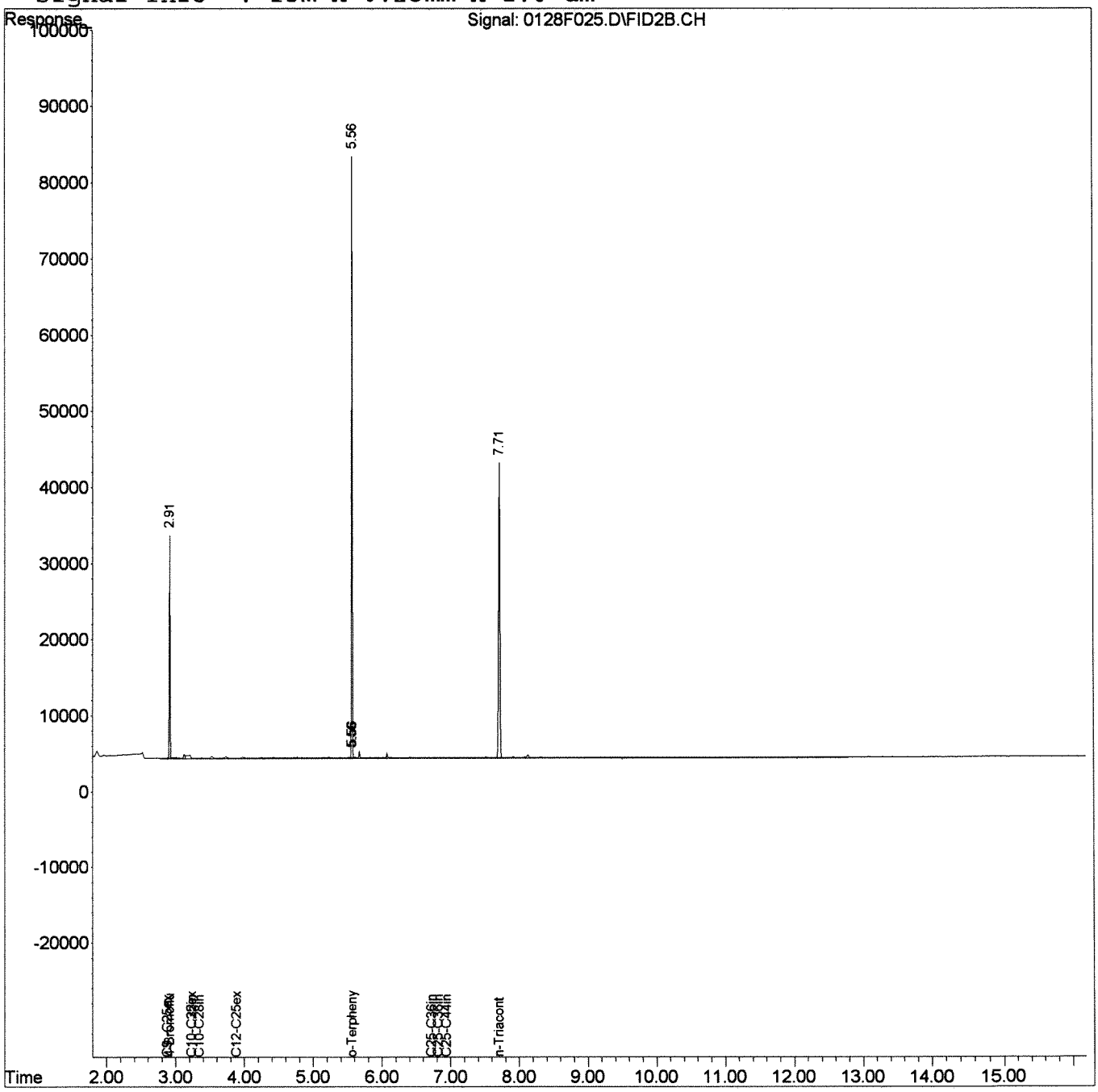
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F025.D Vial: 6
Acq On : 28 Jan 2016 2:46 pm Operator: CHARVEY
Sample : K1600673-004 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:09 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F031.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 15:52
Date Quantitated: 01/29/2016 07:23
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 1/29/16

Printed: 01/29/2016 07:53:38
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F031.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 15:52	**Quant Date:**	01/29/2016 07:23	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495959	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	69022	44.70	89	56-125	OK	
n-Triacontane	7.71	0.00?	58521	44.15	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		17971	16.16	36	J	
Residual Range Organics (RRO)	6.73		14556	23.41	52	J	

Prep Amount:	450 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)

Data File : J:\GC21\DATA\012816B\0128F031.D Vial: 9
Acq On : 28 Jan 2016 3:52 pm Operator: CHARVEY
Sample : K1600673-005 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:23:04 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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

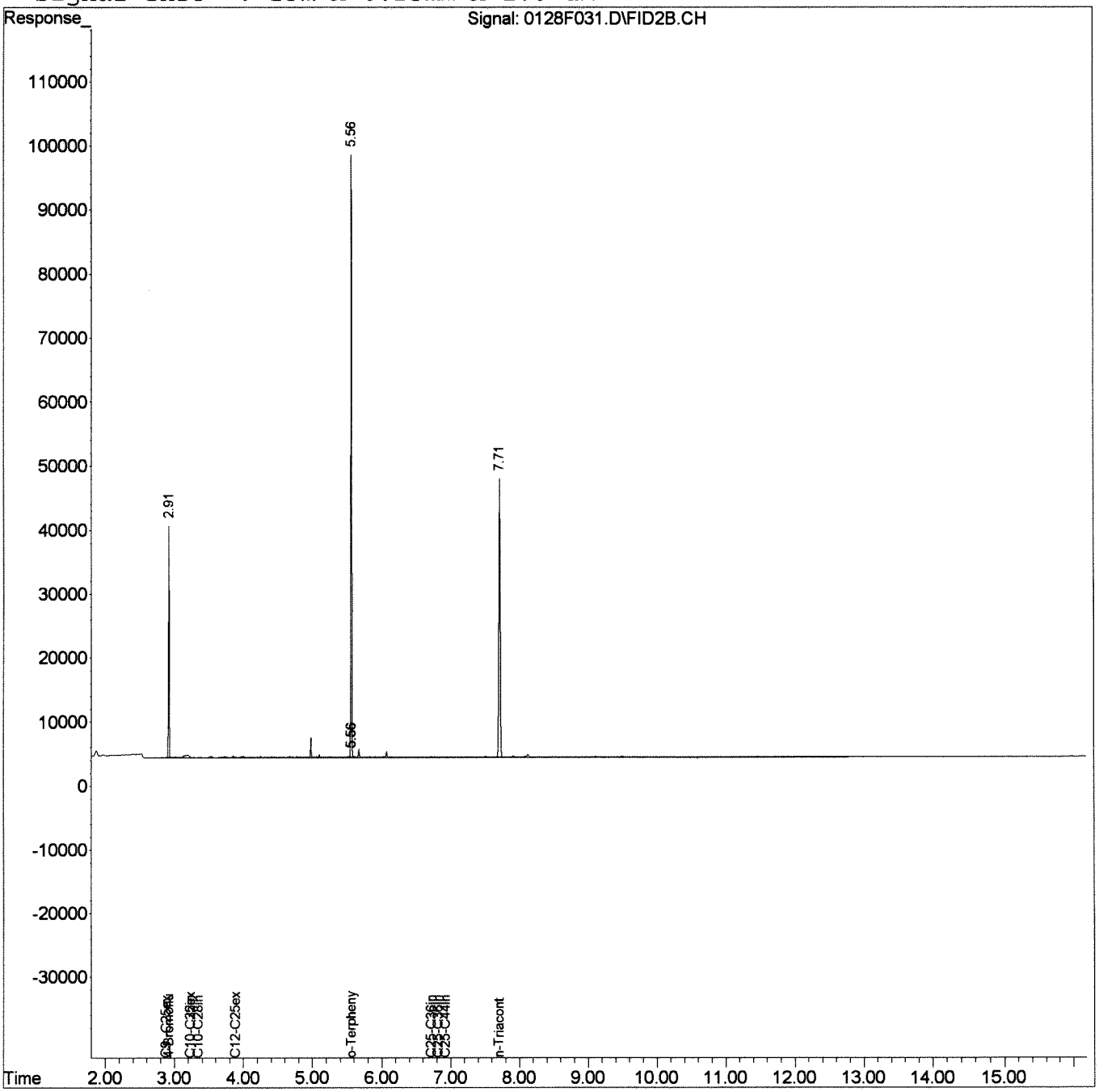
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	2.91	25552	34.179	ppm
Spiked Amount	50.000	Recovery	=	68.36%	
2)	S o-Terphenyl	5.56	69022	44.695	ppm
Spiked Amount	50.000	Recovery	=	89.39%	
3)	S n-Triacontane	7.71	58521	44.148	ppm
Spiked Amount	50.000	Recovery	=	88.30%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	23663	16.871	ppm
5)	H C10-C25ex DRO [AK102]	3.24	21890	16.809	ppm
6)	H C10-C28in DRO [8015]	3.34	25691	19.280	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	17971	16.156	ppm
8)	H C10-C32in DRO	3.24	30702	22.592	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	14556	23.413	ppm
10)	H C25-C36in RRO [AK103]	6.83	14556	19.506	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	35170	33.568	ppm

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

Data File : J:\GC21\DATA\012816B\0128F031.D Vial: 9
Acq On : 28 Jan 2016 3:52 pm Operator: CHARVEY
Sample : K1600673-005 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:23 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F033.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 16:15
Date Quantitated: 01/29/2016 07:23
Batch ID: KWG1600783
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: CH 1/29/16

Secondary Review: [signature] 2/1/16

Printed: 01/29/2016 07:53:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F033.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 16:15	**Quant Date:**	01/29/2016 07:23	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495960	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	62307	40.35	81	56-125	OK	
n-Triacontane	7.71	0.00?	54375	41.02	82	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		15637	14.06	29	J	
Residual Range Organics (RRO)	6.73		9938	15.99	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)

Data File : J:\GC21\DATA\012816B\0128F033.D Vial: 10
Acq On : 28 Jan 2016 4:15 pm Operator: CHARVEY
Sample : K1600673-006 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:23:35 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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

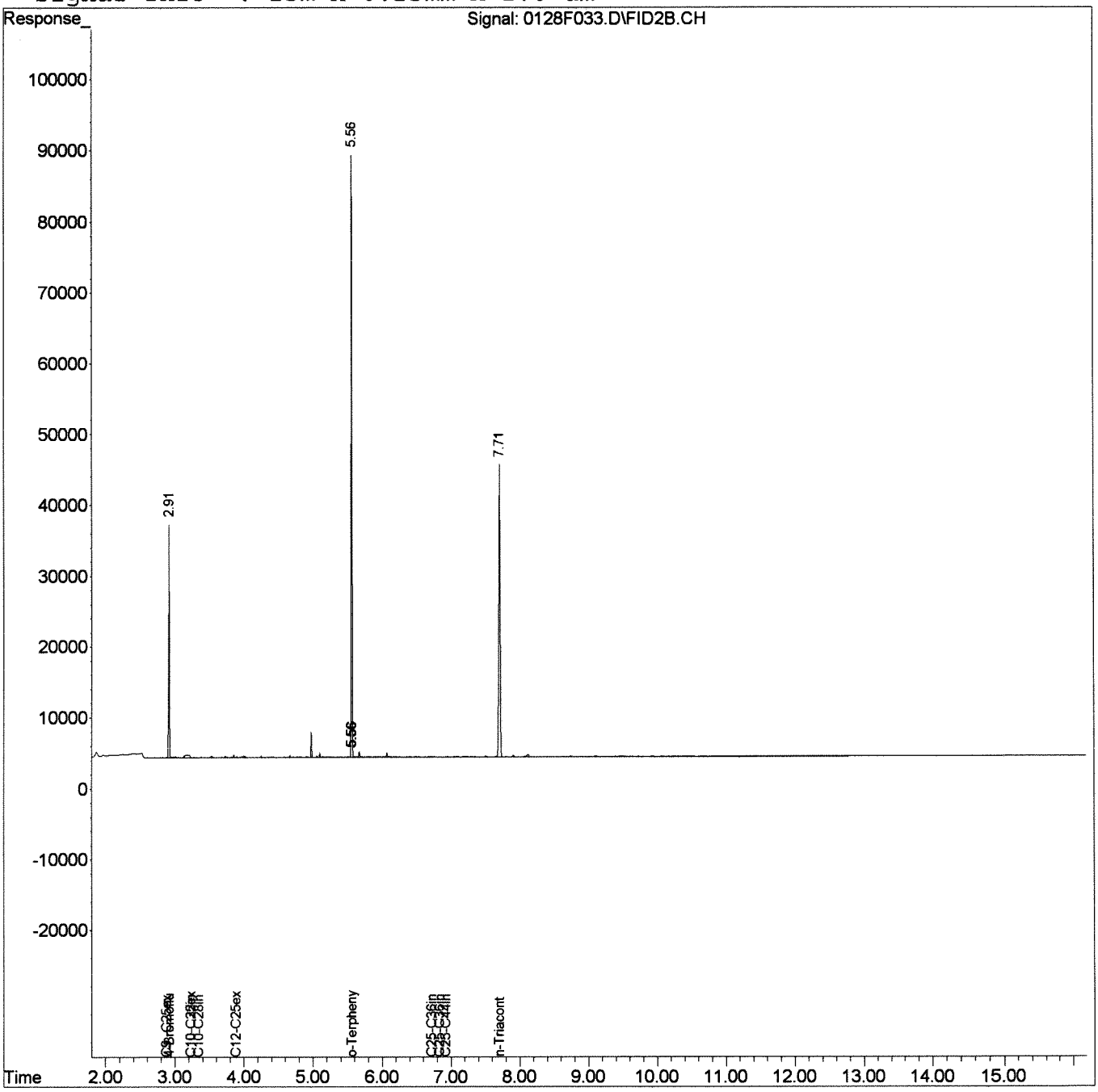
	Compound		R.T.	Response	Conc	Units
	System Monitoring Compounds					
1)	S	4-Bromofluorobenzene	2.91	23326	31.201	ppm
Spiked Amount	50.000		Recovery	=	62.40%	
2)	S	o-Terphenyl	5.56	62307	40.347	ppm
Spiked Amount	50.000		Recovery	=	80.69%	
3)	S	n-Triacontane	7.71	54375	41.020	ppm
Spiked Amount	50.000		Recovery	=	82.04%	
	Target Compounds					
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.88	20981	14.959	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	19465	14.947	ppm
6)	H	C10-C28in DRO [8015]	3.34	22491	16.879	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	15637	14.058	ppm
8)	H	C10-C32in DRO	3.24	26044	19.164	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	9938	15.985	ppm
10)	H	C25-C36in RRO [AK103]	6.83	9938	13.318	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	24270	23.165	ppm

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

Data File : J:\GC21\DATA\012816B\0128F033.D Vial: 10
Acq On : 28 Jan 2016 4:15 pm Operator: CHARVEY
Sample : K1600673-006 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:23 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F035.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 16:37
Date Quantitated: 01/29/2016 07:24
Batch ID: KWG1600783
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: CH 1/29/16

Secondary Review: [illegible] 2/1/16

Printed: 01/29/2016 07:53:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F035.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 16:37	**Quant Date:**	01/29/2016 07:24	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495961	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	62430	40.43	81	56-125	OK	
n-Triacontane	7.71	0.00?	54899	41.42	83	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		10771	9.68	21	J	
Residual Range Organics (RRO)	6.73		9594	15.43	33	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F035.D Vial: 11
Acq On : 28 Jan 2016 4:37 pm Operator: CHARVEY
Sample : K1600673-007 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:24:00 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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

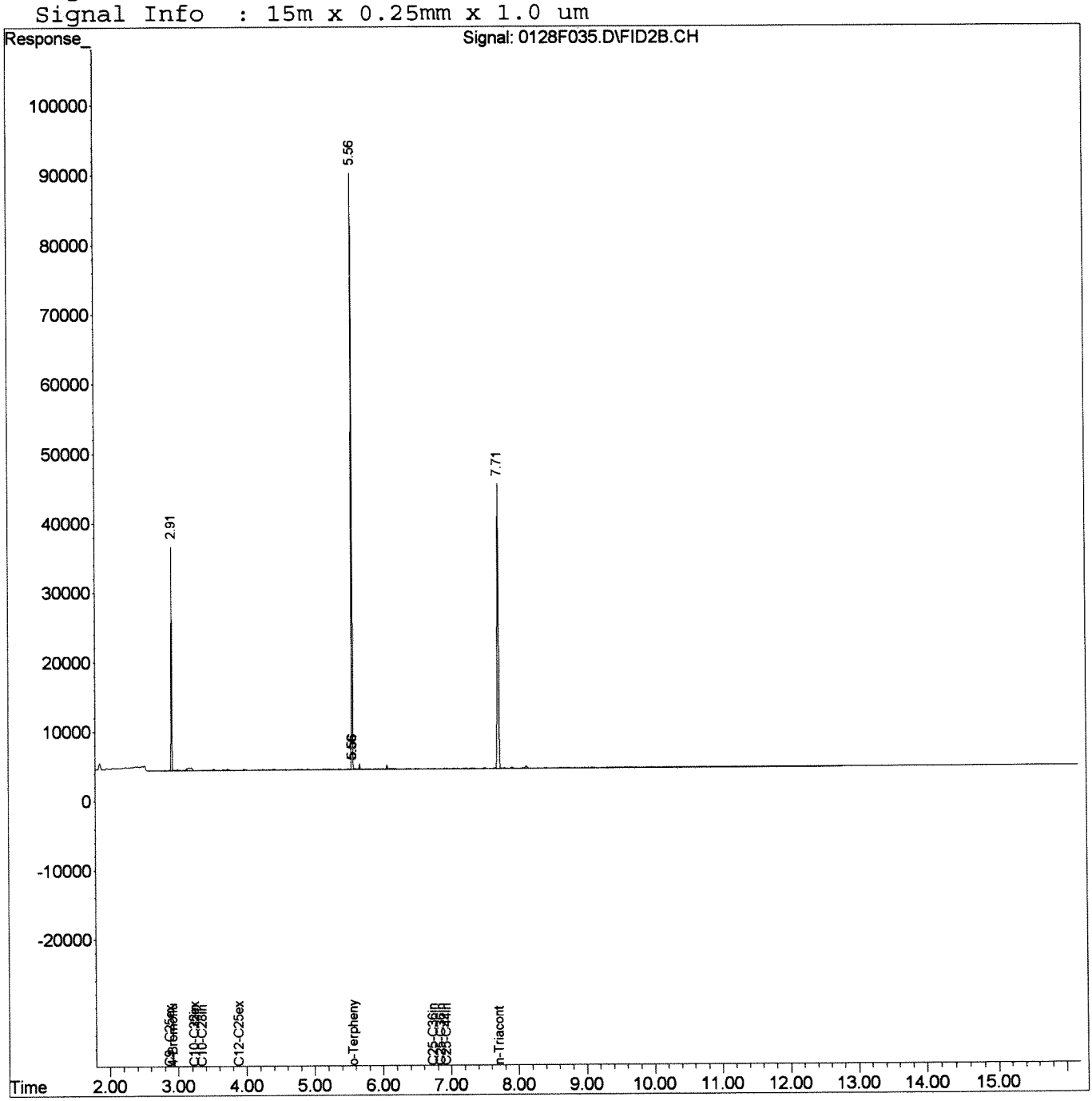
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	2.91	22404	29.968	ppm
Spiked Amount	50.000	Recovery	=	59.94%	
2)	S o-Terphenyl	5.56	62430	40.427	ppm
Spiked Amount	50.000	Recovery	=	80.85%	
3)	S n-Triacontane	7.71	54899	41.416	ppm
Spiked Amount	50.000	Recovery	=	82.83%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	16016	11.419	ppm
5)	H C10-C25ex DRO [AK102]	3.24	14509	11.141	ppm
6)	H C10-C28in DRO [8015]	3.34	17164	12.881	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	10771	9.683	ppm
8)	H C10-C32in DRO	3.24	20727	15.252	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	9594	15.432	ppm
10)	H C25-C36in RRO [AK103]	6.83	9594	12.857	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	23105	22.053	ppm

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

Data File : J:\GC21\DATA\012816B\0128F035.D Vial: 11
Acq On : 28 Jan 2016 4:37 pm Operator: CHARVEY
Sample : K1600673-007 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:24 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F037.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 16:59
Date Quantitated: 01/29/2016 07:24
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/11/16

Printed: 01/29/2016 07:53:47
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F037.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 16:59	**Quant Date:**	01/29/2016 07:24	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495962	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	69415	44.95	90	56-125	OK	
n-Triacontane	7.71	0.00?	60886	45.93	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		13949	12.54	27	J	
Residual Range Organics (RRO)	6.73		13085	21.05	45	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F037.D Vial: 12
Acq On : 28 Jan 2016 4:59 pm Operator: CHARVEY
Sample : K1600673-008 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:24:26 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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

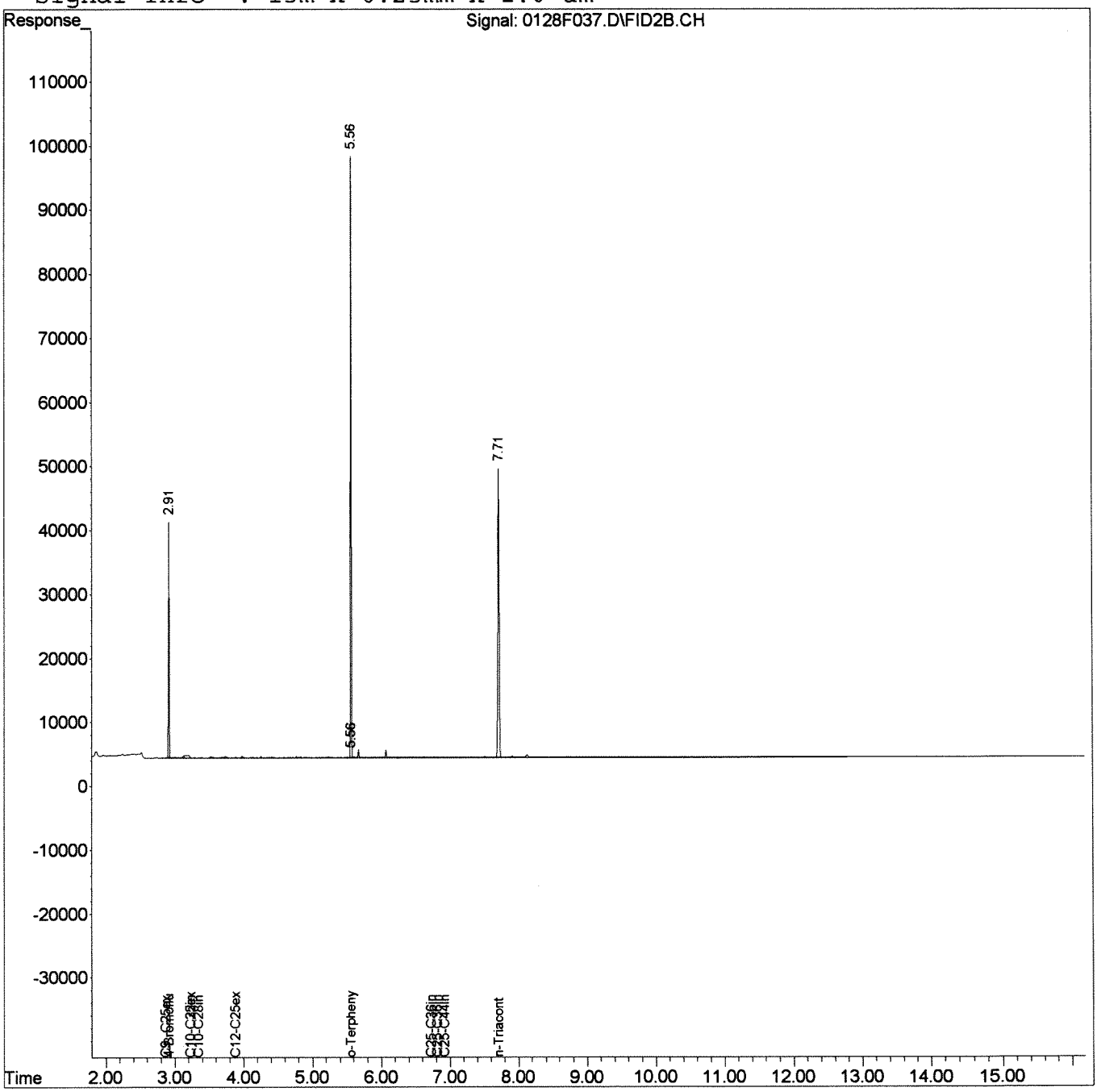
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	2.91	26481	35.422	ppm
Spiked Amount	50.000	Recovery	=	70.84%	
2)	S o-Terphenyl	5.56	69415	44.950	ppm
Spiked Amount	50.000	Recovery	=	89.90%	
3)	S n-Triacontane	7.71	60886	45.932	ppm
Spiked Amount	50.000	Recovery	=	91.86%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	20098	14.329	ppm
5)	H C10-C25ex DRO [AK102]	3.24	18145	13.933	ppm
6)	H C10-C28in DRO [8015]	3.34	22664	17.009	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	13949	12.540	ppm
8)	H C10-C32in DRO	3.24	27555	20.276	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	13085	21.047	ppm
10)	H C25-C36in RRO [AK103]	6.83	13085	17.535	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	25427	24.269	ppm

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

Data File : J:\GC21\DATA\012816B\0128F037.D Vial: 12
Acq On : 28 Jan 2016 4:59 pm Operator: CHARVEY
Sample : K1600673-008 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:24 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File:	J:\GC21\DATA\012816B\0128F045.D	**Date Acquired:**	01/28/2016 18:27
Lab ID:	K1600673-009	**Date Quantitated:**	01/29/2016 07:26
RunType:	SMPL	**Batch ID:**	KWG1600783
Matrix:	WATER	**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: 1/29/16

Secondary Review: 1/29/16

Printed: 01/29/2016 07:53:59

u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F045.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 18:27	**Quant Date:**	01/29/2016 07:26	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495963	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	64547	41.80	84	56-125	OK	
n-Triacontane	7.71	0.00?	56854	42.89	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		13457	12.10	26	J	
Residual Range Organics (RRO)	6.73		12816	20.61	44	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F045.D Vial: 13
Acq On : 28 Jan 2016 6:27 pm Operator: CHARVEY
Sample : K1600673-009 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:26:04 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	23173	30.997	ppm
Spiked Amount	50.000	Recovery	=	61.99%	
2) S	o-Terphenyl	5.56	64547	41.798	ppm
Spiked Amount	50.000	Recovery	=	83.60%	
3) S	n-Triacontane	7.71	56854	42.891	ppm
Spiked Amount	50.000	Recovery	=	85.78%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	19258	13.730	ppm
5) H	C10-C25ex DRO [AK102]	3.24	17627	13.535	ppm
6) H	C10-C28in DRO [8015]	3.34	22031	16.534	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	13457	12.098	ppm
8) H	C10-C32in DRO	3.24	26648	19.609	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	12816	20.614	ppm
10) H	C25-C36in RRO [AK103]	6.83	12816	17.174	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	25396	24.239	ppm

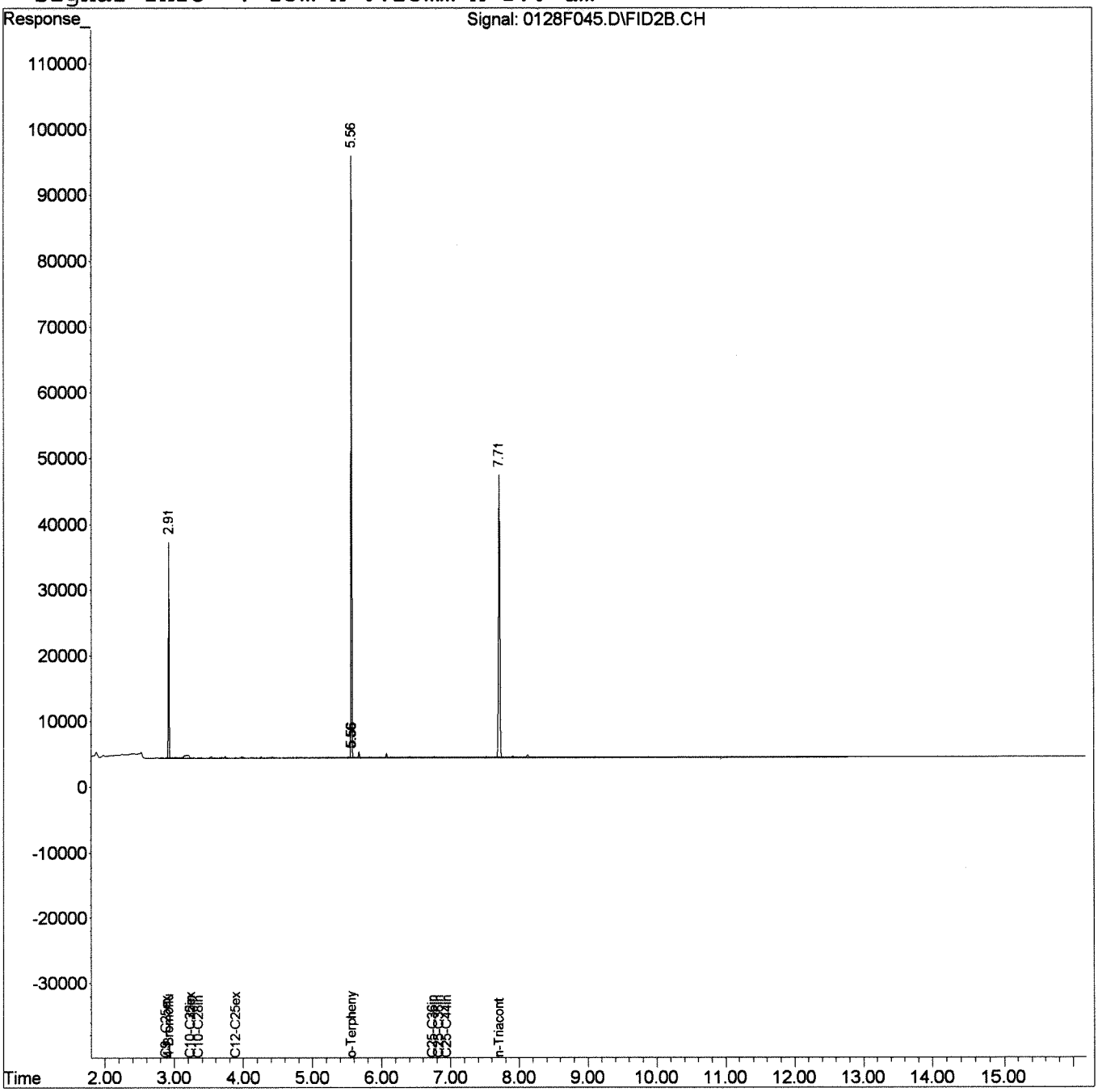
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F045.D Vial: 13
Acq On : 28 Jan 2016 6:27 pm Operator: CHARVEY
Sample : K1600673-009 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:26 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F047.D
Lab ID: K1600673-010
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 18:49
Date Quantitated: 01/29/2016 07:28
Batch ID: KWG1600783
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: CH 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:54:02
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F047.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 18:49	**Quant Date:**	01/29/2016 07:28	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495964	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	60871	39.42	79	56-125	OK	
n-Triacontane	7.71	0.00?	54415	41.05	82	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		215141	193.41	430	V	
Residual Range Organics (RRO)	6.73		16511	26.56	60	J	

Prep Amount:	445 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)

Data File : J:\GC21\DATA\012816B\0128F047.D Vial: 14
Acq On : 28 Jan 2016 6:49 pm Operator: CHARVEY
Sample : K1600673-010 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:28:26 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	17807	23.819	ppm
Spiked Amount	50.000	Recovery =		47.64%	
2) S	o-Terphenyl	5.56	60871	39.417	ppm
Spiked Amount	50.000	Recovery =		78.83%	
3) S	n-Triacontane	7.71	54415	41.051	ppm
Spiked Amount	50.000	Recovery =		82.10%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	231353	164.948	ppm
5) H	C10-C25ex DRO [AK102]	3.24	229515	176.241	ppm
6) H	C10-C28in DRO [8015]	3.34	235856	177.004	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	215141	193.411	ppm
8) H	C10-C32in DRO	3.24	241550	177.743	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	16511	26.557	ppm
10) H	C25-C36in RRO [AK103]	6.83	16511	22.126	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	30019	28.652	ppm

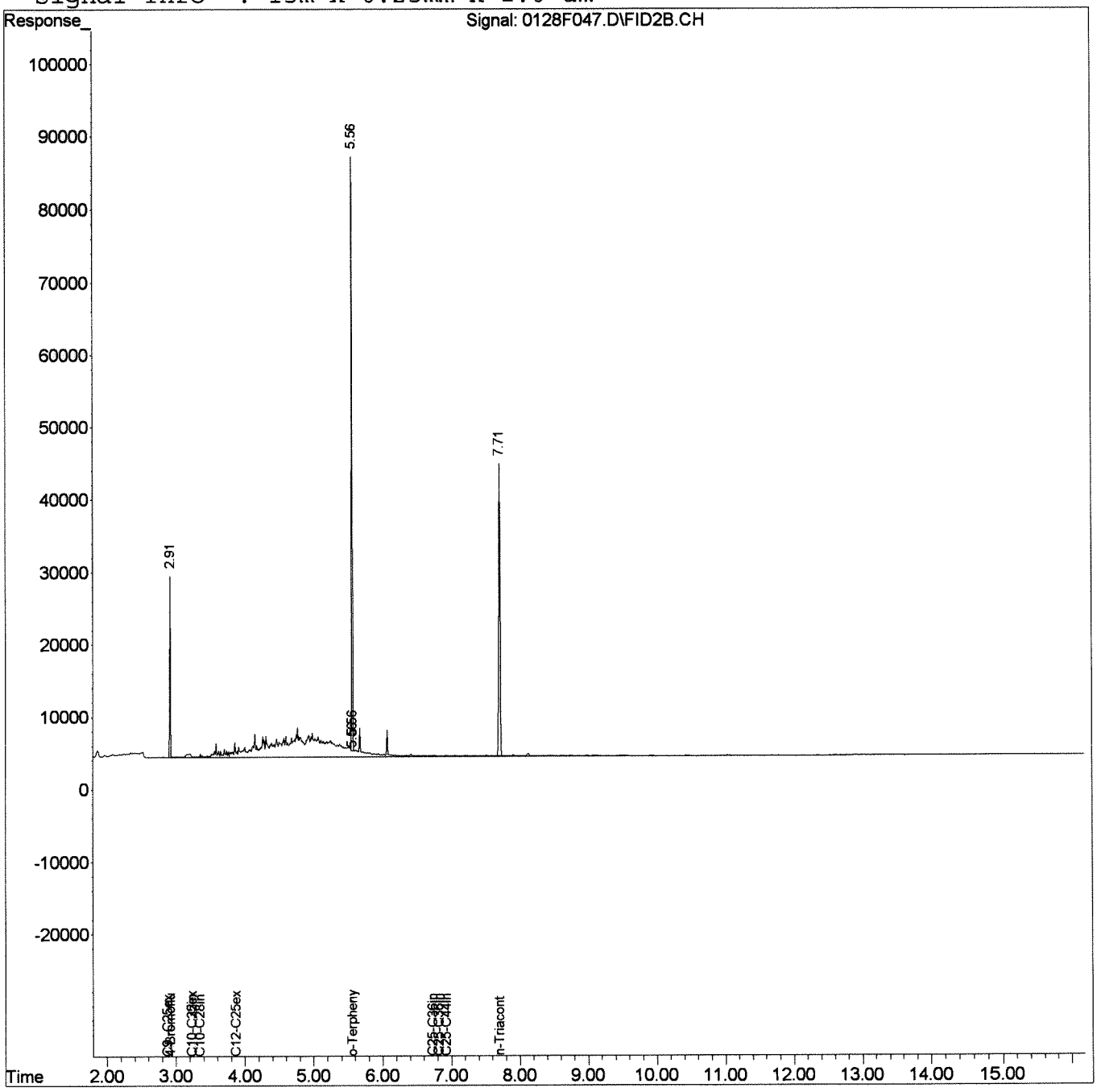
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F047.D Vial: 14
Acq On : 28 Jan 2016 6:49 pm Operator: CHARVEY
Sample : K1600673-010 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:28 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F049.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 19:11
Date Quantitated: 01/29/2016 07:29
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:54:05
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F049.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 19:11	**Quant Date:**	01/29/2016 07:29	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495965	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	69125	44.76	90	56-125	OK	
n-Triacontane	7.71	0.00?	59367	44.79	90	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		3386675	3,045	6500	K Y	
Residual Range Organics (RRO)	6.73		99199	159.56	340	CM 1/29/16 L	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F049.D Vial: 15
Acq On : 28 Jan 2016 7:11 pm Operator: CHARVEY
Sample : K1600673-011 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:29:13 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	23312	31.183	ppm
Spiked Amount	50.000	Recovery	=	62.37%	
2) S	o-Terphenyl	5.56	69125	44.762	ppm
Spiked Amount	50.000	Recovery	=	89.52%	
3) S	n-Triacontane	7.71	59367	44.786	ppm
Spiked Amount	50.000	Recovery	=	89.57%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	3623862	2583.706	ppm
5) H	C10-C25ex DRO [AK102]	3.24	3609510	2771.685	ppm
6) H	C10-C28in DRO [8015]	3.34	3653169	2741.616	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	3386675	3044.607	ppm
8) H	C10-C32in DRO	3.24	3686069	2712.368	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	99199	159.558	ppm
10) H	C25-C36in RRO [AK103]	6.83	99199	132.934	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	141796	135.337	ppm

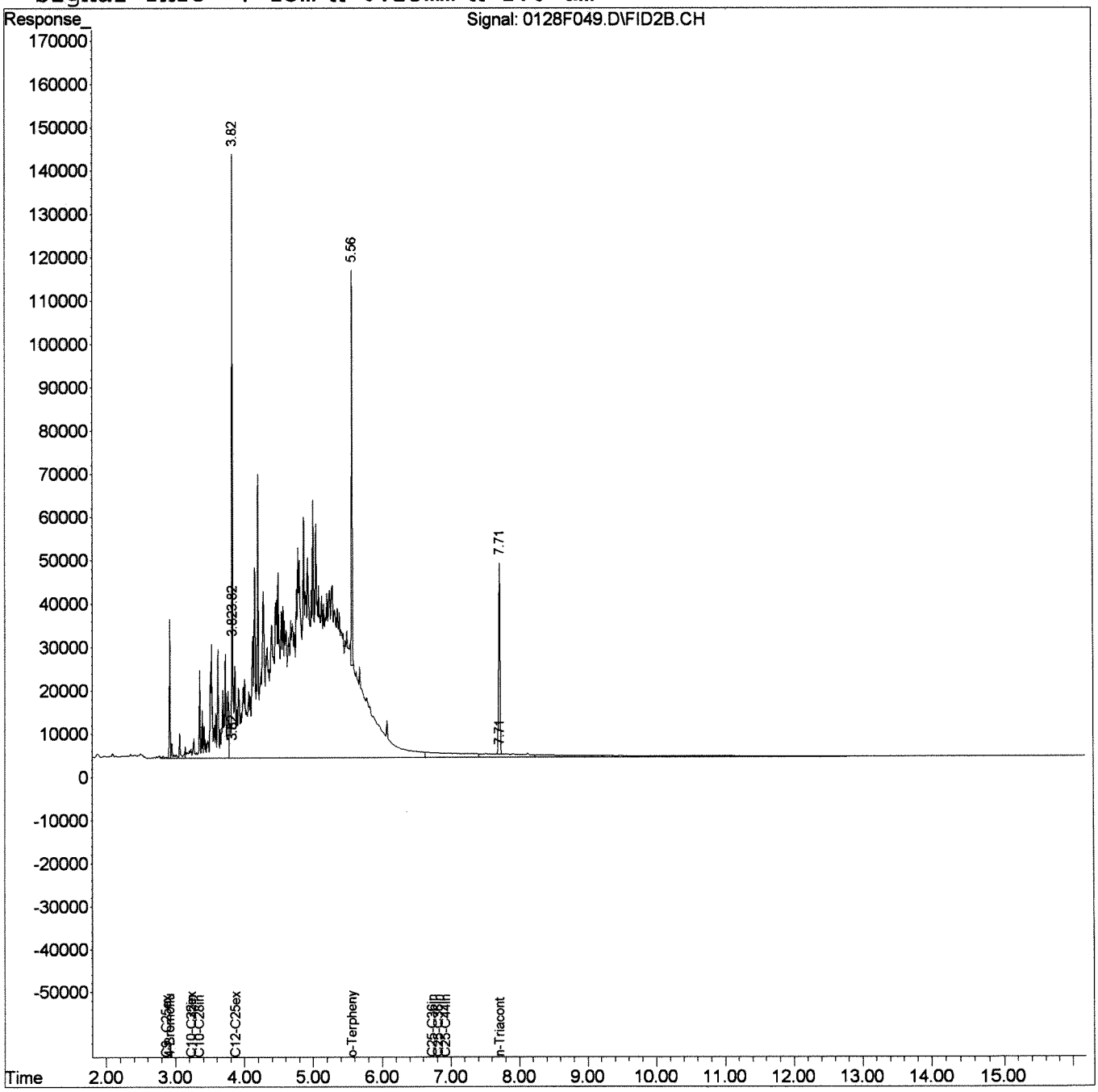
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F049.D Vial: 15
Acq On : 28 Jan 2016 7:11 pm Operator: CHARVEY
Sample : K1600673-011 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:29 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File:	J:\GC21\DATA\012816B\0128F051.D	**Date Acquired:**	01/28/2016 19:33
Lab ID:	K1600673-012	**Date Quantitated:**	01/29/2016 07:29
RunType:	SMPL	**Batch ID:**	KWG1600783
Matrix:	WATER	**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: CH 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:54:08

u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F051.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 19:33	**Quant Date:**	01/29/2016 07:29	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495966	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	68555	44.39	89	56-125	OK	
n-Triacontane	7.71	0.00?	60188	45.41	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		77227	69.43	150	Y	
Residual Range Organics (RRO)	6.73		46200	74.31	160	L	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F051.D Vial: 16
Acq On : 28 Jan 2016 7:33 pm Operator: CHARVEY
Sample : K1600673-012 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:29:46 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	24796	33.168	ppm
Spiked Amount	50.000	Recovery	=	66.34%	
2) S	o-Terphenyl	5.56	68555	44.393	ppm
Spiked Amount	50.000	Recovery	=	88.79%	
3) S	n-Triacontane	7.71	60188	45.406	ppm
Spiked Amount	50.000	Recovery	=	90.81%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	83518	59.546	ppm
5) H	C10-C25ex DRO [AK102]	3.24	81560	62.629	ppm
6) H	C10-C28in DRO [8015]	3.34	105106	78.880	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	77227	69.427	ppm
8) H	C10-C32in DRO	3.24	117874	86.737	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	46200	74.311	ppm
10) H	C25-C36in RRO [AK103]	6.83	46200	61.912	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	77671	74.133	ppm

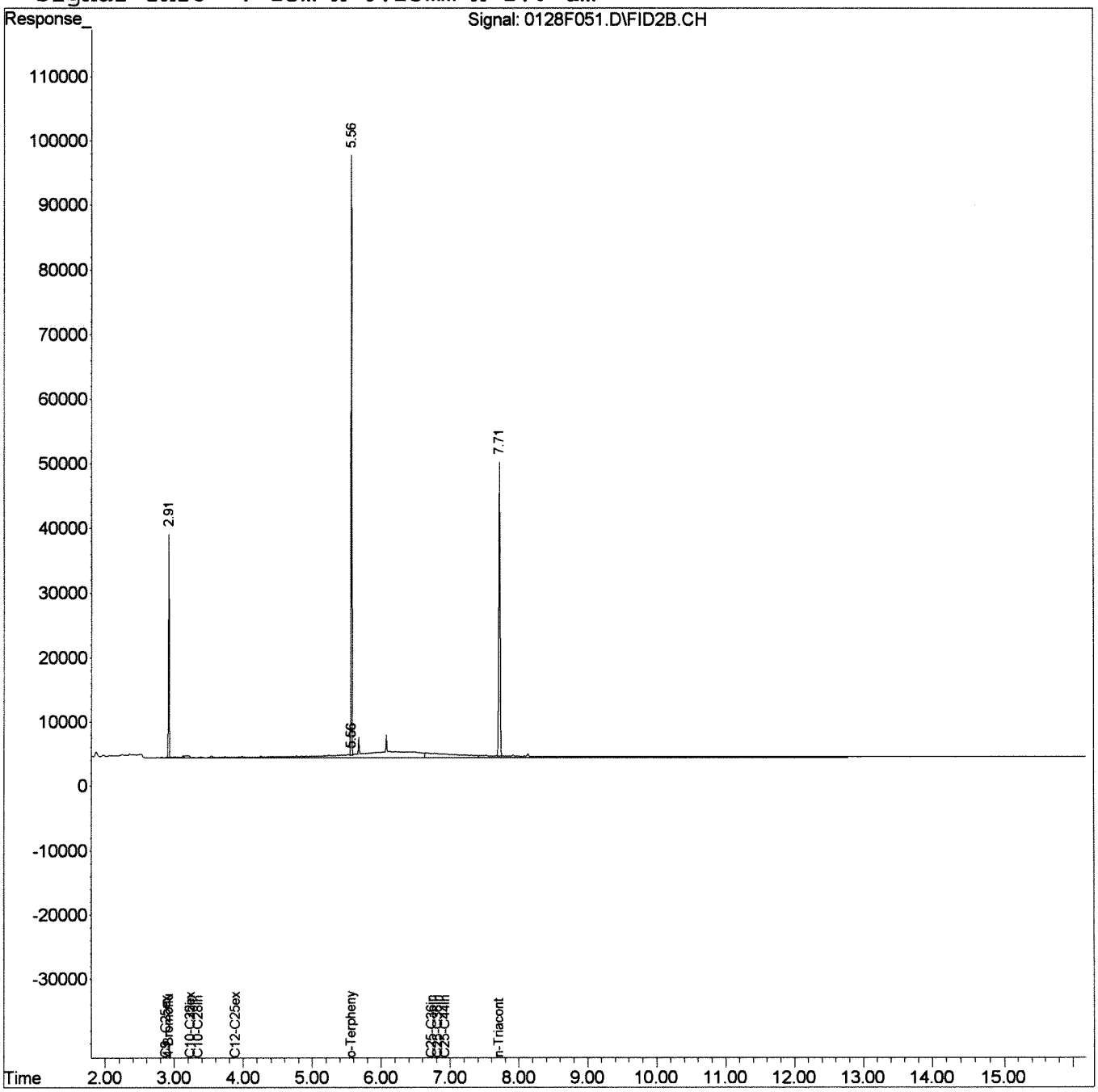
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F051.D Vial: 16
Acq On : 28 Jan 2016 7:33 pm Operator: CHARVEY
Sample : K1600673-012 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:29 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F053.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 19:55
Date Quantitated: 01/29/2016 07:30
Batch ID: KWG1600783
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: CAT 1/29/16

Secondary Review: [illegible] 2/1/16

Printed: 01/29/2016 07:54:11
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F053.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 19:55	**Quant Date:**	01/29/2016 07:30	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495967	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	66589	43.12	86	56-125	OK	
n-Triacontane	7.71	0.00?	58451	44.10	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		17578	15.80	34	J	
Residual Range Organics (RRO)	6.73		13820	22.23	47	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F053.D Vial: 17
Acq On : 28 Jan 2016 7:55 pm Operator: CHARVEY
Sample : K1600673-013 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:30:10 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	25581	34.218	ppm
Spiked Amount	50.000	Recovery	=	68.44%	
2)	S o-Terphenyl	5.56	66589	43.120	ppm
Spiked Amount	50.000	Recovery	=	86.24%	
3)	S n-Triacontane	7.71	58451	44.095	ppm
Spiked Amount	50.000	Recovery	=	88.19%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	22929	16.348	ppm
5)	H C10-C25ex DRO [AK102]	3.24	21272	16.334	ppm
6)	H C10-C28in DRO [8015]	3.34	24874	18.667	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	17578	15.803	ppm
8)	H C10-C32in DRO	3.24	29781	21.914	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	13820	22.229	ppm
10)	H C25-C36in RRO [AK103]	6.83	13820	18.520	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	35833	34.201	ppm

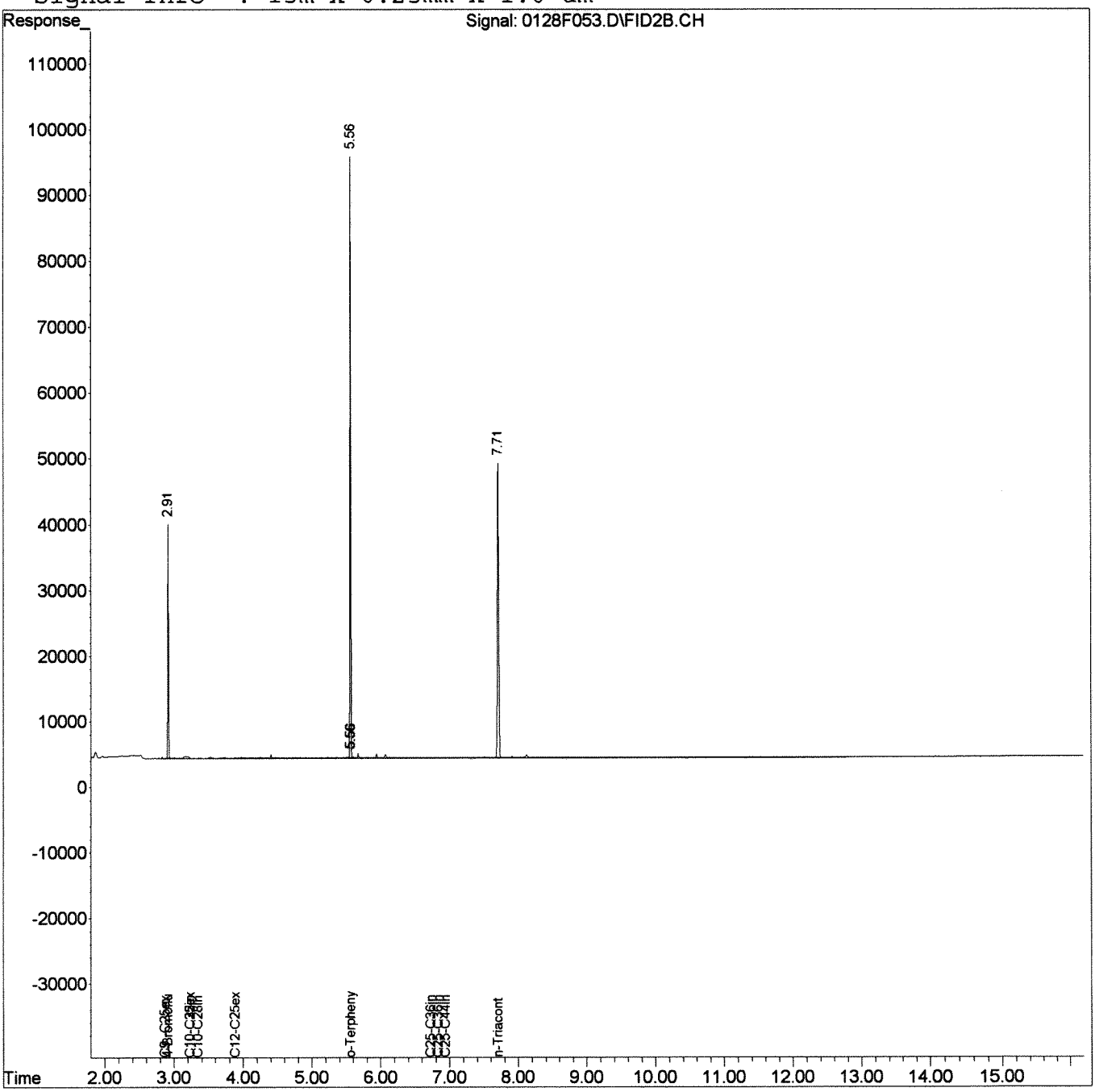
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F053.D Vial: 17
Acq On : 28 Jan 2016 7:55 pm Operator: CHARVEY
Sample : K1600673-013 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:30 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F055.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 01/28/2016 20:18
Date Quantitated: 01/29/2016 07:30
Batch ID: KWG1600783
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: CH 1/29/16

Secondary Review: [illegible] 1/29/16

Printed: 01/29/2016 07:54:14
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F055.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 20:18	**Quant Date:**	01/29/2016 07:30	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	K1600673
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495954	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	66180	42.86	86	56-125	OK	
n-Triacontane	7.71	0.00?	57799	43.60	87	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		16157	14.53	31	J	
Residual Range Organics (RRO)	6.73		12336	19.84	42	J	

Prep Amount:	470 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)

Data File : J:\GC21\DATA\012816B\0128F055.D Vial: 18
Acq On : 28 Jan 2016 8:18 pm Operator: CHARVEY
Sample : K1600673-014 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:30:32 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	24840	33.227	ppm
Spiked Amount	50.000	Recovery	=	66.45%	
2)	S o-Terphenyl	5.56	66180	42.855	ppm
Spiked Amount	50.000	Recovery	=	85.71%	
3)	S n-Triacontane	7.71	57799	43.604	ppm
Spiked Amount	50.000	Recovery	=	87.21%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	21651	15.437	ppm
5)	H C10-C25ex DRO [AK102]	3.24	19825	15.223	ppm
6)	H C10-C28in DRO [8015]	3.34	23117	17.349	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	16157	14.525	ppm
8)	H C10-C32in DRO	3.24	27548	20.271	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	12336	19.842	ppm
10)	H C25-C36in RRO [AK103]	6.83	12336	16.531	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	31521	30.085	ppm

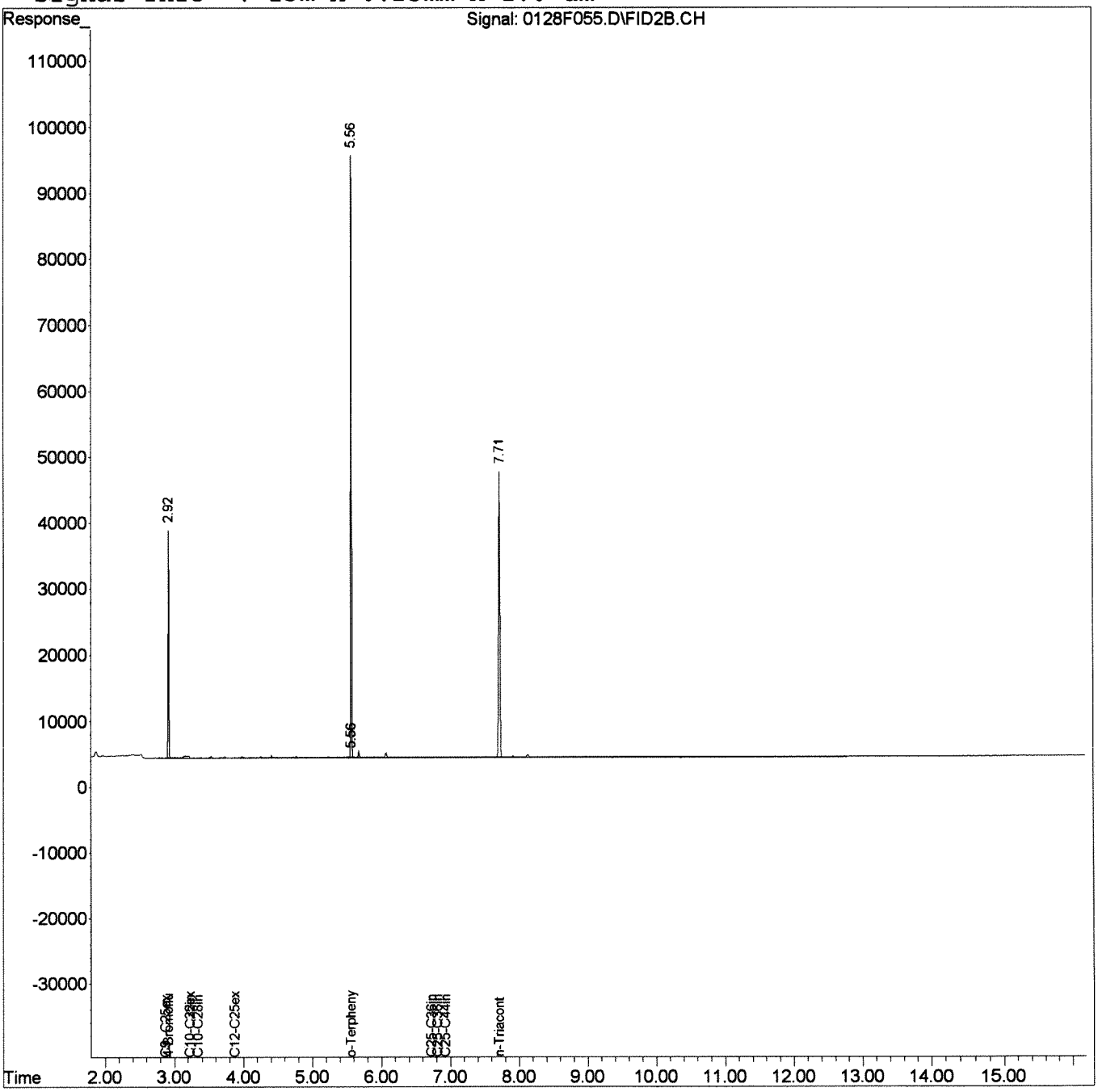
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F055.D Vial: 18
Acq On : 28 Jan 2016 8:18 pm Operator: CHARVEY
Sample : K1600673-014 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:30 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F017.D
Lab ID: KWG1600636-4
RunType: MB
Matrix: WATER

Date Acquired: 01/28/2016 13:17
Date Quantitated: 01/28/2016 15:06
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:17
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F017.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 13:17	**Quant Date:**	01/28/2016 15:06	**Vial:**	2
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600636-4			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/28/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495974	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	5.56	0.00?	54008	34.97	70	55-133	OK	
n-Triacontane	7.71	0.00?	46387	34.99	70	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	3.24		14578	11.19	22.4	J	
C10 - C28 DRO	3.34		17488	13.12	26.2	J	
Diesel Range Organics (DRO)	3.88		10628	9.56	19.1	J	
Residual Range Organics (RRO)	6.73		12401	19.95	39.9	J	

Prep Amount:	500 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)

Data File : J:\GC21\DATA\012816B\0128F017.D Vial: 2
Acq On : 28 Jan 2016 1:17 pm Operator: CHARVEY
Sample : KWG1600636-4 MB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:06:44 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	9760	13.055	ppm
Spiked Amount	50.000	Recovery	=	26.11%	
2) S	o-Terphenyl	5.56	54008	34.973	ppm
Spiked Amount	50.000	Recovery	=	69.95%	
3) S	n-Triacontane	7.71	46387	34.994	ppm
Spiked Amount	50.000	Recovery	=	69.99%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	15941	11.365	ppm
5) H	C10-C25ex DRO [AK102]	3.24	14578	11.194	ppm
6) H	C10-C28in DRO [8015]	3.34	17488	13.124	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	10628	9.555	ppm
8) H	C10-C32in DRO	3.24	21763	16.014	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	12401	19.947	ppm
10) H	C25-C36in RRO [AK103]	6.83	12401	16.618	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	32160	30.695	ppm

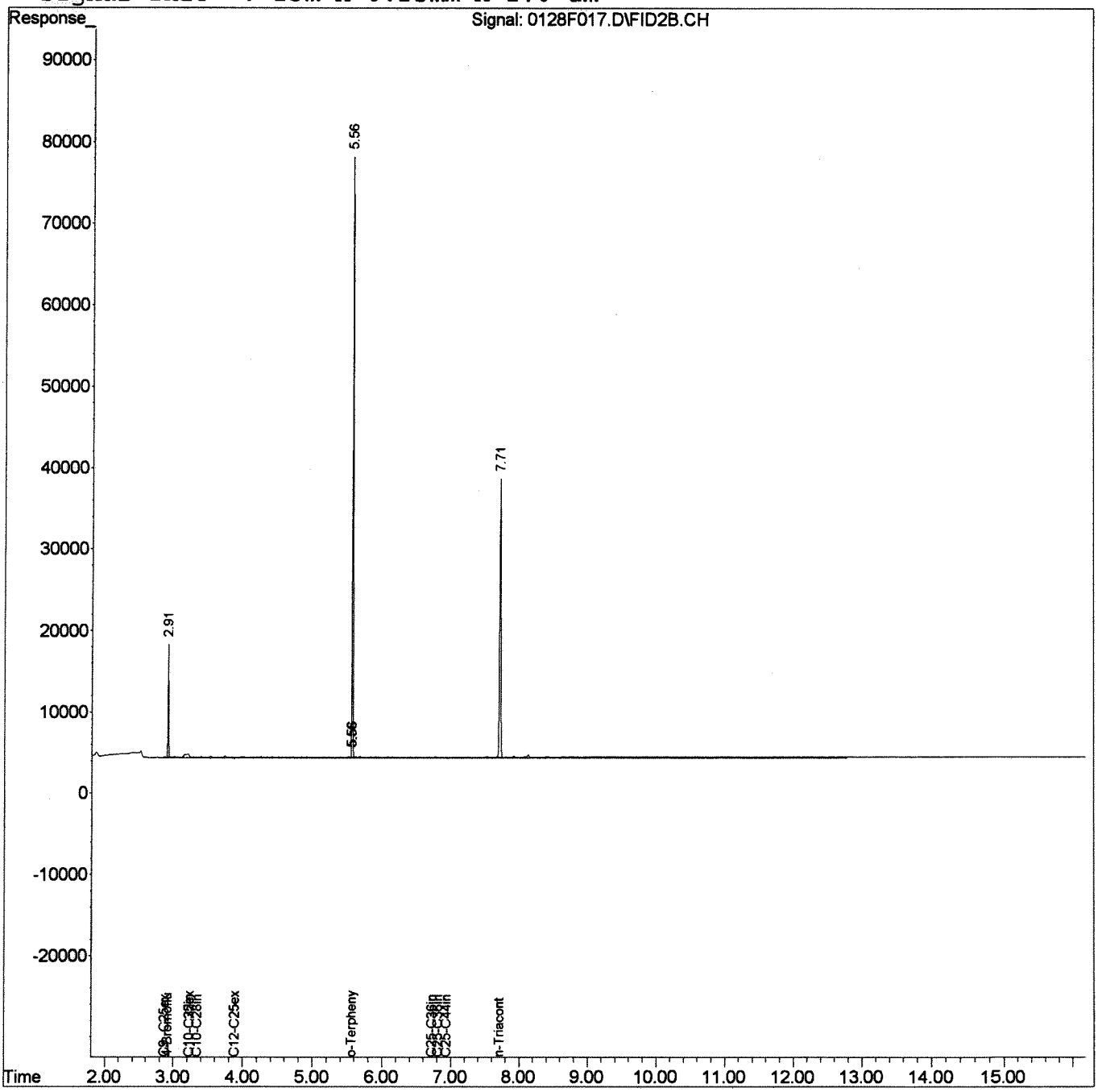
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F017.D Vial: 2
Acq On : 28 Jan 2016 1:17 pm Operator: CHARVEY
Sample : KWG1600636-4 MB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:06 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F027.D
Lab ID: KWG1600636-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 01/28/2016 15:08
Date Quantitated: 01/29/2016 07:21
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:32
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F027.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 15:08	**Quant Date:**	01/29/2016 07:21	**Vial:**	7
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600636-1 -- K1600673-004MS			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/28/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495971	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:		**Method ID:**	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	69378	44.93	90	55-133	OK	
n-Triacontane	7.71	0.00?	58672	44.26	89	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	3.24		1656262	1,272	2680		
C10 - C28 DRO	3.34		1769975	1,328	2800		
Diesel Range Organics (DRO)	3.88		1489182	1,339	2820		
Residual Range Organics (RRO)	6.73		447433	719.68	1520		

Prep Amount:	475 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)

Data File : J:\GC21\DATA\012816B\0128F027.D Vial: 7
Acq On : 28 Jan 2016 3:08 pm Operator: CHARVEY
Sample : K1600673-004 MS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:21:53 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	21674	28.992	ppm
Spiked Amount	50.000	Recovery	=	57.98%	
2) S	o-Terphenyl	5.56	69378	44.926	ppm
Spiked Amount	50.000	Recovery	=	89.85%	
3) S	n-Triacontane	7.71	58672	44.262	ppm
Spiked Amount	50.000	Recovery	=	88.52%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	1694172	1207.894	ppm
5) H	C10-C25ex DRO [AK102]	3.24	1656262	1271.817	ppm
6) H	C10-C28in DRO [8015]	3.34	1769975	1328.324	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	1489182	1338.768	ppm
8) H	C10-C32in DRO	3.24	1920750	1413.370	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	447433	719.679	ppm
10) H	C25-C36in RRO [AK103]	6.83	447433	599.595	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	748829	714.721	ppm

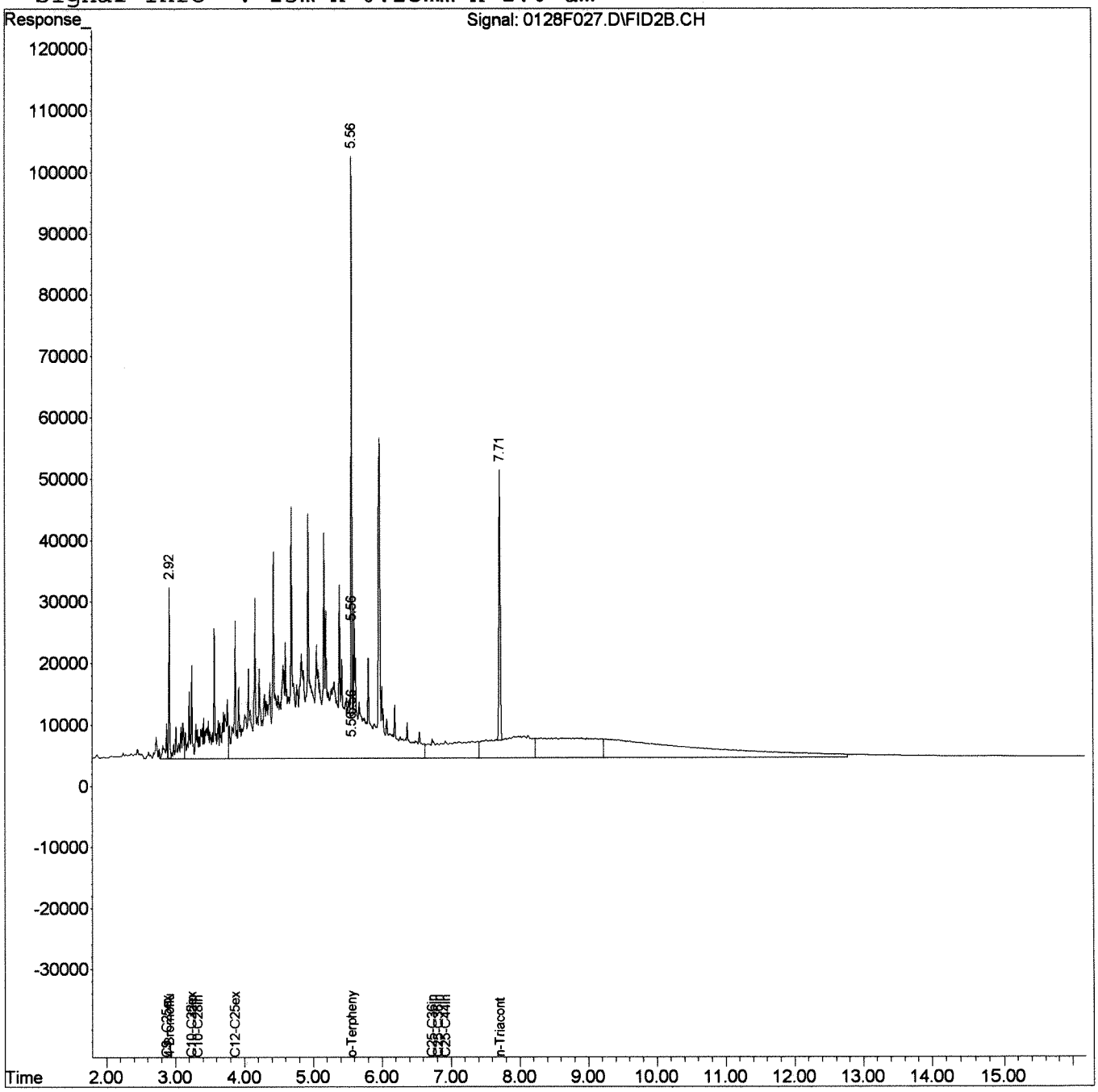
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F027.D Vial: 7
Acq On : 28 Jan 2016 3:08 pm Operator: CHARVEY
Sample : K1600673-004 MS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:21 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File:	J:\GC21\DATA\012816B\0128F029.D	**Date Acquired:**	01/28/2016 15:30
Lab ID:	KWG1600636-2 -- K1600673-004DMS	**Date Quantitated:**	01/29/2016 07:22
RunType:	DMS	**Batch ID:**	KWG1600783
Matrix:	WATER	**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: 1/29/16

Secondary Review: 2/1/16

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F029.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 15:30	**Quant Date:**	01/29/2016 07:22	**Vial:**	8
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600636-2 -- K1600673-004DMS			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/28/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495972	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:		**Method ID:**	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	66326	42.95	86	55-133	OK	
n-Triacontane	7.71	0.00?	55588	41.94	84	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	3.24		1511540	1,161	2440		
C10 - C28 DRO	3.34		1736005	1,303	2740		
Diesel Range Organics (DRO)	3.88		1356151	1,219	2570		
Residual Range Organics (RRO)	6.73		531762	855.32	1800		

Prep Amount:	475 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)

Data File : J:\GC21\DATA\012816B\0128F029.D Vial: 8
Acq On : 28 Jan 2016 3:30 pm Operator: CHARVEY
Sample : K1600673-004 DMS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:22:36 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	23537	31.484	ppm
Spiked Amount	50.000	Recovery	=	62.97%	
2) S	o-Terphenyl	5.56	66326	42.950	ppm
Spiked Amount	50.000	Recovery	=	85.90%	
3) S	n-Triacontane	7.71	55588	41.936	ppm
Spiked Amount	50.000	Recovery	=	83.87%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	1546730	1102.773	ppm
5) H	C10-C25ex DRO [AK102]	3.24	1511540	1160.687	ppm
6) H	C10-C28in DRO [8015]	3.34	1736005	1302.830	ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	1356151	1219.174	ppm
8) H	C10-C32in DRO	3.24	1876049	1380.477	ppm
9) H	C25-C36in RRO [NWTPH]	6.73	531762	855.319	ppm
10) H	C25-C36in RRO [AK103]	6.83	531762	712.602	ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	808497	771.671	ppm

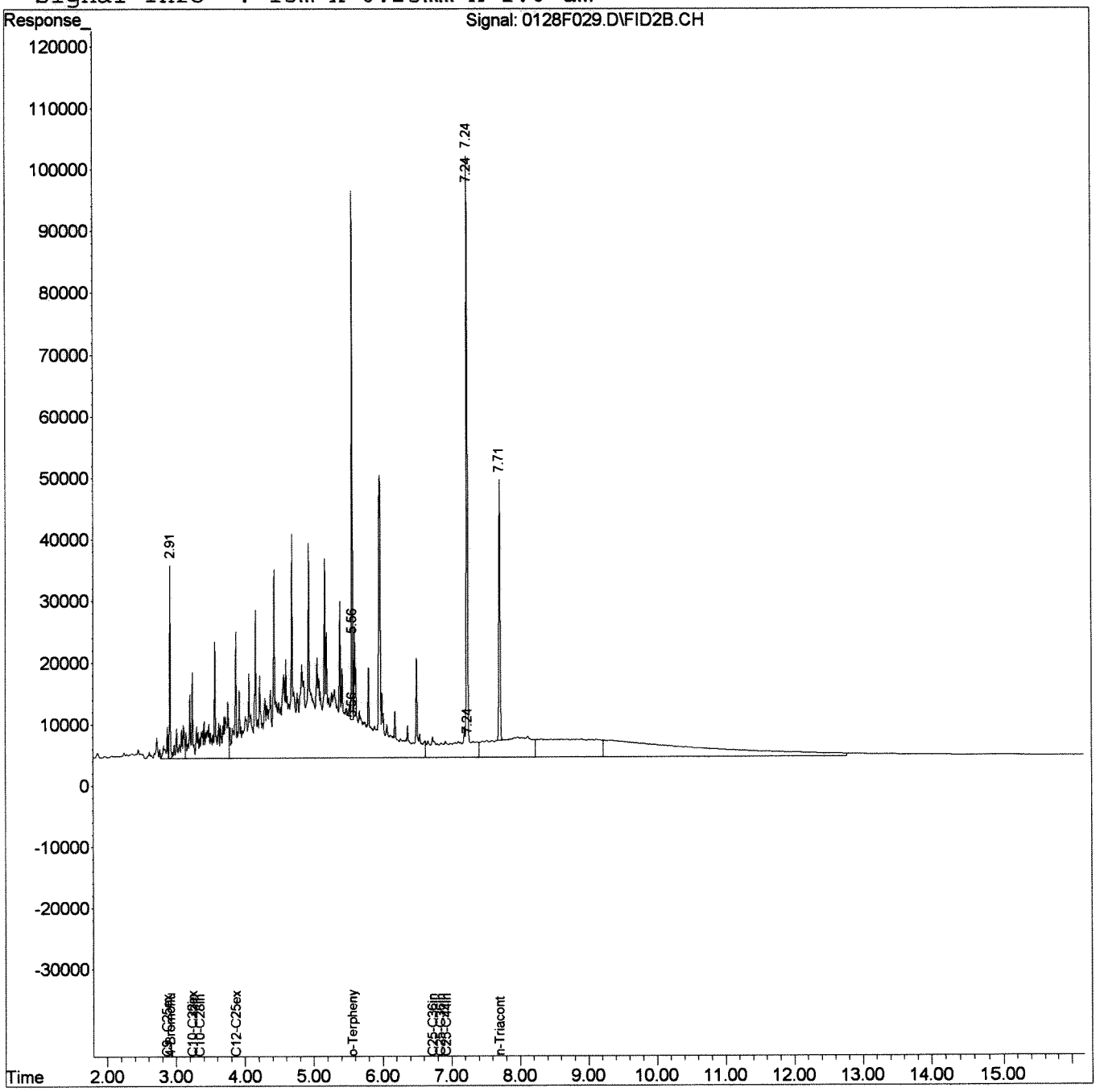
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F029.D Vial: 8
Acq On : 28 Jan 2016 3:30 pm Operator: CHARVEY
Sample : K1600673-004 DMS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:22 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F015.D
Lab ID: KWG1600636-3
RunType: LCS
Matrix: WATER

Date Acquired: 01/28/2016 12:55
Date Quantitated: 01/28/2016 15:06
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F015.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 12:55	**Quant Date:**	01/28/2016 15:06	**Vial:**	1
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600636-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/28/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	KWG1600636	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1495973	**Prep Date:**	01/25/2016		

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
Title:			
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\012816B\0128F017.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.56	0.00?	66098m	42.80	86	55-133	OK	
n-Triacontane	7.71	0.00?	56201	42.40	85	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	3.24		1633657	1,254	2510		
C10 - C28 DRO	3.34		1743786	1,309	2620		
Diesel Range Organics (DRO)	3.88		1470757	1,322	2640		
Residual Range Organics (RRO)	6.73		432806	696.15	1390		

Prep Amount:	500 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)

Data File : J:\GC21\DATA\012816B\0128F015.D Vial: 1
Acq On : 28 Jan 2016 12:55 pm Operator: CHARVEY
Sample : KWG1600636-3 LCS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:06:03 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	15937	21.318	ppm	
Spiked Amount	50.000	Recovery	=	42.64%		
2) S	o-Terphenyl	5.56	66098	42.802	ppm	m
Spiked Amount	50.000	Recovery	=	85.60%		
3) S	n-Triacontane	7.71	56201	42.398	ppm	
Spiked Amount	50.000	Recovery	=	84.80%		
	Target Compounds					
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	1664768	1186.930	ppm	
5) H	C10-C25ex DRO [AK102]	3.24	1633657	1254.459	ppm	
6) H	C10-C28in DRO [8015]	3.34	1743786	1308.670	ppm	
7) H	C12-C25ex DRO [NWTPH]	3.88	1470757	1322.204	ppm	
8) H	C10-C32in DRO	3.24	1889575	1390.430	ppm	
9) H	C25-C36in RRO [NWTPH]	6.73	432806	696.152	ppm	
10) H	C25-C36in RRO [AK103]	6.83	432806	579.994	ppm	
11) H	C25-C44in RRO [TPH-Oil]	6.93	727158	694.037	ppm	

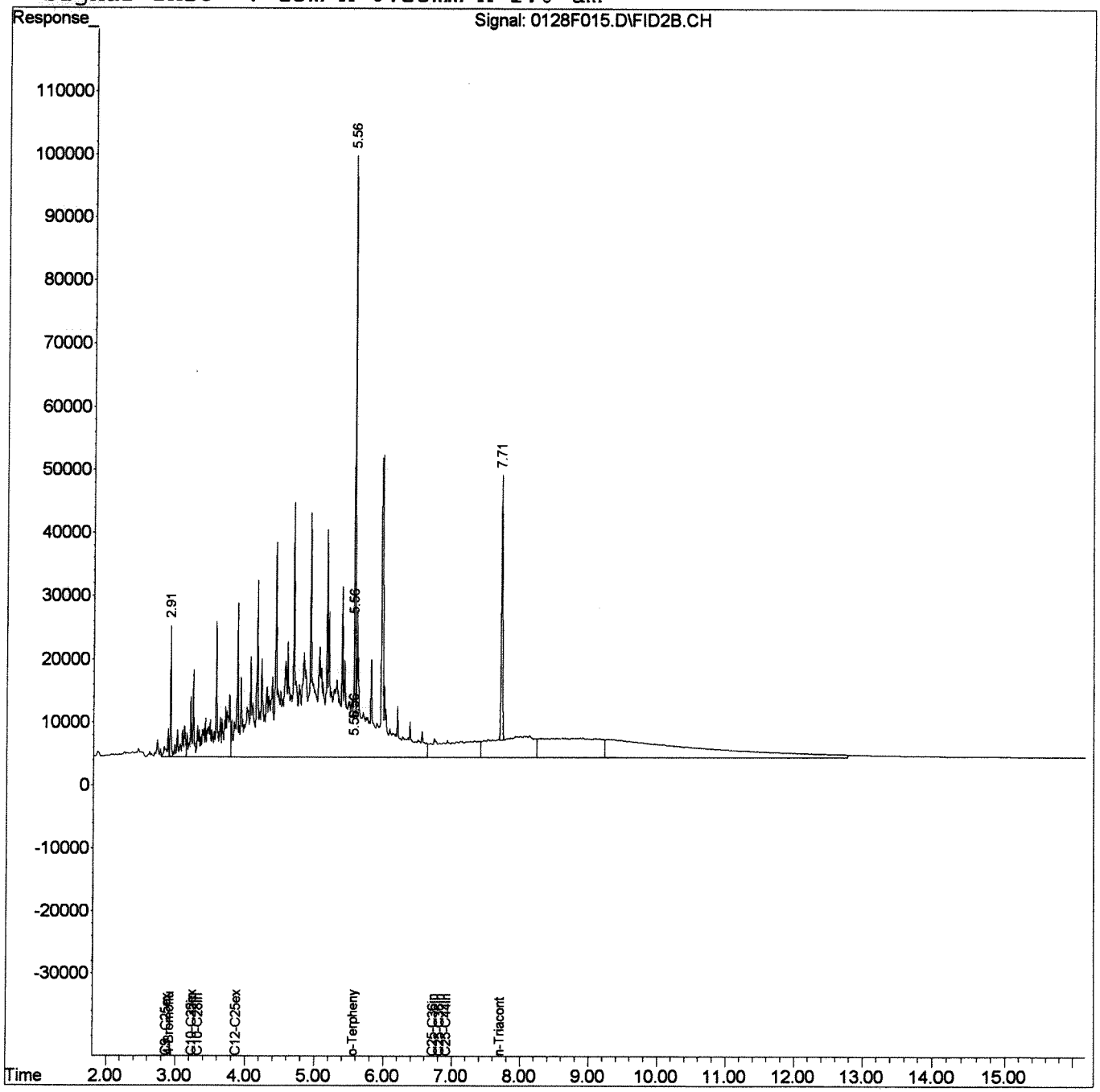
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F015.D Vial: 1
Acq On : 28 Jan 2016 12:55 pm Operator: CHARVEY
Sample : KWG1600636-3 LCS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:06 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

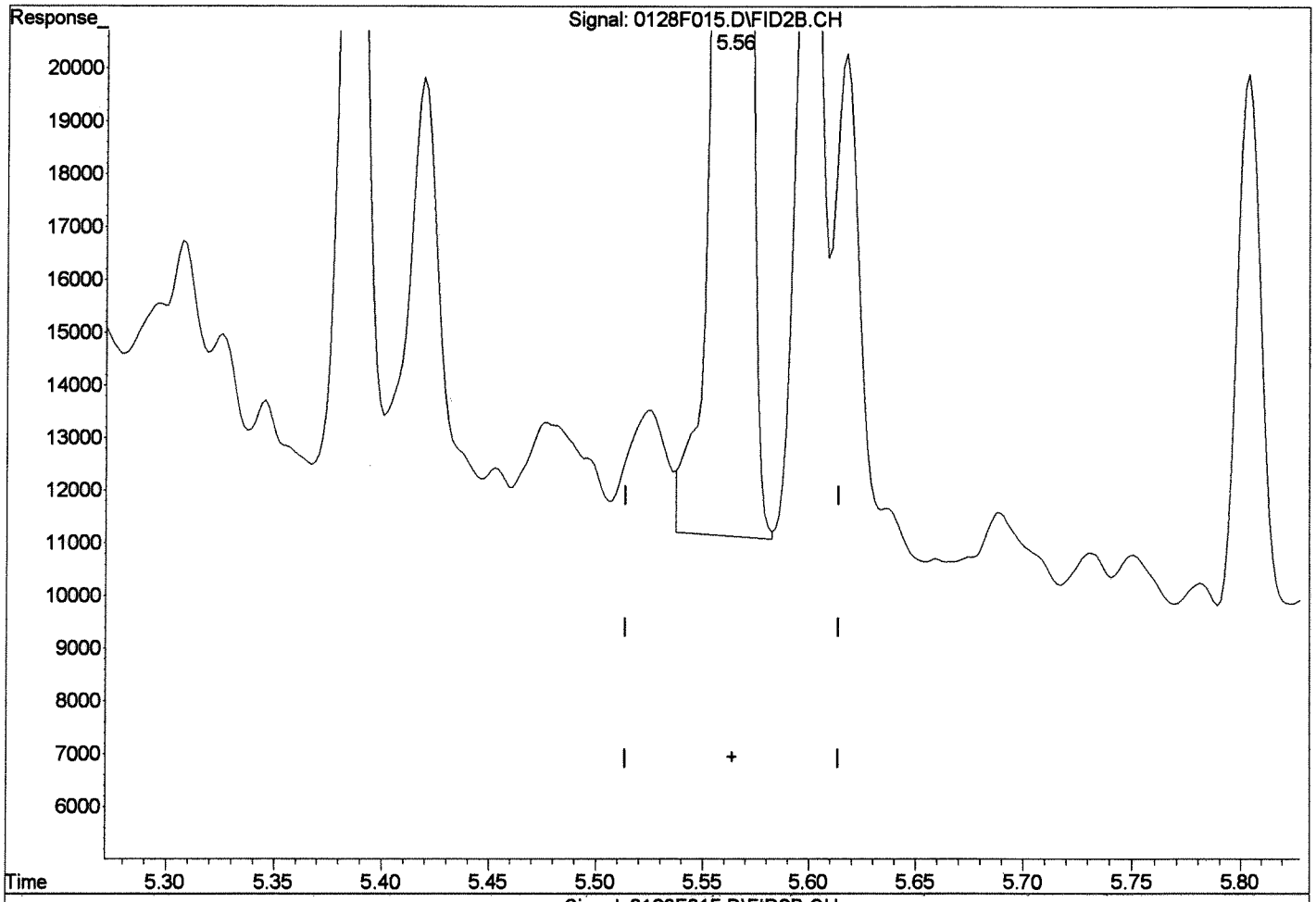
Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012816B\0128F015.D Vial: 1
Acq On : 28 Jan 2016 12:55 pm Operator: CHARVEY
Sample : KWG1600636-3 LCS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05 2016 Quant Results File: 011916B.RES

Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 2016
Response via : Multiple Level Calibration



Signal: 0128F015.D\FID2B.CH

(2) o-Terphenyl (S)

5.56min 42.861ppm

response 66189

Manual Integration:

Before

01/28/16

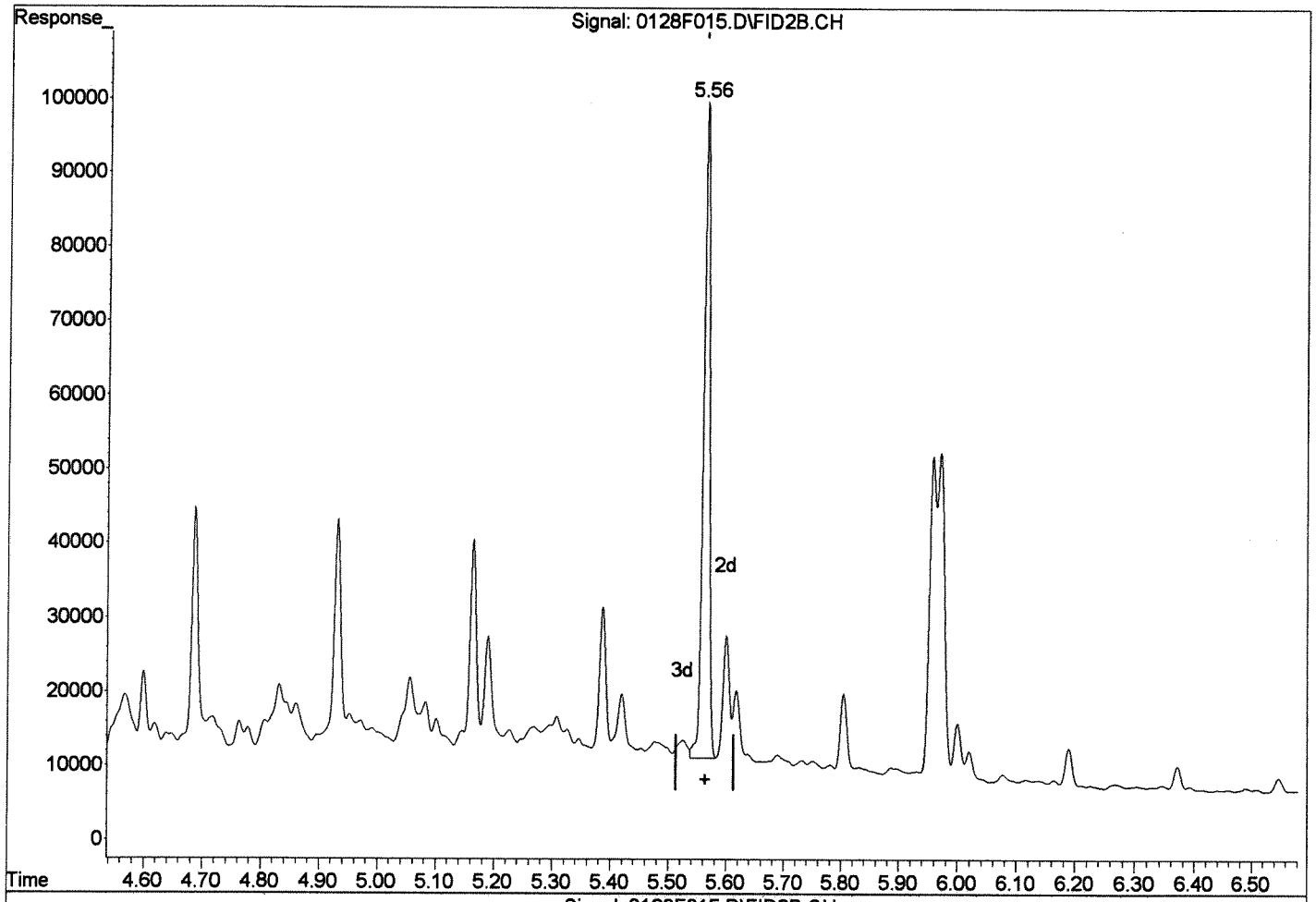
(+) = Expected Retention Time
0128F015.D 011916B.M Thu Jan 28 15:06:14 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012816B\0128F015.D
Acq On : 28 Jan 2016 12:55 pm
Sample : KWG1600636-3 LCS
Misc :
IntFile : rteint.p
Quant Time: Jan 28 15:05 2016 Quant Results File: 011916B.RES

Vial: 1
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 2016
Response via : Multiple Level Calibration



(2) o-Terphenyl (S)

5.56min 42.802ppm m

response 66098

Manual Integration:

After

Baseline/Shoulder

01/28/16

(+) = Expected Retention Time

0128F015.D 011916B.M Thu Jan 28 15:06:31 2016

Injection Log

Directory: J:\GC21\DATA\012816B

2/8

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	89	0128F001.D	1.	DCM		01/28/22016 10:1
2	91	0128F003.D	1.	ALIPHATICS MARKER SVF01-75G		01/28/22016 10:4
3	92	0128F005.D	1.	AROMATICS MARKER SVF01-75I		01/28/22016 11:0
4	93	0128F007.D	1.	PAH MARKER SVF01-75J		01/28/22016 11:2
5	97	0128F009.D	1.	RRO 1000 SVF01-80B		01/28/22016 11:4
6	96	0128F011.D	1.	DRO 1000/50 SVF01-80C		01/28/22016 12:1
7	86	0128F013.D	1.	IB		01/28/22016 12:3
8	1	0128F015.D	1.	KWG1600636-3 LCS		01/28/22016 12:5
9	2	0128F017.D	1.	KWG1600636-4 MB		01/28/22016 1:17
10	3	0128F019.D	1.	K1600673-001		01/28/22016 1:3
11	4	0128F021.D	1.	K1600673-002		01/28/22016 2:01
12	5	0128F023.D	1.	K1600673-003		01/28/22016 2:24
13	6	0128F025.D	1.	K1600673-004		01/28/22016 2:4
14	7	0128F027.D	1.	K1600673-004 MS		01/28/22016 3:0
15	8	0128F029.D	1.	K1600673-004 DMS		01/28/22016 3:3
16	9	0128F031.D	1.	K1600673-005	cal# 14546	01/28/22016 3:52
17	10	0128F033.D	1.	K1600673-006	KWG1600783	01/28/22016 4:1
18	11	0128F035.D	1.	K1600673-007	run# 481764	01/28/22016 4:37
19	12	0128F037.D	1.	K1600673-008		01/28/22016 4:5
20	97	0128F039.D	1.	RRO 1000 SVF01-80B		01/28/22016 5:21
21	96	0128F041.D	1.	DRO 1000/50 SVF01-80C		01/28/22016 5:4
22	86	0128F043.D	1.	IB		01/28/22016 6:0
23	13	0128F045.D	1.	K1600673-009		01/28/22016 6:27
24	14	0128F047.D	1.	K1600673-010		01/28/22016 6:4
25	15	0128F049.D	1.	K1600673-011		01/28/22016 7:11
26	16	0128F051.D	1.	K1600673-012		01/28/22016 7:33
27	17	0128F053.D	1.	K1600673-013		01/28/22016 7:5
28	18	0128F055.D	1.	K1600673-014		01/28/22016 8:1
29	97	0128F057.D	1.	RRO 1000 SVF01-80B		01/28/22016 8:4
30	96	0128F059.D	1.	DRO 1000/50 SVF01-80C		01/28/22016 9:02
31	86	0128F061.D	1.	IB		01/28/22016 9:24
32	89	0128F063.D	1.	DCM		01/28/22016 9:4
33	89	0128F065.D	1.	DCM		01/28/22016 10:0
34	89	0128F067.D	1.	DCM		01/28/22016 10:3
35	89	0128F069.D	1.	DCM		01/28/22016 10:5
36	89	0128F071.D	1.	DCM		01/28/22016 11:1
37	89	0128F073.D	1.	DCM		01/28/22016 11:3
38	89	0128F075.D	1.	DCM		01/28/22016 11:5
39	89	0128F077.D	1.	DCM		01/29/22016 12:2
40	89	0128F079.D	1.	DCM		01/29/22016 12:4
41	89	0128F081.D	1.	DCM		01/29/22016 1:0
42	89	0128F083.D	1.	DCM		01/29/22016 1:27
43	89	0128F085.D	1.	DCM		01/29/22016 1:4
44	89	0128F087.D	1.	DCM		01/29/22016 2:11
45	89	0128F089.D	1.	DCM		01/29/22016 2:34
46	89	0128F091.D	1.	DCM		01/29/22016 2:5
47	89	0128F093.D	1.	DCM		01/29/22016 3:1
48	89	0128F095.D	1.	DCM		01/29/22016 3:4
49	89	0128F097.D	1.	DCM		01/29/22016 4:02
50	89	0128F099.D	1.	DCM		01/29/22016 4:2
51	89	0128F101.D	1.	DCM		01/29/22016 4:47
52	89	0128F103.D	1.	DCM		01/29/22016 5:0
53	89	0128F105.D	1.	DCM		01/29/22016 5:31
54	89	0128F107.D	1.	DCM		01/29/22016 5:5
55	89	0128F109.D	1.	DCM		01/29/22016 6:1

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012816B\0128F003.D Vial: 91
Acq On : 28 Jan 2016 10:41 am Operator: CHARVEY
Sample : ALIPHATICS MARKER SVF01-75G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:04:49 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.88f	46535	62.246 ppm
Spiked Amount	50.000	Recovery	=	124.49%
2) S	o-Terphenyl	5.60f	47867	30.996 ppm
Spiked Amount	50.000	Recovery	=	61.99%
3) S	n-Triacontane	7.71	46393	34.999 ppm
Spiked Amount	50.000	Recovery	=	70.00%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.88	811719	578.732 ppm
5) H	C10-C25ex DRO [AK102]	3.24	810025	622.005 ppm
6) H	C10-C28in DRO [8015]	3.34	1003513	753.112 ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	711842	639.943 ppm
8) H	C10-C32in DRO	3.24	1194941	879.289 ppm
9) H	C25-C36in RRO [NWTPH]	6.73	589093	947.534 ppm
10) H	C25-C36in RRO [AK103]	6.83	589093	789.430 ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	827381	789.695 ppm

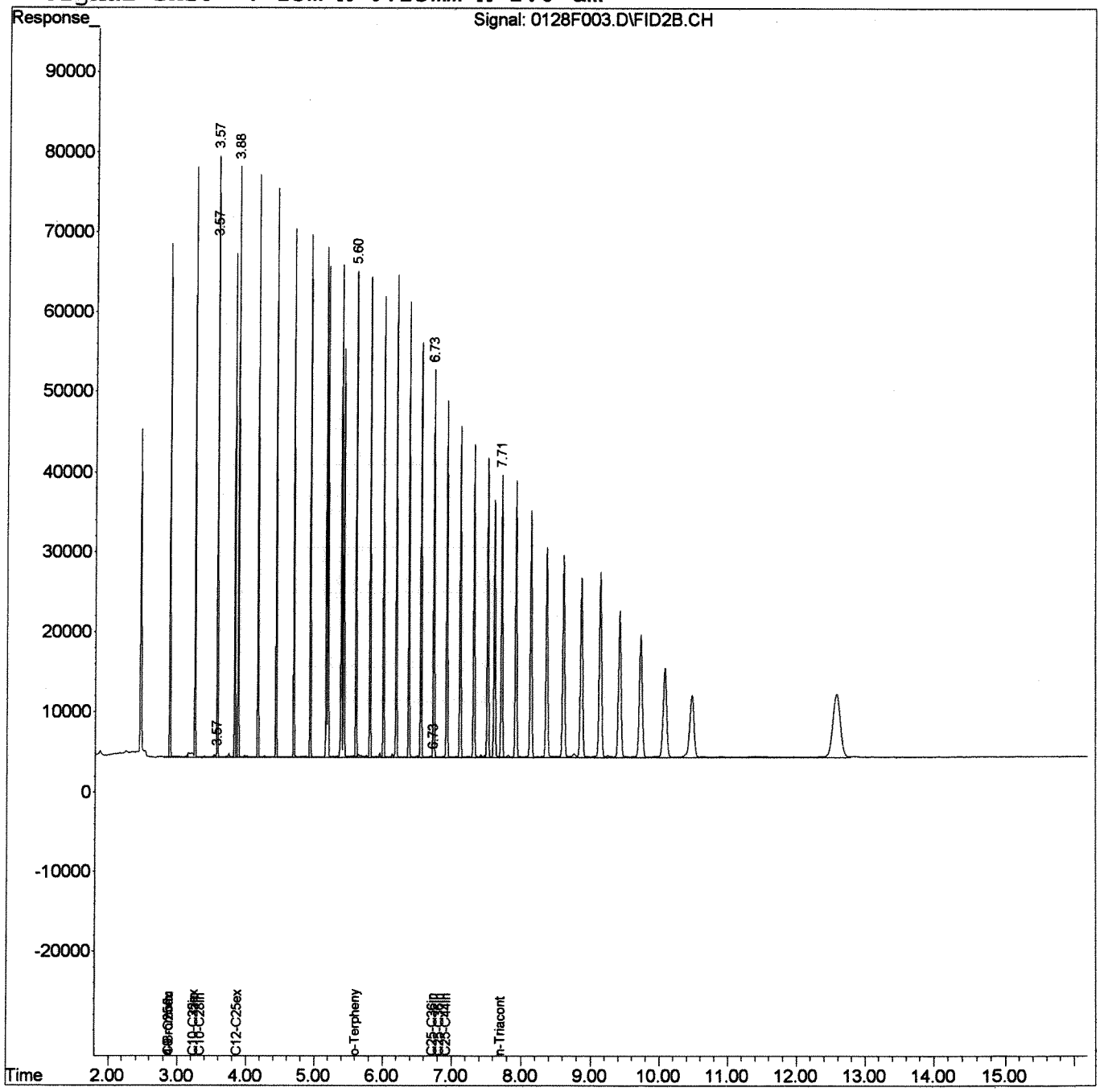
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012816B\0128F003.D Vial: 91
Acq On : 28 Jan 2016 10:41 am Operator: CHARVEY
Sample : ALIPHATICS MARKER SVF01-75G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:04 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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\012816B\0128F005.D Vial: 92
Acq On : 28 Jan 2016 11:03 am Operator: CHARVEY
Sample : AROMATICS MARKER SVF01-75I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:04:54 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	5599953	3992.600	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	5534544	4249.887	ppm
6)	H	C10-C28in DRO [8015]	3.34	5537074	4155.441	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	24359	21.899	ppm
8)	H	C10-C32in DRO	3.24	5539436	4076.155	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	7774	12.504	ppm
10)	H	C25-C36in RRO [AK103]	6.83	7774	10.418	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	18720	17.867	ppm

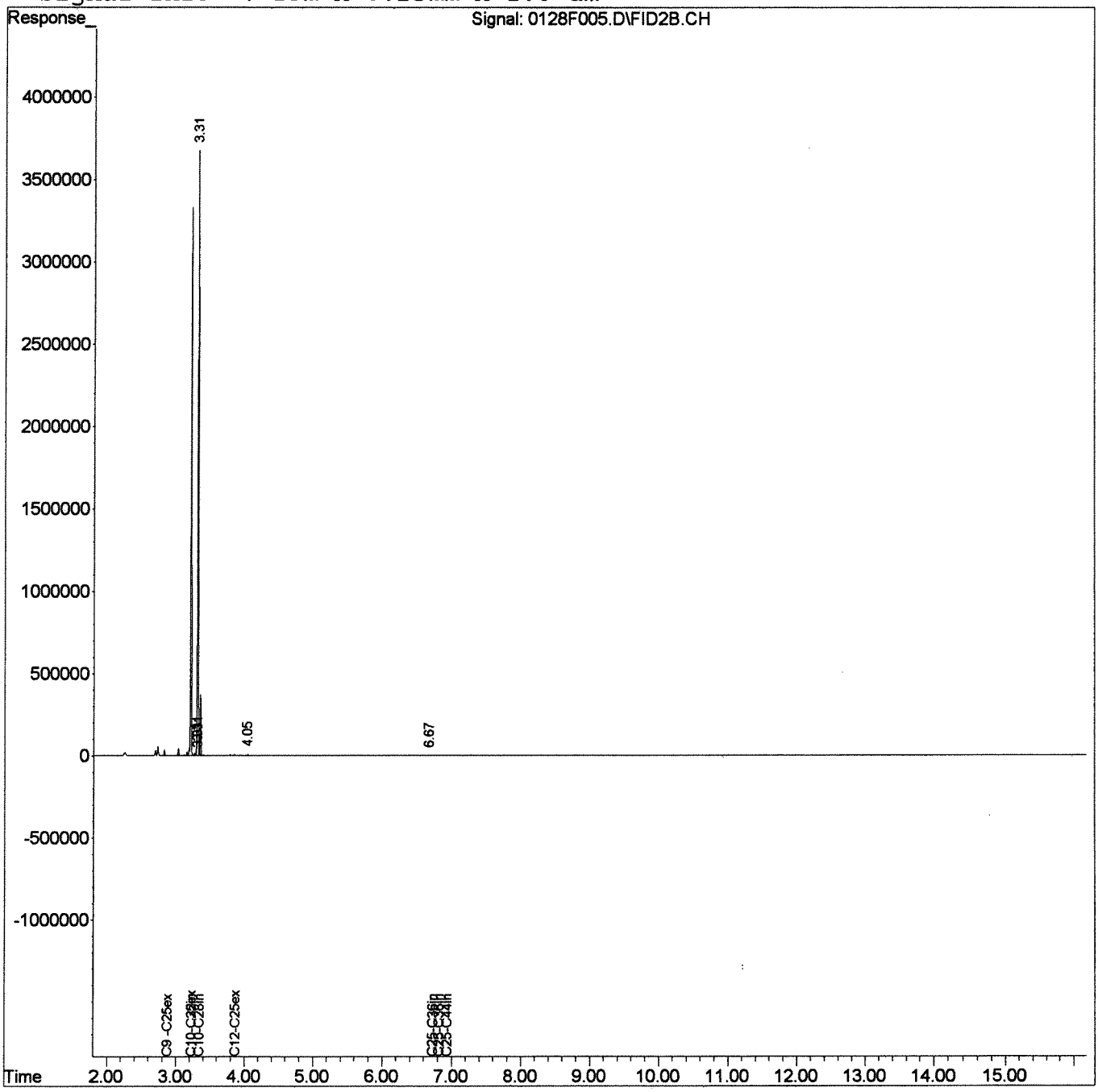
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012816B\0128F005.D Vial: 92
Acq On : 28 Jan 2016 11:03 am Operator: CHARVEY
Sample : AROMATICS MARKER SVF01-75I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:04 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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\012816B\0128F007.D Vial: 93
Acq On : 28 Jan 2016 11:26 am Operator: CHARVEY
Sample : PAH MARKER SVF01-75J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:04:59 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	388063	276.677 ppm
5) H	C10-C25ex DRO [AK102]	3.24	386520	296.802 ppm
6) H	C10-C28in DRO [8015]	3.34	541415	406.319 ppm
7) H	C12-C25ex DRO [NWTPH]	3.88	360545	324.128 ppm
8) H	C10-C32in DRO	3.24	639362	470.470 ppm
9) H	C25-C36in RRO [NWTPH]	6.73	272096	437.656 ppm
10) H	C25-C36in RRO [AK103]	6.83	272096	364.630 ppm
11) H	C25-C44in RRO [TPH-Oil]	6.93	283538	270.623 ppm

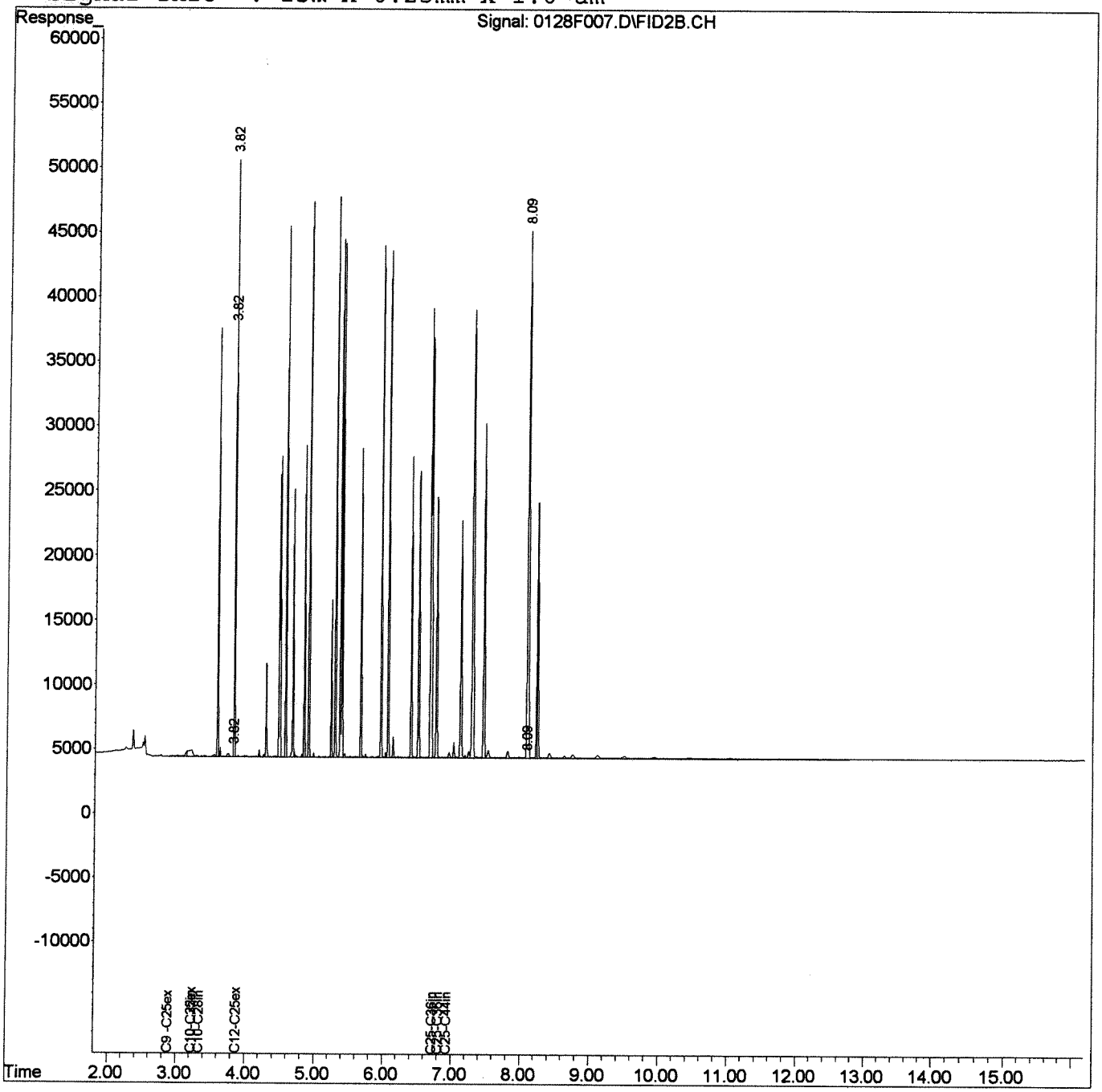
(f)=RT Delta > 1/2 Window (m)=manual int.
0128F007.D 011916B.M Thu Jan 28 15:05:00 2016 Page 1

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012816B\0128F007.D Vial: 93
Acq On : 28 Jan 2016 11:26 am Operator: CHARVEY
Sample : PAH MARKER SVF01-75J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:04 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F009.D
Lab ID: KWG1600783-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 11:48
Date Quantitated: 01/28/2016 15:05
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:05
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F009.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 11:48	**Quant Date:**	01/28/2016 15:05	**Vial:**	97
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600783-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	3.24		45460	34.91			
C10 - C28 DRO	3.34		181381	136.12			
Diesel Range Organics (DRO)	3.88		40970	36.83			NR
Residual Range Organics (RRO)	6.73		611456	983.50			

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:\GC21\DATA\012816B\0128F009.D Vial: 97
Acq On : 28 Jan 2016 11:48 am Operator: CHARVEY
Sample : RRO 1000 SVF01-80B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05:09 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	46816	33.378	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	45460	34.908	ppm
6)	H	C10-C28in DRO [8015]	3.34	181381	136.122	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	40970	36.832	ppm
8)	H	C10-C32in DRO	3.24	394147	290.030	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	611456	983.504	ppm
10)	H	C25-C36in RRO [AK103]	6.83	611456	819.398	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	1058469	1010.257	ppm

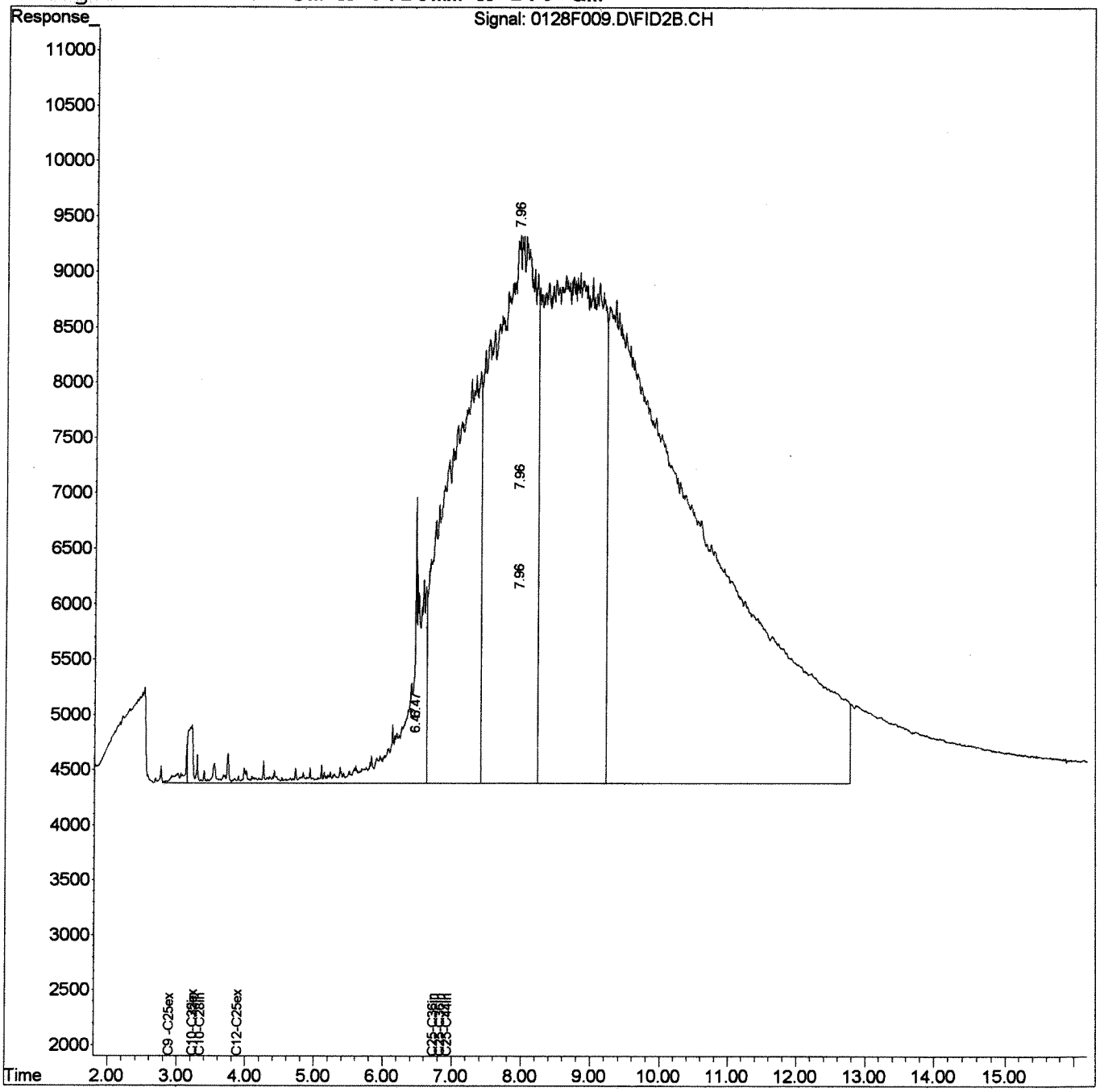
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F009.D Vial: 97
Acq On : 28 Jan 2016 11:48 am Operator: CHARVEY
Sample : RRO 1000 SVF01-80B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F011.D
Lab ID: KWG1600783-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 12:10
Date Quantitated: 01/28/2016 15:05
Batch ID: KWG1600783
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: 1/29/16

Secondary Review:

Printed: 01/29/2016 07:53:08
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F011.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 12:10	**Quant Date:**	01/28/2016 15:05	**Vial:**	96
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600783-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	5.56	?	81235	52.60		55-133	NA	
n-Triacontane	7.71	?	71142	53.67		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	3.24		1325952	1,018			
C10 - C28 DRO	3.34		1340323	1,006			
Diesel Range Organics (DRO)	3.88		1128380	1,014			
Residual Range Organics (RRO)	6.73		11739	18.88			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)

Data File : J:\GC21\DATA\012816B\0128F011.D Vial: 96
Acq On : 28 Jan 2016 12:10 pm Operator: CHARVEY
Sample : DRO 1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05:29 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	39662	53.053	ppm
Spiked Amount	50.000		Recovery	=	106.11%	
2)	S	o-Terphenyl	5.56	81235	52.604	ppm
Spiked Amount	50.000		Recovery	=	105.21%	
3)	S	n-Triacontane	7.71	71142	53.669	ppm
Spiked Amount	50.000		Recovery	=	107.34%	
	Target Compounds					
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.88	1370973	977.463	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	1325952	1018.177	ppm
6)	H	C10-C28in DRO [8015]	3.34	1340323	1005.880	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	1128380	1014.409	ppm
8)	H	C10-C32in DRO	3.24	1343310	988.465	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	11739	18.882	ppm
10)	H	C25-C36in RRO [AK103]	6.83	11739	15.731	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	15835	15.114	ppm

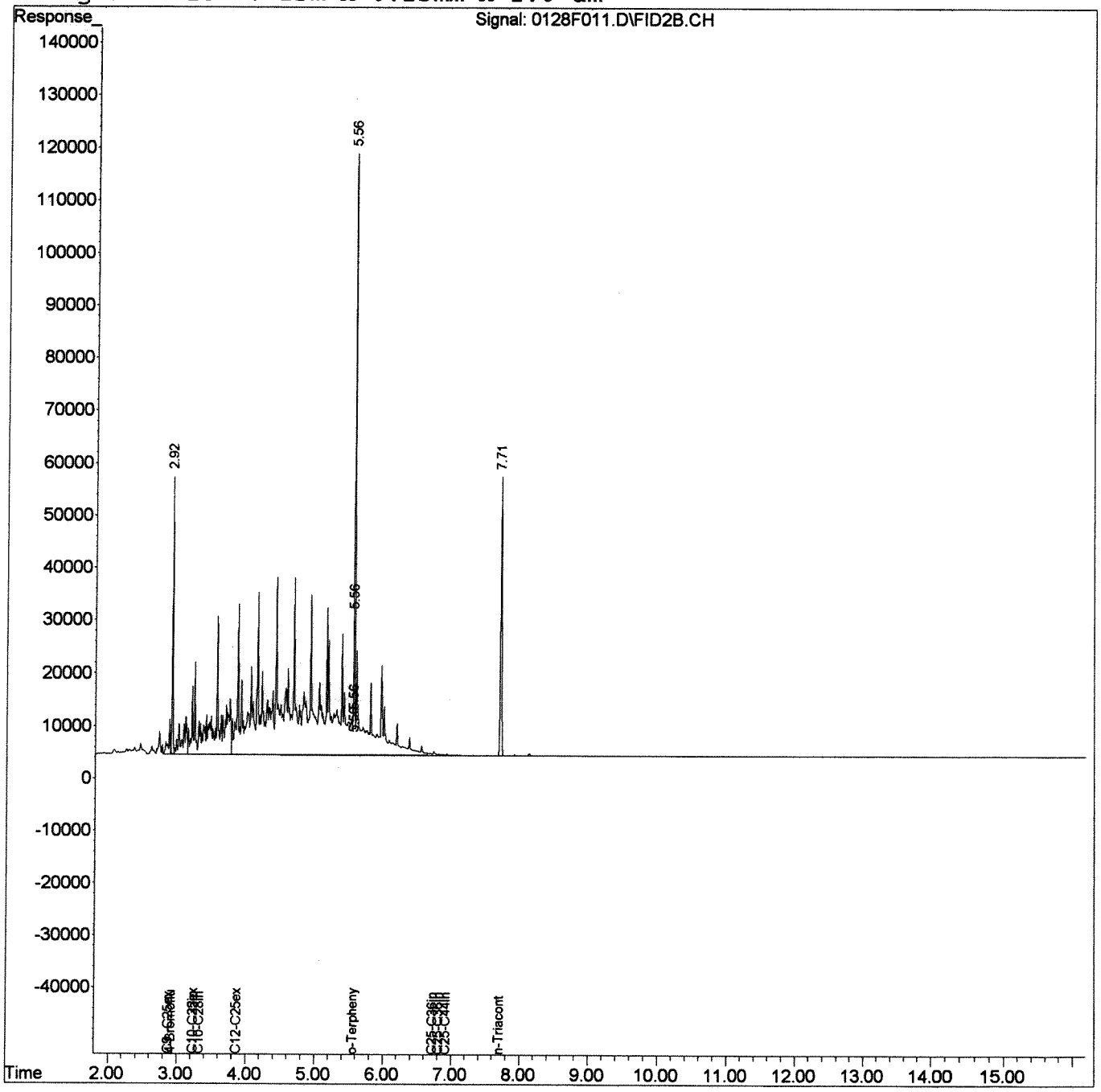
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F011.D Vial: 96
Acq On : 28 Jan 2016 12:10 pm Operator: CHARVEY
Sample : DRO 1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F013.D
Lab ID: KWG1600783-4
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 12:33
Date Quantitated: 01/28/2016 15:05
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:11
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F013.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 12:33	**Quant Date:**	01/28/2016 15:05	**Vial:**	86
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600783-4			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	3.24		10655	8.18			
C10 - C28 DRO	3.34		12887	9.67			
Diesel Range Organics (DRO)	3.88		6952	6.25			
Residual Range Organics (RRO)	6.73		7822	12.58			

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 (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F013.D Vial: 86
Acq On : 28 Jan 2016 12:33 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05:47 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	12176	8.681	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	10655	8.182	ppm
6)	H	C10-C28in DRO [8015]	3.34	12887	9.671	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	6952	6.250	ppm
8)	H	C10-C32in DRO	3.24	15179	11.169	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	7822	12.581	ppm
10)	H	C25-C36in RRO [AK103]	6.83	7822	10.482	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	21723	20.734	ppm

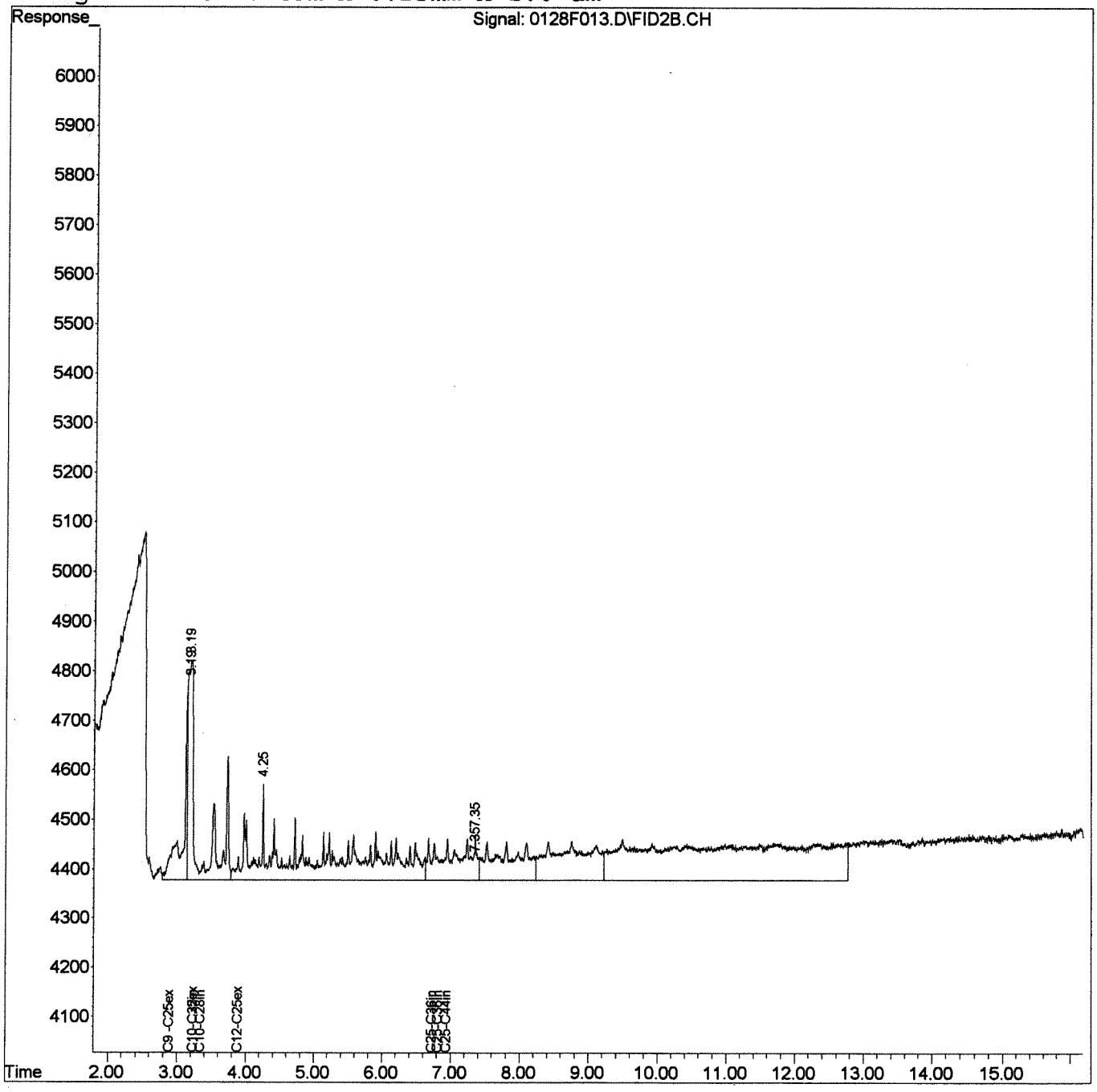
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F013.D Vial: 86
Acq On : 28 Jan 2016 12:33 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 28 15:05 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File:	J:\GC21\DATA\012816B\0128F039.D	**Date Acquired:**	01/28/2016 17:21
Lab ID:	KWG1600783-2	**Date Quantitated:**	01/29/2016 07:25
RunType:	CCV	**Batch ID:**	KWG1600783
Matrix:	NOT APPLICABLE	**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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:53:50

u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F039.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 17:21	**Quant Date:**	01/29/2016 07:25	**Vial:**	97
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600783-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	3.24		40891	31.40			
C10 - C28 DRO	3.34		161526	121.22			
Diesel Range Organics (DRO)	3.88		37093	33.35			NR
Residual Range Organics (RRO)	6.73		547956	881.37			

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:\GC21\DATA\012816B\0128F039.D Vial: 97
Acq On : 28 Jan 2016 5:21 pm Operator: CHARVEY
Sample : RRO 1000 SVF01-80B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:24:59 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	42075	29.998	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	40891	31.400	ppm
6)	H	C10-C28in DRO [8015]	3.34	161526	121.221	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	37093	33.346	ppm
8)	H	C10-C32in DRO	3.24	351449	258.611	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	547956	881.367	ppm
10)	H	C25-C36in RRO [AK103]	6.83	547956	734.304	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	956568	912.997	ppm

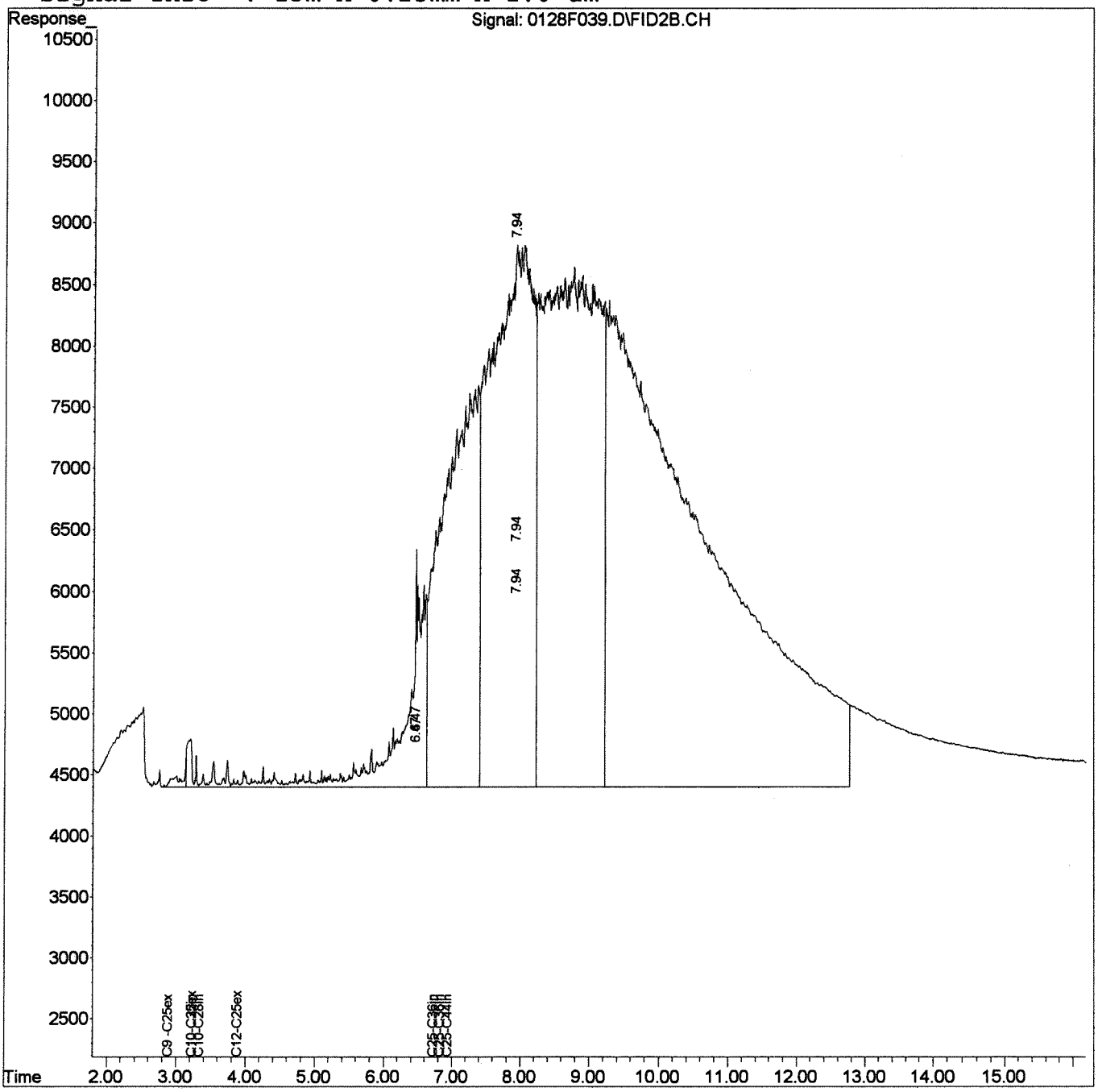
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F039.D Vial: 97
Acq On : 28 Jan 2016 5:21 pm Operator: CHARVEY
Sample : RRO 1000 SVF01-80B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:25 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F041.D
Lab ID: KWG1600783-2
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 17:43
Date Quantitated: 01/29/2016 07:25
Batch ID: KWG1600783
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: CH 4/29/16

Secondary Review: 4/29/16

Printed: 01/29/2016 07:53:53
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F041.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 17:43	**Quant Date:**	01/29/2016 07:25	**Vial:**	96
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600783-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	5.56	?	70106	45.40		55-133	NA	
n-Triacontane	7.71	?	61197	46.17		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	3.24		1147369	881.05			
C10 - C28 DRO	3.34		1160045	870.59			
Diesel Range Organics (DRO)	3.88		975936	877.36			
Residual Range Organics (RRO)	6.73		11158	17.95			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)

Data File : J:\GC21\DATA\012816B\0128F041.D Vial: 96
Acq On : 28 Jan 2016 5:43 pm Operator: CHARVEY
Sample : DRO 1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:25:13 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	34394	46.006	ppm
Spiked Amount	50.000	Recovery	=	92.01%	
2)	S o-Terphenyl	5.56	70106	45.397	ppm
Spiked Amount	50.000	Recovery	=	90.79%	
3)	S n-Triacontane	7.71	61197	46.167	ppm
Spiked Amount	50.000	Recovery	=	92.33%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	1186290	845.790	ppm
5)	H C10-C25ex DRO [AK102]	3.24	1147369	881.046	ppm
6)	H C10-C28in DRO [8015]	3.34	1160045	870.586	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	975936	877.362	ppm
8)	H C10-C32in DRO	3.24	1163151	855.896	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	11158	17.947	ppm
10)	H C25-C36in RRO [AK103]	6.83	11158	14.953	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	16547	15.793	ppm

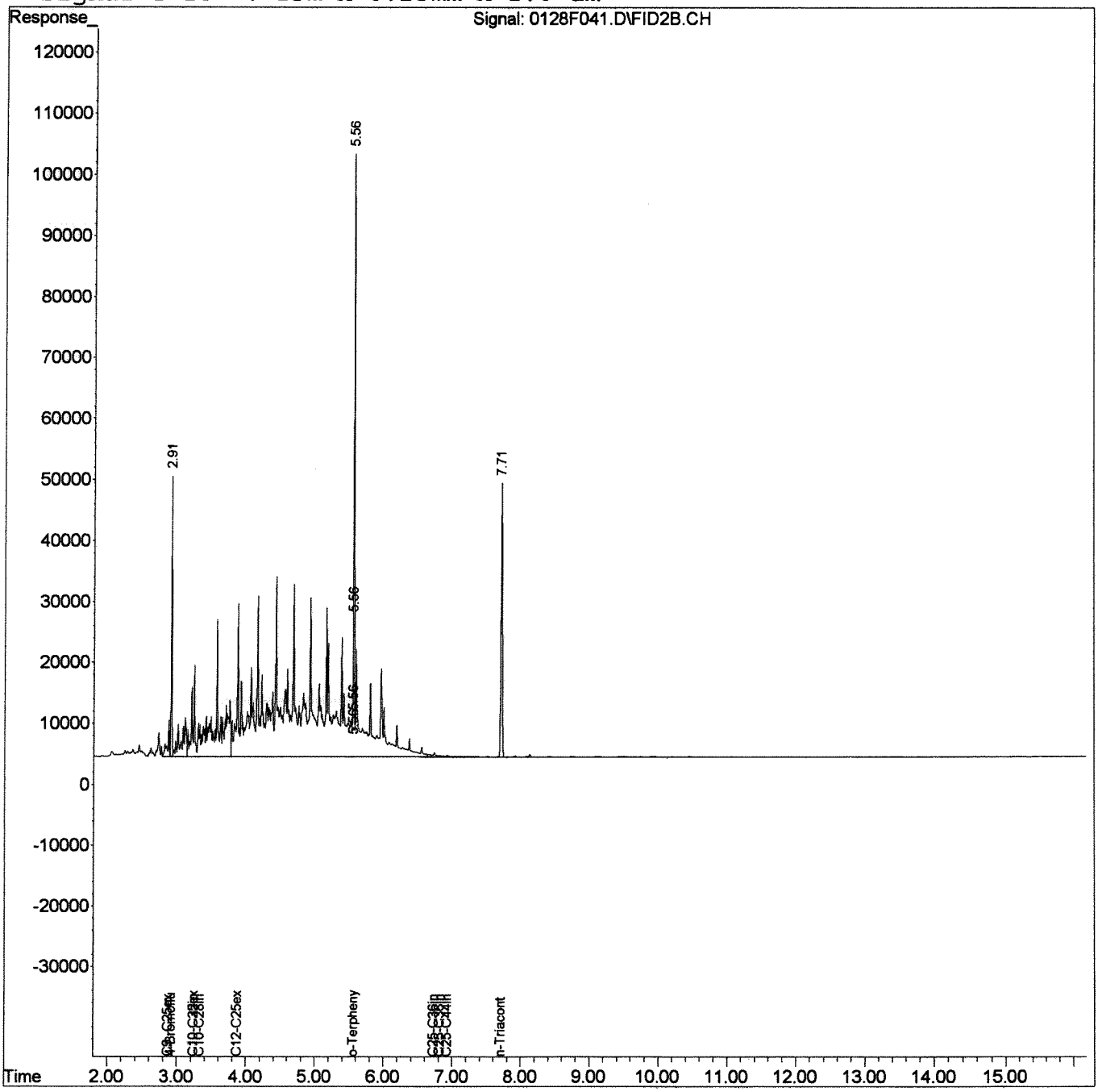
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F041.D Vial: 96
Acq On : 28 Jan 2016 5:43 pm Operator: CHARVEY
Sample : DRO 1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:25 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F043.D
Lab ID: KWG1600783-5
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 18:05
Date Quantitated: 01/29/2016 07:25
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 1/29/16

Printed: 01/29/2016 07:53:56
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F043.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 18:05	**Quant Date:**	01/29/2016 07:25	**Vial:**	86
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600783-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	3.24		10931	8.39			
C10 - C28 DRO	3.34		13024	9.77			
Diesel Range Organics (DRO)	3.88		7225	6.50			
Residual Range Organics (RRO)	6.73		7830	12.59			

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:\GC21\DATA\012816B\0128F043.D Vial: 86
Acq On : 28 Jan 2016 6:05 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:25:35 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	12422	8.857	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	10931	8.394	ppm
6)	H	C10-C28in DRO [8015]	3.34	13024	9.774	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	7225	6.495	ppm
8)	H	C10-C32in DRO	3.24	15259	11.228	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	7830	12.594	ppm
10)	H	C25-C36in RRO [AK103]	6.83	7830	10.493	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	21869	20.873	ppm

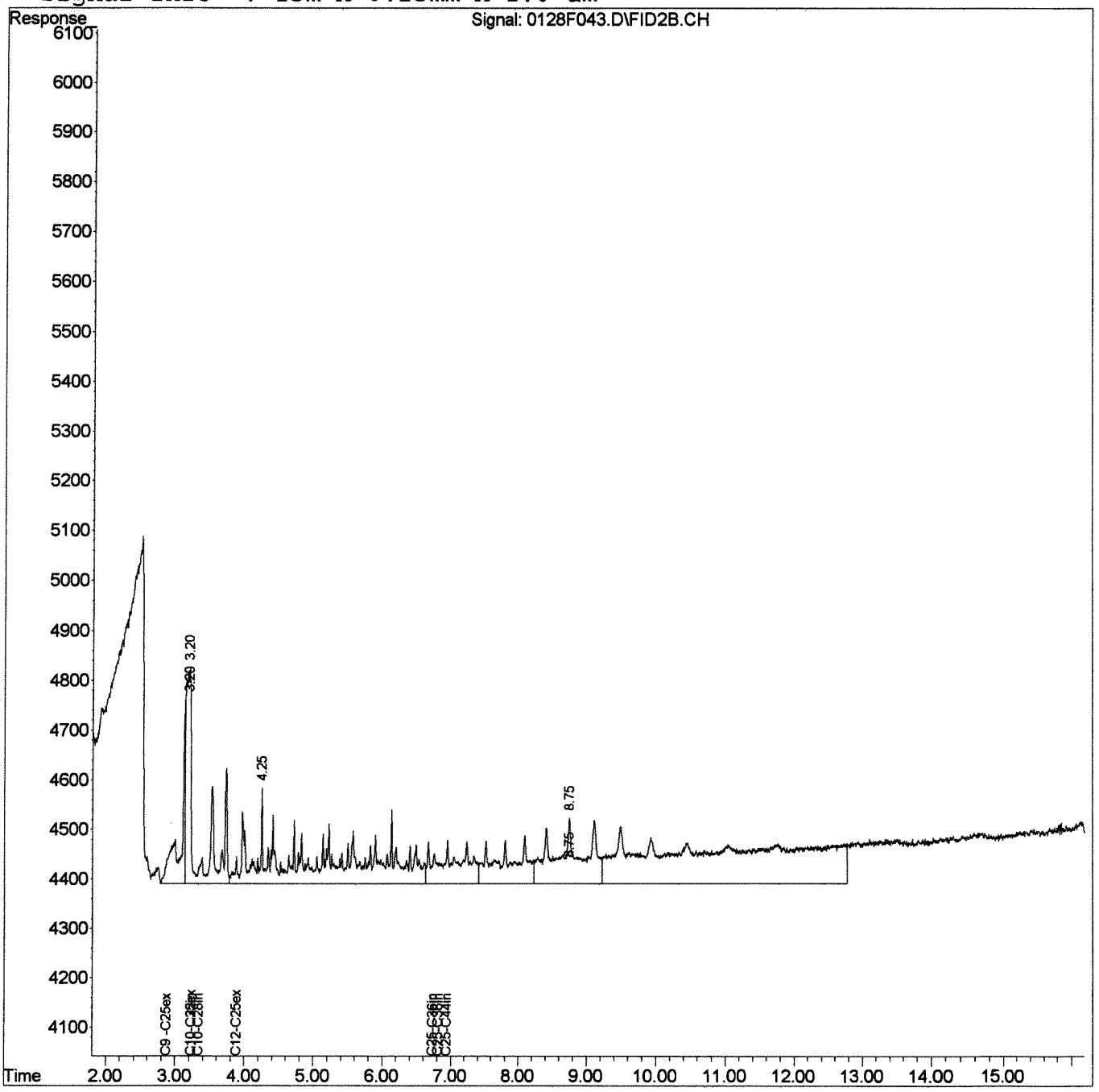
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F043.D Vial: 86
Acq On : 28 Jan 2016 6:05 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:25 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F057.D
Lab ID: KWG1600783-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 20:40
Date Quantitated: 01/29/2016 07:31
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 1/29/16

Printed: 01/29/2016 07:54:17
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F057.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 20:40	**Quant Date:**	01/29/2016 07:31	**Vial:**	97
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600783-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**	**Report Group:**
Analysis Method:	8015C	**Prep Method:**	
Prep Ref:		**Prep Date:**	

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	3.24		51372	39.45			
C10 - C28 DRO	3.34		195498	146.72			
Diesel Range Organics (DRO)	3.88		47209	42.44			NR
Residual Range Organics (RRO)	6.73		647638	1,042			

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:\GC21\DATA\012816B\0128F057.D Vial: 97
Acq On : 28 Jan 2016 8:40 pm Operator: CHARVEY
Sample : RRO 1000 SVF01-80B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:31:08 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	52763	37.618	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	51372	39.448	ppm
6)	H	C10-C28in DRO [8015]	3.34	195498	146.717	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	47209	42.441	ppm
8)	H	C10-C32in DRO	3.24	420622	309.512	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	647638	1041.702	ppm
10)	H	C25-C36in RRO [AK103]	6.83	647638	867.885	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	1117162	1066.276	ppm

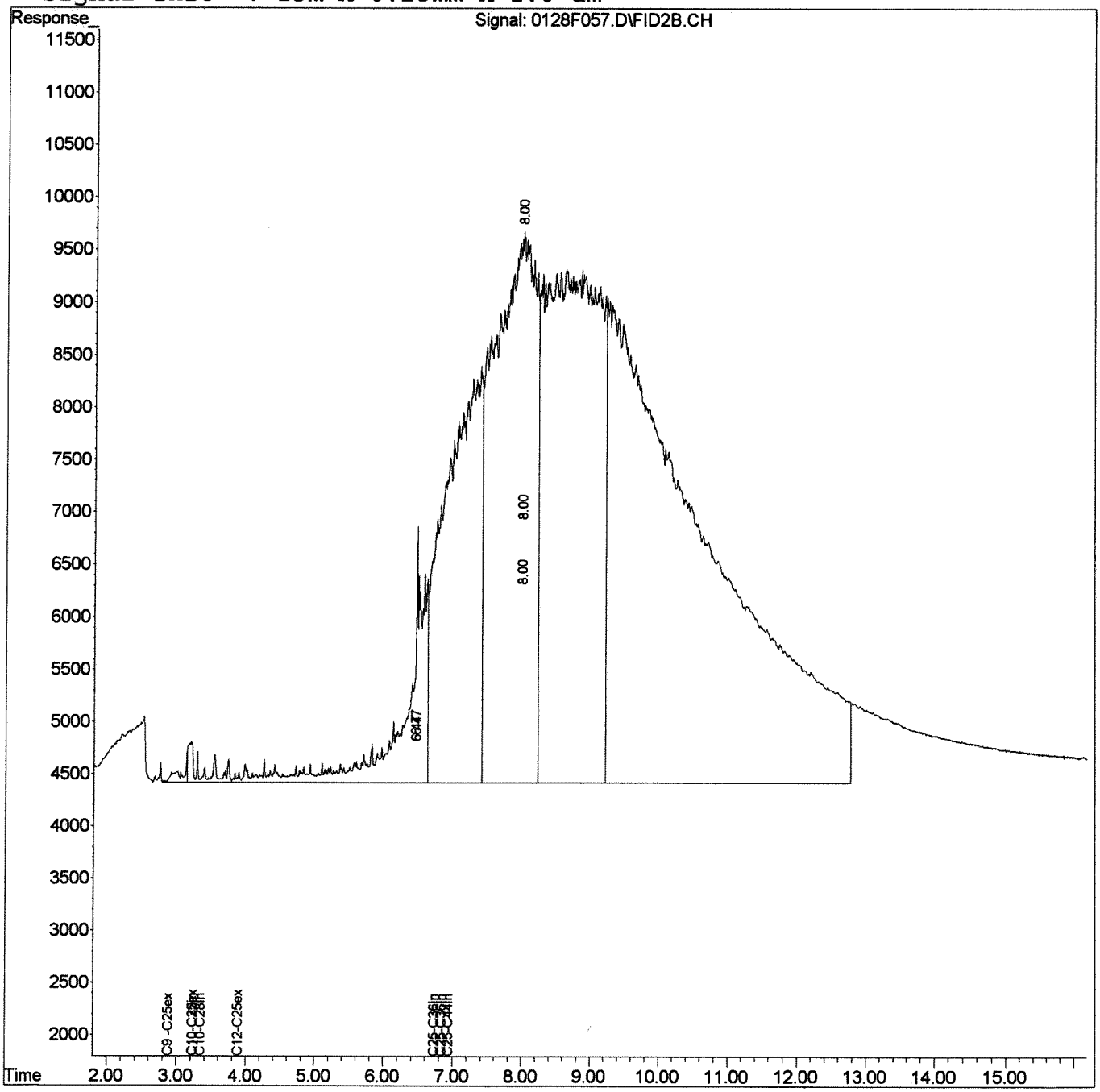
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F057.D Vial: 97
Acq On : 28 Jan 2016 8:40 pm Operator: CHARVEY
Sample : RRO 1000 SVF01-80B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:31 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F059.D
Lab ID: KWG1600783-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 21:02
Date Quantitated: 01/29/2016 07:31
Batch ID: KWG1600783
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: 1/29/16

Secondary Review: 2/1/16

Printed: 01/29/2016 07:54:20
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F059.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 21:02	**Quant Date:**	01/29/2016 07:31	**Vial:**	96
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600783-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	5.56	?	70748	45.81		55-133	NA	
n-Triacontane	7.71	?	60608	45.72		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	3.24		1165908	895.28			
C10 - C28 DRO	3.34		1175061	881.86			
Diesel Range Organics (DRO)	3.88		991572	891.42			
Residual Range Organics (RRO)	6.73		10019	16.12			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)

Data File : J:\GC21\DATA\012816B\0128F059.D Vial: 96
Acq On : 28 Jan 2016 9:02 pm Operator: CHARVEY
Sample : DRO 1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:31:23 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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	2.91	34908	46.694	ppm
Spiked Amount	50.000	Recovery	=	93.39%	
2)	S o-Terphenyl	5.56	70748	45.813	ppm
Spiked Amount	50.000	Recovery	=	91.63%	
3)	S n-Triacontane	7.71	60608	45.723	ppm
Spiked Amount	50.000	Recovery	=	91.45%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.88	1206060	859.885	ppm
5)	H C10-C25ex DRO [AK102]	3.24	1165908	895.282	ppm
6)	H C10-C28in DRO [8015]	3.34	1175061	881.855	ppm
7)	H C12-C25ex DRO [NWTPH]	3.88	991572	891.419	ppm
8)	H C10-C32in DRO	3.24	1177570	866.507	ppm
9)	H C25-C36in RRO [NWTPH]	6.73	10019	16.115	ppm
10)	H C25-C36in RRO [AK103]	6.83	10019	13.426	ppm
11)	H C25-C44in RRO [TPH-Oil]	6.93	16442	15.693	ppm

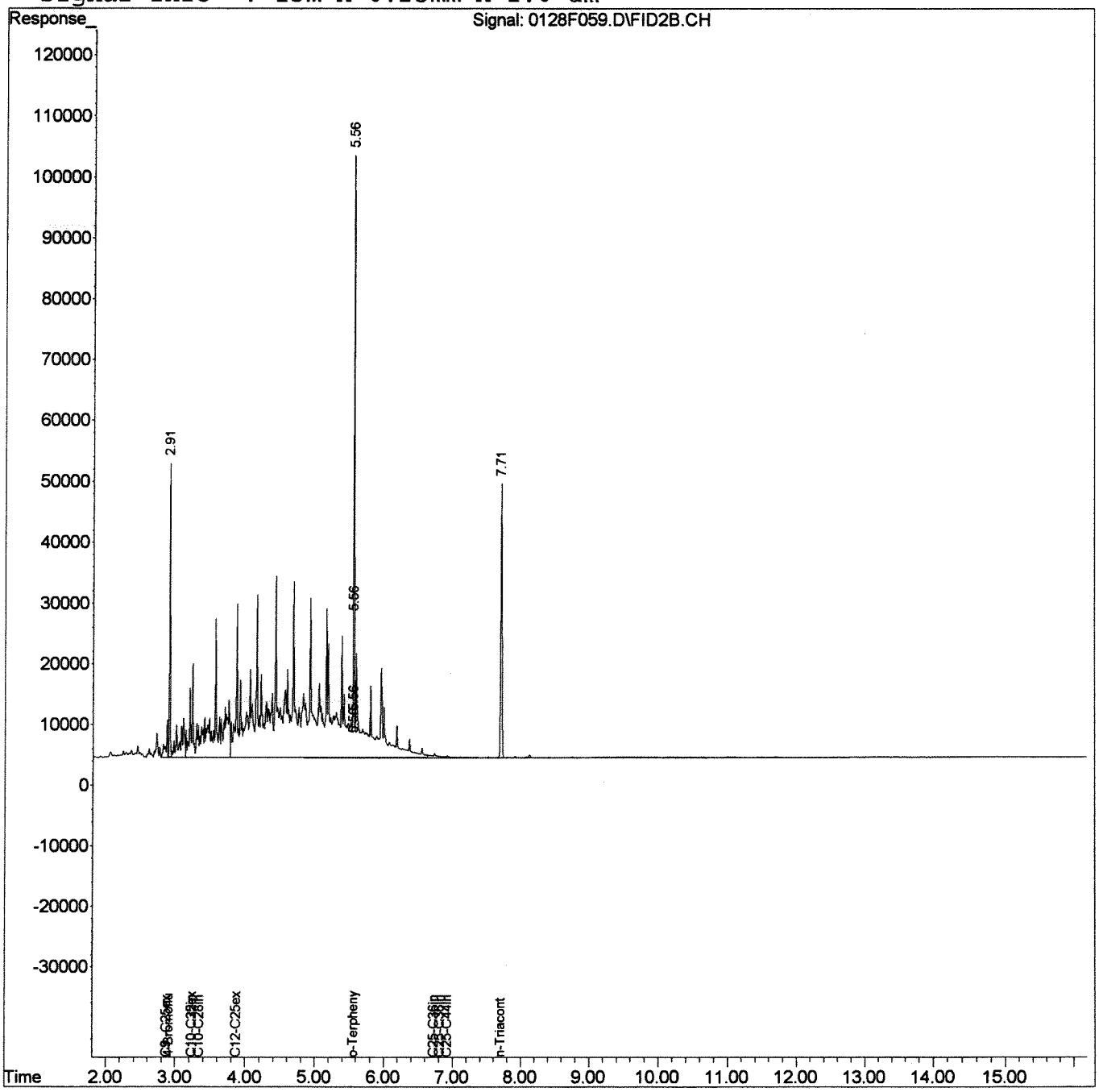
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F059.D Vial: 96
Acq On : 28 Jan 2016 9:02 pm Operator: CHARVEY
Sample : DRO 1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:31 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



Exception Report

Data File: J:\GC21\DATA\012816B\0128F061.D
Lab ID: KWG1600783-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 01/28/2016 21:24
Date Quantitated: 01/29/2016 07:31
Batch ID: KWG1600783
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: CH 1/29/16

Secondary Review: [illegible] 2/1/16

Printed: 01/29/2016 07:54:23
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC21\DATA\012816B\0128F061.D			**Instrument:**	GC21
Acqu Date:	01/28/2016 21:24	**Quant Date:**	01/29/2016 07:31	**Vial:**	86
Run Type:	IB			**Dilution:**	1.0
Lab ID:	KWG1600783-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600783	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916B.M	**Calibration ID:**	CAL14546
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	3.24		13500	10.37			
C10 - C28 DRO	3.34		16039	12.04			
Diesel Range Organics (DRO)	3.88		9784	8.80			
Residual Range Organics (RRO)	6.73		9631	15.49			

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:\GC21\DATA\012816B\0128F061.D Vial: 86
Acq On : 28 Jan 2016 9:24 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 07:31:41 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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]	2.88	15027	10.714	ppm
5)	H	C10-C25ex DRO [AK102]	3.24	13500	10.366	ppm
6)	H	C10-C28in DRO [8015]	3.34	16039	12.037	ppm
7)	H	C12-C25ex DRO [NWTPH]	3.88	9784	8.796	ppm
8)	H	C10-C32in DRO	3.24	18971	13.960	ppm
9)	H	C25-C36in RRO [NWTPH]	6.73	9631	15.491	ppm
10)	H	C25-C36in RRO [AK103]	6.83	9631	12.906	ppm
11)	H	C25-C44in RRO [TPH-Oil]	6.93	28252	26.965	ppm

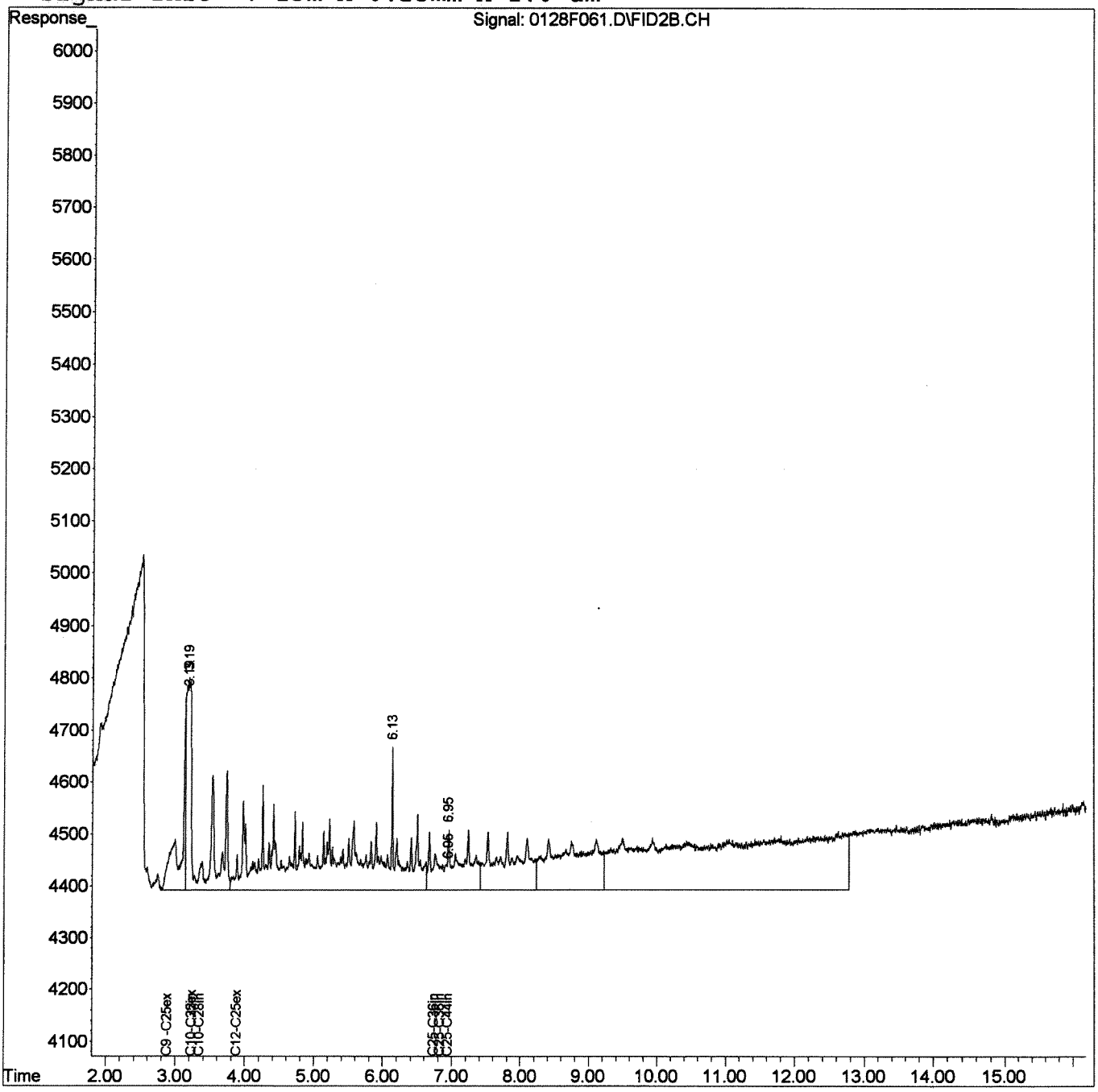
(f)=RT Delta > 1/2 Window (m)=manual int.
0128F061.D 011916B.M Fri Jan 29 07:34:00 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012816B\0128F061.D Vial: 86
Acq On : 28 Jan 2016 9:24 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 29 7:31 2016 Quant Results File: 011916B.RES

Quant Method : J:\GC21\METHODS\011916B.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14546
Last Update : Thu Jan 28 12:27:40 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



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:\MS46\DATA\012216\0122F018.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 21:41
Date Quantitated: 01/25/2016 14:58
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review: 1/27/16

Printed: 01/25/2016 16:38:05
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F018.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 21:41	**Quant Date:**	01/25/2016 14:53	**Vial:**	37
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495768	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	601496	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	310355	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	323864	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	5.82	0.01	0.00	113	177768	10.41	104	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	182750	10.34	103	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	653709	9.88	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	271894	8.51	85	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	Chloromethane	1.32		0.00	50	2165m	0.0900	0.090	J	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.10	U	
1	Chloroethane				64	0d		0.10	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.75	0.02	0.00	43	6197	2.64	3.3	U	
1	Methylene Chloride				84	0d		0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F018.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 21:41	**Quant Date:**	01/25/2016 14:58	**Vial:**	37
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.52	0.01	0.00	92	13064	0.2400	0.24	J	
2	trans-1,3-Dichloropropene				75	0d		0.063	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.071	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F018.D Vial: 37
Acq On : 22 Jan 2016 21:41 Operator: YX
Sample : K1600673-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:38 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

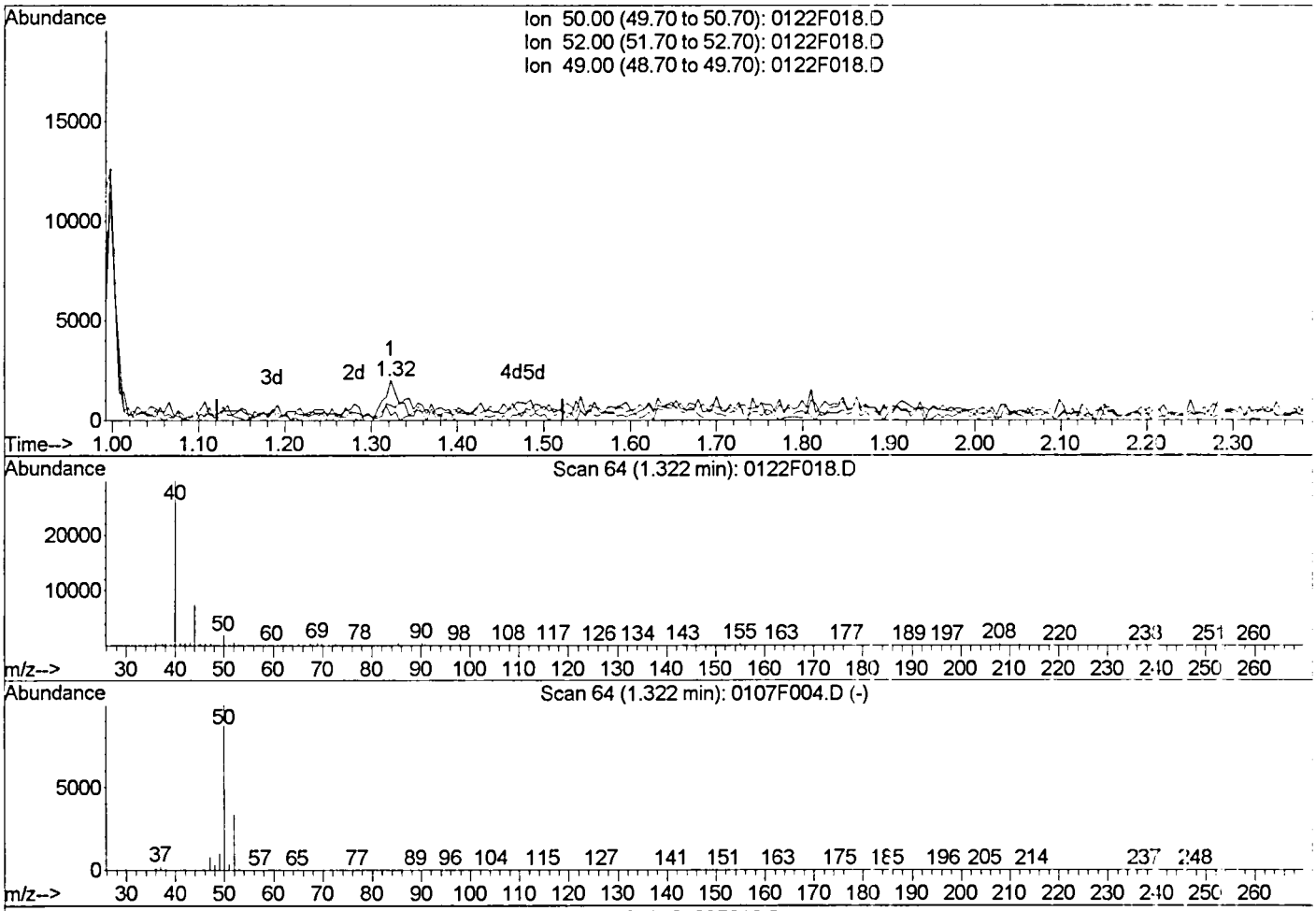
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	601496	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	310355	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	323864	10.00	PPB	-0.01
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	177768	10.41	PPB	0.00
Spiked Amount 10.000			Recovery = 104.10%			
47) 1,2-Dichloroethane-d4	6.26	65	182750	10.34	PPB	0.00
Spiked Amount 10.000			Recovery = 103.40%			
62) Toluene-d8	8.44	98	653709	9.88	PPB	0.00
Spiked Amount 10.000			Recovery = 98.80%			
84) 4-Bromofluorobenzene	11.38	95	271894	8.51	PPB	0.00
Spiked Amount 10.000			Recovery = 85.10%			
Target Compounds						Qvalue
3) Chloromethane	1.32	50	2165m	0.09	PPB	
14) Acetone	2.75	43	6197	2.64	PPB	69
16) Carbon Disulfide	2.76	76	4901	0.09	PPB	42
63) Toluene	8.52	92	13064	0.24	PPB	91
74) 1-Chlorohexane	10.06	91	2060m	0.06	PPB	

(#) = qualifier out of range (m) = manual integration
0122F018.D 010516MS46_8260.M Mon Jan 25 15:52:08 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F018.D Vial: 37
Acq On : 22 Jan 2016 21:41 Operator: YX
Sample : K1600673-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F018.D

(3) Chloromethane (PT)

1.32min 0.18PPB

response 4086

Ion	Exp%	Act%
50.00	100	100
52.00	31.80	26.30
49.00	10.10	3.69
0.00	0.00	0.00

Manual Integration:

Before

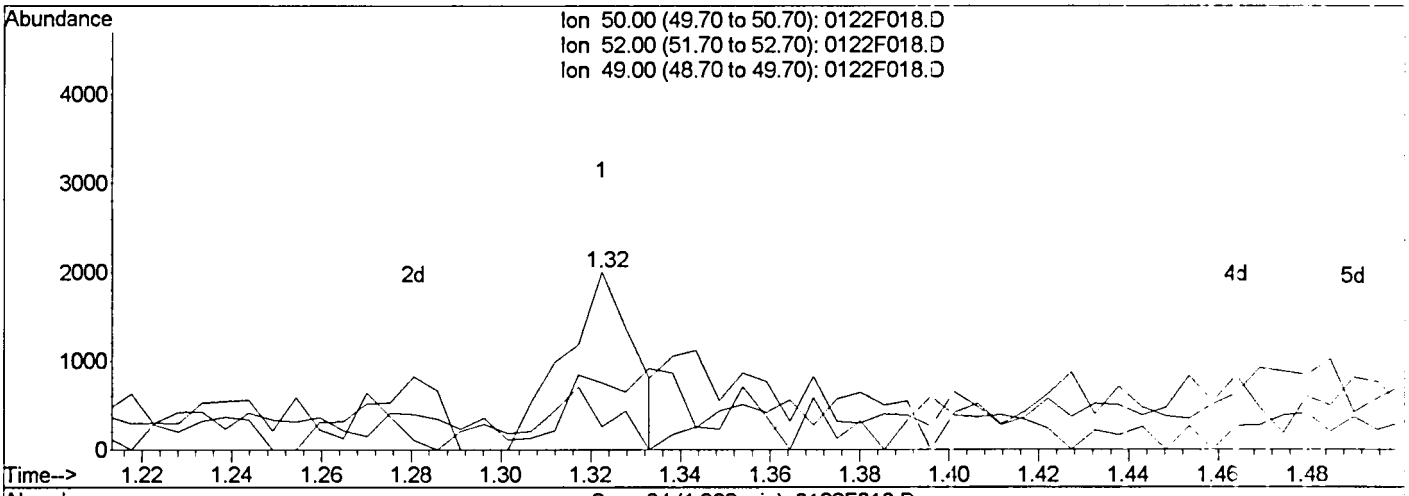
01/25/16

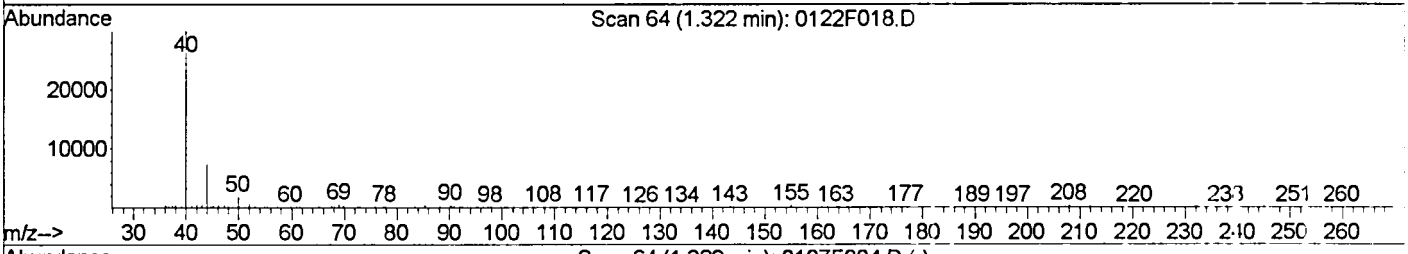
0122F018.D 010516MS46_8260.M Mon Jan 25 14:56:08 2016

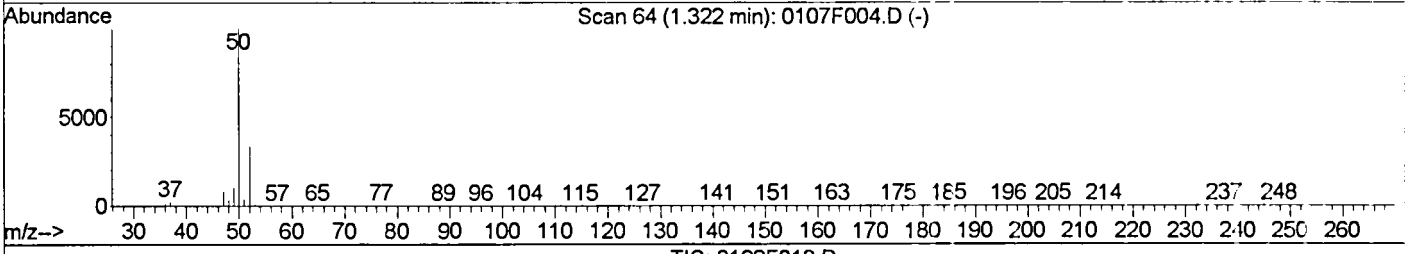
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F018.D Vial: 37
Acq On : 22 Jan 2016 21:41 Operator: YX
Sample : K1600673-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:56 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F018.D

(3) Chloromethane (PT)

1.32min 0.09PPB m

response 2165

Ion	Exp%	Act%
50.00	100	100
52.00	31.80	37.52
49.00	10.10	12.97
0.00	0.00	0.00

Manual Integration:

After

Shoulder

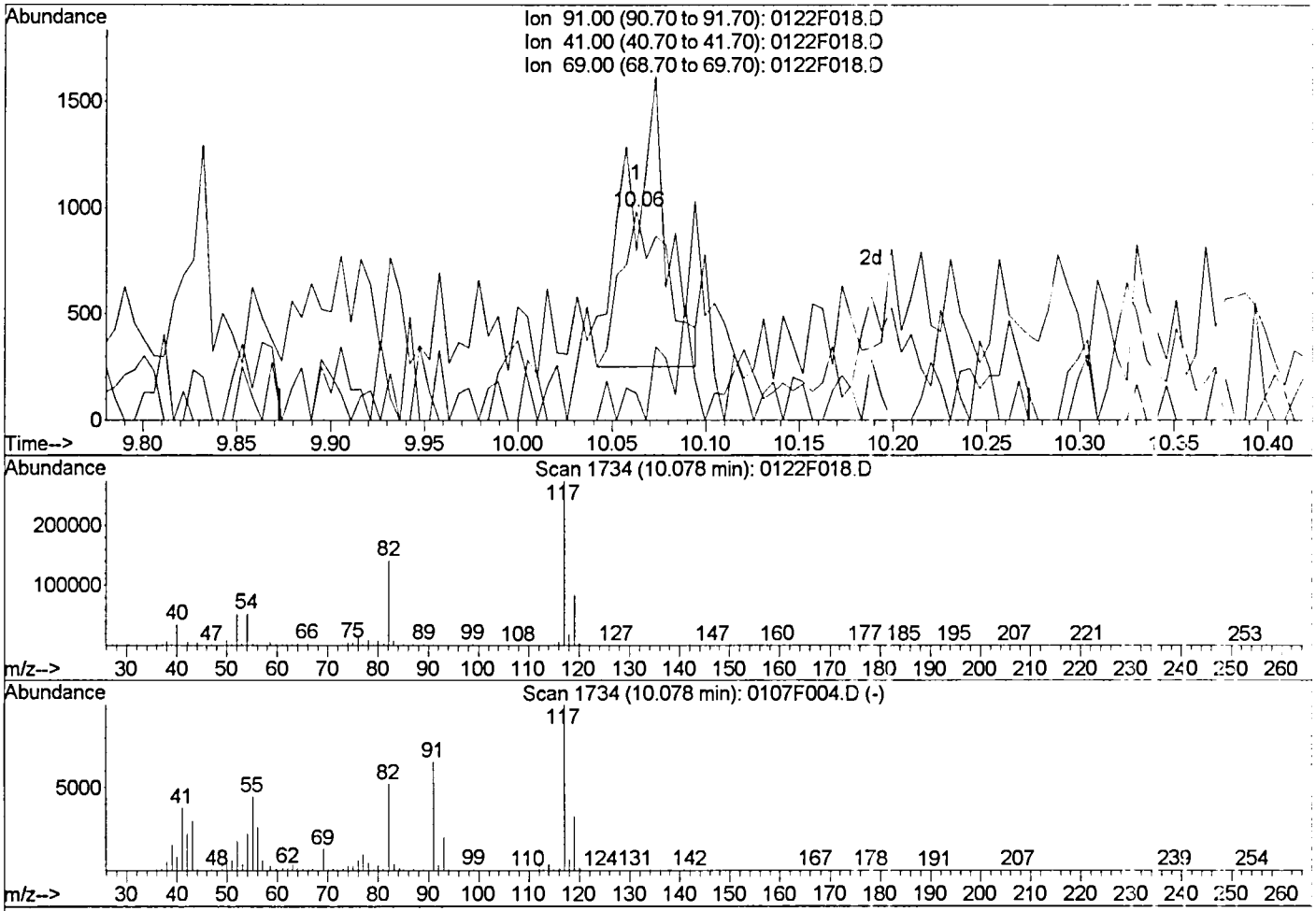
01/25/16

0122F018.D 010516MS46_8260.M Mon Jan 25 14:56:14 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F018.D Vial: 37
Acq On : 22 Jan 2016 21:41 Operator: YX
Sample : K1600673-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:57 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F018.D

(74) 1-Chlorohexane (T)

10.06min 0.03PPB

response 1270

Ion	Exp%	Act%
91.00	100	100
41.00	55.40	42.37
69.00	18.10	22.07
0.00	0.00	0.00

Manual Integration:

Before

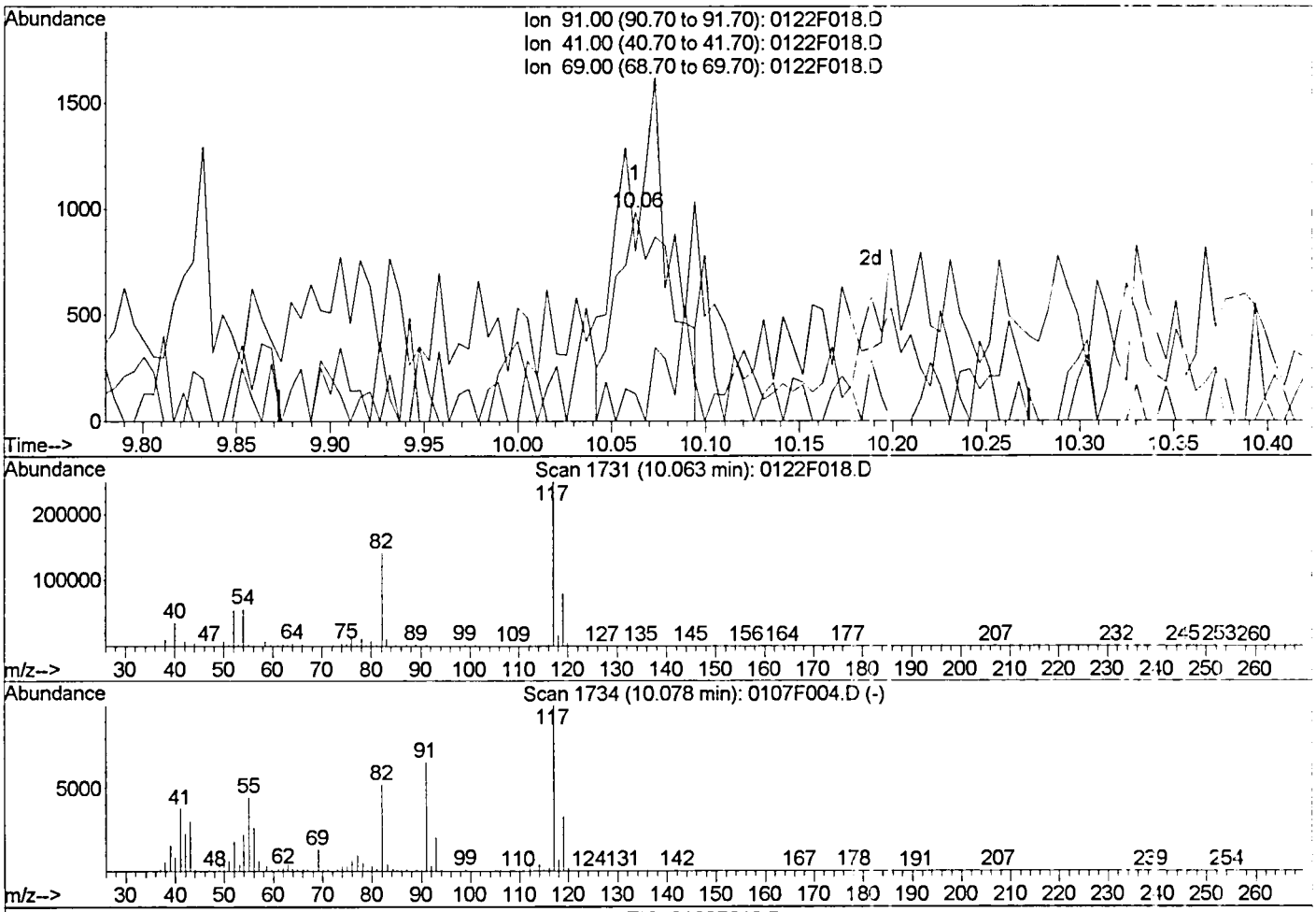
01/25/16

0122F018.D 010516MS46_8260.M Mon Jan 25 14:58:27 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F018.D Vial: 37
Acq On : 22 Jan 2016 21:41 Operator: YX
Sample : K1600673-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:58 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F018.D

(74) 1-Chlorohexane (T)

10.06min 0.06PPB m

response 2060

Ion	Exp%	Act%
91.00	100	100
41.00	55.40	81.22
69.00	18.10	18.68
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

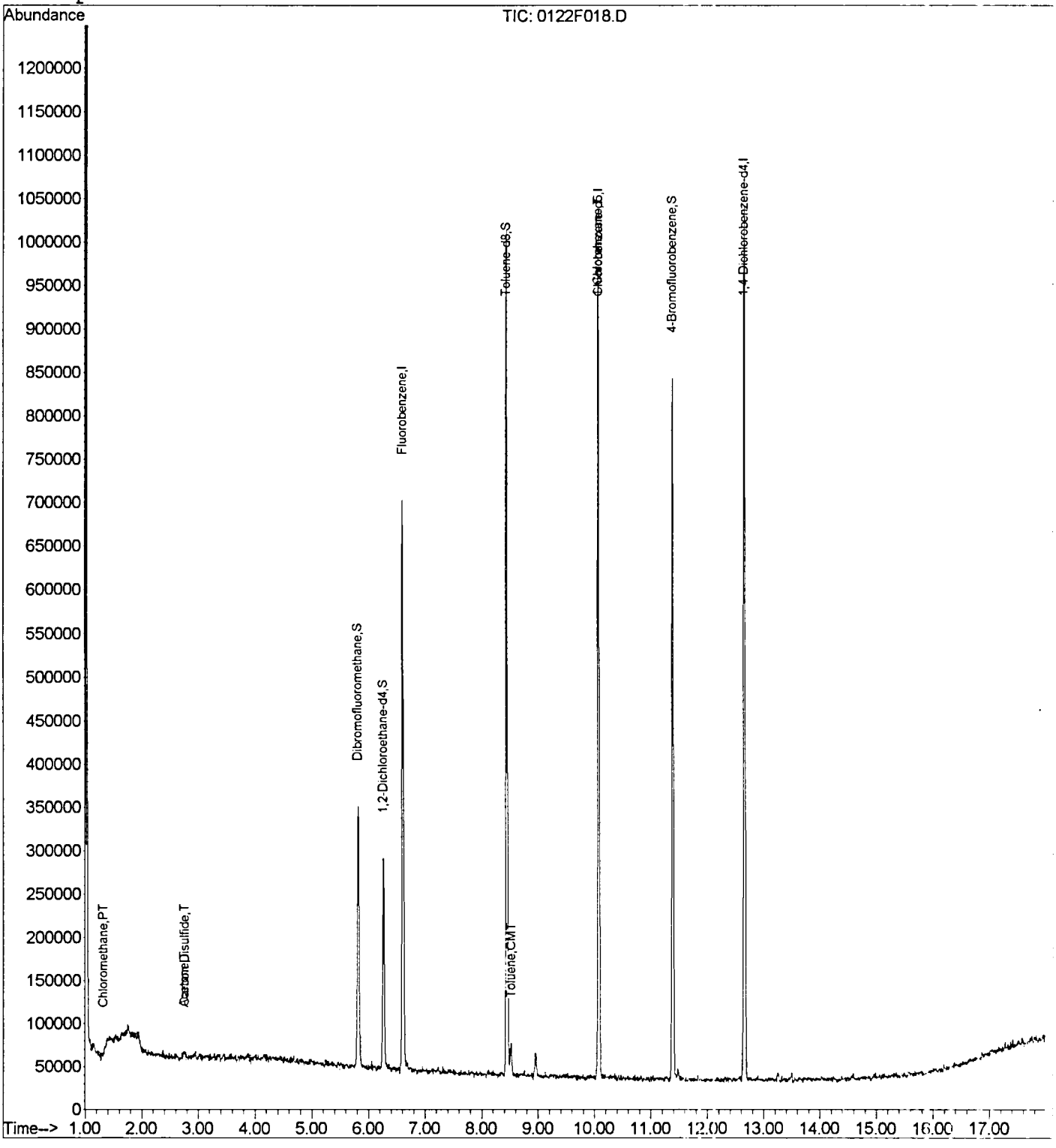
01/25/16

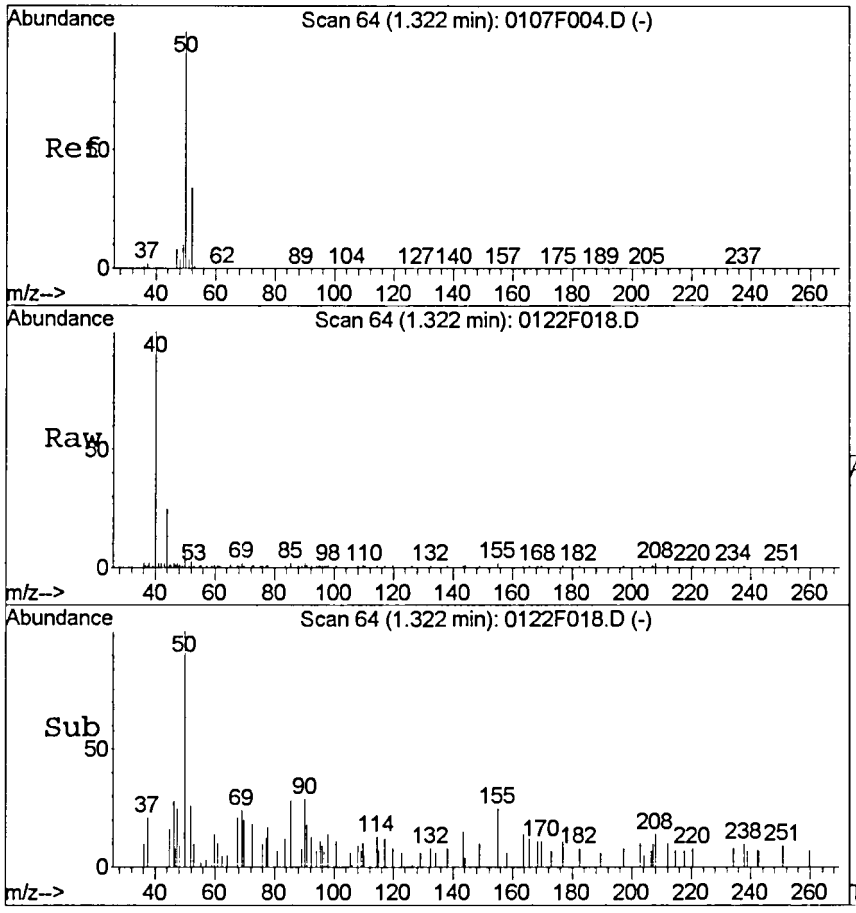
0122F018.D 010516MS46_8260.M Mon Jan 25 14:58:33 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F018.D Vial: 37
Acq On : 22 Jan 2016 21:41 Operator: YX
Sample : K1600673-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:58 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

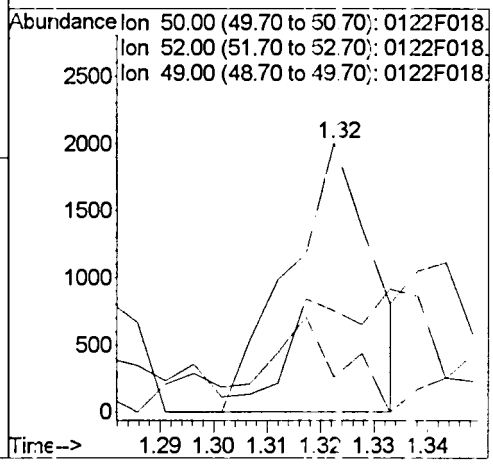


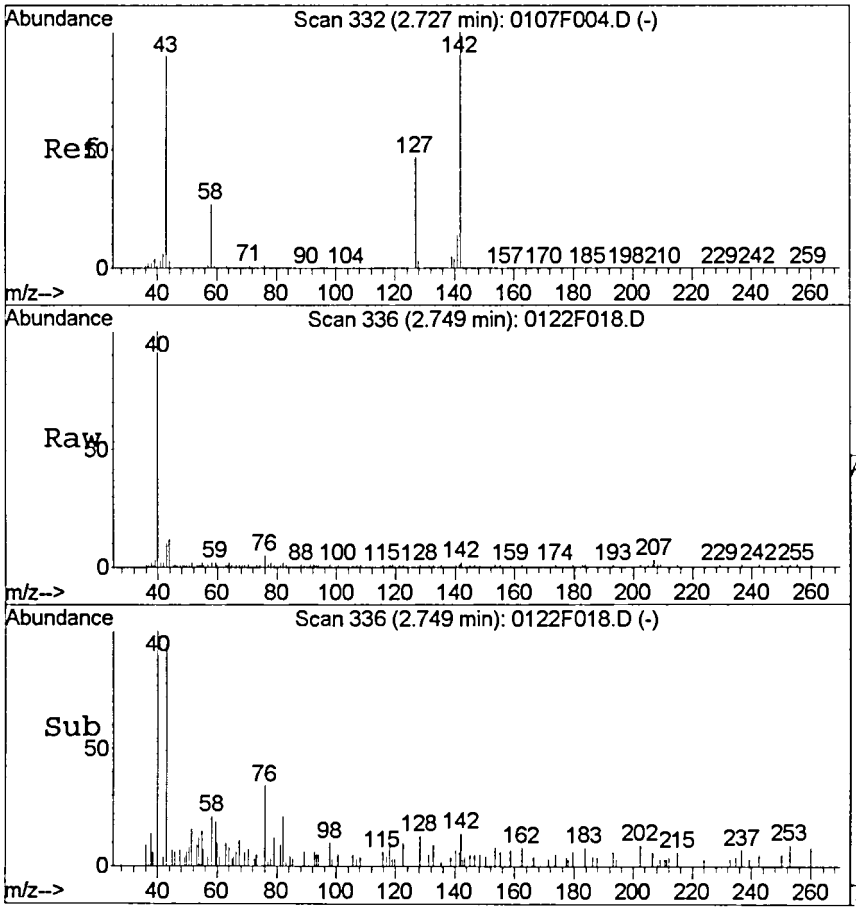


#3
Chloromethane
Concen: 0.09 PPB m
RT: 1.32 min Scan# 64
Delta R.T. 0.00 min
Lab File: 0122F018.D
Acq: 22 Jan 2016 21:41

Tgt Ion: 50 Resp: 2165

Ion	Ratio	Lower	Upper
50	100		
52	37.5	1.8	61.8
49	13.0	0.0	40.1

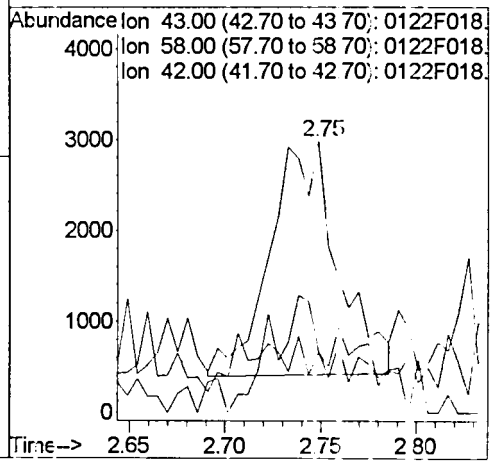


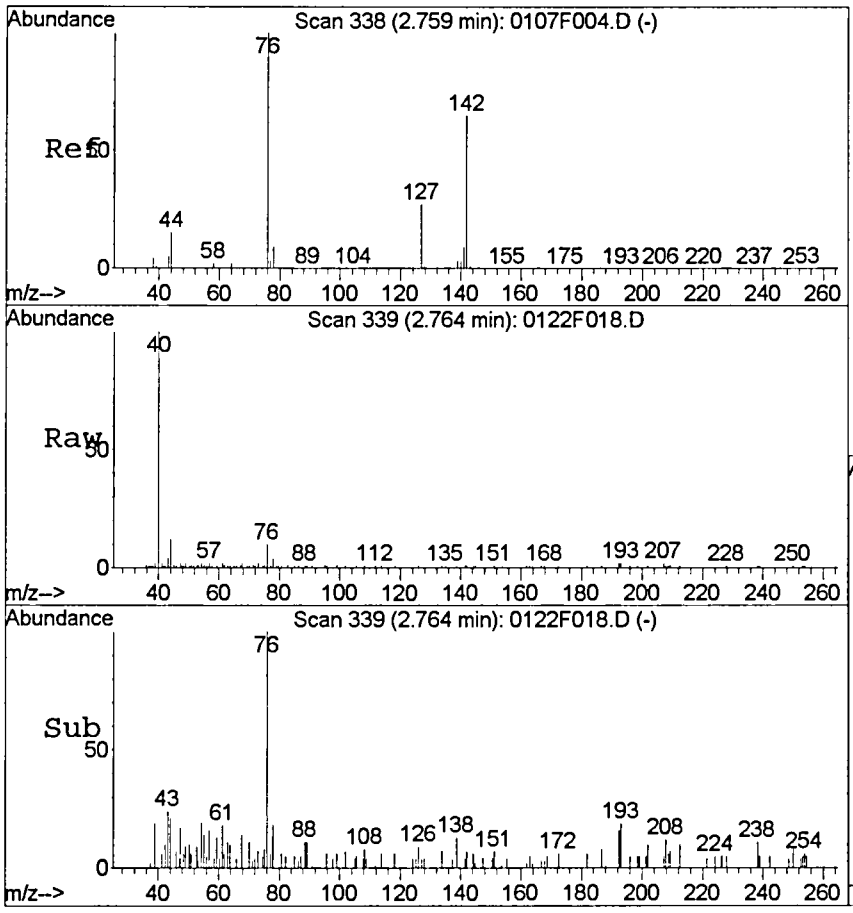


#14
Acetone
Concen: 2.64 PPB
RT: 2.75 min Scan# 336
Delta R.T. 0.02 min
Lab File: 0122F018.D
Acq: 22 Jan 2016 21:41

Tgt Ion: 43 Resp: 6197

Ion	Ratio	Lower	Upper
43	100		
58	13.0	0.2	60.2
42	16.7	0.0	37.6

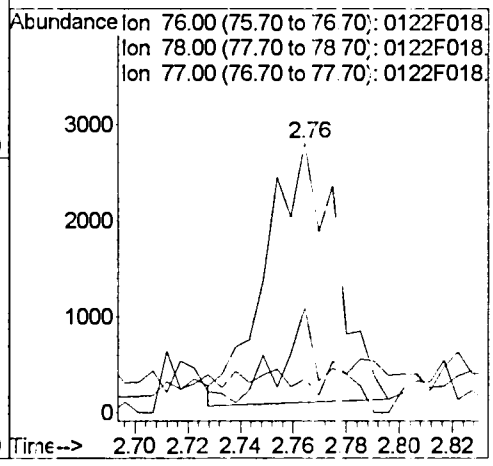


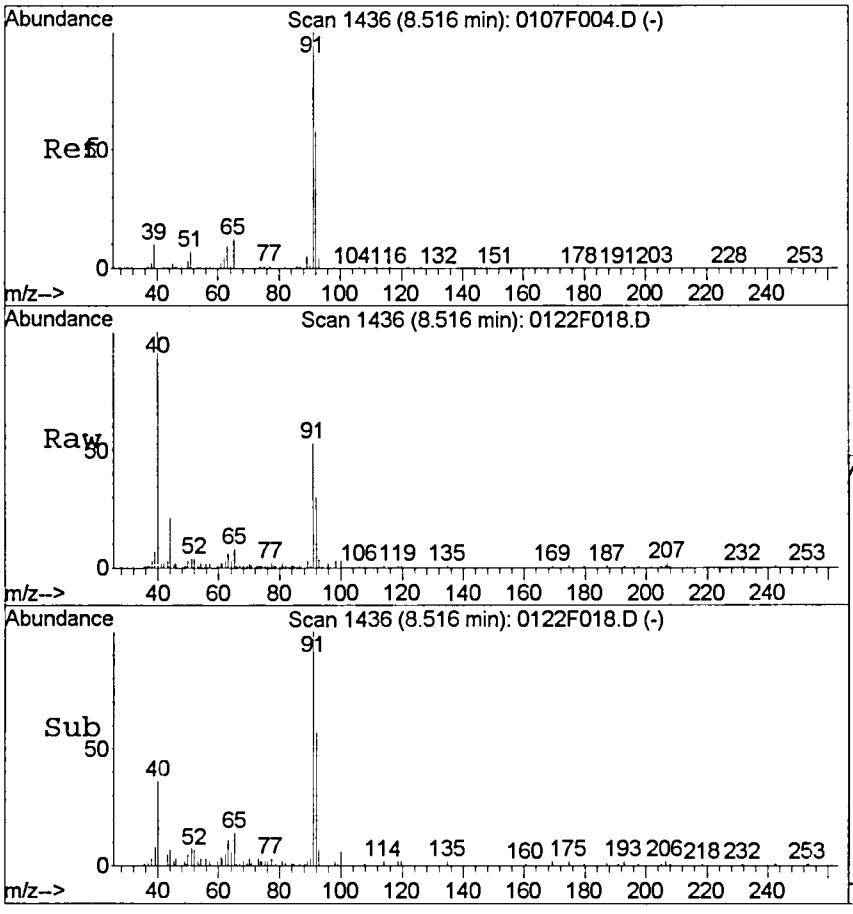


#16
Carbon Disulfide
Concen: 0.09 PPB
RT: 2.76 min Scan# 339
Delta R.T. 0.01 min
Lab File: 0122F018.D
Acq: 22 Jan 2016 21:41

Tgt Ion: 76 Resp: 4901

Ion	Ratio	Lower	Upper
76	100		
78	32.8	0.0	39.0
77	13.2	0.0	32.5

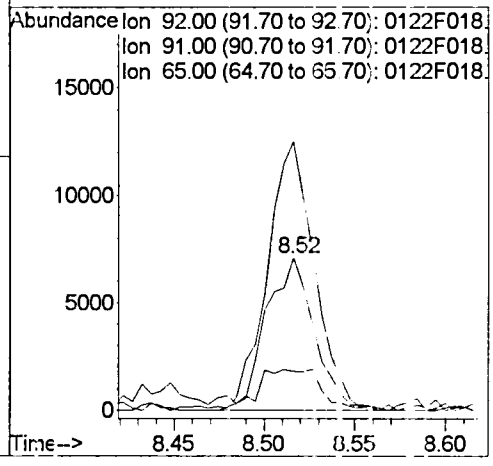


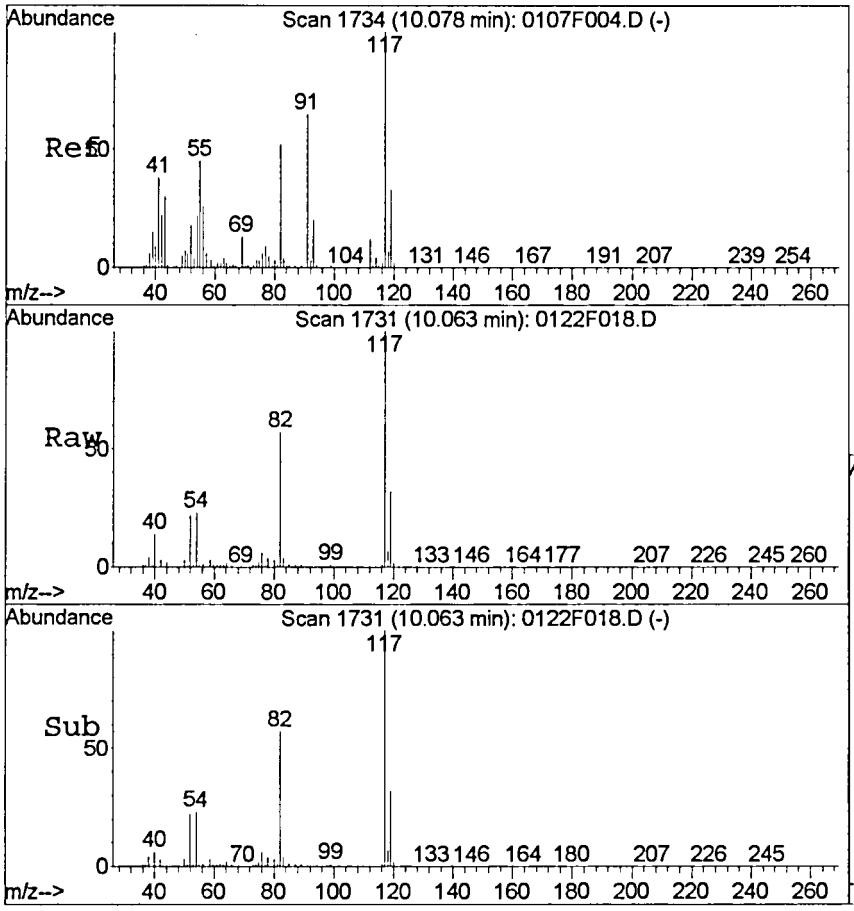


#63
Toluene
Concen: 0.24 PPB
RT: 8.52 min Scan# 1436
Delta R.T. 0.00 min
Lab File: 0122F018.D
Acq: 22 Jan 2016 21:41

Tgt Ion: 92 Resp: 13064

Ion	Ratio	Lower	Upper
92	100		
91	174.8	133.4	193.4
65	25.3	0.0	49.2

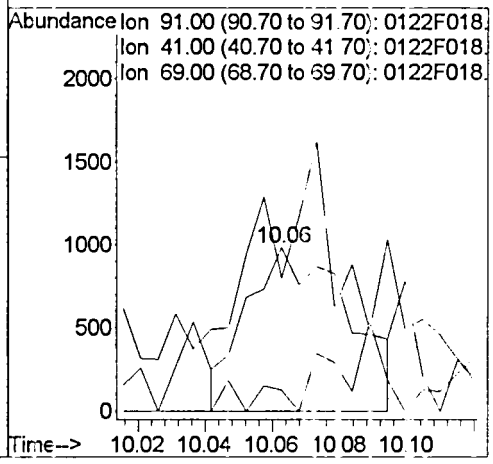




#74
1-Chlorohexane
Concen: 0.06 PPB m
RT: 10.06 min Scan# 1731
Delta R.T. -0.01 min
Lab File: 0122F018.D
Acq: 22 Jan 2016 21:41

Tgt Ion: 91 Resp: 2060

Ion	Ratio	Lower	Upper
91	100		
41	81.2	25.4	85.4
69	18.7	0.0	48.1



Exception Report

Data File: J:\MS46\DATA\012216\0122F019.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 22:07
Date Quantitated: 01/25/2016 15:01
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review:

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F019.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 22:07	**Quant Date:**	01/25/2016 15:01	**Vial:**	38
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-002			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495769	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.60	0.00	96	585726	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	298105	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	314892	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	5.81	0.00	0.00	113	172859	10.39	104	80-119	OK
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	175742	10.21	102	81-118	OK
1	Toluene-d8	8.44	0.00	0.00	98	635082	9.86	99	89-112	OK
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	263994	8.60	86	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	Chloromethane	1.32		0.00	50	3787	0.1700	0.17	J	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	77157	33.71	34		
1	Methylene Chloride	3.23		0.00	84	2102	0.1100	0.11	J	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform	5.60		0.00	83	1378m	0.0400	0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F019.D		**Instrument:** GCMS46
Acqu Date:	01/22/2016 22:07	**Quant Date:** 01/25/2016 15:01	**Vial:** 38
Run Type:	SMPL		**Dilution:** 1.0
Lab ID:	K1600673-002		**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 Tetrachloride				117	0		0.095	U	
1	Benzene	6.21	0.01	0.00	78	2632	0.0300	0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	9286	0.1800	0.18	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0d		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0d		0.11	U	
2	o-Xylene				106	0d		0.071	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F019.D Vial: 38
Acq On : 22 Jan 2016 22:07 Operator: YX
Sample : K1600673-002 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:39 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

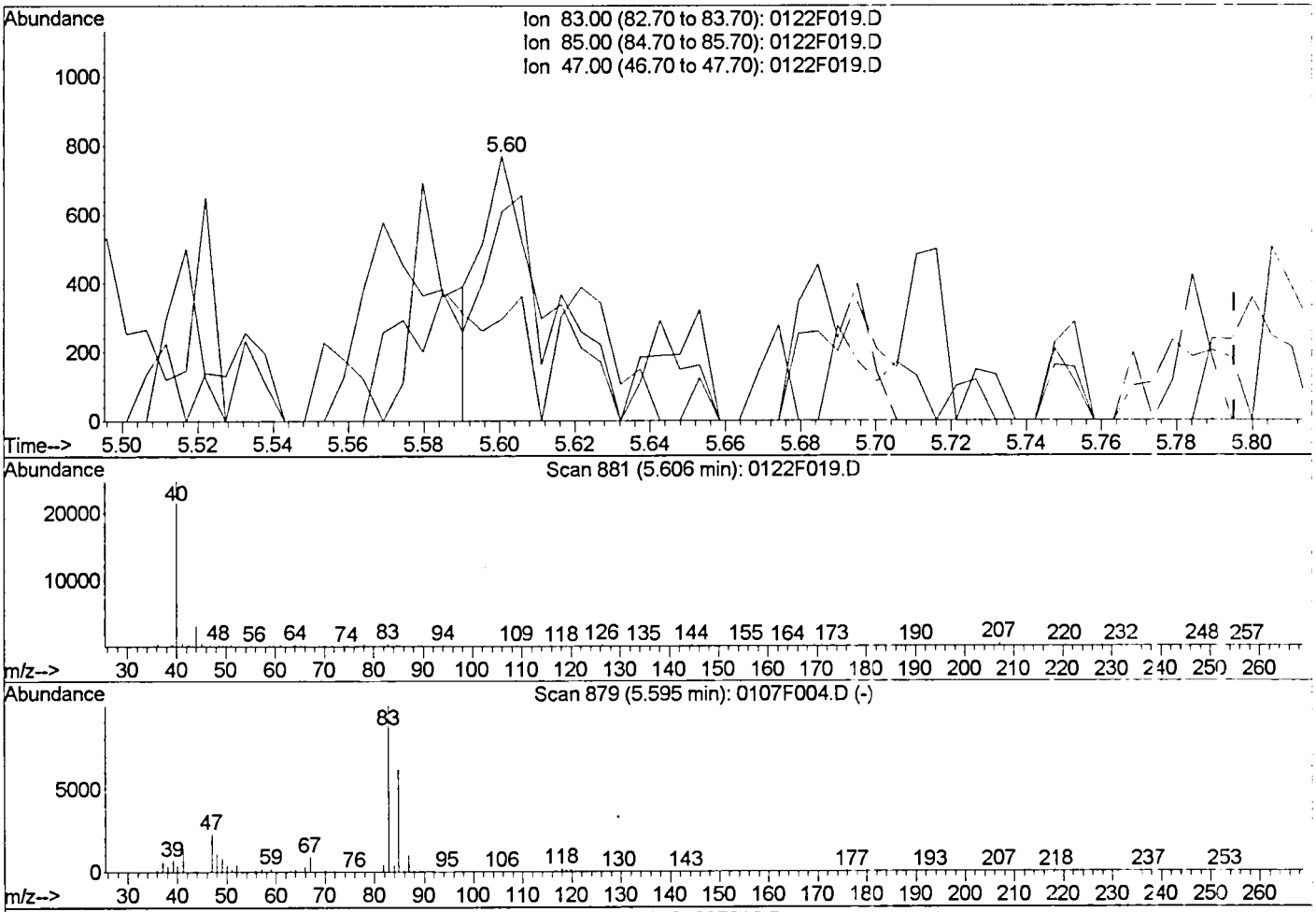
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.60	96	585726	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	298105	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	314892	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.81	113	172859	10.39	PPB		0.00
Spiked Amount 10.000			Recovery =	103.90%			
47) 1,2-Dichloroethane-d4	6.26	65	175742	10.21	PPB		0.00
Spiked Amount 10.000			Recovery =	102.10%			
62) Toluene-d8	8.44	98	635082	9.86	PPB		0.00
Spiked Amount 10.000			Recovery =	98.60%			
84) 4-Bromofluorobenzene	11.38	95	263994	8.60	PPB		0.00
Spiked Amount 10.000			Recovery =	86.00%			
Target Compounds							Qvalue
3) Chloromethane	1.32	50	3787	0.17	PPB		75
14) Acetone	2.73	43	77157	33.71	PPB		96
15) Iodomethane	2.74	142	1558	0.07	PPB		87
17) 2-Propanol (Isopropyl Alco	2.92	45	15494	55.34	PPB		81
21) Methylene Chloride	3.23	84	2102	0.11	PPB	#	49
40) Chloroform	5.60	83	1378m	0.04	PPB		
48) Benzene	6.21	78	2632	0.03	PPB		84
49) 1,2-Dichloroethane	6.36	62	1630	0.07	PPB		64
63) Toluene	8.51	92	9286	0.18	PPB		86
106) Naphthalene	15.14	128	1647	0.03	PPB		75

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

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F019.D Vial: 38
Acq On : 22 Jan 2016 22:07 Operator: YX
Sample : K1600673-002 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:59 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F019.D

(40) Chloroform (CT)

5.60min 0.03PPB

response 889

Ion	Exp%	Act%
83.00	100	100
85.00	64.60	79.19
47.00	25.60	24.71
0.00	0.00	0.00

Manual Integration:

Before

01/25/16

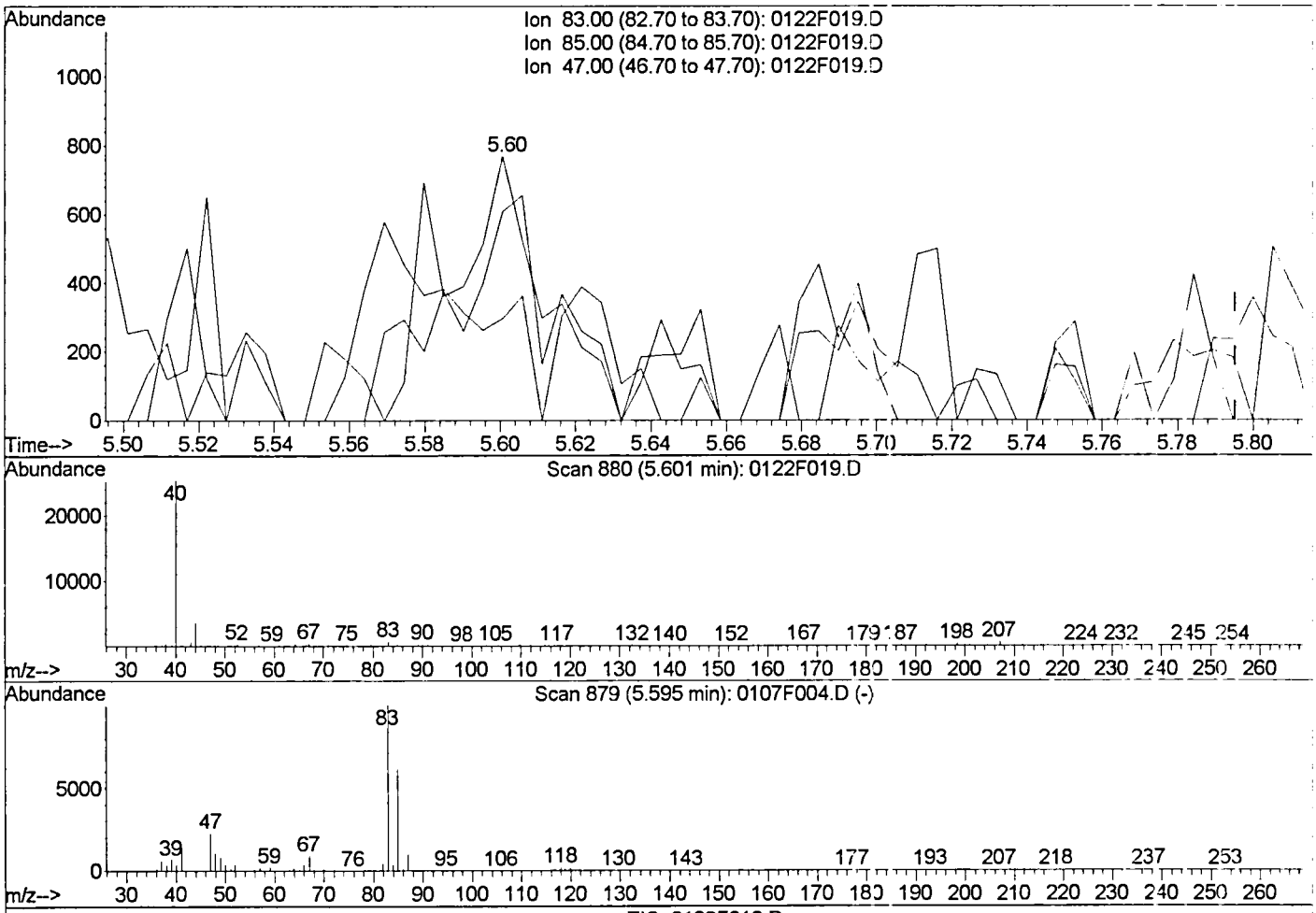
VKO

0122F019.D 010516MS46_8260.M Mon Jan 25 15:00:19 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F019.D Vial: 38
Acq On : 22 Jan 2016 22:07 Operator: YX
Sample : K1600673-002 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:00 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F019.D

(40) Chloroform (CT)

5.60min 0.04PPB m

response 1378

Ion	Exp%	Act%
83.00	100	100
85.00	64.60	54.62
47.00	25.60	38.49
0.00	0.00	0.00

Manual Integration:

After

Split peak

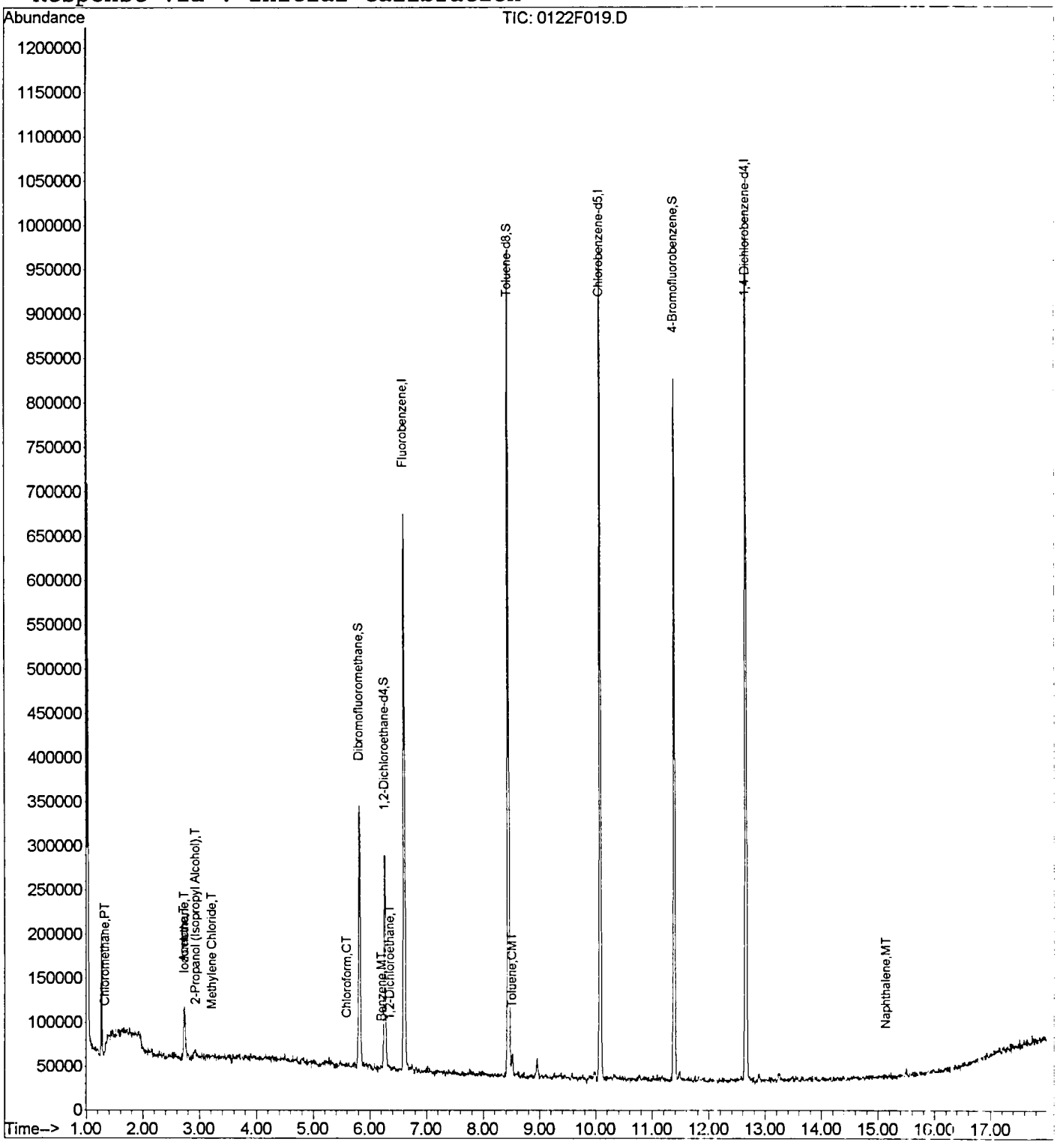
01/25/16

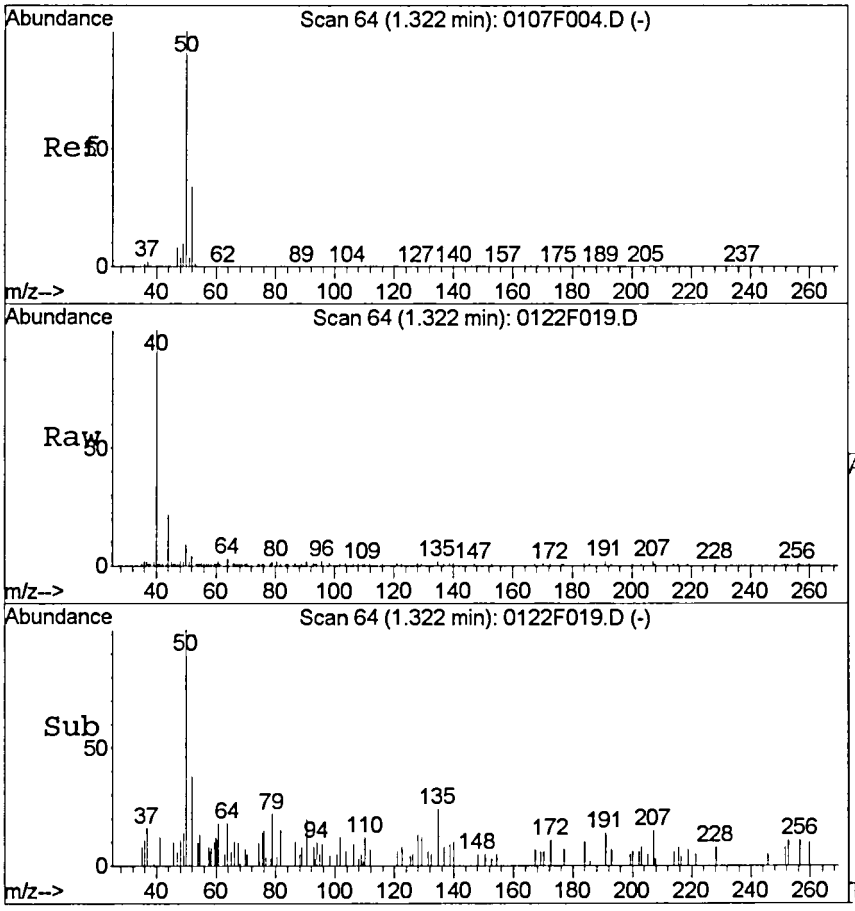
0122F019.D 010516MS46_8260.M Mon Jan 25 15:00:24 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F019.D Vial: 38
Acq On : 22 Jan 2016 22:07 Operator: YX
Sample : K1600673-002 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:01 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

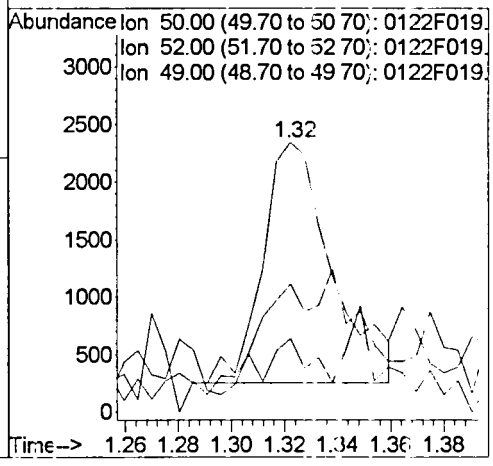


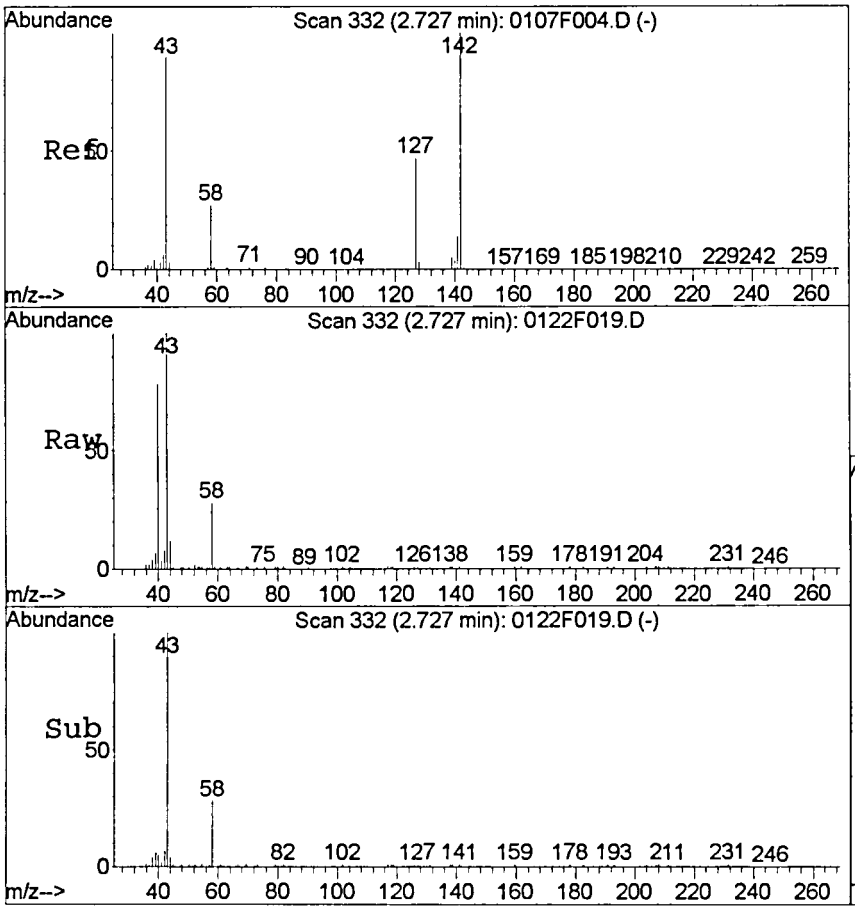


#3
Chloromethane
Concen: 0.17 PPB
RT: 1.32 min Scan# 64
Delta R.T. 0.00 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 50 Resp: 3787

Ion	Ratio	Lower	Upper
50	100		
52	44.1	1.8	61.8
49	23.3	0.0	40.1

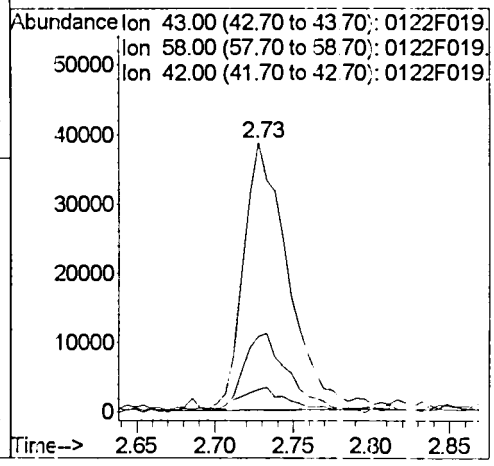


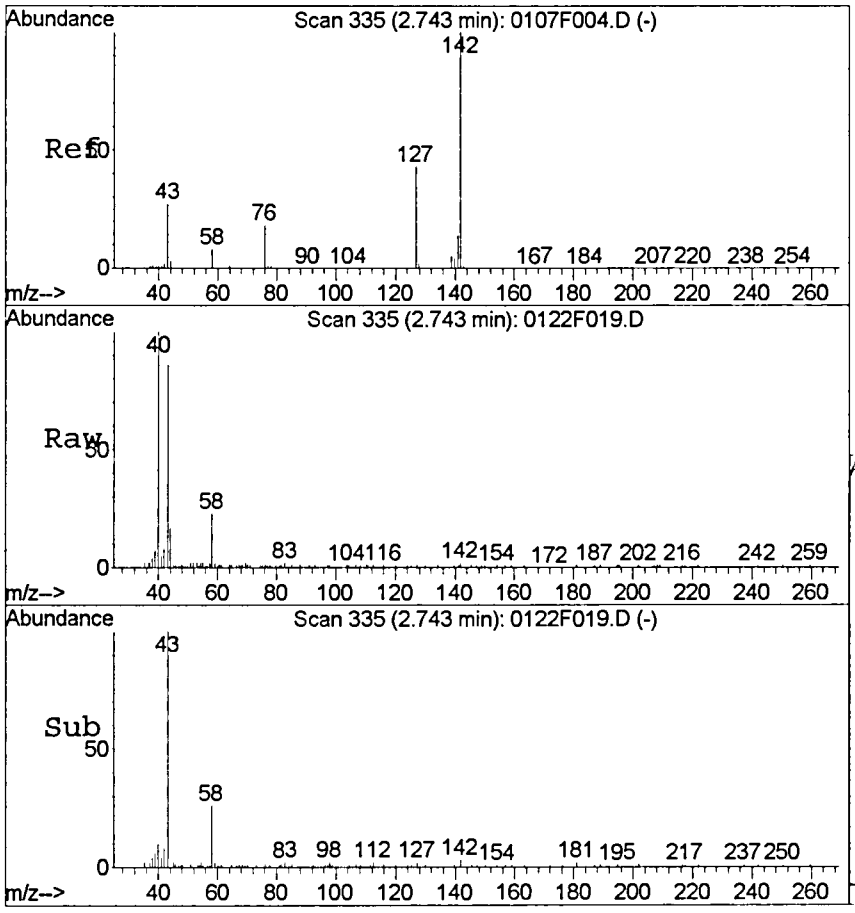


#14
Acetone
Concen: 33.71 PPB
RT: 2.73 min Scan# 332
Delta R.T. 0.00 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 43 Resp: 77157

Ion	Ratio	Lower	Upper
43	100		
58	27.9	0.2	60.2
42	7.2	0.0	37.6

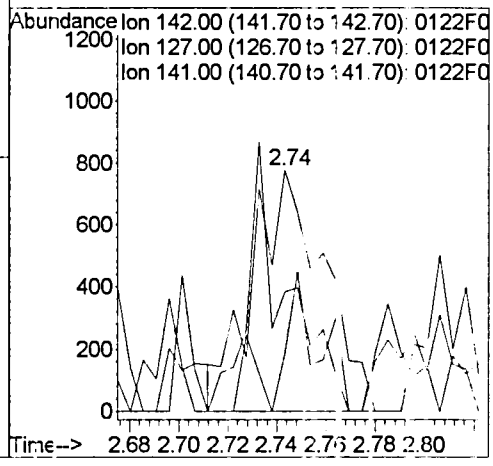


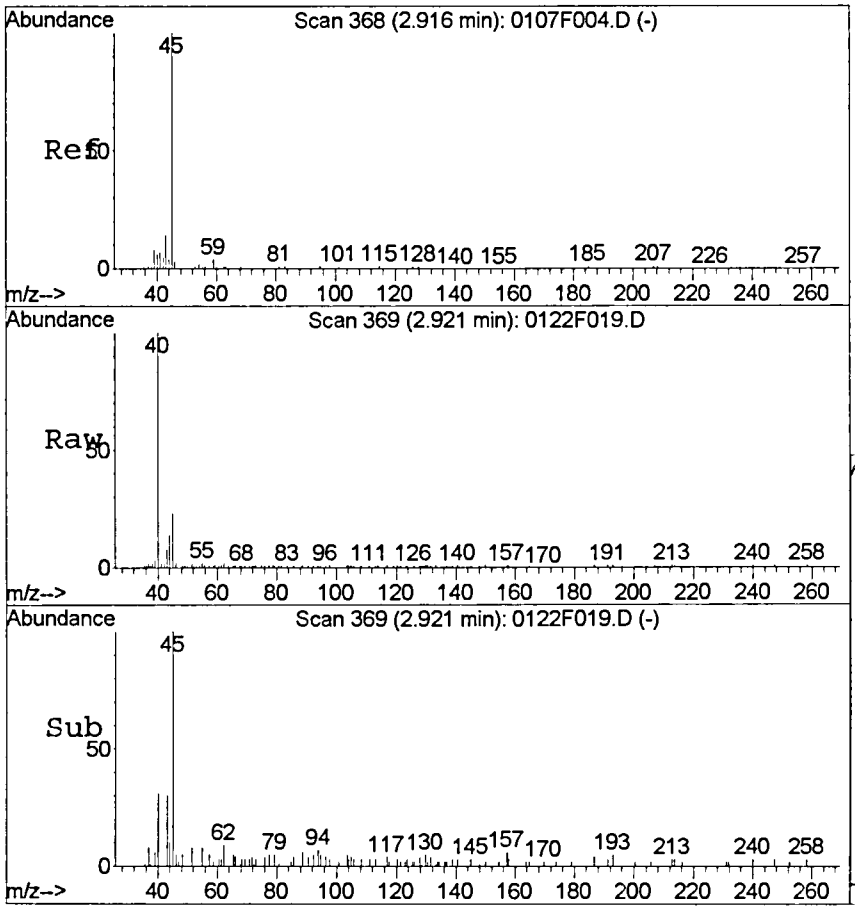


#15
Iodomethane
Concen: 0.07 PPB
RT: 2.74 min Scan# 335
Delta R.T. 0.01 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion:142 Resp: 1558

Ion	Ratio	Lower	Upper
142	100		
127	49.3	13.6	73.6
141	4.4	0.0	44.6

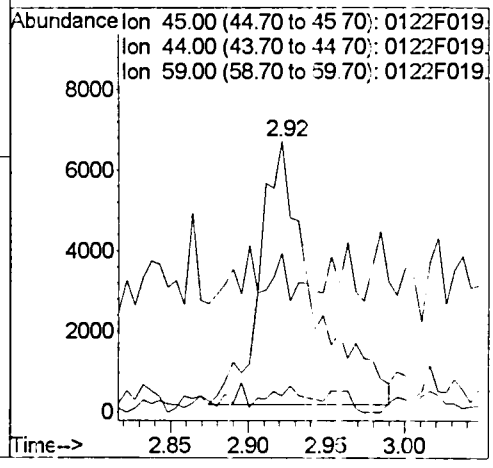


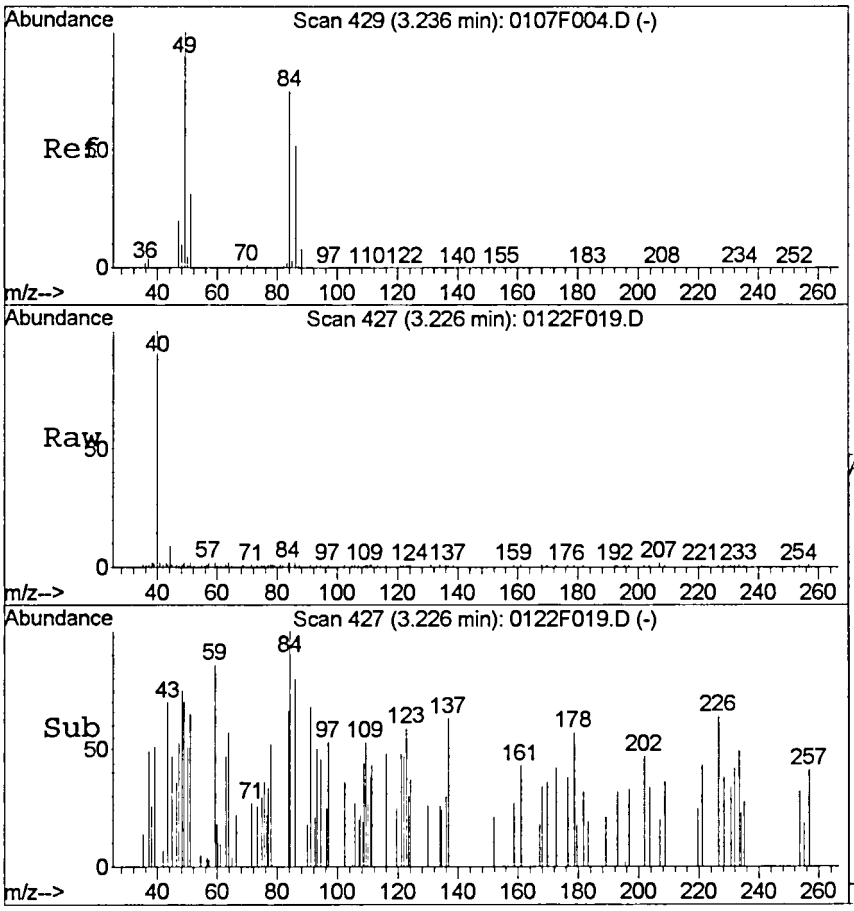


#17
2-Propanol (Isopropyl Alcohol
Concen: 55.34 PPB
RT: 2.92 min Scan# 369
Delta R.T. 0.00 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 45 Resp: 15494

Ion	Ratio	Lower	Upper
45	100		
44	19.2	0.0	32.0
59	2.8	0.0	33.5

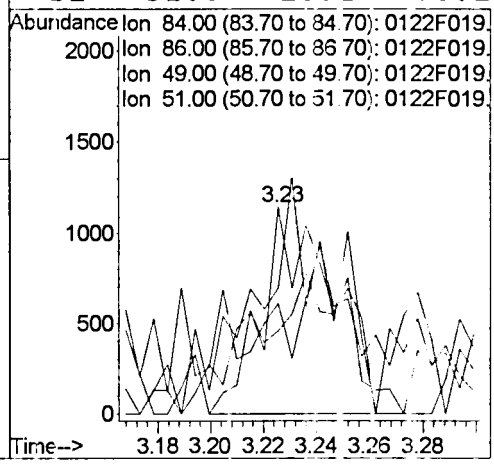


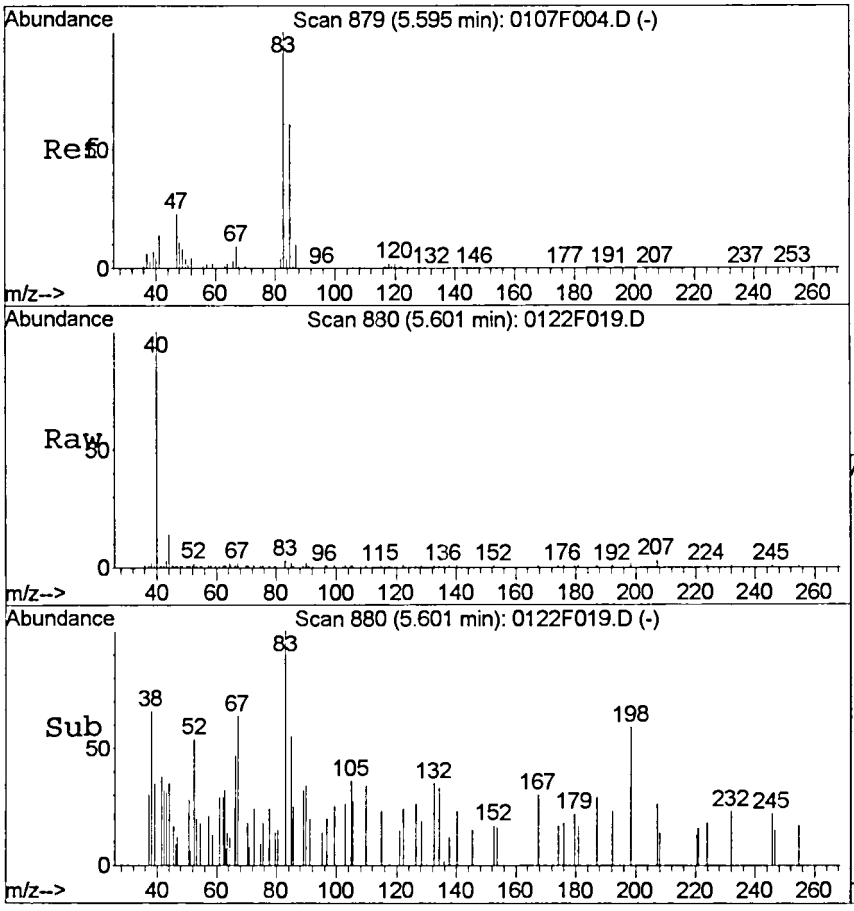


#21
Methylene Chloride
Concen: 0.11 PPB
RT: 3.23 min Scan# 427
Delta R.T. -0.01 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 84 Resp: 2102

Ion	Ratio	Lower	Upper
84	100		
86	28.1	33.3	93.3#
49	49.3	92.9	152.9#
51	31.0	10.1	70.1

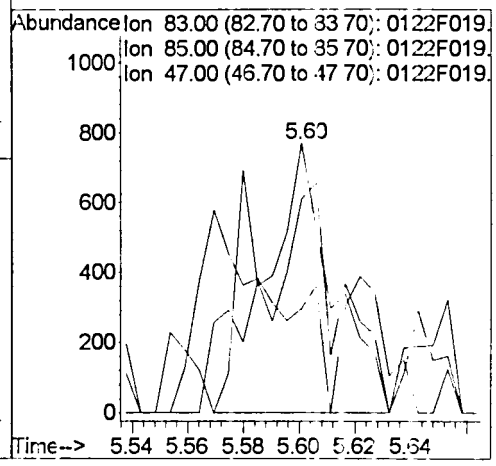


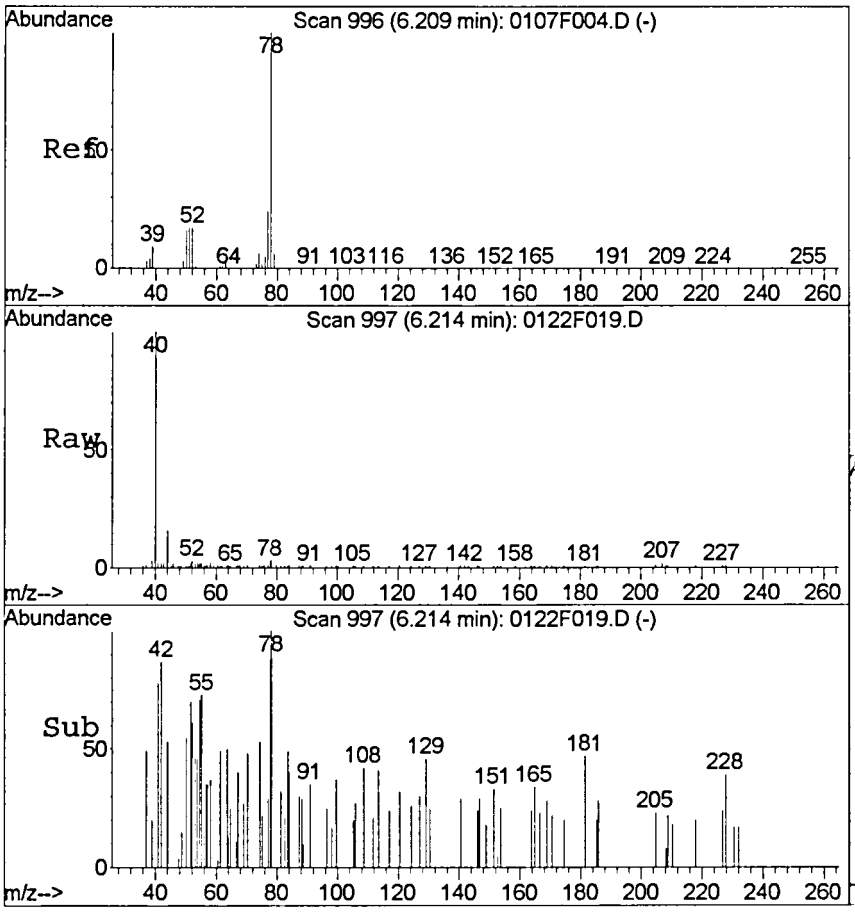


#40
Chloroform
Concen: 0.04 PPB m
RT: 5.60 min Scan# 880
Delta R.T. 0.01 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 83 Resp: 1378

Ion	Ratio	Lower	Upper
83	100		
85	54.6	34.6	94.6
47	38.5	0.0	55.6

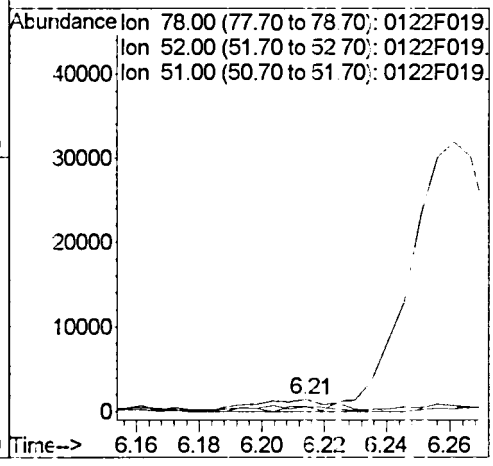


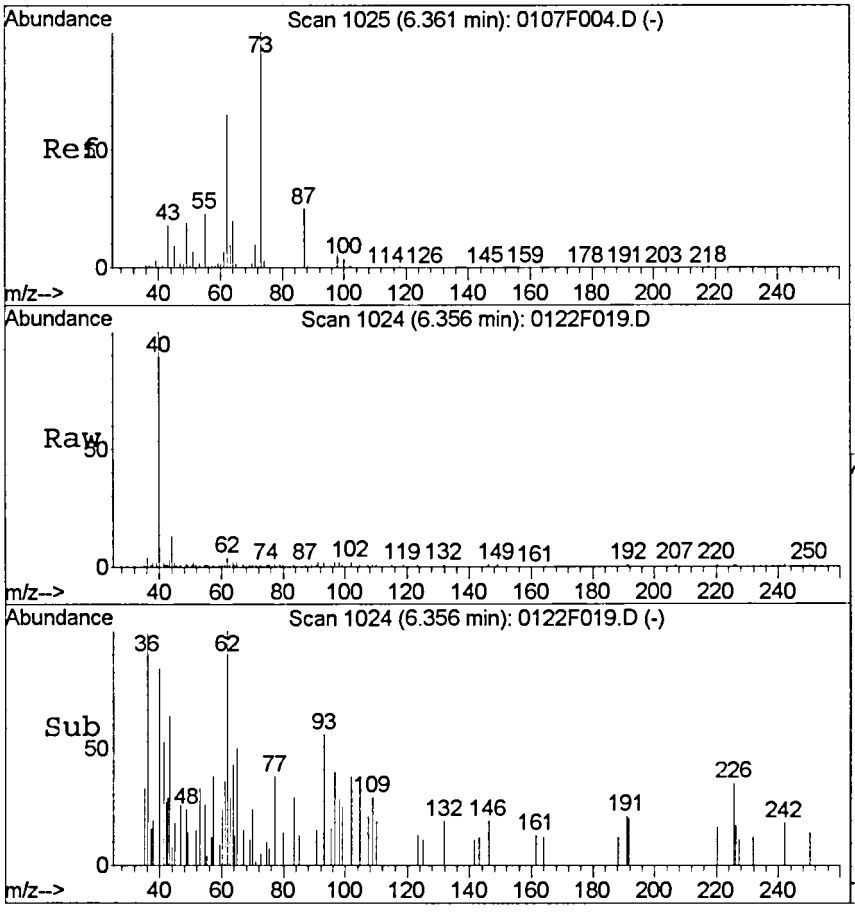


#48
Benzene
Concen: 0.03 PPB
RT: 6.21 min Scan# 997
Delta R.T. 0.01 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 78 Resp: 2632

Ion	Ratio	Lower	Upper
78	100		
52	24.3	0.0	46.4
51	22.7	0.0	47.1

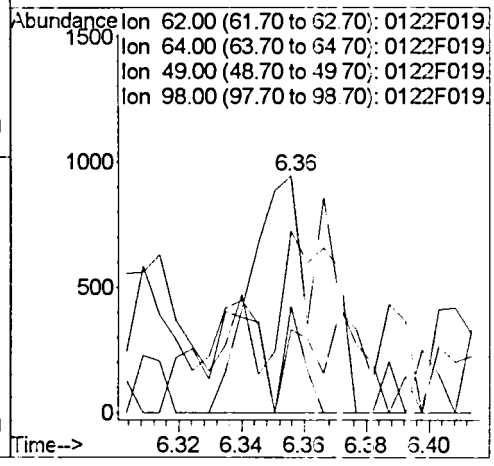


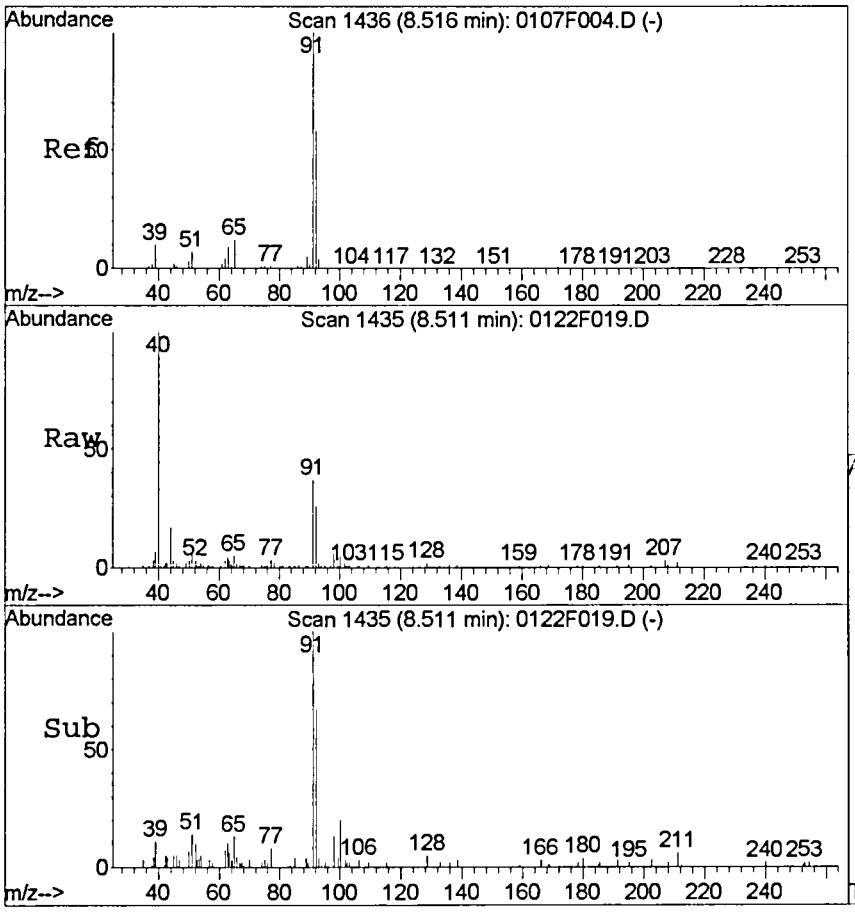


#49
1,2-Dichloroethane
Concen: 0.07 PPB
RT: 6.36 min Scan# 1024
Delta R.T. -0.01 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 62 Resp: 1630

Ion	Ratio	Lower	Upper
62	100		
64	45.7	0.7	60.7
49	8.8	0.0	57.0
98	34.7	0.0	39.2

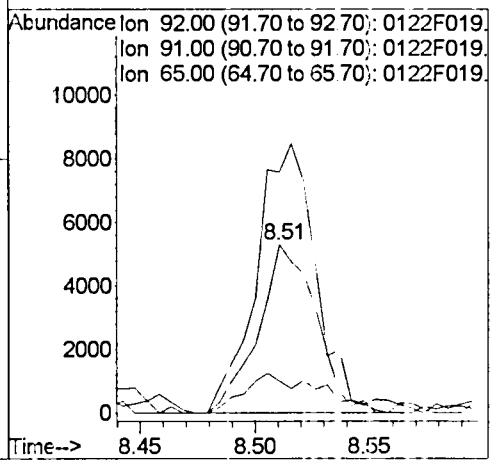


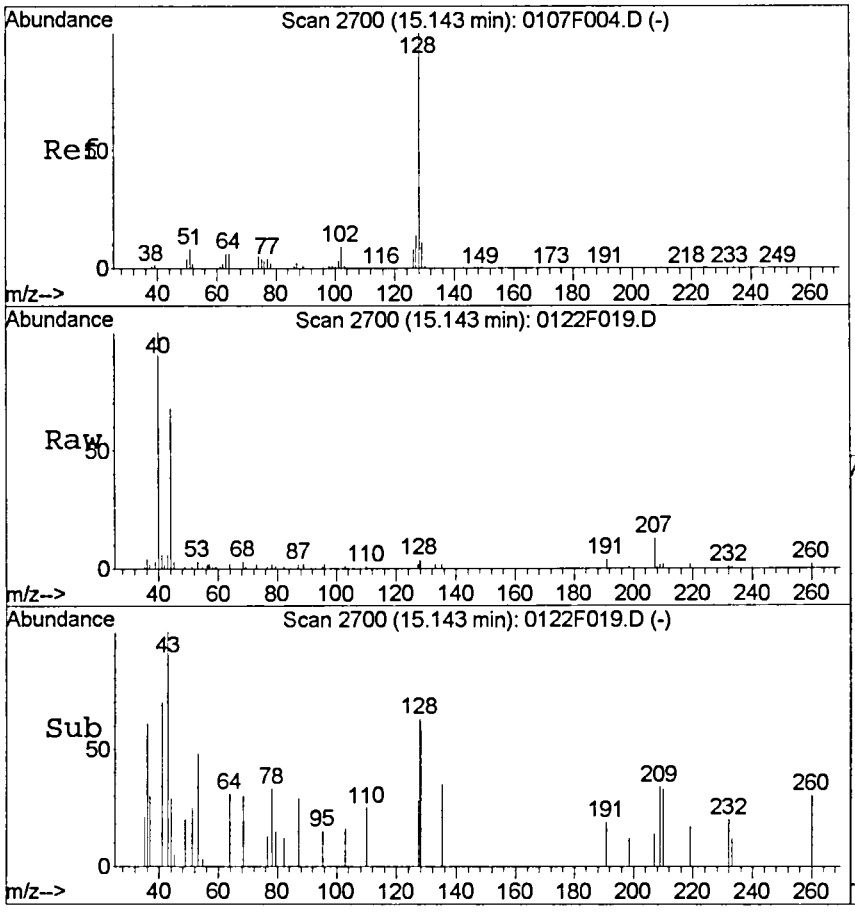


#63
Toluene
Concen: 0.18 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion: 92 Resp: 9286

Ion	Ratio	Lower	Upper
92	100		
91	143.0	133.4	193.4
65	18.9	0.0	49.2

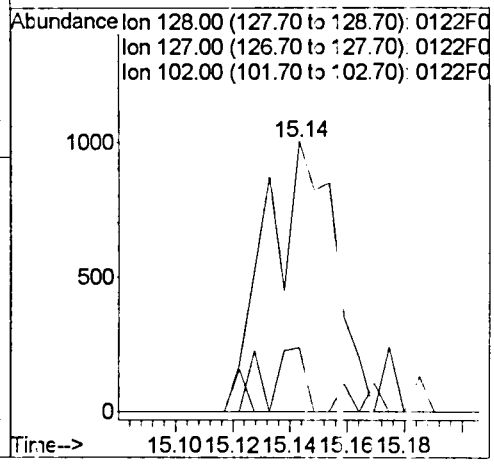




#106
Naphthalene
Concen: 0.03 PPB
RT: 15.14 min Scan# 2700
Delta R.T. 0.00 min
Lab File: 0122F019.D
Acq: 22 Jan 2016 22:07

Tgt Ion:128 Resp: 1647

Ion	Ratio	Lower	Upper
128	100		
127	23.7	0.0	43.2
102	0.0	0.0	38.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F020.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 22:33
Date Quantitated: 01/25/2016 15:04
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review:

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F020.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 22:33	**Quant Date:**	01/25/2016 15:04	**Vial:**	39
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	1V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495770	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.60	0.00	96	596065	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	305984	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	323245	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	5.82	0.01	0.00	113	175914	10.39	104	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	185526	10.59	106	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	648814	9.90	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	273010	8.66	87	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.74	0.01	0.00	43	11085	4.76	4.8	J	
1	Methylene Chloride				84	0d		0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F020.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 22:33	**Quant Date:**	01/25/2016 15:04	**Vial:**	39
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene				92	0d		0.054	U	
2	trans-1,3-Dichloropropene				75	0d		0.063	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform	11.03		0.00	173	542	0.0500	0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F020.D Vial: 39
Acq On : 22 Jan 2016 22:33 Operator: YX
Sample : K1600673-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:40 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

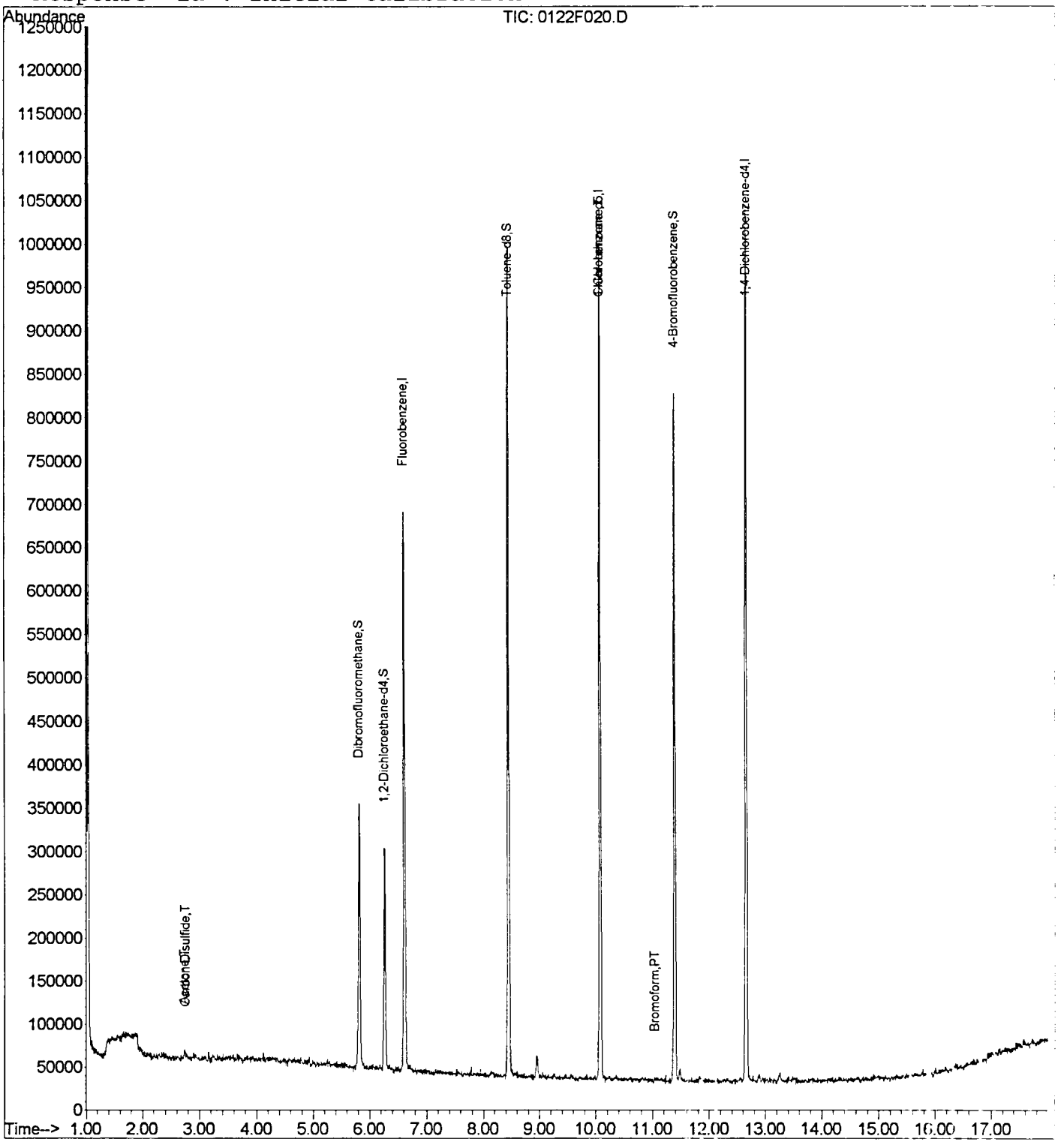
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.60	96	596065	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	305984	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	323245	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	175914	10.39	PPB	0.00
Spiked Amount 10.000			Recovery = 103.90%			
47) 1,2-Dichloroethane-d4	6.26	65	185526	10.59	PPB	0.00
Spiked Amount 10.000			Recovery = 105.90%			
62) Toluene-d8	8.44	98	648814	9.90	PPB	0.00
Spiked Amount 10.000			Recovery = 99.00%			
84) 4-Bromofluorobenzene	11.38	95	273010	8.66	PPB	0.00
Spiked Amount 10.000			Recovery = 86.60%			
Target Compounds						Qvalue
14) Acetone	2.74	43	11085	4.76	PPB	87
16) Carbon Disulfide	2.76	76	2354	0.05	PPB	68
74) 1-Chlorohexane	10.07	91	2154	0.06	PPB	84
81) Bromoform	11.03	173	542	0.05	PPB	79

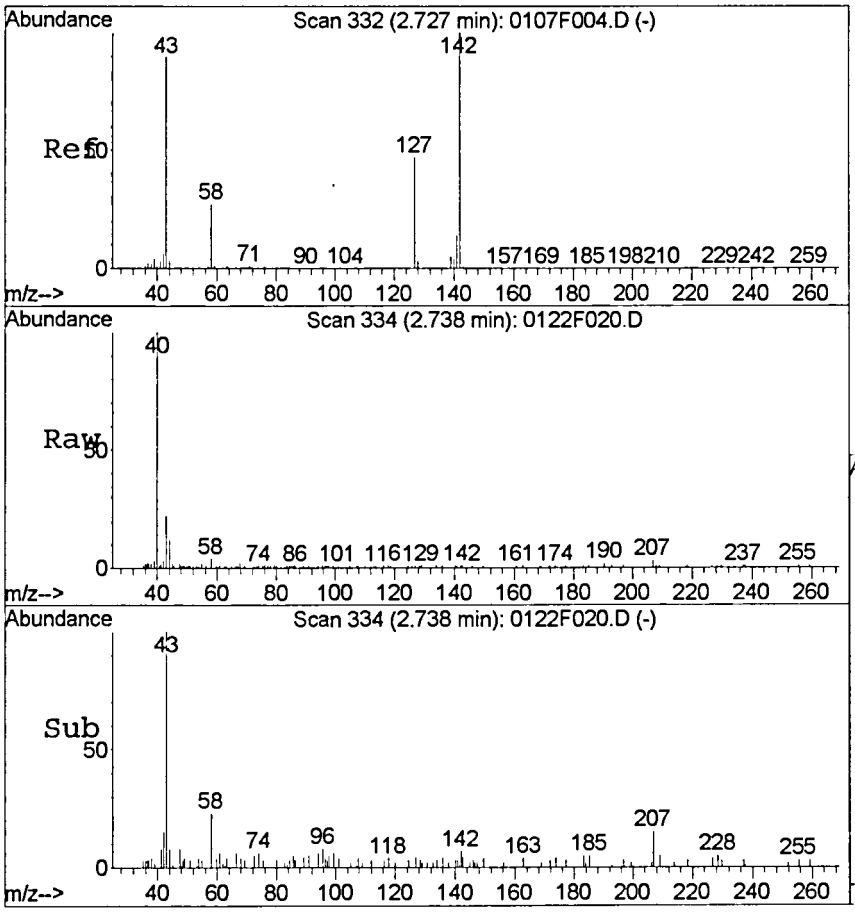
(#) = qualifier out of range (m) = manual integration
0122F020.D 010516MS46_8260.M Mon Jan 25 15:52:12 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F020.D Vial: 39
Acq On : 22 Jan 2016 22:33 Operator: YX
Sample : K1600673-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:04 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

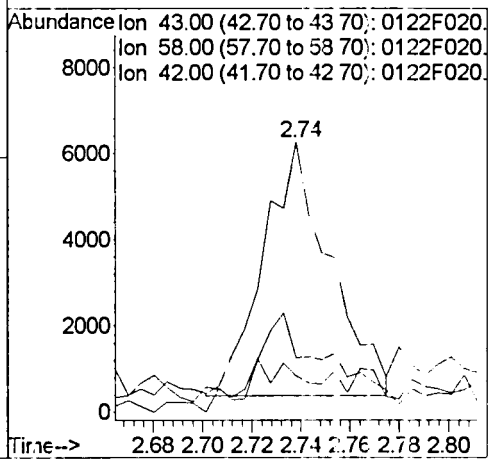


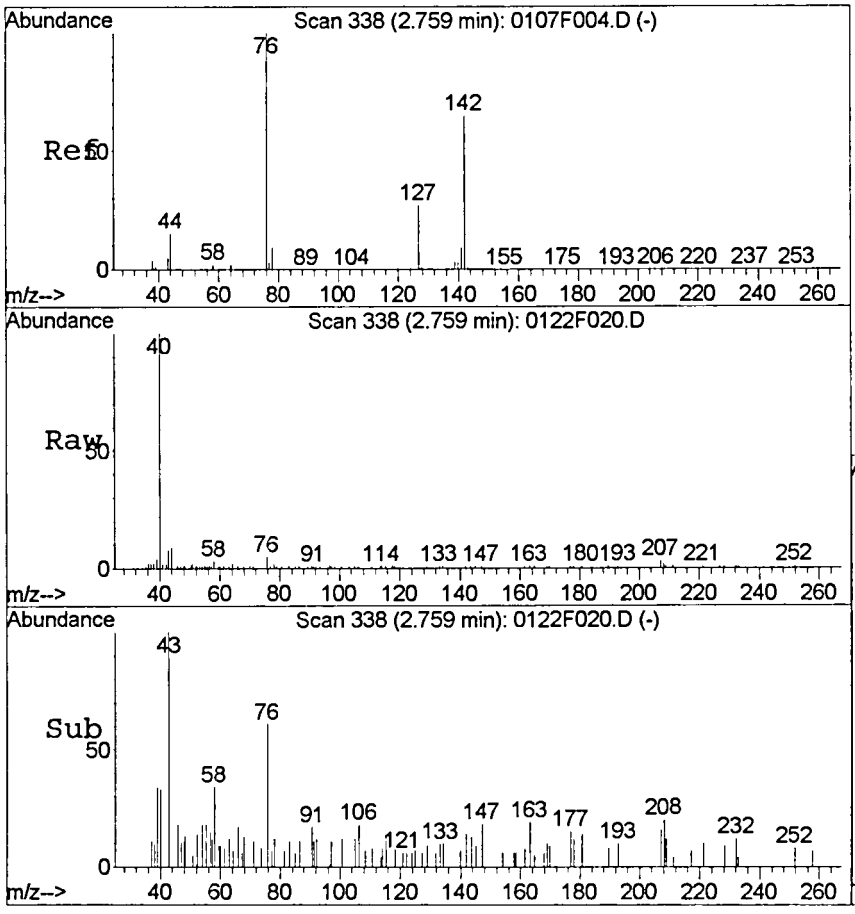


#14
Acetone
Concen: 4.76 PPB
RT: 2.74 min Scan# 334
Delta R.T. 0.01 min
Lab File: 0122F020.D
Acq: 22 Jan 2016 22:33

Tgt Ion: 43 Resp: 11085

Ion	Ratio	Lower	Upper
43	100		
58	21.6	0.2	60.2
42	8.2	0.0	37.6

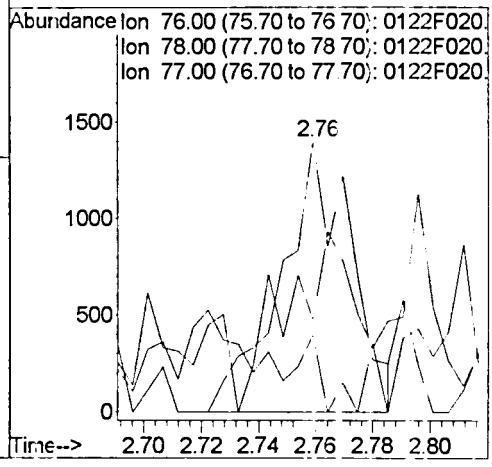


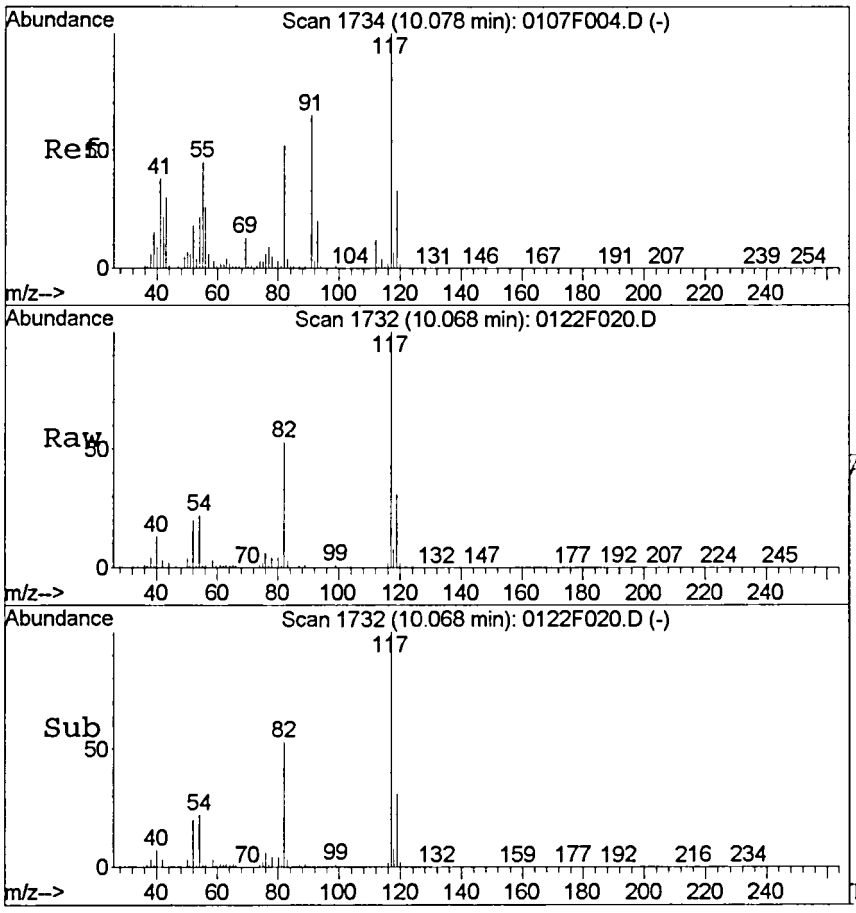


#16
Carbon Disulfide
Concen: 0.05 PPB
RT: 2.76 min Scan# 338
Delta R.T. 0.00 min
Lab File: 0122F020.D
Acq: 22 Jan 2016 22:33

Tgt Ion: 76 Resp: 2354

Ion	Ratio	Lower	Upper
76	100		
78	1.9	0.0	39.0
77	28.3	0.0	32.5

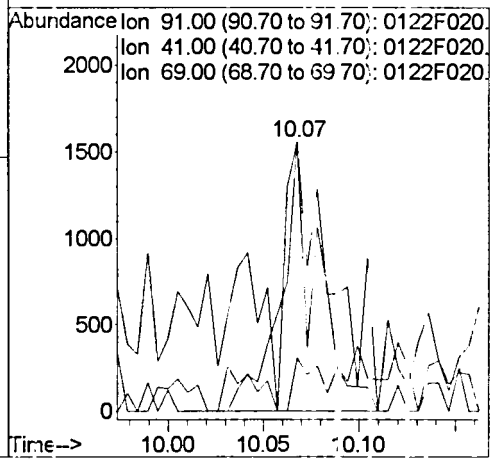


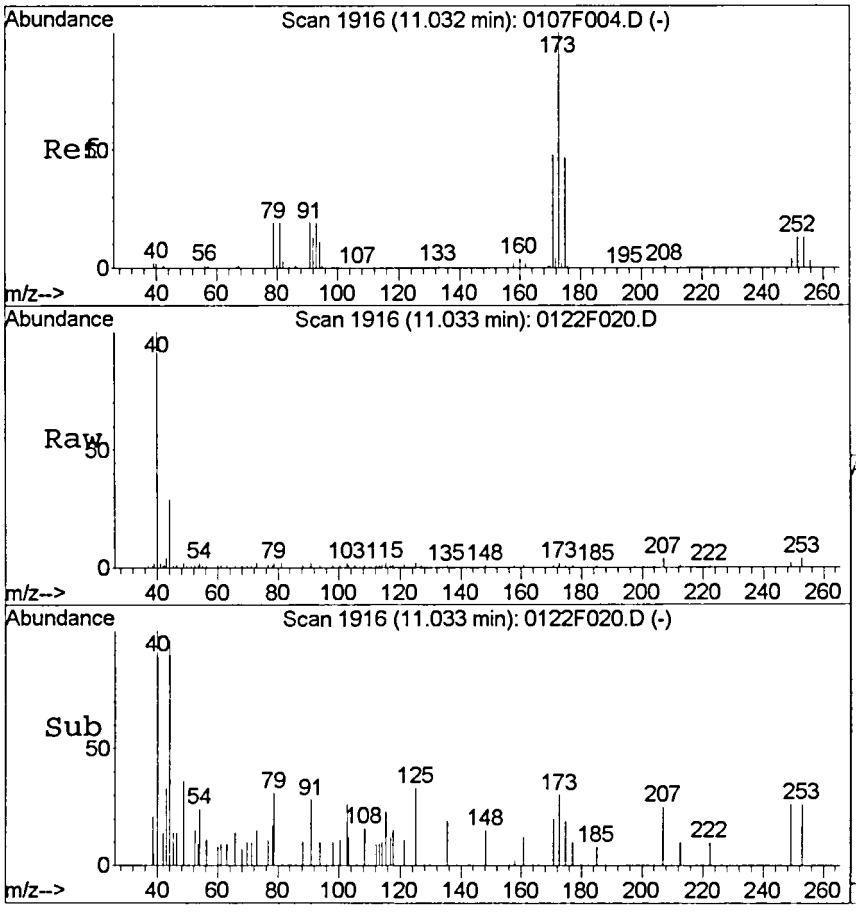


#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 10.07 min Scan# 1732
Delta R.T. -0.01 min
Lab File: 0122F020.D
Acq: 22 Jan 2016 22:33

Tgt Ion: 91 Resp: 2154

Ion	Ratio	Lower	Upper
91	100		
41	66.0	25.4	85.4
69	8.7	0.0	48.1

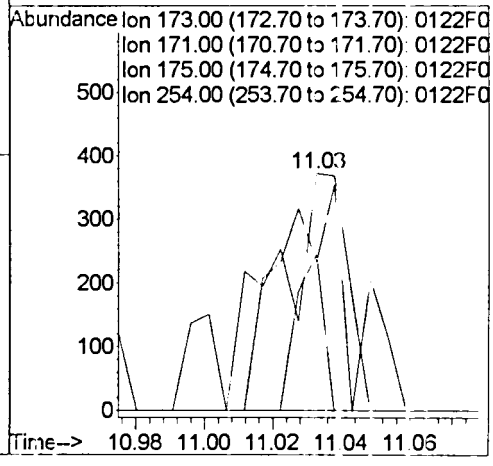




#81
Bromoform
Concen: 0.05 PPB
RT: 11.03 min Scan# 1916
Delta R.T. 0.00 min
Lab File: 0122F020.D
Acq: 22 Jan 2016 22:33

Tgt Ion:173 Resp: 542

Ion	Ratio	Lower	Upper
173	100		
171	65.9	19.5	79.6
175	62.6	22.8	82.8
254	0.0	0.0	44.5



Exception Report

Data File: J:\MS46\DATA\012216\0122F017.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 21:15
Date Quantitated: 01/25/2016 14:54
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review:

Printed: 01/25/2016 16:38:02
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F017.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 21:15	**Quant Date:**	01/25/2016 14:54	**Vial:**	36
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495771	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	605026	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	310994	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	329241	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	5.82	0.01	0.00	113	179313	10.43	104	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	184468	10.38	104	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	656797	9.87	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	275165	8.59	86	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	5098	2.16	3.3	U	
1	Methylene Chloride	3.24	0.01	0.00	84	1277m	0.0600	0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Chloroform	5.61	0.01	0.00	83	1067m	0.0300	0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F017.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 21:15	**Quant Date:**	01/25/2016 14:54	**Vial:**	36
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0d		0.10	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	5265	0.1000	0.10	J	
2	trans-1,3-Dichloropropene				75	0d		0.068	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.10	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F017.D Vial: 36
Acq On : 22 Jan 2016 21:15 Operator: YX
Sample : K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:36 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

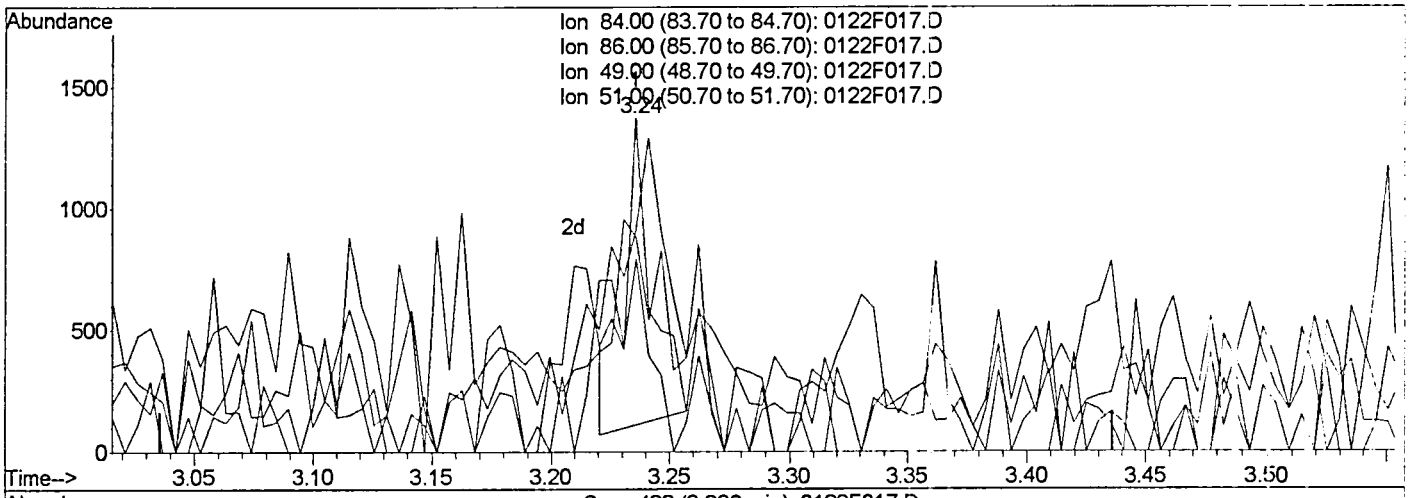
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	605026	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	310994	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	329241	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	179313	10.43	PPB	0.00
Spiked Amount 10.000			Recovery =	104.30%		
47) 1,2-Dichloroethane-d4	6.26	65	184468	10.38	PPB	0.00
Spiked Amount 10.000			Recovery =	103.80%		
62) Toluene-d8	8.44	98	656797	9.87	PPB	0.00
Spiked Amount 10.000			Recovery =	98.70%		
84) 4-Bromofluorobenzene	11.38	95	275165	8.59	PPB	0.00
Spiked Amount 10.000			Recovery =	85.90%		
Target Compounds						Qvalue
14) Acetone	2.73	43	5098	2.16	PPB	90
16) Carbon Disulfide	2.76	76	2531	0.05	PPB	85
21) Methylene Chloride	3.24	84	1277m	0.06	PPB	
40) Chloroform	5.61	83	1067m	0.03	PPB	
63) Toluene	8.51	92	5265	0.10	PPB	91

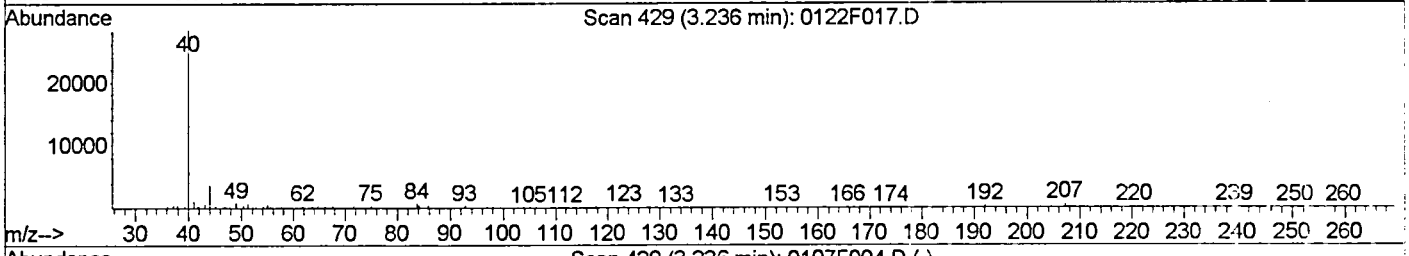
(#) = qualifier out of range (m) = manual integration

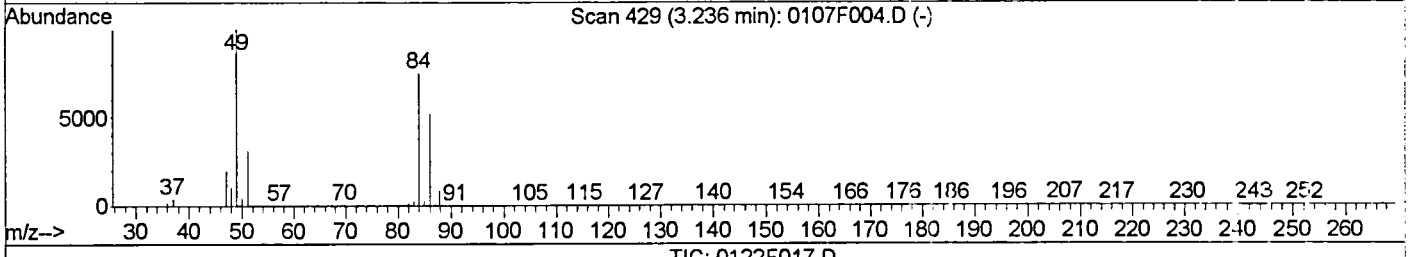
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F017.D Vial: 36
Acq On : 22 Jan 2016 21:15 Operator: YX
Sample : K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:52 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F017.D

(21) Methylene Chloride (T)

3.24min 0.05PPB

response 1017

Ion	Exp%	Act%
84.00	100	100
86.00	63.30	55.71
49.00	122.90	43.46#
51.00	40.10	39.07

Manual Integration:

Before

01/25/16

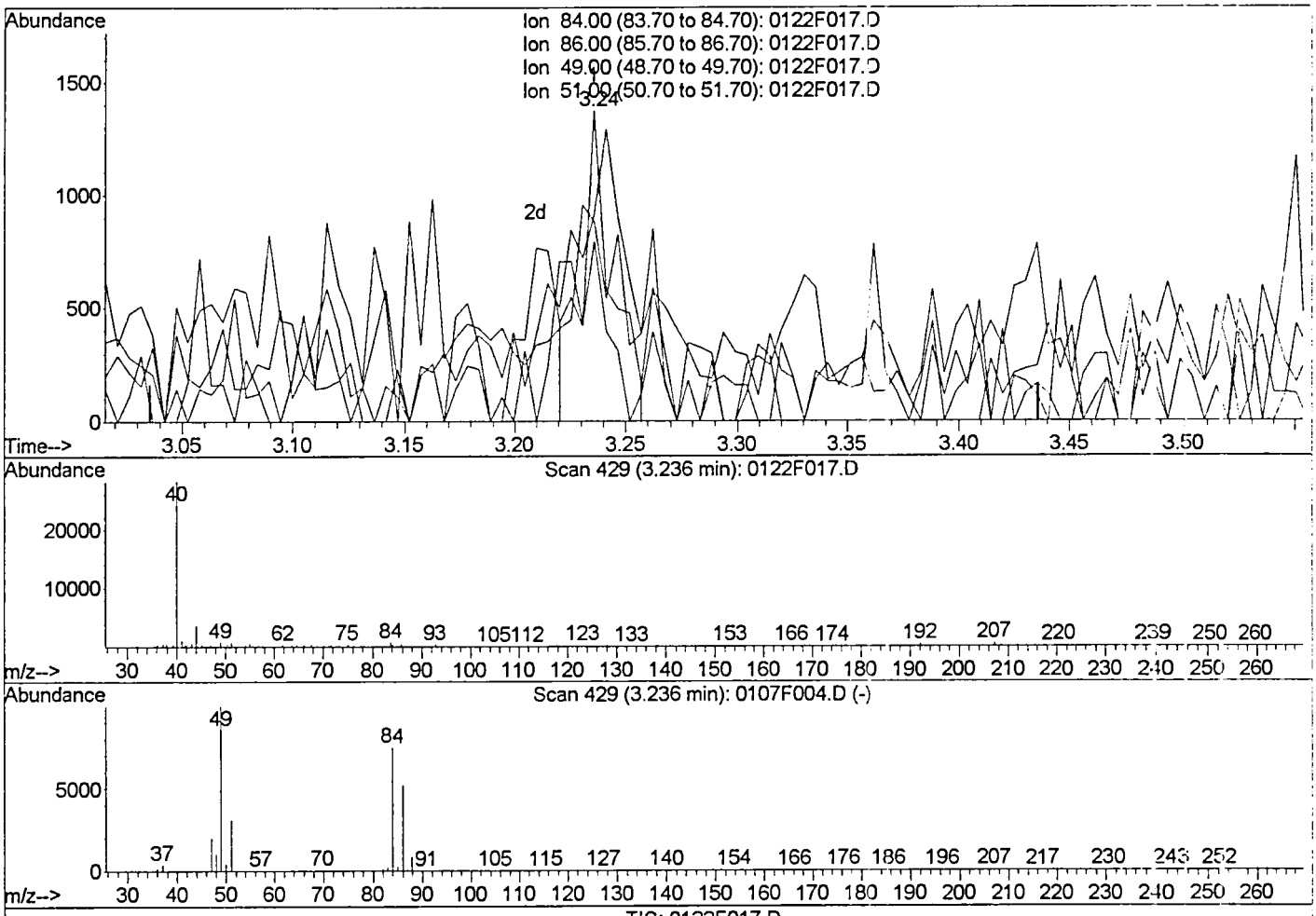
0122F017.D 010516MS46_8260.M Mon Jan 25 14:52:37 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F017.D
Acq On : 22 Jan 2016 21:15
Sample : K1600673-004
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 25 14:52 2016

Vial: 36
Operator: YX
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F017.D

(21) Methylene Chloride (T)

3.24min 0.06PPB m

response 1277

Ion	Exp%	Act%
84.00	100	100
86.00	63.30	73.17
49.00	122.90	117.33
51.00	40.10	113.09#

Manual Integration:

After

Baseline correction

01/25/16

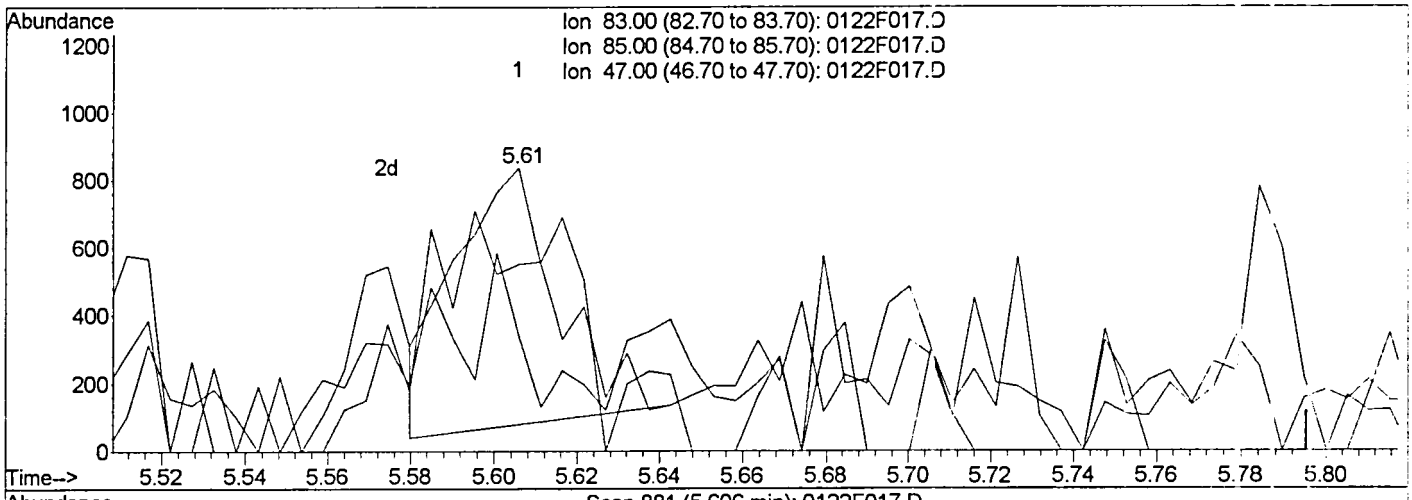
0122F017.D 010516MS46_8260.M Mon Jan 25 14:52:55 2016

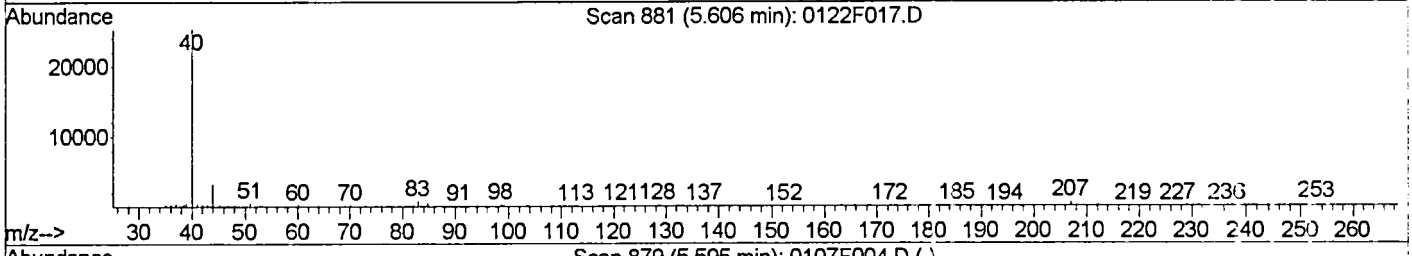
Quantitation Report (Qedit)

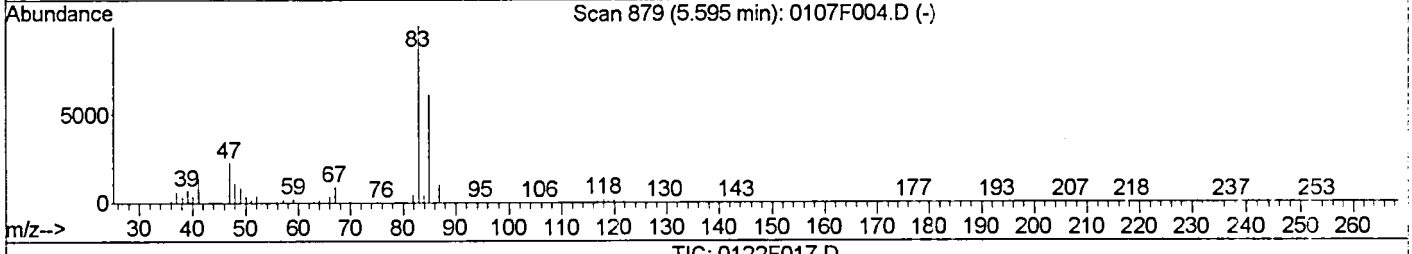
Data File : J:\MS46\DATA\012216\0122F017.D
Acq On : 22 Jan 2016 21:15
Sample : K1600673-004
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 25 14:53 2016

Vial: 36
Operator: YX
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F017.D

(40) Tetrahydrofuran (T)

5.51min 0.00PPB d

response 0

Ion	Exp%	Act%
71.00	100	0.00
72.00	107.10	0.00
42.00	212.20	0.00
0.00	0.00	0.00

Manual Integration:

Before

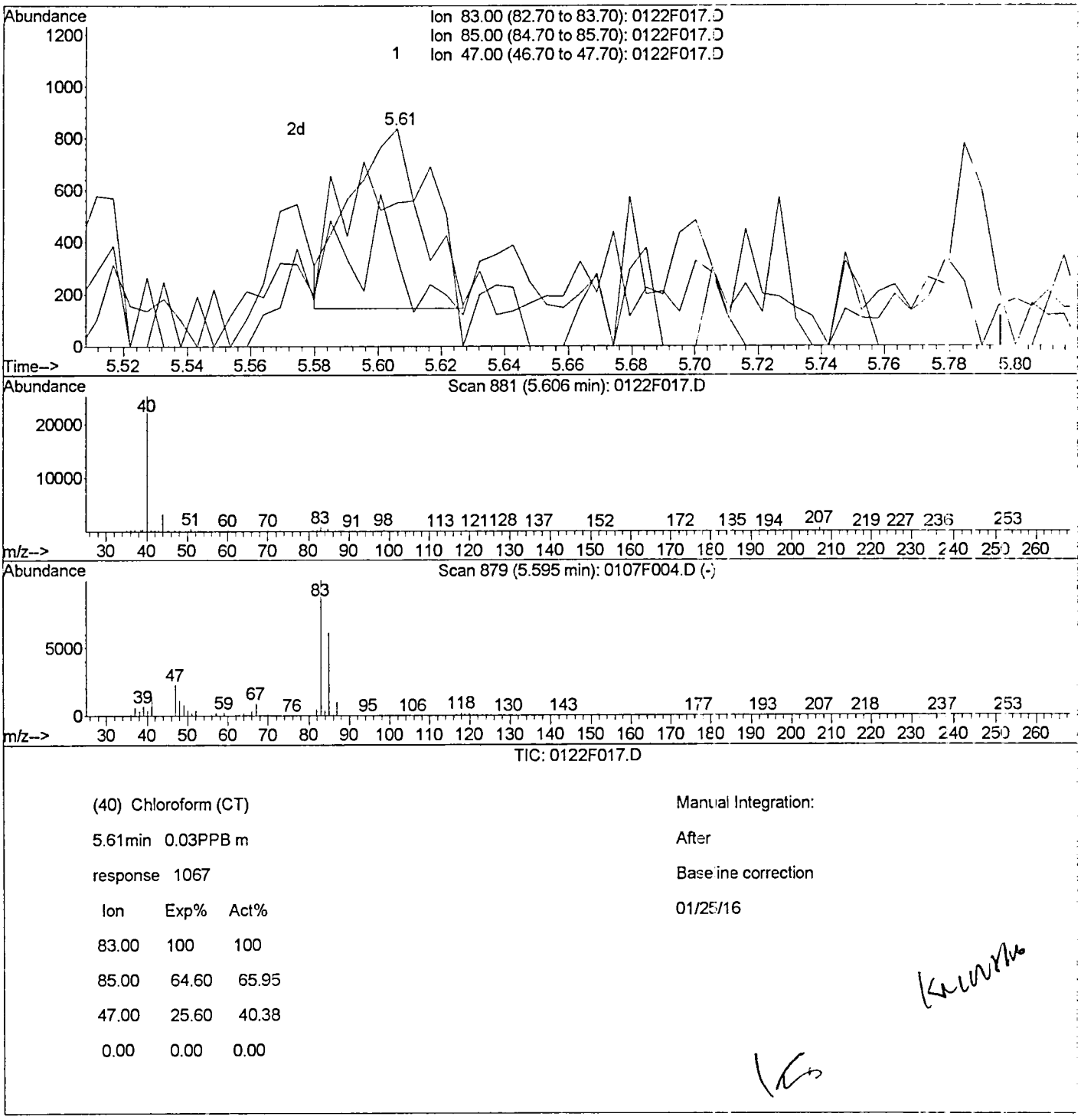
01/25/16

0122F017.D 010516MS46_8260.M Mon Jan 25 14:53:16 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F017.D Vial: 36
Acq On : 22 Jan 2016 21:15 Operator: YX
Sample : K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:53 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F017.D

(40) Chloroform (CT)
5.61min 0.03PPB m
response 1067

Ion	Exp%	Act%
83.00	100	100
85.00	64.60	65.95
47.00	25.60	40.38
0.00	0.00	0.00

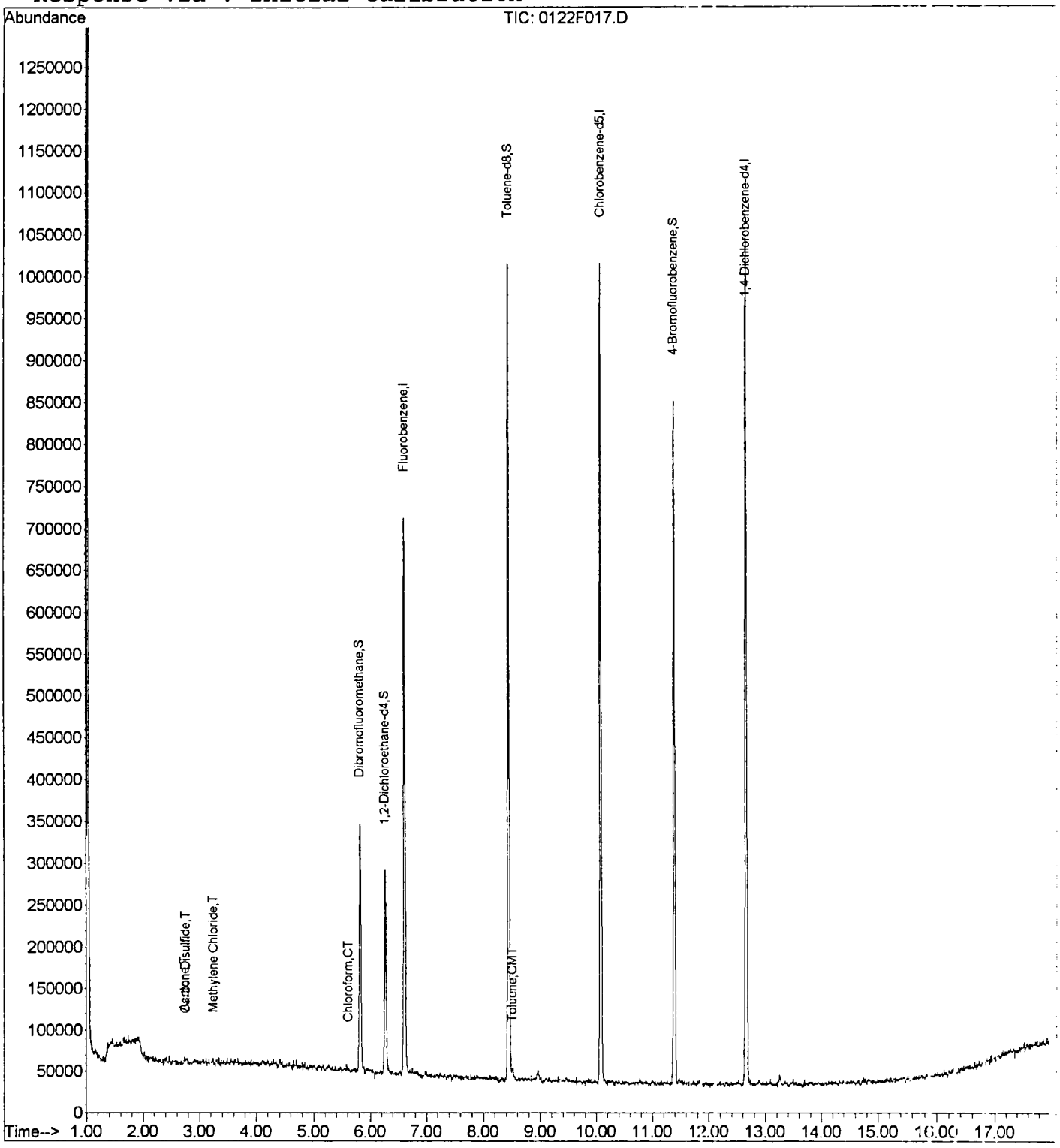
Manual Integration:
After
Base ine correction
01/25/16

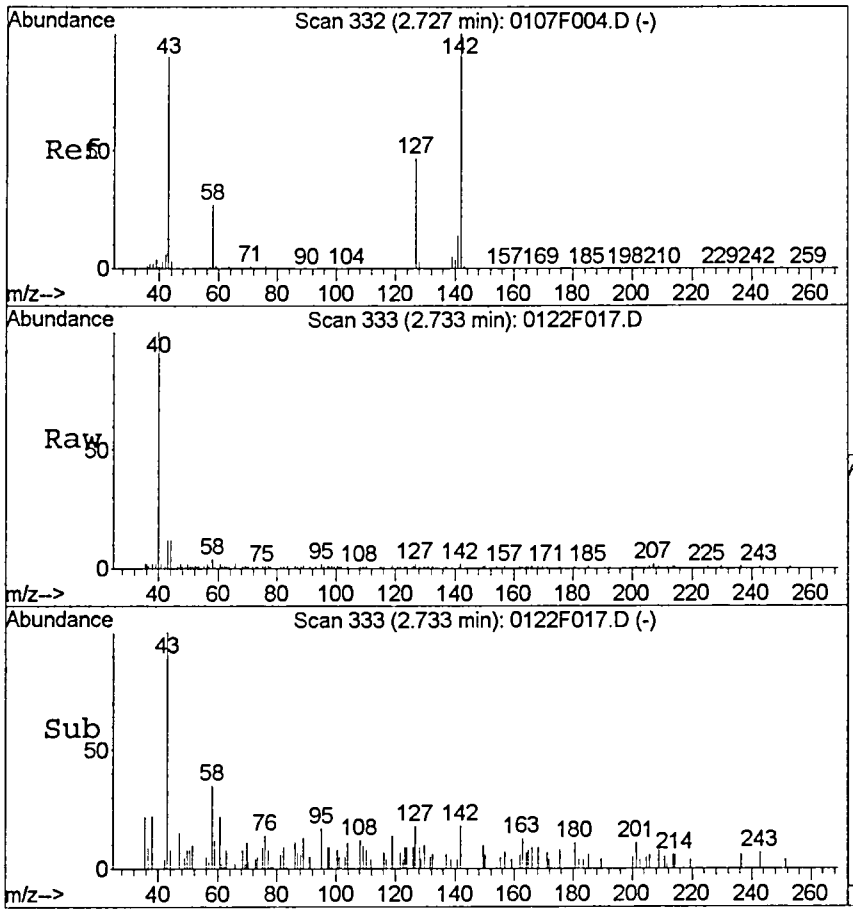
0122F017.D 010516MS46_8260.M Mon Jan 25 14:53:27 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F017.D Vial: 36
Acq On : 22 Jan 2016 21:15 Operator: YX
Sample : K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:54 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

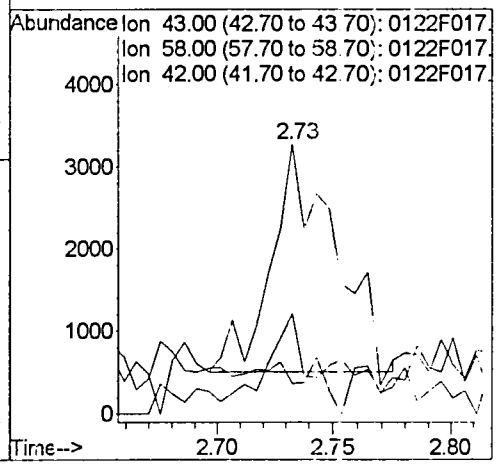


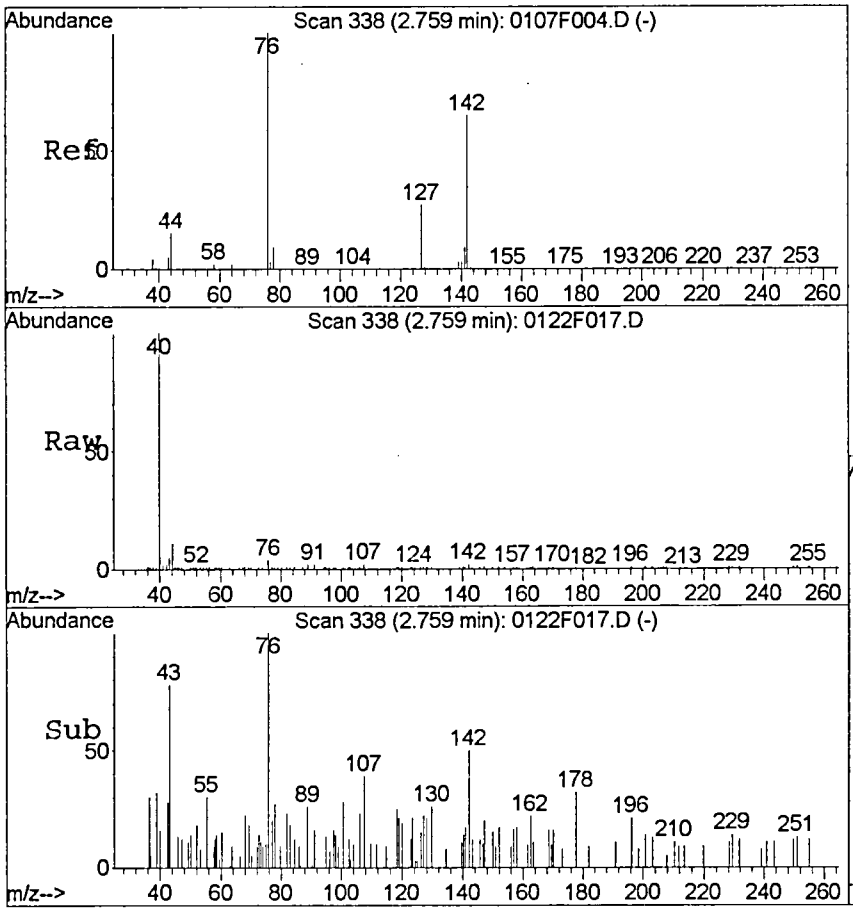


#14
Acetone
Concen: 2.16 PPB
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F017.D
Acq: 22 Jan 2016 21:15

Tgt Ion: 43 Resp: 5098

Ion	Ratio	Lower	Upper
43	100		
58	33.8	0.2	60.2
42	0.0	0.0	37.6

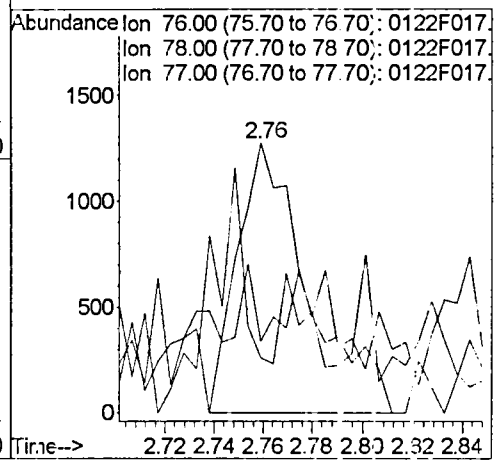


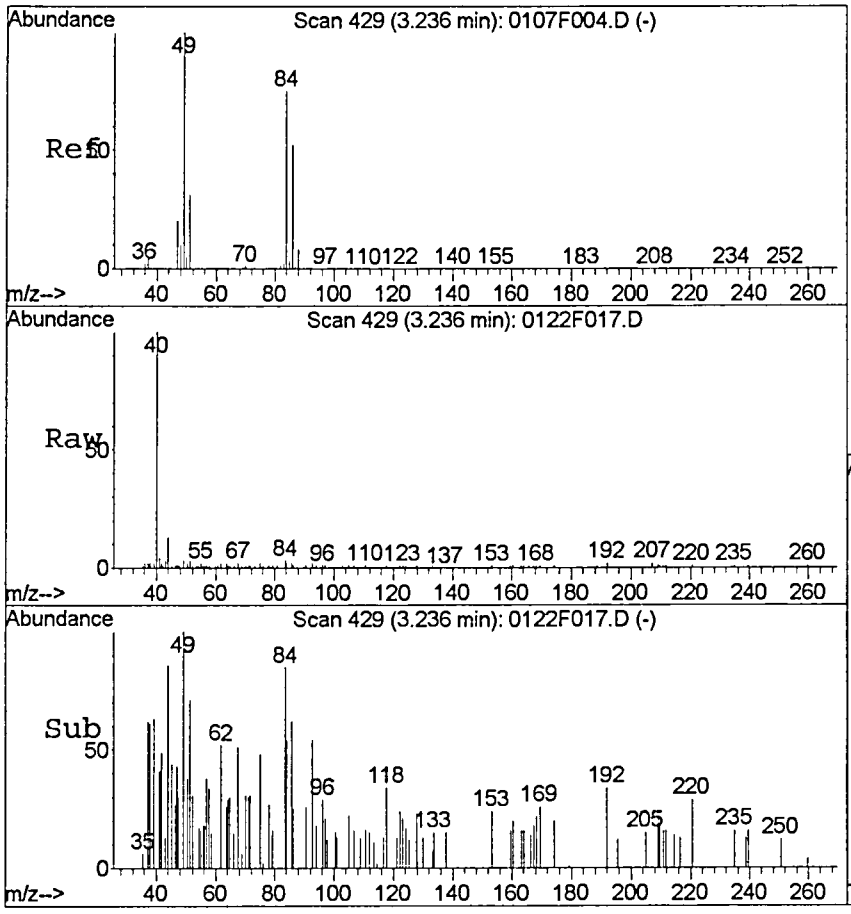


#16
Carbon Disulfide
Concen: 0.05 PPB
RT: 2.76 min Scan# 338
Delta R.T. 0.00 min
Lab File: 0122F017.D
Acq: 22 Jan 2016 21:15

Tgt Ion: 76 Resp: 2531

Ion	Ratio	Lower	Upper
76	100		
78	3.0	0.0	39.0
77	0.0	0.0	32.5

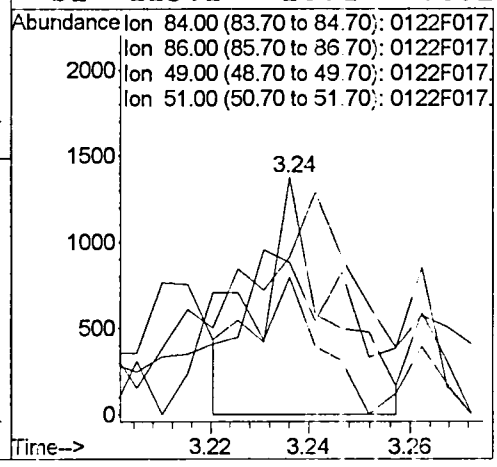


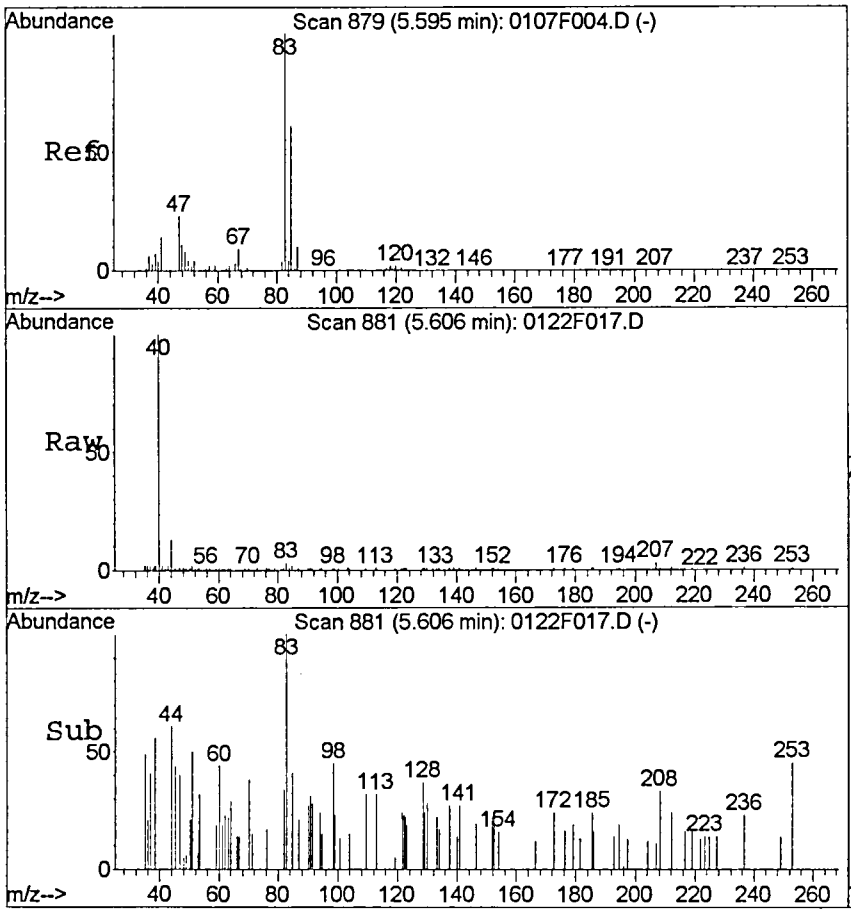


#21
Methylene Chloride
Concen: 0.06 PPB m
RT: 3.24 min Scan# 429
Delta R.T. 0.00 min
Lab File: 0122F017.D
Acq: 22 Jan 2016 21:15

Tgt Ion: 84 Resp: 1277

Ion	Ratio	Lower	Upper
84	100		
86	73.2	33.3	93.3
49	117.3	92.9	152.9
51	113.1	10.1	70.1#

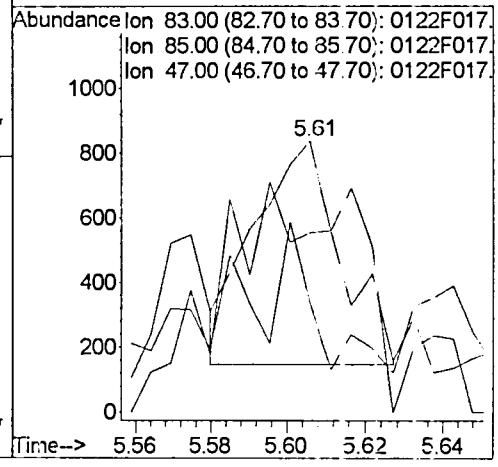


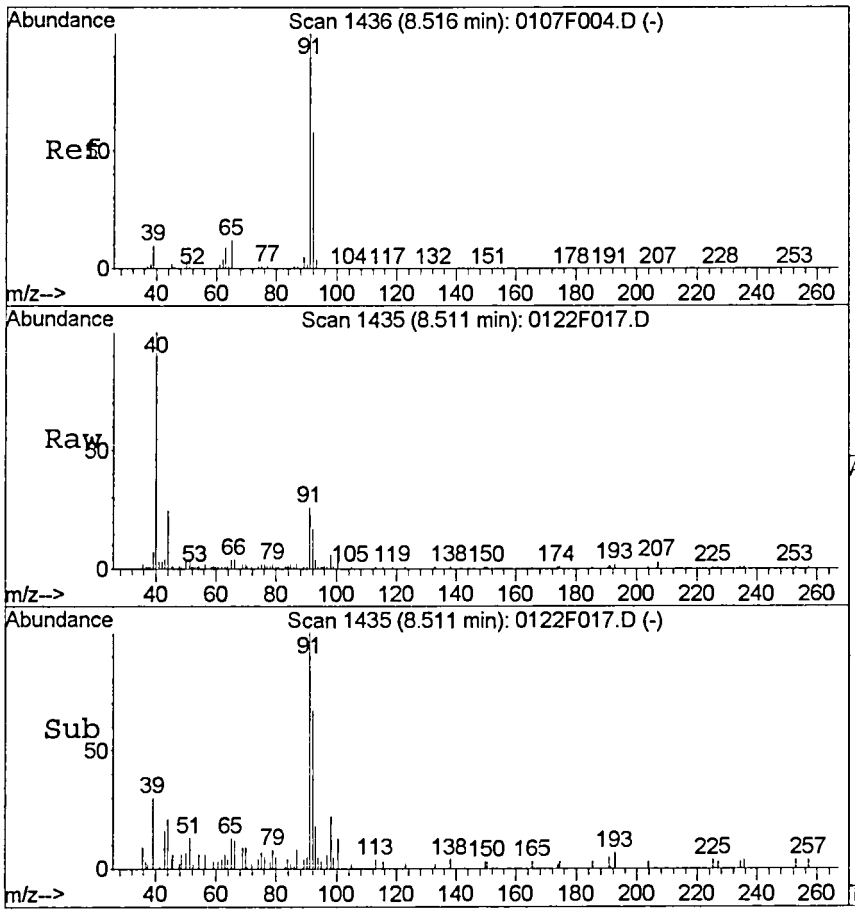


#40
Chloroform
Concen: 0.03 PPB m
RT: 5.61 min Scan# 881
Delta R.T. 0.01 min
Lab File: 0122F017.D
Acq: 22 Jan 2016 21:15

Tgt Ion: 83 Resp: 1067

Ion	Ratio	Lower	Upper
83	100		
85	65.9	34.5	94.6
47	40.4	0.0	55.6

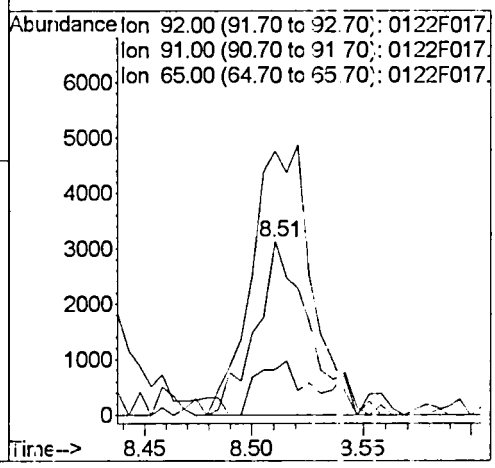




#63
Toluene
Concen: 0.10 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F017.D
Acq: 22 Jan 2016 21:15

Tgt Ion: 92 Resp: 5265

Ion	Ratio	Lower	Upper
92	100		
91	152.0	133.4	193.4
65	26.3	0.0	49.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F021.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 22:59
Date Quantitated: 01/25/2016 15:21
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	1,2-Dichloroethane-d4	123	81	118	mtx. surrogate ok

Primary Review: 1/25/16

Secondary Review:

Printed: 01/25/2016 16:38:14
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F021.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 22:59	**Quant Date:**	01/25/2016 15:21	**Vial:**	40
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495772	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	716609	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	372757	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	403179	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	5.82	0.01	0.00	113	214879	10.56	106	80-119	OK
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	258316	12.27	123	81-118	*
1	Toluene-d8	8.44	0.00	0.00	98	788941	10.01	100	89-112	OK
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	332145	8.65	87	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.10	U	
1	Chloroethane				64	0d		0.10	U	
1	1,1-Dichloroethene				96	0d		0.089	U	
1	Acetone	2.74	0.01	0.00	43	11366	4.06	4.1	J	
1	Methylene Chloride	3.25	0.02	0.00	84	1329m	0.0600	0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F021.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 22:59	**Quant Date:**	01/25/2016 15:21	**Vial:**	40
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.1(	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	2659	0.0400	0.051	U	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.09)	U	
2	1,2-Dibromoethane (EDB)				107	0		0.1(	U	
2	Chlorobenzene				112	0		0.1	U	
2	Ethylbenzene				106	0		0.05)	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.1	U	
2	m,p-Xylenes				106	0		0.1	U	
2	o-Xylene				106	0		0.071	U	
2	Styrene				103	0		0.08)	U	
2	Bromoform				173	0d		0.1(	U	
3	1,2,3-Trichloropropane				110	0		0.2(	U	
3	1,3-Dichlorobenzene				146	0d		0.1(	U	
3	1,4-Dichlorobenzene				146	0d		0.1	U	
3	1,2-Dichlorobenzene				146	0		0.1	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.2	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		0.1	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:\MS46\DATA\012216\0122F021.D Vial: 40
Acq On : 22 Jan 2016 22:59 Operator: YX
Sample : K1600673-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:41 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

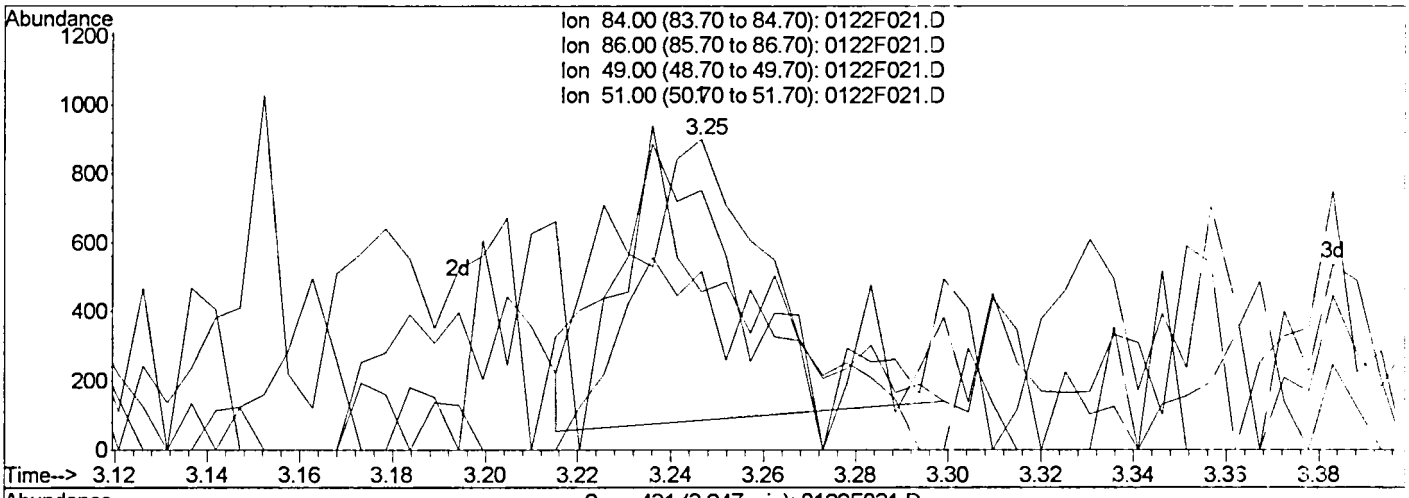
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.61	96	716609	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	372757	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	403179	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.82	113	214879	10.56	PPB		0.00
Spiked Amount 10.000			Recovery =	105.60%			
47) 1,2-Dichloroethane-d4	6.26	65	258316	12.27	PPB		0.00
Spiked Amount 10.000			Recovery =	122.70%			
62) Toluene-d8	8.44	98	788941	10.01	PPB		0.00
Spiked Amount 10.000			Recovery =	100.10%			
84) 4-Bromofluorobenzene	11.38	95	332145	8.65	PPB		0.00
Spiked Amount 10.000			Recovery =	86.50%			
Target Compounds							Qvalue
14) Acetone	2.74	43	11366	4.06	PPB		96
16) Carbon Disulfide	2.76	76	4079	0.07	PPB		74
21) Methylene Chloride	3.25	84	1329m	0.06	PPB		
49) 1,2-Dichloroethane	6.36	62	1671	0.06	PPB	#	59
55) Methyl methacrylate	7.60	69	742	0.07	PPB	#	37
63) Toluene	8.51	92	2659	0.04	PPB	#	77
74) 1-Chlorohexane	10.08	91	2090m	0.05	PPB		

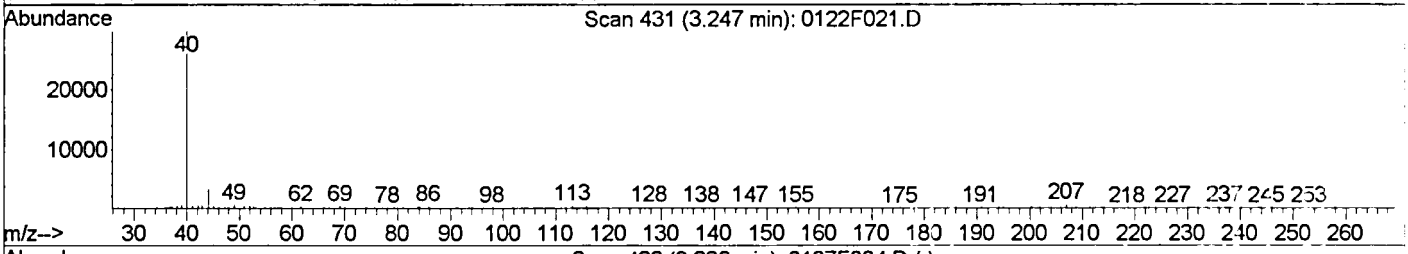
(#) = qualifier out of range (m) = manual integration

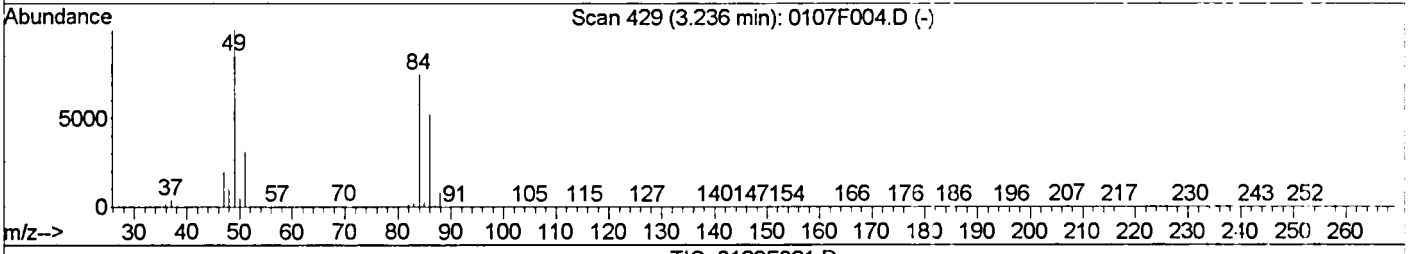
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F021.D Vial: 40
Acq On : 22 Jan 2016 22:59 Operator: YX
Sample : K1600673-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:20 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F021.D

(21) Methylene Chloride (T)

3.25min 0.08PPB

response 1846

Ion	Exp%	Act%
84.00	100	100
86.00	63.30	68.03
49.00	122.90	33.95#
51.00	40.10	17.24

Manual Integration:

Before

01/25/16

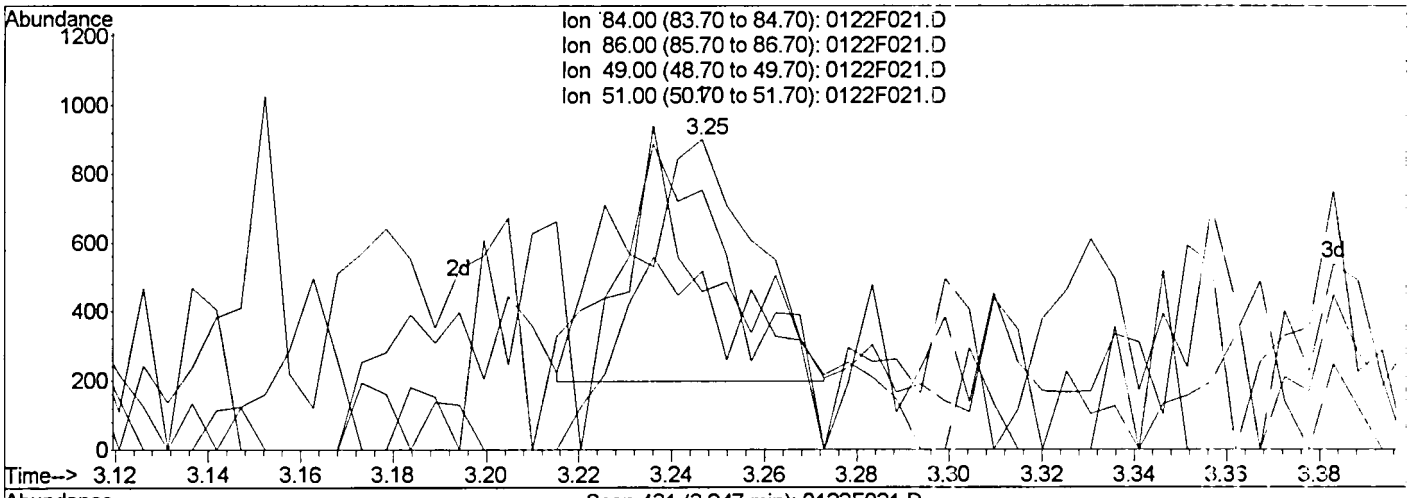
1/27/16

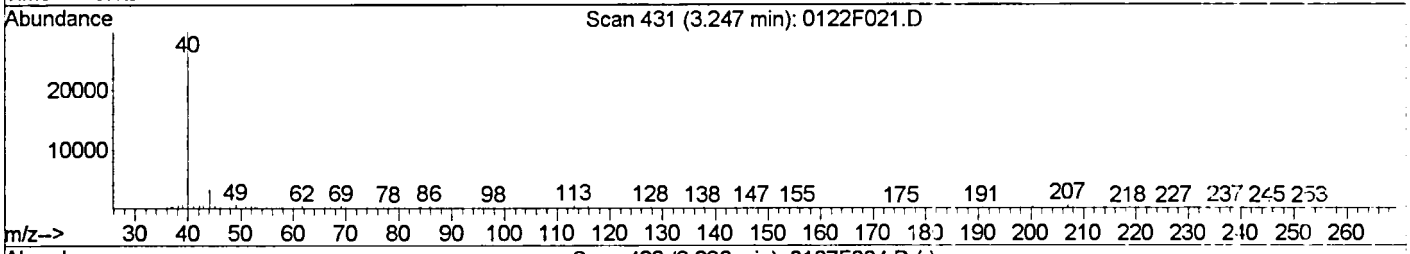
0122F021.D 010516MS46_8260.M Mon Jan 25 15:20:40 2016

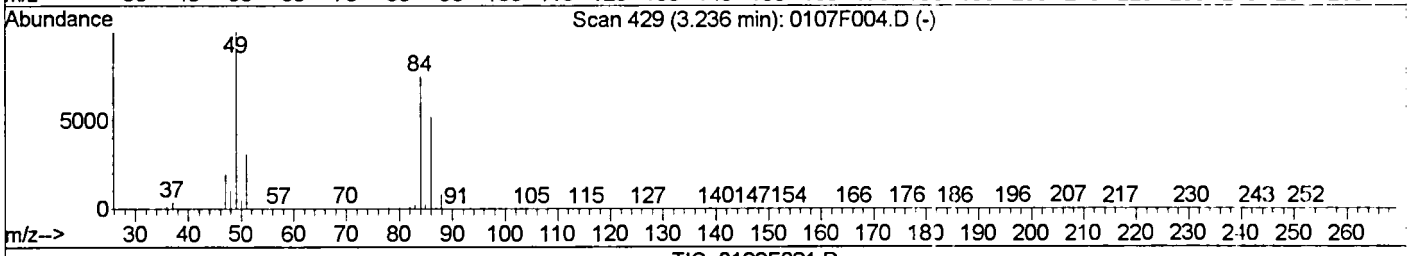
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F021.D Vial: 40
Acq On : 22 Jan 2016 22:59 Operator: YX
Sample : K1600673-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:20 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F021.D

(21) Methylene Chloride (T)

3.25min 0.06PPB m

response 1329

Ion	Exp%	Act%
84.00	100	100
86.00	63.30	102.38#
49.00	122.90	148.91
51.00	40.10	90.50#

Manual Integration:

After

Baseline correction

01/25/16

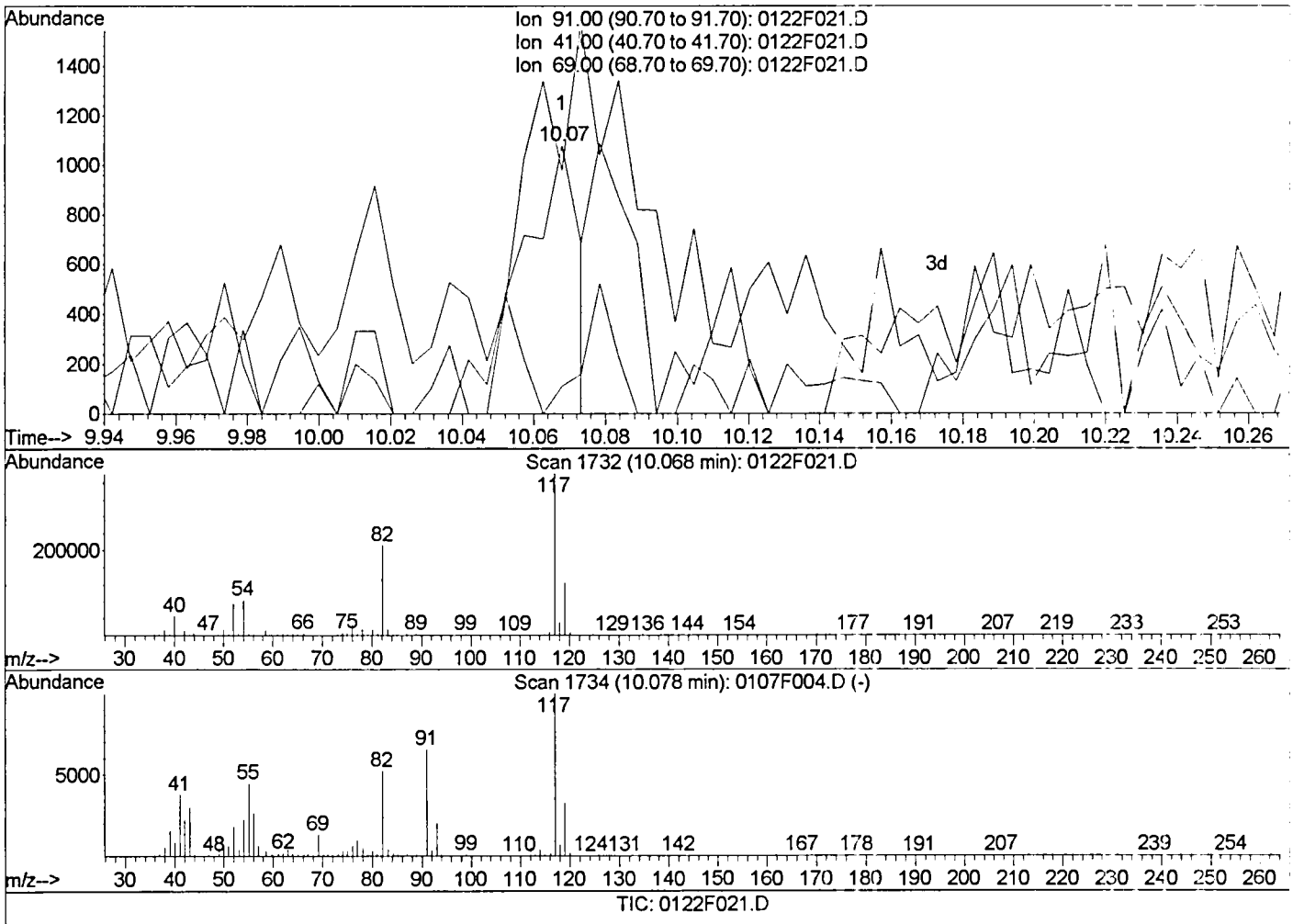
1/27/16

0122F021.D 010516MS46_8260.M Mon Jan 25 15:20:49 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F021.D Vial: 40
Acq On : 22 Jan 2016 22:59 Operator: YX
Sample : K1600673-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:21 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F021.D

(74) Ethyl methacrylate (T)

8.94min 0.00PPB d

response 0

Ion	Exp%	Act%
69.00	100	0.00
86.00	16.30	0.00
99.00	19.10	0.00
41.00	69.80	0.00

Manual Integration:

Before

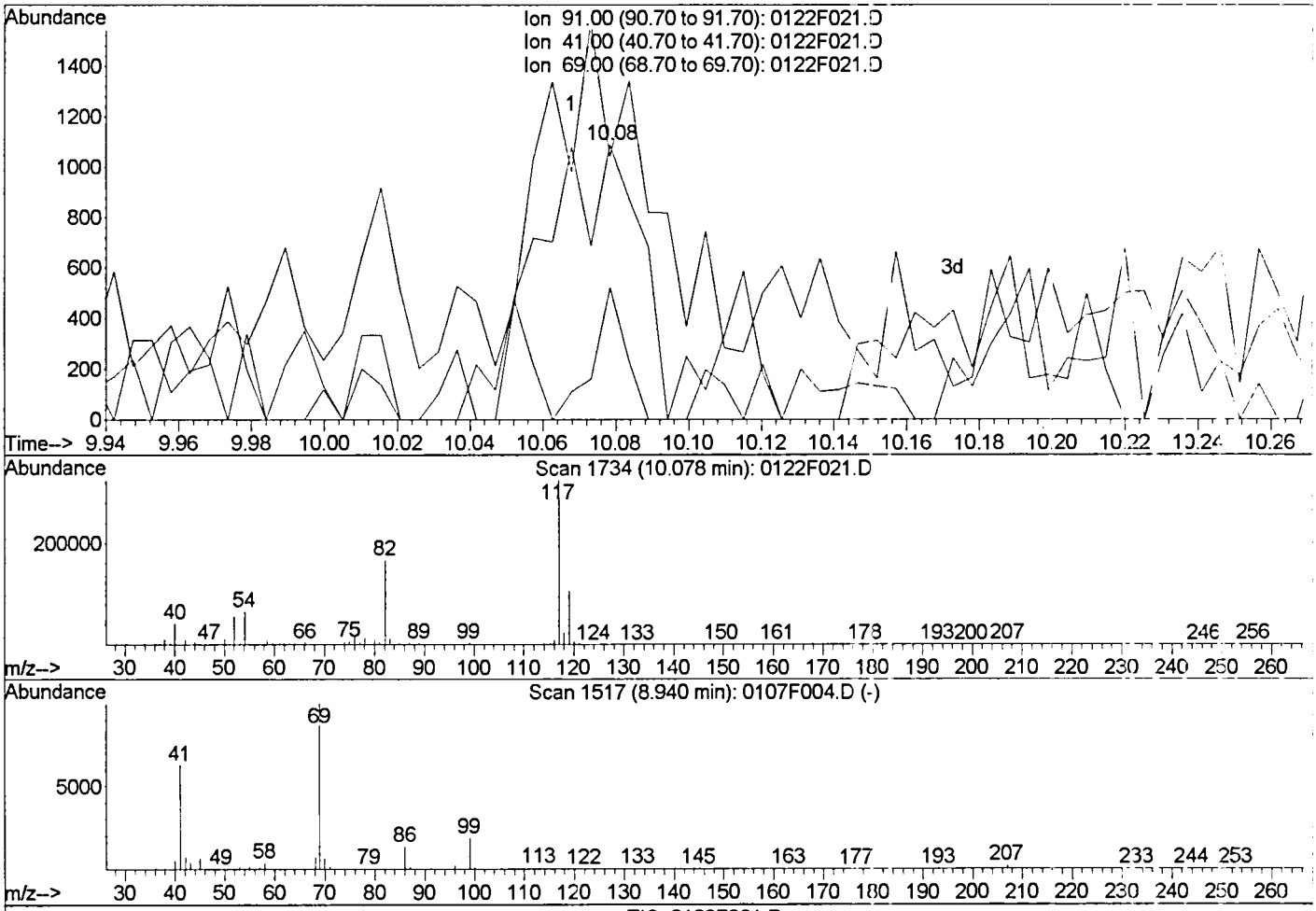
01/25/16

0122F021.D 010516MS46_8260.M Mon Jan 25 15:21:39 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F021.D Vial: 40
Acq On : 22 Jan 2016 22:59 Operator: YX
Sample : K1600673-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:21 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F021.D

(74) 1-Chlorohexane (T)

10.08min 0.05PPB m

response 2090

Ion	Exp%	Act%
91.00	100	100
41.00	55.40	45.49
69.00	18.10	685.03#
0.00	0.00	199.62#

Manual Integration:

After

Split peak

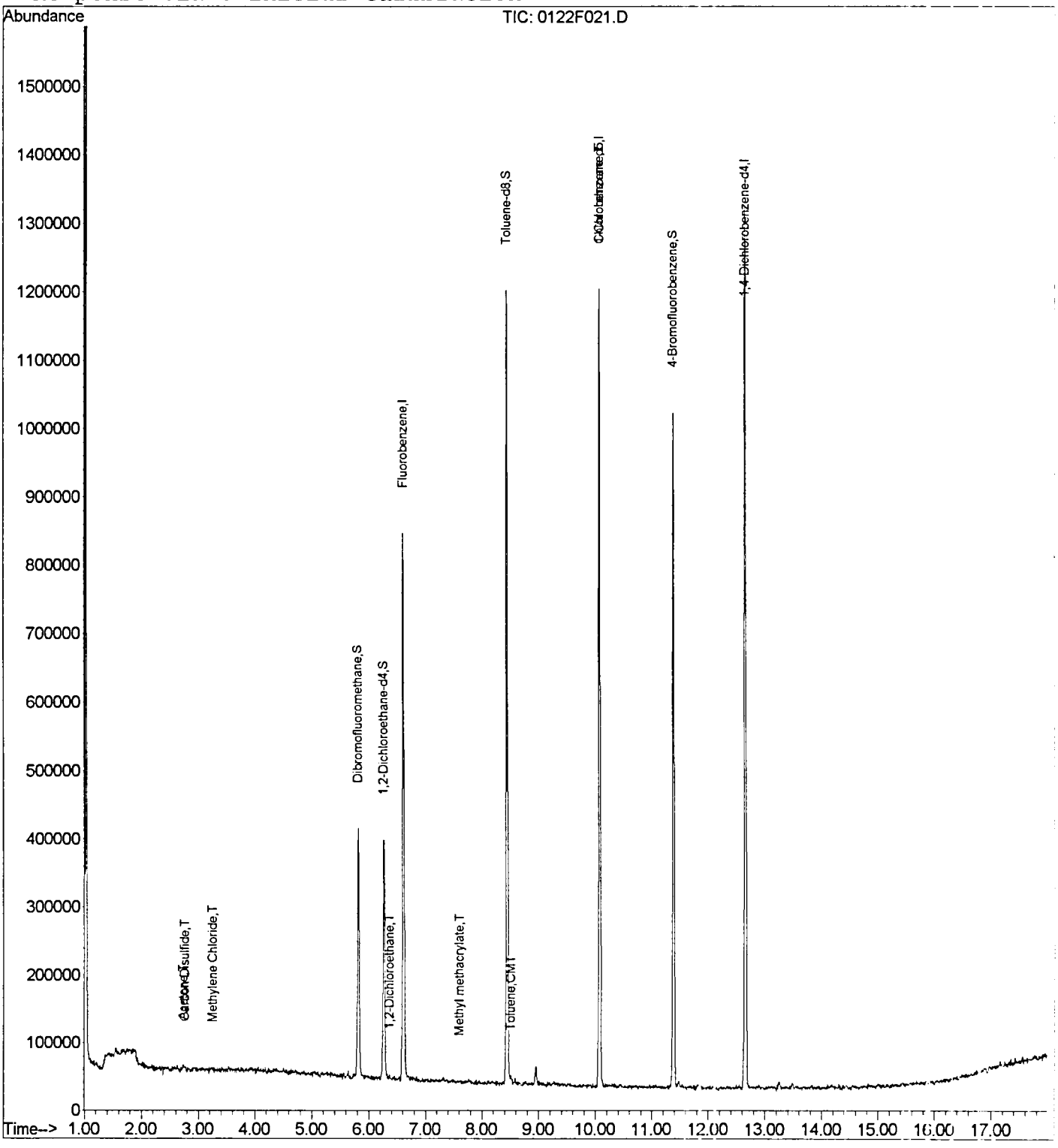
01/25/16

0122F021.D 010516MS46_8260.M Mon Jan 25 15:21:44 2016

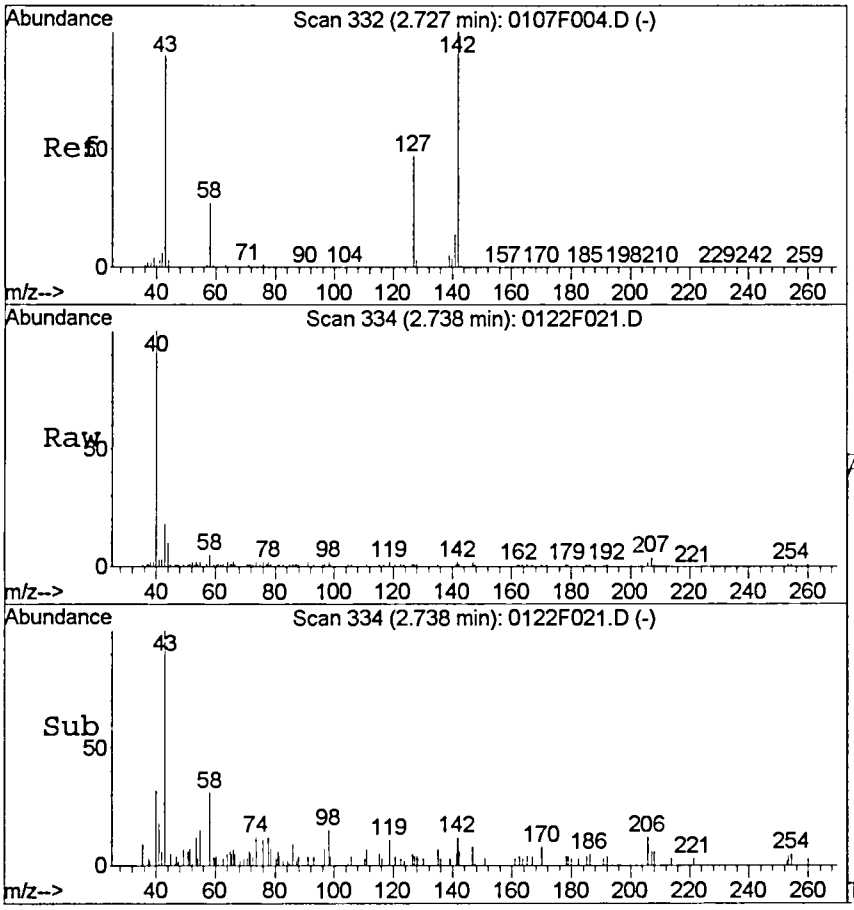
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F021.D Vial: 40
Acq On : 22 Jan 2016 22:59 Operator: YX
Sample : K1600673-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:21 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



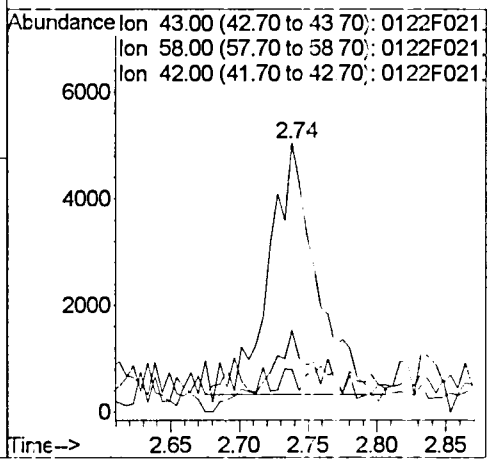
0122F021.D 010516MS46_8260.M Mon Jan 25 15:52:14 2016 Page 2

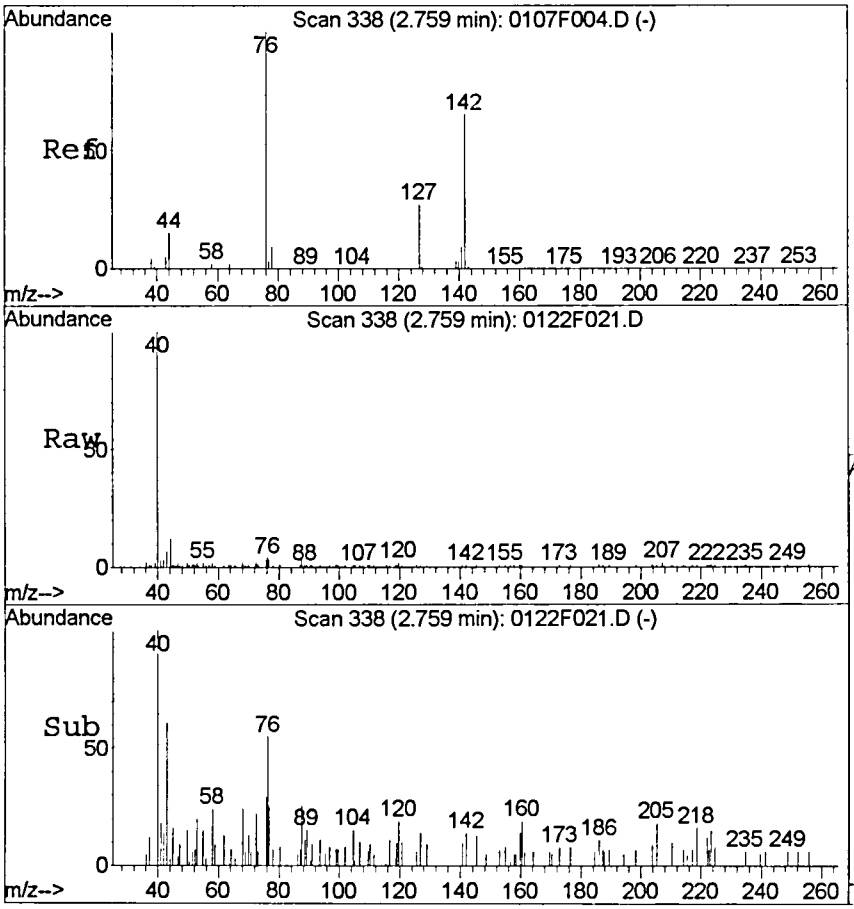


#14
Acetone
Concen: 4.06 PPB
RT: 2.74 min Scan# 334
Delta R.T. 0.01 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

Tgt Ion: 43 Resp: 11366

Ion	Ratio	Lower	Upper
43	100		
58	32.4	0.2	60.2
42	6.2	0.0	37.6

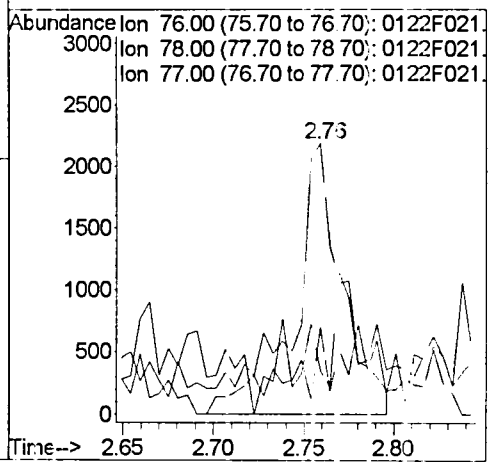


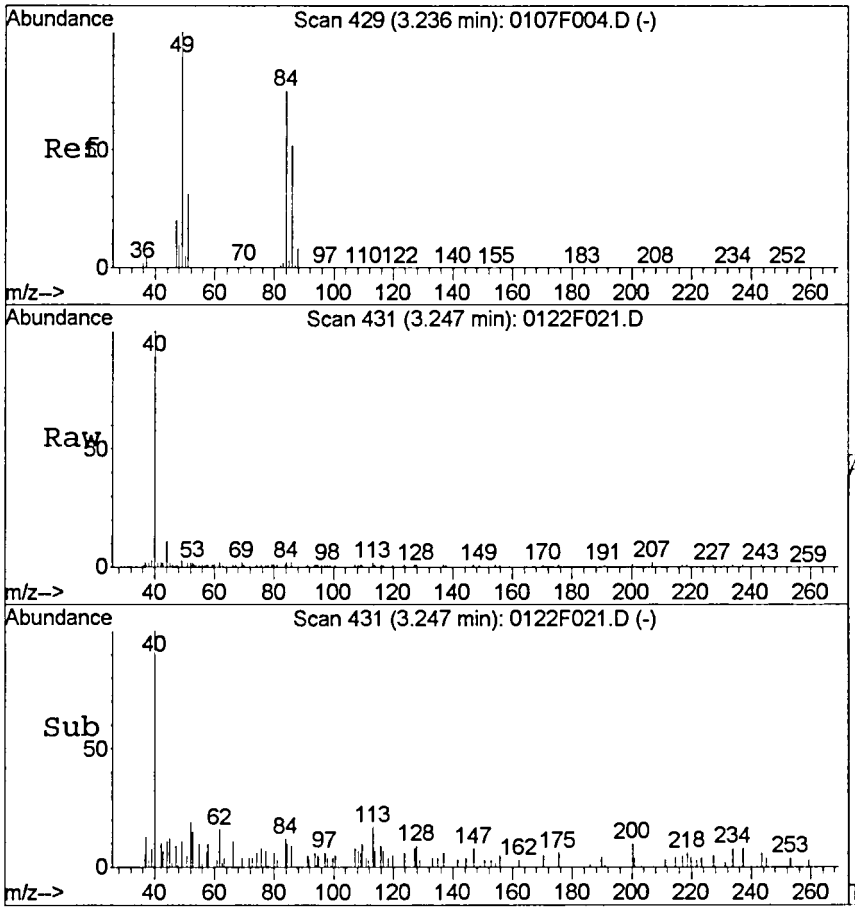


#16
Carbon Disulfide
Concen: 0.07 PPB
RT: 2.76 min Scan# 338
Delta R.T. 0.00 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

Tgt Ion: 76 Resp: 4079

Ion	Ratio	Lower	Upper
76	100		
78	1.8	0.0	39.0
77	18.2	0.0	32.5

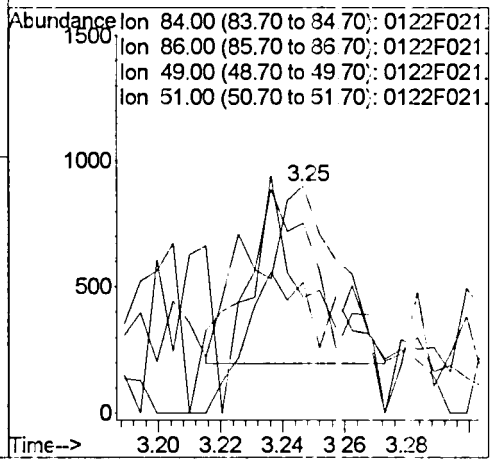


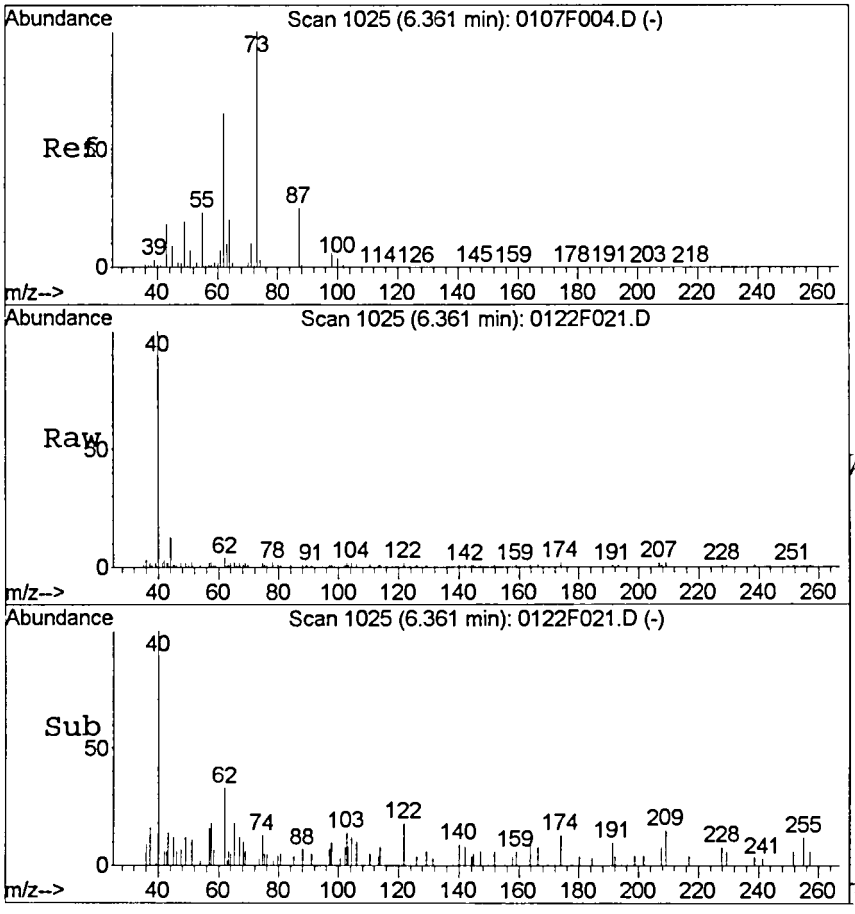


#21
Methylene Chloride
Concen: 0.06 PPB m
RT: 3.25 min Scan# 431
Delta R.T. 0.01 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

Tgt Ion: 84 Resp: 1329

Ion	Ratio	Lower	Upper
84	100		
86	102.4	33.3	93.3#
49	148.9	92.9	152.9
51	90.5	10.1	70.1#

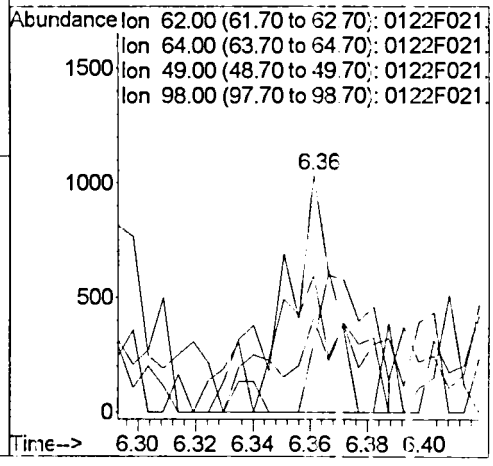


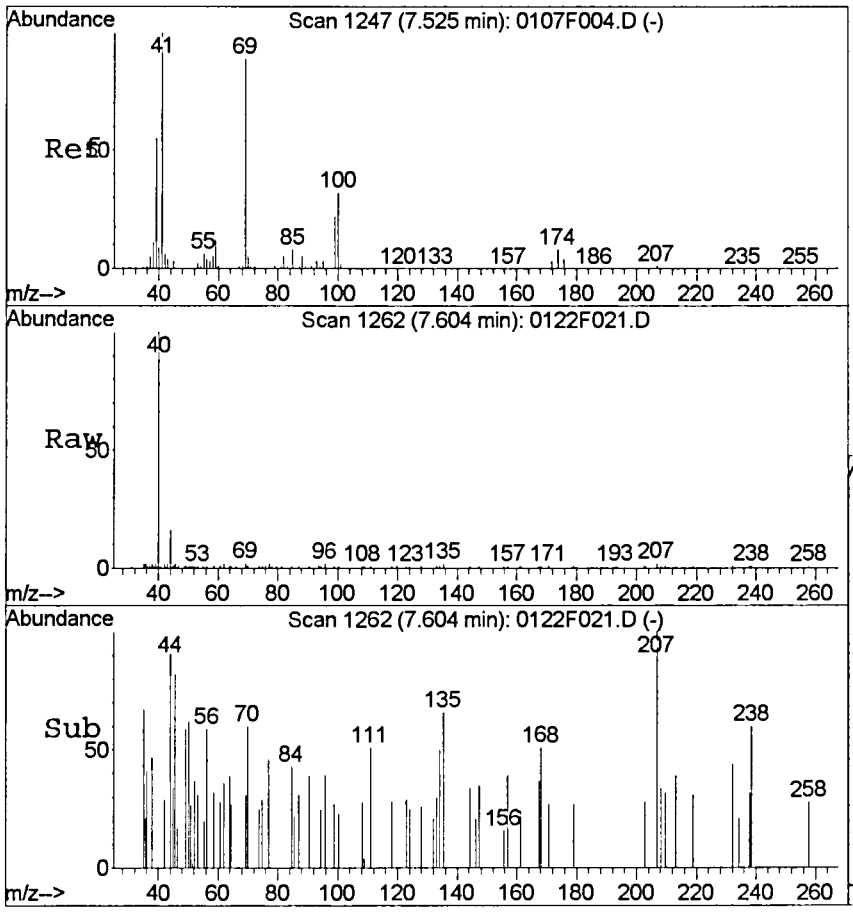


#49
1,2-Dichloroethane
Concen: 0.06 PPB
RT: 6.36 min Scan# 1025
Delta R.T. 0.00 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

Tgt Ion: 62 Resp: 1671

Ion	Ratio	Lower	Upper
62	100		
64	19.1	0.7	60.7
49	57.6	0.0	57.0#
98	28.9	0.0	39.2



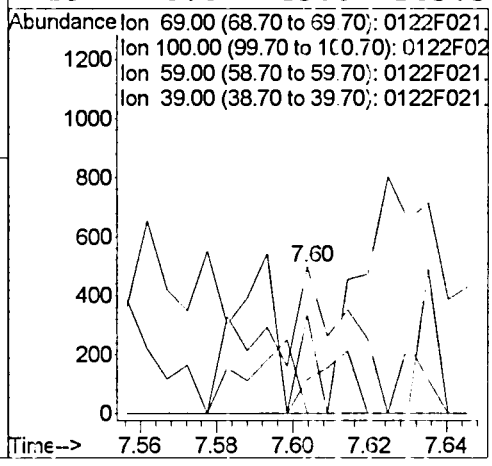


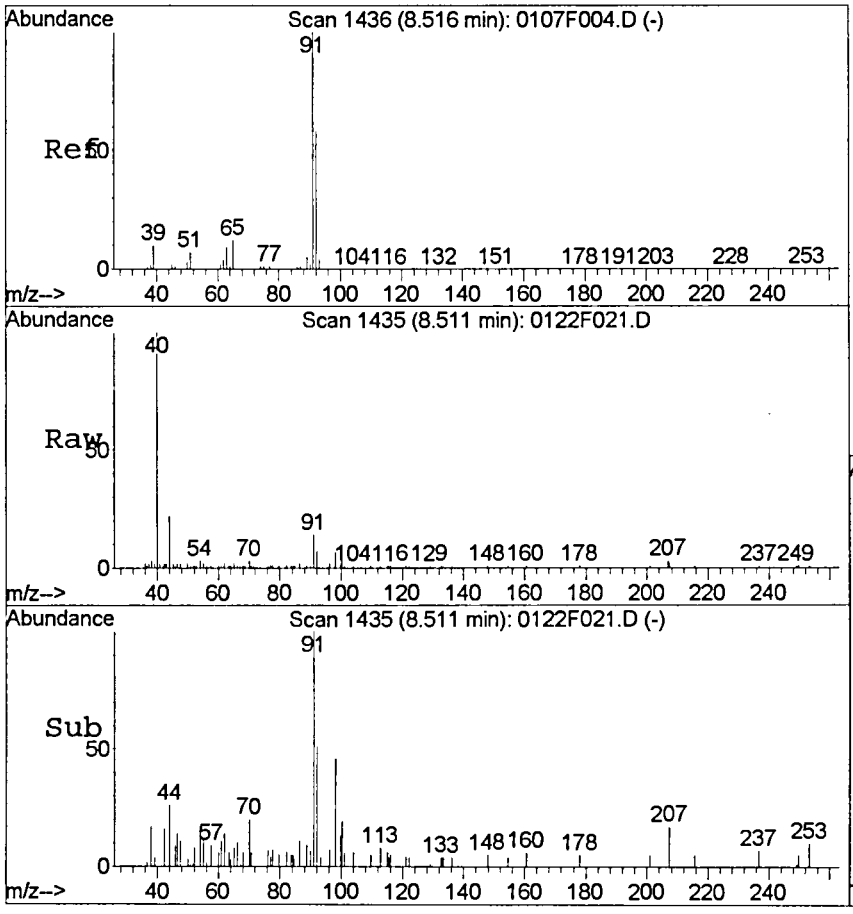
#55
Methyl methacrylate
Concen: 0.07 PPB
RT: 7.60 min Scan# 1262
Delta R.T. 0.03 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

deleted
RM 1/26/15

Tgt Ion: 69 Resp: 742

Ion	Ratio	Lower	Upper
69	100		
100	23.1	9.7	69.7
59	0.0	0.0	42.3
39	0.0	43.3	103.3#

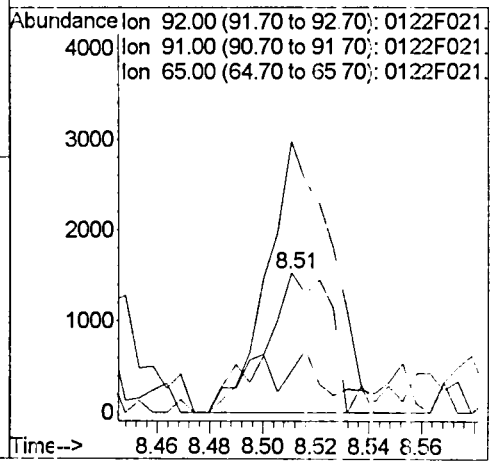


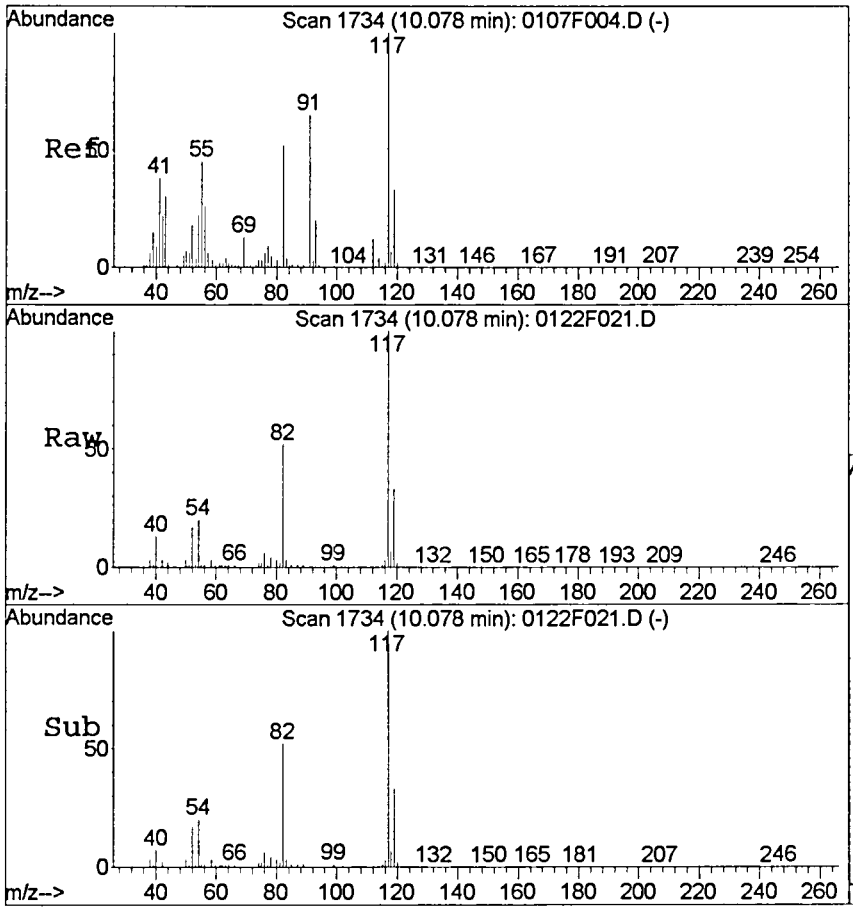


#63
Toluene
Concen: 0.04 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

Tgt Ion: 92 Resp: 2659

Ion	Ratio	Lower	Upper
92	100		
91	194.8	133.4	193.4#
65	29.6	0.0	49.2

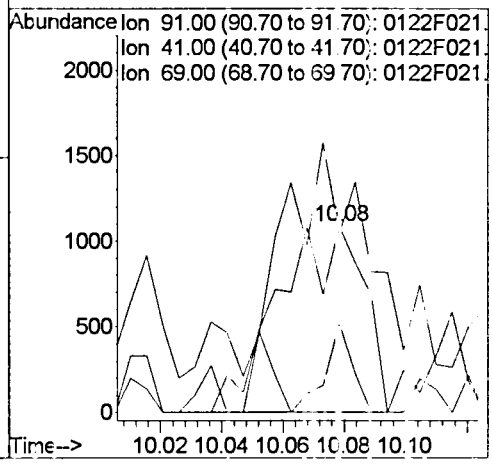




#74
1-Chlorohexane
Concen: 0.05 PPB m
RT: 10.08 min Scan# 1734
Delta R.T. 0.01 min
Lab File: 0122F021.D
Acq: 22 Jan 2016 22:59

Tgt Ion: 91 Resp: 2090

Ion	Ratio	Lower	Upper
91	100		
41	45.5	25.1	85.4
69	685.0	0.0	48.1#



Exception Report

Data File: J:\MS46\DATA\012216\0122F022.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 23:26
Date Quantitated: 01/25/2016 15:24
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: VTW 01/25/16

Secondary Review: KMM 1/27/16

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F022.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 23:26	**Quant Date:**	01/25/2016 15:24	**Vial:**	41
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495773	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.60	0.00	96	582409	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	302531	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	314293	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	5.82	0.01	0.00	113	173168	10.47	105	80-119	OK
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	179256	10.48	105	81-118	OK
1	Toluene-d8	8.44	0.00	0.00	98	640868	10.01	100	89-112	OK
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	269124	8.64	86	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.089	U	
1	Acetone	2.73		0.00	43	8499	3.73	3.7	J	
1	Methylene Chloride	3.24	0.01	0.00	84	1066	0.0600	0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F022.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 23:26	**Quant Date:**	01/25/2016 15:24	**Vial:**	41
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	5782	0.1100	0.11	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		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	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F022.D Vial: 41
Acq On : 22 Jan 2016 23:26 Operator: YX
Sample : K1600673-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:42 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

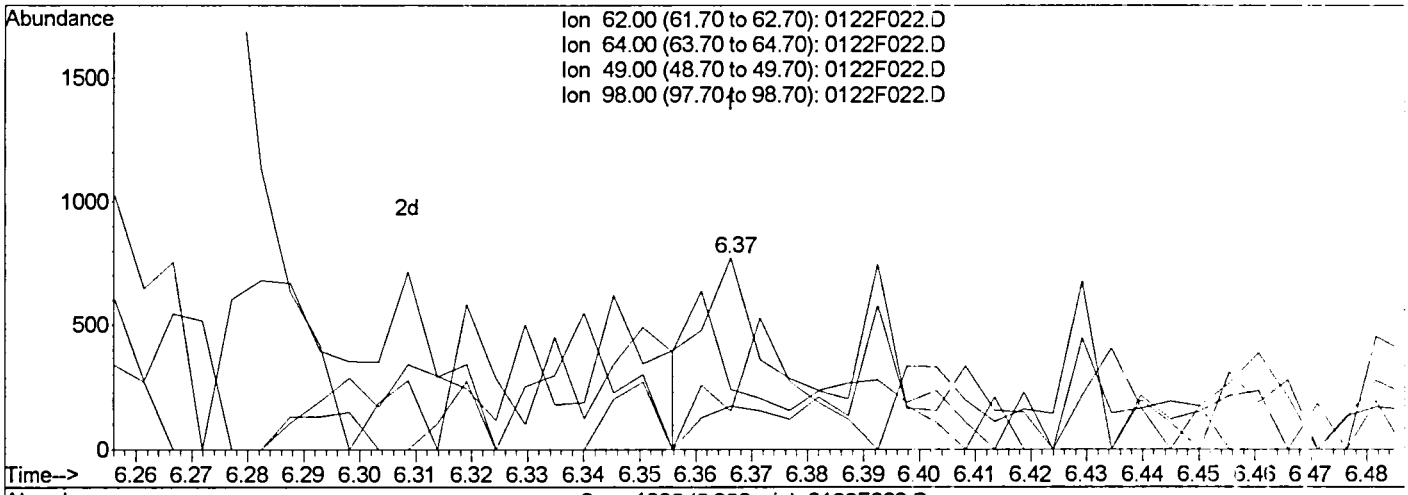
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.60	96	582409	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	302531	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	314293	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.82	113	173168	10.47	PPB		0.00
Spiked Amount 10.000			Recovery = 104.70%				
47) 1,2-Dichloroethane-d4	6.26	65	179256	10.48	PPB		0.00
Spiked Amount 10.000			Recovery = 104.80%				
62) Toluene-d8	8.44	98	640868	10.01	PPB		0.00
Spiked Amount 10.000			Recovery = 100.10%				
84) 4-Bromofluorobenzene	11.38	95	269124	8.64	PPB		0.00
Spiked Amount 10.000			Recovery = 86.40%				
Target Compounds							Qvalue
14) Acetone	2.73	43	8499	3.73	PPB		78
21) Methylene Chloride	3.24	84	1066	0.06	PPB	#	29
49) 1,2-Dichloroethane	6.37	62	1139m	0.05	PPB		
63) Toluene	8.51	92	5782	0.11	PPB		99

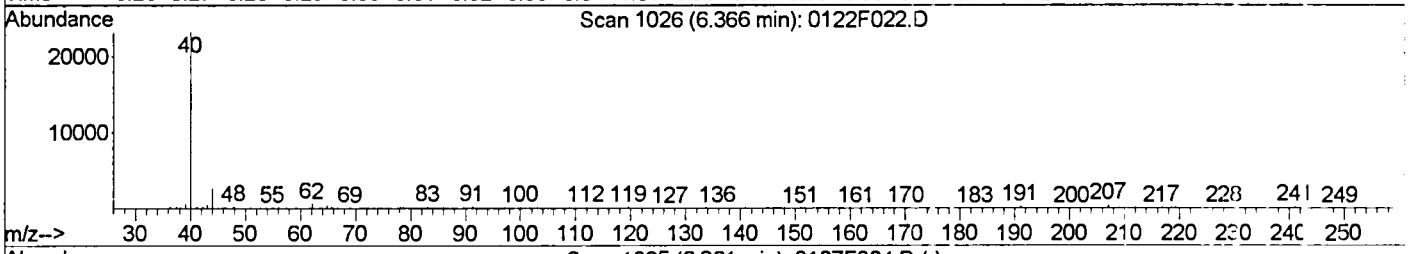
(#) = qualifier out of range (m) = manual integration
0122F022.D 010516MS46_8260.M Mon Jan 25 15:52:15 2016 Page 1

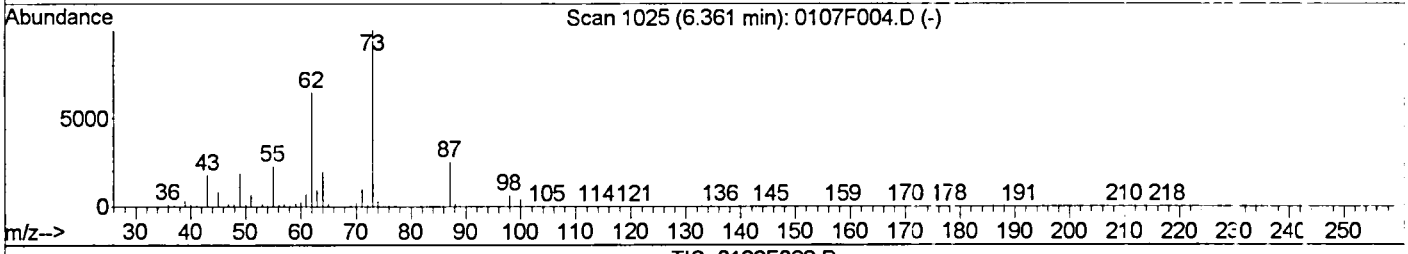
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F022.D Vial: 41
Acq On : 22 Jan 2016 23:26 Operator: YX
Sample : K1600673-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:23 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F022.D

(49) 1,2-Dichloroethane (T)

6.37min 0.04PPB

response 1014

Ion	Exp%	Act%
62.00	100	100
64.00	30.70	19.95
49.00	27.00	0.00
98.00	9.20	22.67

Manual Integration:

Before

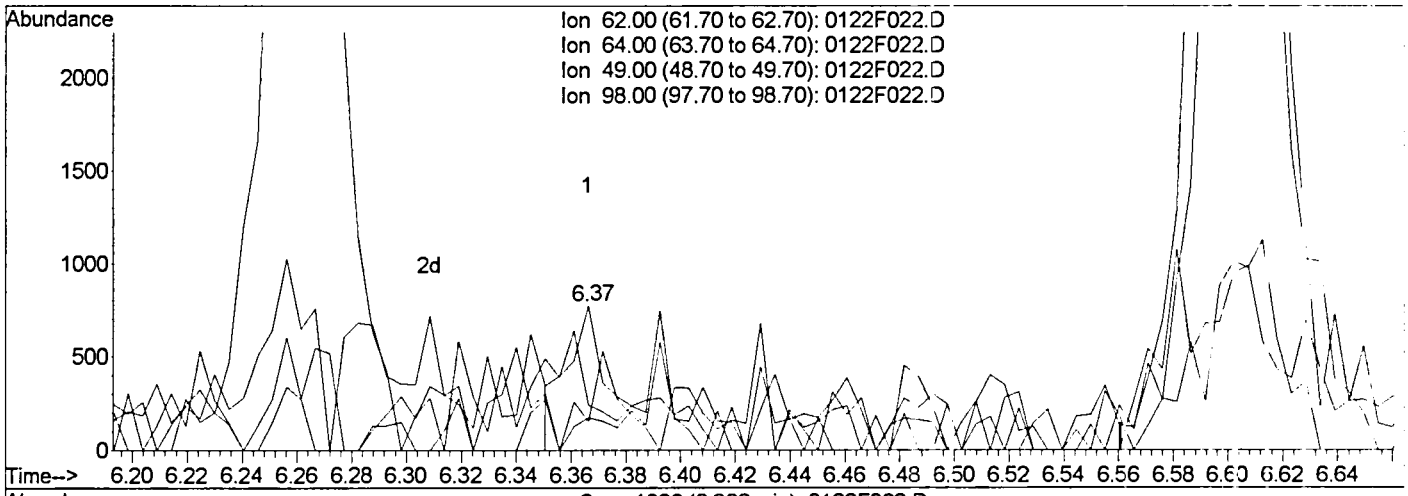
01/25/16

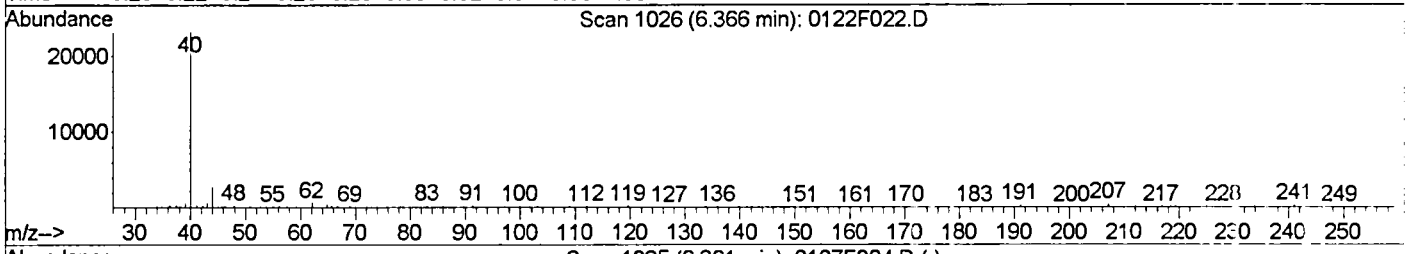
0122F022.D 010516MS46_8260.M Mon Jan 25 15:23:28 2016

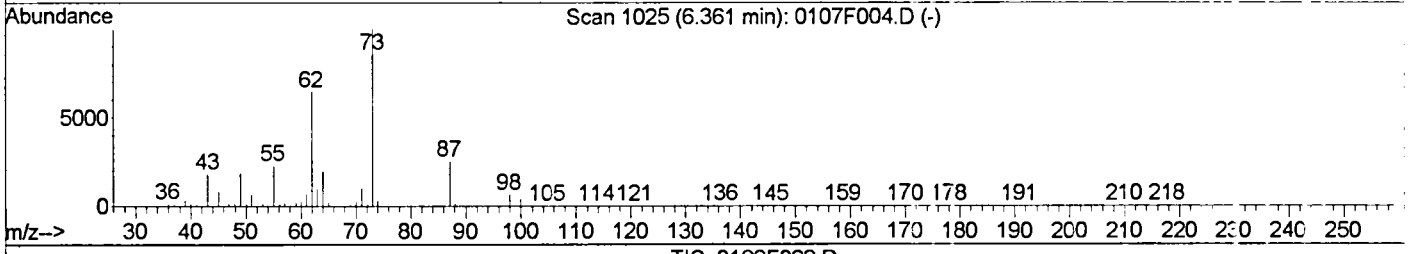
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F022.D Vial: 41
Acq On : 22 Jan 2016 23:26 Operator: YX
Sample : K1600673-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:23 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F022.D

(49) 1,2-Dichloroethane (T)

6.37min 0.05PPB m

response 1139

Ion	Exp%	Act%
62.00	100	100
64.00	30.70	19.95
49.00	27.00	15.93
98.00	9.20	22.67

Manual Integration:

After

Shoulder

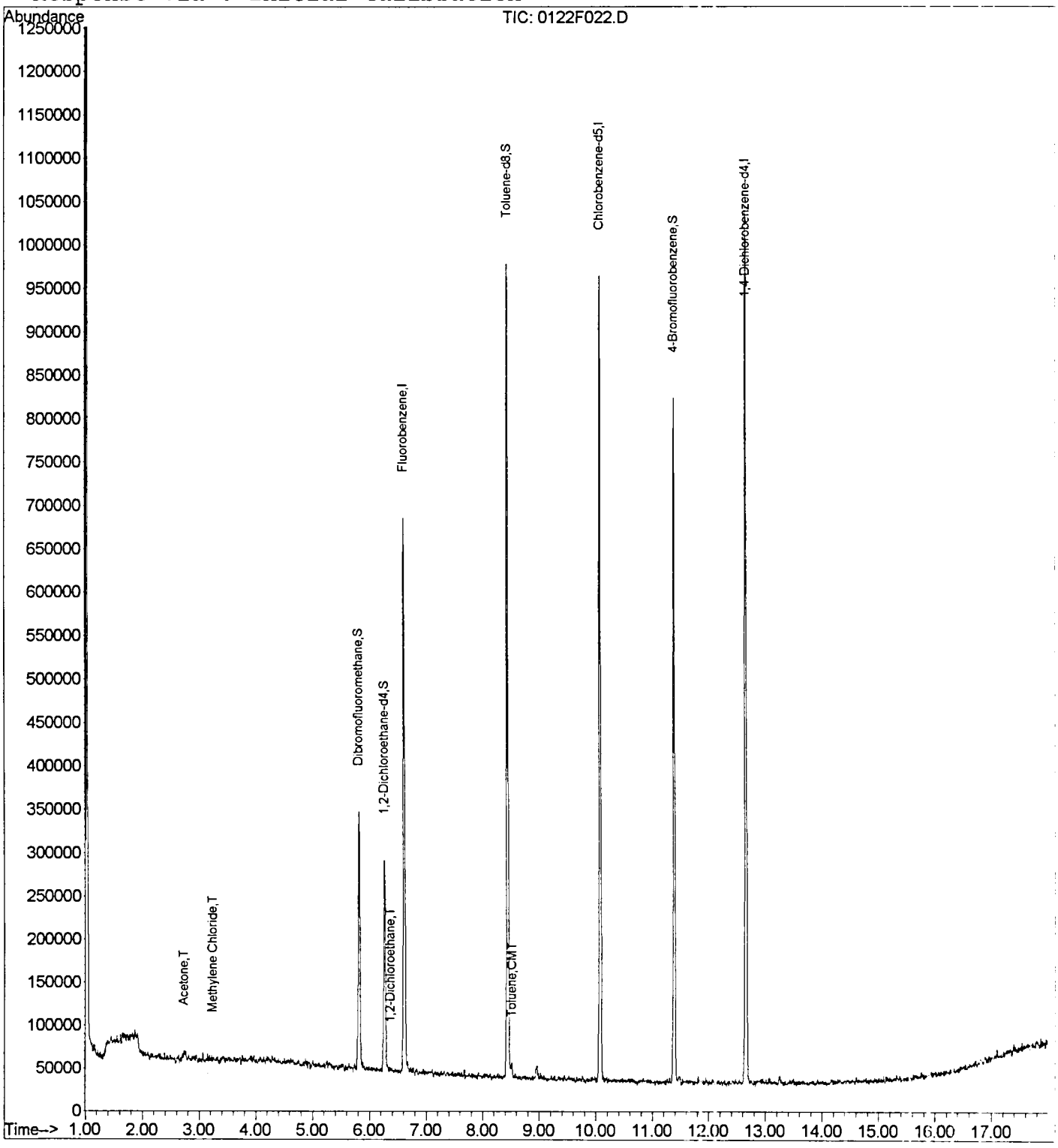
01/25/16

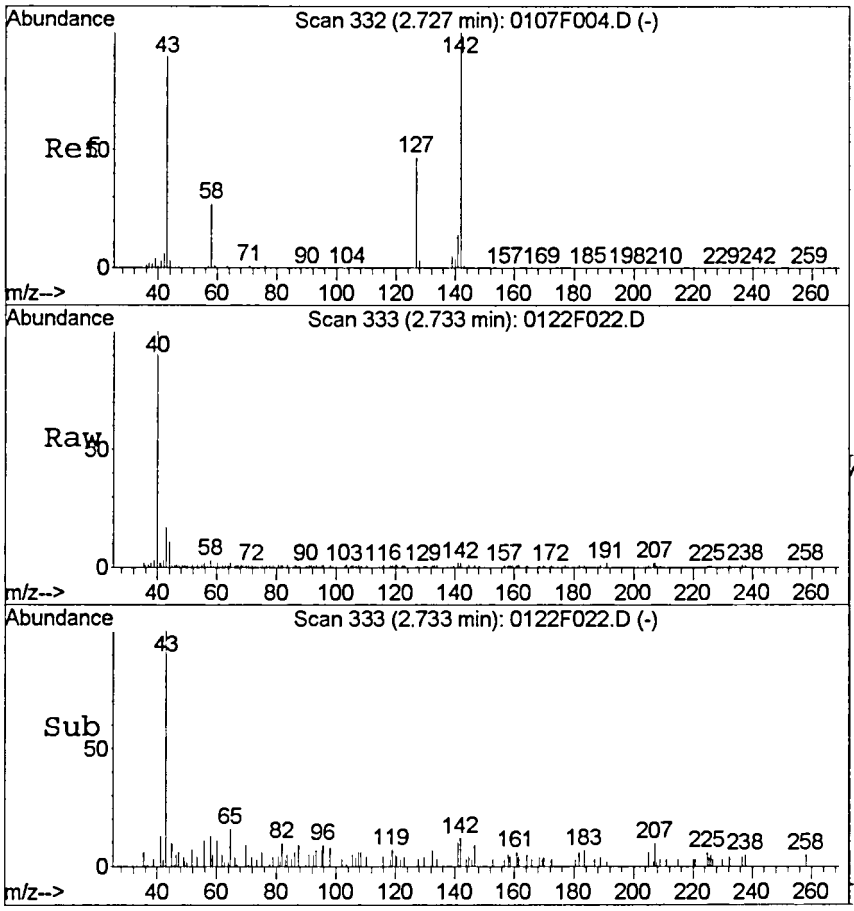
0122F022.D 010516MS46_8260.M Mon Jan 25 15:23:47 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F022.D Vial: 41
Acq On : 22 Jan 2016 23:26 Operator: YX
Sample : K1600673-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:24 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

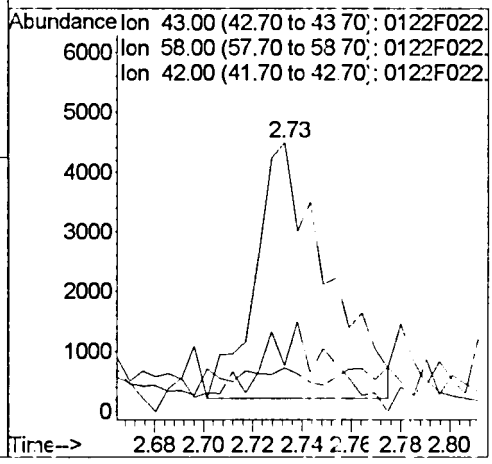


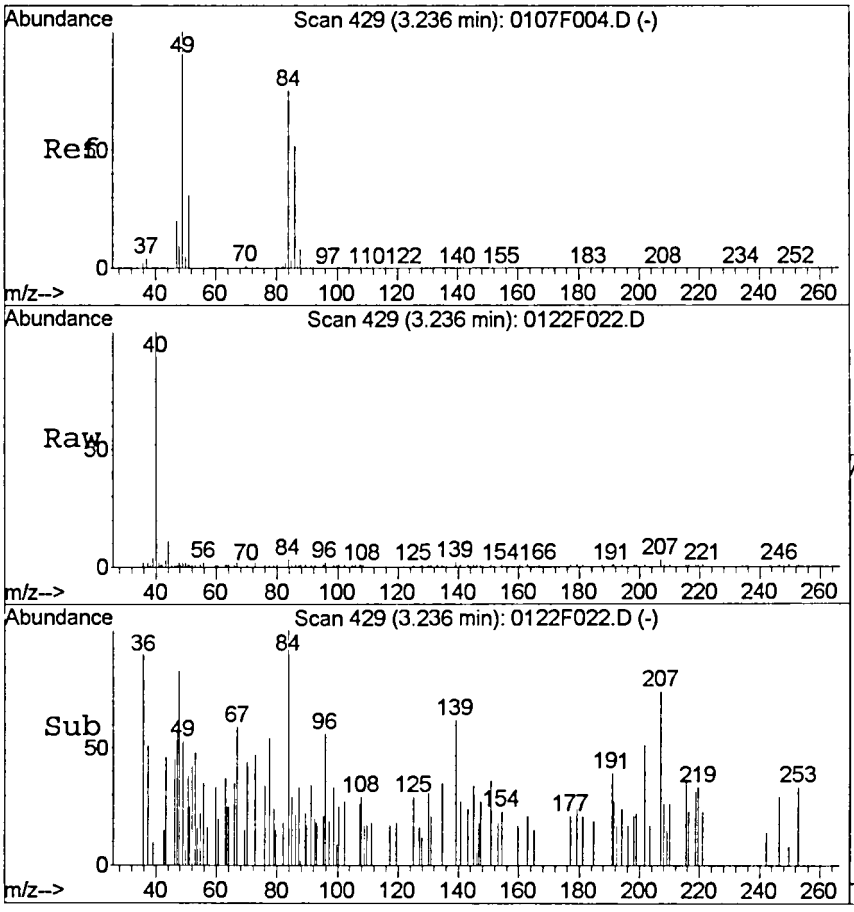


#14
Acetone
Concen: 3.73 PPB
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F022.D
Acq: 22 Jan 2016 23:26

Tgt Ion: 43 Resp: 8499

Ion	Ratio	Lower	Upper
43	100		
58	17.8	0.2	60.2
42	0.4	0.0	37.6

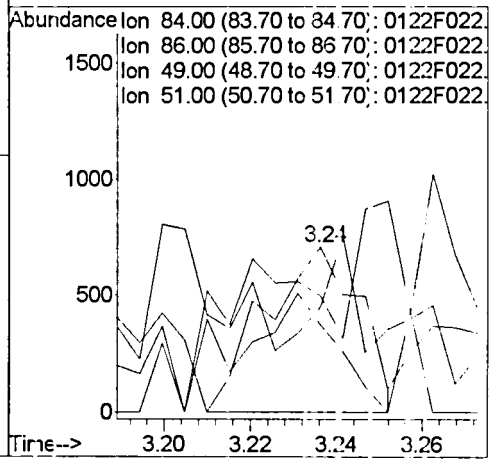


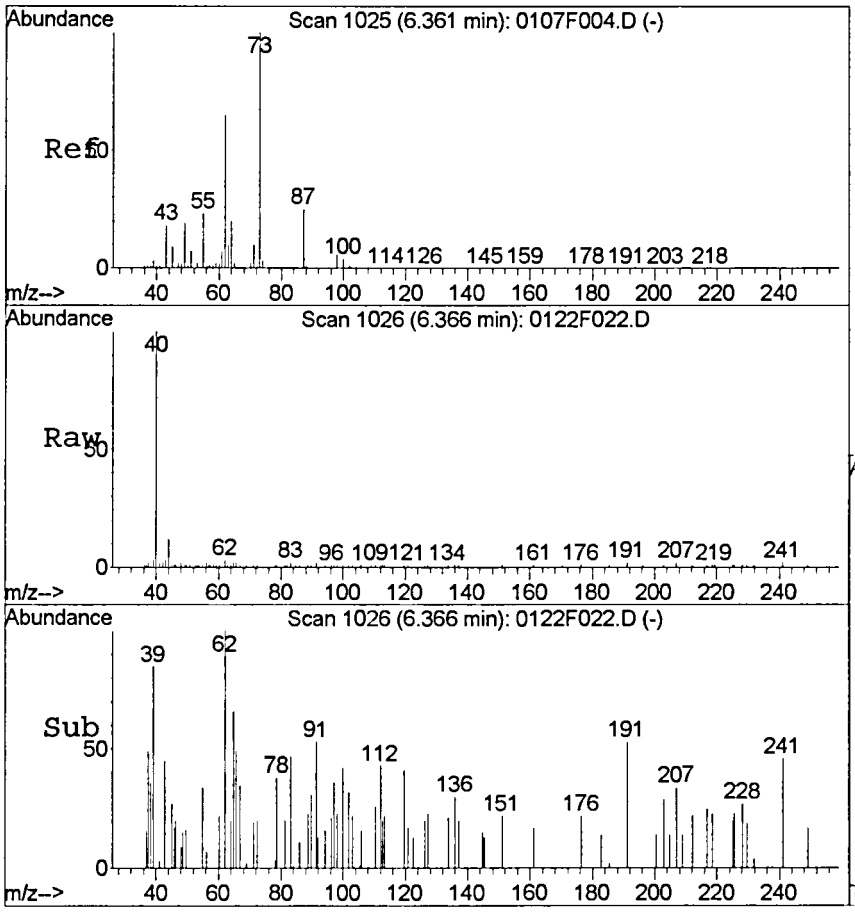


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 3.24 min Scan# 429
Delta R.T. 0.00 min
Lab File: 0122F022.D
Acq: 22 Jan 2016 23:26

Tgt Ion: 84 Resp: 1066

Ion	Ratio	Lower	Upper
84	100		
86	52.7	33.3	93.3
49	0.0	92.9	152.9#
51	13.2	10.1	70.1

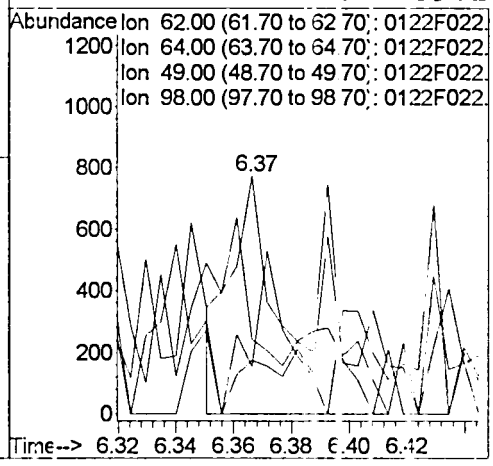


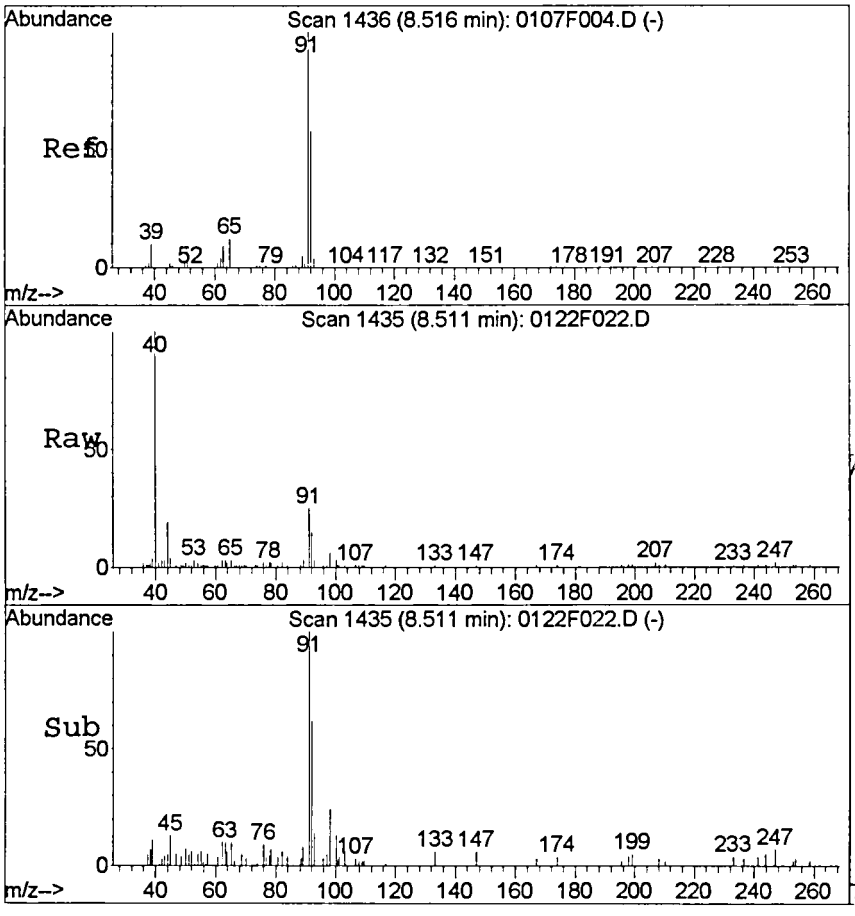


#49
1,2-Dichloroethane
Concen: 0.05 PPB m
RT: 6.37 min Scan# 1026
Delta R.T. 0.01 min
Lab File: 0122F022.D
Acq: 22 Jan 2016 23:26

Tgt Ion: 62 Resp: 1139

Ion	Ratio	Lower	Upper
62	100		
64	19.9	0.7	60.7
49	15.9	0.0	57.0
98	22.7	0.0	39.2

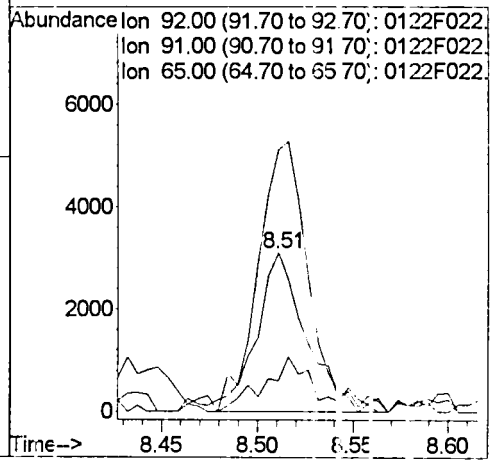




#63
Toluene
Concen: 0.11 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F022.D
Acq: 22 Jan 2016 23:26

Tgt Ion: 92 Resp: 5782

Ion	Ratio	Lower	Upper
92	100		
91	164.7	133.4	193.4
65	19.5	0.0	49.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F023.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 01/22/2016 23:52
Date Quantitated: 01/25/2016 15:25
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: VTO 1/25/16

Secondary Review: KA 1/27/16

Printed: 01/25/2016 16:38:20
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F023.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 23:52	**Quant Date:**	01/25/2016 17:56	**Vial:**	42
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495774	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.60	0.00	96	592447	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	301832	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	317773	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	5.82	0.01	0.00	113	175137	10.41	104	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	181511	10.43	104	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	639485	9.82	98	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	272260	8.76	88	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.10	U	
1	Chloroethane				64	0d		0.10	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.74	0.01	0.00	43	8311m	3.59	3.6	J	
1	Methylene Chloride				84	0d		0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F023.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 23:52	**Quant Date:**	01/25/2016 17:56	**Vial:**	42
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0d		0.10	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	8709	0.1600	0.10	J	
2	trans-1,3-Dichloropropene				75	0c		0.063	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.1	U	
2	Ethylbenzene				106	0		0.059	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.1	U	
2	m,p-Xylenes				106	0		0.1	U	
2	o-Xylene				106	0		0.071	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.10	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		0.1	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:\MS46\DATA\012216\0122F023.D Vial: 42
Acq On : 22 Jan 2016 23:52 Operator: YX
Sample : K1600673-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:43 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

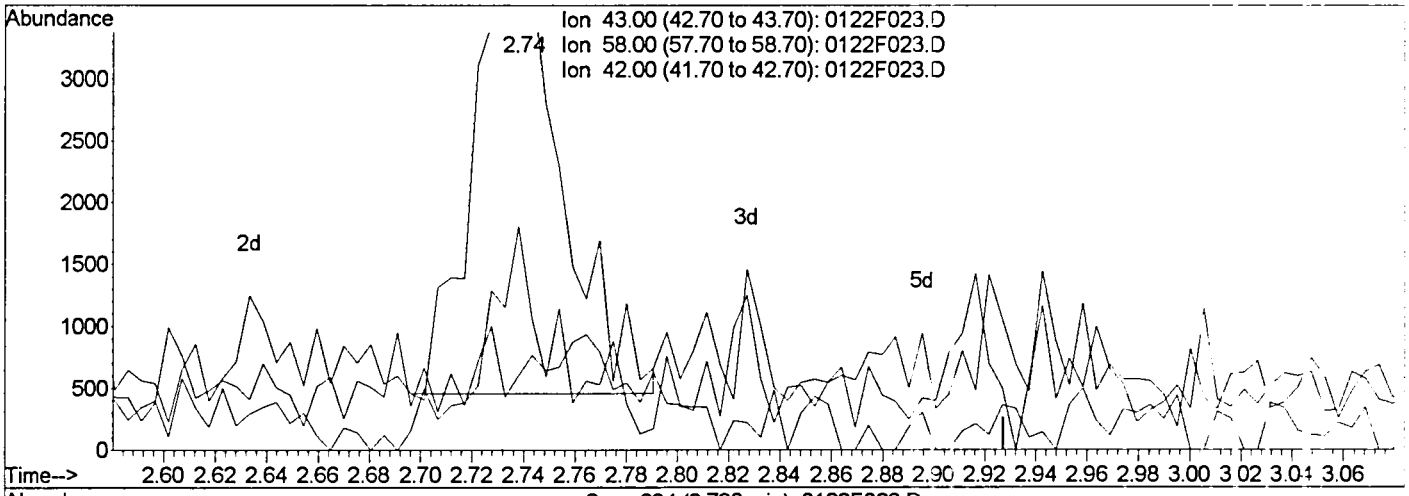
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.60	96	592447	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	301832	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	317773	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	175137	10.41	PPB	0.00
Spiked Amount 10.000			Recovery = 104.10%			
47) 1,2-Dichloroethane-d4	6.26	65	181511	10.43	PPB	0.00
Spiked Amount 10.000			Recovery = 104.30%			
62) Toluene-d8	8.44	98	639485	9.82	PPB	0.00
Spiked Amount 10.000			Recovery = 98.20%			
84) 4-Bromofluorobenzene	11.38	95	272260	8.76	PPB	0.00
Spiked Amount 10.000			Recovery = 87.60%			
Target Compounds						Qvalue
14) Acetone	2.74	43	8311m	3.59	PPB	
15) Iodomethane	2.75	142	906	0.04	PPB	# 48
16) Carbon Disulfide	2.77	76	1765	0.03	PPB	43
49) 1,2-Dichloroethane	6.36	62	921	0.04	PPB	# 71
63) Toluene	8.51	92	8709	0.16	PPB	91
74) 1-Chlorohexane	10.07	91	2349	0.07	PPB	89

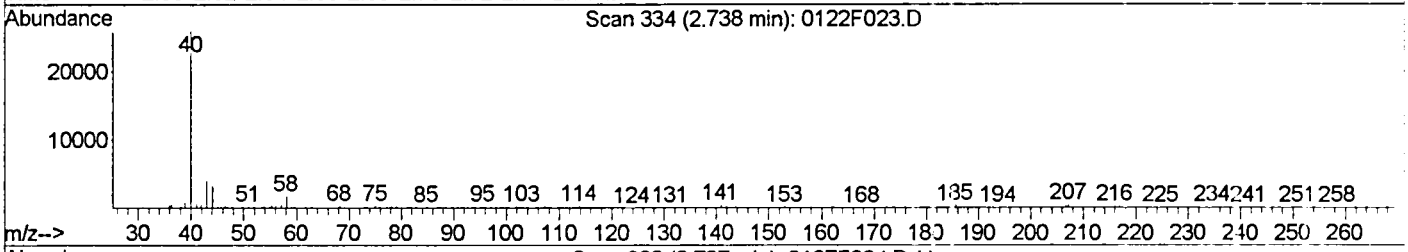
(#) = qualifier out of range (m) = manual integration

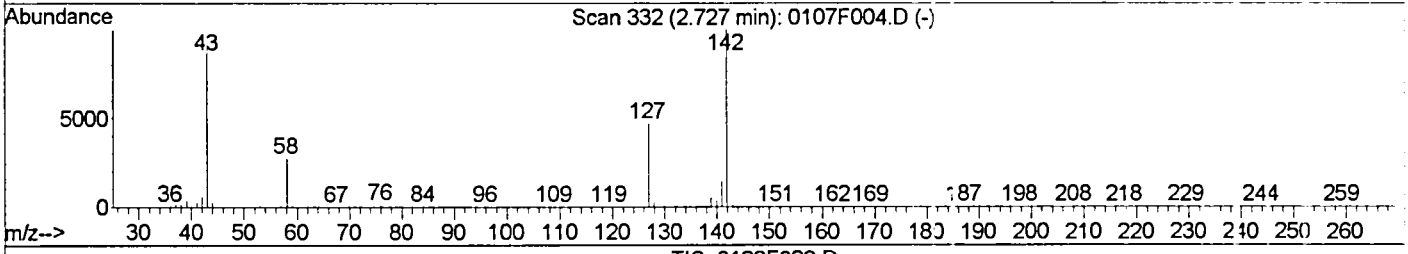
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F023.D Vial: 42
Acq On : 22 Jan 2016 23:52 Operator: YX
Sample : K1600673-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:25 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F023.D

(14) Acetone (T)

2.74min 3.61PPB

response 8365

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	45.70
42.00	7.60	0.00
0.00	0.00	0.00

Manual Integration:

Before

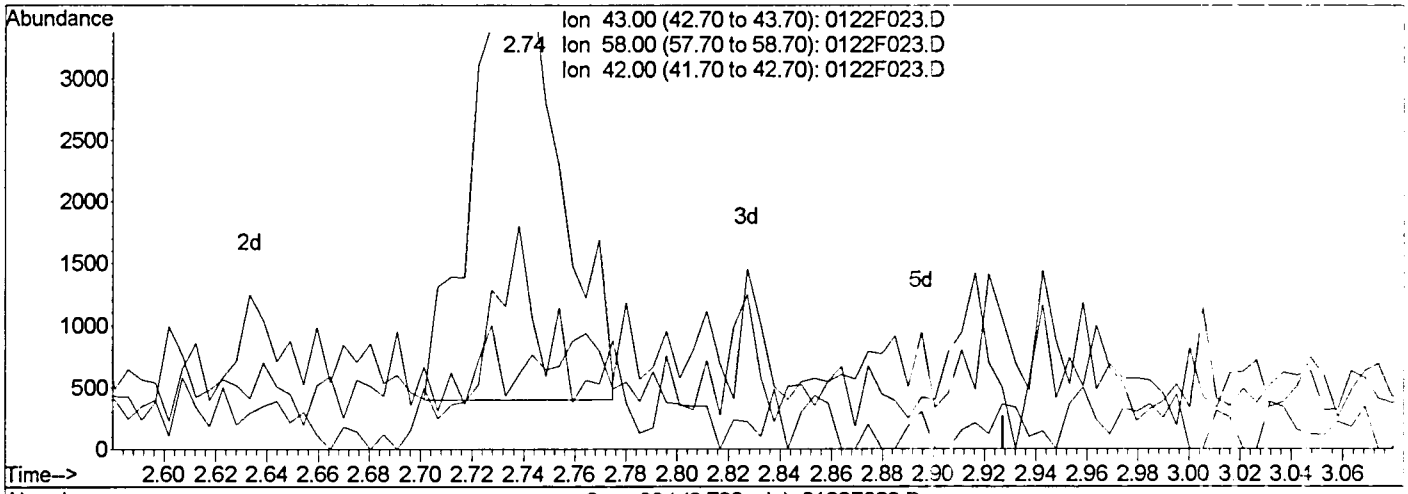
01/25/16

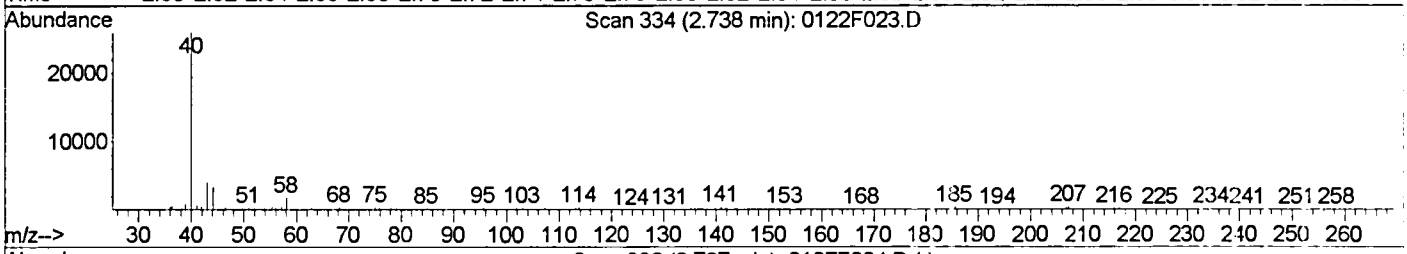
0122F023.D 010516MS46_8260.M Mon Jan 25 17:57:02 2016

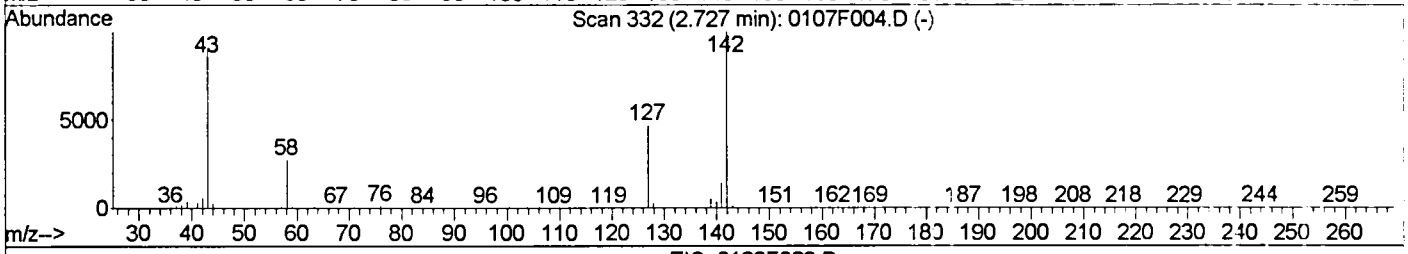
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F023.D Vial: 42
Acq On : 22 Jan 2016 23:52 Operator: YX
Sample : K1600673-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:56 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F023.D

(14) Acetone (T)

2.74min 3.59PPB m

response 8311

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	44.38
42.00	7.60	14.85
0.00	0.00	0.00

Manual Integration:

After

Shoulder

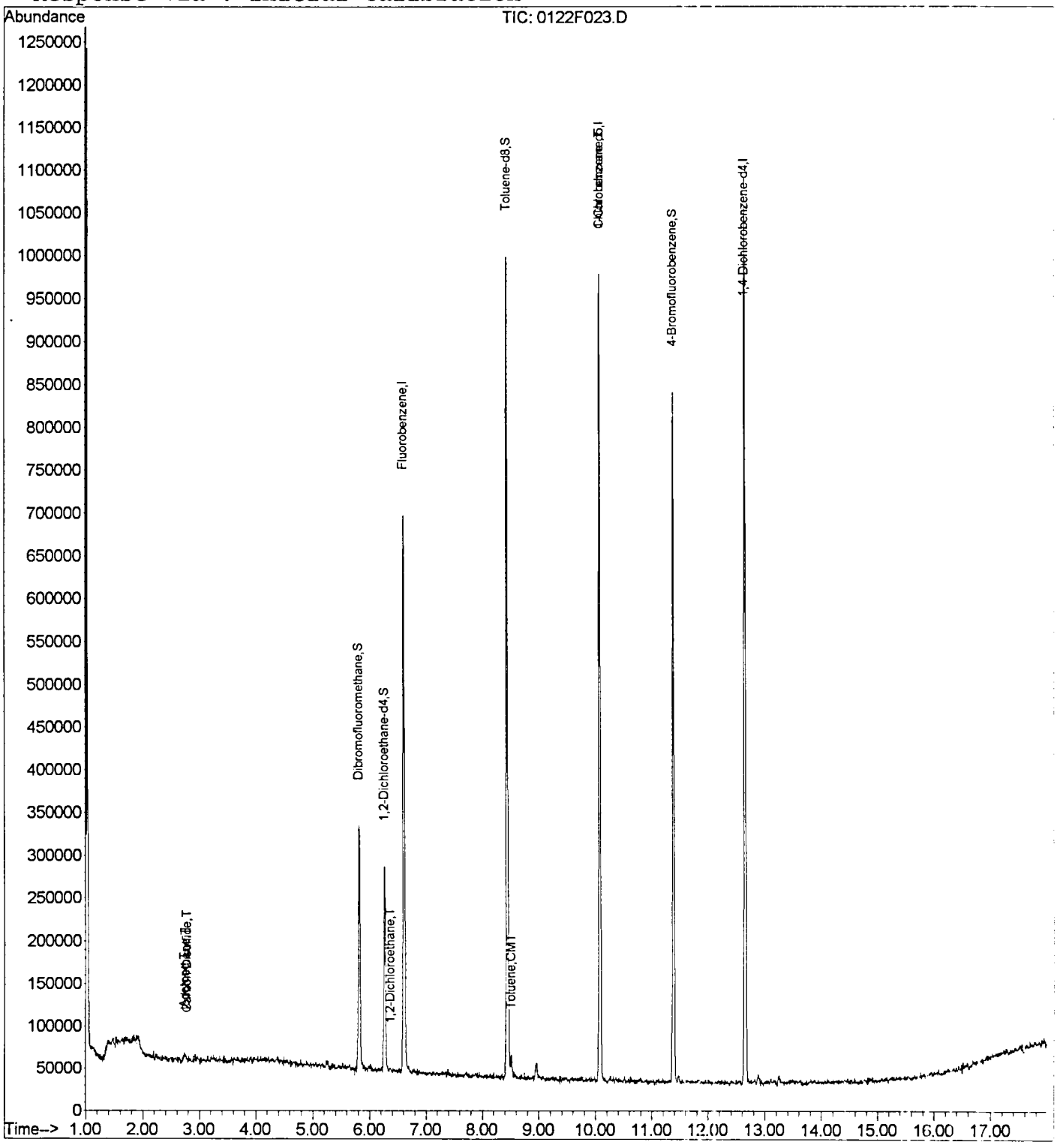
01/25/16

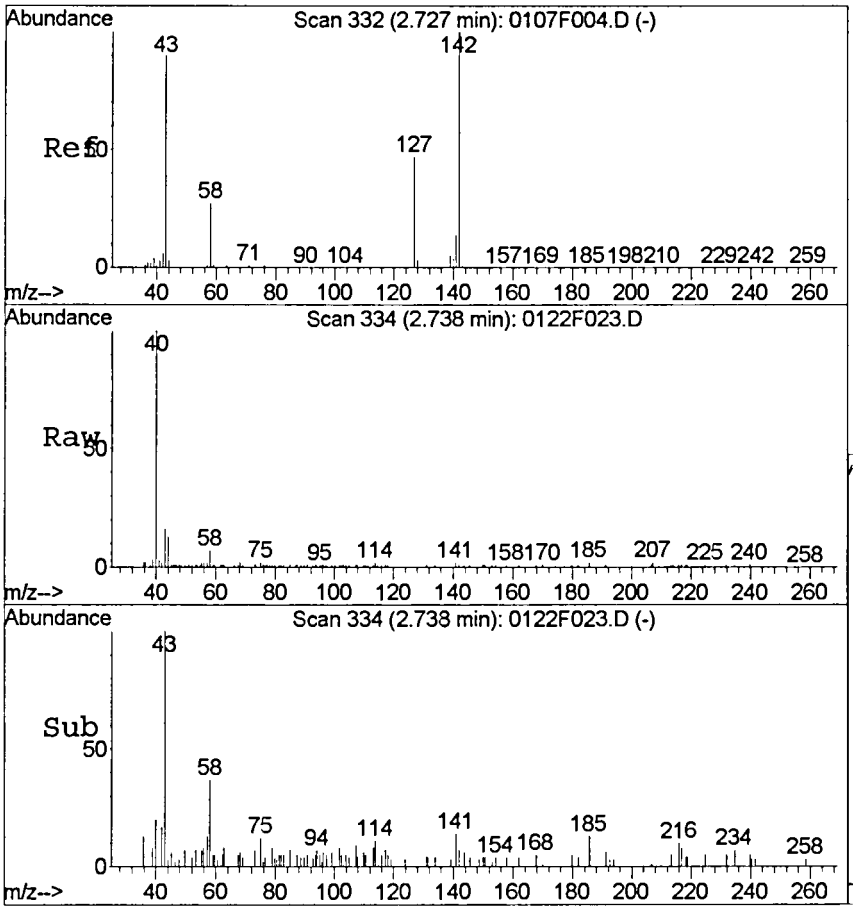
0122F023.D 010516MS46_8260.M Mon Jan 25 17:57:14 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F023.D Vial: 42
Acq On : 22 Jan 2016 23:52 Operator: YX
Sample : K1600673-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:56 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

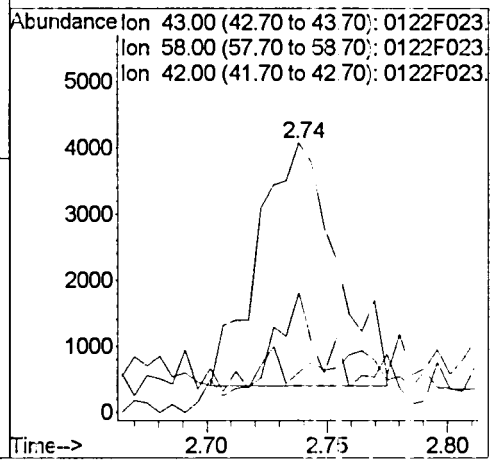


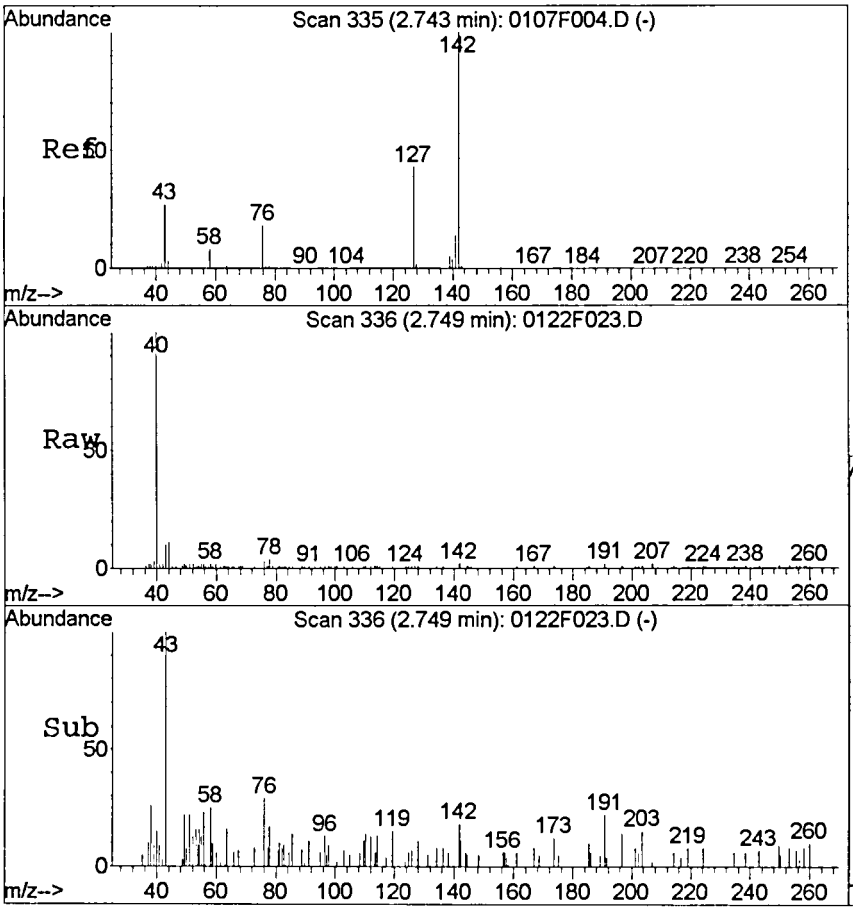


#14
Acetone
Concen: 3.59 PPB m
RT: 2.74 min Scan# 334
Delta R.T. 0.01 min
Lab File: 0122F023.D
Acq: 22 Jan 2016 23:52

Tgt Ion: 43 Resp: 8311

Ion	Ratio	Lower	Upper
43	100		
58	44.4	0.2	60.2
42	14.9	0.0	37.6

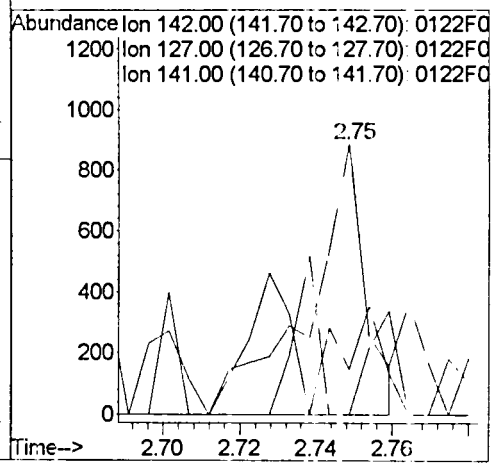


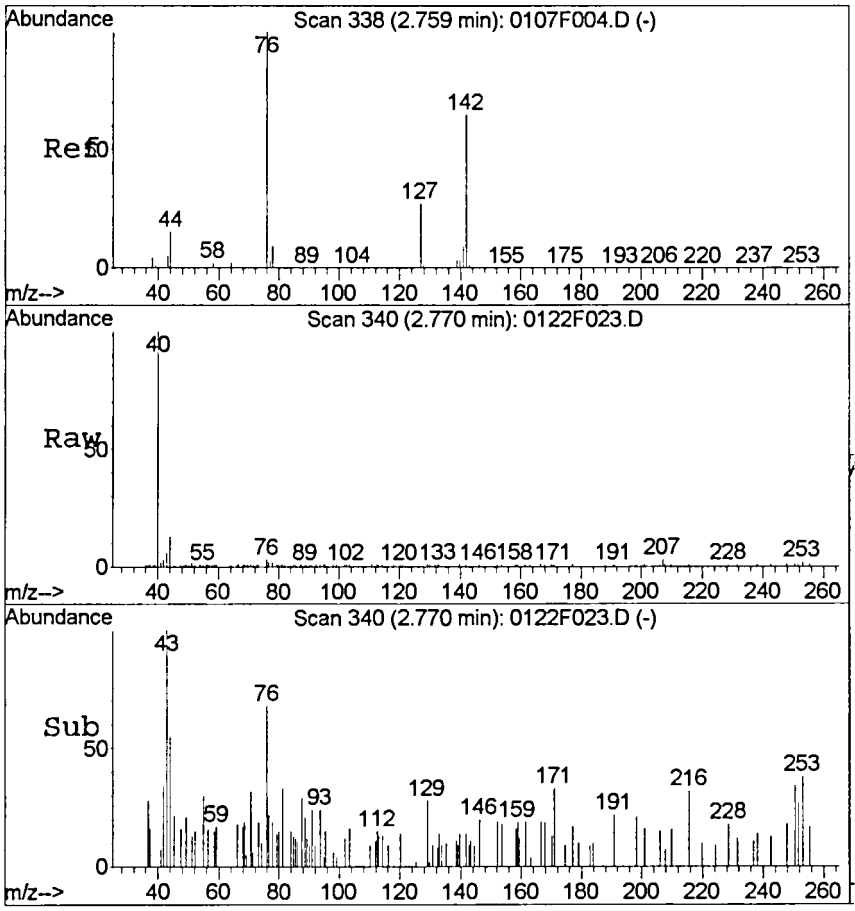


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.75 min Scan# 336
Delta R.T. 0.01 min
Lab File: 0122F023.D
Acq: 22 Jan 2016 23:52

Tgt Ion:142 Resp: 906

Ion	Ratio	Lower	Upper
142	100		
127	16.6	13.6	73.6
141	48.8	0.0	44.6#

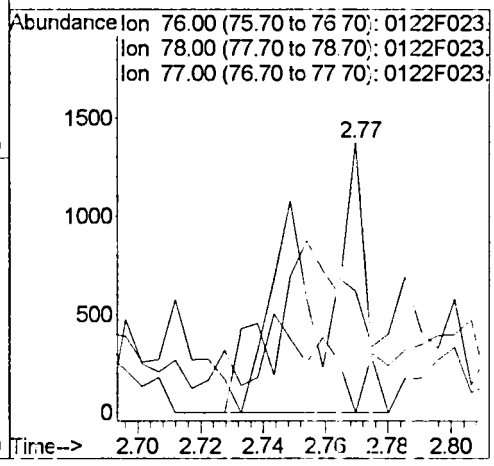


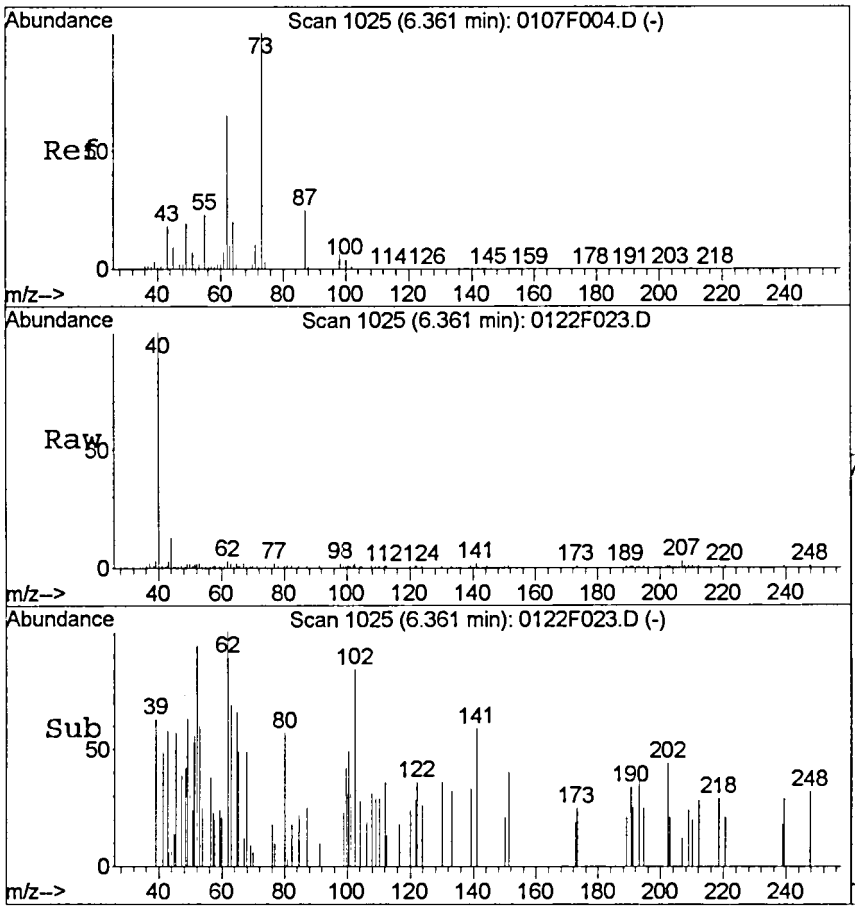


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.77 min Scan# 340
Delta R.T. 0.01 min
Lab File: 0122F023.D
Acq: 22 Jan 2016 23:52

Tgt Ion: 76 Resp: 1765

Ion	Ratio	Lower	Upper
76	100		
78	34.5	0.0	39.0
77	0.0	0.0	32.5

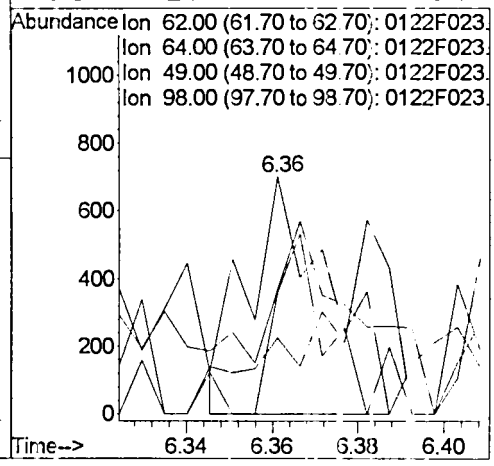


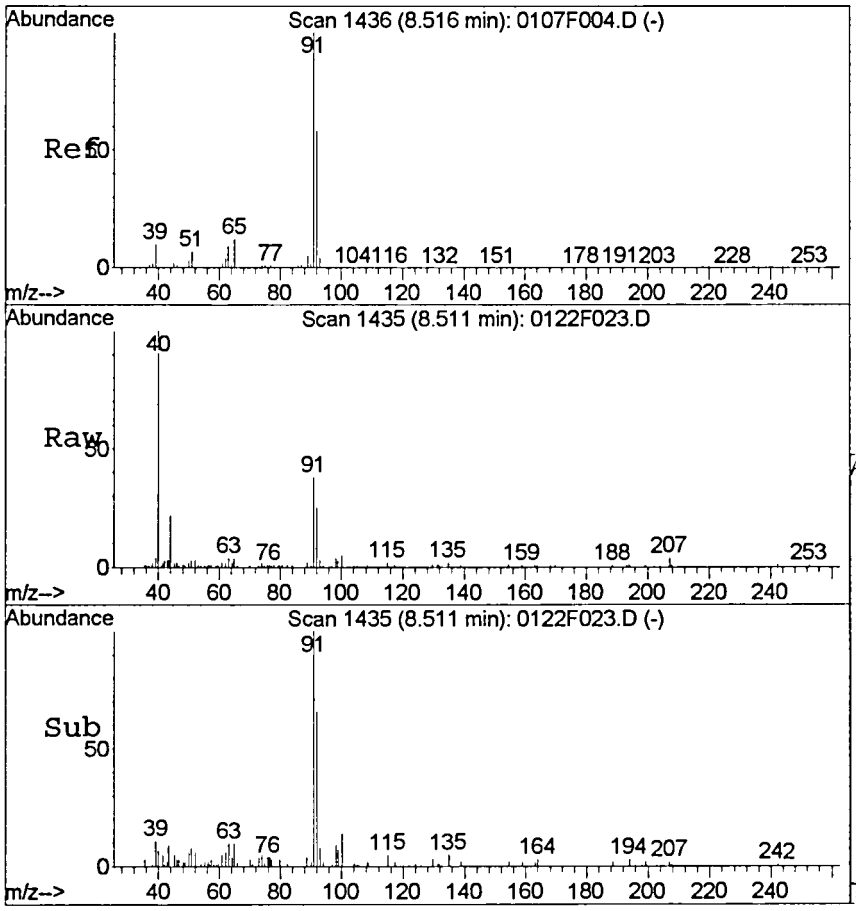


#49
1,2-Dichloroethane
Concen: 0.04 PPB
RT: 6.36 min Scan# 1025
Delta R.T. 0.00 min
Lab File: 0122F023.D
Acq: 22 Jan 2016 23:52

Tgt Ion: 62 Resp: 921

Ion	Ratio	Lower	Upper
62	100		
64	14.8	0.7	60.7
49	31.8	0.0	57.0
98	41.0	0.0	39.2#

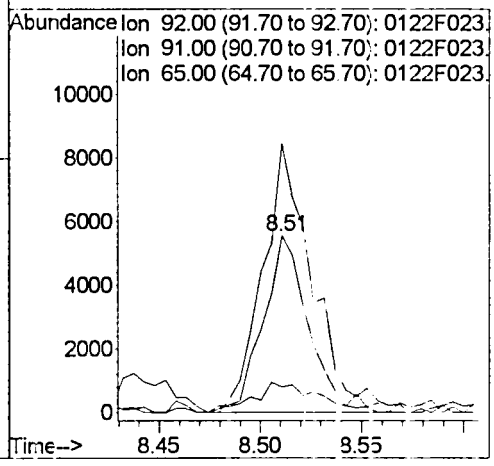


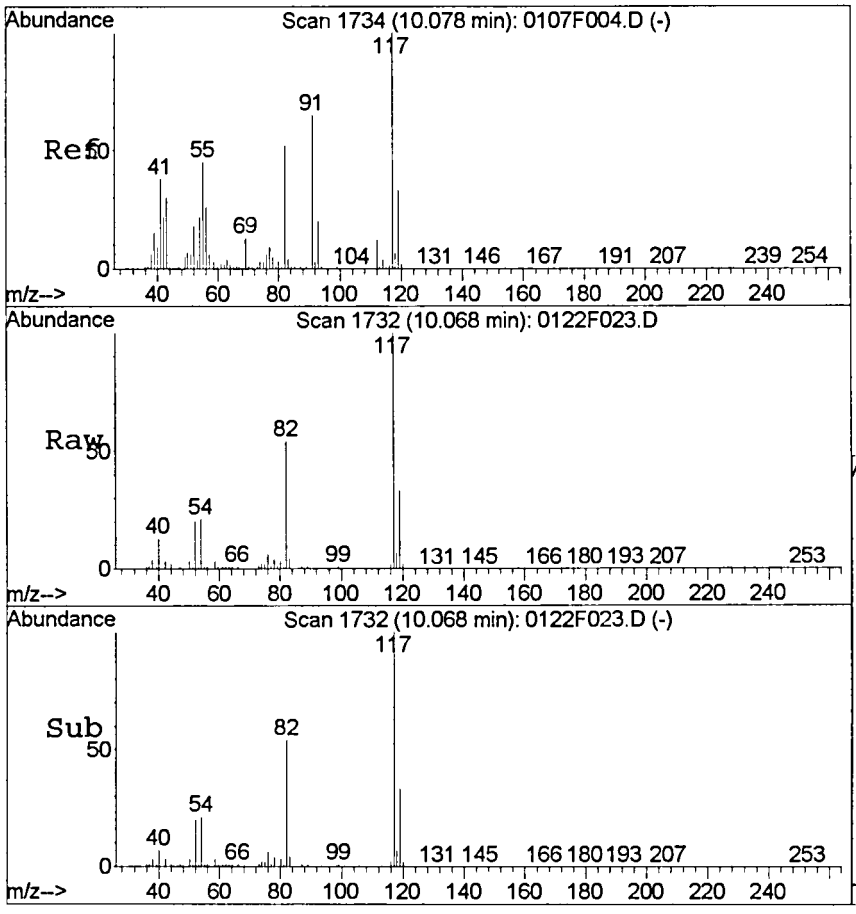


#63
Toluene
Concen: 0.16 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F023.D
Acq: 22 Jan 2016 23:52

Tgt Ion: 92 Resp: 8709

Ion	Ratio	Lower	Upper
92	100		
91	151.9	133.4	193.4
65	14.4	0.0	49.2

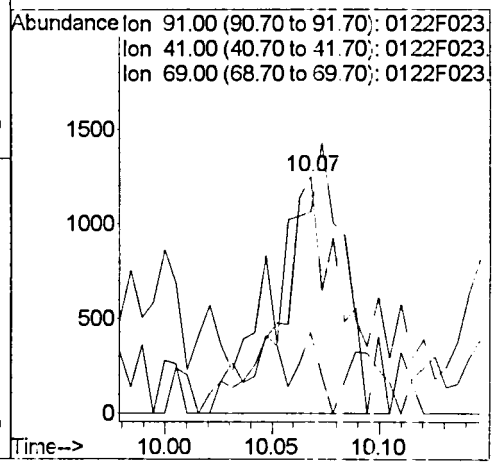




#74
1-Chlorohexane
Concen: 0.07 PPB
RT: 10.07 min Scan# 1732
Delta R.T. -0.01 min
Lab File: 0122F023.D
Acq: 22 Jan 2016 23:52

Tgt Ion: 91 Resp: 2349

Ion	Ratio	Lower	Upper
91	100		
41	61.6	25.4	85.4
69	25.6	0.0	48.1



Exception Report

Data File: J:\MS46\DATA\012216\0122F024.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 00:18
Date Quantitated: 01/25/2016 15:27
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: VMO 1/25/16

Secondary Review: [signature]

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F024.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 00:18	**Quant Date:**	01/25/2016 17:57	**Vial:**	43
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495775	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.60	0.00	96	576480	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	297864	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	304425	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	5.81	0.00	0.00	113	171497	10.47	105	80-119	OK
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	176019	10.39	104	81-118	OK
1	Toluene-d8	8.44	0.00	0.00	98	630364	9.94	99	89-112	OK
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	265838	8.67	87	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	8706m	3.87	3.9	J	
1	Methylene Chloride	3.23		0.00	84	980	0.0500	0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.13	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F024.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 00:18	**Quant Date:**	01/25/2016 17:57	**Vial:**	43
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	9256	0.1800	0.18	J	
2	trans-1,3-Dichloropropene				75	0d		0.068	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		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	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F024.D Vial: 43
Acq On : 23 Jan 2016 00:18 Operator: YX
Sample : K1600673-008 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:44 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

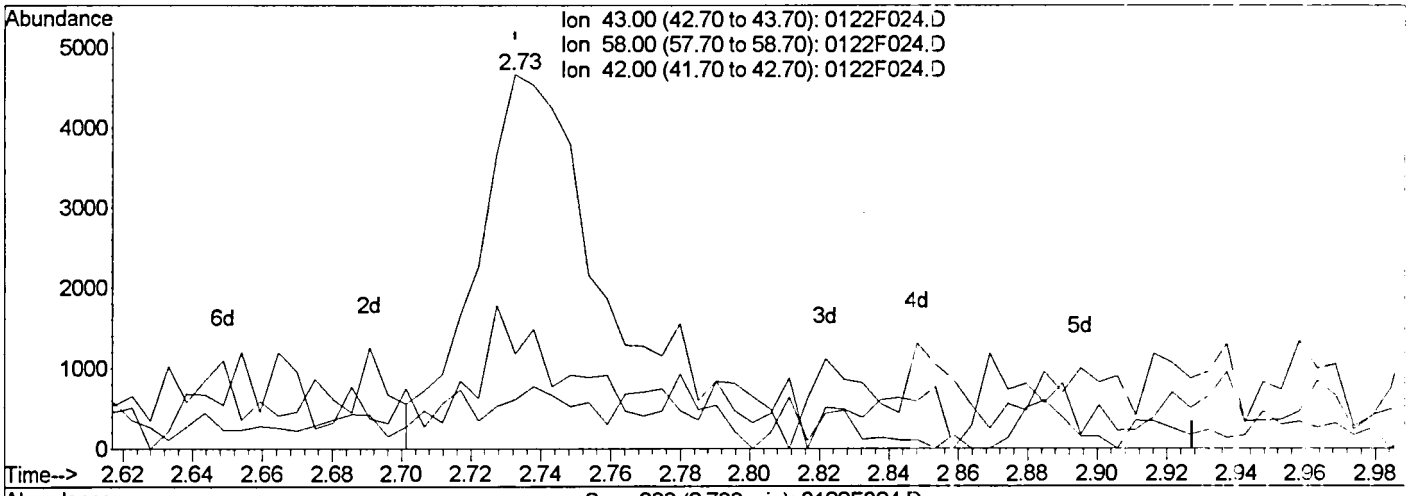
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.60	96	576480	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	297864	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	304425	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.81	113	171497	10.47	PPB	0.00
Spiked Amount 10.000			Recovery =	104.70%		
47) 1,2-Dichloroethane-d4	6.26	65	176019	10.39	PPB	0.00
Spiked Amount 10.000			Recovery =	103.90%		
62) Toluene-d8	8.44	98	630364	9.94	PPB	0.00
Spiked Amount 10.000			Recovery =	99.40%		
84) 4-Bromofluorobenzene	11.38	95	265838	8.67	PPB	0.00
Spiked Amount 10.000			Recovery =	86.70%		
Target Compounds						Qvalue
14) Acetone	2.73	43	8706m	3.87	PPB	
21) Methylene Chloride	3.23	84	980	0.05	PPB	# 31
49) 1,2-Dichloroethane	6.36	62	1358	0.06	PPB	82
63) Toluene	8.51	92	9256	0.18	PPB	84
74) 1-Chlorohexane	10.07	91	1458	0.04	PPB	83

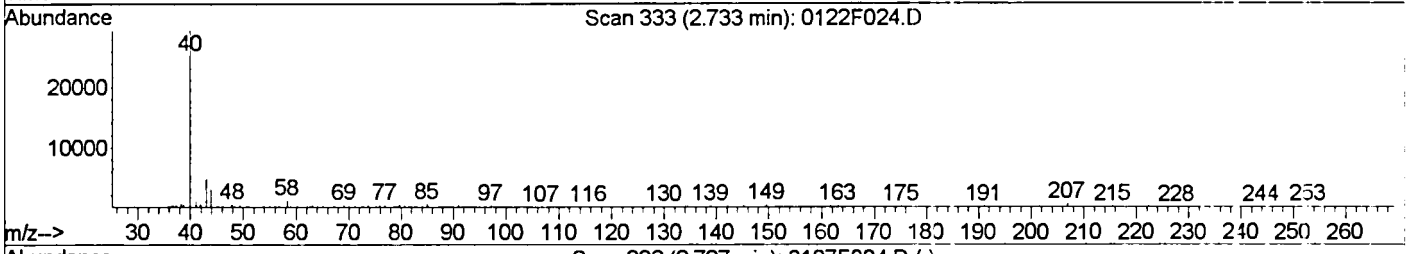
(#) = qualifier out of range (m) = manual integration

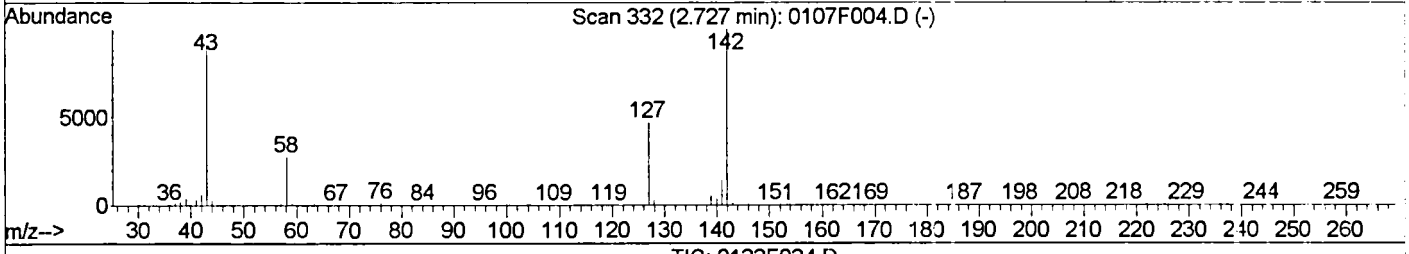
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F024.D Vial: 43
Acq On : 23 Jan 2016 00:18 Operator: YX
Sample : K1600673-008 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:27 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F024.D

(14) Acetone (T)

2.73min 5.47PPB

response 12332

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	19.47
42.00	7.60	0.00
0.00	0.00	0.00

Manual Integration:

Before

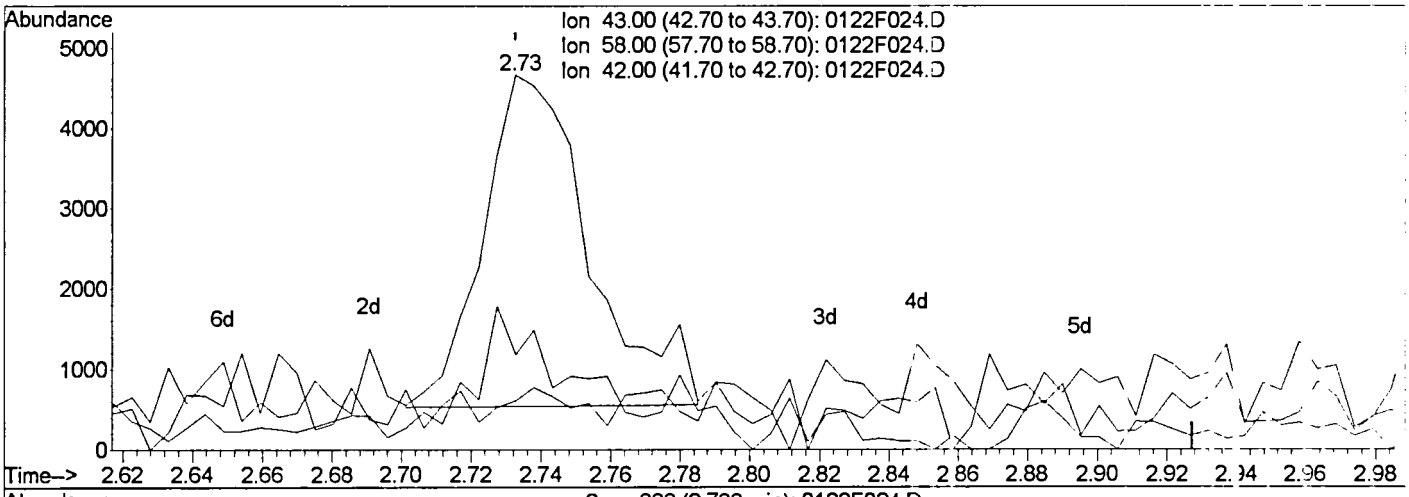
01/25/16

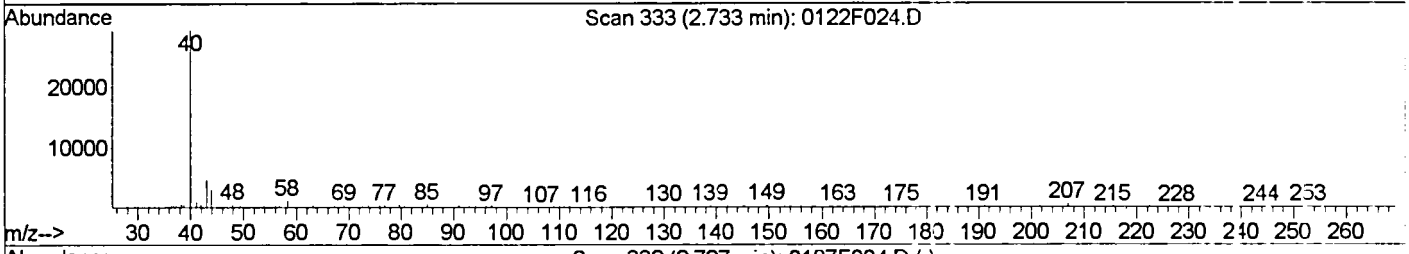
0122F024.D 010516MS46_8260.M Mon Jan 25 17:57:24 2016

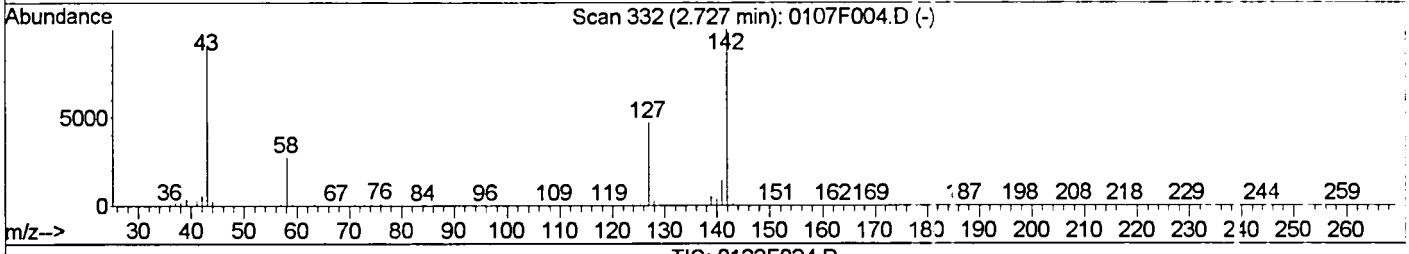
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F024.D Vial: 43
Acq On : 23 Jan 2016 00:18 Operator: YX
Sample : K1600673-008 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:57 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F024.D

(14) Acetone (T)

2.73min 3.87PPB m

response 8706

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	25.33
42.00	7.60	13.11
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

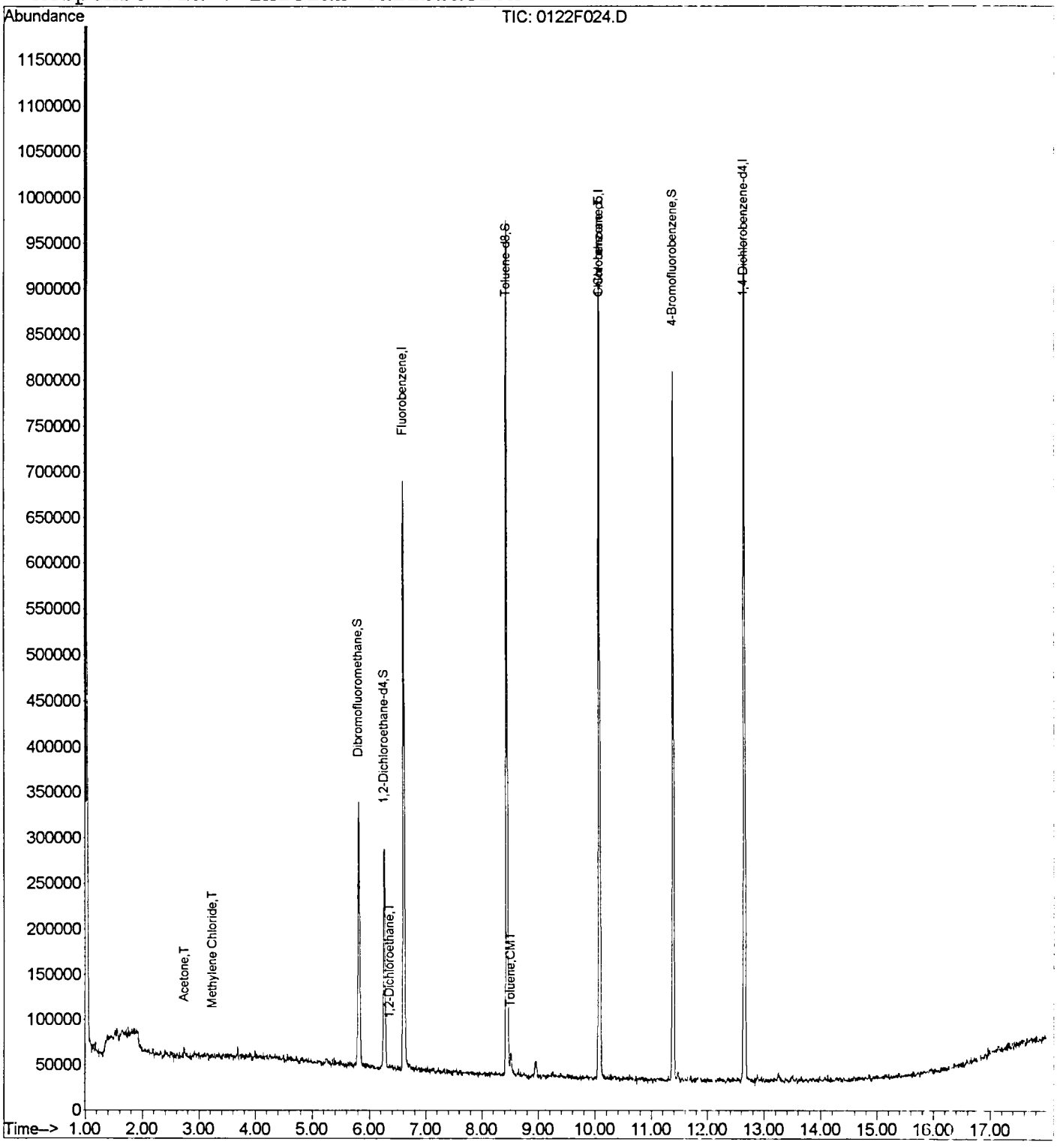
01/25/16

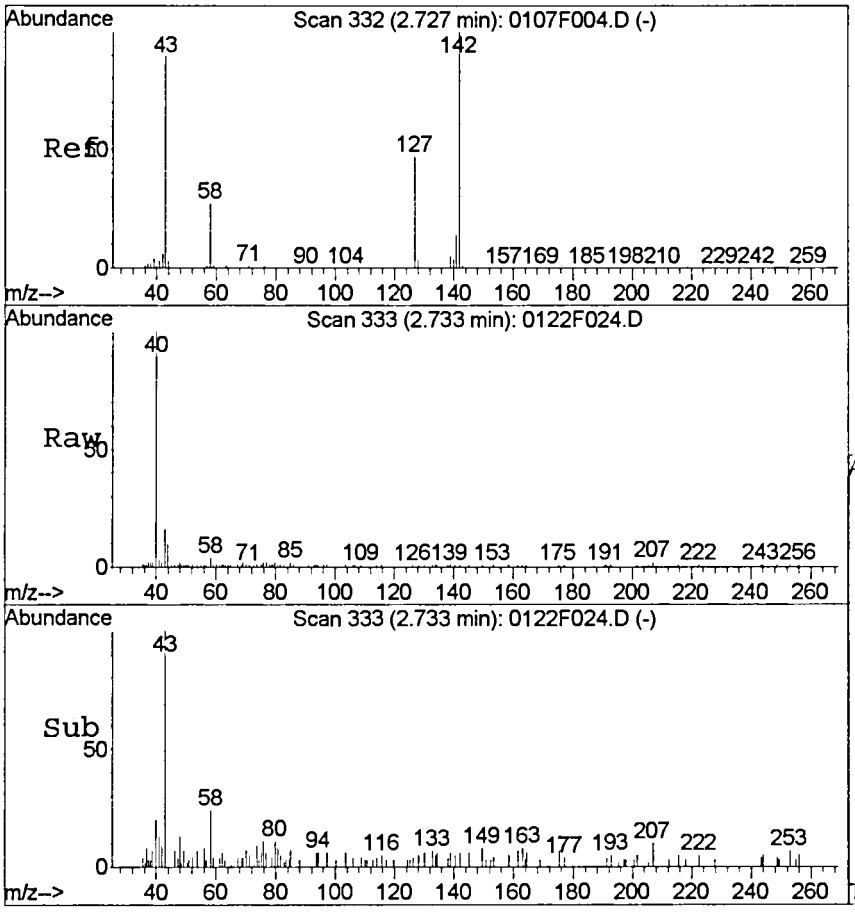
0122F024.D 010516MS46_8260.M Mon Jan 25 17:57:32 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F024.D Vial: 43
Acq On : 23 Jan 2016 00:18 Operator: YX
Sample : K1600673-008 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:57 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

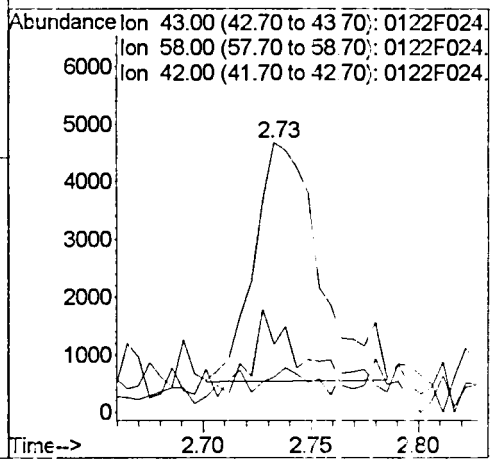


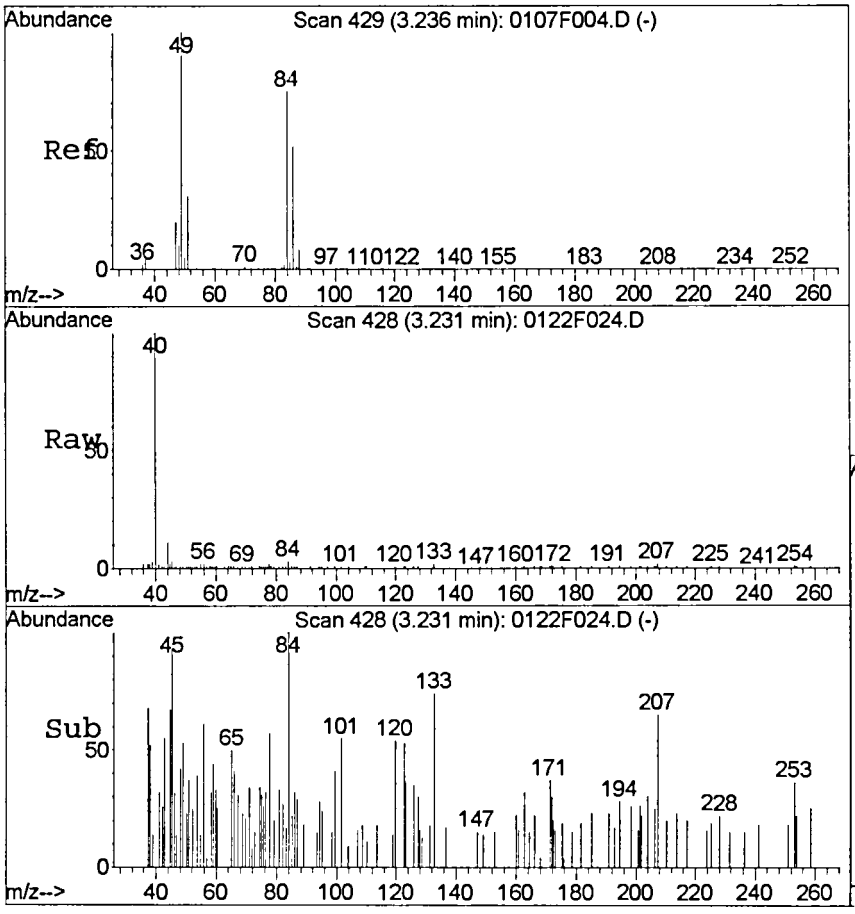


#14
Acetone
Concen: 3.87 PPB m
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F024.D
Acq: 23 Jan 2016 00:18

Tgt Ion: 43 Resp: 8706

Ion	Ratio	Lower	Upper
43	100		
58	25.3	0.2	60.2
42	13.1	0.0	37.6

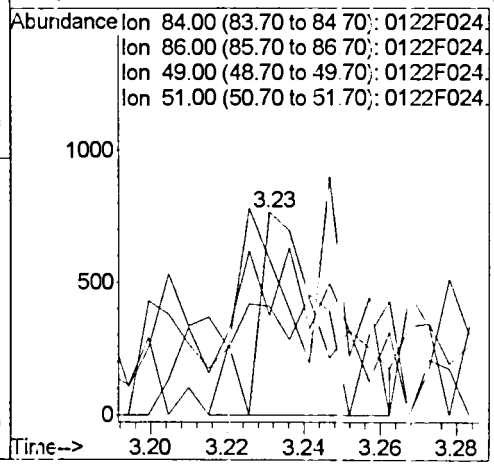


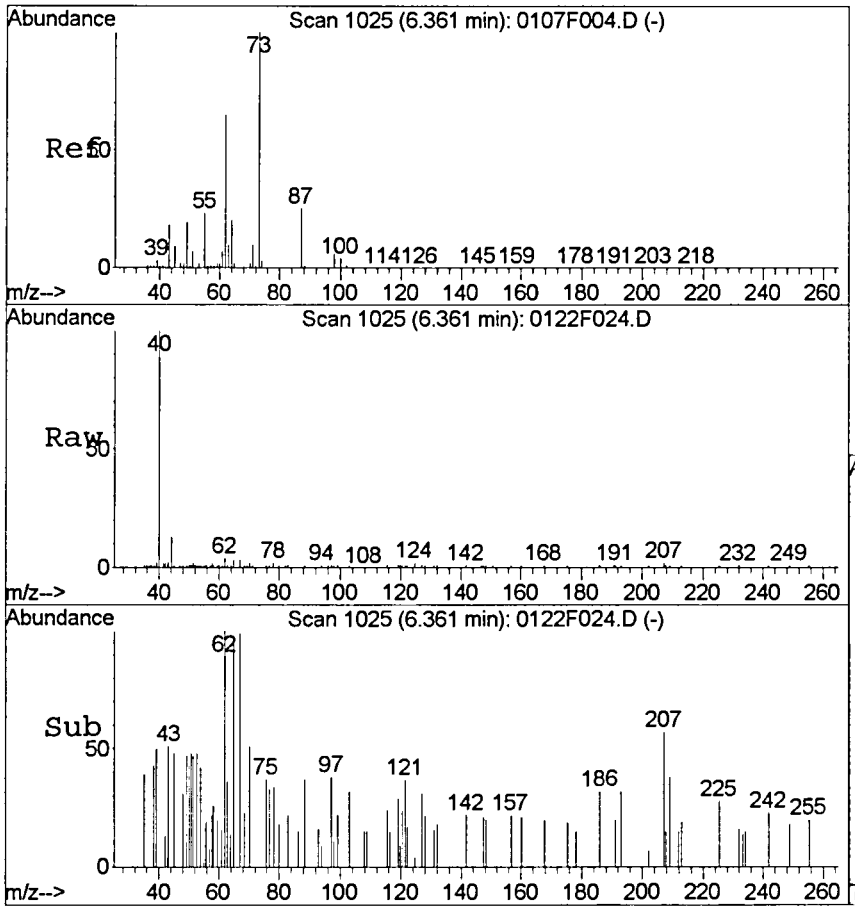


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.23 min Scan# 428
Delta R.T. -0.01 min
Lab File: 0122F024.D
Acq: 23 Jan 2016 00:18

Tgt Ion: 84 Resp: 980

Ion	Ratio	Lower	Upper
84	100		
86	57.6	33.3	93.3
49	5.4	92.9	152.9#
51	76.6	10.1	70.1#

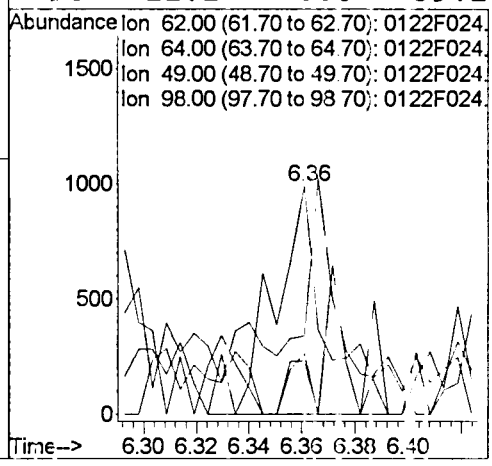


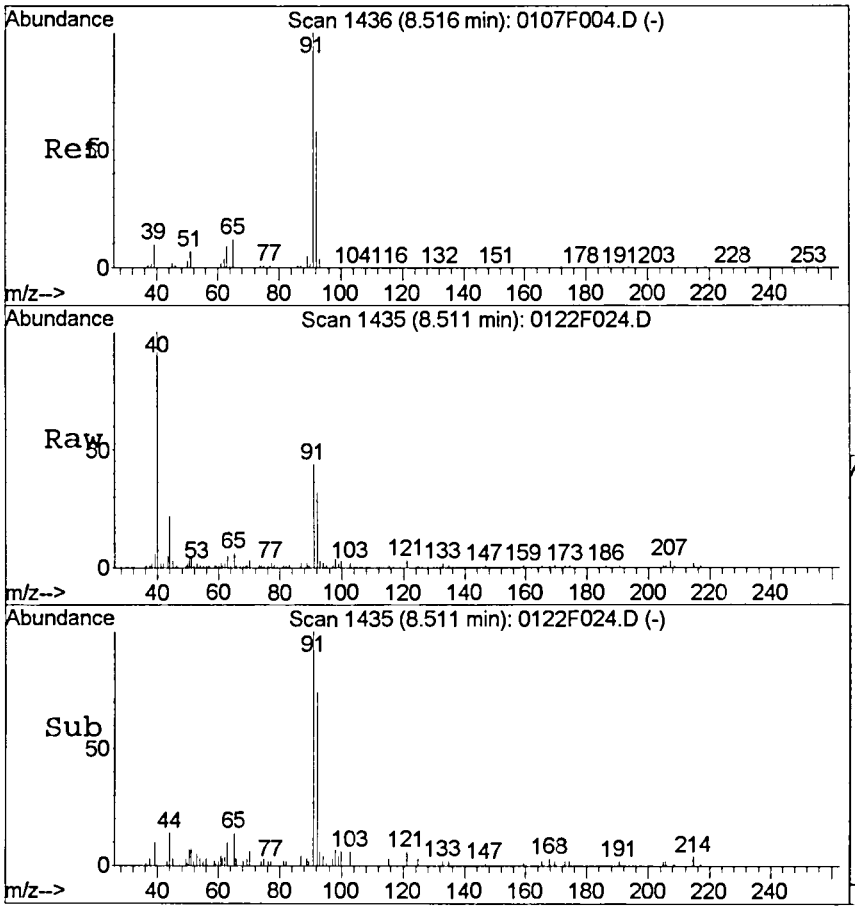


#49
1,2-Dichloroethane
Concen: 0.06 PPB
RT: 6.36 min Scan# 1025
Delta R.T. 0.00 min
Lab File: 0122F024.D
Acq: 23 Jan 2016 00:18

Tgt Ion: 62 Resp: 1358

Ion	Ratio	Lower	Upper
62	100		
64	23.2	0.7	60.7
49	12.4	0.0	57.0
98	11.1	0.0	39.2

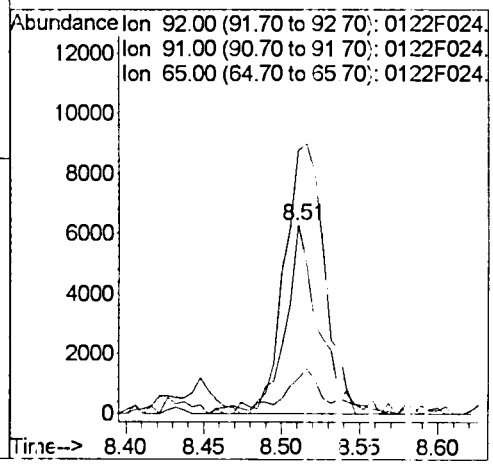


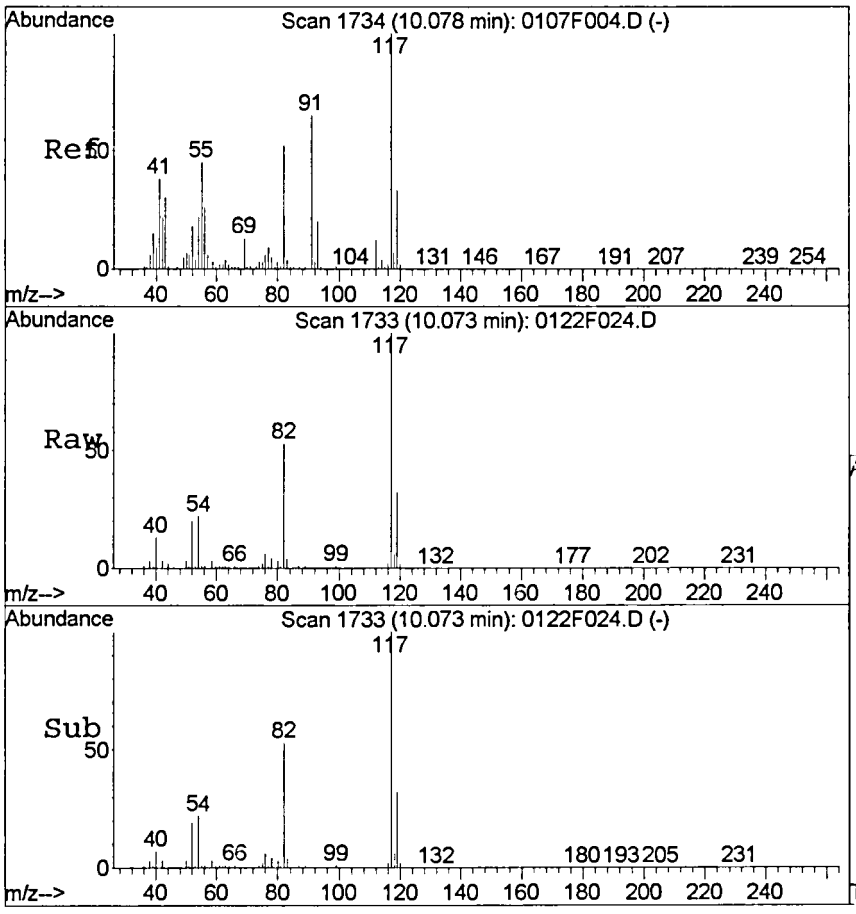


#63
Toluene
Concen: 0.18 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F024.D
Acq: 23 Jan 2016 00:18

Tgt Ion: 92 Resp: 9256

Ion	Ratio	Lower	Upper
92	100		
91	139.6	133.4	193.4
65	16.9	0.0	49.2

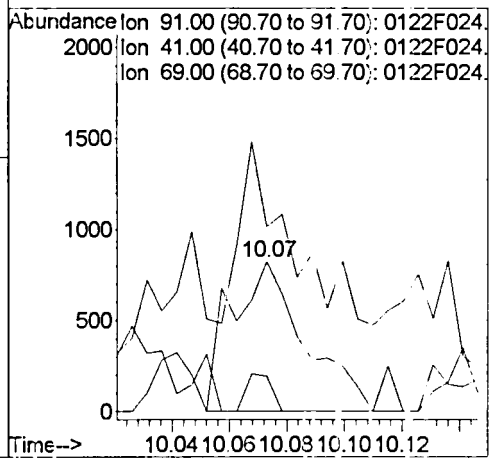




#74
1-Chlorohexane
Concen: 0.04 PPB
RT: 10.07 min Scan# 1733
Delta R.T. 0.00 min
Lab File: 0122F024.D
Acq: 23 Jan 2016 00:18

Tgt Ion: 91 Resp: 1458

Ion	Ratio	Lower	Upper
91	100		
41	61.6	25.4	85.4
69	0.0	0.0	48.1



Exception Report

Data File: J:\MS46\DATA\012216\0122F025.D
Lab ID: K1600673-009
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 00:44
Date Quantitated: 01/25/2016 15:28
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review:

Printed: 01/25/2016 16:38:26
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F025.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 00:44	**Quant Date:**	01/25/2016 15:28	**Vial:**	44
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495776	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	582720	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	299742	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	314976	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	5.82	0.01	0.00	113	174703	10.56	106	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	177073	10.34	103	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	635064	9.91	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	266252	8.62	86	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0		0.10	U	
1	Chloroethane				64	0d		0.10	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	6663	2.93	3.3	U	
1	Methylene Chloride				84	0d		0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Chloroform				83	0		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F025.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 00:44	**Quant Date:**	01/25/2016 15:28	**Vial:**	44
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.52	0.01	0.00	92	6200	0.1200	0.12	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.059	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0d		0.089	U	
2	Bromoform				173	0		0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F025.D Vial: 44
Acq On : 23 Jan 2016 00:44 Operator: YX
Sample : K1600673-009 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:44 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

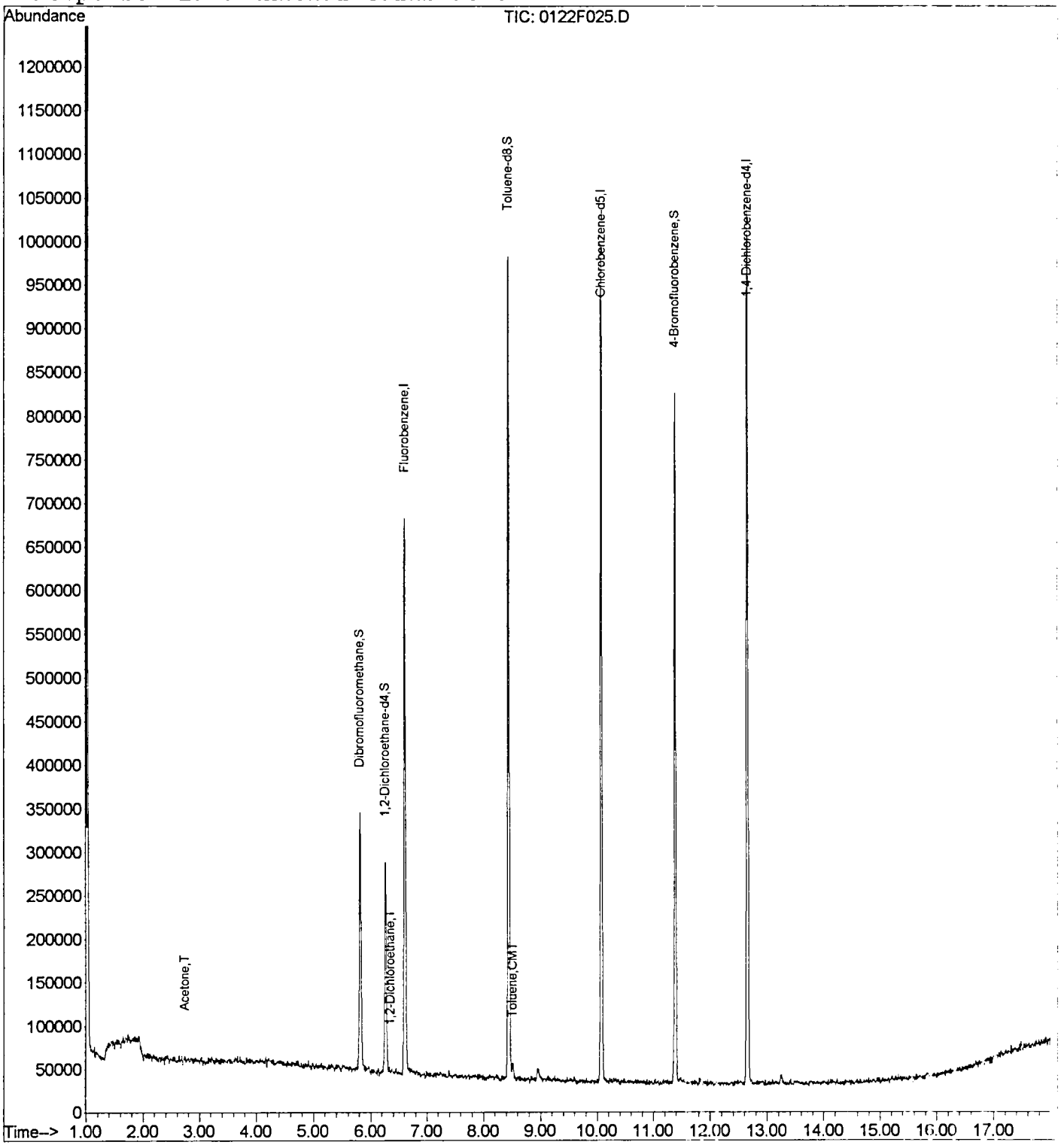
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	582720	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	299742	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	314976	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	174703	10.56	PPB	0.00
Spiked Amount 10.000			Recovery = 105.60%			
47) 1,2-Dichloroethane-d4	6.26	65	177073	10.34	PPB	0.00
Spiked Amount 10.000			Recovery = 103.40%			
62) Toluene-d8	8.44	98	635064	9.91	PPB	0.00
Spiked Amount 10.000			Recovery = 99.10%			
84) 4-Bromofluorobenzene	11.38	95	266252	8.62	PPB	0.00
Spiked Amount 10.000			Recovery = 86.20%			
Target Compounds						Qvalue
14) Acetone	2.73	43	6663	2.93	PPB	82
49) 1,2-Dichloroethane	6.35	62	1495	0.07	PPB	69
63) Toluene	8.52	92	6200	0.12	PPB	84

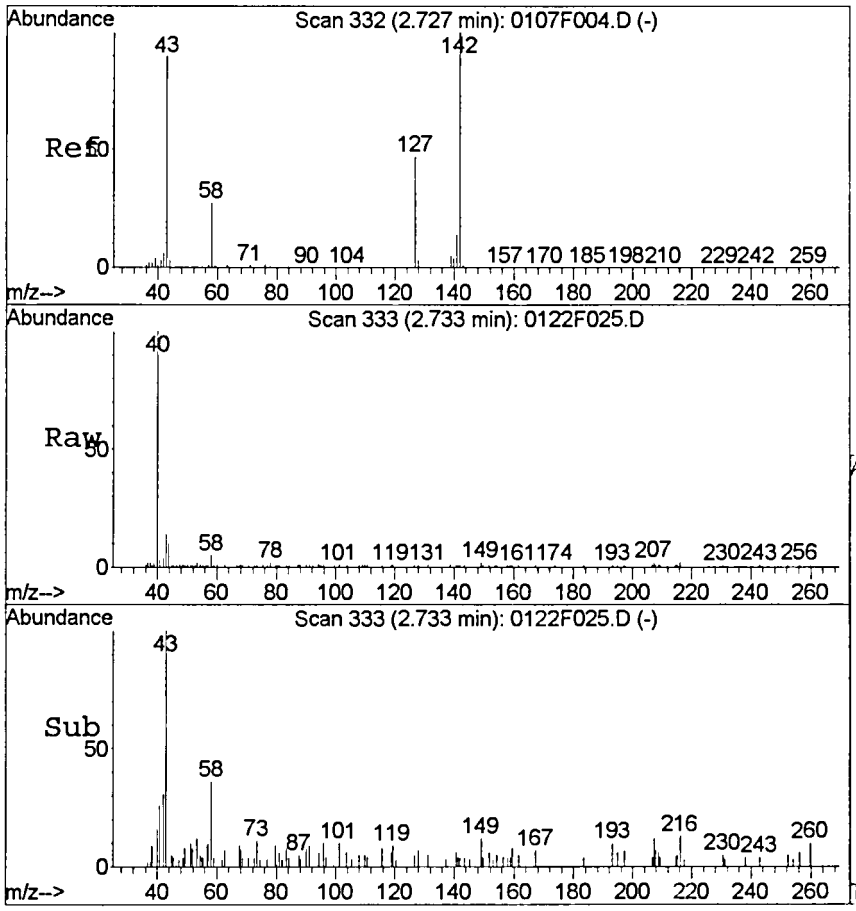
(#) = qualifier out of range (m) = manual integration
0122F025.D 010516MS46_8260.M Mon Jan 25 15:52:20 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F025.D Vial: 44
Acq On : 23 Jan 2016 00:44 Operator: YX
Sample : K1600673-009 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:28 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

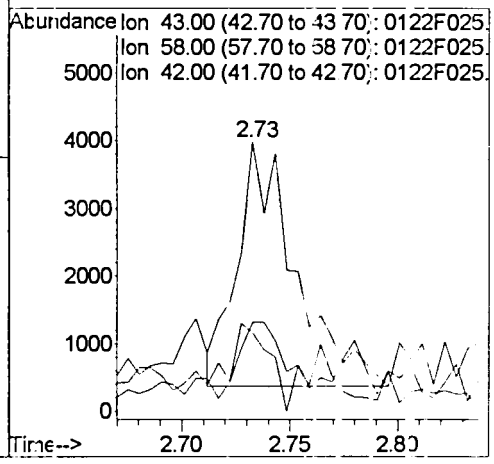


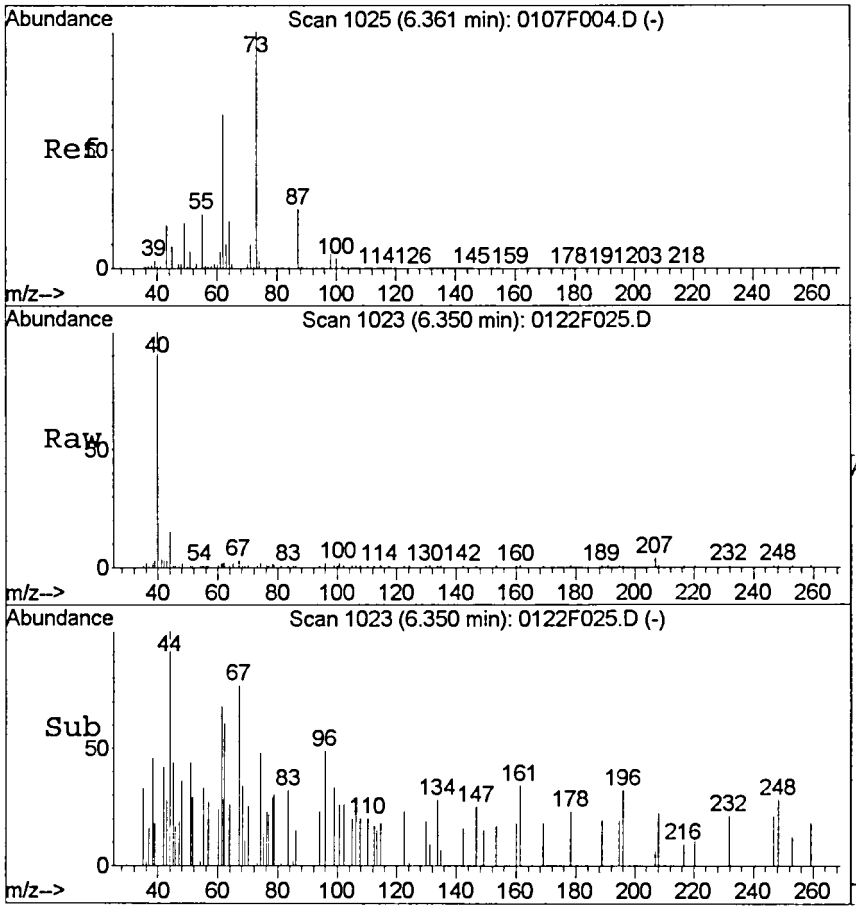


#14
Acetone
Concen: 2.93 PPB
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F025.D
Acq: 23 Jan 2016 00:44

Tgt Ion: 43 Resp: 6663

Ion	Ratio	Lower	Upper
43	100		
58	23.0	0.2	60.2
42	21.1	0.0	37.6

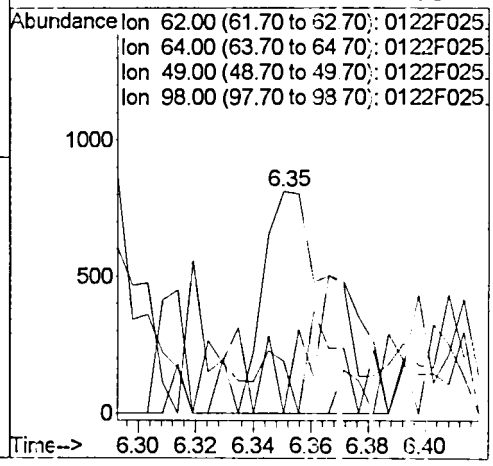


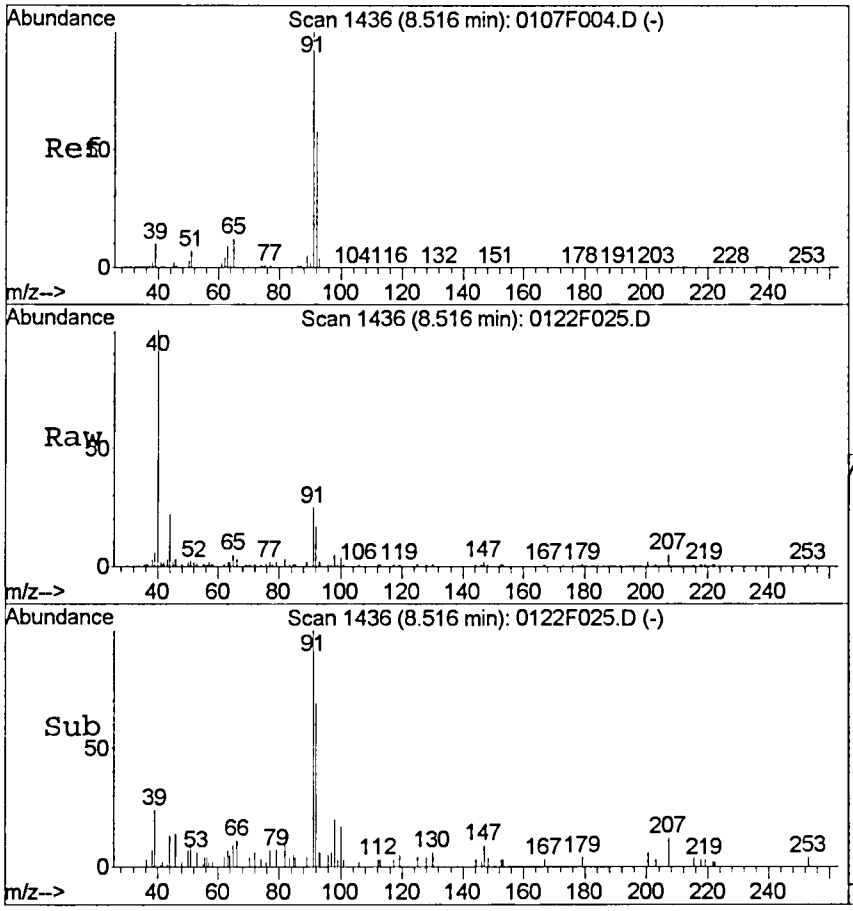


#49
1,2-Dichloroethane
Concen: 0.07 PPB
RT: 6.35 min Scan# 1023
Delta R.T. -0.01 min
Lab File: 0122F025.D
Acq: 23 Jan 2016 00:44

Tgt Ion: 62 Resp: 1495

Ion	Ratio	Lower	Upper
62	100		
64	23.2	0.7	60.7
49	0.0	0.0	57.0
98	0.0	0.0	39.2

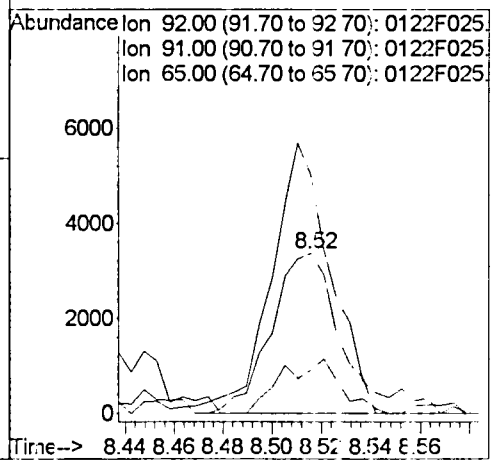




#63
Toluene
Concen: 0.12 PPB
RT: 8.52 min Scan# 1436
Delta R.T. 0.00 min
Lab File: 0122F025.D
Acq: 23 Jan 2016 00:44

Tgt Ion: 92 Resp: 6200

Ion	Ratio	Lower	Upper
92	100		
91	141.9	133.4	193.4
65	27.2	0.0	49.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F026.D
Lab ID: K1600673-010
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 01:10
Date Quantitated: 01/25/2016 15:30
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: VTG 1/25/16

Secondary Review: KMW 1/25/16

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F026.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 01:10	**Quant Date:**	01/25/2016 17:57	**Vial:**	45
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495777	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.60	0.00	96	584466	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	302340	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	321786	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	5.82	0.01	0.00	113	175674	10.58	106	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	183474	10.69	107	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	642992	10.00	100	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	270763	8.70	87	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.74	0.01	0.00	43	7187m	3.15	3.3	U	
1	Methylene Chloride				84	0		0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F026.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 01:10	**Quant Date:**	01/25/2016 17:57	**Vial:**	45
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	8764	0.1700	0.17	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		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	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F026.D Vial: 45
Acq On : 23 Jan 2016 01:10 Operator: YX
Sample : K1600673-010 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:45 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

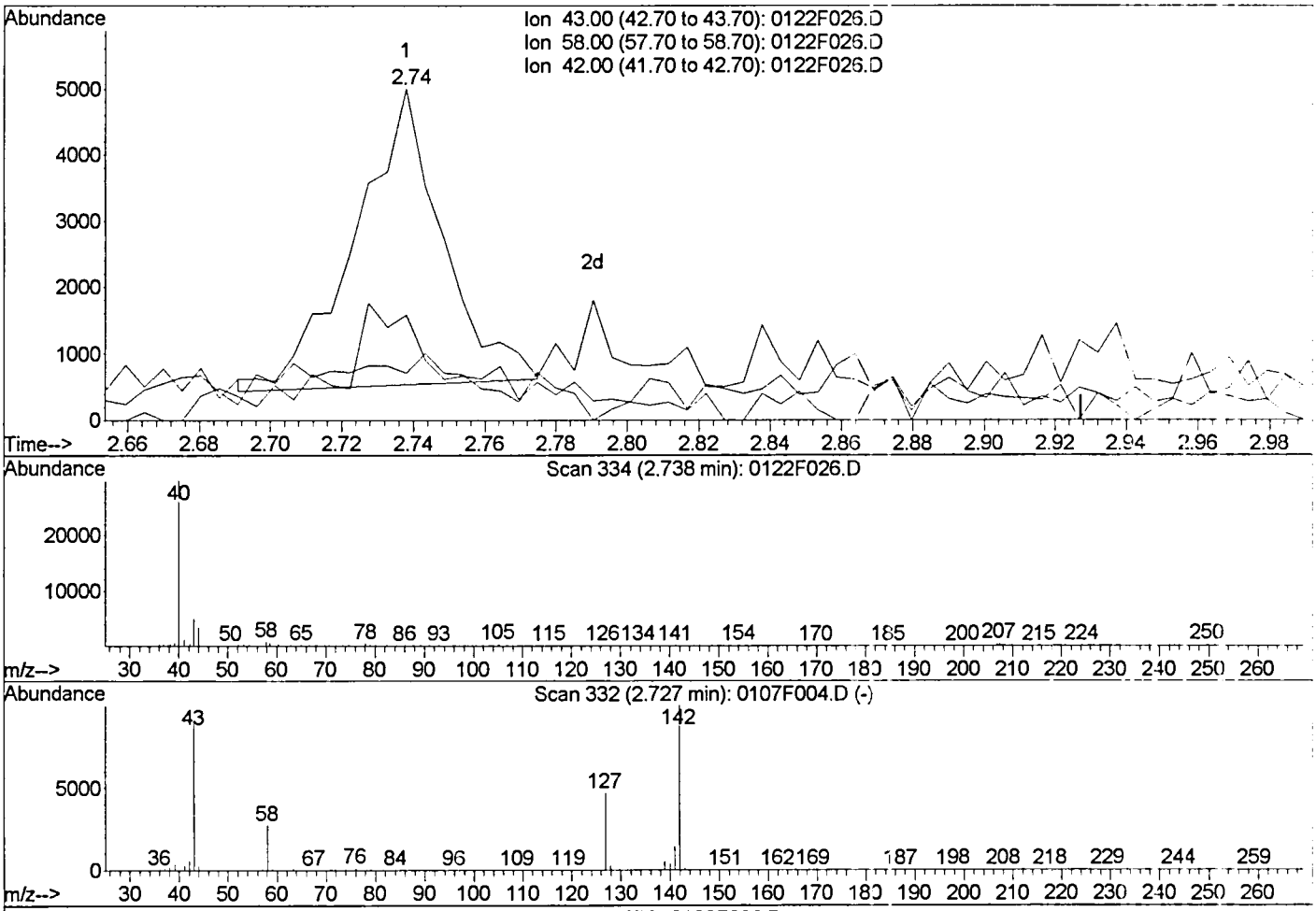
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.60	96	584466	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	302340	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	321786	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	175674	10.58	PPB	0.00
Spiked Amount 10.000			Recovery =	105.80%		
47) 1,2-Dichloroethane-d4	6.26	65	183474	10.69	PPB	0.00
Spiked Amount 10.000			Recovery =	106.90%		
62) Toluene-d8	8.44	98	642992	10.00	PPB	0.00
Spiked Amount 10.000			Recovery =	100.00%		
84) 4-Bromofluorobenzene	11.38	95	270763	8.70	PPB	0.00
Spiked Amount 10.000			Recovery =	87.00%		
Target Compounds						Qvalue
14) Acetone	2.74	43	7187m	3.15	PPB	
49) 1,2-Dichloroethane	6.35	62	1196	0.05	PPB	# 82
63) Toluene	8.51	92	8764	0.17	PPB	97
94) tert-Butylbenzene	12.17	119	9697	0.10	PPB	97
96) sec-Butylbenzene	12.41	105	5638	0.04	PPB	76
106) Naphthalene	15.11	128	4746	0.08	PPB	65

(#) = qualifier out of range (m) = manual integration
0122F026.D 010516MS46_8260.M Mon Jan 25 17:59:11 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F026.D Vial: 45
Acq On : 23 Jan 2016 01:10 Operator: YX
Sample : K1600673-010 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:30 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F026.D

(14) Acetone (T)

2.74min 3.27PPB

response 7476

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	27.67
42.00	7.60	10.72
0.00	0.00	0.00

Manual Integration:

Before

01/25/16

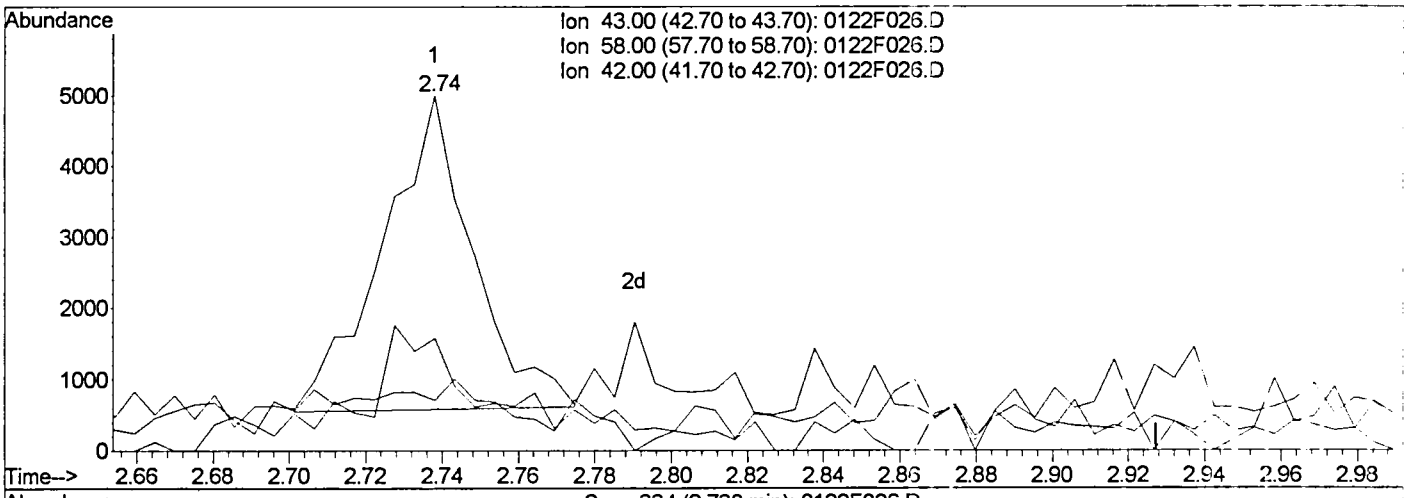
VTO

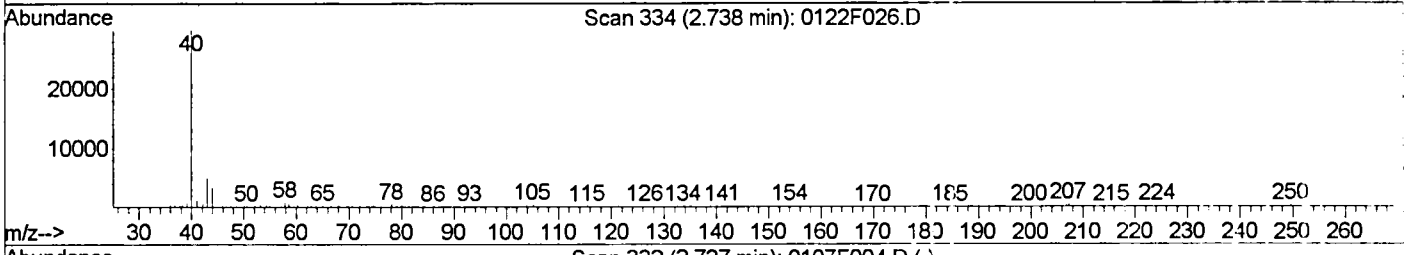
0122F026.D 010516MS46_8260.M Mon Jan 25 17:57:48 2016

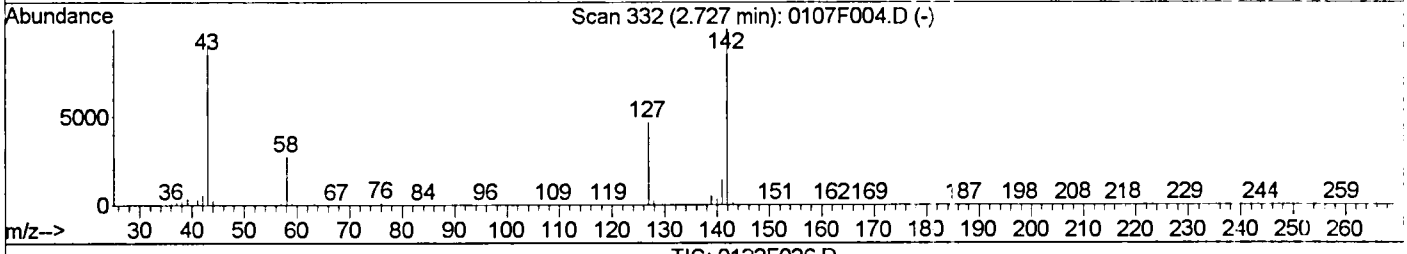
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F026.D Vial: 45
Acq On : 23 Jan 2016 01:10 Operator: YX
Sample : K1600673-010 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:57 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F026.D

(14) Acetone (T)

2.74min 3.15PPB m

response 7187

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	18.19
42.00	7.60	14.25
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

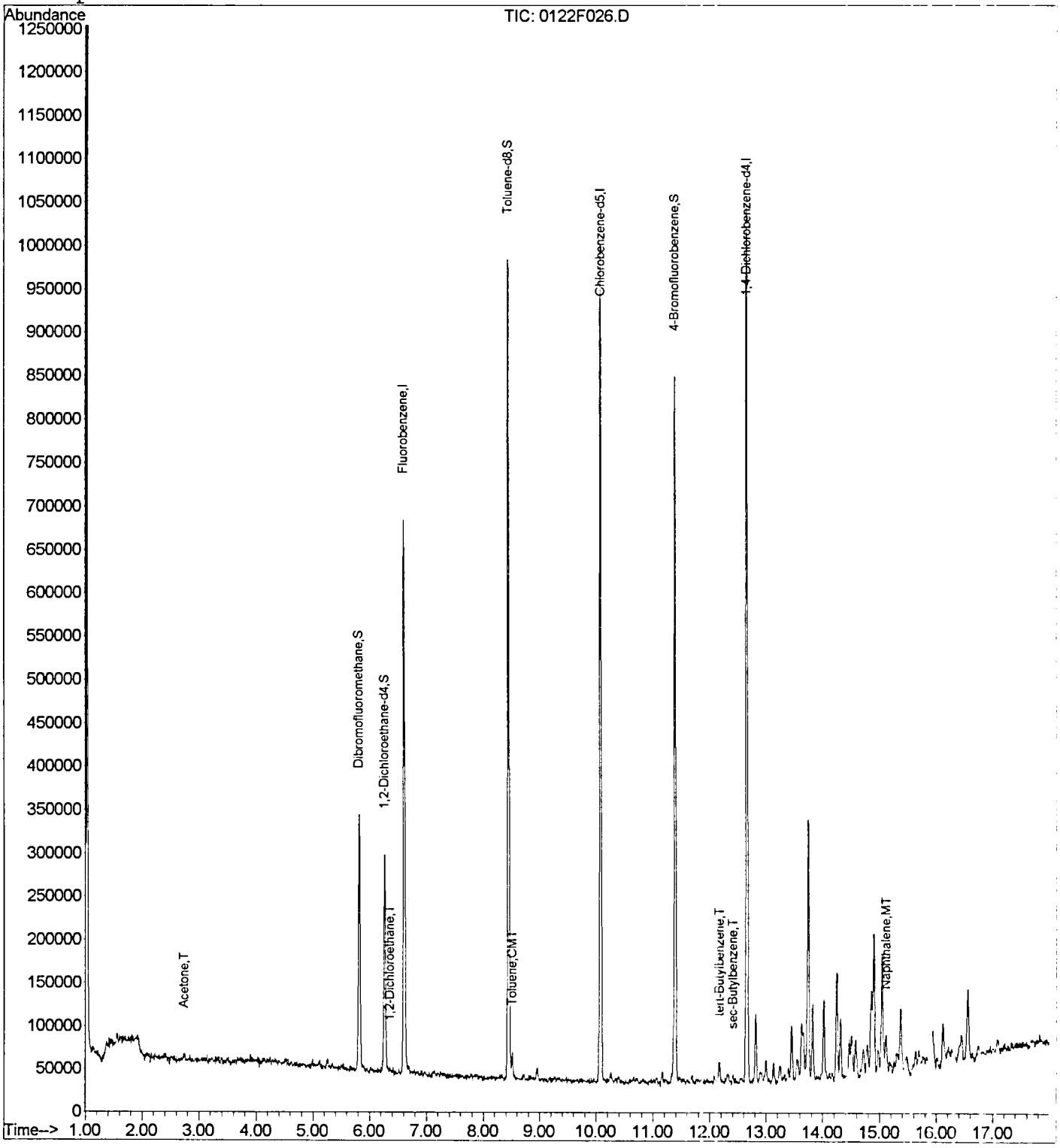
01/25/16

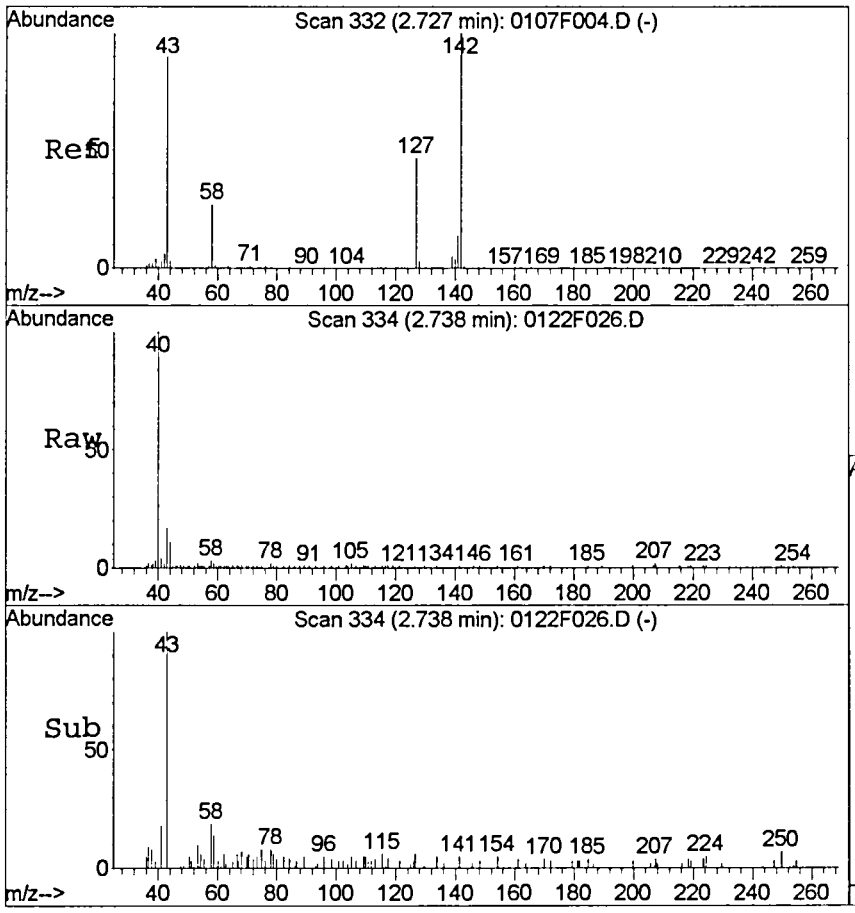
0122F026.D 010516MS46_8260.M Mon Jan 25 17:57:58 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F026.D Vial: 45
Acq On : 23 Jan 2016 01:10 Operator: YX
Sample : K1600673-010 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:57 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

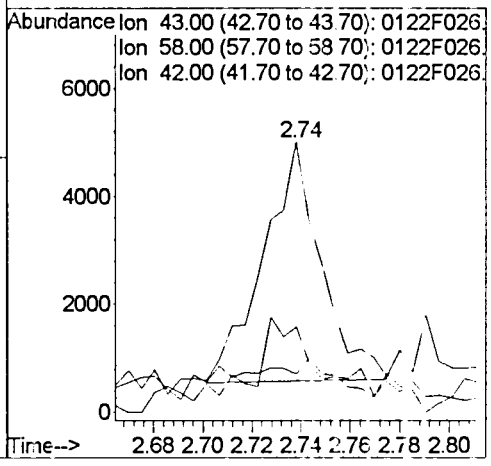


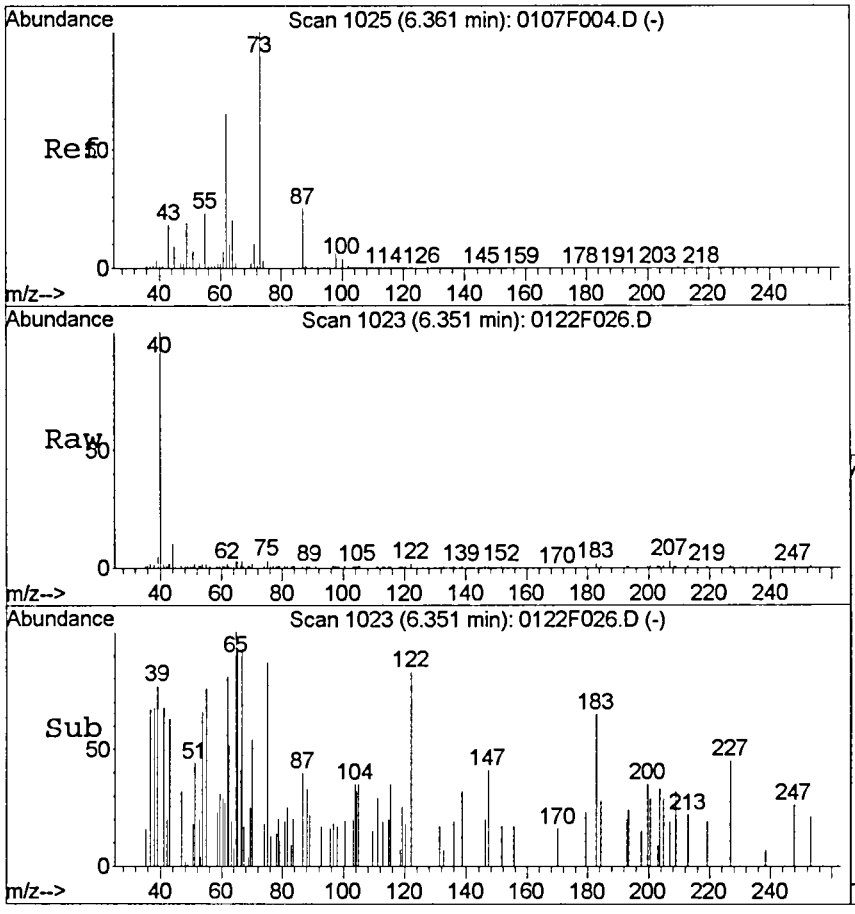


#14
Acetone
Concen: 3.15 PPB m
RT: 2.74 min Scan# 334
Delta R.T. 0.01 min
Lab File: 0122F026.D
Acq: 23 Jan 2016 01:10

Tgt Ion: 43 Resp: 7187

Ion	Ratio	Lower	Upper
43	100		
58	18.2	0.2	60.2
42	14.2	0.0	37.6

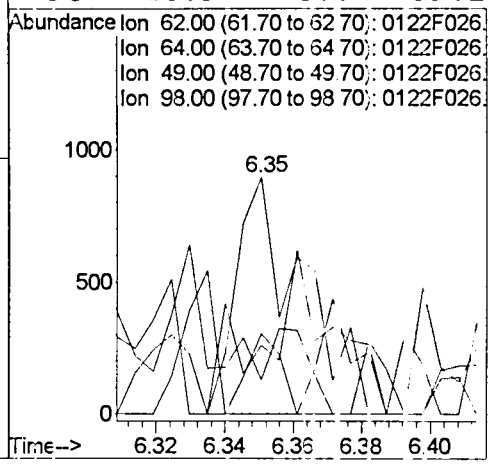


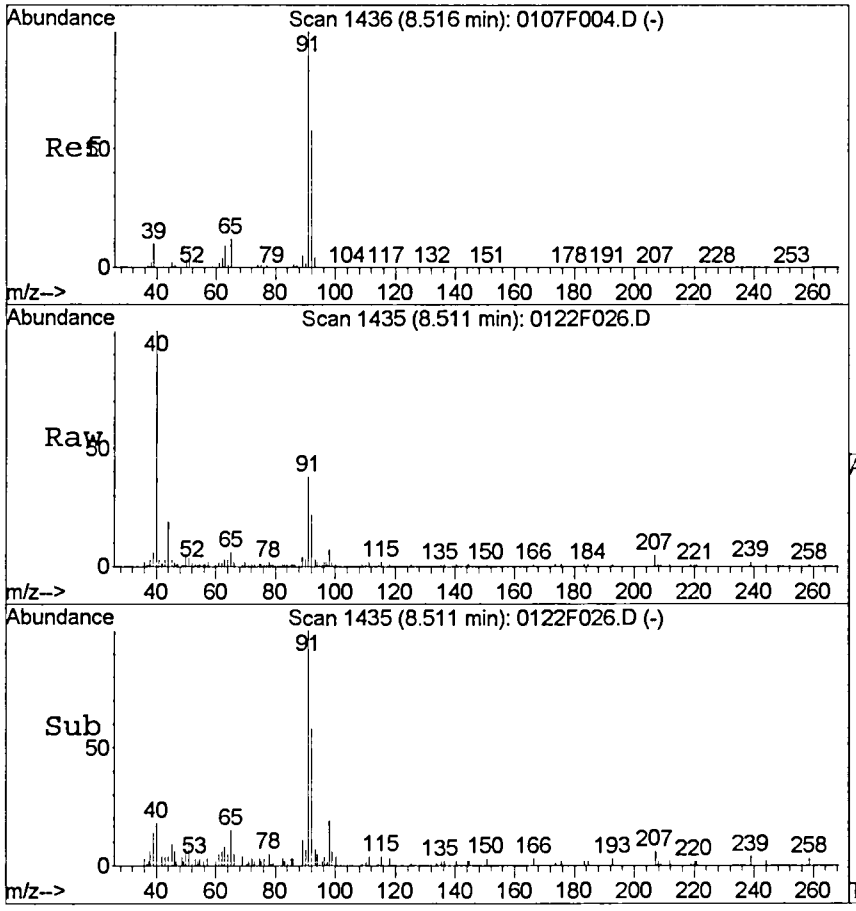


#49
1,2-Dichloroethane
Concen: 0.05 PPB
RT: 6.35 min Scan# 1023
Delta R.T. -0.01 min
Lab File: 0122F026.D
Acq: 23 Jan 2016 01:10

Tgt Ion: 62 Resp: 1196

Ion	Ratio	Lower	Upper
62	100		
64	28.9	0.7	60.7
49	29.6	0.0	57.0
98	46.9	0.0	39.2#

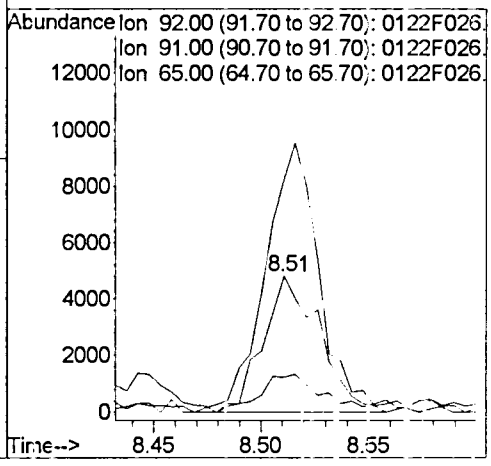


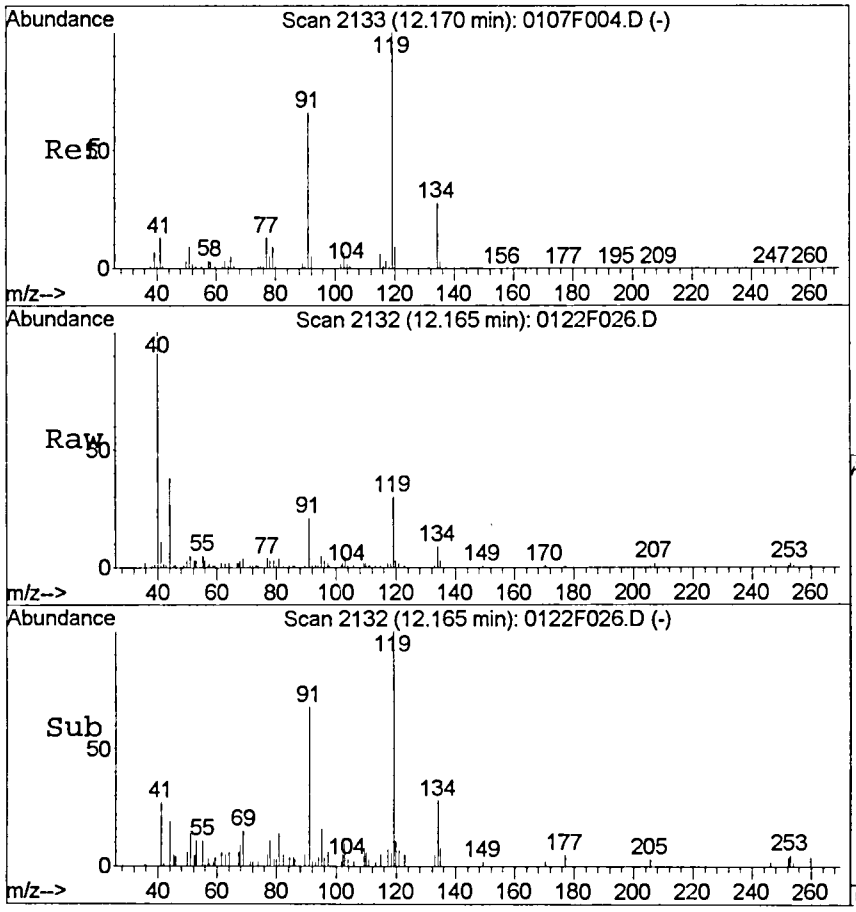


#63
Toluene
Concen: 0.17 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F026.D
Acq: 23 Jan 2016 01:10

Tgt Ion: 92 Resp: 8764

Ion	Ratio	Lower	Upper
92	100		
91	167.8	133.4	193.4
65	21.0	0.0	49.2

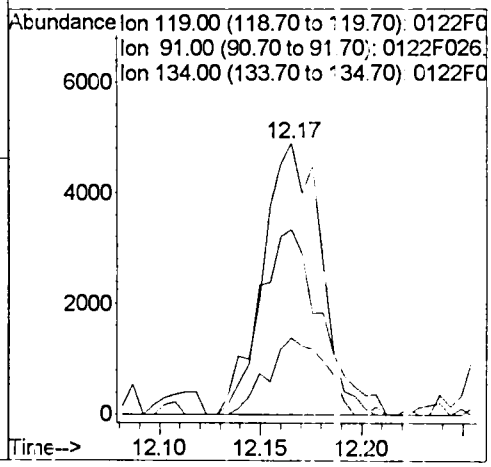


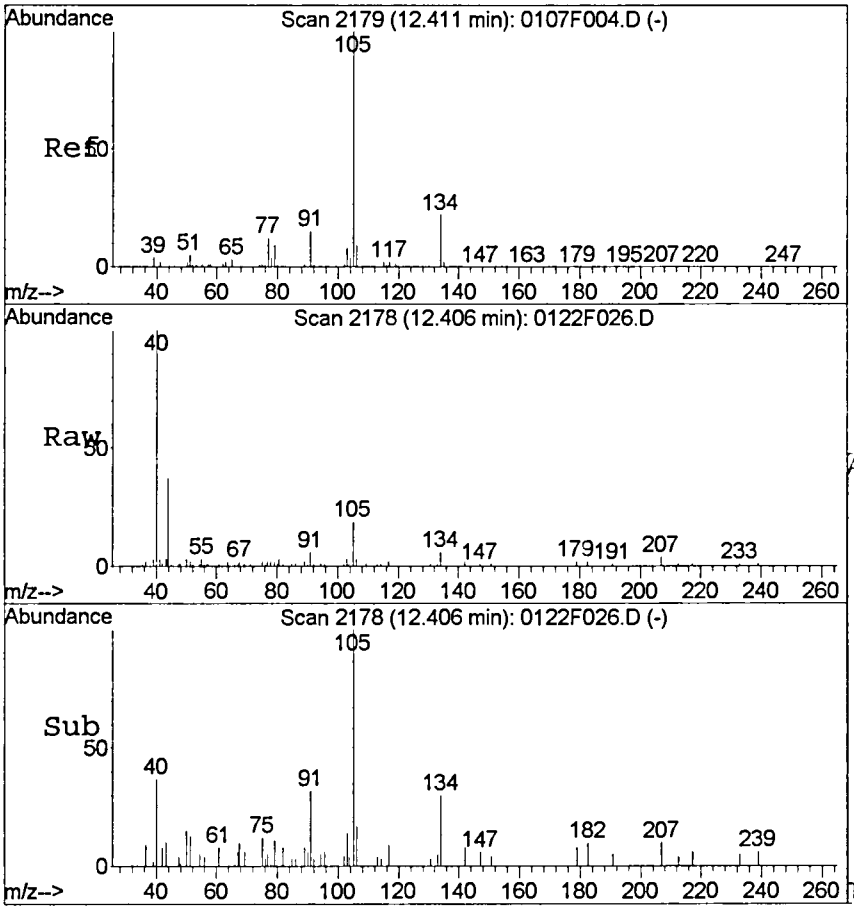


#94
tert-Butylbenzene
Concen: 0.10 PPB
RT: 12.17 min Scan# 2132
Delta R.T. -0.01 min
Lab File: 0122F026.D
Acq: 23 Jan 2016 01:10

Tgt Ion:119 Resp: 9697

Ion	Ratio	Lower	Upper
119	100		
91	67.9	35.5	95.6
134	28.2	0.0	57.3

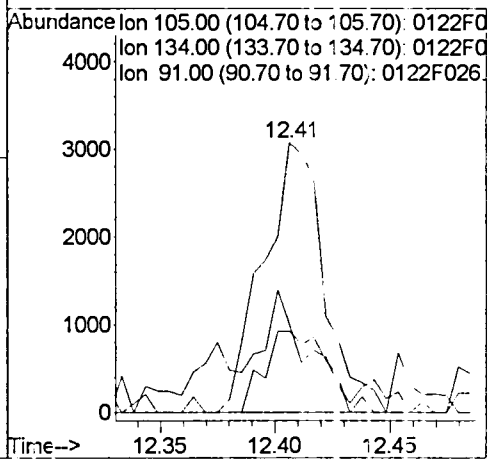


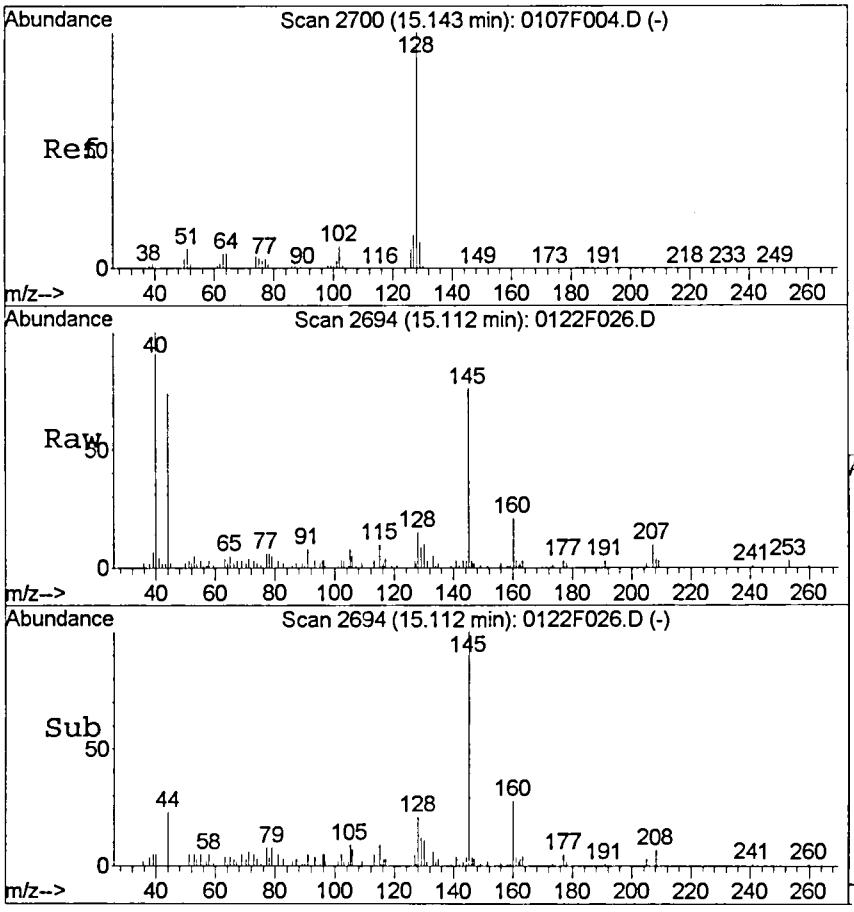


#96
sec-Butylbenzene
Concen: 0.04 PPB
RT: 12.41 min Scan# 2178
Delta R.T. -0.01 min
Lab File: 0122F026.D
Acq: 23 Jan 2016 01:10

Tgt Ion:105 Resp: 5638

Ion	Ratio	Lower	Upper
105	100		
134	30.3	0.0	50.8
91	27.3	0.0	45.2

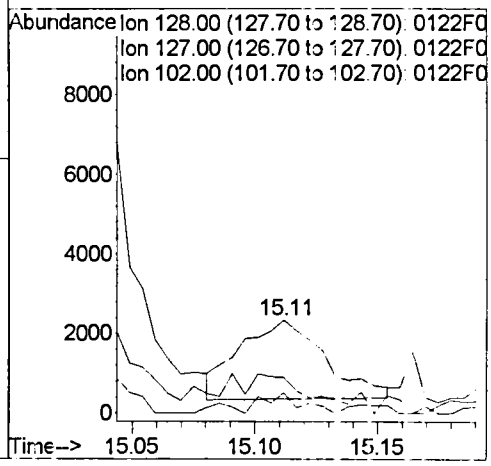




#106
Naphthalene
Concen: 0.08 PPB
RT: 15.11 min Scan# 2694
Delta R.T. -0.03 min
Lab File: 0122F026.D
Acq: 23 Jan 2016 01:10

Tgt Ion:128 Resp: 4746

Ion	Ratio	Lower	Upper
128	100		
127	26.5	0.0	43.2
102	21.9	0.0	38.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F027.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 01:36
Date Quantitated: 01/25/2016 15:33
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: VTC 1/25/16

Secondary Review: [illegible]

Printed: 01/25/2016 16:38:32
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F027.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 01:36	**Quant Date:**	01/25/2016 17:57	**Vial:**	46
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495778	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	576067	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	315194	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	337568	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	5.82	0.01	0.00	113	172118	10.52	105	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	181961	10.75	108	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	638924	10.09	101	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	294464	9.07	91	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.089	U	
1	Acetone	2.74	0.01	0.00	43	4483m	1.99	3.3	U	
1	Methylene Chloride				84	0d		0.16	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F027.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 01:36	**Quant Date:**	01/25/2016 17:57	**Vial:**	46
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**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 Tetrachloride				117	0		0.095	U	
1	Benzene	6.20		0.00	78	6654	0.0800	0.089	J	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.52	0.01	0.00	92	3622	0.0700	0.071	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene	10.20		0.00	106	5955	0.1400	0.14	J	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene	10.77		0.00	106	10346	0.2100	0.21	J	
2	Styrene				103	0d		0.089	U	
2	Bromoform				173	0		0.16	U	
3	1,2,3-Trichloropropane				110	0d		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F027.D Vial: 46
Acq On : 23 Jan 2016 01:36 Operator: YX
Sample : K1600673-011 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:46 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

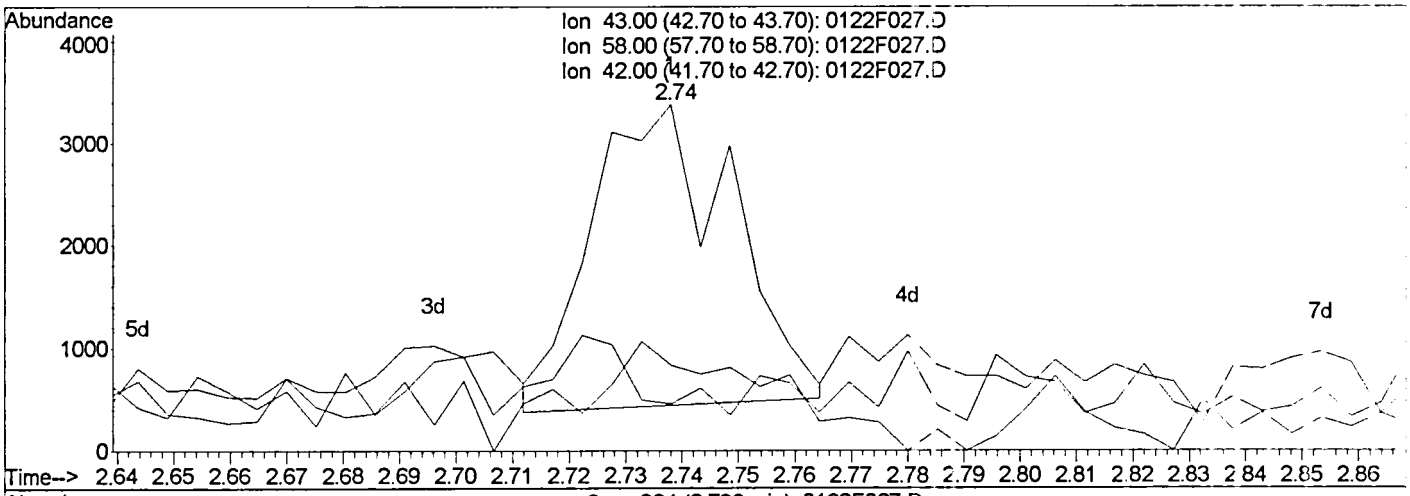
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.61	96	576067	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	315194	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	337568	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.82	113	172118	10.52	PPB		0.00
Spiked Amount 10.000			Recovery = 105.20%				
47) 1,2-Dichloroethane-d4	6.26	65	181961	10.75	PPB		0.00
Spiked Amount 10.000			Recovery = 107.50%				
62) Toluene-d8	8.44	98	638924	10.09	PPB		0.00
Spiked Amount 10.000			Recovery = 100.90%				
84) 4-Bromofluorobenzene	11.38	95	294464	9.07	PPB		0.00
Spiked Amount 10.000			Recovery = 90.70%				
Target Compounds							Qvalue
14) Acetone	2.74	43	4483m	1.99	PPB		
16) Carbon Disulfide	2.75	76	1319	0.03	PPB		95
41) Cyclohexane	5.67	56	3258	0.09	PPB		90
48) Benzene	6.20	78	6654	0.08	PPB		86
52) Methylcyclohexane	7.14	83	14492	0.44	PPB		85
63) Toluene	8.52	92	3622	0.07	PPB		87
76) Ethylbenzene	10.20	106	5955	0.14	PPB	#	83
79) o-Xylene	10.77	106	10346	0.21	PPB		86
82) Isopropylbenzene	11.16	105	370075	2.85	PPB		95
89) n-Propylbenzene	11.62	91	746880	4.47	PPB		99
94) tert-Butylbenzene	12.17	119	62003	0.60	PPB		95
95) 1,2,4-Trimethylbenzene	12.24	105	6483	0.06	PPB		96
96) sec-Butylbenzene	12.41	105	455307	3.09	PPB		100
100) n-Butylbenzene	13.03	91	379223	3.46	PPB		98
106) Naphthalene	15.14	128	6407964	105.00	PPB		99

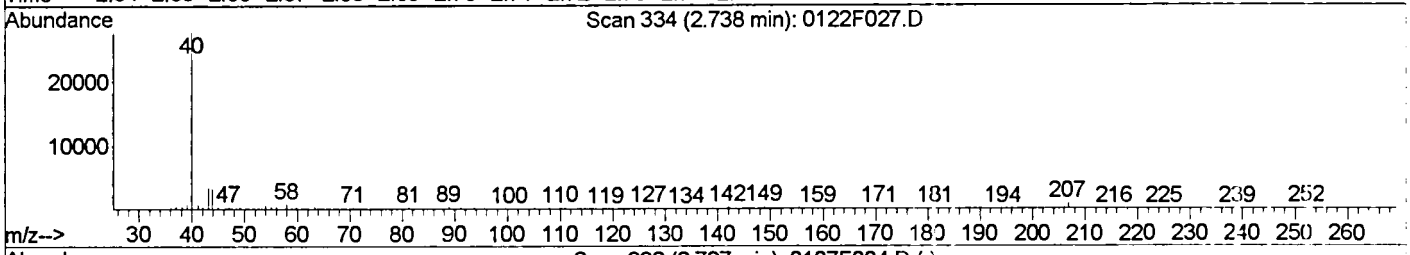
(#) = qualifier out of range (m) = manual integration
0122F027.D 010516MS46_8260.M Mon Jan 25 17:59:13 2016 Page 1

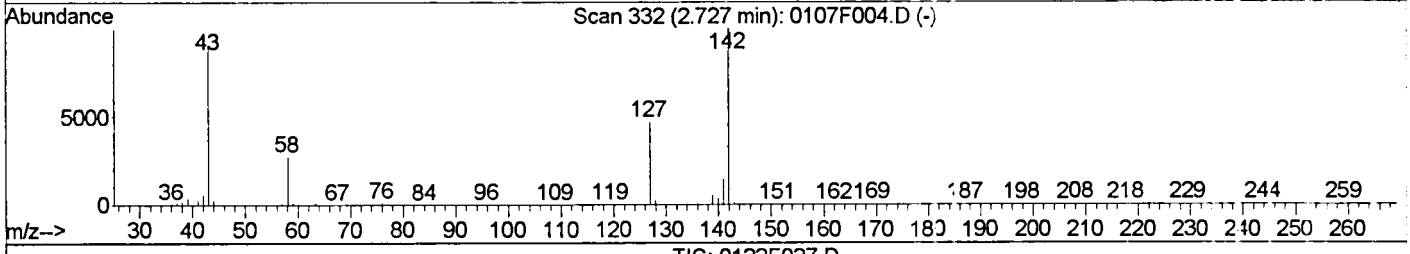
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F027.D Vial: 46
Acq On : 23 Jan 2016 01:36 Operator: YX
Sample : K1600673-011 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:33 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F027.D

(14) Acetone (T)

2.74min 2.25PPB

response 5065

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	20.06
42.00	7.60	3.07
0.00	0.00	0.00

Manual Integration:

Before

01/25/16

1 KO

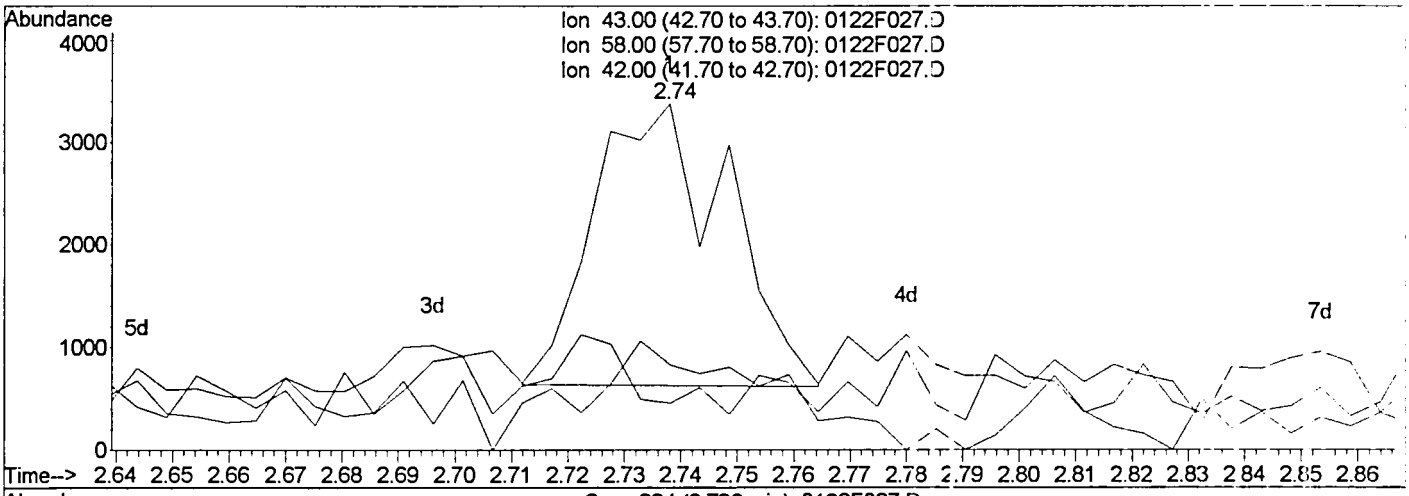
kw 1/27/16

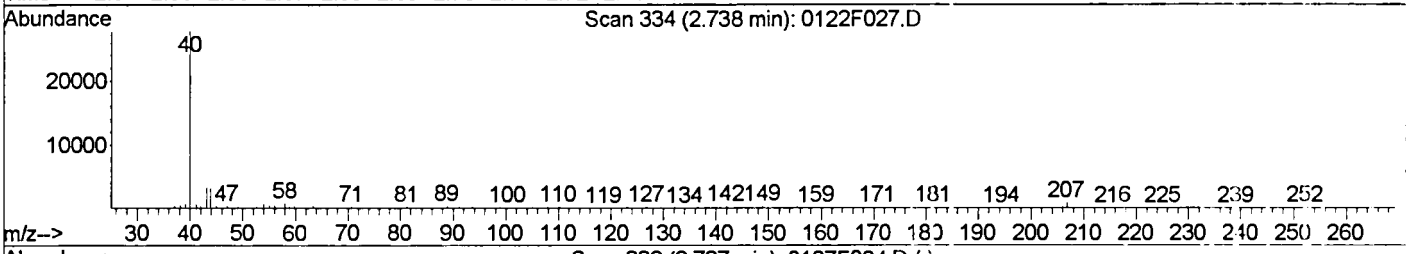
0122F027.D 010516MS46_8260.M Mon Jan 25 17:58:06 2016

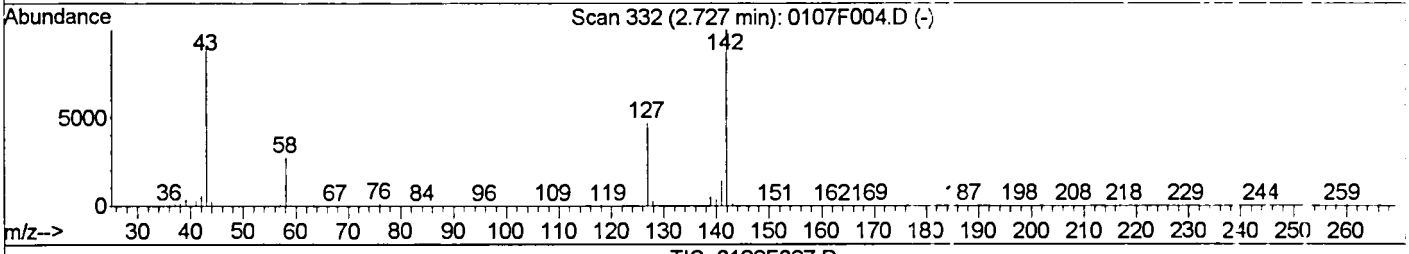
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F027.D Vial: 46
Acq On : 23 Jan 2016 01:36 Operator: YX
Sample : K1600673-011 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:57 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F027.D

(14) Acetone (T)

2.74min 1.99PPB m

response 4483

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	24.66
42.00	7.60	13.59
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

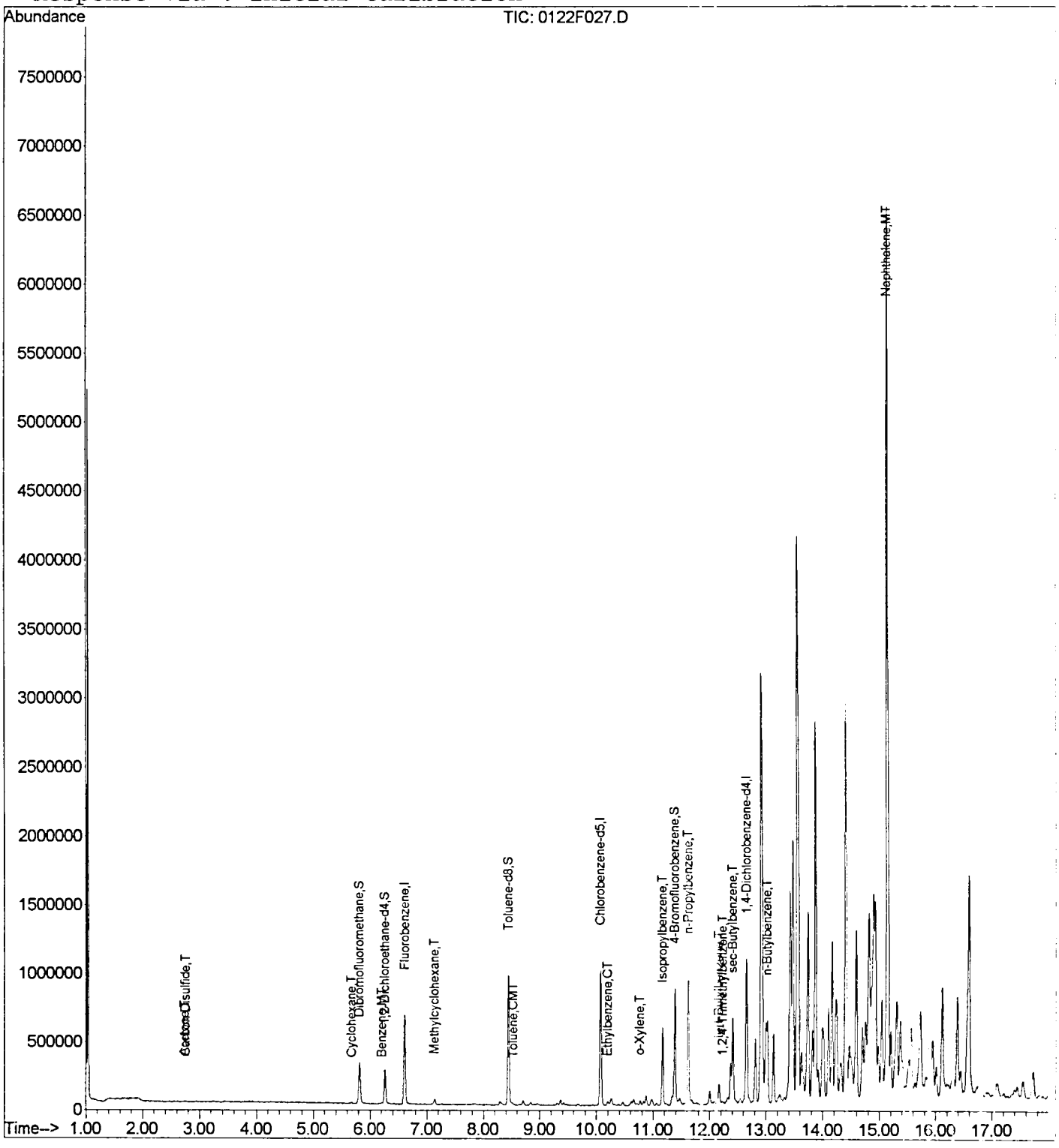
01/25/16

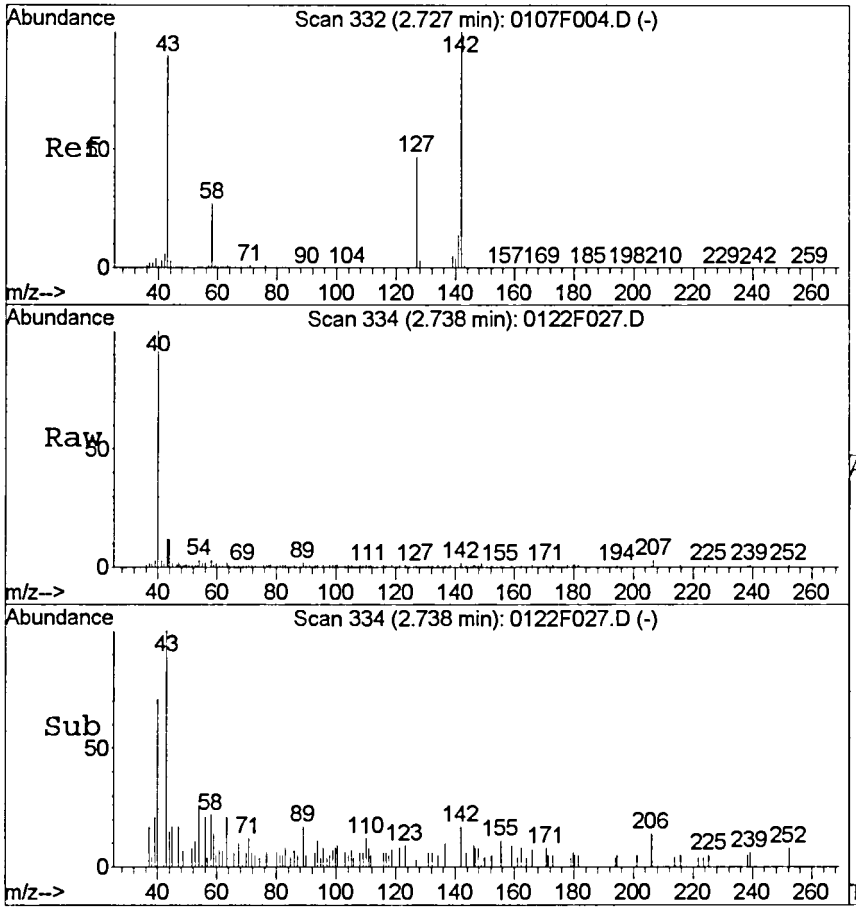
0122F027.D 010516MS46_8260.M Mon Jan 25 17:58:15 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F027.D Vial: 46
Acq On : 23 Jan 2016 01:36 Operator: YX
Sample : K1600673-011 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:57 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

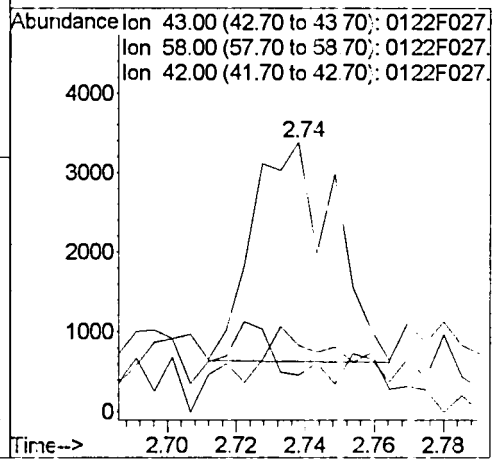


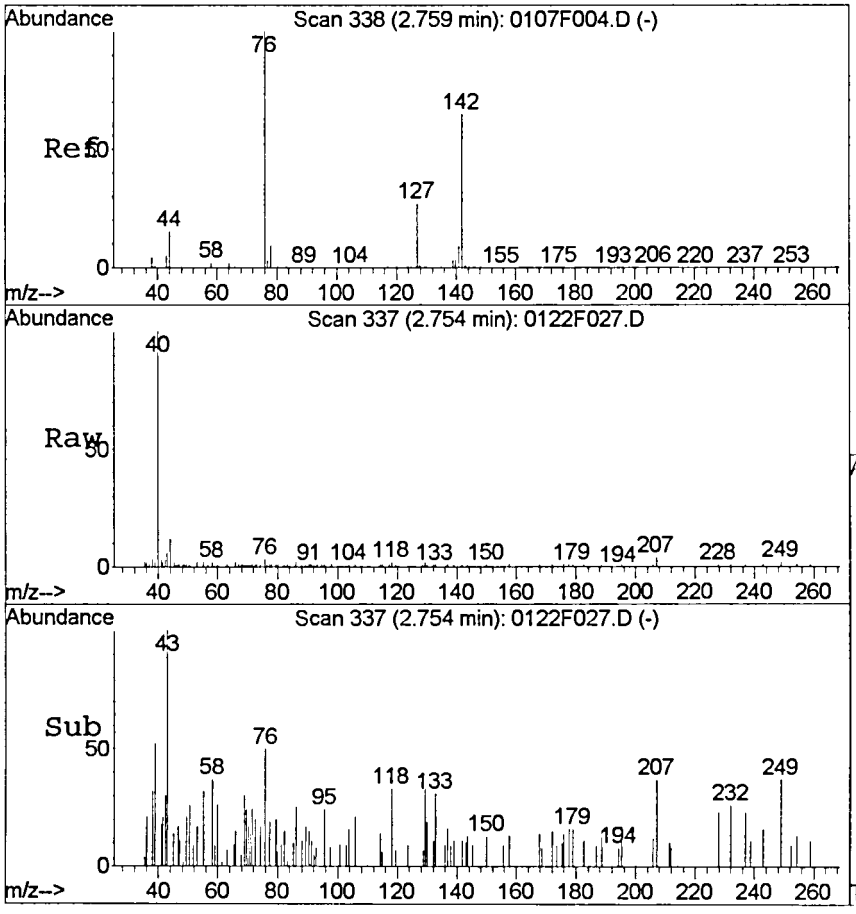


#14
Acetone
Concen: 1.99 PPB m
RT: 2.74 min Scan# 334
Delta R.T. 0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 43 Resp: 4483

Ion	Ratio	Lower	Upper
43	100		
58	24.7	0.2	60.2
42	13.6	0.0	37.6

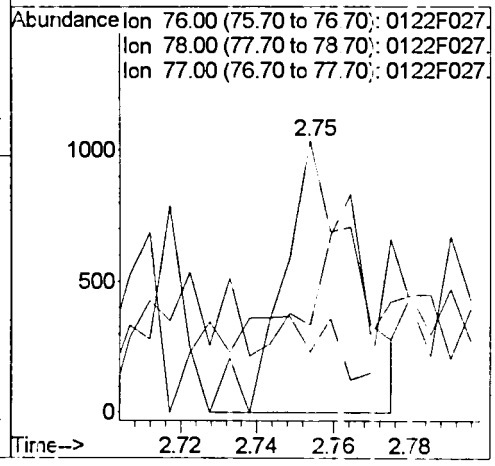


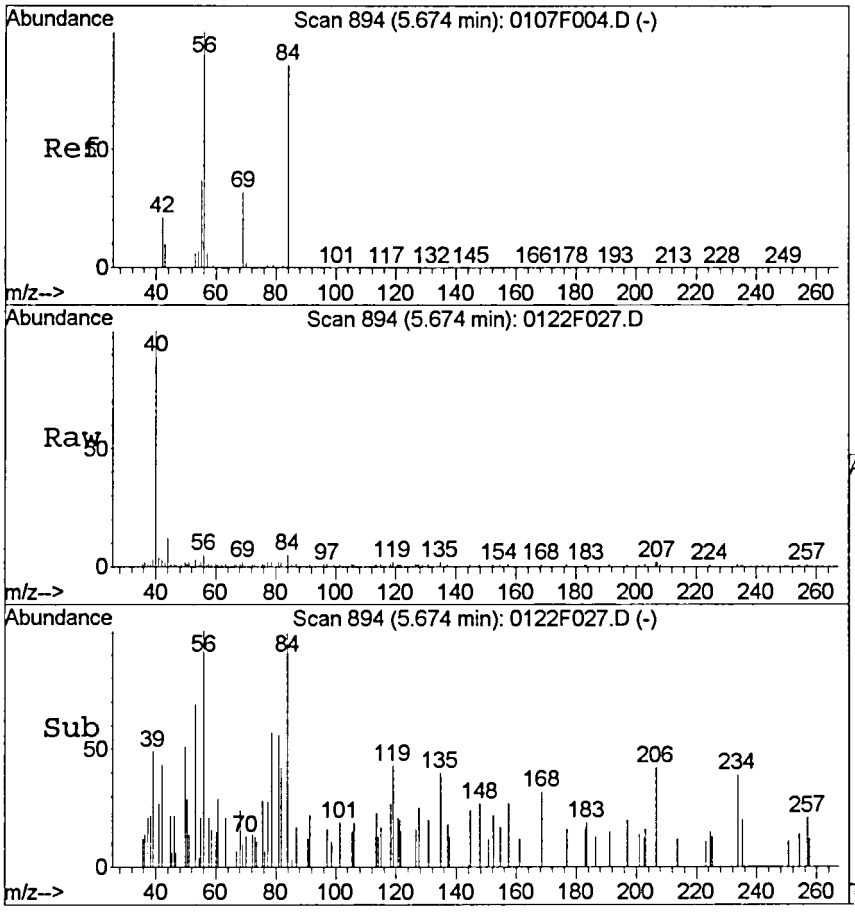


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.75 min Scan# 337
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 76 Resp: 1319

Ion	Ratio	Lower	Upper
76	100		
78	7.5	0.0	39.0
77	0.0	0.0	32.5

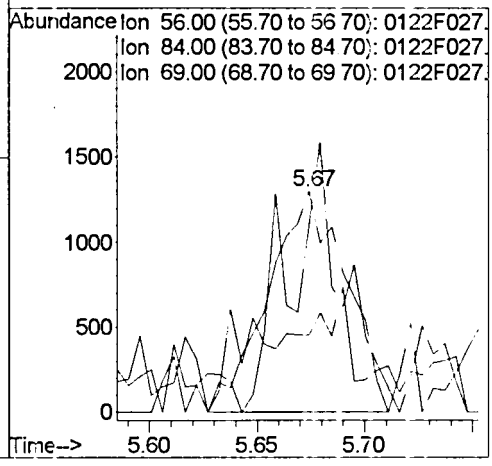


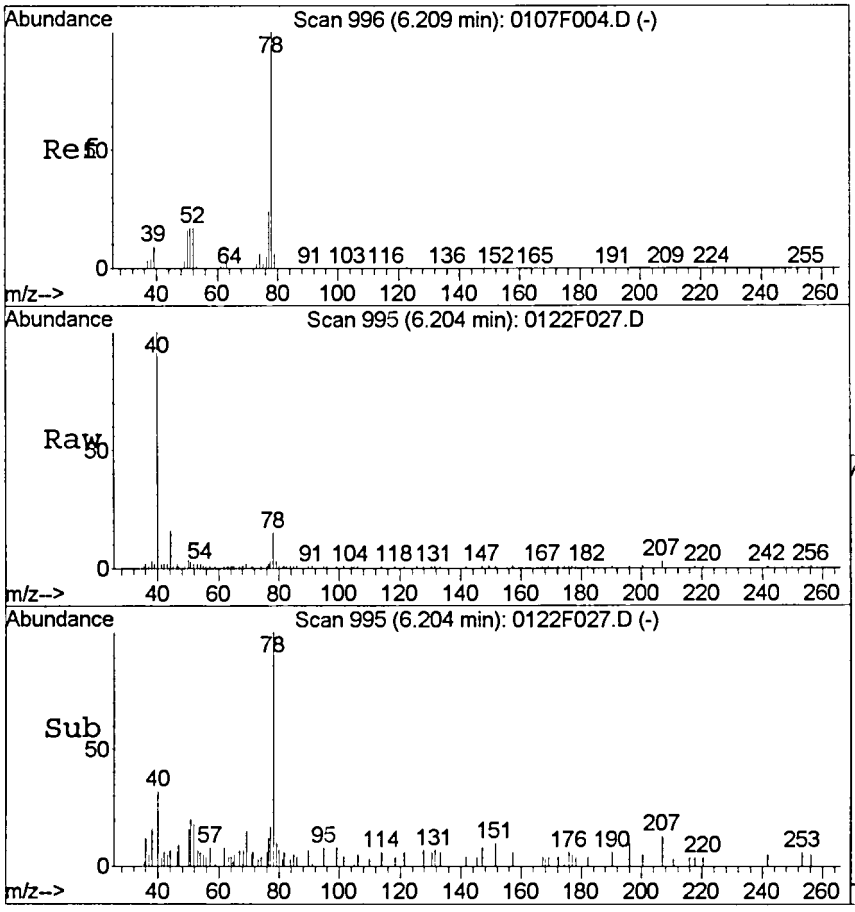


#41
Cyclohexane
Concen: 0.09 PPB
RT: 5.67 min Scan# 894
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 56 Resp: 3258

Ion	Ratio	Lower	Upper
56	100		
84	73.6	51.9	111.9
69	34.9	0.0	58.6

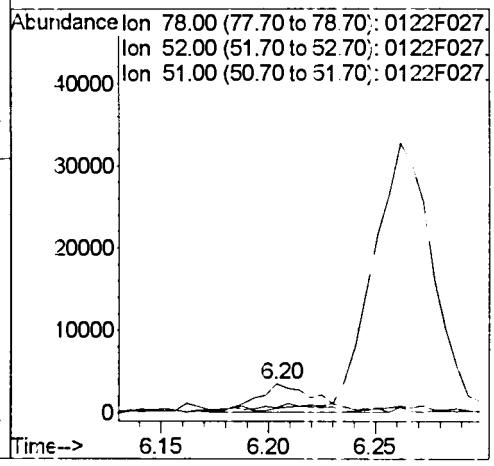


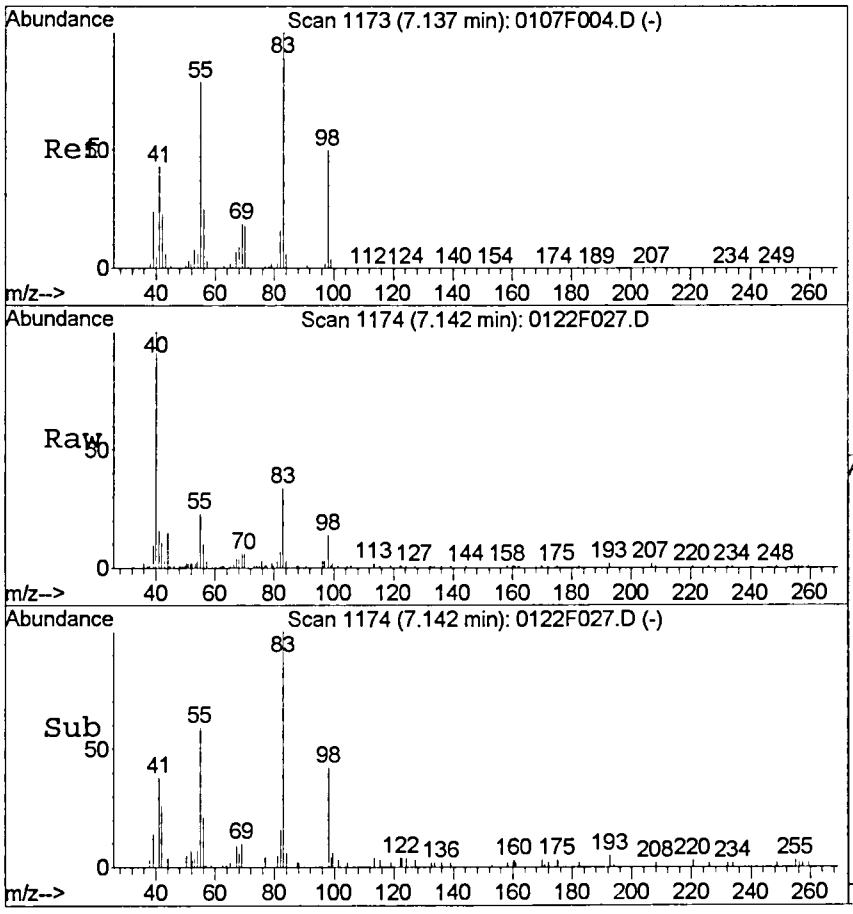


#48
Benzene
Concen: 0.08 PPB
RT: 6.20 min Scan# 995
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 78 Resp: 6654

Ion	Ratio	Lower	Upper
78	100		
52	12.8	0.0	46.4
51	8.5	0.0	47.1

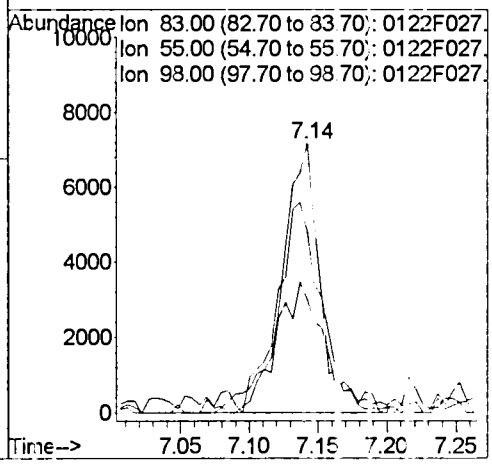


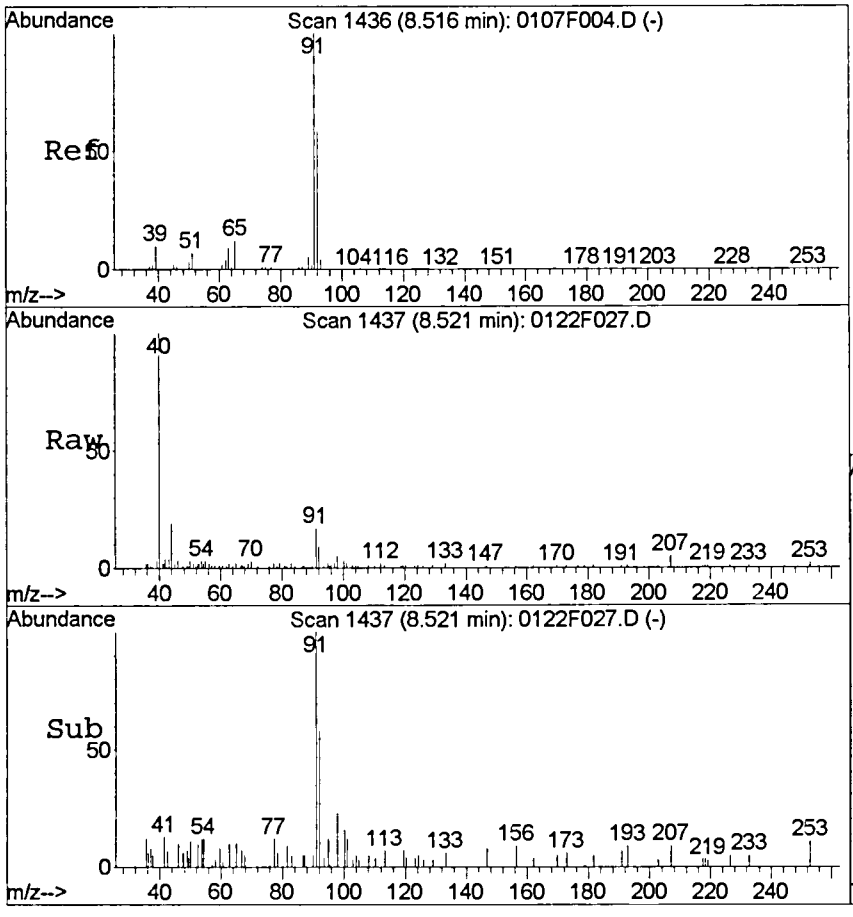


#52
Methylcyclohexane
Concen: 0.44 PPB
RT: 7.14 min Scan# 1174
Delta R.T. 0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 83 Resp: 14492

Ion	Ratio	Lower	Upper
83	100		
55	64.7	48.6	108.6
98	39.5	18.1	78.1

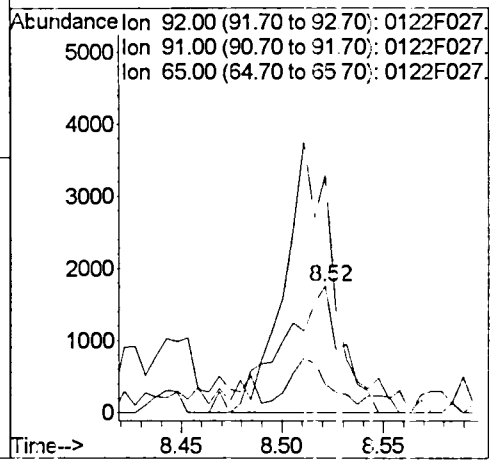


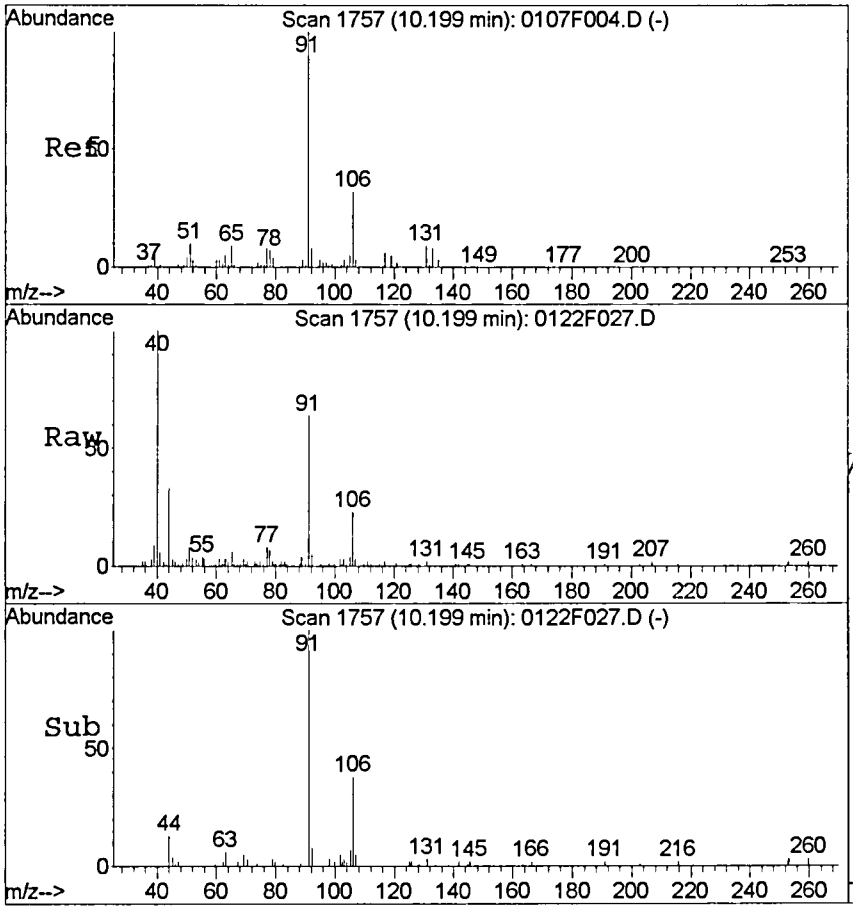


#63
Toluene
Concen: 0.07 PPB
RT: 8.52 min Scan# 1437
Delta R.T. 0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 92 Resp: 3622

Ion	Ratio	Lower	Upper
92	100		
91	180.3	133.4	193.4
65	10.2	0.0	49.2

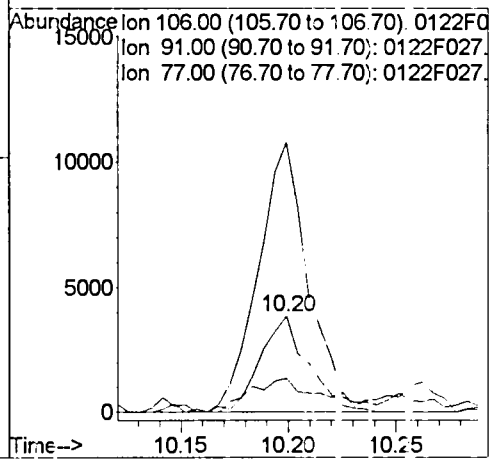


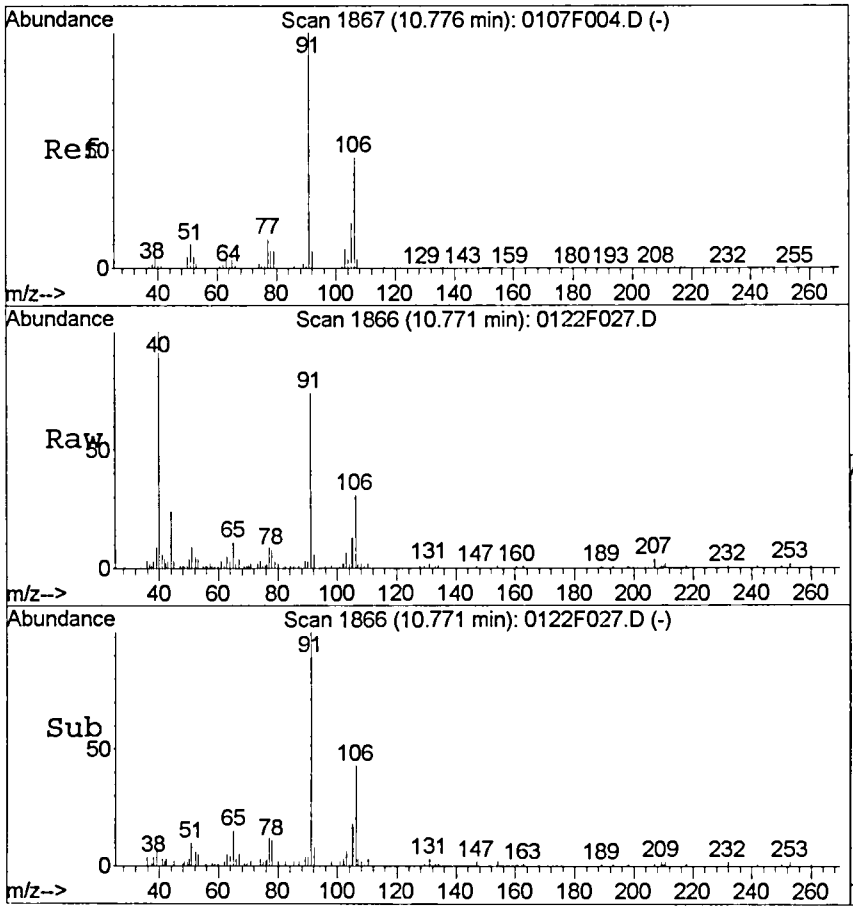


#76
Ethylbenzene
Concen: 0.14 PPB
RT: 10.20 min Scan# 1757
Delta R.T. 0.00 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:106 Resp: 5955

Ion	Ratio	Lower	Upper
106	100		
91	280.4	284.4	344.4#
77	35.3	0.0	56.5

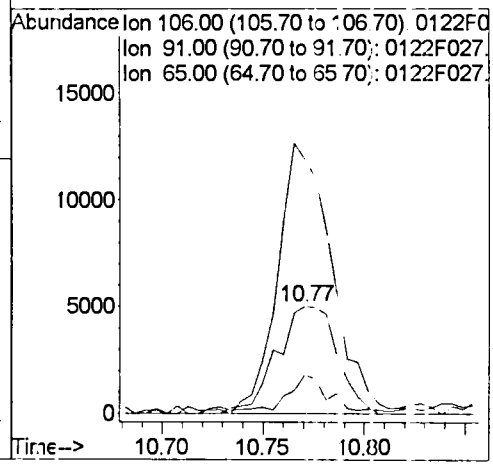


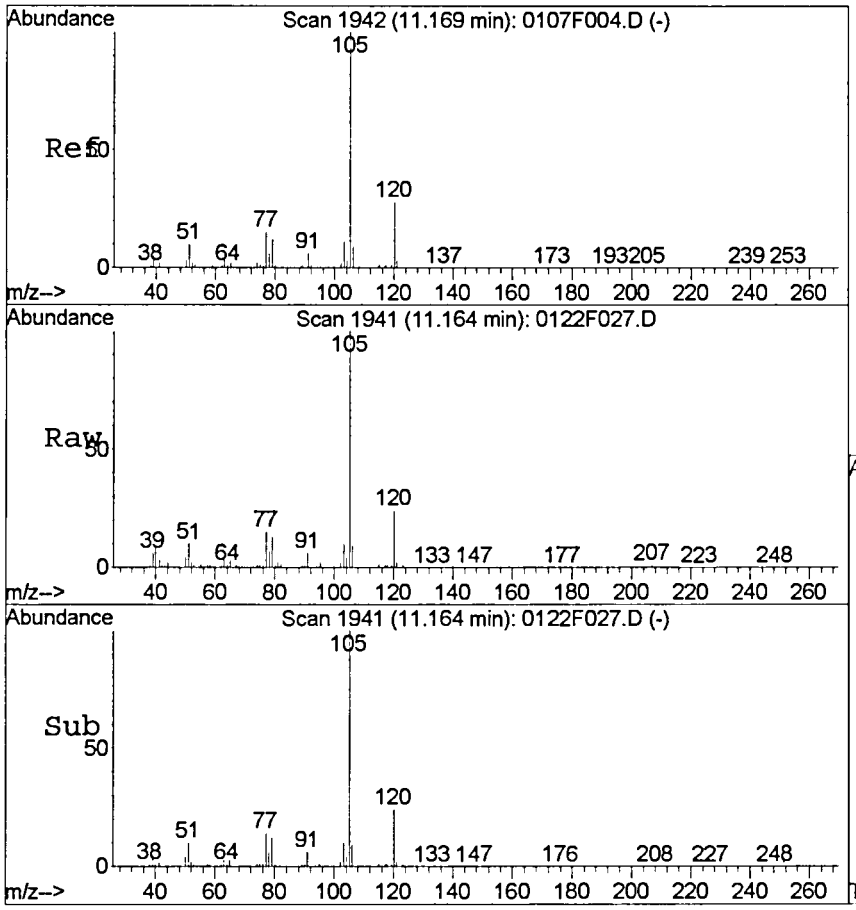


#79
o-Xylene
Concen: 0.21 PPB
RT: 10.77 min Scan# 1866
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:106 Resp: 10346

Ion	Ratio	Lower	Upper
106	100		
91	234.2	186.1	246.1
65	33.8	0.0	43.9

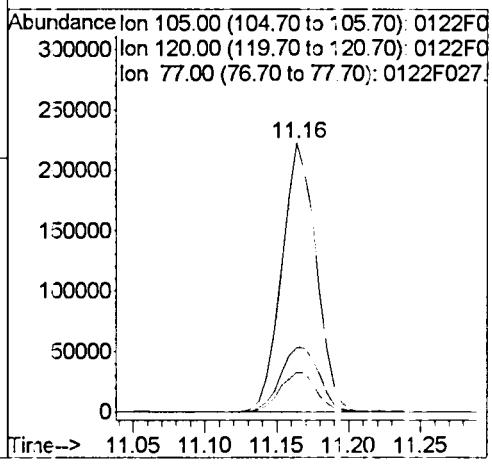


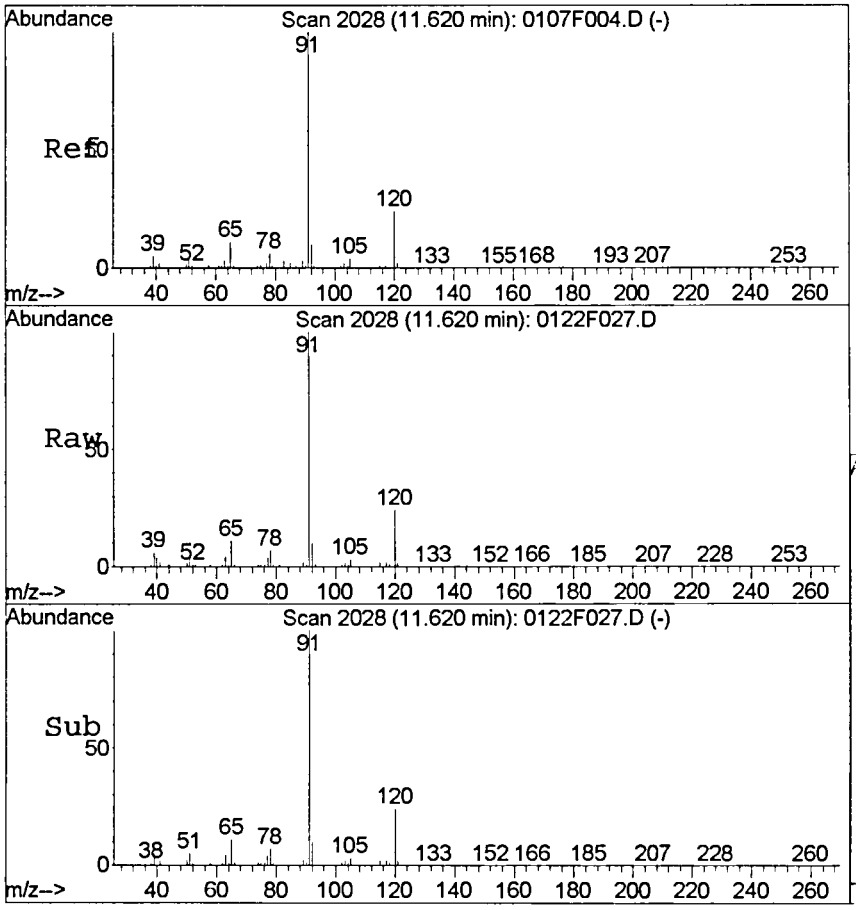


#82
Isopropylbenzene
Concen: 2.85 PPB
RT: 11.16 min Scan# 1941
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:105 Resp: 370075

Ion	Ratio	Lower	Upper
105	100		
120	23.9	0.0	57.3
77	14.5	0.0	45.1

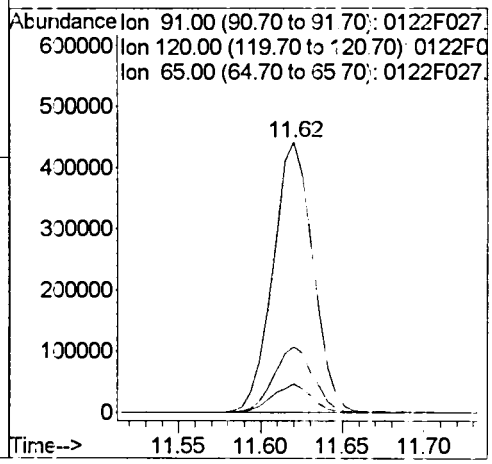


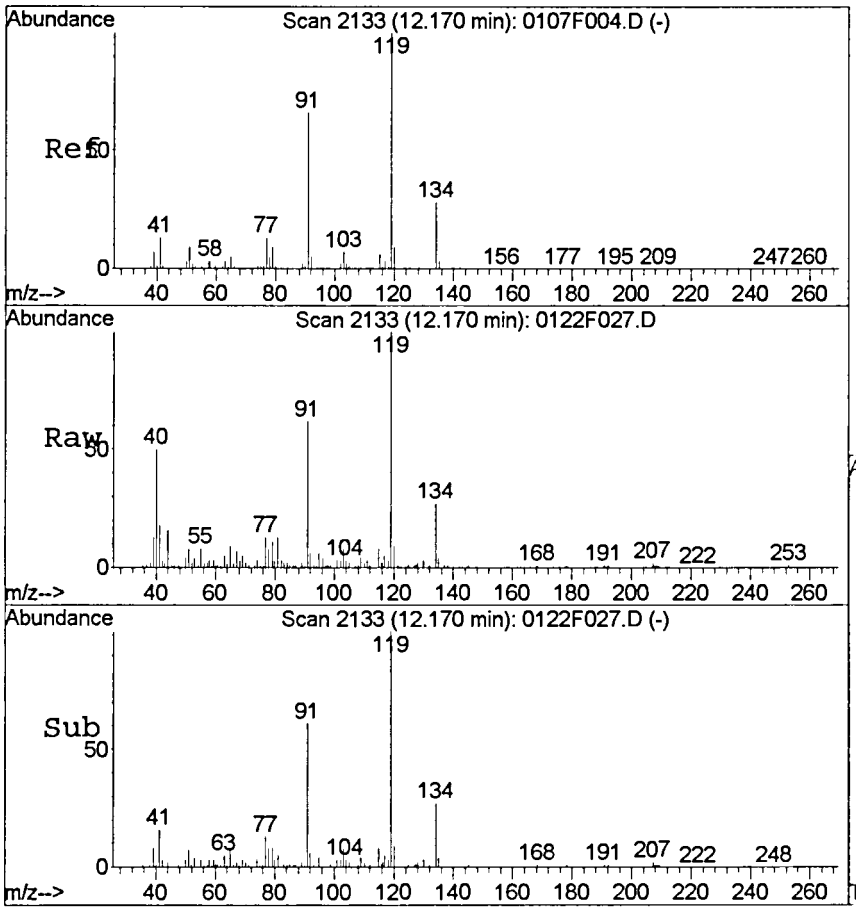


#89
n-Propylbenzene
Concen: 4.47 PPB
RT: 11.62 min Scan# 2028
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 91 Resp: 746880

Ion	Ratio	Lower	Upper
91	100		
120	24.3	0.0	54.1
65	10.7	0.0	40.4

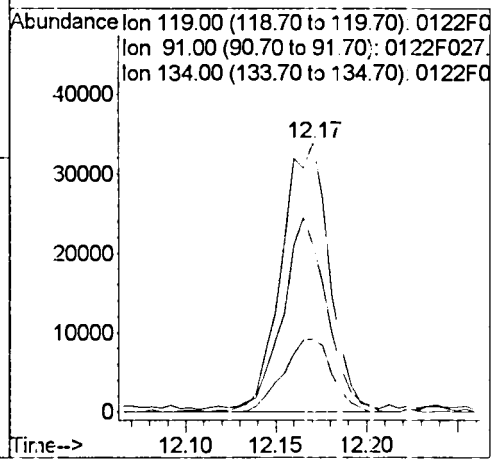


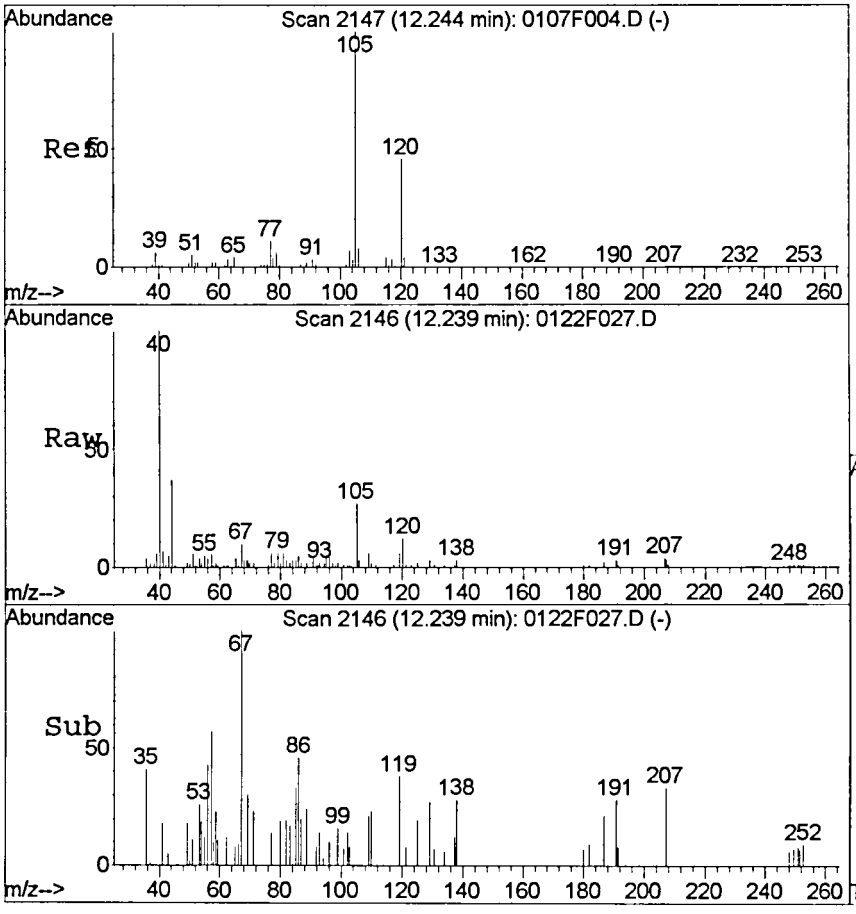


#94
tert-Butylbenzene
Concen: 0.60 PPB
RT: 12.17 min Scan# 2133
Delta R.T. 0.00 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:119 Resp: 62003

Ion	Ratio	Lower	Upper
119	100		
91	60.4	35.6	95.6
134	27.0	0.0	57.3

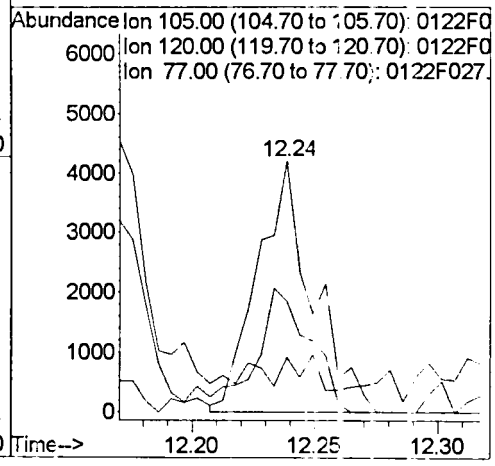


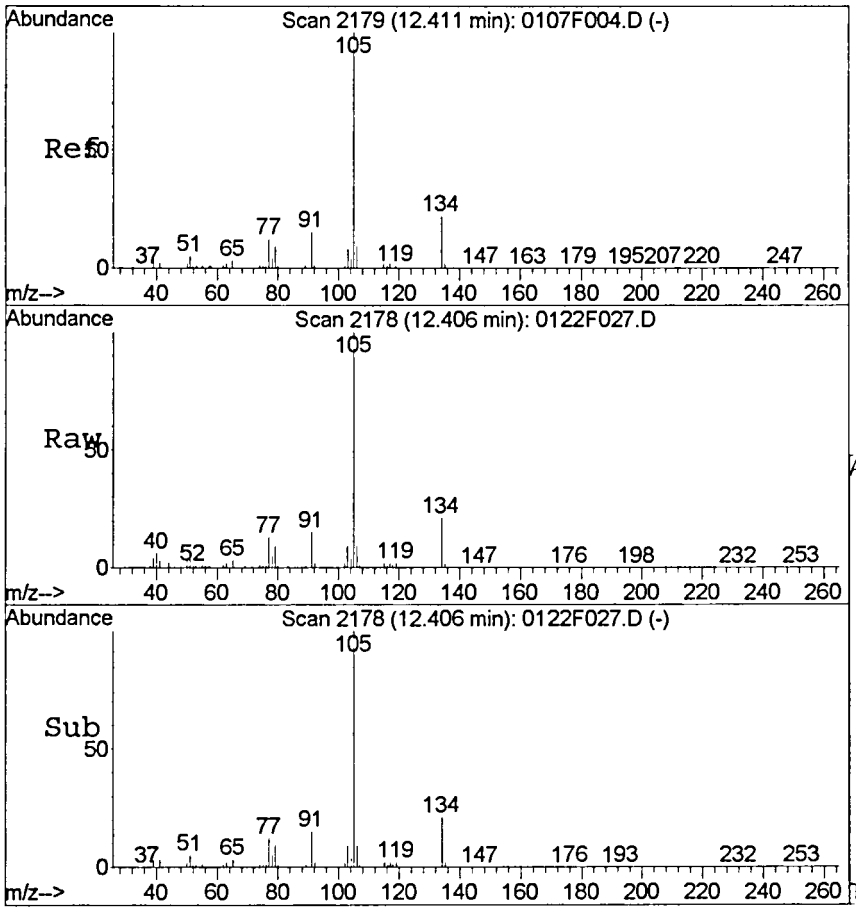


#95
1,2,4-Trimethylbenzene
Concen: 0.06 PPB
RT: 12.24 min Scan# 2146
Delta R.T. 0.00 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:105 Resp: 6483

Ion	Ratio	Lower	Upper
105	100		
120	43.9	15.9	75.9
77	10.3	0.0	42.7

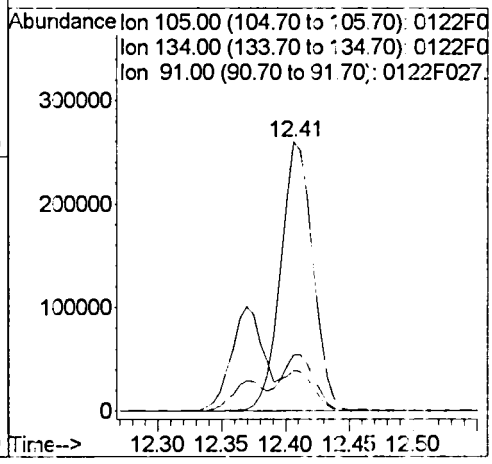


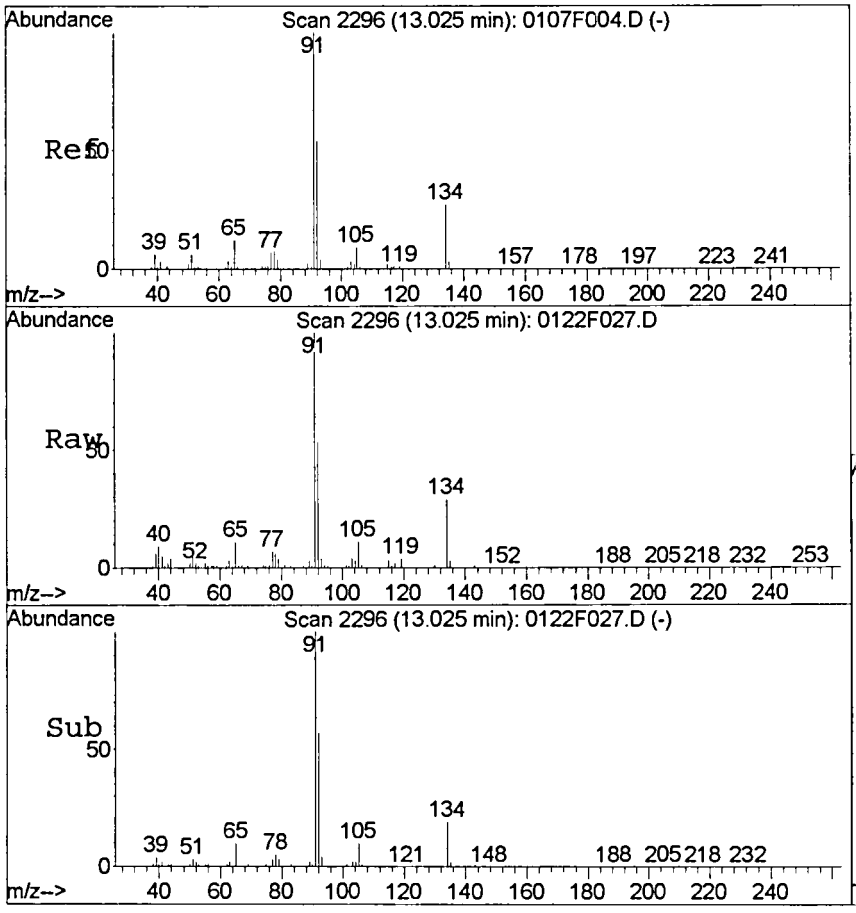


#96
sec-Butylbenzene
Concen: 3.09 PPB
RT: 12.41 min Scan# 2178
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:105 Resp: 455307

Ion	Ratio	Lower	Upper
105	100		
134	20.9	0.0	50.8
91	14.9	0.0	45.2

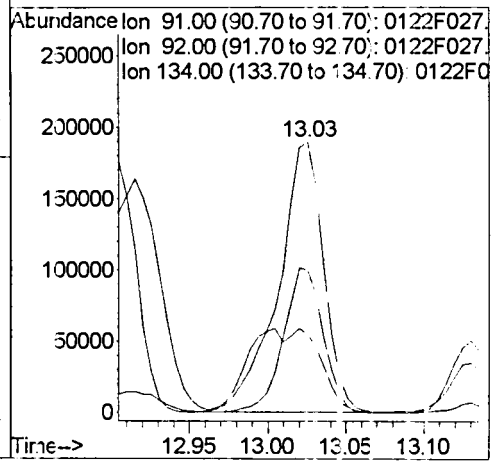


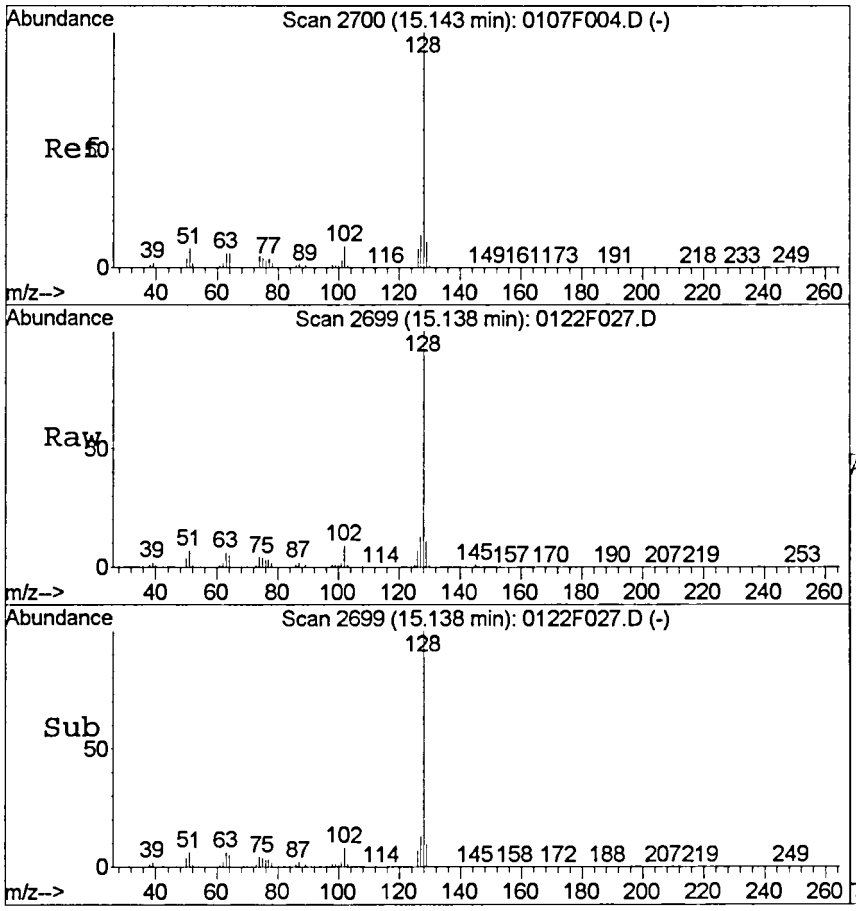


#100
n-Butylbenzene
Concen: 3.46 PPB
RT: 13.03 min Scan# 2296
Delta R.T. 0.00 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion: 91 Resp: 379223

Ion	Ratio	Lower	Upper
91	100		
92	52.7	23.7	83.7
134	29.0	0.0	57.5

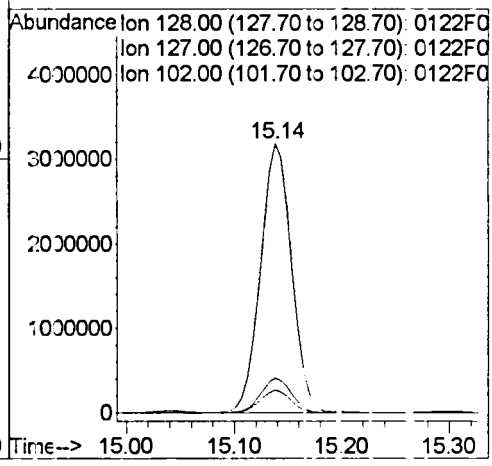




#106
Naphthalene
Concen: 105.00 PPB
RT: 15.14 min Scan# 2699
Delta R.T. -0.01 min
Lab File: 0122F027.D
Acq: 23 Jan 2016 01:36

Tgt Ion:128 Resp: 6407964

Ion	Ratio	Lower	Upper
128	100		
127	13.0	0.0	43.2
102	8.5	0.0	38.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F028.D
Lab ID: K1600673-012
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 02:02
Date Quantitated: 01/25/2016 15:35
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review: 1/27/16

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F028.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 02:02	**Quant Date:**	01/25/2016 17:58	**Vial:**	47
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495779	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	609359	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	310648	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	333342	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	5.82	0.01	0.00	113	177261	10.24	102	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	182438	10.19	102	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	665295	9.93	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	281283	8.79	88	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	8153m	3.42	3.4	J	
1	Methylene Chloride				84	0d		0.16	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F028.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 02:02	**Quant Date:**	01/25/2016 17:58	**Vial:**	47
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0d		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	7504	0.1400	0.14	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.071	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F028.D Vial: 47
Acq On : 23 Jan 2016 02:02 Operator: YX
Sample : K1600673-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:47 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

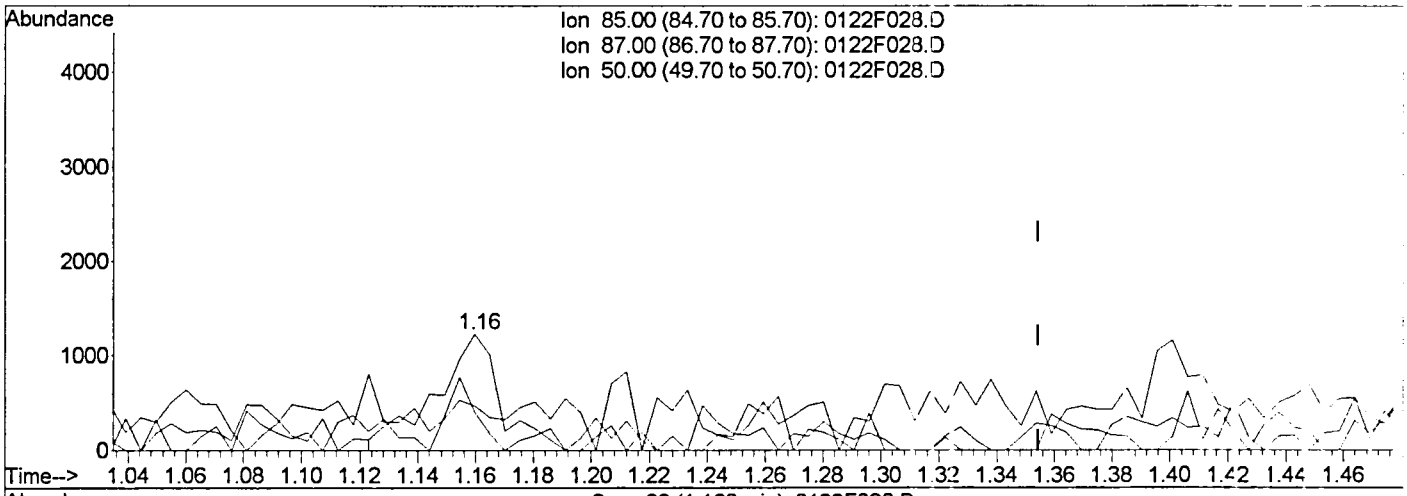
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	609359	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	310648	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	333342	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	177261	10.24	PPB	0.00
Spiked Amount 10.000			Recovery = 102.40%			
47) 1,2-Dichloroethane-d4	6.26	65	182438	10.19	PPB	0.00
Spiked Amount 10.000			Recovery = 101.90%			
62) Toluene-d8	8.44	98	665295	9.93	PPB	0.00
Spiked Amount 10.000			Recovery = 99.30%			
84) 4-Bromofluorobenzene	11.38	95	281283	8.79	PPB	0.00
Spiked Amount 10.000			Recovery = 87.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.16	85	1438m	0.06	PPB	
14) Acetone	2.73	43	8153m	3.42	PPB	
16) Carbon Disulfide	2.75	76	1788	0.03	PPB	# 48
63) Toluene	8.51	92	7504	0.14	PPB	96
74) 1-Chlorohexane	10.07	91	2092	0.06	PPB	60
106) Naphthalene	15.14	128	43344	0.72	PPB	96

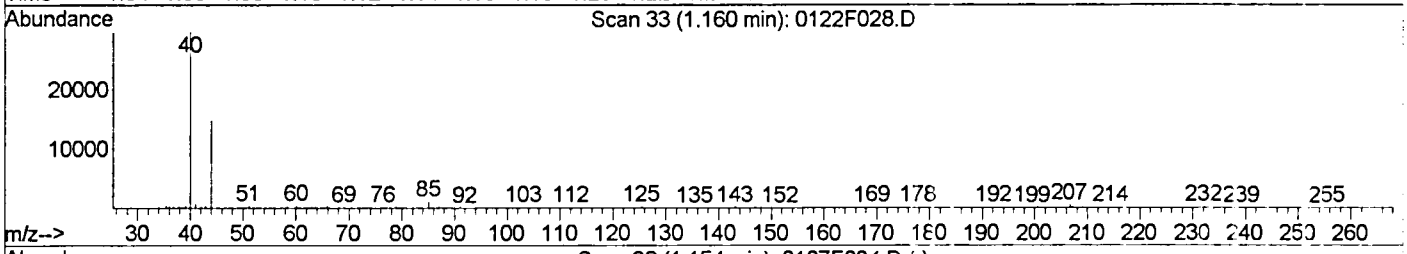
(#) = qualifier out of range (m) = manual integration
0122F028.D 010516MS46_8260.M Mon Jan 25 17:59:15 2016 Page 1

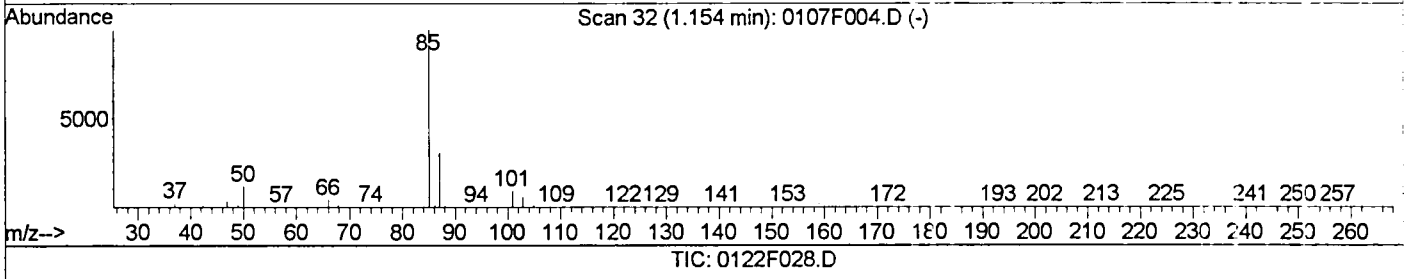
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F028.D Vial: 47
Acq On : 23 Jan 2016 02:02 Operator: YX
Sample : K1600673-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F028.D

(2) Dichlorodifluoromethane (T)

1.16min 0.08PPB

response 1924

Ion	Exp%	Act%
85.00	100	100
87.00	28.00	32.93
50.00	12.80	0.00
0.00	0.00	0.00

Manual Integration:

Before

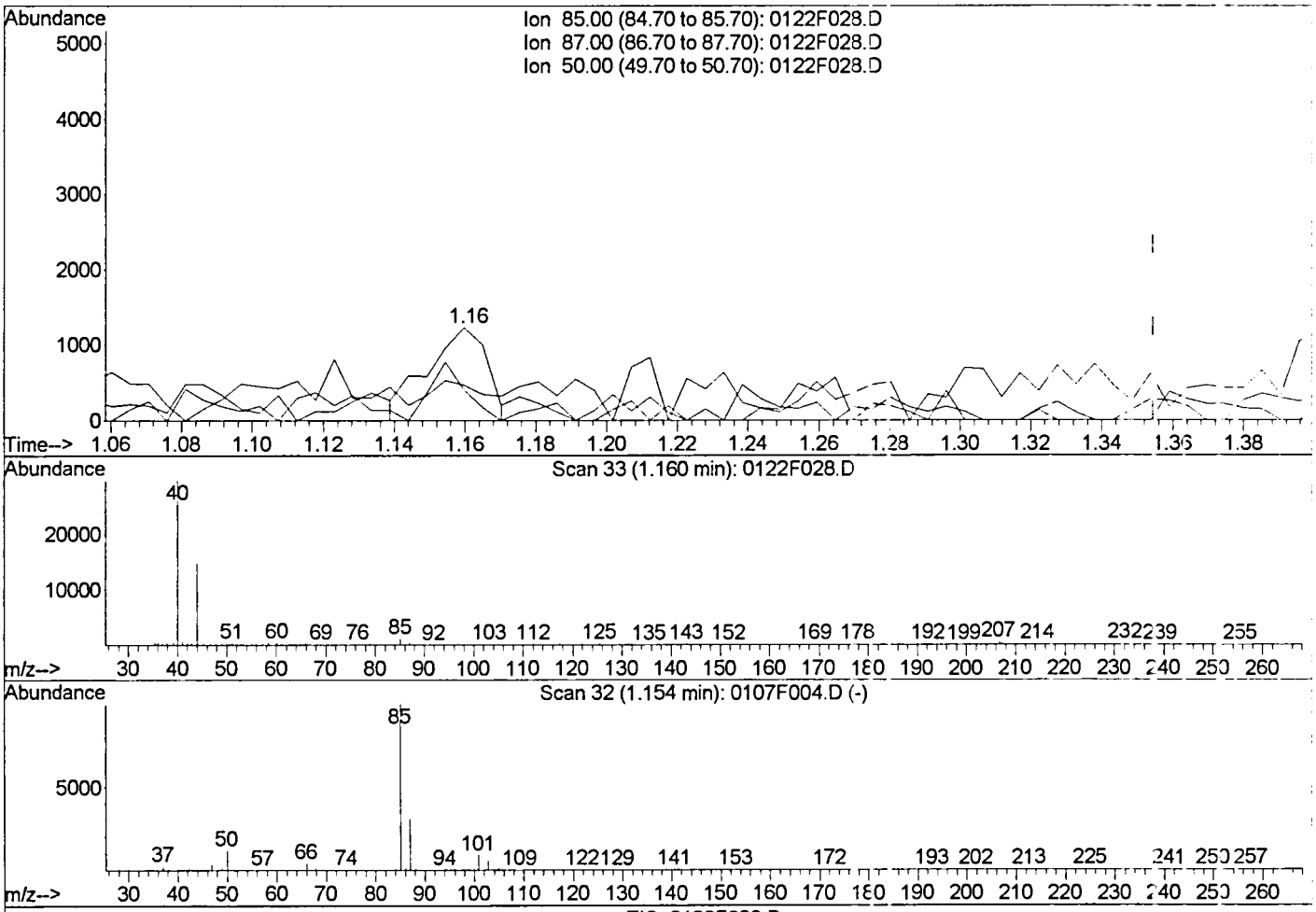
01/25/16

0122F028.D 010516MS46_8260.M Mon Jan 25 15:33:50 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F028.D Vial: 47
Acq On : 23 Jan 2016 02:02 Operator: YX
Sample : K1600673-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:33 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F028.D

(2) Dichlorodifluoromethane (T)

1.16min 0.06PPB m

response 1438

Ion	Exp%	Act%
85.00	100	100
87.00	28.00	32.93
50.00	12.80	23.15
0.00	0.00	0.00

Manual Integration:

After

Shoulder

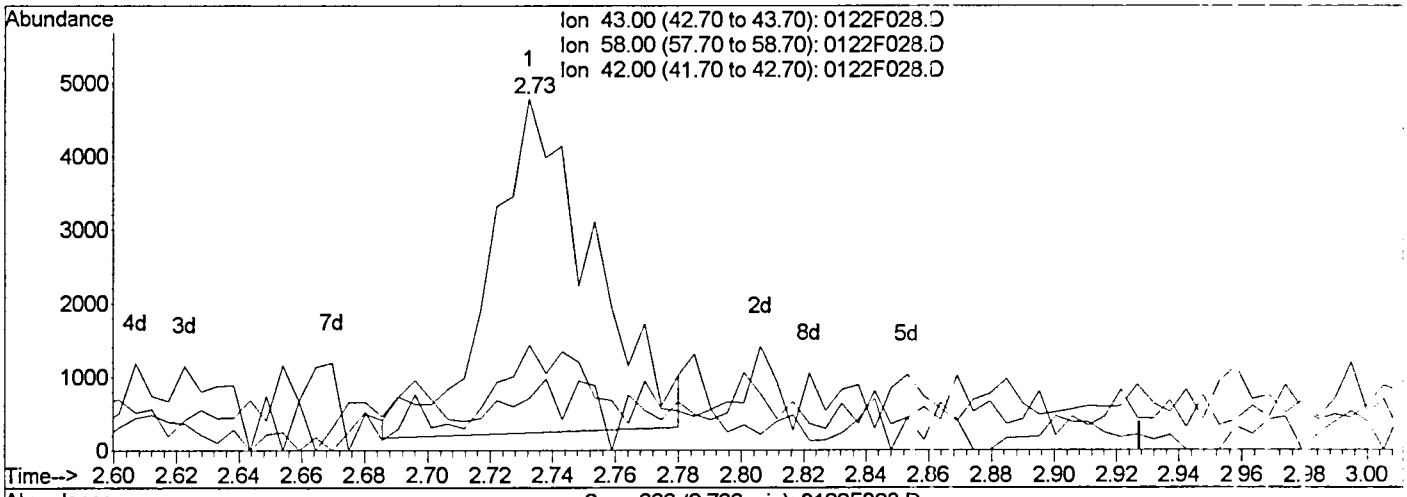
01/25/16

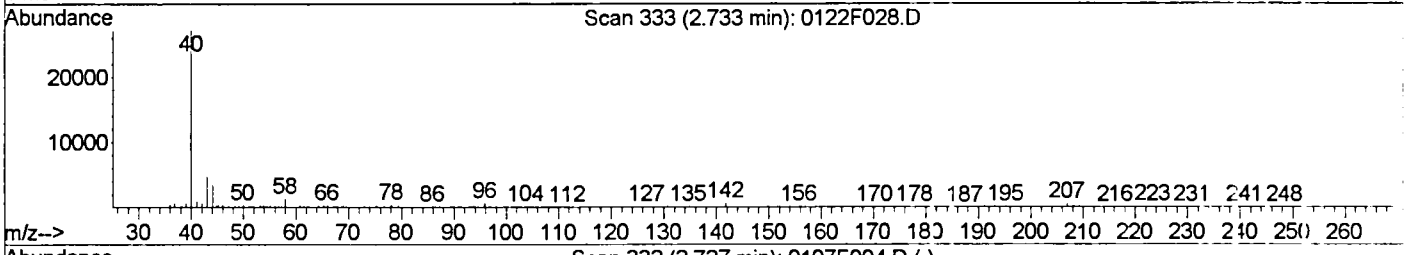
0122F028.D 010516MS46_8260.M Mon Jan 25 15:34:03 2016

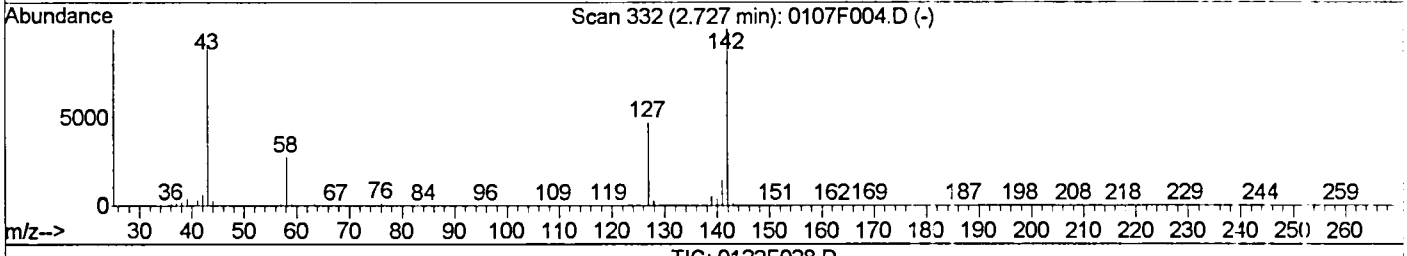
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F028.D Vial: 47
Acq On : 23 Jan 2016 02:02 Operator: YX
Sample : K1600673-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:35 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F028.D

(14) Acetone (T)

2.73min 4.34PPB

response 10323

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	29.52
42.00	7.60	5.74
0.00	0.00	0.00

Manual Integration:

Before

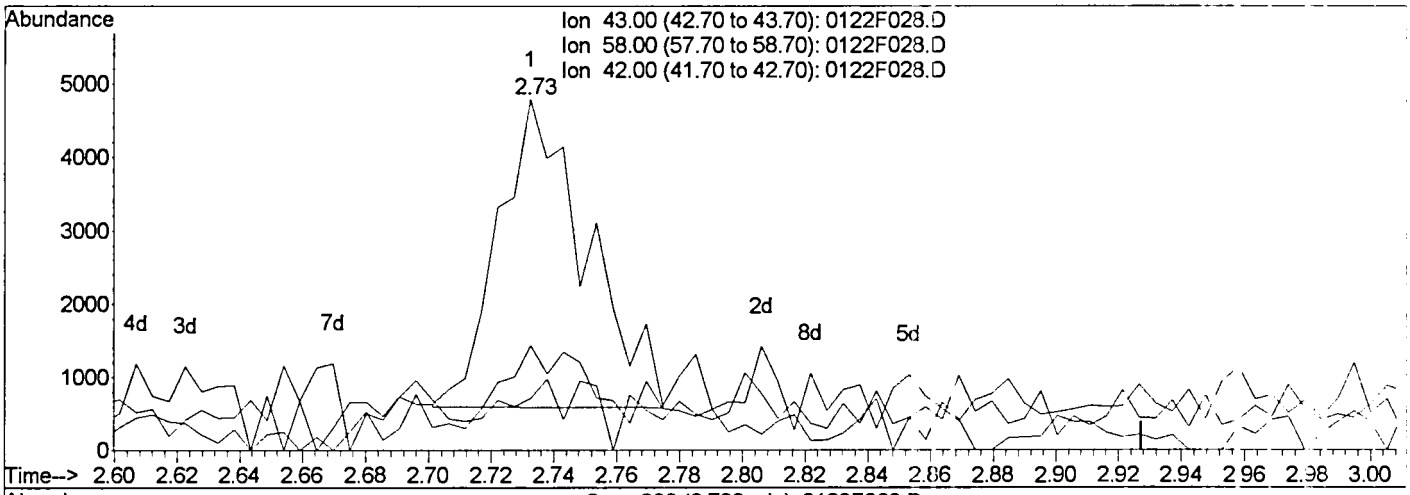
01/25/16

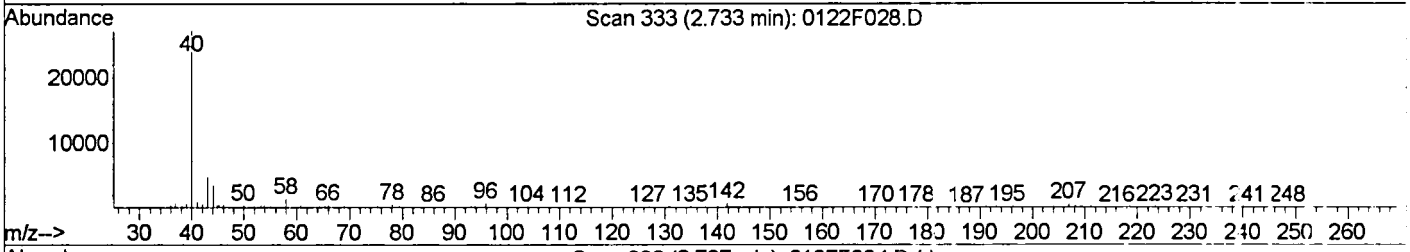
0122F028.D 010516MS46_8260.M Mon Jan 25 17:58:22 2016

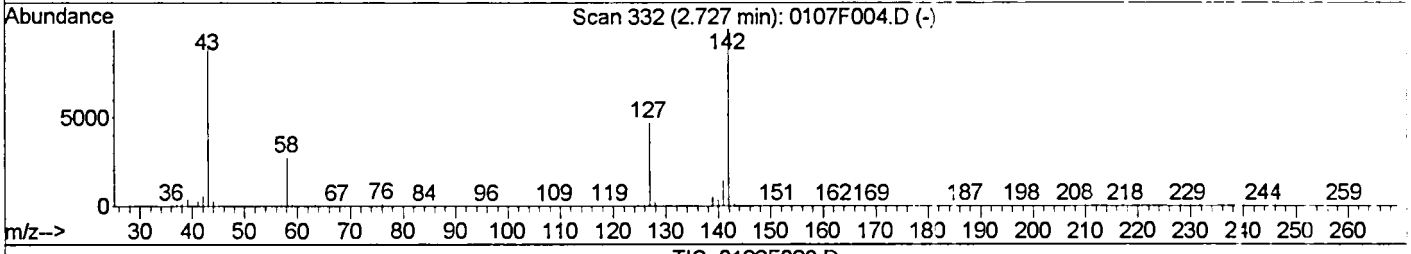
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F028.D Vial: 47
Acq On : 23 Jan 2016 02:02 Operator: YX
Sample : K1600673-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:58 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F028.D

(14) Acetone (T)

2.73min 3.42PPB m

response 8153

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	29.89
42.00	7.60	14.94
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

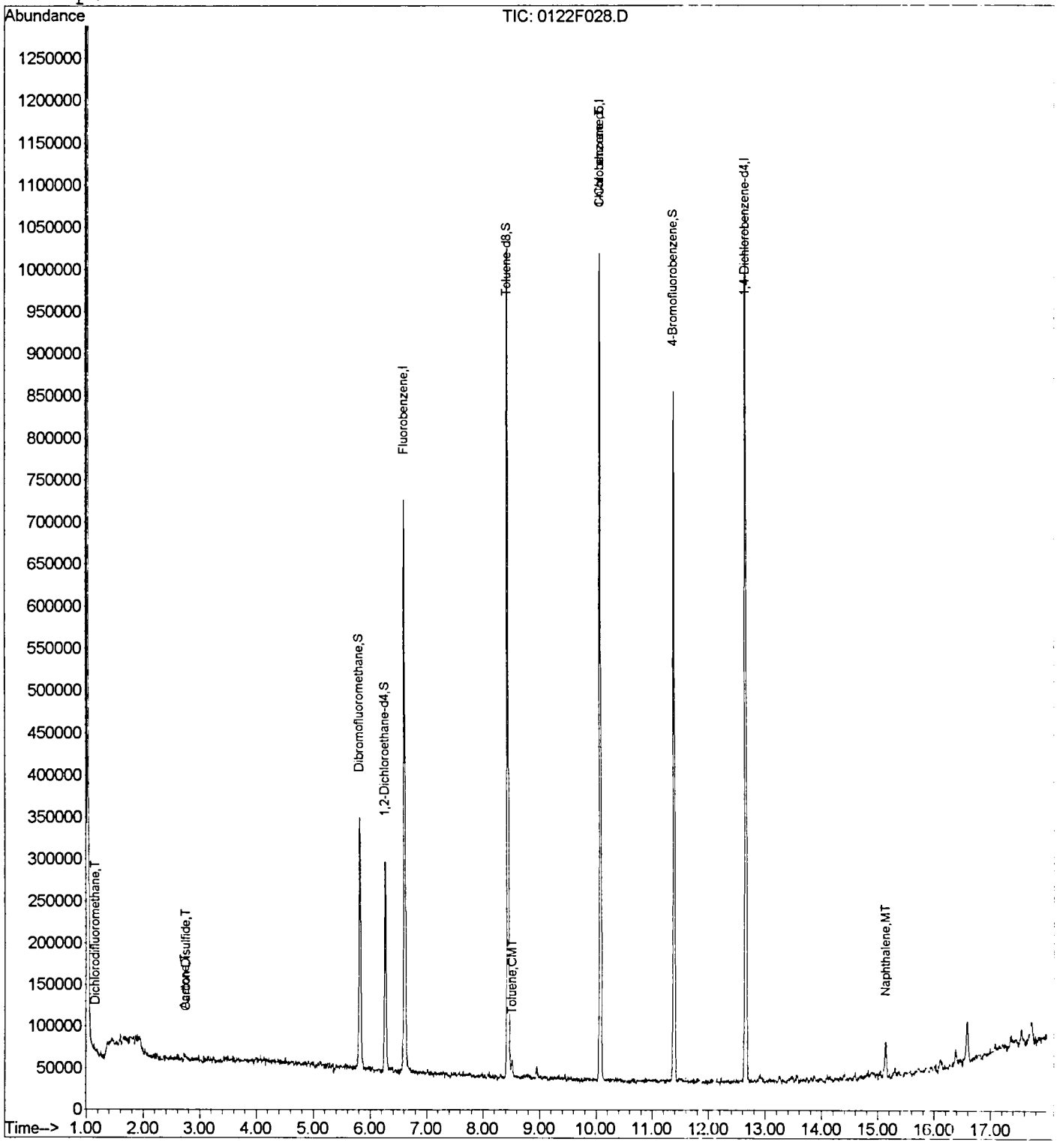
01/25/16

0122F028.D 010516MS46_8260.M Mon Jan 25 17:58:27 2016

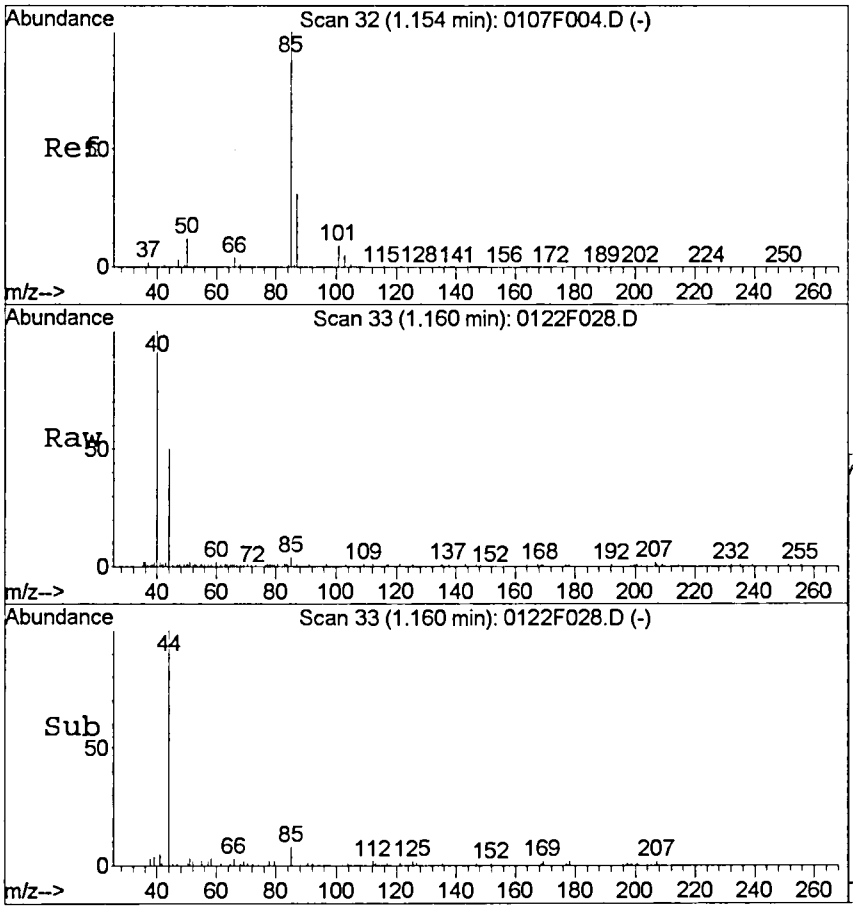
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F028.D Vial: 47
Acq On : 23 Jan 2016 02:02 Operator: YX
Sample : K1600673-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 17:58 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



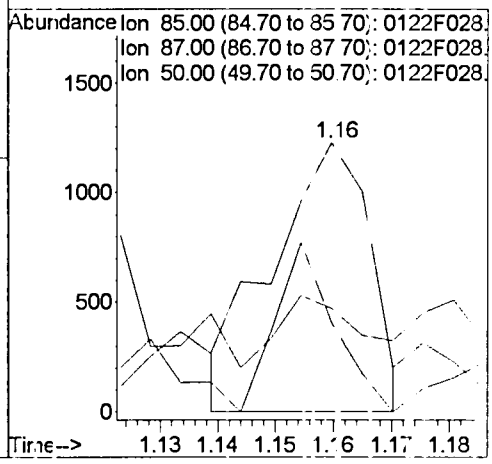
0122F028.D 010516MS46_8260.M Mon Jan 25 17:59:16 2016 Page 2

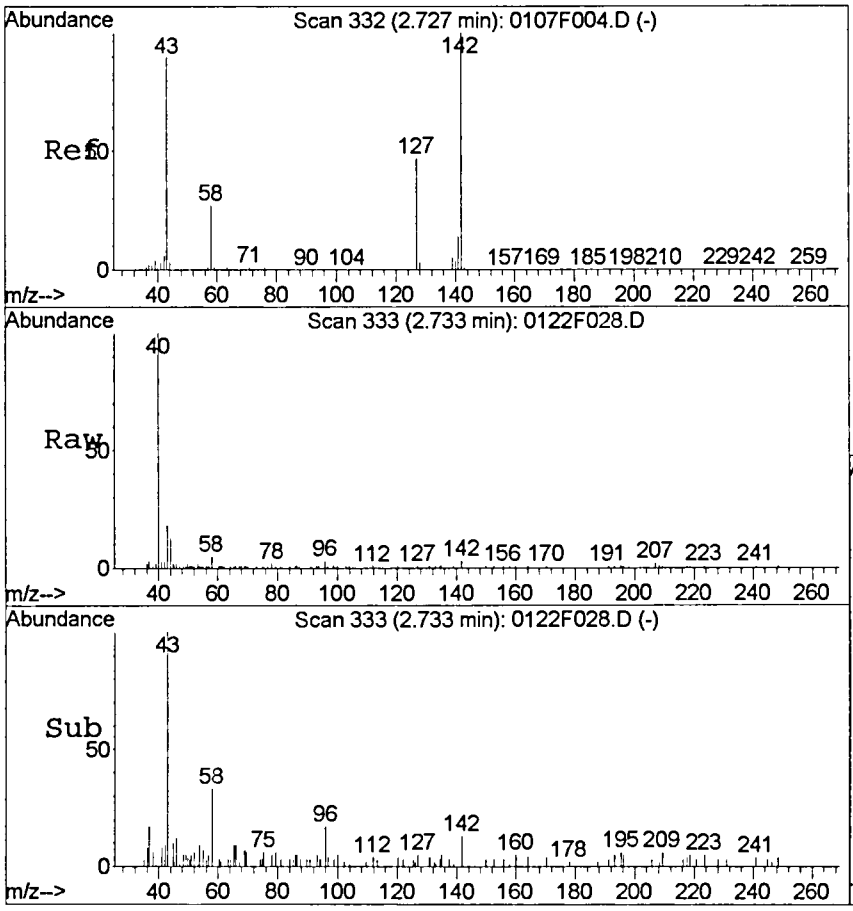


#2
Dichlorodifluoromethane
Concen: 0.06 PPB m
RT: 1.16 min Scan# 33
Delta R.T. 0.01 min
Lab File: 0122F028.D
Acq: 23 Jan 2016 02:02

Tgt Ion: 85 Resp: 1438

Ion	Ratio	Lower	Upper
85	100		
87	32.9	0.0	58.0
50	23.1	0.0	42.8

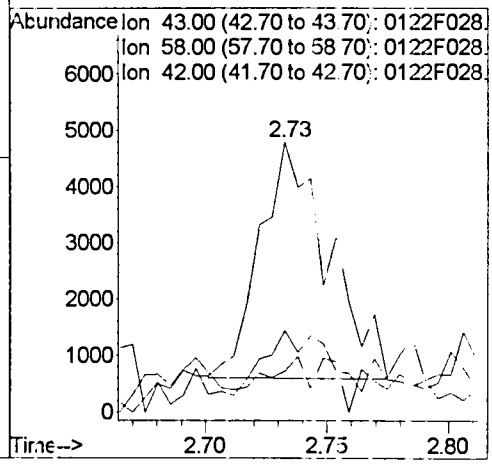


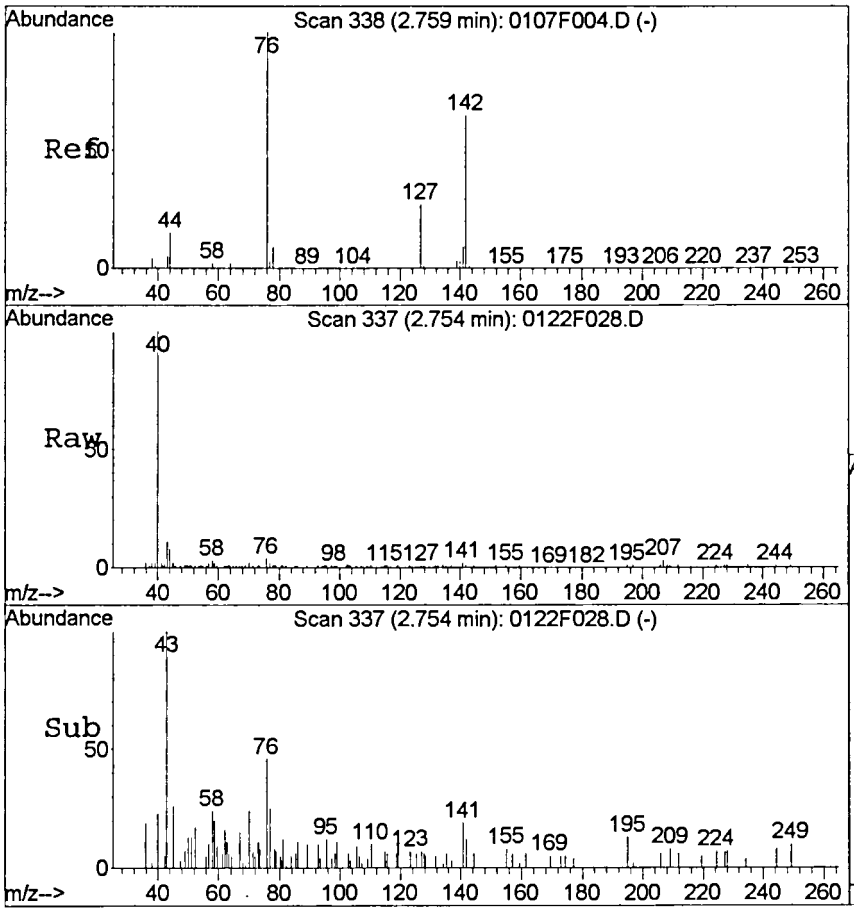


#14
Acetone
Concen: 3.42 PPB m
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F028.D
Acq: 23 Jan 2016 02:02

Tgt Ion: 43 Resp: 8153

Ion	Ratio	Lower	Upper
43	100		
58	29.9	0.2	60.2
42	14.9	0.0	37.6

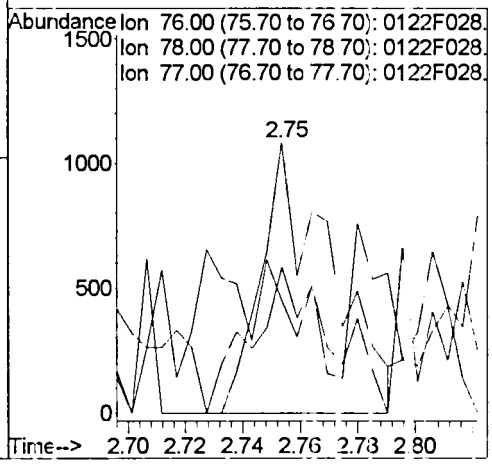


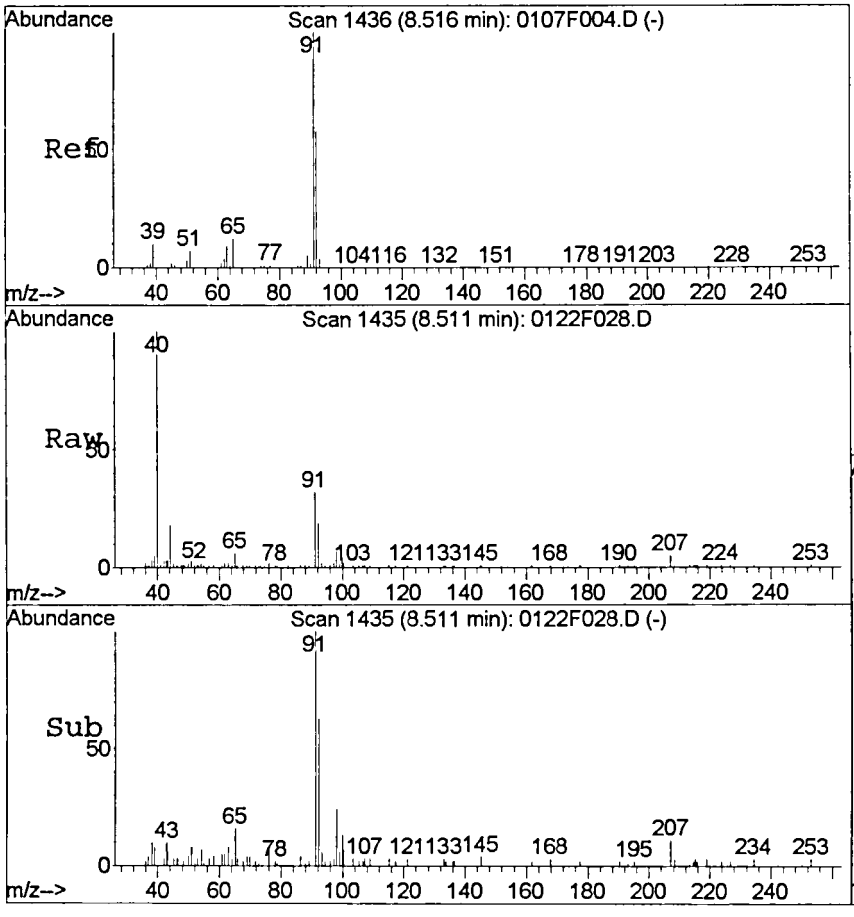


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.75 min Scan# 337
Delta R.T. -0.01 min
Lab File: 0122F028.D
Acq: 23 Jan 2016 02:02

Tgt Ion: 76 Resp: 1788

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.0
77	53.8	0.0	32.5#

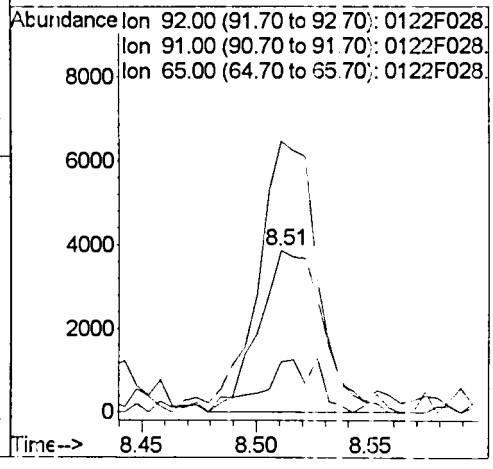


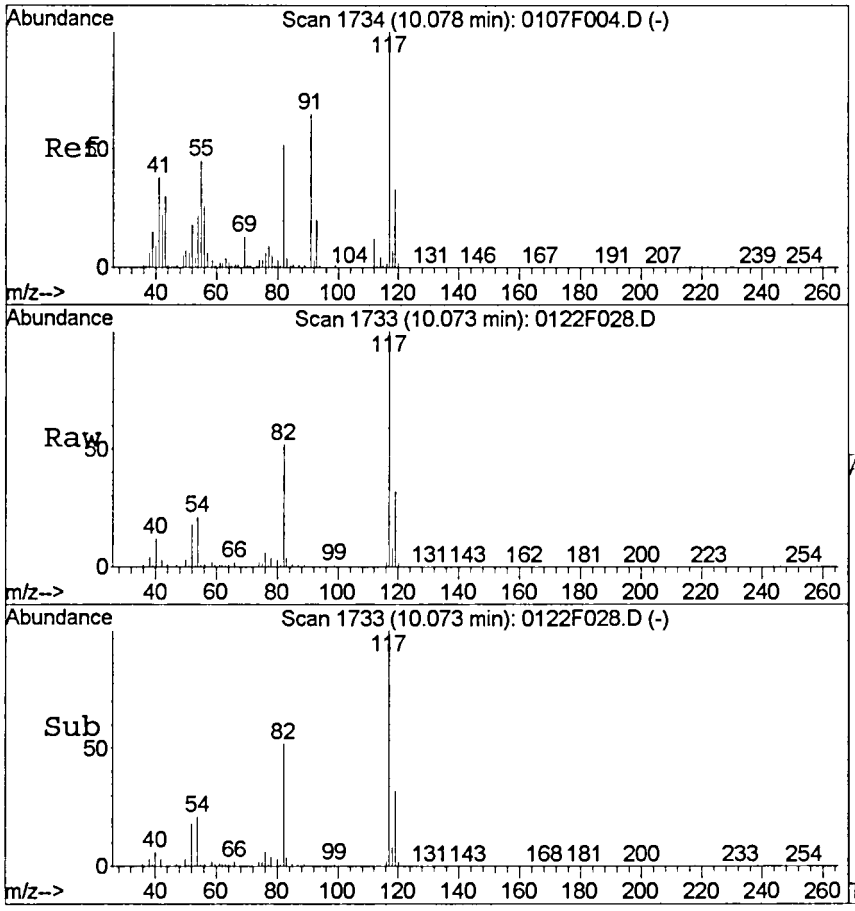


#63
Toluene
Concen: 0.14 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F028.D
Acq: 23 Jan 2016 02:02

Tgt Ion: 92 Resp: 7504

Ion	Ratio	Lower	Upper
92	100		
91	161.4	133.4	193.4
65	31.2	0.0	49.2

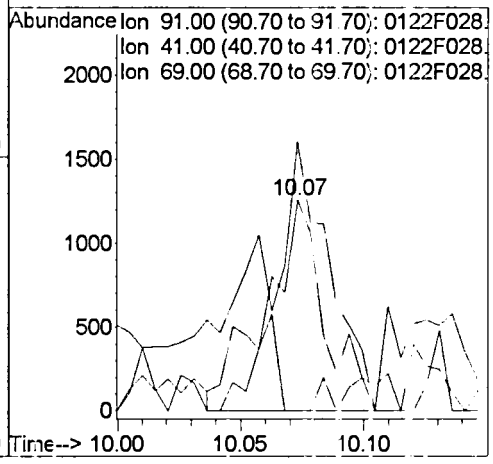


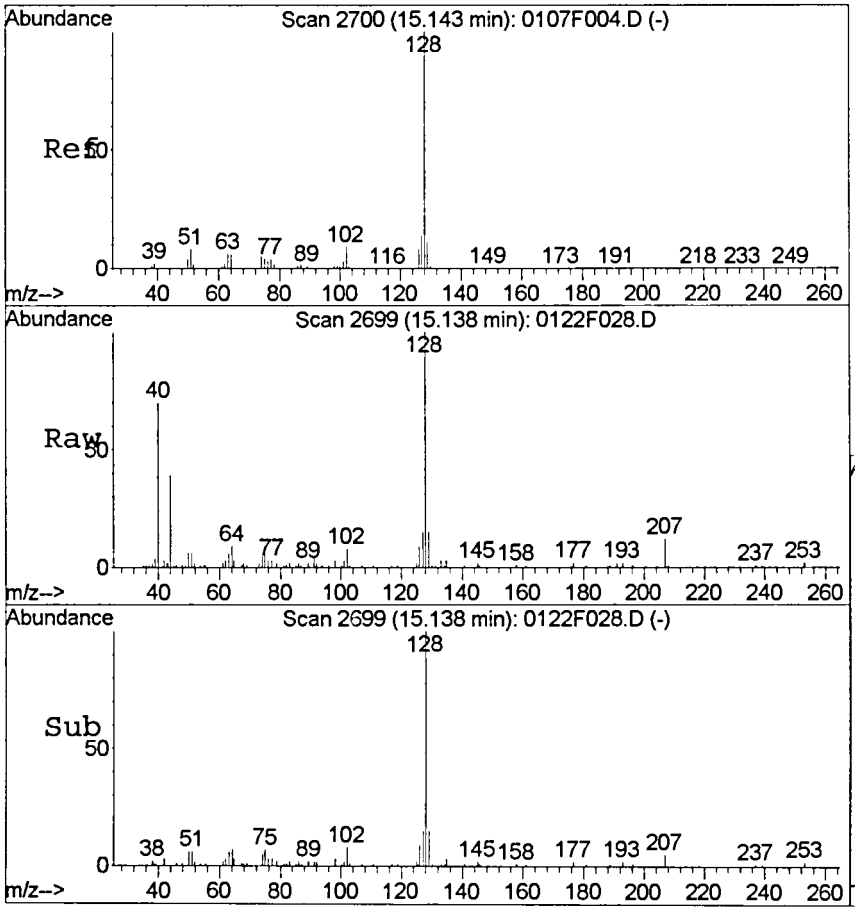


#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 10.07 min Scan# 1733
Delta R.T. 0.00 min
Lab File: 0122F028.D
Acq: 23 Jan 2016 02:02

Tgt Ion: 91 Resp: 2092

Ion	Ratio	Lower	Upper
91	100		
41	84.5	25.4	85.4
69	0.0	0.0	48.1

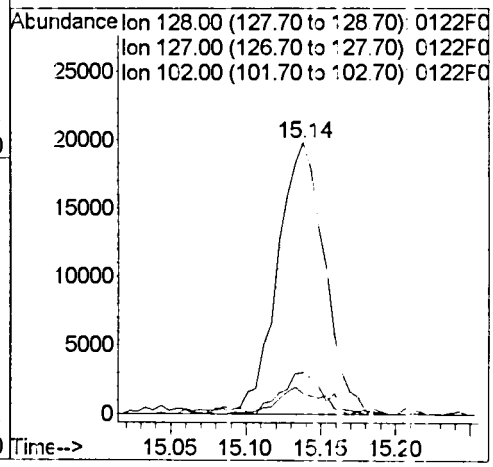




#106
Naphthalene
Concen: 0.72 PPB
RT: 15.14 min Scan# 2699
Delta R.T. -0.01 min
Lab File: 0122F028.D
Acq: 23 Jan 2016 02:02

Tgt Ion:128 Resp: 43344

Ion	Ratio	Lower	Upper
128	100		
127	15.3	0.0	43.2
102	7.7	0.0	38.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F029.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 02:29
Date Quantitated: 01/25/2016 15:38
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review:

Printed: 01/25/2016 16:38:38
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F029.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 02:29	**Quant Date:**	01/25/2016 15:33	**Vial:**	48
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495780	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	602120	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	311732	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	326829	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	5.82	0.01	0.00	113	172535	10.09	101	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	178310	10.08	101	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	655370	9.90	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	274440	8.55	86	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	1,1-Dichloroethene				96	0		0.080	U	
1	Acetone	2.73		0.00	43	18238m	7.75	7.8	J	
1	Methylene Chloride	3.23		0.00	84	1599	0.0800	0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F029.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 02:29	**Quant Date:**	01/25/2016 15:33	**Vial:**	48
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.52	0.01	0.00	92	12567	0.2300	0.23	J	
2	trans-1,3-Dichloropropene				75	0d		0.063	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene	10.19	-0.01	0.00	106	2132	0.0500	0.050	J	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes	10.33		0.00	106	4226	0.0800	0.11	U	
2	o-Xylene	10.77		0.00	106	1247	0.0300	0.074	U	
2	Styrene				103	0d		0.089	U	
2	Bromoform				173	0d		0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F029.D Vial: 48
Acq On : 23 Jan 2016 02:29 Operator: YX
Sample : K1600673-013 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:48 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

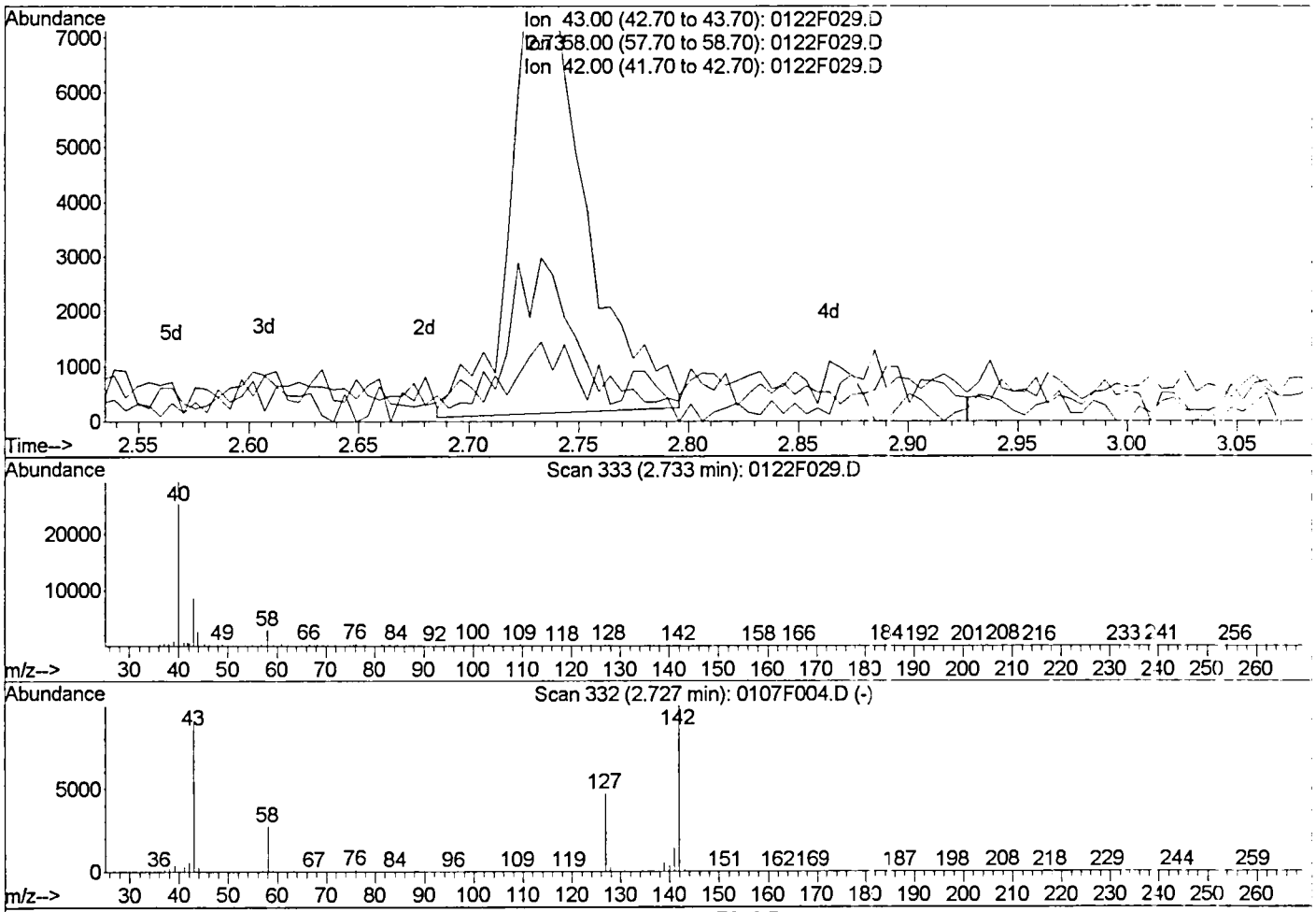
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.61	96	602120	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	311732	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	326829	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.82	113	172535	10.09	PPB		0.00
Spiked Amount 10.000			Recovery = 100.90%				
47) 1,2-Dichloroethane-d4	6.26	65	178310	10.08	PPB		0.00
Spiked Amount 10.000			Recovery = 100.80%				
62) Toluene-d8	8.44	98	655370	9.90	PPB		0.00
Spiked Amount 10.000			Recovery = 99.00%				
84) 4-Bromofluorobenzene	11.38	95	274440	8.55	PPB		0.00
Spiked Amount 10.000			Recovery = 85.50%				
Target Compounds							Qvalue
14) Acetone	2.73	43	18238m	7.75	PPB		
16) Carbon Disulfide	2.76	76	2923	0.06	PPB		63
21) Methylene Chloride	3.23	84	1599	0.08	PPB	#	47
63) Toluene	8.52	92	12567	0.23	PPB	#	72
76) Ethylbenzene	10.19	106	2132	0.05	PPB	#	49
78) m,p-Xylenes	10.33	106	4226	0.08	PPB	#	66
79) o-Xylene	10.77	106	1247	0.03	PPB	#	28
106) Naphthalene	15.13	128	4900	0.08	PPB		84

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

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F029.D Vial: 48
Acq On : 23 Jan 2016 02:29 Operator: YX
Sample : K1600673-013 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:35 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F029.D

(14) Acrolein (T)

2.54min 0.00PPB d

response 0

Ion	Exp%	Act%
56.00	100	0.00
55.00	70.90	0.00
53.00	7.60	0.00
0.00	0.00	0.00

Manual Integration:

Before

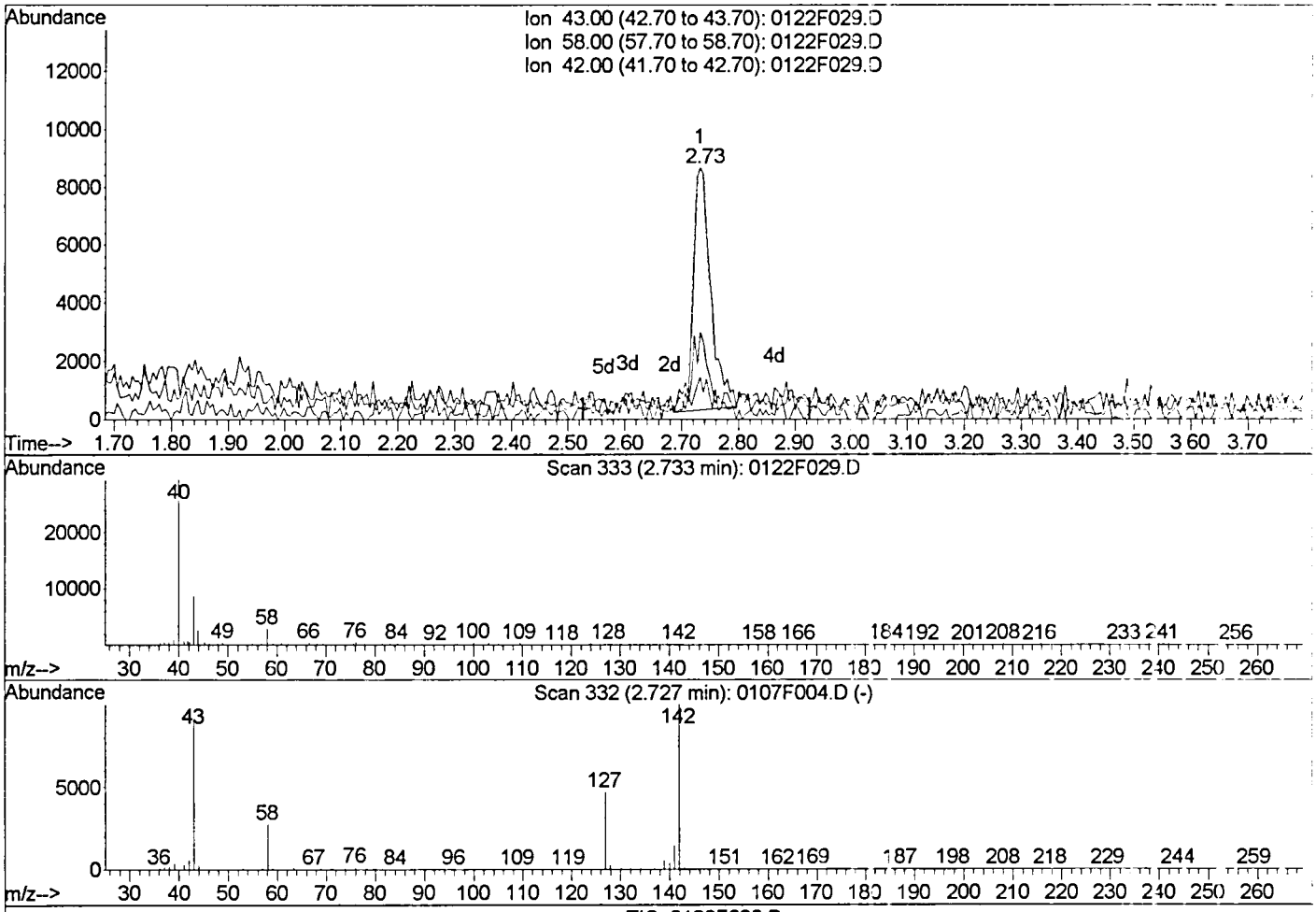
01/25/16

0122F029.D 010516MS46_8260.M Mon Jan 25 15:36:08 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F029.D Vial: 48
Acq On : 23 Jan 2016 02:29 Operator: YX
Sample : K1600673-013 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:36 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F029.D

(14) Acetone (T)
2.73min 7.75PPB m
response 18238

Ion	Exp%	Act%
43.00	100	100
58.00	30.20	34.40
42.00	7.60	8.61
0.00	0.00	0.00

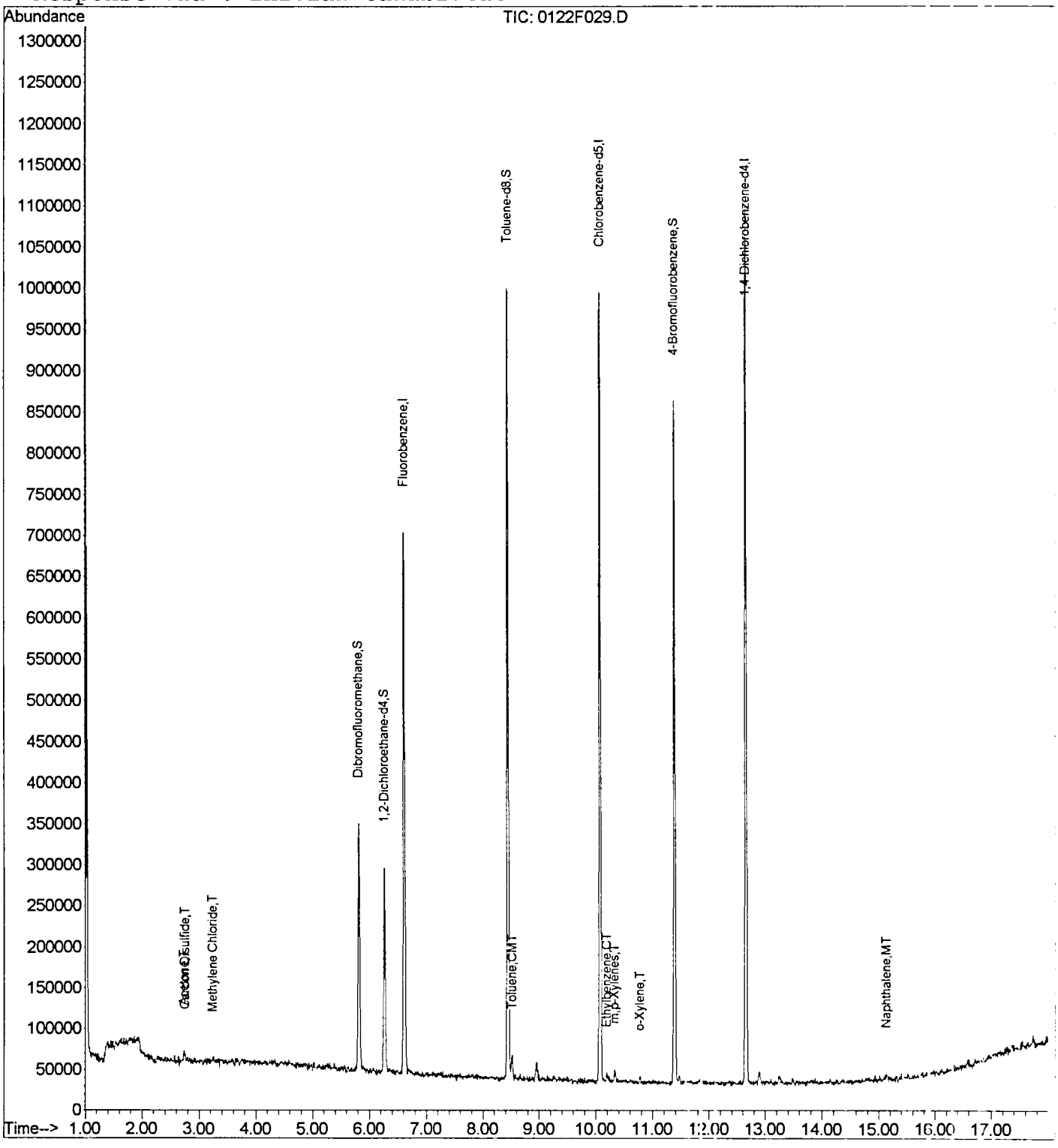
Manual Integration:
After
Baseline correction
01/25/16

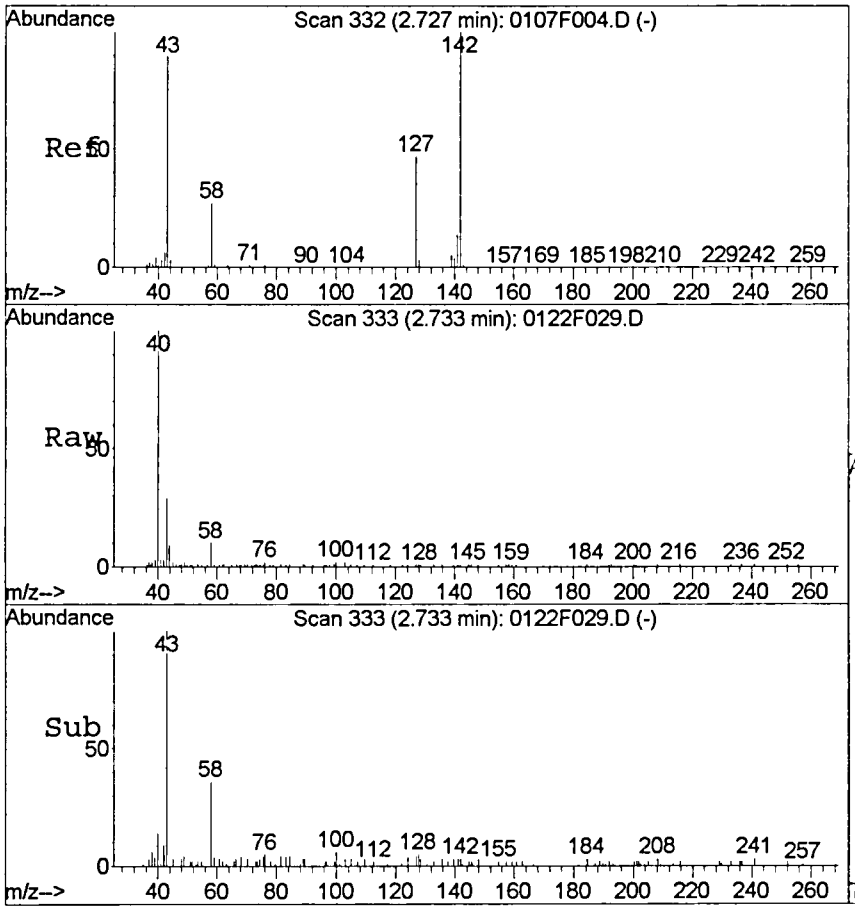
0122F029.D 010516MS46_8260.M Mon Jan 25 15:36:28 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F029.D Vial: 48
Acq On : 23 Jan 2016 02:29 Operator: YX
Sample : K1600673-013 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:38 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

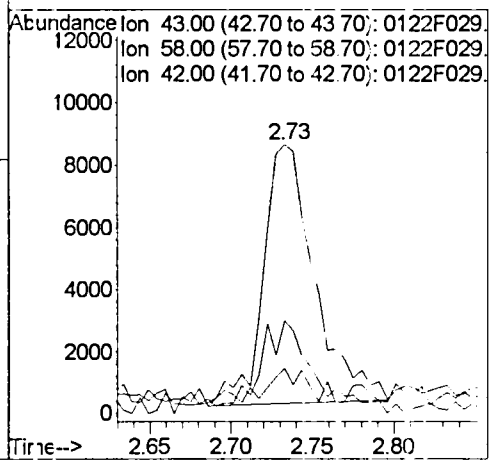


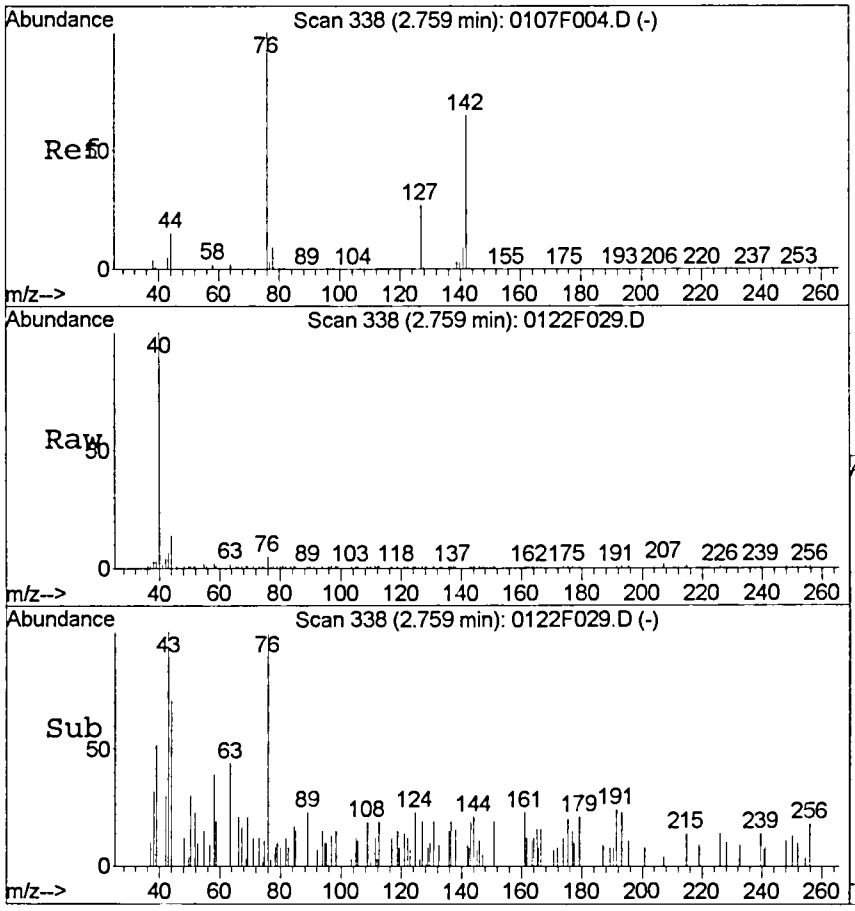


#14
Acetone
Concen: 7.75 PPB m
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion: 43 Resp: 18238

Ion	Ratio	Lower	Upper
43	100		
58	34.4	0.2	60.2
42	8.6	0.0	37.6

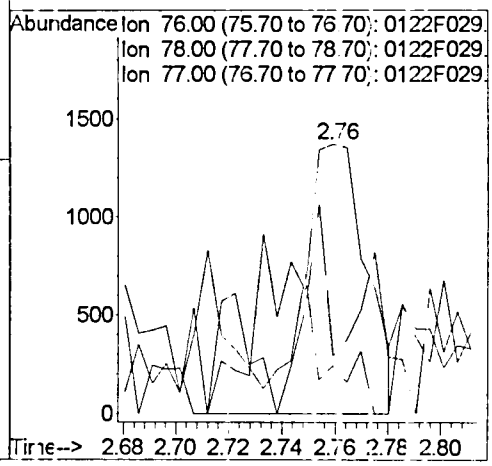


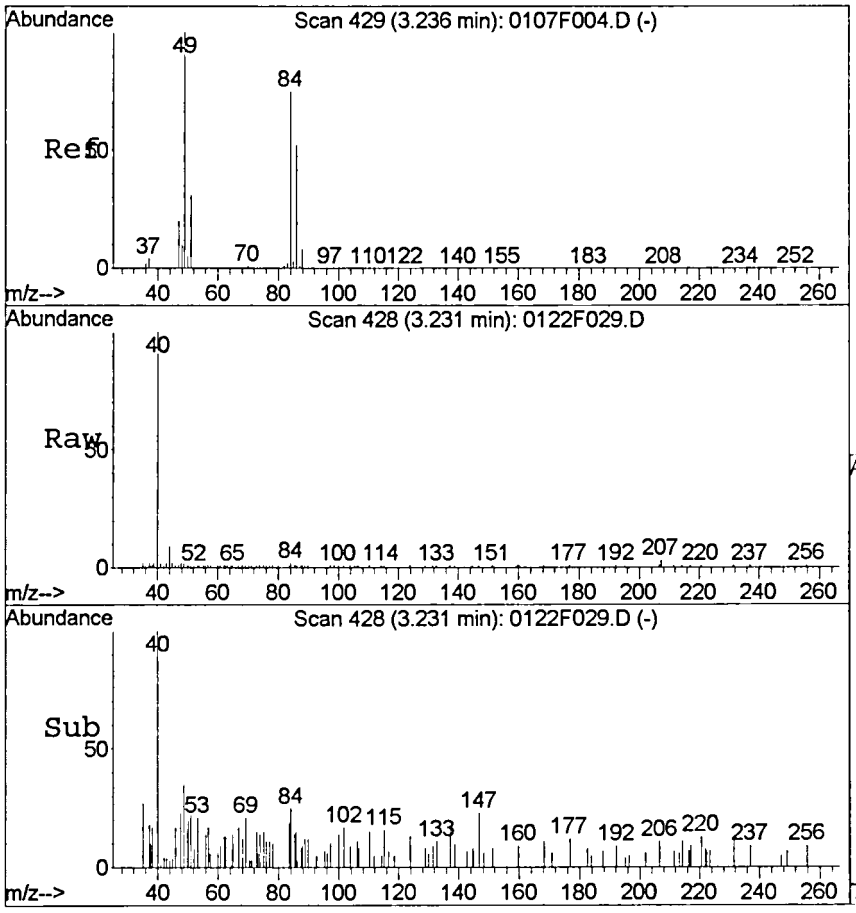


#16
Carbon Disulfide
Concen: 0.06 PPB
RT: 2.76 min Scan# 338
Delta R.T. 0.00 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion: 76 Resp: 2923

Ion	Ratio	Lower	Upper
76	100		
78	21.5	0.0	39.0
77	17.6	0.0	32.5

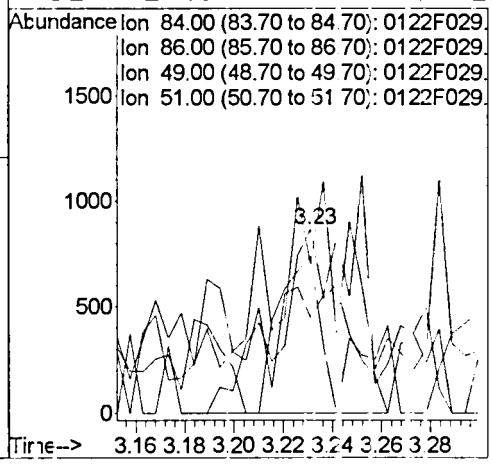


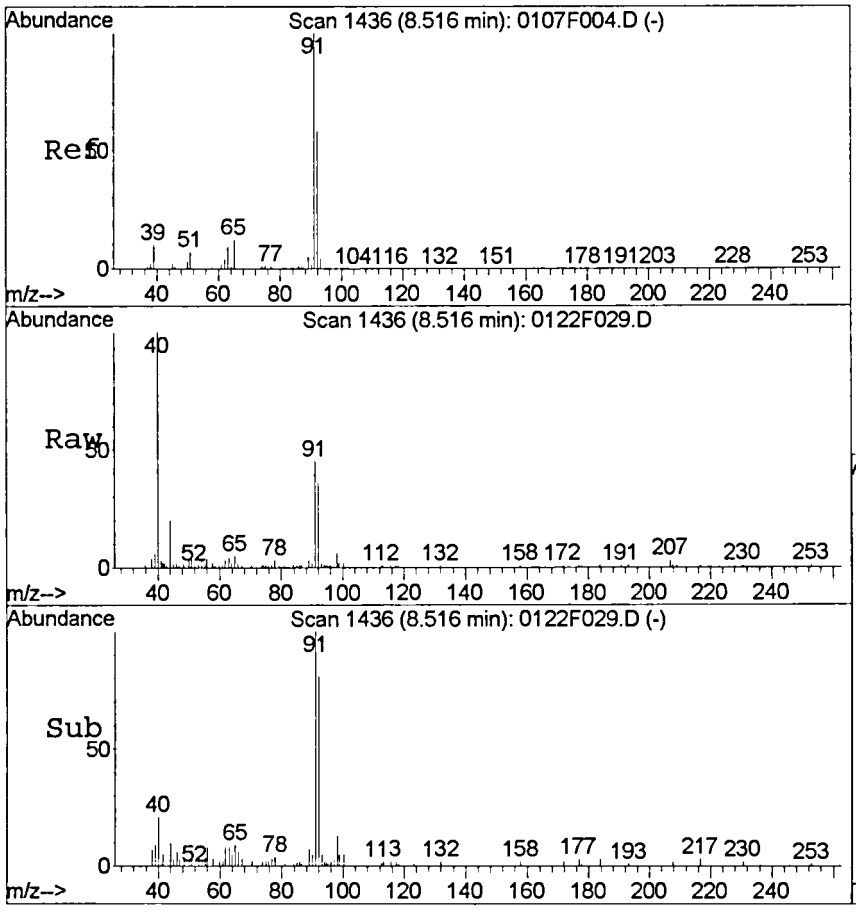


#21
Methylene Chloride
Concen: 0.08 PPB
RT: 3.23 min Scan# 428
Delta R.T. -0.01 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion: 84 Resp: 1599

Ion	Ratio	Lower	Upper
84	100		
86	37.9	33.3	93.3
49	40.9	92.9	152.9#
51	24.9	10.1	70.1

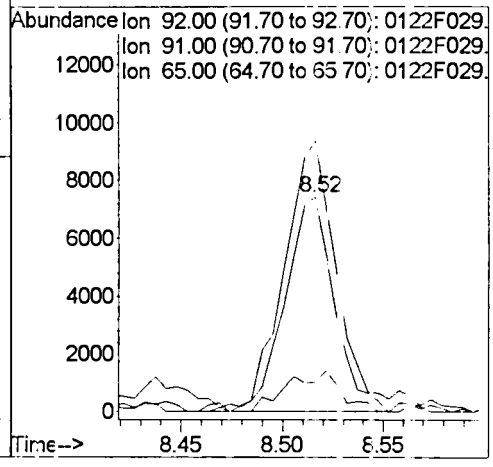


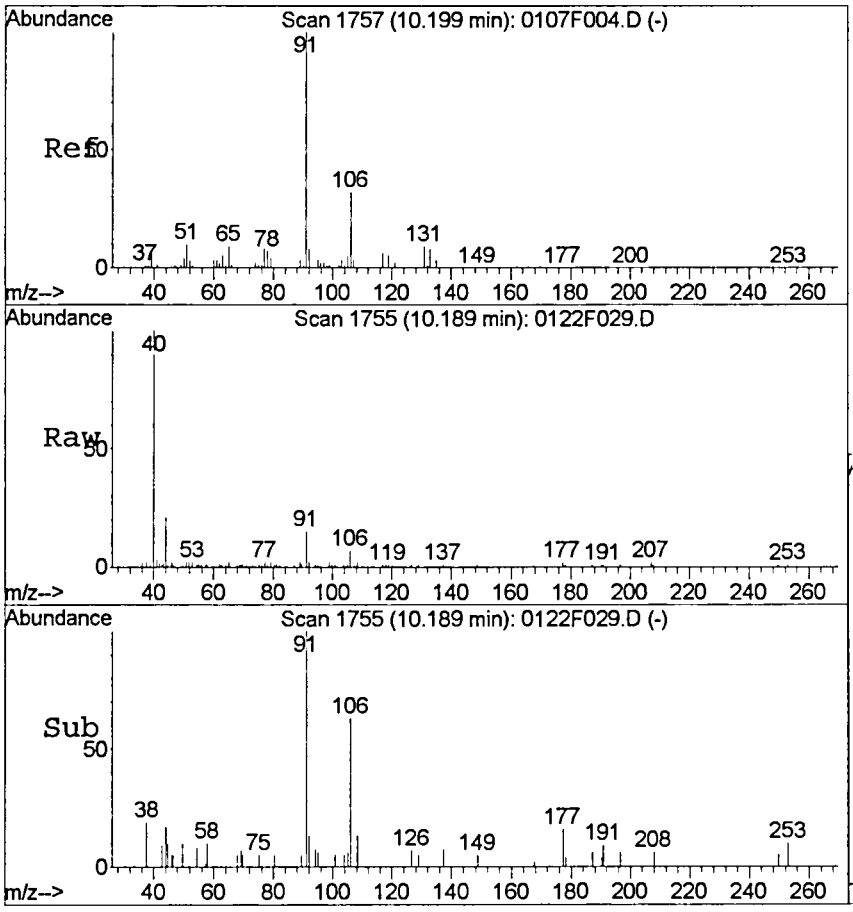


#63
Toluene
Concen: 0.23 PPB
RT: 8.52 min Scan# 1436
Delta R.T. 0.00 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion: 92 Resp: 12567

Ion	Ratio	Lower	Upper
92	100		
91	122.8	133.4	193.4#
65	13.6	0.0	49.2

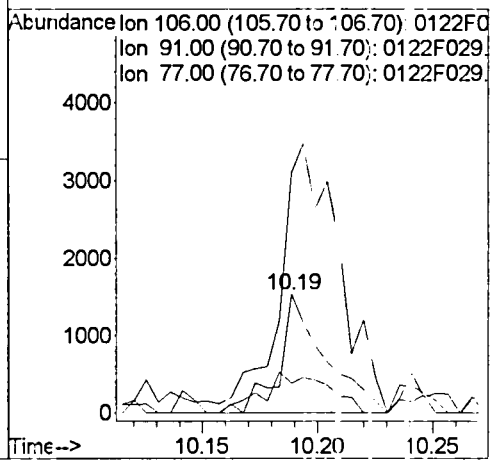


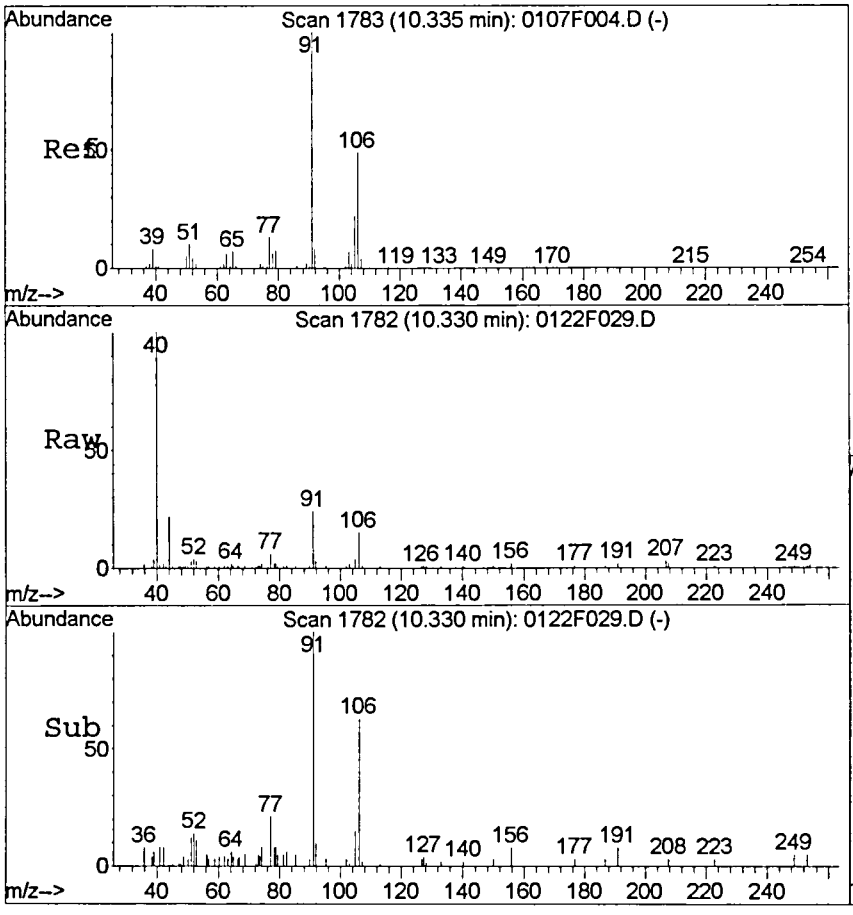


#76
Ethylbenzene
Concen: 0.05 PPB
RT: 10.19 min Scan# 1755
Delta R.T. -0.01 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion:106 Resp: 2132

Ion	Ratio	Lower	Upper
106	100		
91	202.3	284.4	344.4#
77	25.0	0.0	56.5

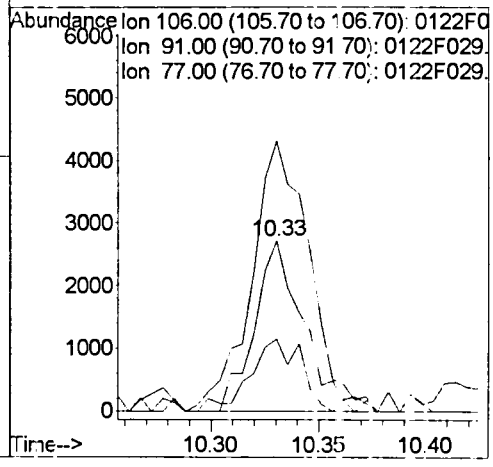


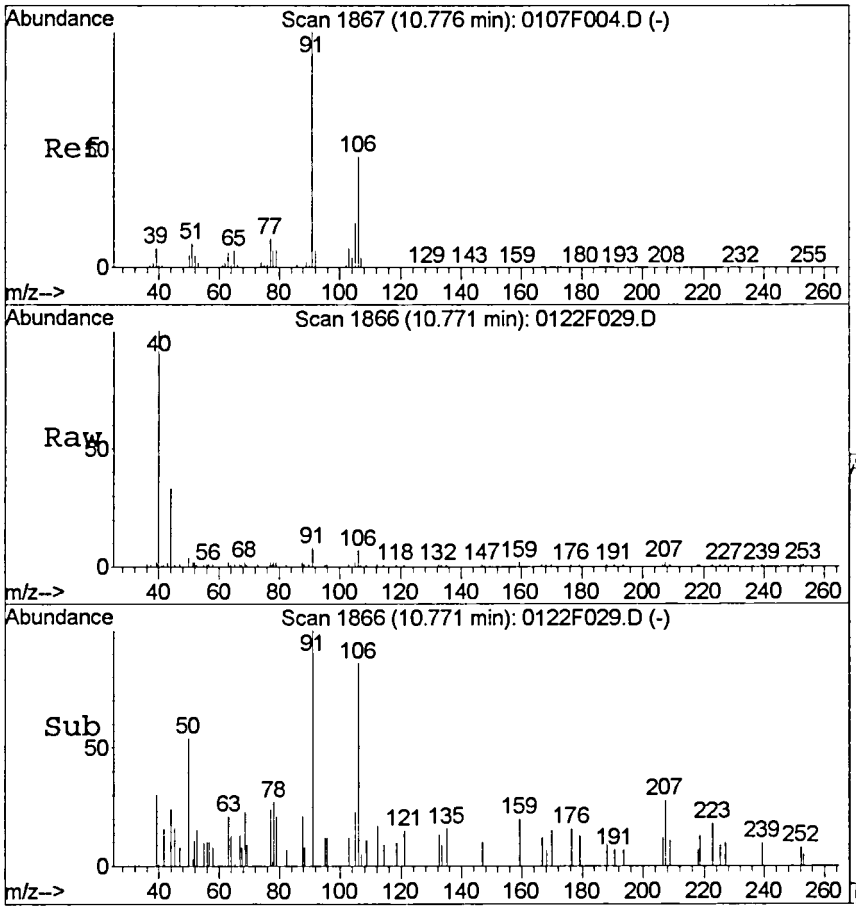


#78
m,p-Xylenes
Concen: 0.08 PPB
RT: 10.33 min Scan# 1782
Delta R.T. -0.01 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion:106 Resp: 4226

Ion	Ratio	Lower	Upper
106	100		
91	147.5	169.5	229.5#
77	42.4	0.0	57.1

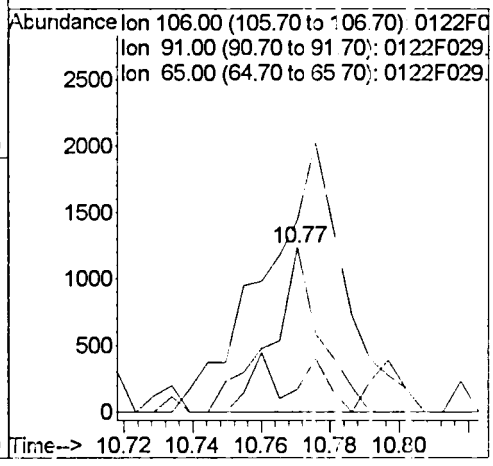


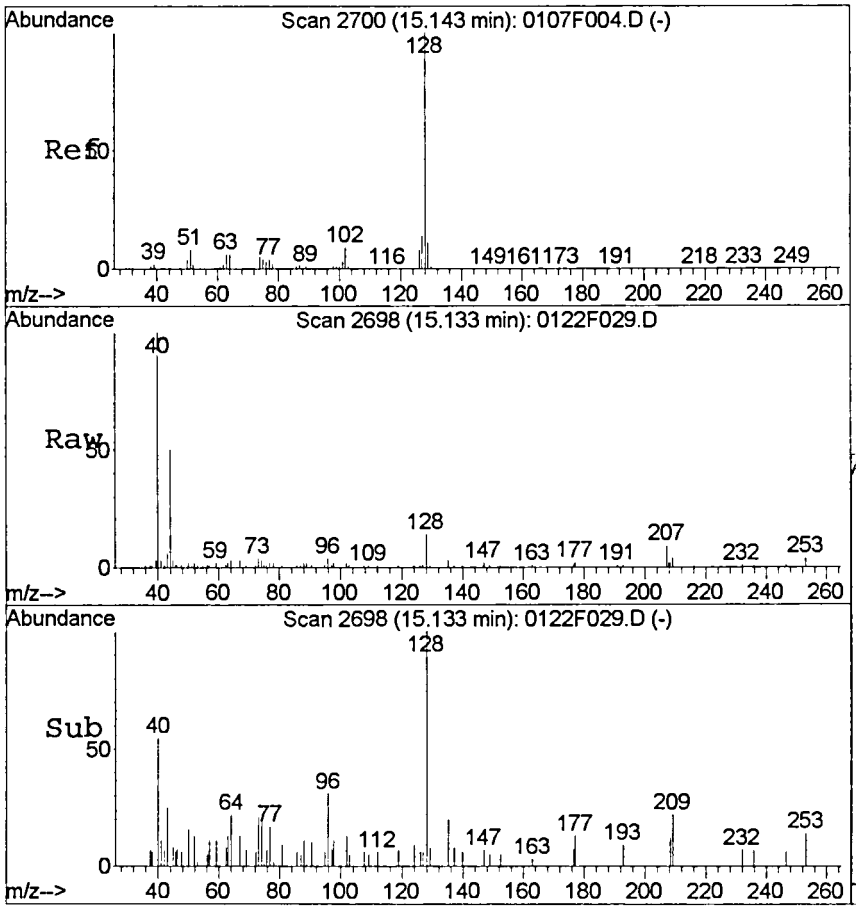


#79
o-Xylene
Concen: 0.03 PPB
RT: 10.77 min Scan# 1866
Delta R.T. -0.01 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion:106 Resp: 1247

Ion	Ratio	Lower	Upper
106	100		
91	94.3	186.1	246.1#
65	13.8	0.0	43.9

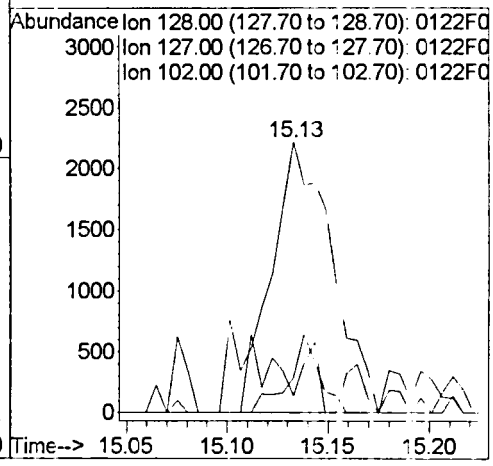




#106
Naphthalene
Concen: 0.08 PPB
RT: 15.13 min Scan# 2698
Delta R.T. -0.01 min
Lab File: 0122F029.D
Acq: 23 Jan 2016 02:29

Tgt Ion:128 Resp: 4900

Ion	Ratio	Lower	Upper
128	100		
127	6.2	0.0	43.2
102	12.9	0.0	38.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F030.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 02:55
Date Quantitated: 01/25/2016 15:45
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: 1/25/16

Secondary Review:

Printed: 01/25/2016 16:38:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F030.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 02:55	**Quant Date:**	01/25/2016 15:45	**Vial:**	49
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	1V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495781	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	570334	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	293643	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	312568	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	5.82	0.01	0.00	113	173927	10.74	107	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	176643	10.54	105	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	627487	10.00	100	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	262608	8.68	87	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	Chloromethane	1.32		0.00	50	743m	0.0300	0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.10	U	
1	Chloroethane				64	0d		0.10	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	17085	7.67	7.7	J	
1	Methylene Chloride				84	0d		0.10	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform				83	0d		0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F030.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 02:55	**Quant Date:**	01/25/2016 15:45	**Vial:**	49
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**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 Tetrachloride				117	0d		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.52	0.01	0.00	92	10306	0.2000	0.20	J	
2	trans-1,3-Dichloropropene				75	0		0.068	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene	10.20		0.00	106	1752	0.0500	0.050	J	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes	10.32	-0.01	0.00	106	3926	0.0800	0.11	U	
2	o-Xylene	10.78	0.01	0.00	106	1574	0.0300	0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.10	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F030.D Vial: 49
Acq On : 23 Jan 2016 02:55 Operator: YX
Sample : K1600673-014 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:49 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

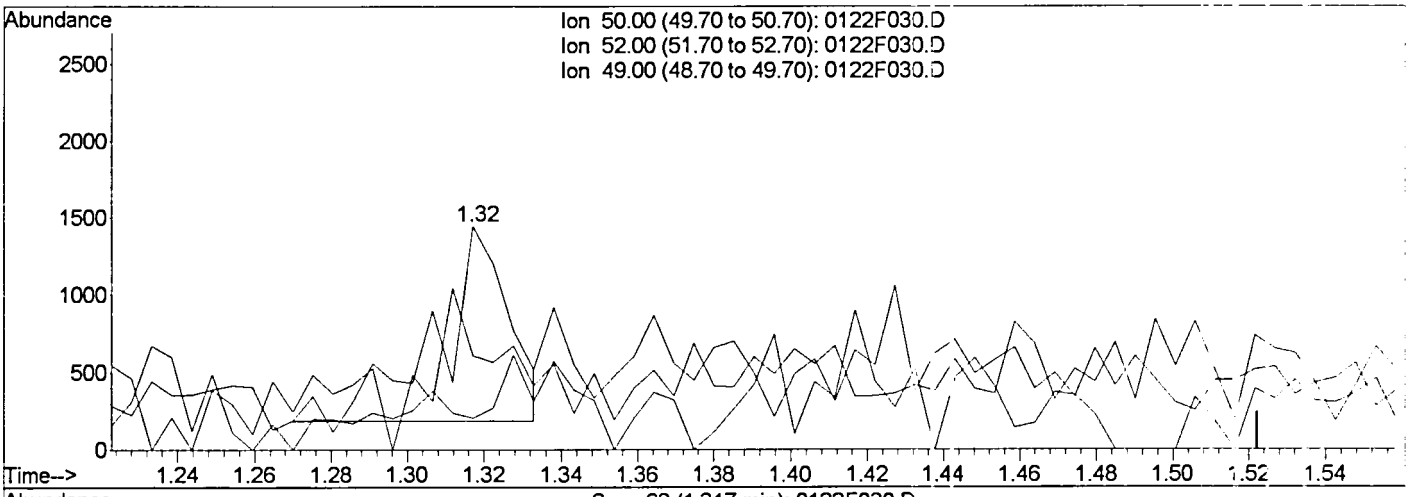
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.61	96	570334	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	293643	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	312568	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.82	113	173927	10.74	PPB		0.00
Spiked Amount 10.000			Recovery =	107.40%			
47) 1,2-Dichloroethane-d4	6.26	65	176643	10.54	PPB		0.00
Spiked Amount 10.000			Recovery =	105.40%			
62) Toluene-d8	8.44	98	627487	10.00	PPB		0.00
Spiked Amount 10.000			Recovery =	100.00%			
84) 4-Bromofluorobenzene	11.38	95	262608	8.68	PPB		0.00
Spiked Amount 10.000			Recovery =	86.80%			
Target Compounds							Qvalue
3) Chloromethane	1.32	50	743m	0.03	PPB		
14) Acetone	2.73	43	17085	7.67	PPB		86
16) Carbon Disulfide	2.75	76	2485	0.05	PPB		87
49) 1,2-Dichloroethane	6.35	62	1227	0.05	PPB		70
63) Toluene	8.52	92	10306	0.20	PPB		81
74) 1-Chlorohexane	10.07	91	1684	0.05	PPB		94
76) Ethylbenzene	10.20	106	1752	0.05	PPB	#	44
78) m,p-Xylenes	10.32	106	3926	0.08	PPB	#	55
79) o-Xylene	10.78	106	1574	0.03	PPB	#	53
82) Isopropylbenzene	11.09	105	604	0.00	PPB		53

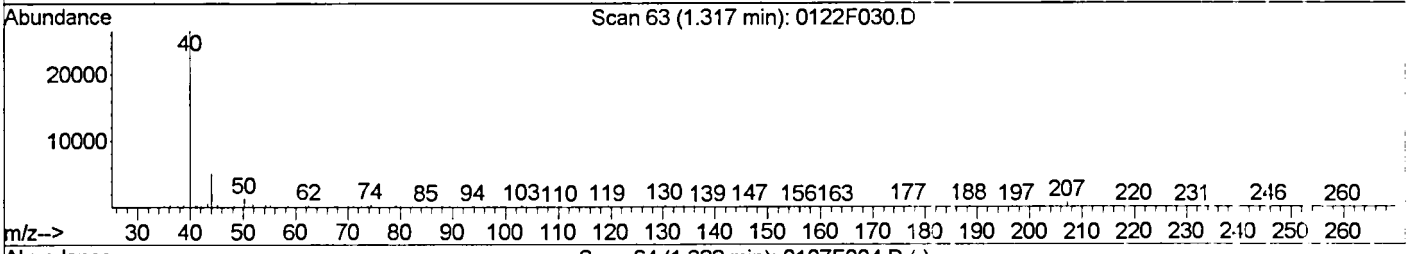
(#) = qualifier out of range (m) = manual integration

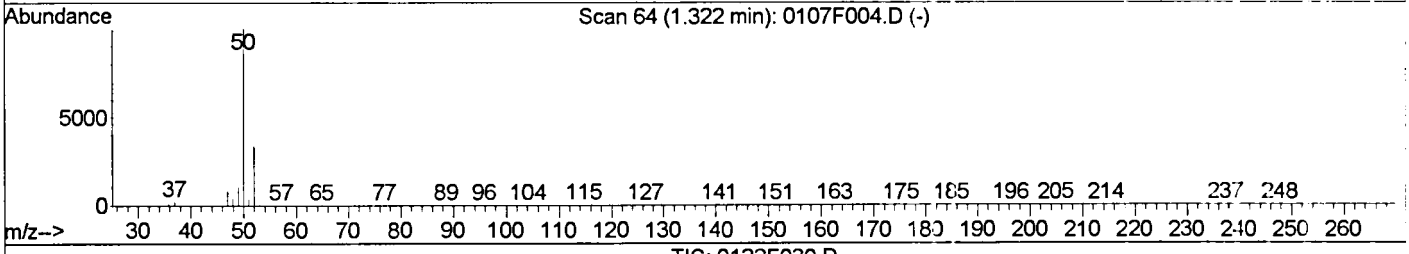
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F030.D Vial: 49
Acq On : 23 Jan 2016 02:55 Operator: YX
Sample : K1600673-014 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:41 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F030.D

(3) Chloromethane (PT)

1.32min 0.08PPB

response 1642

Ion	Exp%	Act%
50.00	100	100
52.00	31.80	15.13
49.00	10.10	16.40
0.00	0.00	0.00

Manual Integration:

Before

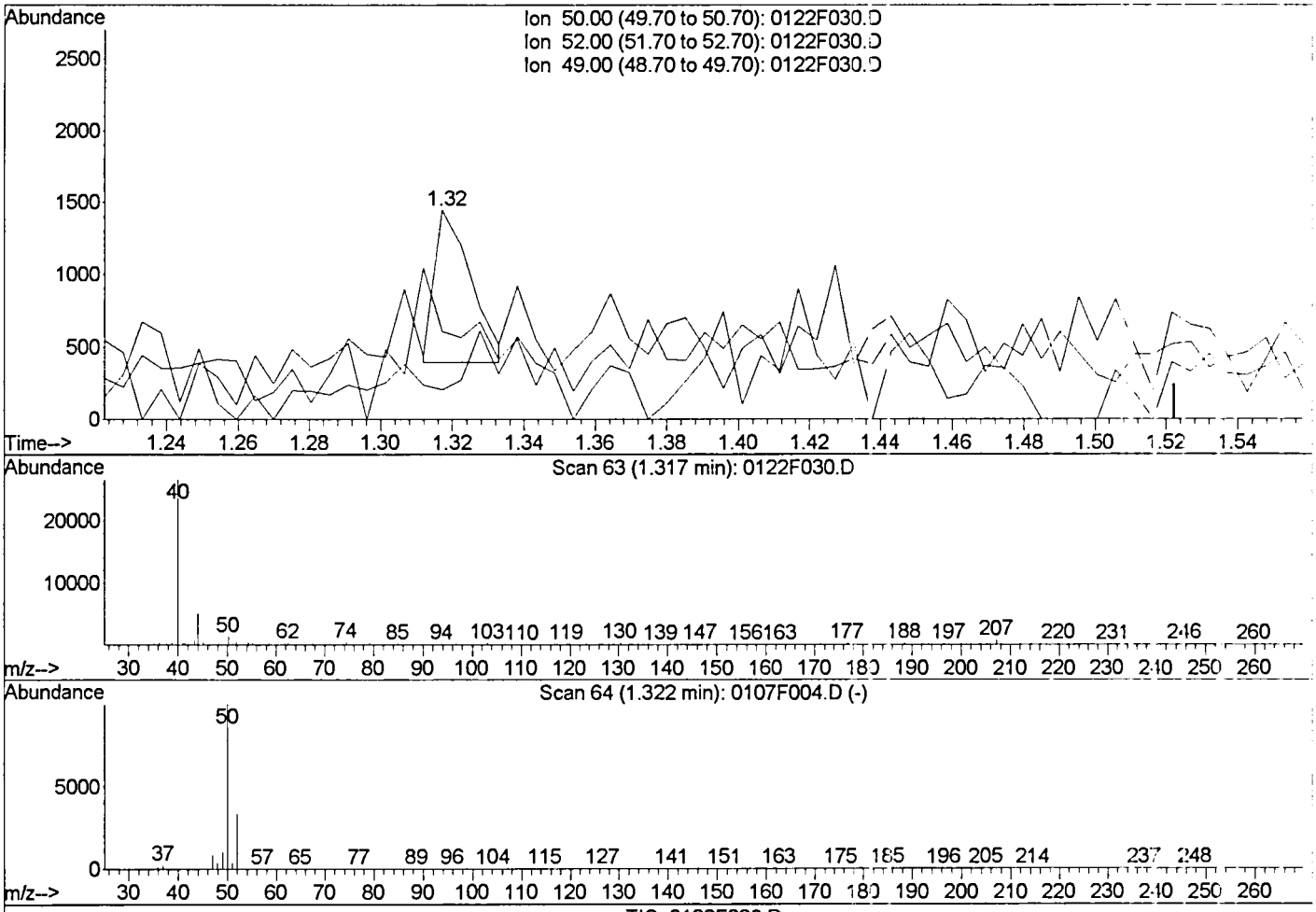
01/25/16

0122F030.D 010516MS46_8260.M Mon Jan 25 15:42:13 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F030.D Vial: 49
Acq On : 23 Jan 2016 02:55 Operator: YX
Sample : K1600673-014 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:42 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F030.D

(3) Chloromethane (PT)

1.32min 0.03PPB m

response 743

Ion	Exp%	Act%
50.00	100	100
52.00	31.80	42.01
49.00	10.10	14.26
0.00	0.00	0.00

Manual Integration:

After

Shoulder

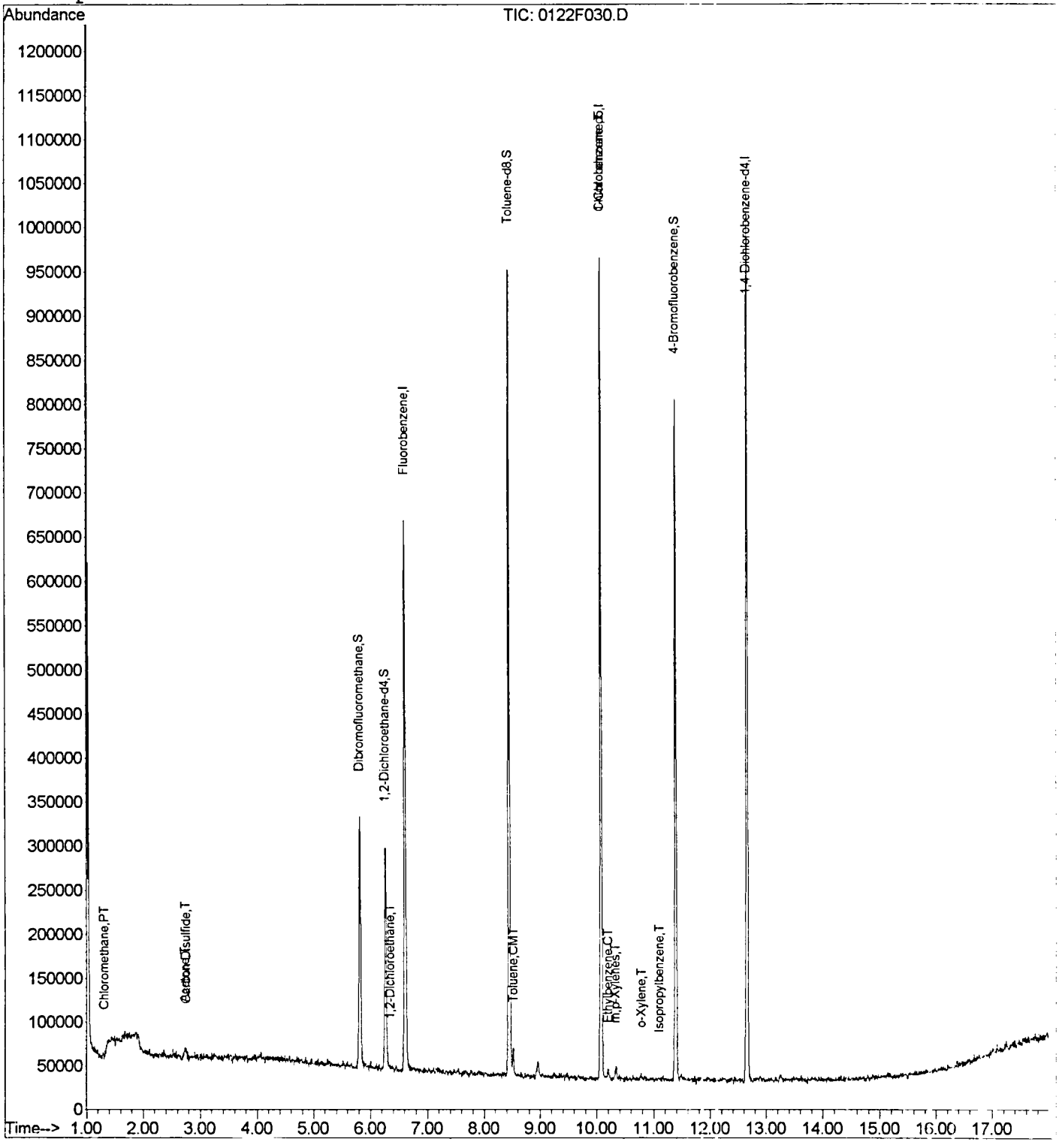
01/25/16

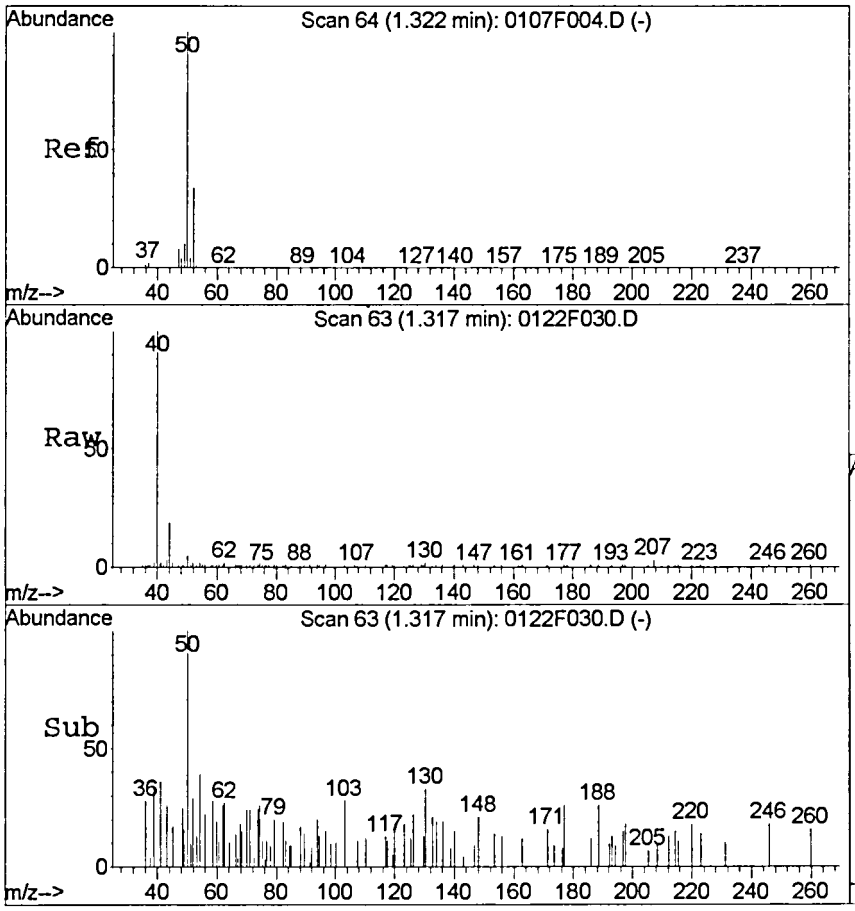
0122F030.D 010516MS46_8260.M Mon Jan 25 15:43:00 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F030.D Vial: 49
Acq On : 23 Jan 2016 02:55 Operator: YX
Sample : K1600673-014 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:45 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

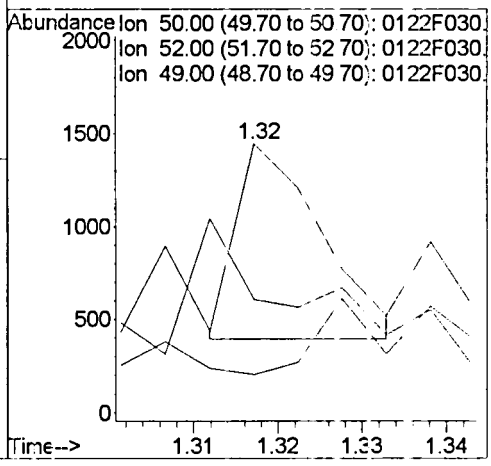


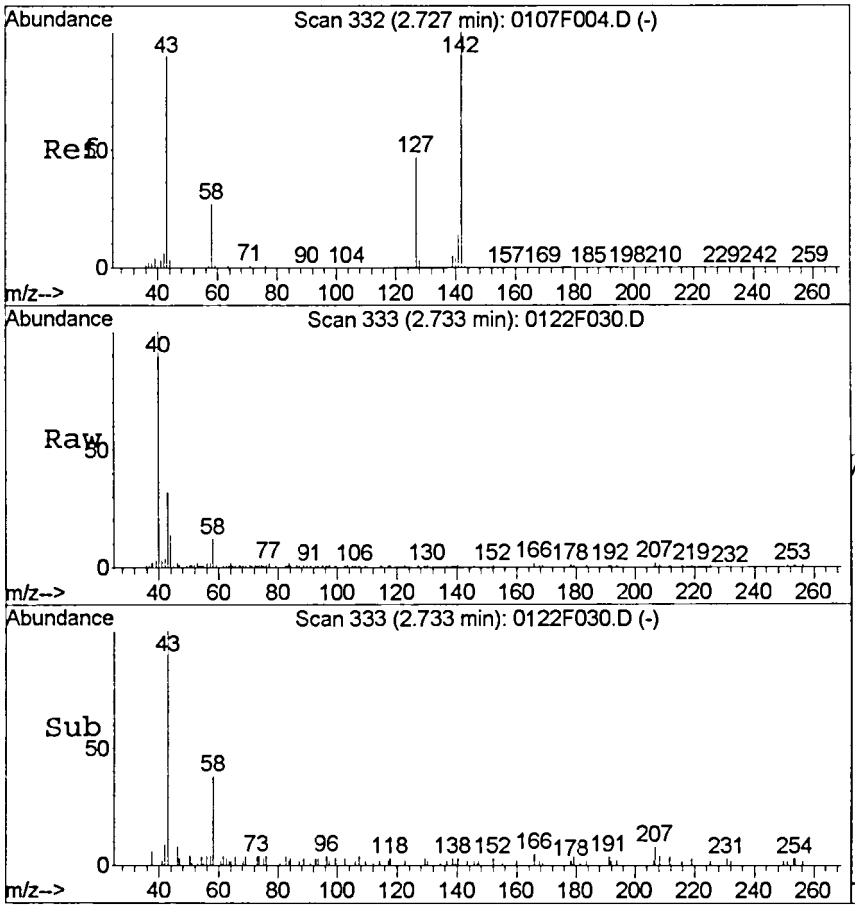


#3
Chloromethane
Concen: 0.03 PPB m
RT: 1.32 min Scan# 63
Delta R.T. -0.01 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion: 50 Resp: 743

Ion	Ratio	Lower	Upper
50	100		
52	42.0	1.3	61.8
49	14.3	0.0	40.1

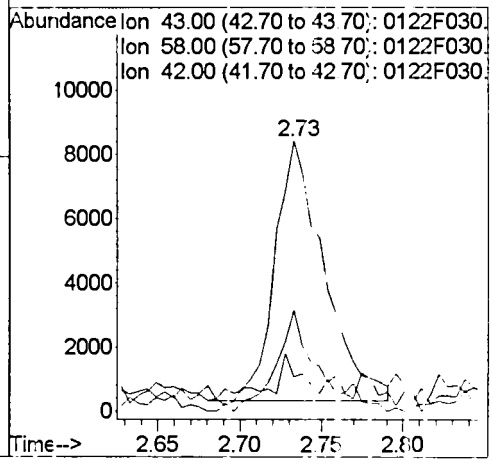


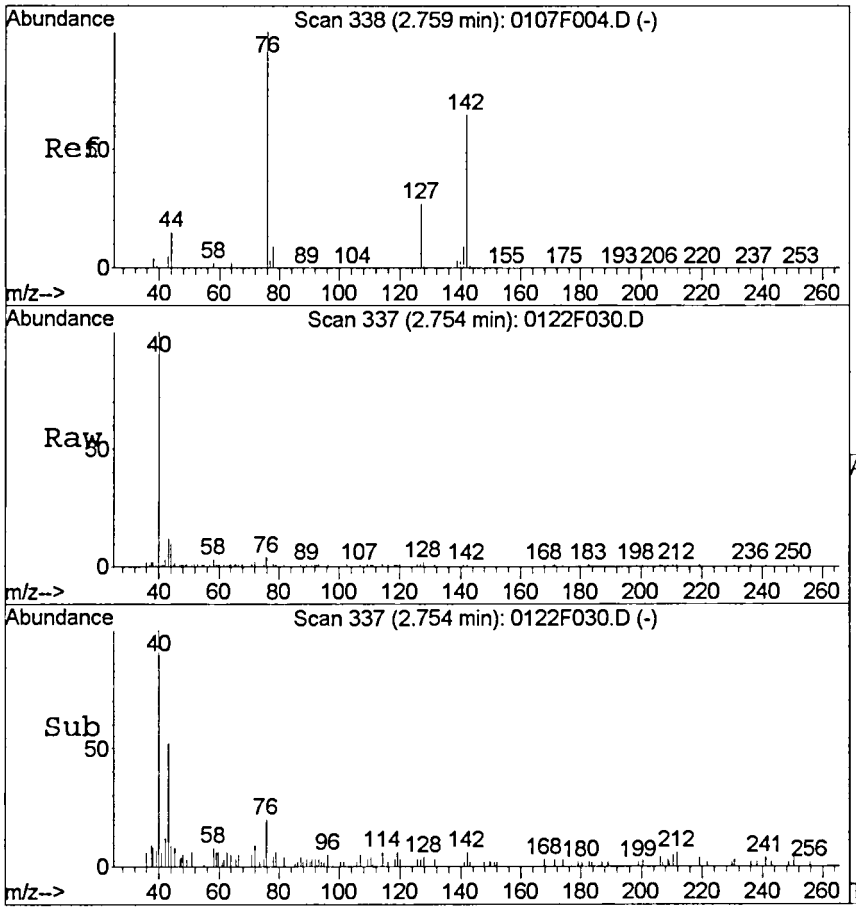


#14
Acetone
Concen: 7.67 PPB
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion: 43 Resp: 17085

Ion	Ratio	Lower	Upper
43	100		
58	38.7	0.2	60.2
42	5.7	0.0	37.6

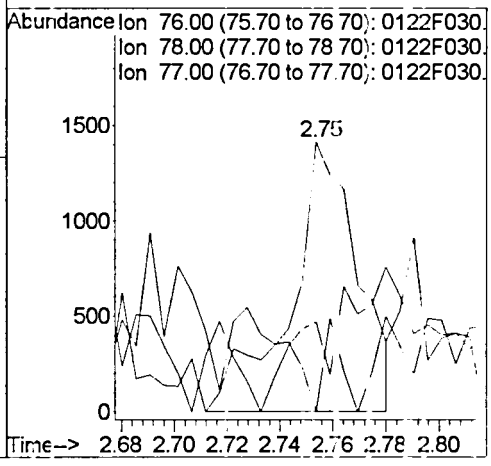


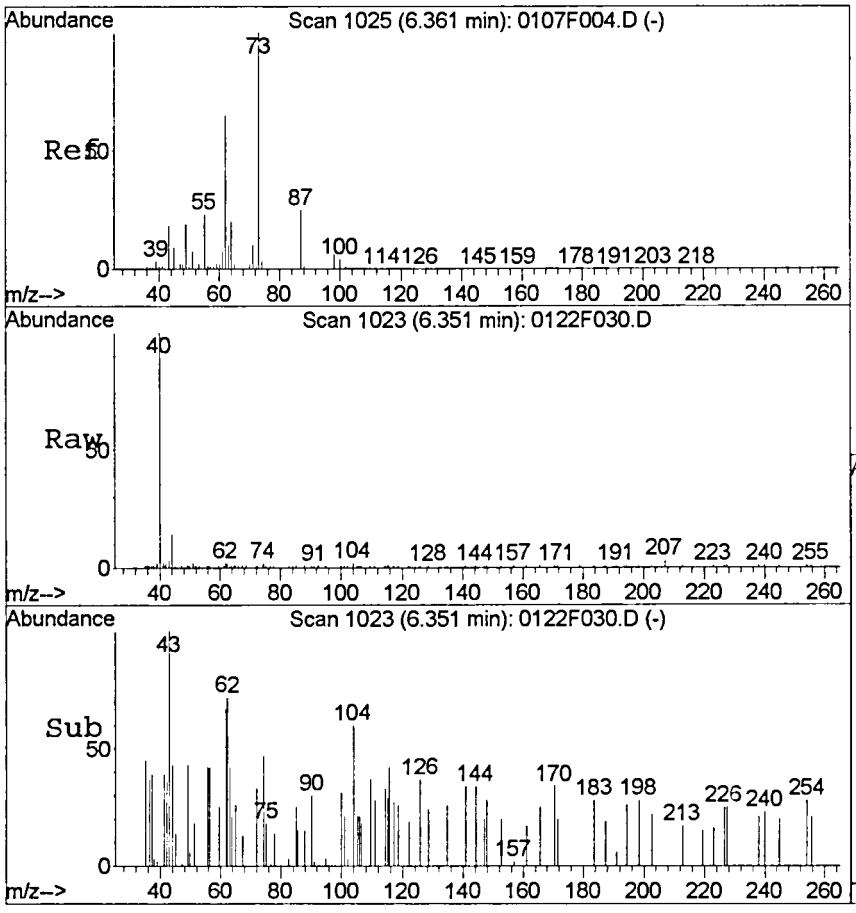


#16
Carbon Disulfide
Concen: 0.05 PPB
RT: 2.75 min Scan# 337
Delta R.T. -0.01 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion: 76 Resp: 2485

Ion	Ratio	Lower	Upper
76	100		
78	14.3	0.0	39.0
77	0.0	0.0	32.5

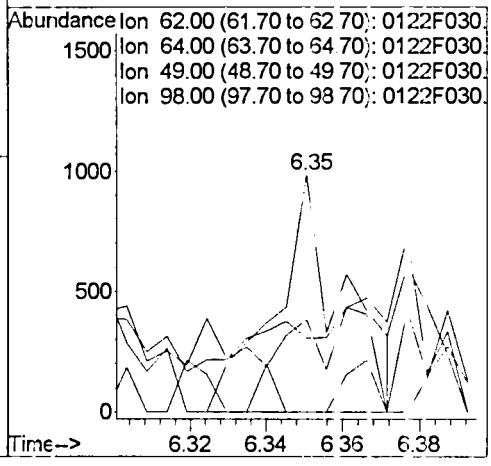


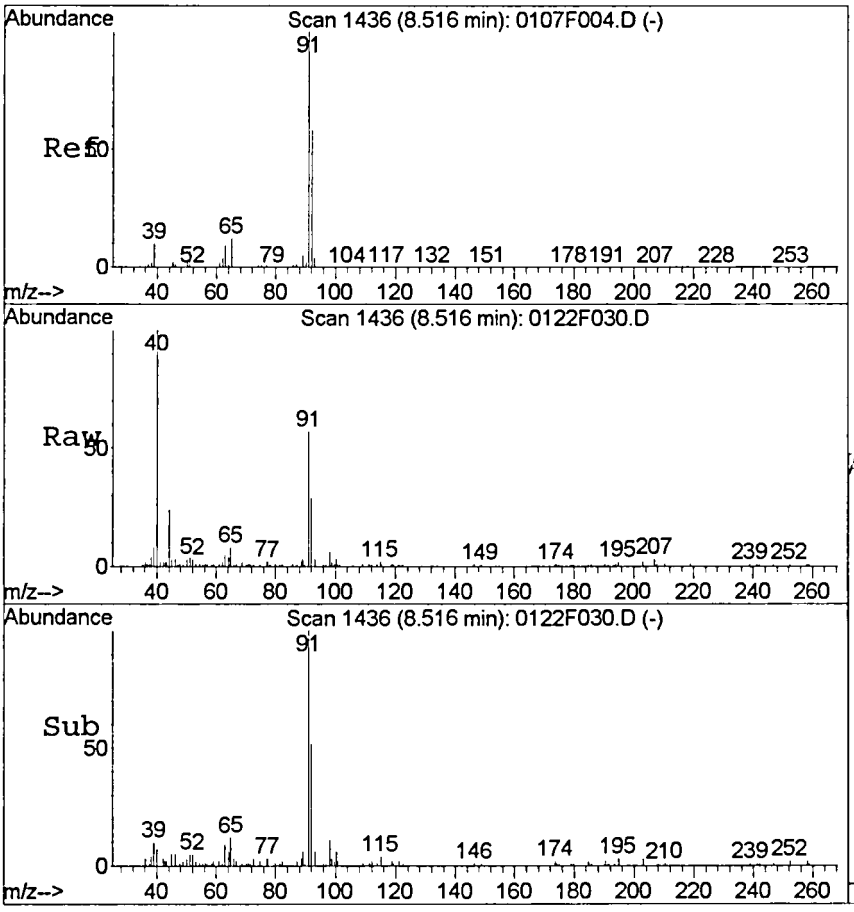


#49
1,2-Dichloroethane
Concen: 0.05 PPB
RT: 6.35 min Scan# 1023
Delta R.T. -0.01 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion: 62 Resp: 1227

Ion	Ratio	Lower	Upper
62	100		
64	16.8	0.7	60.7
49	46.1	0.0	57.0
98	0.0	0.0	39.2

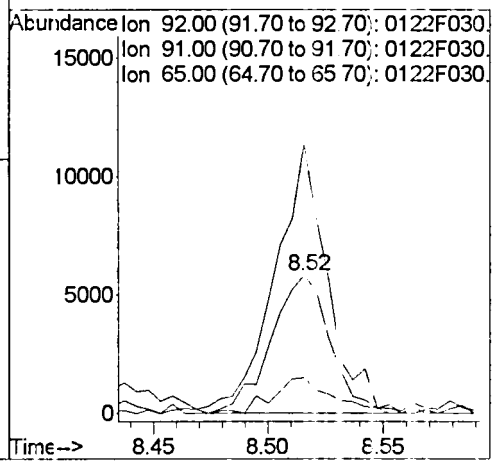


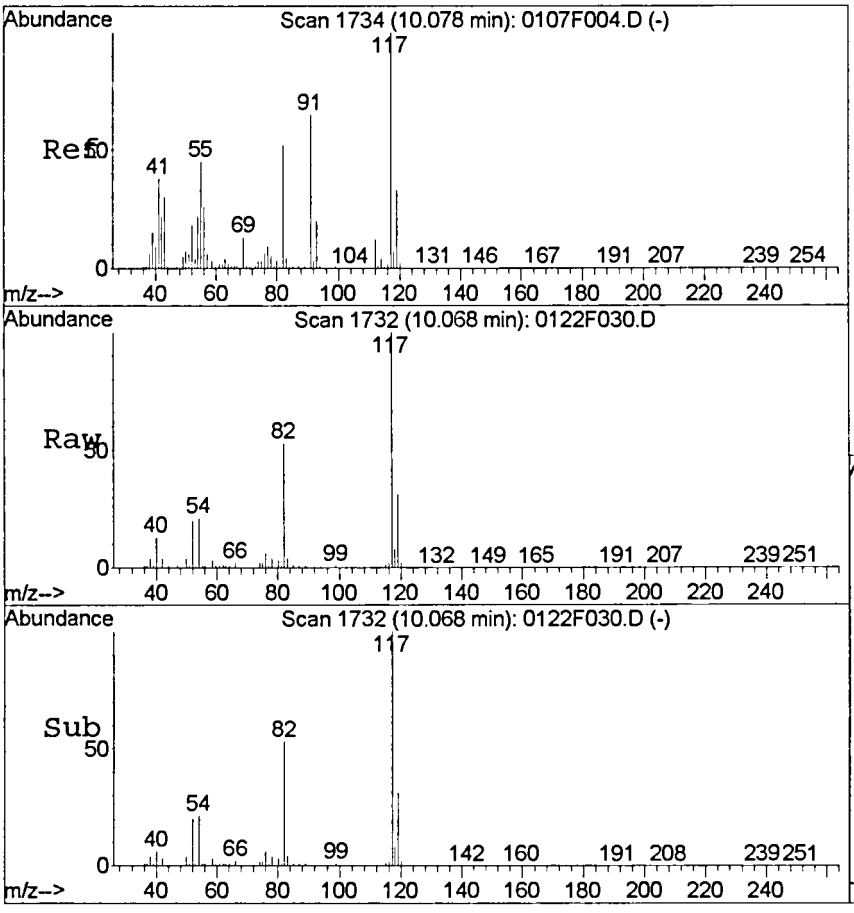


#63
Toluene
Concen: 0.20 PPB
RT: 8.52 min Scan# 1436
Delta R.T. 0.00 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion: 92 Resp: 10306

Ion	Ratio	Lower	Upper
92	100		
91	190.2	133.4	193.4
65	25.7	0.0	49.2

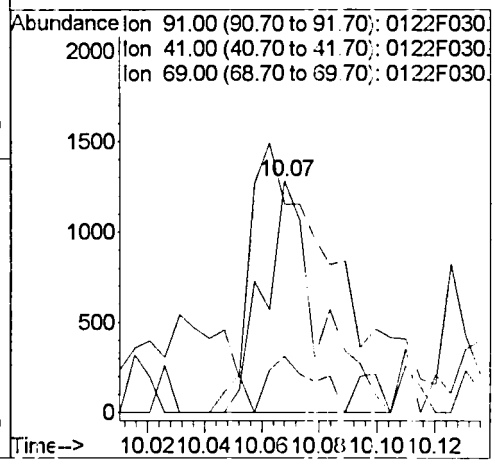


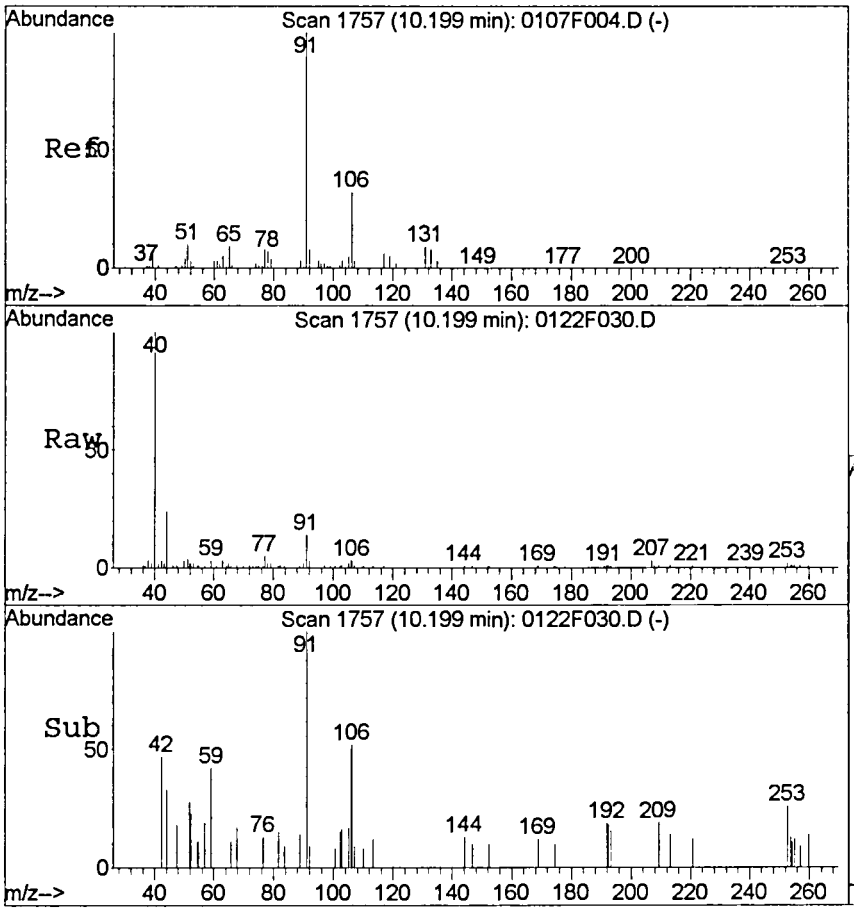


#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 10.07 min Scan# 1732
Delta R.T. -0.01 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion: 91 Resp: 1684

Ion	Ratio	Lower	Upper
91	100		
41	58.0	25.4	85.4
69	24.2	0.0	48.1

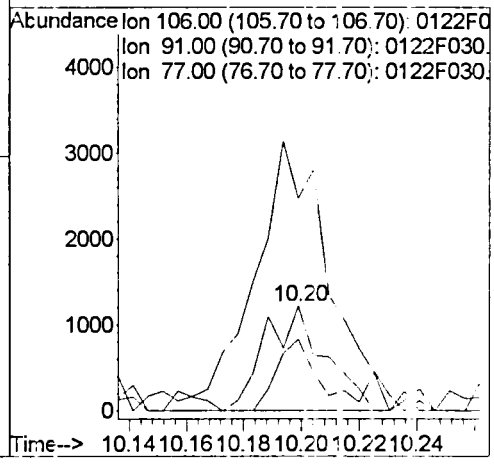


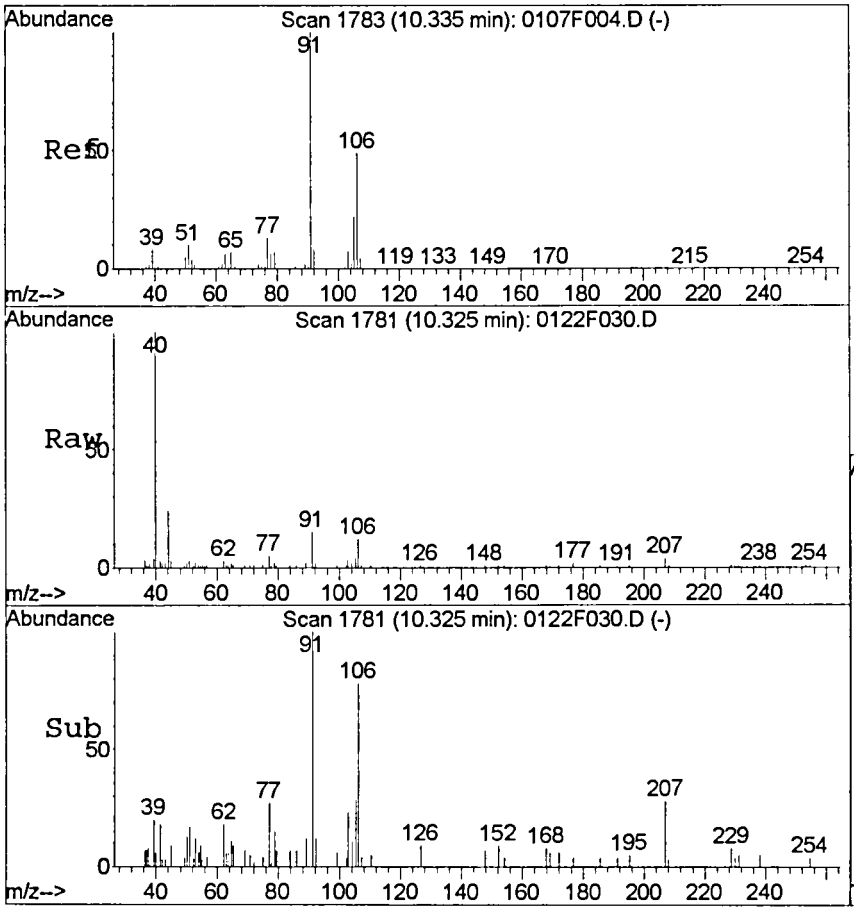


#76
Ethylbenzene
Concen: 0.05 PPB
RT: 10.20 min Scan# 1757
Delta R.T. 0.00 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion:106 Resp: 1752

Ion	Ratio	Lower	Upper
106	100		
91	203.0	284.4	344.4#
77	58.5	0.0	56.5#

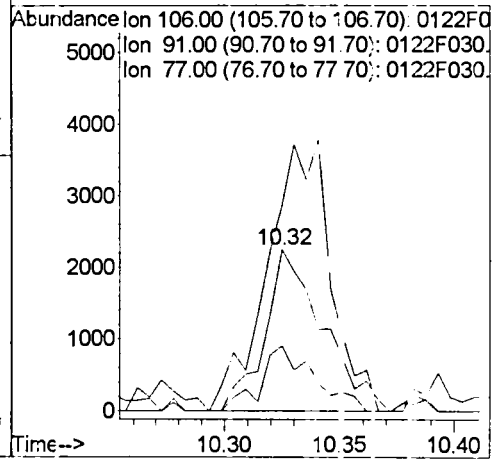


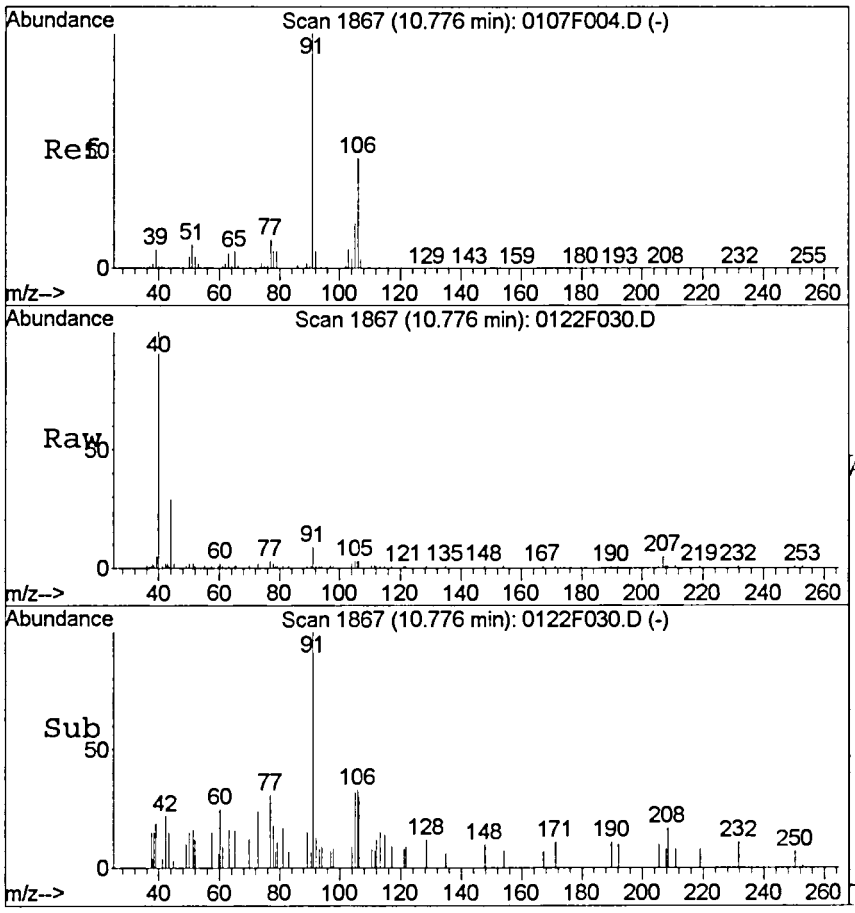


#78
m,p-Xylenes
Concen: 0.08 PPB
RT: 10.32 min Scan# 1781
Delta R.T. -0.01 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion:106 Resp: 3926

Ion	Ratio	Lower	Upper
106	100		
91	127.5	169.5	229.5#
77	40.3	0.0	57.1

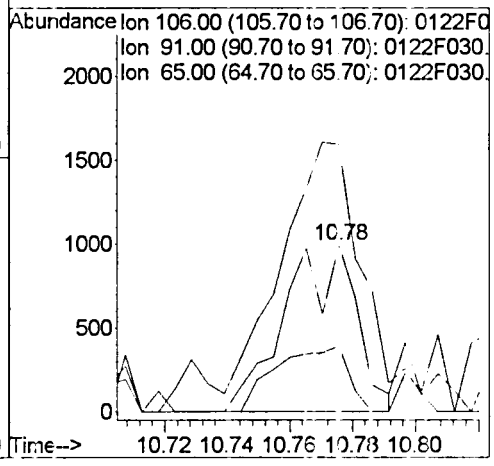


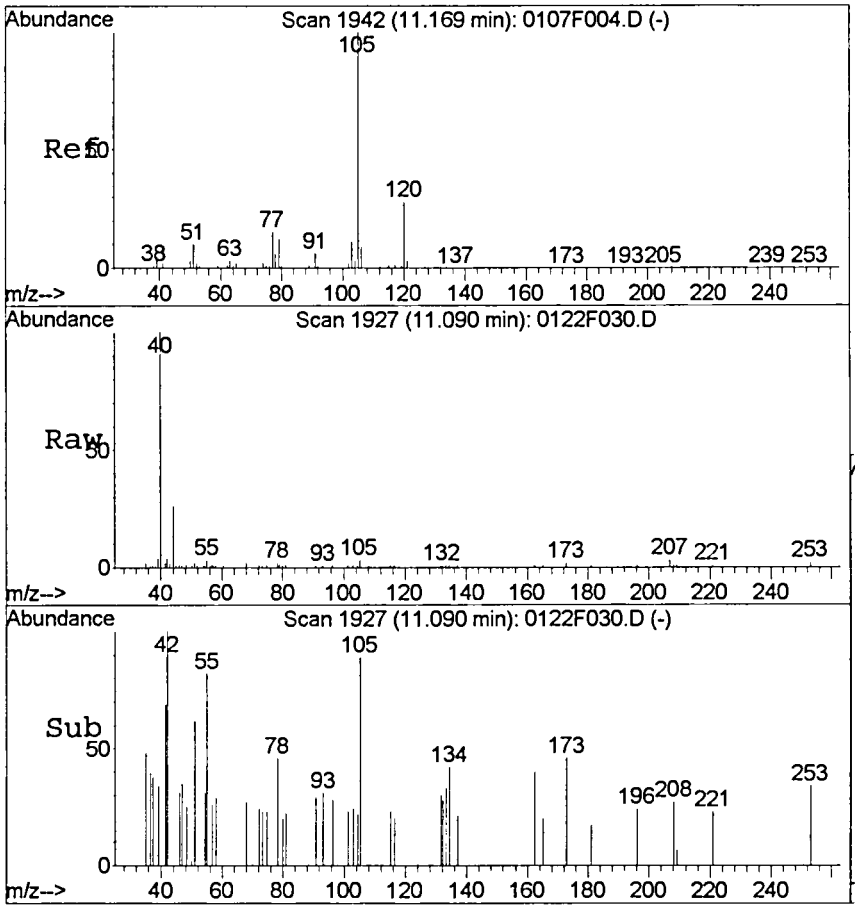


#79
o-Xylene
Concen: 0.03 PPB
RT: 10.78 min Scan# 1867
Delta R.T. 0.00 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion:106 Resp: 1574

Ion	Ratio	Lower	Upper
106	100		
91	143.3	186.1	246.1#
65	39.5	0.0	43.9

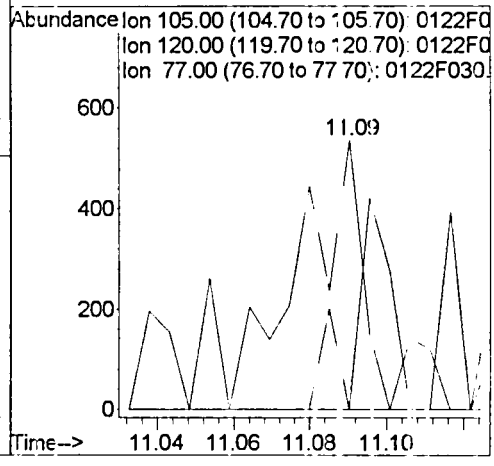




#82
Isopropylbenzene
Concen: 0.00 PPB deleted KP 1/25/16
RT: 11.09 min Scan# 1927
Delta R.T. -0.08 min
Lab File: 0122F030.D
Acq: 23 Jan 2016 02:55

Tgt Ion:105 Resp: 604

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.0	57.3
77	0.0	0.0	45.1



Exception Report

Data File: J:\MS46\DATA\012216\0122F031.D
Lab ID: K1600673-015
RunType: SMPL
Matrix: WATER

Date Acquired: 01/23/2016 03:21
Date Quantitated: 01/25/2016 15:48
Batch ID: KWG1600615
Analysis Method: 8260C
ListJoinID: LJ17061

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: VMC 1/25/16

Secondary Review: [signature]

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F031.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 03:21	**Quant Date:**	01/25/2016 15:43	**Vial:**	50
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-015			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	K1600673
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495767	**Prep Date:**	01/23/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17061
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.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	6.61	0.01	96	574892	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	294464	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	317517	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	5.82	0.01	0.00	113	172357	10.56	106	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	180395	10.68	107	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	629155	9.95	100	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	265022	8.74	87	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	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	Bromomethane				96	0d		0.10	U	
1	Chloroethane				64	0d		0.10	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	8817	3.93	3.9	J	
1	Methylene Chloride	3.24	0.01	0.00	84	4760	0.2500	0.25	J	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Chloroform	5.60		0.00	83	2415m	0.0700	0.072	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	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:\MS46\DATA\012216\0122F031.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 03:21	**Quant Date:**	01/25/2016 15:48	**Vial:**	50
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-015			**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 Tetrachloride				117	0		0.095	U	
1	Benzene				78	0d		0.062	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.51		0.00	92	9802	0.1900	0.19	J	
2	trans-1,3-Dichloropropene				75	0		0.063	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0d		0.089	U	
2	Bromoform				173	0		0.16	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F031.D Vial: 50
Acq On : 23 Jan 2016 03:21 Operator: YX
Sample : K1600673-015 TB110915 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:50 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

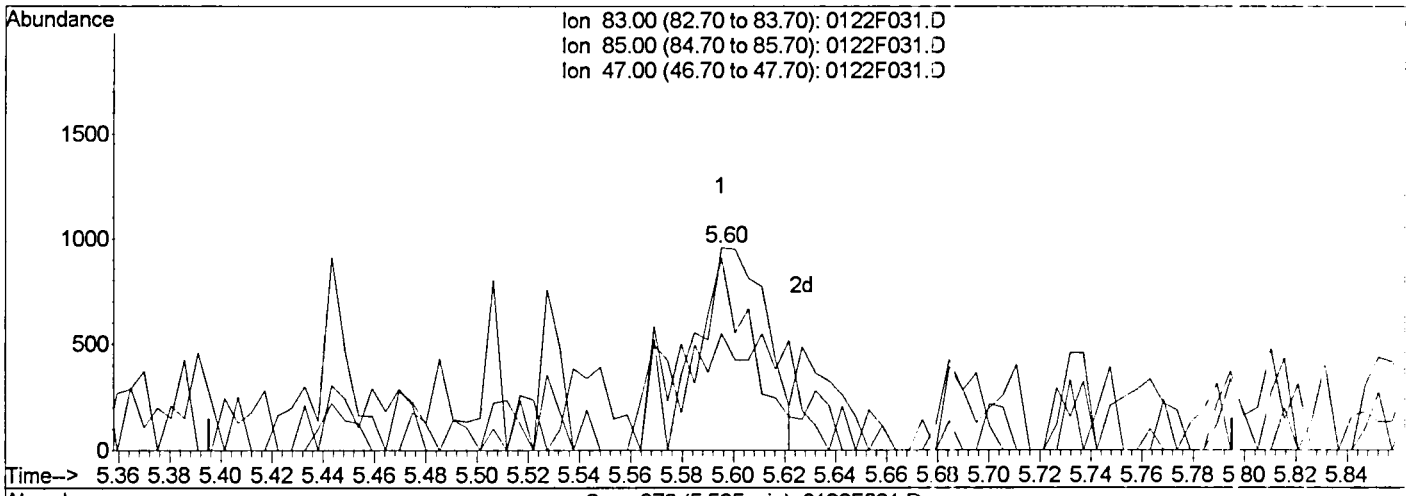
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	574892	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	294464	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	317517	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	172357	10.56	PPB	0.00
Spiked Amount 10.000			Recovery = 105.60%			
47) 1,2-Dichloroethane-d4	6.26	65	180395	10.68	PPB	0.00
Spiked Amount 10.000			Recovery = 106.80%			
62) Toluene-d8	8.44	98	629155	9.95	PPB	0.00
Spiked Amount 10.000			Recovery = 99.50%			
84) 4-Bromofluorobenzene	11.38	95	265022	8.74	PPB	0.00
Spiked Amount 10.000			Recovery = 87.40%			
Target Compounds						Qvalue
14) Acetone	2.73	43	8817	3.93	PPB	96
21) Methylene Chloride	3.24	84	4760	0.25	PPB	75
40) Chloroform	5.60	83	2415m	0.07	PPB	
49) 1,2-Dichloroethane	6.36	62	837	0.04	PPB	64
63) Toluene	8.51	92	9802	0.19	PPB	81
74) 1-Chlorohexane	10.07	91	1756	0.05	PPB	89
106) Naphthalene	15.14	128	1472	0.03	PPB	71

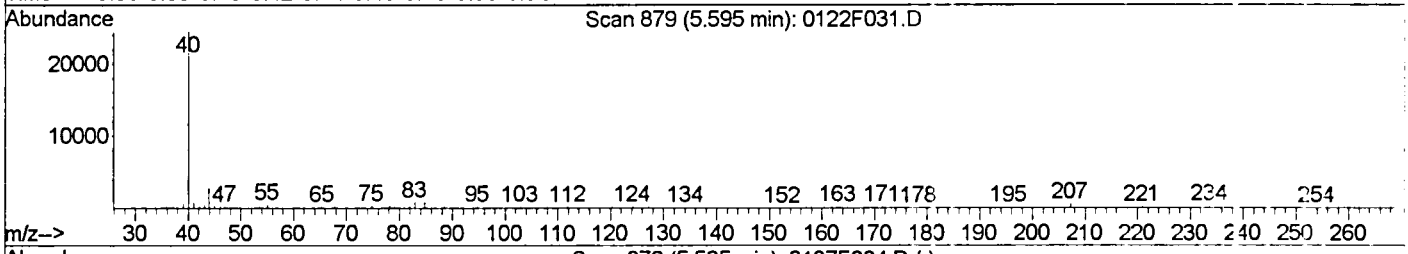
(#) = qualifier out of range (m) = manual integration

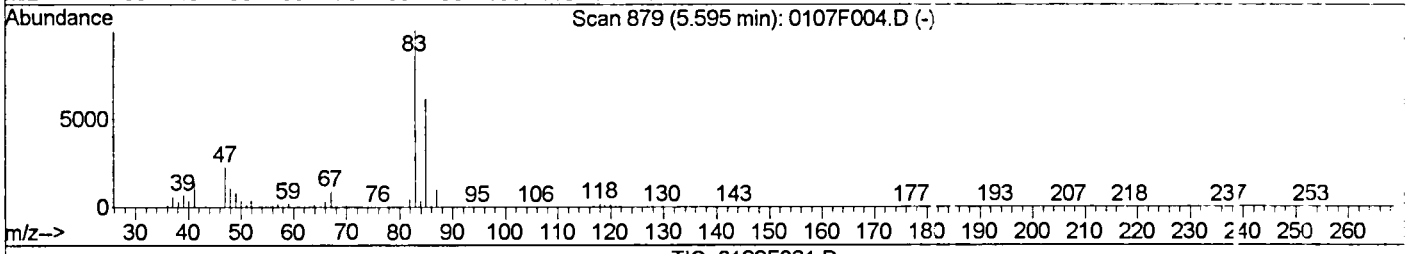
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F031.D Vial: 50
Acq On : 23 Jan 2016 03:21 Operator: YX
Sample : K1600673-015 TB110915 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:47 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration







TIC: 0122F031.D

(40) Methacrylonitrile (T) Chloroform

5.57min 0.00PPB d

response 0

Ion	Exp%	Act%
67.00	100	0.00
66.00	33.80	0.00
52.00	39.40	0.00
41.00	140.30	0.00

Manual Integration:

Before

01/25/16

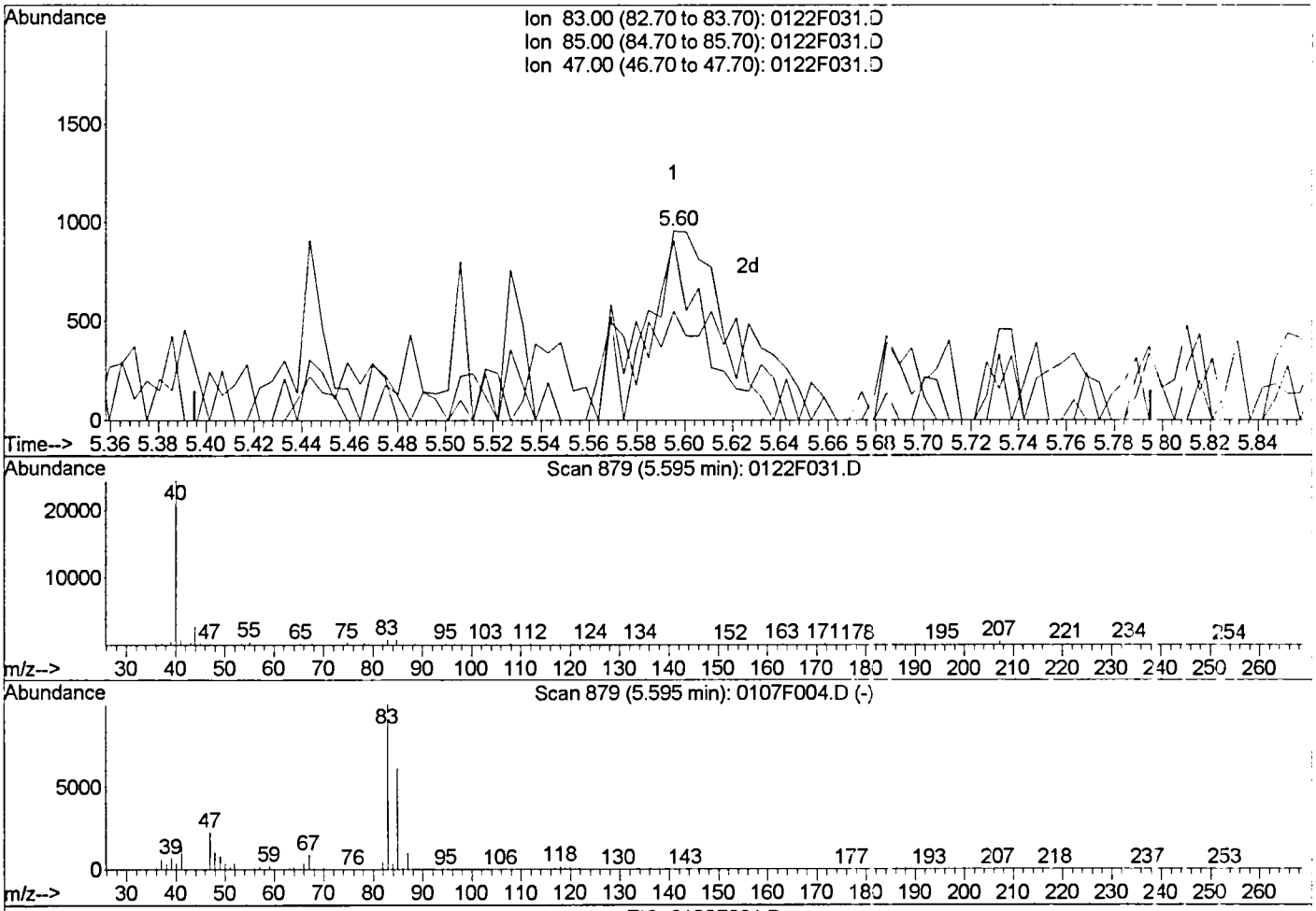
1/25/16

0122F031.D 010516MS46_8260.M Mon Jan 25 15:47:39 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F031.D Vial: 50
Acq On : 23 Jan 2016 03:21 Operator: YX
Sample : K1600673-015 TB110915 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:47 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Multiple Level Calibration



TIC: 0122F031.D

(40) Chloroform (CT)
5.60min 0.07PPB m
response 2415

Ion	Exp%	Act%
83.00	100	100
85.00	64.60	94.98#
47.00	25.60	34.80
0.00	0.00	413.39#

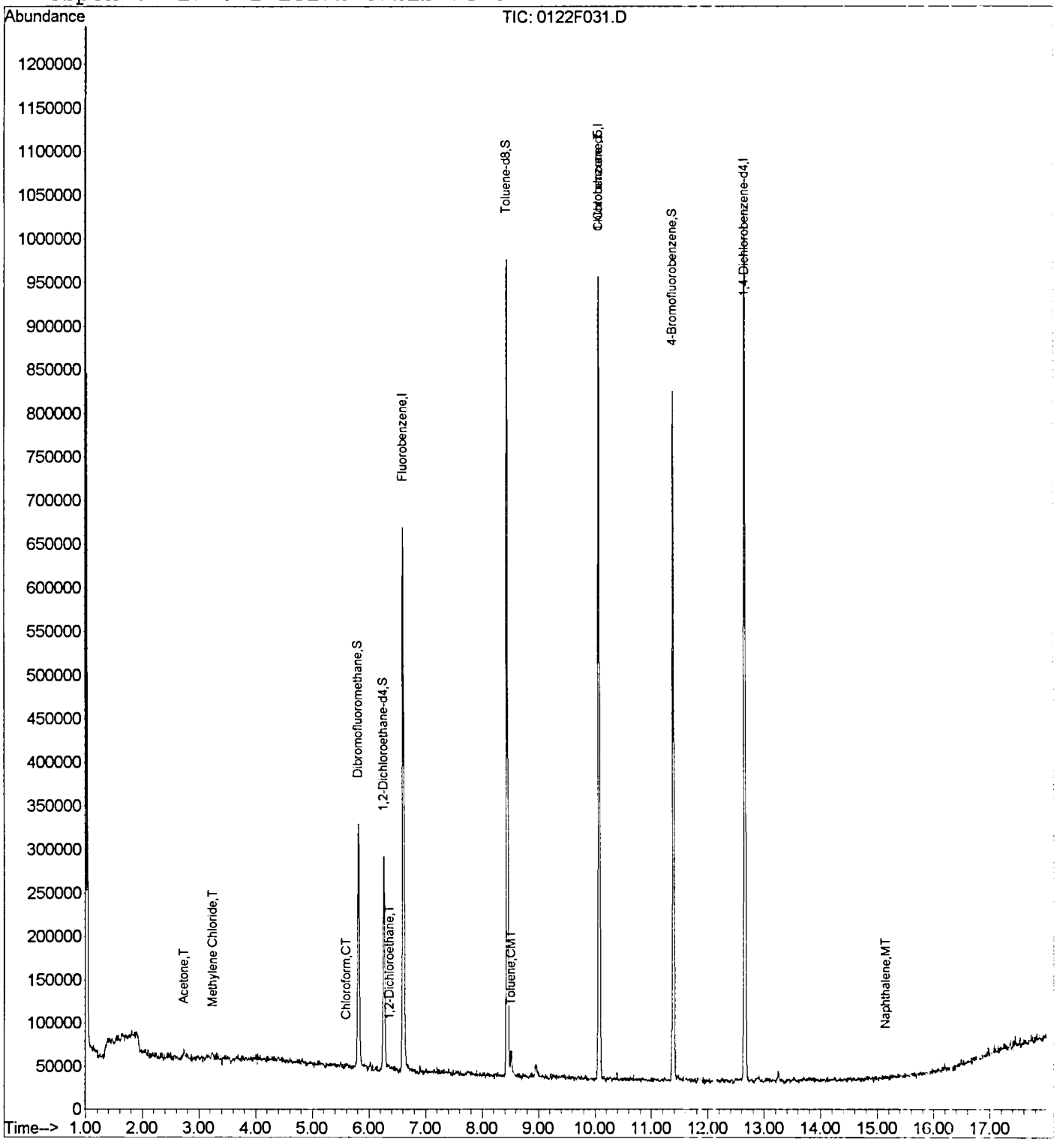
Manual Integration:
After
Split peak
01/25/16

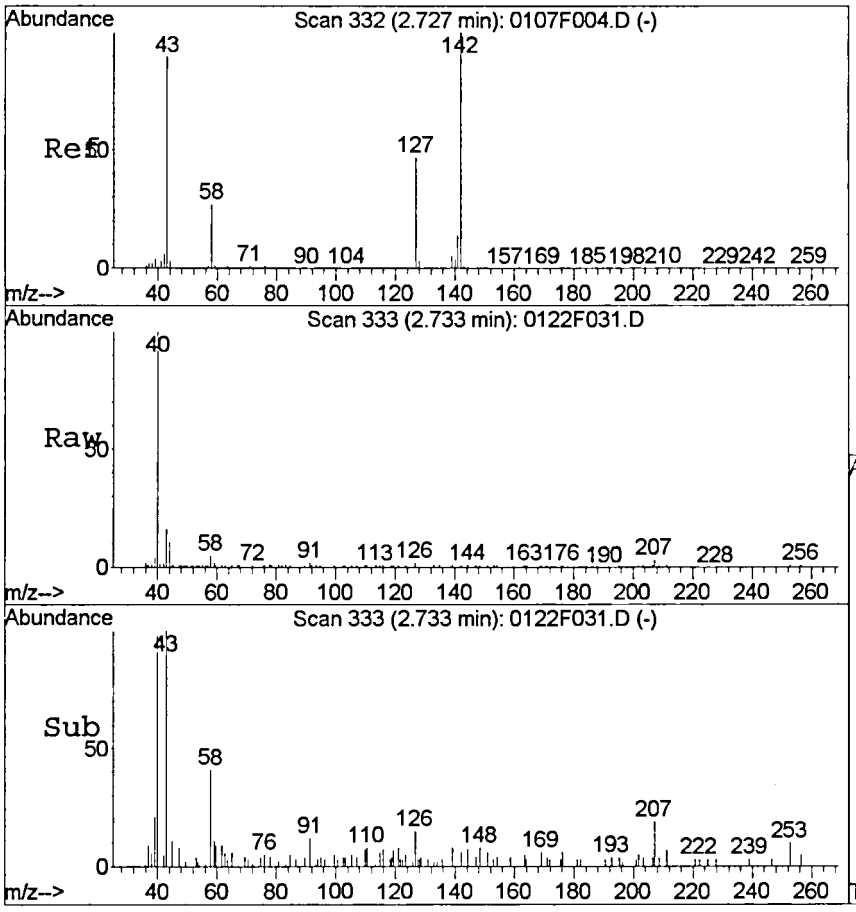
0122F031.D 010516MS46_8260.M Mon Jan 25 15:47:56 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F031.D Vial: 50
Acq On : 23 Jan 2016 03:21 Operator: YX
Sample : K1600673-015 TB110915 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:48 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

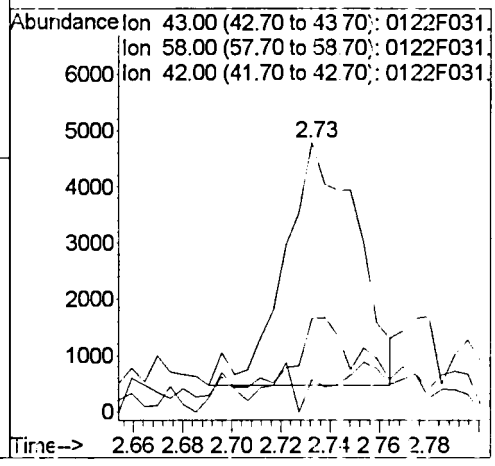


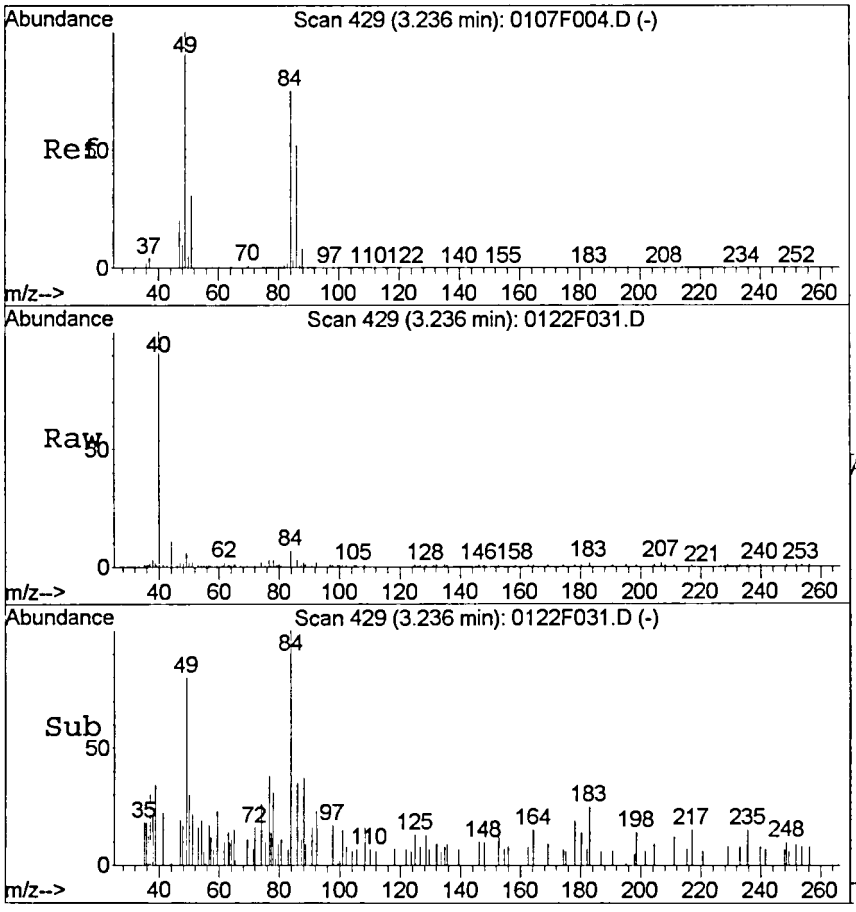


#14
Acetone
Concen: 3.93 PPB
RT: 2.73 min Scan# 333
Delta R.T. 0.01 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion: 43 Resp: 8817

Ion	Ratio	Lower	Upper
43	100		
58	32.3	0.2	60.2
42	6.4	0.0	37.6

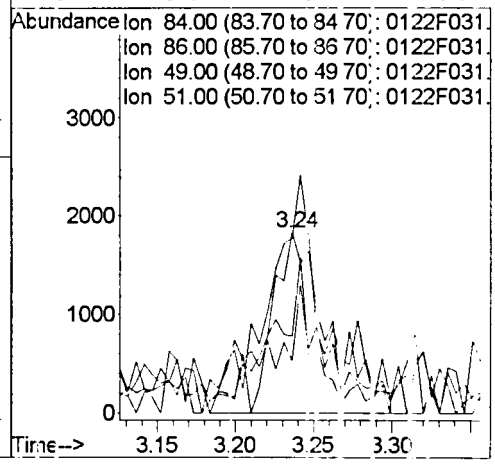


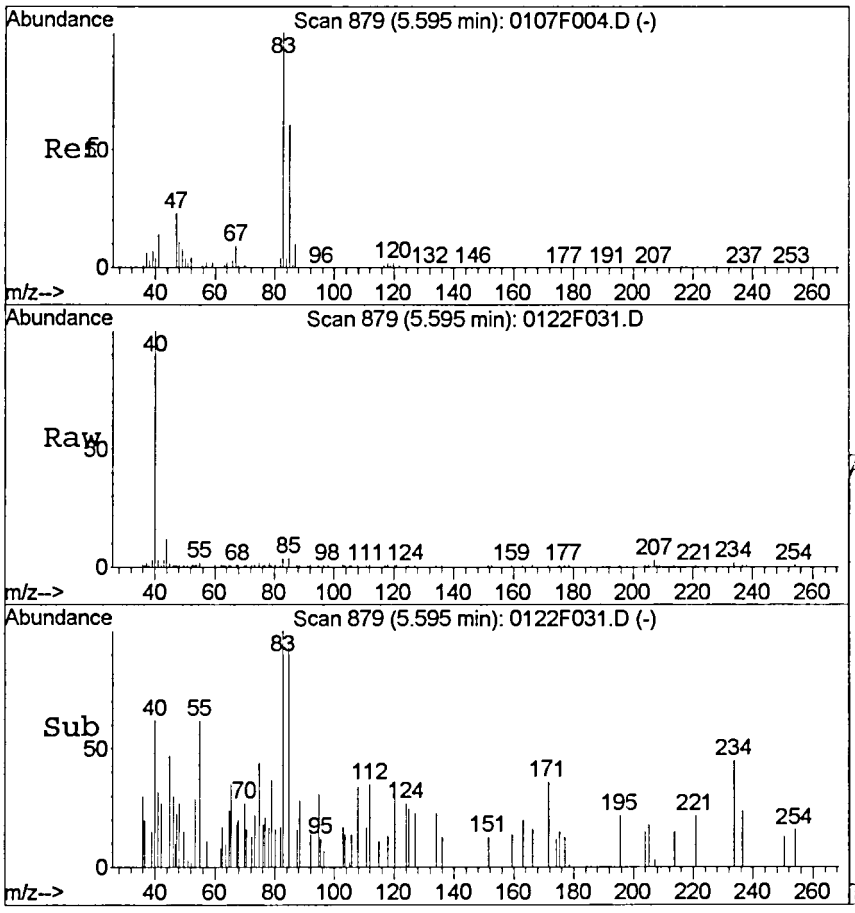


#21
Methylene Chloride
Concen: 0.25 PPB
RT: 3.24 min Scan# 429
Delta R.T. -0.00 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion: 84 Resp: 4760

Ion	Ratio	Lower	Upper
84	100		
86	45.5	33.3	93.3
49	96.5	92.9	152.9
51	19.4	10.1	70.1

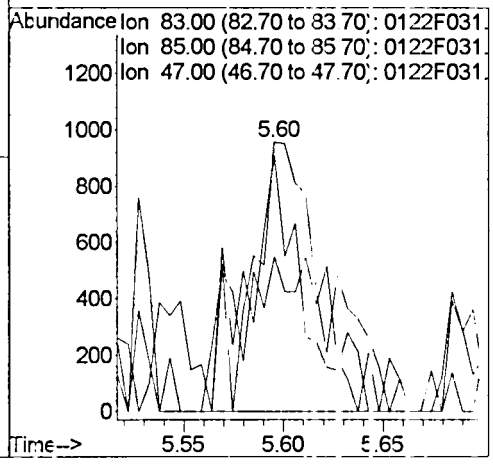


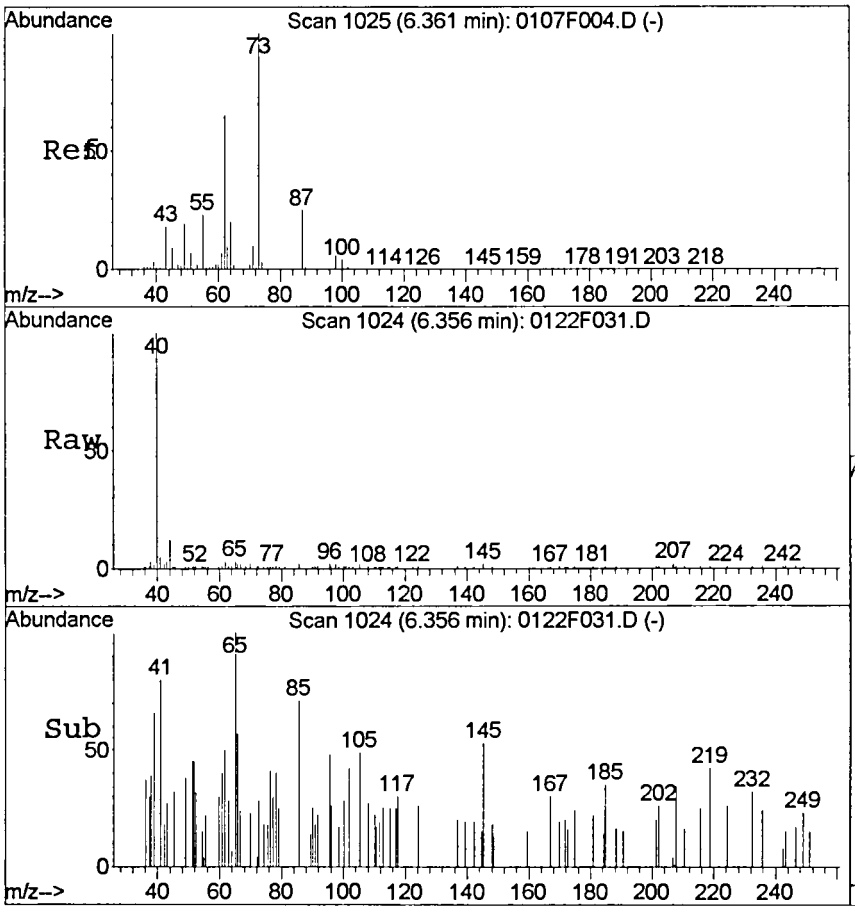


#40
Chloroform
Concen: 0.07 PPB m
RT: 5.60 min Scan# 879
Delta R.T. -0.00 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion: 83 Resp: 2415

Ion	Ratio	Lower	Upper
83	100		
85	95.0	34.5	94.6#
47	34.8	0.0	55.6

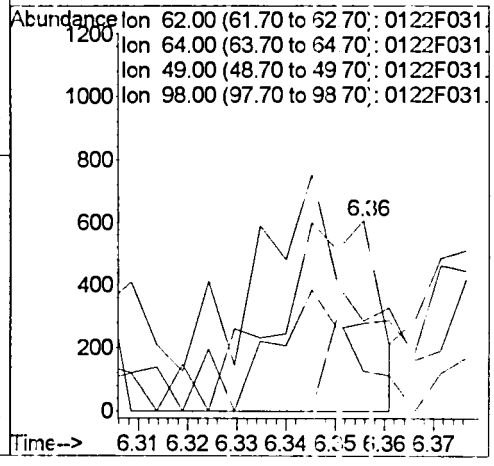


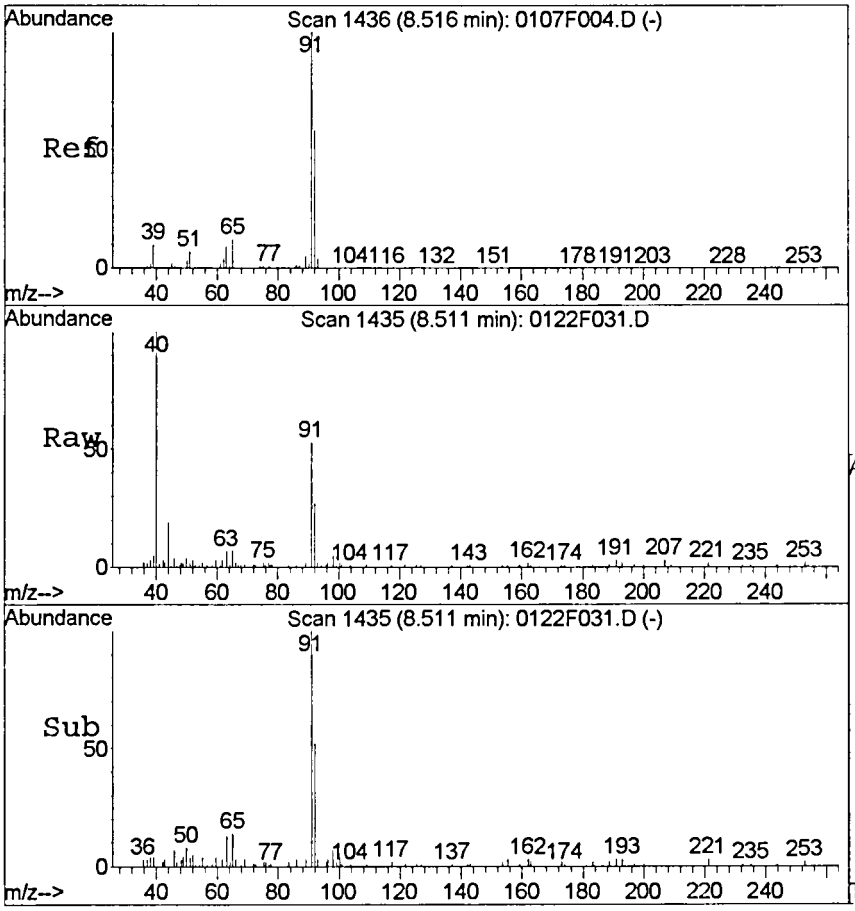


#49
1,2-Dichloroethane
Concen: 0.04 PPB
RT: 6.36 min Scan# 1024
Delta R.T. -0.01 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion: 62 Resp: 837

Ion	Ratio	Lower	Upper
62	100		
64	45.8	0.7	60.7
49	0.0	0.0	57.0
98	2.3	0.0	39.2

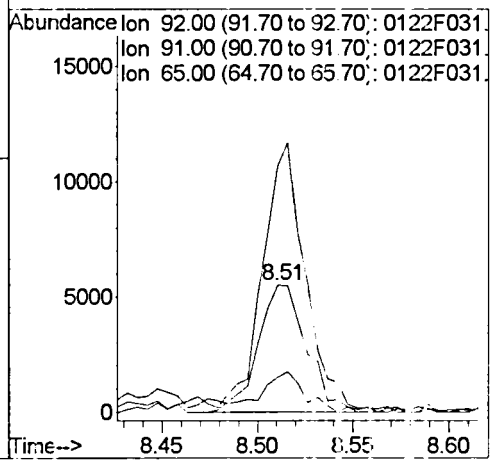


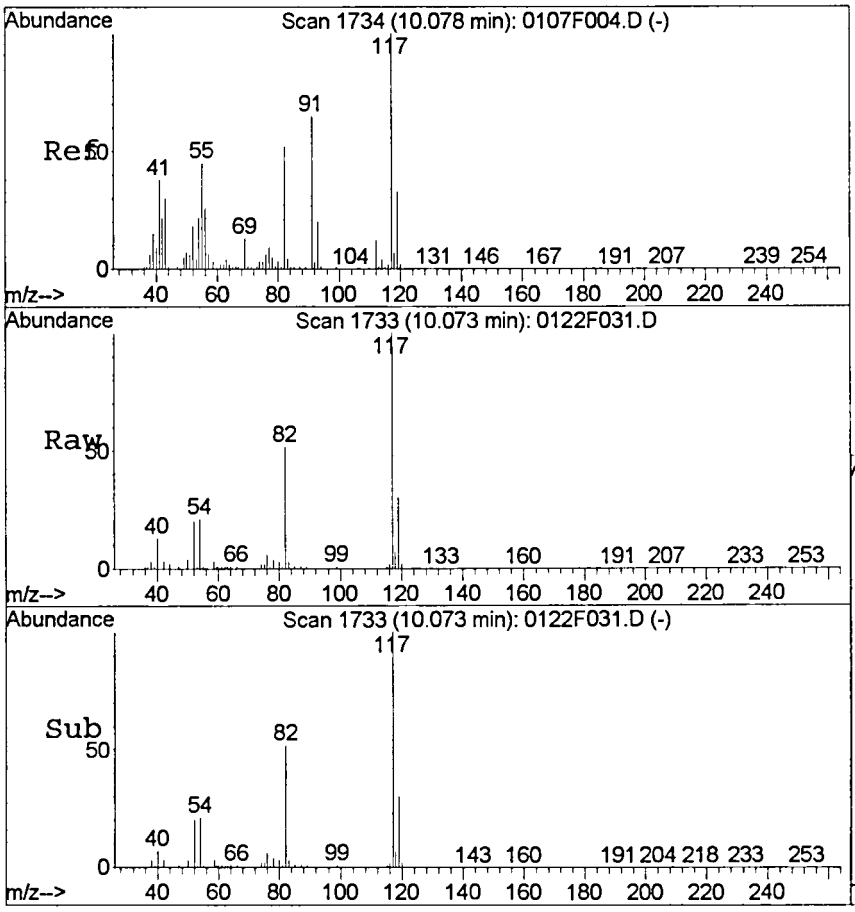


#63
Toluene
Concen: 0.19 PPB
RT: 8.51 min Scan# 1435
Delta R.T. -0.01 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion: 92 Resp: 9802

Ion	Ratio	Lower	Upper
92	100		
91	189.7	133.4	193.4
65	24.0	0.0	49.2

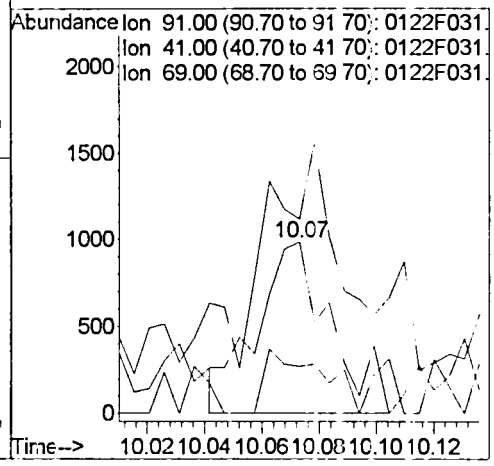


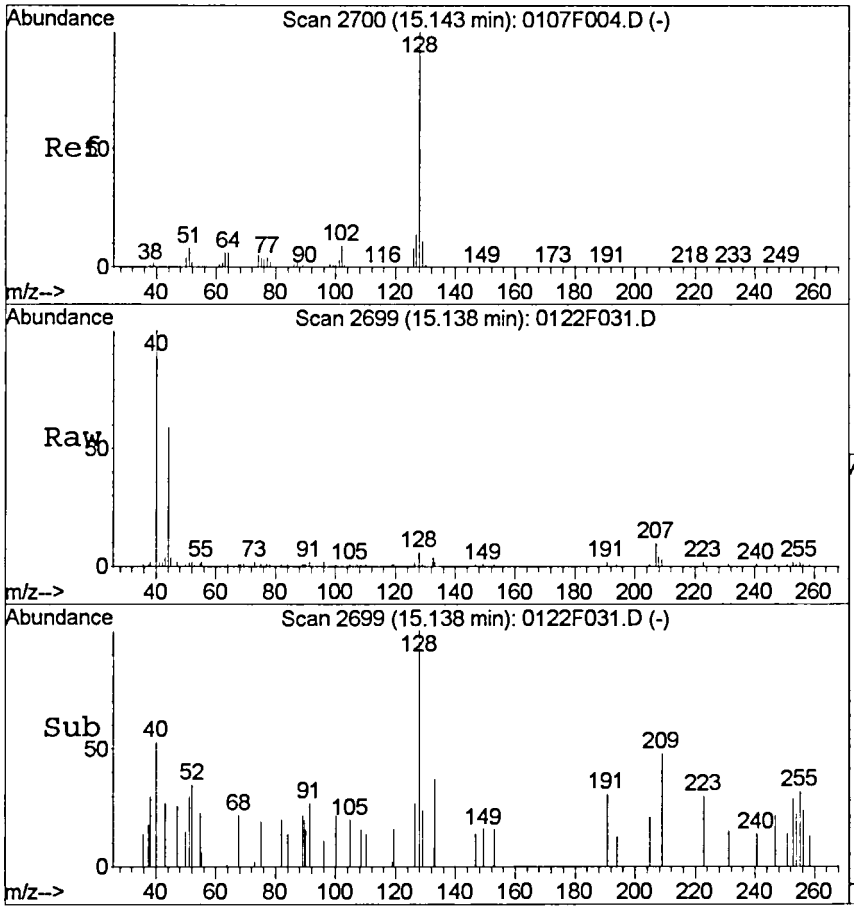


#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 10.07 min Scan# 1733
Delta R.T. -0.00 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion: 91 Resp: 1756

Ion	Ratio	Lower	Upper
91	100		
41	49.1	25.4	85.4
69	9.8	0.0	48.1

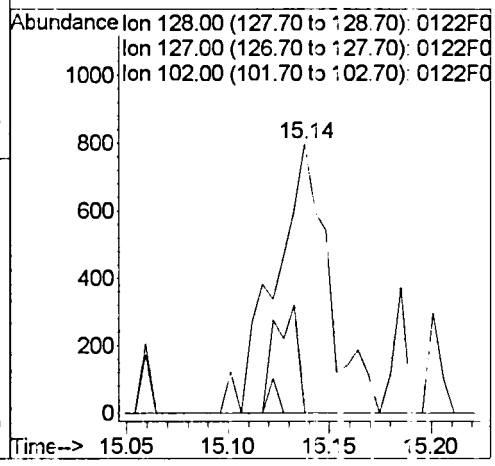




#106
Naphthalene
Concen: 0.03 PPB
RT: 15.14 min Scan# 2699
Delta R.T. -0.01 min
Lab File: 0122F031.D
Acq: 23 Jan 2016 03:21

Tgt Ion:128 Resp: 1472

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
102	0.0	0.0	38.2



Exception Report

Data File: J:\MS46\DATA\012216\0122F016.D
Lab ID: KWG1600614-4
RunType: MB
Matrix: WATER

Date Acquired: 01/22/2016 20:49
Date Quantitated: 01/25/2016 14:51
Batch ID: KWG1600615
Analysis Method: 8260C
MethodJoinID: MJ1465

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0048	0.01	NA	NT
	Acetonitrile	0.0082	0.01	NA	
	Isobutyl Alcohol	0.0041	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,3-Butadiene	-25.9	NA	20	
	Acrolein	49.9	NA	20	
	1,4-Dioxane	-22.6	NA	20	
Continuing Calibration Recovery	2-Propanol	-26.5	NA	20	
	1,4-Dioxane	-27.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0035	0.01	NA	
	Acetonitrile	0.0084	0.01	NA	
	Isobutyl Alcohol	0.0034	0.01	NA	

Primary Review: 1/25/16

Secondary Review:

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	1,4-Dioxane	0.0006	0.01	NA	NJ

Primary Review: VNO 1/25/16

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F016.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 20:49	**Quant Date:**	01/25/2016 14:51	**Vial:**	35
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600614-4			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495766	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:			
Tune Ref:	J:\MS46\DATA\012216\0122F010.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	6.61	0.01	96	603458	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	308917	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	324992	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	5.82	0.01	0.00	113	178064	10.39	104	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	181297	10.23	102	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	654704	9.87	99	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	269809	8.48	85	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		0.15	U	
1	Chloromethane				50	0d		0.063	U	
1	Vinyl Chloride				62	0d		0.075	U	
1	1,3-Butadiene				54	0d		0.075	U	
1	Bromomethane				96	0d		0.16	U	
1	Chloroethane				64	0d		0.16	U	
1	Dichlorofluoromethane (CFC 21				67	0d		0.063	U	
1	Trichlorofluoromethane				101	0d		0.12	U	
1	Diethyl Ether				59	0d		0.075	U	
1	Acrolein				56	0d		1.2	U	
1	Trichlorotrifluoroethane				151	0		0.15	U	
1	1,1-Dichloroethene				96	0d		0.080	U	
1	Acetone	2.73		0.00	43	6912	2.93	3.3	U	
1	Iodomethane	2.74		0.00	142	1744	0.0800	0.12	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:\MS46\DATA\012216\0122F016.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 20:49	**Quant Date:**	01/25/2016 14:51	**Vial:**	35
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600614-4			**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	2.75	-0.01	0.00	76	3300	0.0600	0.069	U	
1	2-Propanol				45	0d		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	3.25	0.02	0.00	84	2940	0.1500	0.150	J	
1	tert-Butyl Alcohol				59	0d		4.4	U	
1	Acrylonitrile				53	0d		0.53	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0d		0.072	U	
1	n-Hexane				57	0d		0.090	U	
1	Diisopropyl Ether				45	0d		0.048	U	
1	1,1-Dichloroethane				63	0d		0.077	U	
1	Vinyl Acetate				86	0d		0.43	U	
1	Chloroprene				53	0d		3.6	U	
1	tert-Butyl Ethyl Ether				59	0d		0.043	U	
1	2,2-Dichloropropane				77	0d		0.065	U	
1	cis-1,2-Dichloroethene				96	0d		0.067	U	
1	2-Butanone (MEK)				72	0d		1.9	U	
1	Ethyl Acetate				61	0d		0.57	U	
1	Propionitrile				54	0d		1.1	U	
1	Methacrylonitrile				67	0d		0.35	U	
1	Bromochloromethane				128	0		0.16	U	
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform				83	0d		0.072	U	
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)				97	0d		0.075	U	
1	Carbon Tetrachloride				117	0d		0.095	U	
1	1,1-Dichloropropene				75	0		0.089	U	
1	Isobutyl Alcohol				43	0d		6.9	U	
1	Benzene				78	0d		0.062	U	
1	1,2-Dichloroethane (EDC)				62	0d		0.080	U	
1	tert-Amyl Methyl Ether				55	0d		0.12	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	Methylcyclohexane				83	0		0.33	U	
1	1,2-Dichloropropane				63	0d		0.095	U	
1	Dibromomethane				93	0		0.15	U	
1	Methyl Methacrylate				69	0d		0.13	U	
1	1,4-Dioxane				88	0d		14	U	
1	Bromodichloromethane				83	0		0.091	U	
1	2-Nitropropane				41	0d		0.96	U	
1	2-Chloroethyl Vinyl Ether				63	0d		0.16	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:\MS46\DATA\012216\0122F016.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 20:49	**Quant Date:**	01/25/2016 14:51	**Vial:**	35
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600614-4			**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	cis-1,3-Dichloropropene				75	0d		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene				92	0		0.054	U	
2	trans-1,3-Dichloropropene				75	0d		0.063	U	
2	Ethyl Methacrylate				69	0d		0.15	U	
2	1,1,2-Trichloroethane				83	0d		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	2-Hexanone				57	0d		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	0d		0.053	U	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		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		0.051	U	
2	cis-1,4-Dichloro-2-butene				89	0		1.4	U	
3	1,1,2,2-Tetrachloroethane	11.56	-0.04	0.00	83	500	0.0200	0.16	U	
3	trans-1,4-Dichloro-2-butene				53	0d		0.35	U	
3	Bromobenzene				156	0		0.12	U	
3	n-Propylbenzene				91	0d		0.054	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	2-Chlorotoluene				91	0		0.10	U	
3	1,3,5-Trimethylbenzene				105	0d		0.089	U	
3	4-Chlorotoluene				91	0d		0.13	U	
3	tert-Butylbenzene				119	0d		0.059	U	
3	1,2,4-Trimethylbenzene				105	0d		0.069	U	
3	sec-Butylbenzene				105	0d		0.062	U	
3	4-Isopropyltoluene				119	0		0.060	U	
3	1,3-Dichlorobenzene				146	0d		0.10	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	n-Butylbenzene				91	0d		0.054	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,3,5-Trichlorobenzene				180	0		0.10	U	
3	1,2,4-Trichlorobenzene				180	0		0.095	U	
3	Hexachlorobutadiene				225	0		0.13	U	
3	Naphthalene				128	0d		0.083	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:\MS46\DATA\012216\0122F016.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 20:49	**Quant Date:**	01/25/2016 14:51	**Vial:**	35
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600614-4			**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	1,2,3-Trichlorobenzene				180	0		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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F016.D Vial: 35
Acq On : 22 Jan 2016 20:49 Operator: YX
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:54:36 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

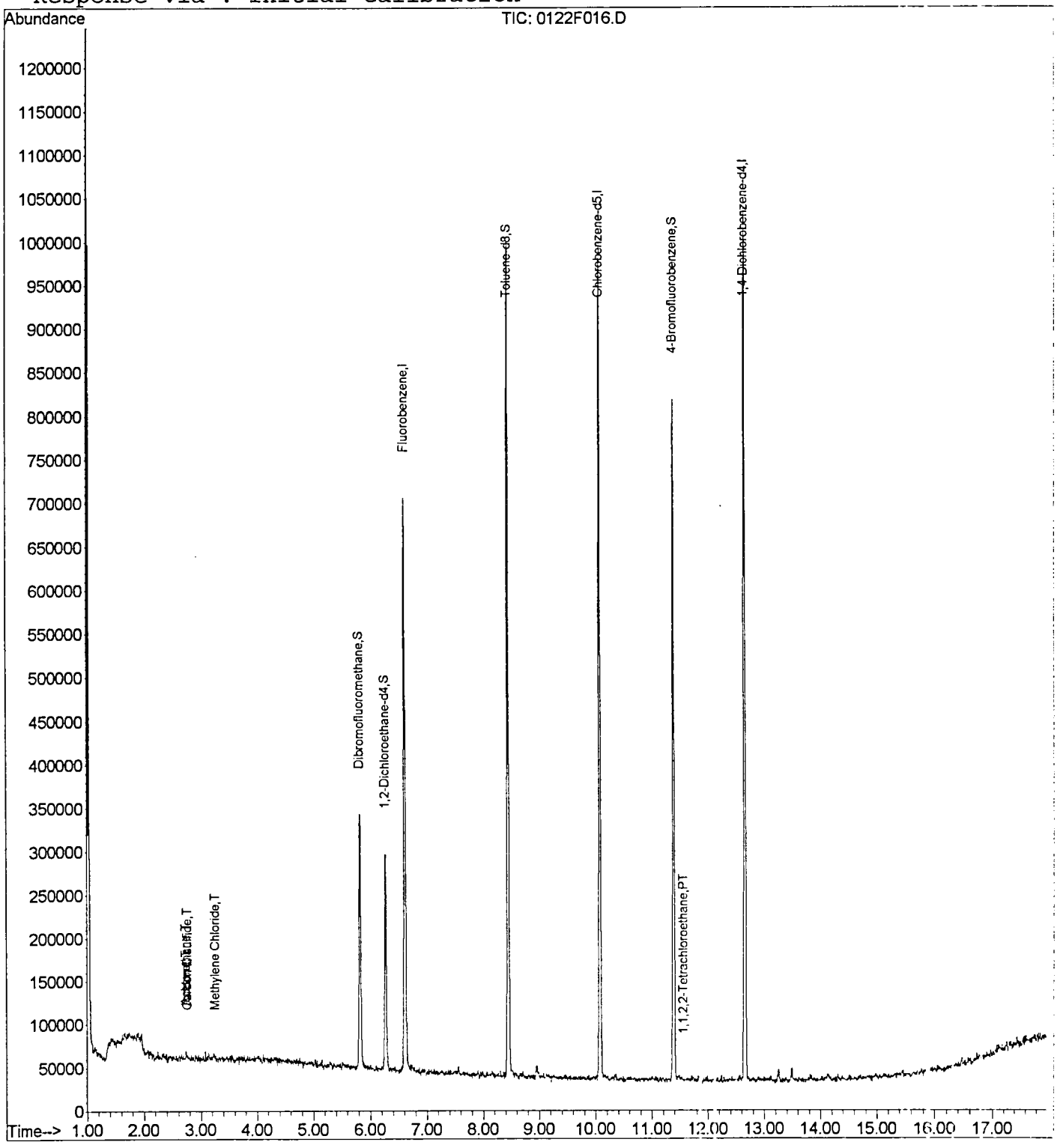
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.61	96	603458	10.00	PPB		0.00
64) Chlorobenzene-d5	10.07	82	308917	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	324992	10.00	PPB		-0.01
System Monitoring Compounds							
43) Dibromofluoromethane	5.82	113	178064	10.39	PPB		0.00
Spiked Amount 10.000			Recovery =	103.90%			
47) 1,2-Dichloroethane-d4	6.26	65	181297	10.23	PPB		0.00
Spiked Amount 10.000			Recovery =	102.30%			
62) Toluene-d8	8.44	98	654704	9.87	PPB		0.00
Spiked Amount 10.000			Recovery =	93.70%			
84) 4-Bromofluorobenzene	11.38	95	269809	8.48	PPB		0.00
Spiked Amount 10.000			Recovery =	84.80%			
Target Compounds							Qvalue
14) Acetone	2.73	43	6912	2.93	PPB		81
15) Iodomethane	2.74	142	1744	0.08	PPB		71
16) Carbon Disulfide	2.75	76	3300	0.06	PPB		73
21) Methylene Chloride	3.25	84	2940	0.15	PPB	#	53
86) 1,1,2,2-Tetrachloroethane	11.56	83	500	0.02	PPB	#	26

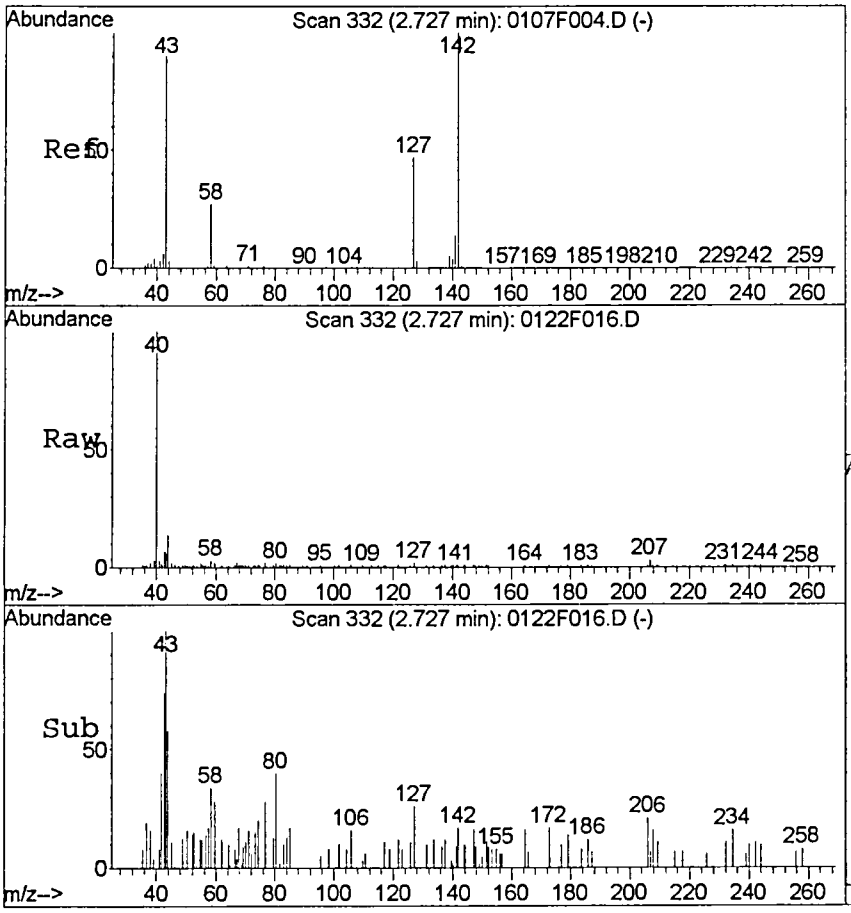
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F016.D Vial: 35
Acq On : 22 Jan 2016 20:49 Operator: YX
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:51 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration

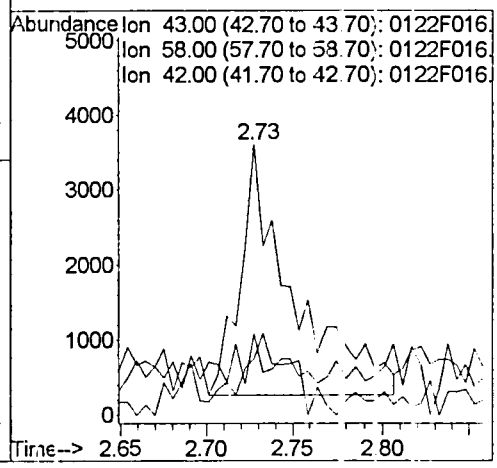


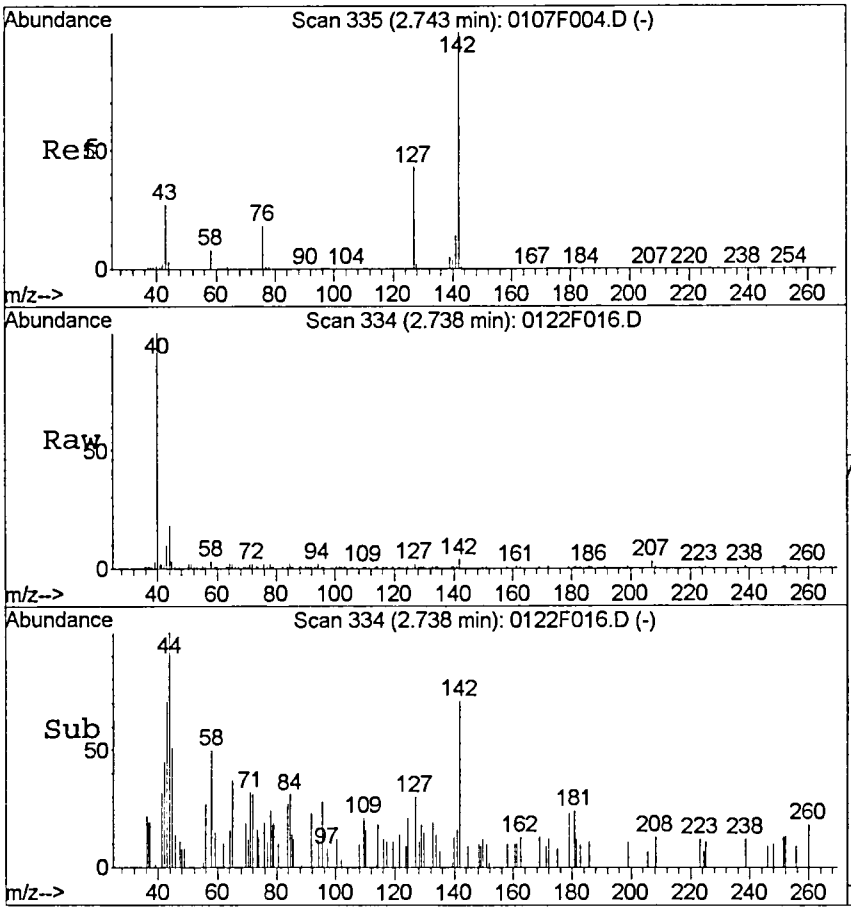


#14
Acetone
Concen: 2.93 PPB
RT: 2.73 min Scan# 332
Delta R.T. 0.00 min
Lab File: 0122F016.D
Acq: 22 Jan 2016 20:49

Tgt Ion: 43 Resp: 6912

Ion	Ratio	Lower	Upper
43	100		
58	18.4	0.2	60.2
42	11.2	0.0	37.6

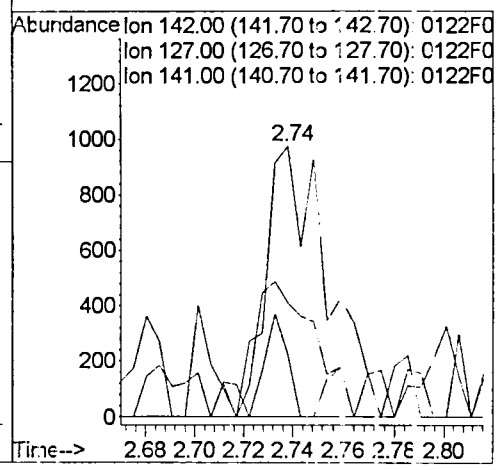


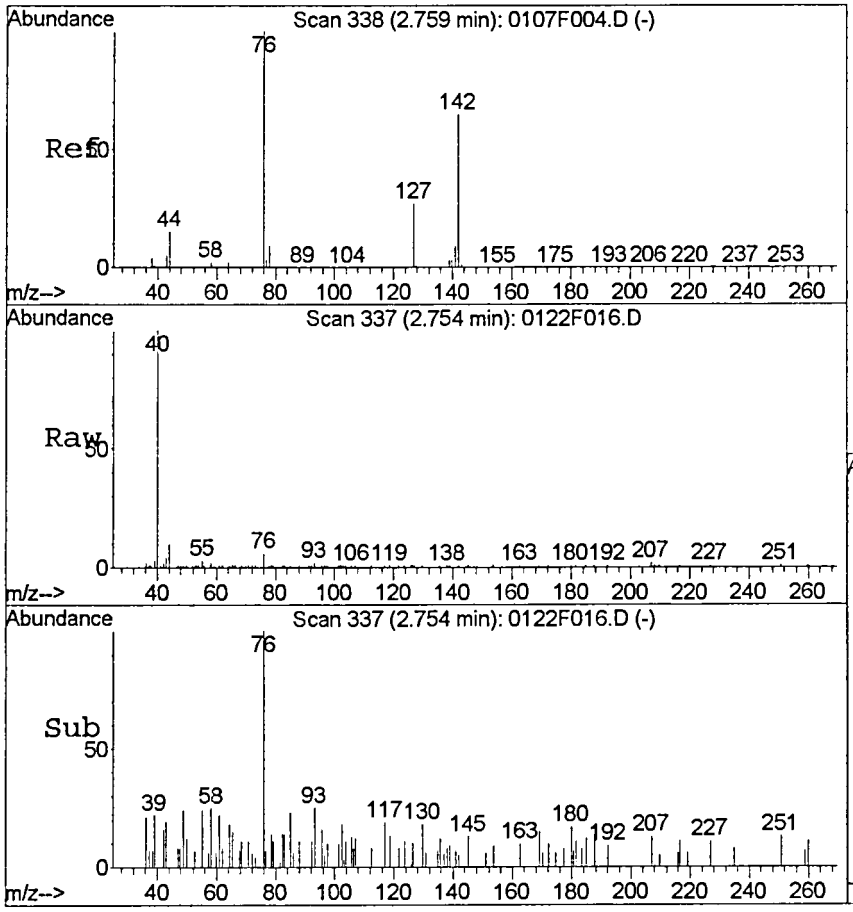


#15
Iodomethane
Concen: 0.08 PPB
RT: 2.74 min Scan# 334
Delta R.T. 0.00 min
Lab File: 0122F016.D
Acq: 22 Jan 2016 20:49

Tgt Ion:142 Resp: 1744

Ion	Ratio	Lower	Upper
142	100		
127	23.3	13.6	73.6
141	22.8	0.0	44.6

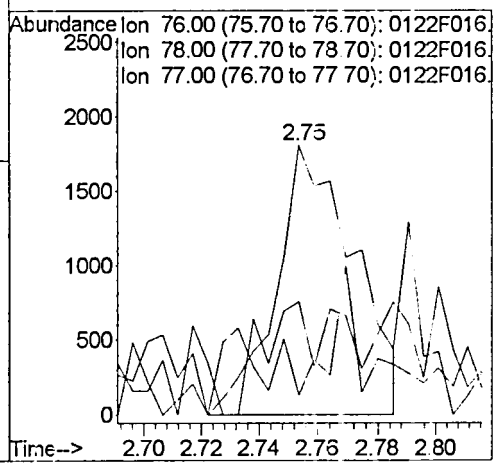


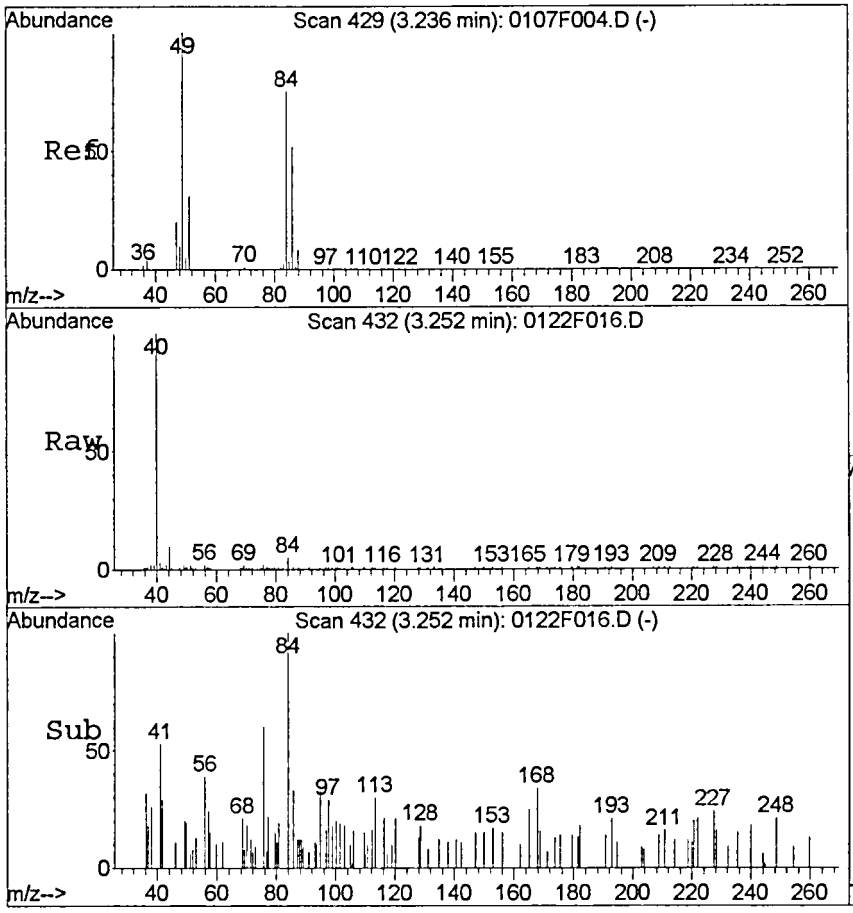


#16
Carbon Disulfide
Concen: 0.06 PPB
RT: 2.75 min Scan# 337
Delta R.T. -0.01 min
Lab File: 0122F016.D
Acq: 22 Jan 2016 20:49

Tgt Ion: 76 Resp: 3300

Ion	Ratio	Lower	Upper
76	100		
78	20.9	0.0	39.0
77	0.0	0.0	32.5

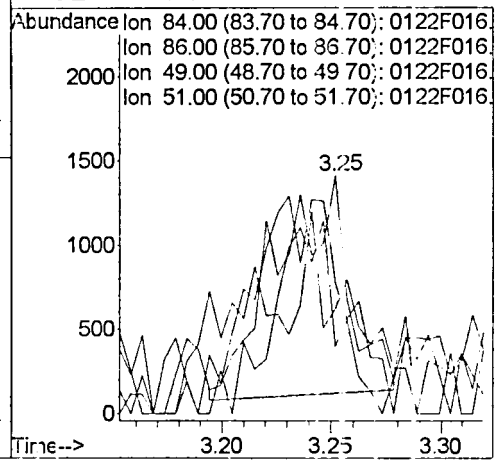


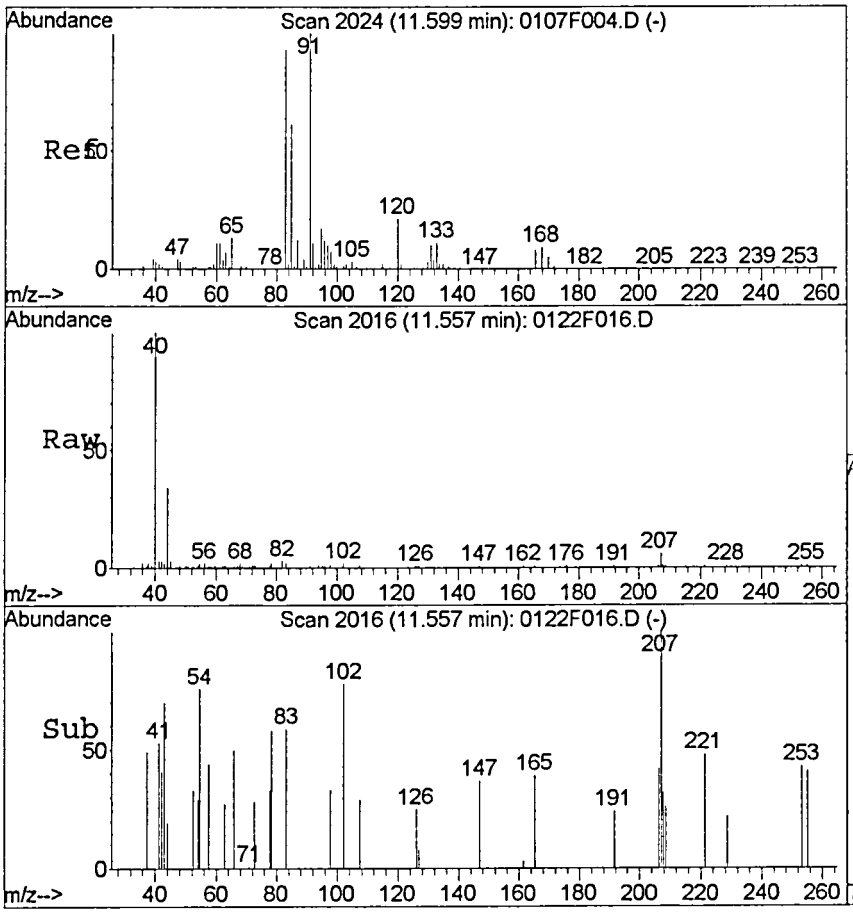


#21
Methylene Chloride
Concen: 0.15 PPB
RT: 3.25 min Scan# 432
Delta R.T. 0.02 min
Lab File: 0122F016.D
Acq: 22 Jan 2016 20:49

Tgt Ion: 84 Resp: 2940

Ion	Ratio	Lower	Upper
84	100		
86	31.3	33.3	93.3#
49	61.2	92.9	152.9#
51	19.1	10.1	70.1

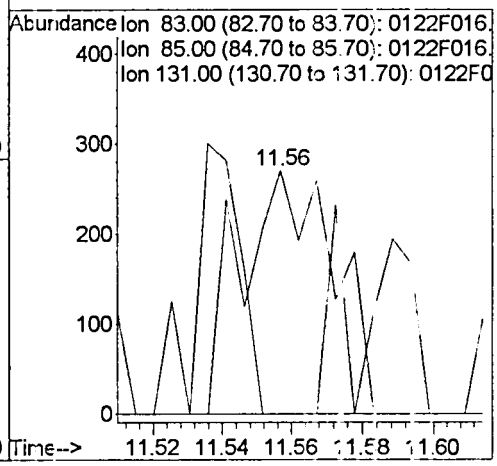




#86
1,1,2,2-Tetrachloroethane
Concen: 0.02 PPB
RT: 11.56 min Scan# 2016
Delta R.T. -0.04 min
Lab File: 0122F016.D
Acq: 22 Jan 2016 20:49

Tgt Ion: 83 Resp: 500

Ion	Ratio	Lower	Upper
83	100		
85	0.0	33.6	93.6#
131	0.0	0.0	39.8



Exception Report

Data File: J:\MS46\DATA\012216\0122F013.D
Lab ID: KWG1600614-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 01/22/2016 19:30
Date Quantitated: 01/25/2016 14:47
Batch ID: KWG1600615
Analysis Method: 8260C
MethodJoinID: MJ1465

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0048	0.01	NA	NT
	Acetonitrile	0.0032	0.01	NA	
	Isobutyl Alcohol	0.0041	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,3-Butadiene	-25.9	NA	20	
	Acrolein	49.9	NA	20	
	1,4-Dioxane	-22.6	NA	20	
Continuing Calibration Recovery	Bromomethane	22.6	NA	20	CCV 1/25/16 check
	Acrolein	25.5	NA	20	NT
	2-Propanol	-26.5	NA	20	
	1,4-Dioxane	-27.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0035	0.01	NA	

Primary Review: KWG 1/25/16

Secondary Review: KL 1/26/16

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	Acetonitrile	0.0084	0.01	NA	NT
	Isobutyl Alcohol	0.0034	0.01	NA	
	1,4-Dioxane	0.0006	0.01	NA	
Continuing Calibration Recovery (Closing)	Acrolein	60.2	NA	50	

Primary Review: VTW 1/25/16

Secondary Review: kn 1/27/16

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F013.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 19:30	**Quant Date:**	01/25/2016 14:47	**Vial:**	33
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600614-1 -- K1600673-004MS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495763	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:			
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.61	0.01	96	653105	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	329418	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	348259	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	5.82	0.01	0.00	113	191625	10.33	103	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	187499	9.77	98	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	705837	9.83	98	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	299804	8.84	88	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	1.15		0.00	85	324730	12.48	12.5		
1	Chloromethane	1.32		0.00	50	28207+	11.27	11.3		
1	Vinyl Chloride	1.41	0.01	0.00	62	278710	12.40	12.4		
1	1,3-Butadiene				54	0d		0.075	U	
1	Bromomethane	1.71		0.00	96	164638	13.00	13.0		
1	Chloroethane	1.80		0.00	64	165668	13.53	13.5		
1	Dichlorofluoromethane (CFC 21	2.01		0.00	67	447256	11.87	11.9		
1	Trichlorofluoromethane	2.00		0.00	101	422727	11.24	11.2		
1	Diethyl Ether	2.32		0.00	59	132312	9.56	9.56		
1	Acrolein	2.54		0.00	56	198475	158.84	159		
1	Trichlorotrifluoroethane	2.53	0.01	0.00	151	231086	11.82	11.8		
1	1,1-Dichloroethene	2.55		0.00	96	219453	11.34	11.3		
1	Acetone	2.73		0.00	43	119059	46.66	46.7		
1	Iodomethane	2.74		0.00	142	852333	34.59	34.6		

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:\MS46\DATA\012216\0122F013.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 19:30	**Quant Date:**	01/25/2016 14:47	**Vial:**	33
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600614-1 -- K1600673-004MS			**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	2.76		0.00	76	1181023	20.91	20.9		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	3.03		0.00	76	327754	28.04	28.0		
1	Methyl Acetate	3.10		0.00	43	116982	12.66	12.7		
1	Acetonitrile	3.17		0.00	40	170030	317.56	318		
1	Methylene Chloride	3.24	0.01	0.00	84	227325	10.58	10.6		
1	tert-Butyl Alcohol	3.45		0.00	59	51327	74.56	74.6		
1	Acrylonitrile	3.72		0.00	53	150822	40.27	40.3		
1	Methyl tert-Butyl Ether	3.53		0.00	73	453498	9.80	9.80		
1	trans-1,2-Dichloroethene	3.53	-0.01	0.00	96	247021	11.13	11.1		
1	n-Hexane	3.84	0.01	0.00	57	920064	29.31	29.3		
1	Diisopropyl Ether	4.30		0.00	45	1169773	18.93	18.9		
1	1,1-Dichloroethane	4.27		0.00	63	429543	11.26	11.3		
1	Vinyl Acetate	4.39		0.00	86	120061	38.93	38.9		
1	Chloroprene	4.34		0.00	53	1060703	27.93	27.9		
1	tert-Butyl Ethyl Ether	4.85		0.00	59	1065082	18.68	18.7		
1	2,2-Dichloropropane	5.08		0.00	77	397580	11.53	11.5		
1	cis-1,2-Dichloroethene	5.14		0.00	96	245259	9.92	9.92		
1	2-Butanone (MEK)	5.24		0.00	72	49846	45.78	45.8		
1	Ethyl Acetate	5.30		0.00	61	35367	22.52	22.5		
1	Propionitrile	5.43		0.00	54	34827	26.16	26.2		
1	Methacrylonitrile	5.57	0.01	0.00	67	139607	26.76	26.8		
1	Bromochloromethane	5.47		0.00	128	106304	10.46	10.5		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.60		0.00	83	440239	11.18	11.2		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.73		0.00	97	416298	11.20	11.2		
1	Carbon Tetrachloride	5.88		0.00	117	381808	11.62	11.6		
1	1,1-Dichloropropene	5.95		0.00	75	359441	11.08	11.1		
1	Isobutyl Alcohol	6.31	0.01	0.00	43	65710	242.80	243		
1	Benzene	6.21	0.01	0.00	78	939672	10.29	10.3		
1	1,2-Dichloroethane (EDC)	6.36		0.00	62	278548	10.90	10.9		
1	tert-Amyl Methyl Ether	6.36		0.00	55	231166	19.84	19.8		
1	Trichloroethene (TCE)	7.02	-0.01	0.00	95	260139	10.52	10.5		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.36		0.00	63	218267	9.71	9.71		
1	Dibromomethane	7.49		0.00	93	107675	9.73	9.73		
1	Methyl Methacrylate	7.52		0.00	69	239581	23.79	23.8		
1	1,4-Dioxane	7.52	-0.02	0.00	88	19484	342.62	343		
1	Bromodichloromethane	7.69		0.00	83	276290	10.20	10.2		
1	2-Nitropropane	8.06	-0.01	0.00	41	82172	25.42	25.4		
1	2-Chloroethyl Vinyl Ether				63	0d		0.16	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:\MS46\DATA\012216\0122F013.D		**Instrument:** GCMS46
Acqu Date:	01/22/2016 19:30	**Quant Date:** 01/25/2016 14:47	**Vial:** 33
Run Type:	MS		**Dilution:** 1.0
Lab ID:	KWG1600614-1 -- K1600673-004MS		**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	cis-1,3-Dichloropropene	8.21		0.00	75	330382	9.58	9.58		
1	4-Methyl-2-pentanone (MIBK)	8.41		0.00	58	182027	44.59	44.6		
1	Toluene	8.52	0.01	0.00	92	600089	10.29	10.3		
2	trans-1,3-Dichloropropene	8.88		0.00	75	262430	7.70	7.70		
2	Ethyl Methacrylate	8.94		0.00	69	506330	21.25	21.3		
2	1,1,2-Trichloroethane	9.08	0.01	0.00	83	131123	8.15	8.15		
2	Tetrachloroethene (PCE)	9.08		0.00	164	251774	9.74	9.74		
2	2-Hexanone	9.34		0.00	57	58615	35.48	35.5		
2	1,3-Dichloropropane	9.26		0.00	76	272372	7.88	7.88		
2	Dibromochloromethane	9.46		0.00	129	181570	7.74	7.74		
2	1,2-Dibromoethane (EDB)	9.59		0.00	107	145785	7.76	7.76		
2	1-Chlorohexane	10.07		0.00	91	358425	9.30	9.30		
2	Chlorobenzene	10.10		0.00	112	671056	8.59	8.59		
2	Ethylbenzene	10.20		0.00	106	370907	8.51	8.51		
2	1,1,1,2-Tetrachloroethane	10.21		0.00	131	227603	8.34	8.34		
2	m,p-Xylenes	10.34	0.01	0.00	106	907783	17.14	17.1		
2	o-Xylene	10.77		0.00	106	424834	8.14	8.14		
2	Styrene	10.81		0.00	103	297859m	7.45	7.45		
2	Bromoform	11.03		0.00	173	97678	7.76	7.76		
2	Isopropylbenzene	11.16		0.00	105	1171693	8.64	8.64		
2	cis-1,4-Dichloro-2-butene	11.35		0.00	89	59972	21.28	21.3		
3	1,1,2,2-Tetrachloroethane	11.60		0.00	83	154395	7.03	7.03		
3	trans-1,4-Dichloro-2-butene	11.67		0.00	53	131743	20.89	20.9		
3	Bromobenzene	11.53		0.00	156	285211	7.84	7.84		
3	n-Propylbenzene	11.62		0.00	91	1382253	8.02	8.02		
3	1,2,3-Trichloropropane	11.65		0.00	110	50592	6.96	6.96		
3	2-Chlorotoluene	11.74		0.00	91	772642	7.50	7.50		
3	1,3,5-Trimethylbenzene	11.82		0.00	105	947020	7.82	7.82		
3	4-Chlorotoluene	11.87		0.00	91	835135	7.81	7.81		
3	tert-Butylbenzene	12.17		0.00	119	843912	7.87	7.87		
3	1,2,4-Trimethylbenzene	12.24		0.00	105	950775	7.94	7.94		
3	sec-Butylbenzene	12.41		0.00	105	1219653	8.02	8.02		
3	4-Isopropyltoluene	12.57		0.00	119	1064214	8.40	8.40		
3	1,3-Dichlorobenzene	12.57		0.00	146	562580	7.94	7.94		
3	1,4-Dichlorobenzene	12.67	-0.01	0.00	146	558786	7.84	7.84		
3	n-Butylbenzene	13.02	-0.01	0.00	91	896715	7.92	7.92		
3	1,2-Dichlorobenzene	13.09		0.00	146	484859	7.86	7.86		
3	1,2-Dibromo-3-chloropropane	13.98		0.00	155	20485	6.64	6.64		
3	1,3,5-Trichlorobenzene	14.14		0.00	180	387183	8.54	8.54		
3	1,2,4-Trichlorobenzene	14.85		0.00	180	285631	7.44	7.44		
3	Hexachlorobutadiene	14.98		0.00	225	145741	8.52	8.52		
3	Naphthalene	15.14		0.00	128	411783	6.54	6.54		

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

Data File:	J:\MS46\DATA\012216\0122F013.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 19:30	**Quant Date:**	01/25/2016 14:47	**Vial:**	33
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600614-1 -- K1600673-004MS			**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	1,2,3-Trichlorobenzene	15.40		0.00	180	219647	7.34	7.34		

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:\MS46\DATA\012216\0122F013.D Vial: 33
Acq On : 22 Jan 2016 19:30 Operator: YX
Sample : MS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 19:50:22 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	653105	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	329418	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	348259	10.00	PPB	-0.01
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	191625	10.33	PPB	0.00
Spiked Amount 10.000			Recovery =	103.30%		
47) 1,2-Dichloroethane-d4	6.26	65	187499	9.77	PPB	0.00
Spiked Amount 10.000			Recovery =	97.70%		
62) Toluene-d8	8.44	98	705837	9.83	PPB	0.00
Spiked Amount 10.000			Recovery =	93.30%		
84) 4-Bromofluorobenzene	11.38	95	299804	8.84	PPB	0.00
Spiked Amount 10.000			Recovery =	83.40%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.15	85	324730	12.48	PPB	93
3) Chloromethane	1.32	50	282074	11.27	PPB	97
4) Vinyl Chloride	1.41	62	278710	12.40	PPB	98
6) Bromomethane	1.71	96	164638	13.00	PPB	98
7) Chloroethane	1.80	64	165668	13.53	PPB	95
8) Dichlorofluoromethane	2.01	67	447256	11.87	PPB	97
9) Trichlorofluoromethane	2.00	101	422727	11.24	PPB	99
10) Ethyl Ether	2.32	59	132312	9.56	PPB	93
11) Acrolein	2.54	56	198475	158.84	PPB	97
12) Trichlorotrifluoroethane	2.53	151	231086	11.82	PPB	95
13) 1,1-Dichloroethene	2.55	96	219453	11.34	PPB	94
14) Acetone	2.73	43	119059	46.66	PPB	94
15) Iodomethane	2.74	142	852333	34.59	PPB	97
16) Carbon Disulfide	2.76	76	1181023	20.91	PPB	100
18) 3-Chloro-1-propene	3.03	76	327754	28.04	PPB	97
19) Methyl Acetate	3.10	43	116982	12.66	PPB	98
20) Acetonitrile	3.17	40	170030	317.56	PPB	96
21) Methylene Chloride	3.24	84	227325	10.58	PPB	96
22) tert-Butyl Alcohol	3.45	59	51327	74.56	PPB	93
23) Acrylonitrile	3.72	53	150822	40.27	PPB	99
24) Methyl tert-Butyl Ether	3.53	73	453498	9.80	PPB	96
25) trans-1,2-Dichloroethene	3.53	96	247021	11.13	PPB	96
26) Hexane	3.84	57	920064	29.31	PPB	98
27) Diisopropyl Ether	4.30	45	1169773	18.93	PPB	99
28) 1,1-Dichloroethane	4.27	63	429543	11.26	PPB	98
29) Vinyl Acetate	4.39	86	120061	38.93	PPB	96
30) Chloroprene	4.34	53	1060703	27.93	PPB	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F013.D Vial: 33
Acq On : 22 Jan 2016 19:30 Operator: YX
Sample : MS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 19:50:22 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	tert-Butyl Ethyl Ether	4.85	59	1065082	18.68	PPB		97
32)	2,2-Dichloropropane	5.08	77	397580	11.53	PPB		93
33)	cis-1,2-Dichloroethene	5.14	96	245259	9.92	PPB		89
34)	2-Butanone	5.24	72	49846	45.78	PPB		93
35)	Ethyl Acetate	5.30	61	35367	22.52	PPB		87
36)	Propionitrile	5.43	54	34827	26.16	PPB		93
37)	Methacrylonitrile	5.57	67	139607	26.76	PPB		94
38)	Bromochloromethane	5.47	128	106304	10.46	PPB		89
40)	Chloroform	5.60	83	440239	11.18	PPB		99
42)	1,1,1-Trichloroethane	5.73	97	416298	11.20	PPB		92
44)	Carbon Tetrachloride	5.88	117	381808	11.62	PPB		95
45)	1,1-Dichloropropene	5.95	75	359441	11.08	PPB		97
46)	Isobutyl Alcohol	6.31	43	65710	242.80	PPB		93
48)	Benzene	6.21	78	939672	10.29	PPB		99
49)	1,2-Dichloroethane	6.36	62	278548	10.90	PPB		99
50)	tert-Amyl Methyl Ether	6.36	55	231166	19.84	PPB		94
51)	Trichloroethene	7.02	95	260139	10.52	PPB		94
53)	1,2-Dichloropropane	7.36	63	218267	9.71	PPB		87
54)	Dibromomethane	7.49	93	107675	9.73	PPB		90
55)	Methyl methacrylate	7.52	69	239581	23.79	PPB		93
56)	1,4-Dioxane	7.52	88	19484	342.62	PPB		60
57)	Bromodichloromethane	7.69	83	276290	10.20	PPB		99
58)	2-Nitropropane	8.06	41	82172	25.42	PPB		94
60)	cis-1,3-Dichloropropene	8.21	75	330382	9.58	PPB		98
61)	4-Methyl-2-pentanone (MIBK	8.41	58	182027	44.59	PPB		94
63)	Toluene	8.52	92	600089	10.29	PPB		98
66)	trans-1,3-Dichloropropene	8.88	75	262430	7.70	PPB		94
67)	Ethyl methacrylate	8.94	69	506330	21.25	PPB		99
68)	1,1,2-Trichloroethane	9.08	83	131123	8.15	PPB		92
69)	Tetrachloroethene	9.08	164	251774	9.74	PPB		96
70)	2-Hexanone	9.34	57	58615	35.48	PPB	#	79
71)	1,3-Dichloropropane	9.26	76	272372	7.88	PPB		98
72)	Dibromochloromethane	9.46	129	181570	7.74	PPB		98
73)	1,2-Dibromoethane (EDB)	9.59	107	145785	7.76	PPB		95
74)	1-Chlorohexane	10.07	91	358425	9.30	PPB		97
75)	Chlorobenzene	10.10	112	671056	8.59	PPB		98
76)	Ethylbenzene	10.20	106	370907	8.51	PPB		92
77)	1,1,1,2-Tetrachloroethane	10.21	131	227603	8.34	PPB		99
78)	m,p-Xylenes	10.34	106	907783	17.14	PPB		98
79)	o-Xylene	10.77	106	424834	8.14	PPB		95
80)	Styrene	10.81	103	297859m	7.45	PPB		

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F013.D Vial: 33
Acq On : 22 Jan 2016 19:30 Operator: YX
Sample : MS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 19:50:22 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

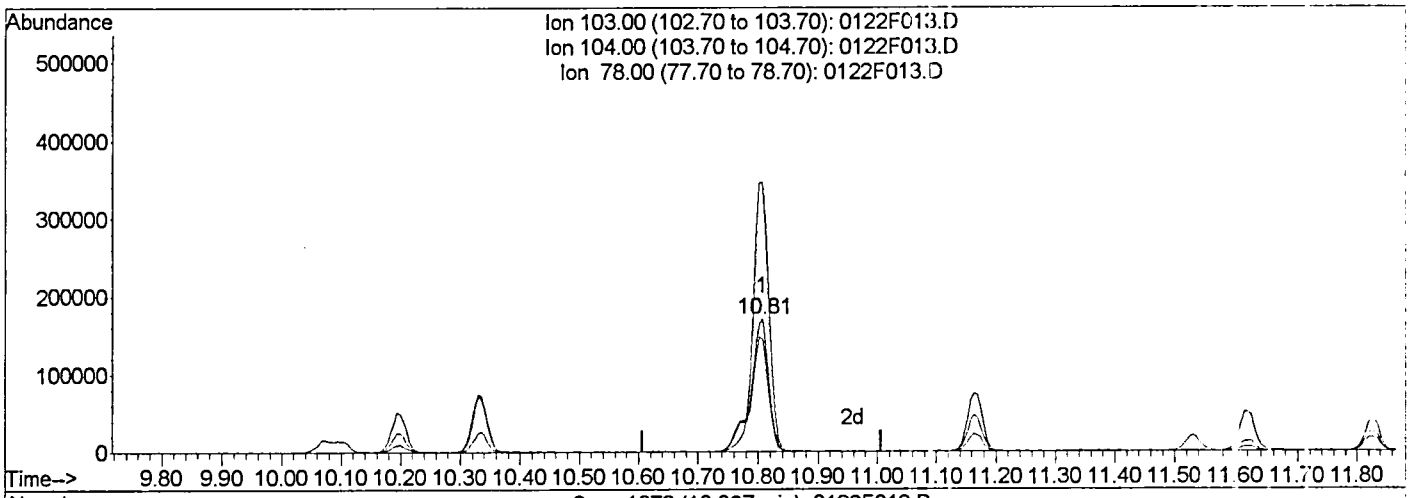
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromoform	11.03	173	97678	7.76	PPB	94
82)	Isopropylbenzene	11.16	105	1171693	8.64	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.35	89	59972	21.28	PPB	94
86)	1,1,2,2-Tetrachloroethane	11.60	83	154395	7.03	PPB	95
87)	trans-1,4-Dichloro-2-buten	11.67	53	131743	20.89	PPB	89
88)	Bromobenzene	11.53	156	285211	7.84	PPB	95
89)	n-Propylbenzene	11.62	91	1382253	8.02	PPB	99
90)	1,2,3-Trichloropropane	11.65	110	50592	6.96	PPB	99
91)	2-Chlorotoluene	11.74	91	772642	7.50	PPB	95
92)	1,3,5-Trimethylbenzene	11.82	105	947020	7.82	PPB	99
93)	4-Chlorotoluene	11.87	91	835135	7.81	PPB	98
94)	tert-Butylbenzene	12.17	119	843912	7.87	PPB	98
95)	1,2,4-Trimethylbenzene	12.24	105	950775	7.94	PPB	99
96)	sec-Butylbenzene	12.41	105	1219653	8.02	PPB	98
97)	p-Isopropyltoluene	12.57	119	1064214	8.40	PPB	98
98)	1,3-Dichlorobenzene	12.57	146	562580	7.94	PPB	98
99)	1,4-Dichlorobenzene	12.67	146	558786	7.84	PPB	96
100)	n-Butylbenzene	13.02	91	896715	7.92	PPB	99
101)	1,2-Dichlorobenzene	13.09	146	484859	7.86	PPB	96
102)	1,2-Dibromo-3-chloropropan	13.98	155	20485	6.64	PPB	86
103)	1,3,5-Trichlorobenzene	14.14	180	387183	8.54	PPB	97
104)	1,2,4-Trichlorobenzene	14.85	180	285631	7.44	PPB	94
105)	Hexachlorobutadiene	14.98	225	145741	8.52	PPB	92
106)	Naphthalene	15.14	128	411783	6.54	PPB	98
107)	1,2,3-Trichlorobenzene	15.40	180	219647	7.34	PPB	95

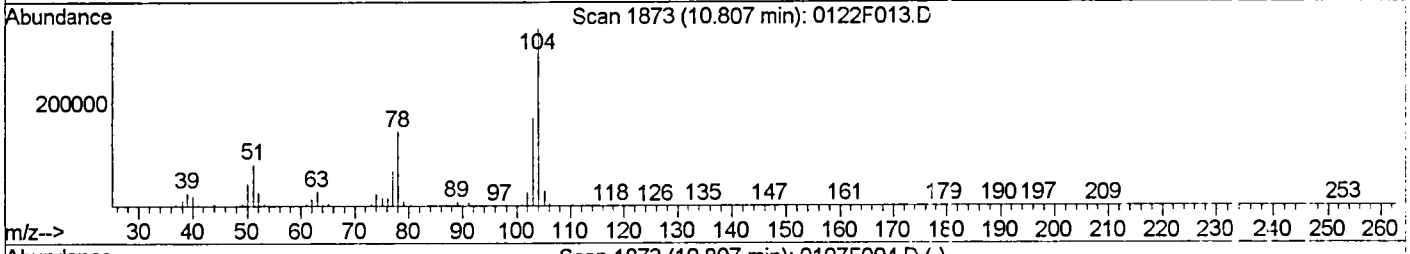
(#) = qualifier out of range (m) = manual integration

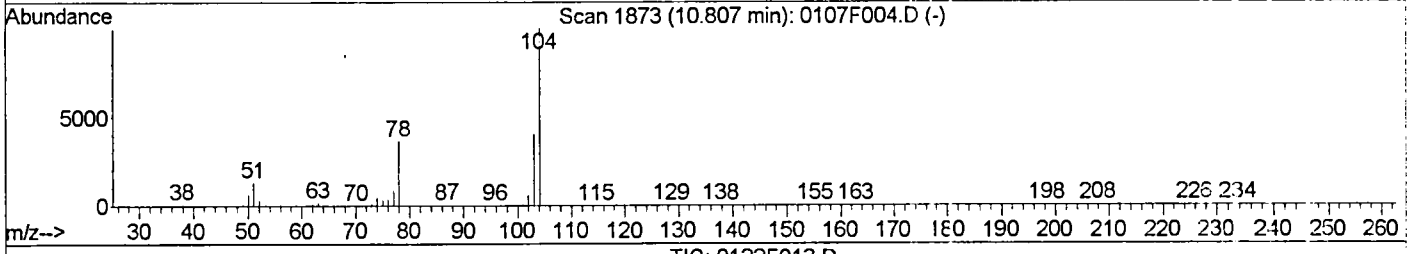
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F013.D Vial: 33
Acq On : 22 Jan 2016 19:30 Operator: YX
Sample : MS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:47 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F013.D

(80) Styrene (T)

10.81min 8.88PPB

response 355294

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	203.38
78.00	90.40	84.62
0.00	0.00	0.00

Manual Integration:

Before

01/25/16

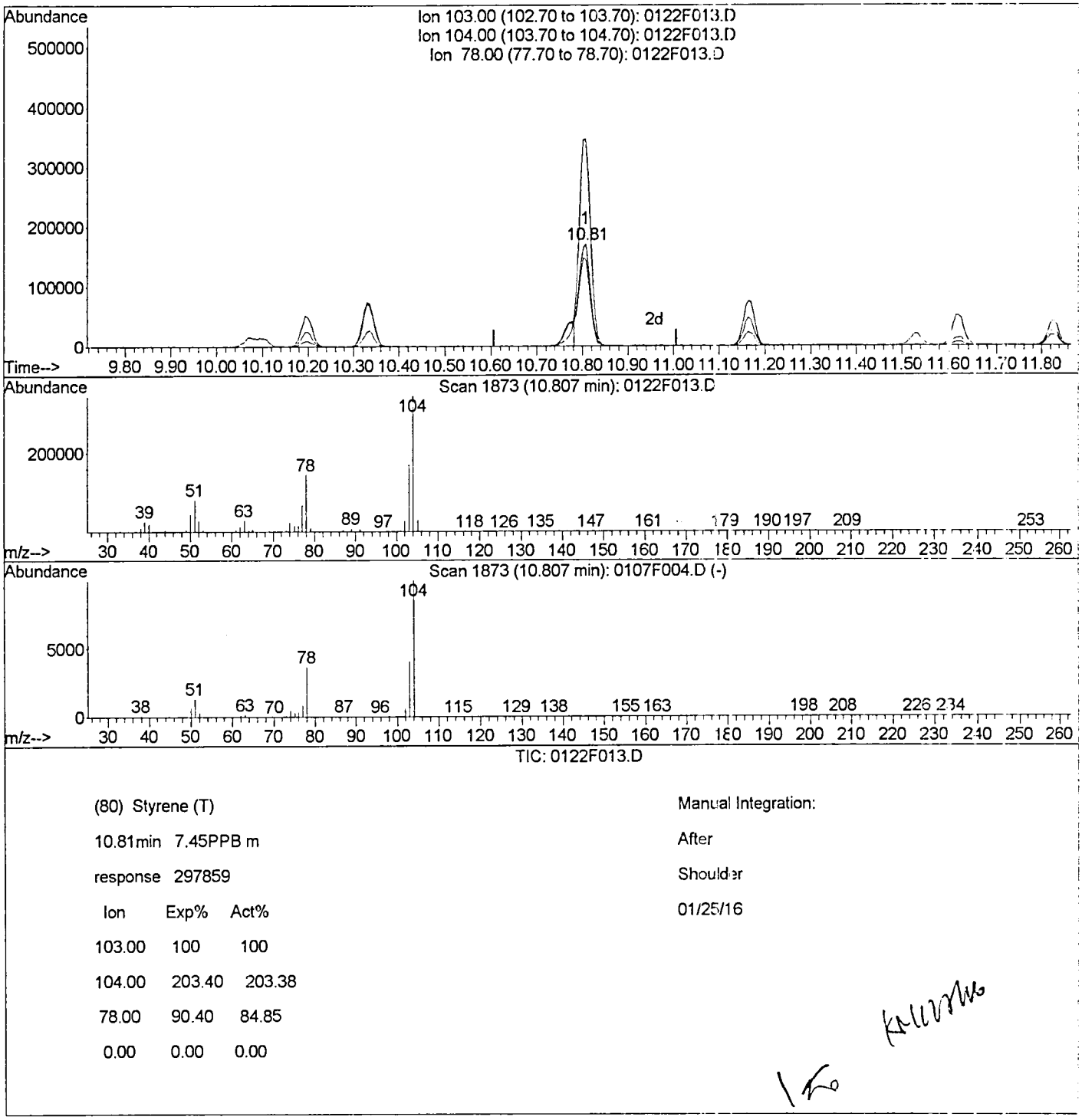
0122F013.D 010516MS46_8260.M Mon Jan 25 14:47:21 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F013.D
Acq On : 22 Jan 2016 19:30
Sample : MS K1600673-004
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 25 14:47 2016

Vial: 33
Operator: YX
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F013.D

(80) Styrene (T)
10.81min 7.45PPB m
response 297859

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	203.38
78.00	90.40	84.85
0.00	0.00	0.00

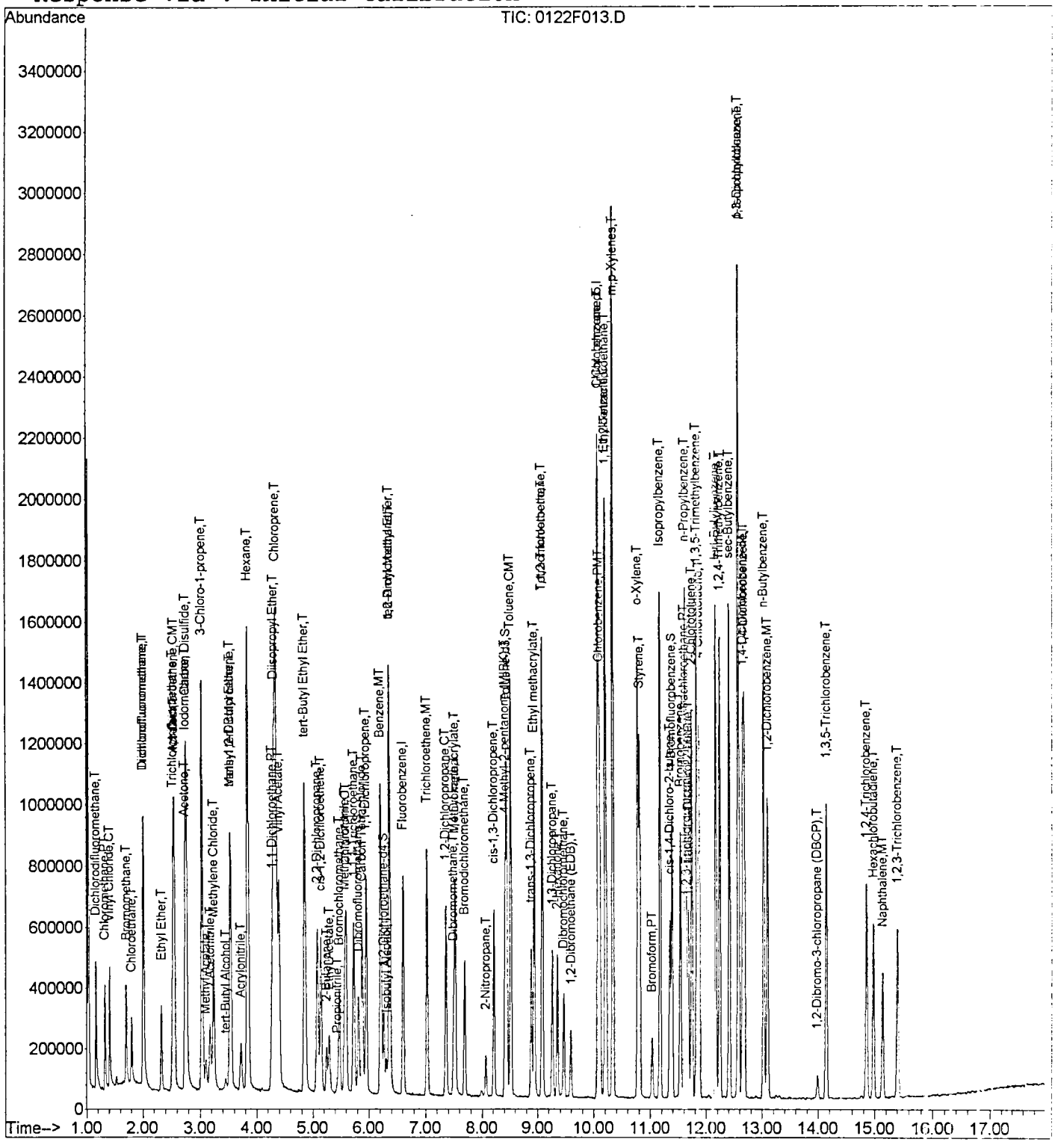
Manual Integration:
After
Shoulder
01/25/16

0122F013.D 010516MS46_8260.M Mon Jan 25 14:47:26 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F013.D Vial: 33
Acq On : 22 Jan 2016 19:30 Operator: YX
Sample : MS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:47 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



0122F013.D 010516MS46_8260.M Mon Jan 25 15:50:48 2016 Page 4

Exception Report

Data File: J:\MS46\DATA\012216\0122F014.D
Lab ID: KWG1600614-2 -- K1600673-004DMS
RunType: DMS
Matrix: WATER

Date Acquired: 01/22/2016 19:56
Date Quantitated: 01/25/2016 14:49
Batch ID: KWG1600615
Analysis Method: 8260C
MethodJoinID: MJ1465

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0048	0.01	NA	NT
	Acetonitrile	0.0082	0.01	NA	
	Isobutyl Alcohol	0.0041	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,3-Butadiene	-25.9	NA	20	
	Acrolein	49.9	NA	20	
	1,4-Dioxane	-22.6	NA	20	
Continuing Calibration Recovery	Bromomethane	22.6	NA	20	Vinyl chloride CCV OK
	Acrolein	25.5	NA	20	NT
	2-Propanol	-26.5	NA	20	
	1,4-Dioxane	-27.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0035	0.01	NA	

Primary Review: VKO 1/25/16

Secondary Review: KMW 1/26

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	Acetonitrile	0.0034	0.01	NA	NT
	Isobutyl Alcohol	0.0034	0.01	NA	|
	1,4-Dioxane	0.0006	0.01	NA	|
Continuing Calibration Recovery (Closing)	Acrolein	60.2	NA	50	—

Primary Review: 1/25/16

Secondary Review:

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F014.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 19:56	**Quant Date:**	01/25/2016 14:49	**Vial:**	33
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600614-2 -- K1600673-004DMS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495764	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8			**Calibration ID:**	CAL14525
Title:					
Tune Ref:	J:\MS46\DATA\012216\0122F010.D			**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.D			**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.61	0.01	96	651125	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	327409	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	358886	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	5.82	0.01	0.00	113	185290	10.02	100	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	196529	10.27	103	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	719678	10.05	101	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	302452	8.97	90	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	1.15		0.00	85	298695	11.51	11.5		
1	Chloromethane	1.32		0.00	50	268546	10.76	10.8		
1	Vinyl Chloride	1.41	0.01	0.00	62	256312	11.44	11.4		
1	1,3-Butadiene				54	0a		0.075	U	
1	Bromomethane	1.70	-0.01	0.00	96	153768	12.18	12.2		
1	Chloroethane	1.80		0.00	64	154818	12.68	12.7		
1	Dichlorofluoromethane (CFC 21)	2.01		0.00	67	423305	11.27	11.3		
1	Trichlorofluoromethane	2.00		0.00	101	392014	10.46	10.5		
1	Diethyl Ether	2.32		0.00	59	136339	9.88	9.88		
1	Acrolein	2.54		0.00	56	209600	168.25	168		
1	Trichlorotrifluoroethane	2.53	0.01	0.00	151	212794	10.91	10.9		
1	1,1-Dichloroethene	2.55		0.00	96	218847	11.34	11.3		
1	Acetone	2.73		0.00	43	132271	51.99	52.0		
1	Iodomethane	2.74		0.00	142	802788	32.68	32.7		

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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:\MS46\DATA\012216\0122F014.D		**Instrument:** GCMS46
Acqu Date:	01/22/2016 19:56	**Quant Date:** 01/25/2016 14:49	**Vial:** 33
Run Type:	DMS		**Dilution:** 1.0
Lab ID:	KWG1600614-2 -- K1600673-004DMS		**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	2.76		0.00	76	1048161	18.62	18.6		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	3.03		0.00	76	309361	26.55	26.6		
1	Methyl Acetate	3.10		0.00	43	126981	13.78	13.8		
1	Acetonitrile	3.17		0.00	40	167542	313.86	314		
1	Methylene Chloride	3.24	0.01	0.00	84	221370	10.33	10.3		
1	tert-Butyl Alcohol	3.47	0.02	0.00	59	67946	99.00	99.0		
1	Acrylonitrile	3.72		0.00	53	158999	42.58	42.6		
1	Methyl tert-Butyl Ether	3.53		0.00	73	474257	10.28	10.3		
1	trans-1,2-Dichloroethene	3.54		0.00	96	231362	10.46	10.5		
1	n-Hexane	3.84	0.01	0.00	57	887285	28.35	28.4		
1	Diisopropyl Ether	4.31	0.01	0.00	45	1156488	18.77	18.8		
1	1,1-Dichloroethane	4.27		0.00	63	409390	10.77	10.8		
1	Vinyl Acetate	4.39		0.00	86	125030	40.67	40.7		
1	Chloroprene	4.34		0.00	53	1007298	26.60	26.6		
1	tert-Butyl Ethyl Ether	4.85		0.00	59	1084349	19.07	19.1		
1	2,2-Dichloropropane	5.08		0.00	77	371952	10.82	10.8		
1	cis-1,2-Dichloroethene	5.14		0.00	96	241937	9.82	9.82		
1	2-Butanone (MEK)	5.24		0.00	72	52678	48.53	48.5		
1	Ethyl Acetate	5.29	-0.01	0.00	61	36023	23.00	23.0		
1	Propionitrile	5.44	0.01	0.00	54	40112	30.23	30.2		
1	Methacrylonitrile	5.57	0.01	0.00	67	149263	28.70	28.7		
1	Bromochloromethane	5.47		0.00	128	105911	10.45	10.5		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.60		0.00	83	427514	10.89	10.9		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.73		0.00	97	394345	10.64	10.6		
1	Carbon Tetrachloride	5.88		0.00	117	356583	10.89	10.9		
1	1,1-Dichloropropene	5.95		0.00	75	338449	10.47	10.5		
1	Isobutyl Alcohol	6.31	0.01	0.00	43	76074	281.95	282		
1	Benzene	6.21	0.01	0.00	78	883281	9.70	9.70		
1	1,2-Dichloroethane (EDC)	6.36		0.00	62	277959	10.91	10.9		
1	tert-Amyl Methyl Ether	6.37	0.01	0.00	55	229577	19.76	19.8		
1	Trichloroethene (TCE)	7.03		0.00	95	250904	10.18	10.2		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.36		0.00	63	213046	9.50	9.50		
1	Dibromomethane	7.49		0.00	93	113682	10.31	10.3		
1	Methyl Methacrylate	7.52		0.00	69	268566	26.75	26.8		
1	1,4-Dioxane	7.53	-0.01	0.00	88	26953	469.47	469		
1	Bromodichloromethane	7.69		0.00	83	276249	10.23	10.2		
1	2-Nitropropane	8.06	-0.01	0.00	41	87756	27.23	27.2		
1	2-Chloroethyl Vinyl Ether				63	0d		0.16	U	

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?: Insufficient information to determine acceptance
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Data File:	J:\MS46\DATA\012216\0122F014.D		**Instrument:** GCMS46
Acqu Date:	01/22/2016 19:56	**Quant Date:** 01/25/2016 14:49	**Vial:** 33
Run Type:	DMS		**Dilution:** 1.0
Lab ID:	KWG1600614-2 -- K1600673-004DMS		**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	cis-1,3-Dichloropropene	8.21		0.00	75	327821	9.53	9.53		
1	4-Methyl-2-pentanone (MIBK)	8.41		0.00	58	199483	49.02	49.0		
1	Toluene	8.52	0.01	0.00	92	582938	10.02	10.0		
2	trans-1,3-Dichloropropene	8.88		0.00	75	259363	7.66	7.66		
2	Ethyl Methacrylate	8.94		0.00	69	544389	22.99	23.0		
2	1,1,2-Trichloroethane	9.08	0.01	0.00	83	135505	8.48	8.48		
2	Tetrachloroethene (PCE)	9.08		0.00	164	247419	9.63	9.63		
2	2-Hexanone	9.35	0.01	0.00	57	64005	38.98	39.0		
2	1,3-Dichloropropane	9.26		0.00	76	280689	8.17	8.17		
2	Dibromochloromethane	9.46		0.00	129	183045	7.85	7.85		
2	1,2-Dibromoethane (EDB)	9.59		0.00	107	155573	8.33	8.33		
2	1-Chlorohexane	10.07		0.00	91	344079	8.99	8.99		
2	Chlorobenzene	10.10		0.00	112	657172	8.46	8.46		
2	Ethylbenzene	10.20		0.00	106	354626	8.18	8.18		
2	1,1,1,2-Tetrachloroethane	10.21		0.00	131	224130	8.26	8.26		
2	m,p-Xylenes	10.34	0.01	0.00	106	867896	16.49	16.5		
2	o-Xylene	10.77		0.00	106	413910	7.98	7.98		
2	Styrene	10.80	-0.01	0.00	103	286053m	7.20	7.20		
2	Bromoform	11.03		0.00	173	98852	7.90	7.90		
2	Isopropylbenzene	11.17	0.01	0.00	105	1125914	8.35	8.35		
2	cis-1,4-Dichloro-2-butene	11.35		0.00	89	65467	23.38	23.4		
3	1,1,2,2-Tetrachloroethane	11.59	-0.01	0.00	83	161370	7.13	7.13		
3	trans-1,4-Dichloro-2-butene	11.67		0.00	53	138349	21.29	21.3		
3	Bromobenzene	11.53		0.00	156	280410	7.48	7.48		
3	n-Propylbenzene	11.62		0.00	91	1342236	7.55	7.55		
3	1,2,3-Trichloropropane	11.65		0.00	110	56412	7.53	7.53		
3	2-Chlorotoluene	11.74		0.00	91	748553	7.05	7.05		
3	1,3,5-Trimethylbenzene	11.82		0.00	105	918861	7.36	7.36		
3	4-Chlorotoluene	11.87		0.00	91	789054	7.17	7.17		
3	tert-Butylbenzene	12.16	-0.01	0.00	119	830833	7.52	7.52		
3	1,2,4-Trimethylbenzene	12.24		0.00	105	929280	7.53	7.53		
3	sec-Butylbenzene	12.41		0.00	105	1215514	7.75	7.75		
3	4-Isopropyltoluene	12.57		0.00	119	1054440	8.08	8.08		
3	1,3-Dichlorobenzene	12.57		0.00	146	556343	7.62	7.62		
3	1,4-Dichlorobenzene	12.67	-0.01	0.00	146	552703	7.52	7.52		
3	n-Butylbenzene	13.02	-0.01	0.00	91	905105	7.76	7.76		
3	1,2-Dichlorobenzene	13.09		0.00	146	492524	7.75	7.75		
3	1,2-Dibromo-3-chloropropane	13.99	0.01	0.00	155	21396	6.73	6.73		
3	1,3,5-Trichlorobenzene	14.14		0.00	180	399835	8.55	8.55		
3	1,2,4-Trichlorobenzene	14.85		0.00	180	312212	7.89	7.89		
3	Hexachlorobutadiene	14.98		0.00	225	148160	8.41	8.41		
3	Naphthalene	15.14		0.00	128	457349	7.05	7.05		

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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:\MS46\DATA\012216\0122F014.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 19:56	**Quant Date:**	01/25/2016 14:49	**Vial:**	33
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600614-2 -- K1600673-004DMS			**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	1,2,3-Trichlorobenzene	15.40		0.00	180	245620	7.97	7.97		

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
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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:\MS46\DATA\012216\0122F014.D Vial: 33
Acq On : 22 Jan 2016 19:56 Operator: YX
Sample : DMS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 20:39:19 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	651125	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	327409	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	358886	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	185290	10.02	PPB	0.00
Spiked Amount 10.000			Recovery = 100.20%			
47) 1,2-Dichloroethane-d4	6.26	65	196529	10.27	PPB	0.00
Spiked Amount 10.000			Recovery = 102.70%			
62) Toluene-d8	8.44	98	719678	10.05	PPB	0.00
Spiked Amount 10.000			Recovery = 100.50%			
84) 4-Bromofluorobenzene	11.38	95	302452	8.97	PPB	0.00
Spiked Amount 10.000			Recovery = 89.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.15	85	298695	11.51	PPB	95
3) Chloromethane	1.32	50	268546	10.76	PPB	97
4) Vinyl Chloride	1.41	62	256312	11.44	PPB	96
6) Bromomethane	1.70	96	153768	12.18	PPB	96
7) Chloroethane	1.80	64	154818	12.68	PPB	97
8) Dichlorofluoromethane	2.01	67	423305	11.27	PPB	97
9) Trichlorofluoromethane	2.00	101	392014	10.46	PPB	96
10) Ethyl Ether	2.32	59	136339	9.88	PPB	96
11) Acrolein	2.54	56	209600	168.25	PPB	99
12) Trichlorotrifluoroethane	2.53	151	212794	10.91	PPB	89
13) 1,1-Dichloroethene	2.55	96	218847	11.34	PPB	92
14) Acetone	2.73	43	132271	51.99	PPB	90
15) Iodomethane	2.74	142	802788	32.68	PPB	99
16) Carbon Disulfide	2.76	76	1048161	18.62	PPB	99
18) 3-Chloro-1-propene	3.03	76	309361	26.55	PPB	98
19) Methyl Acetate	3.10	43	126981	13.78	PPB	98
20) Acetonitrile	3.17	40	167542	313.86	PPB	99
21) Methylene Chloride	3.24	84	221370	10.33	PPB	98
22) tert-Butyl Alcohol	3.47	59	67946	99.00	PPB	92
23) Acrylonitrile	3.72	53	158999	42.58	PPB	93
24) Methyl tert-Butyl Ether	3.53	73	474257	10.28	PPB	96
25) trans-1,2-Dichloroethene	3.54	96	231362	10.46	PPB	95
26) Hexane	3.84	57	887285	28.35	PPB	97
27) Diisopropyl Ether	4.31	45	1156488	18.77	PPB	98
28) 1,1-Dichloroethane	4.27	63	409390	10.77	PPB	98
29) Vinyl Acetate	4.39	86	125030	40.67	PPB	97
30) Chloroprene	4.34	53	1007298	26.60	PPB	98

(#) = qualifier out of range (m) = manual integration
0122F014.D 010516MS46_8260.M Mon Jan 25 15:50:49 2016 Page 1

Data File : J:\MS46\DATA\012216\0122F014.D Vial: 33
Acq On : 22 Jan 2016 19:56 Operator: YX
Sample : DMS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 20:39:19 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31)	tert-Butyl Ethyl Ether	4.85	59	1084349	19.07	PPB	97
32)	2,2-Dichloropropane	5.08	77	371952	10.82	PPB	98
33)	cis-1,2-Dichloroethene	5.14	96	241937	9.82	PPB	98
34)	2-Butanone	5.24	72	52678	48.53	PPB	92
35)	Ethyl Acetate	5.29	61	36023	23.00	PPB	95
36)	Propionitrile	5.44	54	40112	30.23	PPB	91
37)	Methacrylonitrile	5.57	67	149263	28.70	PPB	95
38)	Bromochloromethane	5.47	128	105911	10.45	PPB	91
40)	Chloroform	5.60	83	427514	10.89	PPB	97
42)	1,1,1-Trichloroethane	5.73	97	394345	10.64	PPB	97
44)	Carbon Tetrachloride	5.88	117	356583	10.89	PPB	100
45)	1,1-Dichloropropene	5.95	75	338449	10.47	PPB	97
46)	Isobutyl Alcohol	6.31	43	76074	281.95	PPB	96
48)	Benzene	6.21	78	883281	9.70	PPB	100
49)	1,2-Dichloroethane	6.36	62	277959	10.91	PPB	97
50)	tert-Amyl Methyl Ether	6.37	55	229577	19.76	PPB	96
51)	Trichloroethene	7.03	95	250904	10.18	PPB	93
53)	1,2-Dichloropropane	7.36	63	213046	9.50	PPB	90
54)	Dibromomethane	7.49	93	113682	10.31	PPB	94
55)	Methyl methacrylate	7.52	69	268566	26.75	PPB	96
56)	1,4-Dioxane	7.53	88	26953	469.47	PPB	56
57)	Bromodichloromethane	7.69	83	276249	10.23	PPB	100
58)	2-Nitropropane	8.06	41	87756	27.23	PPB	90
60)	cis-1,3-Dichloropropene	8.21	75	327821	9.53	PPB	99
61)	4-Methyl-2-pentanone (MIBK	8.41	58	199483	49.02	PPB	90
63)	Toluene	8.52	92	582938	10.02	PPB	95
66)	trans-1,3-Dichloropropene	8.88	75	259363	7.66	PPB	94
67)	Ethyl methacrylate	8.94	69	544389	22.99	PPB	98
68)	1,1,2-Trichloroethane	9.08	83	135505	8.48	PPB	98
69)	Tetrachloroethene	9.08	164	247419	9.63	PPB	97
70)	2-Hexanone	9.35	57	64005	38.98	PPB	91
71)	1,3-Dichloropropane	9.26	76	280689	8.17	PPB	98
72)	Dibromochloromethane	9.46	129	183045	7.85	PPB	98
73)	1,2-Dibromoethane (EDB)	9.59	107	155573	8.33	PPB	98
74)	1-Chlorohexane	10.07	91	344079	8.99	PPB	96
75)	Chlorobenzene	10.10	112	657172	8.46	PPB	99
76)	Ethylbenzene	10.20	106	354626	8.18	PPB	98
77)	1,1,1,2-Tetrachloroethane	10.21	131	224130	8.26	PPB	97
78)	m,p-Xylenes	10.34	106	867896	16.49	PPB	99
79)	o-Xylene	10.77	106	413910	7.98	PPB	99
80)	Styrene	10.80	103	286053m	7.20	PPB	

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F014.D Vial: 33
Acq On : 22 Jan 2016 19:56 Operator: YX
Sample : DMS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 20:39:19 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromoform	11.03	173	98852	7.90	PPB	94
82)	Isopropylbenzene	11.17	105	1125914	8.35	PPB	98
83)	cis-1,4-Dichloro-2-butene	11.35	89	65467	23.38	PPB	96
86)	1,1,2,2-Tetrachloroethane	11.59	83	161370	7.13	PPB	96
87)	trans-1,4-Dichloro-2-buten	11.67	53	138349	21.29	PPB	76
88)	Bromobenzene	11.53	156	280410	7.48	PPB	91
89)	n-Propylbenzene	11.62	91	1342236	7.55	PPB	100
90)	1,2,3-Trichloropropane	11.65	110	56412	7.53	PPB	85
91)	2-Chlorotoluene	11.74	91	748553	7.05	PPB	97
92)	1,3,5-Trimethylbenzene	11.82	105	918861	7.36	PPB	98
93)	4-Chlorotoluene	11.87	91	789054	7.17	PPB	95
94)	tert-Butylbenzene	12.16	119	830833	7.52	PPB	99
95)	1,2,4-Trimethylbenzene	12.24	105	929280	7.53	PPB	98
96)	sec-Butylbenzene	12.41	105	1215514	7.75	PPB	99
97)	p-Isopropyltoluene	12.57	119	1054440	8.08	PPB	96
98)	1,3-Dichlorobenzene	12.57	146	556343	7.62	PPB	98
99)	1,4-Dichlorobenzene	12.67	146	552703	7.52	PPB	95
100)	n-Butylbenzene	13.02	91	905106	7.76	PPB	98
101)	1,2-Dichlorobenzene	13.09	146	492524	7.75	PPB	95
102)	1,2-Dibromo-3-chloropropan	13.99	155	21396	6.73	PPB	95
103)	1,3,5-Trichlorobenzene	14.14	180	399835	8.55	PPB	97
104)	1,2,4-Trichlorobenzene	14.85	180	312212	7.89	PPB	97
105)	Hexachlorobutadiene	14.98	225	148160	8.41	PPB	95
106)	Naphthalene	15.14	128	457349	7.05	PPB	99
107)	1,2,3-Trichlorobenzene	15.40	180	245620	7.97	PPB	96

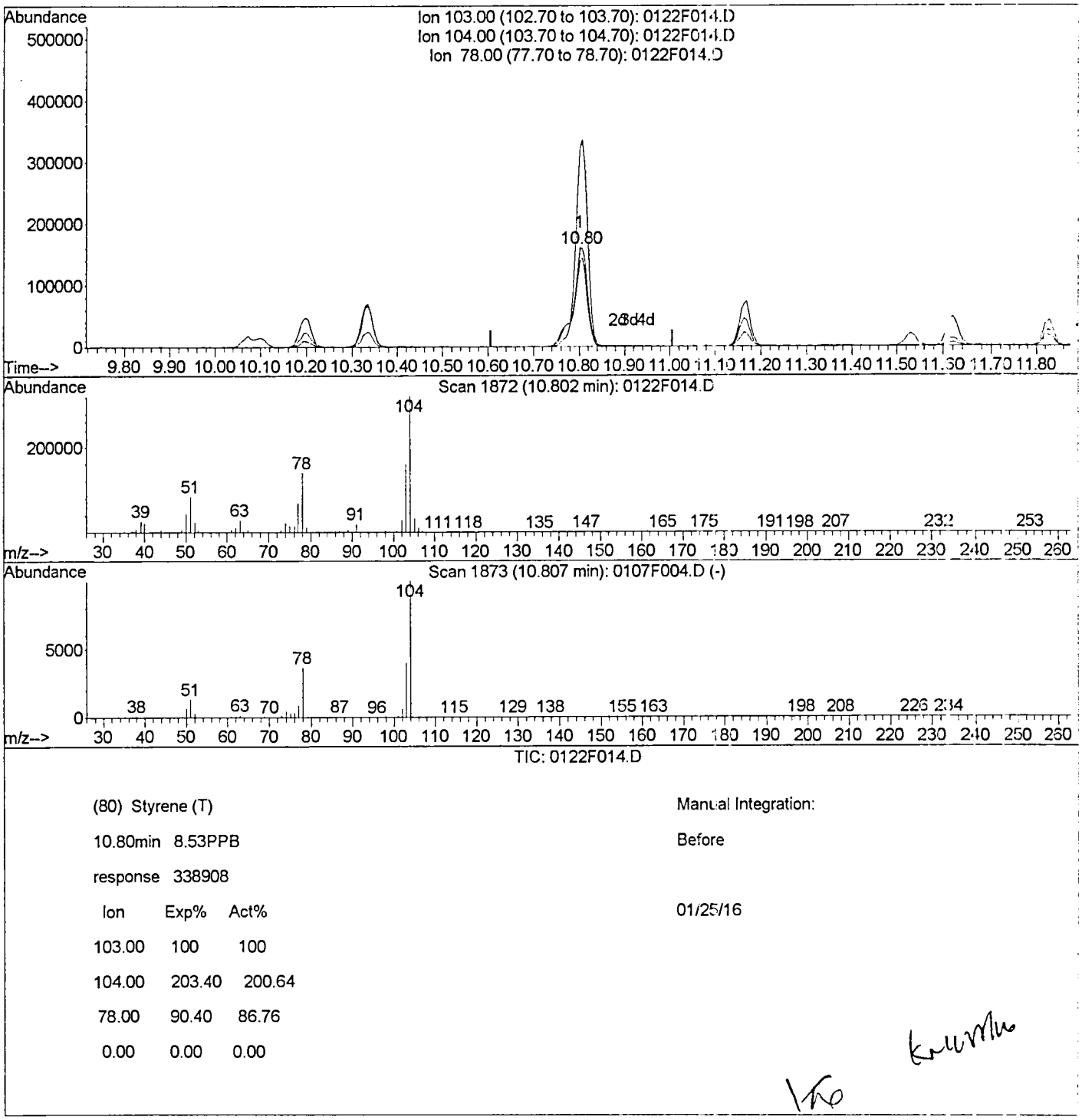
(#) = qualifier out of range (m) = manual integration
0122F014.D 010516MS46_8260.M Mon Jan 25 15:50:49 2016 Page 3

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F014.D
Acq On : 22 Jan 2016 19:56
Sample : DMS K1600673-004
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 25 14:48 2016

Vial: 33
Operator: YX
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F014.D

(80) Styrene (T)
10.80min 8.53PPB
response 338908

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	200.64
78.00	90.40	86.76
0.00	0.00	0.00

Manual Integration:
Before

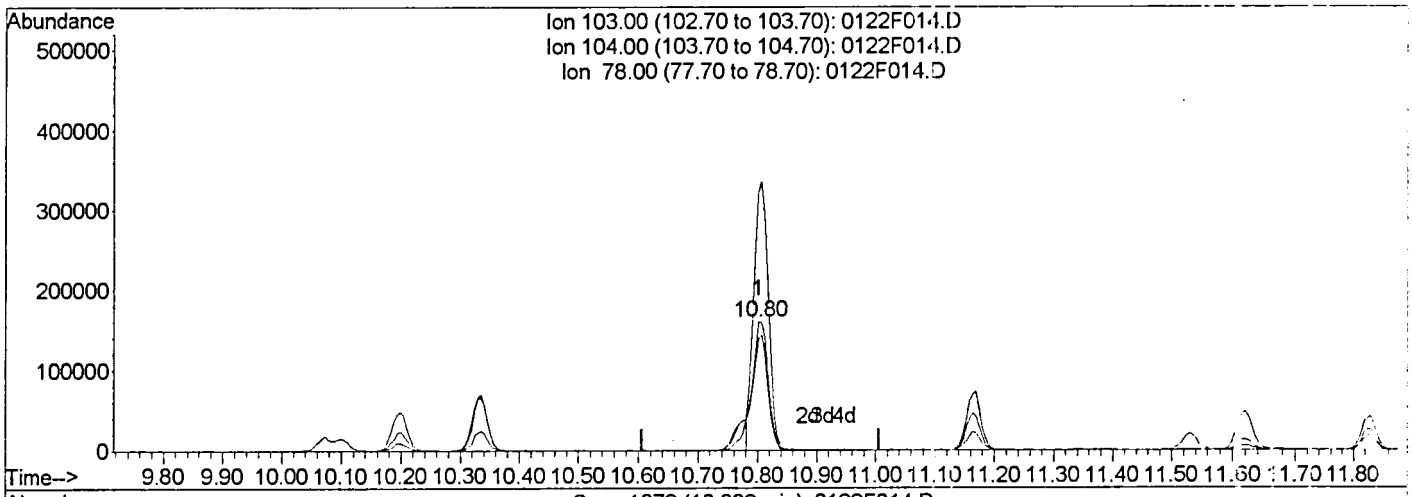
01/25/16

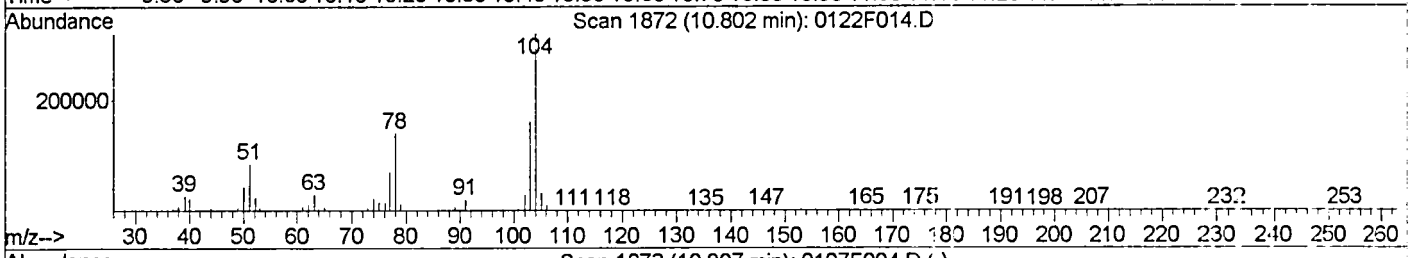
0122F014.D 010516MS46_8260.M Mon Jan 25 14:49:12 2016

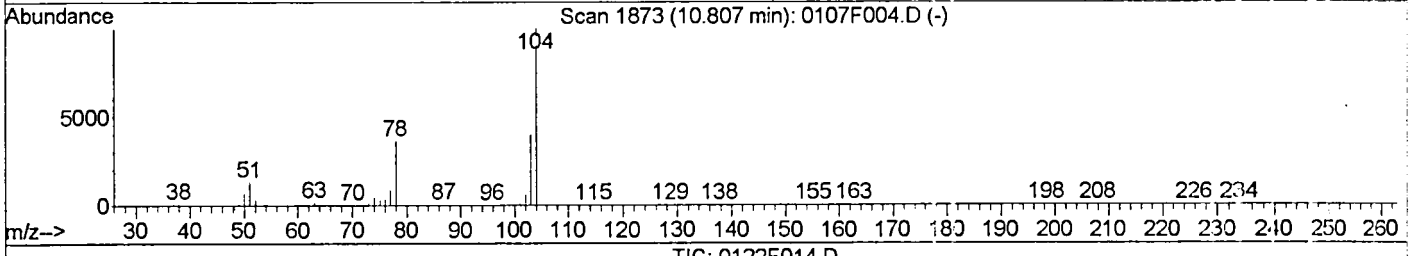
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F014.D Vial: 33
Acq On : 22 Jan 2016 19:56 Operator: YX
Sample : DMS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:49 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F014.D

(80) Styrene (T)
10.80min 7.20PPB m
response 286053

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	200.64
78.00	90.40	86.87
0.00	0.00	0.00

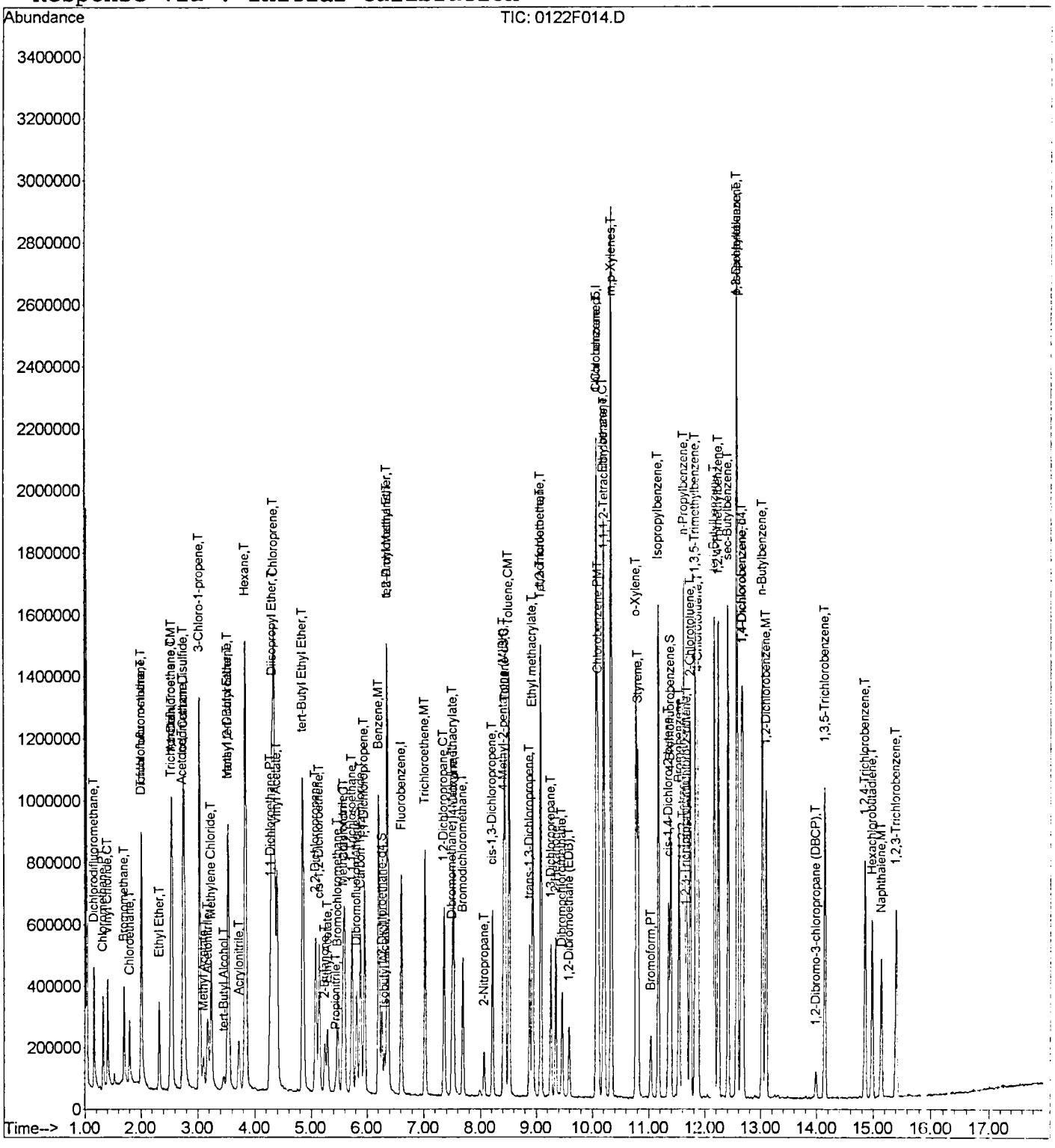
Manual Integration:
After
Shoulder
01/25/16

0122F014.D 010516MS46_8260.M Mon Jan 25 14:49:18 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F014.D Vial: 33
Acq On : 22 Jan 2016 19:56 Operator: YX
Sample : DMS K1600673-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:49 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS46\DATA\012216\0122F012.D
Lab ID: KWG1600614-3
RunType: LCS
Matrix: WATER

Date Acquired: 01/22/2016 18:53
Date Quantitated: 01/25/2016 14:46
Batch ID: KWG1600615
Analysis Method: 8260C
MethodJoinID: MJ1465

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0048	0.01	NA	NT
	Acetonitrile	0.0082	0.01	NA	
	Isobutyl Alcohol	0.0041	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,3-Butadiene	-25.9	NA	20	
	Acrolein	49.9	NA	20	
	1,4-Dioxane	-22.6	NA	20	
Continuing Calibration Recovery	Bromomethane	22.6	NA	20	CCV OK
	Acrolein	25.5	NA	20	NT
	2-Propanol	-26.5	NA	20	
	1,4-Dioxane	-27.7	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0035	0.01	NA	

Primary Review: VKO 1/25/16

Secondary Review: KA 1/27/16

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	Acetonitrile	0.0084	0.01	NA	KT
	Isobutyl Alcohol	0.0034	0.01	NA	"
	1,4-Dioxane	0.0006	0.01	NA	"
Continuing Calibration Recovery (Closing)	Acrolein	60.2	NA	50	"

Primary Review: VRO 1/25/16

Secondary Review: KA 1/27/16

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F012.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:53	**Quant Date:**	01/25/2016 14:46	**Vial:**	32
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600614-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**	KWG1600614	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1495765	**Prep Date:**	01/22/2016		

Quant Method:	J:\MS46\METHODS\010516MS46_8	**Calibration ID:**	CAL14525
Title:			
Tune Ref:	J:\MS46\DATA\012216\0122F010.D	**Method ID:**	MJ1465
MB Ref:	J:\MS46\DATA\012216\0122F016.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.60	0.00	96	615936	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	258516	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	0.00	152	271283	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	5.82	0.01	0.00	113	183665	10.50	105	80-119	OK	
1	1,2-Dichloroethane-d4	6.26	0.00	0.00	65	192468	10.64	106	81-118	OK	
1	Toluene-d8	8.44	0.00	0.00	98	676212	9.98	100	89-112	OK	
2	4-Bromofluorobenzene	11.38	0.00	0.00	95	253917	9.54	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	Dichlorodifluoromethane	1.15		0.00	85	269424	10.98	11.0		
1	Chloromethane	1.32		0.00	50	255893	10.84	10.8		
1	Vinyl Chloride	1.41	0.01	0.00	62	236659	11.17	11.2		
1	1,3-Butadiene	1.43		0.00	54	1438	0.0900	0.090	J	
1	Bromomethane	1.71		0.00	96	149578	12.52	12.5		
1	Chloroethane	1.80		0.00	64	146709	12.70	12.7		
1	Dichlorofluoromethane (CFC 21	2.01		0.00	67	398946	11.23	11.2		
1	Trichlorofluoromethane	2.00		0.00	101	352333	9.93	9.9		
1	Diethyl Ether	2.32		0.00	59	125040	9.58	9.58		
1	Acrolein	2.54		0.00	56	188910	160.31	160		
1	Trichlorotrifluoroethane	2.53	0.01	0.00	151	191293	10.37	10.4		
1	1,1-Dichloroethene	2.55		0.00	96	196012	10.74	10.7		
1	Acetone	2.73		0.00	43	123694	51.40	51.4		
1	Iodomethane	2.74		0.00	142	824953	35.50	35.5		

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:\MS46\DATA\012216\0122F012.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:53	**Quant Date:**	01/25/2016 14:46	**Vial:**	32
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600614-3			**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	2.76		0.00	76	986312	18.52	18.5		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	3.03		0.00	76	312891	28.39	28.4		
1	Methyl Acetate	3.10		0.00	43	118982	13.65	13.7		
1	Acetonitrile	3.17		0.00	40	151646	300.31	300		
1	Methylene Chloride	3.24	0.01	0.00	84	211196	10.42	10.4		
1	tert-Butyl Alcohol	3.46	0.01	0.00	59	54300	83.63	83.6		
1	Acrylonitrile	3.72		0.00	53	142636	40.38	40.4		
1	Methyl tert-Butyl Ether	3.53		0.00	73	430042	9.85	9.85		
1	trans-1,2-Dichloroethene	3.54		0.00	96	213480	10.20	10.2		
1	n-Hexane	3.84	0.01	0.00	57	859422	29.03	29.0		
1	Diisopropyl Ether	4.30		0.00	45	1083279	18.59	18.6		
1	1,1-Dichloroethane	4.27		0.00	63	394311	10.96	11.0		
1	Vinyl Acetate	4.39		0.00	86	121313	41.71	41.7		
1	Chloroprene	4.34		0.00	53	1022885	28.56	28.6		
1	tert-Butyl Ethyl Ether	4.85		0.00	59	1020680	18.98	19.0		
1	2,2-Dichloropropane	5.08		0.00	77	361304	11.11	11.1		
1	cis-1,2-Dichloroethene	5.14		0.00	96	226687	9.72	9.72		
1	2-Butanone (MEK)	5.24		0.00	72	46412	45.20	45.2		
1	Ethyl Acetate	5.30		0.00	61	33179	22.40	22.4		
1	Propionitrile	5.43		0.00	54	37099	29.55	29.6		
1	Methacrylonitrile	5.57	0.01	0.00	67	145529	29.58	29.6		
1	Bromochloromethane	5.47		0.00	128	100173	10.45	10.5		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.60		0.00	83	402441	10.83	10.8		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.73		0.00	97	366161	10.44	10.4		
1	Carbon Tetrachloride	5.88		0.00	117	328512	10.60	10.6		
1	1,1-Dichloropropene	5.95		0.00	75	311994	10.20	10.2		
1	Isobutyl Alcohol	6.31	0.01	0.00	43	68151	267.02	267		
1	Benzene	6.21	0.01	0.00	78	845076	9.81	9.81		
1	1,2-Dichloroethane (EDC)	6.36		0.00	62	265632	11.02	11.0		
1	tert-Amyl Methyl Ether	6.37	0.01	0.00	55	223030	20.30	20.3		
1	Trichloroethene (TCE)	7.03		0.00	95	238187	10.22	10.2		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.36		0.00	63	208081	9.81	9.81		
1	Dibromomethane	7.49		0.00	93	104822	10.05	10.1		
1	Methyl Methacrylate	7.52		0.00	69	247389	26.05	26.1		
1	1,4-Dioxane	7.52	-0.02	0.00	88	22458	415.72	416		
1	Bromodichloromethane	7.69		0.00	83	258467	10.12	10.1		
1	2-Nitropropane	8.06	-0.01	0.00	41	88442	29.01	29.0		
1	2-Chloroethyl Vinyl Ether	8.09		0.00	63	81857	8.66	8.66		

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

Data File:	J:\MS46\DATA\012216\0122F012.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:53	**Quant Date:**	01/25/2016 14:46	**Vial:**	32
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600614-3			**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	cis-1,3-Dichloropropene	8.21		0.00	75	307695	9.46	9.46		
1	4-Methyl-2-pentanone (MIBK)	8.41		0.00	58	179548	46.64	46.6		
1	Toluene	8.51		0.00	92	526552	9.57	9.57		
2	trans-1,3-Dichloropropene	8.88		0.00	75	245971	9.20	9.20		
2	Ethyl Methacrylate	8.93	-0.01	0.00	69	512583	27.42	27.4		
2	1,1,2-Trichloroethane	9.08	0.01	0.00	83	126193	10.00	10.0		
2	Tetrachloroethene (PCE)	9.08		0.00	164	220838	10.89	10.9		
2	2-Hexanone	9.35	0.01	0.00	57	56277	43.41	43.4		
2	1,3-Dichloropropane	9.26		0.00	76	263580	9.72	9.72		
2	Dibromochloromethane	9.46		0.00	129	168700	9.16	9.16		
2	1,2-Dibromoethane (EDB)	9.59		0.00	107	140491	9.53	9.53		
2	1-Chlorohexane	10.07		0.00	91	312032	10.32	10.3		
2	Chlorobenzene	10.10		0.00	112	613003	10.00	10.0		
2	Ethylbenzene	10.19	-0.01	0.00	106	329284	9.62	9.62		
2	1,1,1,2-Tetrachloroethane	10.21		0.00	131	208704	9.74	9.74		
2	m,p-Xylenes	10.34	0.01	0.00	106	812733	19.55	19.6		
2	o-Xylene	10.77		0.00	106	385496	9.41	9.41		
2	Styrene	10.80	-0.01	0.00	103	294939m	9.40	9.40		
2	Bromoform	11.03		0.00	173	90866	9.20	9.20		
2	Isopropylbenzene	11.16		0.00	105	1033515	9.71	9.71		
2	cis-1,4-Dichloro-2-butene	11.34	-0.01	0.00	89	63417	28.68	28.7		
3	1,1,2,2-Tetrachloroethane	11.59	-0.01	0.00	83	146700	8.57	8.57		
3	trans-1,4-Dichloro-2-butene	11.67		0.00	53	132654	27.01	27.0		
3	Bromobenzene	11.54	0.01	0.00	156	266833	9.42	9.42		
3	n-Propylbenzene	11.62		0.00	91	1230543	9.16	9.16		
3	1,2,3-Trichloropropane	11.65		0.00	110	49350	8.72	8.72		
3	2-Chlorotoluene	11.74		0.00	91	717080	8.94	8.94		
3	1,3,5-Trimethylbenzene	11.82		0.00	105	858366	9.09	9.09		
3	4-Chlorotoluene	11.87		0.00	91	742067	8.91	8.91		
3	tert-Butylbenzene	12.16	-0.01	0.00	119	753081	9.02	9.02		
3	1,2,4-Trimethylbenzene	12.24		0.00	105	868113	9.30	9.30		
3	sec-Butylbenzene	12.41		0.00	105	1097515	9.26	9.26		
3	4-Isopropyltoluene	12.57		0.00	119	953135	9.66	9.66		
3	1,3-Dichlorobenzene	12.57		0.00	146	528618	9.57	9.57		
3	1,4-Dichlorobenzene	12.68		0.00	146	523607	9.43	9.43		
3	n-Butylbenzene	13.02	-0.01	0.00	91	810425	9.19	9.19		
3	1,2-Dichlorobenzene	13.09		0.00	146	461822	9.61	9.61		
3	1,2-Dibromo-3-chloropropane	13.98		0.00	155	19689	8.19	8.19		
3	1,3,5-Trichlorobenzene	14.14		0.00	180	364899	10.33	10.3		
3	1,2,4-Trichlorobenzene	14.85		0.00	180	280118	9.37	9.37		
3	Hexachlorobutadiene	14.98		0.00	225	134712	10.11	10.1		
3	Naphthalene	15.14		0.00	128	401502	8.19	8.19		

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:\MS46\DATA\012216\0122F012.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:53	**Quant Date:**	01/25/2016 14:46	**Vial:**	32
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600614-3			**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	1,2,3-Trichlorobenzene	15.41	0.01	0.00	180	218553	9.38	9.38		

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:\MS46\DATA\012216\0122F012.D Vial: 32
Acq On : 22 Jan 2016 18:53 Operator: YX
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 19:12:01 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.60	96	615936	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	258516	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	271283	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.82	113	183666	10.50	PPB	0.00
Spiked Amount 10.000			Recovery =	105.00%		
47) 1,2-Dichloroethane-d4	6.26	65	192468	10.64	PPB	0.00
Spiked Amount 10.000			Recovery =	106.40%		
62) Toluene-d8	8.44	98	676212	9.98	PPB	0.00
Spiked Amount 10.000			Recovery =	99.80%		
84) 4-Bromofluorobenzene	11.38	95	253917	9.54	PPB	0.00
Spiked Amount 10.000			Recovery =	95.40%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.15	85	269424	10.98	PPB	97
3) Chloromethane	1.32	50	255898	10.84	PPB	96
4) Vinyl Chloride	1.41	62	236659	11.17	PPB	99
5) 1,3-Butadiene	1.43	54	1438	0.09	PPB	91
6) Bromomethane	1.71	96	149578	12.52	PPB	97
7) Chloroethane	1.80	64	146700	12.70	PPB	98
8) Dichlorofluoromethane	2.01	67	398946	11.23	PPB	99
9) Trichlorofluoromethane	2.00	101	352333	9.93	PPB	97
10) Ethyl Ether	2.32	59	125040	9.58	PPB	98
11) Acrolein	2.54	56	188910	160.31	PPB	97
12) Trichlorotrifluoroethane	2.53	151	191293	10.37	PPB	96
13) 1,1-Dichloroethene	2.55	96	196012	10.74	PPB	95
14) Acetone	2.73	43	123694	51.40	PPB	96
15) Iodomethane	2.74	142	824953	35.50	PPB	98
16) Carbon Disulfide	2.76	76	986312	18.52	PPB	99
18) 3-Chloro-1-propene	3.03	76	312891	28.39	PPB	97
19) Methyl Acetate	3.10	43	118982	13.65	PPB	98
20) Acetonitrile	3.17	40	151646	300.31	PPB	90
21) Methylene Chloride	3.24	84	211196	10.42	PPB	99
22) tert-Butyl Alcohol	3.46	59	54300	83.63	PPB	91
23) Acrylonitrile	3.72	53	142636	40.38	PPB	90
24) Methyl tert-Butyl Ether	3.53	73	430042	9.85	PPB	97
25) trans-1,2-Dichloroethene	3.54	96	213480	10.20	PPB	96
26) Hexane	3.84	57	859422	29.03	PPB	97
27) Diisopropyl Ether	4.30	45	1083279	18.59	PPB	98
28) 1,1-Dichloroethane	4.27	63	394311	10.96	PPB	95
29) Vinyl Acetate	4.39	86	121313	41.71	PPB	97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F012.D Vial: 32
Acq On : 22 Jan 2016 18:53 Operator: YX
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 19:12:01 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	4.34	53	1022885	28.56	PPB		94
31)	tert-Butyl Ethyl Ether	4.85	59	1020680	18.98	PPB		99
32)	2,2-Dichloropropane	5.08	77	361304	11.11	PPB		93
33)	cis-1,2-Dichloroethene	5.14	96	226687	9.72	PPB		95
34)	2-Butanone	5.24	72	46412	45.20	PPB		96
35)	Ethyl Acetate	5.30	61	33179	22.40	PPB		83
36)	Propionitrile	5.43	54	37099	29.55	PPB		92
37)	Methacrylonitrile	5.57	67	145529	29.58	PPB		99
38)	Bromochloromethane	5.47	128	100173	10.45	PPB	#	81
40)	Chloroform	5.60	83	402444	10.83	PPB		97
42)	1,1,1-Trichloroethane	5.73	97	366161	10.44	PPB		95
44)	Carbon Tetrachloride	5.88	117	328512	10.60	PPB		96
45)	1,1-Dichloropropene	5.95	75	311994	10.20	PPB		98
46)	Isobutyl Alcohol	6.31	43	68151	267.02	PPB		99
48)	Benzene	6.21	78	845076	9.81	PPB		99
49)	1,2-Dichloroethane	6.36	62	265632	11.02	PPB		97
50)	tert-Amyl Methyl Ether	6.37	55	223030	20.30	PPB	#	86
51)	Trichloroethene	7.03	95	238187	10.22	PPB		92
53)	1,2-Dichloropropane	7.36	63	208081	9.81	PPB		94
54)	Dibromomethane	7.49	93	104822	10.05	PPB		95
55)	Methyl methacrylate	7.52	69	247389	26.05	PPB		99
56)	1,4-Dioxane	7.52	88	22458	415.72	PPB		66
57)	Bromodichloromethane	7.69	83	258467	10.12	PPB		92
58)	2-Nitropropane	8.06	41	88442	29.01	PPB		93
59)	2-Chloroethyl Vinyl Ether	8.09	63	81857	8.66	PPB		99
60)	cis-1,3-Dichloropropene	8.21	75	307695	9.46	PPB		98
61)	4-Methyl-2-pentanone (MIBK	8.41	58	179548	46.64	PPB		95
63)	Toluene	8.51	92	526552	9.57	PPB		91
65)	n-Octane	8.58	85	1505	0.13	PPB		81
66)	trans-1,3-Dichloropropene	8.88	75	245971	9.20	PPB		97
67)	Ethyl methacrylate	8.93	69	512583	27.42	PPB		96
68)	1,1,2-Trichloroethane	9.08	83	126193	10.00	PPB		98
69)	Tetrachloroethene	9.08	164	220838	10.89	PPB		96
70)	2-Hexanone	9.35	57	56277	43.41	PPB		99
71)	1,3-Dichloropropane	9.26	76	263580	9.72	PPB		98
72)	Dibromochloromethane	9.46	129	168700	9.16	PPB		100
73)	1,2-Dibromoethane (EDB)	9.59	107	140491	9.53	PPB		99
74)	1-Chlorohexane	10.07	91	312032	10.32	PPB		96
75)	Chlorobenzene	10.10	112	613003	10.00	PPB		96
76)	Ethylbenzene	10.19	106	329284	9.62	PPB		97
77)	1,1,1,2-Tetrachloroethane	10.21	131	208704	9.74	PPB		98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F012.D Vial: 32
Acq On : 22 Jan 2016 18:53 Operator: YX
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 19:12:01 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

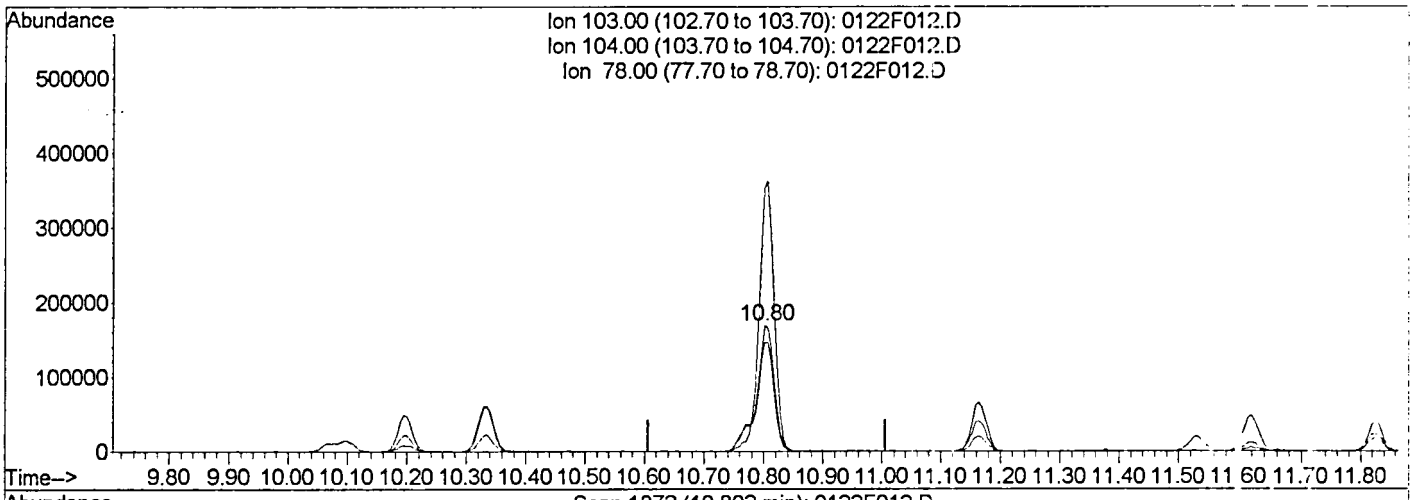
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
78)	m,p-Xylenes	10.34	106	812733	19.55	PPB	99
79)	o-Xylene	10.77	106	385496	9.41	PPB	97
80)	Styrene	10.80	103	294939m	9.40	PPB	
81)	Bromoform	11.03	173	90866	9.20	PPB	93
82)	Isopropylbenzene	11.16	105	1033515	9.71	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.34	89	63417	28.68	PPB	93
86)	1,1,2,2-Tetrachloroethane	11.59	83	146700	8.57	PPB	98
87)	trans-1,4-Dichloro-2-buten	11.67	53	132654	27.01	PPB	78
88)	Bromobenzene	11.54	156	266833	9.42	PPB	92
89)	n-Propylbenzene	11.62	91	1230543	9.16	PPB	99
90)	1,2,3-Trichloropropane	11.65	110	49350	8.72	PPB	92
91)	2-Chlorotoluene	11.74	91	717080	8.94	PPB	98
92)	1,3,5-Trimethylbenzene	11.82	105	858366	9.09	PPB	97
93)	4-Chlorotoluene	11.87	91	742067	8.91	PPB	96
94)	tert-Butylbenzene	12.16	119	753081	9.02	PPB	99
95)	1,2,4-Trimethylbenzene	12.24	105	868113	9.30	PPB	98
96)	sec-Butylbenzene	12.41	105	1097515	9.26	PPB	100
97)	p-Isopropyltoluene	12.57	119	953135	9.66	PPB	98
98)	1,3-Dichlorobenzene	12.57	146	528618	9.57	PPB	99
99)	1,4-Dichlorobenzene	12.68	146	523607	9.43	PPB	98
100)	n-Butylbenzene	13.02	91	810425	9.19	PPB	99
101)	1,2-Dichlorobenzene	13.09	146	461822	9.61	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.98	155	19689	8.19	PPB	88
103)	1,3,5-Trichlorobenzene	14.14	180	364899	10.33	PPB	96
104)	1,2,4-Trichlorobenzene	14.85	180	280118	9.37	PPB	95
105)	Hexachlorobutadiene	14.98	225	134712	10.11	PPB	90
106)	Naphthalene	15.14	128	401502	8.19	PPB	100
107)	1,2,3-Trichlorobenzene	15.41	180	218553	9.38	PPB	99

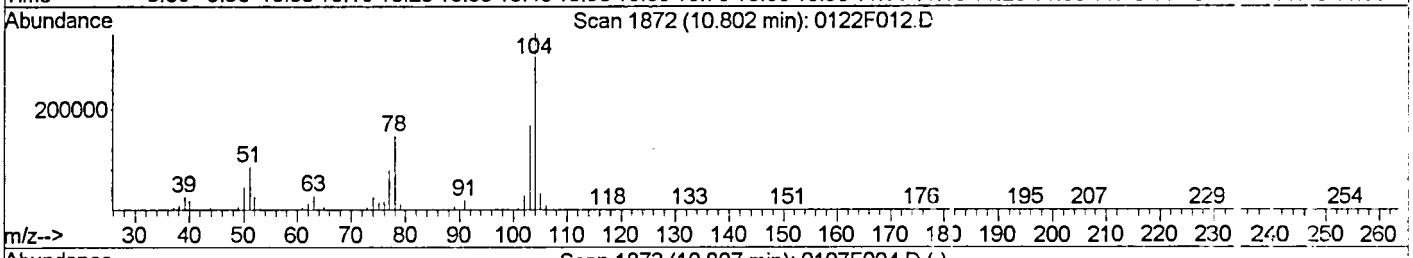
(#) = qualifier out of range (m) = manual integration

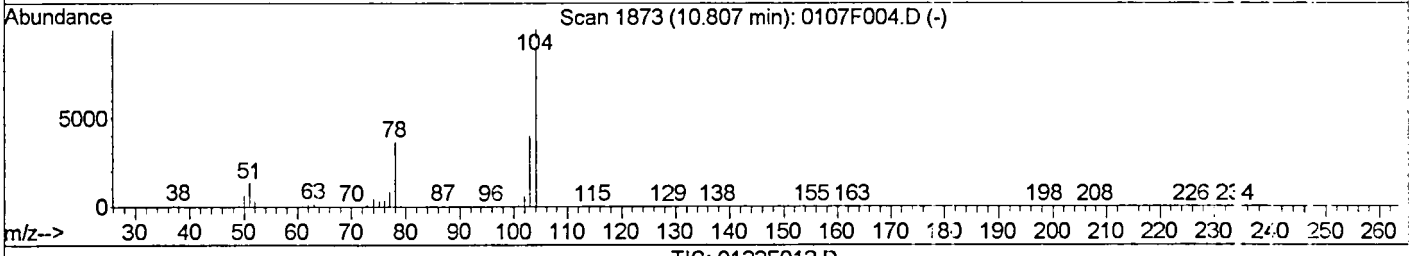
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F012.D Vial: 32
Acq On : 22 Jan 2016 18:53 Operator: YX
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:46 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F012.D

(80) Styrene (T)

10.80min 11.10PPB

response 348333

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	208.94
78.00	90.40	86.71
0.00	0.00	0.00

Manual Integration:

Before

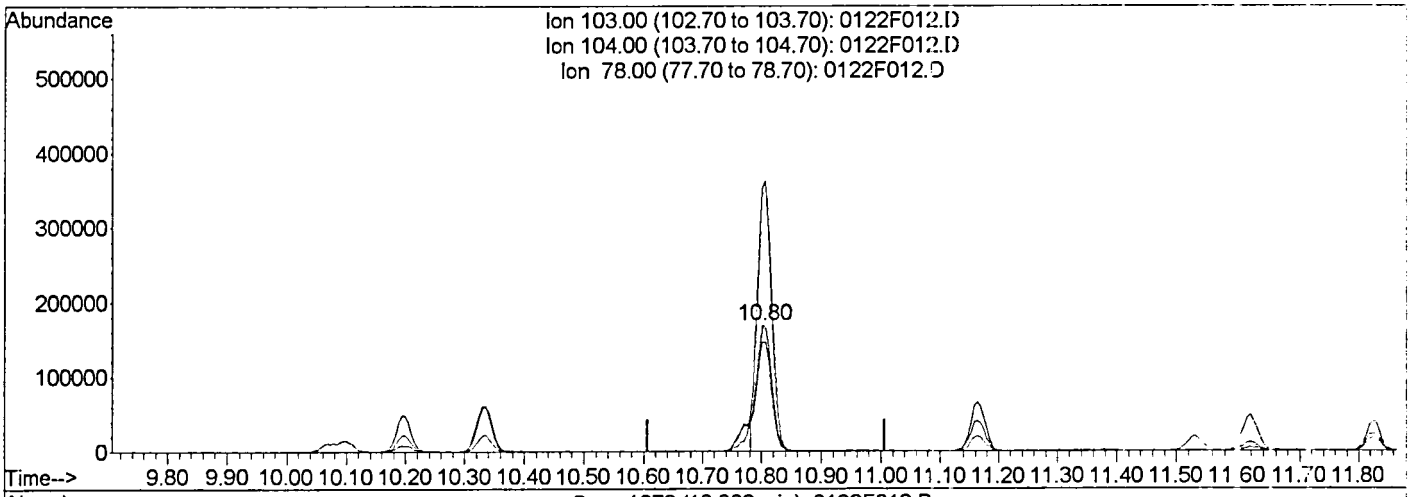
01/25/16

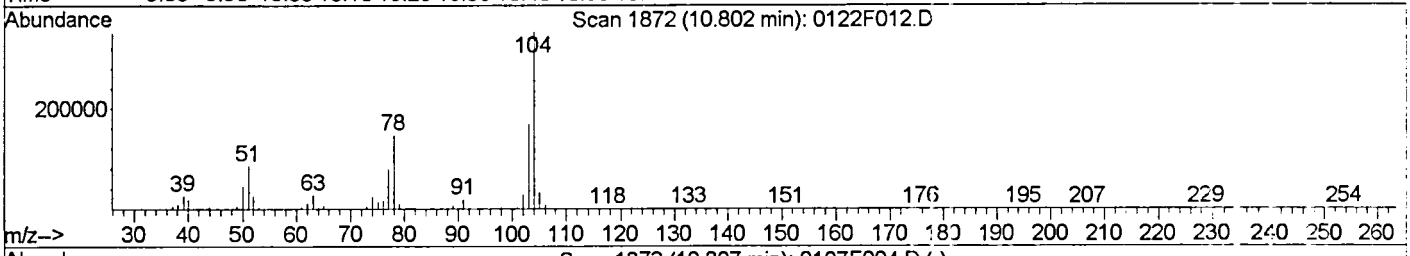
0122F012.D 010516MS46_8260.M Mon Jan 25 14:46:40 2016

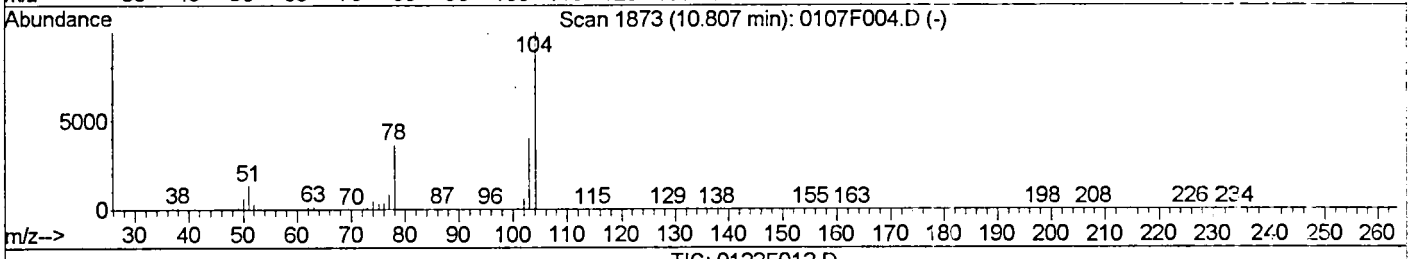
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F012.D Vial: 32
Acq On : 22 Jan 2016 18:53 Operator: YX
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:46 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F012.D

(80) Styrene (T)

10.80min 9.40PPB m

response 294939

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	208.94
78.00	90.40	86.78
0.00	0.00	0.00

Manual Integration:

After

Shoulder

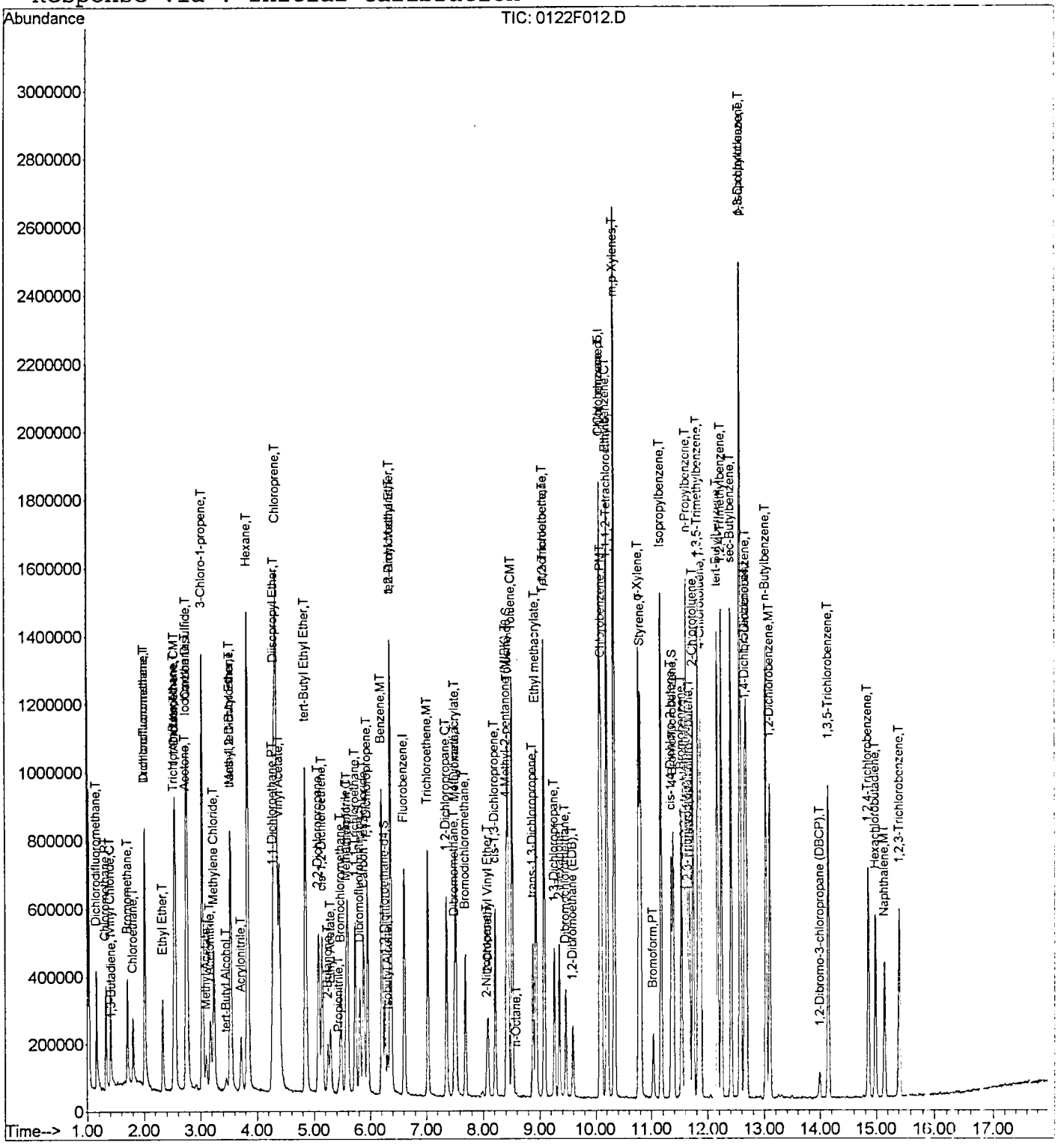
01/25/16

0122F012.D 010516MS46_8260.M Mon Jan 25 14:46:46 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F012.D Vial: 32
Acq On : 22 Jan 2016 18:53 Operator: YX
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:46 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



Date: 1/22/16
By: TX

ALS Environmental
Injection Log
MS46 - Agilent 5977A

Tune File: BFB_Azure.u
New Tune: NO
481107

IS/SS Std. ID: 8UOA-74A 217
CCV Std ID: 8UOA-72C 215 88A 1/28
ICAL Date: 1/5/16 14525
MS/DMS/LCS/ICV Std ID: 8UOA-87A 1/28 -86F 1/28 -87B 1/28 Second RV: 1/27/16
BFB Std. ID: 8UOA-55E 1/30 8UOA-86B 1/27 86A 1/27 LIMS ID: KWG1600615/6, 14

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0122F010	8260	4.4 mL → 44mL		
2	CCV	11		5/10mL → 50mL		
3	LCS	12		7.5/15/15/150/10mL → 50mL		
4	MS K1600673-04	13		6.6/4.4/4.4/4mL 8.8mL → 44mL	-	
5	DMS ⊥	14		⊥	-	
6	LCSB	15				
7	MSB	16				
8	K1600673-04	17			-	
9	-01	18			-	
10	-02	19			-	
11	-03	20			-	
12	-05	21			-	
13	-06	22			-	
14	-07	23			-	
15	-08	24			-	
16	-09	25			-	
17	-10	26			-	
18	-11	27			-	
19	-12	28			-	
20	-13	29			-	
21	-14	30			-	
22	⊥ -15 TB	31			-	TB110915
23	CCVA	⊥ 32	⊥	5/10mL → 50mL		
24						
25						
26						
27						

R:\VOA\Injection Logs\INJLOG_MS46_Rev1.XLS

Exception Report

Data File: J:\MS46\DATA\012216\0122F010.D
Lab ID: KWG1600615-1
RunType: BFB
Matrix: WATER

Date Acquired: 01/22/2016 17:45
Date Quantitated:
Batch ID: KWG1600615
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: MKO 1/25/16

Secondary Review: KL 1/27/16

Printed: 01/25/2016 16:37:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F010.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 17:45	**Quant Date:**		**Vial:**	30
Run Type:	BFB			**Dilution:**	1.0
Lab ID:	KWG1600615-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\010516MS46_8			**Calibration ID:**	CAL14525
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	19.2	15624	Pass
75	95	30	60	48.0	39177	Pass
95	95	100	100	100.0	81576	Pass
96	95	5	9	6.4	5185	Pass
173	174	0	2	1.3	1022	Pass
174	95	50	120	95.6	77970	Pass
175	174	5	9	8.5	6604	Pass
176	174	95	101	97.8	76226	Pass
177	176	5	9	5.8	4431	Pass

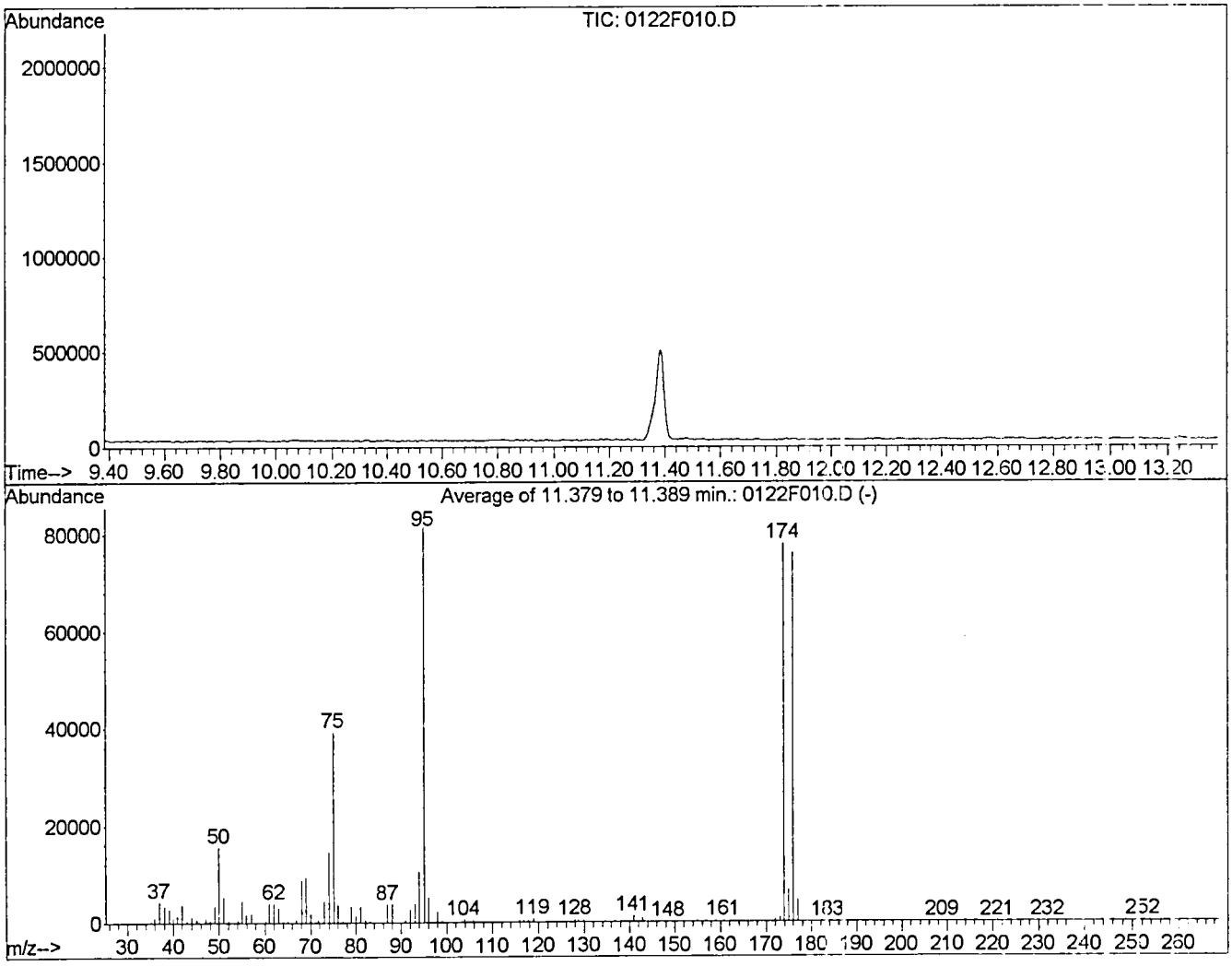
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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:\MS46\DATA\012216\0122F010.D
Acq On : 22 Jan 2016 17:45
Sample : BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B

Vial: 30
Operator: YX
Inst : GCMS46
Multiplr: 1.00



AutoFind: Scans 1982, 1983, 1984; Background Corrected with Scan 1970

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	15624	PASS
75	95	30	60	48.0	39177	PASS
95	95	100	100	100.0	81576	PASS
96	95	5	9	6.4	5185	PASS
173	174	0.00	2	1.3	1022	PASS
174	95	50	120	95.6	77970	PASS
175	174	5	9	8.5	6604	PASS
176	174	95	101	97.8	76226	PASS
177	176	5	9	5.8	4431	PASS

0122F010.D 010516MS46_8260.M Mon Jan 25 14:45:02 2016

Exception Report

Data File: J:\MS46\DATA\012216\0122F011.D
Lab ID: KWG1600615-2
RunType: CCV
Matrix: WATER

Date Acquired: 01/22/2016 18:19
Date Quantitated: 01/25/2016 14:45
Batch ID: KWG1600615
Analysis Method: 8260C
MethodJoinID: MJ1465

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	2-Propanol	0.0048	0.01	NA	DJ
	Acetonitrile	0.0082	0.01	NA	
	Isobutyl Alcohol	0.0041	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,3-Butadiene	-25.9	NA	20	
	Acrolein	49.9	NA	20	
	1,4-Dioxane	-22.6	NA	20	

Primary Review: 1/25/16

Secondary Review:

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F011.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:19	**Quant Date:**	01/25/2016 14:45	**Vial:**	31
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600615-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\010516MS46_8			**Calibration ID:**	CAL14525
Title:					
Tune Ref:	J:\MS46\DATA\012216\0122F010.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	6.60	-0.01	96	611503	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	250925	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	-0.01	152	264907	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	5.81			113	182199	10.49		80-119	NA	
1	1,2-Dichloroethane-d4	6.26			65	187525	10.44		81-118	NA	
1	Toluene-d8	8.44			98	660416	9.82		89-112	NA	
2	4-Bromofluorobenzene	11.38			95	248605	9.62		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	1.15			85	232486	9.54			
1	Chloromethane	1.32			50	234701	10.02			
1	Vinyl Chloride	1.40			62	225644	10.72			
1	1,3-Butadiene	1.43			54	192545	12.05			
1	Bromomethane	1.71			96	145402	12.26			
1	Chloroethane	1.80			64	131623	11.48			
1	Dichlorofluoromethane (CFC 21)	2.01			67	397569	11.27			
1	Trichlorofluoromethane	2.00			101	383251	10.88			
1	Diethyl Ether	2.32			59	123954	9.56			
1	Acrolein	2.54			56	293594	250.95			
1	Trichlorotrifluoroethane	2.52			151	202955	11.08			
1	1,1-Dichloroethene	2.55			96	185537	10.24			
1	Acetone	2.73			43	464213	194.29			
1	Iodomethane	2.74			142	766520	33.22			

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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:\MS46\DATA\012216\0122F011.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:19	**Quant Date:**	01/25/2016 14:45	**Vial:**	31
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600615-2			**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	2.76			76	545224	10.31			
1	2-Propanol	2.91			45	107496	367.74			
1	3-Chloro-1-propene	3.03			76	113011	10.33			
1	Methyl Acetate	3.10			43	81426	9.41			
1	Acetonitrile	3.17			40	204644	408.21			
1	Methylene Chloride	3.23			84	216717	10.77			
1	tert-Butyl Alcohol	3.45			59	32509	50.43			
1	Acrylonitrile	3.72			53	145395	41.46			
1	Methyl tert-Butyl Ether	3.53			73	876169	20.22			
1	trans-1,2-Dichloroethene	3.54			96	211658	10.19			
1	n-Hexane	3.83			57	293823	10.00			
1	Diisopropyl Ether	4.30			45	592601	10.24			
1	1,1-Dichloroethane	4.27			63	377915	10.58			
1	Vinyl Acetate	4.39			86	57970	20.08			
1	Chloroprene	4.34			53	1491487	41.94			
1	tert-Butyl Ethyl Ether	4.85			59	524405	9.82			
1	2,2-Dichloropropane	5.08			77	350899	10.87			
1	cis-1,2-Dichloroethene	5.14			96	237303	10.25			
1	2-Butanone (MEK)	5.24			72	195795	192.06			
1	Ethyl Acetate	5.30			61	25936	17.64			
1	Propionitrile	5.43			54	47792	38.35			
1	Methacrylonitrile	5.56			67	189781	38.85			
1	Bromochloromethane	5.47			128	106269	11.17			
1	Tetrahydrofuran	5.50			71	12310	10.91			
1	Chloroform	5.60			83	404464	10.97			
1	Cyclohexane	5.67			56	381208	10.42			
1	1,1,1-Trichloroethane (TCA)	5.73			97	363325	10.44			
1	Carbon Tetrachloride	5.88			117	318551	10.35			
1	1,1-Dichloropropene	5.95			75	302144	9.95			
1	Isobutyl Alcohol	6.30			43	82705	326.39			
1	Benzene	6.20			78	854322	9.99			
1	1,2-Dichloroethane (EDC)	6.36			62	271459	11.34			
1	tert-Amyl Methyl Ether	6.36			55	112642	10.32			
1	Trichloroethene (TCE)	7.03			95	236381	10.21			
1	Methylcyclohexane	7.14			83	360043	10.41			
1	1,2-Dichloropropane	7.36			63	206043	9.79			
1	Dibromomethane	7.49			93	112505	10.86			
1	Methyl Methacrylate	7.52			69	81628	8.66			
1	1,4-Dioxane	7.54			88	15325	289.35			
1	Bromodichloromethane	7.69			83	264316	10.42			
1	2-Nitropropane	8.07			41	139776	46.17			
1	2-Chloroethyl Vinyl Ether	8.09			63	85886	9.15			

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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:\MS46\DATA\012216\0122F011.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:19	**Quant Date:**	01/25/2016 14:45	**Vial:**	31
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600615-2			**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	cis-1,3-Dichloropropene	8.21			75	321872	9.97			
1	4-Methyl-2-pentanone (MIBK)	8.41			58	716352	187.43			
1	Toluene	8.51			92	545470	9.99			
2	trans-1,3-Dichloropropene	8.88			75	255245	9.83			
2	Ethyl Methacrylate	8.94			69	162614	8.96			
2	1,1,2-Trichloroethane	9.07			83	130476	10.65			
2	Tetrachloroethene (PCE)	9.08			164	223186	11.33			
2	2-Hexanone	9.34			57	227799	181.02			
2	1,3-Dichloropropane	9.26			76	266980	10.14			
2	Dibromochloromethane	9.46			129	181472	10.15			
2	1,2-Dibromoethane (EDB)	9.59			107	151303	10.58			
2	1-Chlorohexane	10.07			91	312014	10.63			
2	Chlorobenzene	10.10			112	642717	10.80			
2	Ethylbenzene	10.20			106	336401	10.13			
2	1,1,1,2-Tetrachloroethane	10.21			131	223650	10.76			
2	m,p-Xylenes	10.33			106	841278	20.85			
2	o-Xylene	10.77			106	391527	9.85			
2	Styrene	10.81			103	315204m	10.35			
2	Bromoform	11.03			173	96612	10.08			
2	Isopropylbenzene	11.16			105	1057345	10.23			
2	cis-1,4-Dichloro-2-butene	11.35			89	80451	37.48			
3	1,1,2,2-Tetrachloroethane	11.60			83	159433	9.54			
3	trans-1,4-Dichloro-2-butene	11.67			53	42715	8.91			
3	Bromobenzene	11.53			156	278799	10.07			
3	n-Propylbenzene	11.62			91	1267134	9.66			
3	1,2,3-Trichloropropane	11.65			110	51460	9.31			
3	2-Chlorotoluene	11.74			91	733002	9.35			
3	1,3,5-Trimethylbenzene	11.82			105	885549	9.61			
3	4-Chlorotoluene	11.87			91	794740	9.78			
3	tert-Butylbenzene	12.17			119	769639	9.44			
3	1,2,4-Trimethylbenzene	12.24			105	878749	9.64			
3	sec-Butylbenzene	12.41			105	1123367	9.71			
3	4-Isopropyltoluene	12.57			119	947490	9.83			
3	1,3-Dichlorobenzene	12.57			146	545591	10.12			
3	1,4-Dichlorobenzene	12.68			146	547649	10.10			
3	n-Butylbenzene	13.03			91	836714	9.72			
3	1,2-Dichlorobenzene	13.09			146	487984	10.40			
3	1,2-Dibromo-3-chloropropane	13.98			155	21080	8.98			
3	1,3,5-Trichlorobenzene	14.14			180	380878	11.04			
3	1,2,4-Trichlorobenzene	14.85			180	294475	10.08			
3	Hexachlorobutadiene	14.98			225	141631	10.89			
3	Naphthalene	15.14			128	411568	8.59			

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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:\MS46\DATA\012216\0122F011.D			**Instrument:**	GCMS46
Acqu Date:	01/22/2016 18:19	**Quant Date:**	01/25/2016 14:45	**Vial:**	31
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600615-2			**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	1,2,3-Trichlorobenzene	15.40			180	227982	10.02			

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:\MS46\DATA\012216\0122F011.D Vial: 31
Acq On : 22 Jan 2016 18:19 Operator: YX
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 18:37:45 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.60	96	611503	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	250925	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	264907	10.00	PPB	-0.01
System Monitoring Compounds						
43) Dibromofluoromethane	5.81	113	182199	10.49	PPB	0.00
Spiked Amount 10.000			Recovery =	104.90%		
47) 1,2-Dichloroethane-d4	6.26	65	187525	10.44	PPB	0.00
Spiked Amount 10.000			Recovery =	104.40%		
62) Toluene-d8	8.44	98	660416	9.82	PPB	0.00
Spiked Amount 10.000			Recovery =	98.20%		
84) 4-Bromofluorobenzene	11.38	95	248605	9.62	PPB	0.00
Spiked Amount 10.000			Recovery =	96.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.15	85	232486	9.54	PPB	97
3) Chloromethane	1.32	50	234701	10.02	PPB	99
4) Vinyl Chloride	1.40	62	225644	10.72	PPB	98
5) 1,3-Butadiene	1.43	54	192546	12.05	PPB	98
6) Bromomethane	1.71	96	145402	12.26	PPB	98
7) Chloroethane	1.80	64	131623	11.48	PPB	97
8) Dichlorofluoromethane	2.01	67	397569	11.27	PPB	98
9) Trichlorofluoromethane	2.00	101	383251	10.88	PPB	99
10) Ethyl Ether	2.32	59	123954	9.56	PPB	97
11) Acrolein	2.54	56	293594	250.95	PPB	96
12) Trichlorotrifluoroethane	2.52	151	202955	11.08	PPB	97
13) 1,1-Dichloroethene	2.55	96	185537	10.24	PPB	96
14) Acetone	2.73	43	464213	194.29	PPB	98
15) Iodomethane	2.74	142	766520	33.22	PPB	99
16) Carbon Disulfide	2.76	76	545224	10.31	PPB	99
17) 2-Propanol (Isopropyl Alco	2.91	45	107496	367.74	PPB	96
18) 3-Chloro-1-propene	3.03	76	113011	10.33	PPB	97
19) Methyl Acetate	3.10	43	81426	9.41	PPB	90
20) Acetonitrile	3.17	40	204644	408.21	PPB	86
21) Methylene Chloride	3.23	84	216717	10.77	PPB	96
22) tert-Butyl Alcohol	3.45	59	32509	50.43	PPB	93
23) Acrylonitrile	3.72	53	145395	41.46	PPB	94
24) Methyl tert-Butyl Ether	3.53	73	876169	20.22	PPB	97
25) trans-1,2-Dichloroethene	3.54	96	211658	10.19	PPB	96
26) Hexane	3.83	57	293823	10.00	PPB	98
27) Diisopropyl Ether	4.30	45	592601	10.24	PPB	99
28) 1,1-Dichloroethane	4.27	63	377915	10.58	PPB	97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F011.D Vial: 31
Acq On : 22 Jan 2016 18:19 Operator: YX
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 18:37:45 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.39	86	57970	20.08	PPB	#	91
30)	Chloroprene	4.34	53	1491487	41.94	PPB		97
31)	tert-Butyl Ethyl Ether	4.85	59	524405	9.82	PPB		99
32)	2,2-Dichloropropane	5.08	77	350899	10.87	PPB		96
33)	cis-1,2-Dichloroethene	5.14	96	237303	10.25	PPB		91
34)	2-Butanone	5.24	72	195795	192.06	PPB		94
35)	Ethyl Acetate	5.30	61	25936	17.64	PPB		83
36)	Propionitrile	5.43	54	47792	38.35	PPB		98
37)	Methacrylonitrile	5.56	67	189781	38.85	PPB		96
38)	Bromochloromethane	5.47	128	106269	11.17	PPB		88
39)	Tetrahydrofuran	5.50	71	12310	10.91	PPB		94
40)	Chloroform	5.60	83	404464	10.97	PPB		100
41)	Cyclohexane	5.67	56	381208	10.42	PPB		94
42)	1,1,1-Trichloroethane	5.73	97	363325	10.44	PPB		98
44)	Carbon Tetrachloride	5.88	117	318551	10.35	PPB		97
45)	1,1-Dichloropropene	5.95	75	302144	9.95	PPB		96
46)	Isobutyl Alcohol	6.30	43	82705	326.39	PPB		99
48)	Benzene	6.20	78	854322	9.99	PPB		99
49)	1,2-Dichloroethane	6.36	62	271450	11.34	PPB		97
50)	tert-Amyl Methyl Ether	6.36	55	112642	10.32	PPB		94
51)	Trichloroethene	7.03	95	236381	10.21	PPB		97
52)	Methylcyclohexane	7.14	83	360043	10.41	PPB		95
53)	1,2-Dichloropropane	7.36	63	206043	9.79	PPB		91
54)	Dibromomethane	7.49	93	112505	10.86	PPB		90
55)	Methyl methacrylate	7.52	69	81628	8.66	PPB		95
56)	1,4-Dioxane	7.54	88	15325	289.35	PPB		72
57)	Bromodichloromethane	7.69	83	264316	10.42	PPB		99
58)	2-Nitropropane	8.07	41	139776	46.17	PPB		97
59)	2-Chloroethyl Vinyl Ether	8.09	63	85886	9.15	PPB		97
60)	cis-1,3-Dichloropropene	8.21	75	321872	9.97	PPB		98
61)	4-Methyl-2-pentanone (MIBK	8.41	58	716352	187.43	PPB		95
63)	Toluene	8.51	92	545470	9.99	PPB		94
65)	n-Octane	8.58	85	123670	11.23	PPB		97
66)	trans-1,3-Dichloropropene	8.88	75	255245	9.83	PPB		96
67)	Ethyl methacrylate	8.94	69	162614	8.96	PPB		99
68)	1,1,2-Trichloroethane	9.07	83	130476	10.65	PPB		95
69)	Tetrachloroethene	9.08	164	223186	11.33	PPB		96
70)	2-Hexanone	9.34	57	227799	181.02	PPB		99
71)	1,3-Dichloropropane	9.26	76	266980	10.14	PPB		99
72)	Dibromochloromethane	9.46	129	181472	10.15	PPB		100
73)	1,2-Dibromoethane (EDB)	9.59	107	151303	10.58	PPB		97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F011.D Vial: 31
Acq On : 22 Jan 2016 18:19 Operator: YX
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 18:37:45 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

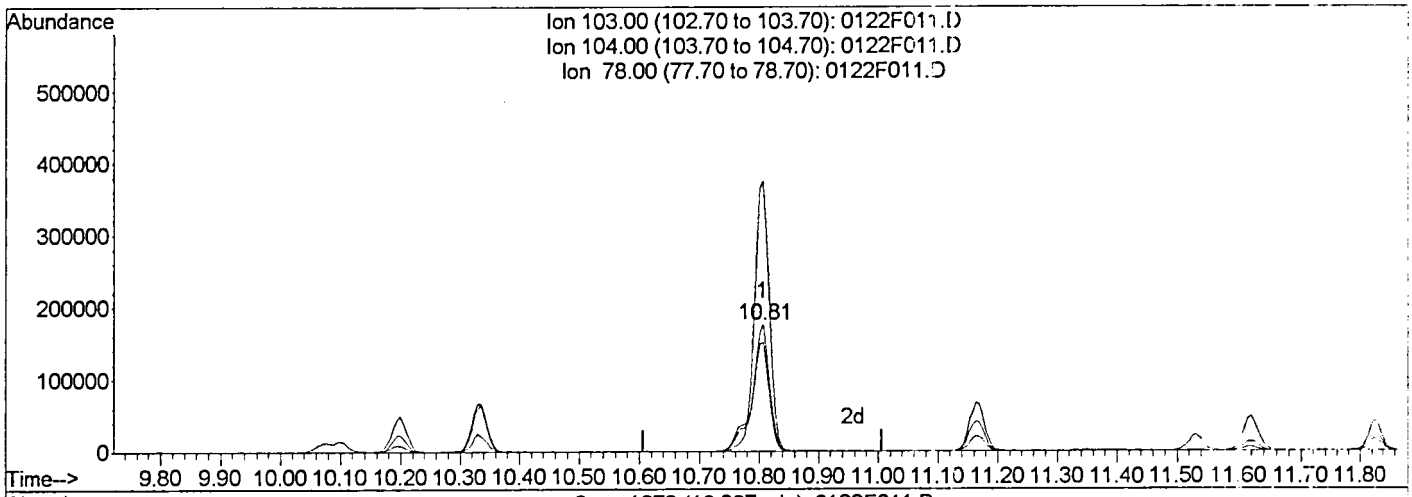
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	10.07	91	312014	10.63	PPB	99
75)	Chlorobenzene	10.10	112	642717	10.80	PPB	97
76)	Ethylbenzene	10.20	106	336401	10.13	PPB	100
77)	1,1,1,2-Tetrachloroethane	10.21	131	223650	10.76	PPB	98
78)	m,p-Xylenes	10.33	106	841278	20.85	PPB	97
79)	o-Xylene	10.77	106	391527	9.85	PPB	97
80)	Styrene	10.81	103	315204m	10.35	PPB	
81)	Bromoform	11.03	173	96612	10.08	PPB	92
82)	Isopropylbenzene	11.16	105	1057345	10.23	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.35	89	80451	37.48	PPB	95
86)	1,1,2,2-Tetrachloroethane	11.60	83	159433	9.54	PPB	95
87)	trans-1,4-Dichloro-2-buten	11.67	53	42715	8.91	PPB	89
88)	Bromobenzene	11.53	156	278799	10.07	PPB	97
89)	n-Propylbenzene	11.62	91	1267134	9.66	PPB	99
90)	1,2,3-Trichloropropane	11.65	110	51460	9.31	PPB	94
91)	2-Chlorotoluene	11.74	91	733002	9.35	PPB	97
92)	1,3,5-Trimethylbenzene	11.82	105	885549	9.61	PPB	100
93)	4-Chlorotoluene	11.87	91	794740	9.78	PPB	96
94)	tert-Butylbenzene	12.17	119	769639	9.44	PPB	97
95)	1,2,4-Trimethylbenzene	12.24	105	873749	9.64	PPB	98
96)	sec-Butylbenzene	12.41	105	1123367	9.71	PPB	98
97)	p-Isopropyltoluene	12.57	119	947490	9.83	PPB	97
98)	1,3-Dichlorobenzene	12.57	146	545591	10.12	PPB	95
99)	1,4-Dichlorobenzene	12.68	146	547649	10.10	PPB	99
100)	n-Butylbenzene	13.03	91	836714	9.72	PPB	98
101)	1,2-Dichlorobenzene	13.09	146	487984	10.40	PPB	98
102)	1,2-Dibromo-3-chloropropan	13.98	155	21080	8.98	PPB	90
103)	1,3,5-Trichlorobenzene	14.14	180	380878	11.04	PPB	97
104)	1,2,4-Trichlorobenzene	14.85	180	294475	10.08	PPB	98
105)	Hexachlorobutadiene	14.98	225	141631	10.89	PPB	92
106)	Naphthalene	15.14	128	411568	8.59	PPB	97
107)	1,2,3-Trichlorobenzene	15.40	180	227982	10.02	PPB	97

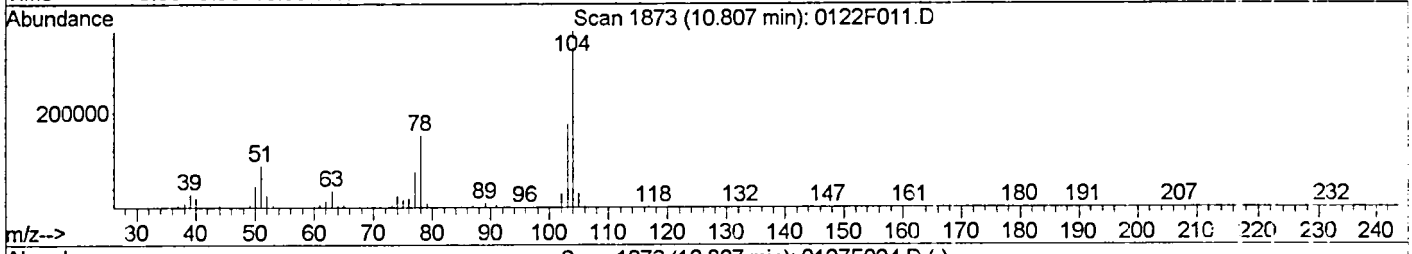
(#) = qualifier out of range (m) = manual integration

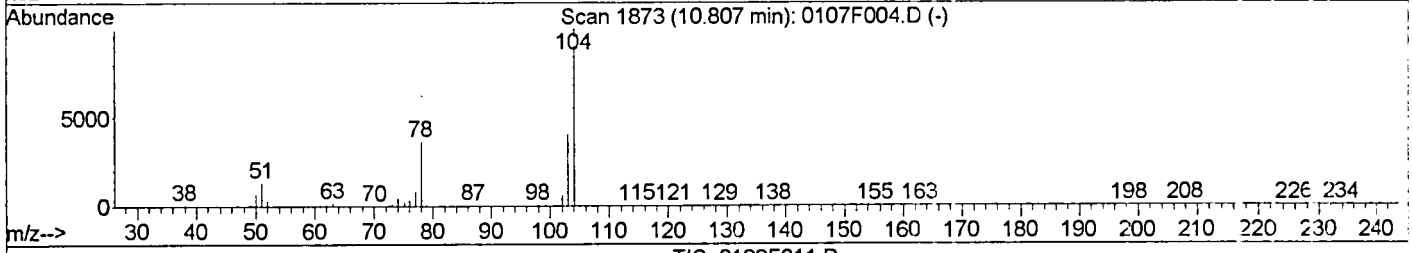
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F011.D Vial: 31
Acq On : 22 Jan 2016 18:19 Operator: YX
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 22 18:37 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F011.D

(80) Styrene (T)

10.81min 11.61PPB

response 353554

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	213.10
78.00	90.40	86.04
0.00	0.00	0.00

Manual Integration:

Before

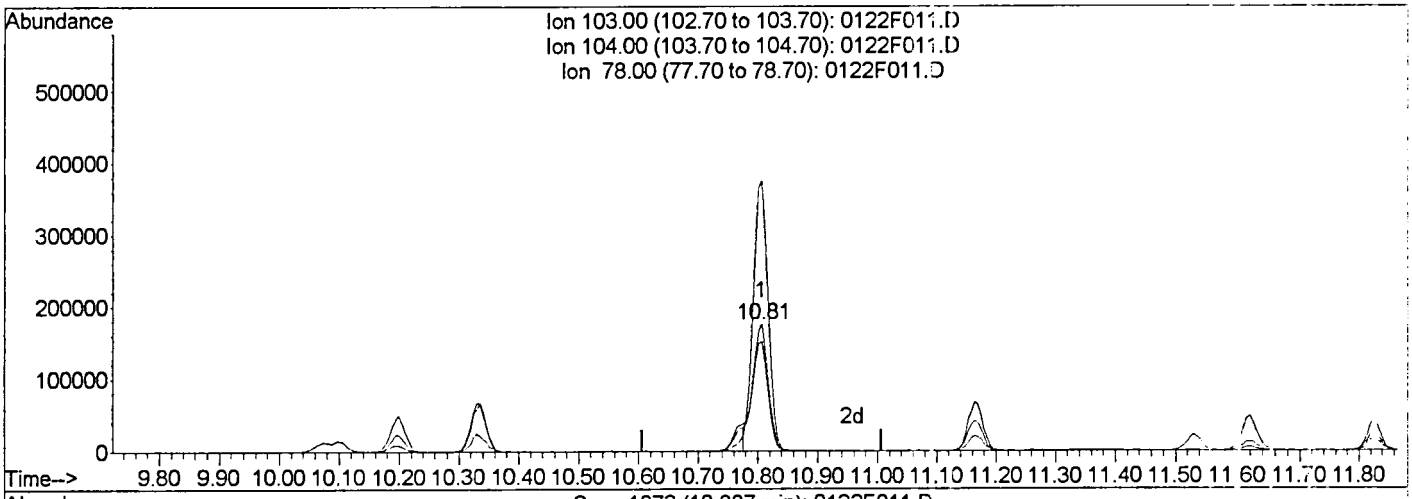
01/25/16

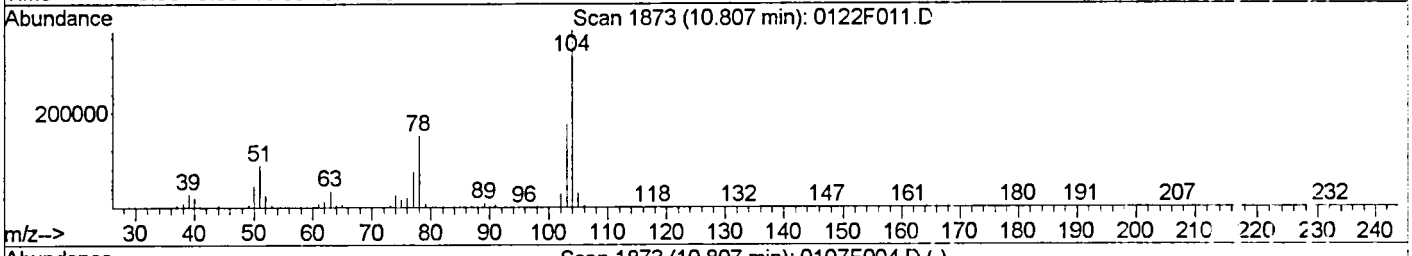
0122F011.D 010516MS46_8260.M Mon Jan 25 14:45:44 2016

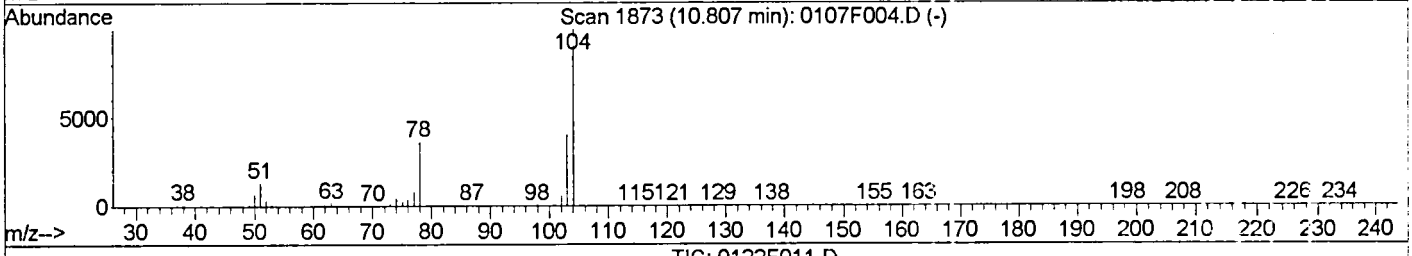
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F011.D Vial: 31
Acq On : 22 Jan 2016 18:19 Operator: YX
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:45 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F011.D

(80) Styrene (T)

10.81min 10.35PPB m

response 315204

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	213.10
78.00	90.40	86.14
0.00	0.00	0.00

Manual Integration:

After

Shoulder

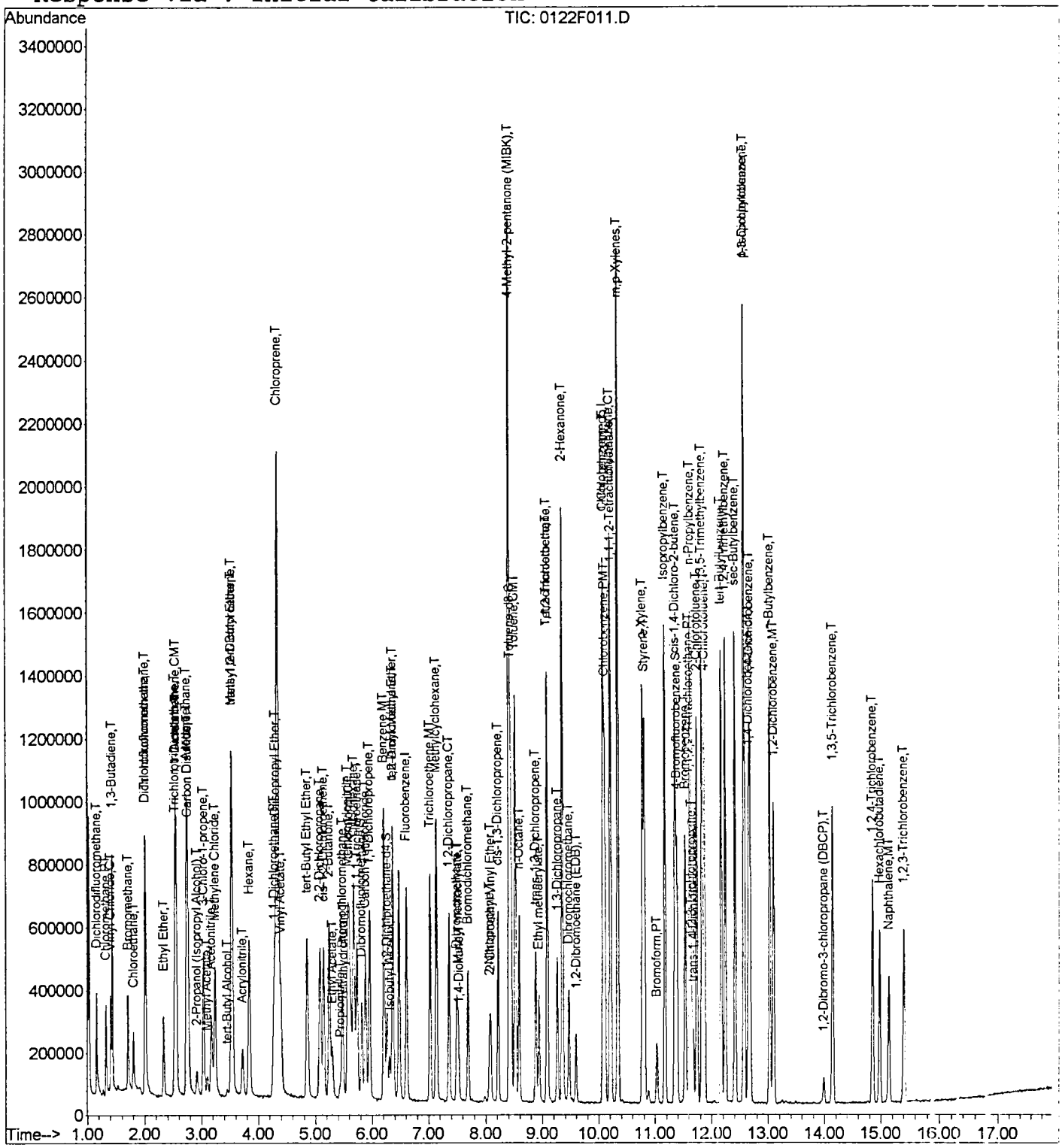
01/25/16

0122F011.D 010516MS46_8260.M Mon Jan 25 14:45:49 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F011.D Vial: 31
Acq On : 22 Jan 2016 18:19 Operator: YX
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 14:45 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



0122F011.D 010516MS46_8260.M Mon Jan 25 15:50:45 2016 Page 4

Exception Report

Data File: J:\MS46\DATA\012216\0122F032.D
Lab ID: KWG1600615-3
RunType: CCVA
Matrix: WATER

Date Acquired: 01/23/2016 03:47
Date Quantitated: 01/25/2016 15:49
Batch ID: KWG1600615
Analysis Method: 8260C
MethodJoinID: MJ1465

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	2-Propanol	0.0048	0.01	NA	NT
	Acetonitrile	0.0082	0.01	NA	
	Isobutyl Alcohol	0.0041	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,3-Butadiene	-25.9	NA	20	
	Acrolein	49.9	NA	20	
	1,4-Dioxane	-22.6	NA	20	

Primary Review: 1 KWG 1/25/16

Secondary Review: KWG 1/27/16

Quantitation Report

Data File:	J:\MS46\DATA\012216\0122F032.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 03:47	**Quant Date:**	01/25/2016 15:49	**Vial:**	51
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600615-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600615	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\010516MS46_8			**Calibration ID:**	CAL14525
Title:					
Tune Ref:	J:\MS46\DATA\012216\0122F010.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	6.61	0.00	96	573520	10.00	OK
2	Chlorobenzene-d5	10.07	0.00	82	247633	10.00	OK
3	1,4-Dichlorobenzene-d4	12.65	-0.01	152	260506	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	5.81			113	168900	10.37		80-119	NA	
1	1,2-Dichloroethane-d4	6.26			65	184018	10.92		81-118	NA	
1	Toluene-d8	8.44			98	624986	9.91		89-112	NA	
2	4-Bromofluorobenzene	11.38			95	239461	9.39		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	1.15			85	222342	9.73			
1	Chloromethane	1.32			50	225831	10.28			
1	Vinyl Chloride	1.41			62	223285	11.31			
1	1,3-Butadiene	1.43			54	191661	12.79			
1	Bromomethane	1.71			96	118718	10.67			
1	Chloroethane	1.80			64	134264	12.48			
1	Dichlorofluoromethane (CFC 21	2.01			67	388553	11.74			
1	Trichlorofluoromethane	2.00			101	388861	11.78			
1	Diethyl Ether	2.32			59	126561	10.41			
1	Acrolein	2.54			56	351475	320.32			
1	Trichlorotrifluoroethane	2.53			151	192927	11.23			
1	1,1-Dichloroethene	2.55			96	180564	10.62			
1	Acetone	2.73			43	469099	209.34			
1	Iodomethane	2.74			142	500662	23.14			

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

Data File:	J:\MS46\DATA\012216\0122F032.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 03:47	**Quant Date:**	01/25/2016 15:49	**Vial:**	51
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600615-3			**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	2.76			76	504976	10.18			
1	2-Propanol	2.91			45	109604	399.78			
1	3-Chloro-1-propene	3.03			76	100800	9.82			
1	Methyl Acetate	3.10			43	82689	10.19			
1	Acetonitrile	3.17			40	203040	431.83			
1	Methylene Chloride	3.24			84	213493	11.31			
1	tert-Butyl Alcohol	3.45			59	29720	49.16			
1	Acrylonitrile	3.72			53	141223	42.94			
1	Methyl tert-Butyl Ether	3.53			73	853269	21.00			
1	trans-1,2-Dichloroethene	3.54			96	205356	10.54			
1	n-Hexane	3.84			57	259553	9.42			
1	Diisopropyl Ether	4.31			45	576241	10.62			
1	1,1-Dichloroethane	4.27			63	352947	10.54			
1	Vinyl Acetate	4.39			86	34143	12.61			
1	Chloroprene	4.34			53	1448046	43.42			
1	tert-Butyl Ethyl Ether	4.85			59	511276	10.21			
1	2,2-Dichloropropane	5.08			77	303478	10.02			
1	cis-1,2-Dichloroethene	5.14			96	231279	10.66			
1	2-Butanone (MEK)	5.24			72	195040	203.99			
1	Ethyl Acetate	5.30			61	24871	18.03			
1	Propionitrile	5.43			54	49374	42.24			
1	Methacrylonitrile	5.57			67	183423	40.04			
1	Bromochloromethane	5.48			128	103741	11.62			
1	Tetrahydrofuran	5.50			71	11711	11.07			
1	Chloroform	5.60			83	388400	11.23			
1	Cyclohexane	5.68			56	350815	10.22			
1	1,1,1-Trichloroethane (TCA)	5.73			97	351548	10.77			
1	Carbon Tetrachloride	5.88			117	307143	10.65			
1	1,1-Dichloropropene	5.95			75	290993	10.22			
1	Isobutyl Alcohol	6.31			43	76792	323.12			
1	Benzene	6.20			78	825519	10.29			
1	1,2-Dichloroethane (EDC)	6.36			62	263692	11.75			
1	tert-Amyl Methyl Ether	6.37			55	112993	11.04			
1	Trichloroethene (TCE)	7.02			95	240499	11.08			
1	Methylcyclohexane	7.14			83	348760	10.75			
1	1,2-Dichloropropane	7.36			63	204968	10.38			
1	Dibromomethane	7.49			93	106209	10.93			
1	Methyl Methacrylate	7.52			69	83717	9.47			
1	1,4-Dioxane	7.53			88	10563m	214.26			
1	Bromodichloromethane	7.69			83	248853	10.46			
1	2-Nitropropane	8.07			41	125217	44.10			
1	2-Chloroethyl Vinyl Ether	8.09			63	79065	8.98			

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:\MS46\DATA\012216\0122F032.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 03:47	**Quant Date:**	01/25/2016 15:49	**Vial:**	51
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600615-3			**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	cis-1,3-Dichloropropene	8.21			75	297976	9.84			
1	4-Methyl-2-pentanone (MIBK)	8.41			58	700997	195.56			
1	Toluene	8.52			92	532201	10.39			
2	trans-1,3-Dichloropropene	8.88			75	236232	9.22			
2	Ethyl Methacrylate	8.94			69	159313	8.90			
2	1,1,2-Trichloroethane	9.08			83	128641	10.64			
2	Tetrachloroethene (PCE)	9.08			164	214894	11.06			
2	2-Hexanone	9.35			57	226164	182.11			
2	1,3-Dichloropropane	9.26			76	265055	10.20			
2	Dibromochloromethane	9.47			129	172705	9.79			
2	1,2-Dibromoethane (EDB)	9.59			107	149481	10.59			
2	1-Chlorohexane	10.07			91	285565	9.86			
2	Chlorobenzene	10.10			112	622343	10.60			
2	Ethylbenzene	10.20			106	321734	9.82			
2	1,1,1,2-Tetrachloroethane	10.21			131	211305	10.30			
2	m,p-Xylenes	10.34			106	801536	20.13			
2	o-Xylene	10.77			106	378247	9.64			
2	Styrene	10.81			103	305669m	10.17			
2	Bromoform	11.03			173	91546	9.67			
2	Isopropylbenzene	11.16			105	1016462	9.97			
2	cis-1,4-Dichloro-2-butene	11.34			89	73318	34.61			
3	1,1,2,2-Tetrachloroethane	11.59			83	140619	8.56			
3	trans-1,4-Dichloro-2-butene	11.67			53	38328	8.13			
3	Bromobenzene	11.53			156	268607	9.87			
3	n-Propylbenzene	11.62			91	1211326	9.39			
3	1,2,3-Trichloropropane	11.65			110	49373	9.08			
3	2-Chlorotoluene	11.74			91	712682	9.25			
3	1,3,5-Trimethylbenzene	11.82			105	848970	9.37			
3	4-Chlorotoluene	11.87			91	739789	9.25			
3	tert-Butylbenzene	12.17			119	746372	9.31			
3	1,2,4-Trimethylbenzene	12.24			105	841896	9.39			
3	sec-Butylbenzene	12.41			105	1085552	9.54			
3	4-Isopropyltoluene	12.57			119	909801	9.60			
3	1,3-Dichlorobenzene	12.57			146	536510	10.12			
3	1,4-Dichlorobenzene	12.67			146	535674	10.04			
3	n-Butylbenzene	13.03			91	779242	9.20			
3	1,2-Dichlorobenzene	13.09			146	463229	10.04			
3	1,2-Dibromo-3-chloropropane	13.98			155	18127	7.85			
3	1,3,5-Trichlorobenzene	14.14			180	358563	10.57			
3	1,2,4-Trichlorobenzene	14.85			180	286056	9.96			
3	Hexachlorobutadiene	14.98			225	131465	10.28			
3	Naphthalene	15.14			128	422949	8.98			

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:\MS46\DATA\012216\0122F032.D			**Instrument:**	GCMS46
Acqu Date:	01/23/2016 03:47	**Quant Date:**	01/25/2016 15:49	**Vial:**	51
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600615-3			**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	1,2,3-Trichlorobenzene	15.41			180	226501	10.12			

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)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:52:05 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.61	96	573520	10.00	PPB	0.00
64) Chlorobenzene-d5	10.07	82	247633	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.65	152	260506	10.00	PPB	-0.01
System Monitoring Compounds						
43) Dibromofluoromethane	5.81	113	168900	10.37	PPB	0.00
Spiked Amount 10.000			Recovery =	103.70%		
47) 1,2-Dichloroethane-d4	6.26	65	184018	10.92	PPB	0.00
Spiked Amount 10.000			Recovery =	109.20%		
62) Toluene-d8	8.44	98	624986	9.91	PPB	0.00
Spiked Amount 10.000			Recovery =	99.10%		
84) 4-Bromofluorobenzene	11.38	95	239461	9.39	PPB	0.00
Spiked Amount 10.000			Recovery =	93.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.15	85	222342	9.73	PPB	93
3) Chloromethane	1.32	50	225831	10.28	PPB	98
4) Vinyl Chloride	1.41	62	223285	11.31	PPB	98
5) 1,3-Butadiene	1.43	54	191661	12.79	PPB	99
6) Bromomethane	1.71	96	118718	10.67	PPB	93
7) Chloroethane	1.80	64	134264	12.48	PPB	95
8) Dichlorofluoromethane	2.01	67	388553	11.74	PPB	99
9) Trichlorofluoromethane	2.00	101	388861	11.78	PPB	97
10) Ethyl Ether	2.32	59	126561	10.41	PPB	91
11) Acrolein	2.54	56	351475	320.32	PPB	99
12) Trichlorotrifluoroethane	2.53	151	192927	11.23	PPB	96
13) 1,1-Dichloroethene	2.55	96	180564	10.62	PPB	97
14) Acetone	2.73	43	469099	209.34	PPB	98
15) Iodomethane	2.74	142	500662	23.14	PPB	97
16) Carbon Disulfide	2.76	76	504976	10.18	PPB	99
17) 2-Propanol (Isopropyl Alco	2.91	45	109604	399.78	PPB	94
18) 3-Chloro-1-propene	3.03	76	100800	9.82	PPB	97
19) Methyl Acetate	3.10	43	82689	10.19	PPB	99
20) Acetonitrile	3.17	40	203040	431.83	PPB	89
21) Methylene Chloride	3.24	84	213493	11.31	PPB	98
22) tert-Butyl Alcohol	3.45	59	29720	49.16	PPB	92
23) Acrylonitrile	3.72	53	141223	42.94	PPB	95
24) Methyl tert-Butyl Ether	3.53	73	853269	21.00	PPB	97
25) trans-1,2-Dichloroethene	3.54	96	205356	10.54	PPB	98
26) Hexane	3.84	57	259553	9.42	PPB	93
27) Diisopropyl Ether	4.31	45	576241	10.62	PPB	99
28) 1,1-Dichloroethane	4.27	63	352947	10.54	PPB	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:52:05 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.39	86	34143	12.61	PPB		96
30)	Chloroprene	4.34	53	1448046	43.42	PPB		96
31)	tert-Butyl Ethyl Ether	4.85	59	511276	10.21	PPB		99
32)	2,2-Dichloropropane	5.08	77	303478	10.02	PPB		98
33)	cis-1,2-Dichloroethene	5.14	96	231279	10.66	PPB		98
34)	2-Butanone	5.24	72	195040	203.99	PPB		99
35)	Ethyl Acetate	5.30	61	24871	18.03	PPB		75
36)	Propionitrile	5.43	54	49374	42.24	PPB		96
37)	Methacrylonitrile	5.57	67	183423	40.04	PPB		96
38)	Bromochloromethane	5.48	128	103741	11.62	PPB		88
39)	Tetrahydrofuran	5.50	71	11711	11.07	PPB	#	84
40)	Chloroform	5.60	83	388400	11.23	PPB		99
41)	Cyclohexane	5.68	56	350815	10.22	PPB		92
42)	1,1,1-Trichloroethane	5.73	97	351548	10.77	PPB		97
44)	Carbon Tetrachloride	5.88	117	307143	10.65	PPB		96
45)	1,1-Dichloropropene	5.95	75	290993	10.22	PPB		98
46)	Isobutyl Alcohol	6.31	43	76792	323.12	PPB		95
48)	Benzene	6.20	78	825519	10.29	PPB		97
49)	1,2-Dichloroethane	6.36	62	263692	11.75	PPB		98
50)	tert-Amyl Methyl Ether	6.37	55	112993	11.04	PPB	#	88
51)	Trichloroethene	7.02	95	240499	11.08	PPB		96
52)	Methylcyclohexane	7.14	83	348760	10.75	PPB		97
53)	1,2-Dichloropropane	7.36	63	204968	10.38	PPB		88
54)	Dibromomethane	7.49	93	106209	10.93	PPB		90
55)	Methyl methacrylate	7.52	69	83717	9.47	PPB		96
56)	1,4-Dioxane	7.53	88	10563m	214.26	PPB		
57)	Bromodichloromethane	7.69	83	248853	10.46	PPB		94
58)	2-Nitropropane	8.07	41	125217	44.10	PPB		96
59)	2-Chloroethyl Vinyl Ether	8.09	63	79066	8.98	PPB		97
60)	cis-1,3-Dichloropropene	8.21	75	297976	9.84	PPB		96
61)	4-Methyl-2-pentanone (MIBK	8.41	58	700997	195.56	PPB		95
63)	Toluene	8.52	92	532201	10.39	PPB		92
65)	n-Octane	8.58	85	98876	9.10	PPB		96
66)	trans-1,3-Dichloropropene	8.88	75	236232	9.22	PPB		96
67)	Ethyl methacrylate	8.94	69	159313	8.90	PPB		98
68)	1,1,2-Trichloroethane	9.08	83	128641	10.64	PPB		97
69)	Tetrachloroethene	9.08	164	214894	11.06	PPB		96
70)	2-Hexanone	9.35	57	226164	182.11	PPB		93
71)	1,3-Dichloropropane	9.26	76	265055	10.20	PPB		96
72)	Dibromochloromethane	9.47	129	172705	9.79	PPB		99
73)	1,2-Dibromoethane (EDB)	9.59	107	149481	10.59	PPB		93

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

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:52:05 2016 Quant Results File: 010516MS46_8260

Quant Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration
DataAcq Meth : 8260.M

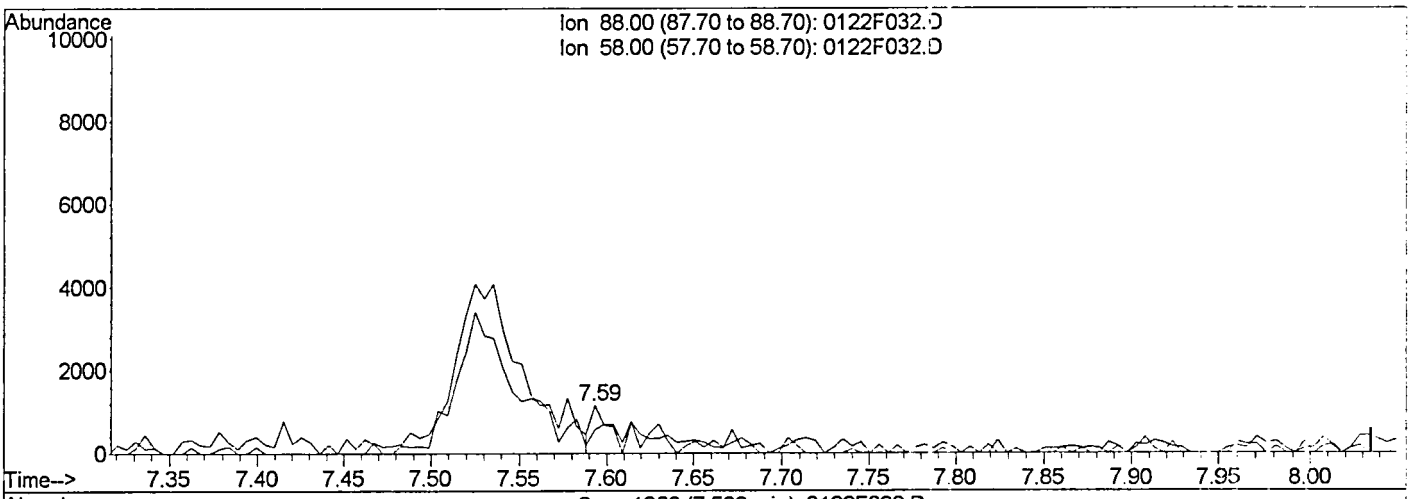
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	10.07	91	285565	9.86	PPB	97
75)	Chlorobenzene	10.10	112	622343	10.60	PPB	95
76)	Ethylbenzene	10.20	106	321734	9.82	PPB	94
77)	1,1,1,2-Tetrachloroethane	10.21	131	211305	10.30	PPB	98
78)	m,p-Xylenes	10.34	106	801536	20.13	PPB	99
79)	o-Xylene	10.77	106	378247	9.64	PPB	92
80)	Styrene	10.81	103	305669m	10.17	PPB	
81)	Bromoform	11.03	173	91546	9.67	PPB	91
82)	Isopropylbenzene	11.16	105	1016462	9.97	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.34	89	73318	34.61	PPB	96
86)	1,1,2,2-Tetrachloroethane	11.59	83	140619	8.56	PPB	98
87)	trans-1,4-Dichloro-2-buten	11.67	53	38328	8.13	PPB	77
88)	Bromobenzene	11.53	156	268607	9.87	PPB	92
89)	n-Propylbenzene	11.62	91	1211326	9.39	PPB	99
90)	1,2,3-Trichloropropane	11.65	110	49373	9.08	PPB	88
91)	2-Chlorotoluene	11.74	91	712682	9.25	PPB	99
92)	1,3,5-Trimethylbenzene	11.82	105	848970	9.37	PPB	98
93)	4-Chlorotoluene	11.87	91	739789	9.25	PPB	96
94)	tert-Butylbenzene	12.17	119	746372	9.31	PPB	100
95)	1,2,4-Trimethylbenzene	12.24	105	841896	9.39	PPB	97
96)	sec-Butylbenzene	12.41	105	1085552	9.54	PPB	99
97)	p-Isopropyltoluene	12.57	119	909801	9.60	PPB	98
98)	1,3-Dichlorobenzene	12.57	146	536510	10.12	PPB	99
99)	1,4-Dichlorobenzene	12.67	146	535674	10.04	PPB	96
100)	n-Butylbenzene	13.03	91	779242	9.20	PPB	98
101)	1,2-Dichlorobenzene	13.09	146	463229	10.04	PPB	95
102)	1,2-Dibromo-3-chloropropan	13.98	155	18127	7.85	PPB	90
103)	1,3,5-Trichlorobenzene	14.14	180	358563	10.57	PPB	95
104)	1,2,4-Trichlorobenzene	14.85	180	286056	9.96	PPB	96
105)	Hexachlorobutadiene	14.98	225	131465	10.28	PPB	95
106)	Naphthalene	15.14	128	422949	8.98	PPB	98
107)	1,2,3-Trichlorobenzene	15.41	180	226501	10.12	PPB	99

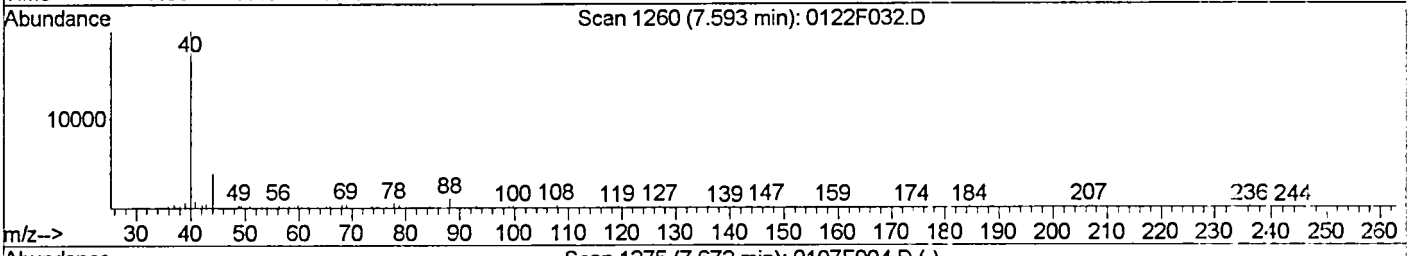
(#) = qualifier out of range (m) = manual integration

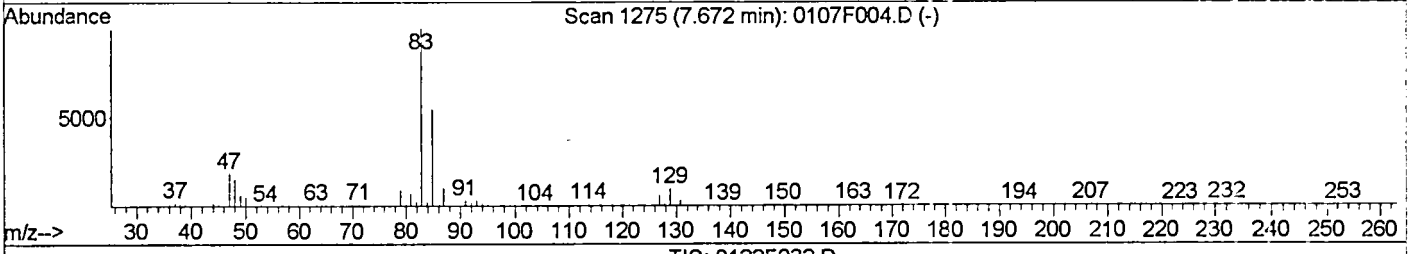
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 12:52 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F032.D

(56) 1,4-Dioxane (T)

7.59min 16.21PPB

response 783

Ion	Exp%	Act%
88.00	100	100
58.00	44.10	39.27
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

01/25/16

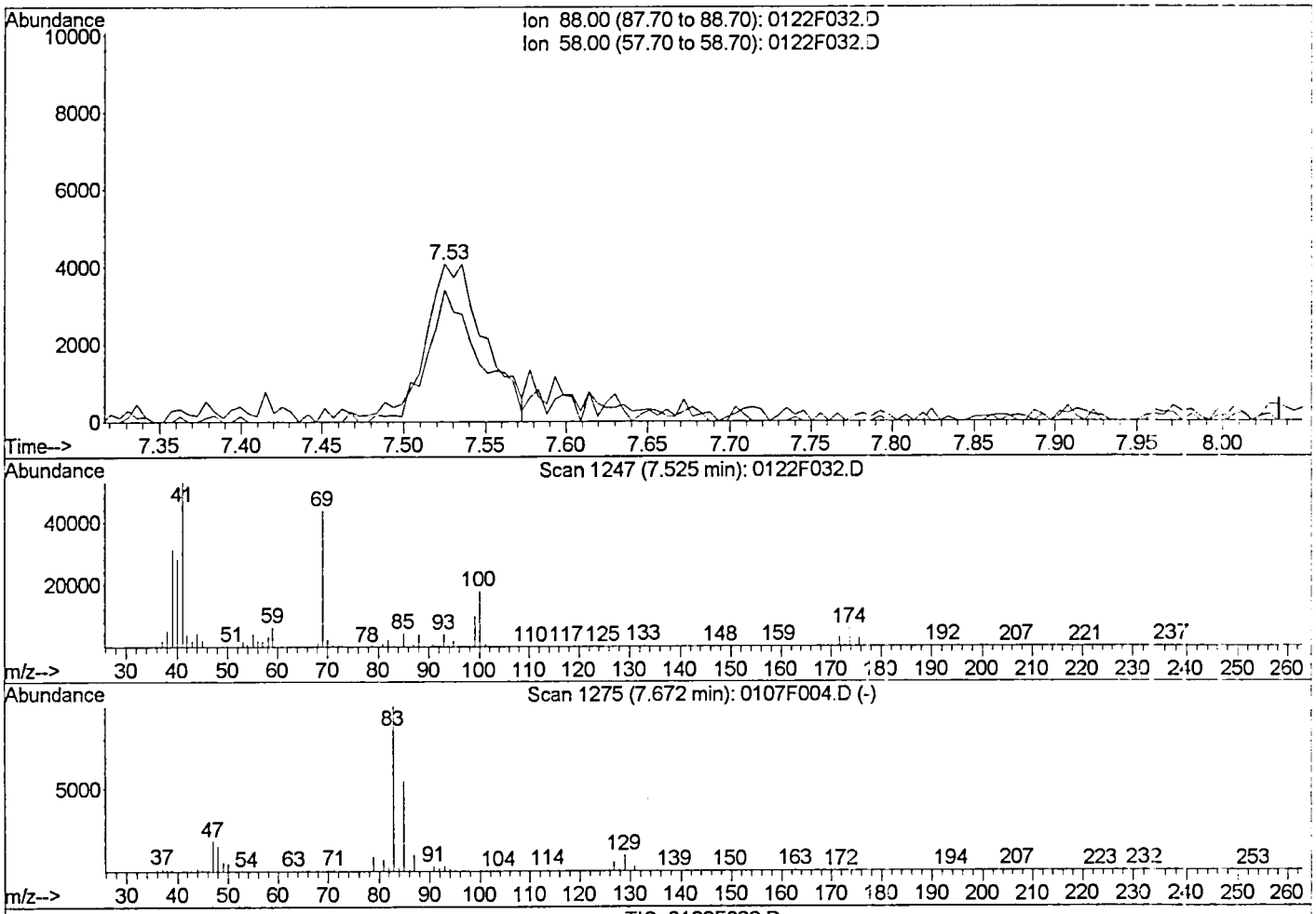
0122F032.D 010516MS46_8260.M Mon Jan 25 15:49:24 2016

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F032.D
Acq On : 23 Jan 2016 03:47
Sample : CCVA
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 25 15:49 2016

Vial: 51
Operator: YX
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration



TIC: 0122F032.D

(56) 1,4-Dioxane (T)

7.53min 214.26PPB m

response 10563

Ion	Exp%	Act%
88.00	100	100
58.00	44.10	83.59#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

WRT

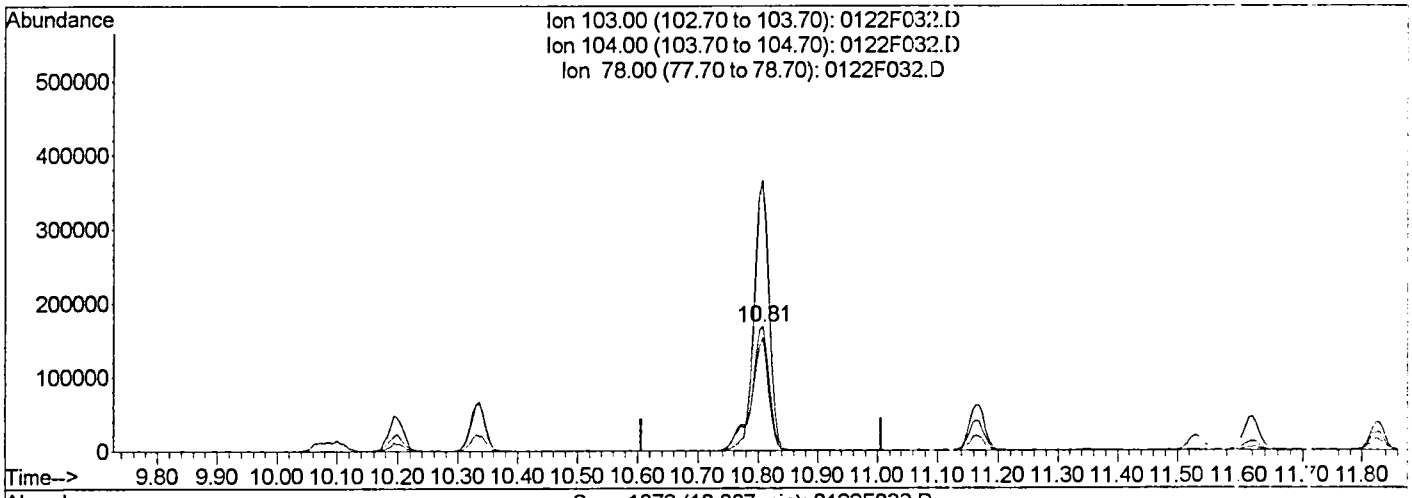
01/25/16

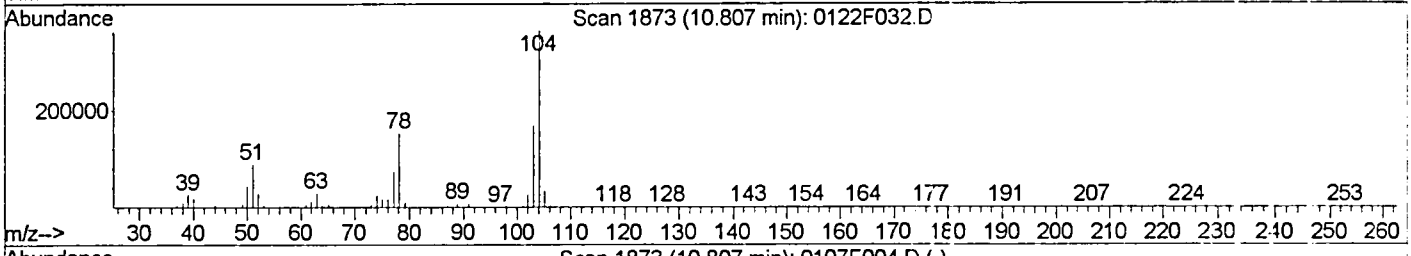
0122F032.D 010516MS46_8260.M Mon Jan 25 15:49:37 2016

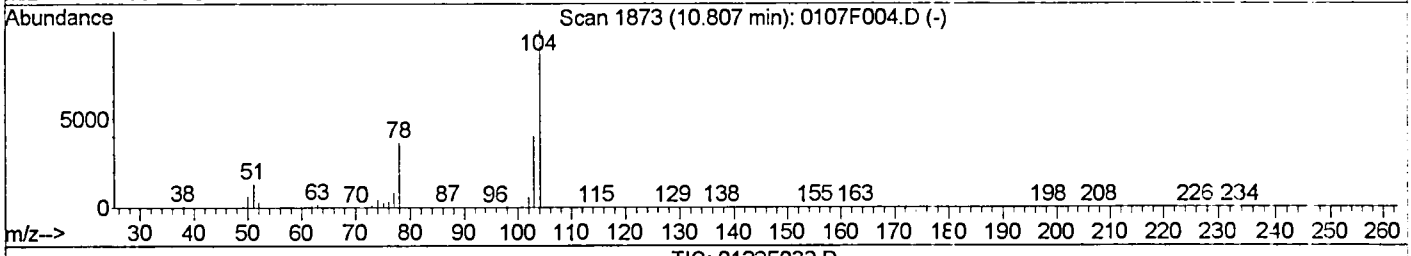
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:49 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F032.D

(80) Styrene (T)

10.81min 11.48PPB

response 345099

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	217.98
78.00	90.40	90.96
0.00	0.00	0.00

Manual Integration:

Before

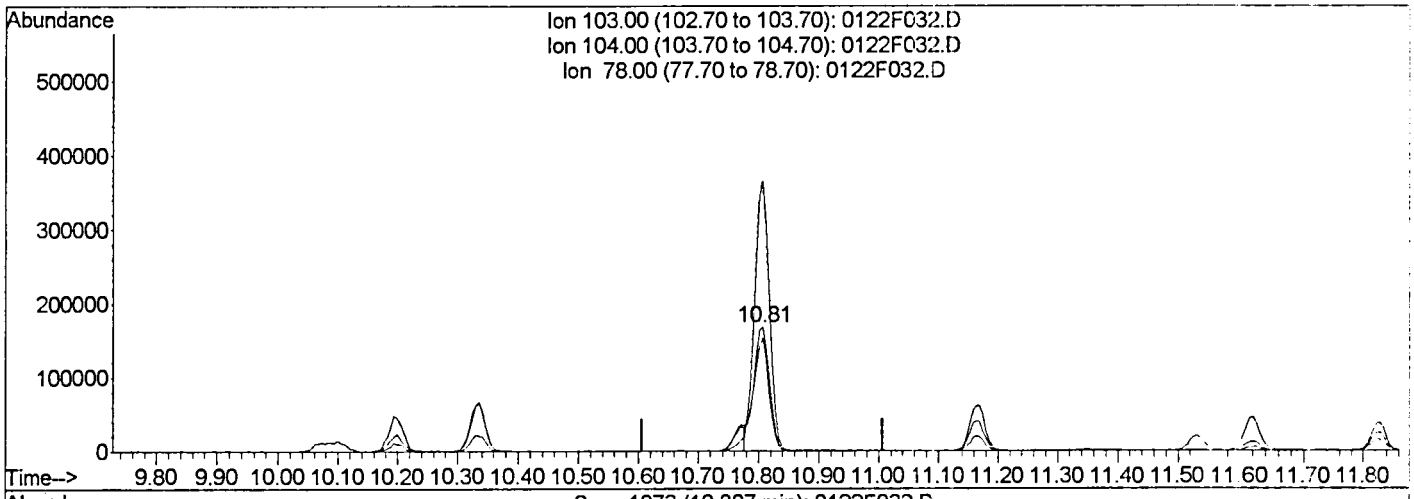
01/25/16

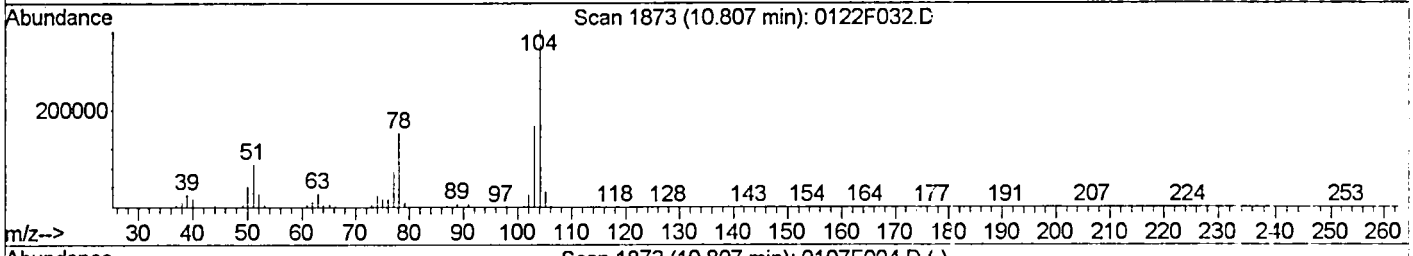
0122F032.D 010516MS46_8260.M Mon Jan 25 15:49:50 2016

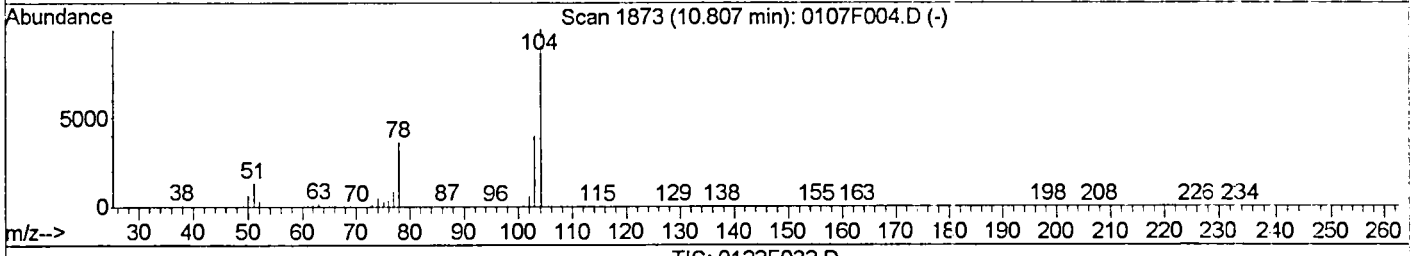
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:49 2016 Quant Results File: temp.res

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Single Level Calibration







TIC: 0122F032.D

(80) Styrene (T)

10.81min 10.17PPB m

response 305669

Ion	Exp%	Act%
103.00	100	100
104.00	203.40	217.98
78.00	90.40	91.03
0.00	0.00	0.00

Manual Integration:

After

Shoulder

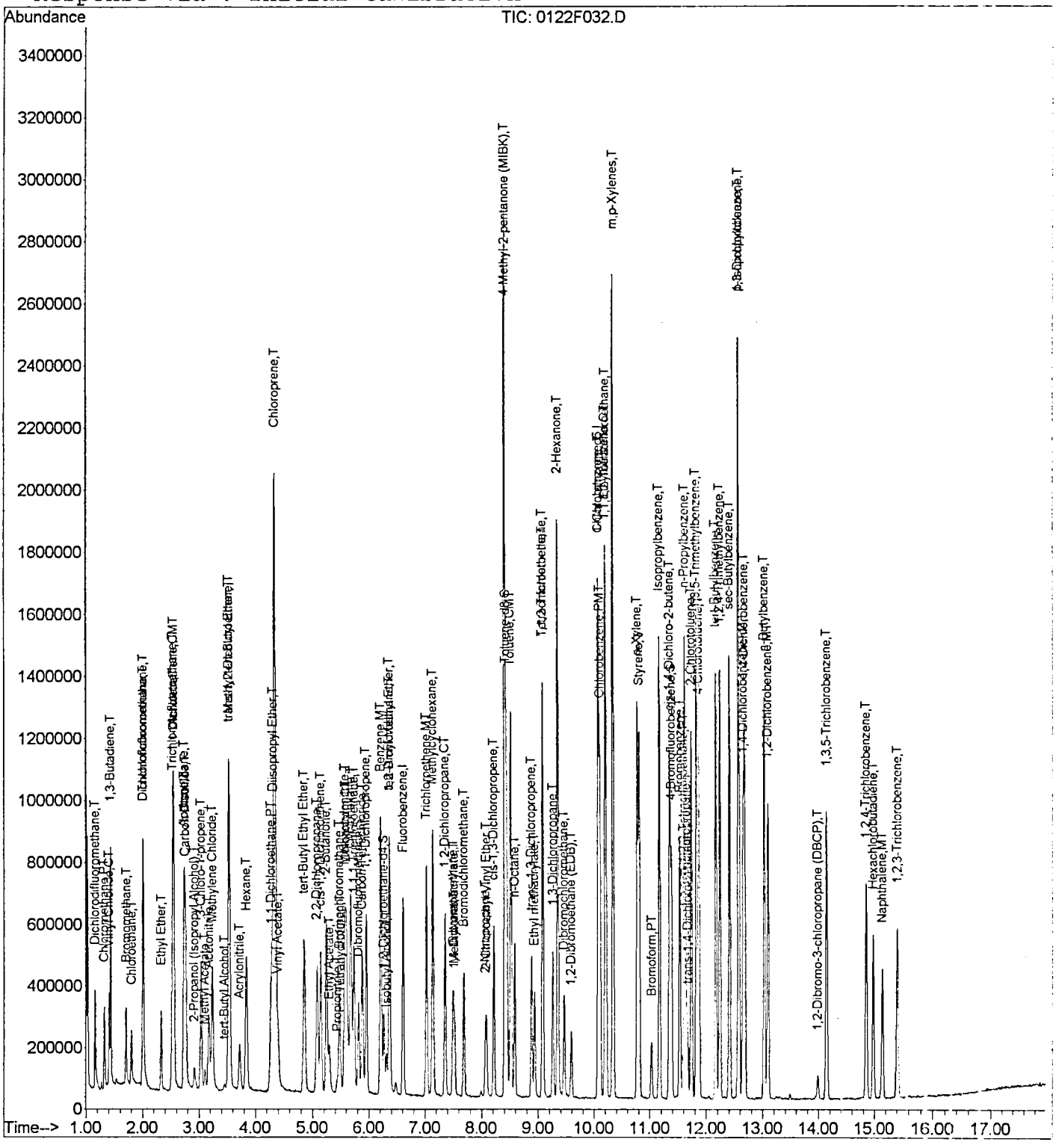
01/25/16

0122F032.D 010516MS46_8260.M Mon Jan 25 15:49:55 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\012216\0122F032.D Vial: 51
Acq On : 23 Jan 2016 03:47 Operator: YX
Sample : CCVA Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 25 15:49 2016 Quant Results File: 010516MS46_8

Method : J:\MS46\METHODS\010516MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Jan 08 14:50:31 2016
Response via : Initial Calibration



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:\MS27\DATA\012916_SIM\0129F019.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 17:45
Date Quantitated: 02/01/2016 13:45
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRL ~
Lab Control Spike	Toluene-d8	122	74	112	this analyte flagg
Surrogates	Toluene-d8	122	74	112	this ND

Primary Review: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 14:35:09
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F019.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 17:45	**Quant Date:**	02/01/2016 13:45	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496758	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	71724	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	51328	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17662	1,082	108	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	63493	1,217	122	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	21424	1,036	104	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	95m	3.66	5.8	U	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:37:25 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

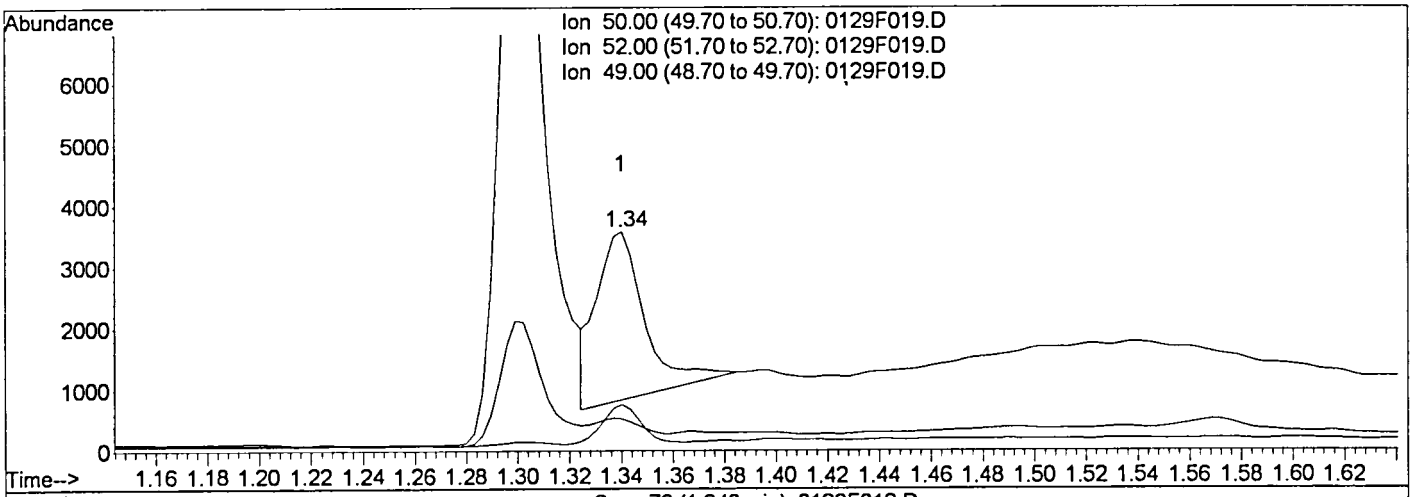
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	71724	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	51328	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	24309	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17662	1082.14	ng/L	0.00
Spiked Amount 1000.000			Recovery = 108.21%			
15) Toluene-d8	8.21	98	63493	1217.31	ng/L	0.00
Spiked Amount 1000.000			Recovery = 121.73%			
24) 4-Bromofluorobenzene	10.89	95	21424	1035.72	ng/L	0.00
Spiked Amount 1000.000			Recovery = 103.57%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	2497m	85.64	ng/L	
5) Methylene Chloride	3.29	84	508	21.39	ng/L	100
6) trans-1,2-Dichloroethene	3.57	96	53	2.88	ng/L #	76
8) Chloroform	5.61	83	169	4.56	ng/L	93
11) Benzene	6.17	78	465	5.77	ng/L	96
12) 1,2-Dichloroethane	6.33	62	95m	3.66	ng/L	
13) Trichloroethene	6.92	95	85m	4.51	ng/L	
20) Toluene	8.28	92	13501	324.45	ng/L	98
21) Ethylbenzene	9.80	106	153	7.05	ng/L	88
22) m,p-Xylenes	9.93	106	140	5.17	ng/L	95
23) o-Xylene	10.32	106	83	3.10	ng/L	87
26) Tetrachloroethene	8.78	164	78	5.37	ng/L	88
28) 1,4-Dichlorobenzene	12.05	146	281	7.41	ng/L	84

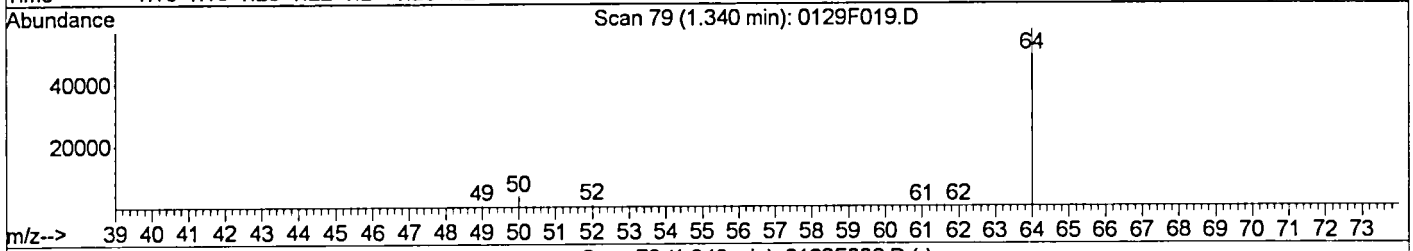
(#) = qualifier out of range (m) = manual integration
0129F019.D 012716MS27_8260SIM.M Mon Feb 01 14:07:32 2016 Page 1

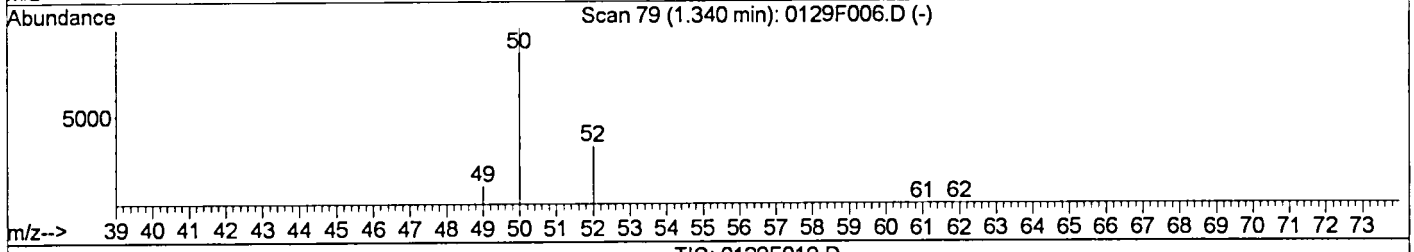
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:37 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F019.D

(2) Chloromethane (T)

1.34min 122.78ng/L

response 3580

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	26.33
49.00	10.10	10.01
0.00	0.00	0.00

Manual Integration:

Before

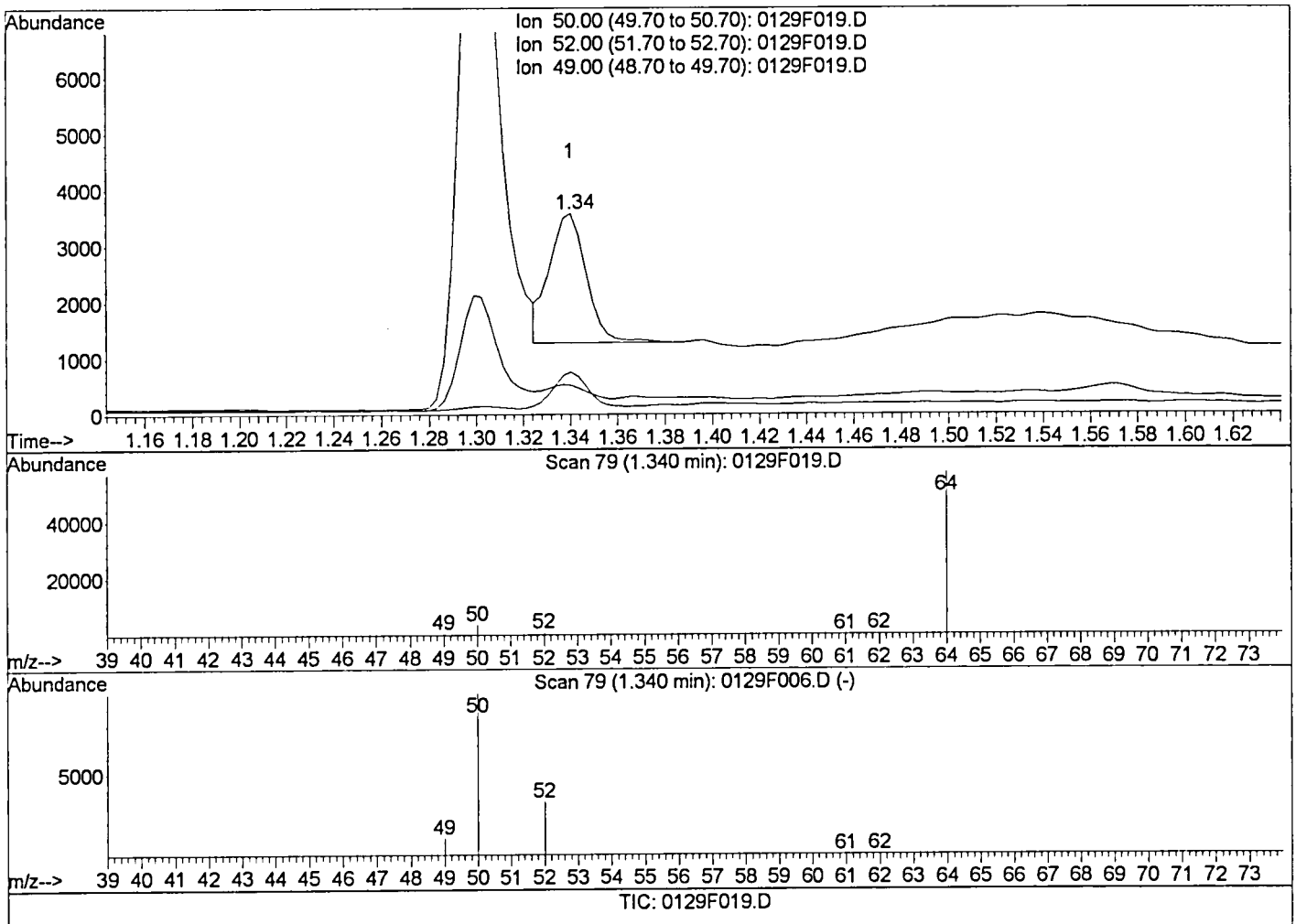
02/01/16

0129F019.D 012716MS27_8260SIM.M Mon Feb 01 13:44:03 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:44 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F019.D

(2) Chloromethane (T)

1.34min 85.64ng/L m

response 2497

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	21.09
49.00	10.10	14.49
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

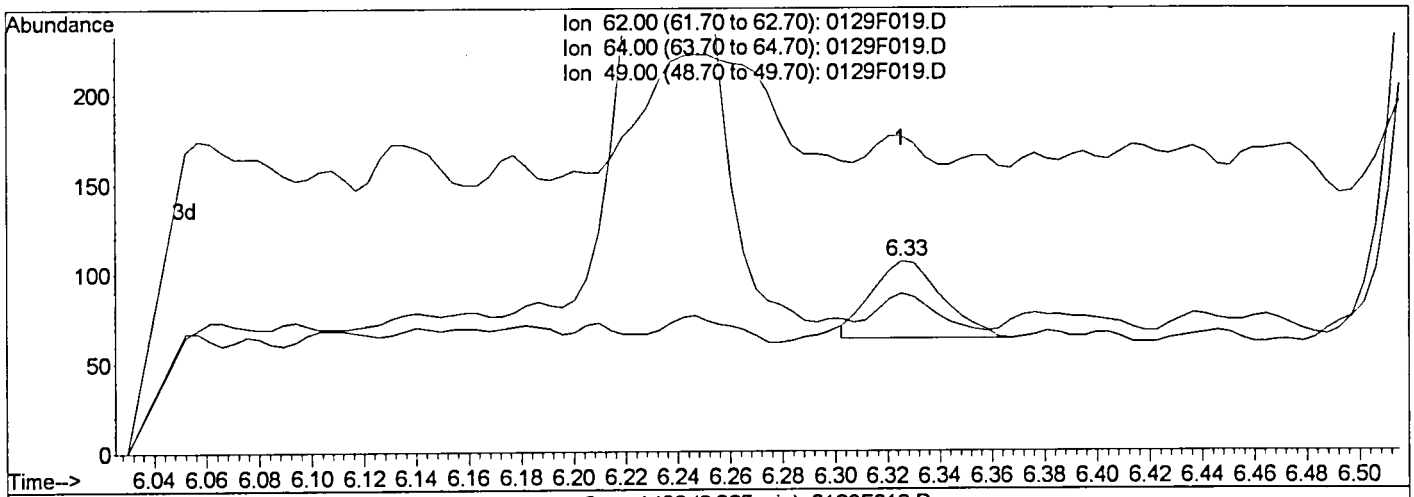
02/01/16

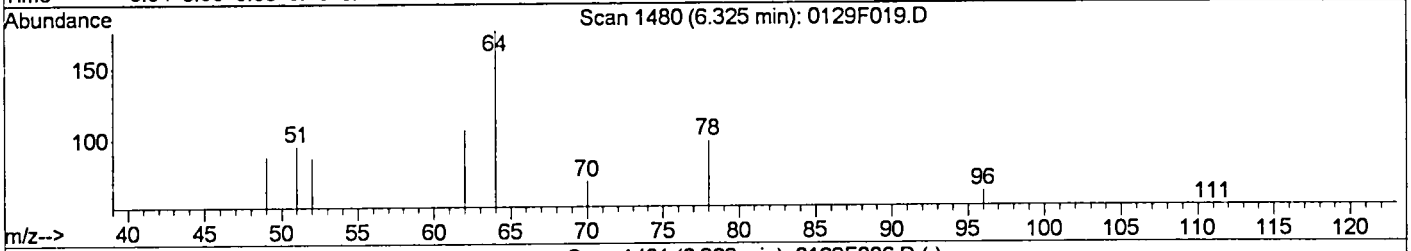
0129F019.D 012716MS27_8260SIM.M Mon Feb 01 13:44:14 2016

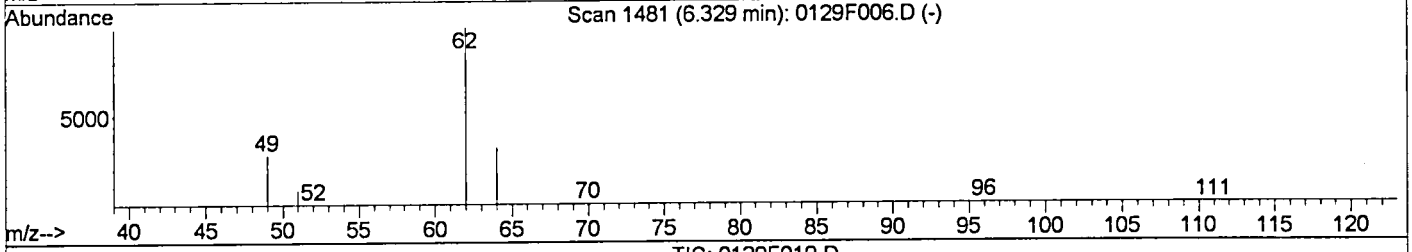
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:44 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F019.D

(12) 1,2-Dichloroethane (T)

6.33min 3.12ng/L

response 81

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	41.86
49.00	28.20	34.88
0.00	0.00	0.00

Manual Integration:

Before

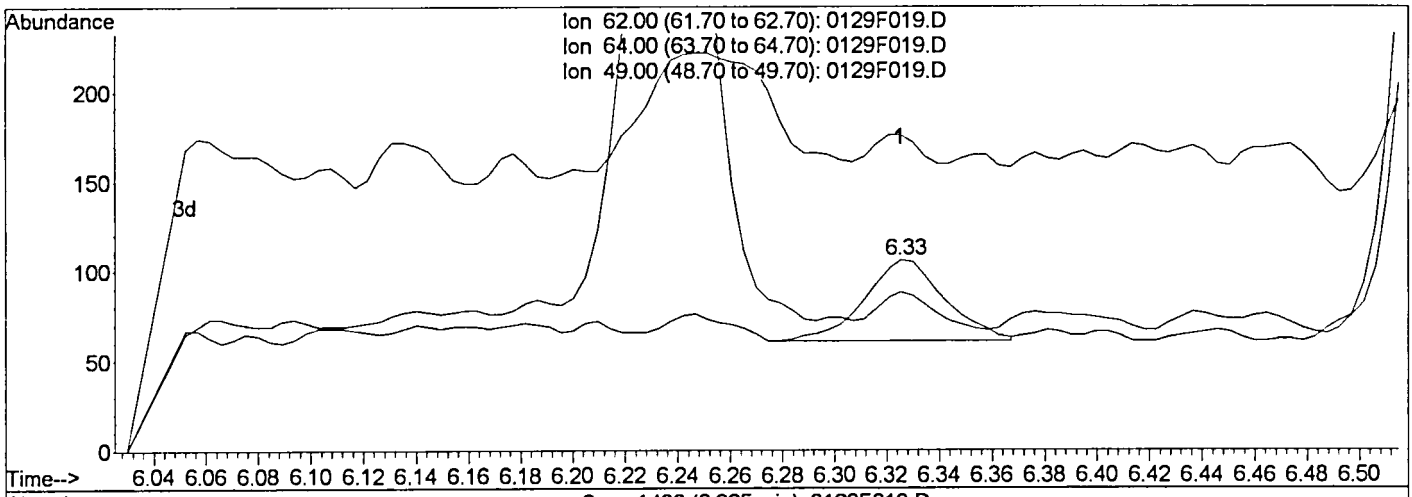
02/01/16

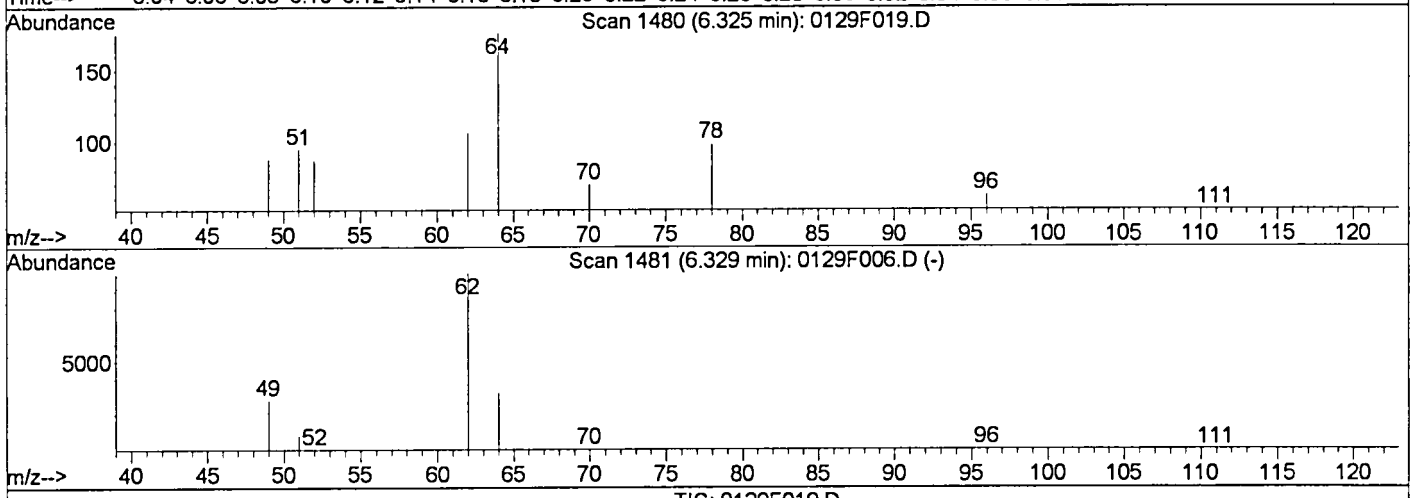
0129F019.D 012716MS27_8260SIM.M Mon Feb 01 13:44:37 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:44 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration





TIC: 0129F019.D

(12) 1,2-Dichloroethane (T)

6.33min 3.66ng/L m

response 95

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	166.04#
49.00	28.20	83.02#
0.00	0.00	0.00

Manual Integration:

After 4

Baseline correction

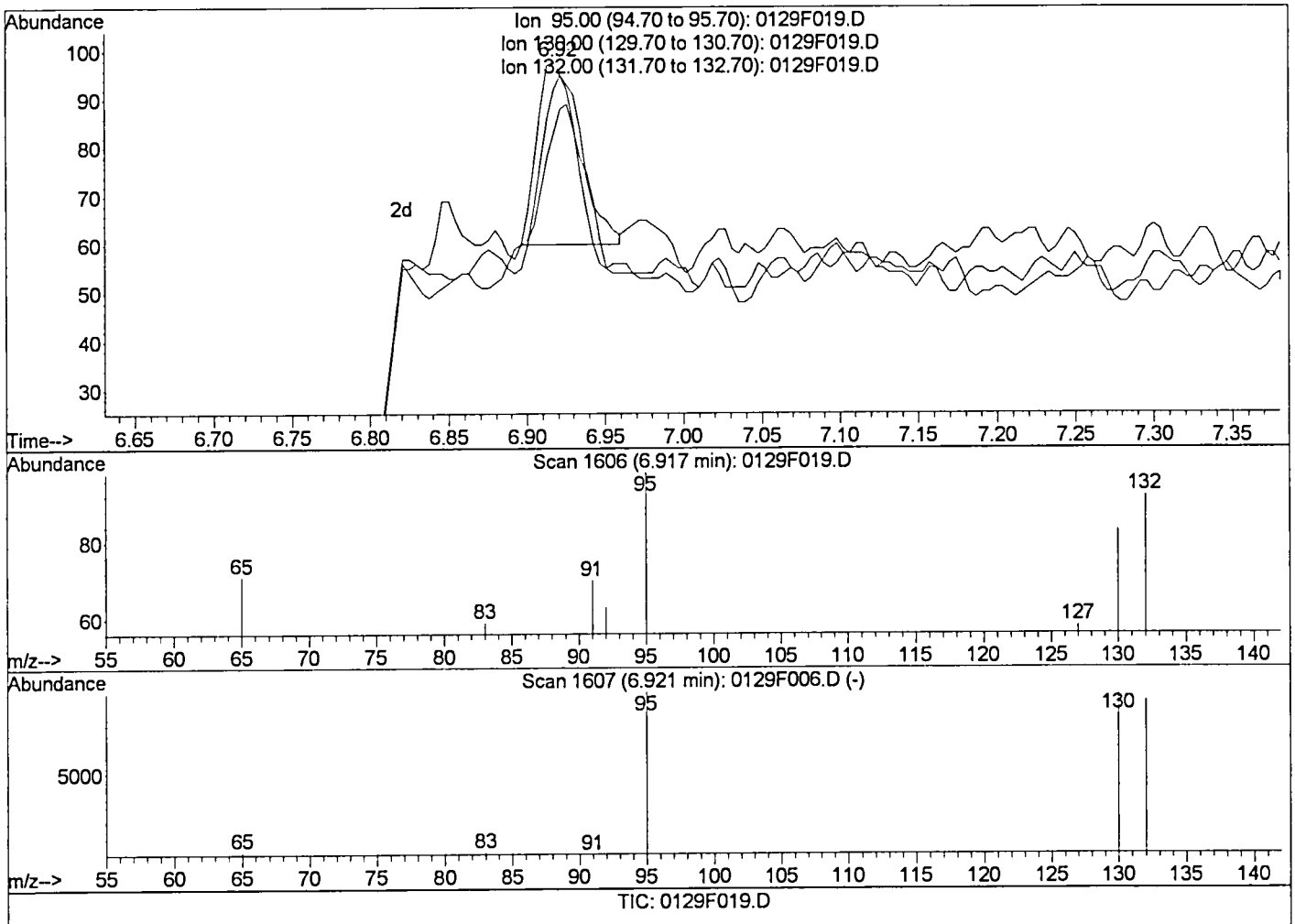
02/01/16

0129F019.D 012716MS27_8260SIM.M Mon Feb 01 13:44:43 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:44 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F019.D

(13) Trichloroethene (T)

6.92min 3.88ng/L

response 73

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	76.32
132.00	93.90	97.37
0.00	0.00	0.00

Manual Integration:

Before

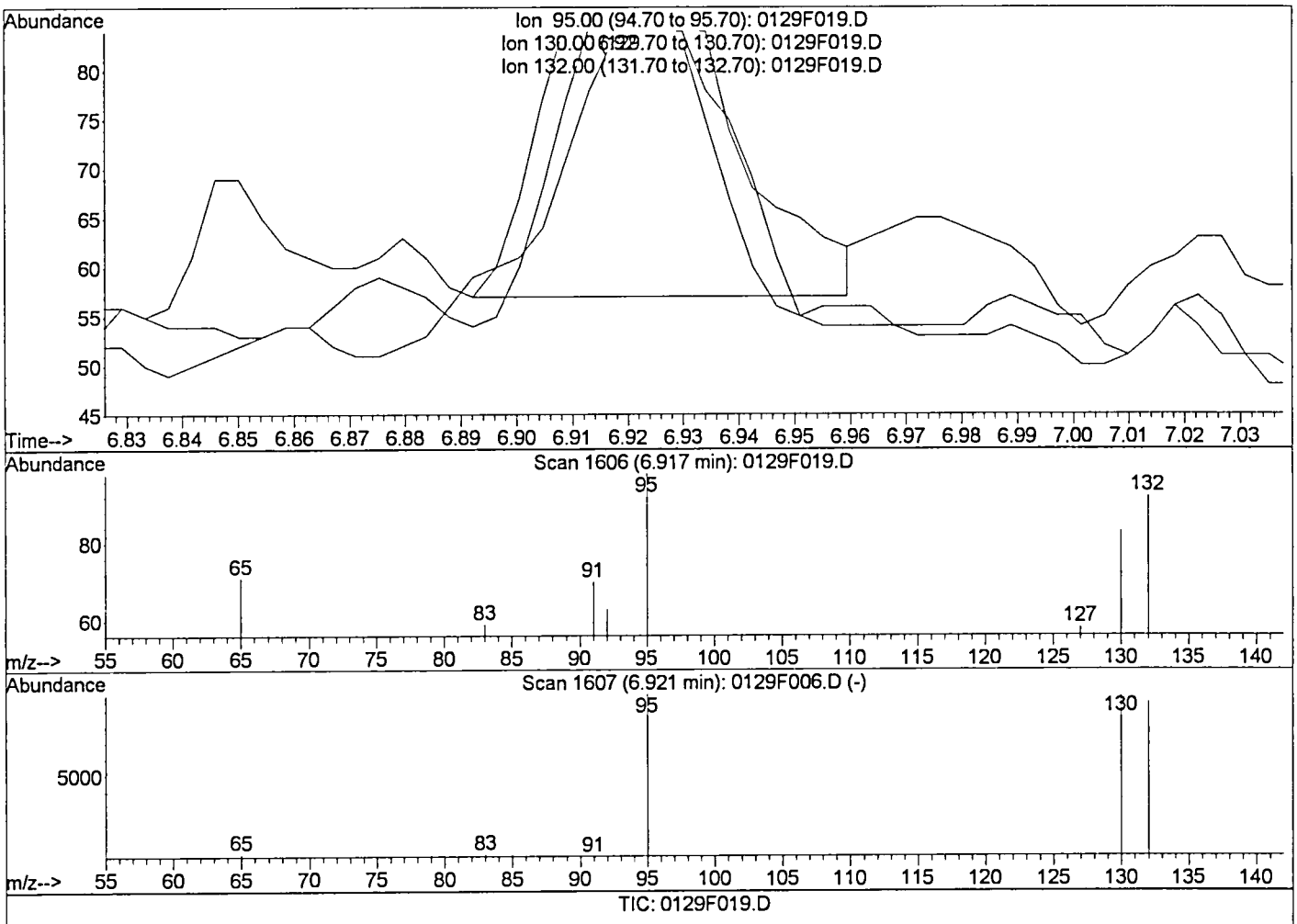
02/01/16

0129F019.D 012716MS27_8260SIM.M Mon Feb 01 13:44:47 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:45 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F019.D

(13) Trichloroethene (T)

6.92min 4.51ng/L m

response 85

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	84.69
132.00	93.90	93.88
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

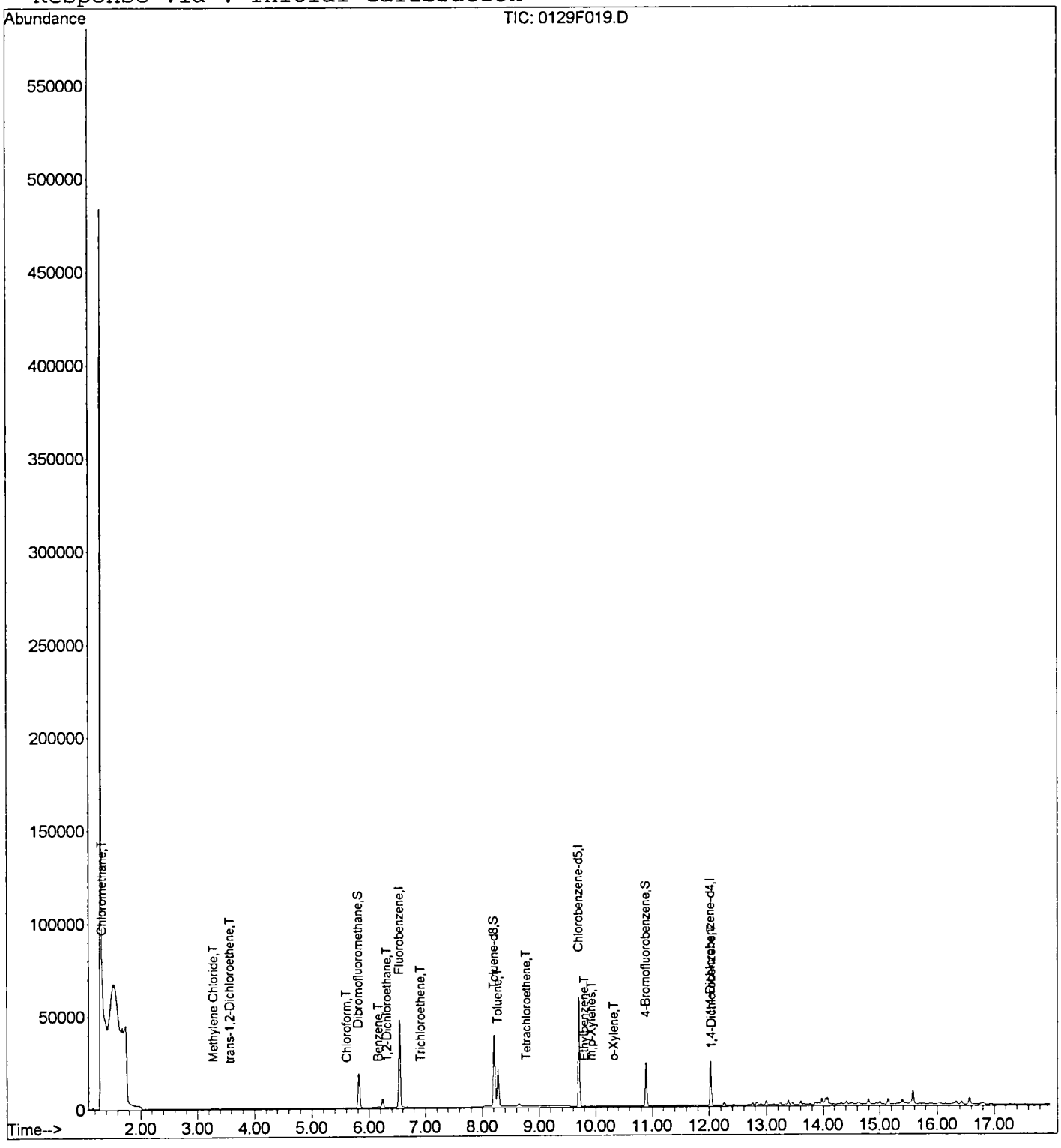
02/01/16

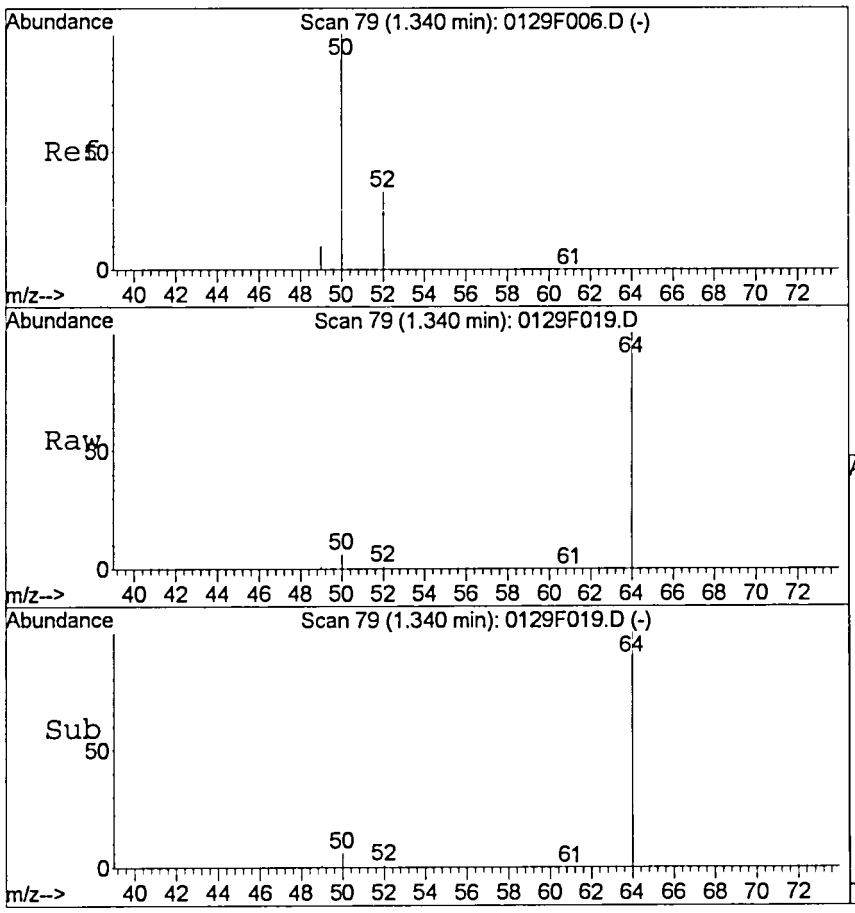
0129F019.D 012716MS27_8260SIM.M Mon Feb 01 13:45:09 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F019.D Vial: 16
Acq On : 29 Jan 2016 5:45 pm Operator: GH
Sample : K0673-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:45 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

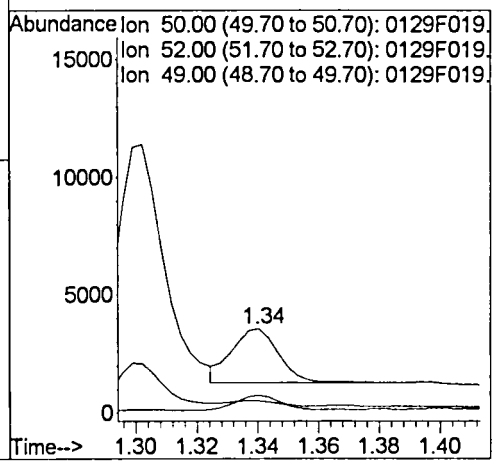


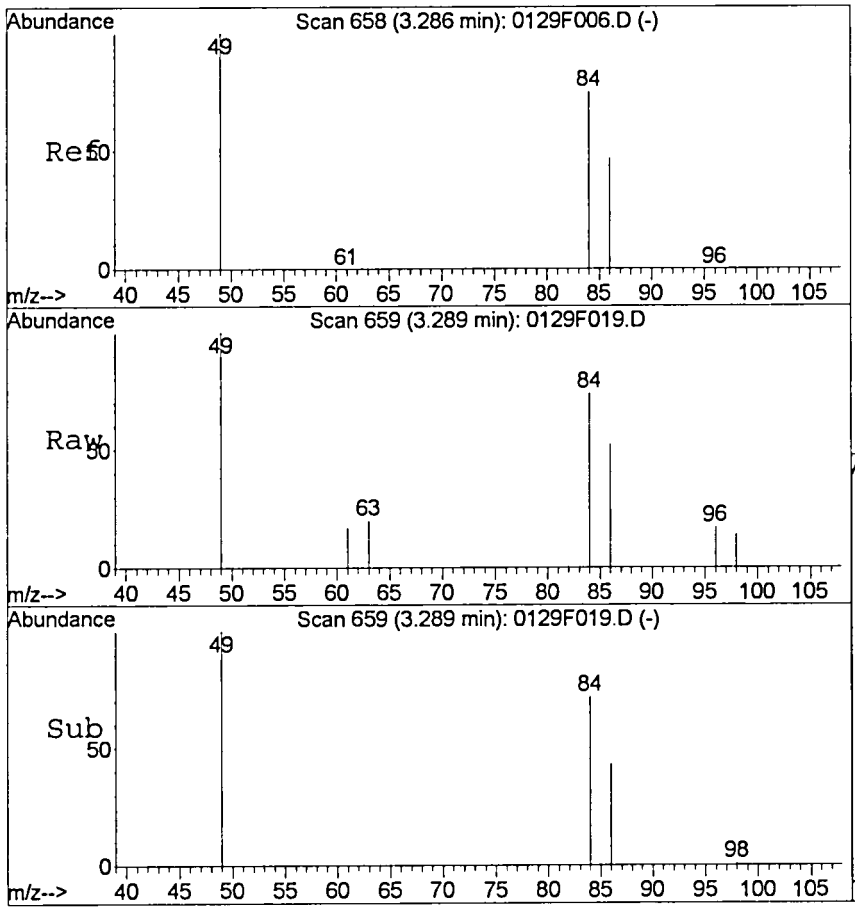


#2
Chloromethane
Concen: 85.64 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 50 Resp: 2497

Ion	Ratio	Lower	Upper
50	100		
52	21.1	2.9	62.9
49	14.5	0.0	40.1

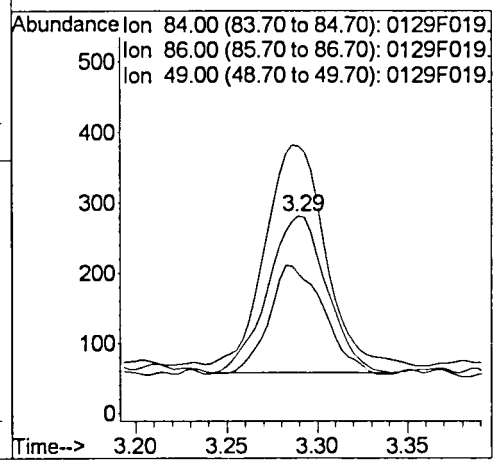


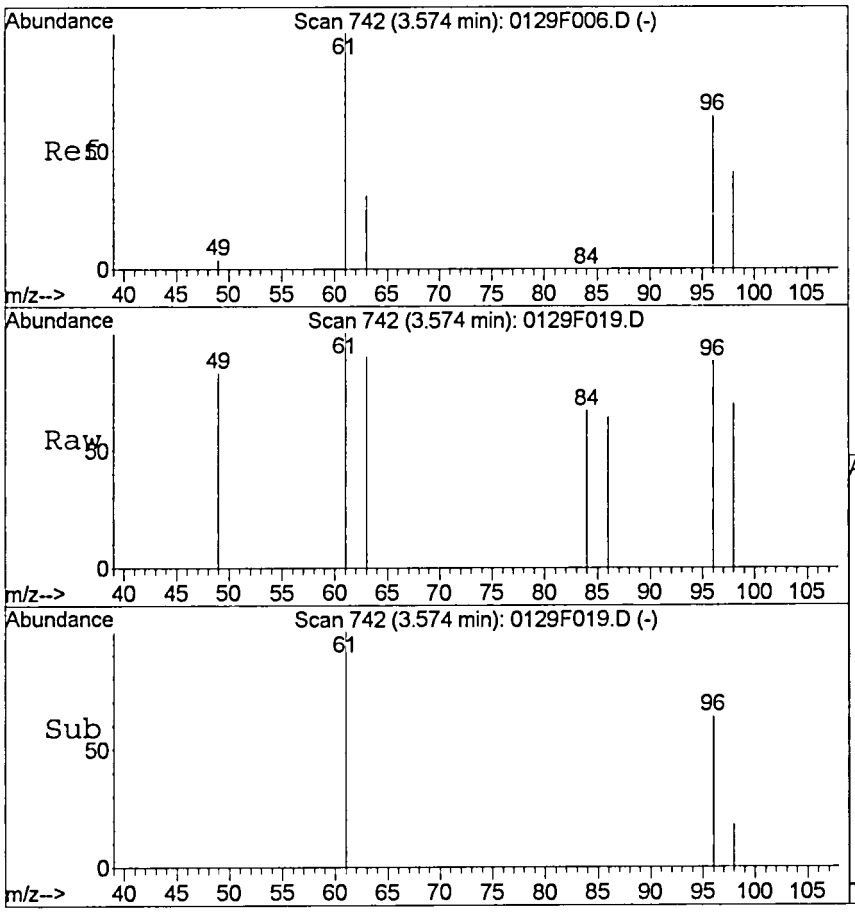


#5
Methylene Chloride
Concen: 21.39 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 84 Resp: 508

Ion	Ratio	Lower	Upper
84	100		
86	63.8	33.8	93.8
49	138.4	107.9	167.9

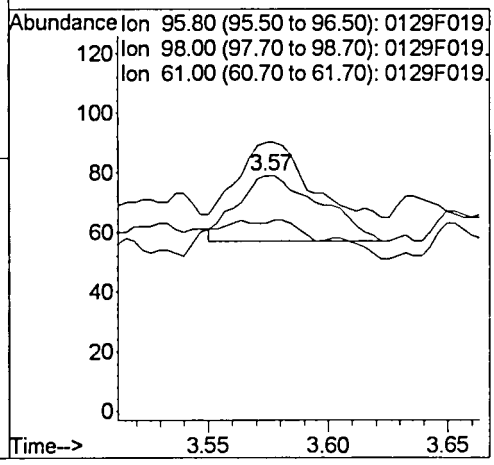


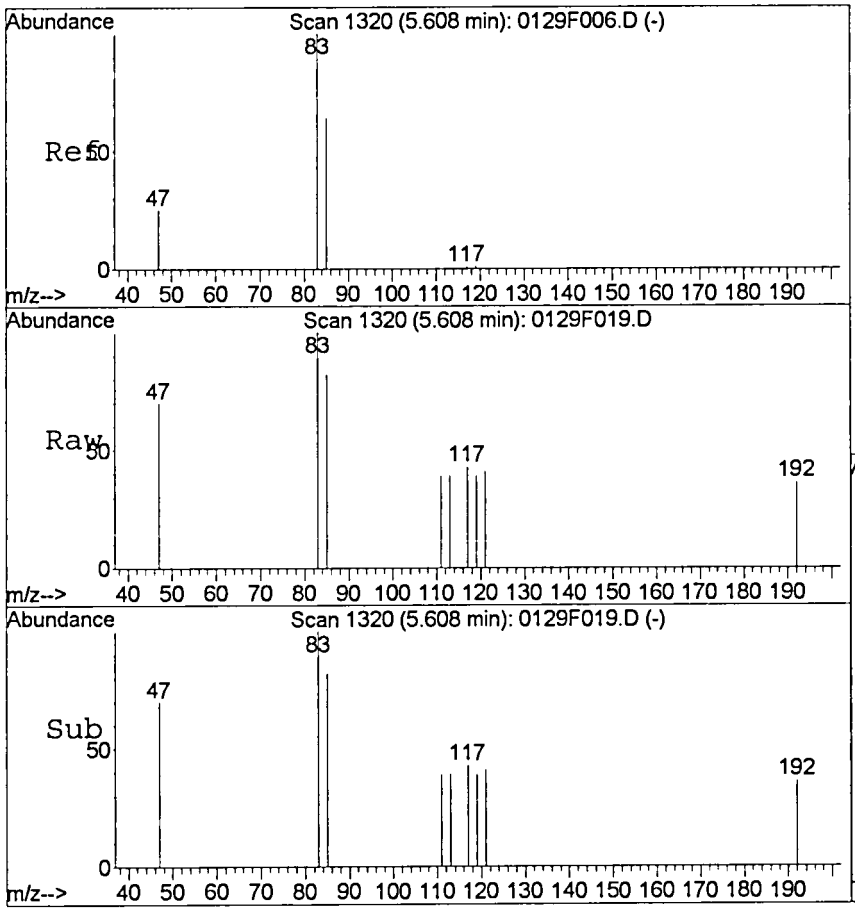


#6
trans-1,2-Dichloroethene
Concen: 2.88 ng/L
RT: 3.57 min Scan# 742
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 96 Resp: 53

Ion	Ratio	Lower	Upper
96	100		
98	54.5	32.7	92.7
61	113.6	122.3	182.3#

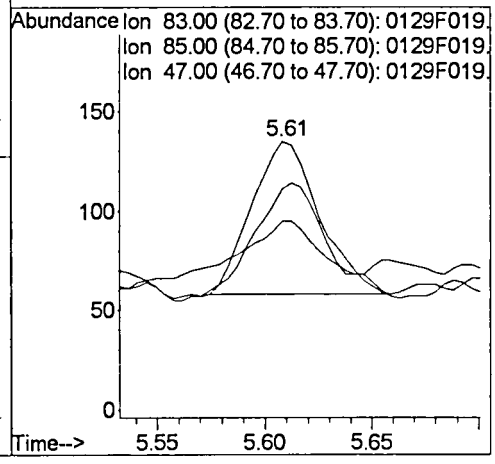


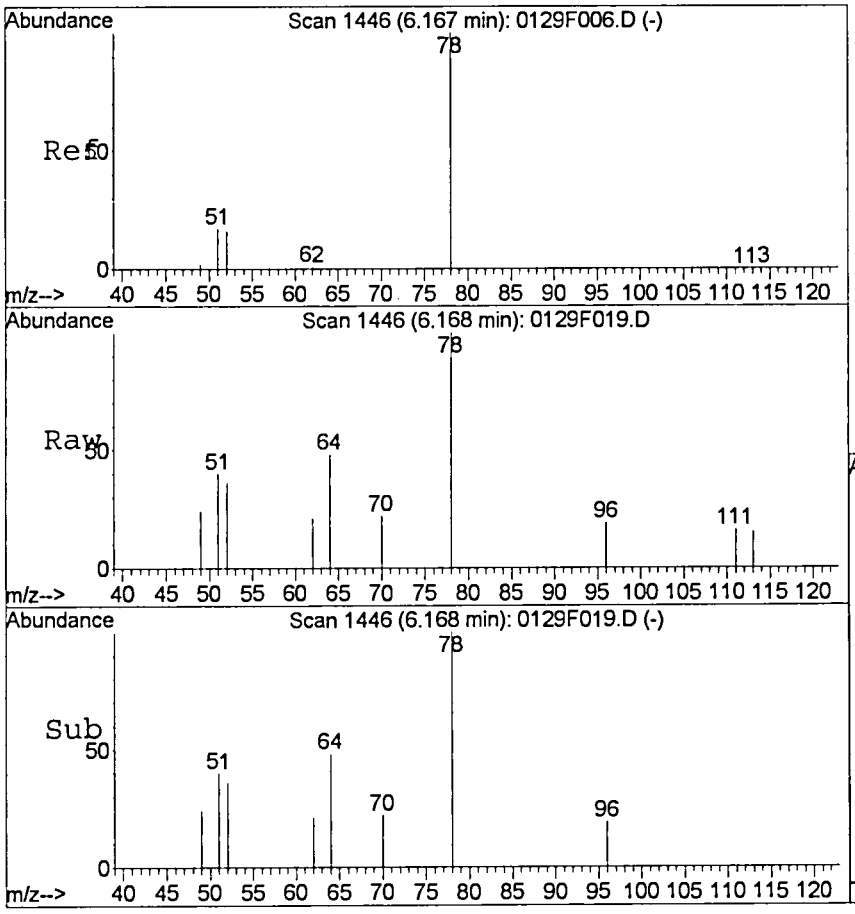


#8
Chloroform
Concen: 4.56 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 83 Resp: 169

Ion	Ratio	Lower	Upper
83	100		
85	70.1	34.7	94.7
47	29.9	0.0	55.9

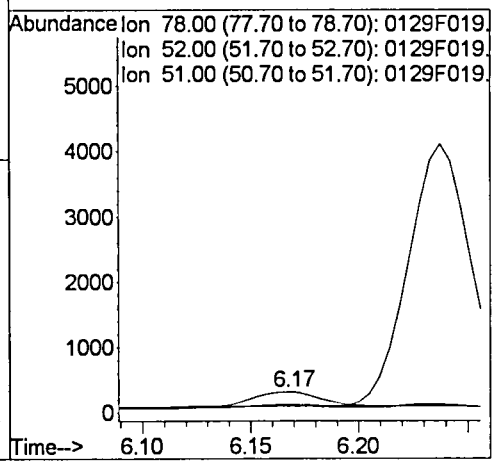


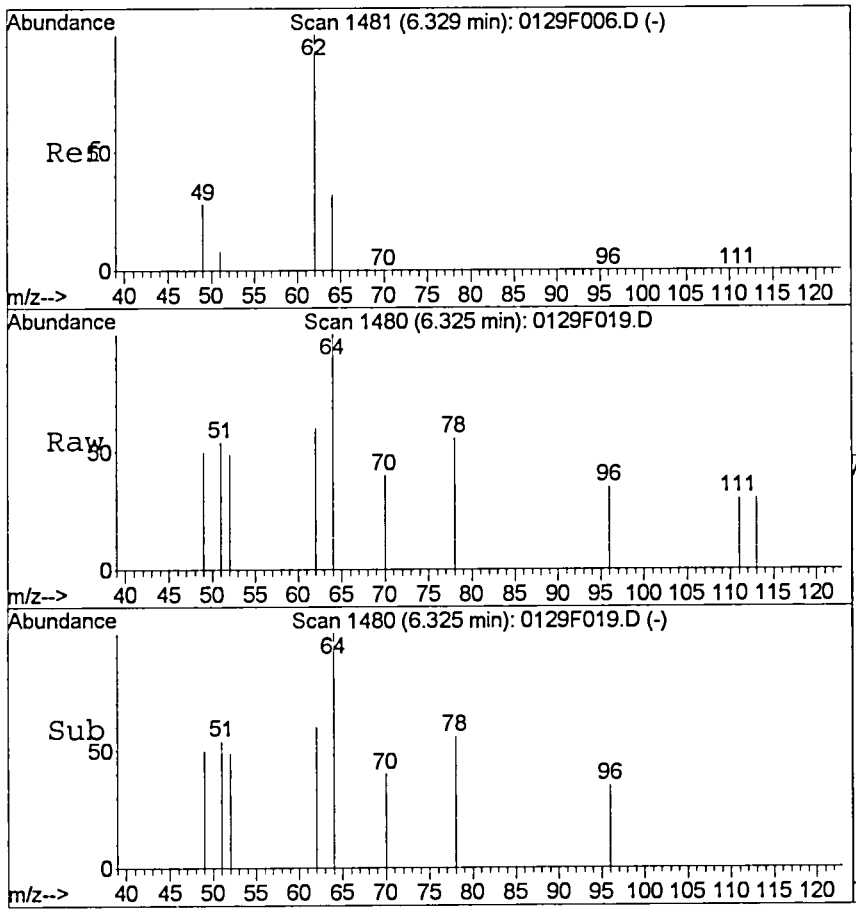


#11
Benzene
Concen: 5.77 ng/L
RT: 6.17 min Scan# 1446
Delta R.T. 0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 78 Resp: 465

Ion	Ratio	Lower	Upper
78	100		
52	14.3	0.0	46.9
51	18.3	0.0	47.6

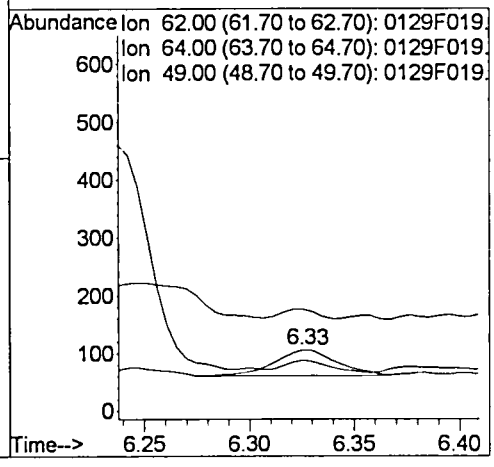


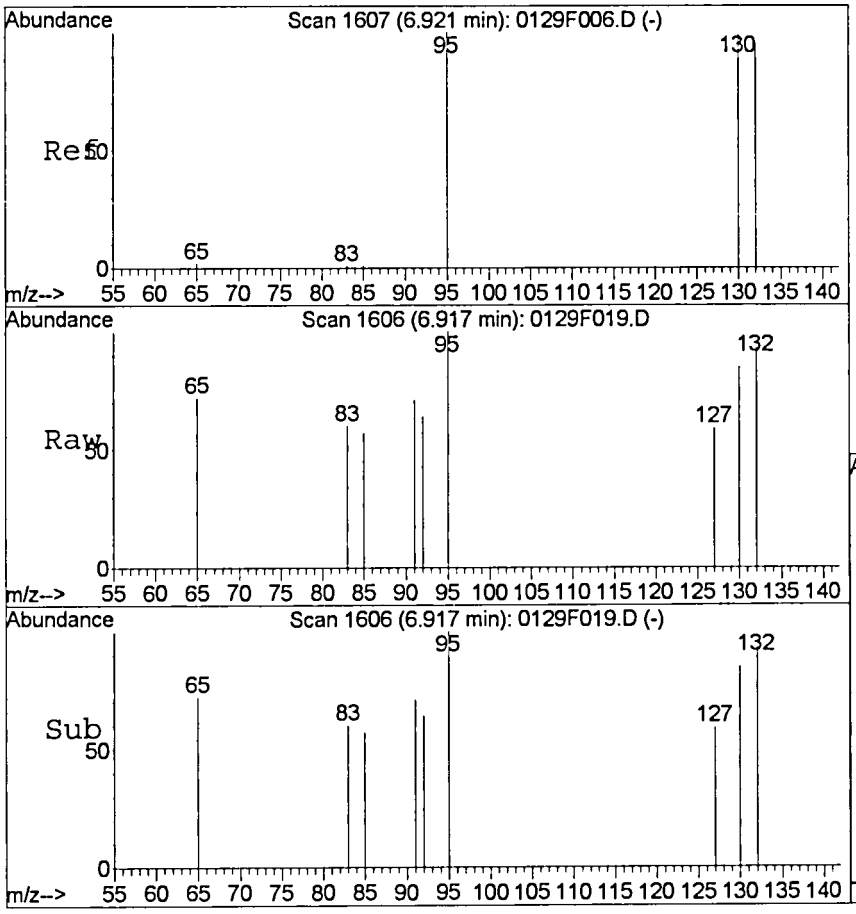


#12
1,2-Dichloroethane
Concen: 3.66 ng/L m
RT: 6.33 min Scan# 1480
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 62 Resp: 95

Ion	Ratio	Lower	Upper
62	100		
64	166.0	1.7	61.7#
49	83.0	0.0	58.2#

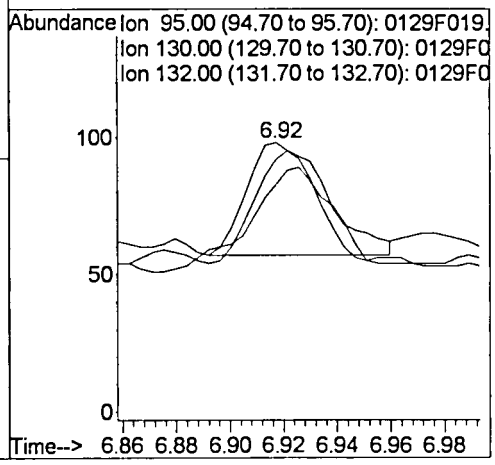


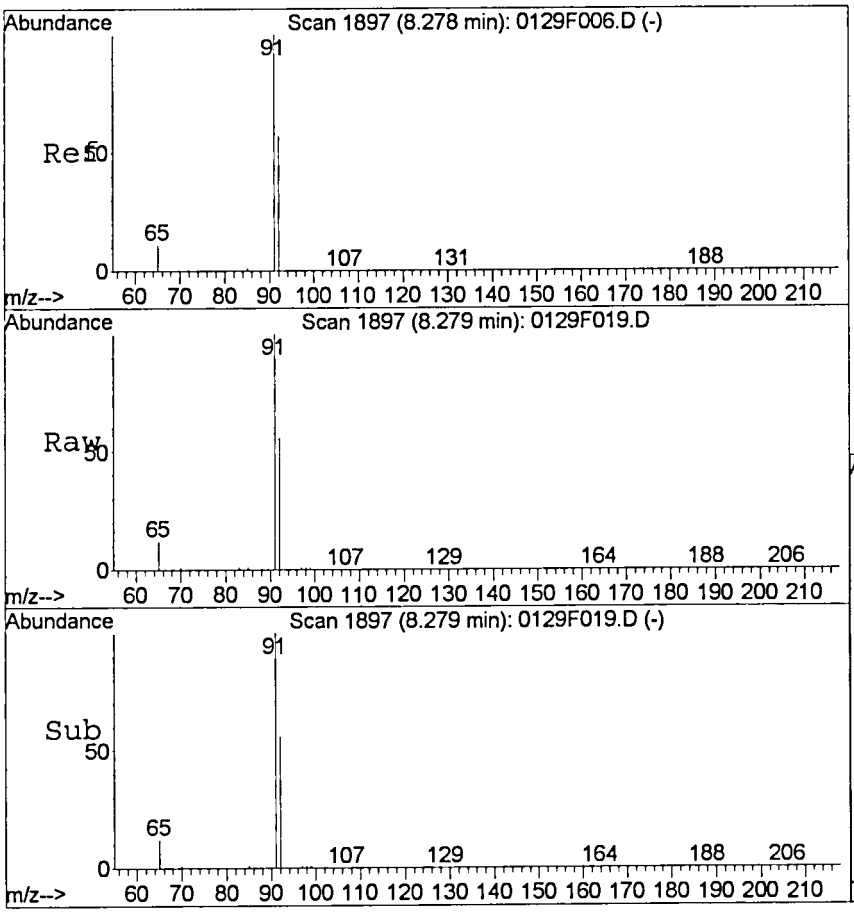


#13
Trichloroethene
Concen: 4.51 ng/L m
RT: 6.92 min Scan# 1606
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 95 Resp: 85

Ion	Ratio	Lower	Upper
95	100		
130	84.7	67.1	127.1
132	93.9	63.9	123.9

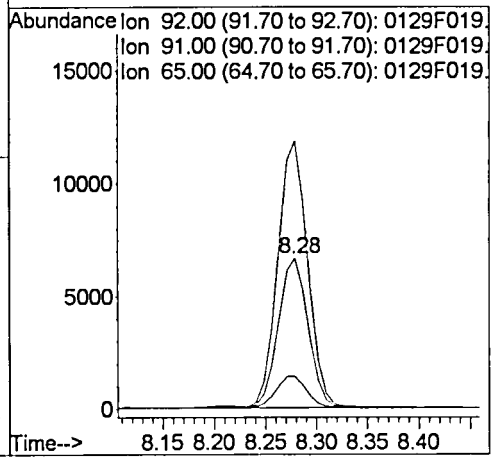


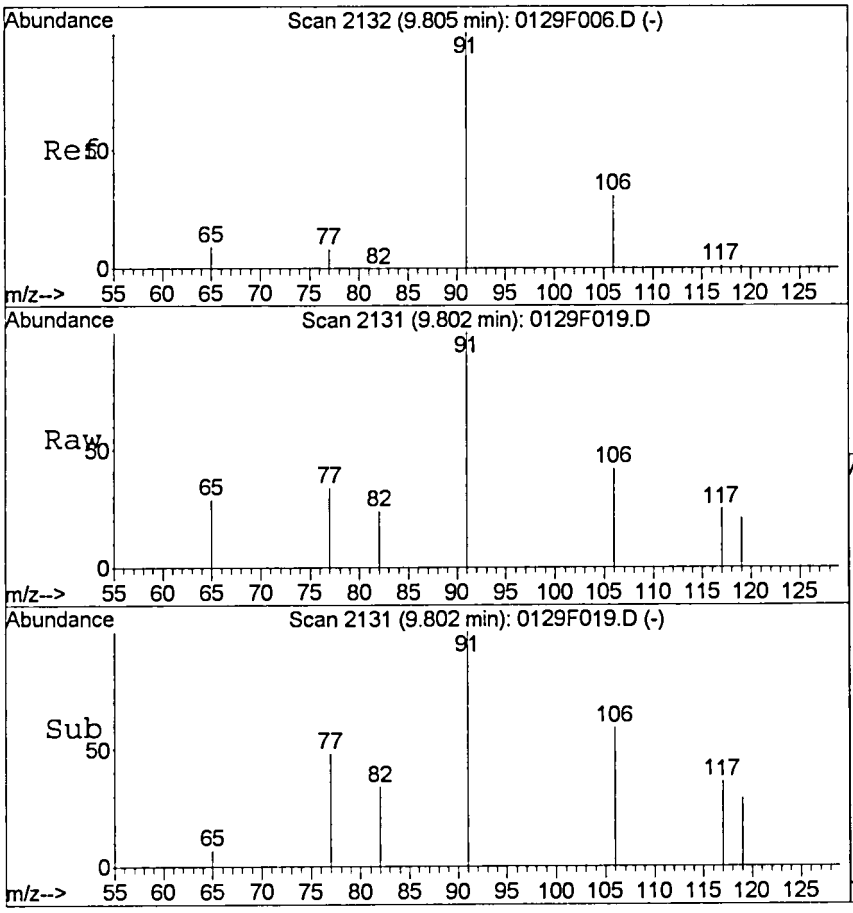


#20
Toluene
Concen: 324.45 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion: 92 Resp: 13501

Ion	Ratio	Lower	Upper
92	100		
91	177.7	144.4	204.4
65	20.7	0.0	49.7

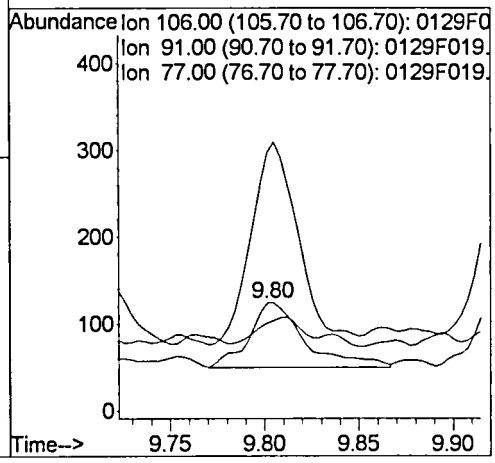


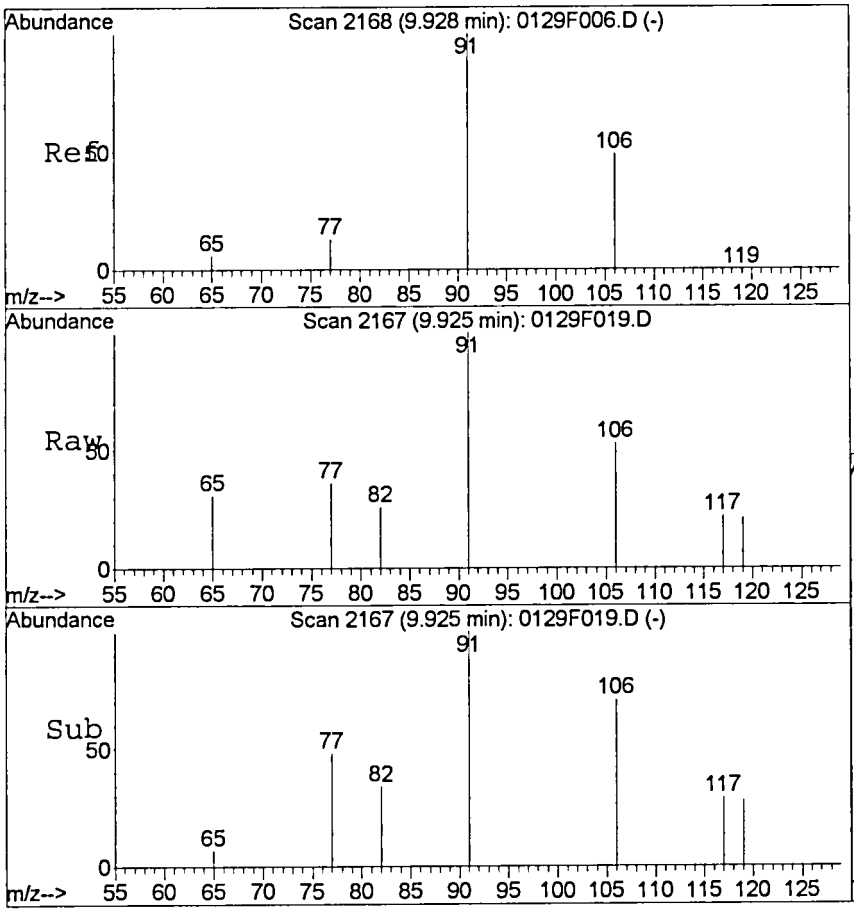


#21
Ethylbenzene
Concen: 7.05 ng/L
RT: 9.80 min Scan# 2131
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion:106 Resp: 153

Ion	Ratio	Lower	Upper
106	100		
91	298.6	295.2	355.2
77	28.4	0.2	60.2

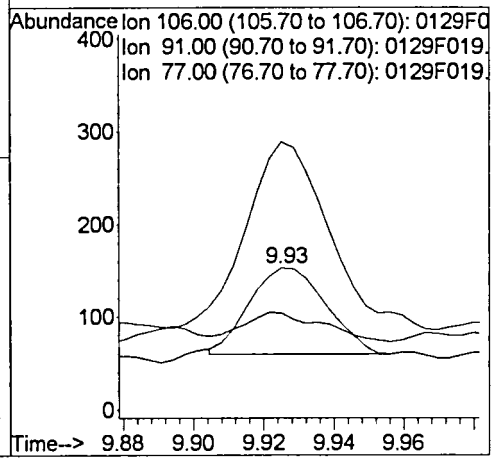


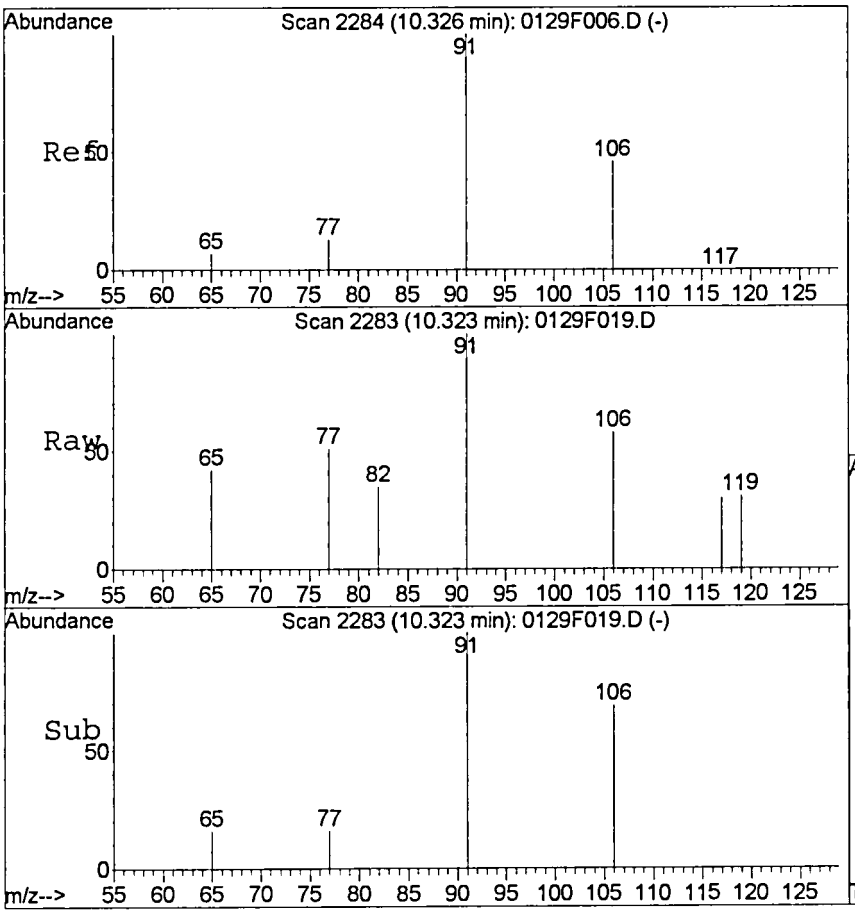


#22
m,p-Xylenes
Concen: 5.17 ng/L
RT: 9.93 min Scan# 2167
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion:106 Resp: 140

Ion	Ratio	Lower	Upper
106	100		
91	197.8	173.8	233.8
77	33.3	0.0	57.2

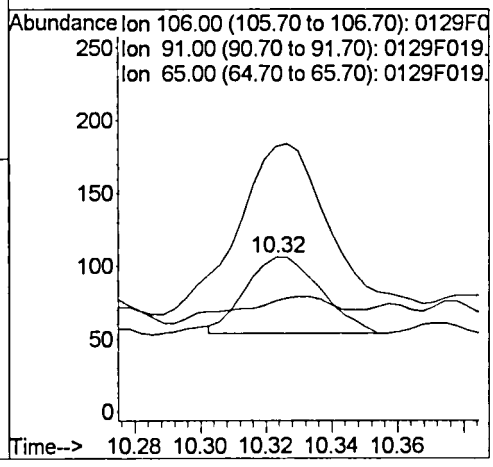


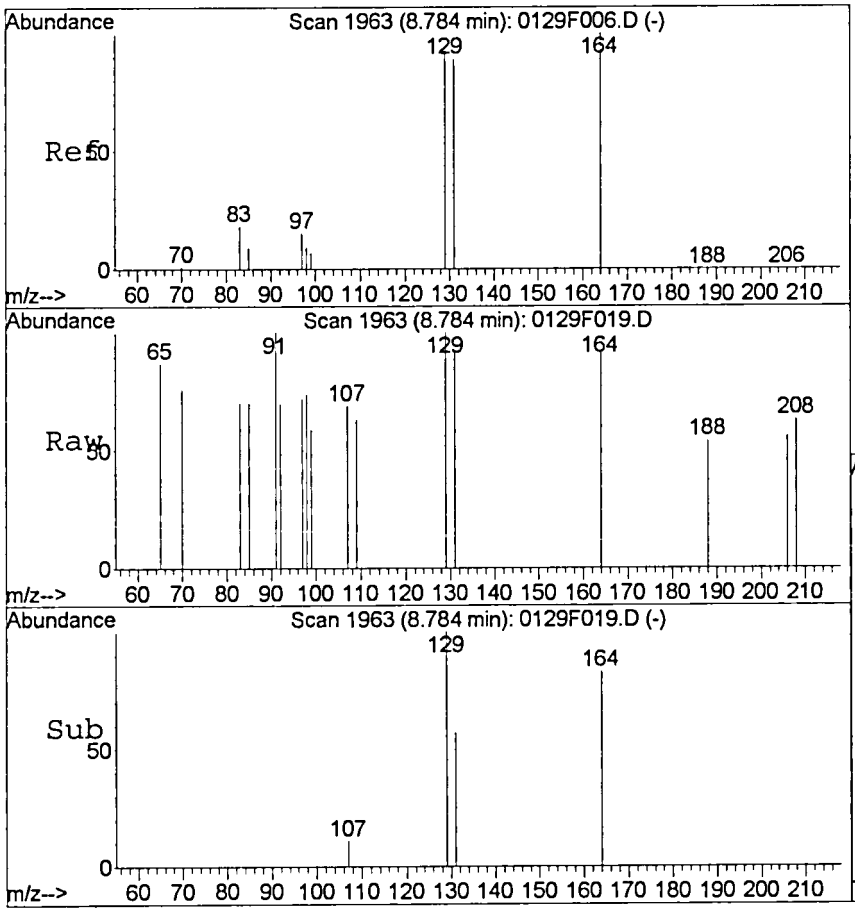


#23
o-Xylene
Concen: 3.10 ng/L
RT: 10.32 min Scan# 2283
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion:106 Resp: 83

Ion	Ratio	Lower	Upper
106	100		
91	194.2	185.6	245.6
65	13.5	0.0	45.0

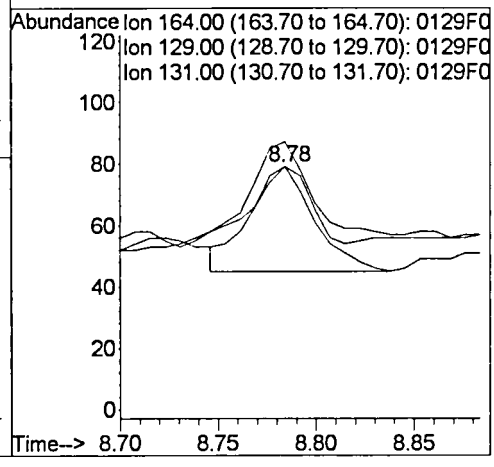


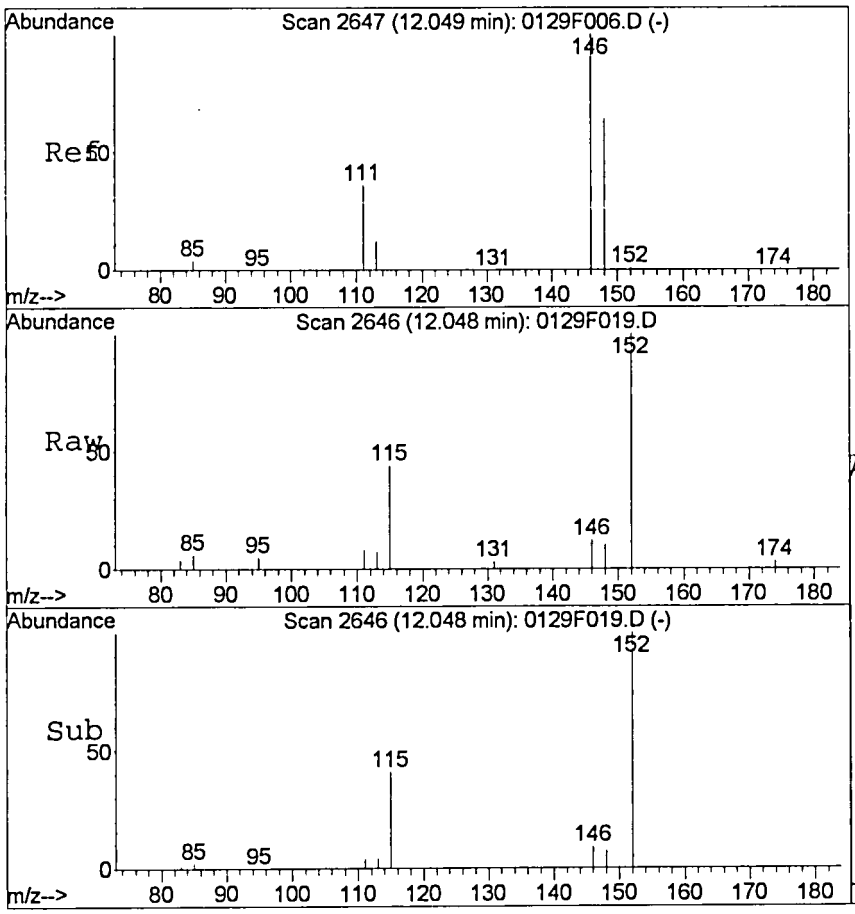


#26
Tetrachloroethene
Concen: 5.37 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion:164 Resp: 78

Ion	Ratio	Lower	Upper
164	100		
129	88.2	61.1	121.1
131	67.6	58.3	118.3

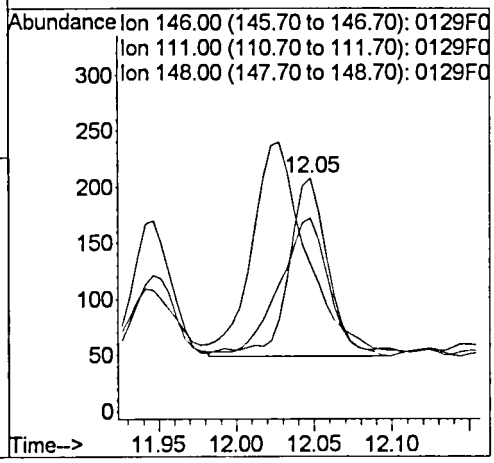




#28
1,4-Dichlorobenzene
Concen: 7.41 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F019.D
Acq: 29 Jan 2016 5:45 pm

Tgt Ion:146 Resp: 281

Ion	Ratio	Lower	Upper
146	100		
111	48.4	6.7	66.7
148	74.8	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F020.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 18:13
Date Quantitated: 02/01/2016 13:47
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL
Lab Control Spike	Toluene-d8	122	74	112	91 bias analyte likely
Surrogates	Toluene-d8	121	74	112	I MKL

Primary Review: MKL 2/1/16

Secondary Review: KA 2/1/16

Printed: 02/01/2016 14:35:12
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F020.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 18:13	**Quant Date:**	02/01/2016 13:47	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-002			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	01/29/2016		
Prep Ref:	1496759				

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	71890	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	51344	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17804	1,088	109	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	63464	1,214	121	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	21488	1,038	104	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	249m	9.57	9.6	J	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0		8.7	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:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:37:44 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

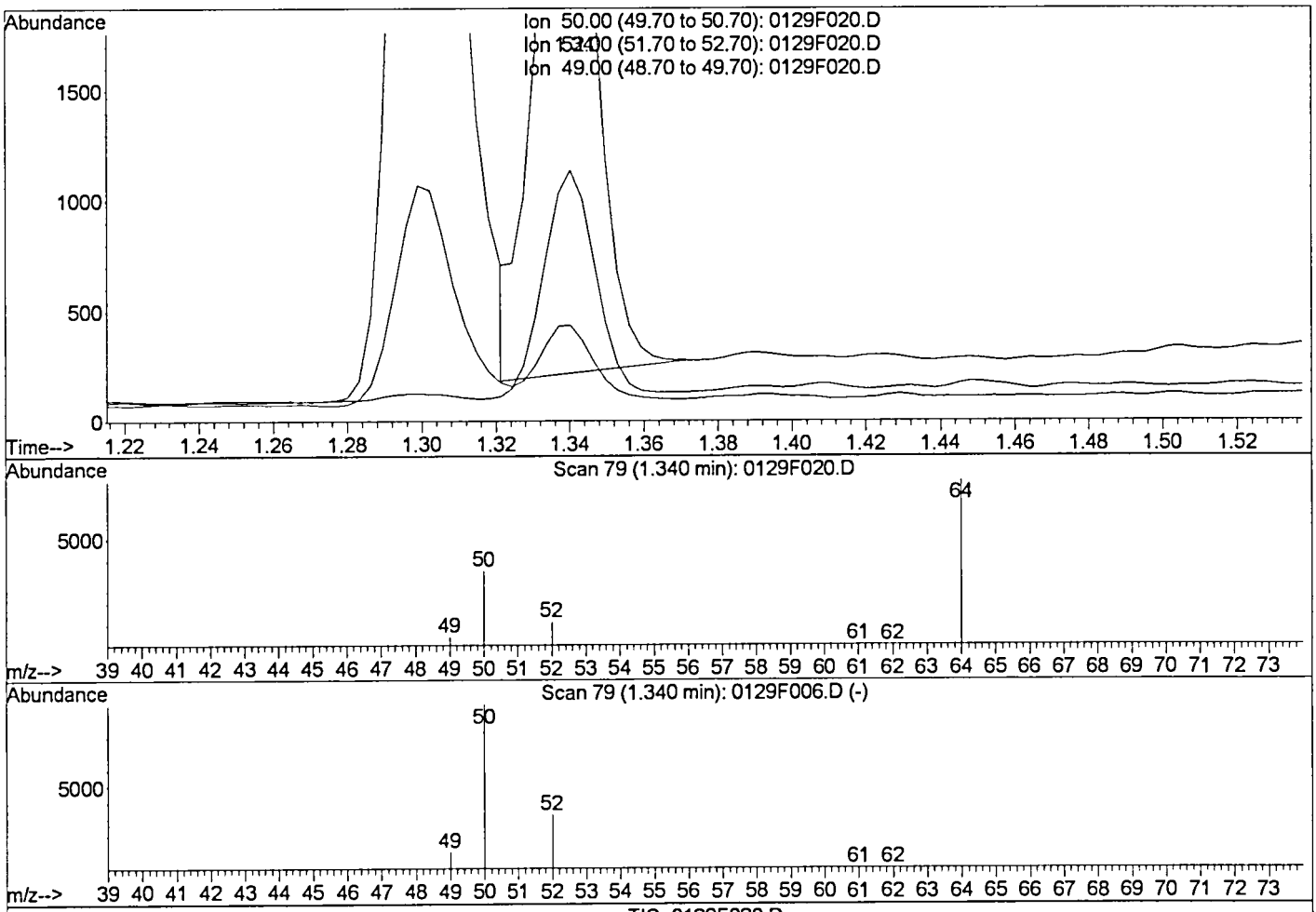
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.54	96	71890	1000.00 ng/L	0.00
19) Chlorobenzene-d5	9.70	117	51344	1000.00 ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	24161	1000.00 ng/L	0.00
System Monitoring Compounds					
9) Dibromofluoromethane	5.82	113	17804	1088.33 ng/L	0.00
Spiked Amount 1000.000			Recovery = 108.83%		
15) Toluene-d8	8.21	98	63464	1213.95 ng/L	0.00
Spiked Amount 1000.000			Recovery = 121.40%		
24) 4-Bromofluorobenzene	10.89	95	21488	1038.49 ng/L	0.00
Spiked Amount 1000.000			Recovery = 103.85%		
Target Compounds					Qvalue
2) Chloromethane	1.34	50	3281m	112.27 ng/L	
3) Vinyl Chloride	1.43	62	227	8.70 ng/L #	43
5) Methylene Chloride	3.29	84	1187	49.85 ng/L	95
8) Chloroform	5.61	83	725	19.53 ng/L	96
10) Carbon Tetrachloride	5.85	117	115	5.43 ng/L	82
11) Benzene	6.17	78	1376	17.02 ng/L	97
12) 1,2-Dichloroethane	6.33	62	249m	9.57 ng/L	
13) Trichloroethene	6.93	95	102m	5.40 ng/L	
20) Toluene	8.28	92	6130	147.27 ng/L	100
21) Ethylbenzene	9.81	106	138	6.35 ng/L #	77
22) m,p-Xylenes	9.93	106	461	17.01 ng/L	97
23) o-Xylene	10.33	106	260	9.70 ng/L	87
26) Tetrachloroethene	8.78	164	88	6.06 ng/L	82
28) 1,4-Dichlorobenzene	12.05	146	282	7.48 ng/L	84

(#) = qualifier out of range (m) = manual integration
0129F020.D 012716MS27_8260SIM.M Mon Feb 01 14:07:34 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:37 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F020.D

(2) Chloromethane (T)

1.34min 116.58ng/L

response 3407

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	31.73
49.00	10.10	10.39
0.00	0.00	0.00

Manual Integration:

Before

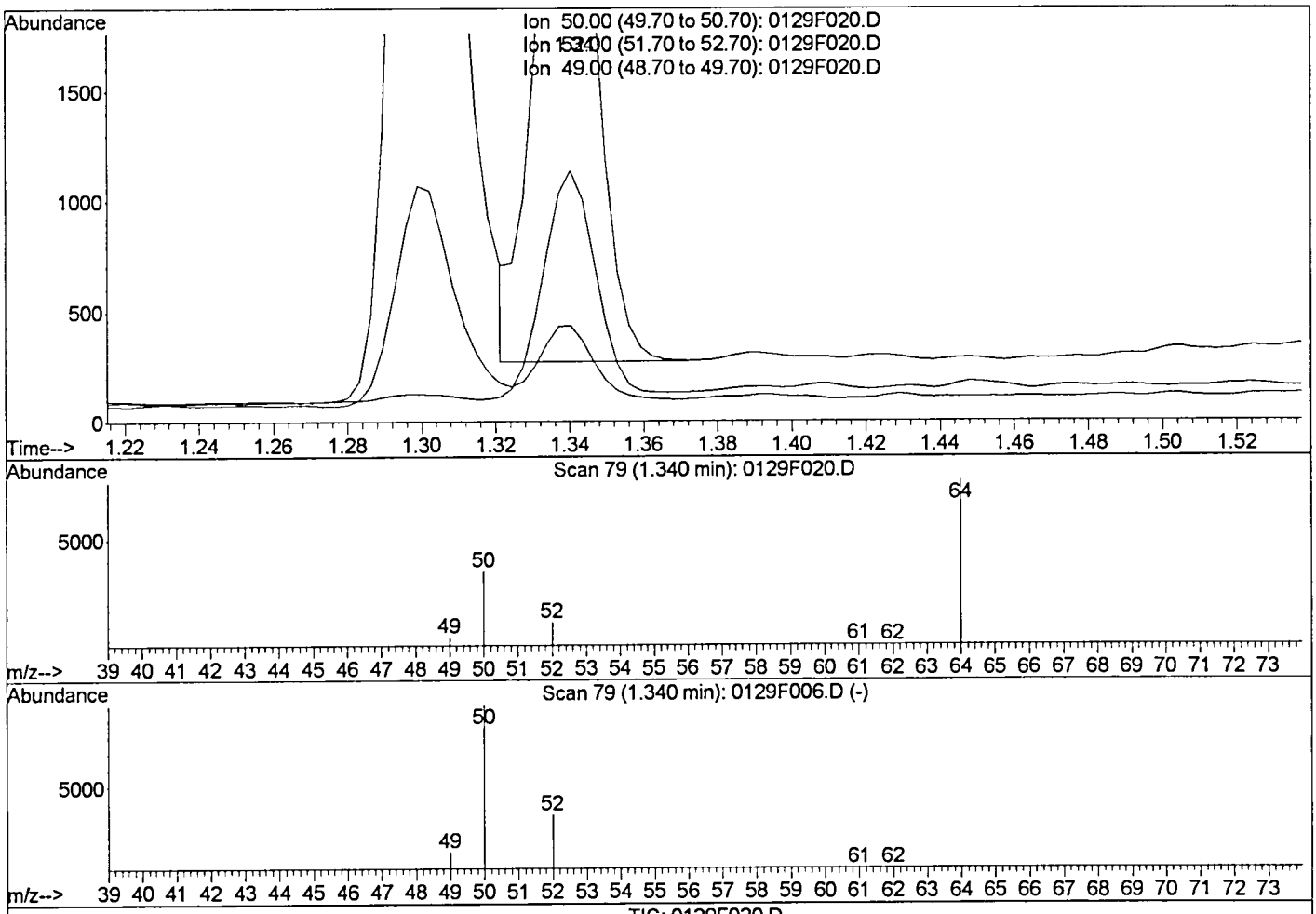
02/01/16

0129F020.D 012716MS27_8260SIM.M Mon Feb 01 13:45:47 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:46 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F020.D

(2) Chloromethane (T)

1.34min 112.27ng/L m

response 3281

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.40
49.00	10.10	12.40
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

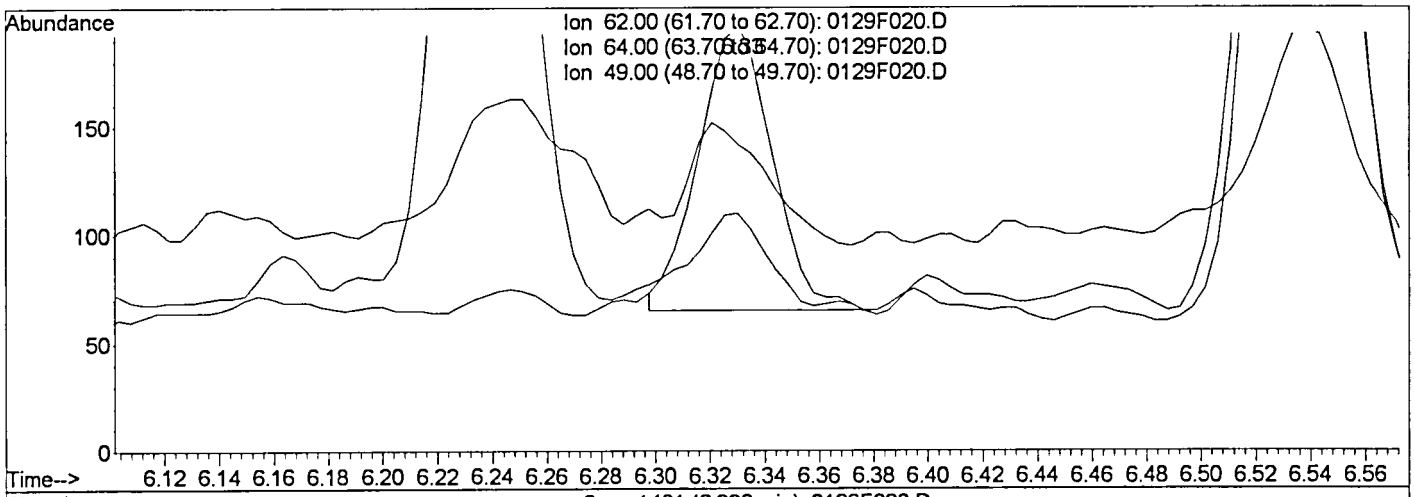
02/01/16

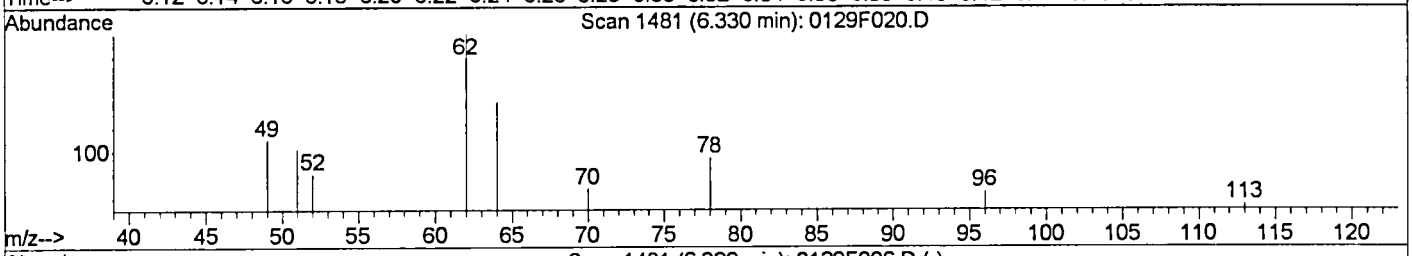
0129F020.D 012716MS27_8260SIM.M Mon Feb 01 13:46:04 2016

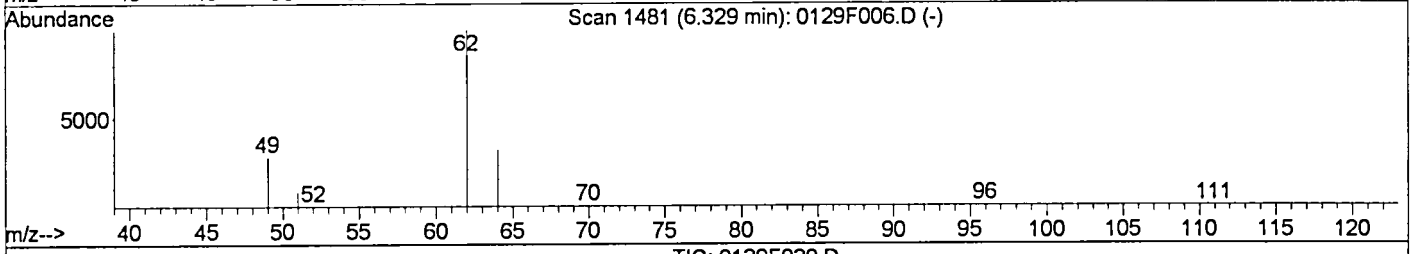
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:46 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F020.D

(12) 1,2-Dichloroethane (T)

6.33min 9.50ng/L

response 247

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	33.33
49.00	28.20	33.33
0.00	0.00	0.00

Manual Integration:

Before

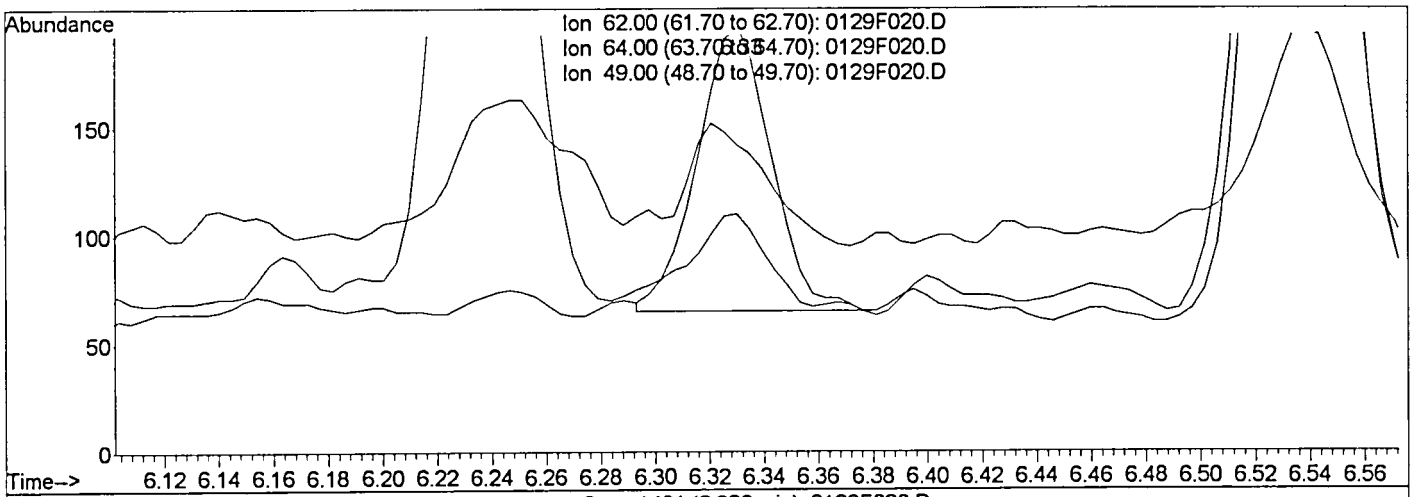
02/01/16

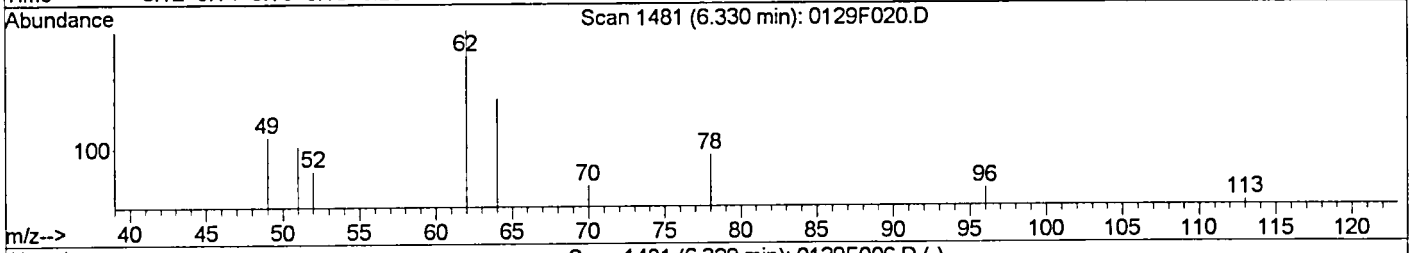
0129F020.D 012716MS27_8260SIM.M Mon Feb 01 13:46:44 2016

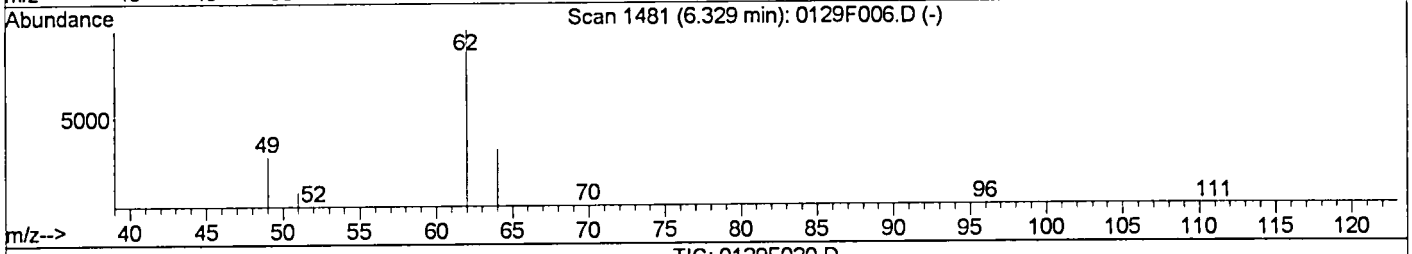
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:16 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F020.D

(12) 1,2-Dichloroethane (T)

6.33min 9.57ng/L m

response 249

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	71.00#
49.00	28.20	55.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

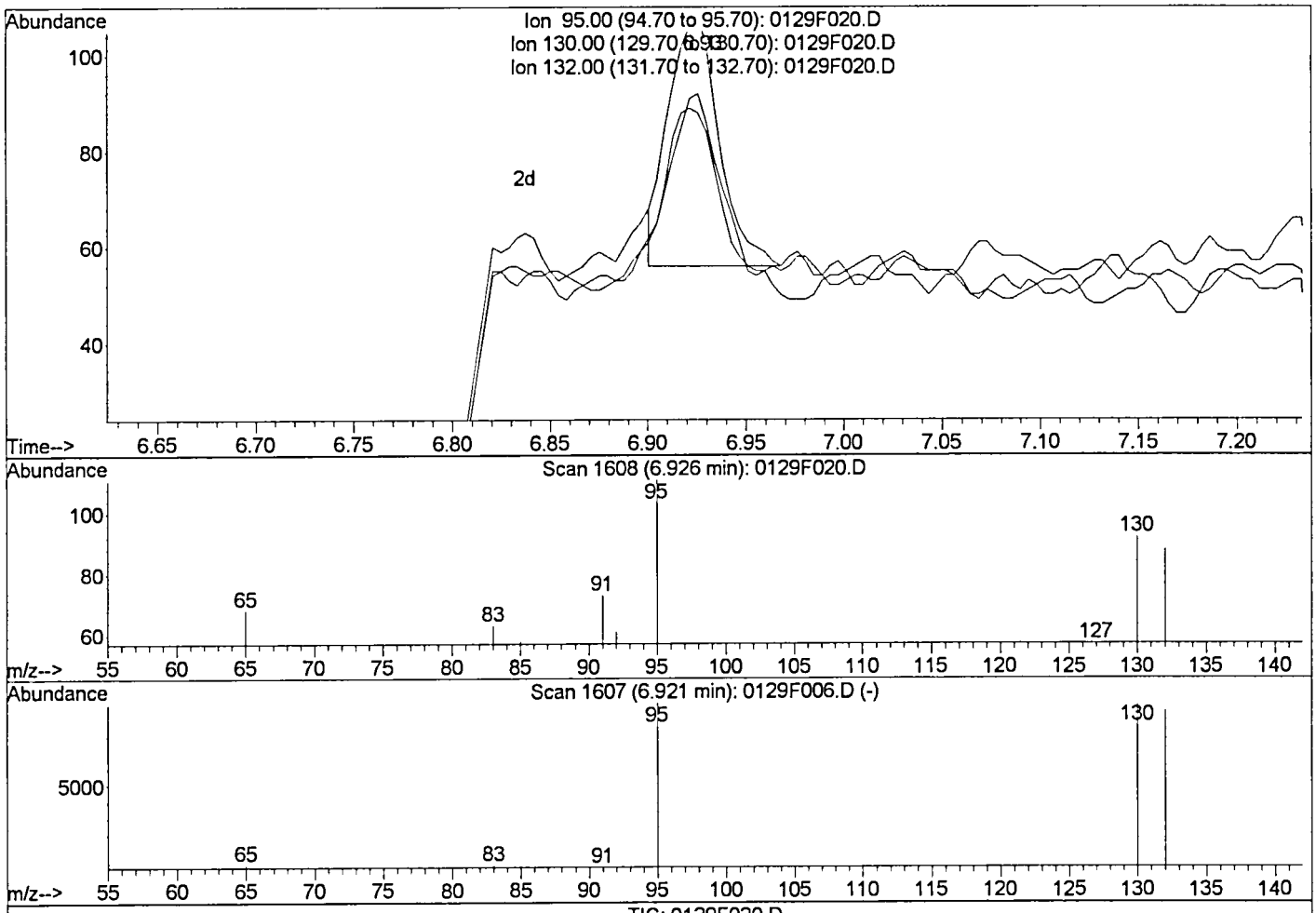
02/01/16

0129F020.D 012716MS27_8260SIM.M Mon Feb 01 13:46:52 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:46 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F020.D

(13) Trichloroethene (T)

6.93min 4.98ng/L

response 94

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	67.27
132.00	93.90	69.09
0.00	0.00	0.00

Manual Integration:

Before

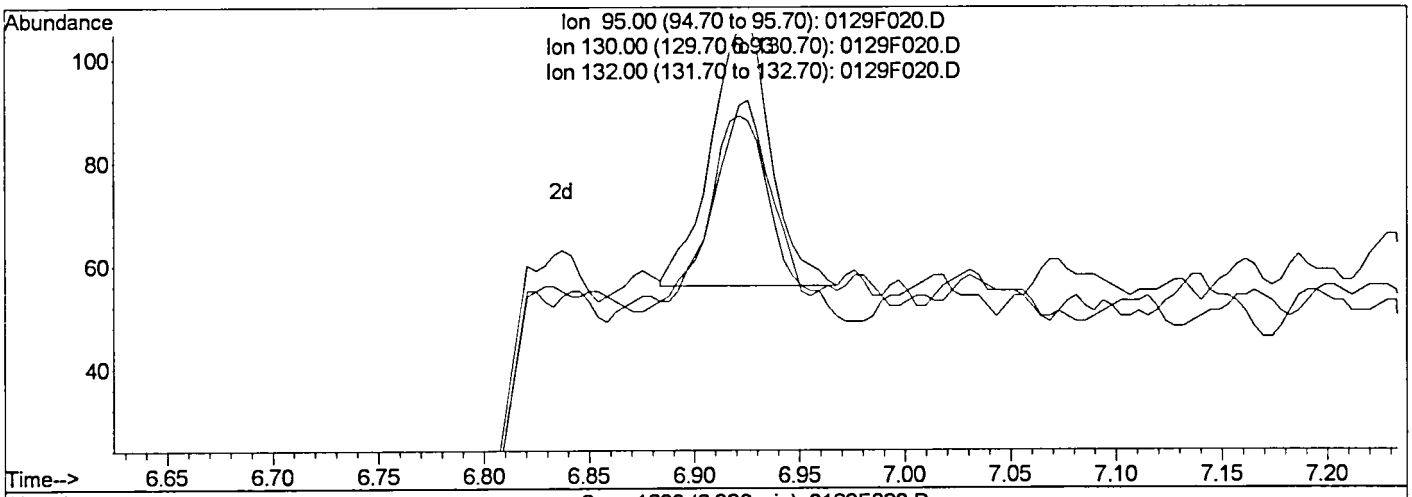
02/01/16

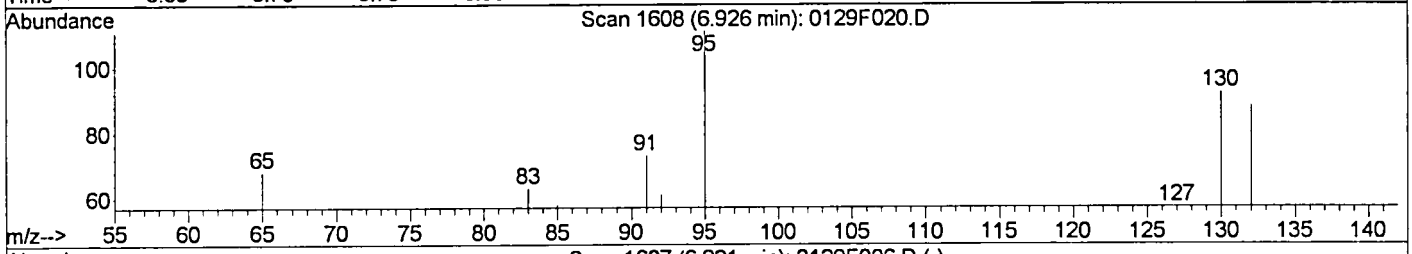
0129F020.D 012716MS27_8260SIM.M Mon Feb 01 13:46:56 2016

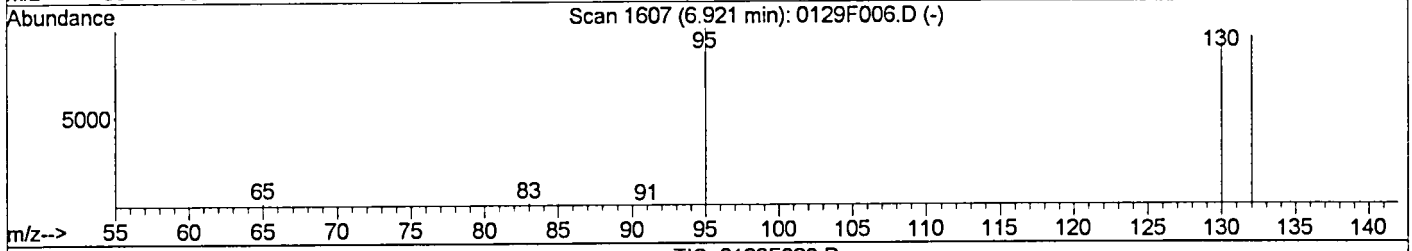
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:47 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F020.D

(13) Trichloroethene (T)

6.93min 5.40ng/L m

response 102

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	82.88
132.00	93.90	79.28
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

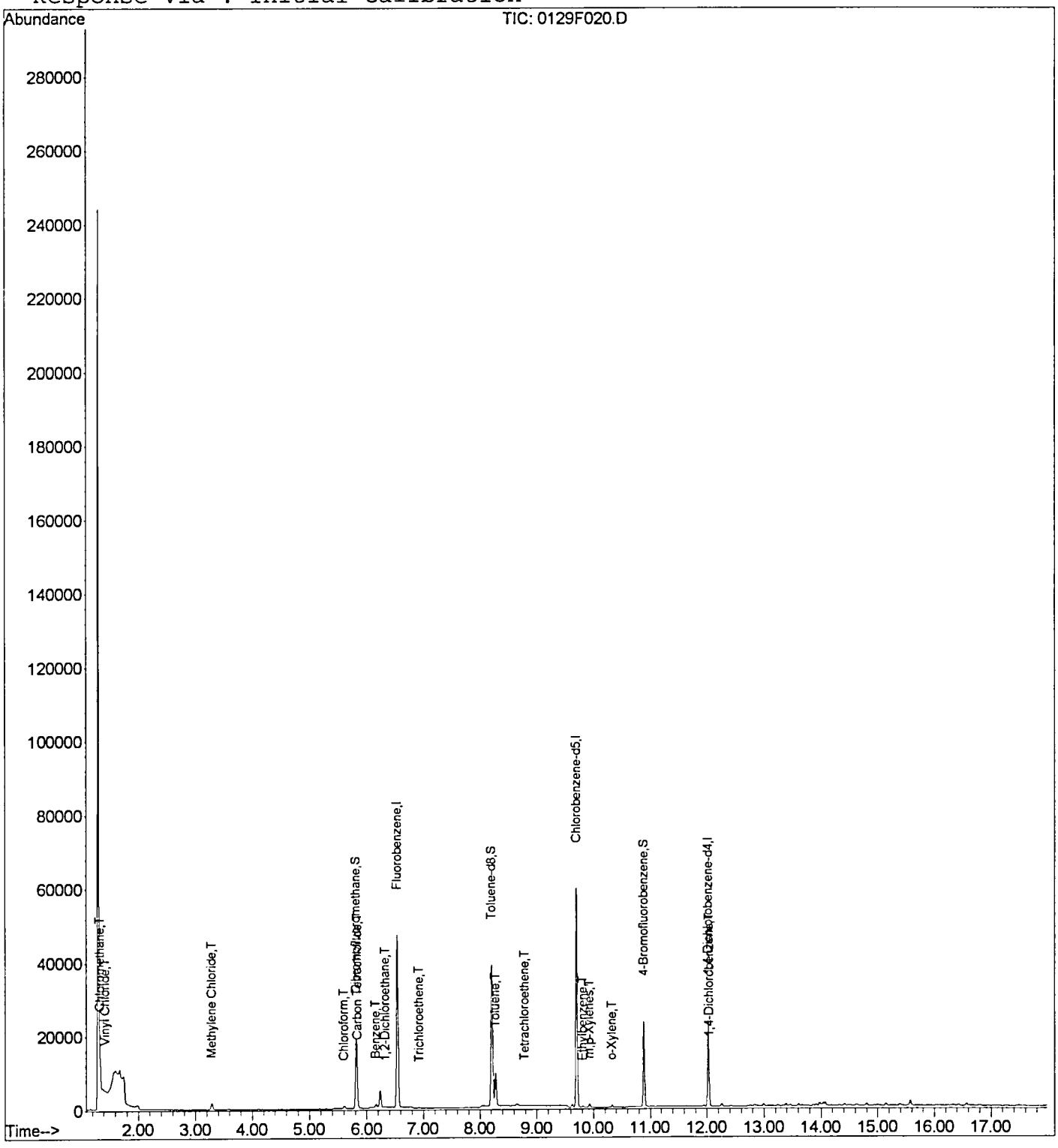
02/01/16

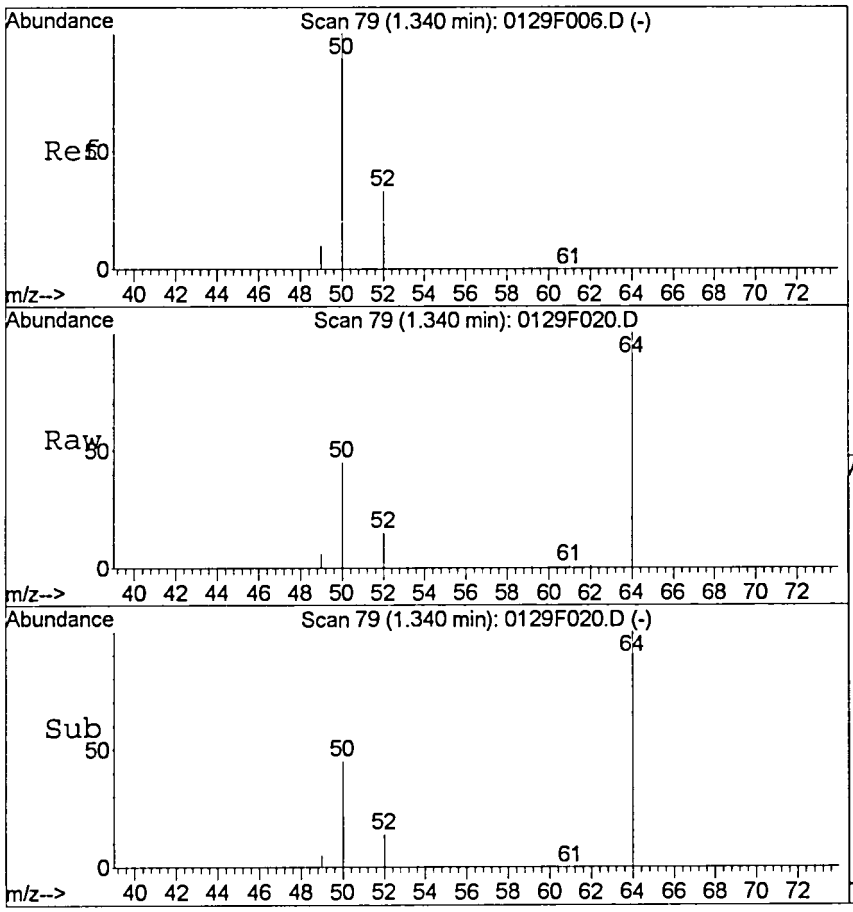
0129F020.D 012716MS27_8260SIM.M Mon Feb 01 13:47:19 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F020.D Vial: 17
Acq On : 29 Jan 2016 6:13 pm Operator: GH
Sample : K0673-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:47 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

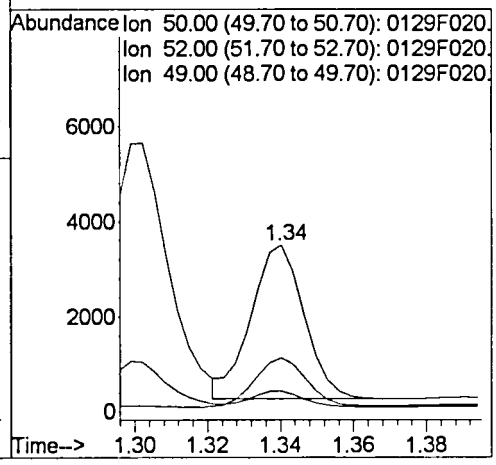


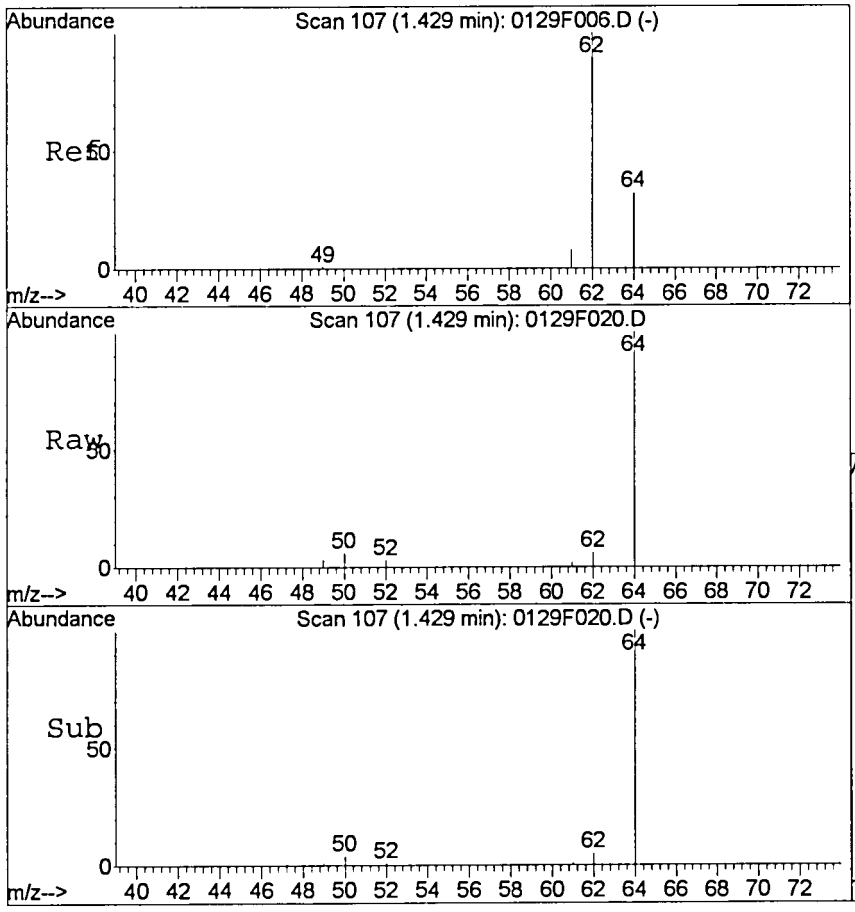


#2
Chloromethane
Concen: 112.27 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 50 Resp: 3281

Ion	Ratio	Lower	Upper
50	100		
52	32.4	2.9	62.9
49	12.4	0.0	40.1

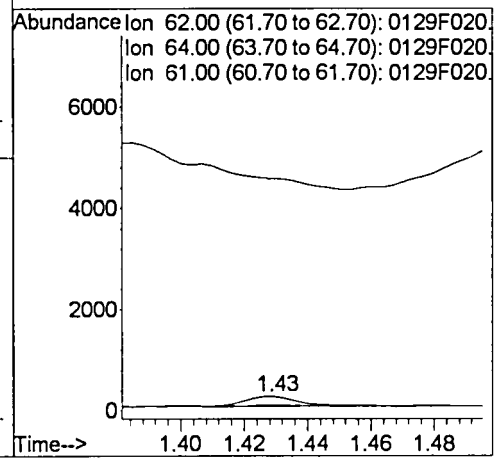


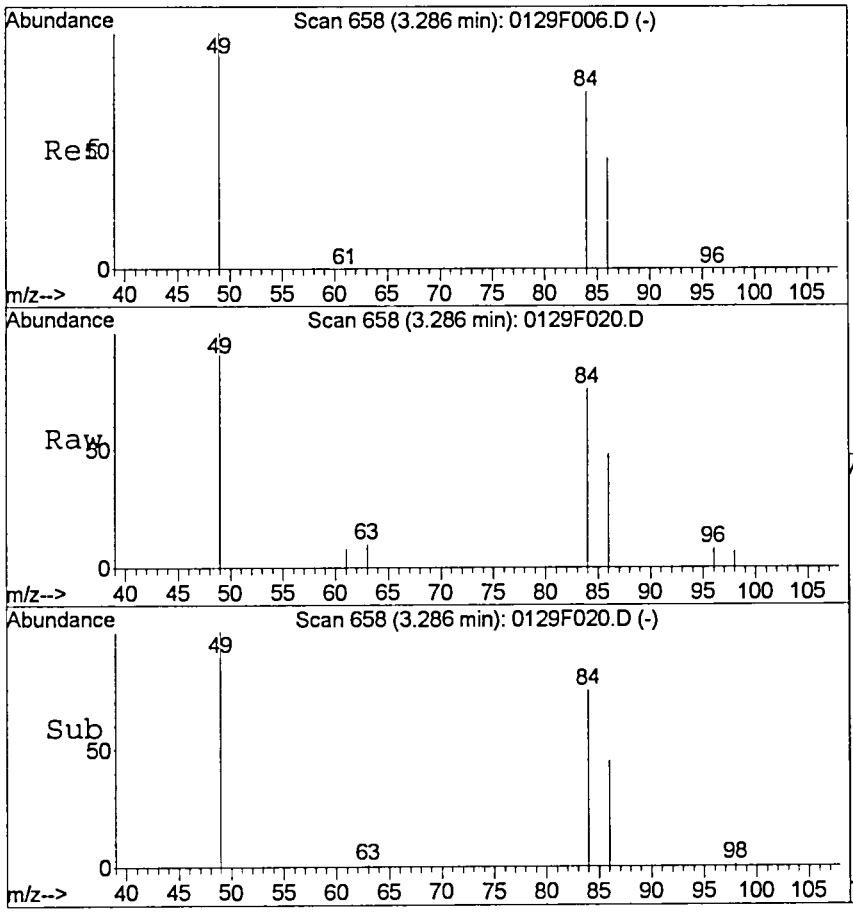


#3
Vinyl Chloride
Concen: 8.70 ng/L
RT: 1.43 min Scan# 107
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 62 Resp: 227

Ion	Ratio	Lower	Upper
62	100		
64	70.8	1.9	61.9#
61	12.0	0.0	38.5

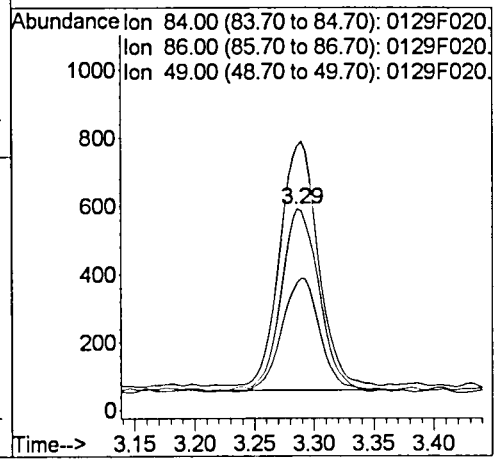


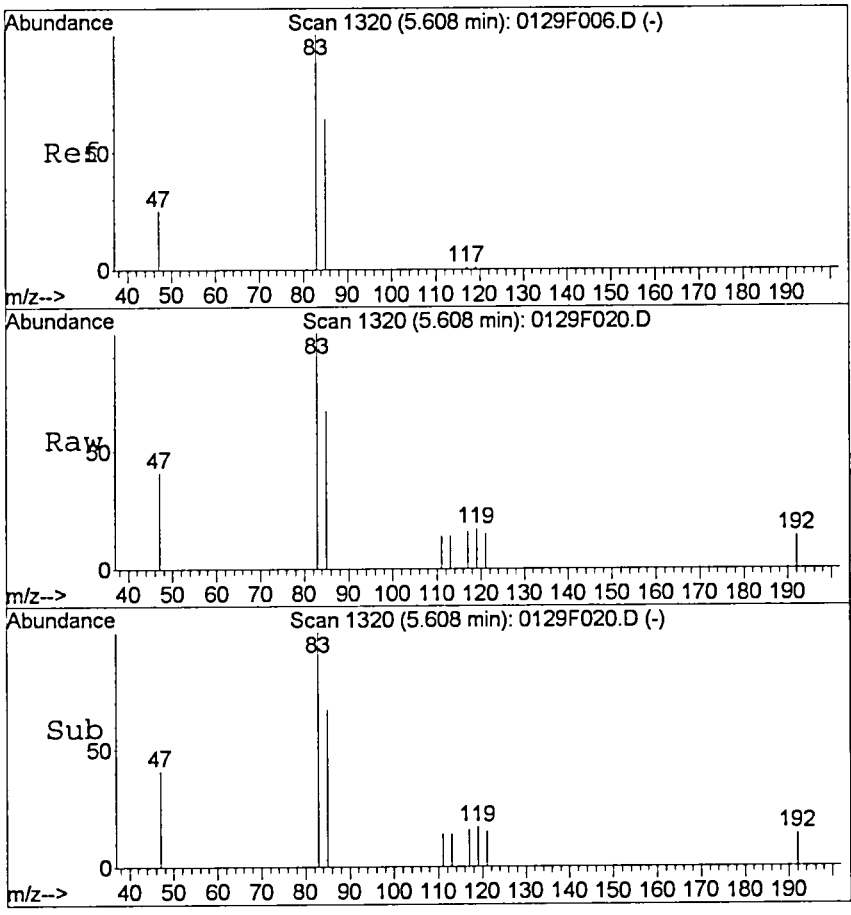


#5
Methylene Chloride
Concen: 49.85 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 84 Resp: 1187

Ion	Ratio	Lower	Upper
84	100		
86	59.6	33.8	93.8
49	131.2	107.9	167.9

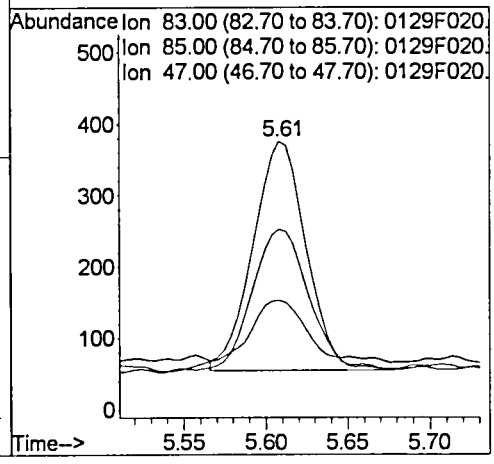


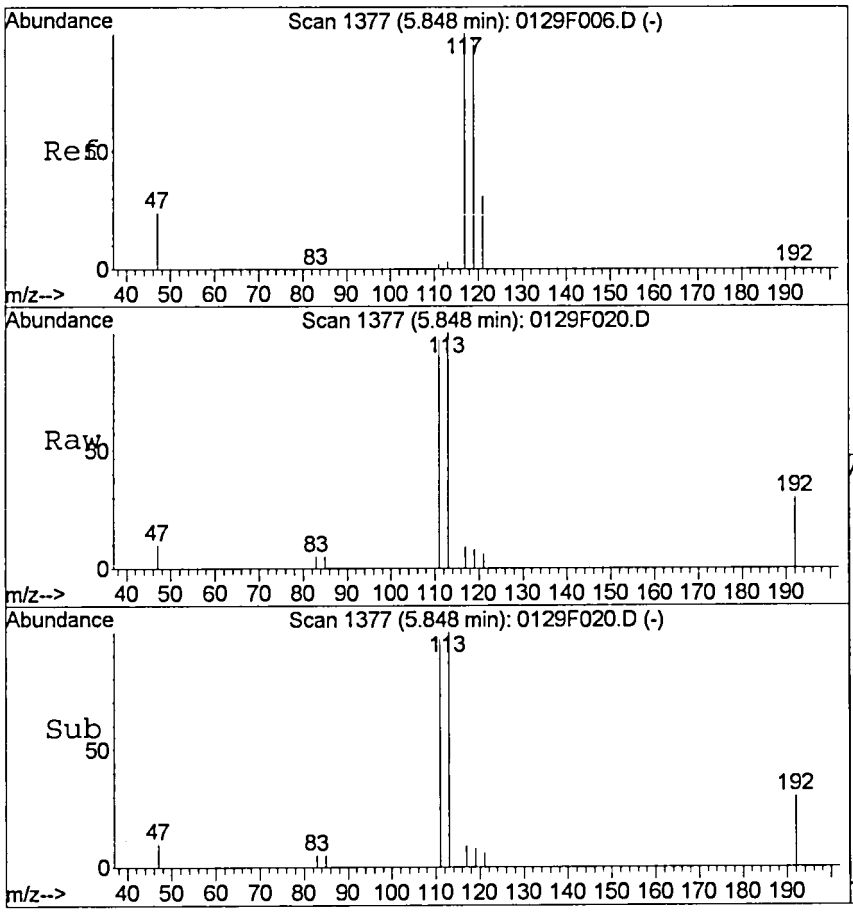


#8
Chloroform
Concen: 19.53 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 83 Resp: 725

Ion	Ratio	Lower	Upper
83	100		
85	61.1	34.7	94.7
47	27.1	0.0	55.9

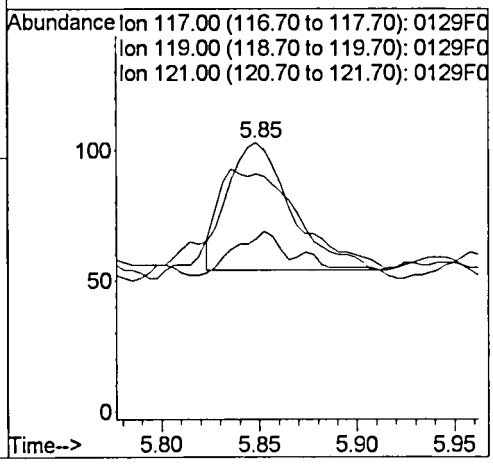


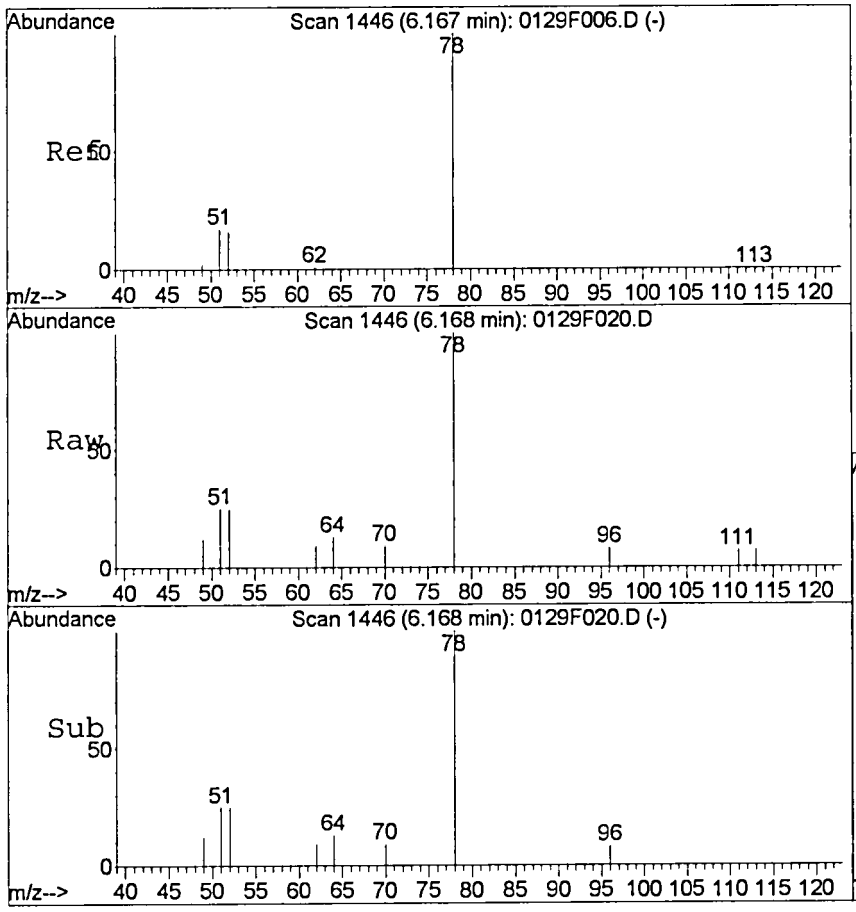


#10
Carbon Tetrachloride
Concen: 5.43 ng/L
RT: 5.85 min Scan# 1377
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion:117 Resp: 115

Ion	Ratio	Lower	Upper
117	100		
119	73.5	65.9	125.9
121	28.6	0.4	60.4

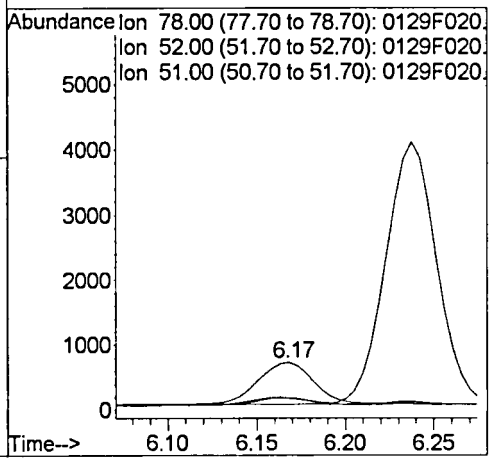


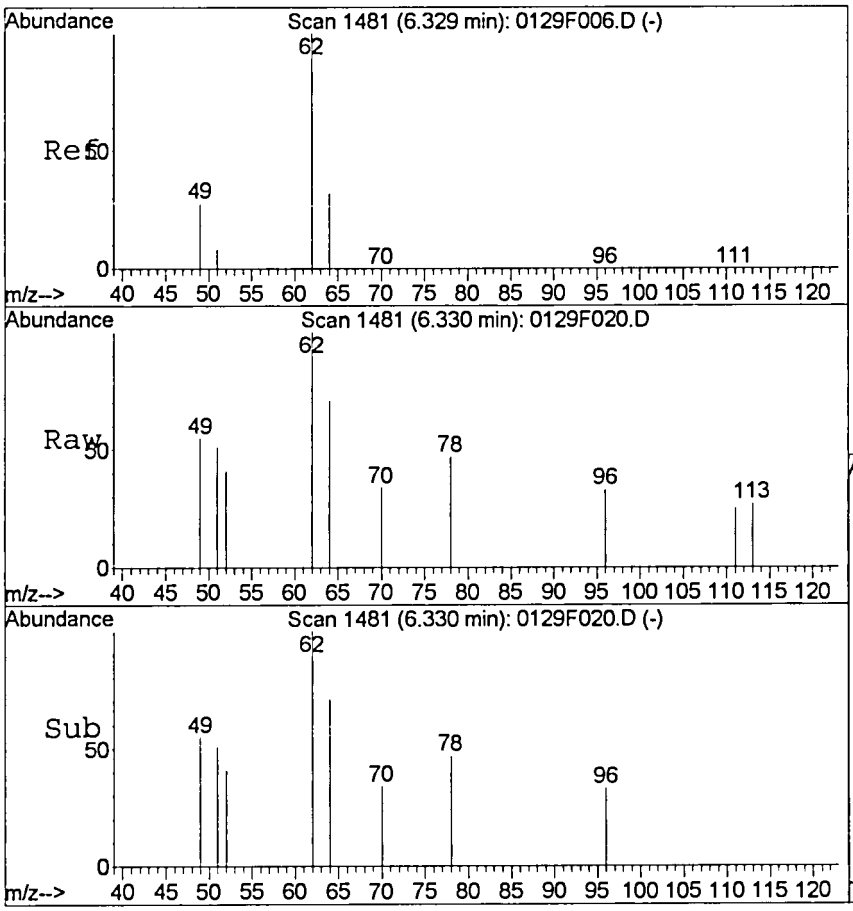


#11
Benzene
Concen: 17.02 ng/L
RT: 6.17 min Scan# 1446
Delta R.T. 0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 78 Resp: 1376

Ion	Ratio	Lower	Upper
78	100		
52	15.9	0.0	46.9
51	15.7	0.0	47.6

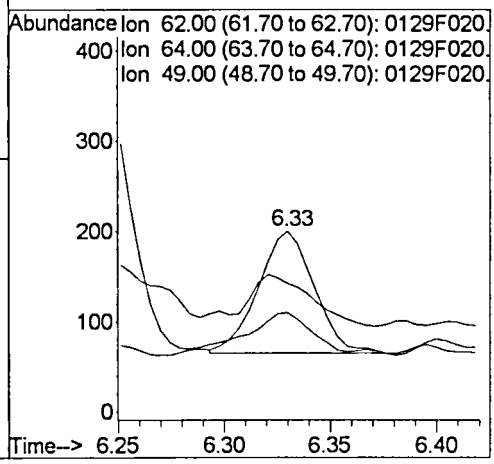


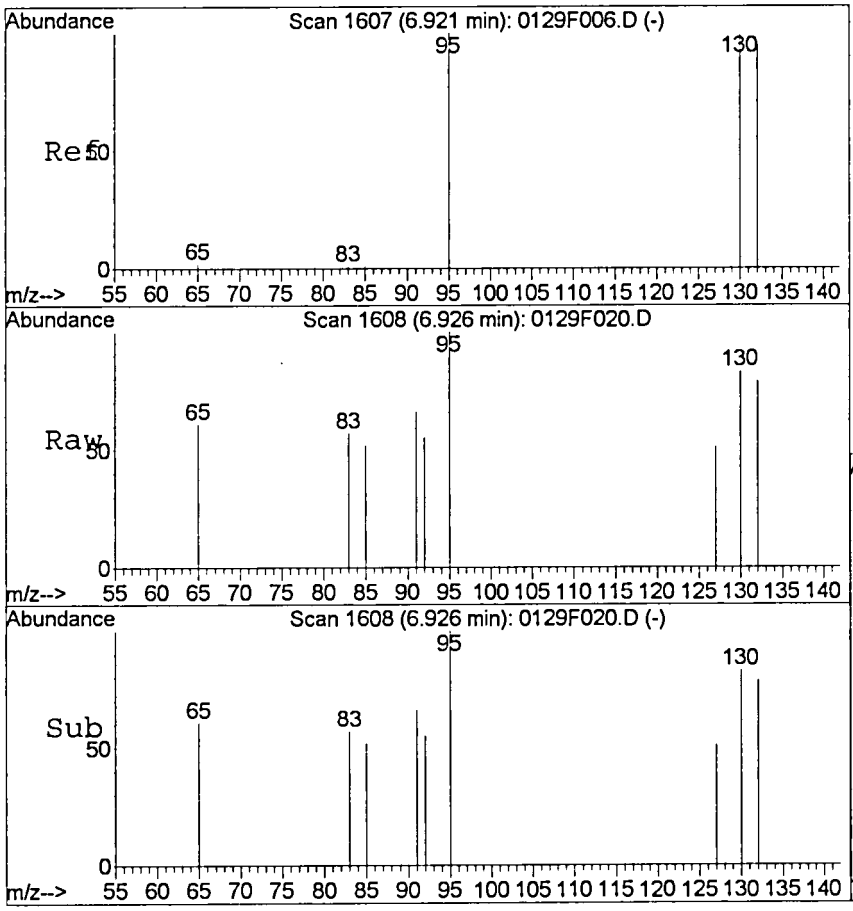


#12
1,2-Dichloroethane
Concen: 9.57 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 62 Resp: 249

Ion	Ratio	Lower	Upper
62	100		
64	71.0	1.7	61.7#
49	55.0	0.0	58.2

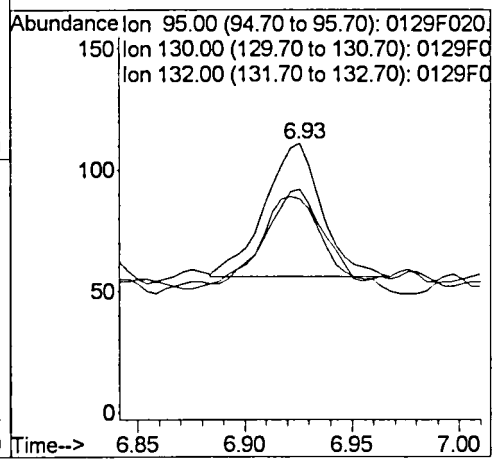


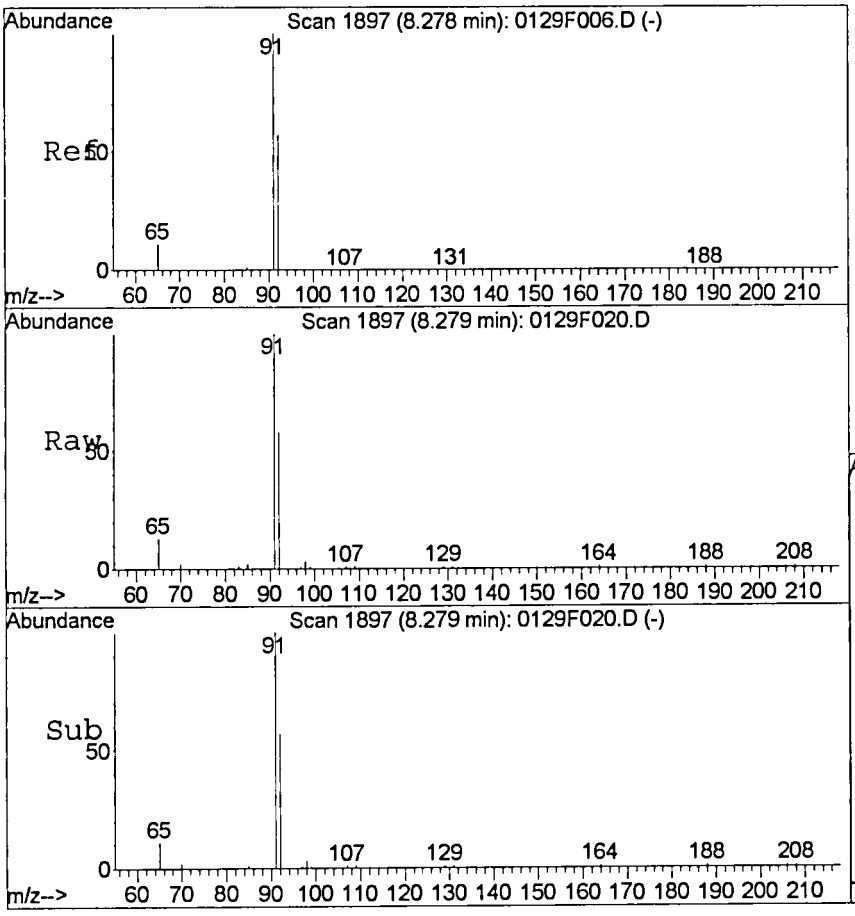


#13
Trichloroethene
Concen: 5.40 ng/L m
RT: 6.93 min Scan# 1608
Delta R.T. 0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 95 Resp: 102

Ion	Ratio	Lower	Upper
95	100		
130	82.9	67.1	127.1
132	79.3	63.9	123.9

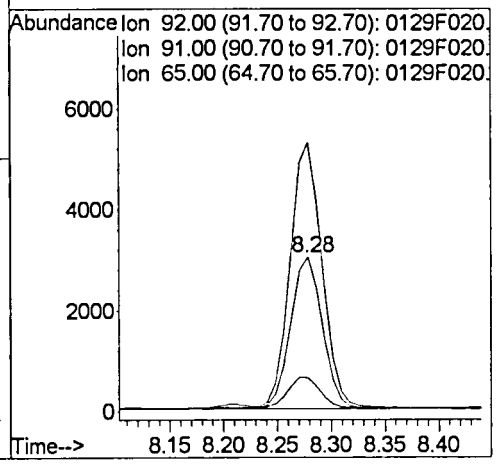


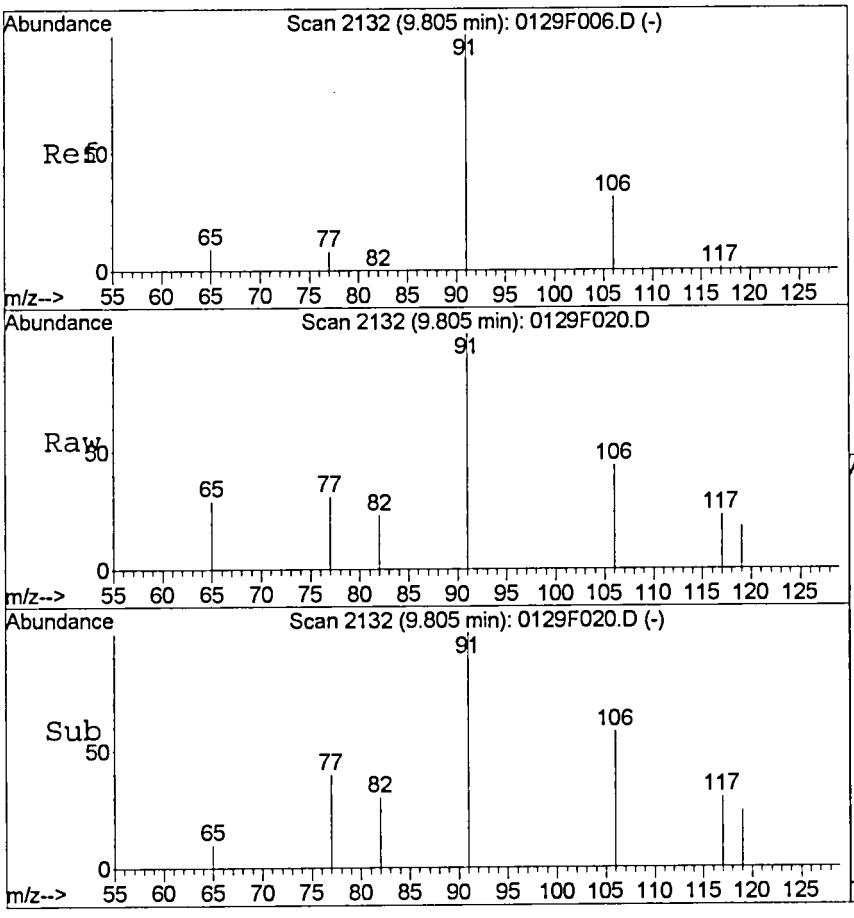


#20
Toluene
Concen: 147.27 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion: 92 Resp: 6130

Ion	Ratio	Lower	Upper
92	100		
91	174.9	144.4	204.4
65	19.6	0.0	49.7

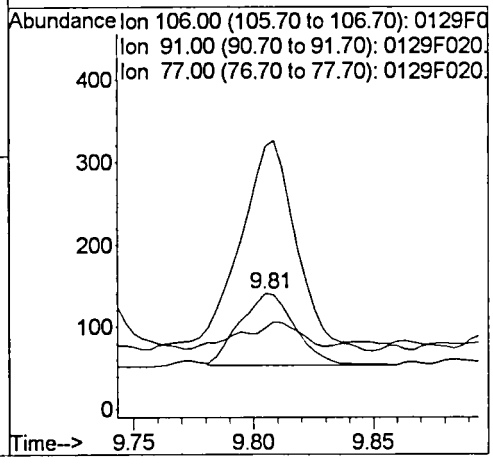


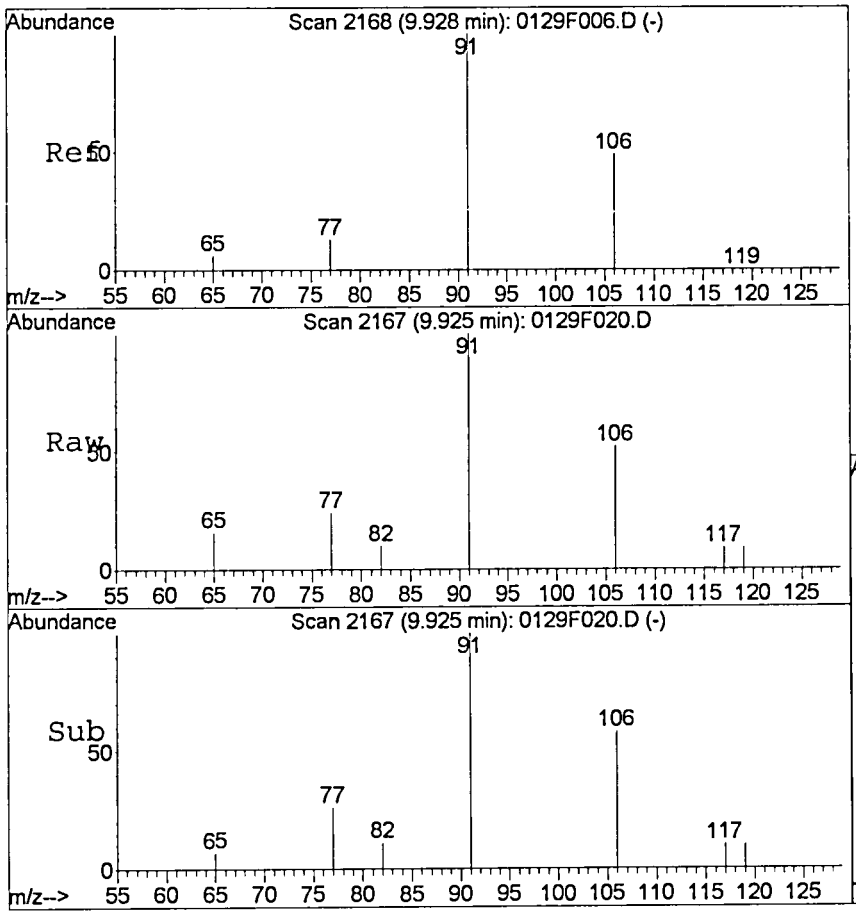


#21
Ethylbenzene
Concen: 6.35 ng/L
RT: 9.81 min Scan# 2132
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion:106 Resp: 138

Ion	Ratio	Lower	Upper
106	100		
91	275.9	295.2	355.2#
77	25.3	0.2	60.2

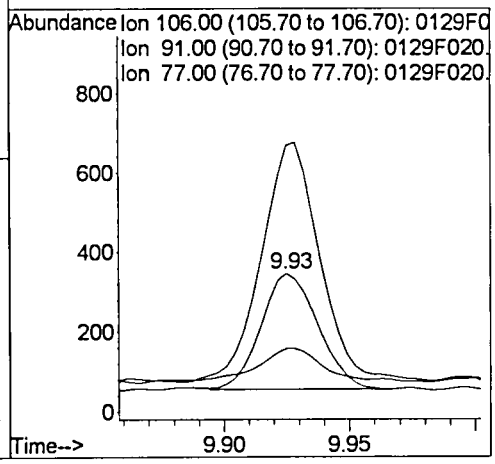


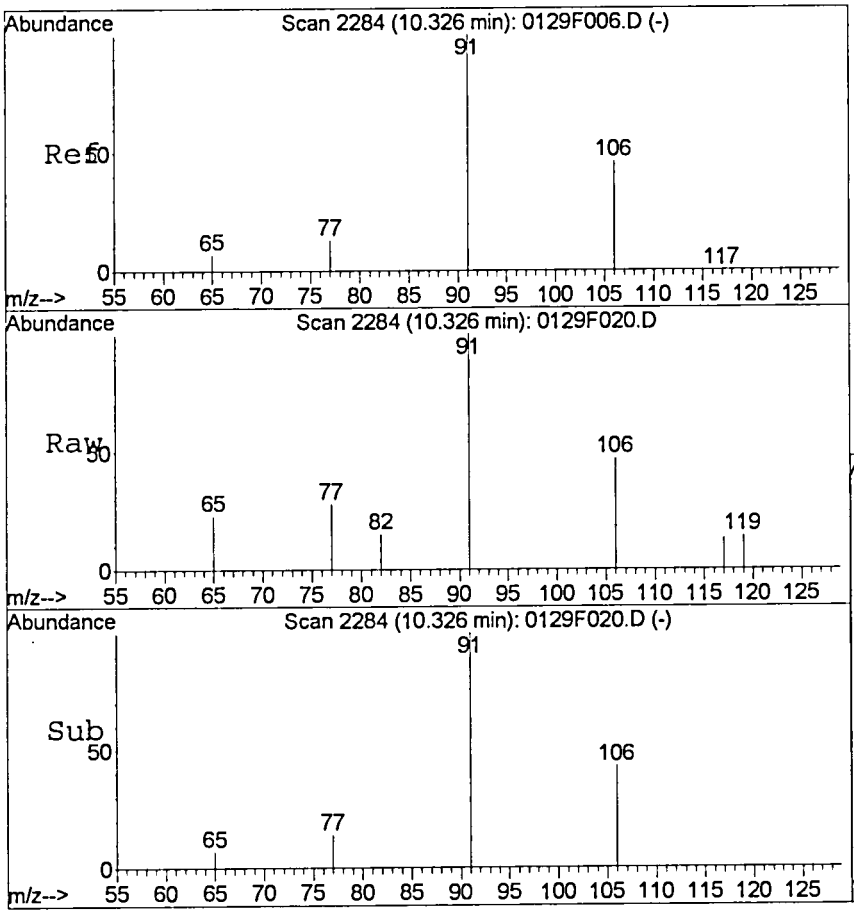


#22
m,p-Xylenes
Concen: 17.01 ng/L
RT: 9.93 min Scan# 2167
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion:106 Resp: 461

Ion	Ratio	Lower	Upper
106	100		
91	199.0	173.8	233.8
77	26.8	0.0	57.2

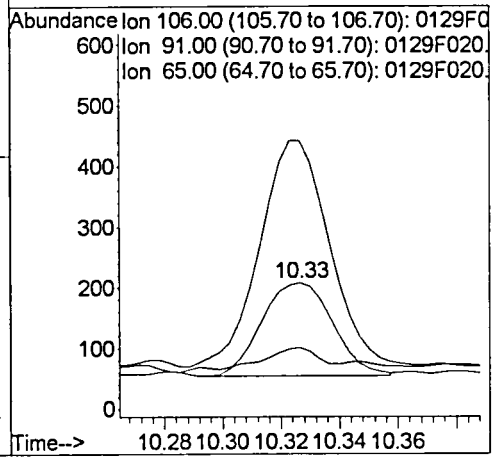


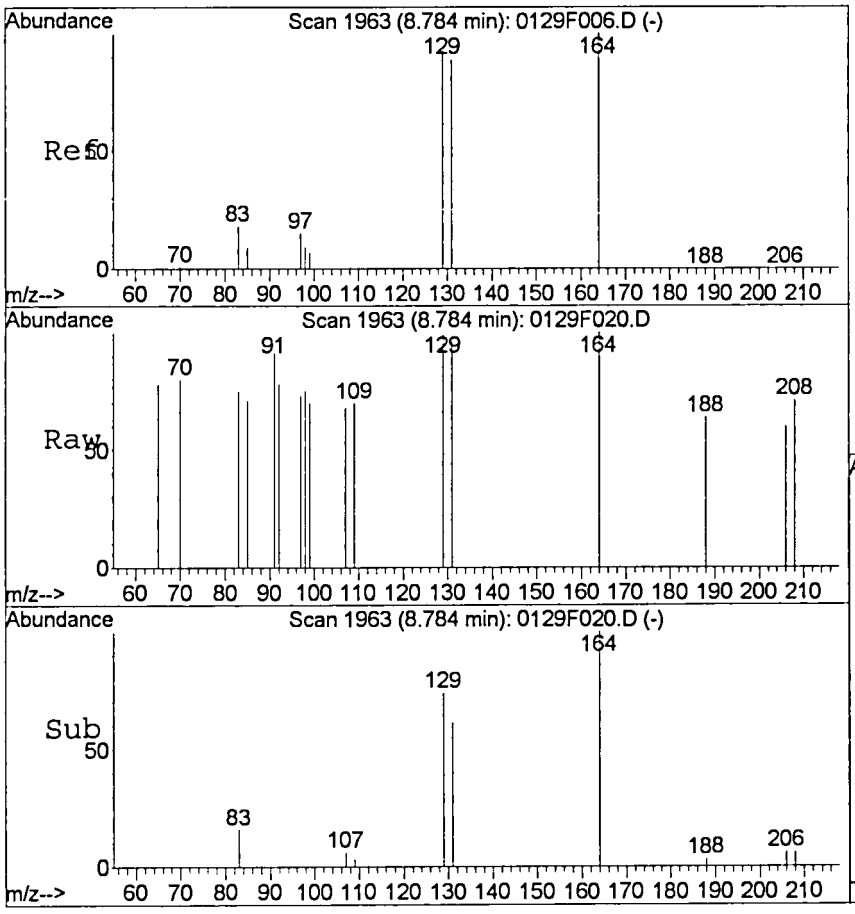


#23
o-Xylene
Concen: 9.70 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion:106 Resp: 260

Ion	Ratio	Lower	Upper
106	100		
91	236.4	185.6	245.6
65	22.1	0.0	45.0

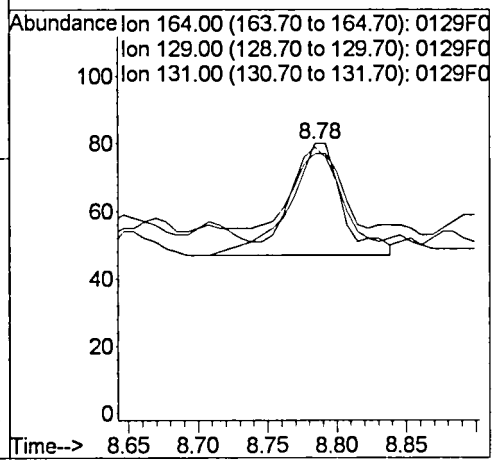


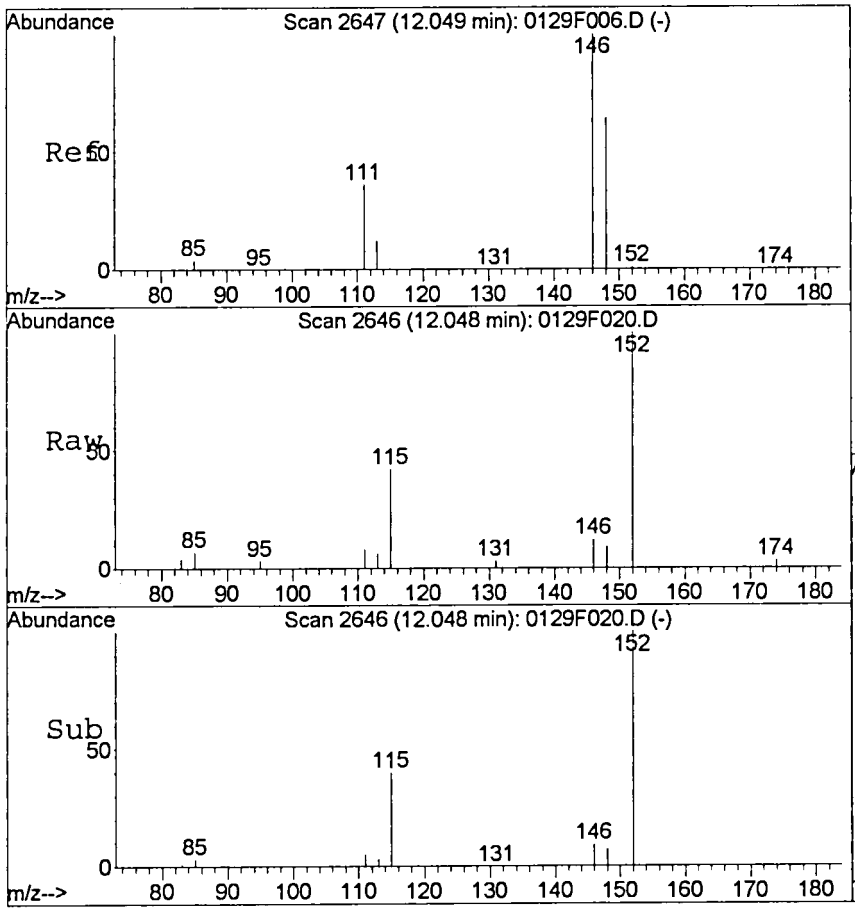


#26
Tetrachloroethene
Concen: 6.06 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion:164 Resp: 88

Ion	Ratio	Lower	Upper
164	100		
129	81.8	61.1	121.1
131	63.6	58.3	118.3

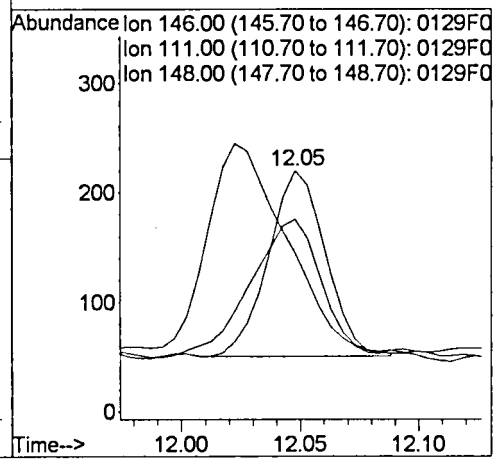




#28
1,4-Dichlorobenzene
Concen: 7.48 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F020.D
Acq: 29 Jan 2016 6:13 pm

Tgt Ion:146 Resp: 282

Ion	Ratio	Lower	Upper
146	100		
111	52.7	6.7	66.7
148	71.0	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F021.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 18:40
Date Quantitated: 02/01/2016 13:49
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MICU
Lab Control Spike	Toluene-d8	122	74	112	* bias analytic flag
Surrogates	Toluene-d8	121	74	112	I MD

Primary Review: 2/1/16

Secondary Review:

Printed: 02/01/2016 14:35:15
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F021.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 18:40	**Quant Date:**	02/01/2016 13:49	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496760	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	68883	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	49229	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17397	1,110	111	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	60579	1,209	121	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	20510	1,034	103	46-118	OK	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	95	3.81	5.8	U	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0		8.7	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:\MS27\DATA\012916_SIM\0129F021.D Vial: 18
Acq On : 29 Jan 2016 6:40 pm Operator: GH
Sample : K0673-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:38:02 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

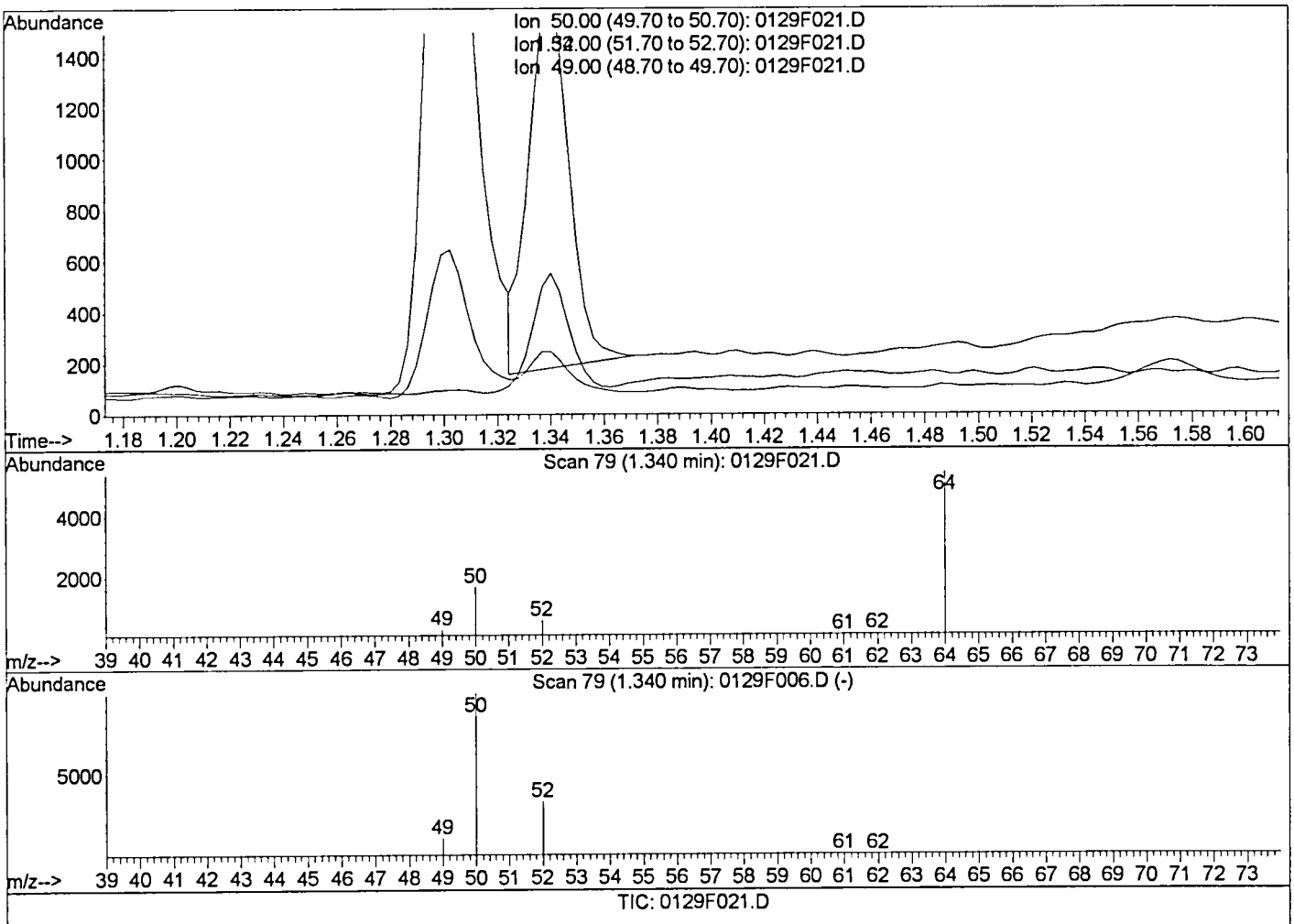
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	68883	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	49229	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	23700	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17397	1109.87	ng/L	0.00
Spiked Amount 1000.000			Recovery = 110.99%			
15) Toluene-d8	8.21	98	60579	1209.35	ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.93%			
24) 4-Bromofluorobenzene	10.89	95	20510	1033.81	ng/L	0.00
Spiked Amount 1000.000			Recovery = 103.38%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	1423m	50.82	ng/L	
5) Methylene Chloride	3.29	84	494	21.65	ng/L	97
8) Chloroform	5.61	83	148	4.16	ng/L	96
12) 1,2-Dichloroethane	6.33	62	95	3.81	ng/L #	60
13) Trichloroethene	6.92	95	65	3.59	ng/L	87
20) Toluene	8.28	92	8729	218.72	ng/L	99
22) m,p-Xylenes	9.93	106	141	5.43	ng/L	98
23) o-Xylene	10.32	106	61	2.37	ng/L	90
26) Tetrachloroethene	8.78	164	64m	4.60	ng/L	
28) 1,4-Dichlorobenzene	12.05	146	212	5.73	ng/L	78

(#) = qualifier out of range (m) = manual integration
0129F021.D 012716MS27_8260SIM.M Mon Feb 01 14:07:36 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F021.D Vial: 18
Acq On : 29 Jan 2016 6:40 pm Operator: GH
Sample : K0673-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F021.D

(2) Chloromethane (T)

1.34min 54.39ng/L

response 1523

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	30.75
49.00	10.10	11.04
0.00	0.00	0.00

Manual Integration:

Before

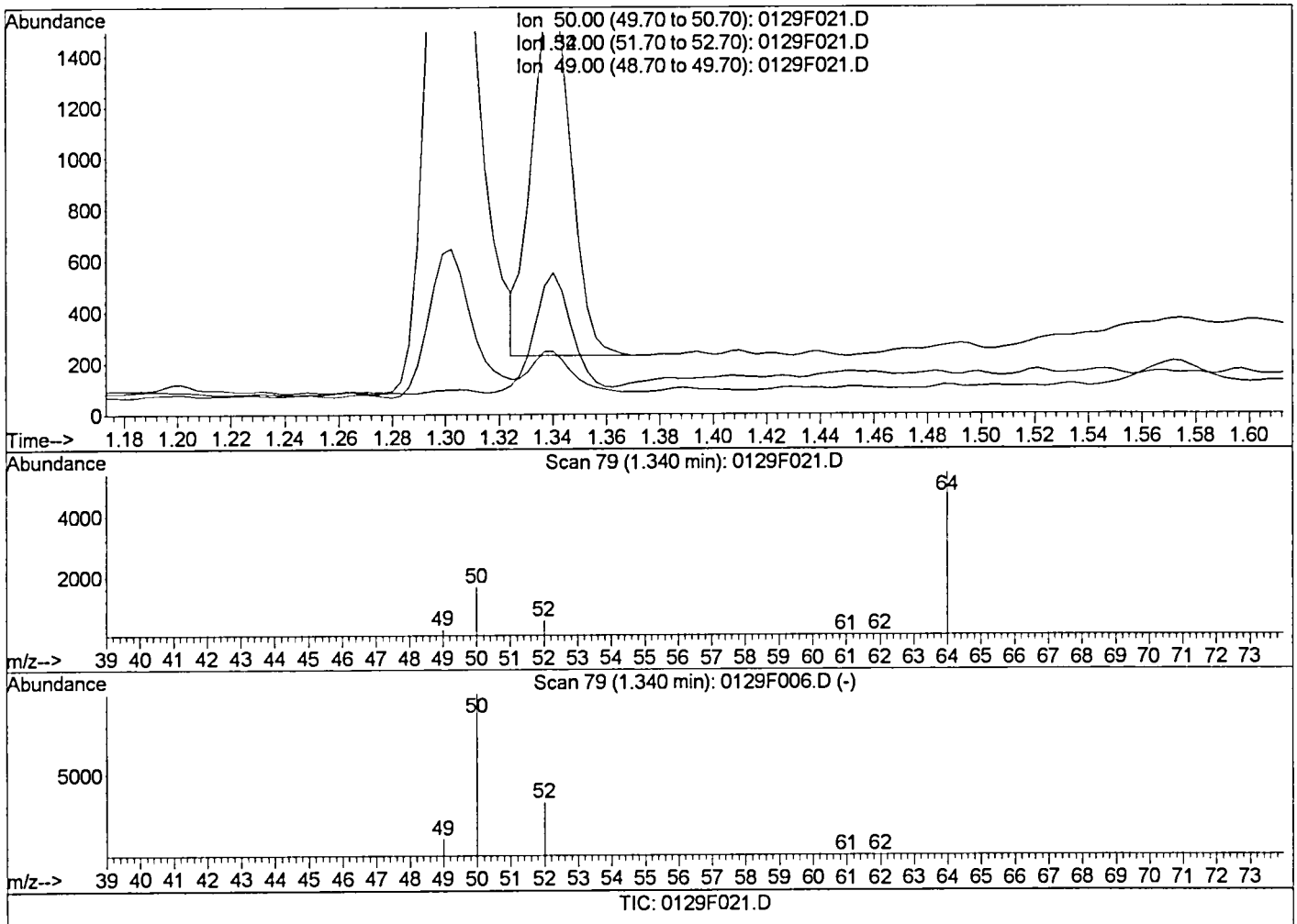
02/01/16

0129F021.D 012716MS27_8260SIM.M Mon Feb 01 13:47:53 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F021.D Vial: 18
Acq On : 29 Jan 2016 6:40 pm Operator: GH
Sample : K0673-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:48 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F021.D

(2) Chloromethane (T)

1.34min 50.82ng/L m

response 1423

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.23
49.00	10.10	14.81
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

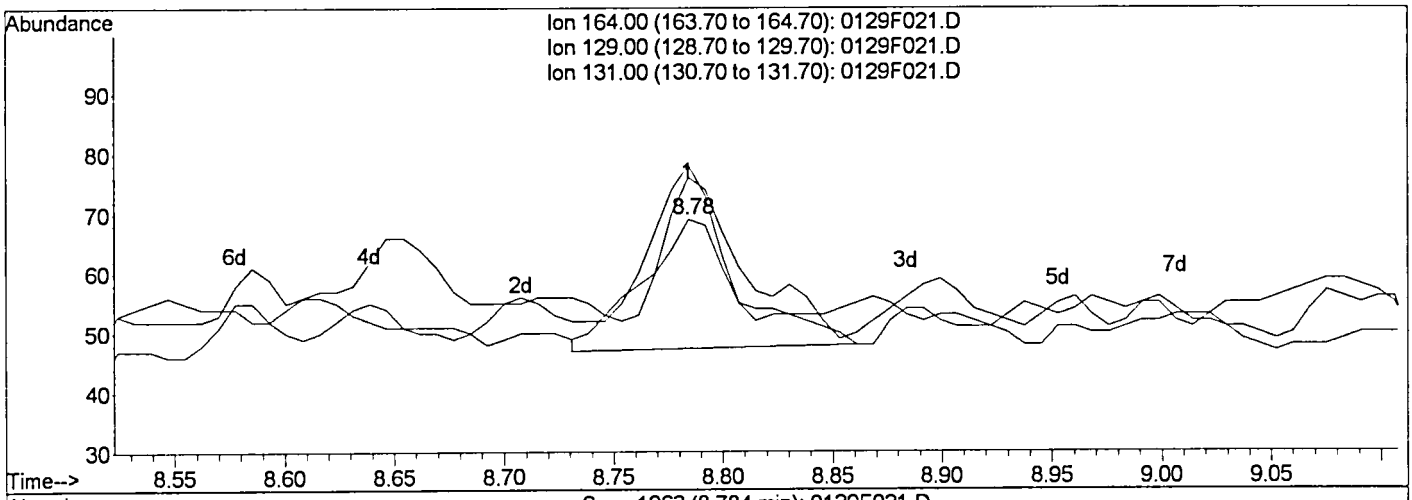
02/01/16

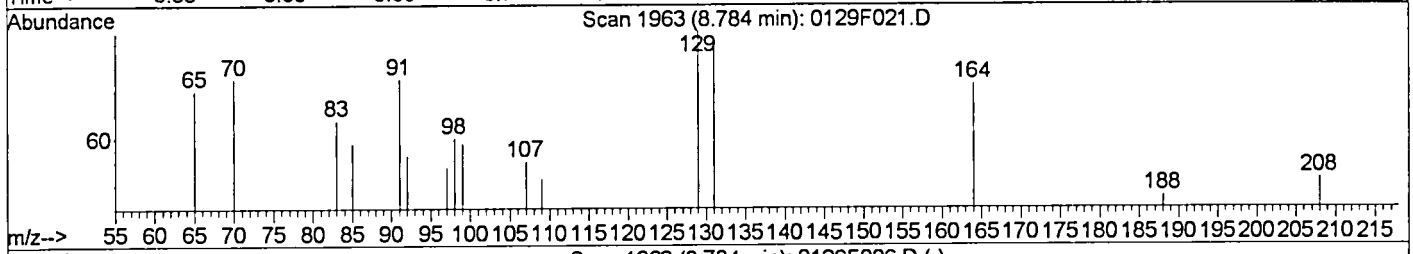
0129F021.D 012716MS27_8260SIM.M Mon Feb 01 13:48:03 2016

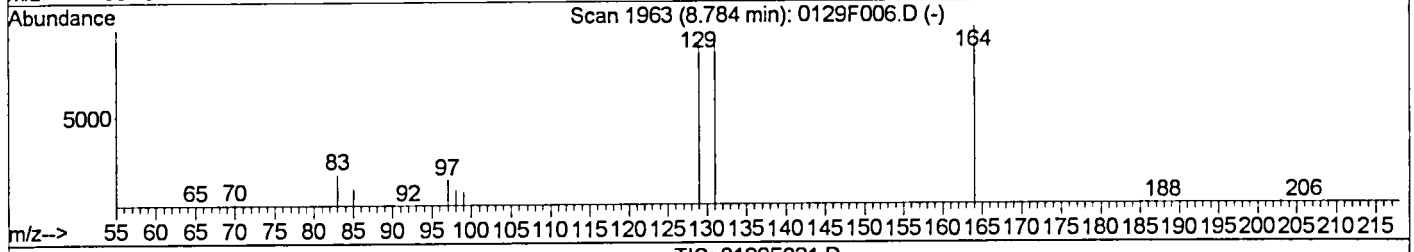
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F021.D Vial: 18
Acq On : 29 Jan 2016 6:40 pm Operator: GH
Sample : K0673-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:48 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F021.D

(26) Tetrachloroethene (T)

8.78min 4.88ng/L

response 68

Ion	Exp%	Act%
164.00	100	100
129.00	91.10	123.81#
131.00	88.30	123.81#
0.00	0.00	0.00

Manual Integration:

Before

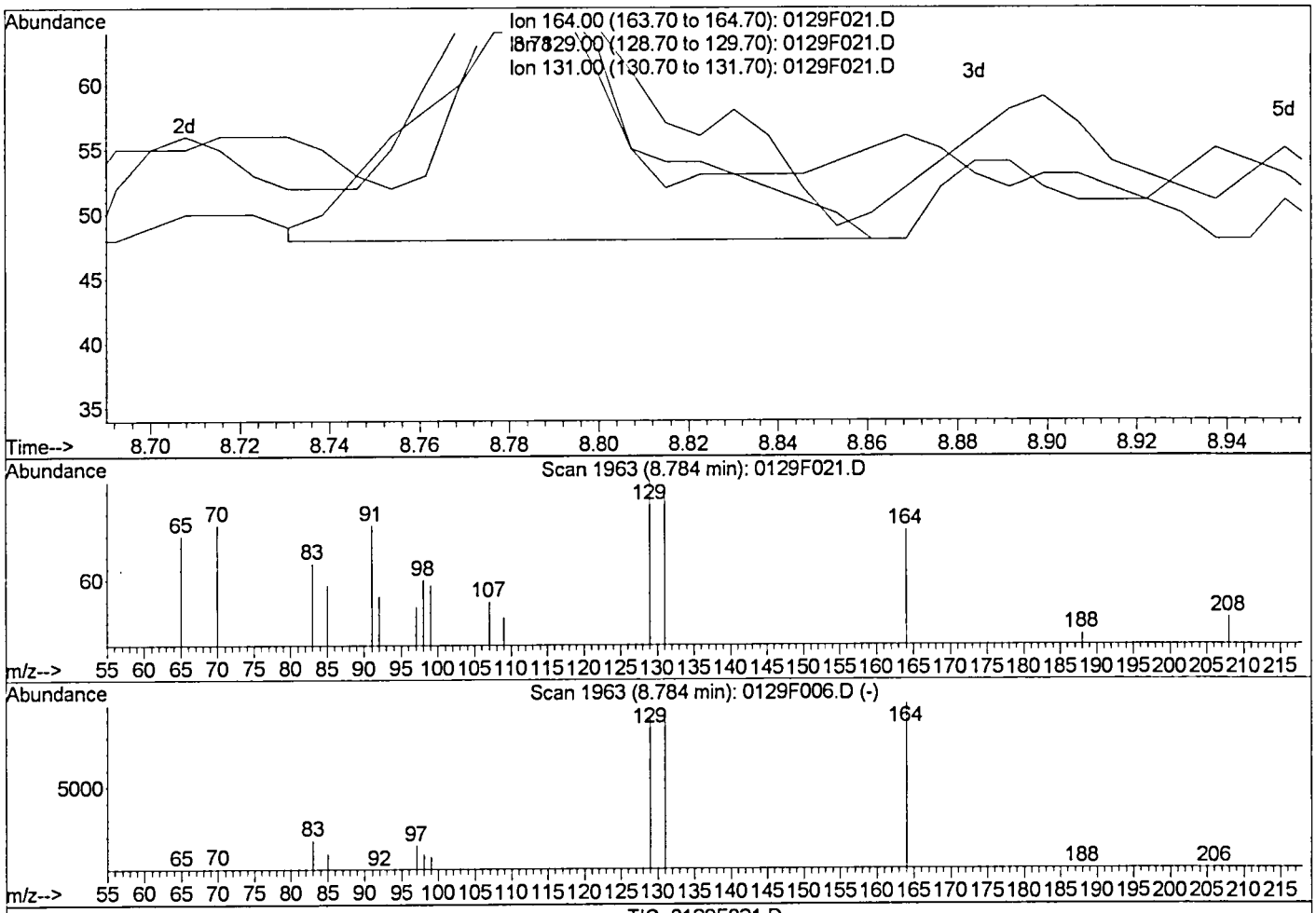
02/01/16

0129F021.D 012716MS27_8260SIM.M Mon Feb 01 13:49:05 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F021.D Vial: 18
Acq On : 29 Jan 2016 6:40 pm Operator: GH
Sample : K0673-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:49 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F021.D

(26) Tetrachloroethene (T)

8.78min 4.60ng/L m

response 64

Ion	Exp%	Act%
164.00	100	100
129.00	91.10	113.04
131.00	88.30	110.14
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

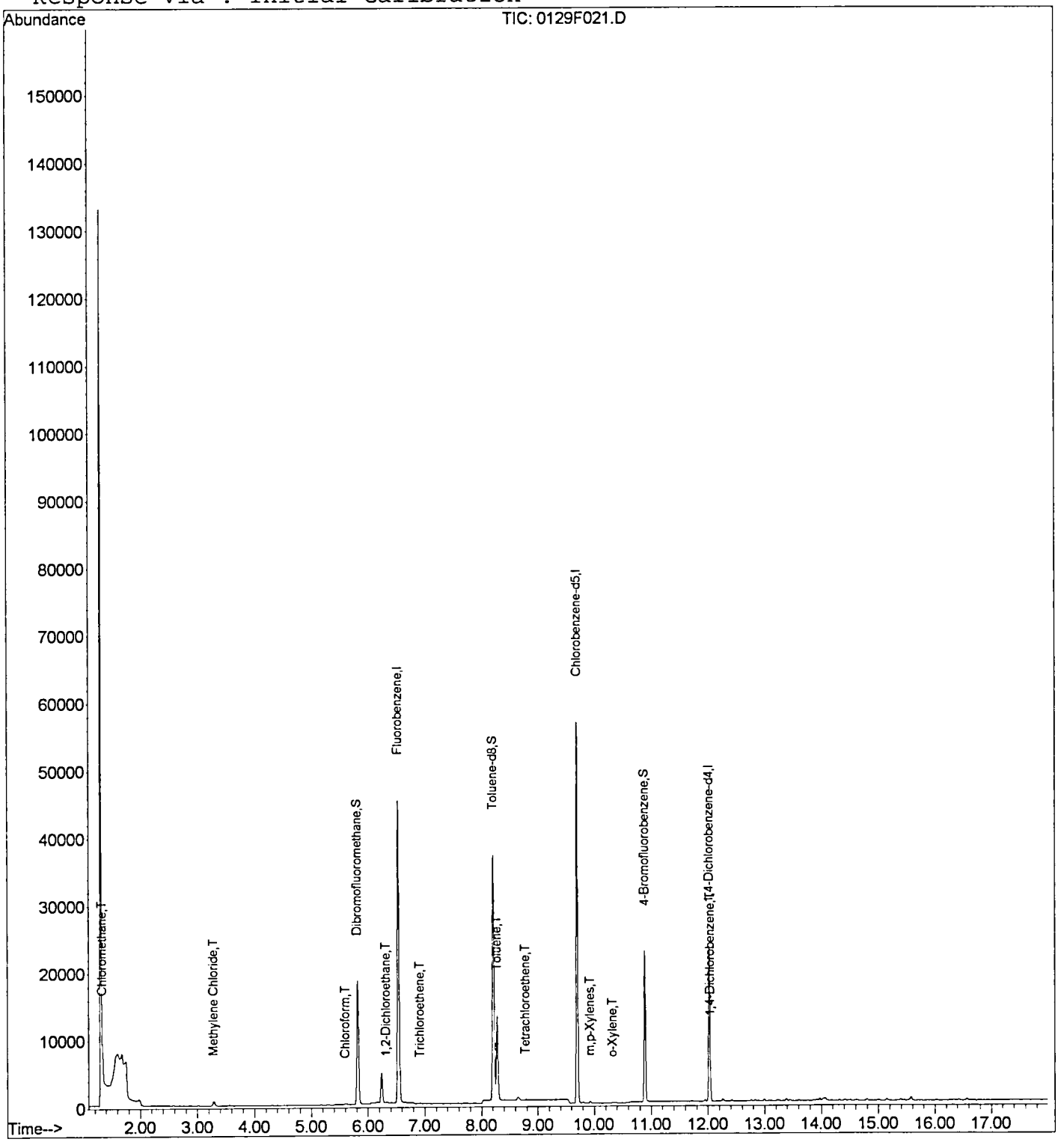
02/01/16

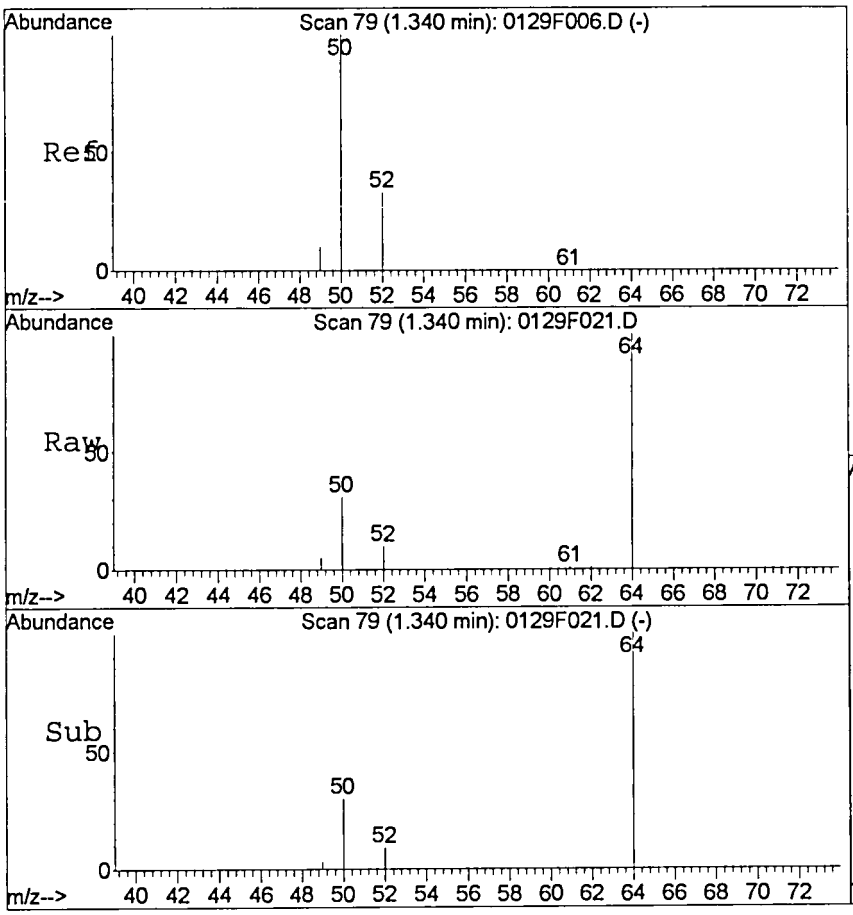
0129F021.D 012716MS27_8260SIM.M Mon Feb 01 13:49:55 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F021.D Vial: 18
Acq On : 29 Jan 2016 6:40 pm Operator: GH
Sample : K0673-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:49 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

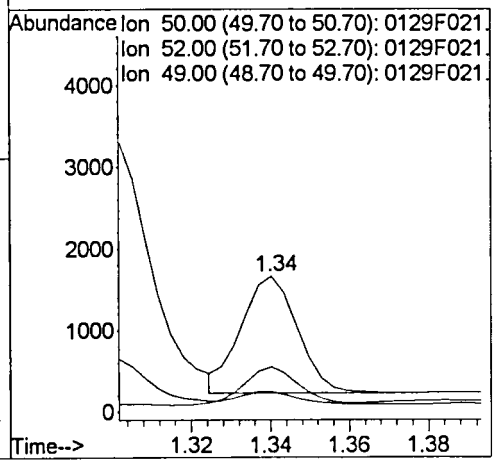


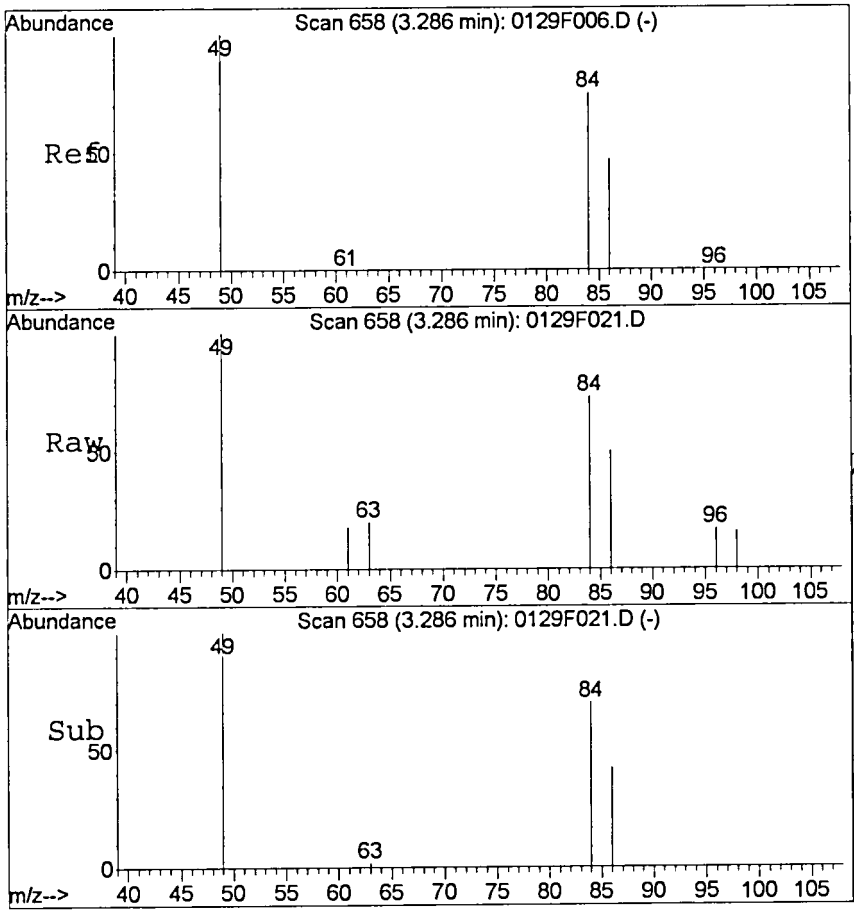


#2
Chloromethane
Concen: 50.82 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion: 50 Resp: 1423

Ion	Ratio	Lower	Upper
50	100		
52	33.2	2.9	62.9
49	14.8	0.0	40.1

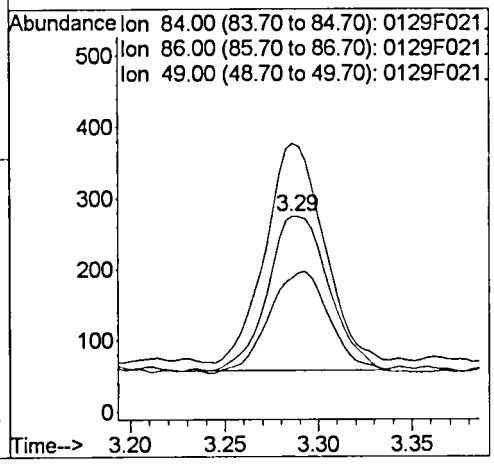


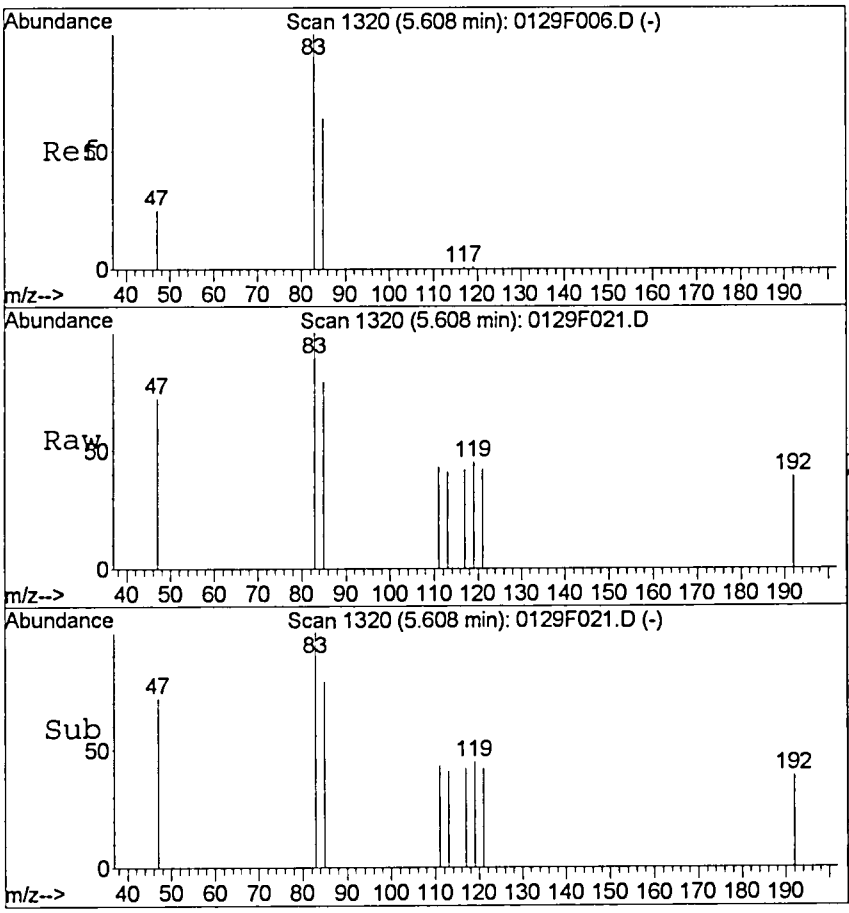


#5
Methylene Chloride
Concen: 21.65 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion: 84 Resp: 494

Ion	Ratio	Lower	Upper
84	100		
86	61.8	33.8	93.8
49	141.5	107.9	167.9

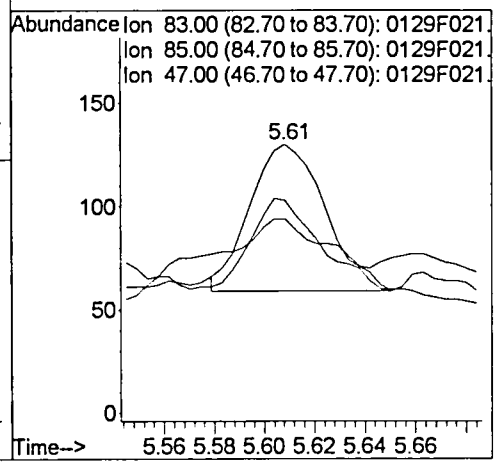


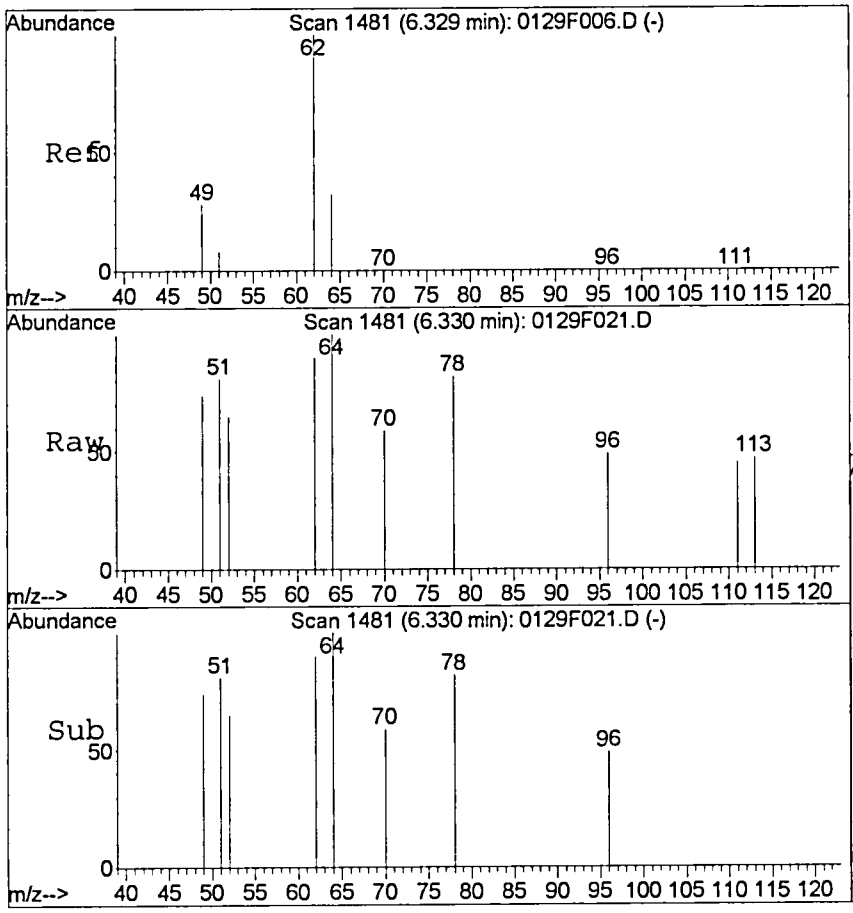


#8
Chloroform
Concen: 4.16 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion: 83 Resp: 148

Ion	Ratio	Lower	Upper
83	100		
85	60.6	34.7	94.7
47	26.8	0.0	55.9

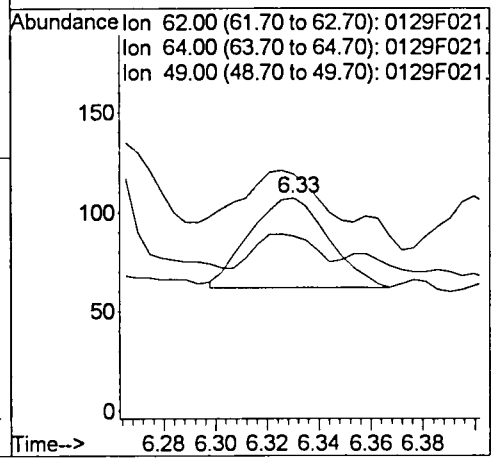


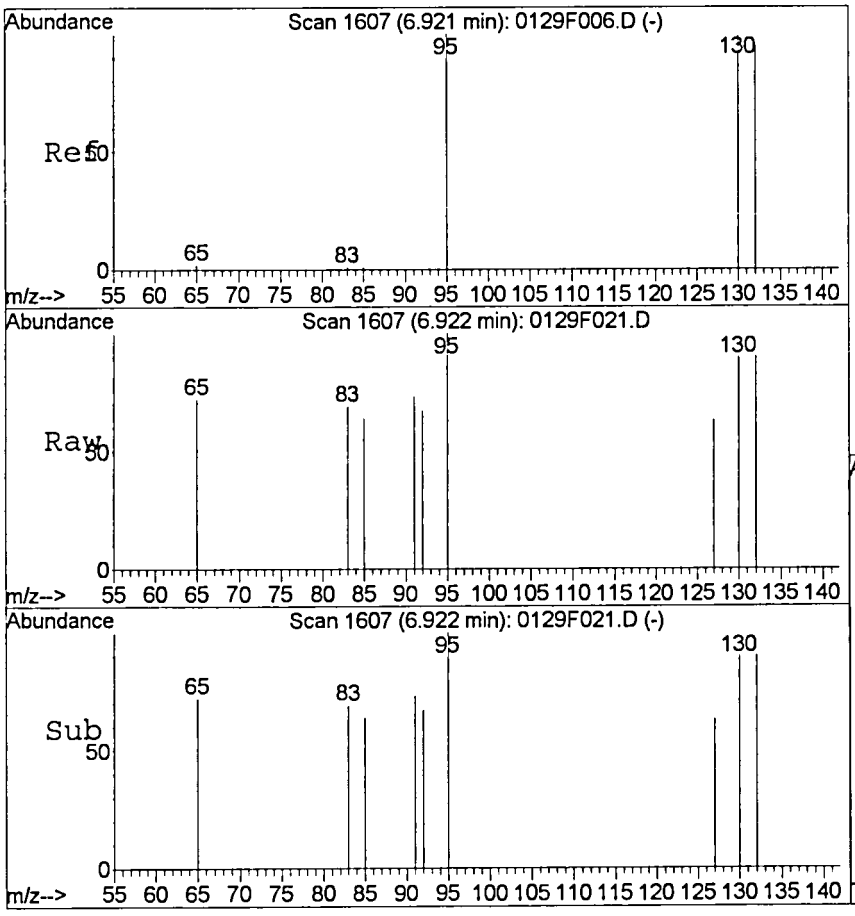


#12
1,2-Dichloroethane
Concen: 3.81 ng/L
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion: 62 Resp: 95

Ion	Ratio	Lower	Upper
62	100		
64	68.9	1.7	61.7#
49	33.3	0.0	58.2

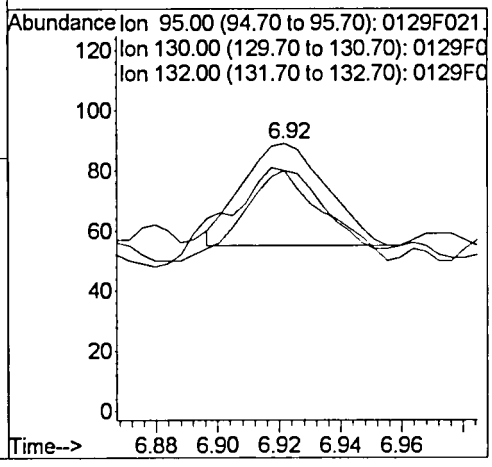


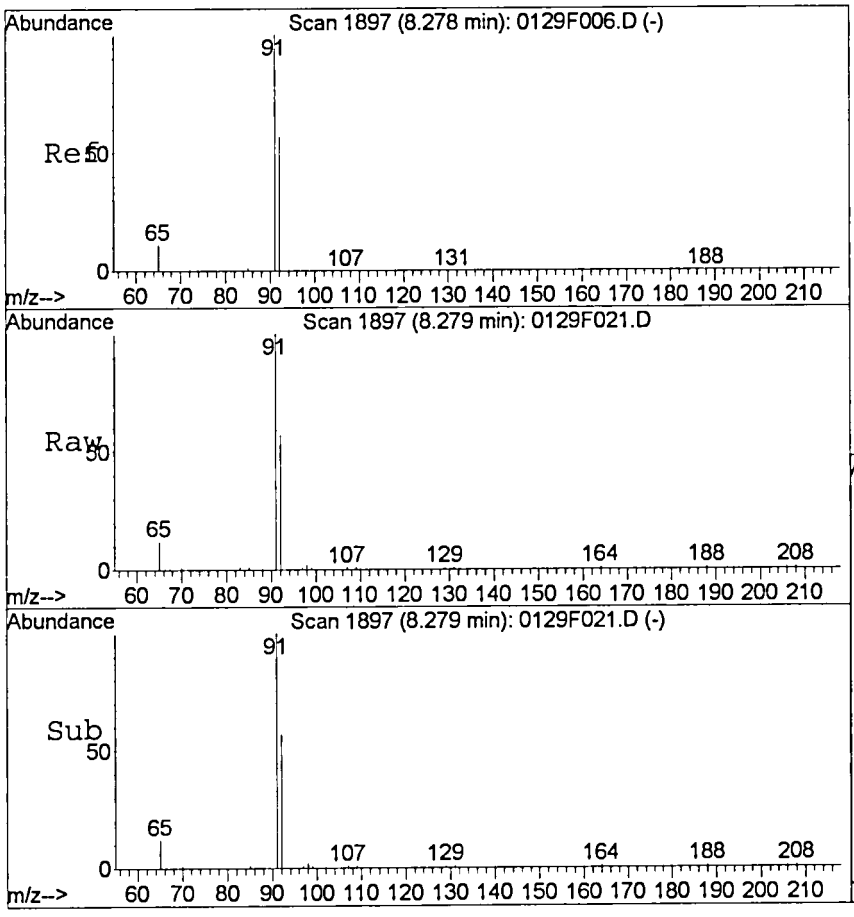


#13
Trichloroethene
Concen: 3.59 ng/L
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion: 95 Resp: 65

Ion	Ratio	Lower	Upper
95	100		
130	88.2	67.1	127.1
132	76.5	63.9	123.9

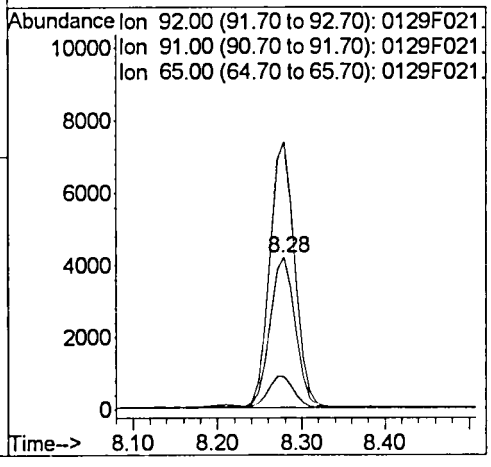


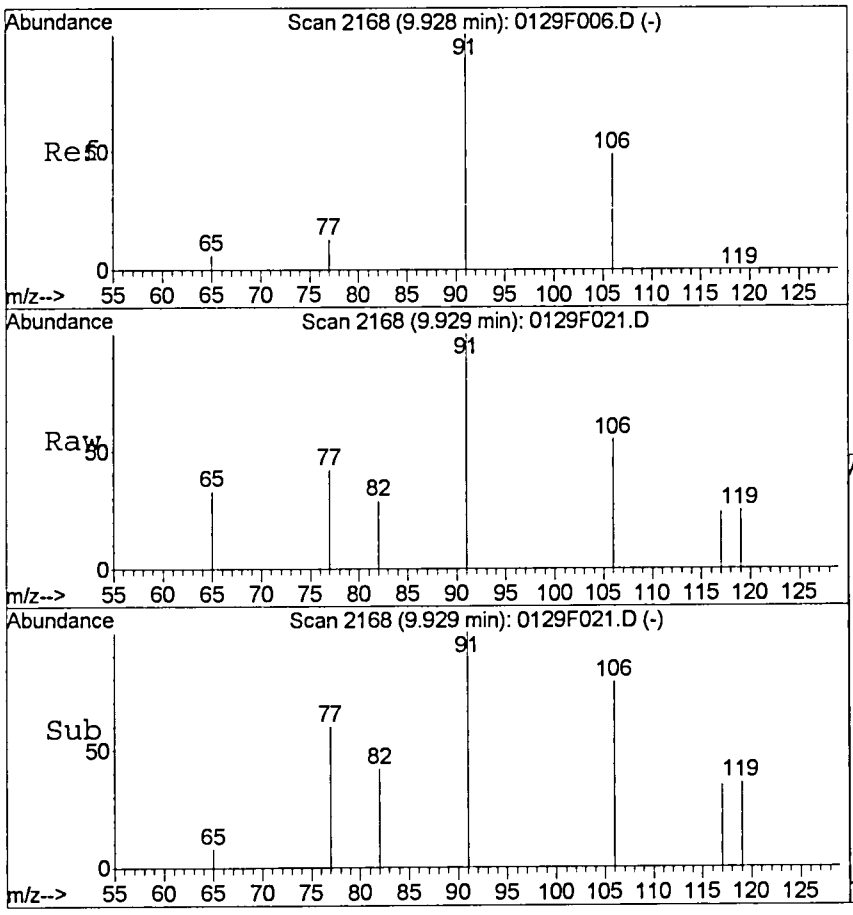


#20
Toluene
Concen: 218.72 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion: 92 Resp: 8729

Ion	Ratio	Lower	Upper
92	100		
91	176.2	144.4	204.4
65	20.2	0.0	49.7

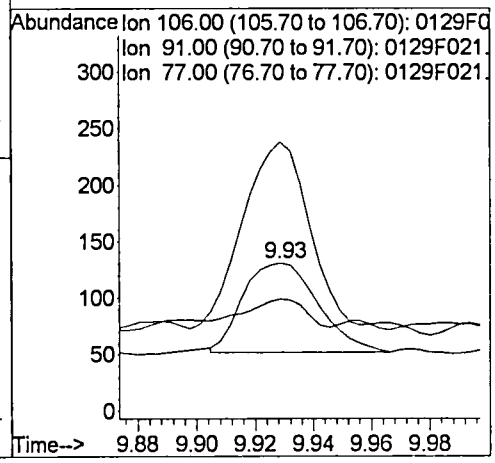


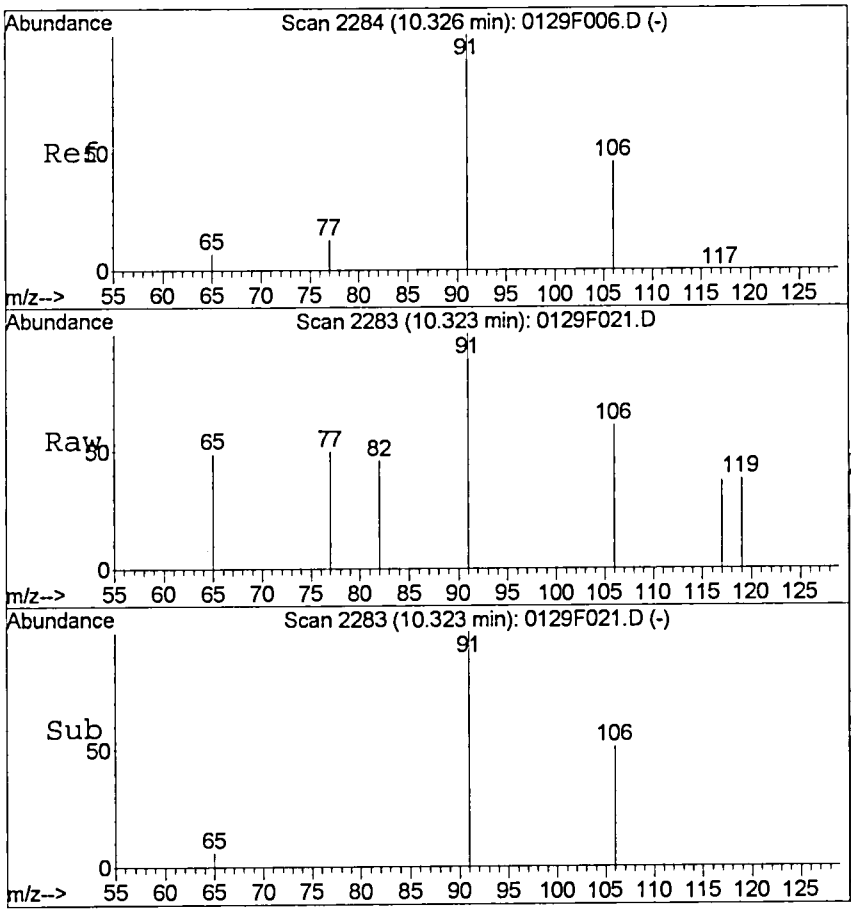


#22
m,p-Xylenes
Concen: 5.43 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion:106 Resp: 141

Ion	Ratio	Lower	Upper
106	100		
91	202.5	173.8	233.8
77	34.2	0.0	57.2

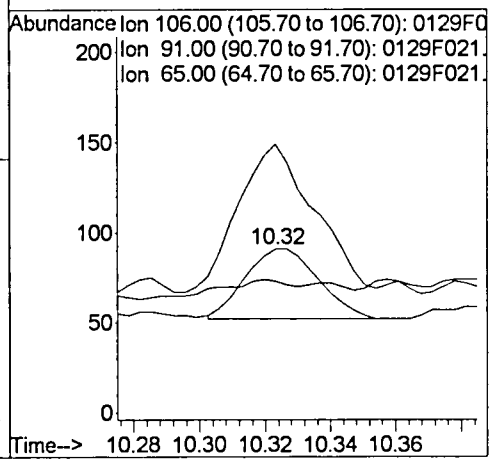


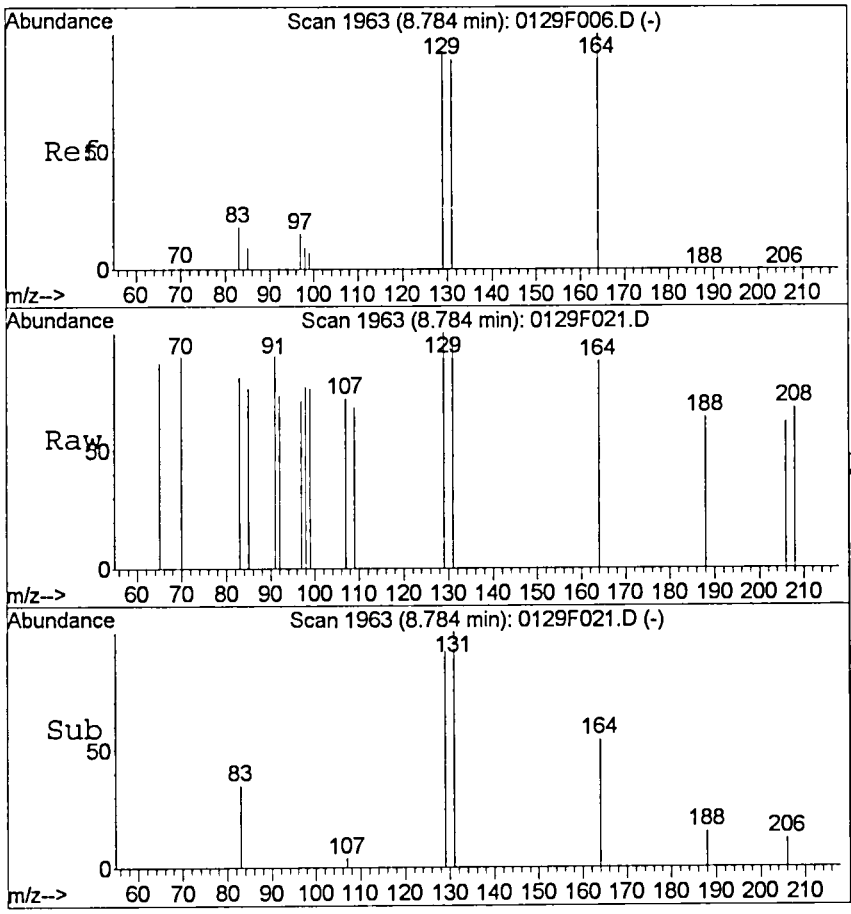


#23
o-Xylene
Concen: 2.37 ng/L
RT: 10.32 min Scan# 2283
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion:106 Resp: 61

Ion	Ratio	Lower	Upper
106	100		
91	200.0	185.6	245.6
65	10.3	0.0	45.0

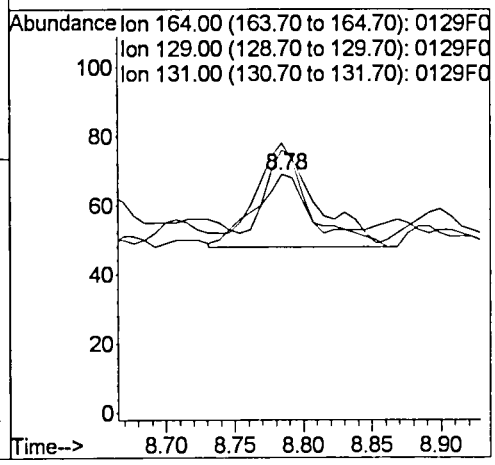


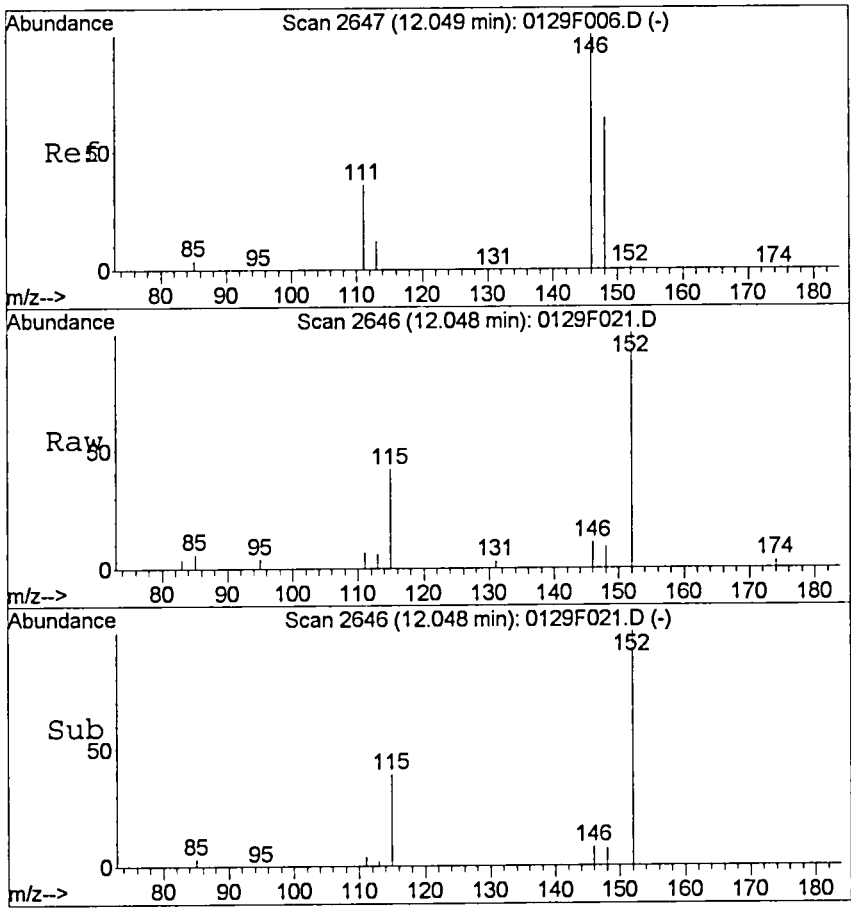


#26
Tetrachloroethene
Concen: 4.60 ng/L m
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion:164 Resp: 64

Ion	Ratio	Lower	Upper
164	100		
129	113.0	61.1	121.1
131	110.1	58.3	118.3

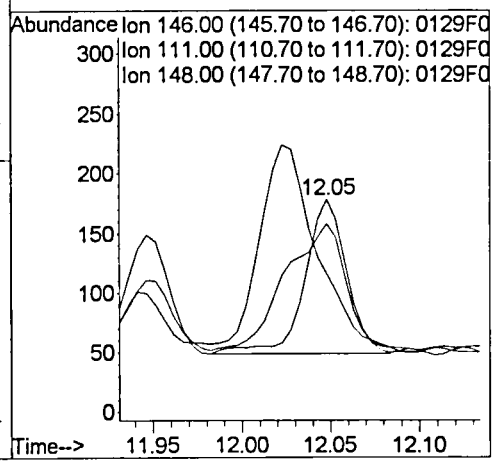




#28
1,4-Dichlorobenzene
Concen: 5.73 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F021.D
Acq: 29 Jan 2016 6:40 pm

Tgt Ion:146 Resp: 212

Ion	Ratio	Lower	Upper
146	100		
111	48.1	6.7	66.7
148	82.2	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F012.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 14:13
Date Quantitated: 02/01/2016 15:16
Batch ID: KWG1600834
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Toluene-d8	20.9	NA	20	CCV okay
Lab Control Spike	Toluene-d8	121	74	112	Trace outlier okay
Surrogates	Toluene-d8	118	74	112	Trace

Primary Review: 2/1/16

Secondary Review:

Printed: 02/01/2016 15:36:24
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F012.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 14:13	**Quant Date:**	02/01/2016 15:16	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600834	**Prep Lot:**	KWG1600835	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496974	**Prep Date:**	02/01/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\020116_SIM\0201F011.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	6.54	0.00	96	67287	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	47820	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17473	1,141	114	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	57809	1,181	118	74-112	*
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	19211	996.86	100	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	95	3.90	5.8	U	
1	Bromodichloromethane	7.54	-0.01	0.00	83	146	6.23	6.2	J	
1	Dibromochloromethane	9.16		0.00	129	65	4.34	8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\020116_SIM\0201F012.D Vial: 10
Acq On : 1 Feb 2016 2:13 pm Operator: GH
Sample : K0673-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 15:10:17 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.54	96	67287	1000.00 ng/L	0.00
19) Chlorobenzene-d5	9.70	117	47820	1000.00 ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	22312	1000.00 ng/L	0.00
System Monitoring Compounds					
9) Dibromofluoromethane	5.82	113	17473	1141.16 ng/L	0.00
Spiked Amount 1000.000			Recovery = 114.12%		
15) Toluene-d8	8.21	98	57809	1181.42 ng/L	0.00
Spiked Amount 1000.000			Recovery = 118.14%		
24) 4-Bromofluorobenzene	10.88	95	19211	996.86 ng/L	0.00
Spiked Amount 1000.000			Recovery = 99.69%		
Target Compounds					Qvalue
2) Chloromethane	1.34	50	580m	21.20 ng/L	
5) Methylene Chloride	3.29	84	561	25.17 ng/L	89
6) trans-1,2-Dichloroethene	3.57	96	55m	3.19 ng/L	
8) Chloroform	5.61	83	1163	33.48 ng/L	97
12) 1,2-Dichloroethane	6.33	62	95	3.90 ng/L	76
13) Trichloroethene	6.92	95	67m	3.79 ng/L	
14) Bromodichloromethane	7.54	83	146	6.23 ng/L	84
17) Dibromochloromethane	9.16	129	65	4.34 ng/L	85
20) Toluene	8.28	92	3686	95.08 ng/L	99
21) Ethylbenzene	9.80	106	40	1.98 ng/L #	48
22) m,p-Xylenes	9.93	106	138	5.47 ng/L #	71
26) Tetrachloroethene	8.78	164	67	4.95 ng/L #	77
28) 1,4-Dichlorobenzene	12.05	146	313	8.99 ng/L	88

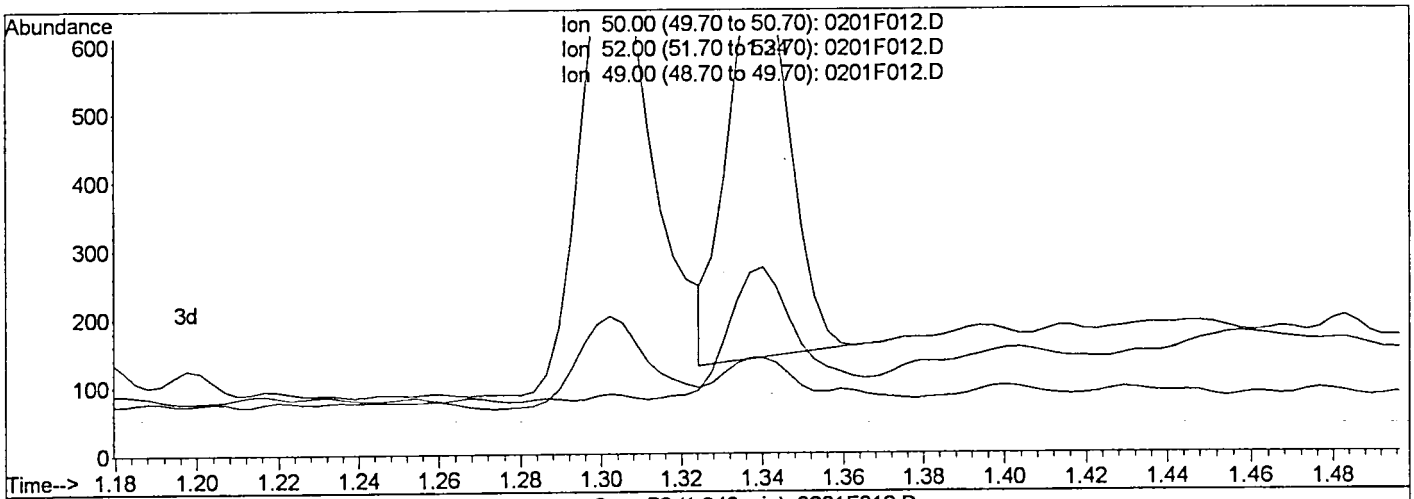
(#) = qualifier out of range (m) = manual integration
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:18:33 2016 Page 1

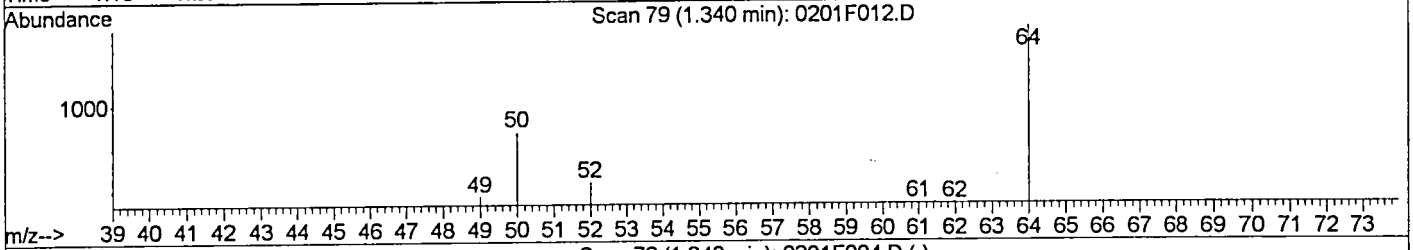
Quantitation Report (Qedit)

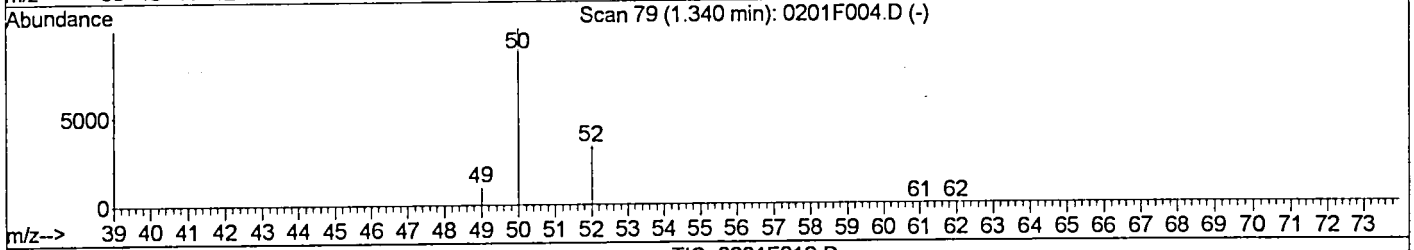
Data File : J:\MS27\DATA\020116_SIM\0201F012.D
Acq On : 1 Feb 2016 2:13 pm
Sample : K0673-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:10 2016

Vial: 10
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration







TIC: 0201F012.D

(2) Chloromethane (T)

1.34min 22.34ng/L

response 611

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	30.61
49.00	10.10	8.16
0.00	0.00	0.00

Manual Integration:

Before

02/01/16

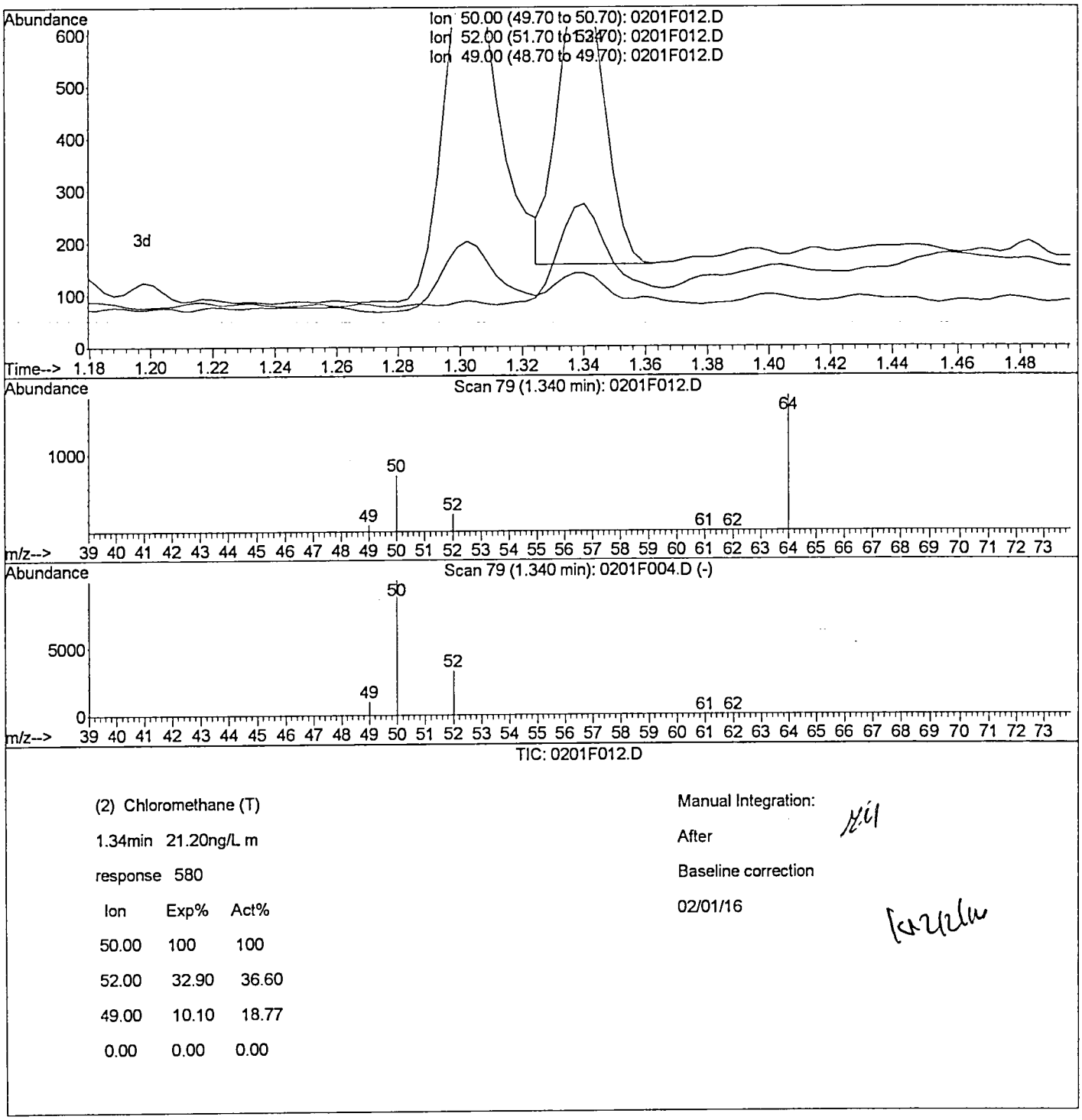
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:14:24 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F012.D
Acq On : 1 Feb 2016 2:13 pm
Sample : K0673-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:14 2016

Vial: 10
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration



(2) Chloromethane (T)

1.34min 21.20ng/L m

response 580

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	36.60
49.00	10.10	18.77
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

02/01/16

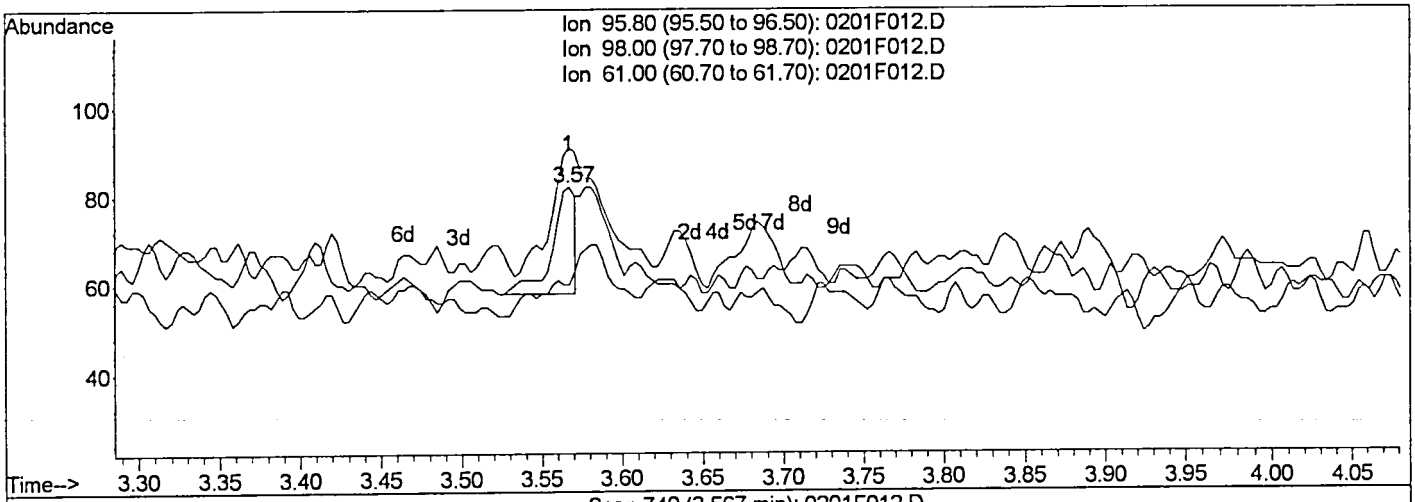
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:14:31 2016

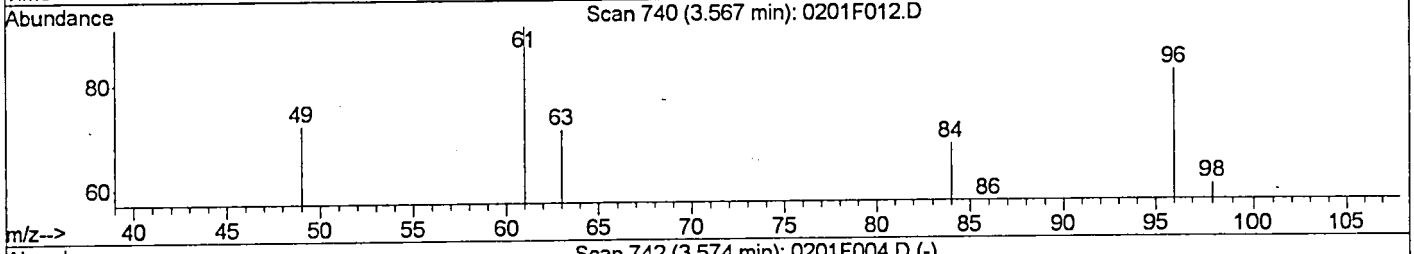
Quantitation Report (Qedit)

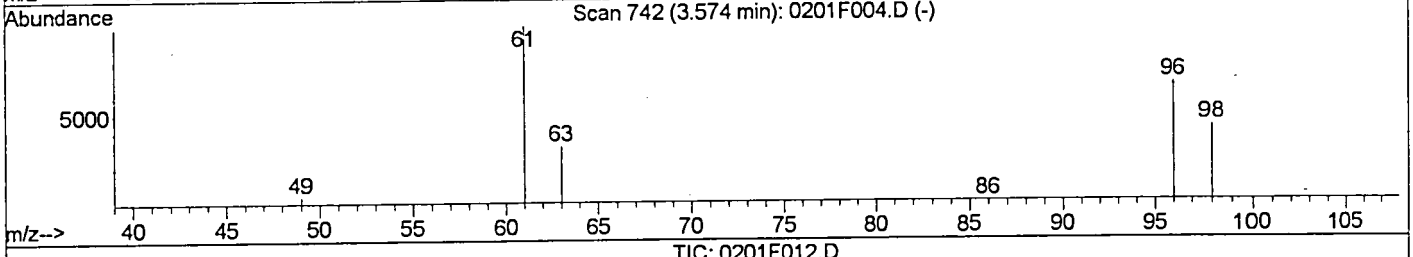
Data File : J:\MS27\DATA\020116_SIM\0201F012.D
Acq On : 1 Feb 2016 2:13 pm
Sample : K0673-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:14 2016

Vial: 10
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F012.D

(6) trans-1,2-Dichloroethene (T)

3.57min 1.39ng/L

response 24

Ion	Exp%	Act%
95.80	100	100
98.00	62.70	29.17#
61.00	152.30	100.00#
0.00	0.00	0.00

Manual Integration:

Before

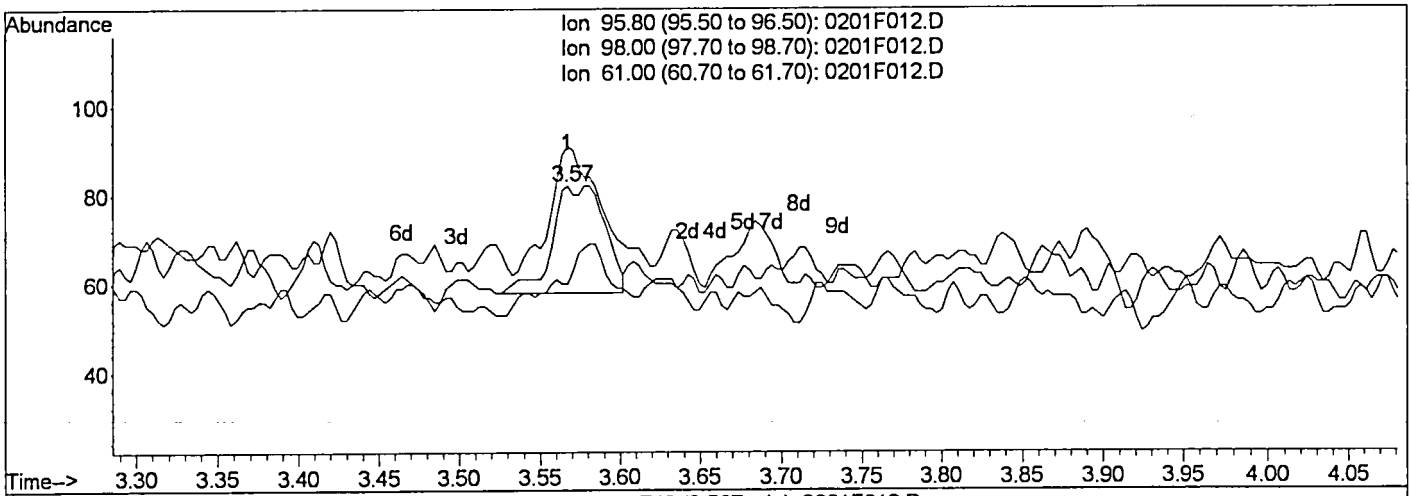
02/01/16

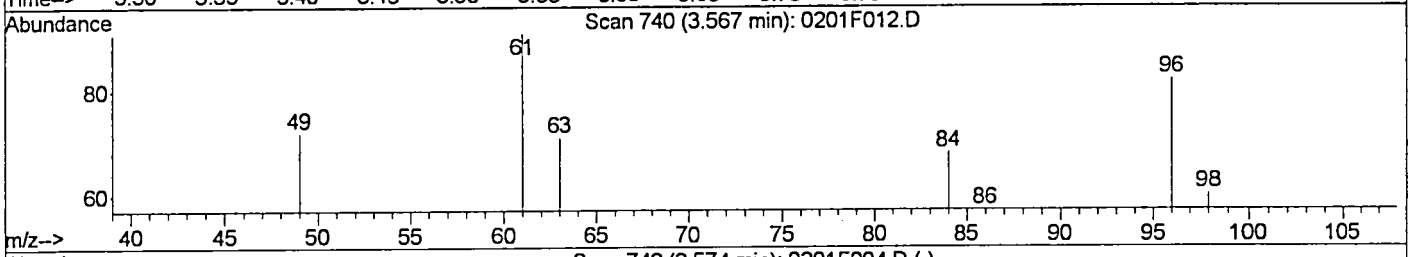
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:14:49 2016

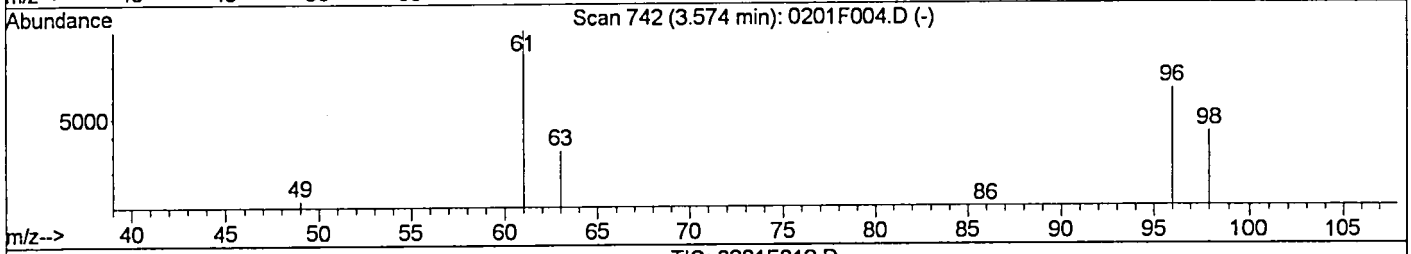
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F012.D Vial: 10
Acq On : 1 Feb 2016 2:13 pm Operator: GH
Sample : K0673-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:15 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F012.D

(6) trans-1,2-Dichloroethene (T)

3.57min 3.19ng/L m

response 55

Ion	Exp%	Act%
95.80	100	100
98.00	62.70	73.17
61.00	152.30	110.98#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

02/01/16

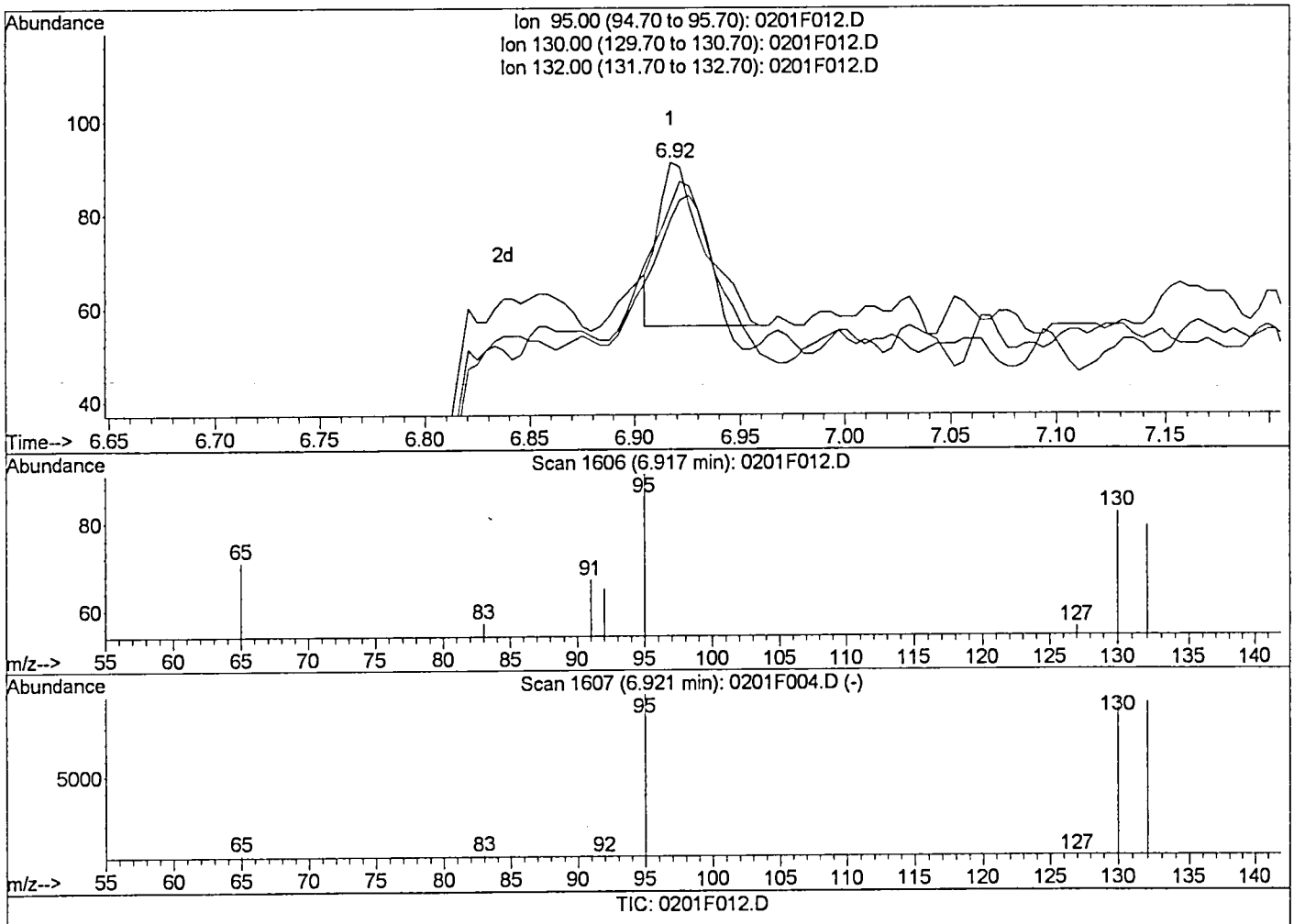
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:15:12 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F012.D
Acq On : 1 Feb 2016 2:13 pm
Sample : K0673-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:15 2016

Vial: 10
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



(13) Trichloroethene (T)

6.92min 3.00ng/L

response 53

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	85.71
132.00	93.90	82.86
0.00	0.00	0.00

Manual Integration:

Before

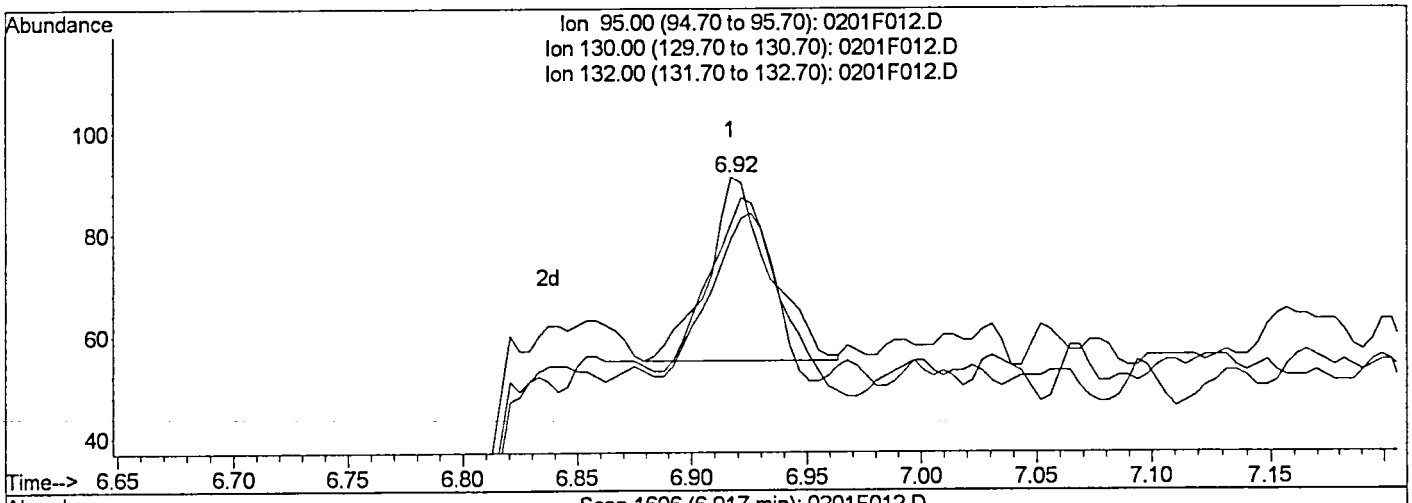
02/01/16

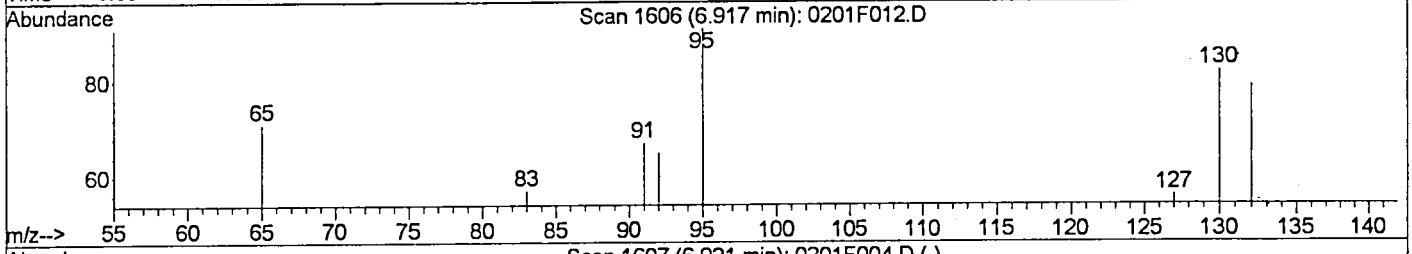
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:15:33 2016

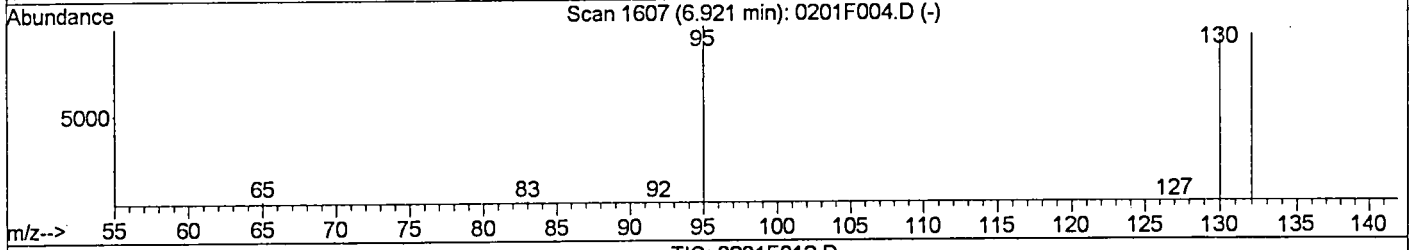
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F012.D Vial: 10
Acq On : 1 Feb 2016 2:13 pm Operator: GH
Sample : K0673-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:15 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F012.D

(13) Trichloroethene (T)

6.92min 3.79ng/L m

response 67

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	90.11
132.00	93.90	86.81
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

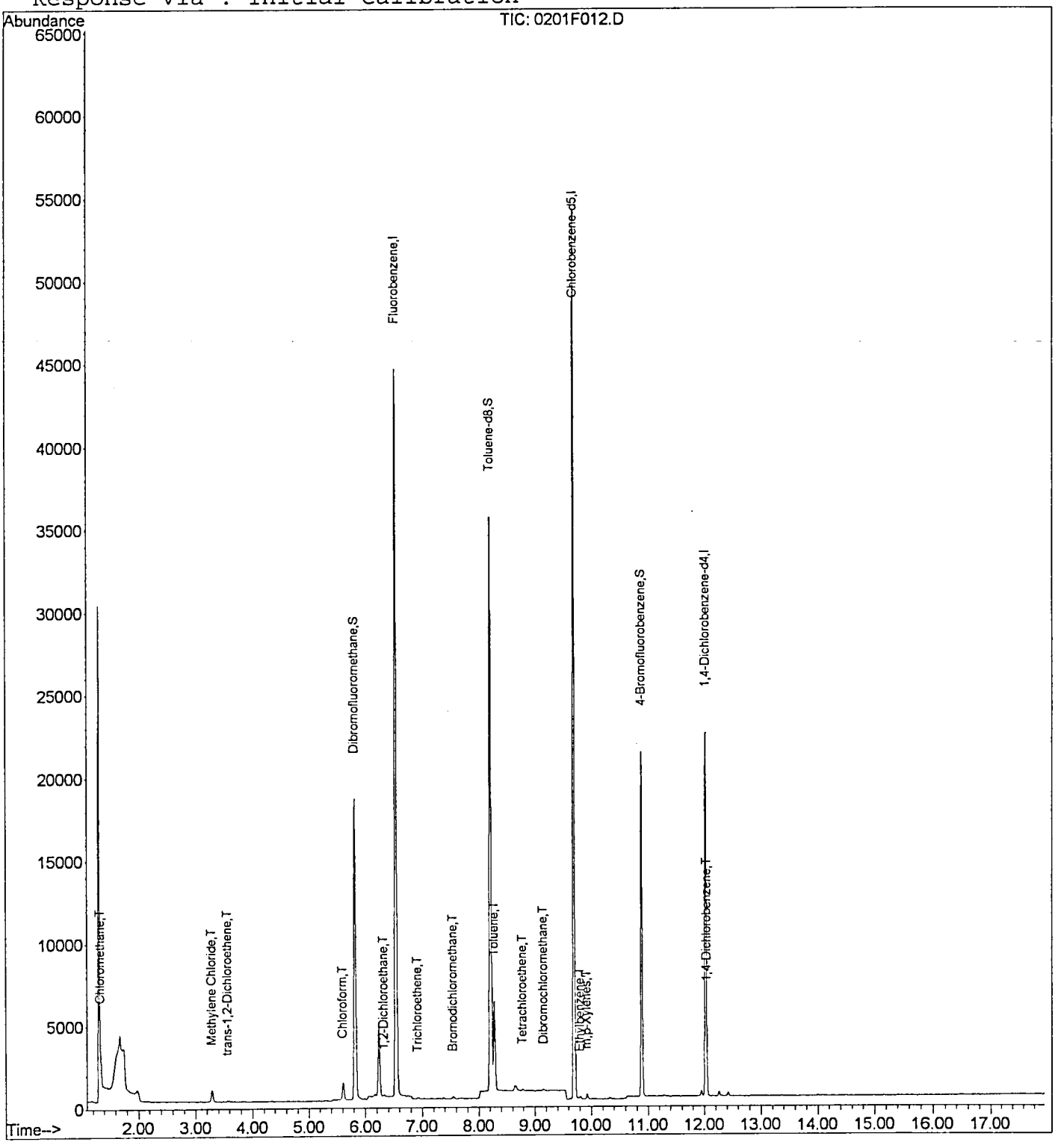
02/01/16

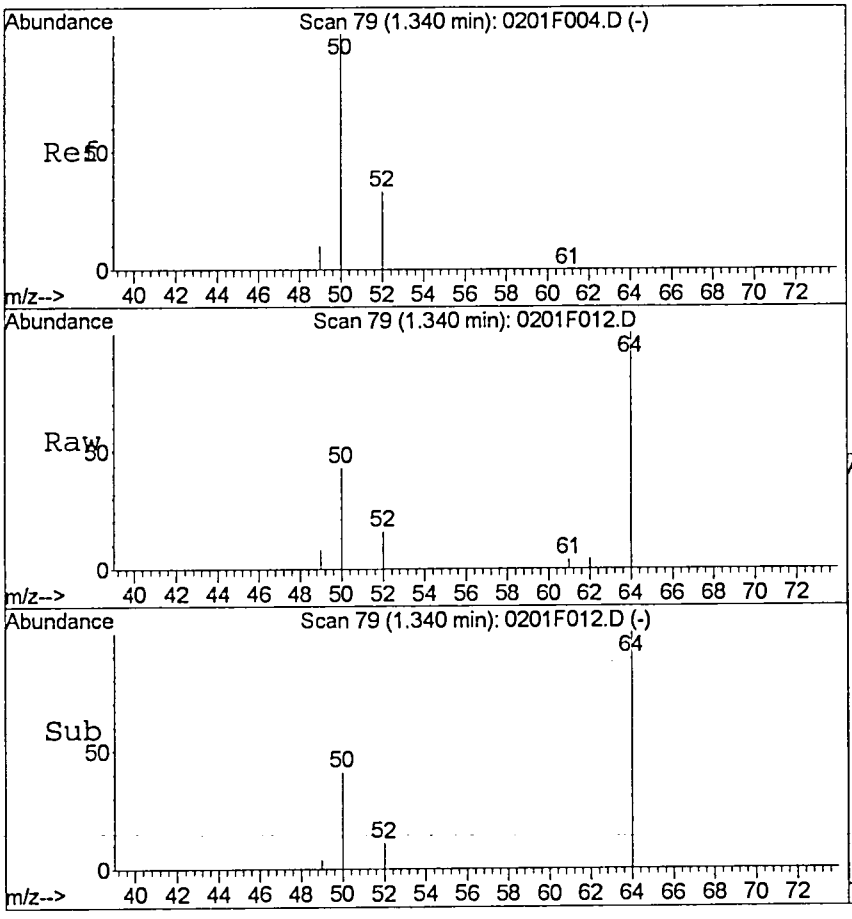
0201F012.D 012716MS27_8260SIM.M Mon Feb 01 15:15:39 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F012.D Vial: 10
Acq On : 1 Feb 2016 2:13 pm Operator: GH
Sample : K0673-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:16 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration

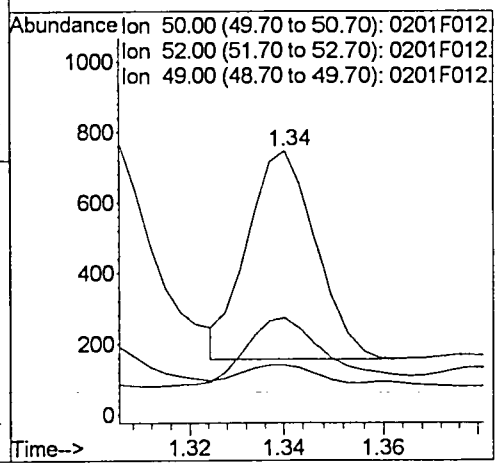


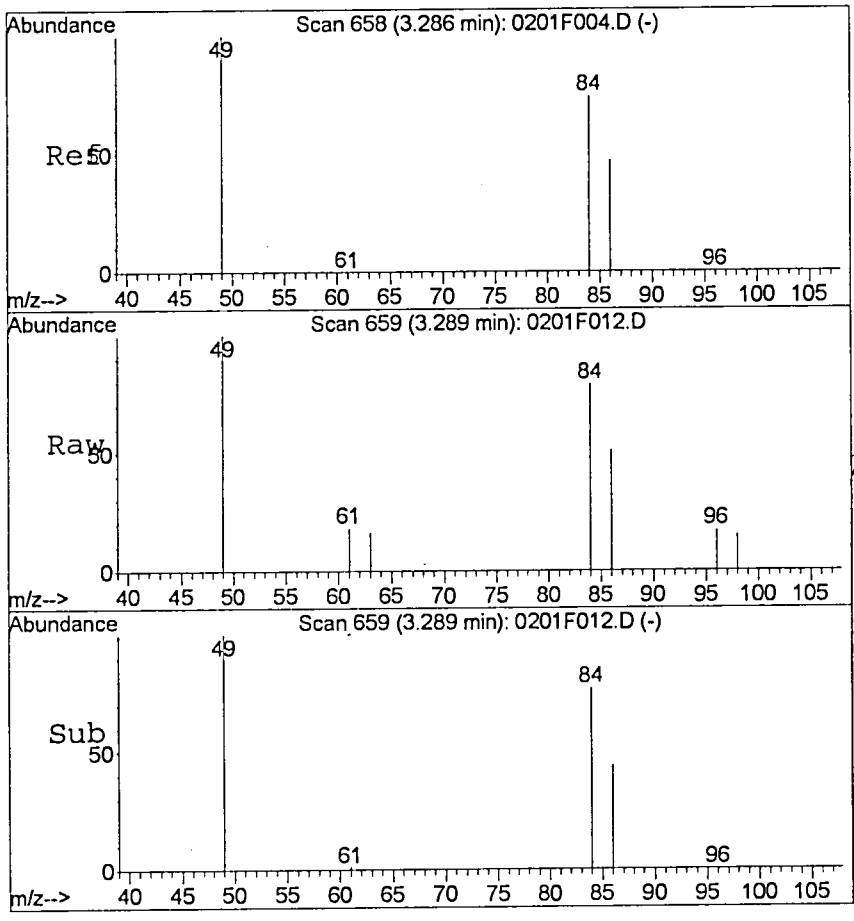


#2
Chloromethane
Concen: 21.20 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 50 Resp: 580

Ion	Ratio	Lower	Upper
50	100		
52	36.6	2.9	62.9
49	18.8	0.0	40.1

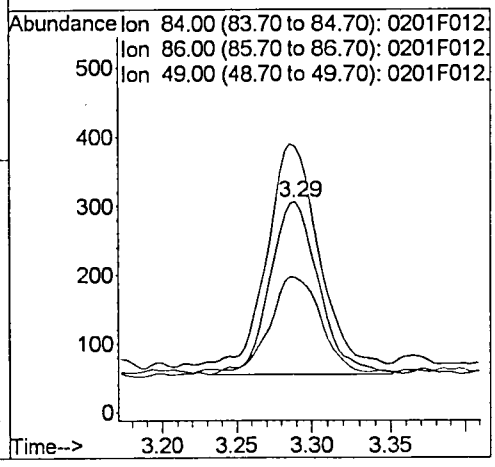


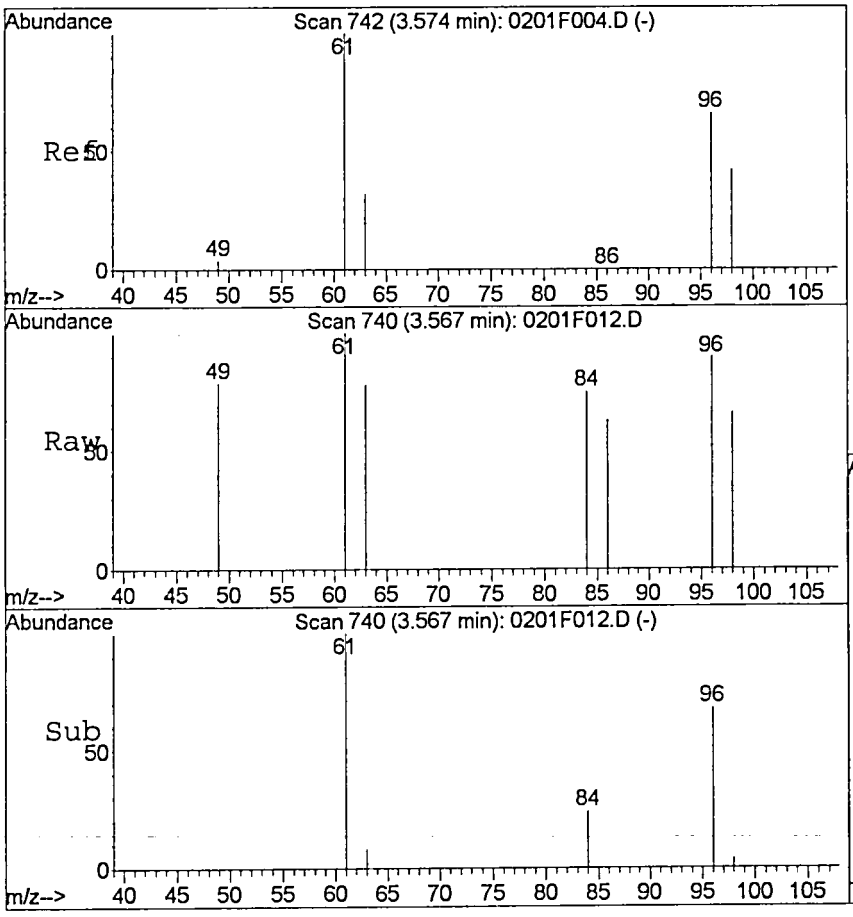


#5
Methylene Chloride
Concen: 25.17 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 84 Resp: 561

Ion	Ratio	Lower	Upper
84	100		
86	54.6	33.8	93.8
49	125.5	107.9	167.9

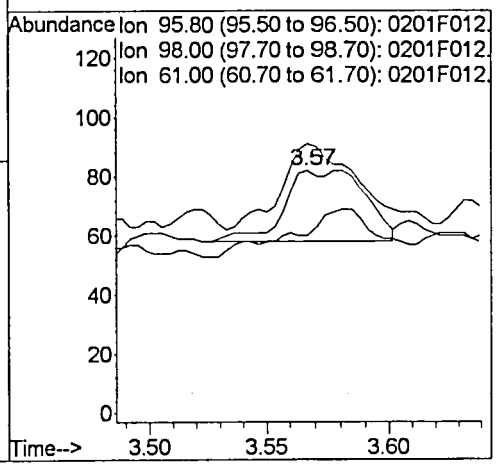


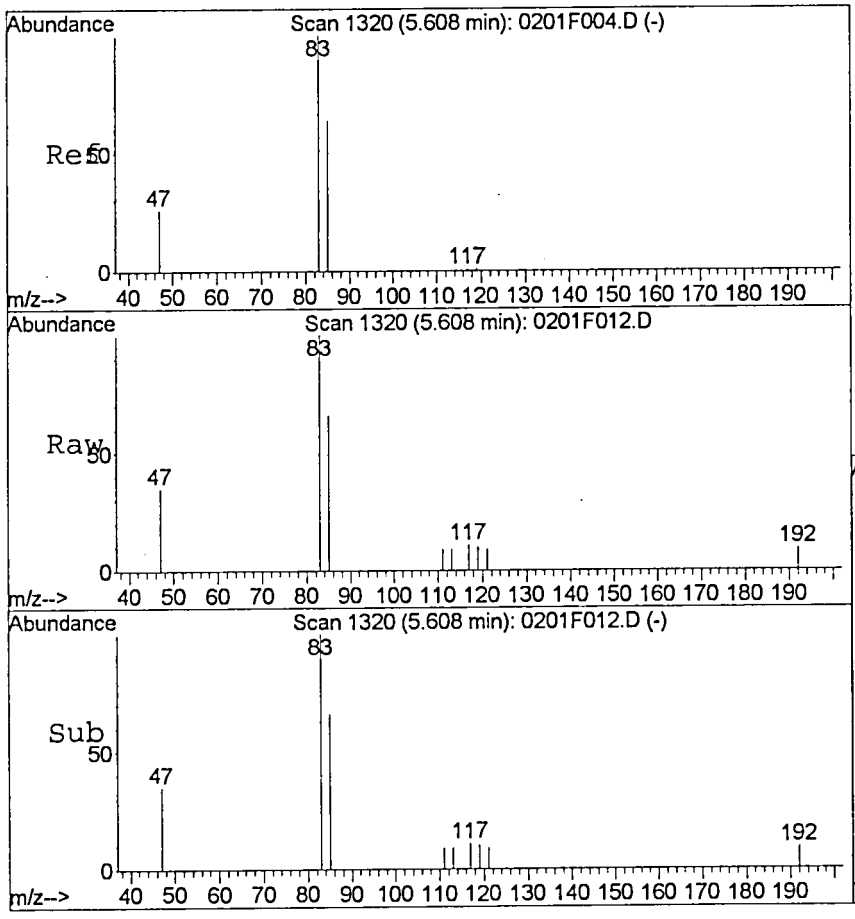


#6
trans-1,2-Dichloroethene
Concen: 3.19 ng/L m
RT: 3.57 min Scan# 740
Delta R.T. -0.01 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 96 Resp: 55

Ion	Ratio	Lower	Upper
96	100		
98	73.2	32.7	92.7
61	111.0	122.3	182.3#

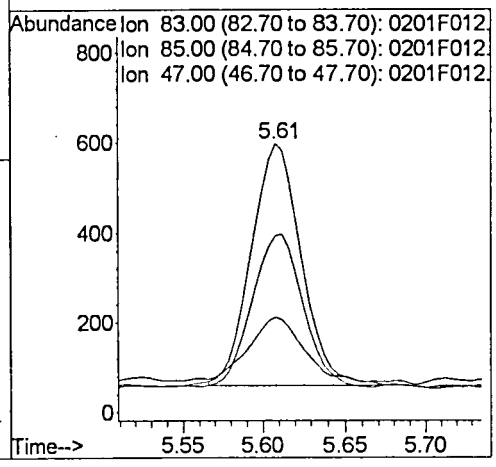


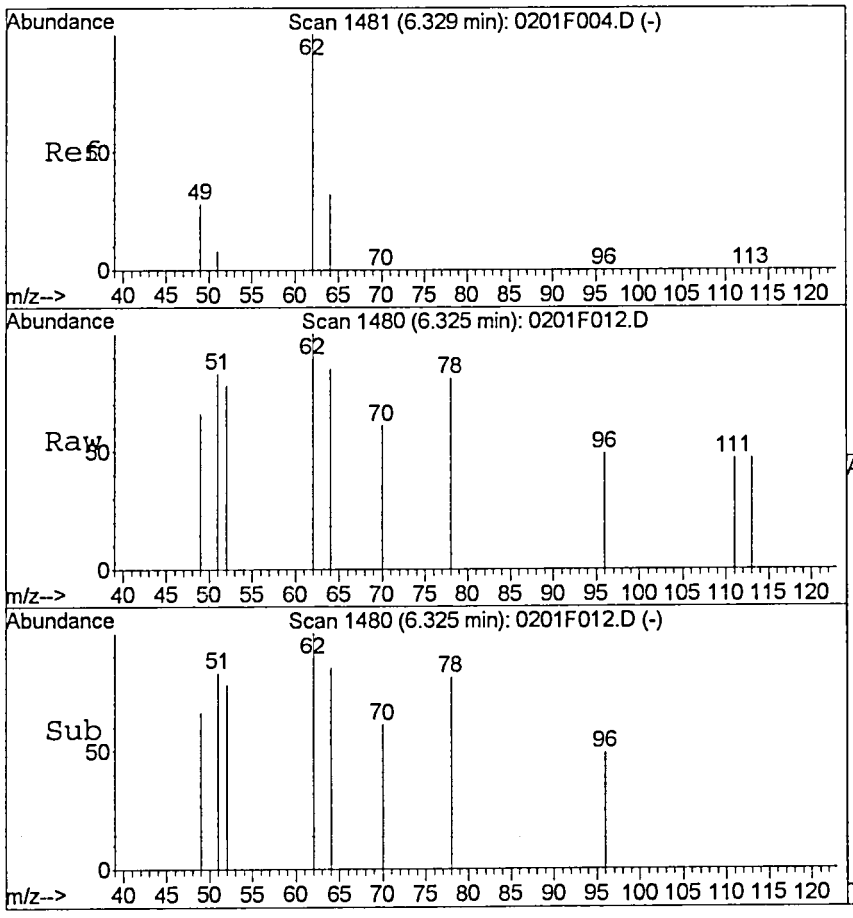


#8
Chloroform
Concen: 33.48 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 83 Resp: 1163

Ion	Ratio	Lower	Upper
83	100		
85	61.9	34.7	94.7
47	26.4	0.0	55.9

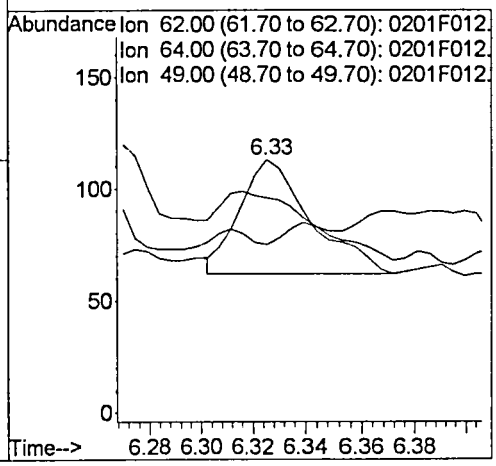


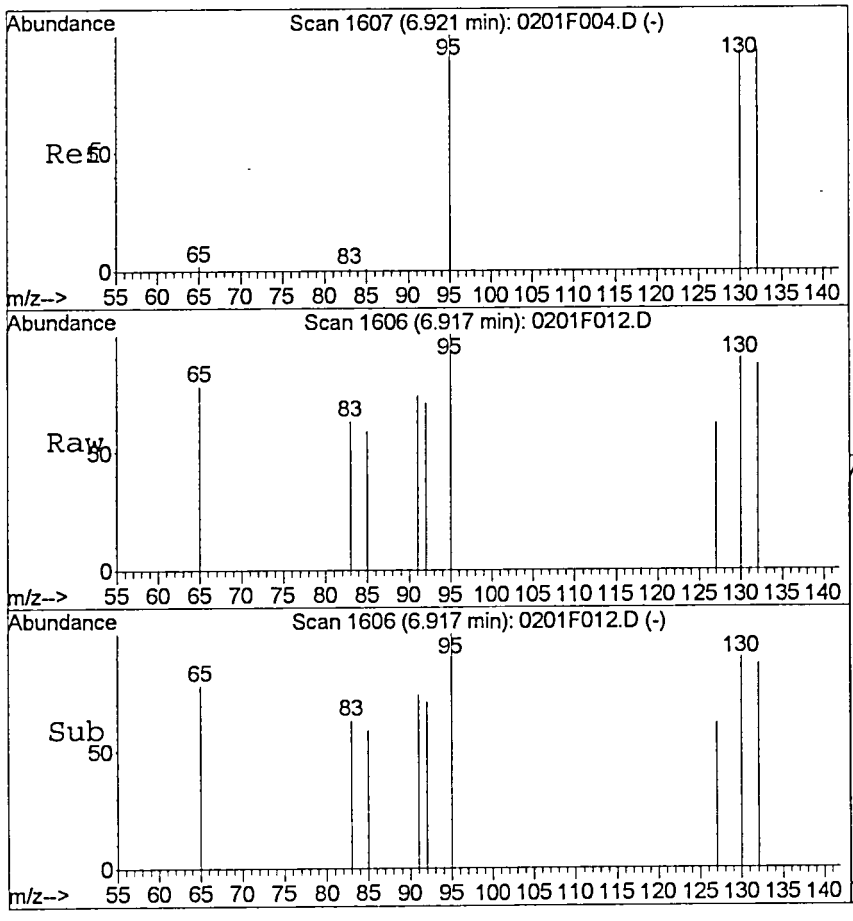


#12
1,2-Dichloroethane
Concen: 3.90 ng/L
RT: 6.33 min Scan# 1480
Delta R.T. -0.01 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 62 Resp: 95

Ion	Ratio	Lower	Upper
62	100		
64	19.6	1.7	61.7
49	13.7	0.0	58.2

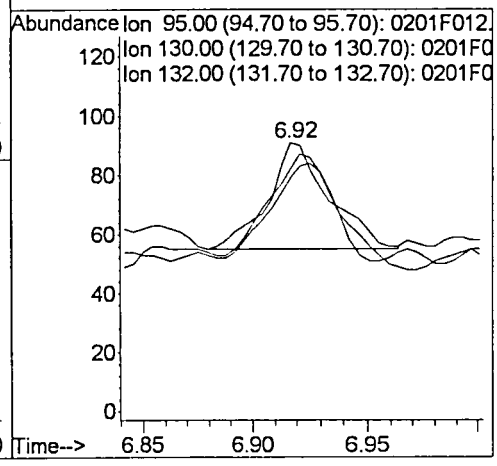


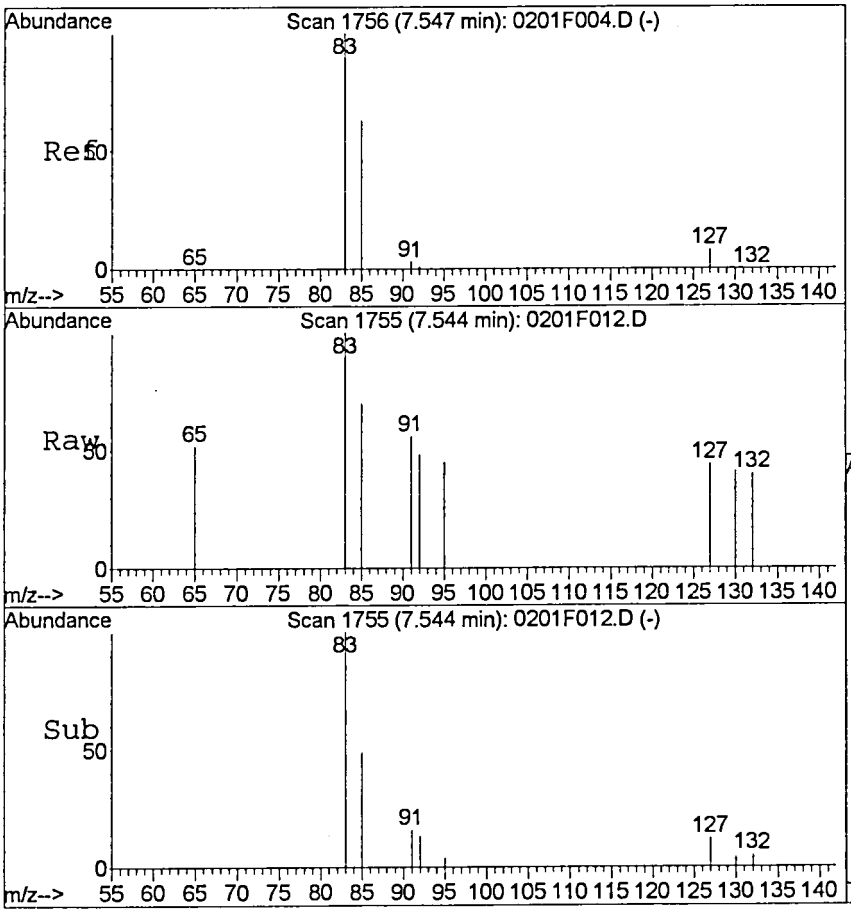


#13
Trichloroethene
Concen: 3.79 ng/L m
RT: 6.92 min Scan# 1606
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 95 Resp: 67

Ion	Ratio	Lower	Upper
95	100		
130	90.1	67.1	127.1
132	86.8	63.9	123.9

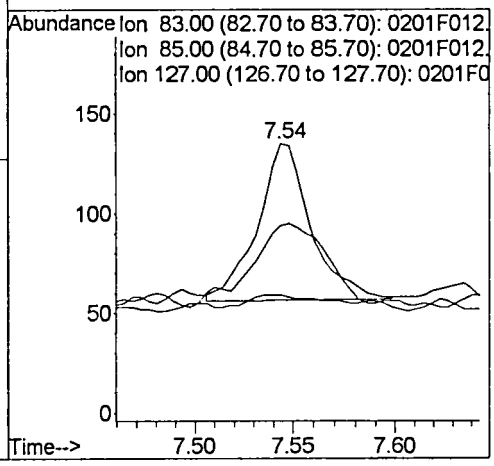


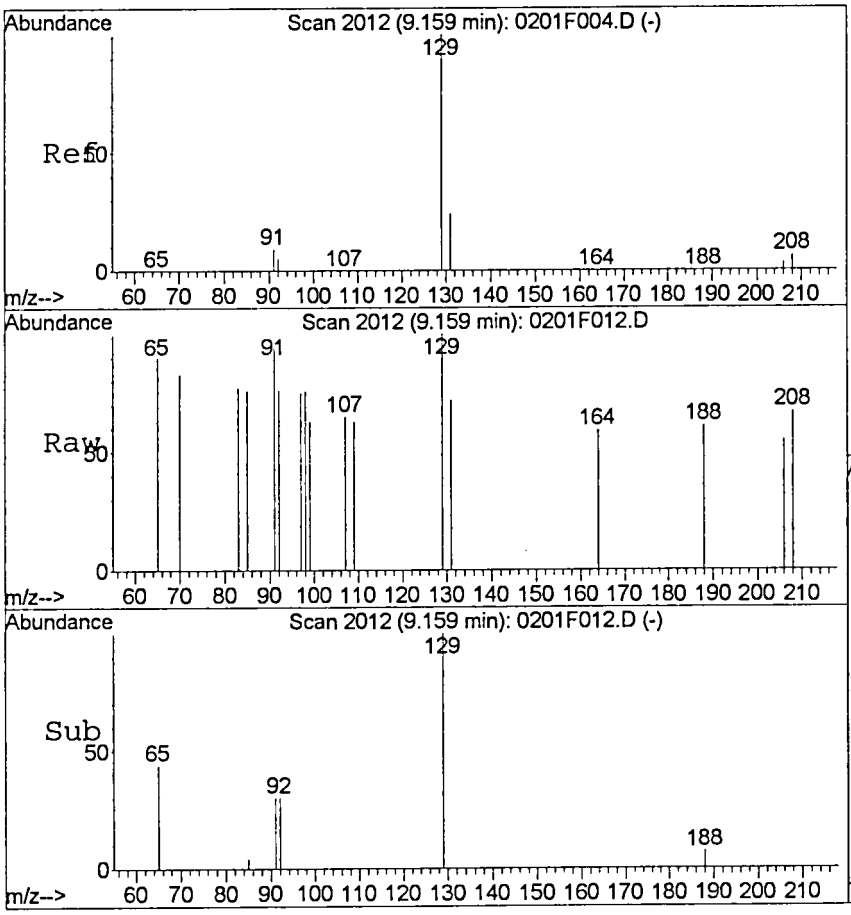


#14
Bromodichloromethane
Concen: 6.23 ng/L
RT: 7.54 min Scan# 1755
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 83 Resp: 146

Ion	Ratio	Lower	Upper
83	100		
85	49.4	33.5	93.5
127	7.8	0.0	38.0

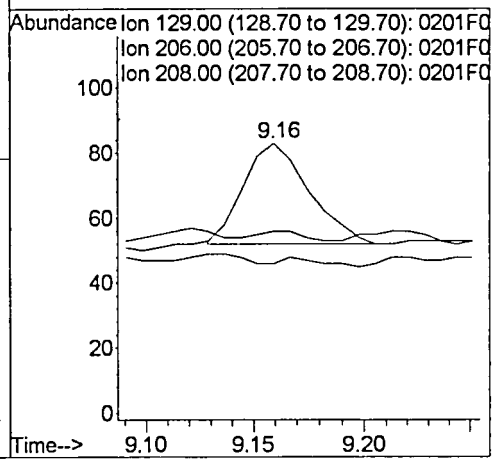


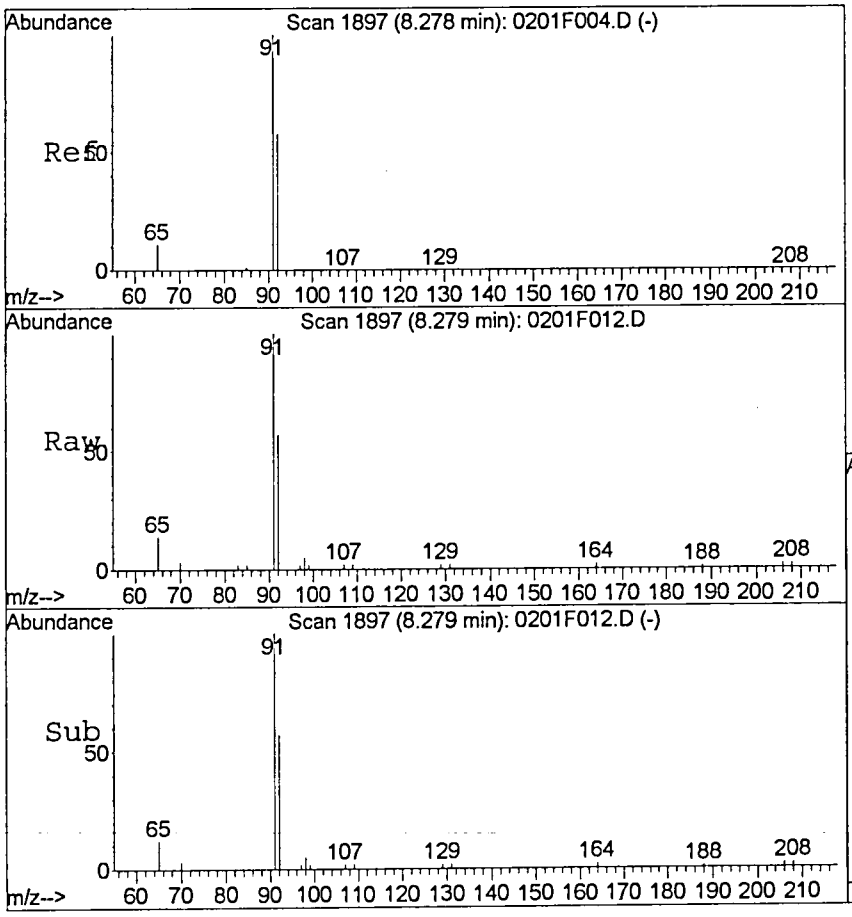


#17
Dibromochloromethane
Concen: 4.34 ng/L
RT: 9.16 min Scan# 2012
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion:129 Resp: 65

Ion	Ratio	Lower	Upper
129	100		
206	0.0	0.0	32.7
208	0.0	0.0	35.9

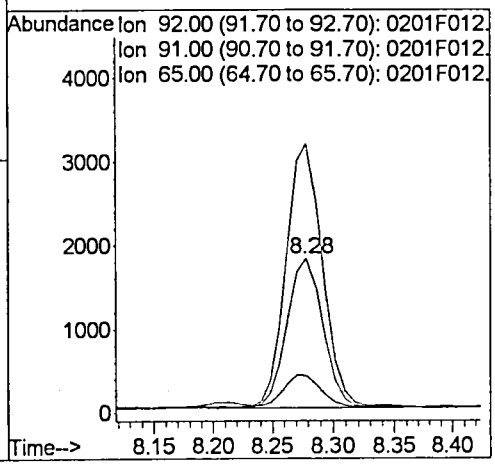


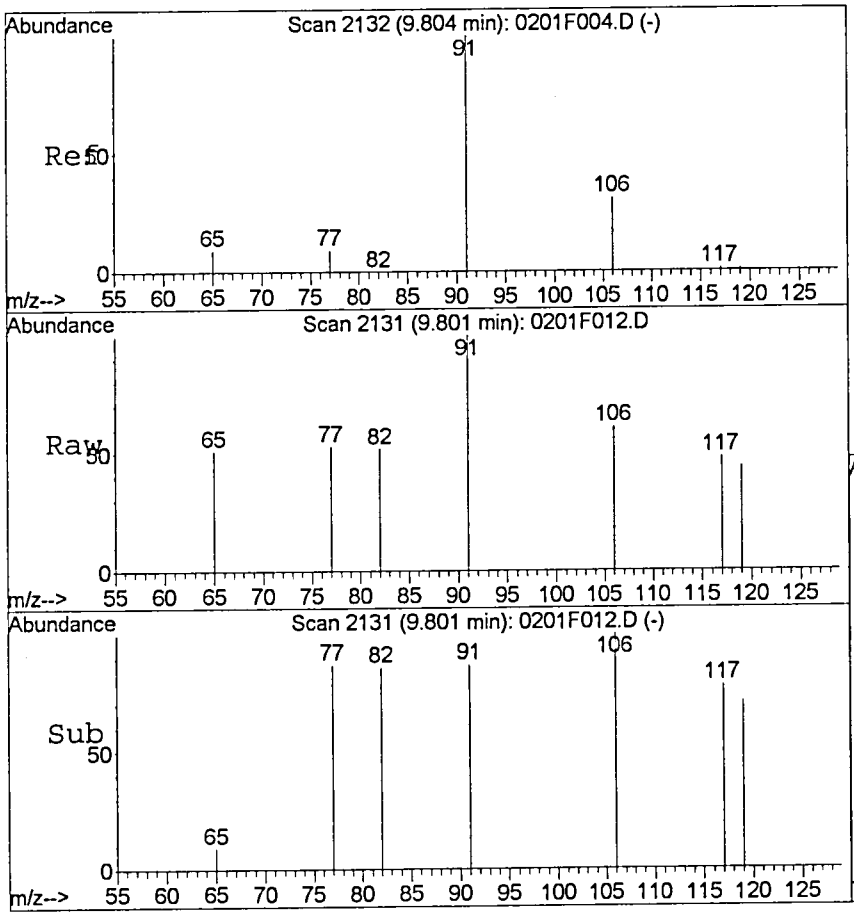


#20
Toluene
Concen: 95.08 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion: 92 Resp: 3686

Ion	Ratio	Lower	Upper
92	100		
91	175.7	144.4	204.4
65	21.0	0.0	49.7

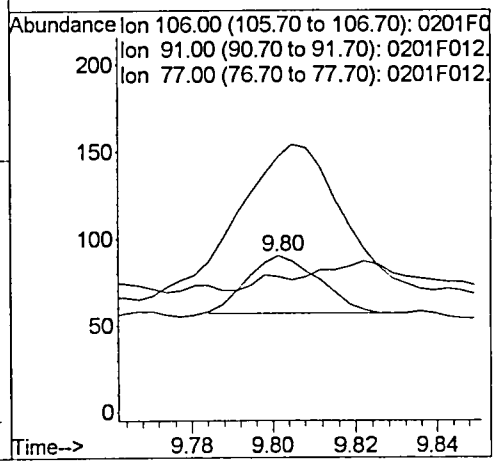


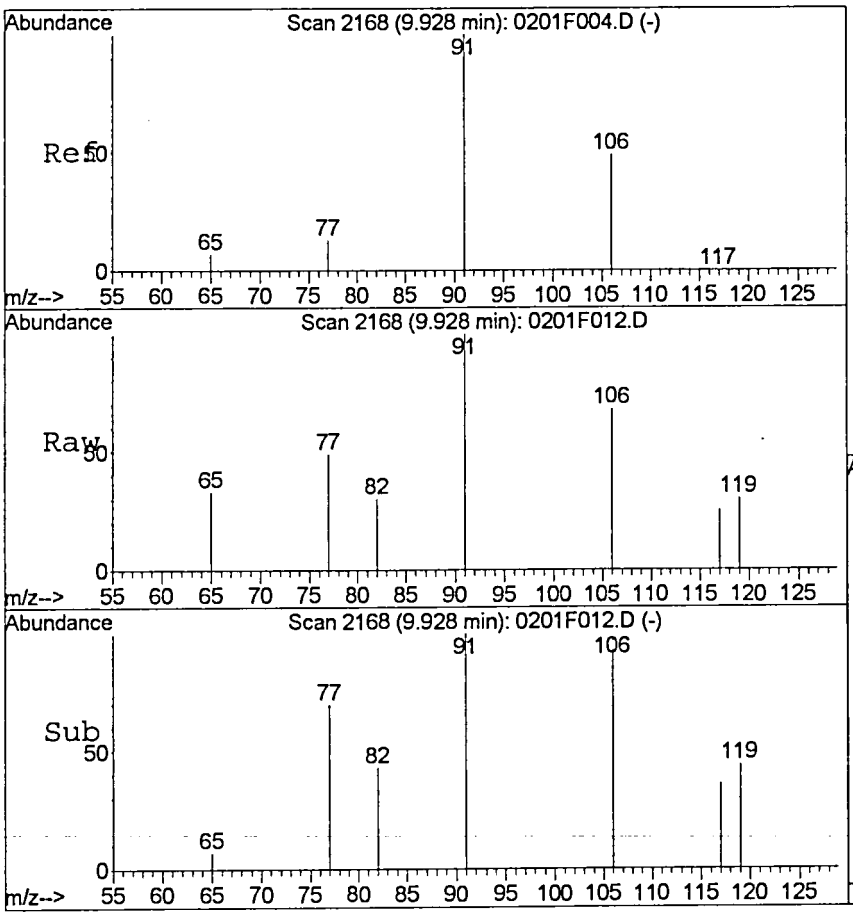


#21
Ethylbenzene
Concen: 1.98 ng/L
RT: 9.80 min Scan# 2131
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion:106 Resp: 40

Ion	Ratio	Lower	Upper
106	100		
91	212.1	295.2	355.2#
77	15.2	0.2	60.2

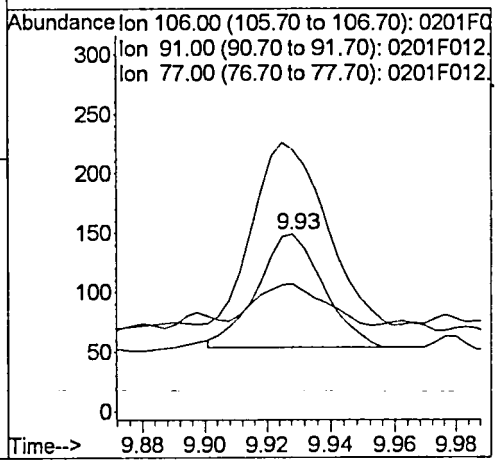


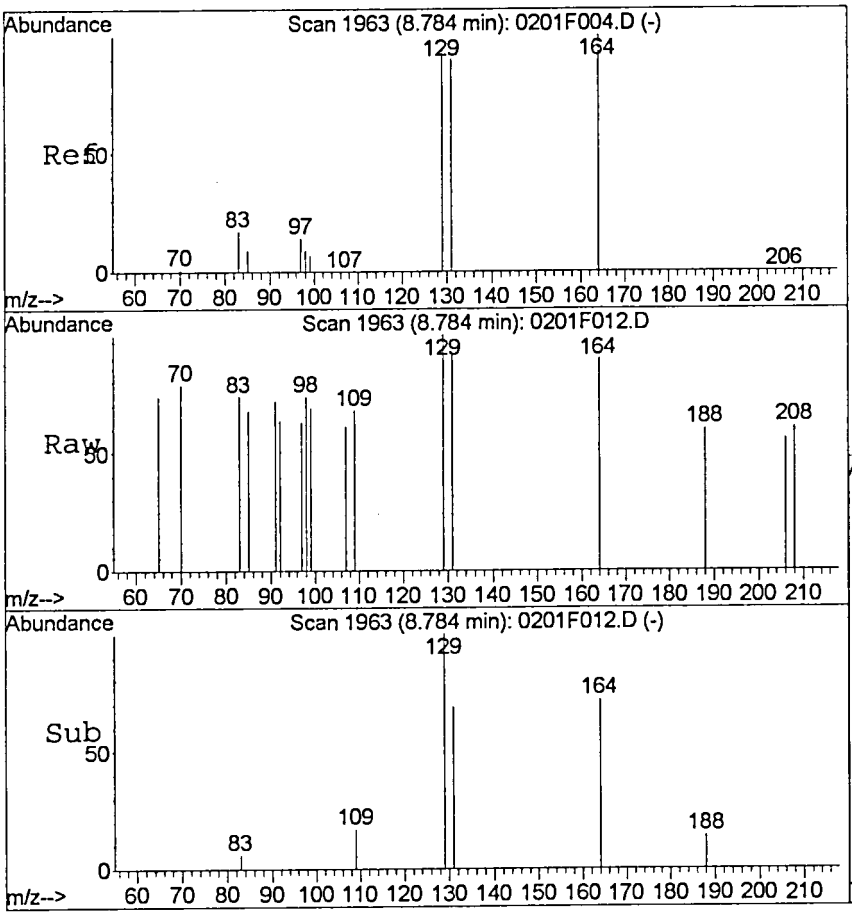


#22
m,p-Xylenes
Concen: 5.47 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion:106 Resp: 138

Ion	Ratio	Lower	Upper
106	100		
91	155.8	173.8	233.8#
77	33.7	0.0	57.2

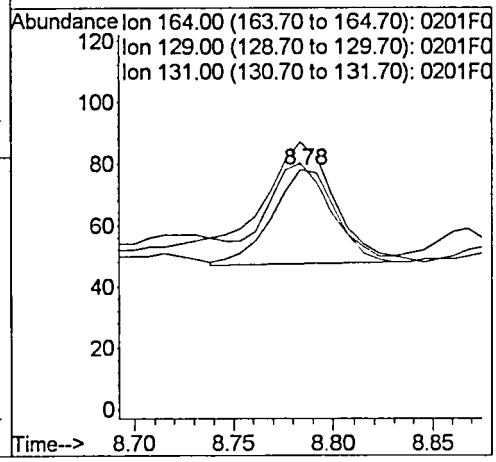


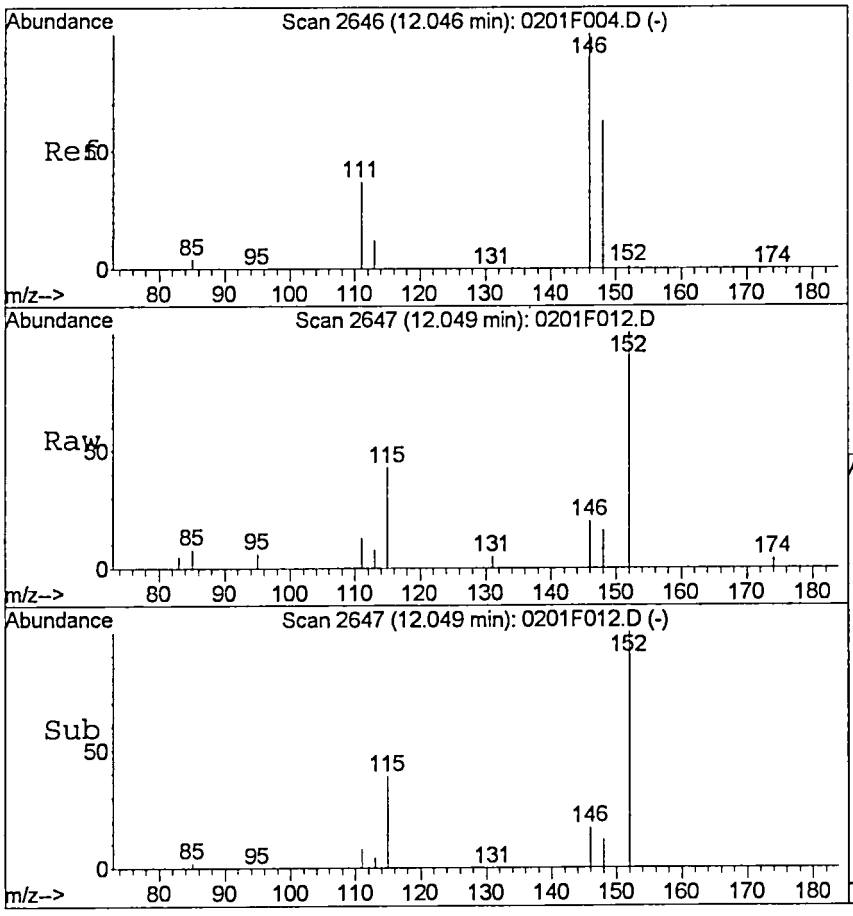


#26
Tetrachloroethene
Concen: 4.95 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion:164 Resp: 67

Ion	Ratio	Lower	Upper
164	100		
129	123.3	61.1	121.1#
131	100.0	58.3	118.3

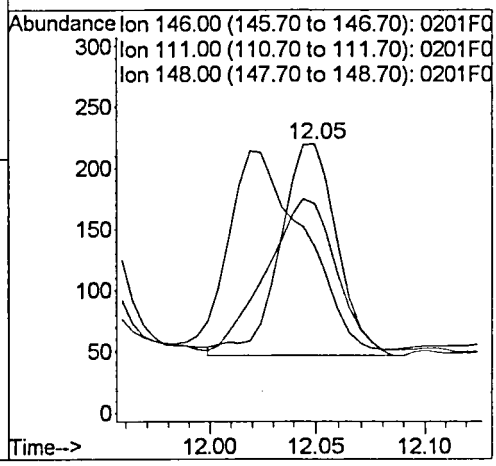




#28
1,4-Dichlorobenzene
Concen: 8.99 ng/L
RT: 12.05 min Scan# 2647
Delta R.T. 0.00 min
Lab File: 0201F012.D
Acq: 1 Feb 2016 2:13 pm

Tgt Ion:146 Resp: 313

Ion	Ratio	Lower	Upper
146	100		
111	48.6	6.7	66.7
148	69.4	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F022.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 19:08
Date Quantitated: 02/01/2016 13:53
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL ✓
Lab Control Spike	Toluene-d8	122	74	112	This analyte is very
Surrogates	Toluene-d8	121	74	112	J NP

Primary Review: [signature] 2/1/16

Secondary Review: [signature] 2/2/16

Printed: 02/01/2016 14:35:18
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F022.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 19:08	**Quant Date:**	02/01/2016 13:53	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496761	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	69037	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48659	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17416	1,109	111	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	60615	1,207	121	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	19986	1,019	102	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	87m	3.48	5.8	U	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0		8.7	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:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:38:15 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

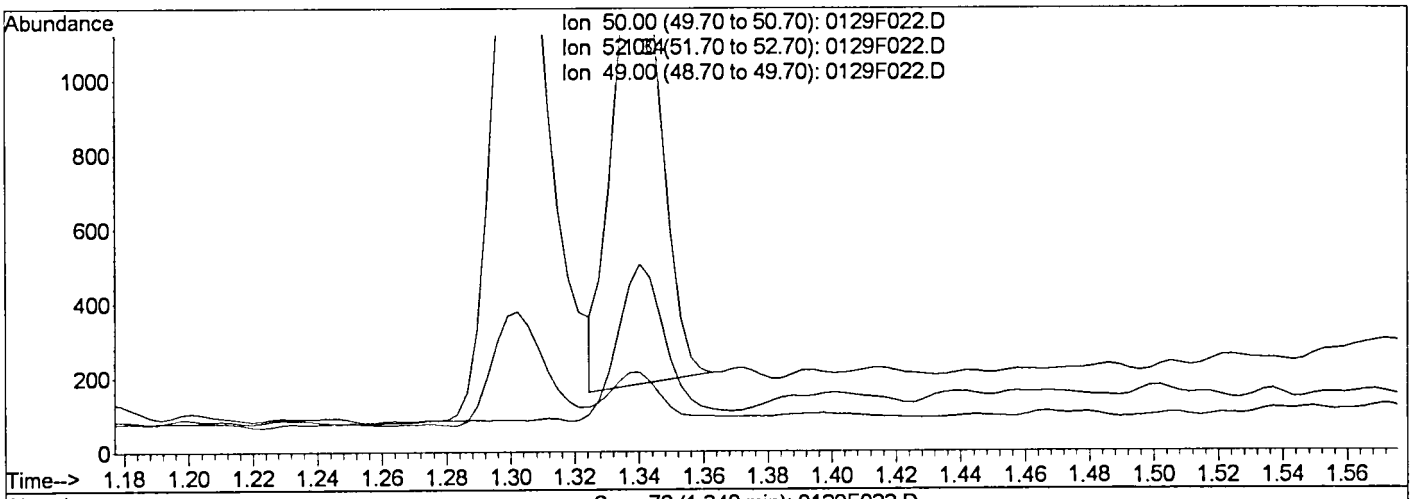
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.54	96	69037	1000.00 ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48659	1000.00 ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	22871	1000.00 ng/L	0.00
System Monitoring Compounds					
9) Dibromofluoromethane	5.82	113	17416	1108.60 ng/L	0.00
Spiked Amount 1000.000			Recovery = 110.86%		
15) Toluene-d8	8.21	98	60615	1207.37 ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.74%		
24) 4-Bromofluorobenzene	10.89	95	19986	1019.20 ng/L	0.00
Spiked Amount 1000.000			Recovery = 101.92%		
Target Compounds					Qvalue
2) Chloromethane	1.34	50	1237m	44.08 ng/L	
5) Methylene Chloride	3.29	84	411	17.98 ng/L	95
8) Chloroform	5.60	83	179	5.02 ng/L	94
12) 1,2-Dichloroethane	6.33	62	87m	3.48 ng/L	
13) Trichloroethene	6.92	95	68m	3.75 ng/L	
20) Toluene	8.28	92	4330	109.77 ng/L	97
22) m,p-Xylenes	9.93	106	100	3.89 ng/L #	77
23) o-Xylene	10.33	106	45	1.77 ng/L #	47
26) Tetrachloroethene	8.78	164	55m	4.00 ng/L	
28) 1,4-Dichlorobenzene	12.05	146	219	6.14 ng/L	76

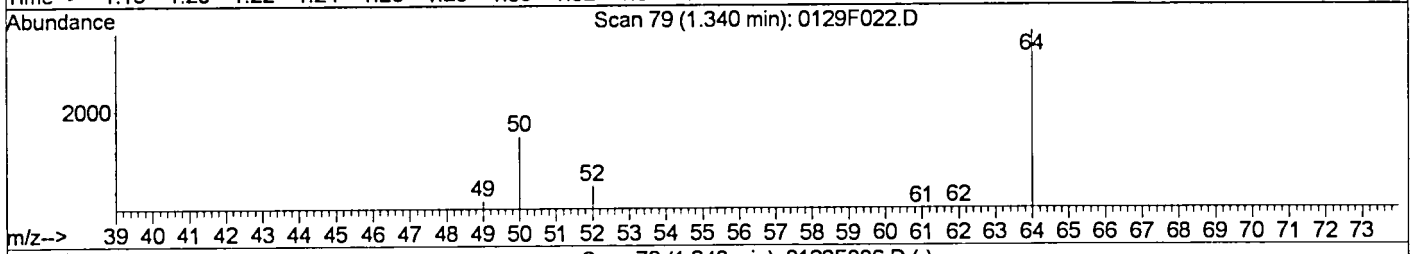
(#) = qualifier out of range (m) = manual integration
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 14:07:38 2016 Page 1

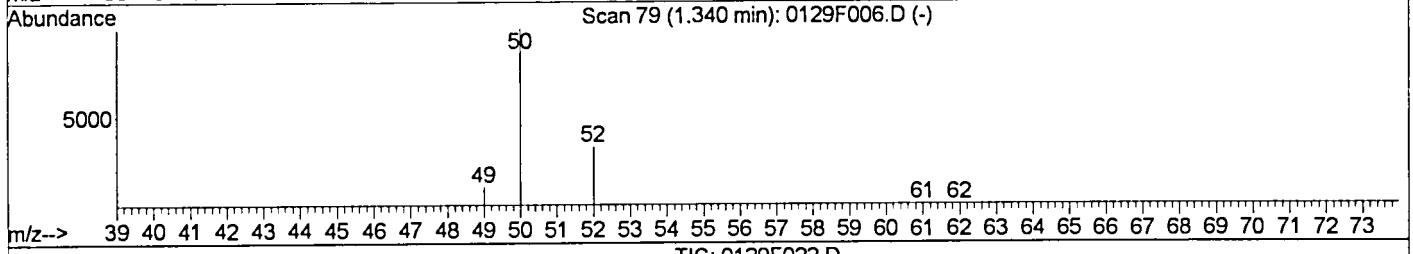
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F022.D

(2) Chloromethane (T)

1.34min 45.82ng/L

response 1286

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	31.97
49.00	10.10	9.31
0.00	0.00	0.00

Manual Integration:

Before

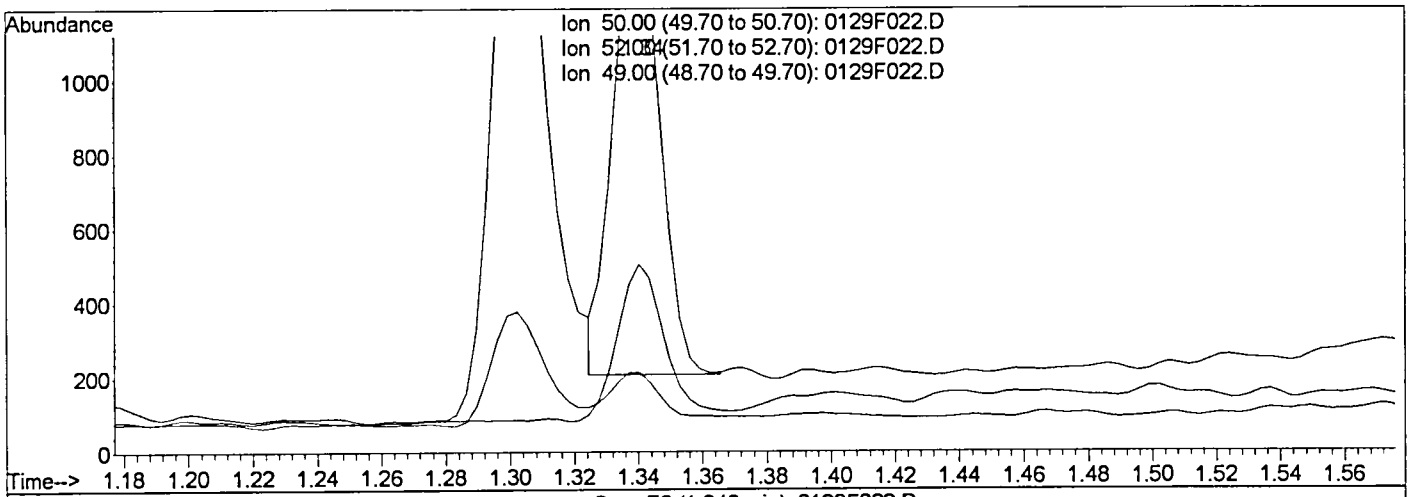
02/01/16

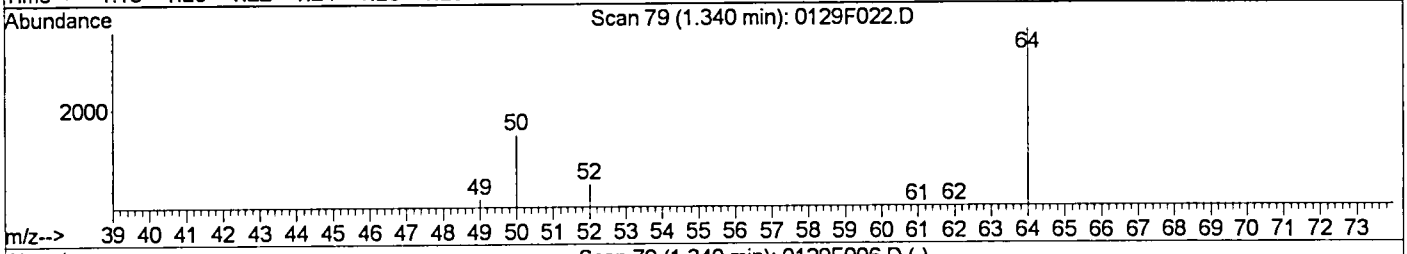
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:50:07 2016

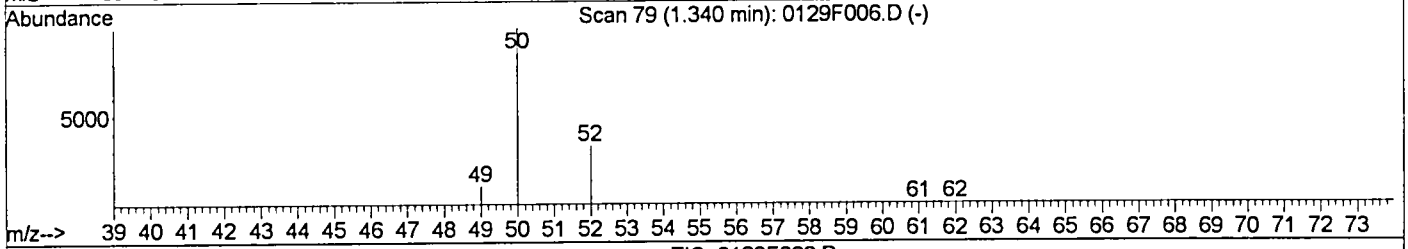
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:50 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F022.D

(2) Chloromethane (T)

1.34min 44.08ng/L m

response 1237

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	34.12
49.00	10.10	14.46
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

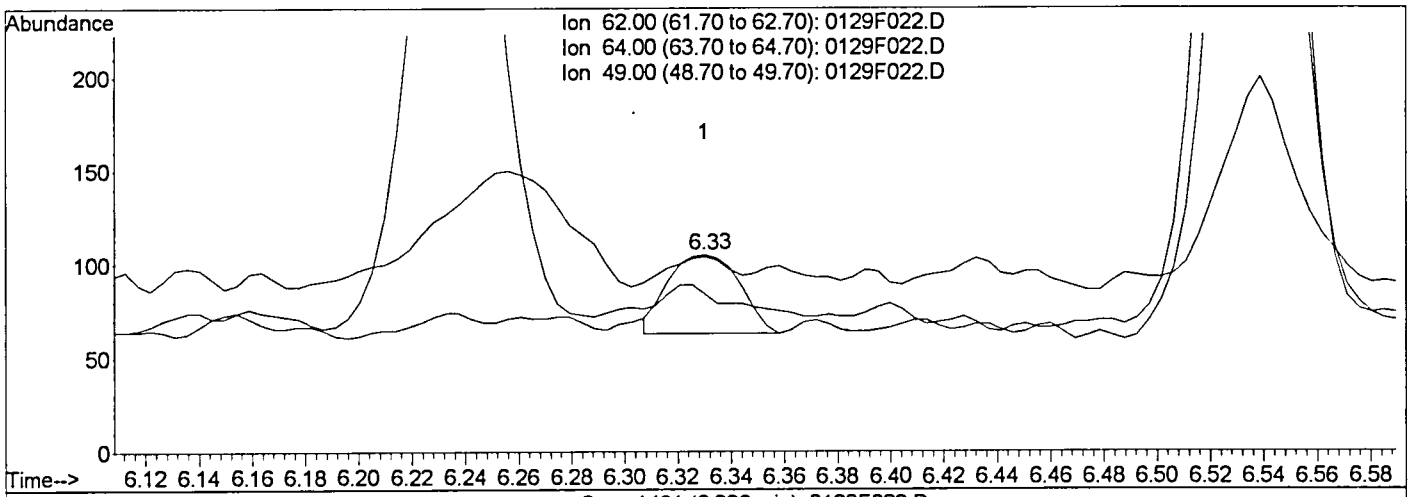
02/01/16

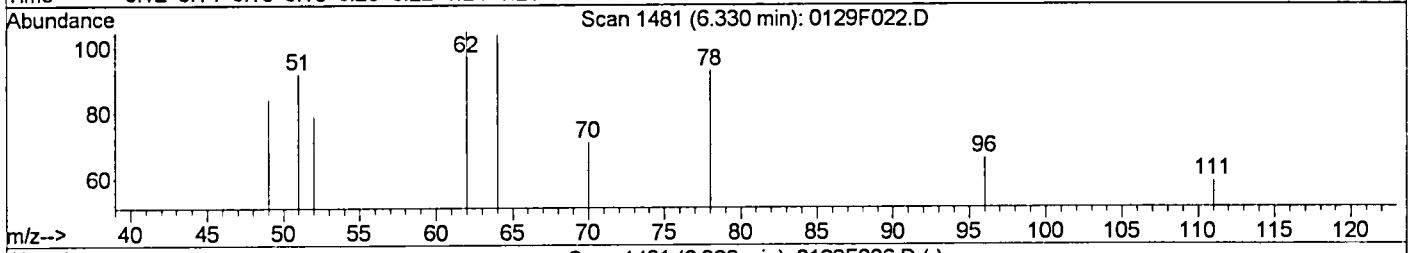
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:50:19 2016

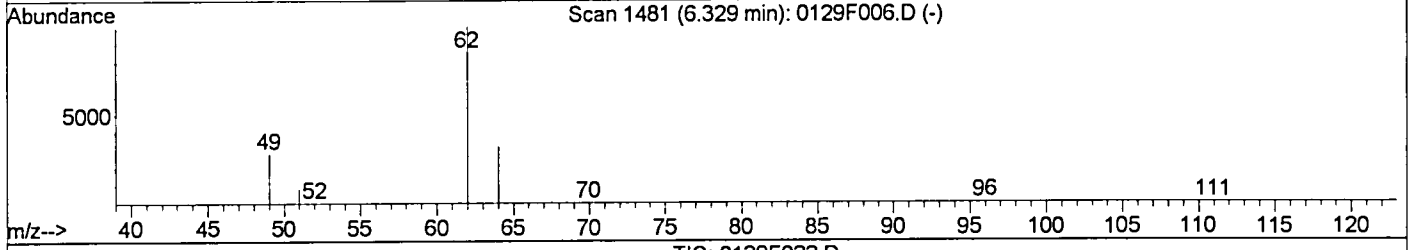
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:50 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F022.D

(12) 1,2-Dichloroethane (T)

6.33min 3.12ng/L

response 78

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	33.33
49.00	28.20	21.43
0.00	0.00	0.00

Manual Integration:

Before

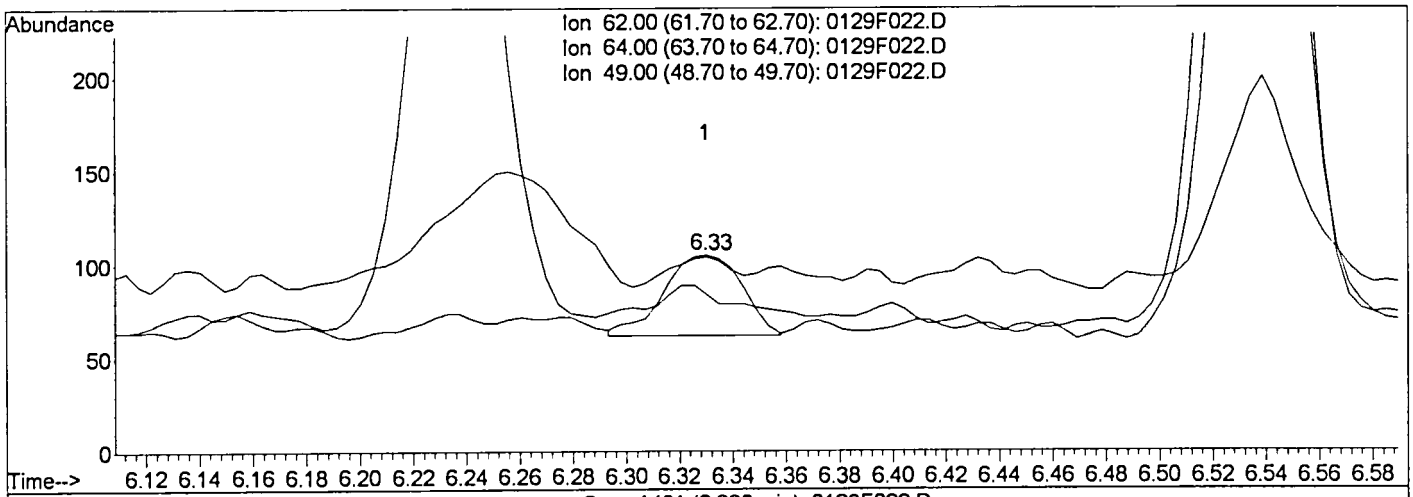
02/01/16

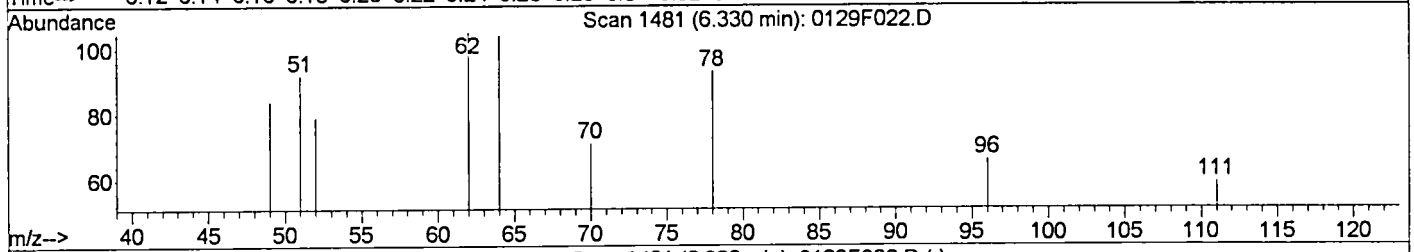
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:50:44 2016

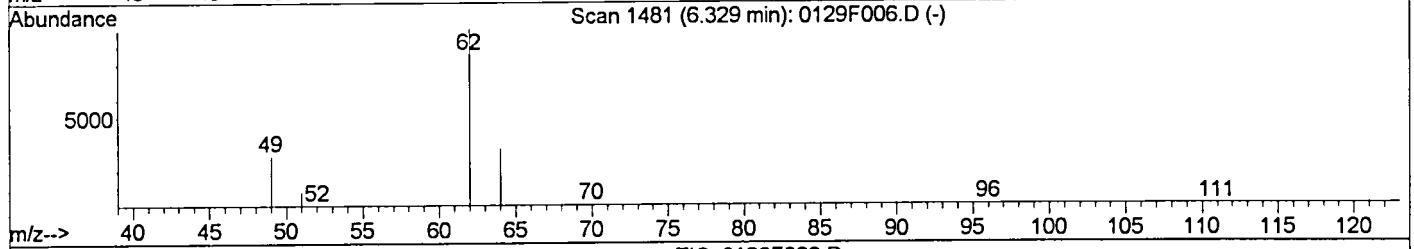
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:50 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F022.D

(12) 1,2-Dichloroethane (T)

6.33min 3.48ng/L m

response 87

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	99.05#
49.00	28.20	80.00#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

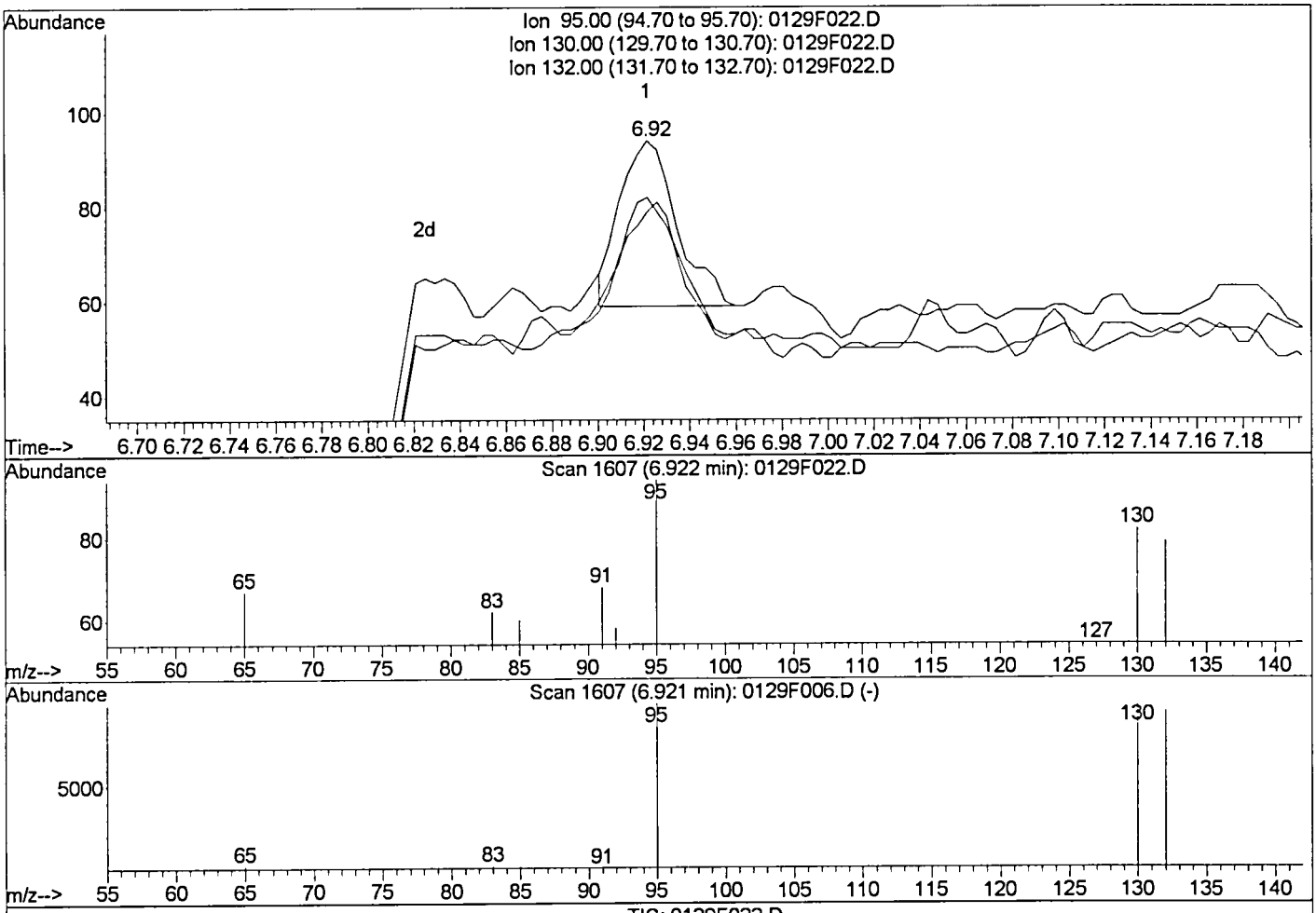
02/01/16

0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:50:56 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:50 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F022.D

(13) Trichloroethene (T)

6.92min 3.31ng/L

response 60

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	82.86
132.00	93.90	74.29
0.00	0.00	0.00

Manual Integration:

Before

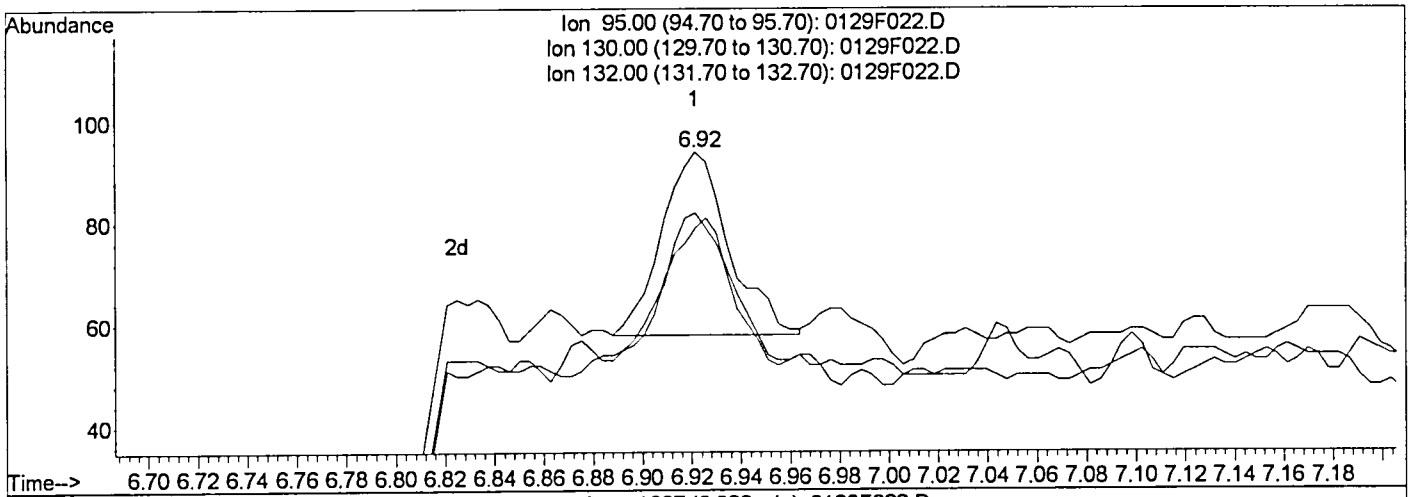
02/01/16

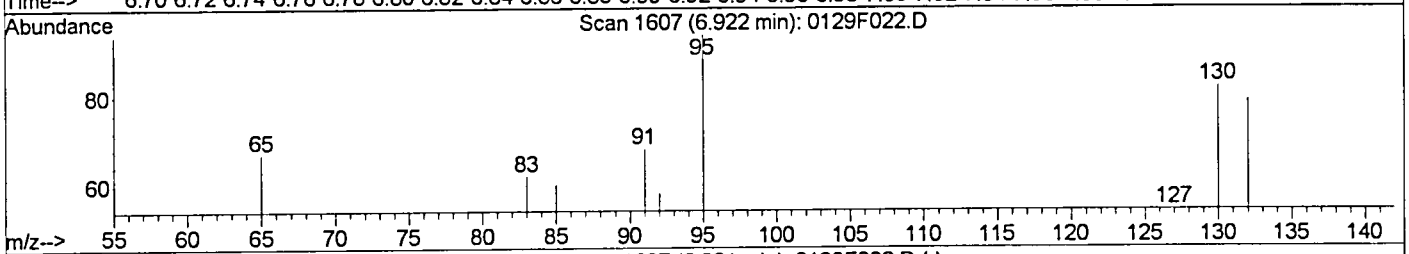
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:52:51 2016

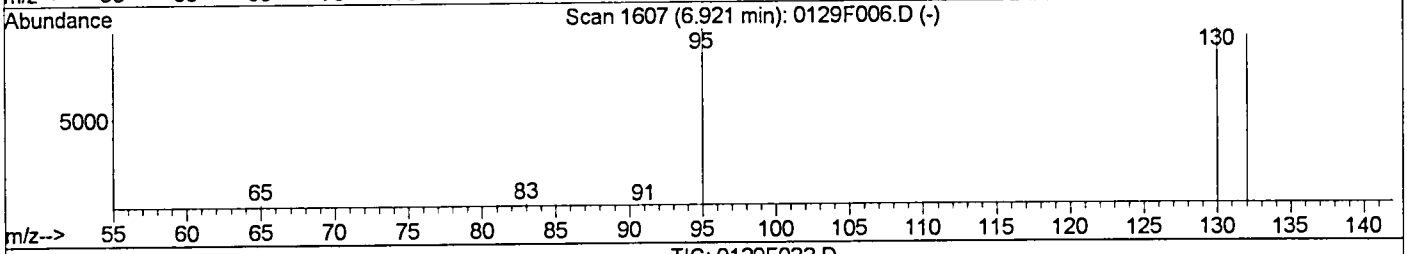
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:53 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F022.D

(13) Trichloroethene (T)

6.92min 3.75ng/L m

response 68

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	87.23
132.00	93.90	84.04
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

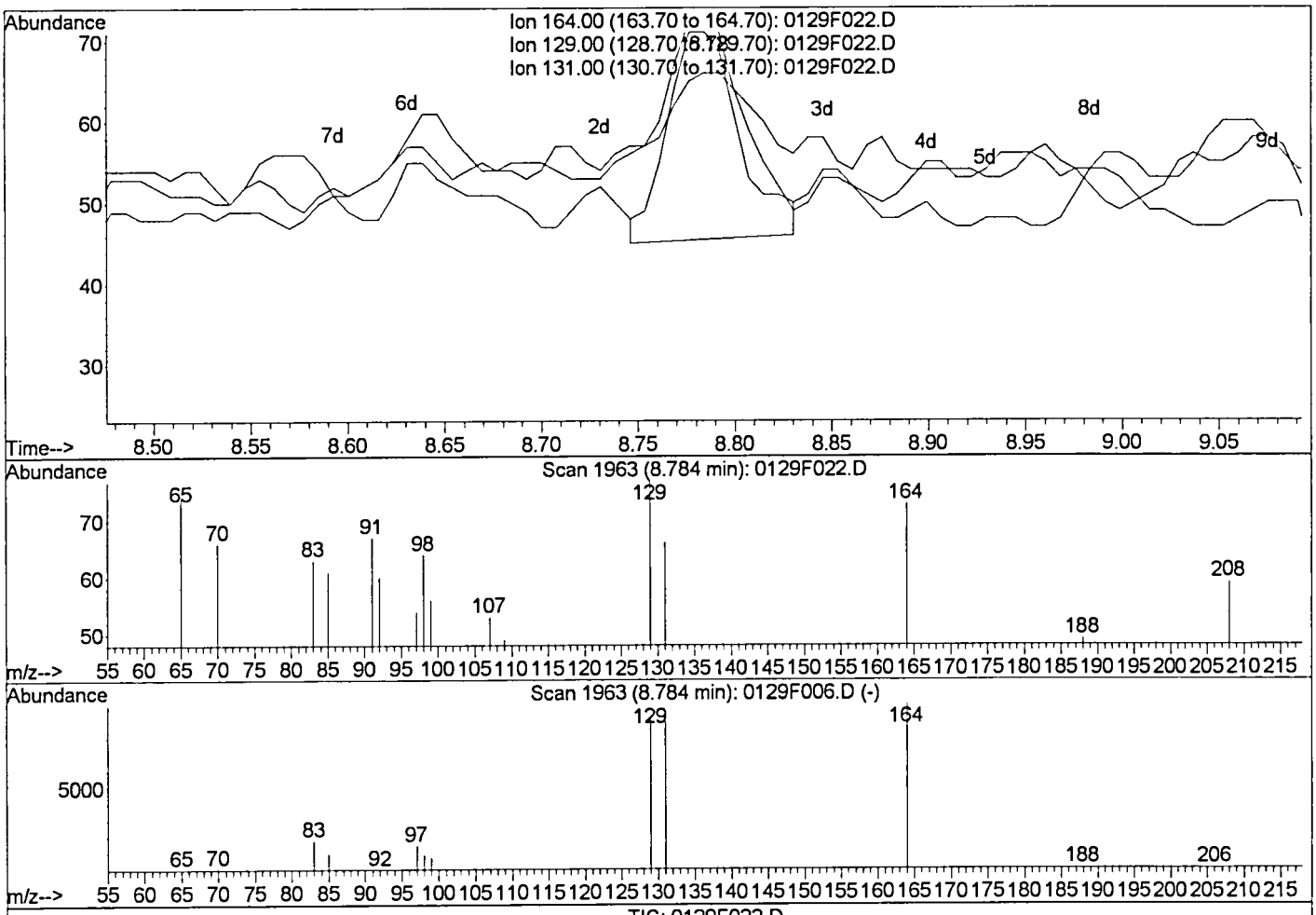
02/01/16

0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:53:12 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:53 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F022.D

(26) Tetrachloroethene (T)

8.78min 4.94ng/L

response 68

Ion	Exp%	Act%
164.00	100	100
129.00	91.10	112.00
131.00	88.30	40.00#
0.00	0.00	0.00

Manual Integration:

Before

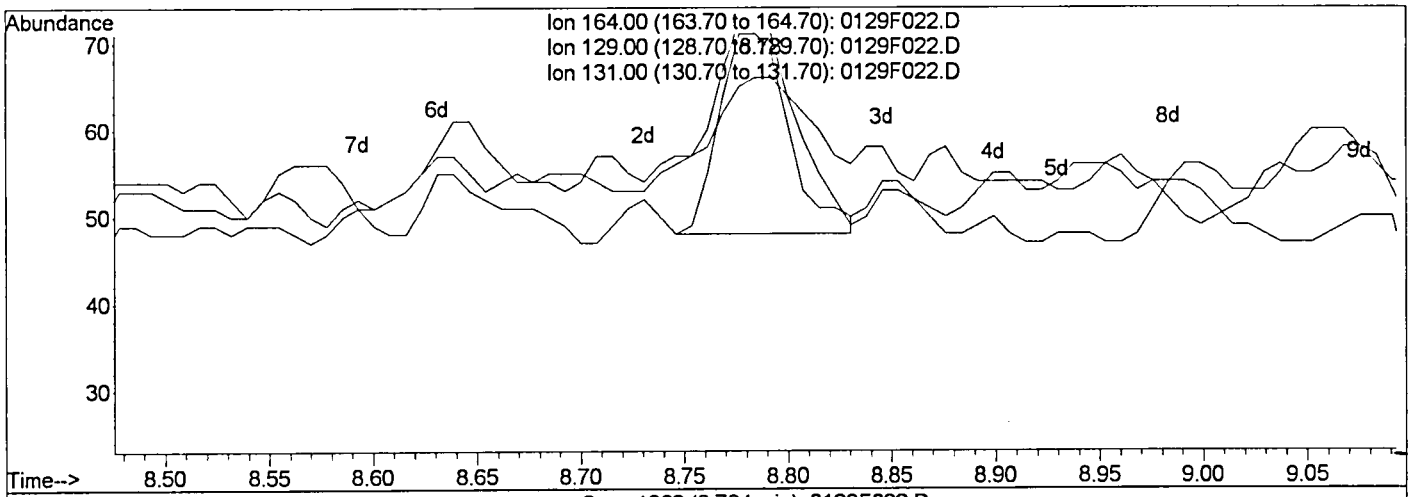
02/01/16

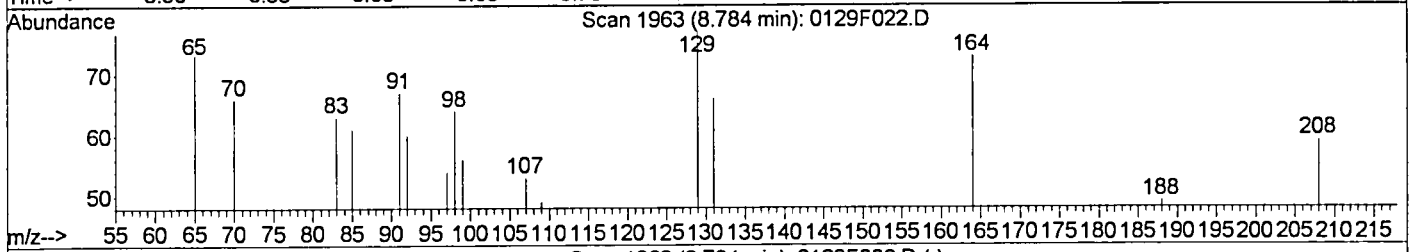
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:53:39 2016

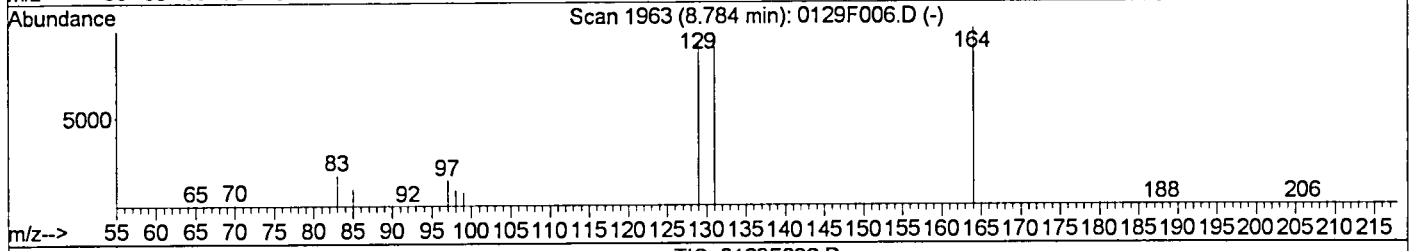
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:53 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F022.D

(26) Tetrachloroethene (T)

8.78min 4.00ng/L m

response 55

Ion	Exp%	Act%
164.00	100	100
129.00	91.10	105.48
131.00	88.30	90.41
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

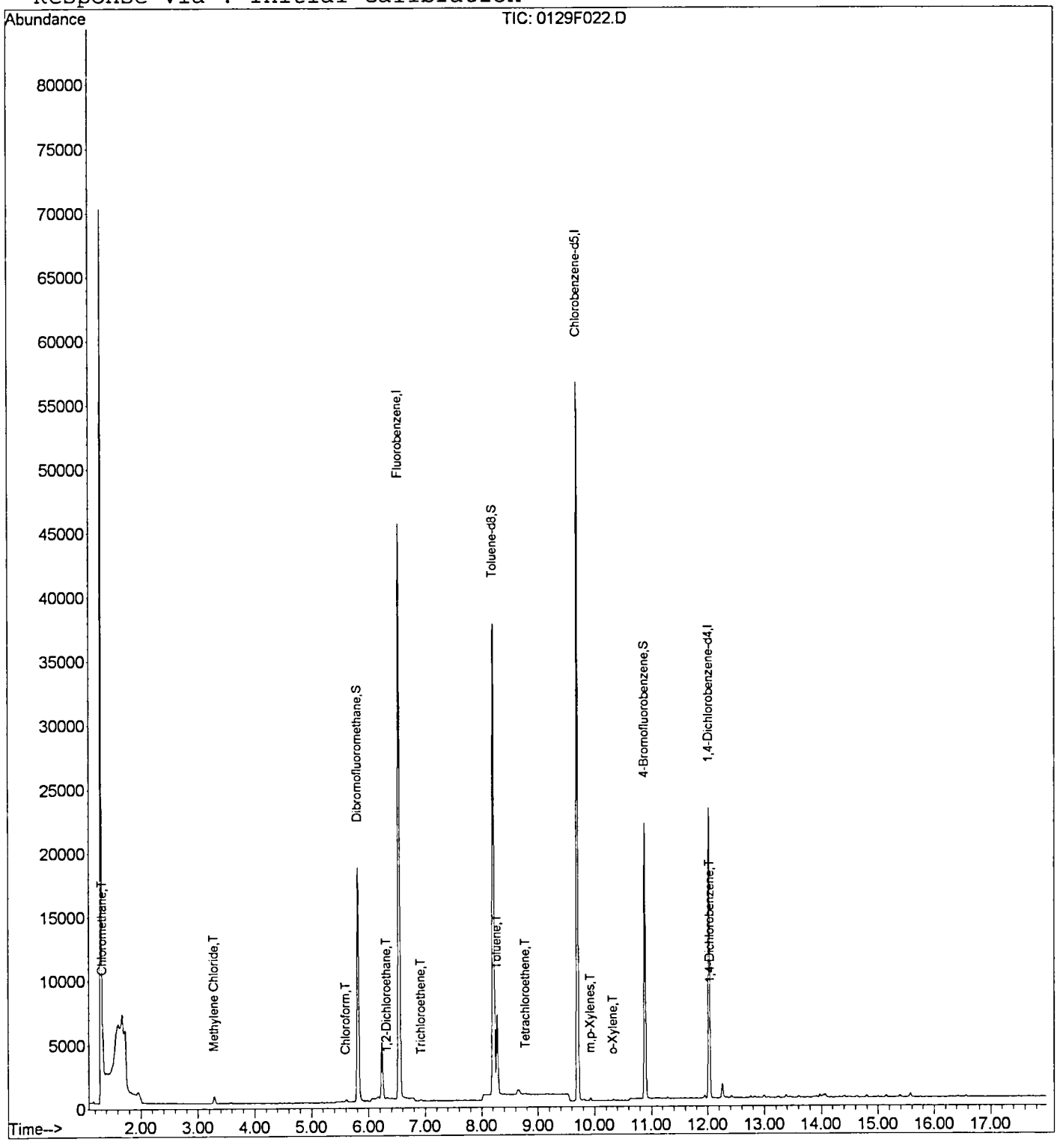
02/01/16

0129F022.D 012716MS27_8260SIM.M Mon Feb 01 13:53:49 2016

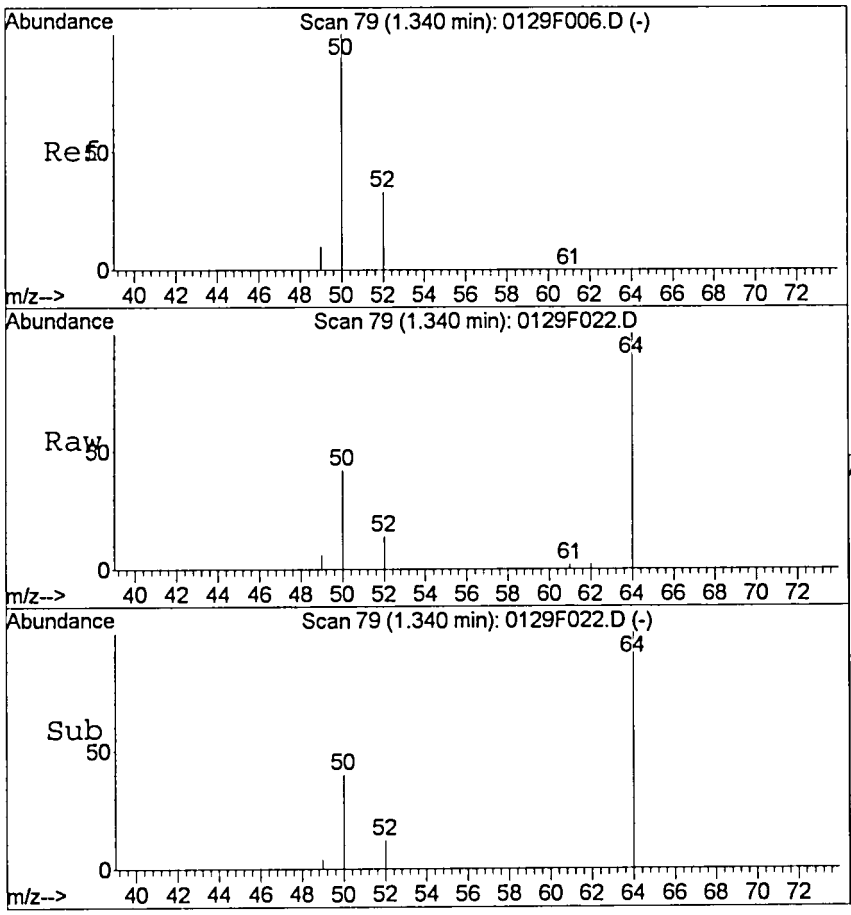
Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F022.D Vial: 19
Acq On : 29 Jan 2016 7:08 pm Operator: GH
Sample : K0673-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:53 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration



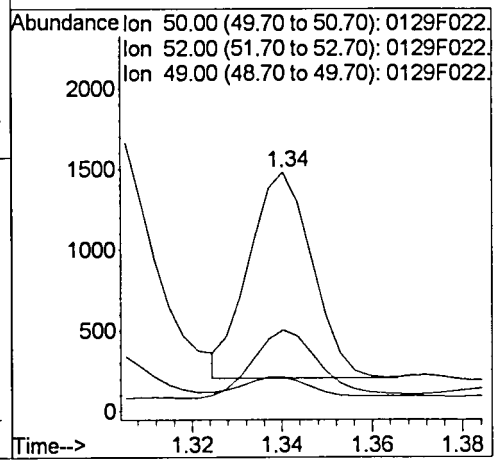
0129F022.D 012716MS27_8260SIM.M Mon Feb 01 14:07:38 2016 Page 2

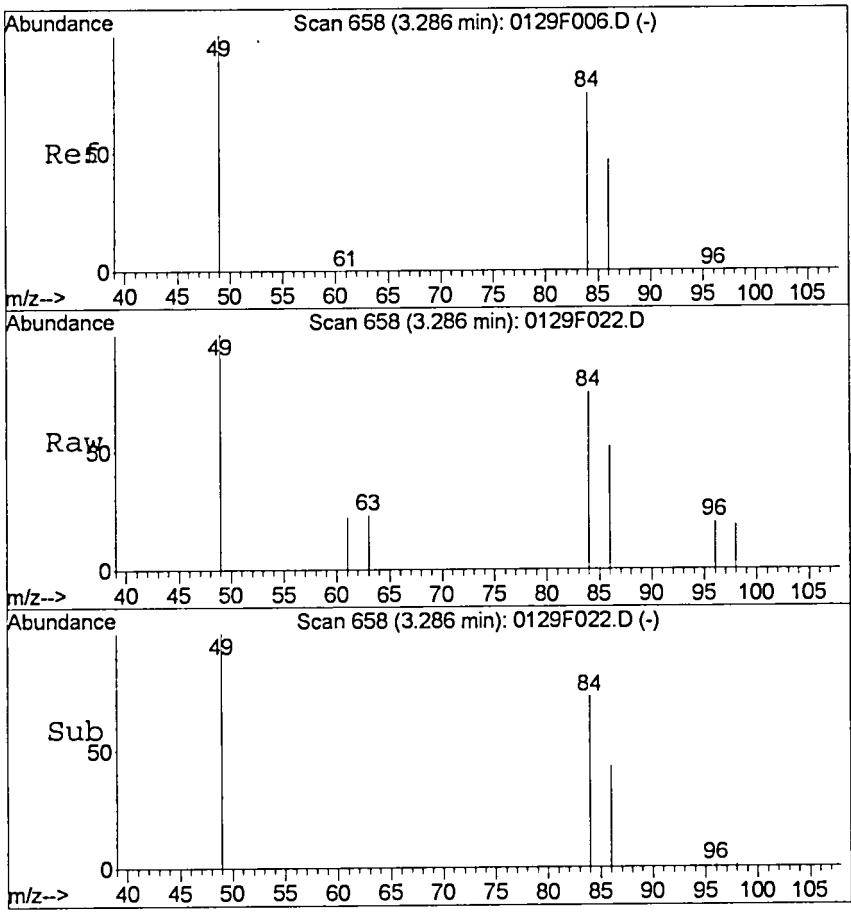


#2
Chloromethane
Concen: 44.08 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion: 50 Resp: 1237

Ion	Ratio	Lower	Upper
50	100		
52	34.1	2.9	62.9
49	14.5	0.0	40.1

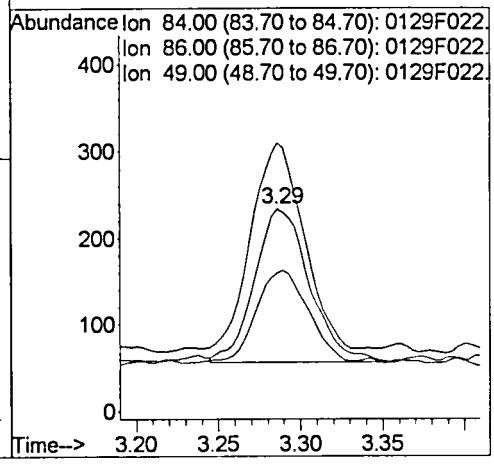


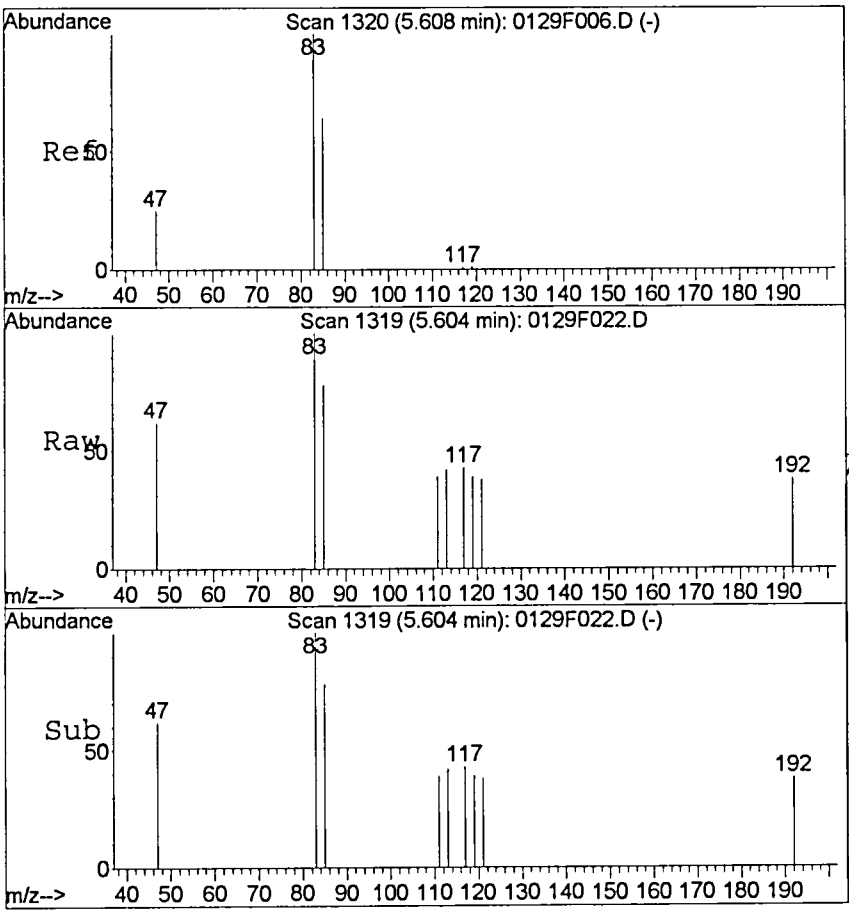


#5
Methylene Chloride
Concen: 17.98 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion: 84 Resp: 411

Ion	Ratio	Lower	Upper
84	100		
86	58.2	33.8	93.8
49	133.3	107.9	167.9

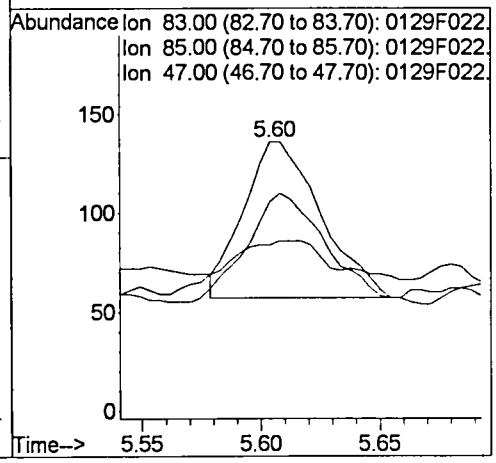


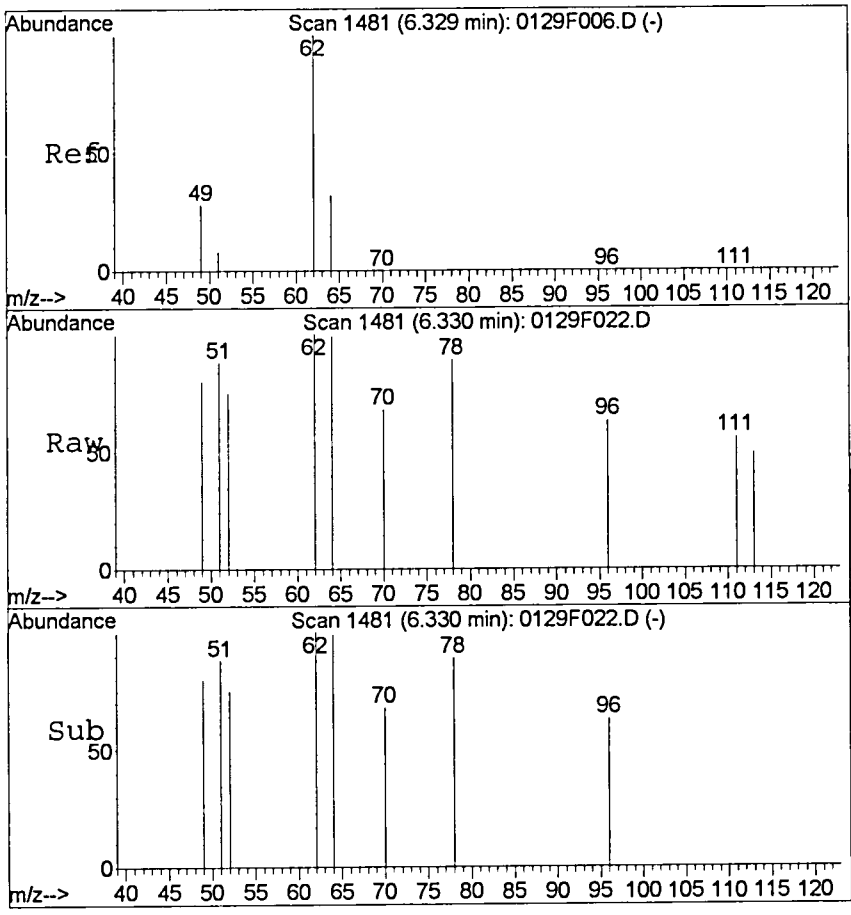


#8
Chloroform
Concen: 5.02 ng/L
RT: 5.60 min Scan# 1319
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion: 83 Resp: 179

Ion	Ratio	Lower	Upper
83	100		
85	62.0	34.7	94.7
47	20.3	0.0	55.9

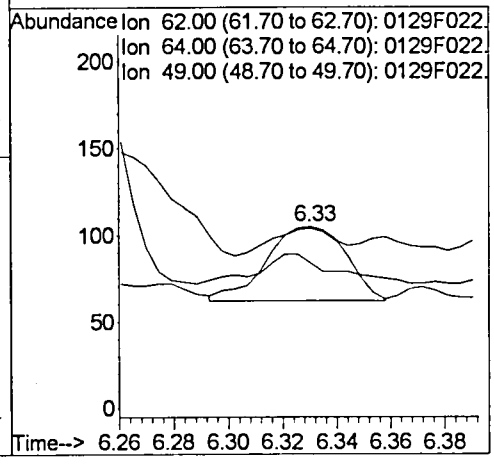


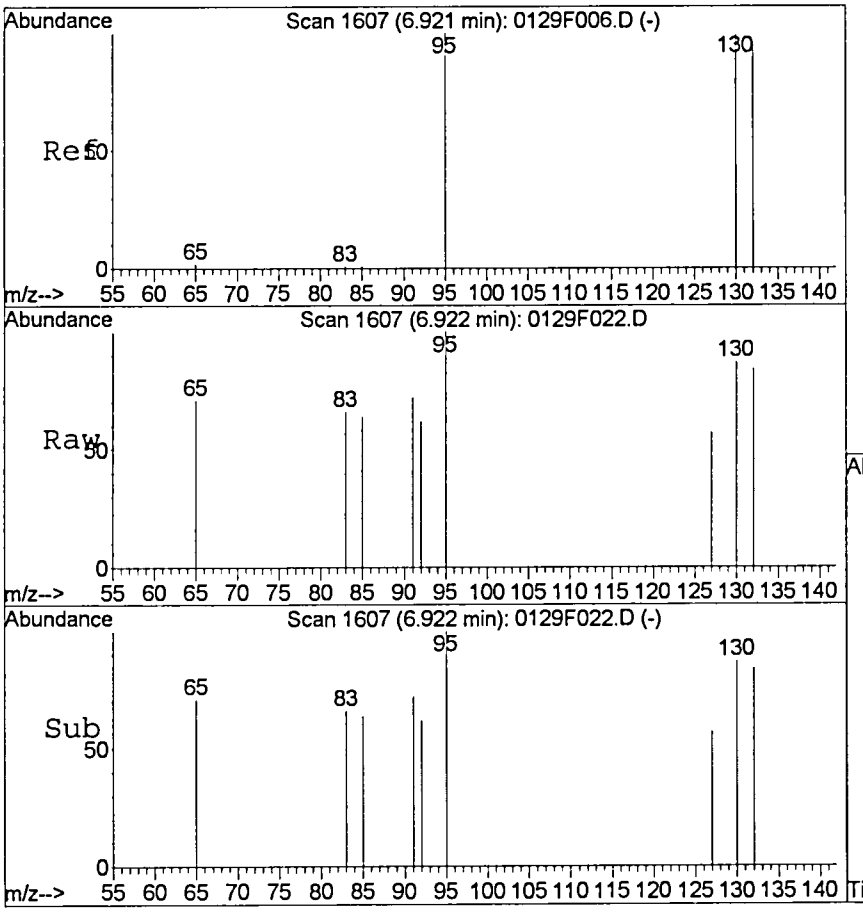


#12
1,2-Dichloroethane
Concen: 3.48 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion: 62 Resp: 87

Ion	Ratio	Lower	Upper
62	100		
64	99.0	1.7	61.7#
49	80.0	0.0	58.2#

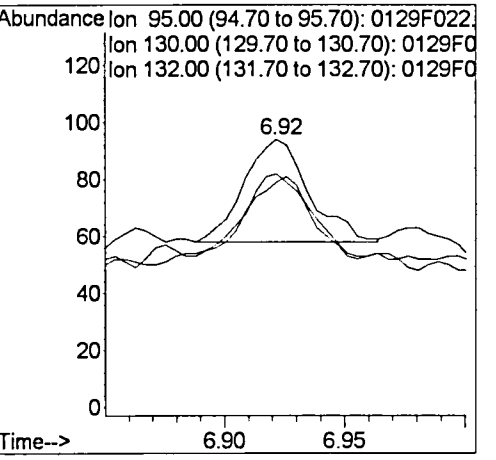


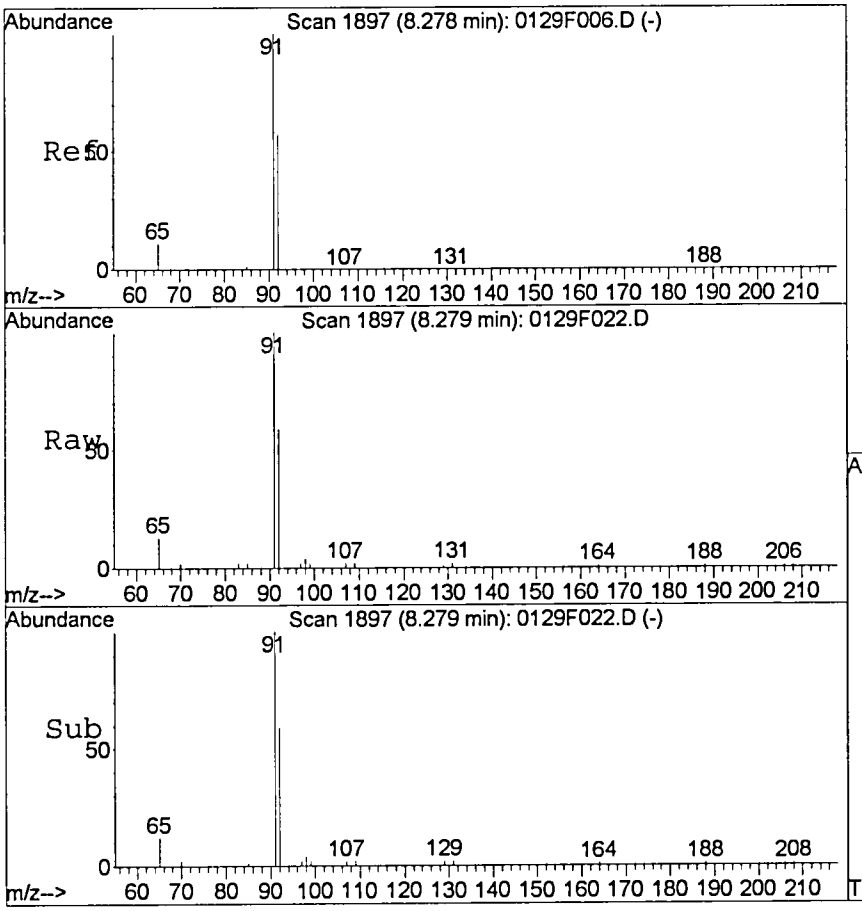


#13
Trichloroethene
Concen: 3.75 ng/L m
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion: 95 Resp: 68

Ion	Ratio	Lower	Upper
95	100		
130	87.2	67.1	127.1
132	84.0	63.9	123.9

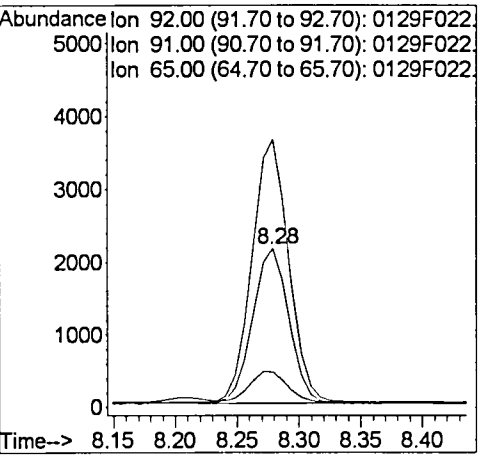


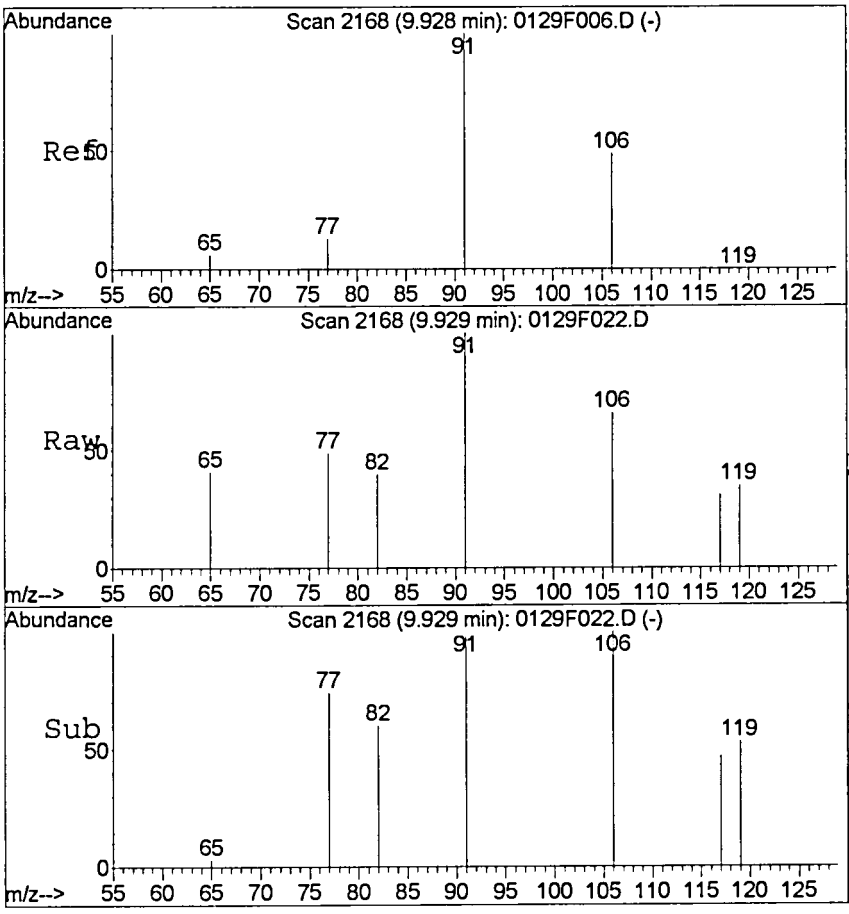


#20
Toluene
Concen: 109.77 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion: 92 Resp: 4330

Ion	Ratio	Lower	Upper
92	100		
91	169.6	144.4	204.4
65	19.7	0.0	49.7

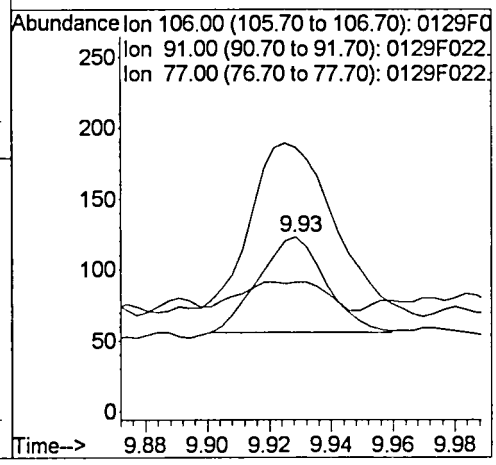


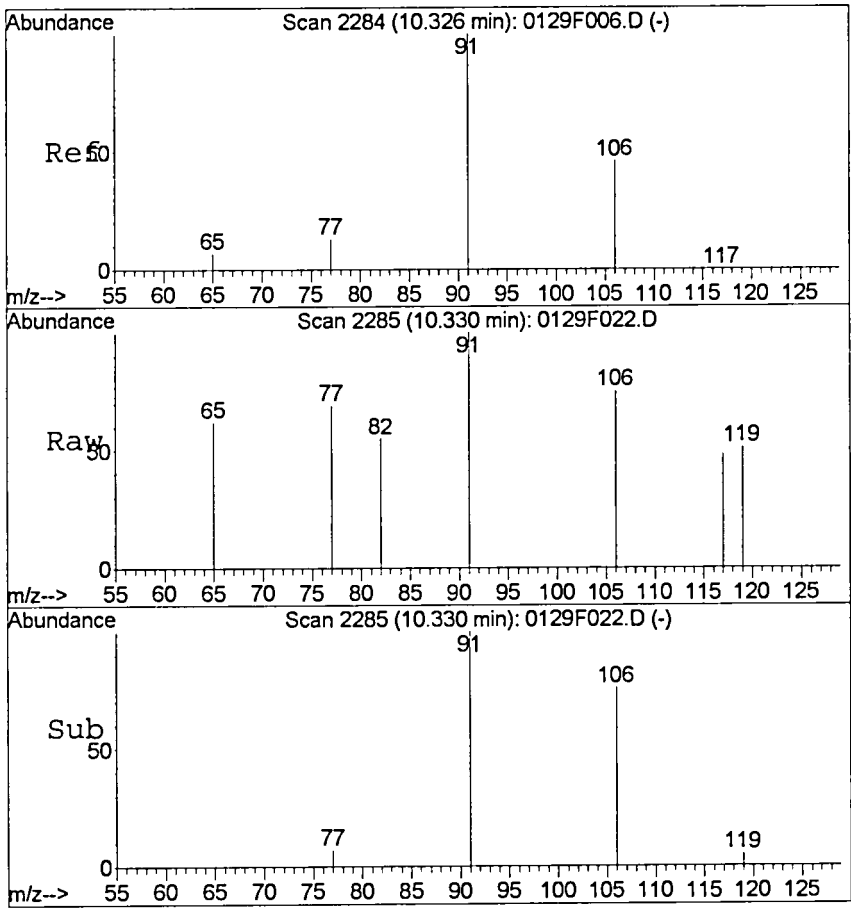


#22
m,p-Xylenes
Concen: 3.89 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion:106 Resp: 100

Ion	Ratio	Lower	Upper
106	100		
91	164.2	173.8	233.8#
77	25.4	0.0	57.2

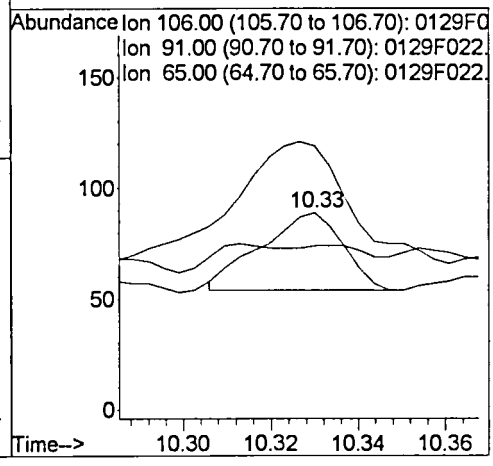


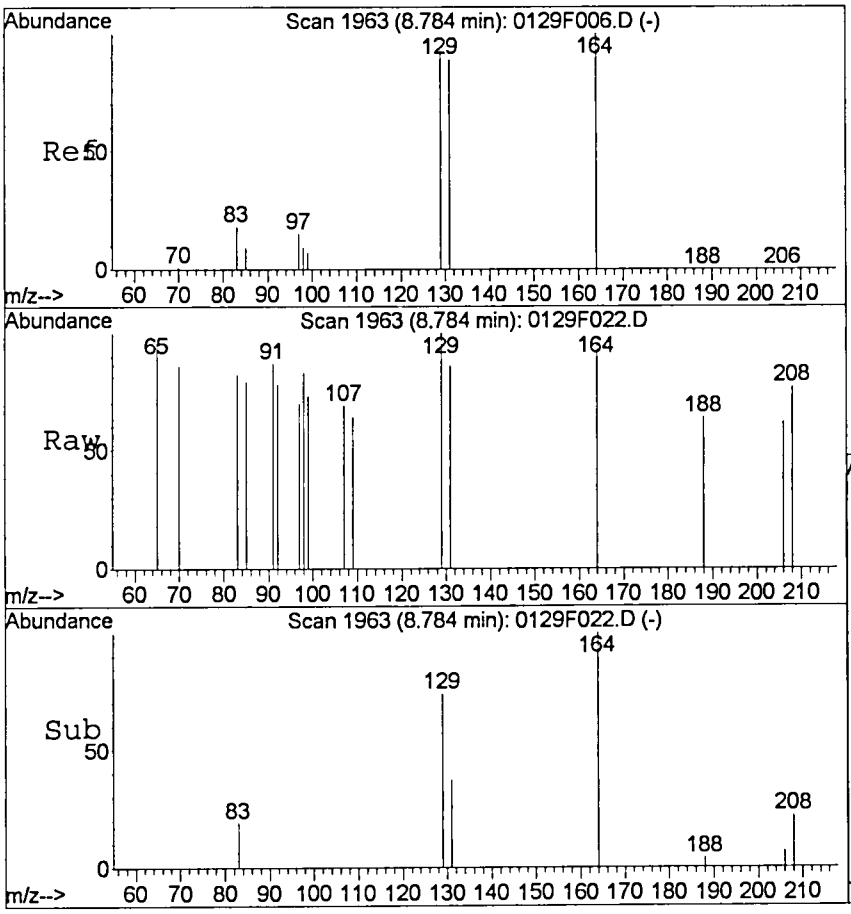


#23
o-Xylene
Concen: 1.77 ng/L
RT: 10.33 min Scan# 2285
Delta R.T. 0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion:106 Resp: 45

Ion	Ratio	Lower	Upper
106	100		
91	125.7	185.6	245.6#
65	14.3	0.0	45.0

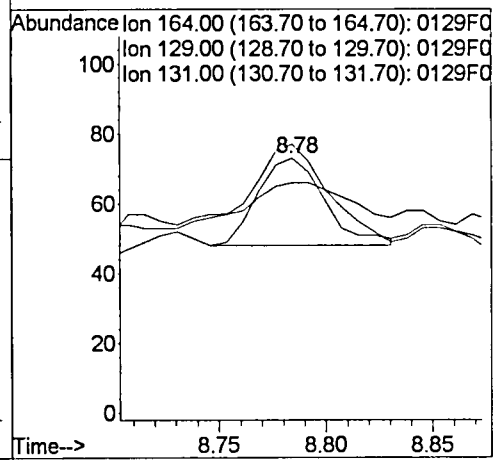


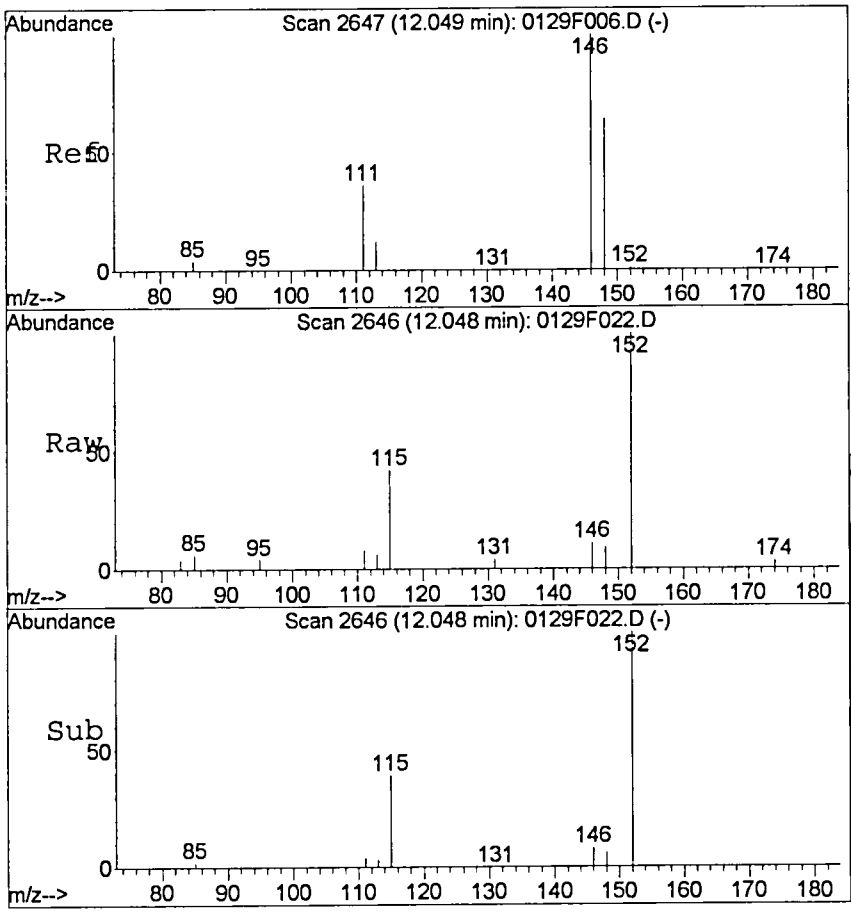


#26
Tetrachloroethene
Concen: 4.00 ng/L m
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion:164 Resp: 55

Ion	Ratio	Lower	Upper
164	100		
129	105.5	61.1	121.1
131	90.4	58.3	118.3

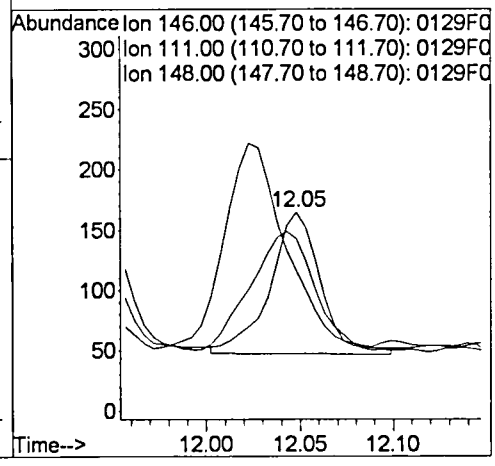




#28
1,4-Dichlorobenzene
Concen: 6.14 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F022.D
Acq: 29 Jan 2016 7:08 pm

Tgt Ion:146 Resp: 219

Ion	Ratio	Lower	Upper
146	100		
111	51.3	6.7	66.7
148	82.3	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F023.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 19:35
Date Quantitated: 02/01/2016 13:55
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL
Lab Control Spike	Toluene-d8	122	74	112	↑bias analyte ND
Surrogates	Toluene-d8	121	74	112	I ND

Primary Review: [signature] 2/1/16

Secondary Review: [signature]

Printed: 02/01/2016 14:35:21
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F023.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 19:35	**Quant Date:**	02/01/2016 13:55	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496762	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	69461	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	49181	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17589	1,113	111	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	60951	1,207	121	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	20115	1,015	101	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	96m	3.82	5.8	U	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F023.D Vial: 20
Acq On : 29 Jan 2016 7:35 pm Operator: GH
Sample : K0673-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:38:29 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

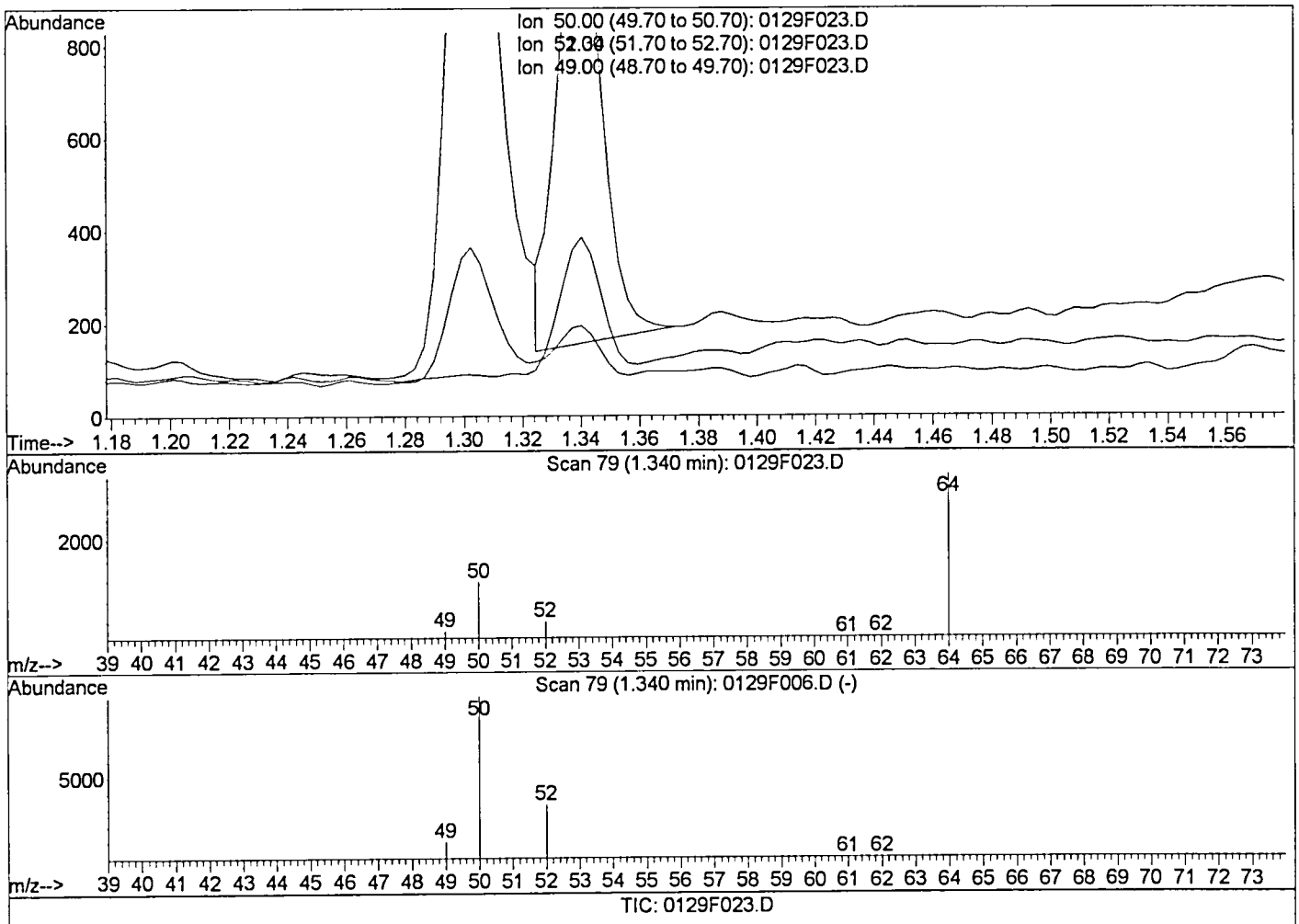
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	69461	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	49181	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	22525	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17589	1112.78	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.28%			
15) Toluene-d8	8.21	98	60951	1206.65	ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.67%			
24) 4-Bromofluorobenzene	10.89	95	20115	1014.89	ng/L	0.00
Spiked Amount 1000.000			Recovery = 101.49%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	968m	34.28	ng/L	
5) Methylene Chloride	3.29	84	634	27.56	ng/L	96
8) Chloroform	5.61	83	158	4.41	ng/L	92
12) 1,2-Dichloroethane	6.33	62	96m	3.82	ng/L	
13) Trichloroethene	6.92	95	58	3.18	ng/L	96
20) Toluene	8.28	92	8486	212.84	ng/L	99
22) m,p-Xylenes	9.93	106	95	3.66	ng/L #	80
26) Tetrachloroethene	8.78	164	32	2.30	ng/L #	52
28) 1,4-Dichlorobenzene	12.05	146	214	6.09	ng/L	86

(#) = qualifier out of range (m) = manual integration
0129F023.D 012716MS27_8260SIM.M Mon Feb 01 14:07:39 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F023.D Vial: 20
Acq On : 29 Jan 2016 7:35 pm Operator: GH
Sample : K0673-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F023.D

(2) Chloromethane (T)

1.34min 36.94ng/L

response 1043

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	29.44
49.00	10.10	10.26
0.00	0.00	0.00

Manual Integration:

Before

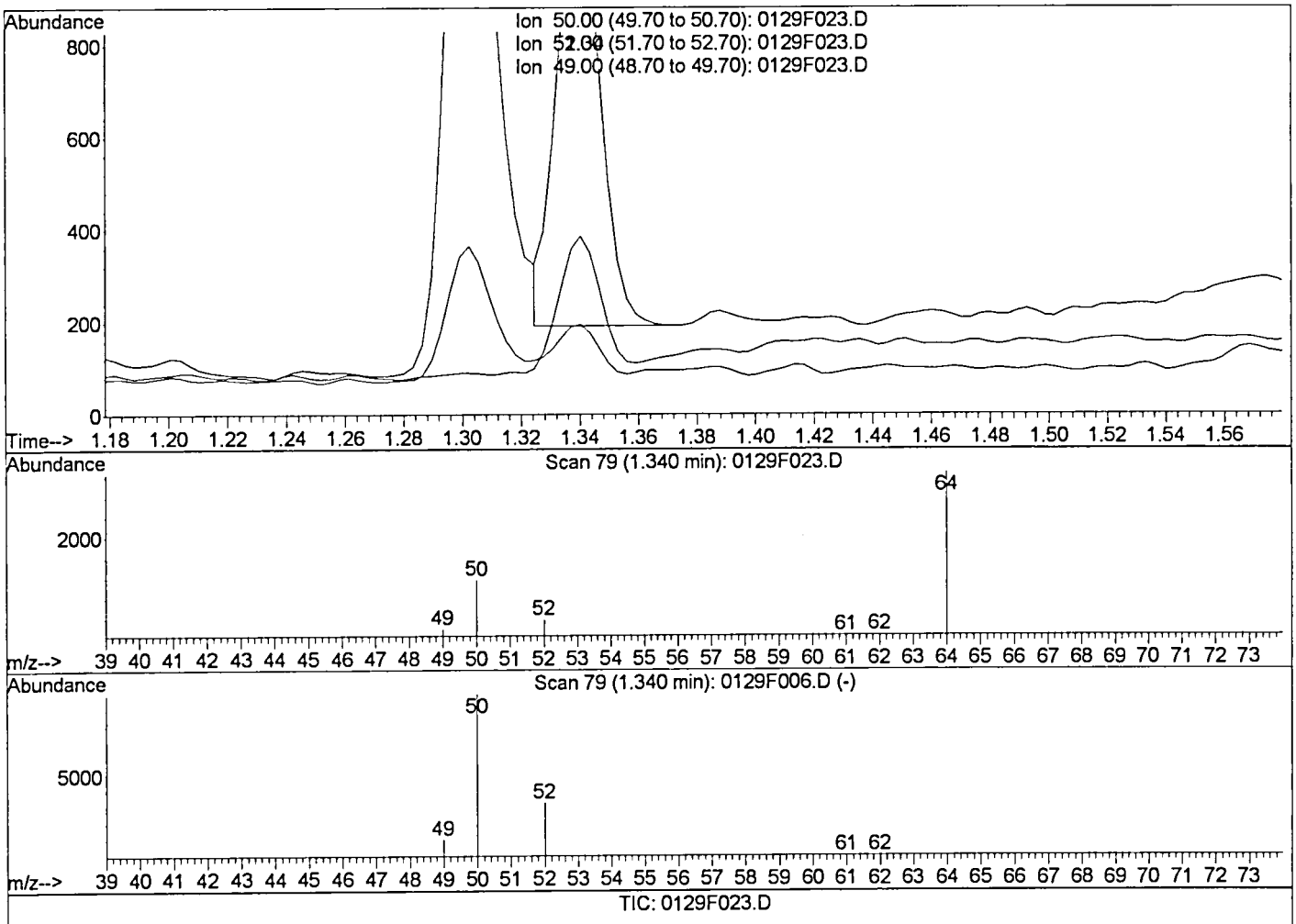
02/01/16

0129F023.D 012716MS27_8260SIM.M Mon Feb 01 13:54:00 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F023.D Vial: 20
Acq On : 29 Jan 2016 7:35 pm Operator: GH
Sample : K0673-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:54 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



(2) Chloromethane (T)

1.34min 34.28ng/L m

response 968

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.08
49.00	10.10	16.71
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

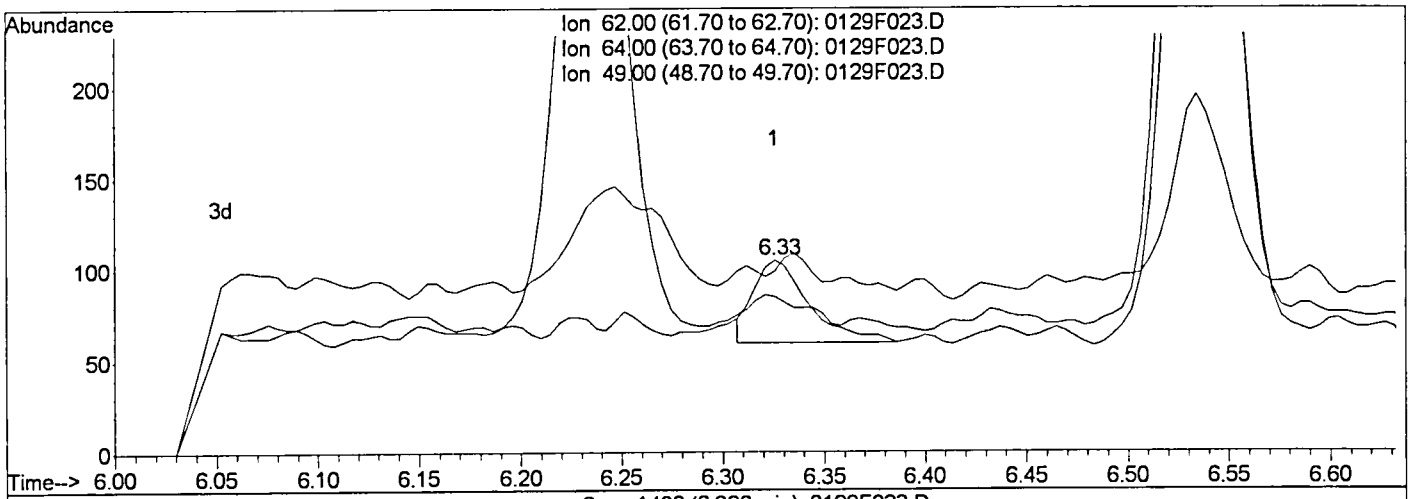
02/01/16

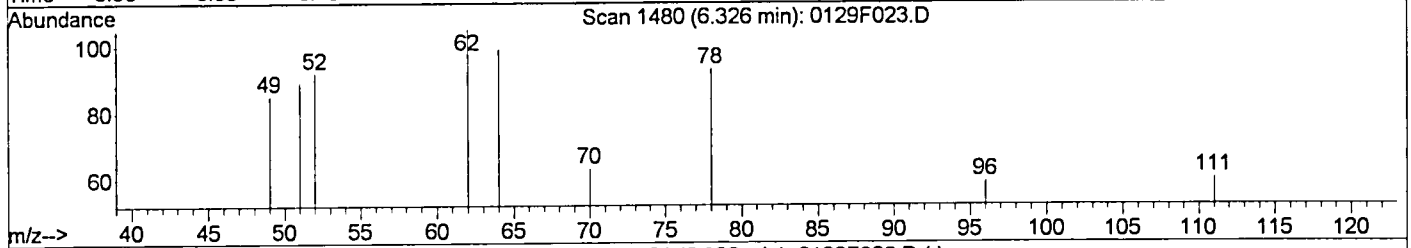
0129F023.D 012716MS27_8260SIM.M Mon Feb 01 13:54:09 2016

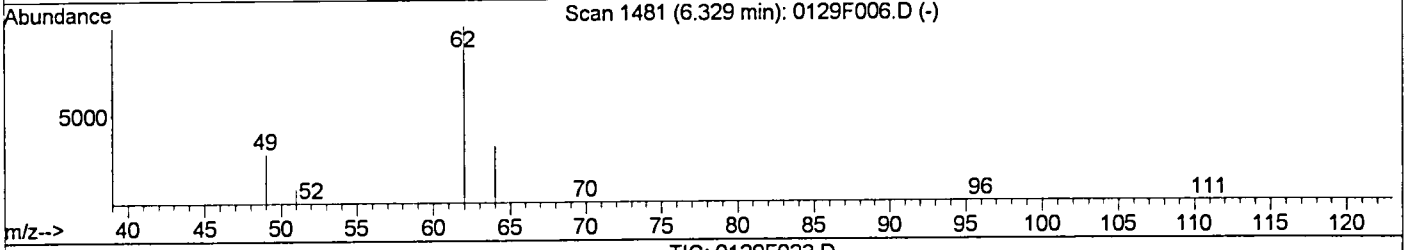
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F023.D Vial: 20
Acq On : 29 Jan 2016 7:35 pm Operator: GH
Sample : K0673-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:54 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F023.D

(12) 1,2-Dichloroethane (T)

6.33min 3.38ng/L

response 85

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	24.44
49.00	28.20	37.78
0.00	0.00	0.00

Manual Integration:

Before

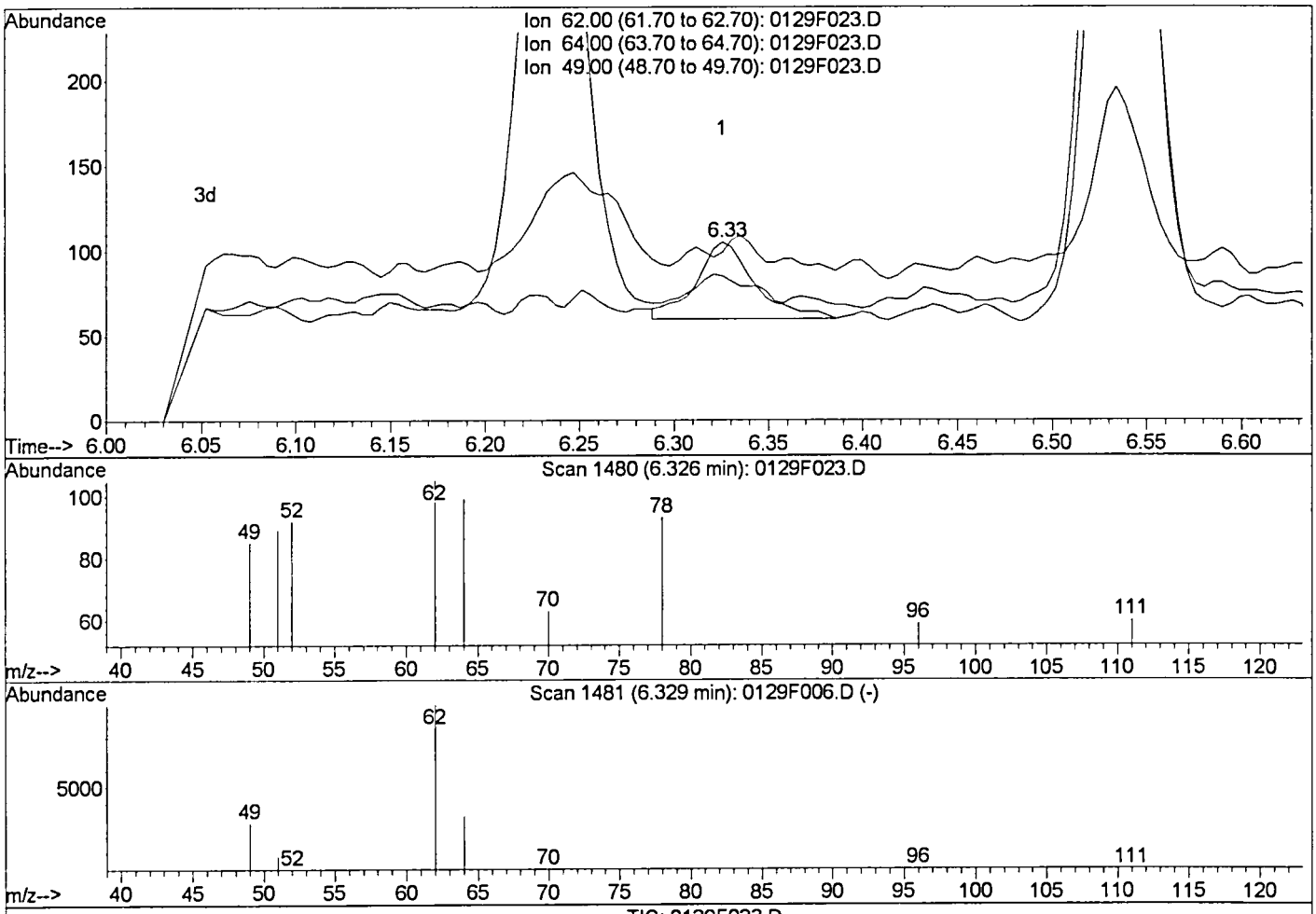
02/01/16

0129F023.D 012716MS27_8260SIM.M Mon Feb 01 13:54:42 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F023.D Vial: 20
Acq On : 29 Jan 2016 7:35 pm Operator: GH
Sample : K0673-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:54 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



(12) 1,2-Dichloroethane (T)

6.33min 3.82ng/L m

response 96

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	94.29#
49.00	28.20	80.95#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

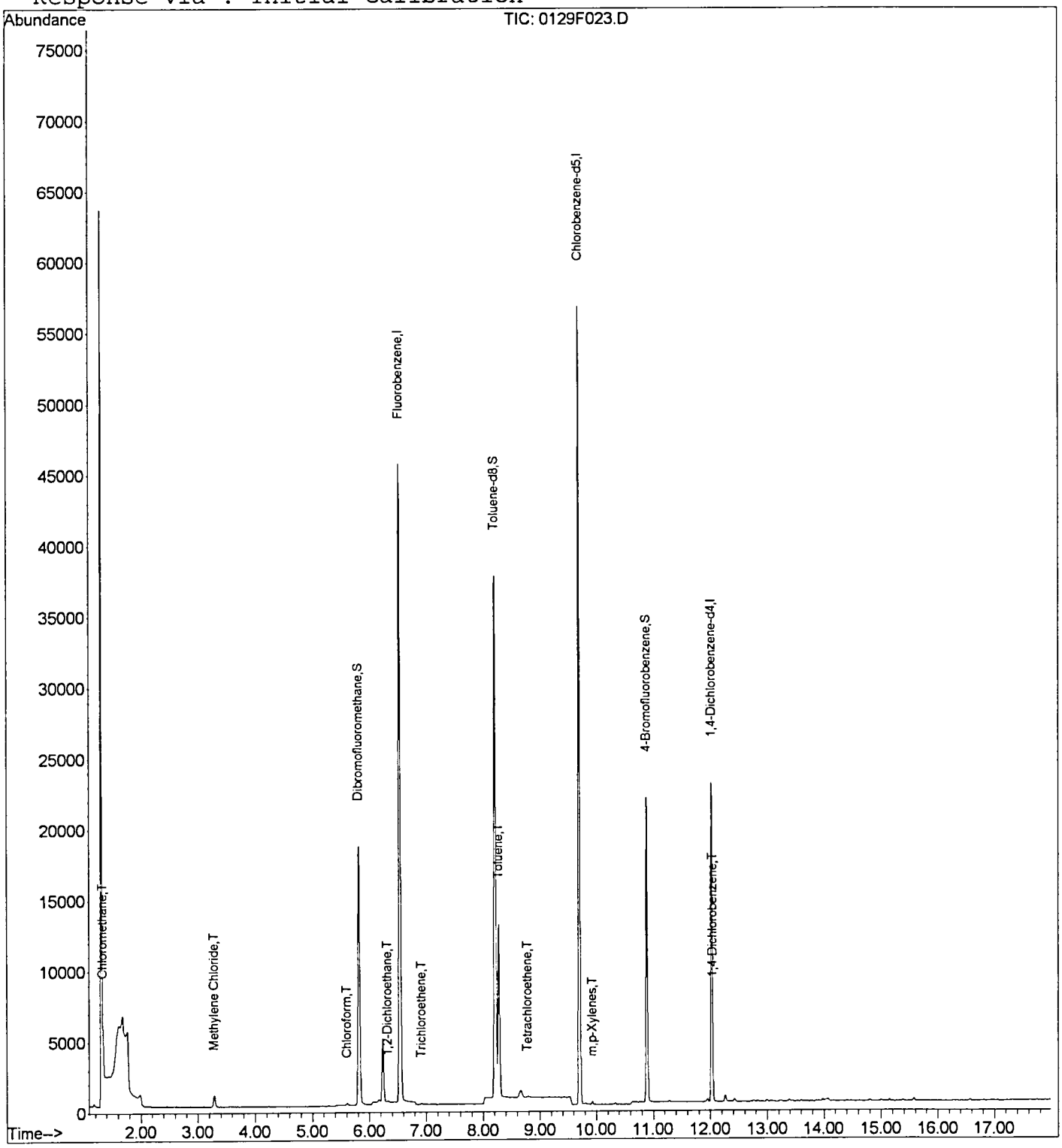
02/01/16

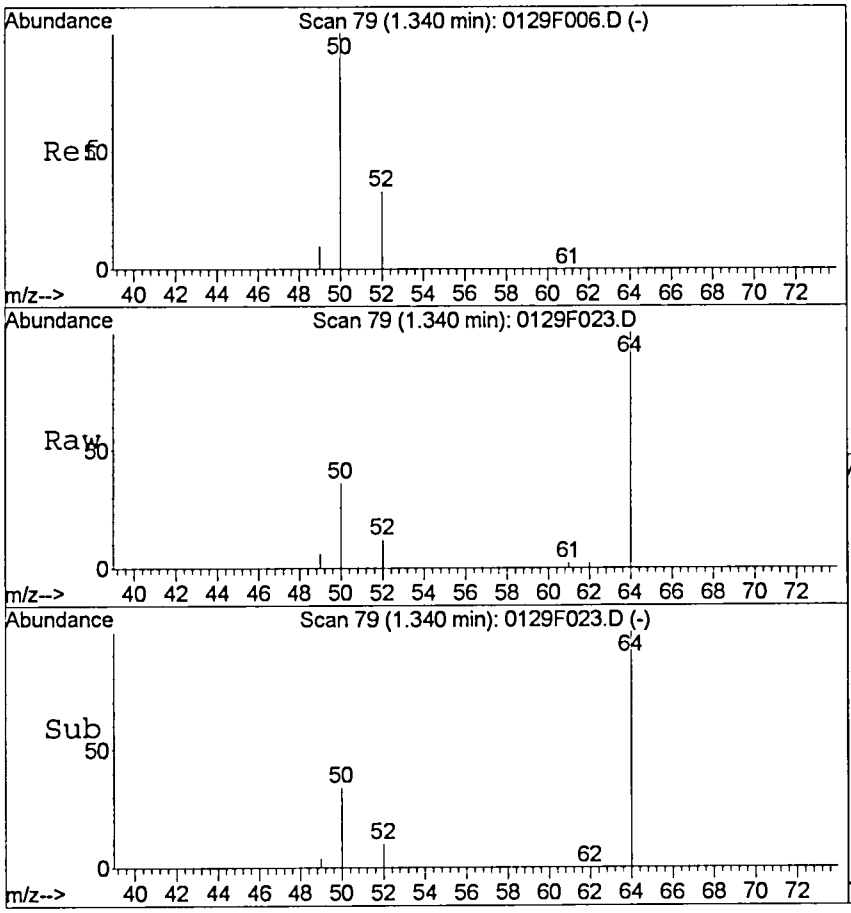
0129F023.D 012716MS27_8260SIM.M Mon Feb 01 13:54:53 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F023.D Vial: 20
Acq On : 29 Jan 2016 7:35 pm Operator: GH
Sample : K0673-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:55 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

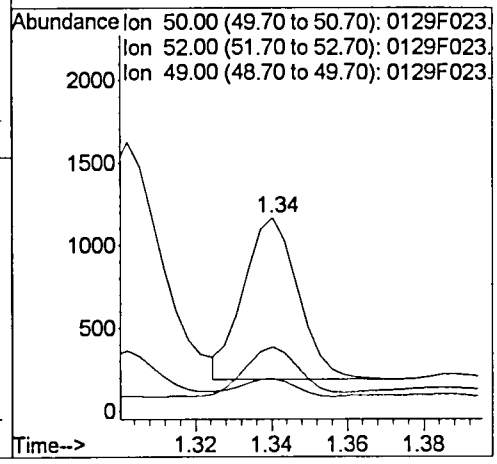


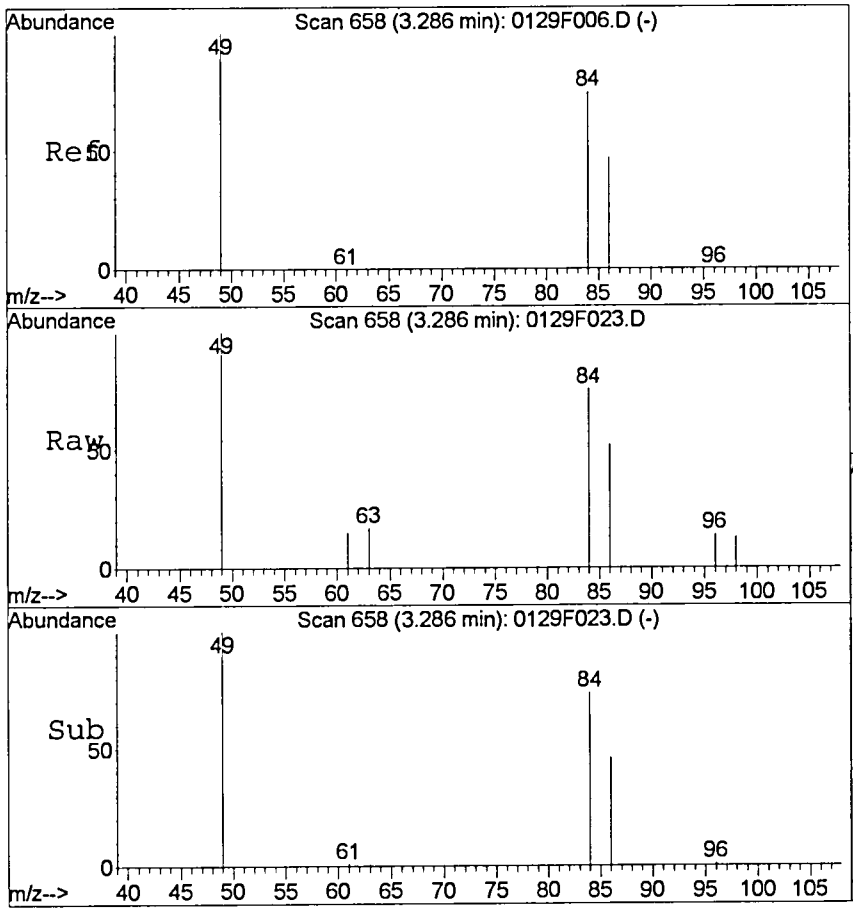


#2
Chloromethane
Concen: 34.28 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion: 50 Resp: 968

Ion	Ratio	Lower	Upper
50	100		
52	33.1	2.9	62.9
49	16.7	0.0	40.1

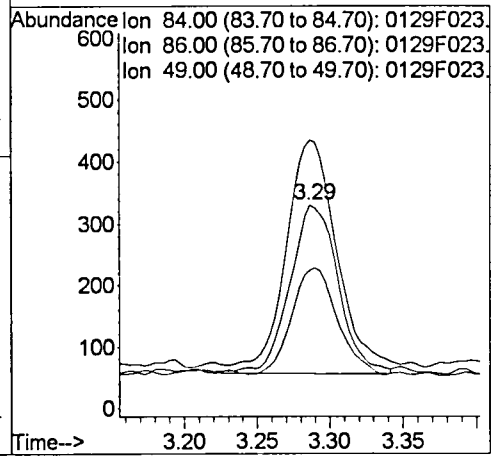


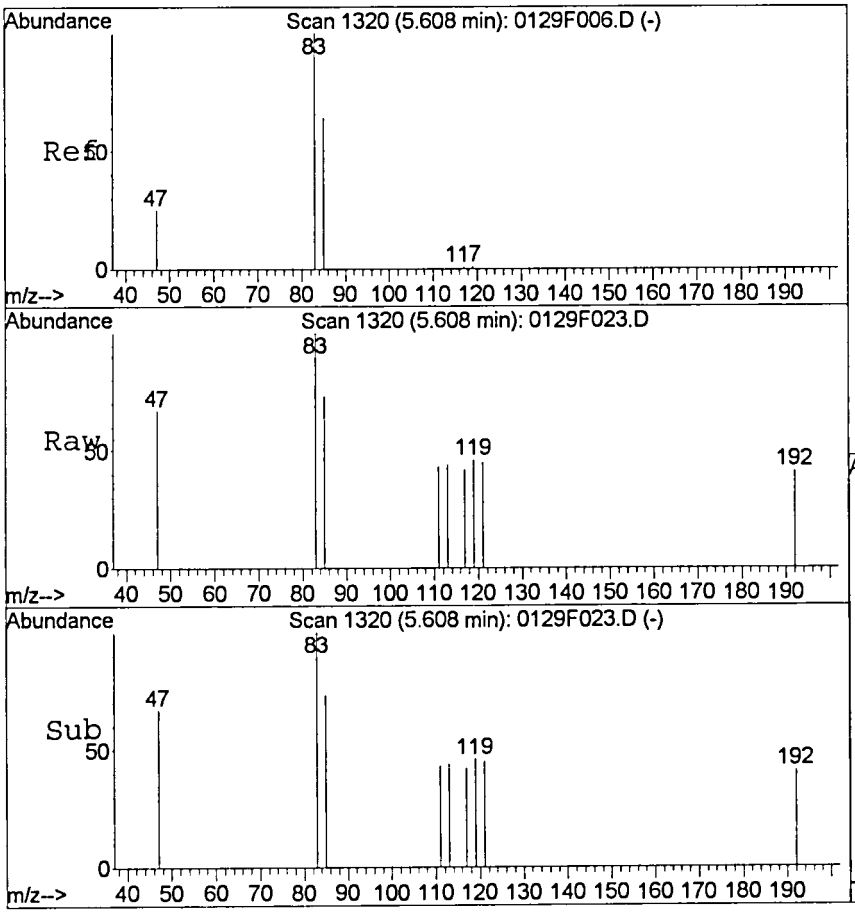


#5
Methylene Chloride
Concen: 27.56 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion: 84 Resp: 634

Ion	Ratio	Lower	Upper
84	100		
86	61.4	33.8	93.8
49	132.0	107.9	167.9

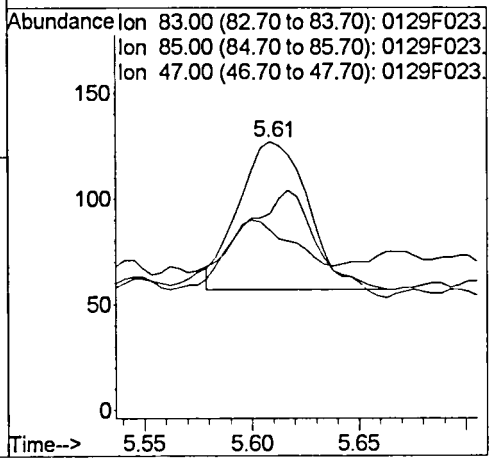


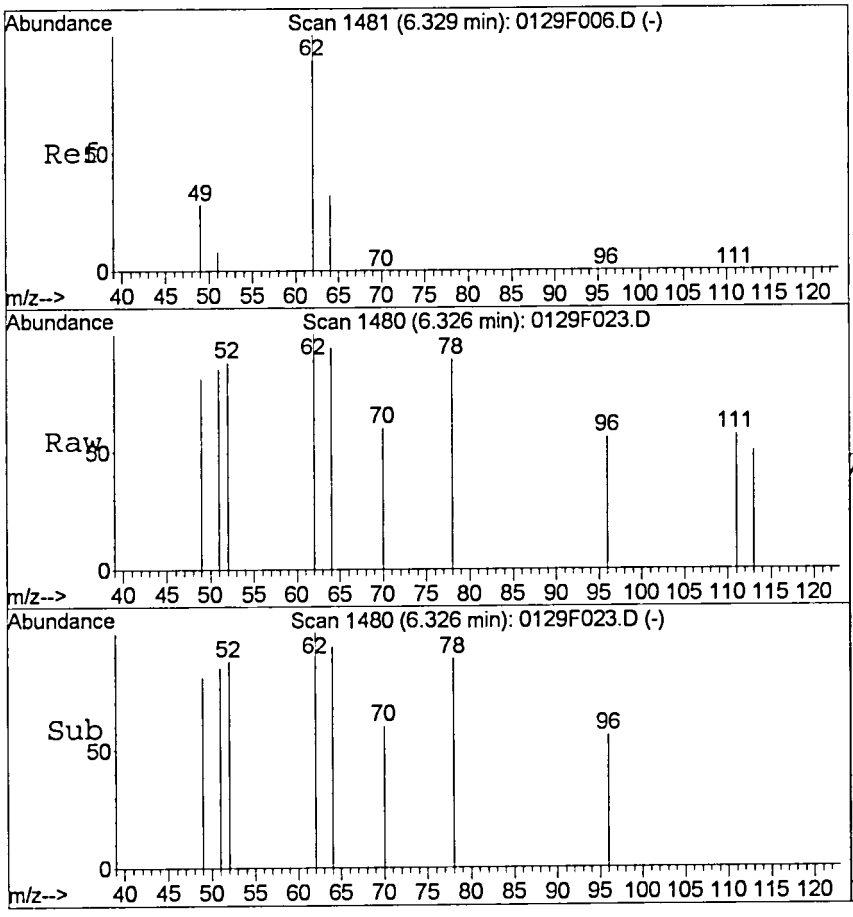


#8
Chloroform
Concen: 4.41 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion: 83 Resp: 158

Ion	Ratio	Lower	Upper
83	100		
85	57.1	34.7	94.7
47	24.3	0.0	55.9

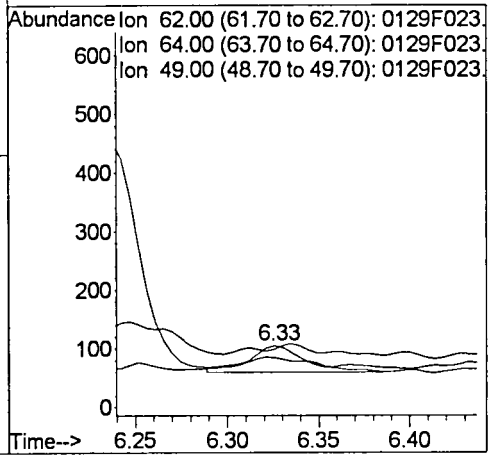


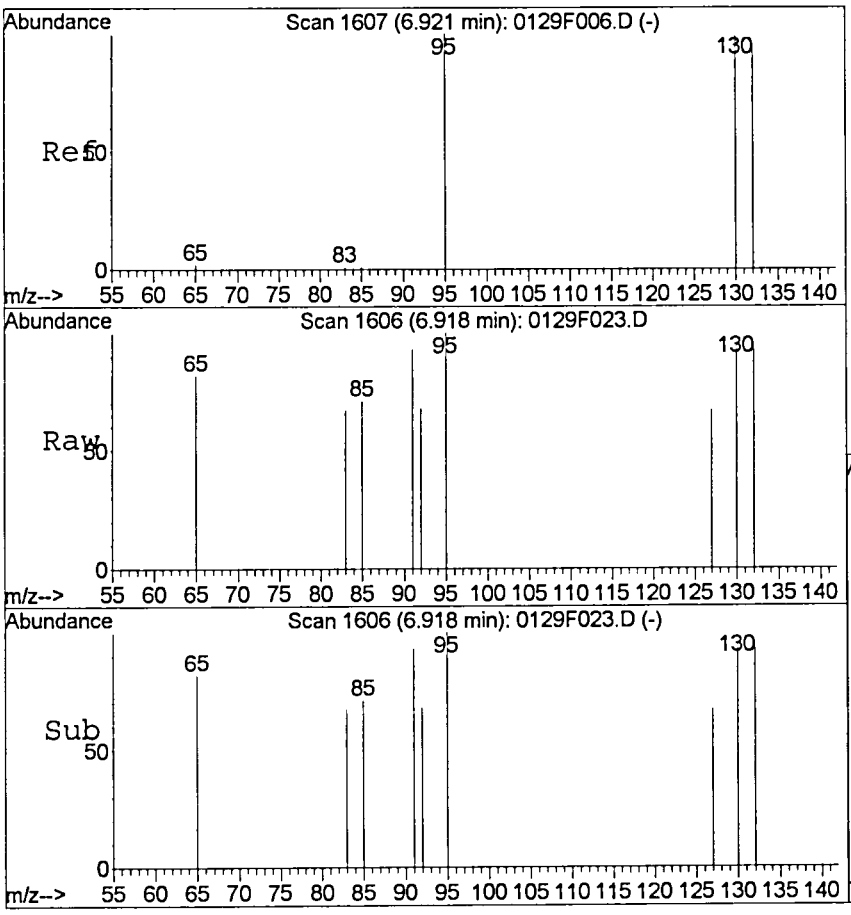


#12
1,2-Dichloroethane
Concen: 3.82 ng/L m
RT: 6.33 min Scan# 1480
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion: 62 Resp: 96

Ion	Ratio	Lower	Upper
62	100		
64	94.3	1.7	61.7#
49	81.0	0.0	58.2#

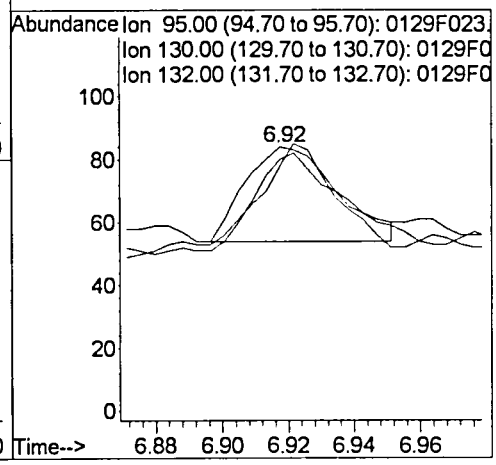


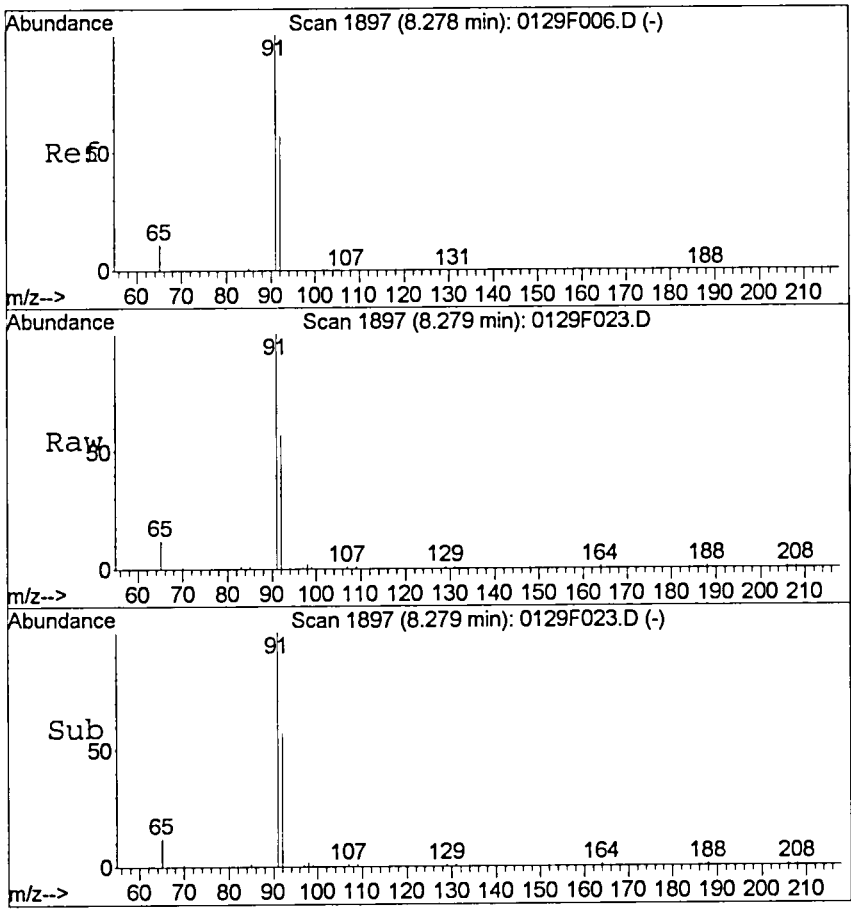


#13
Trichloroethene
Concen: 3.18 ng/L
RT: 6.92 min Scan# 1606
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion: 95 Resp: 58

Ion	Ratio	Lower	Upper
95	100		
130	96.7	67.1	127.1
132	86.7	63.9	123.9

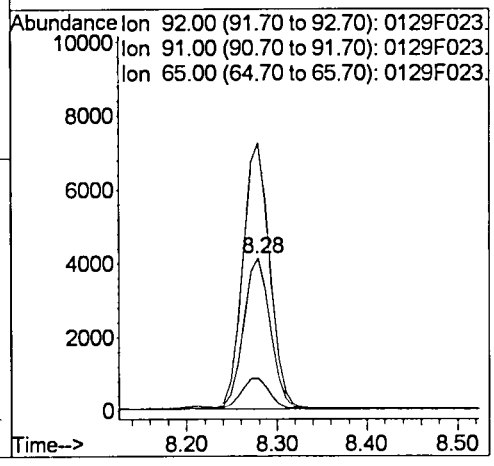


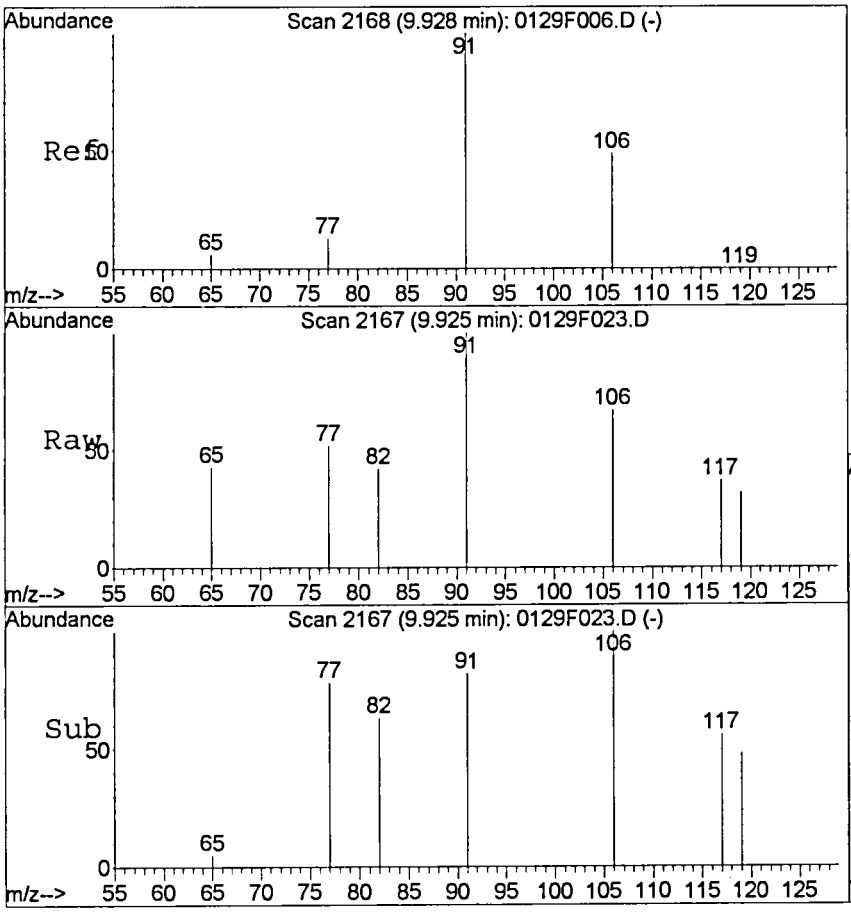


#20
Toluene
Concen: 212.84 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion: 92 Resp: 8486

Ion	Ratio	Lower	Upper
92	100		
91	175.7	144.4	204.4
65	20.2	0.0	49.7

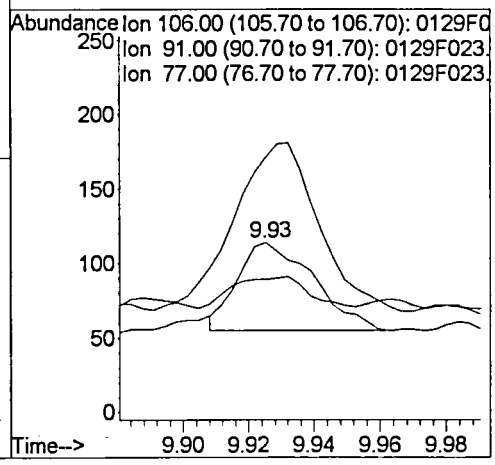


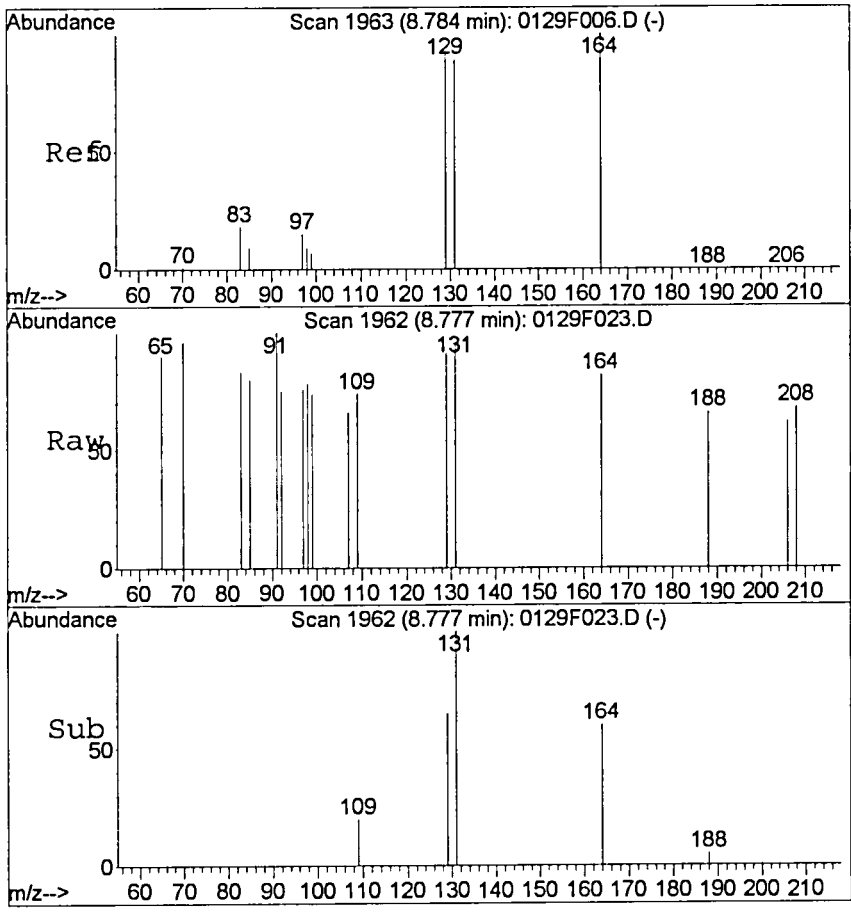


#22
m,p-Xylenes
Concen: 3.66 ng/L
RT: 9.93 min Scan# 2167
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion:106 Resp: 95

Ion	Ratio	Lower	Upper
106	100		
91	169.5	173.8	233.8#
77	27.1	0.0	57.2

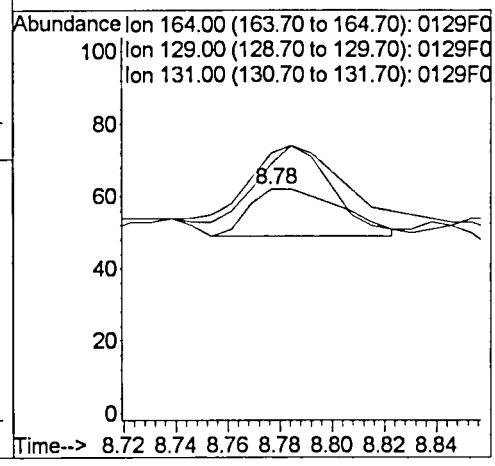


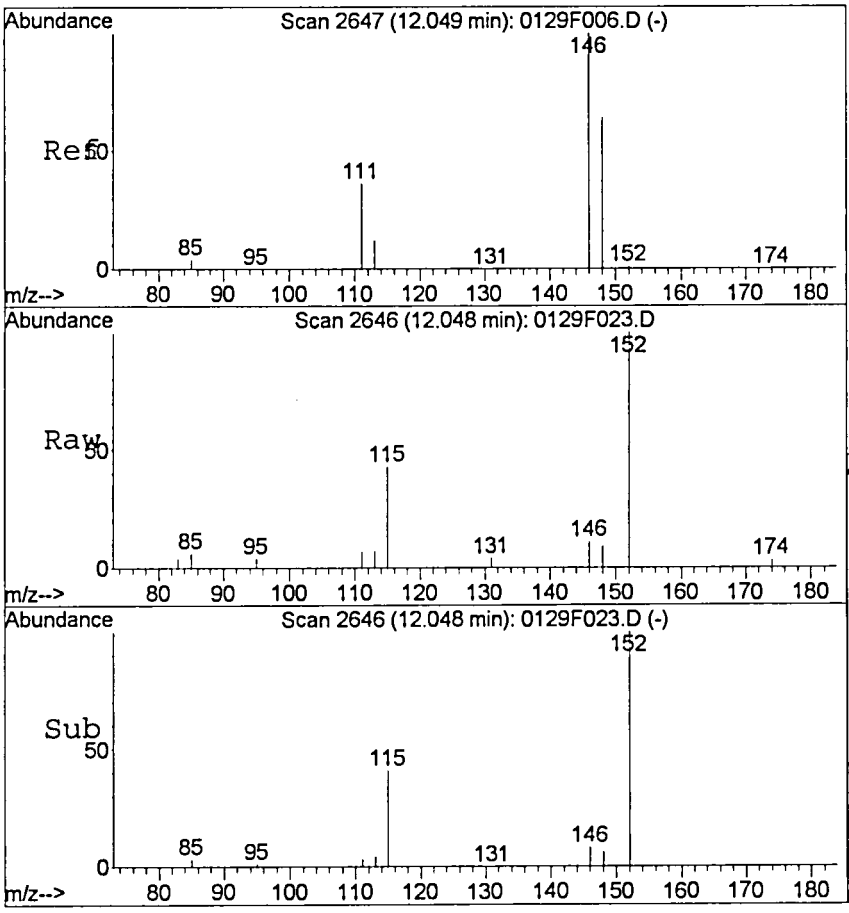


#26
Tetrachloroethene
Concen: 2.30 ng/L
RT: 8.78 min Scan# 1962
Delta R.T. -0.01 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion:164 Resp: 32

Ion	Ratio	Lower	Upper
164	100		
129	138.5	61.1	121.1#
131	130.8	58.3	118.3#

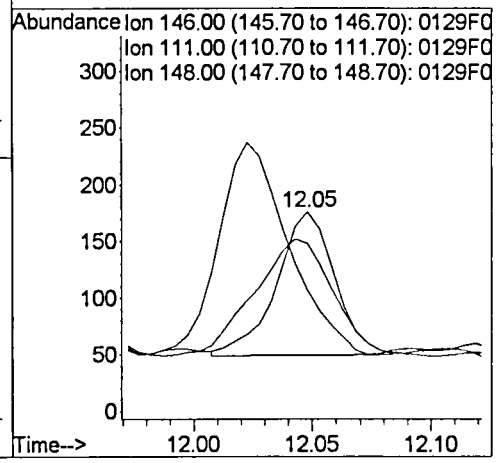




#28
1,4-Dichlorobenzene
Concen: 6.09 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F023.D
Acq: 29 Jan 2016 7:35 pm

Tgt Ion:146 Resp: 214

Ion	Ratio	Lower	Upper
146	100		
111	42.4	6.7	66.7
148	76.8	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F024.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 20:03
Date Quantitated: 02/01/2016 13:57
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	HKL ✓
Lab Control Spike	Toluene-d8	122	74	112	Minor analyte, okay
Surrogates	Toluene-d8	119	74	112	I ND

Primary Review: [signature] 2/1/16

Secondary Review: [signature]

Printed: 02/01/2016 14:35:24
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F024.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 20:03	**Quant Date:**	02/01/2016 13:57	**Vial:**	32
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496763	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	69020	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48626	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17515	1,115	112	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	59855	1,193	119	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	20136	1,028	103	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.32	-0.01	0.00	62	93m	3.72	5.8	U	
1	Bromodichloromethane	7.54	-0.01	0.00	83	34	1.41	3.4	U	
1	Dibromochloromethane				129	0		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:38:42 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

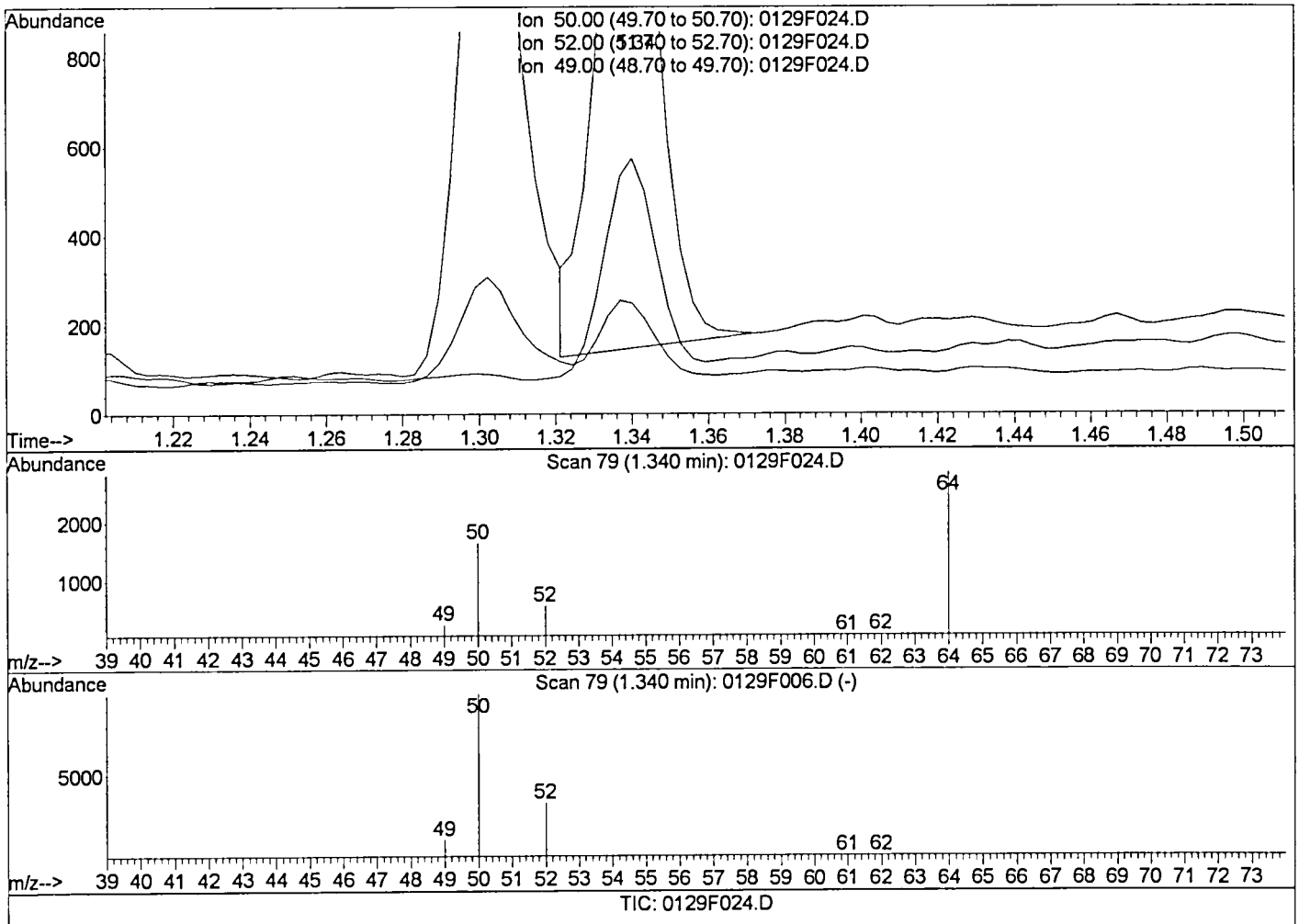
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	69020	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48626	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	23075	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17515	1115.18	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.52%			
15) Toluene-d8	8.21	98	59855	1192.52	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.25%			
24) 4-Bromofluorobenzene	10.89	95	20136	1027.54	ng/L	0.00
Spiked Amount 1000.000			Recovery = 102.75%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	1484m	52.89	ng/L	
5) Methylene Chloride	3.29	84	711	31.10	ng/L	96
8) Chloroform	5.61	83	289	8.11	ng/L	92
10) Carbon Tetrachloride	5.84	117	141m	6.94	ng/L	
12) 1,2-Dichloroethane	6.32	62	93m	3.72	ng/L	
13) Trichloroethene	6.92	95	77m	4.25	ng/L	
14) Bromodichloromethane	7.54	83	34	1.41	ng/L #	50
20) Toluene	8.28	92	11036	279.95	ng/L	99
21) Ethylbenzene	9.80	106	60	2.92	ng/L #	56
22) m,p-Xylenes	9.93	106	129	5.03	ng/L #	80
26) Tetrachloroethene	8.78	164	66	4.80	ng/L #	74
28) 1,4-Dichlorobenzene	12.04	146	190	5.28	ng/L #	56

(#) = qualifier out of range (m) = manual integration
0129F024.D 012716MS27_8260SIM.M Mon Feb 01 14:07:41 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F024.D

(2) Chloromethane (T)

1.34min 55.60ng/L

response 1560

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.47
49.00	10.10	10.75
0.00	0.00	0.00

Manual Integration:

Before

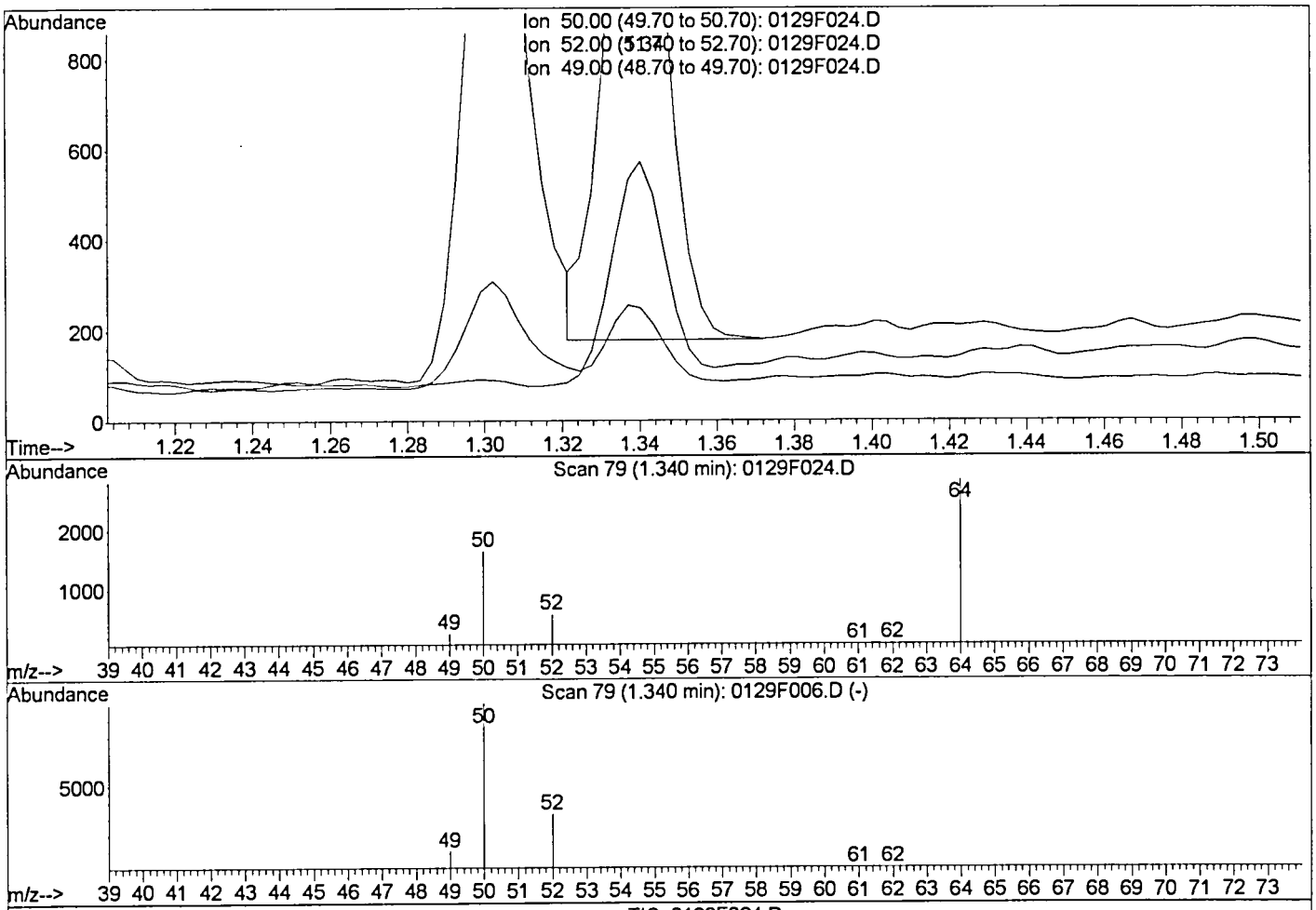
02/01/16

0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:55:36 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:55 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F024.D

(2) Chloromethane (T)

1.34min 52.89ng/L m

response 1484

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	34.92
49.00	10.10	15.17
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

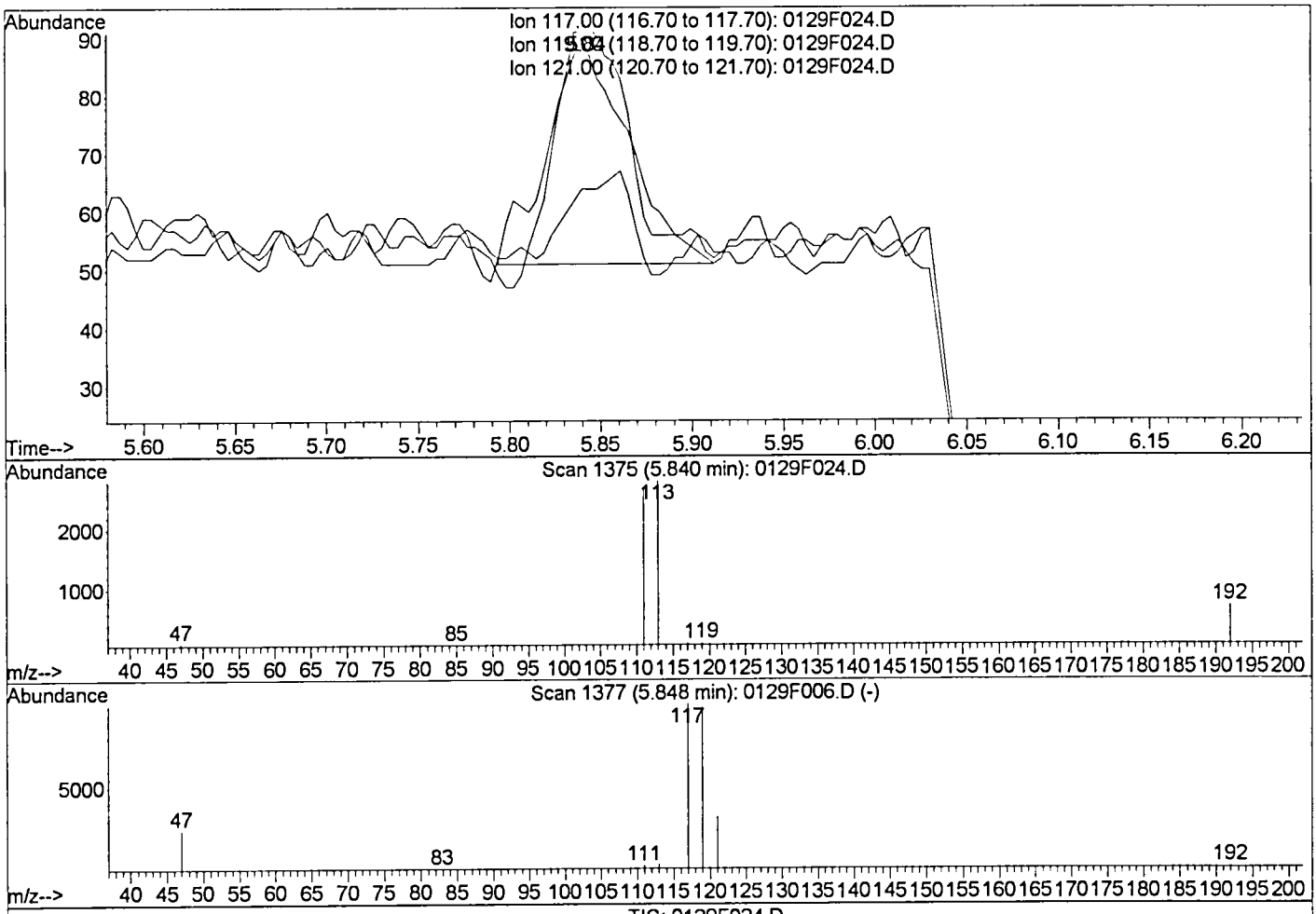
02/01/16

0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:55:47 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:55 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F024.D

(10) Carbon Tetrachloride (T)

5.84min 5.81ng/L

response 118

Ion	Exp%	Act%
117.00	100	100
119.00	95.90	123.08
121.00	30.40	30.77
0.00	0.00	0.00

Manual Integration:

Before

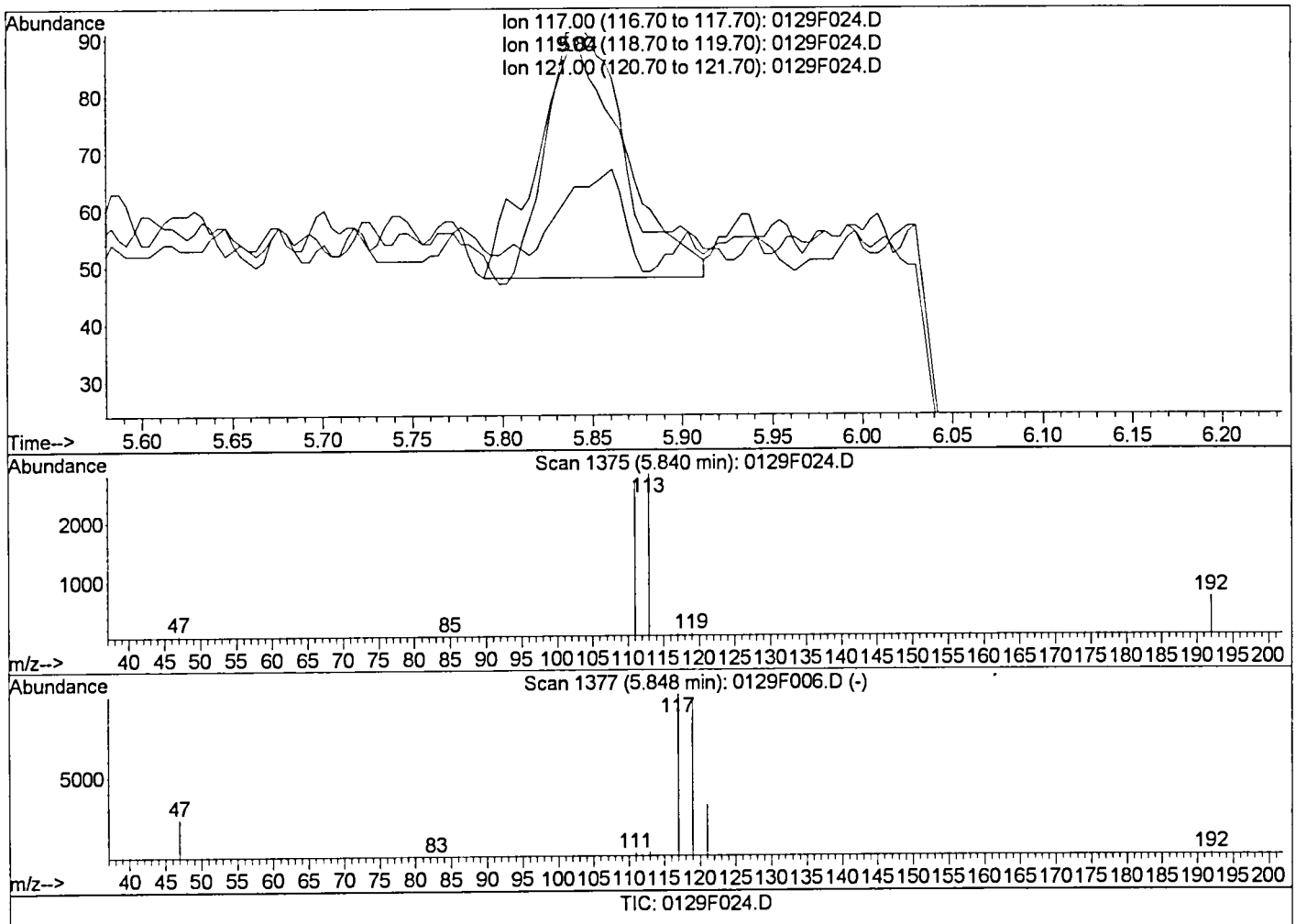
02/01/16

0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:56:07 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:56 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F024.D

(10) Carbon Tetrachloride (T)

5.84min 6.94ng/L m

response 141

Ion	Exp%	Act%
117.00	100	100
119.00	95.90	107.78
121.00	30.40	71.11#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

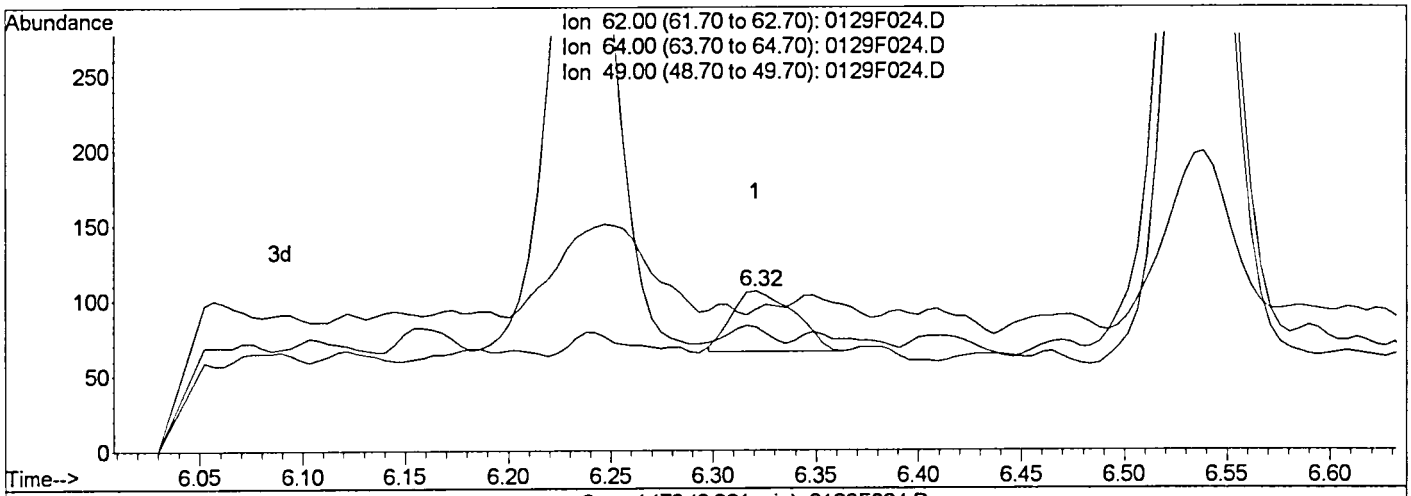
02/01/16

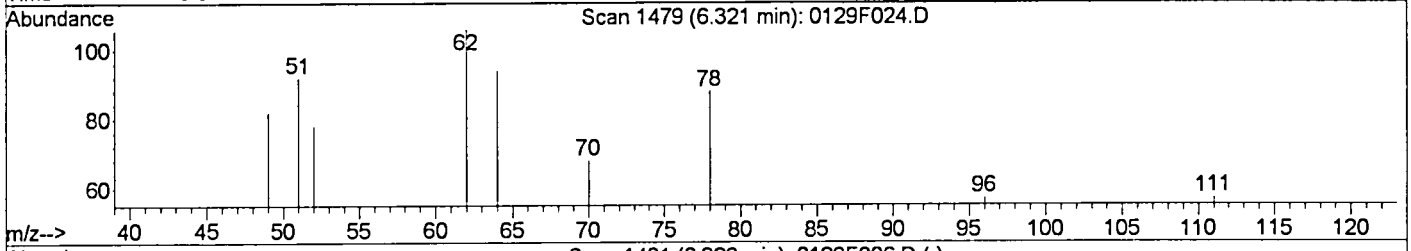
0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:56:21 2016

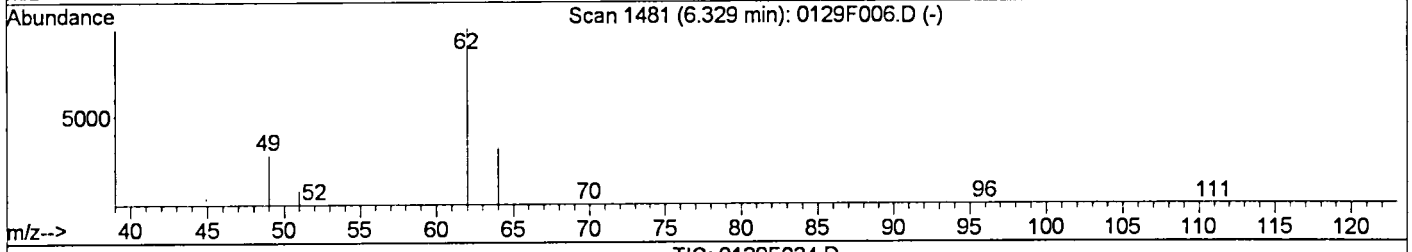
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:56 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F024.D

(12) 1,2-Dichloroethane (T)

6.32min 3.36ng/L

response 84

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	2.50
49.00	28.20	25.00
0.00	0.00	0.00

Manual Integration:

Before

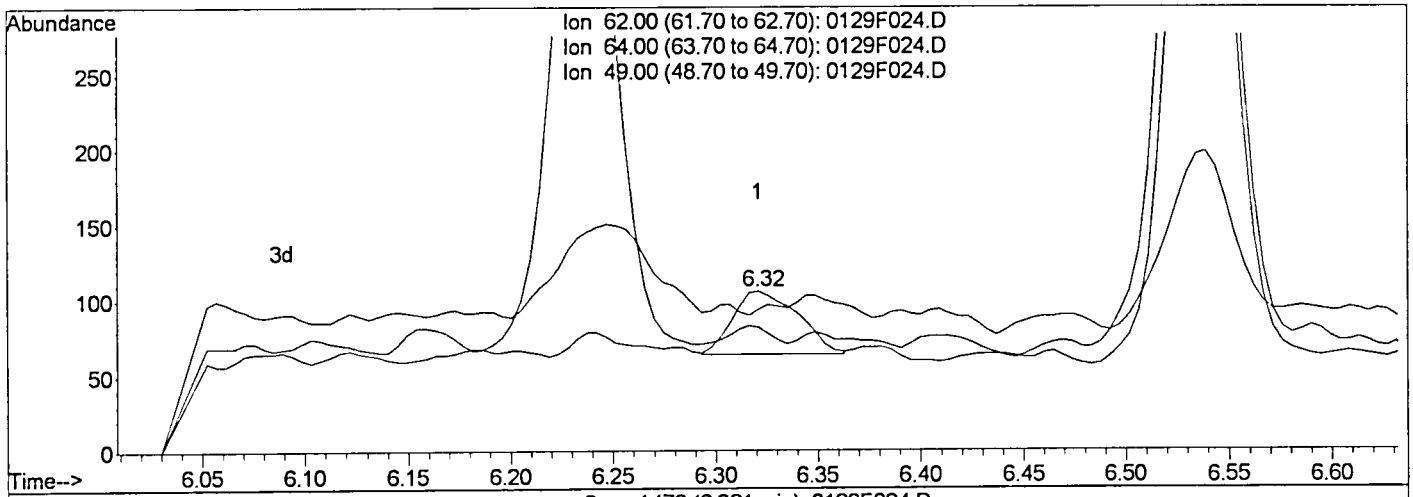
02/01/16

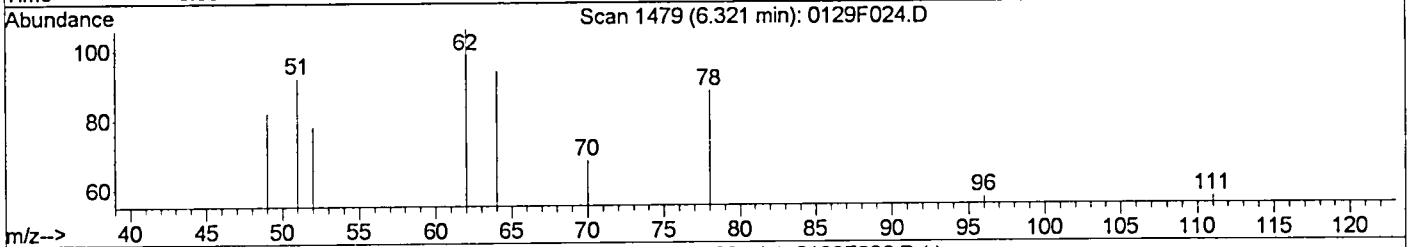
0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:56:29 2016

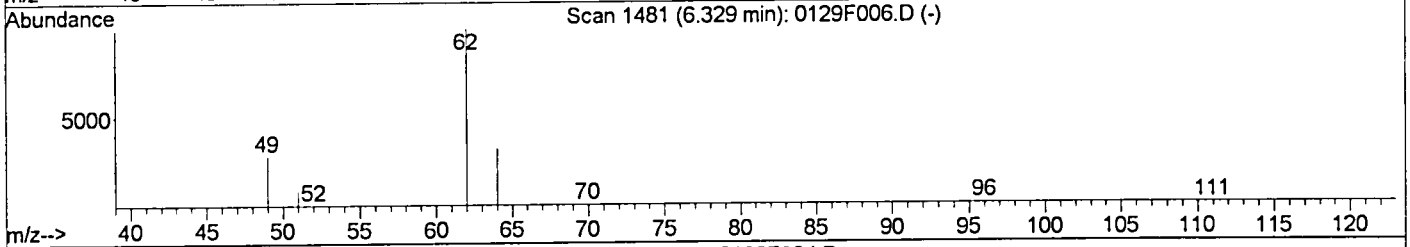
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:56 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F024.D

(12) 1,2-Dichloroethane (T)

6.32min 3.72ng/L m

response 93

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	88.68#
49.00	28.20	77.36#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

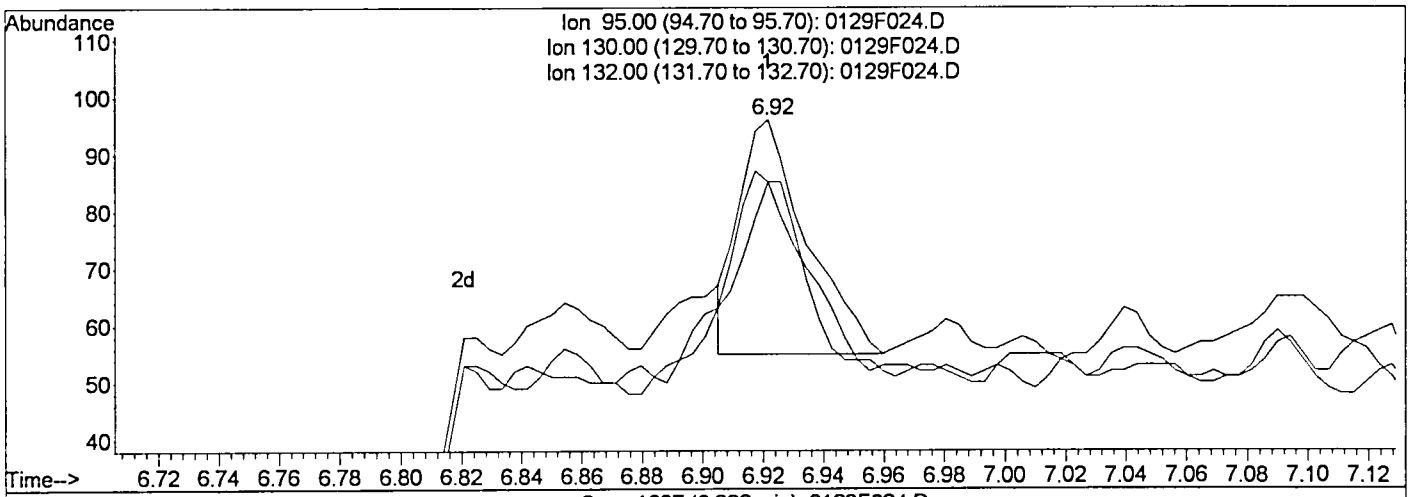
02/01/16

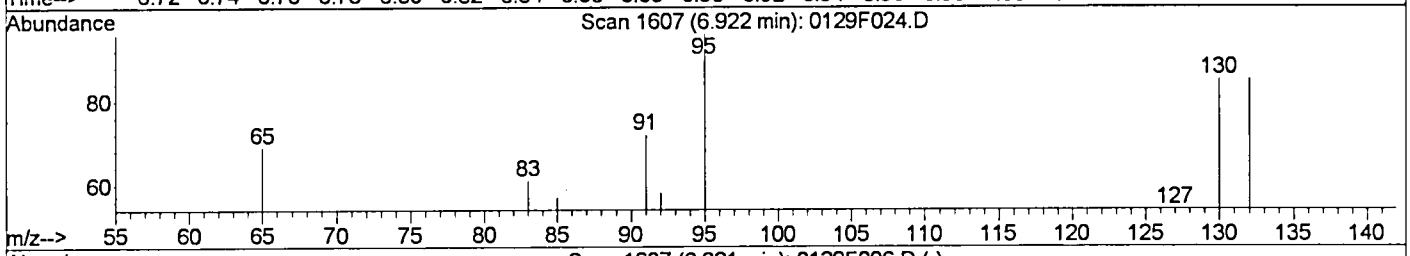
0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:56:36 2016

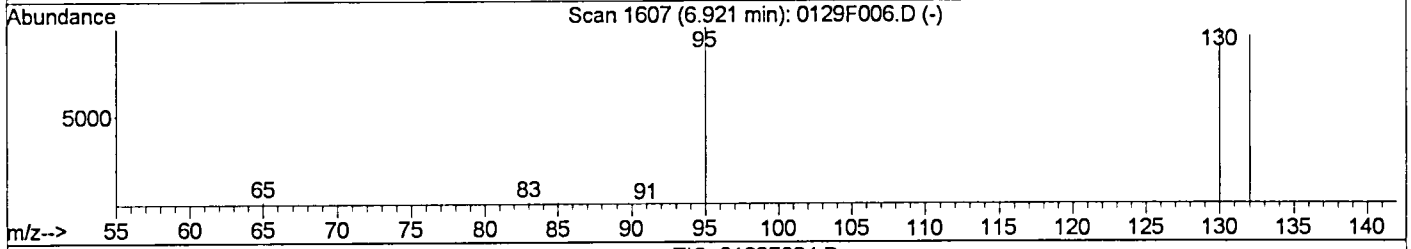
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:56 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F024.D

(13) Trichloroethene (T)

6.92min 3.53ng/L

response 64

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	78.05
132.00	93.90	80.49
0.00	0.00	0.00

Manual Integration:

Before

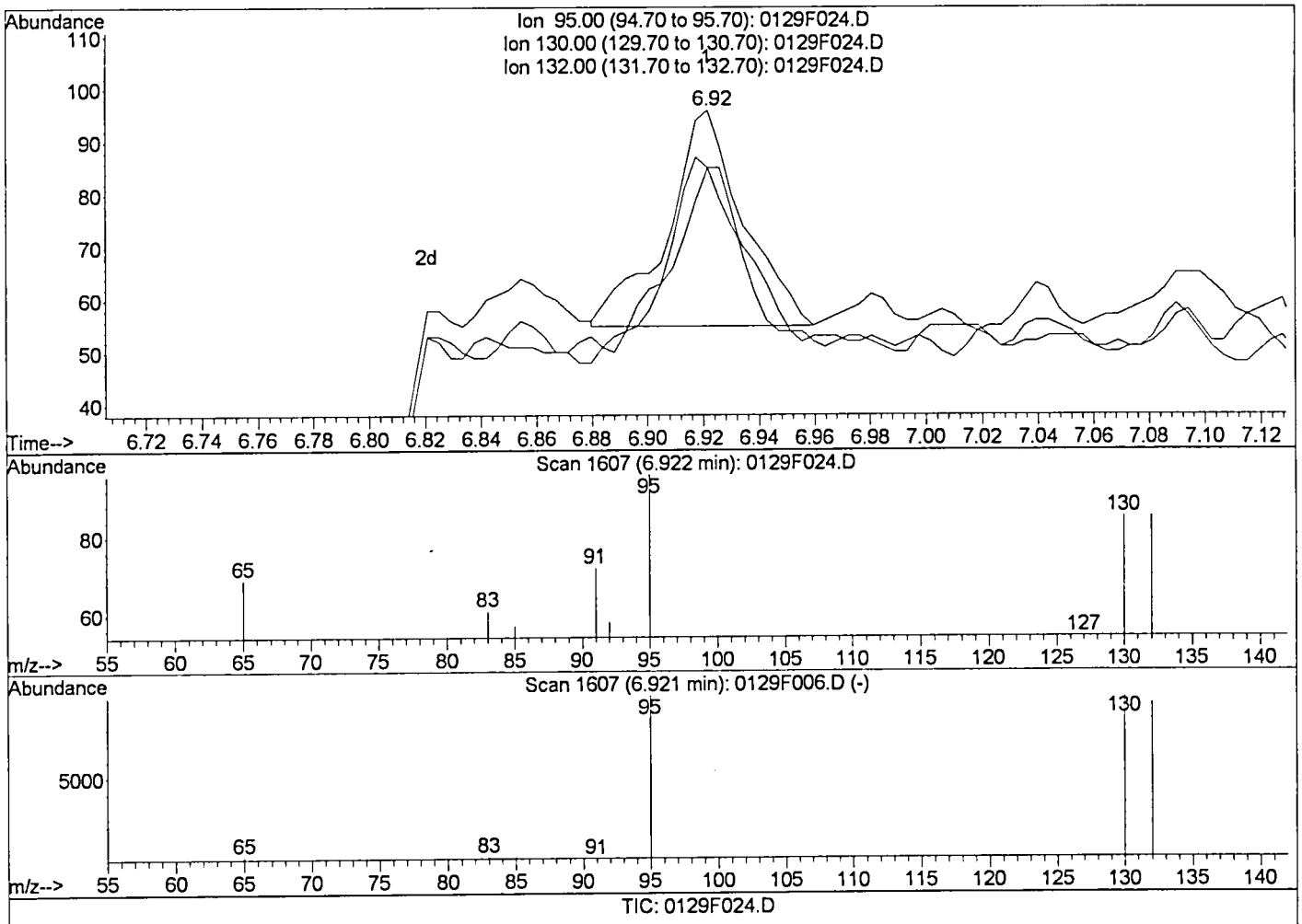
02/01/16

0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:56:42 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:56 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F024.D

(13) Trichloroethene (T)

6.92min 4.25ng/L m

response 77

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	88.54
132.00	93.90	88.54
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

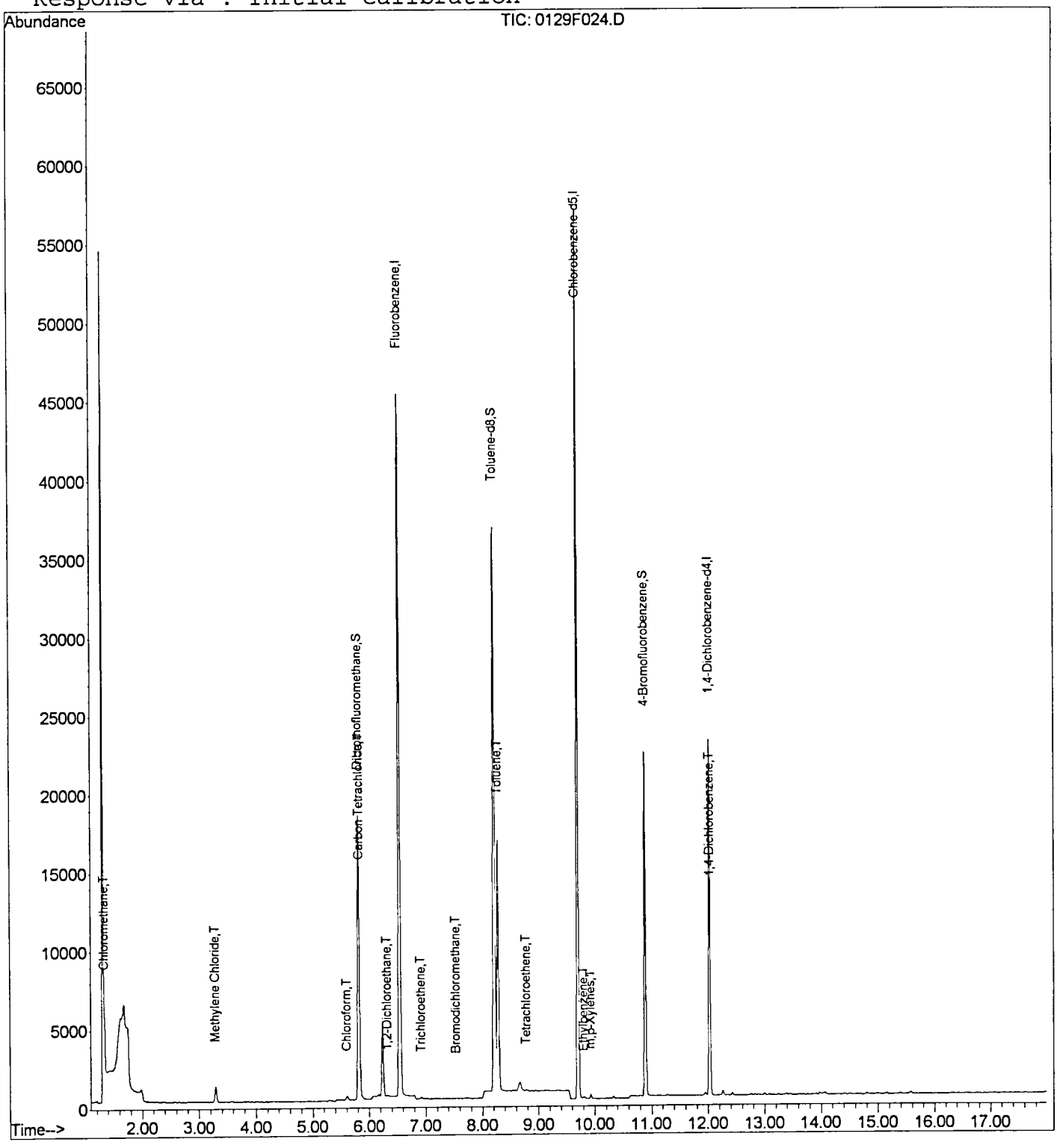
02/01/16

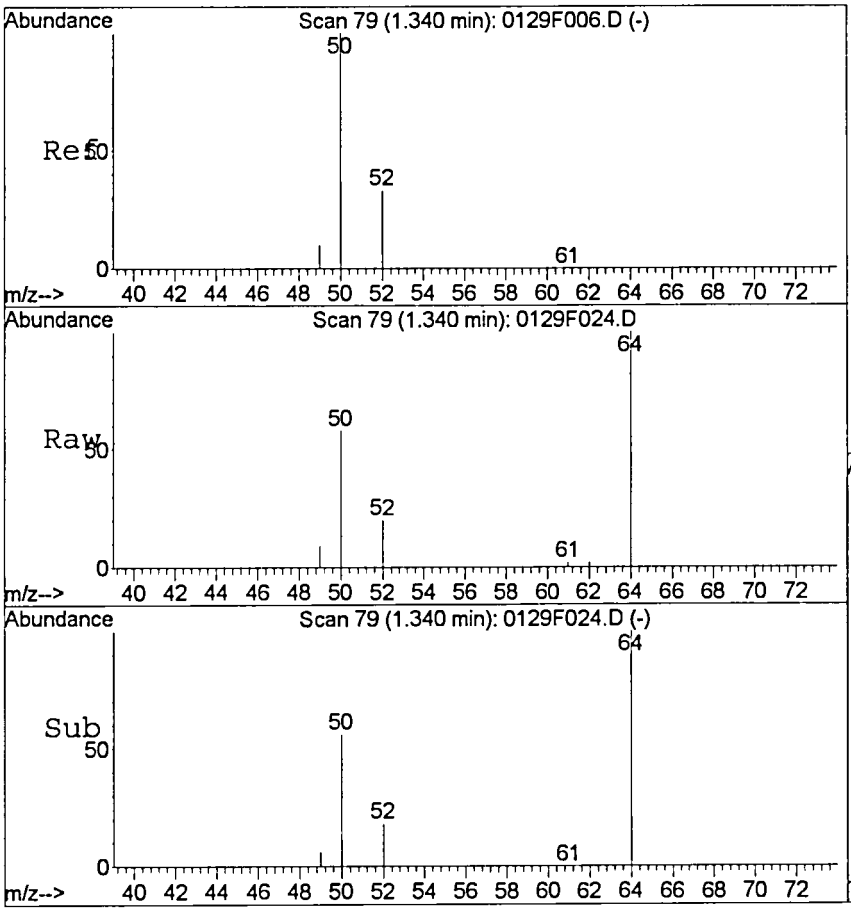
0129F024.D 012716MS27_8260SIM.M Mon Feb 01 13:56:52 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F024.D Vial: 32
Acq On : 29 Jan 2016 8:03 pm Operator: GH
Sample : K0673-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:57 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

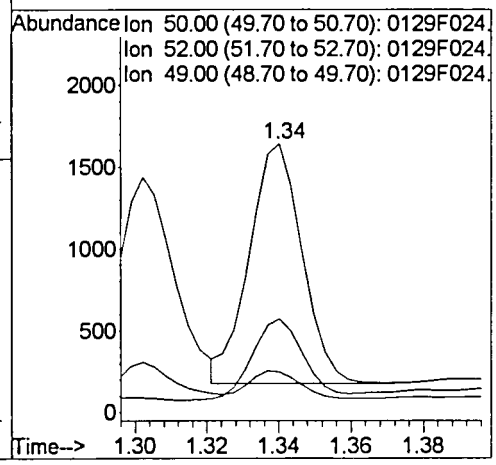


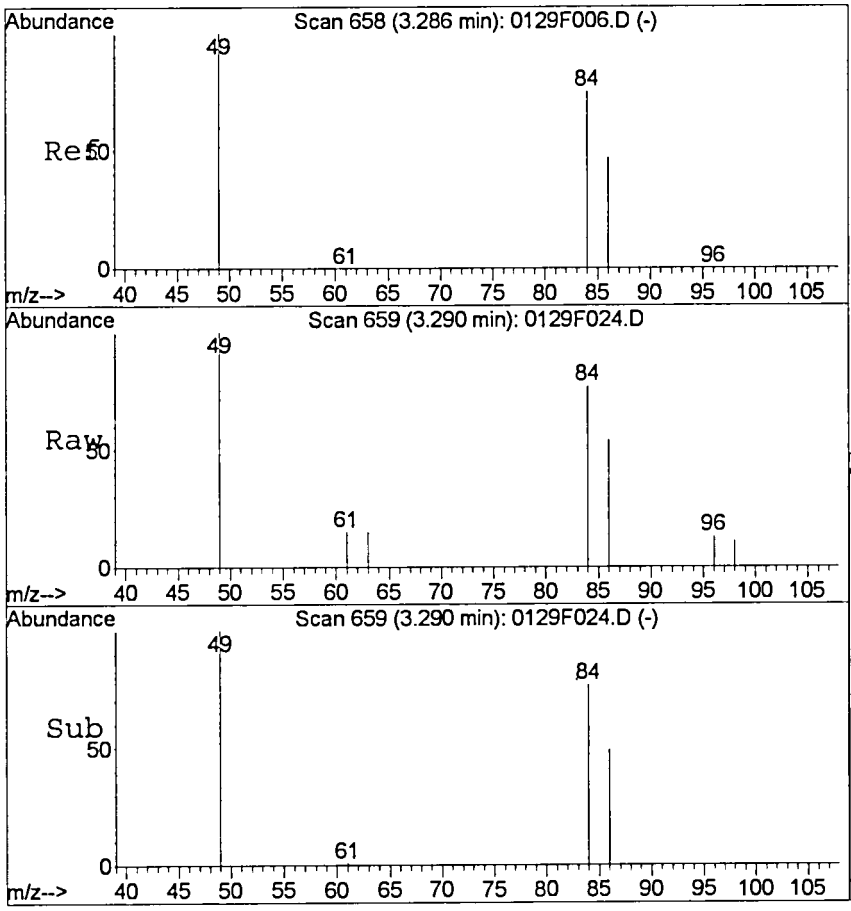


#2
Chloromethane
Concen: 52.89 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 50 Resp: 1484

Ion	Ratio	Lower	Upper
50	100		
52	34.9	2.9	62.9
49	15.2	0.0	40.1

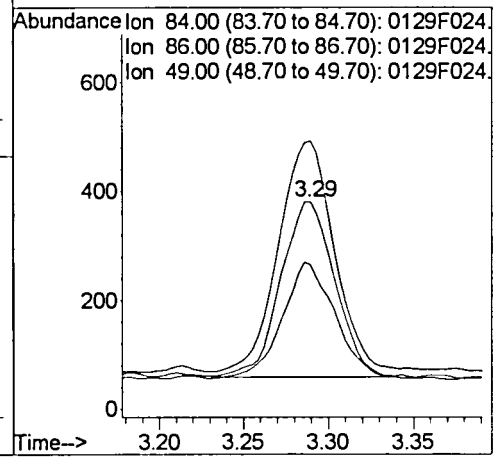


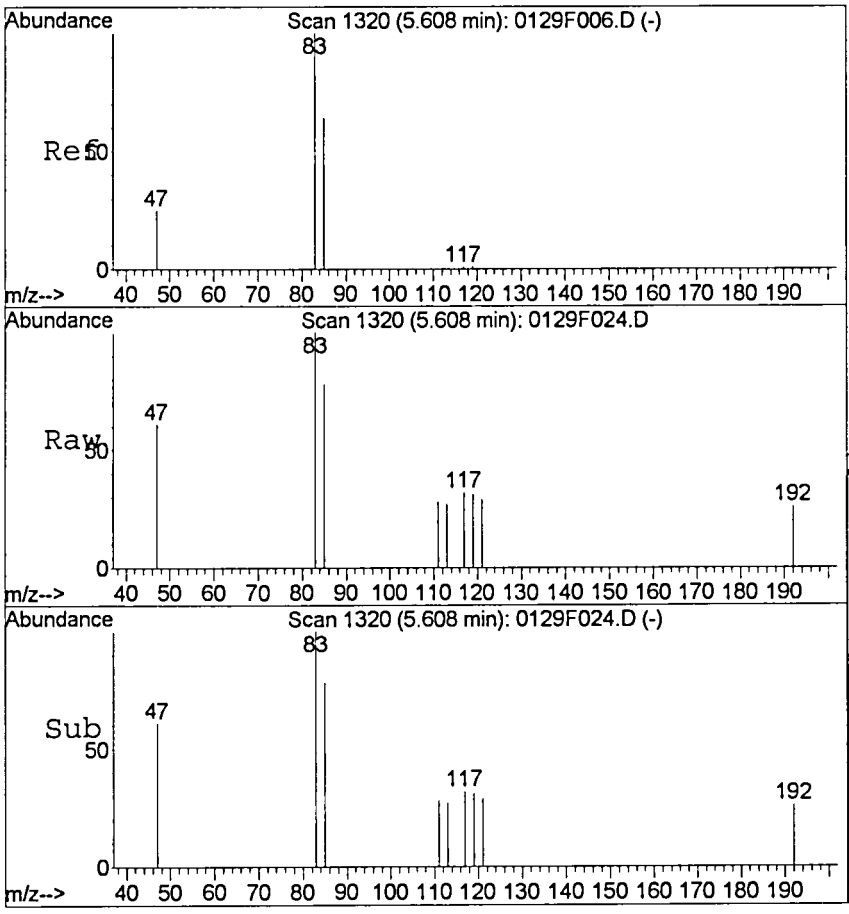


#5
Methylene Chloride
Concen: 31.10 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 84 Resp: 711

Ion	Ratio	Lower	Upper
84	100		
86	64.6	33.8	93.8
49	131.4	107.9	167.9

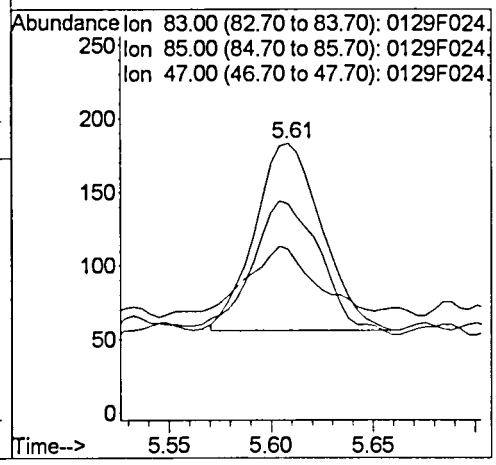


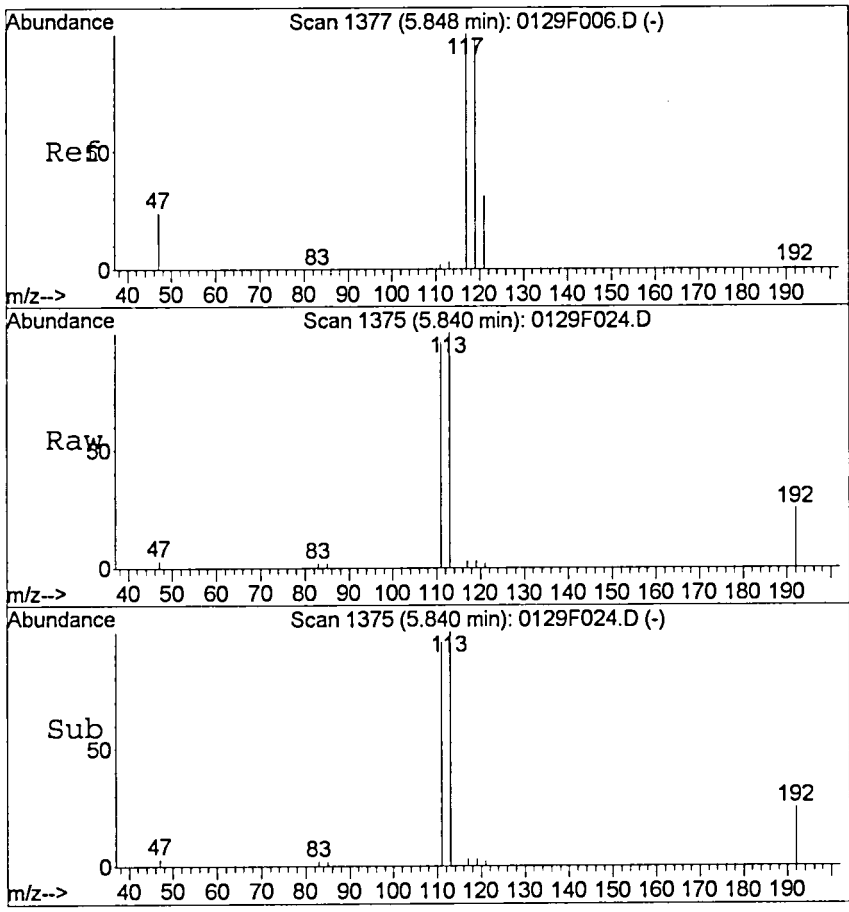


#8
Chloroform
Concen: 8.11 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 83 Resp: 289

Ion	Ratio	Lower	Upper
83	100		
85	70.1	34.7	94.7
47	31.5	0.0	55.9

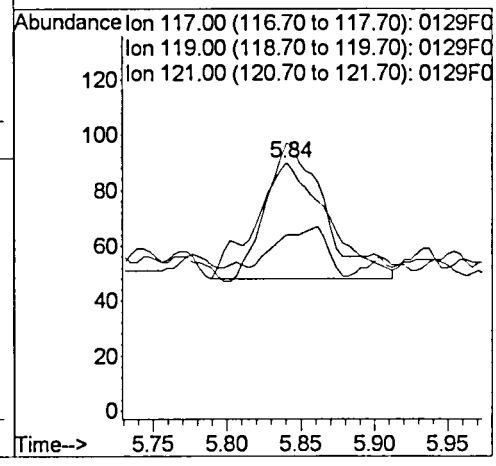


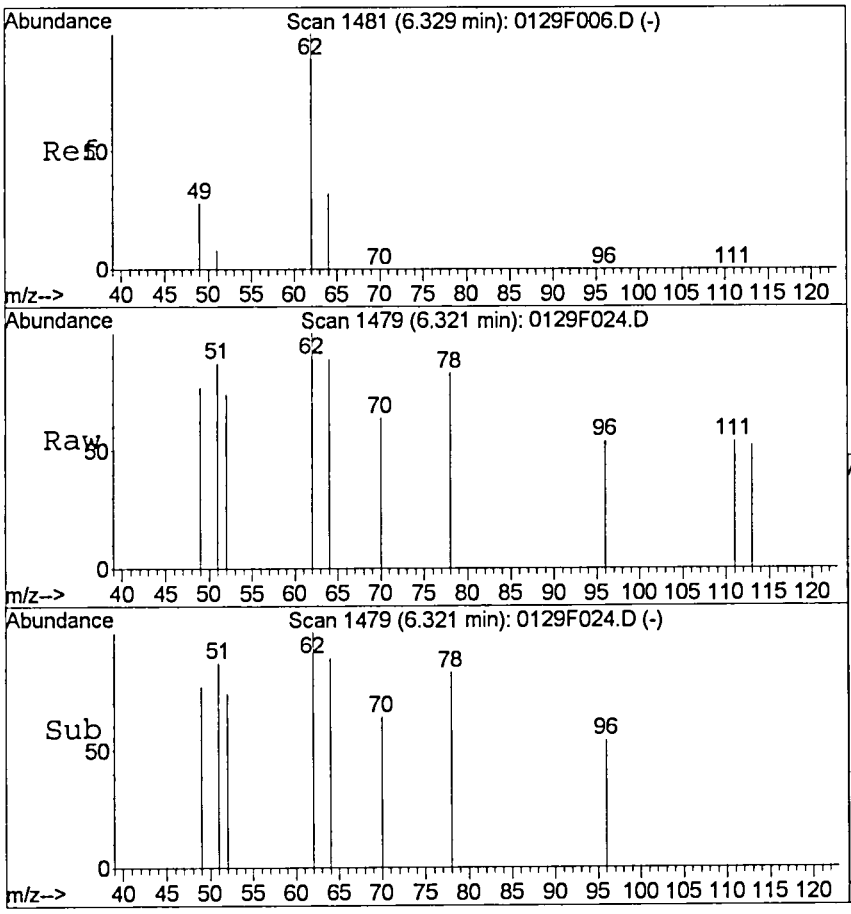


#10
Carbon Tetrachloride
Concen: 6.94 ng/L m
RT: 5.84 min Scan# 1375
Delta R.T. -0.01 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion:117 Resp: 141

Ion	Ratio	Lower	Upper
117	100		
119	107.8	65.9	125.9
121	71.1	0.4	60.4#

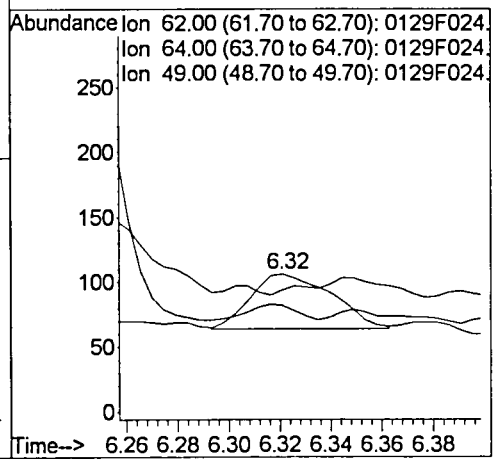


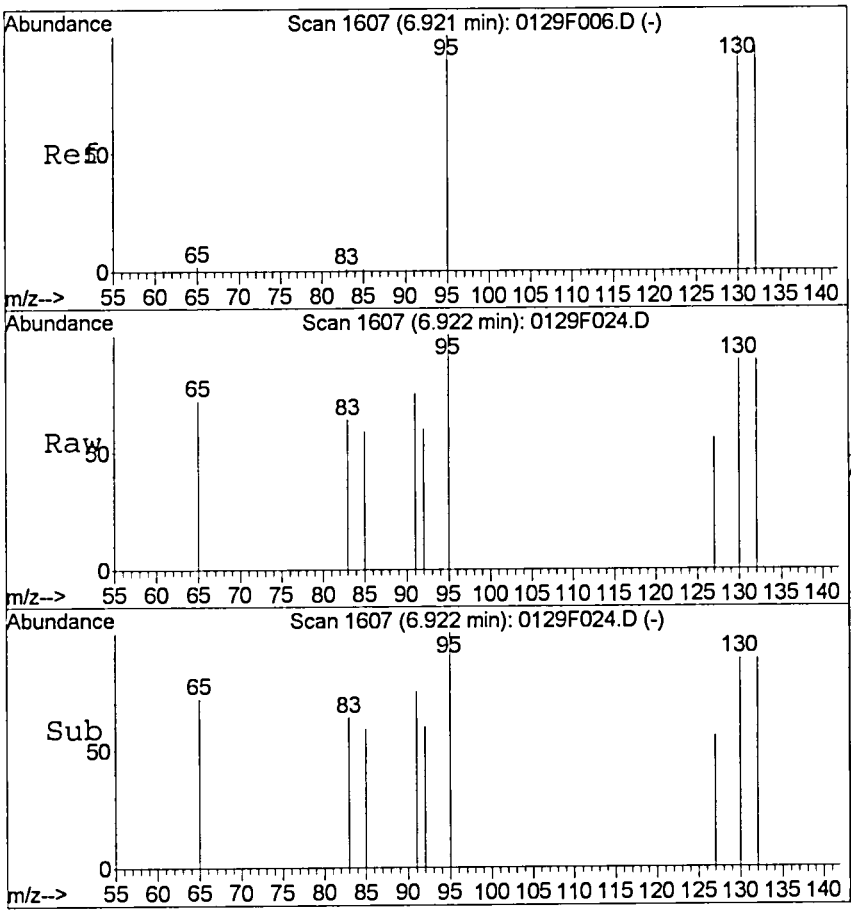


#12
1,2-Dichloroethane
Concen: 3.72 ng/L m
RT: 6.32 min Scan# 1479
Delta R.T. -0.01 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 62 Resp: 93

Ion	Ratio	Lower	Upper
62	100		
64	88.7	1.7	61.7#
49	77.4	0.0	58.2#

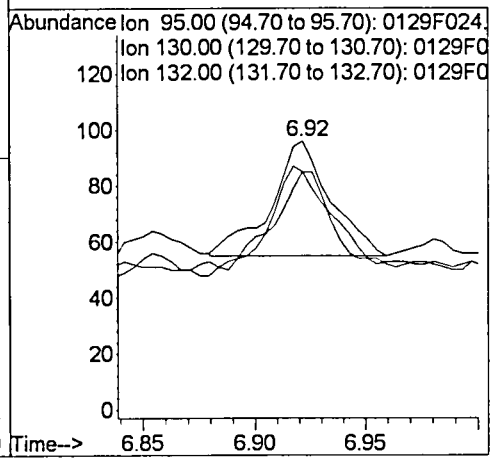


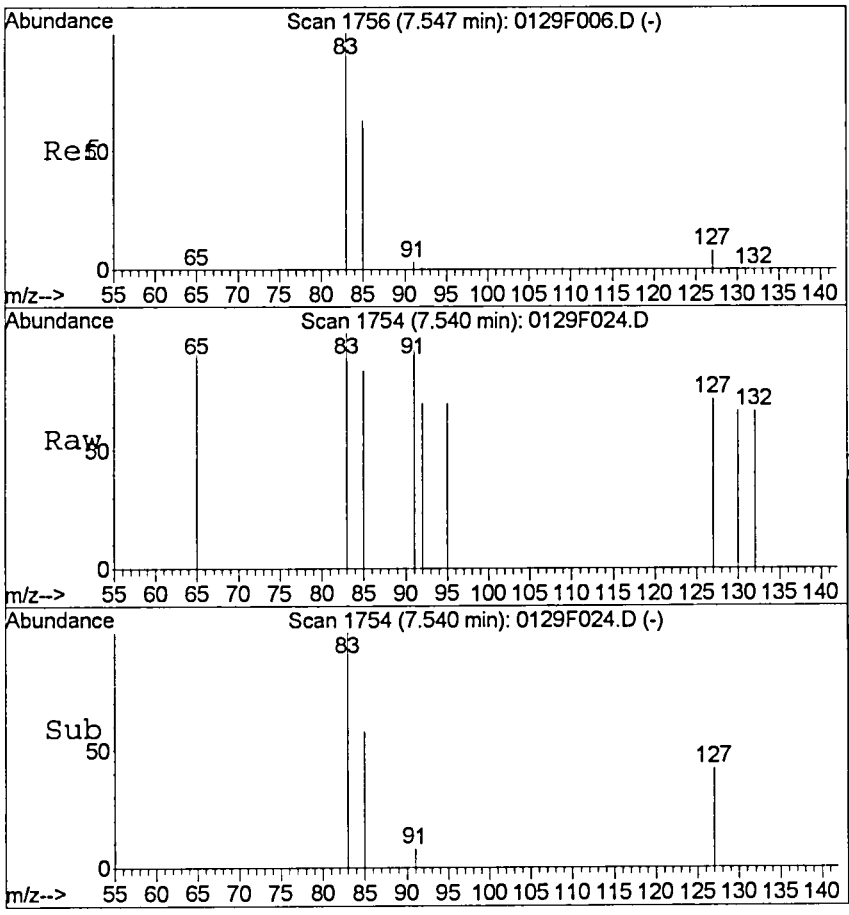


#13
Trichloroethene
Concen: 4.25 ng/L m
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 95 Resp: 77

Ion	Ratio	Lower	Upper
95	100		
130	88.5	67.1	127.1
132	88.5	63.9	123.9

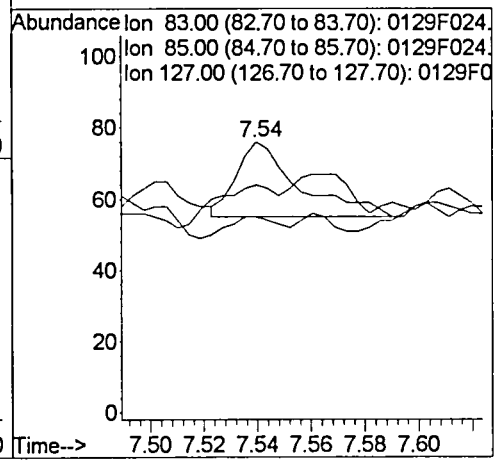


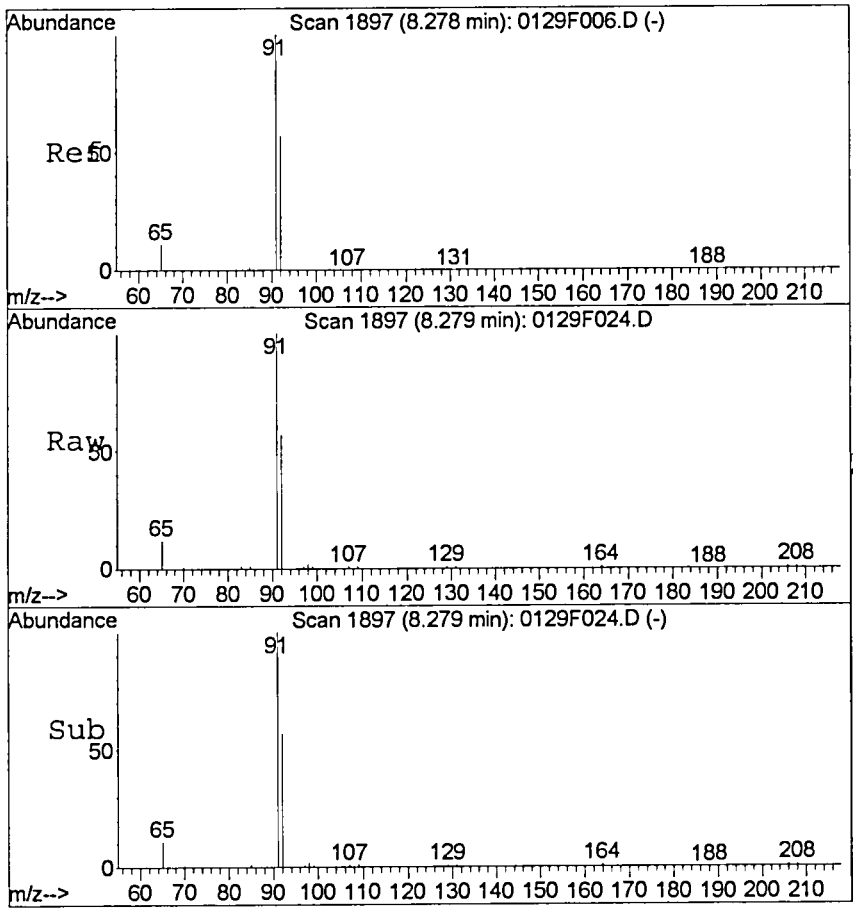


#14
Bromodichloromethane
Concen: 1.41 ng/L
RT: 7.54 min Scan# 1754
Delta R.T. -0.01 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 83 Resp: 34

Ion	Ratio	Lower	Upper
83	100		
85	23.8	33.5	93.5#
127	23.8	0.0	38.0

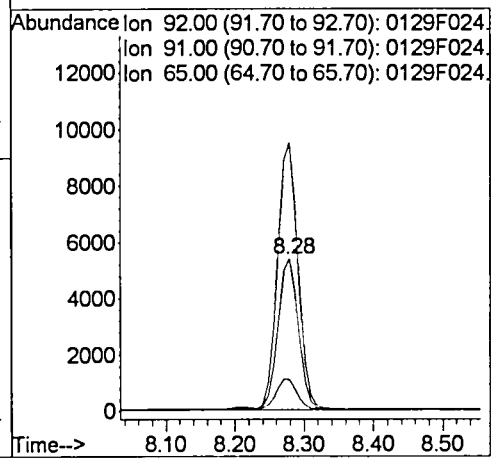


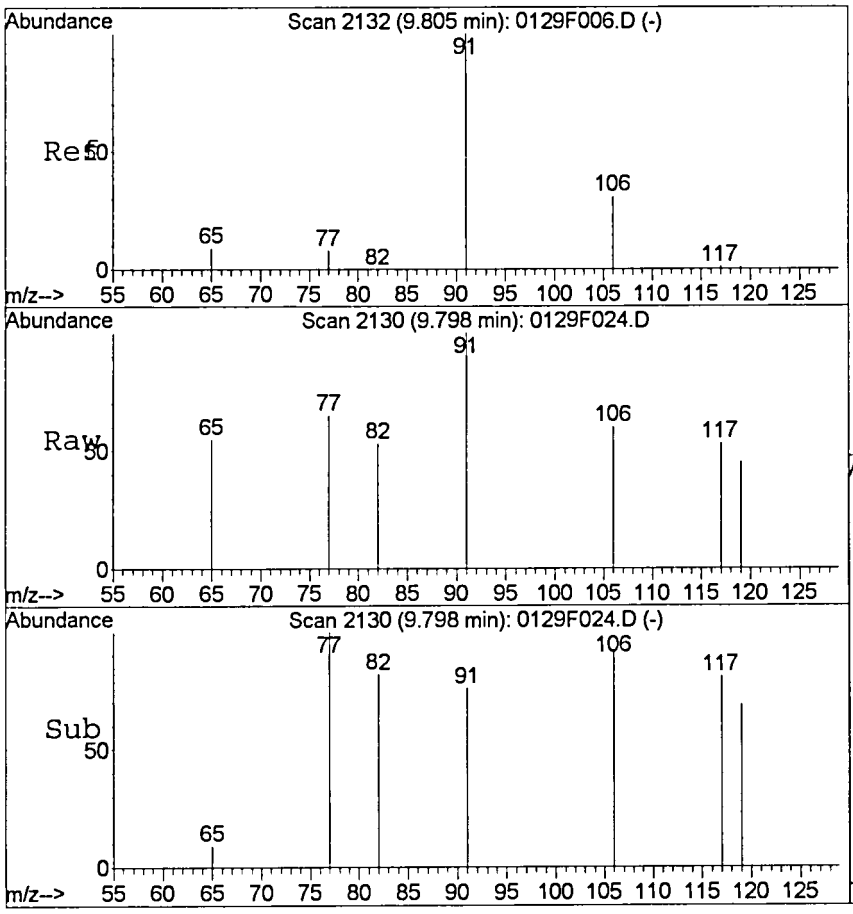


#20
Toluene
Concen: 279.95 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion: 92 Resp: 11036

Ion	Ratio	Lower	Upper
92	100		
91	176.0	144.4	204.4
65	19.6	0.0	49.7

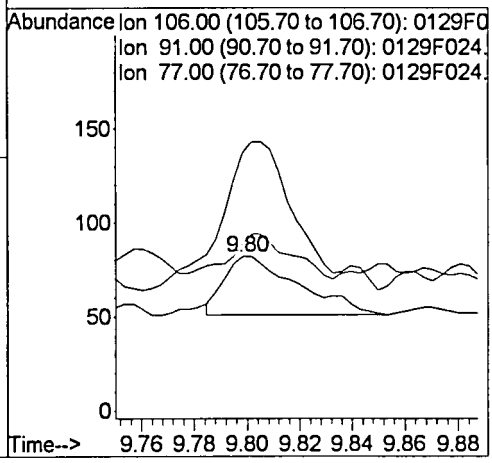


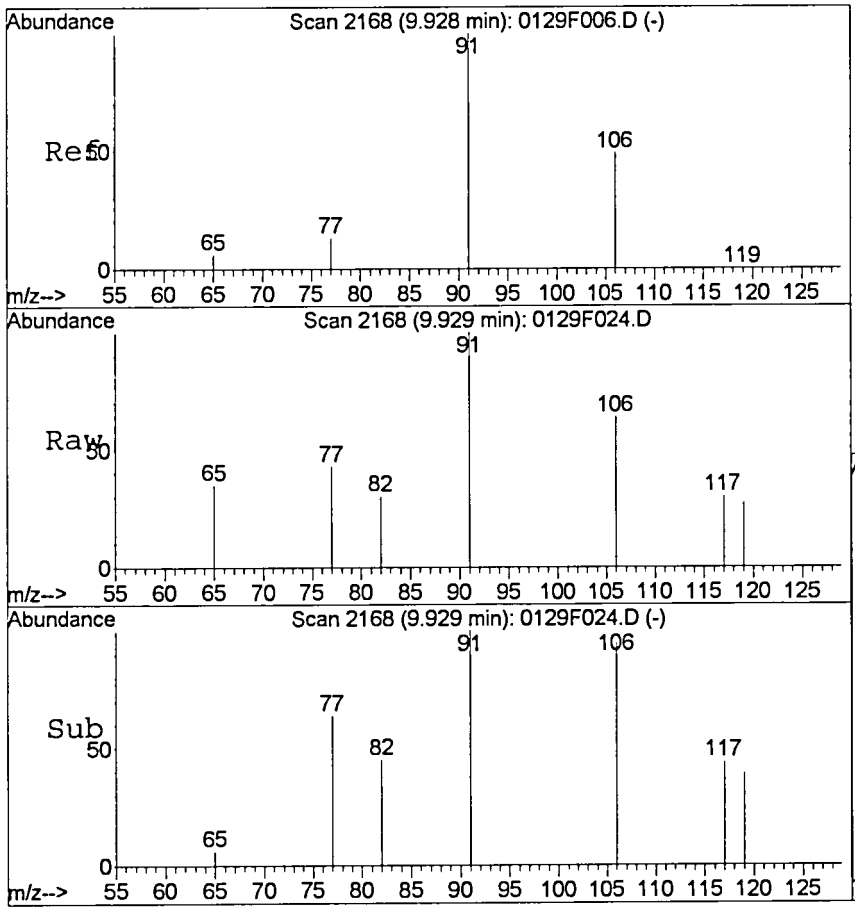


#21
Ethylbenzene
Concen: 2.92 ng/L
RT: 9.80 min Scan# 2130
Delta R.T. -0.01 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion:106 Resp: 60

Ion	Ratio	Lower	Upper
106	100		
91	229.0	295.2	355.2#
77	38.7	0.2	60.2

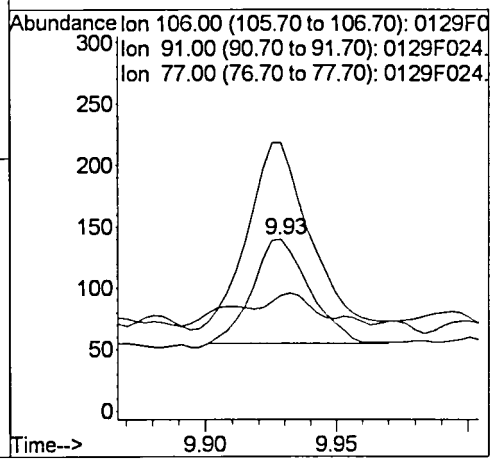


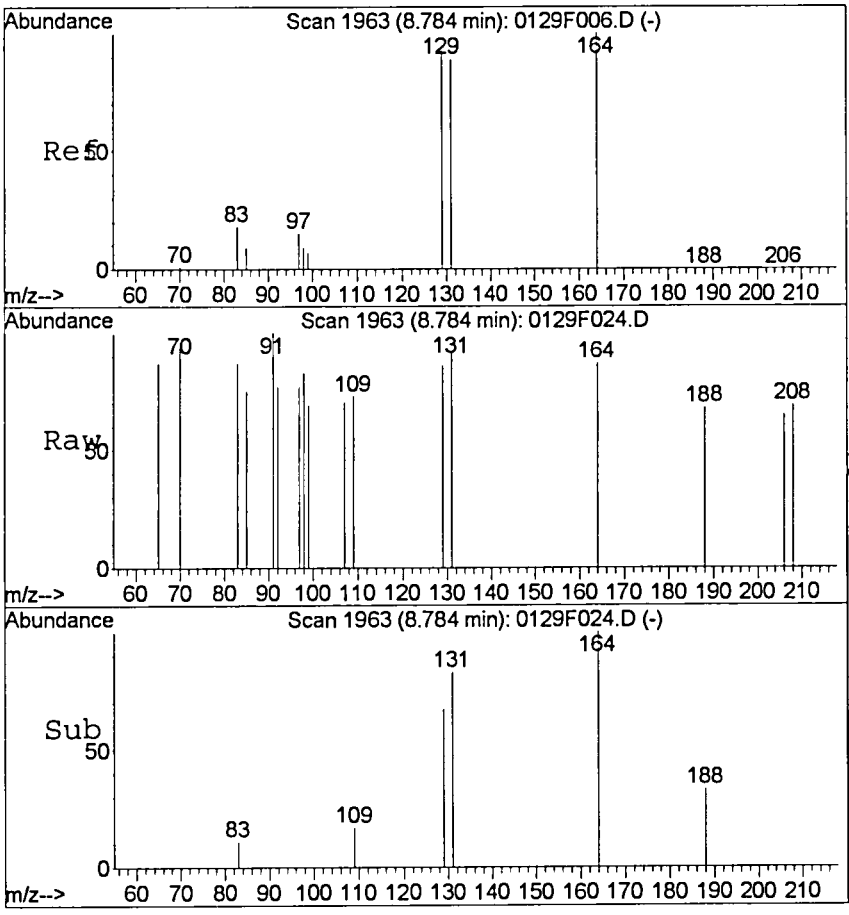


#22
m,p-Xylenes
Concen: 5.03 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion:106 Resp: 129

Ion	Ratio	Lower	Upper
106	100		
91	170.6	173.8	233.8#
77	24.7	0.0	57.2

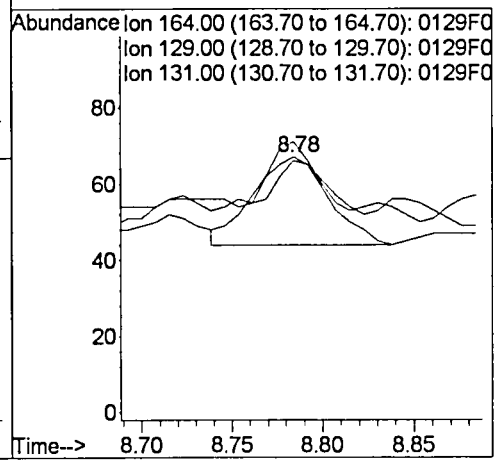


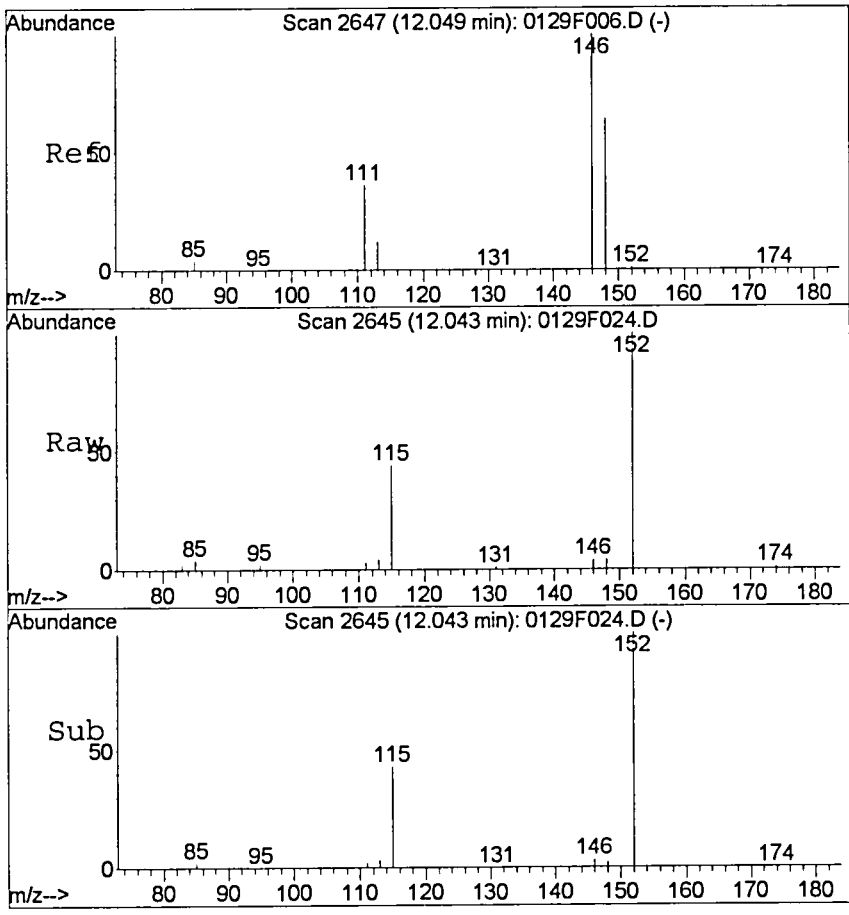


#26
Tetrachloroethene
Concen: 4.80 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion:164 Resp: 66

Ion	Ratio	Lower	Upper
164	100		
129	56.5	61.1	121.1#
131	73.9	58.3	118.3

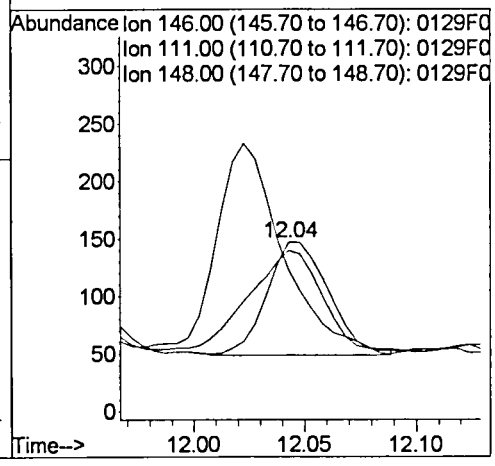




#28
1,4-Dichlorobenzene
Concen: 5.28 ng/L
RT: 12.04 min Scan# 2645
Delta R.T. -0.01 min
Lab File: 0129F024.D
Acq: 29 Jan 2016 8:03 pm

Tgt Ion:146 Resp: 190

Ion	Ratio	Lower	Upper
146	100		
111	75.3	6.7	66.7#
148	88.7	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F025.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 20:30
Date Quantitated: 02/01/2016 13:58
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRL ✓
Lab Control Spike	Toluene-d8	122	74	112	↑ bias analyte Only
Surrogates	Toluene-d8	119	74	112	2 ND

Primary Review: 2/1/16

Secondary Review:

Printed: 02/01/2016 14:35:27
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F025.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 20:30	**Quant Date:**	02/01/2016 13:58	**Vial:**	33
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496764	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	68241	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48060	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17598	1,133	113	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	58830	1,185	119	74-112	*
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	19521	1,008	101	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.32	-0.01	0.00	62	85	3.44	5.8	U	
1	Bromodichloromethane	7.55		0.00	83	55	2.31	3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0		8.7	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:\MS27\DATA\012916_SIM\0129F025.D Vial: 33
Acq On : 29 Jan 2016 8:30 pm Operator: GH
Sample : K0673-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:38:55 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

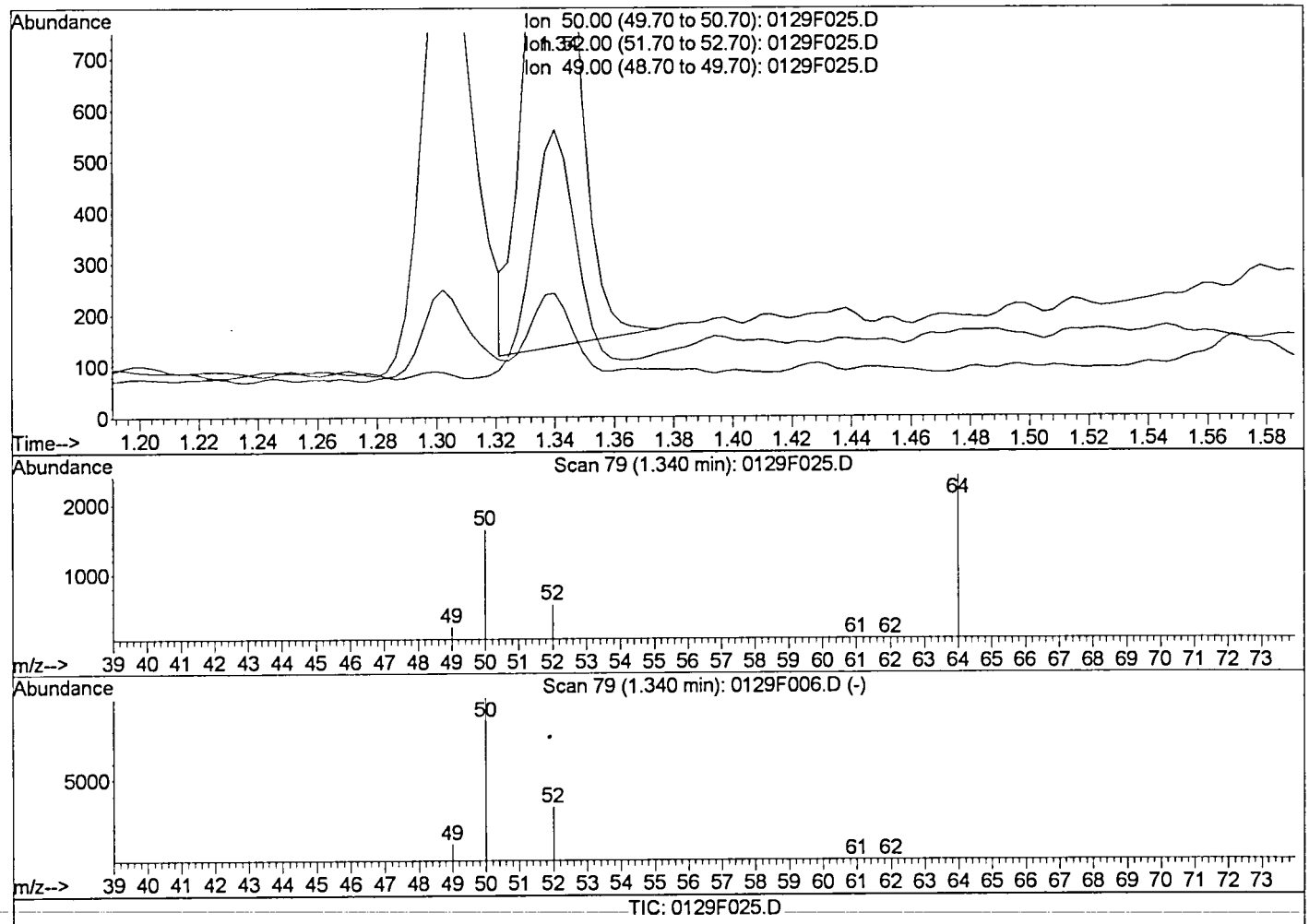
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.54	96	68241	1000.00	ng/L		0.00
19) Chlorobenzene-d5	9.70	117	48060	1000.00	ng/L		0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	22141	1000.00	ng/L		0.00
System Monitoring Compounds							
9) Dibromofluoromethane	5.82	113	17598	1133.26	ng/L		0.00
Spiked Amount 1000.000			Recovery = 113.33%				
15) Toluene-d8	8.21	98	58830	1185.48	ng/L		0.00
Spiked Amount 1000.000			Recovery = 118.55%				
24) 4-Bromofluorobenzene	10.88	95	19521	1007.89	ng/L		0.00
Spiked Amount 1000.000			Recovery = 100.79%				
Target Compounds							Qvalue
2) Chloromethane	1.34	50	1455m	52.45	ng/L		
5) Methylene Chloride	3.29	84	389	17.21	ng/L		95
8) Chloroform	5.61	83	170	4.83	ng/L		87
12) 1,2-Dichloroethane	6.32	62	85	3.44	ng/L		75
13) Trichloroethene	6.92	95	75m	4.19	ng/L		
14) Bromodichloromethane	7.55	83	55	2.31	ng/L		82
20) Toluene	8.28	92	3993	102.48	ng/L		100
21) Ethylbenzene	9.81	106	83	4.08	ng/L	#	57
22) m,p-Xylenes	9.93	106	331	13.05	ng/L		95
23) o-Xylene	10.33	106	117	4.66	ng/L		81
26) Tetrachloroethene	8.78	164	68	5.00	ng/L		79
28) 1,4-Dichlorobenzene	12.04	146	213	6.16	ng/L		80

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

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F025.D Vial: 33
Acq On : 29 Jan 2016 8:30 pm Operator: GH
Sample : K0673-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F025.D

(2) Chloromethane (T)

1.34min 55.58ng/L

response 1542

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.04
49.00	10.10	10.16
0.00	0.00	0.00

Manual Integration:

Before

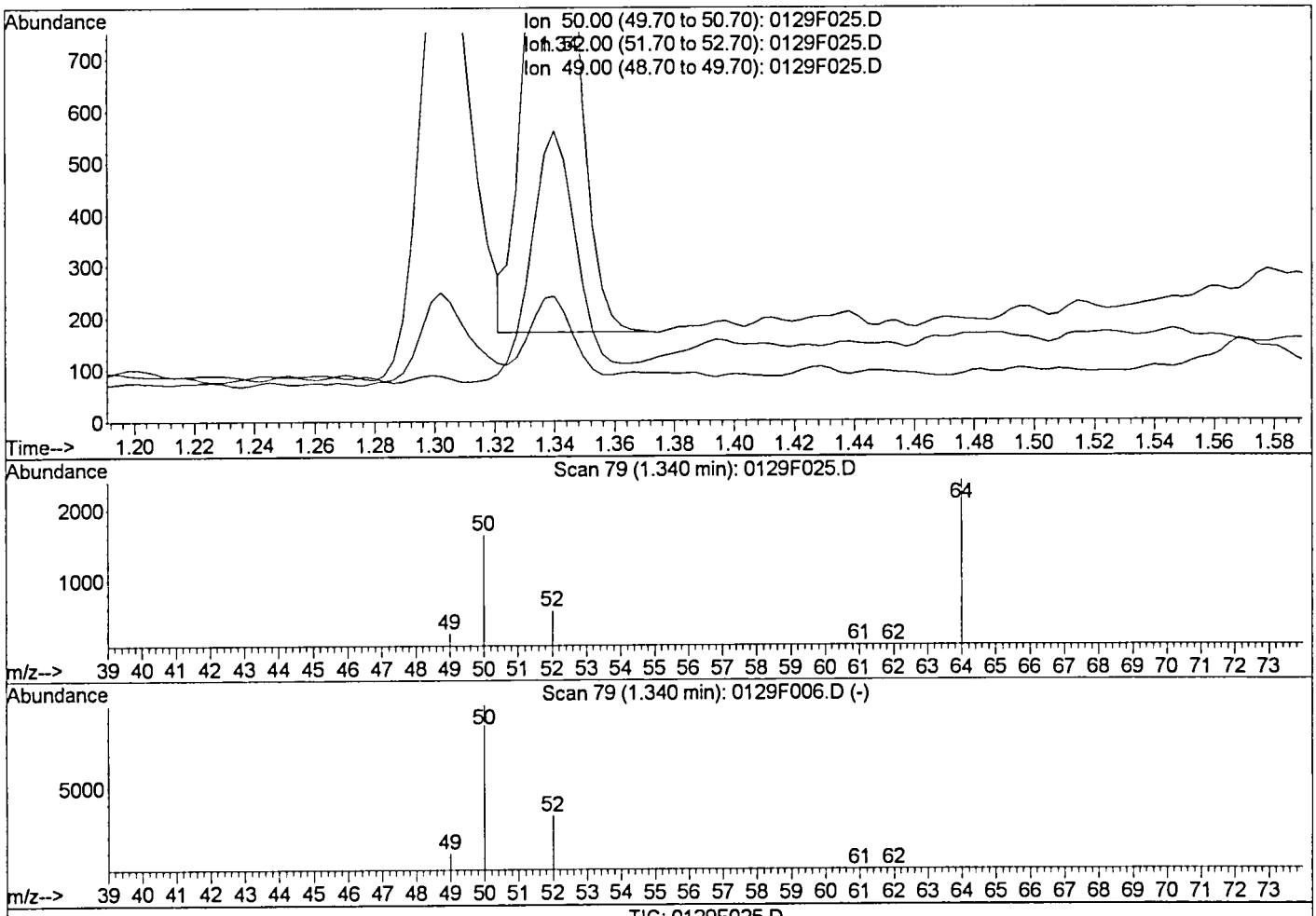
02/01/16

0129F025.D 012716MS27_8260SIM.M Mon Feb 01 13:57:36 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F025.D Vial: 33
Acq On : 29 Jan 2016 8:30 pm Operator: GH
Sample : K0673-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:57 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F025.D

(2) Chloromethane (T)

1.34min 52.45ng/L m

response 1455

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	34.25
49.00	10.10	14.71
0.00	0.00	0.00

Manual Integration:

After JH

Baseline correction

02/01/16

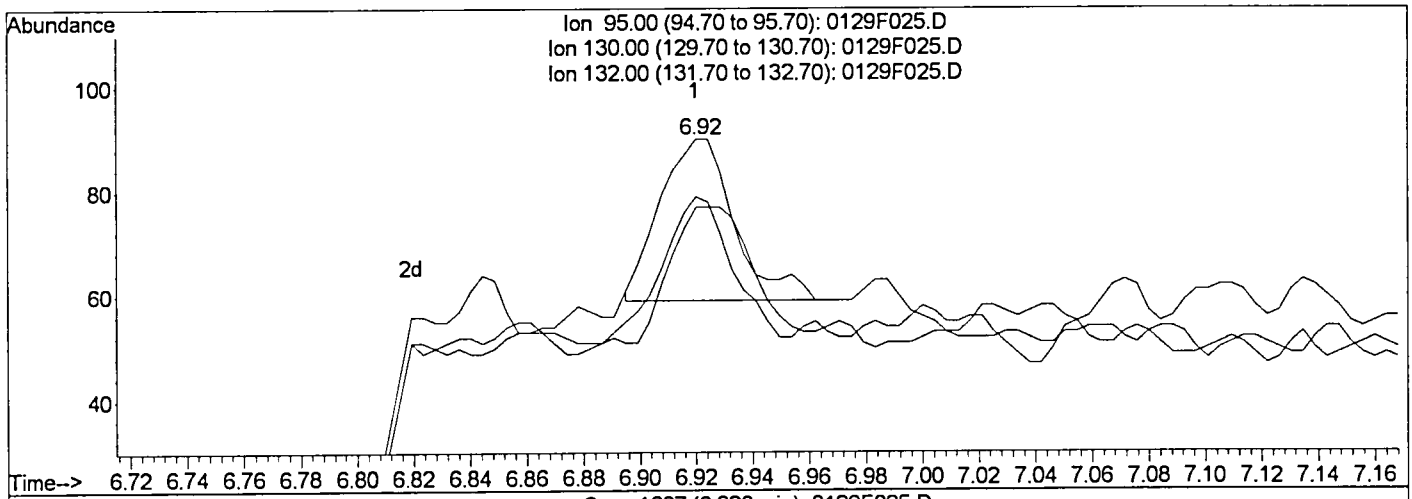
1/27/16

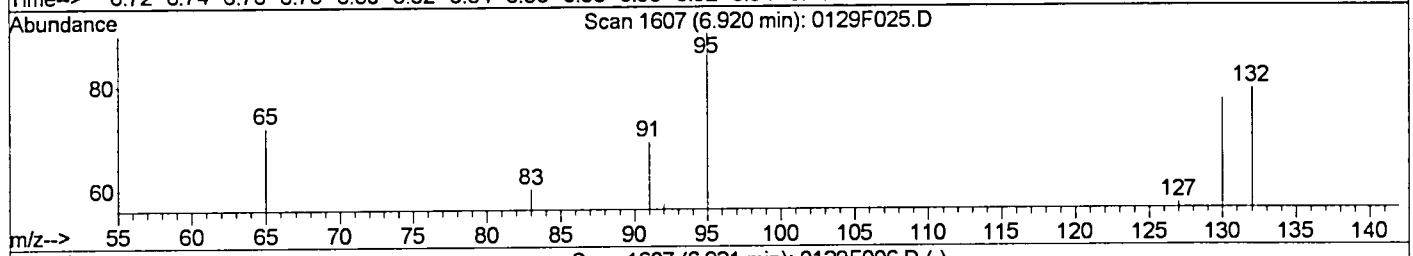
0129F025.D 012716MS27_8260SIM.M Mon Feb 01 13:57:45 2016

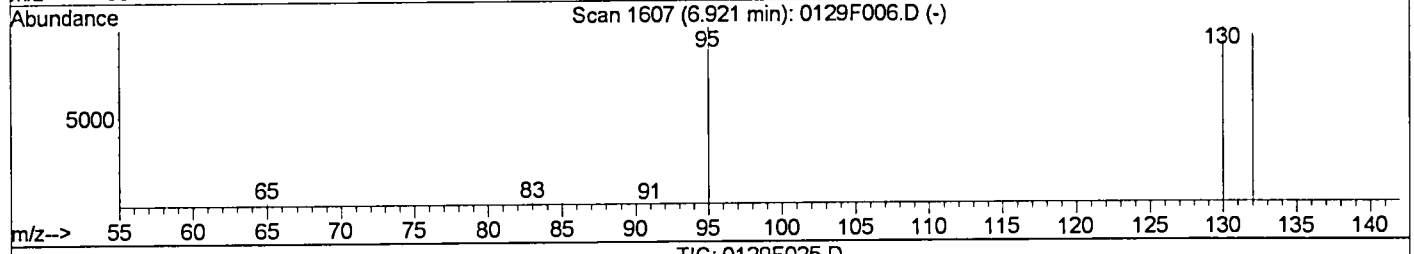
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F025.D Vial: 33
Acq On : 29 Jan 2016 8:30 pm Operator: GH
Sample : K0673-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:58 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F025.D

(13) Trichloroethene (T)

6.92min 3.18ng/L

response 57

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	83.87
132.00	93.90	83.87
0.00	0.00	0.00

Manual Integration:

Before

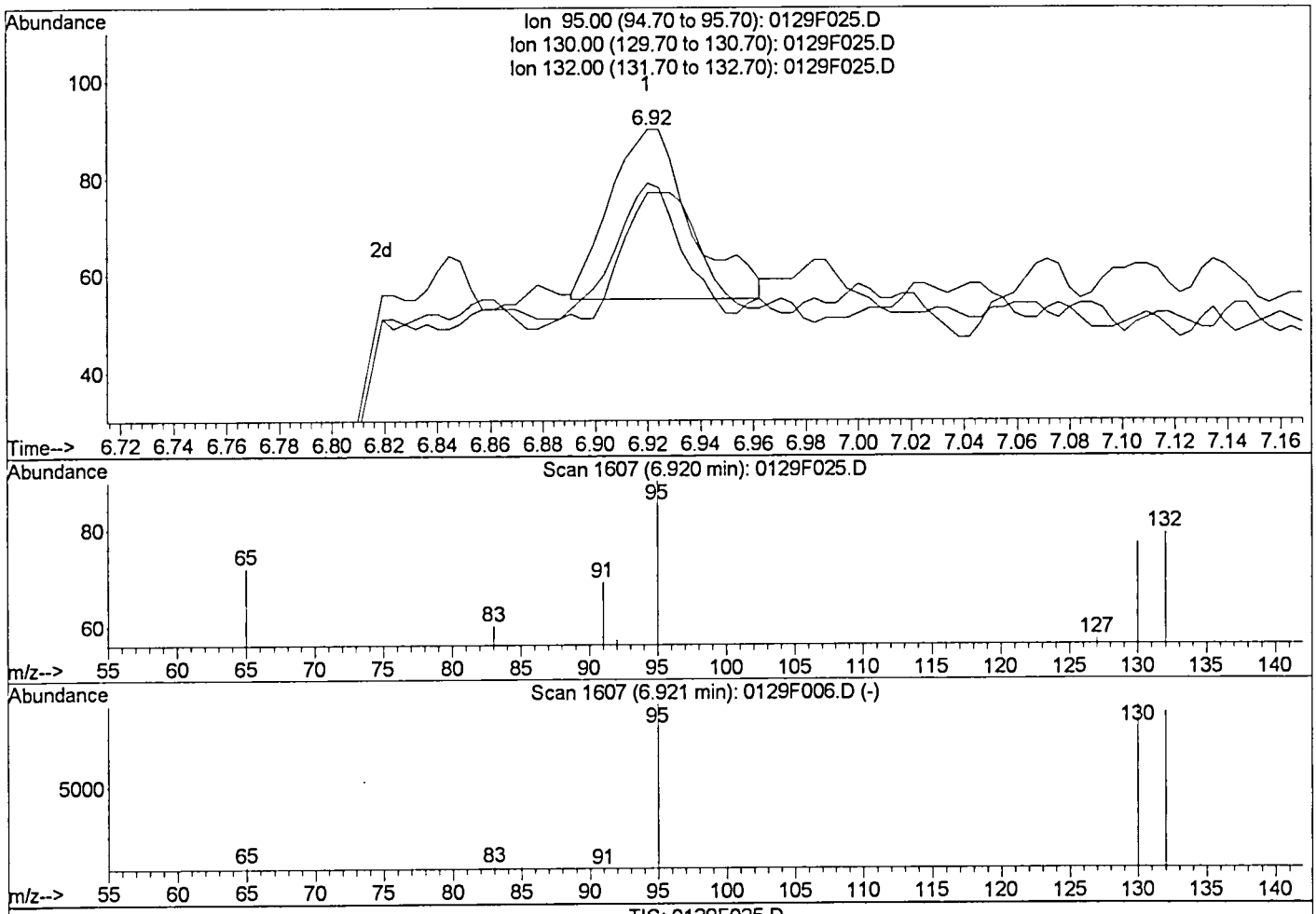
02/01/16

0129F025.D 012716MS27_8260SIM.M Mon Feb 01 13:58:13 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F025.D Vial: 33
Acq On : 29 Jan 2016 8:30 pm Operator: GH
Sample : K0673-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:58 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F025.D

(13) Trichloroethene (T)

6.92min 4.19ng/L m

response 75

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	85.56
132.00	93.90	87.78
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

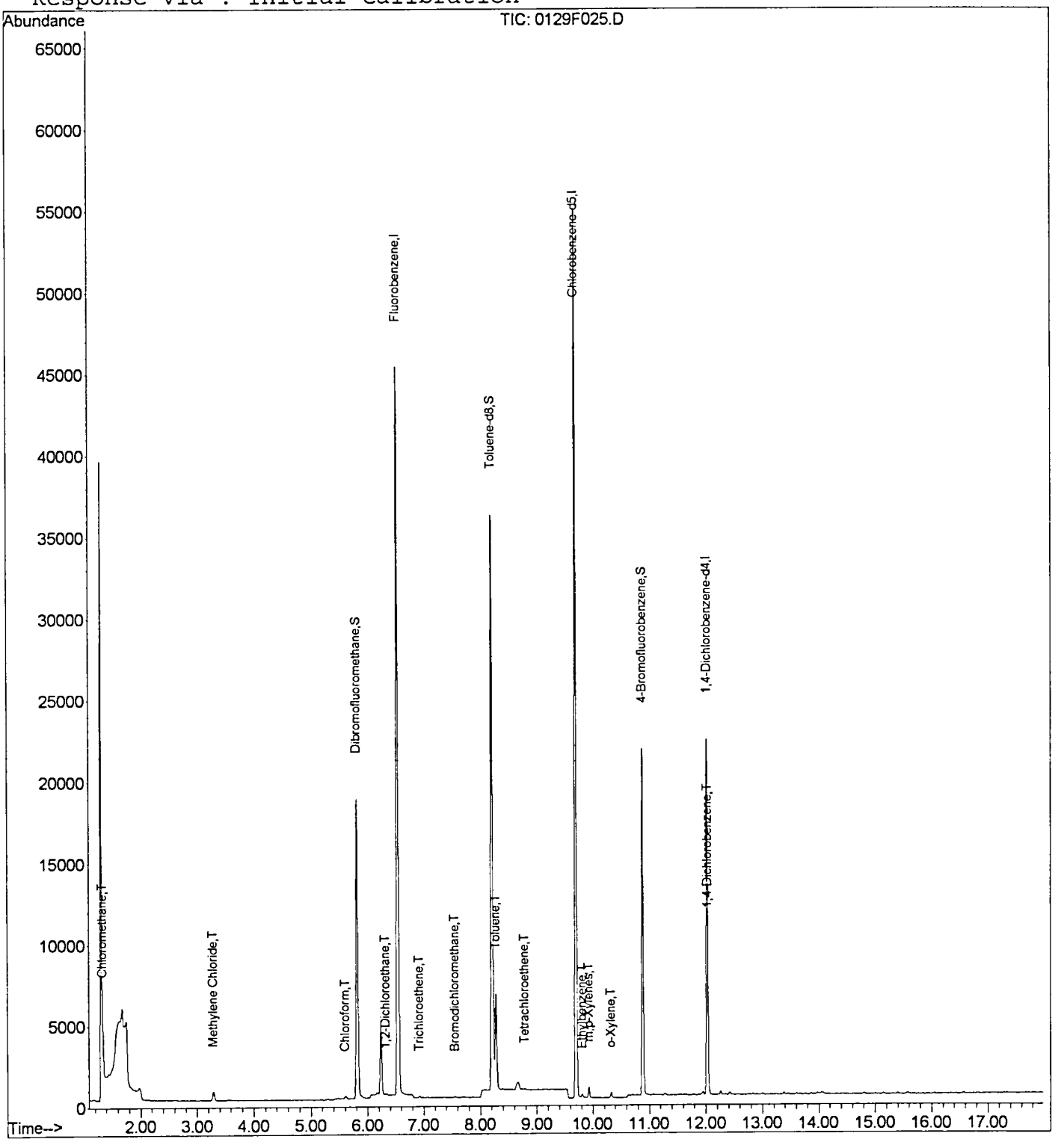
02/01/16

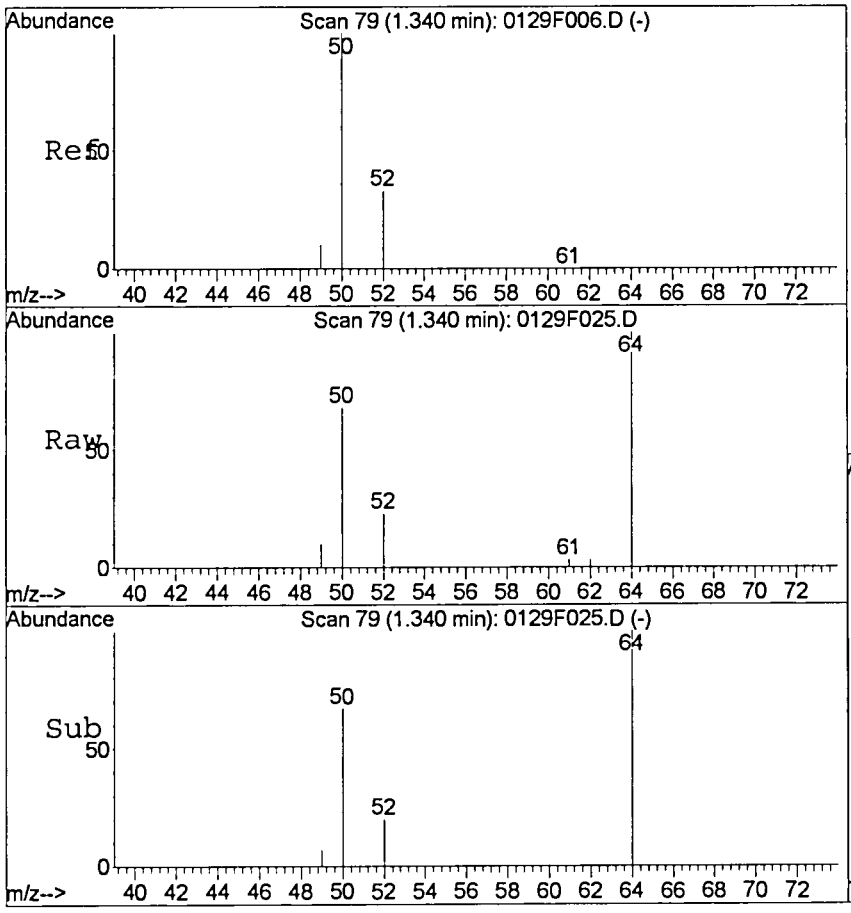
0129F025.D 012716MS27_8260SIM.M Mon Feb 01 13:58:22 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F025.D Vial: 33
Acq On : 29 Jan 2016 8:30 pm Operator: GH
Sample : K0673-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:58 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

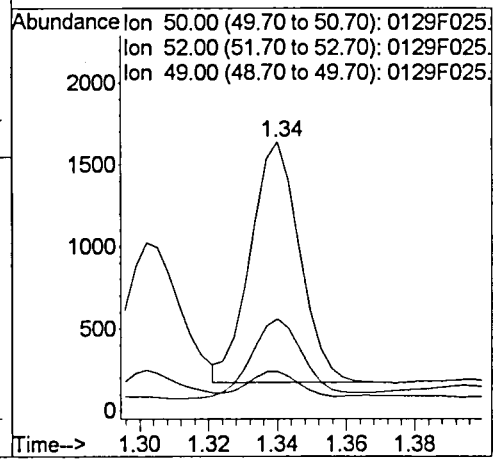


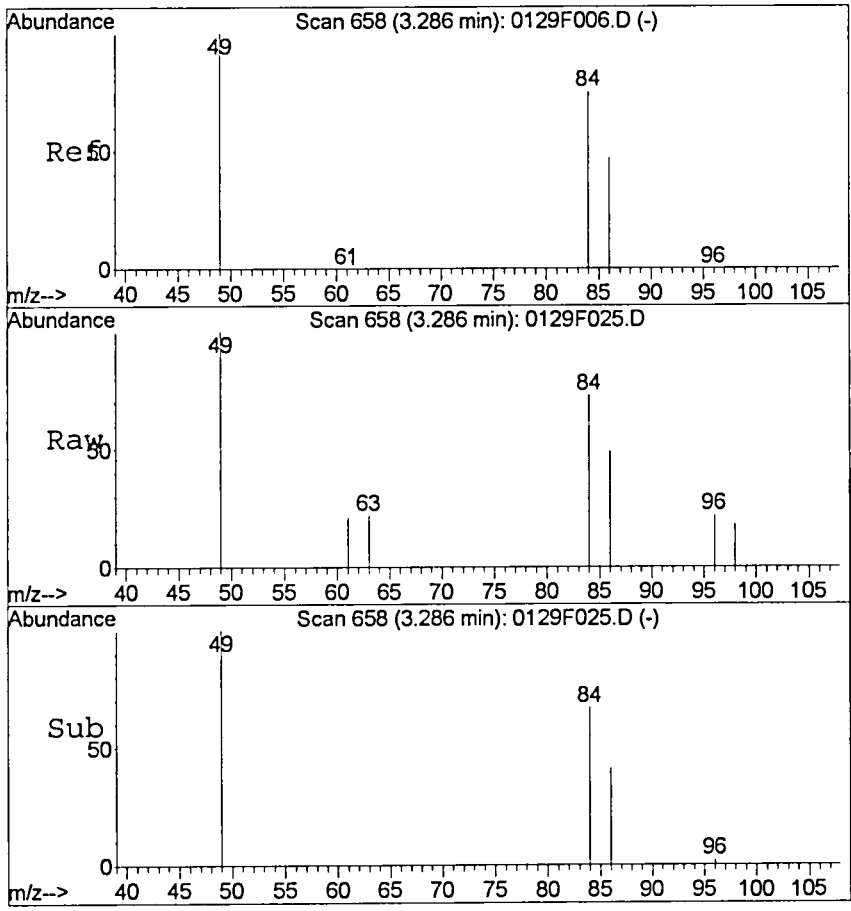


#2
Chloromethane
Concen: 52.45 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 50 Resp: 1455

Ion	Ratio	Lower	Upper
50	100		
52	34.2	2.9	62.9
49	14.7	0.0	40.1

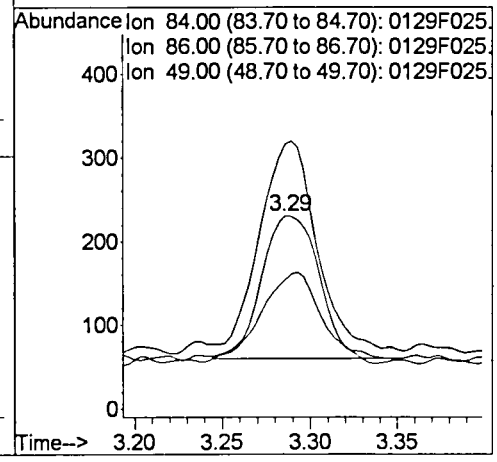


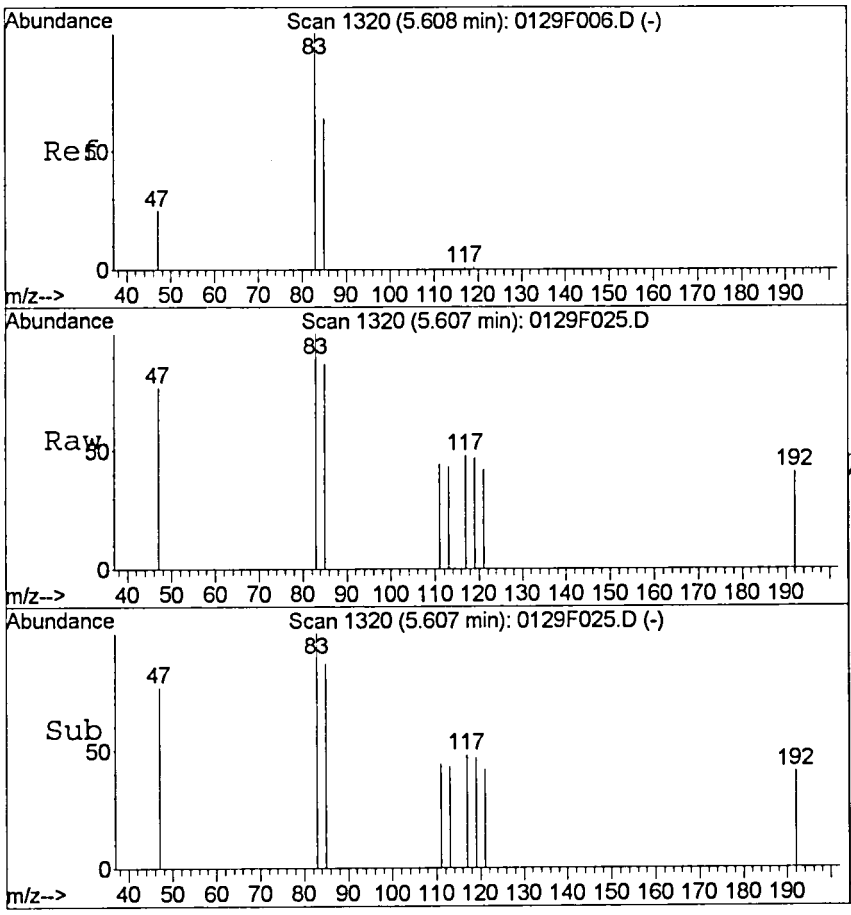


#5
Methylene Chloride
Concen: 17.21 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 84 Resp: 389

Ion	Ratio	Lower	Upper
84	100		
86	56.1	33.8	93.8
49	142.1	107.9	167.9

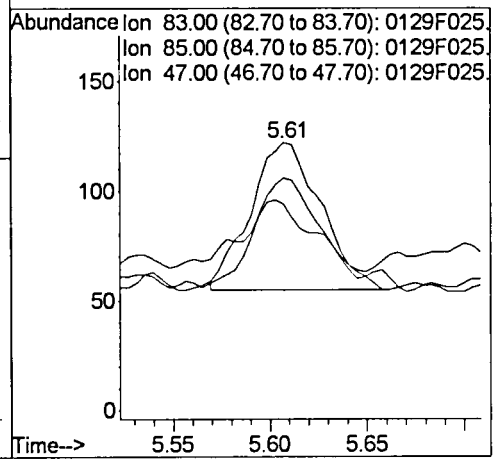


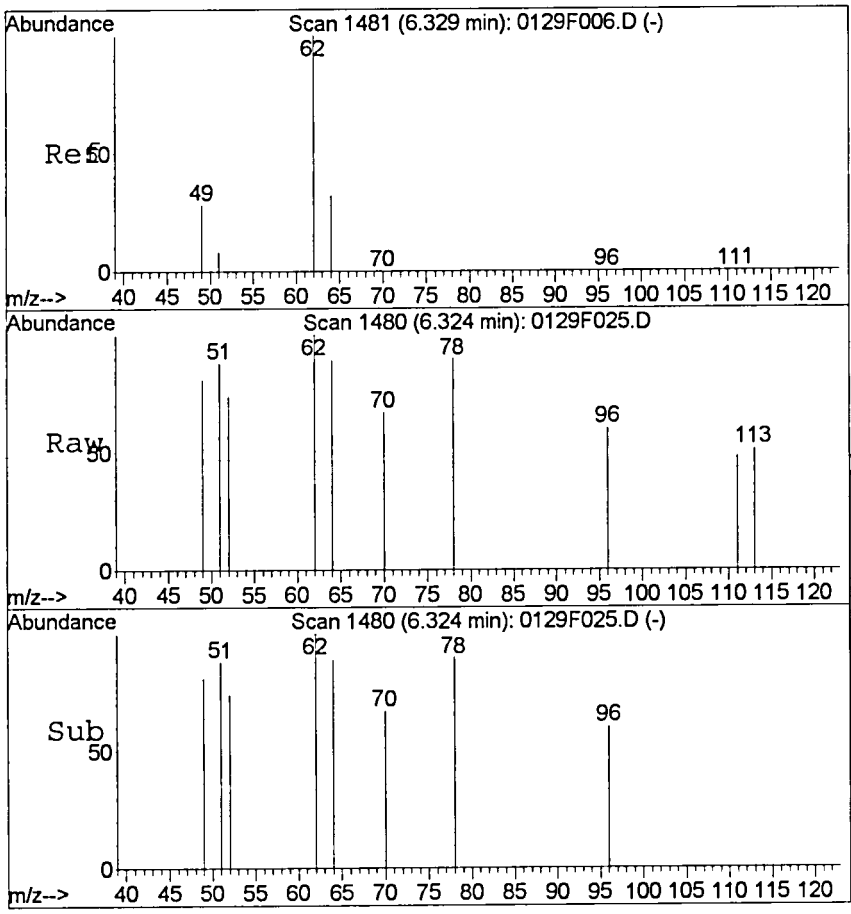


#8
Chloroform
Concen: 4.83 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 83 Resp: 170

Ion	Ratio	Lower	Upper
83	100		
85	71.6	34.7	94.7
47	37.3	0.0	55.9

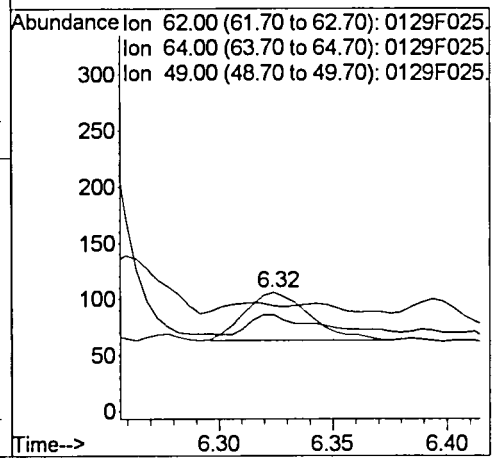


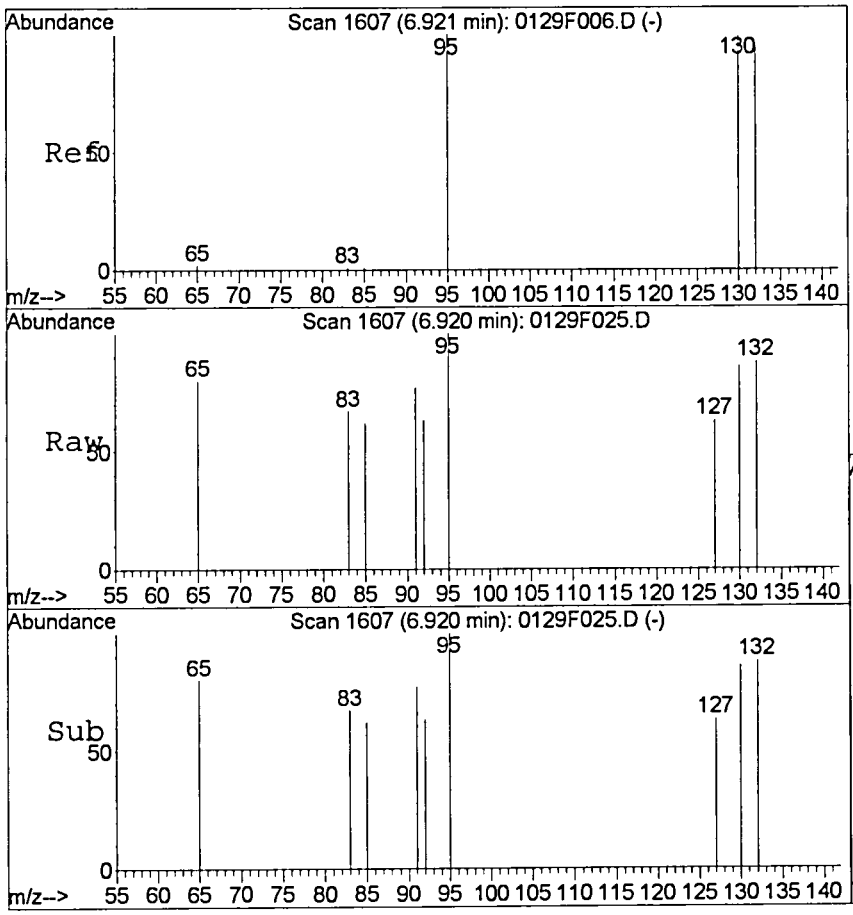


#12
1,2-Dichloroethane
Concen: 3.44 ng/L
RT: 6.32 min Scan# 1480
Delta R.T. -0.01 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 62 Resp: 85

Ion	Ratio	Lower	Upper
62	100		
64	16.3	1.7	61.7
49	39.5	0.0	58.2

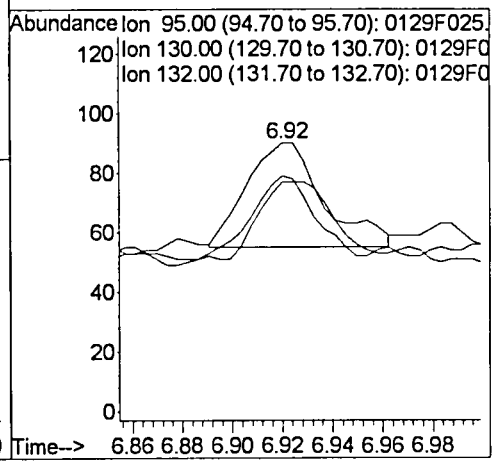


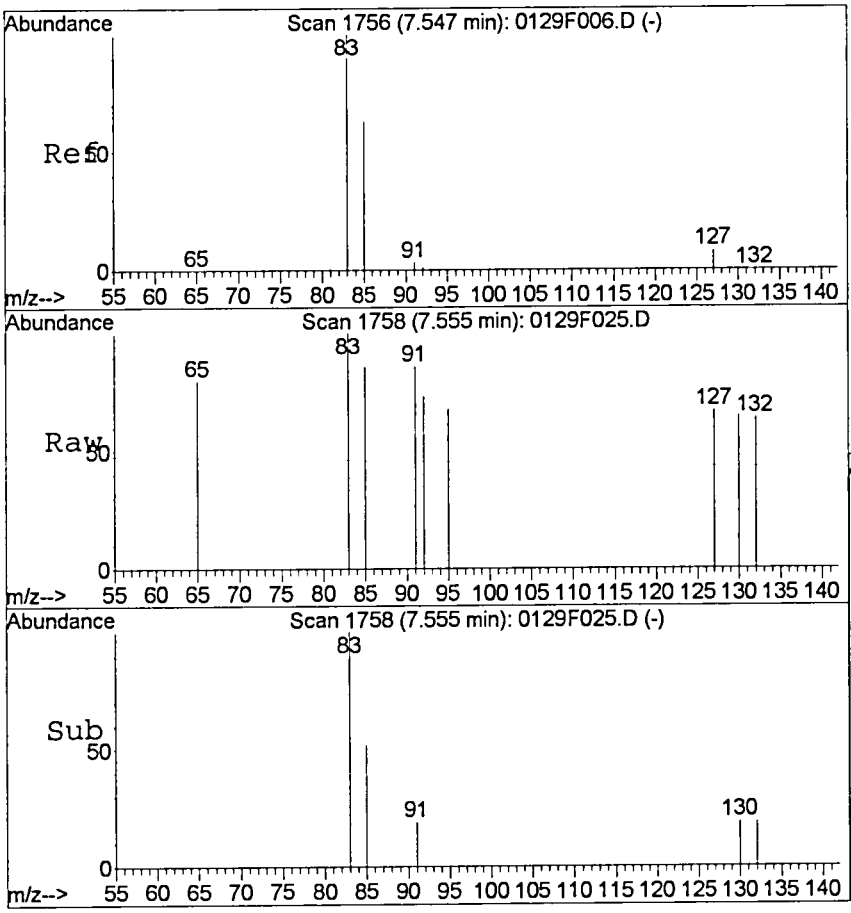


#13
Trichloroethene
Concen: 4.19 ng/L m
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 95 Resp: 75

Ion	Ratio	Lower	Upper
95	100		
130	85.6	67.1	127.1
132	87.8	63.9	123.9

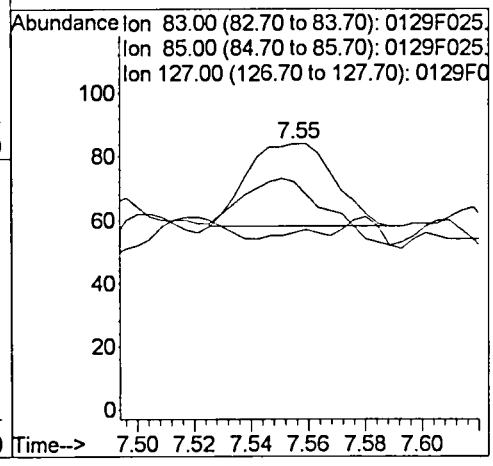


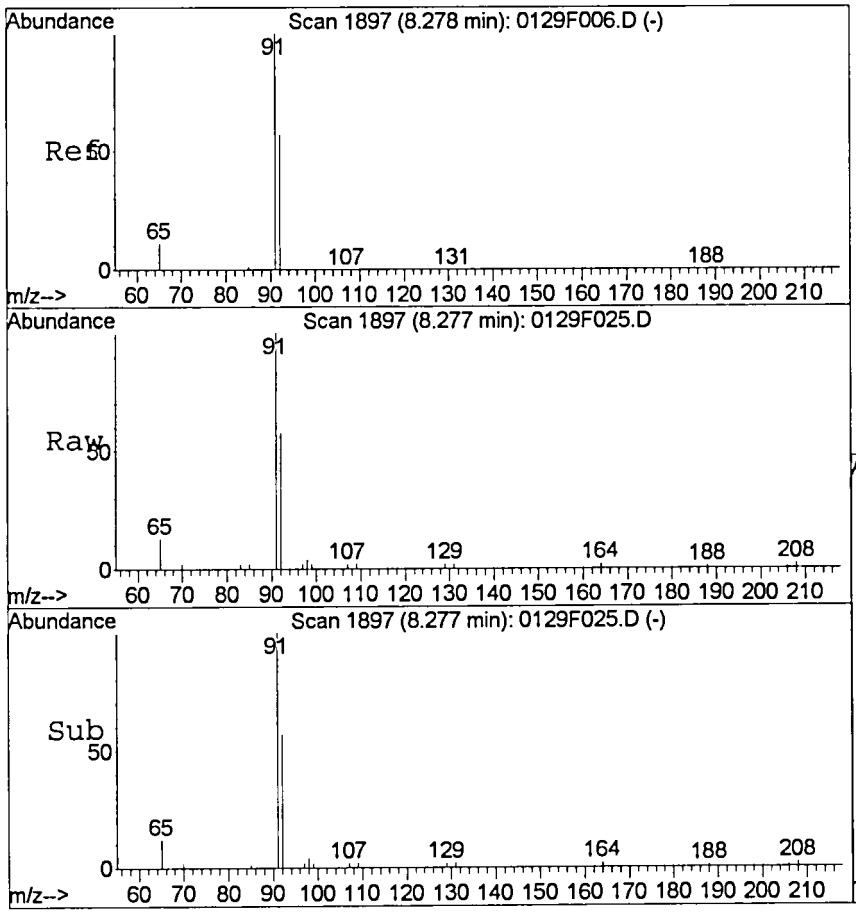


#14
Bromodichloromethane
Concen: 2.31 ng/L
RT: 7.55 min Scan# 1758
Delta R.T. 0.01 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 83 Resp: 55

Ion	Ratio	Lower	Upper
83	100		
85	76.9	33.5	93.5
127	15.4	0.0	38.0

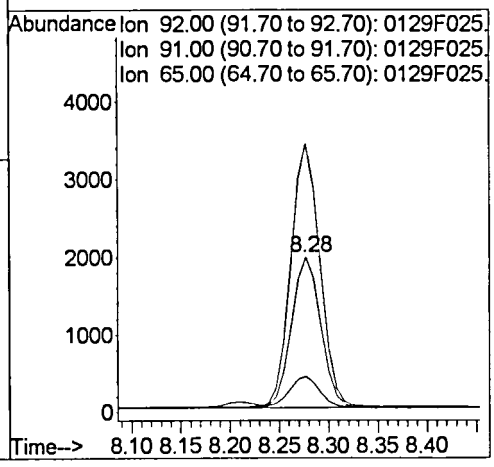


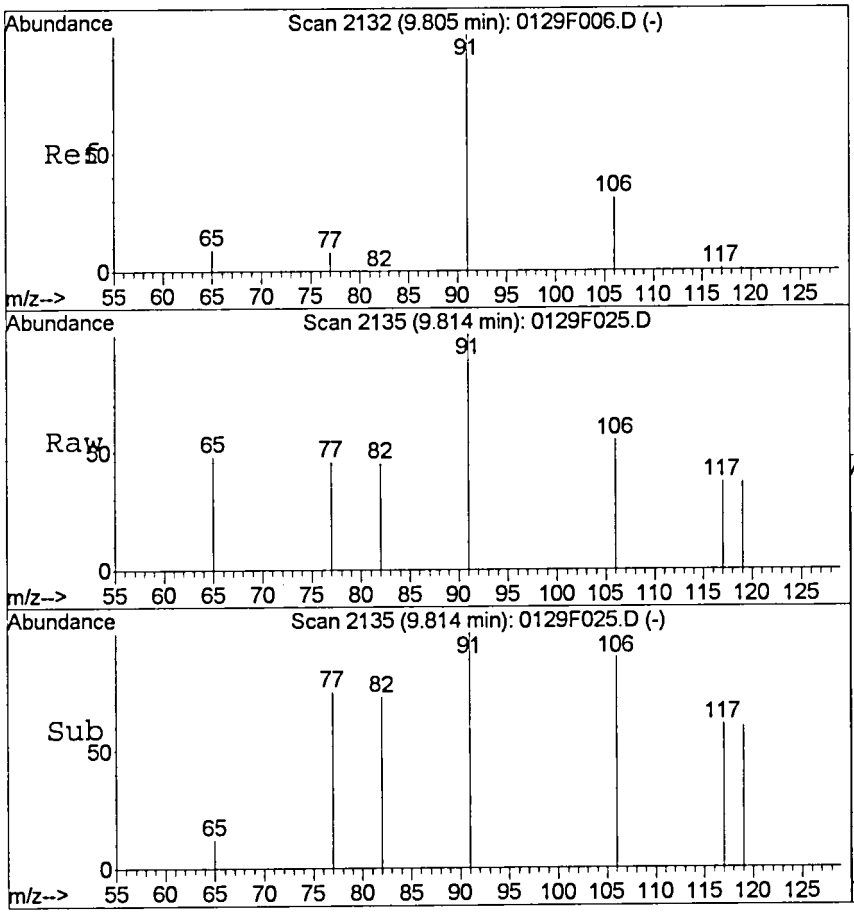


#20
Toluene
Concen: 102.48 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion: 92 Resp: 3993

Ion	Ratio	Lower	Upper
92	100		
91	174.3	144.4	204.4
65	20.4	0.0	49.7

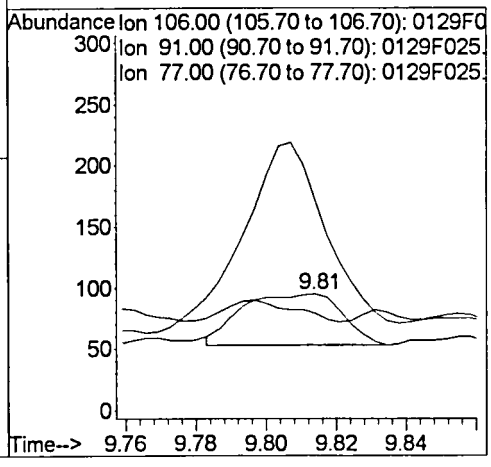


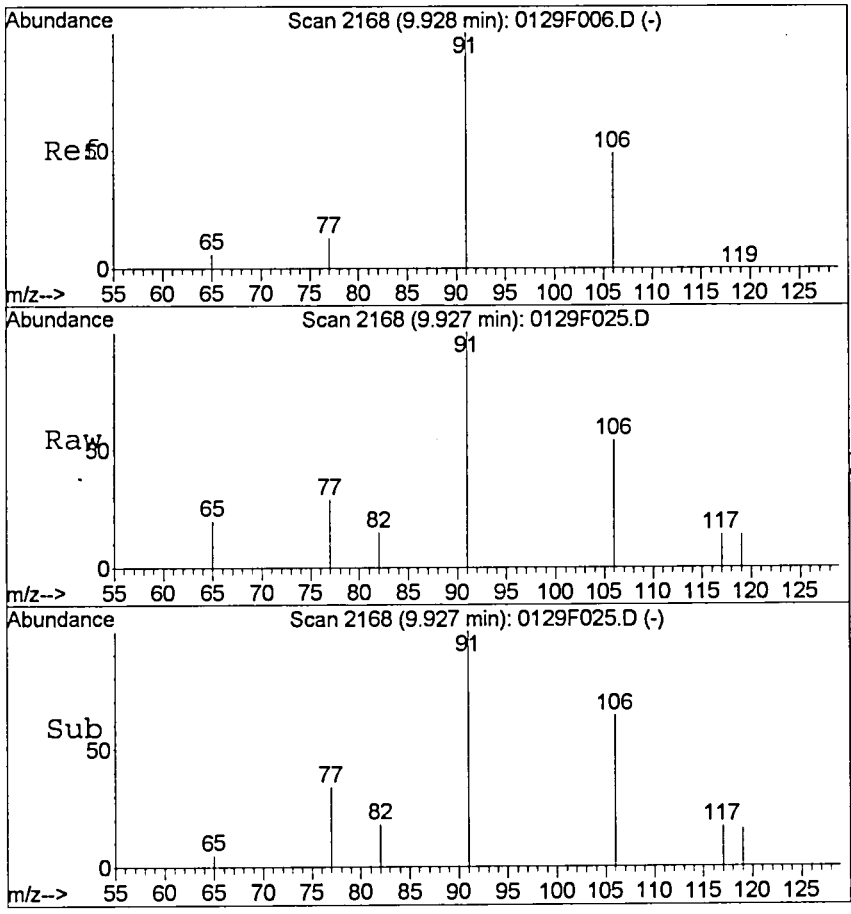


#21
Ethylbenzene
Concen: 4.08 ng/L
RT: 9.81 min Scan# 2135
Delta R.T. 0.01 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion:106 Resp: 83

Ion	Ratio	Lower	Upper
106	100		
91	235.7	295.2	355.2#
77	9.5	0.2	60.2

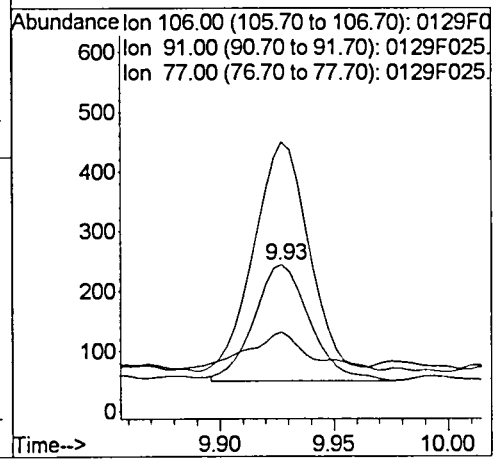


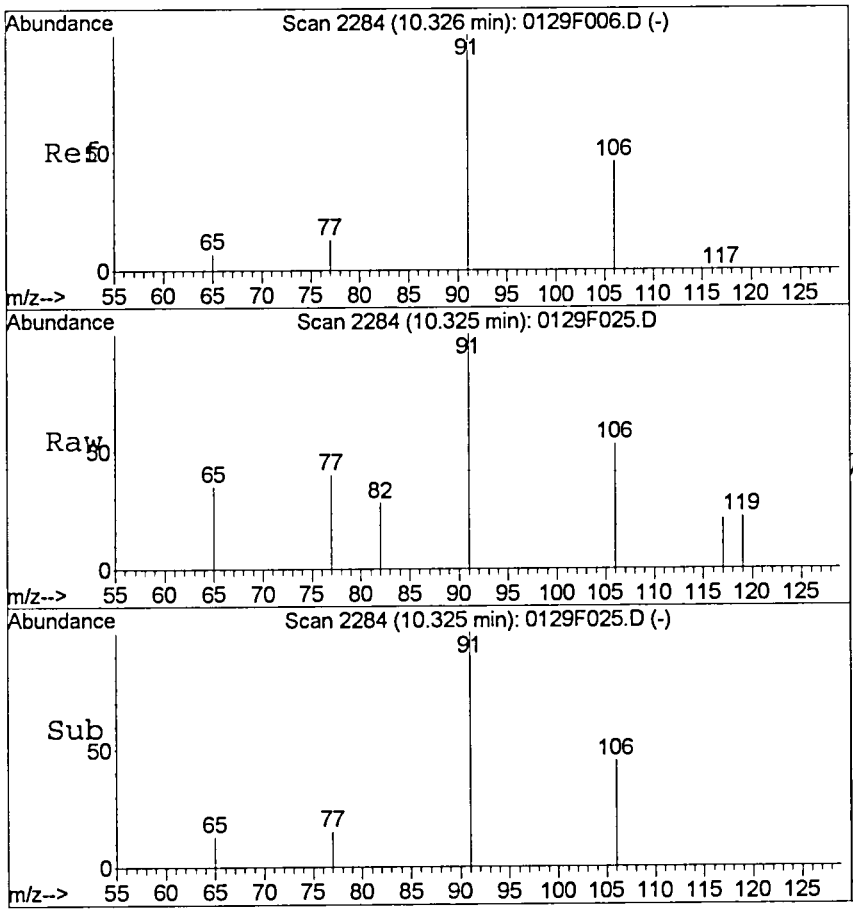


#22
m,p-Xylenes
Concen: 13.05 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion:106 Resp: 331

Ion	Ratio	Lower	Upper
106	100		
91	194.8	173.8	233.8
77	26.8	0.0	57.2

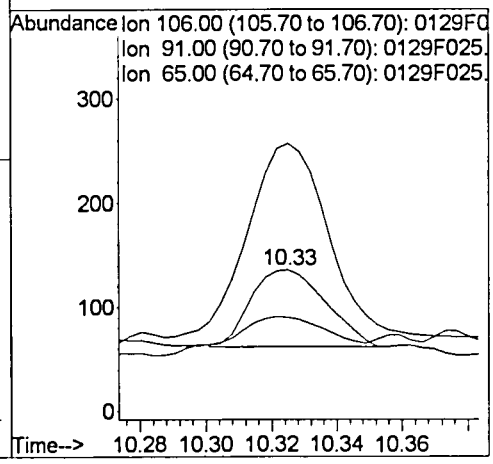


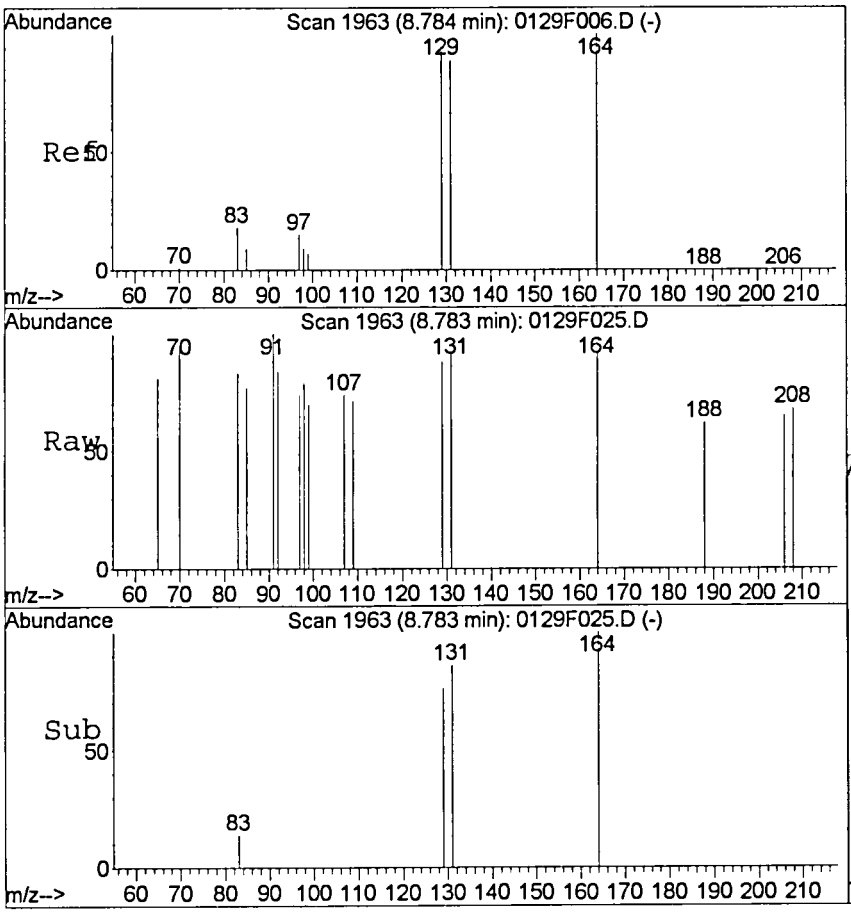


#23
o-Xylene
Concen: 4.66 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion:106 Resp: 117

Ion	Ratio	Lower	Upper
106	100		
91	241.9	185.6	245.6
65	35.1	0.0	45.0

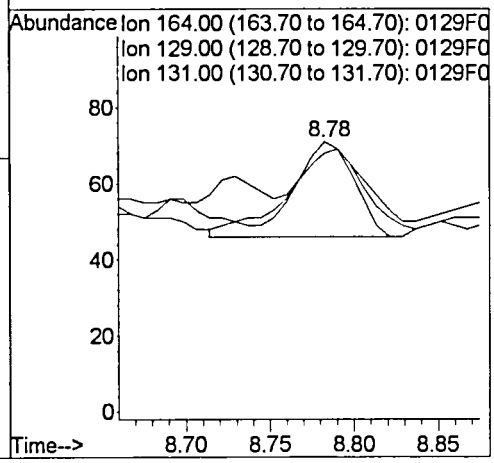


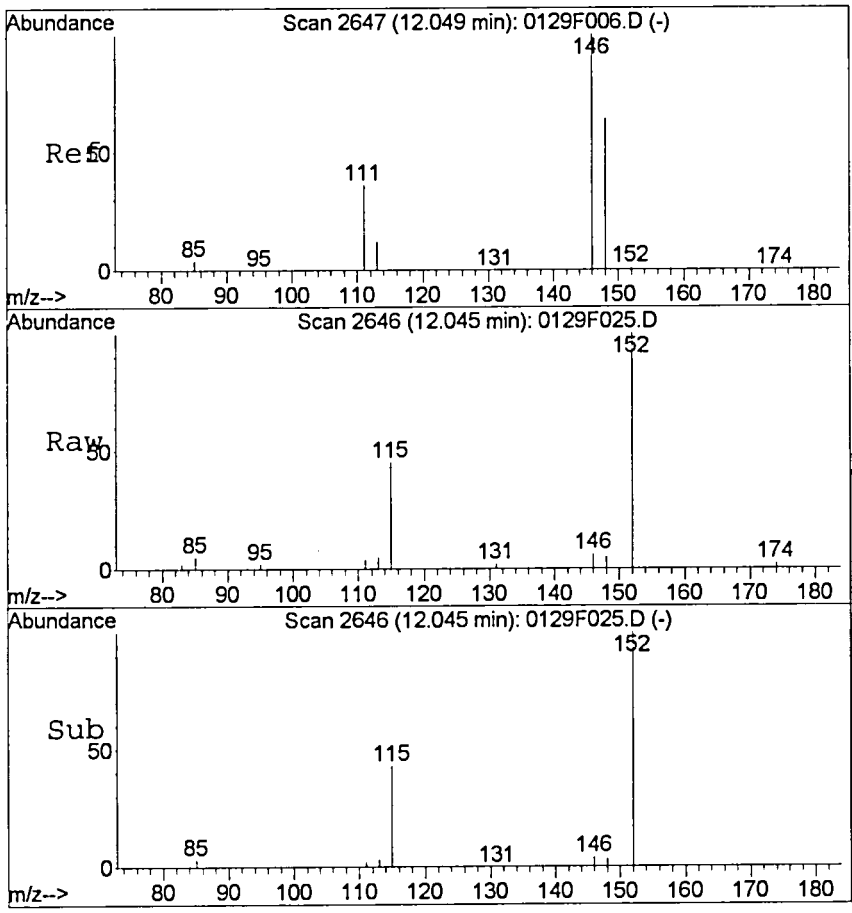


#26
Tetrachloroethene
Concen: 5.00 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion:164 Resp: 68

Ion	Ratio	Lower	Upper
164	100		
129	68.0	61.1	121.1
131	72.0	58.3	118.3

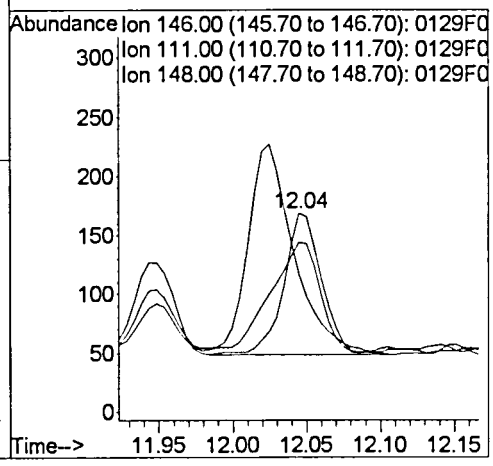




#28
1,4-Dichlorobenzene
Concen: 6.16 ng/L
RT: 12.04 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F025.D
Acq: 29 Jan 2016 8:30 pm

Tgt Ion:146 Resp: 213

Ion	Ratio	Lower	Upper
146	100		
111	53.3	6.7	66.7
148	75.8	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F026.D
Lab ID: K1600673-009
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 20:58
Date Quantitated: 02/01/2016 14:00
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL ✓
Lab Control Spike	Toluene-d8	122	74	112	↑ bias analyte, okay
Surrogates	Toluene-d8	120	74	112	I NP

Primary Review: YH 2/1/16

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F026.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 20:58	**Quant Date:**	02/01/2016 14:00	**Vial:**	34
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496765	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	67595	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	47939	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17307	1,125	113	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	58962	1,199	120	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	19590	1,014	101	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	84m	3.43	5.8	U	
1	Bromodichloromethane	7.55		0.00	83	80	3.40	3.4	U	
1	Dibromochloromethane				129	0		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F026.D Vial: 34
Acq On : 29 Jan 2016 8:58 pm Operator: GH
Sample : K0673-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:39:09 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

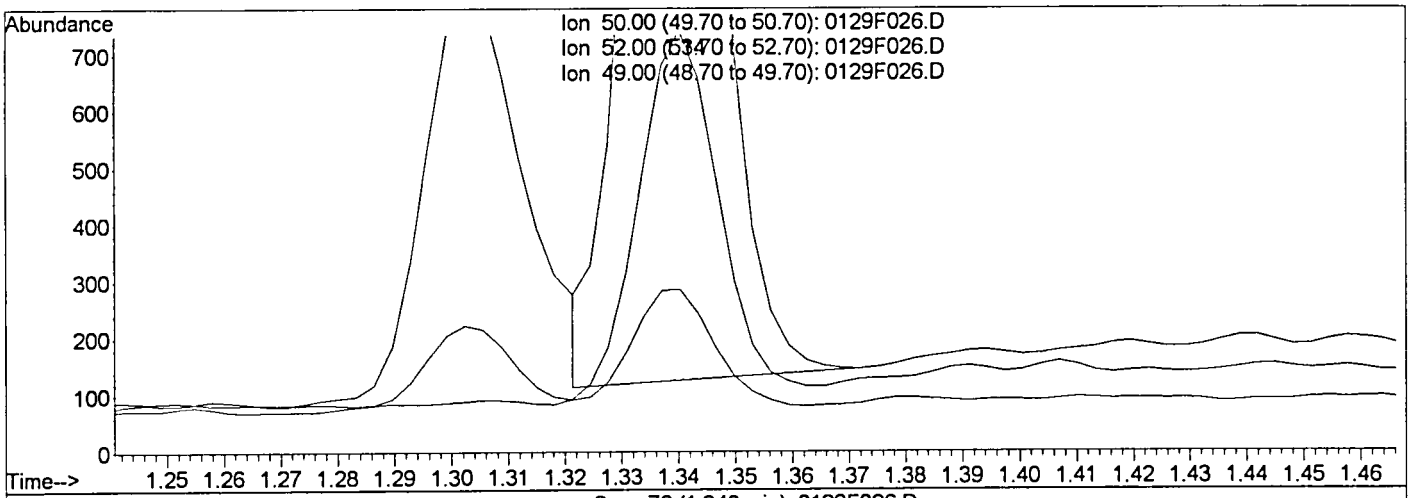
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	67595	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	47939	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	22082	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17307	1125.17	ng/L	0.00
Spiked Amount 1000.000			Recovery = 112.52%			
15) Toluene-d8	8.21	98	58962	1199.49	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.95%			
24) 4-Bromofluorobenzene	10.89	95	19590	1014.01	ng/L	0.00
Spiked Amount 1000.000			Recovery = 101.40%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	2013m	73.26	ng/L	
5) Methylene Chloride	3.29	84	407	18.18	ng/L	92
8) Chloroform	5.61	83	153	4.38	ng/L	88
12) 1,2-Dichloroethane	6.33	62	84m	3.43	ng/L	
14) Bromodichloromethane	7.55	83	80	3.40	ng/L	97
20) Toluene	8.28	92	6309	162.34	ng/L	99
21) Ethylbenzene	9.80	106	68	3.35	ng/L	89
22) m,p-Xylenes	9.93	106	308	12.17	ng/L	98
23) o-Xylene	10.32	106	146	5.83	ng/L	91
26) Tetrachloroethene	8.78	164	38	2.80	ng/L	88
28) 1,4-Dichlorobenzene	12.05	146	192	5.57	ng/L	91

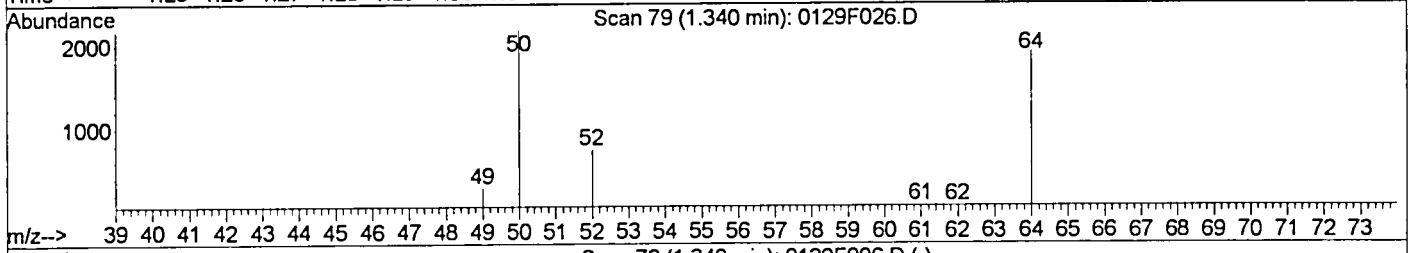
(#) = qualifier out of range (m) = manual integration
0129F026.D 012716MS27_8260SIM.M Mon Feb 01 14:07:45 2016 Page 1

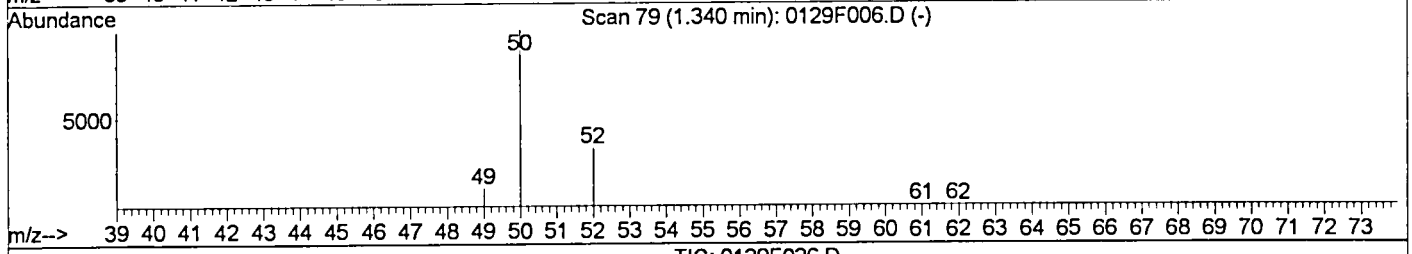
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F026.D Vial: 34
Acq On : 29 Jan 2016 8:58 pm Operator: GH
Sample : K0673-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:39 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F026.D

(2) Chloromethane (T)

1.34min 74.93ng/L

response 2059

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.07
49.00	10.10	9.84
0.00	0.00	0.00

Manual Integration:

Before

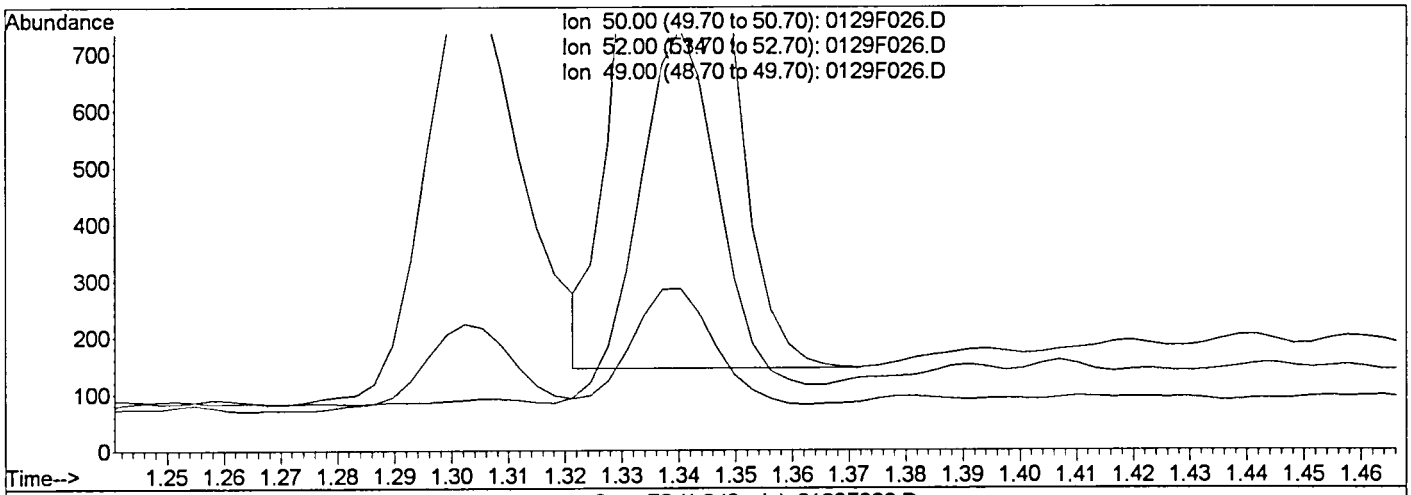
02/01/16

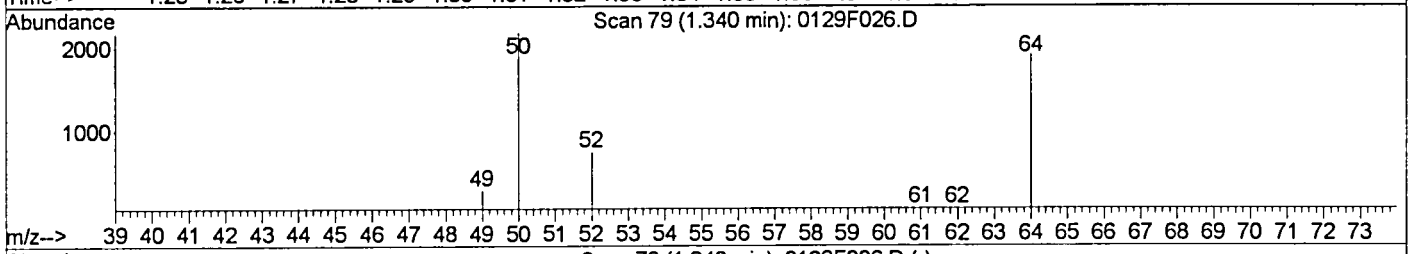
0129F026.D 012716MS27_8260SIM.M Mon Feb 01 13:59:03 2016

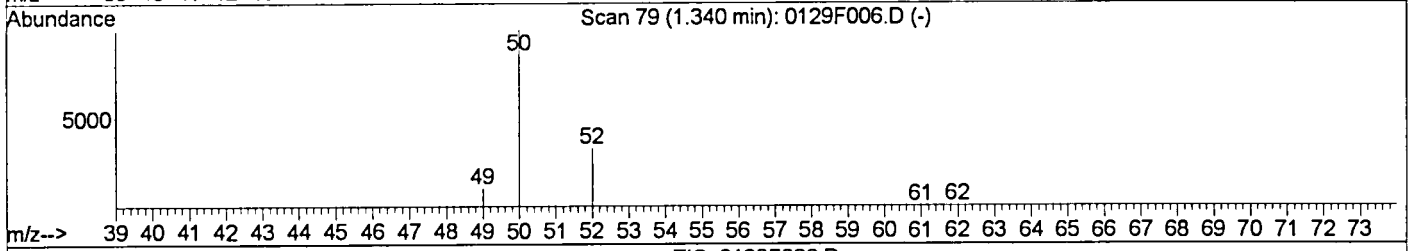
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F026.D Vial: 34
Acq On : 29 Jan 2016 8:58 pm Operator: GH
Sample : K0673-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:59 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F026.D

(2) Chloromethane (T)

1.34min 73.26ng/L m

response 2013

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	34.19
49.00	10.10	13.08
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

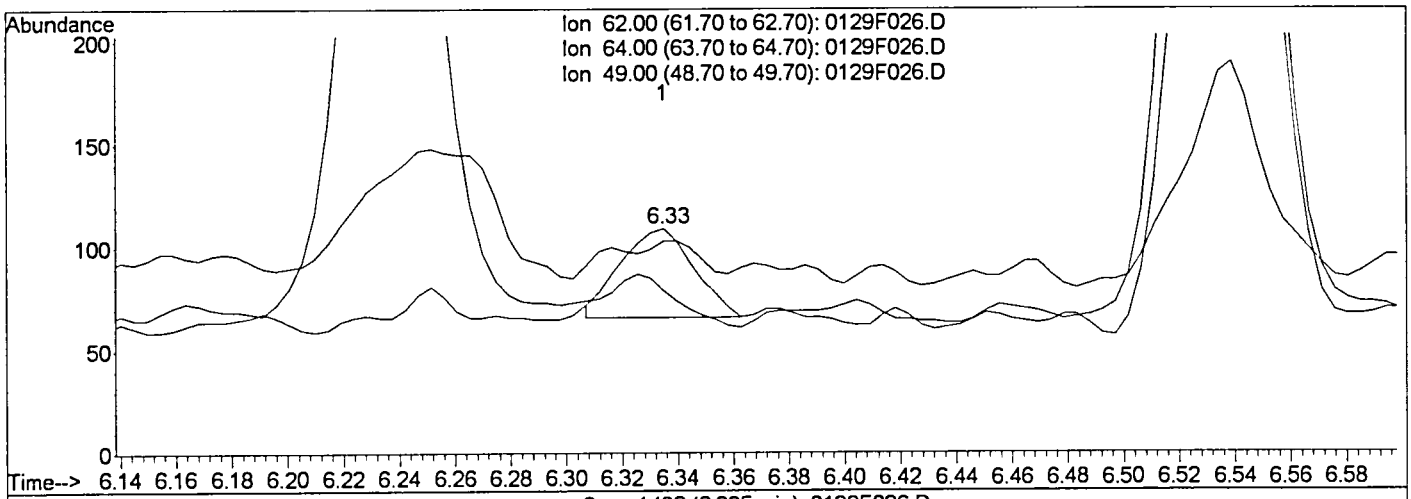
02/01/16

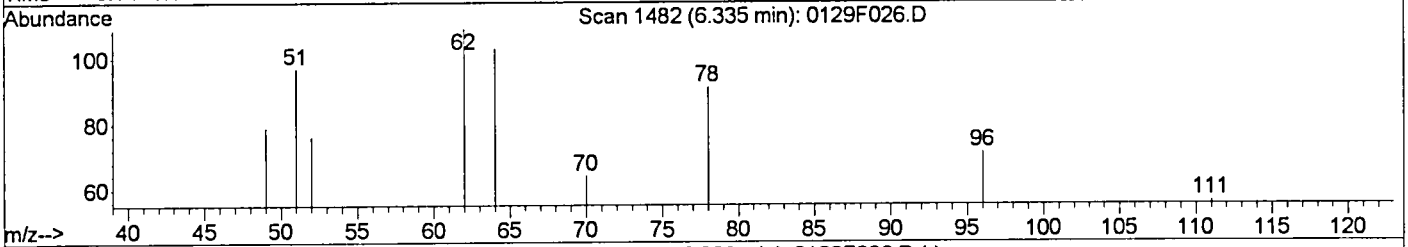
0129F026.D 012716MS27_8260SIM.M Mon Feb 01 13:59:13 2016

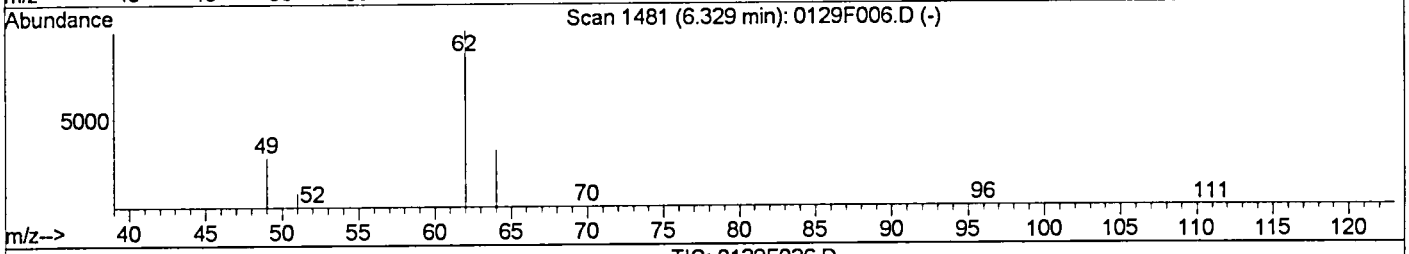
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F026.D Vial: 34
Acq On : 29 Jan 2016 8:58 pm Operator: GH
Sample : K0673-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:59 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F026.D

(12) 1,2-Dichloroethane (T)

6.33min 3.19ng/L

response 78

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	30.23
49.00	28.20	41.86
0.00	0.00	0.00

Manual Integration:

Before

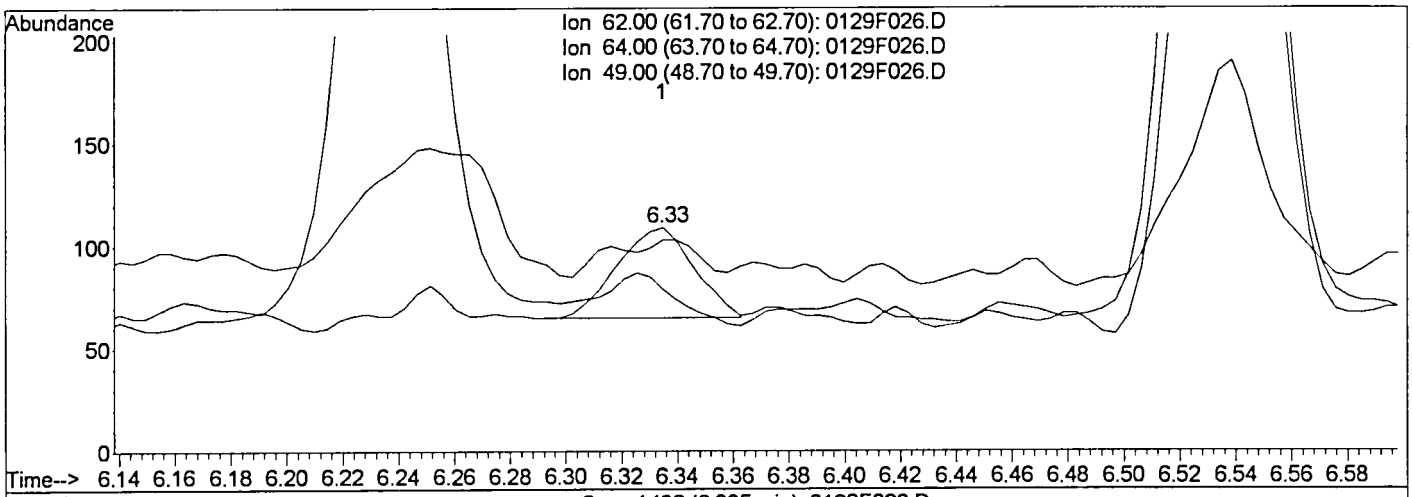
02/01/16

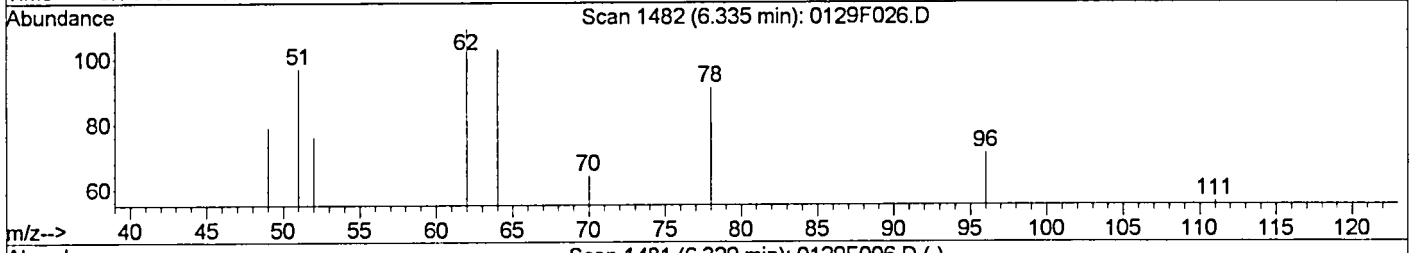
0129F026.D 012716MS27_8260SIM.M Mon Feb 01 13:59:44 2016

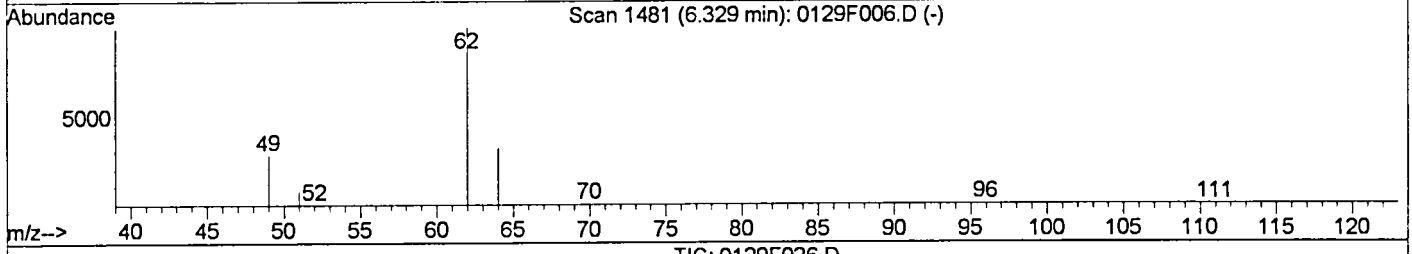
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F026.D Vial: 34
Acq On : 29 Jan 2016 8:58 pm Operator: GH
Sample : K0673-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:59 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F026.D

(12) 1,2-Dichloroethane (T)

6.33min 3.43ng/L m

response 84

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	94.50#
49.00	28.20	72.48#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

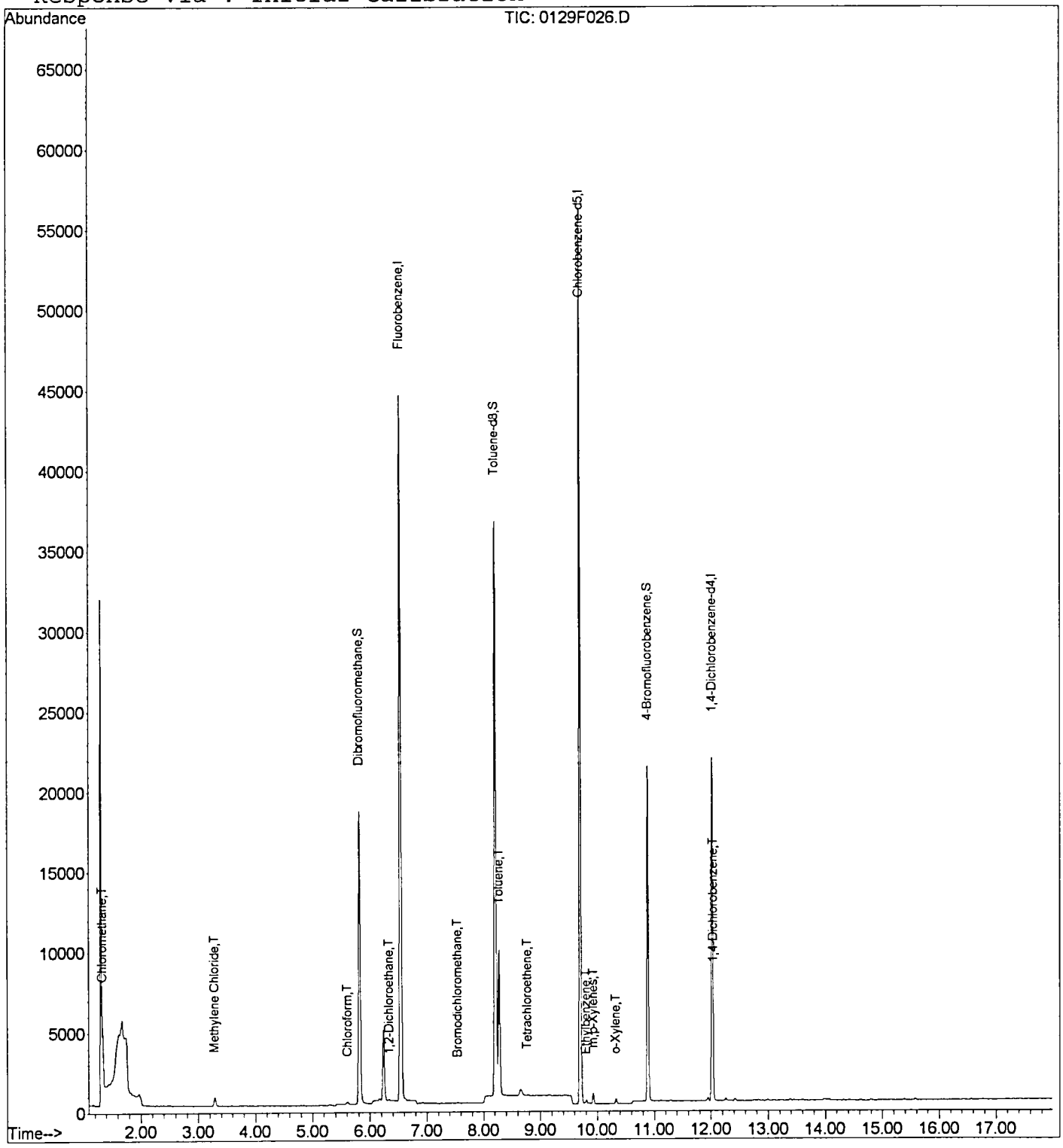
02/01/16

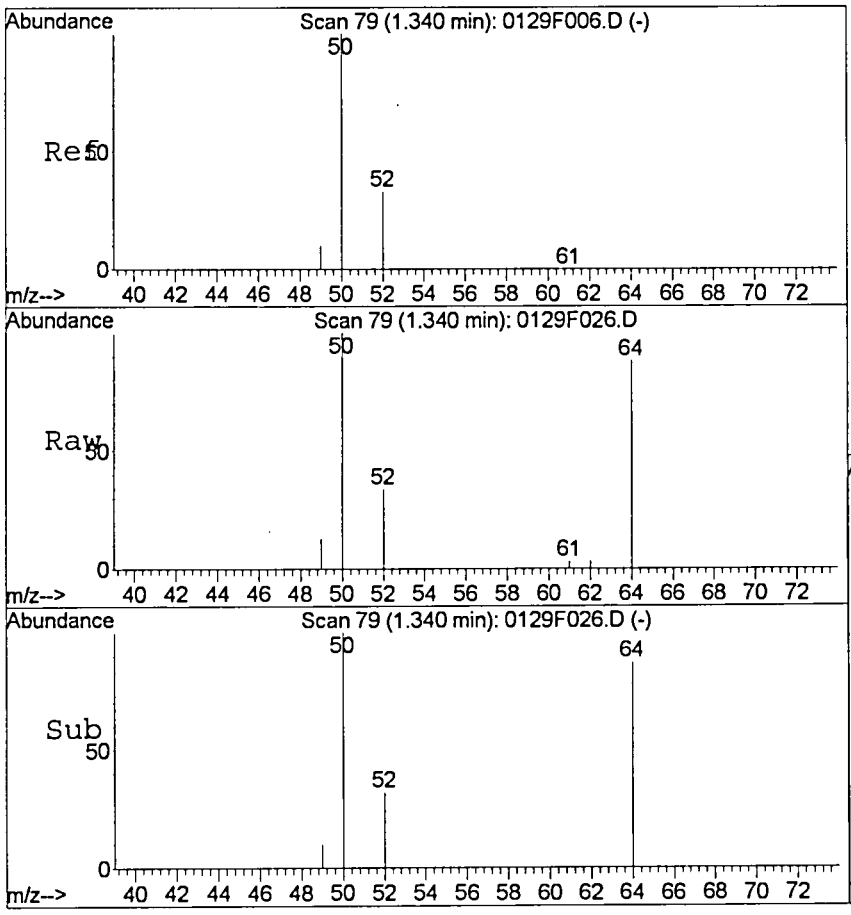
0129F026.D 012716MS27_8260SIM.M Mon Feb 01 13:59:51 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F026.D Vial: 34
Acq On : 29 Jan 2016 8:58 pm Operator: GH
Sample : K0673-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:00 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

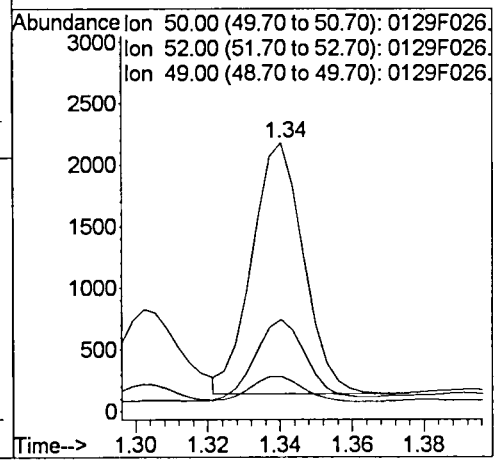


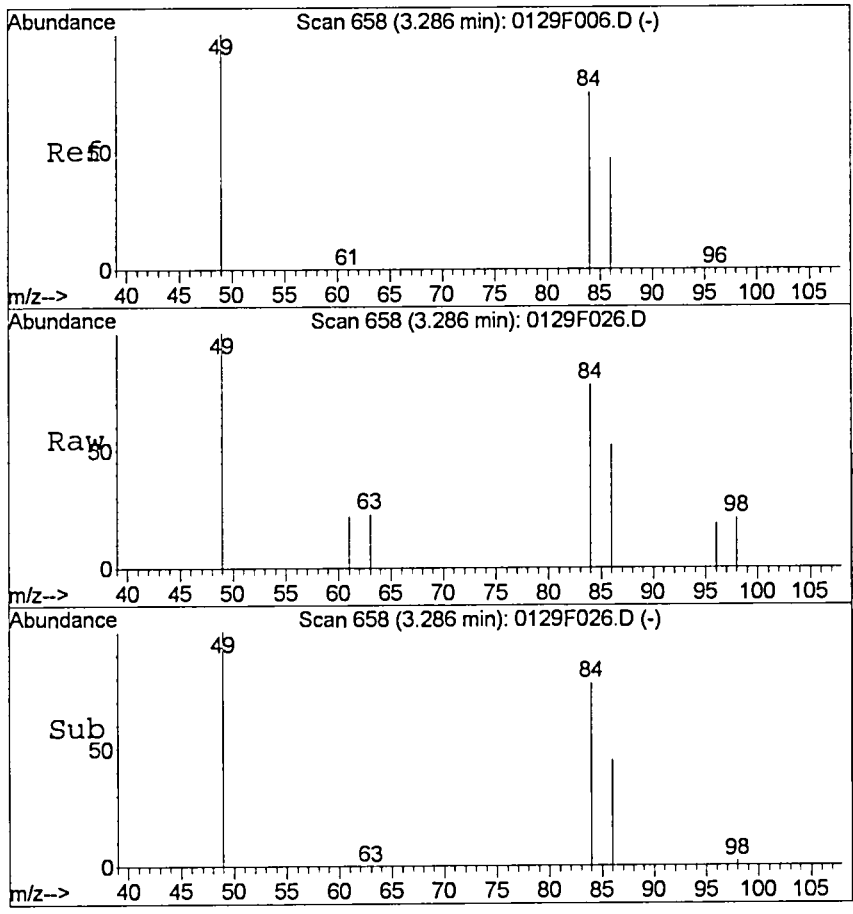


#2
Chloromethane
Concen: 73.26 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. 0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion: 50 Resp: 2013

Ion	Ratio	Lower	Upper
50	100		
52	34.2	2.9	62.9
49	13.1	0.0	40.1

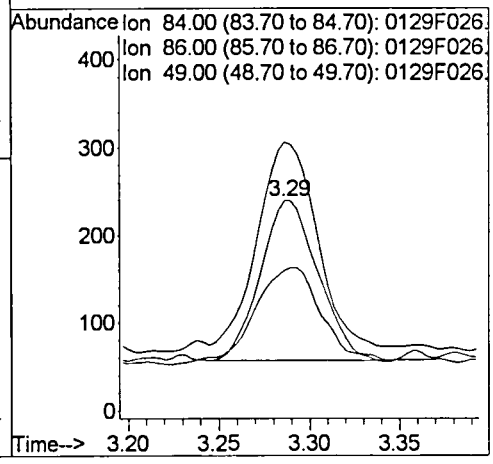


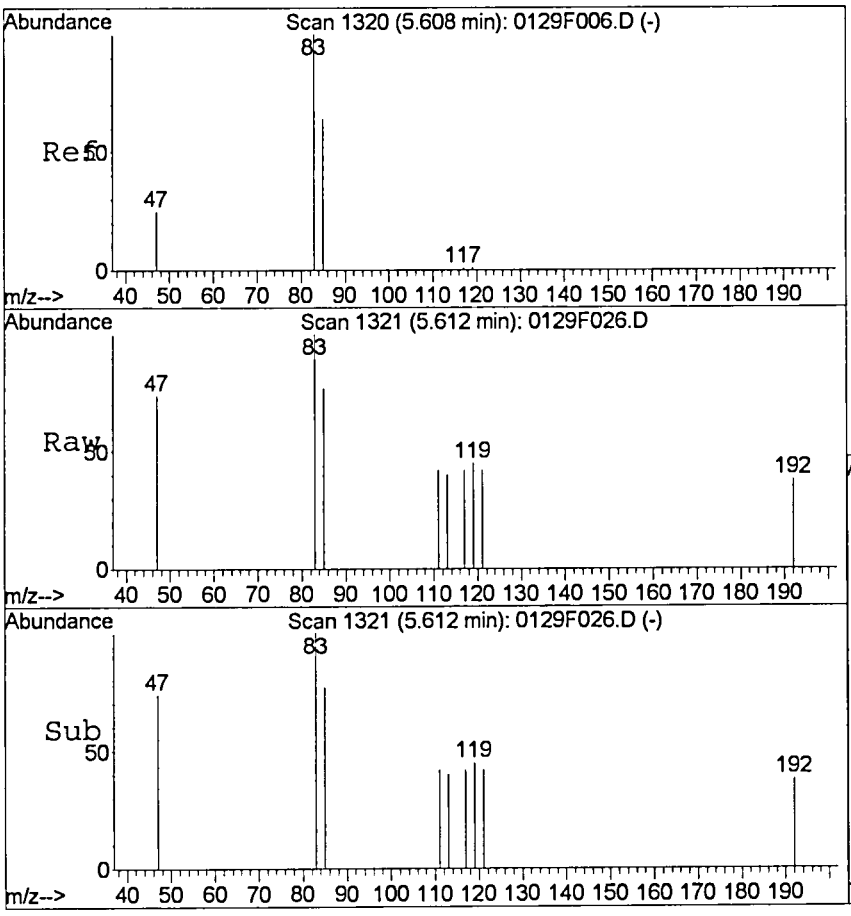


#5
Methylene Chloride
Concen: 18.18 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion: 84 Resp: 407

Ion	Ratio	Lower	Upper
84	100		
86	57.1	33.8	93.8
49	128.0	107.9	167.9

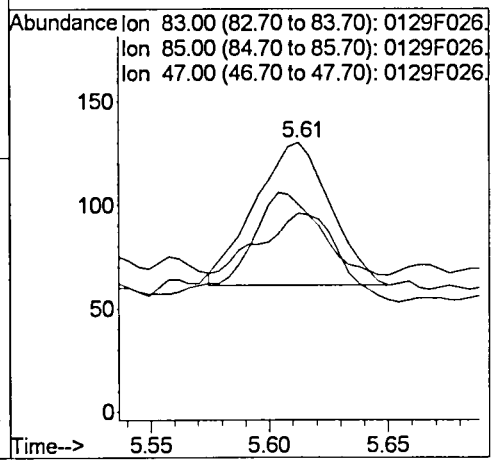


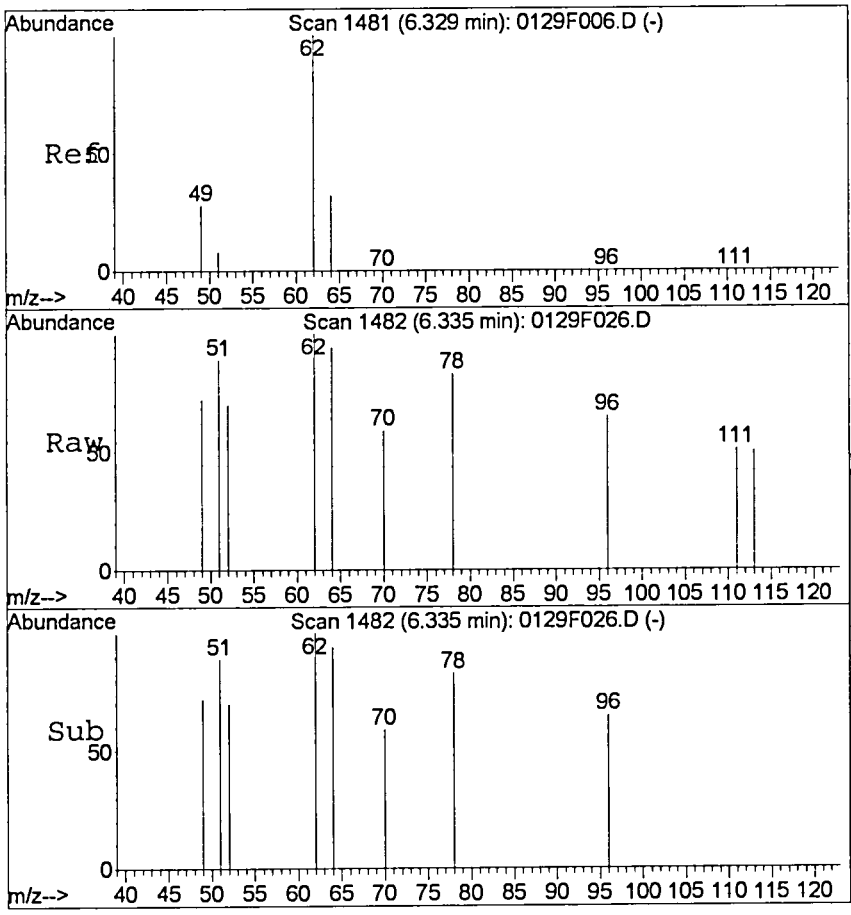


#8
Chloroform
Concen: 4.38 ng/L
RT: 5.61 min Scan# 1321
Delta R.T. 0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion: 83 Resp: 153

Ion	Ratio	Lower	Upper
83	100		
85	66.7	34.7	94.7
47	43.5	0.0	55.9

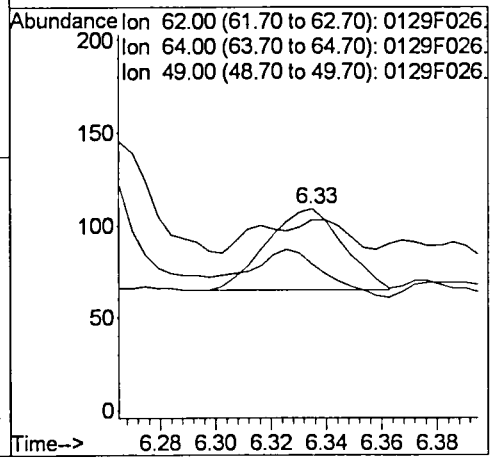


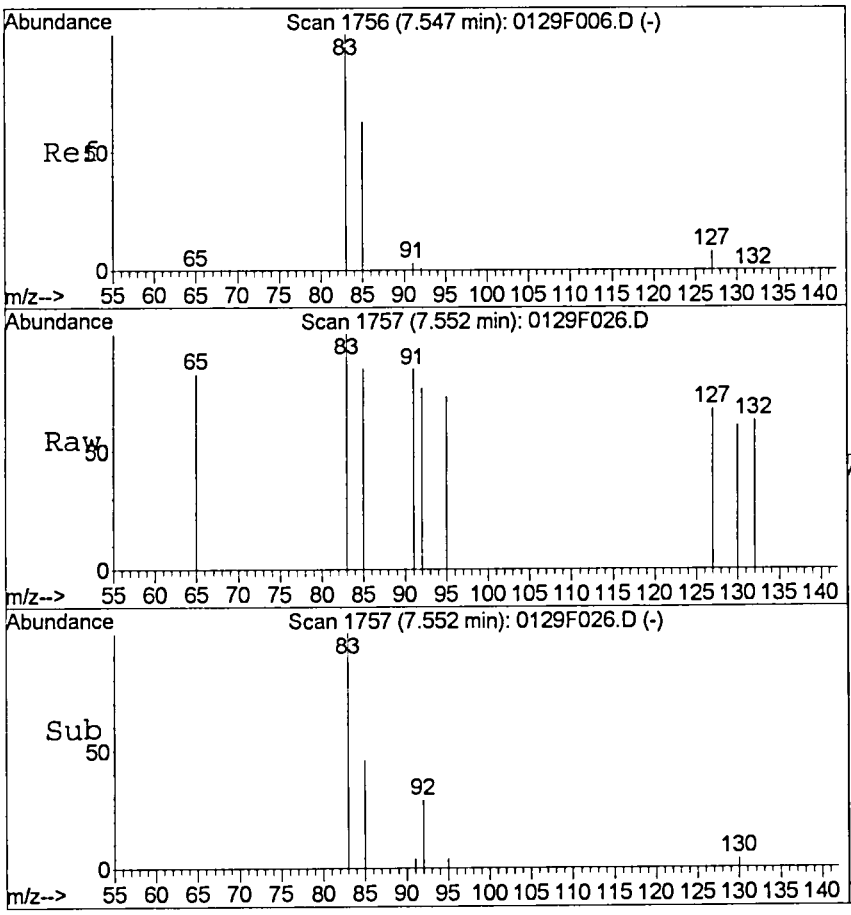


#12
1,2-Dichloroethane
Concen: 3.43 ng/L m
RT: 6.33 min Scan# 1482
Delta R.T. 0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion: 62 Resp: 84

Ion	Ratio	Lower	Upper
62	100		
64	94.5	1.7	61.7#
49	72.5	0.0	58.2#

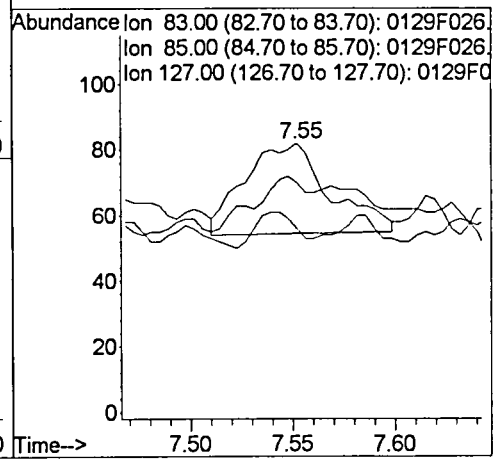


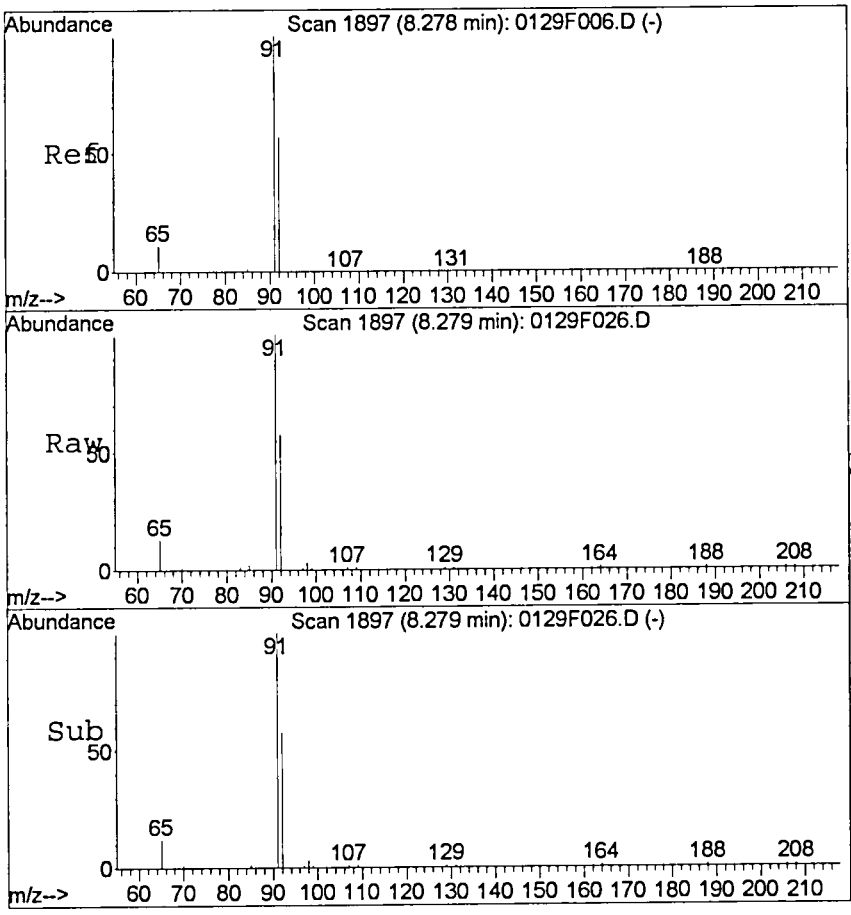


#14
Bromodichloromethane
Concen: 3.40 ng/L
RT: 7.55 min Scan# 1757
Delta R.T. 0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion: 83 Resp: 80

Ion	Ratio	Lower	Upper
83	100		
85	62.5	33.5	93.5
127	12.5	0.0	38.0

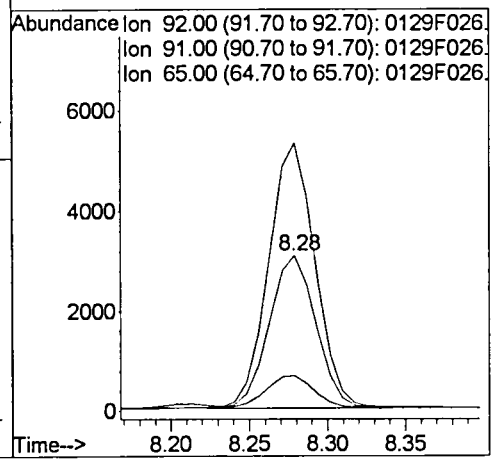


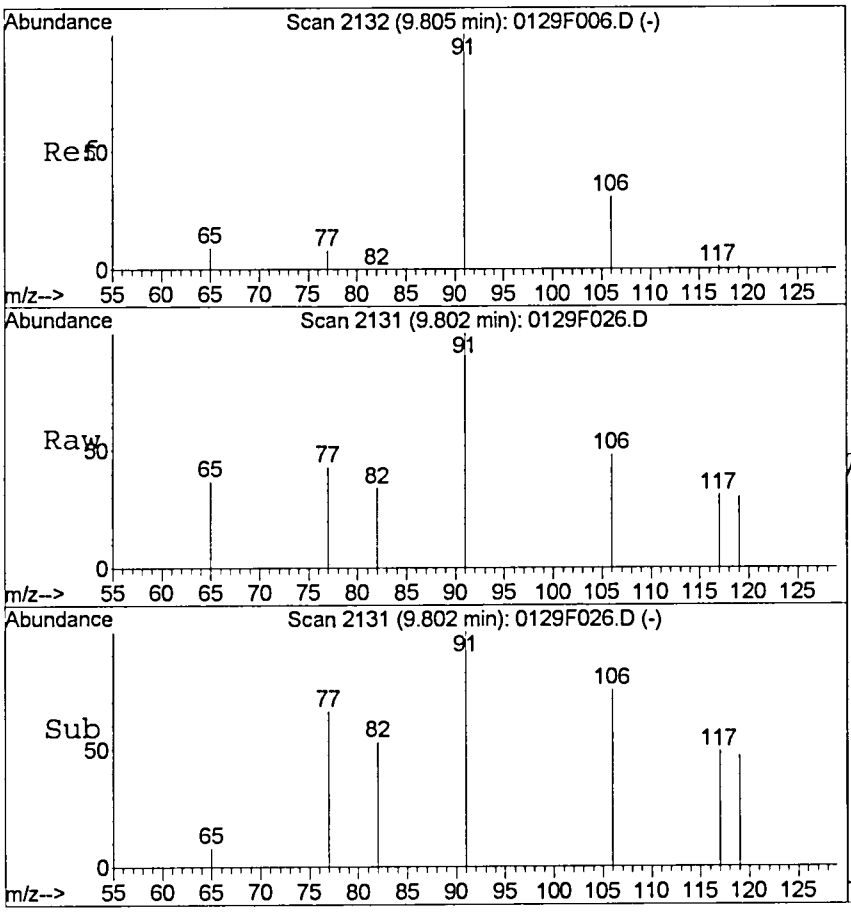


#20
Toluene
Concen: 162.34 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion: 92 Resp: 6309

Ion	Ratio	Lower	Upper
92	100		
91	173.3	144.4	204.4
65	20.8	0.0	49.7

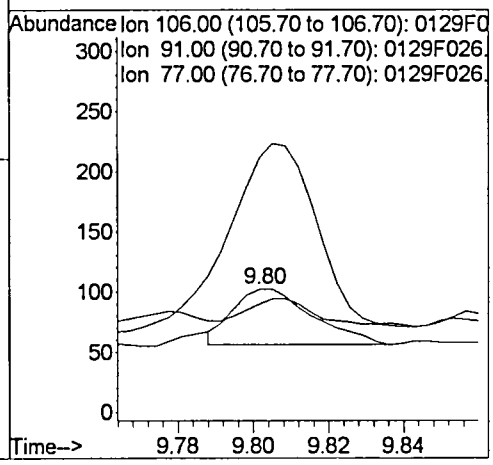


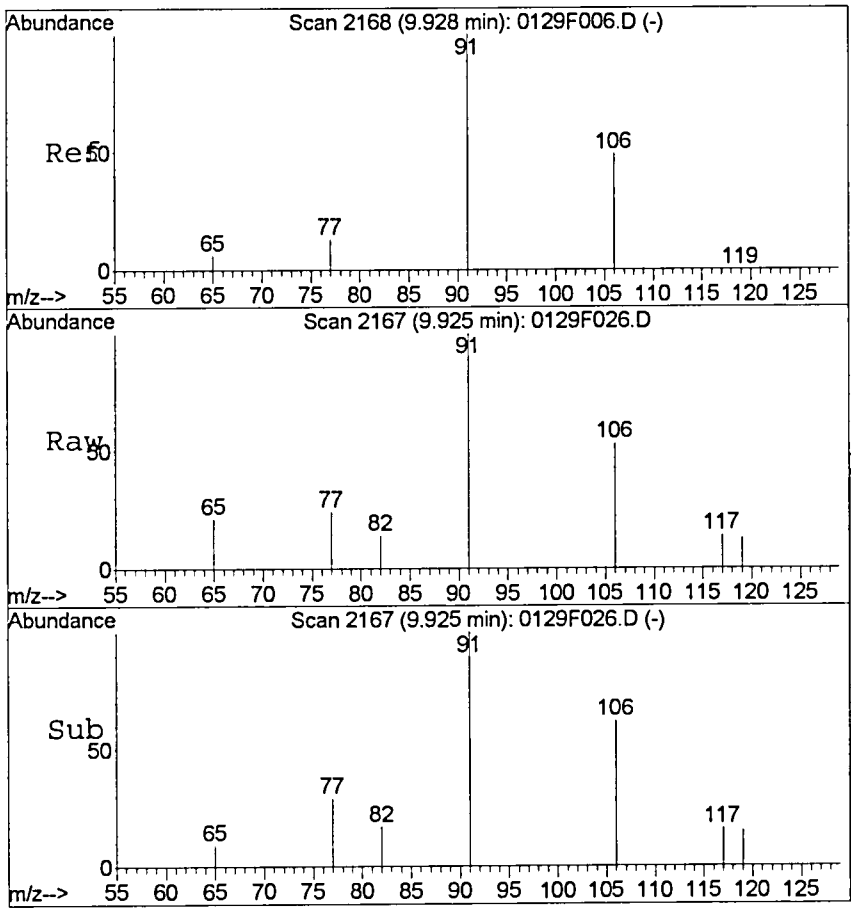


#21
Ethylbenzene
Concen: 3.35 ng/L
RT: 9.80 min Scan# 2131
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion:106 Resp: 68

Ion	Ratio	Lower	Upper
106	100		
91	302.2	295.2	355.2
77	34.8	0.2	60.2

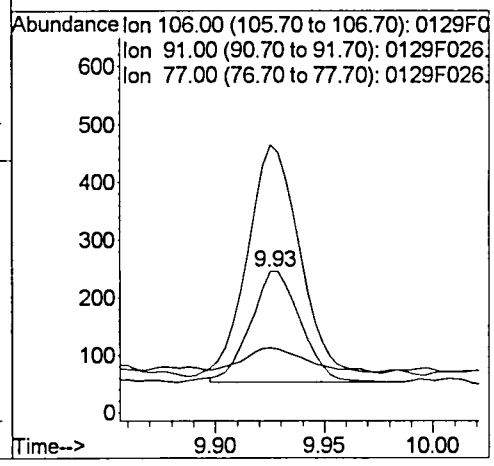


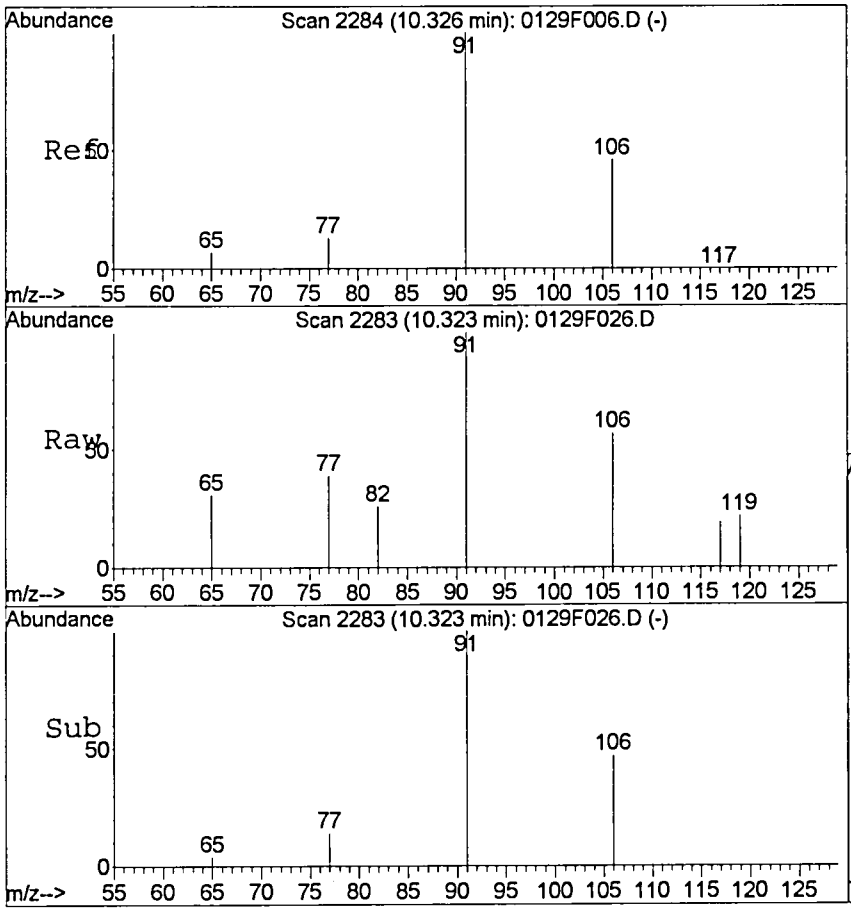


#22
m,p-Xylenes
Concen: 12.17 ng/L
RT: 9.93 min Scan# 2167
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion:106 Resp: 308

Ion	Ratio	Lower	Upper
106	100		
91	202.1	173.8	233.8
77	21.2	0.0	57.2

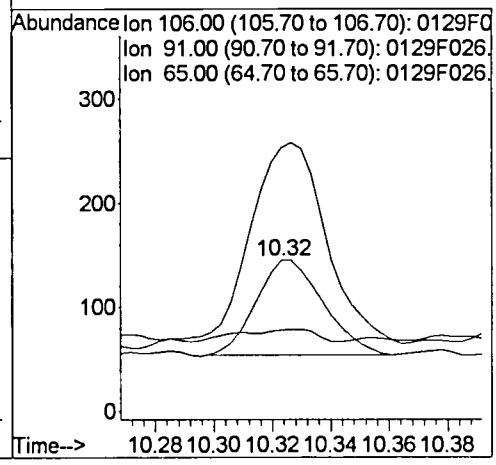


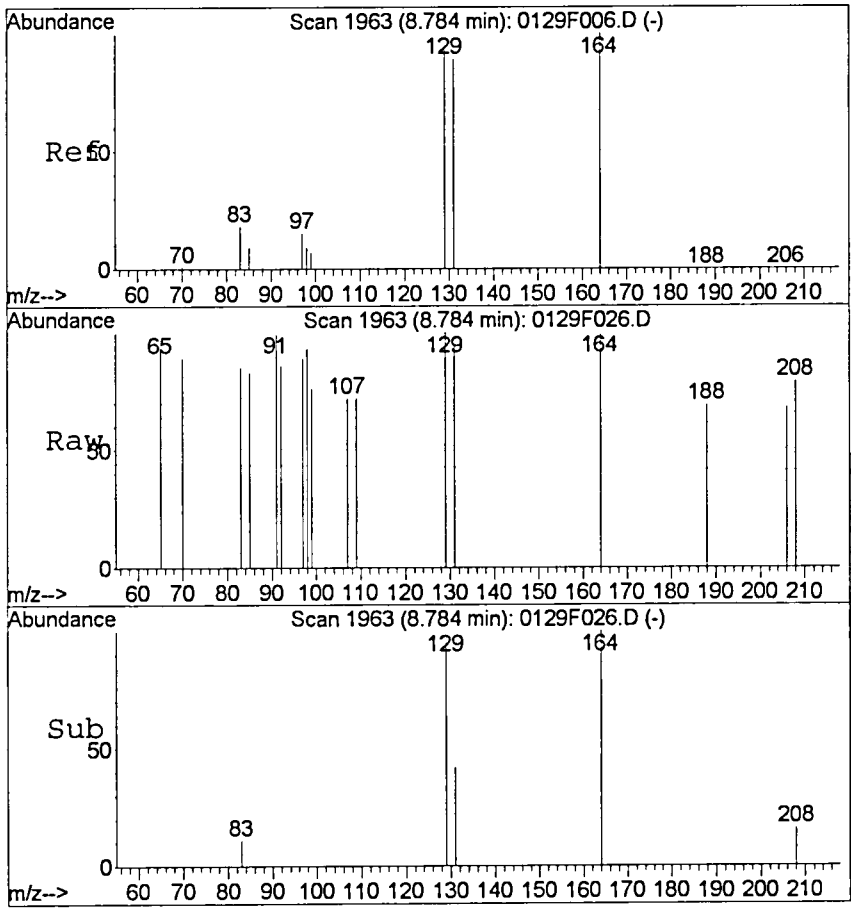


#23
o-Xylene
Concen: 5.83 ng/L
RT: 10.32 min Scan# 2283
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion:106 Resp: 146

Ion	Ratio	Lower	Upper
106	100		
91	202.2	185.6	245.6
65	9.9	0.0	45.0

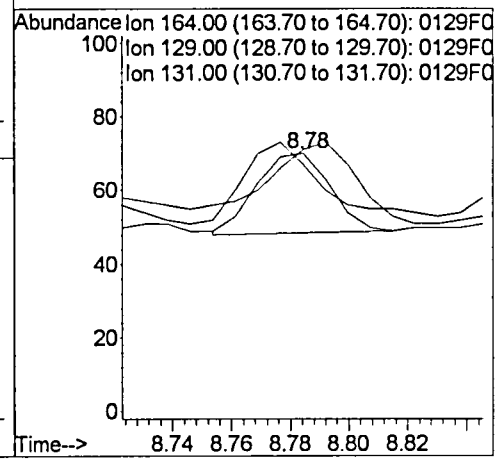


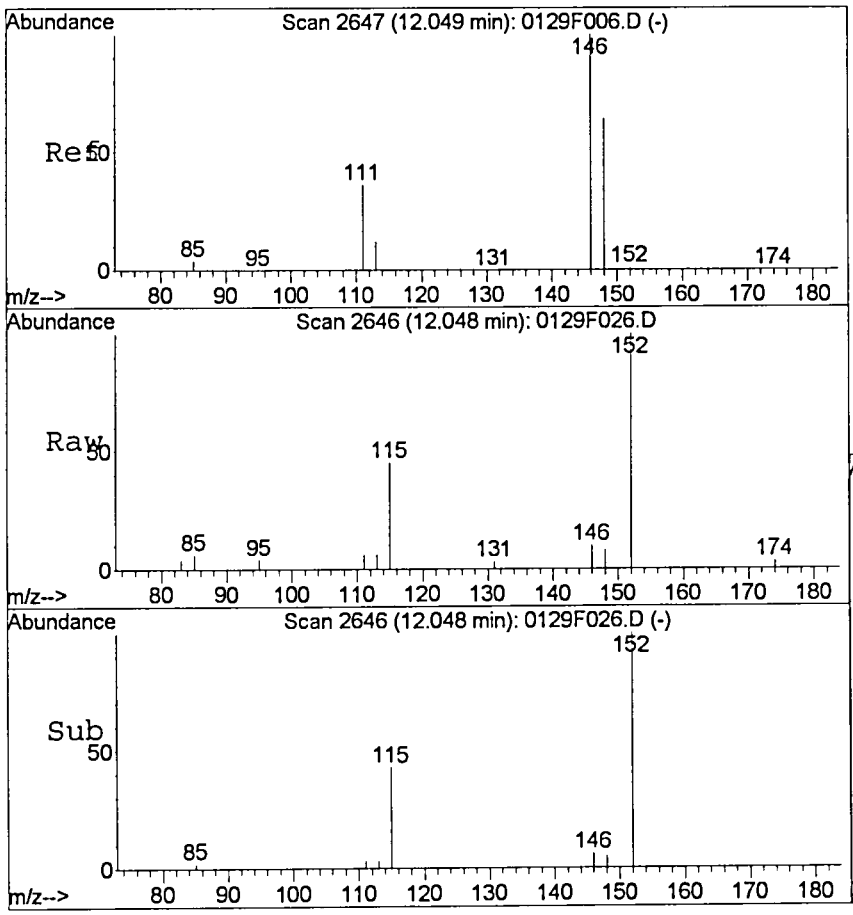


#26
Tetrachloroethene
Concen: 2.80 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion:164 Resp: 38

Ion	Ratio	Lower	Upper
164	100		
129	85.7	61.1	121.1
131	71.4	58.3	118.3

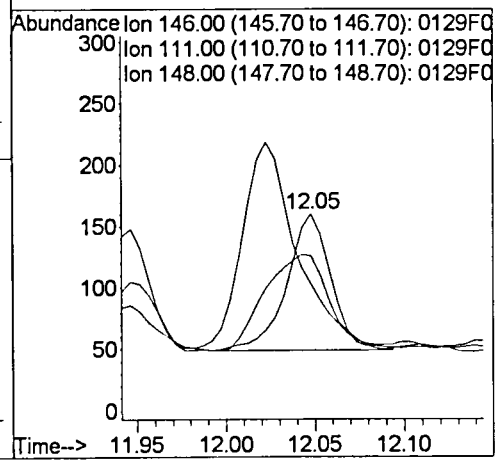




#28
1,4-Dichlorobenzene
Concen: 5.57 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F026.D
Acq: 29 Jan 2016 8:58 pm

Tgt Ion:146 Resp: 192

Ion	Ratio	Lower	Upper
146	100		
111	44.1	6.7	66.7
148	69.4	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F027.D
Lab ID: K1600673-010
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 21:25
Date Quantitated: 02/01/2016 14:02
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL
Lab Control Spike	Toluene-d8	122	74	112	↑ bias analyte above
Surrogates	Toluene-d8	120	74	112	1 ND

Primary Review: 2/1/16

Secondary Review:

Printed: 02/01/2016 14:35:33
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F027.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 21:25	**Quant Date:**	02/01/2016 14:02	**Vial:**	35
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496766	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	67300	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48038	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17250	1,126	113	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	58548	1,196	120	74-112	*
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	21419	1,106	111	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	67m	2.75	5.8	U	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:39:21 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

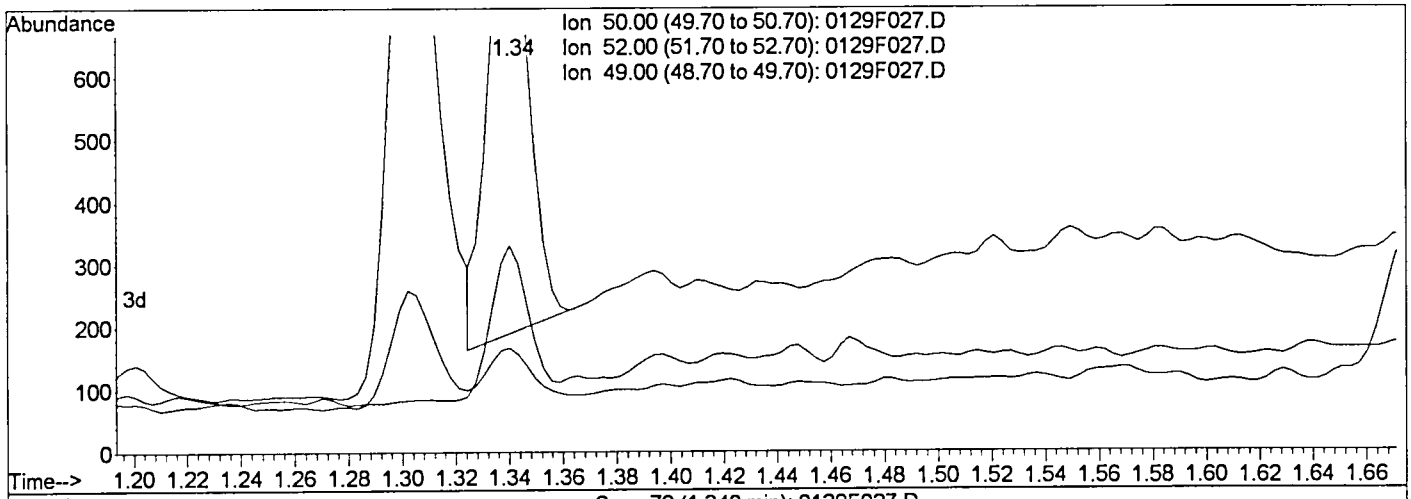
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	67300	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48038	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	23125	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17250	1126.38	ng/L	0.00
Spiked Amount 1000.000			Recovery = 112.64%			
15) Toluene-d8	8.21	98	58548	1196.29	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.63%			
24) 4-Bromofluorobenzene	10.88	95	21419	1106.39	ng/L	0.00
Spiked Amount 1000.000			Recovery = 110.64%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	706m	25.80	ng/L	
3) Vinyl Chloride	1.43	62	182	7.45	ng/L #	56
5) Methylene Chloride	3.29	84	549	24.63	ng/L	95
8) Chloroform	5.61	83	110m	3.17	ng/L	
11) Benzene	6.16	78	407	5.38	ng/L	93
12) 1,2-Dichloroethane	6.33	62	67m	2.75	ng/L	
20) Toluene	8.28	92	2237	57.44	ng/L	96
21) Ethylbenzene	9.80	106	77m	3.79	ng/L	
22) m,p-Xylenes	9.93	106	298	11.75	ng/L	84
23) o-Xylene	10.33	106	140	5.58	ng/L	97
26) Tetrachloroethene	8.78	164	70	5.15	ng/L #	71
28) 1,4-Dichlorobenzene	12.05	146	189	5.24	ng/L #	52

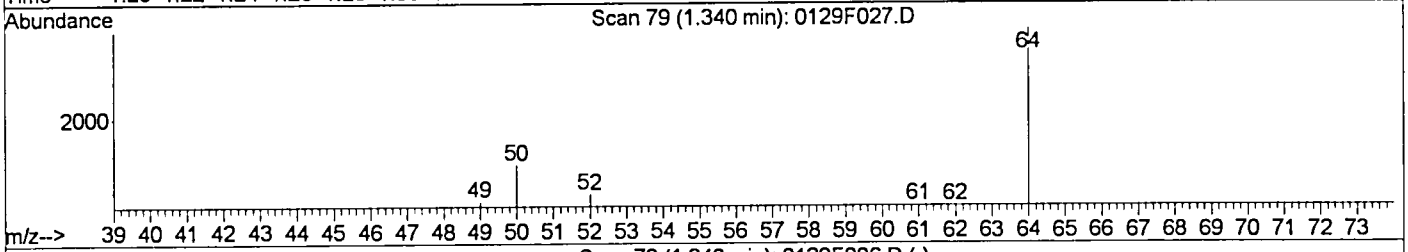
(#) = qualifier out of range (m) = manual integration
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:07:47 2016 Page 1

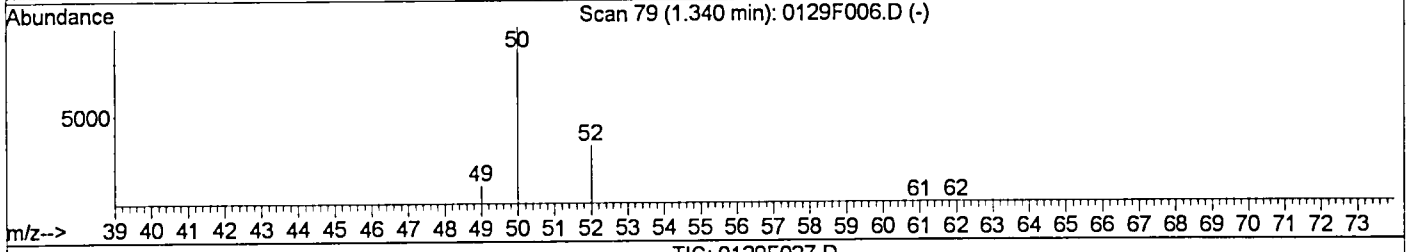
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:39 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F027.D

(2) Chloromethane (T)

1.34min 28.44ng/L

response 778

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.44
49.00	10.10	10.19
0.00	0.00	0.00

Manual Integration:

Before

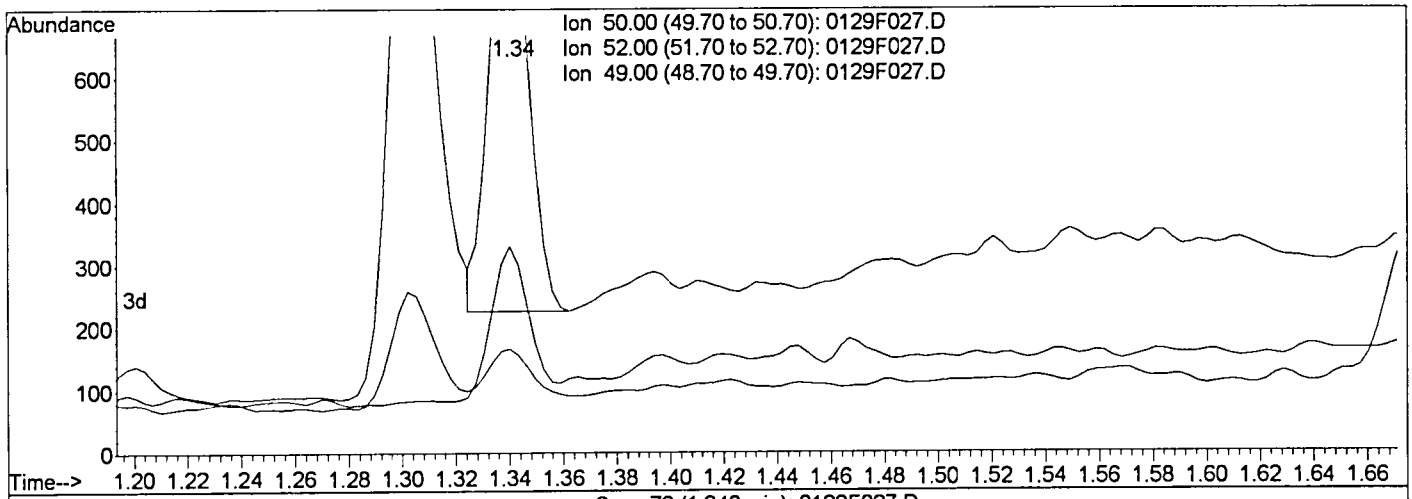
02/01/16

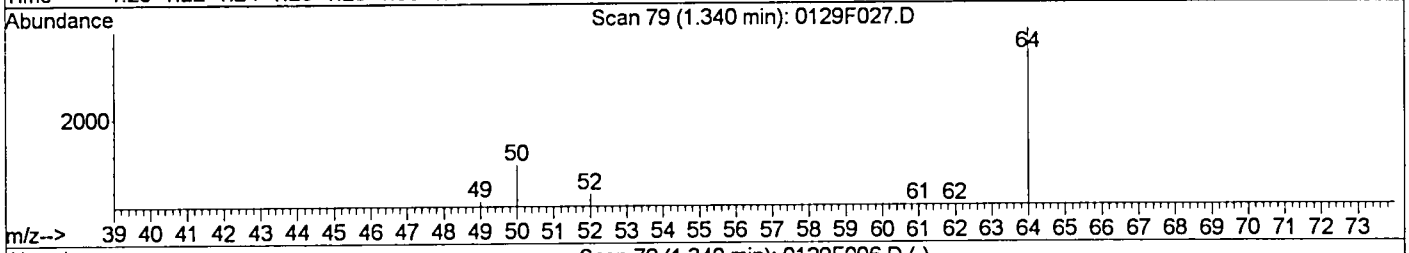
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:00:31 2016

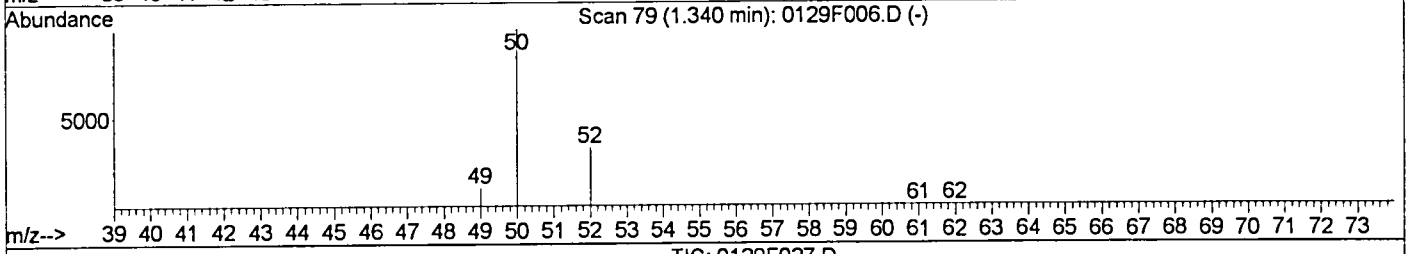
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:00 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F027.D

(2) Chloromethane (T)

1.34min 25.80ng/L m

response 706

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	34.02
49.00	10.10	17.16
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

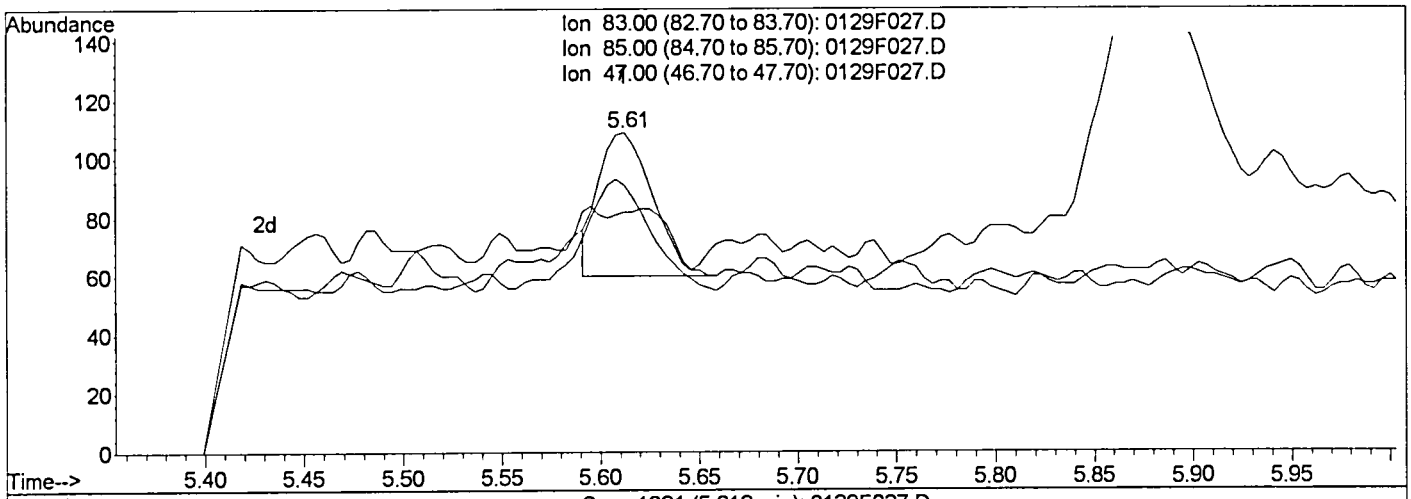
02/01/16

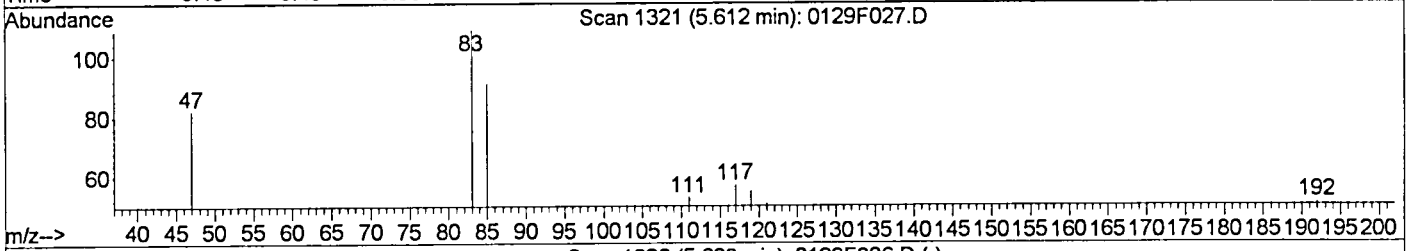
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:00:39 2016

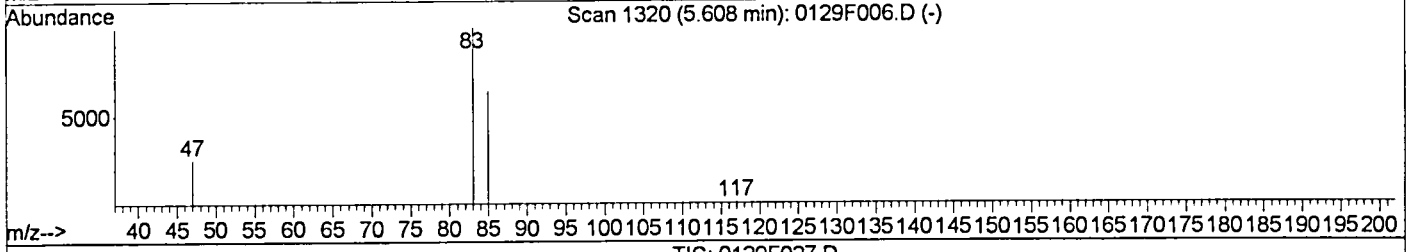
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:00 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F027.D

(8) Chloroform (T)

5.61min 2.68ng/L

response 93

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	71.43
47.00	25.90	28.57
0.00	0.00	0.00

Manual Integration:

Before

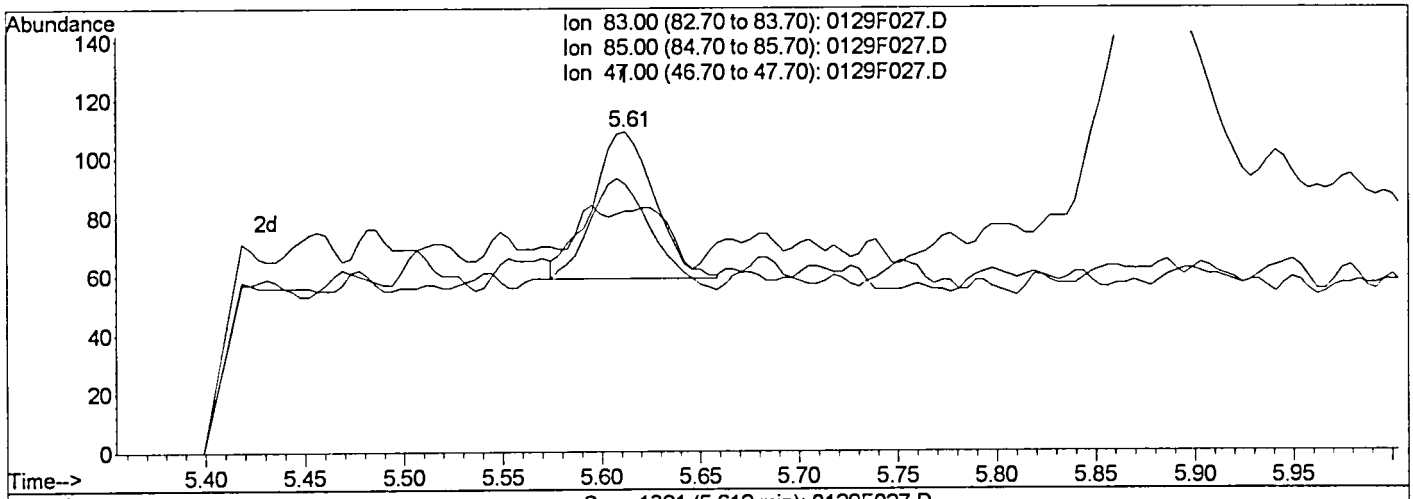
02/01/16

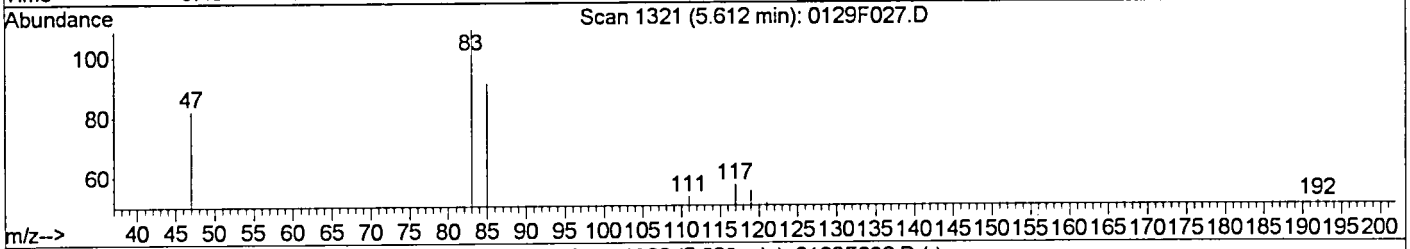
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:00:56 2016

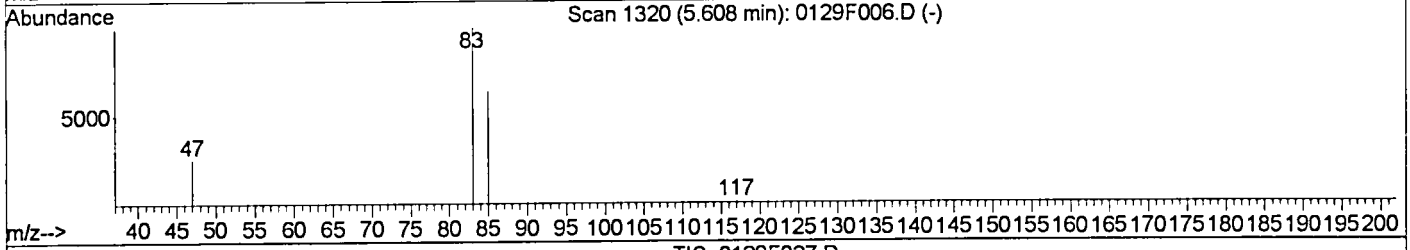
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:01 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F027.D

(8) Chloroform (T)

5.61min 3.17ng/L m

response 110

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	83.49
47.00	25.90	75.23#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

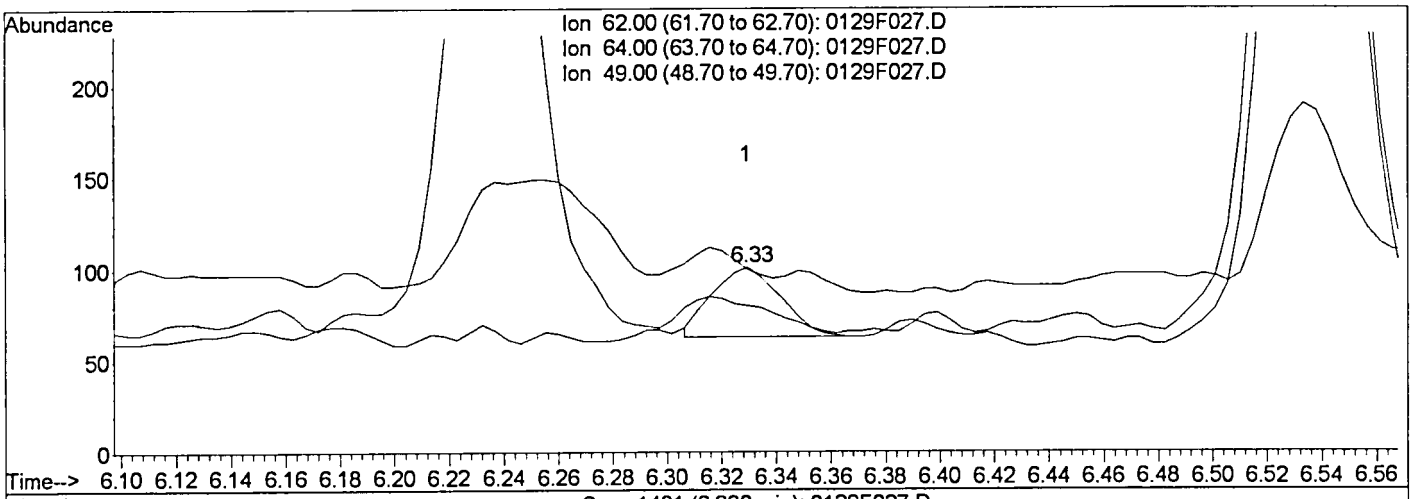
02/01/16

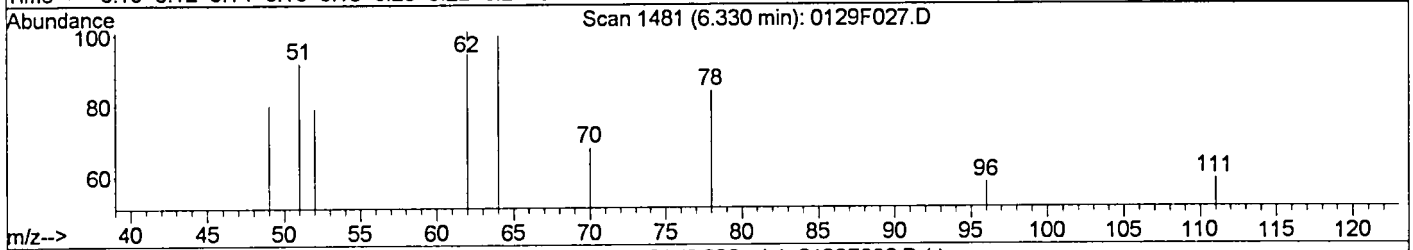
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:01:06 2016

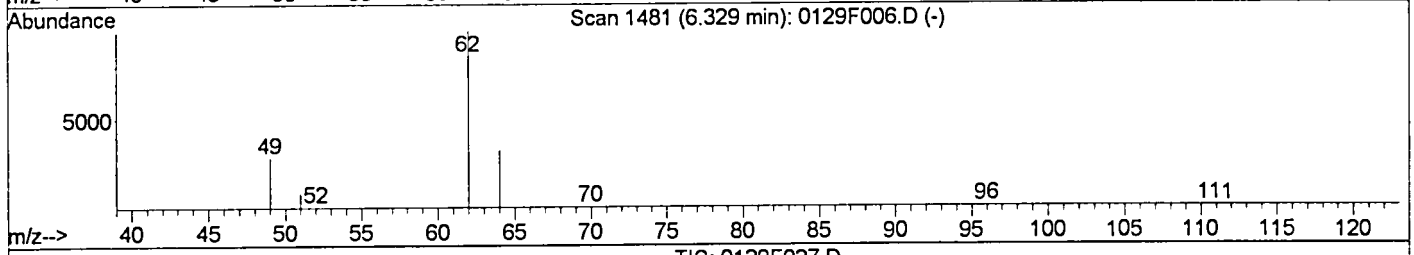
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:01 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F027.D

(12) 1,2-Dichloroethane (T)

6.33min 2.67ng/L

response 65

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	31.58
49.00	28.20	36.84
0.00	0.00	0.00

Manual Integration:

Before

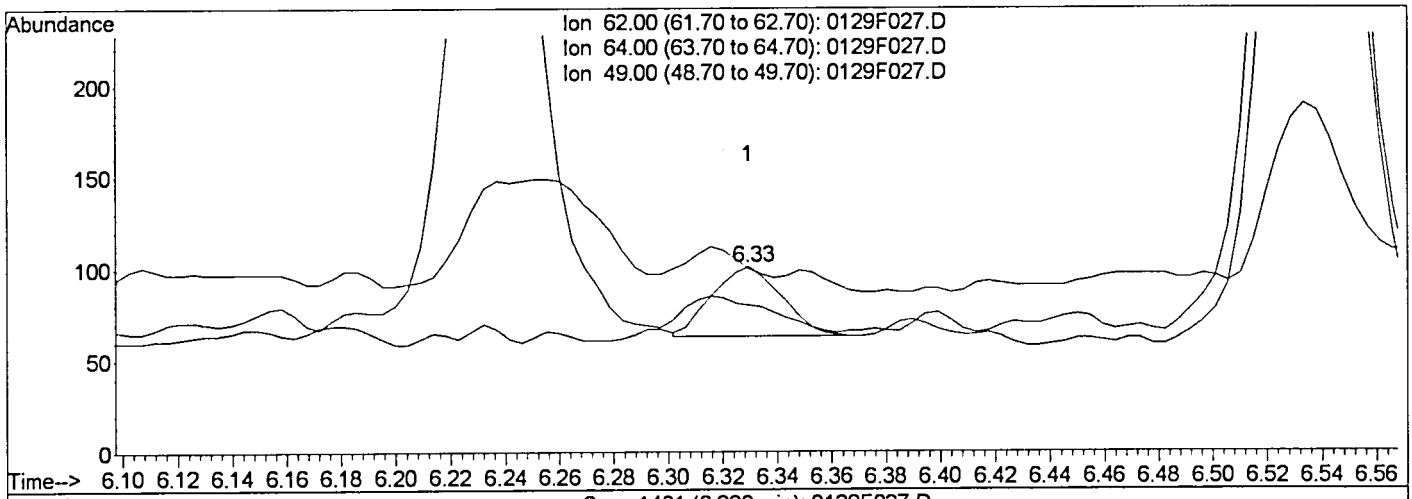
02/01/16

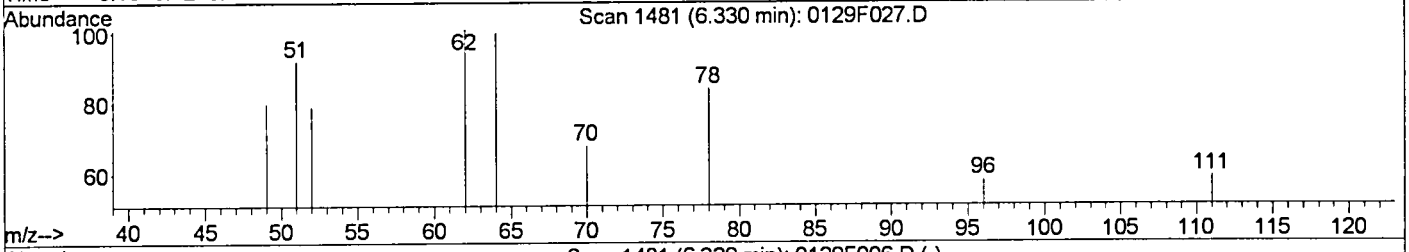
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:01:16 2016

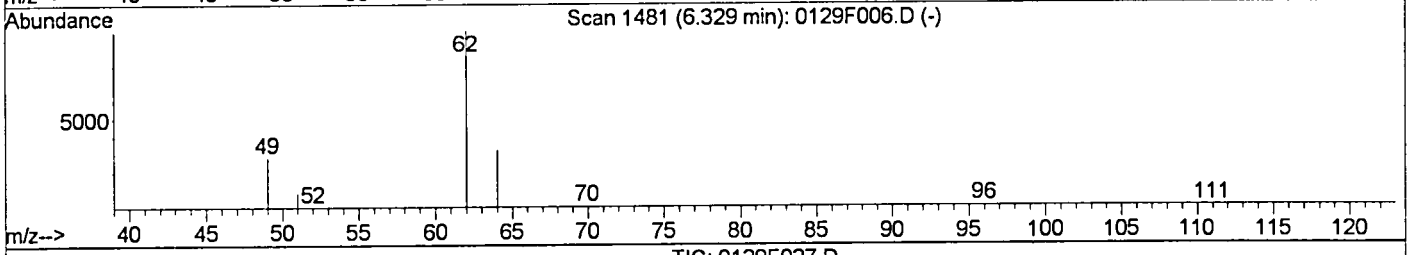
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:01 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F027.D

(12) 1,2-Dichloroethane (T)

6.33min 2.75ng/L m

response 67

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	99.01#
49.00	28.20	79.21#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

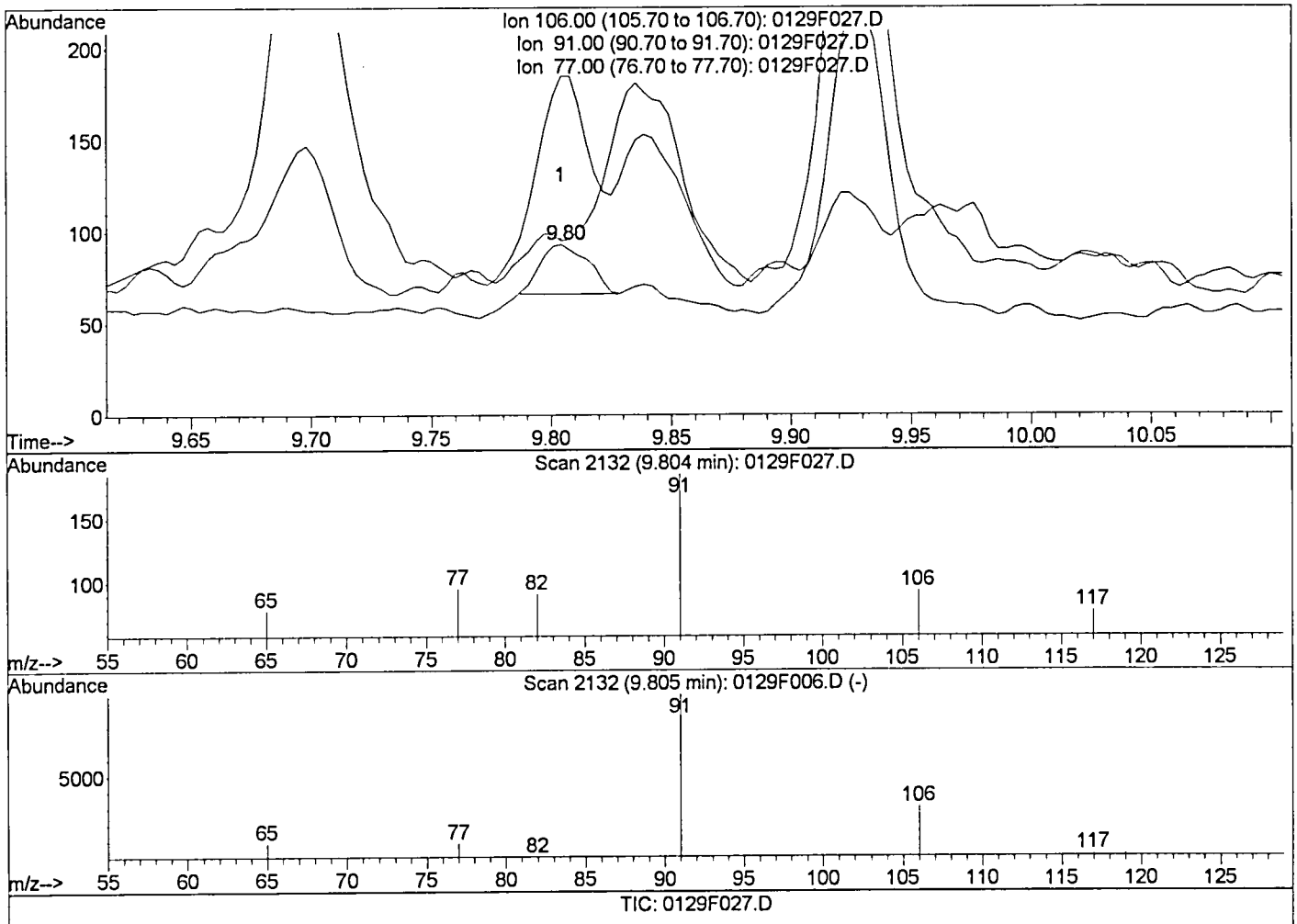
02/01/16

0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:01:24 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:01 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F027.D

(21) Ethylbenzene (T)

9.80min 1.82ng/L

response 37

Ion	Exp%	Act%
106.00	100	100
91.00	325.20	325.93
77.00	30.20	37.04
0.00	0.00	0.00

Manual Integration:

Before

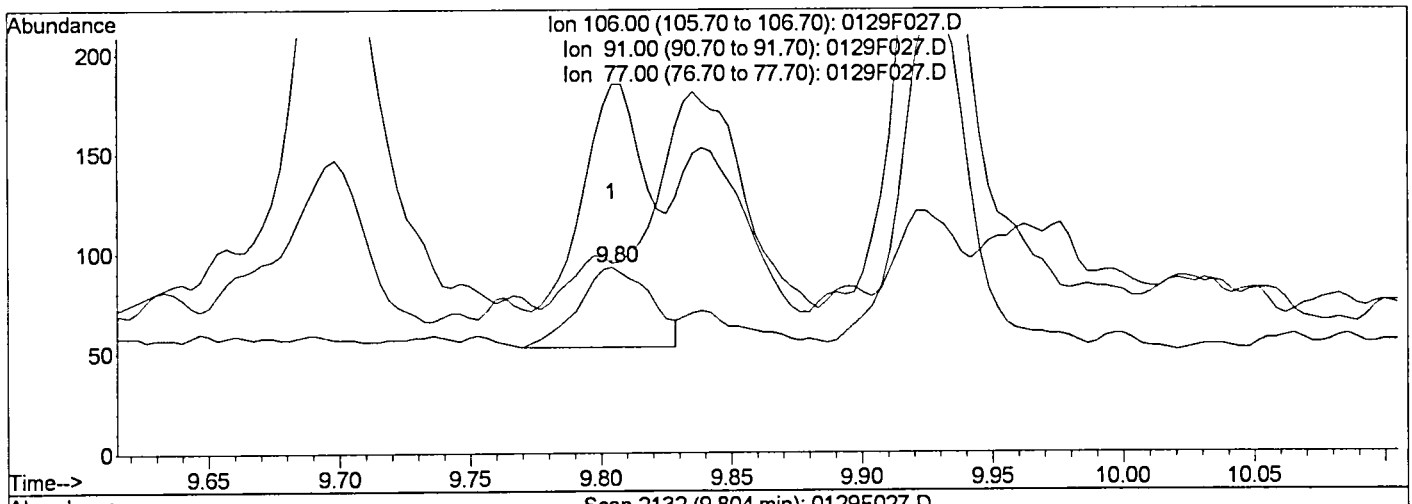
02/01/16

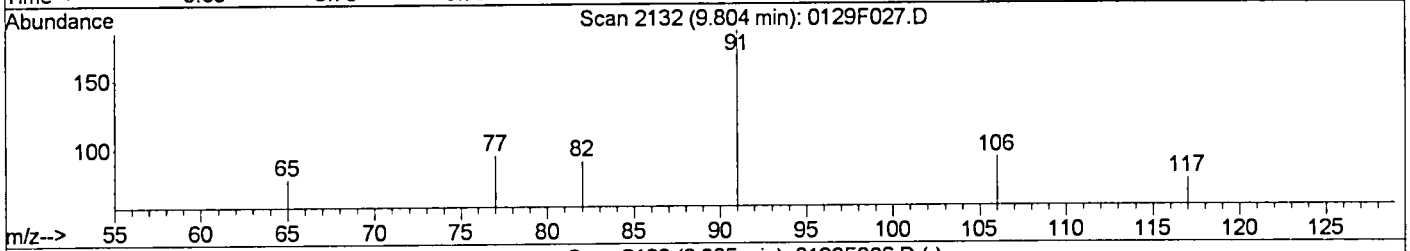
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:01:49 2016

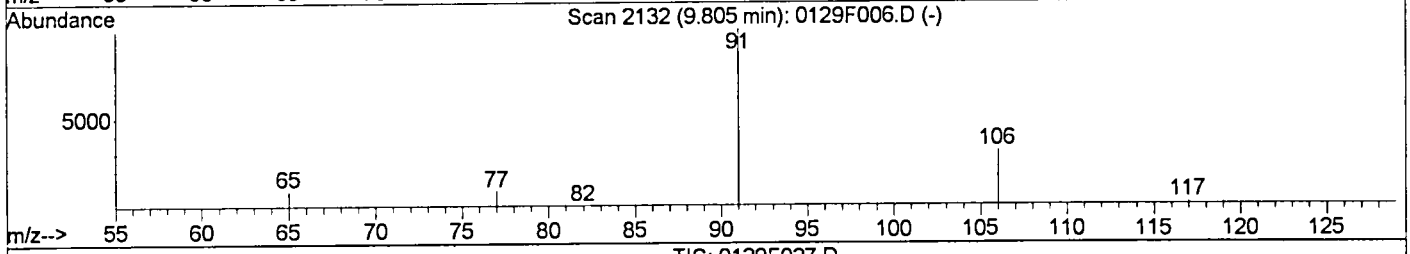
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:01 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F027.D

(21) Ethylbenzene (T)

9.80min 3.79ng/L m

response 77

Ion	Exp%	Act%
106.00	100	100
91.00	325.20	198.92#
77.00	30.20	102.15#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

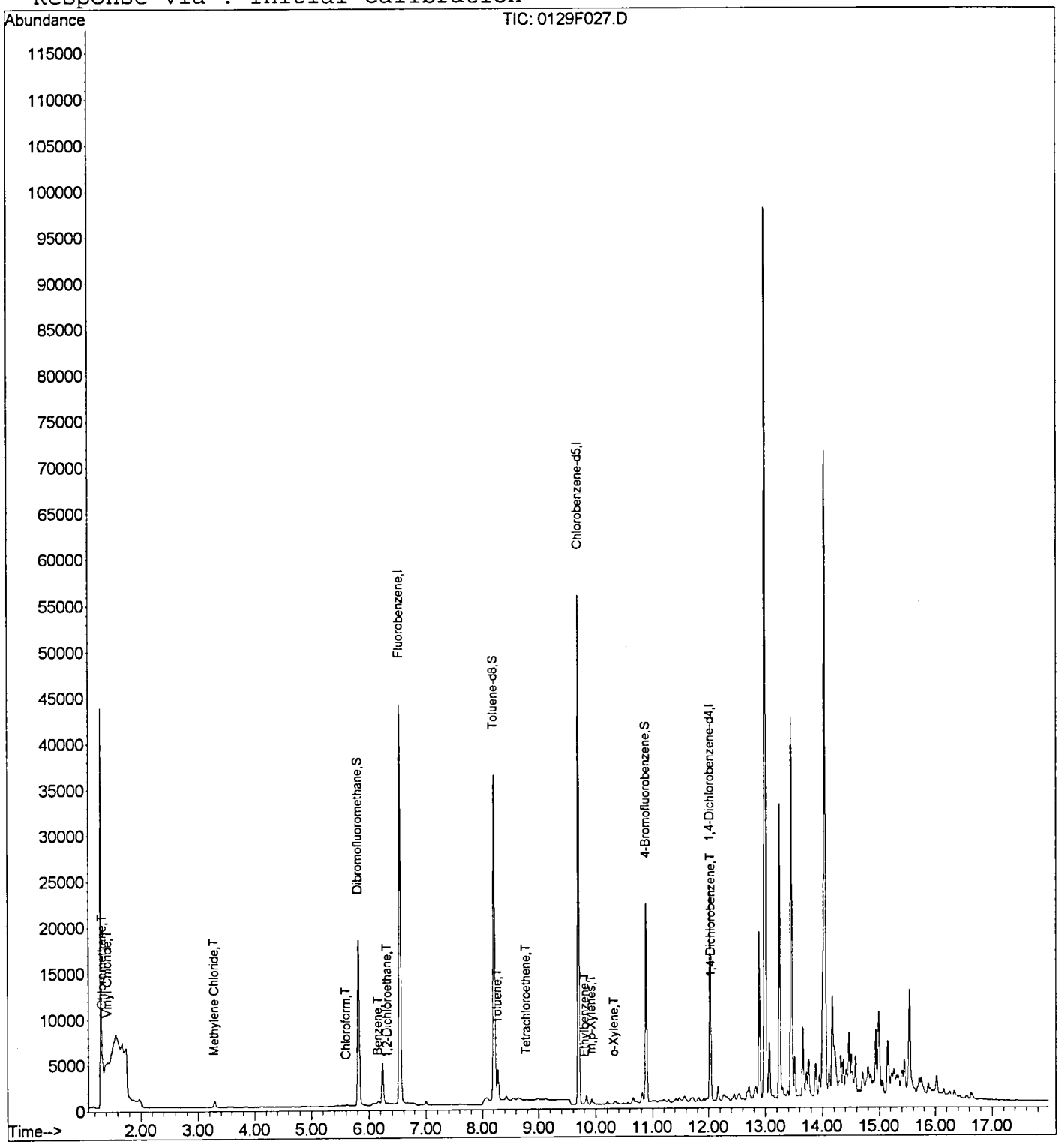
02/01/16

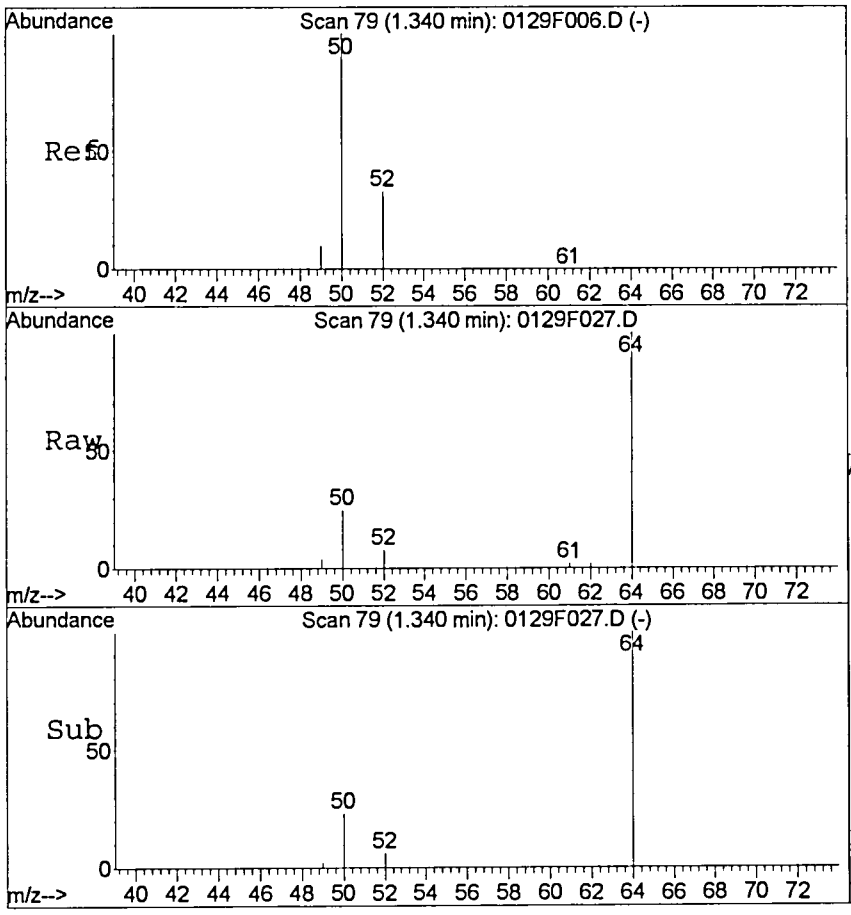
0129F027.D 012716MS27_8260SIM.M Mon Feb 01 14:01:56 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F027.D Vial: 35
Acq On : 29 Jan 2016 9:25 pm Operator: GH
Sample : K0673-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:02 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

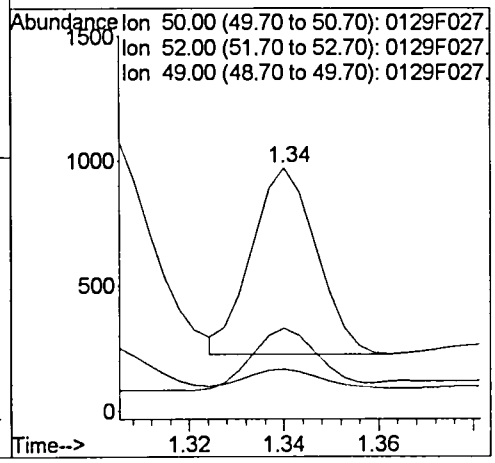


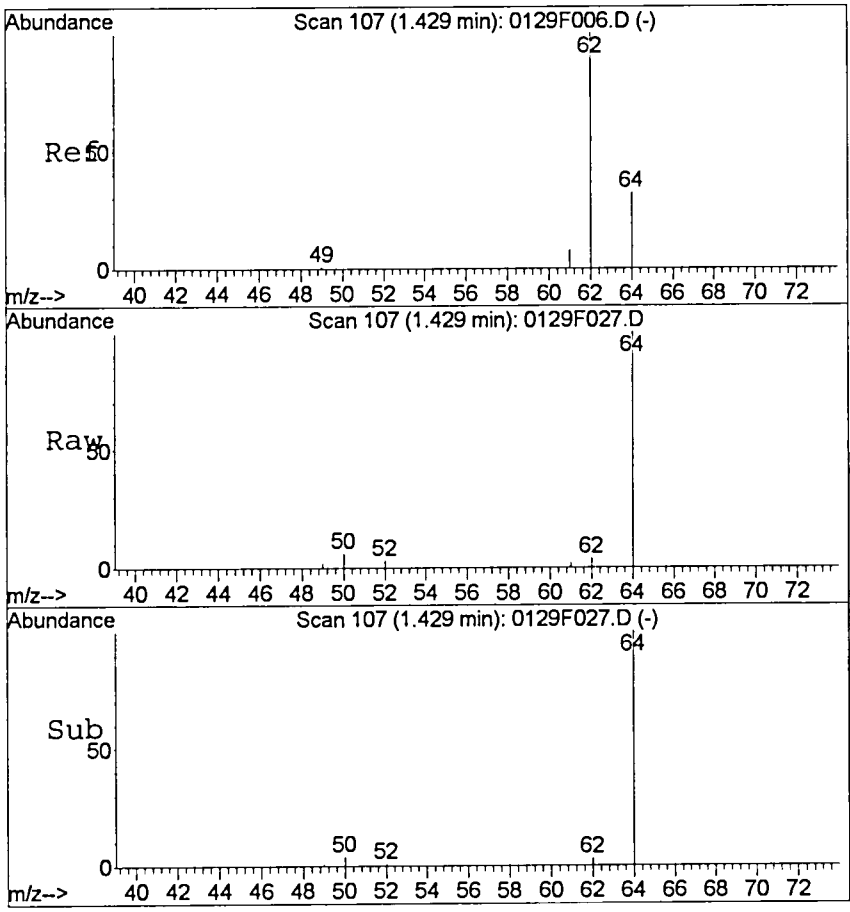


#2
Chloromethane
Concen: 25.80 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 50 Resp: 706

Ion	Ratio	Lower	Upper
50	100		
52	34.0	2.9	62.9
49	17.2	0.0	40.1

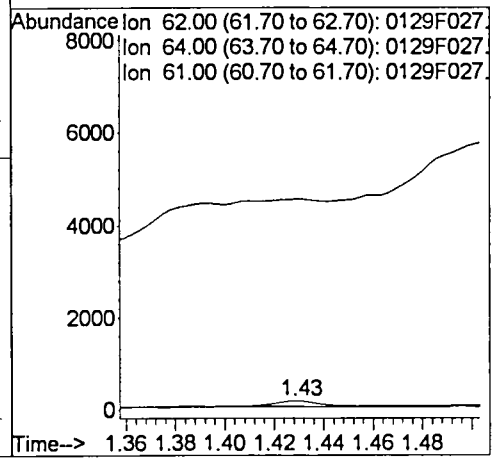


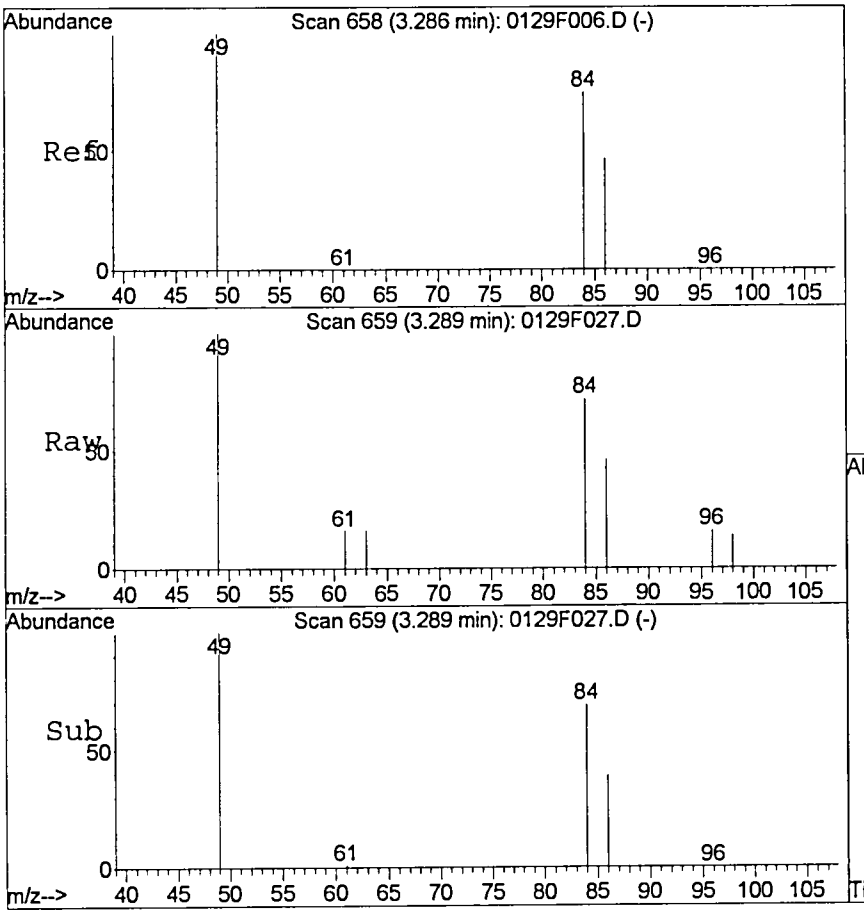


#3
Vinyl Chloride
Concen: 7.45 ng/L
RT: 1.43 min Scan# 107
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 62 Resp: 182

Ion	Ratio	Lower	Upper
62	100		
64	62.1	1.9	61.9#
61	7.3	0.0	38.5

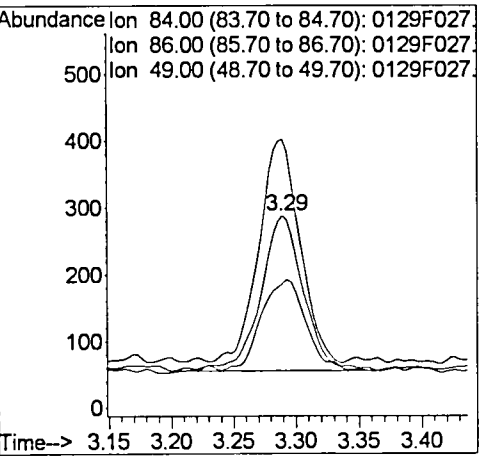


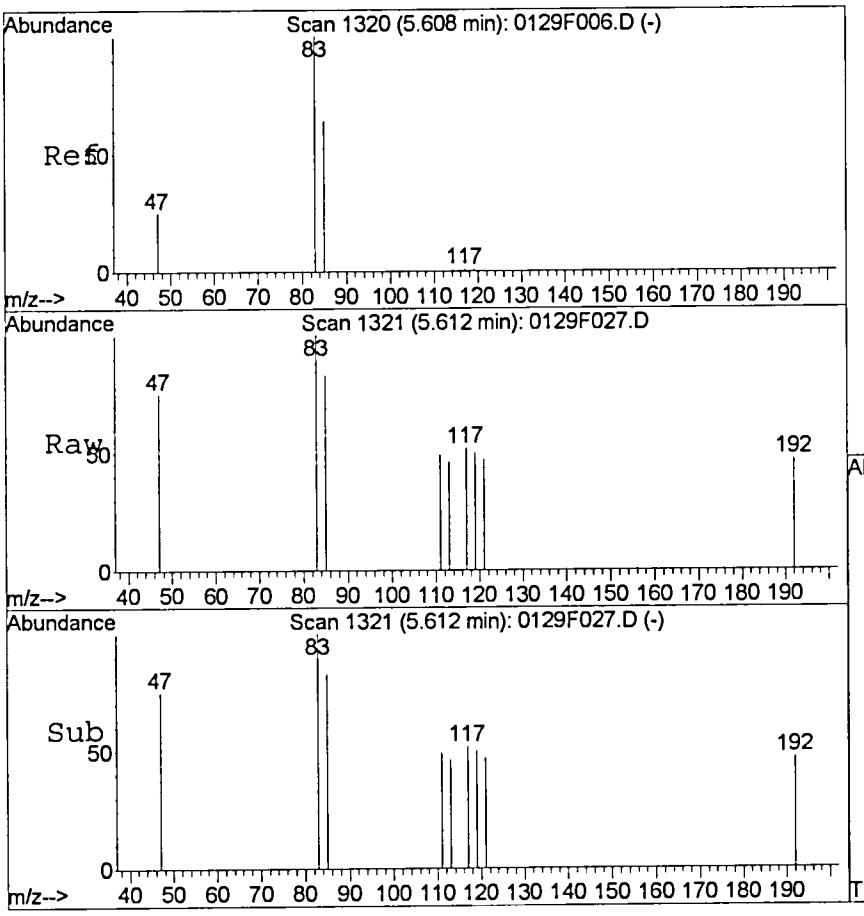


#5
Methylene Chloride
Concen: 24.63 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 84 Resp: 549

Ion	Ratio	Lower	Upper
84	100		
86	56.0	33.8	93.8
49	140.9	107.9	167.9

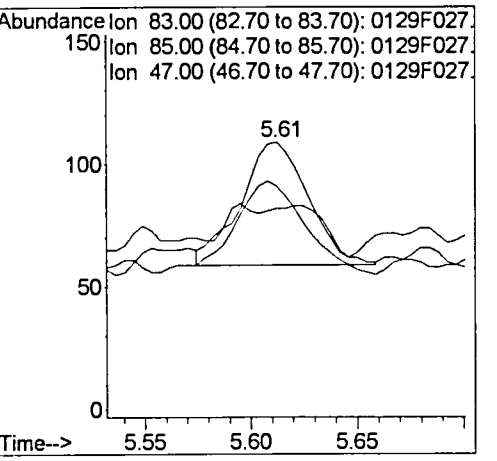


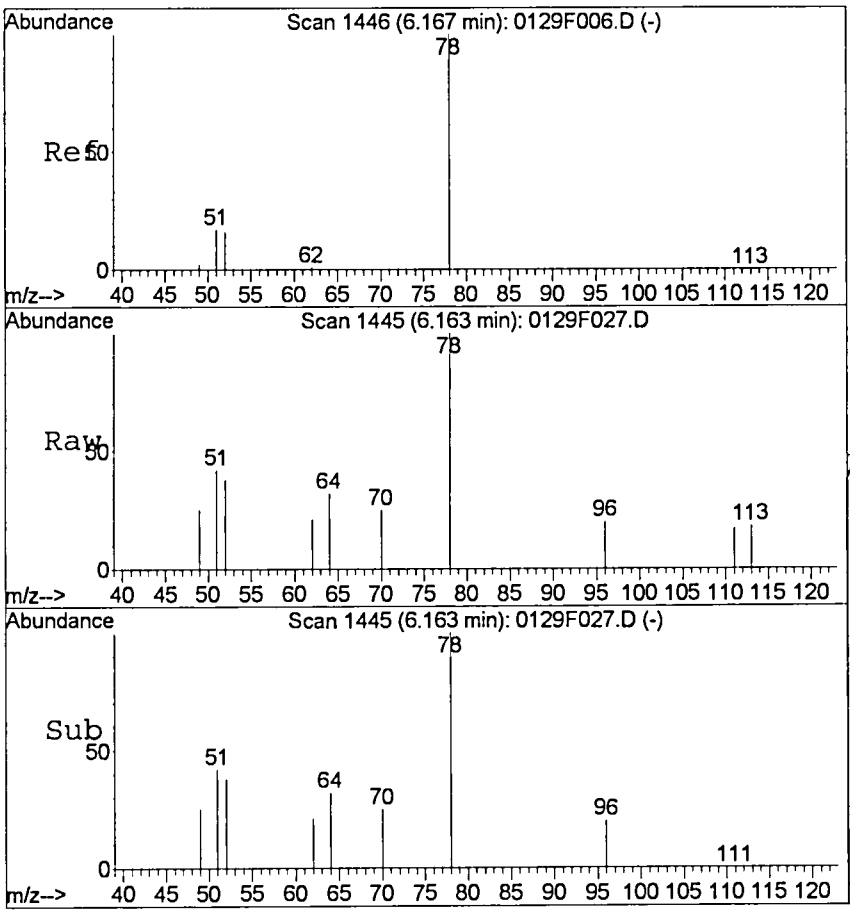


#8
Chloroform
Concen: 3.17 ng/L m
RT: 5.61 min Scan# 1321
Delta R.T. 0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 83 Resp: 110

Ion	Ratio	Lower	Upper
83	100		
85	83.5	34.7	94.7
47	75.2	0.0	55.9#

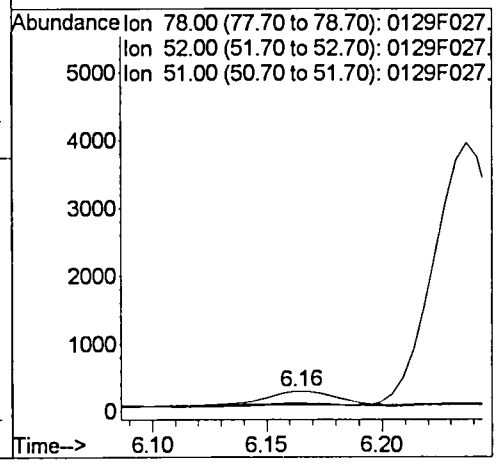


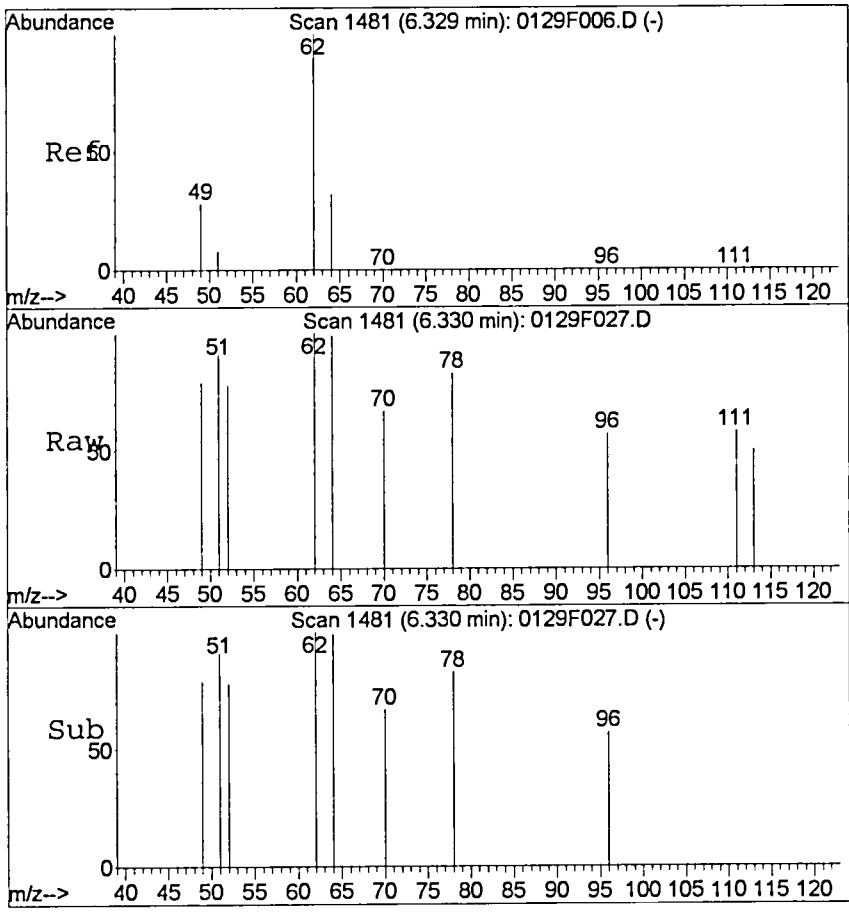


#11
Benzene
Concen: 5.38 ng/L
RT: 6.16 min Scan# 1445
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 78 Resp: 407

Ion	Ratio	Lower	Upper
78	100		
52	20.2	0.0	46.9
51	20.2	0.0	47.6

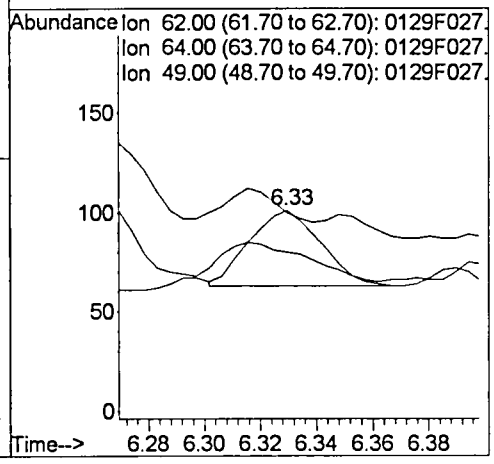


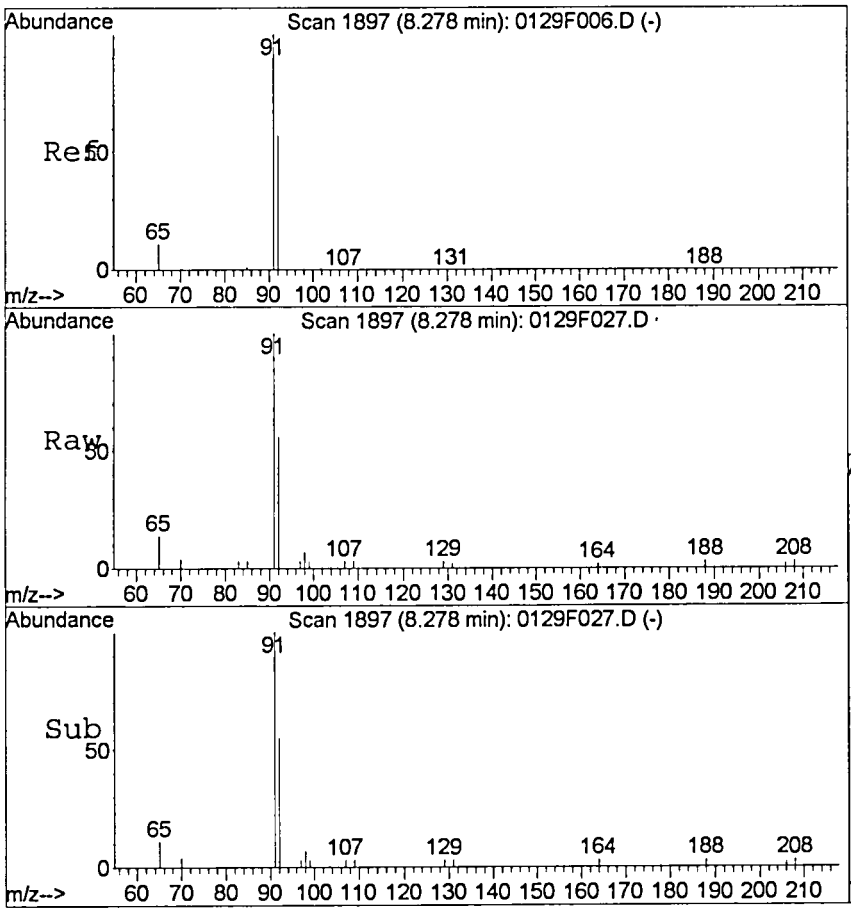


#12
1,2-Dichloroethane
Concen: 2.75 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 62 Resp: 67

Ion	Ratio	Lower	Upper
62	100		
64	99.0	1.7	61.7#
49	79.2	0.0	58.2#

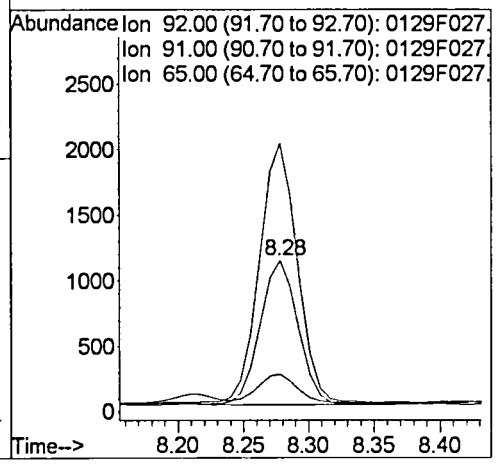


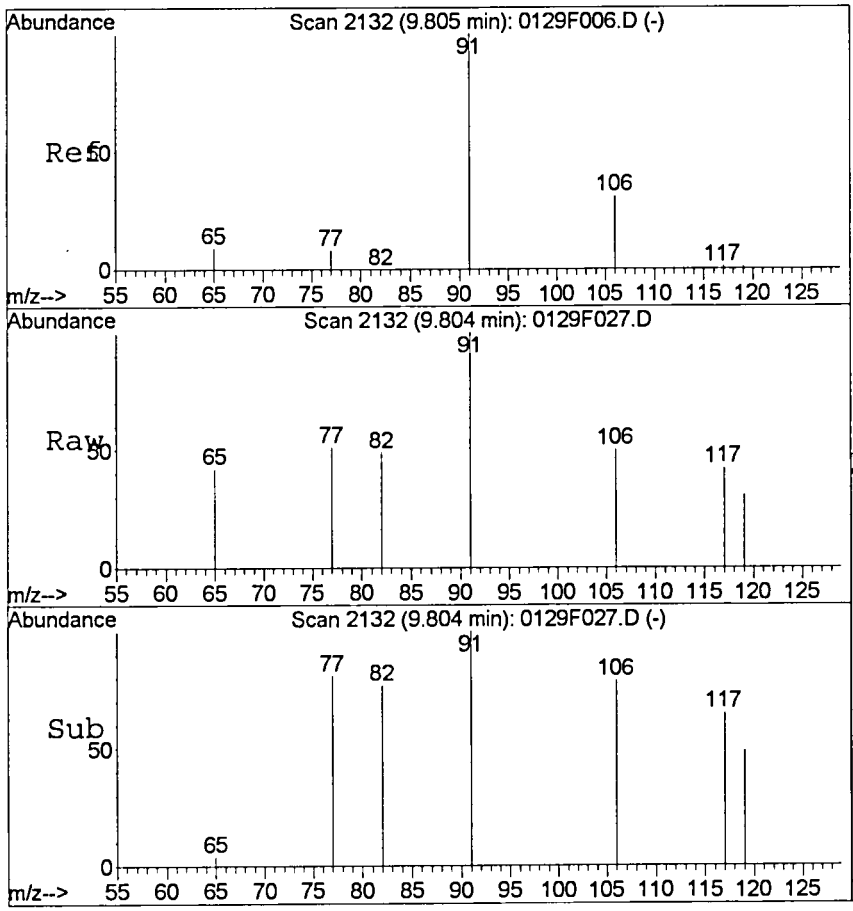


#20
Toluene
Concen: 57.44 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion: 92 Resp: 2237

Ion	Ratio	Lower	Upper
92	100		
91	179.9	144.4	204.4
65	19.4	0.0	49.7

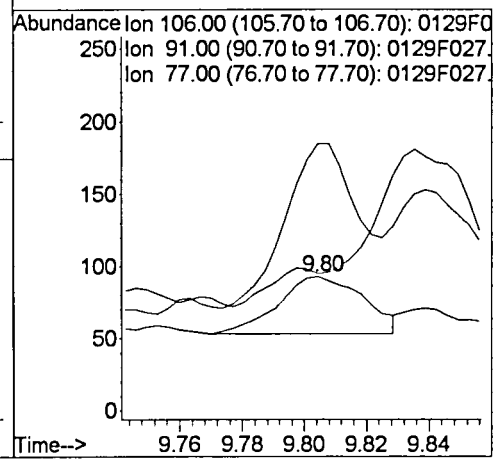


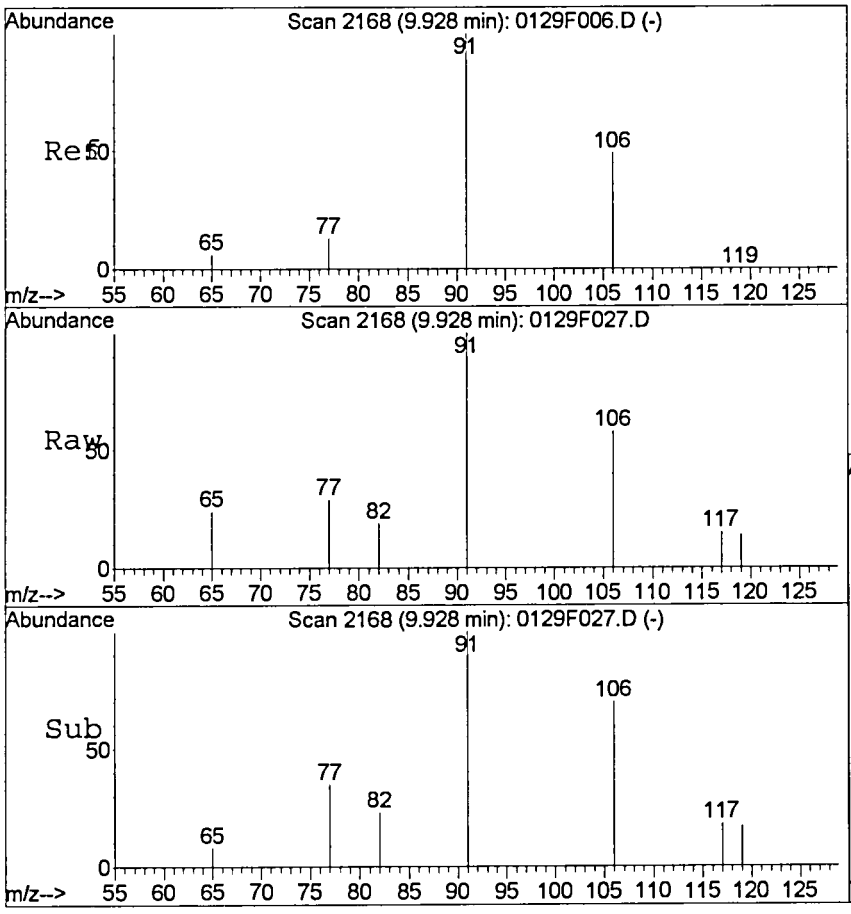


#21
Ethylbenzene
Concen: 3.79 ng/L m
RT: 9.80 min Scan# 2132
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion:106 Resp: 77

Ion	Ratio	Lower	Upper
106	100		
91	198.9	295.2	355.2#
77	102.2	0.2	60.2#

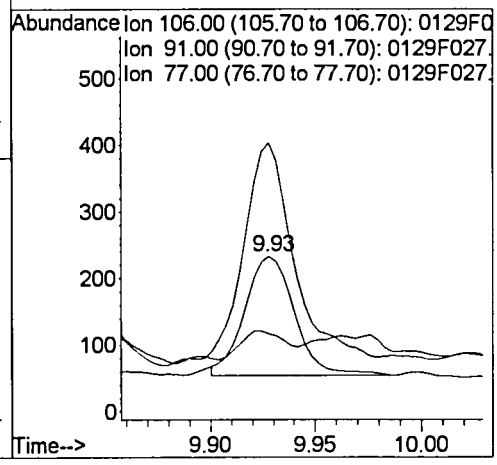


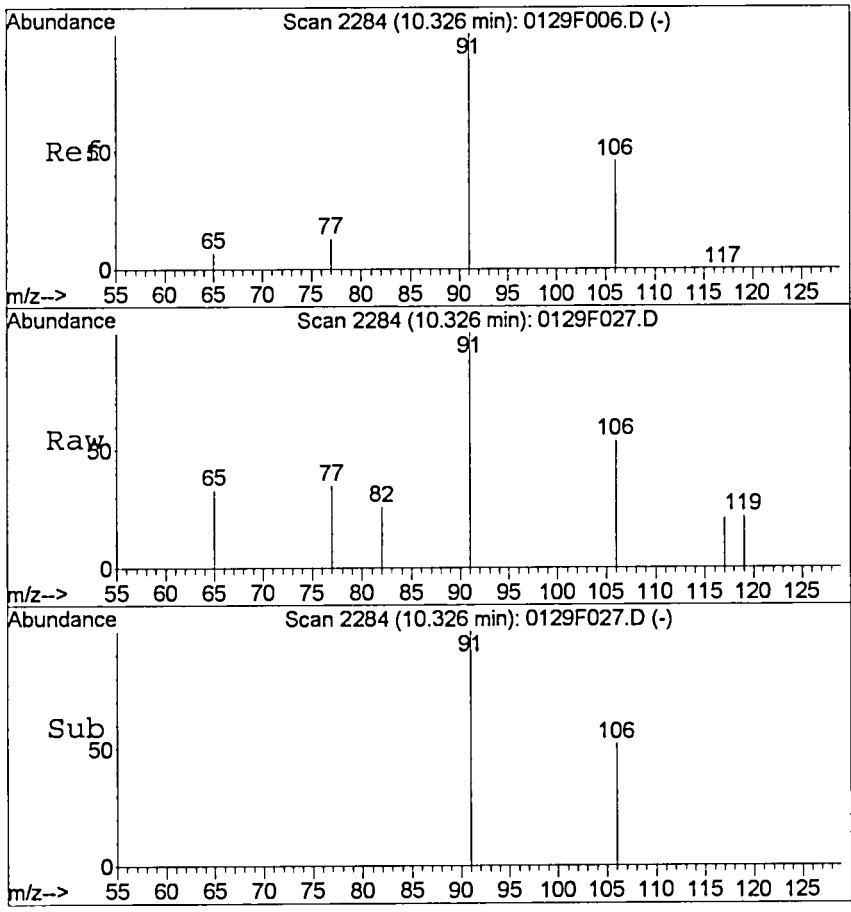


#22
m,p-Xylenes
Concen: 11.75 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion:106 Resp: 298

Ion	Ratio	Lower	Upper
106	100		
91	178.2	173.8	233.8
77	20.7	0.0	57.2

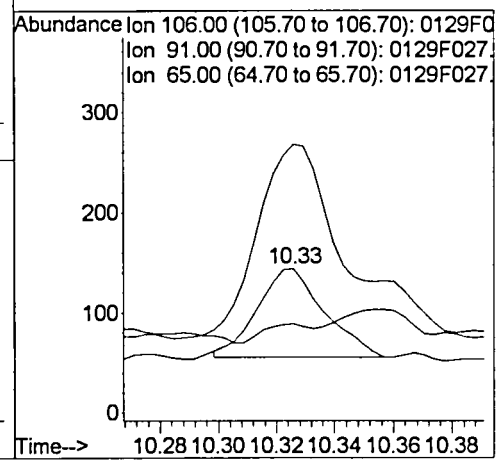


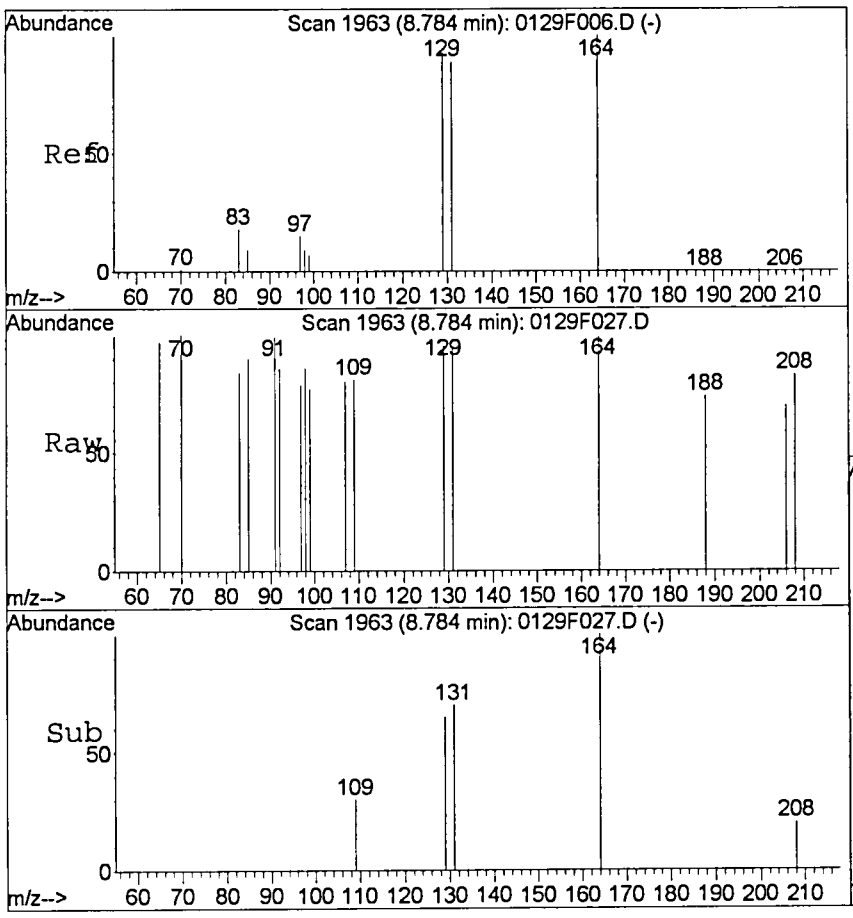


#23
o-Xylene
Concen: 5.58 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion:106 Resp: 140

Ion	Ratio	Lower	Upper
106	100		
91	210.2	185.6	245.6
65	13.6	0.0	45.0

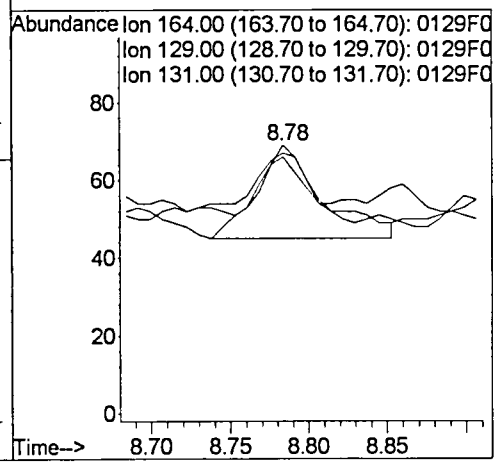


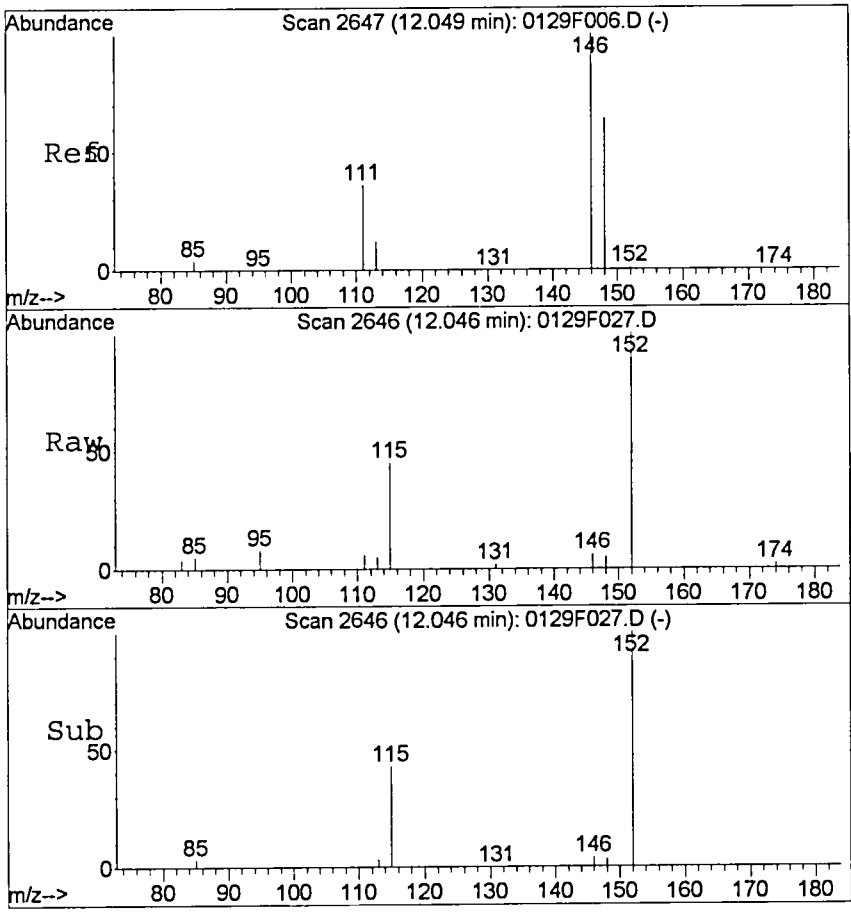


#26
Tetrachloroethene
Concen: 5.15 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion:164 Resp: 70

Ion	Ratio	Lower	Upper
164	100		
129	70.8	61.1	121.1
131	54.2	58.3	118.3#

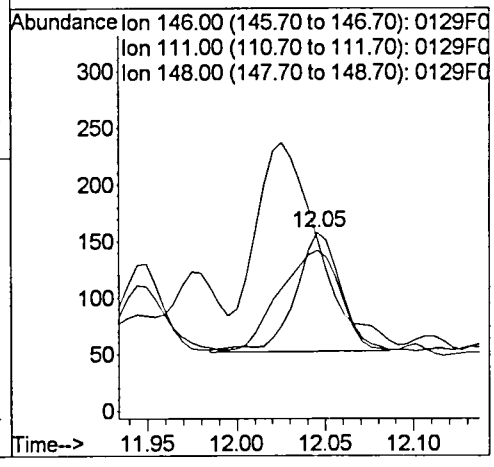




#28
1,4-Dichlorobenzene
Concen: 5.24 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F027.D
Acq: 29 Jan 2016 9:25 pm

Tgt Ion:146 Resp: 189

Ion	Ratio	Lower	Upper
146	100		
111	86.5	6.7	66.7#
148	84.6	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F018.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 17:17
Date Quantitated: 02/01/2016 13:43
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MLL ✓
Lab Control Spike	Toluene-d8	122	74	112	↑bias analytes ok ✓
Surrogates	Toluene-d8	124	74	112	↑bias <MLL
	4-Bromofluorobenzene	120	46	118	✓ ✓

Primary Review: JH 2/1/16

Secondary Review: KA 2/2/16

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F018.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 17:17	**Quant Date:**	02/01/2016 13:43	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1497008	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	70028	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	51667	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17859	1,121	112	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	63084m	1,239	124	74-112	*
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	24898m	1,196	120	46-118	*

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	170m	6.71	6.7	J	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:35:55 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

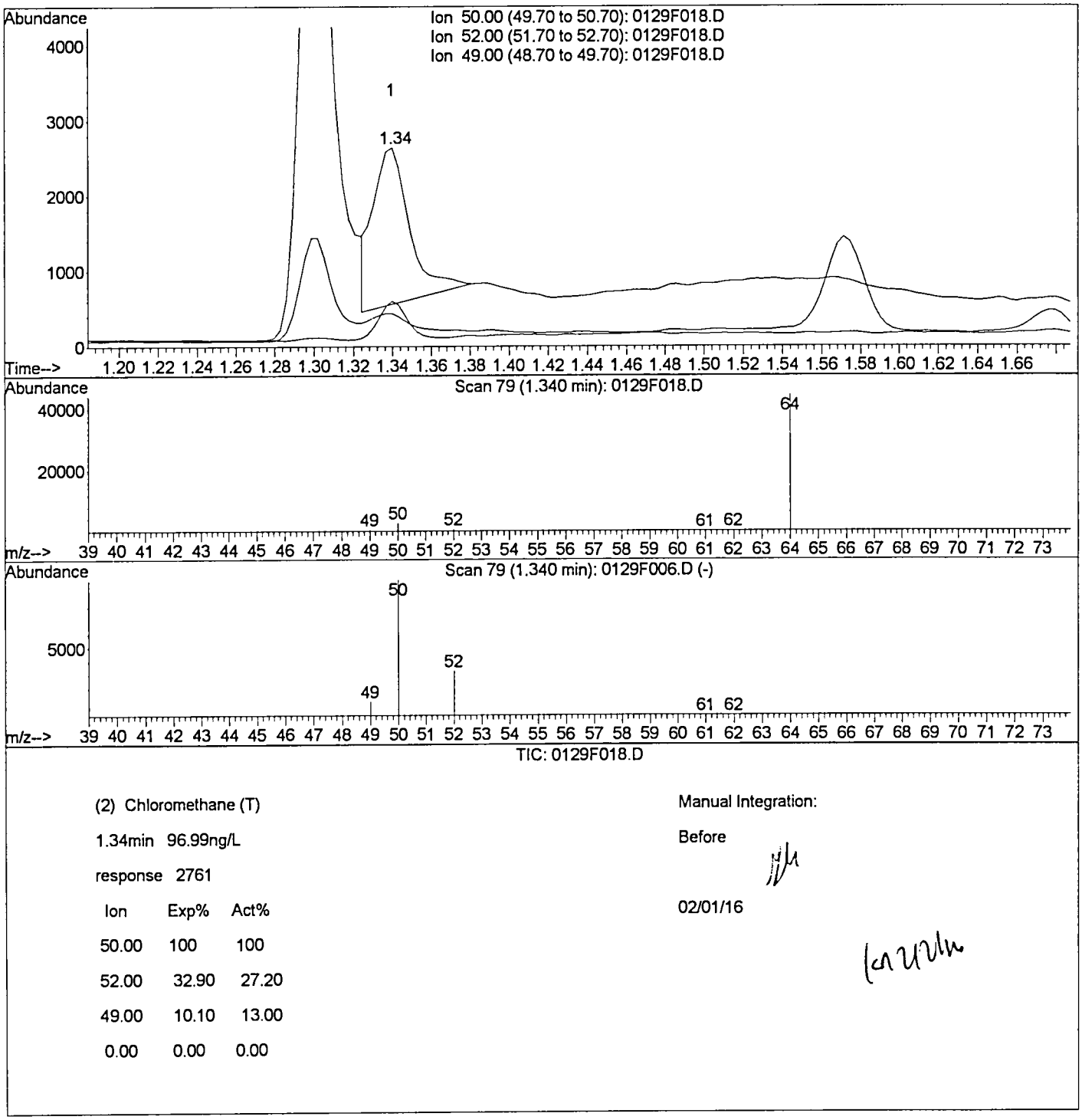
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.54	96	70028	1000.00 ng/L	0.00
19) Chlorobenzene-d5	9.70	117	51667	1000.00 ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	28962	1000.00 ng/L	0.00
System Monitoring Compounds					
9) Dibromofluoromethane	5.82	113	17859	1120.72 ng/L	0.00
Spiked Amount 1000.000			Recovery = 112.07%		
15) Toluene-d8	8.21	98	63084m	1238.76 ng/L	0.00
Spiked Amount 1000.000			Recovery = 123.88%		
24) 4-Bromofluorobenzene	10.88	95	24898m	1195.77 ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.58%		
Target Compounds					Qvalue
2) Chloromethane	1.34	50	2124m	74.61 ng/L	
5) Methylene Chloride	3.29	84	529	22.81 ng/L	94
6) trans-1,2-Dichloroethene	3.58	96	35	1.95 ng/L #	68
8) Chloroform	5.62	83	282	7.80 ng/L	83
11) Benzene	6.17	78	5191	65.93 ng/L	99
12) 1,2-Dichloroethane	6.33	62	170m	6.71 ng/L	
13) Trichloroethene	6.93	95	133m	7.23 ng/L	
20) Toluene	8.28	92	6001	143.27 ng/L	99
21) Ethylbenzene	9.81	106	4312	197.30 ng/L	99
22) m,p-Xylenes	9.93	106	271	9.94 ng/L	92
23) o-Xylene	10.33	106	7751	287.41 ng/L	98
26) Tetrachloroethene	8.78	164	84	5.75 ng/L	90
28) 1,4-Dichlorobenzene	12.05	146	386	8.54 ng/L #	3

(#) = qualifier out of range (m) = manual integration
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 14:07:30 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:35 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F018.D

(2) Chloromethane (T)

1.34min 96.99ng/L

response 2761

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	27.20
49.00	10.10	13.00
0.00	0.00	0.00

Manual Integration:

Before

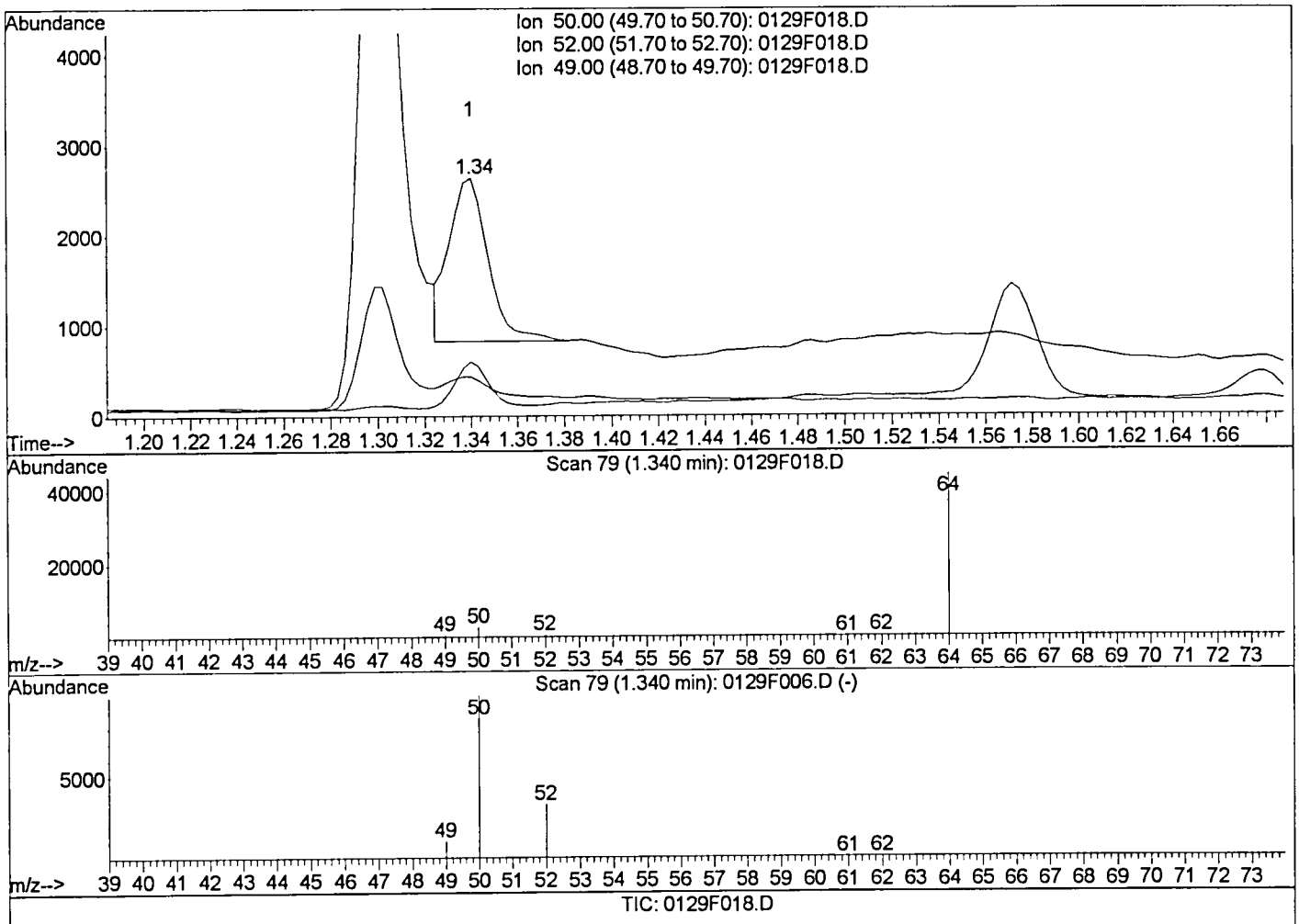
02/01/16

0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:40:07 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F018.D

(2) Chloromethane (T)

1.34min 74.61ng/L m

response 2124

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	22.78
49.00	10.10	16.47
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

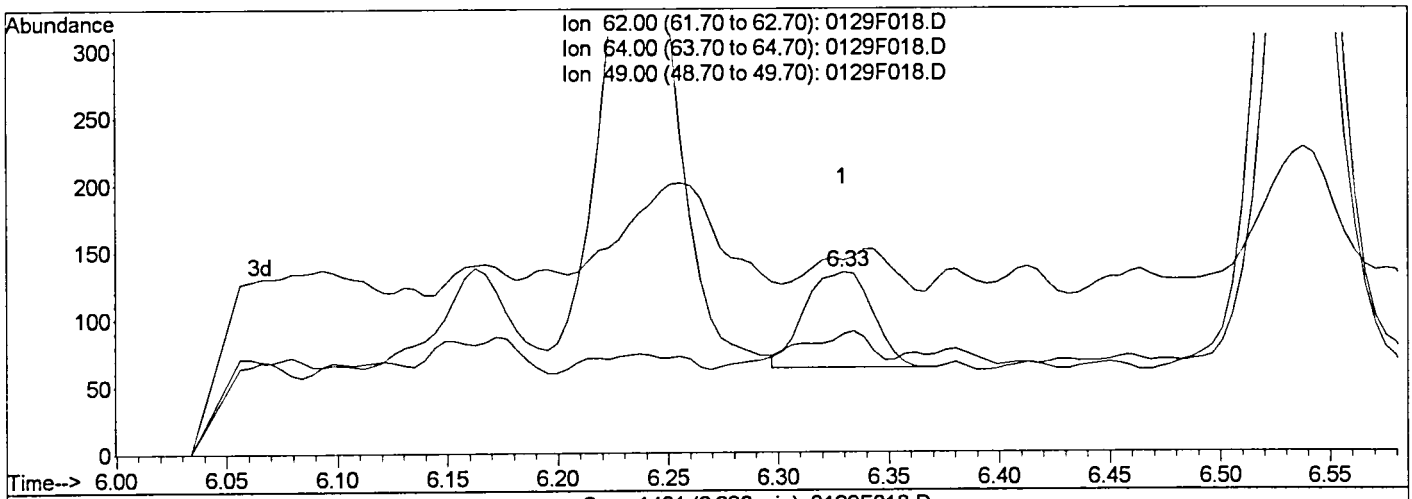
02/01/16

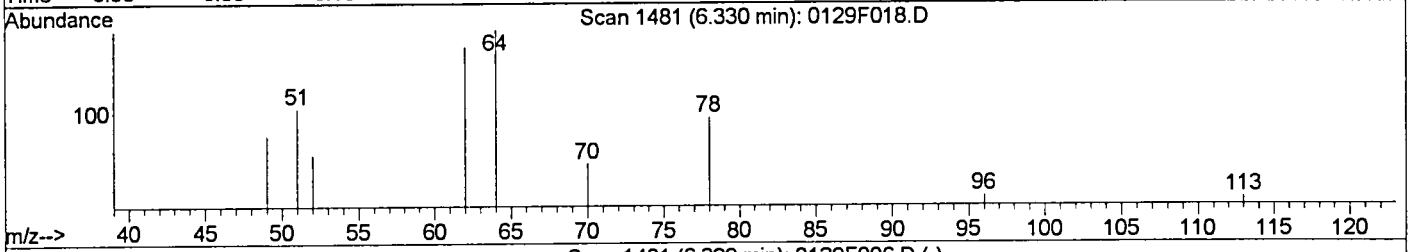
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:40:16 2016

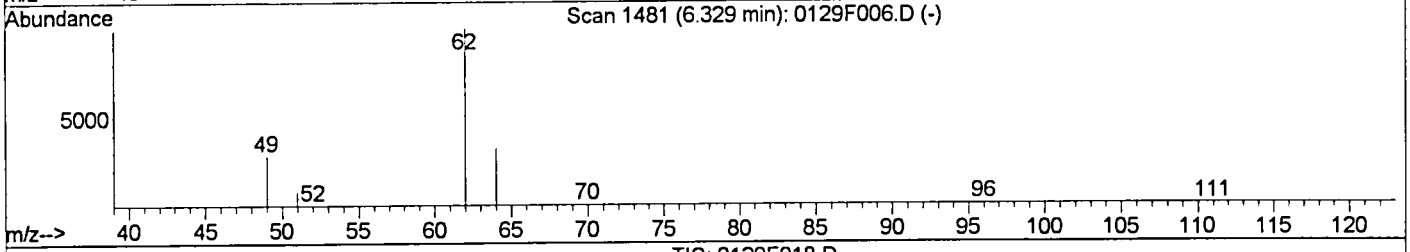
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F018.D

(12) 1,2-Dichloroethane (T)

6.33min 5.92ng/L

response 150

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	33.80
49.00	28.20	22.54
0.00	0.00	0.00

Manual Integration:

Before JH

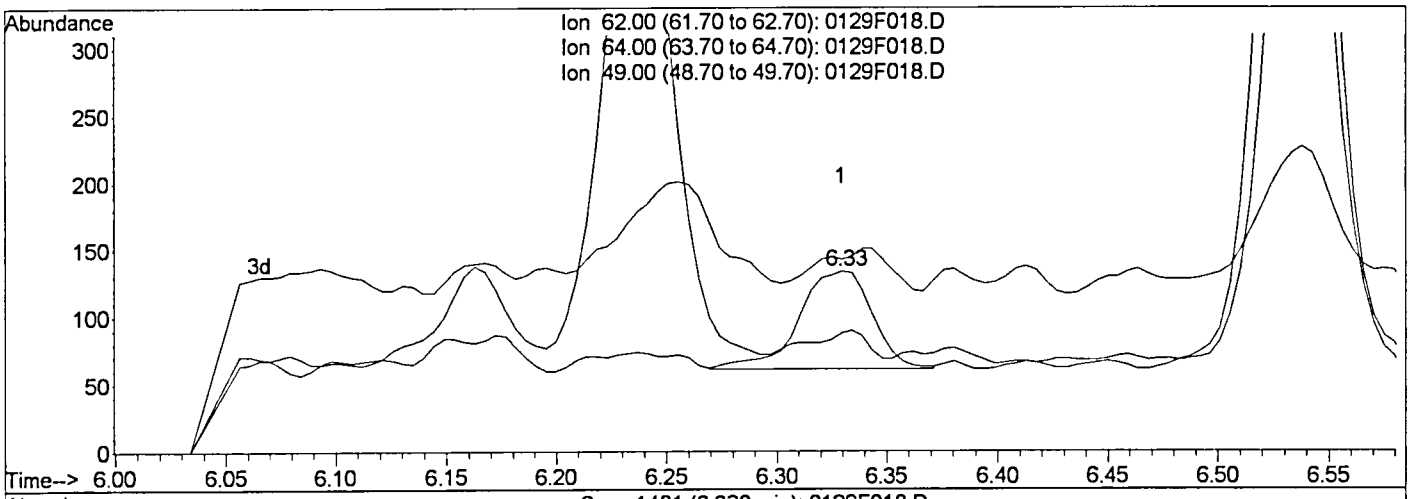
02/01/16

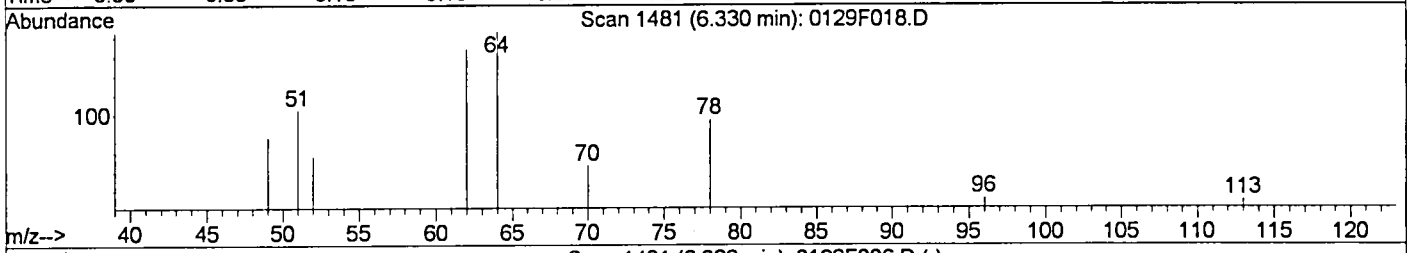
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:41:03 2016

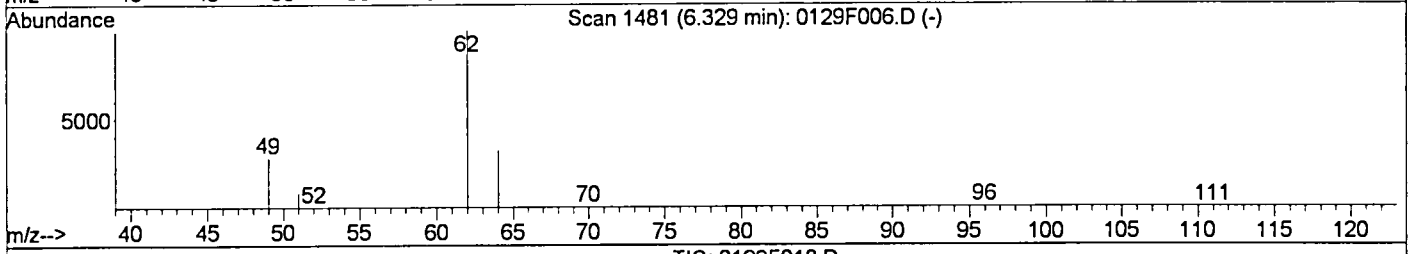
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:41 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F018.D

(12) 1,2-Dichloroethane (T)

6.33min 6.71ng/L m

response 170

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	106.72#
49.00	28.20	65.67#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

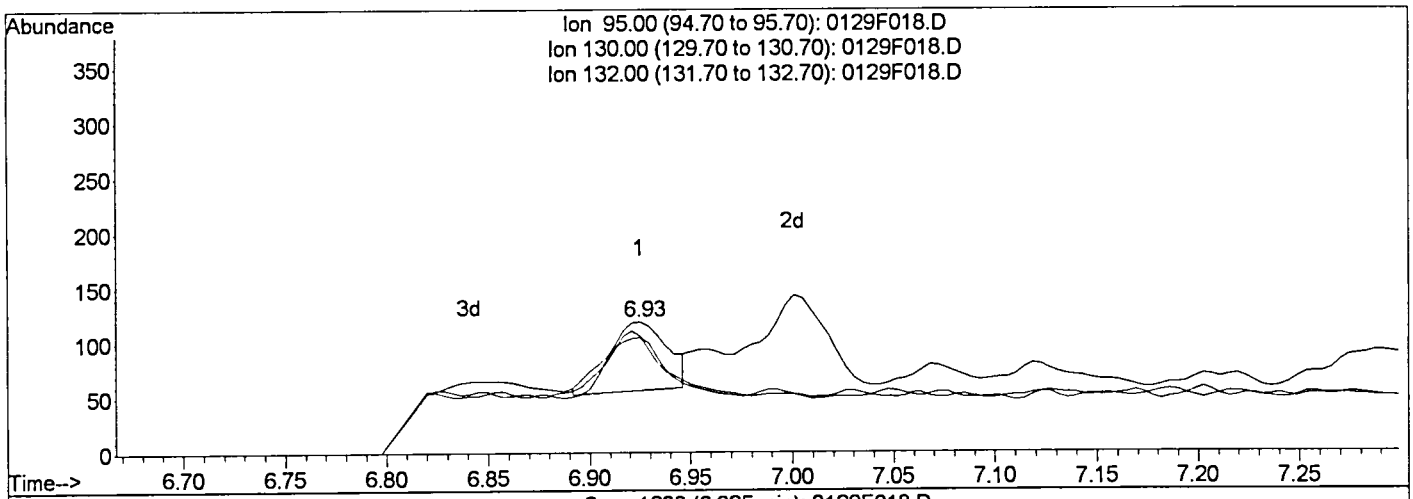
02/01/16

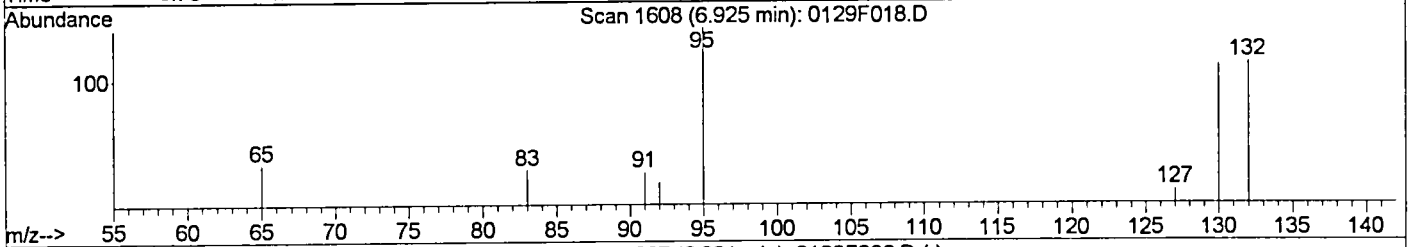
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:41:19 2016

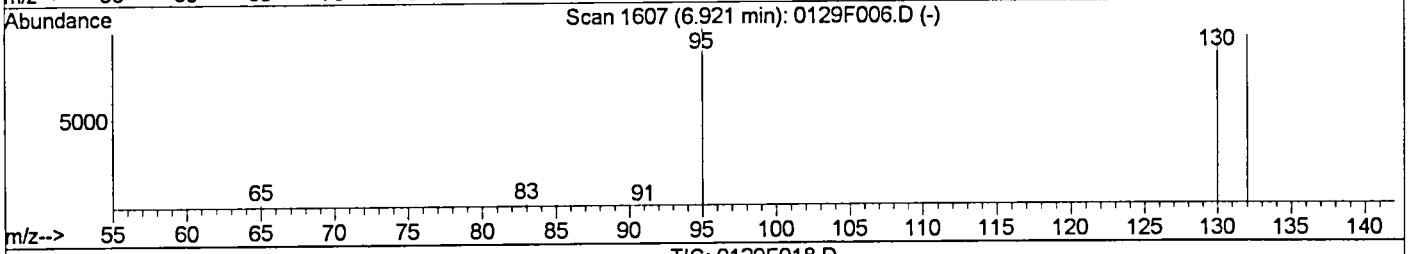
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:41 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F018.D

(13) Trichloroethene (T)

6.93min 7.18ng/L

response 132

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	90.00
132.00	93.90	83.33
0.00	0.00	0.00

Manual Integration:

Before

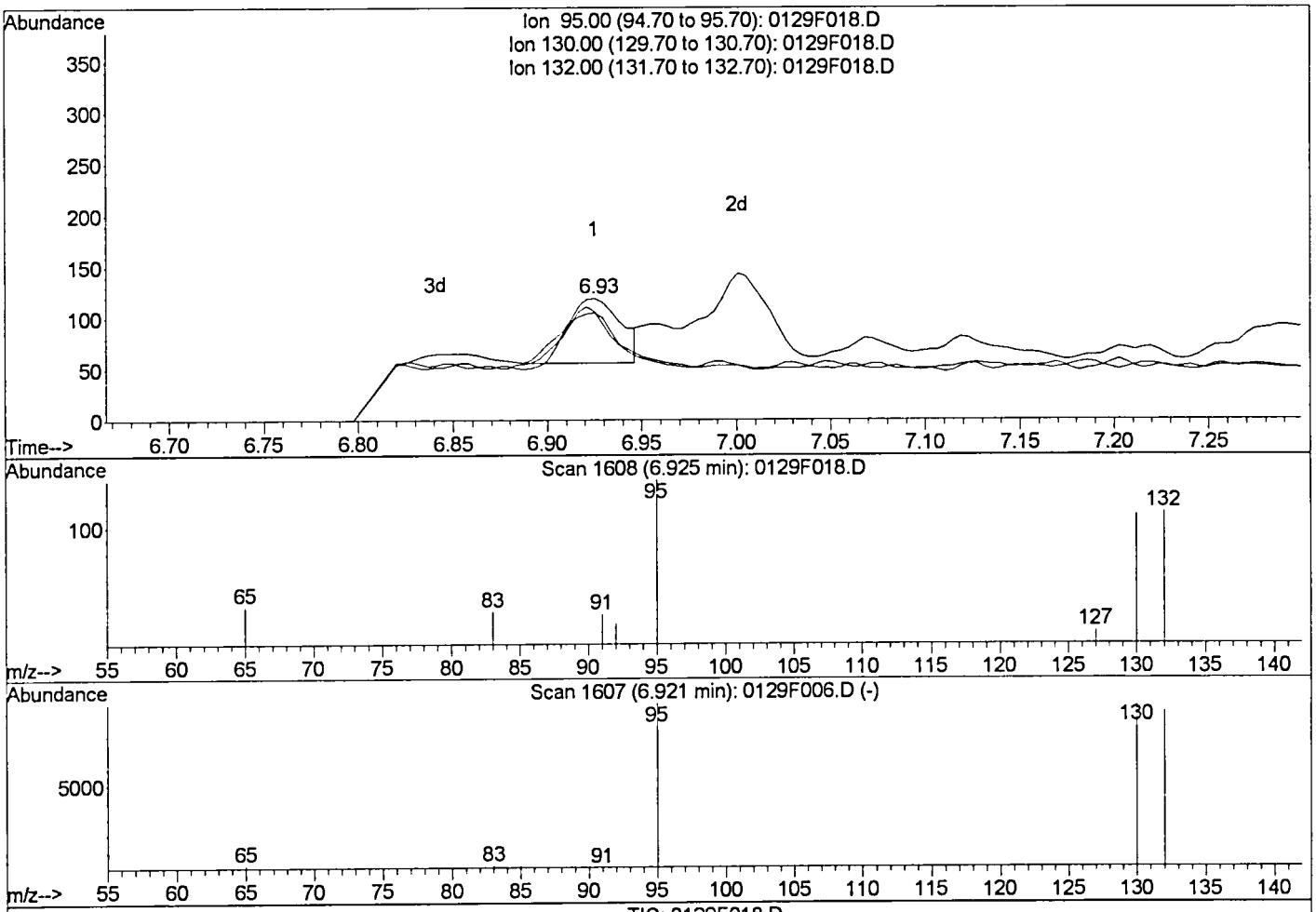
02/01/16

0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:41:25 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:41 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F018.D

(13) Trichloroethene (T)

6.93min 7.23ng/L m

response 133

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	88.24
132.00	93.90	89.08
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

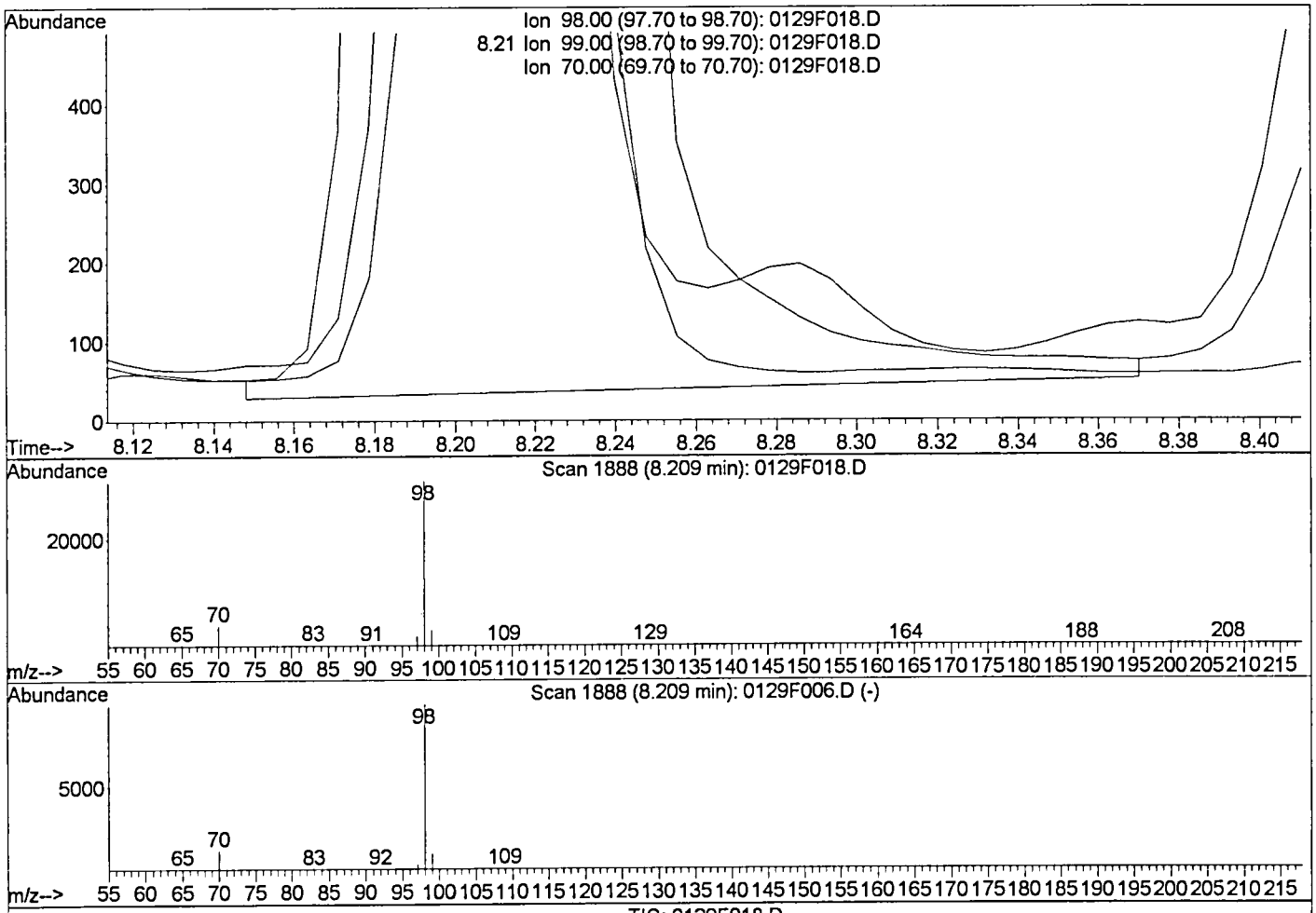
02/01/16

0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:41:38 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:41 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F018.D

(15) Toluene-d8 (S)

8.21min 1242.89ng/L

response 63294

Ion	Exp%	Act%
98.00	100	100
99.00	9.00	9.15
70.00	11.40	11.98
0.00	0.00	0.00

Manual Integration:

Before

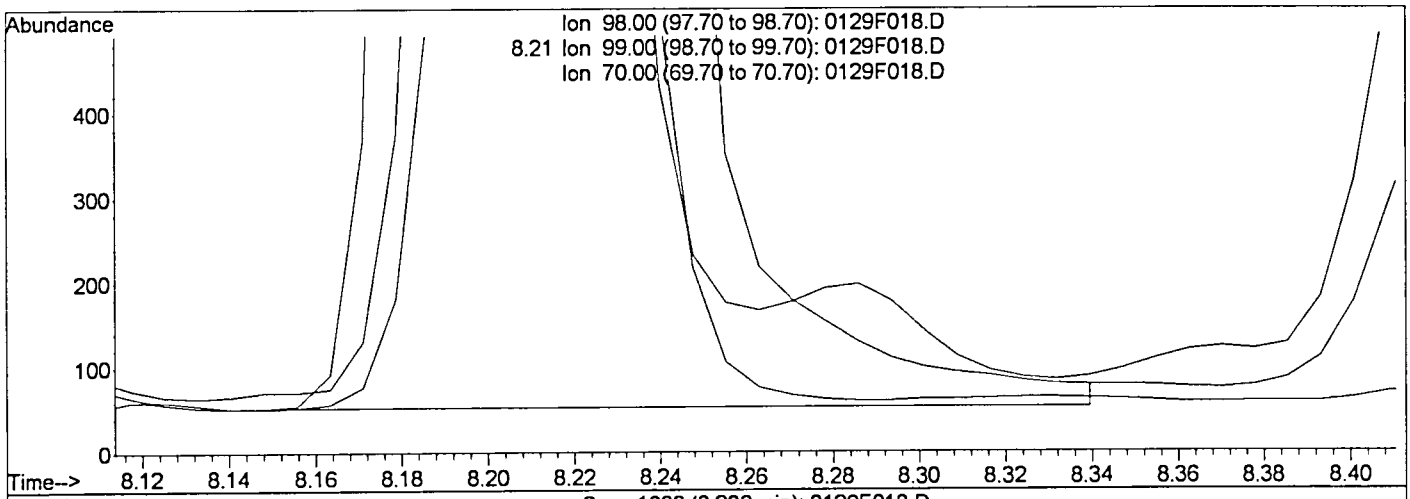
02/01/16

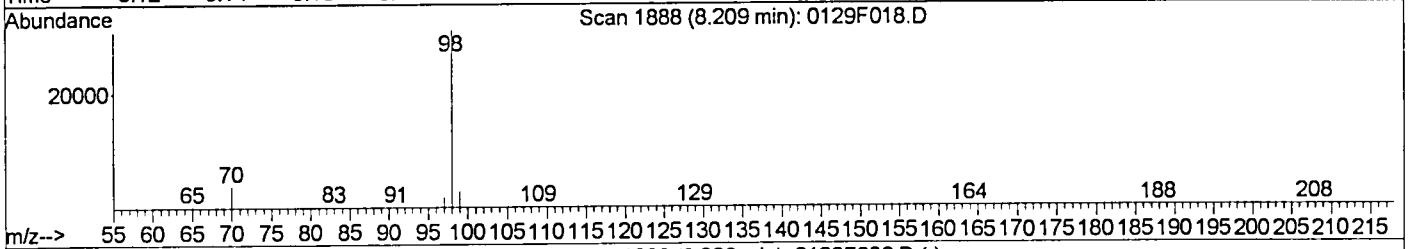
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:41:55 2016

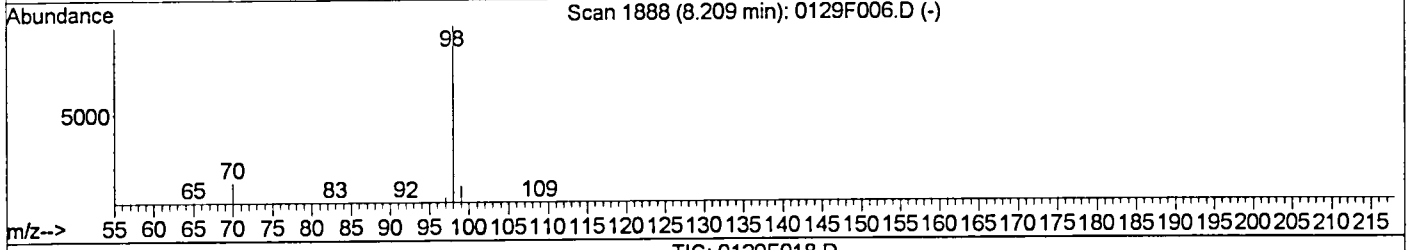
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:42 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F018.D

(15) Toluene-d8 (S)

8.21min 1238.76ng/L m

response 63084

Ion	Exp%	Act%
98.00	100	100
99.00	9.00	9.30
70.00	11.40	12.19
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

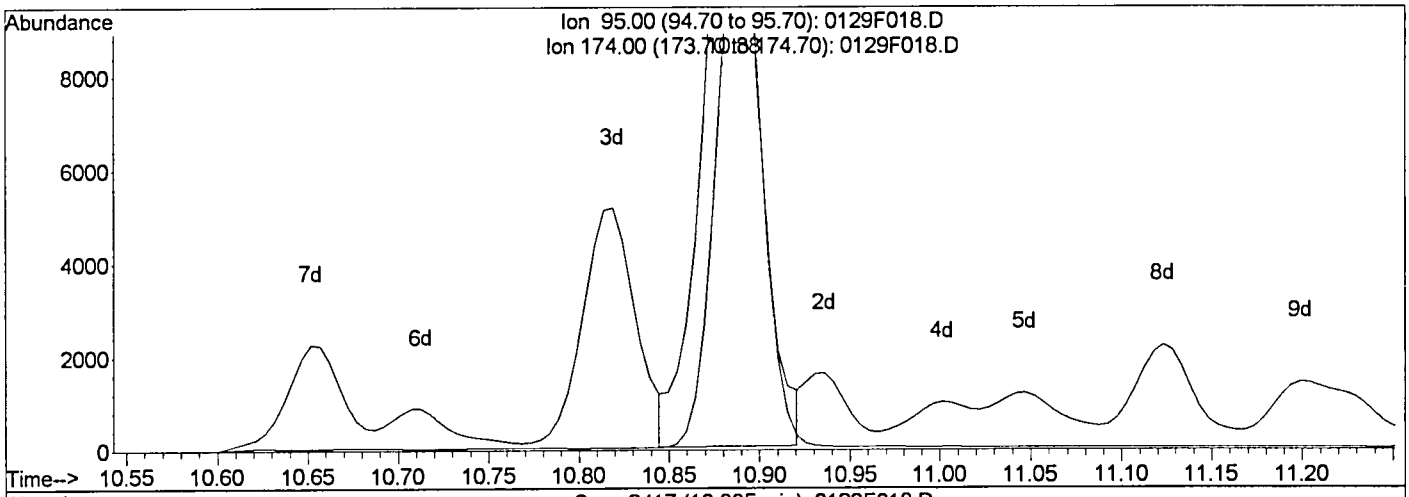
02/01/16

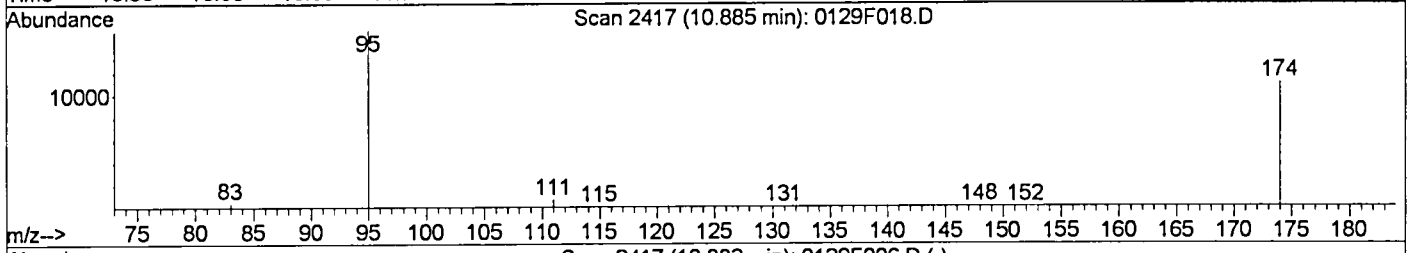
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:42:03 2016

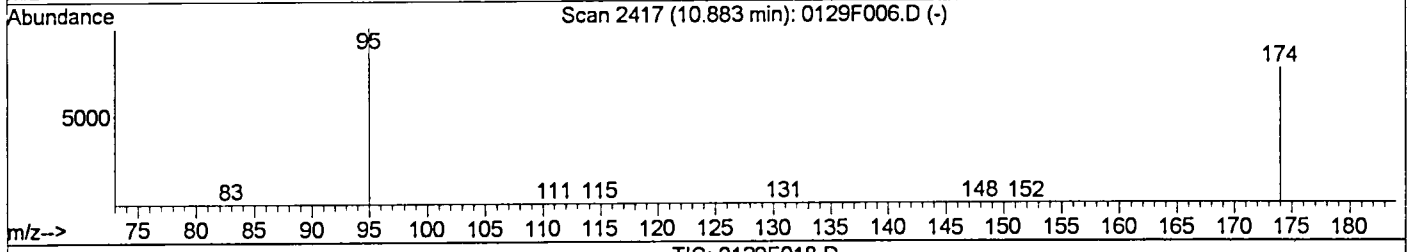
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:42 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F018.D

(24) 4-Bromofluorobenzene (S)

10.88min 1442.48ng/L

response 30035

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	75.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before JM

02/01/16

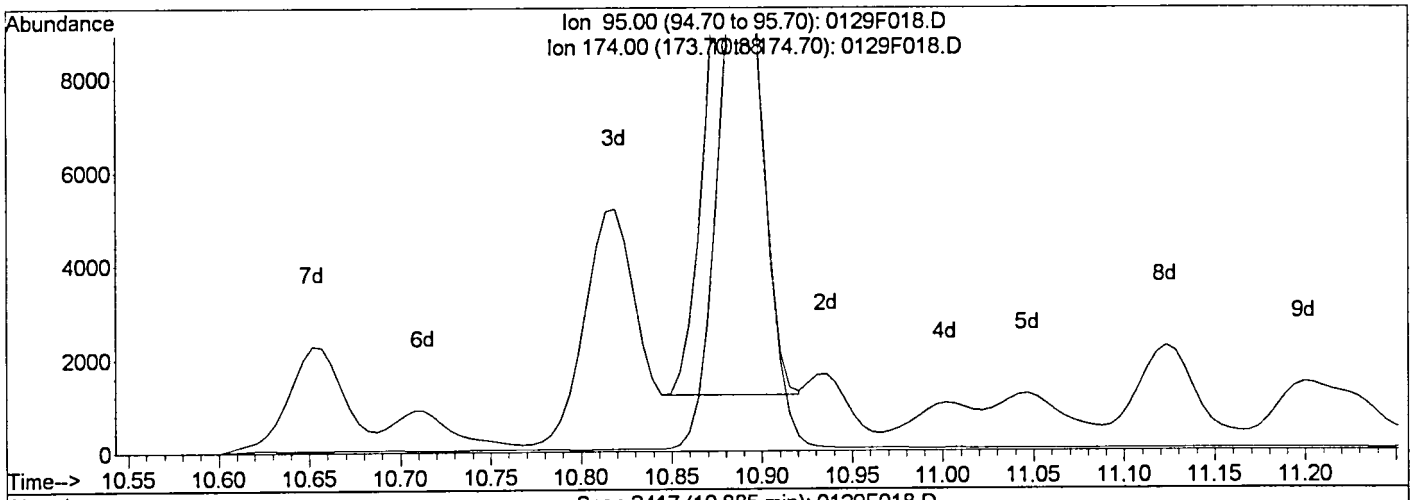
KM 2/1/16

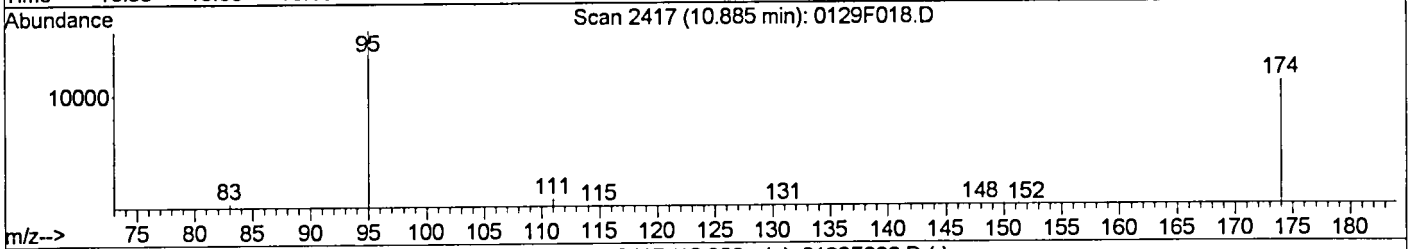
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:42:39 2016

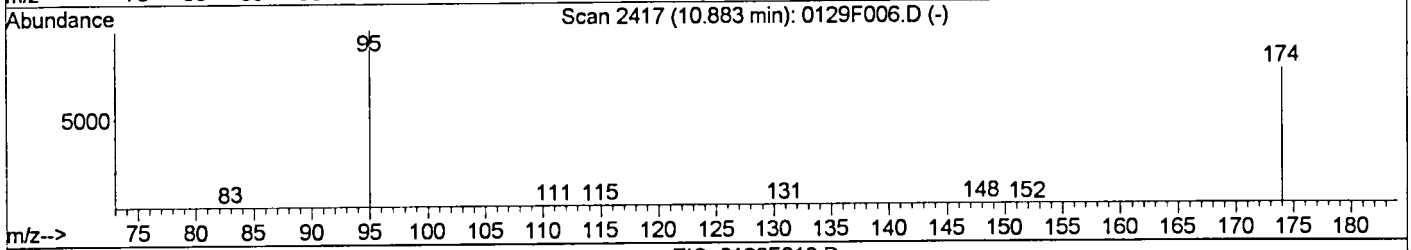
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:42 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F018.D

(24) 4-Bromofluorobenzene (S)

10.88min 1195.77ng/L m

response 24898

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	70.19
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After JH

Baseline correction

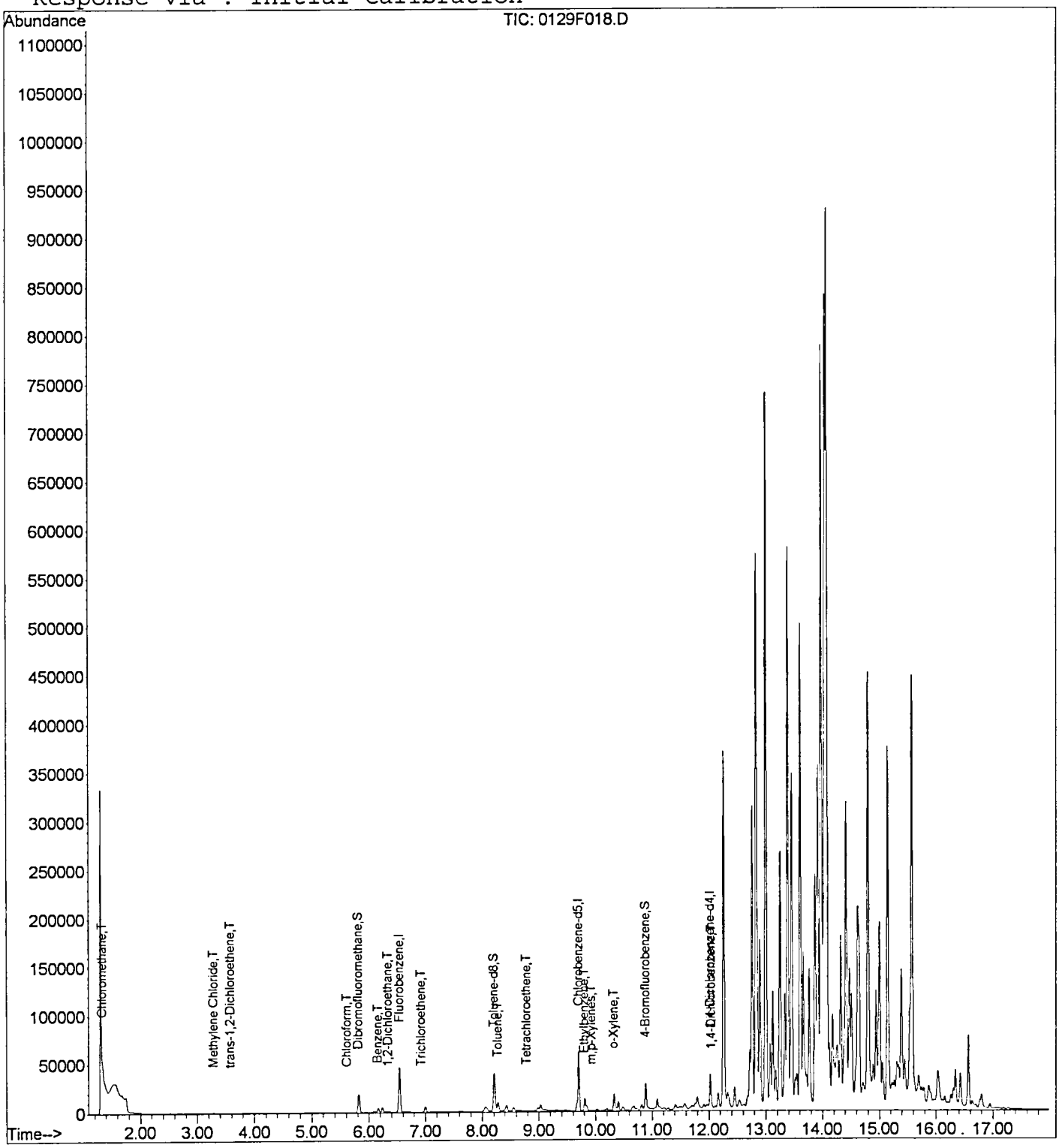
02/01/16

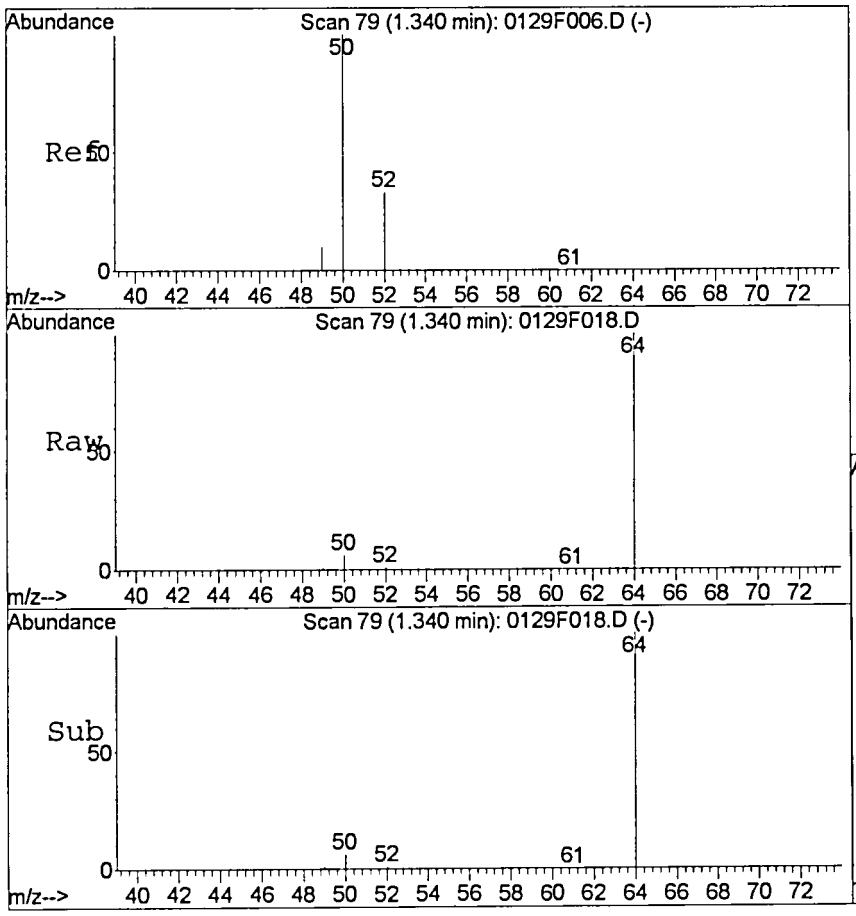
0129F018.D 012716MS27_8260SIM.M Mon Feb 01 13:42:57 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F018.D Vial: 15
Acq On : 29 Jan 2016 5:17 pm Operator: GH
Sample : K0673-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:43 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

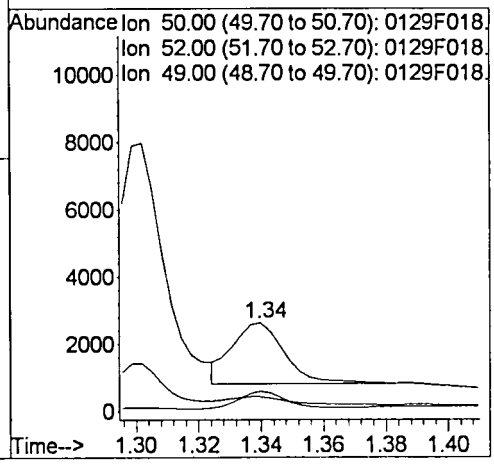


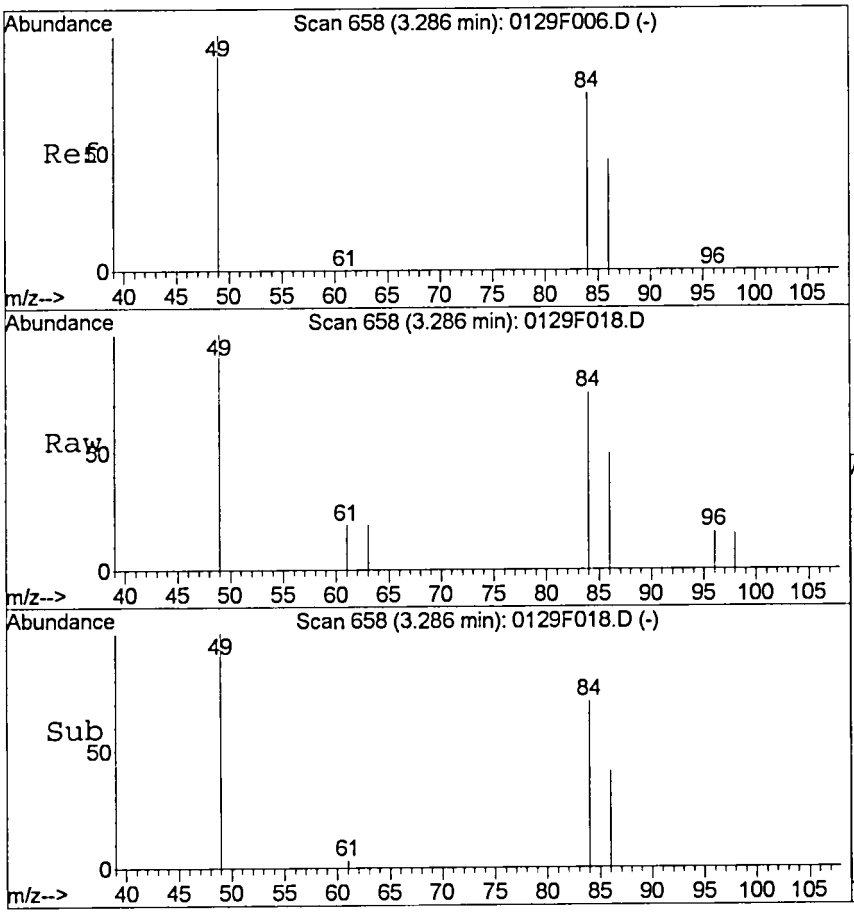


#2
Chloromethane
Concen: 74.61 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 50 Resp: 2124

Ion	Ratio	Lower	Upper
50	100		
52	22.8	2.9	62.9
49	16.5	0.0	40.1

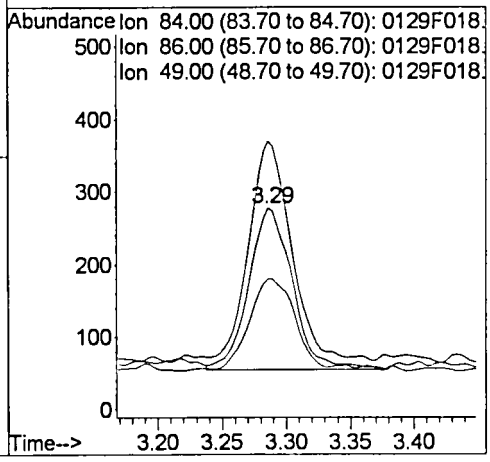


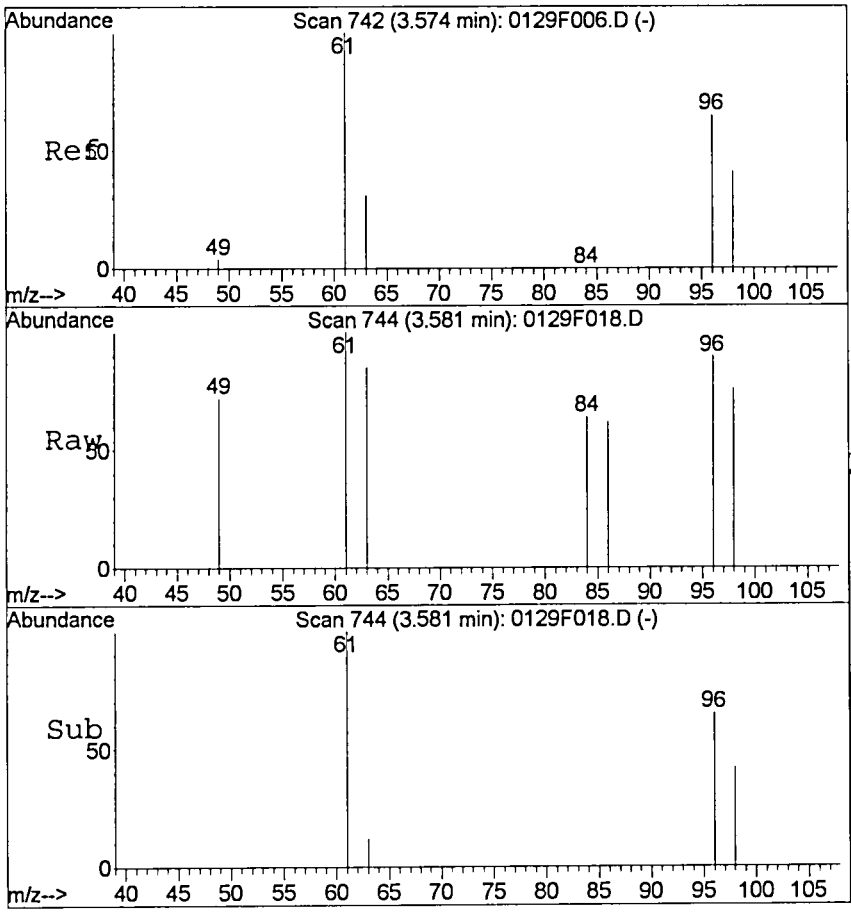


#5
Methylene Chloride
Concen: 22.81 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 84 Resp: 529

Ion	Ratio	Lower	Upper
84	100		
86	55.2	33.8	93.8
49	133.2	107.9	167.9

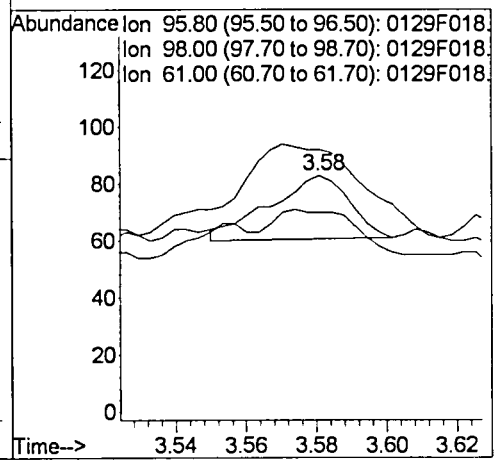


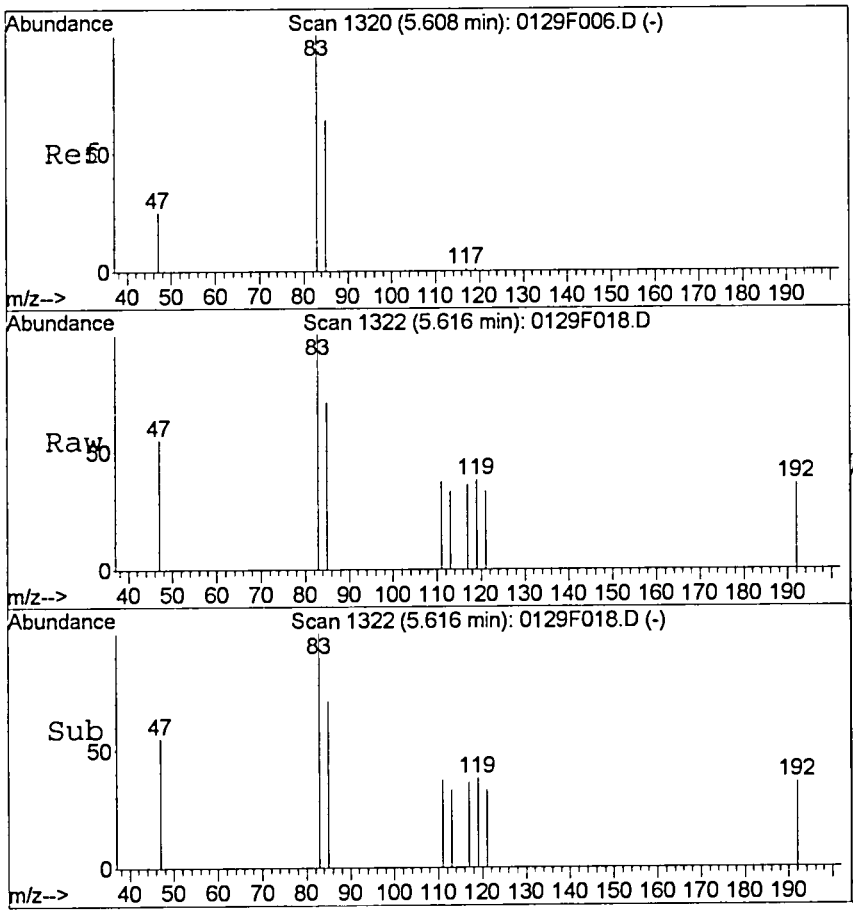


#6
trans-1,2-Dichloroethene
Concen: 1.95 ng/L
RT: 3.58 min Scan# 744
Delta R.T. 0.01 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 96 Resp: 35

Ion	Ratio	Lower	Upper
96	100		
98	63.6	32.7	92.7
61	95.5	122.3	182.3#

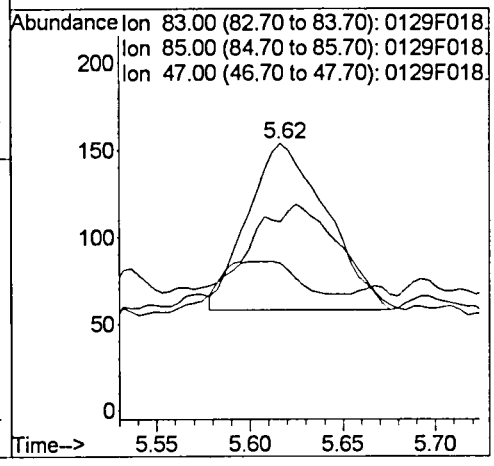


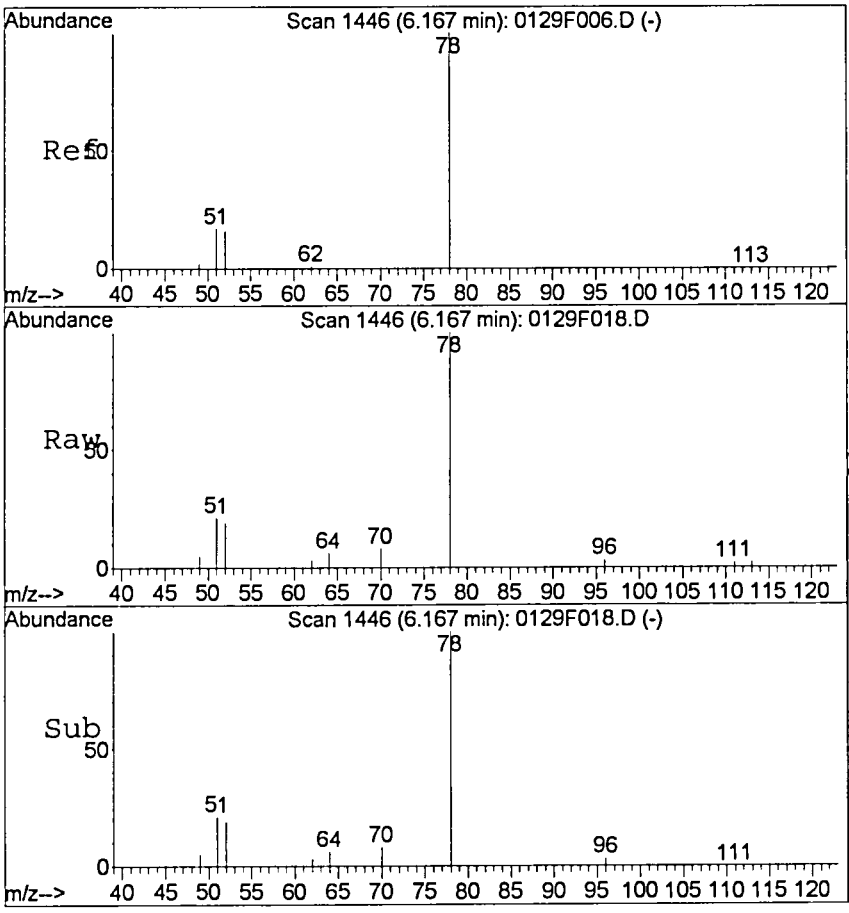


#8
Chloroform
Concen: 7.80 ng/L
RT: 5.62 min Scan# 1322
Delta R.T. 0.01 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 83 Resp: 282

Ion	Ratio	Lower	Upper
83	100		
85	50.0	34.7	94.7
47	18.8	0.0	55.9

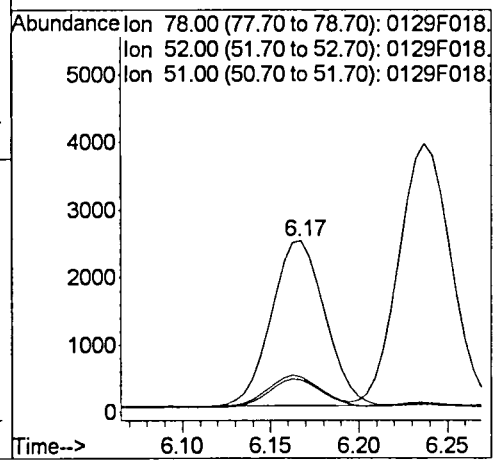


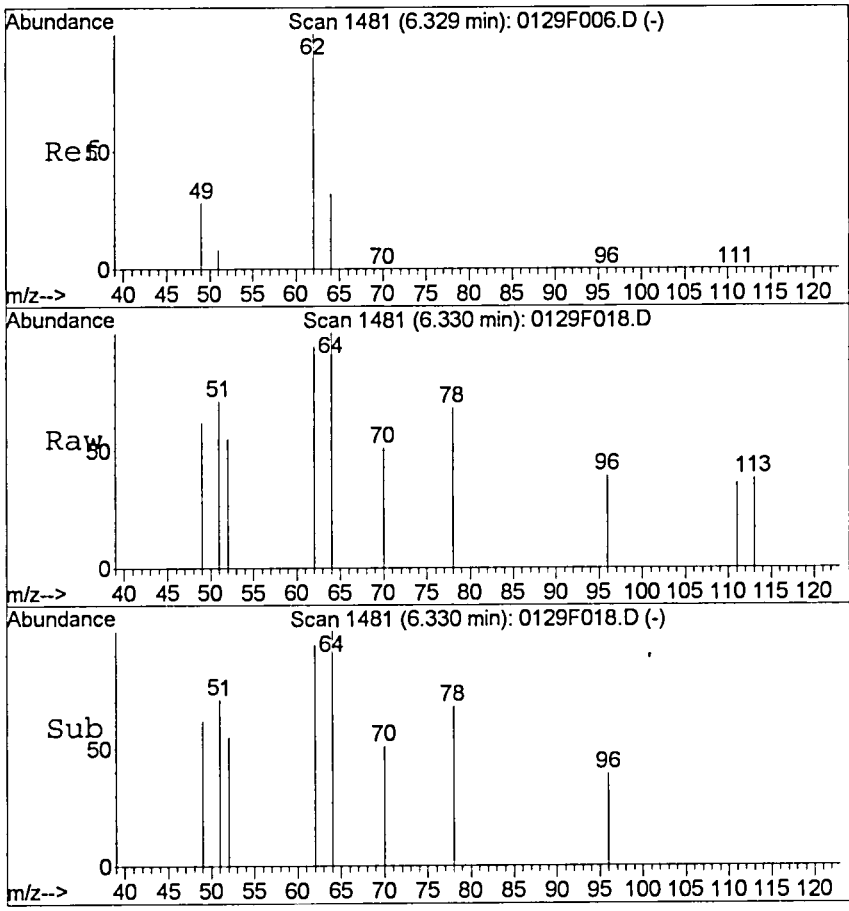


#11
Benzene
Concen: 65.93 ng/L
RT: 6.17 min Scan# 1446
Delta R.T. 0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 78 Resp: 5191

Ion	Ratio	Lower	Upper
78	100		
52	16.3	0.0	46.9
51	18.1	0.0	47.6

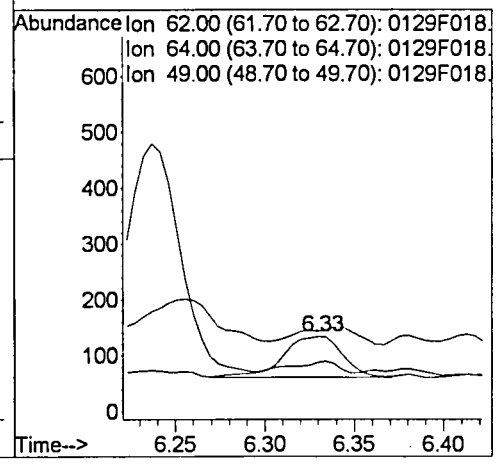


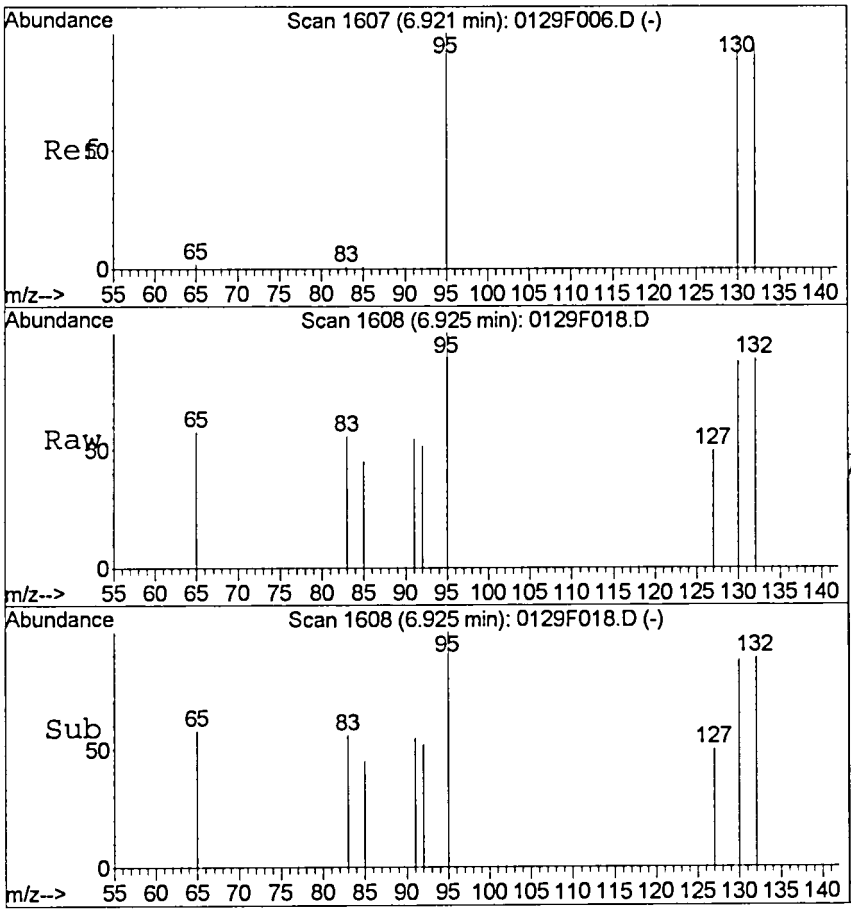


#12
1,2-Dichloroethane
Concen: 6.71 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 62 Resp: 170

Ion	Ratio	Lower	Upper
62	100		
64	106.7	1.7	61.7#
49	65.7	0.0	58.2#

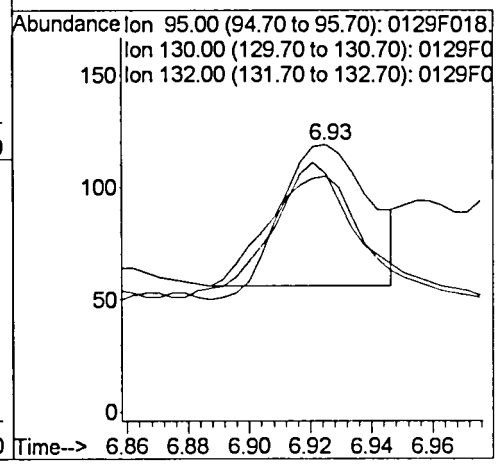


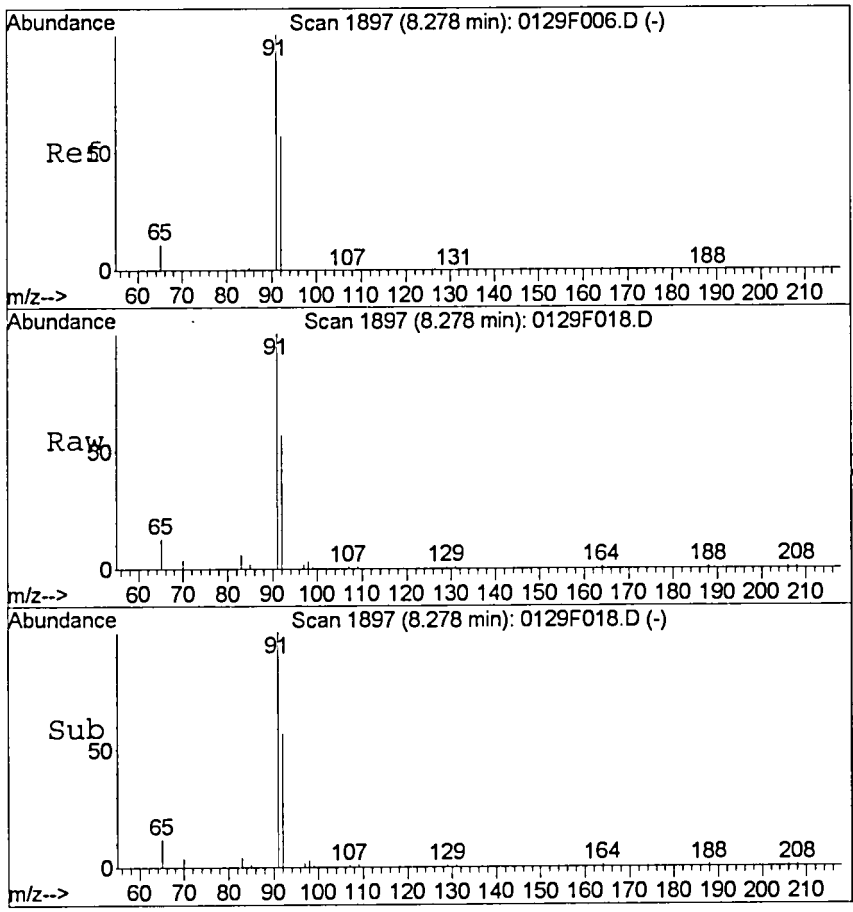


#13
Trichloroethene
Concen: 7.23 ng/L m
RT: 6.93 min Scan# 1608
Delta R.T. 0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 95 Resp: 133

Ion	Ratio	Lower	Upper
95	100		
130	88.2	67.1	127.1
132	89.1	63.9	123.9

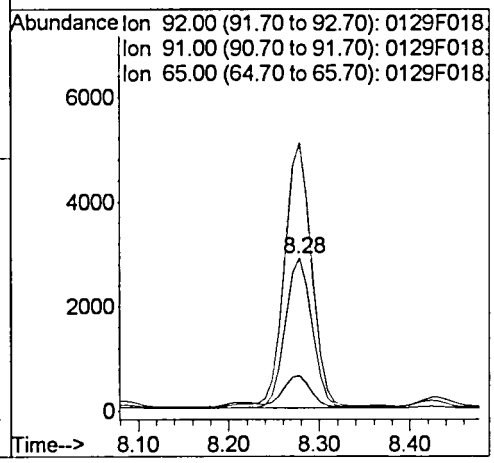


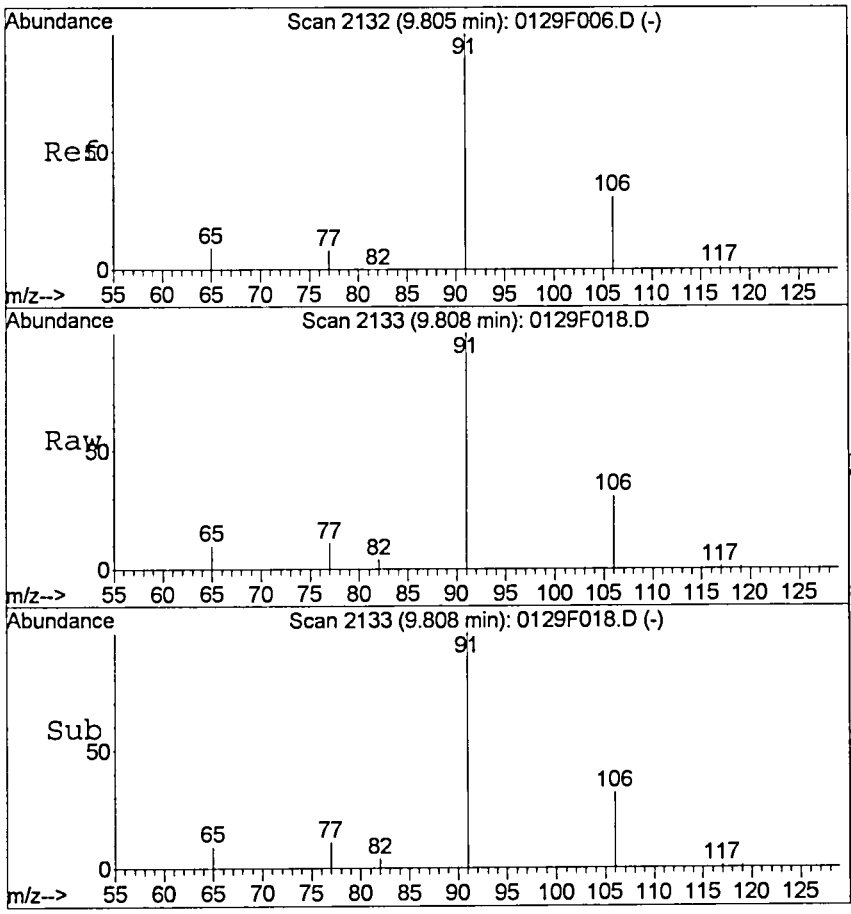


#20
Toluene
Concen: 143.27 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion: 92 Resp: 6001

Ion	Ratio	Lower	Upper
92	100		
91	175.1	144.4	204.4
65	20.8	0.0	49.7

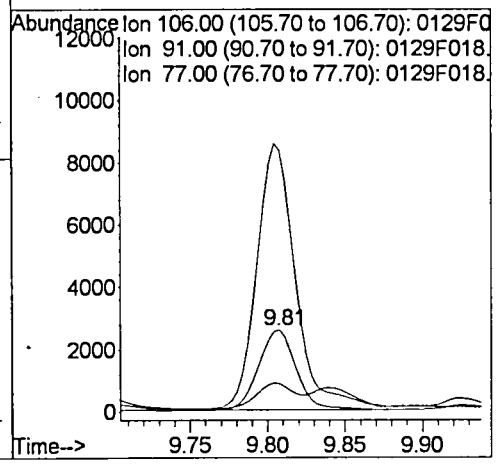


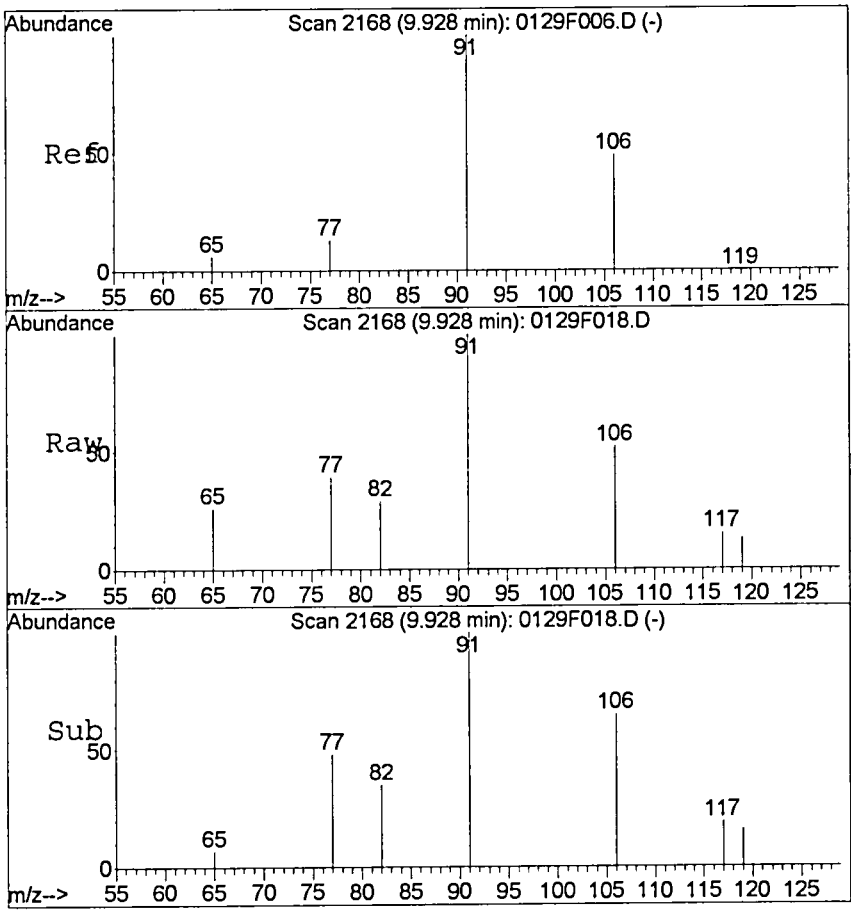


#21
Ethylbenzene
Concen: 197.30 ng/L
RT: 9.81 min Scan# 2133
Delta R.T. 0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion:106 Resp: 4312

Ion	Ratio	Lower	Upper
106	100		
91	322.3	295.2	355.2
77	30.7	0.2	60.2

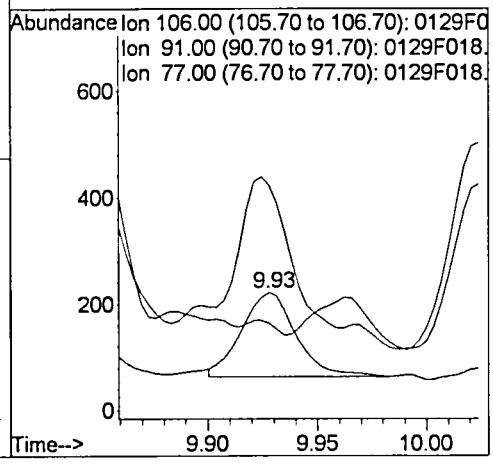


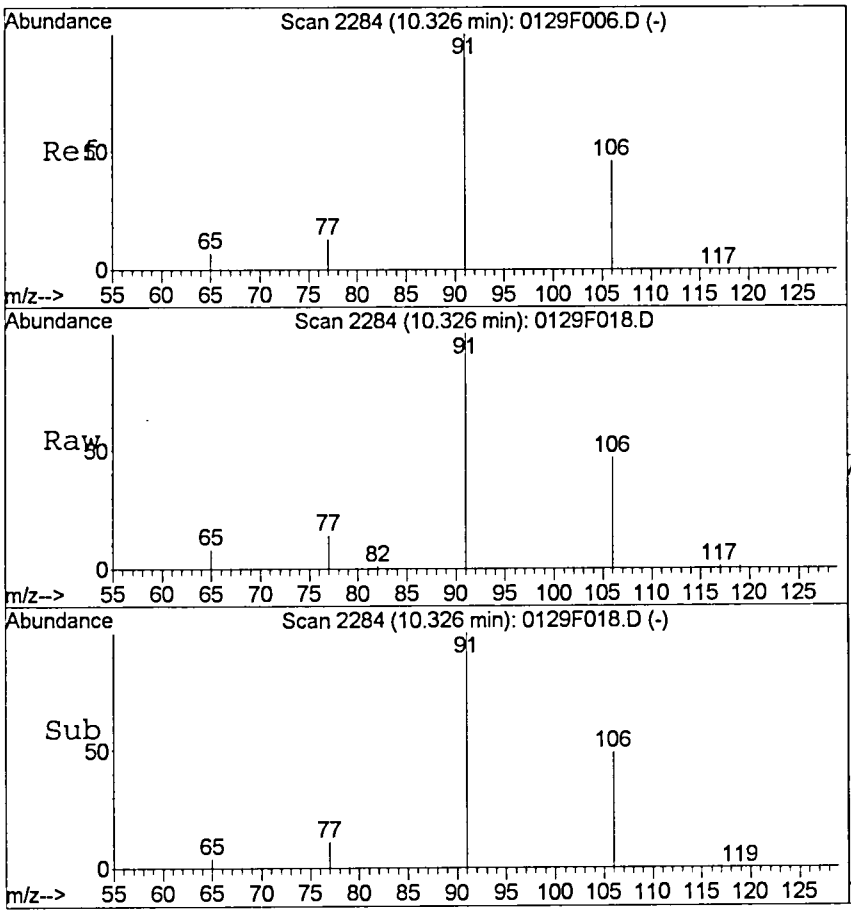


#22
m,p-Xylenes
Concen: 9.94 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion:106 Resp: 271

Ion	Ratio	Lower	Upper
106	100		
91	192.4	173.8	233.8
77	22.2	0.0	57.2

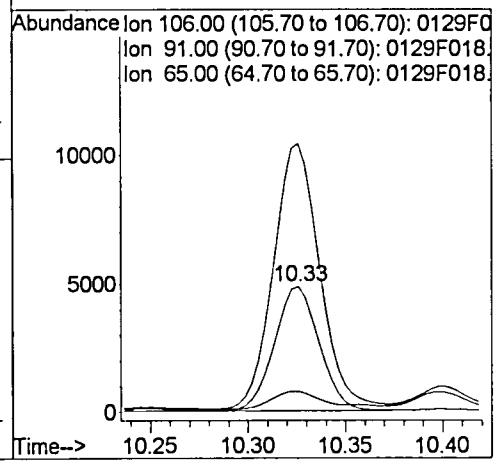


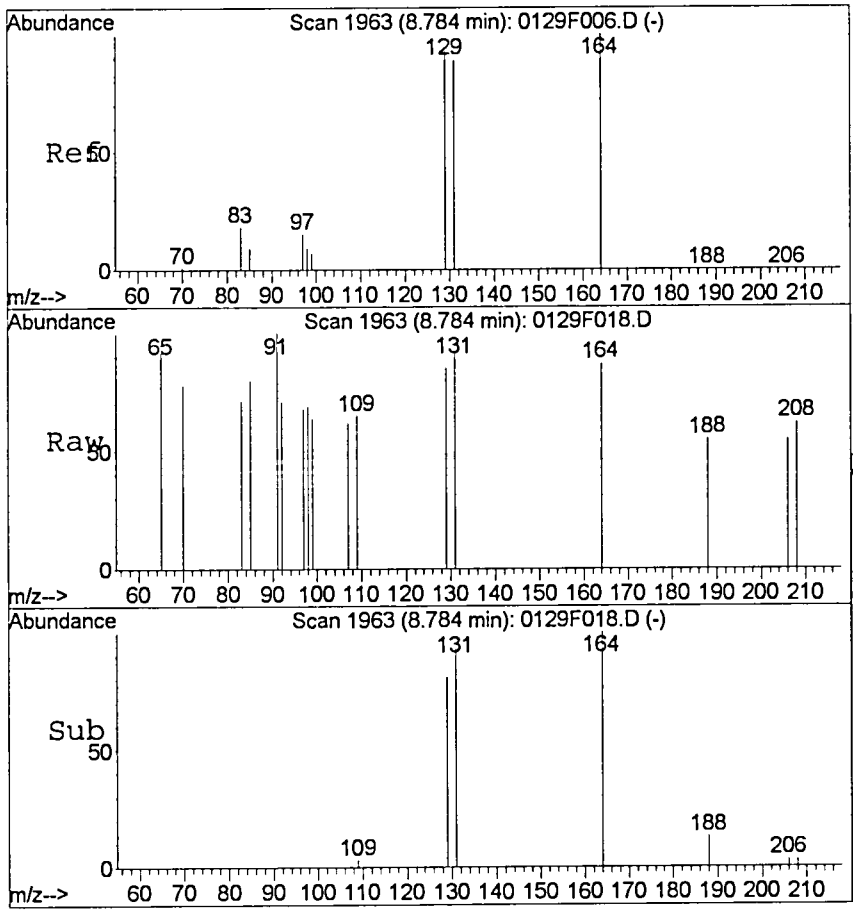


#23
o-Xylene
Concen: 287.41 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion:106 Resp: 7751

Ion	Ratio	Lower	Upper
106	100		
91	213.2	185.6	245.6
65	14.2	0.0	45.0

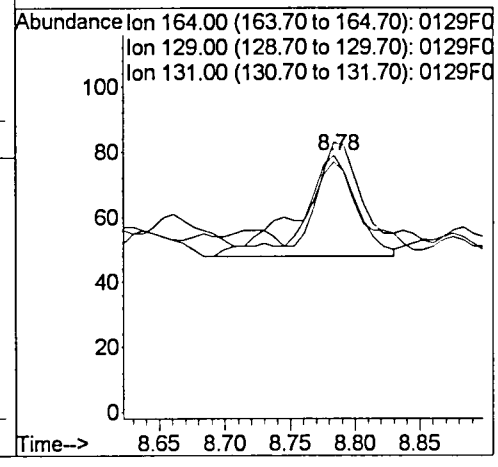


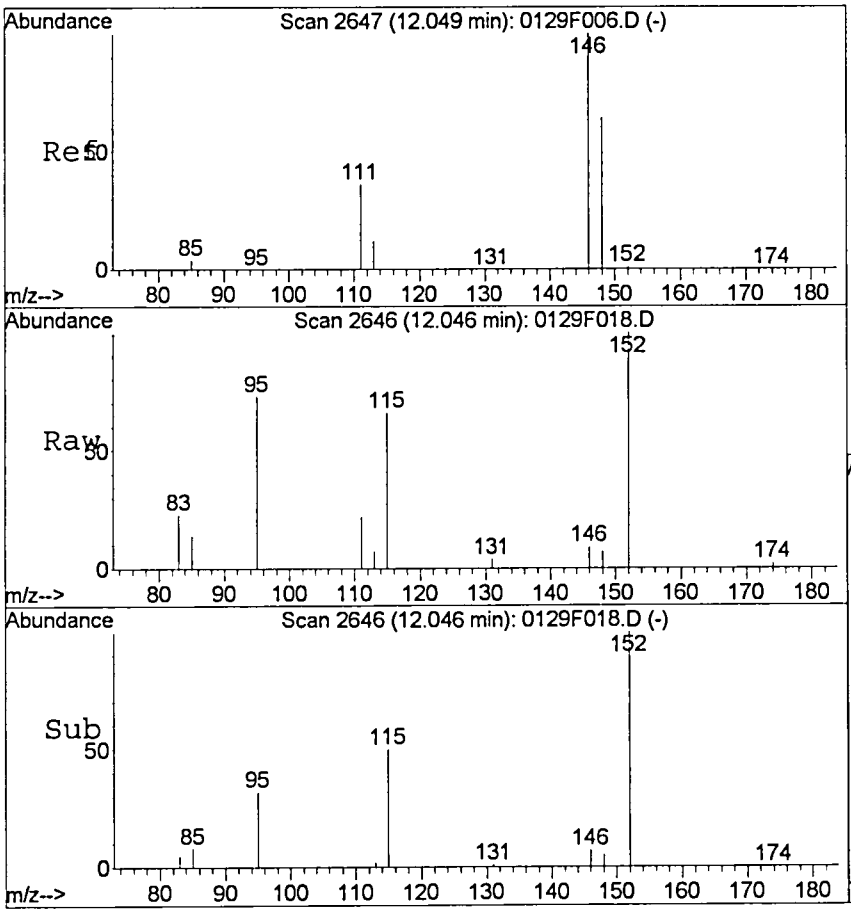


#26
Tetrachloroethene
Concen: 5.75 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion:164 Resp: 84

Ion	Ratio	Lower	Upper
164	100		
129	74.2	61.1	121.1
131	90.3	58.3	118.3

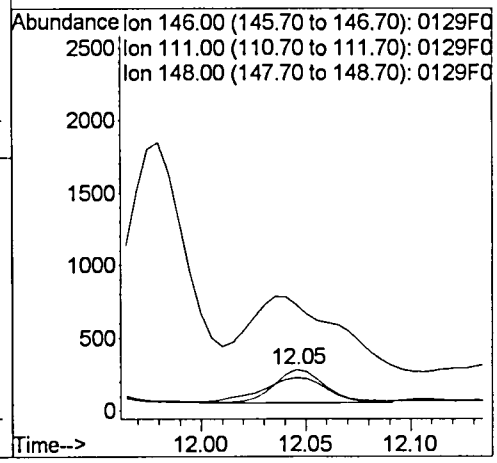




#28
1,4-Dichlorobenzene
Concen: 8.54 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F018.D
Acq: 29 Jan 2016 5:17 pm

Tgt Ion:146 Resp: 386

Ion	Ratio	Lower	Upper
146	100		
111	184.1	6.7	66.7#
148	70.9	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F028.D
Lab ID: K1600673-012
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 21:53
Date Quantitated: 02/01/2016 14:03
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRL ✓
Lab Control Spike	Toluene-d8	122	74	112	9 bars analyte okay
Surrogates	Toluene-d8	120	74	112	2 ND

Primary Review: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 14:35:36
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F028.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 21:53	**Quant Date:**	02/01/2016 14:03	**Vial:**	36
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1497009	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	67901	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48185	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17083	1,106	111	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	59469	1,204	120	74-112	*
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	19874	1,023	102	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	135m	5.50	5.8	U	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:39:36 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

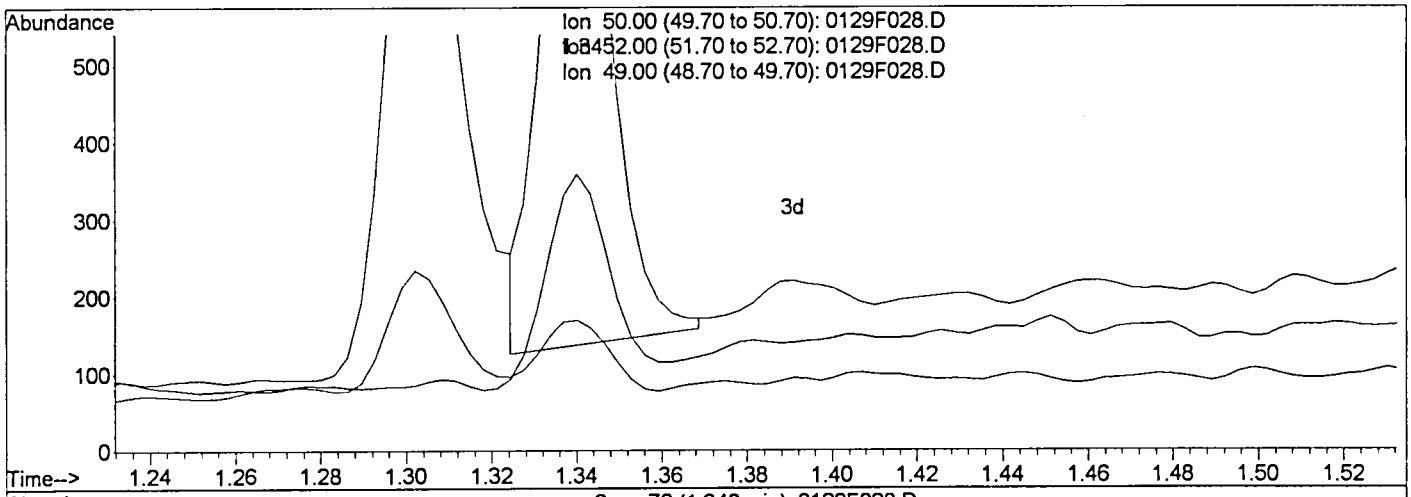
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	67901	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48185	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	22930	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17083	1105.60	ng/L	0.00
Spiked Amount 1000.000			Recovery = 110.56%			
15) Toluene-d8	8.21	98	59469	1204.36	ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.44%			
24) 4-Bromofluorobenzene	10.89	95	19874	1023.45	ng/L	0.00
Spiked Amount 1000.000			Recovery = 102.35%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	822m	29.78	ng/L	
5) Methylene Chloride	3.29	84	637	28.33	ng/L	96
8) Chloroform	5.61	83	164m	4.68	ng/L	
12) 1,2-Dichloroethane	6.33	62	135m	5.50	ng/L	
13) Trichloroethene	6.92	95	72	4.04	ng/L #	52
20) Toluene	8.28	92	1964	50.28	ng/L	98
22) m,p-Xylenes	9.93	106	90	3.54	ng/L #	80
26) Tetrachloroethene	8.78	164	62	4.55	ng/L #	62
28) 1,4-Dichlorobenzene	12.05	146	219	6.12	ng/L	95

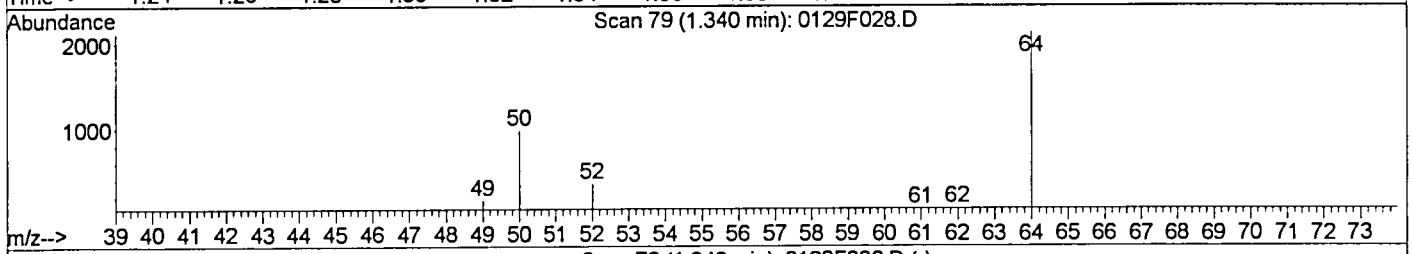
(#) = qualifier out of range (m) = manual integration
0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:07:49 2016 Page 1

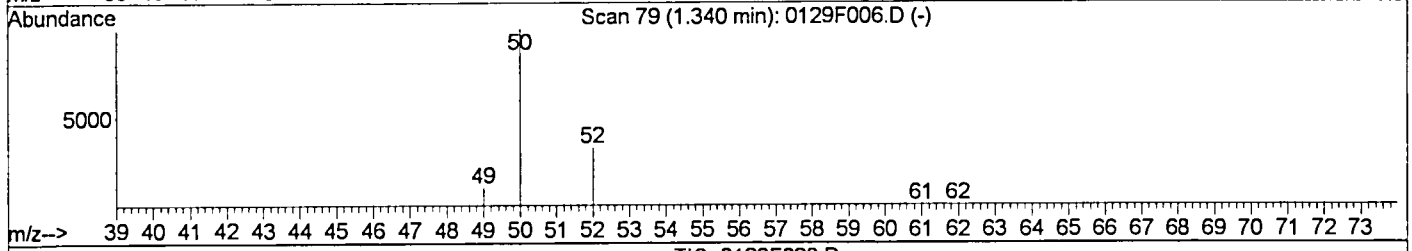
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:39 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F028.D

(2) Chloromethane (T)

1.34min 32.50ng/L

response 897

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.68
49.00	10.10	10.07
0.00	0.00	0.00

Manual Integration:

Before

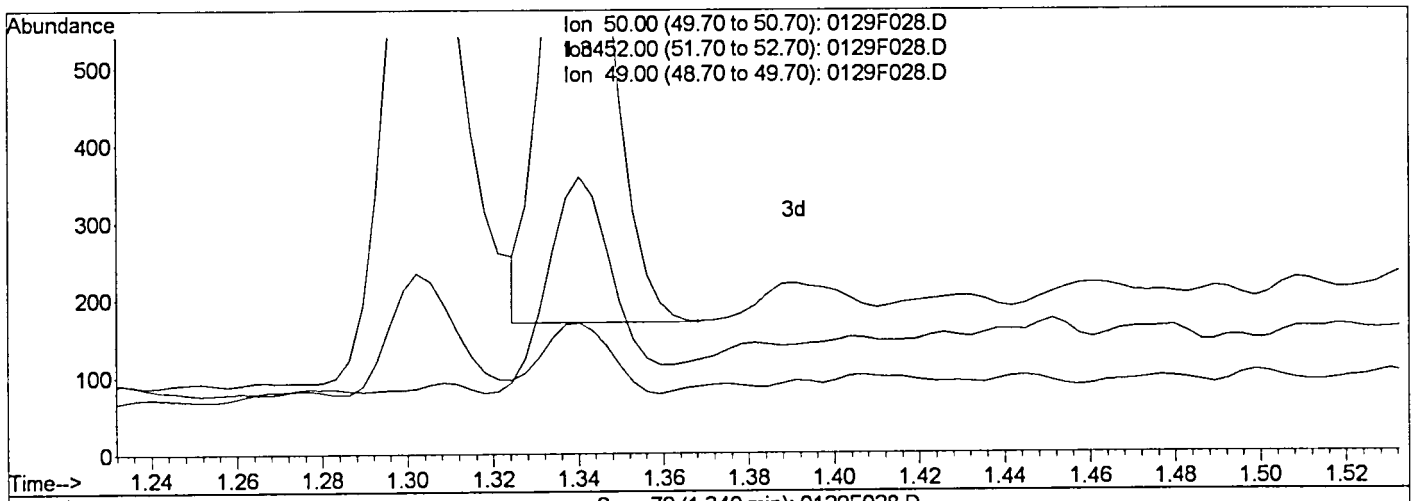
02/01/16

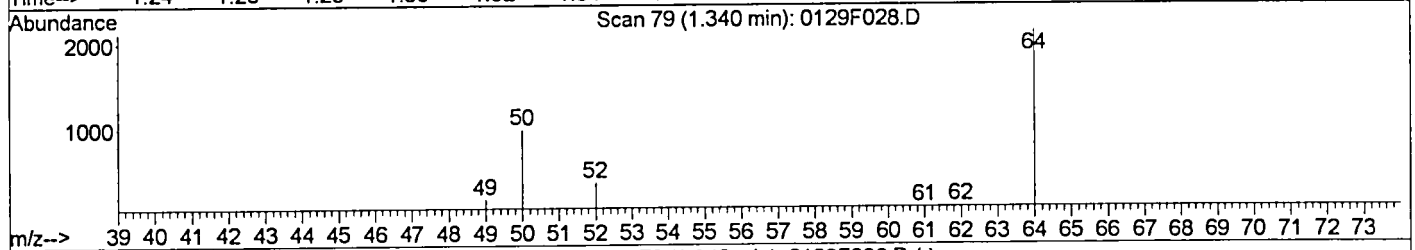
0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:02:22 2016

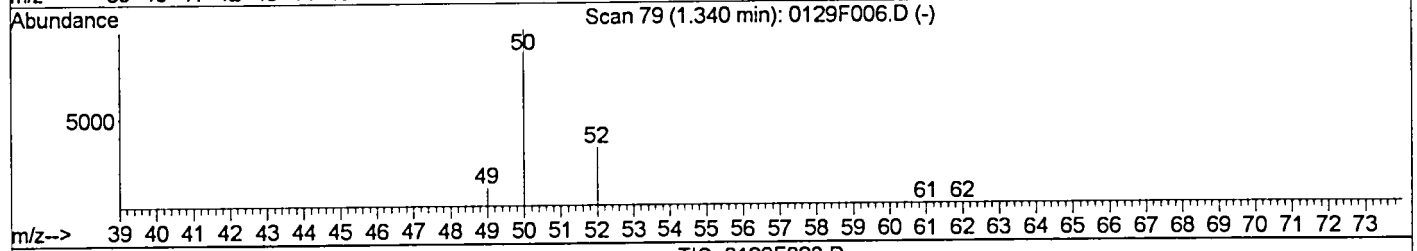
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:02 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F028.D

(2) Chloromethane (T)

1.34min 29.78ng/L m

response 822

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	36.45
49.00	10.10	17.16
0.00	0.00	0.00

Manual Integration:

After JH

Baseline correction

02/01/16

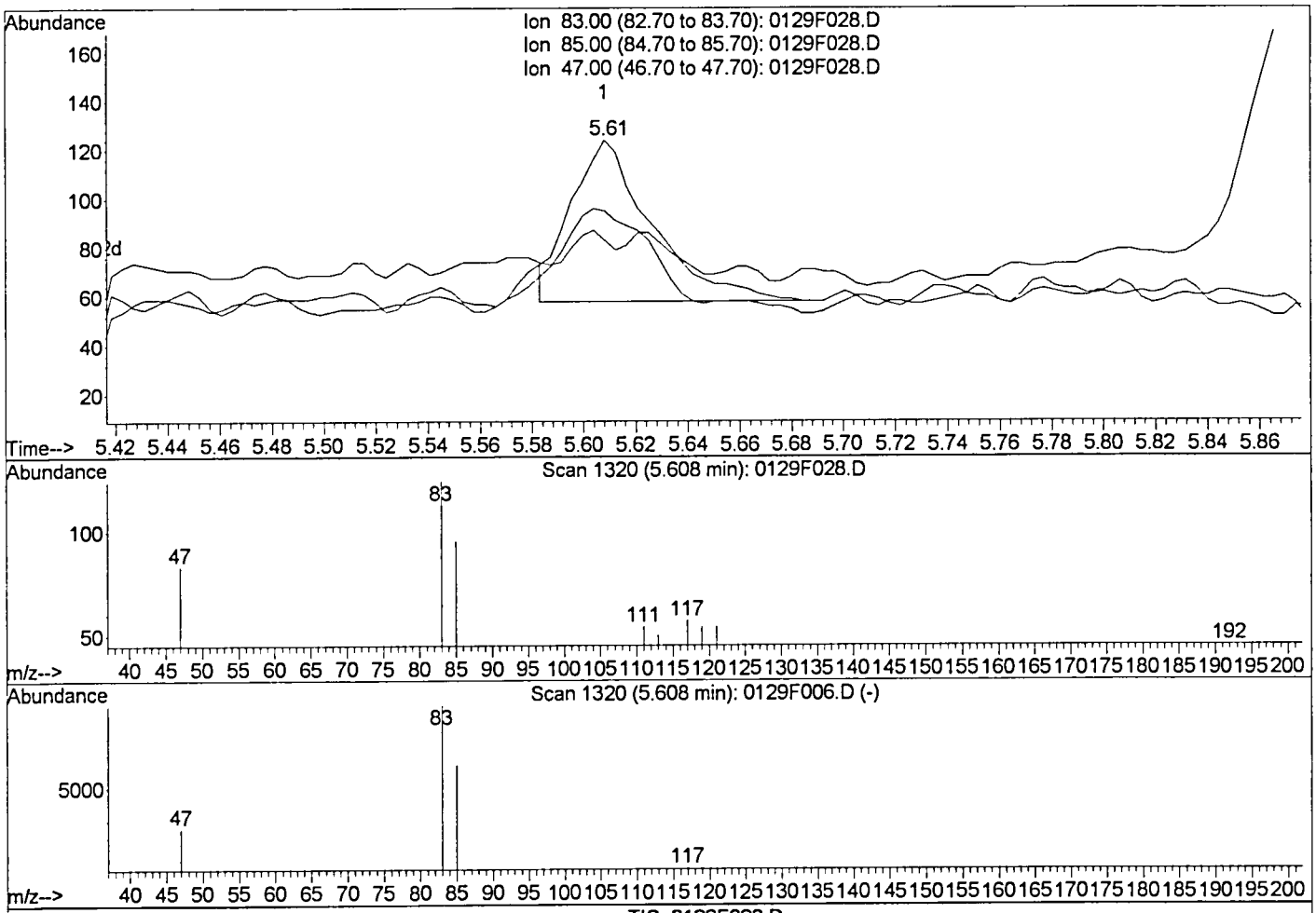
2/2/16

0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:02:32 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:02 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



(8) Chloroform (T)

5.61min 4.02ng/L

response 141

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	63.64
47.00	25.90	18.18
0.00	0.00	0.00

Manual Integration:

Before

02/01/16

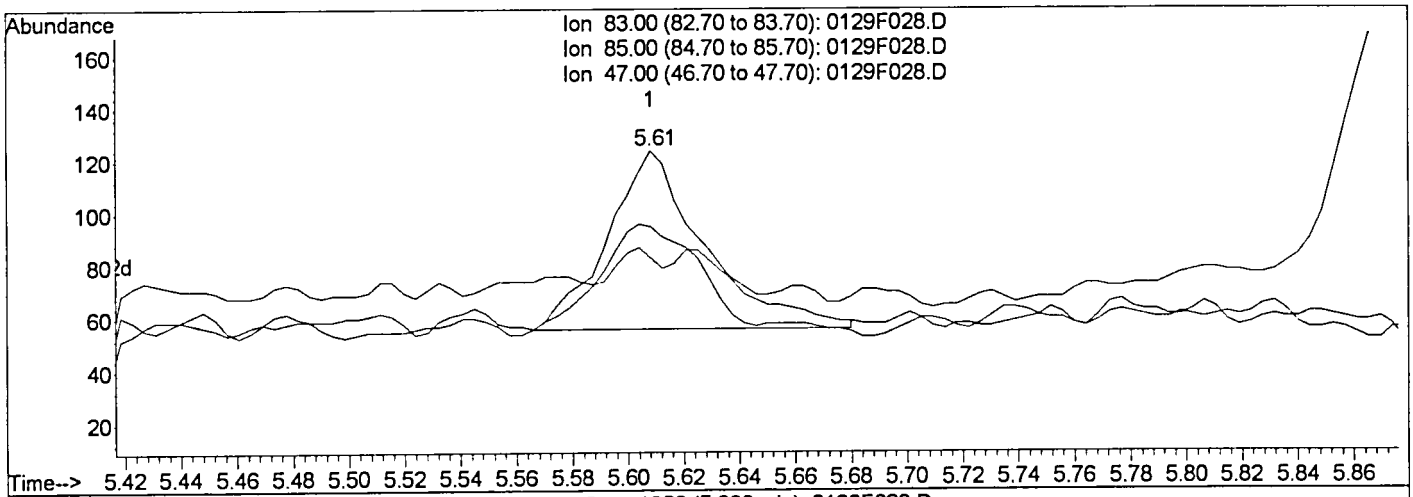
0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:02:45 2016

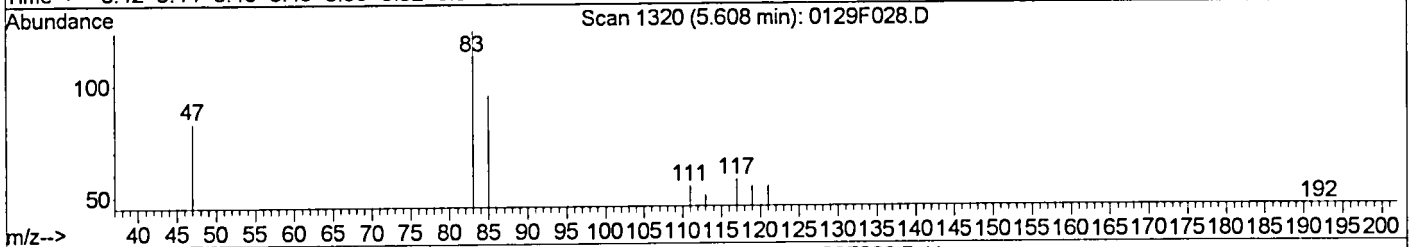
Quantitation Report (Qedit)

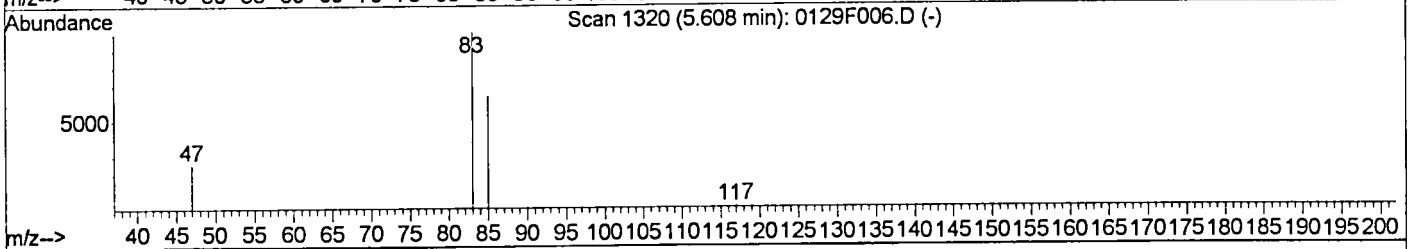
Data File : J:\MS27\DATA\012916_SIM\0129F028.D
Acq On : 29 Jan 2016 9:53 pm
Sample : K0673-012
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:02 2016

Vial: 36
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F028.D

(8) Chloroform (T)

5.61min 4.68ng/L m

response 164

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	76.61
47.00	25.90	66.94#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

02/01/16

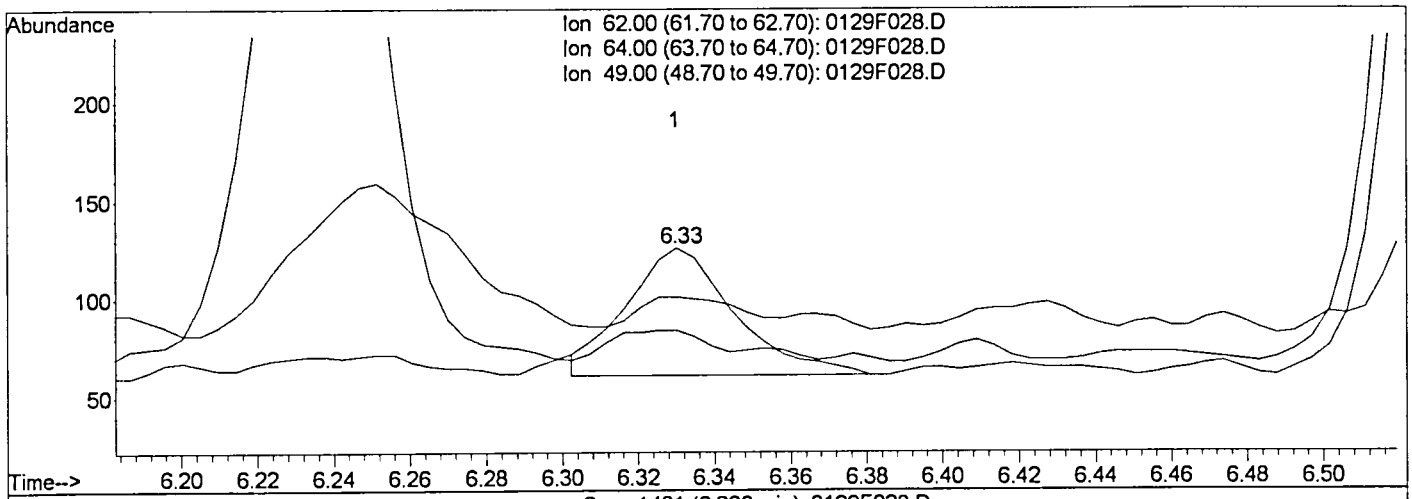
2/12/16

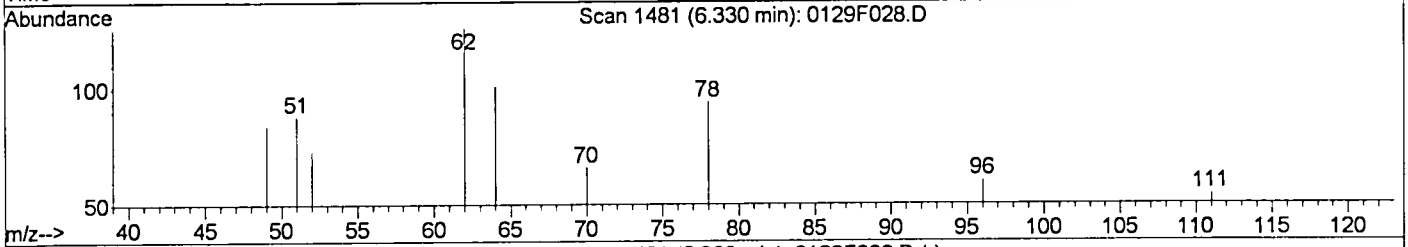
0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:02:53 2016

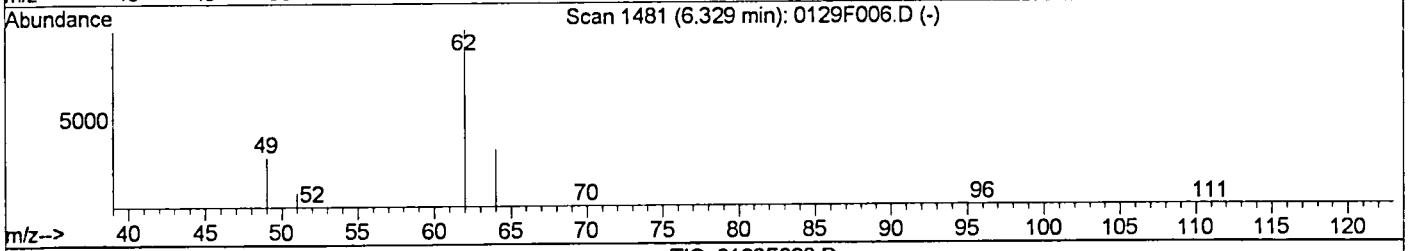
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:02 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F028.D

(12) 1,2-Dichloroethane (T)

6.33min 5.21ng/L

response 128

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	26.15
49.00	28.20	23.08
0.00	0.00	0.00

Manual Integration:

Before

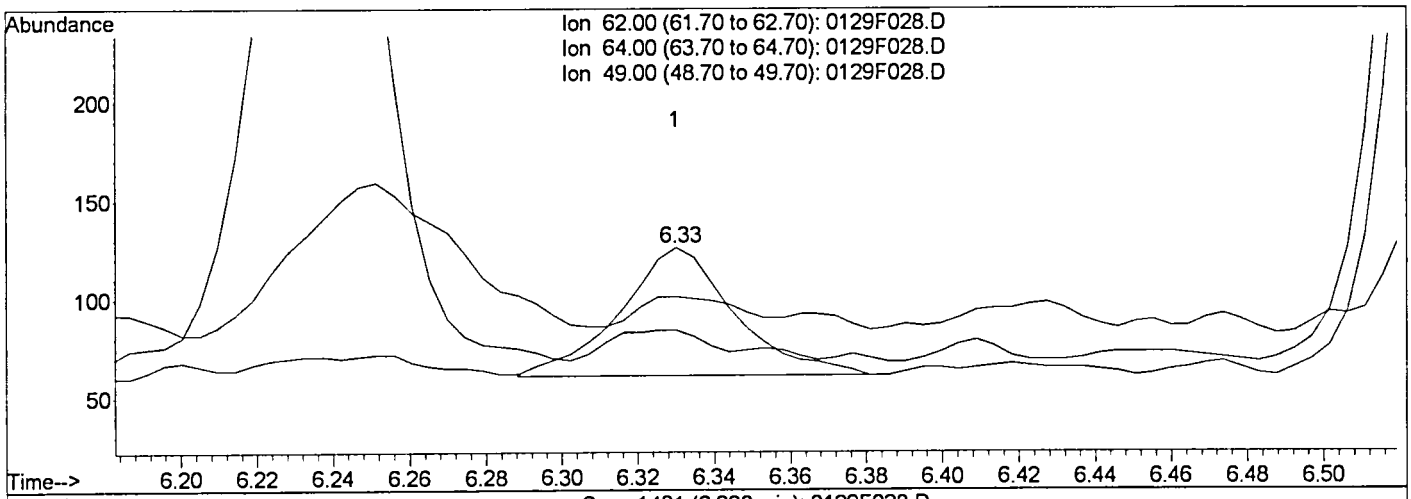
02/01/16

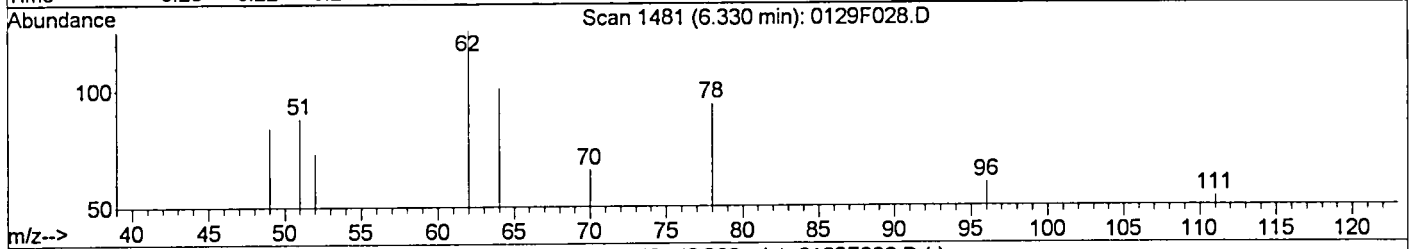
0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:03:04 2016

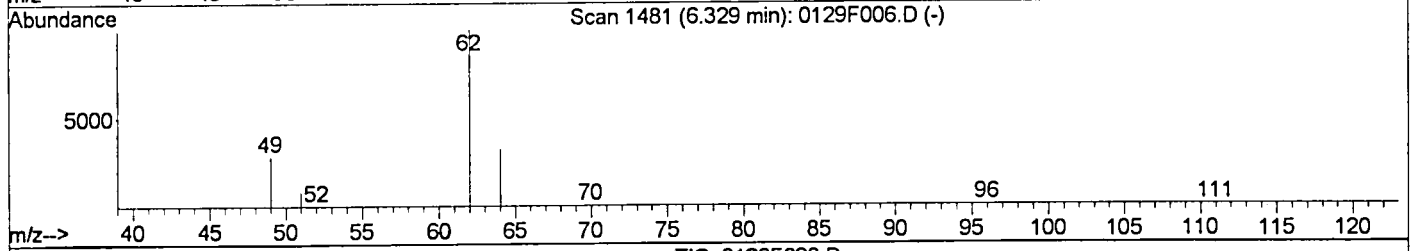
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:03 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F028.D

(12) 1,2-Dichloroethane (T)

6.33min 5.50ng/L m

response 135

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	80.16#
49.00	28.20	66.67#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

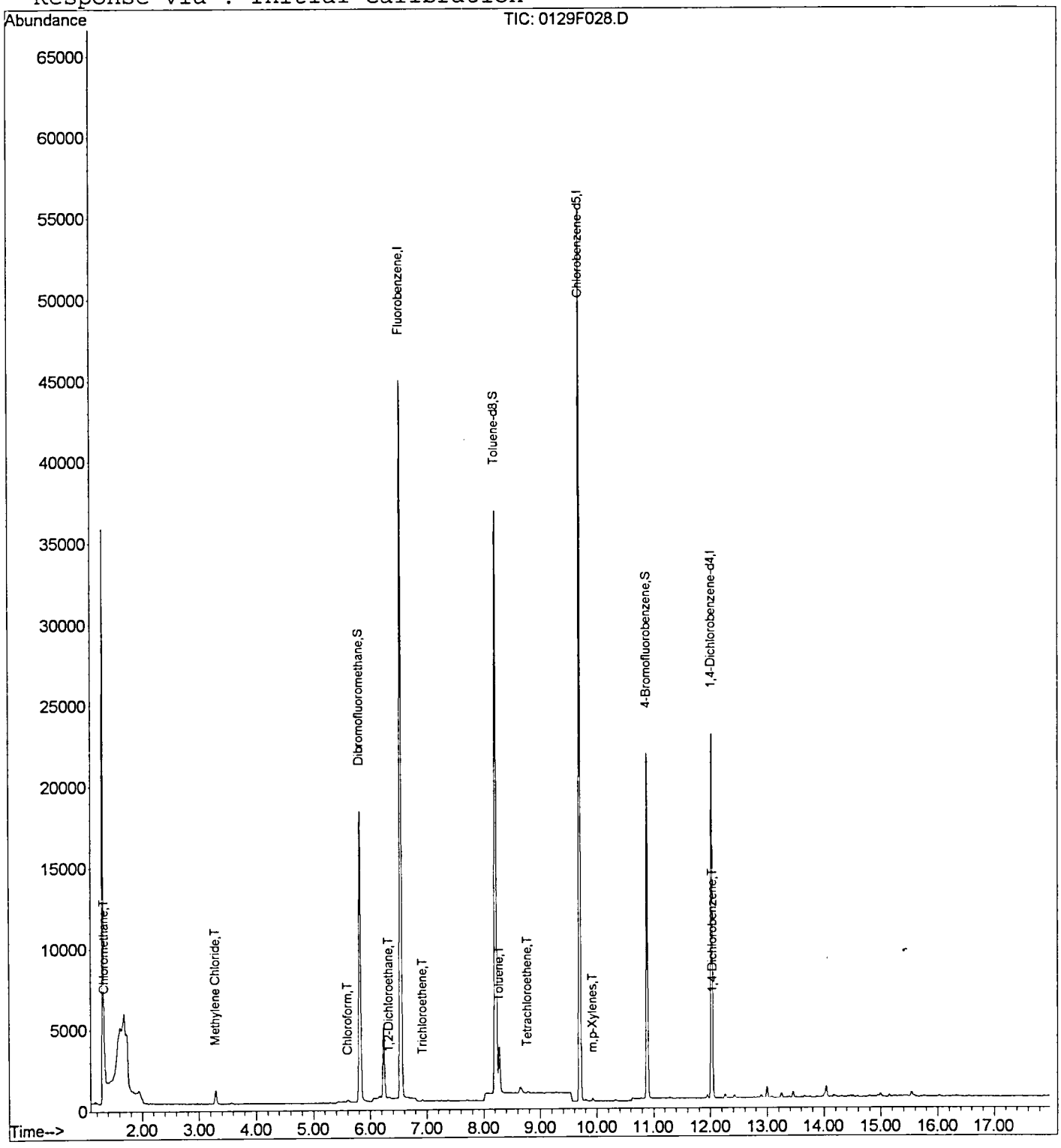
02/01/16

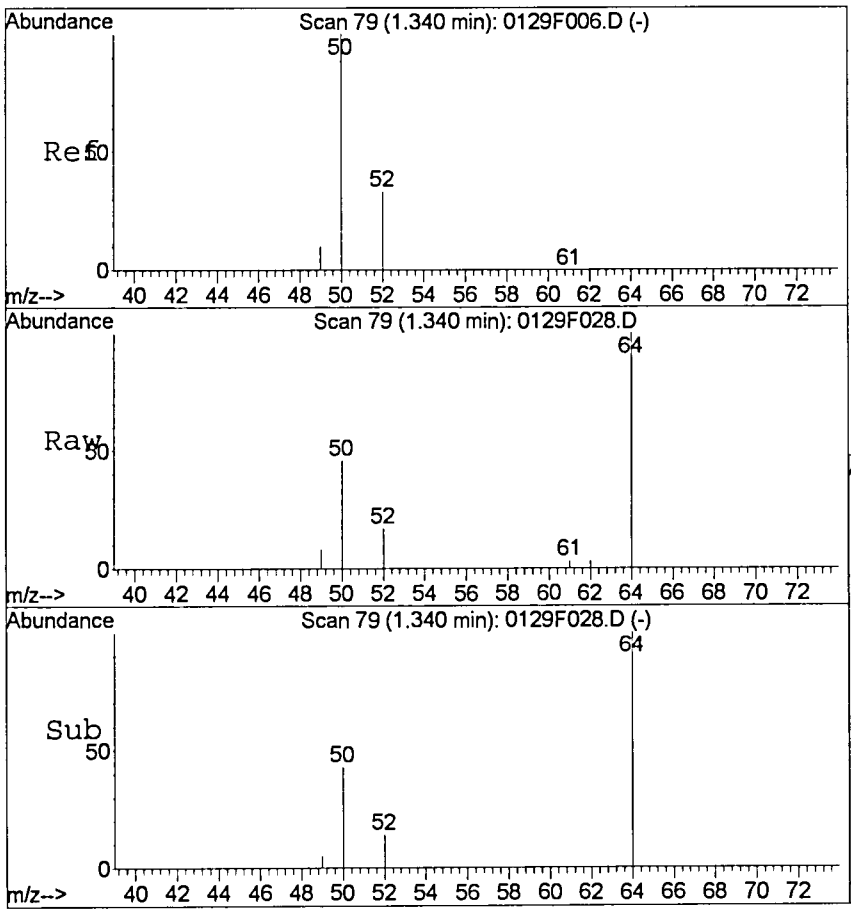
0129F028.D 012716MS27_8260SIM.M Mon Feb 01 14:03:19 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F028.D Vial: 36
Acq On : 29 Jan 2016 9:53 pm Operator: GH
Sample : K0673-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:03 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

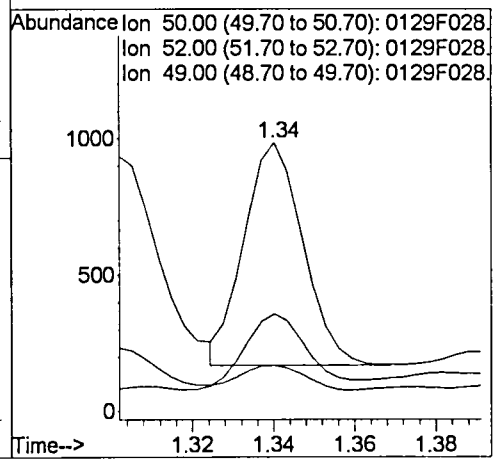


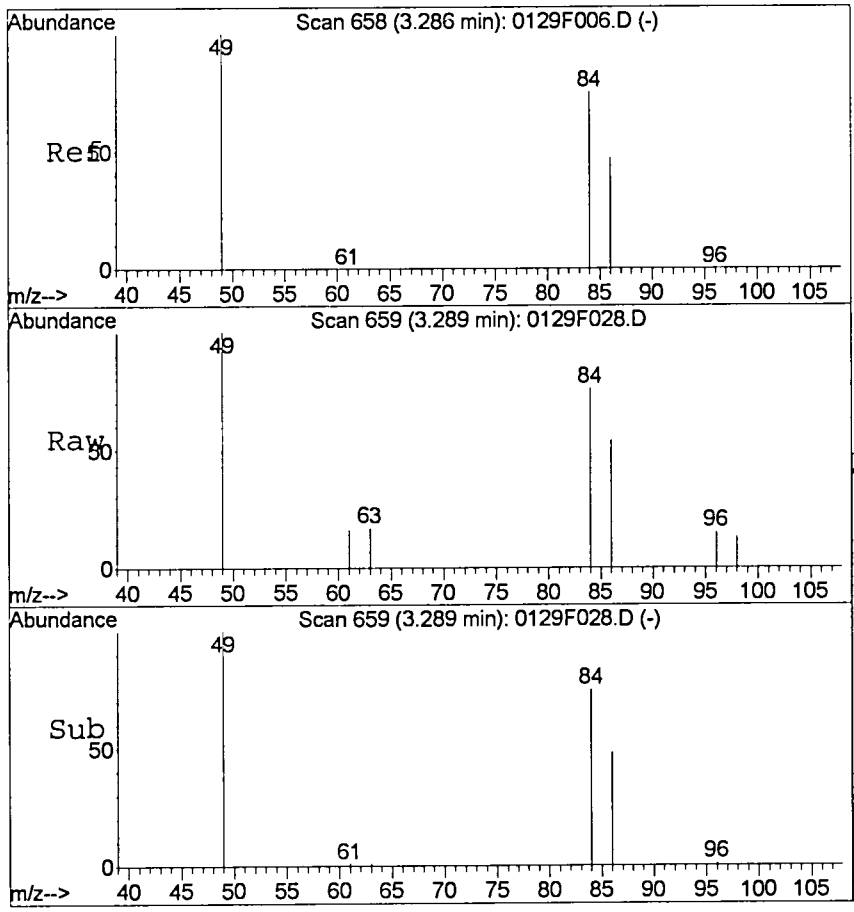


#2
Chloromethane
Concen: 29.78 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion: 50 Resp: 822

Ion	Ratio	Lower	Upper
50	100		
52	36.4	2.9	62.9
49	17.2	0.0	40.1

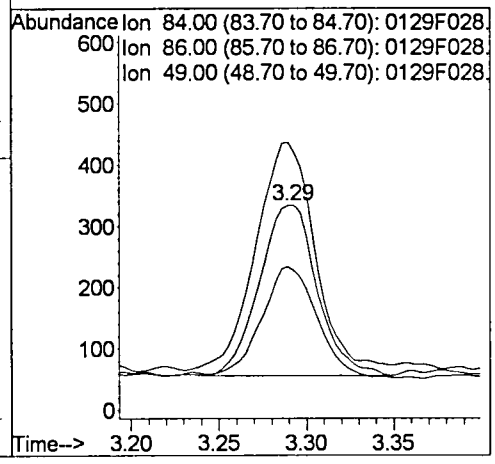


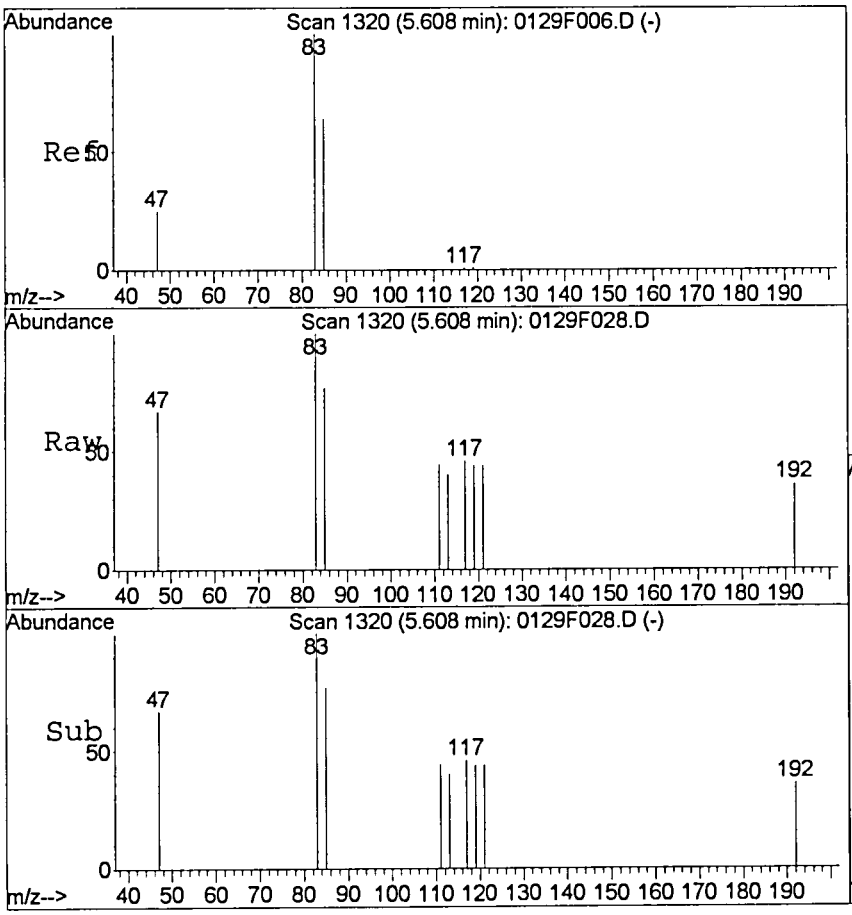


#5
Methylene Chloride
Concen: 28.33 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion: 84 Resp: 637

Ion	Ratio	Lower	Upper
84	100		
86	65.0	33.8	93.8
49	131.0	107.9	167.9

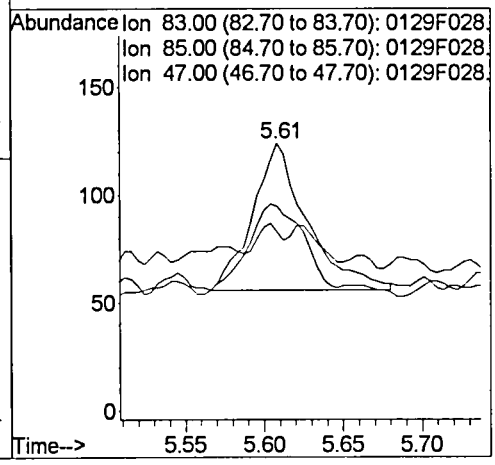


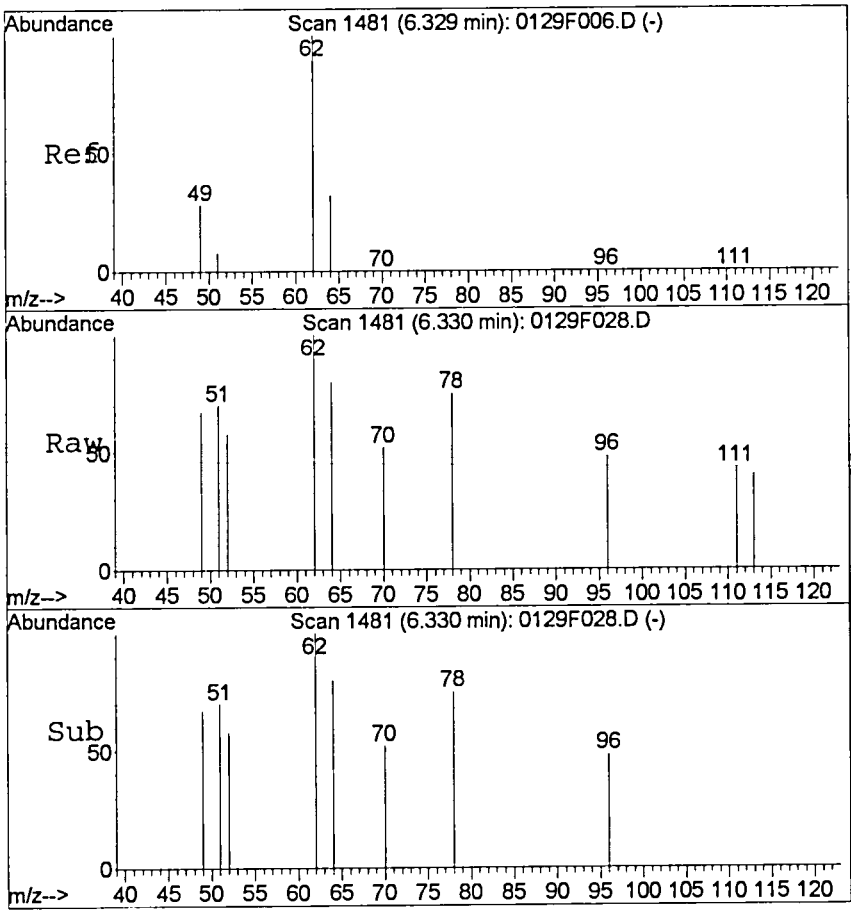


#8
Chloroform
Concen: 4.68 ng/L m
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion: 83 Resp: 164

Ion	Ratio	Lower	Upper
83	100		
85	76.6	34.7	94.7
47	66.9	0.0	55.9#

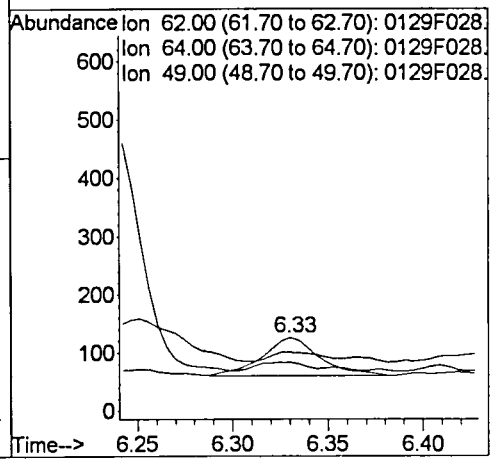


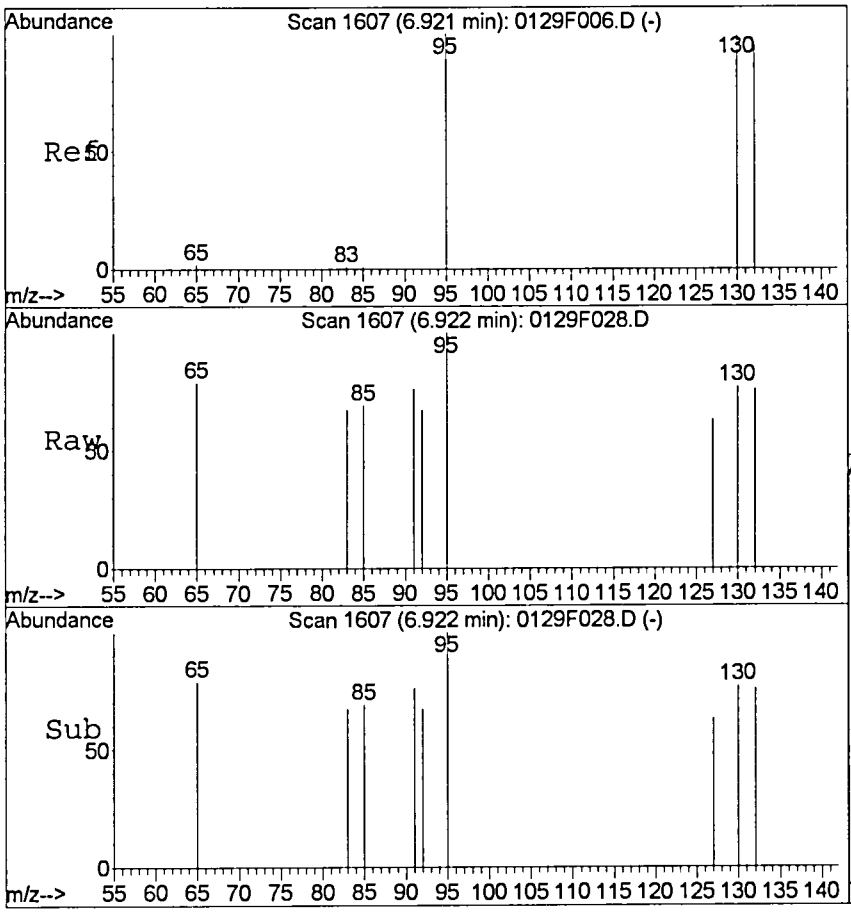


#12
1,2-Dichloroethane
Concen: 5.50 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion: 62 Resp: 135

Ion	Ratio	Lower	Upper
62	100		
64	80.2	1.7	61.7#
49	66.7	0.0	58.2#

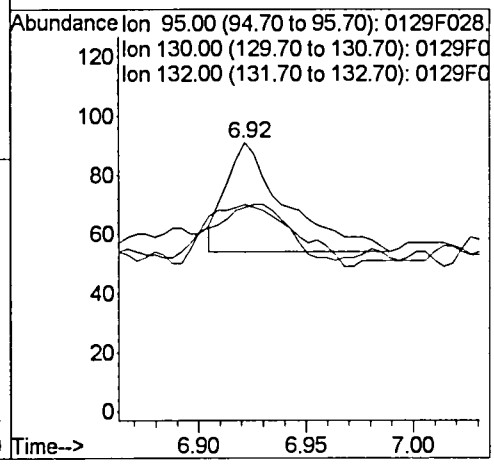


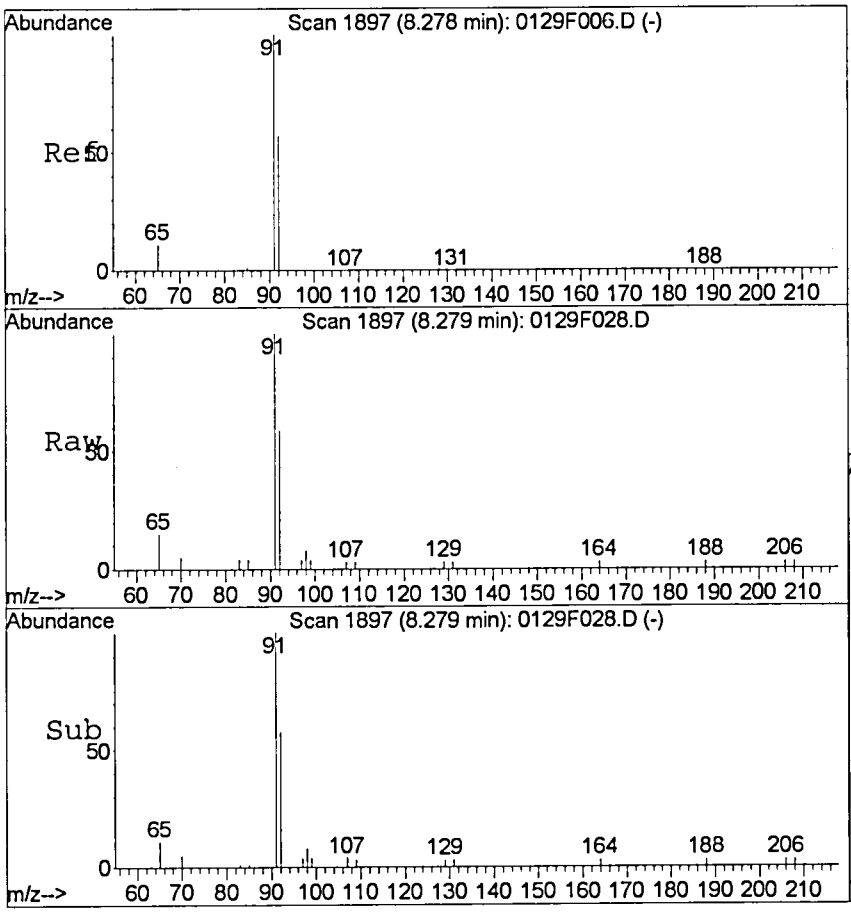


#13
Trichloroethene
Concen: 4.04 ng/L
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion: 95 Resp: 72

Ion	Ratio	Lower	Upper
95	100		
130	48.6	67.1	127.1#
132	48.6	63.9	123.9#

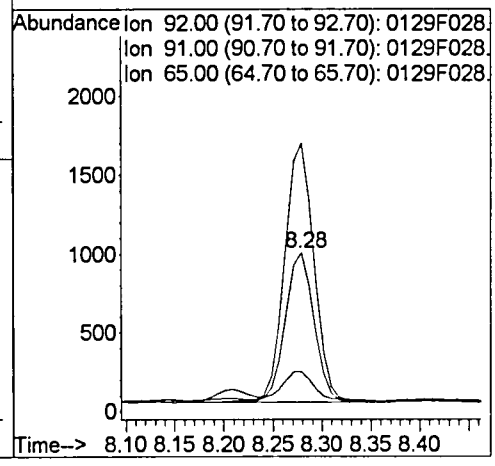


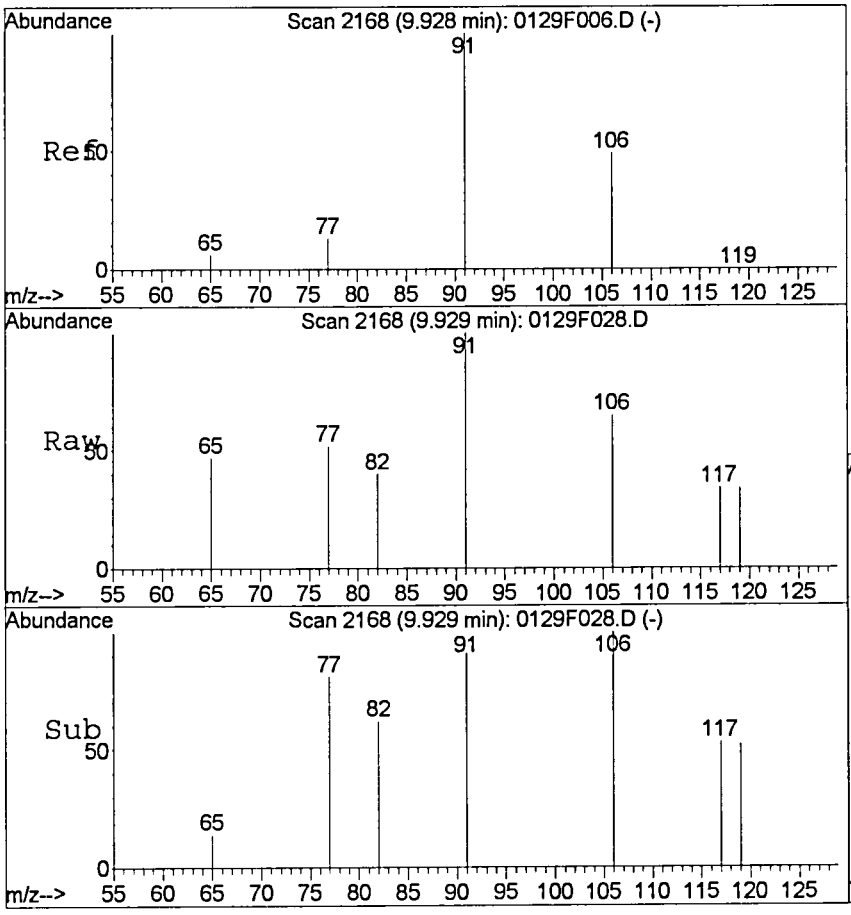


#20
Toluene
Concen: 50.28 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion: 92 Resp: 1964

Ion	Ratio	Lower	Upper
92	100		
91	171.7	144.4	204.4
65	19.6	0.0	49.7

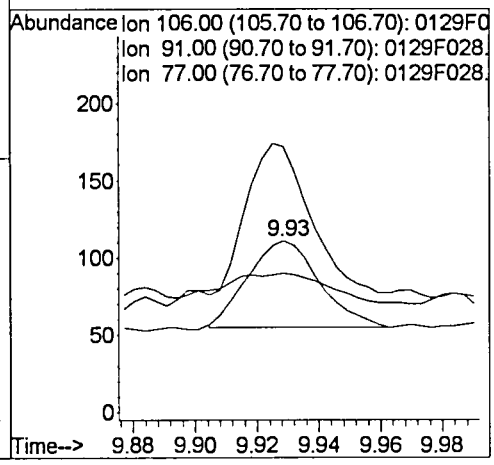


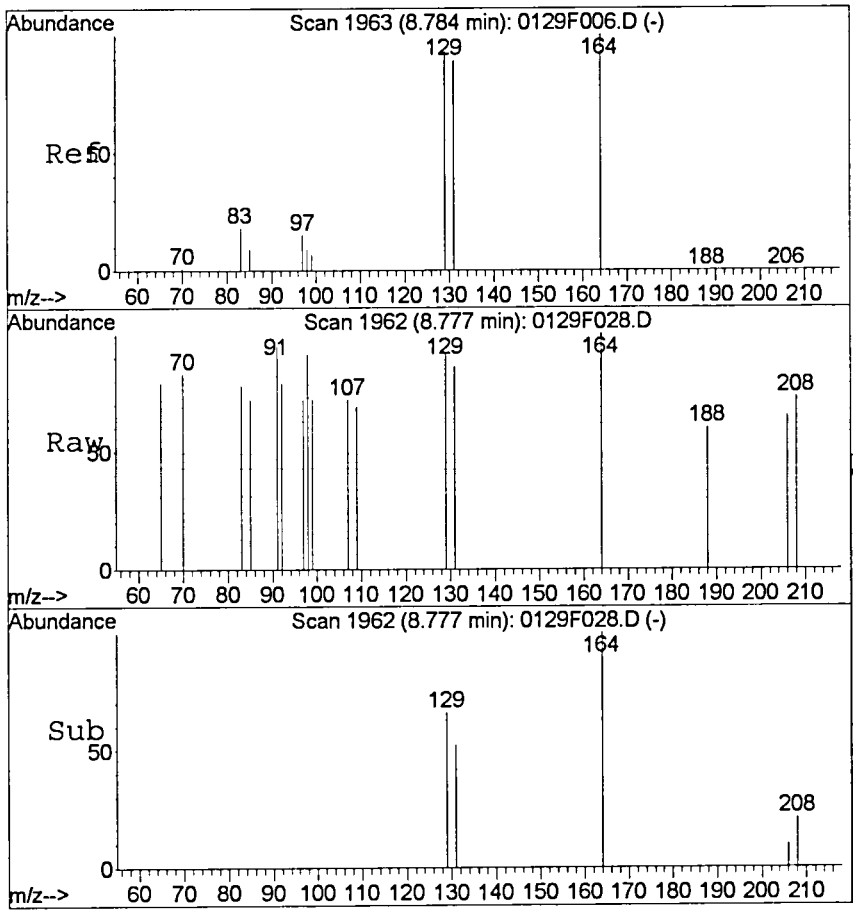


#22
m,p-Xylenes
Concen: 3.54 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion:106 Resp: 90

Ion	Ratio	Lower	Upper
106	100		
91	171.4	173.8	233.8#
77	33.9	0.0	57.2

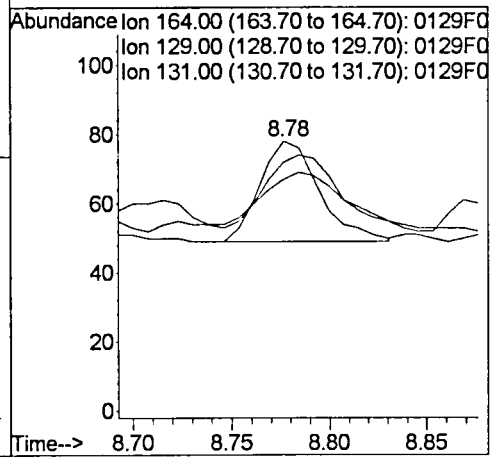


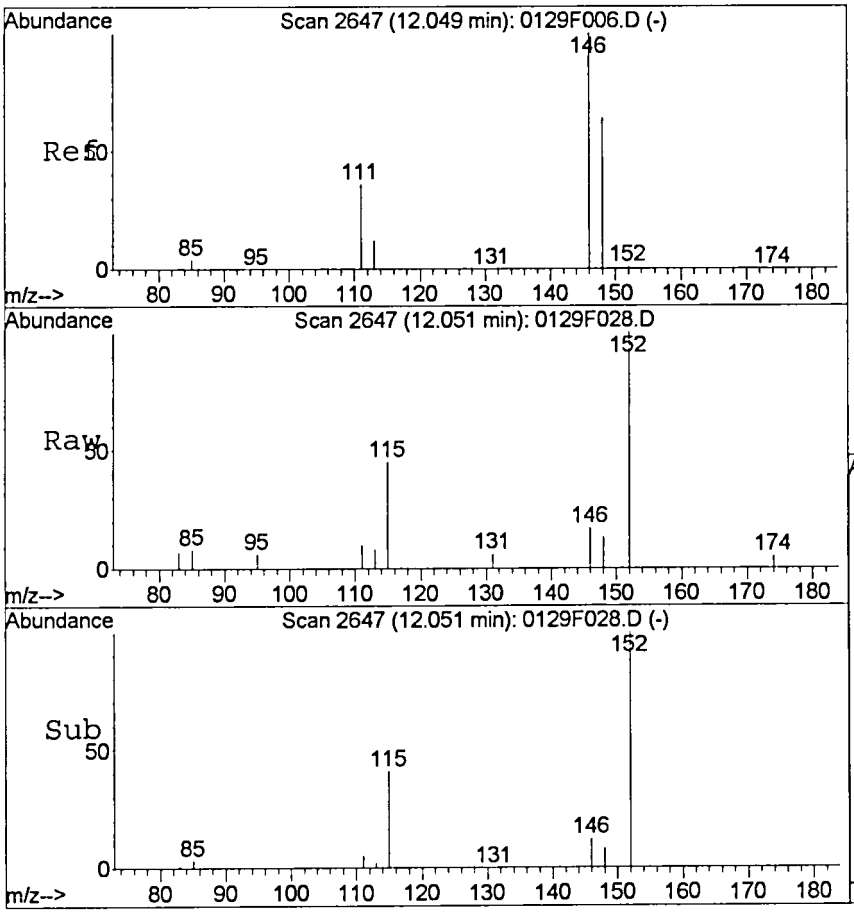


#26
Tetrachloroethene
Concen: 4.55 ng/L
RT: 8.78 min Scan# 1962
Delta R.T. -0.01 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion:164 Resp: 62

Ion	Ratio	Lower	Upper
164	100		
129	62.1	61.1	121.1
131	44.8	58.3	118.3#

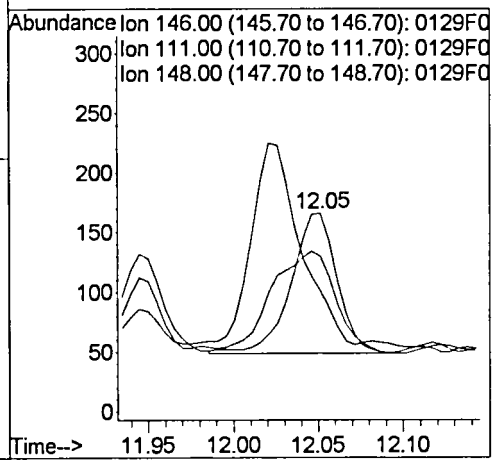




#28
1,4-Dichlorobenzene
Concen: 6.12 ng/L
RT: 12.05 min Scan# 2647
Delta R.T. 0.00 min
Lab File: 0129F028.D
Acq: 29 Jan 2016 9:53 pm

Tgt Ion:146 Resp: 219

Ion	Ratio	Lower	Upper
146	100		
111	37.6	6.7	66.7
148	69.2	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F029.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 22:21
Date Quantitated: 02/01/2016 14:05
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL
Lab Control Spike	Toluene-d8	122	74	112	This analyte only
Surrogates	Toluene-d8	119	74	112	J CMK

Primary Review: MM 2/1/16

Secondary Review: KMM

Printed: 02/01/2016 14:35:39
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F029.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 22:21	**Quant Date:**	02/01/2016 14:05	**Vial:**	37
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1497007	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	68820	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48628	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17637	1,126	113	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	59753	1,194	119	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	19763	1,008	101	46-118	OK	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.32	-0.01	0.00	62	160	6.43	6.4	J	
1	Bromodichloromethane				83	0d		3.4	U	
1	Dibromochloromethane	9.16		0.00	129	47m	3.07	8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:39:50 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

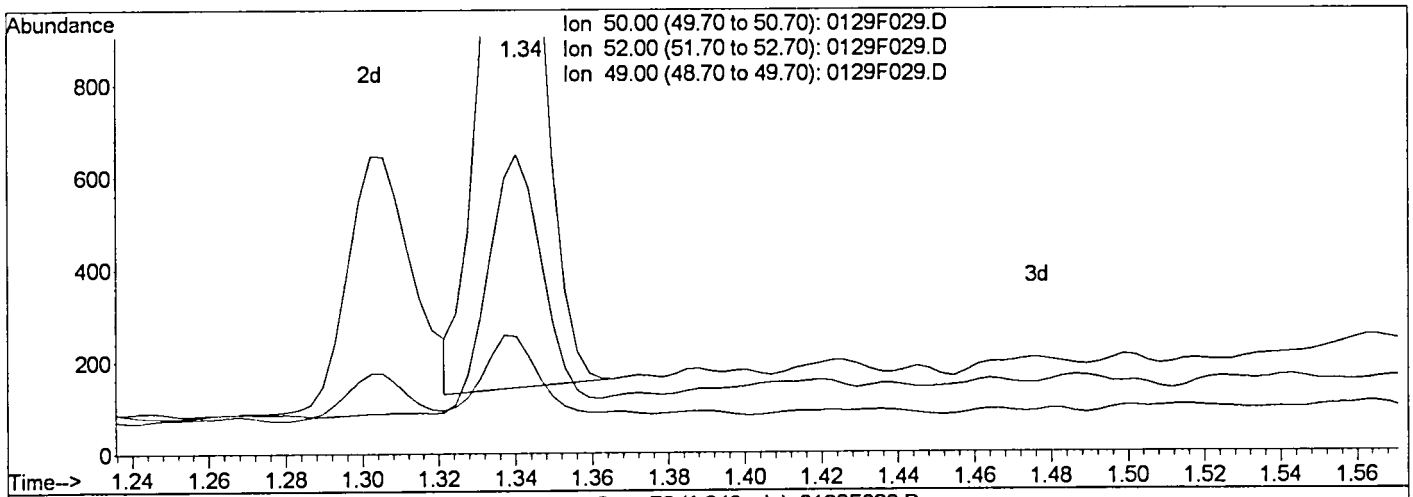
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	68820	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48628	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	22594	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17637	1126.21	ng/L	0.00
Spiked Amount 1000.000			Recovery = 112.62%			
15) Toluene-d8	8.21	98	59753	1193.95	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.40%			
24) 4-Bromofluorobenzene	10.89	95	19763	1008.47	ng/L	0.00
Spiked Amount 1000.000			Recovery = 100.85%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	1676m	59.91	ng/L	
3) Vinyl Chloride	1.43	62	62	2.48	ng/L #	1
5) Methylene Chloride	3.29	84	1169	51.29	ng/L	95
8) Chloroform	5.61	83	280m	7.88	ng/L	
12) 1,2-Dichloroethane	6.32	62	160	6.43	ng/L	90
13) Trichloroethene	6.92	95	88m	4.87	ng/L	
17) Dibromochloromethane	9.16	129	47m	3.07	ng/L	
20) Toluene	8.28	92	8235	208.89	ng/L	99
21) Ethylbenzene	9.80	106	1063	51.68	ng/L	96
22) m,p-Xylenes	9.93	106	1947	75.85	ng/L	99
23) o-Xylene	10.33	106	681	26.83	ng/L	97
26) Tetrachloroethene	8.78	164	119	8.65	ng/L	89
28) 1,4-Dichlorobenzene	12.05	146	282	8.00	ng/L	93

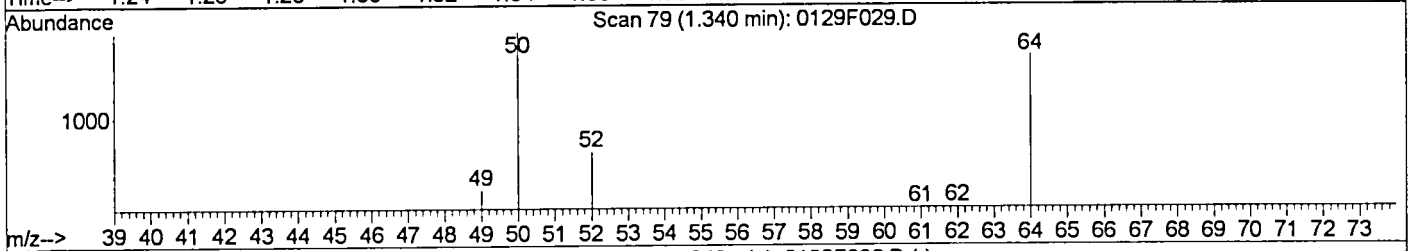
(#) = qualifier out of range (m) = manual integration
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:07:50 2016 Page 1

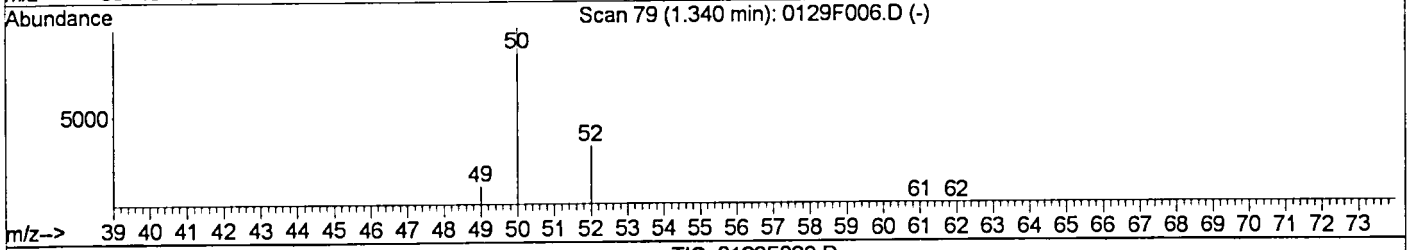
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:39 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration







TIC: 0129F029.D

(2) Chloromethane (T)

1.34min 61.16ng/L

response 1711

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.50
49.00	10.10	9.52
0.00	0.00	0.00

Manual Integration:

Before

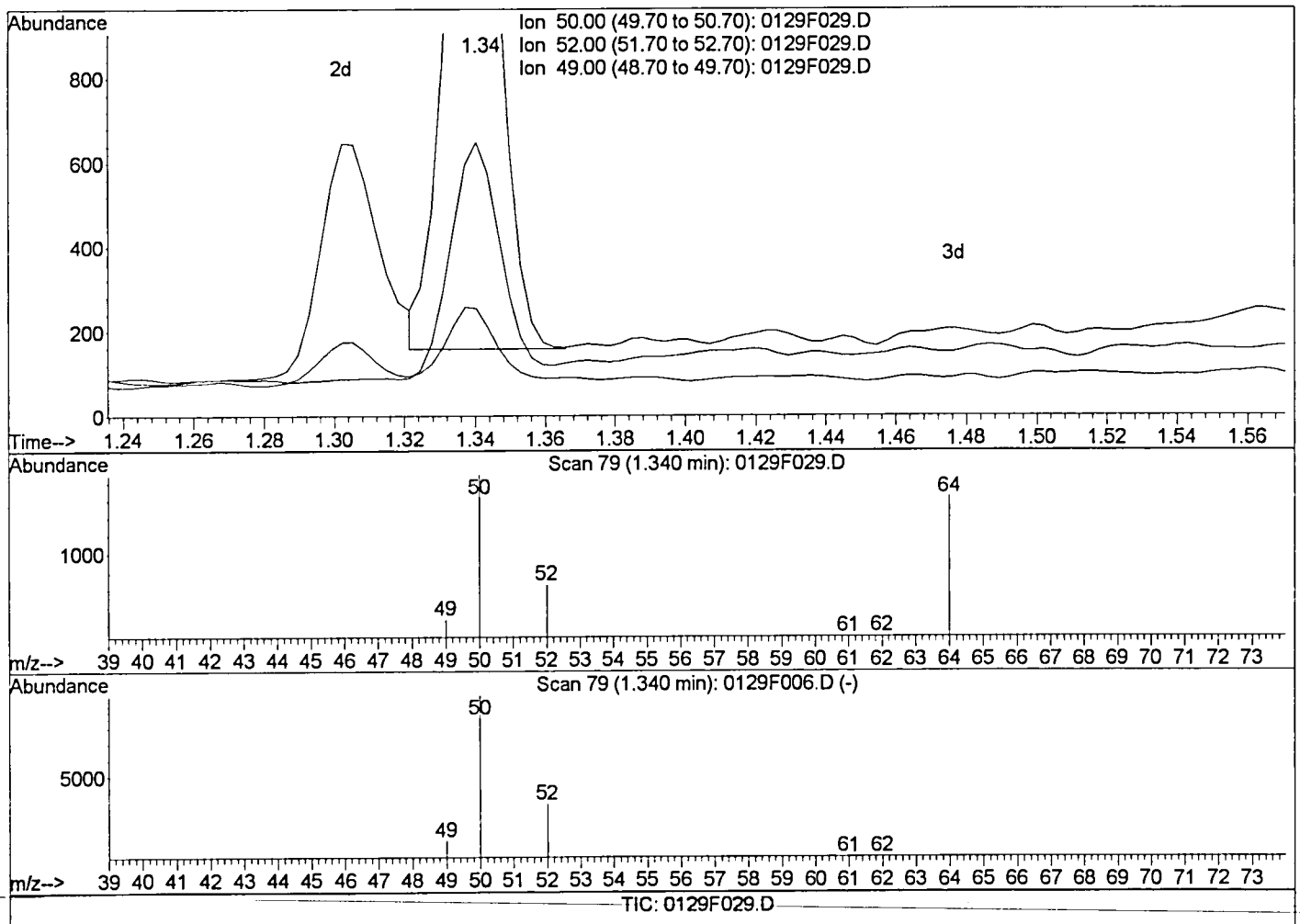
02/01/16

0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:04:04 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:04 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F029.D

(2) Chloromethane (T)

1.34min 59.91ng/L m

response 1676

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	34.43
49.00	10.10	13.53
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

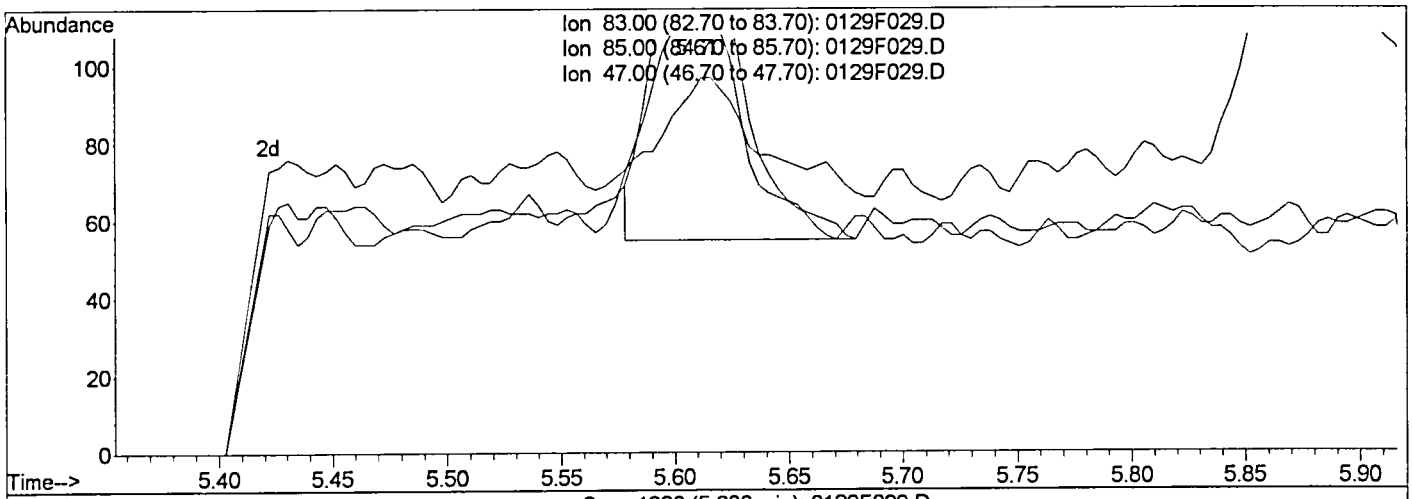
02/01/16

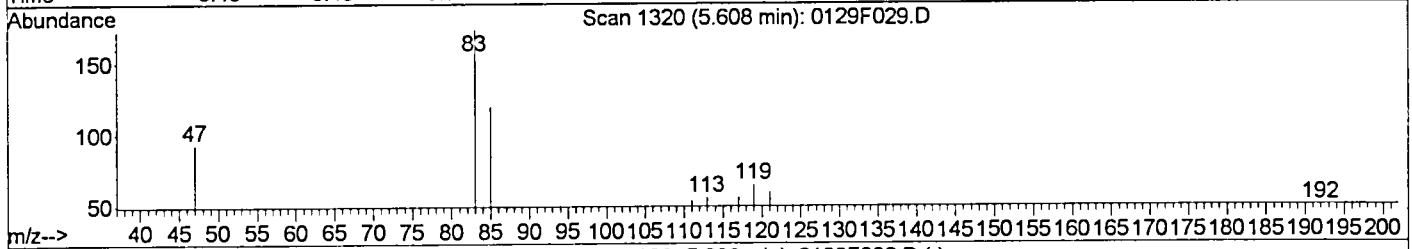
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:04:18 2016

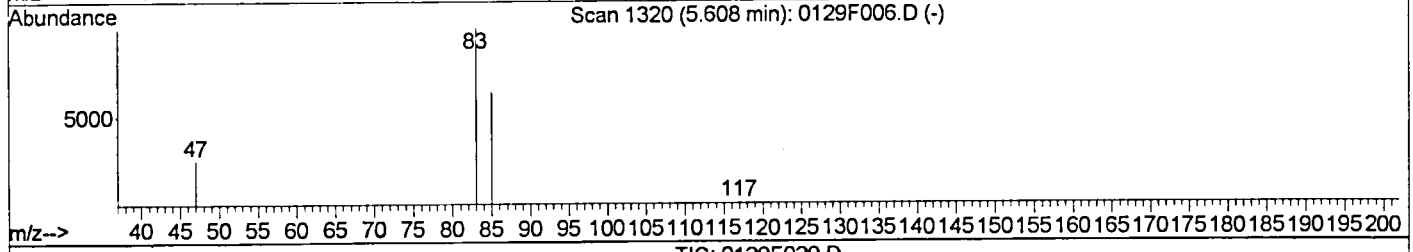
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:04 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F029.D

(8) Chloroform (T)

5.61min 7.20ng/L

response 256

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	49.15
47.00	25.90	22.03
0.00	0.00	0.00

Manual Integration:

Before

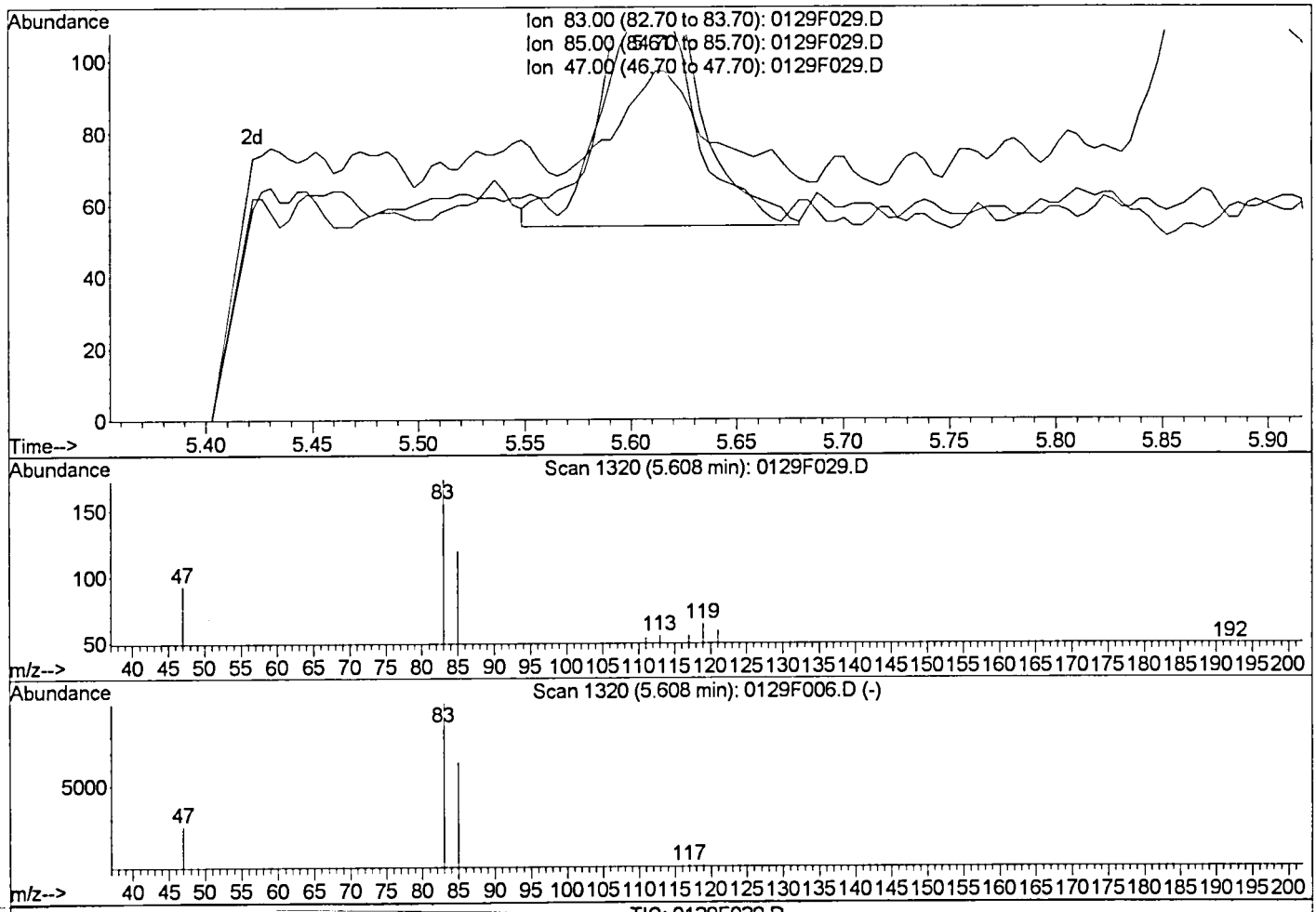
02/01/16

0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:04:35 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:04 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0129F029.D

(8) Chloroform (T)

5.61min 7.88ng/L m

response 280

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	68.79
47.00	25.90	53.76
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

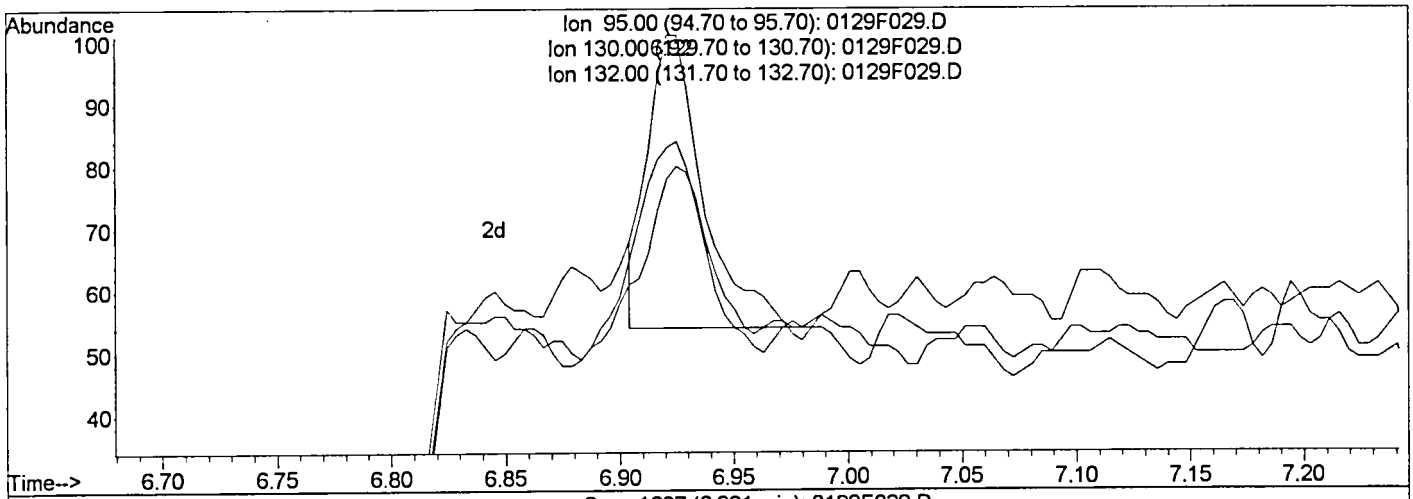
02/01/16

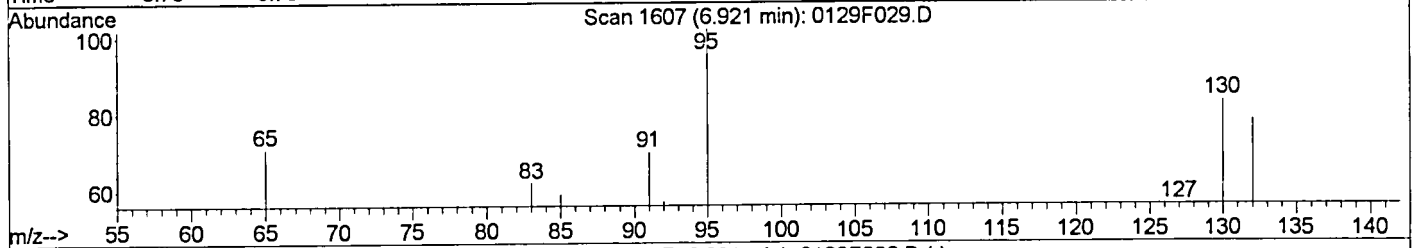
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:04:47 2016

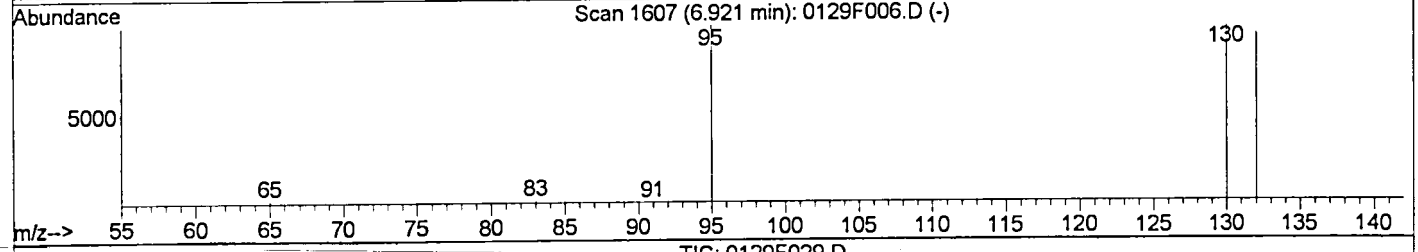
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:04 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F029.D

(13) Trichloroethene (T)

6.92min 4.43ng/L

response 80

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	58.33#
132.00	93.90	52.08#
0.00	0.00	0.00

Manual Integration:

Before

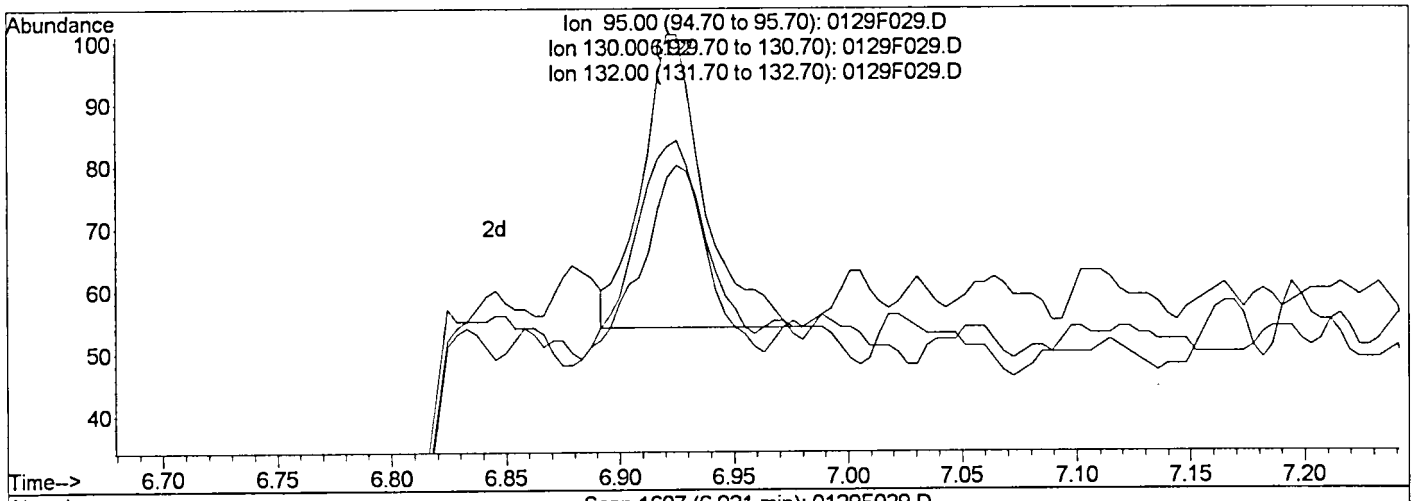
02/01/16

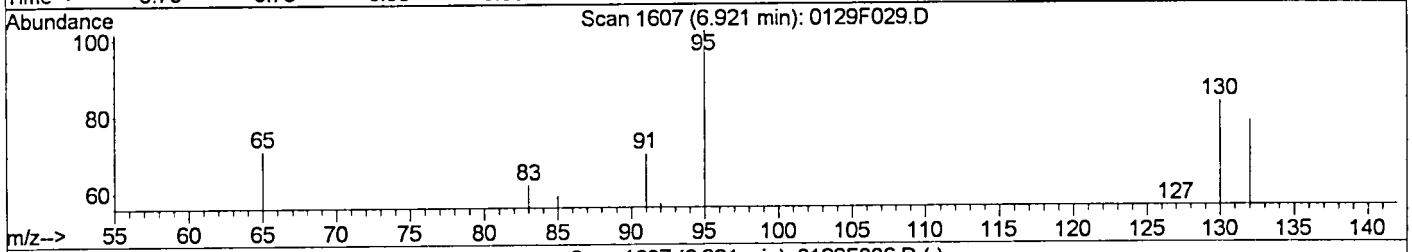
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:04:59 2016

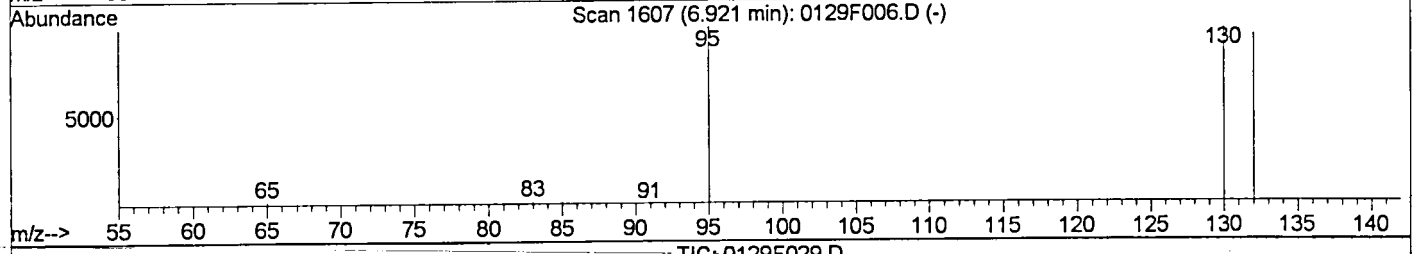
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:05 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F029.D

(13) Trichloroethene (T)

6.92min 4.87ng/L m

response 88

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	81.37
132.00	93.90	76.47
0.00	0.00	0.00

Manual Integration:

After ,54

Baseline correction

02/01/16

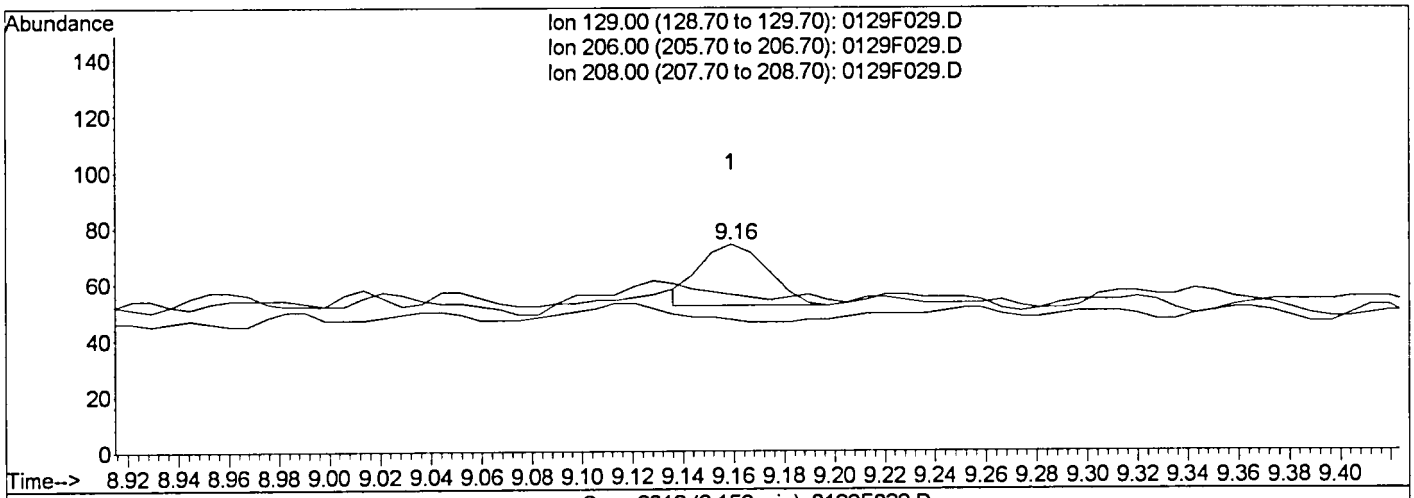
KH 2/2/16

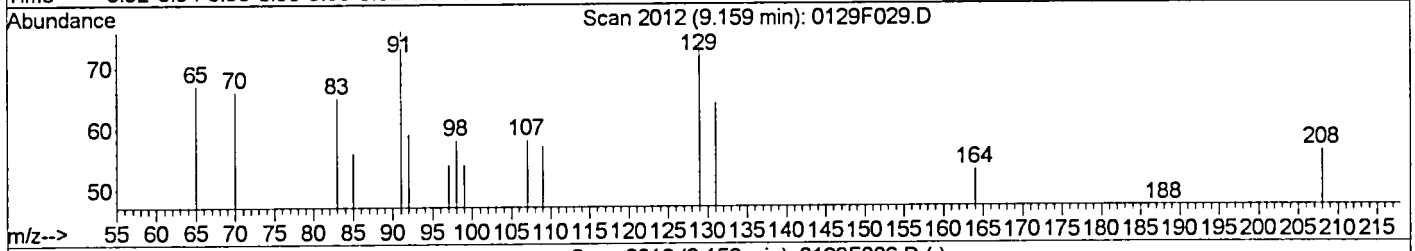
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:05:06 2016

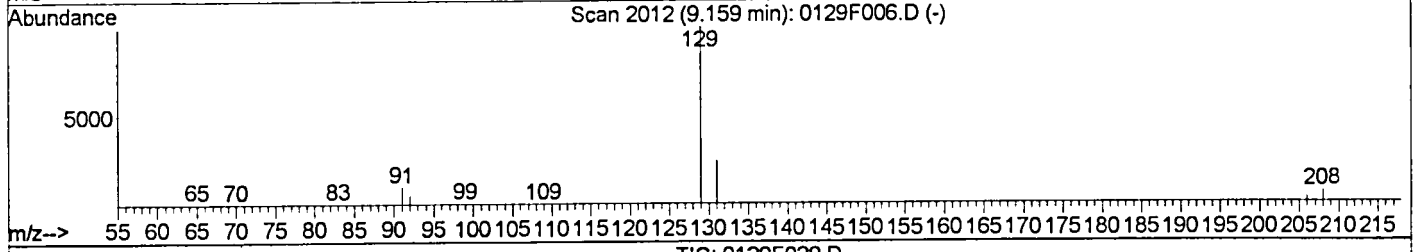
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:05 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F029.D

(17) Dibromochloromethane (T)

9.16min 2.68ng/L

response 41

Ion	Exp%	Act%
129.00	100	100
206.00	2.70	0.00
208.00	5.90	9.09
0.00	0.00	0.00

Manual Integration:

Before

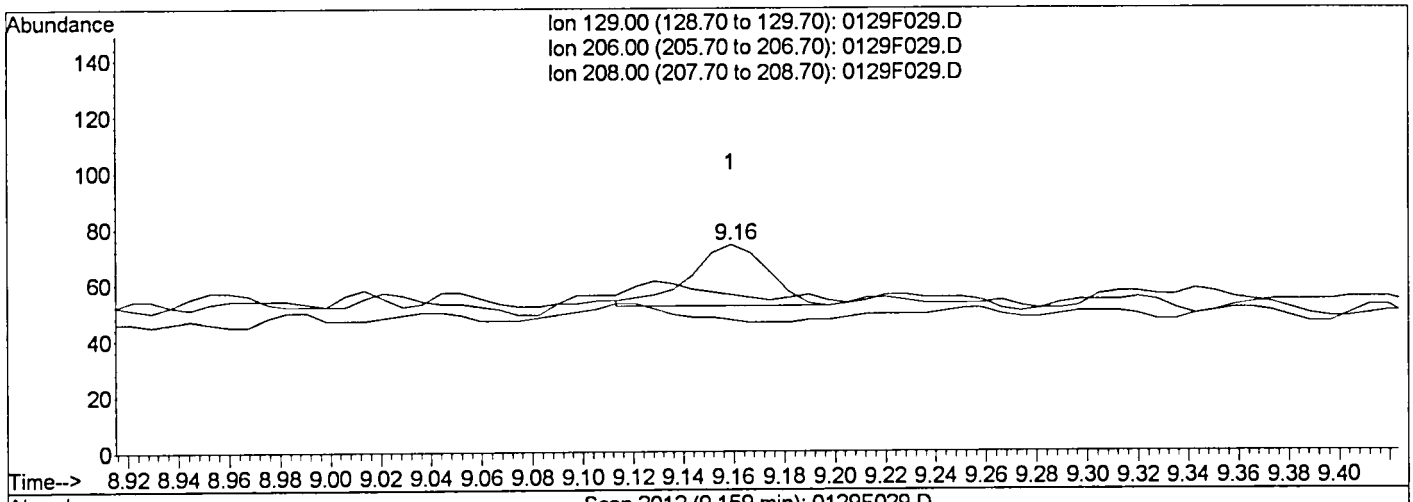
02/01/16

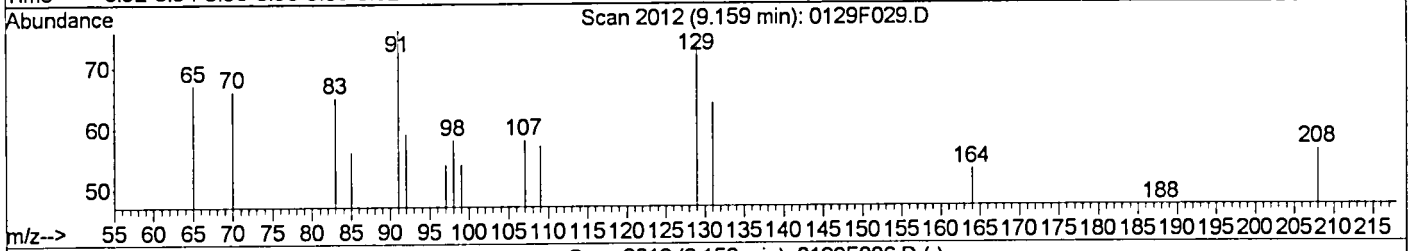
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:05:30 2016

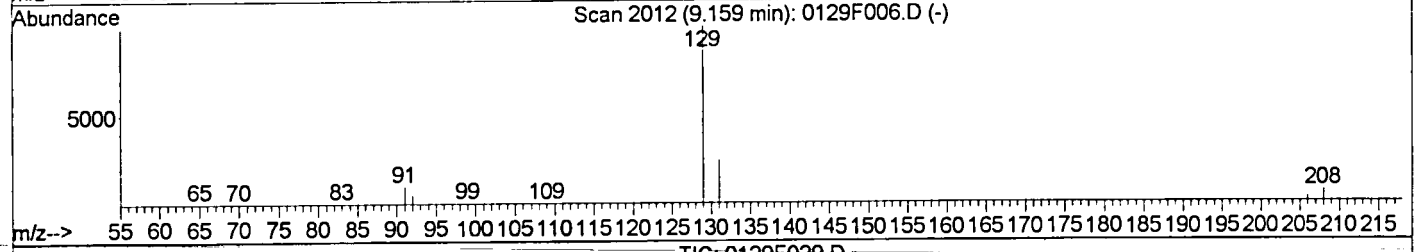
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:05 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F029.D

(17) Dibromochloromethane (T)

9.16min 3.07ng/L m

response 47

Ion	Exp%	Act%
129.00	100	100
206.00	2.70	63.51#
208.00	5.90	75.68#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

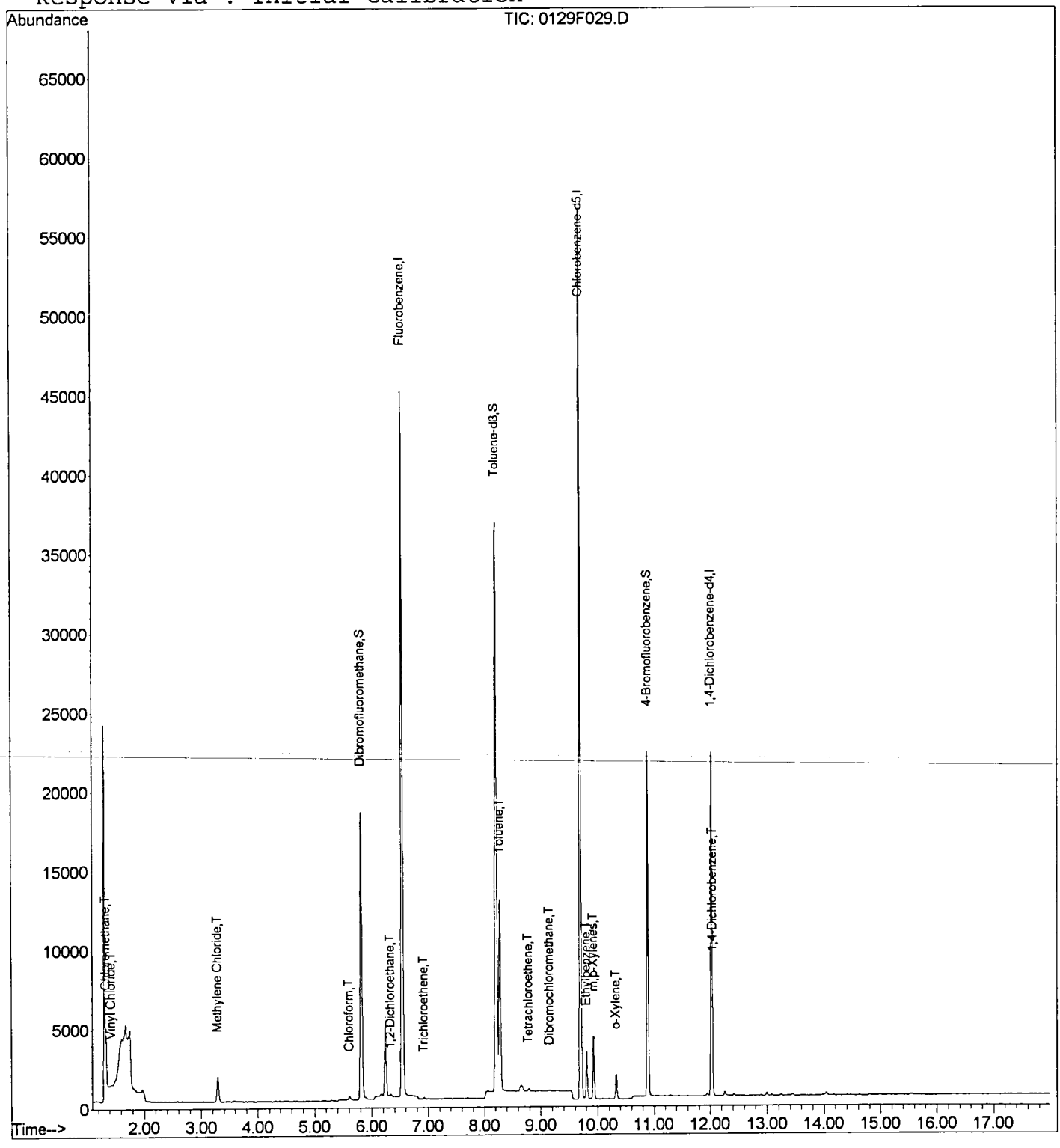
02/01/16

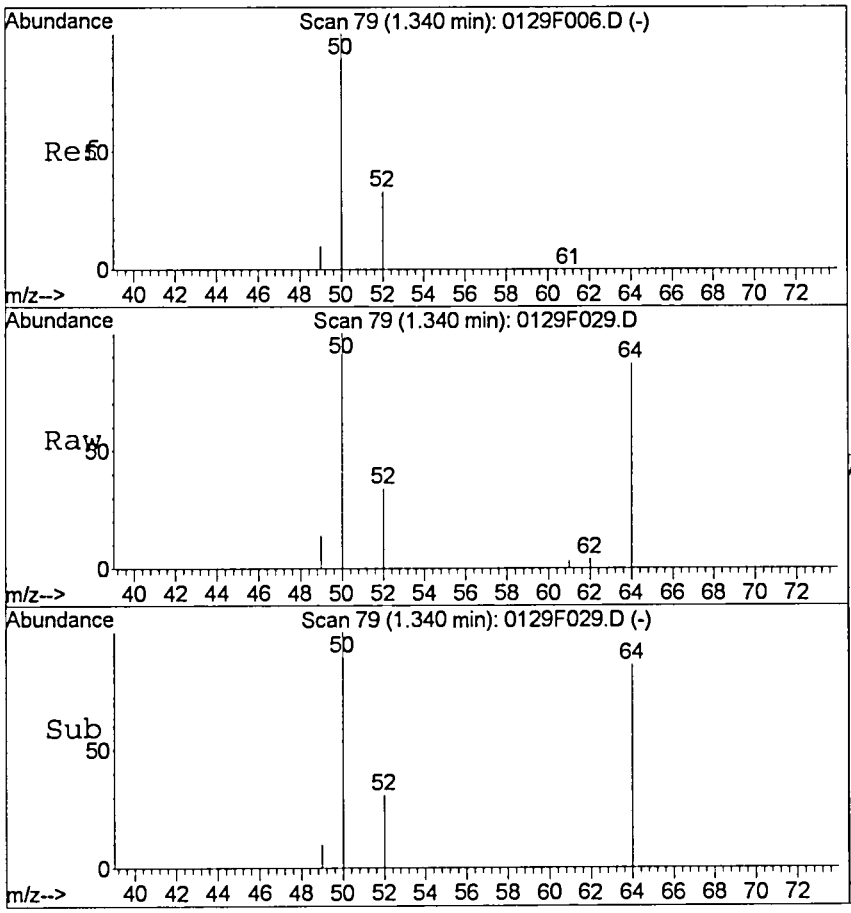
0129F029.D 012716MS27_8260SIM.M Mon Feb 01 14:05:38 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F029.D Vial: 37
Acq On : 29 Jan 2016 10:21 pm Operator: GH
Sample : K0673-013 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 14:05 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

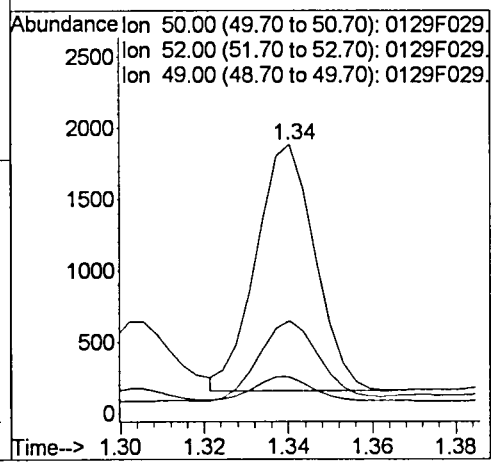


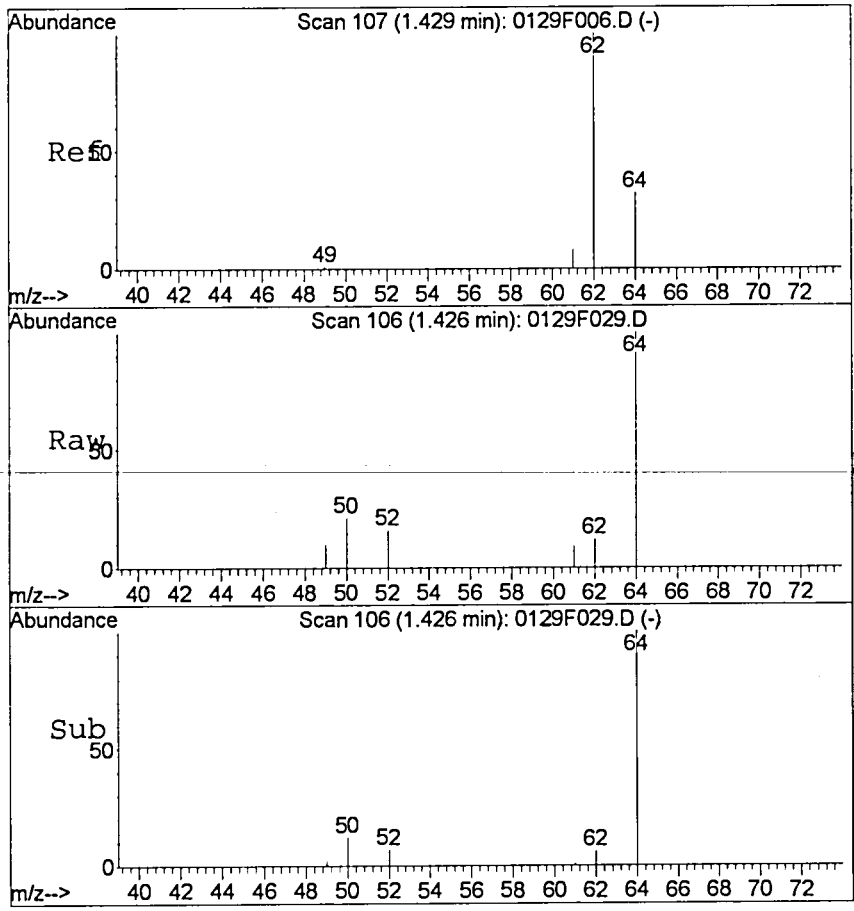


#2
Chloromethane
Concen: 59.91 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 50 Resp: 1676

Ion	Ratio	Lower	Upper
50	100		
52	34.4	2.9	62.9
49	13.5	0.0	40.1

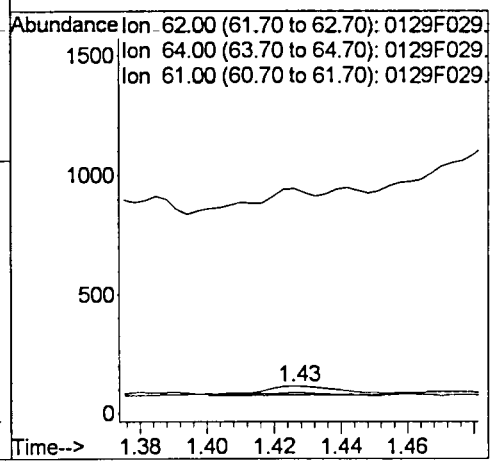


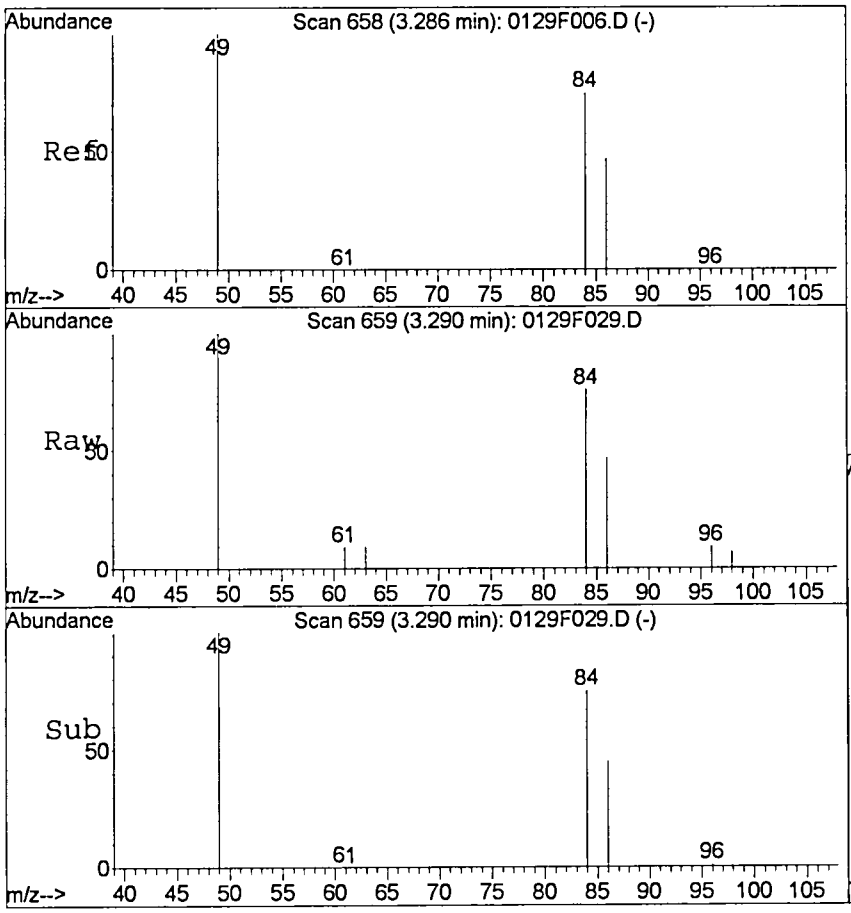


#3
Vinyl Chloride
Concen: 2.48 ng/L
RT: 1.43 min Scan# 106
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 62 Resp: 62

Ion	Ratio	Lower	Upper
62	100		
64	233.3	1.9	61.9#
61	27.8	0.0	38.5

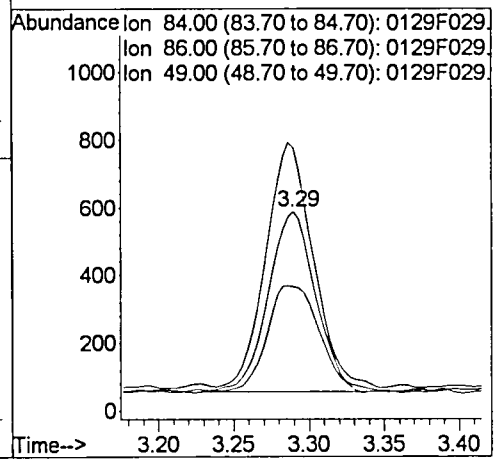


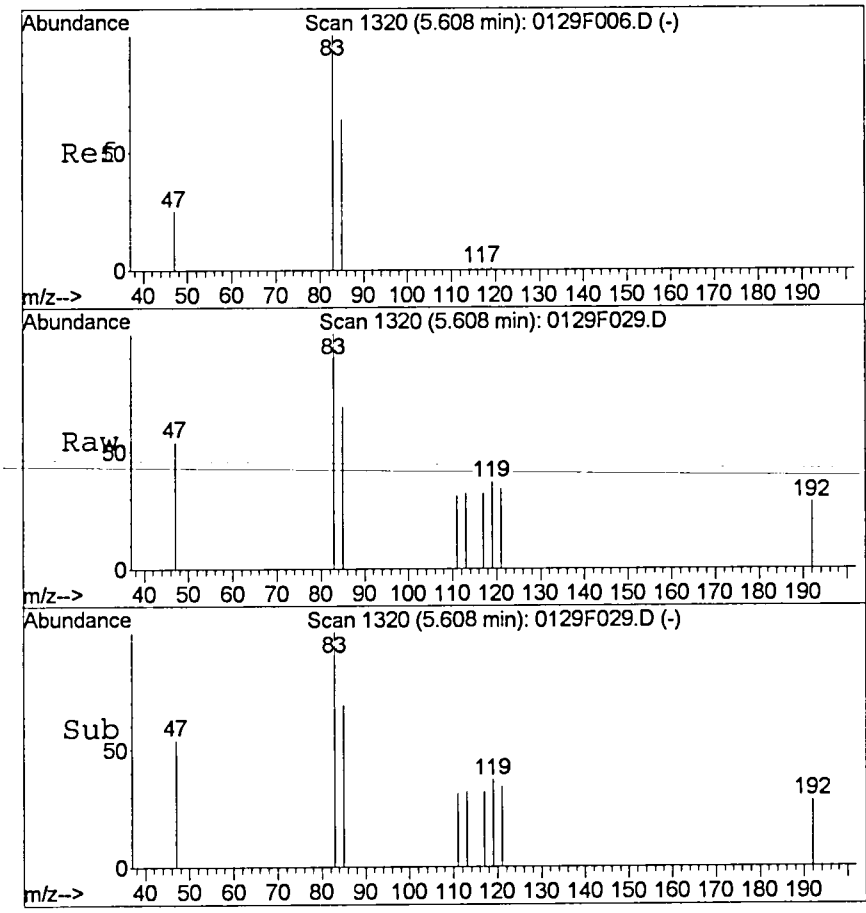


#5
Methylene Chloride
Concen: 51.29 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 84 Resp: 1169

Ion	Ratio	Lower	Upper
84	100		
86	58.0	33.8	93.8
49	132.6	107.9	167.9

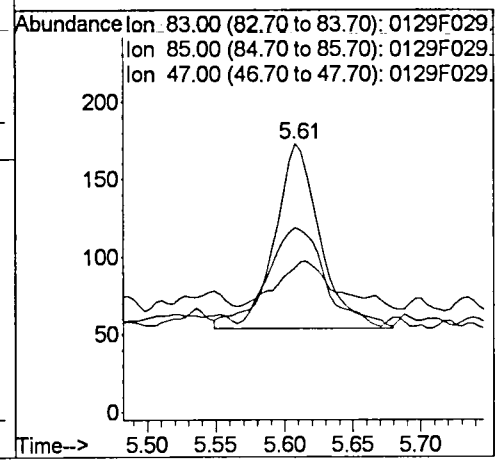


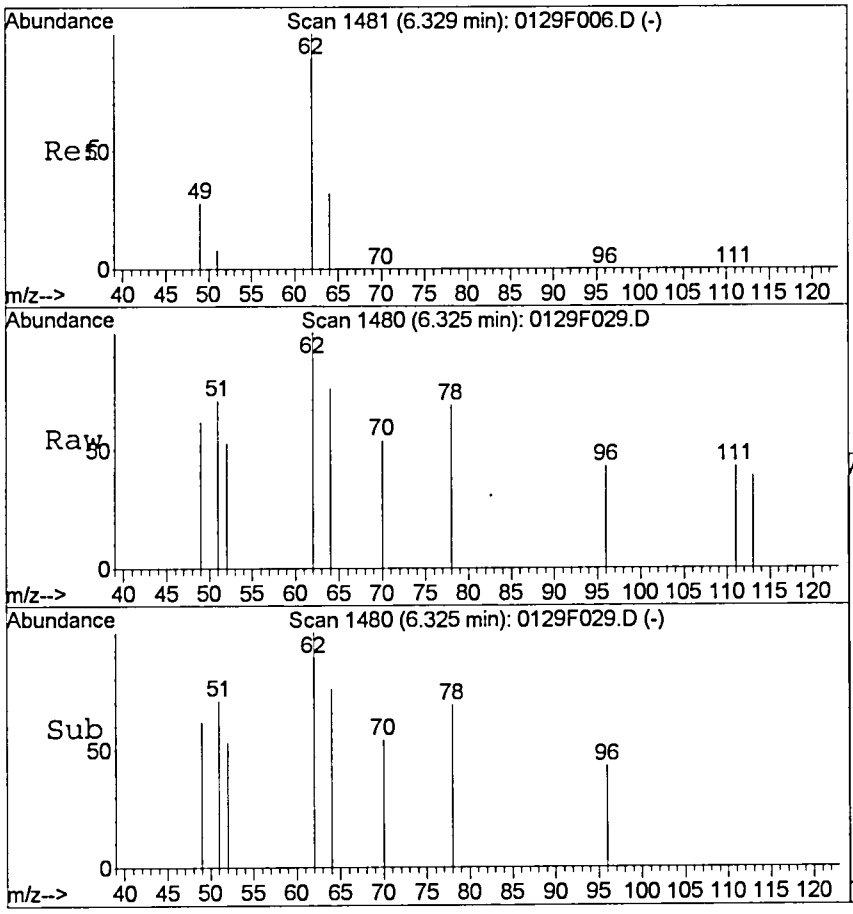


#8
Chloroform
Concen: 7.88 ng/L m
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 83 Resp: 280

Ion	Ratio	Lower	Upper
83	100		
85	68.8	34.7	94.7
47	53.8	0.0	55.9

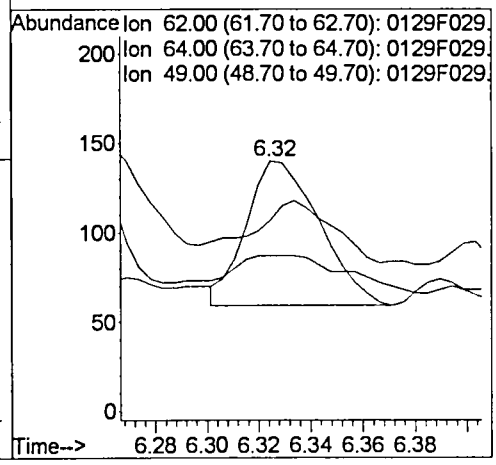


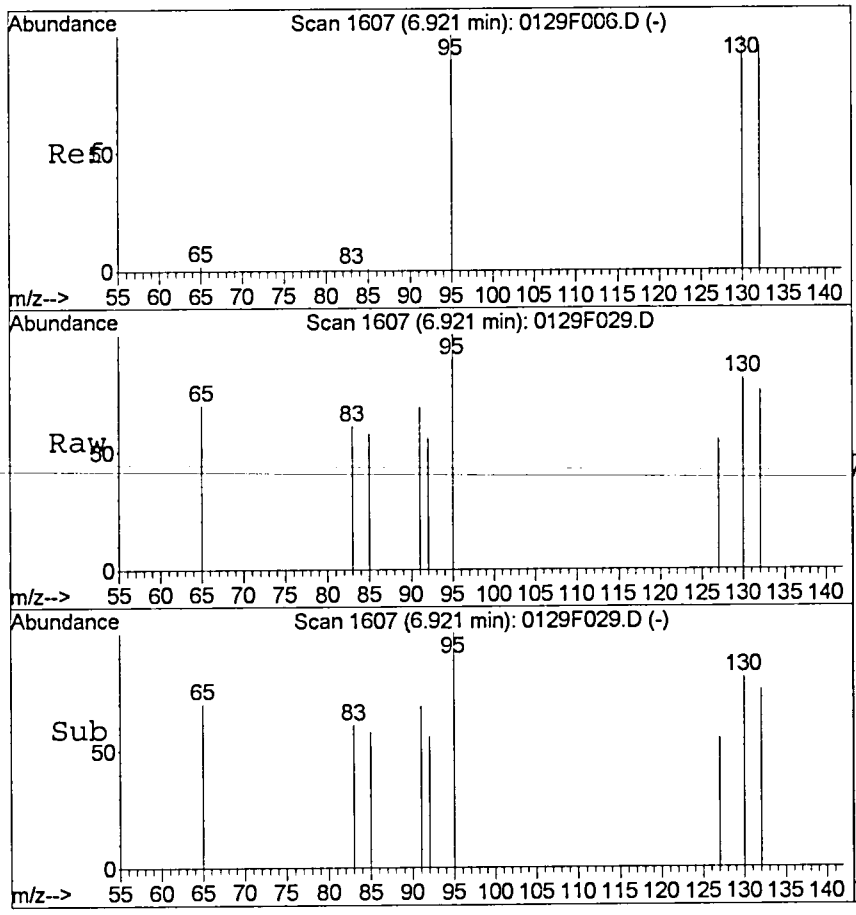


#12
1,2-Dichloroethane
Concen: 6.43 ng/L
RT: 6.32 min Scan# 1480
Delta R.T. -0.01 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 62 Resp: 160

Ion	Ratio	Lower	Upper
62	100		
64	28.4	1.7	61.7
49	21.0	0.0	58.2

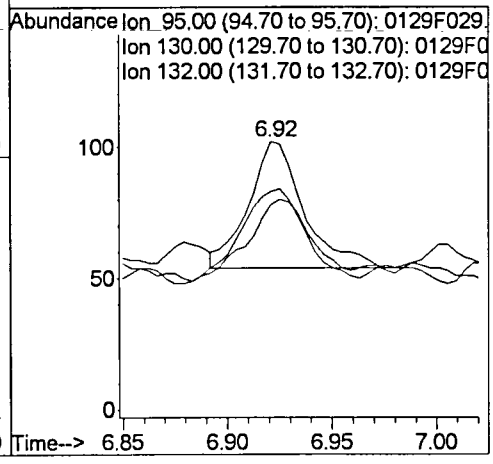


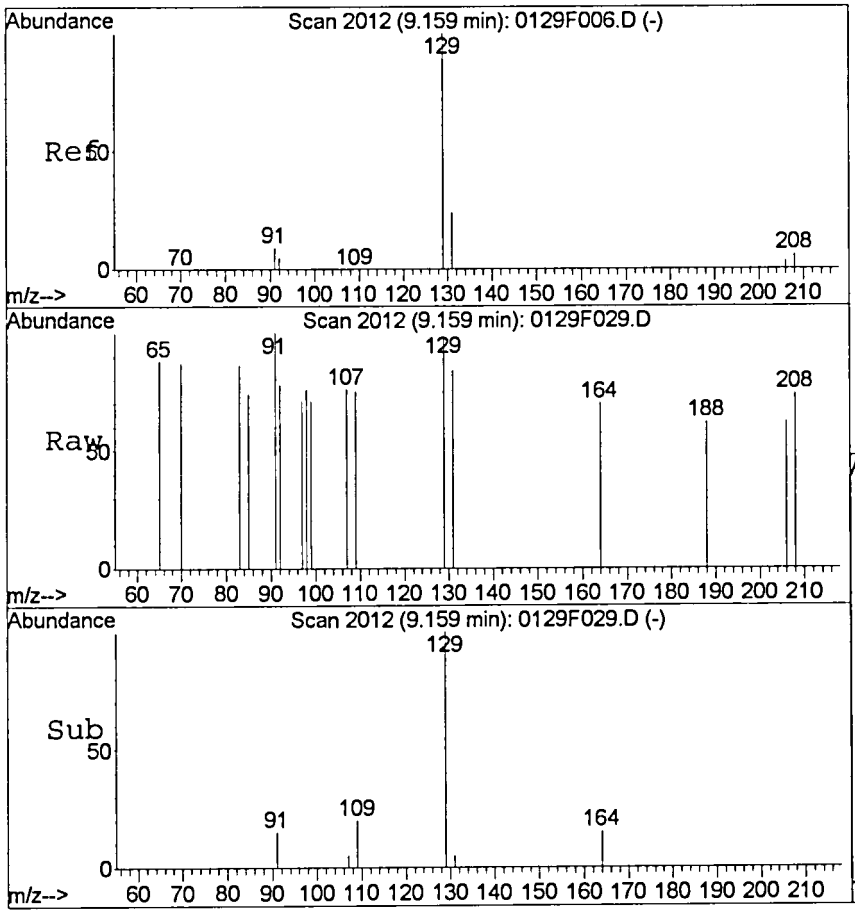


#13
Trichloroethene
Concen: 4.87 ng/L m
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 95 Resp: 88

Ion	Ratio	Lower	Upper
95	100		
130	81.4	67.1	127.1
132	76.5	63.9	123.9

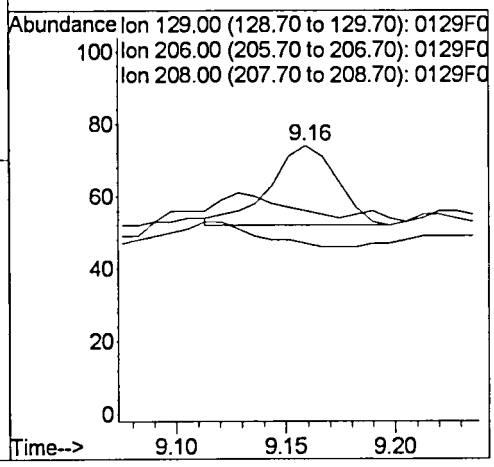


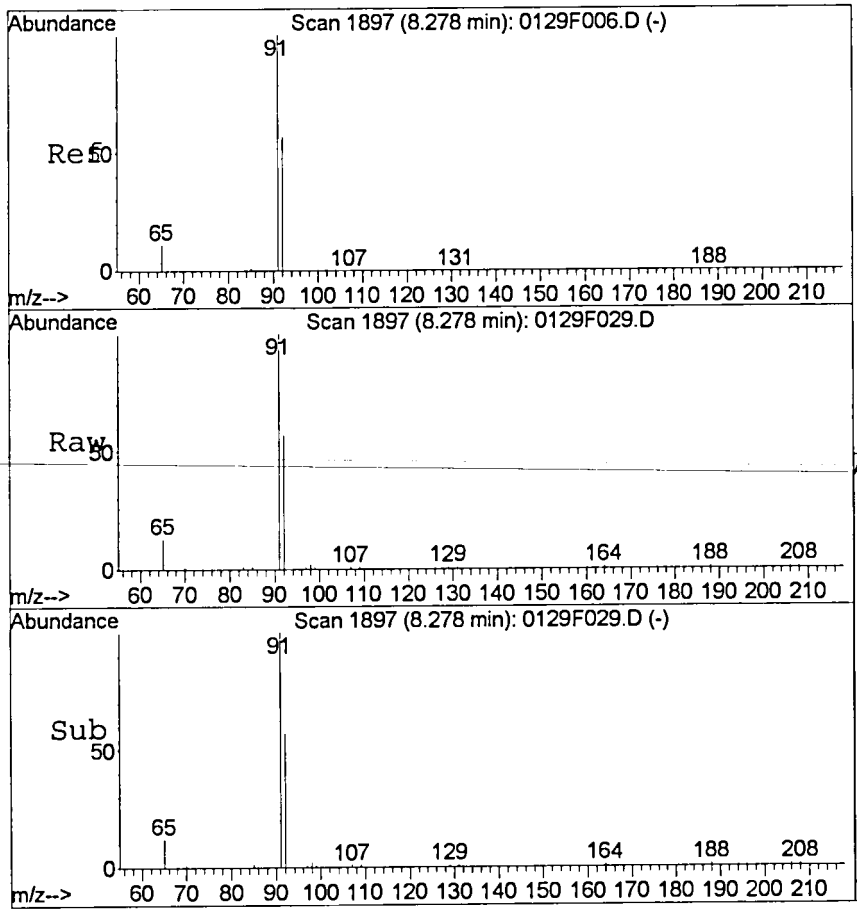


#17
Dibromochloromethane
Concen: 3.07 ng/L m
RT: 9.16 min Scan# 2012
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion:129 Resp: 47

Ion	Ratio	Lower	Upper
129	100		
206	63.5	0.0	32.7#
208	75.7	0.0	35.9#

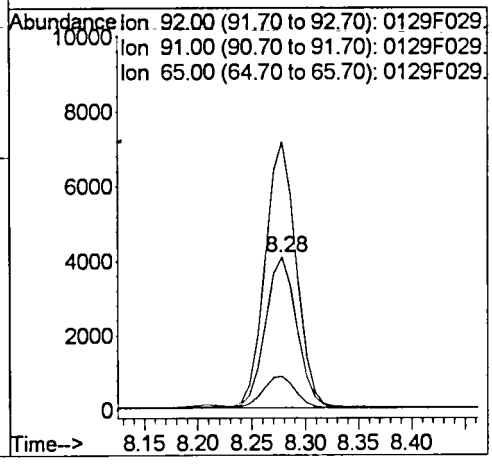


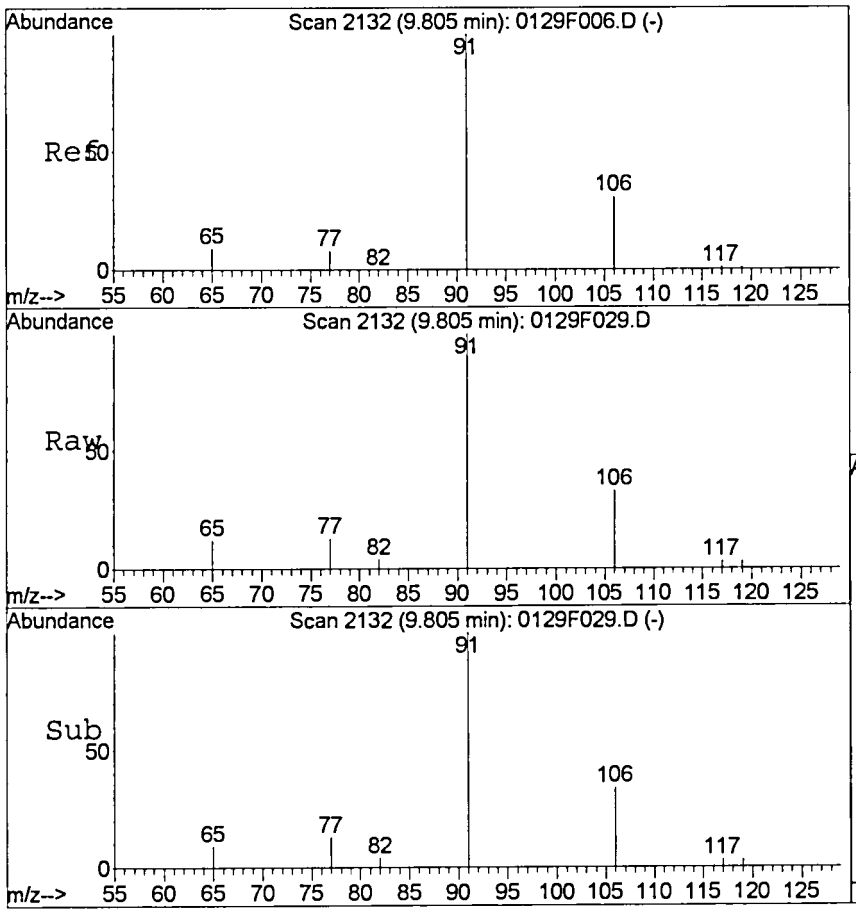


#20
Toluene
Concen: 208.89 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion: 92 Resp: 8235

Ion	Ratio	Lower	Upper
92	100		
91	176.0	144.4	204.4
65	20.6	0.0	49.7

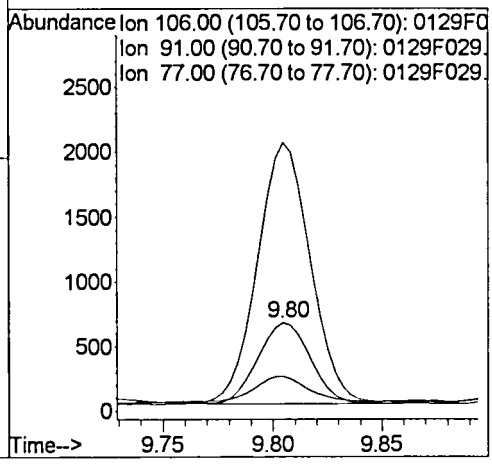


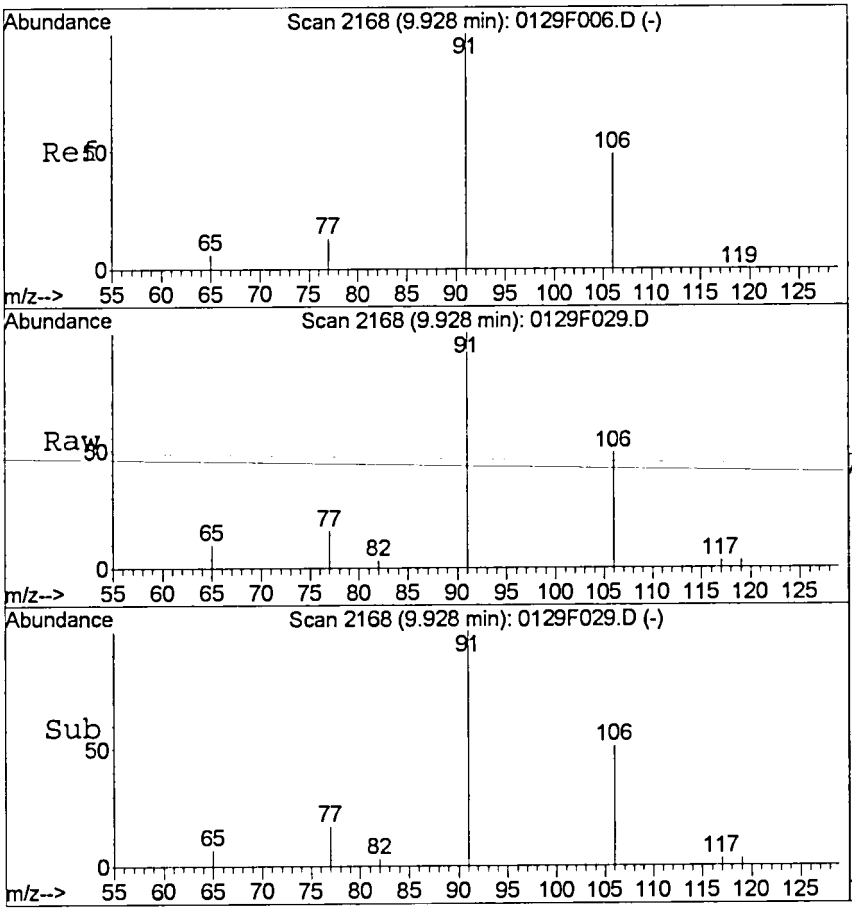


#21
Ethylbenzene
Concen: 51.68 ng/L
RT: 9.80 min Scan# 2132
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion:106 Resp: 1063

Ion	Ratio	Lower	Upper
106	100		
91	317.0	295.2	355.2
77	31.0	0.2	60.2

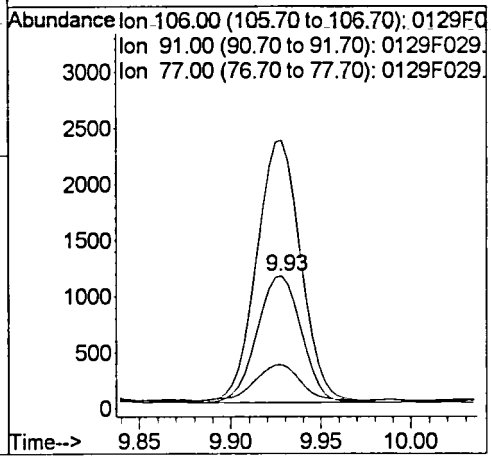


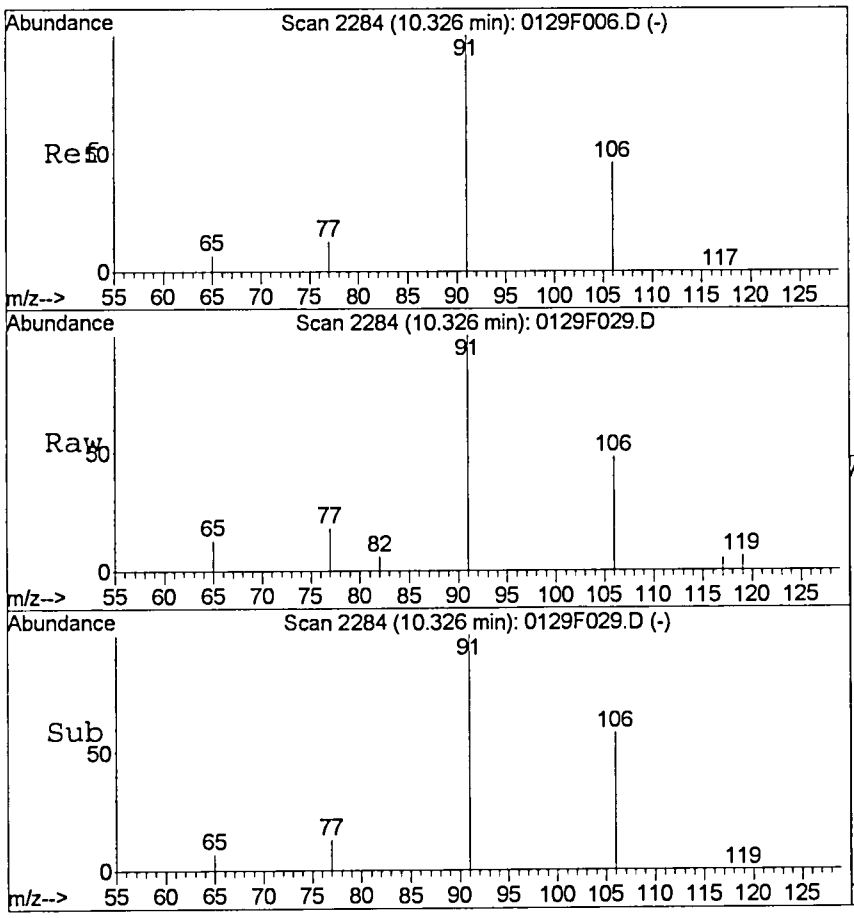


#22
m,p-Xylenes
Concen: 75.85 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion:106 Resp: 1947

Ion	Ratio	Lower	Upper
106	100		
91	204.8	173.8	233.8
77	27.7	0.0	57.2

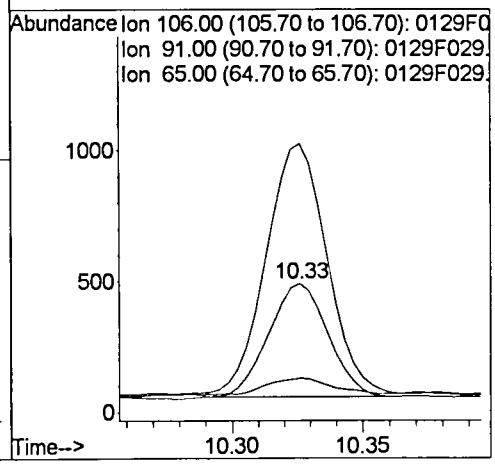


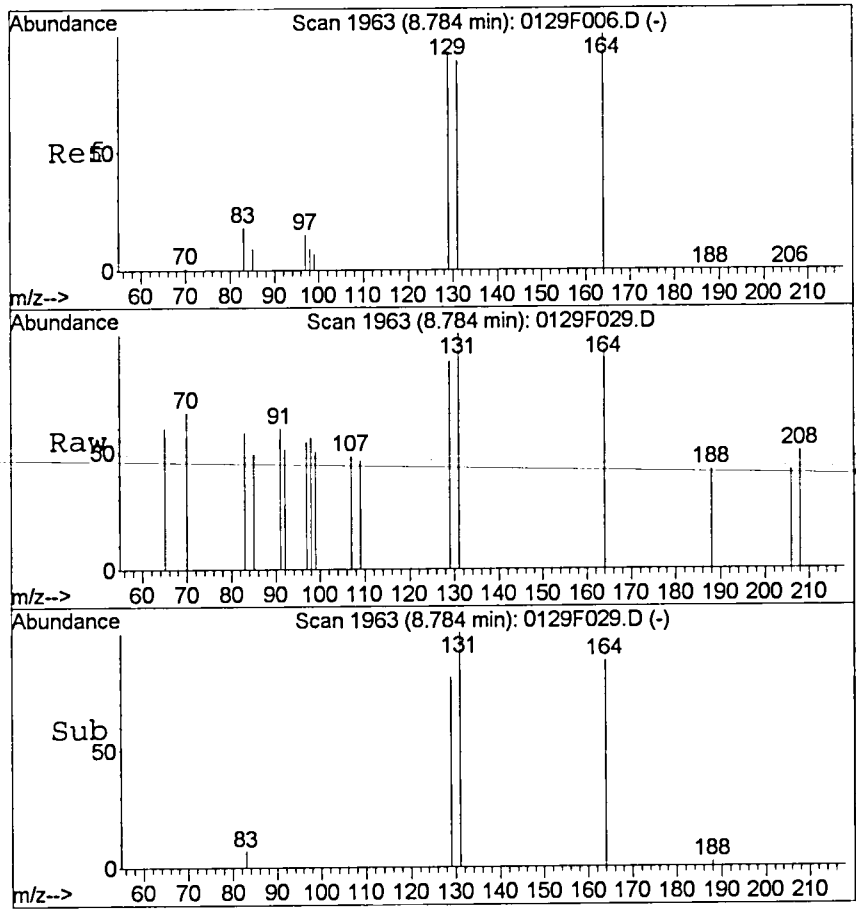


#23
o-Xylene
Concen: 26.83 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion:106 Resp: 681

Ion	Ratio	Lower	Upper
106	100		
91	219.7	185.6	245.6
65	14.1	0.0	45.0

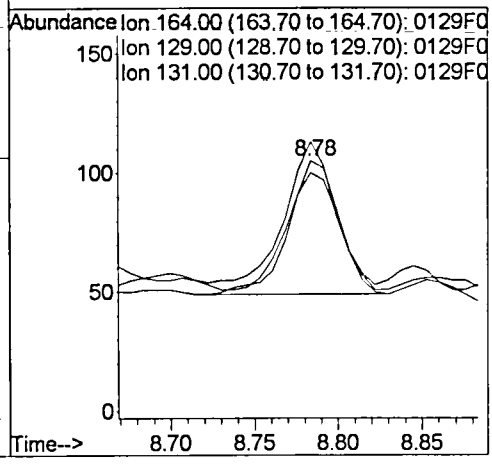


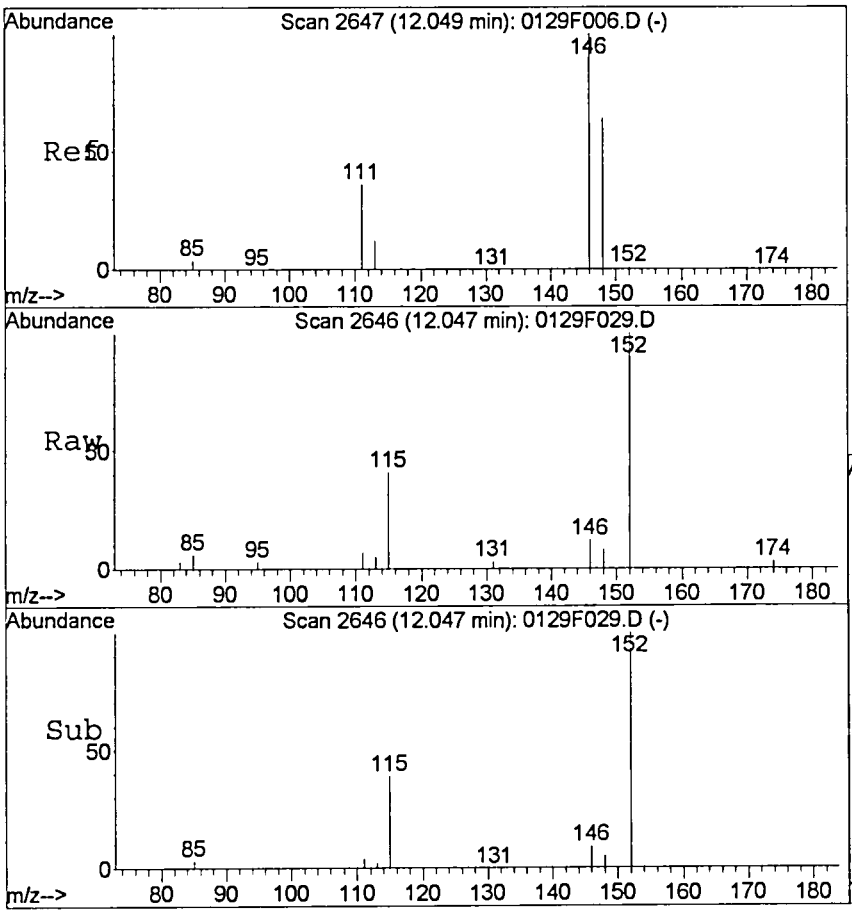


#26
Tetrachloroethene
Concen: 8.65 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion:164 Resp: 119

Ion	Ratio	Lower	Upper
164	100		
129	87.5	61.1	121.1
131	105.4	58.3	118.3

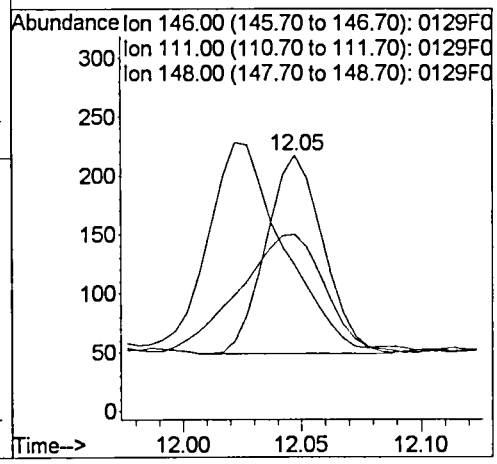




#28
1,4-Dichlorobenzene
Concen: 8.00 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F029.D
Acq: 29 Jan 2016 10:21 pm

Tgt Ion:146 Resp: 282

Ion	Ratio	Lower	Upper
146	100		
111	41.1	6.7	66.7
148	58.3	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F013.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 14:41
Date Quantitated: 02/01/2016 15:18
Batch ID: KWG1600834
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Toluene-d8	20.9	NA	20	CCV okay
Lab Control Spike	Toluene-d8	121	74	112	↑bias analytes okay
Surrogates	Toluene-d8	116	74	112	↑bias

Primary Review: MH 2/1/16

Secondary Review: [illegible] 2/2/16

Printed: 02/01/2016 15:36:27
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F013.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 14:41	**Quant Date:**	02/01/2016 15:18	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600834	**Prep Lot:**	KWG1600835	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496975	**Prep Date:**	02/01/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\020116_SIM\0201F011.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	6.54	0.00	96	66254	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	46349	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17318	1,149	115	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	55993	1,162	116	74-112	*
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	19070	1,021	102	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	199m	8.30	8.3	J	
1	Bromodichloromethane	7.55		0.00	83	59	2.56	3.4	U	
1	Dibromochloromethane	9.16		0.00	129	53m	3.60	8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 15:10:25 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

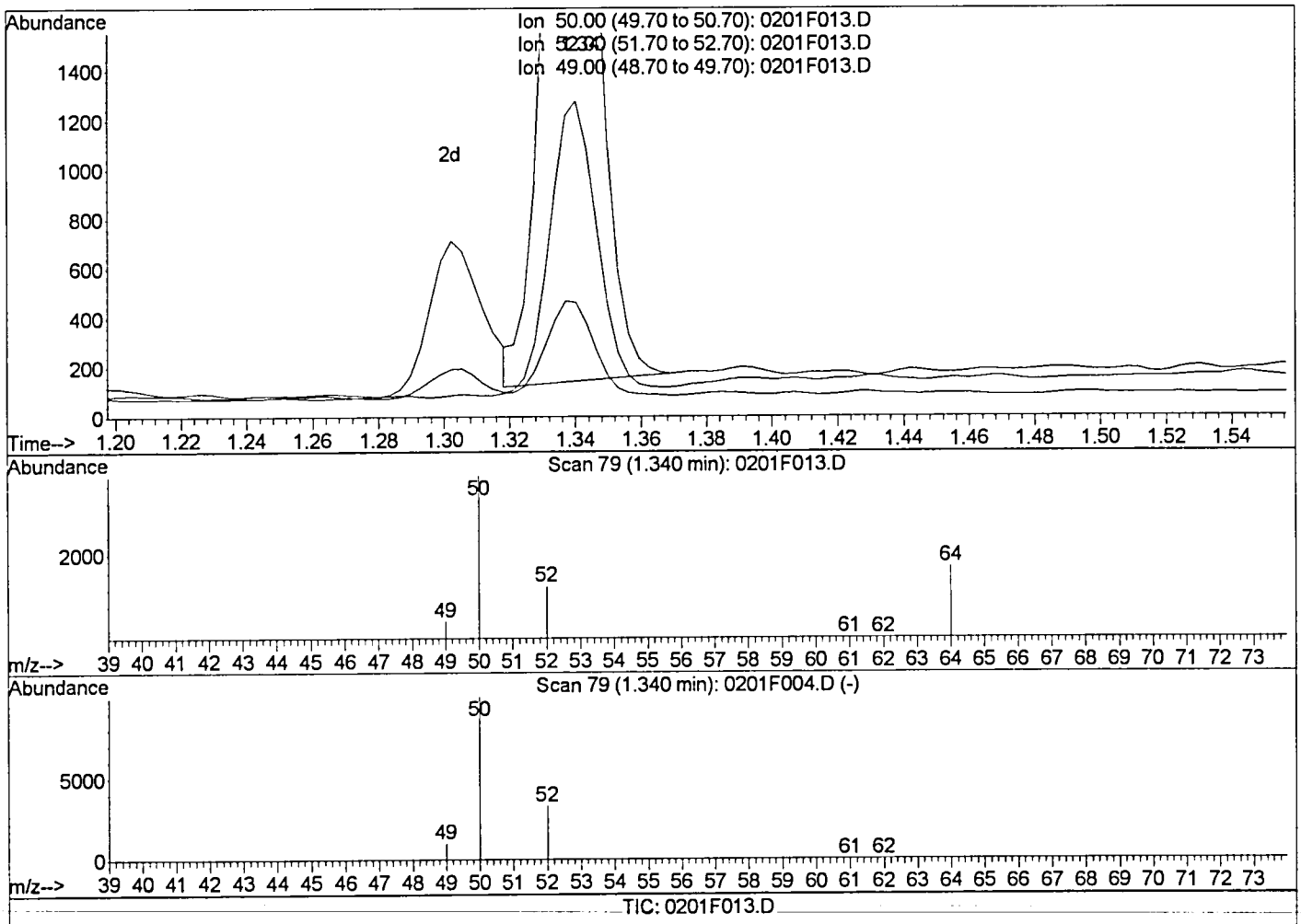
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.54	96	66254	1000.00 ng/L	0.00
19) Chlorobenzene-d5	9.70	117	46349	1000.00 ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	22056	1000.00 ng/L	0.00
System Monitoring Compounds					
9) Dibromofluoromethane	5.82	113	17318	1148.67 ng/L	0.00
Spiked Amount 1000.000			Recovery = 114.87%		
15) Toluene-d8	8.21	98	55993	1162.15 ng/L	0.00
Spiked Amount 1000.000			Recovery = 116.22%		
24) 4-Bromofluorobenzene	10.88	95	19070	1020.95 ng/L	0.00
Spiked Amount 1000.000			Recovery = 102.10%		
Target Compounds					Qvalue
2) Chloromethane	1.34	50	3644m	135.29 ng/L	
5) Methylene Chloride	3.29	84	1156	52.68 ng/L	99
6) trans-1,2-Dichloroethene	3.57	96	51	3.00 ng/L #	37
8) Chloroform	5.61	83	285	8.33 ng/L	94
11) Benzene	6.16	78	430	5.77 ng/L	91
12) 1,2-Dichloroethane	6.33	62	199m	8.30 ng/L	
13) Trichloroethene	6.92	95	73m	4.20 ng/L	
14) Bromodichloromethane	7.55	83	59	2.56 ng/L	86
17) Dibromochloromethane	9.16	129	53m	3.60 ng/L	
20) Toluene	8.28	92	8528	226.96 ng/L	99
21) Ethylbenzene	9.80	106	990	50.50 ng/L	90
22) m,p-Xylenes	9.93	106	2024	82.73 ng/L	97
23) o-Xylene	10.33	106	765	31.62 ng/L	99
26) Tetrachloroethene	8.78	164	145	11.06 ng/L	92
28) 1,4-Dichlorobenzene	12.05	146	383	11.13 ng/L	97

(#) = qualifier out of range (m) = manual integration
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:31:24 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:10 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration



TIC: 0201F013.D

(2) Chloromethane (T)

1.34min 138.26ng/L

response 3724

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.46
49.00	10.10	10.32
0.00	0.00	0.00

Manual Integration:

Before

02/01/16

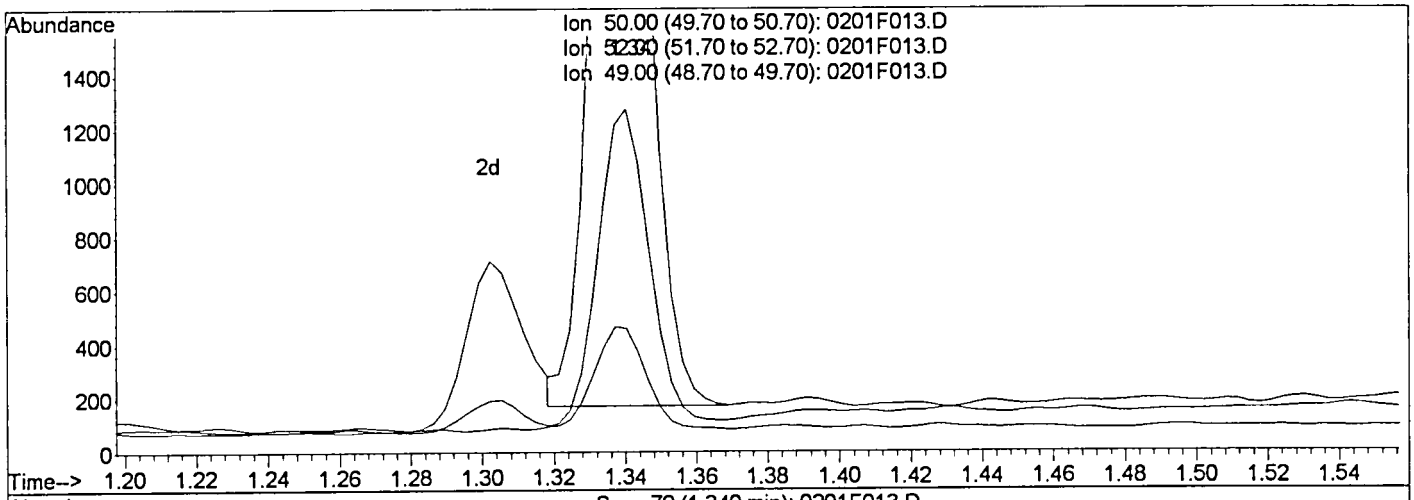
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:16:15 2016

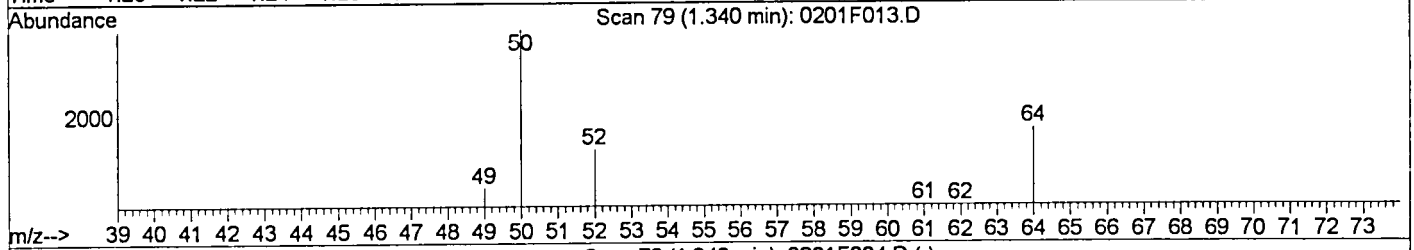
Quantitation Report (Qedit)

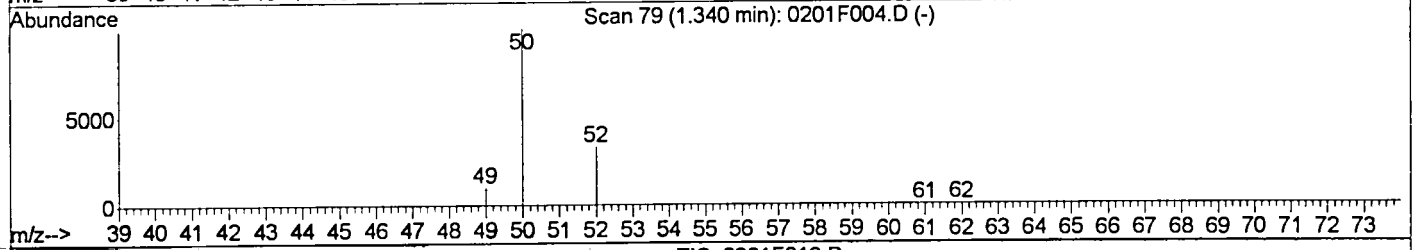
Data File : J:\MS27\DATA\020116_SIM\0201F013.D
Acq On : 1 Feb 2016 2:41 pm
Sample : K0673-014
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:16 2016

Vial: 11
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration







TIC: 0201F013.D

(2) Chloromethane (T)

1.34min 135.29ng/L m

response 3644

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.46
49.00	10.10	12.05
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

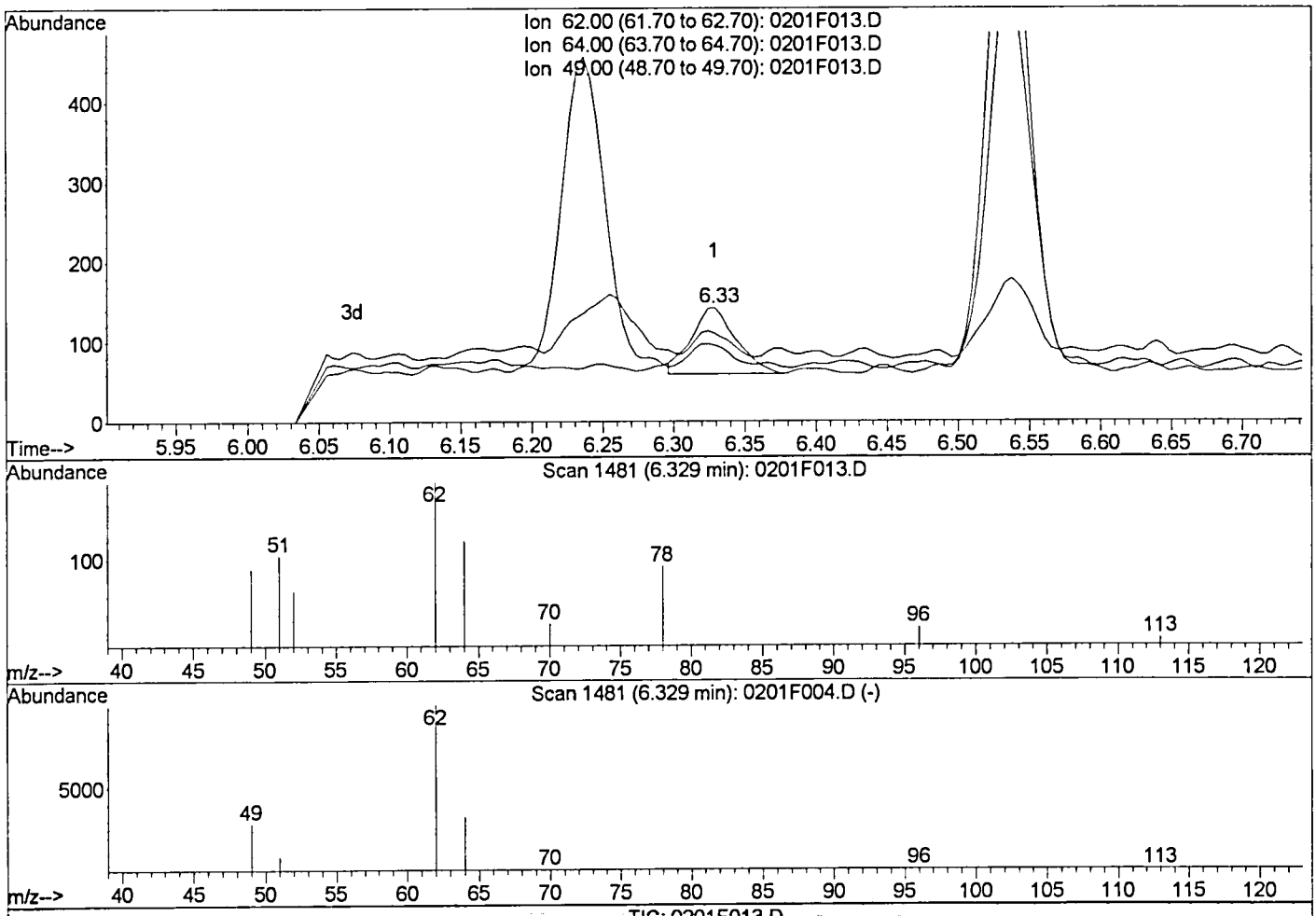
02/01/16

0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:16:22 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:16 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0201F013.D

(12) 1,2-Dichloroethane (T)

6.33min 7.51ng/L

response 180

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	25.30
49.00	28.20	32.53
0.00	0.00	0.00

Manual Integration:

Before

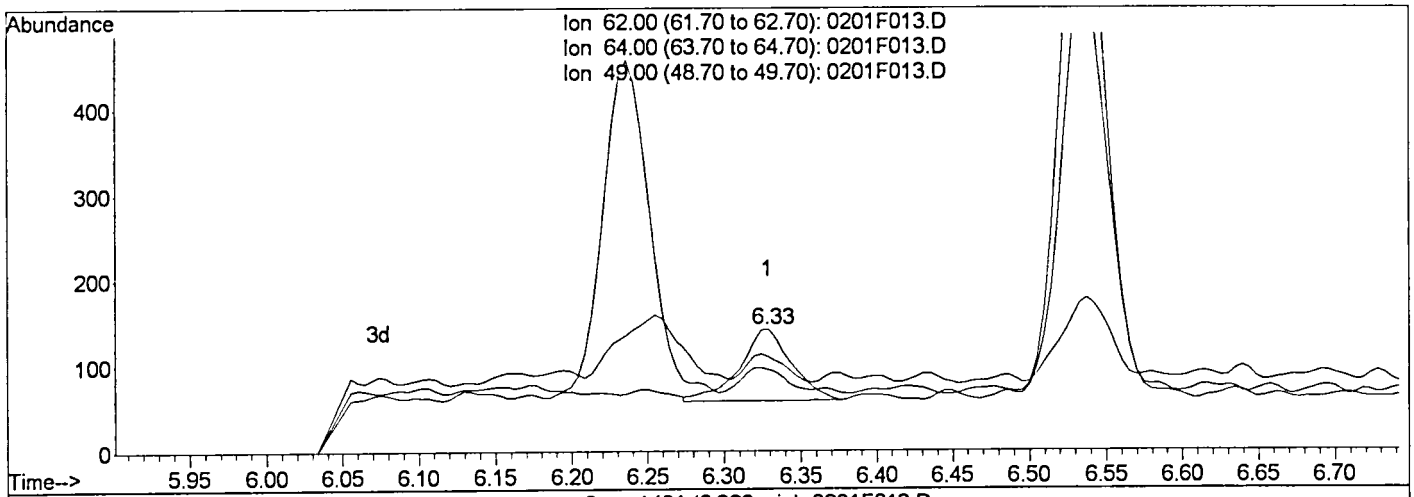
02/01/16

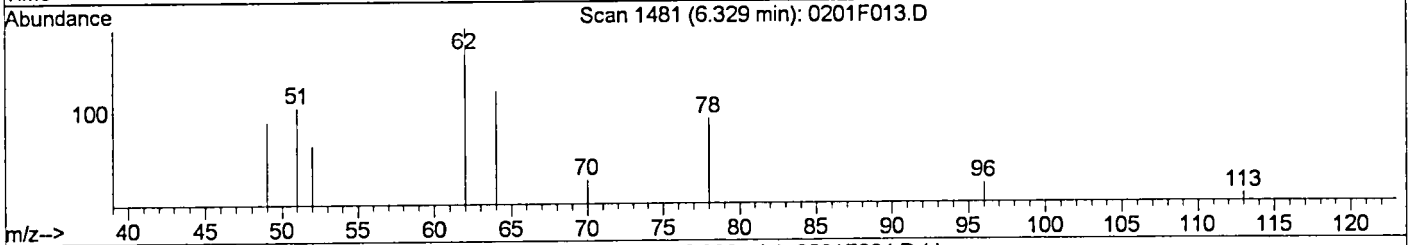
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:16:44 2016

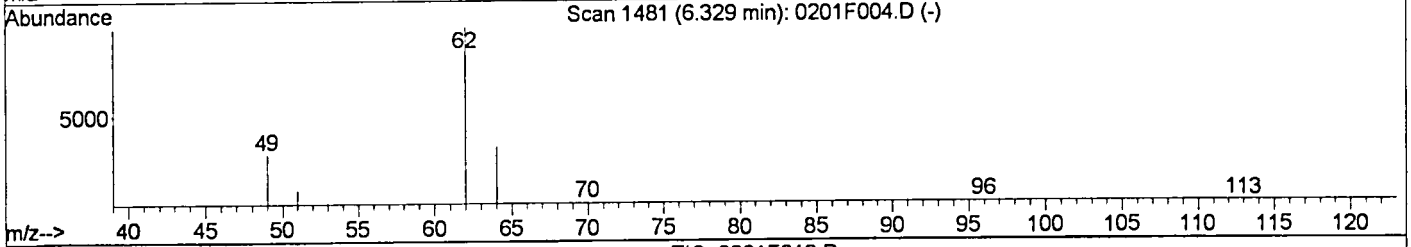
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:17 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F013.D

(12) 1,2-Dichloroethane (T)

6.33min 8.30ng/L m

response 199

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	77.46#
49.00	28.20	66.90#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

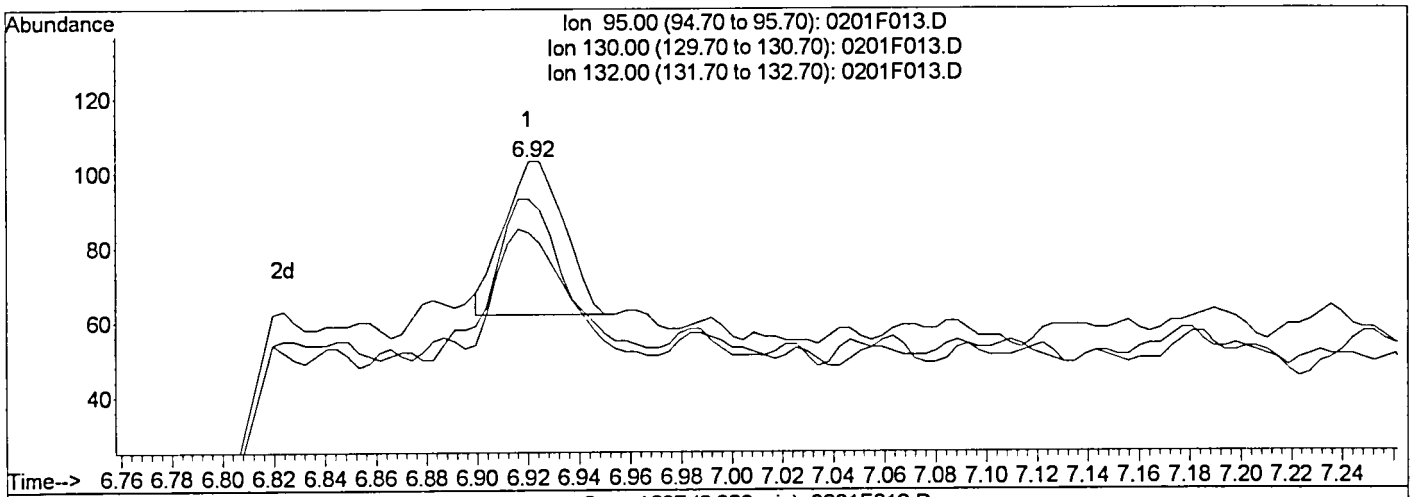
02/01/16

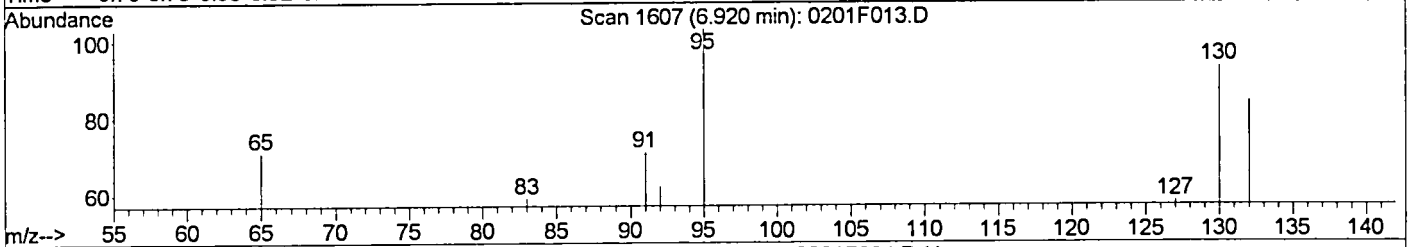
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:17:11 2016

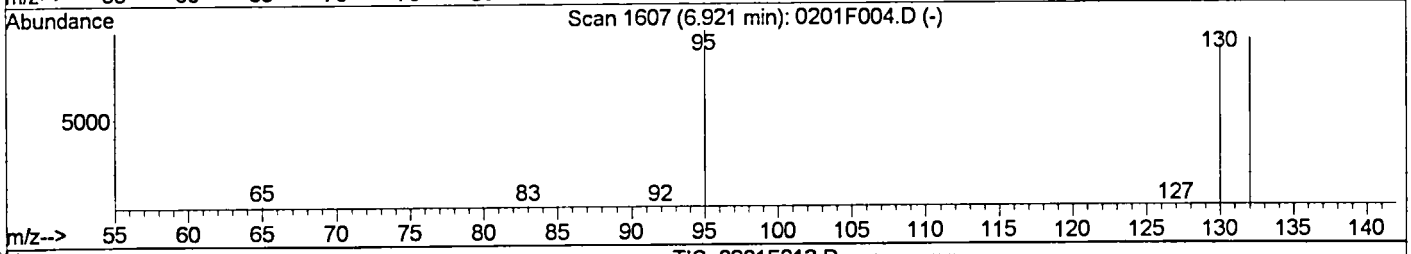
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:17 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F013.D

(13) Trichloroethene (T)

6.92min 3.85ng/L

response 67

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	92.68
132.00	93.90	75.61
0.00	0.00	0.00

Manual Integration:

Before

02/01/16

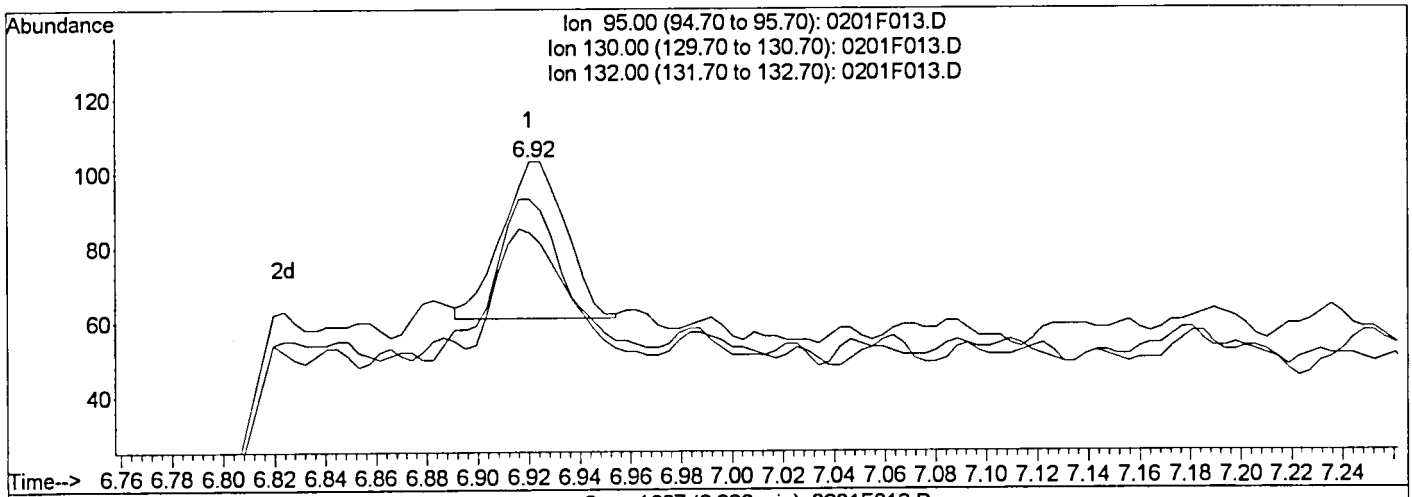
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:17:18 2016

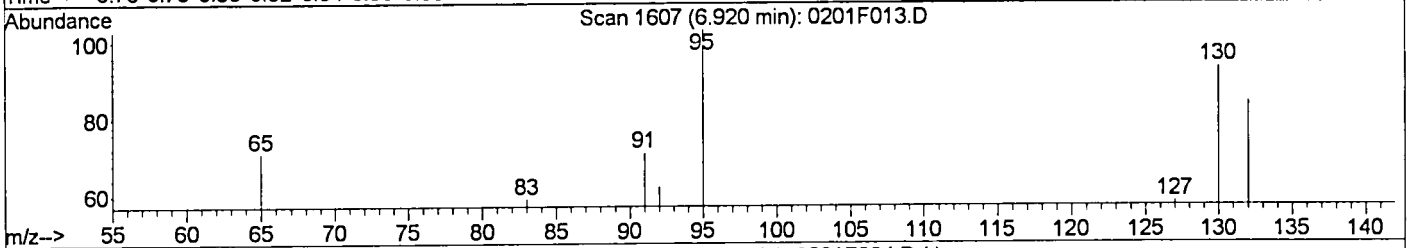
Quantitation Report (Qedit)

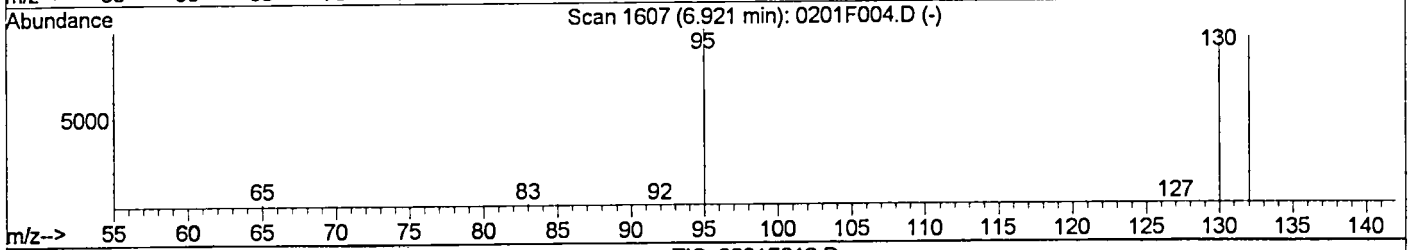
Data File : J:\MS27\DATA\020116_SIM\0201F013.D
Acq On : 1 Feb 2016 2:41 pm
Sample : K0673-014
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:17 2016

Vial: 11
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F013.D

(13) Trichloroethene (T)

6.92min 4.20ng/L m

response 73

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	90.29
132.00	93.90	81.55
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

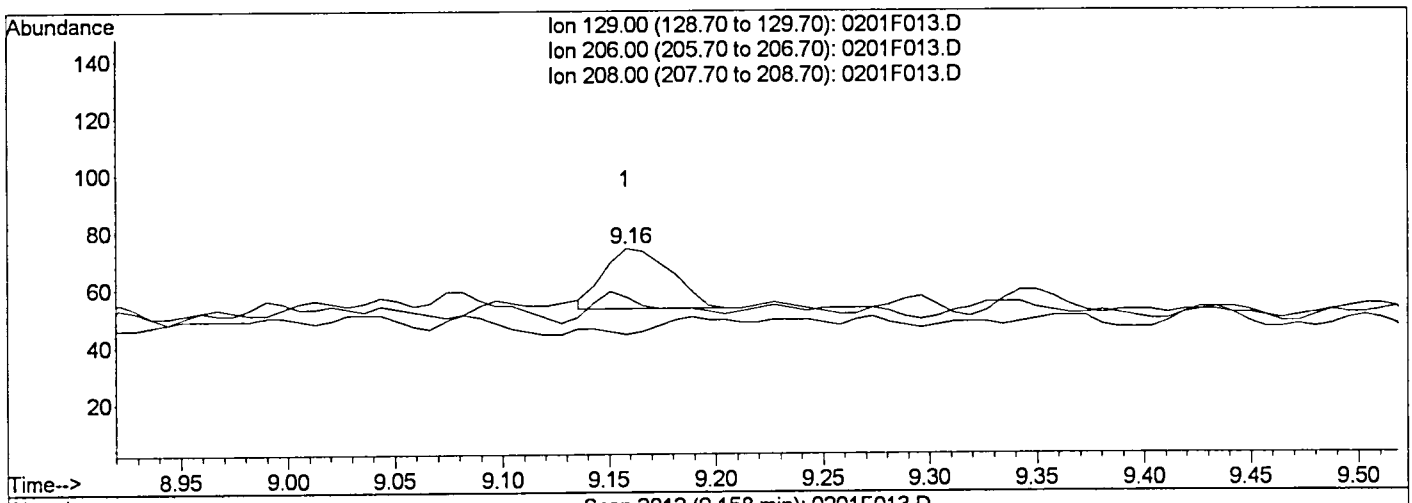
02/01/16

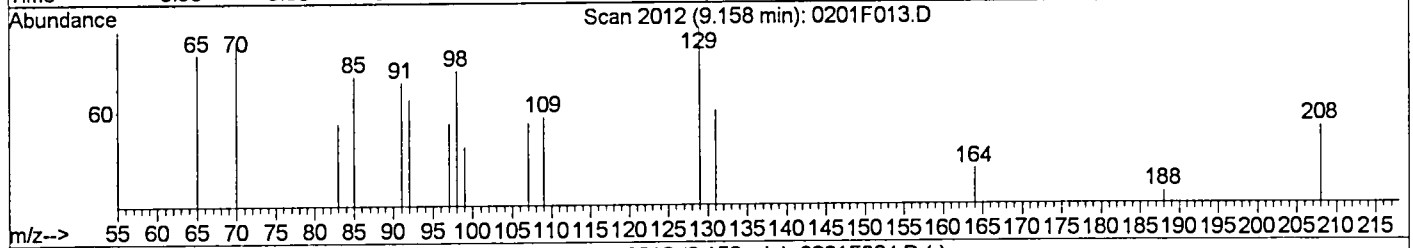
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:17:27 2016

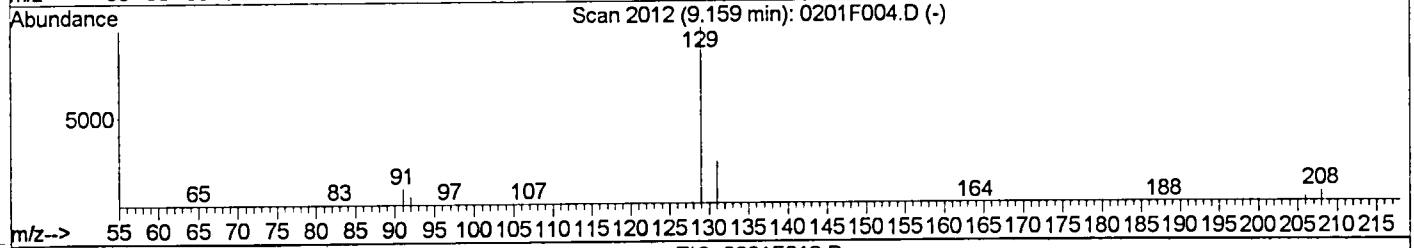
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:17 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F013.D

(17) Dibromochloromethane (T)

9.16min 3.12ng/L

response 46

Ion	Exp%	Act%
129.00	100	100
206.00	2.70	0.00
208.00	5.90	33.33
0.00	0.00	0.00

Manual Integration:

Before

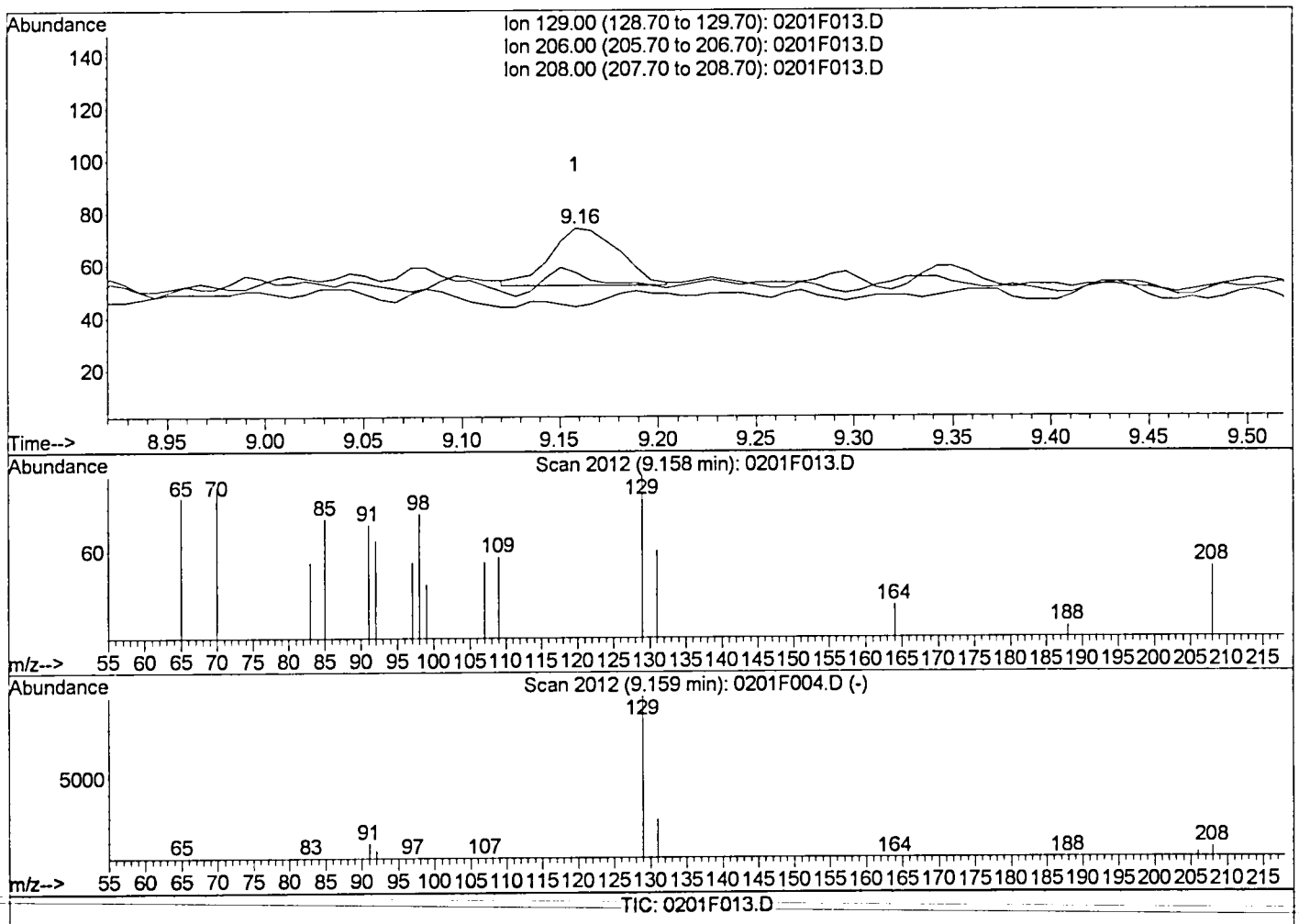
02/01/16

0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:17:41 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:17 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0201F013.D

(17) Dibromochloromethane (T)

9.16min 3.60ng/L m

response 53

Ion	Exp%	Act%
129.00	100	100
206.00	2.70	59.46#
208.00	5.90	77.03#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

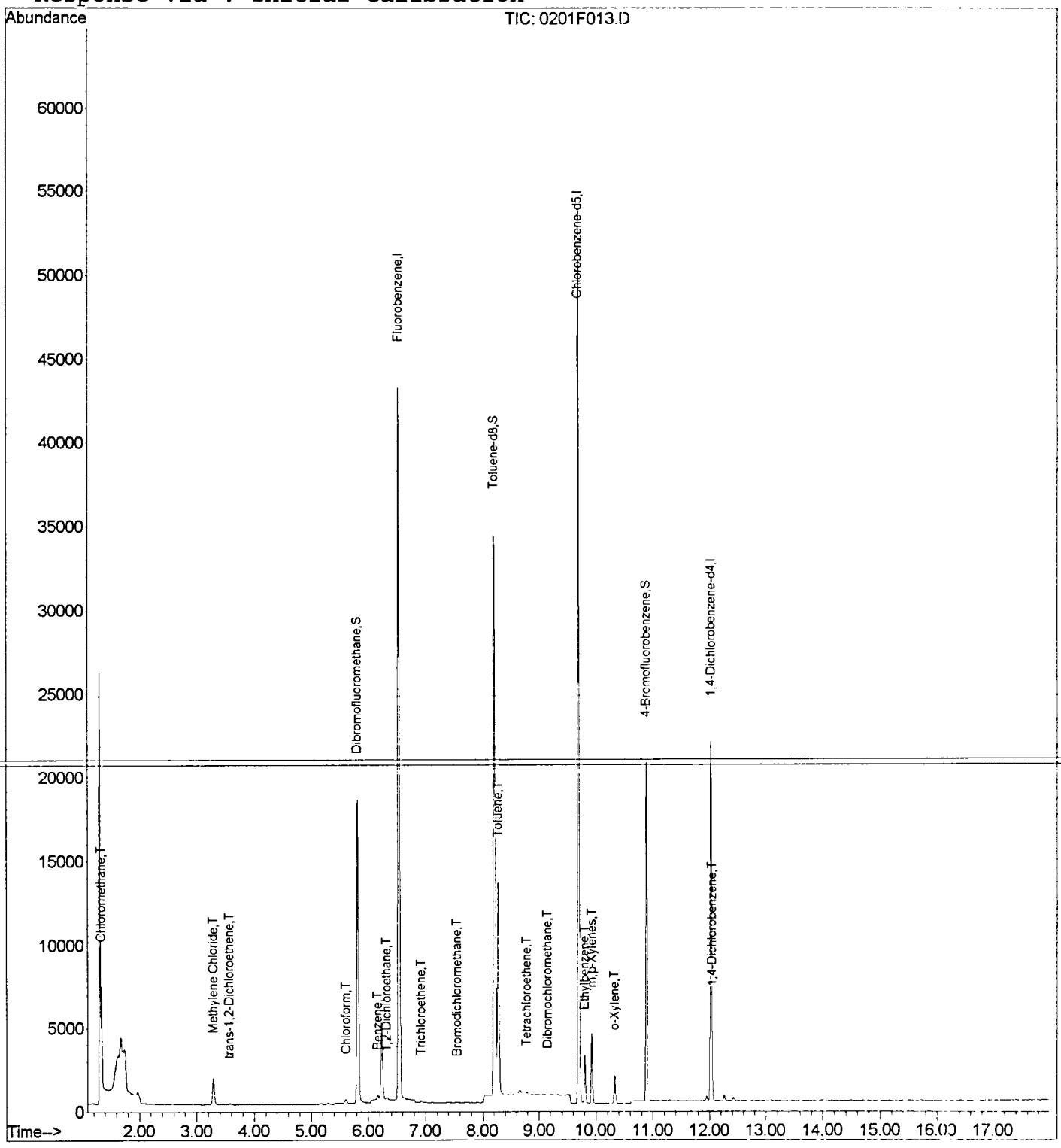
02/01/16

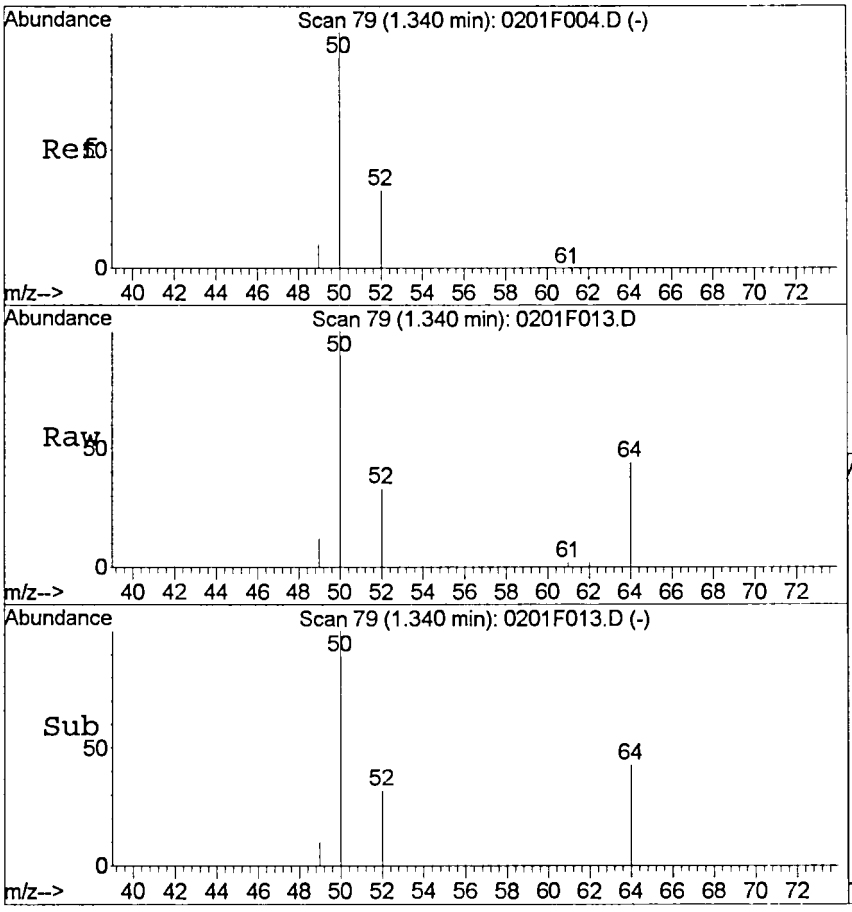
0201F013.D 012716MS27_8260SIM.M Mon Feb 01 15:17:50 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F013.D Vial: 11
Acq On : 1 Feb 2016 2:41 pm Operator: GH
Sample : K0673-014 Inst : MS27
Misc : Multiplier: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:18 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration

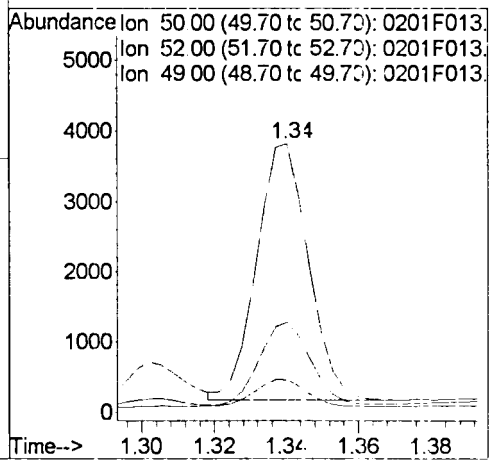


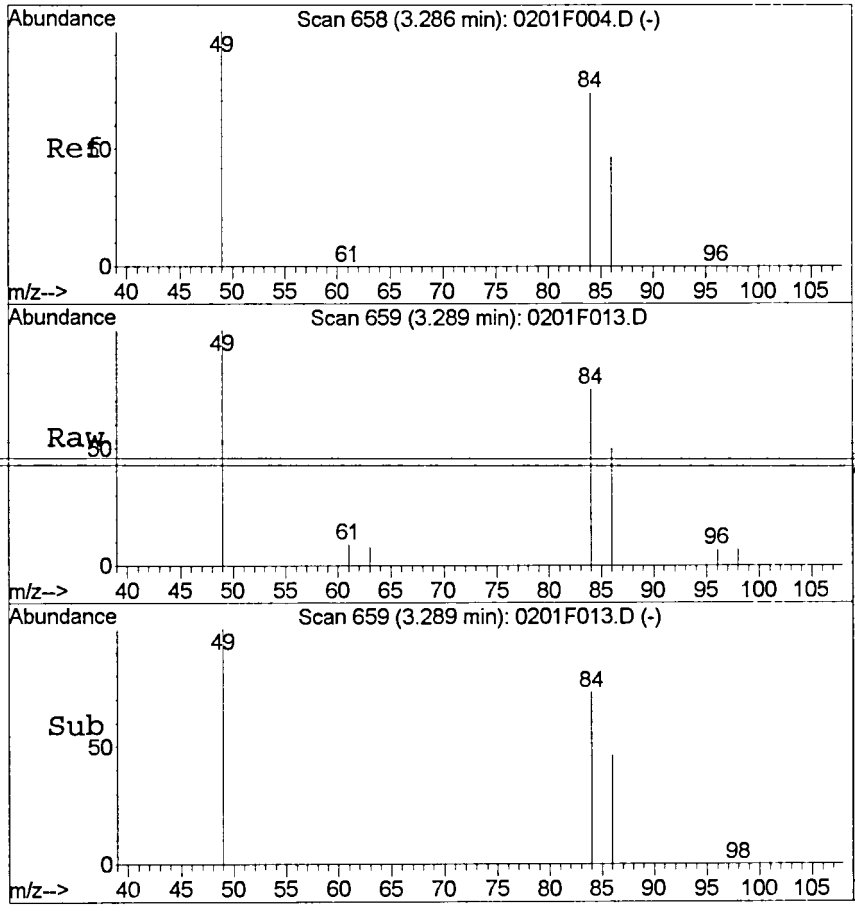


#2
Chloromethane
Concen: 135.29 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 50 Resp: 3644

Ion	Ratio	Lower	Upper
50	100		
52	33.5	2.9	62.9
49	12.1	0.0	40.1

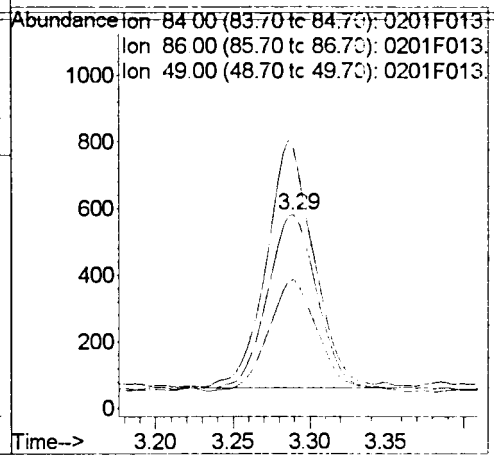


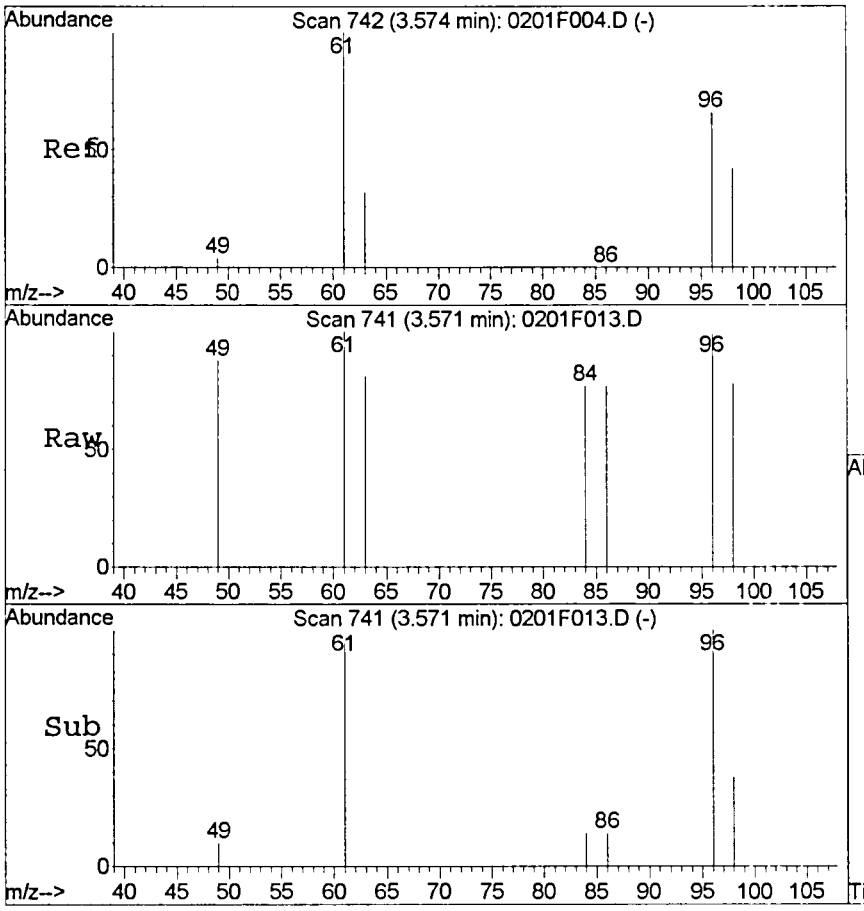


#5
Methylene Chloride
Concen: 52.68 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 84 Resp: 1156

Ion	Ratio	Lower	Upper
84	100		
86	64.4	33.8	93.8
49	136.6	107.9	167.9

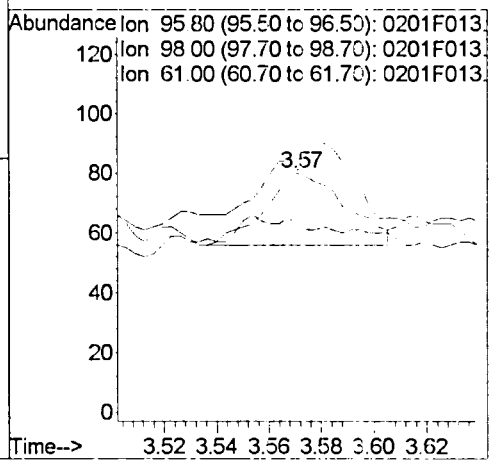


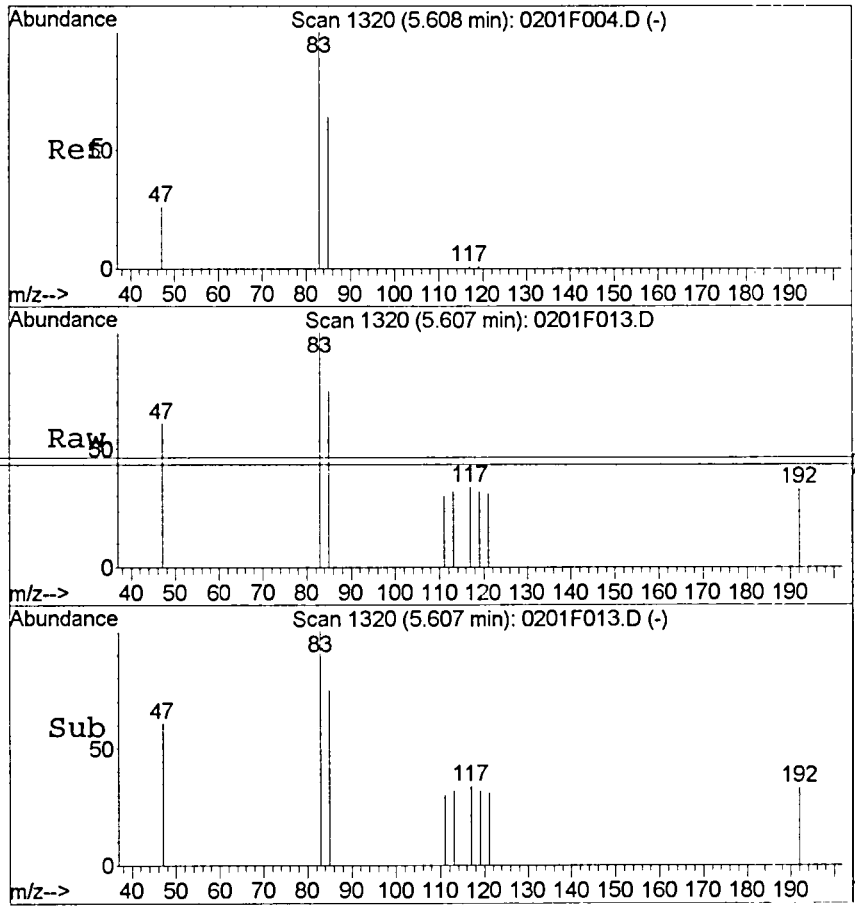


#6
trans-1,2-Dichloroethene
Concen: 3.00 ng/L
RT: 3.57 min Scan# 741
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 96 Resp: 51

Ion	Ratio	Lower	Upper
96	100		
98	20.8	32.7	92.7#
61	66.7	122.3	182.3#

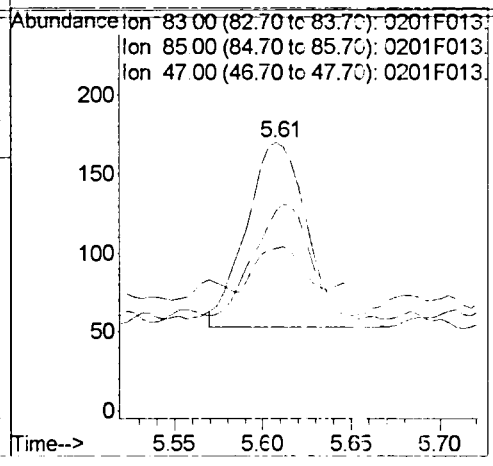


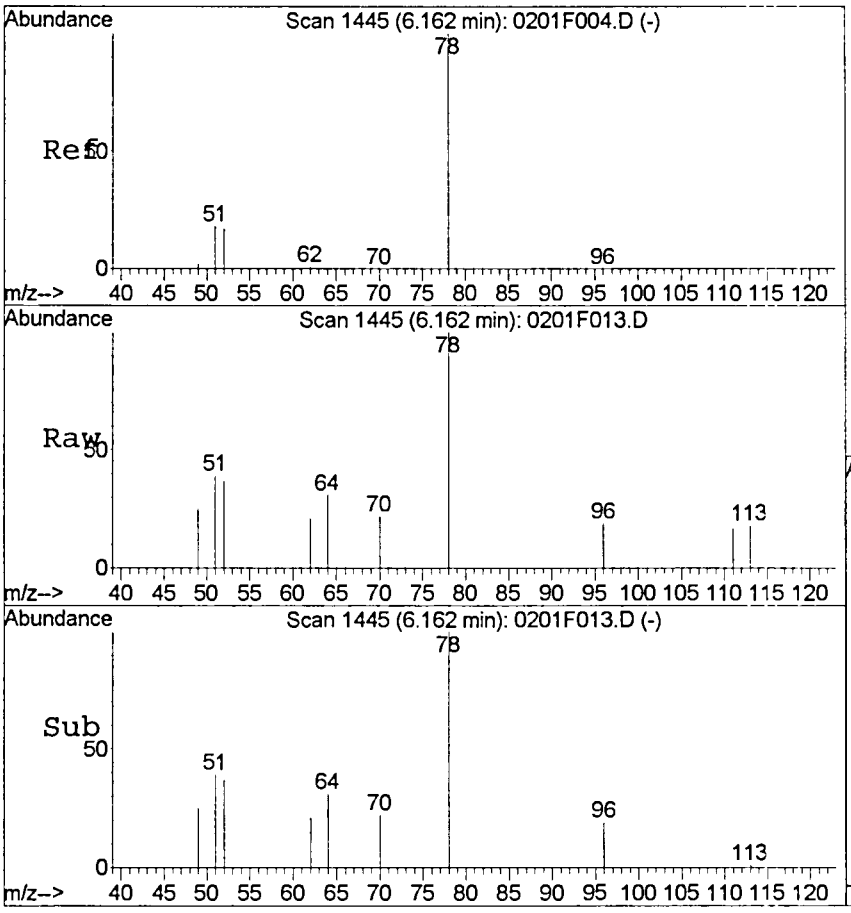


#8
Chloroform
Concen: 8.33 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 83 Resp: 285

Ion	Ratio	Lower	Upper
83	100		
85	59.0	34.7	94.7
47	28.2	0.0	55.9

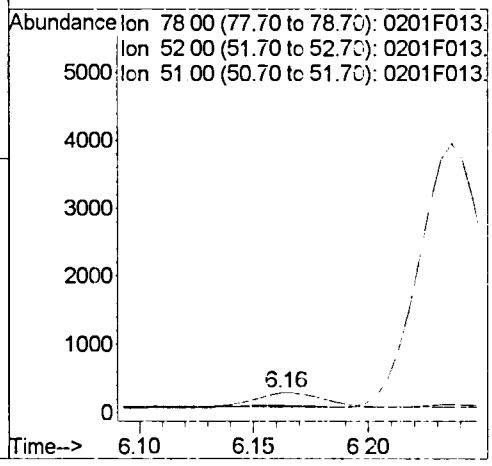


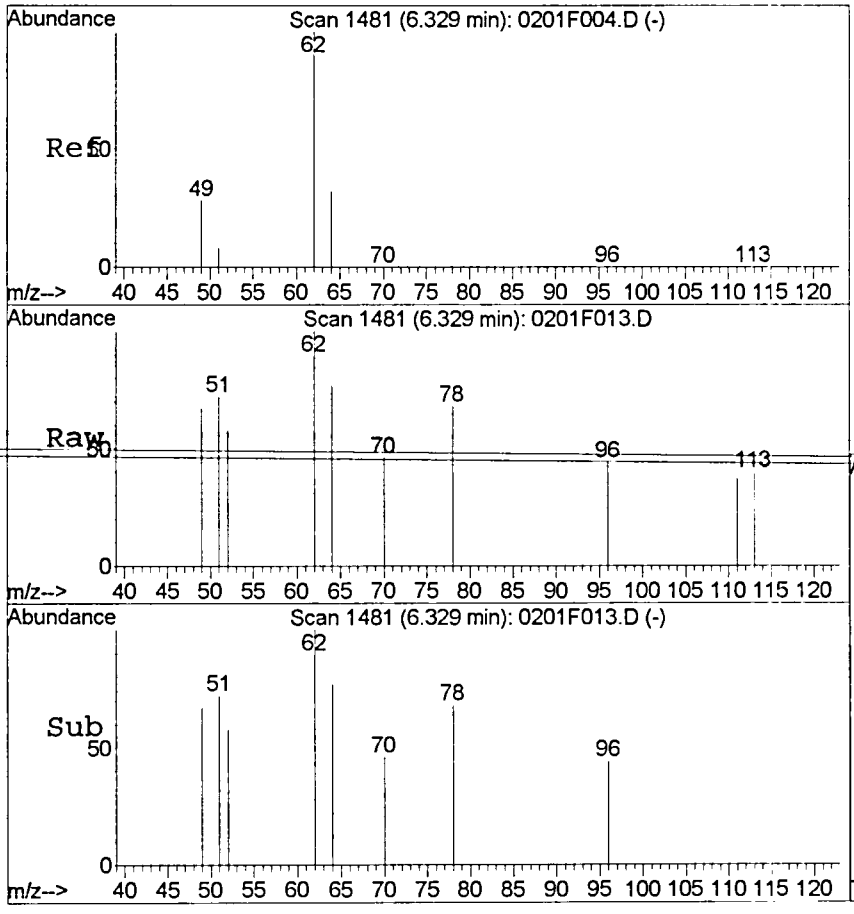


#11
Benzene
Concen: 5.77 ng/L
RT: 6.16 min Scan# 1445
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 78 Resp: 430

Ion	Ratio	Lower	Upper
78	100		
52	10.6	0.0	46.9
51	16.3	0.0	47.6

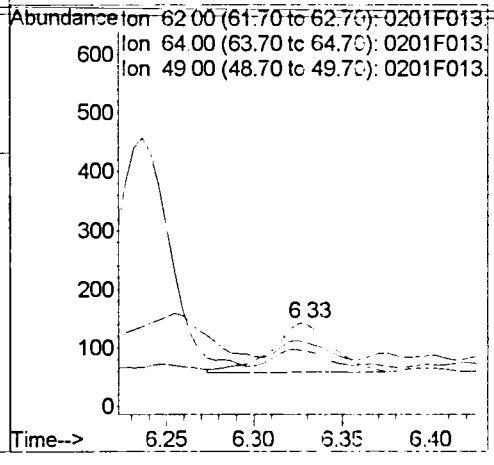


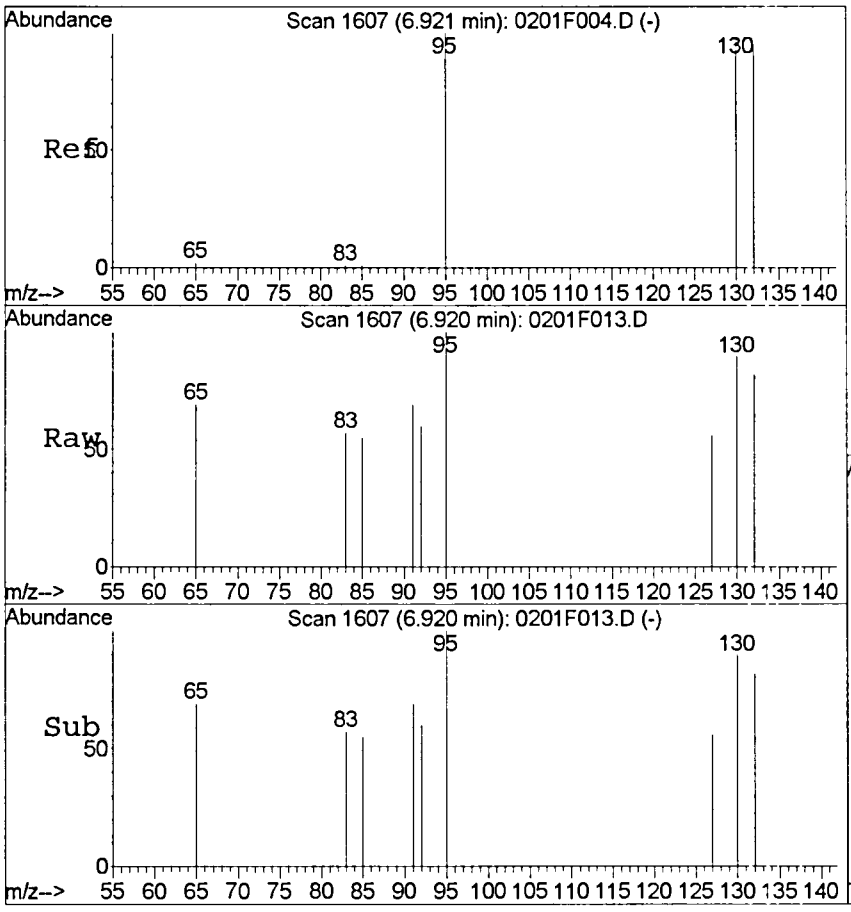


#12
1,2-Dichloroethane
Concen: 8.30 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 62 Resp: 199

Ion	Ratio	Lower	Upper
62	100		
64	77.5	1.7	61.7#
49	66.9	0.0	58.2#

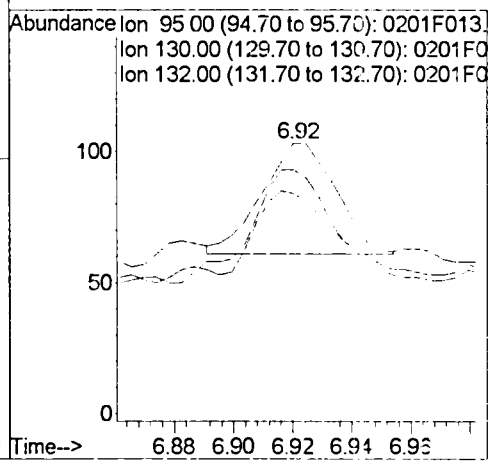


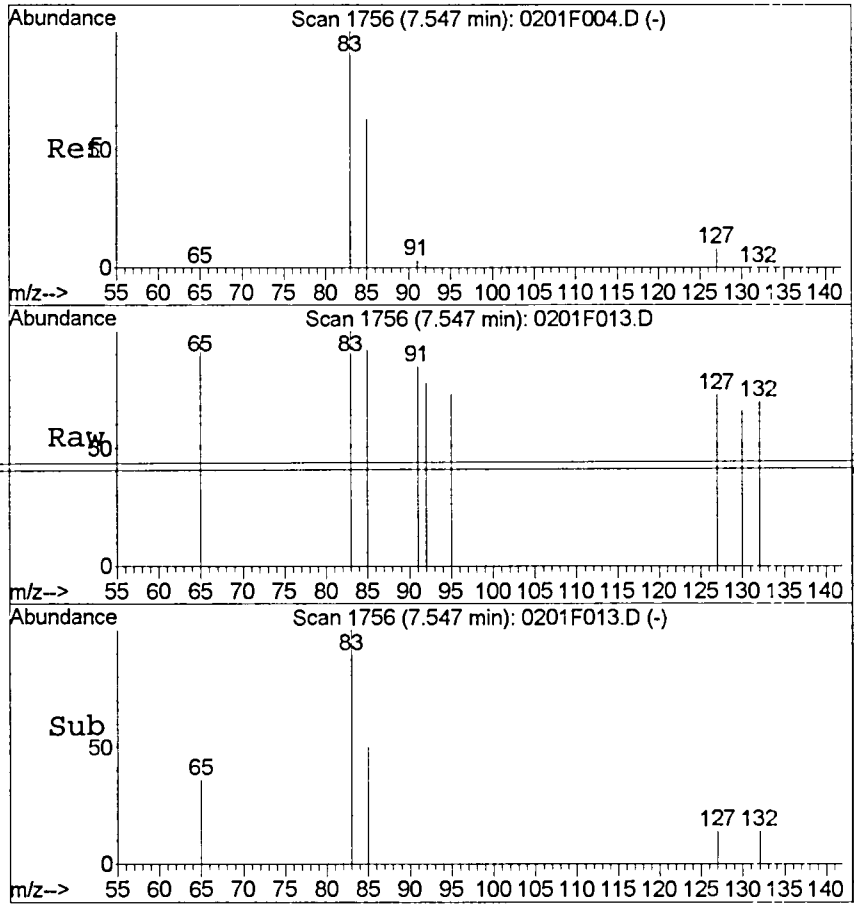


#13
Trichloroethene
Concen: 4.20 ng/L m
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 95 Resp: 73

Ion	Ratio	Lower	Upper
95	100		
130	90.3	67.1	127.1
132	81.6	63.9	123.9

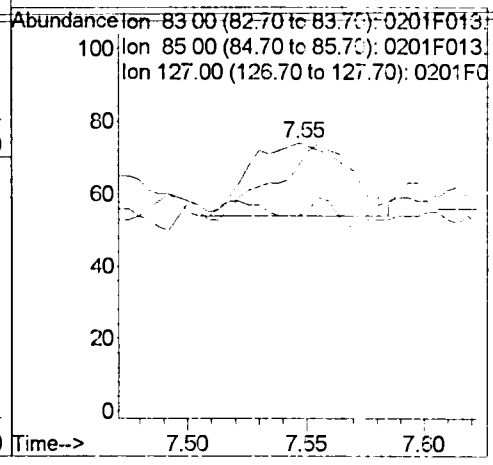


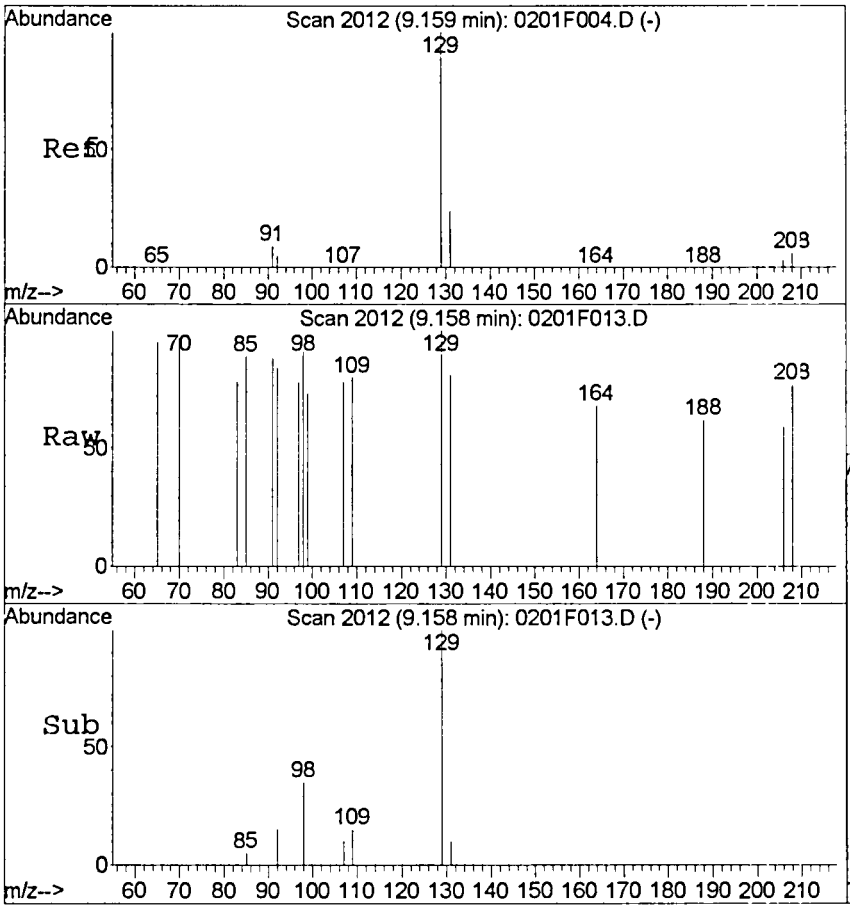


#14
Bromodichloromethane
Concen: 2.56 ng/L
RT: 7.55 min Scan# 1756
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 83 Resp: 59

Ion	Ratio	Lower	Upper
83	100		
85	75.0	33.5	93.5
127	5.0	0.0	38.0

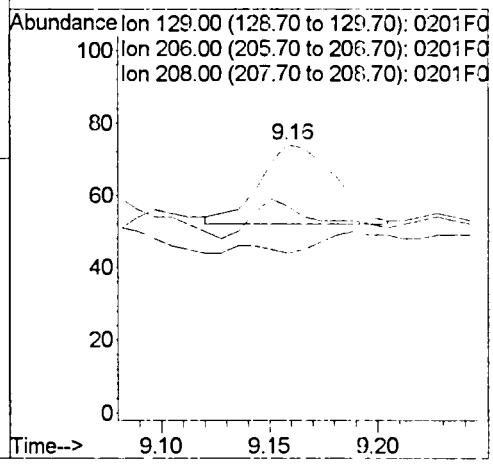


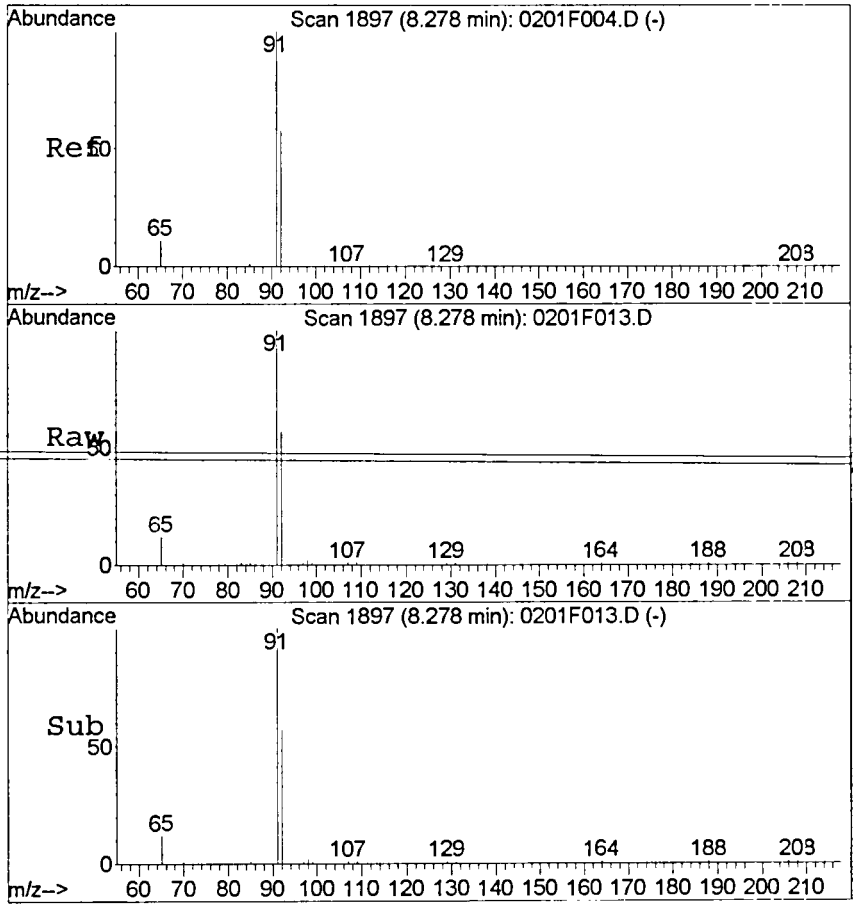


#17
Dibromochloromethane
Concen: 3.60 ng/L m
RT: 9.16 min Scan# 2012
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion:129 Resp: 53

Ion	Ratio	Lower	Upper
129	100		
206	59.5	0.0	32.7#
208	77.0	0.0	35.9#

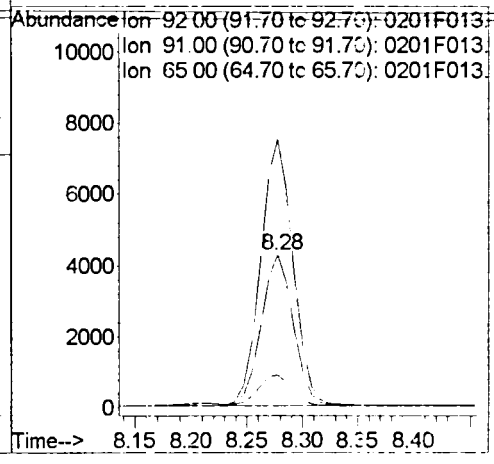


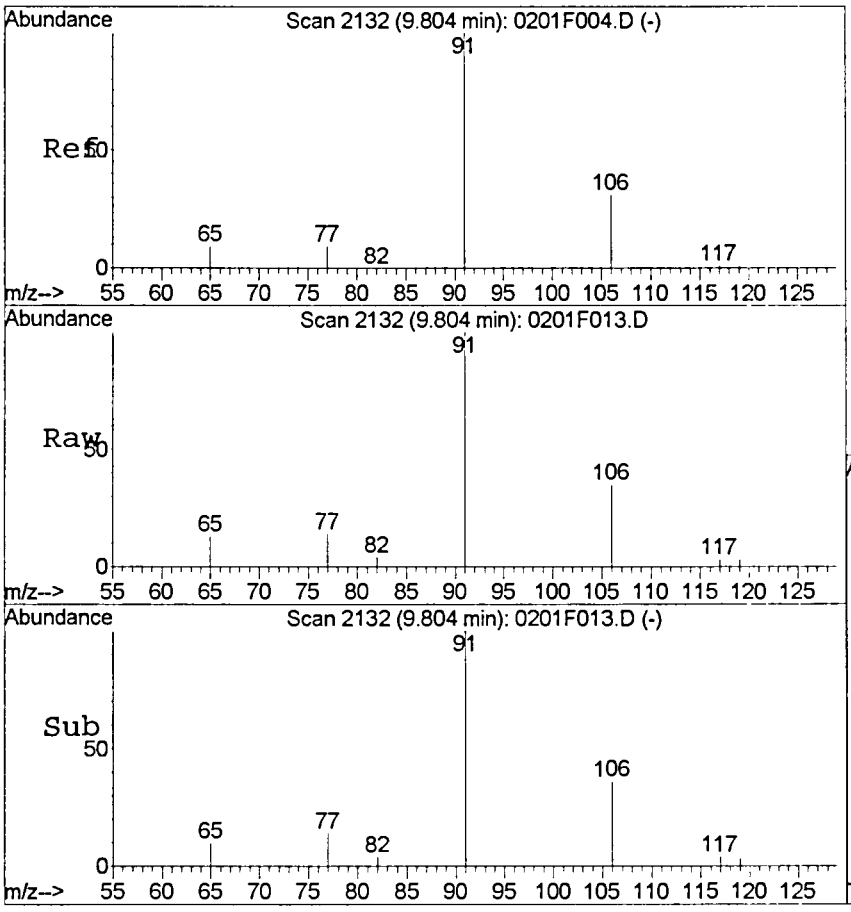


#20
Toluene
Concen: 226.96 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion: 92 Resp: 8528

Ion	Ratio	Lower	Upper
92	100		
91	176.0	144.4	204.4
65	20.2	0.0	49.7

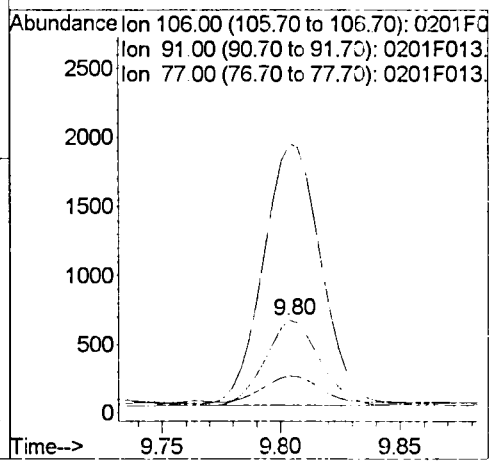


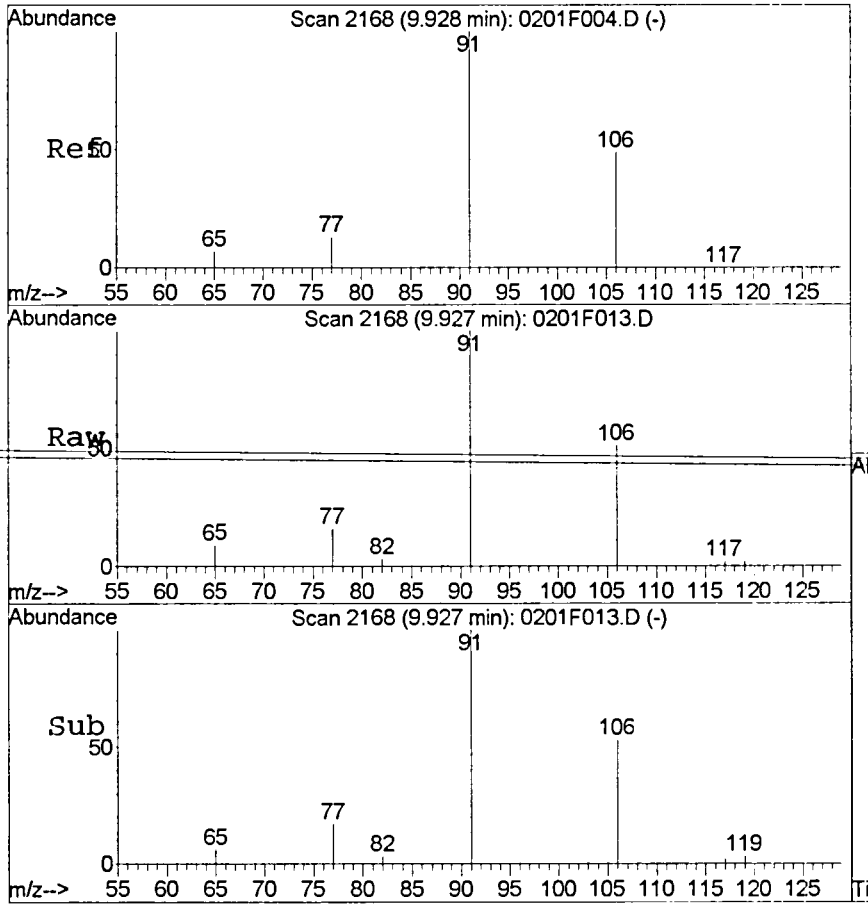


#21
Ethylbenzene
Concen: 50.50 ng/L
RT: 9.80 min Scan# 2132
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion:106 Resp: 990

Ion	Ratio	Lower	Upper
106	100		
91	302.4	295.2	355.2
77	31.0	0.2	60.2

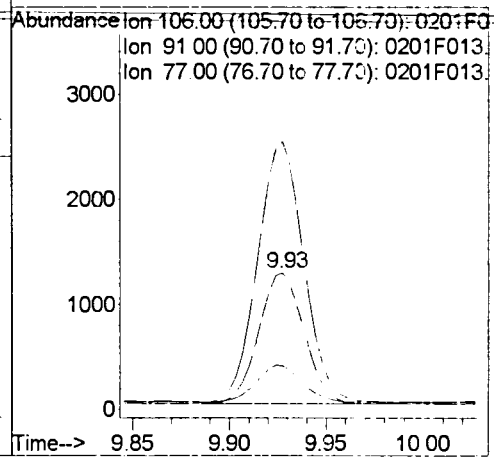


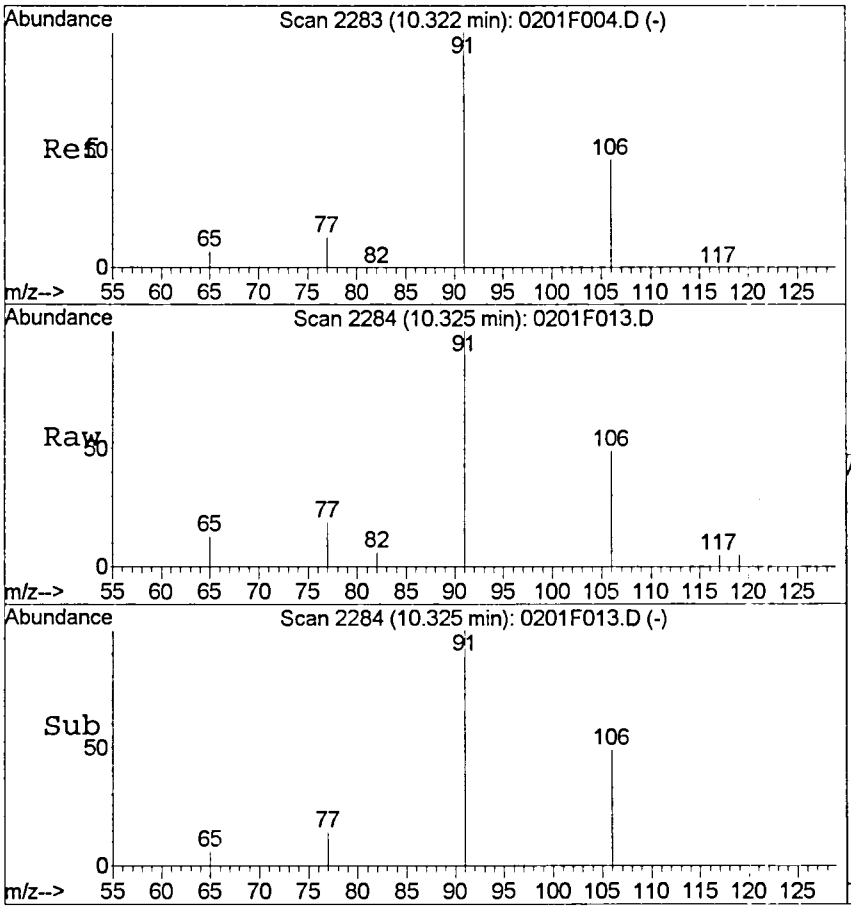


#22
m,p-Xylenes
Concen: 82.73 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion:106 Resp: 2024

Ion	Ratio	Lower	Upper
106	100		
91	199.4	173.8	233.8
77	28.2	0.0	57.2

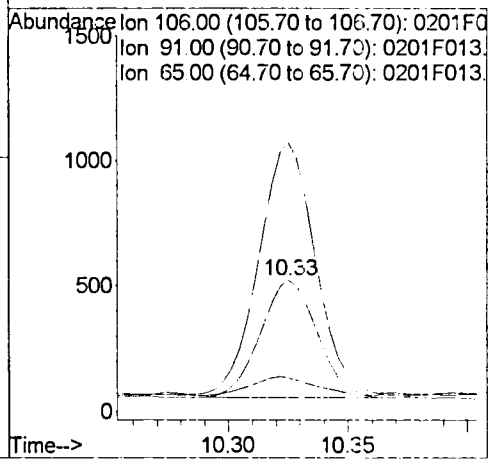


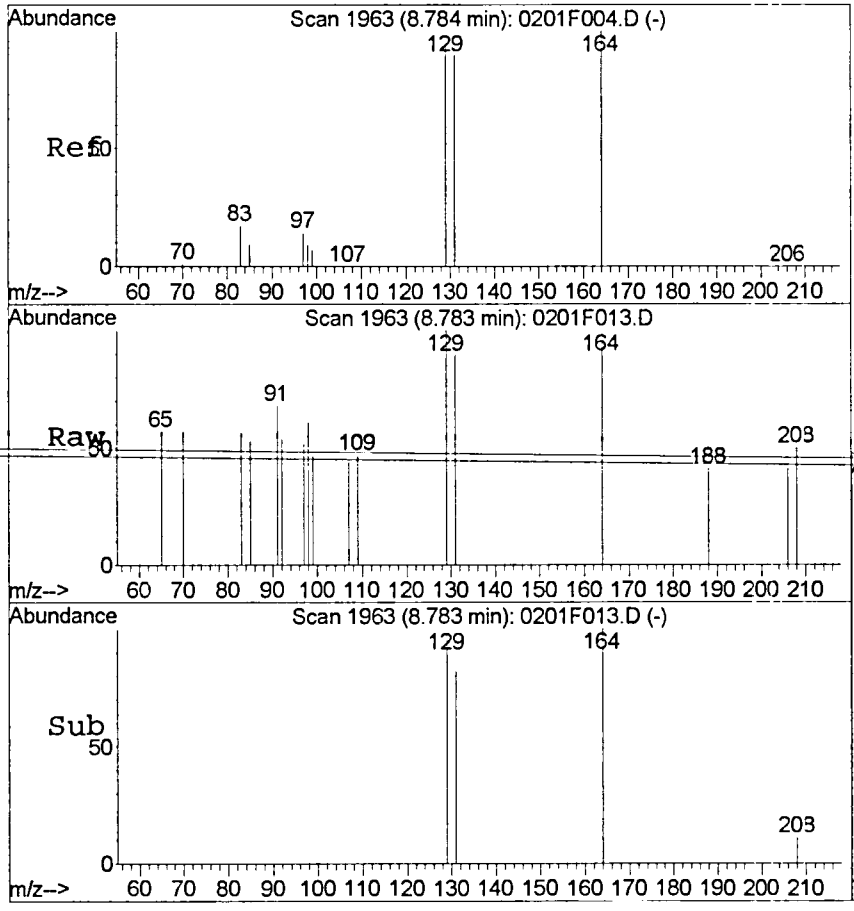


#23
o-Xylene
Concen: 31.62 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion:106 Resp: 765

Ion	Ratio	Lower	Upper
106	100		
91	214.6	185.6	245.6
65	14.8	0.0	45.0

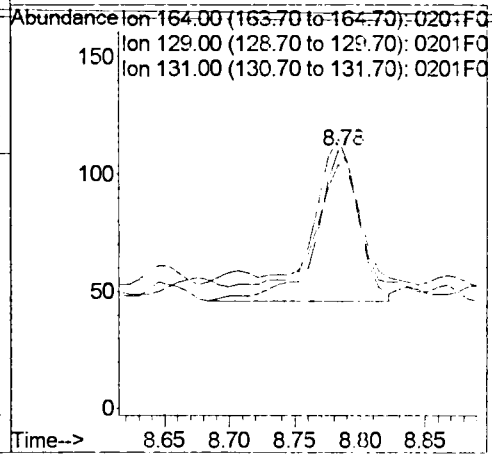


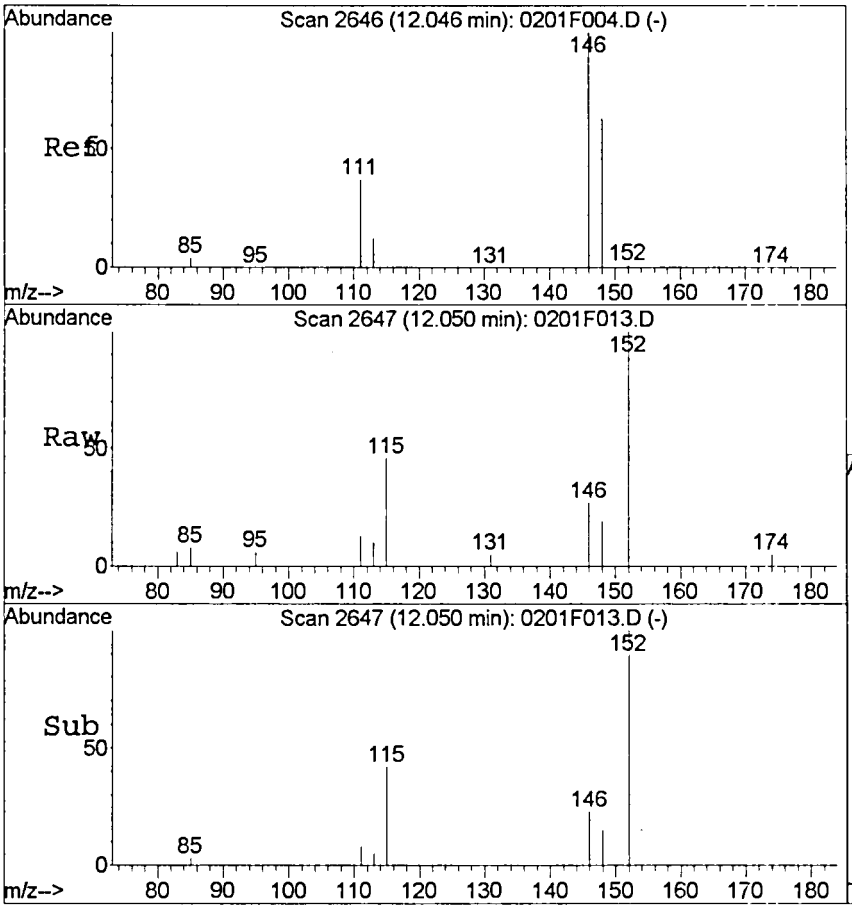


#26
Tetrachloroethene
Concen: 11.06 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion:164 Resp: 145

Ion	Ratio	Lower	Upper
164	100		
129	95.3	61.1	121.1
131	78.1	58.3	118.3

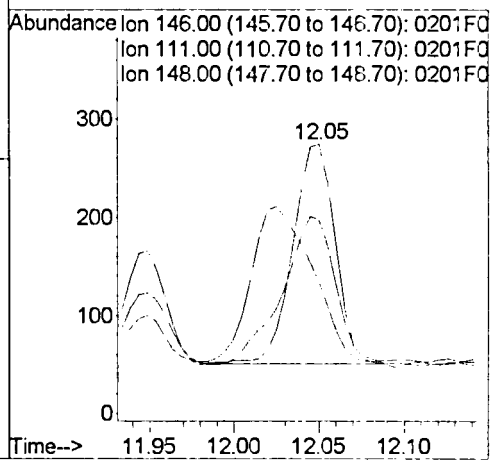




#28
1,4-Dichlorobenzene
Concen: 11.13 ng/L
RT: 12.05 min Scan# 2647
Delta R.T. 0.00 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 2:41 pm

Tgt Ion:146 Resp: 383

Ion	Ratio	Lower	Upper
146	100		
111	35.9	6.7	66.7
148	66.4	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F013.D
Lab ID: K1600673-015
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 15:00
Date Quantitated: 01/29/2016 15:46
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ17348

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRL~
Lab Control Spike	Toluene-d8	122	74	112	Theirs analyte only matrix KH 2/1/16
Surrogates	Toluene-d8	120	74	112	Theirs <MRL

Primary Review: KH 2/1/16

Secondary Review: KH 2/2/16

Printed: 02/01/2016 14:34:51
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F013.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 15:00	**Quant Date:**	01/29/2016 15:46	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-015			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600673
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1497010	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17348
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	68896	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48661	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17721	1,130	113	77-123	OK
1	Toluene-d8	8.21	0.00	0.00	98	59997	1,198	120	74-112	*
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	20144	1,027	103	46-118	OK

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane	6.33		0.00	62	104m	4.17	5.8	U	
1	Bromodichloromethane	7.54	-0.01	0.00	83	148m	6.17	6.2	J	
1	Dibromochloromethane				129	0d		8.8	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	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:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:39:10 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	68896	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48661	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	22936	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17721	1130.33	ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.03%			
15) Toluene-d8	8.21	98	59997	1197.50	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.75%			
24) 4-Bromofluorobenzene	10.88	95	20144	1027.21	ng/L	0.00
Spiked Amount 1000.000			Recovery = 102.72%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	1021m	36.45	ng/L	
5) Methylene Chloride	3.29	84	2909	127.49	ng/L	98
8) Chloroform	5.61	83	1316	37.00	ng/L	97
12) 1,2-Dichloroethane	6.33	62	104m	4.17	ng/L	
13) Trichloroethene	6.92	95	89m	4.92	ng/L	
14) Bromodichloromethane	7.54	83	148m	6.17	ng/L	
20) Toluene	8.28	92	1562	39.60	ng/L	96
21) Ethylbenzene	9.81	106	99	4.81	ng/L #	64
22) m,p-Xylenes	9.93	106	240	9.34	ng/L	89
23) o-Xylene	10.33	106	85	3.35	ng/L #	78
26) Tetrachloroethene	8.78	164	104	7.55	ng/L	97
28) 1,4-Dichlorobenzene	12.05	146	580	16.20	ng/L	96

(#) = qualifier out of range (m) = manual integration
0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:47:22 2016 Page 1

Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F015.D
Lab ID: K1600554-002
RunType: SMPL
Matrix: WATER

Date Acquired: 01/29/2016 15:55
Date Quantitated: 01/30/2016 12:17
Batch ID: KWG1600796
Analysis Method: 8260C SIM
ListJoinID: LJ6046

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	
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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRL ✓
Lab Control Spike	Toluene-d8	122	74	112	% bias analyte above
Surrogates	Toluene-d8	122	74	112	% bias no analytes in
	4-Bromofluorobenzene	129	46	118	matrix

Primary Review: JH 2/1/16

Secondary Review: KWM

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F015.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 15:55	**Quant Date:**	01/30/2016 12:17	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600554-002			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**	01/19/2016	**Receive Date:**	01/20/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	K1600554
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496755	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	Volatile Organic Compounds	**Report List ID:**	LJ6046
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ680
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.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	6.54	0.00	96	67587	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	49164	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17532	1,140	114	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	59778	1,216	122	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	25555m	1,290	129	46-118	*	

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	Vinyl Chloride	1.43		0.00	62	31869	1,299	1.3		
1	1,1-Dichloroethene	2.58		0.00	96	290	20.39	0.020		
1	1,2-Dichloroethane	6.33		0.00	62	1983	81.09	0.081		
1	Trichloroethene (TCE)	6.92		0.00	95	31304	1,764	1.8		
2	1,1,2,2-Tetrachloroethane				83	0d		0.0087	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	0.001

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:\MS27\DATA\012916_SIM\0129F015.D Vial: 12
Acq On : 29 Jan 2016 3:55 pm Operator: GH
Sample : K0554-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:32:12 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

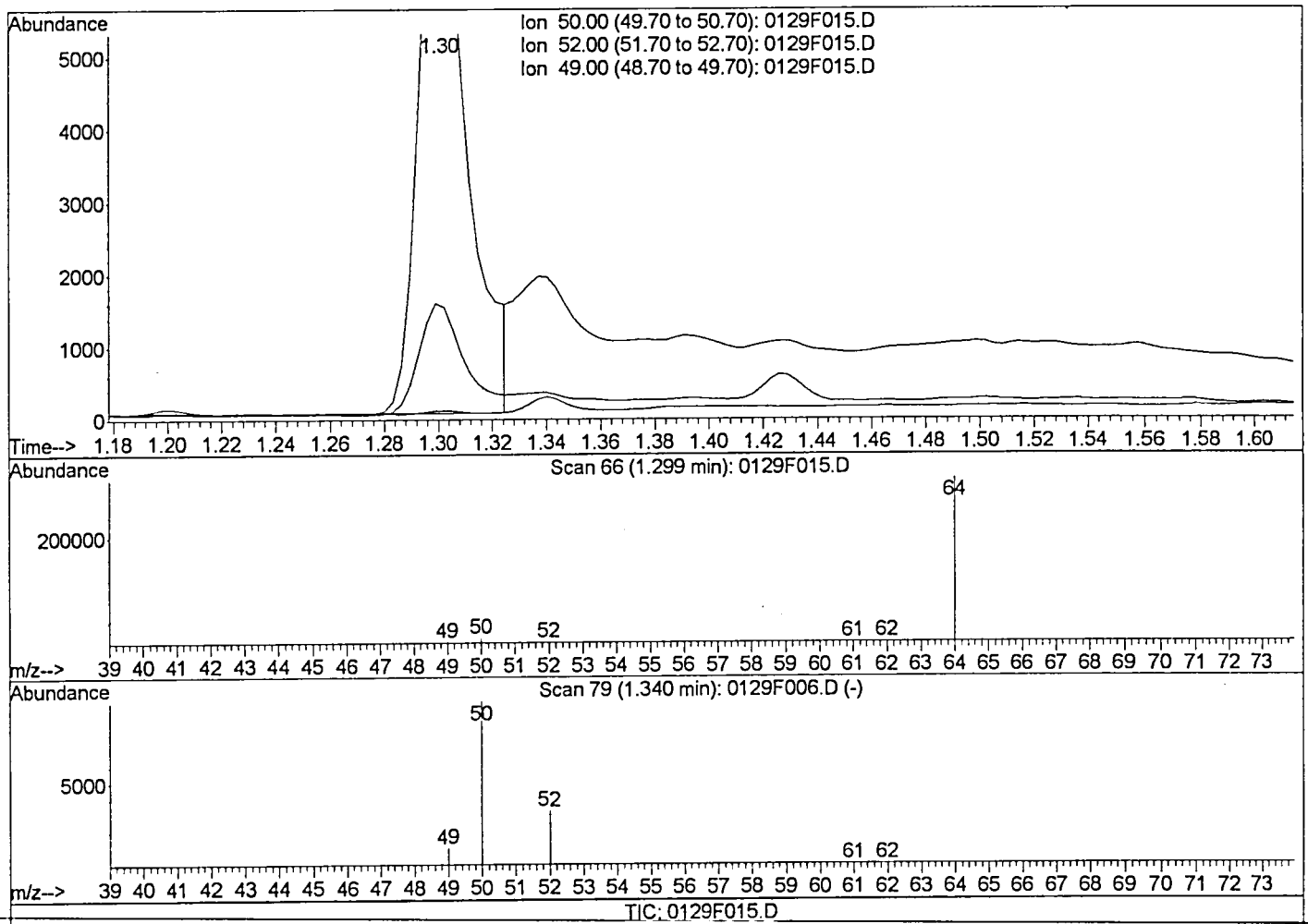
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	67587	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	49164	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	26533	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17532	1139.93	ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.99%			
15) Toluene-d8	8.21	98	59778	1216.24	ng/L	0.00
Spiked Amount 1000.000			Recovery = 121.62%			
24) 4-Bromofluorobenzene	10.89	95	25555m	1289.80	ng/L	0.00
Spiked Amount 1000.000			Recovery = 128.98%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	1081m	39.34	ng/L	
3) Vinyl Chloride	1.43	62	31869	1298.73	ng/L	79
4) 1,1-Dichloroethene	2.58	96	290	20.39	ng/L #	76
5) Methylene Chloride	3.29	84	925	41.32	ng/L	96
6) trans-1,2-Dichloroethene	3.58	96	2800	161.64	ng/L	97
7) cis-1,2-Dichloroethene	5.18	96	24643	1292.65	ng/L	99
8) Chloroform	5.61	83	1159	33.21	ng/L	83
11) Benzene	6.17	78	1063	13.99	ng/L	91
12) 1,2-Dichloroethane	6.33	62	1983	81.09	ng/L	98
13) Trichloroethene	6.92	95	31304	1764.34	ng/L	98
16) 1,1,2-Trichloroethane	8.81	83	322	25.28	ng/L	84
20) Toluene	8.28	92	922	23.13	ng/L	97
21) Ethylbenzene	9.80	106	370	17.79	ng/L	92
22) m,p-Xylenes	9.93	106	551	21.23	ng/L	92
23) o-Xylene	10.32	106	144	5.61	ng/L	98
26) Tetrachloroethene	8.78	164	1545	111.09	ng/L	99
28) 1,4-Dichlorobenzene	12.05	146	5852	141.31	ng/L	97

(#) = qualifier out of range (m) = manual integration
0129F015.D 012716MS27_8260SIM.M Sat Jan 30 12:23:00 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F015.D Vial: 12
Acq On : 29 Jan 2016 3:55 pm Operator: GH
Sample : K0554-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:32 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



(2) Chloromethane (T)

1.30min 359.55ng/L

response 9879

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	0.49#
49.00	10.10	18.36
0.00	0.00	0.00

Manual Integration:

Before

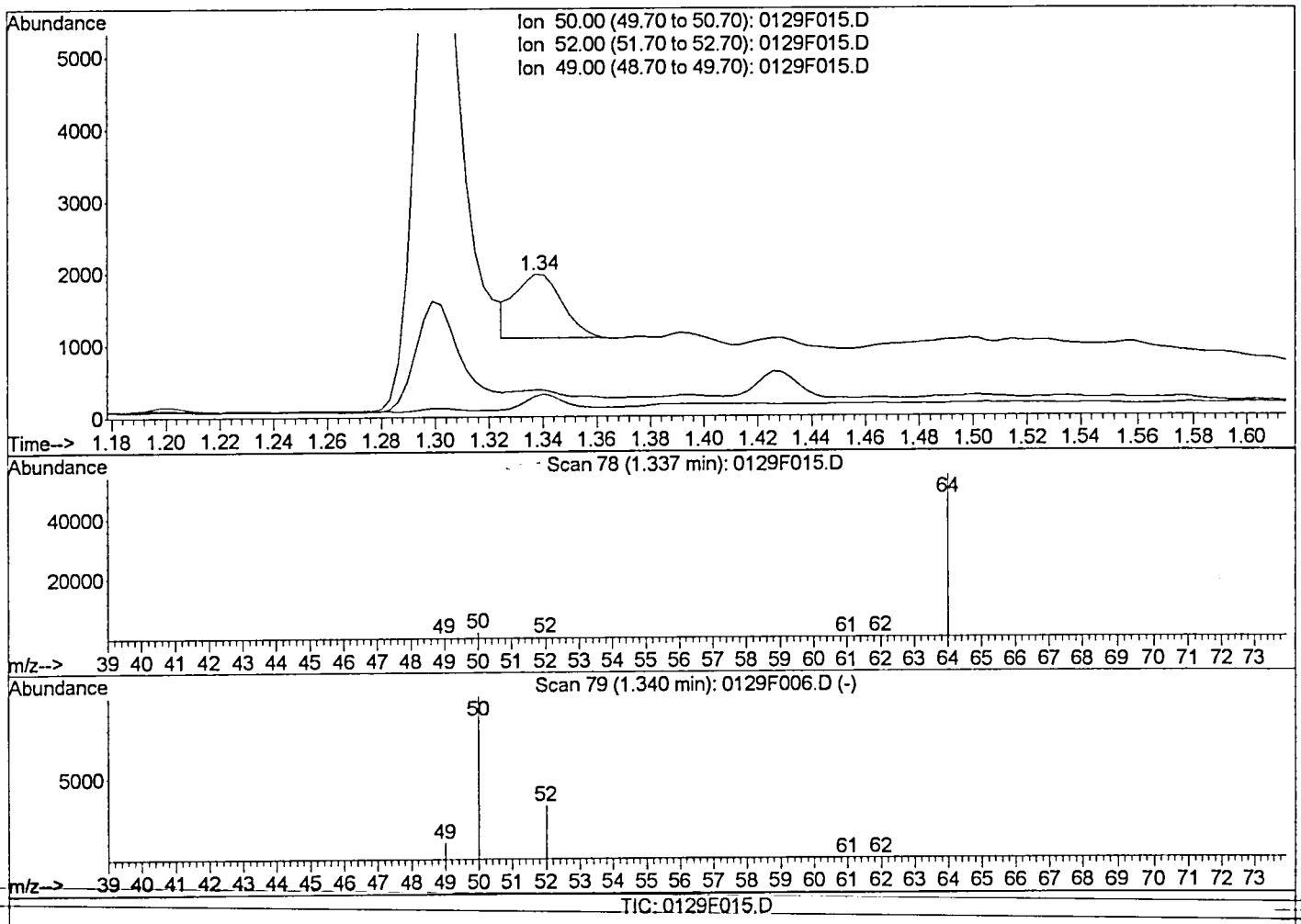
01/30/16

0129F015.D 012716MS27_8260SIM.M Sat Jan 30 12:15:53 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F015.D Vial: 12
Acq On : 29 Jan 2016 3:55 pm Operator: GH
Sample : K0554-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 12:16 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0129F015.D

(2) Chloromethane (T)

1.34min 39.34ng/L m

response 1081

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	14.24
49.00	10.10	18.59
0.00	0.00	0.00

Manual Integration:

After

WRT

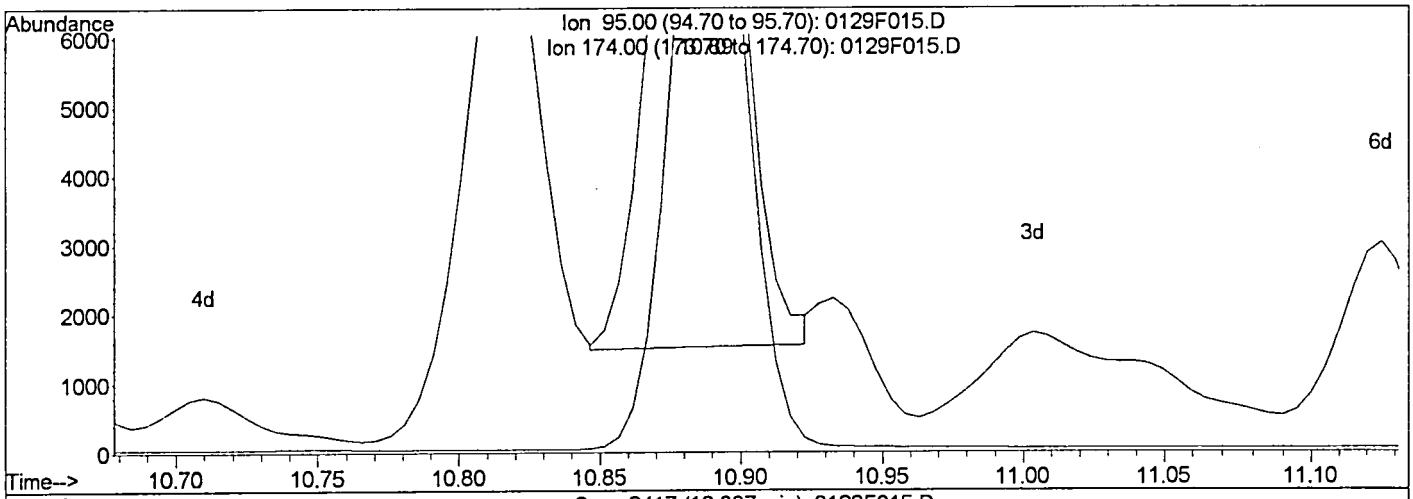
01/30/16

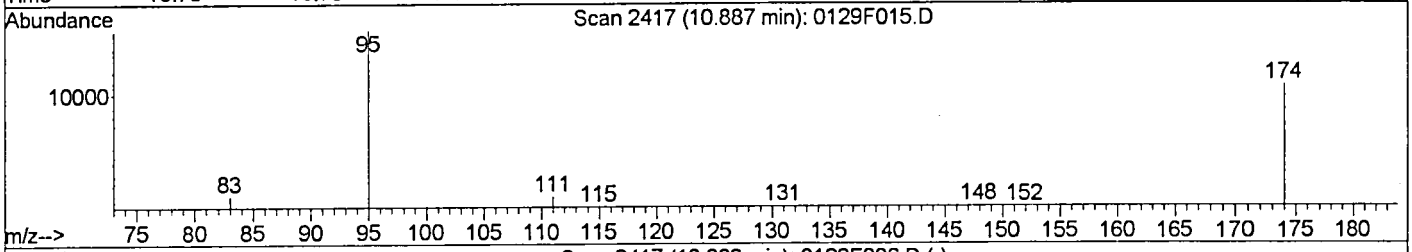
0129F015.D 012716MS27_8260SIM.M Sat Jan 30 12:16:07 2016

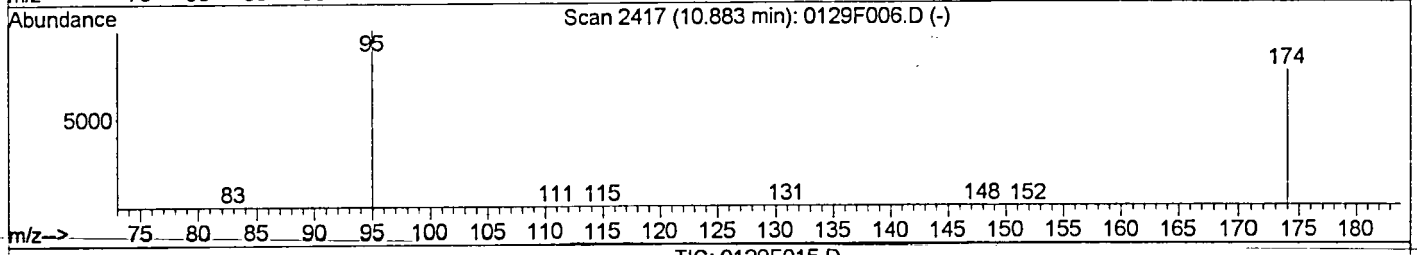
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F015.D Vial: 12
Acq On : 29 Jan 2016 3:55 pm Operator: GH
Sample : K0554-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 12:17 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0129F015.D

(24) 4-Bromofluorobenzene (S)

10.89min 1295.21ng/L

response 25662

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	75.98
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

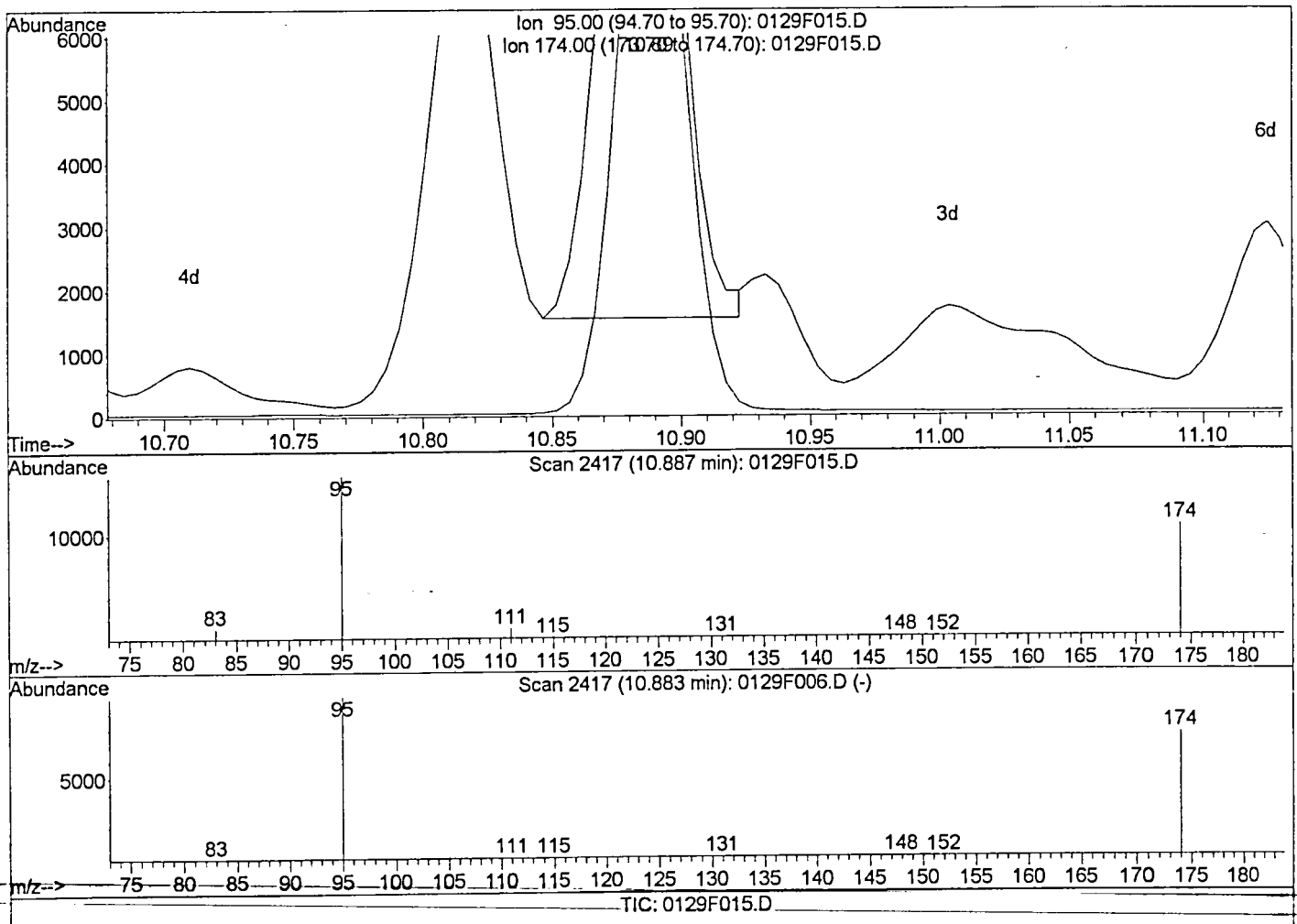
01/30/16

0129F015.D 012716MS27_8260SIM.M Sat Jan 30 12:17:21 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F015.D Vial: 12
Acq On : 29 Jan 2016 3:55 pm Operator: GH
Sample : K0554-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 12:17 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



(24) 4-Bromofluorobenzene (S)

10.89min 1289.80ng/L m

response 25555

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	68.79
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

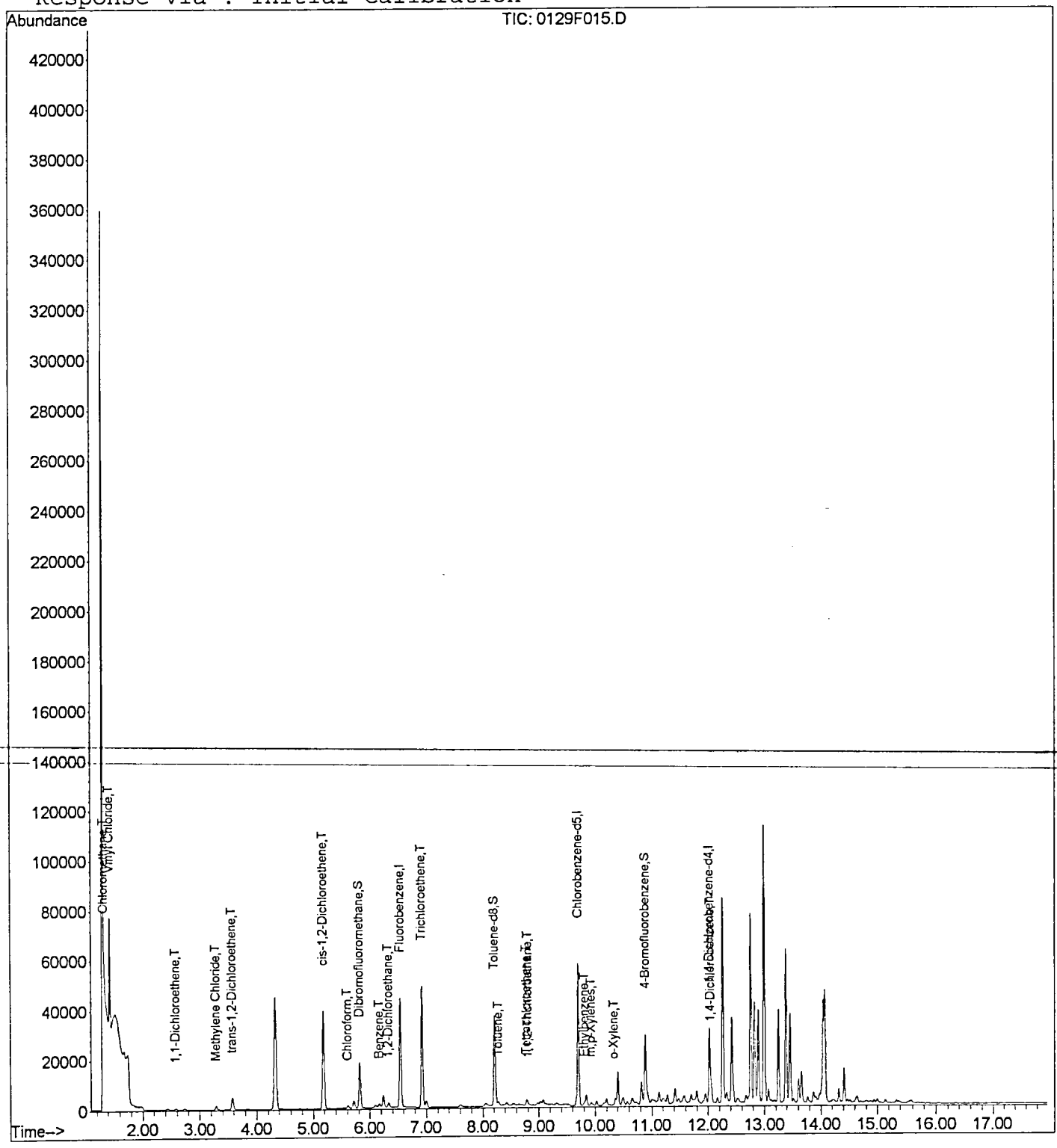
01/30/16

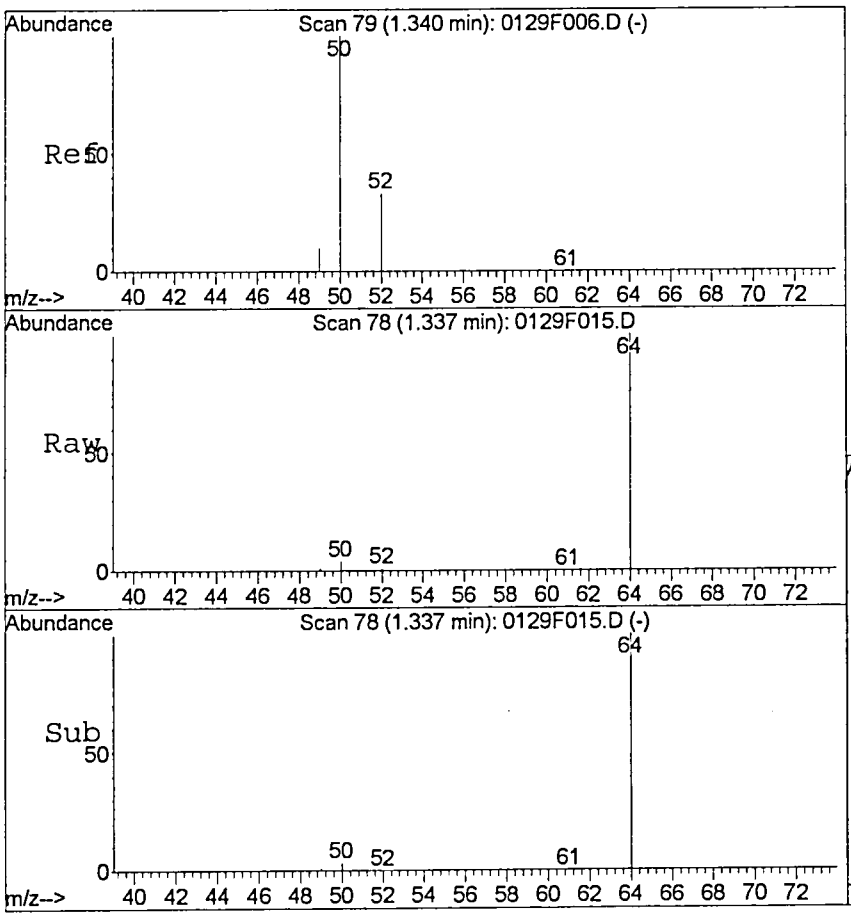
0129F015.D 012716MS27_8260SIM.M Sat Jan 30 12:17:35 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F015.D Vial: 12
Acq On : 29 Jan 2016 3:55 pm Operator: GH
Sample : K0554-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 12:17 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration

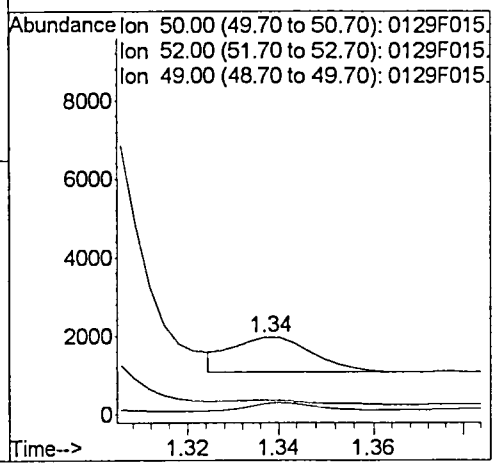


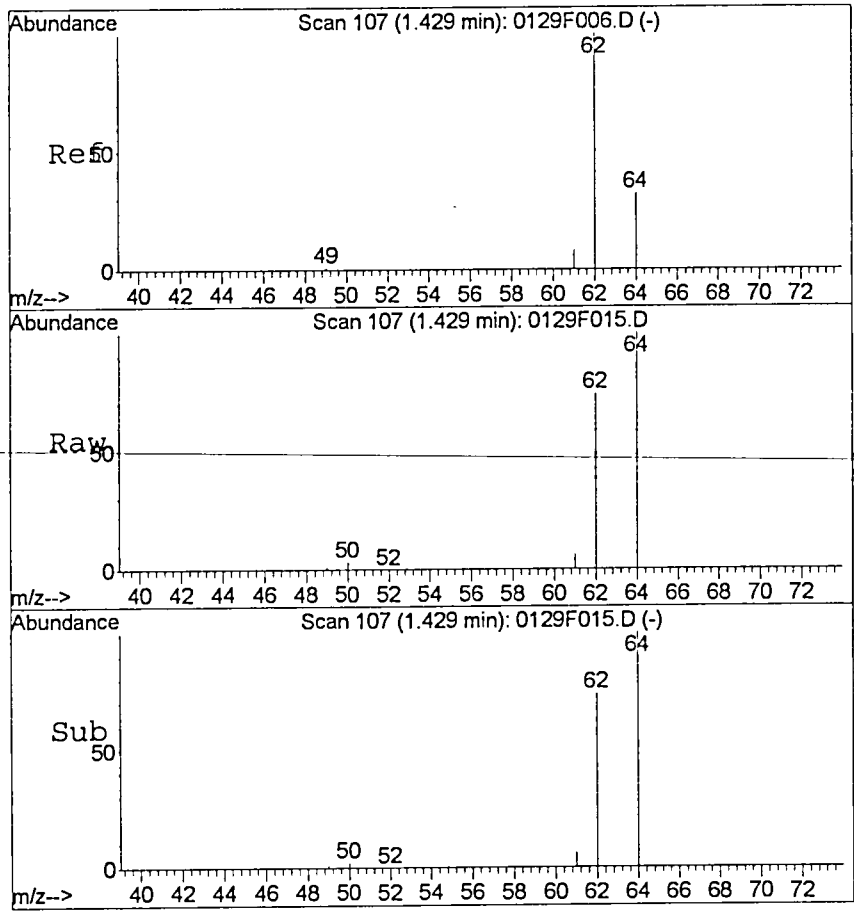


#2
Chloromethane
Concen: 39.34 ng/L m
RT: 1.34 min Scan# 78
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 50 Resp: 1081

Ion	Ratio	Lower	Upper
50	100		
52	14.2	2.9	62.9
49	18.6	0.0	40.1

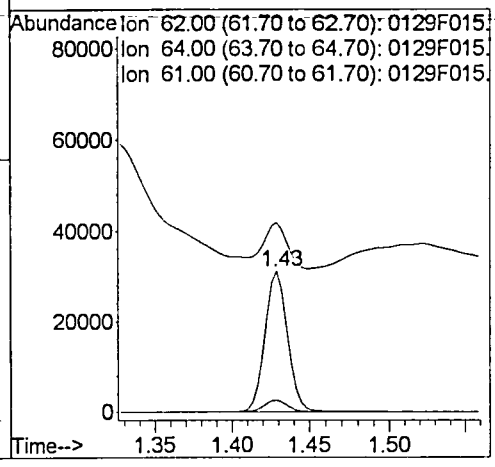


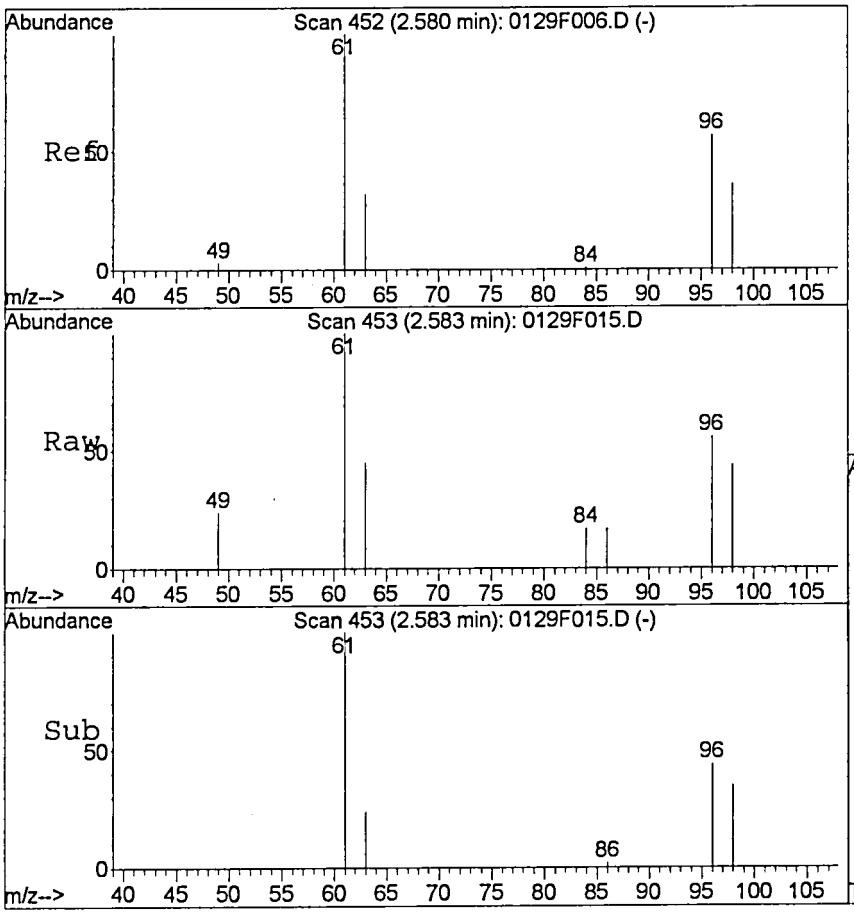


#3
Vinyl Chloride
Concen: 1298.73 ng/L
RT: 1.43 min Scan# 107
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 62 Resp: 31869

Ion	Ratio	Lower	Upper
62	100		
64	17.1	1.9	61.9
61	8.3	0.0	38.5

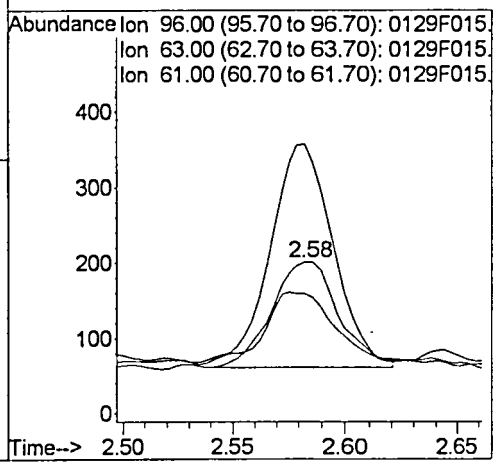


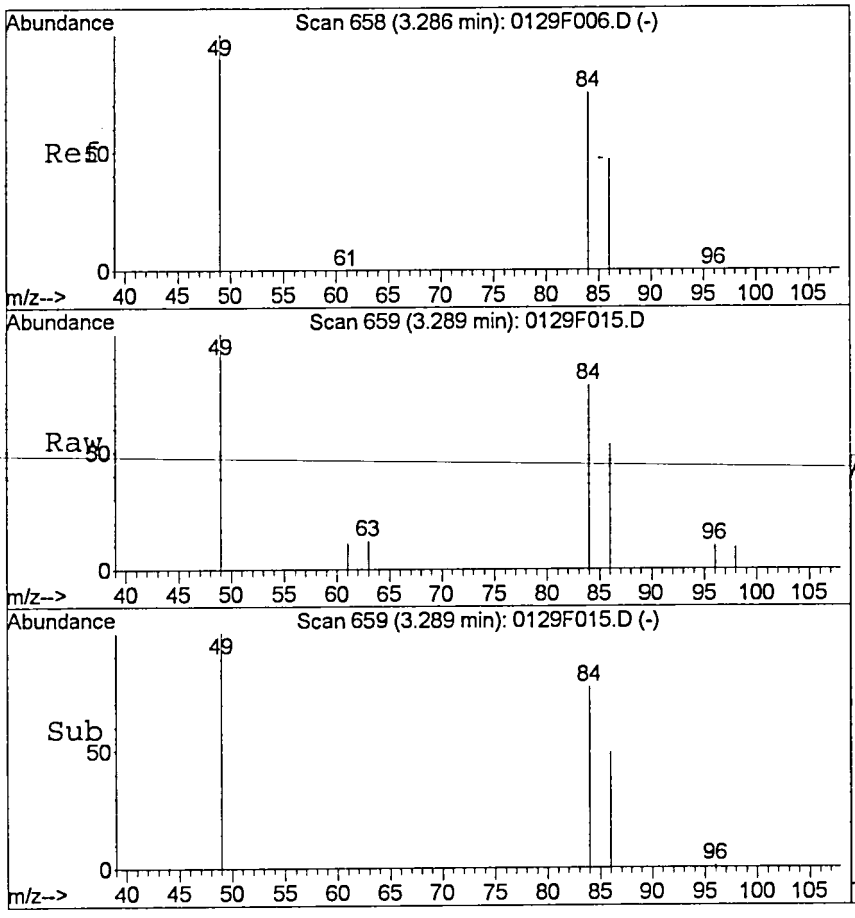


#4
1,1-Dichloroethene
Concen: 20.39 ng/L
RT: 2.58 min Scan# 453
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 96 Resp: 290

Ion	Ratio	Lower	Upper
96	100		
63	62.9	25.0	85.0
61	207.1	139.2	199.2#

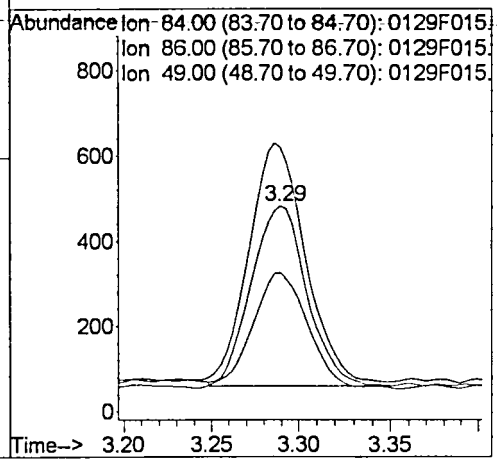


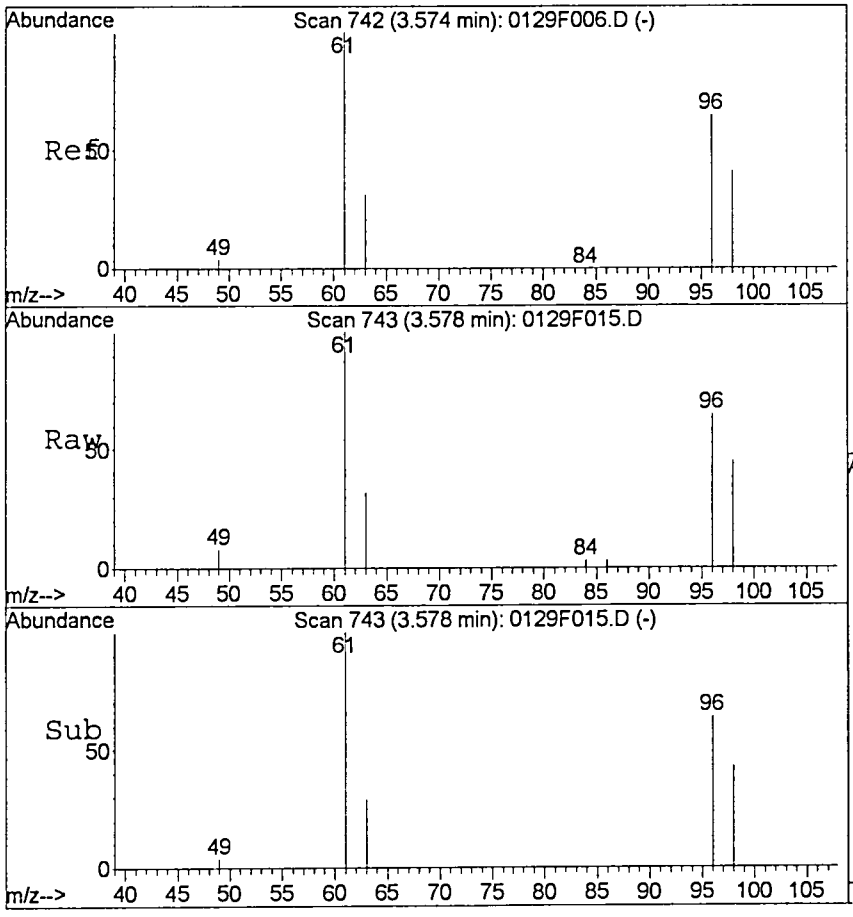


#5
Methylene Chloride
Concen: 41.32 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 84 Resp: 925

Ion	Ratio	Lower	Upper
84	100		
86	64.4	33.8	93.8
49	130.4	107.9	167.9

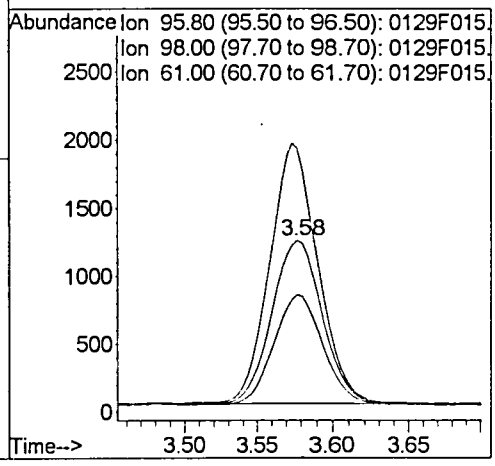


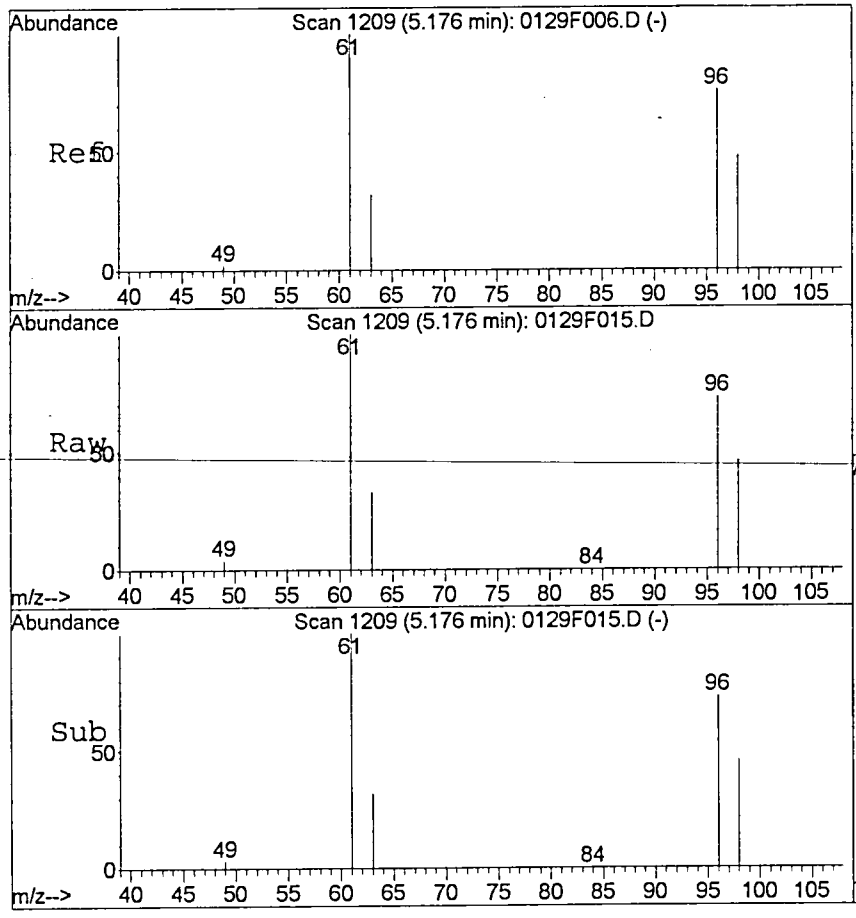


#6
trans-1,2-Dichloroethene
Concen: 161.64 ng/L
RT: 3.58 min Scan# 743
Delta R.T. 0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 96 Resp: 2800

Ion	Ratio	Lower	Upper
96	100		
98	67.0	32.7	92.7
61	155.3	122.3	182.3

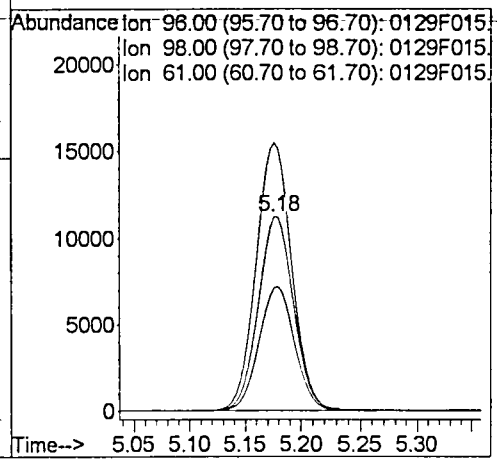


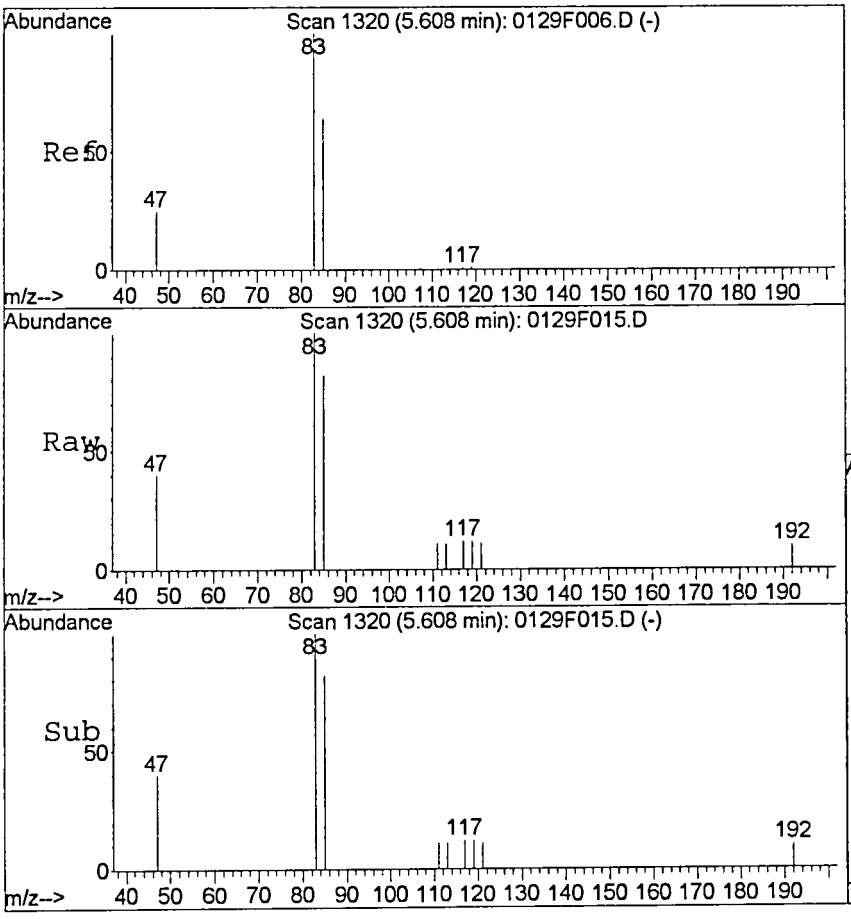


#7
cis-1,2-Dichloroethene
Concen: 1292.65 ng/L
RT: 5.18 min Scan# 1209
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 96 Resp: 24643

Ion	Ratio	Lower	Upper
96	100		
98	63.3	34.0	94.0
61	137.8	109.6	169.6

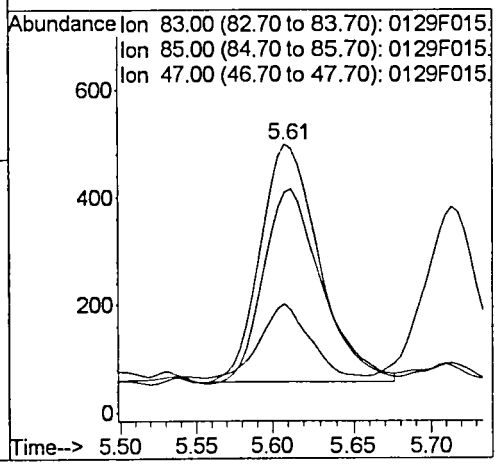


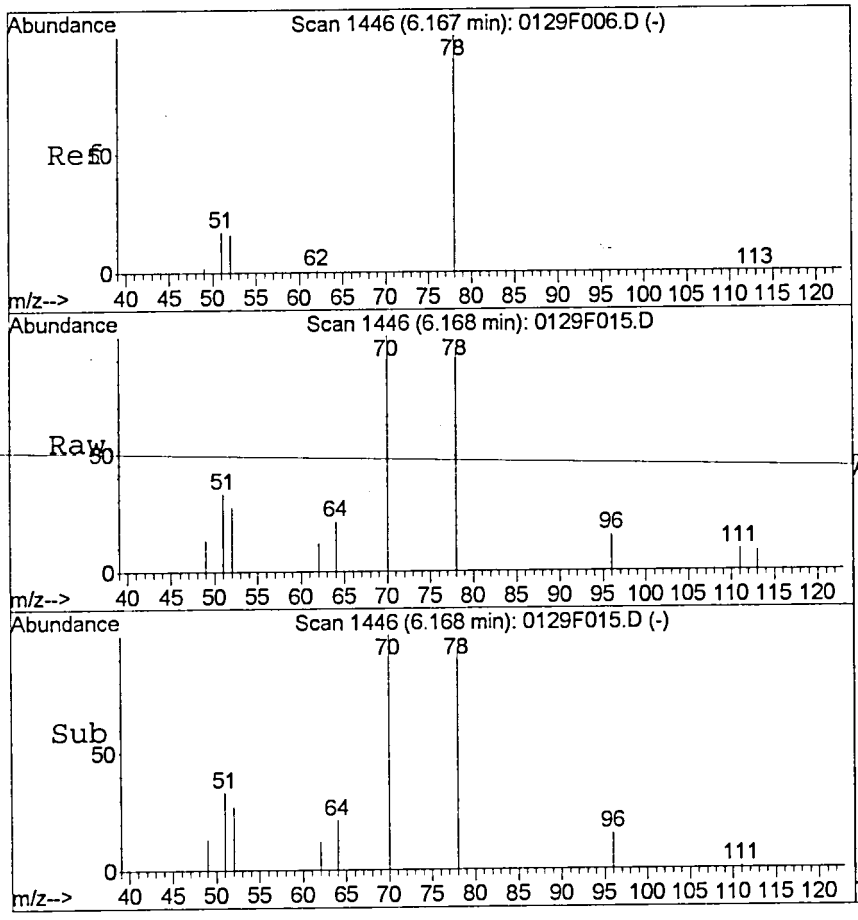


#8
Chloroform
Concen: 33.21 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 83 Resp: 1159

Ion	Ratio	Lower	Upper
83	100		
85	80.5	34.7	94.7
47	30.8	0.0	55.9

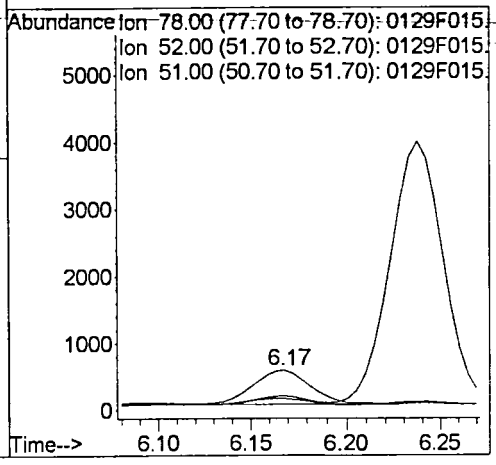


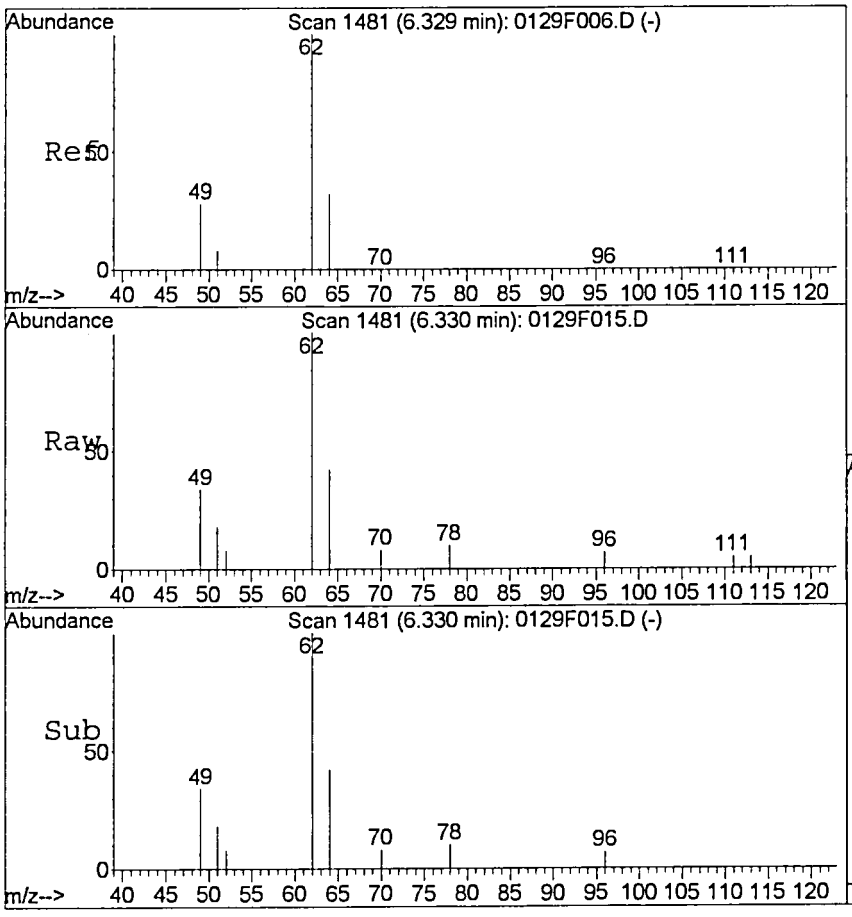


#11
Benzene
Concen: 13.99 ng/L
RT: 6.17 min Scan# 1446
Delta R.T. 0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 78 Resp: 1063

Ion	Ratio	Lower	Upper
78	100		
52	17.5	0.0	46.9
51	24.5	0.0	47.6

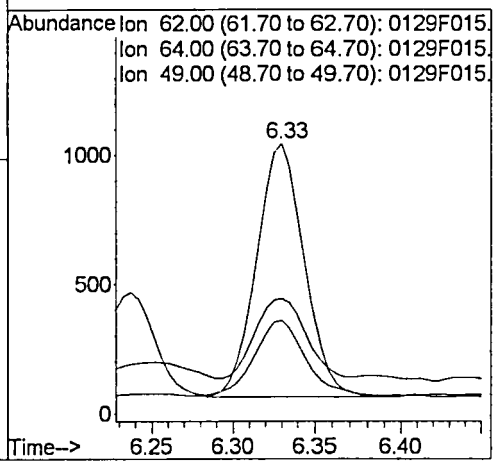


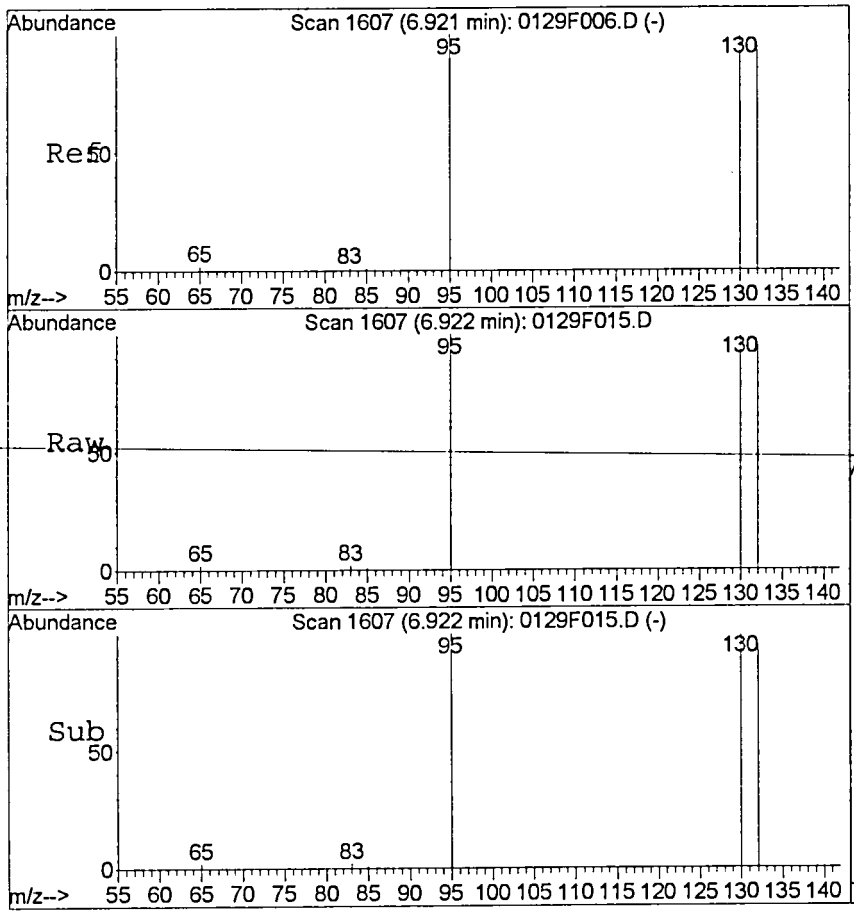


#12
1,2-Dichloroethane
Concen: 81.09 ng/L
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 62 Resp: 1983

Ion	Ratio	Lower	Upper
62	100		
64	31.0	1.7	61.7
49	29.5	0.0	58.2

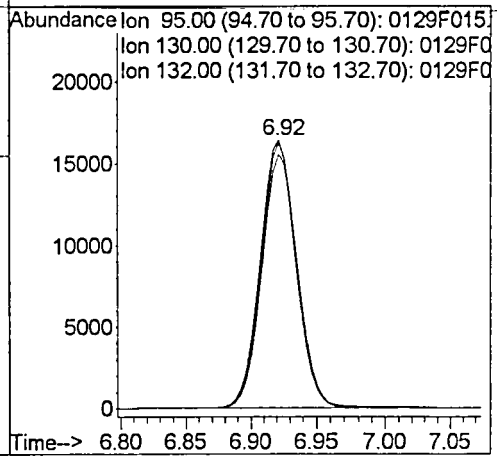


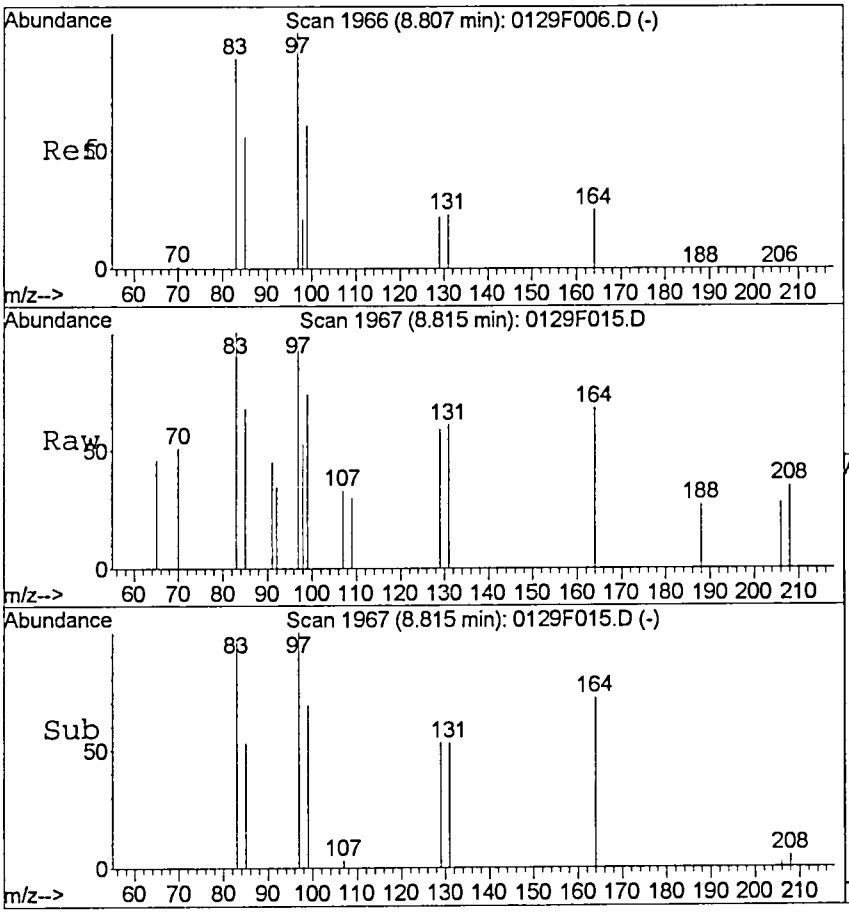


#13
Trichloroethene
Concen: 1764.34 ng/L
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 95 Resp: 31304

Ion	Ratio	Lower	Upper
95	100		
130	99.2	67.1	127.1
132	94.9	63.9	123.9

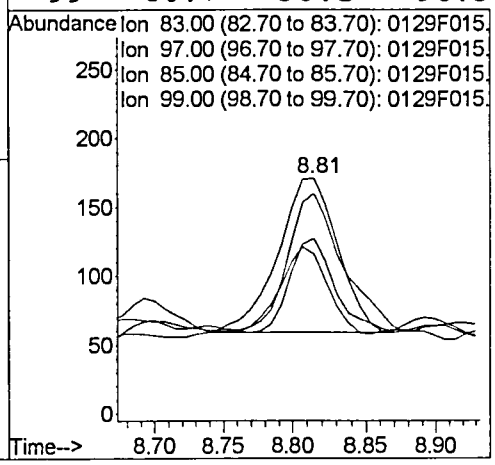


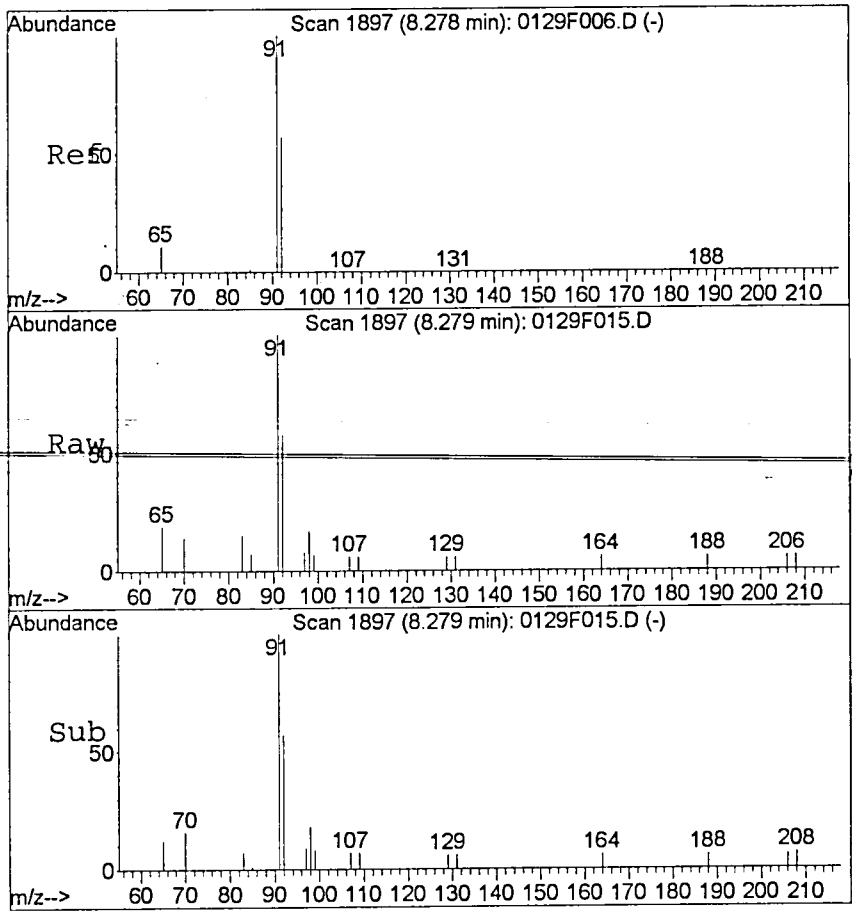


#16
1,1,2-Trichloroethane
Concen: 25.28 ng/L
RT: 8.81 min Scan# 1967
Delta R.T. 0.01 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 83 Resp: 322

Ion	Ratio	Lower	Upper
83	100		
97	88.4	79.5	139.5
85	49.1	31.9	91.9
99	60.7	36.5	96.5

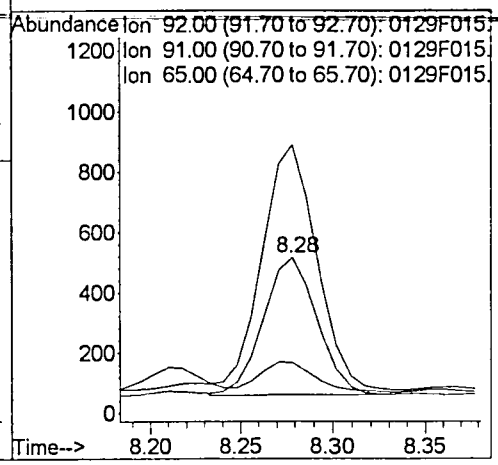


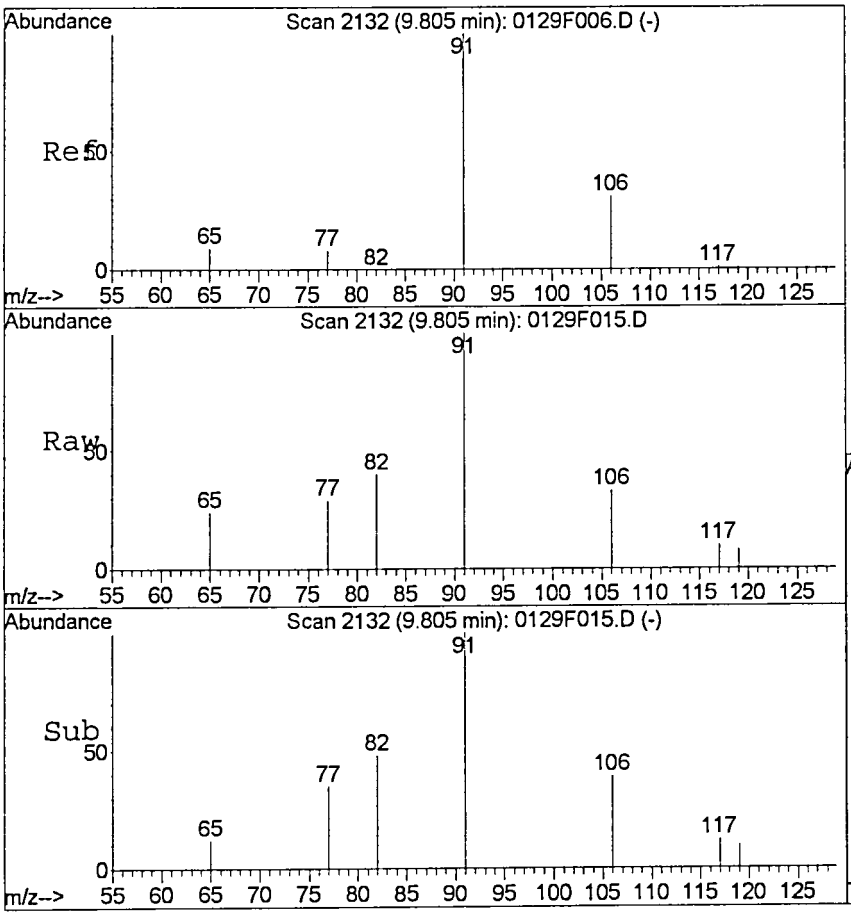


#20
Toluene
Concen: 23.13 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion: 92 Resp: 922

Ion	Ratio	Lower	Upper
92	100		
91	178.4	144.4	204.4
65	21.4	0.0	49.7

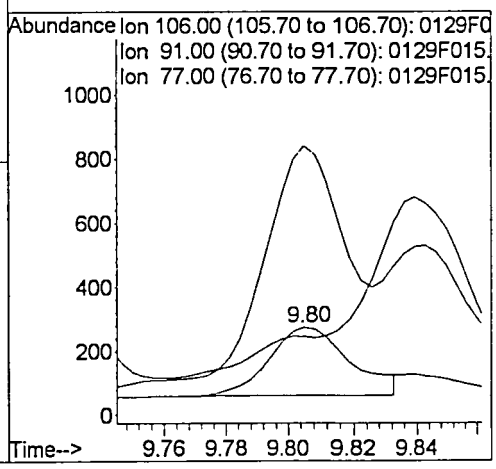


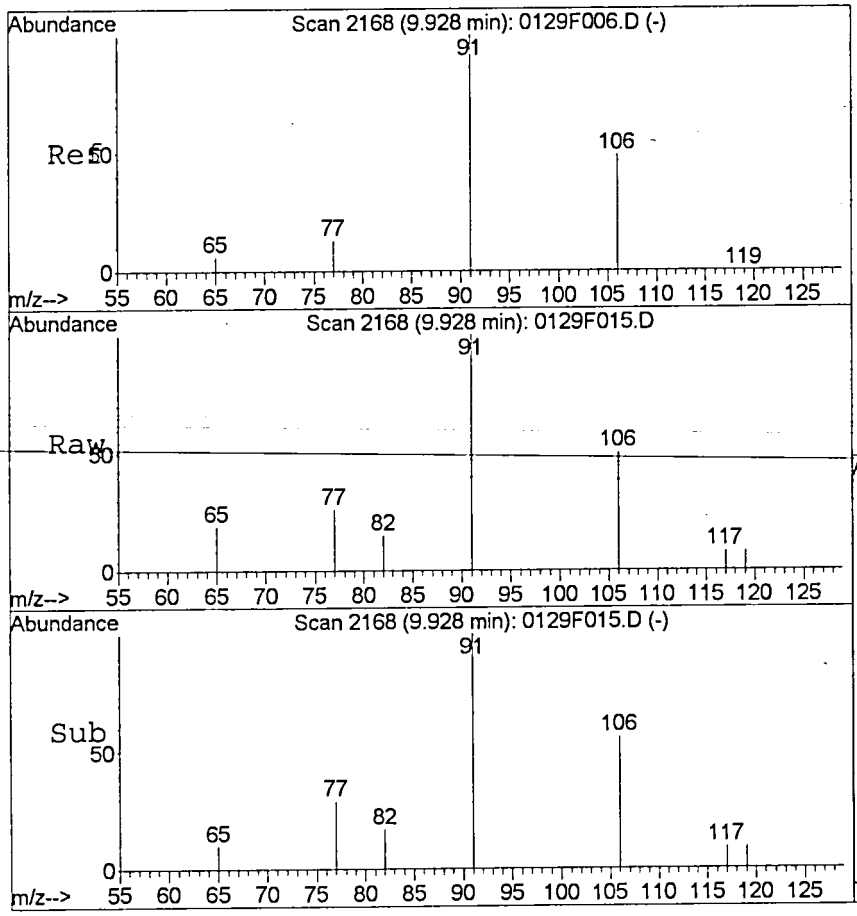


#21
Ethylbenzene
Concen: 17.79 ng/L
RT: 9.80 min Scan# 2132
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion:106 Resp: 370

Ion	Ratio	Lower	Upper
106	100		
91	336.6	295.2	355.2
77	51.2	0.2	60.2

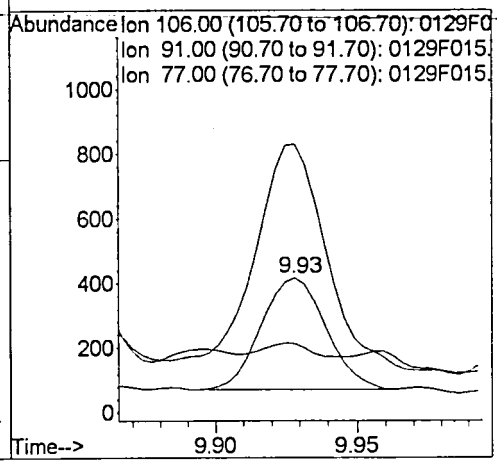


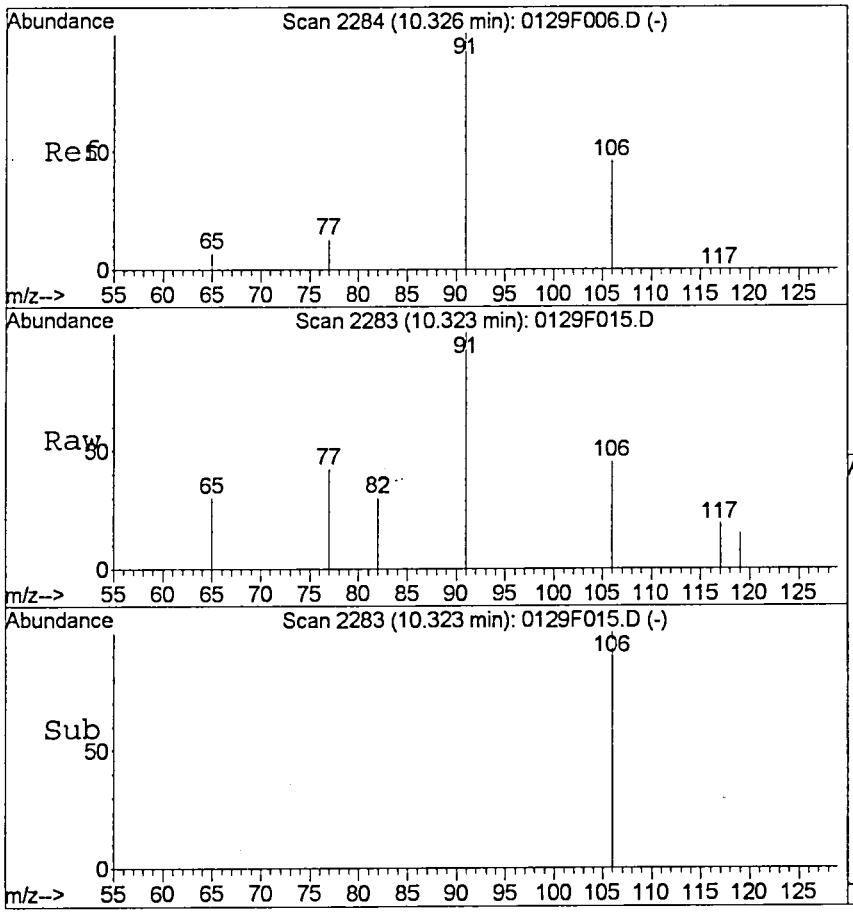


#22
m,p-Xylenes
Concen: 21.23 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion:106 Resp: 551

Ion	Ratio	Lower	Upper
106	100		
91	196.8	173.8	233.8
77	11.3	0.0	57.2

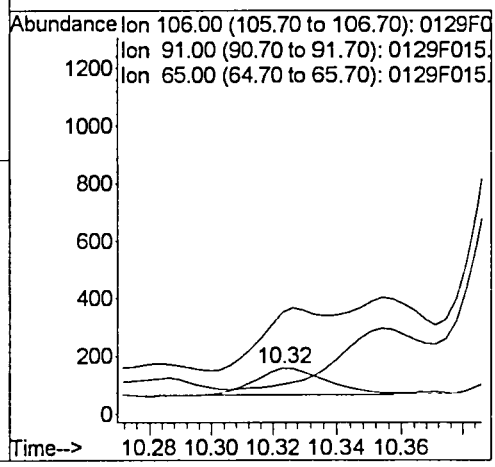


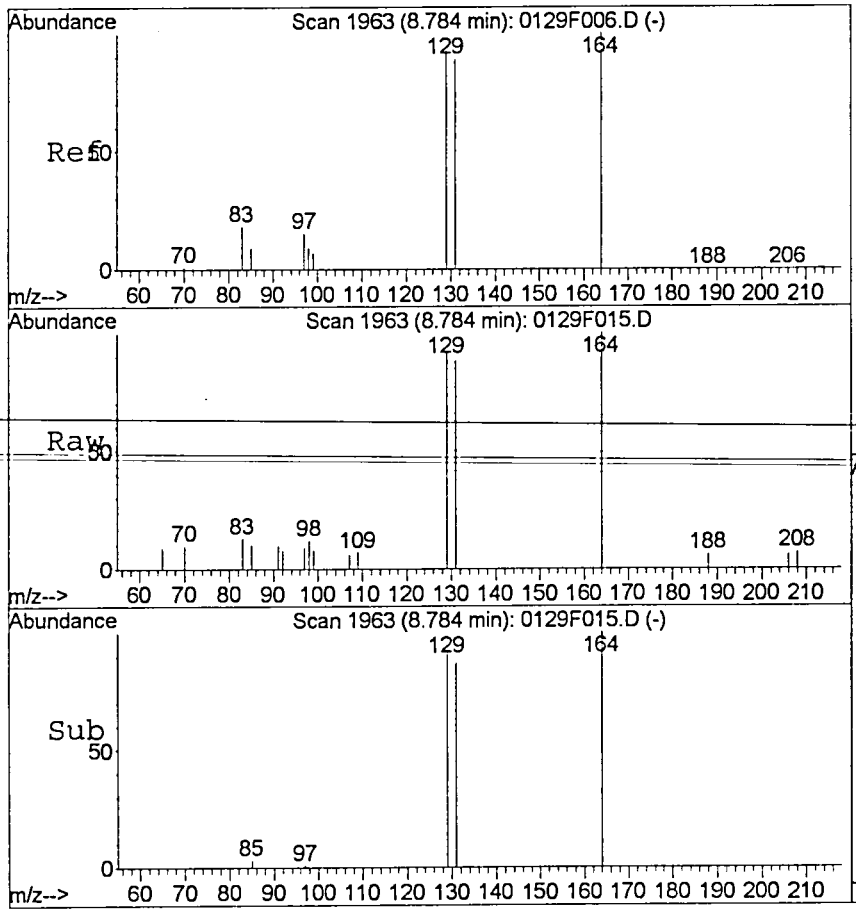


#23
o-Xylene
Concen: 5.61 ng/L
RT: 10.32 min Scan# 2283
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion:106 Resp: 144

Ion	Ratio	Lower	Upper
106	100		
91	218.5	185.6	245.6
65	10.9	0.0	45.0

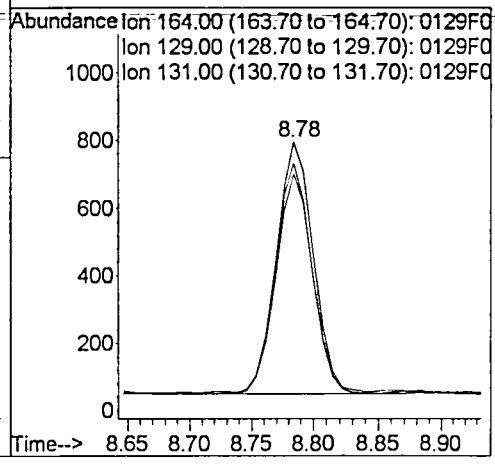


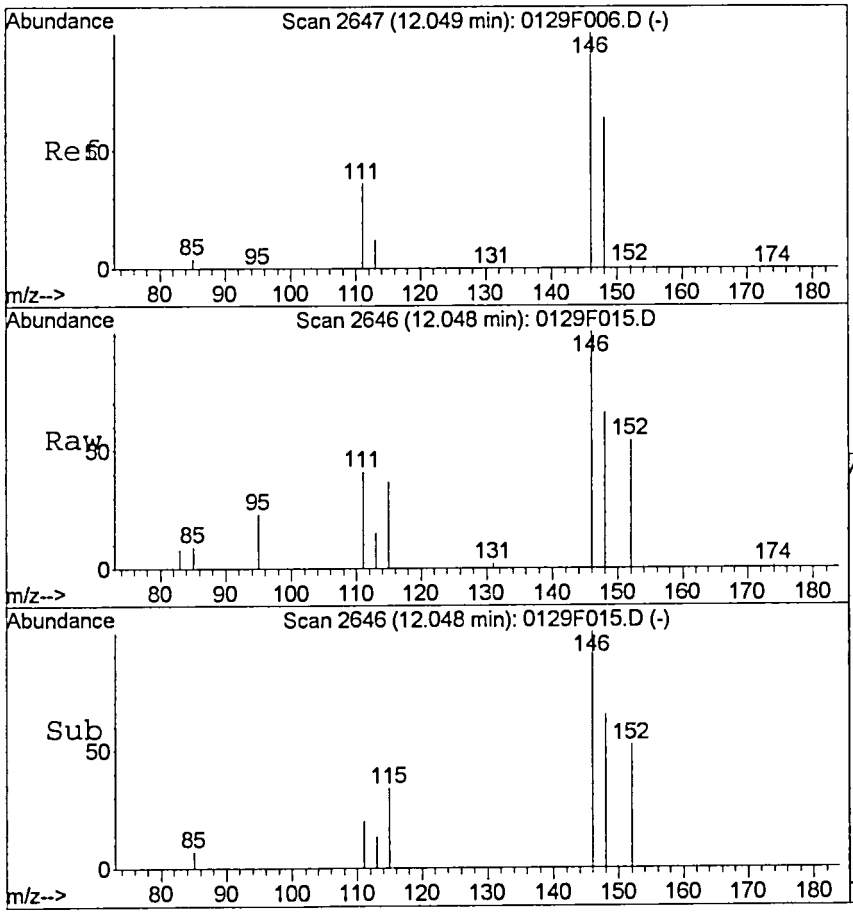


#26
Tetrachloroethene
Concen: 111.09 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion:164 Resp: 1545

Ion	Ratio	Lower	Upper
164	100		
129	90.9	61.1	121.1
131	87.1	58.3	118.3

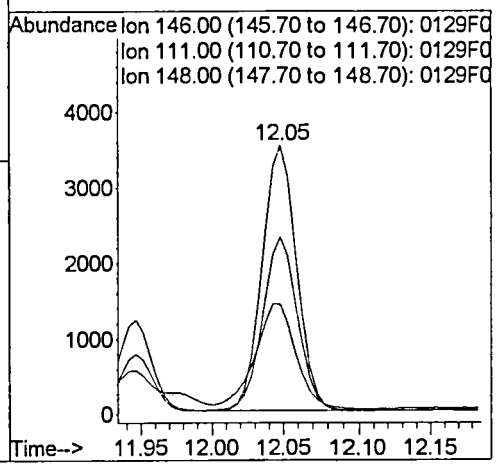




#28
1,4-Dichlorobenzene
Concen: 141.31 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F015.D
Acq: 29 Jan 2016 3:55 pm

Tgt Ion:146 Resp: 5852

Ion	Ratio	Lower	Upper
146	100		
111	39.2	6.7	66.7
148	65.1	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F008.D
Lab ID: KWG1600798-1 -- K1600554-002MS
RunType: MS
Matrix: WATER

Date Acquired: 01/29/2016 12:42
Date Quantitated: 01/29/2016 13:37
Batch ID: KWG1600796
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRLV
Surrogates	Toluene-d8	123	74	112	%bias
	4-Bromofluorobenzene	130	46	118	matrix

Primary Review: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 14:34:42
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F008.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 12:42	**Quant Date:**	01/29/2016 13:37	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600798-1 -- K1600554-002MS			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	01/29/2016		
Prep Ref:	1496767				

Quant Method:	J:\MS27\METHODS\012716MS27_8			**Calibration ID:**	CAL14562
Title:					
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D			**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.D			**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.54	0.00	96	71903	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	52950	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.02	0.00	152	28663	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17824	1,089	109	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	64377	1,231	123	74-112	*	
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	27724m	1,299	130	46-118	*	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	37747	1,291	1290		
1	Vinyl Chloride	1.43		0.00	62	60000	2,298	2300		
1	1,1-Dichloroethene	2.58		0.00	96	18239	1,206	1210		
1	Methylene Chloride	3.29		0.00	84	36233	1,522	1520	J	
1	trans-1,2-Dichloroethene	3.58	0.01	0.00	96	27066	1,469	1470		
1	cis-1,2-Dichloroethene	5.18		0.00	96	54063	2,666	2670		
1	Chloroform	5.61		0.00	83	54221	1,461	1460		
1	Carbon Tetrachloride	5.85		0.00	117	25136	1,187	1190		
1	Benzene	6.17		0.00	78	112924	1,397	1400		
1	1,2-Dichloroethane	6.33		0.00	62	44847	1,724	1720		
1	Trichloroethene (TCE)	6.92		0.00	95	55512	2,941	2940		
1	Bromodichloromethane	7.55		0.00	83	39254	1,568	1570		
1	1,1,2-Trichloroethane	8.81		0.00	83	22128	1,633	1630		
1	Dibromochloromethane	9.16		0.00	129	26313	1,646	1650		
1	1,2-Dibromoethane (EDB)	9.27		0.00	107	22447	1,621	1620		

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:\MS27\DATA\012916_SIM\0129F008.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 12:42	**Quant Date:**	01/29/2016 13:37	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600798-1 -- K1600554-002MS			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	61737	1,438	1440		
2	Ethylbenzene	9.80		0.00	106	32764	1,463	1460		
2	m,p-Xylenes	9.93		0.00	106	80382	2,876	2880		
2	o-Xylene	10.33		0.00	106	42860	1,551	1550		
2	1,1,2,2-Tetrachloroethane	11.10		0.00	83	30658	1,778	1780		
2	Tetrachloroethene (PCE)	8.78		0.00	164	19762	1,319	1320		
3	1,4-Dichlorobenzene	12.05		0.00	146	76500	1,710	1710		

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:\MS27\DATA\012916_SIM\0129F008.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 12:42	**Quant Date:**	01/29/2016 13:37	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600798-1 -- K1600554-002MS			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	01/29/2016		
Prep Ref:	1496767				

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ680
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.54	0.00	96	71903	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	52950	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.02	0.00	152	28663	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17824	1,089	109	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	64377	1,231	123	74-112	*	
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	27724m	1,299	130	46-118	*	

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	Vinyl Chloride	1.43		0.00	62	60000	2,298	2.30		
1	1,1-Dichloroethene	2.58		0.00	96	18239	1,206	1.21		
1	trans-1,2-Dichloroethene	3.58	0.01	0.00	96	27066	1,469	1.47		
1	cis-1,2-Dichloroethene	5.18		0.00	96	54063	2,666	2.67		
1	Chloroform	5.61		0.00	83	54221	1,461	1.46		
1	Carbon Tetrachloride	5.85		0.00	117	25136	1,187	1.19		
1	Benzene	6.17		0.00	78	112924	1,397	1.40		
1	1,2-Dichloroethane	6.33		0.00	62	44847	1,724	1.72		
1	Trichloroethene (TCE)	6.92		0.00	95	55512	2,941	2.94		
2	Toluene	8.28		0.00	92	61737	1,438	1.44		
2	Ethylbenzene	9.80		0.00	106	32764	1,463	1.46		
2	m,p-Xylenes	9.93		0.00	106	80382	2,876	2.88		
2	o-Xylene	10.33		0.00	106	42860	1,551	1.55		
2	1,1,2,2-Tetrachloroethane	11.10		0.00	83	30658	1,778	1.78		
2	Tetrachloroethene (PCE)	8.78		0.00	164	19762	1,319	1.32		

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:\MS27\DATA\012916_SIM\0129F008.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 12:42	**Quant Date:**	01/29/2016 13:37	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600798-1 -- K1600554-002MS			**Soln Conc. Units:**	ng/L

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	1,4-Dichlorobenzene	12.05		0.00	146	76500	1,710	1.71		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	0.001

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:\MS27\DATA\012916_SIM\0129F008.D Vial: 6
Acq On : 29 Jan 2016 12:42 pm Operator: GH
Sample : K0554-002MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:35:38 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

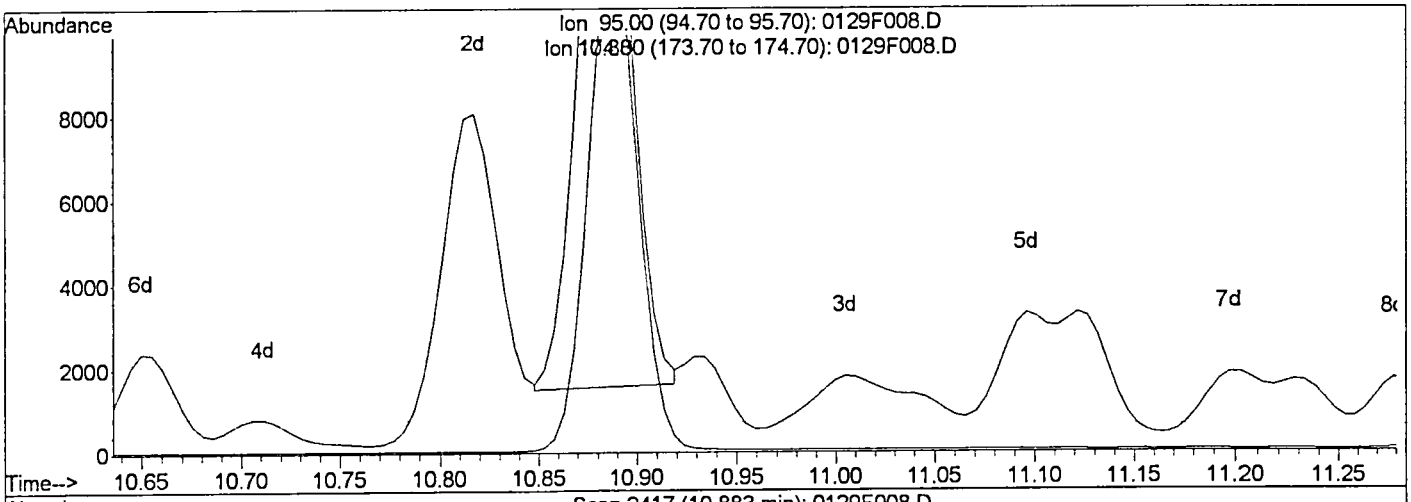
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	71903	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	52950	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	28663	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17824	1089.35	ng/L	0.00
Spiked Amount 1000.000			Recovery = 108.93%			
15) Toluene-d8	8.21	98	64377	1231.19	ng/L	0.00
Spiked Amount 1000.000			Recovery = 123.12%			
24) 4-Bromofluorobenzene	10.88	95	27724m	1299.23	ng/L	0.00
Spiked Amount 1000.000			Recovery = 129.92%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	37747	1291.37	ng/L	100
3) Vinyl Chloride	1.43	62	60000	2298.37	ng/L	100
4) 1,1-Dichloroethene	2.58	96	18239	1205.54	ng/L	97
5) Methylene Chloride	3.29	84	36233	1521.50	ng/L	98
6) trans-1,2-Dichloroethene	3.58	96	27066	1468.72	ng/L	97
7) cis-1,2-Dichloroethene	5.18	96	54063	2665.65	ng/L	99
8) Chloroform	5.61	83	54221	1460.58	ng/L	99
10) Carbon Tetrachloride	5.85	117	25136	1187.23	ng/L	99
11) Benzene	6.17	78	112924	1396.86	ng/L	98
12) 1,2-Dichloroethane	6.33	62	44847	1723.85	ng/L	99
13) Trichloroethene	6.92	95	55512	2940.94	ng/L	99
14) Bromodichloromethane	7.55	83	39254	1568.02	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	22128	1633.00	ng/L	99
17) Dibromochloromethane	9.16	129	26313	1645.51	ng/L	100
18) 1,2-Dibromoethane (EDB)	9.27	107	22447	1620.66	ng/L	99
20) Toluene	8.28	92	61737	1438.21	ng/L	100
21) Ethylbenzene	9.80	106	32764	1462.81	ng/L	98
22) m,p-Xylenes	9.93	106	80382	2875.84	ng/L	100
23) o-Xylene	10.33	106	42860	1550.75	ng/L	100
25) 1,1,2,2-Tetrachloroethane	11.10	83	30658	1777.77	ng/L	100
26) Tetrachloroethene	8.78	164	19762	1319.30	ng/L	99
28) 1,4-Dichlorobenzene	12.05	146	76500	1710.04	ng/L	99

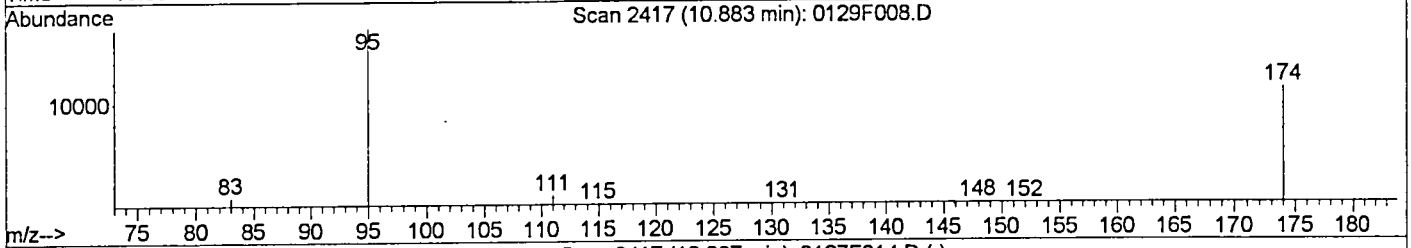
(#) = qualifier out of range (m) = manual integration
0129F008.D 012716MS27_8260SIM.M Fri Jan 29 13:38:43 2016 Page 1

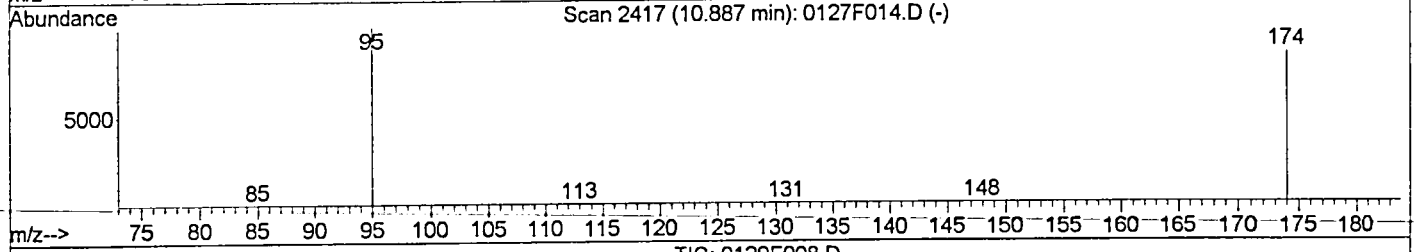
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F008.D Vial: 6
Acq On : 29 Jan 2016 12:42 pm Operator: GH
Sample : K0554-002MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:35 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F008.D

(24) 4-Bromofluorobenzene (S)

10.88min 1309.91ng/L

response 27952

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	71.48
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

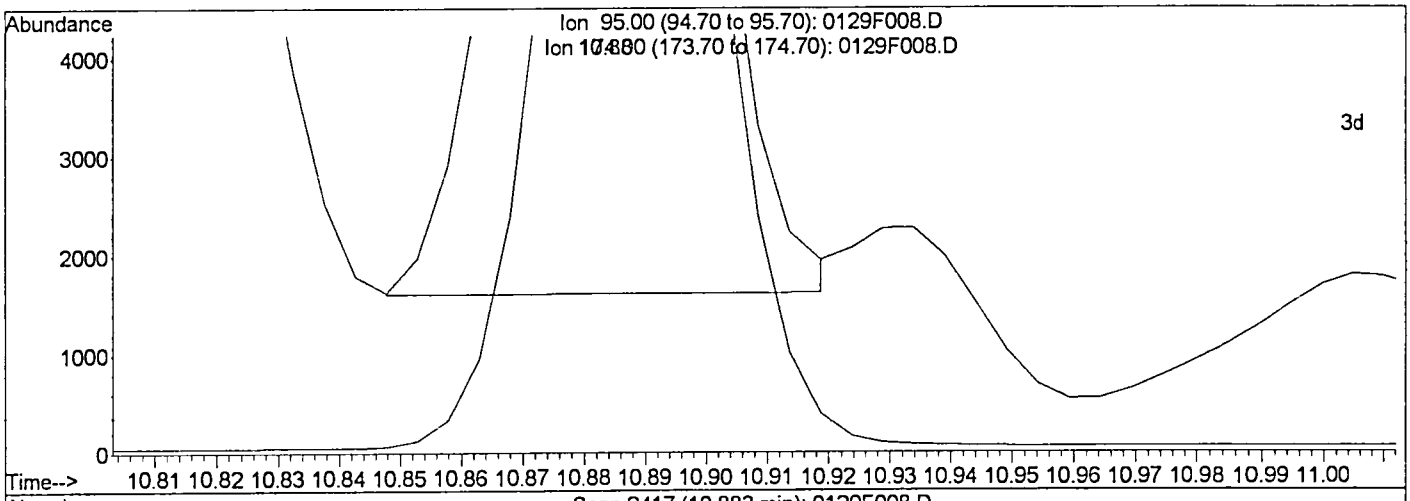
01/29/16

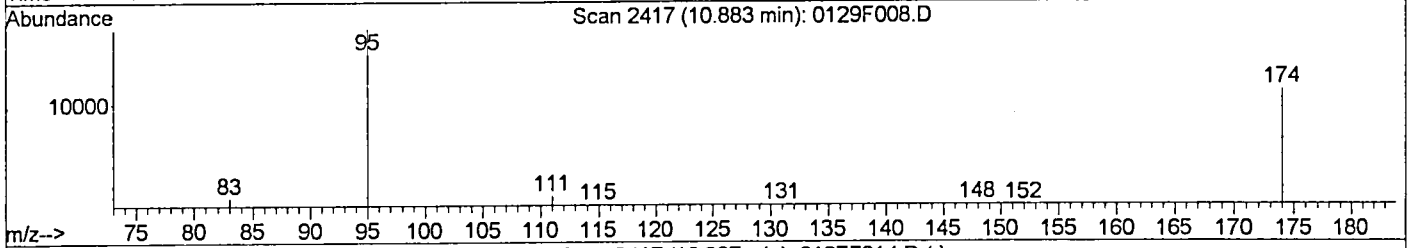
0129F008.D 012716MS27_8260SIM.M Fri Jan 29 13:37:02 2016

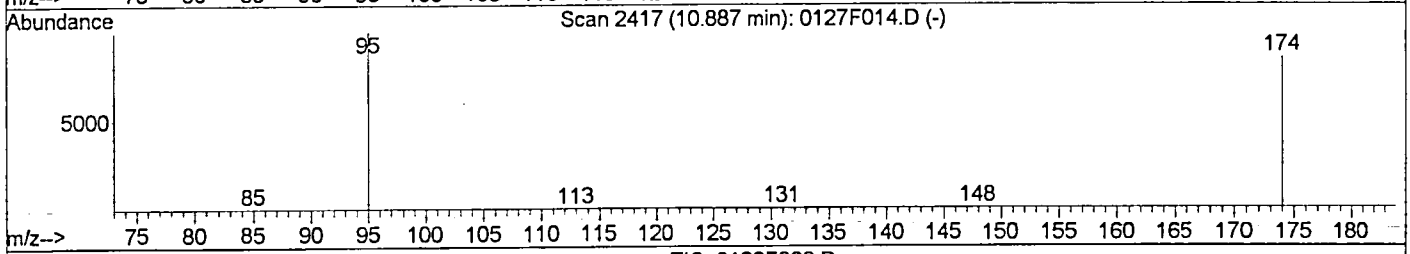
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F008.D Vial: 6
Acq On : 29 Jan 2016 12:42 pm Operator: GH
Sample : K0554-002MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:37 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F008.D

(24) 4-Bromofluorobenzene (S)

10.88min 1299.23ng/L m

response 27724

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	65.15
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

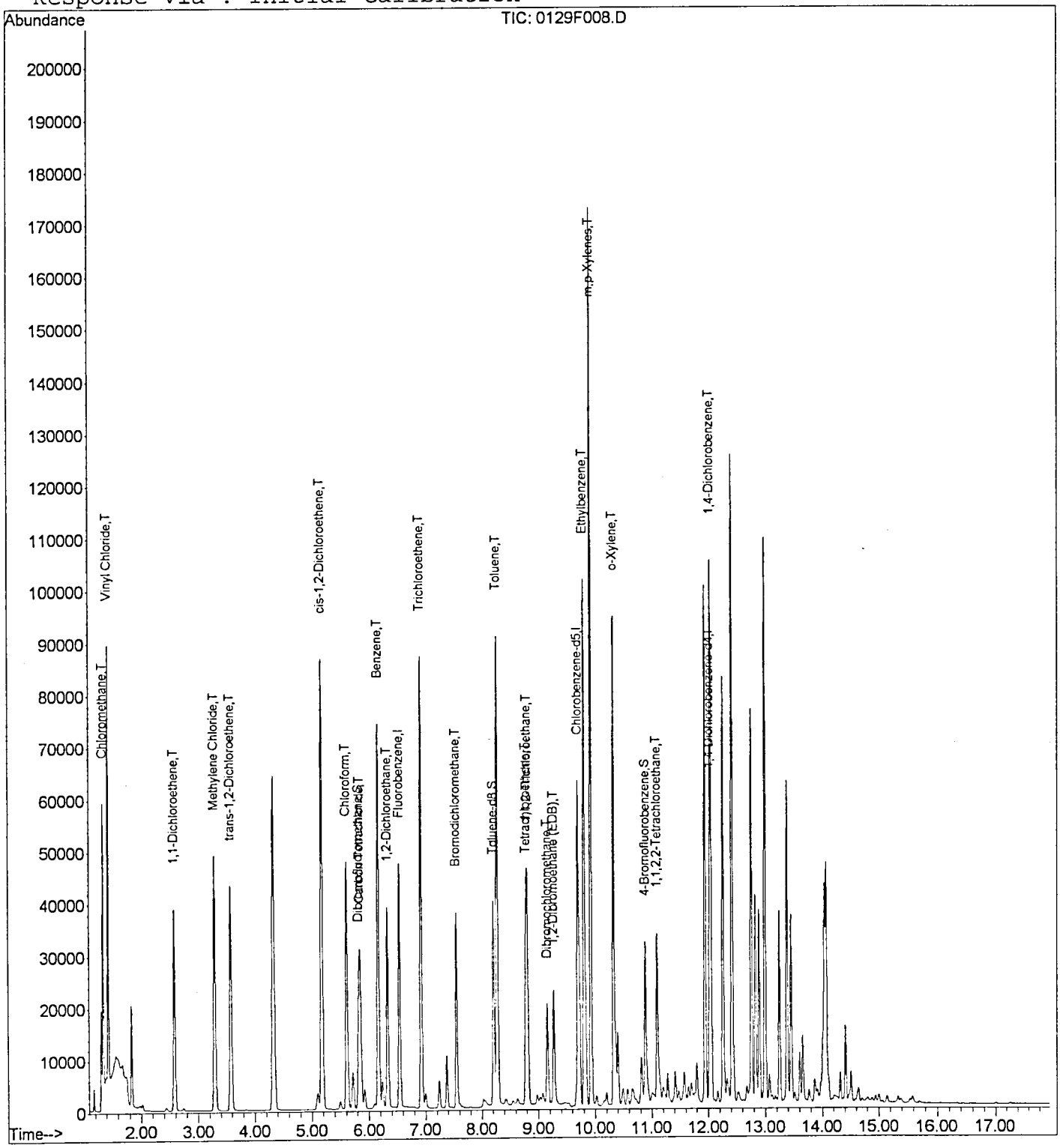
01/29/16

0129F008.D 012716MS27_8260SIM.M Fri Jan 29 13:37:20 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F008.D Vial: 6
Acq On : 29 Jan 2016 12:42 pm Operator: GH
Sample : K0554-002MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:37 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F009.D
Lab ID: KWG1600798-2 -- K1600554-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 01/29/2016 13:10
Date Quantitated: 01/29/2016 13:38
Batch ID: KWG1600796
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKLL
Surrogates	Toluene-d8	123	74	112	↑bias
	4-Bromofluorobenzene	129	46	118	matrix

Primary Review: [signature] 2/1/16

Secondary Review: [signature] 2/2/16

Printed: 02/01/2016 14:34:45
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F009.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 13:10	**Quant Date:**	01/29/2016 13:38	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600798-2 -- K1600554-002DMS			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
Prep Ref:	1496768	**Prep Date:**	01/29/2016		

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\012916_SIM\0129F012.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.54	0.00	96	74291	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	55078	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.02	0.00	152	30465	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	18221	1,078	108	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	66246	1,226	123	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	28535m	1,286	129	46-118	*	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	35635	1,180	1180		
1	Vinyl Chloride	1.43		0.00	62	56051	2,078	2080		
1	1,1-Dichloroethene	2.58		0.00	96	16939	1,084	1080		
1	Methylene Chloride	3.29		0.00	84	35207	1,431	1430	J	
1	trans-1,2-Dichloroethene	3.58	0.01	0.00	96	25851	1,358	1360		
1	cis-1,2-Dichloroethene	5.18		0.00	96	52205	2,491	2490		
1	Chloroform	5.61		0.00	83	51830	1,351	1350		
1	Carbon Tetrachloride	5.85		0.00	117	23854	1,090	1090		
1	Benzene	6.17		0.00	78	107700	1,289	1290		
1	1,2-Dichloroethane	6.33		0.00	62	43757	1,628	1630		
1	Trichloroethene (TCE)	6.92		0.00	95	52581	2,696	2700		
1	Bromodichloromethane	7.55		0.00	83	38155	1,475	1480		
1	1,1,2-Trichloroethane	8.81		0.00	83	21888	1,563	1560		
1	Dibromochloromethane	9.16		0.00	129	25617	1,550	1550		
1	1,2-Dibromoethane (EDB)	9.27		0.00	107	21928	1,532	1530		

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:\MS27\DATA\012916_SIM\0129F009.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 13:10	**Quant Date:**	01/29/2016 13:38	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600798-2 -- K1600554-002DMS			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	59870	1,341	1340		
2	Ethylbenzene	9.80		0.00	106	31468	1,351	1350		
2	m,p-Xylenes	9.93		0.00	106	77940	2,681	2680		
2	o-Xylene	10.33		0.00	106	41408	1,440	1440		
2	1,1,2,2-Tetrachloroethane	11.09	-0.01	0.00	83	30059	1,676	1680		
2	Tetrachloroethene (PCE)	8.78		0.00	164	18755	1,204	1200		
3	1,4-Dichlorobenzene	12.05		0.00	146	74646	1,570	1570		

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:\MS27\DATA\012916_SIM\0129F009.D Vial: 6
Acq On : 29 Jan 2016 1:10 pm Operator: GH
Sample : K0554-002DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:35:59 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

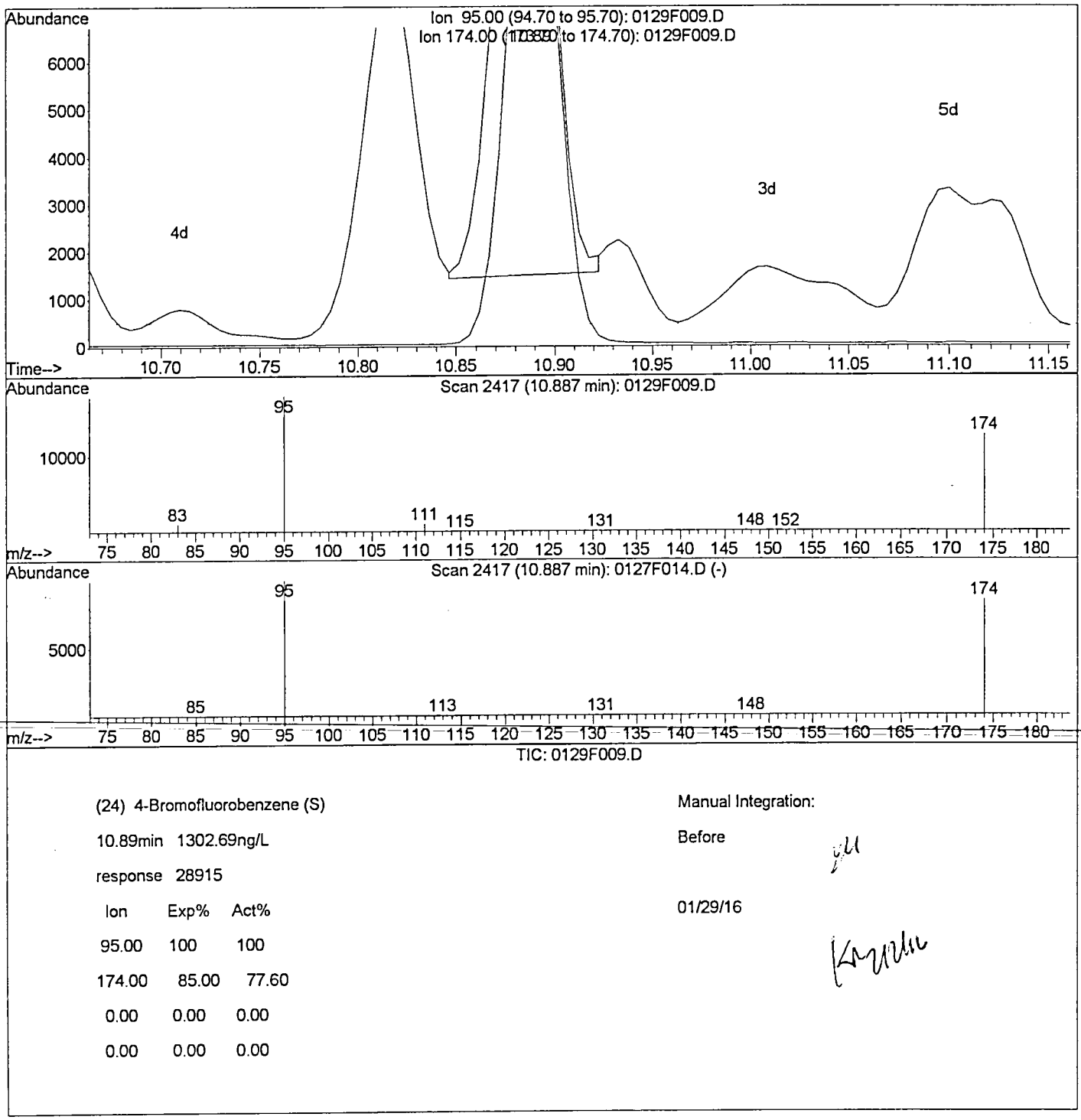
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	74291	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	55078	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	30465	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	18221	1077.82	ng/L	0.00
Spiked Amount 1000.000			Recovery = 107.78%			
15) Toluene-d8	8.21	98	66246	1226.21	ng/L	0.00
Spiked Amount 1000.000			Recovery = 122.62%			
24) 4-Bromofluorobenzene	10.89	95	28535m	1285.57	ng/L	0.00
Spiked Amount 1000.000			Recovery = 128.56%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	35635	1179.93	ng/L	99
3) Vinyl Chloride	1.43	62	56051	2078.08	ng/L	99
4) 1,1-Dichloroethene	2.58	96	16939	1083.62	ng/L	97
5) Methylene Chloride	3.29	84	35207	1430.90	ng/L	97
6) trans-1,2-Dichloroethene	3.58	96	25851	1357.70	ng/L	98
7) cis-1,2-Dichloroethene	5.18	96	52205	2491.30	ng/L	99
8) Chloroform	5.61	83	51830	1351.30	ng/L	99
10) Carbon Tetrachloride	5.85	117	23854	1090.46	ng/L	99
11) Benzene	6.17	78	107700	1289.41	ng/L	99
12) 1,2-Dichloroethane	6.33	62	43757	1627.89	ng/L	99
13) Trichloroethene	6.92	95	52581	2696.12	ng/L	100
14) Bromodichloromethane	7.55	83	38155	1475.13	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	21888	1563.37	ng/L	99
17) Dibromochloromethane	9.16	129	25617	1550.49	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	21928	1532.30	ng/L	98
20) Toluene	8.28	92	59870	1340.83	ng/L	100
21) Ethylbenzene	9.80	106	31468	1350.67	ng/L	98
22) m,p-Xylenes	9.93	106	77940	2680.74	ng/L	100
23) o-Xylene	10.33	106	41408	1440.33	ng/L	100
25) 1,1,2,2-Tetrachloroethane	11.09	83	30059	1675.69	ng/L	99
26) Tetrachloroethene	8.78	164	18755	1203.69	ng/L	99
28) 1,4-Dichlorobenzene	12.05	146	74646	1569.90	ng/L	100

(#) = qualifier out of range (m) = manual integration
0129F009.D 012716MS27_8260SIM.M Fri Jan 29 13:38:43 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F009.D Vial: 6
Acq On : 29 Jan 2016 1:10 pm Operator: GH
Sample : K0554-002DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:35 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0129F009.D

(24) 4-Bromofluorobenzene (S)

10.89min 1302.69ng/L

response 28915

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	77.60
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

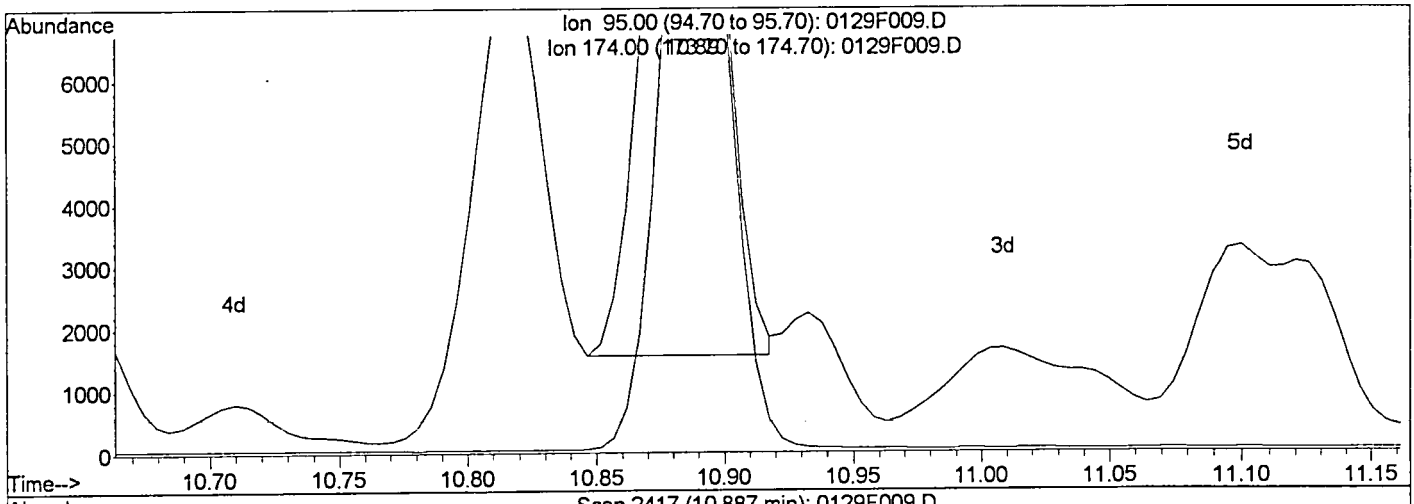
01/29/16

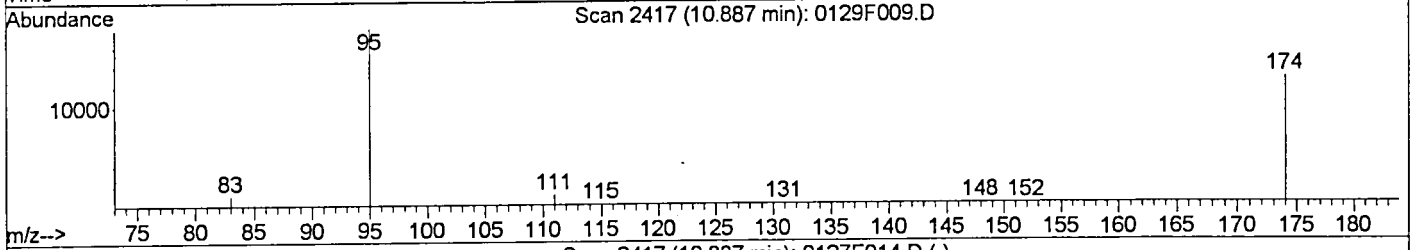
0129F009.D 012716MS27_8260SIM.M Fri Jan 29 13:38:11 2016

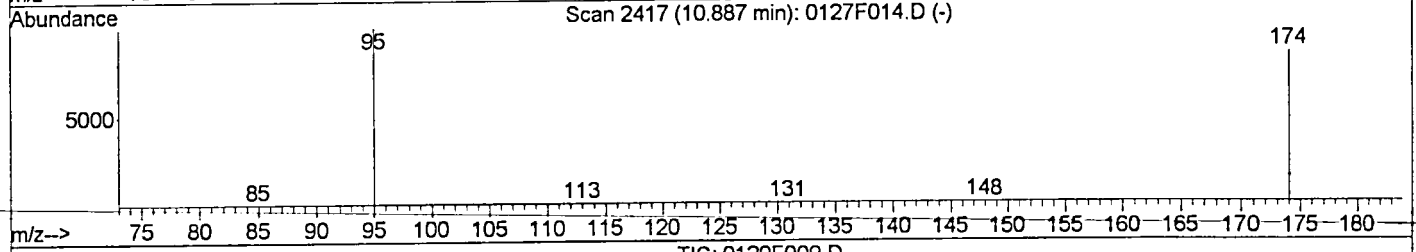
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F009.D Vial: 6
Acq On : 29 Jan 2016 1:10 pm Operator: GH
Sample : K0554-002DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F009.D

(24) 4-Bromofluorobenzene (S)

10.89min 1285.57ng/L m

response 28535

Ion	Exp%	Act%
95.00	100	100
174.00	85.00	71.15
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

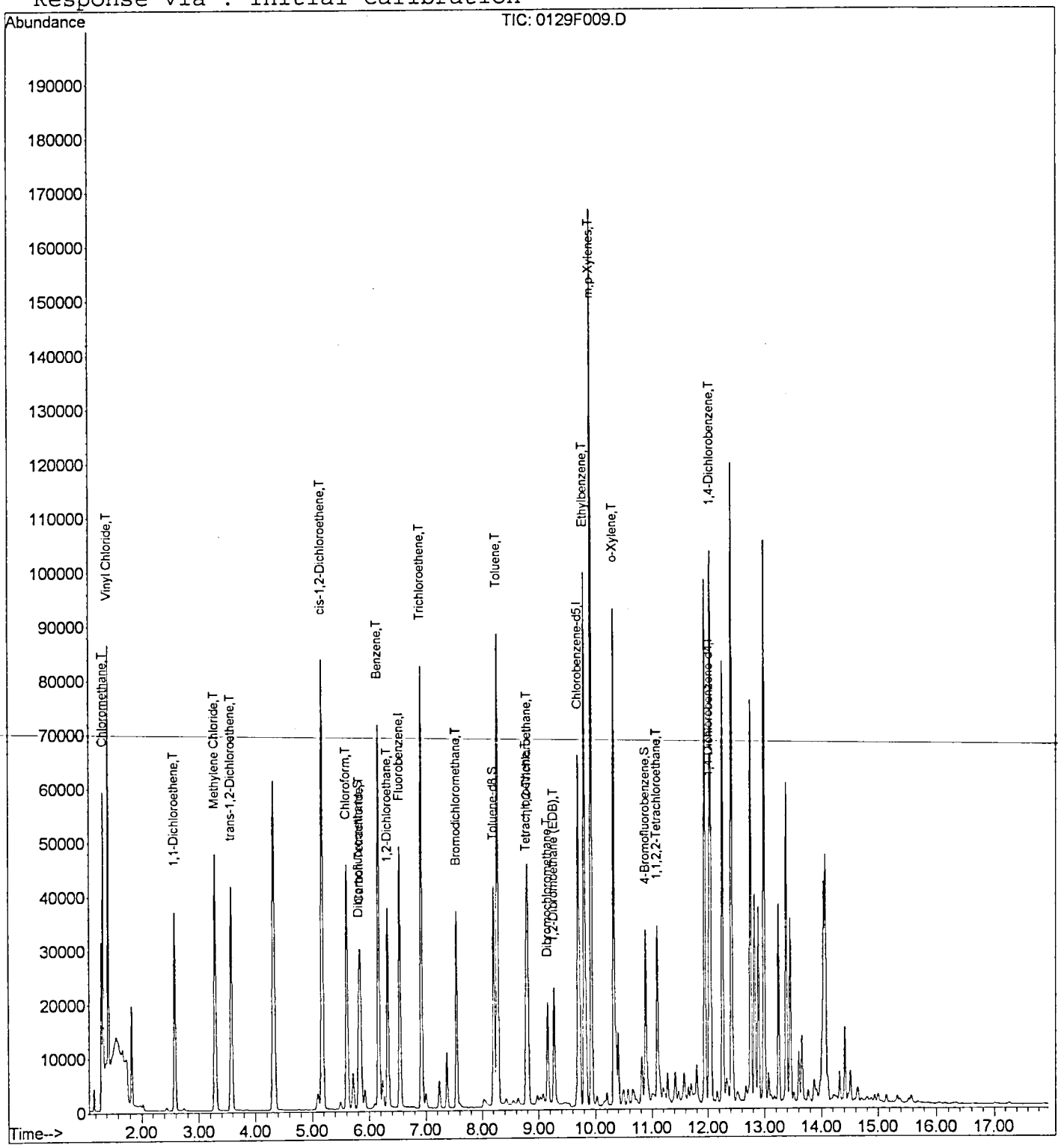
01/29/16

0129F009.D 012716MS27_8260SIM.M Fri Jan 29 13:38:23 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F009.D Vial: 6
Acq On : 29 Jan 2016 1:10 pm Operator: GH
Sample : K0554-002DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:38 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



0129F009.D 012716MS27_8260SIM.M Fri Jan 29 13:38:43 2016 Page 2

Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F006.D
Lab ID: KWG1600835-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 02/01/2016 11:28
Date Quantitated: 02/01/2016 13:22
Batch ID: KWG1600834
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Carbon Tetrachloride	21.0	NA	20	NT
	Toluene-d8	20.9	NA	20	CCV okay
Surrogates	Toluene-d8	122	74	112	high bias analytes okay

Primary Review: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 15:36:15
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F006.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 11:28	**Quant Date:**	02/01/2016 13:22	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600835-1 -- K1600673-004MS			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**	KWG1600835	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	02/01/2016		
Prep Ref:	1496976				

Quant Method:	J:\MS27\METHODS\012716MS27_8			**Calibration ID:**	CAL14562
Title:					
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D			**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\020116_SIM\0201F011.D			**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.54	0.00	96	69428	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	50764	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.00	152	28125	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17504	1,108	111	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	61826	1,225	122	74-112	*	
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	23442	1,146	115	46-118	OK	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	58582	2,076	2080		
1	Vinyl Chloride	1.43		0.00	62	57266	2,272	2270		
1	1,1-Dichloroethene	2.58		0.00	96	33511	2,294	2290		
1	Methylene Chloride	3.29		0.00	84	46168	2,008	2010		
1	trans-1,2-Dichloroethene	3.57		0.00	96	39087	2,197	2200		
1	cis-1,2-Dichloroethene	5.18		0.00	96	41699	2,129	2130		
1	Chloroform	5.61		0.00	83	74063	2,066	2070		
1	Carbon Tetrachloride	5.84		0.00	117	48386	2,367	2370		
1	Benzene	6.16		0.00	78	163055	2,089	2090		
1	1,2-Dichloroethane	6.32	-0.01	0.00	62	51959	2,068	2070		
1	Trichloroethene (TCE)	6.92		0.00	95	40590	2,227	2230		
1	Bromodichloromethane	7.55		0.00	83	50013	2,069	2070		
1	1,1,2-Trichloroethane	8.81		0.00	83	25997	1,987	1990		
1	Dibromochloromethane	9.16		0.00	129	31578	2,045	2050		
1	1,2-Dibromoethane (EDB)	9.27		0.00	107	26002	1,944	1940		

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:\MS27\DATA\020116_SIM\0201F006.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 11:28	**Quant Date:**	02/01/2016 13:22	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600835-1 -- K1600673-004MS			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	97555	2,370	2370		
2	Ethylbenzene	9.80		0.00	106	48429	2,255	2260		
2	m,p-Xylenes	9.93		0.00	106	118578	4,425	4430		
2	o-Xylene	10.33	0.01	0.00	106	58461	2,206	2210		
2	1,1,2,2-Tetrachloroethane	11.09		0.00	83	31691	1,917	1920		
2	Tetrachloroethene (PCE)	8.78		0.00	164	32174	2,240	2240		
3	1,4-Dichlorobenzene	12.05		0.00	146	88783	2,023	2020		

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:\MS27\DATA\020116_SIM\0201F006.D Vial: 5
Acq On : 1 Feb 2016 11:28 am Operator: GH
Sample : K0673-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 13:22:19 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

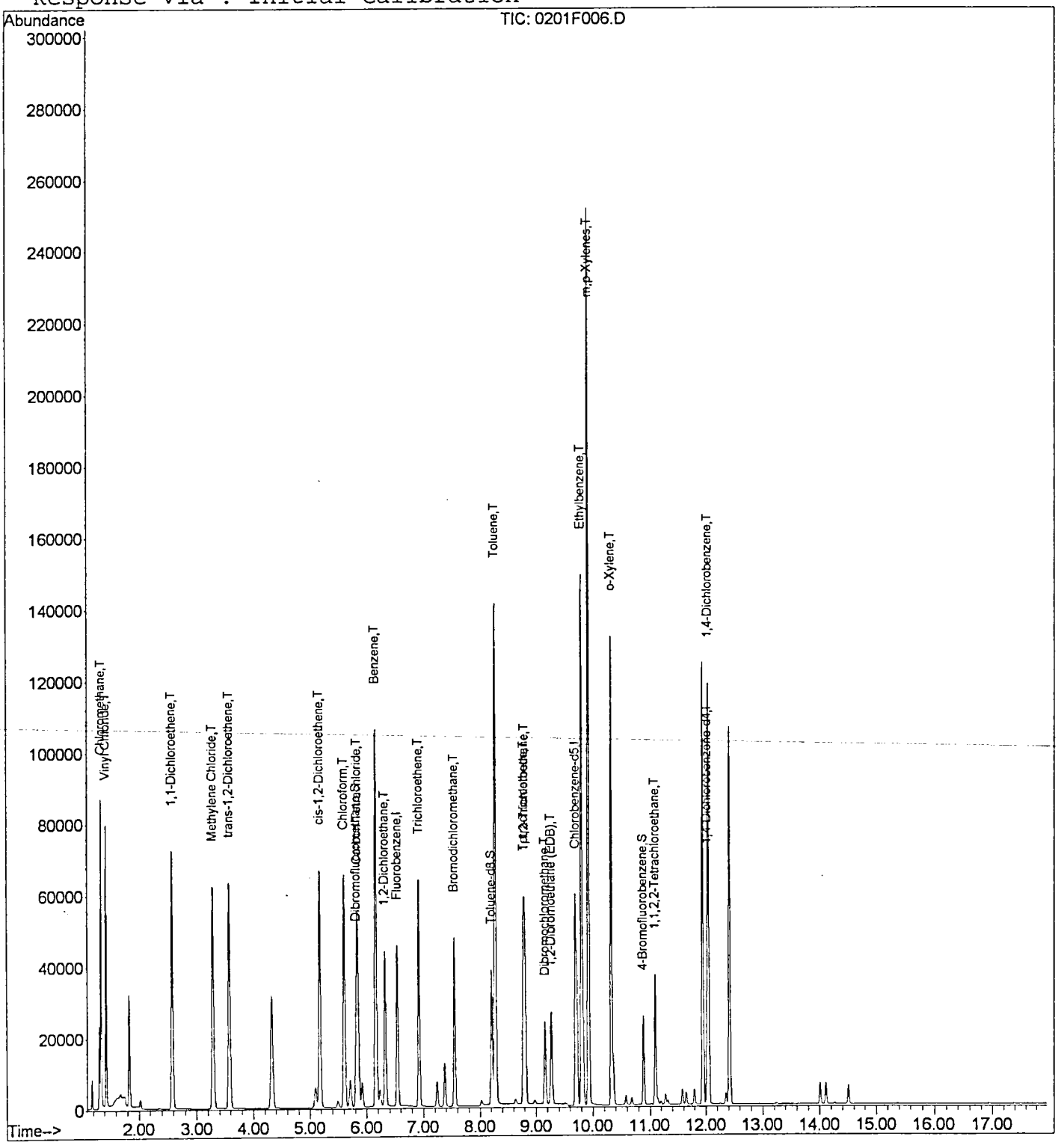
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	69428	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	50764	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	28125	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17504	1107.93	ng/L	0.00
Spiked Amount 1000.000			Recovery = 110.79%			
15) Toluene-d8	8.21	98	61826	1224.55	ng/L	0.00
Spiked Amount 1000.000			Recovery = 122.46%			
24) 4-Bromofluorobenzene	10.88	95	23442	1145.87	ng/L	0.00
Spiked Amount 1000.000			Recovery = 114.59%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	58582	2075.60	ng/L	99
3) Vinyl Chloride	1.43	62	57266	2271.84	ng/L	99
4) 1,1-Dichloroethene	2.58	96	33511	2293.92	ng/L	98
5) Methylene Chloride	3.29	84	46168	2007.81	ng/L	99
6) trans-1,2-Dichloroethene	3.57	96	39087	2196.64	ng/L	99
7) cis-1,2-Dichloroethene	5.18	96	41699	2129.32	ng/L	98
8) Chloroform	5.61	83	74063	2066.20	ng/L	99
10) Carbon Tetrachloride	5.84	117	48386	2366.85	ng/L	99
11) Benzene	6.16	78	163055	2088.87	ng/L	100
12) 1,2-Dichloroethane	6.32	62	51959	2068.42	ng/L	99
13) Trichloroethene	6.92	95	40590	2227.06	ng/L	99
14) Bromodichloromethane	7.55	83	50013	2069.02	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	25997	1986.92	ng/L	98
17) Dibromochloromethane	9.16	129	31578	2045.16	ng/L	100
18) 1,2-Dibromoethane (EDB)	9.27	107	26002	1944.26	ng/L	99
20) Toluene	8.28	92	97555	2370.48	ng/L	99
21) Ethylbenzene	9.80	106	48429	2255.31	ng/L	99
22) m,p-Xylenes	9.93	106	118578	4425.07	ng/L	100
23) o-Xylene	10.33	106	58461	2206.31	ng/L	98
25) 1,1,2,2-Tetrachloroethane	11.09	83	31691	1916.81	ng/L	100
26) Tetrachloroethene	8.78	164	32174	2240.40	ng/L	98
28) 1,4-Dichlorobenzene	12.05	146	88783	2022.57	ng/L	99

(#) = qualifier out of range (m) = manual integration
0201F006.D 012716MS27_8260SIM.M Mon Feb 01 15:26:38 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F006.D Vial: 5
Acq On : 1 Feb 2016 11:28 am Operator: GH
Sample : K0673-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:22 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



0201F006.D 012716MS27_8260SIM.M Mon Feb 01 15:26:38 2016 Page 2

Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F007.D
Lab ID: KWG1600835-2 -- K1600673-004DMS
RunType: DMS
Matrix: WATER

Date Acquired: 02/01/2016 11:56
Date Quantitated: 02/01/2016 13:22
Batch ID: KWG1600834
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Carbon Tetrachloride	21.0	NA	20	NT
	Toluene-d8	20.9	NA	20	ccv okay
Surrogates	Toluene-d8	123	74	112	analytes okay

Primary Review: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 15:36:18
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F007.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 11:56	**Quant Date:**	02/01/2016 13:22	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600835-2 -- K1600673-004DMS			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**	KWG1600835	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	02/01/2016		
Prep Ref:	1496977				

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
MB Ref:	J:\MS27\DATA\020116_SIM\0201F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.54	0.00	96	70834	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	51754	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.00	152	27454	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17707	1,099	110	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	63237	1,228	123	74-112	*	
2	4-Bromofluorobenzene	10.88	0.00	0.00	95	23574	1,130	113	46-118	OK	

Final Conc. Units: ng/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	55294	1,920	1920		
1	Vinyl Chloride	1.43		0.00	62	53149	2,067	2070		
1	1,1-Dichloroethene	2.58		0.00	96	31366	2,104	2100		
1	Methylene Chloride	3.29		0.00	84	45858	1,955	1950	J	
1	trans-1,2-Dichloroethene	3.58	0.01	0.00	96	36593	2,016	2020		
1	cis-1,2-Dichloroethene	5.18		0.00	96	39567	1,980	1980		
1	Chloroform	5.61		0.00	83	70720	1,934	1930		
1	Carbon Tetrachloride	5.85	0.01	0.00	117	45186	2,166	2170		
1	Benzene	6.17	0.01	0.00	78	154911	1,945	1950		
1	1,2-Dichloroethane	6.33		0.00	62	51292	2,001	2000		
1	Trichloroethene (TCE)	6.92		0.00	95	38535	2,072	2070		
1	Bromodichloromethane	7.55		0.00	83	48465	1,965	1970		
1	1,1,2-Trichloroethane	8.81		0.00	83	25968	1,945	1950		
1	Dibromochloromethane	9.16		0.00	129	31499	2,000	2000		
1	1,2-Dibromoethane (EDB)	9.27		0.00	107	26492	1,942	1940		

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:\MS27\DATA\020116_SIM\0201F007.D		**Instrument:** MS27
Acqu Date:	02/01/2016 11:56	**Quant Date:** 02/01/2016 13:22	**Vial:** 5
Run Type:	DMS		**Dilution:** 1.0
Lab ID:	KWG1600835-2 -- K1600673-004DMS		**Soln Conc. Units:** ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	93218	2,222	2220		
2	Ethylbenzene	9.80		0.00	106	46065	2,104	2100		
2	m,p-Xylenes	9.93		0.00	106	112457	4,116	4120		
2	o-Xylene	10.33	0.01	0.00	106	55896	2,069	2070		
2	1,1,2,2-Tetrachloroethane	11.09		0.00	83	32628	1,936	1940		
2	Tetrachloroethene (PCE)	8.78		0.00	164	30342	2,072	2070		
3	1,4-Dichlorobenzene	12.05		0.00	146	84838	1,980	1980		

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:\MS27\DATA\020116_SIM\0201F007.D Vial: 5
Acq On : 1 Feb 2016 11:56 am Operator: GH
Sample : K0673-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 13:22:29 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

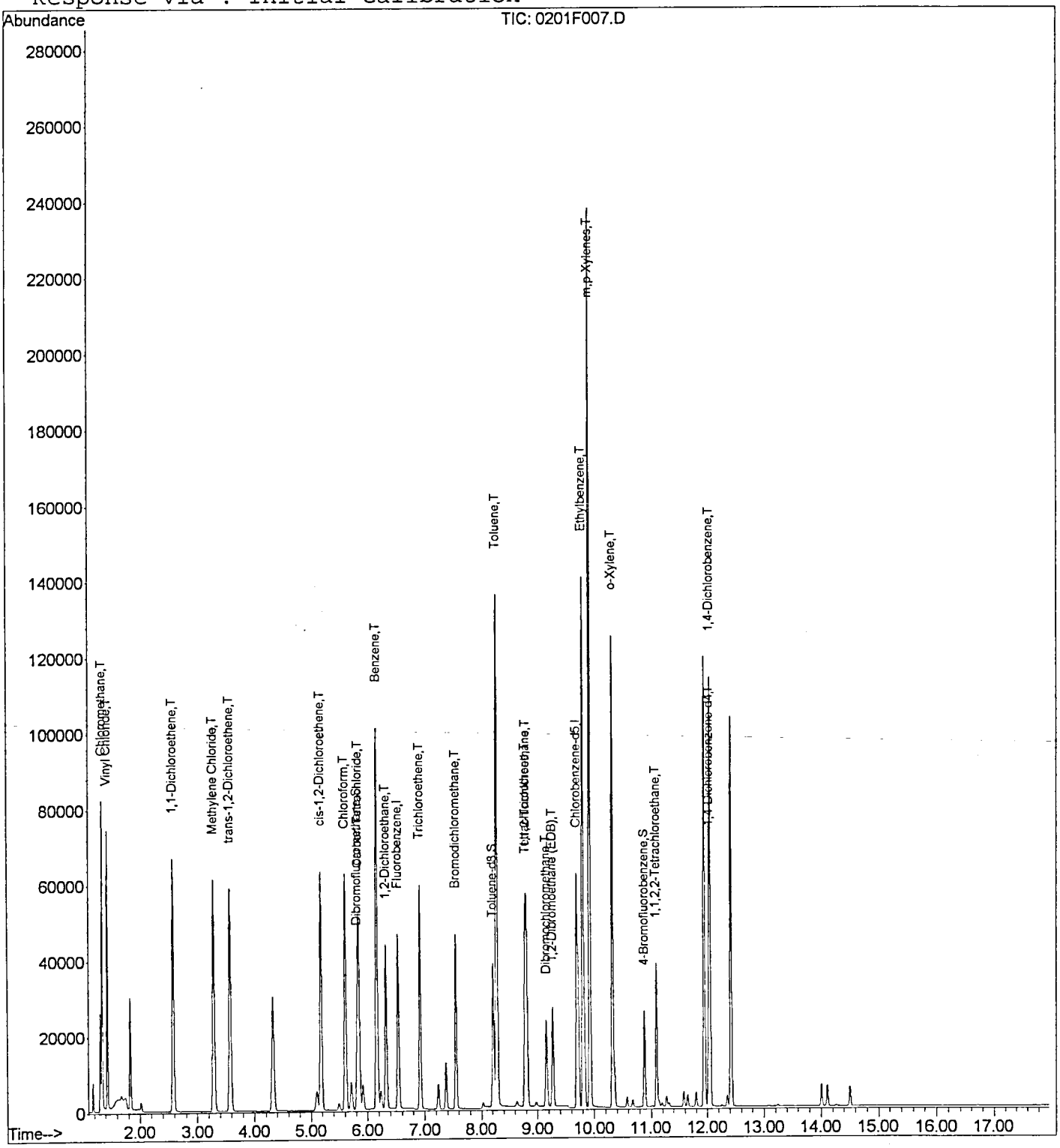
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	70834	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	51754	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	27454	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17707	1098.53	ng/L	0.00
Spiked Amount 1000.000			Recovery = 109.85%			
15) Toluene-d8	8.21	98	63237	1227.64	ng/L	0.00
Spiked Amount 1000.000			Recovery = 122.76%			
24) 4-Bromofluorobenzene	10.88	95	23574	1130.28	ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.03%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	55294	1920.22	ng/L	99
3) Vinyl Chloride	1.43	62	53149	2066.66	ng/L	99
4) 1,1-Dichloroethene	2.58	96	31366	2104.47	ng/L	99
5) Methylene Chloride	3.29	84	45858	1954.74	ng/L	98
6) trans-1,2-Dichloroethene	3.58	96	36593	2015.66	ng/L	98
7) cis-1,2-Dichloroethene	5.18	96	39567	1980.35	ng/L	99
8) Chloroform	5.61	83	70720	1933.78	ng/L	99
10) Carbon Tetrachloride	5.85	117	45186	2166.44	ng/L	99
11) Benzene	6.17	78	154911	1945.15	ng/L	99
12) 1,2-Dichloroethane	6.33	62	51292	2001.34	ng/L	99
13) Trichloroethene	6.92	95	38535	2072.34	ng/L	99
14) Bromodichloromethane	7.55	83	48465	1965.18	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	25968	1945.30	ng/L	99
17) Dibromochloromethane	9.16	129	31499	1999.55	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	26492	1941.58	ng/L	100
20) Toluene	8.28	92	93218	2221.77	ng/L	100
21) Ethylbenzene	9.80	106	46065	2104.18	ng/L	100
22) m,p-Xylenes	9.93	106	112457	4116.37	ng/L	99
23) o-Xylene	10.33	106	55896	2069.16	ng/L	99
25) 1,1,2,2-Tetrachloroethane	11.09	83	32628	1935.73	ng/L	100
26) Tetrachloroethene	8.78	164	30342	2072.42	ng/L	100
28) 1,4-Dichlorobenzene	12.05	146	84838	1979.93	ng/L	99

(#) = qualifier out of range (m) = manual integration
0201F007.D 012716MS27_8260SIM.M Mon Feb 01 15:26:39 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F007.D Vial: 5
Acq On : 1 Feb 2016 11:56 am Operator: GH
Sample : K0673-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:22 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration

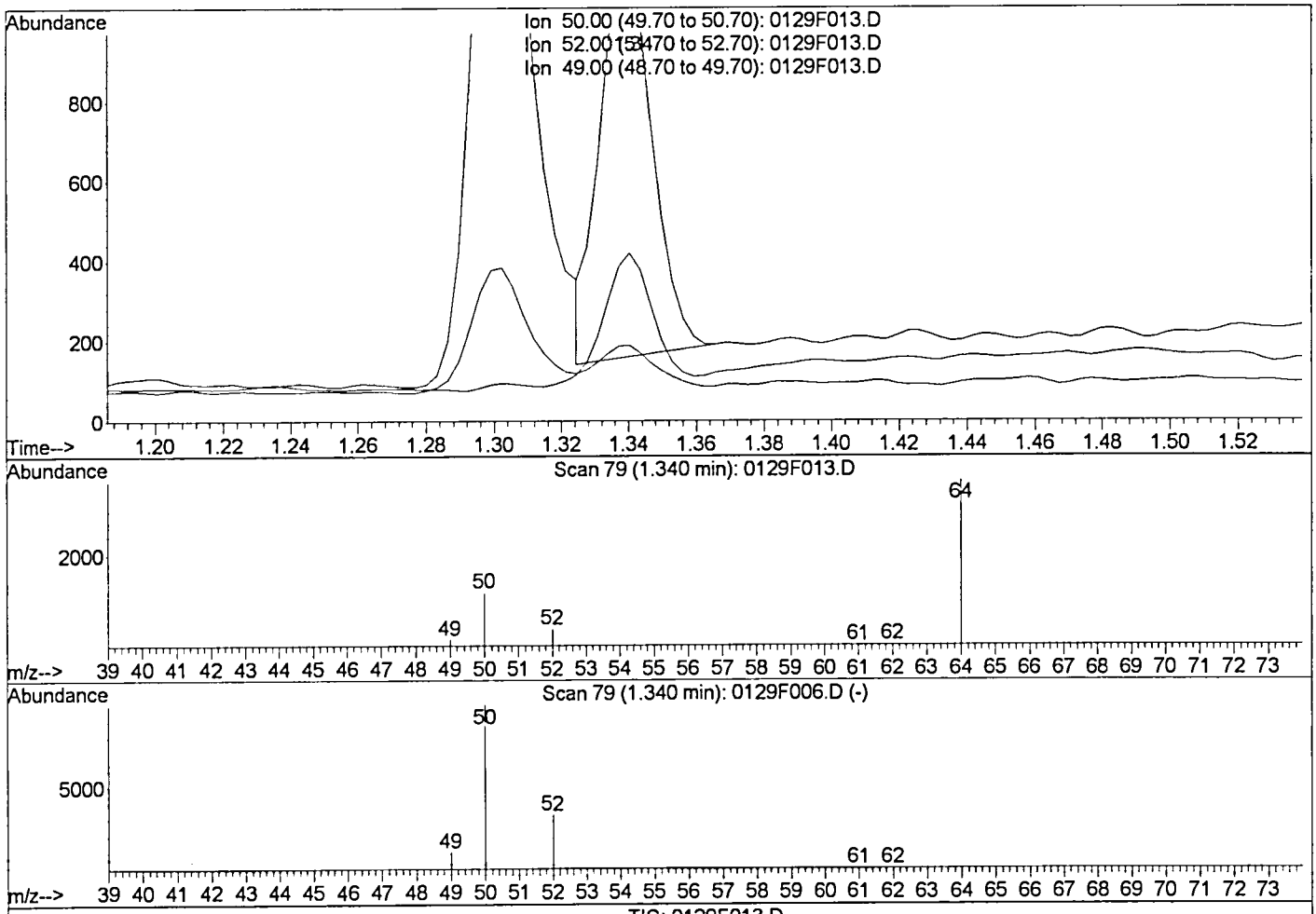


0201F007.D 012716MS27_8260SIM.M Mon Feb 01 15:26:39 2016 Page 2

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:39 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration



TIC: 0129F013.D

(2) Chloromethane (T)

1.34min 38.52ng/L

response 1079

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	30.25
49.00	10.10	10.25
0.00	0.00	0.00

Manual Integration:

Before

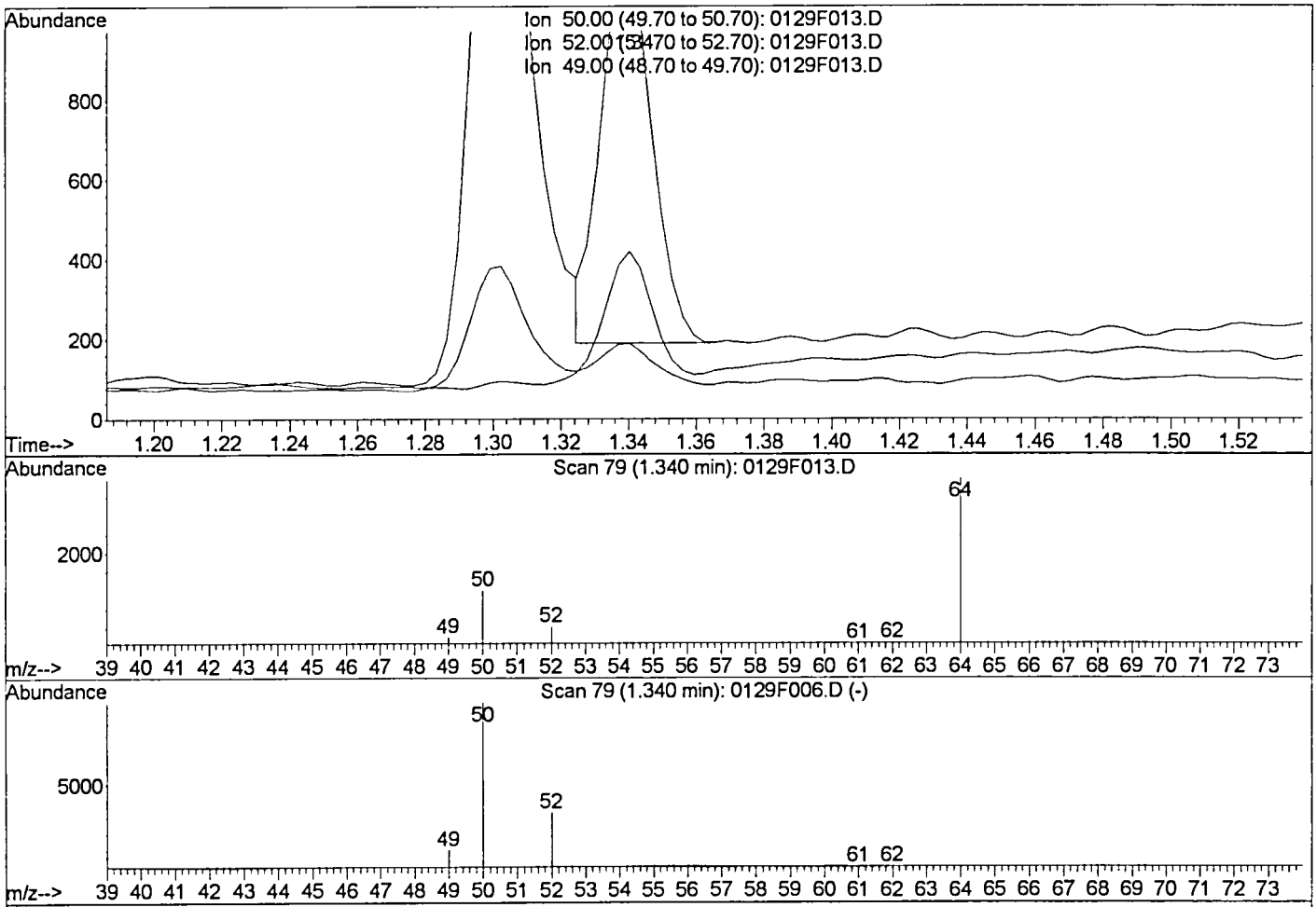
01/29/16

0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:44:27 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:44 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration



TIC: 0129F013.D

(2) Chloromethane (T)

1.34min 36.45ng/L m

response 1021

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	35.03
49.00	10.10	15.80
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

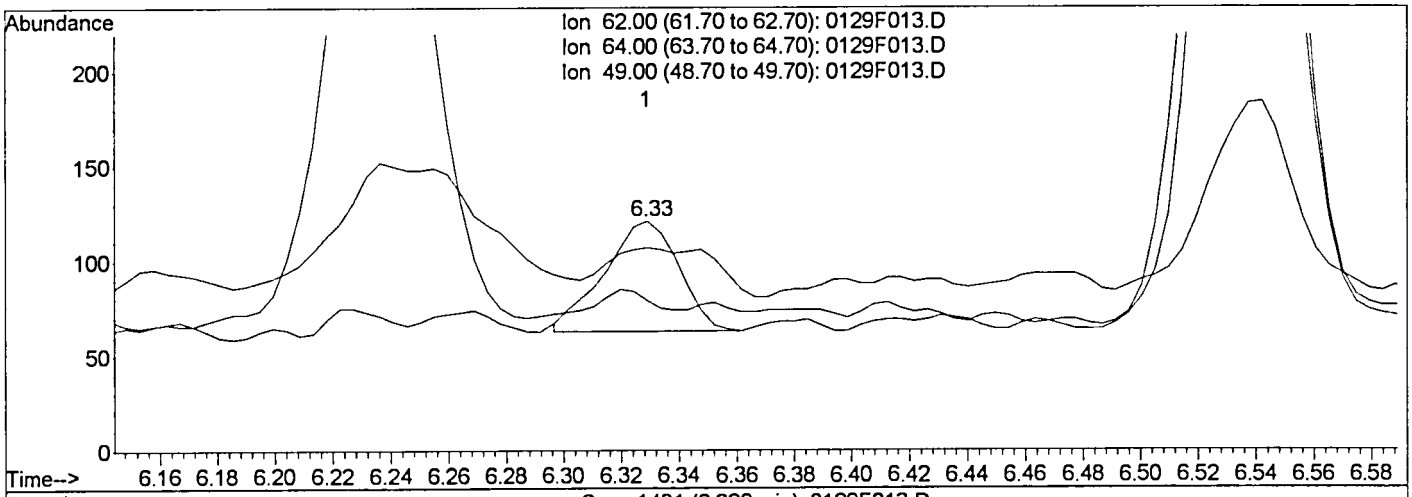
01/29/16

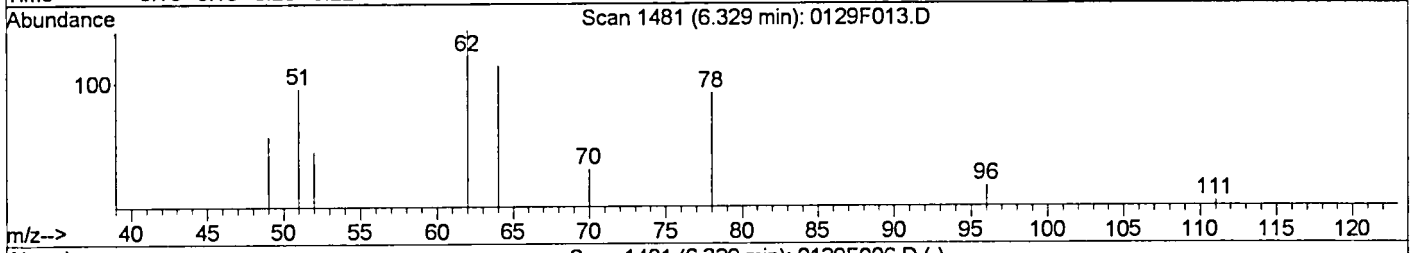
0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:44:35 2016

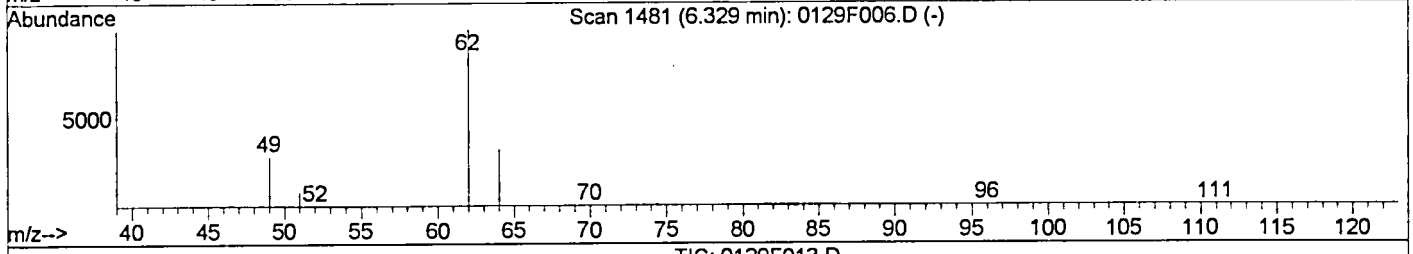
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:45 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F013.D

(12) 1,2-Dichloroethane (T)

6.33min 4.13ng/L

response 103

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	37.93
49.00	28.20	12.07
0.00	0.00	0.00

Manual Integration:

Before

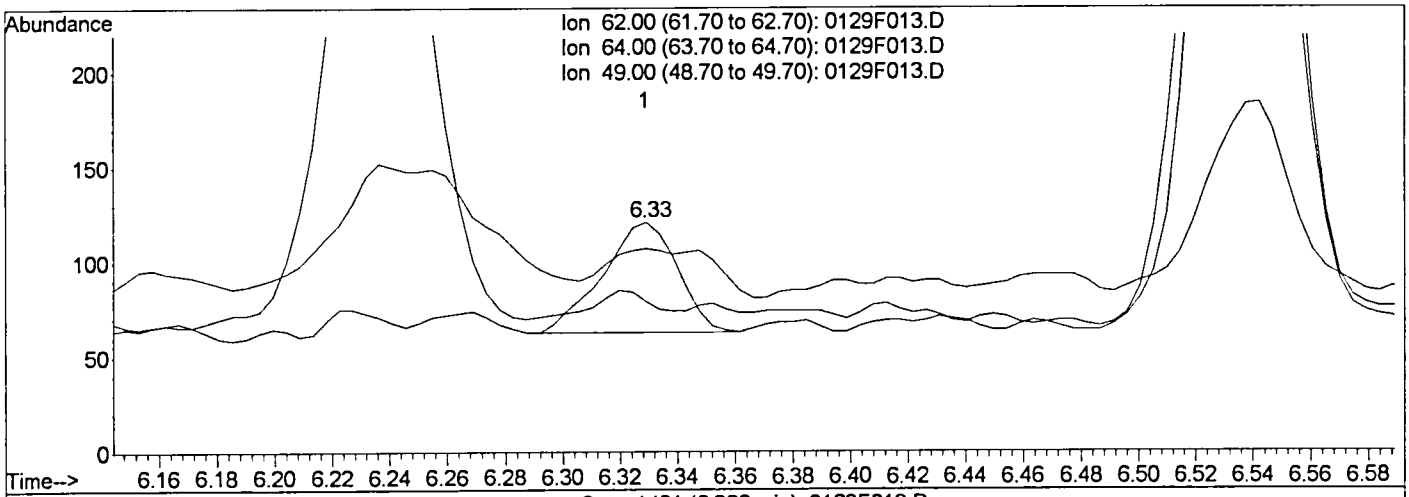
01/29/16

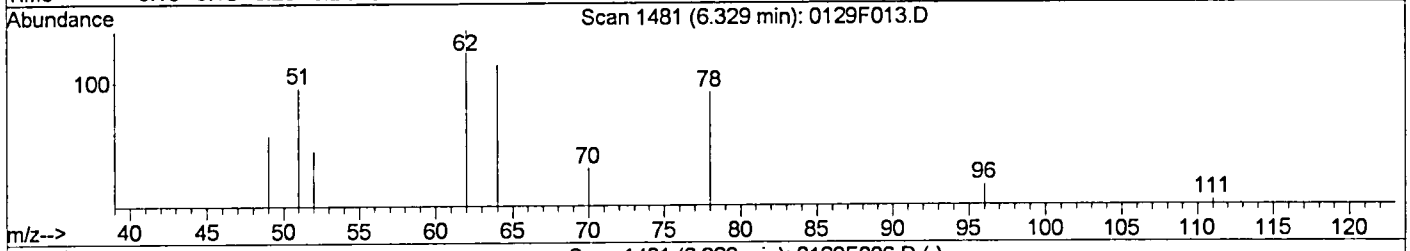
0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:45:14 2016

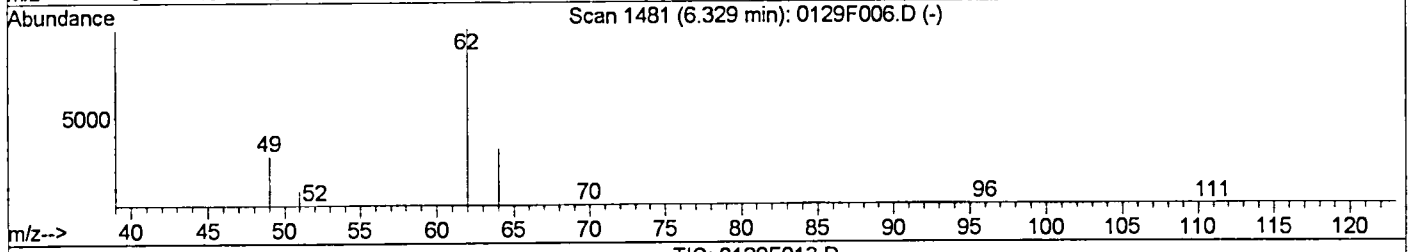
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:45 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F013.D

(12) 1,2-Dichloroethane (T)

6.33min 4.17ng/L m

response 104

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	88.43#
49.00	28.20	65.29#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

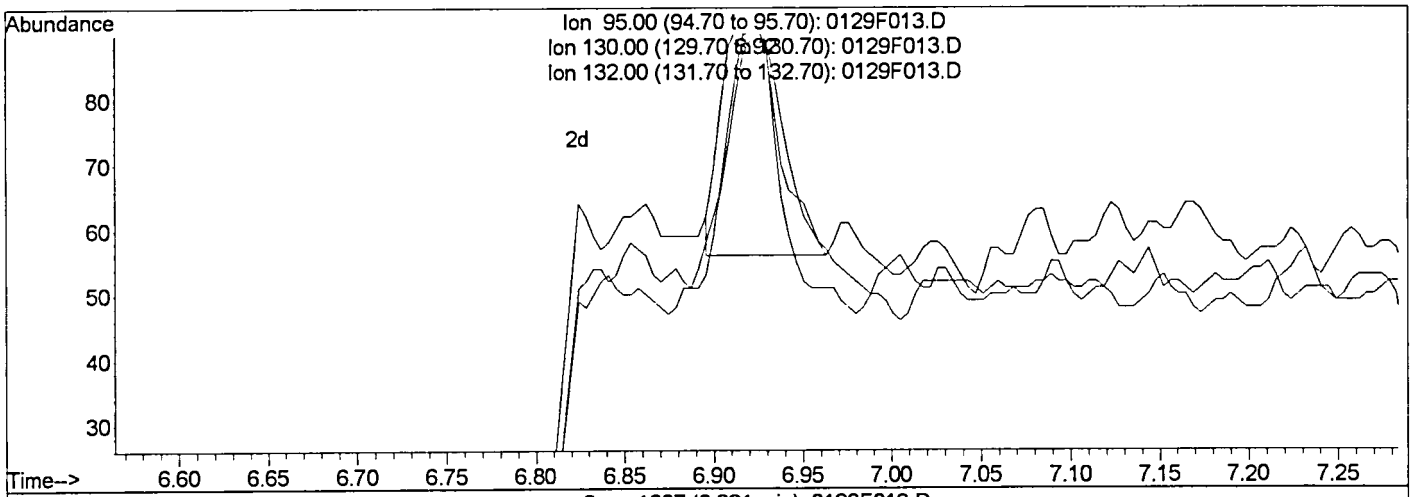
01/29/16

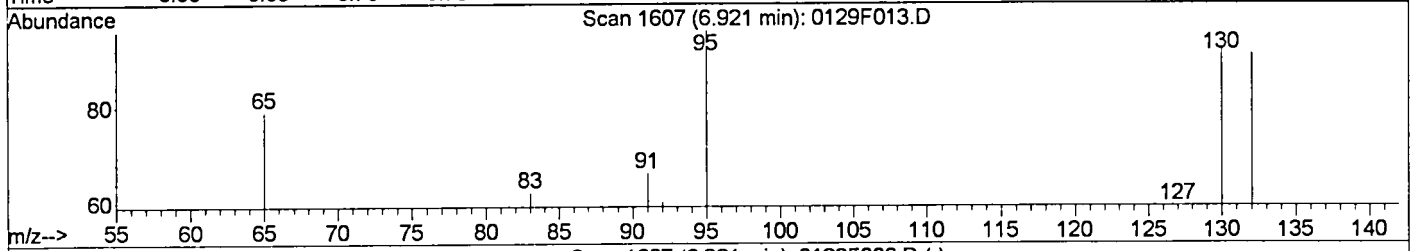
0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:45:22 2016

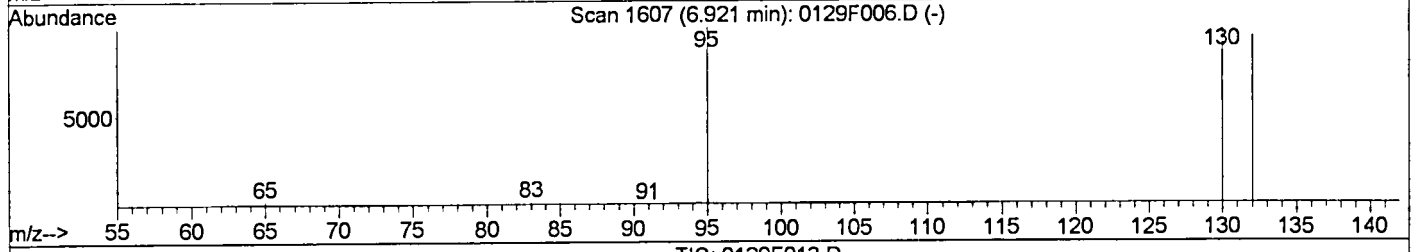
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:45 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F013.D

(13) Trichloroethene (T)

6.92min 4.81ng/L

response 87

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	97.50
132.00	93.90	100.00
0.00	0.00	0.00

Manual Integration:

Before

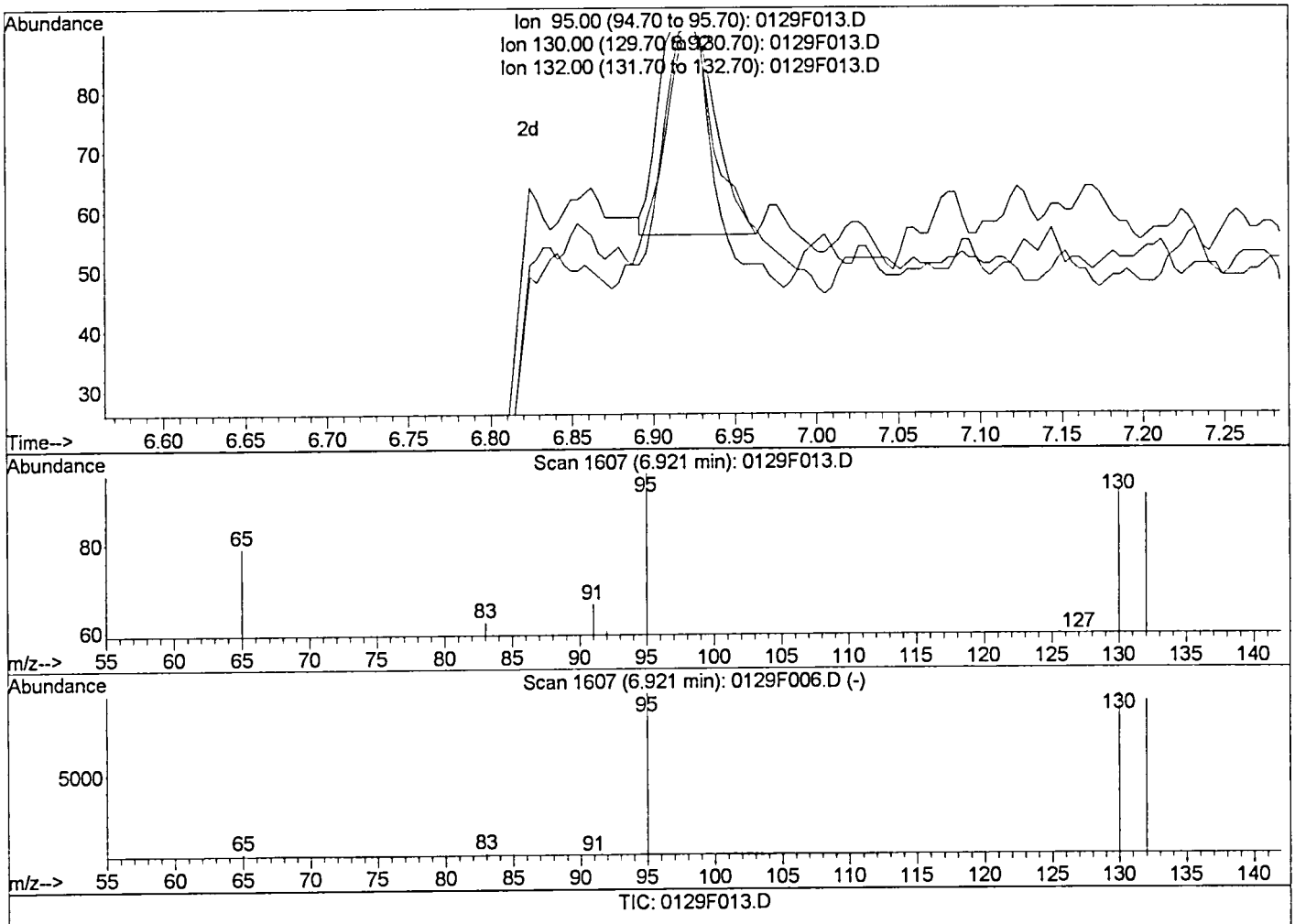
01/29/16

0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:45:26 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:45 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0129F013.D

(13) Trichloroethene (T)

6.92min 4.92ng/L m

response 89

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	95.83
132.00	93.90	94.79
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

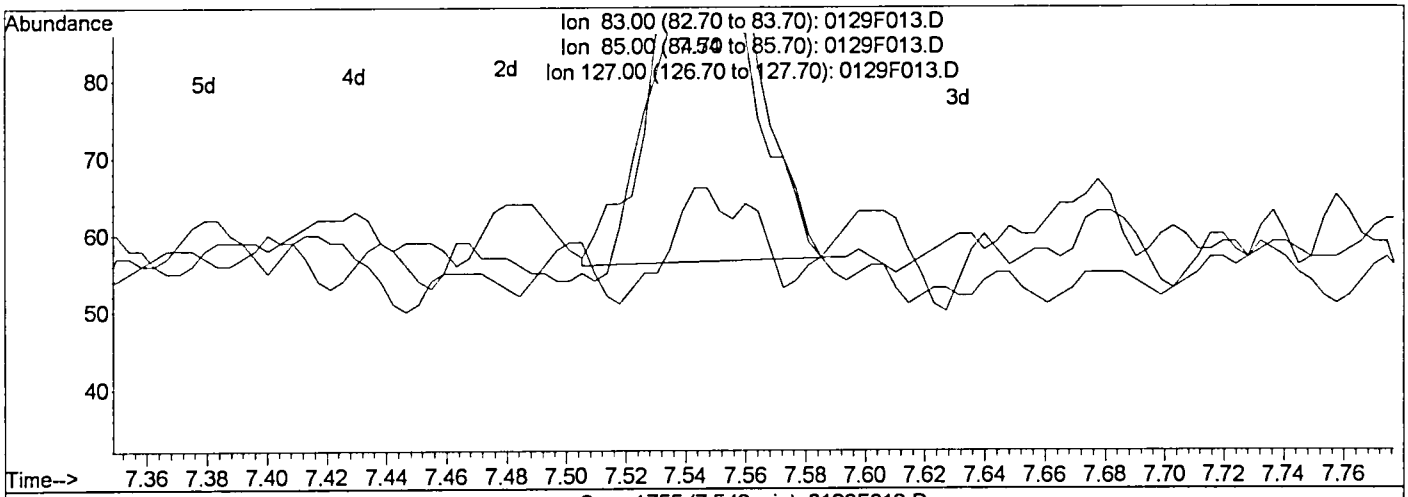
01/29/16

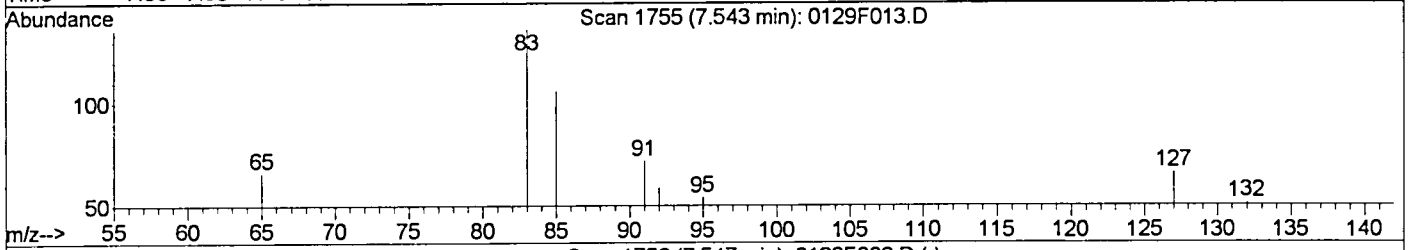
0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:45:49 2016

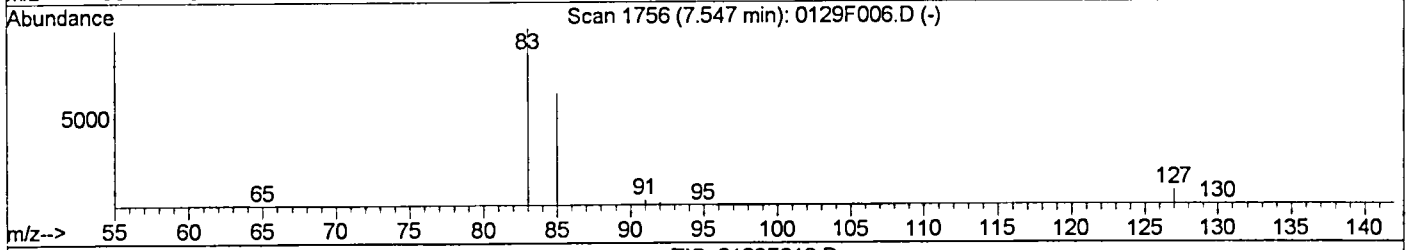
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:45 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F013.D

(14) Bromodichloromethane (T)

7.54min 6.25ng/L

response 150

Ion	Exp%	Act%
83.00	100	100
85.00	63.50	64.56
127.00	8.00	13.92
0.00	0.00	0.00

Manual Integration:

Before

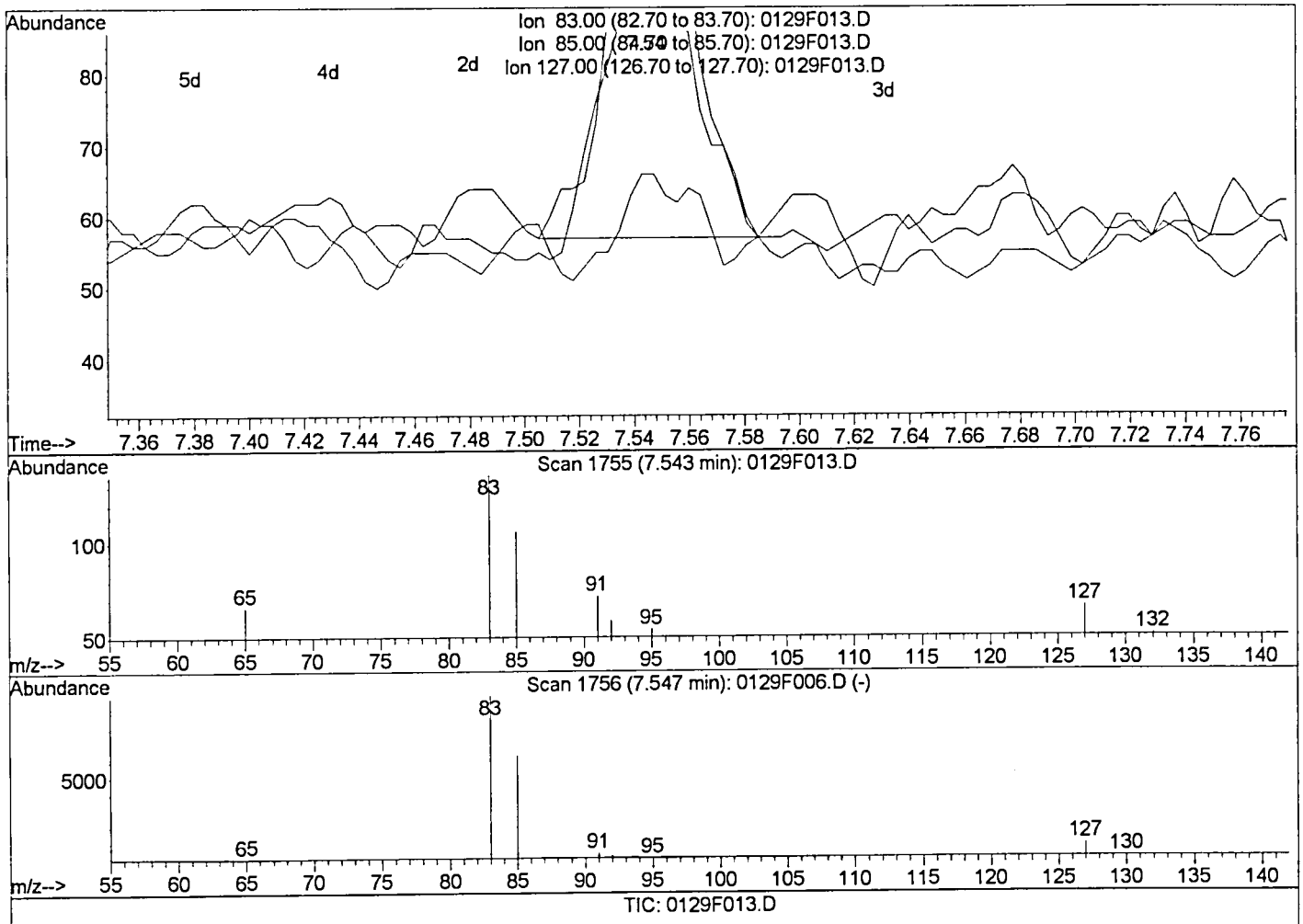
01/29/16

0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:46:09 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:46 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0129F013.D

(14) Bromodichloromethane (T)

7.54min 6.17ng/L m

response 148

Ion	Exp%	Act%
83.00	100	100
85.00	63.50	77.94
127.00	8.00	48.53#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

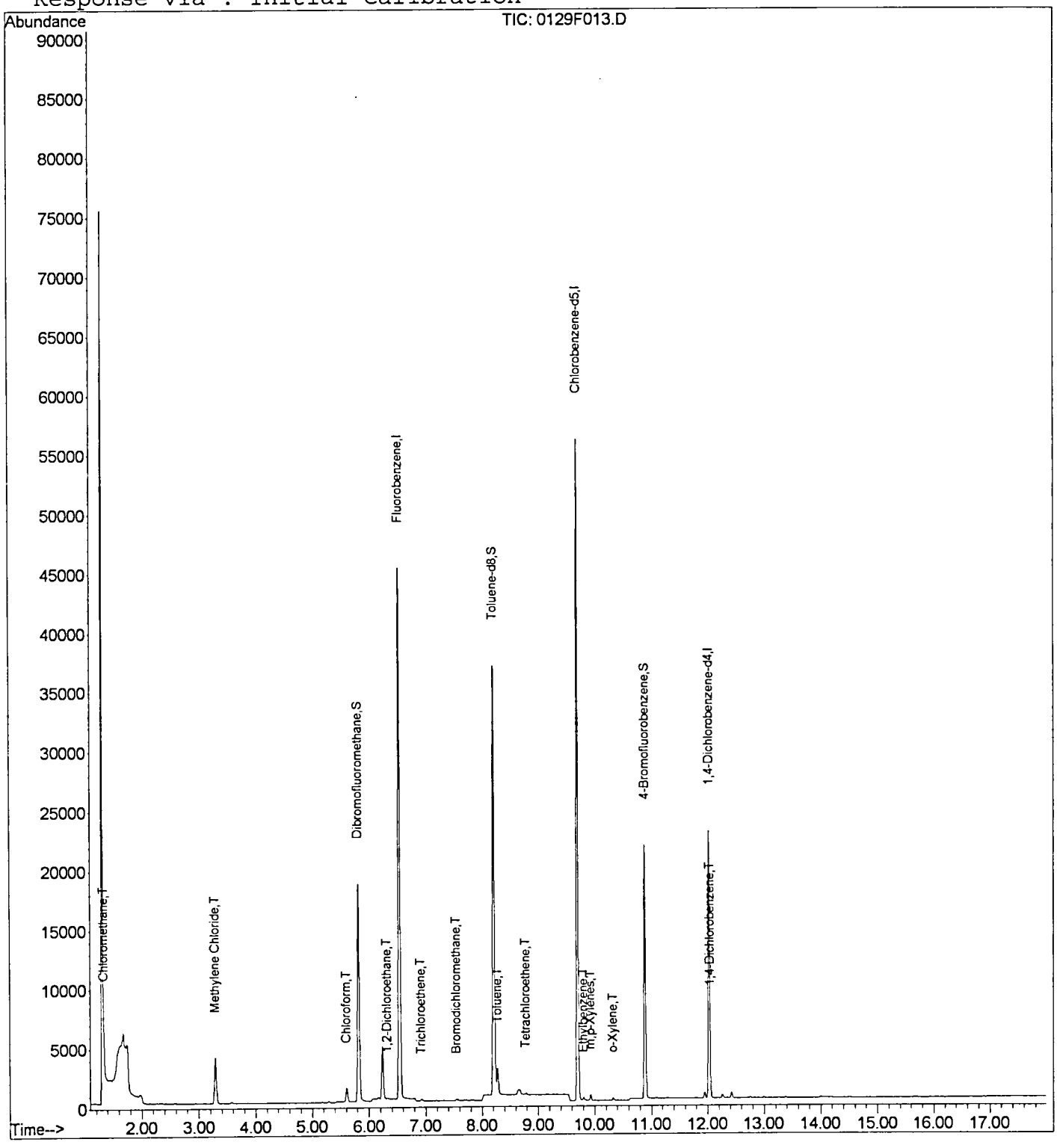
01/29/16

0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:46:16 2016

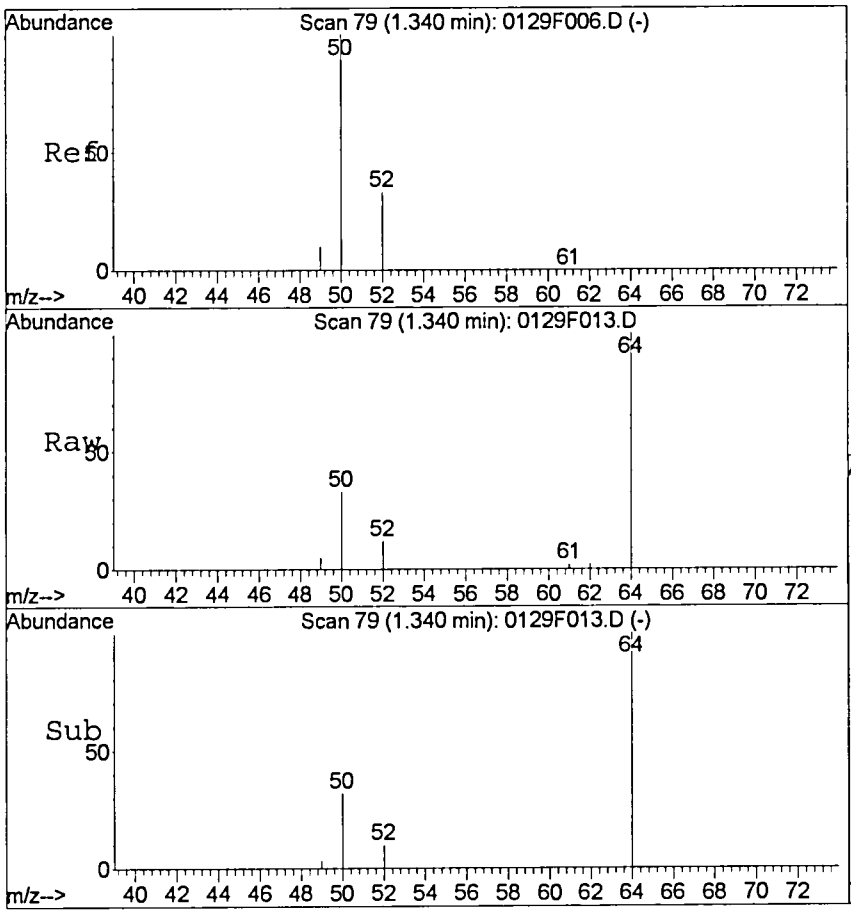
Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F013.D Vial: 10
Acq On : 29 Jan 2016 3:00 pm Operator: GH
Sample : K0673-015TB 110915 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:46 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



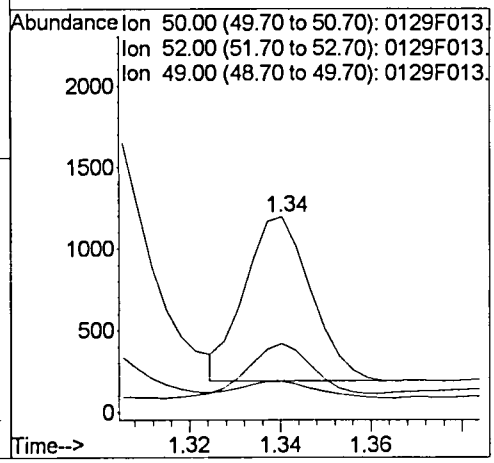
0129F013.D 012716MS27_8260SIM.M Fri Jan 29 15:47:22 2016 Page 2

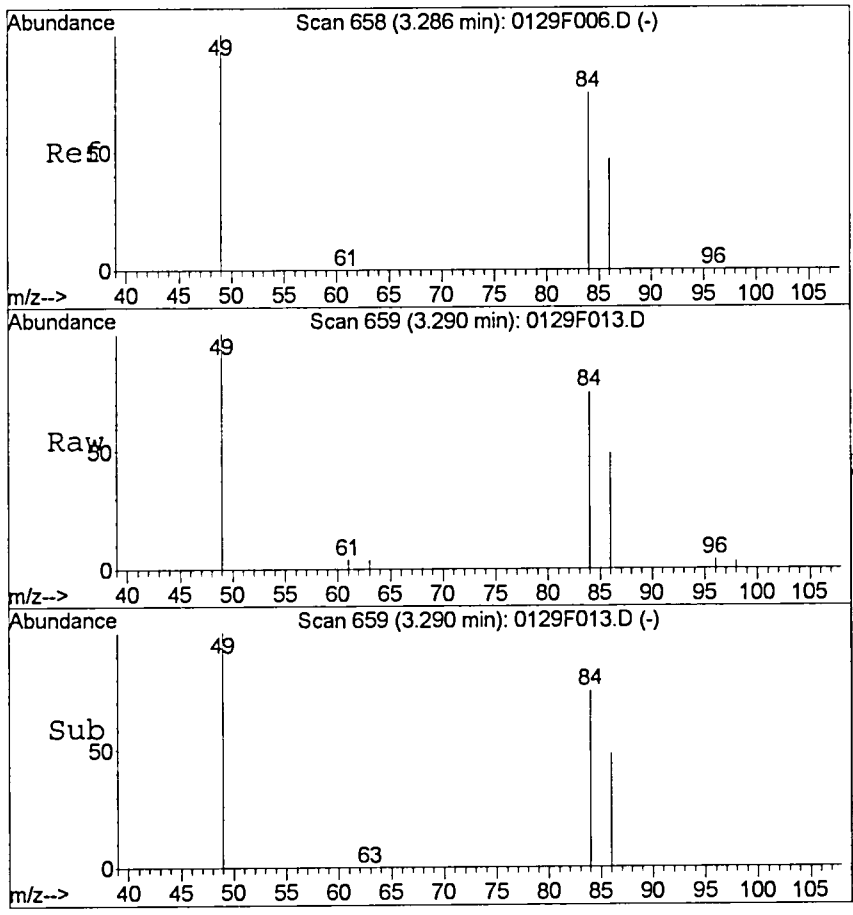


#2
Chloromethane
Concen: 36.45 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 50 Resp: 1021

Ion	Ratio	Lower	Upper
50	100		
52	35.0	2.9	62.9
49	15.8	0.0	40.1

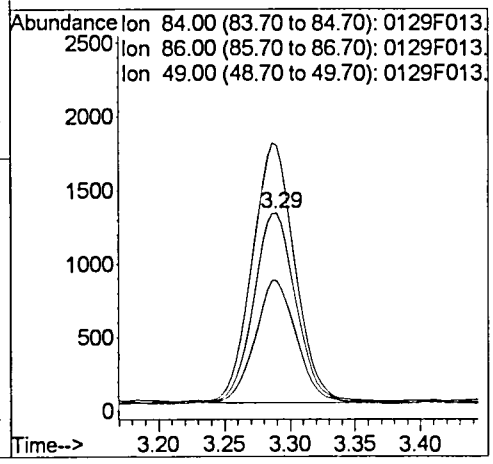


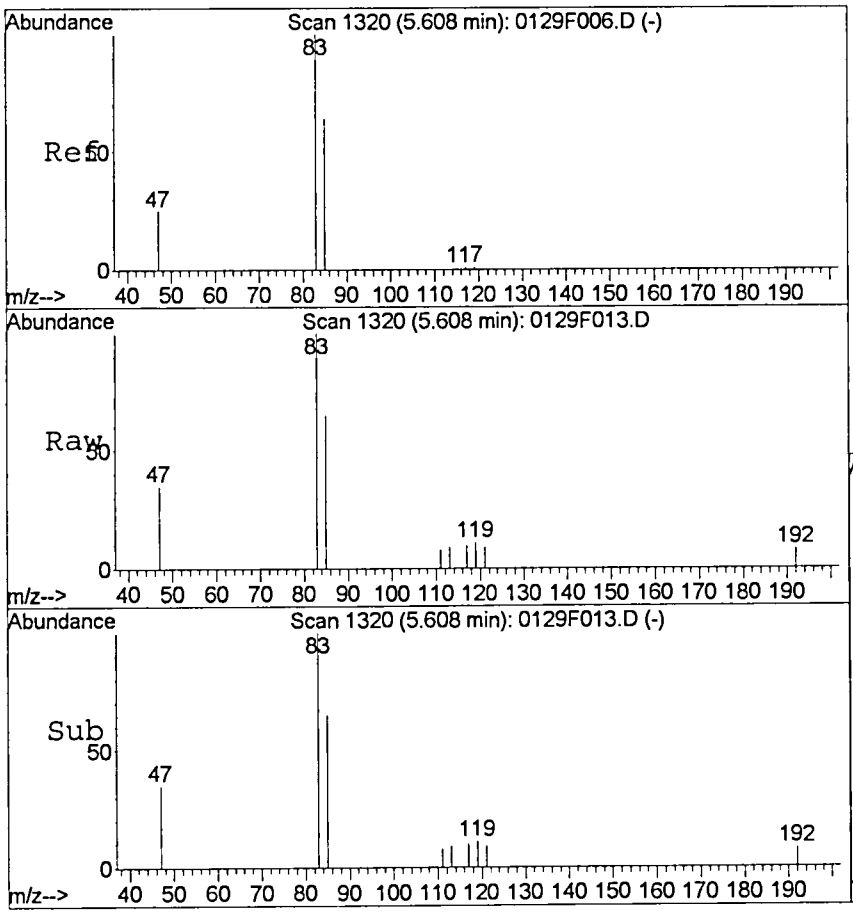


#5
Methylene Chloride
Concen: 127.49 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 84 Resp: 2909

Ion	Ratio	Lower	Upper
84	100		
86	64.8	33.8	93.8
49	134.4	107.9	167.9

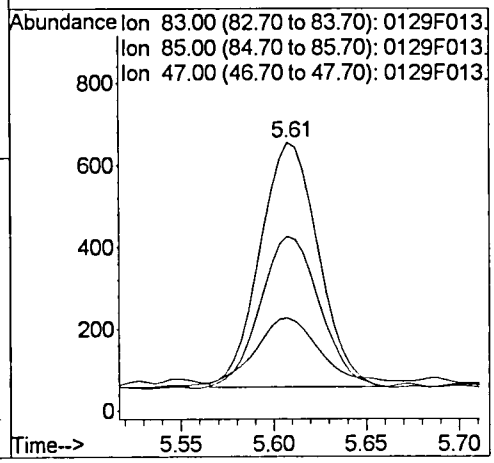


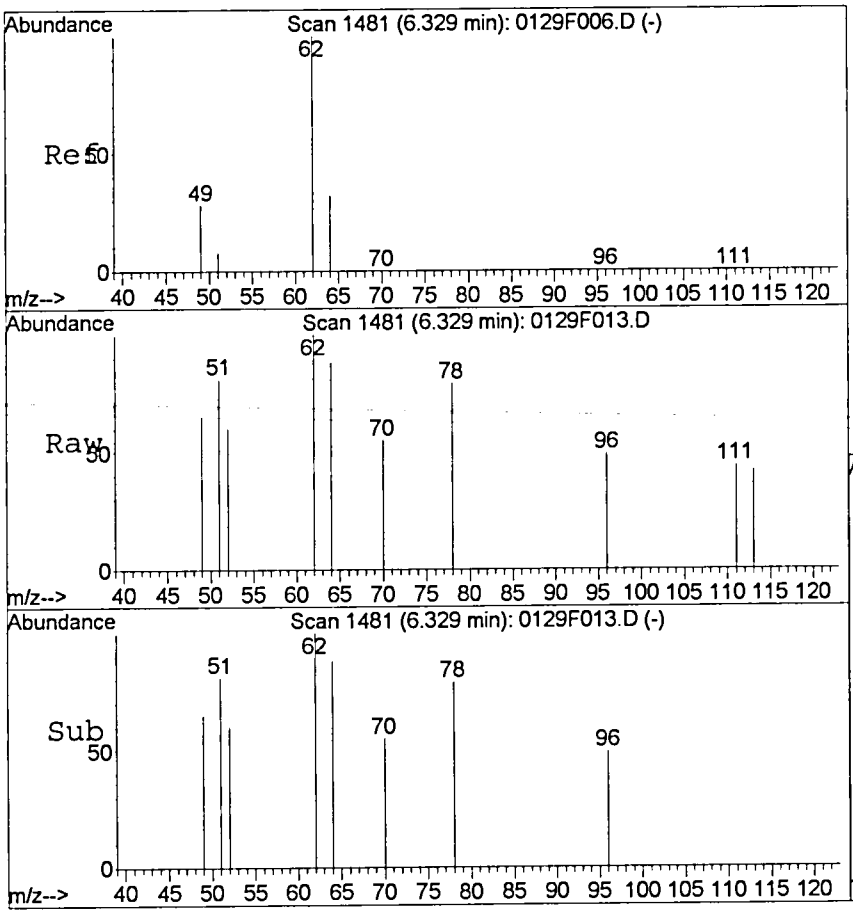


#8
Chloroform
Concen: 37.00 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 83 Resp: 1316

Ion	Ratio	Lower	Upper
83	100		
85	61.8	34.7	94.7
47	26.5	0.0	55.9

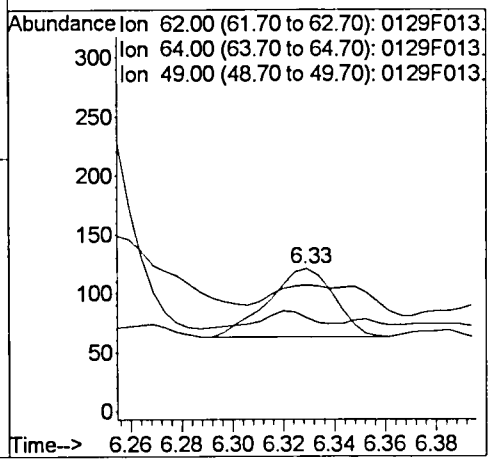


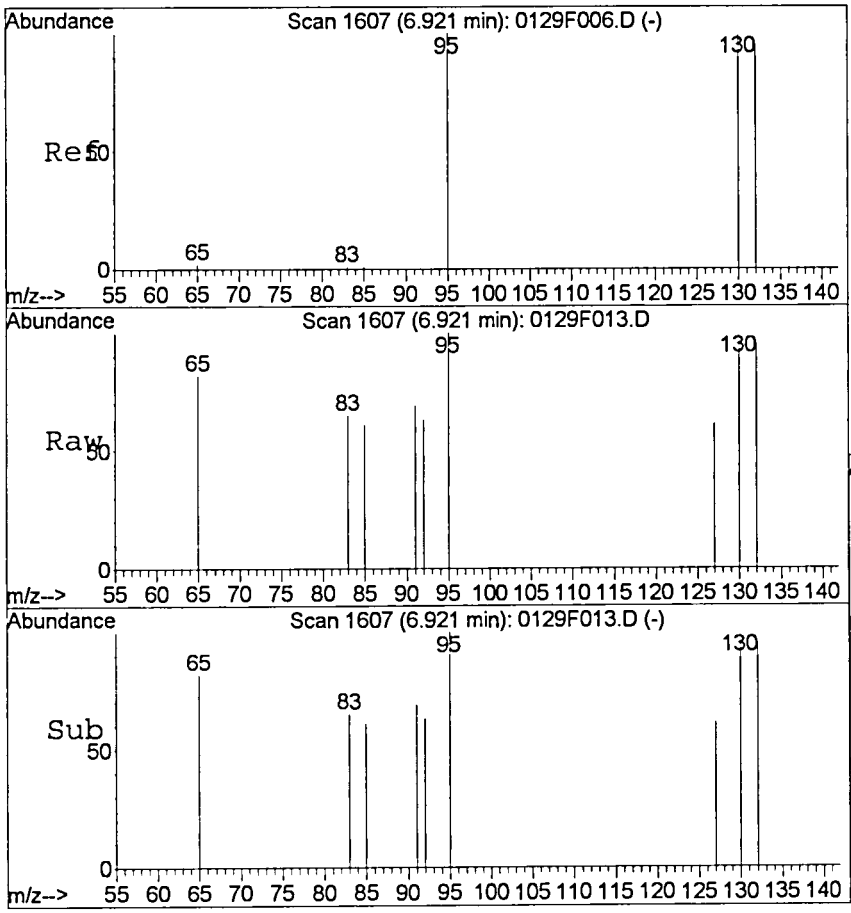


#12
1,2-Dichloroethane
Concen: 4.17 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 62 Resp: 104

Ion	Ratio	Lower	Upper
62	100		
64	88.4	1.7	61.7#
49	65.3	0.0	58.2#

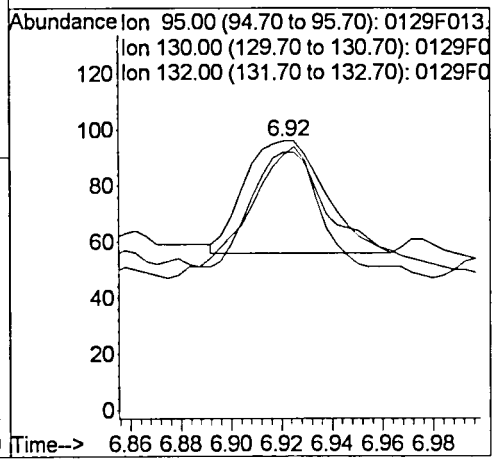


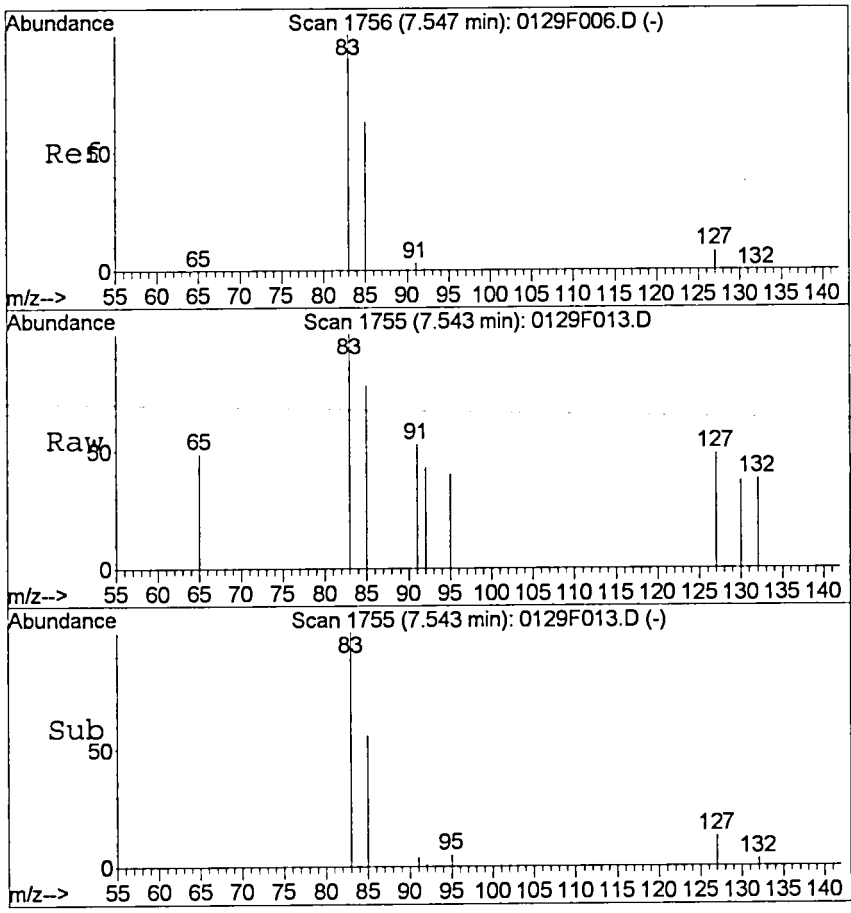


#13
Trichloroethene
Concen: 4.92 ng/L m
RT: 6.92 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 95 Resp: 89

Ion	Ratio	Lower	Upper
95	100		
130	95.8	67.1	127.1
132	94.8	63.9	123.9

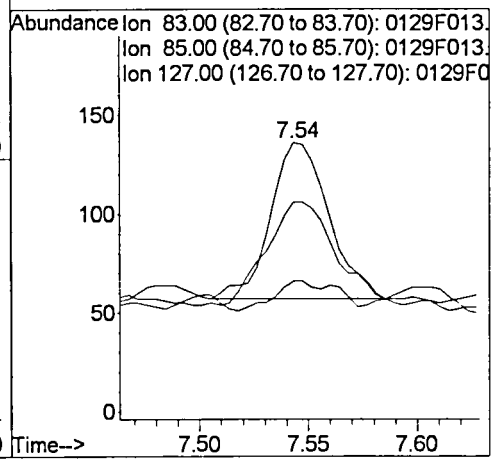


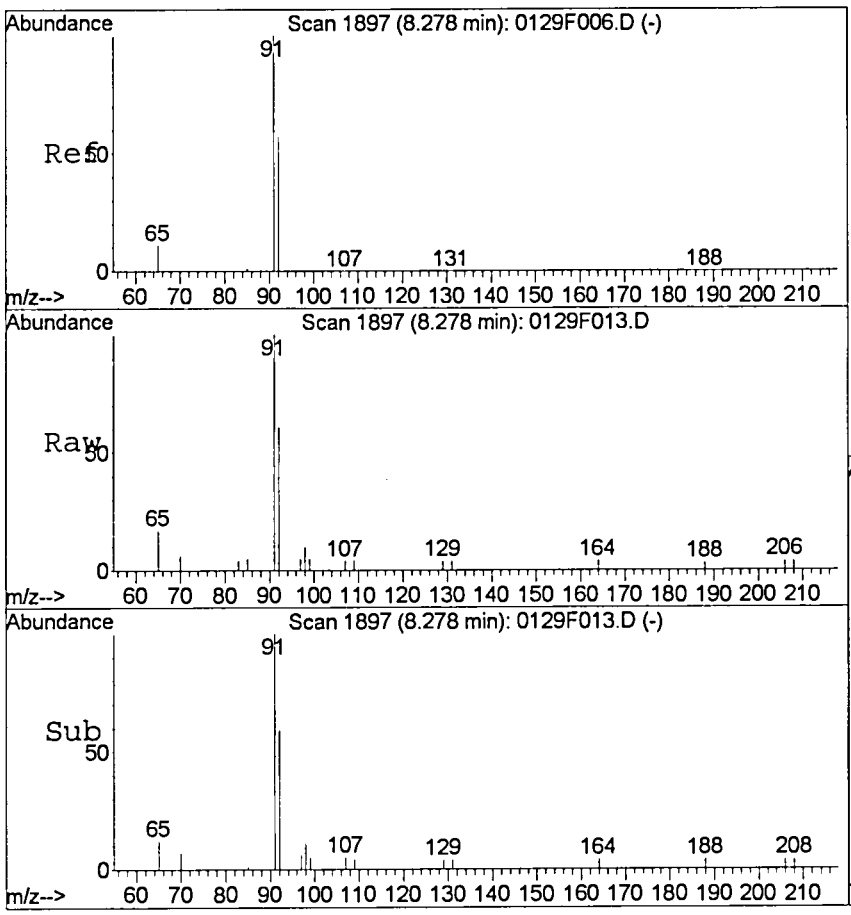


#14
Bromodichloromethane
Concen: 6.17 ng/L m
RT: 7.54 min Scan# 1755
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 83 Resp: 148

Ion	Ratio	Lower	Upper
83	100		
85	77.9	33.5	93.5
127	48.5	0.0	38.0#

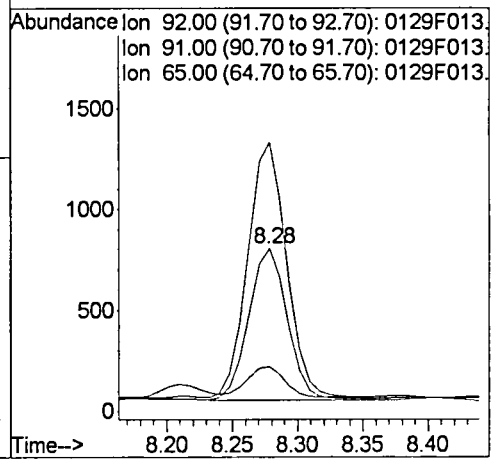


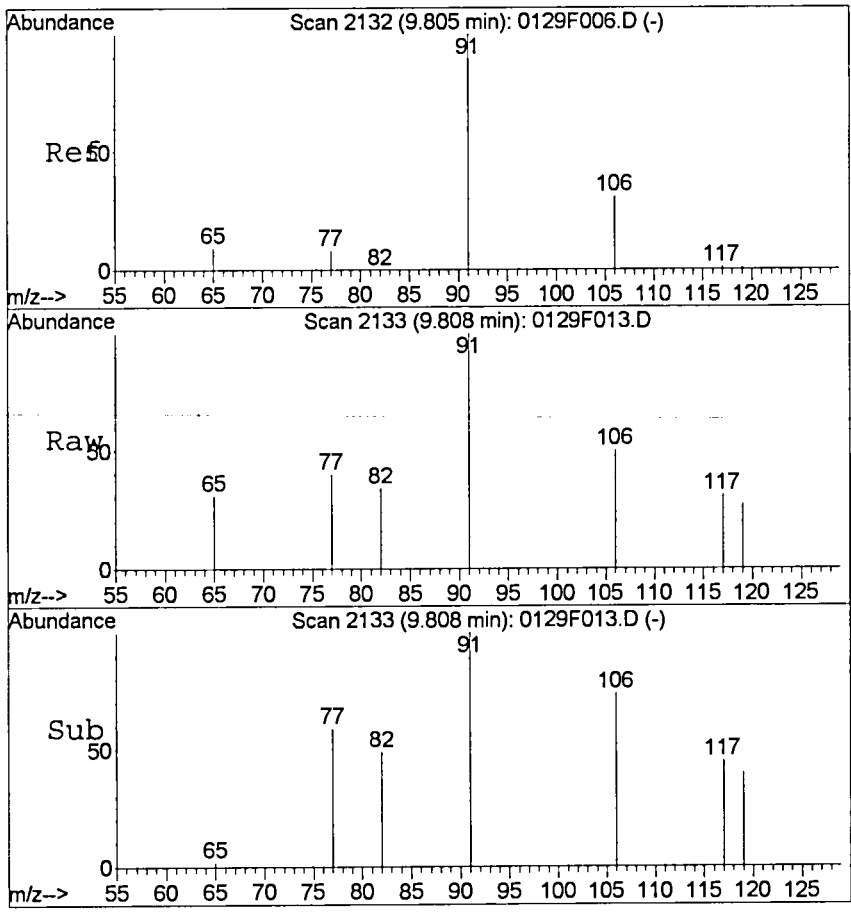


#20
Toluene
Concen: 39.60 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion: 92 Resp: 1562

Ion	Ratio	Lower	Upper
92	100		
91	167.8	144.4	204.4
65	20.6	0.0	49.7

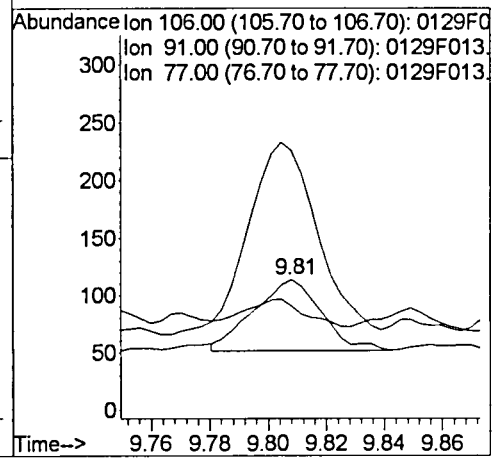


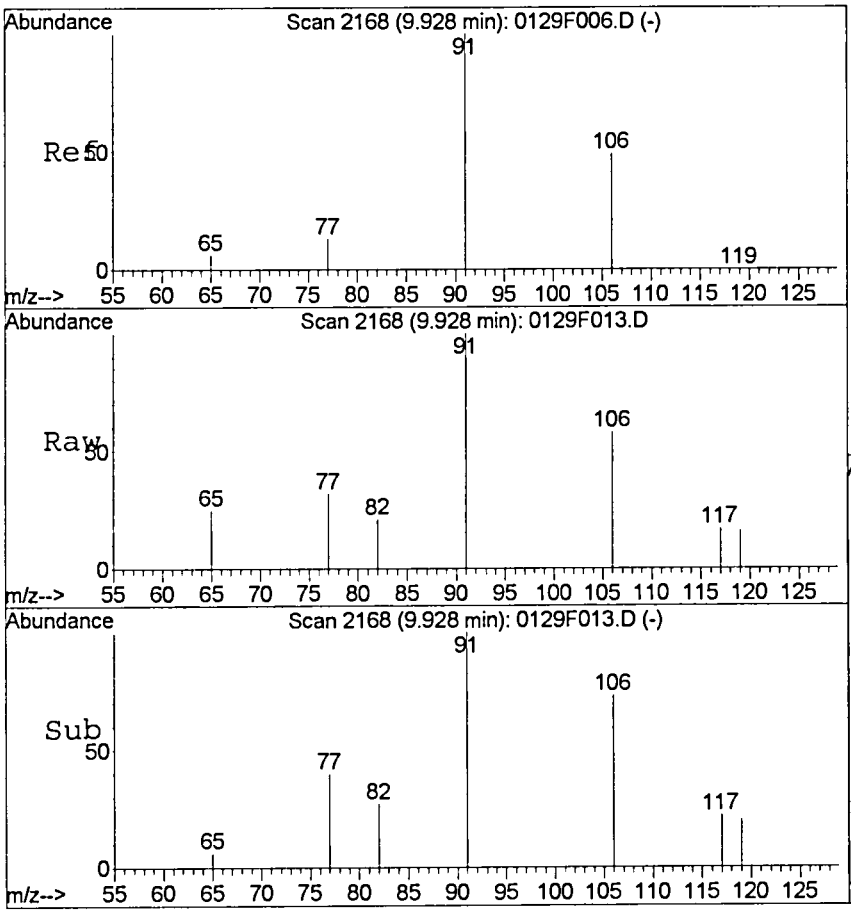


#21
Ethylbenzene
Concen: 4.81 ng/L
RT: 9.81 min Scan# 2133
Delta R.T. 0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion:106 Resp: 99

Ion	Ratio	Lower	Upper
106	100		
91	246.8	295.2	355.2#
77	21.0	0.2	60.2

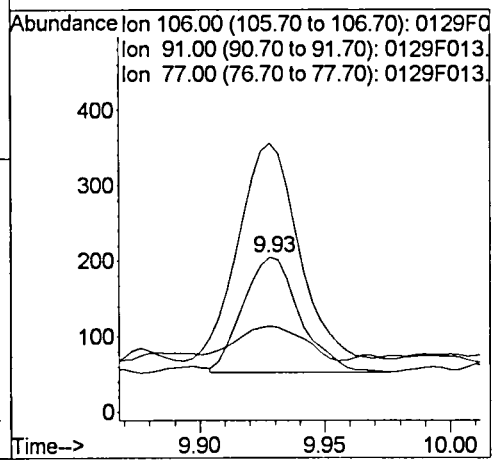


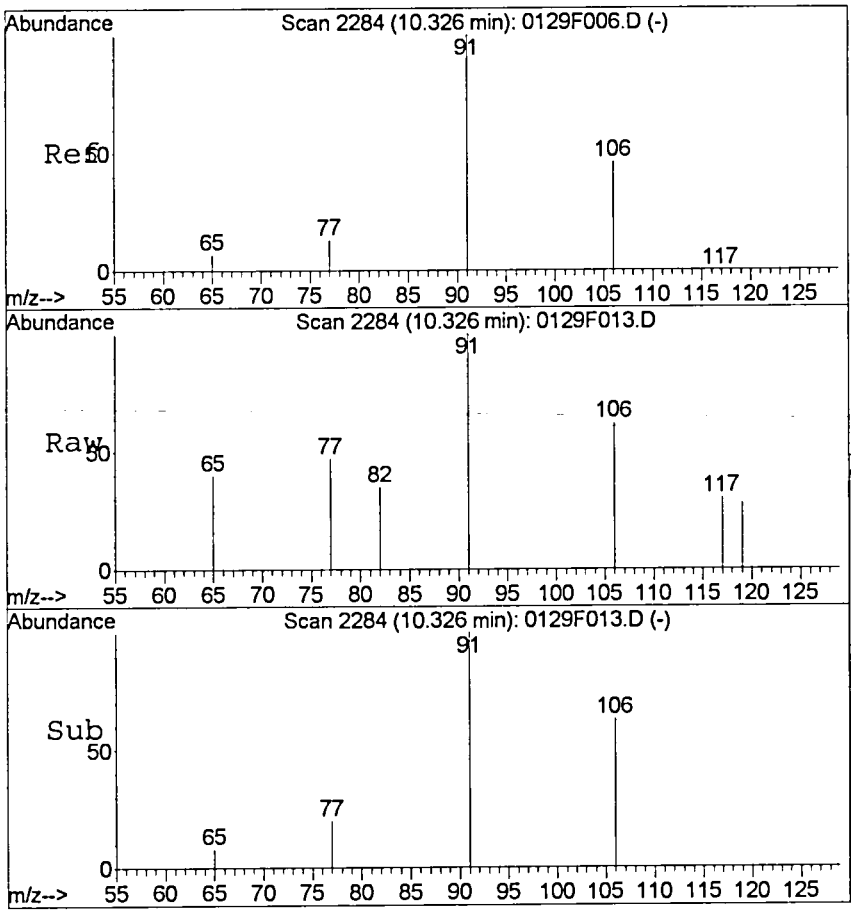


#22
m,p-Xylenes
Concen: 9.34 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion:106 Resp: 240

Ion	Ratio	Lower	Upper
106	100		
91	184.9	173.8	233.8
77	28.9	0.0	57.2

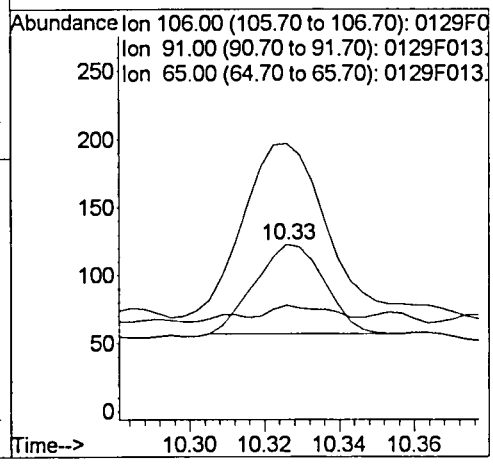


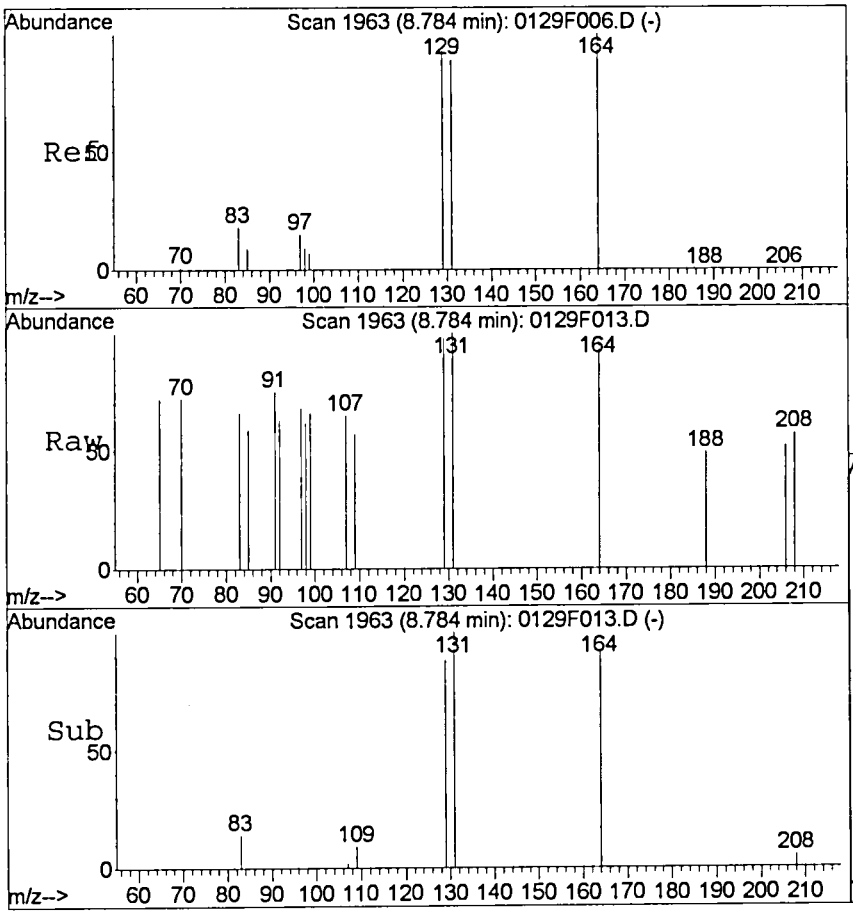


#23
o-Xylene
Concen: 3.35 ng/L
RT: 10.33 min Scan# 2284
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion:106 Resp: 85

Ion	Ratio	Lower	Upper
106	100		
91	178.8	185.6	245.6#
65	15.2	0.0	45.0

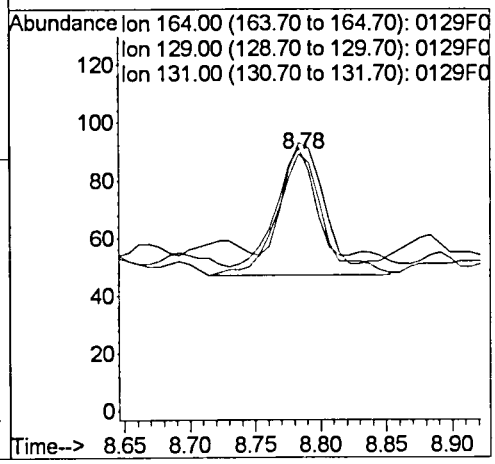


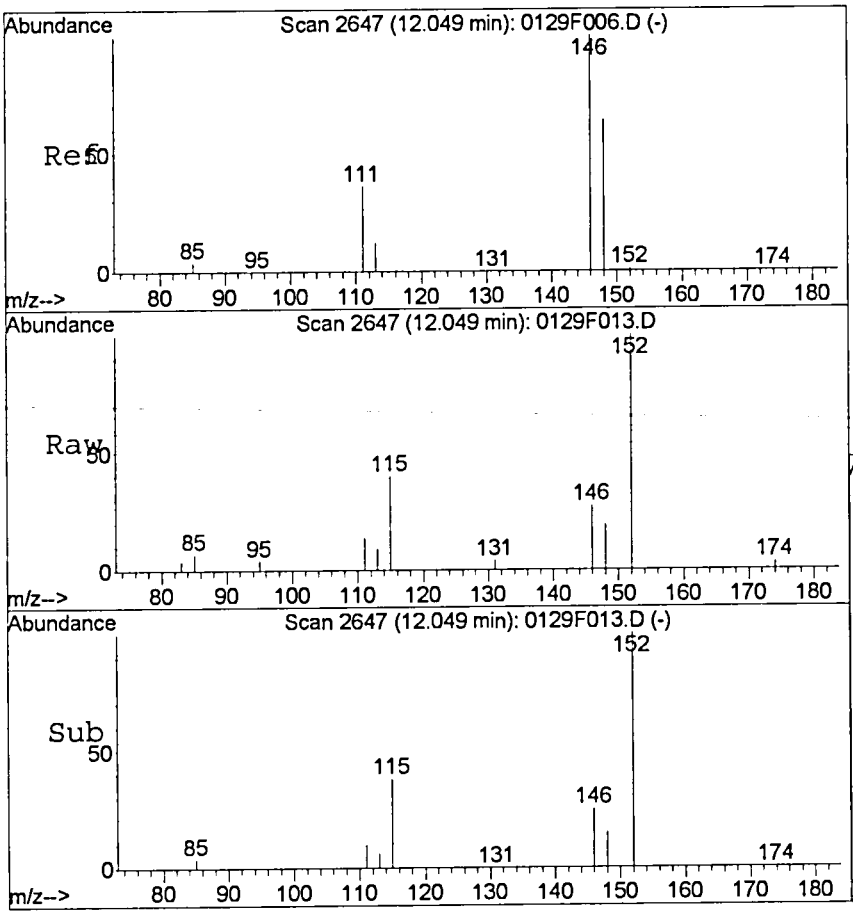


#26
Tetrachloroethene
Concen: 7.55 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion:164 Resp: 104

Ion	Ratio	Lower	Upper
164	100		
129	92.9	61.1	121.1
131	92.9	58.3	118.3

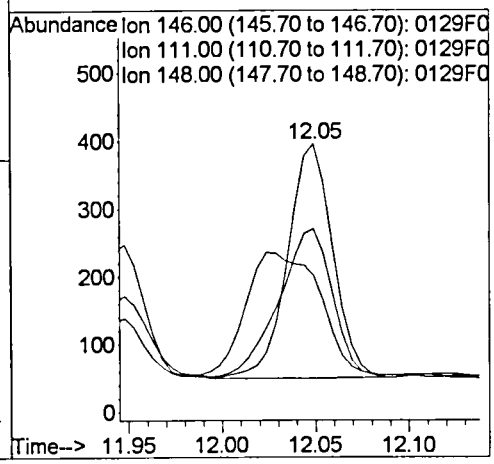




#28
1,4-Dichlorobenzene
Concen: 16.20 ng/L
RT: 12.05 min Scan# 2647
Delta R.T. 0.00 min
Lab File: 0129F013.D
Acq: 29 Jan 2016 3:00 pm

Tgt Ion:146 Resp: 580

Ion	Ratio	Lower	Upper
146	100		
111	42.6	6.7	66.7
148	63.2	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F012.D
Lab ID: KWG1600798-4
RunType: MB
Matrix: WATER

Date Acquired: 01/29/2016 14:32
Date Quantitated: 01/29/2016 15:44
Batch ID: KWG1600796
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MKL
Surrogates	Toluene-d8	120	74	112	Y bias

Primary Review: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 14:34:48
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F012.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 14:32	**Quant Date:**	01/29/2016 15:44	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600798-4			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	01/29/2016		
Prep Ref:	1496770				

Quant Method:	J:\MS27\METHODS\012716MS27_8			**Calibration ID:**	CAL14562
Title:					
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D			**Method ID:**	MJ1547
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	6.54	0.00	96	68793	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	48905	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.01	152	23211	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17505	1,118	112	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	60090	1,201	120	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	20110	1,020	102	46-118	OK	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	408m	14.59	14.6	J	
1	Vinyl Chloride	1.43		0.00	62	64	2.56	4.6	U	
1	1,1-Dichloroethene				96	0d		5.9	U	
1	Methylene Chloride	3.29		0.00	84	1732	76.02	76.0	J	
1	trans-1,2-Dichloroethene	3.58	0.01	0.00	96	71	4.03	4.03	J	
1	cis-1,2-Dichloroethene				96	0		6.5	U	
1	Chloroform	5.61		0.00	83	387m	10.90	10.9	J	
1	Carbon Tetrachloride				117	0d		7.2	U	
1	Benzene				78	0d		5.6	U	
1	1,2-Dichloroethane	6.33		0.00	62	133m	5.34	5.8	U	
1	Trichloroethene (TCE)	6.92		0.00	95	134m	7.42	7.42	J	
1	Bromodichloromethane	7.55		0.00	83	79	3.30	3.4	U	
1	1,1,2-Trichloroethane				83	0d		9.0	U	
1	Dibromochloromethane				129	0d		8.8	U	
1	1,2-Dibromoethane (EDB)				107	0		4.5	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:\MS27\DATA\012916_SIM\0129F012.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 14:32	**Quant Date:**	01/29/2016 15:44	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600798-4			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	315	7.95	7.95	J	
2	Ethylbenzene	9.81	0.01	0.00	106	114	5.51	5.6	U	
2	m,p-Xylenes	9.93		0.00	106	299	11.58	11.6	J	
2	o-Xylene	10.32	-0.01	0.00	106	95	3.72	4.9	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	U	
2	Tetrachloroethene (PCE)	8.78		0.00	164	108	7.81	7.81	J	
3	1,4-Dichlorobenzene	12.05		0.00	146	551	15.21	15.2	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 (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:38:54 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

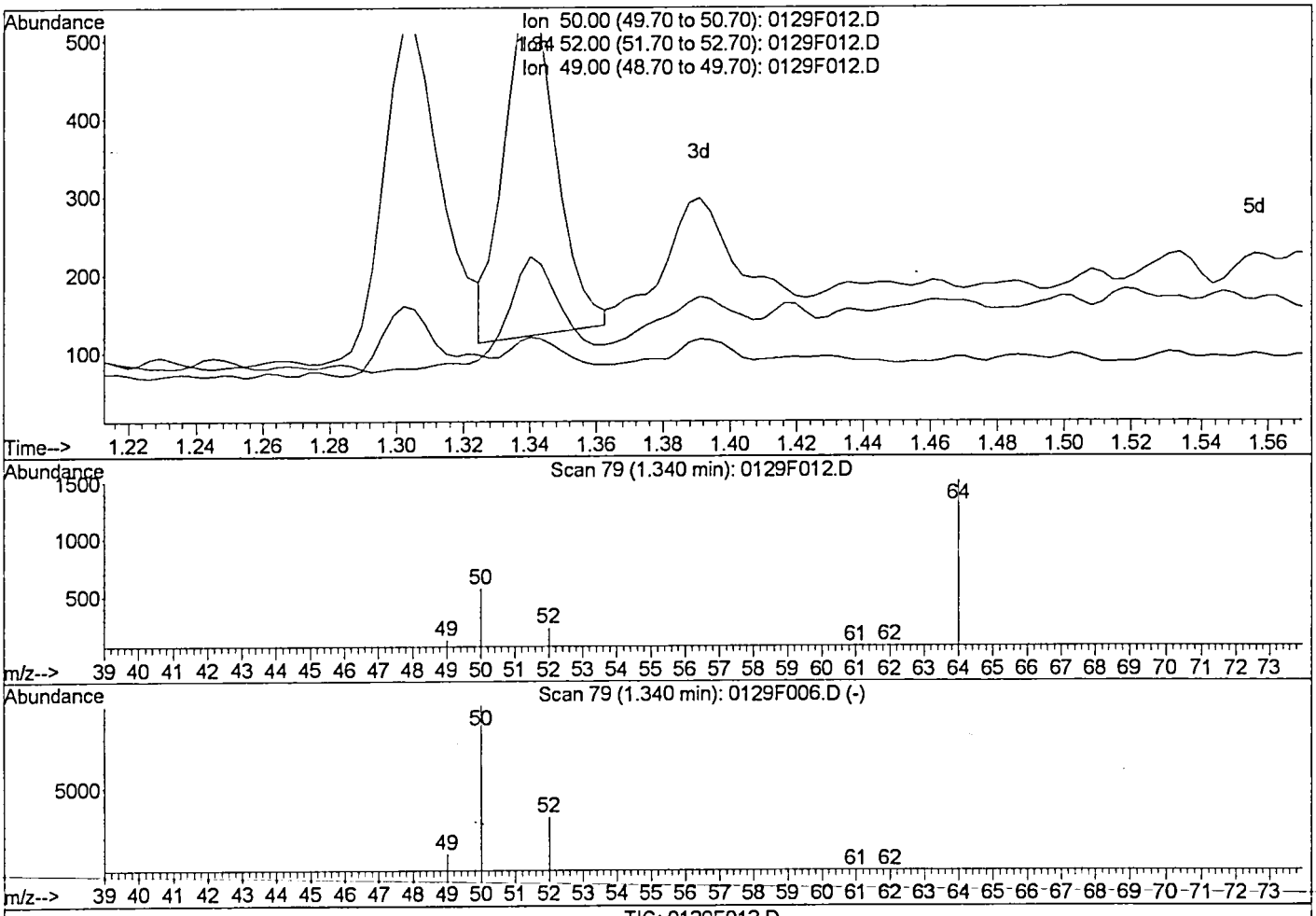
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	68793	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48905	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	23211	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17505	1118.22	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.82%			
15) Toluene-d8	8.21	98	60090	1201.15	ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.12%			
24) 4-Bromofluorobenzene	10.89	95	20110	1020.36	ng/L	0.00
Spiked Amount 1000.000			Recovery = 102.04%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	408m	14.59	ng/L	
3) Vinyl Chloride	1.43	62	64	2.56	ng/L	80
5) Methylene Chloride	3.29	84	1732	76.02	ng/L	99
6) trans-1,2-Dichloroethene	3.58	96	71	4.03	ng/L #	81
8) Chloroform	5.61	83	387m	10.90	ng/L	
12) 1,2-Dichloroethane	6.33	62	133m	5.34	ng/L	
13) Trichloroethene	6.92	95	134m	7.42	ng/L	
14) Bromodichloromethane	7.55	83	79	3.30	ng/L	85
20) Toluene	8.28	92	315	7.95	ng/L	93
21) Ethylbenzene	9.81	106	114	5.51	ng/L #	77
22) m,p-Xylenes	9.93	106	299	11.58	ng/L	98
23) o-Xylene	10.32	106	95	3.72	ng/L	87
26) Tetrachloroethene	8.78	164	108	7.81	ng/L #	77
28) 1,4-Dichlorobenzene	12.05	146	551	15.21	ng/L	92

(#) = qualifier out of range (m) = manual integration
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:47:20 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration



TIC: 0129F012.D

(2) Chloromethane (T)

1.34min 16.88ng/L

response 472

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	31.96
49.00	10.10	8.47
0.00	0.00	0.00

Manual Integration:

Before

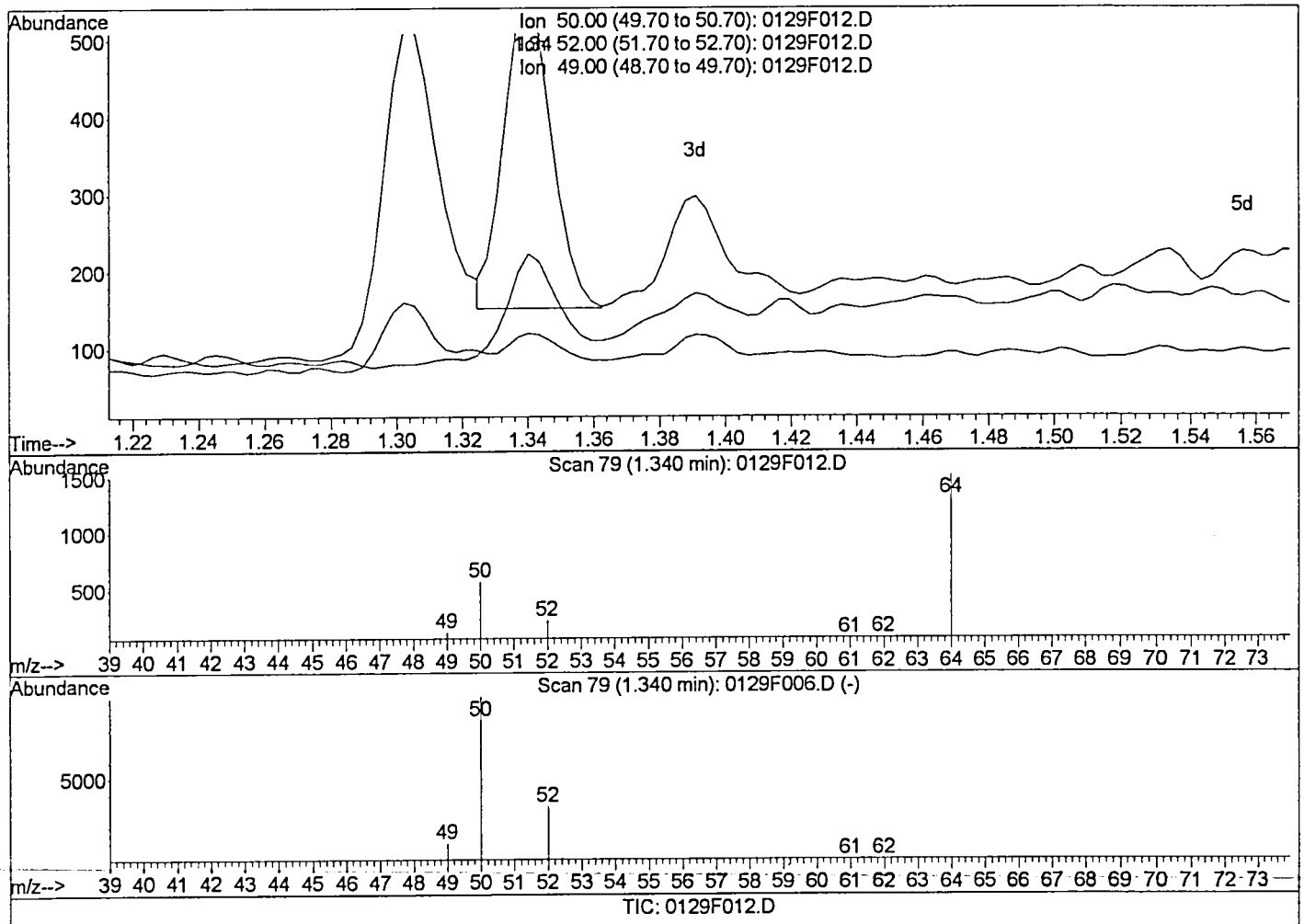
01/29/16

0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:42:02 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:42 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration



TIC: 0129F012.D

(2) Chloromethane (T)

1.34min 14.59ng/L m

response 408

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	39.33
49.00	10.10	21.16
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

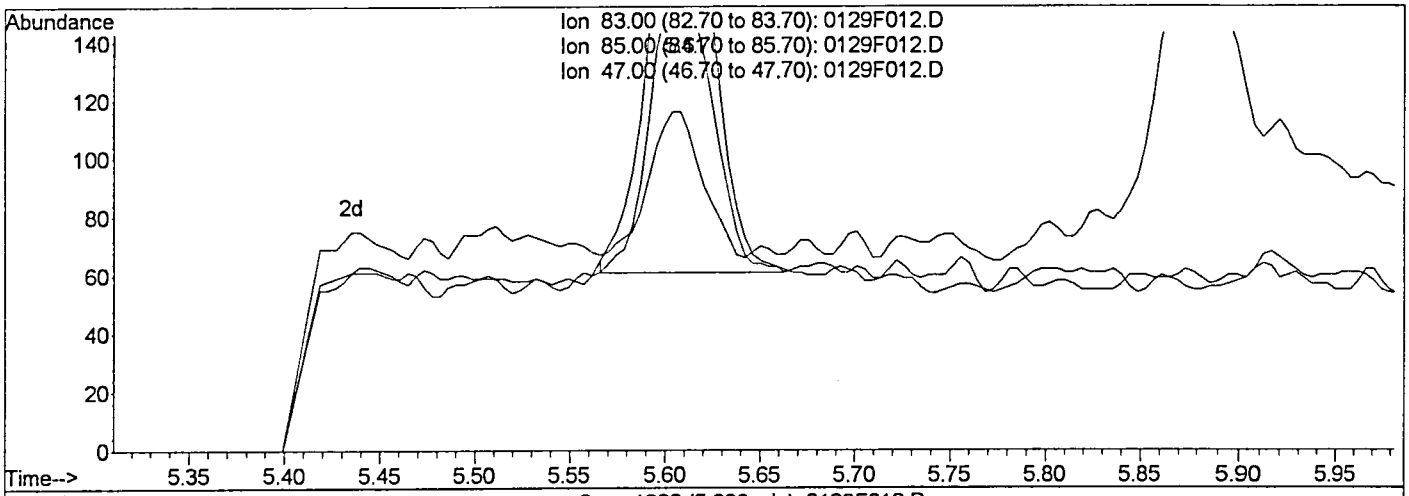
01/29/16

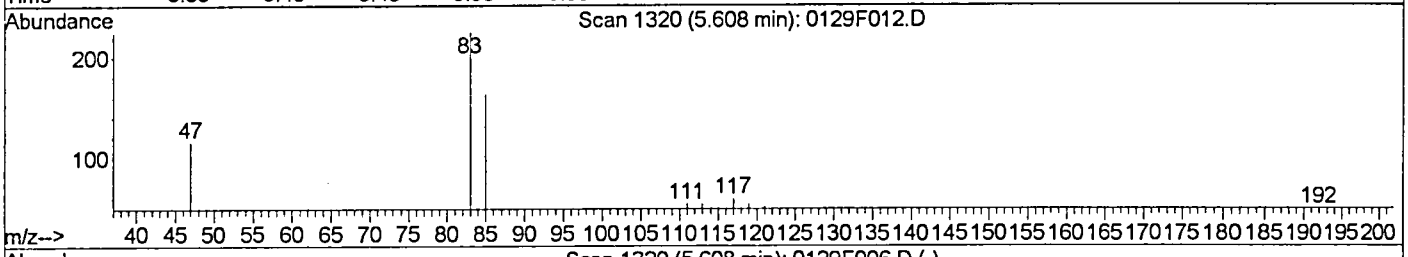
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:42:09 2016

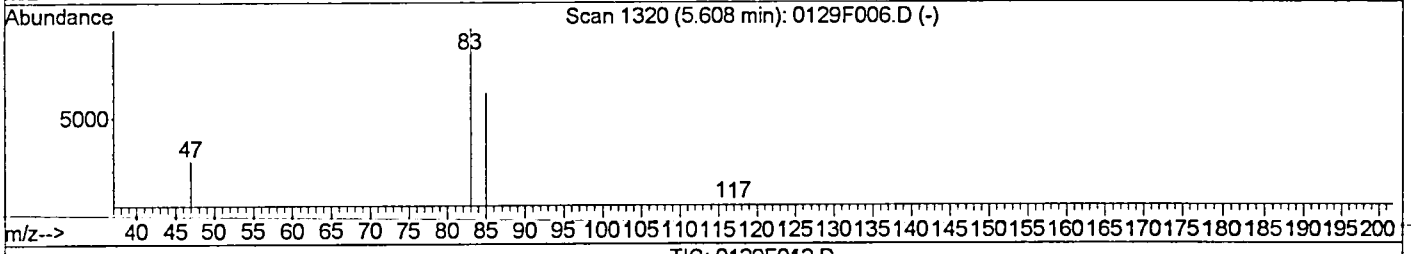
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:42 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F012.D

(8) Chloroform (T)

5.61min 10.16ng/L

response 361

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	62.20
47.00	25.90	29.88
0.00	0.00	0.00

Manual Integration:

Before

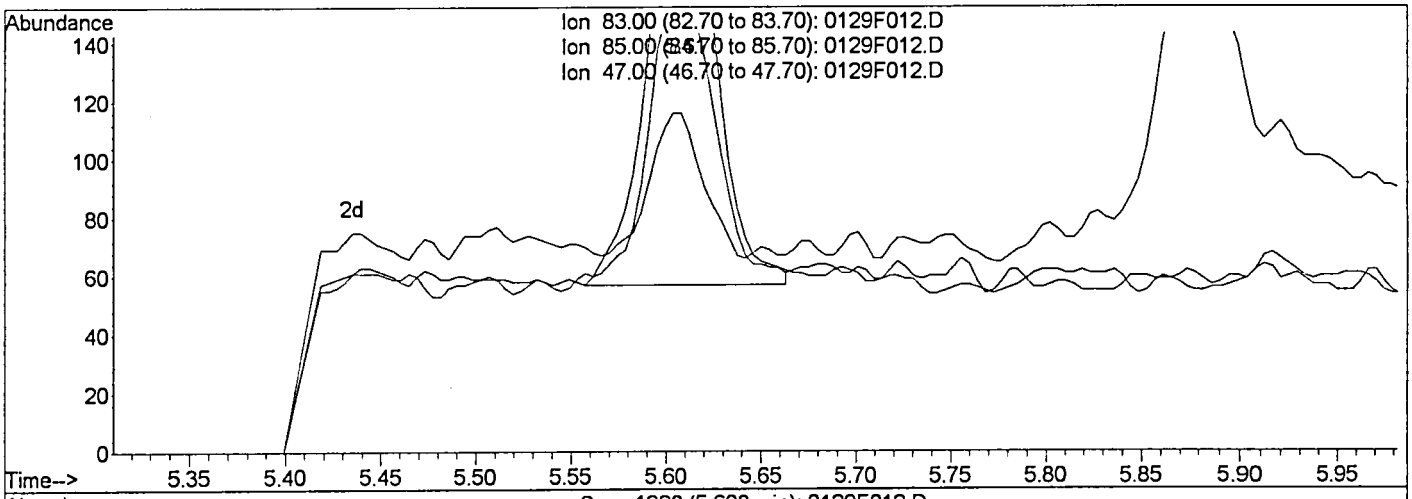
01/29/16

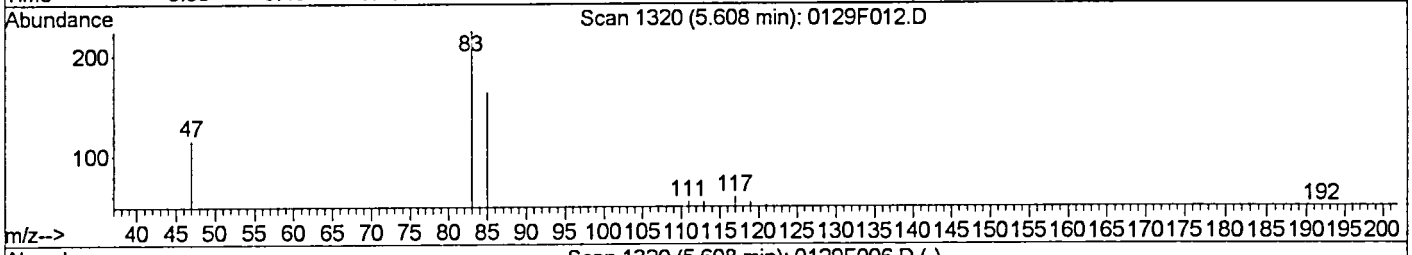
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:42:41 2016

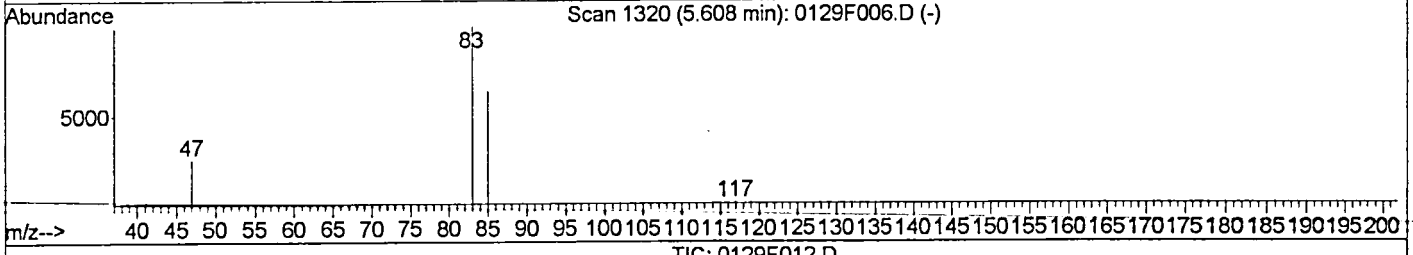
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:42 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F012.D

(8) Chloroform (T)

5.61min 10.90ng/L m

response 387

Ion	Exp%	Act%
83.00	100	100
85.00	64.70	72.44
47.00	25.90	51.56
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

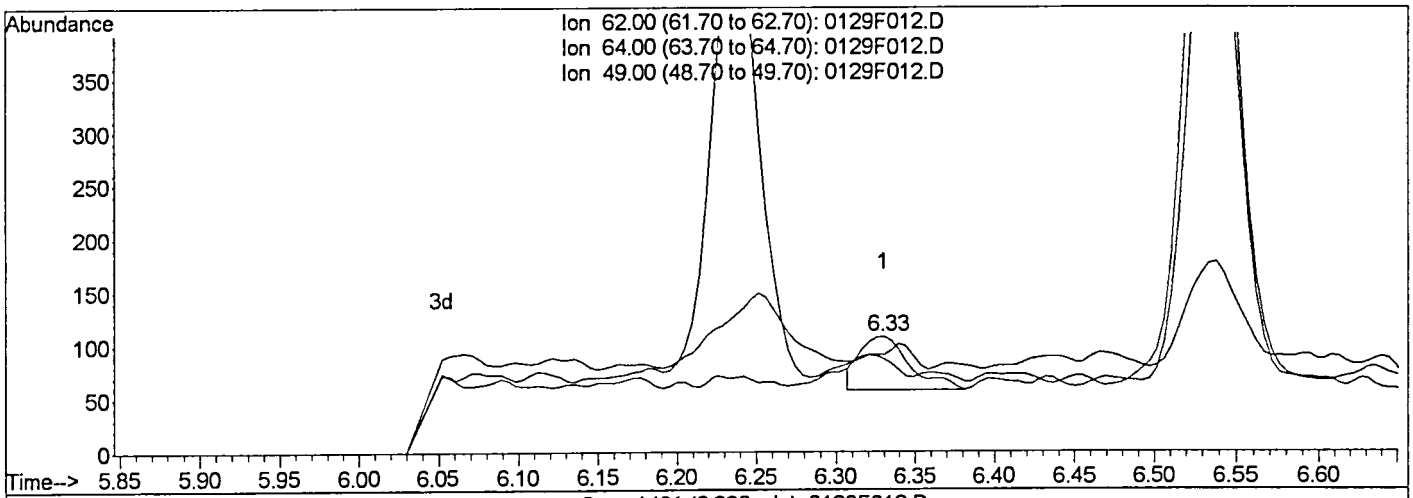
01/29/16

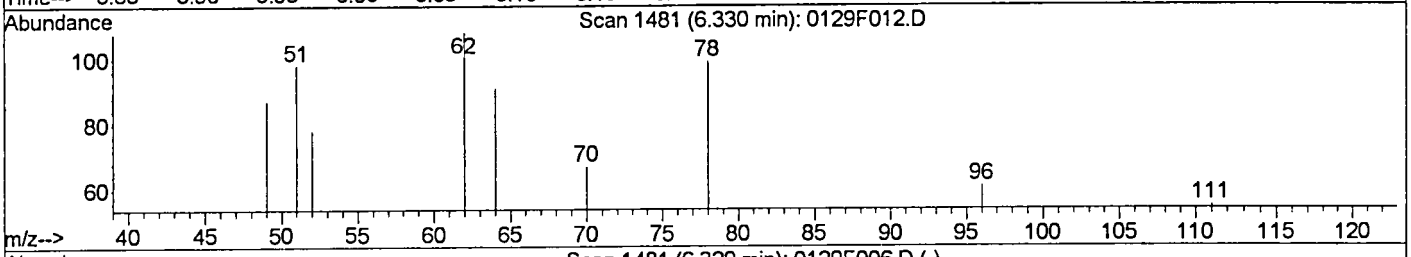
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:42:56 2016

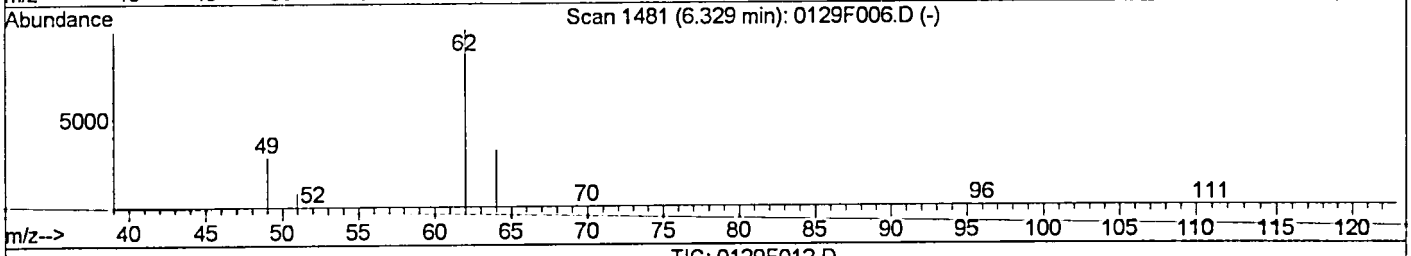
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:43 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F012.D

(12) 1,2-Dichloroethane (T)

6.33min 4.42ng/L

response 110

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	20.00
49.00	28.20	42.00
0.00	0.00	0.00

Manual Integration:

Before

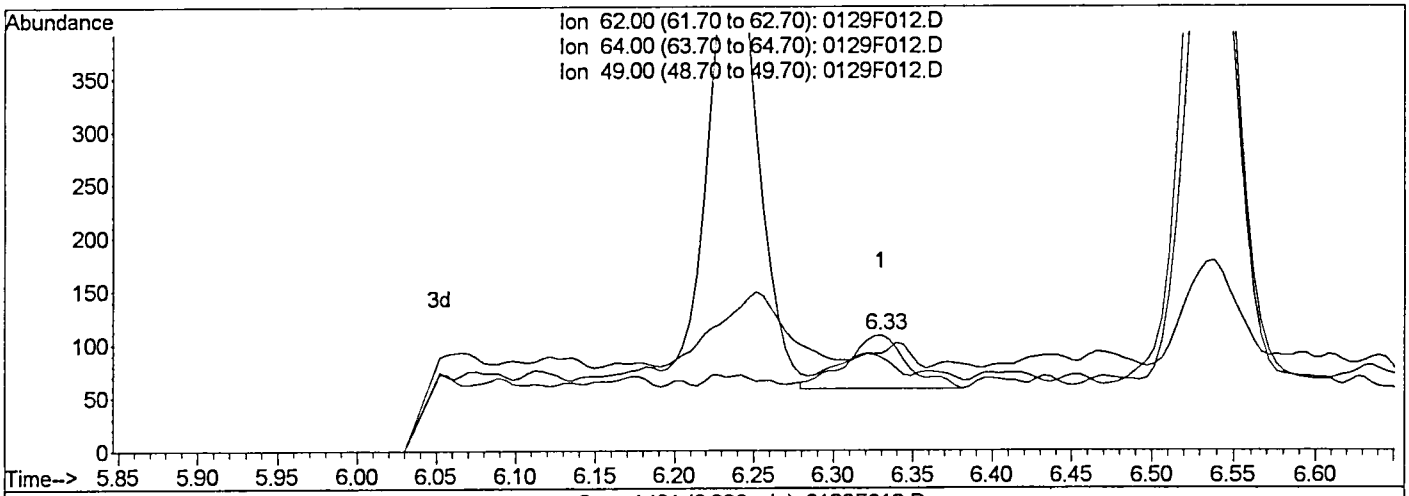
01/29/16

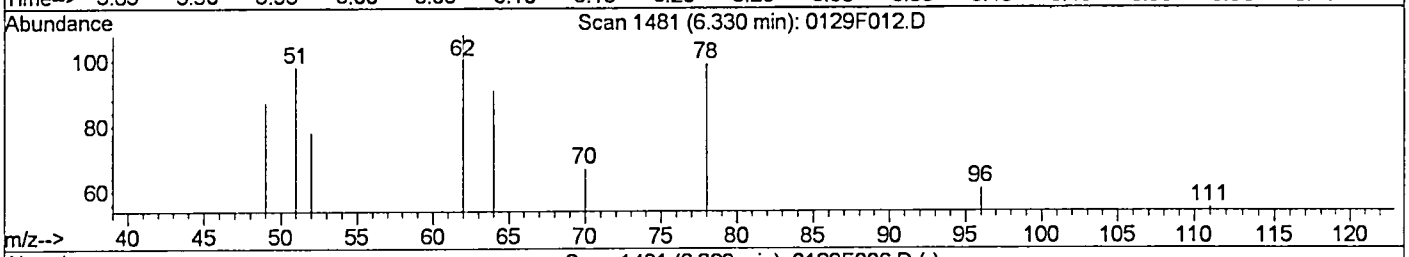
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:43:08 2016

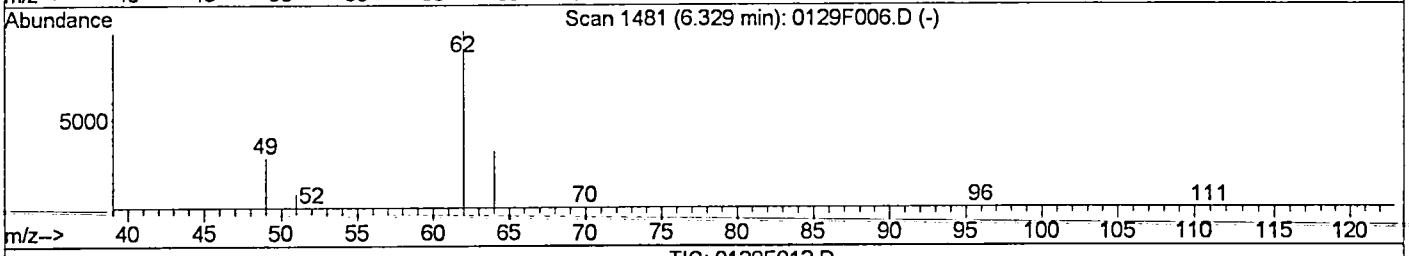
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:43 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F012.D

(12) 1,2-Dichloroethane (T)

6.33min 5.34ng/L m

response 133

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	84.26#
49.00	28.20	80.56#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

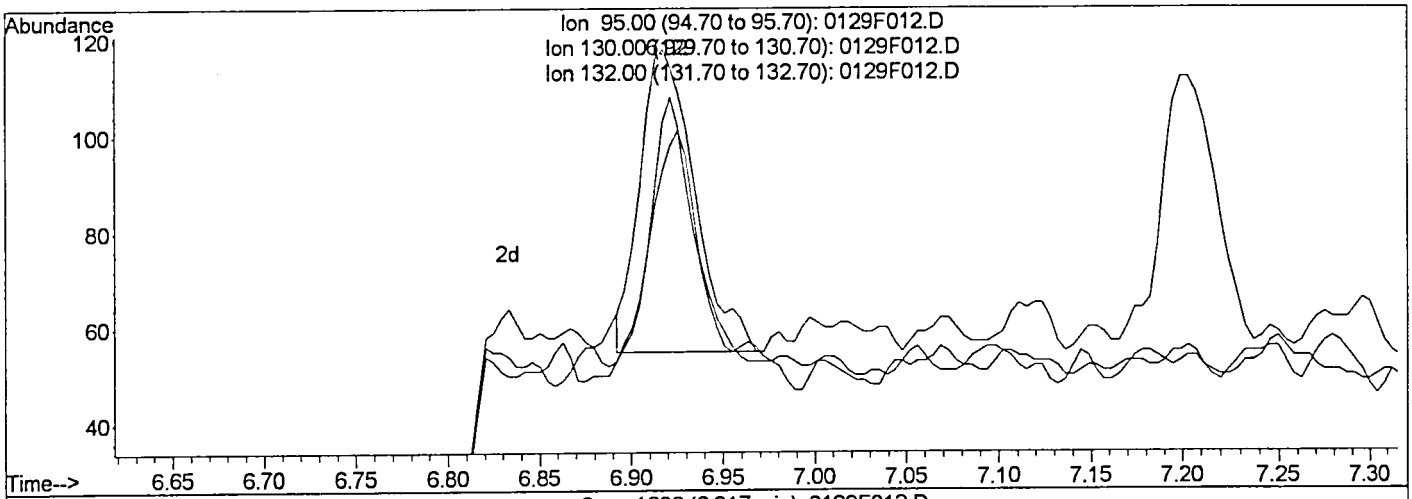
01/29/16

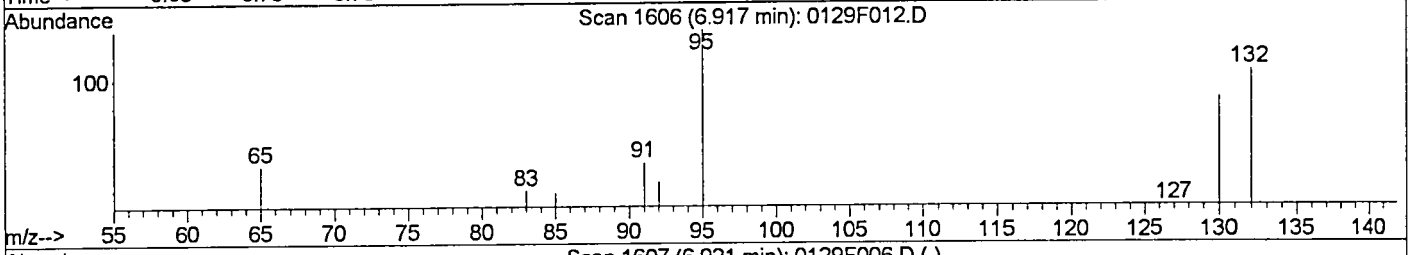
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:43:16 2016

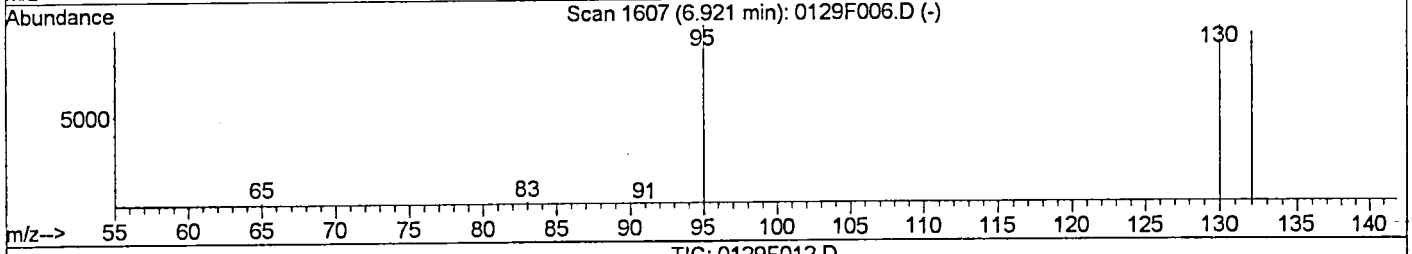
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:43 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F012.D

(13) Trichloroethene (T)

6.92min 7.20ng/L

response 130

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	63.49#
132.00	93.90	79.37
0.00	0.00	0.00

Manual Integration:

Before

01/29/16

0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:43:21 2016

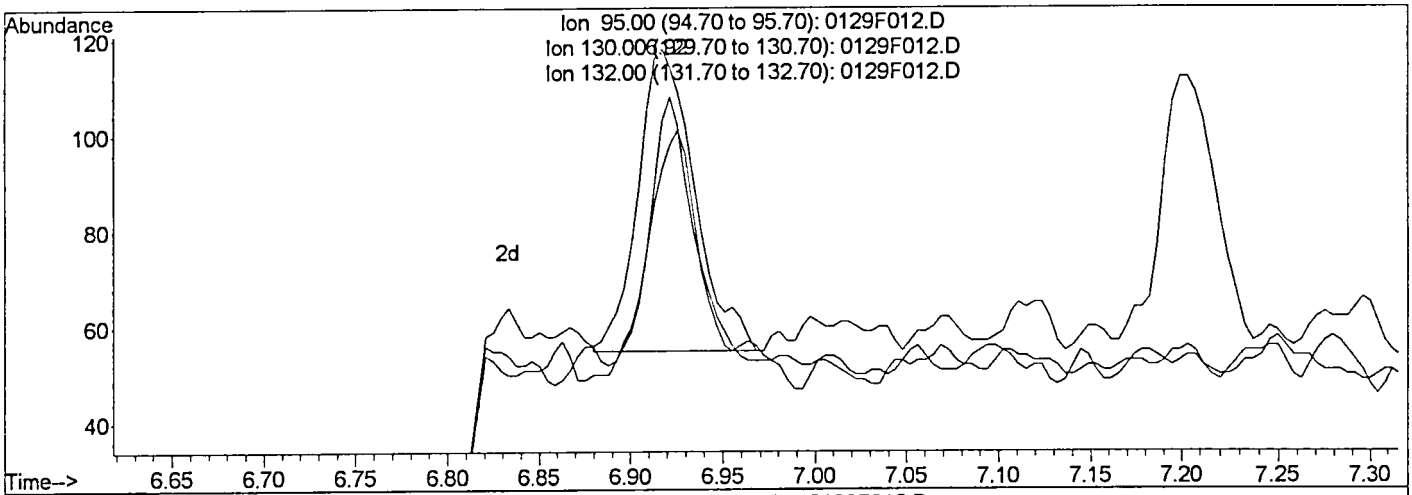
Quantitation Report (Qedit)

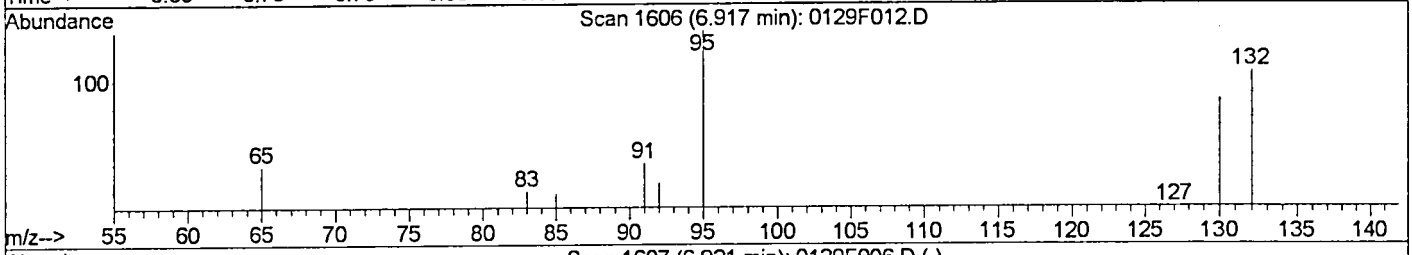
Data File : J:\MS27\DATA\012916_SIM\0129F012.D
Acq On : 29 Jan 2016 2:32 pm
Sample : MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:43 2016

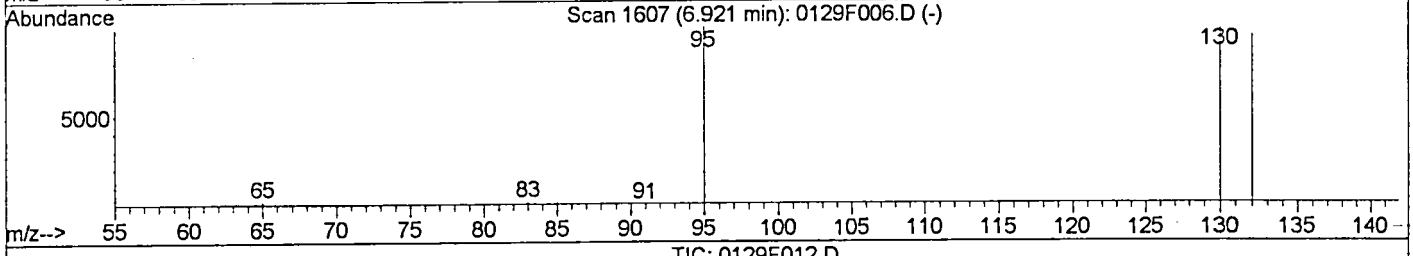
Vial: 9
Operator: GH
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F012.D

(13) Trichloroethene (T)

6.92min 7.42ng/L m

response 134

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	78.81
132.00	93.90	87.29
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

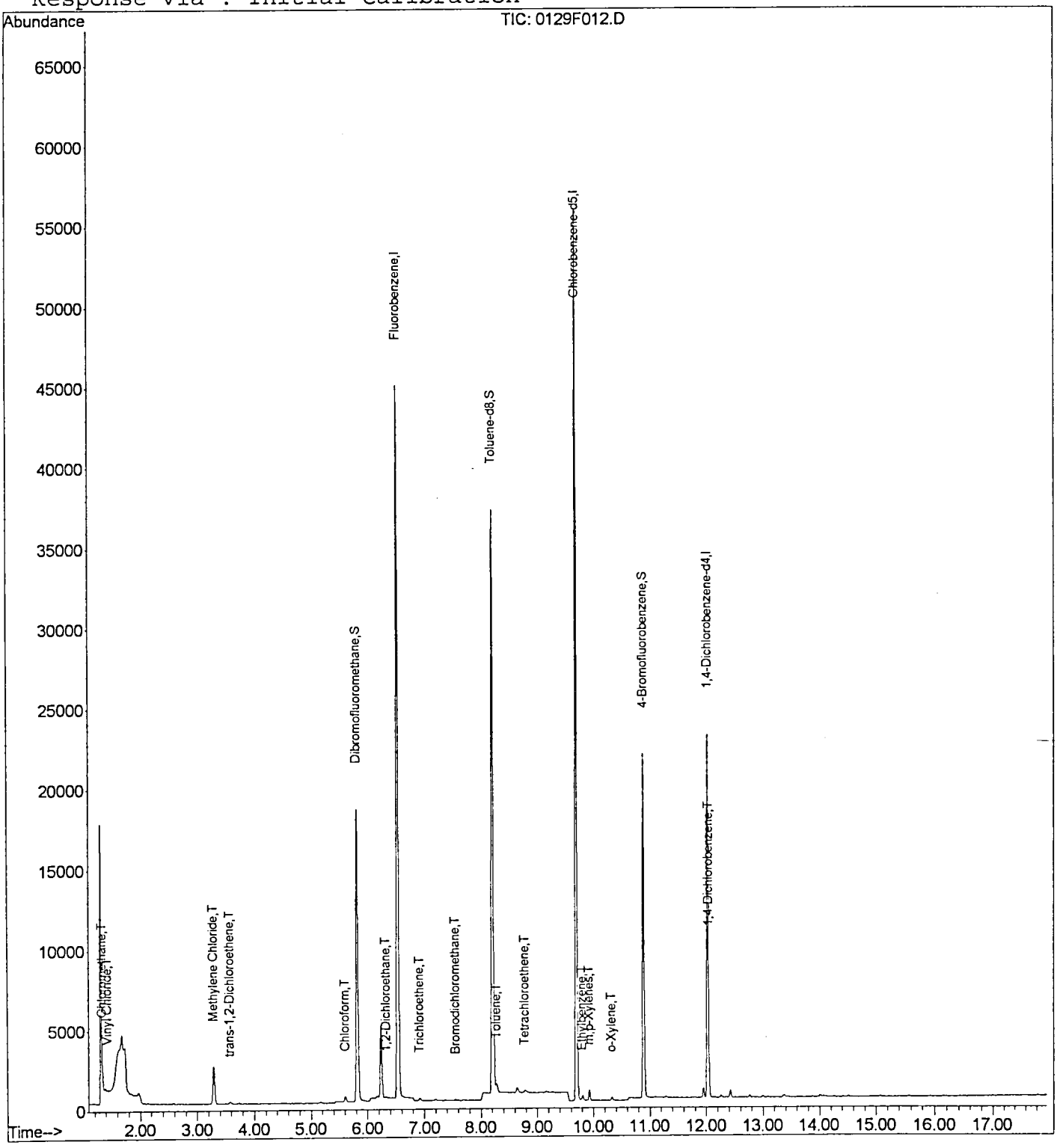
01/29/16

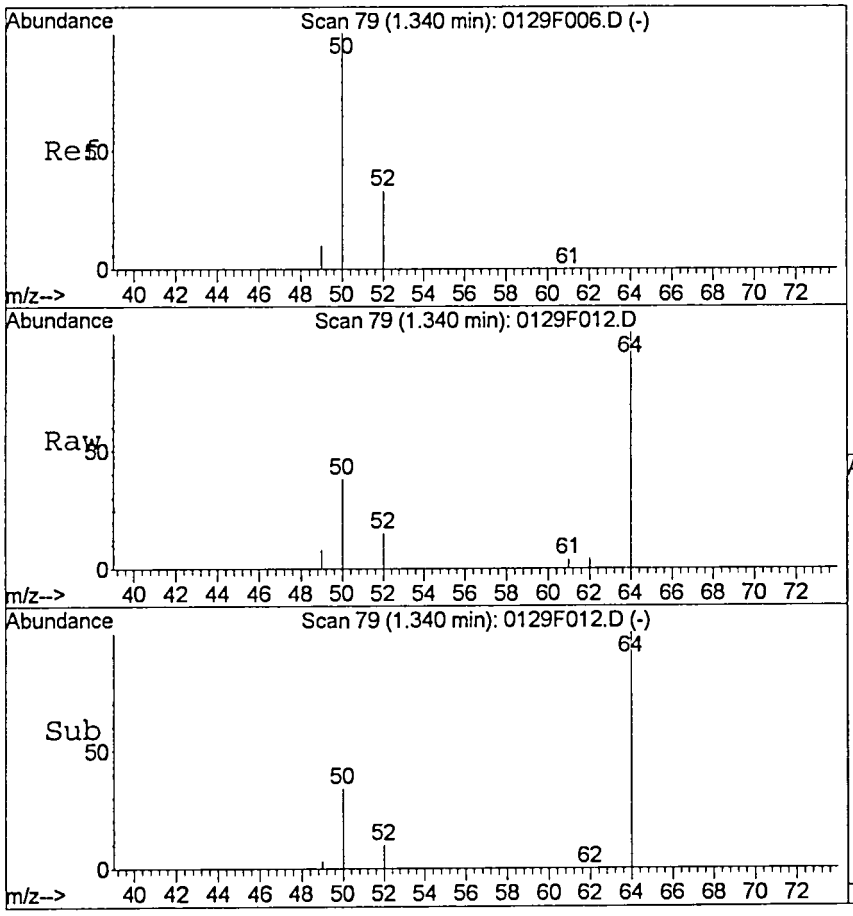
0129F012.D 012716MS27_8260SIM.M Fri Jan 29 15:43:46 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F012.D Vial: 9
Acq On : 29 Jan 2016 2:32 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:44 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration

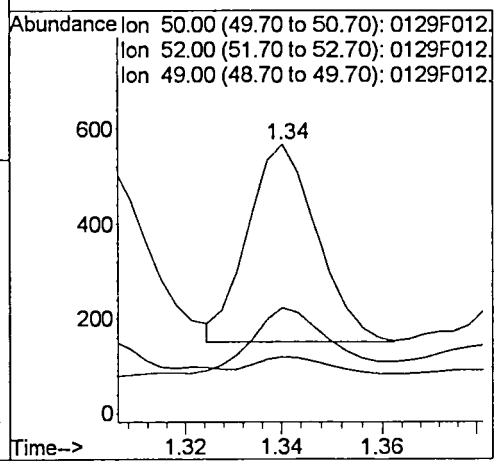


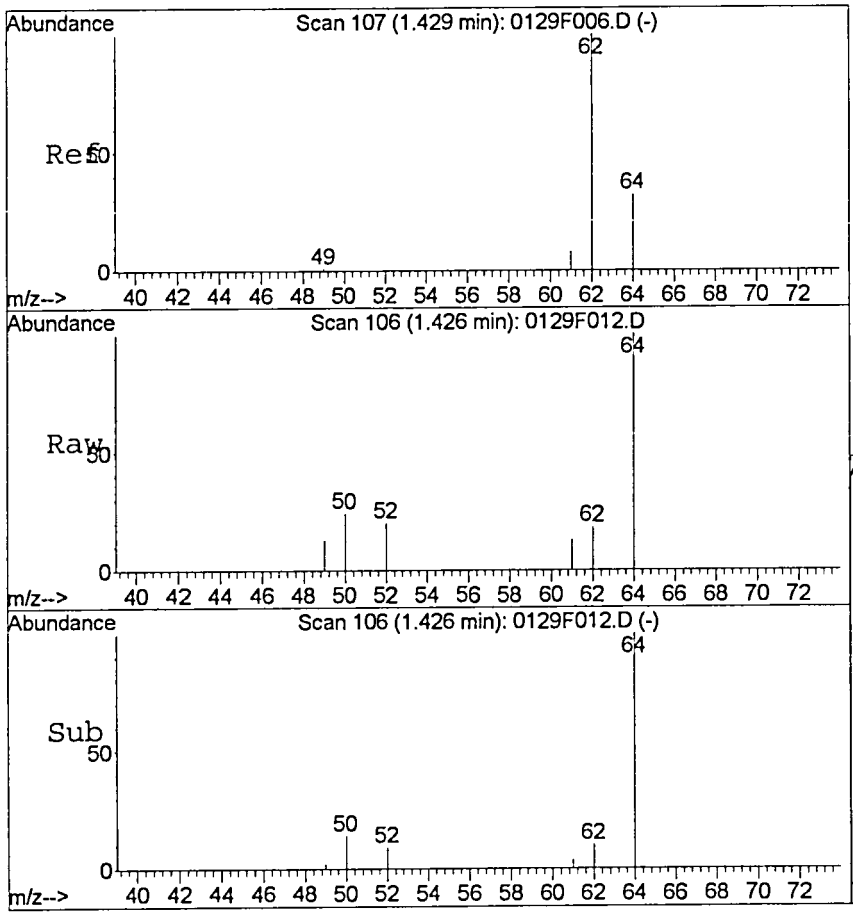


#2
Chloromethane
Concen: 14.59 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 50 Resp: 408

Ion	Ratio	Lower	Upper
50	100		
52	39.3	2.9	62.9
49	21.2	0.0	40.1

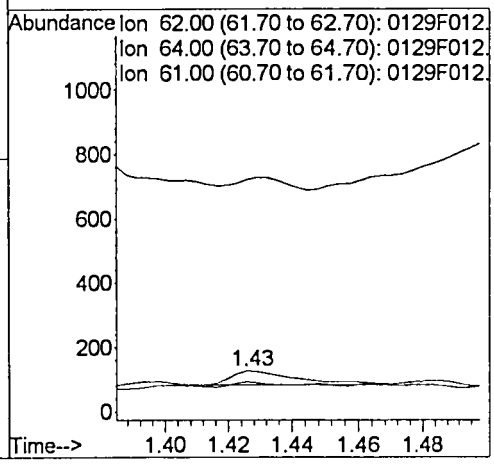


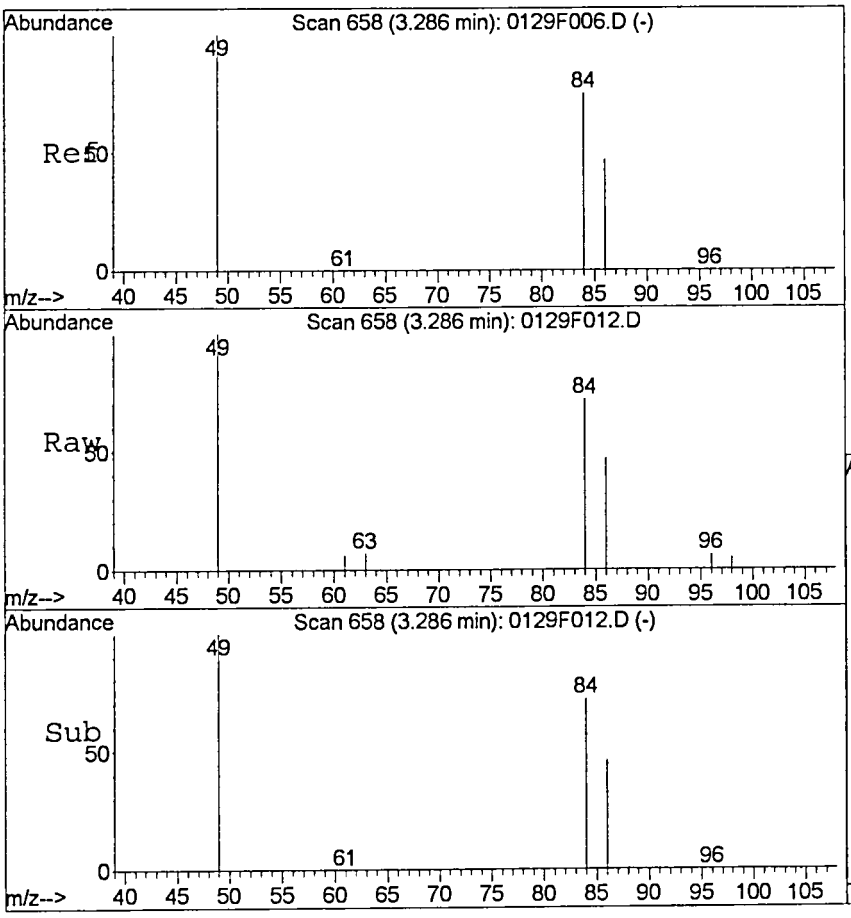


#3
Vinyl Chloride
Concen: 2.56 ng/L
RT: 1.43 min Scan# 106
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 62 Resp: 64

Ion	Ratio	Lower	Upper
62	100		
64	34.1	1.9	61.9
61	36.4	0.0	38.5

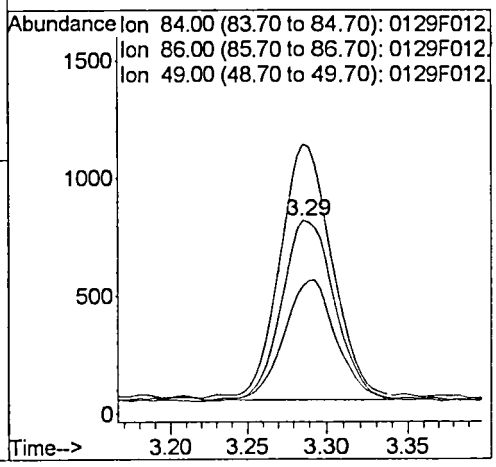


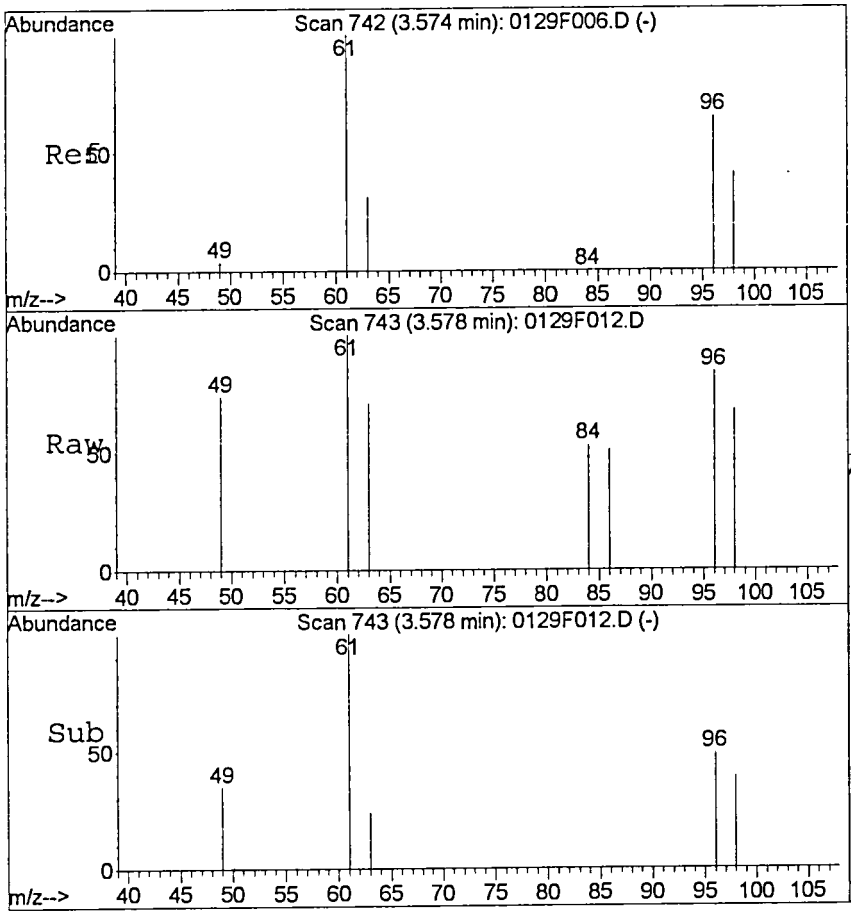


#5
Methylene Chloride
Concen: 76.02 ng/L
RT: 3.29 min Scan# 658
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 84 Resp: 1732

Ion	Ratio	Lower	Upper
84	100		
86	63.8	33.8	93.8
49	140.4	107.9	167.9

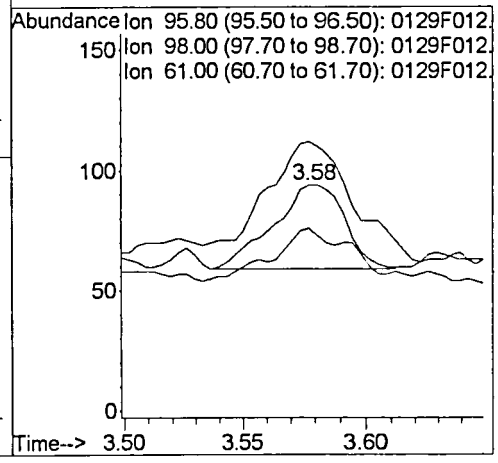


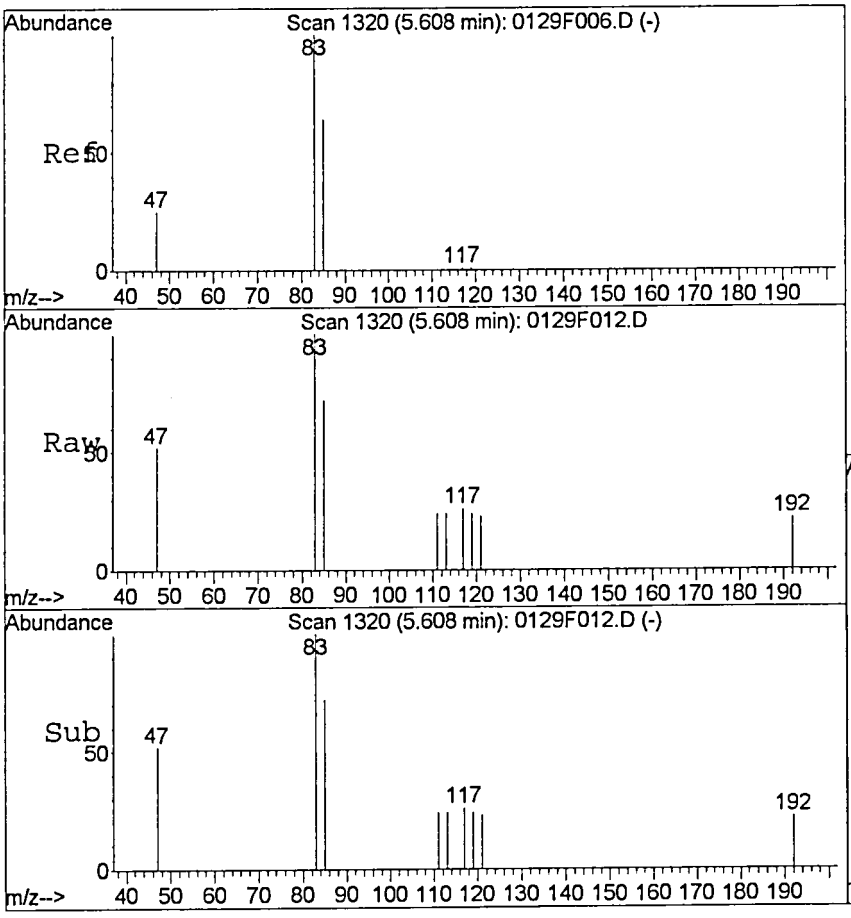


#6
trans-1,2-Dichloroethene
Concen: 4.03 ng/L
RT: 3.58 min Scan# 743
Delta R.T. 0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 96 Resp: 71

Ion	Ratio	Lower	Upper
96	100		
98	60.0	32.7	92.7
61	120.0	122.3	182.3#

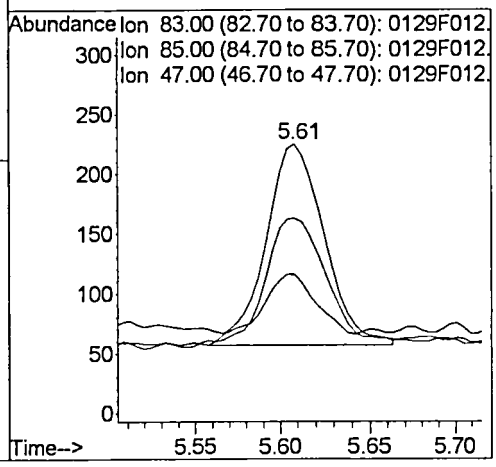


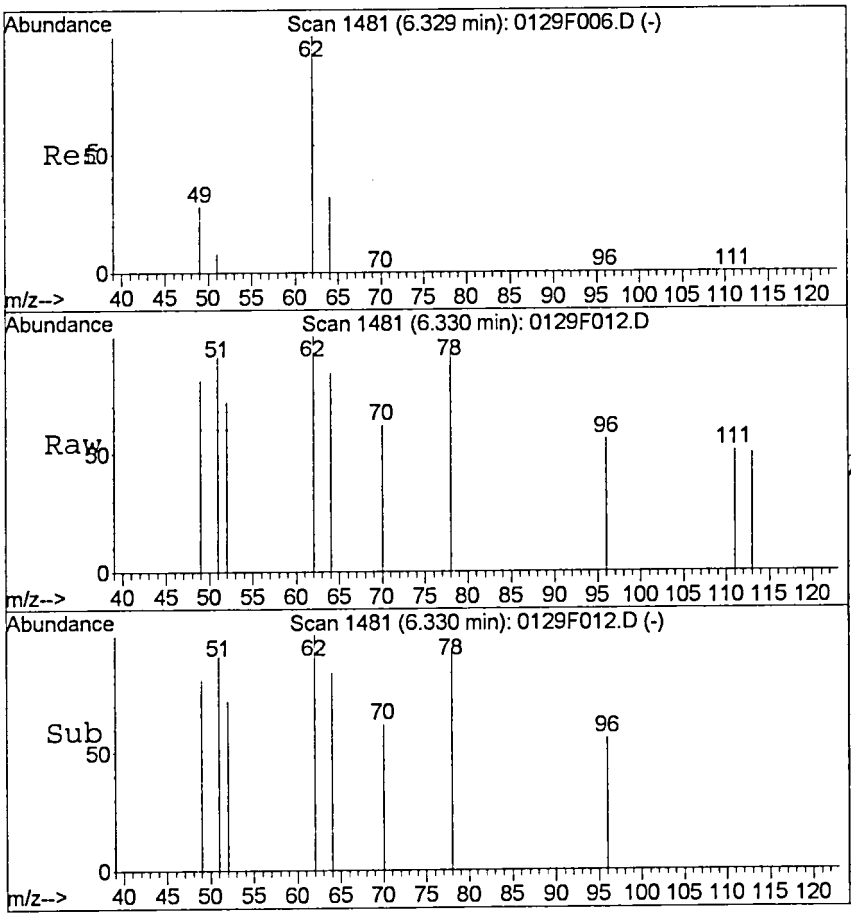


#8
Chloroform
Concen: 10.90 ng/L m
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 83 Resp: 387

Ion	Ratio	Lower	Upper
83	100		
85	72.4	34.7	94.7
47	51.6	0.0	55.9

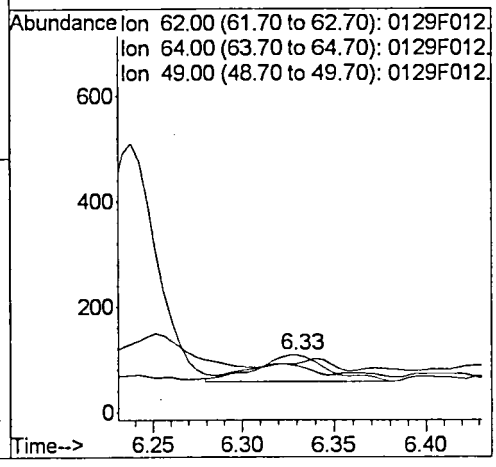


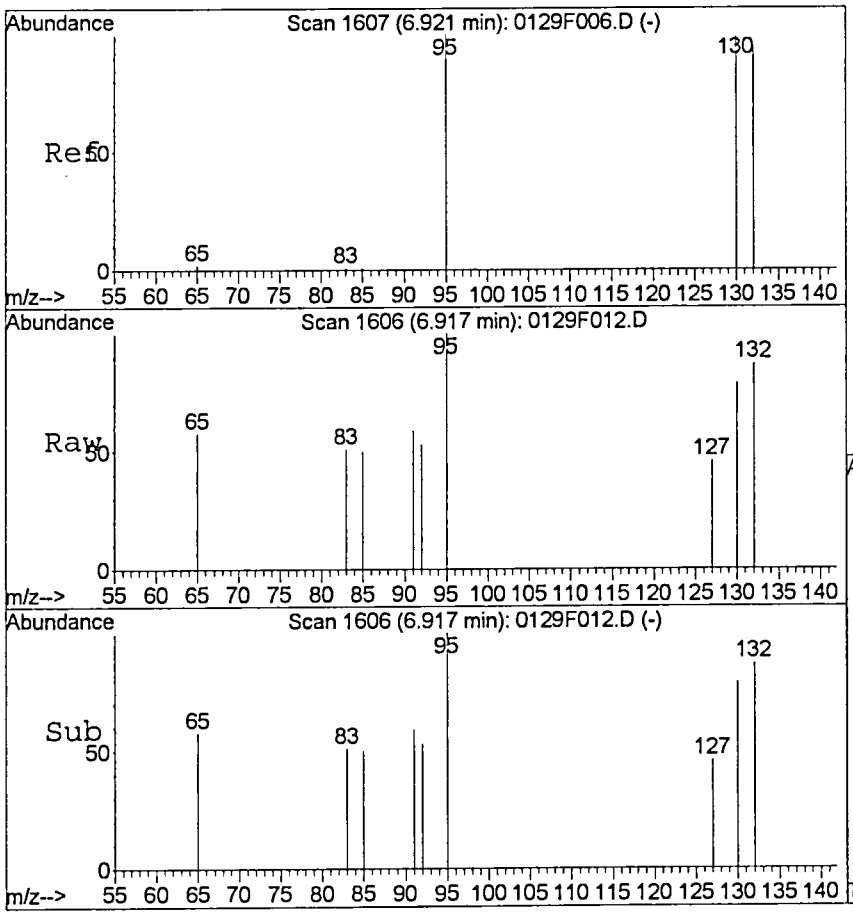


#12
1,2-Dichloroethane
Concen: 5.34 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 62 Resp: 133

Ion	Ratio	Lower	Upper
62	100		
64	84.3	1.7	61.7#
49	80.6	0.0	58.2#

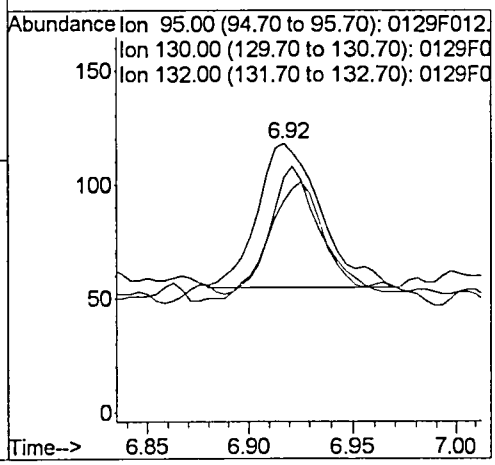


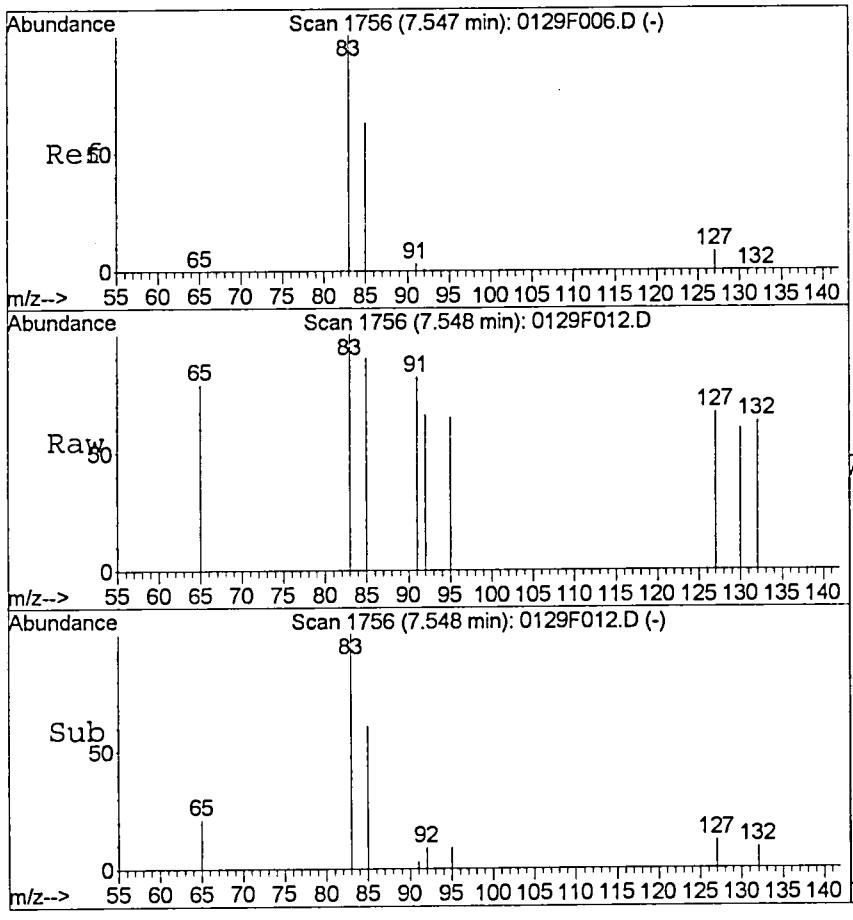


#13
Trichloroethene
Concen: 7.42 ng/L m
RT: 6.92 min Scan# 1606
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 95 Resp: 134

Ion	Ratio	Lower	Upper
95	100		
130	78.8	67.1	127.1
132	87.3	63.9	123.9

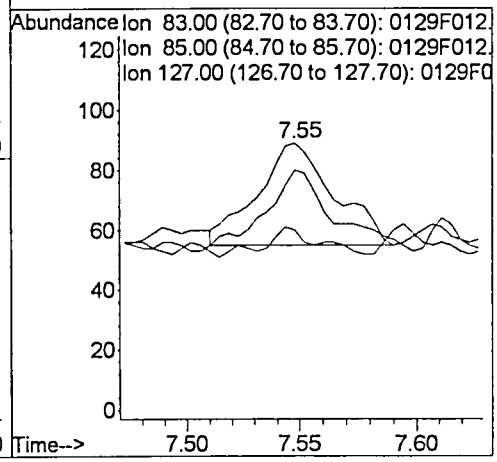


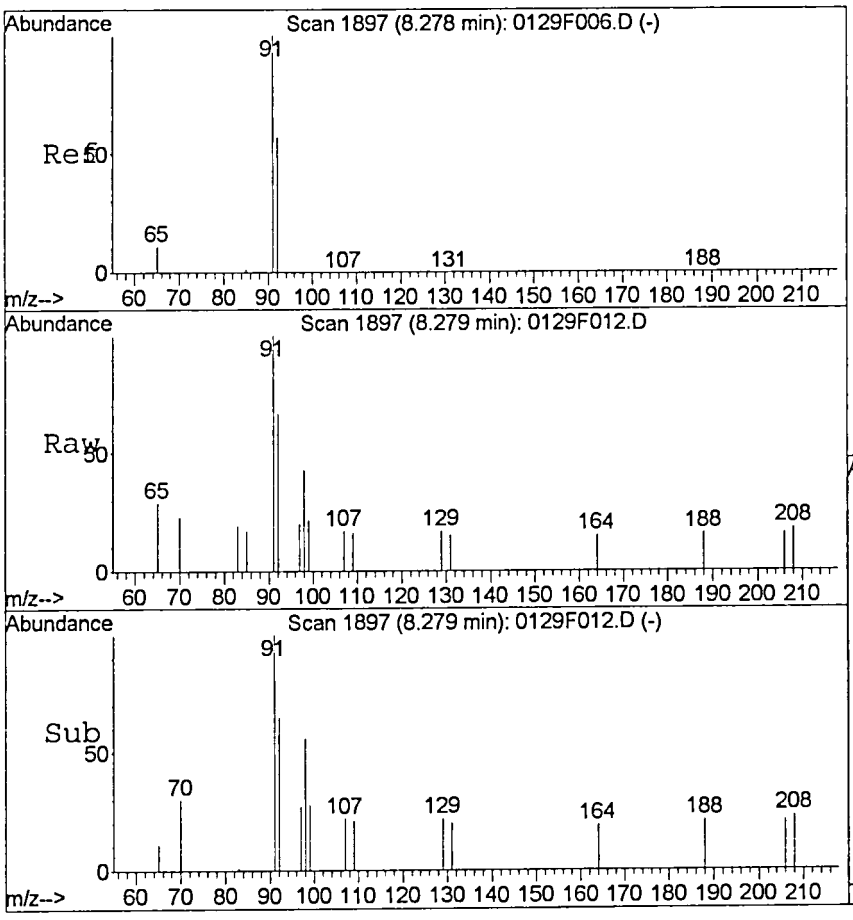


#14
Bromodichloromethane
Concen: 3.30 ng/L
RT: 7.55 min Scan# 1756
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 83 Resp: 79

Ion	Ratio	Lower	Upper
83	100		
85	73.5	33.5	93.5
127	20.6	0.0	38.0

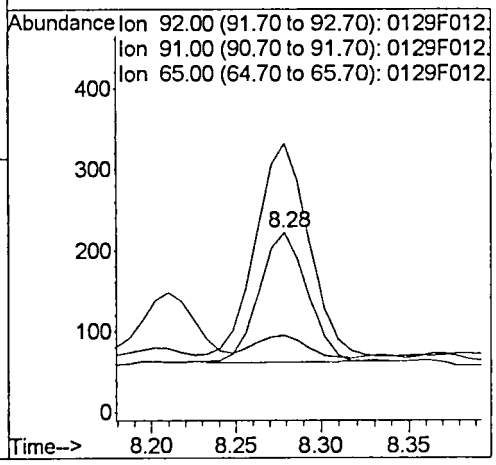


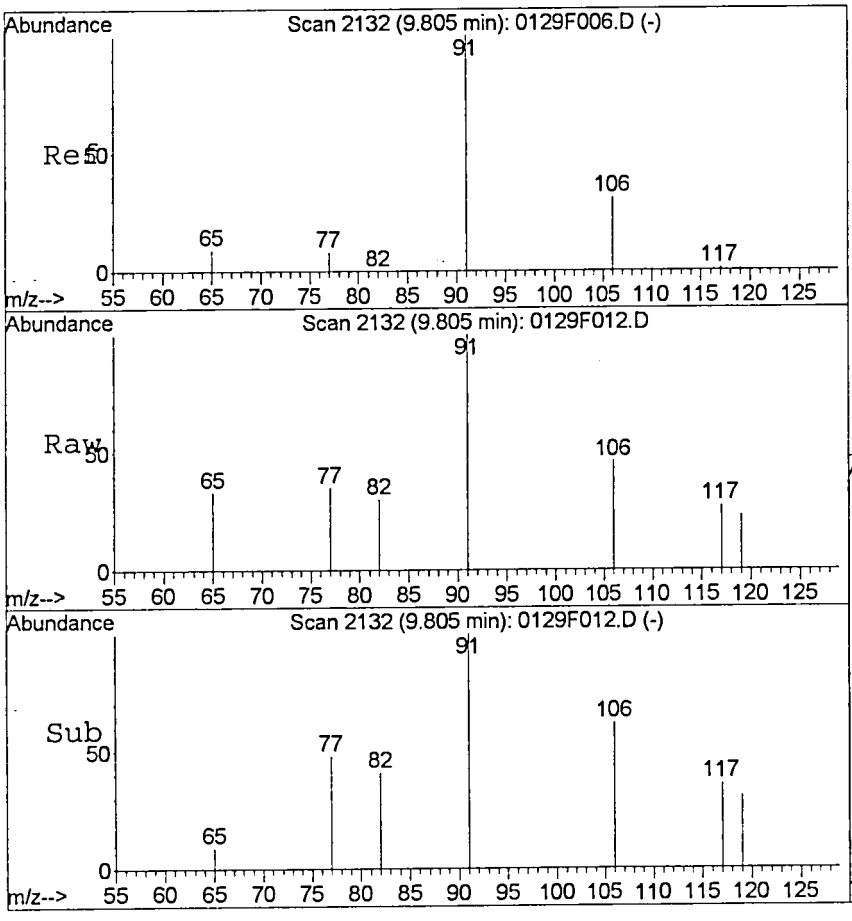


#20
Toluene
Concen: 7.95 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion: 92 Resp: 315

Ion	Ratio	Lower	Upper
92	100		
91	165.4	144.4	204.4
65	15.7	0.0	49.7

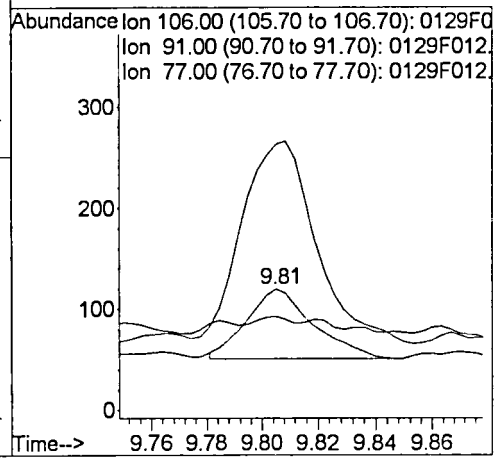


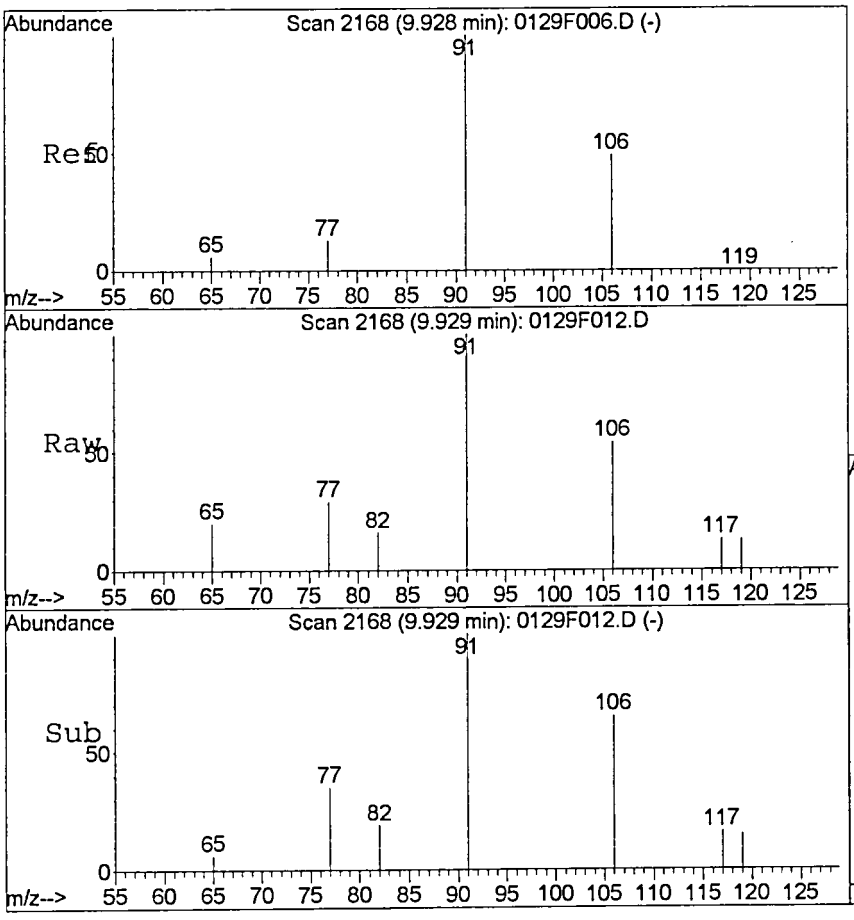


#21
Ethylbenzene
Concen: 5.51 ng/L
RT: 9.81 min Scan# 2132
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion:106 Resp: 114

Ion	Ratio	Lower	Upper
106	100		
91	275.4	295.2	355.2#
77	21.7	0.2	60.2

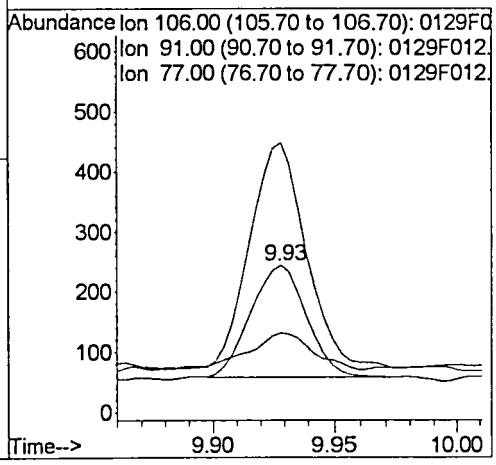


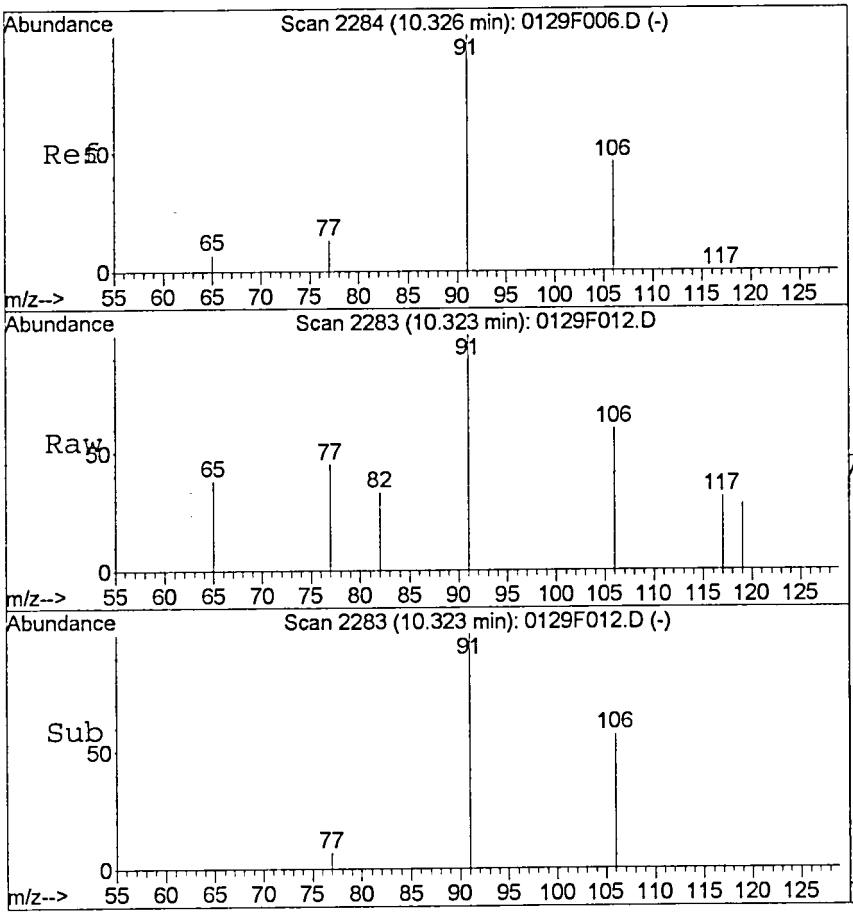


#22
m,p-Xylenes
Concen: 11.58 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion:106 Resp: 299

Ion	Ratio	Lower	Upper
106	100		
91	201.6	173.8	233.8
77	31.2	0.0	57.2

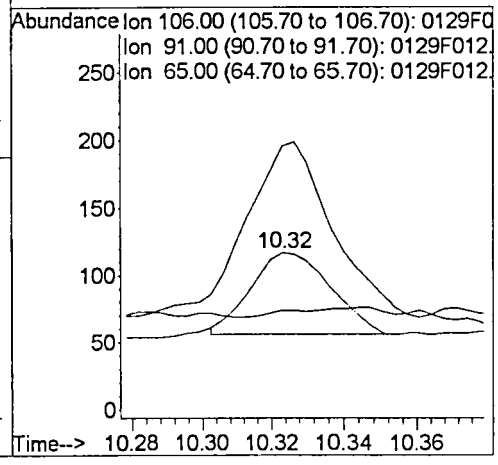


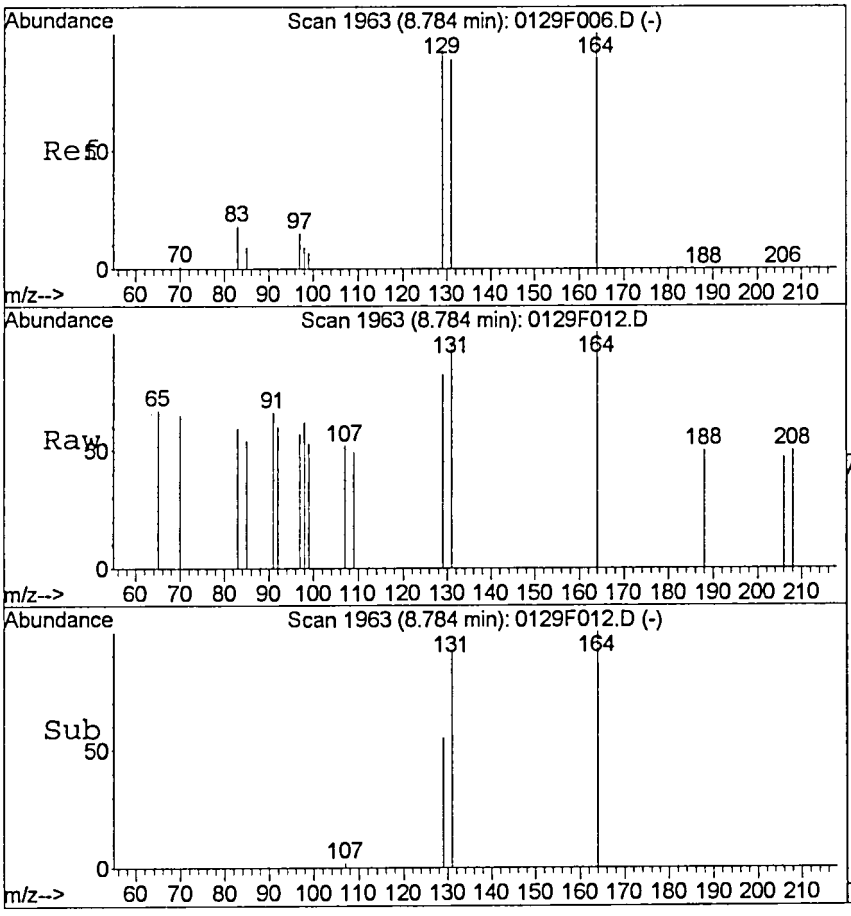


#23
o-Xylene
Concen: 3.72 ng/L
RT: 10.32 min Scan# 2283
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion:106 Resp: 95

Ion	Ratio	Lower	Upper
106	100		
91	196.7	185.6	245.6
65	4.9	0.0	45.0

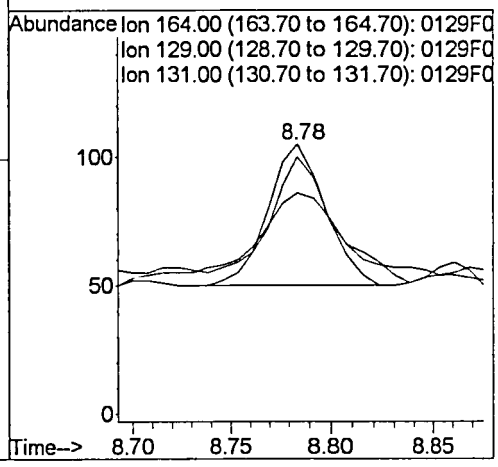


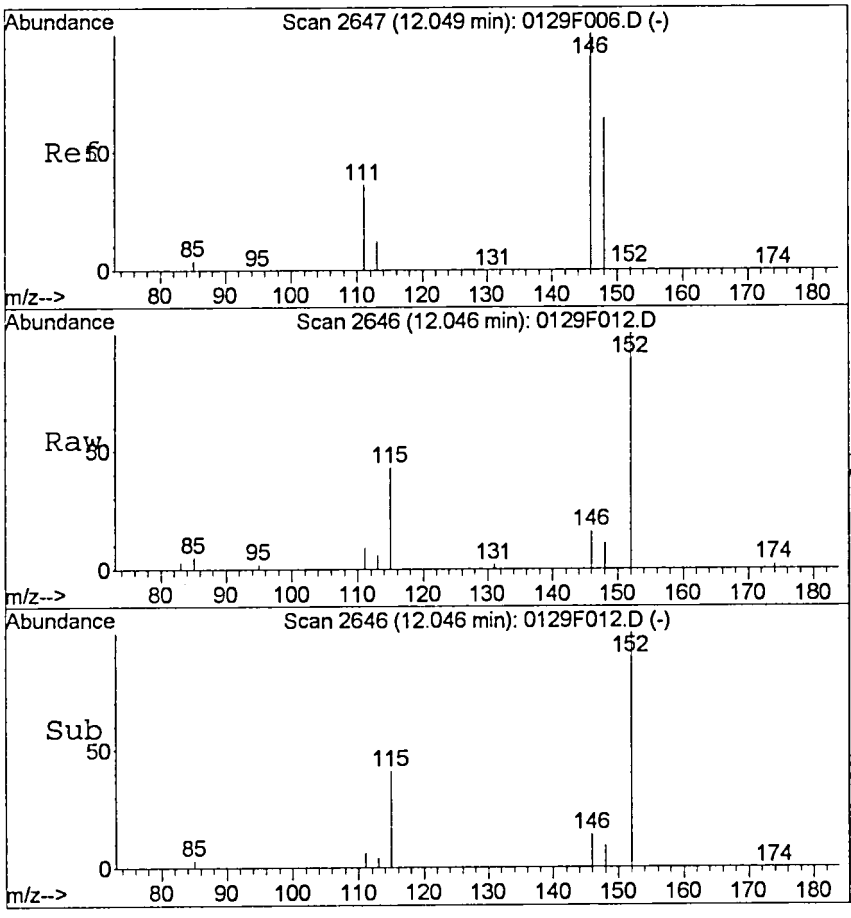


#26
Tetrachloroethene
Concen: 7.81 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion:164 Resp: 108

Ion	Ratio	Lower	Upper
164	100		
129	52.7	61.1	121.1#
131	83.6	58.3	118.3

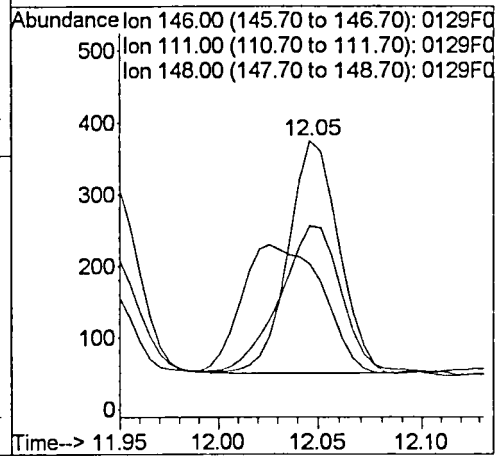




#28
1,4-Dichlorobenzene
Concen: 15.21 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0129F012.D
Acq: 29 Jan 2016 2:32 pm

Tgt Ion:146 Resp: 551

Ion	Ratio	Lower	Upper
146	100		
111	47.2	6.7	66.7
148	62.3	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F011.D
Lab ID: KWG1600835-4
RunType: MB
Matrix: WATER

Date Acquired: 02/01/2016 13:46
Date Quantitated: 02/01/2016 15:14
Batch ID: KWG1600834
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Toluene-d8	20.9	NA	20	CCV okay
Surrogates	Toluene-d8	118	74	112	↑ biog

Primary Review: JM 2/1/16

Secondary Review: [illegible]

Printed: 02/01/2016 15:36:21
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F011.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 13:46	**Quant Date:**	02/01/2016 15:14	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600835-4			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**	KWG1600835	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	02/01/2016		
Prep Ref:	1496979				

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
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	6.54	0.00	96	66778	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	47410	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.00	152	22301	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17409	1,146	115	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	57108	1,176	118	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	19219	1,006	101	46-118	OK	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	302m	11.12	11.1	J	
1	Vinyl Chloride				62	0d		4.6	U	
1	1,1-Dichloroethene	2.59	0.01	0.00	96	26	1.85	5.9	U	
1	Methylene Chloride	3.29		0.00	84	774	35.00	55	U	
1	trans-1,2-Dichloroethene	3.58	0.01	0.00	96	54	3.16	3.5	U	
1	cis-1,2-Dichloroethene				96	0		6.5	U	
1	Chloroform	5.61		0.00	83	178	5.16	7.6	U	
1	Carbon Tetrachloride				117	0d		7.2	U	
1	Benzene				78	0d		5.6	U	
1	1,2-Dichloroethane	6.33		0.00	62	101m	4.18	5.8	U	
1	Trichloroethene (TCE)	6.92		0.00	95	78m	4.45	4.45	J	
1	Bromodichloromethane				83	0d		3.4	U	
1	1,1,2-Trichloroethane				83	0d		9.0	U	
1	Dibromochloromethane				129	0d		8.8	U	
1	1,2-Dibromoethane (EDB)				107	0		4.5	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:\MS27\DATA\020116_SIM\0201F011.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 13:46	**Quant Date:**	02/01/2016 15:14	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600835-4			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	95	2.47	2.8	U	
2	Ethylbenzene				106	0d		5.6	U	
2	m,p-Xylenes	9.93		0.00	106	146	5.83	9.5	U	
2	o-Xylene				106	0d		4.9	U	
2	1,1,2,2-Tetrachloroethane				83	0d		8.7	U	
2	Tetrachloroethene (PCE)	8.78		0.00	164	84	6.26	6.26	J	
3	1,4-Dichlorobenzene	12.05		0.00	146	358	10.29	10.3	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 (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 15:10:05 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

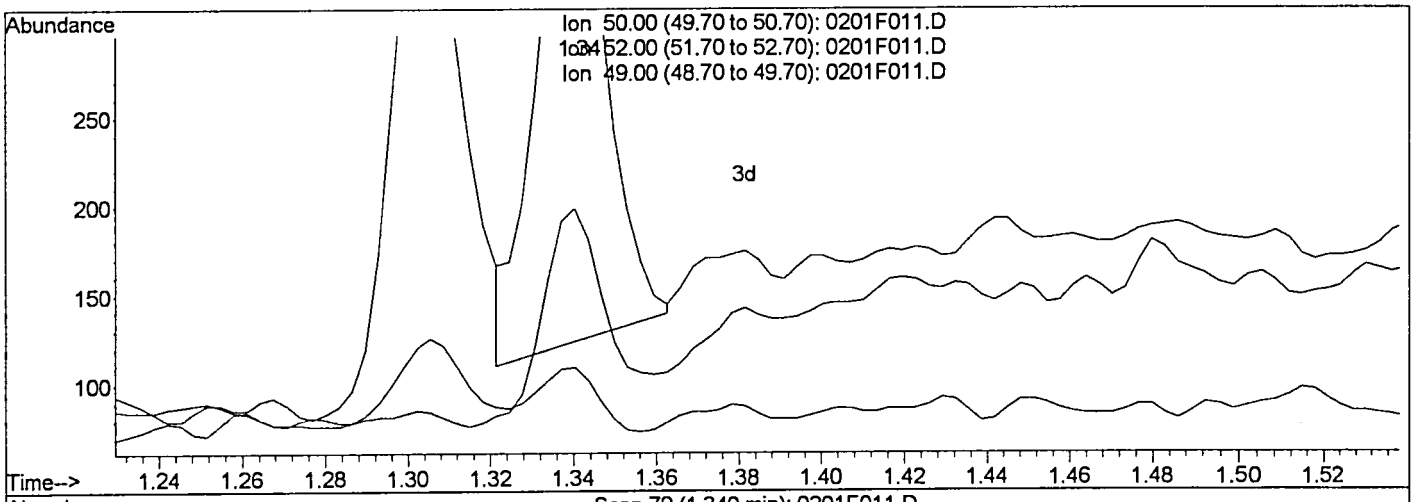
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.54	96	66778	1000.00	ng/L		0.00
19) Chlorobenzene-d5	9.70	117	47410	1000.00	ng/L		0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	22301	1000.00	ng/L		0.00
System Monitoring Compounds							
9) Dibromofluoromethane	5.82	113	17409	1145.65	ng/L		0.00
Spiked Amount 1000.000			Recovery = 114.57%				
15) Toluene-d8	8.21	98	57108	1175.99	ng/L		0.00
Spiked Amount 1000.000			Recovery = 117.60%				
24) 4-Bromofluorobenzene	10.89	95	19219	1005.90	ng/L		0.00
Spiked Amount 1000.000			Recovery = 100.59%				
Target Compounds							Qvalue
2) Chloromethane	1.34	50	302m	11.12	ng/L		
4) 1,1-Dichloroethene	2.59	96	26	1.85	ng/L	#	58
5) Methylene Chloride	3.29	84	774	35.00	ng/L		97
6) trans-1,2-Dichloroethene	3.58	96	54	3.16	ng/L	#	63
8) Chloroform	5.61	83	178	5.16	ng/L		87
12) 1,2-Dichloroethane	6.33	62	101m	4.18	ng/L		
13) Trichloroethene	6.92	95	78m	4.45	ng/L		
20) Toluene	8.28	92	95	2.47	ng/L	#	71
22) m,p-Xylenes	9.93	106	146	5.83	ng/L		95
26) Tetrachloroethene	8.78	164	84	6.26	ng/L		86
28) 1,4-Dichlorobenzene	12.05	146	358	10.29	ng/L		82

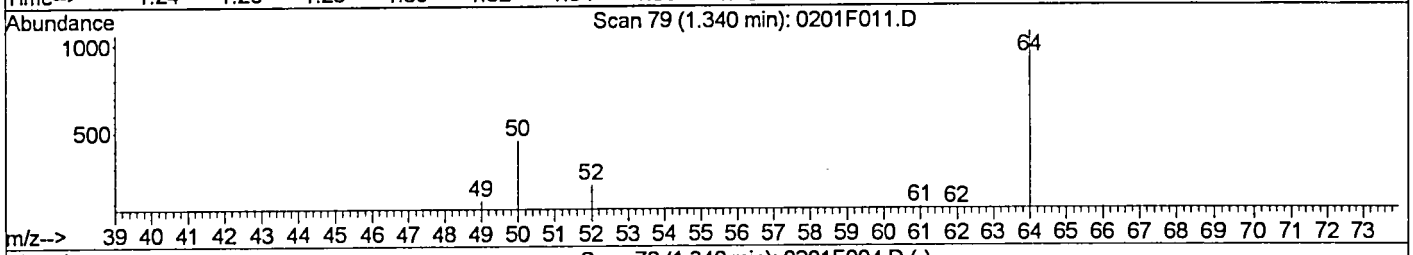
(#) = qualifier out of range (m) = manual integration
0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:18:31 2016 Page 1

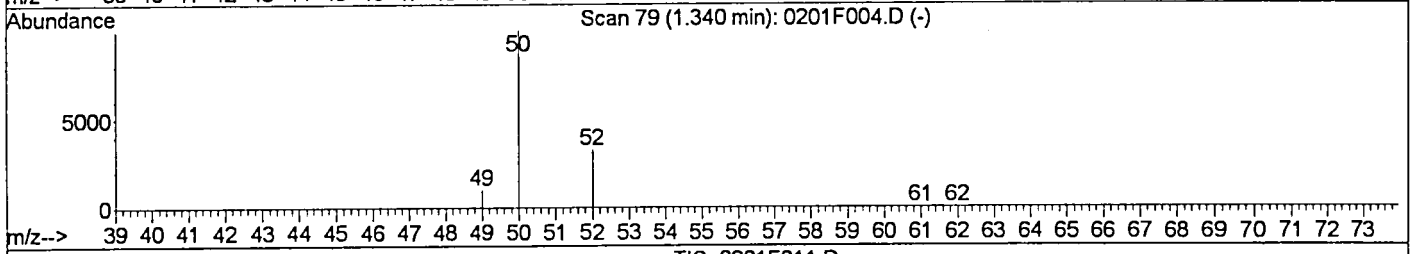
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:10 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration







TIC: 0201F011.D

(2) Chloromethane (T)

1.34min 12.89ng/L

response 350

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	38.03
49.00	10.10	10.16
0.00	0.00	0.00

Manual Integration:

Before

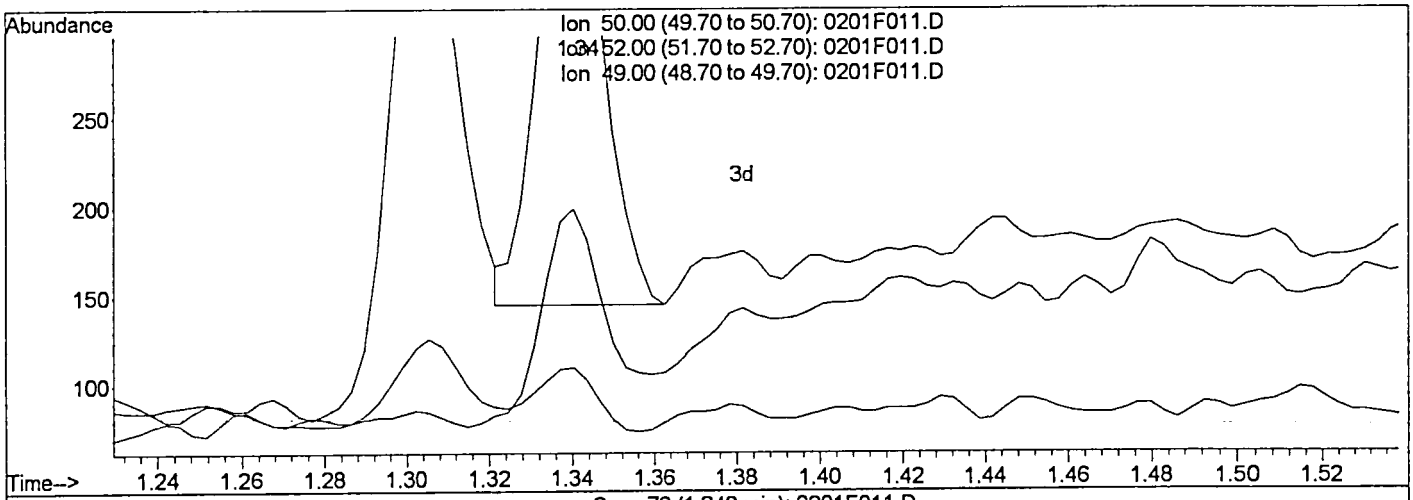
02/01/16

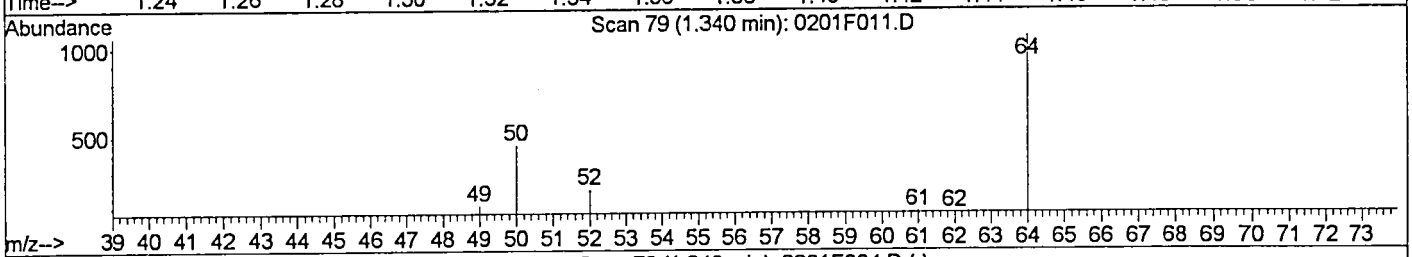
0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:12:54 2016

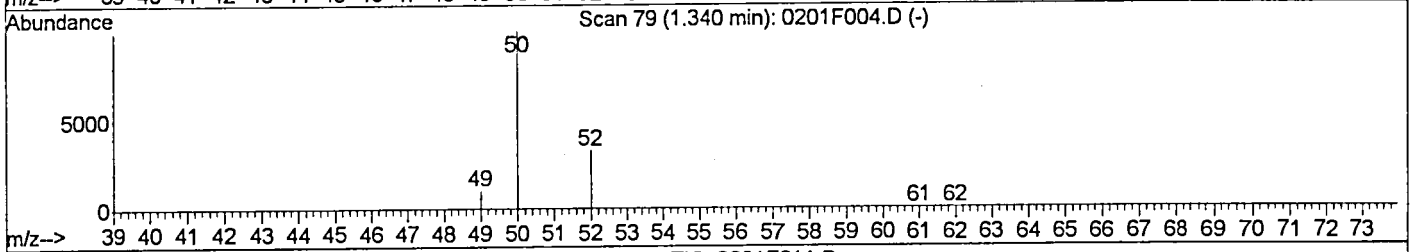
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:12 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration







TIC: 0201F011.D

(2) Chloromethane (T)

1.34min 11.12ng/L m

response 302

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	44.22
49.00	10.10	24.44
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

02/01/16

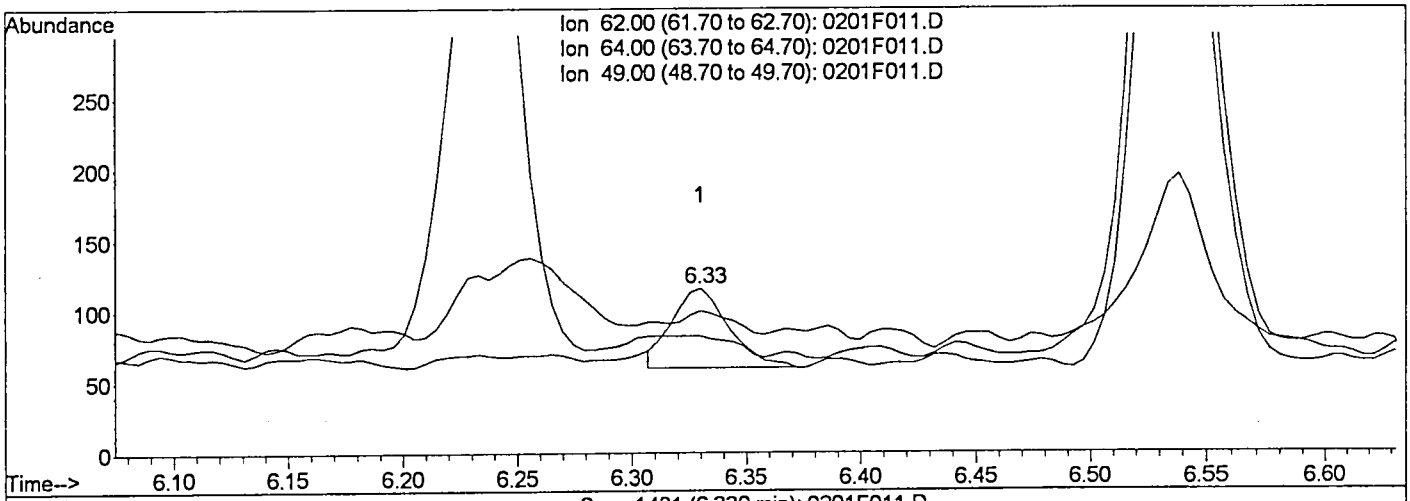
0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:13:00 2016

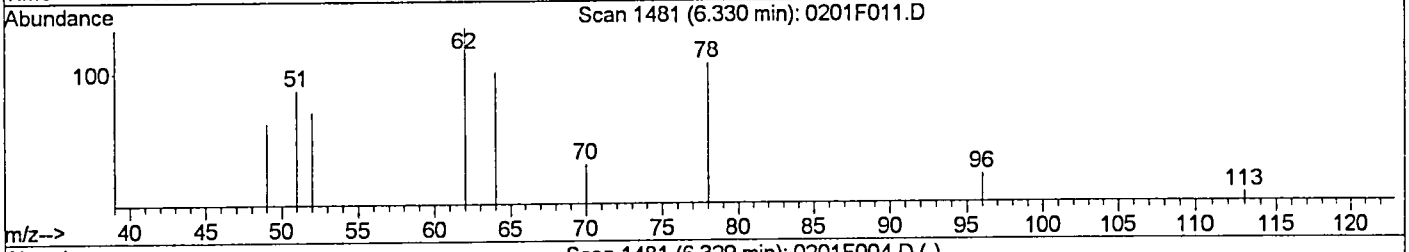
Quantitation Report (Qedit)

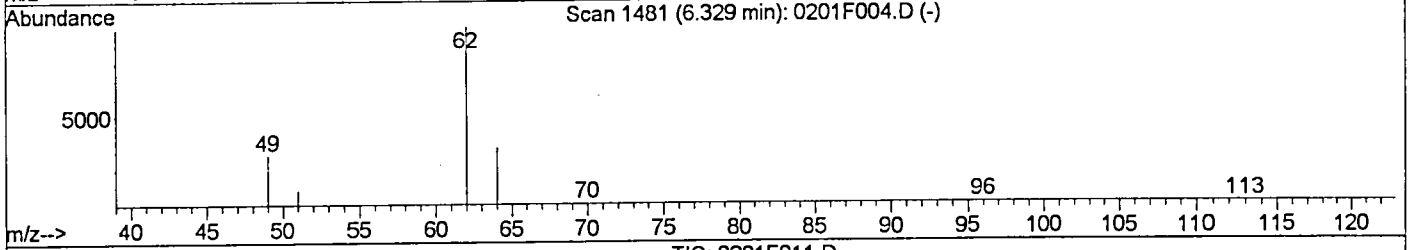
Data File : J:\MS27\DATA\020116_SIM\0201F011.D
Acq On : 1 Feb 2016 1:46 pm
Sample : MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:13 2016

Vial: 9
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F011.D

(12) 1,2-Dichloroethane (T)

6.33min 3.97ng/L

response 96

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	25.00
49.00	28.20	21.43
0.00	0.00	0.00

Manual Integration:

Before

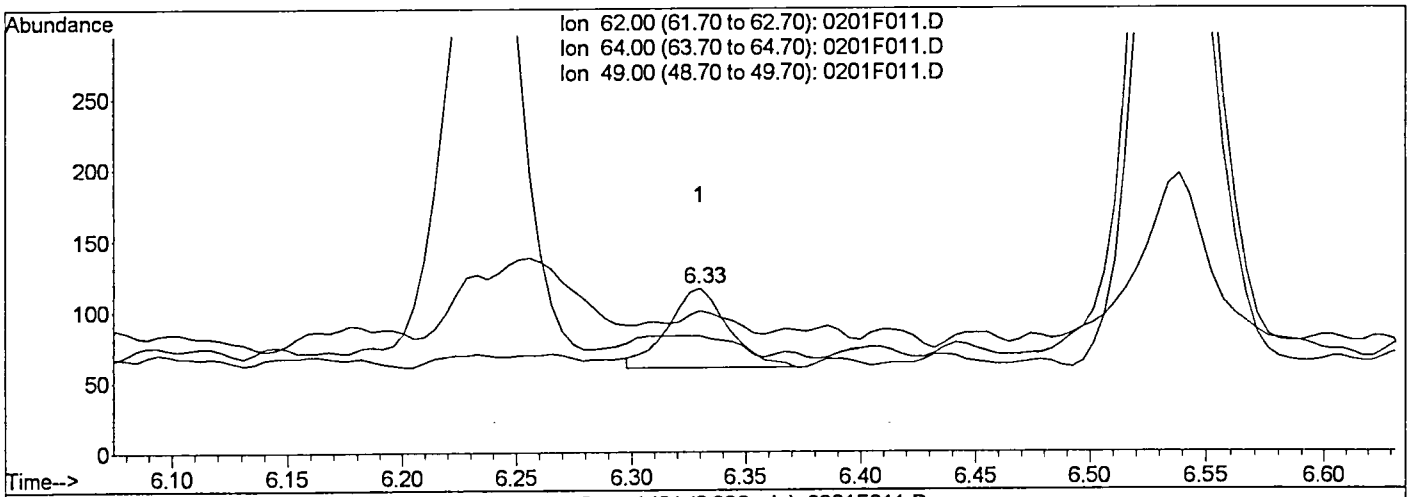
02/01/16

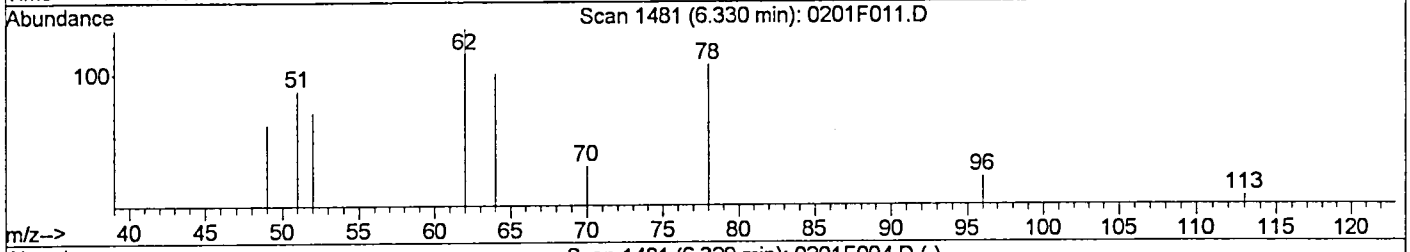
0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:13:30 2016

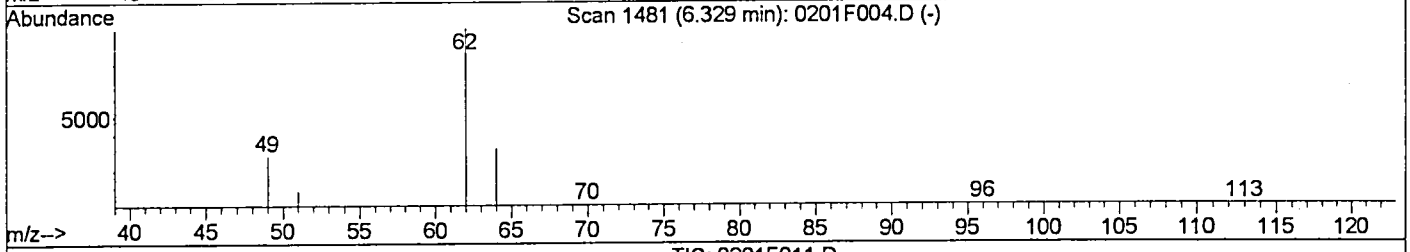
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:13 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F011.D

(12) 1,2-Dichloroethane (T)

6.33min 4.18ng/L m

response 101

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	86.21#
49.00	28.20	70.69#
0.00	0.00	0.00

Manual Integration:

After #4

Baseline correction

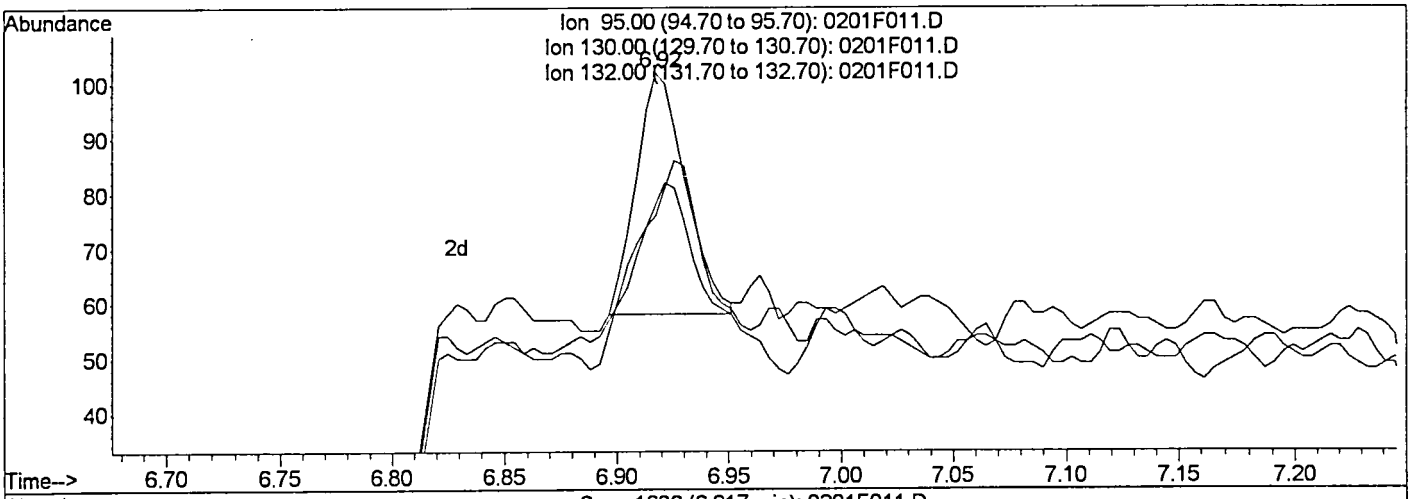
02/01/16

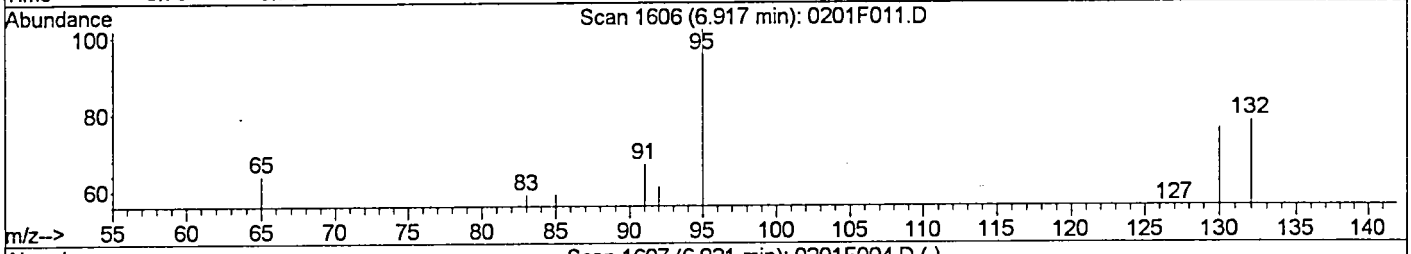
0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:13:37 2016

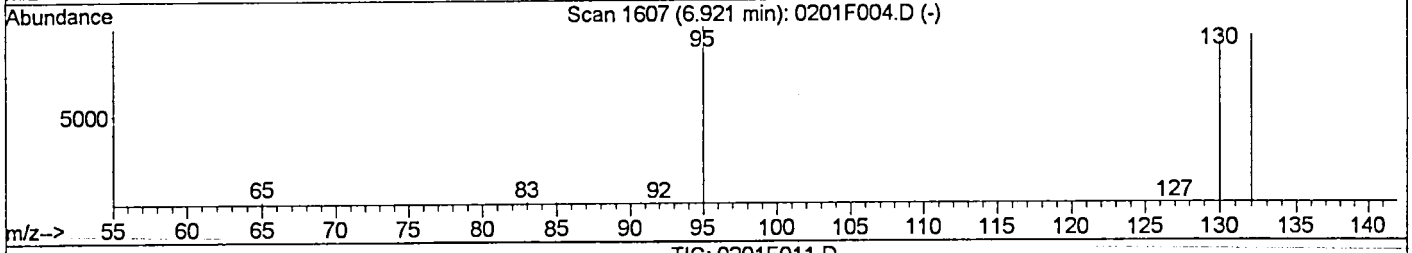
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:13 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0201F011.D

(13) Trichloroethene (T)

6.92min 3.88ng/L

response 68

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	43.18#
132.00	93.90	52.27#
0.00	0.00	0.00

Manual Integration:

Before

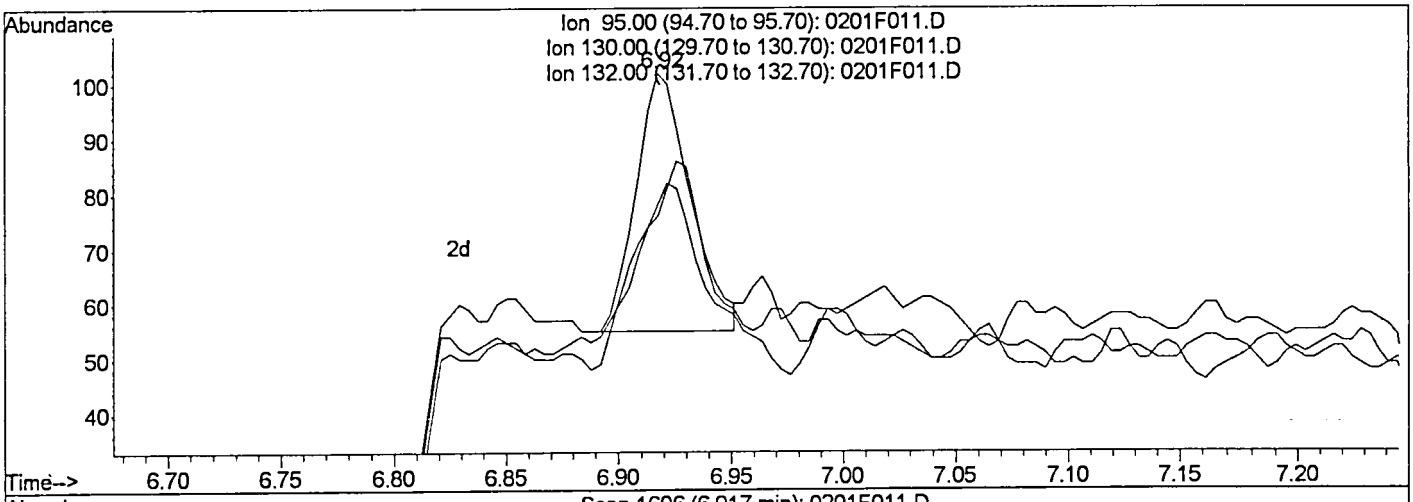
02/01/16

0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:13:41 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:13 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0201F011.D

(13) Trichloroethene (T)

6.92min 4.45ng/L m

response 78

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	74.51
132.00	93.90	76.47
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

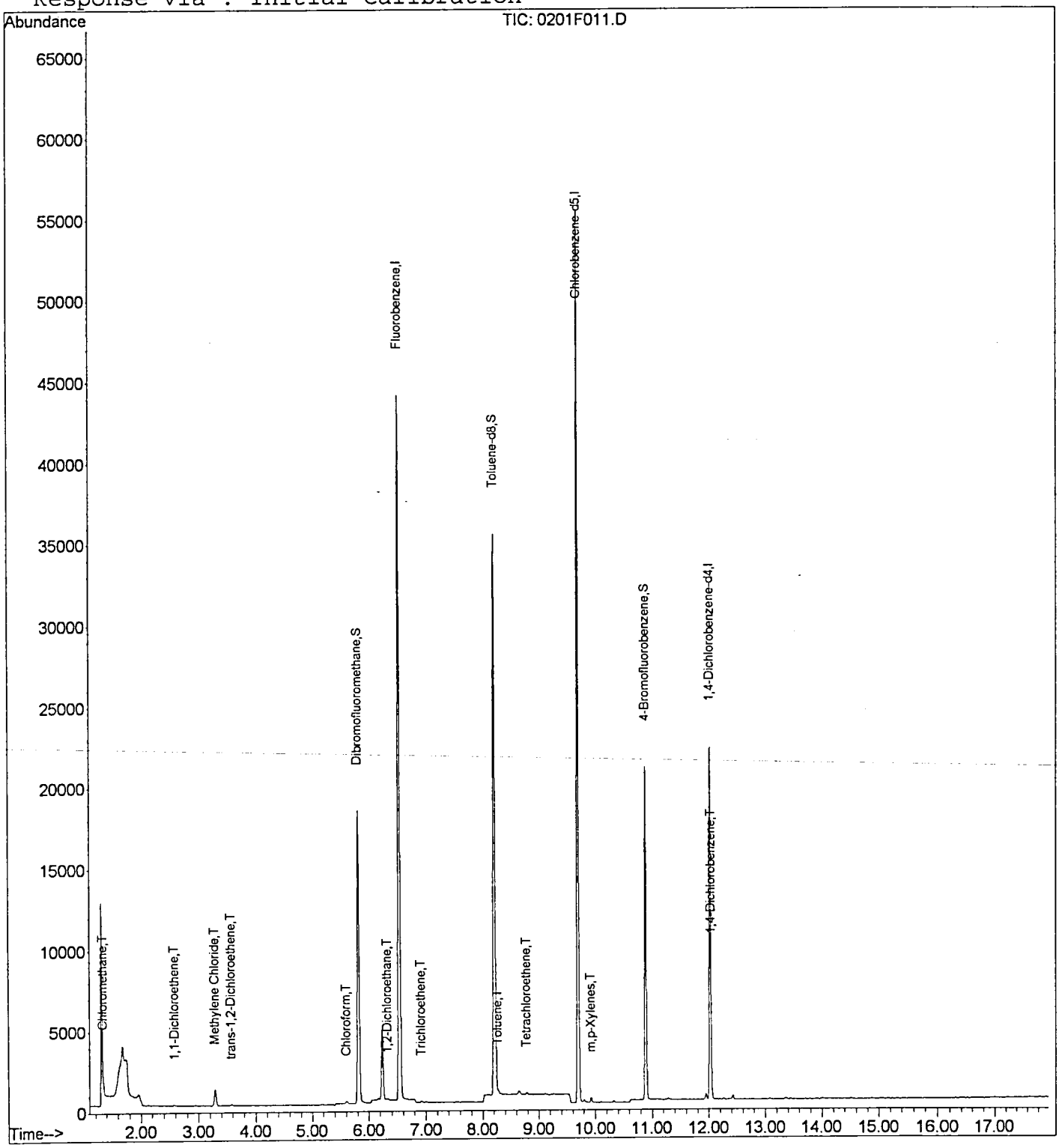
02/01/16

0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:13:48 2016

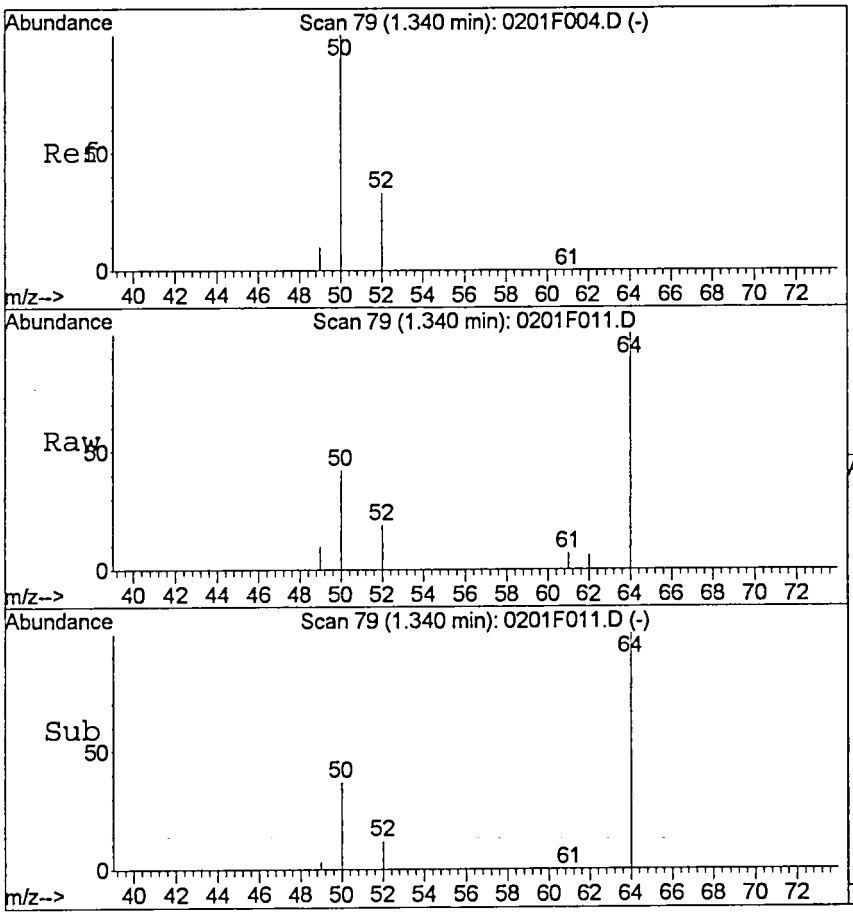
Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F011.D Vial: 9
Acq On : 1 Feb 2016 1:46 pm Operator: GH
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 15:14 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



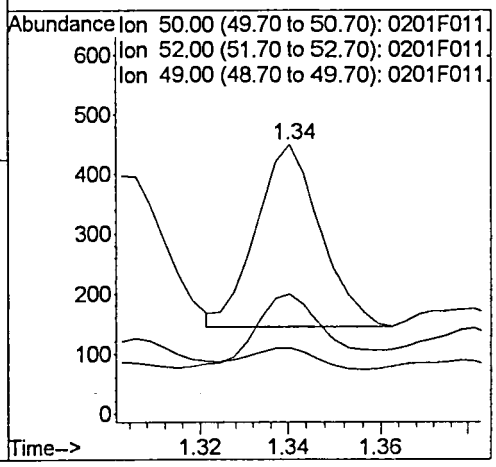
0201F011.D 012716MS27_8260SIM.M Mon Feb 01 15:18:31 2016 Page 2

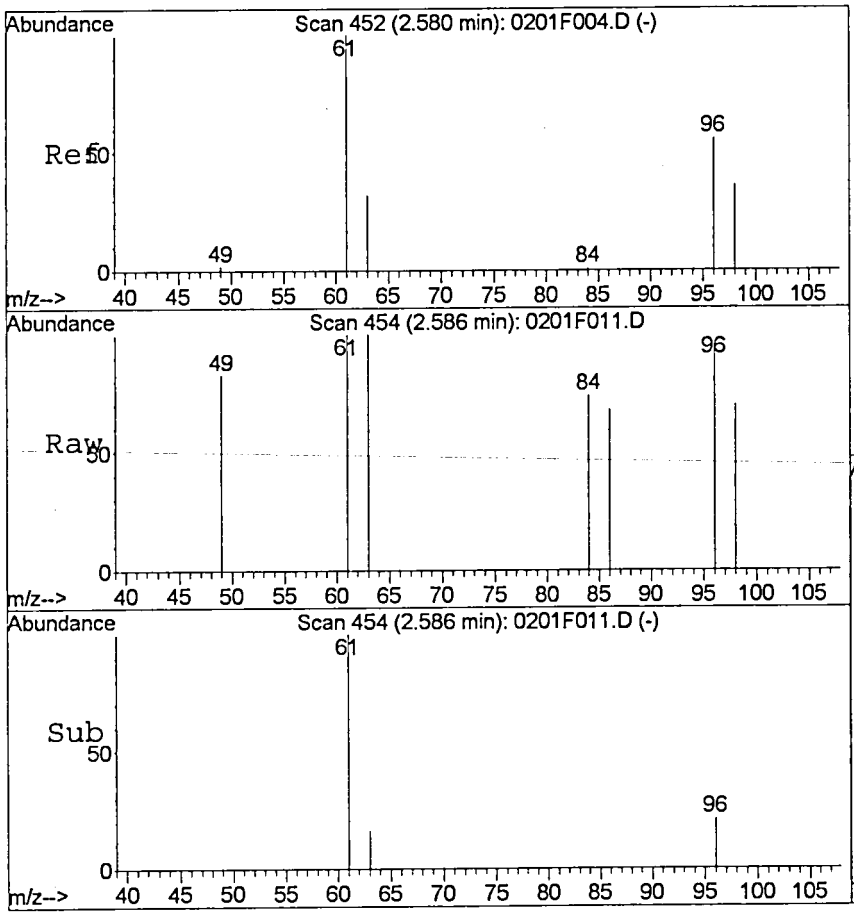


#2
Chloromethane
Concen: 11.12 ng/L m
RT: 1.34 min Scan# 79
Delta R.T. 0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 50 Resp: 302

Ion	Ratio	Lower	Upper
50	100		
52	44.2	2.9	62.9
49	24.4	0.0	40.1

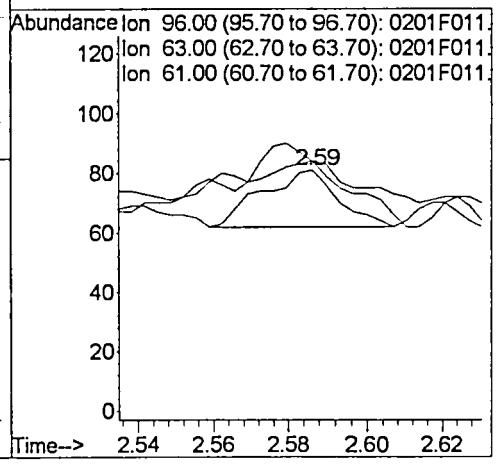


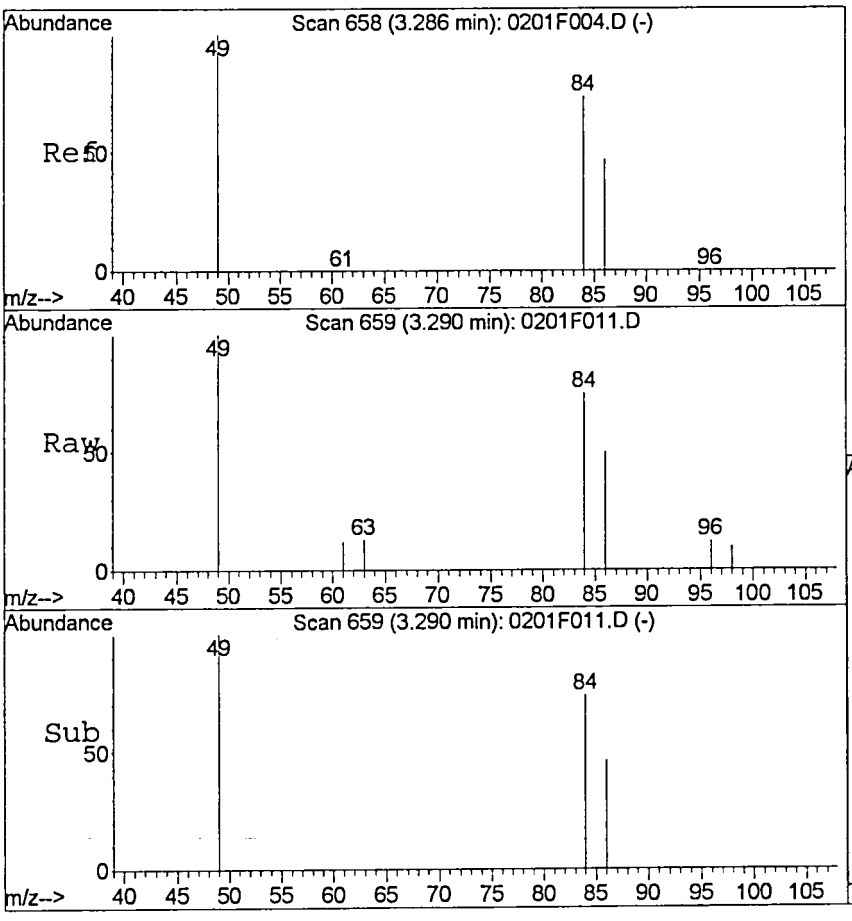


#4
1,1-Dichloroethene
Concen: 1.85 ng/L
RT: 2.59 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 96 Resp: 26

Ion	Ratio	Lower	Upper
96	100		
63	57.9	25.0	85.0
61	94.7	139.2	199.2#

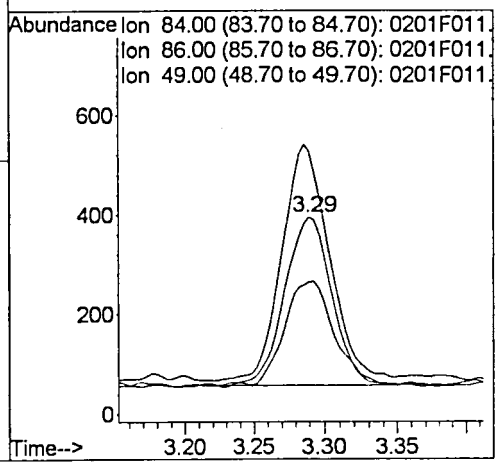


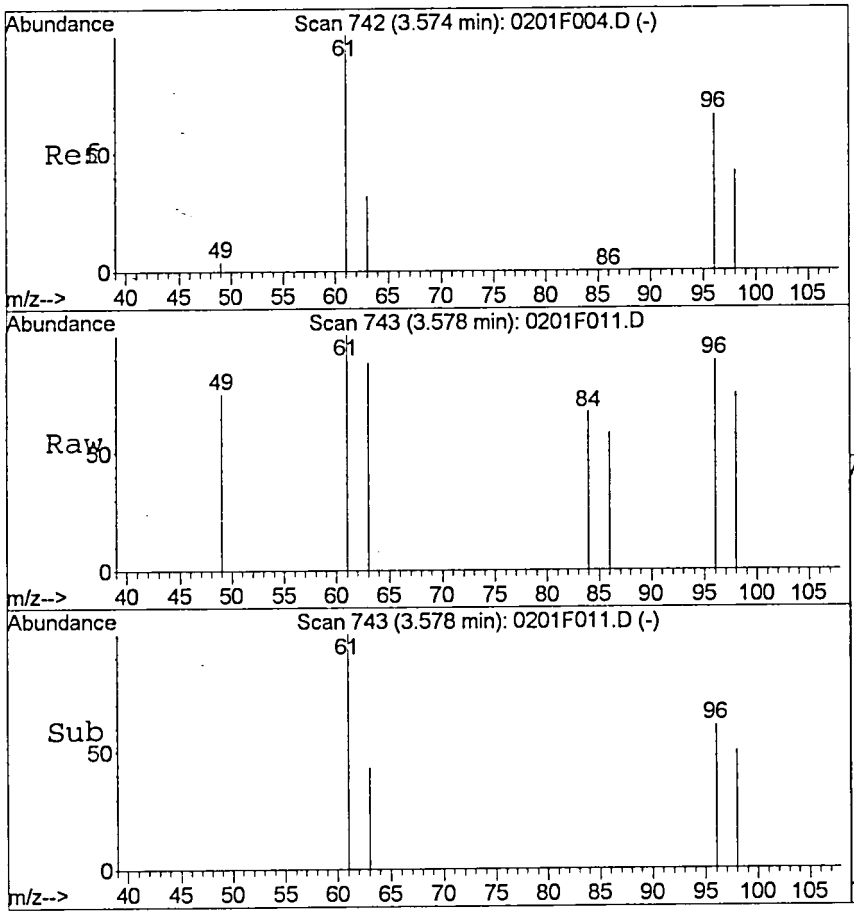


#5
Methylene Chloride
Concen: 35.00 ng/L
RT: 3.29 min Scan# 659
Delta R.T. 0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 84 Resp: 774

Ion	Ratio	Lower	Upper
84	100		
86	60.5	33.8	93.8
49	135.4	107.9	167.9

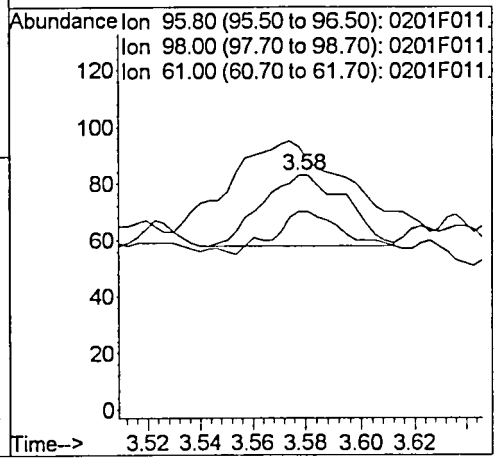


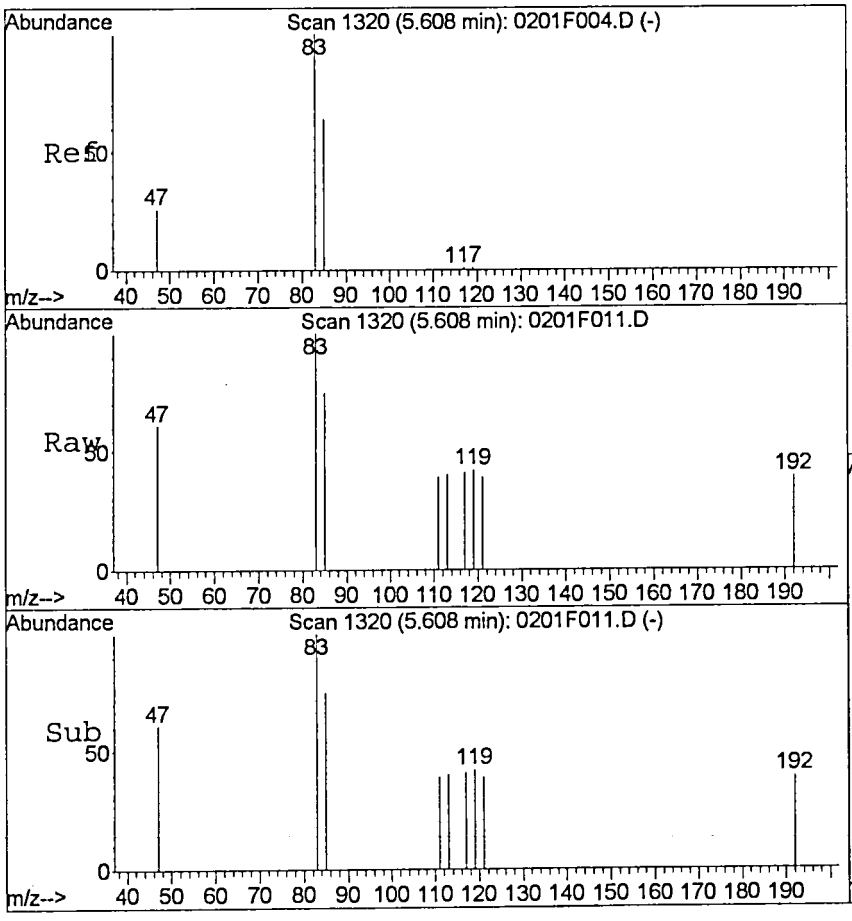


#6
trans-1,2-Dichloroethene
Concen: 3.16 ng/L
RT: 3.58 min Scan# 743
Delta R.T. 0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 96 Resp: 54

Ion	Ratio	Lower	Upper
96	100		
98	52.0	32.7	92.7
61	92.0	122.3	182.3#

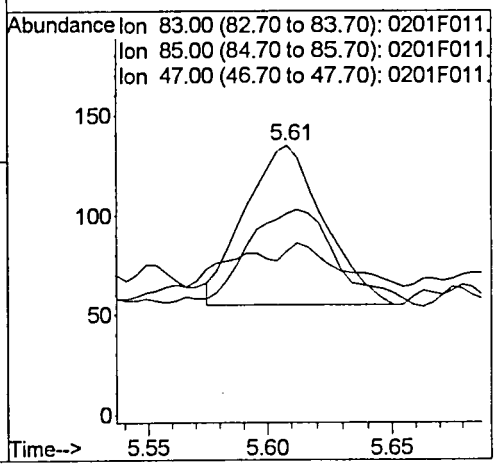


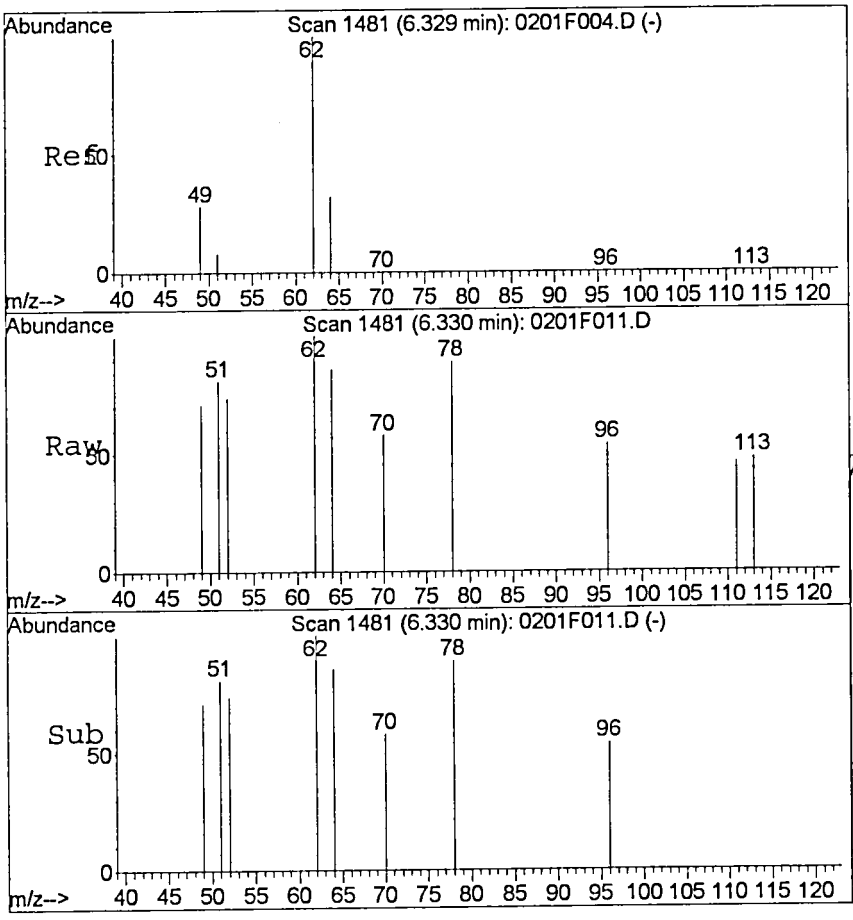


#8
Chloroform
Concen: 5.16 ng/L
RT: 5.61 min Scan# 1320
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 83 Resp: 178

Ion	Ratio	Lower	Upper
83	100		
85	53.8	34.7	94.7
47	20.0	0.0	55.9

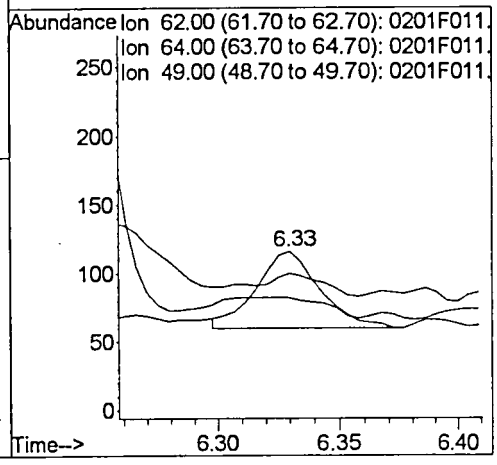


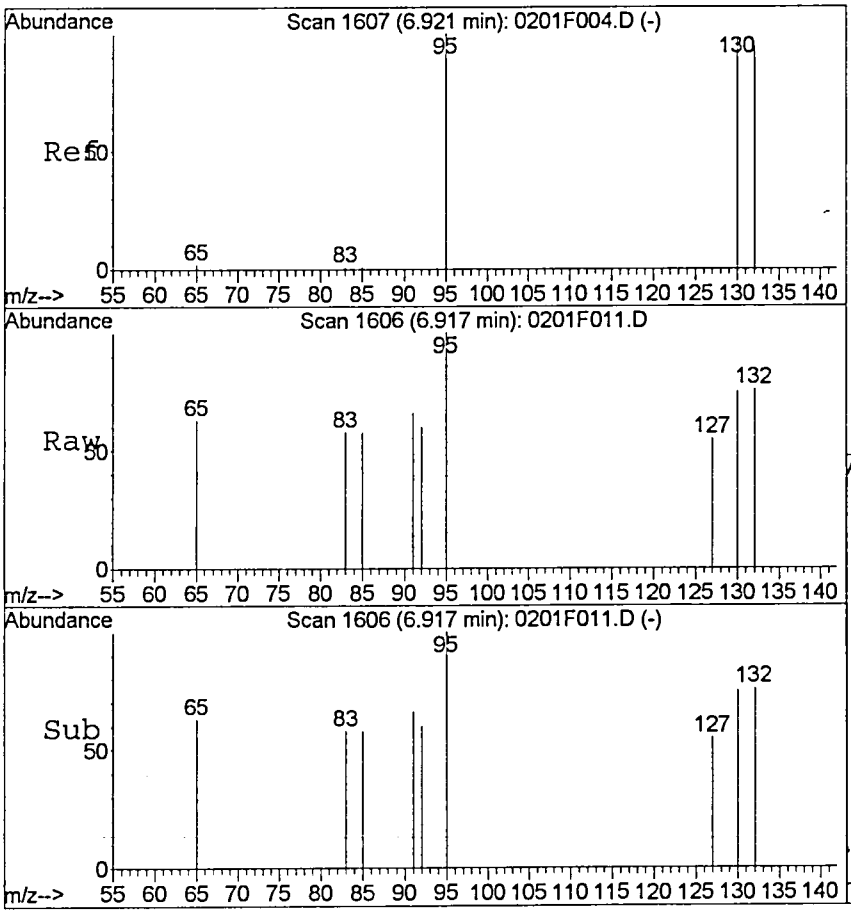


#12
1,2-Dichloroethane
Concen: 4.18 ng/L m
RT: 6.33 min Scan# 1481
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 62 Resp: 101

Ion	Ratio	Lower	Upper
62	100		
64	86.2	1.7	61.7#
49	70.7	0.0	58.2#

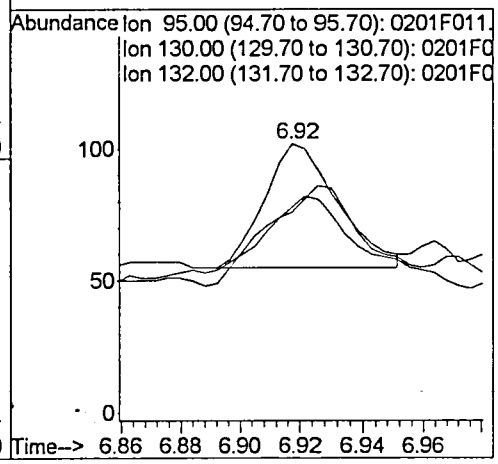


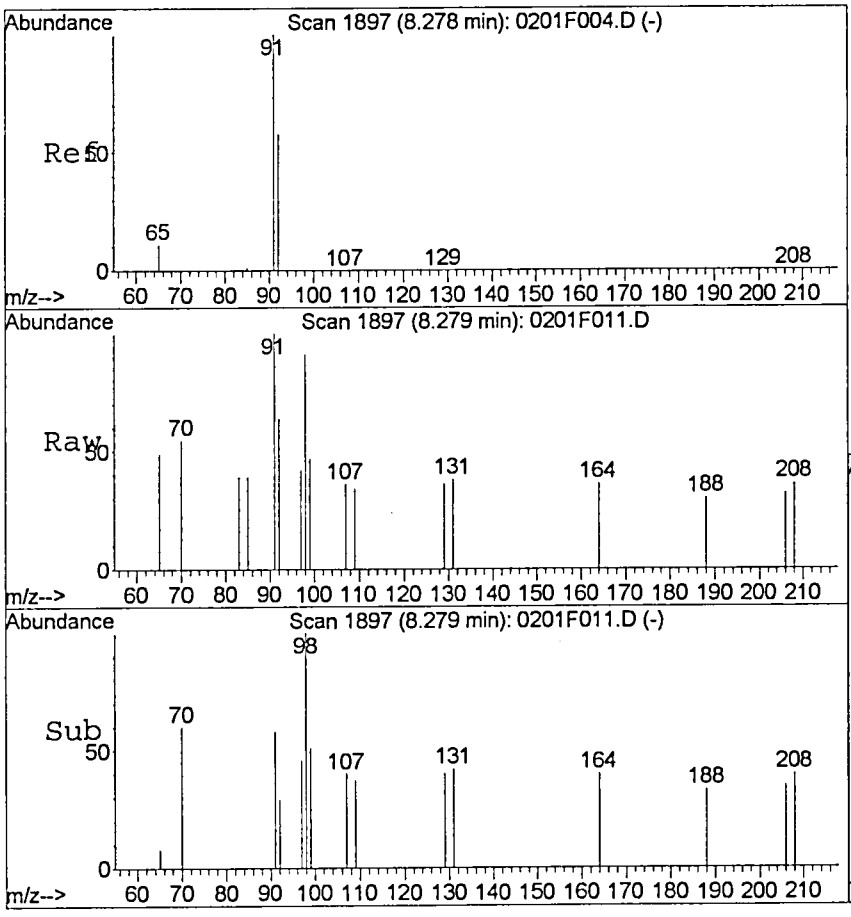


#13
Trichloroethene
Concen: 4.45 ng/L m
RT: 6.92 min Scan# 1606
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 95 Resp: 78

Ion	Ratio	Lower	Upper
95	100		
130	74.5	67.1	127.1
132	76.5	63.9	123.9

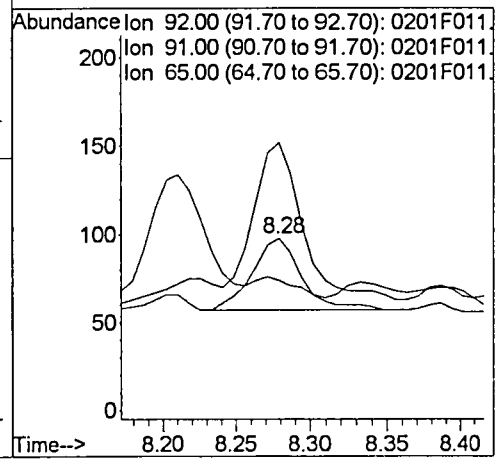


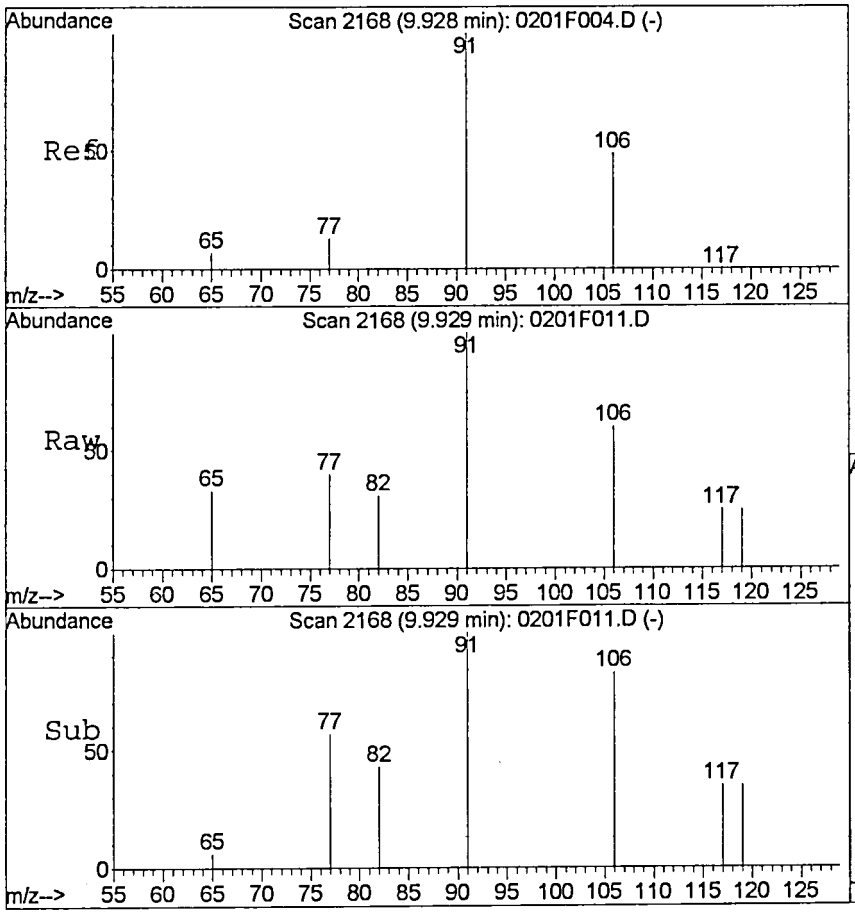


#20
Toluene
Concen: 2.47 ng/L
RT: 8.28 min Scan# 1897
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion: 92 Resp: 95

Ion	Ratio	Lower	Upper
92	100		
91	217.1	144.4	204.4#
65	14.6	0.0	49.7

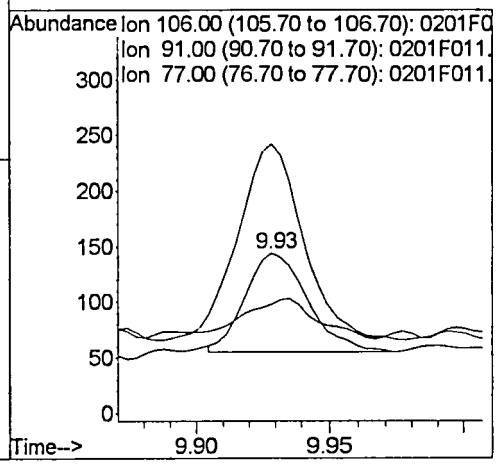


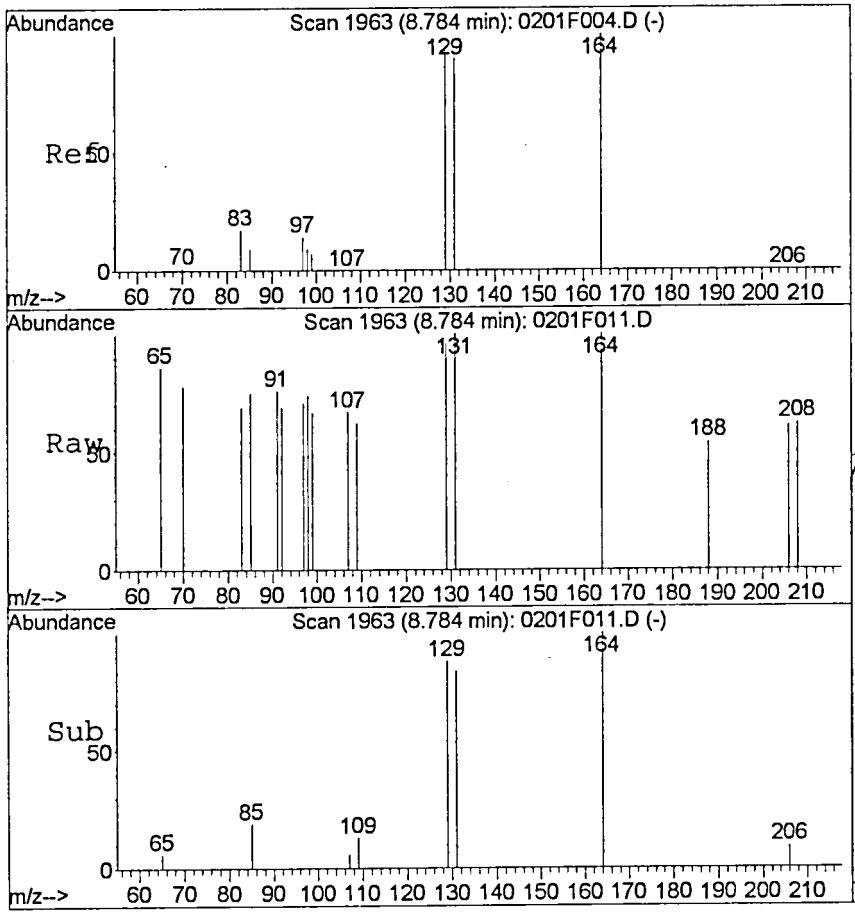


#22
m,p-Xylenes
Concen: 5.83 ng/L
RT: 9.93 min Scan# 2168
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion:106 Resp: 146

Ion	Ratio	Lower	Upper
106	100		
91	196.6	173.8	233.8
77	29.2	0.0	57.2

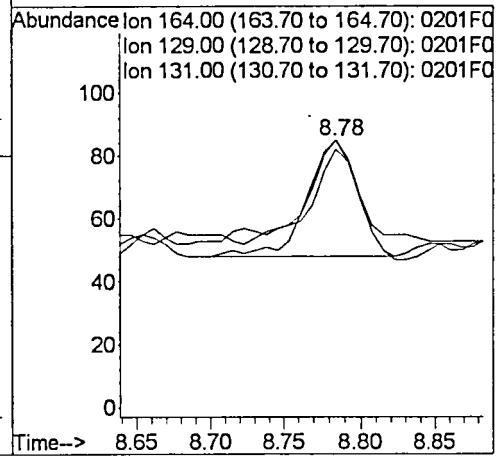


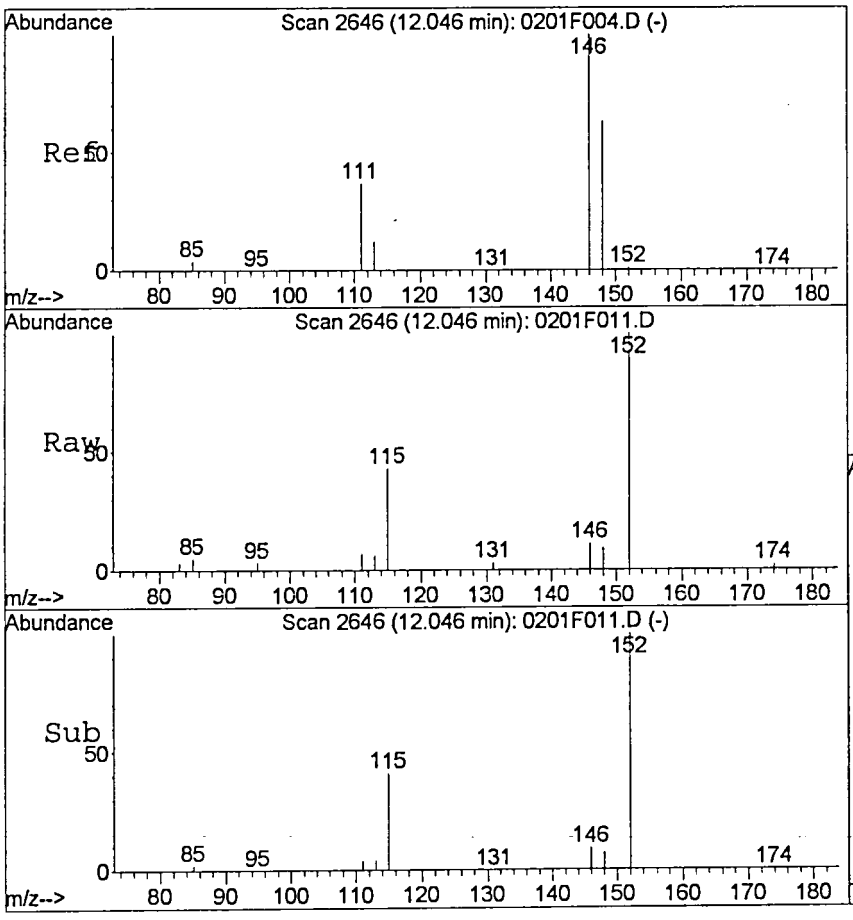


#26
Tetrachloroethene
Concen: 6.26 ng/L
RT: 8.78 min Scan# 1963
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion:164 Resp: 84

Ion	Ratio	Lower	Upper
164	100		
129	78.4	61.1	121.1
131	102.7	58.3	118.3

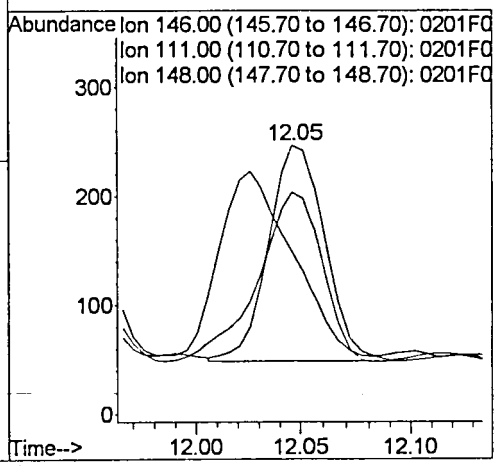




#28
1,4-Dichlorobenzene
Concen: 10.29 ng/L
RT: 12.05 min Scan# 2646
Delta R.T. -0.00 min
Lab File: 0201F011.D
Acq: 1 Feb 2016 1:46 pm

Tgt Ion:146 Resp: 358

Ion	Ratio	Lower	Upper
146	100		
111	47.0	6.7	66.7
148	77.8	33.6	93.6



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F007.D
Lab ID: KWG1600798-3
RunType: LCS
Matrix: WATER

Date Acquired: 01/29/2016 12:14
Date Quantitated: 01/29/2016 13:03
Batch ID: KWG1600796
Analysis Method: 8260C SIM
MethodJoinID: MJ680

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
Continuing Calibration Minimum RF	1,1,2,2-Tetrachloroethane	0.2767	0.3	NA	MRLV
Surrogates	Toluene-d8	122	74	112	↑ this analyte only

Primary Review: 1/27/16

Secondary Review: 1/27/16

Printed: 01/29/2016 13:15:45
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F007.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 12:14	**Quant Date:**	01/29/2016 13:03	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600798-3			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	KWG1600798	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	01/29/2016		
Prep Ref:	1496769				

Quant Method:	J:\MS27\METHODS\012716MS27_8			**Calibration ID:**	CAL14562
Title:					
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D			**Method ID:**	MJ680
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	6.54	0.00	96	71666	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	52732	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.02	0.00	152	29043	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17661	1,083	108	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	63625	1,221	122	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	24161	1,137	114	46-118	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	Vinyl Chloride	1.43		0.00	62	57557	2,212	2.21		
1	1,1-Dichloroethene	2.58		0.00	96	32969	2,186	2.19		
1	trans-1,2-Dichloroethene	3.57		0.00	96	38116	2,075	2.08		
1	cis-1,2-Dichloroethene	5.18		0.00	96	40739	2,015	2.02		
1	Chloroform	5.61		0.00	83	71748	1,939	1.94		
1	Carbon Tetrachloride	5.85		0.00	117	46964	2,226	2.23		
1	Benzene	6.16	-0.01	0.00	78	160131	1,987	1.99		
1	1,2-Dichloroethane	6.33		0.00	62	51546	1,988	1.99		
1	Trichloroethene (TCE)	6.92		0.00	95	39867	2,119	2.12		
2	Toluene	8.28		0.00	92	87701	2,052	2.05		
2	Ethylbenzene	9.81	0.01	0.00	106	47483	2,129	2.13		
2	m,p-Xylenes	9.93		0.00	106	115447	4,147	4.15		
2	o-Xylene	10.33		0.00	106	57427	2,086	2.09		
2	1,1,2,2-Tetrachloroethane	11.10		0.00	83	32461	1,890	1.89		
2	Tetrachloroethene (PCE)	8.78		0.00	164	31191	2,091	2.09		

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

Data File:	J:\MS27\DATA\012916_SIM\0129F007.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 12:14	**Quant Date:**	01/29/2016 13:03	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600798-3			**Soln Conc. Units:**	ng/L

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	1,4-Dichlorobenzene	12.05		0.00	146	84835	1,872	1.87		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	0.001

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:\MS27\DATA\012916_SIM\0129F007.D Vial: 5
Acq On : 29 Jan 2016 12:14 pm Operator: GH
Sample : SIM LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:03:34 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

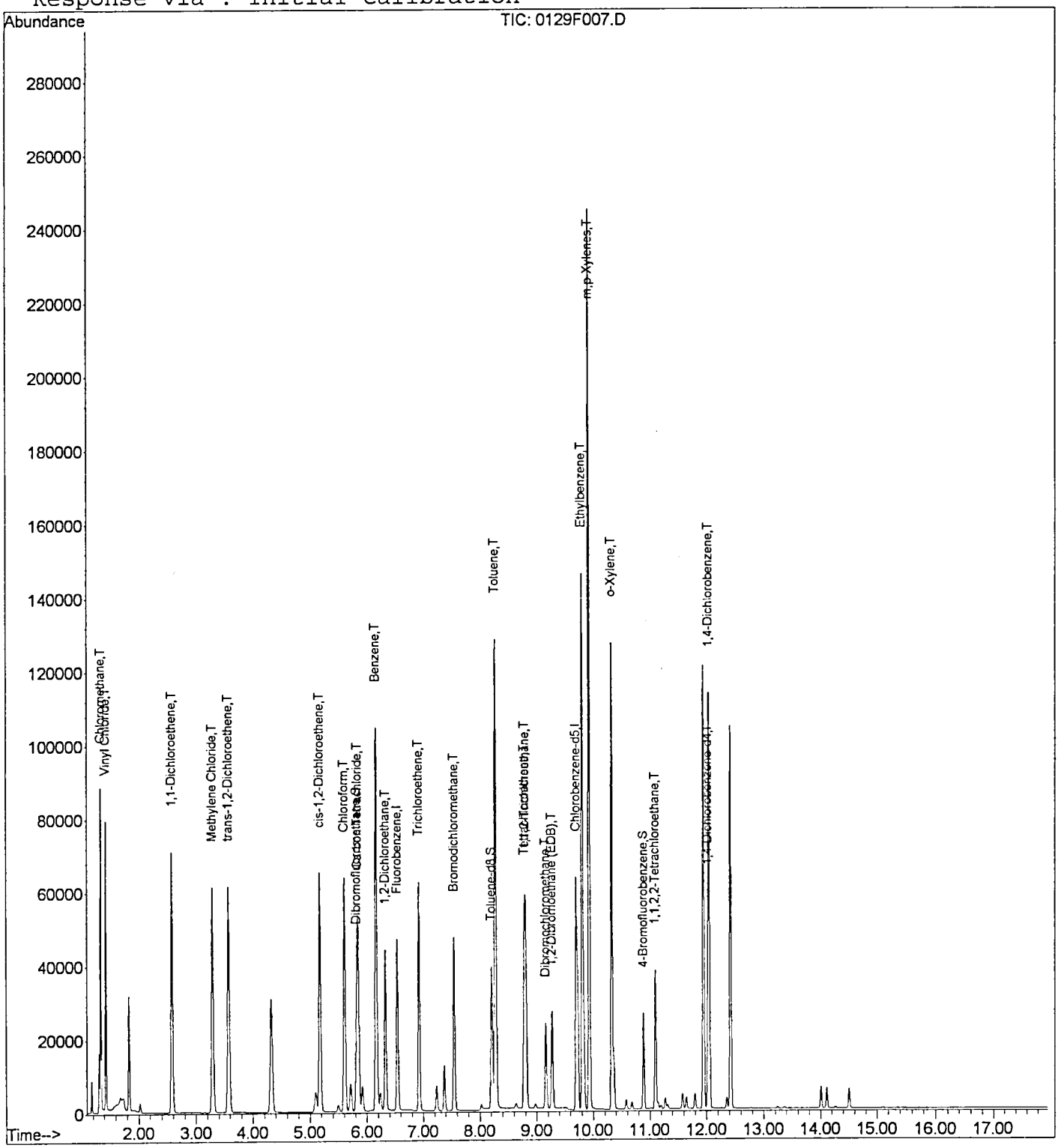
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	71666	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	52732	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	29043	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17661	1082.96	ng/L	0.00
Spiked Amount 1000.000			Recovery = 108.30%			
15) Toluene-d8	8.21	98	63625	1220.83	ng/L	0.00
Spiked Amount 1000.000			Recovery = 122.08%			
24) 4-Bromofluorobenzene	10.89	95	24161	1136.94	ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.69%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	59456	2040.78	ng/L	100
3) Vinyl Chloride	1.43	62	57557	2212.08	ng/L	99
4) 1,1-Dichloroethene	2.58	96	32969	2186.35	ng/L	99
5) Methylene Chloride	3.29	84	45680	1924.55	ng/L	97
6) trans-1,2-Dichloroethene	3.57	96	38116	2075.18	ng/L	100
7) cis-1,2-Dichloroethene	5.18	96	40739	2015.34	ng/L	99
8) Chloroform	5.61	83	71748	1939.11	ng/L	99
10) Carbon Tetrachloride	5.85	117	46964	2225.55	ng/L	100
11) Benzene	6.16	78	160131	1987.35	ng/L	100
12) 1,2-Dichloroethane	6.33	62	51546	1987.90	ng/L	99
13) Trichloroethene	6.92	95	39867	2119.08	ng/L	100
14) Bromodichloromethane	7.55	83	49018	1964.53	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	26273	1945.30	ng/L	98
17) Dibromochloromethane	9.16	129	31577	1981.23	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	26641	1929.83	ng/L	100
20) Toluene	8.28	92	87701	2051.51	ng/L	100
21) Ethylbenzene	9.81	106	47483	2128.73	ng/L	100
22) m,p-Xylenes	9.93	106	115447	4147.45	ng/L	100
23) o-Xylene	10.33	106	57427	2086.40	ng/L	100
25) 1,1,2,2-Tetrachloroethane	11.10	83	32461	1890.10	ng/L	99
26) Tetrachloroethene	8.78	164	31191	2090.90	ng/L	99
28) 1,4-Dichlorobenzene	12.05	146	84835	1871.54	ng/L	99

(#) = qualifier out of range (m) = manual integration
0129F007.D 012716MS27_8260SIM.M Fri Jan 29 13:09:44 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F007.D Vial: 5
Acq On : 29 Jan 2016 12:14 pm Operator: GH
Sample : SIM LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 13:03 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F005.D
Lab ID: KWG1600835-3
RunType: LCS
Matrix: WATER

Date Acquired: 02/01/2016 10:58
Date Quantitated: 02/01/2016 11:18
Batch ID: KWG1600834
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Carbon Tetrachloride	21.0	NA	20	NT
	Toluene-d8	20.9	NA	20	% bias CCV okay
Surrogates	Toluene-d8	121	74	112	% bias analytes okay

Primary Review: JH 2/1/16

Secondary Review: LM 2/2/16

Printed: 02/01/2016 11:24:39
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F005.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 10:58	**Quant Date:**	02/01/2016 11:18	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600835-3			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC SIM F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**	KWG1600835	**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**	EPA 5030B		
		Prep Date:	02/01/2016		
Prep Ref:	1496978				

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
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	6.54	0.00	96	70125	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	51629	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.00	152	28586	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82	0.00	0.00	113	17714	1,110	111	77-123	OK	
1	Toluene-d8	8.21	0.00	0.00	98	61850	1,213	121	74-112	*	
2	4-Bromofluorobenzene	10.89	0.01	0.00	95	23869	1,147	115	46-118	OK	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34		0.00	50	52310	1,835	1830		
1	Vinyl Chloride	1.43		0.00	62	51022	2,004	2000		
1	1,1-Dichloroethene	2.58		0.00	96	29807	2,020	2020		
1	Methylene Chloride	3.29		0.00	84	42223	1,818	1820	J	
1	trans-1,2-Dichloroethene	3.57		0.00	96	34914	1,943	1940		
1	cis-1,2-Dichloroethene	5.18		0.00	96	37204	1,881	1880		
1	Chloroform	5.61		0.00	83	65050	1,797	1800		
1	Carbon Tetrachloride	5.84		0.00	117	42414	2,054	2050		
1	Benzene	6.16		0.00	78	145272	1,843	1840		
1	1,2-Dichloroethane	6.33		0.00	62	47222	1,861	1860		
1	Trichloroethene (TCE)	6.92		0.00	95	36175	1,965	1970		
1	Bromodichloromethane	7.55		0.00	83	44958	1,841	1840		
1	1,1,2-Trichloroethane	8.81		0.00	83	23891	1,808	1810		
1	Dibromochloromethane	9.16		0.00	129	28850	1,850	1850		
1	1,2-Dibromoethane (EDB)	9.27		0.00	107	24079	1,783	1780		

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:\MS27\DATA\020116_SIM\0201F005.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 10:58	**Quant Date:**	02/01/2016 11:18	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600835-3			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28		0.00	92	78603	1,878	1880		
2	Ethylbenzene	9.81	0.01	0.00	106	42383	1,941	1940		
2	m,p-Xylenes	9.93		0.00	106	102628	3,766	3770		
2	o-Xylene	10.32		0.00	106	51251	1,902	1900		
2	1,1,2,2-Tetrachloroethane	11.09		0.00	83	28862	1,716	1720		
2	Tetrachloroethene (PCE)	8.78		0.00	164	27829	1,905	1910		
3	1,4-Dichlorobenzene	12.05		0.00	146	77011	1,726	1730		

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:\MS27\DATA\020116_SIM\0201F005.D Vial: 4
Acq On : 1 Feb 2016 10:58 am Operator: GH
Sample : SIM LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 11:18:08 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

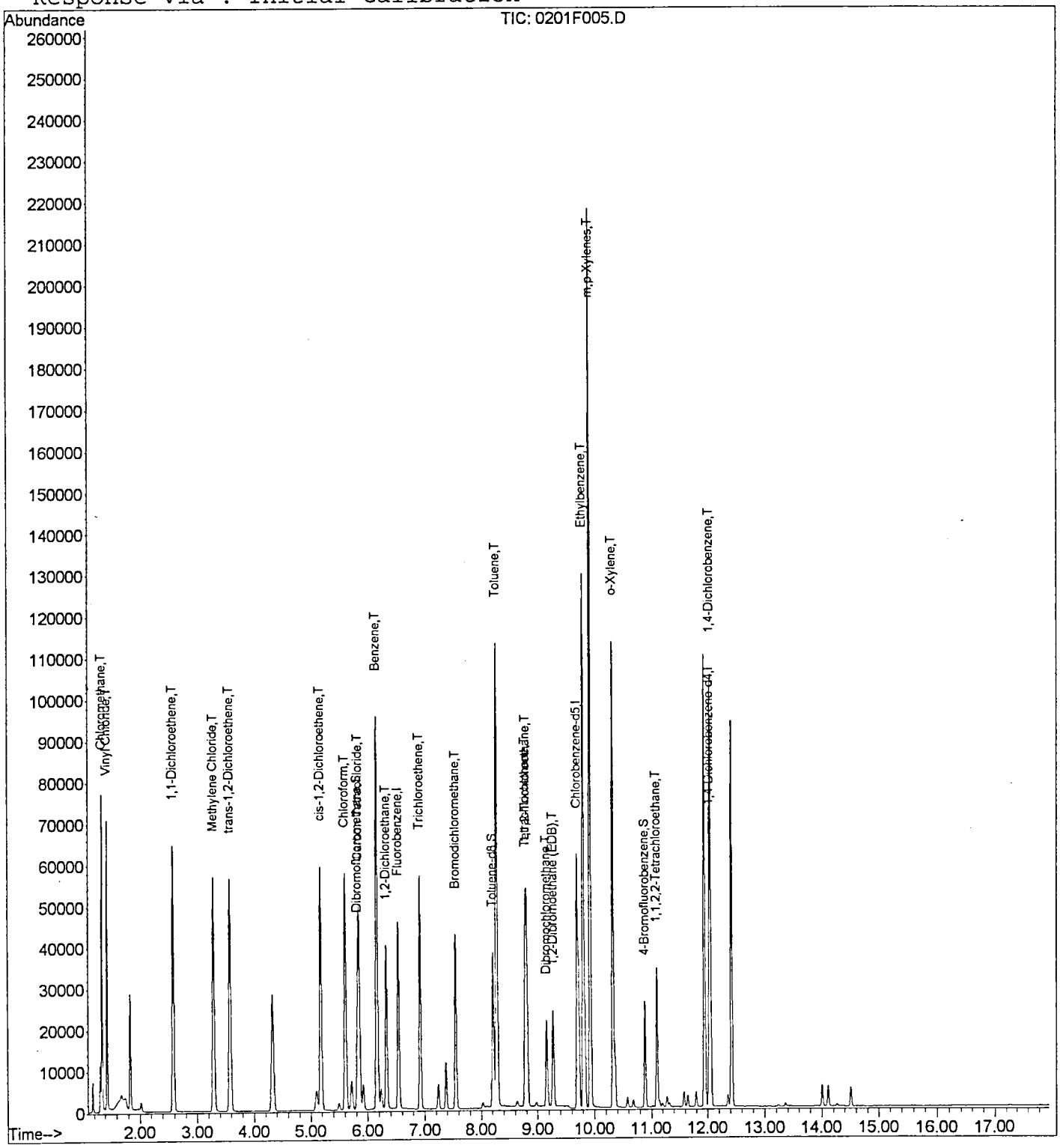
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	70125	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	51629	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	28586	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17714	1110.08	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.01%			
15) Toluene-d8	8.21	98	61850	1212.85	ng/L	0.00
Spiked Amount 1000.000			Recovery = 121.29%			
24) 4-Bromofluorobenzene	10.89	95	23869	1147.19	ng/L	0.00
Spiked Amount 1000.000			Recovery = 114.72%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	52310	1834.96	ng/L	100
3) Vinyl Chloride	1.43	62	51022	2004.01	ng/L	99
4) 1,1-Dichloroethene	2.58	96	29807	2020.09	ng/L	95
5) Methylene Chloride	3.29	84	42223	1817.99	ng/L	99
6) trans-1,2-Dichloroethene	3.57	96	34914	1942.62	ng/L	100
7) cis-1,2-Dichloroethene	5.18	96	37204	1880.91	ng/L	99
8) Chloroform	5.61	83	65050	1796.72	ng/L	100
10) Carbon Tetrachloride	5.84	117	42414	2054.10	ng/L	100
11) Benzene	6.16	78	145272	1842.56	ng/L	100
12) 1,2-Dichloroethane	6.33	62	47222	1861.16	ng/L	99
13) Trichloroethene	6.92	95	36175	1965.09	ng/L	99
14) Bromodichloromethane	7.55	83	44958	1841.41	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	23891	1807.81	ng/L	98
17) Dibromochloromethane	9.16	129	28850	1849.91	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	24079	1782.57	ng/L	98
20) Toluene	8.28	92	78603	1877.97	ng/L	100
21) Ethylbenzene	9.81	106	42383	1940.68	ng/L	99
22) m,p-Xylenes	9.93	106	102628	3765.69	ng/L	98
23) o-Xylene	10.32	106	51251	1901.80	ng/L	99
25) 1,1,2,2-Tetrachloroethane	11.09	83	28862	1716.45	ng/L	100
26) Tetrachloroethene	8.78	164	27829	1905.38	ng/L	99
28) 1,4-Dichlorobenzene	12.05	146	77011	1726.10	ng/L	99

(#) = qualifier out of range (m) = manual integration
0201F005.D 012716MS27_8260SIM.M Mon Feb 01 11:19:12 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F005.D Vial: 4
Acq On : 1 Feb 2016 10:58 am Operator: GH
Sample : SIM LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 11:18 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



Date: 1/29/16

By: YM

IS/SS Std. ID: 8IVOA·93H 2/2/16

CCV Std ID: 8IVOA·91B 2/3/16

MS/DMS/LCS/ICV Std ID: ✓

BFB Std. ID: 8IVOA·91C 1/30/16

ALS Environmental
Injection Log
MS27 - Agilent 5975C

Tune File: BFB.a2tune.U

New Tune: No

481962

ICAL Date: 1/27/16 cal 14562

Second RV: KA 2/2/16

LIMS ID: KWG1600791(A)(07SCC)

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0129F005	SIMTUNE.M	4.4µl→44ml		
2	SIM CCV	6	B260SIMC.M	2µl→5ml		
3	SIM LCS	7		↓		
4	0544-2MS	8		1.6µl→40ml	✓	
5	↓ 2DMS	9		↓	✓	
6	1B	10				
7	MRL	11		2µl→5ml		8IVOA·91C 2/3/16
8	MB	12				
9	0673-15TB	13			✓	110915
10	0554-1TB	14			✓	010816
11	2	15			✓	
12	3	16			✓	
13	↓ 4	17			✓	
14	0673-11	18			✓	
15	1	19			✓	
16	2	20			✓	
17	3	21			✓	
18	5	22			✓	
19	6	23			✓	
20	7	24			✓	
21	9	25			✓	
22	9	26			✓	
23	10	27			✓	
24	12	28			✓	
25	↓ 13	29			✓	
26	CCV	30	↓	2µl→5ml		
27						2/1/16

R:\VOA\Injection Logs\INJLOG_MS27_Rev1.XLS

Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F005.D
Lab ID: KWG1600796-1
RunType: TUNE
Matrix: WATER

Date Acquired: 01/29/2016 11:17
Date Quantitated:
Batch ID: KWG1600796
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: 1/29/16

Secondary Review: 2/2/16

Printed: 01/29/2016 13:15:39
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F005.D	**Instrument:**	MS27
Acqu Date:	01/29/2016 11:17 **Quant Date:**	**Vial:**	3
Run Type:	TUNE	**Dilution:**	1.0
Lab ID:	KWG1600796-1	**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B VOC_SIM_F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**	**Report Group:**
Analysis Method:	BFB	**Prep Method:**	
Prep Ref:		**Prep Date:**	

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:	GC/MS Tuning Evaluation	**Report List ID:**	LJ774
Tune Ref:		**Method ID:**	MJ159
MB Ref:		**Quant based on Report List**	

Tune Results

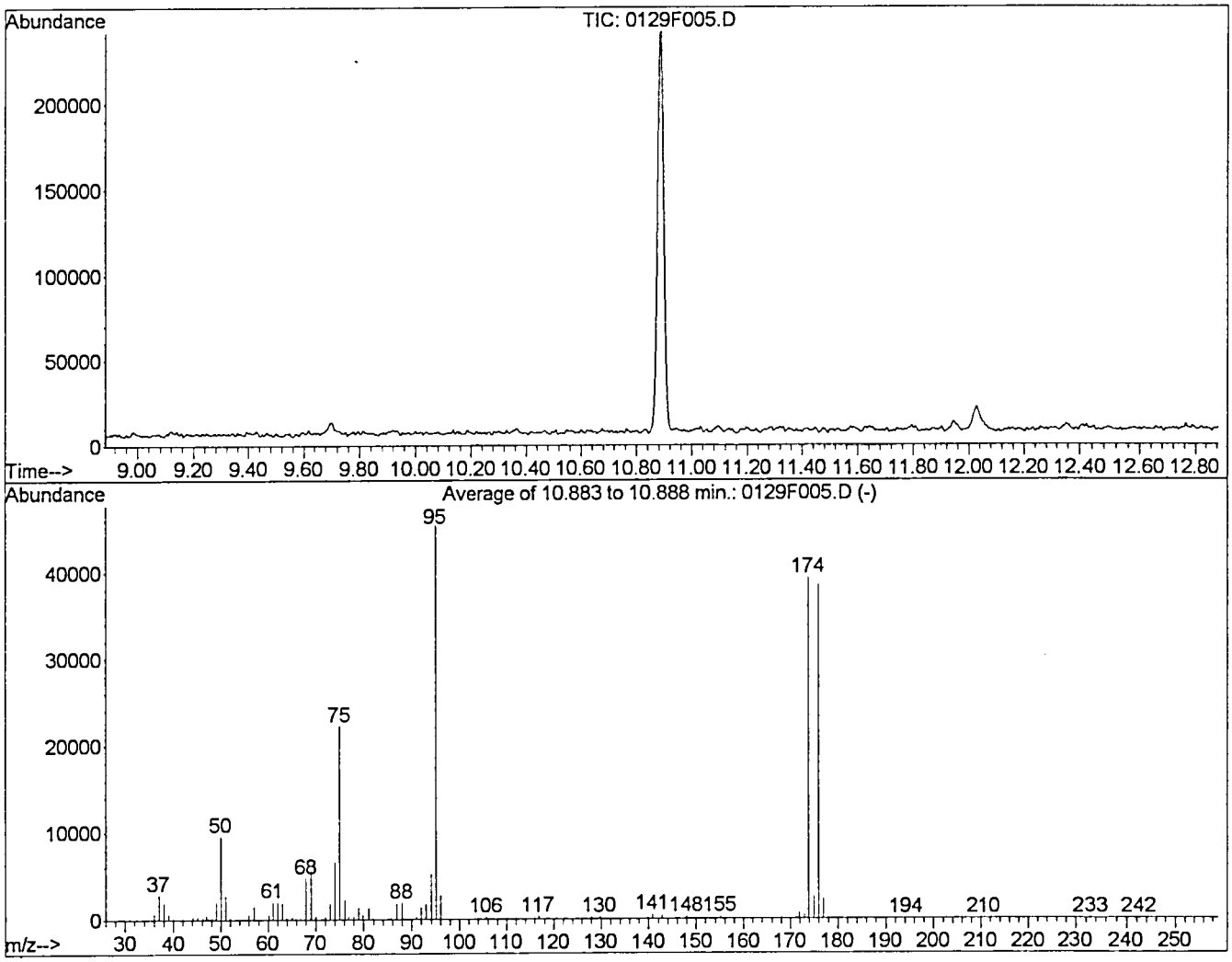
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.0	9559	Pass
75	95	30	60	48.9	22240	Pass
95	95	100	100	100.0	45506	Pass
96	95	5	9	6.2	2830	Pass
173	174	0	2	1.3	497	Pass
174	95	50	120	86.3	39277	Pass
175	174	5	9	6.5	2539	Pass
176	174	95	101	98.0	38498	Pass
177	176	5	9	5.9	2257	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:\MS27\DATA\012916_SIM\0129F005.D Vial: 3
Acq On : 29 Jan 2016 11:17 am Operator: GH
Sample : 50NG BFB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM



AutoFind: Scans 3494, 3495, 3496; Background Corrected with Scan 3480

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	9559	PASS
75	95	30	60	48.9	22240	PASS
95	95	100	100	100.0	45506	PASS
96	95	5	9	6.2	2830	PASS
173	174	0.00	2	1.3	497	PASS
174	95	50	120	86.3	39277	PASS
175	174	5	9	6.5	2539	PASS
176	174	95	101	98.0	38498	PASS
177	176	5	9	5.9	2257	PASS

0129F005.D 012716MS27_8260SIM.M Fri Jan 29 11:47:32 2016

Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F006.D
Lab ID: KWG1600796-2
RunType: CCV
Matrix: WATER

Date Acquired: 01/29/2016 11:47
Date Quantitated: 01/29/2016 12:05
Batch ID: KWG1600796
Analysis Method: 8260C SIM
MethodJoinID: MJ680

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: YG 1/29/16

Secondary Review: 1/29/16

Printed: 01/29/2016 13:15:42
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F006.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 11:47	**Quant Date:**	01/29/2016 12:05	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600796-2			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B VOC_SIM_F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ680
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	6.54	0.00	96	70324	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	50521	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.02	-0.01	152	27128	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82			113	17470	1,092		77-123	NA	
1	Toluene-d8	8.21			98	60971	1,192		74-112	NA	
2	4-Bromofluorobenzene	10.88			95	23231	1,141		46-118	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	Vinyl Chloride	1.43			62	46710	1,829			
1	1,1-Dichloroethene	2.58			96	27002	1,825			
1	trans-1,2-Dichloroethene	3.57			96	32341	1,794			
1	cis-1,2-Dichloroethene	5.18			96	35233	1,776			
1	Chloroform	5.61			83	61237	1,687			
1	Carbon Tetrachloride	5.85			117	37985	1,834			
1	Benzene	6.17			78	135449	1,713			
1	1,2-Dichloroethane	6.33			62	45397	1,784			
1	Trichloroethene (TCE)	6.92			95	33131	1,795			
2	Toluene	8.28			92	74055	1,808			
2	Ethylbenzene	9.80			106	39561	1,851			
2	m,p-Xylenes	9.93			106	96724	3,627			
2	o-Xylene	10.33			106	48335	1,833			
2	1,1,2,2-Tetrachloroethane	11.10			83	27956	1,699			
2	Tetrachloroethene (PCE)	8.78			164	25635	1,794			

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:\MS27\DATA\012916_SIM\0129F006.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 11:47	**Quant Date:**	01/29/2016 12:05	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600796-2			**Soln Conc. Units:**	ng/L

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	1,4-Dichlorobenzene	12.05			146	73460	1,735			

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:\MS27\DATA\012916_SIM\0129F006.D Vial: 4
Acq On : 29 Jan 2016 11:47 am Operator: GH
Sample : SIM CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 12:05:47 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

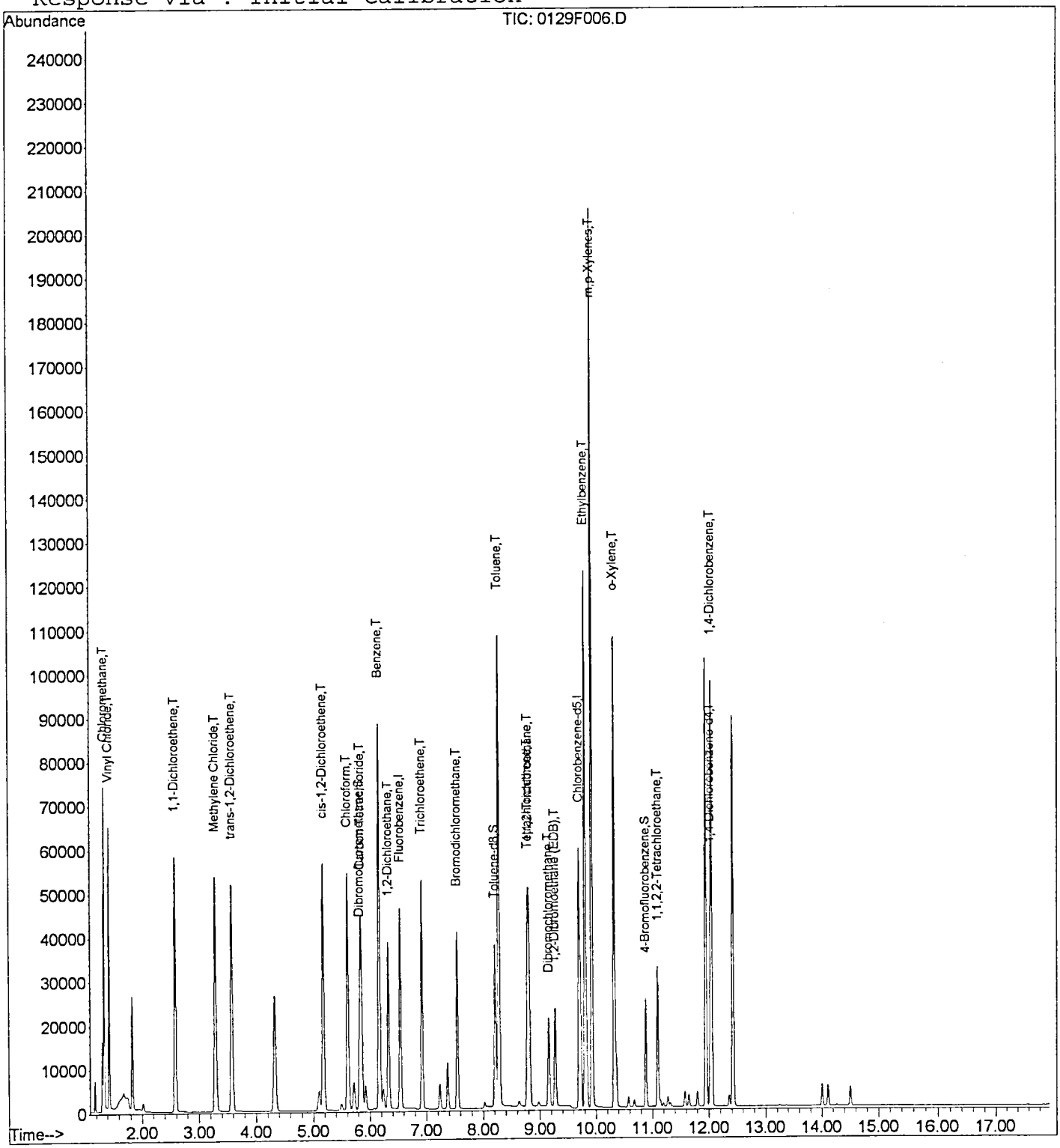
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	70324	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	50521	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	27128	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17470	1091.69	ng/L	0.00
Spiked Amount 1000.000			Recovery = 109.17%			
15) Toluene-d8	8.21	98	60971	1192.23	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.22%			
24) 4-Bromofluorobenzene	10.88	95	23231	1141.01	ng/L	0.00
Spiked Amount 1000.000			Recovery = 114.10%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	49980	1748.26	ng/L	100
3) Vinyl Chloride	1.43	62	46710	1829.45	ng/L	100
4) 1,1-Dichloroethene	2.58	96	27002	1824.81	ng/L	95
5) Methylene Chloride	3.29	84	39783	1708.09	ng/L	97
6) trans-1,2-Dichloroethene	3.57	96	32341	1794.37	ng/L	99
7) cis-1,2-Dichloroethene	5.18	96	35233	1776.22	ng/L	98
8) Chloroform	5.61	83	61237	1686.61	ng/L	99
10) Carbon Tetrachloride	5.85	117	37985	1834.40	ng/L	98
11) Benzene	6.17	78	135449	1713.11	ng/L	98
12) 1,2-Dichloroethane	6.33	62	45397	1784.17	ng/L	99
13) Trichloroethene	6.92	95	33131	1794.64	ng/L	99
14) Bromodichloromethane	7.55	83	42529	1736.99	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	22691	1712.15	ng/L	97
17) Dibromochloromethane	9.16	129	27356	1749.14	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	23126	1707.18	ng/L	99
20) Toluene	8.28	92	74055	1808.11	ng/L	100
21) Ethylbenzene	9.80	106	39561	1851.19	ng/L	99
22) m,p-Xylenes	9.93	106	96724	3626.89	ng/L	99
23) o-Xylene	10.33	106	48335	1832.93	ng/L	100
25) 1,1,2,2-Tetrachloroethane	11.10	83	27956	1699.03	ng/L	100
26) Tetrachloroethene	8.78	164	25635	1793.65	ng/L	98
28) 1,4-Dichlorobenzene	12.05	146	73460	1735.00	ng/L	100

(#) = qualifier out of range (m) = manual integration
0129F006.D 012716MS27_8260SIM.M Fri Jan 29 13:09:44 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F006.D Vial: 4
Acq On : 29 Jan 2016 11:47 am Operator: GH
Sample : SIM CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 12:05 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS27\DATA\012916_SIM\0129F030.D
Lab ID: KWG1600796-3
RunType: CCVA
Matrix: WATER

Date Acquired: 01/29/2016 22:48
Date Quantitated: 01/30/2016 09:40
Batch ID: KWG1600796
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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: 2/1/16

Secondary Review:

Printed: 02/01/2016 14:35:42
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\012916_SIM\0129F030.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 22:48	**Quant Date:**	01/30/2016 09:40	**Vial:**	38
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600796-3			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B VOC_SIM_F	**Collect Date:**		**Receive Date:**	01/29/2016

Analysis Lot:	KWG1600796	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\012916_SIM\0129F005.D	**Method ID:**	MJ1547
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	6.54	0.00	96	67624	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	49916	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.00	152	27245	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.82			113	17164	1,115		77-123	NA
1	Toluene-d8	8.21			98	60489	1,230		74-112	NA
2	4-Bromofluorobenzene	10.89			95	22854	1,136		46-118	NA

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34			50	58916	2,143			
1	Vinyl Chloride	1.43			62	55975	2,280			
1	1,1-Dichloroethene	2.58			96	32647	2,294			
1	Methylene Chloride	3.29			84	45728	2,042			
1	trans-1,2-Dichloroethene	3.58			96	37956	2,190			
1	cis-1,2-Dichloroethene	5.18			96	40449	2,121			
1	Chloroform	5.61			83	72201	2,068			
1	Carbon Tetrachloride	5.85			117	45848	2,303			
1	Benzene	6.16			78	160491	2,111			
1	1,2-Dichloroethane	6.33			62	52583	2,149			
1	Trichloroethene (TCE)	6.92			95	43782	2,466			
1	Bromodichloromethane	7.55			83	49156	2,088			
1	1,1,2-Trichloroethane	8.81			83	26535	2,082			
1	Dibromochloromethane	9.16			129	31390	2,087			
1	1,2-Dibromoethane (EDB)	9.27			107	26769	2,055			

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:\MS27\DATA\012916_SIM\0129F030.D			**Instrument:**	MS27
Acqu Date:	01/29/2016 22:48	**Quant Date:**	01/30/2016 09:40	**Vial:**	38
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600796-3			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28			92	86285	2,132			
2	Ethylbenzene	9.81			106	45901	2,174			
2	m,p-Xylenes	9.93			106	111526	4,233			
2	o-Xylene	10.33			106	56062	2,152			
2	1,1,2,2-Tetrachloroethane	11.09			83	28928	1,779			
2	Tetrachloroethene (PCE)	8.78			164	30633	2,169			
3	1,4-Dichlorobenzene	12.05			146	84584	1,989			

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:\MS27\DATA\012916_SIM\0129F030.D Vial: 38
Acq On : 29 Jan 2016 10:48 pm Operator: GH
Sample : CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 09:40:08 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

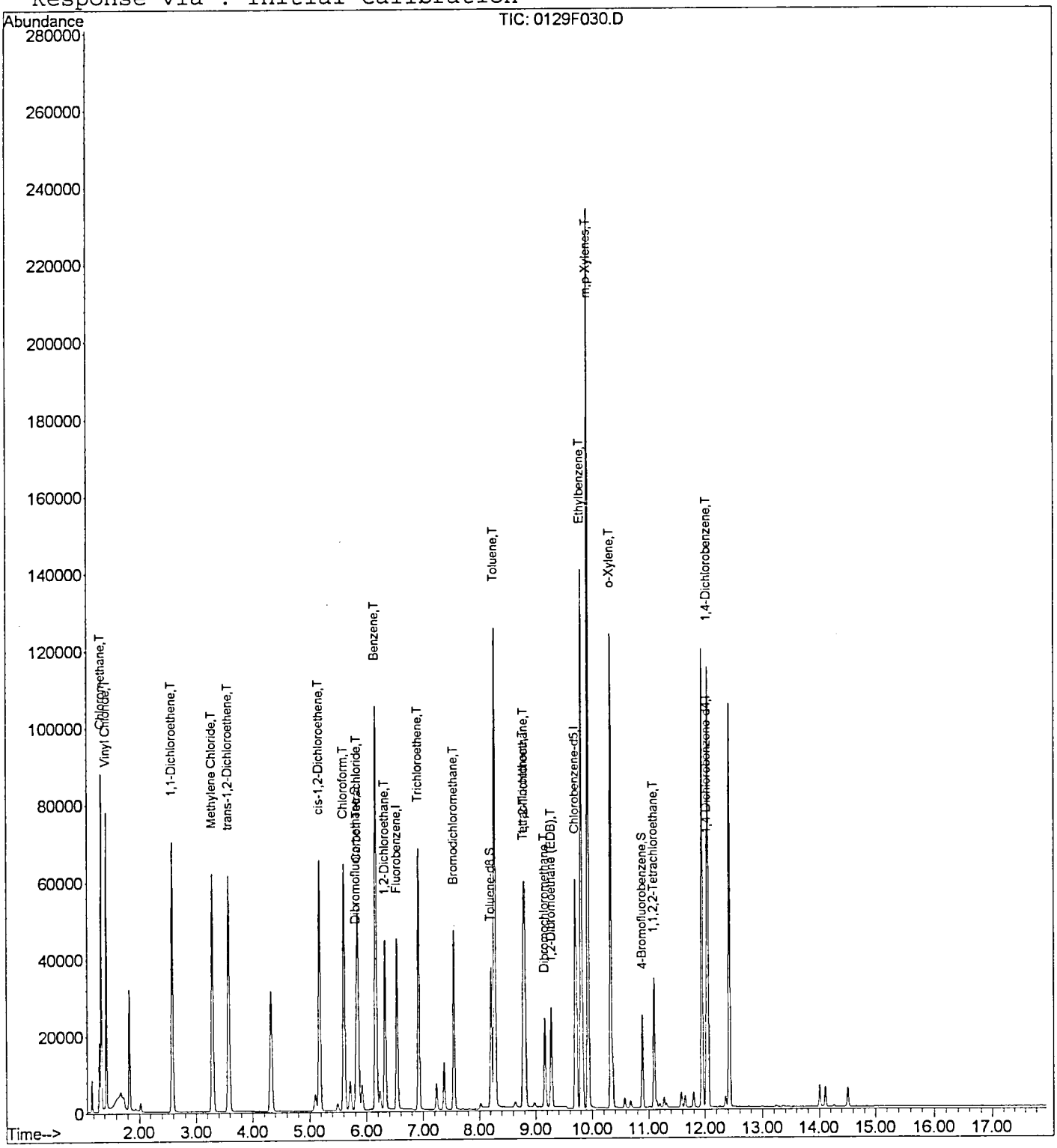
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	67624	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	49916	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	27245	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17164	1115.39	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.54%			
15) Toluene-d8	8.21	98	60489	1230.03	ng/L	0.00
Spiked Amount 1000.000			Recovery = 123.00%			
24) 4-Bromofluorobenzene	10.89	95	22854	1136.10	ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.61%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	58916	2143.12	ng/L	99
3) Vinyl Chloride	1.43	62	55975	2279.86	ng/L	99
4) 1,1-Dichloroethene	2.58	96	32647	2294.40	ng/L	97
5) Methylene Chloride	3.29	84	45728	2041.72	ng/L	99
6) trans-1,2-Dichloroethene	3.58	96	37956	2189.99	ng/L	99
7) cis-1,2-Dichloroethene	5.18	96	40449	2120.59	ng/L	99
8) Chloroform	5.61	83	72201	2067.99	ng/L	99
10) Carbon Tetrachloride	5.85	117	45848	2302.53	ng/L	99
11) Benzene	6.16	78	160491	2110.88	ng/L	100
12) 1,2-Dichloroethane	6.33	62	52583	2149.11	ng/L	100
13) Trichloroethene	6.92	95	43782	2466.27	ng/L	100
14) Bromodichloromethane	7.55	83	49156	2087.81	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	26535	2082.14	ng/L	99
17) Dibromochloromethane	9.16	129	31390	2087.21	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	26769	2055.01	ng/L	99
20) Toluene	8.28	92	86285	2132.25	ng/L	100
21) Ethylbenzene	9.81	106	45901	2173.90	ng/L	100
22) m,p-Xylenes	9.93	106	111526	4232.61	ng/L	100
23) o-Xylene	10.33	106	56062	2151.72	ng/L	99
25) 1,1,2,2-Tetrachloroethane	11.09	83	28928	1779.41	ng/L	100
26) Tetrachloroethene	8.78	164	30633	2169.34	ng/L	99
28) 1,4-Dichlorobenzene	12.05	146	84584	1989.15	ng/L	99

(#) = qualifier out of range (m) = manual integration
0129F030.D 012716MS27_8260SIM.M Mon Feb 01 14:08:10 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F030.D Vial: 38
Acq On : 29 Jan 2016 10:48 pm Operator: GH
Sample : CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 30 9:40 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration



0129F030.D 012716MS27_8260SIM.M Mon Feb 01 14:08:10 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:38:35 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

1/27/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	69943	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	49861	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	23566	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17420	1094.49	ng/L	0.00
Spiked Amount 1000.000			Recovery = 109.45%			
15) Toluene-d8	8.21	98	61253	1204.27	ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.43%			
24) 4-Bromofluorobenzene	10.89	95	20315	1011.00	ng/L	0.00
Spiked Amount 1000.000			Recovery = 101.10%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	1049m	36.89	ng/L	
3) Vinyl Chloride	1.43	62	551m	21.70	ng/L	
4) 1,1-Dichloroethene	2.58	96	313m	21.27	ng/L	
5) Methylene Chloride	3.29	84	3393	146.47	ng/L	98
6) trans-1,2-Dichloroethene	3.58	96	402	22.43	ng/L	94
7) cis-1,2-Dichloroethene	5.18	96	421	21.34	ng/L	96
8) Chloroform	5.61	83	938	25.98	ng/L	100
10) Carbon Tetrachloride	5.84	117	401	19.47	ng/L	98
11) Benzene	6.16	78	1570	19.96	ng/L	97
12) 1,2-Dichloroethane	6.33	62	560	22.13	ng/L	91
13) Trichloroethene	6.92	95	511m	27.83	ng/L	
14) Bromodichloromethane	7.55	83	464	19.05	ng/L	98
16) 1,1,2-Trichloroethane	8.81	83	266	20.18	ng/L	98
17) Dibromochloromethane	9.16	129	288	18.52	ng/L	97
18) 1,2-Dibromoethane (EDB)	9.27	107	260	19.30	ng/L	93
20) Toluene	8.28	92	1060	26.22	ng/L	97
21) Ethylbenzene	9.81	106	497	23.56	ng/L	93
22) m,p-Xylenes	9.93	106	1204	45.74	ng/L	94
23) o-Xylene	10.33	106	538	20.67	ng/L	87
25) 1,1,2,2-Tetrachloroethane	11.10	83	301	18.54	ng/L	99
26) Tetrachloroethene	8.78	164	374	26.51	ng/L	93
28) 1,4-Dichlorobenzene	12.05	146	1306	35.51	ng/L	97

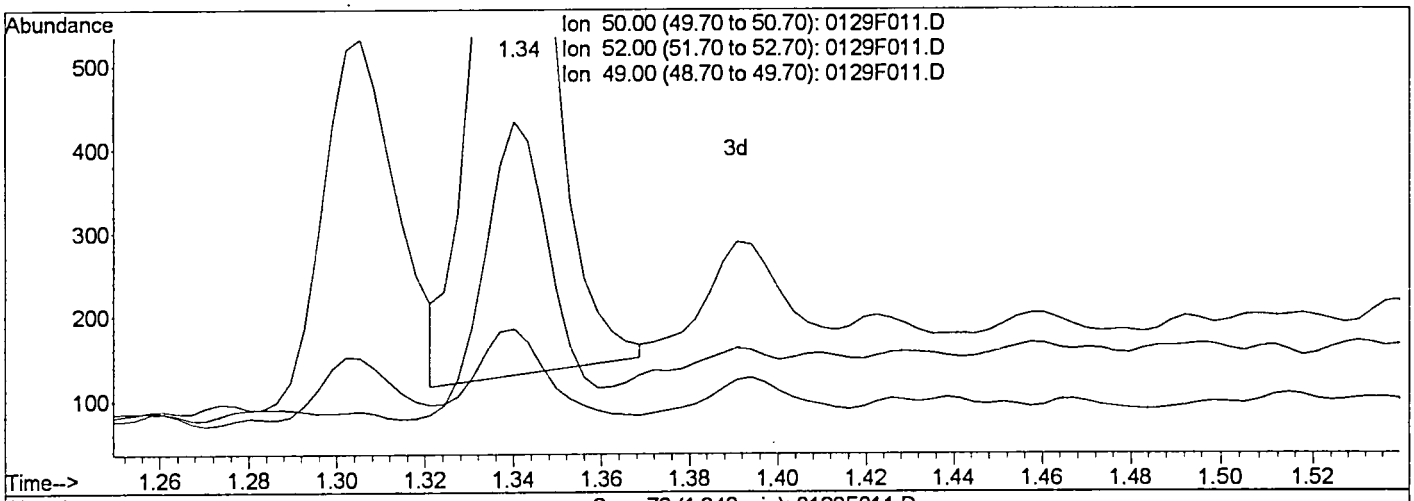
TV=20

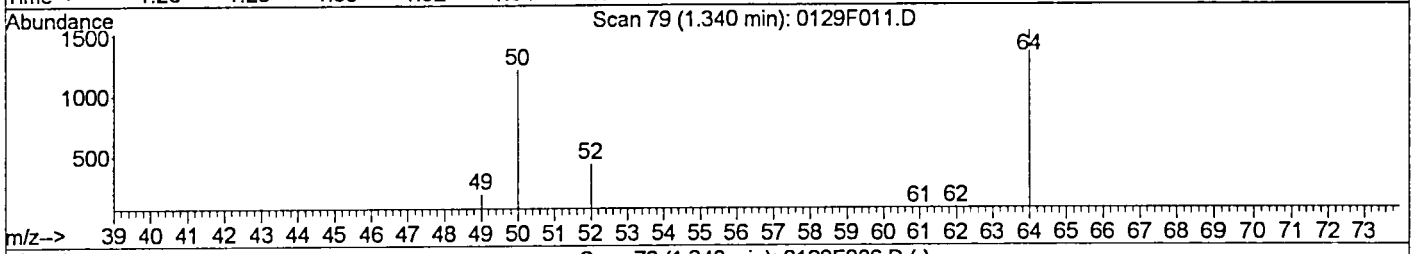
(#) = qualifier out of range (m) = manual integration
0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:47:04 2016 Page 1

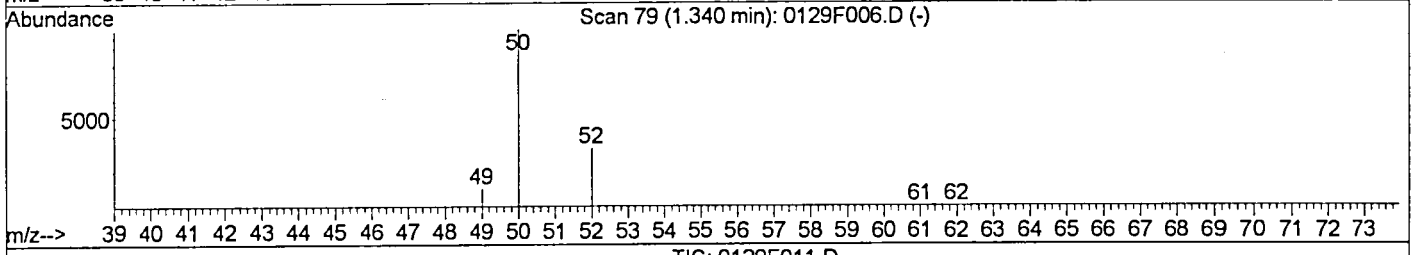
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:38 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration







TIC: 0129F011.D

(2) Chloromethane (T)

1.34min 40.02ng/L

response 1138

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.43
49.00	10.10	9.84
0.00	0.00	0.00

Manual Integration:

Before

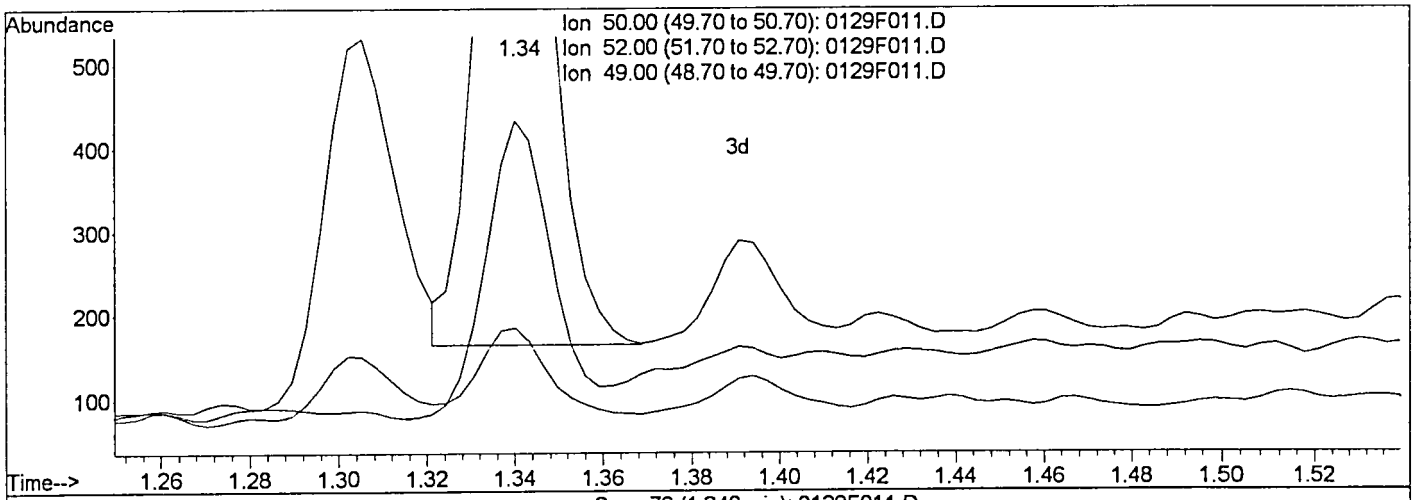
01/29/16

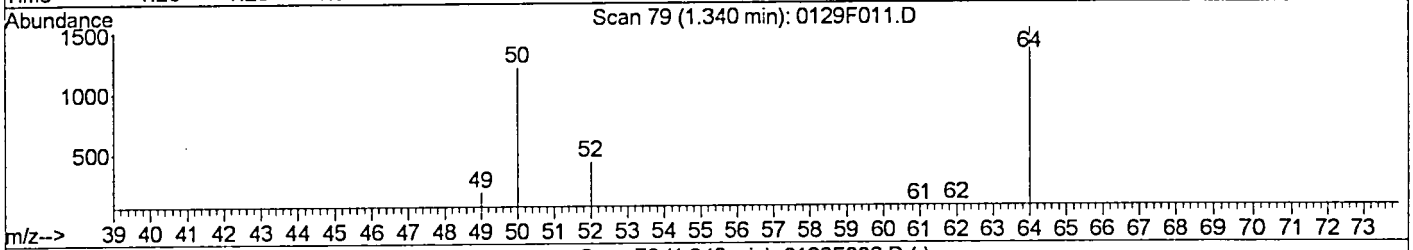
0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:40:02 2016

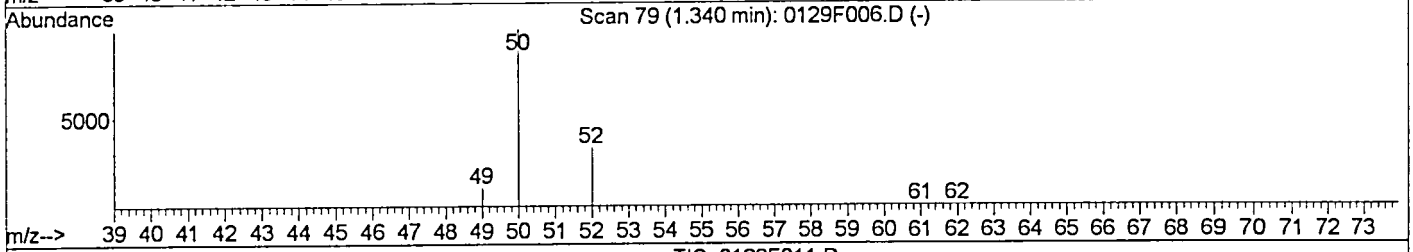
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Single Level Calibration







TIC: 0129F011.D

(2) Chloromethane (T)

1.34min 36.89ng/L m

response 1049

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	35.70
49.00	10.10	15.25
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

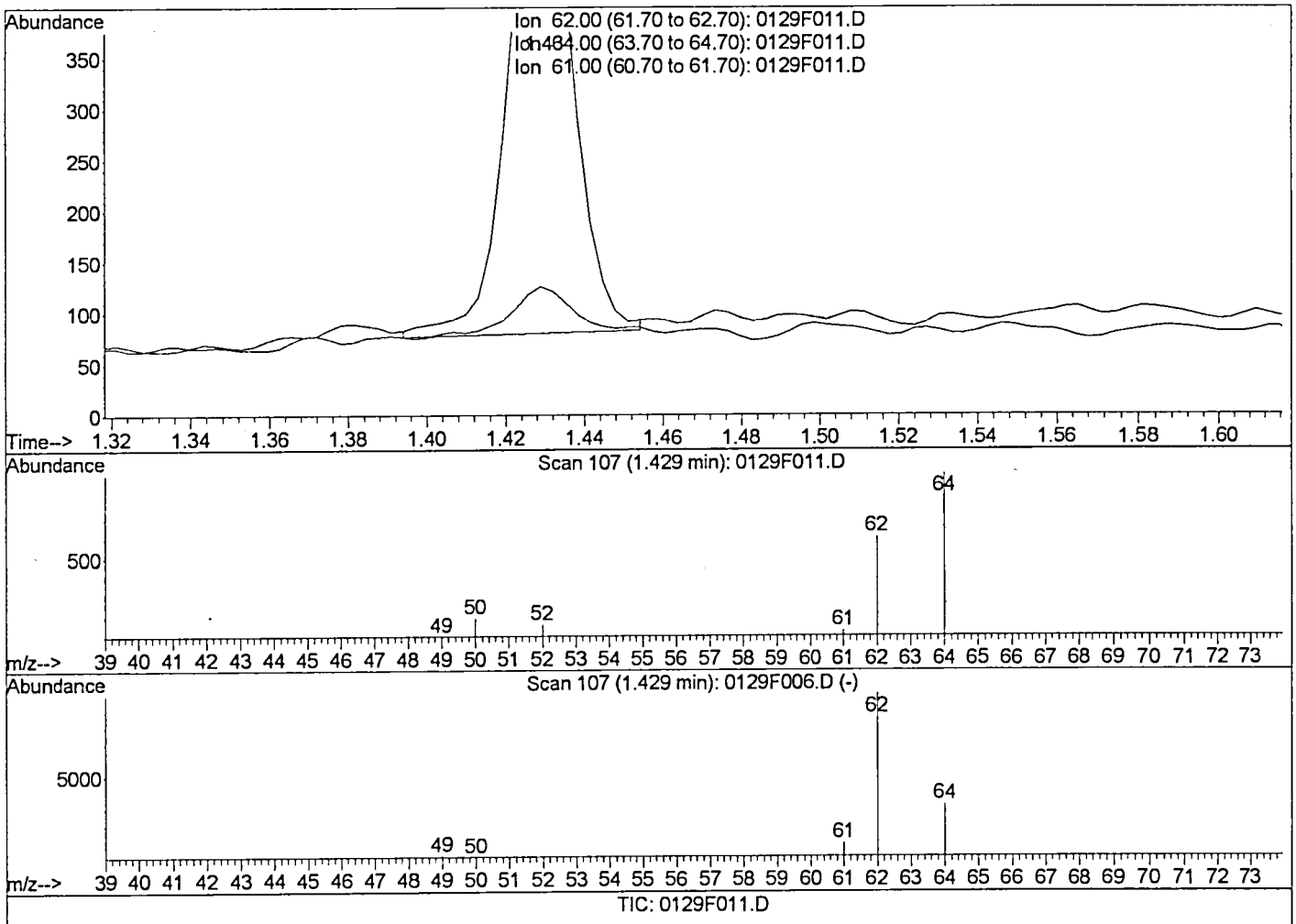
01/29/16

0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:40:14 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0129F011.D

(3) Vinyl Chloride (T)

1.43min 22.09ng/L

response 561

Ion	Exp%	Act%
62.00	100	100
64.00	31.90	36.33
61.00	8.50	9.37
0.00	0.00	0.00

Manual Integration:

Before

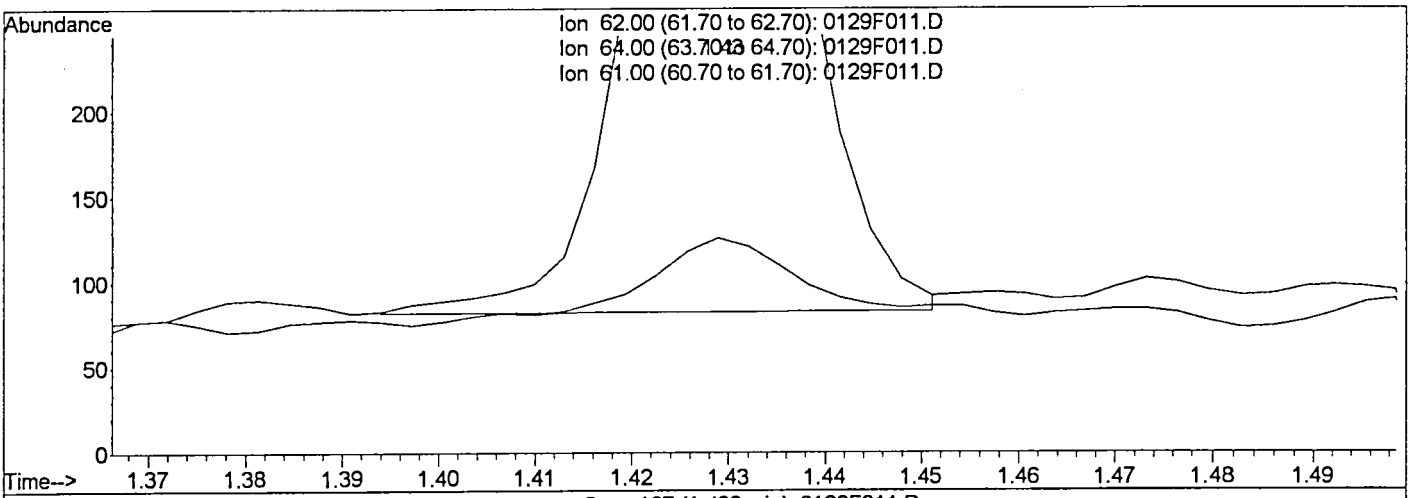
01/29/16

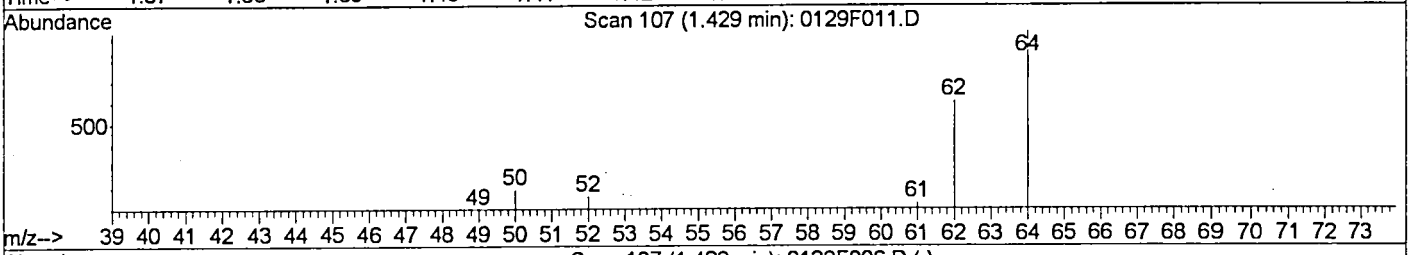
0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:40:24 2016

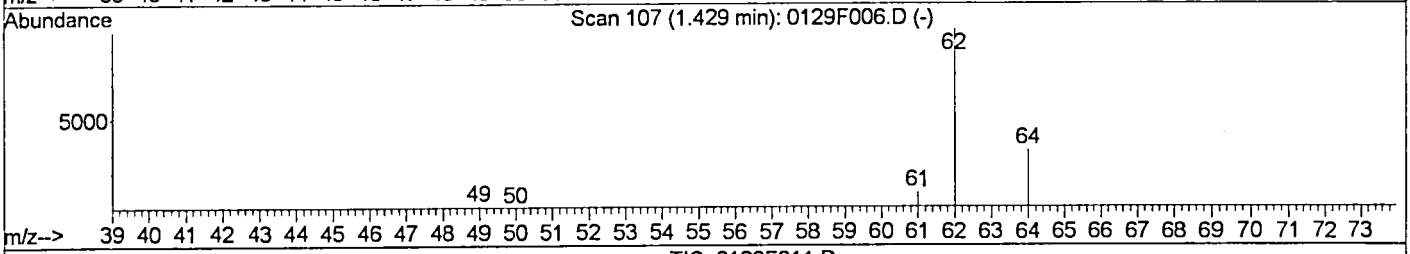
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F011.D

(3) Vinyl Chloride (T)

1.43min 21.70ng/L m

response 551

Ion	Exp%	Act%
62.00	100	100
64.00	31.90	153.80#
61.00	8.50	20.79
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

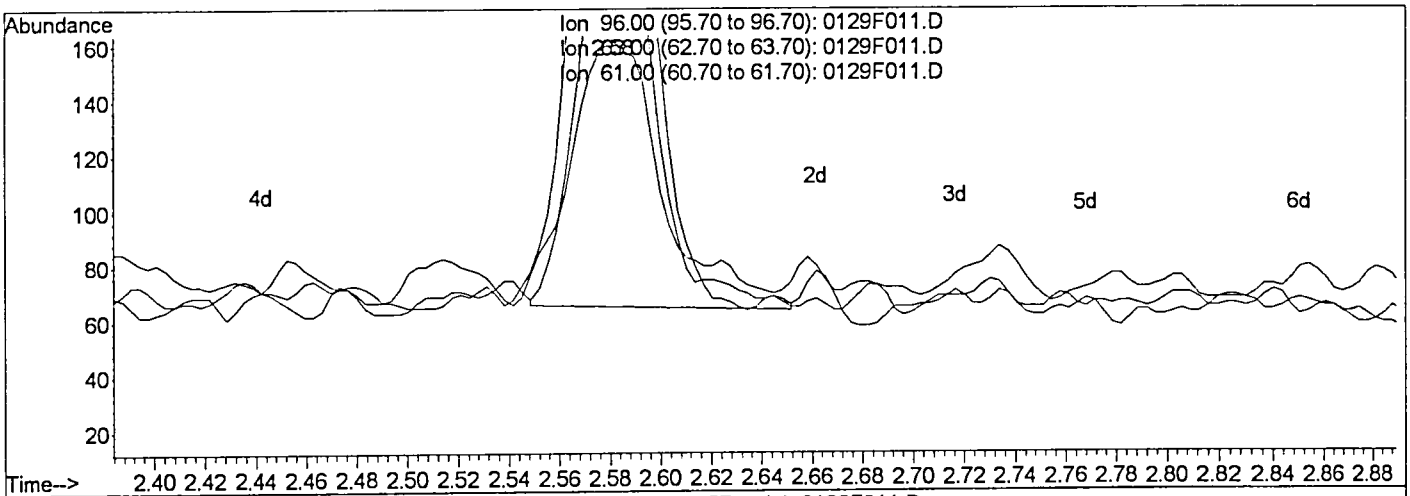
01/29/16

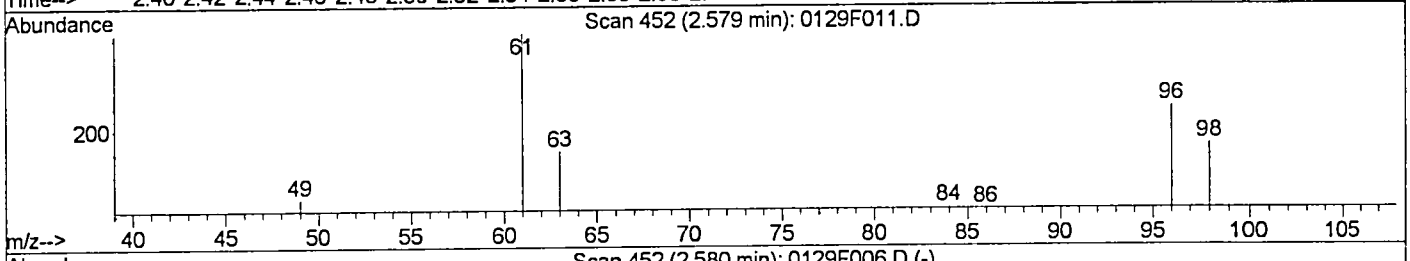
0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:40:34 2016

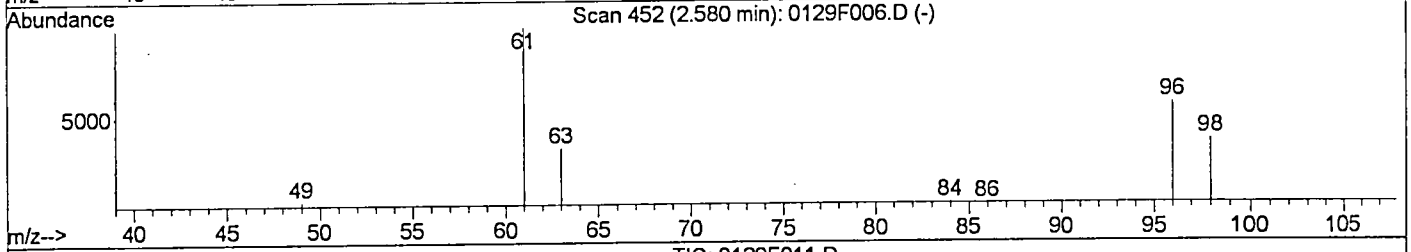
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F011.D

(4) 1,1-Dichloroethene (T)

2.58min 22.49ng/L

response 331

Ion	Exp%	Act%
96.00	100	100
63.00	55.00	51.46
61.00	169.20	177.78
0.00	0.00	0.00

Manual Integration:

Before

01/29/16

0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:40:44 2016

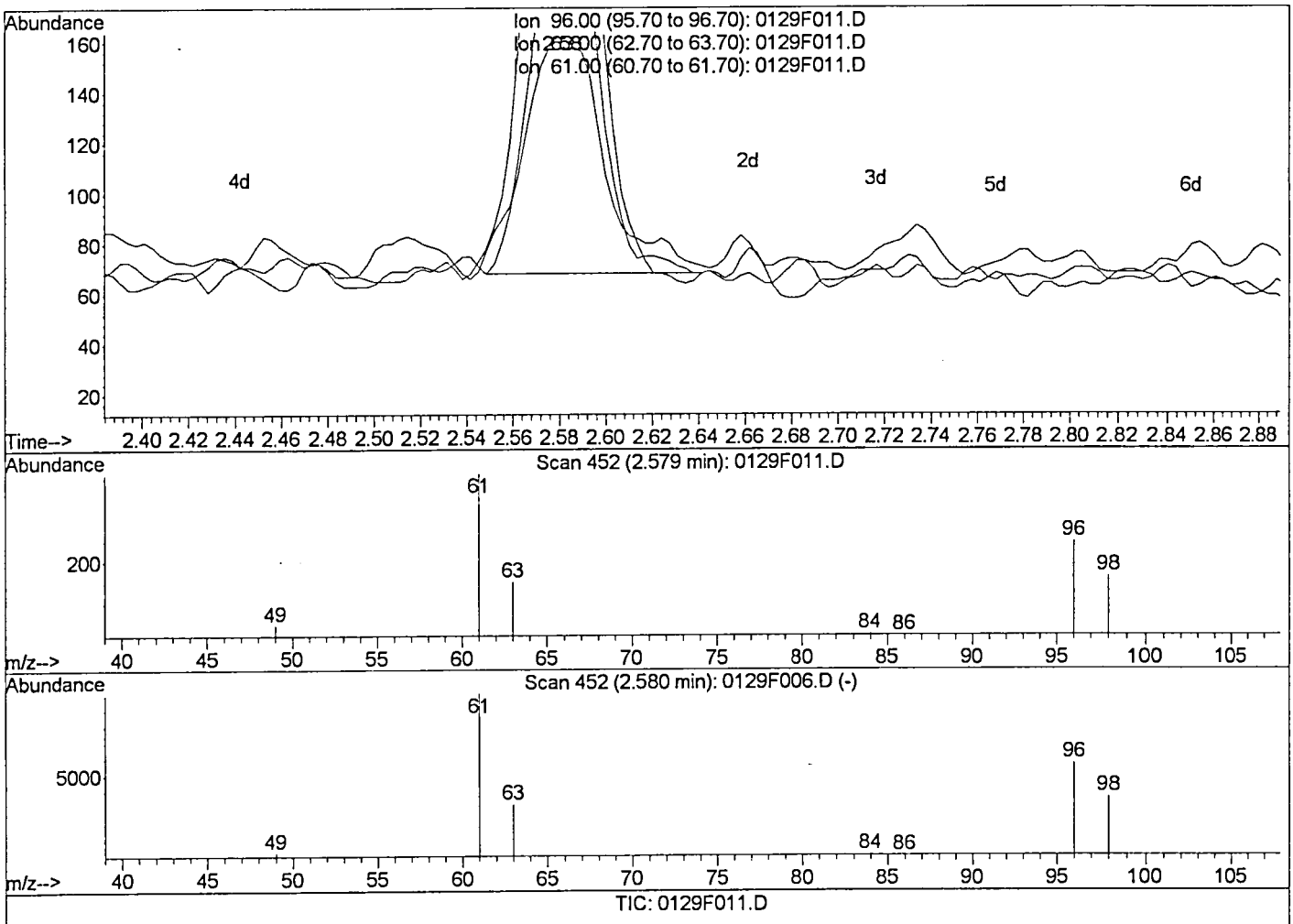
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D
Acq On : 29 Jan 2016 2:05 pm
Sample : MRL
Misc :
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:40 2016

Vial: 8
Operator: GH
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0129F011.D

(4) 1,1-Dichloroethene (T)

2.58min 21.27ng/L m

response 313

Ion	Exp%	Act%
96.00	100	100
63.00	55.00	68.35
61.00	169.20	155.70
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

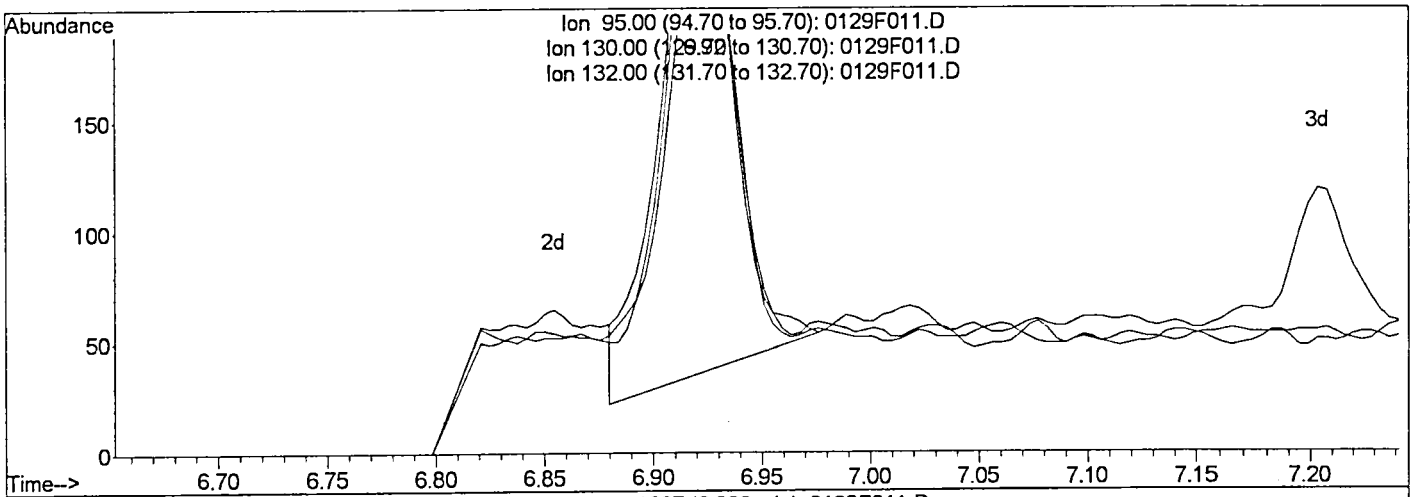
01/29/16

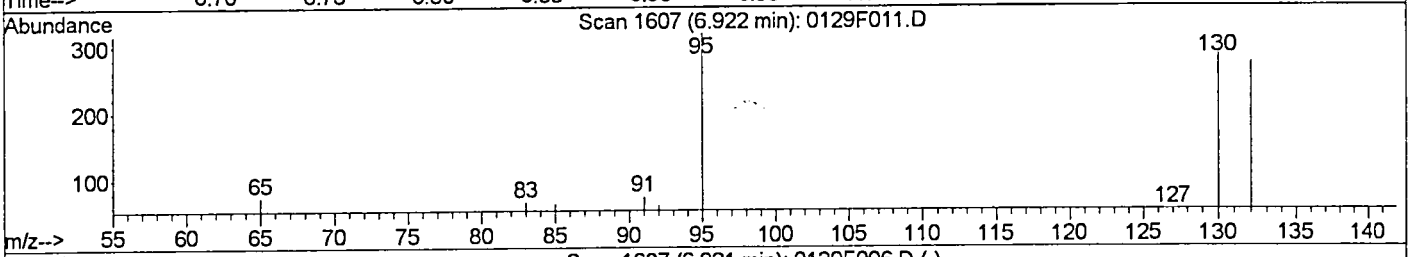
0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:40:54 2016

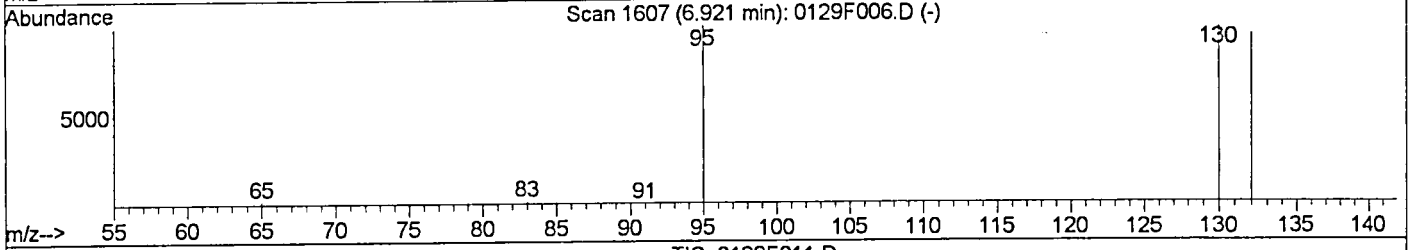
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D Vial: 8
Acq On : 29 Jan 2016 2:05 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:40 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration







TIC: 0129F011.D

(13) Trichloroethene (T)

6.92min 32.46ng/L

response 596

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	89.35
132.00	93.90	83.65
0.00	0.00	0.00

Manual Integration:

Before

01/29/16

0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:41:22 2016

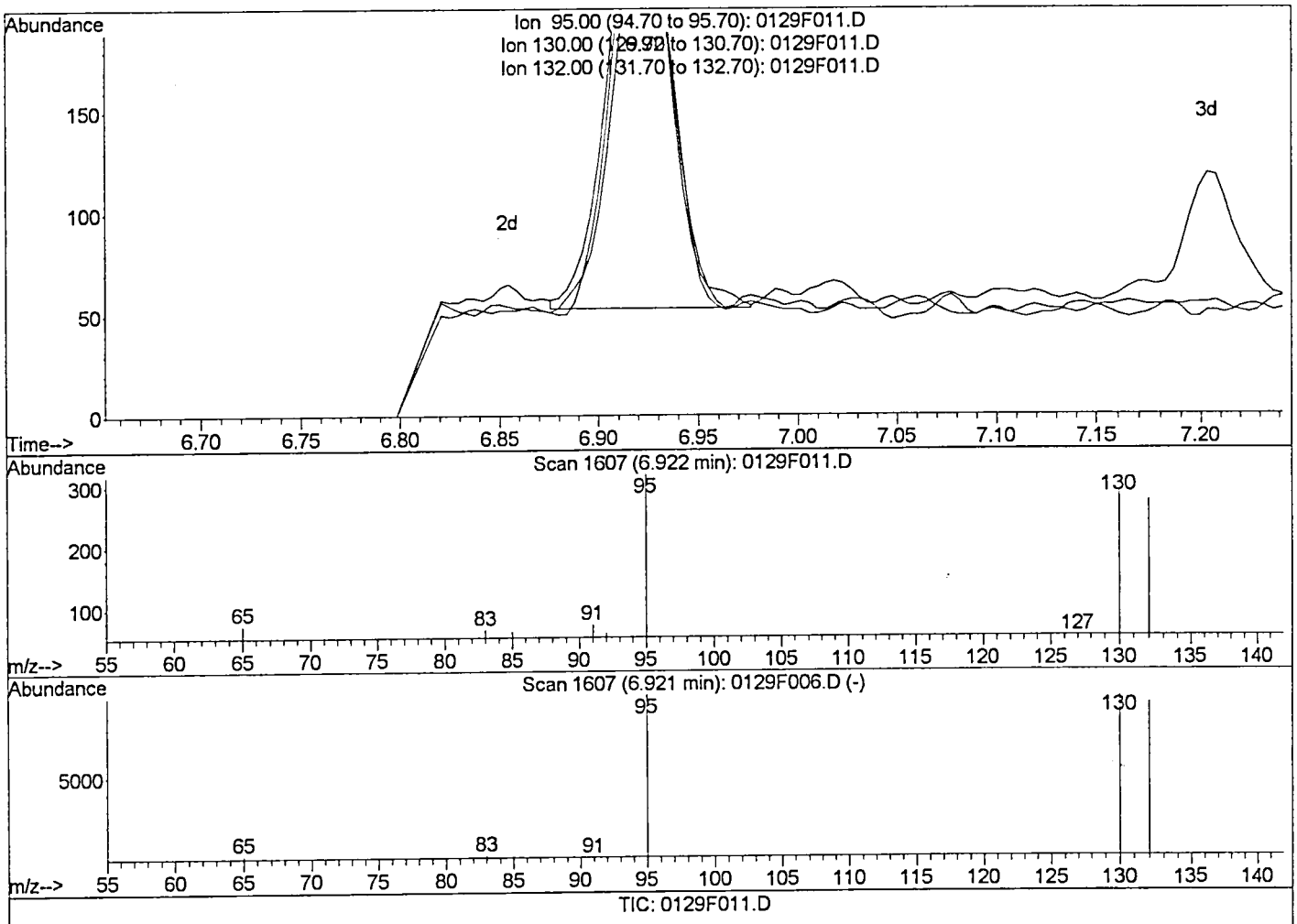
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D
Acq On : 29 Jan 2016 2:05 pm
Sample : MRL
Misc :
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:41 2016

Vial: 8
Operator: GH
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Multiple Level Calibration



TIC: 0129F011.D

(13) Trichloroethene (T)

6.92min 27.83ng/L m

response 511

Ion	Exp%	Act%
95.00	100	100
130.00	97.10	89.91
132.00	93.90	86.12
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

01/29/16

0129F011.D 012716MS27_8260SIM.M Fri Jan 29 15:41:29 2016

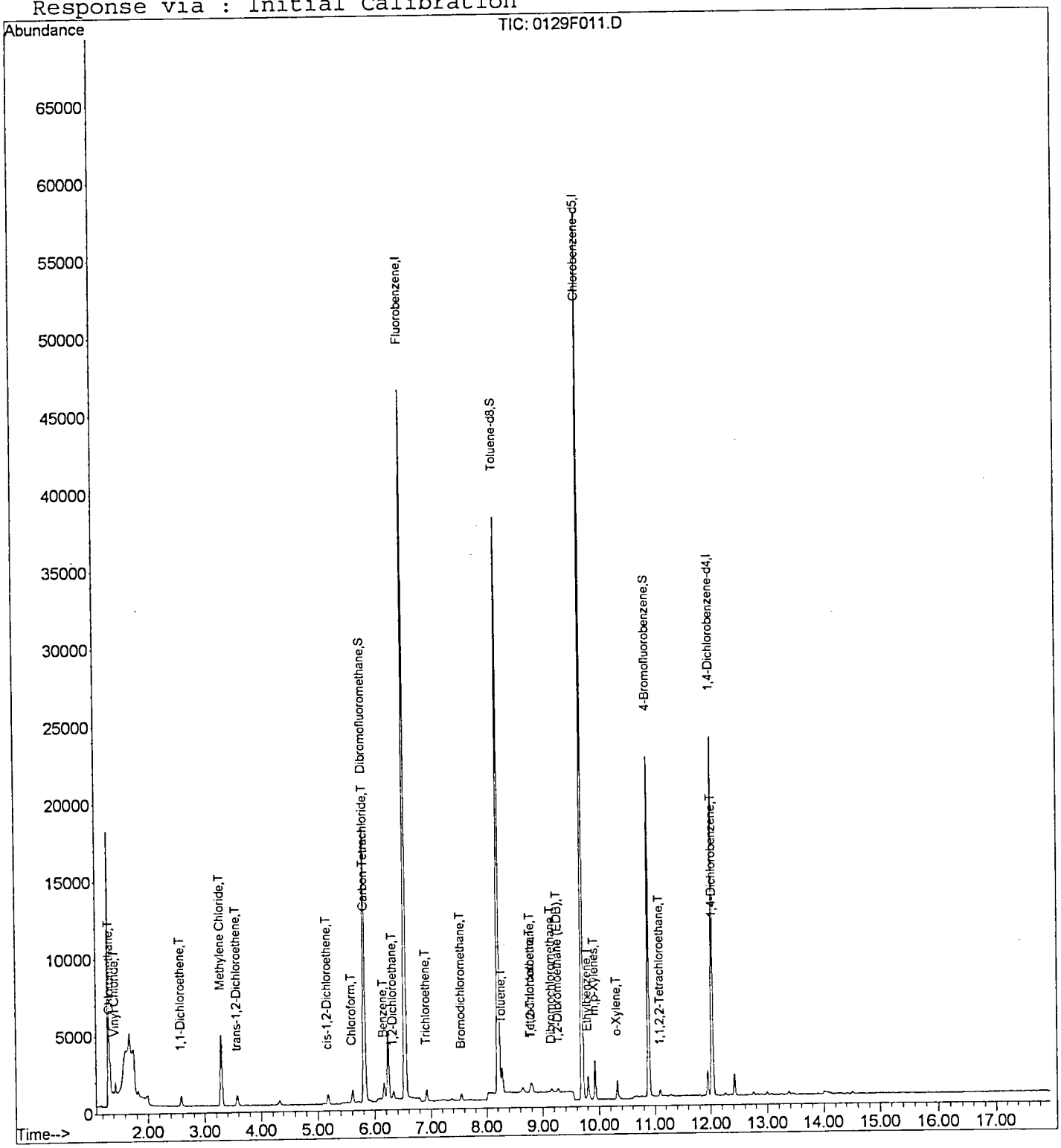
Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\012916_SIM\0129F011.D
Acq On : 29 Jan 2016 2:05 pm
Sample : MRL
Misc :
MS Integration Params: RTEINT.P
Quant Time: Jan 29 15:41 2016

Vial: 8
Operator: GH
Inst : MS27
Multiplr: 1.00

Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



Date: 2/1/16

By: HH

IS/SS Std. ID: 8VOA-93A 2/21/16

CCV Std ID: 8VOA-91B 2/3/16

MS/DMS/LCS/ICV Std ID: 〃

BFB Std. ID: 8VOA-93B 2/21/16

ALS Environmental
Injection Log
MS27 - Agilent 5975C

Tune File: BFB.chrm.U

New Tune: No

482137

ICAL Date: 1/27/16 Cal 14562

Second RV: KN, 2/2/16

LIMS ID: KWG1600834(A)/6835(P)

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0201F003	SIMTUNE.M	4.4µl→44ml		
2	SIM CCV	4	B260SIMC.M	2µl→50.ml		
3	SIM LCS	5		〃		
4	0673-4MS	6		1.6µl→40ml	—	
5	〃 4DMS	7		〃	—	
6	IB	8				
7	LOD IS PFT	9		1.5µl→50ml		8VOA-91C 2/3/16
8	MRL	10		2µl→50.ml		
9	MB	11				
10	0673-4	12			—	
11	〃 14	13			—	
12	SIM CCV	14		2µl→50.ml		
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

HH 2/1/16

Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F003.D
Lab ID: KWG1600834-1
RunType: TUNE
Matrix: WATER

Date Acquired: 02/01/2016 10:00
Date Quantitated:
Batch ID: KWG1600834
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: 2/1/16

Secondary Review: 2/2/16

Printed: 02/01/2016 11:24:33
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F003.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 10:00	**Quant Date:**		**Vial:**	2
Run Type:	TUNE			**Dilution:**	1.0
Lab ID:	KWG1600834-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B VOC_SIM_F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\012716MS27_8			**Calibration ID:**	CAL14562
Title:	GC/MS Tuning Evaluation			**Report List ID:**	LJ774
Tune Ref:				**Method ID:**	MJ159
MB Ref:				**Quant based on Report List**	

Tune Results

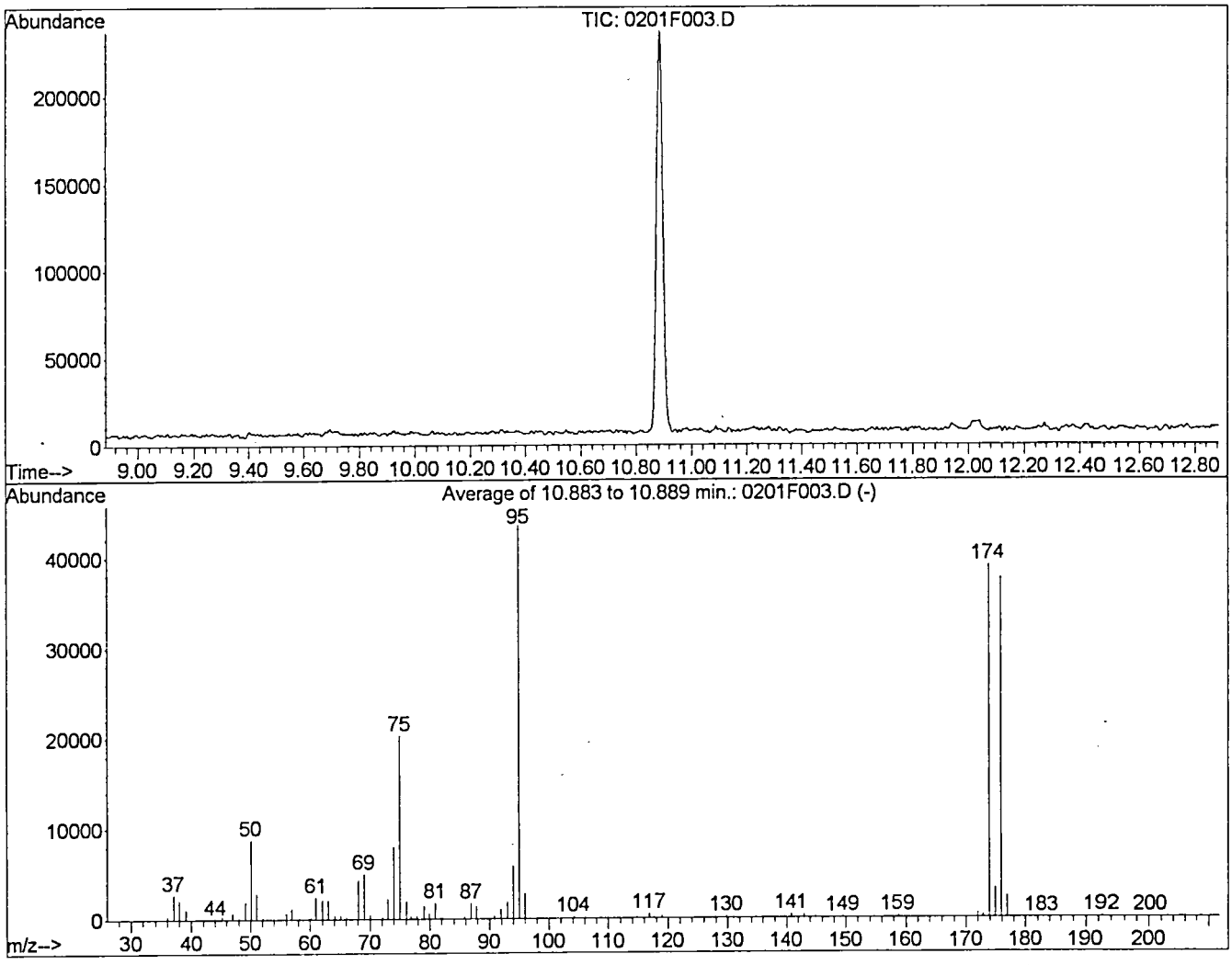
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.1	8787	Pass
75	95	30	60	46.6	20330	Pass
95	95	100	100	100.0	43632	Pass
96	95	5	9	6.4	2771	Pass
173	174	0	2	0.8	328	Pass
174	95	50	120	89.5	39032	Pass
175	174	5	9	8.3	3242	Pass
176	174	95	101	96.4	37624	Pass
177	176	5	9	6.3	2387	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:\MS27\DATA\020116_SIM\0201F003.D Vial: 2
Acq On : 1 Feb 2016 10:00 am Operator: GH
Sample : 50NG BFB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM



AutoFind: Scans 3494, 3495, 3496; Background Corrected with Scan 3480

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	8787	PASS
75	95	30	60	46.6	20330	PASS
95	95	100	100	100.0	43632	PASS
96	95	5	9	6.4	2771	PASS
173	174	0.00	2	0.8	328	PASS
174	95	50	120	89.5	39032	PASS
175	174	5	9	8.3	3242	PASS
176	174	95	101	96.4	37624	PASS
177	176	5	9	6.3	2387	PASS

0201F003.D 012716MS27_8260SIM.M Mon Feb 01 10:50:31 2016

Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F004.D
Lab ID: KWG1600834-2
RunType: CCV
Matrix: WATER

Date Acquired: 02/01/2016 10:31
Date Quantitated: 02/01/2016 10:50
Batch ID: KWG1600834
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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: 2/1/16

Secondary Review:

Printed: 02/01/2016 11:24:36
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F004.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 10:31	**Quant Date:**	02/01/2016 10:50	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600834-2			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B VOC_SIM_F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
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	6.54	0.00	96	68355	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	49999	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.03	0.00	152	27454	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.82			113	17360	1,116		77-123	NA	
1	Toluene-d8	8.21			98	60075	1,209		74-112	NA	
2	4-Bromofluorobenzene	10.88			95	23515	1,167		46-118	NA	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34			50	58888	2,119			
1	Vinyl Chloride	1.43			62	57884	2,332			
1	1,1-Dichloroethene	2.58			96	33861	2,354			
1	Methylene Chloride	3.29			84	45677	2,018			
1	trans-1,2-Dichloroethene	3.57			96	39485	2,254			
1	cis-1,2-Dichloroethene	5.18			96	41866	2,171			
1	Chloroform	5.61			83	73439	2,081			
1	Carbon Tetrachloride	5.84			117	48725	2,421			
1	Benzene	6.16			78	162968	2,121			
1	1,2-Dichloroethane	6.33			62	52127	2,108			
1	Trichloroethene (TCE)	6.92			95	41488	2,312			
1	Bromodichloromethane	7.55			83	50833	2,136			
1	1,1,2-Trichloroethane	8.81			83	26073	2,024			
1	Dibromochloromethane	9.16			129	32008	2,106			
1	1,2-Dibromoethane (EDB)	9.27			107	26309	1,998			

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:\MS27\DATA\020116_SIM\0201F004.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 10:31	**Quant Date:**	02/01/2016 10:50	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600834-2			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.28			92	89224	2,201			
2	Ethylbenzene	9.80			106	47925	2,266			
2	m,p-Xylenes	9.93			106	116741	4,423			
2	o-Xylene	10.32			106	57773	2,214			
2	1,1,2,2-Tetrachloroethane	11.09			83	31116	1,911			
2	Tetrachloroethene (PCE)	8.78			164	32080	2,268			
3	1,4-Dichlorobenzene	12.05			146	87946	2,052			

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:\MS27\DATA\020116_SIM\0201F004.D Vial: 3
Acq On : 1 Feb 2016 10:31 am Operator: GH
Sample : SIM CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 10:50:37 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

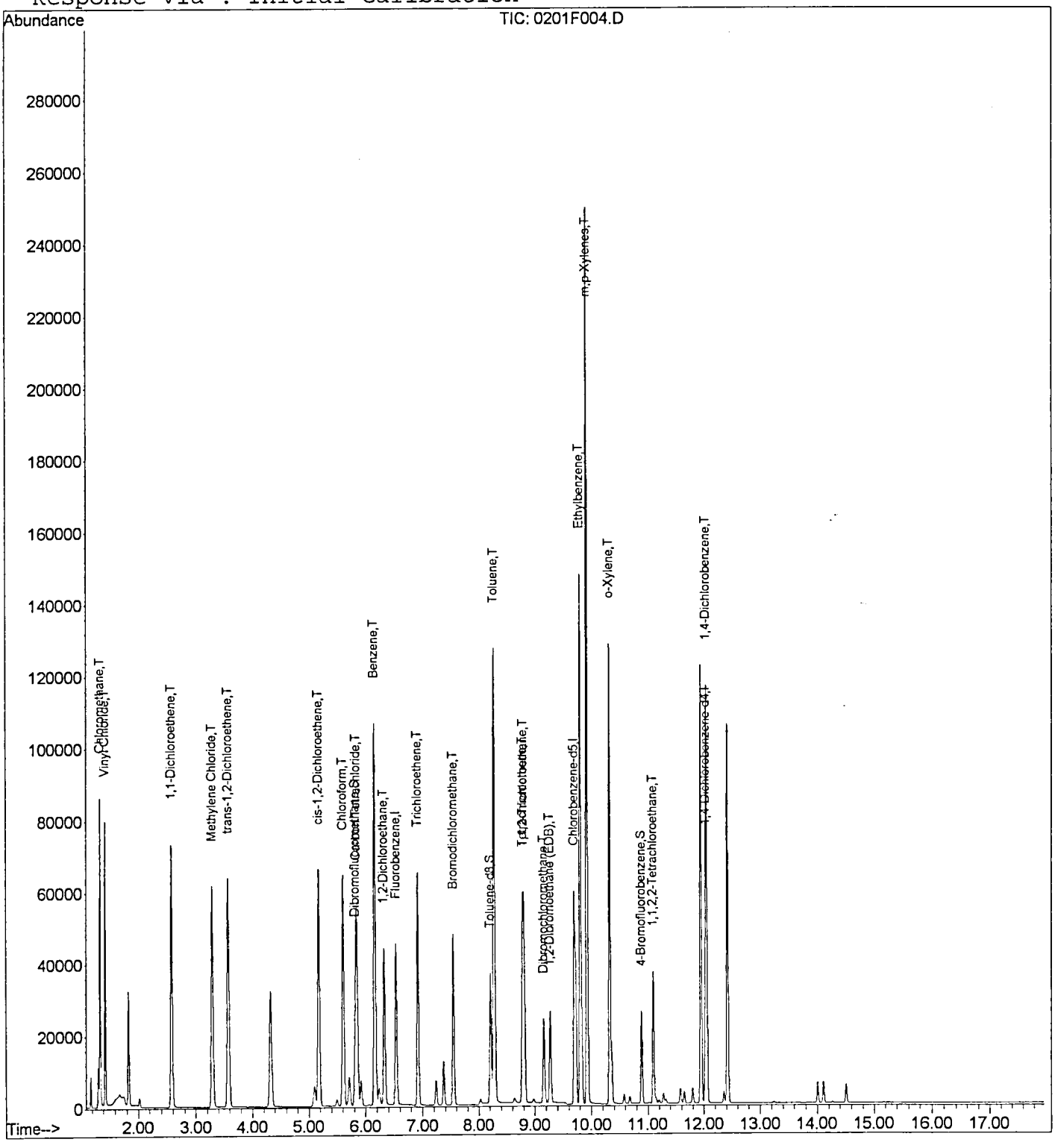
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	68355	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	49999	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	27454	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17360	1116.06	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.61%			
15) Toluene-d8	8.21	98	60075	1208.55	ng/L	0.00
Spiked Amount 1000.000			Recovery = 120.86%			
24) 4-Bromofluorobenzene	10.88	95	23515	1167.02	ng/L	0.00
Spiked Amount 1000.000			Recovery = 116.70%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	58888	2119.19	ng/L	100
3) Vinyl Chloride	1.43	62	57884	2332.40	ng/L	99
4) 1,1-Dichloroethene	2.58	96	33861	2354.27	ng/L	94
5) Methylene Chloride	3.29	84	45677	2017.64	ng/L	99
6) trans-1,2-Dichloroethene	3.57	96	39485	2253.84	ng/L	99
7) cis-1,2-Dichloroethene	5.18	96	41866	2171.41	ng/L	98
8) Chloroform	5.61	83	73439	2080.95	ng/L	99
10) Carbon Tetrachloride	5.84	117	48725	2420.85	ng/L	100
11) Benzene	6.16	78	162968	2120.53	ng/L	100
12) 1,2-Dichloroethane	6.33	62	52127	2107.69	ng/L	99
13) Trichloroethene	6.92	95	41488	2312.06	ng/L	100
14) Bromodichloromethane	7.55	83	50833	2135.95	ng/L	100
16) 1,1,2-Trichloroethane	8.81	83	26073	2024.00	ng/L	98
17) Dibromochloromethane	9.16	129	32008	2105.55	ng/L	100
18) 1,2-Dibromoethane (EDB)	9.27	107	26309	1998.09	ng/L	99
20) Toluene	8.28	92	89224	2201.22	ng/L	99
21) Ethylbenzene	9.80	106	47925	2265.99	ng/L	100
22) m,p-Xylenes	9.93	106	116741	4423.18	ng/L	100
23) o-Xylene	10.32	106	57773	2213.71	ng/L	98
25) 1,1,2,2-Tetrachloroethane	11.09	83	31116	1910.82	ng/L	99
26) Tetrachloroethene	8.78	164	32080	2268.04	ng/L	98
28) 1,4-Dichlorobenzene	12.05	146	87946	2052.47	ng/L	99

(#) = qualifier out of range (m) = manual integration
0201F004.D 012716MS27_8260SIM.M Mon Feb 01 10:51:49 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F004.D Vial: 3
Acq On : 1 Feb 2016 10:31 am Operator: GH
Sample : SIM CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 10:50 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration



0201F004.D 012716MS27_8260SIM.M Mon Feb 01 10:51:50 2016 Page 2

Exception Report

Data File: J:\MS27\DATA\020116_SIM\0201F014.D
Lab ID: KWG1600834-3
RunType: CCVA
Matrix: WATER

Date Acquired: 02/01/2016 15:56
Date Quantitated: 02/01/2016 16:26
Batch ID: KWG1600834
Analysis Method: 8260C SIM
MethodJoinID: MJ1547

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: 2/1/16

Secondary Review:

Printed: 02/01/2016 16:30:28
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS27\DATA\020116_SIM\0201F014.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 15:56	**Quant Date:**	02/01/2016 16:26	**Vial:**	12
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600834-3			**Soln Conc. Units:**	ng/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B VOC_SIM_F	**Collect Date:**		**Receive Date:**	02/01/2016

Analysis Lot:	KWG1600834	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\012716MS27_8	**Calibration ID:**	CAL14562
Title:			
Tune Ref:	J:\MS27\DATA\020116_SIM\0201F003.D	**Method ID:**	MJ1547
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	6.53	-0.01	96	65563	1,000.00	OK
2	Chlorobenzene-d5	9.70	0.00	117	47421	1,000.00	OK
3	1,4-Dichlorobenzene-d4	12.02	-0.01	152	24786	1,000.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.81			113	17003	1,140		77-123	NA	
1	Toluene-d8	8.21			98	56756	1,190		74-112	NA	
2	4-Bromofluorobenzene	10.88			95	21351	1,117		46-118	NA	

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane	1.34			50	57318	2,151			
1	Vinyl Chloride	1.43			62	57224	2,404			
1	1,1-Dichloroethene	2.58			96	32865	2,382			
1	Methylene Chloride	3.28			84	45024	2,073			
1	trans-1,2-Dichloroethene	3.57			96	38592	2,297			
1	cis-1,2-Dichloroethene	5.17			96	40613	2,196			
1	Chloroform	5.60			83	72414	2,139			
1	Carbon Tetrachloride	5.84			117	47311	2,451			
1	Benzene	6.16			78	158201	2,146			
1	1,2-Dichloroethane	6.33			62	51024	2,151			
1	Trichloroethene (TCE)	6.92			95	41292	2,399			
1	Bromodichloromethane	7.54			83	49183	2,155			
1	1,1,2-Trichloroethane	8.81			83	25113	2,033			
1	Dibromochloromethane	9.16			129	30707	2,106			
1	1,2-Dibromoethane (EDB)	9.27			107	24997	1,979			

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:\MS27\DATA\020116_SIM\0201F014.D			**Instrument:**	MS27
Acqu Date:	02/01/2016 15:56	**Quant Date:**	02/01/2016 16:26	**Vial:**	12
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600834-3			**Soln Conc. Units:**	ng/L

Target Compounds

Final Conc. Units: ng/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Toluene	8.27			92	83305	2,167			
2	Ethylbenzene	9.80			106	44300	2,208			
2	m,p-Xylenes	9.93			106	108414	4,331			
2	o-Xylene	10.32			106	53637	2,167			
2	1,1,2,2-Tetrachloroethane	11.09			83	28431	1,841			
2	Tetrachloroethene (PCE)	8.78			164	31303	2,333			
3	1,4-Dichlorobenzene	12.04			146	82473	2,132			

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:\MS27\DATA\020116_SIM\0201F014.D Vial: 12
Acq On : 1 Feb 2016 3:56 pm Operator: GH
Sample : SIM CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 16:26:30 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

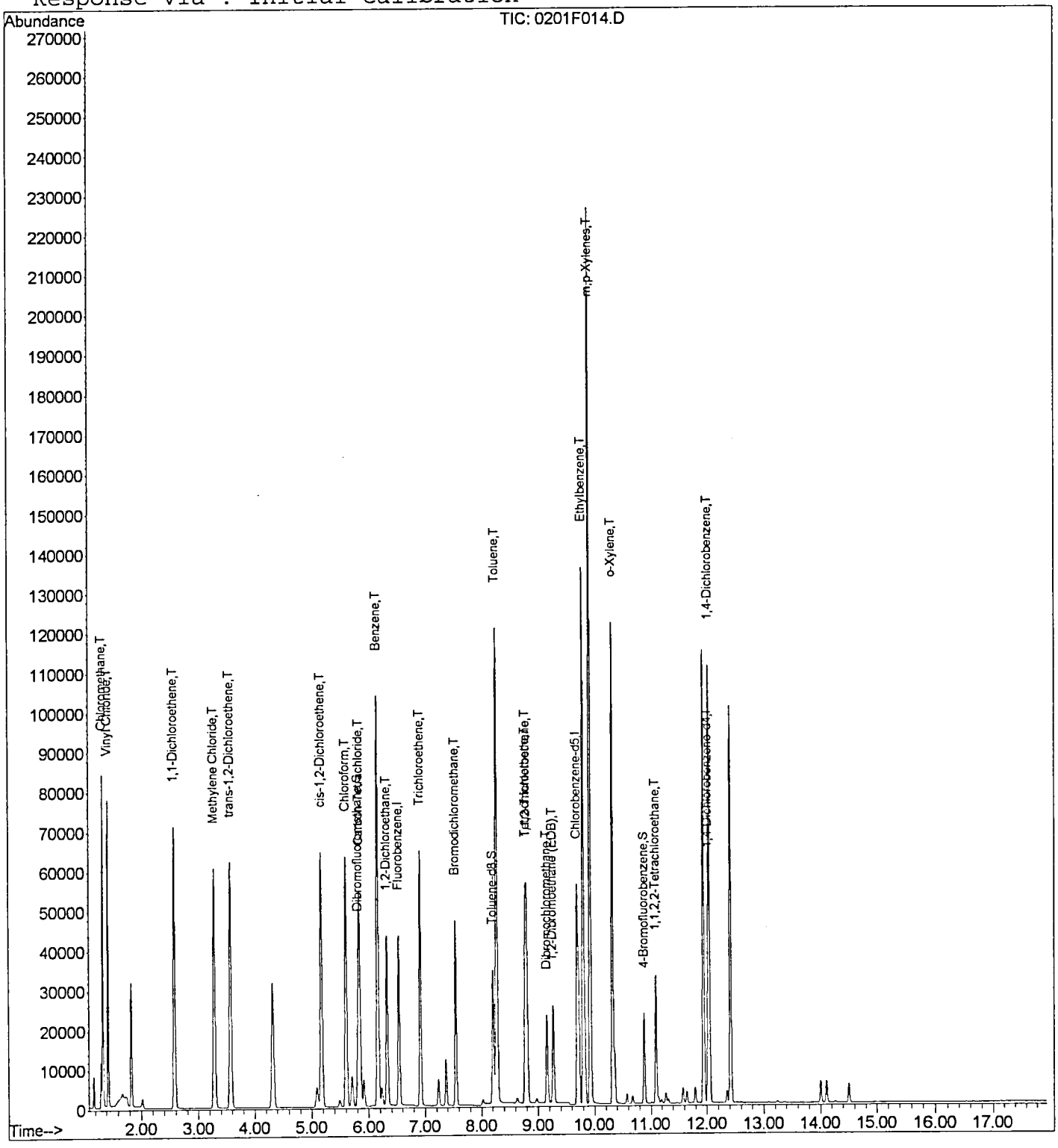
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.53	96	65563	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	47421	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	24786	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.81	113	17003	1139.66	ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.97%			
15) Toluene-d8	8.21	98	56756	1190.40	ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.04%			
24) 4-Bromofluorobenzene	10.88	95	21351	1117.23	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.72%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	57318	2150.53	ng/L	98
3) Vinyl Chloride	1.43	62	57224	2404.00	ng/L	100
4) 1,1-Dichloroethene	2.58	96	32865	2382.32	ng/L	98
5) Methylene Chloride	3.28	84	45024	2073.49	ng/L	100
6) trans-1,2-Dichloroethene	3.57	96	38592	2296.68	ng/L	98
7) cis-1,2-Dichloroethene	5.17	96	40613	2196.12	ng/L	98
8) Chloroform	5.60	83	72414	2139.29	ng/L	99
10) Carbon Tetrachloride	5.84	117	47311	2450.69	ng/L	98
11) Benzene	6.16	78	158201	2146.17	ng/L	100
12) 1,2-Dichloroethane	6.33	62	51024	2150.94	ng/L	99
13) Trichloroethene	6.92	95	41292	2399.13	ng/L	99
14) Bromodichloromethane	7.54	83	49183	2154.63	ng/L	99
16) 1,1,2-Trichloroethane	8.81	83	25113	2032.50	ng/L	96
17) Dibromochloromethane	9.16	129	30707	2105.98	ng/L	99
18) 1,2-Dibromoethane (EDB)	9.27	107	24997	1979.30	ng/L	99
20) Toluene	8.27	92	83305	2166.92	ng/L	99
21) Ethylbenzene	9.80	106	44300	2208.46	ng/L	99
22) m,p-Xylenes	9.93	106	108414	4330.99	ng/L	99
23) o-Xylene	10.32	106	53637	2166.96	ng/L	98
25) 1,1,2,2-Tetrachloroethane	11.09	83	28431	1840.86	ng/L	100
26) Tetrachloroethene	8.78	164	31303	2333.42	ng/L	99
28) 1,4-Dichlorobenzene	12.04	146	82473	2131.92	ng/L	98

(#) = qualifier out of range (m) = manual integration
0201F014.D 012716MS27_8260SIM.M Mon Feb 01 16:28:34 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F014.D Vial: 12
Acq On : 1 Feb 2016 3:56 pm Operator: GH
Sample : SIM CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 16:26 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration



0201F014.D 012716MS27_8260SIM.M Mon Feb 01 16:28:35 2016 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F009.D Vial: 7
Acq On : 1 Feb 2016 12:51 pm Operator: GH
Sample : LOD 15 PPT Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 13:22:39 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

2/1/16

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.54	96	67665	1000.00 ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48121	1000.00 ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.02	152	23365	1000.00 ng/L	0.00
System Monitoring Compounds					
9) Dibromofluoromethane	5.82	113	17411	1130.76 ng/L	0.00
Spiked Amount 1000.000			Recovery = 113.08%		
15) Toluene-d8	8.21	98	59008	1199.19 ng/L	0.00
Spiked Amount 1000.000			Recovery = 119.92%		
24) 4-Bromofluorobenzene	10.89	95	19935	1027.96 ng/L	0.00
Spiked Amount 1000.000			Recovery = 102.80%		
Target Compounds					Qvalue
2) Chloromethane	1.34	50	657m	23.88 ng/L	
3) Vinyl Chloride	1.43	62	424	17.26 ng/L	92
4) 1,1-Dichloroethene	2.58	96	232	16.29 ng/L	96
5) Methylene Chloride	3.29	84	3000	133.87 ng/L	99
6) trans-1,2-Dichloroethene	3.58	96	362	20.87 ng/L	86
7) cis-1,2-Dichloroethene	5.18	96	268	14.04 ng/L	87
8) Chloroform	5.61	83	642	18.38 ng/L	98
10) Carbon Tetrachloride	5.84	117	321	16.11 ng/L	99
11) Benzene	6.16	78	1200m	15.77 ng/L	
12) 1,2-Dichloroethane	6.33	62	410	16.75 ng/L	98
13) Trichloroethene	6.92	95	313	17.62 ng/L	97
14) Bromodichloromethane	7.55	83	320	13.58 ng/L	91
16) 1,1,2-Trichloroethane	8.81	83	183	14.35 ng/L	93
17) Dibromochloromethane	9.16	129	197	13.09 ng/L	97
18) 1,2-Dibromoethane (EDB)	9.27	107	187	14.35 ng/L	84
20) Toluene	8.28	92	620	15.89 ng/L	98
21) Ethylbenzene	9.81	106	308	15.13 ng/L #	79
22) m,p-Xylenes	9.93	106	843	33.19 ng/L	94
23) o-Xylene	10.33	106	380	15.13 ng/L	97
25) 1,1,2,2-Tetrachloroethane	11.10	83	259	16.53 ng/L	99
26) Tetrachloroethene	8.78	164	277	20.35 ng/L	91
28) 1,4-Dichlorobenzene	12.05	146	1114	30.55 ng/L	98

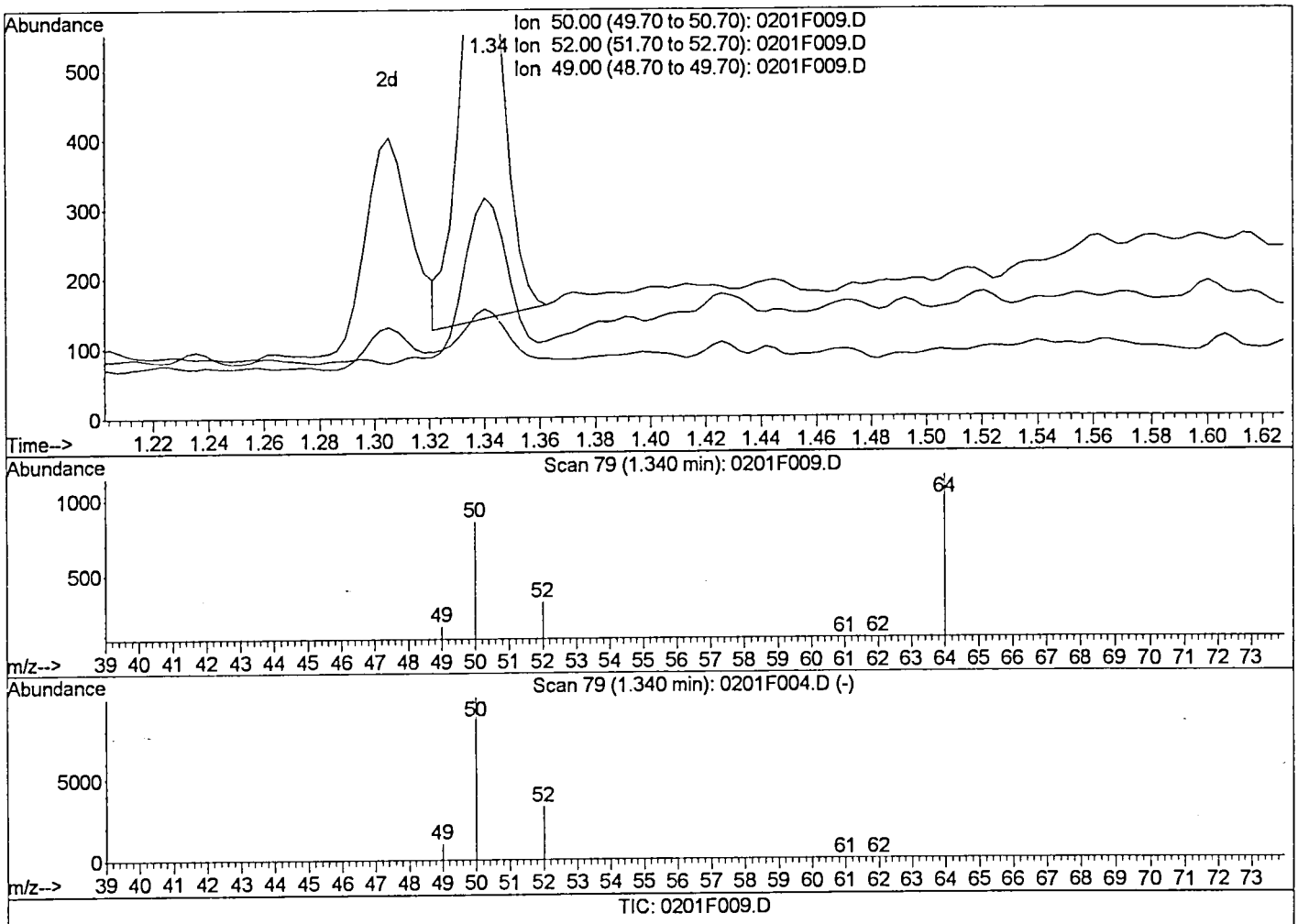
(#) = qualifier out of range (m) = manual integration
0201F009.D 012716MS27_8260SIM.M Mon Feb 01 22:09:00 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F009.D
Acq On : 1 Feb 2016 12:51 pm
Sample : LOD 15 PPT
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:22 2016

Vial: 7
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0201F009.D

(2) Chloromethane (T)

1.34min 25.45ng/L

response 700

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.00
49.00	10.10	10.23
0.00	0.00	0.00

Manual Integration:

Before

02/01/16

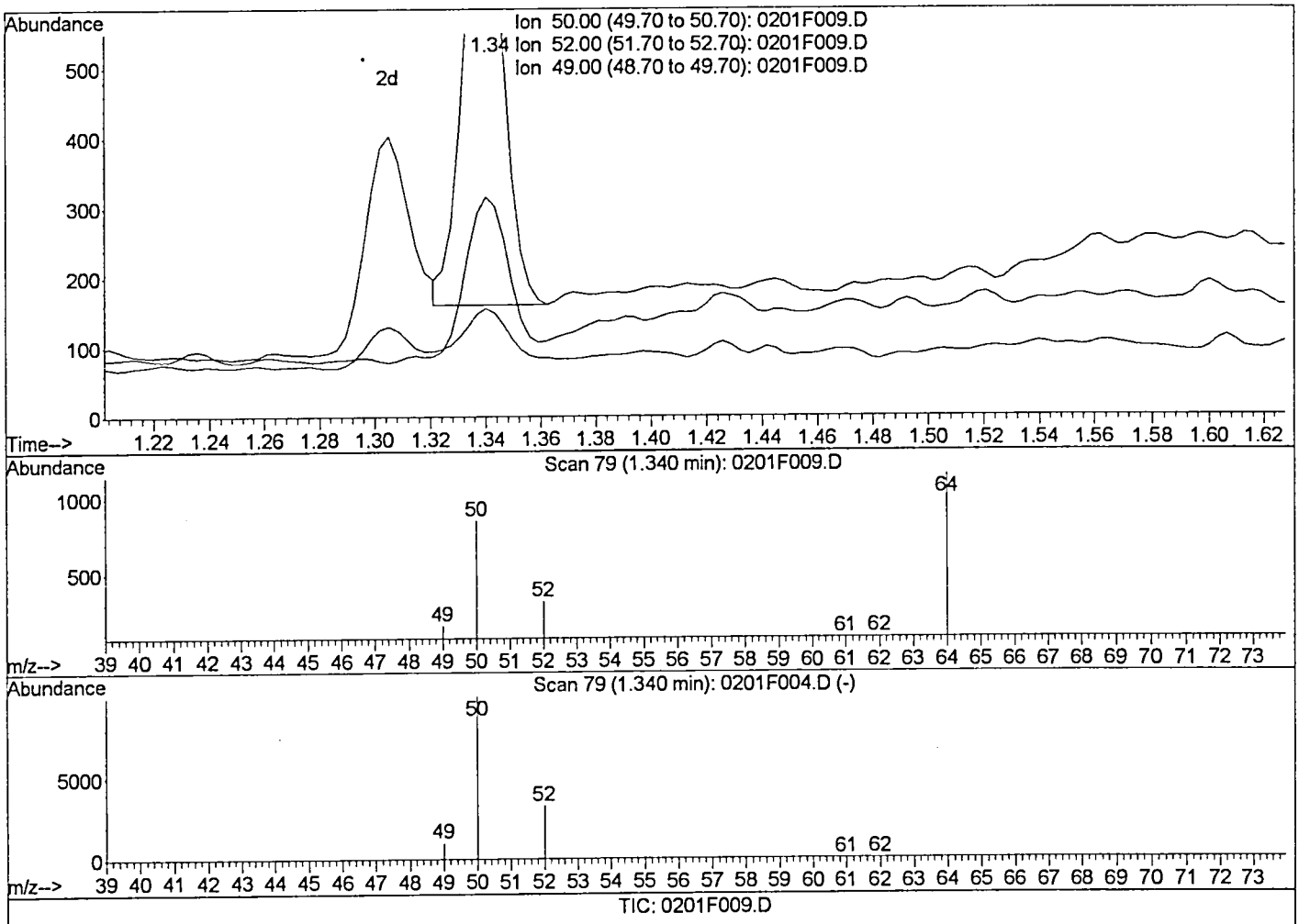
0201F009.D 012716MS27_8260SIM.M Mon Feb 01 22:06:59 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F009.D
Acq On : 1 Feb 2016 12:51 pm
Sample : LOD 15 PPT
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 22:07 2016

Vial: 7
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0201F009.D

(2) Chloromethane (T)

1.34min 23.88ng/L m

response 657

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	36.96
49.00	10.10	18.25
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

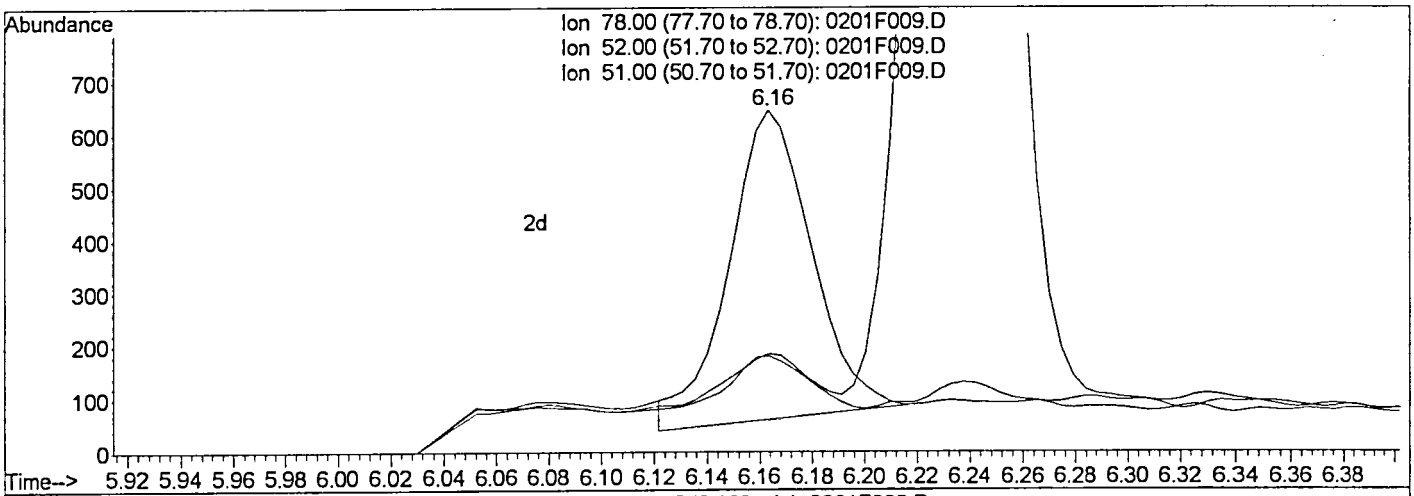
02/01/16

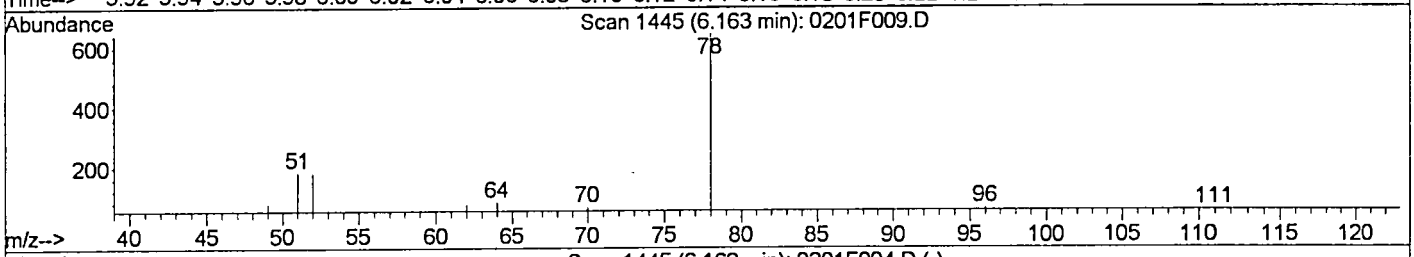
0201F009.D 012716MS27_8260SIM.M Mon Feb 01 22:07:06 2016

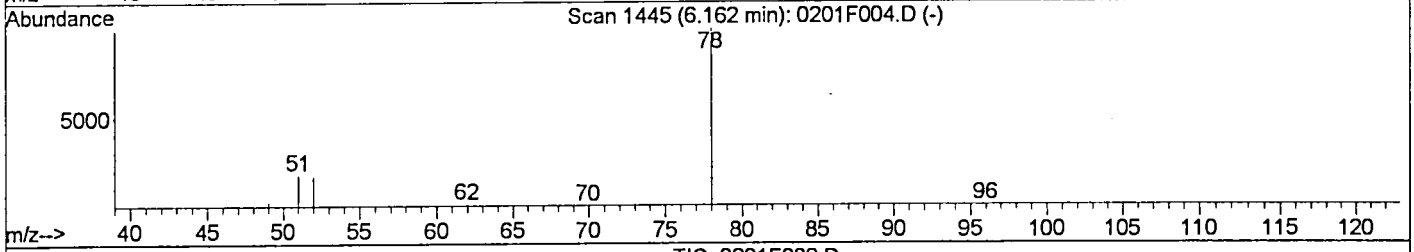
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F009.D Vial: 7
Acq On : 1 Feb 2016 12:51 pm Operator: GH
Sample : LOD 15 PPT Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 22:07 2016 Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration







TIC: 0201F009.D

(11) Benzene (T)

6.16min 16.85ng/L

response 1282

Ion	Exp%	Act%
78.00	100	100
52.00	16.90	17.95
51.00	17.60	17.59
0.00	0.00	0.00

Manual Integration:

Before

02/01/16

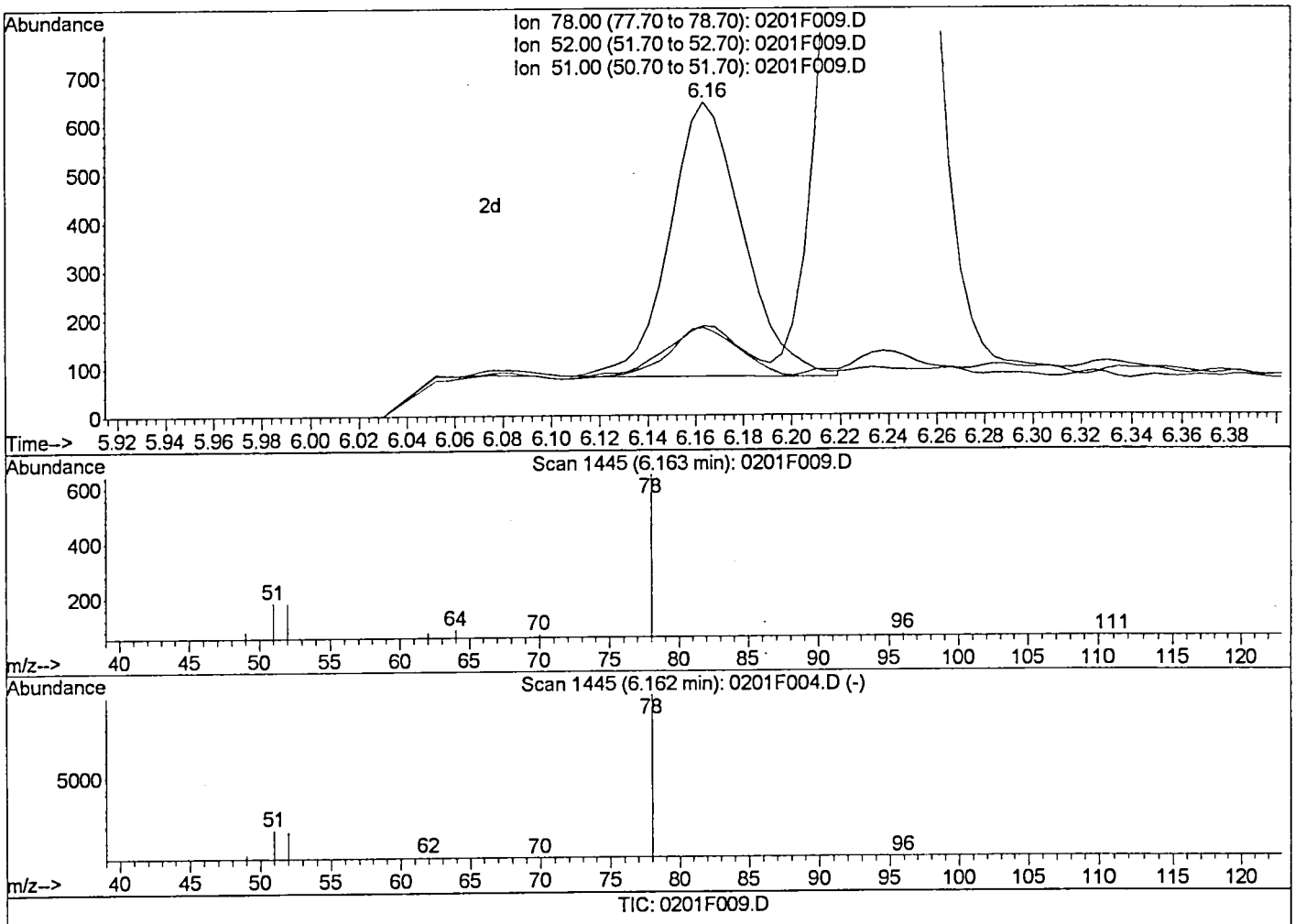
0201F009.D 012716MS27_8260SIM.M Mon Feb 01 22:07:27 2016

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F009.D
Acq On : 1 Feb 2016 12:51 pm
Sample : LOD 15 PPT
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 22:07 2016

Vial: 7
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Multiple Level Calibration



TIC: 0201F009.D

(11) Benzene (T)

6.16min 15.77ng/L m

response 1200

Ion	Exp%	Act%
78.00	100	100
52.00	16.90	28.02
51.00	17.60	28.64
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

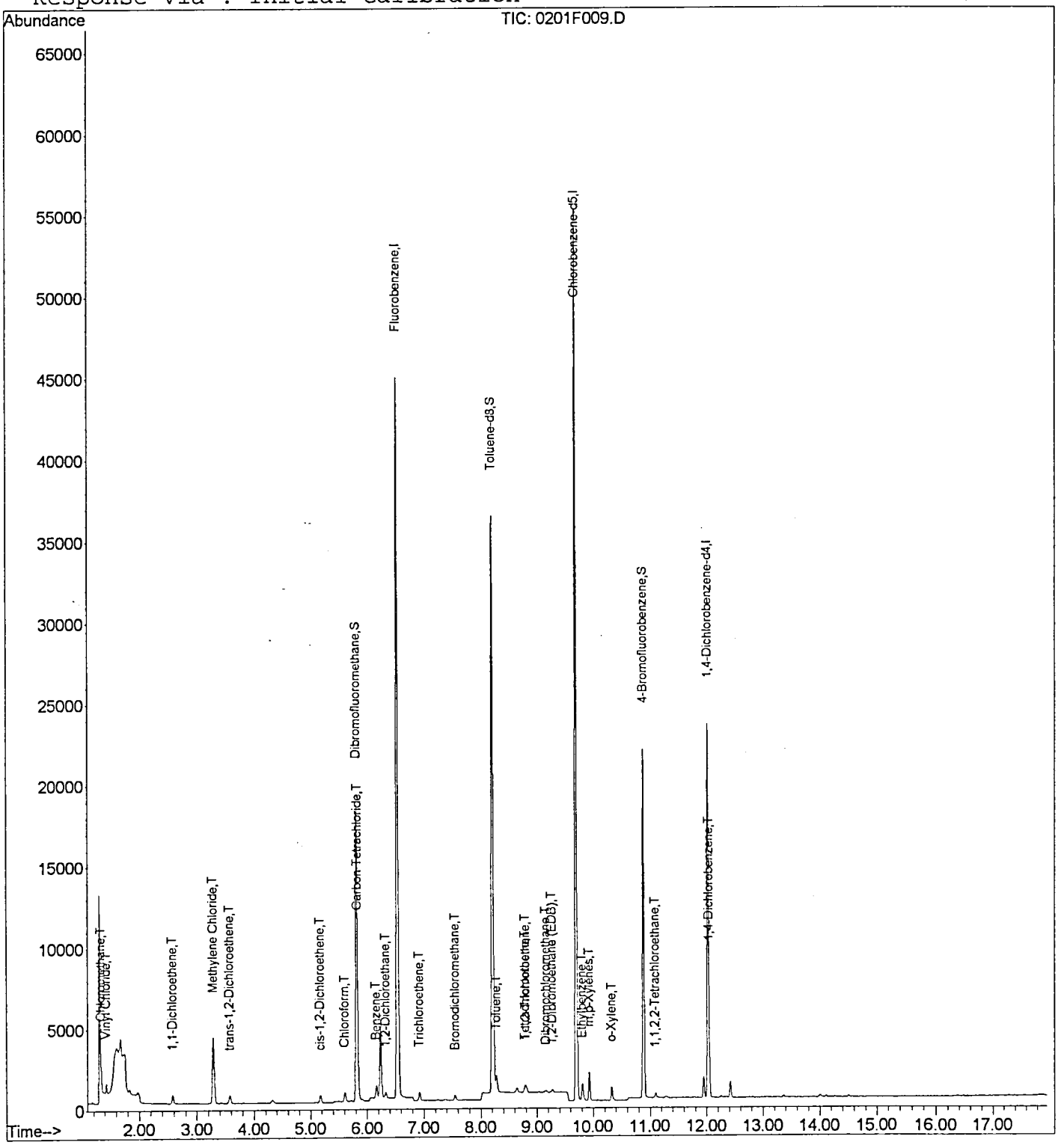
02/01/16

0201F009.D 012716MS27_8260SIM.M Mon Feb 01 22:07:32 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F009.D Vial: 7
Acq On : 1 Feb 2016 12:51 pm Operator: GH
Sample : LOD 15 PPT Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 22:07 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F010.D Vial: 8
Acq On : 1 Feb 2016 1:18 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 13:39:02 2016 Quant Results File: 012716MS27_8260

Quant Method : J:\MS27\M...\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 09:53:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260SIMC

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.54	96	68963	1000.00	ng/L	0.00
19) Chlorobenzene-d5	9.70	117	48909	1000.00	ng/L	0.00
27) 1,4-Dichlorobenzene-d4	12.03	152	22377	1000.00	ng/L	0.00
System Monitoring Compounds						
9) Dibromofluoromethane	5.82	113	17503	1115.34	ng/L	0.00
Spiked Amount 1000.000			Recovery = 111.53%			
15) Toluene-d8	8.21	98	59167	1179.79	ng/L	0.00
Spiked Amount 1000.000			Recovery = 117.98%			
24) 4-Bromofluorobenzene	10.89	95	19826	1005.87	ng/L	0.00
Spiked Amount 1000.000			Recovery = 100.59%			
Target Compounds						Qvalue
2) Chloromethane	1.34	50	878m	31.32	ng/L	
3) Vinyl Chloride	1.43	62	566	22.61	ng/L	97
4) 1,1-Dichloroethene	2.58	96	354	24.40	ng/L	99
5) Methylene Chloride	3.29	84	3371	147.59	ng/L	97
6) trans-1,2-Dichloroethene	3.58	96	426	24.10	ng/L	91
7) cis-1,2-Dichloroethene	5.18	96	425	21.85	ng/L	96
8) Chloroform	5.61	83	856	24.04	ng/L	95
10) Carbon Tetrachloride	5.84	117	412	20.29	ng/L	90
11) Benzene	6.16	78	1667	21.50	ng/L	98
12) 1,2-Dichloroethane	6.33	62	612	24.53	ng/L	98
13) Trichloroethene	6.92	95	452	24.97	ng/L	99
14) Bromodichloromethane	7.55	83	526	21.91	ng/L	97
16) 1,1,2-Trichloroethane	8.81	83	273	21.01	ng/L	99
17) Dibromochloromethane	9.16	129	321	20.93	ng/L	90
18) 1,2-Dibromoethane (EDB)	9.27	107	295	22.21	ng/L	93
20) Toluene	8.28	92	909	22.93	ng/L	99
21) Ethylbenzene	9.80	106	453	21.90	ng/L	91
22) m,p-Xylenes	9.93	106	1057	40.94	ng/L	96
23) o-Xylene	10.33	106	496	19.43	ng/L	100
25) 1,1,2,2-Tetrachloroethane	11.09	83	354	22.22	ng/L	89
26) Tetrachloroethene	8.78	164	379	27.39	ng/L	98
28) 1,4-Dichlorobenzene	12.05	146	1131	32.38	ng/L	93

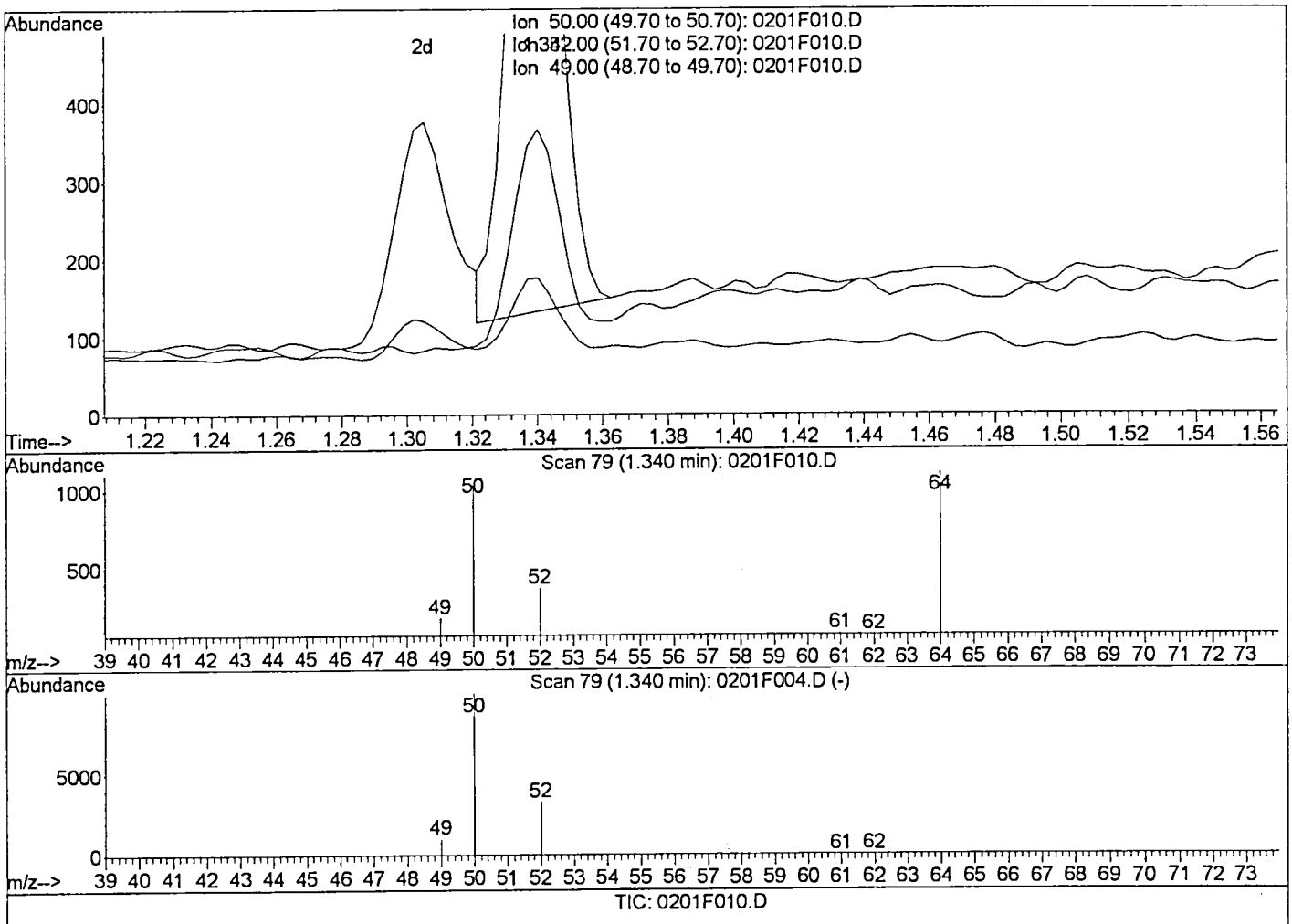
(#) = qualifier out of range (m) = manual integration
0201F010.D 012716MS27_8260SIM.M Mon Feb 01 22:09:01 2016 Page 1

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\020116_SIM\0201F010.D
Acq On : 1 Feb 2016 1:18 pm
Sample : MRL
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 1 13:39 2016

Vial: 8
Operator: GH
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 2016
Response via : Single Level Calibration



TIC: 0201F010.D

(2) Chloromethane (T)

1.34min 32.57ng/L

response 913

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	31.52
49.00	10.10	10.32
0.00	0.00	0.00

Manual Integration:

Before

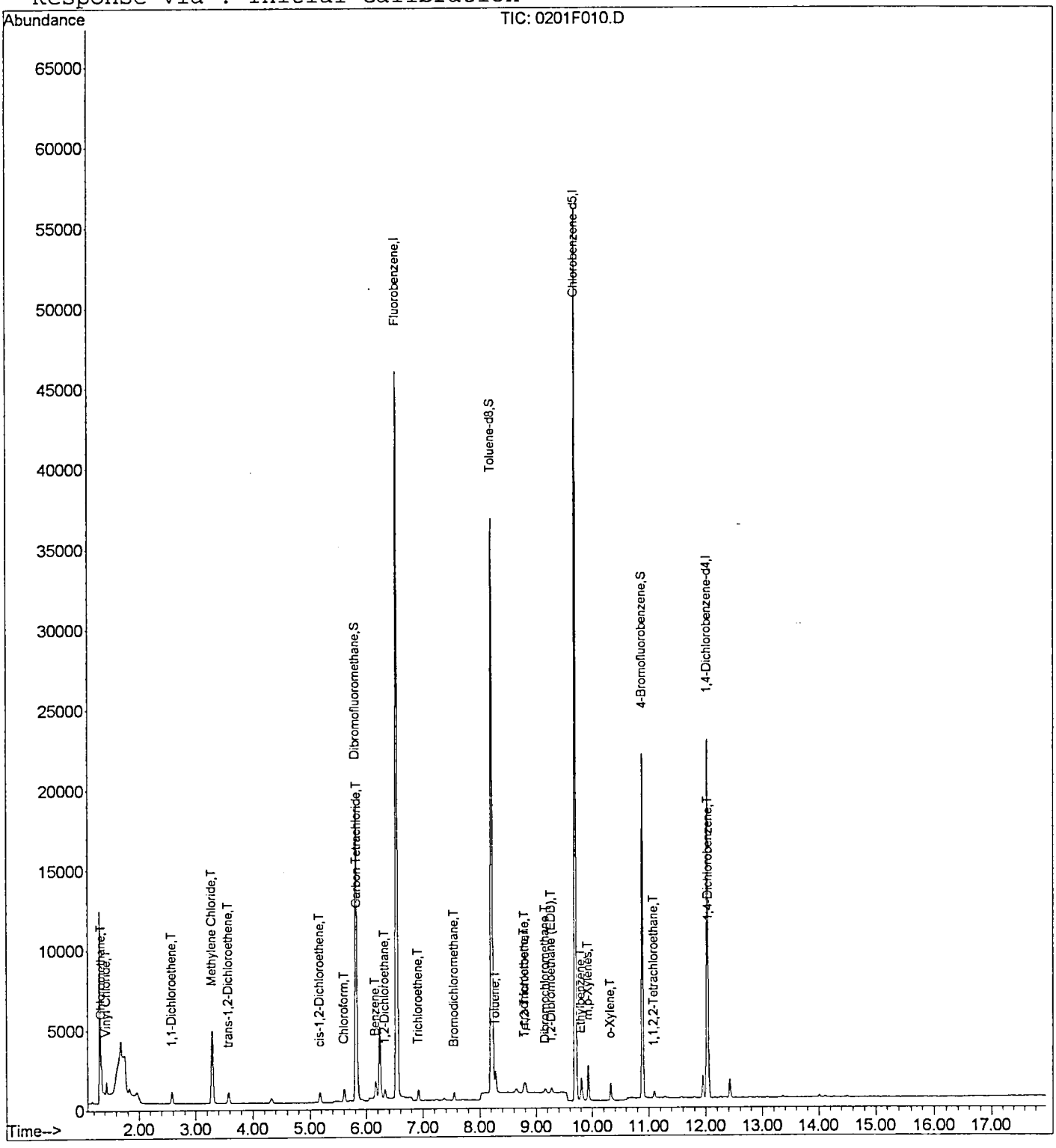
02/01/16

0201F010.D 012716MS27_8260SIM.M Mon Feb 01 22:08:08 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\020116_SIM\0201F010.D Vial: 8
Acq On : 1 Feb 2016 1:18 pm Operator: GH
Sample : MRL Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 22:08 2016 Quant Results File: 012716MS27_8

Method : J:\MS27\METHODS\012716MS27_8260SIM.M (RTE Integrator)
Title : VOA MS27 EPA8260C SIM
Last Update : Fri Jan 29 15:39:46 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
www.alsglobal.com

Exception Report

Data File: J:\MS14\DATA\020116\0201F014.D
Lab ID: K1600673-001
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 13:11
Date Quantitated: 02/02/2016 12:06
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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	

FEB 0 2 2016
Primary Review: _____

FEB 0 3 2016
Secondary Review: _____

Printed: 02/02/2016 12:40:58
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F014.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 13:11	**Quant Date:**	02/02/2016 12:06	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495828	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	63403	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	32185	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	61994	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	68387	200.00	OK
5	Perylene-d12	13.05	0.00	264	59275	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	6.71	0.00	0.00	176	65098	366.85	92	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	119403	376.33	94	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	95116	381.55	95	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	0		0.0038	U	
1	2-Methylnaphthalene				142	0		0.0023	U	
1	1-Methylnaphthalene				142	0		0.0035	U	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene	6.73		0.00	166	50	0.2200	0.0038	U	
3	Phenanthrene	7.53		0.00	178	212m	0.5800	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	88m	0.2200	0.010	U	
4	Pyrene	8.70		0.00	202	93m	0.2200	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	205	0.5100	0.0026	U	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F014.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 13:11	**Quant Date:**	02/02/2016 12:06	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-001			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F014.D Vial: 14
Acq On : 1 Feb 2016 1:11 pm Operator: LWeiskopf
Sample : K1600673-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:42 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

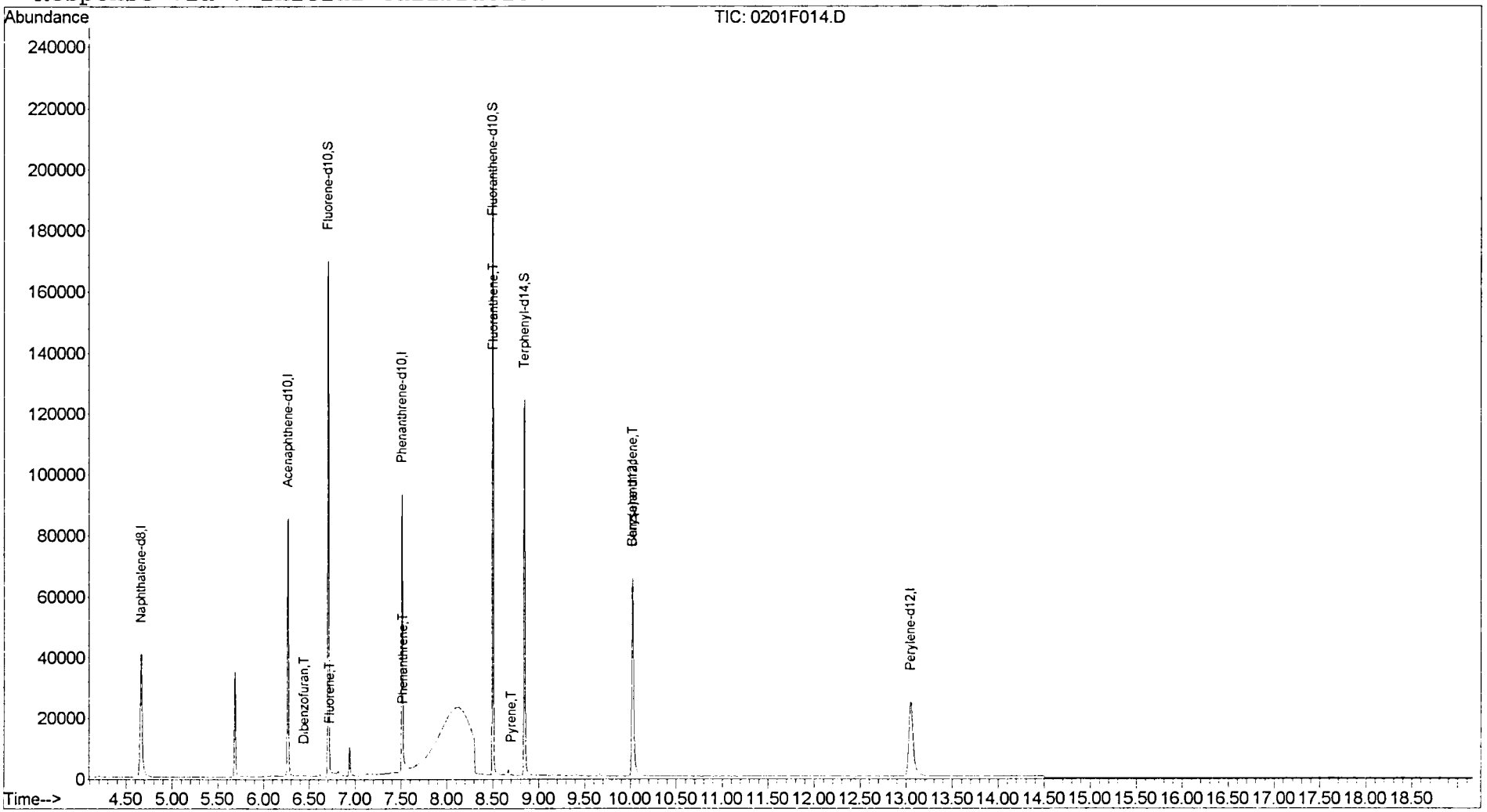
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	63403	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	32185	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	61994	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	68387	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	59275	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	65098	366.85	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 36.69%			
21) Fluoranthene-d10	8.50	212	119403	376.33	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 37.63%			
24) Terphenyl-d14	8.84	244	95116	381.55	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.16%			
Target Compounds						Qvalue
10) Dibenzofuran	6.44	168	55m	0.18	ng/ml	
13) Fluorene	6.73	166	50	0.22	ng/ml	79
16) Phenanthrene	7.53	178	212m	0.58	ng/ml	
20) Fluoranthene	8.51	202	88m	0.22	ng/ml	
23) Pyrene	8.70	202	93m	0.22	ng/ml	
25) Benz(a)anthracene	10.02	228	205	0.51	ng/ml	97

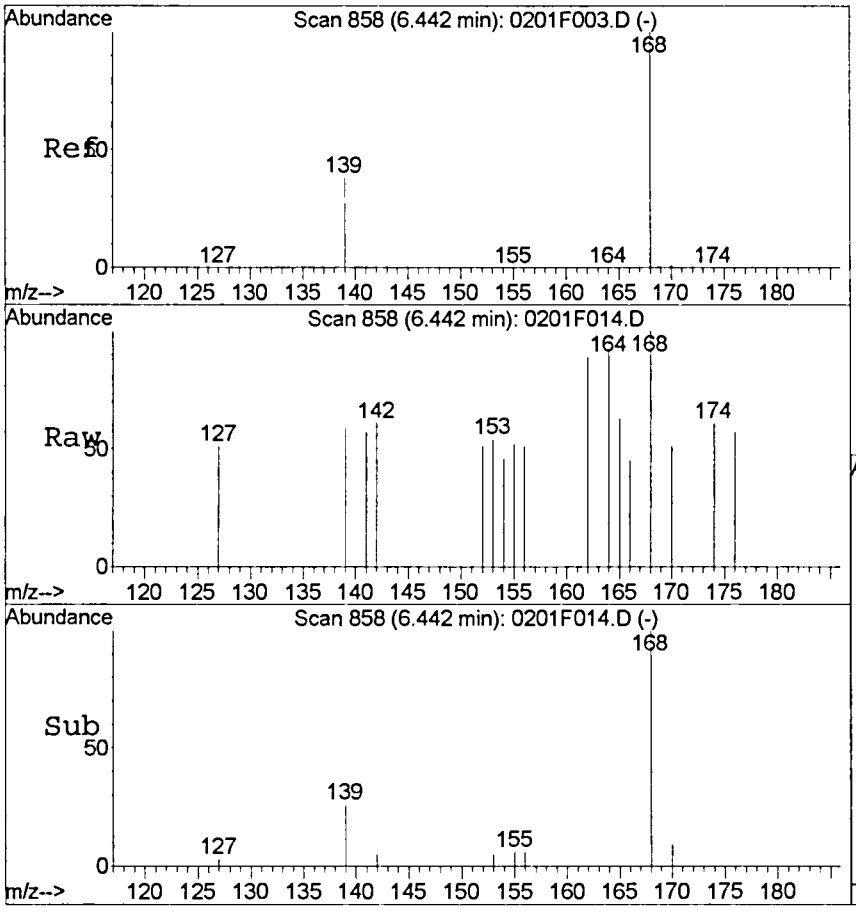
(#) = qualifier out of range (m) = manual integration
0201F014.D 011116SIMPAH.M Tue Feb 02 12:06:26 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F014.D Vial: 14
Acq On : 1 Feb 2016 1:11 pm Operator: LWeiskopf
Sample : K1600673-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:06 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

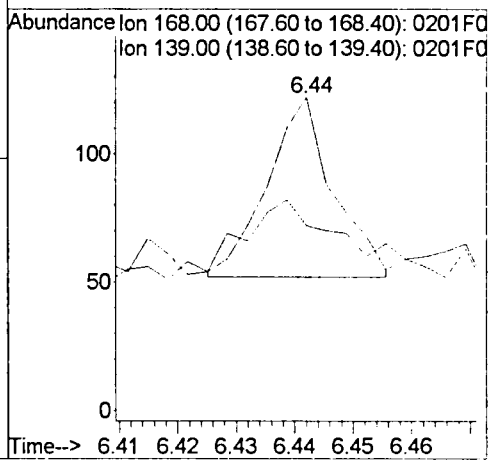


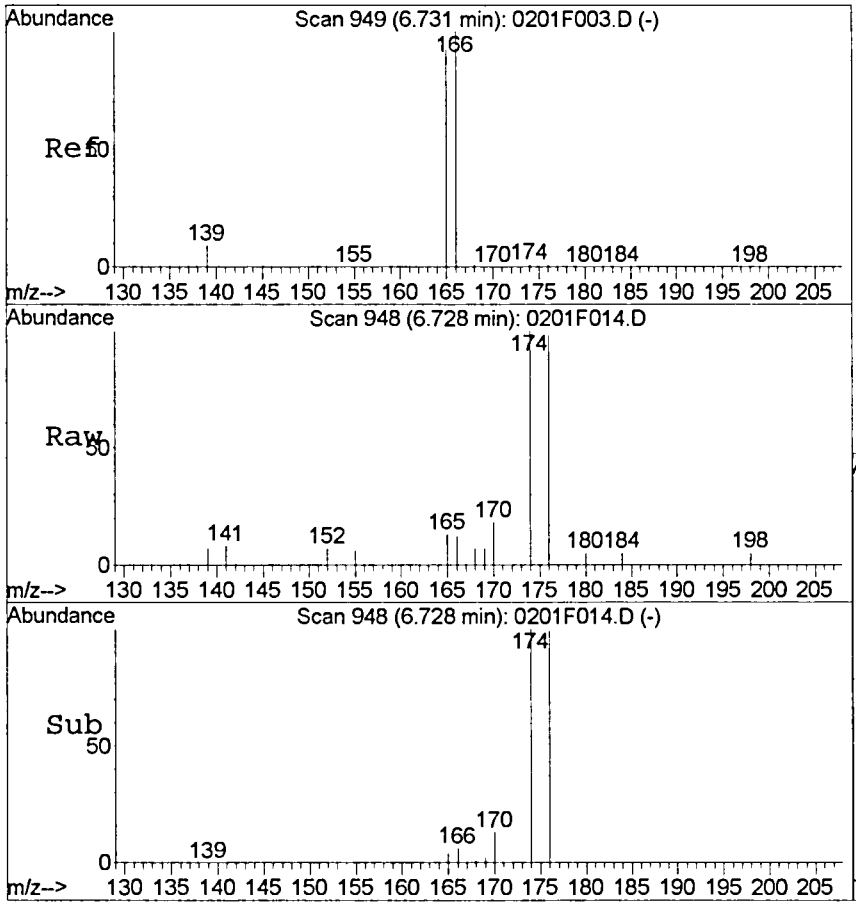


#10
Dibenzofuran
Concen: 0.18 ng/ml m
RT: 6.44 min Scan# 858
Delta R.T. -0.02 min
Lab File: 0201F014.D
Acq: 1 Feb 2016 1:11 pm

Tgt Ion:168 Resp: 55

Ion	Ratio	Lower	Upper
168	100		
139	59.0	6.7	66.7

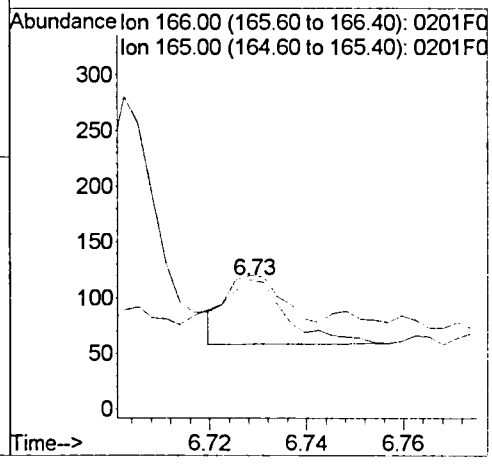


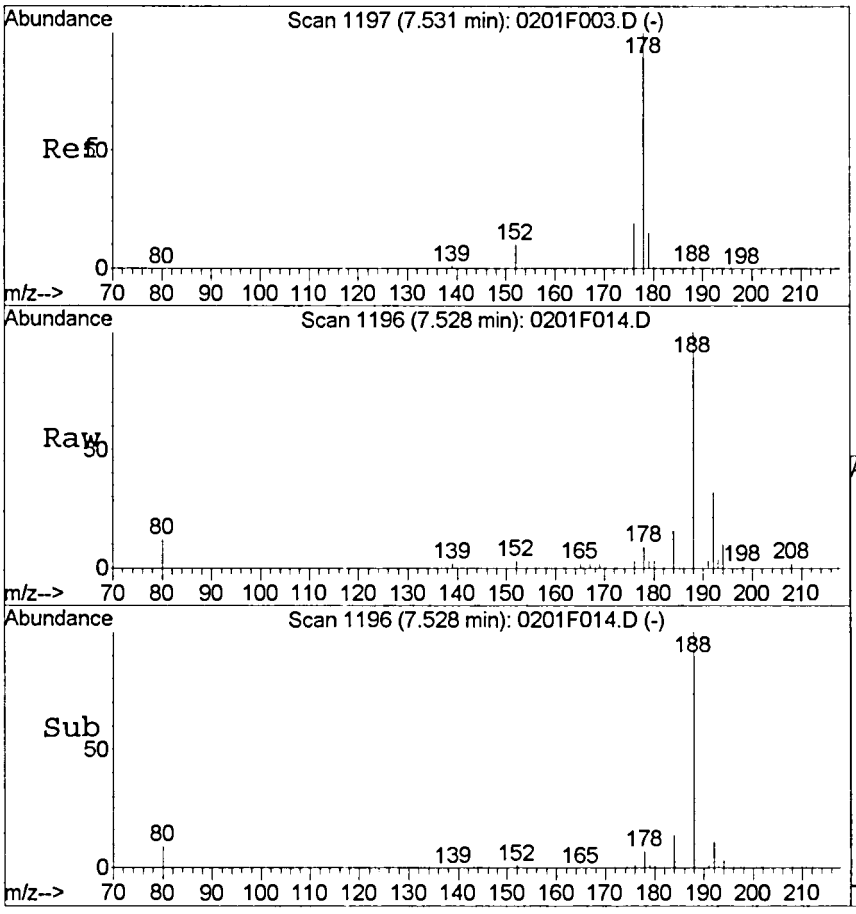


#13
Fluorene
Concen: 0.22 ng/ml
RT: 6.73 min Scan# 948
Delta R.T. -0.02 min
Lab File: 0201F014.D
Acq: 1 Feb 2016 1:11 pm

Tgt Ion:166 Resp: 50

Ion	Ratio	Lower	Upper
166	100		
165	73.7	63.9	123.9

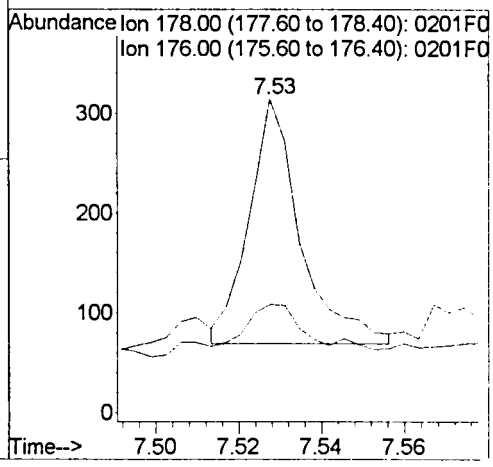


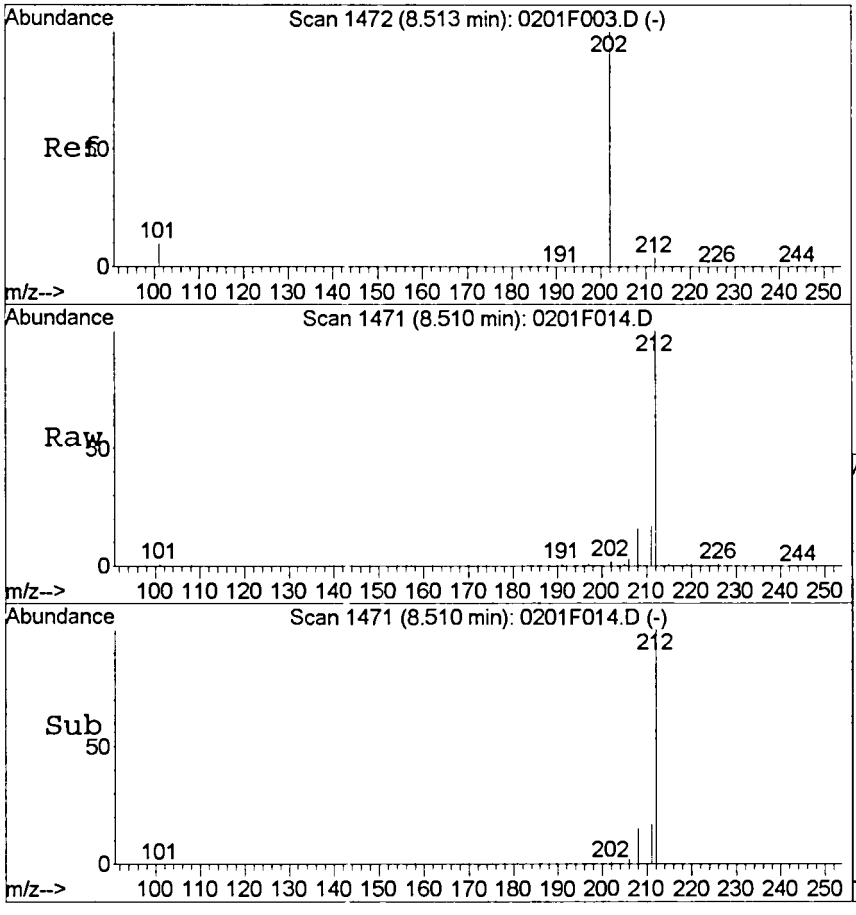


#16
Phenanthrene
Concen: 0.58 ng/ml m
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F014.D
Acq: 1 Feb 2016 1:11 pm

Tgt Ion:178 Resp: 212

Ion	Ratio	Lower	Upper
178	100		
176	34.4	0.0	48.5

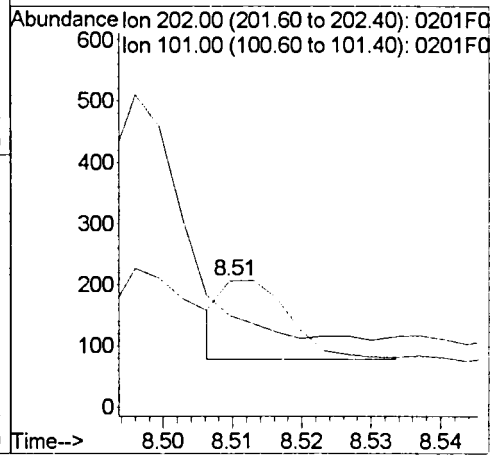


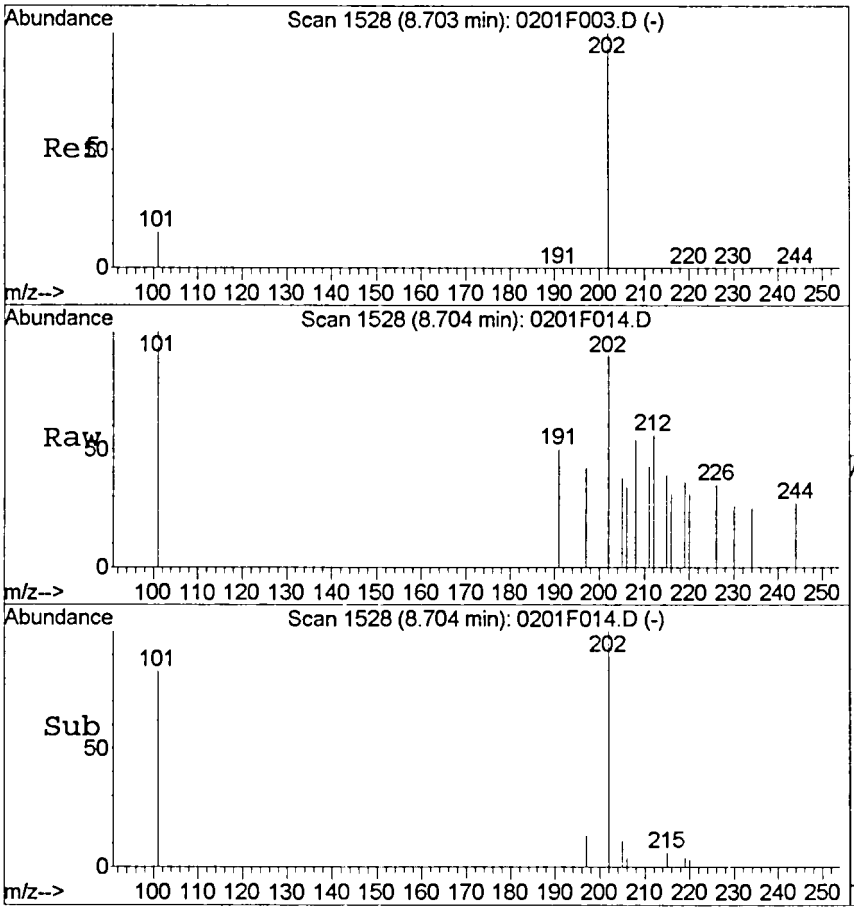


#20
Fluoranthene
Concen: 0.22 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F014.D
Acq: 1 Feb 2016 1:11 pm

Tgt Ion:202 Resp: 88

Ion	Ratio	Lower	Upper
202	100		
101	72.0	0.0	40.2#

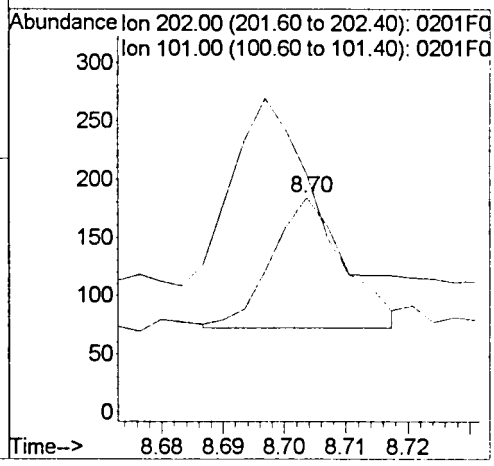


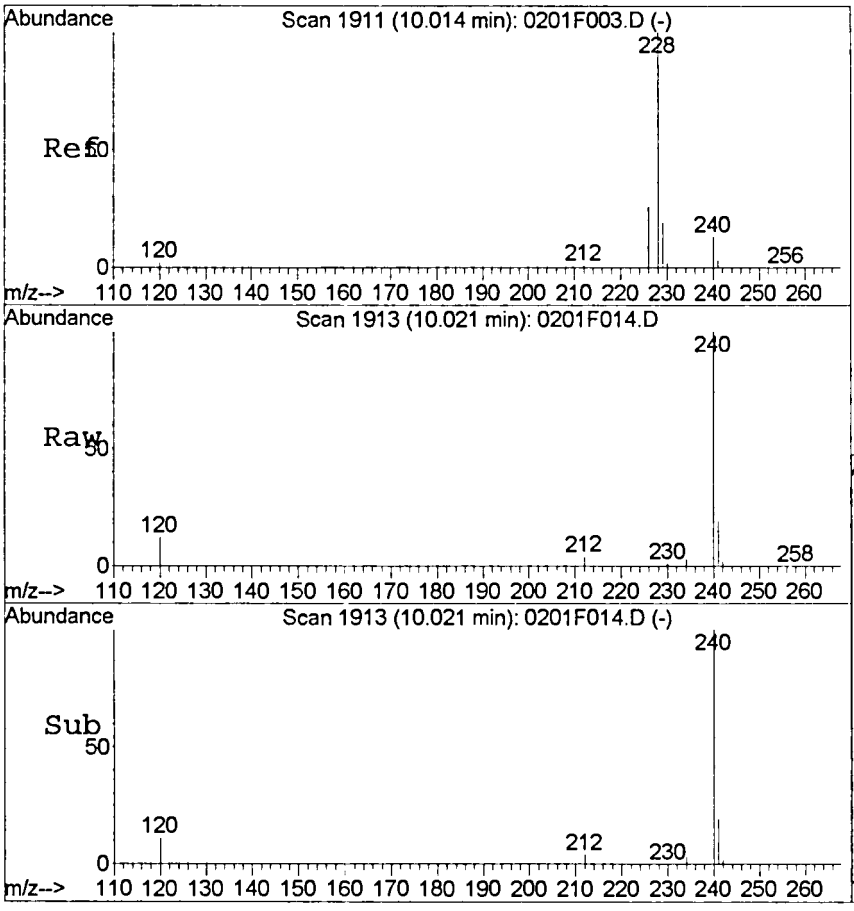


#23
Pyrene
Concen: 0.22 ng/ml m
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0201F014.D
Acq: 1 Feb 2016 1:11 pm

Tgt Ion:202 Resp: 93

Ion	Ratio	Lower	Upper
202	100		
101	110.9	0.0	42.9#

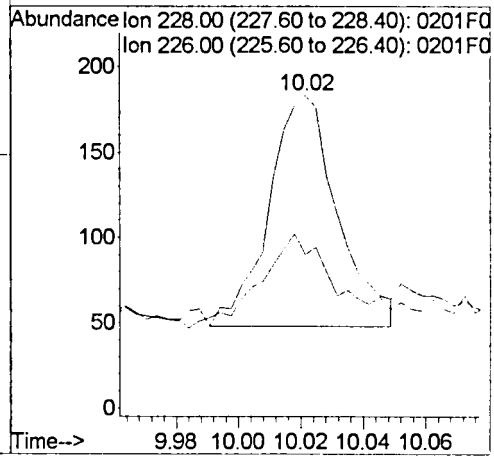




#25
Benz(a)anthracene
Concen: 0.51 ng/ml
RT: 10.02 min Scan# 1913
Delta R.T. -0.02 min
Lab File: 0201F014.D
Acq: 1 Feb 2016 1:11 pm

Tgt Ion:228 Resp: 205

Ion	Ratio	Lower	Upper
228	100		
226	27.4	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F015.D
Lab ID: K1600673-002
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 13:34
Date Quantitated: 02/02/2016 12:08
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016
Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:01
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F015.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 13:34	**Quant Date:**	02/02/2016 12:08	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-002			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495829	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.67	-0.02	136	60736	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30930	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	57479	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	68899	200.00	OK
5	Perylene-d12	13.04	-0.01	264	60987	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	6.71	0.00	0.00	176	70602	414.01	104	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	129158	439.05	110	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	96745	385.20	96	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	4.69		0.00	128	1455	4.74	0.024		
1	2-Methylnaphthalene	5.36	0.01	0.00	142	837	4.00	0.020		
1	1-Methylnaphthalene	5.45	0.01	0.00	142	1095	6.00	0.030		
2	Acenaphthylene	6.15		0.00	152	141m	0.4400	0.0034	U	
2	Acenaphthene	6.29		0.00	154	228	1.26	0.0063	J	
2	Fluorene	6.73		0.00	166	124	0.5600	0.0038	U	
3	Phenanthrene	7.53		0.00	178	420	1.25	0.0063	J	
3	Anthracene	7.57		0.00	178	88m	0.2800	0.0036	U	
3	Fluoranthene				202	0d		0.010	U	
4	Pyrene	8.70		0.00	202	135m	0.3100	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	185m	0.4600	0.0026	U	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F015.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 13:34	**Quant Date:**	02/02/2016 12:08	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-002			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F015.D Vial: 15
Acq On : 1 Feb 2016 1:34 pm Operator: LWeiskopf
Sample : K1600673-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:42 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

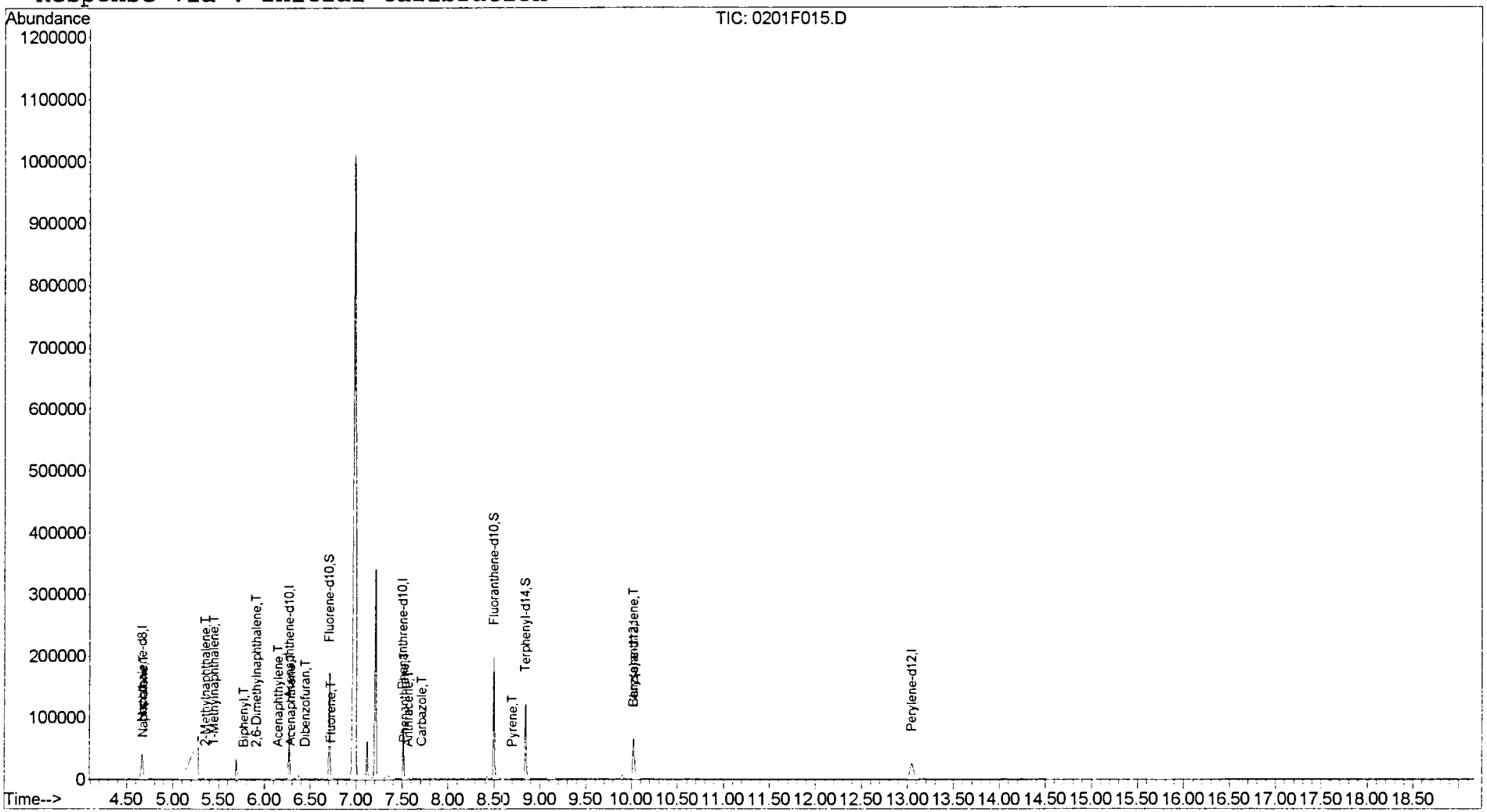
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	60736	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	30930	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	57479	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	68899	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	60987	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	70602	414.01	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.40%			
21) Fluoranthene-d10	8.50	212	129158	439.05	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 43.91%			
24) Terphenyl-d14	8.84	244	96745	385.20	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.52%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	1455	4.74	ng/ml	98
3) 2-Methylnaphthalene	5.36	142	837	4.00	ng/ml	96
4) 1-Methylnaphthalene	5.45	142	1095	6.00	ng/ml	96
5) Biphenyl	5.78	154	195m	0.77	ng/ml	
6) 2,6-Dimethylnaphthalene	5.92	156	188m	1.08	ng/ml	
8) Acenaphthylene	6.15	152	141m	0.44	ng/ml	
9) Acenaphthene	6.29	154	228	1.26	ng/ml	96
10) Dibenzofuran	6.45	168	280	0.96	ng/ml	87
13) Fluorene	6.73	166	124	0.56	ng/ml	94
16) Phenanthrene	7.53	178	420	1.25	ng/ml	97
17) Anthracene	7.57	178	88m	0.28	ng/ml	
18) Carbazole	7.71	167	926	3.26	ng/ml	93
23) Pyrene	8.70	202	135m	0.31	ng/ml	
25) Benz(a)anthracene	10.02	228	185m	0.46	ng/ml	

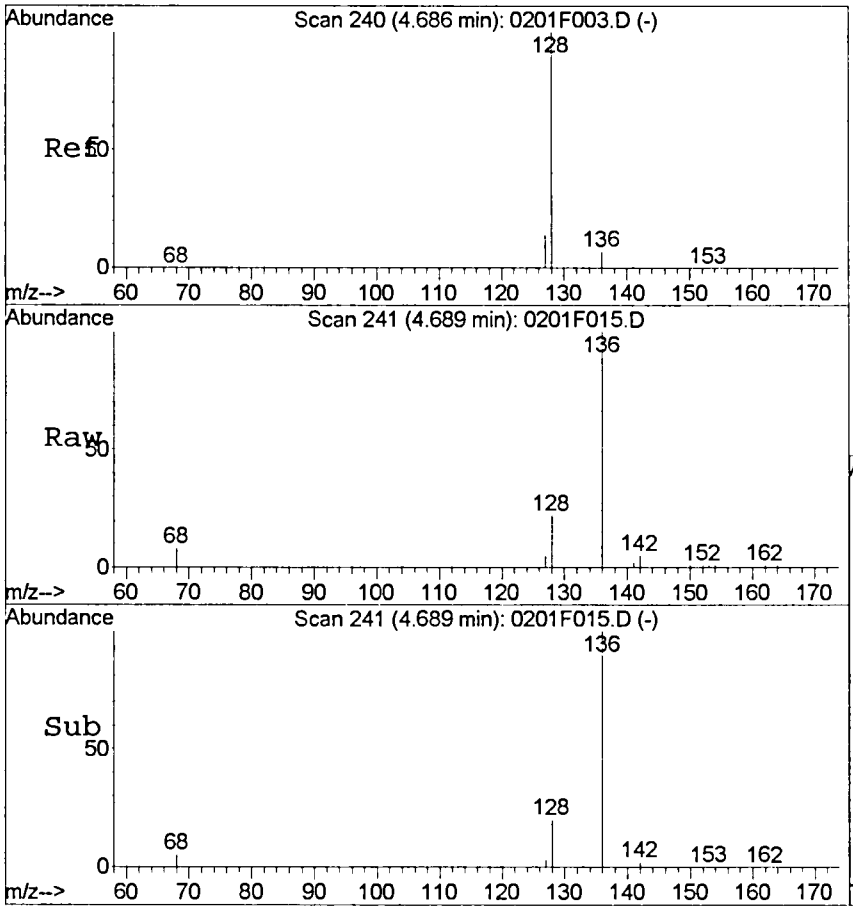
(#) = qualifier out of range (m) = manual integration
0201F015.D 011116SIMPAH.M Tue Feb 02 12:11:53 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F015.D Vial: 15
Acq On : 1 Feb 2016 1:34 pm Operator: LWeiskopf
Sample : K1600673-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:08 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

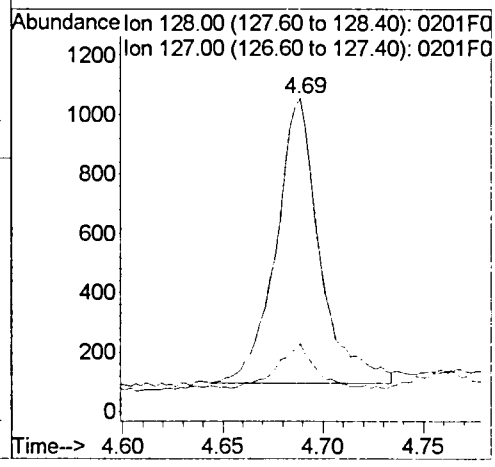


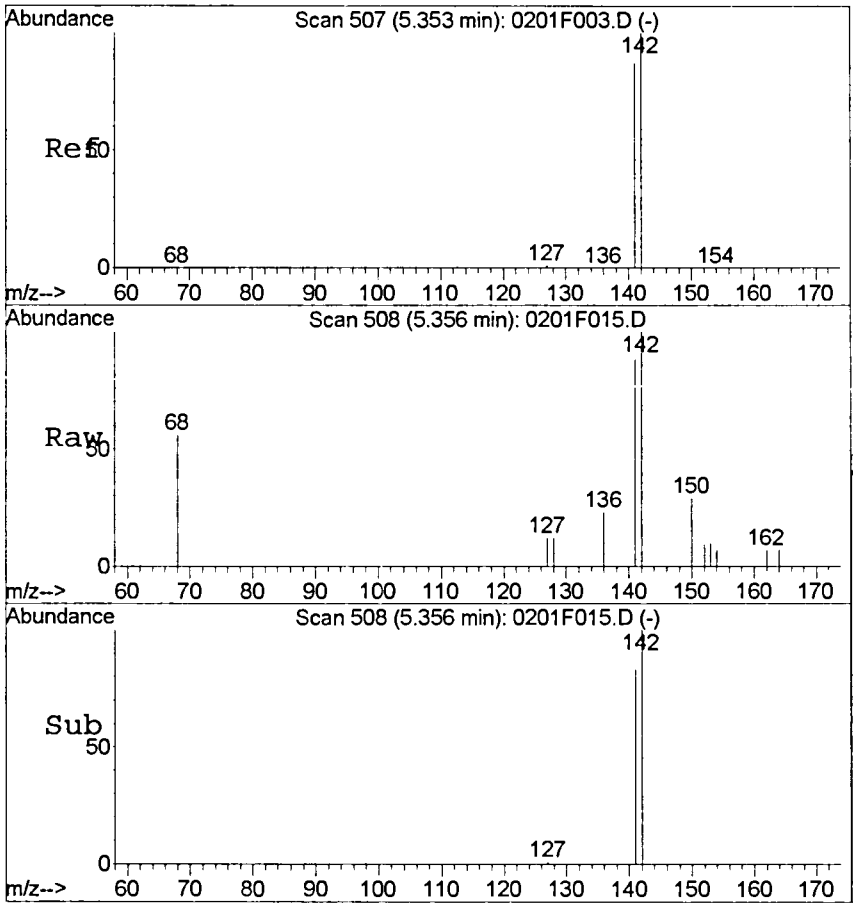


#2
Naphthalene
Concen: 4.74 ng/ml
RT: 4.69 min Scan# 241
Delta R.T. -0.03 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:128 Resp: 1455

Ion	Ratio	Lower	Upper
128	100		
127	14.6	0.0	43.8

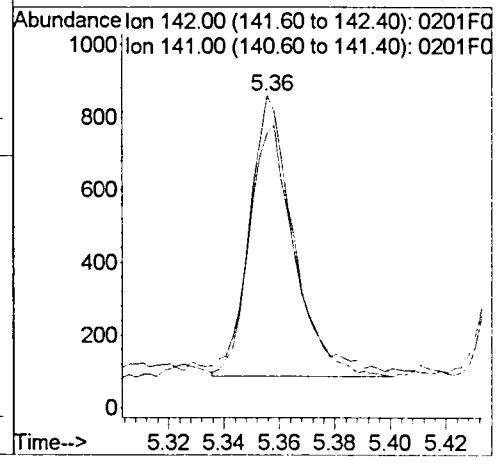


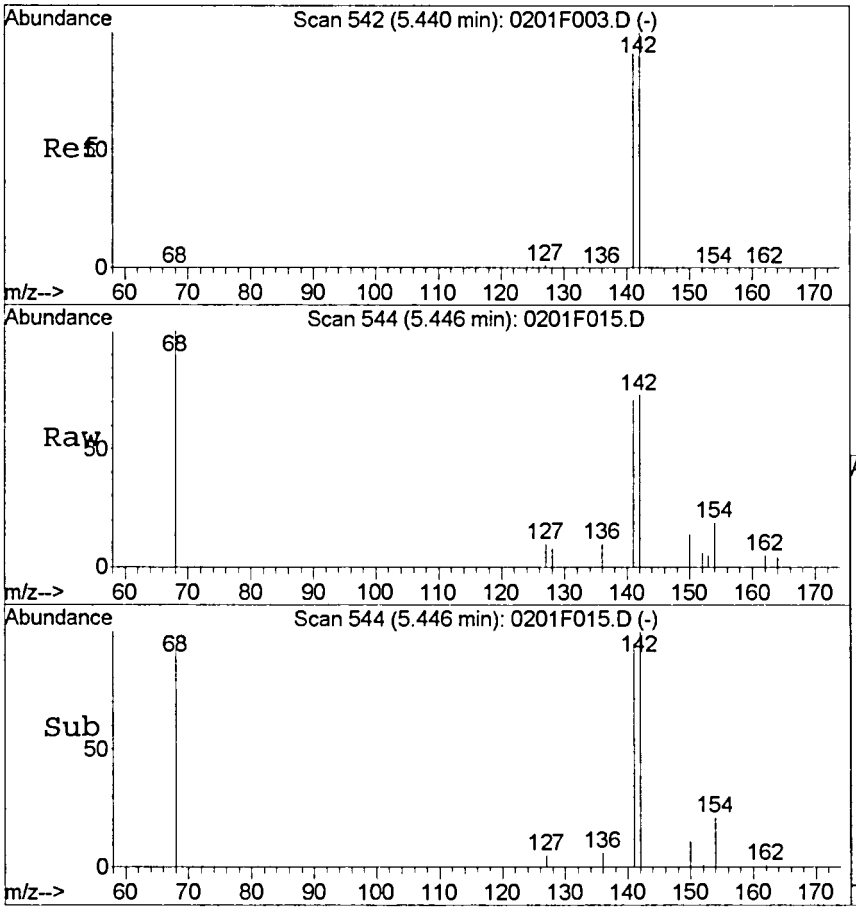


#3
2-Methylnaphthalene
Concen: 4.00 ng/ml
RT: 5.36 min Scan# 508
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:142 Resp: 837

Ion	Ratio	Lower	Upper
142	100		
141	83.7	57.6	117.6

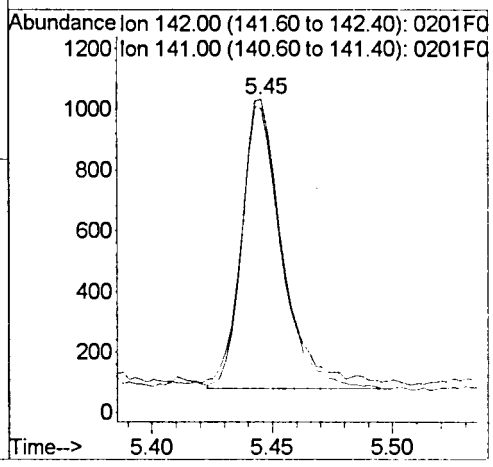


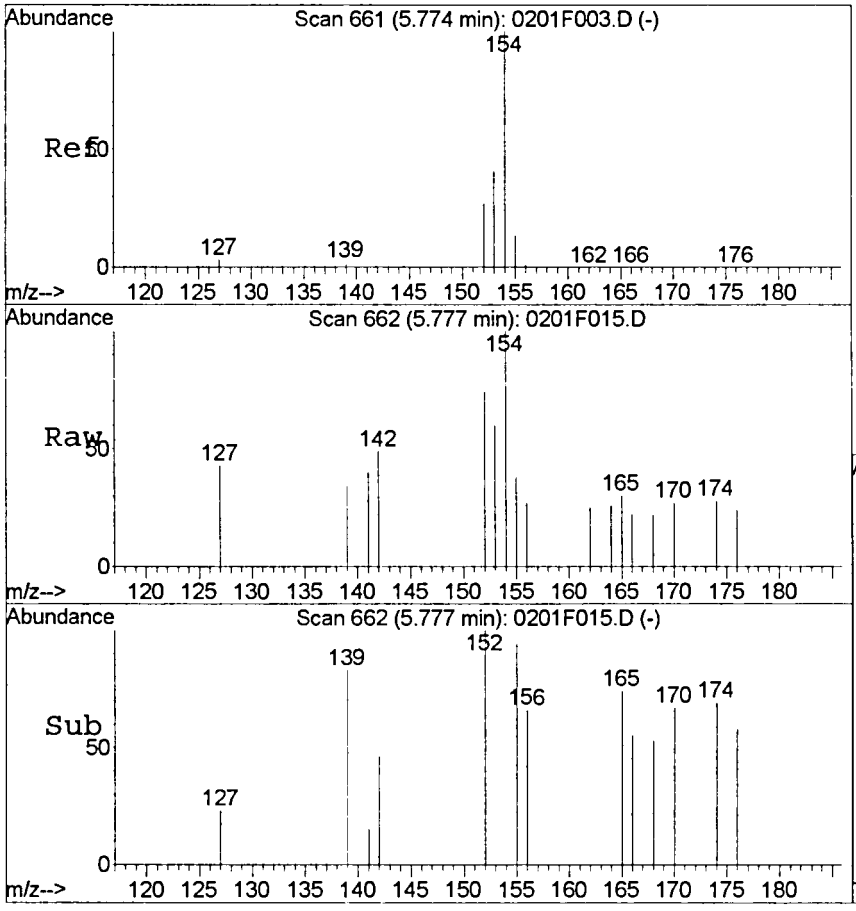


#4
1-Methylnaphthalene
Concen: 6.00 ng/ml
RT: 5.45 min Scan# 544
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:142 Resp: 1095

Ion	Ratio	Lower	Upper
142	100		
141	94.3	60.8	120.8

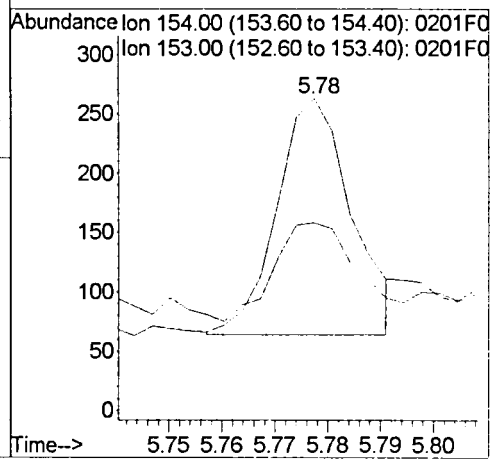


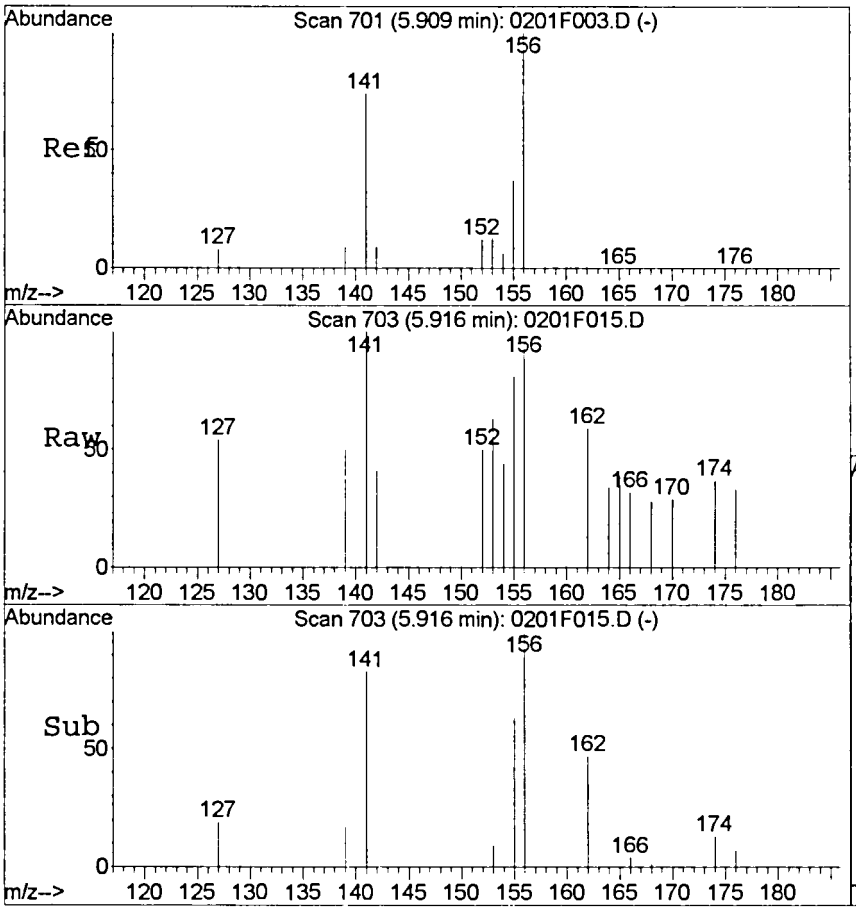


#5
Biphenyl
Concen: 0.77 ng/ml m
RT: 5.78 min Scan# 662
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:154 Resp: 195

Ion	Ratio	Lower	Upper
154	100		
153	60.1	11.5	71.5

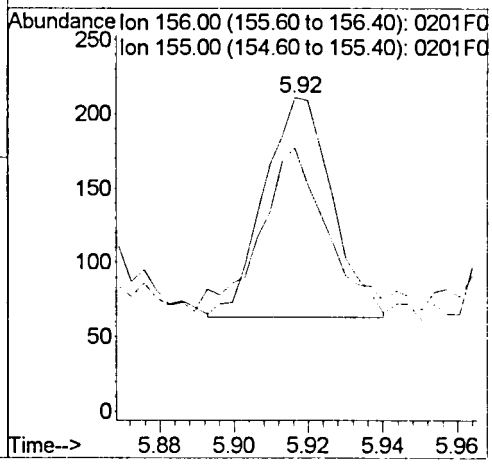


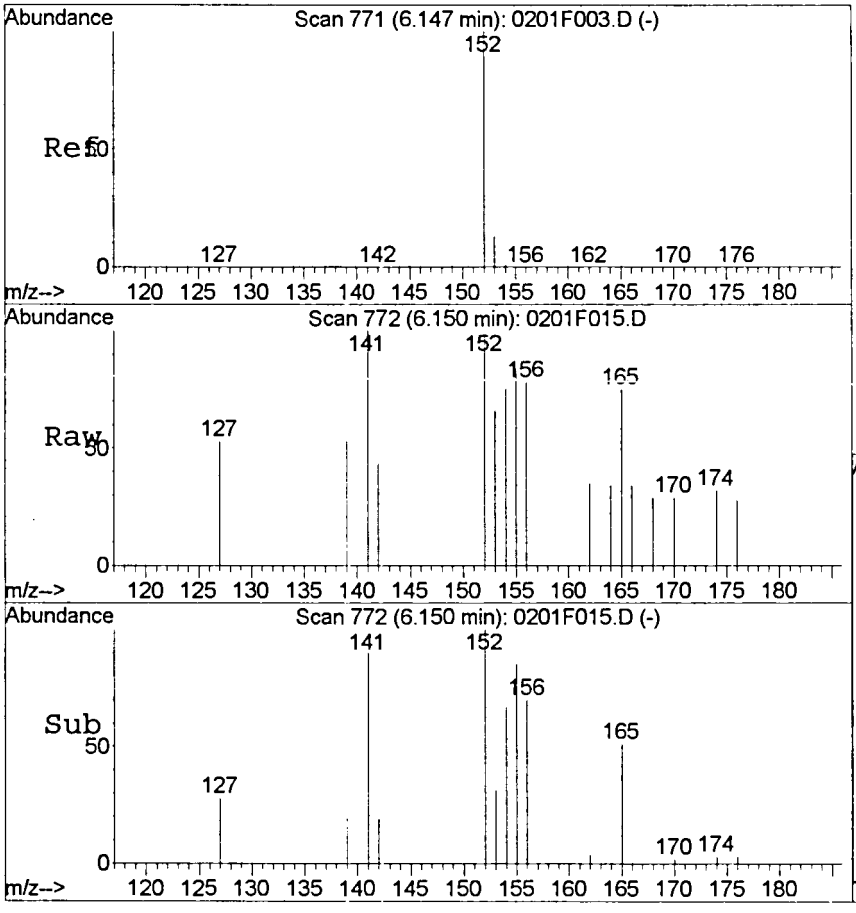


#6
2,6-Dimethylnaphthalene
Concen: 1.08 ng/ml m
RT: 5.92 min Scan# 703
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:156 Resp: 188

Ion	Ratio	Lower	Upper
156	100		
155	83.9	7.0	67.0#

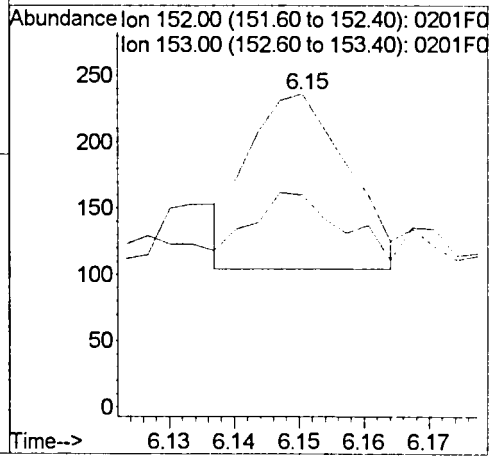


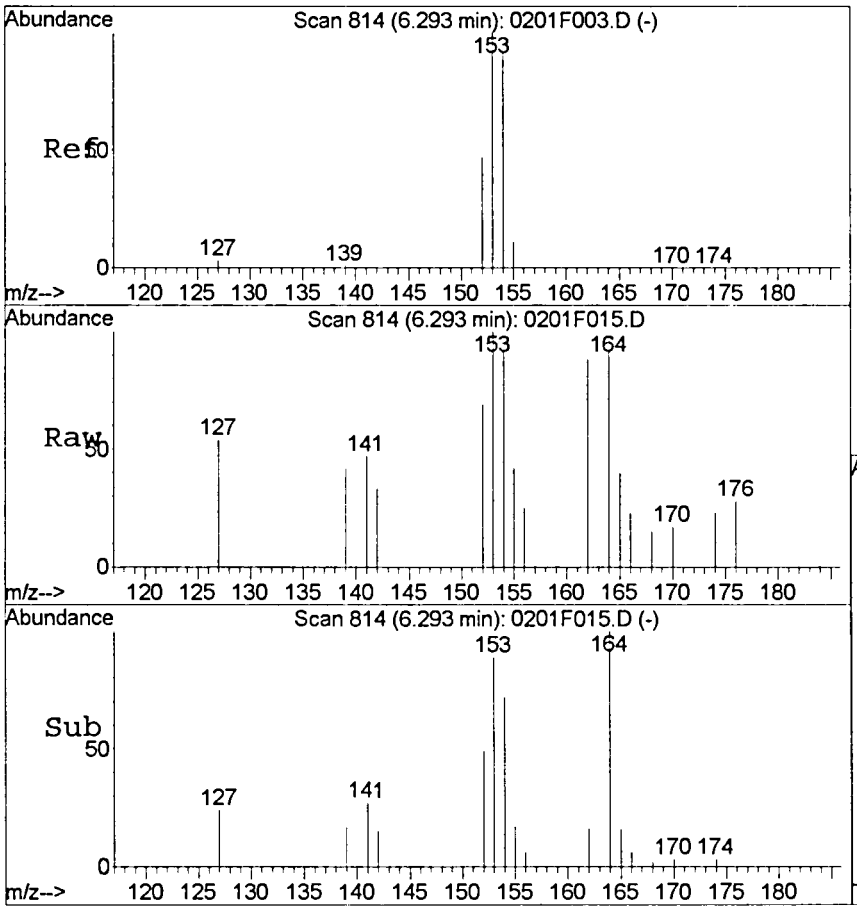


#8
Acenaphthylene
Concen: 0.44 ng/ml m
RT: 6.15 min Scan# 772
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:152 Resp: 141

Ion	Ratio	Lower	Upper
152	100		
153	67.8	0.0	42.9#

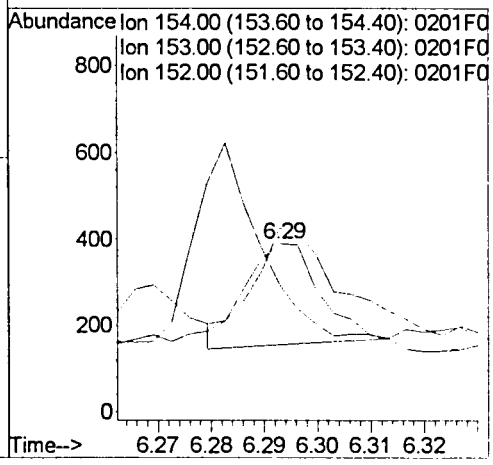


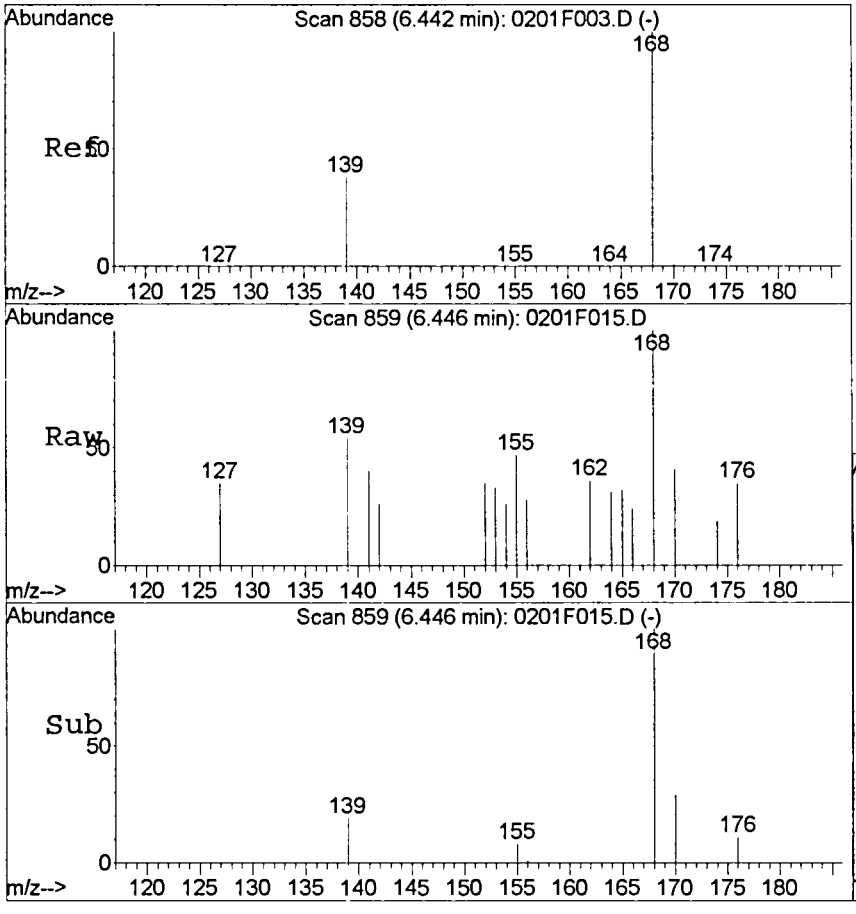


#9
Acenaphthene
Concen: 1.26 ng/ml
RT: 6.29 min Scan# 814
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:154 Resp: 228

Ion	Ratio	Lower	Upper
154	100		
153	108.6	77.1	137.1
152	57.3	19.8	79.8

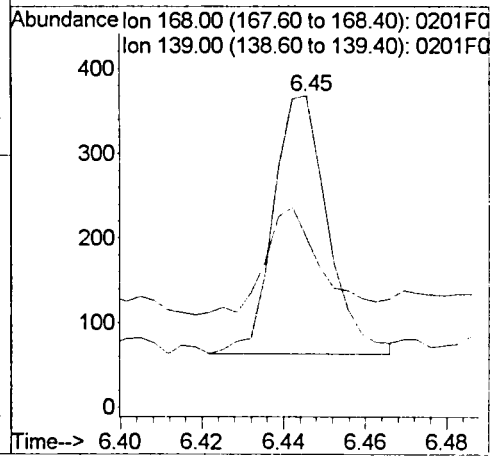


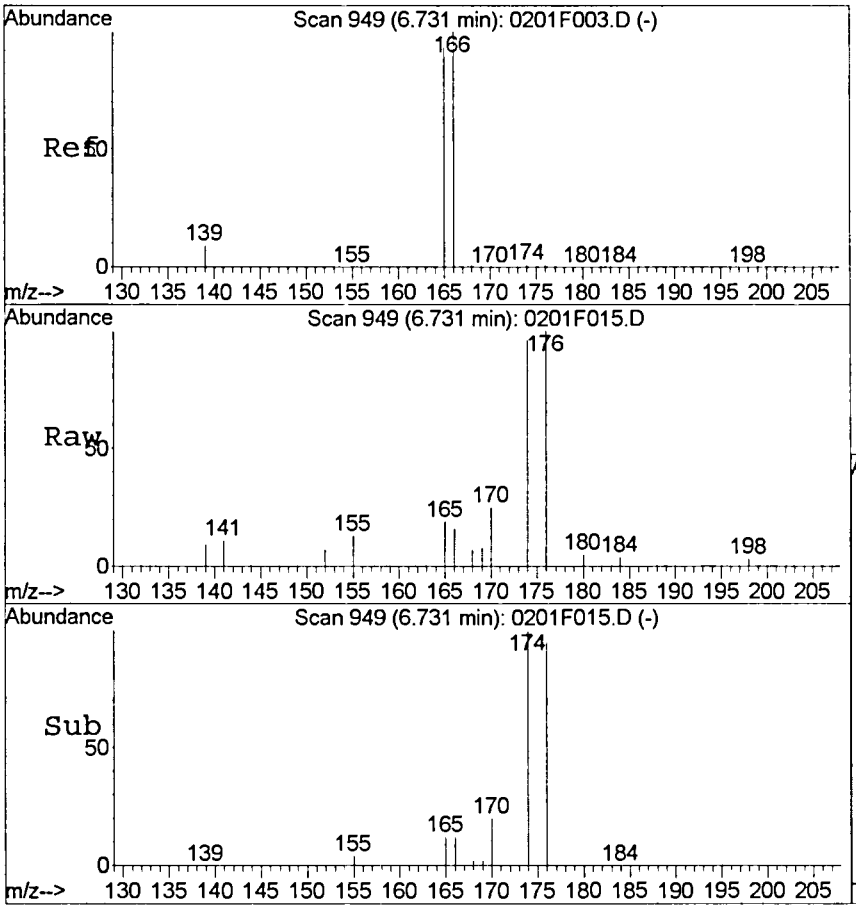


#10
Dibenzofuran
Concen: 0.96 ng/ml
RT: 6.45 min Scan# 859
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:168 Resp: 280

Ion	Ratio	Lower	Upper
168	100		
139	28.9	6.7	66.7

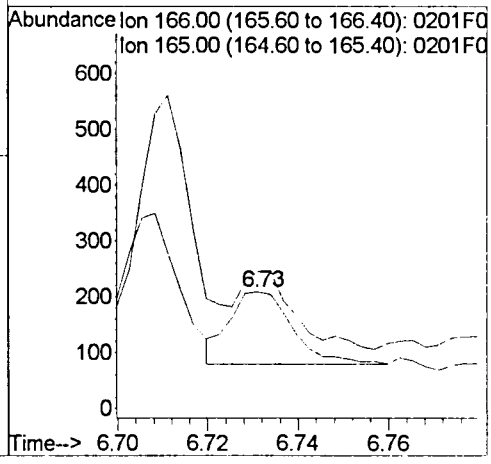


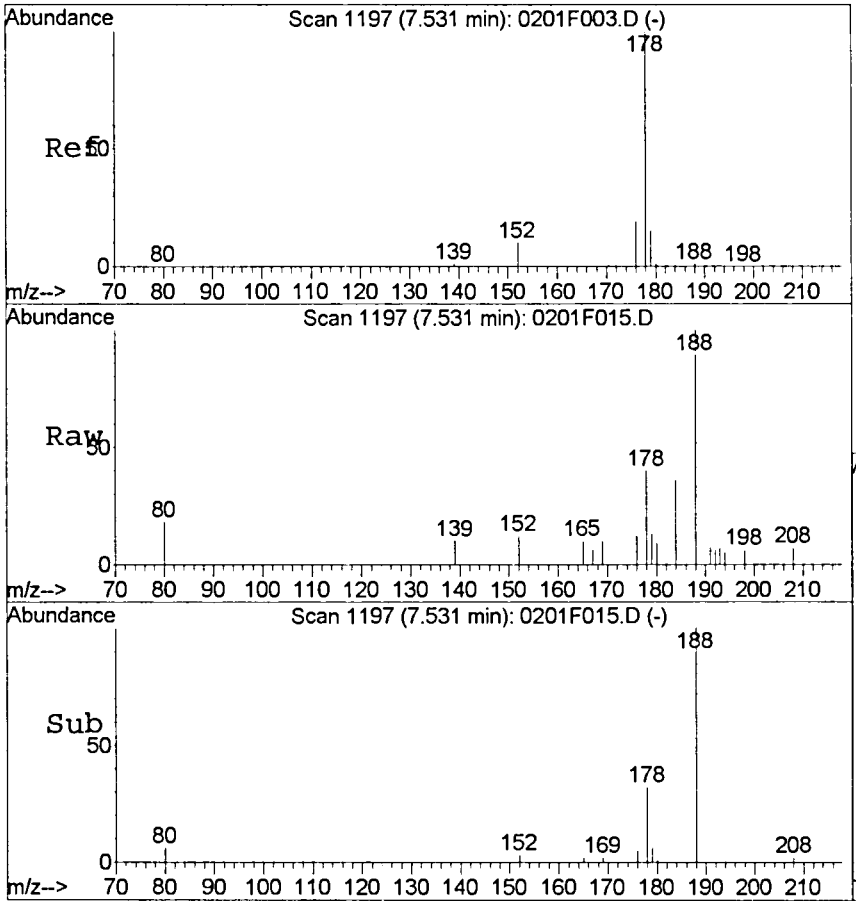


#13
Fluorene
Concen: 0.56 ng/ml
RT: 6.73 min Scan# 949
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:166 Resp: 124

Ion	Ratio	Lower	Upper
166	100		
165	100.0	63.9	123.9

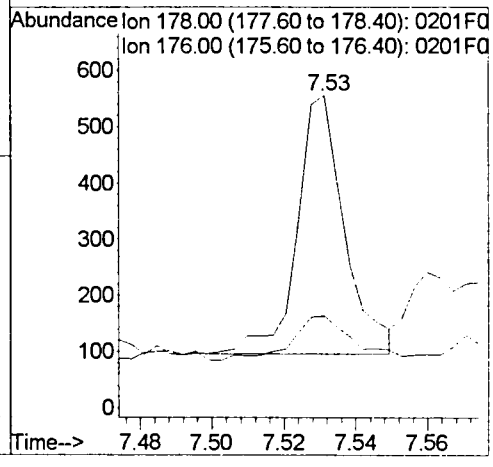


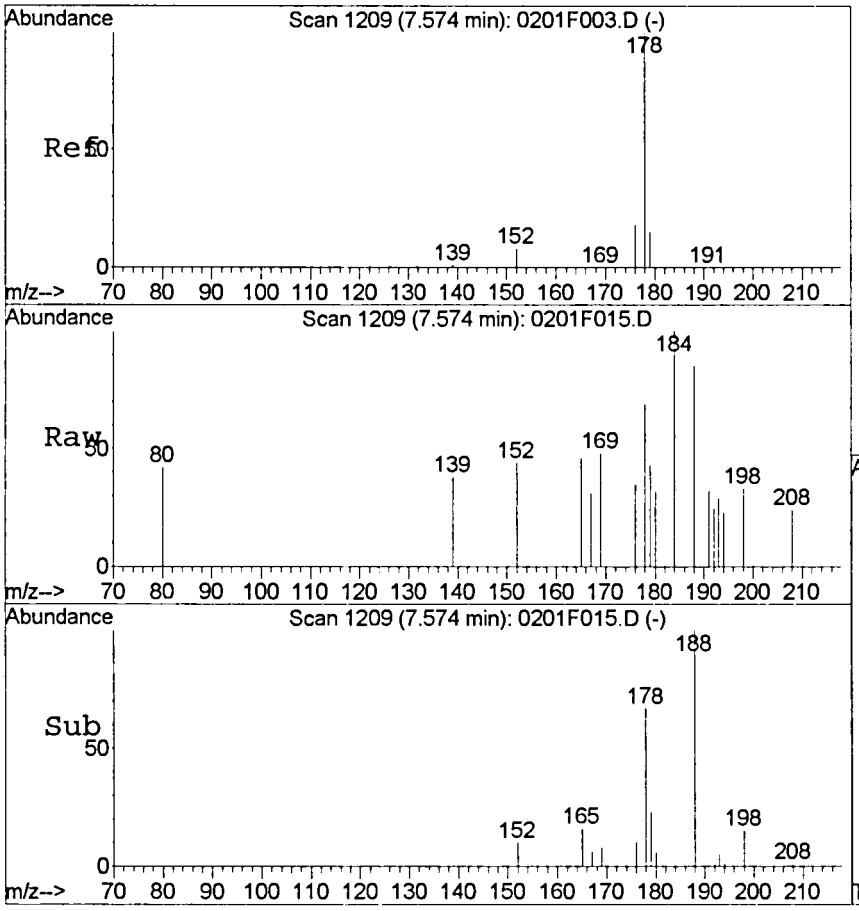


#16
Phenanthrene
Concen: 1.25 ng/ml
RT: 7.53 min Scan# 1197
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:178 Resp: 420

Ion	Ratio	Lower	Upper
178	100		
176	17.0	0.0	48.5

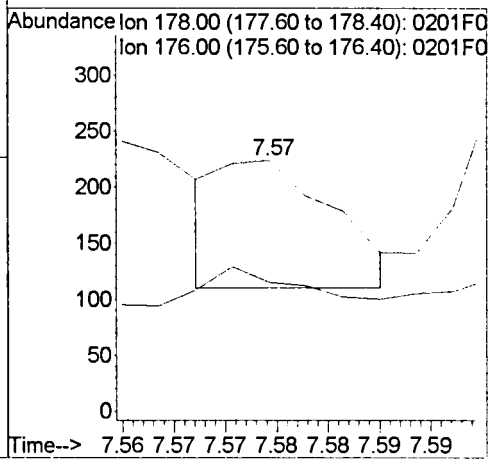


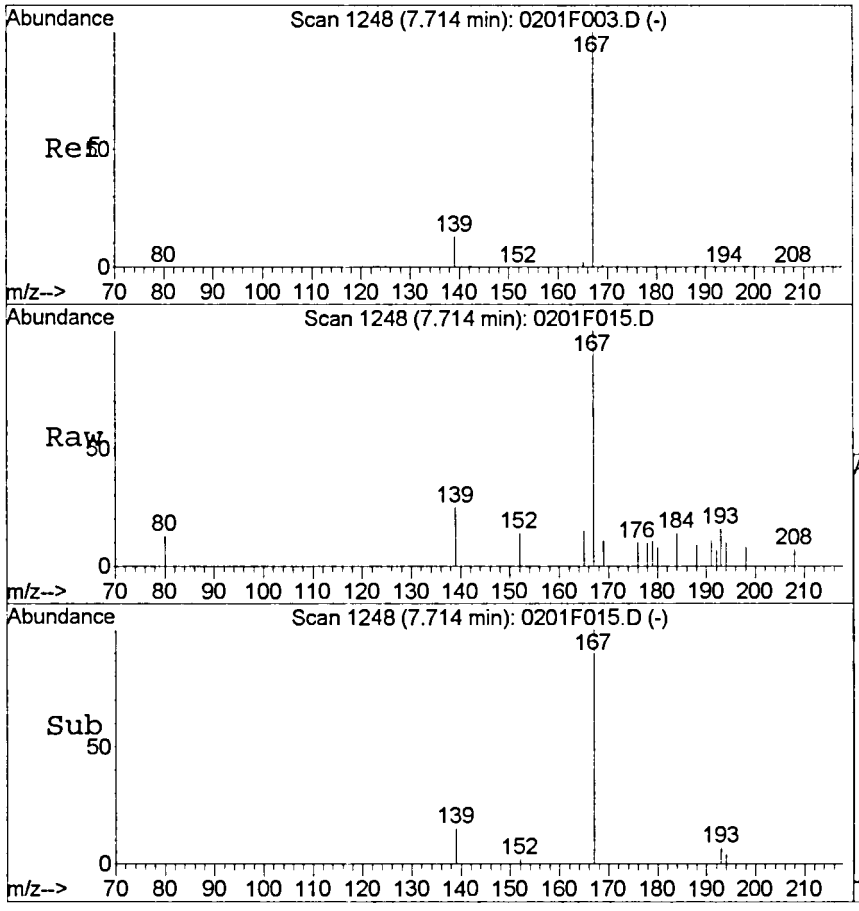


#17
Anthracene
Concen: 0.28 ng/ml m
RT: 7.57 min Scan# 1209
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:178 Resp: 88

Ion	Ratio	Lower	Upper
178	100		
176	51.3	0.0	47.6#

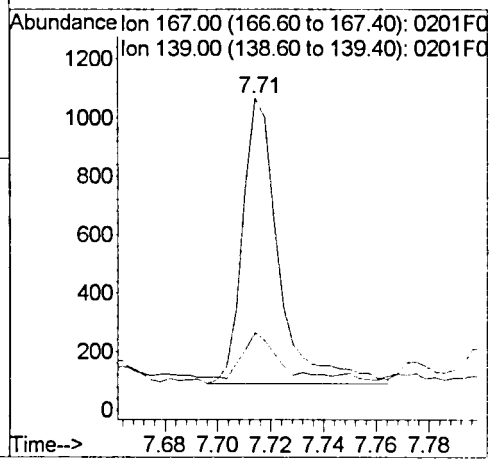


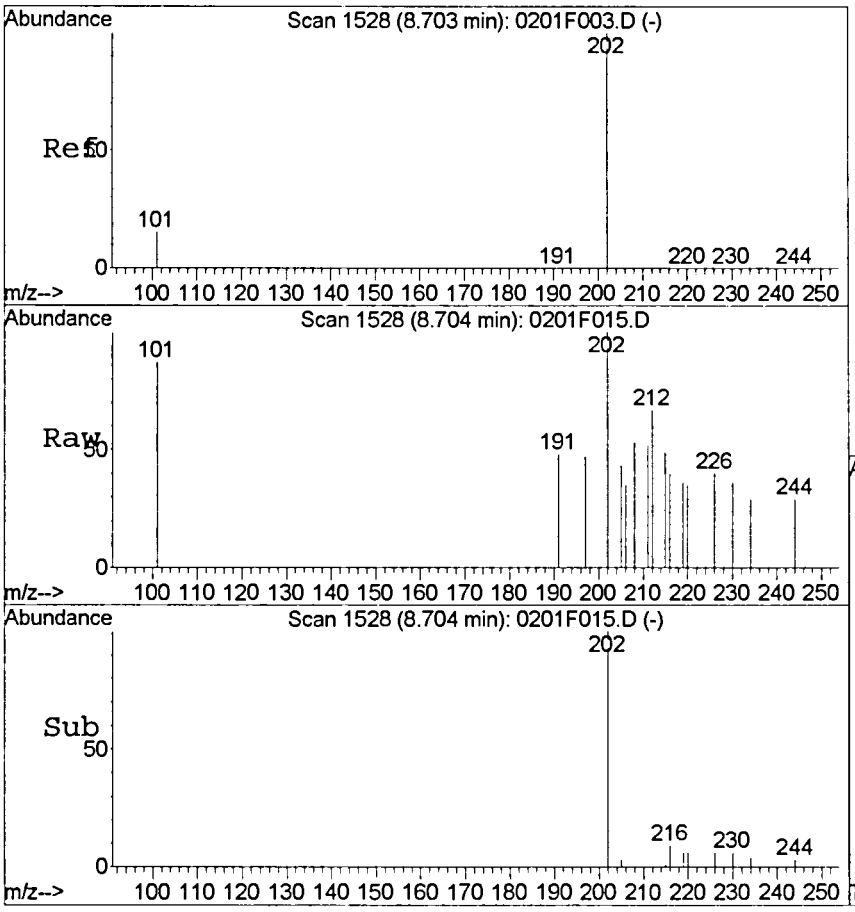


#18
Carbazole
Concen: 3.26 ng/ml
RT: 7.71 min Scan# 1248
Delta R.T. -0.01 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:167 Resp: 926

Ion	Ratio	Lower	Upper
167	100		
139	15.5	0.0	42.6

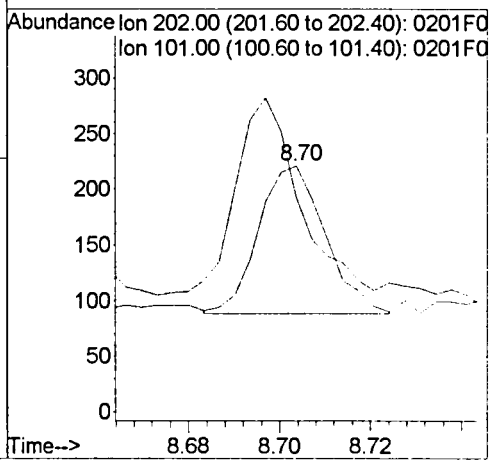


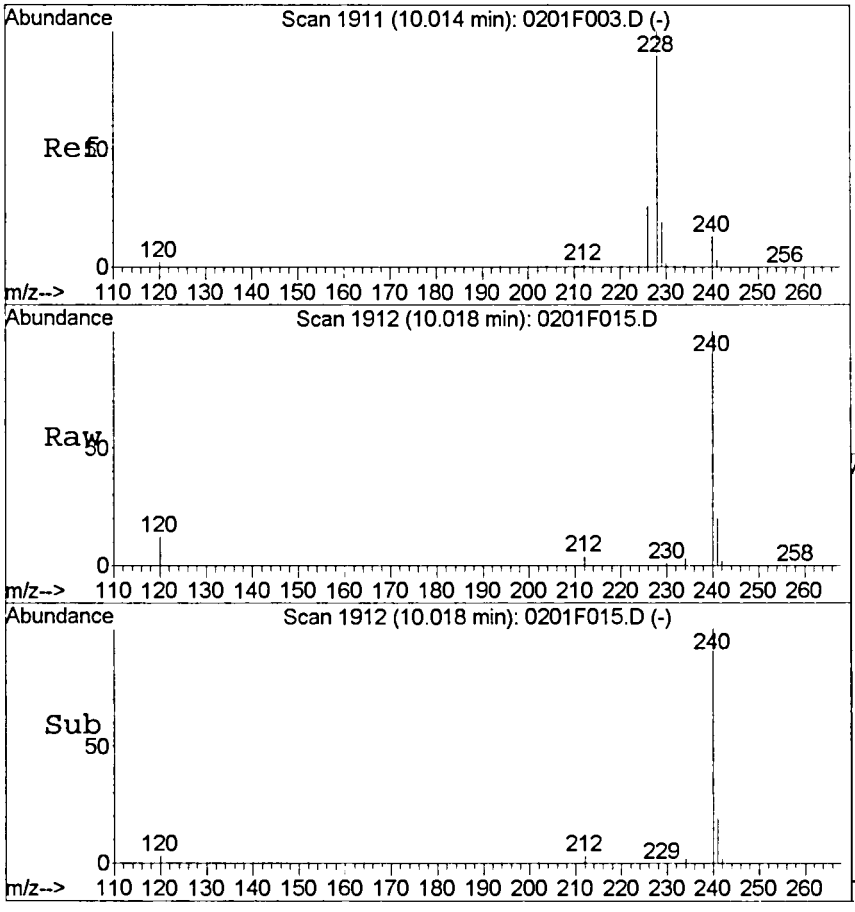


#23
Pyrene
Concen: 0.31 ng/ml m
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:202 Resp: 135

Ion	Ratio	Lower	Upper
202	100		
101	86.9	0.0	42.9#

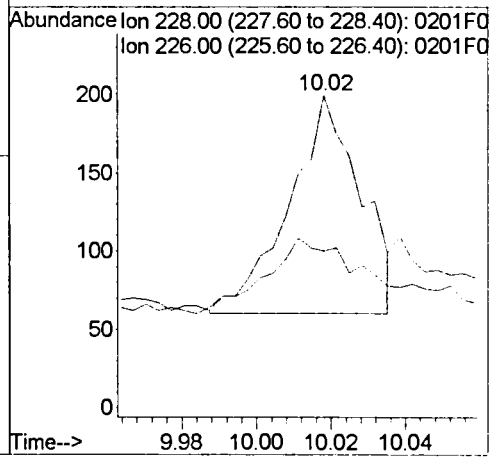




#25
Benz(a)anthracene
Concen: 0.46 ng/ml m
RT: 10.02 min Scan# 1912
Delta R.T. -0.02 min
Lab File: 0201F015.D
Acq: 1 Feb 2016 1:34 pm

Tgt Ion:228 Resp: 185

Ion	Ratio	Lower	Upper
228	100		
226	50.3	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F016.D
Lab ID: K1600673-003
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 13:57
Date Quantitated: 02/02/2016 12:10
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:04
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F016.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 13:57	**Quant Date:**	02/02/2016 12:10	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495830	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	60381	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	31132	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	56322	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	66162	200.00	OK
5	Perylene-d12	13.04	-0.01	264	61139m	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	6.71	0.00	0.00	176	68055	396.48	99	46-114	OK	
3	Fluoranthene-d10	8.49	-0.01	0.00	212	129081	447.80	112	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	100472	416.59	104	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	4.69		0.00	128	232	0.7600	0.0038	J	
1	2-Methylnaphthalene	5.35		0.00	142	319	1.53	0.0077	J	
1	1-Methylnaphthalene	5.44		0.00	142	165	0.9100	0.0046	J	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.53		0.00	178	132	0.4000	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	145	0.3900	0.010	U	
4	Pyrene	8.70		0.00	202	161	0.3900	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	231m	0.6000	0.0030	J	
4	Chrysene	10.06	-0.01	0.00	228	120m	0.3500	0.0034	U	
5	Benzo(b)fluoranthene				252	0d		0.0041	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\020116\0201F016.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 13:57	**Quant Date:**	02/02/2016 12:10	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-003			**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?
5	Benzo(k)fluoranthene				252	0d		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	U	
5	Indeno(1,2,3-cd)pyrene	15.33	-0.01	0.00	276	71m	0.2100	0.0026	U	
5	Dibenz(a,h)anthracene				278	0		0.0025	U	
5	Benzo(g,h,i)perylene	15.71	-0.01	0.00	276	124m	0.3200	0.0029	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\020116\0201F016.D Vial: 16
Acq On : 1 Feb 2016 1:57 pm Operator: LWeiskopf
Sample : K1600673-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:43 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

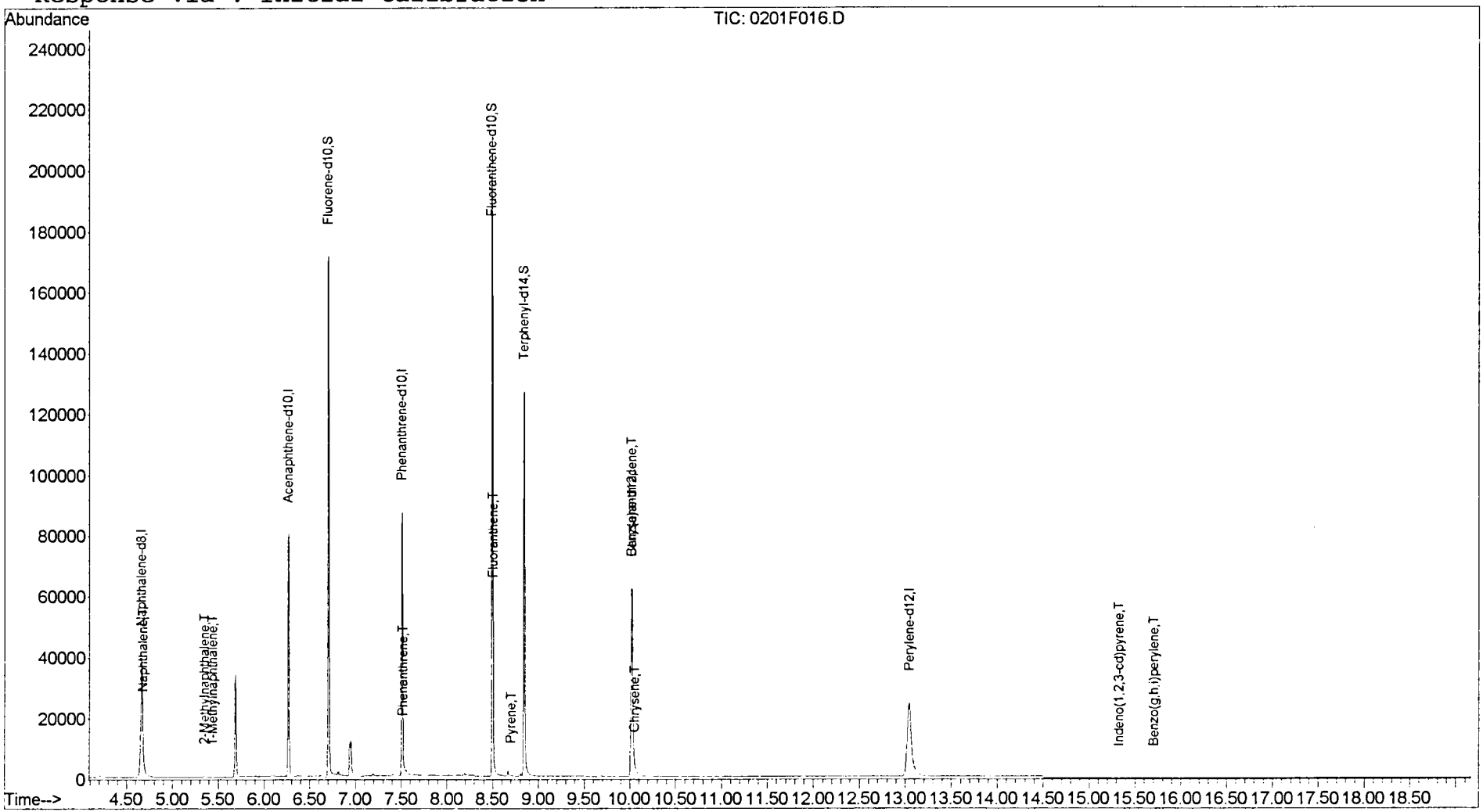
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	60381	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	31132	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	56322	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	66162	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	61139m	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	68055	396.48	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.65%			
21) Fluoranthene-d10	8.49	212	129081	447.80	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 44.78%			
24) Terphenyl-d14	8.84	244	100472	416.59	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.66%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	232	0.76	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	319	1.53	ng/ml	98
4) 1-Methylnaphthalene	5.44	142	165	0.91	ng/ml	94
16) Phenanthrene	7.53	178	132	0.40	ng/ml	85
20) Fluoranthene	8.51	202	145	0.39	ng/ml	79
23) Pyrene	8.70	202	161	0.39	ng/ml#	1
25) Benz(a)anthracene	10.02	228	231m	0.60	ng/ml	
26) Chrysene	10.06	228	120m	0.35	ng/ml	
33) Indeno(1,2,3-cd)pyrene	15.33	276	71m	0.21	ng/ml	
35) Benzo(g,h,i)perylene	15.71	276	124m	0.32	ng/ml	

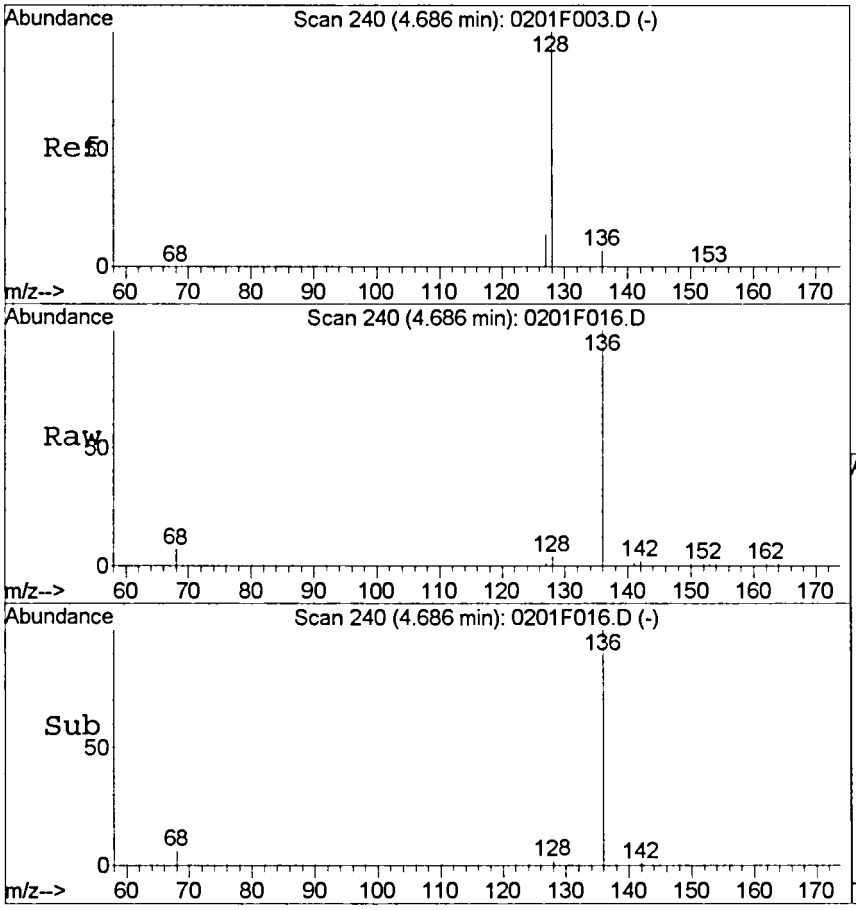
(#) = qualifier out of range (m) = manual integration
0201F016.D 011116SIMPAH.M Tue Feb 02 12:11:55 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F016.D Vial: 16
Acq On : 1 Feb 2016 1:57 pm Operator: LWeiskopf
Sample : K1600673-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:10 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

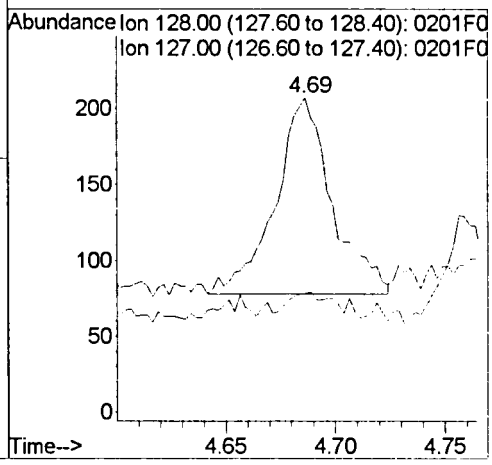


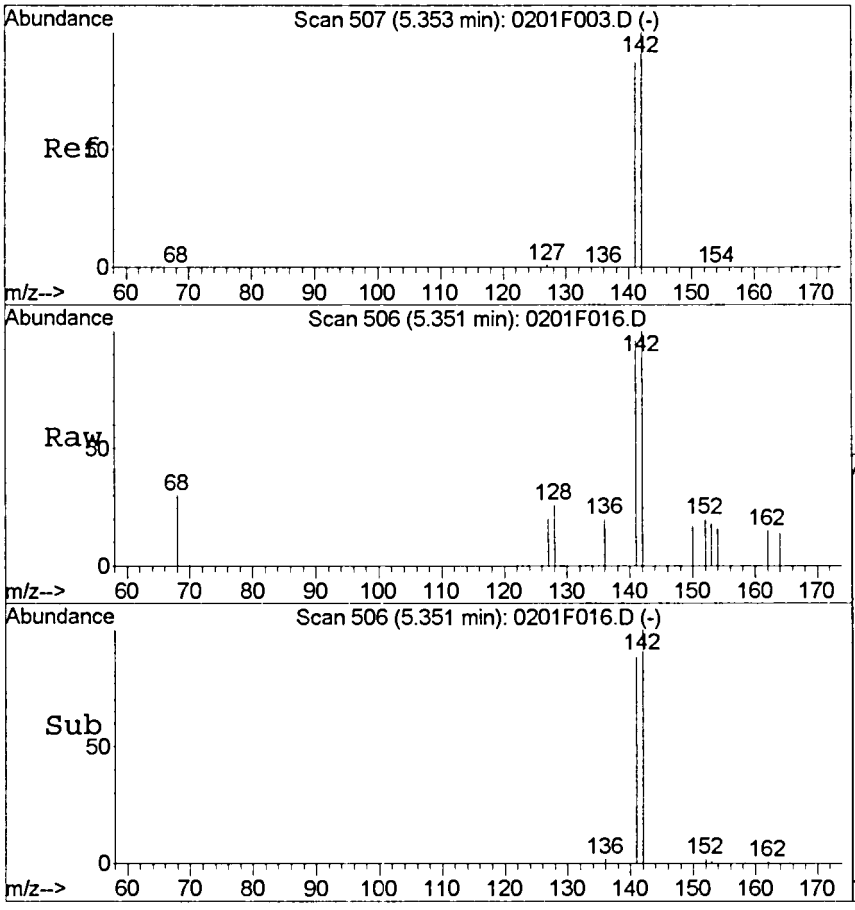


#2
Naphthalene
Concen: 0.76 ng/ml
RT: 4.69 min Scan# 240
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:128 Resp: 232

Ion	Ratio	Lower	Upper
128	100		
127	14.0	0.0	43.8

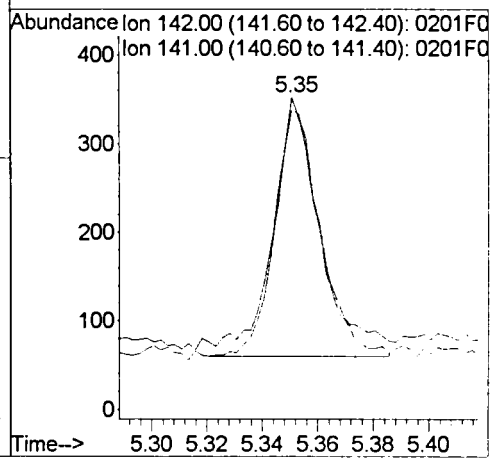


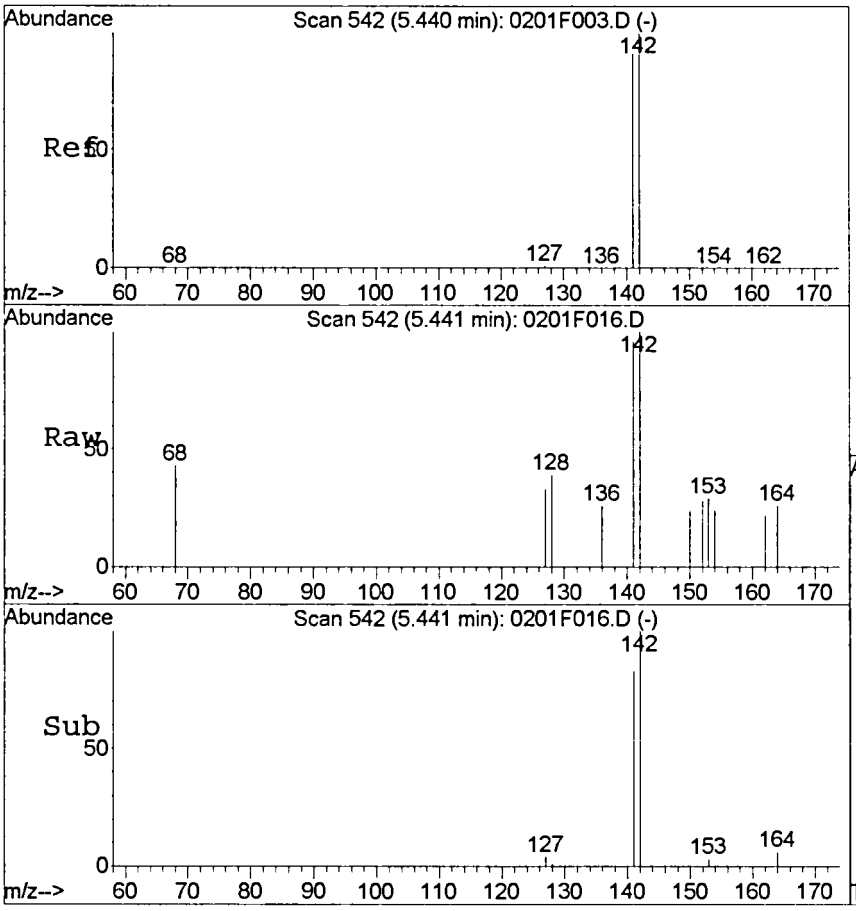


#3
2-Methylnaphthalene
Concen: 1.53 ng/ml
RT: 5.35 min Scan# 506
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:142 Resp: 319

Ion	Ratio	Lower	Upper
142	100		
141	89.7	57.6	117.6

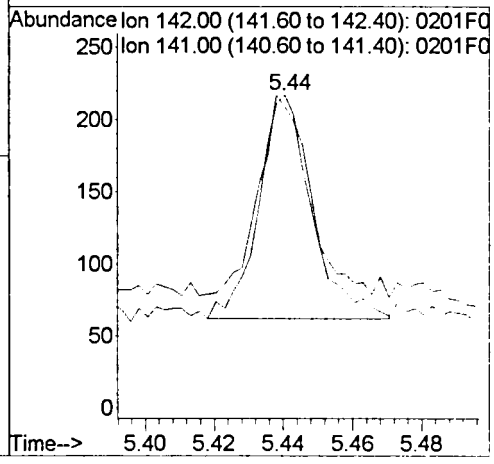


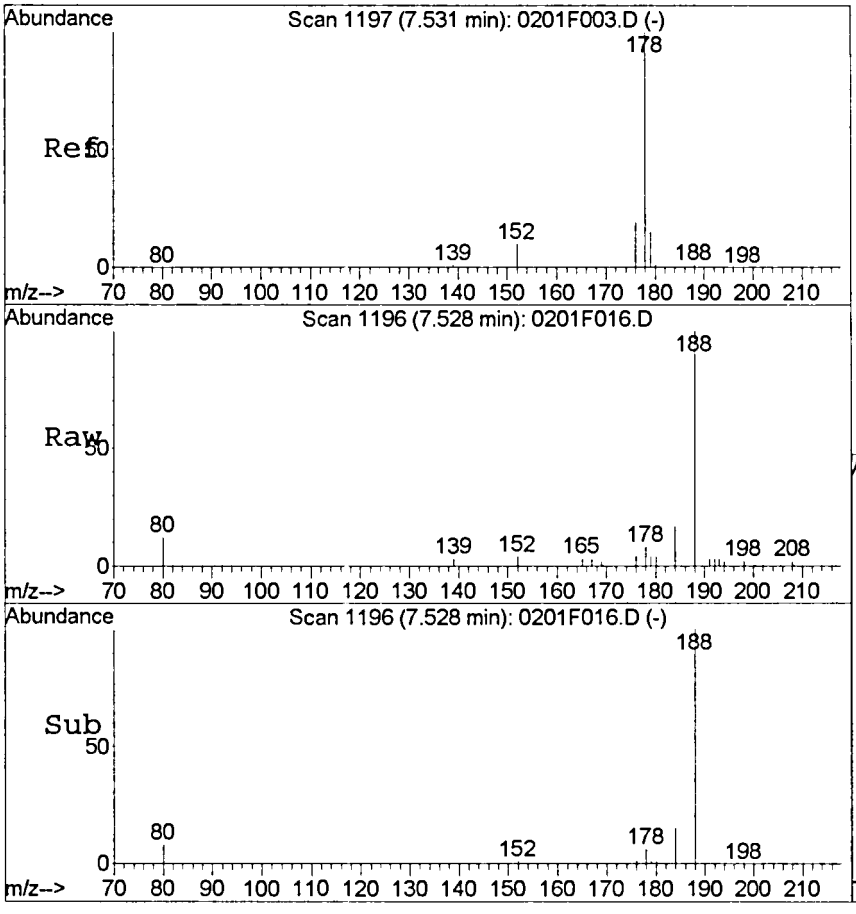


#4
1-Methylnaphthalene
Concen: 0.91 ng/ml
RT: 5.44 min Scan# 542
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:142 Resp: 165

Ion	Ratio	Lower	Upper
142	100		
141	85.2	60.8	120.8

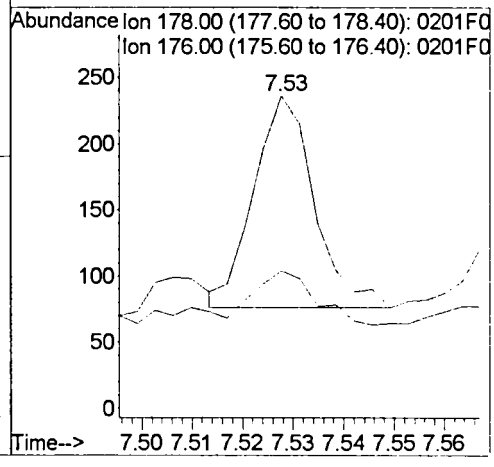


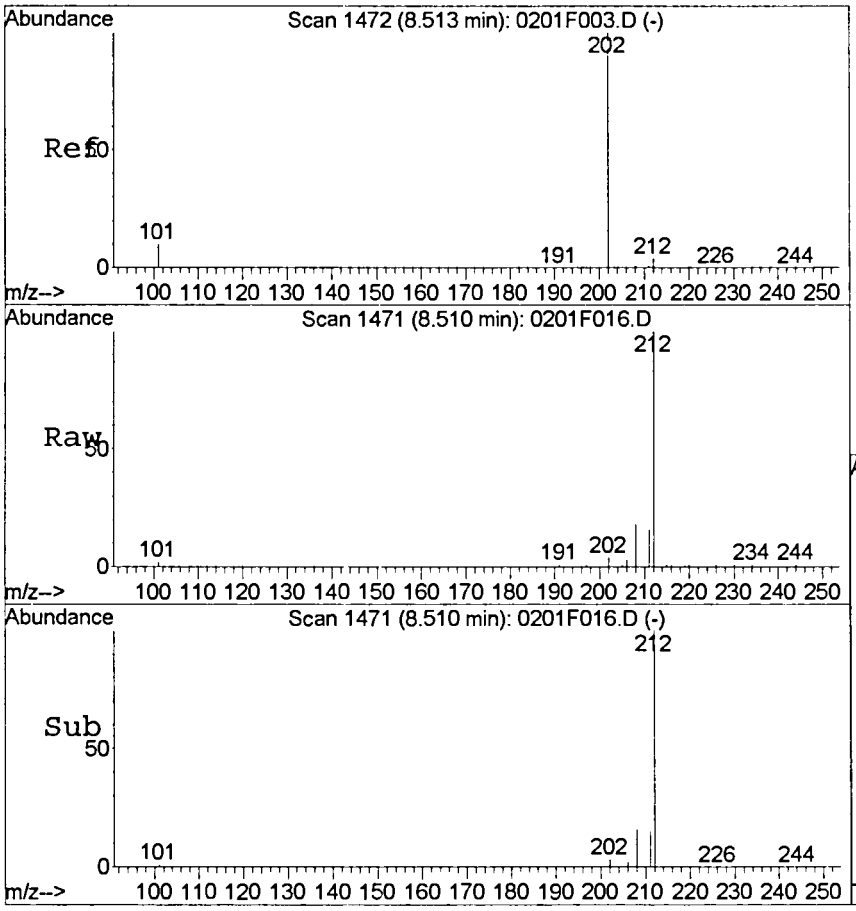


#16
Phenanthrene
Concen: 0.40 ng/ml
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:178 Resp: 132

Ion	Ratio	Lower	Upper
178	100		
176	25.0	0.0	48.5

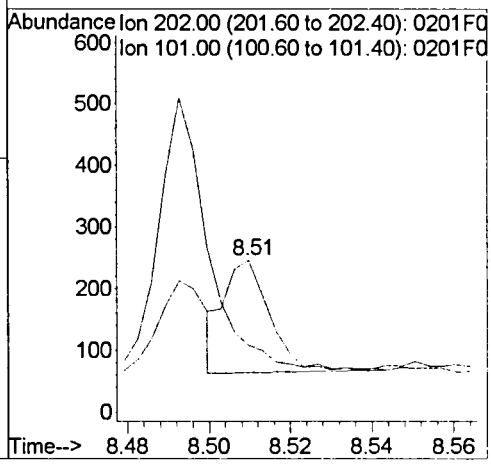


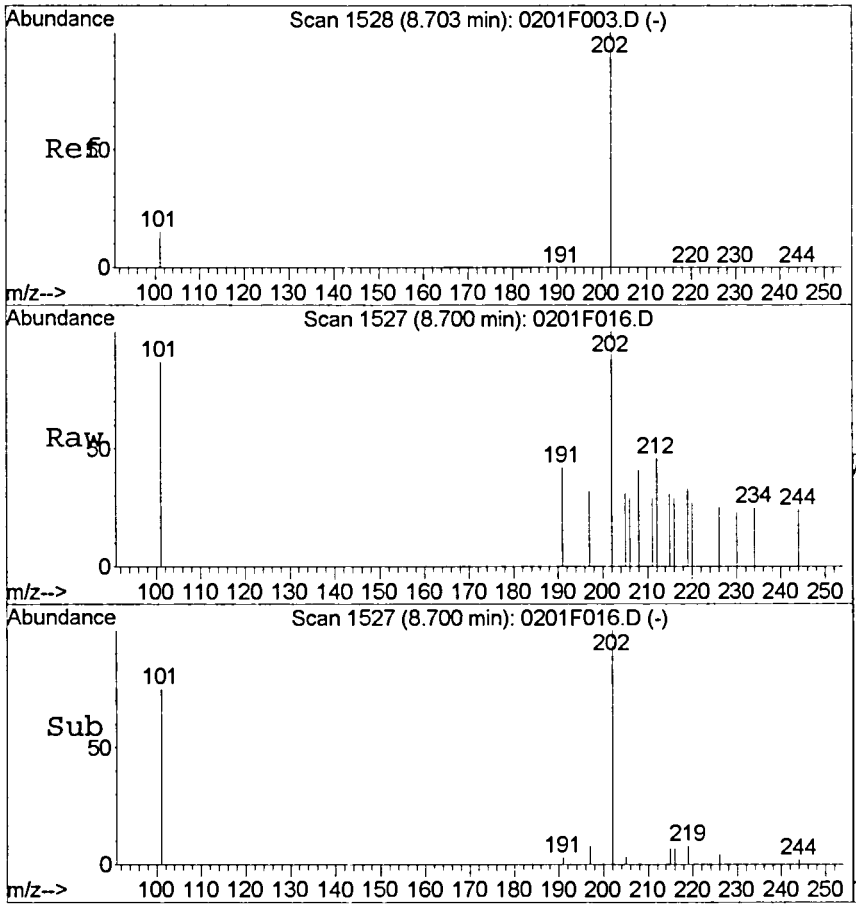


#20
Fluoranthene
Concen: 0.39 ng/ml
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:202 Resp: 145

Ion	Ratio	Lower	Upper
202	100		
101	18.0	0.0	40.2

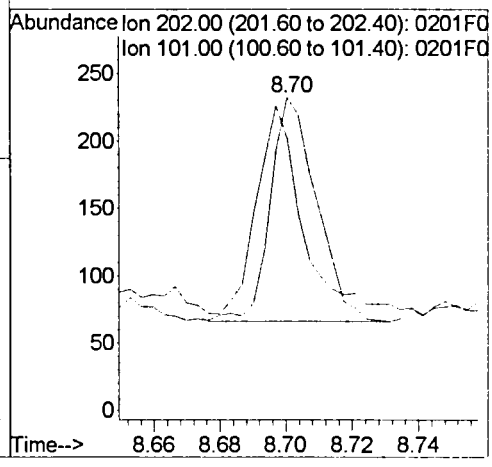


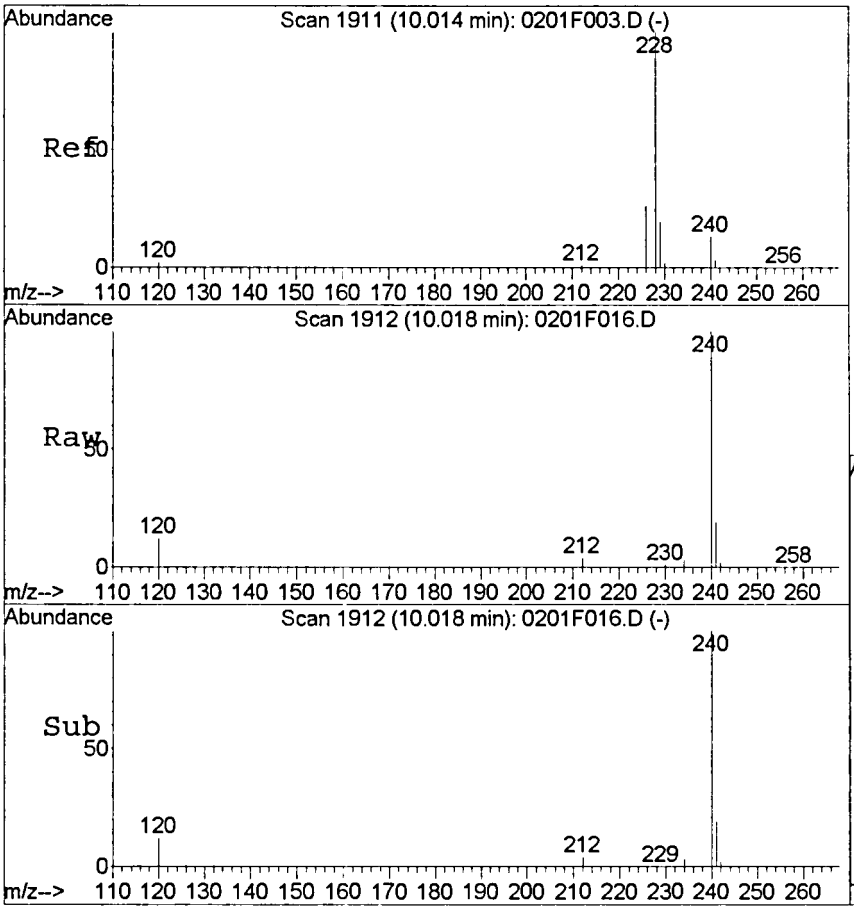


#23
Pyrene
Concen: 0.39 ng/ml
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:202 Resp: 161

Ion	Ratio	Lower	Upper
202	100		
101	78.3	0.0	42.9#

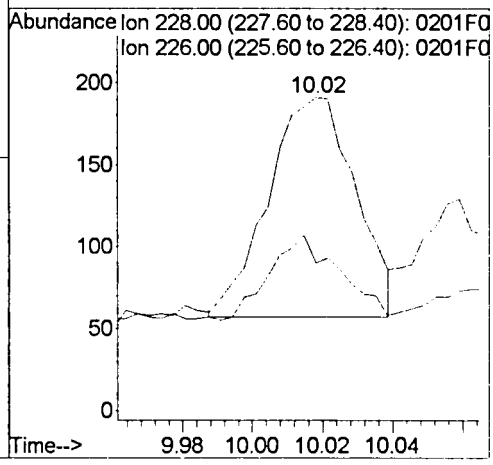


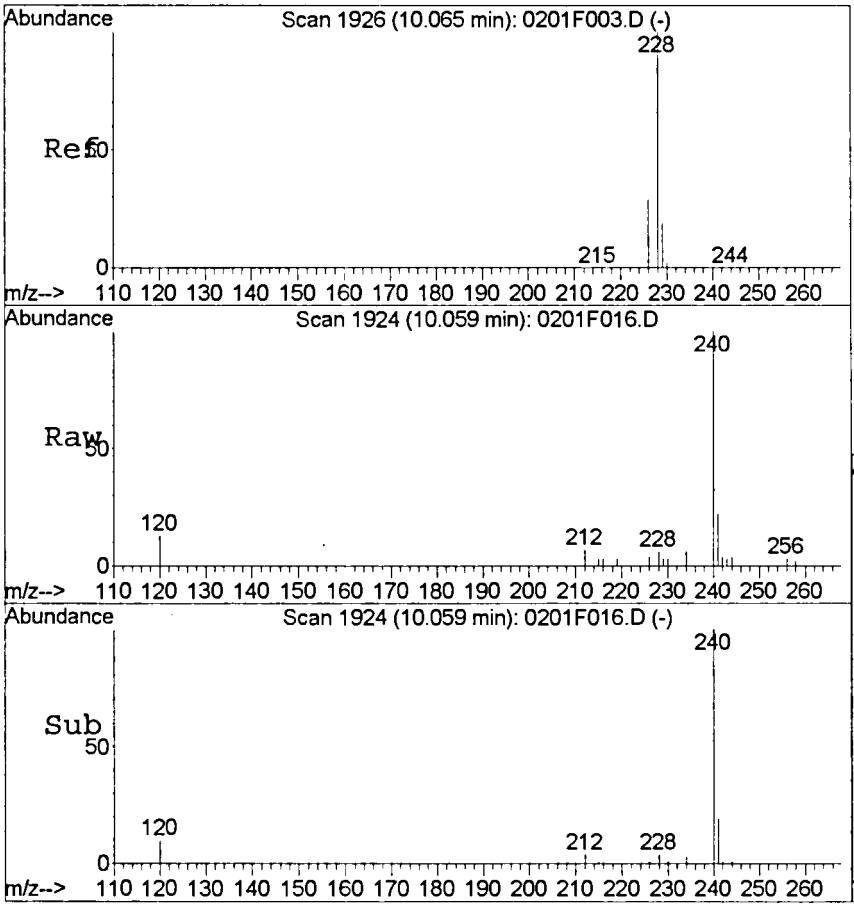


#25
Benz(a)anthracene
Concen: 0.60 ng/ml m
RT: 10.02 min Scan# 1912
Delta R.T. -0.02 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:228 Resp: 231

Ion	Ratio	Lower	Upper
228	100		
226	47.1	0.0	55.9

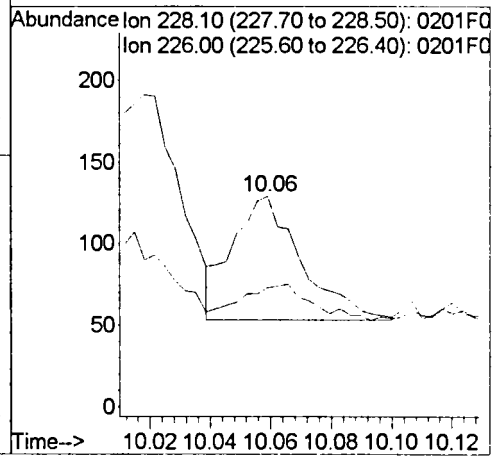


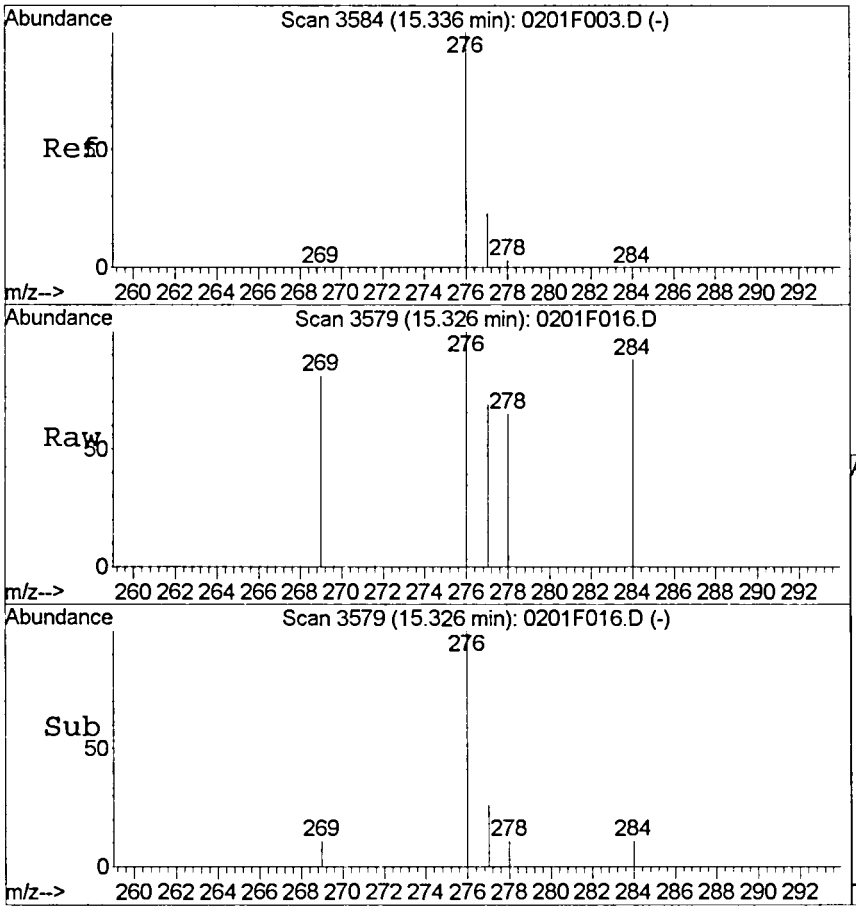


#26
Chrysene
Concen: 0.35 ng/ml m
RT: 10.06 min Scan# 1924
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:228 Resp: 120

Ion	Ratio	Lower	Upper
228	100		
226	56.6	0.0	58.6

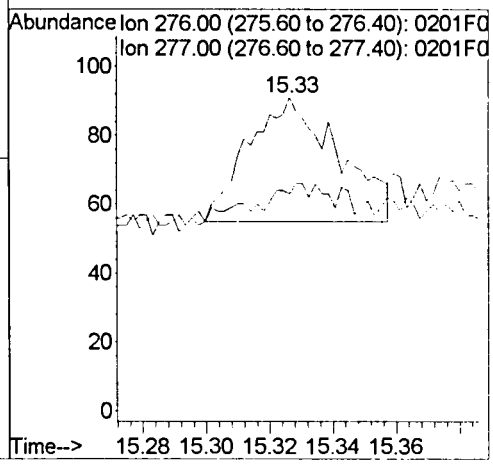


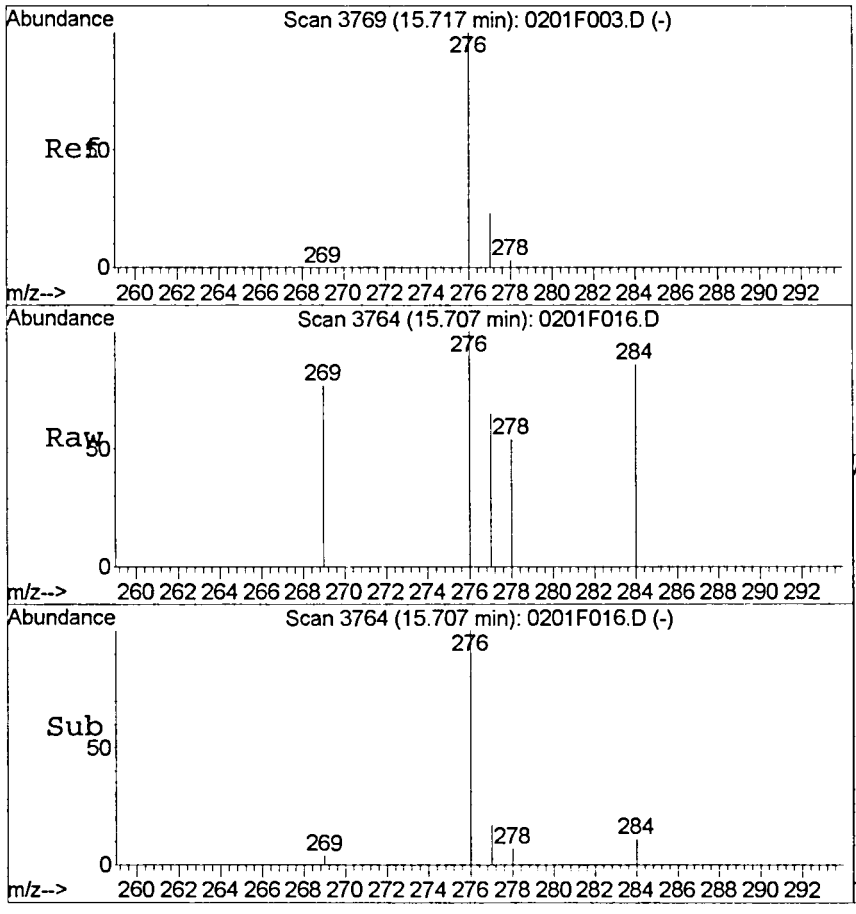


#33
Indeno(1,2,3-cd)pyrene
Concen: 0.21 ng/ml m
RT: 15.33 min Scan# 3579
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:276 Resp: 71

Ion	Ratio	Lower	Upper
276	100		
277	69.2	0.0	53.2#

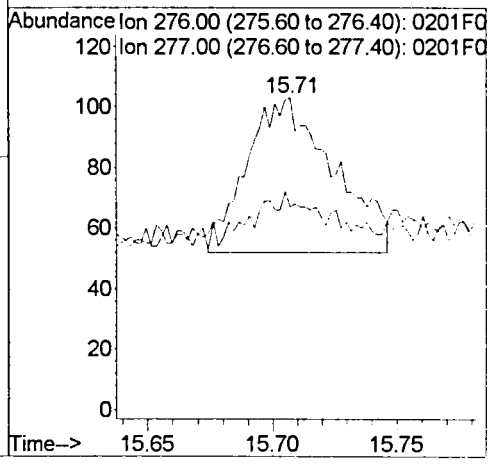




#35
Benzo(g,h,i)perylene
Concen: 0.32 ng/ml m
RT: 15.71 min Scan# 3764
Delta R.T. -0.03 min
Lab File: 0201F016.D
Acq: 1 Feb 2016 1:57 pm

Tgt Ion:276 Resp: 124

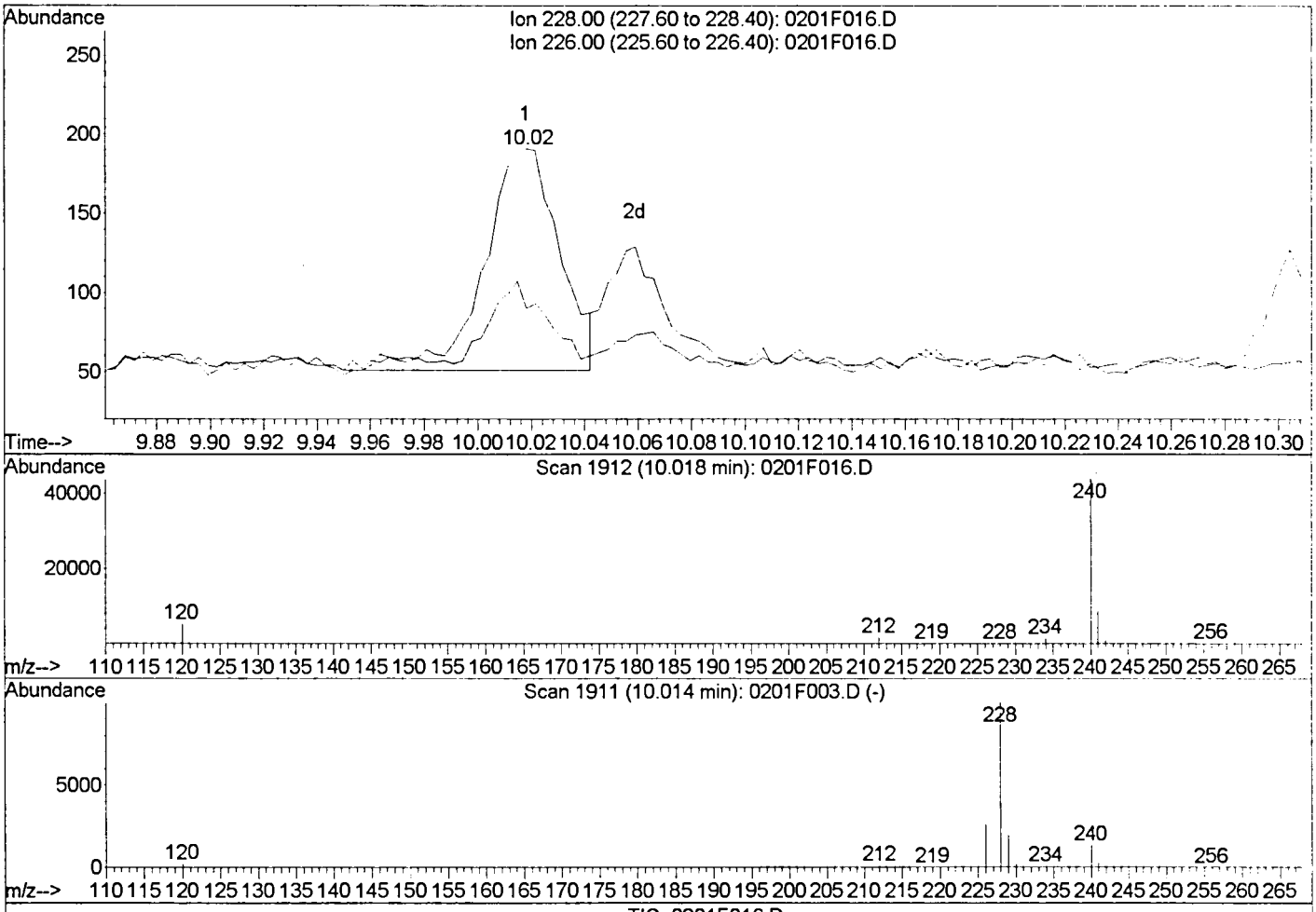
Ion	Ratio	Lower	Upper
276	100		
277	65.0	0.0	53.1#



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F016.D Vial: 16
Acq On : 1 Feb 2016 1:57 pm Operator: LWeiskopf
Sample : K1600673-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:09 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F016.D

(25) Benz(a)anthracene (T)

10.02min 0.70ng/ml

response 273

Ion	Exp%	Act%
228.00	100	100
226.00	25.90	30.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

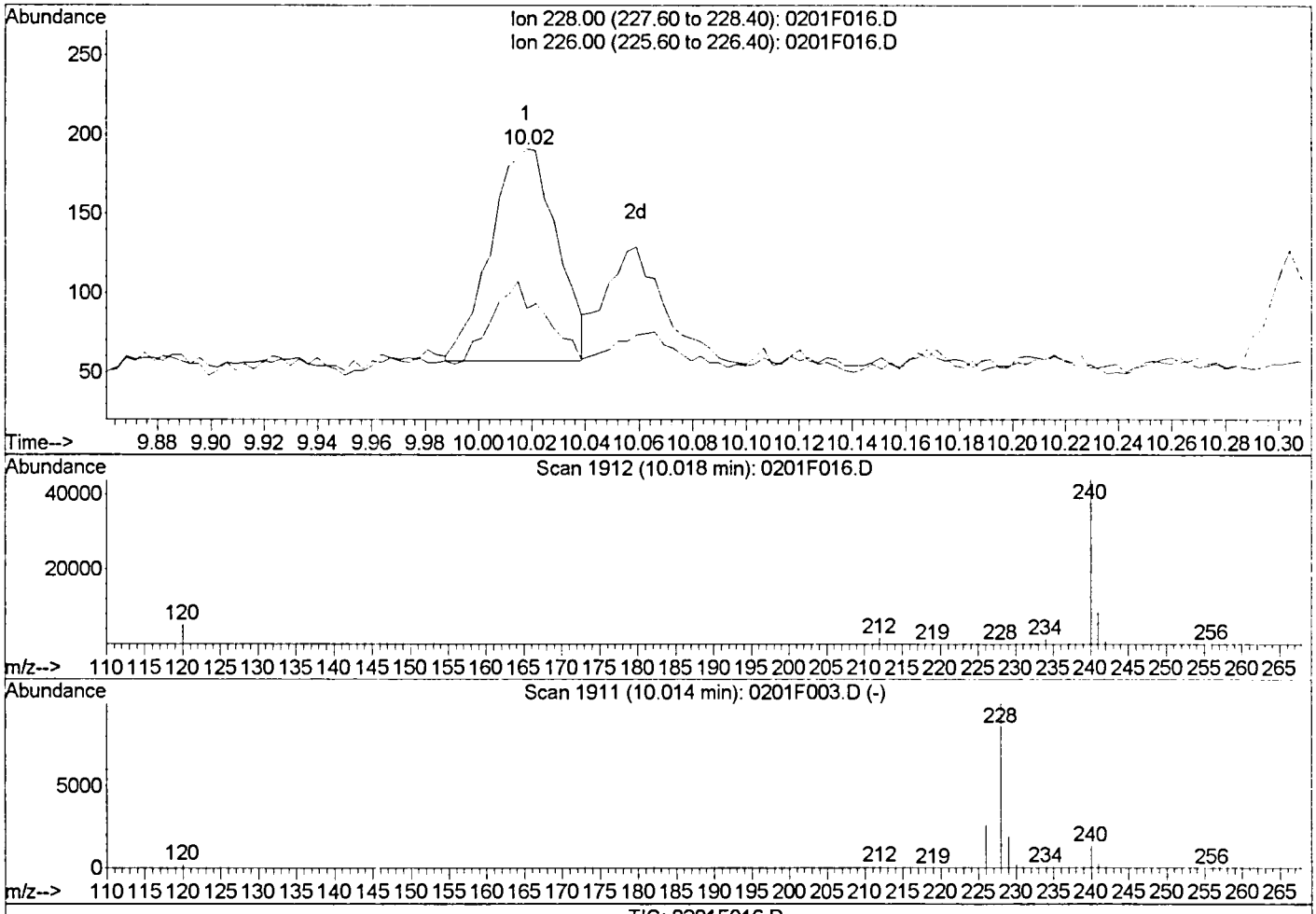
FEB 03 2016

0201F016.D 011116SIMPAH.M Tue Feb 02 12:09:24 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F016.D Vial: 16
Acq On : 1 Feb 2016 1:57 pm Operator: LWeiskopf
Sample : K1600673-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:09 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F016.D

(25) Benz(a)anthracene (T)

10.02min 0.60ng/ml m

response 231

Ion	Exp%	Act%
228.00	100	100
226.00	25.90	47.12
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

02/02/16

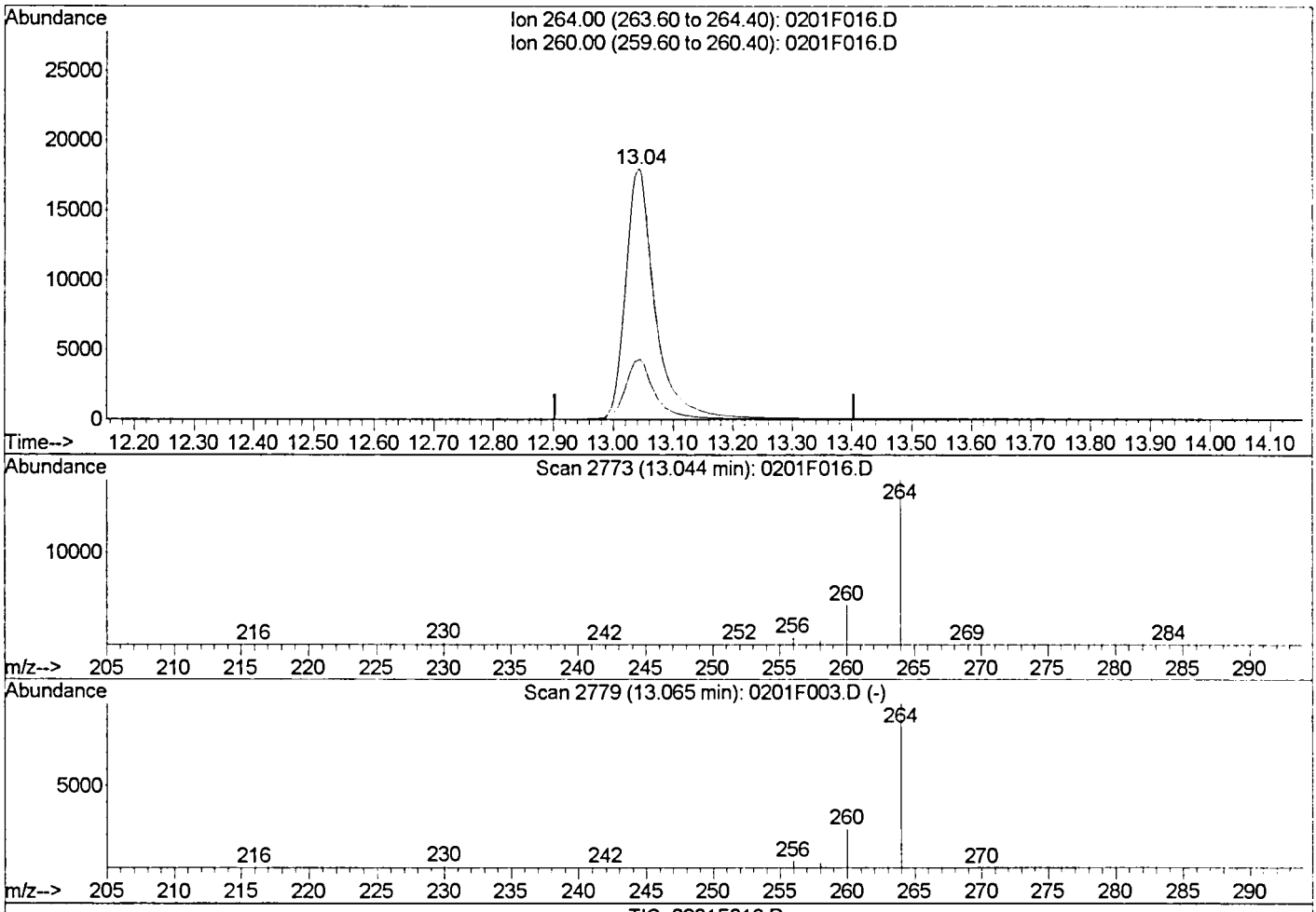
FEB 0 3 2016

0201F016.D 011116SIMPAH.M Tue Feb 02 12:09:28 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F016.D Vial: 16
Acq On : 1 Feb 2016 1:57 pm Operator: LWeiskopf
Sample : K1600673-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:10 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F016.D

(27) Perylene-d12 (I)

13.04min 200.00ng/ml m

response 61139

Ion	Exp%	Act%
264.00	100	100
260.00	24.00	24.10
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Accidentally deleted, reintegrated

02/02/16

FEB 03 2016

0201F016.D 011116SIMPAH.M Tue Feb 02 12:10:13 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F013.D
Lab ID: K1600673-004
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 12:47
Date Quantitated: 02/02/2016 12:04
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F013.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 12:47	**Quant Date:**	02/02/2016 12:04	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495831	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	63971	200.00	OK
2	Acenaphthene-d10	6.26	-0.02	164	32288	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	57800	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	66676	200.00	OK
5	Perylene-d12	13.05	0.00	264	60636	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	6.71	0.00	0.00	176	65773	369.47	92	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	126272	426.86	107	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	96981	399.02	100	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	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene				178	0d		0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	64m	0.1700	0.010	U	
4	Pyrene	8.70		0.00	202	95m	0.2300	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	182m	0.4700	0.0026	U	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F013.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 12:47	**Quant Date:**	02/02/2016 12:04	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-004			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F013.D Vial: 13
Acq On : 1 Feb 2016 12:47 pm Operator: LWeiskopf
Sample : K1600673-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:42 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

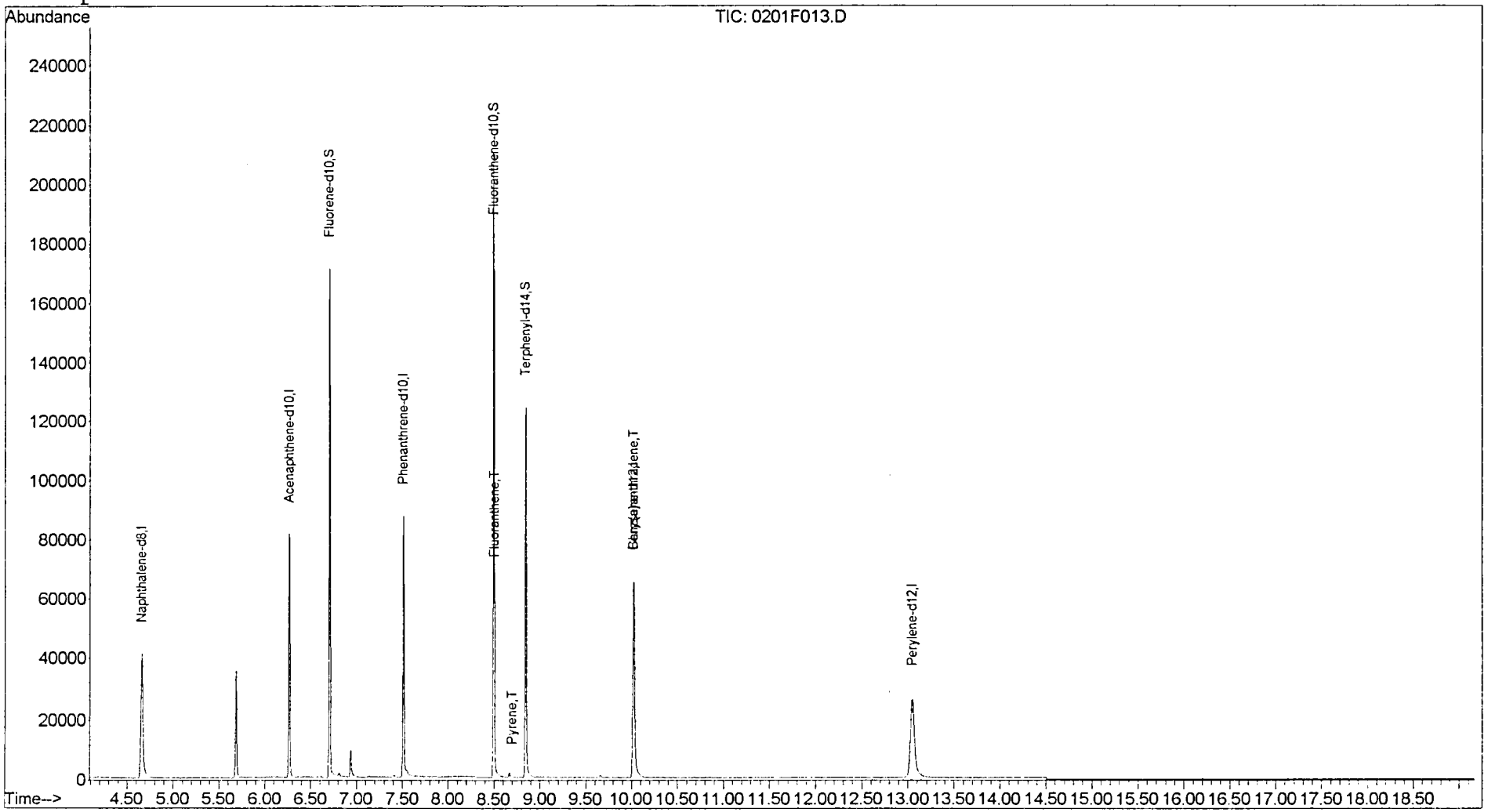
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	63971	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.26	164	32288	200.00	ng/ml	-0.03
14) Phenanthrene-d10	7.51	188	57800	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	66676	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	60636	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	65773	369.47	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 36.95%			
21) Fluoranthene-d10	8.50	212	126272	426.86	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.69%			
24) Terphenyl-d14	8.84	244	96981	399.02	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.90%			
Target Compounds						Qvalue
20) Fluoranthene	8.51	202	64m	0.17	ng/ml	
23) Pyrene	8.70	202	95m	0.23	ng/ml	
25) Benz(a)anthracene	10.02	228	182m	0.47	ng/ml	

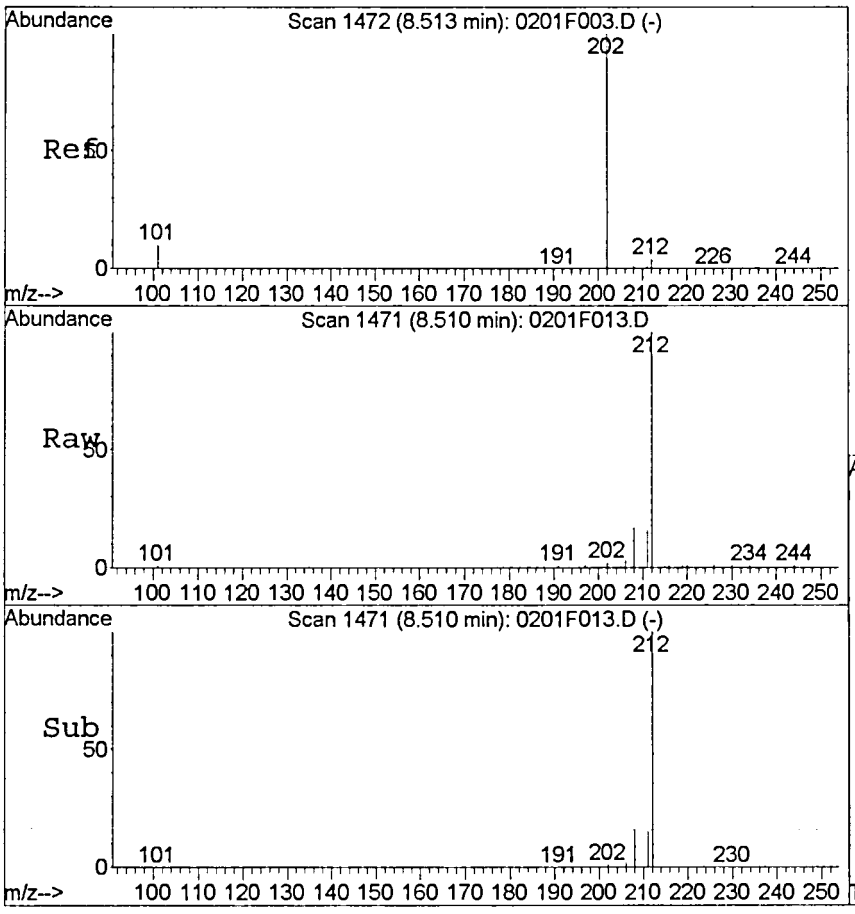
(#) = qualifier out of range (m) = manual integration
0201F013.D 011116SIMPAH.M Tue Feb 02 12:05:02 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F013.D Vial: 13
Acq On : 1 Feb 2016 12:47 pm Operator: LWeiskopf
Sample : K1600673-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:04 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

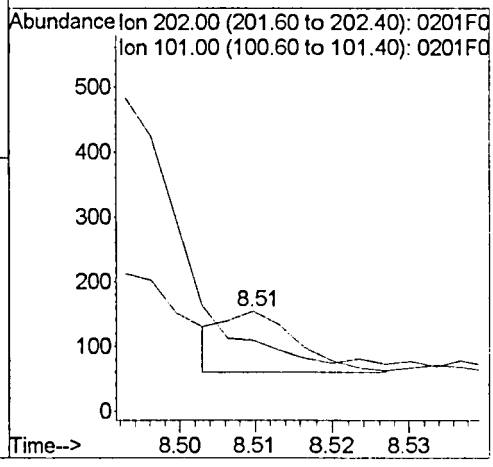


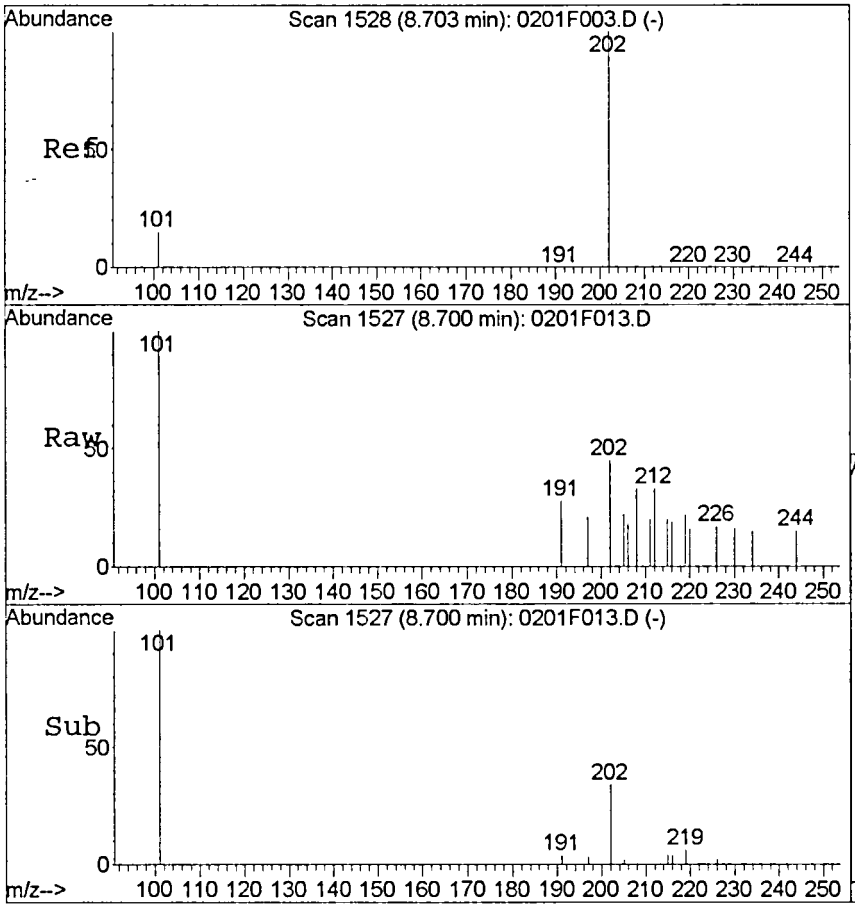


#20
Fluoranthene
Concen: 0.17 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 12:47 pm

Tgt Ion:202 Resp: 64

Ion	Ratio	Lower	Upper
202	100		
101	70.8	0.0	40.2#

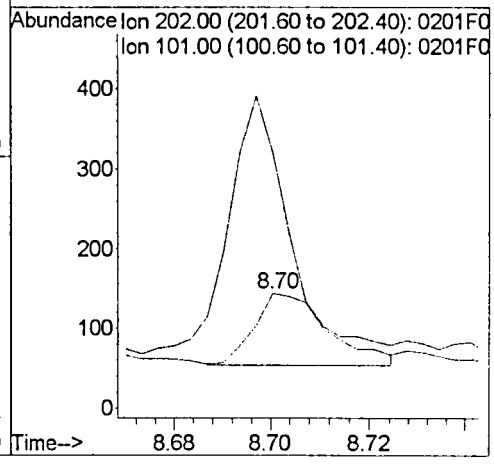


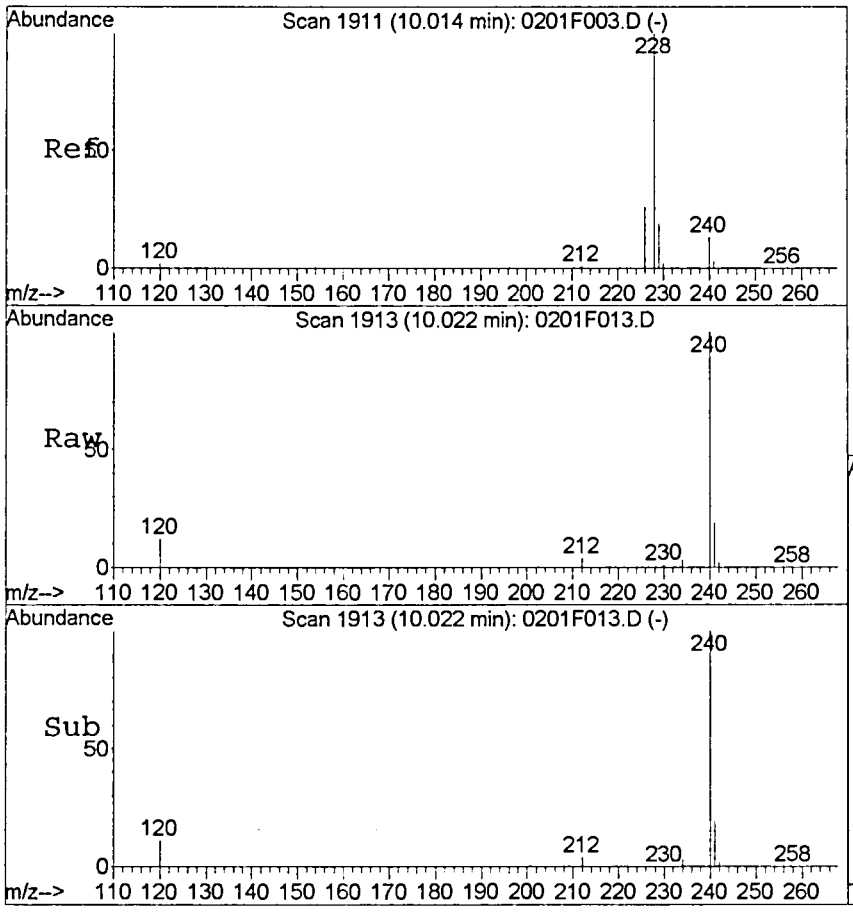


#23
Pyrene
Concen: 0.23 ng/ml m
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 12:47 pm

Tgt Ion:202 Resp: 95

Ion	Ratio	Lower	Upper
202	100		
101	222.2	0.0	42.9#

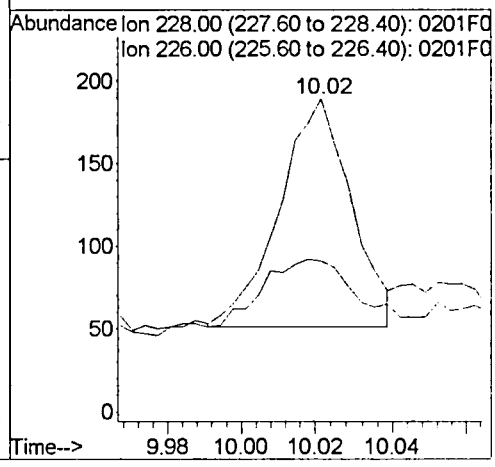




#25
Benz(a)anthracene
Concen: 0.47 ng/ml m
RT: 10.02 min Scan# 1913
Delta R.T. -0.02 min
Lab File: 0201F013.D
Acq: 1 Feb 2016 12:47 pm

Tgt Ion:228 Resp: 182

Ion	Ratio	Lower	Upper
228	100		
226	48.1	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F017.D
Lab ID: K1600673-005
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 14:20
Date Quantitated: 02/02/2016 12:11
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:07
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F017.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 14:20	**Quant Date:**	02/02/2016 12:11	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495832	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.67	-0.02	136	59508	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30338	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	57914	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	65256	200.00	OK
5	Perylene-d12	13.04	-0.01	264	59383	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	6.71	0.00	0.00	176	61155	365.61	91	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	123008	415.00	104	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	95550	401.68	100	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	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.53		0.00	178	134m	0.3900	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	63m	0.1600	0.010	U	
4	Pyrene	8.70		0.00	202	109m	0.2700	0.0053	U	
4	Benz(a)anthracene	10.01		0.00	228	220	0.5800	0.0029	J	
4	Chrysene	10.06	-0.01	0.00	228	99m	0.2900	0.0034	U	
5	Benzo(b)fluoranthene				252	0d		0.0041	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\020116\0201F017.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 14:20	**Quant Date:**	02/02/2016 12:11	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-005			**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?
5	Benzo(k)fluoranthene				252	0d		0.0030	U	
5	Benzo(a)pyrene				252	0d		0.0043	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:	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\020116\0201F017.D Vial: 17
Acq On : 1 Feb 2016 2:20 pm Operator: LWeiskopf
Sample : K1600673-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:43 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

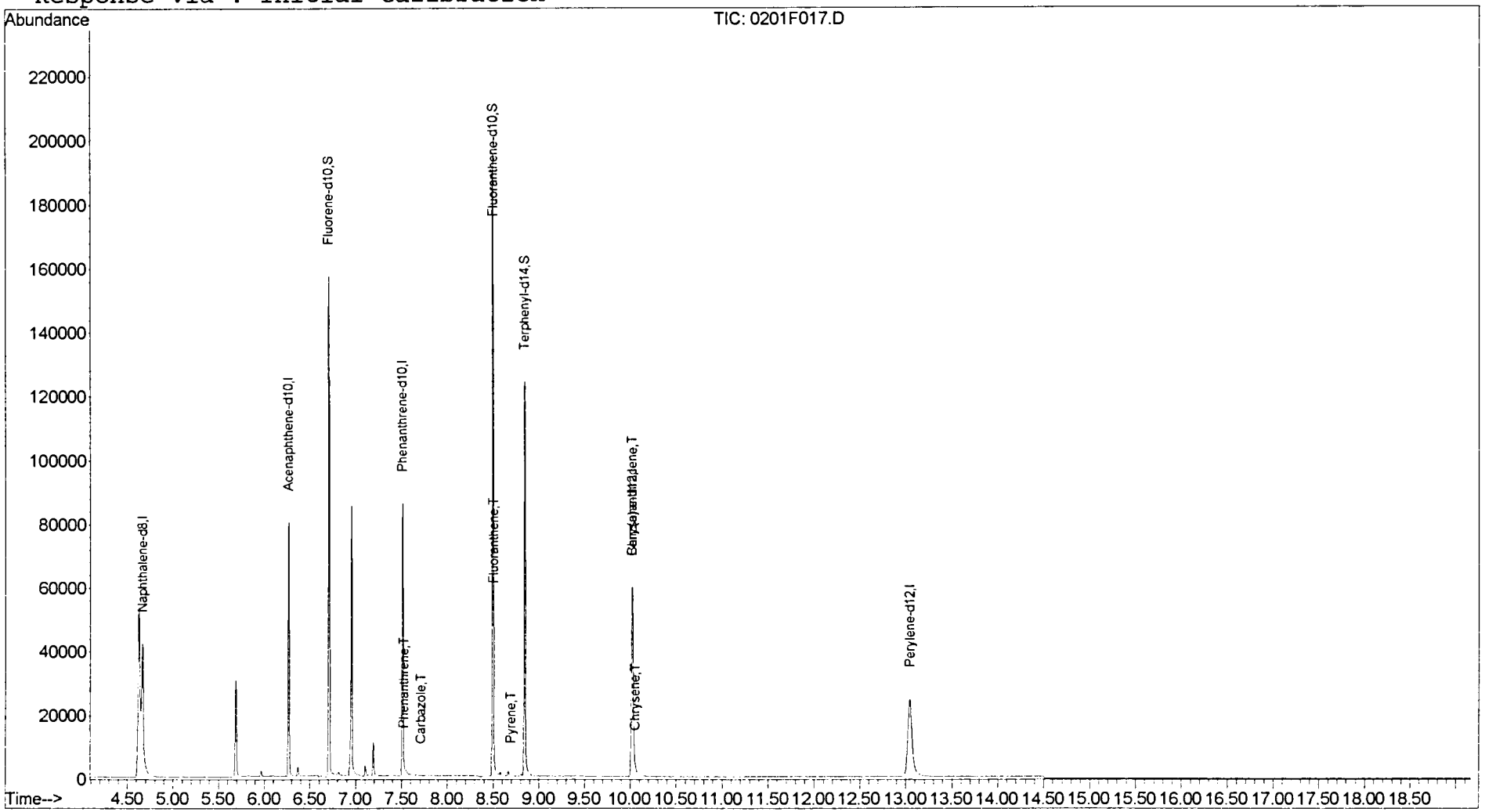
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	59508	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	30338	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	57914	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	65256	200.00	ng/ml	-0.03
27) Perylene-d12	13.04	264	59383	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	61155	365.61	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 36.56%			
21) Fluoranthene-d10	8.50	212	123008	415.00	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.50%			
24) Terphenyl-d14	8.84	244	95550	401.68	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 40.17%			
Target Compounds						Qvalue
16) Phenanthrene	7.53	178	134m	0.39	ng/ml	
18) Carbazole	7.71	167	126m	0.44	ng/ml	
20) Fluoranthene	8.51	202	63m	0.16	ng/ml	
23) Pyrene	8.70	202	109m	0.27	ng/ml	
25) Benz(a)anthracene	10.01	228	220	0.58	ng/ml	93
26) Chrysene	10.06	228	99m	0.29	ng/ml	

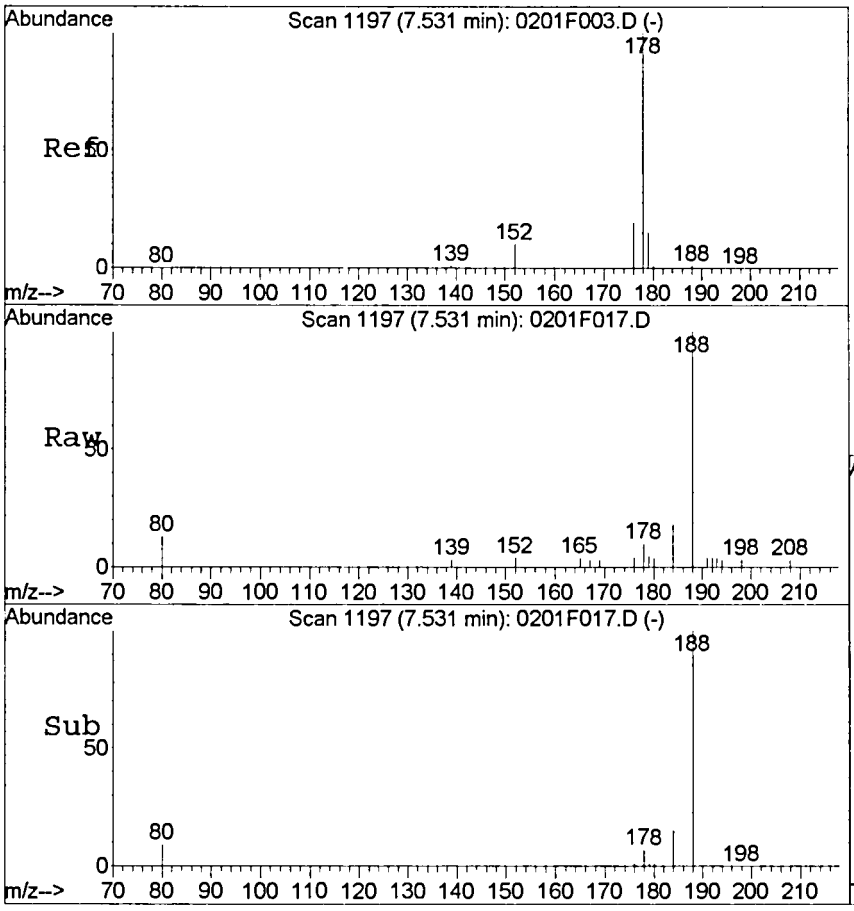
(#) = qualifier out of range (m) = manual integration
0201F017.D 011116SIMPAH.M Tue Feb 02 12:11:57 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F017.D Vial: 17
Acq On : 1 Feb 2016 2:20 pm Operator: LWeiskopf
Sample : K1600673-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:11 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

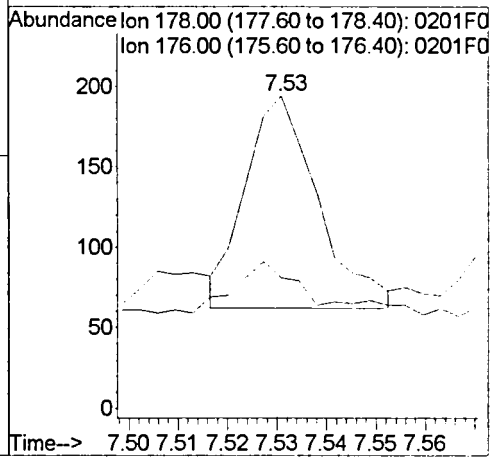


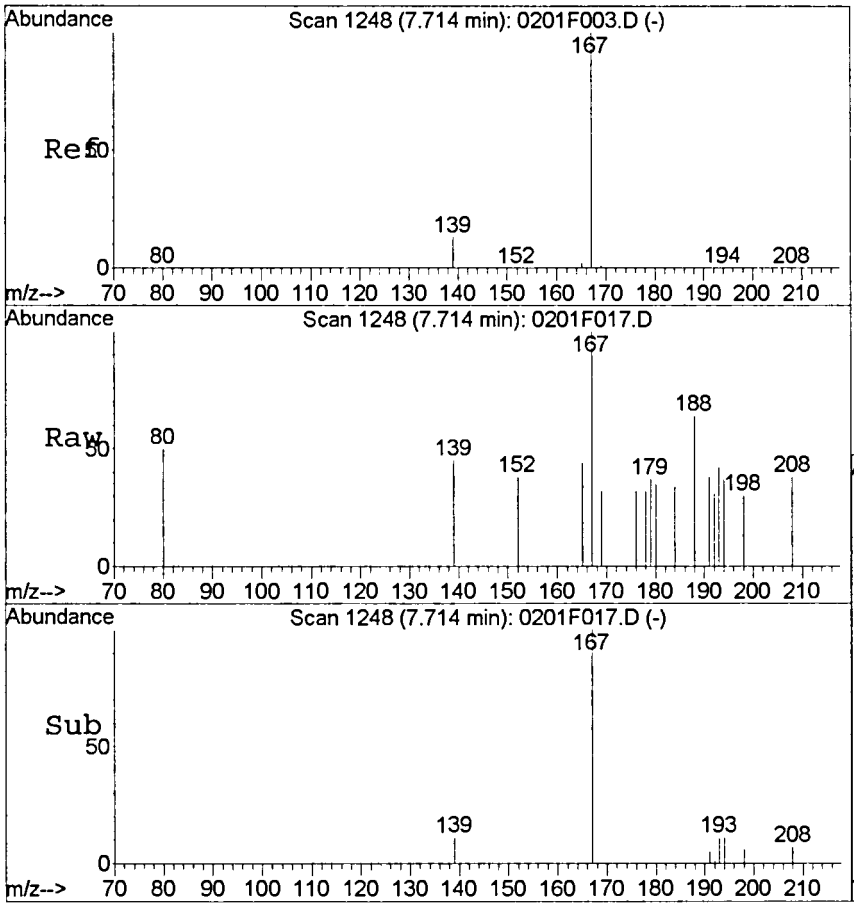


#16
Phenanthrene
Concen: 0.39 ng/ml m
RT: 7.53 min Scan# 1197
Delta R.T. -0.02 min
Lab File: 0201F017.D
Acq: 1 Feb 2016 2:20 pm

Tgt Ion:178 Resp: 134

Ion	Ratio	Lower	Upper
178	100		
176	41.8	0.0	48.5

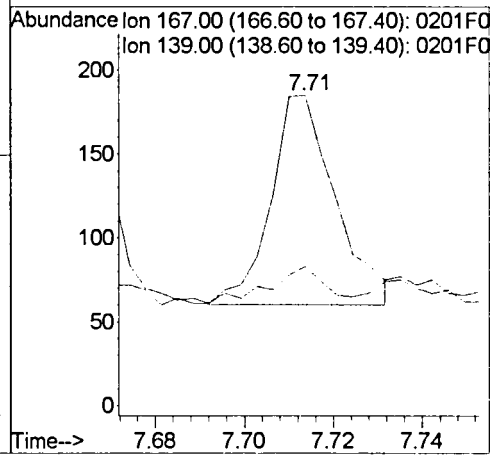


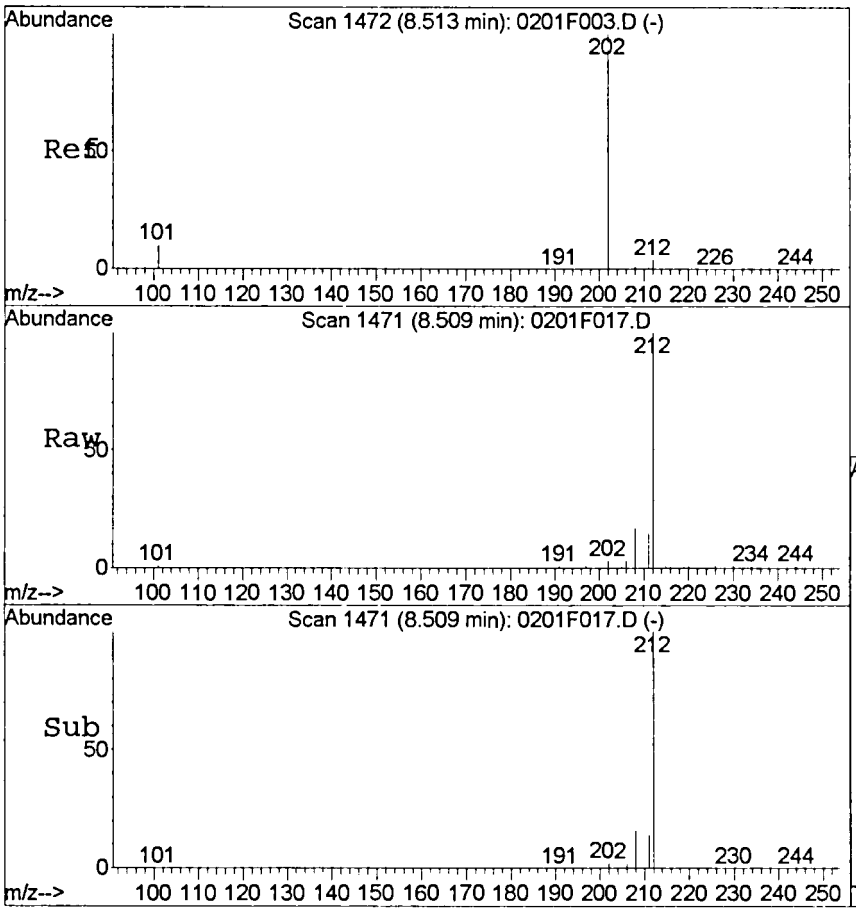


#18
Carbazole
Concen: 0.44 ng/ml m
RT: 7.71 min Scan# 1248
Delta R.T. -0.01 min
Lab File: 0201F017.D
Acq: 1 Feb 2016 2:20 pm

Tgt Ion:167 Resp: 126

Ion	Ratio	Lower	Upper
167	100		
139	44.9	0.0	42.6#

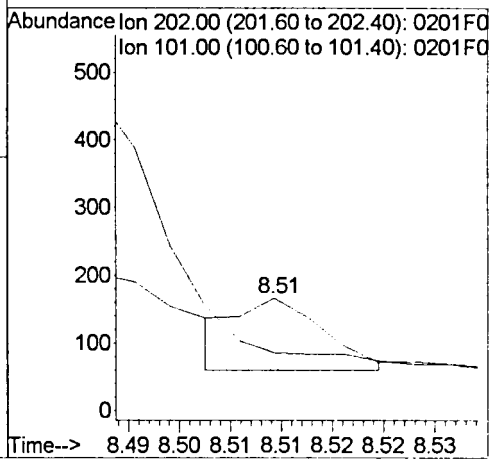


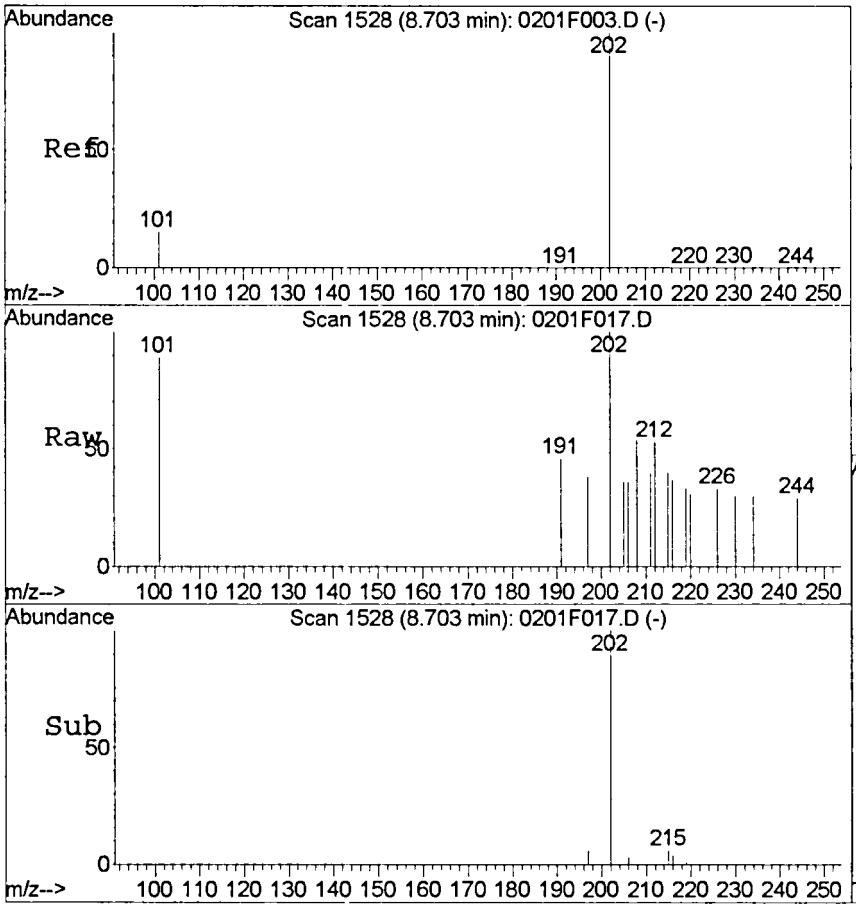


#20
Fluoranthene
Concen: 0.16 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F017.D
Acq: 1 Feb 2016 2:20 pm

Tgt Ion:202 Resp: 63

Ion	Ratio	Lower	Upper
202	100		
101	51.8	0.0	40.2#

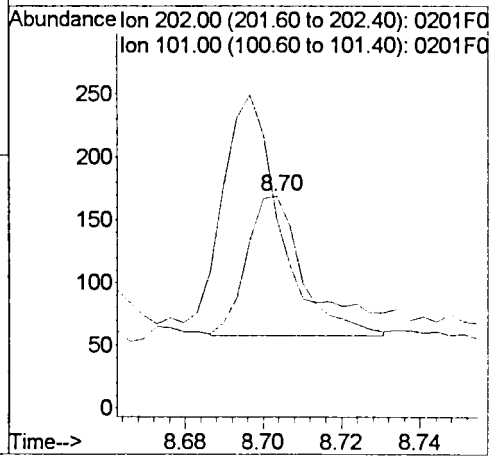


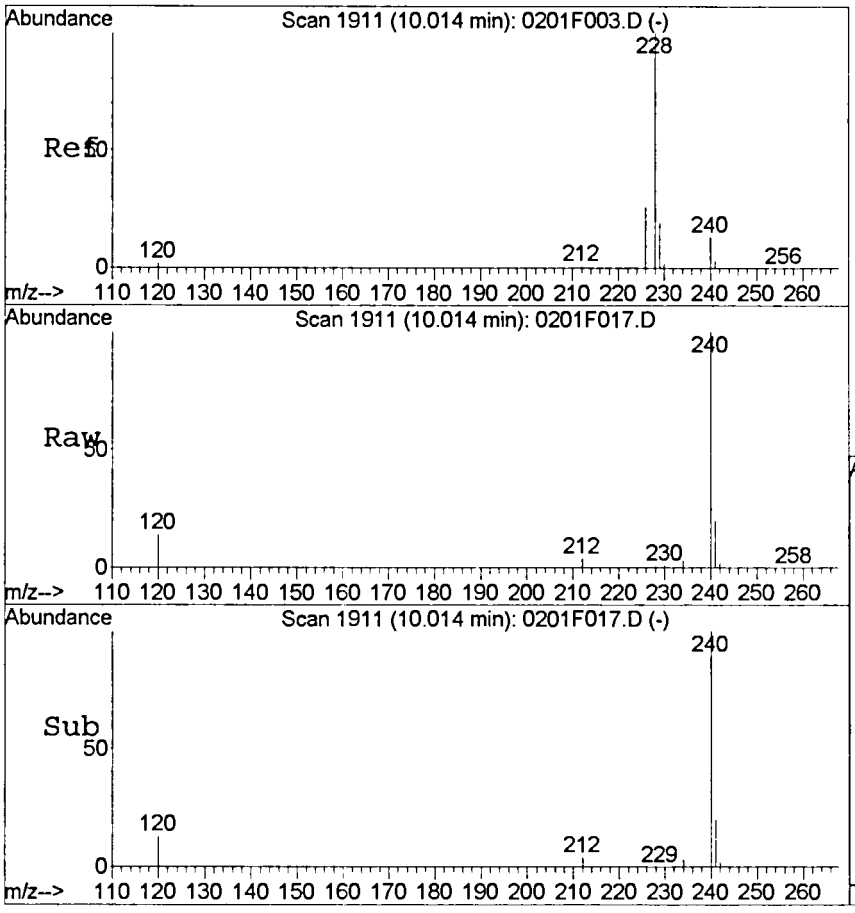


#23
Pyrene
Concen: 0.27 ng/ml m
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0201F017.D
Acq: 1 Feb 2016 2:20 pm

Tgt Ion:202 Resp: 109

Ion	Ratio	Lower	Upper
202	100		
101	89.3	0.0	42.9#

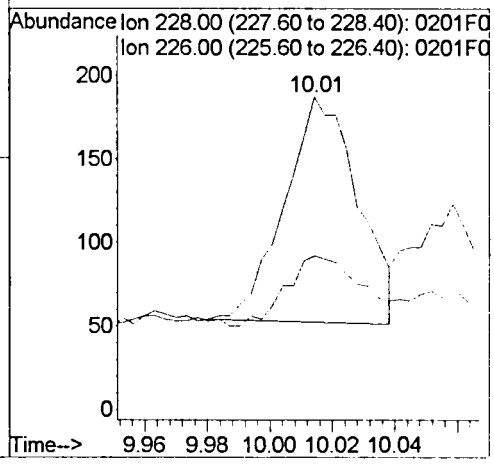


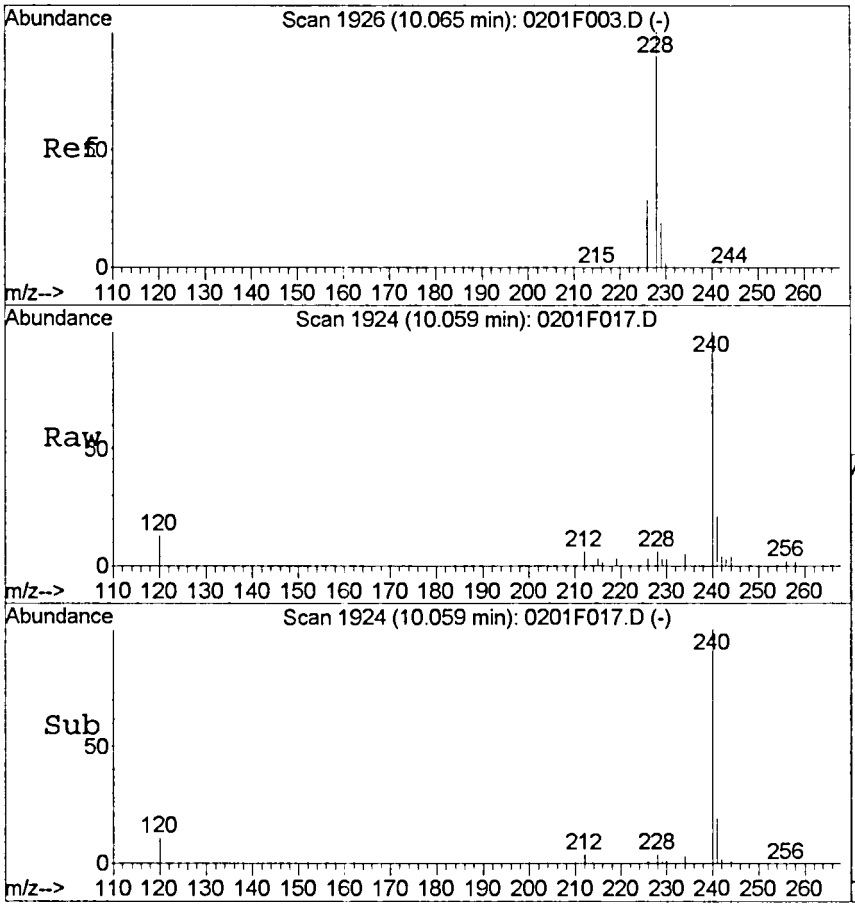


#25
Benz(a)anthracene
Concen: 0.58 ng/ml
RT: 10.01 min Scan# 1911
Delta R.T. -0.03 min
Lab File: 0201F017.D
Acq: 1 Feb 2016 2:20 pm

Tgt Ion:228 Resp: 220

Ion	Ratio	Lower	Upper
228	100		
226	29.3	0.0	55.9

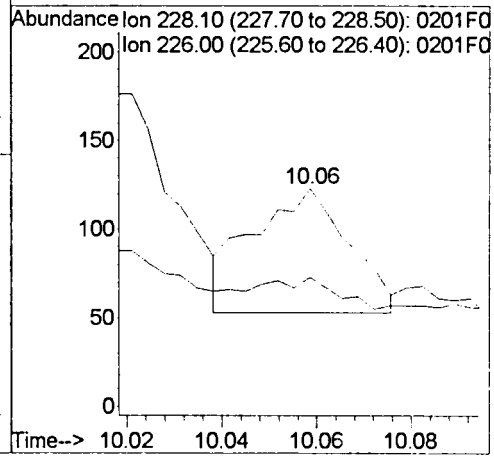




#26
Chrysene
Concen: 0.29 ng/ml m
RT: 10.06 min Scan# 1924
Delta R.T. -0.03 min
Lab File: 0201F017.D
Acq: 1 Feb 2016 2:20 pm

Tgt Ion:228 Resp: 99

Ion	Ratio	Lower	Upper
228	100		
226	59.3	0.0	58.6#



Exception Report

Data File: J:\MS14\DATA\020116\0201F018.D
Lab ID: K1600673-006
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 14:43
Date Quantitated: 02/02/2016 12:12
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:10
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F018.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 14:43	**Quant Date:**	02/02/2016 12:12	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/19/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495833	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	61049	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30943	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	56216	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	65599	200.00	OK
5	Perylene-d12	13.04	-0.01	264	59380	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	6.71	0.00	0.00	176	63299	371.03	93	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	123306	428.57	107	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	95276	398.44	100	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	
2	Acenaphthylene				152	0d		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.53		0.00	178	130	0.3900	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	116	0.3100	0.010	U	
4	Pyrene	8.70		0.00	202	143m	0.3500	0.0053	U	
4	Benz(a)anthracene	10.01		0.00	228	233	0.6100	0.0030	J	
4	Chrysene	10.06	-0.01	0.00	228	119	0.3500	0.0034	U	
5	Benzo(b)fluoranthene				252	0d		0.0041	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\020116\0201F018.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 14:43	**Quant Date:**	02/02/2016 12:12	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-006			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0d		0.0043	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:	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\020116\0201F018.D Vial: 18
Acq On : 1 Feb 2016 2:43 pm Operator: LWeiskopf
Sample : K1600673-006 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:43 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

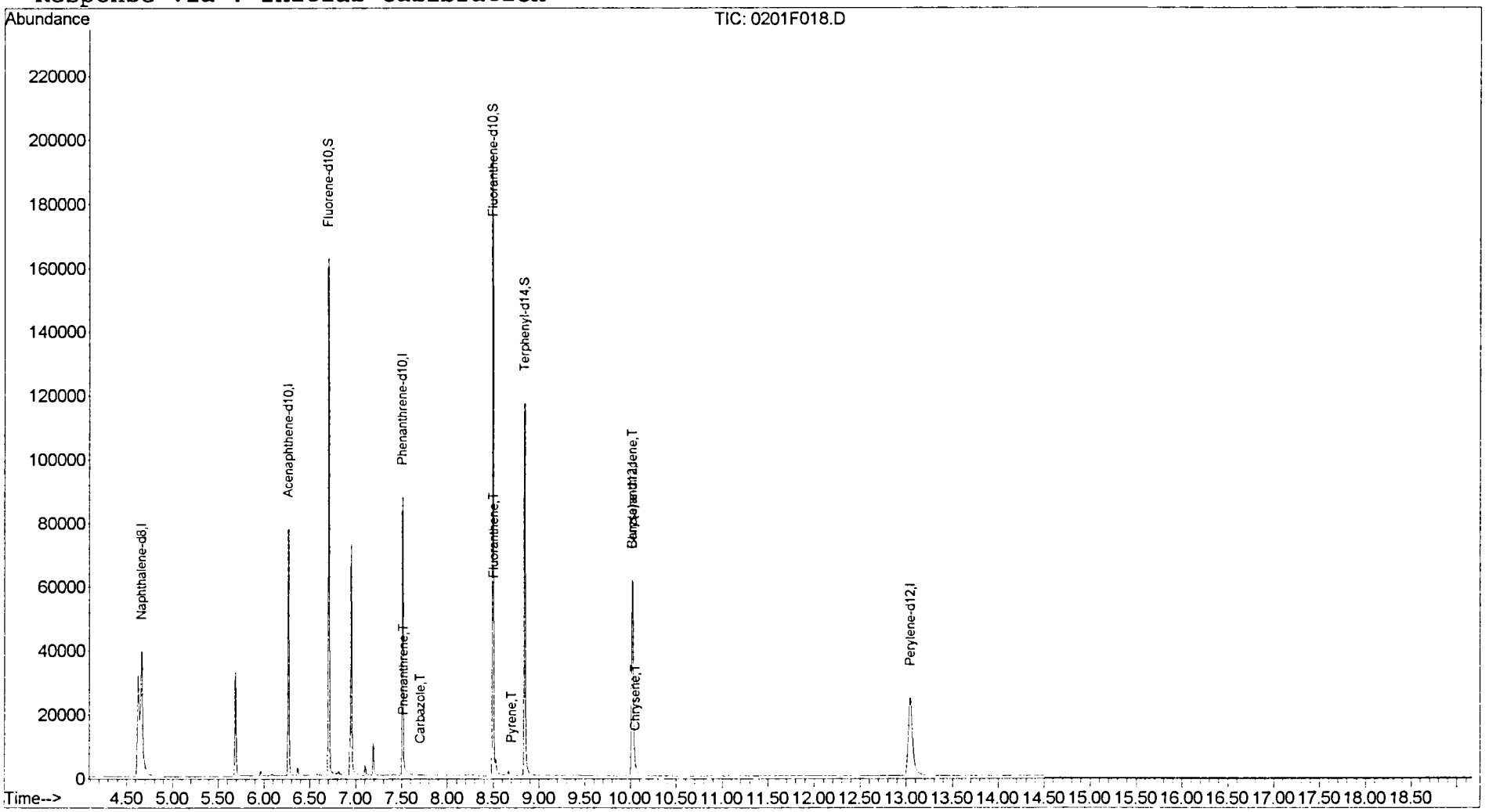
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	61049	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	30943	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	56216	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	65599	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	59380	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	63299	371.03	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 37.10%			
21) Fluoranthene-d10	8.50	212	123306	428.57	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.86%			
24) Terphenyl-d14	8.84	244	95276	398.44	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.84%			
Target Compounds						Qvalue
16) Phenanthrene	7.53	178	130	0.39	ng/ml	96
18) Carbazole	7.71	167	92m	0.33	ng/ml	
20) Fluoranthene	8.51	202	116	0.31	ng/ml	73
23) Pyrene	8.70	202	143m	0.35	ng/ml	
25) Benz(a)anthracene	10.01	228	233	0.61	ng/ml	77
26) Chrysene	10.06	228	119	0.35	ng/ml	88

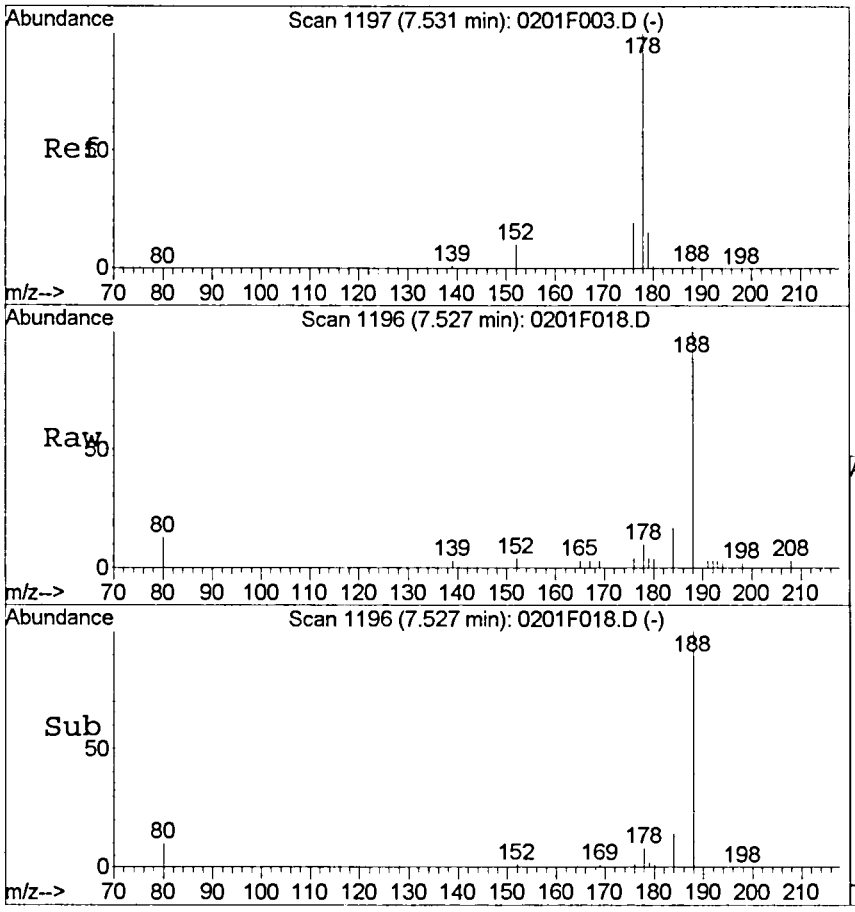
(#) = qualifier out of range (m) = manual integration
0201F018.D 011116SIMPAH.M Tue Feb 02 12:15:04 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F018.D Vial: 18
Acq On : 1 Feb 2016 2:43 pm Operator: LWeiskopf
Sample : K1600673-006 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:12 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

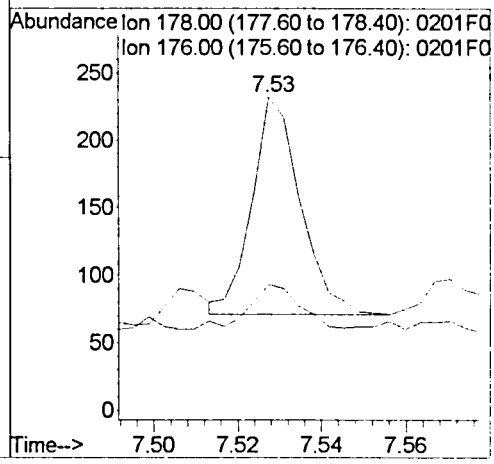


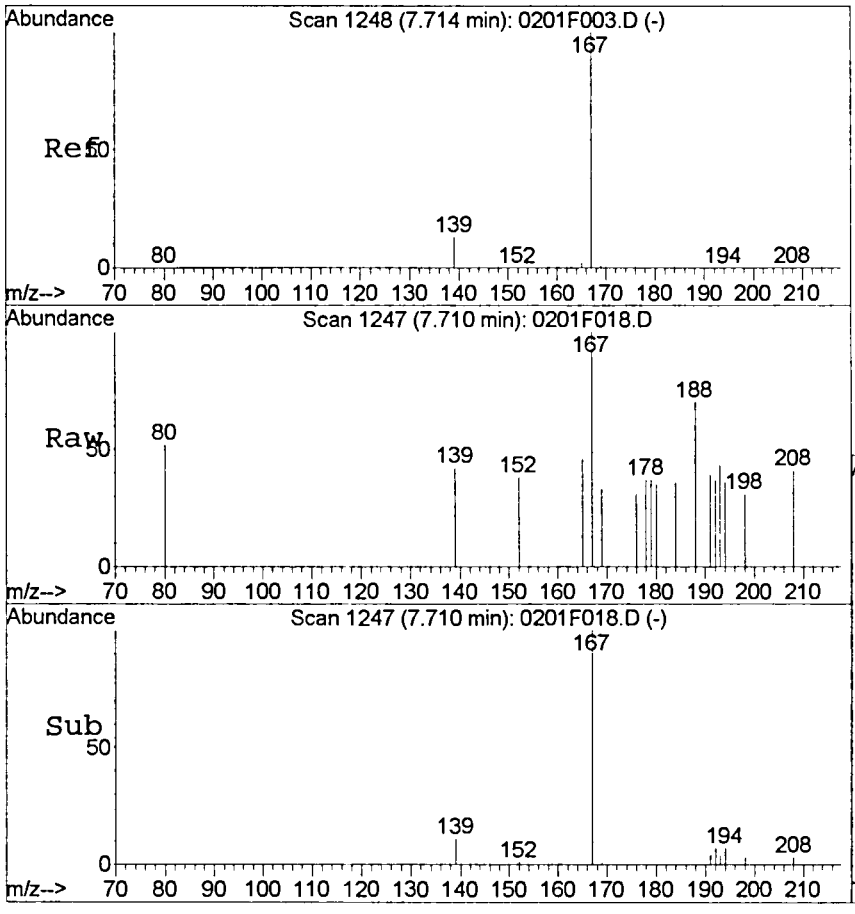


#16
Phenanthrene
Concen: 0.39 ng/ml
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F018.D
Acq: 1 Feb 2016 2:43 pm

Tgt Ion:178 Resp: 130

Ion	Ratio	Lower	Upper
178	100		
176	16.8	0.0	48.5

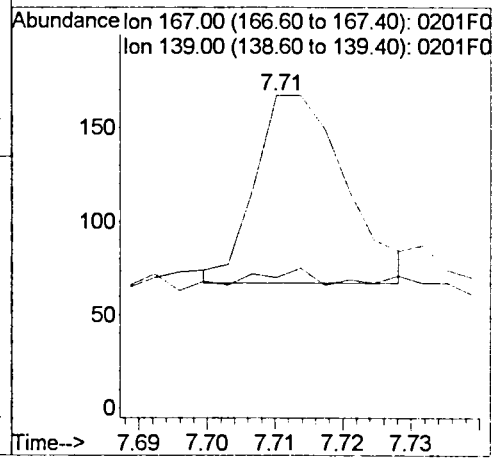


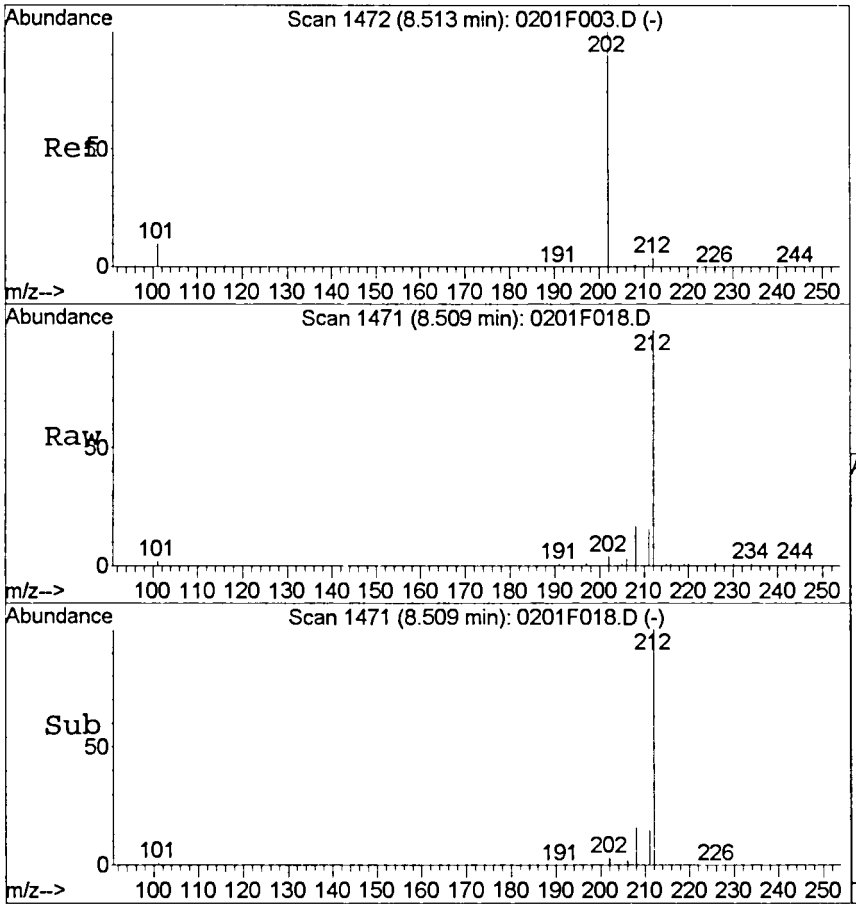


#18
Carbazole
Concen: 0.33 ng/ml m
RT: 7.71 min Scan# 1247
Delta R.T. -0.02 min
Lab File: 0201F018.D
Acq: 1 Feb 2016 2:43 pm

Tgt Ion:167 Resp: 92

Ion	Ratio	Lower	Upper
167	100		
139	41.9	0.0	42.6

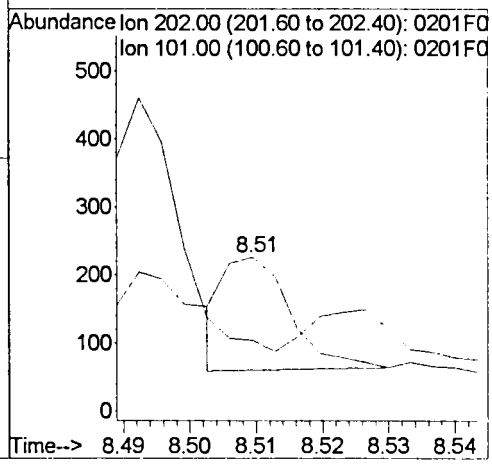


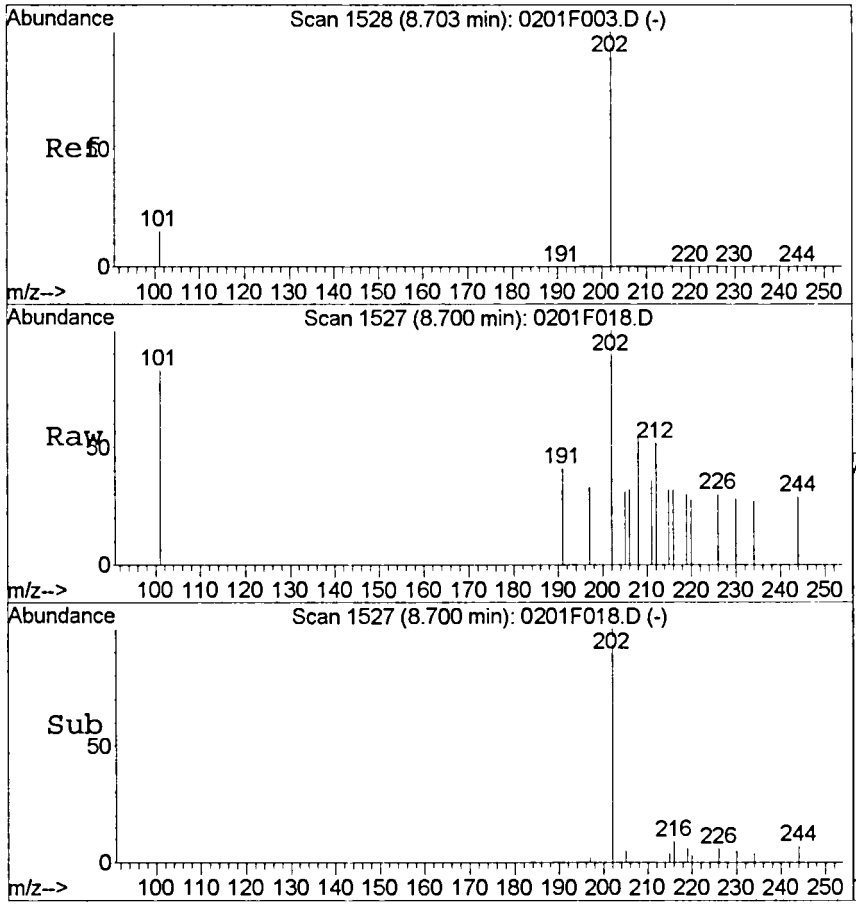


#20
Fluoranthene
Concen: 0.31 ng/ml
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F018.D
Acq: 1 Feb 2016 2:43 pm

Tgt Ion:202 Resp: 116

Ion	Ratio	Lower	Upper
202	100		
101	0.0	0.0	40.2

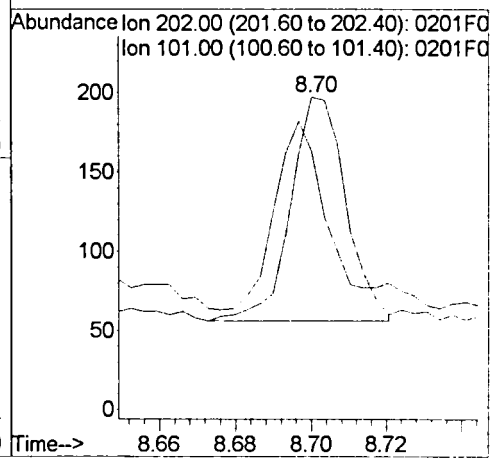


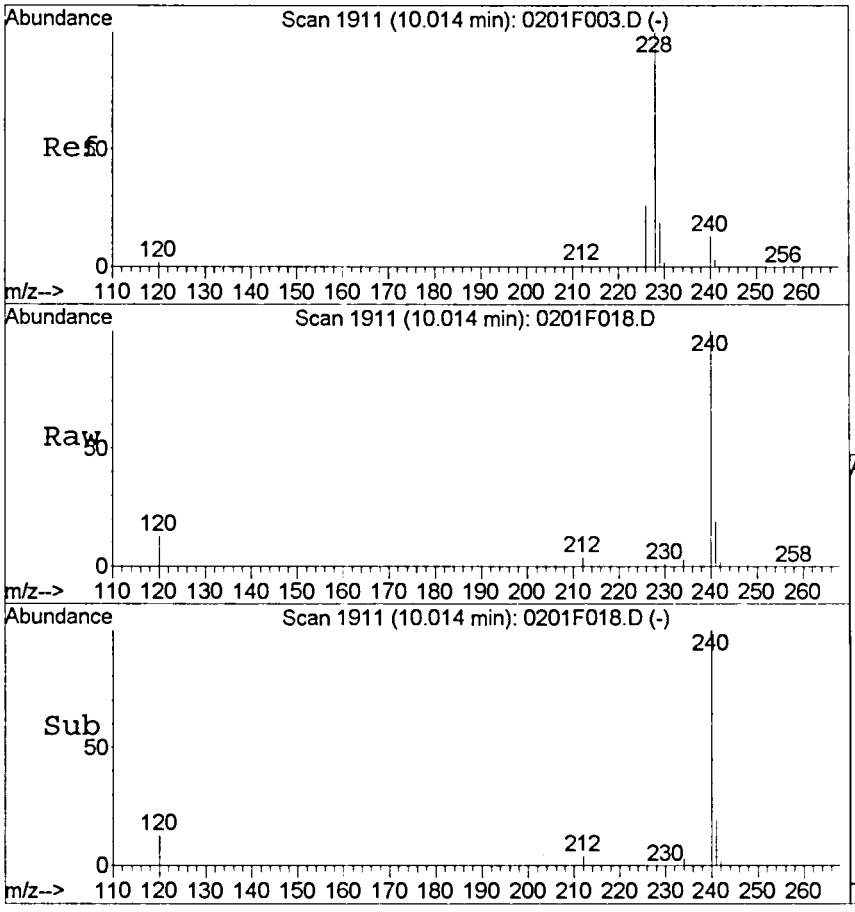


#23
Pyrene
Concen: 0.35 ng/ml m
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F018.D
Acq: 1 Feb 2016 2:43 pm

Tgt Ion:202 Resp: 143

Ion	Ratio	Lower	Upper
202	100		
101	82.7	0.0	42.9#

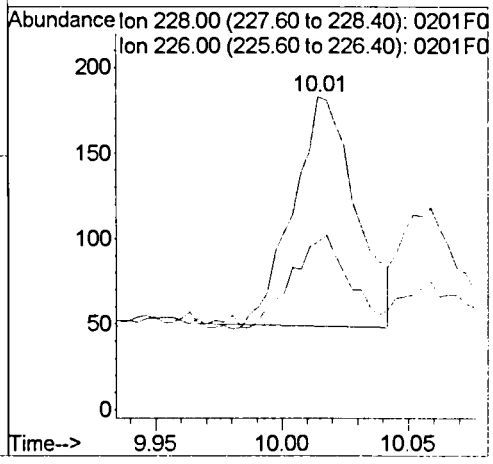


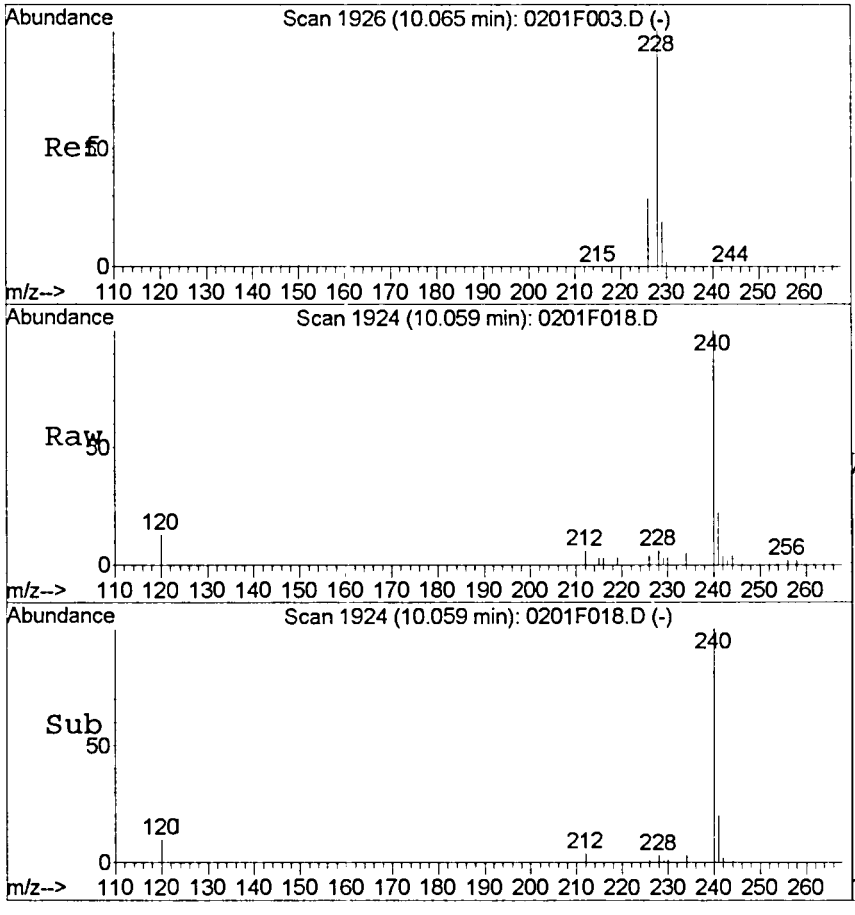


#25
Benz(a)anthracene
Concen: 0.61 ng/ml
RT: 10.01 min Scan# 1911
Delta R.T. -0.03 min
Lab File: 0201F018.D
Acq: 1 Feb 2016 2:43 pm

Tgt Ion:228 Resp: 233

Ion	Ratio	Lower	Upper
228	100		
226	37.6	0.0	55.9

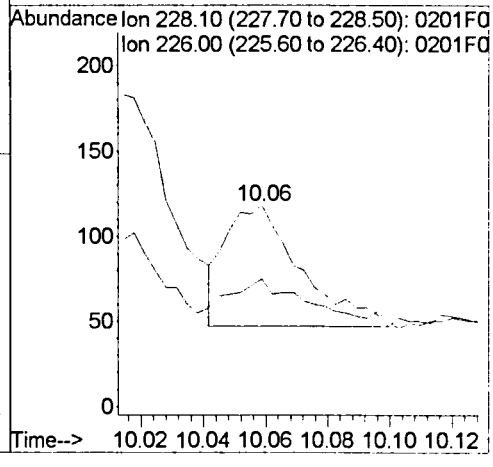




#26
Chrysene
Concen: 0.35 ng/ml
RT: 10.06 min Scan# 1924
Delta R.T. -0.03 min
Lab File: 0201F018.D
Acq: 1 Feb 2016 2:43 pm

Tgt Ion:228 Resp: 119

Ion	Ratio	Lower	Upper
228	100		
226	35.2	0.0	58.6



Exception Report

Data File: J:\MS14\DATA\020116\0201F019.D
Lab ID: K1600673-007
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 15:06
Date Quantitated: 02/02/2016 12:13
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:13
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F019.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 15:06	**Quant Date:**	02/02/2016 12:13	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495834	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.67	-0.02	136	59757	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30779	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	58698	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	63443	200.00	OK
5	Perylene-d12	13.04	-0.01	264	56578	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	6.71	0.00	0.00	176	62445	367.97	92	46-114	OK	
3	Fluoranthene-d10	8.49	-0.01	0.00	212	117842	392.26	98	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	91363	395.06	99	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	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene				178	0d		0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	82m	0.2100	0.010	U	
4	Pyrene	8.70		0.00	202	85	0.2100	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	220	0.5900	0.0030	J	
4	Chrysene	10.06	-0.01	0.00	228	50m	0.1500	0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F019.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 15:06	**Quant Date:**	02/02/2016 12:13	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-007			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F019.D Vial: 19
Acq On : 1 Feb 2016 3:06 pm Operator: LWeiskopf
Sample : K1600673-007 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:44 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

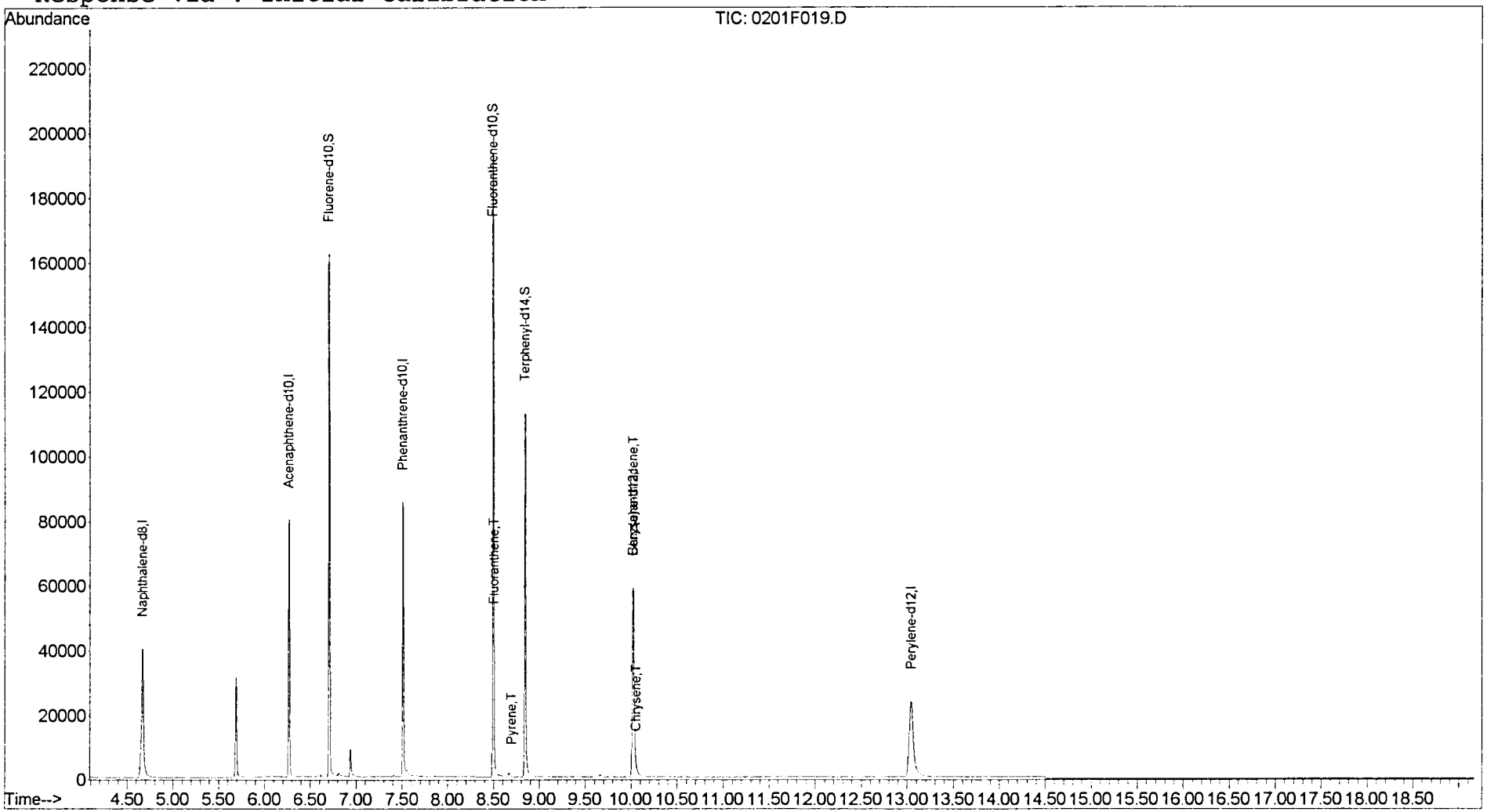
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	59757	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	30779	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	58698	200.00	ng/ml	-0.03
22) Chrysene-d12	10.02	240	63443	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	56578	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	62445	367.97	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 36.80%			
21) Fluoranthene-d10	8.49	212	117842	392.26	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.23%			
24) Terphenyl-d14	8.84	244	91363	395.06	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.51%			
Target Compounds						Qvalue
20) Fluoranthene	8.51	202	82m	0.21	ng/ml	
23) Pyrene	8.70	202	85	0.21	ng/ml#	1
25) Benz(a)anthracene	10.02	228	220	0.59	ng/ml	83
26) Chrysene	10.06	228	50m	0.15	ng/ml	

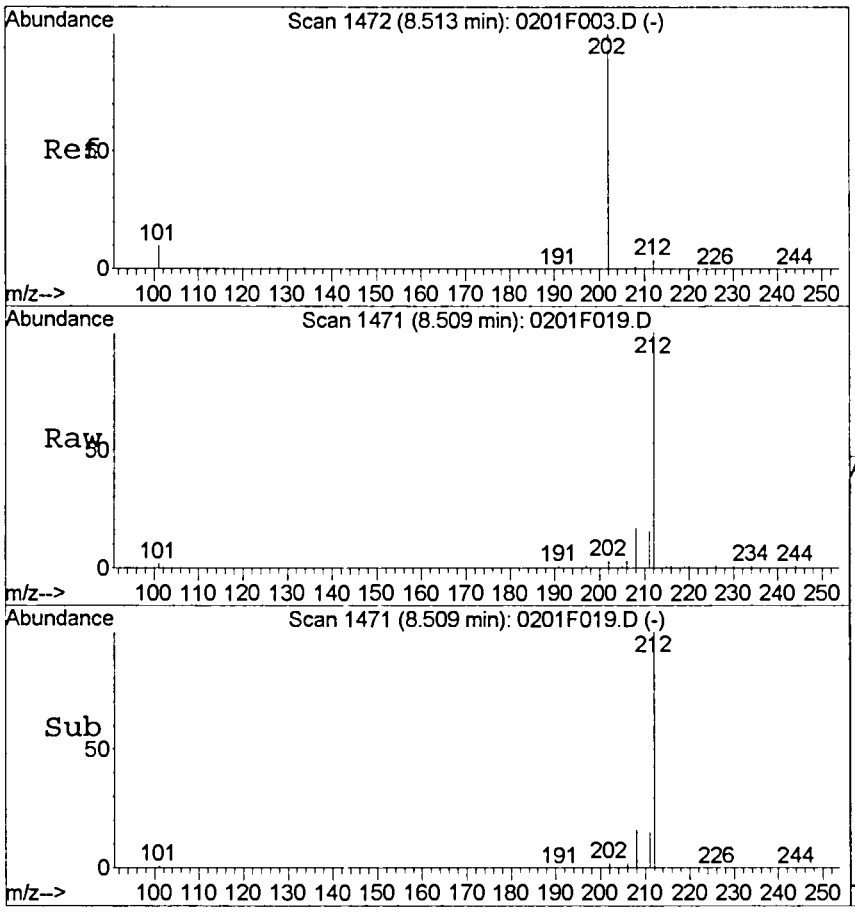
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F019.D Vial: 19
Acq On : 1 Feb 2016 3:06 pm Operator: LWeiskopf
Sample : K1600673-007 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:13 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

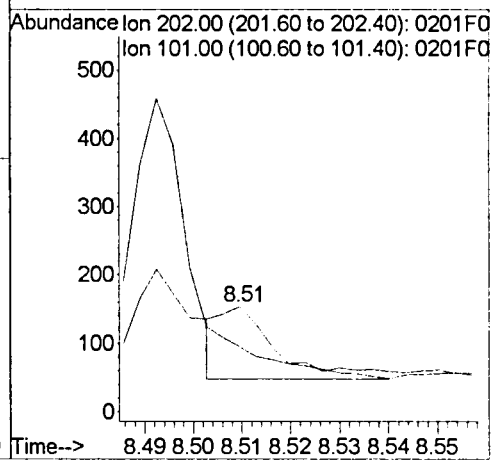


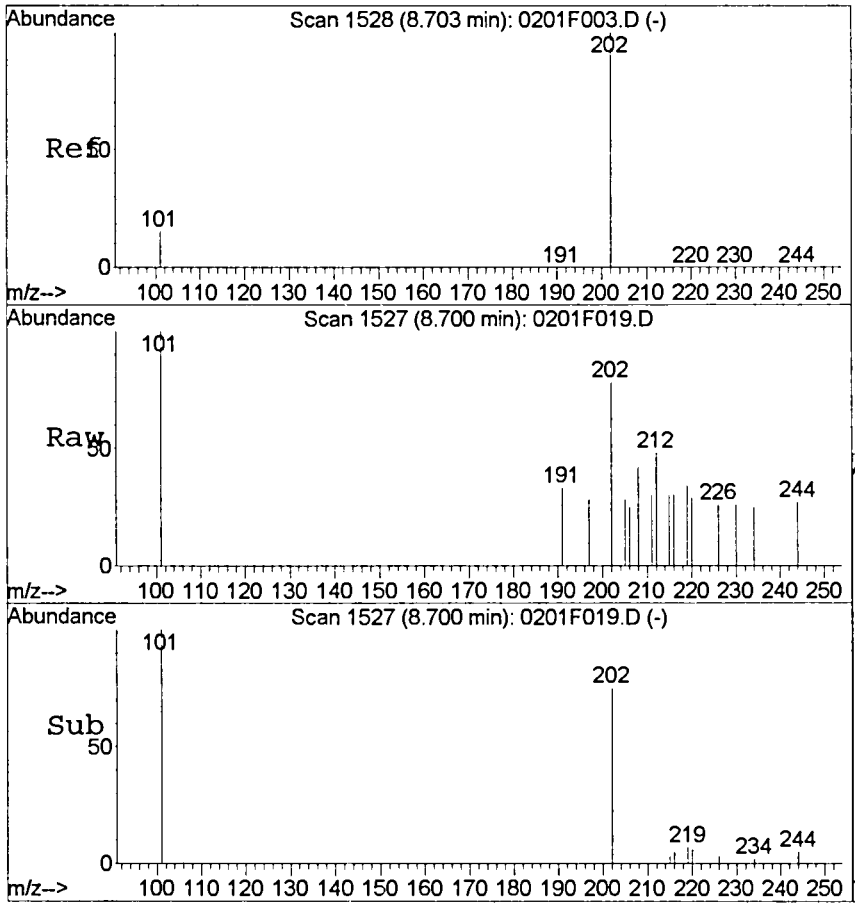


#20
Fluoranthene
Concen: 0.21 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F019.D
Acq: 1 Feb 2016 3:06 pm

Tgt Ion:202 Resp: 82

Ion	Ratio	Lower	Upper
202	100		
101	62.1	0.0	40.2#

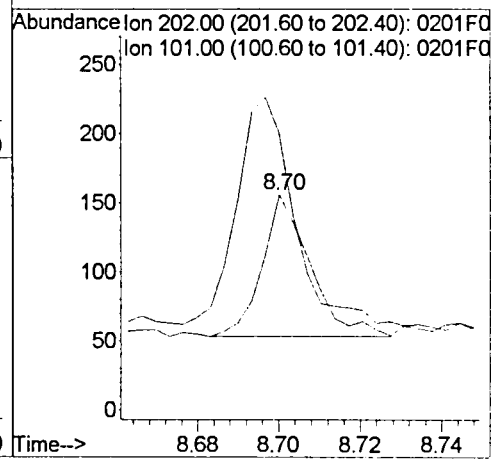


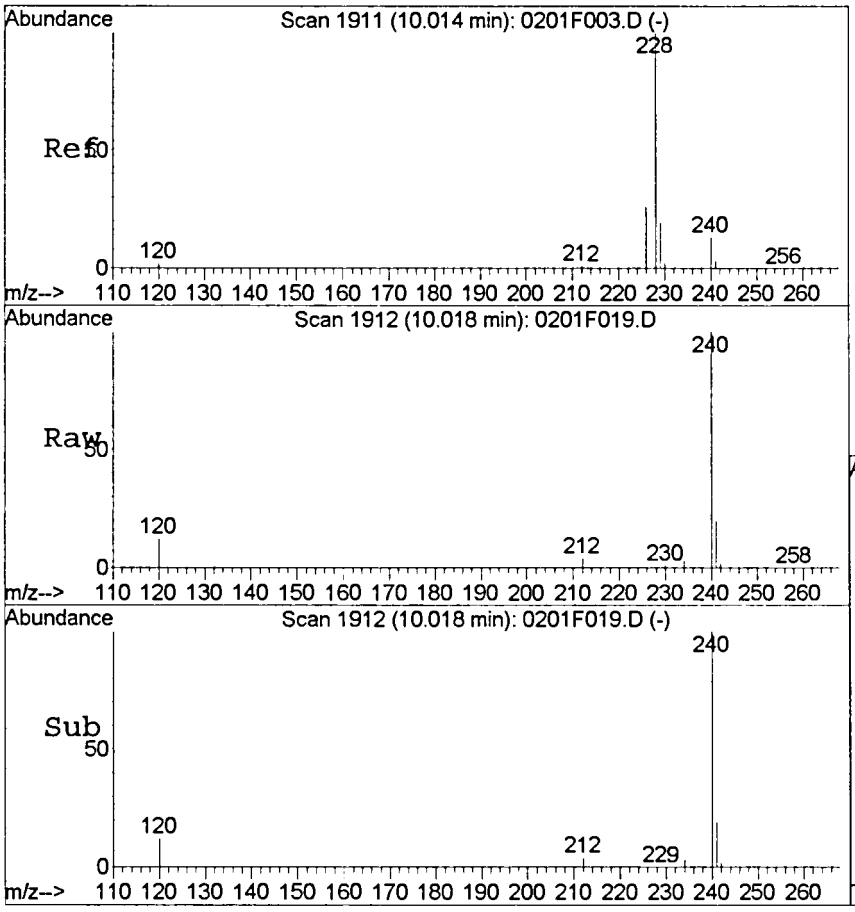


#23
Pyrene
Concen: 0.21 ng/ml
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F019.D
Acq: 1 Feb 2016 3:06 pm

Tgt Ion:202 Resp: 85

Ion	Ratio	Lower	Upper
202	100		
101	132.0	0.0	42.9#

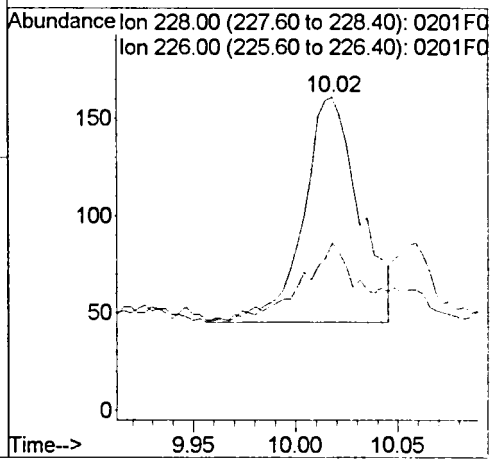


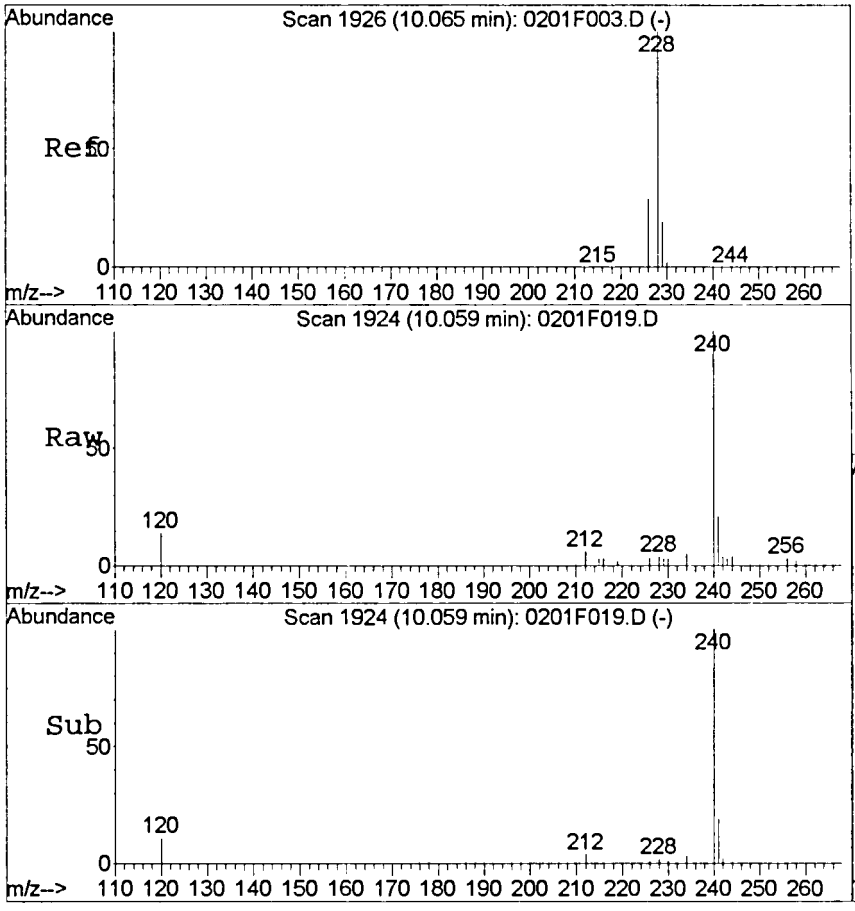


#25
Benz(a)anthracene
Concen: 0.59 ng/ml
RT: 10.02 min Scan# 1912
Delta R.T. -0.02 min
Lab File: 0201F019.D
Acq: 1 Feb 2016 3:06 pm

Tgt Ion:228 Resp: 220

Ion	Ratio	Lower	Upper
228	100		
226	34.5	0.0	55.9

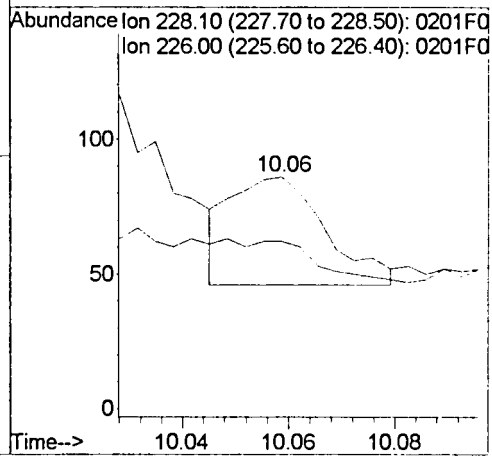




#26
Chrysene
Concen: 0.15 ng/ml m
RT: 10.06 min Scan# 1924
Delta R.T. -0.03 min
Lab File: 0201F019.D
Acq: 1 Feb 2016 3:06 pm

Tgt Ion:228 Resp: 50

Ion	Ratio	Lower	Upper
228	100		
226	72.1	0.0	58.6#



Exception Report

Data File: J:\MS14\DATA\020116\0201F020.D
Lab ID: K1600673-008
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 15:29
Date Quantitated: 02/02/2016 12:14
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:16
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F020.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 15:29	**Quant Date:**	02/02/2016 12:14	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495835	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	58578	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	29864	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	57076	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	63150	200.00	OK
5	Perylene-d12	13.04	-0.01	264	56544	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	6.71	0.00	0.00	176	64488	391.65	98	46-114	OK	
3	Fluoranthene-d10	8.49	-0.01	0.00	212	123806	423.83	106	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	95298	413.99	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	4.68	-0.01	0.00	128	154m	0.5200	0.0038	U	
1	2-Methylnaphthalene	5.35		0.00	142	125	0.6200	0.0031	J	
1	1-Methylnaphthalene	5.44		0.00	142	67	0.3800	0.0035	U	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.53		0.00	178	124	0.3700	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	80	0.2100	0.010	U	
4	Pyrene	8.70		0.00	202	115m	0.2900	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	202	0.5500	0.0028	J	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0d		0.0041	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\020116\0201F020.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 15:29	**Quant Date:**	02/02/2016 12:14	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-008			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F020.D Vial: 20
Acq On : 1 Feb 2016 3:29 pm Operator: LWeiskopf
Sample : K1600673-008 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:44 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

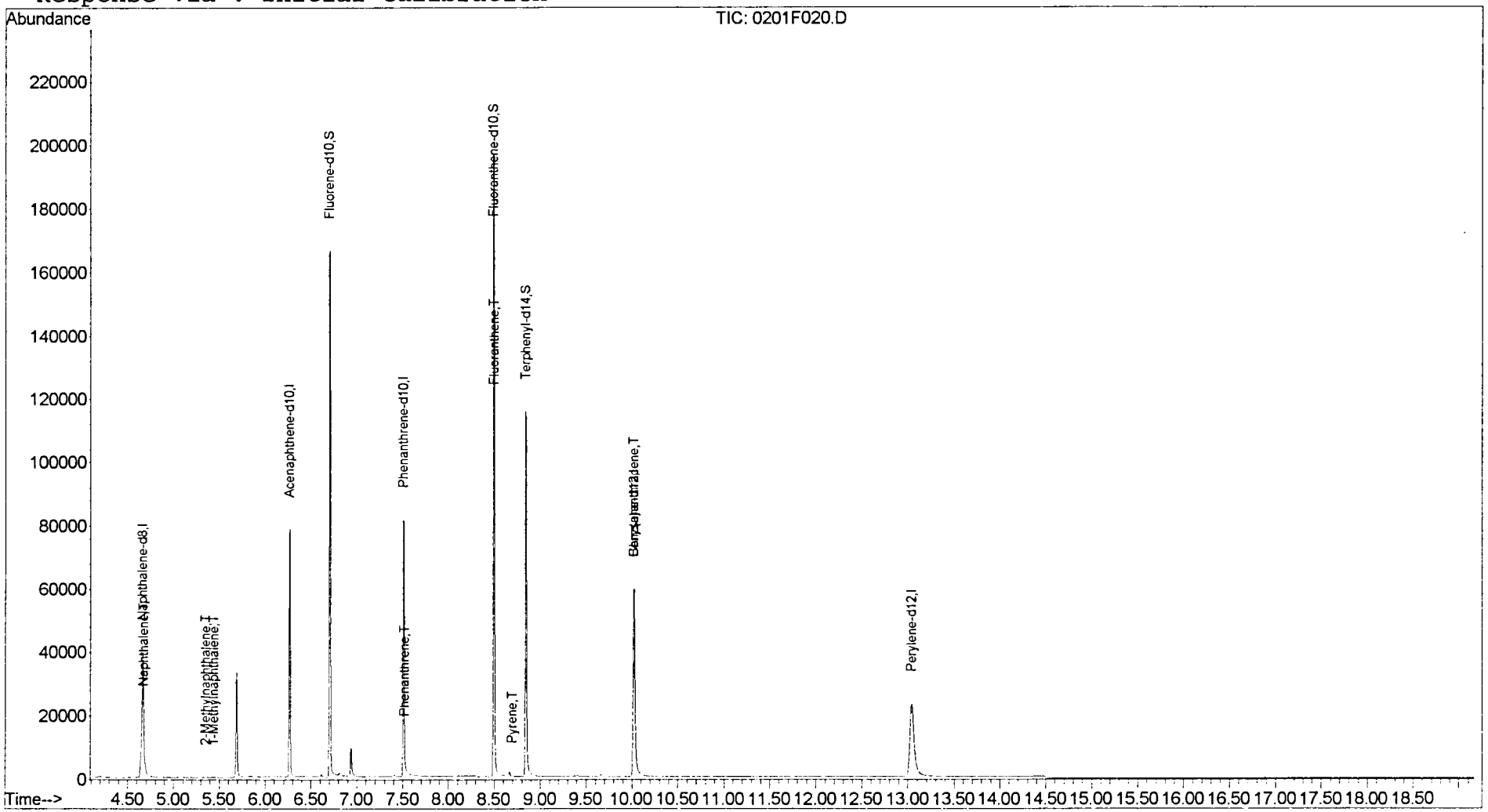
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	58578	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	29864	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	57076	200.00	ng/ml	-0.03
22) Chrysene-d12	10.02	240	63150	200.00	ng/ml	-0.03
27) Perylene-d12	13.04	264	56544	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	64488	391.65	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.16%			
21) Fluoranthene-d10	8.49	212	123806	423.83	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.38%			
24) Terphenyl-d14	8.84	244	95298	413.99	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 41.40%			
Target Compounds						Qvalue
2) Naphthalene	4.68	128	154m	0.52	ng/ml	
3) 2-Methylnaphthalene	5.35	142	125	0.62	ng/ml	87
4) 1-Methylnaphthalene	5.44	142	67	0.38	ng/ml	98
16) Phenanthrene	7.53	178	124	0.37	ng/ml	88
20) Fluoranthene	8.51	202	80	0.21	ng/ml	30
23) Pyrene	8.70	202	115m	0.29	ng/ml	
25) Benz(a)anthracene	10.02	228	202	0.55	ng/ml	84

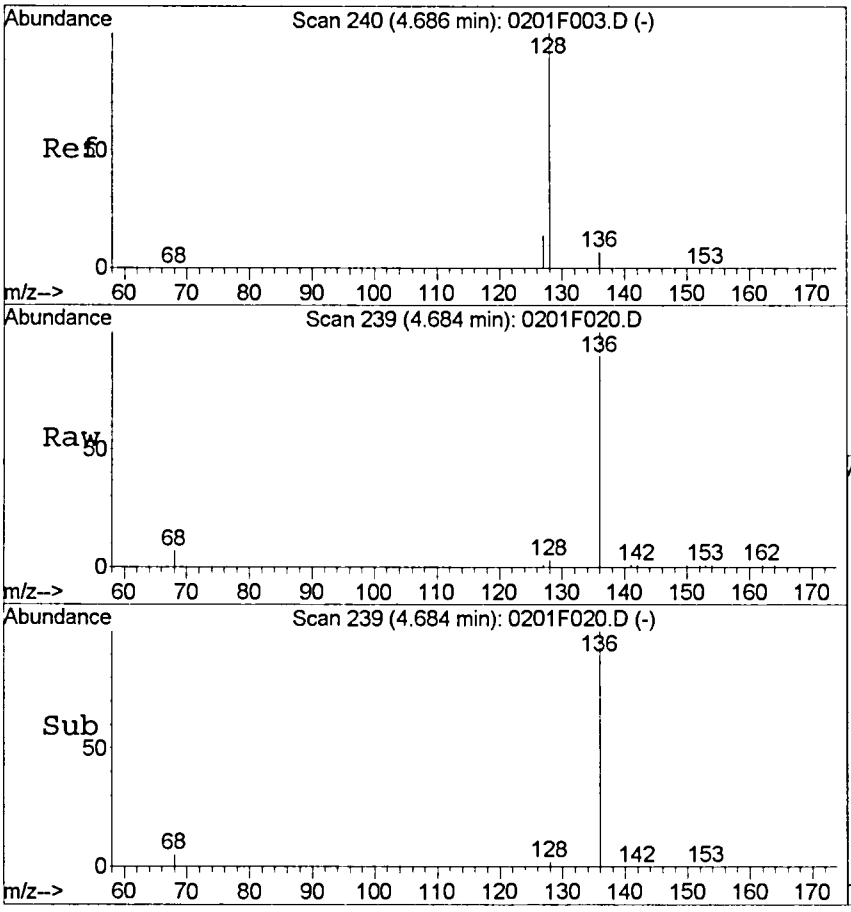
(#) = qualifier out of range (m) = manual integration
0201F020.D 011116SIMPAH.M Tue Feb 02 12:15:07 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F020.D Vial: 20
Acq On : 1 Feb 2016 3:29 pm Operator: LWeiskopf
Sample : K1600673-008 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:14 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

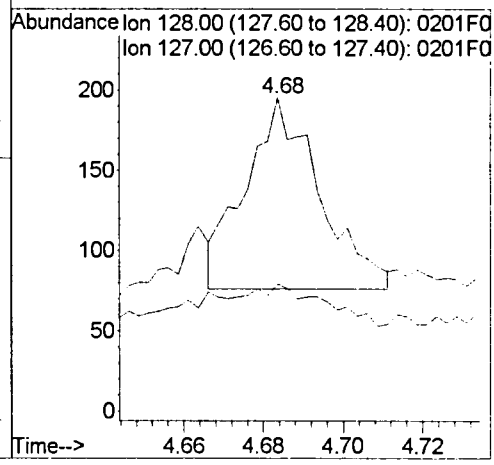


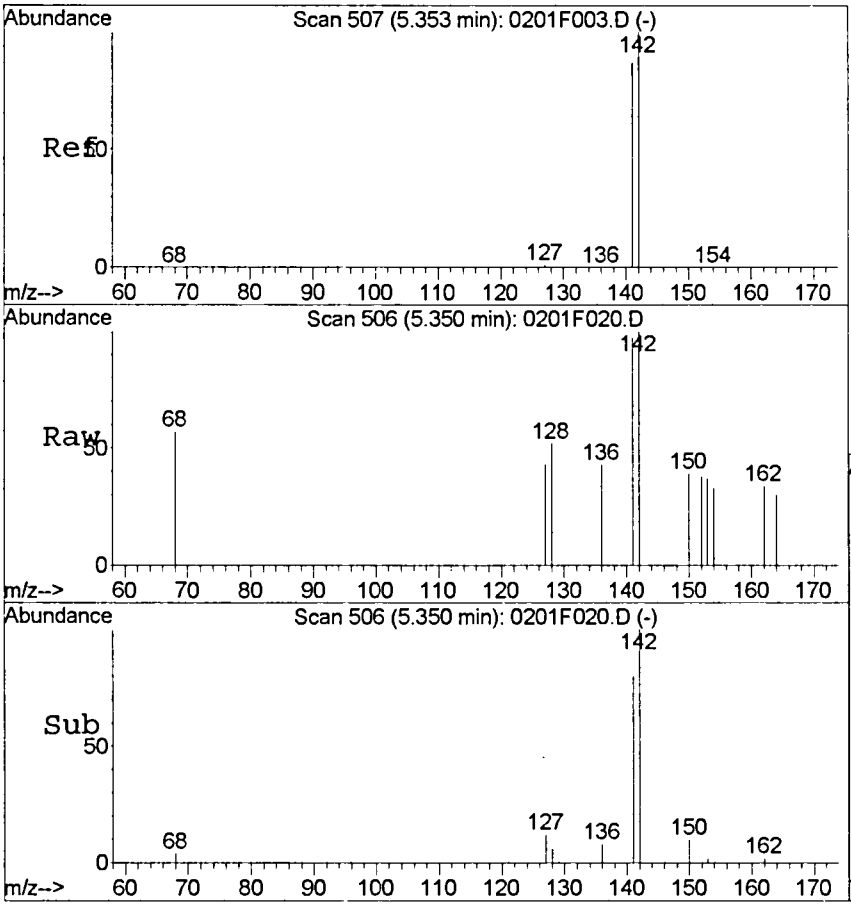


#2
Naphthalene
Concen: 0.52 ng/ml m
RT: 4.68 min Scan# 239
Delta R.T. -0.04 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:128 Resp: 154

Ion	Ratio	Lower	Upper
128	100		
127	40.5	0.0	43.8

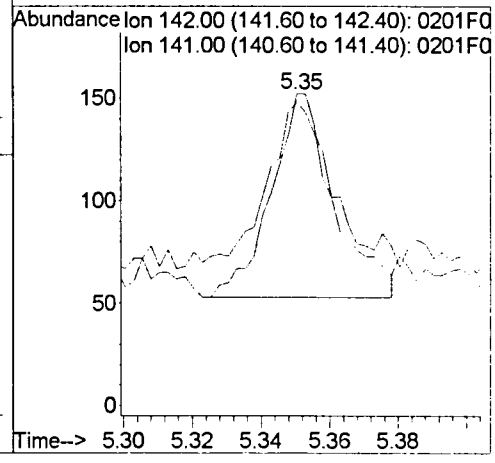


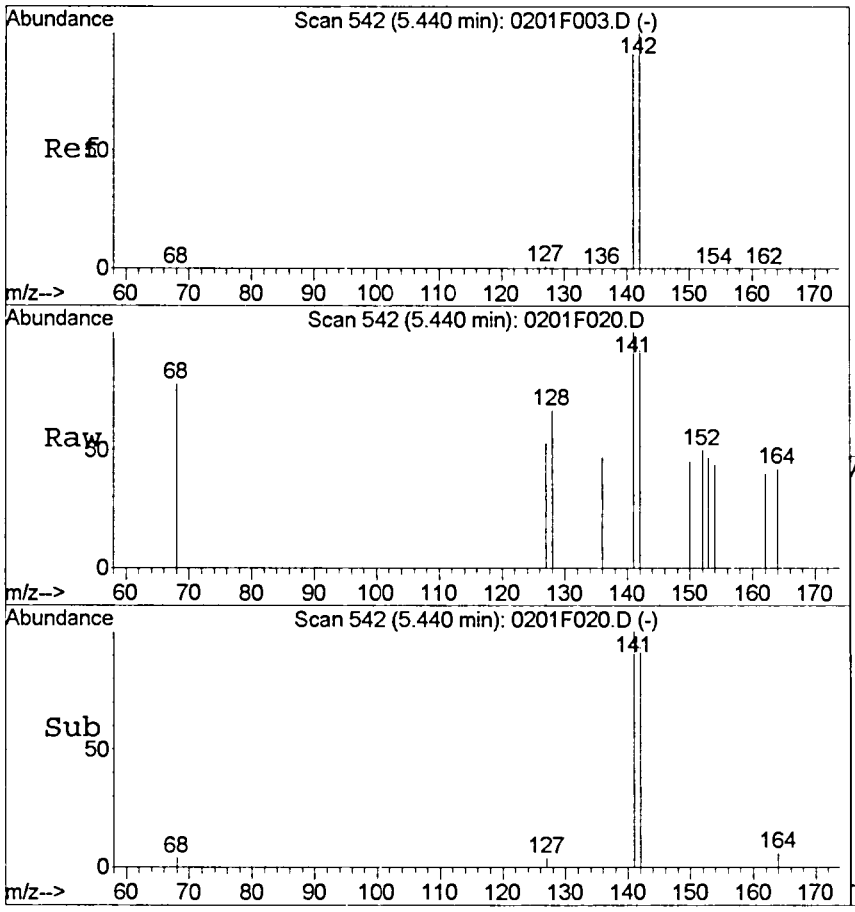


#3
2-Methylnaphthalene
Concen: 0.62 ng/ml
RT: 5.35 min Scan# 506
Delta R.T. -0.03 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:142 Resp: 125

Ion	Ratio	Lower	Upper
142	100		
141	75.8	57.6	117.6

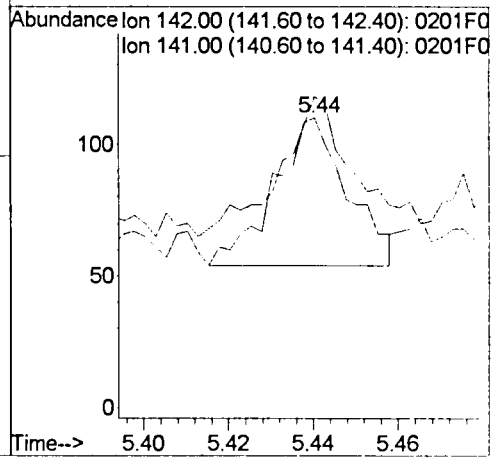


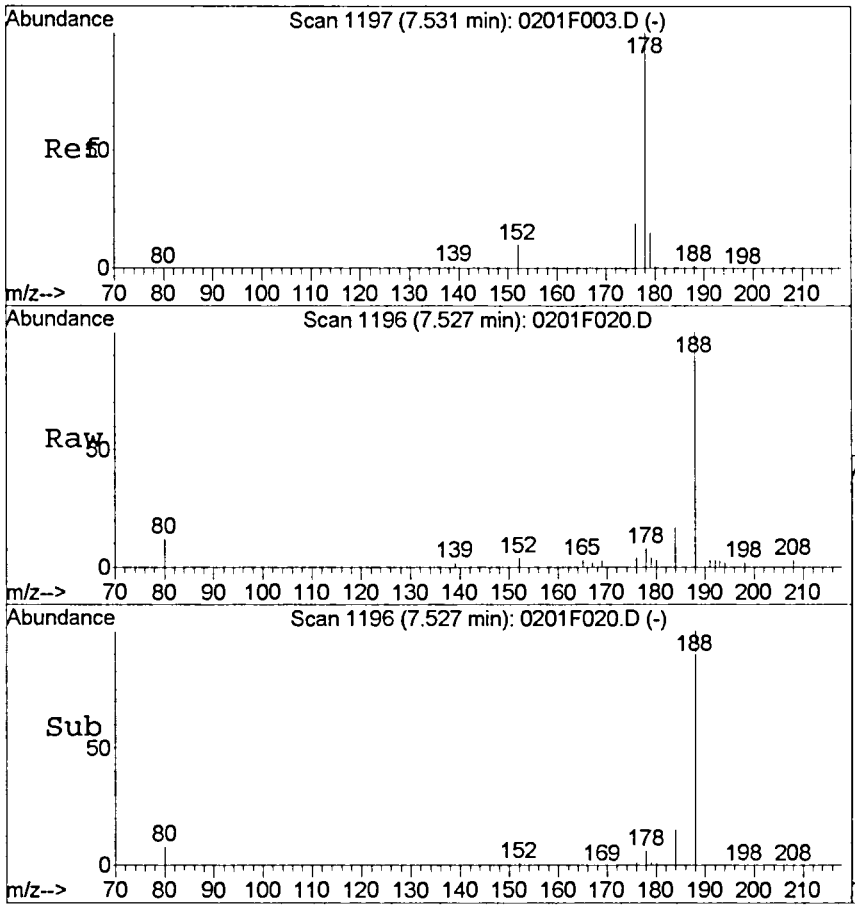


#4
1-Methylnaphthalene
Concen: 0.38 ng/ml
RT: 5.44 min Scan# 542
Delta R.T. -0.03 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:142 Resp: 67

Ion	Ratio	Lower	Upper
142	100		
141	89.3	60.8	120.8

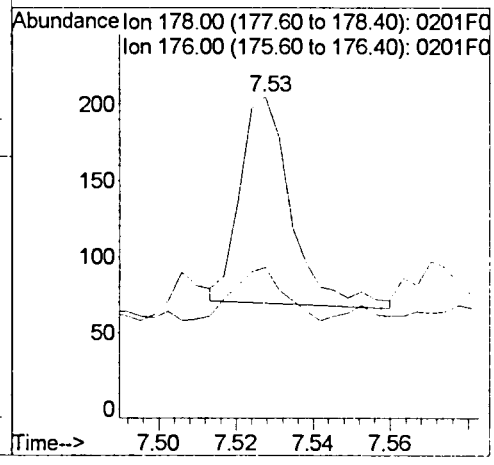


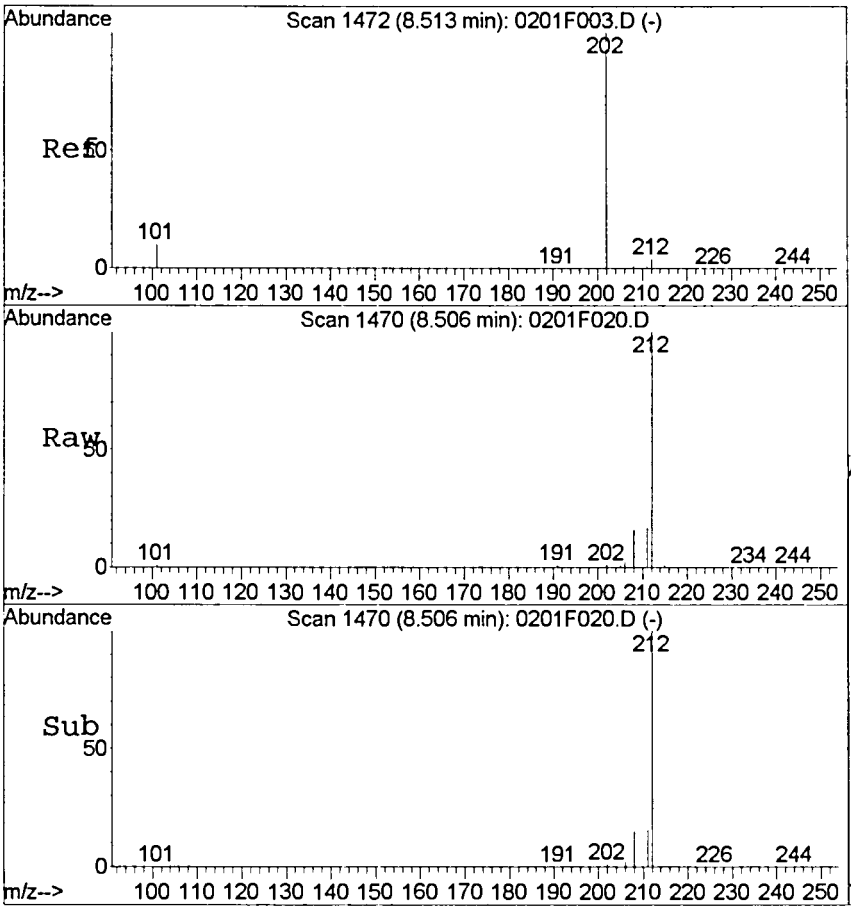


#16
Phenanthrene
Concen: 0.37 ng/ml
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:178 Resp: 124

Ion	Ratio	Lower	Upper
178	100		
176	23.9	0.0	48.5

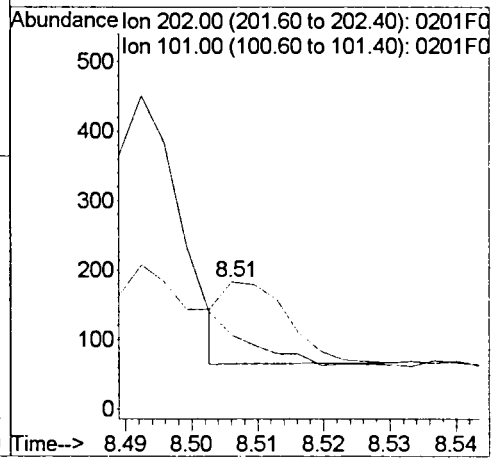


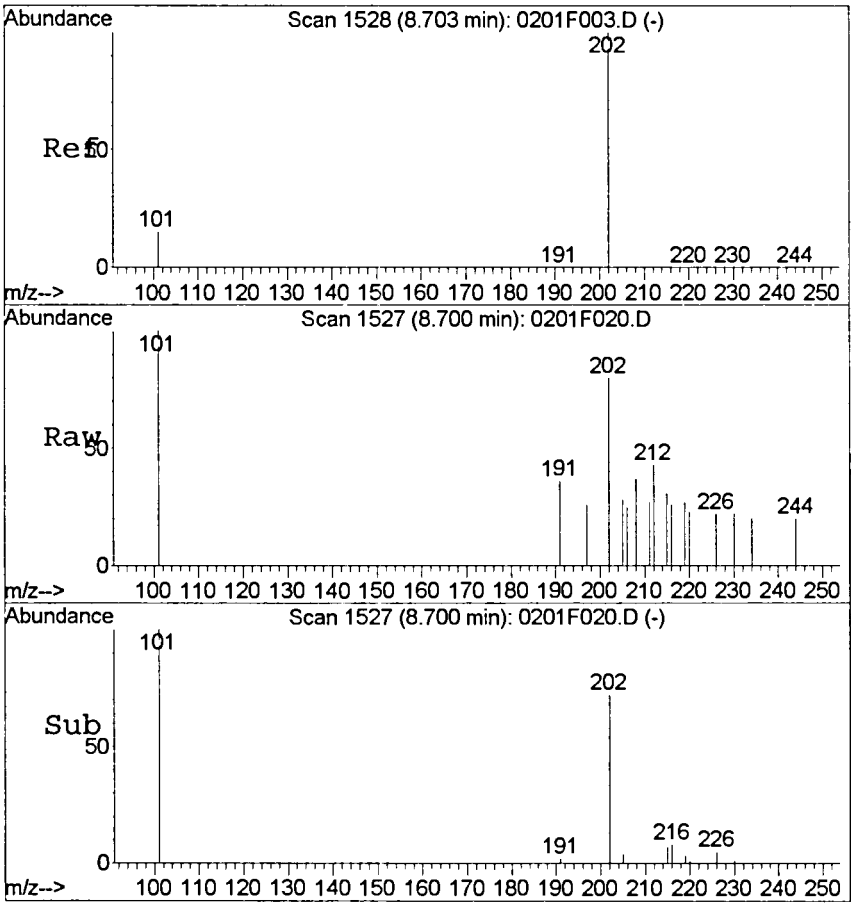


#20
Fluoranthene
Concen: 0.21 ng/ml
RT: 8.51 min Scan# 1470
Delta R.T. -0.03 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:202 Resp: 80

Ion	Ratio	Lower	Upper
202	100		
101	36.2	0.0	40.2

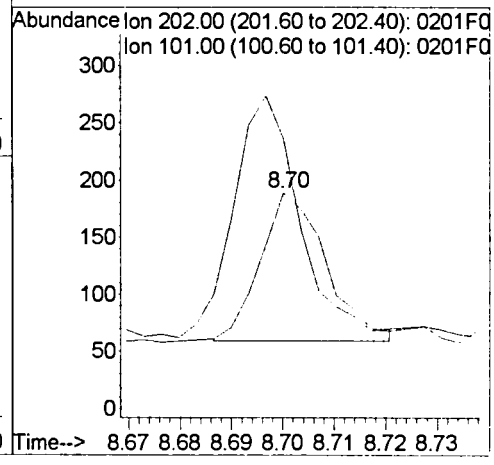


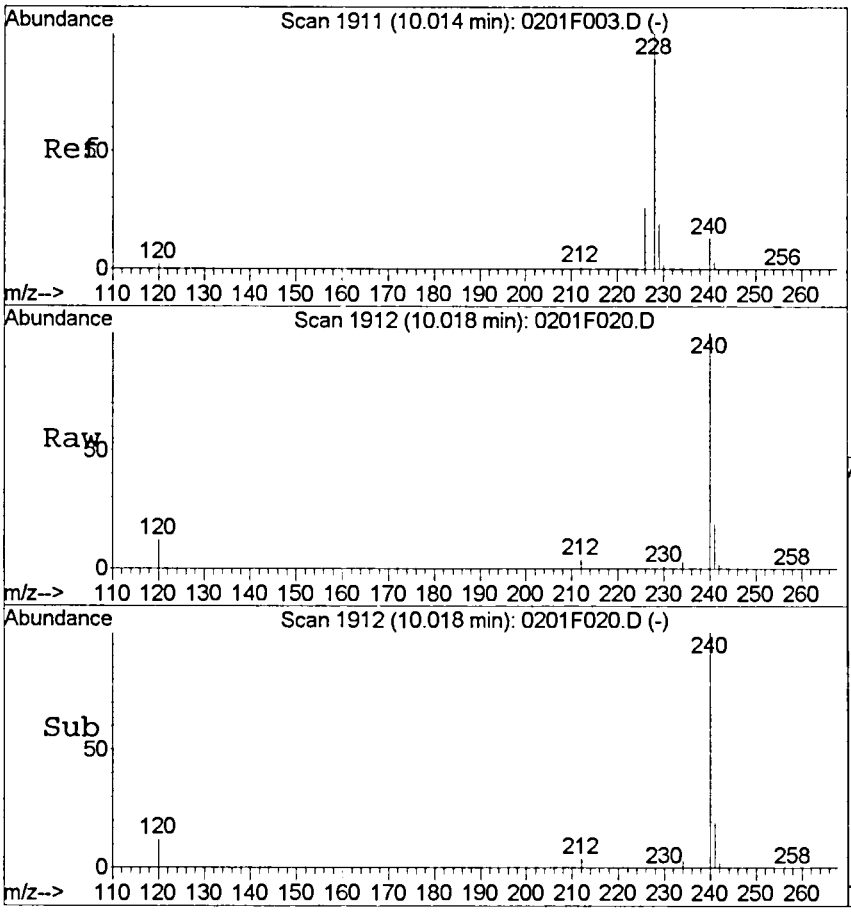


#23
Pyrene
Concen: 0.29 ng/ml m
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:202 Resp: 115

Ion	Ratio	Lower	Upper
202	100		
101	124.9	0.0	42.9#

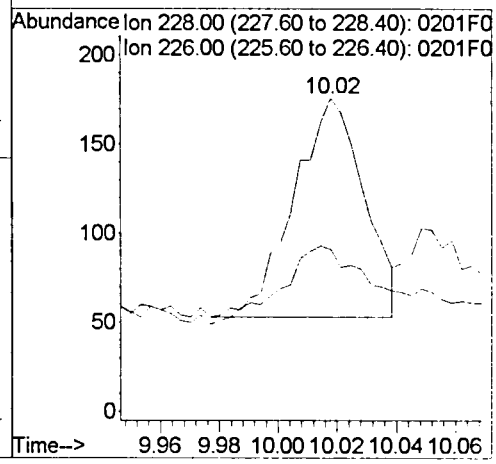




#25
Benz(a)anthracene
Concen: 0.55 ng/ml
RT: 10.02 min Scan# 1912
Delta R.T. -0.02 min
Lab File: 0201F020.D
Acq: 1 Feb 2016 3:29 pm

Tgt Ion:228 Resp: 202

Ion	Ratio	Lower	Upper
228	100		
226	34.1	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F021.D
Lab ID: K1600673-009
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 15:52
Date Quantitated: 02/02/2016 12:18
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:19
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F021.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 15:52	**Quant Date:**	02/02/2016 12:18	**Vial:**	21
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495836	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	58114	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	29839	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	53996	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	64465	200.00	OK
5	Perylene-d12	13.04	-0.01	264	57298	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	6.70	-0.01	0.00	176	62572	380.34	95	46-114	OK	
3	Fluoranthene-d10	8.49	-0.01	0.00	212	121065	438.09	110	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	94418	401.80	100	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	4.68	-0.01	0.00	128	267	0.9100	0.0046	J	
1	2-Methylnaphthalene	5.35		0.00	142	156m	0.7800	0.0039	J	
1	1-Methylnaphthalene	5.44		0.00	142	91	0.5200	0.0035	U	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.53		0.00	178	137m	0.4300	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	76m	0.2100	0.010	U	
4	Pyrene	8.70		0.00	202	151	0.3800	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	212	0.5600	0.0028	J	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F021.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 15:52	**Quant Date:**	02/02/2016 12:18	**Vial:**	21
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-009			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F021.D Vial: 21
Acq On : 1 Feb 2016 3:52 pm Operator: LWeiskopf
Sample : K1600673-009 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:44 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

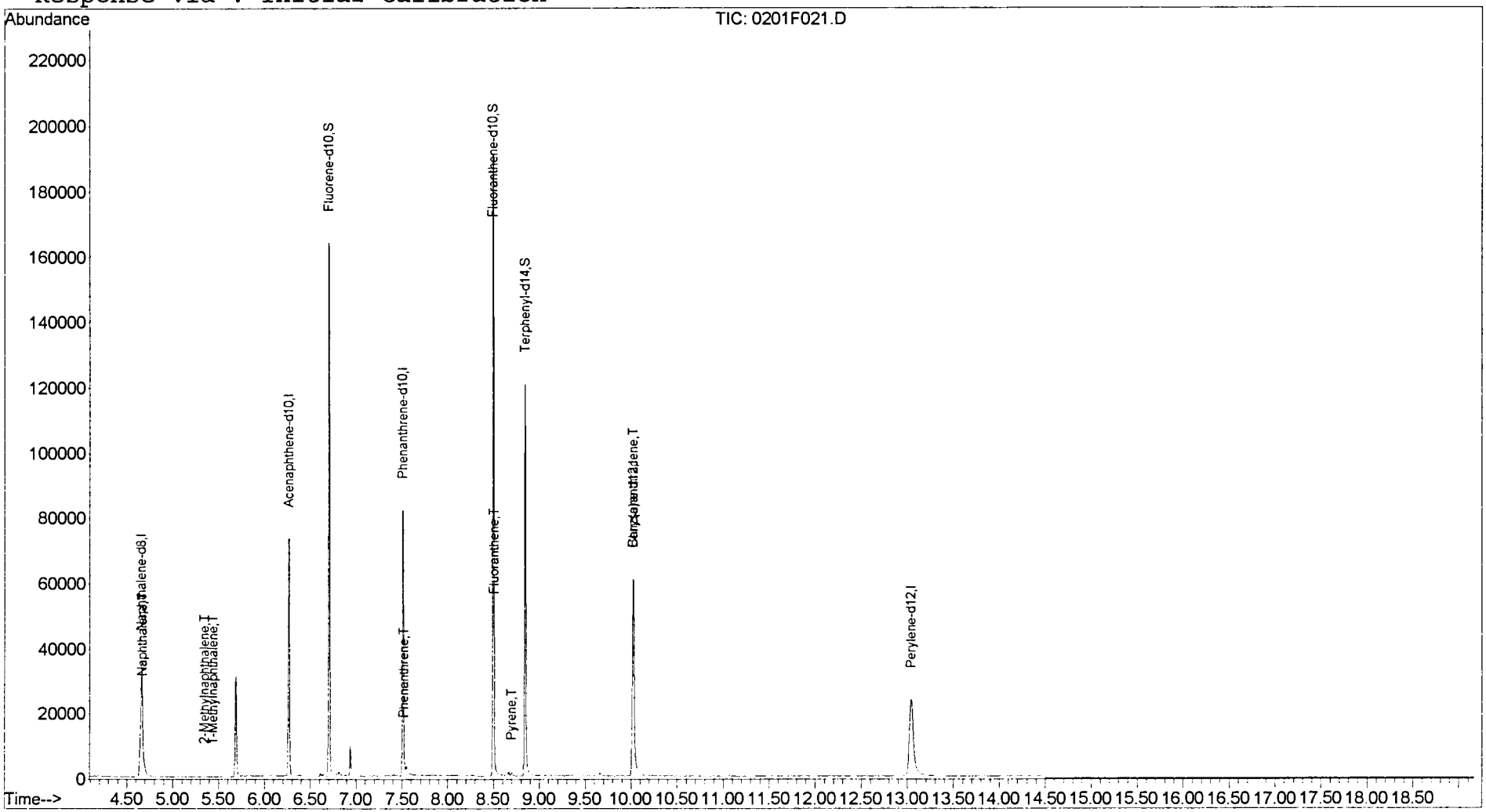
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	58114	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	29839	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	53996	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	64465	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	57298	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.70	176	62572	380.34	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 38.03%			
21) Fluoranthene-d10	8.49	212	121065	438.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 43.81%			
24) Terphenyl-d14	8.84	244	94418	401.80	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 40.18%			
Target Compounds						Qvalue
2) Naphthalene	4.68	128	267	0.91	ng/ml	99
3) 2-Methylnaphthalene	5.35	142	156m	0.78	ng/ml	
4) 1-Methylnaphthalene	5.44	142	91	0.52	ng/ml	90
16) Phenanthrene	7.53	178	137m	0.43	ng/ml	
20) Fluoranthene	8.51	202	76m	0.21	ng/ml	
23) Pyrene	8.70	202	151	0.38	ng/ml#	1
25) Benz(a)anthracene	10.02	228	212	0.56	ng/ml	97

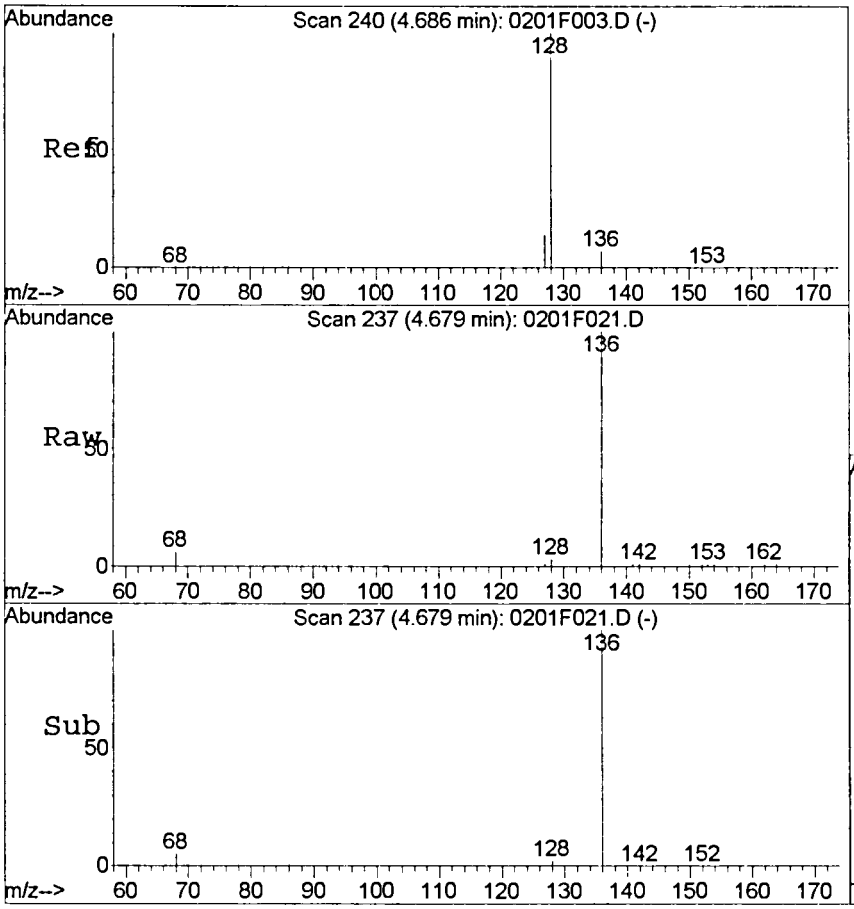
(#) = qualifier out of range (m) = manual integration
0201F021.D 011116SIMPAH.M Tue Feb 02 12:23:09 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F021.D Vial: 21
Acq On : 1 Feb 2016 3:52 pm Operator: LWeiskopf
Sample : K1600673-009 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:18 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

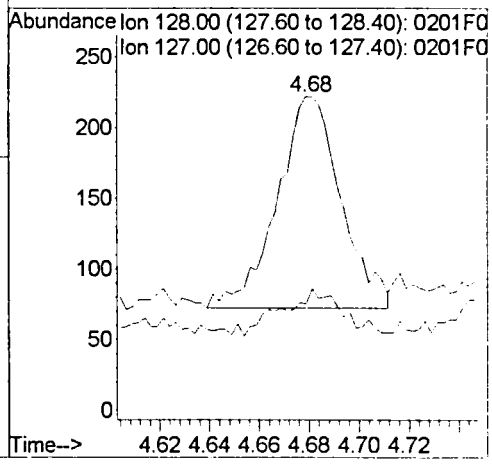


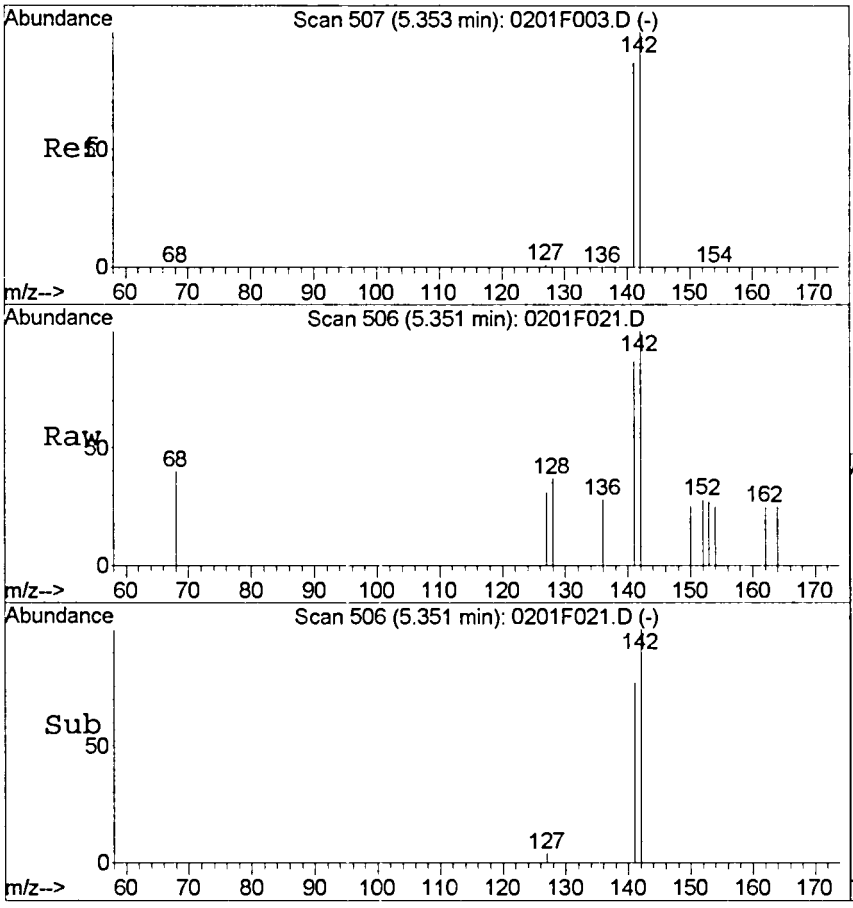


#2
Naphthalene
Concen: 0.91 ng/ml
RT: 4.68 min Scan# 237
Delta R.T. -0.04 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:128 Resp: 267

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	43.8

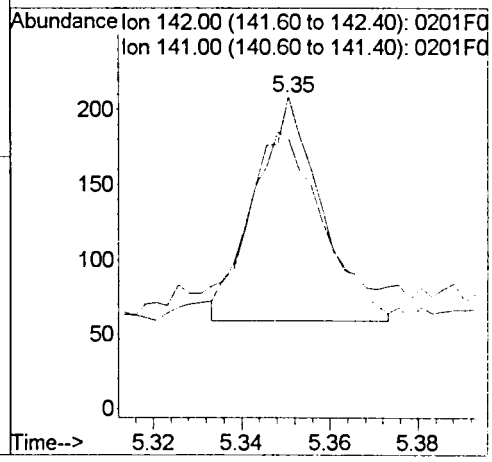


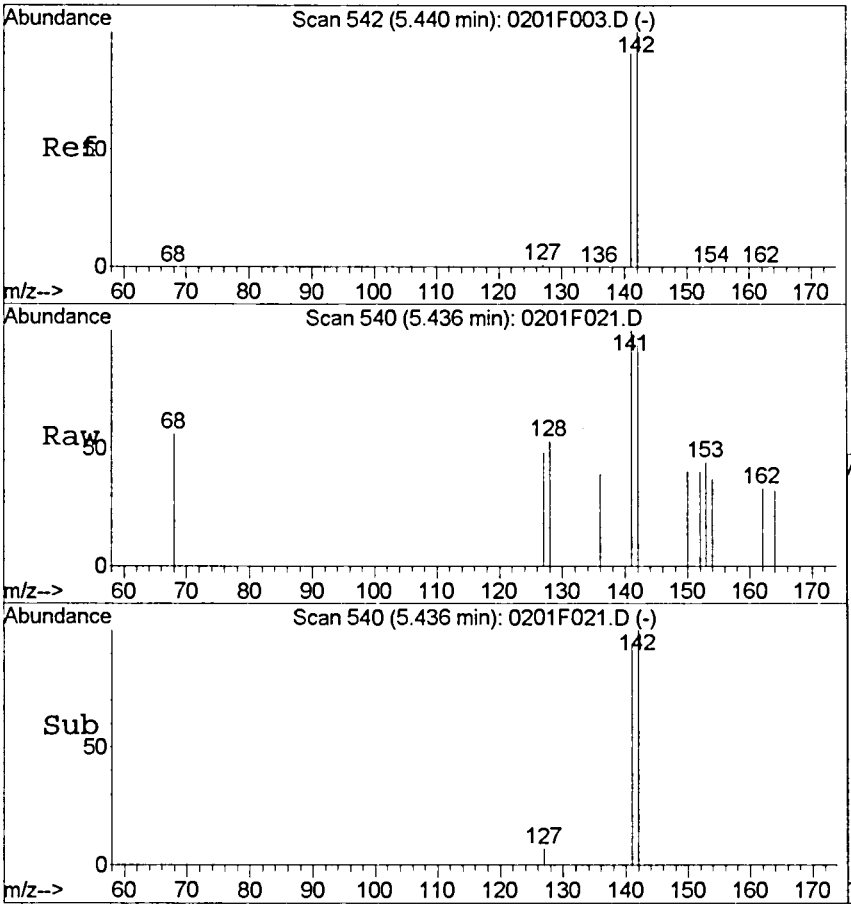


#3
2-Methylnaphthalene
Concen: 0.78 ng/ml m
RT: 5.35 min Scan# 506
Delta R.T. -0.03 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:142 Resp: 156

Ion	Ratio	Lower	Upper
142	100		
141	86.5	57.6	117.6

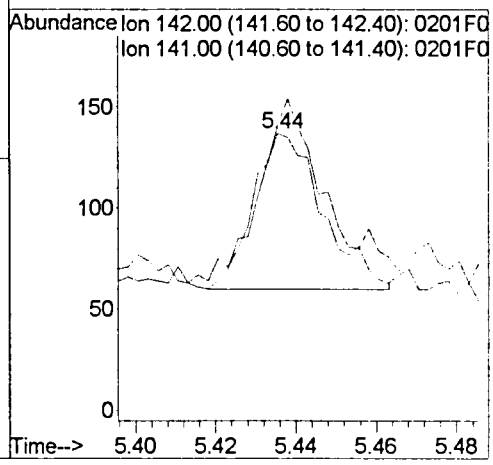


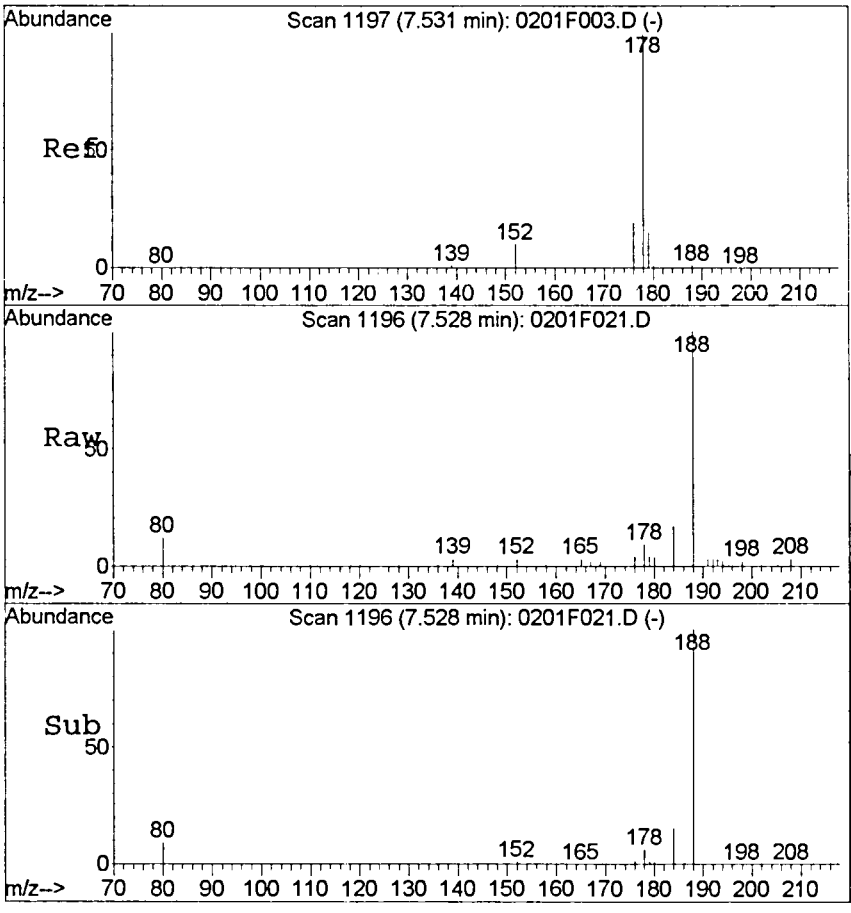


#4
1-Methylnaphthalene
Concen: 0.52 ng/ml
RT: 5.44 min Scan# 540
Delta R.T. -0.03 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:142 Resp: 91

Ion	Ratio	Lower	Upper
142	100		
141	100.0	60.8	120.8

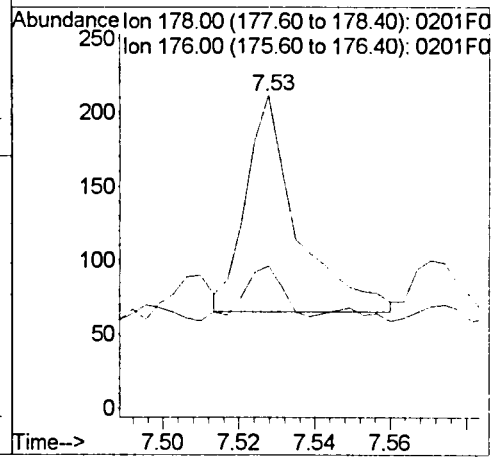


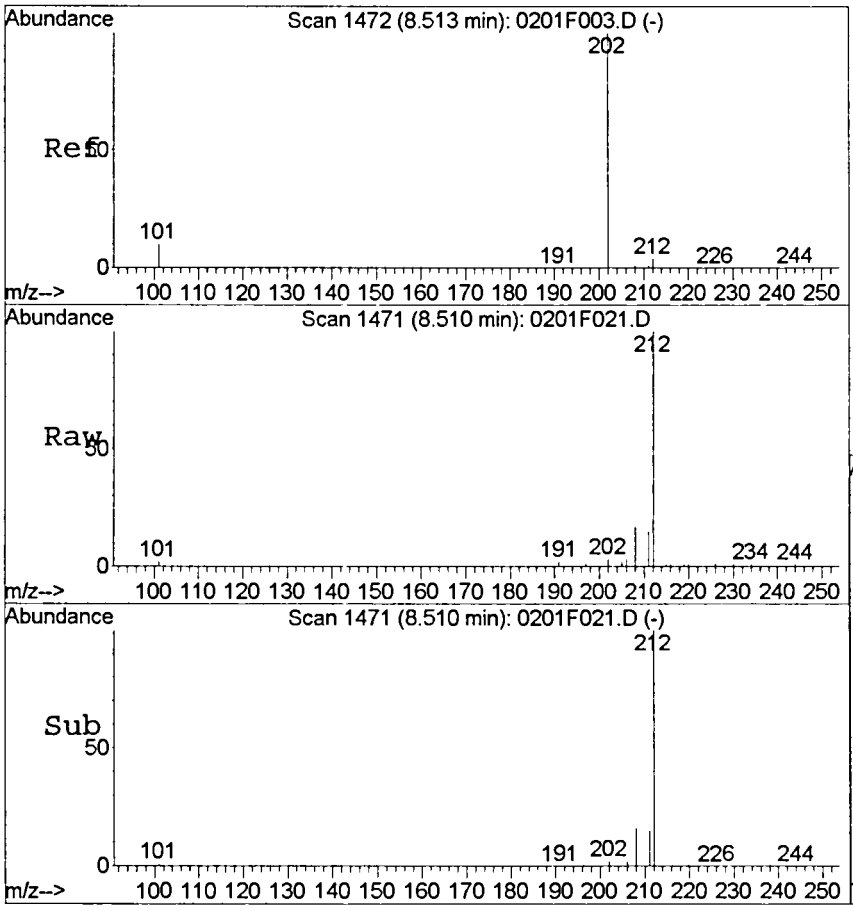


#16
Phenanthrene
Concen: 0.43 ng/ml m
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:178 Resp: 137

Ion	Ratio	Lower	Upper
178	100		
176	45.5	0.0	48.5

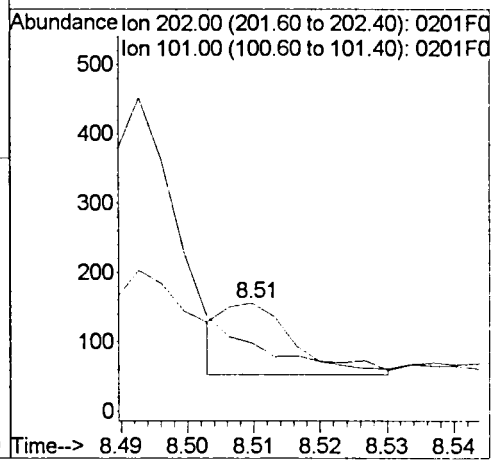


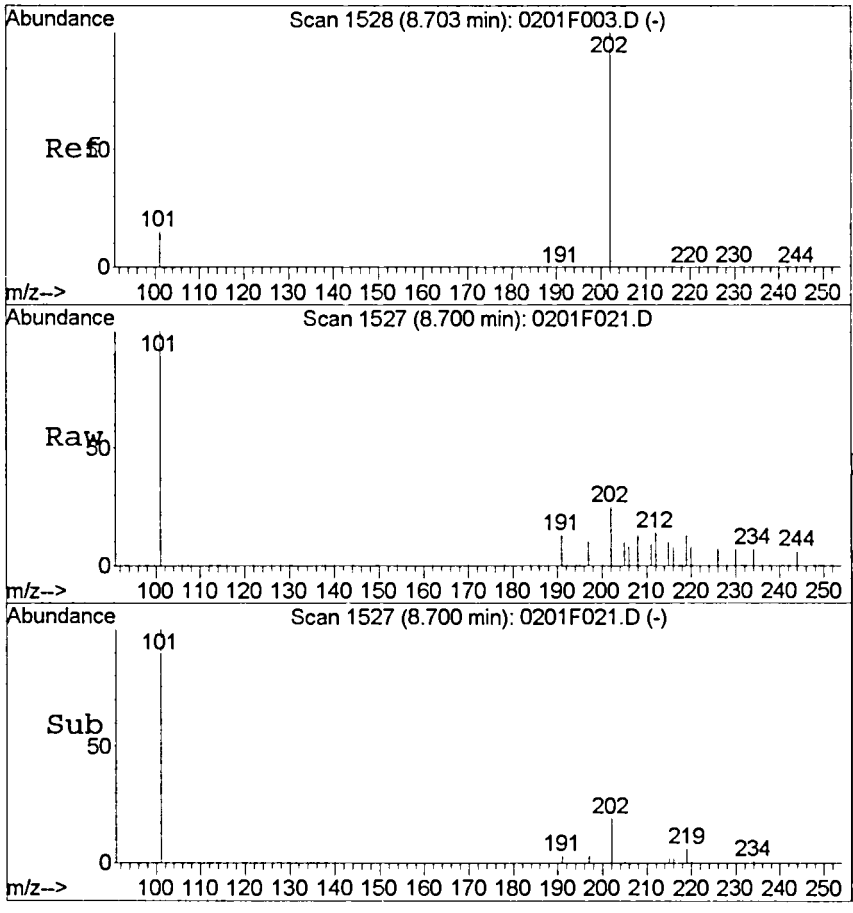


#20
Fluoranthene
Concen: 0.21 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:202 Resp: 76

Ion	Ratio	Lower	Upper
202	100		
101	62.8	0.0	40.2#

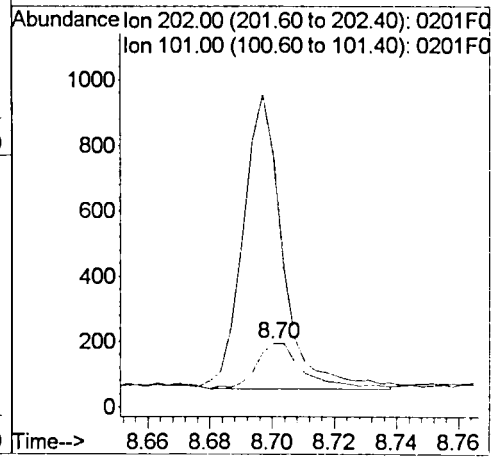


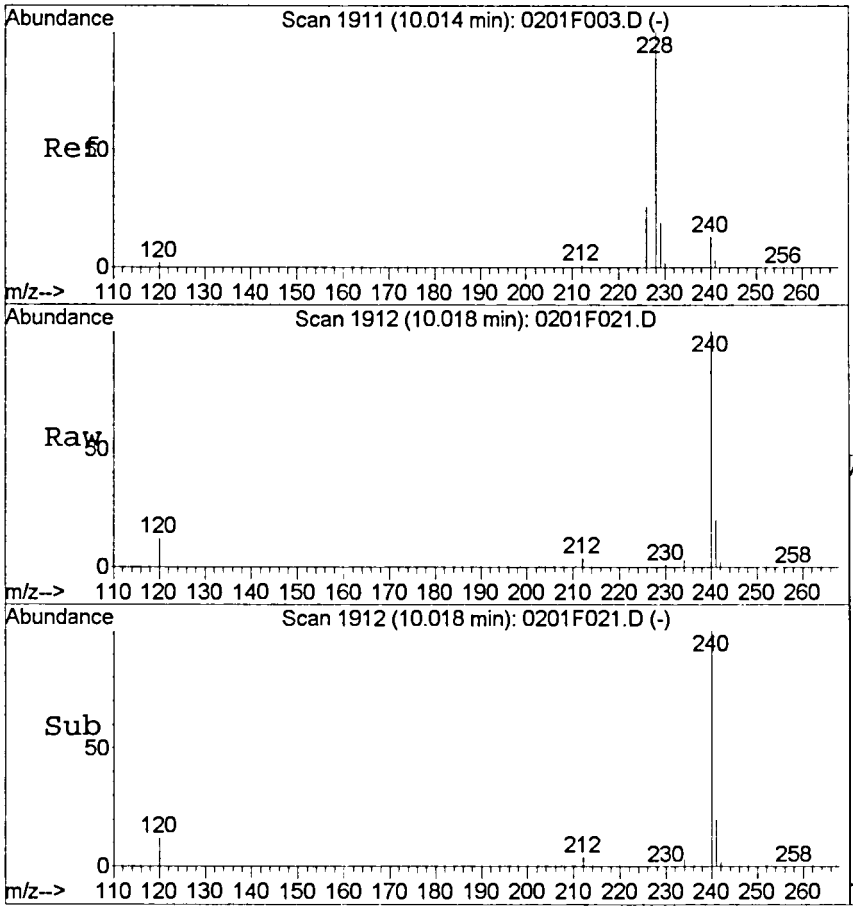


#23
Pyrene
Concen: 0.38 ng/ml
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:202 Resp: 151

Ion	Ratio	Lower	Upper
202	100		
101	499.3	0.0	42.9#

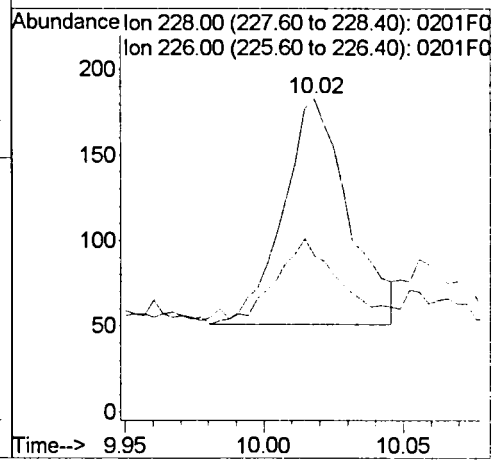




#25
Benz(a)anthracene
Concen: 0.56 ng/ml
RT: 10.02 min Scan# 1912
Delta R.T. -0.02 min
Lab File: 0201F021.D
Acq: 1 Feb 2016 3:52 pm

Tgt Ion:228 Resp: 212

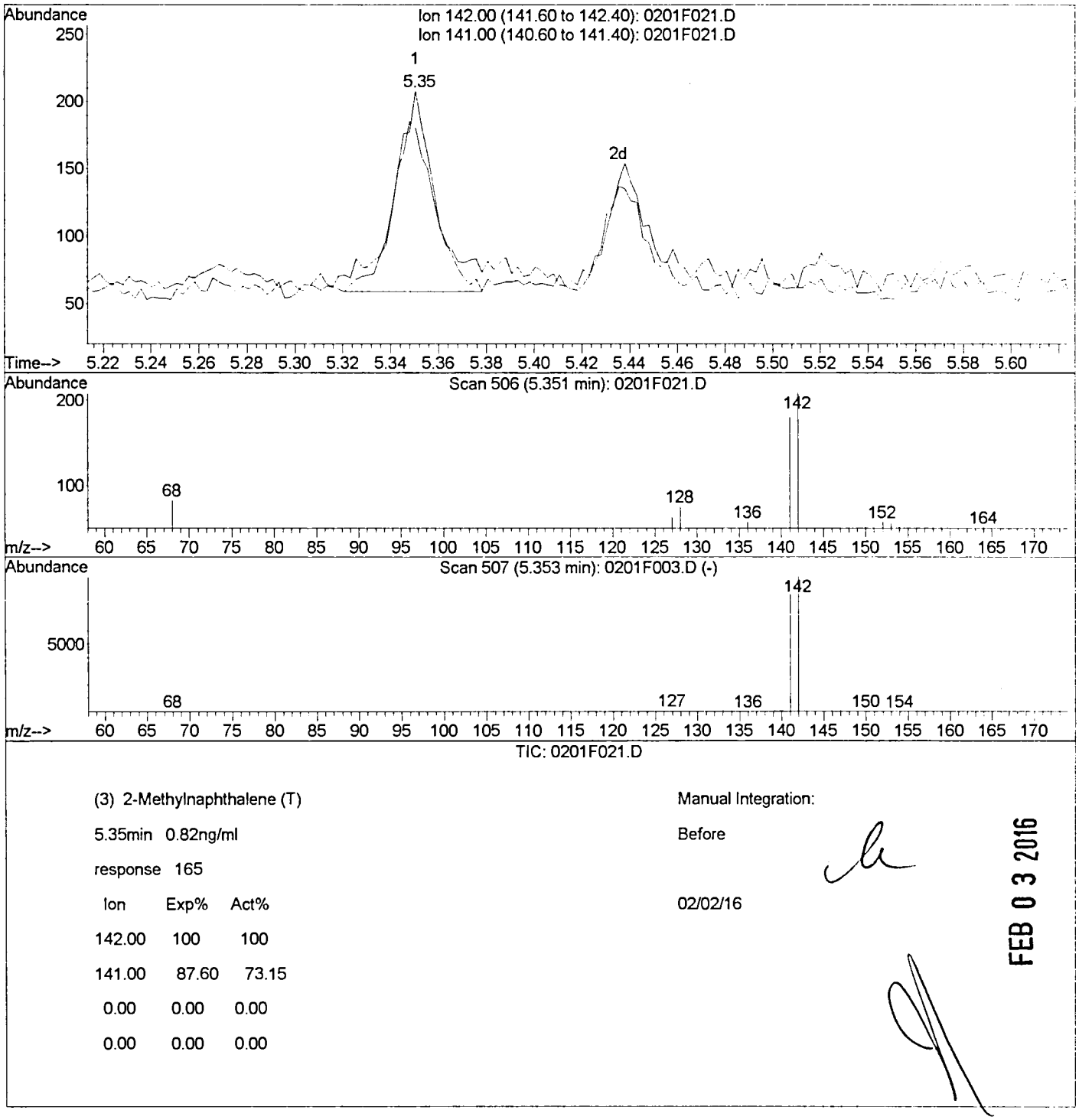
Ion	Ratio	Lower	Upper
228	100		
226	27.3	0.0	55.9



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F021.D Vial: 21
Acq On : 1 Feb 2016 3:52 pm Operator: LWeiskopf
Sample : K1600673-009 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:17 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F021.D

(3) 2-Methylnaphthalene (T)

5.35min 0.82ng/ml

response 165

Ion	Exp%	Act%
142.00	100	100
141.00	87.60	73.15
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

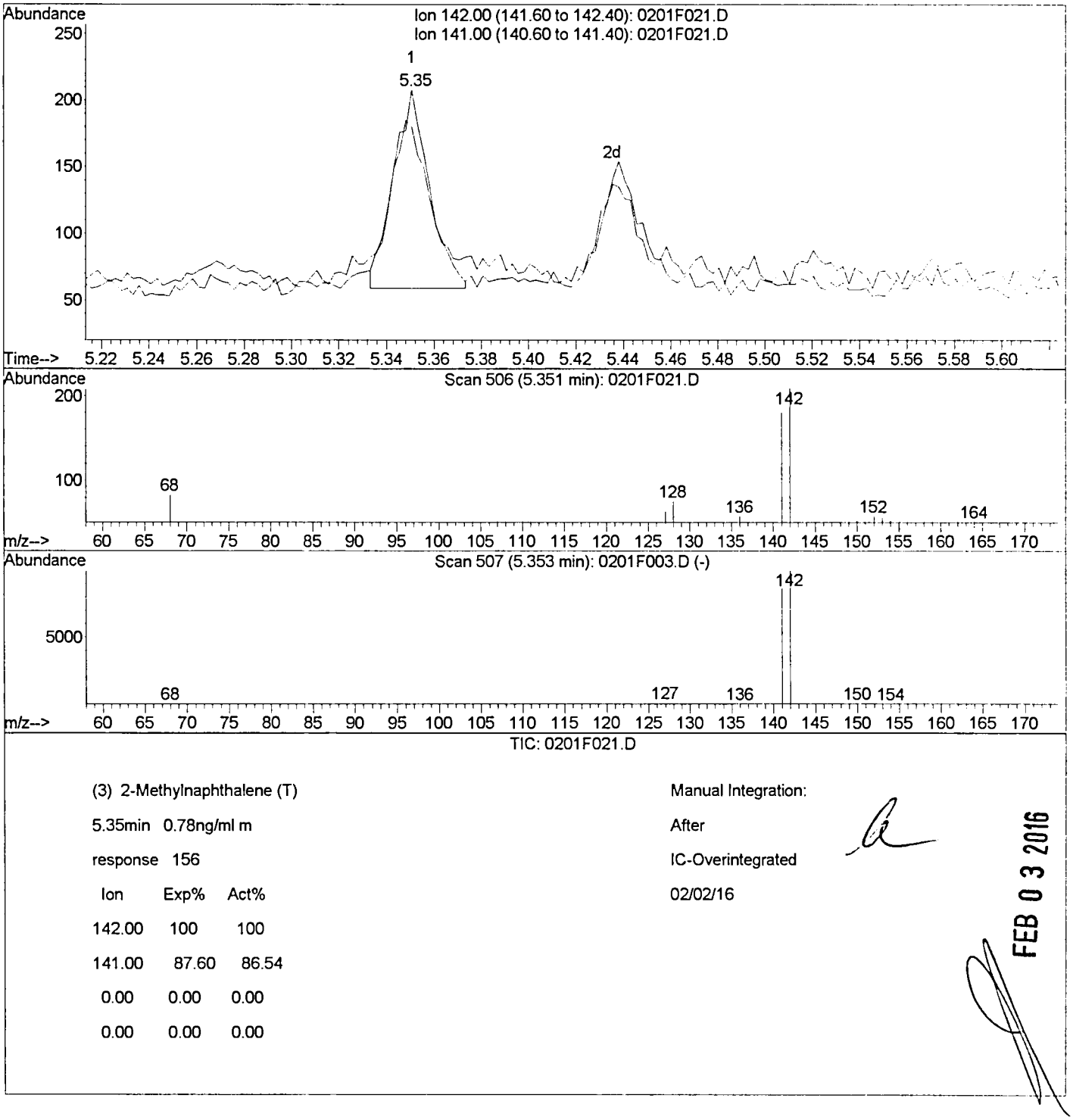
FEB 0 3 2016

0201F021.D 011116SIMPAH.M Tue Feb 02 12:17:50 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F021.D Vial: 21
Acq On : 1 Feb 2016 3:52 pm Operator: LWeiskopf
Sample : K1600673-009 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:17 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F021.D

(3) 2-Methylnaphthalene (T)

5.35min 0.78ng/ml m

response 156

Ion	Exp%	Act%
142.00	100	100
141.00	87.60	86.54
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

02/02/16

FEB 0 3 2016

0201F021.D 011116SIMPAH.M Tue Feb 02 12:17:55 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F022.D
Lab ID: K1600673-010
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 16:15
Date Quantitated: 02/02/2016 12:20
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016
Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:22
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F022.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 16:15	**Quant Date:**	02/02/2016 12:20	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495837	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	57564	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	29694	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	58092	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	71082	200.00	OK
5	Perylene-d12	13.04	-0.01	264	62486	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	6.71	0.00	0.00	176	62236	380.14	95	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	130554	439.11	110	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	104349	402.72	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	4.70	0.01	0.00	128	10481	36.05	0.18		
1	2-Methylnaphthalene	5.35		0.00	142	905m	4.56	0.023	X	
1	1-Methylnaphthalene	5.44		0.00	142	1005m	5.81	0.029	X	
2	Acenaphthylene	6.15		0.00	152	470m	1.54	0.0077	JX	
2	Acenaphthene	6.29		0.00	154	983	5.64	0.028		
2	Fluorene	6.73		0.00	166	1346	6.29	0.031		
3	Phenanthrene	7.53		0.00	178	1368	4.02	0.020		
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	1345	3.51	0.018	J	
4	Pyrene	8.70		0.00	202	1285	2.90	0.015	JX	
4	Benz(a)anthracene	10.01		0.00	228	678	1.63	0.0082	J	
4	Chrysene	10.06	-0.01	0.00	228	655m	1.77	0.0089	J	
5	Benzo(b)fluoranthene	12.04		0.00	252	498	1.25	0.0063	J	

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\020116\0201F022.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 16:15	**Quant Date:**	02/02/2016 12:20	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-010			**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?
5	Benzo(k)fluoranthene	12.08	-0.03	0.00	252	219**m**	0.5600	0.0030	U	
5	Benzo(a)pyrene	12.88	-0.01	0.00	252	458	1.22	0.0061	J	
5	Indeno(1,2,3-cd)pyrene	15.32	-0.02	0.00	276	295**m**	0.8400	0.0042	J	
5	Dibenz(a,h)anthracene				278	0**d**		0.0025	U	
5	Benzo(g,h,i)perylene	15.70	-0.02	0.00	276	267	0.6700	0.0034	J	

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\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:45 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

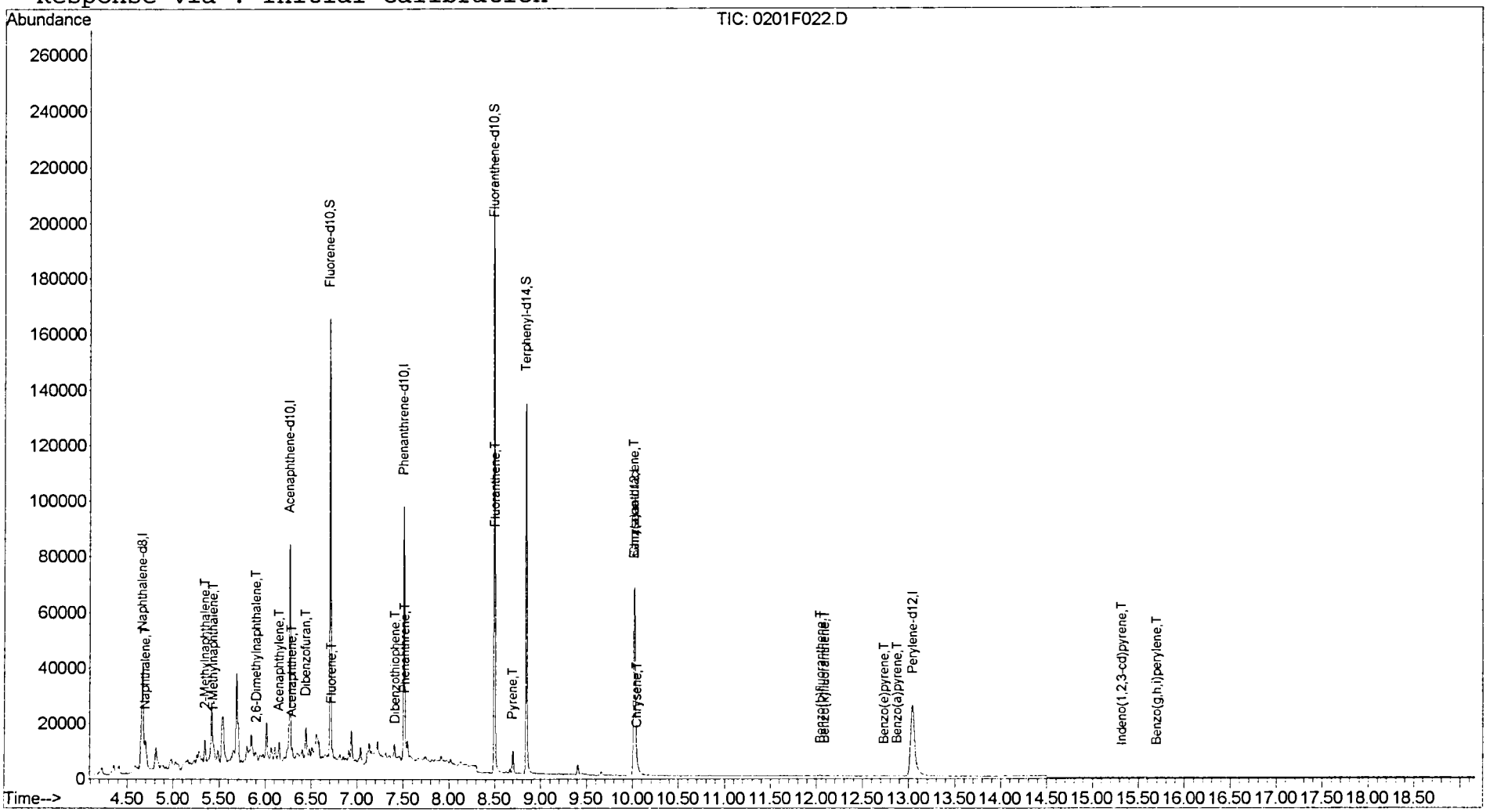
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	57564	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	29694	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	58092	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	71082	200.00	ng/ml	-0.03
27) Perylene-d12	13.04	264	62486	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	62236	380.14	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.01%			
21) Fluoranthene-d10	8.50	212	130554	439.11	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 43.91%			
24) Terphenyl-d14	8.84	244	104349	402.72	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 40.27%			
Target Compounds						Qvalue
2) Naphthalene	4.70	128	10481	36.05	ng/ml	42
3) 2-Methylnaphthalene	5.35	142	905m	4.56	ng/ml	
4) 1-Methylnaphthalene	5.44	142	1005m	5.81	ng/ml	
6) 2,6-Dimethylnaphthalene	5.91	156	316	1.91	ng/ml	54
8) Acenaphthylene	6.15	152	470m	1.54	ng/ml	
9) Acenaphthene	6.29	154	983	5.64	ng/ml	95
10) Dibenzofuran	6.44	168	5735	20.42	ng/ml	97
13) Fluorene	6.73	166	1346	6.29	ng/ml	92
15) Dibenzothiophene	7.42	184	201	0.59	ng/ml	87
16) Phenanthrene	7.53	178	1368	4.02	ng/ml	73
20) Fluoranthene	8.51	202	1345	3.51	ng/ml	94
23) Pyrene	8.70	202	1285	2.90	ng/ml#	1
25) Benz(a)anthracene	10.01	228	678	1.63	ng/ml	91
26) Chrysene	10.06	228	655m	1.77	ng/ml	
28) Benzo(b)fluoranthene	12.04	252	498	1.25	ng/ml	93
29) Benzo(k)fluoranthene	12.08	252	219m	0.56	ng/ml	
30) Benzo(e)pyrene	12.73	252	256	0.69	ng/ml	91
31) Benzo(a)pyrene	12.88	252	458	1.22	ng/ml	59
33) Indeno(1,2,3-cd)pyrene	15.32	276	295m	0.84	ng/ml	
35) Benzo(g,h,i)perylene	15.70	276	267	0.67	ng/ml	92

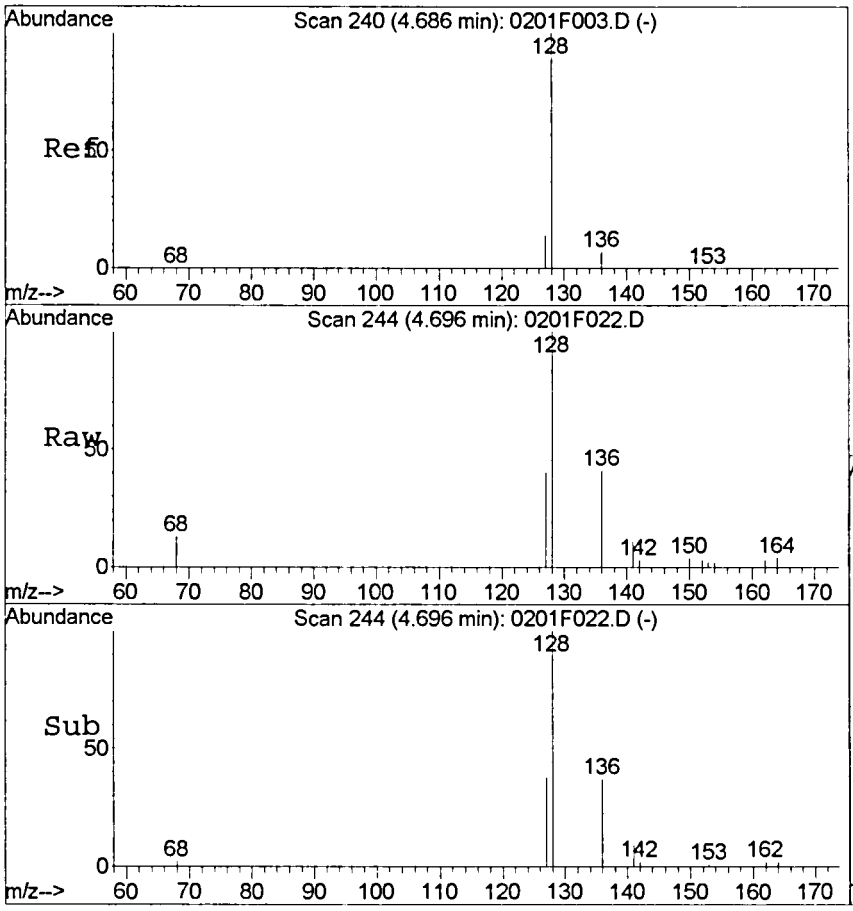
(#) = qualifier out of range (m) = manual integration
0201F022.D 011116SIMPAH.M Tue Feb 02 12:23:11 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:20 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

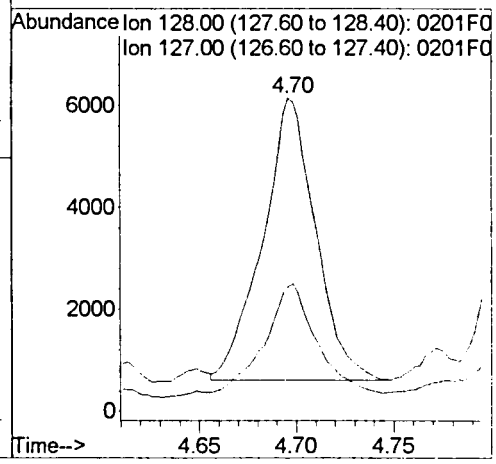


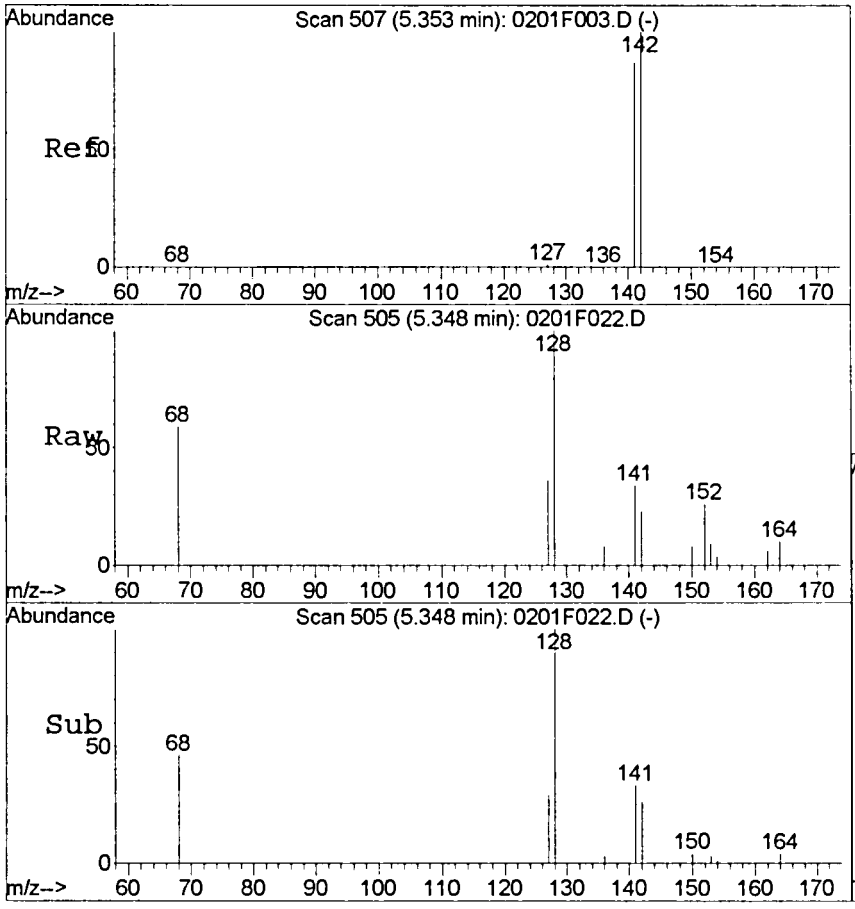


#2
Naphthalene
Concen: 36.05 ng/ml
RT: 4.70 min Scan# 244
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:128 Resp: 10481

Ion	Ratio	Lower	Upper
128	100		
127	37.4	0.0	43.8

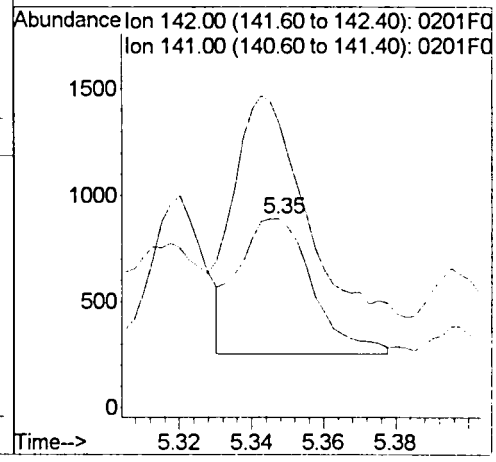


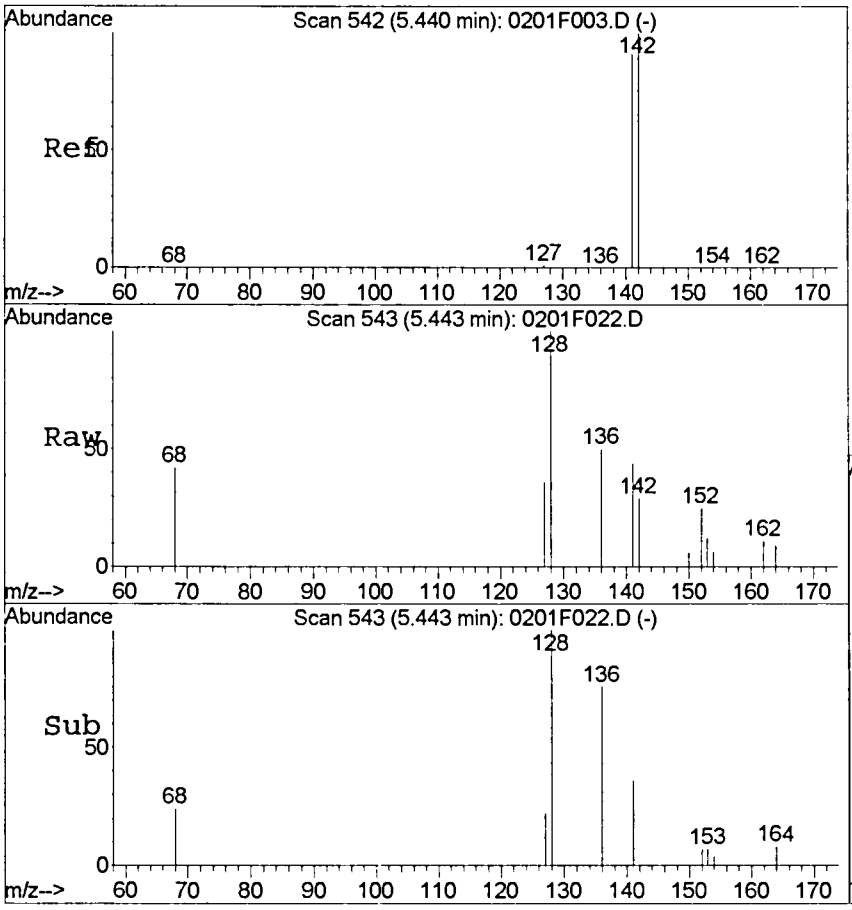


#3
2-Methylnaphthalene
Concen: 4.56 ng/ml m
RT: 5.35 min Scan# 505
Delta R.T. -0.03 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:142 Resp: 905

Ion	Ratio	Lower	Upper
142	100		
141	150.1	57.6	117.6#

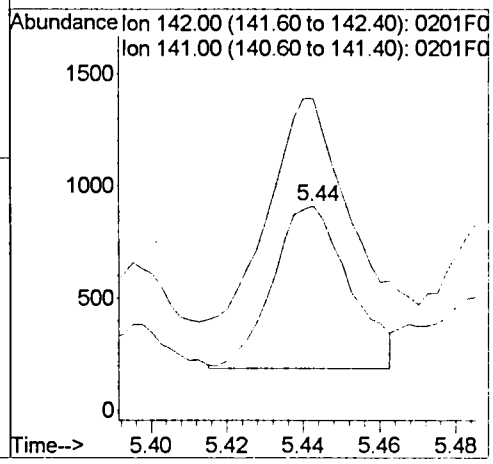


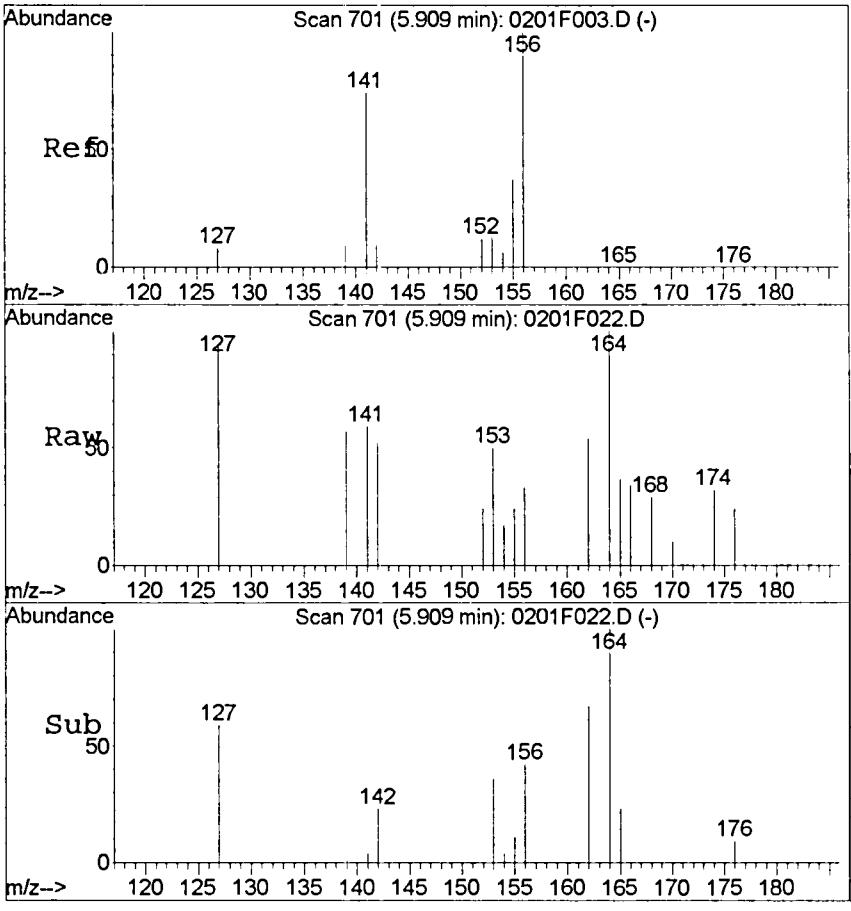


#4
1-Methylnaphthalene
Concen: 5.81 ng/ml m
RT: 5.44 min Scan# 543
Delta R.T. -0.03 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:142 Resp: 1005

Ion	Ratio	Lower	Upper
142	100		
141	152.6	60.8	120.8#

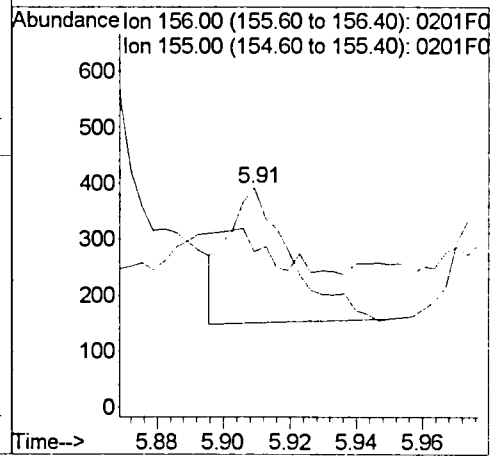


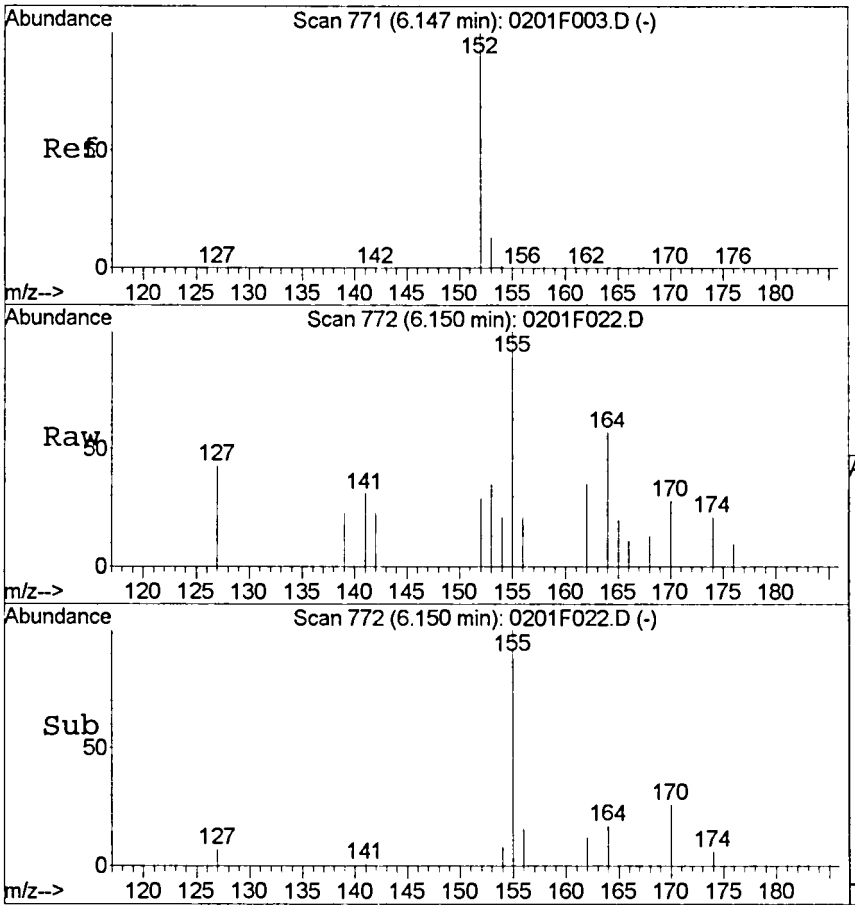


#6
2,6-Dimethylnaphthalene
Concen: 1.91 ng/ml
RT: 5.91 min Scan# 701
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:156 Resp: 316

Ion	Ratio	Lower	Upper
156	100		
155	9.8	7.0	67.0

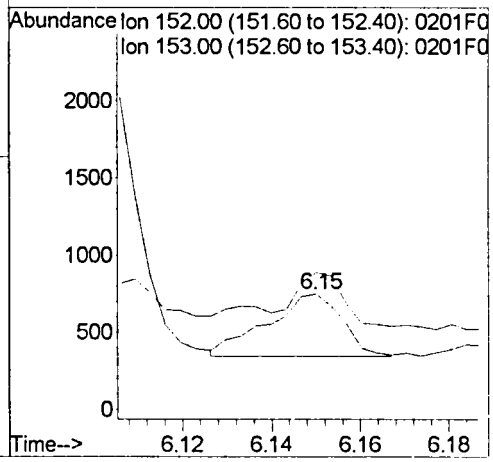


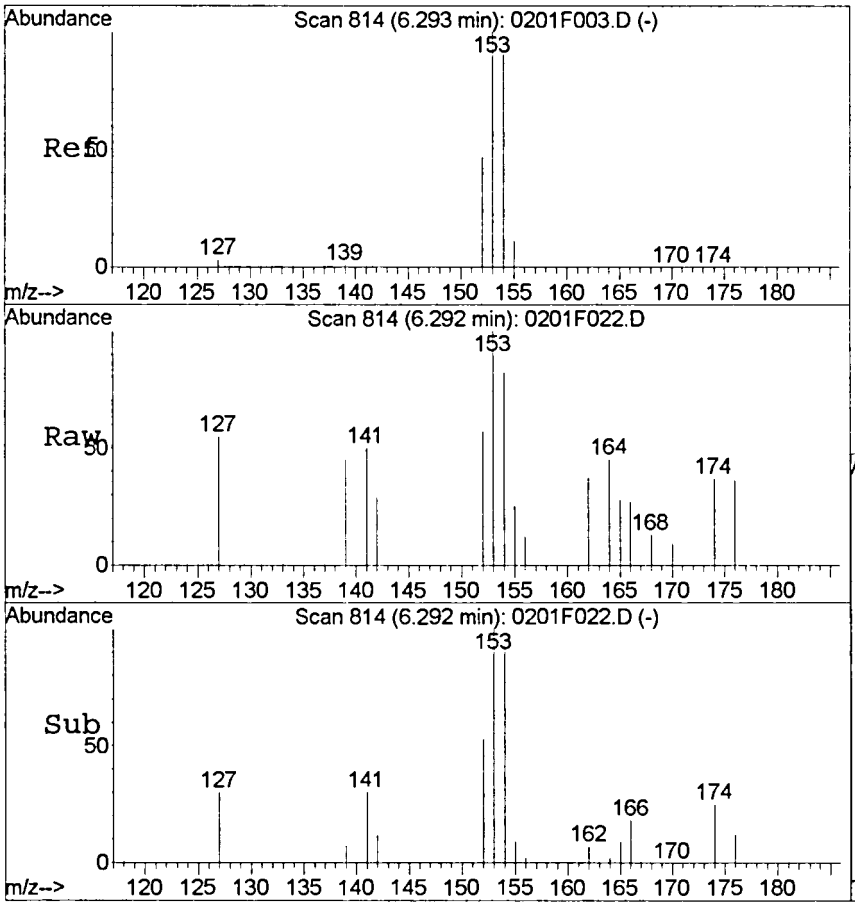


#8
Acenaphthylene
Concen: 1.54 ng/ml m
RT: 6.15 min Scan# 772
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:152 Resp: 470

Ion	Ratio	Lower	Upper
152	100		
153	118.6	0.0	42.9#

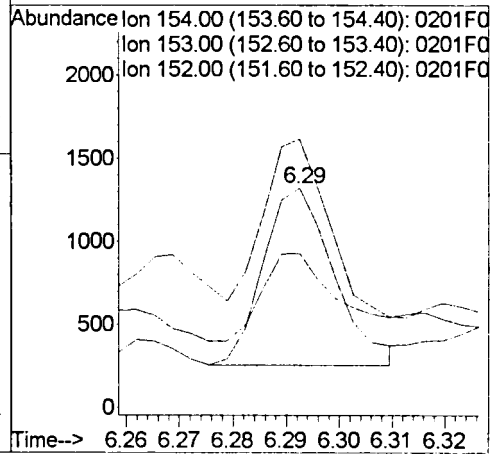


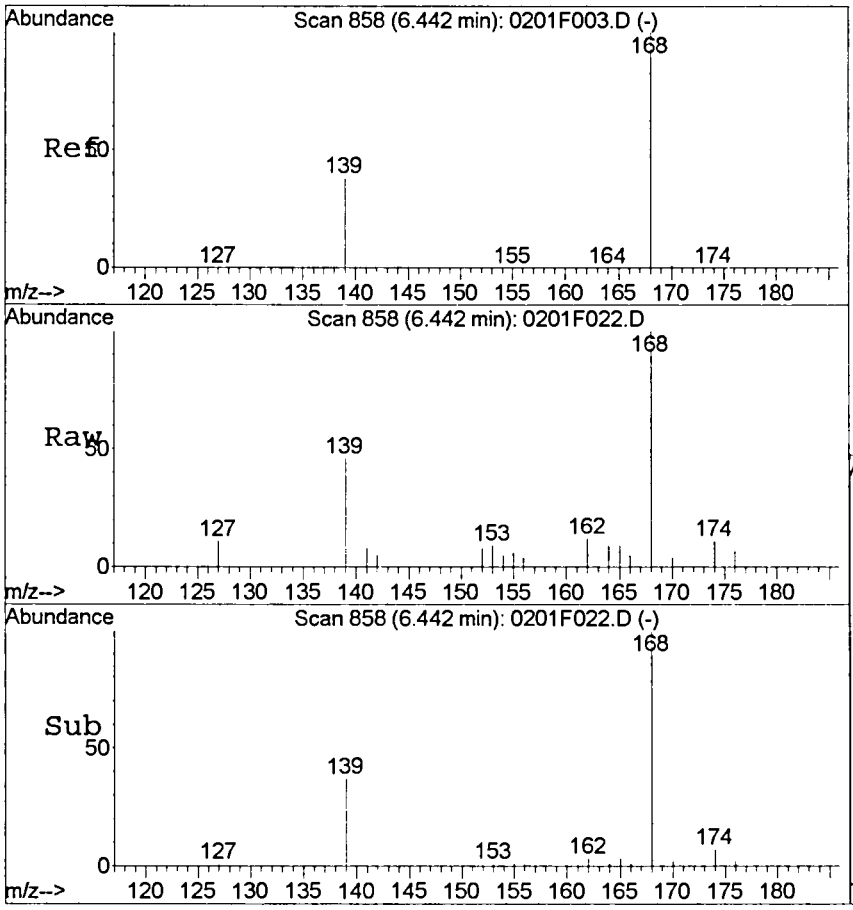


#9
Acenaphthene
Concen: 5.64 ng/ml
RT: 6.29 min Scan# 814
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:154 Resp: 983

Ion	Ratio	Lower	Upper
154	100		
153	100.3	77.1	137.1
152	49.7	19.8	79.8

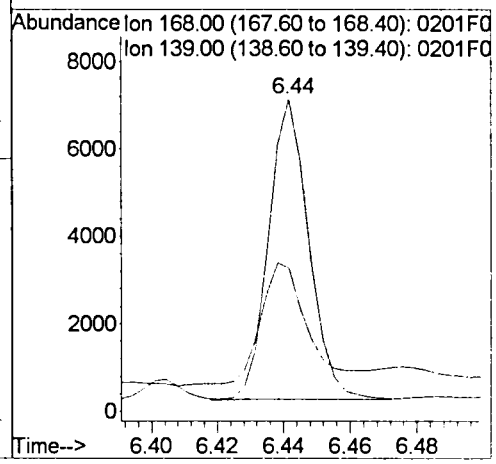


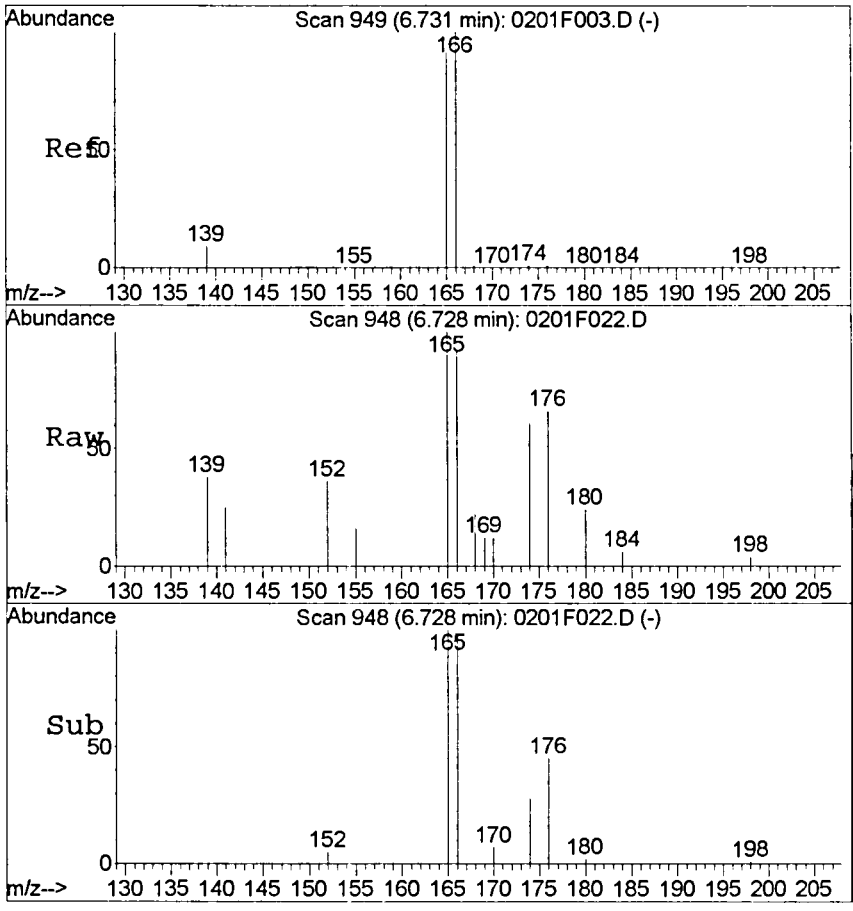


#10
Dibenzofuran
Concen: 20.42 ng/ml
RT: 6.44 min Scan# 858
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:168 Resp: 5735

Ion	Ratio	Lower	Upper
168	100		
139	38.4	6.7	66.7

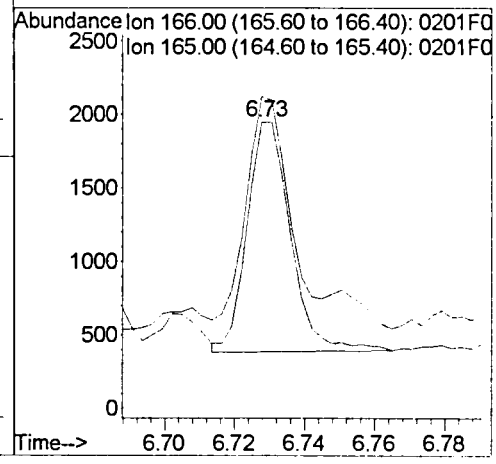


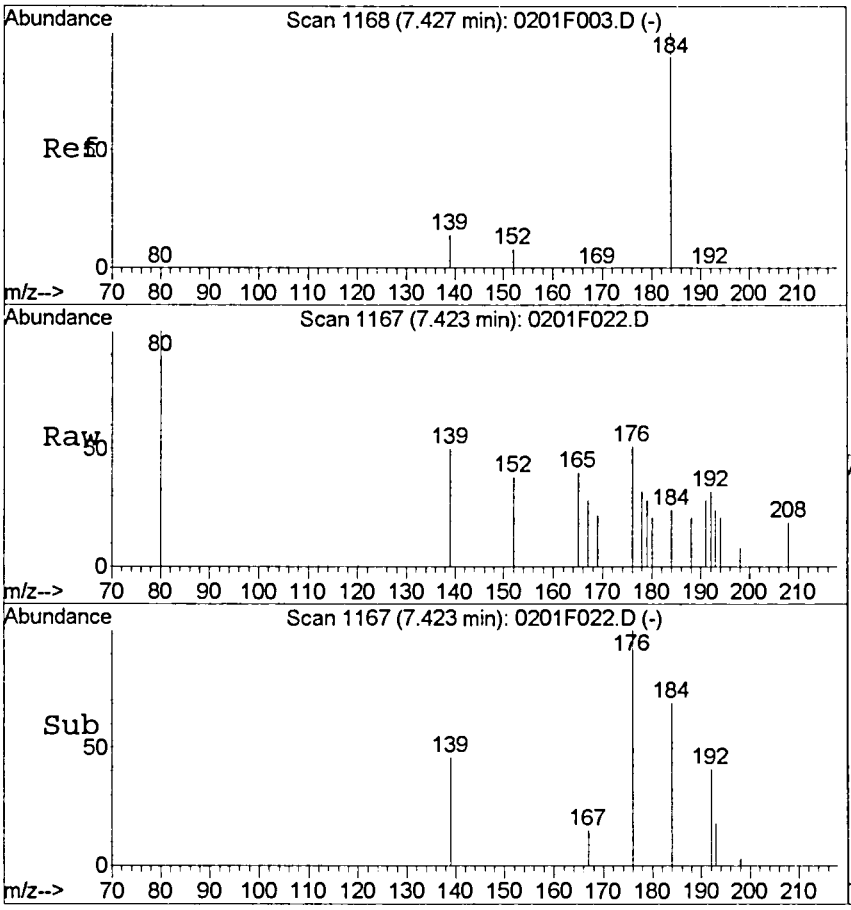


#13
Fluorene
Concen: 6.29 ng/ml
RT: 6.73 min Scan# 948
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:166 Resp: 1346

Ion	Ratio	Lower	Upper
166	100		
165	101.3	63.9	123.9

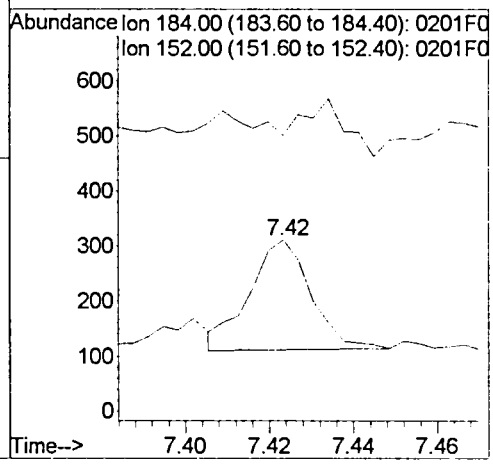


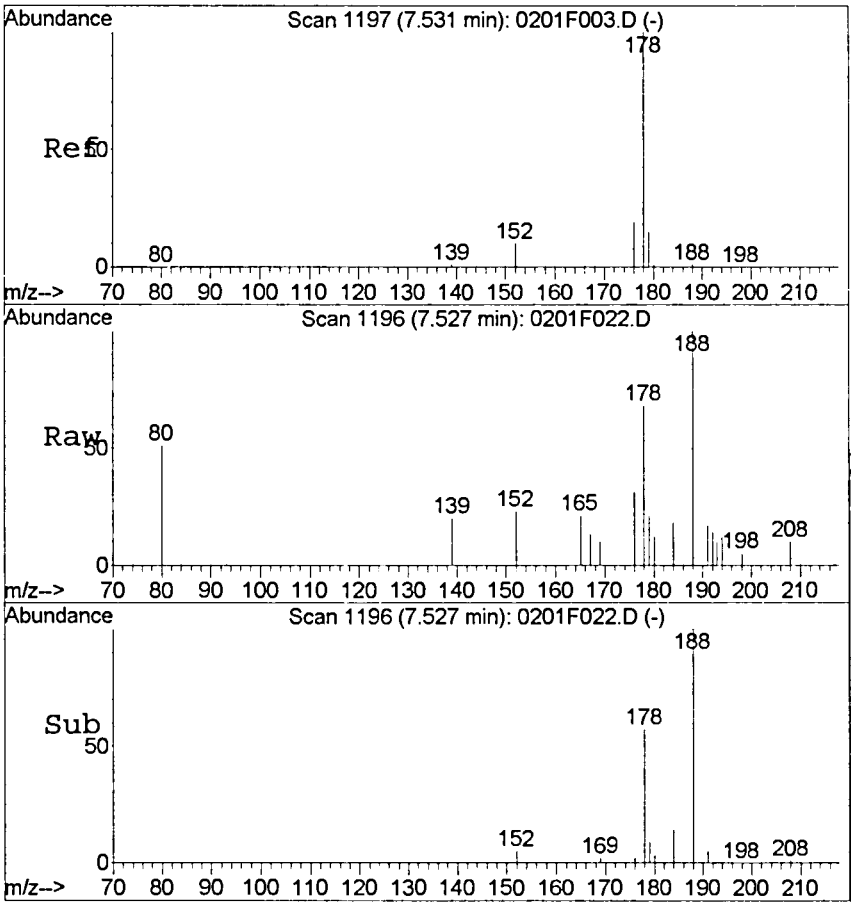


#15
Dibenzothiophene
Concen: 0.59 ng/ml
RT: 7.42 min Scan# 1167
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:184 Resp: 201

Ion	Ratio	Lower	Upper
184	100		
152	4.1	0.0	38.6

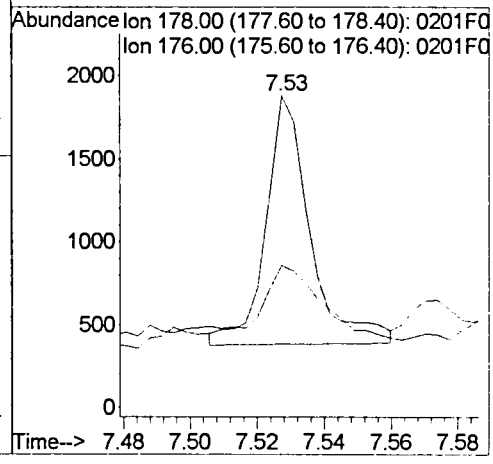


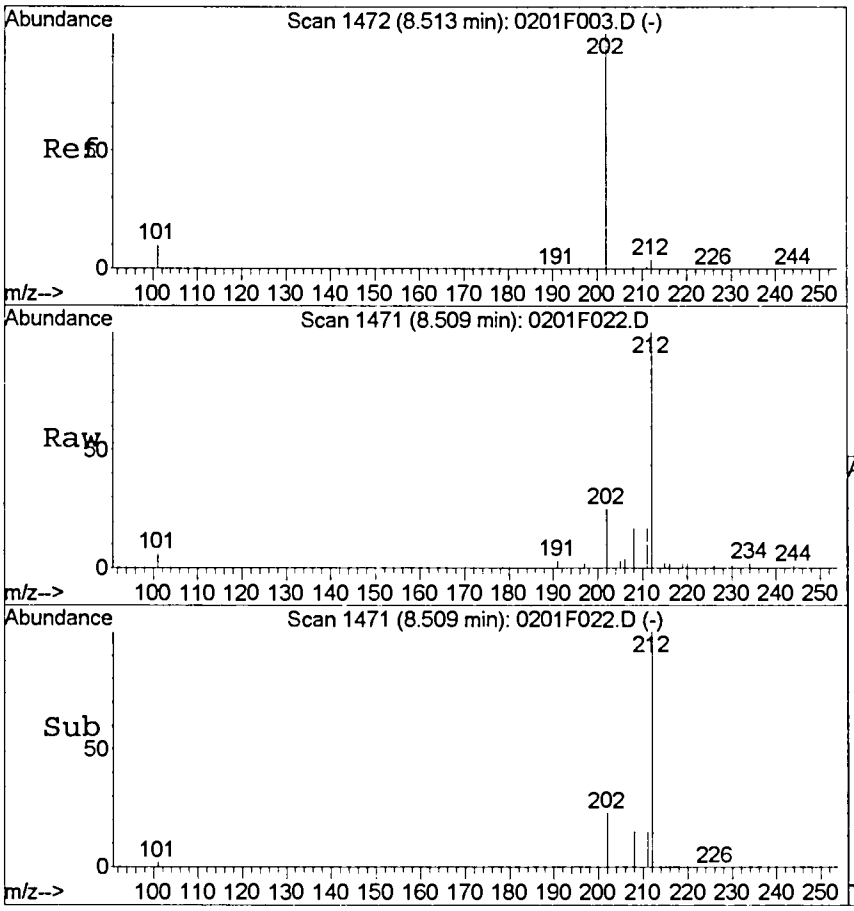


#16
Phenanthrene
Concen: 4.02 ng/ml
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:178 Resp: 1368

Ion	Ratio	Lower	Upper
178	100		
176	30.4	0.0	48.5

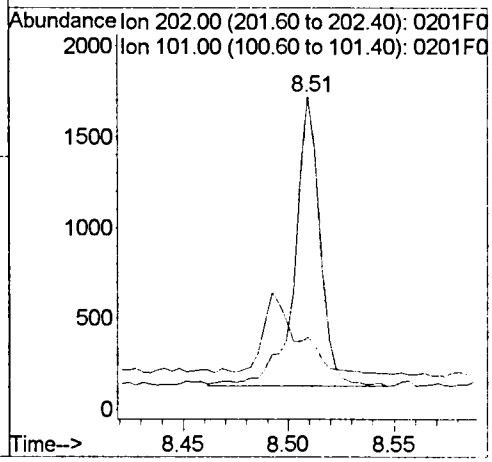


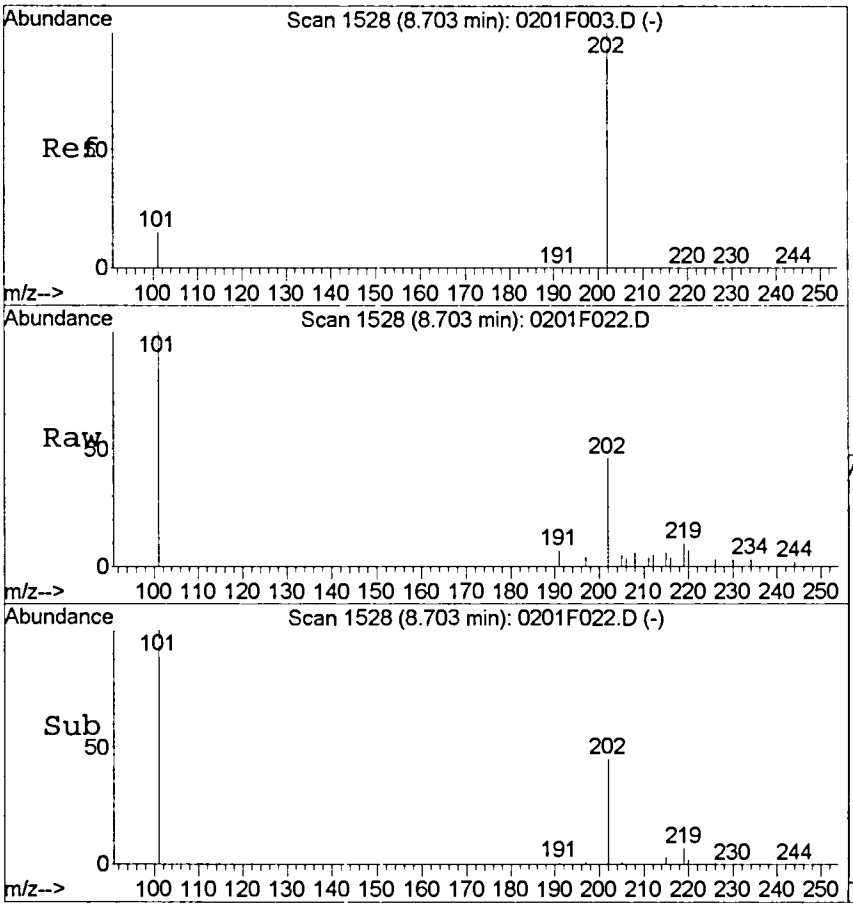


#20
Fluoranthene
Concen: 3.51 ng/ml
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:202 Resp: 1345

Ion	Ratio	Lower	Upper
202	100		
101	12.3	0.0	40.2

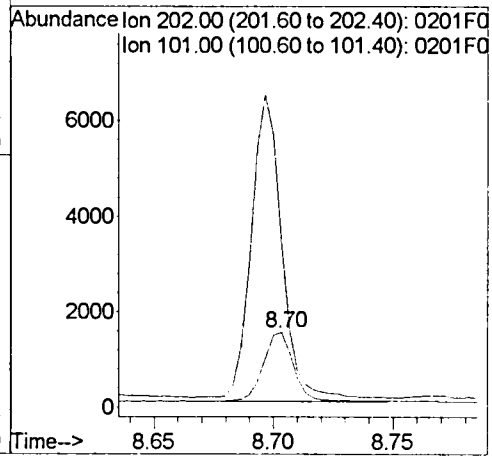


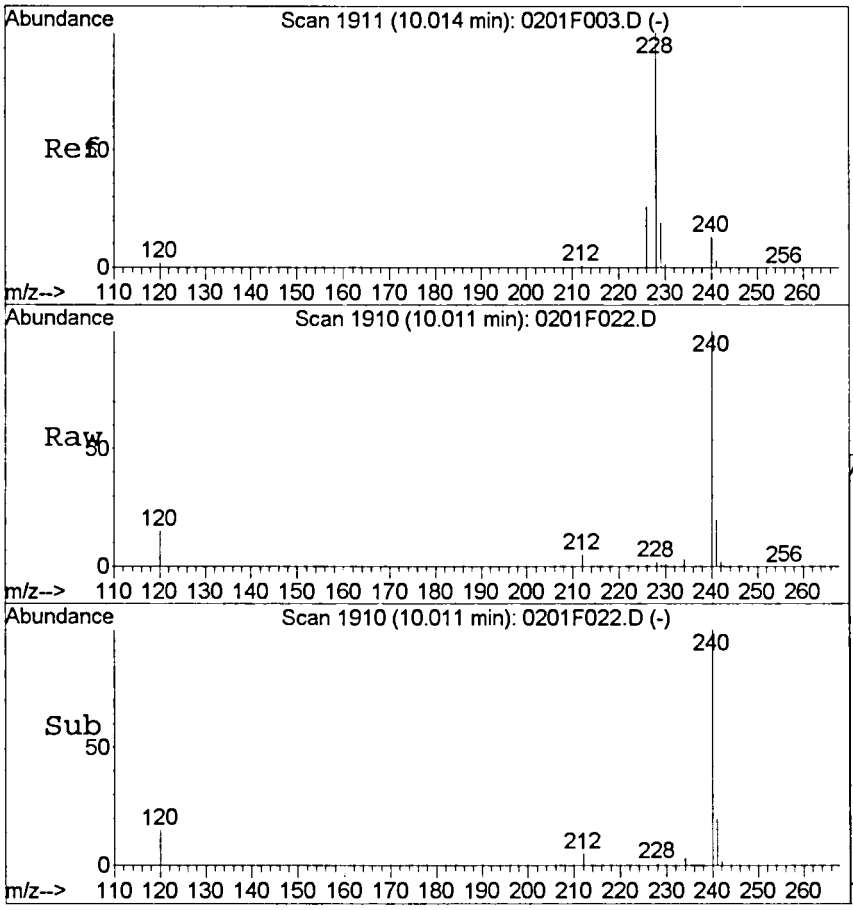


#23
Pyrene
Concen: 2.90 ng/ml
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:202 Resp: 1285

Ion	Ratio	Lower	Upper
202	100		
101	219.3	0.0	42.9#

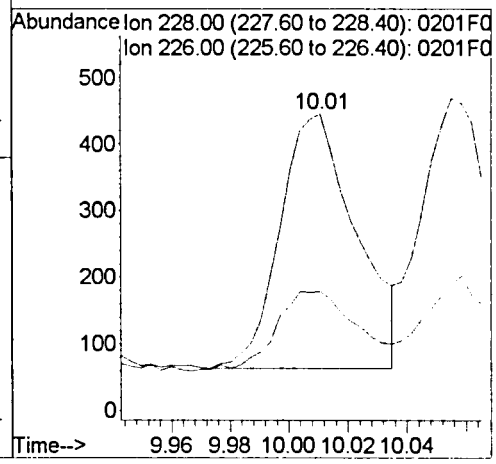


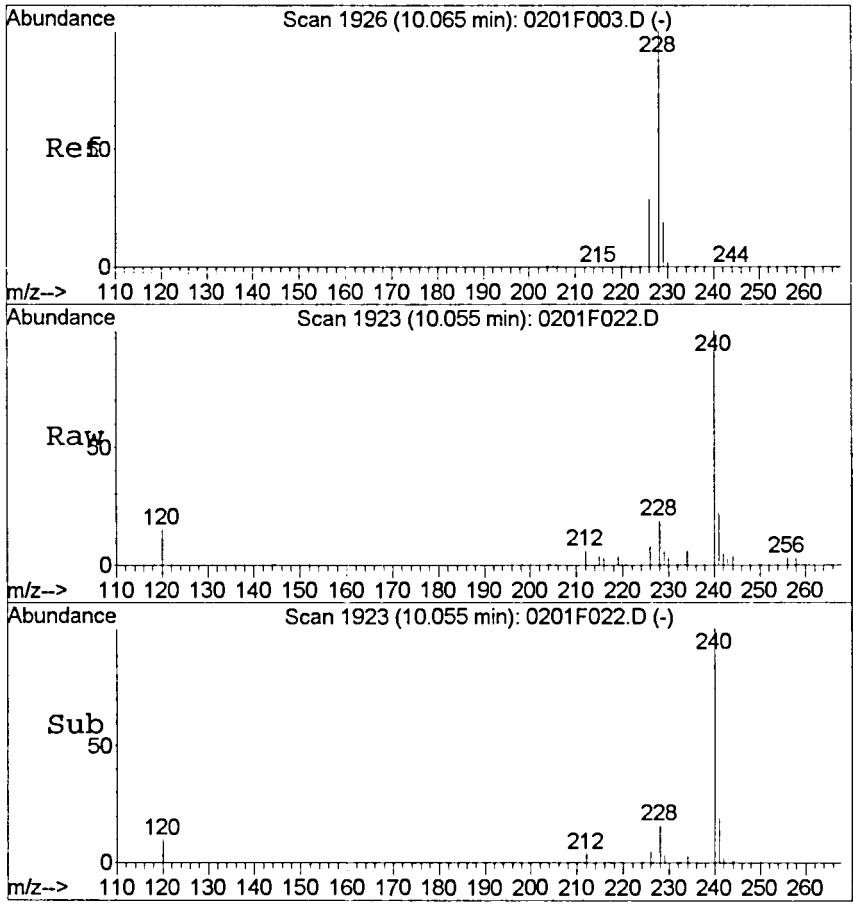


#25
Benz(a)anthracene
Concen: 1.63 ng/ml
RT: 10.01 min Scan# 1910
Delta R.T. -0.03 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:228 Resp: 678

Ion	Ratio	Lower	Upper
228	100		
226	30.7	0.0	55.9

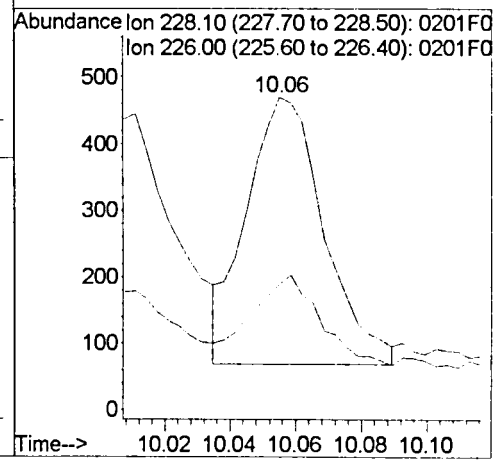


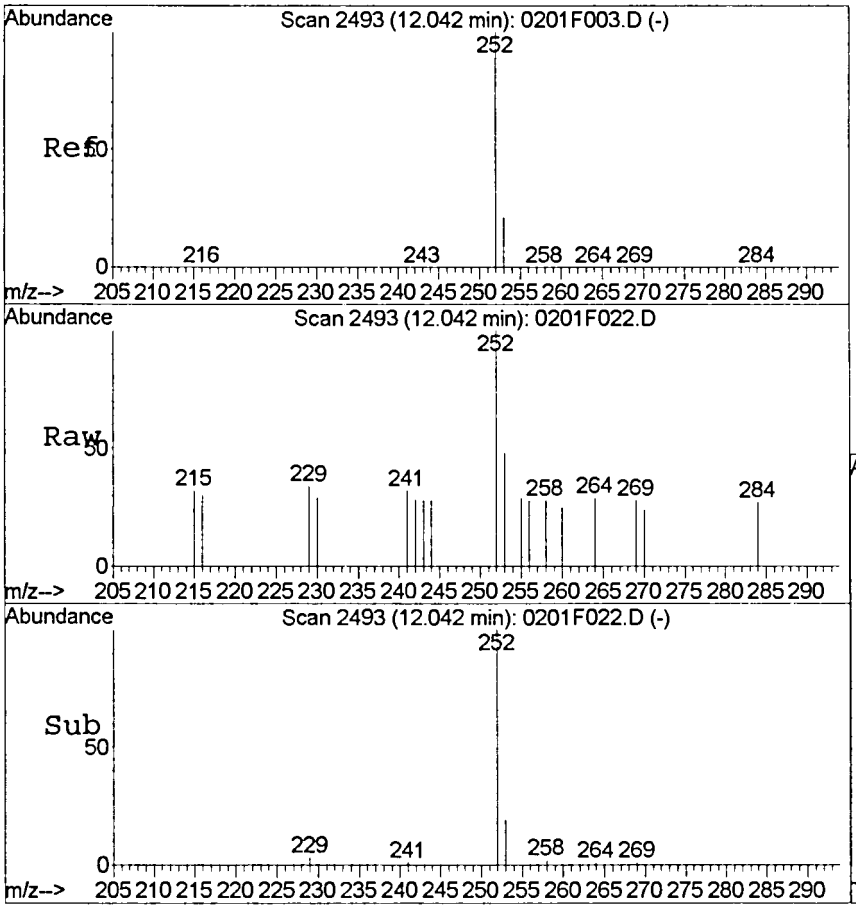


#26
Chrysene
Concen: 1.77 ng/ml m
RT: 10.06 min Scan# 1923
Delta R.T. -0.04 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:228 Resp: 655

Ion	Ratio	Lower	Upper
228	100		
226	40.3	0.0	58.6

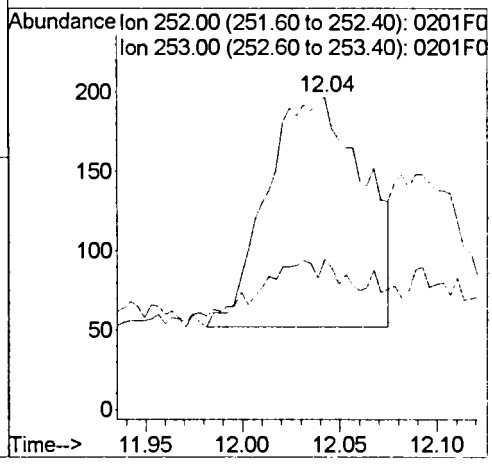


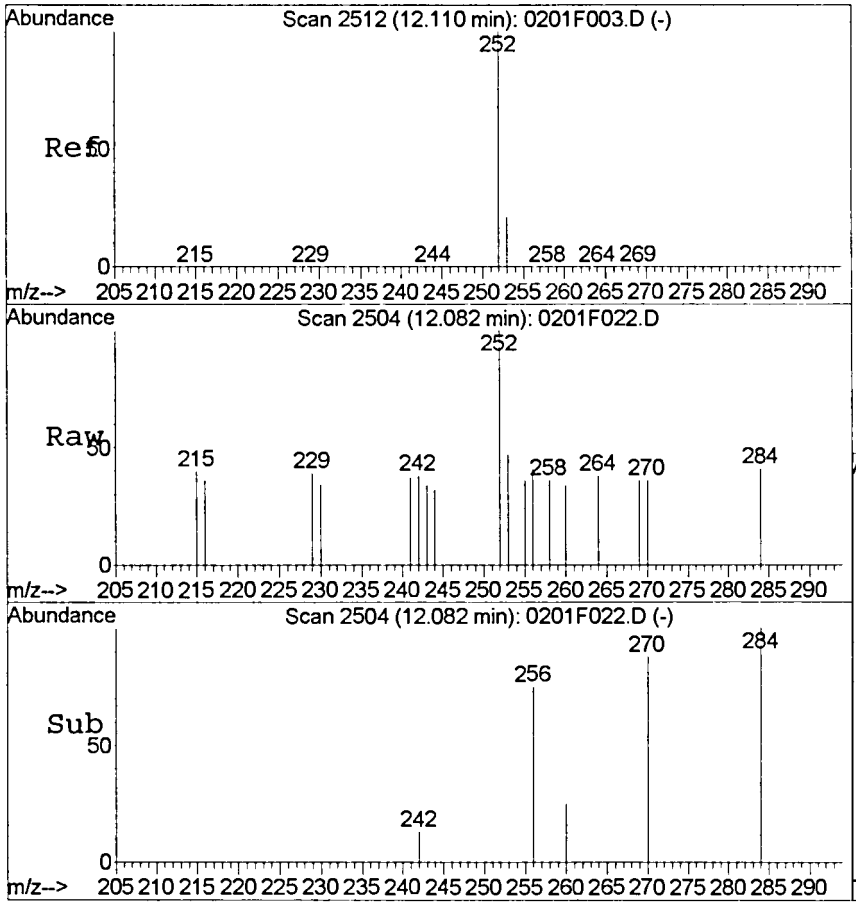


#28
Benzo(b)fluoranthene
Concen: 1.25 ng/ml
RT: 12.04 min Scan# 2493
Delta R.T. -0.04 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:252 Resp: 498

Ion	Ratio	Lower	Upper
252	100		
253	24.8	0.0	51.3

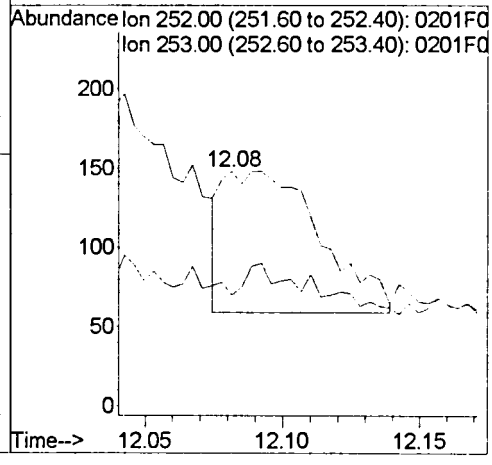


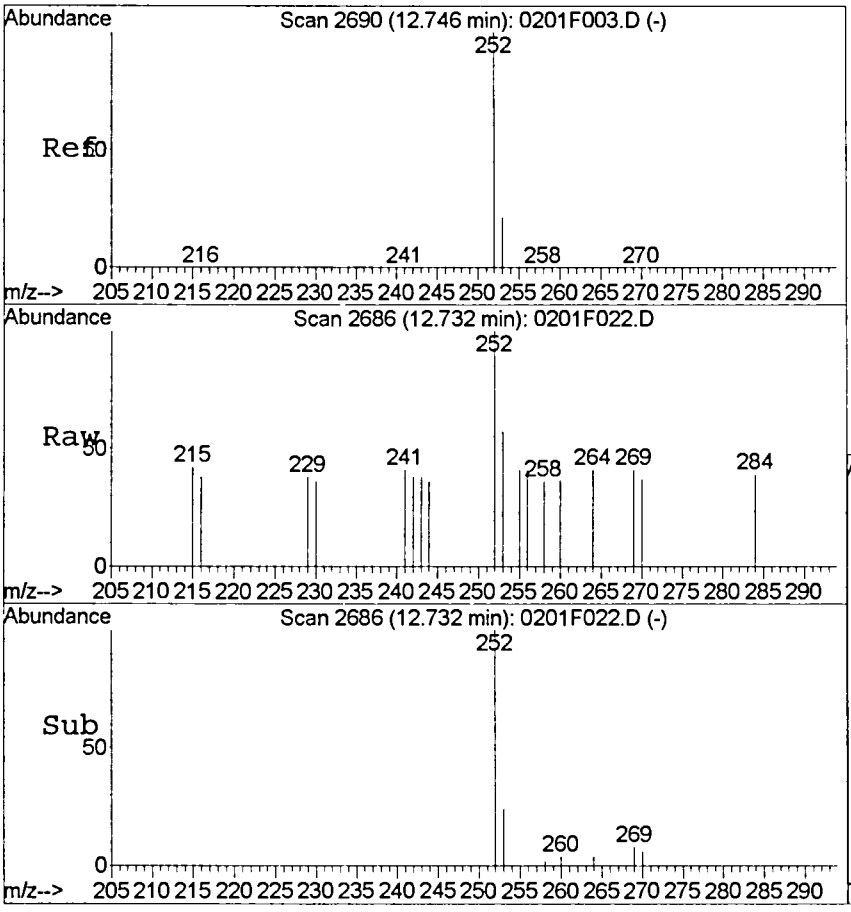


#29
Benzo(k)fluoranthene
Concen: 0.56 ng/ml m
RT: 12.08 min Scan# 2504
Delta R.T. -0.06 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:252 Resp: 219

Ion	Ratio	Lower	Upper
252	100		
253	47.3	0.0	51.4

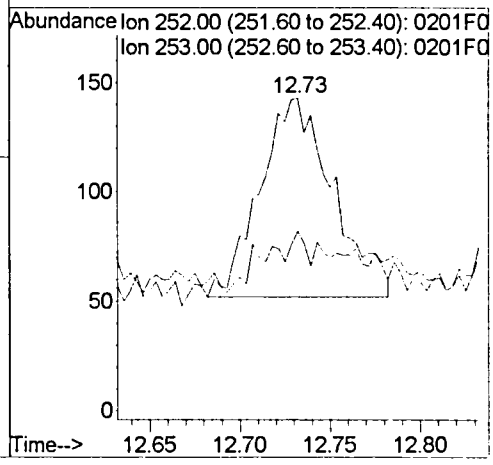


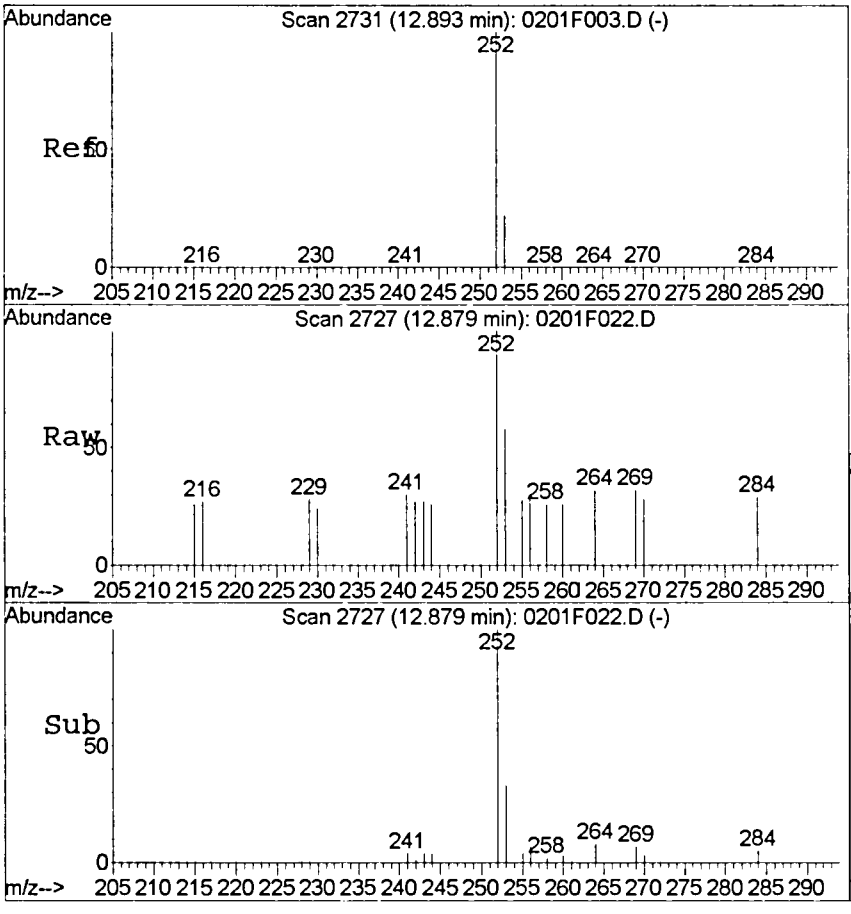


#30
Benzo(e)pyrene
Concen: 0.69 ng/ml
RT: 12.73 min Scan# 2686
Delta R.T. -0.05 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:252 Resp: 256

Ion	Ratio	Lower	Upper
252	100		
253	25.3	0.0	51.2

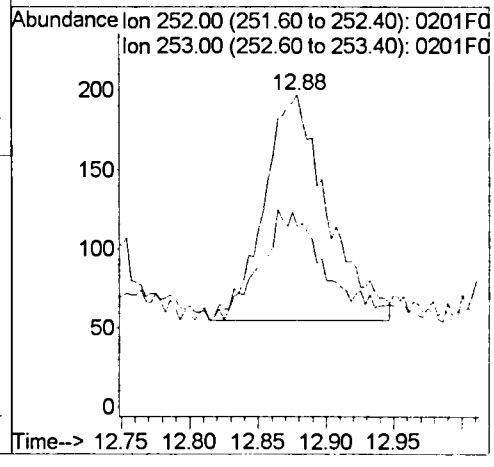


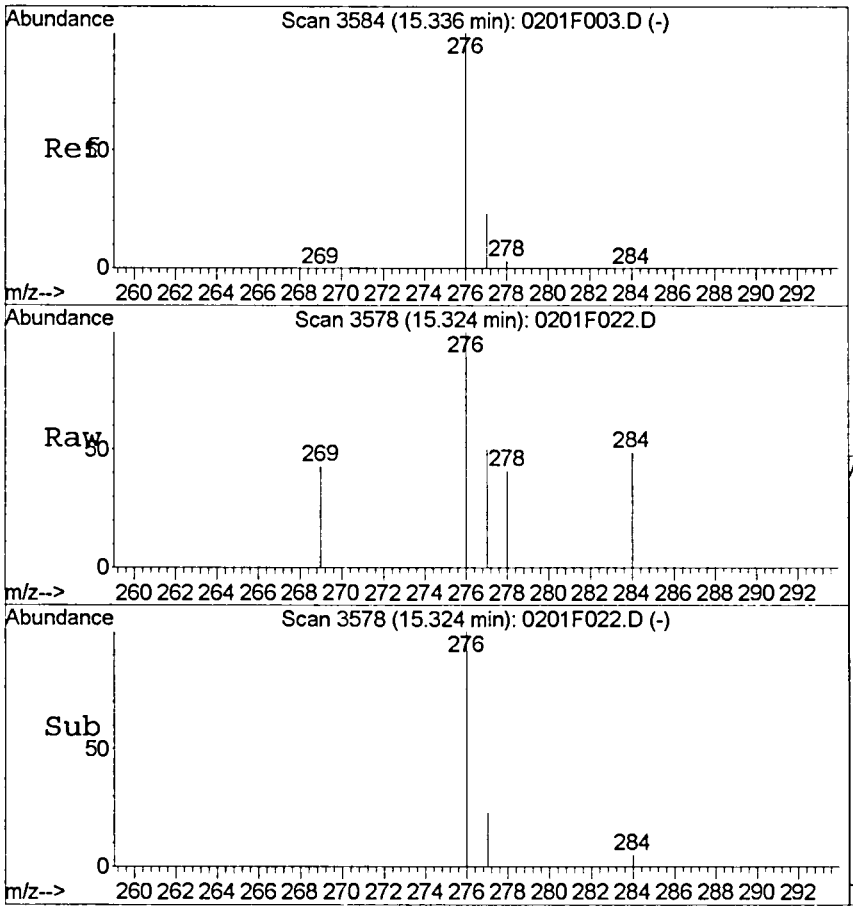


#31
Benzo(a)pyrene
Concen: 1.22 ng/ml
RT: 12.88 min Scan# 2727
Delta R.T. -0.05 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:252 Resp: 458

Ion	Ratio	Lower	Upper
252	100		
253	41.5	0.0	51.9

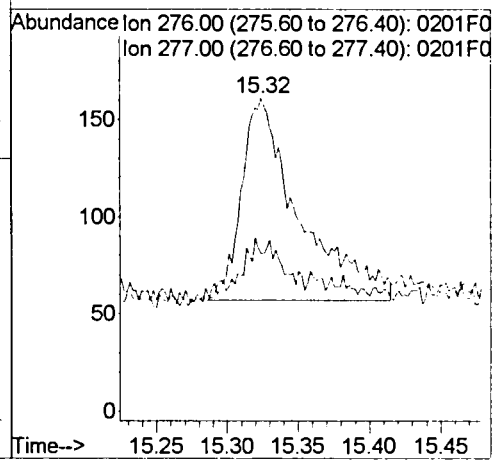


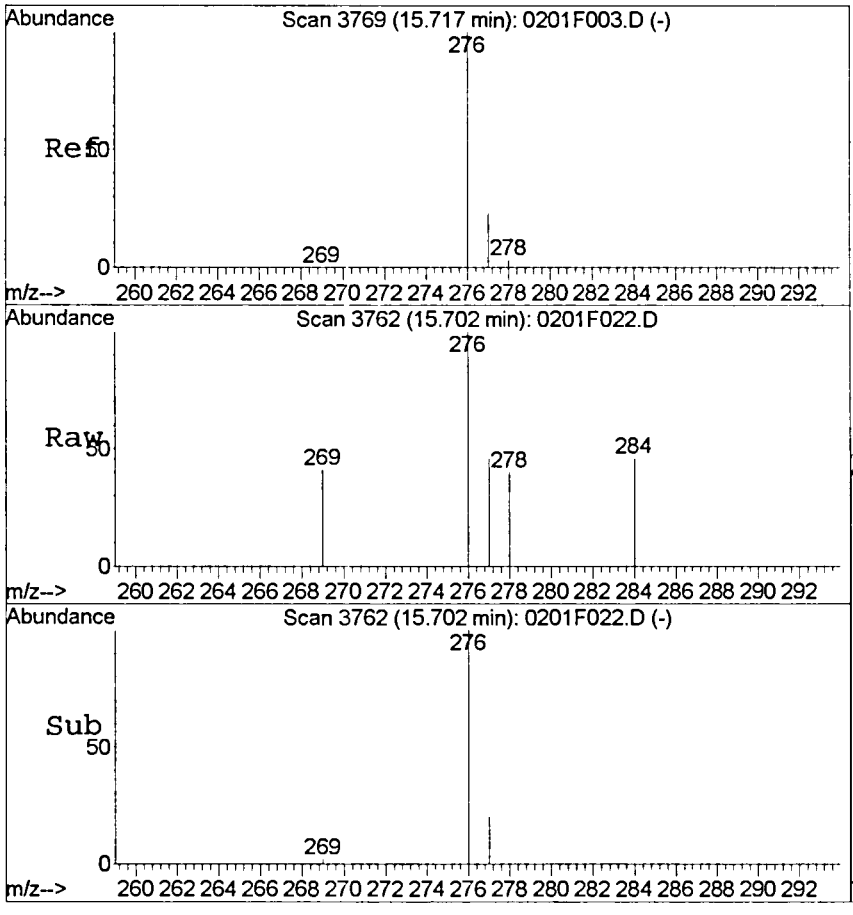


#33
Indeno(1,2,3-cd)pyrene
Concen: 0.84 ng/ml m
RT: 15.32 min Scan# 3578
Delta R.T. -0.03 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:276 Resp: 295

Ion	Ratio	Lower	Upper
276	100		
277	50.3	0.0	53.2

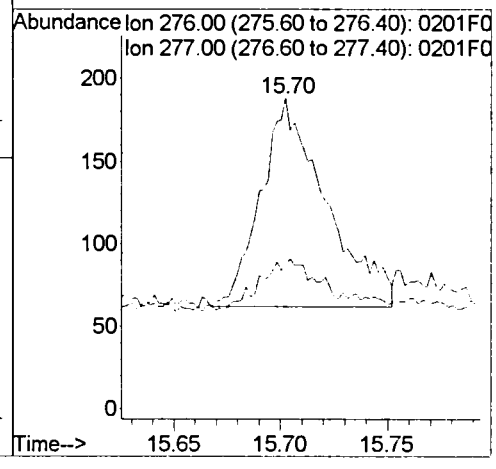




#35
Benzo(g,h,i)perylene
Concen: 0.67 ng/ml
RT: 15.70 min Scan# 3762
Delta R.T. -0.04 min
Lab File: 0201F022.D
Acq: 1 Feb 2016 4:15 pm

Tgt Ion:276 Resp: 267

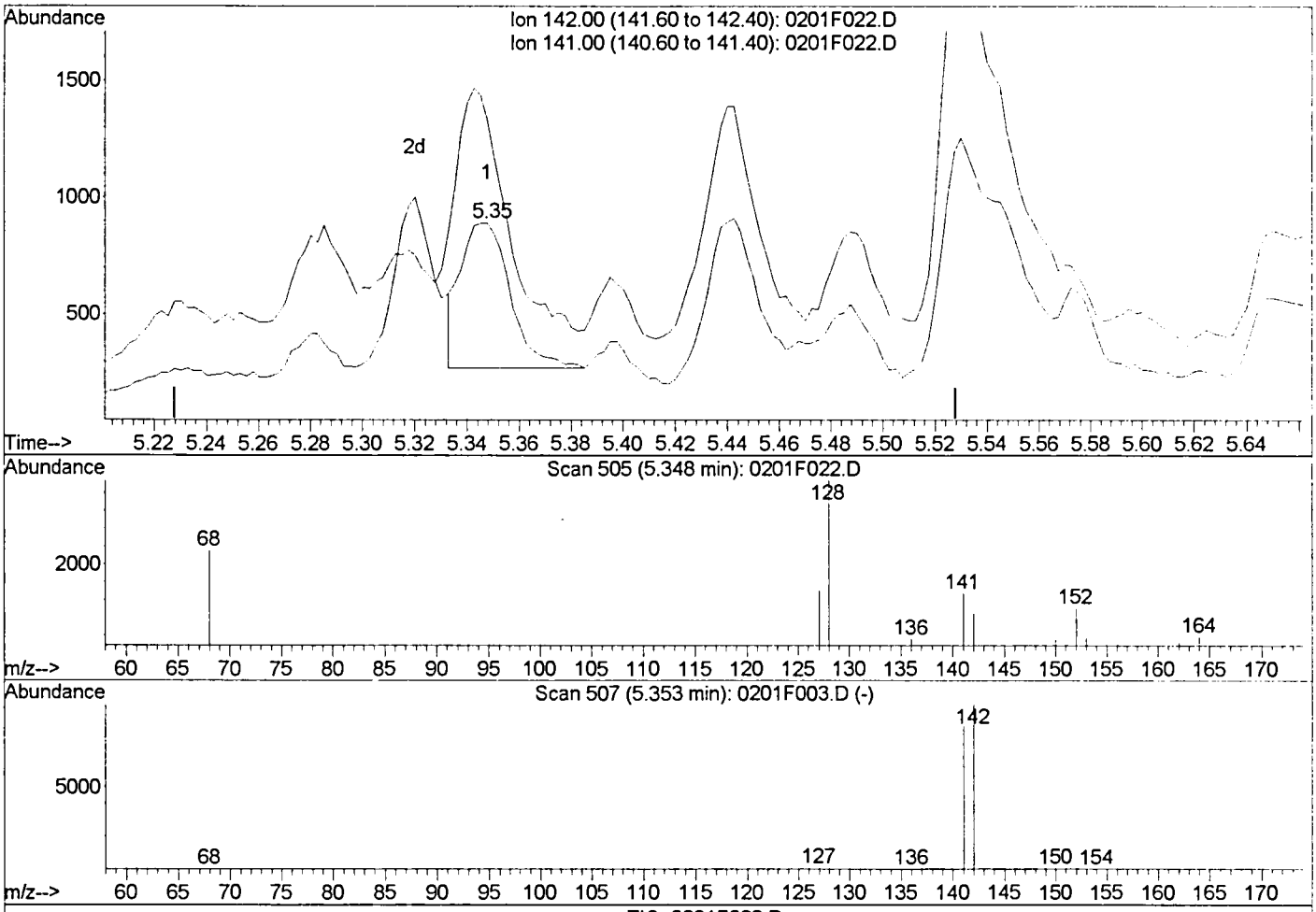
Ion	Ratio	Lower	Upper
276	100		
277	19.0	0.0	53.1



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



(3) 2-Methylnaphthalene (T)

5.35min 4.15ng/ml

response 823

Ion	Exp%	Act%
142.00	100	100
141.00	87.60	145.57#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

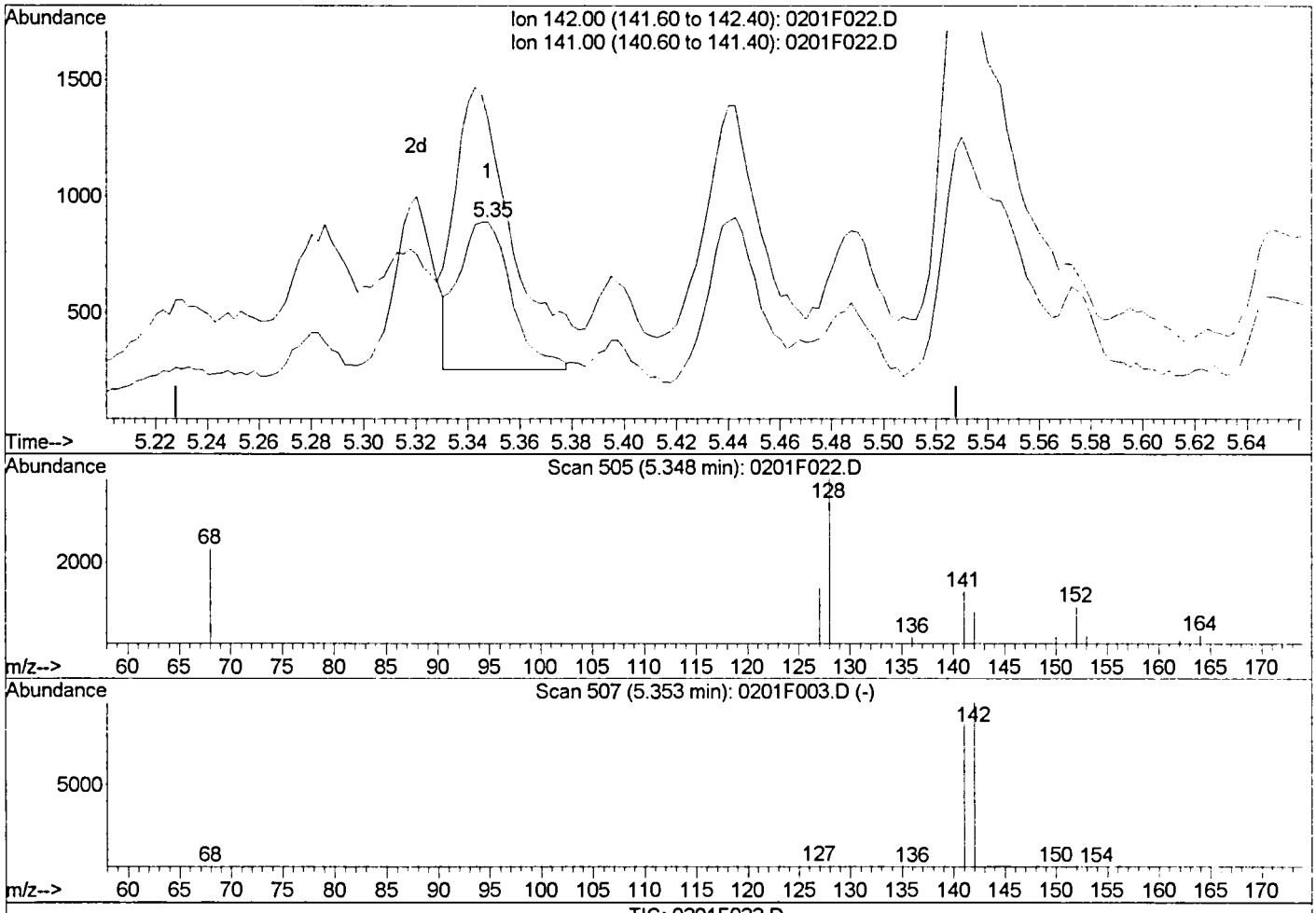
FEB 03 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:18:56 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:18 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(3) 2-Methylnaphthalene (T)

5.35min 4.56ng/ml m

response 905

Ion	Exp%	Act%
142.00	100	100
141.00	87.60	150.11#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

02/02/16

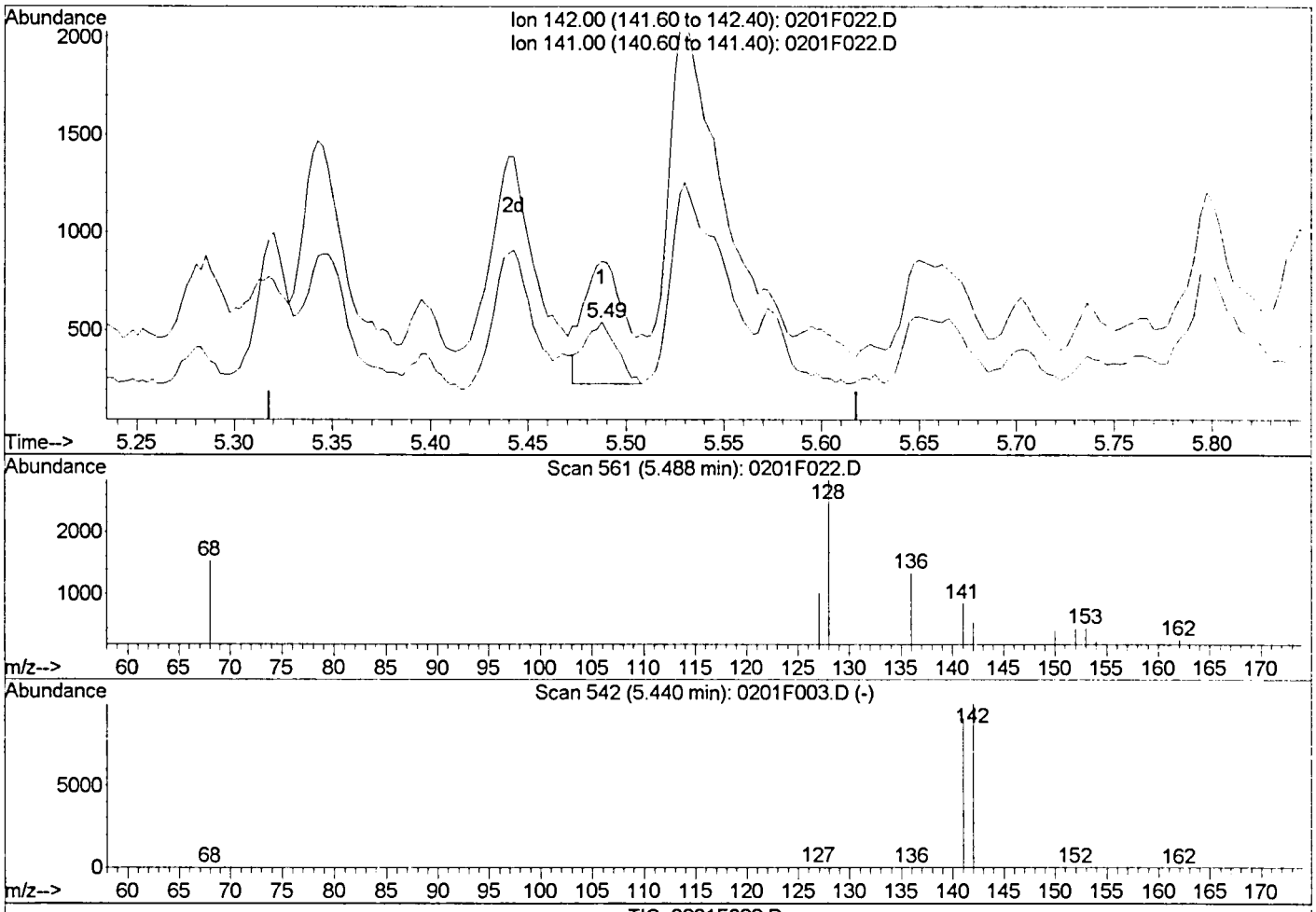
FEB 03 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:19:01 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:18 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(4) 1-Methylnaphthalene (T)

5.49min 2.10ng/ml

response 363

Ion	Exp%	Act%
142.00	100	100
141.00	90.80	117.14
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

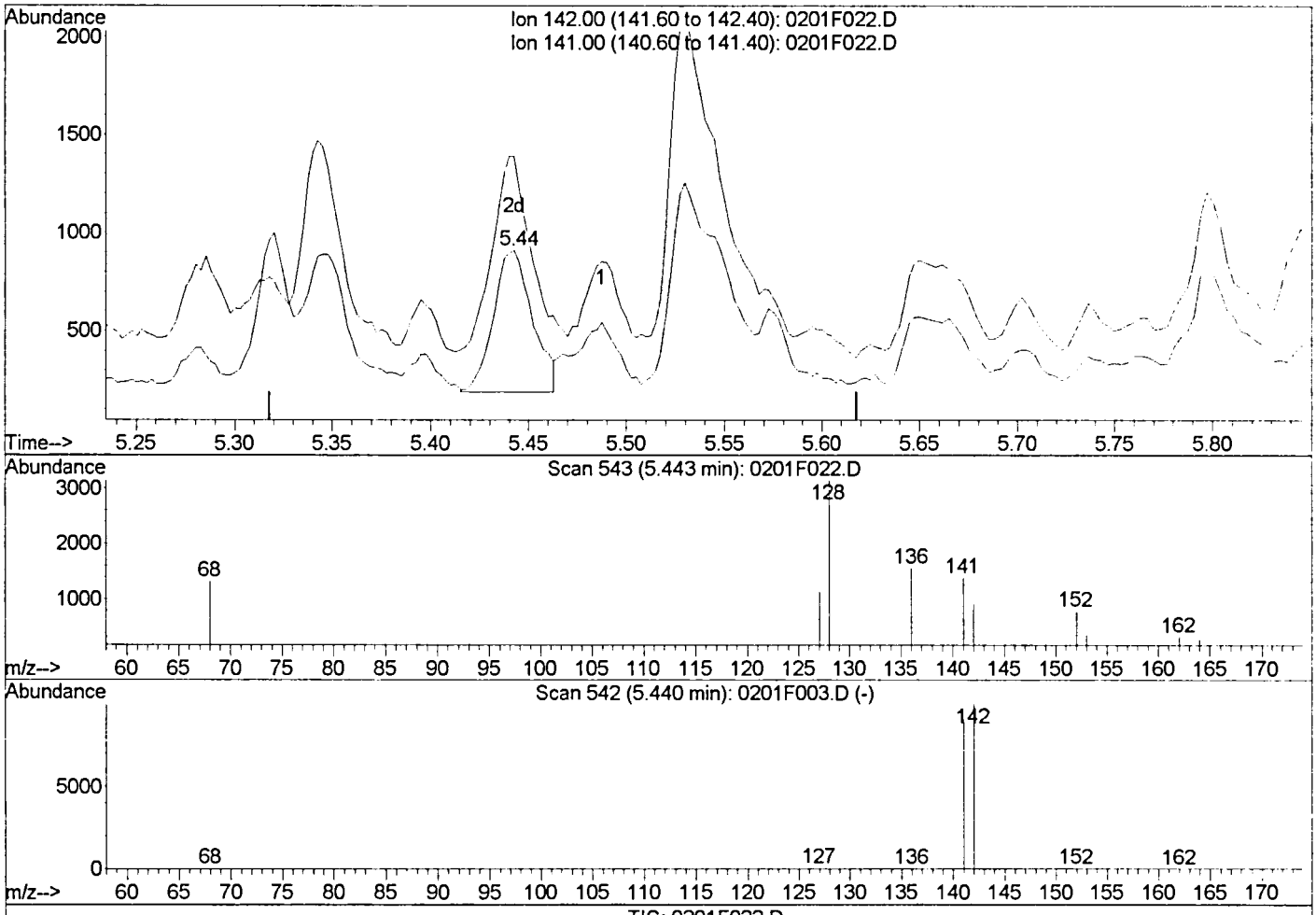
FEB 0 3 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:19:08 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:19 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(4) 1-Methylnaphthalene (T)

5.44min 5.81ng/ml m

response 1005

Ion	Exp%	Act%
142.00	100	100
141.00	90.80	152.64#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

WP

02/02/16

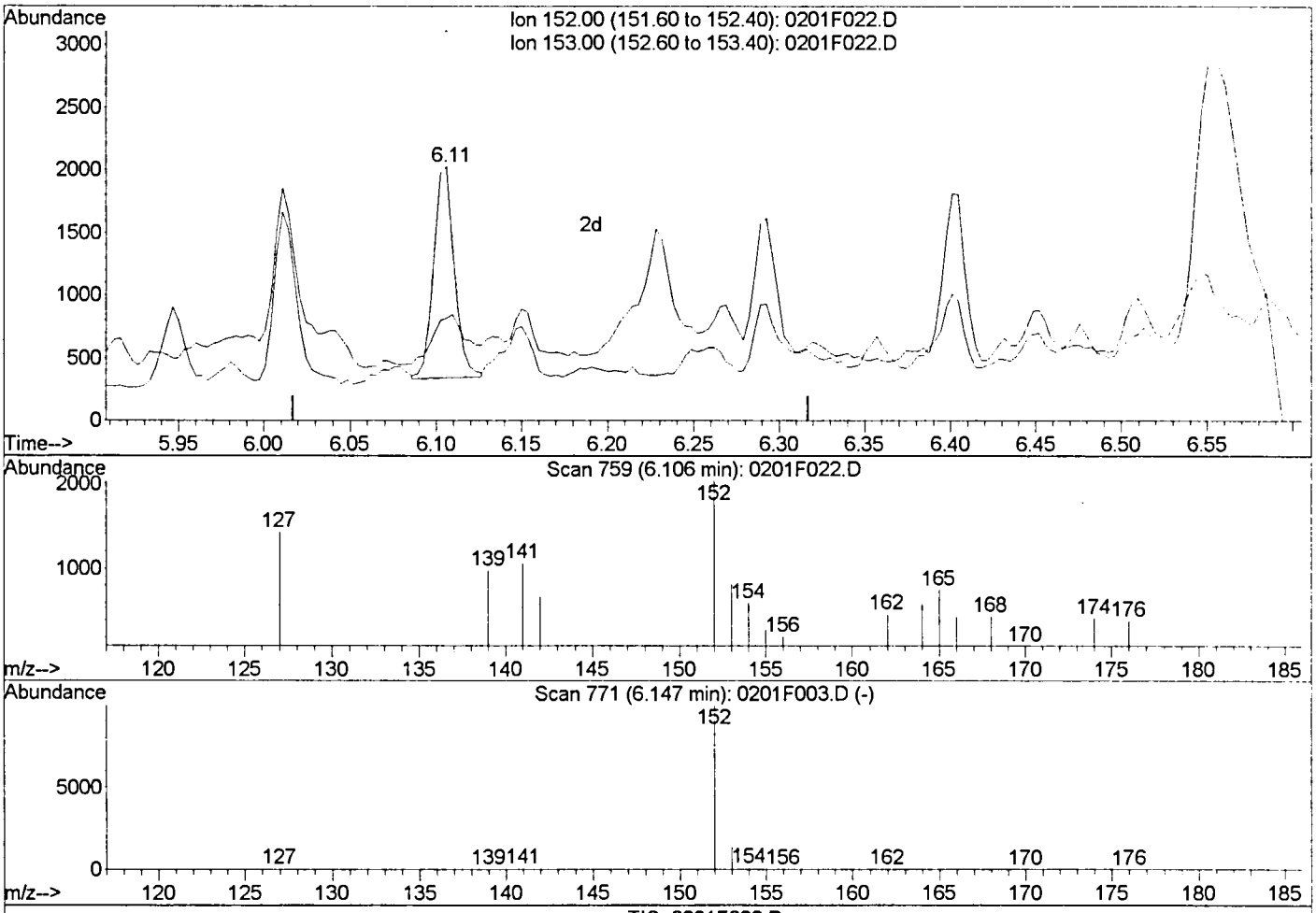
FEB 0 3 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:19:14 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:19 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(8) Acenaphthylene (T)

6.11min 4.63ng/ml

response 1415

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	21.68
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

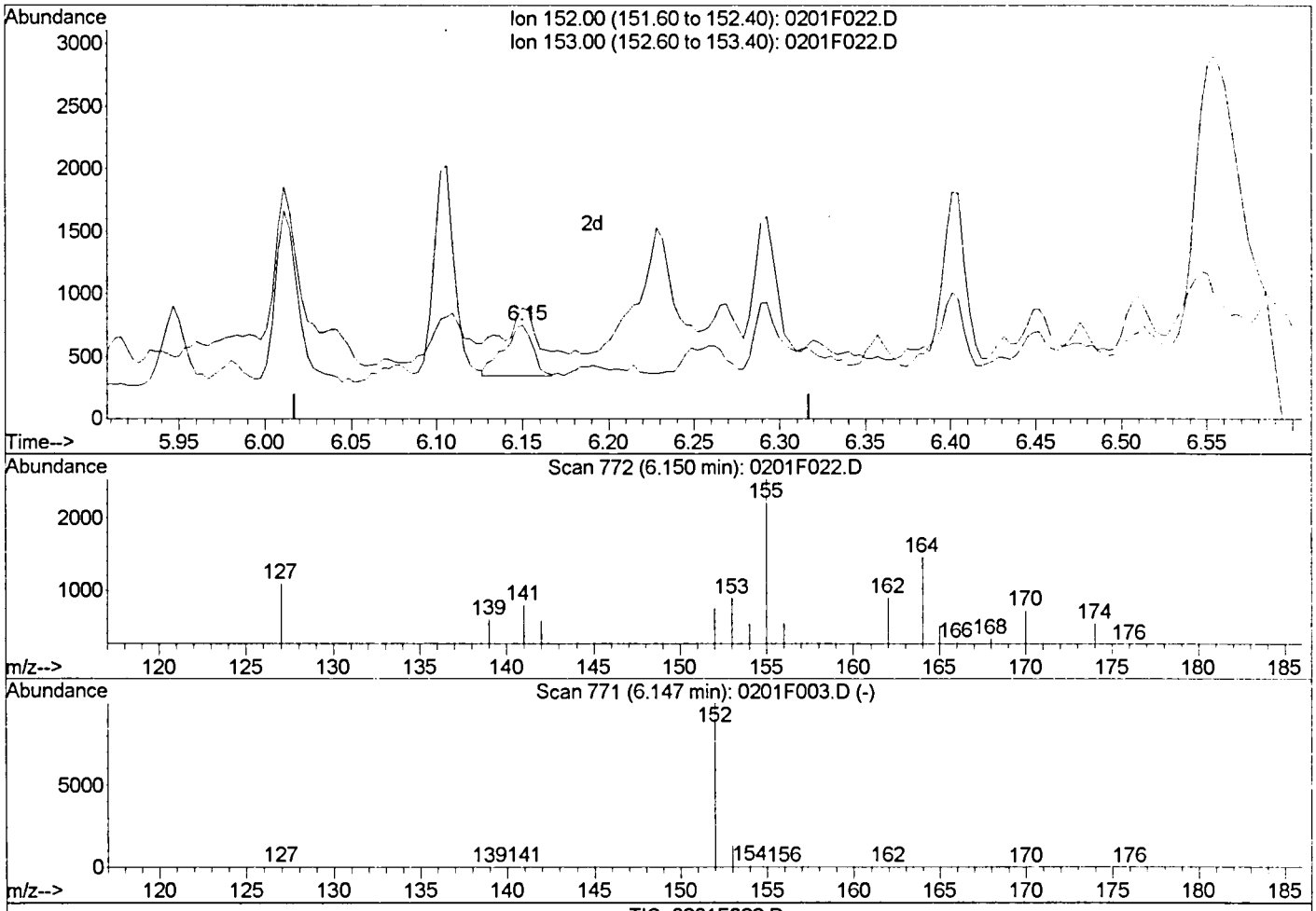
FEB 03 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:19:29 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:19 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(8) Acenaphthylene (T)

6.15min 1.54ng/ml m

response 470

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	118.58#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

WP

02/02/16

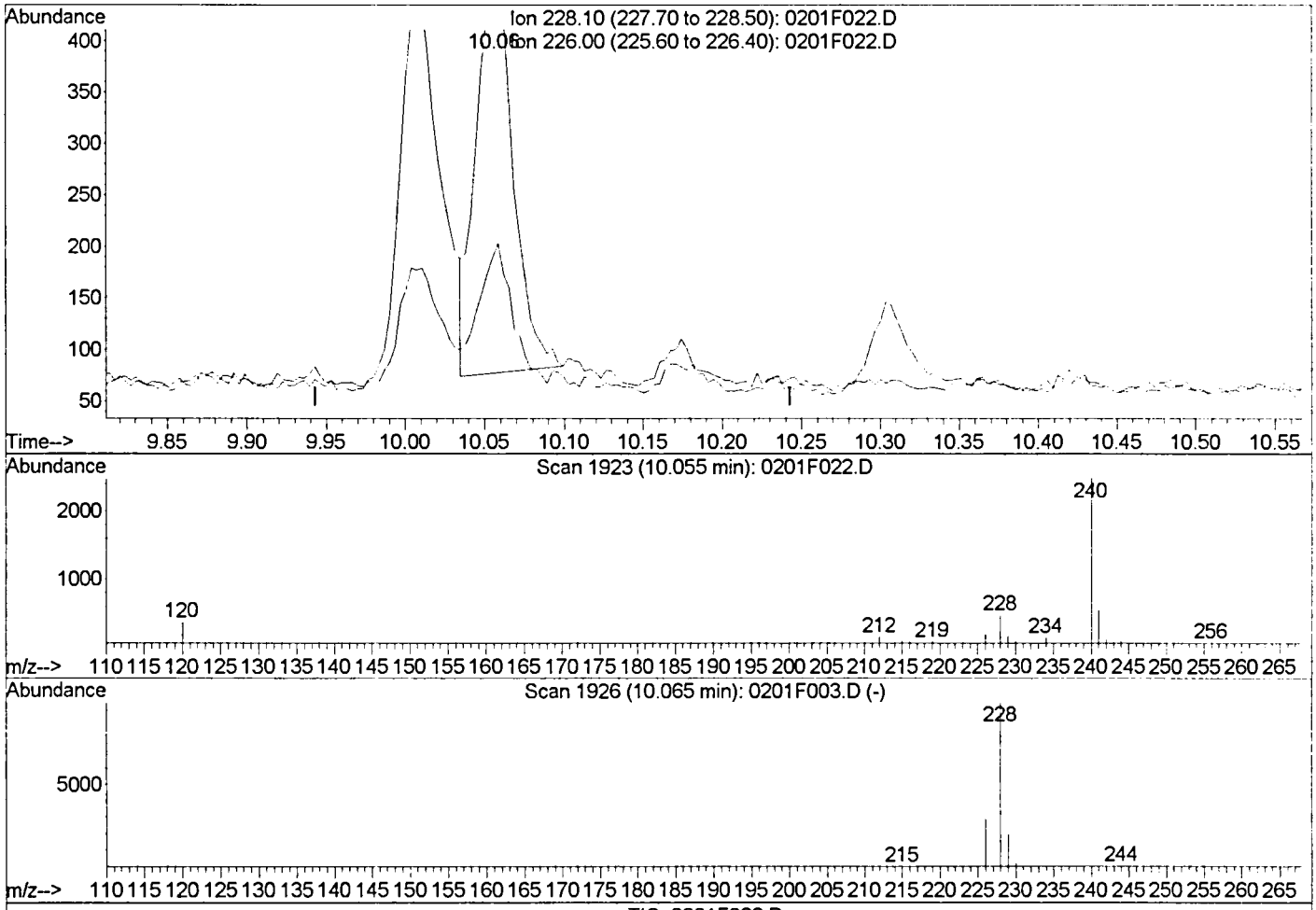
FEB 0 3 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:19:34 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:19 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(26) Chrysene (T)

10.06min 1.70ng/ml

response 629

Ion	Exp%	Act%
228.10	100	100
226.00	28.60	29.87
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

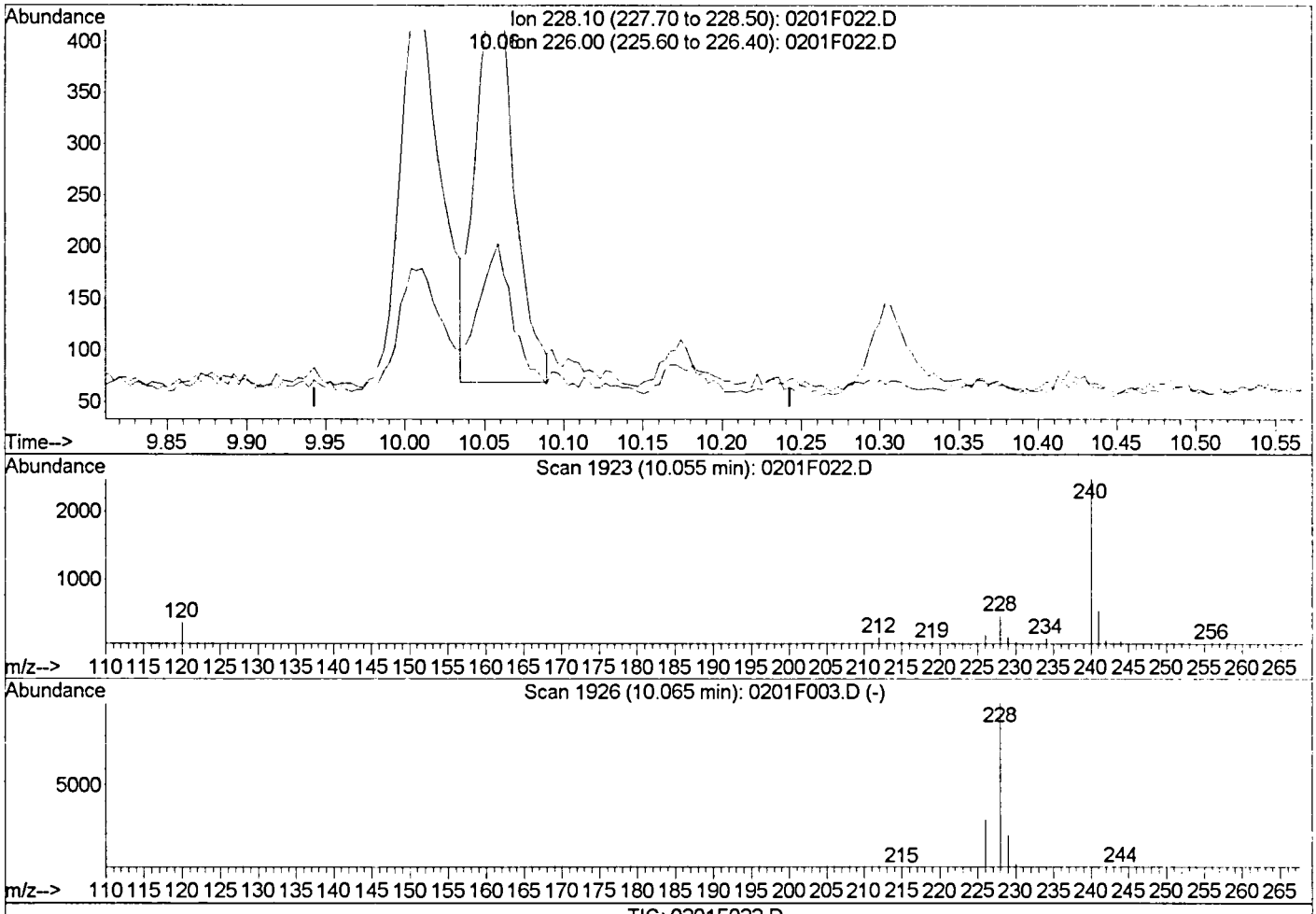
FEB 03 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:20:08 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:20 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(26) Chrysene (T)
10.06min 1.77ng/ml m
response 655

Ion	Exp%	Act%
228.10	100	100
226.00	28.60	40.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
02/02/16

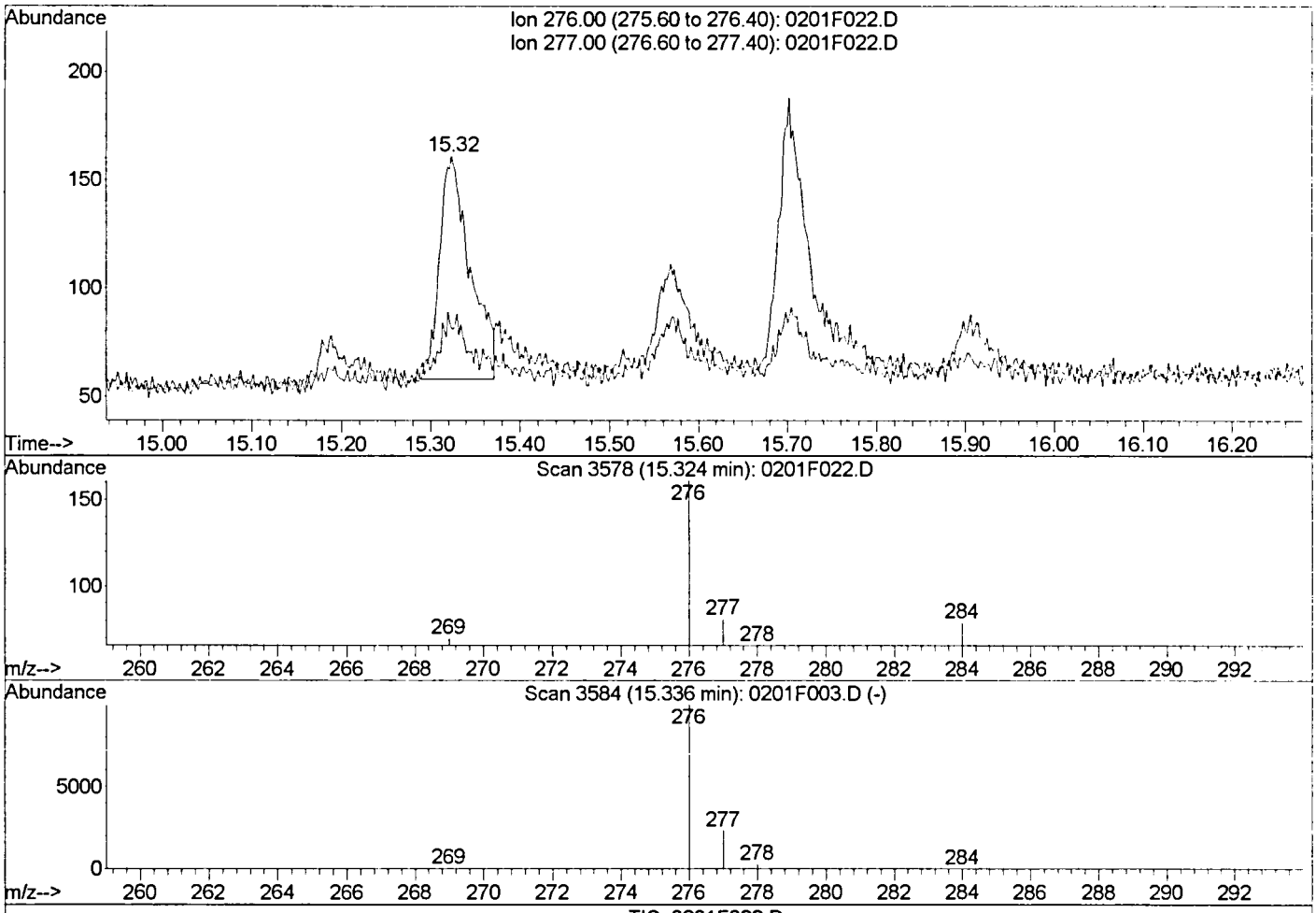
FEB 0 3 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:20:16 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:20 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(33) Indeno(1,2,3-cd)pyrene (T)

15.32min 0.70ng/ml

response 246

Ion	Exp%	Act%
276.00	100	100
277.00	23.20	17.48
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

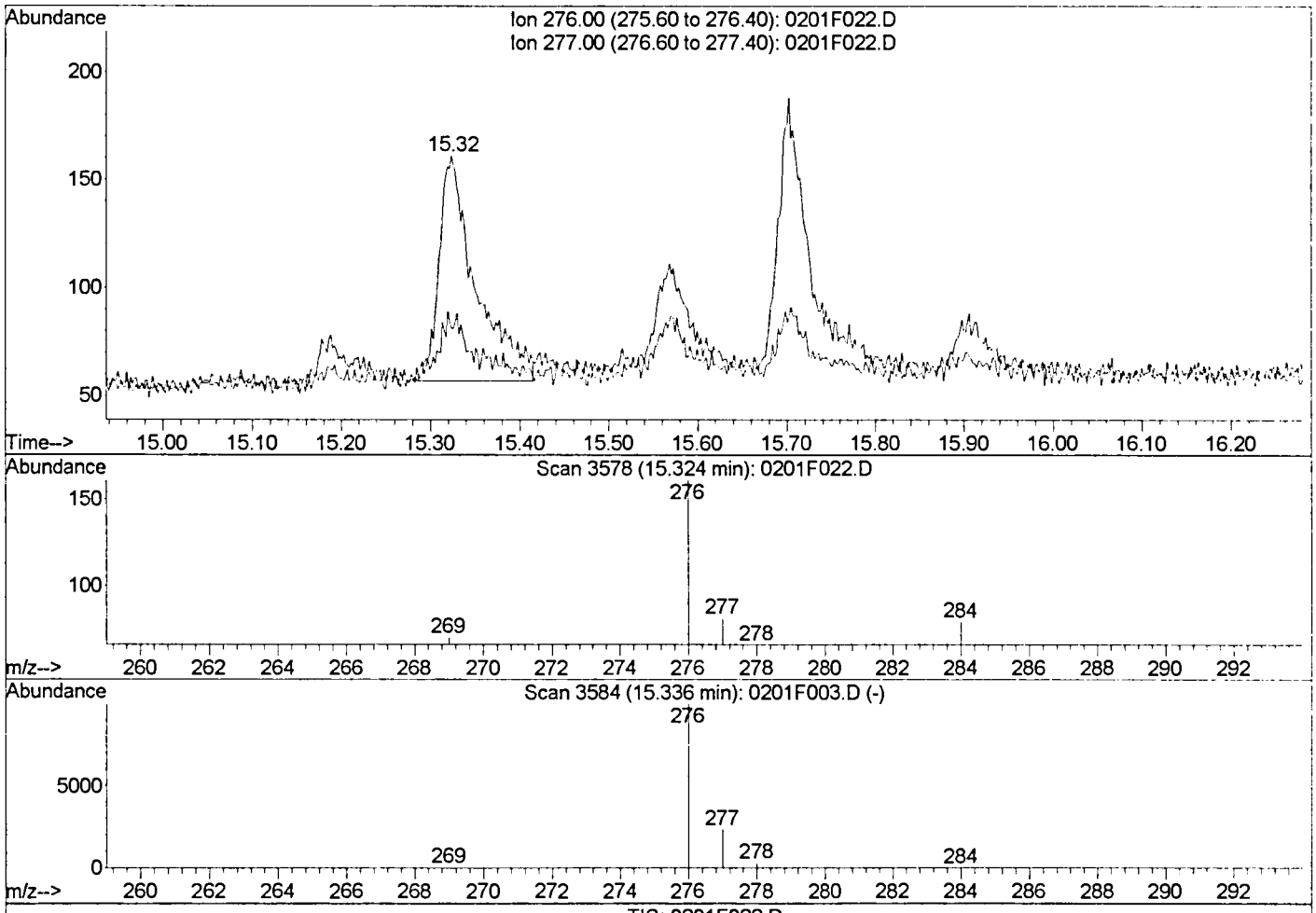
FEB 03 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:20:37 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F022.D Vial: 22
Acq On : 1 Feb 2016 4:15 pm Operator: LWeiskopf
Sample : K1600673-010 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:20 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F022.D

(33) Indeno(1,2,3-cd)pyrene (T)

15.32min 0.84ng/ml m

response 295

Ion	Exp%	Act%
276.00	100	100
277.00	23.20	50.31
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

02/02/16

FEB 03 2016

0201F022.D 011116SIMPAH.M Tue Feb 02 12:20:47 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F023.D
Lab ID: K1600673-011
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 16:37
Date Quantitated: 02/02/2016 12:22
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Internal Standards	Acenaphthene-d10	74212	13595	54380	see D1
Above Highest ICAL Level	Naphthalene	22379.05	NA	2000	1
	1-Methylnaphthalene	10151.84	NA	2000	

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:25
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F023.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 16:37	**Quant Date:**	02/02/2016 12:22	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495838	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.68	-0.01	136	61278	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	74212m	200.00	*
3	Phenanthrene-d10	7.52	0.00	188	67515m	200.00	OK
4	Chrysene-d12	10.03	0.00	240	76883	200.00	OK
5	Perylene-d12	13.05	0.00	264	71113	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	6.71	0.00	0.00	176	80375m	196.43	49	46-114	OK	NR
3	Fluoranthene-d10	8.51	0.01	0.00	212	131418m	380.33	95	51-121	OK	
4	Terphenyl-d14	8.85	0.00	0.00	244	104097	371.44	93	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	4.70	0.01	0.00	128	6926523	22,379	110	E	NR
1	2-Methylnaphthalene	5.36	0.01	0.00	142	343366	1,625	8.0		NR
1	1-Methylnaphthalene	5.45	0.01	0.00	142	1869055	10,152	50	E	NR
2	Acenaphthylene	6.15		0.00	152	20645m	27.05	0.13		NR
2	Acenaphthene	6.30	0.01	0.00	154	24588	56.47	0.28		NR
2	Fluorene	6.74	0.01	0.00	166	13521	25.27	0.12		NR
3	Phenanthrene				178	0d		0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene				202	0d		0.010	U	
4	Pyrene				202	0d		0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	272m	0.6000	0.0029	J	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0d		0.0041	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\020116\0201F023.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 16:37	**Quant Date:**	02/02/2016 12:22	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-011			**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?
5	Benzo(k)fluoranthene				252	0d		0.0030	U	
5	Benzo(a)pyrene				252	0d		0.0043	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:	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\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:45 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

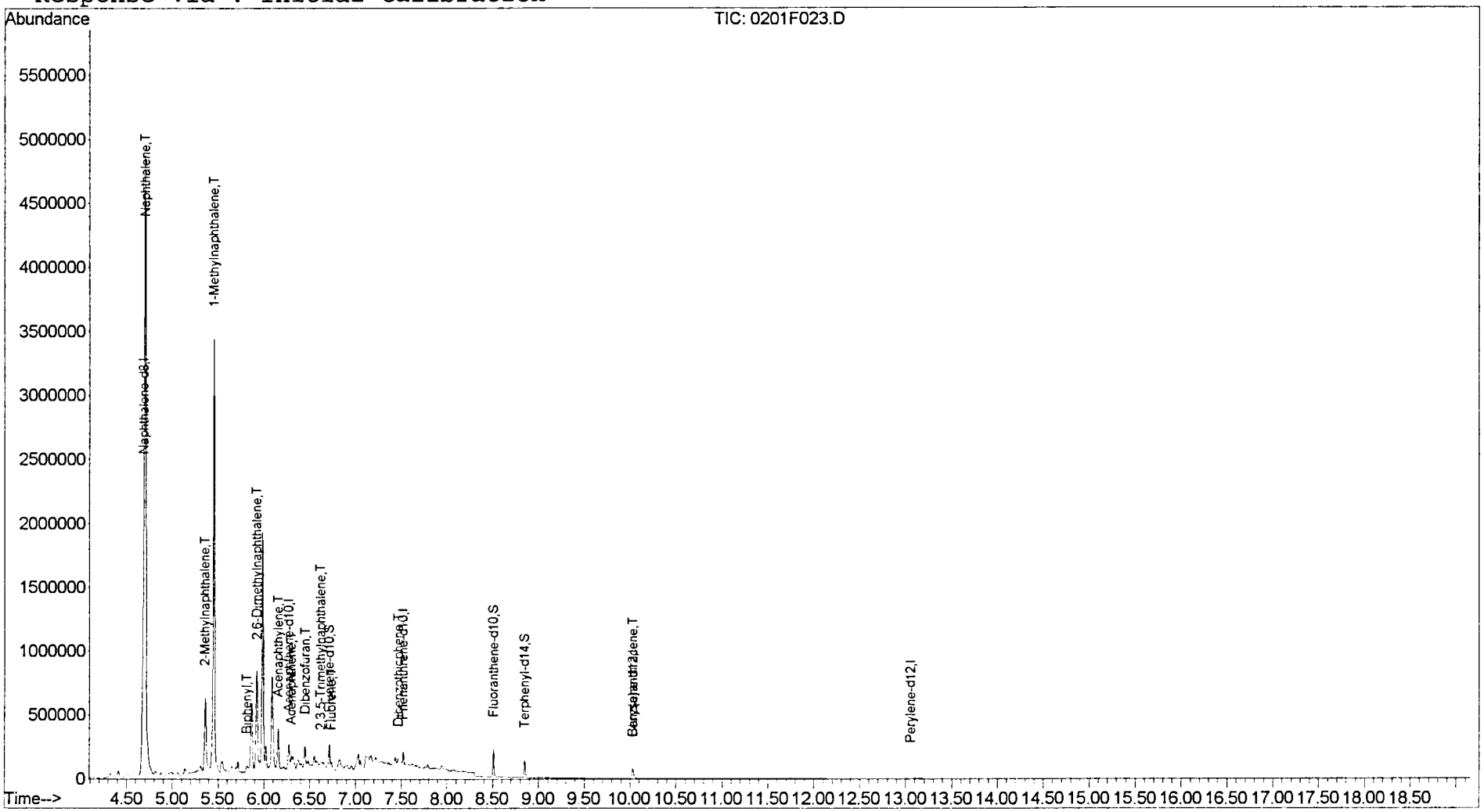
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.68	136	61278	200.00	ng/ml	-0.02
7) Acenaphthene-d10	6.27	164	74212m	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.52	188	67515m	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	76883	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	71113	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	80375m	196.43	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 19.64%			
21) Fluoranthene-d10	8.51	212	131418m	380.33	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 38.03%			
24) Terphenyl-d14	8.85	244	104097	371.44	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 37.14%			
Target Compounds						Qvalue
2) Naphthalene	4.70	128	6926523	22379.05	ng/ml	96
3) 2-Methylnaphthalene	5.36	142	343366	1625.12	ng/ml	100
4) 1-Methylnaphthalene	5.45	142	1869055	10151.84	ng/ml	96
5) Biphenyl	5.81	154	5804	22.70	ng/ml	97
6) 2,6-Dimethylnaphthalene	5.92	156	324419	1844.82	ng/ml	98
8) Acenaphthylene	6.15	152	20645m	27.05	ng/ml	
9) Acenaphthene	6.30	154	24588	56.47	ng/ml	89
10) Dibenzofuran	6.45	168	62782	89.43	ng/ml	100
11) 2,3,5-Trimethylnaphthalene	6.62	170	15343	39.93	ng/ml	70
13) Fluorene	6.74	166	13521	25.27	ng/ml	90
15) Dibenzothiophene	7.47	184	7776m	19.73	ng/ml	
25) Benz(a)anthracene	10.02	228	272m	0.60	ng/ml	

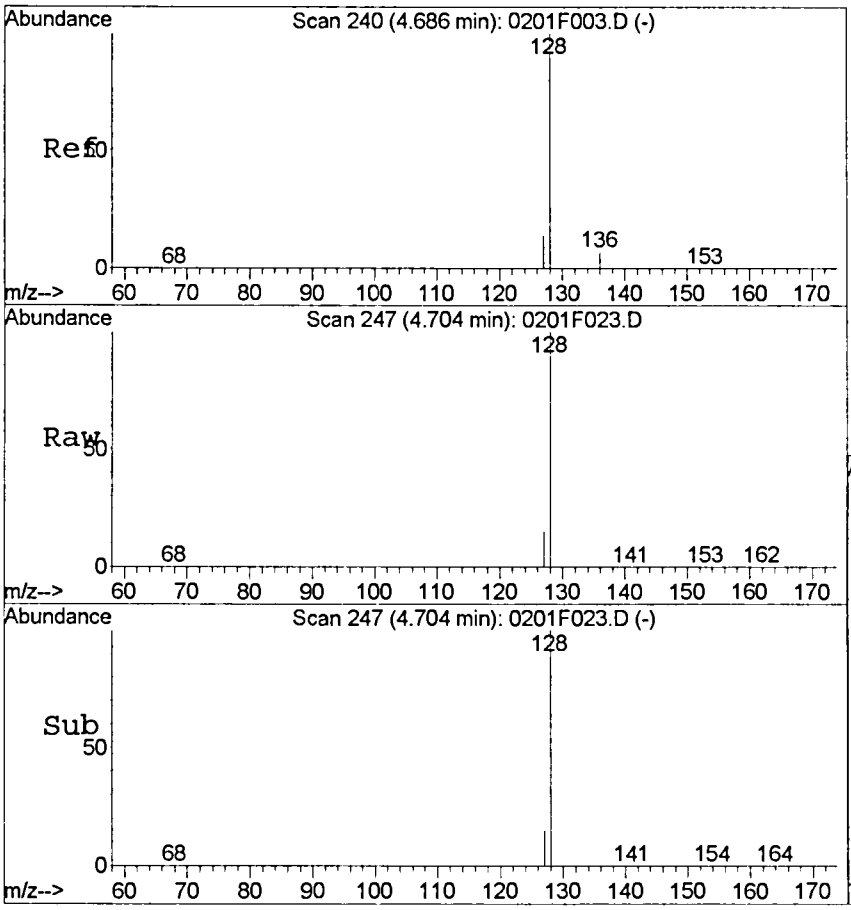
(#) = qualifier out of range (m) = manual integration
0201F023.D 011116SIMPAH.M Tue Feb 02 12:23:14 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:22 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

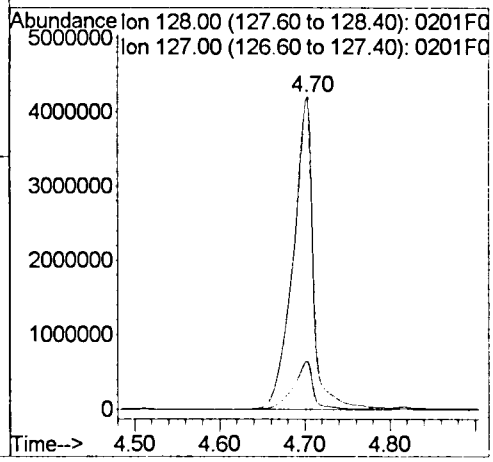


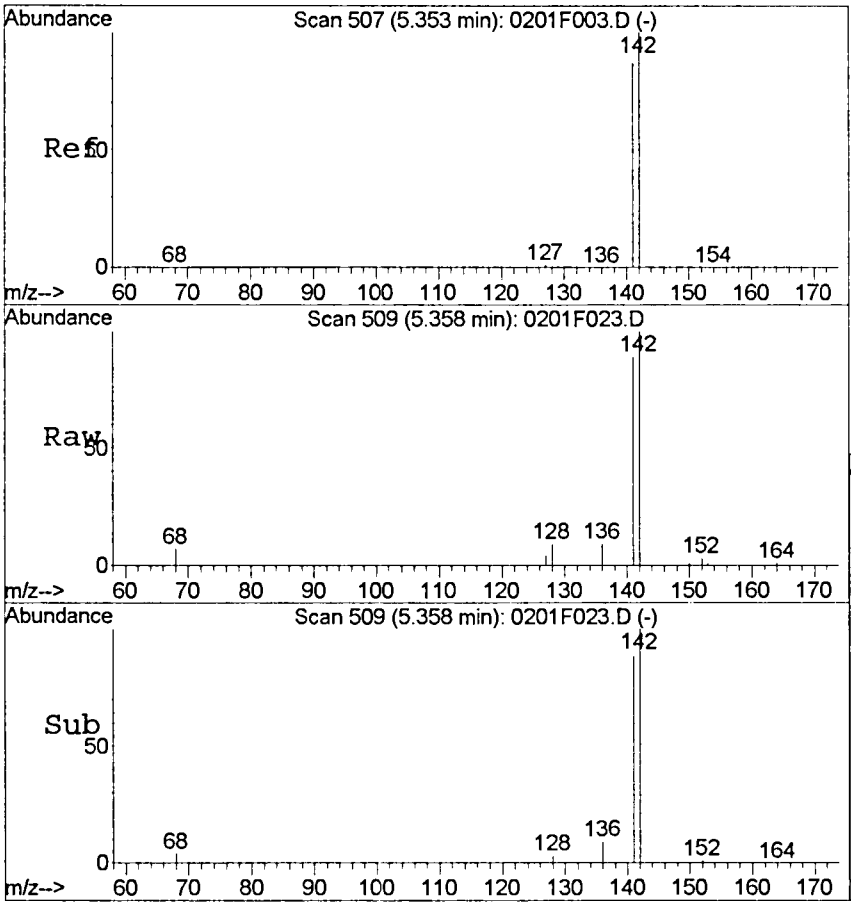


#2
Naphthalene
Concen: 22379.05 ng/ml
RT: 4.70 min Scan# 247
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:128 Resp: 6926523

Ion	Ratio	Lower	Upper
128	100		
127	15.4	0.0	43.8

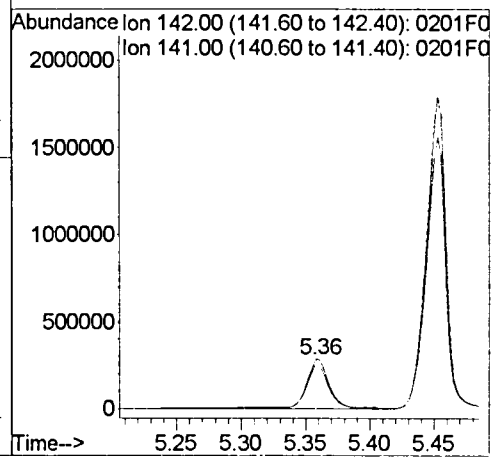


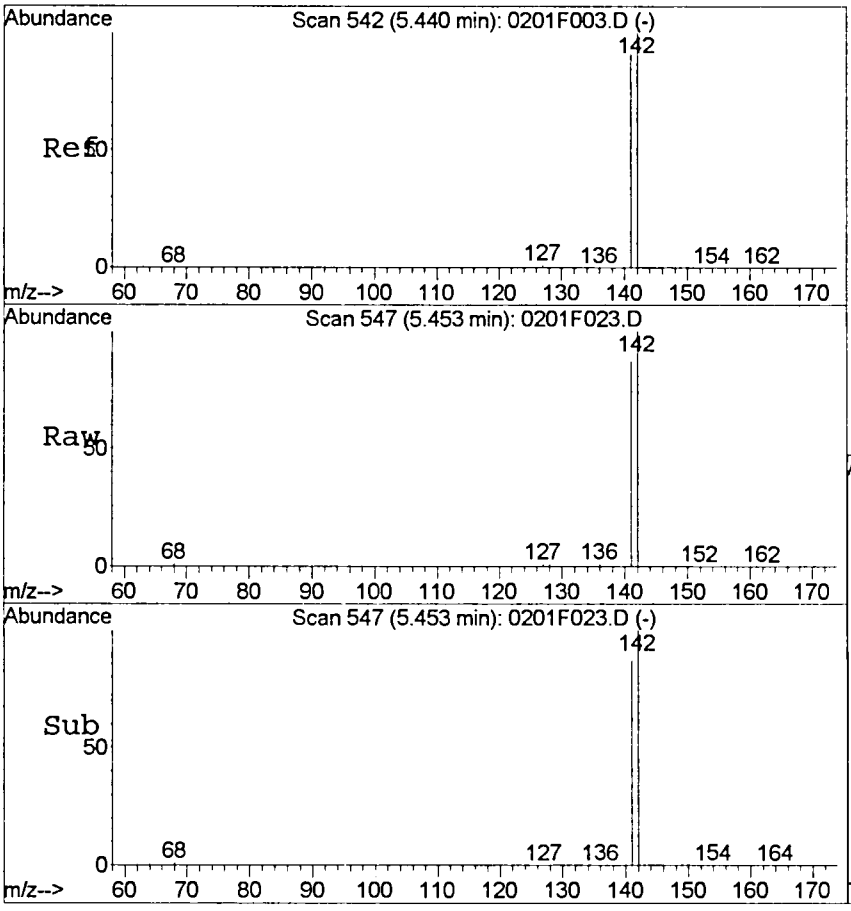


#3
2-Methylnaphthalene
Concen: 1625.12 ng/ml
RT: 5.36 min Scan# 509
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:142 Resp: 343366

Ion	Ratio	Lower	Upper
142	100		
141	87.6	57.6	117.6

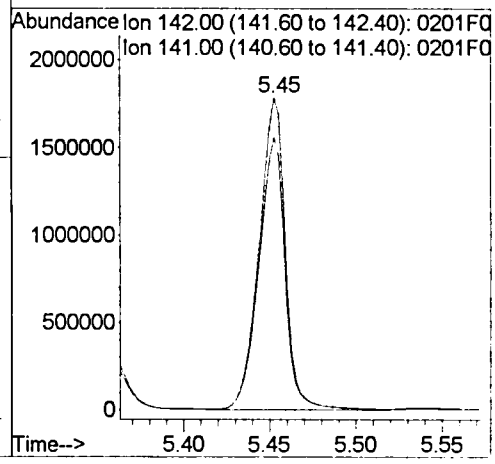


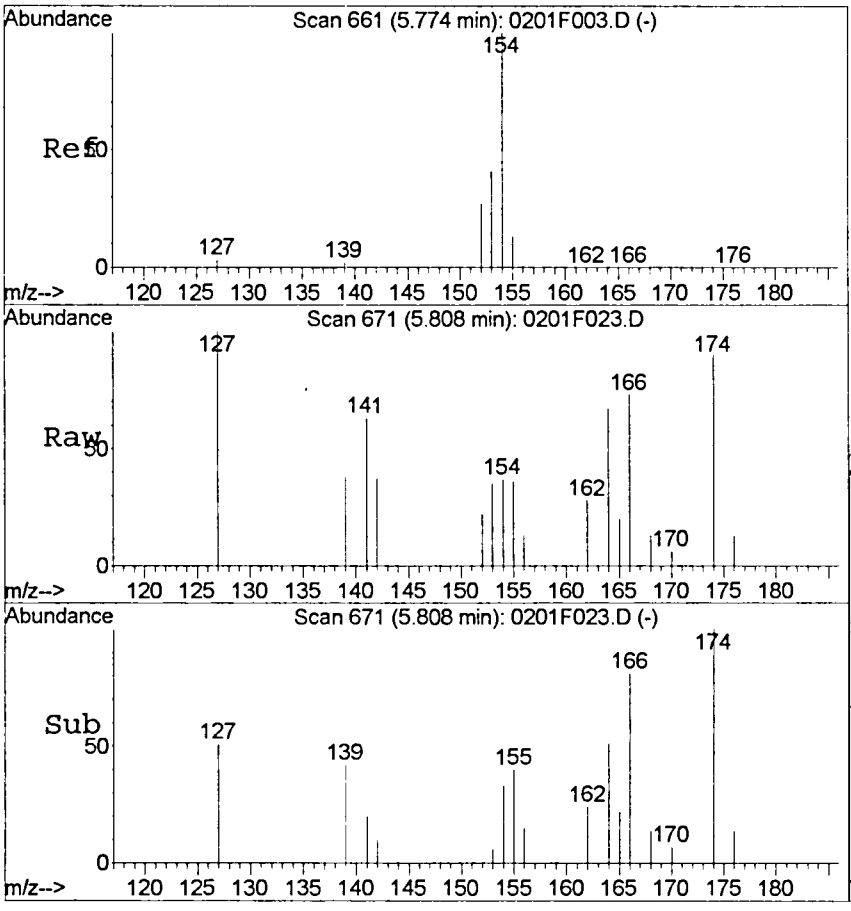


#4
1-Methylnaphthalene
Concen: 10151.84 ng/ml
RT: 5.45 min Scan# 547
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:142 Resp: 1869055

Ion	Ratio	Lower	Upper
142	100		
141	87.3	60.8	120.8

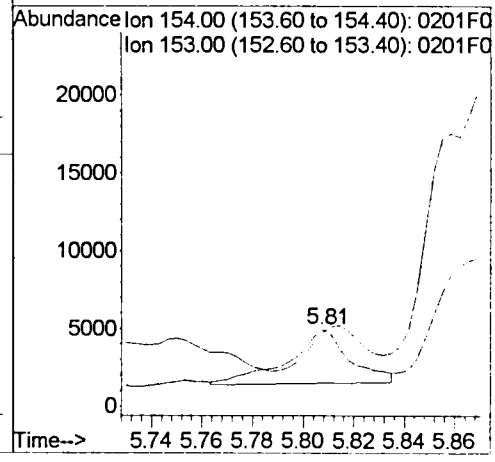


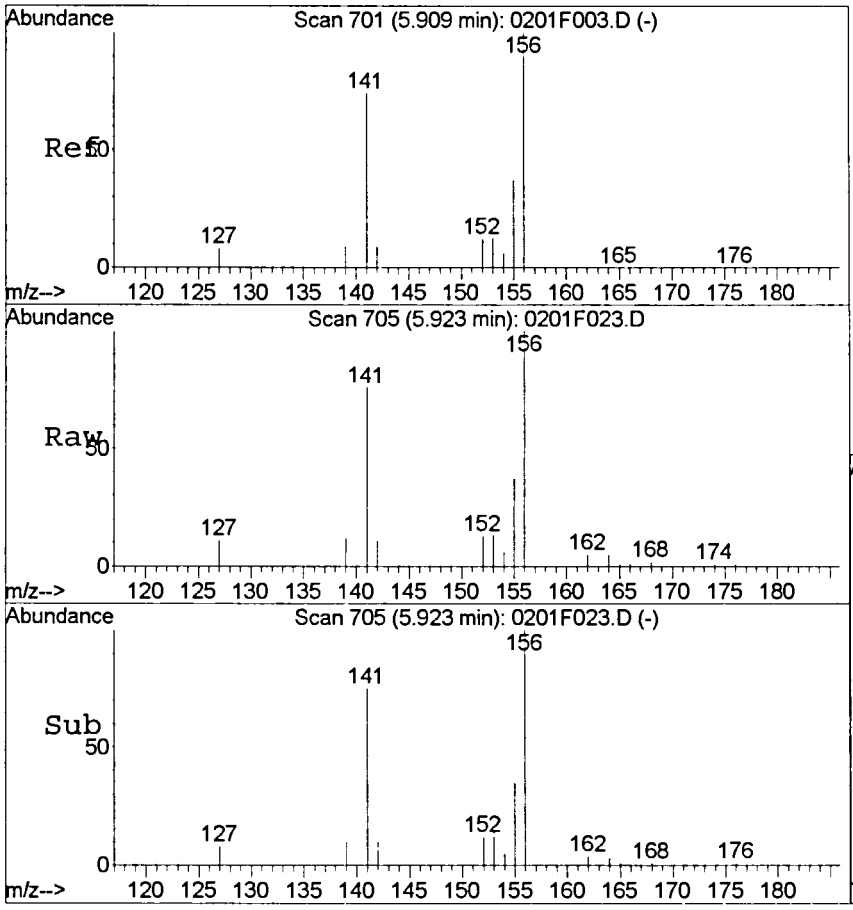


#5
Biphenyl
Concen: 22.70 ng/ml
RT: 5.81 min Scan# 671
Delta R.T. 0.01 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:154 Resp: 5804

Ion	Ratio	Lower	Upper
154	100		
153	39.3	11.5	71.5

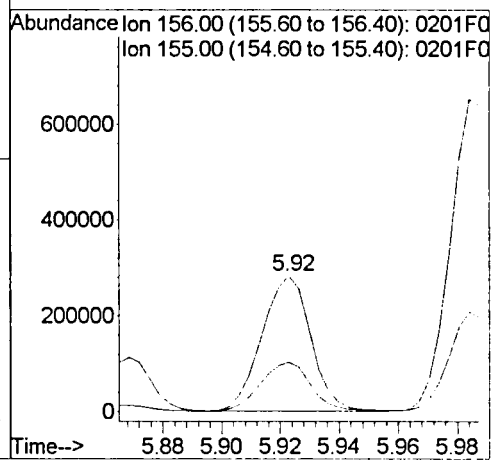


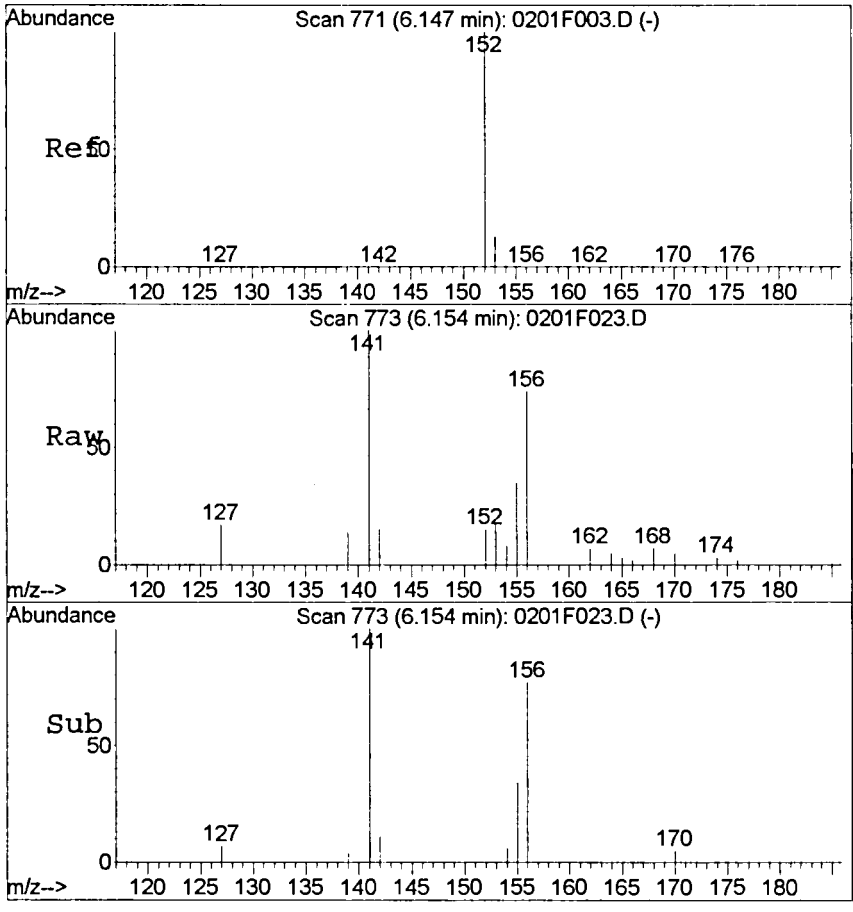


#6
2,6-Dimethylnaphthalene
Concen: 1844.82 ng/ml
RT: 5.92 min Scan# 705
Delta R.T. -0.01 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:156 Resp: 324419

Ion	Ratio	Lower	Upper
156	100		
155	36.1	7.0	67.0

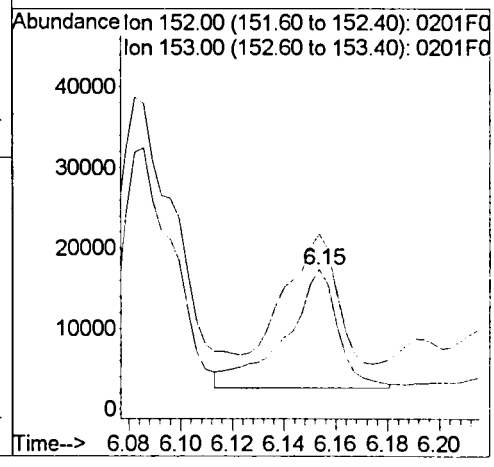


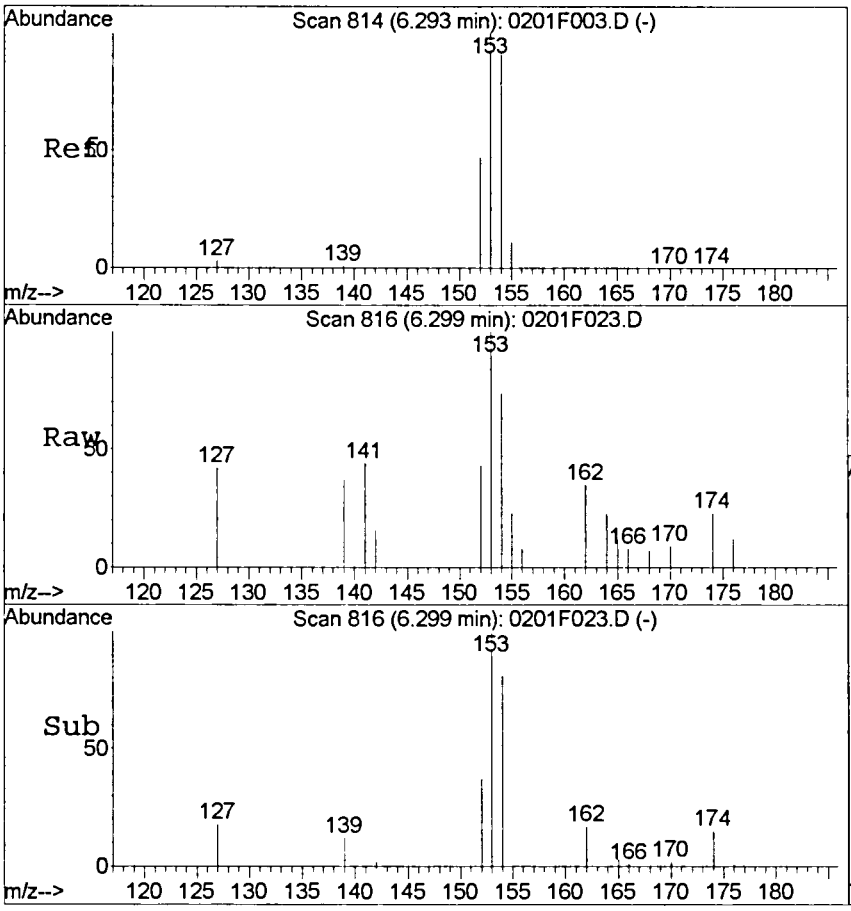


#8
Acenaphthylene
Concen: 27.05 ng/ml m
RT: 6.15 min Scan# 773
Delta R.T. -0.01 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:152 Resp: 20645

Ion	Ratio	Lower	Upper
152	100		
153	125.3	0.0	42.9#

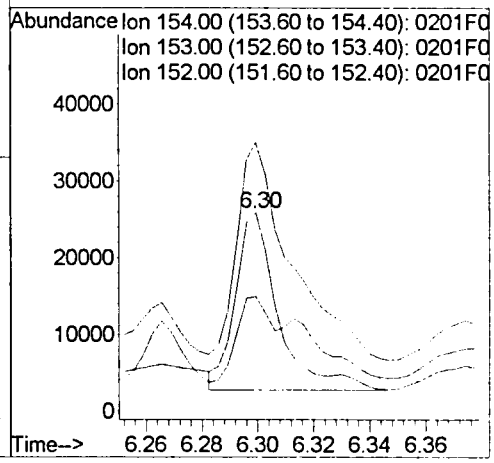


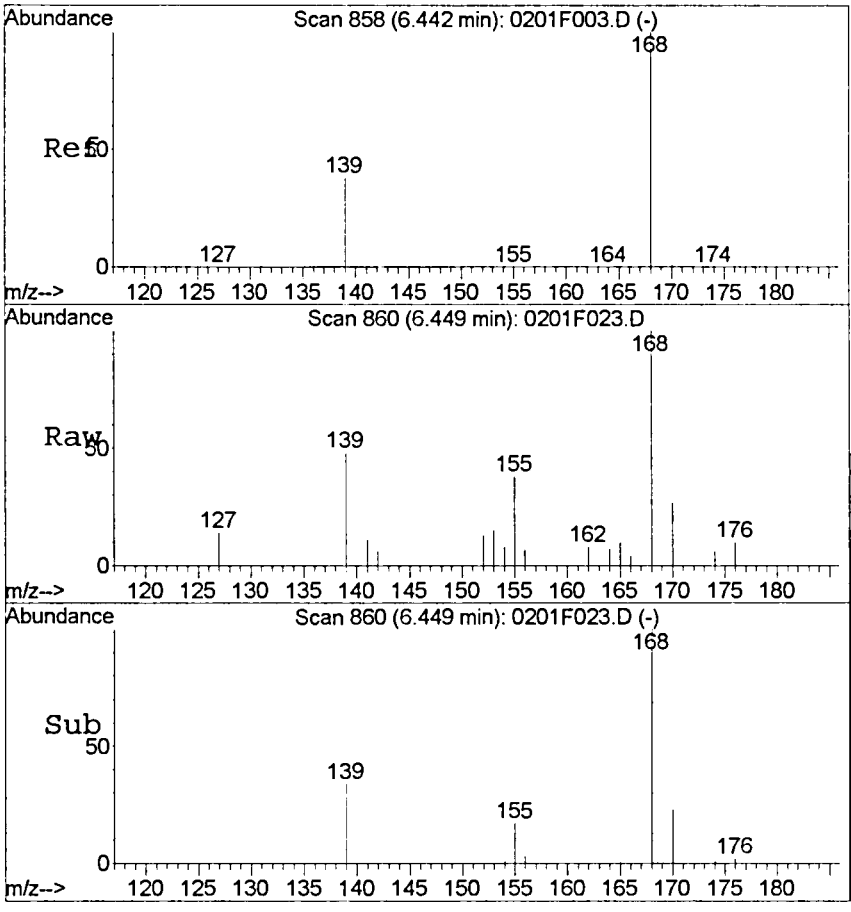


#9
Acenaphthene
Concen: 56.47 ng/ml
RT: 6.30 min Scan# 816
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:154 Resp: 24588

Ion	Ratio	Lower	Upper
154	100		
153	123.0	77.1	137.1
152	48.1	19.8	79.8

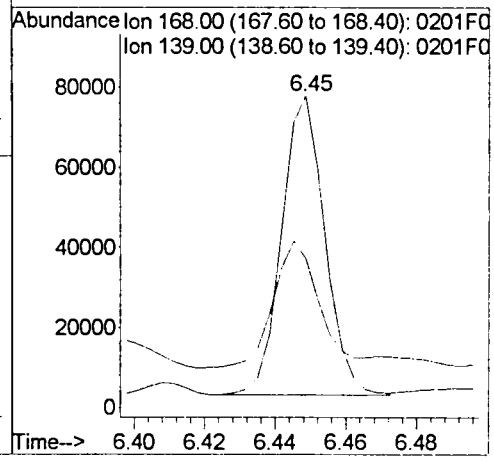


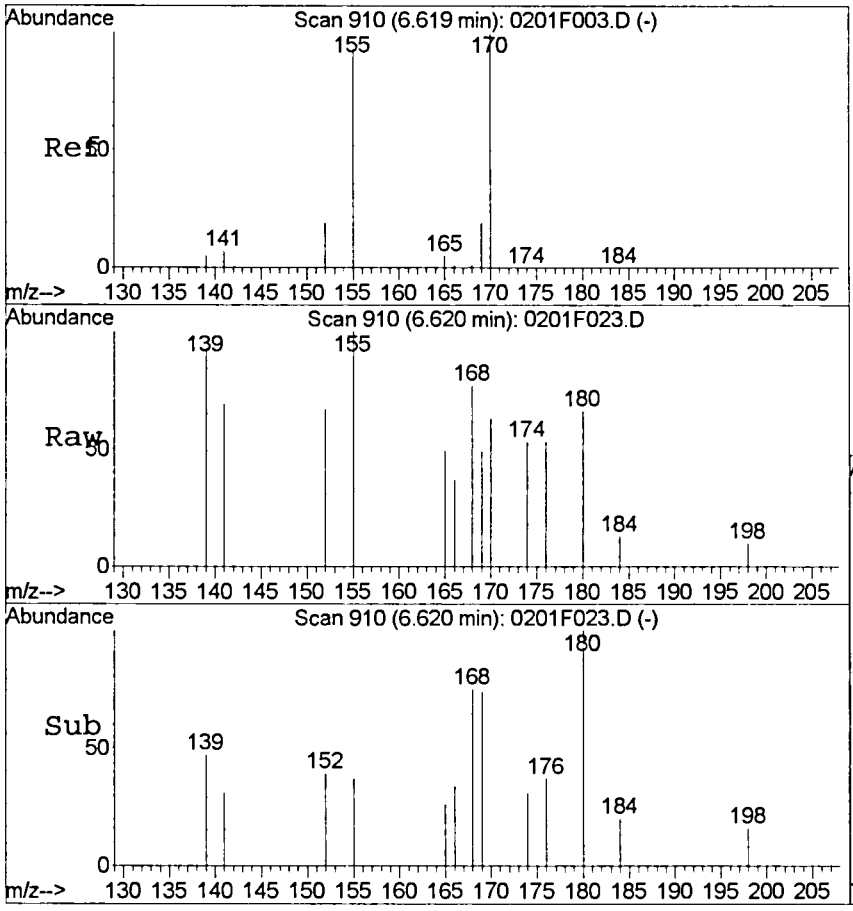


#10
Dibenzofuran
Concen: 89.43 ng/ml
RT: 6.45 min Scan# 860
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:168 Resp: 62782

Ion	Ratio	Lower	Upper
168	100		
139	36.4	6.7	66.7

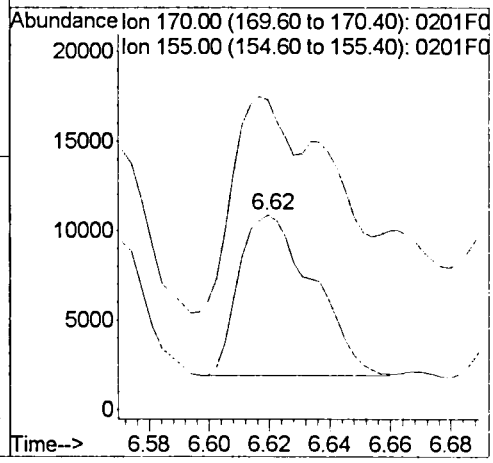


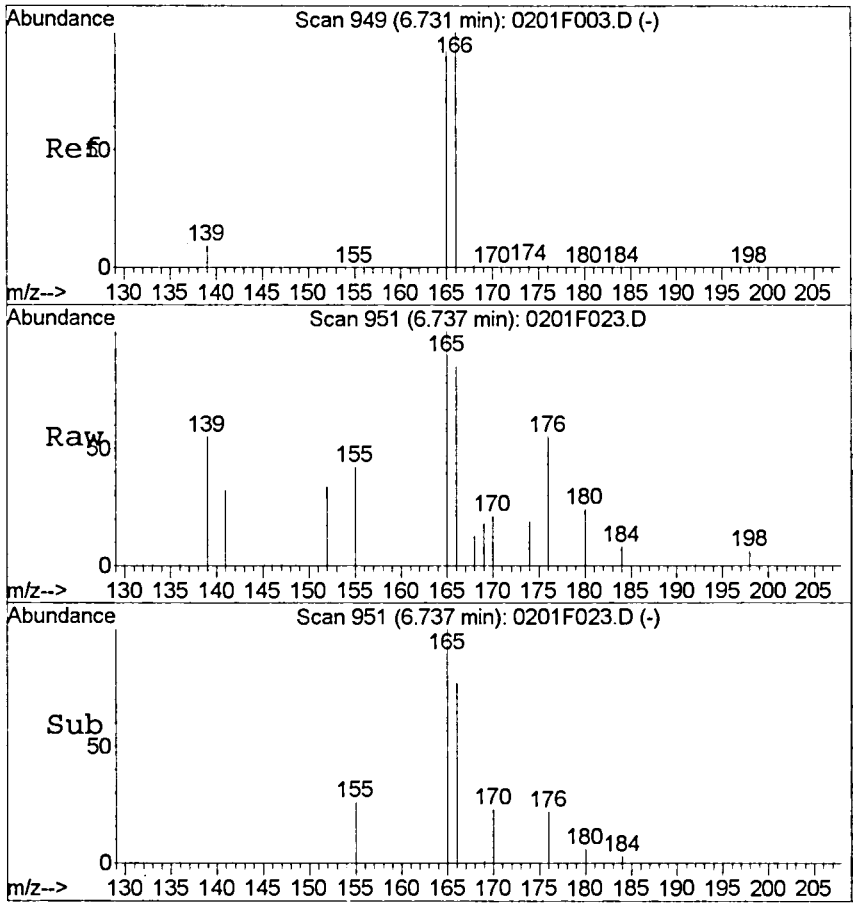


#11
2,3,5-Trimethylnaphthalene
Concen: 39.93 ng/ml
RT: 6.62 min Scan# 910
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:170 Resp: 15343

Ion	Ratio	Lower	Upper
170	100		
155	125.5	66.5	126.5

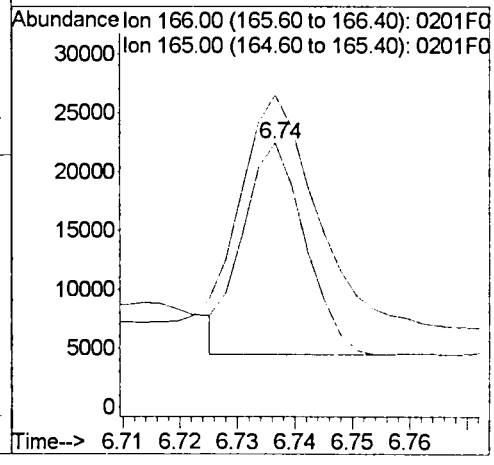


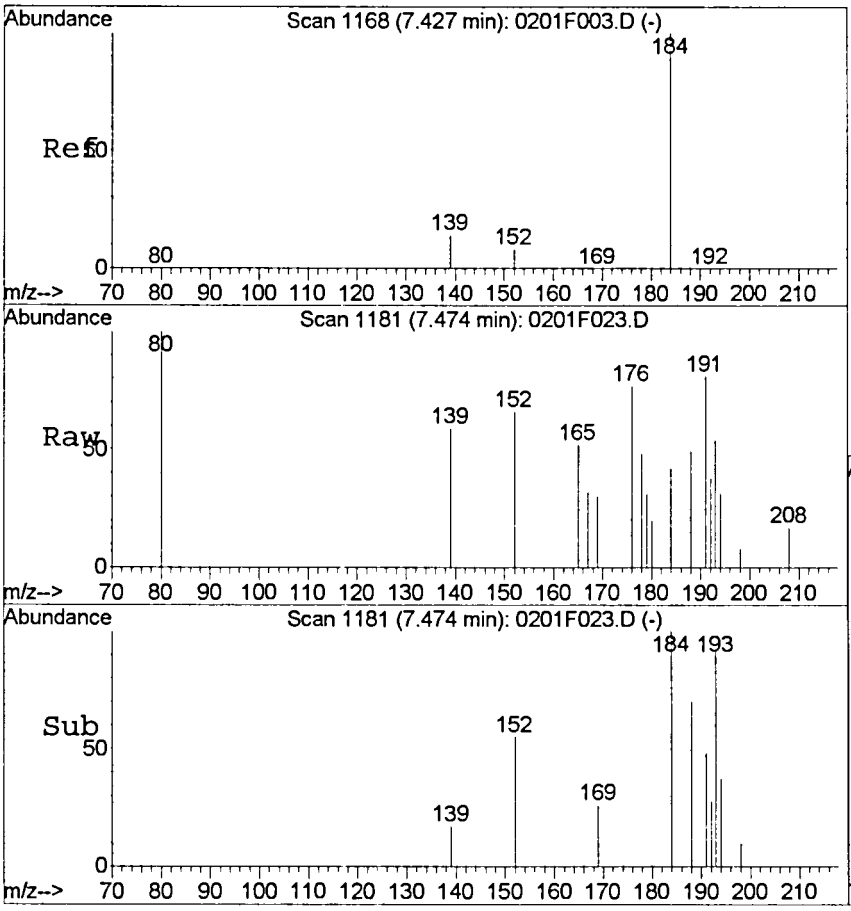


#13
Fluorene
Concen: 25.27 ng/ml
RT: 6.74 min Scan# 951
Delta R.T. -0.01 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:166 Resp: 13521

Ion	Ratio	Lower	Upper
166	100		
165	104.0	63.9	123.9

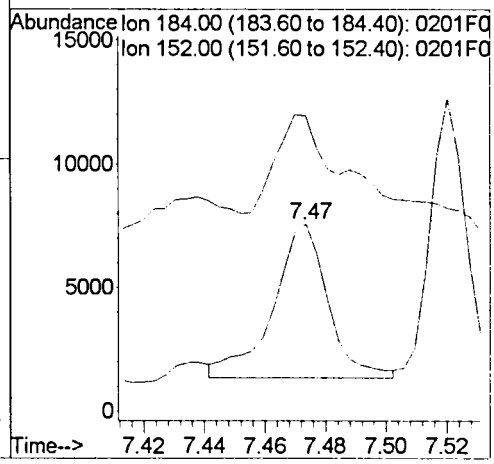


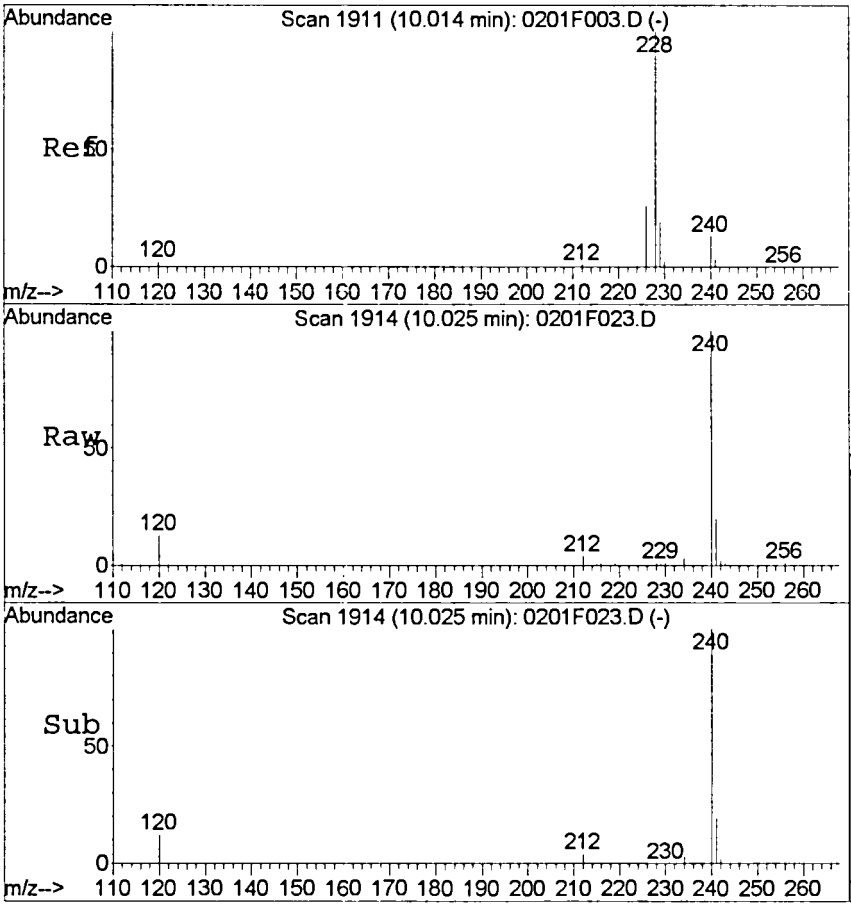


#15
Dibenzothiophene
Concen: 19.73 ng/ml m
RT: 7.47 min Scan# 1181
Delta R.T. 0.03 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:184 Resp: 7776

Ion	Ratio	Lower	Upper
184	100		
152	157.4	0.0	38.6#

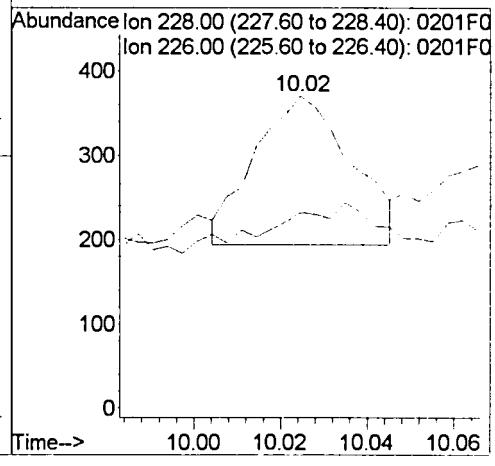




#25
Benz(a)anthracene
Concen: 0.60 ng/ml m
RT: 10.02 min Scan# 1914
Delta R.T. -0.02 min
Lab File: 0201F023.D
Acq: 1 Feb 2016 4:37 pm

Tgt Ion:228 Resp: 272

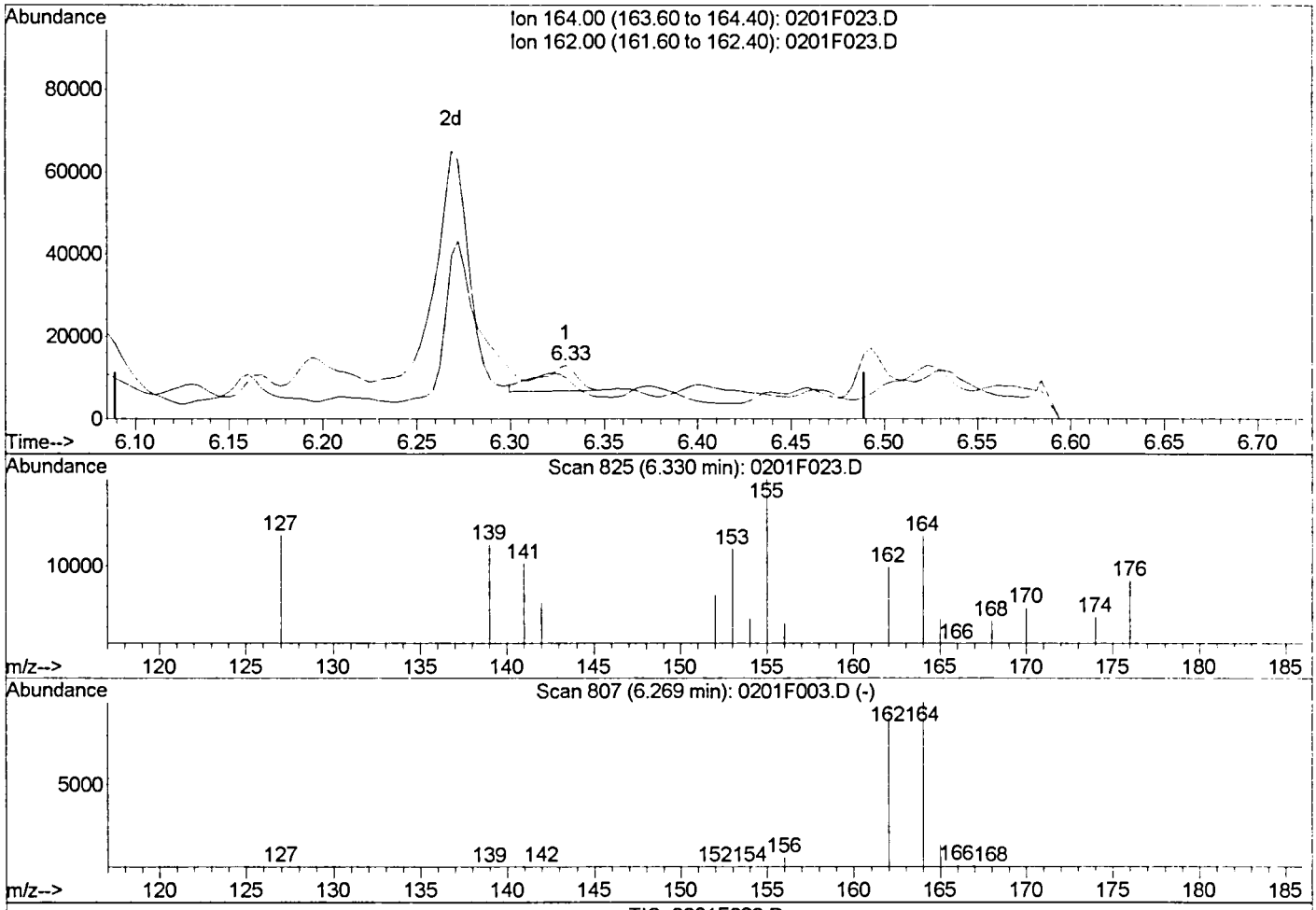
Ion	Ratio	Lower	Upper
228	100		
226	62.7	0.0	55.9#



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(7) Acenaphthene-d10 (I)

6.33min 200.00ng/ml

response 8739

Ion	Exp%	Act%
164.00	100	100
162.00	97.50	75.58
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

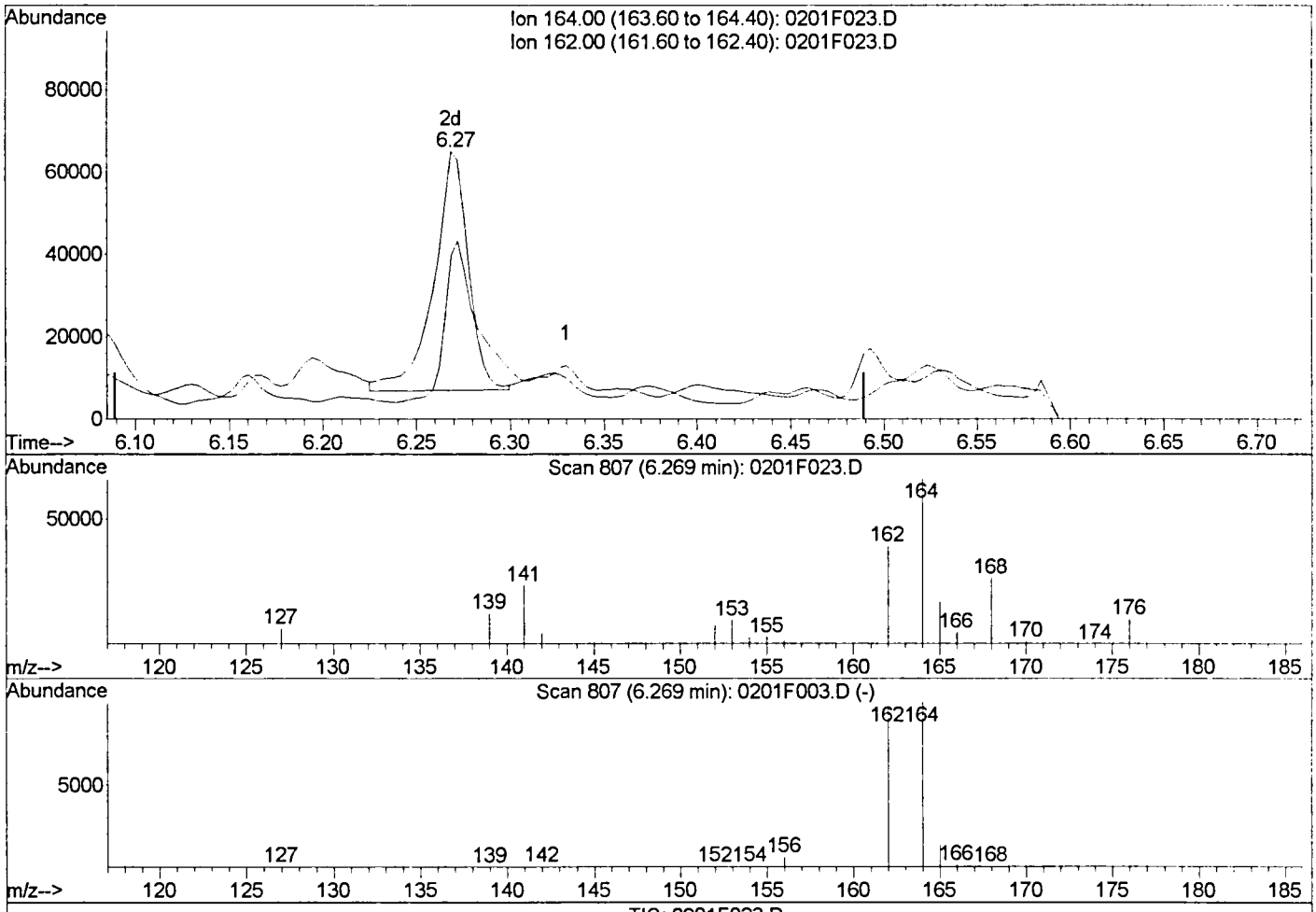
FEB 0 3 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:21:13 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:21 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(7) Acenaphthene-d10 (I)
6.27min 200.00ng/ml m
response 74212

Ion	Exp%	Act%
164.00	100	100
162.00	97.50	61.23#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
WP
02/02/16

matrix interference, see Dil.

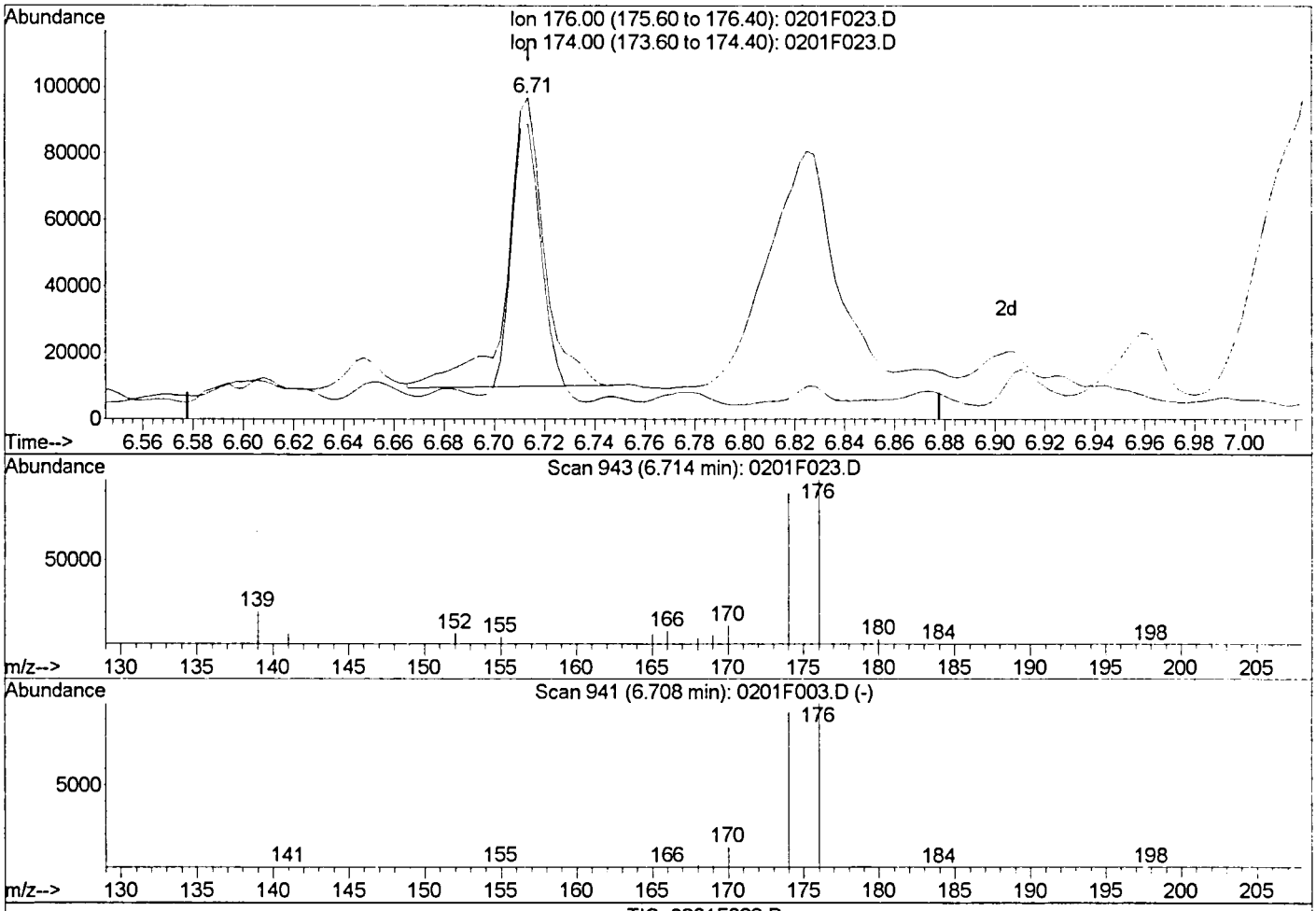
FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:21:19 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:21 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(12) Fluorene-d10 (S)

6.71min 220.82ng/ml

response 90351

Ion	Exp%	Act%
176.00	100	100
174.00	93.90	94.76
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

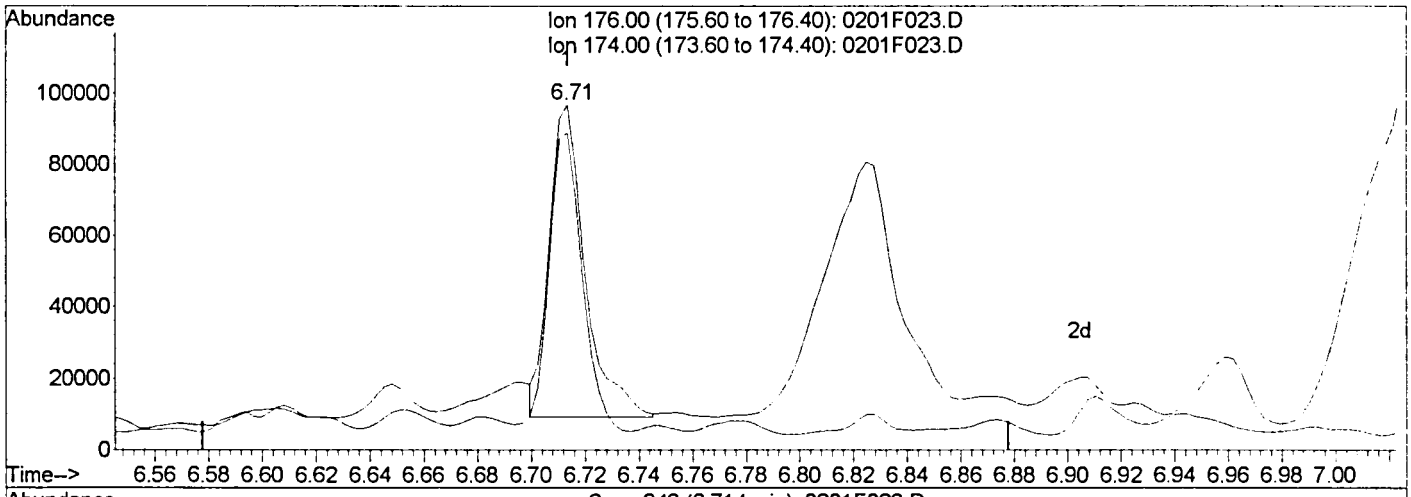
FEB 03 2016

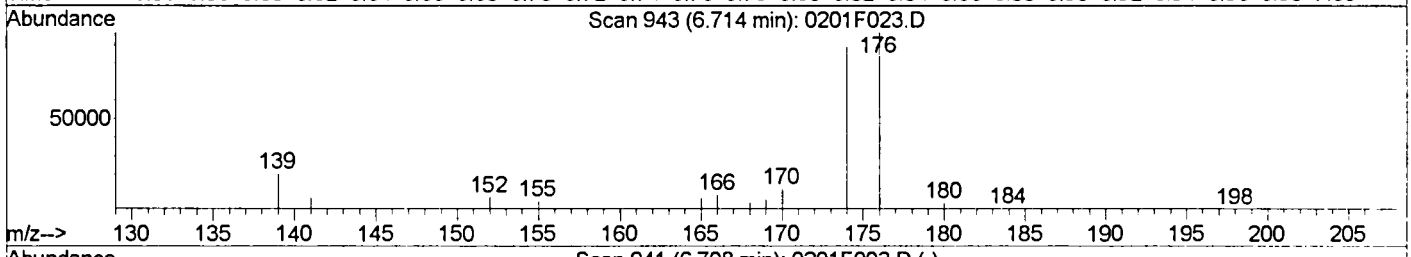
0201F023.D 011116SIMPAH.M Tue Feb 02 12:21:36 2016

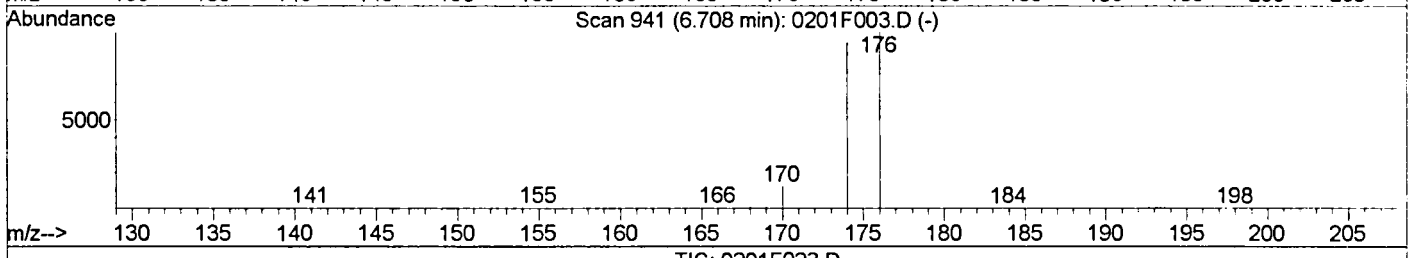
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:21 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration







TIC: 0201F023.D

(12) Fluorene-d10 (S)

6.71min 196.43ng/ml m

response 80375

Ion	Exp%	Act%
176.00	100	100
174.00	93.90	91.76
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

02/02/16

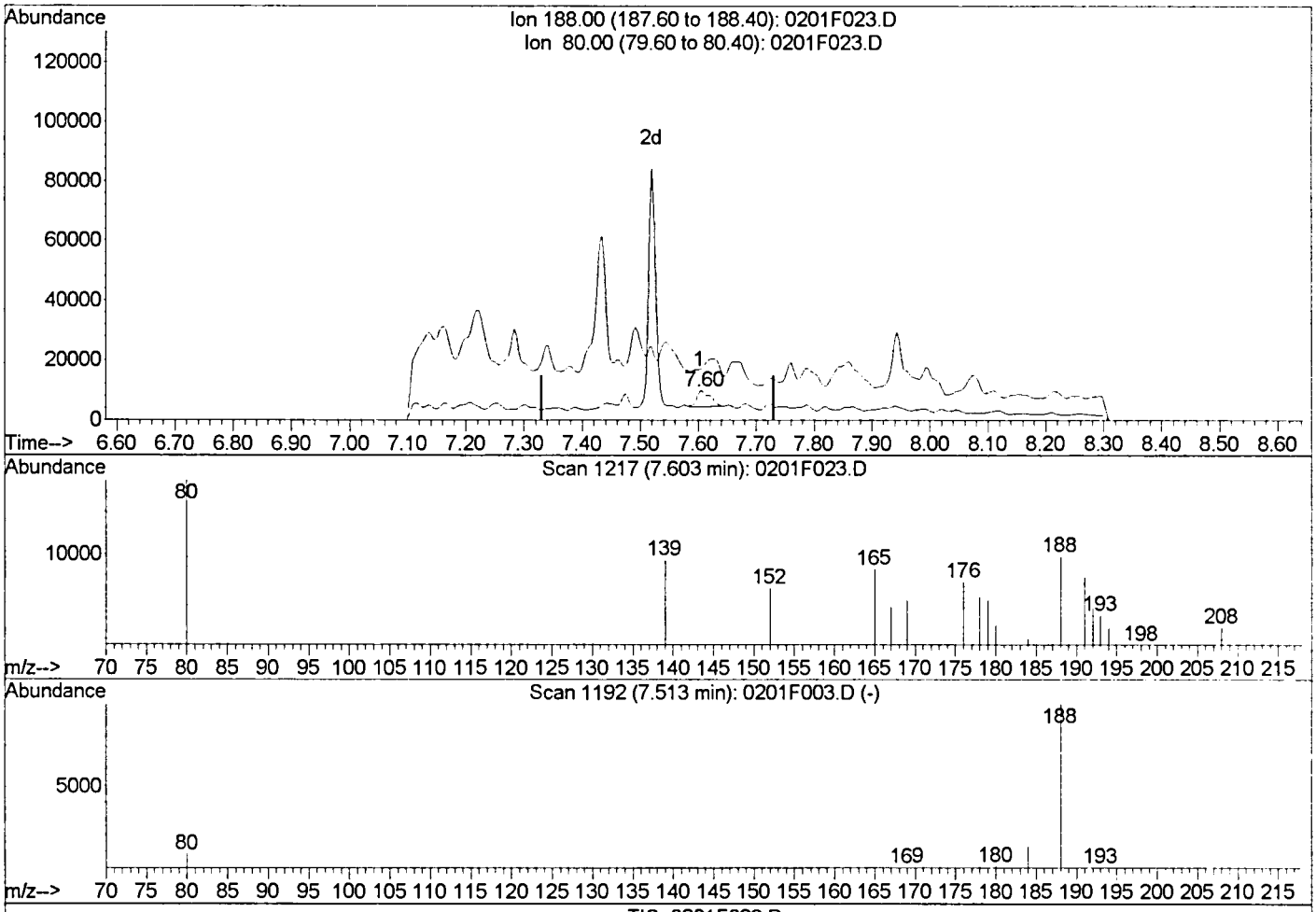
FEB 0 3 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:21:41 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:21 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(14) Phenanthrene-d10 (I)

7.60min 200.00ng/ml

response 8648

Ion	Exp%	Act%
188.00	100	100
80.00	8.80	35.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

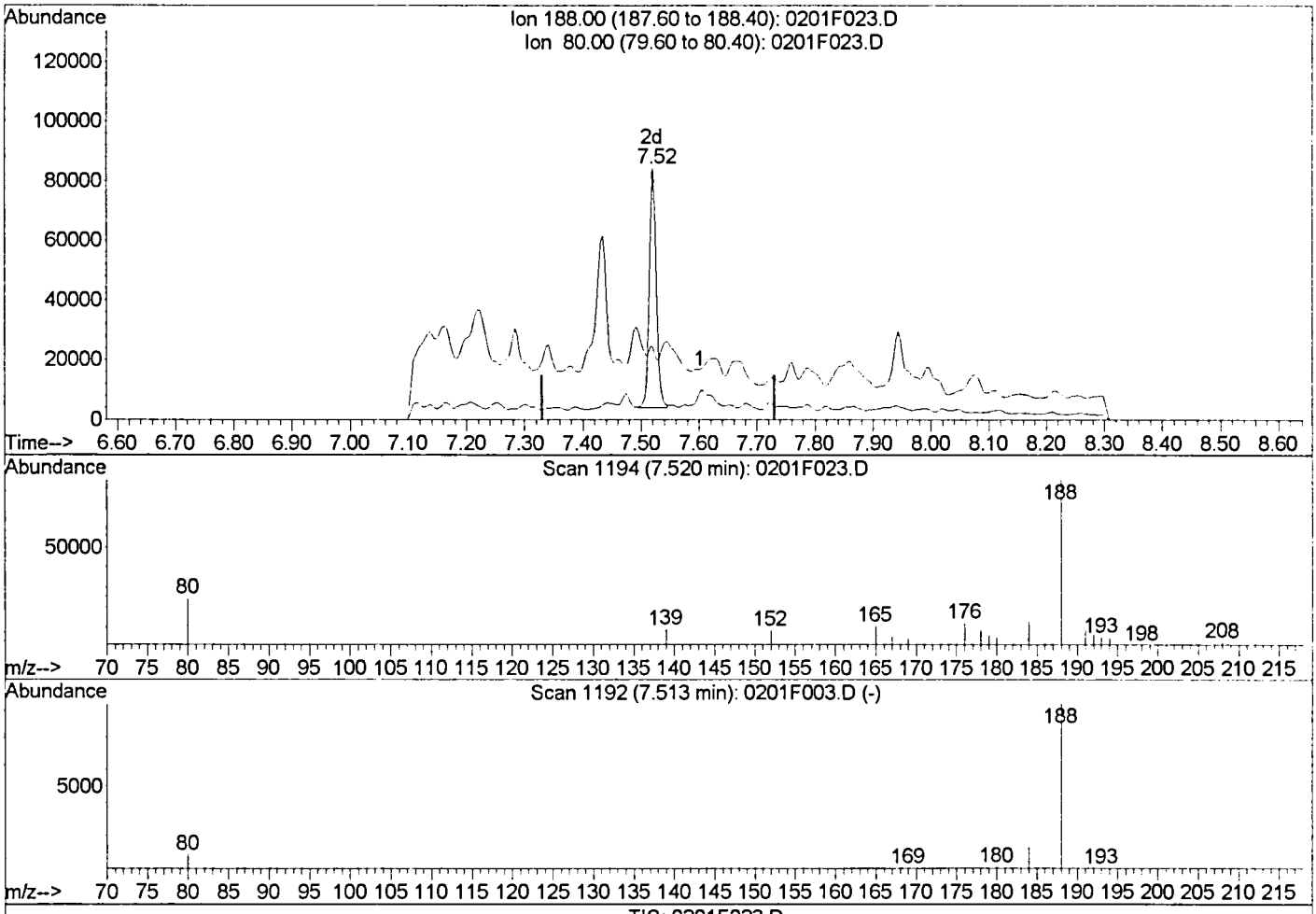
FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:21:45 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:21 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(14) Phenanthrene-d10 (I)

7.52min 200.00ng/ml m

response 67515

Ion	Exp%	Act%
188.00	100	100
80.00	8.80	28.74
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

WP

02/02/16

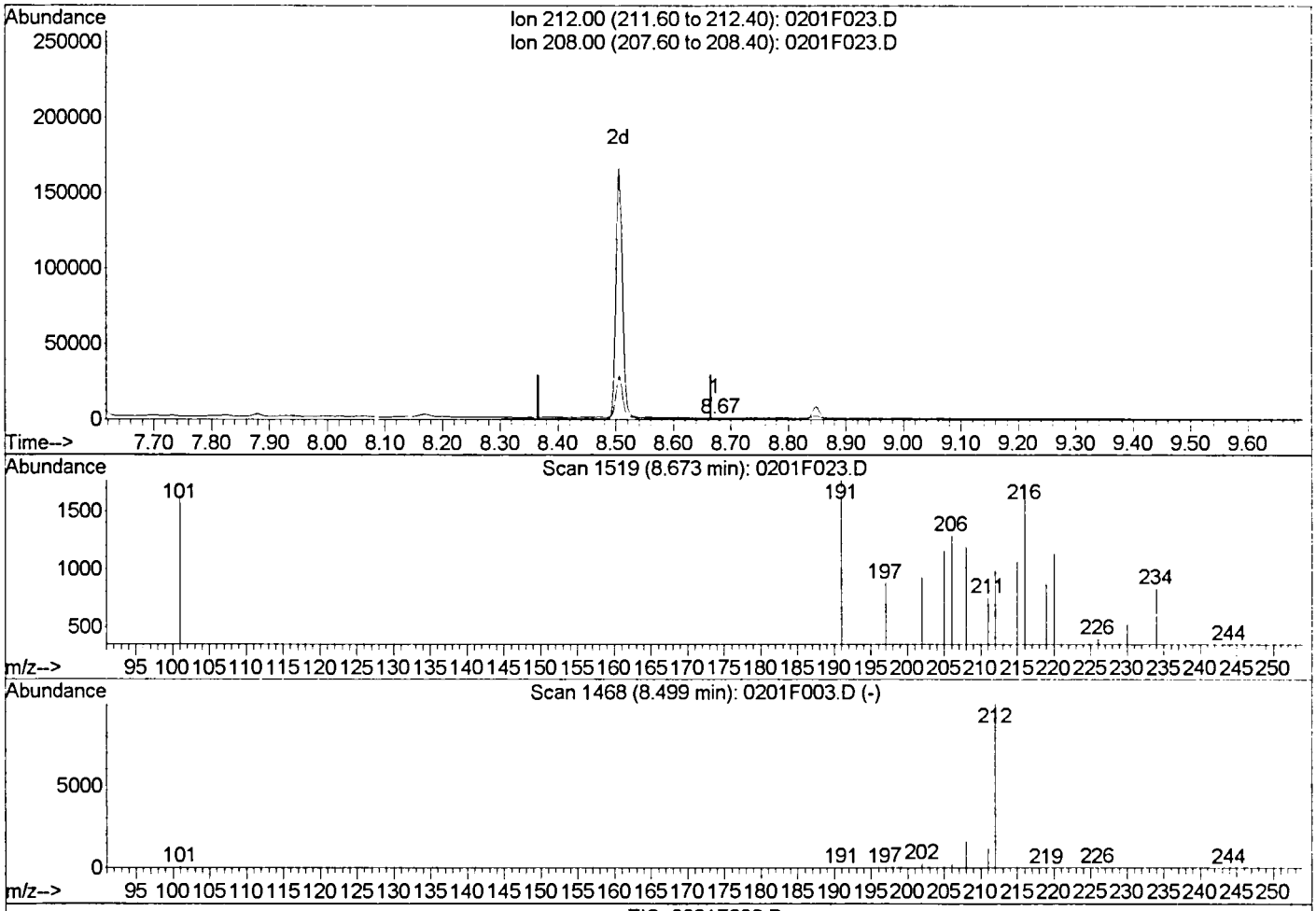
FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:21:54 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:22 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(21) Fluoranthene-d10 (S)

8.67min 1.93ng/ml

response 667

Ion	Exp%	Act%
212.00	100	100
208.00	16.00	27.19
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

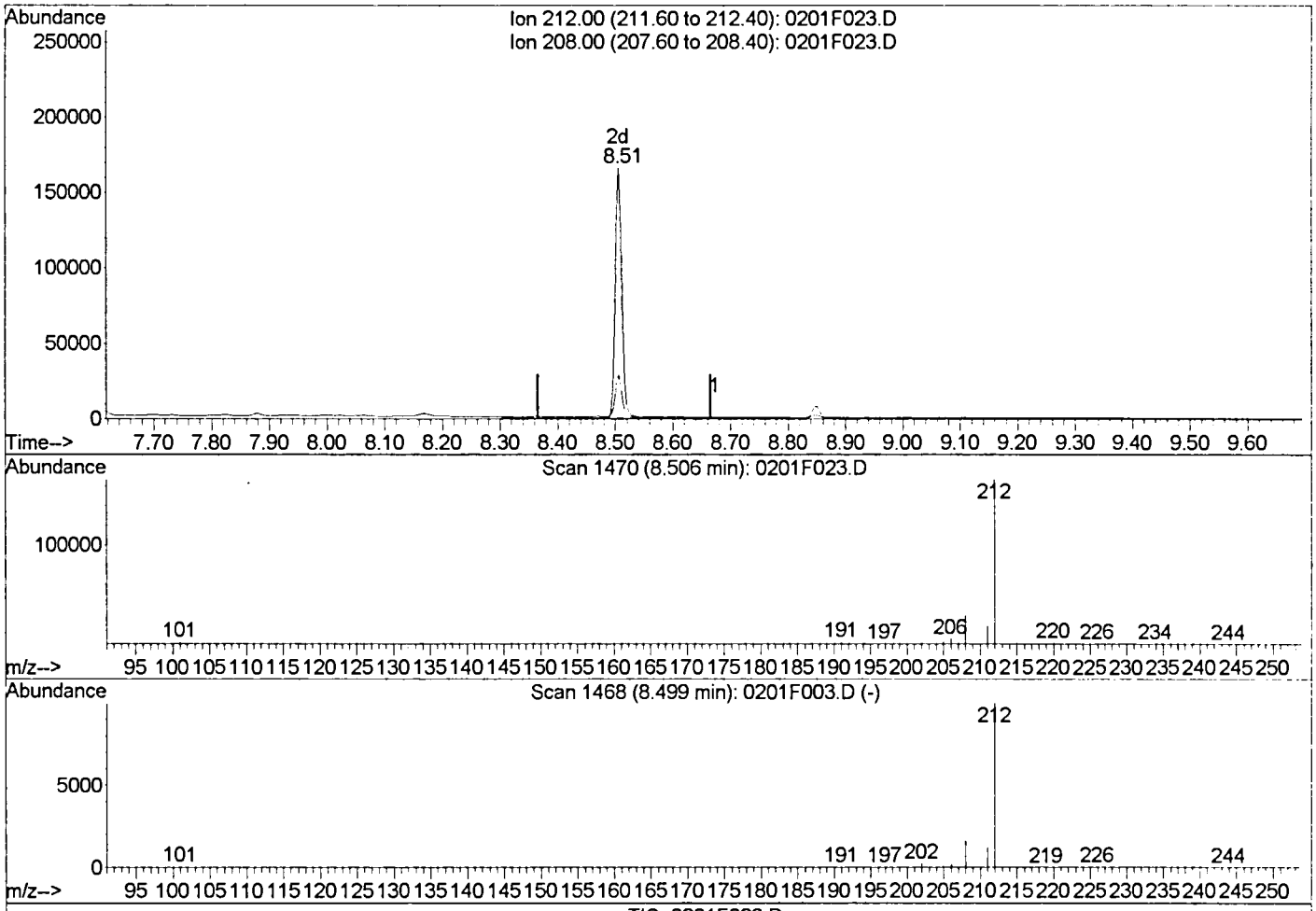
FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:22:21 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:22 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F023.D

(21) Fluoranthene-d10 (S)
8.51min 380.33ng/ml m
response 131418

Ion	Exp%	Act%
212.00	100	100
208.00	16.00	17.41
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
WP
02/02/16

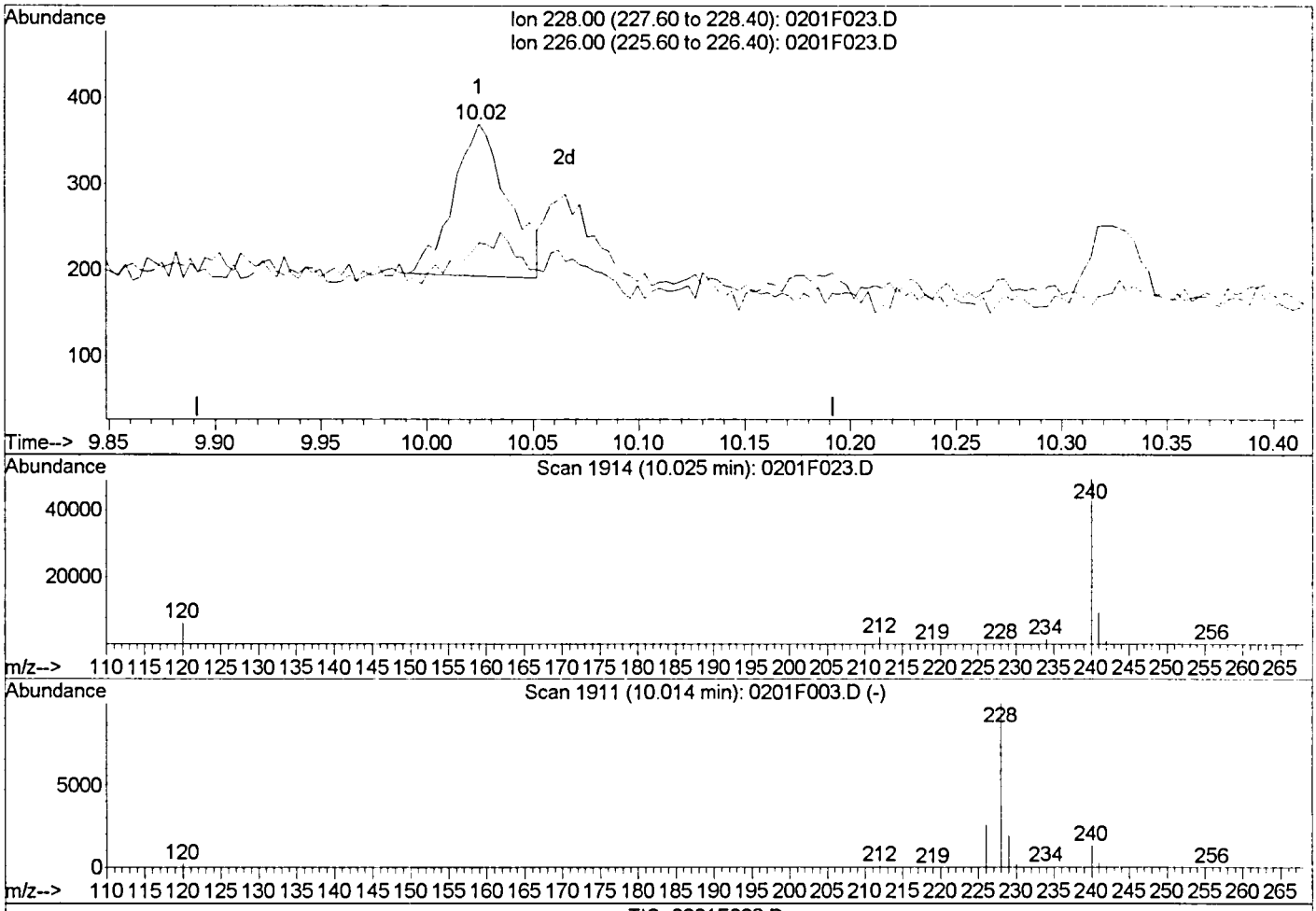
FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:22:27 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:22 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



(25) Benz(a)anthracene (T)

10.02min 0.70ng/ml

response 316

Ion	Exp%	Act%
228.00	100	100
226.00	25.90	25.29
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

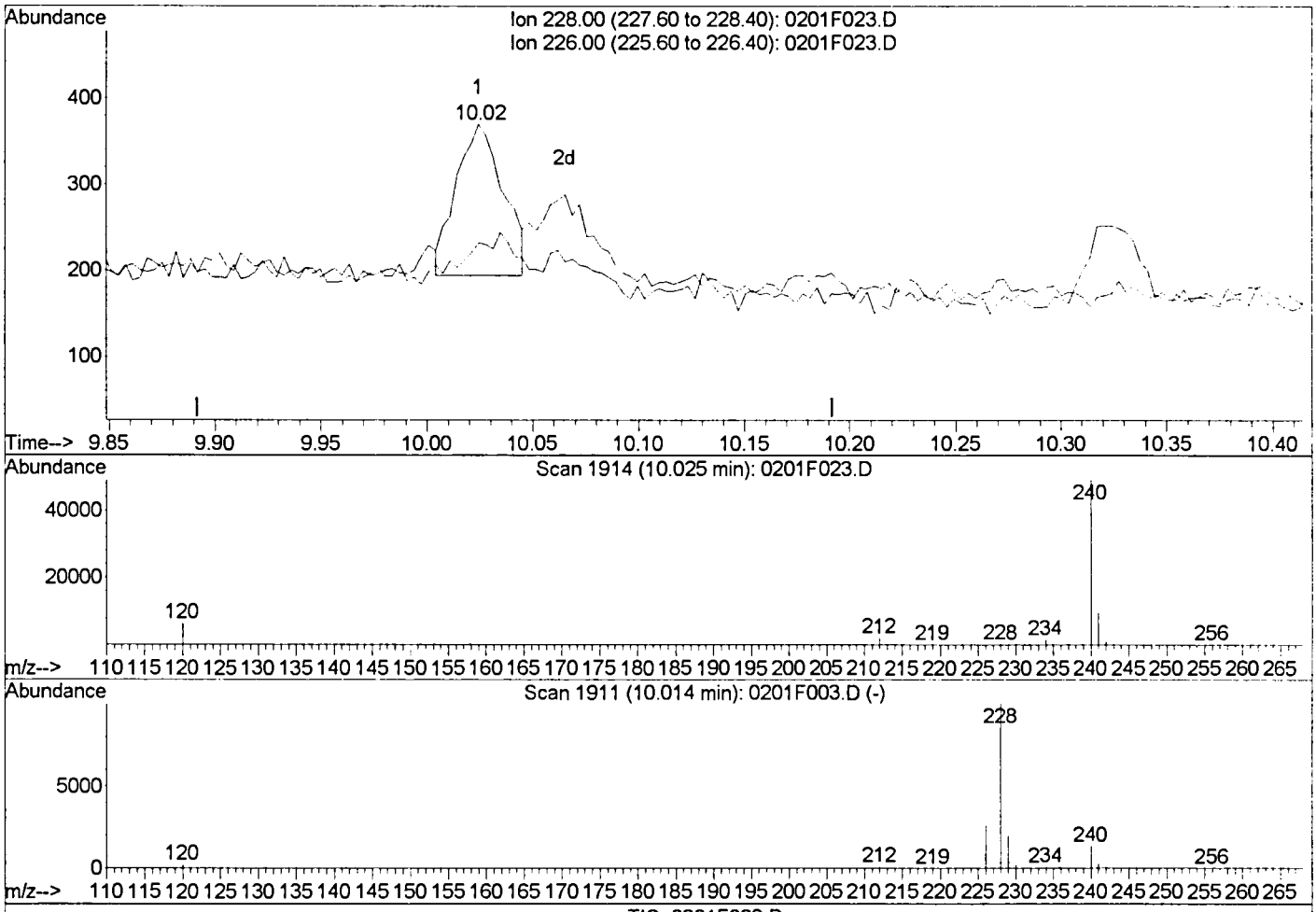
FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:22:39 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F023.D Vial: 23
Acq On : 1 Feb 2016 4:37 pm Operator: LWeiskopf
Sample : K1600673-011 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:22 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



(25) Benz(a)anthracene (T)

10.02min 0.60ng/ml m

response 272

Ion	Exp%	Act%
228.00	100	100
226.00	25.90	62.70#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

02/02/16

FEB 03 2016

0201F023.D 011116SIMPAH.M Tue Feb 02 12:22:43 2016

Exception Report

Data File: J:\MS14\DATA\020216\0202F005.D
Lab ID: K1600673-011
RunType: DL
Matrix: WATER

Date Acquired: 02/02/2016 06:58
Date Quantitated: 02/02/2016 09:31
Batch ID: KWG1600865
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level	Naphthalene	4501.51	NA	2000	see 50X

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 10:25:47
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020216\0202F005.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 06:58	**Quant Date:**	02/02/2016 09:31	**Vial:**	5
Run Type:	DL			**Dilution:**	5.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600865	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495838	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020216\0202F001.D	**Method ID:**	MJ1507
MB Ref:		**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	4.67	-0.02	136	60292	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	35162	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	66130	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	80131	200.00	OK
5	Perylene-d12	13.04	-0.01	264	69748	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	6.71	0.00	0.00	176	13454	69.40	87	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	26211	77.44	97	51-121	OK	NR
4	Terphenyl-d14	8.84	0.00	0.00	244	23949	81.99	102	58-132	OK	NR

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	4.69		0.00	128	1370841	4,502	110	ED	NR
1	2-Methylnaphthalene	5.35		0.00	142	66696	320.83	7.9	D	
1	1-Methylnaphthalene	5.44		0.00	142	351932	1,943	48	D	
2	Acenaphthylene	6.15	0.01	0.00	152	3548	9.81	0.25	Ui	
2	Acenaphthene	6.29		0.00	154	4330	20.99	0.51	D	
2	Fluorene	6.73		0.00	166	2942	11.61	0.28	D	
3	Phenanthrene				178	0d		0.025	U	NR
3	Anthracene				178	0d		0.018	U	NR
3	Fluoranthene	8.51		0.00	202	983	2.25	0.055	JD	NR
4	Pyrene	8.70		0.00	202	1111	2.22	0.054	JD	NR
4	Benz(a)anthracene	10.01		0.00	228	1873	3.99	0.098	JD	NR
4	Chrysene	10.06		0.00	228	4135	9.90	0.24	D	NR
5	Benzo(b)fluoranthene	12.02	-0.01	0.00	252	3651	8.20	0.20	D	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

Data File:	J:\MS14\DATA\020216\0202F005.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 06:58	**Quant Date:**	02/02/2016 09:31	**Vial:**	5
Run Type:	DL			**Dilution:**	5.0
Lab ID:	K1600673-011			**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?
5	Benzo(k)fluoranthene	12.09	-0.01	0.00	252	3968	9.13	0.22	D	NR
5	Benzo(a)pyrene	12.87	-0.01	0.00	252	1762	4.22	0.10	D	NR
5	Indeno(1,2,3-cd)pyrene	15.32	-0.01	0.00	276	2885	7.38	0.18	D	NR
5	Dibenz(a,h)anthracene	15.38		0.00	278	3457m	8.94	0.22	D	NR
5	Benzo(g,h,i)perylene	15.70	-0.01	0.00	276	4344	9.75	0.24	D	NR

Prep Amount:	1020 ml	**Dilution:**	5.0
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\020216\0202F005.D Vial: 5
Acq On : 2 Feb 2016 6:58 am Operator: LWeiskopf
Sample : K1600673-011DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 09:28:39 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

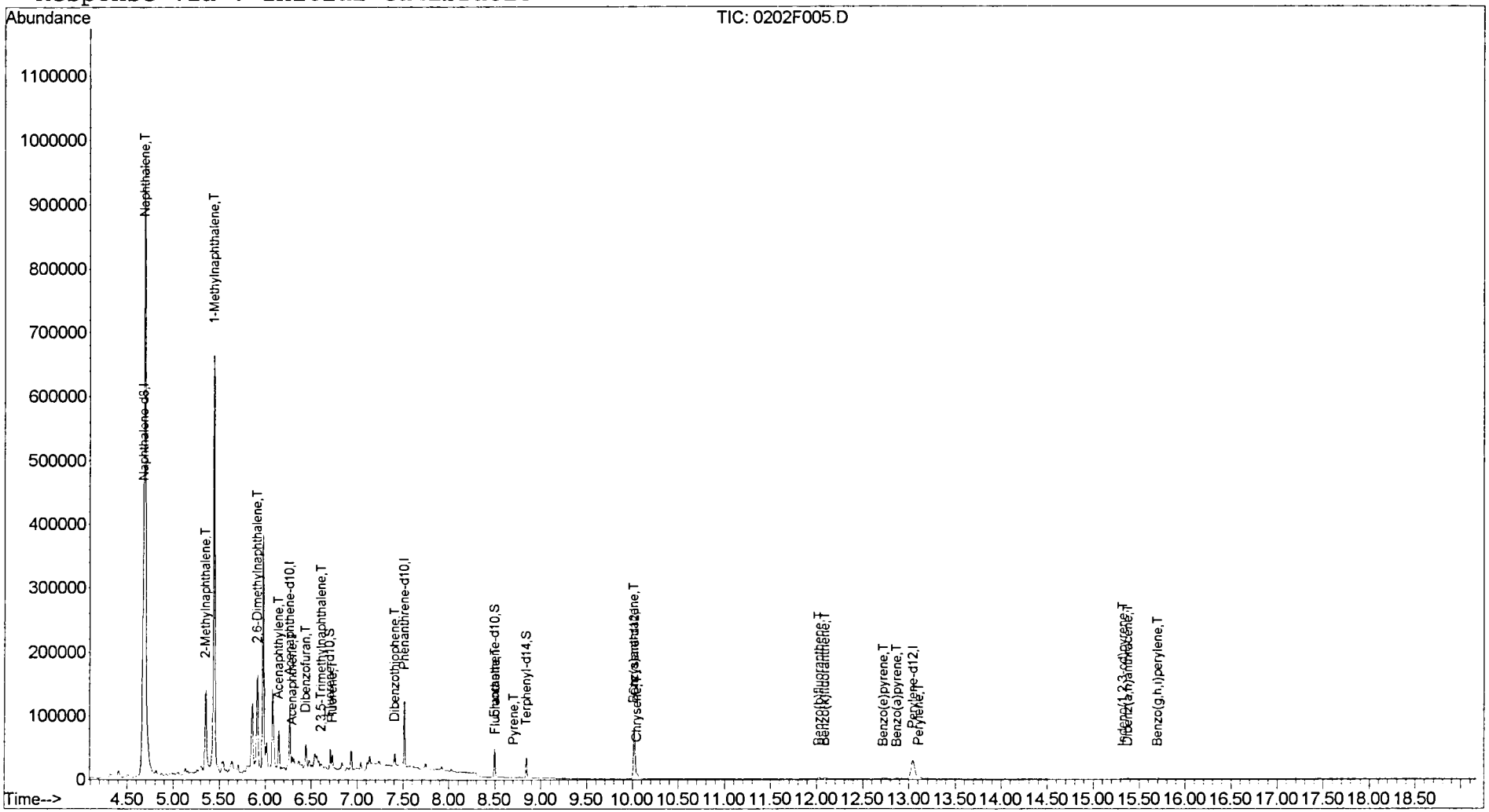
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	60292	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	35162	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	66130	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	80131	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	69748	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	13454	69.40	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	6.94%		
21) Fluoranthene-d10	8.50	212	26211	77.44	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	7.74%		
24) Terphenyl-d14	8.84	244	23949	81.99	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	8.20%		
Target Compounds						Qvalue
2) Naphthalene	4.69	128	1370841	4501.51	ng/ml	99
3) 2-Methylnaphthalene	5.35	142	66696	320.83	ng/ml	99
4) 1-Methylnaphthalene	5.44	142	351932	1942.79	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.92	156	62669	362.20	ng/ml	100
8) Acenaphthylene	6.15	152	3548	9.81	ng/ml#	1
9) Acenaphthene	6.29	154	4330	20.99	ng/ml	93
10) Dibenzofuran	6.44	168	12540	37.70	ng/ml	95
11) 2,3,5-Trimethylnaphthalene	6.61	170	2750m	15.10	ng/ml	
13) Fluorene	6.73	166	2942	11.61	ng/ml	97
15) Dibenzothiophene	7.42	184	1087m	2.82	ng/ml	
20) Fluoranthene	8.51	202	983	2.25	ng/ml	92
23) Pyrene	8.70	202	1111	2.22	ng/ml	77
25) Benz(a)anthracene	10.01	228	1873	3.99	ng/ml	95
26) Chrysene	10.06	228	4135	9.90	ng/ml	100
28) Benzo(b)fluoranthene	12.02	252	3651	8.20	ng/ml	100
29) Benzo(k)fluoranthene	12.09	252	3968	9.13	ng/ml	98
30) Benzo(e)pyrene	12.73	252	2756	6.69	ng/ml	100
31) Benzo(a)pyrene	12.87	252	1762	4.22	ng/ml	86
32) Perylene	13.11	252	2034	5.23	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.32	276	2885	7.38	ng/ml	99
34) Dibenz(a,h)anthracene	15.38	278	3457m	8.94	ng/ml	
35) Benzo(g,h,i)perylene	15.70	276	4344	9.75	ng/ml	98

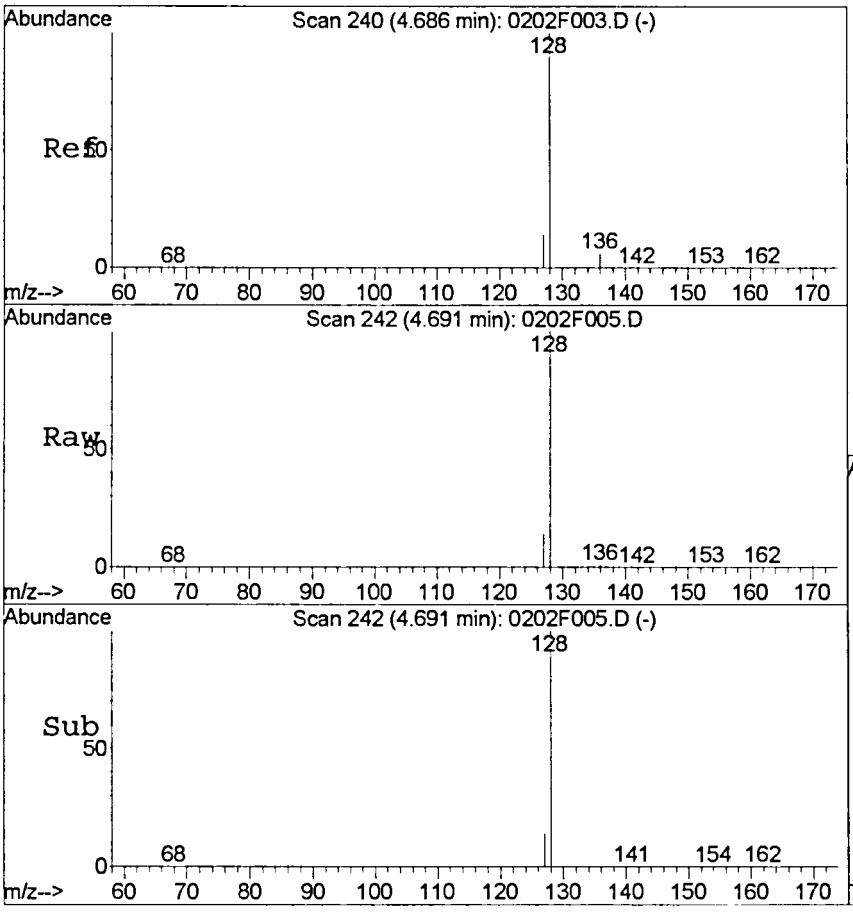
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020216\0202F005.D Vial: 5
Acq On : 2 Feb 2016 6:58 am Operator: LWeiskopf
Sample : K1600673-011DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 9:31 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration

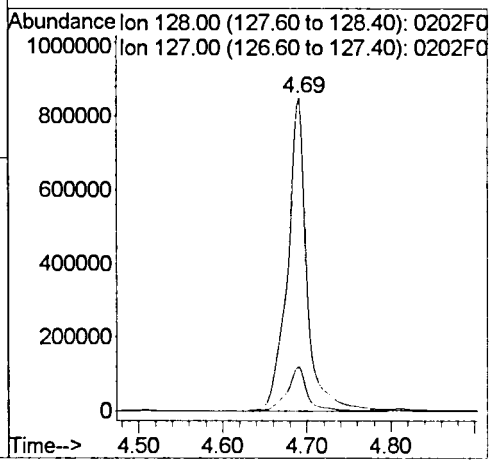


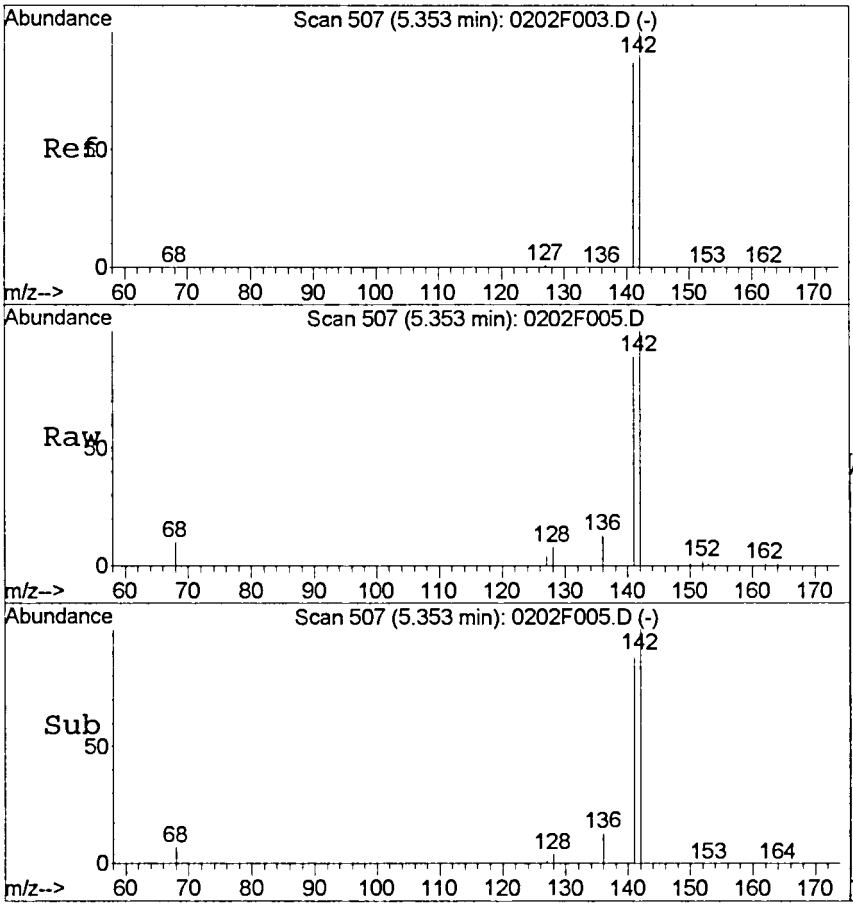


#2
Naphthalene
Concen: 4501.51 ng/ml
RT: 4.69 min Scan# 242
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:128 Resp: 1370841

Ion	Ratio	Lower	Upper
128	100		
127	14.3	0.0	43.8

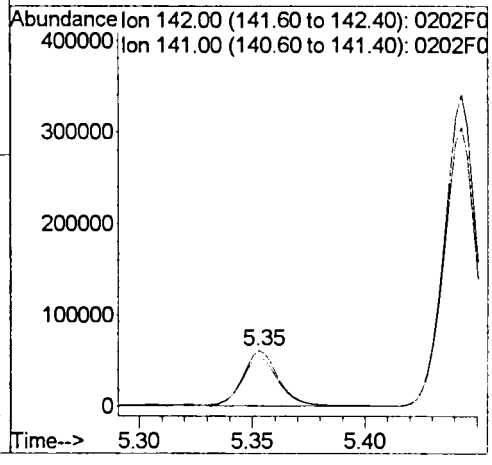


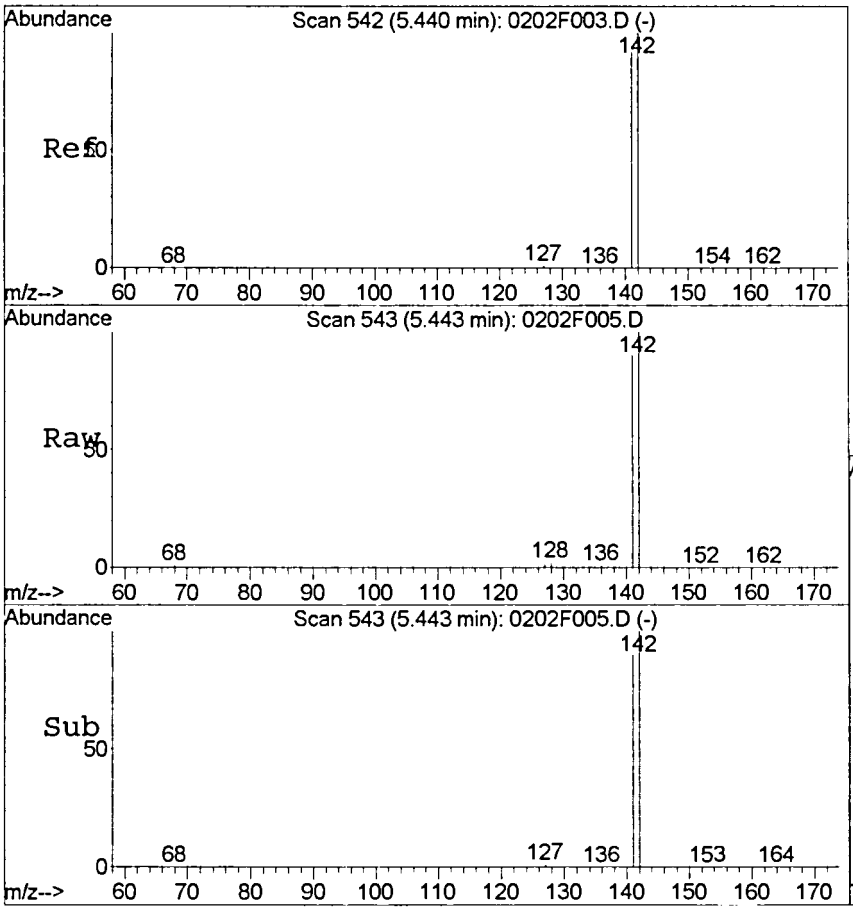


#3
2-Methylnaphthalene
Concen: 320.83 ng/ml
RT: 5.35 min Scan# 507
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:142 Resp: 66696

Ion	Ratio	Lower	Upper
142	100		
141	88.4	57.6	117.6

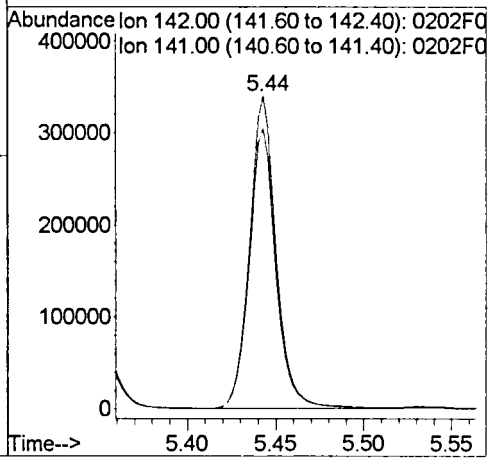


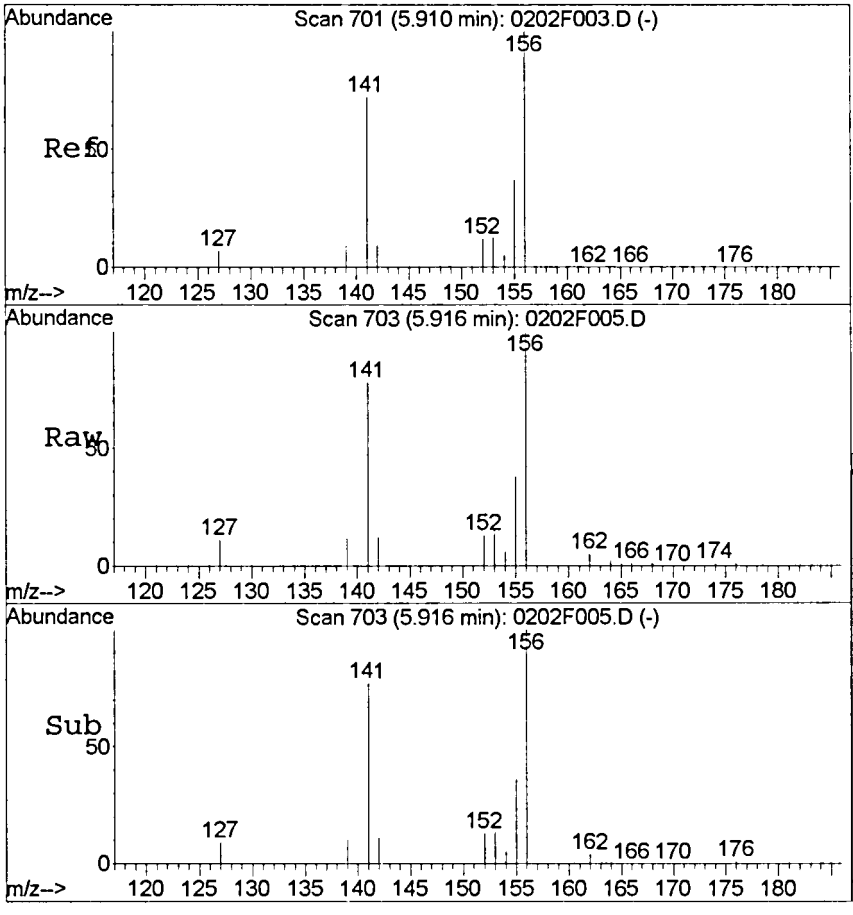


#4
1-Methylnaphthalene
Concen: 1942.79 ng/ml
RT: 5.44 min Scan# 543
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:142 Resp: 351932

Ion	Ratio	Lower	Upper
142	100		
141	89.6	60.8	120.8

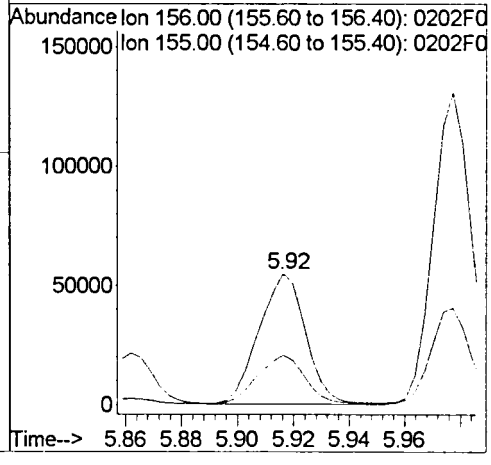


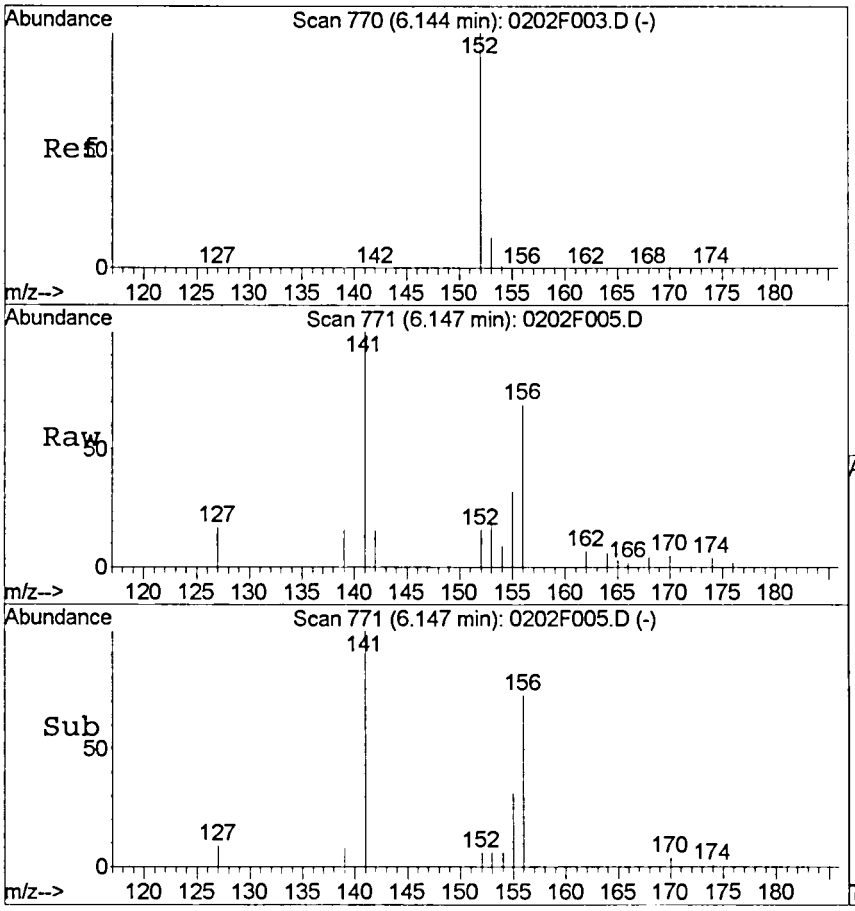


#6
2,6-Dimethylnaphthalene
Concen: 362.20 ng/ml
RT: 5.92 min Scan# 703
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:156 Resp: 62669

Ion	Ratio	Lower	Upper
156	100		
155	36.8	7.0	67.0

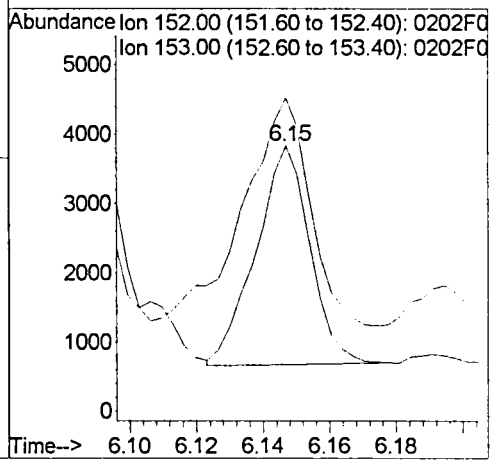


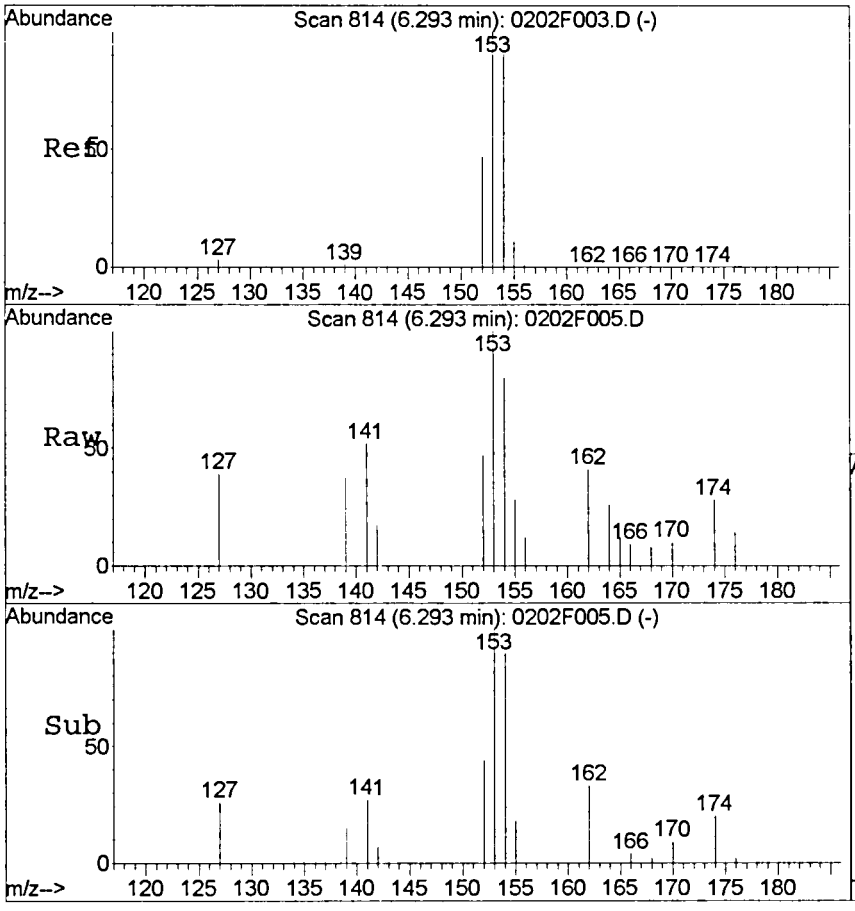


#8
Acenaphthylene
Concen: 9.81 ng/ml
RT: 6.15 min Scan# 771
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:152 Resp: 3548

Ion	Ratio	Lower	Upper
152	100		
153	105.0	0.0	42.9#

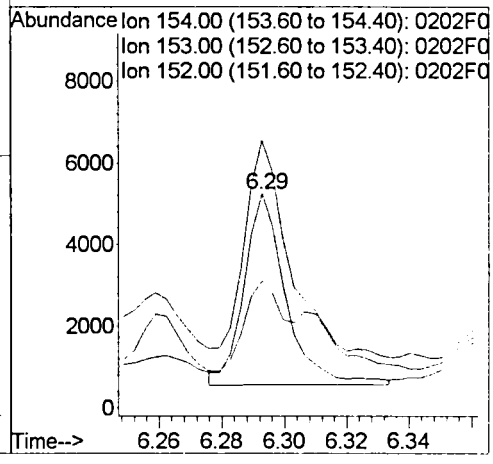


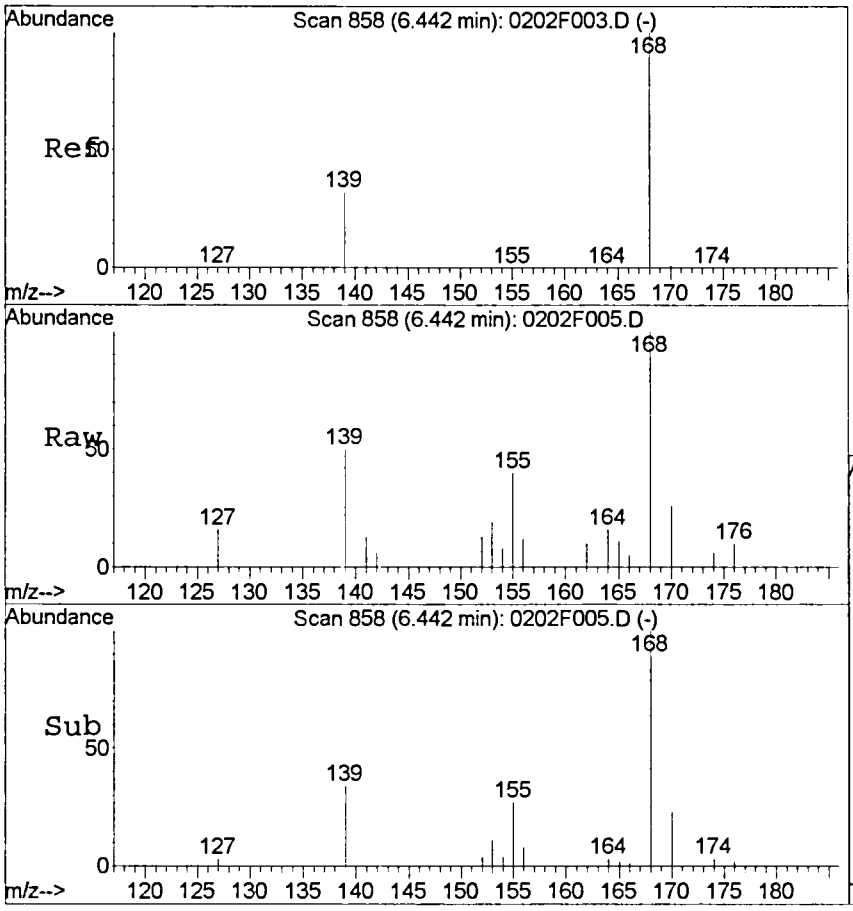


#9
Acenaphthene
Concen: 20.99 ng/ml
RT: 6.29 min Scan# 814
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:154 Resp: 4330

Ion	Ratio	Lower	Upper
154	100		
153	116.1	77.1	137.1
152	48.2	19.8	79.8

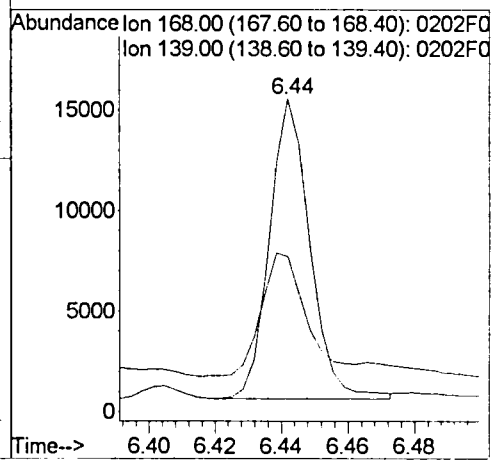


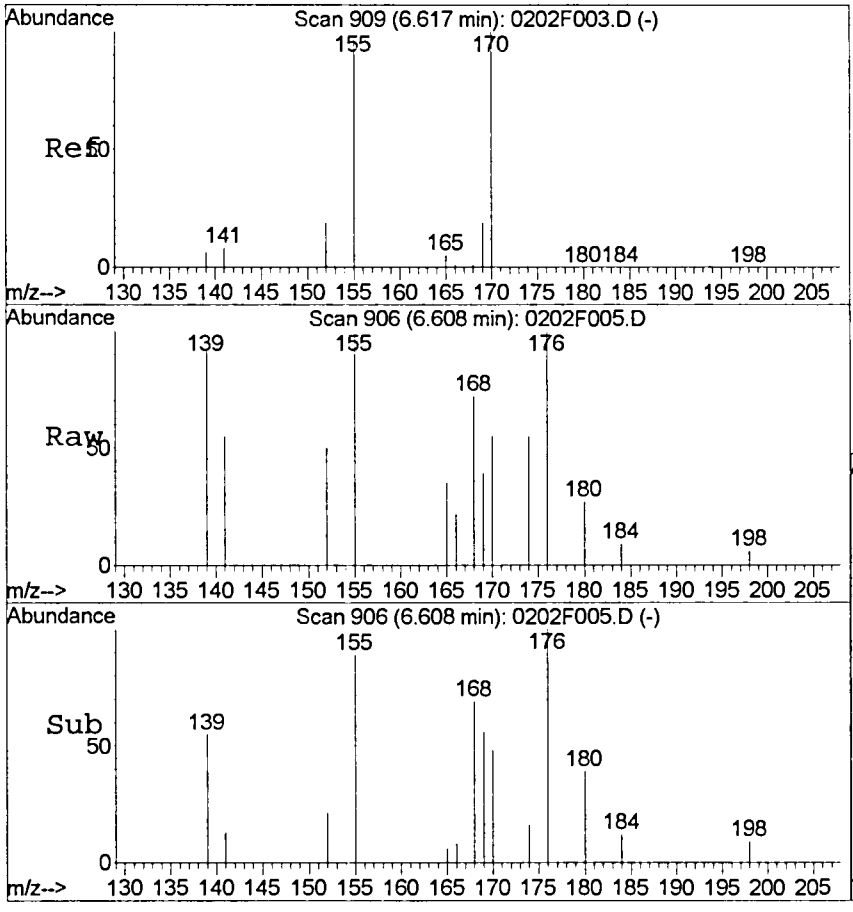


#10
Dibenzofuran
Concen: 37.70 ng/ml
RT: 6.44 min Scan# 858
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:168 Resp: 12540

Ion	Ratio	Lower	Upper
168	100		
139	39.8	6.7	66.7

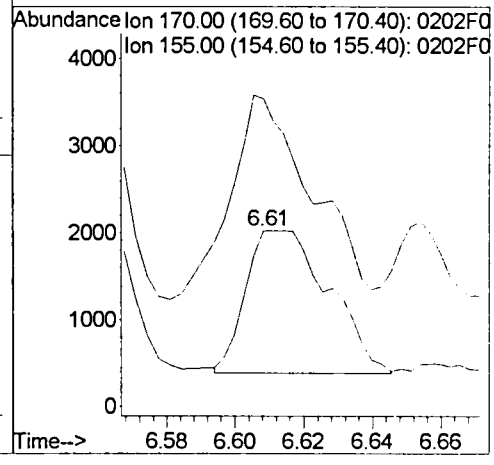


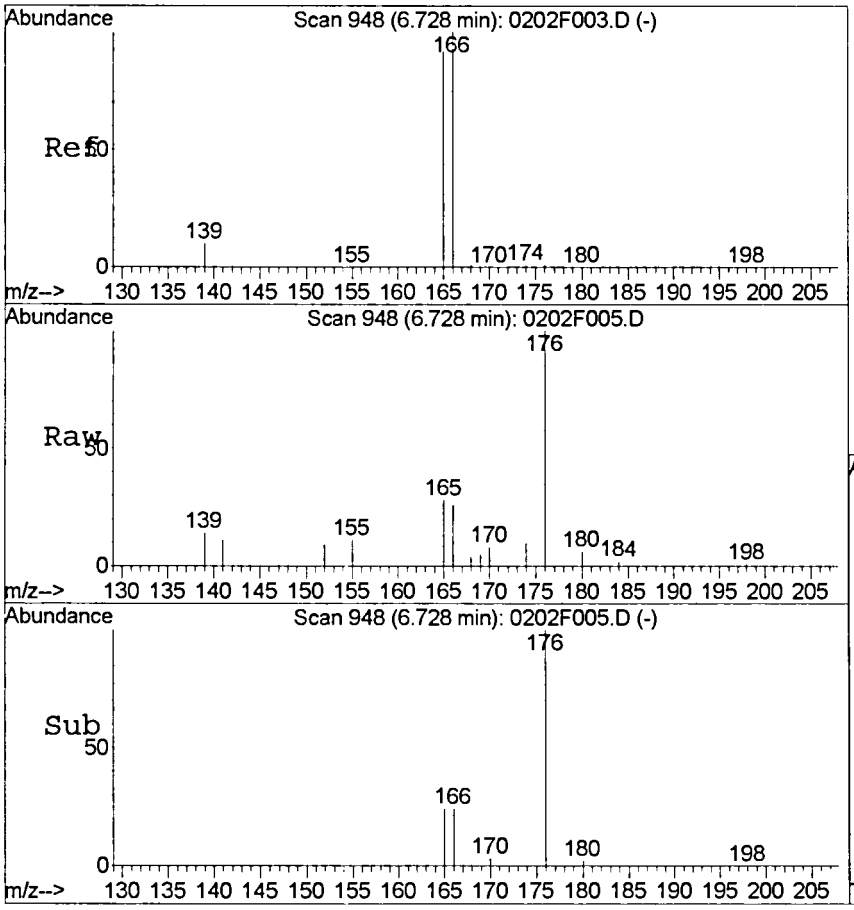


#11
2,3,5-Trimethylnaphthalene
Concen: 15.10 ng/ml m
RT: 6.61 min Scan# 906
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:170 Resp: 2750

Ion	Ratio	Lower	Upper
170	100		
155	174.9	66.5	126.5#

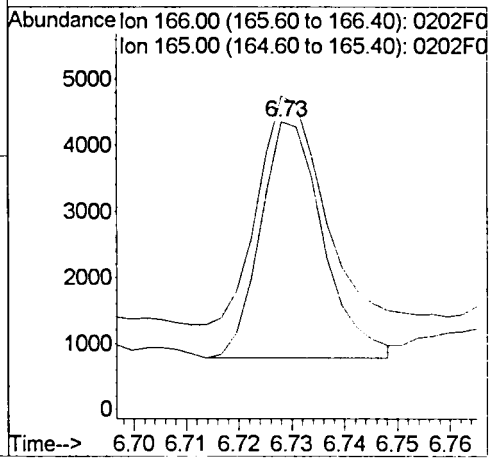


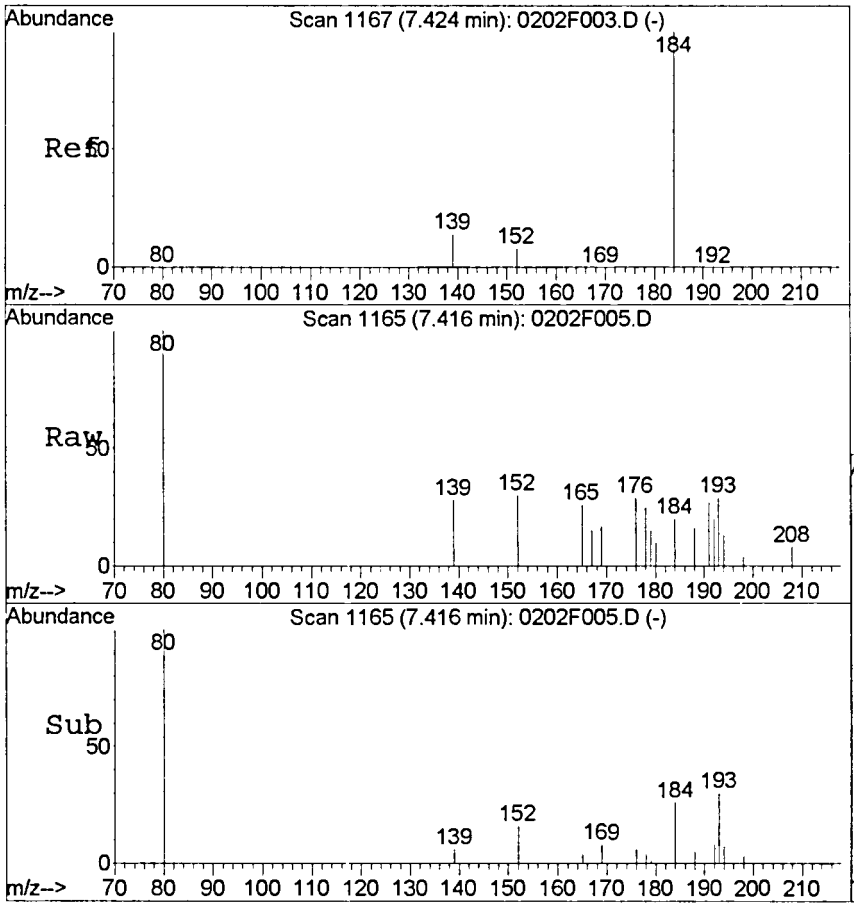


#13
Fluorene
Concen: 11.61 ng/ml
RT: 6.73 min Scan# 948
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:166 Resp: 2942

Ion	Ratio	Lower	Upper
166	100		
165	96.9	63.9	123.9

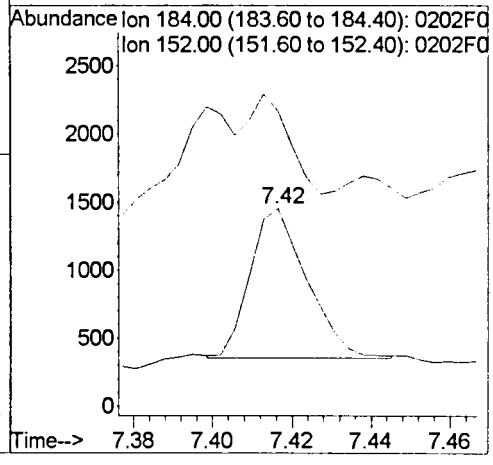


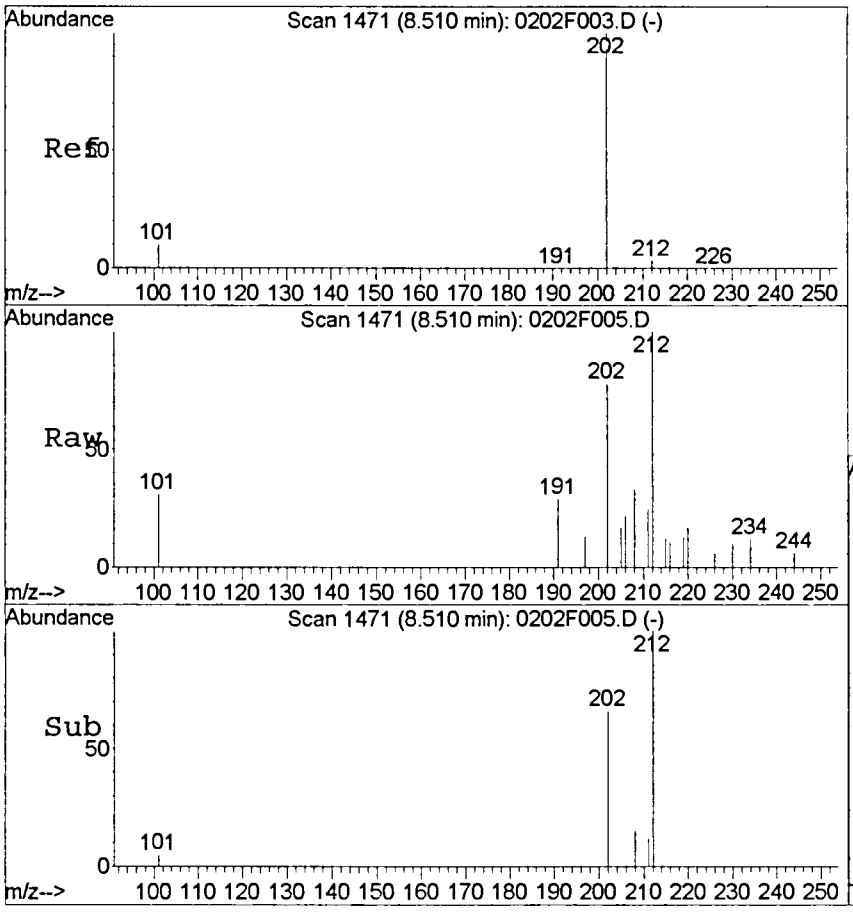


#15
Dibenzothiophene
Concen: 2.82 ng/ml m
RT: 7.42 min Scan# 1165
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:184 Resp: 1087

Ion	Ratio	Lower	Upper
184	100		
152	149.3	0.0	38.6#

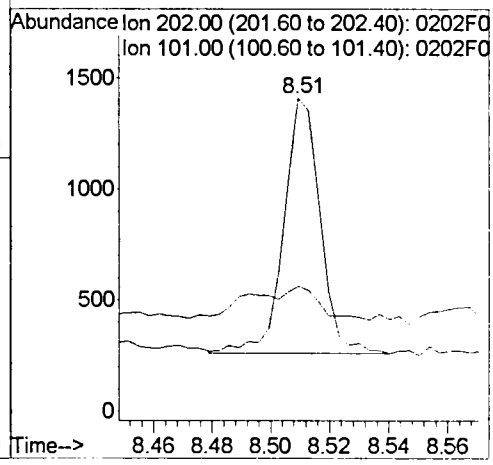


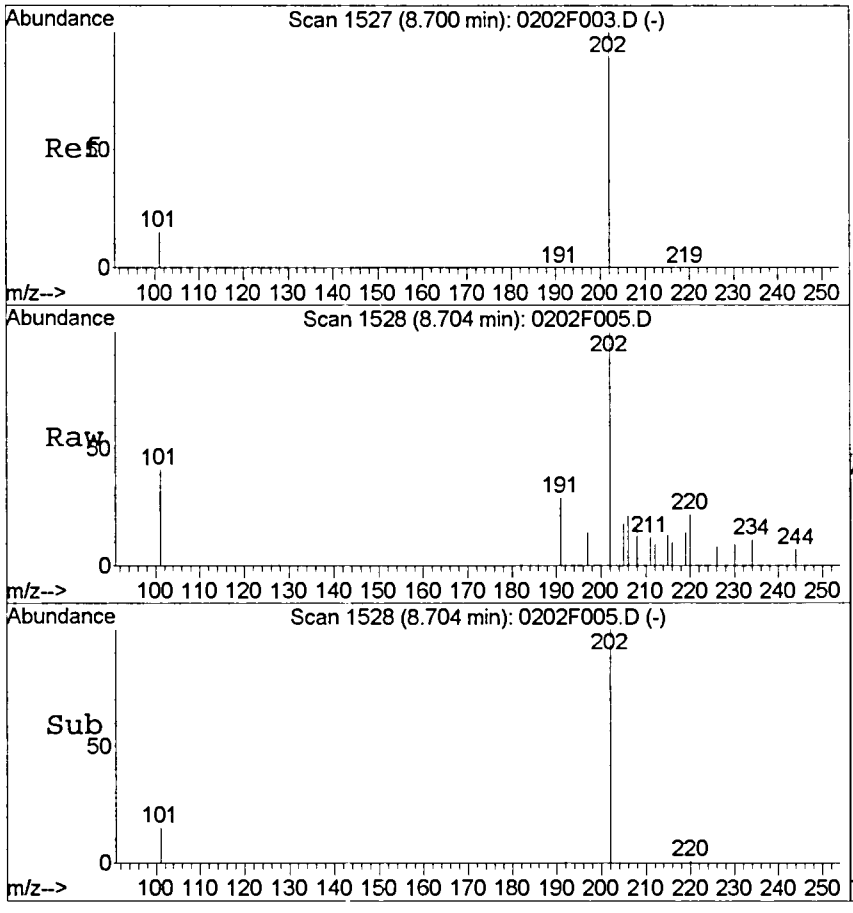


#20
Fluoranthene
Concen: 2.25 ng/ml
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:202 Resp: 983

Ion	Ratio	Lower	Upper
202	100		
101	13.1	0.0	40.2

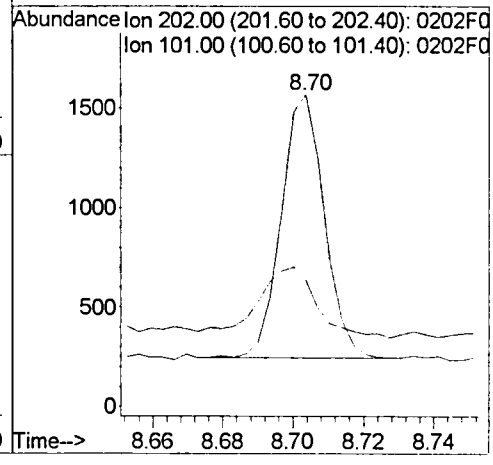


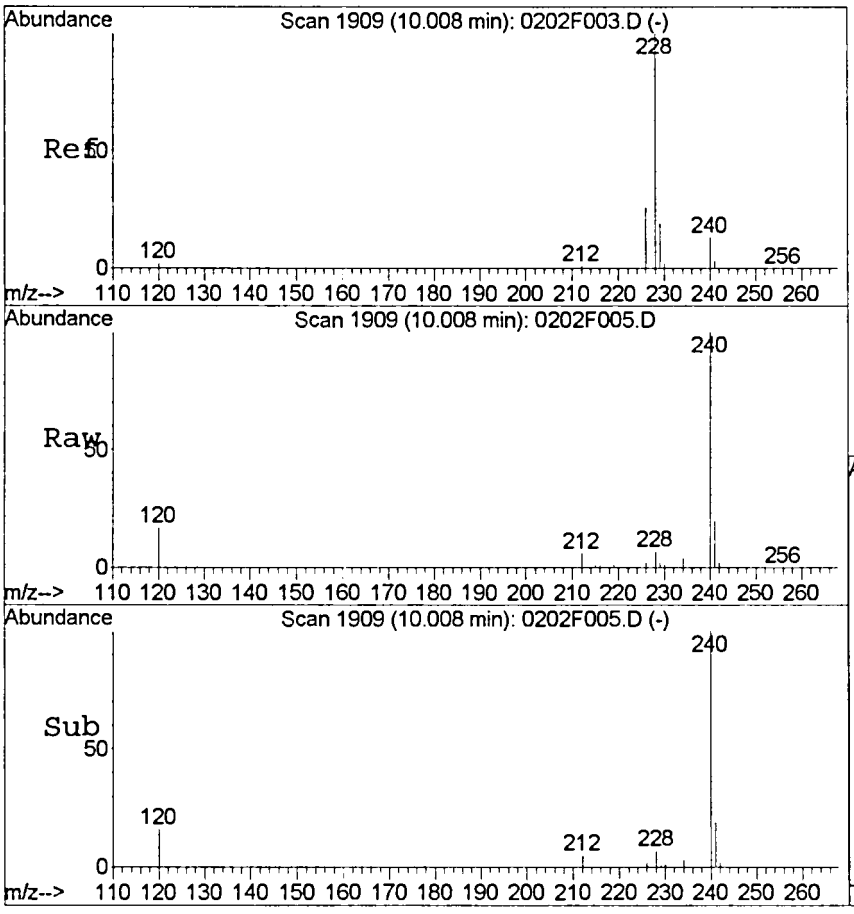


#23
Pyrene
Concen: 2.22 ng/ml
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:202 Resp: 1111

Ion	Ratio	Lower	Upper
202	100		
101	21.9	0.0	42.9

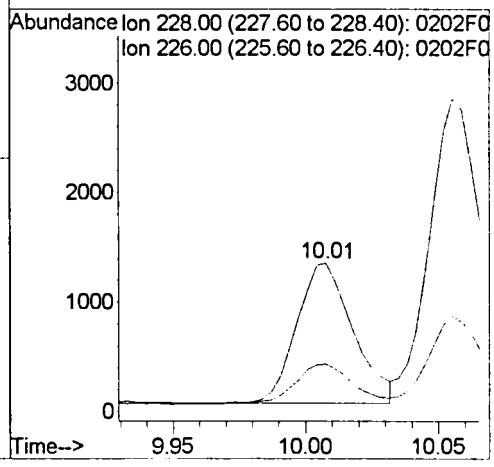


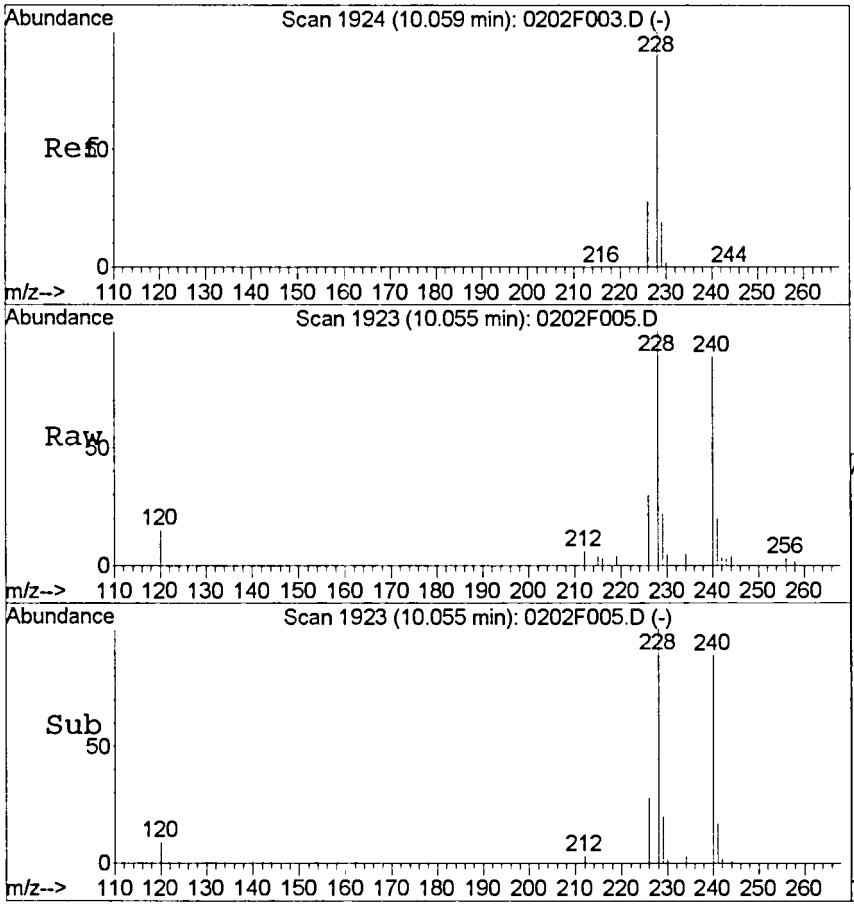


#25
Benz(a)anthracene
Concen: 3.99 ng/ml
RT: 10.01 min Scan# 1909
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:228 Resp: 1873

Ion	Ratio	Lower	Upper
228	100		
226	28.3	0.0	55.9

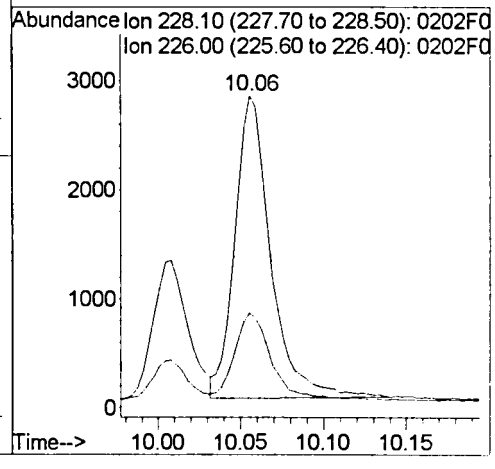


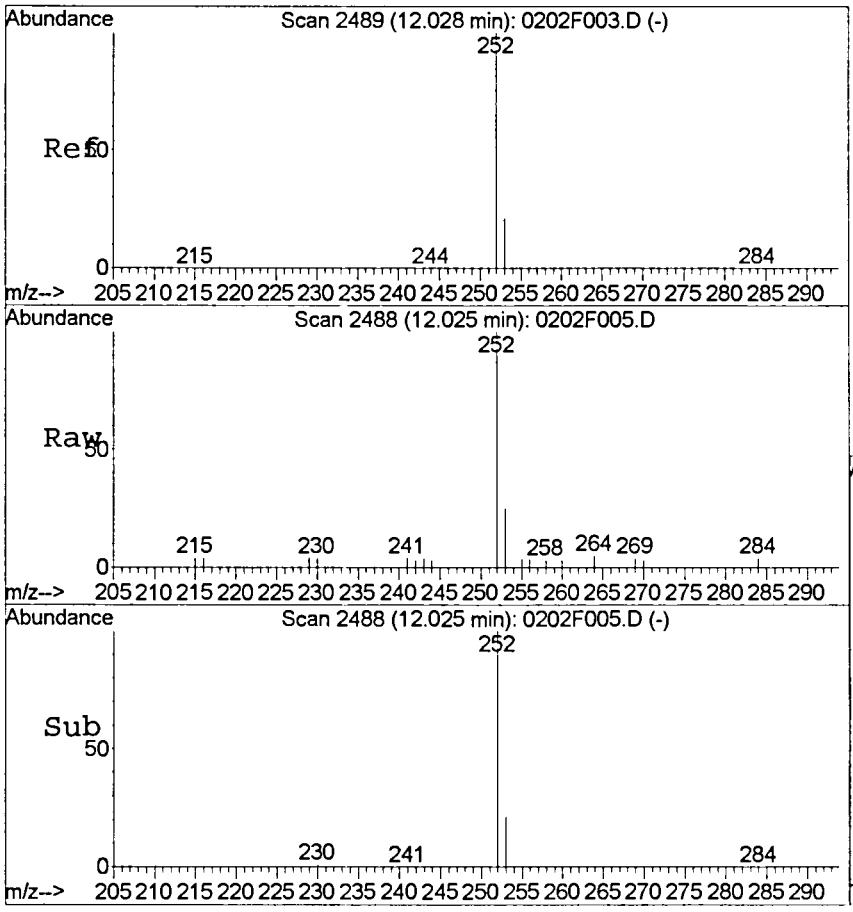


#26
Chrysene
Concen: 9.90 ng/ml
RT: 10.06 min Scan# 1923
Delta R.T. -0.04 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:228 Resp: 4135

Ion	Ratio	Lower	Upper
228	100		
226	28.6	0.0	58.6

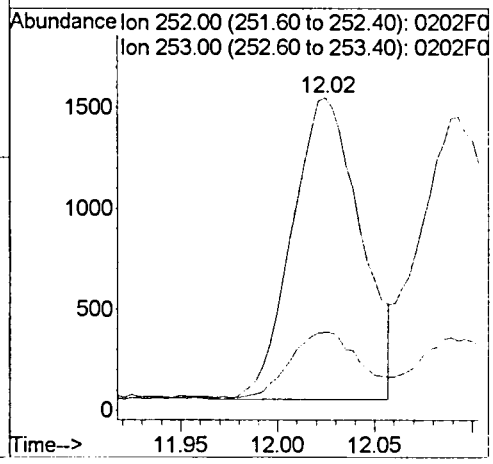


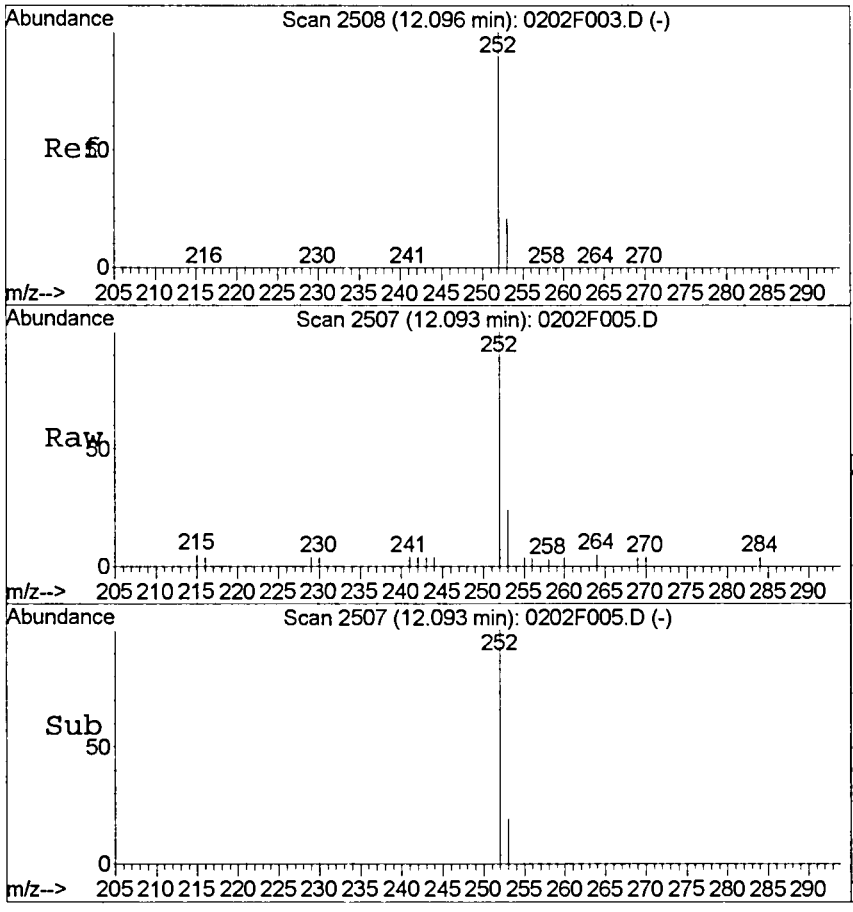


#28
Benzo(b)fluoranthene
Concen: 8.20 ng/ml
RT: 12.02 min Scan# 2488
Delta R.T. -0.05 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:252 Resp: 3651

Ion	Ratio	Lower	Upper
252	100		
253	21.2	0.0	51.3

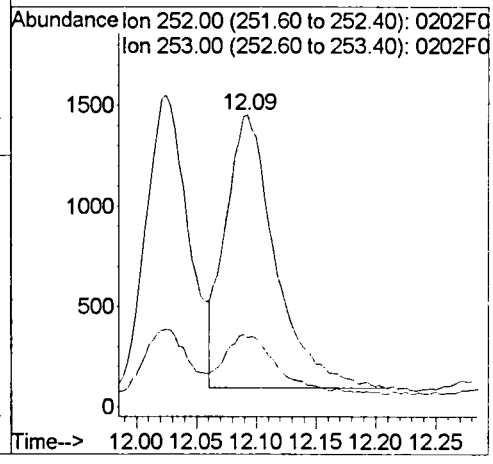


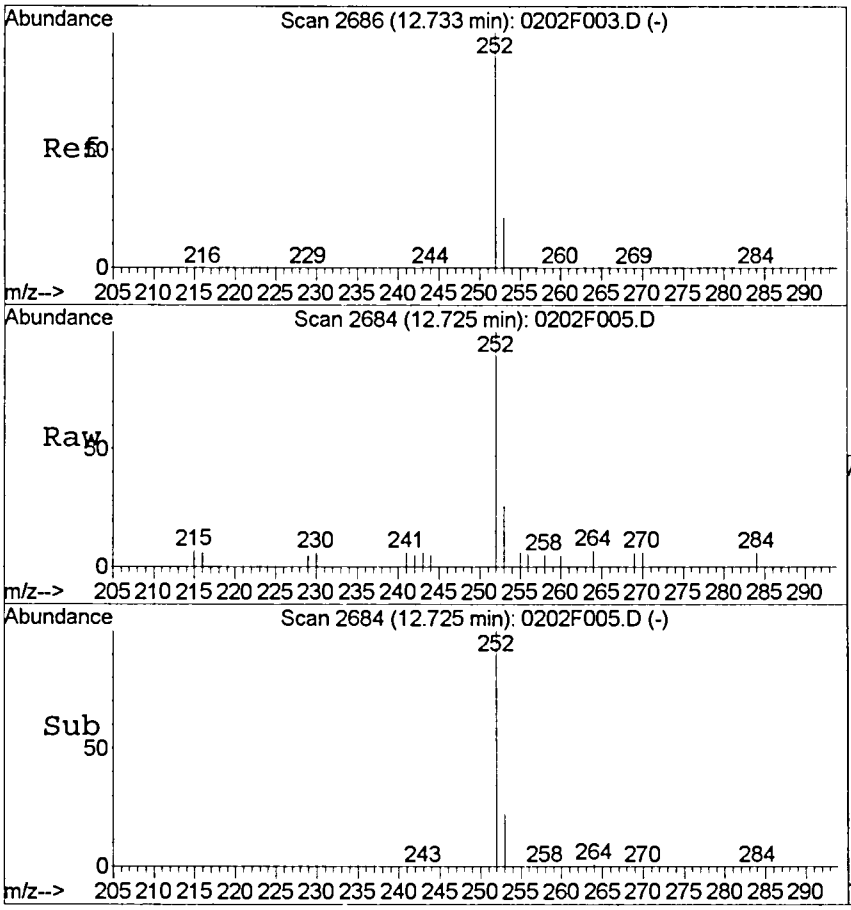


#29
Benzo(k)fluoranthene
Concen: 9.13 ng/ml
RT: 12.09 min Scan# 2507
Delta R.T. -0.05 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:252 Resp: 3968

Ion	Ratio	Lower	Upper
252	100		
253	20.4	0.0	51.4

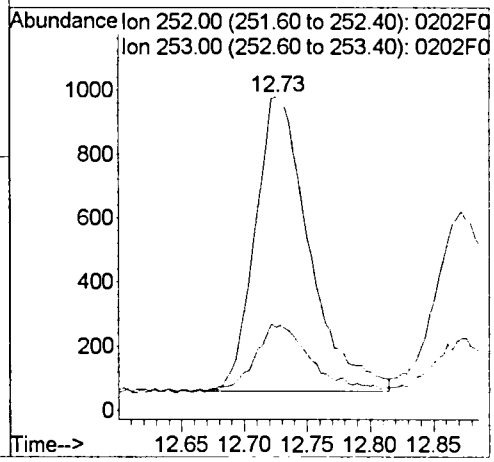


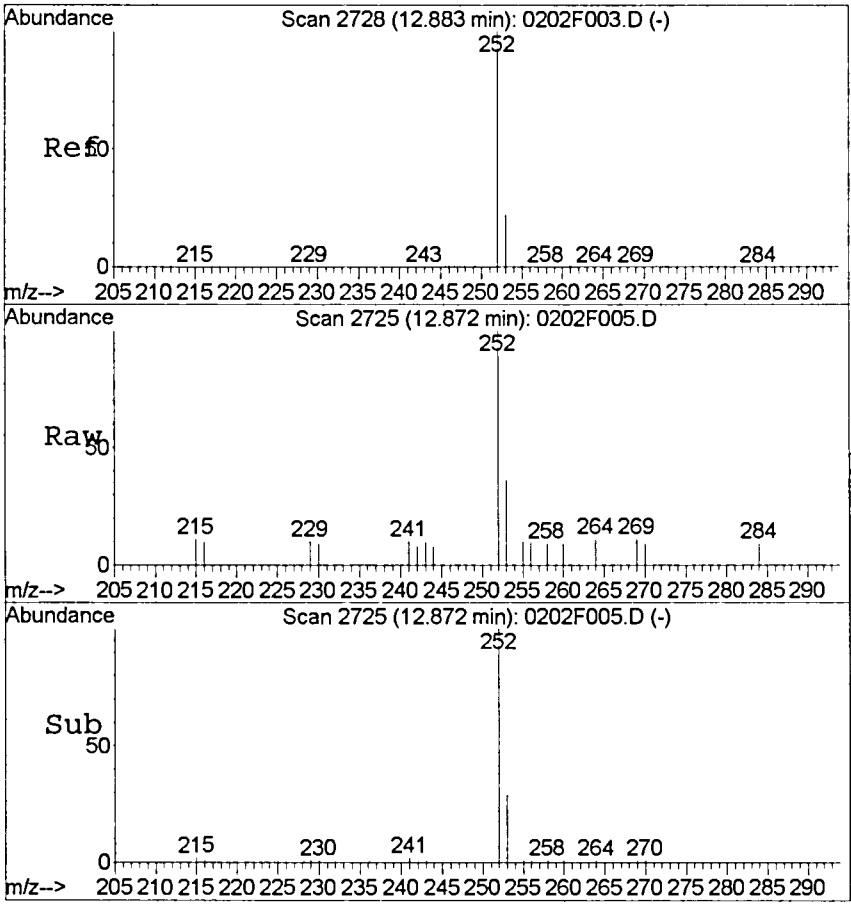


#30
Benzo(e)pyrene
Concen: 6.69 ng/ml
RT: 12.73 min Scan# 2684
Delta R.T. -0.06 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:252 Resp: 2756

Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	51.2

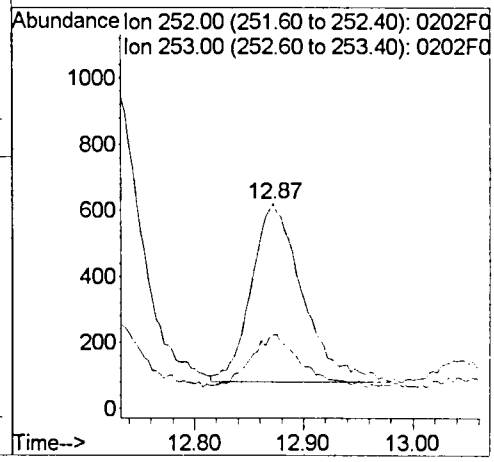


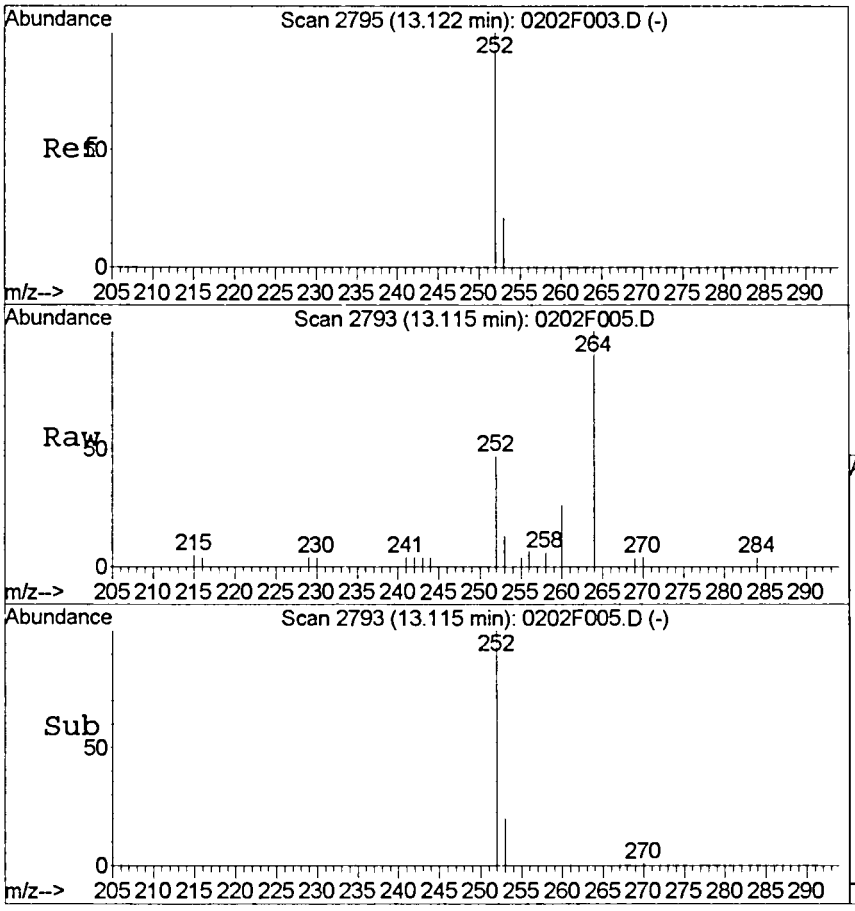


#31
Benzo(a)pyrene
Concen: 4.22 ng/ml
RT: 12.87 min Scan# 2725
Delta R.T. -0.06 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:252 Resp: 1762

Ion	Ratio	Lower	Upper
252	100		
253	28.3	0.0	51.9

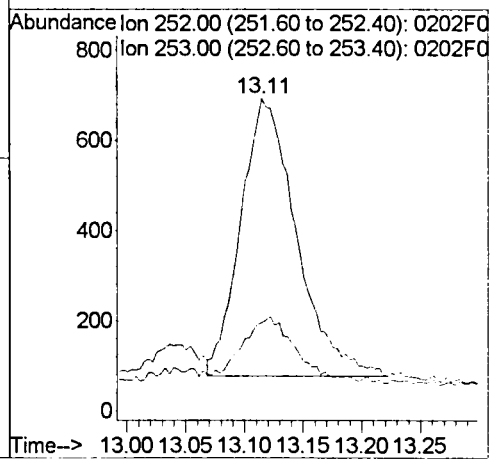


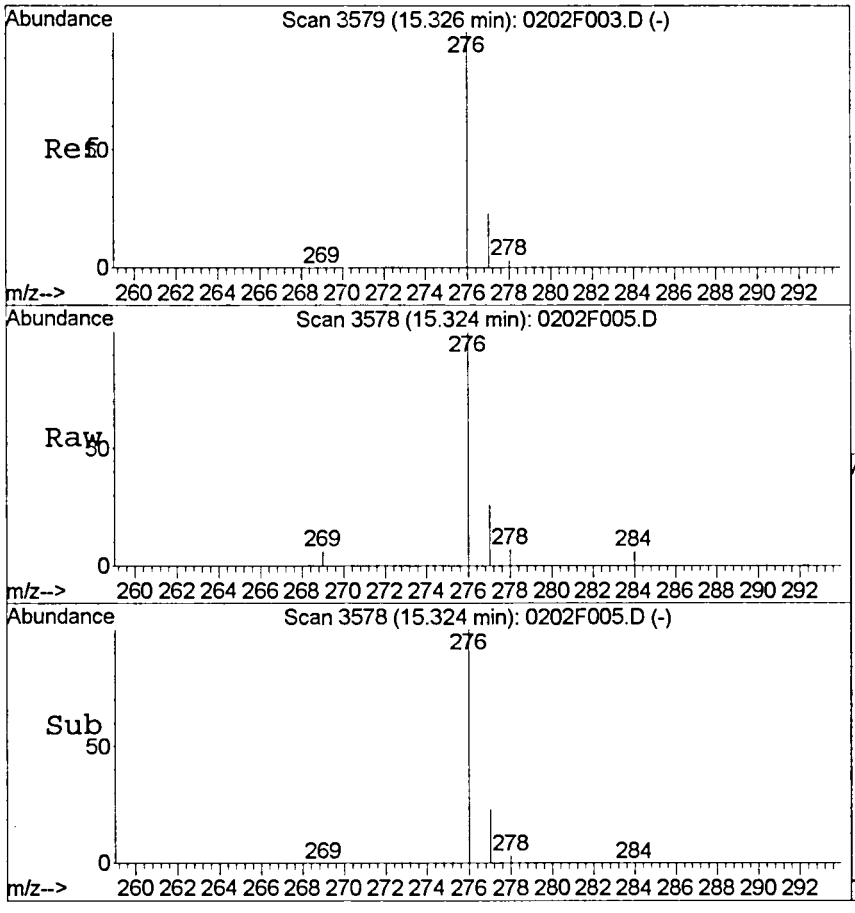


#32
Perylene
Concen: 5.23 ng/ml
RT: 13.11 min Scan# 2793
Delta R.T. -0.06 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:252 Resp: 2034

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	51.2

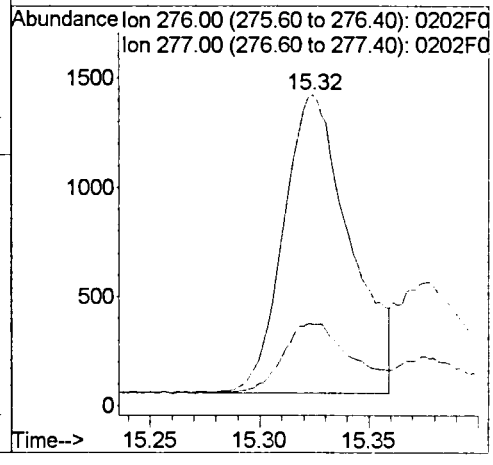


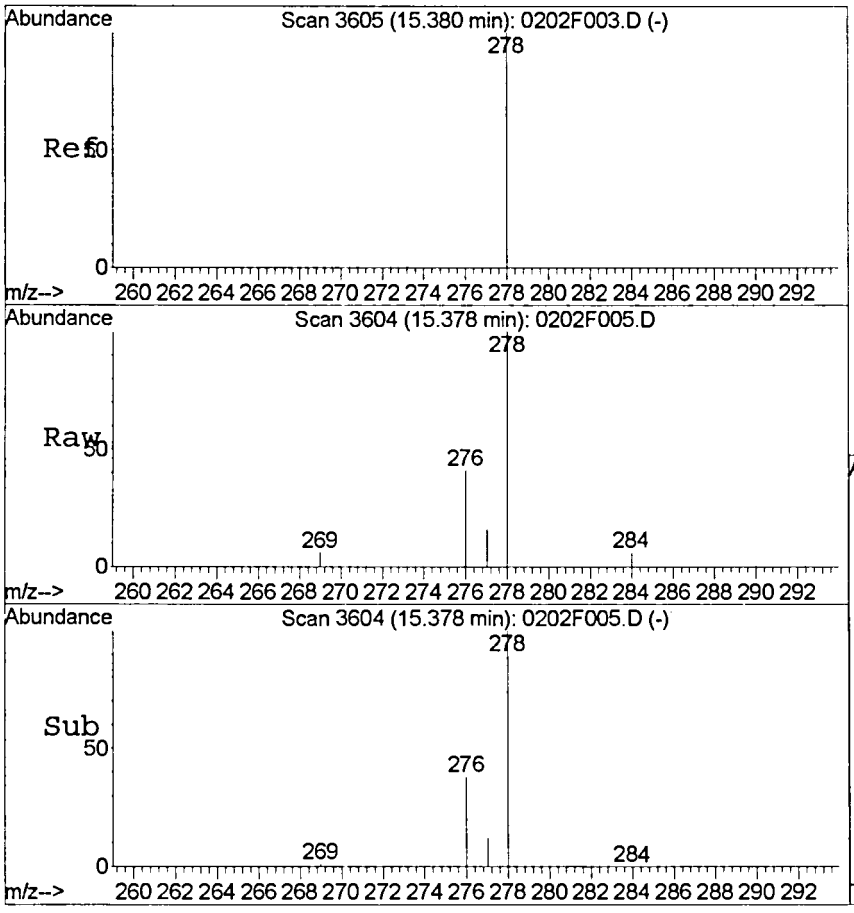


#33
Indeno(1,2,3-cd)pyrene
Concen: 7.38 ng/ml
RT: 15.32 min Scan# 3578
Delta R.T. -0.03 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:276 Resp: 2885

Ion	Ratio	Lower	Upper
276	100		
277	22.7	0.0	53.2

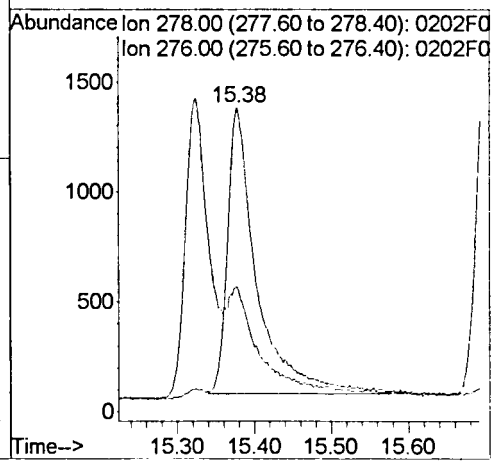


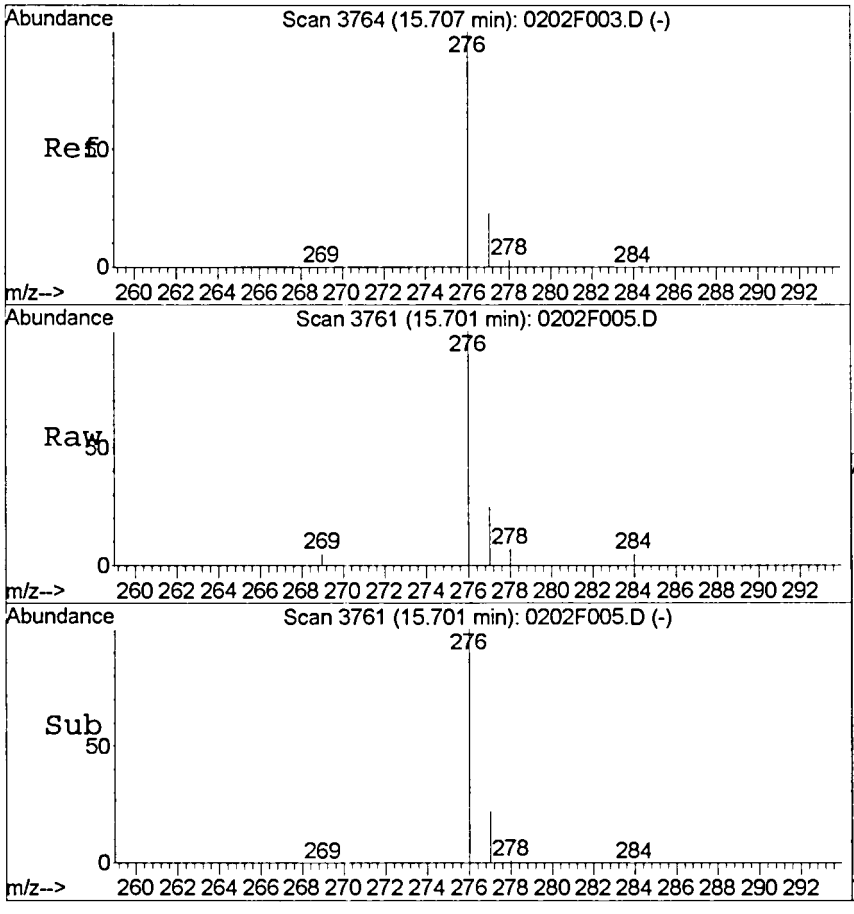


#34
Dibenz(a,h)anthracene
Concen: 8.94 ng/ml m
RT: 15.38 min Scan# 3604
Delta R.T. -0.04 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:278 Resp: 3457

Ion	Ratio	Lower	Upper
278	100		
276	41.2	0.0	58.1

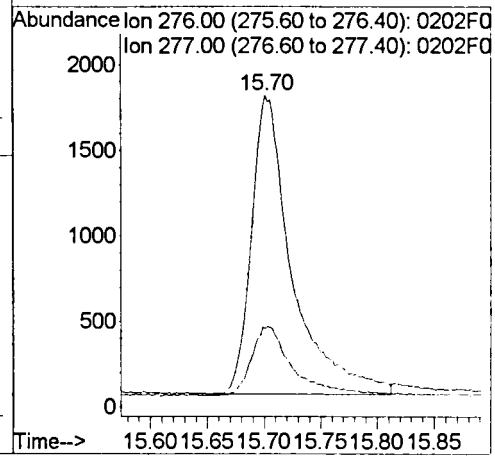




#35
Benzo(g,h,i)perylene
Concen: 9.75 ng/ml
RT: 15.70 min Scan# 3761
Delta R.T. -0.04 min
Lab File: 0202F005.D
Acq: 2 Feb 2016 6:58 am

Tgt Ion:276 Resp: 4344

Ion	Ratio	Lower	Upper
276	100		
277	22.2	0.0	53.1



Exception Report

Data File: J:\MS14\DATA\020216\0202F010.D
Lab ID: K1600673-011
RunType: DL
Matrix: WATER

Date Acquired: 02/02/2016 08:57
Date Quantitated: 02/02/2016 09:35
Batch ID: KWG1600865
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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	

Naphth. only

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	Fluorene-d10	134	46	114	NR
	Terphenyl-d14	147	58	132	—

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 10:25:59
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020216\0202F010.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 08:57	**Quant Date:**	02/02/2016 09:35	**Vial:**	10
Run Type:	DL			**Dilution:**	50.0
Lab ID:	K1600673-011			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600865	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495838	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020216\0202F001.D	**Method ID:**	MJ1507
MB Ref:		**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	4.66	-0.03	136	62240	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30439	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	59098	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	66208	200.00	OK
5	Perylene-d12	13.05	0.00	264	59837	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	6.71	0.00	0.00	176	1801	10.73	134	46-114	*	NR
3	Fluoranthene-d10	8.50	0.00	0.00	212	2297	7.59	95	51-121	OK	NR
4	Terphenyl-d14	8.84	0.00	0.00	244	2830	11.73	147	58-132	*	NR

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	4.69		0.00	128	147667	469.73	120	D	
1	2-Methylnaphthalene	5.35		0.00	142	6777	31.58	7.7	D	NR
1	1-Methylnaphthalene	5.44		0.00	142	36527	195.33	48	D	NR
2	Acenaphthylene	6.15	0.01	0.00	152	471	1.50	0.37	JD	NR
2	Acenaphthene	6.29		0.00	154	422	2.36	0.58	JD	NR
2	Fluorene	6.73		0.00	166	368	1.68	0.41	JD	NR
3	Phenanthrene				178	0d		0.25	U	NR
3	Anthracene				178	0d		0.18	U	NR
3	Fluoranthene	8.51		0.00	202	351	0.9000	0.50	U	NR
4	Pyrene	8.70		0.00	202	410	0.9900	0.27	U	NR
4	Benz(a)anthracene	10.01		0.00	228	741	1.91	0.47	JD	NR
4	Chrysene	10.06		0.00	228	1395	4.04	0.99	D	NR
5	Benzo(b)fluoranthene	12.03		0.00	252	1270	3.32	0.81	JD	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

Data File:	J:\MS14\DATA\020216\0202F010.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 08:57	**Quant Date:**	02/02/2016 09:35	**Vial:**	10
Run Type:	DL			**Dilution:**	50.0
Lab ID:	K1600673-011			**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?
5	Benzo(k)fluoranthene	12.10		0.00	252	1323	3.55	0.87	JD	NR
5	Benzo(a)pyrene	12.89	0.01	0.00	252	593	1.66	0.41	JD	NR
5	Indeno(1,2,3-cd)pyrene	15.33		0.00	276	1050	3.13	0.77	JD	NR
5	Dibenz(a,h)anthracene	15.38		0.00	278	1182	3.56	0.87	JD	NR
5	Benzo(g,h,i)perylene	15.70	-0.01	0.00	276	1662	4.35	1.1	D	NR

Prep Amount:	1020 ml	**Dilution:**	50.0
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\020216\0202F010.D Vial: 10
Acq On : 2 Feb 2016 8:57 am Operator: LWeiskopf
Sample : K1600673-011DIL 50X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 09:28:41 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

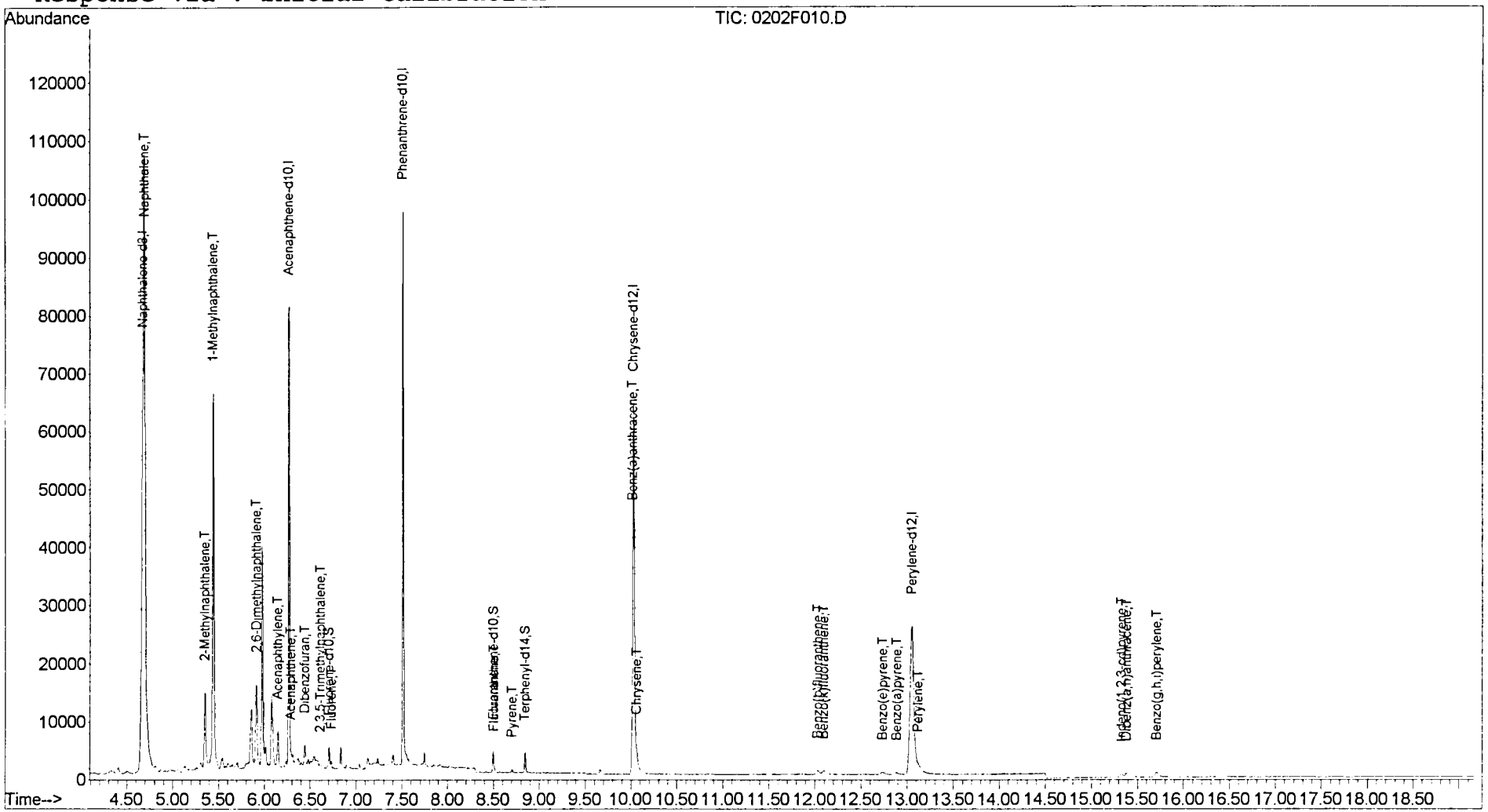
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	62240	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	30439	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	59098	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	66208	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	59837	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	1801	10.73	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.07%		
21) Fluoranthene-d10	8.50	212	2297	7.59	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.76%		
24) Terphenyl-d14	8.84	244	2830	11.73	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.17%		
Target Compounds						Qvalue
2) Naphthalene	4.69	128	147667	469.73	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	6777	31.58	ng/ml	98
4) 1-Methylnaphthalene	5.44	142	36527	195.33	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	6427m	35.98	ng/ml	
8) Acenaphthylene	6.15	152	471	1.50	ng/ml#	1
9) Acenaphthene	6.29	154	422	2.36	ng/ml	96
10) Dibenzofuran	6.44	168	1336	4.64	ng/ml	99
11) 2,3,5-Trimethylnaphthalene	6.61	170	298	1.89	ng/ml	88
13) Fluorene	6.73	166	368	1.68	ng/ml	99
20) Fluoranthene	8.51	202	351	0.90	ng/ml	98
23) Pyrene	8.70	202	410	0.99	ng/ml	57
25) Benz(a)anthracene	10.01	228	741	1.91	ng/ml	96
26) Chrysene	10.06	228	1395	4.04	ng/ml	98
28) Benzo(b)fluoranthene	12.03	252	1270	3.32	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	1323	3.55	ng/ml	100
30) Benzo(e)pyrene	12.73	252	995	2.81	ng/ml	92
31) Benzo(a)pyrene	12.89	252	593	1.66	ng/ml	67
32) Perylene	13.13	252	747	2.24	ng/ml	91
33) Indeno(1,2,3-cd)pyrene	15.33	276	1050	3.13	ng/ml	99
34) Dibenz(a,h)anthracene	15.38	278	1182	3.56	ng/ml	100
35) Benzo(g,h,i)perylene	15.70	276	1662	4.35	ng/ml	94

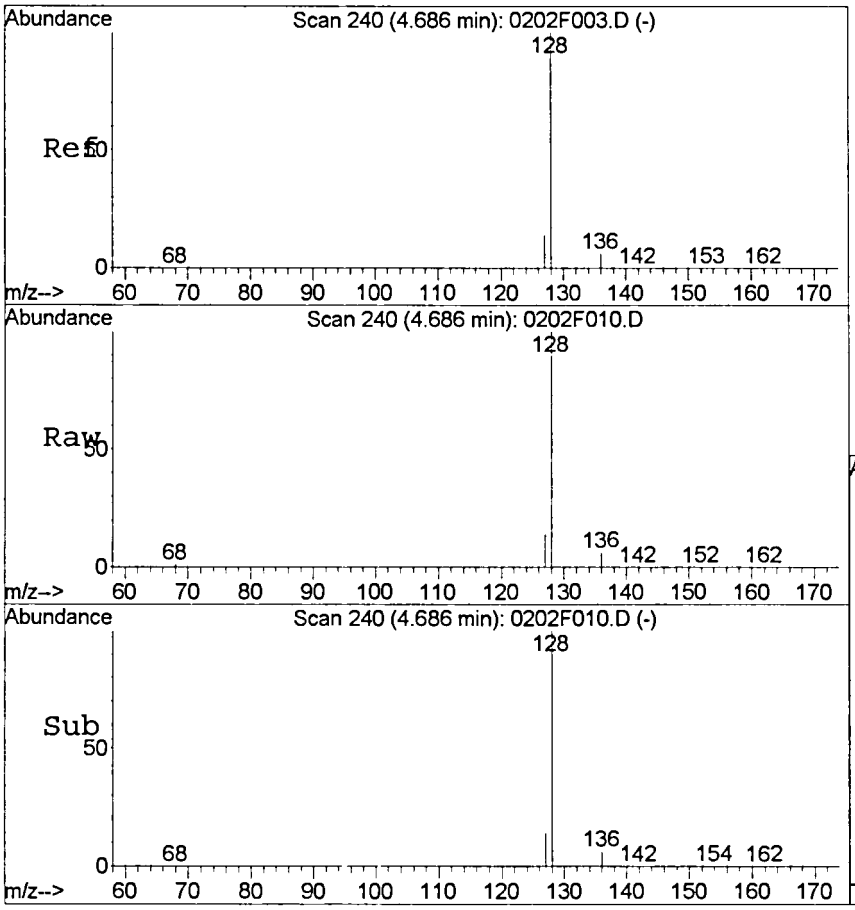
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020216\0202F010.D Vial: 10
Acq On : 2 Feb 2016 8:57 am Operator: LWeiskopf
Sample : K1600673-011DIL 50X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 9:35 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration

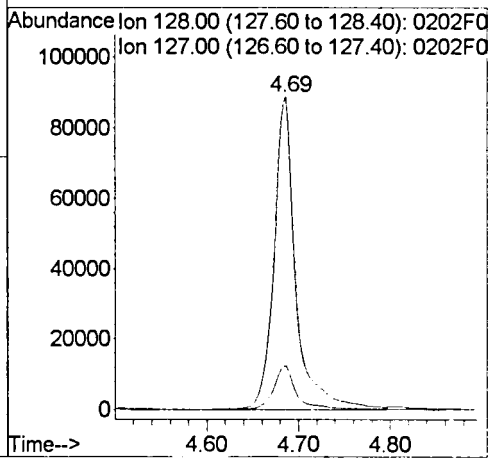


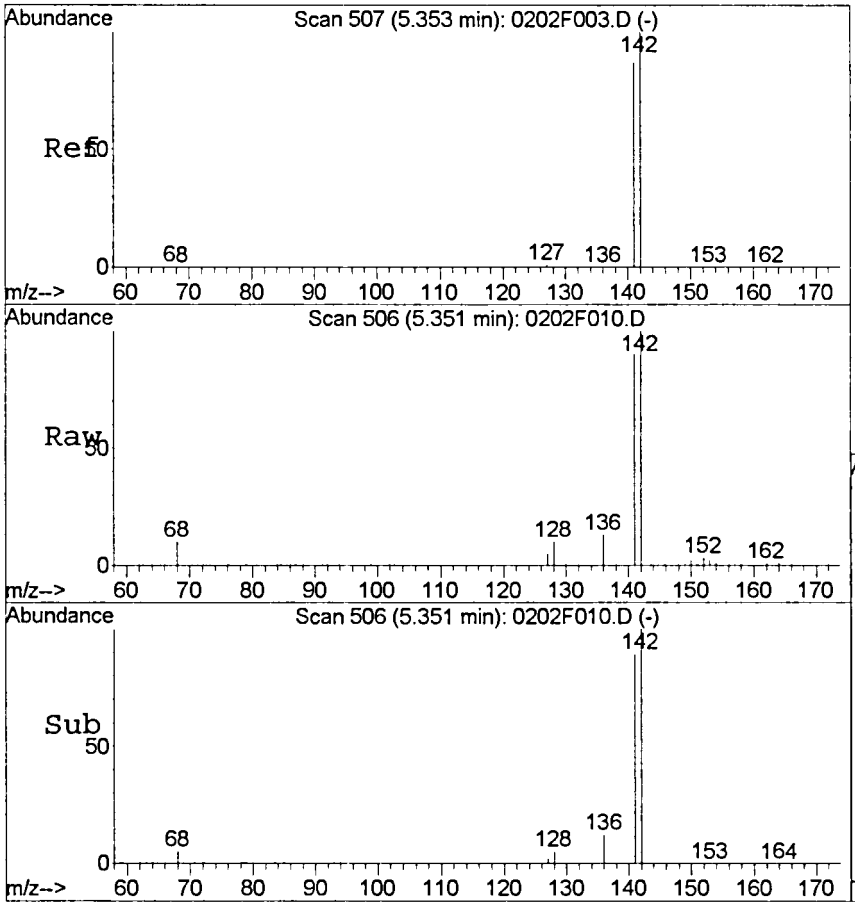


#2
Naphthalene
Concen: 469.73 ng/ml
RT: 4.69 min Scan# 240
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:128 Resp: 147667

Ion	Ratio	Lower	Upper
128	100		
127	14.0	0.0	43.8

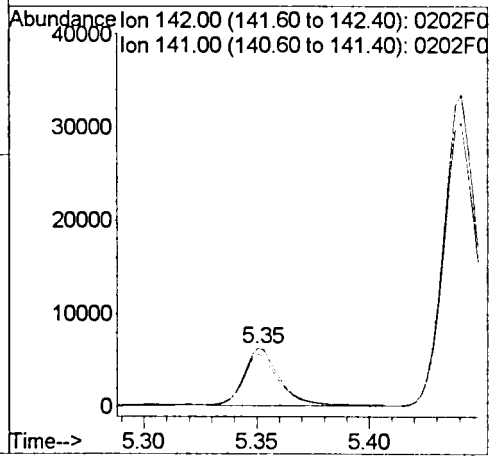


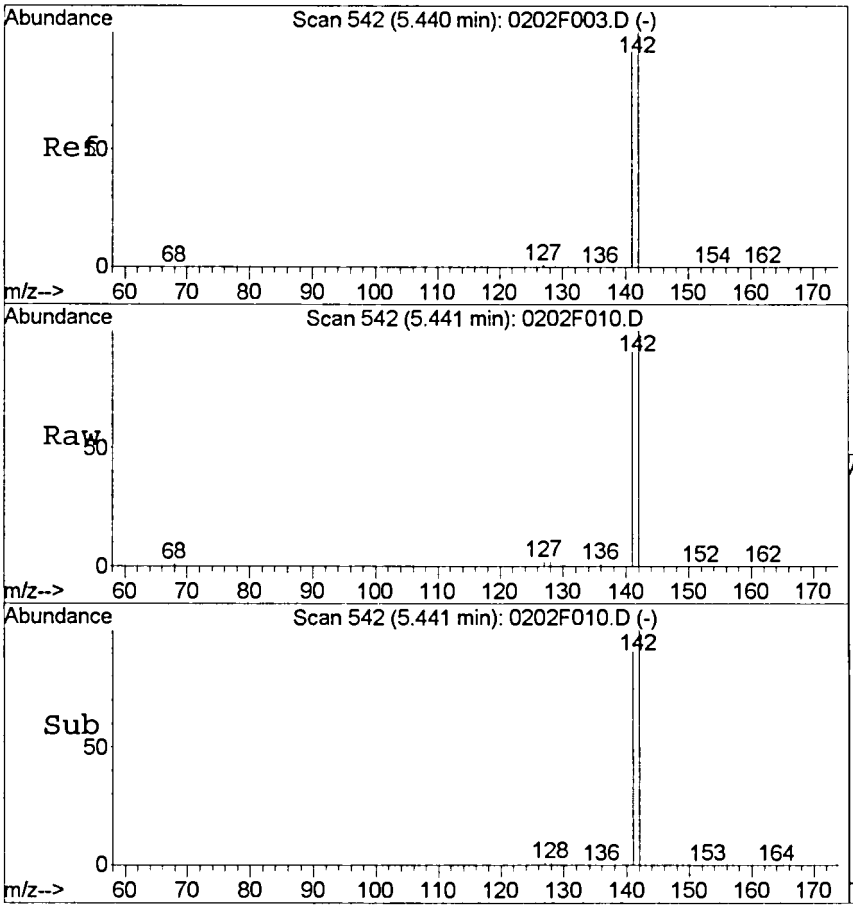


#3
2-Methylnaphthalene
Concen: 31.58 ng/ml
RT: 5.35 min Scan# 506
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:142 Resp: 6777

Ion	Ratio	Lower	Upper
142	100		
141	89.0	57.6	117.6

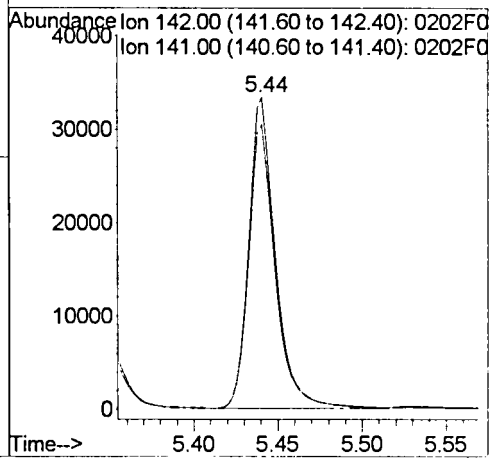


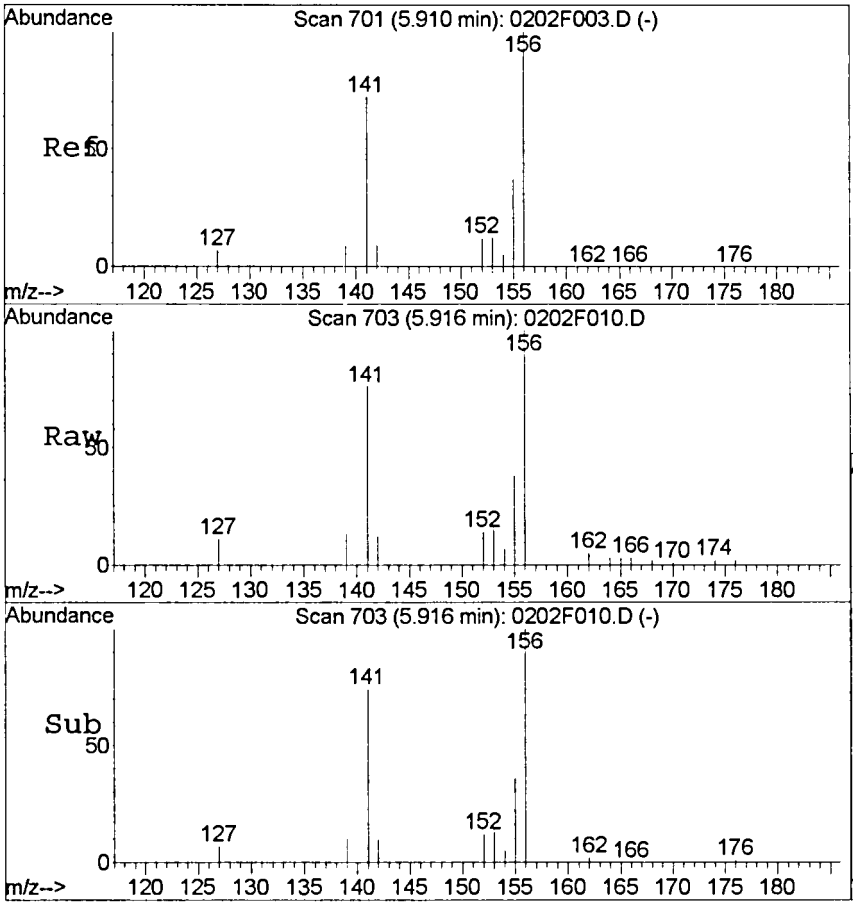


#4
1-Methylnaphthalene
Concen: 195.33 ng/ml
RT: 5.44 min Scan# 542
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:142 Resp: 36527

Ion	Ratio	Lower	Upper
142	100		
141	91.1	60.8	120.8

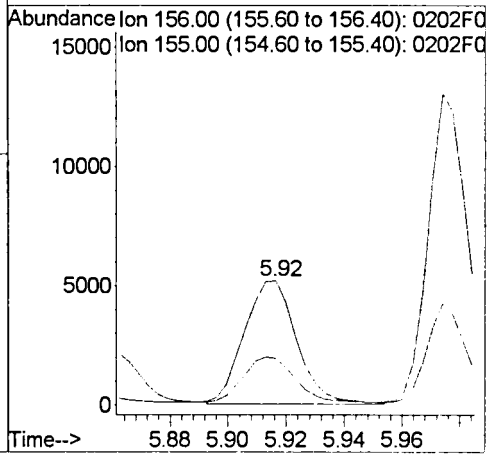


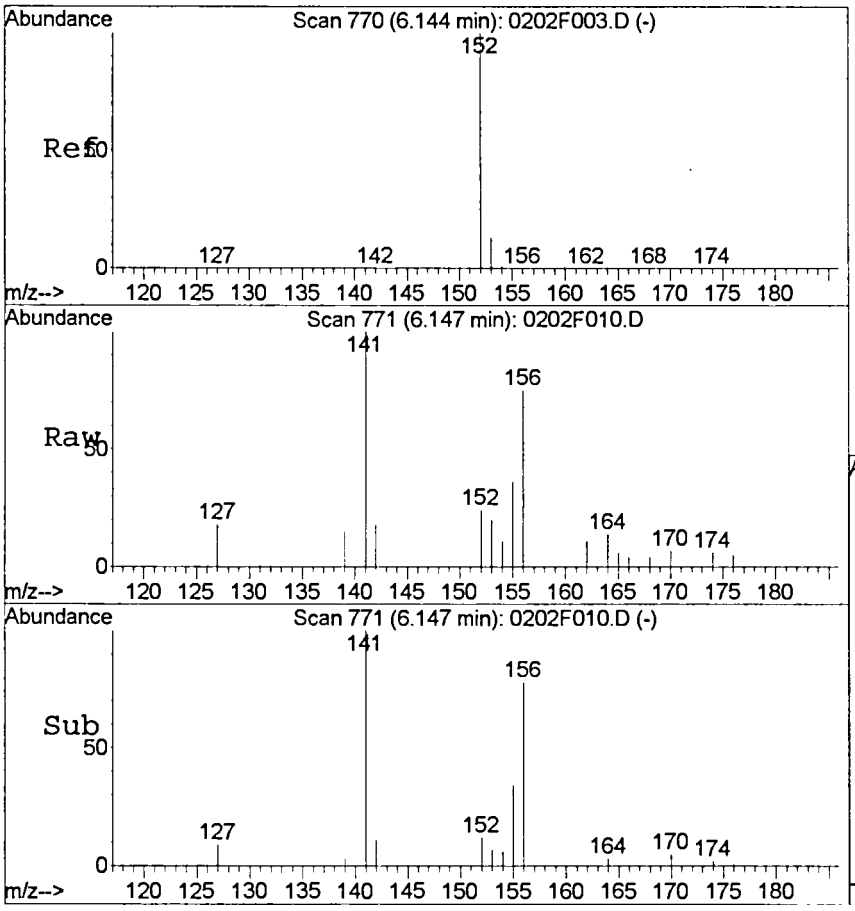


#6
2,6-Dimethylnaphthalene
Concen: 35.98 ng/ml m
RT: 5.92 min Scan# 703
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:156 Resp: 6427

Ion	Ratio	Lower	Upper
156	100		
155	37.6	7.0	67.0

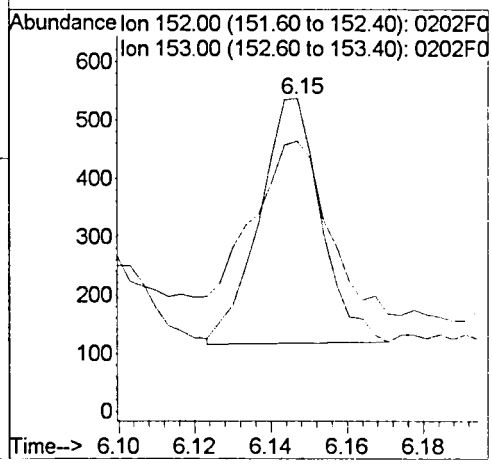


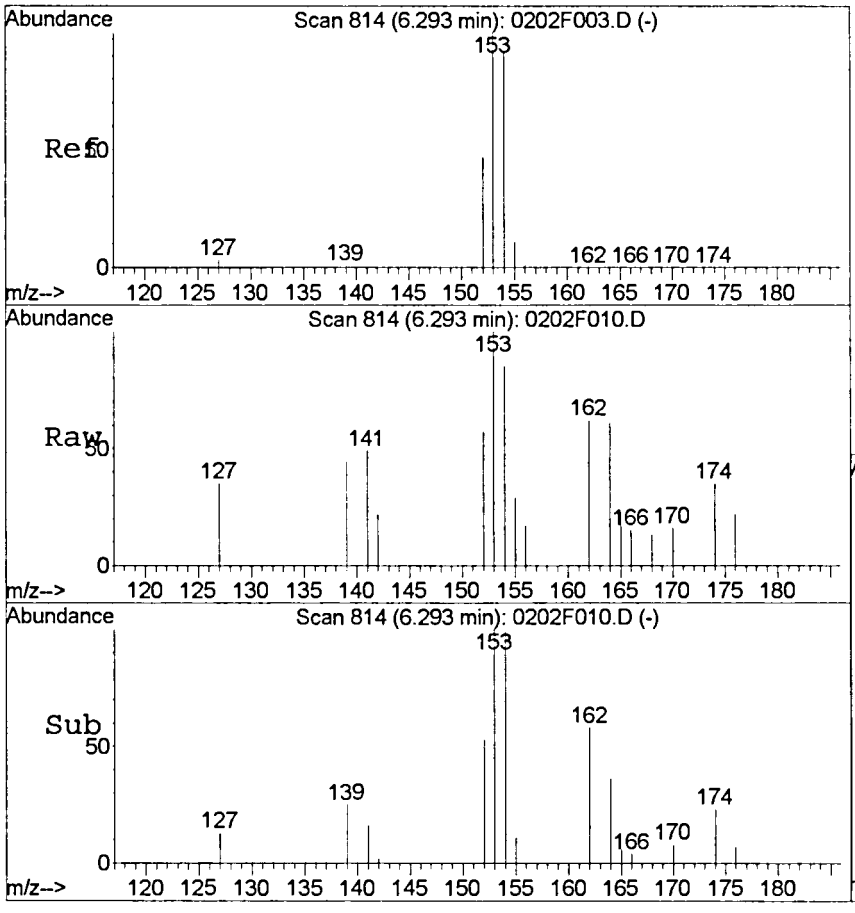


#8
Acenaphthylene
Concen: 1.50 ng/ml
RT: 6.15 min Scan# 771
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:152 Resp: 471

Ion	Ratio	Lower	Upper
152	100		
153	71.1	0.0	42.9#

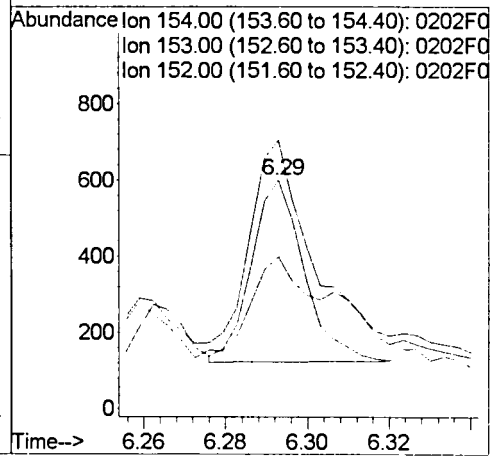


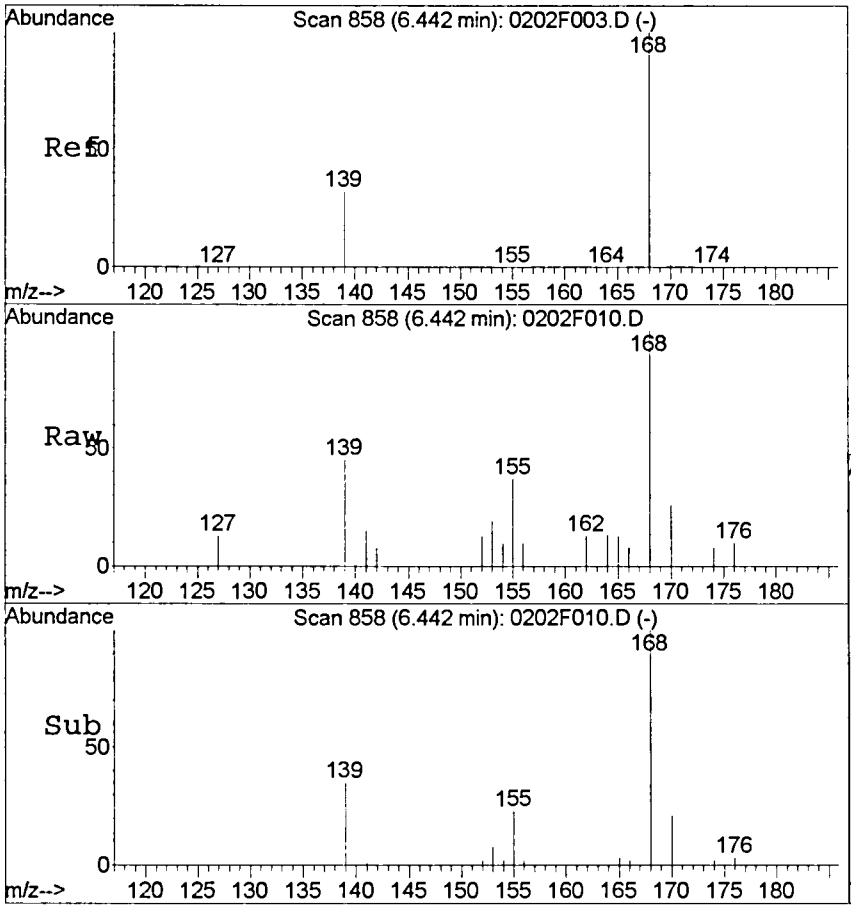


#9
Acenaphthene
Concen: 2.36 ng/ml
RT: 6.29 min Scan# 814
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:154 Resp: 422

Ion	Ratio	Lower	Upper
154	100		
153	112.0	77.1	137.1
152	51.7	19.8	79.8

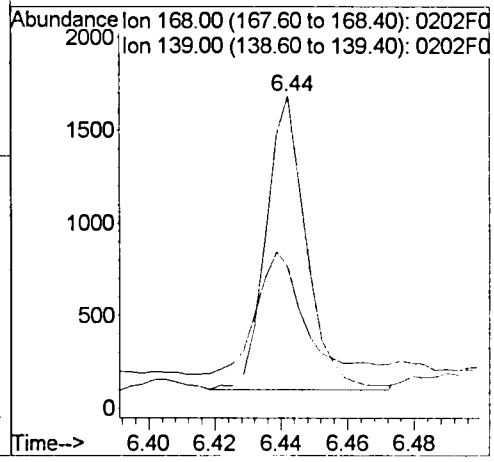


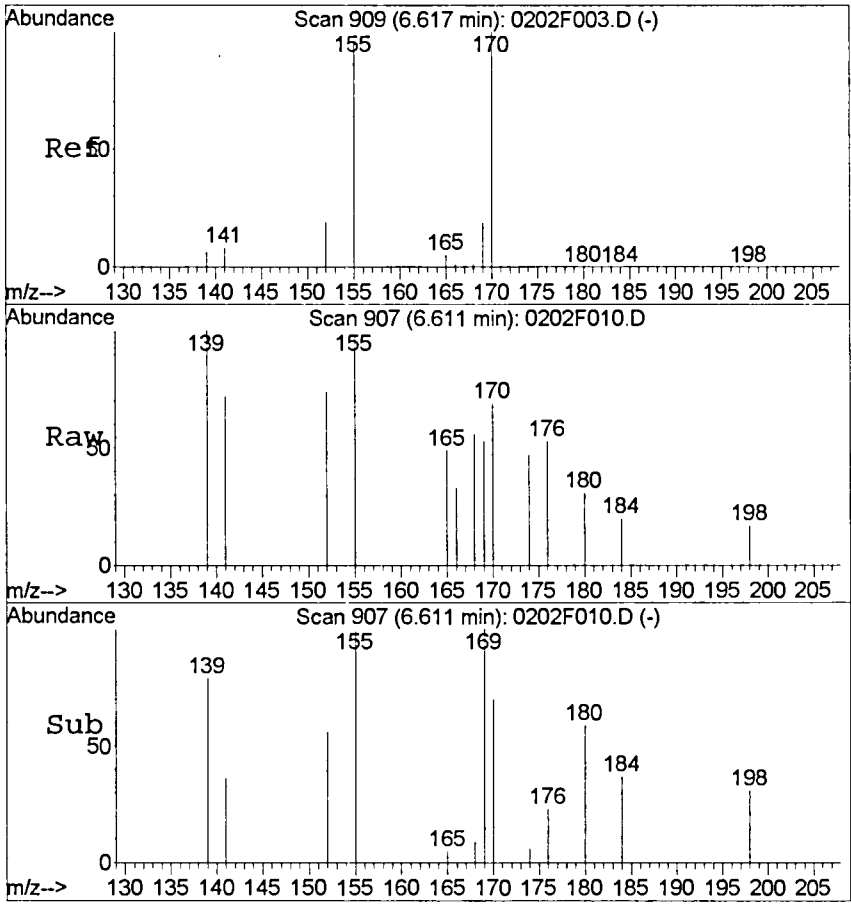


#10
Dibenzofuran
Concen: 4.64 ng/ml
RT: 6.44 min Scan# 858
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:168 Resp: 1336

Ion	Ratio	Lower	Upper
168	100		
139	36.2	6.7	66.7

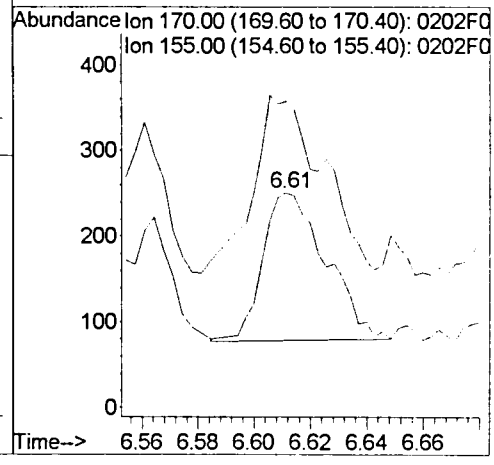


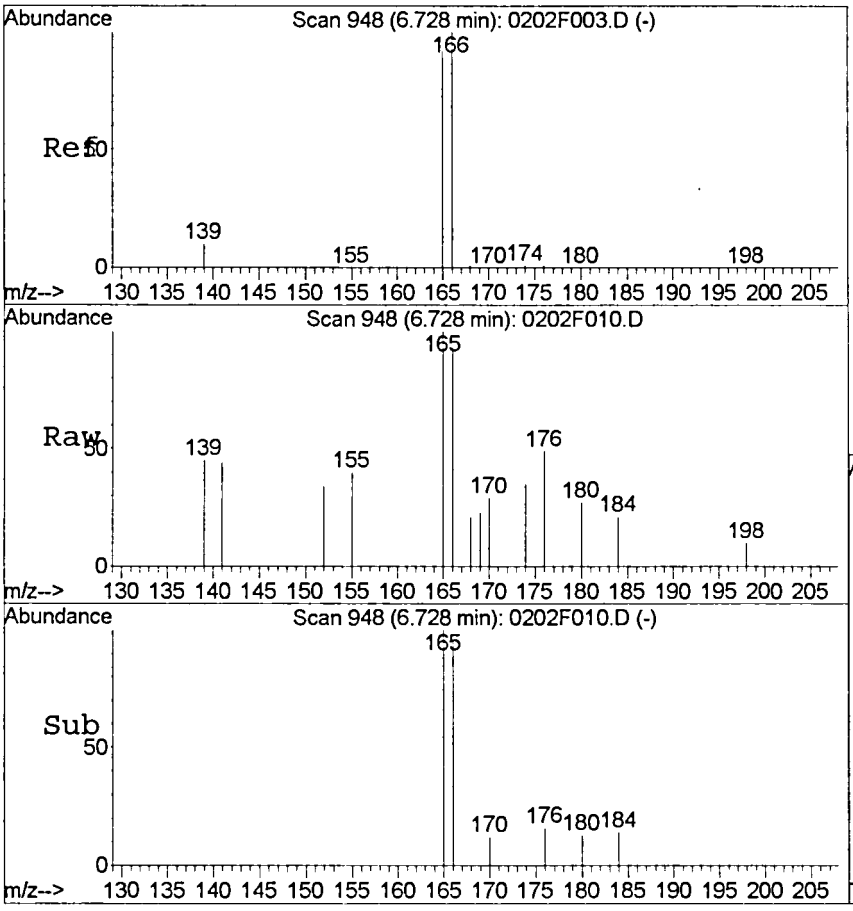


#11
2,3,5-Trimethylnaphthalene
Concen: 1.89 ng/ml
RT: 6.61 min Scan# 907
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:170 Resp: 298

Ion	Ratio	Lower	Upper
170	100		
155	108.2	66.5	126.5

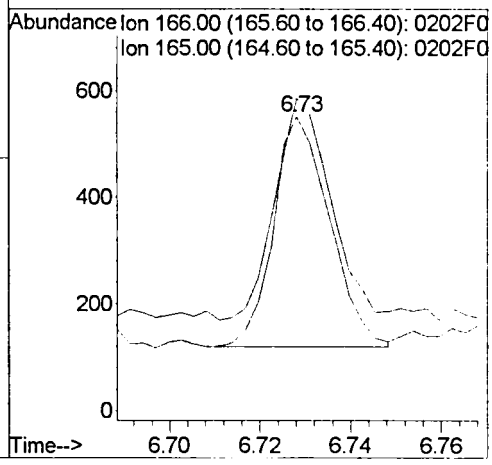


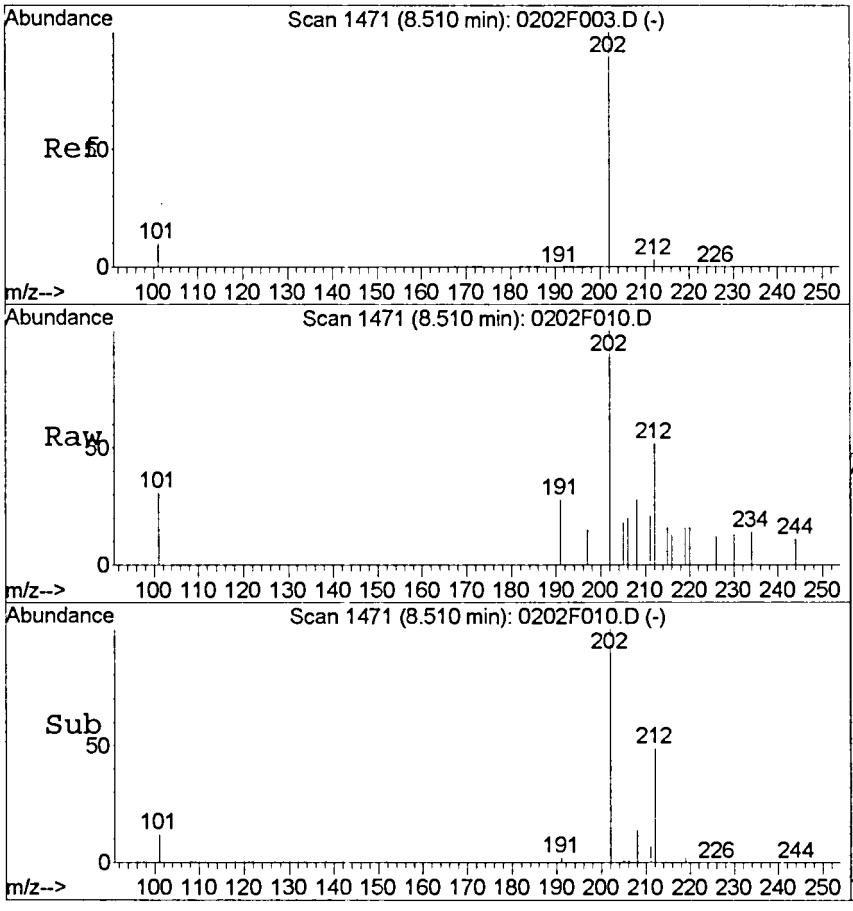


#13
Fluorene
Concen: 1.68 ng/ml
RT: 6.73 min Scan# 948
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:166 Resp: 368

Ion	Ratio	Lower	Upper
166	100		
165	93.0	63.9	123.9

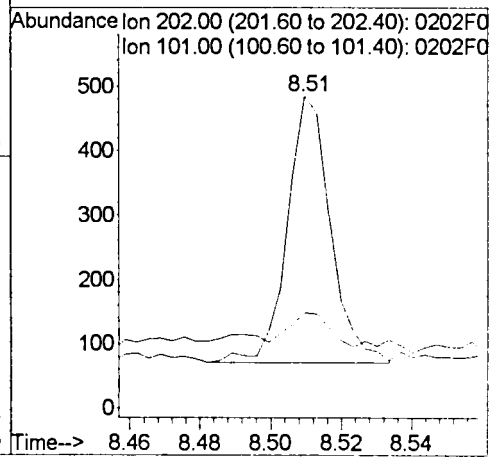


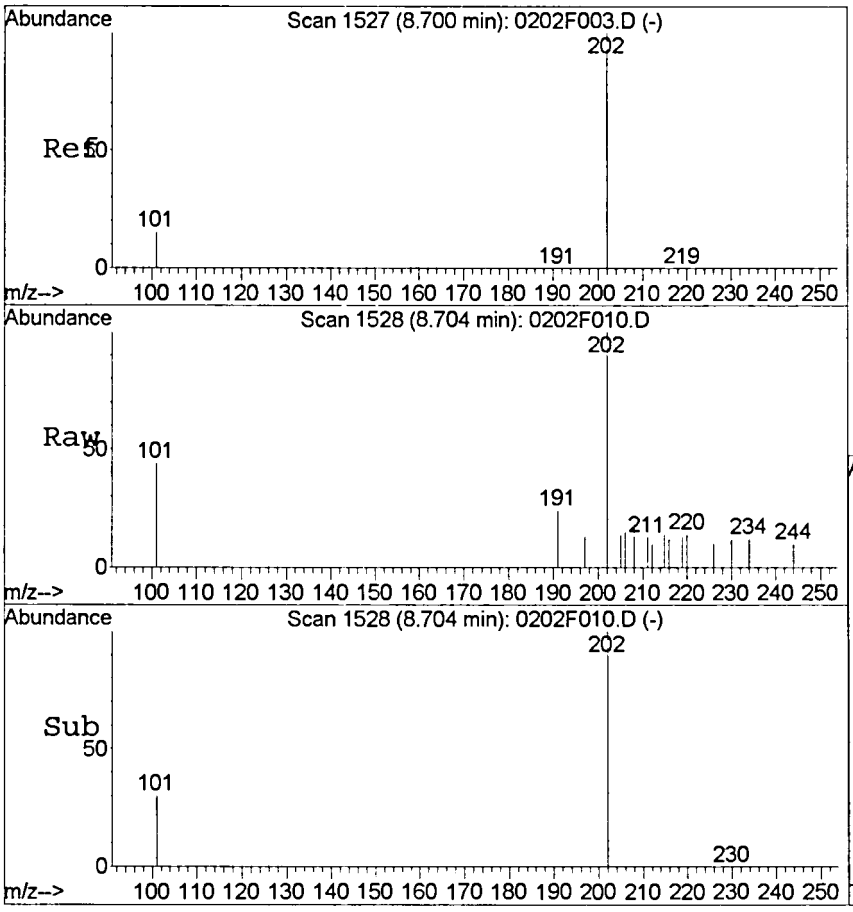


#20
Fluoranthene
Concen: 0.90 ng/ml
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:202 Resp: 351

Ion	Ratio	Lower	Upper
202	100		
101	10.9	0.0	40.2

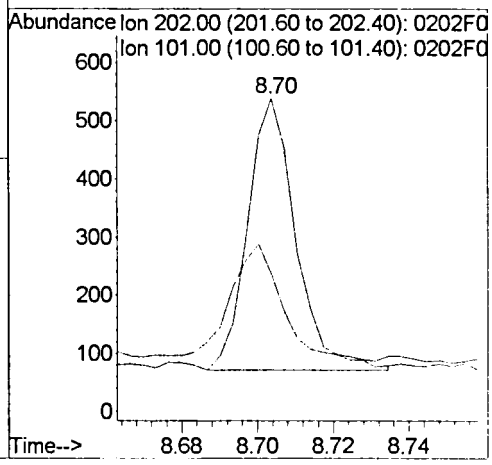


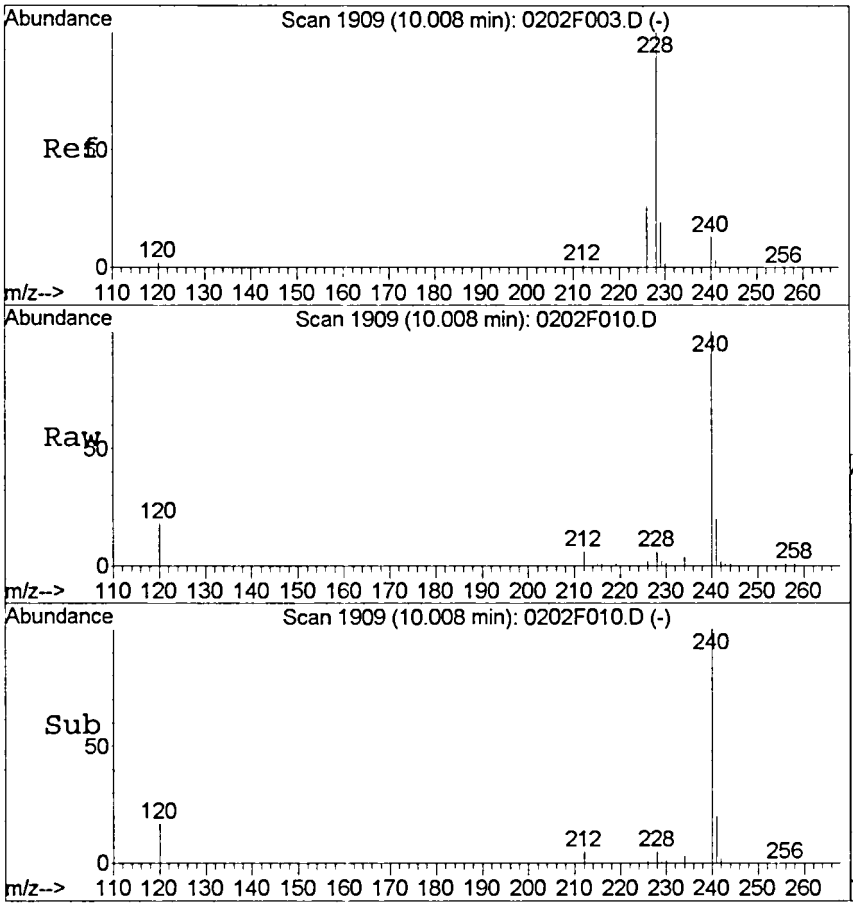


#23
Pyrene
Concen: 0.99 ng/ml
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:202 Resp: 410

Ion	Ratio	Lower	Upper
202	100		
101	30.0	0.0	42.9

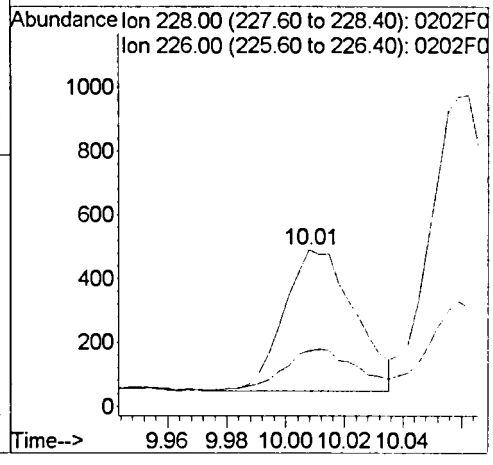


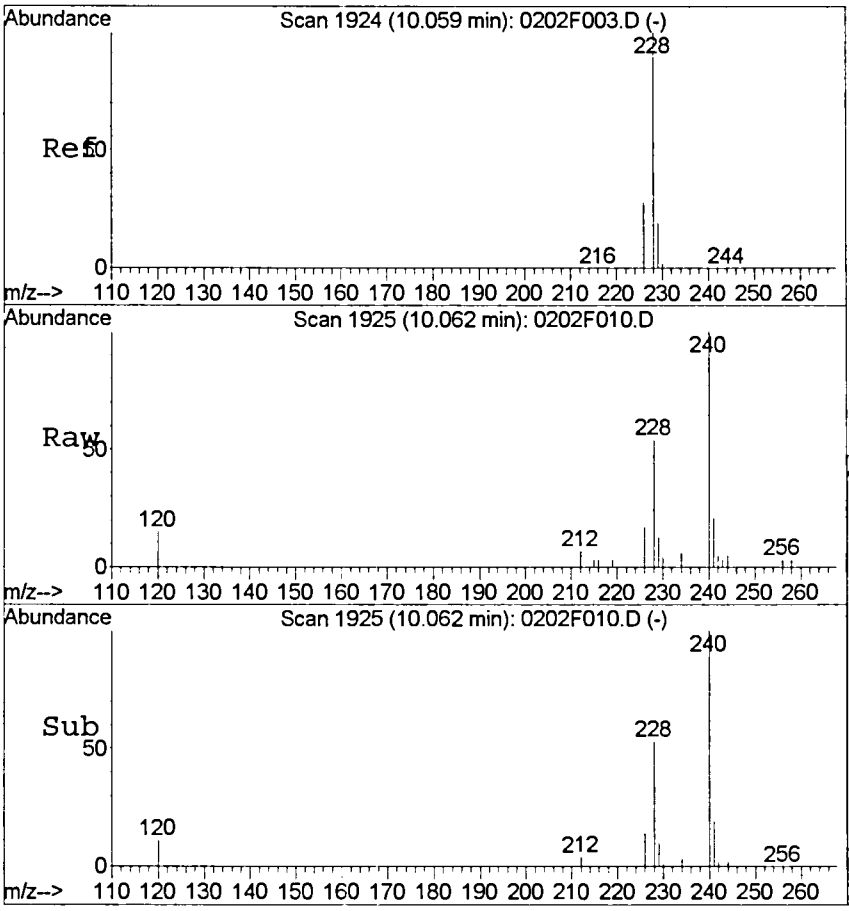


#25
Benz(a)anthracene
Concen: 1.91 ng/ml
RT: 10.01 min Scan# 1909
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:228 Resp: 741

Ion	Ratio	Lower	Upper
228	100		
226	27.7	0.0	55.9

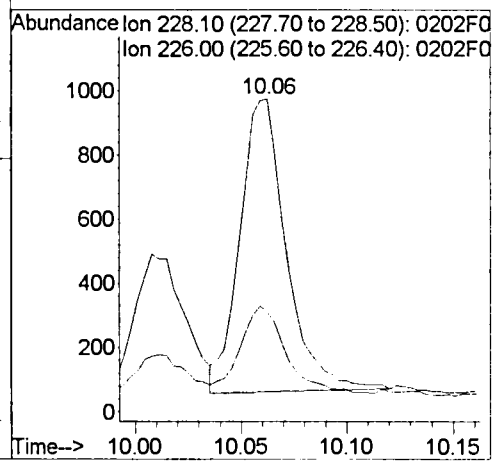


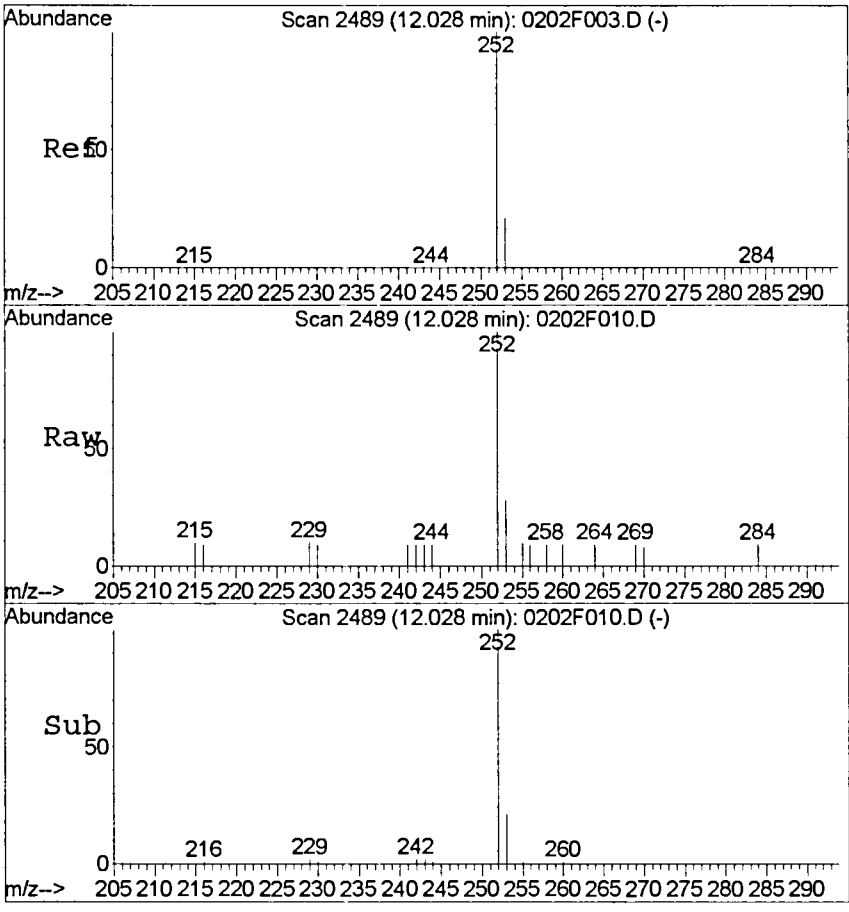


#26
Chrysene
Concen: 4.04 ng/ml
RT: 10.06 min Scan# 1925
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:228 Resp: 1395

Ion	Ratio	Lower	Upper
228	100		
226	27.4	0.0	58.6

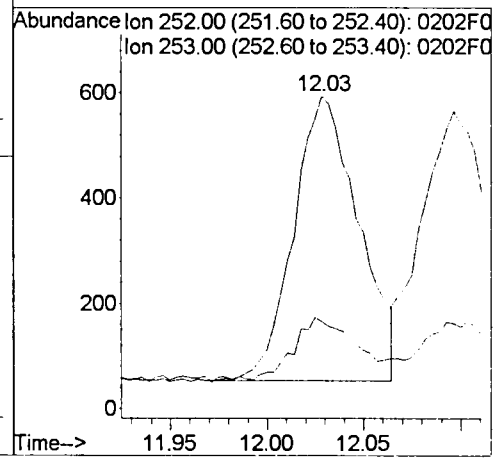


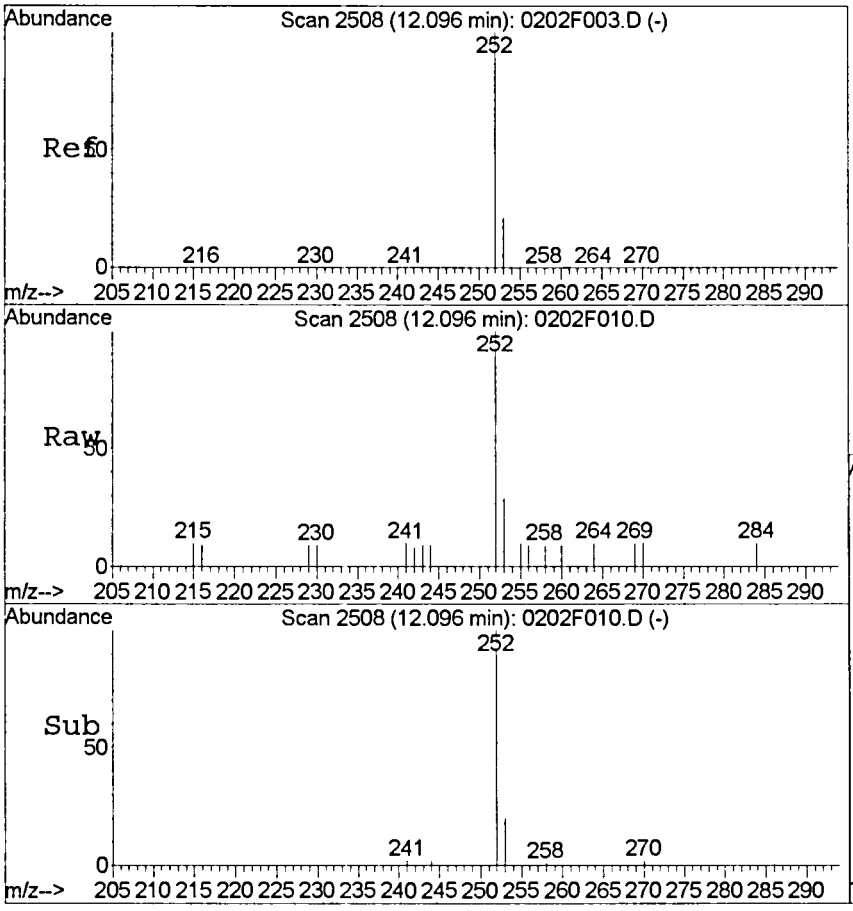


#28
Benzo(b)fluoranthene
Concen: 3.32 ng/ml
RT: 12.03 min Scan# 2489
Delta R.T. -0.05 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:252 Resp: 1270

Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.3

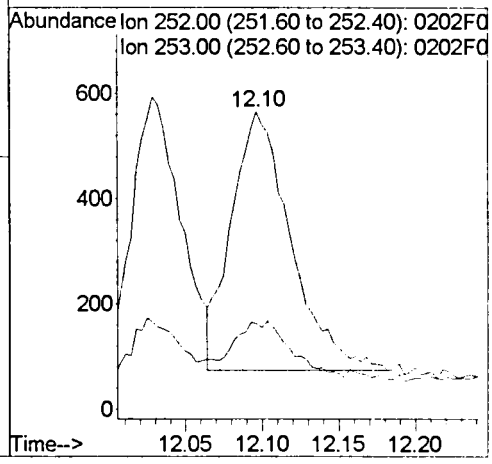


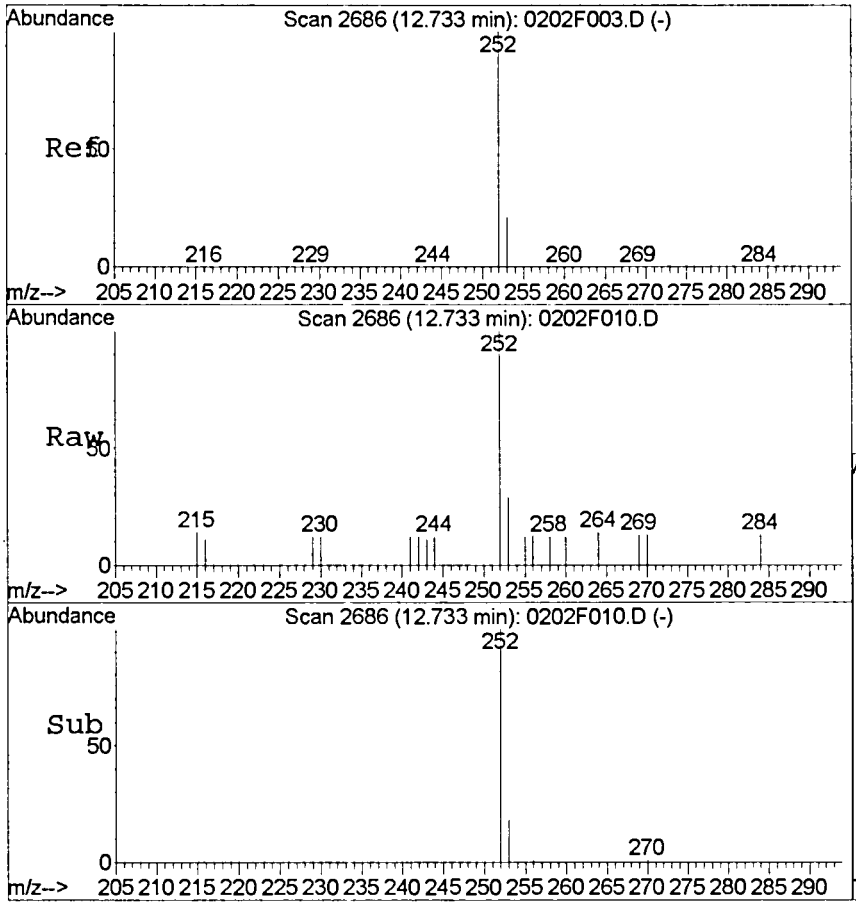


#29
Benzo(k)fluoranthene
Concen: 3.55 ng/ml
RT: 12.10 min Scan# 2508
Delta R.T. -0.05 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:252 Resp: 1323

Ion	Ratio	Lower	Upper
252	100		
253	21.2	0.0	51.4

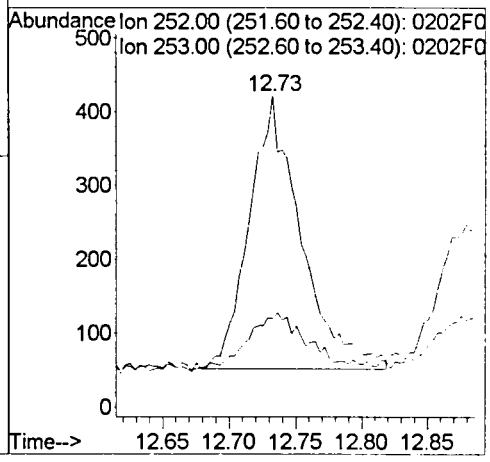


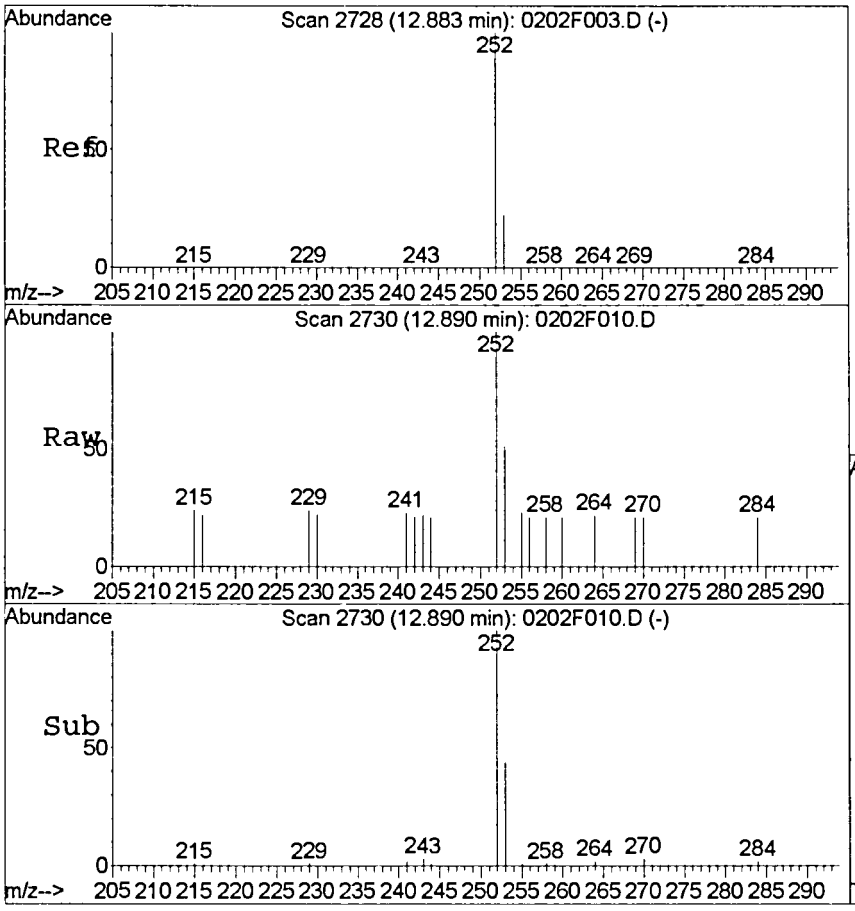


#30
Benzo(e)pyrene
Concen: 2.81 ng/ml
RT: 12.73 min Scan# 2686
Delta R.T. -0.05 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:252 Resp: 995

Ion	Ratio	Lower	Upper
252	100		
253	17.6	0.0	51.2

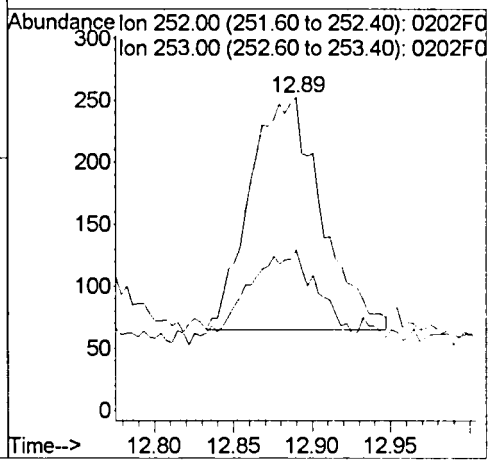


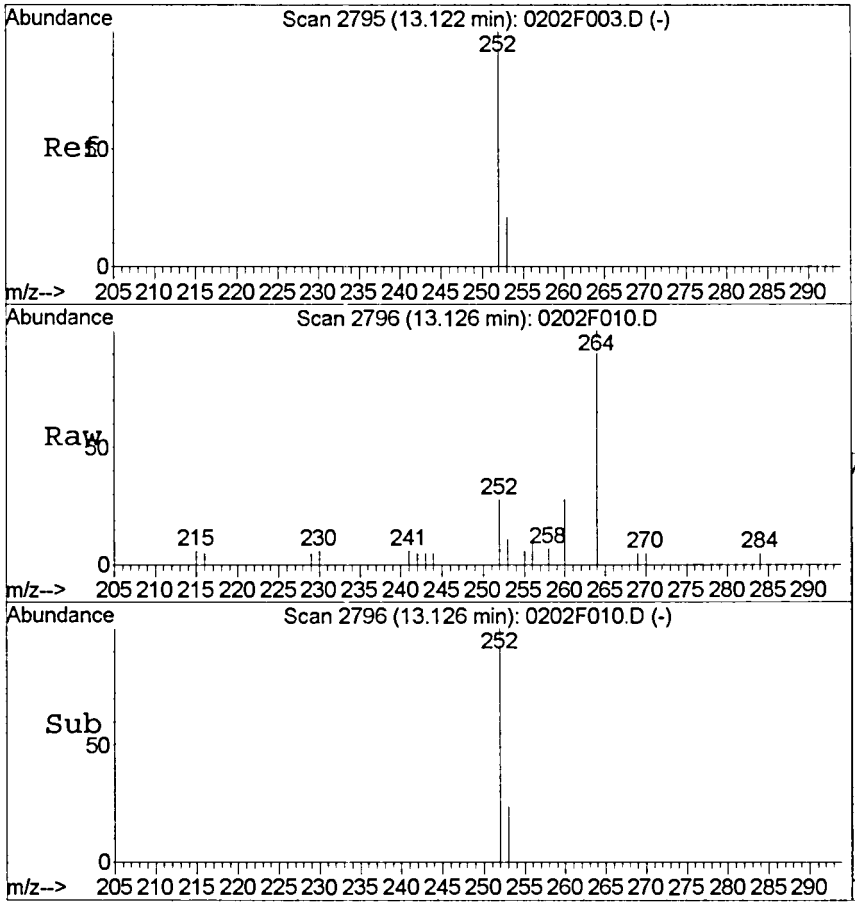


#31
Benzo(a)pyrene
Concen: 1.66 ng/ml
RT: 12.89 min Scan# 2730
Delta R.T. -0.04 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:252 Resp: 593

Ion	Ratio	Lower	Upper
252	100		
253	37.4	0.0	51.9

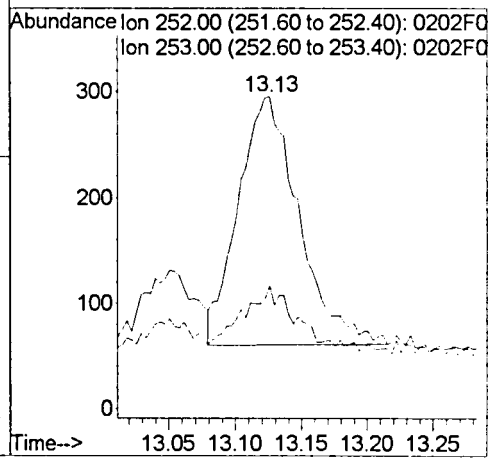


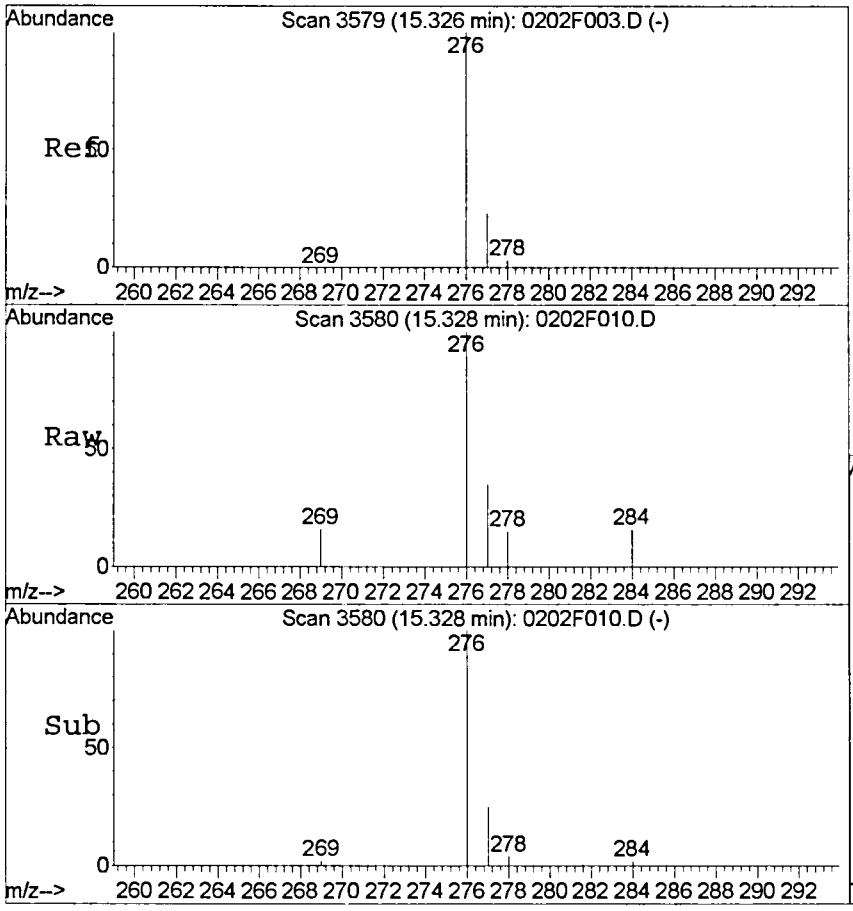


#32
Perylene
Concen: 2.24 ng/ml
RT: 13.13 min Scan# 2796
Delta R.T. -0.05 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:252 Resp: 747

Ion	Ratio	Lower	Upper
252	100		
253	25.2	0.0	51.2

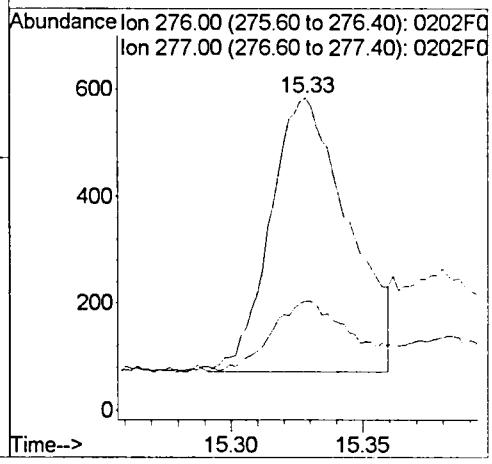


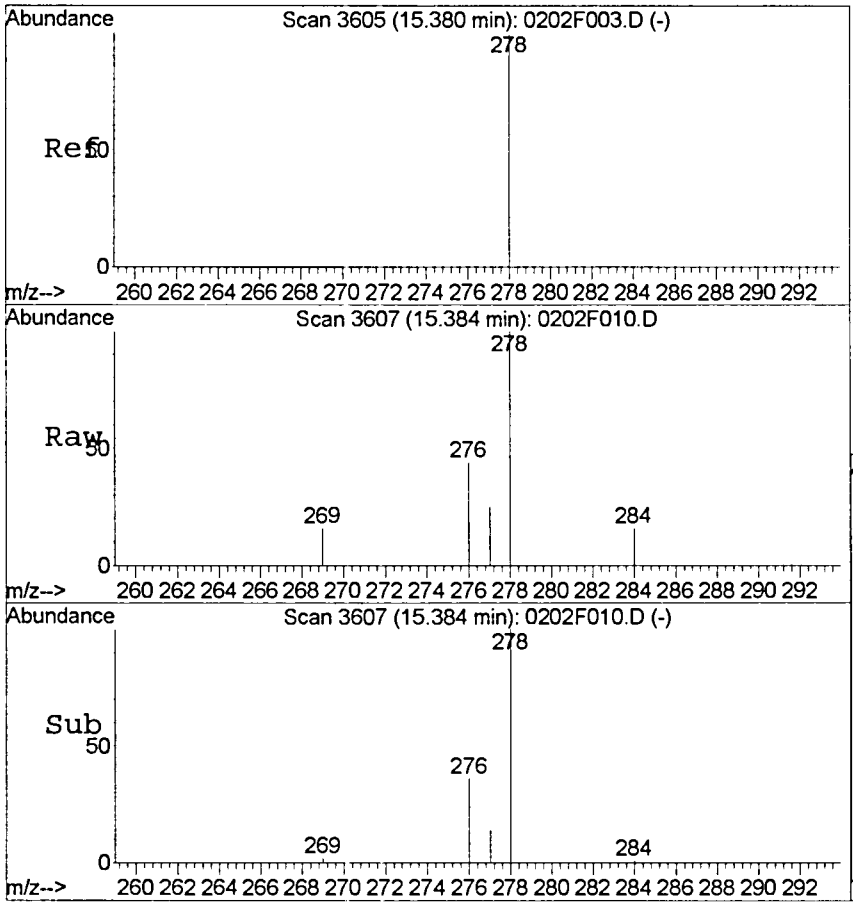


#33
Indeno(1,2,3-cd)pyrene
Concen: 3.13 ng/ml
RT: 15.33 min Scan# 3580
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:276 Resp: 1050

Ion	Ratio	Lower	Upper
276	100		
277	23.8	0.0	53.2

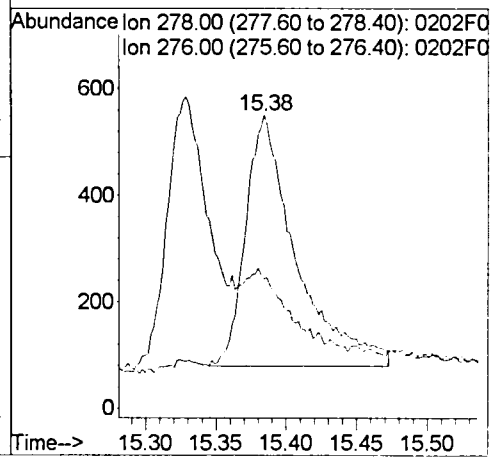


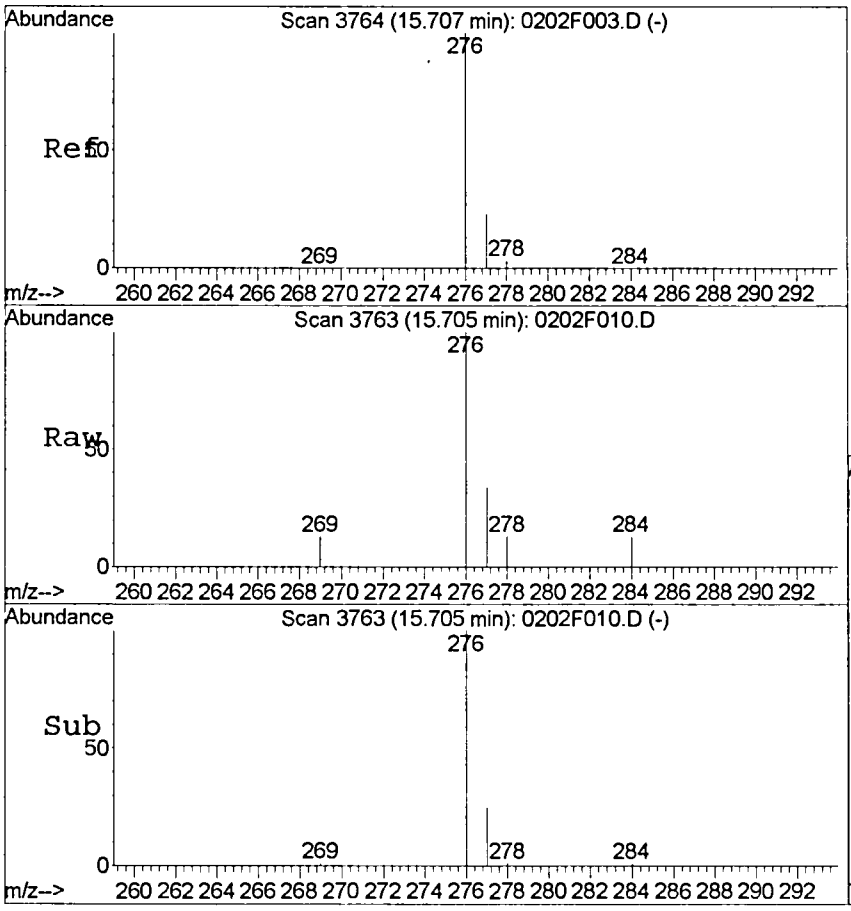


#34
Dibenz(a,h)anthracene
Concen: 3.56 ng/ml
RT: 15.38 min Scan# 3607
Delta R.T. -0.03 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:278 Resp: 1182

Ion	Ratio	Lower	Upper
278	100		
276	28.2	0.0	58.1

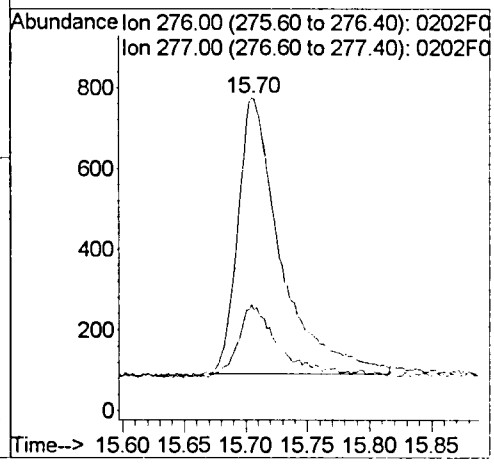




#35
Benzo(g,h,i)perylene
Concen: 4.35 ng/ml
RT: 15.70 min Scan# 3763
Delta R.T. -0.04 min
Lab File: 0202F010.D
Acq: 2 Feb 2016 8:57 am

Tgt Ion:276 Resp: 1662

Ion	Ratio	Lower	Upper
276	100		
277	25.9	0.0	53.1



Exception Report

Data File: J:\MS14\DATA\020116\0201F024.D
Lab ID: K1600673-012
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 17:00
Date Quantitated: 02/02/2016 12:24
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:28
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F024.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 17:00	**Quant Date:**	02/02/2016 12:24	**Vial:**	24
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/20/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495839	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	59132	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30151	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	58848	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	71110	200.00	OK
5	Perylene-d12	13.05	0.00	264	64684	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	6.71	0.00	0.00	176	62582	376.46	94	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	123922	411.45	103	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	98722	380.85	95	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	4.68	-0.01	0.00	128	137m	0.4600	0.0038	U	
1	2-Methylnaphthalene				142	0d		0.0023	U	
1	1-Methylnaphthalene				142	0d		0.0035	U	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.53		0.00	178	511m	1.48	0.0074	J	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	732m	1.88	0.010	U	
4	Pyrene	8.70		0.00	202	760	1.71	0.0086	J	
4	Benz(a)anthracene	10.01		0.00	228	528	1.27	0.0064	J	
4	Chrysene	10.06	-0.01	0.00	228	479m	1.29	0.0065	J	
5	Benzo(b)fluoranthene	12.03	-0.01	0.00	252	342	0.8300	0.0042	J	

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\020116\0201F024.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 17:00	**Quant Date:**	02/02/2016 12:24	**Vial:**	24
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-012			**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?
5	Benzo(k)fluoranthene	12.10	-0.01	0.00	252	139**m**	0.3400	0.0030	U	
5	Benzo(a)pyrene	12.87	-0.02	0.00	252	280**m**	0.7200	0.0043	U	
5	Indeno(1,2,3-cd)pyrene	15.33	-0.01	0.00	276	189	0.5200	0.0026	J	
5	Dibenz(a,h)anthracene				278	0**d**		0.0025	U	
5	Benzo(g,h,i)perylene	15.70	-0.02	0.00	276	207	0.5000	0.0029	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\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:45 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

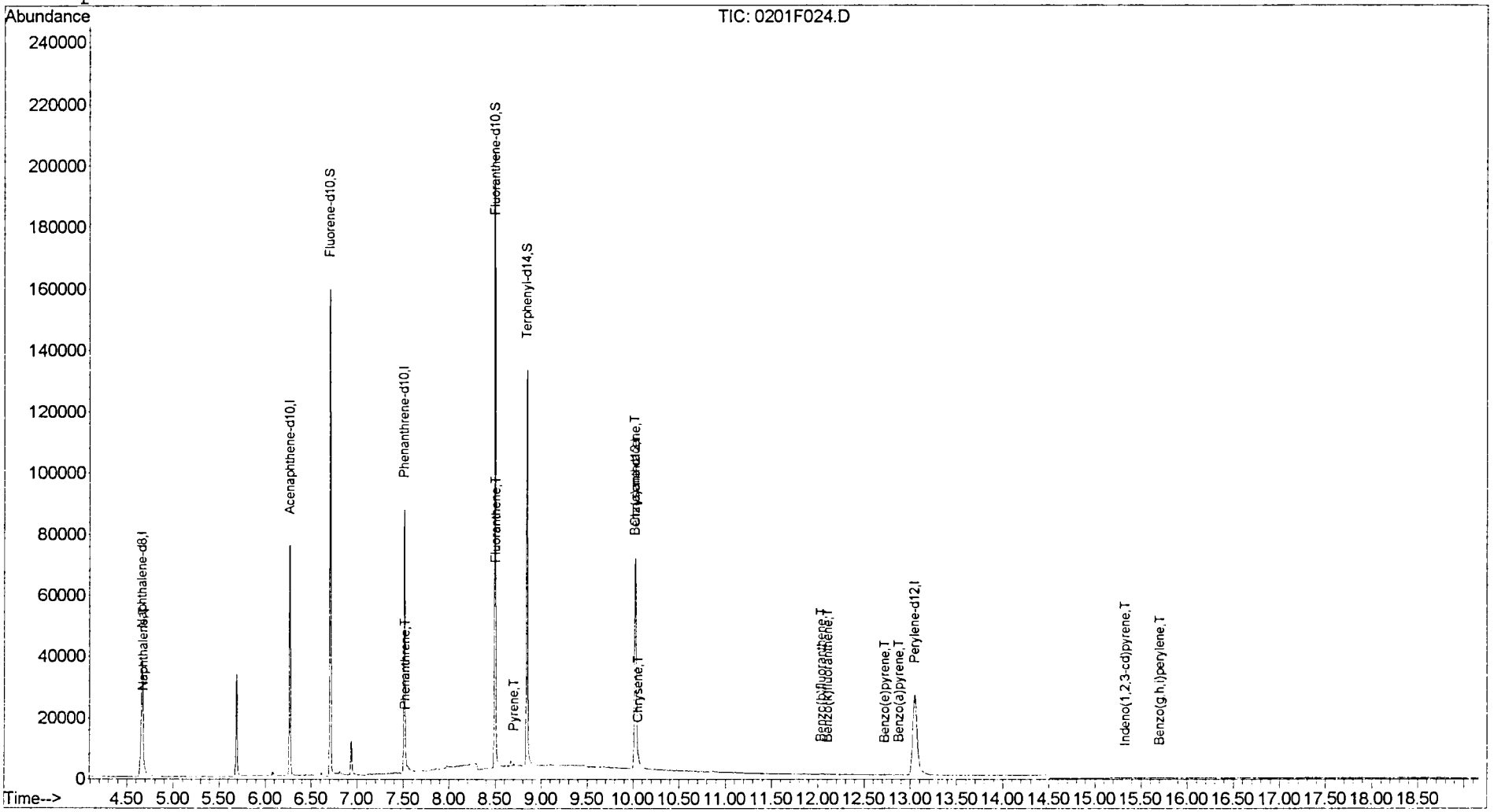
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	59132	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	30151	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	58848	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	71110	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	64684	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	62582	376.46	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 37.65%			
21) Fluoranthene-d10	8.50	212	123922	411.45	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.14%			
24) Terphenyl-d14	8.84	244	98722	380.85	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.09%			
Target Compounds						Qvalue
2) Naphthalene	4.68	128	137m	0.46	ng/ml	
16) Phenanthrene	7.53	178	511m	1.48	ng/ml	
20) Fluoranthene	8.51	202	732m	1.88	ng/ml	
23) Pyrene	8.70	202	760	1.71	ng/ml	94
25) Benz(a)anthracene	10.01	228	528	1.27	ng/ml	87
26) Chrysene	10.06	228	479m	1.29	ng/ml	
28) Benzo(b)fluoranthene	12.03	252	342	0.83	ng/ml	96
29) Benzo(k)fluoranthene	12.10	252	139m	0.34	ng/ml	
30) Benzo(e)pyrene	12.73	252	156m	0.41	ng/ml	
31) Benzo(a)pyrene	12.87	252	280m	0.72	ng/ml	
33) Indeno(1,2,3-cd)pyrene	15.33	276	189	0.52	ng/ml	97
35) Benzo(g,h,i)perylene	15.70	276	207	0.50	ng/ml	94

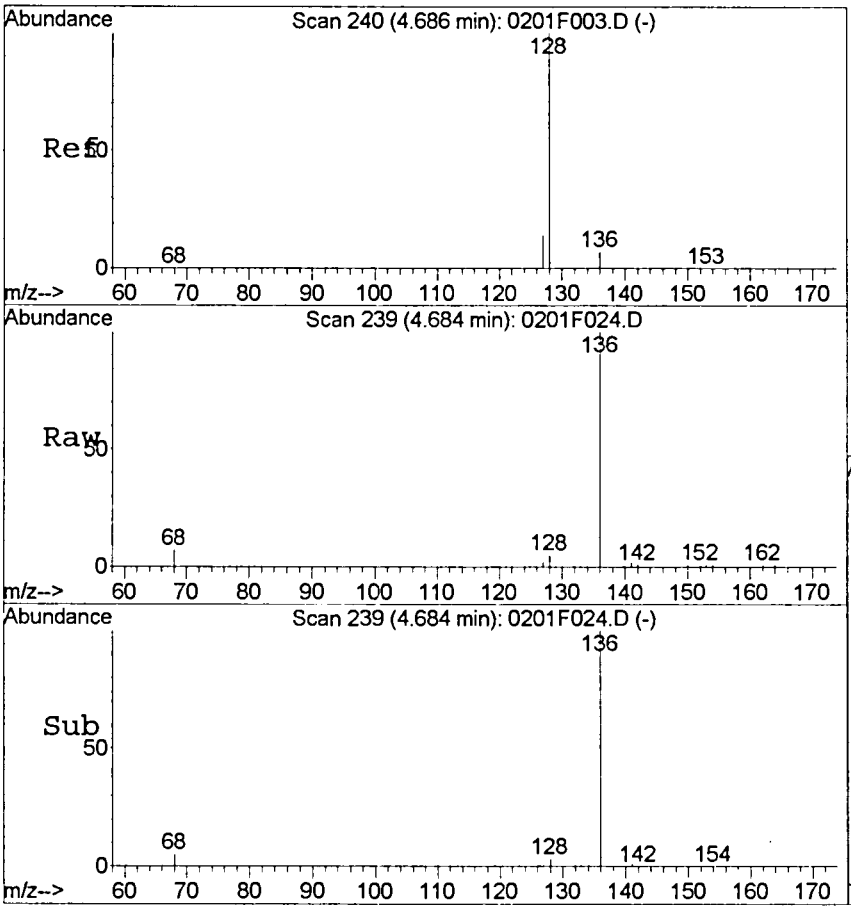
(#) = qualifier out of range (m) = manual integration
0201F024.D 011116SIMPAH.M Tue Feb 02 12:27:07 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 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 Feb 02 10:38:24 2016
Response via : Initial Calibration

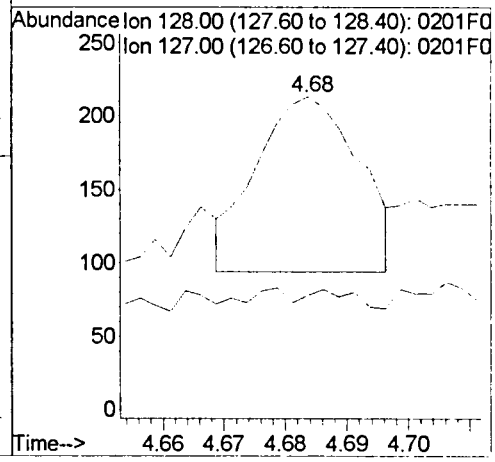


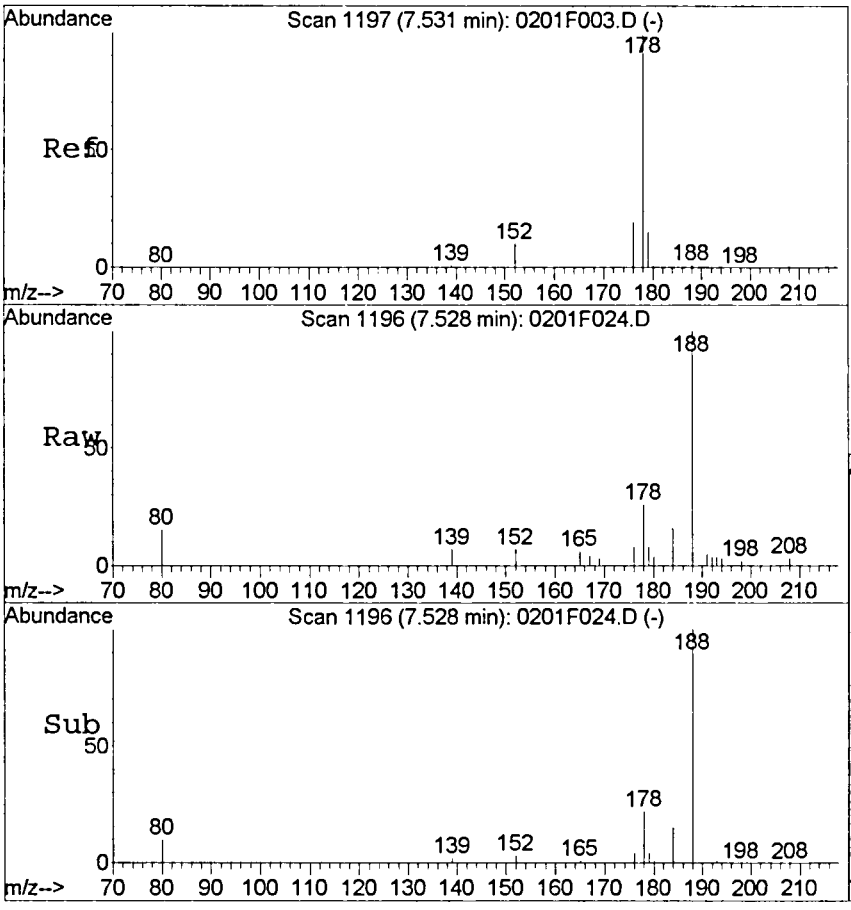


#2
Naphthalene
Concen: 0.46 ng/ml m
RT: 4.68 min Scan# 239
Delta R.T. -0.04 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:128 Resp: 137

Ion	Ratio	Lower	Upper
128	100		
127	36.6	0.0	43.8

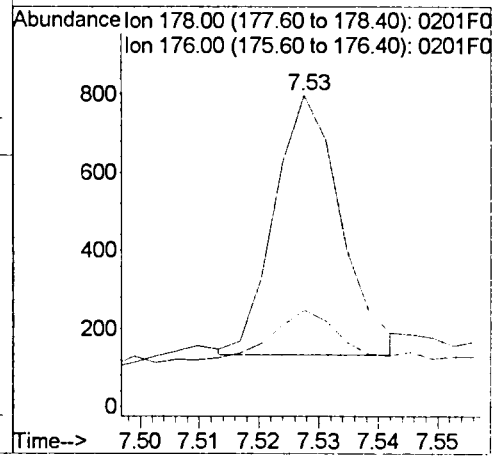


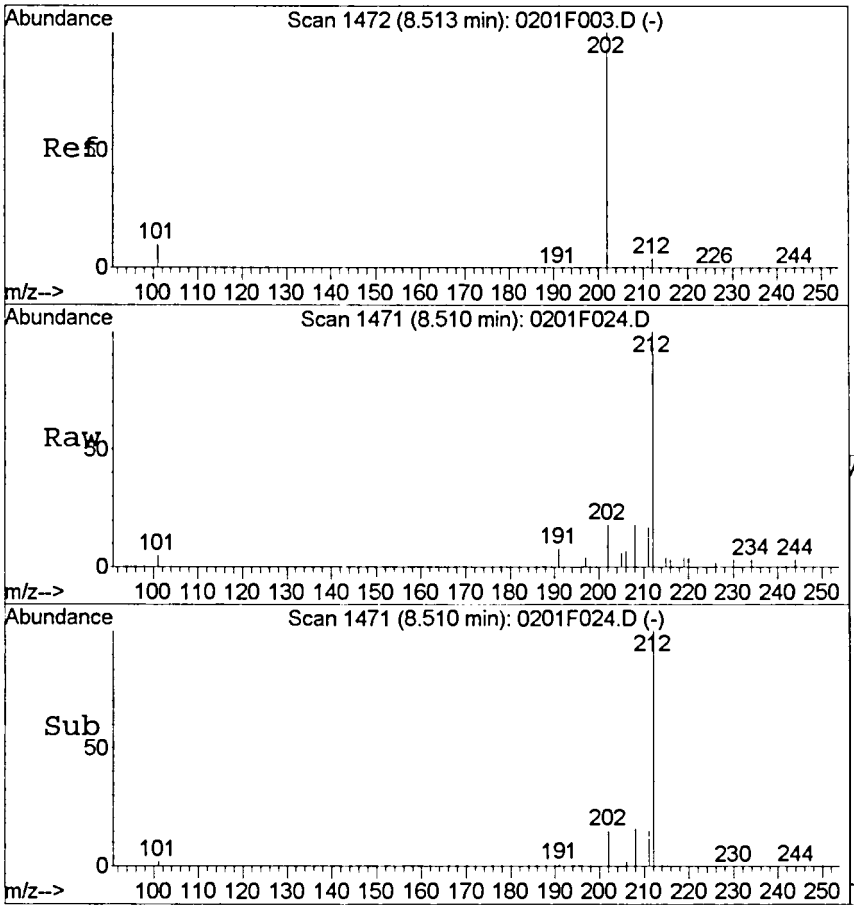


#16
Phenanthrene
Concen: 1.48 ng/ml m
RT: 7.53 min Scan# 1196
Delta R.T. -0.02 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:178 Resp: 511

Ion	Ratio	Lower	Upper
178	100		
176	31.0	0.0	48.5

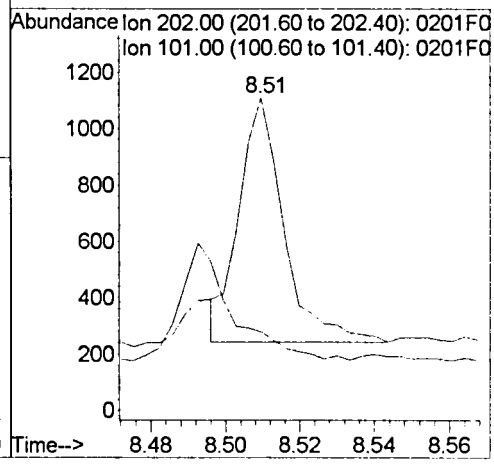


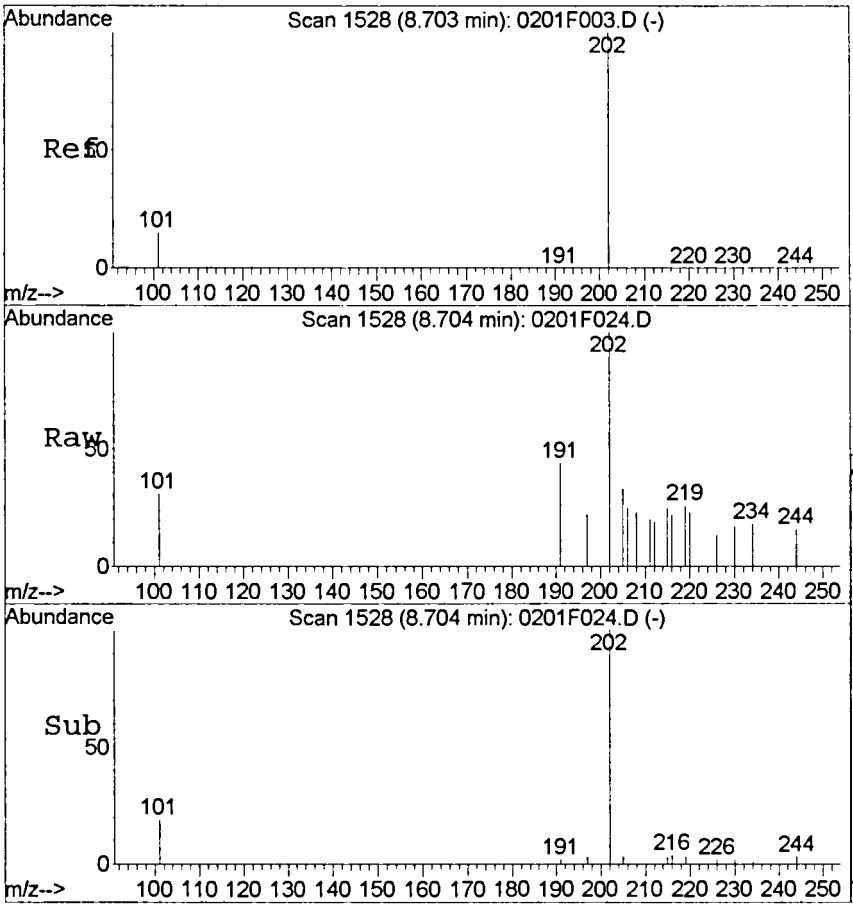


#20
Fluoranthene
Concen: 1.88 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:202 Resp: 732

Ion	Ratio	Lower	Upper
202	100		
101	25.1	0.0	40.2

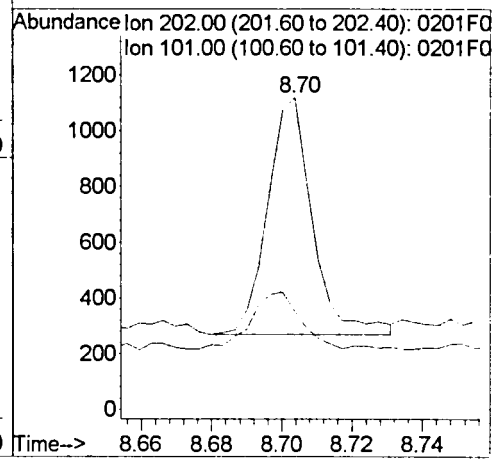


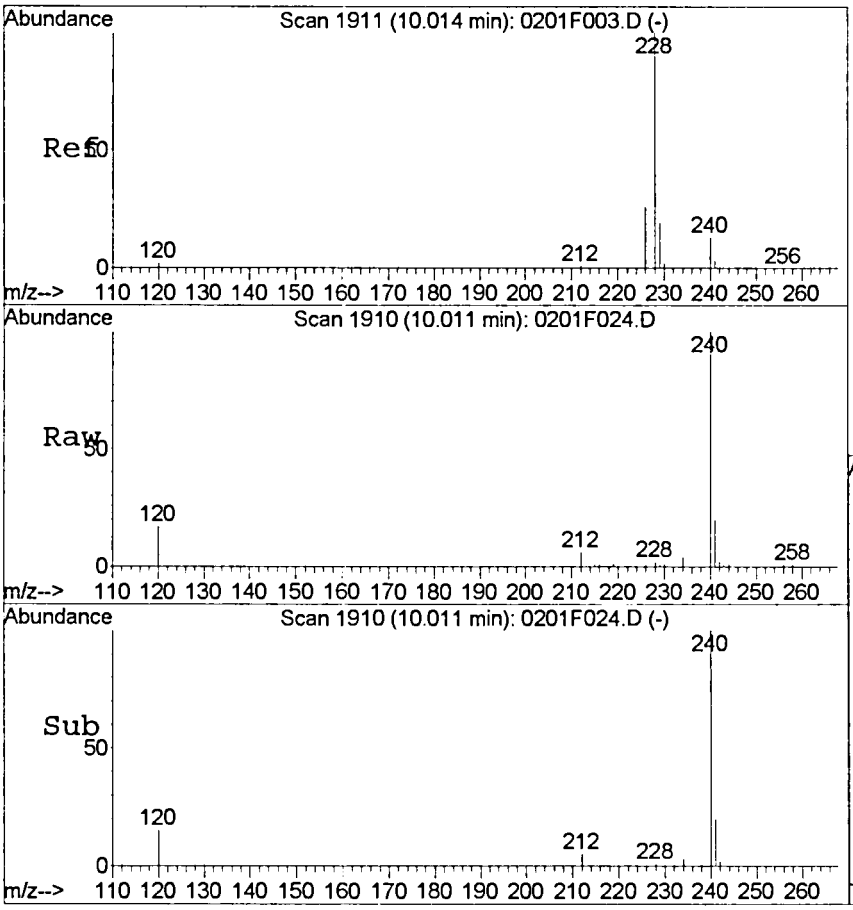


#23
Pyrene
Concen: 1.71 ng/ml
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:202 Resp: 760

Ion	Ratio	Lower	Upper
202	100		
101	15.2	0.0	42.9

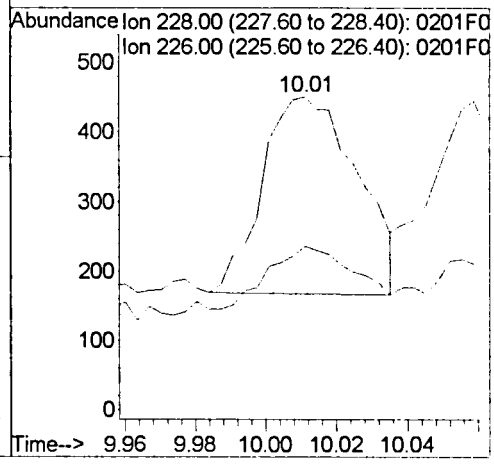


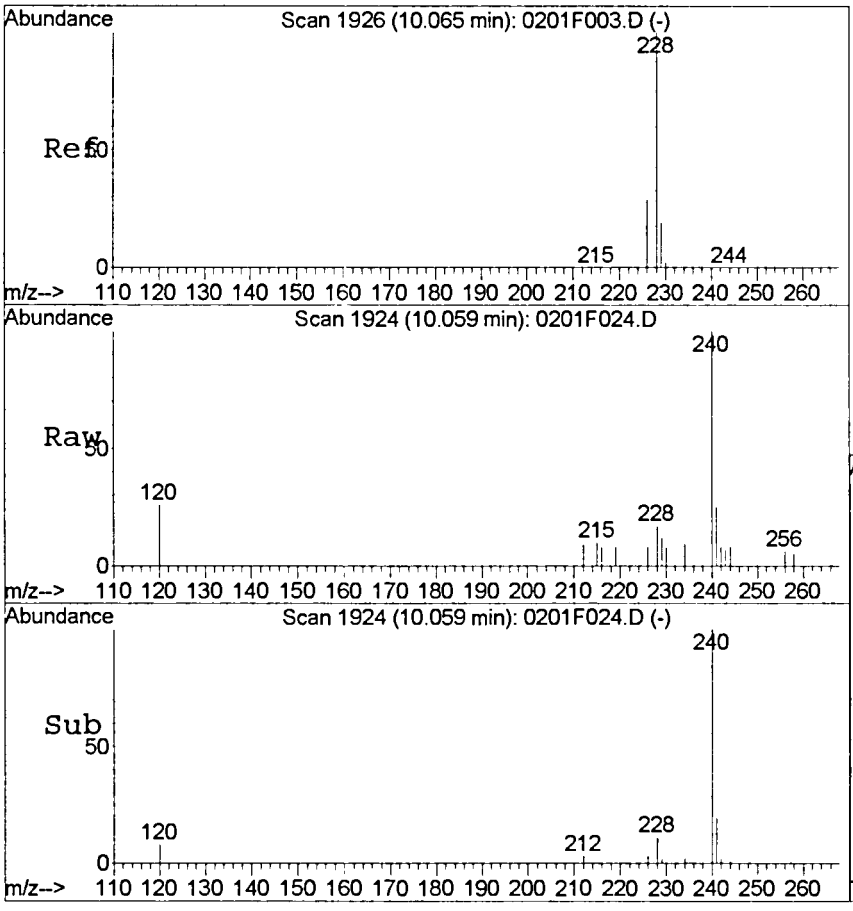


#25
Benz(a)anthracene
Concen: 1.27 ng/ml
RT: 10.01 min Scan# 1910
Delta R.T. -0.03 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:228 Resp: 528

Ion	Ratio	Lower	Upper
228	100		
226	32.3	0.0	55.9

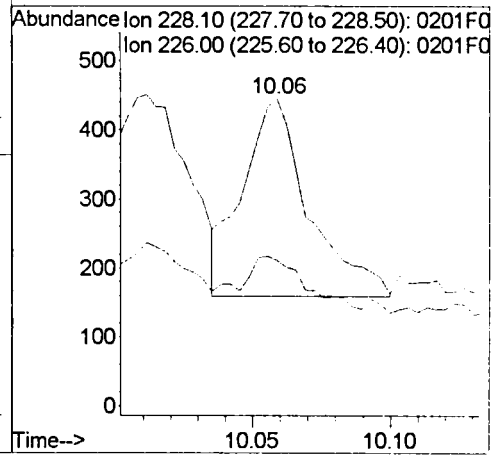


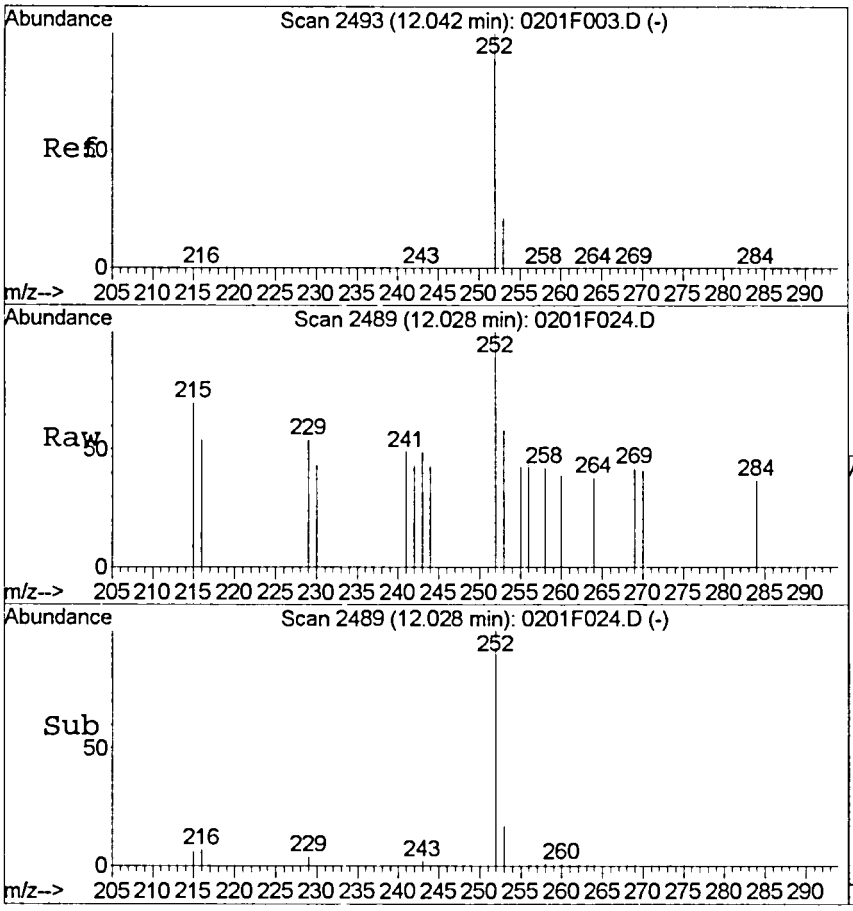


#26
Chrysene
Concen: 1.29 ng/ml m
RT: 10.06 min Scan# 1924
Delta R.T. -0.03 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:228 Resp: 479

Ion	Ratio	Lower	Upper
228	100		
226	47.4	0.0	58.6

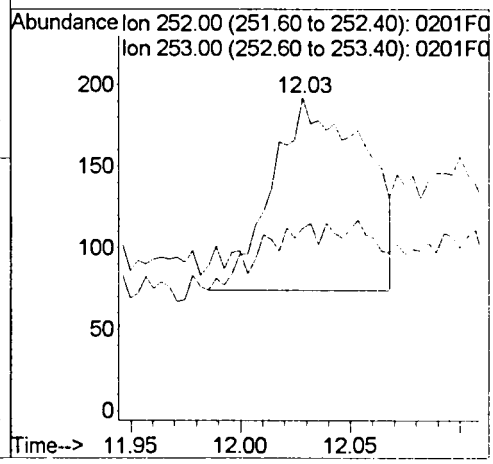


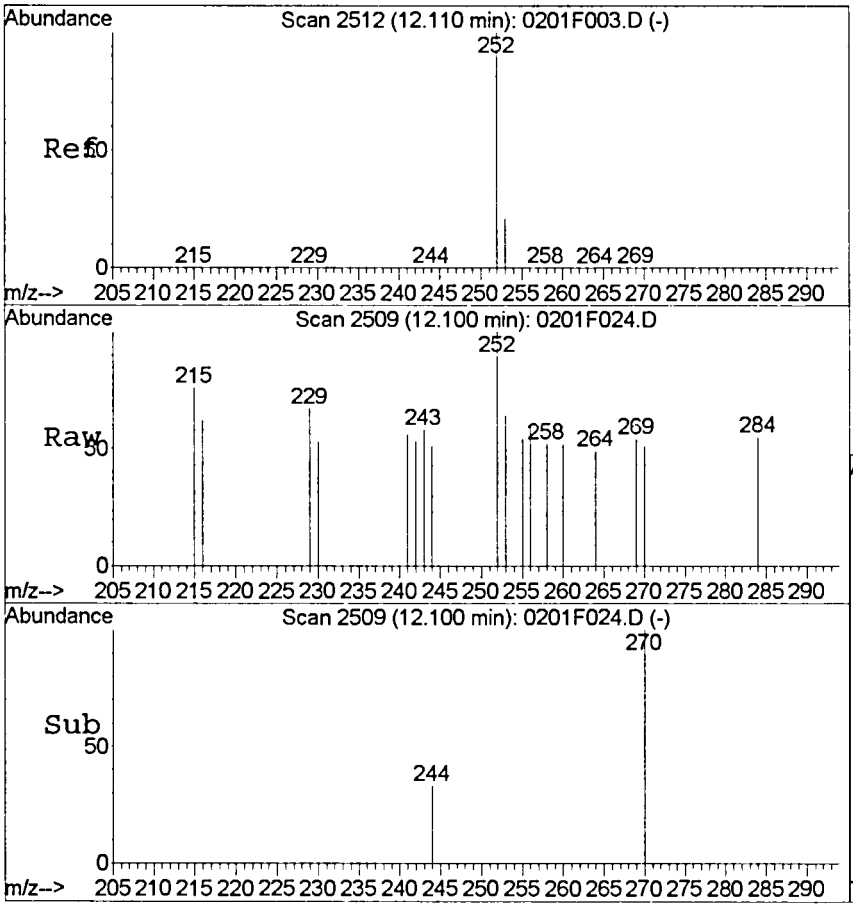


#28
Benzo(b)fluoranthene
Concen: 0.83 ng/ml
RT: 12.03 min Scan# 2489
Delta R.T. -0.05 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:252 Resp: 342

Ion	Ratio	Lower	Upper
252	100		
253	19.5	0.0	51.3

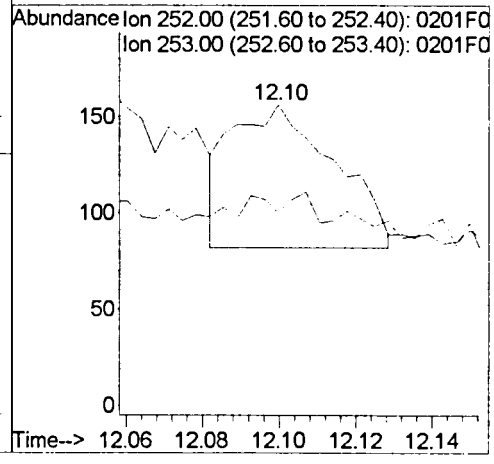


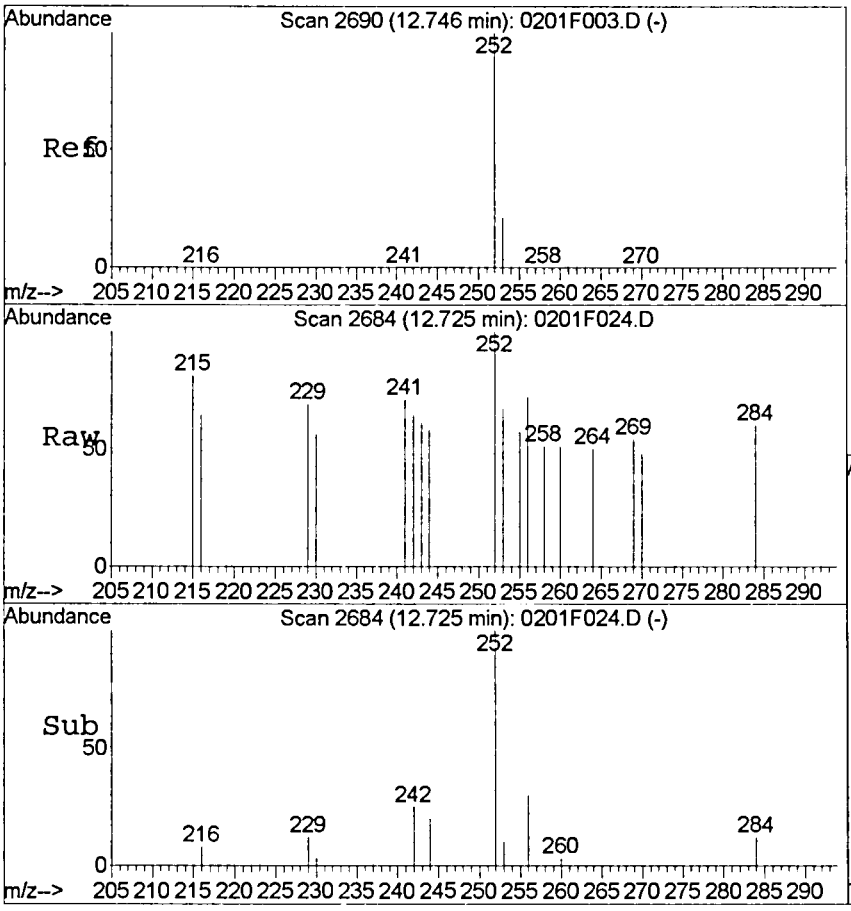


#29
Benzo(k)fluoranthene
Concen: 0.34 ng/ml m
RT: 12.10 min Scan# 2509
Delta R.T. -0.04 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:252 Resp: 139

Ion	Ratio	Lower	Upper
252	100		
253	64.1	0.0	51.4#

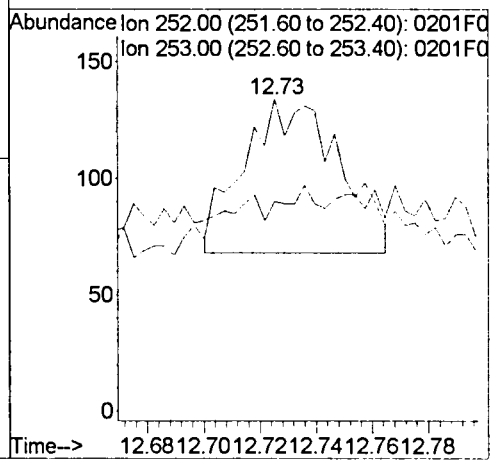


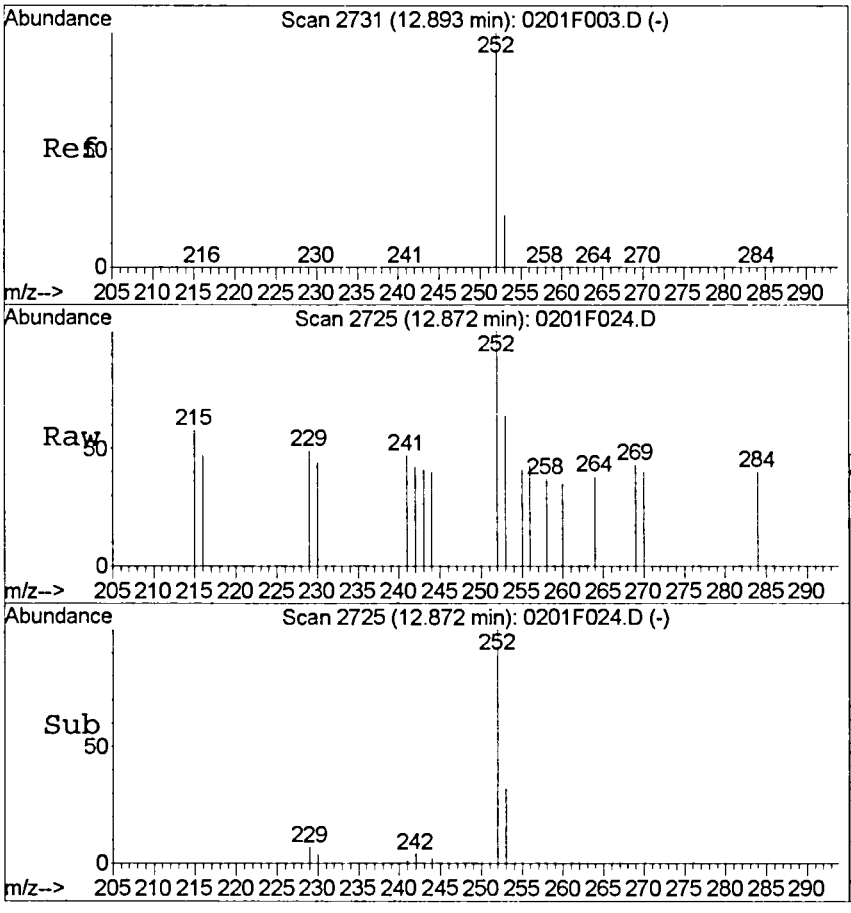


#30
Benzo(e)pyrene
Concen: 0.41 ng/ml m
RT: 12.73 min Scan# 2684
Delta R.T. -0.06 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:252 Resp: 156

Ion	Ratio	Lower	Upper
252	100		
253	67.2	0.0	51.2#

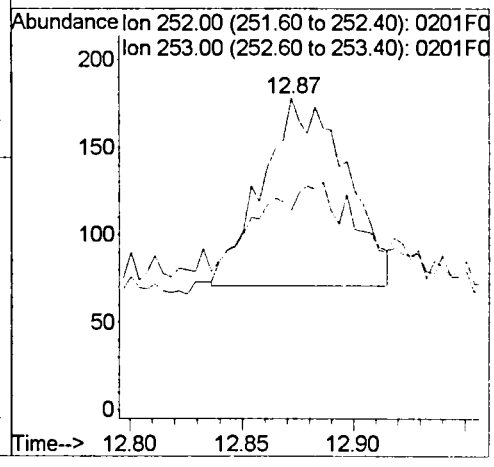


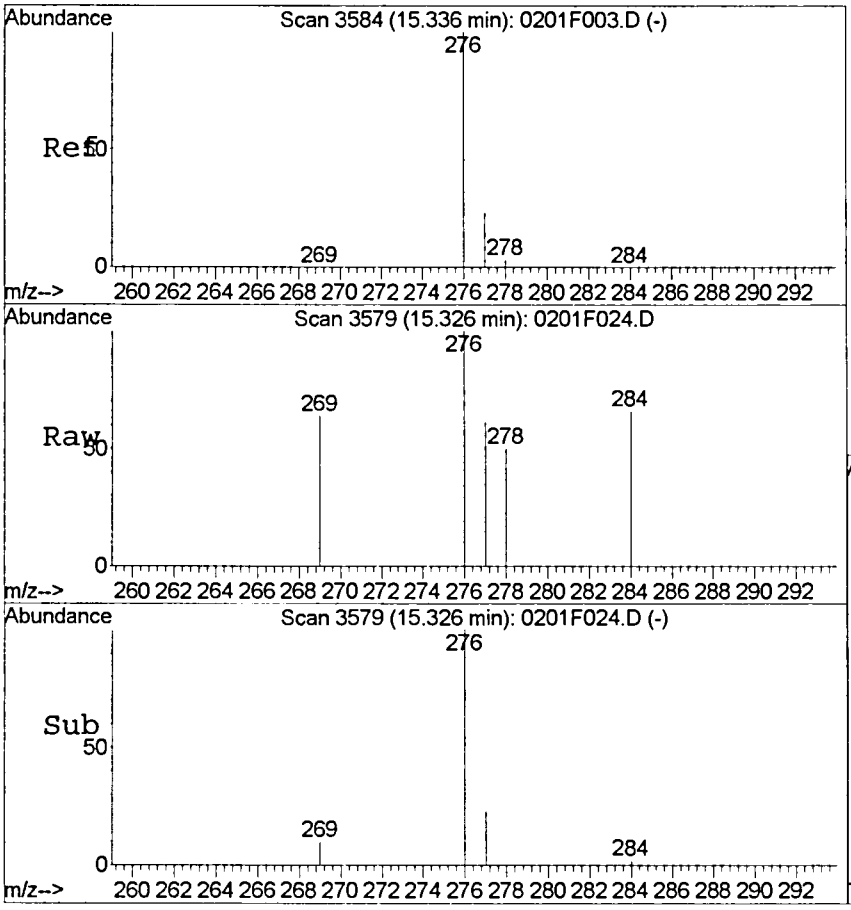


#31
Benzo(a)pyrene
Concen: 0.72 ng/ml m
RT: 12.87 min Scan# 2725
Delta R.T. -0.06 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:252 Resp: 280

Ion	Ratio	Lower	Upper
252	100		
253	64.0	0.0	51.9#

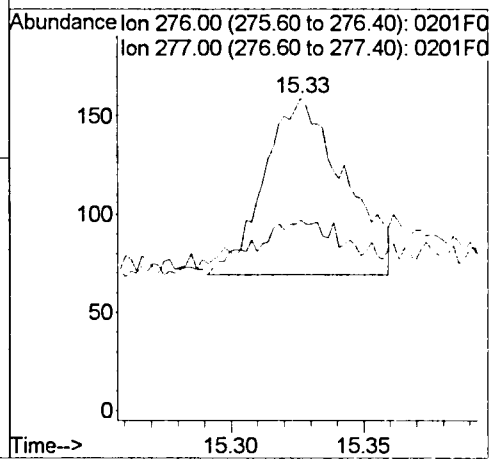


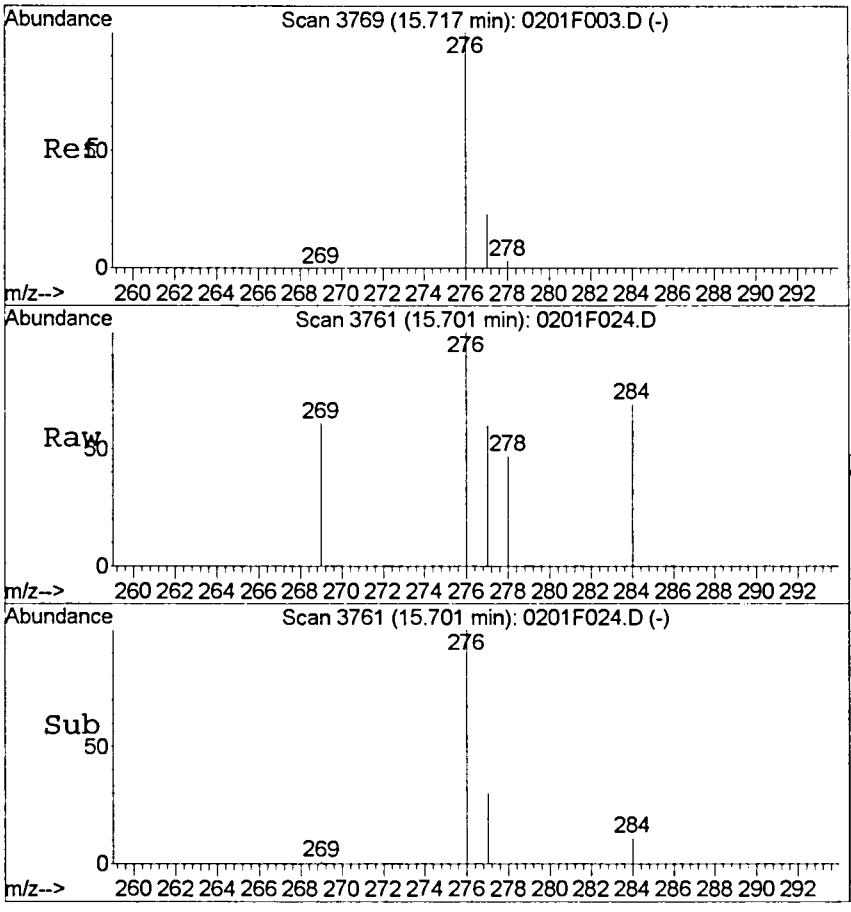


#33
Indeno(1,2,3-cd)pyrene
Concen: 0.52 ng/ml
RT: 15.33 min Scan# 3579
Delta R.T. -0.03 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:276 Resp: 189

Ion	Ratio	Lower	Upper
276	100		
277	24.4	0.0	53.2

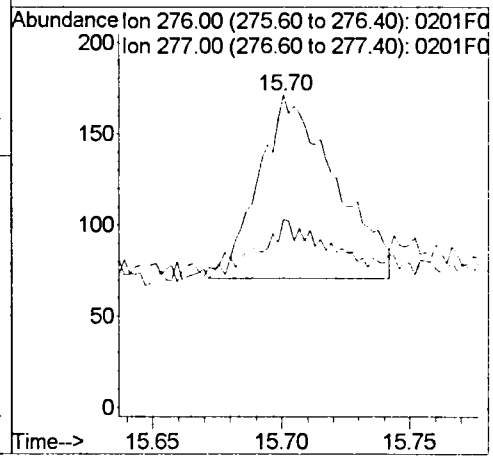




#35
Benzo(g,h,i)perylene
Concen: 0.50 ng/ml
RT: 15.70 min Scan# 3761
Delta R.T. -0.04 min
Lab File: 0201F024.D
Acq: 1 Feb 2016 5:00 pm

Tgt Ion:276 Resp: 207

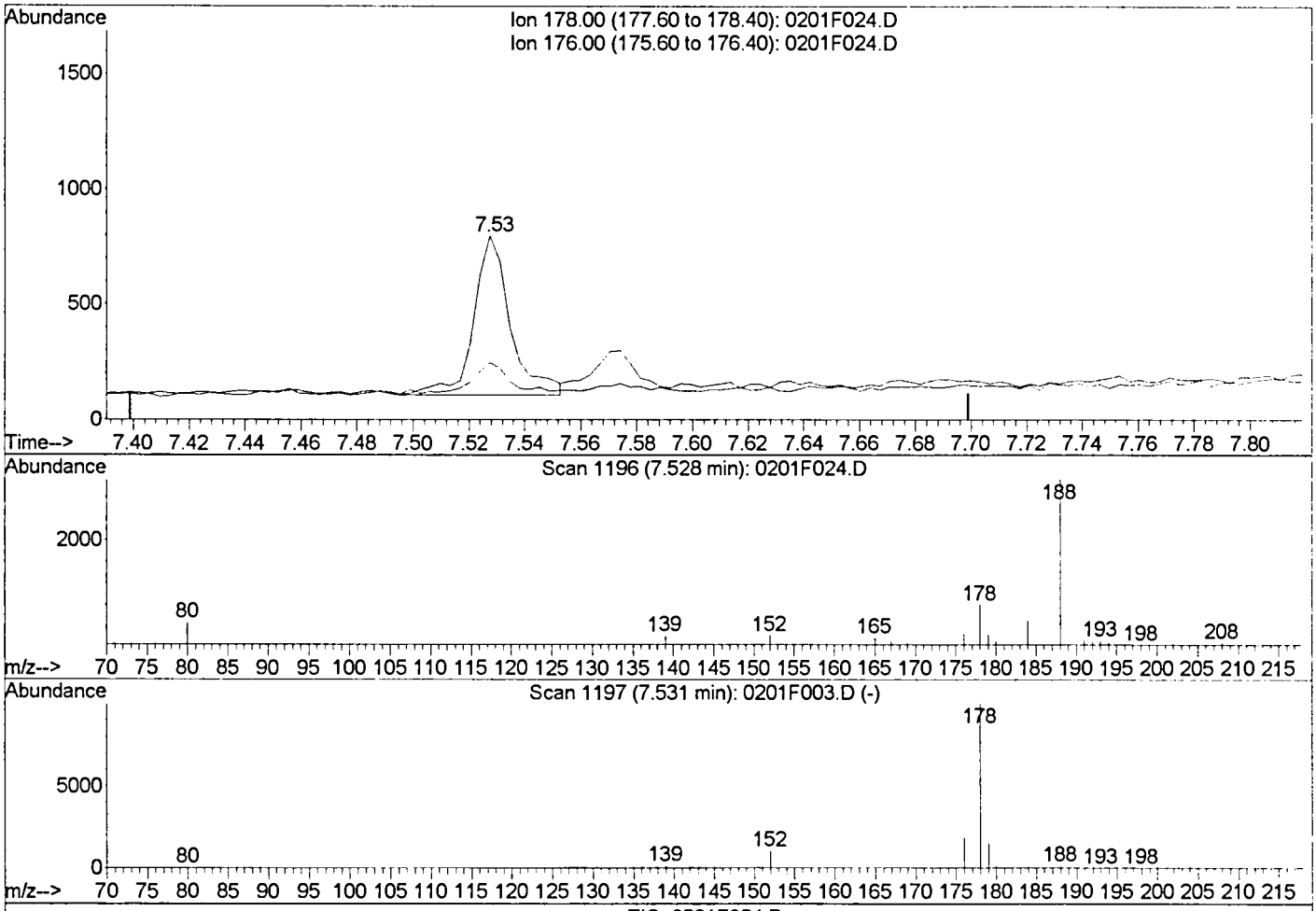
Ion	Ratio	Lower	Upper
276	100		
277	26.0	0.0	53.1



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:23 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F024.D

(16) Phenanthrene (T)

7.53min 1.83ng/ml

response 630

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	20.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

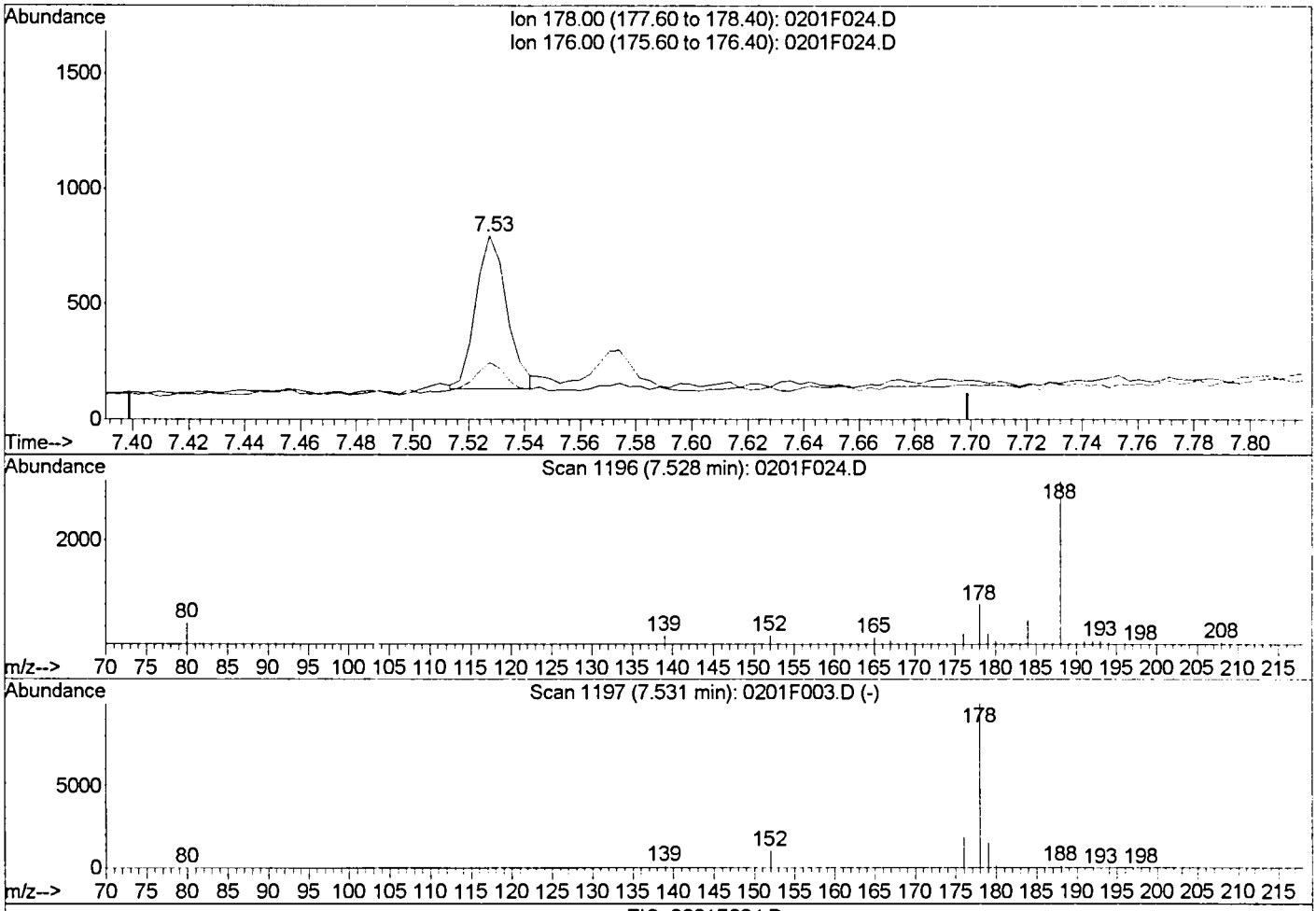
FEB 0 3 2016

0201F024.D 011116SIMPAH.M Tue Feb 02 12:23:54 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:23 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F024.D

(16) Phenanthrene (T)
7.53min 1.48ng/ml m
response 511

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	30.99
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
IC-Overintegrated
02/02/16

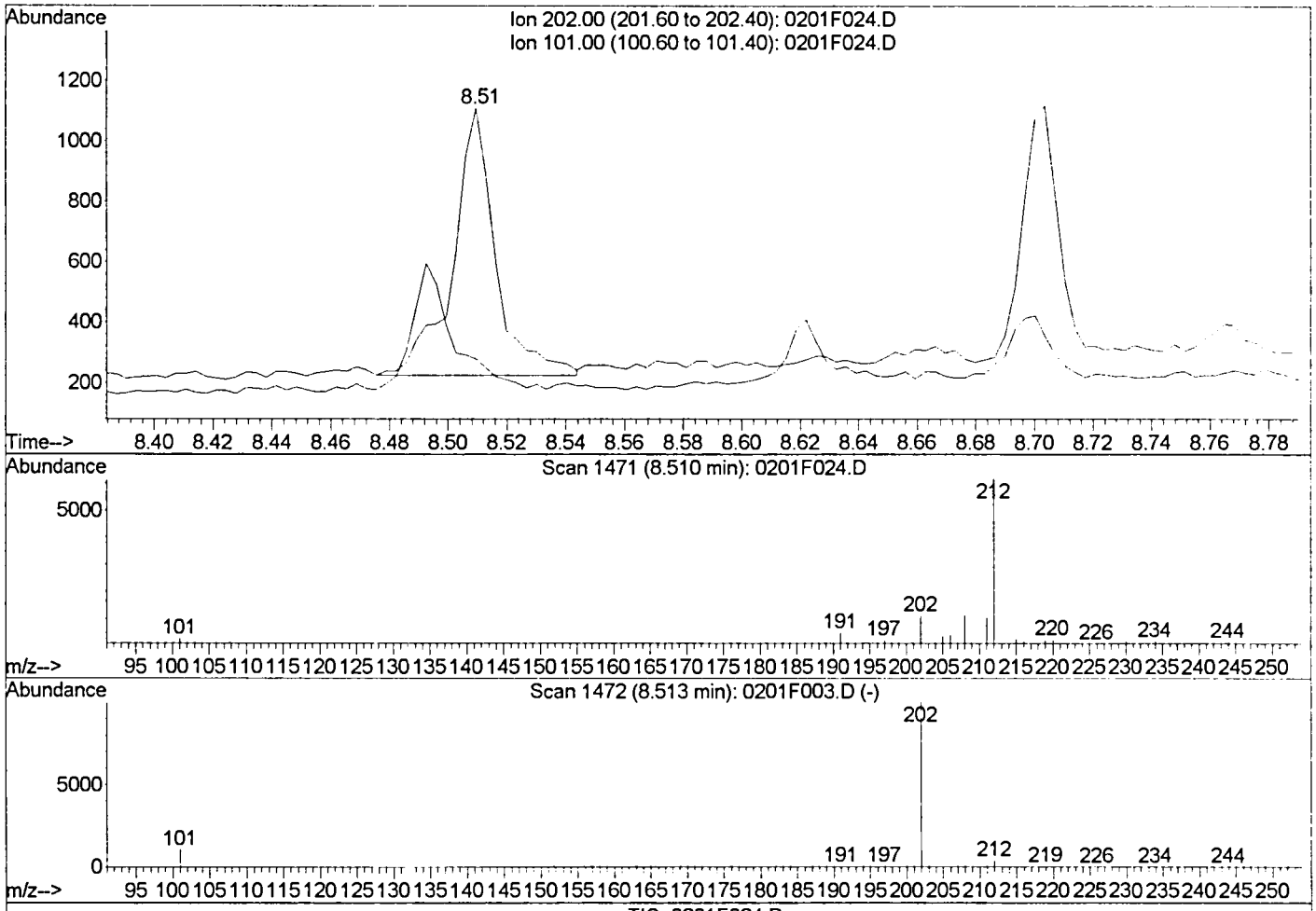
FEB 03 2016

0201F024.D 011116SIMPAH.M Tue Feb 02 12:23:59 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:23 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F024.D

(20) Fluoranthene (T)

8.51min 2.28ng/ml

response 884

Ion	Exp%	Act%
202.00	100	100
101.00	10.20	11.31
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

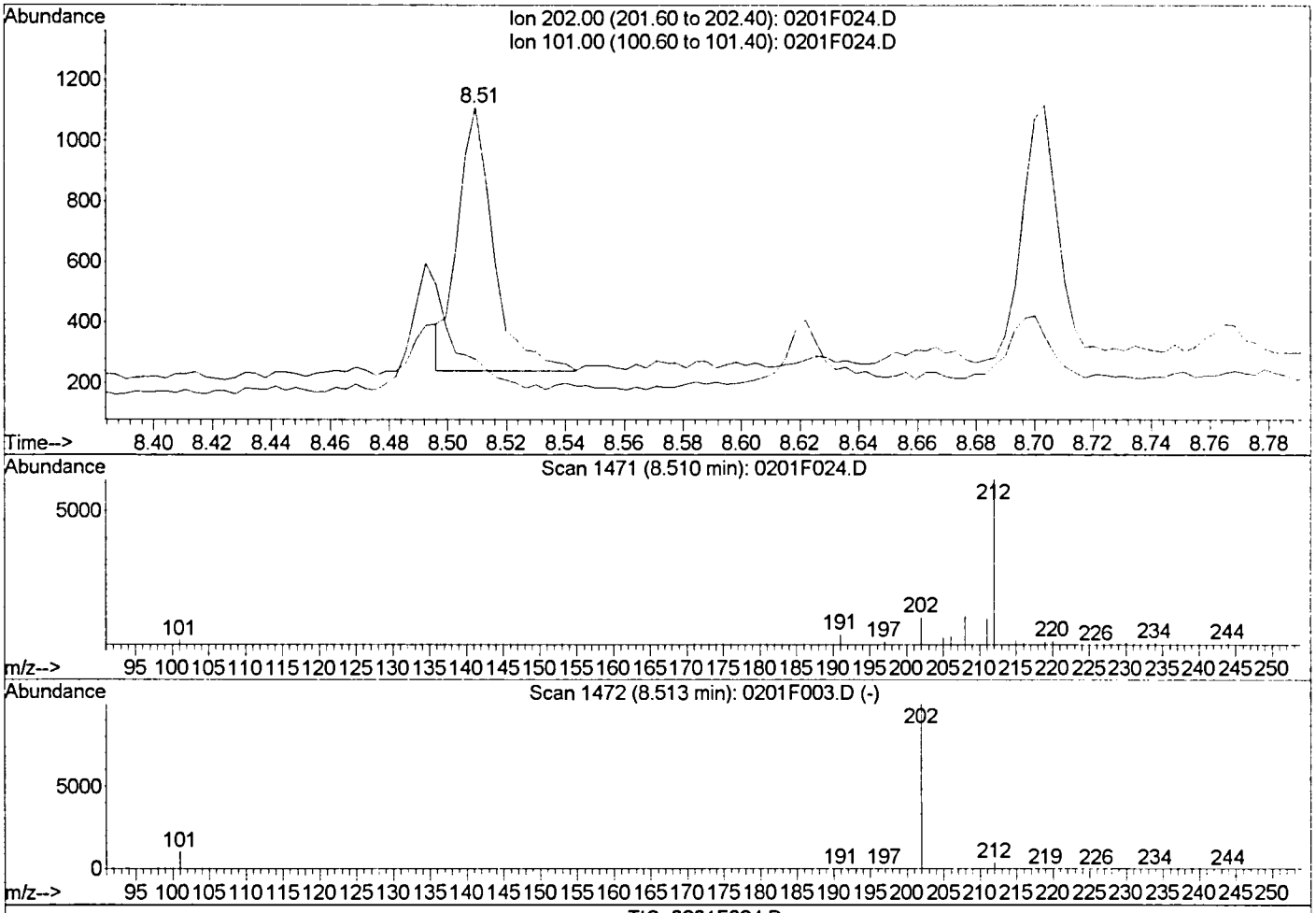
FEB 03 2016

0201F024.D 011116SIMPAH.M Tue Feb 02 12:24:06 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:24 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F024.D

(20) Fluoranthene (T)
8.51min 1.88ng/ml m
response 732

Ion	Exp%	Act%
202.00	100	100
101.00	10.20	25.07
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
IC-Overintegrated
02/02/16

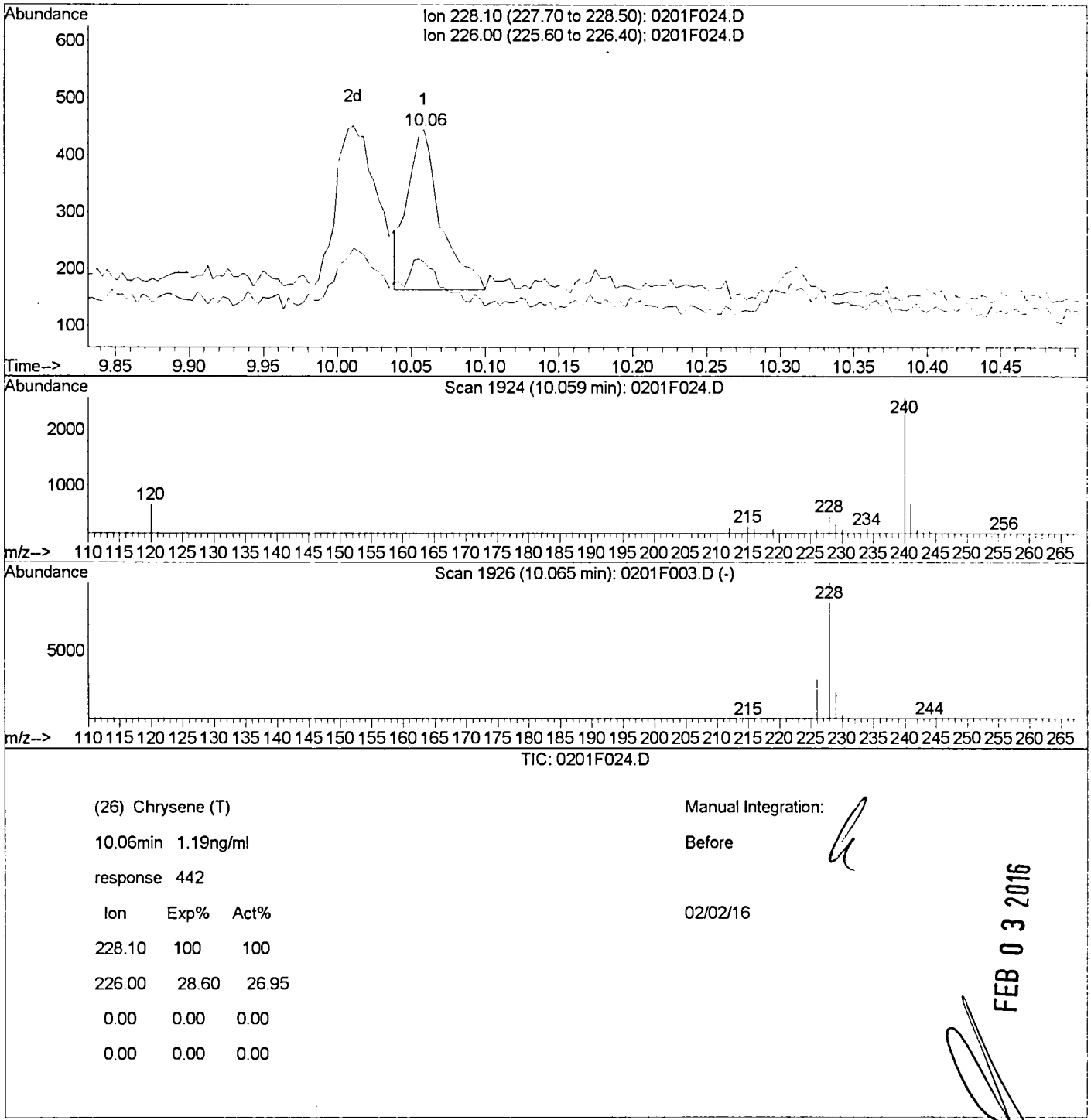
FEB 03 2016

0201F024.D 011116SIMPAH.M Tue Feb 02 12:24:12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:24 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F024.D

(26) Chrysene (T)

10.06min 1.19ng/ml

response 442

Ion	Exp%	Act%
228.10	100	100
226.00	28.60	26.95
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

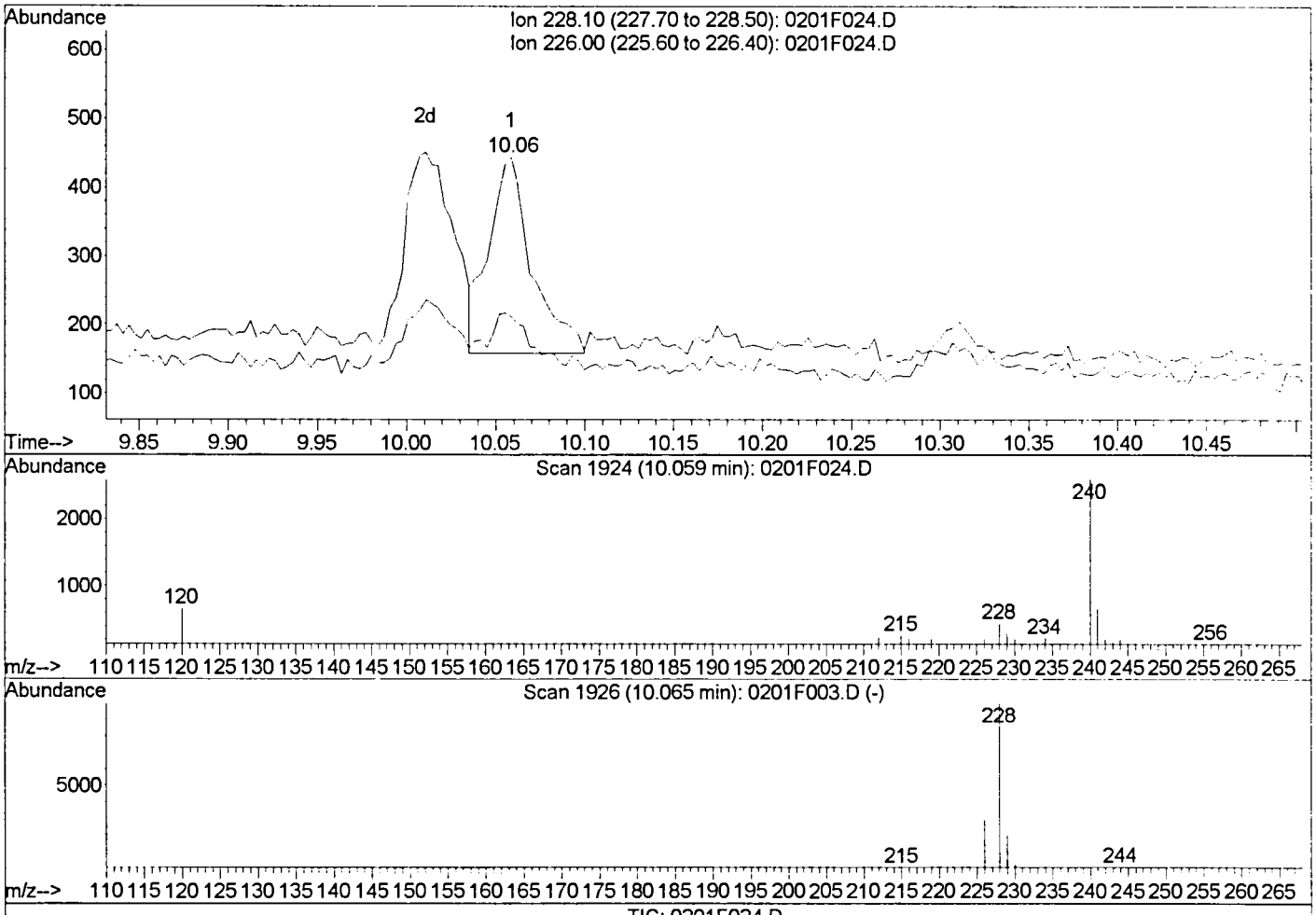
FEB 0 3 2016

0201F024.D 011116SIMPAH.M Tue Feb 02 12:24:22 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F024.D Vial: 24
Acq On : 1 Feb 2016 5:00 pm Operator: LWeiskopf
Sample : K1600673-012 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:24 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F024.D

(26) Chrysene (T)

10.06min 1.29ng/ml m

response 479

Ion	Exp%	Act%
228.10	100	100
226.00	28.60	47.42
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

02/02/16

FEB 03 2016

0201F024.D 011116SIMPAH.M Tue Feb 02 12:24:27 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F025.D
Lab ID: K1600673-013
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 17:23
Date Quantitated: 02/02/2016 12:25
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:31
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F025.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 17:23	**Quant Date:**	02/02/2016 12:25	**Vial:**	25
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495840	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.67	-0.02	136	57718	200.00	OK
2	Acenaphthene-d10	6.26	-0.02	164	29706	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	56127	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	63181	200.00	OK
5	Perylene-d12	13.04	-0.01	264	56937	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	6.71	0.00	0.00	176	63079	385.13	96	46-114	OK	
3	Fluoranthene-d10	8.49	-0.01	0.00	212	120871	420.78	105	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	95650	415.31	104	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	4.69		0.00	128	490	1.68	0.0082	J	
1	2-Methylnaphthalene	5.35		0.00	142	80	0.4000	0.0023	U	
1	1-Methylnaphthalene				142	0d		0.0035	U	
2	Acenaphthylene				152	0d		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene				178	0		0.0050	U	
3	Anthracene				178	0		0.0036	U	
3	Fluoranthene	8.51		0.00	202	76m	0.2100	0.010	U	
4	Pyrene				202	0d		0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	170	0.4600	0.0026	U	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F025.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 17:23	**Quant Date:**	02/02/2016 12:25	**Vial:**	25
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-013			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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 Methed 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\020116\0201F025.D Vial: 25
Acq On : 1 Feb 2016 5:23 pm Operator: LWeiskopf
Sample : K1600673-013 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:46 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

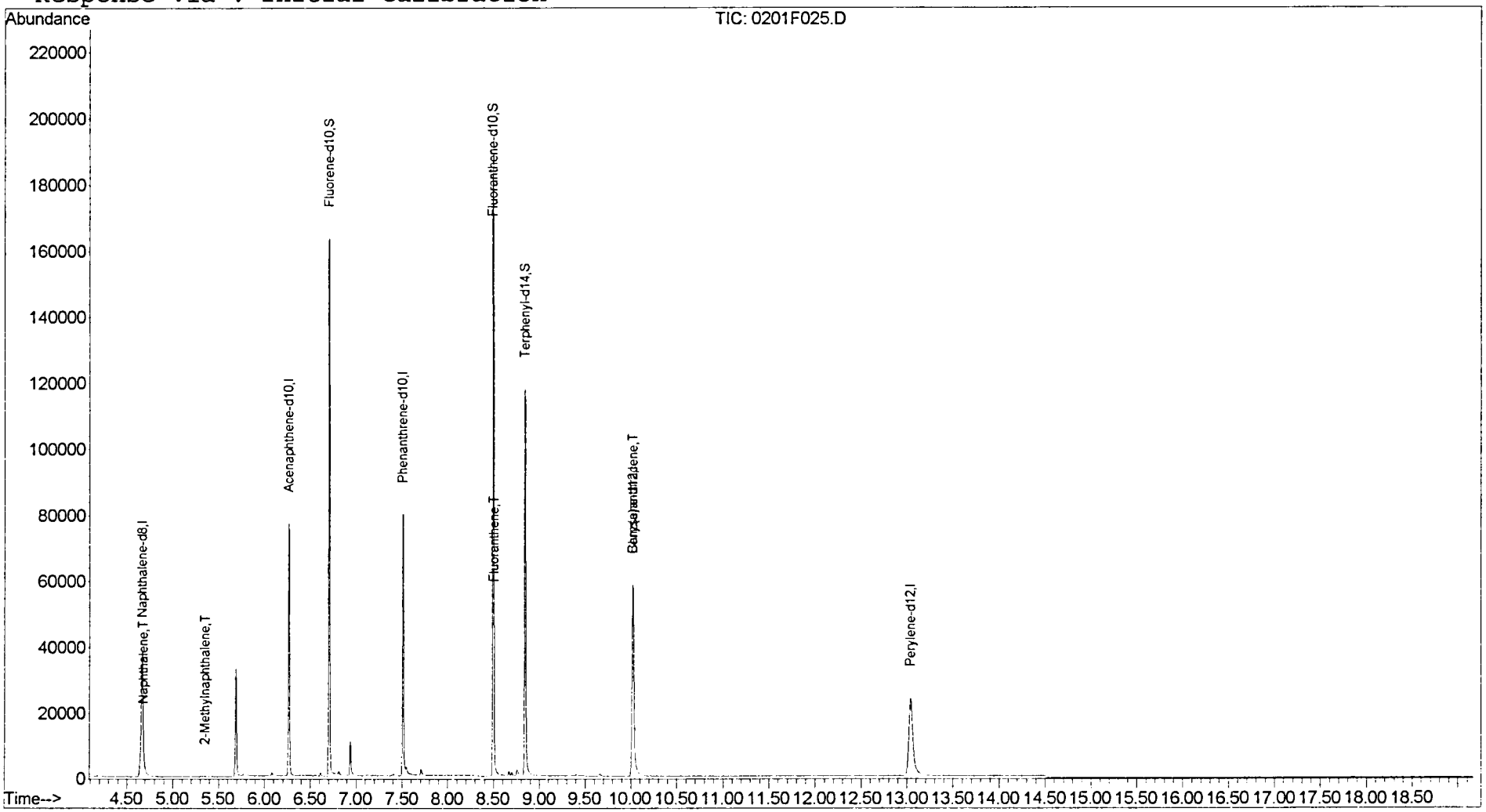
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	57718	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.26	164	29706	200.00	ng/ml	-0.03
14) Phenanthrene-d10	7.51	188	56127	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	63181	200.00	ng/ml	-0.04
27) Perylene-d12	13.04	264	56937	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	63079	385.13	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.51%			
21) Fluoranthene-d10	8.49	212	120871	420.78	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.08%			
24) Terphenyl-d14	8.84	244	95650	415.31	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 41.53%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	490	1.68	ng/ml	93
3) 2-Methylnaphthalene	5.35	142	80	0.40	ng/ml	92
20) Fluoranthene	8.51	202	76m	0.21	ng/ml	
25) Benz(a)anthracene	10.02	228	170	0.46	ng/ml	86

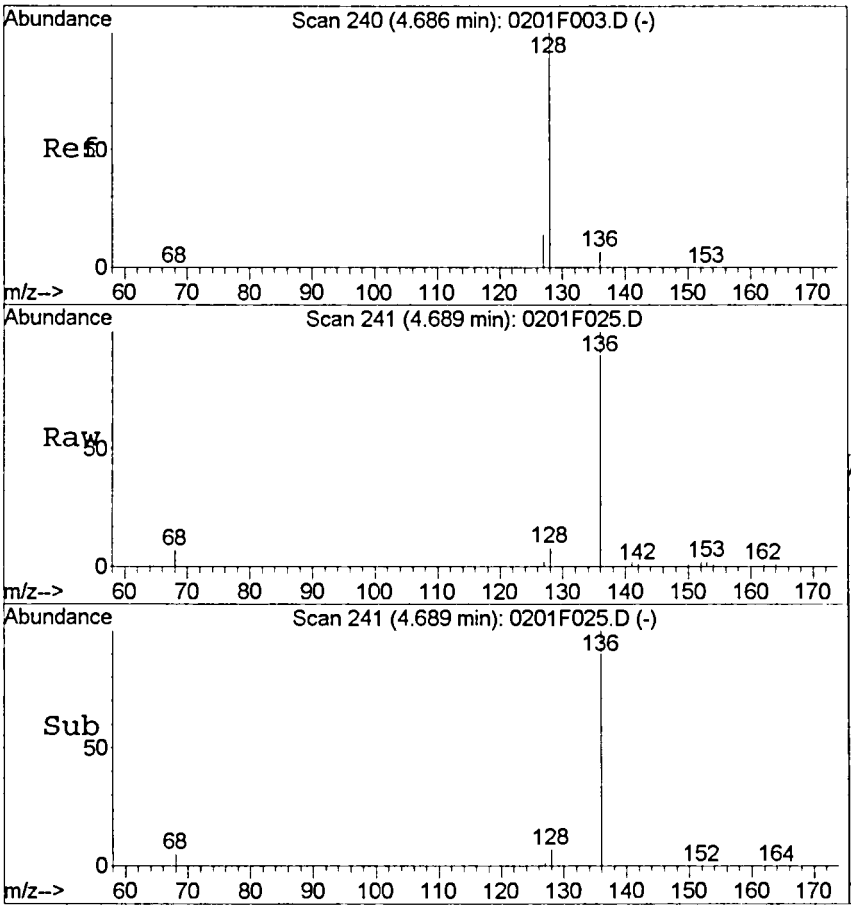
(#) = qualifier out of range (m) = manual integration
0201F025.D 011116SIMPAH.M Tue Feb 02 12:27:09 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F025.D Vial: 25
Acq On : 1 Feb 2016 5:23 pm Operator: LWeiskopf
Sample : K1600673-013 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 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 Feb 02 10:38:24 2016
Response via : Initial Calibration

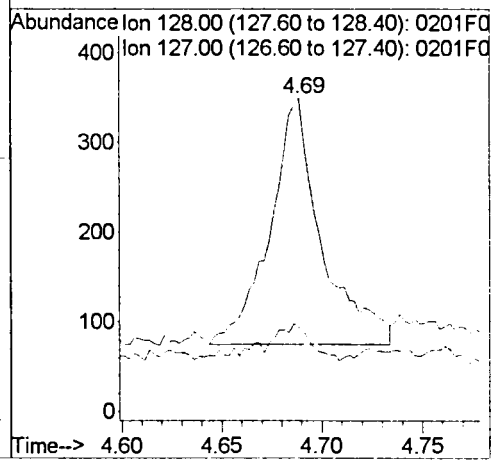


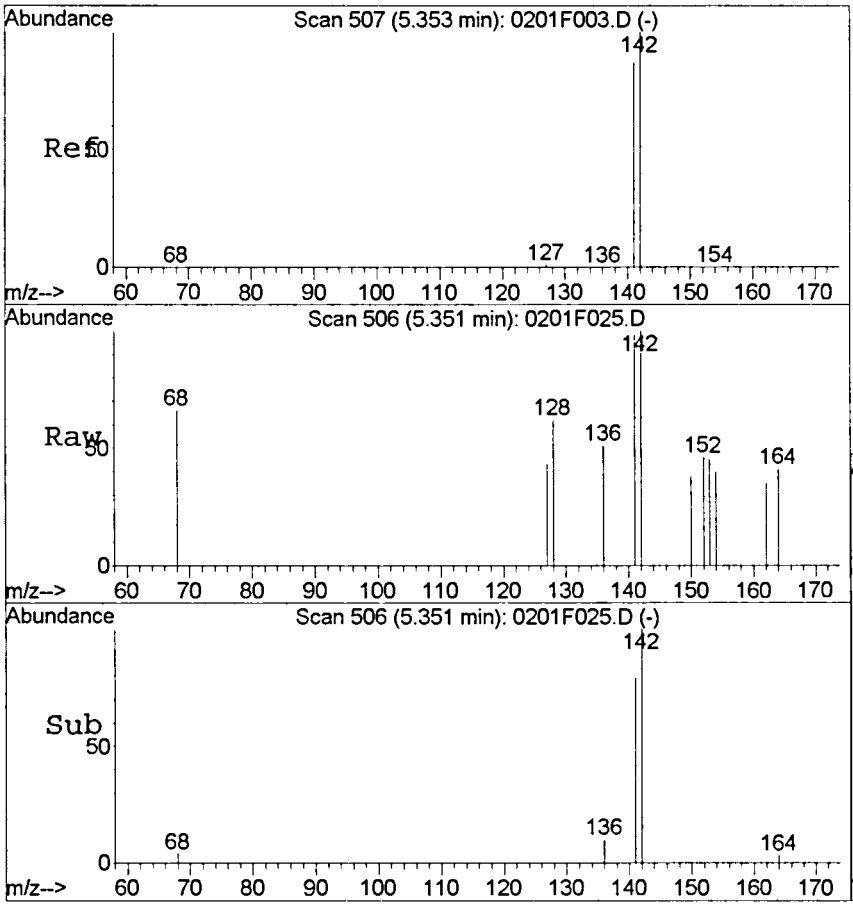


#2
Naphthalene
Concen: 1.68 ng/ml
RT: 4.69 min Scan# 241
Delta R.T. -0.03 min
Lab File: 0201F025.D
Acq: 1 Feb 2016 5:23 pm

Tgt Ion:128 Resp: 490

Ion	Ratio	Lower	Upper
128	100		
127	10.9	0.0	43.8

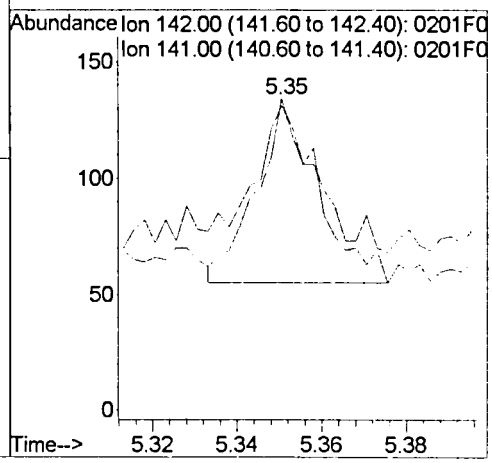


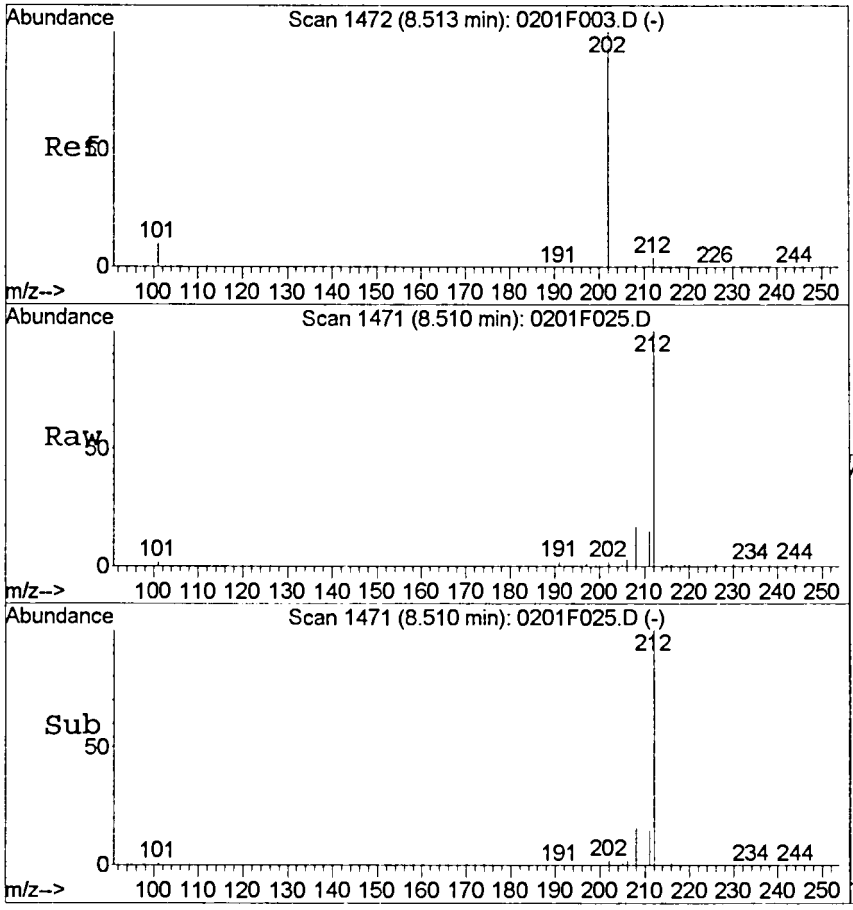


#3
2-Methylnaphthalene
Concen: 0.40 ng/ml
RT: 5.35 min Scan# 506
Delta R.T. -0.03 min
Lab File: 0201F025.D
Acq: 1 Feb 2016 5:23 pm

Tgt Ion:142 Resp: 80

Ion	Ratio	Lower	Upper
142	100		
141	79.7	57.6	117.6

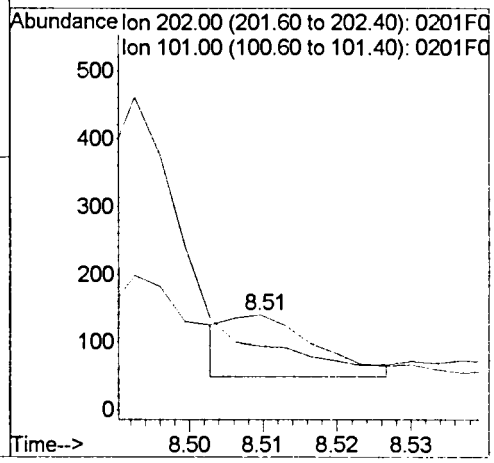


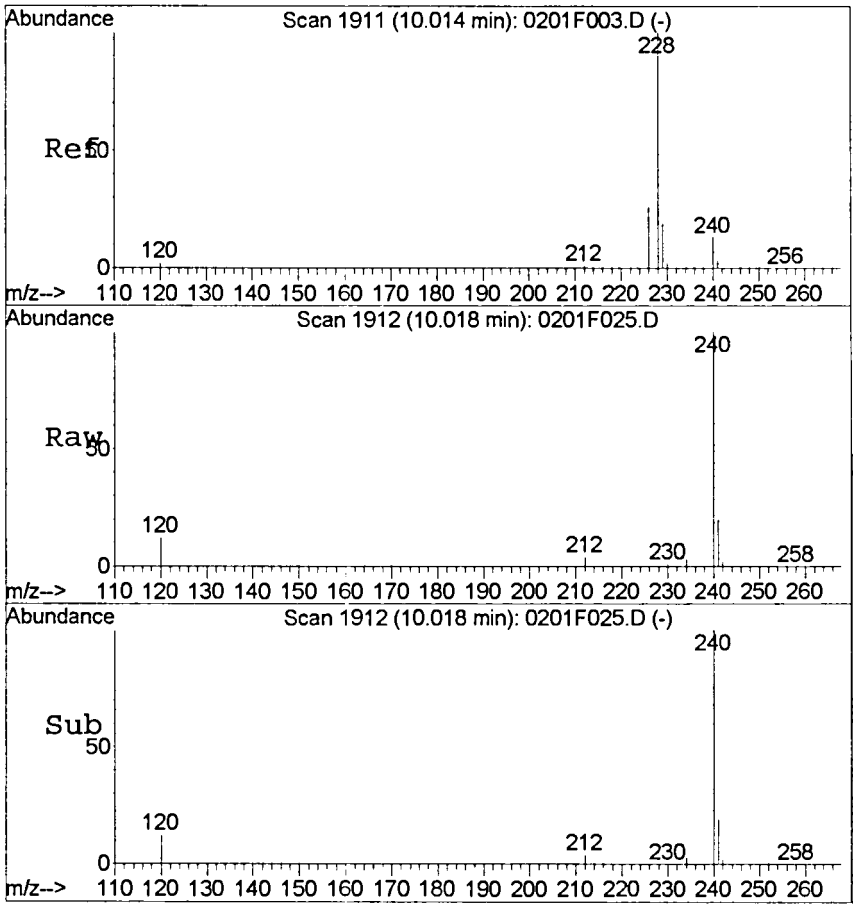


#20
Fluoranthene
Concen: 0.21 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F025.D
Acq: 1 Feb 2016 5:23 pm

Tgt Ion:202 Resp: 76

Ion	Ratio	Lower	Upper
202	100		
101	67.1	0.0	40.2#

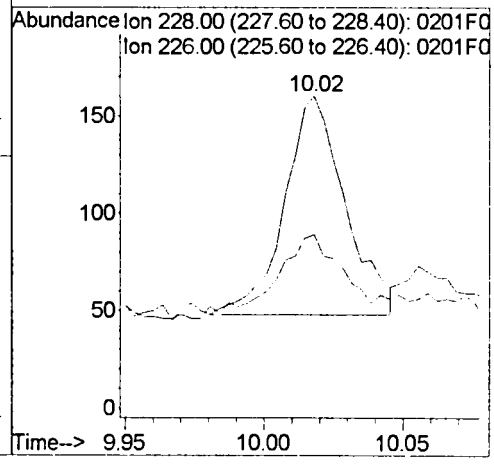




#25
Benz(a)anthracene
Concen: 0.46 ng/ml
RT: 10.02 min Scan# 1912
Delta R.T. -0.02 min
Lab File: 0201F025.D
Acq: 1 Feb 2016 5:23 pm

Tgt Ion:228 Resp: 170

Ion	Ratio	Lower	Upper
228	100		
226	33.0	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F026.D
Lab ID: K1600673-014
RunType: SMPL
Matrix: WATER

Date Acquired: 02/01/2016 17:46
Date Quantitated: 02/02/2016 12:26
Batch ID: KWG1600877
Analysis Method: 8270D SIM
ListJoinID: LJ17068

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:34
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F026.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 17:46	**Quant Date:**	02/02/2016 12:26	**Vial:**	26
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	III	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	01/21/2016	**Receive Date:**	01/22/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	K1600673
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	I495827	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17068
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	58441	200.00	OK
2	Acenaphthene-d10	6.26	-0.02	164	30203	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	56381	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	63729	200.00	OK
5	Perylene-d12	13.04	-0.01	264	56204	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	6.70	-0.01	0.00	176	62531	375.51	94	46-114	OK	
3	Fluoranthene-d10	8.49	-0.01	0.00	212	119757	415.02	104	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	94466	406.64	102	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	4.69		0.00	128	471	1.60	0.0080	J	
1	2-Methylnaphthalene	5.35		0.00	142	76m	0.3800	0.0023	U	
1	1-Methylnaphthalene				142	0d		0.0035	U	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Fluorene				166	0d		0.0038	U	
3	Phenanthrene	7.52	-0.01	0.00	178	67m	0.2000	0.0050	U	
3	Anthracene				178	0d		0.0036	U	
3	Fluoranthene	8.51		0.00	202	90m	0.2400	0.010	U	
4	Pyrene	8.70		0.00	202	69	0.1700	0.0053	U	
4	Benz(a)anthracene	10.01		0.00	228	201	0.5400	0.0027	J	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	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\020116\0201F026.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 17:46	**Quant Date:**	02/02/2016 12:26	**Vial:**	26
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1600673-014			**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?
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(a)pyrene				252	0		0.0043	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:	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\020116\0201F026.D Vial: 26
Acq On : 1 Feb 2016 5:46 pm Operator: LWeiskopf
Sample : K1600673-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:46 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

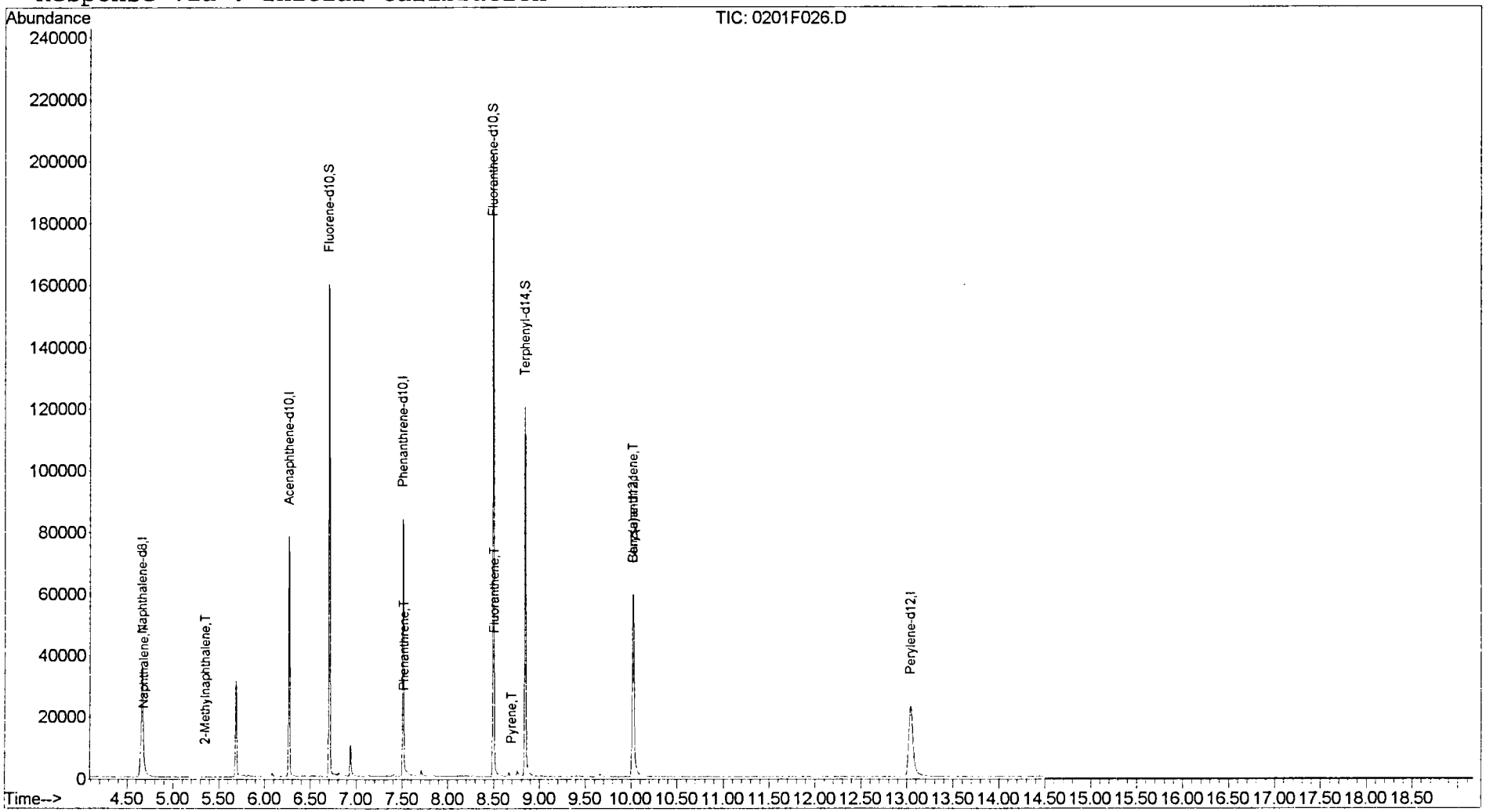
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	58441	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.26	164	30203	200.00	ng/ml	-0.03
14) Phenanthrene-d10	7.51	188	56381	200.00	ng/ml	-0.03
22) Chrysene-d12	10.02	240	63729	200.00	ng/ml	-0.03
27) Perylene-d12	13.04	264	56204	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.70	176	62531	375.51	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 37.55%			
21) Fluoranthene-d10	8.49	212	119757	415.02	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.50%			
24) Terphenyl-d14	8.84	244	94466	406.64	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 40.66%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	471	1.60	ng/ml	89
3) 2-Methylnaphthalene	5.35	142	76m	0.38	ng/ml	
16) Phenanthrene	7.52	178	67m	0.20	ng/ml	
20) Fluoranthene	8.51	202	90m	0.24	ng/ml	
23) Pyrene	8.70	202	69	0.17	ng/ml#	1
25) Benz(a)anthracene	10.01	228	201	0.54	ng/ml	81

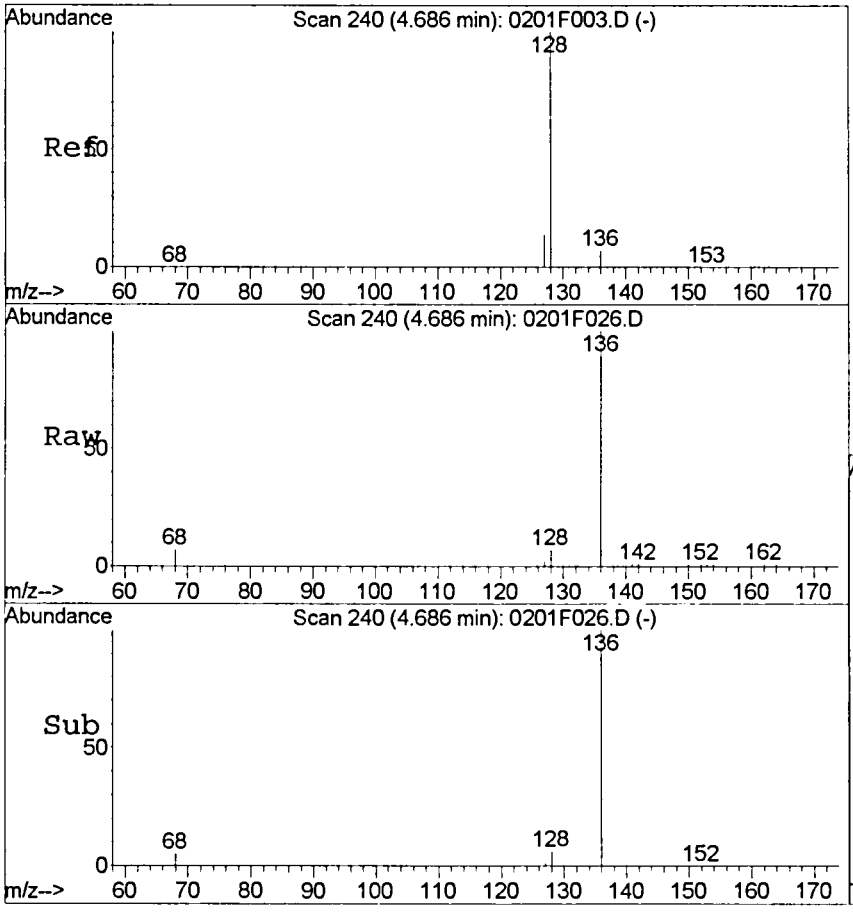
(#) = qualifier out of range (m) = manual integration
0201F026.D 011116SIMPAH.M Tue Feb 02 12:27:10 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F026.D Vial: 26
Acq On : 1 Feb 2016 5:46 pm Operator: LWeiskopf
Sample : K1600673-014 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 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 Feb 02 10:38:24 2016
Response via : Initial Calibration

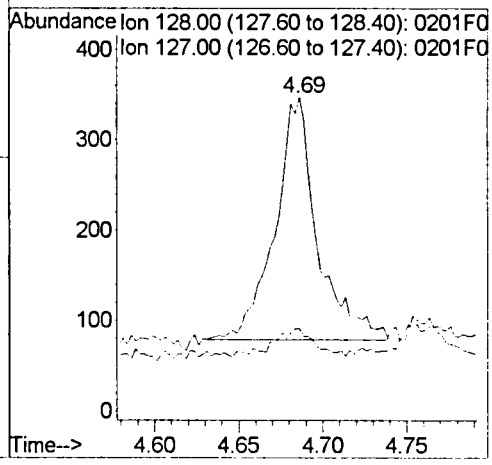


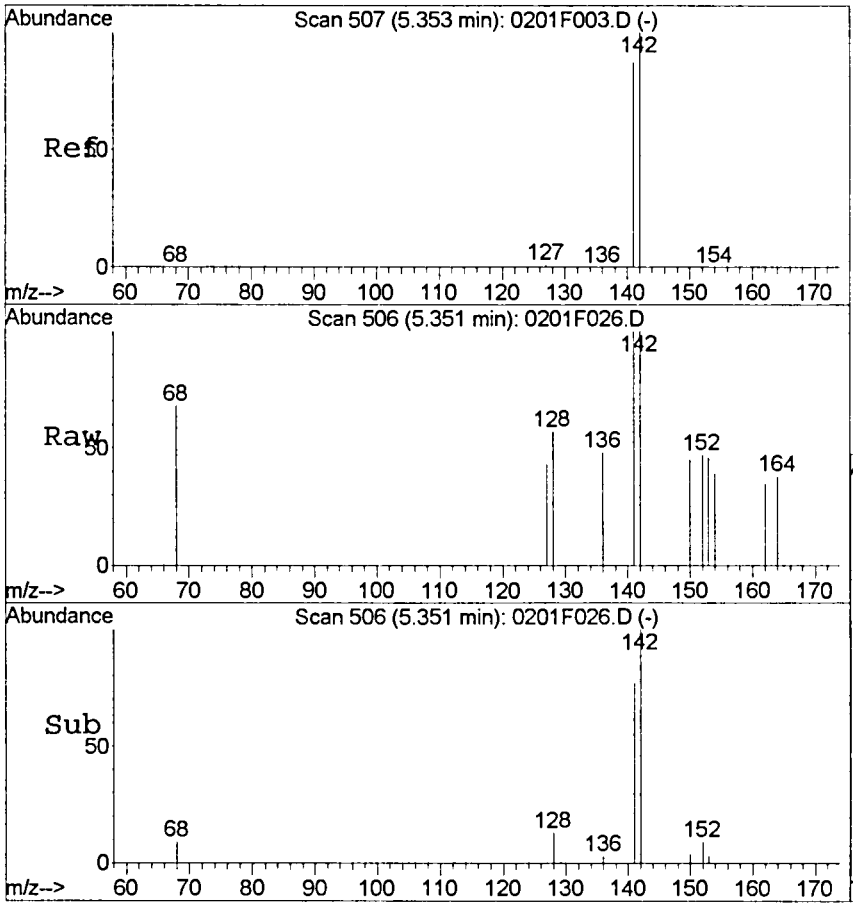


#2
Naphthalene
Concen: 1.60 ng/ml
RT: 4.69 min Scan# 240
Delta R.T. -0.03 min
Lab File: 0201F026.D
Acq: 1 Feb 2016 5:46 pm

Tgt Ion:128 Resp: 471

Ion	Ratio	Lower	Upper
128	100		
127	9.3	0.0	43.8

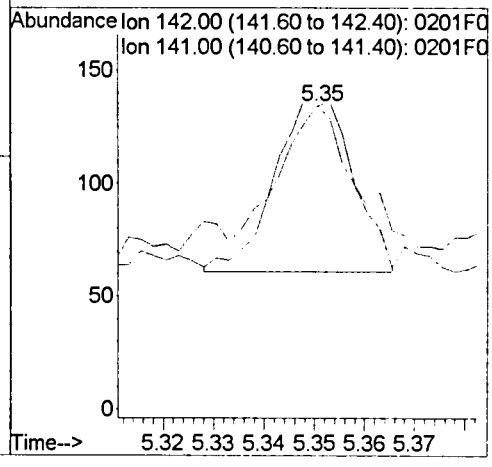


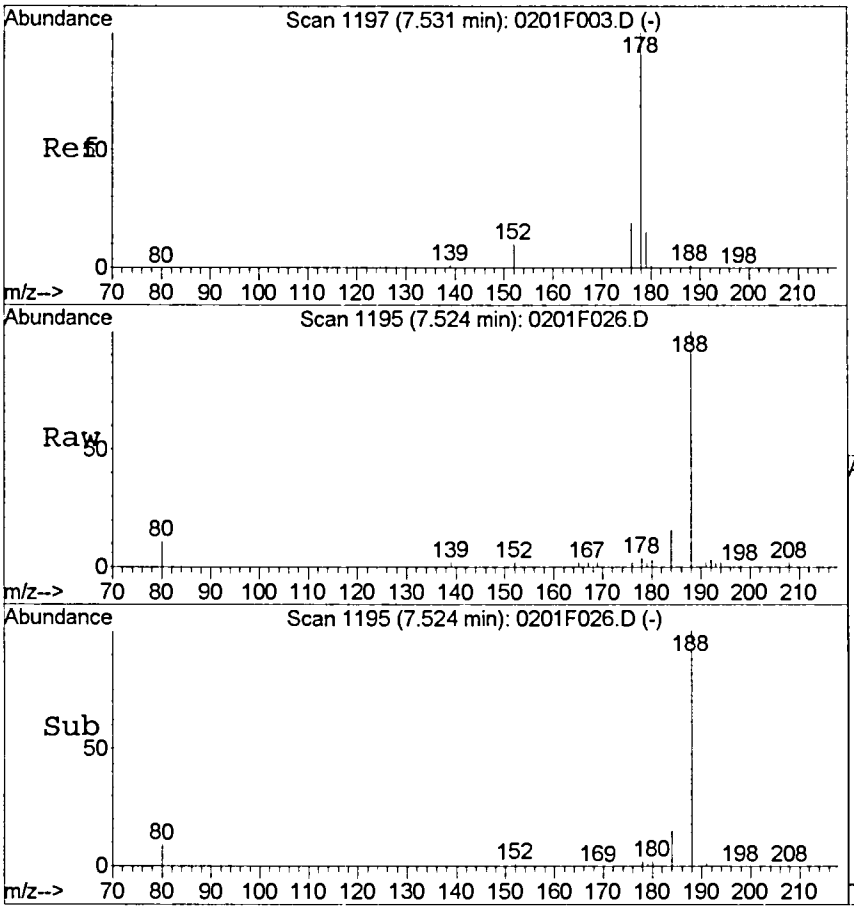


#3
2-Methylnaphthalene
Concen: 0.38 ng/ml m
RT: 5.35 min Scan# 506
Delta R.T. -0.03 min
Lab File: 0201F026.D
Acq: 1 Feb 2016 5:46 pm

Tgt Ion:142 Resp: 76

Ion	Ratio	Lower	Upper
142	100		
141	100.0	57.6	117.6

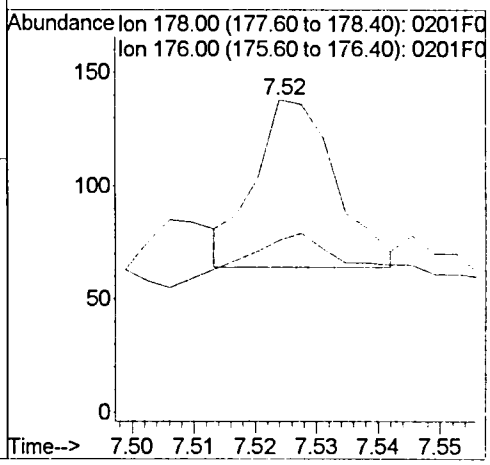


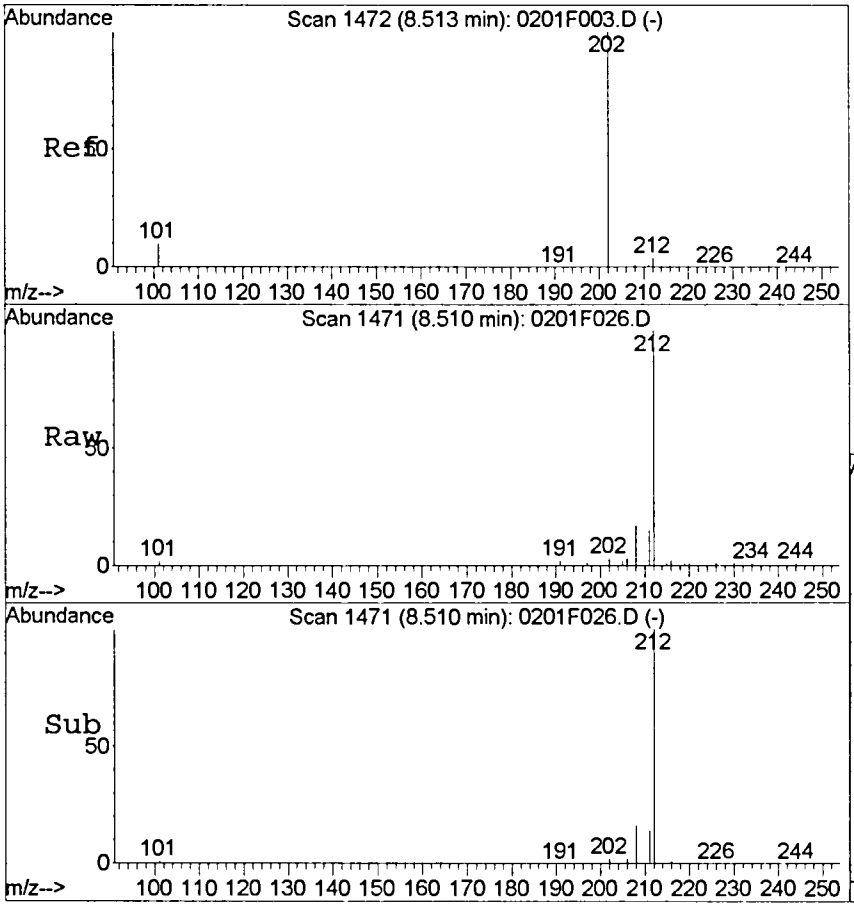


#16
Phenanthrene
Concen: 0.20 ng/ml m
RT: 7.52 min Scan# 1195
Delta R.T. -0.03 min
Lab File: 0201F026.D
Acq: 1 Feb 2016 5:46 pm

Tgt Ion:178 Resp: 67

Ion	Ratio	Lower	Upper
178	100		
176	55.1	0.0	48.5#

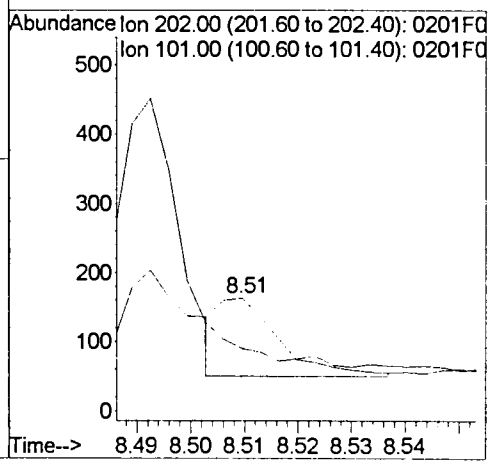


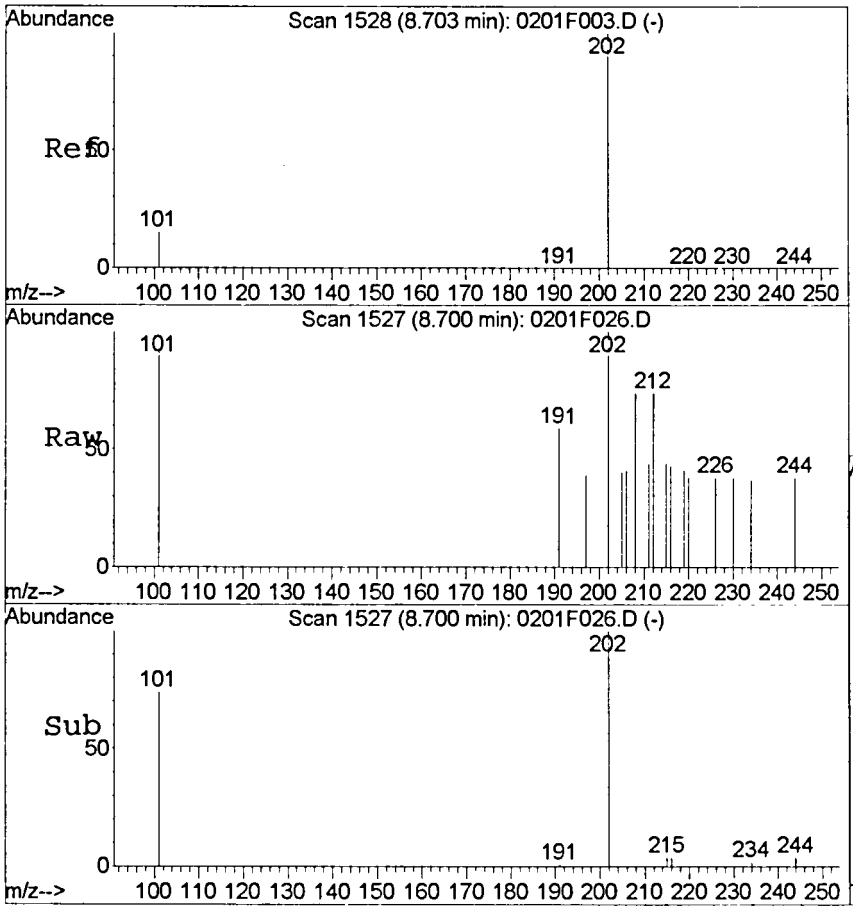


#20
Fluoranthene
Concen: 0.24 ng/ml m
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F026.D
Acq: 1 Feb 2016 5:46 pm

Tgt Ion:202 Resp: 90

Ion	Ratio	Lower	Upper
202	100		
101	55.2	0.0	40.2#

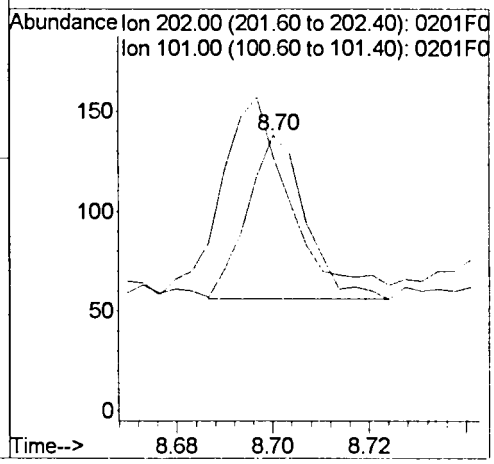


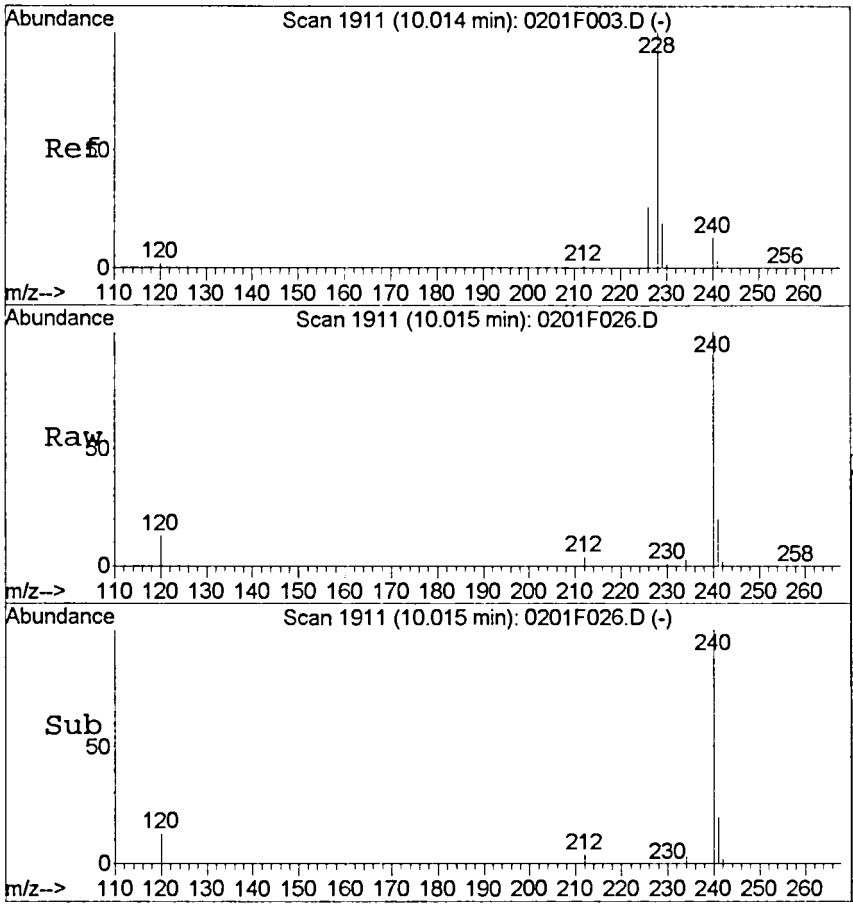


#23
Pyrene
Concen: 0.17 ng/ml
RT: 8.70 min Scan# 1527
Delta R.T. -0.03 min
Lab File: 0201F026.D
Acq: 1 Feb 2016 5:46 pm

Tgt Ion:202 Resp: 69

Ion	Ratio	Lower	Upper
202	100		
101	78.0	0.0	42.9#

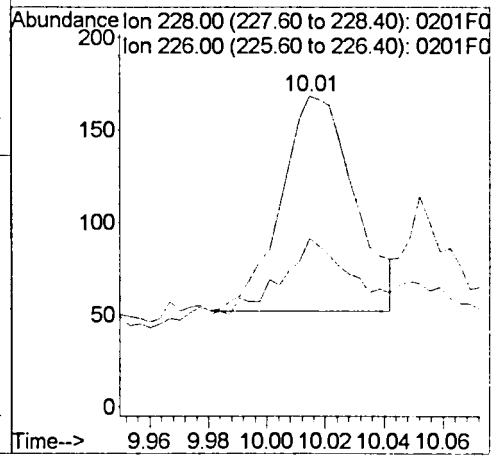




#25
Benz(a)anthracene
Concen: 0.54 ng/ml
RT: 10.01 min Scan# 1911
Delta R.T. -0.03 min
Lab File: 0201F026.D
Acq: 1 Feb 2016 5:46 pm

Tgt Ion:228 Resp: 201

Ion	Ratio	Lower	Upper
228	100		
226	35.3	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F004.D
Lab ID: KWG1600624-5
RunType: MB
Matrix: WATER

Date Acquired: 02/01/2016 08:50
Date Quantitated: 02/02/2016 11:56
Batch ID: KWG1600877
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	

K00673

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:40:28
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F004.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 08:50	**Quant Date:**	02/02/2016 11:56	**Vial:**	4
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600624-5			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495845	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\020116\0201F001.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	4.67	-0.02	136	71730	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	35994	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	66992	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	75575	200.00	OK
5	Perylene-d12	13.06	0.01	264	71510	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	6.71	0.00	0.00	176	77409	390.06	98	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	142882	416.73	104	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	110437	400.88	100	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	0d		0.0022	U	
2	Acenaphthylene				152	0d		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Dibenzofuran	6.45	0.01	0.00	168	100	0.2900	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	7.53		0.00	178	202	0.5100	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\020116\0201F004.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 08:50	**Quant Date:**	02/02/2016 11:56	**Vial:**	4
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1600624-5			**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				167	0d		0.0045	U	
3	1-Methylphenanthrene				192	0		0.0041	U	
3	Fluoranthene	8.51		0.00	202	153	0.3500	0.010	U	
4	Pyrene	8.70		0.00	202	166	0.3500	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	205	0.4600	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	0d		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:	1040 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\020116\0201F004.D Vial: 4
Acq On : 1 Feb 2016 8:50 am Operator: LWeiskopf
Sample : KWG1600624-5 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:39 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

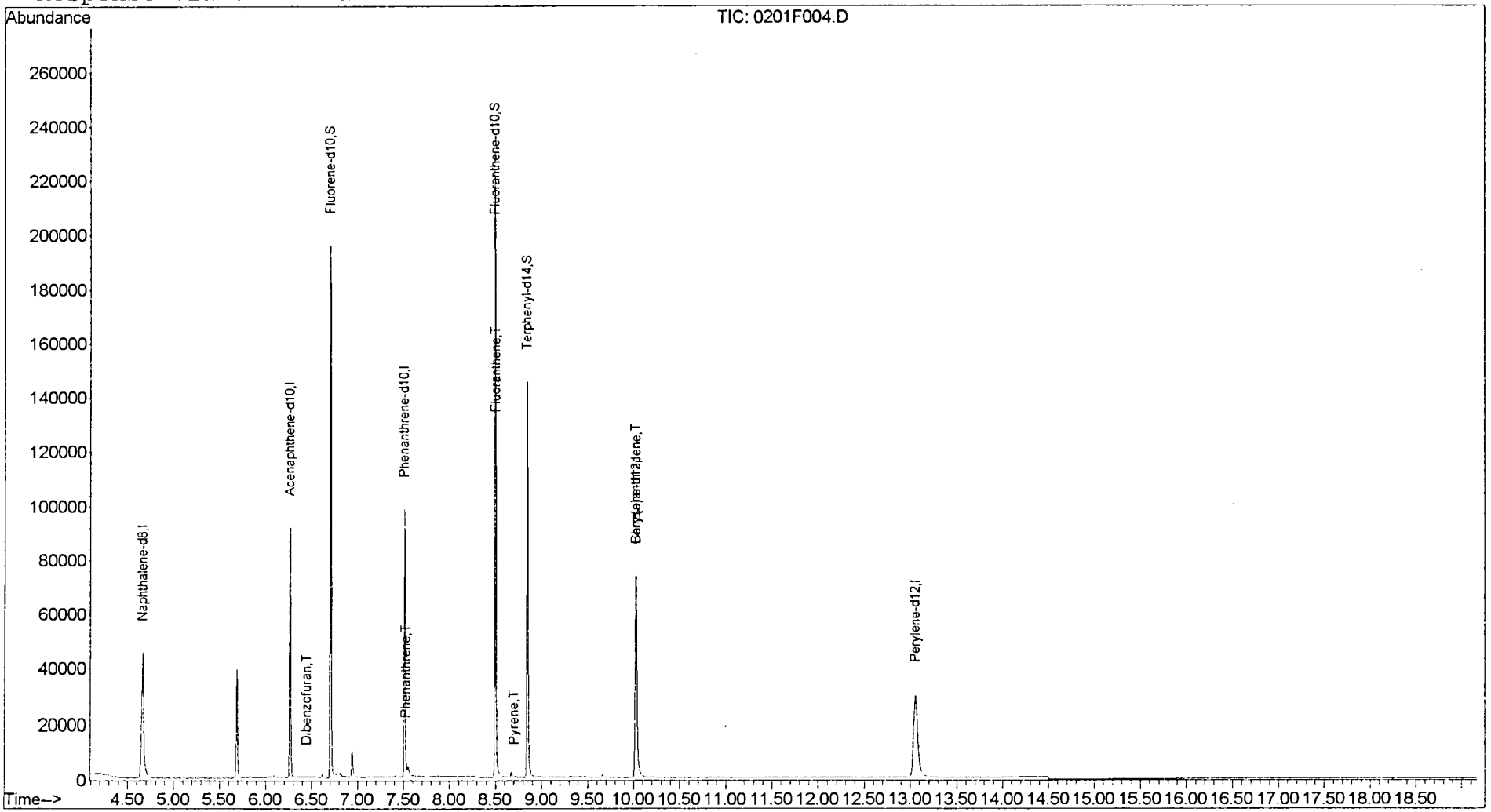
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	71730	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	35994	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	66992	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	75575	200.00	ng/ml	-0.03
27) Perylene-d12	13.06	264	71510	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	77409	390.06	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.01%			
21) Fluoranthene-d10	8.50	212	142882	416.73	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.67%			
24) Terphenyl-d14	8.84	244	110437	400.88	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 40.09%			
Target Compounds						Qvalue
10) Dibenzofuran	6.45	168	100	0.29	ng/ml	99
16) Phenanthrene	7.53	178	202	0.51	ng/ml	90
20) Fluoranthene	8.51	202	153	0.35	ng/ml	58
23) Pyrene	8.70	202	166	0.35	ng/ml#	1
25) Benz(a)anthracene	10.02	228	205	0.46	ng/ml	80

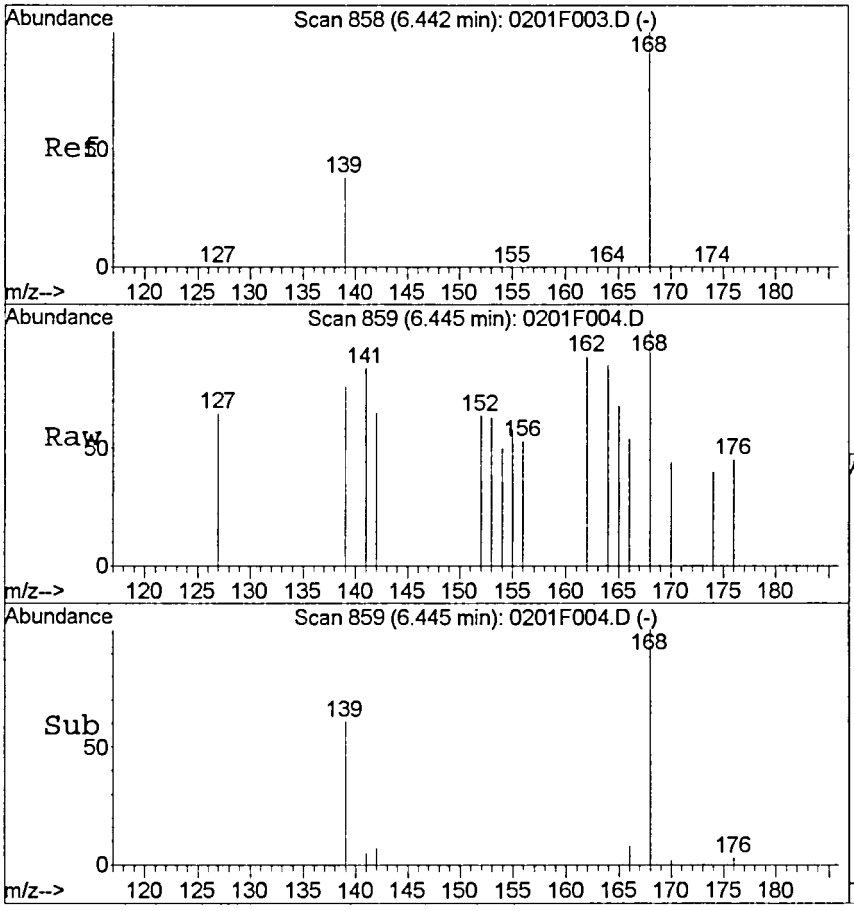
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F004.D Vial: 4
Acq On : 1 Feb 2016 8:50 am Operator: LWeiskopf
Sample : KWG1600624-5 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 11:56 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

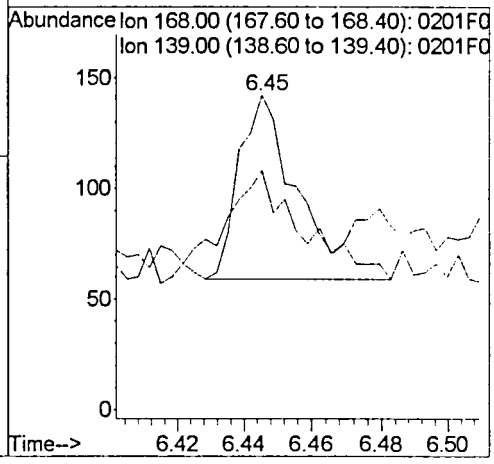


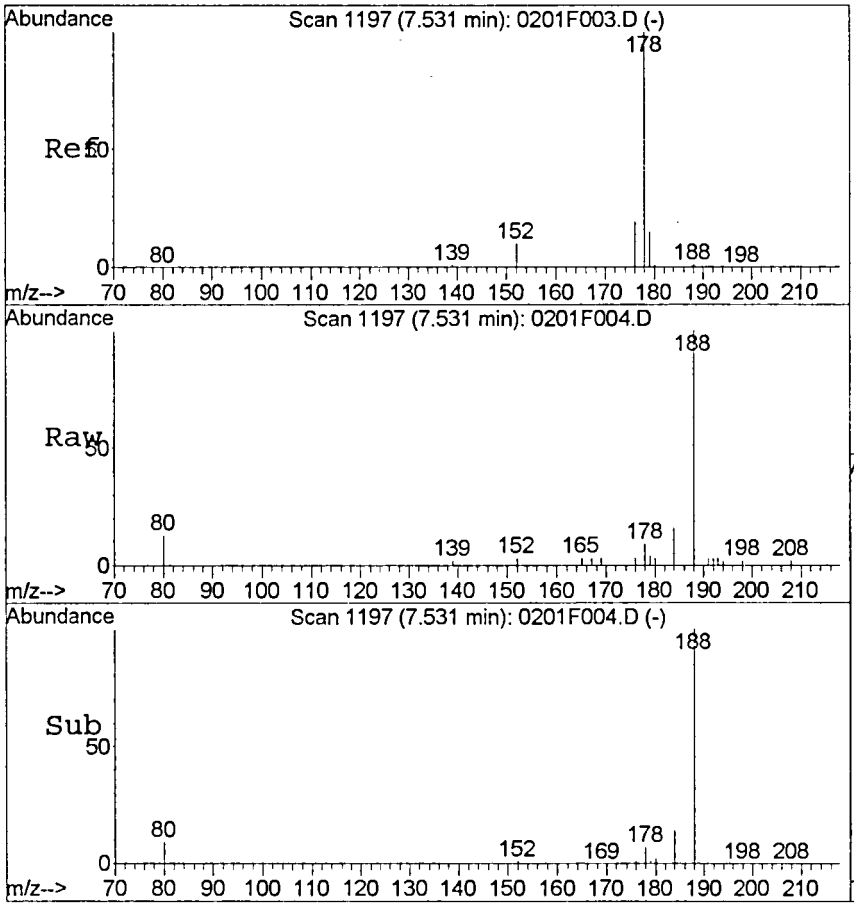


#10
Dibenzofuran
Concen: 0.29 ng/ml
RT: 6.45 min Scan# 859
Delta R.T. -0.02 min
Lab File: 0201F004.D
Acq: 1 Feb 2016 8:50 am

Tgt Ion:168 Resp: 100

Ion	Ratio	Lower	Upper
168	100		
139	37.3	6.7	66.7

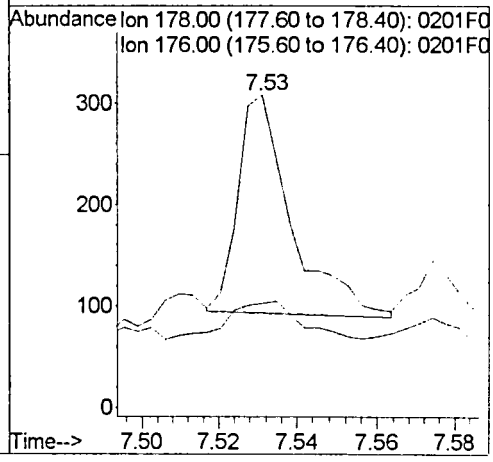


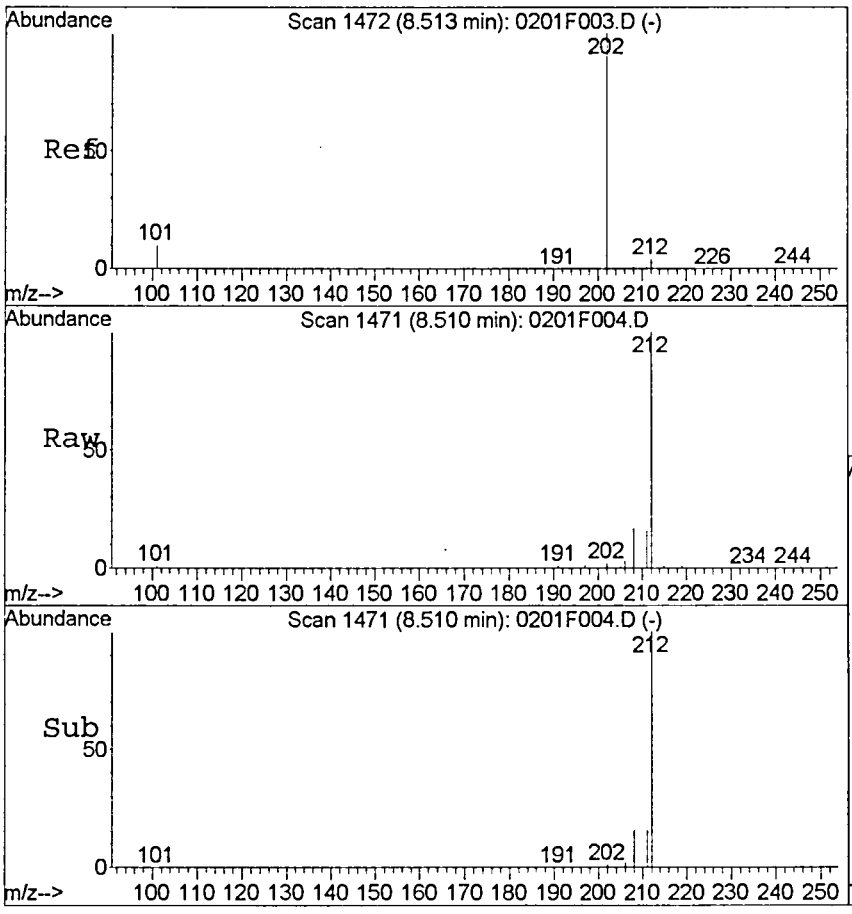


#16
Phenanthrene
Concen: 0.51 ng/ml
RT: 7.53 min Scan# 1197
Delta R.T. -0.02 min
Lab File: 0201F004.D
Acq: 1 Feb 2016 8:50 am

Tgt Ion:178 Resp: 202

Ion	Ratio	Lower	Upper
178	100		
176	14.1	0.0	48.5

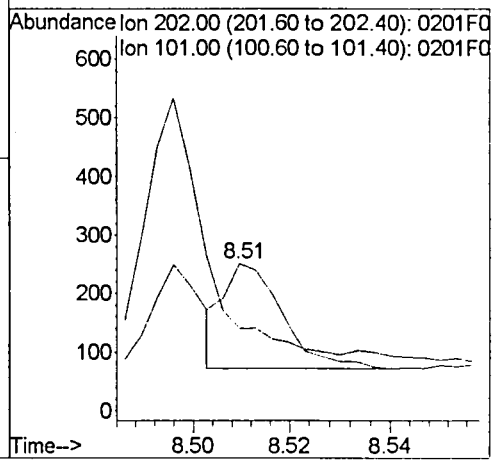


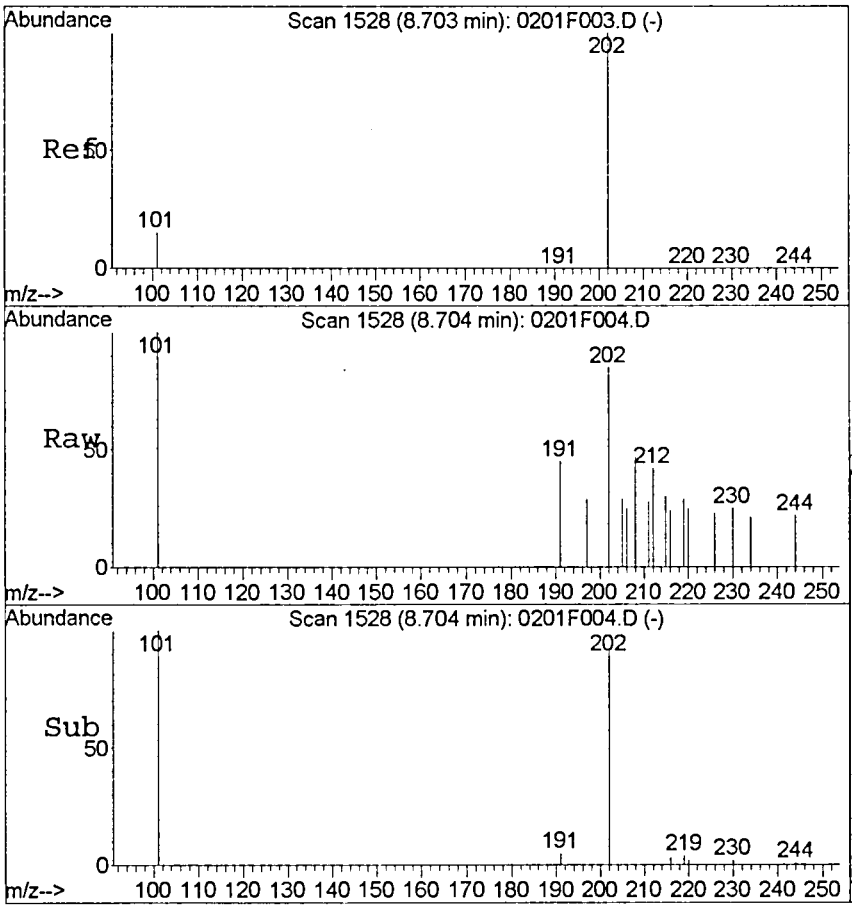


#20
Fluoranthene
Concen: 0.35 ng/ml
RT: 8.51 min Scan# 1471
Delta R.T. -0.02 min
Lab File: 0201F004.D
Acq: 1 Feb 2016 8:50 am

Tgt Ion:202 Resp: 153

Ion	Ratio	Lower	Upper
202	100		
101	25.7	0.0	40.2

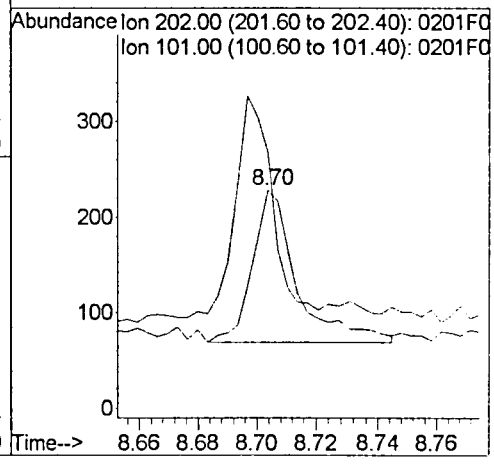


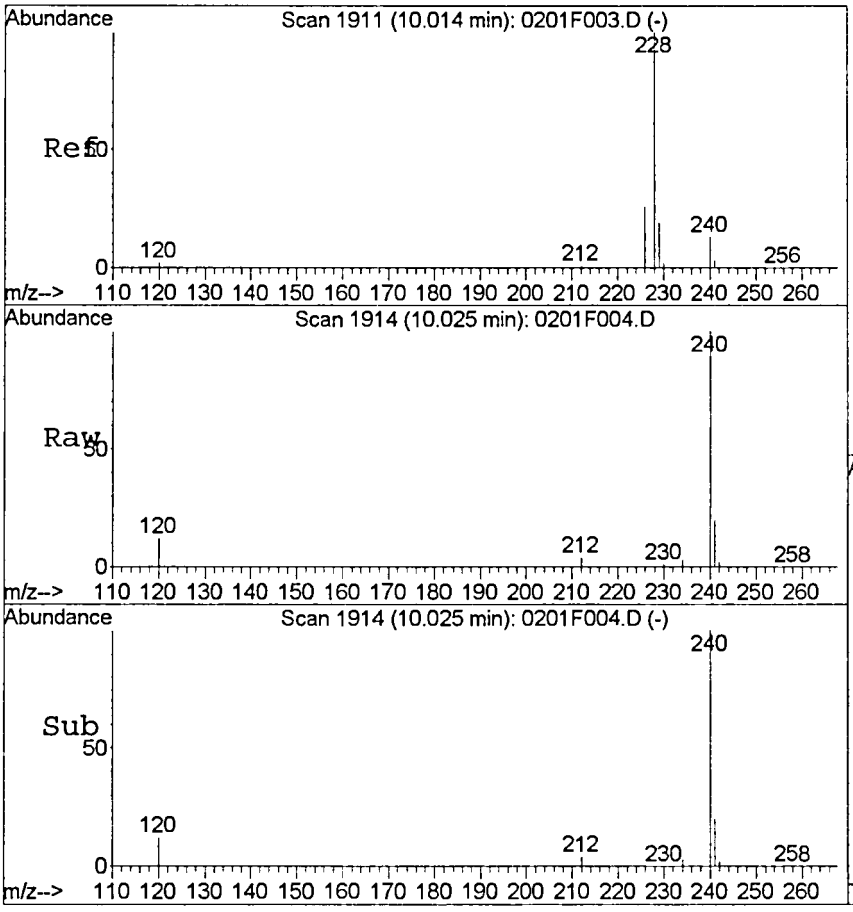


#23
Pyrene
Concen: 0.35 ng/ml
RT: 8.70 min Scan# 1528
Delta R.T. -0.02 min
Lab File: 0201F004.D
Acq: 1 Feb 2016 8:50 am

Tgt Ion:202 Resp: 166

Ion	Ratio	Lower	Upper
202	100		
101	106.3	0.0	42.9#

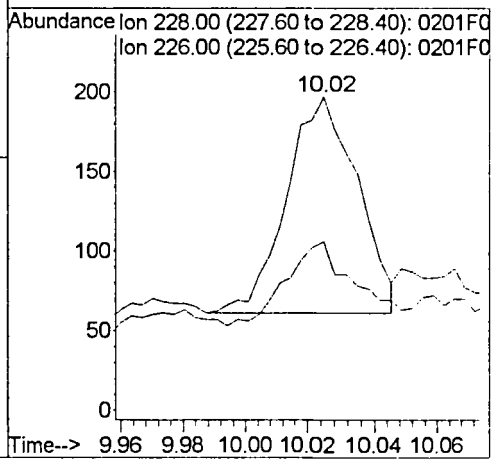




#25
Benz(a)anthracene
Concen: 0.46 ng/ml
RT: 10.02 min Scan# 1914
Delta R.T. -0.02 min
Lab File: 0201F004.D
Acq: 1 Feb 2016 8:50 am

Tgt Ion:228 Resp: 205

Ion	Ratio	Lower	Upper
228	100		
226	36.0	0.0	55.9



Exception Report

Data File: J:\MS14\DATA\020116\0201F011.D
Lab ID: KWG1600624-1 -- K1600673-004MS
RunType: MS
Matrix: WATER

Date Acquired: 02/01/2016 11:58
Date Quantitated: 02/02/2016 12:03
Batch ID: KWG1600877
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	

Primary Review FEB 0 2 2016

Secondary Review FEB 0 3 2016

Printed: 02/02/2016 12:40:49
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F011.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 11:58	**Quant Date:**	02/02/2016 12:03	**Vial:**	11
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600624-1 -- K1600673-004MS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495841	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	64354	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	32721	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	60969	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	66811	200.00	OK
5	Perylene-d12	13.05	0.00	264	60338	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	6.71	0.00	0.00	176	69471	385.08	96	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	128957	413.27	103	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	99934	410.34	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				128	0		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	0d		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\020116\0201F011.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 11:58	**Quant Date:**	02/02/2016 12:03	**Vial:**	11
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1600624-1 -- K1600673-004MS			**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	0d		0.0045	U	
3	1-Methylphenanthrene				192	0		0.0041	U	
3	Fluoranthene	8.51		0.00	202	63m	0.1600	0.010	U	
4	Pyrene	8.71	0.01	0.00	202	78	0.1900	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	192m	0.4900	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: 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

Matrix Spike Summary Report

Matrix Spike Information ***ListJoinID :*** LJ17068

Data File:	J:\MS14\DATA\020116\0201F011.D	**Instrument:**	MS14
Lab ID:	KWG1600624-1	**Dilution:**	1.00
Client ID:	Matrix Spike	**Units:**	ug/L
Prod Code:	8270D PAH SIM	**Acqu Date:**	02/01/2016 11:58
Matrix:	WATER	**Quant Date:**	02/02/2016 12:03

Duplicate Matrix Spike Information

Data File:	J:\MS14\DATA\020116\0201F012.D	**Instrument:**	MS14
Lab ID:	KWG1600624-2	**Dilution:**	1.00
Client ID:	Duplicate Matrix Spike	**Units:**	ug/L
Prod Code:	8270D PAH SIM	**Acqu Date:**	02/01/2016 12:23
Matrix:	WATER	**Quant Date:**	02/02/2016 12:03

Sample Reference Information

Data File:	J:\MS14\DATA\020116\0201F013.D	**Instrument:**	MS14
Lab ID:	K1600673-004	**Dilution:**	1.00
Client ID:	ERH018	**Units:**	ug/L
Prod Code:	8270D PAH SIM	**Acqu Date:**	02/01/2016 12:47
Matrix:	WATER	**Quant Date:**	02/02/2016 12:04

Parameter Name	Sample Result	Matrix Spike			Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Naphthalene	ND	ND	2.45	0 *	ND	2.40	0 *	43-114	NC	20
2-Methylnaphthalene	ND	ND	2.45	0 *	ND	2.40	0 *	39-114	NC	20
1-Methylnaphthalene	ND	ND	2.45	0 *	ND	2.40	0 *	41-115	NC	20
Acenaphthylene	ND	ND	2.45	0 *	ND	2.40	0 *	35-121	NC	20
Acenaphthene	ND	ND	2.45	0 *	ND	2.40	0 *	48-114	NC	20
Fluorene	ND	ND	2.45	0 *	ND	2.40	0 *	50-118	NC	20
Phenanthrene	ND	ND	2.45	0 *	ND	2.40	0 *	53-115	NC	20
Anthracene	ND	ND	2.45	0 *	ND	2.40	0 *	53-119	NC	20
Fluoranthene	ND	ND	2.45	0 *	ND	2.40	0 *	58-120	NC	20
Pyrene	ND	ND	2.45	0 *	ND	2.40	0 *	53-121	NC	20
Benz(a)anthracene	ND	ND	2.45	0 *	0.00380	2.40	0 *	59-120	NC	20
Chrysene	ND	ND	2.45	0 *	ND	2.40	0 *	57-120	NC	20
Benzo(b)fluoranthene	ND	ND	2.45	0 *	ND	2.40	0 *	53-126	NC	20
Benzo(k)fluoranthene	ND	ND	2.45	0 *	ND	2.40	0 *	54-125	NC	20
Benzo(a)pyrene	ND	ND	2.45	0 *	ND	2.40	0 *	53-120	NC	20
Indeno(1,2,3-cd)pyrene	ND	ND	2.45	0 *	ND	2.40	0 *	48-130	NC	20
Dibenz(a,h)anthracene	ND	ND	2.45	0 *	ND	2.40	0 *	44-131	NC	20
Benzo(g,h,i)perylene	ND	ND	2.45	0 *	ND	2.40	0 *	44-128	NC	20
Fluorene-d10				96			99	46-114		
Fluoranthene-d10				103			107	51-121		
Terphenyl-d14				103			105	58-132		

* Not spiked with M.S., No sample left to RX Batch

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

Printed: 02/02/2016 12:38:07
u:\Stealth\Crystal rpt\dms1.rpt

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F011.D Vial: 11
Acq On : 1 Feb 2016 11:58 am Operator: LWeiskopf
Sample : K1600673-004MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:41 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

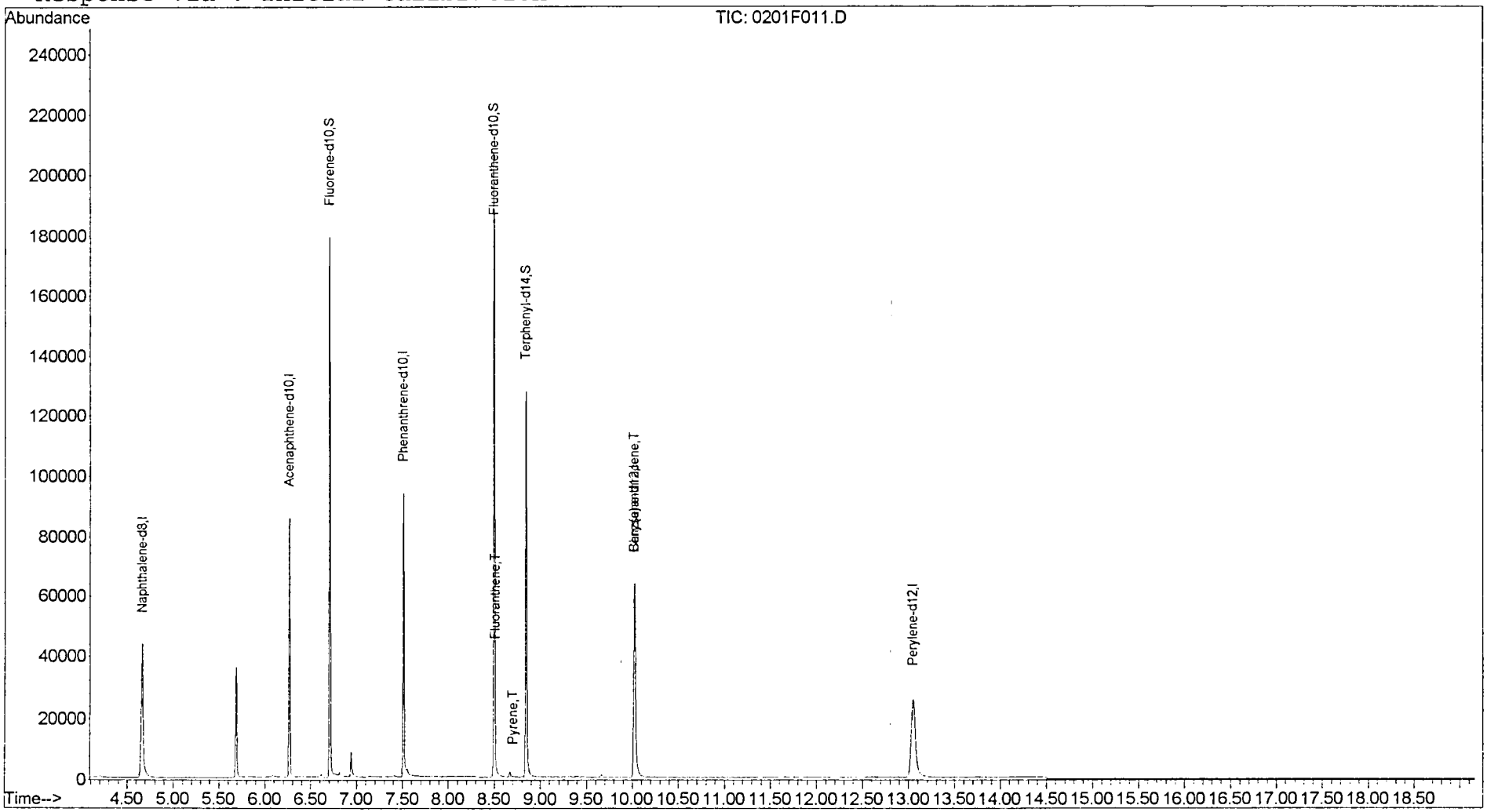
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	64354	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	32721	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	60969	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	66811	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	60338	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	69471	385.08	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.51%			
21) Fluoranthene-d10	8.50	212	128957	413.27	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.33%			
24) Terphenyl-d14	8.84	244	99934	410.34	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.03%			
Target Compounds						Qvalue
20) Fluoranthene	8.51	202	63m	0.16	ng/ml	
23) Pyrene	8.71	202	78	0.19	ng/ml#	1
25) Benz(a)anthracene	10.02	228	192m	0.49	ng/ml	

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F011.D Vial: 11
Acq On : 1 Feb 2016 11:58 am Operator: LWeiskopf
Sample : K1600673-004MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:03 2016 Quant Results File: 011116SIMPAH.RES

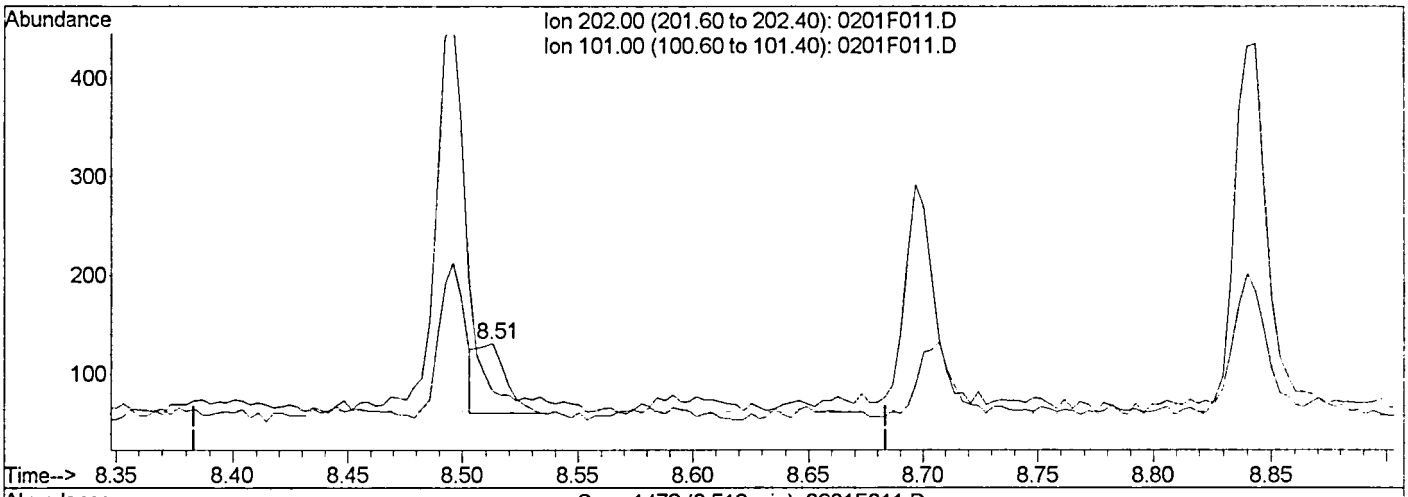
Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

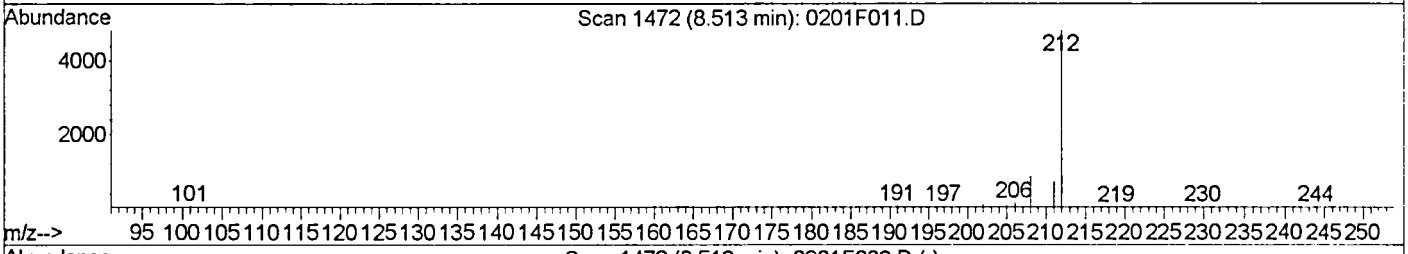


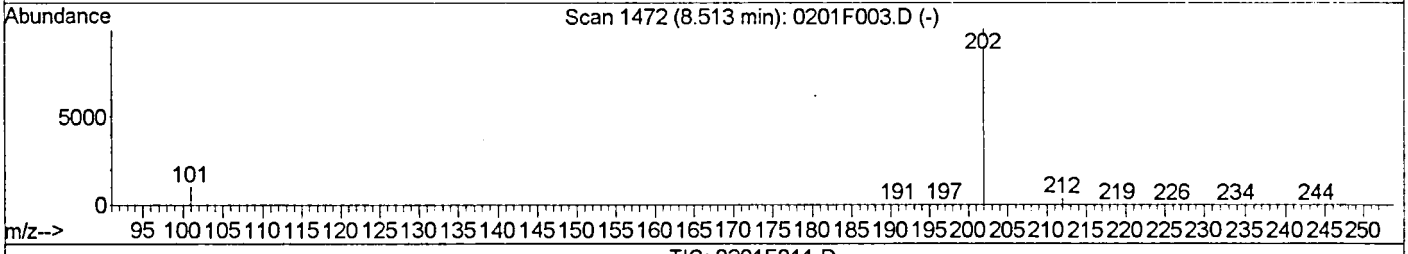
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F011.D Vial: 11
Acq On : 1 Feb 2016 11:58 am Operator: LWeiskopf
Sample : K1600673-004MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration







TIC: 0201F011.D

(20) Fluoranthene (T)

8.51min 0.16ng/ml m

response 63

Ion	Exp%	Act%
202.00	100	100
101.00	10.20	63.36#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

WP

02/02/16

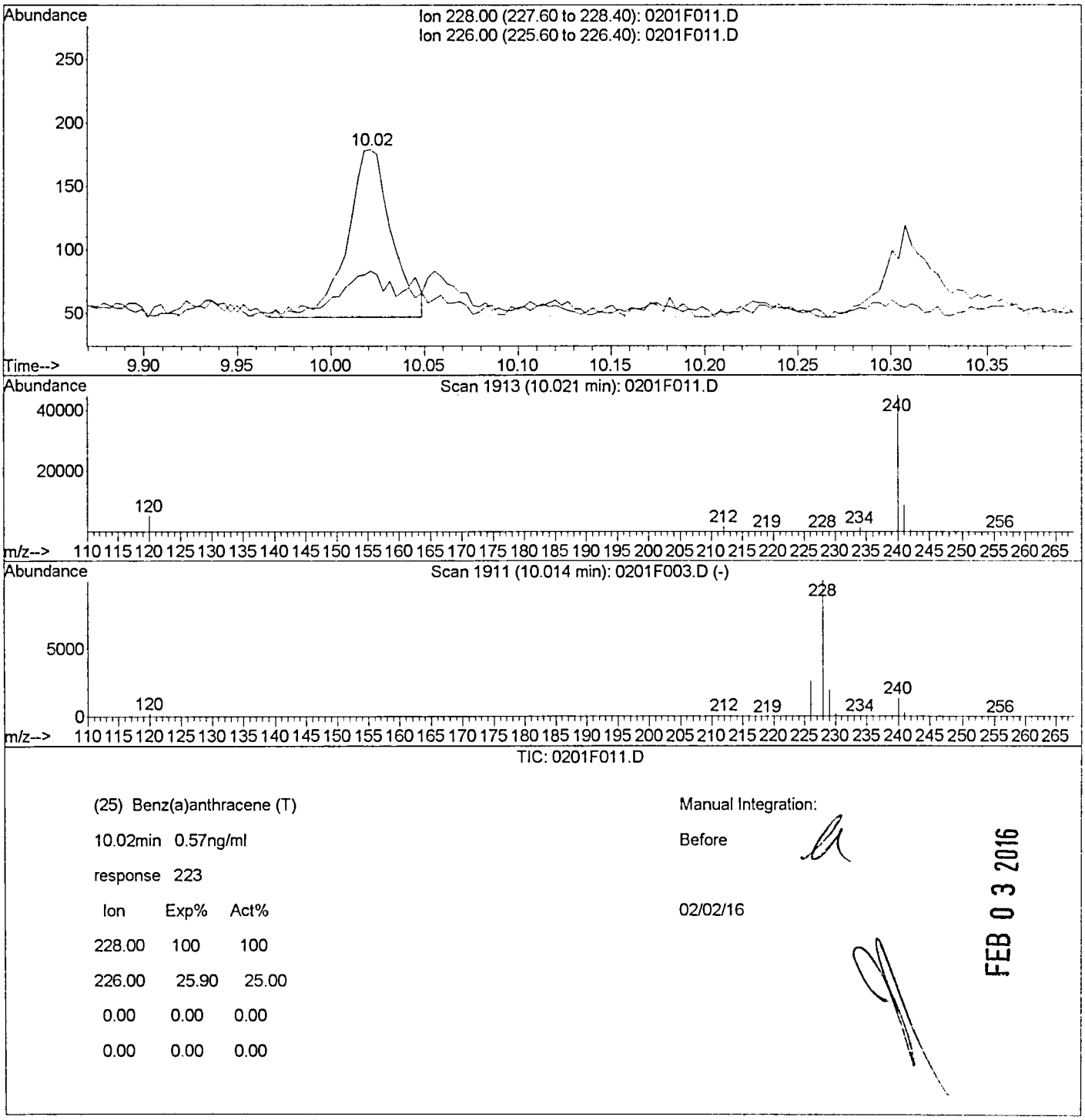
FEB 0 3 2016

0201F011.D 011116SIMPAH.M Tue Feb 02 12:02:48 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F011.D Vial: 11
Acq On : 1 Feb 2016 11:58 am Operator: LWeiskopf
Sample : K1600673-004MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



(25) Benz(a)anthracene (T)

10.02min 0.57ng/ml

response 223

Ion	Exp%	Act%
228.00	100	100
226.00	25.90	25.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

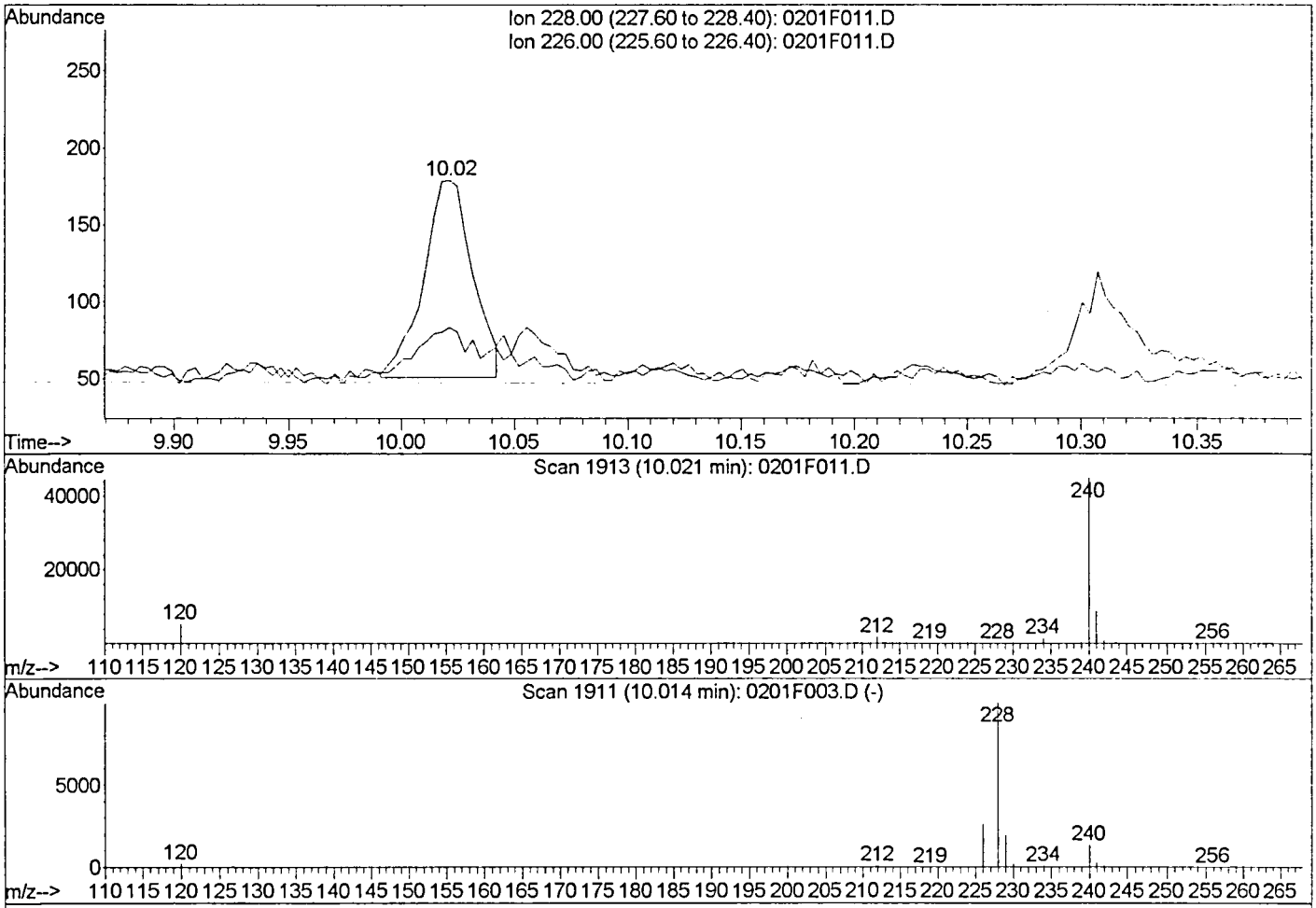
FEB 03 2016

0201F011.D 011116SIMPAH.M Tue Feb 02 12:03:00 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F011.D Vial: 11
Acq On : 1 Feb 2016 11:58 am Operator: LWeiskopf
Sample : K1600673-004MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F011.D

(25) Benz(a)anthracene (T)

10.02min 0.49ng/ml m

response 192

Ion	Exp%	Act%
228.00	100	100
226.00	25.90	46.37
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

02/02/16

FEB 03 2016

0201F011.D 011116SIMPAH.M Tue Feb 02 12:03:05 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F012.D
Lab ID: KWG1600624-2 -- K1600673-004DMS
RunType: DMS
Matrix: WATER

Date Acquired: 02/01/2016 12:23
Date Quantitated: 02/02/2016 12:03
Batch ID: KWG1600877
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	

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:40:52
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F012.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 12:23	**Quant Date:**	02/02/2016 12:03	**Vial:**	12
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600624-2 -- K1600673-004DMS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495842	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH			**Calibration ID:**	CAL14530
Title:					
Tune Ref:	J:\MS14\DATA\020116\0201F001.D			**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	62771	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	31953	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	59362	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	65143	200.00	OK
5	Perylene-d12	13.05	0.00	264	59554	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	6.71	0.00	0.00	176	69620	395.18	99	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	129458	426.11	107	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	99926	420.81	105	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	0		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\020116\0201F012.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 12:23	**Quant Date:**	02/02/2016 12:03	**Vial:**	12
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1600624-2 -- K1600673-004DMS			**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	0d		0.0045	U	
3	1-Methylphenanthrene				192	0		0.0041	U	
3	Fluoranthene	8.51		0.00	202	227	0.5800	0.010	U	
4	Pyrene	8.70		0.00	202	295	0.7300	0.0053	U	
4	Benz(a)anthracene	10.02	0.01	0.00	228	300	0.7900	0.00380	J	
4	Chrysene	10.06	-0.01	0.00	228	119m	0.3500	0.0034	U	
5	Benzo(b)fluoranthene				252	0d		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	0d		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:	1040 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\020116\0201F012.D Vial: 12
Acq On : 1 Feb 2016 12:23 pm Operator: LWeiskopf
Sample : K1600673-004DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:41 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

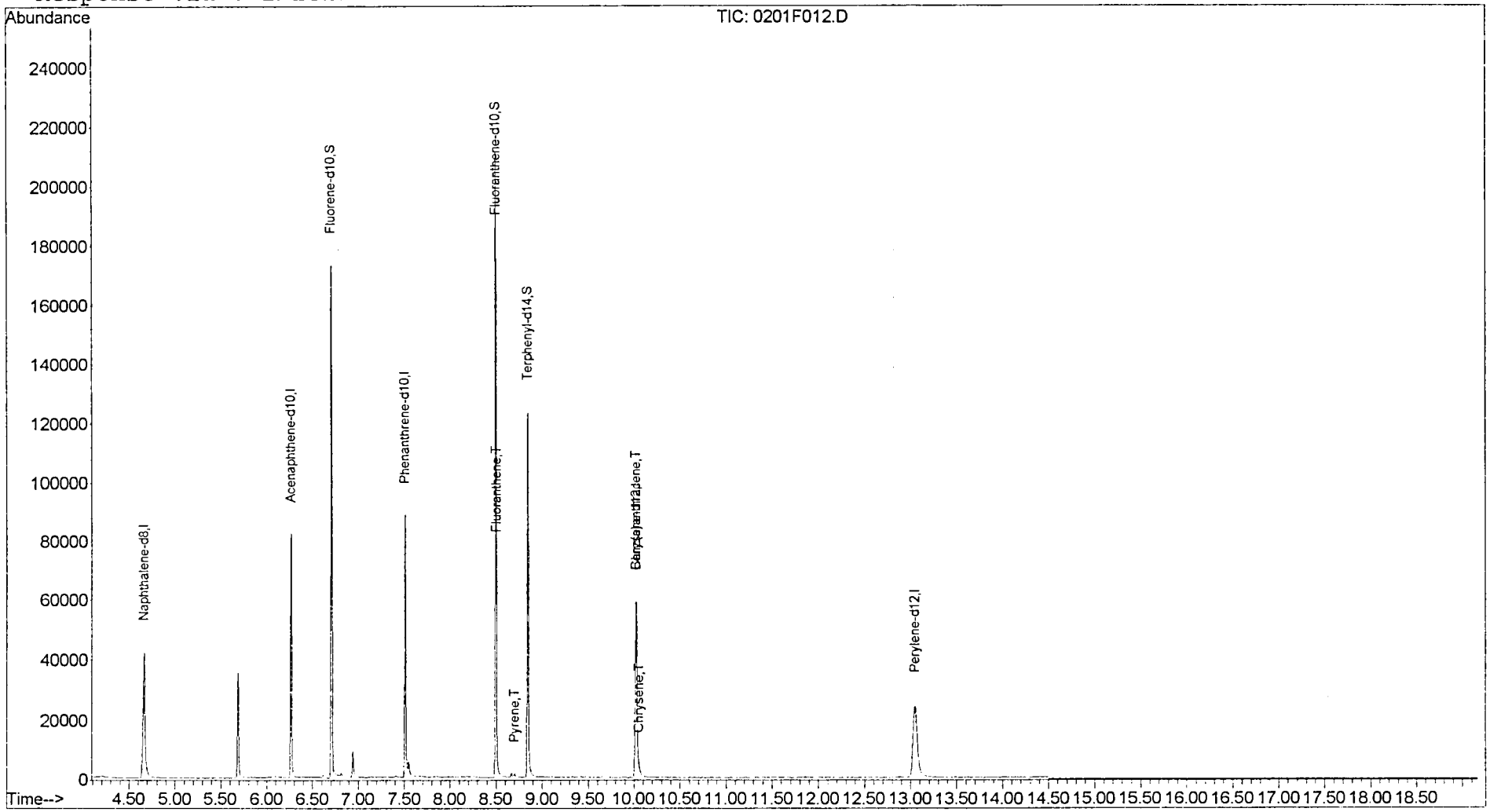
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	62771	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	31953	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	59362	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	65143	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	59554	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	69620	395.18	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 39.52%			
21) Fluoranthene-d10	8.50	212	129458	426.11	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.61%			
24) Terphenyl-d14	8.84	244	99926	420.81	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.08%			
Target Compounds						Qvalue
20) Fluoranthene	8.51	202	227	0.58	ng/ml	89
23) Pyrene	8.70	202	295	0.73	ng/ml#	1
25) Benz(a)anthracene	10.02	228	300	0.79	ng/ml	94
26) Chrysene	10.06	228	119m	0.35	ng/ml	

(#) = qualifier out of range (m) = manual integration
0201F012.D 011116SIMPAH.M Tue Feb 02 12:04:52 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F012.D Vial: 12
Acq On : 1 Feb 2016 12:23 pm Operator: LWeiskopf
Sample : K1600673-004DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:03 2016 Quant Results File: 011116SIMPAH.RES

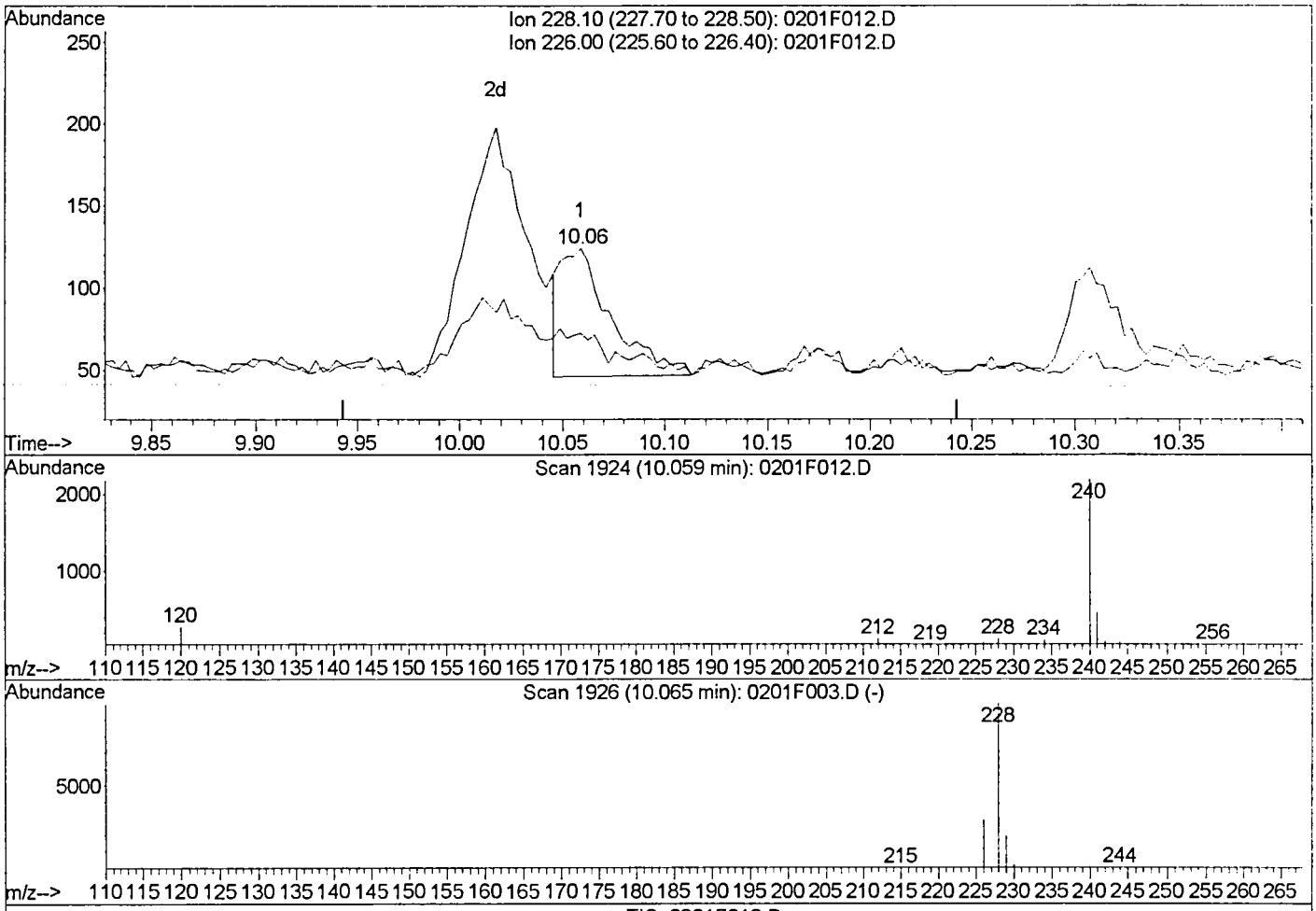
Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F012.D Vial: 12
Acq On : 1 Feb 2016 12:23 pm Operator: LWeiskopf
Sample : K1600673-004DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:03 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F012.D

(26) Chrysene (T)

10.06min 0.39ng/ml

response 134

Ion	Exp%	Act%
228.10	100	100
226.00	28.60	32.47
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

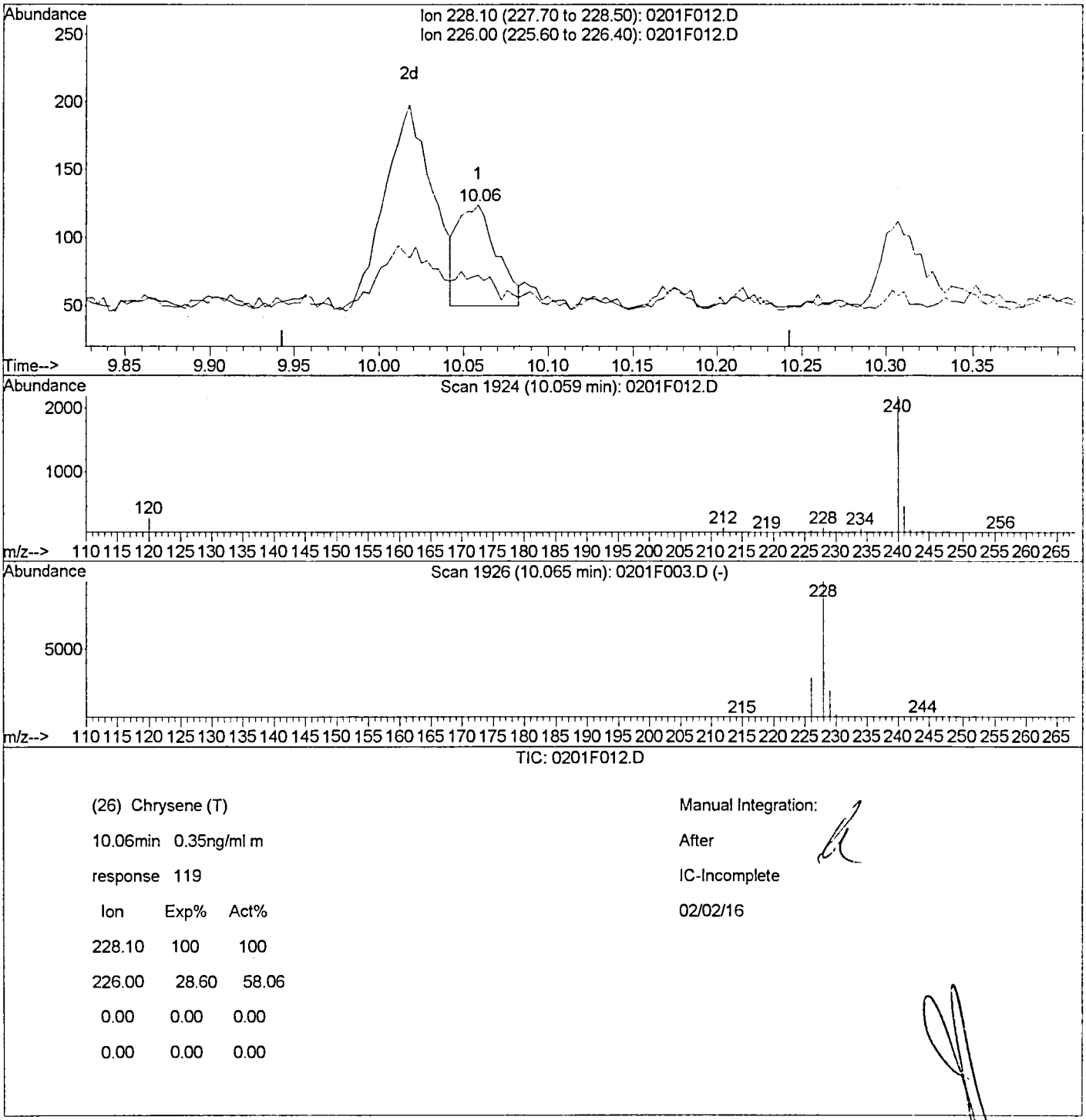
02/02/16

0201F012.D 011116SIMPAH.M Tue Feb 02 12:03:34 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F012.D Vial: 12
Acq On : 1 Feb 2016 12:23 pm Operator: LWeiskopf
Sample : K1600673-004DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 12:03 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Multiple Level Calibration



TIC: 0201F012.D

(26) Chrysene (T)

10.06min 0.35ng/ml m

response 119

Ion	Exp%	Act%
228.10	100	100
226.00	28.60	58.06
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

02/02/16

0201F012.D 011116SIMPAH.M Tue Feb 02 12:03:39 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F009.D
Lab ID: KWG1600624-3
RunType: LCS
Matrix: WATER

Date Acquired: 02/01/2016 11:06
Date Quantitated: 02/02/2016 10:38
Batch ID: KWG1600877
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	

K00673

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:40:43
u:\Stealth\Crystal rpt\except2.rpt

Page 1 of 1

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F009.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 11:06	**Quant Date:**	02/02/2016 10:38	**Vial:**	9
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600624-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495843	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	69539	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	32473	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	59999	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	72451	200.00	OK
5	Perylene-d12	13.05	0.00	264	65231	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	6.71	0.00	0.00	176	66862	373.45	93	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	126757	412.79	103	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	97377	368.71	92	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	4.68	-0.01	0.00	128	143717	409.18	2.05		
1	2-Methylnaphthalene	5.35		0.00	142	90695	378.26	1.89		
1	1-Methylnaphthalene	5.44		0.00	142	77858	372.65	1.86		
1	Biphenyl	5.77		0.00	154	106767	367.91	1.84		
1	2,6-Dimethylnaphthalene	5.91		0.00	156	73678	369.20	1.85		
2	Acenaphthylene	6.14	-0.01	0.00	152	140920	422.04	2.11		
2	Acenaphthene	6.29		0.00	154	78401	411.51	2.06		
2	Dibenzofuran	6.44		0.00	168	121112	394.26	1.97		
2	2,3,5-Trimethylnaphthalene	6.62		0.00	170	73192	435.31	2.18		
2	Fluorene	6.73		0.00	166	96658	412.92	2.06		
3	Dibenzothiophene	7.42	-0.01	0.00	184	149094	425.58	2.13		
3	Phenanthrene	7.53		0.00	178	142644	405.63	2.03		
3	Anthracene	7.57		0.00	178	141775	432.13	2.16		

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\020116\0201F009.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 11:06	**Quant Date:**	02/02/2016 10:38	**Vial:**	9
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1600624-3			**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	7.71		0.00	167	134916	455.53	2.28		
3	1-Methylphenanthrene	8.04		0.00	192	111082	431.06	2.16		
3	Fluoranthene	8.51		0.00	202	171200	432.21	2.16		
4	Pyrene	8.70		0.00	202	178501	394.82	1.97		
4	Benz(a)anthracene	10.01		0.00	228	161158	379.75	1.90		
4	Chrysene	10.06	-0.01	0.00	228	165106	437.03	2.19		
5	Benzo(b)fluoranthene	12.04		0.00	252	169523	406.89	2.03		
5	Benzo(k)fluoranthene	12.10	-0.01	0.00	252	182374	448.62	2.24		
5	Benzo(e)pyrene	12.74	-0.01	0.00	252	159324	413.28	2.07		
5	Benzo(a)pyrene	12.89		0.00	252	152446	390.47	1.95		
5	Perylene	13.13	-0.01	0.00	252	148401	407.89	2.04		
5	Indeno(1,2,3-cd)pyrene	15.33	-0.01	0.00	276	141689	387.59	1.94		
5	Dibenz(a,h)anthracene	15.38	-0.01	0.00	278	142576	394.04	1.97		
5	Benzo(g,h,i)perylene	15.71	-0.01	0.00	276	164181	394.14	1.97		

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\020116\0201F009.D Vial: 9
Acq On : 1 Feb 2016 11:06 am Operator: LWeiskopf
Sample : KWG1600624-3 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:40 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

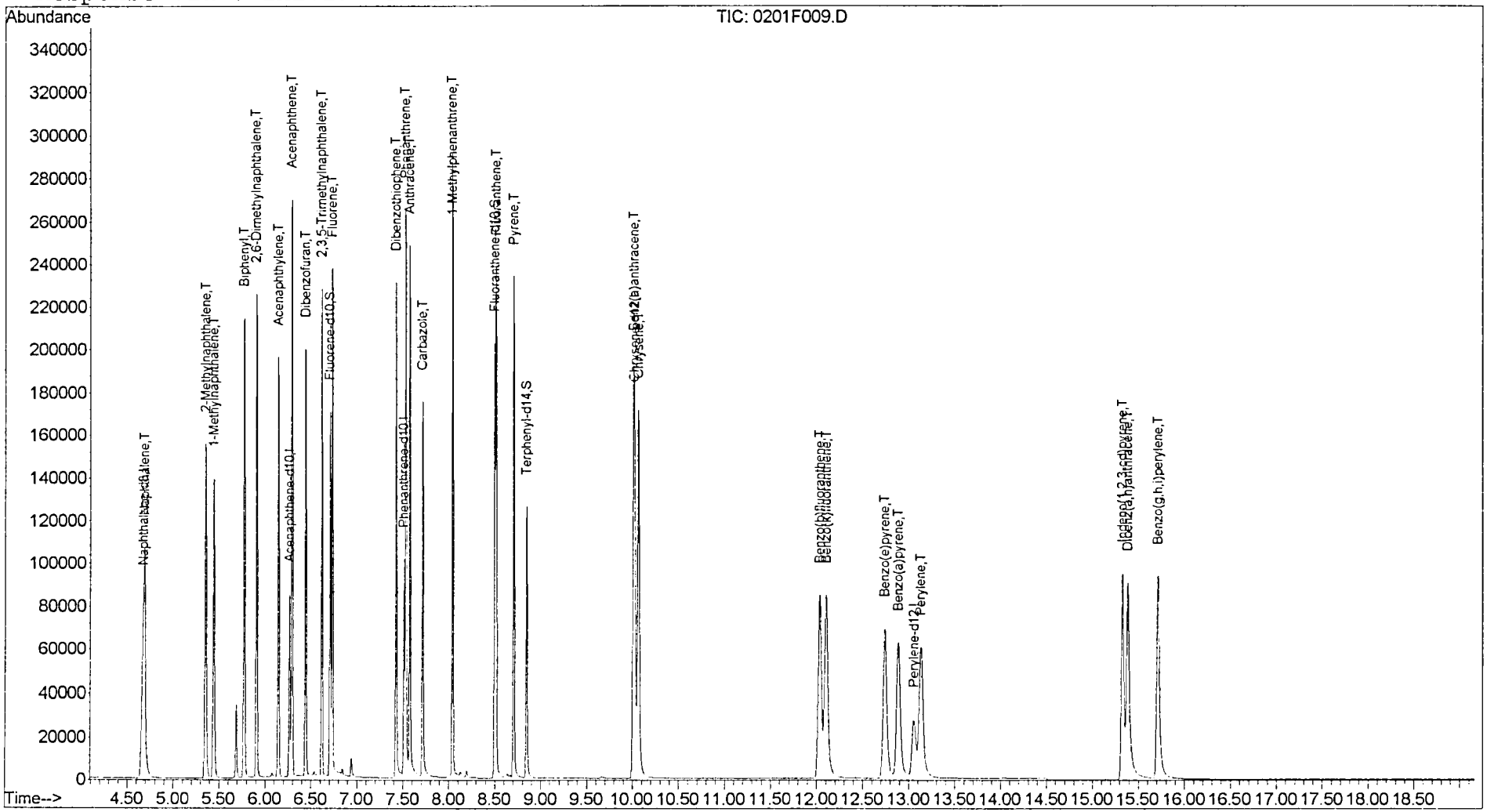
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	69539	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	32473	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	59999	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	72451	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	65231	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	66862	373.45	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 37.34%			
21) Fluoranthene-d10	8.50	212	126757	412.79	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.28%			
24) Terphenyl-d14	8.84	244	97377	368.71	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 36.87%			
Target Compounds						Qvalue
2) Naphthalene	4.68	128	143717	409.18	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	90695	378.26	ng/ml	100
4) 1-Methylnaphthalene	5.44	142	77858	372.65	ng/ml	99
5) Biphenyl	5.77	154	106767	367.91	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.91	156	73678	369.20	ng/ml	99
8) Acenaphthylene	6.14	152	140920	422.04	ng/ml	100
9) Acenaphthene	6.29	154	78401	411.51	ng/ml	99
10) Dibenzofuran	6.44	168	121112	394.26	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.62	170	73192	435.31	ng/ml	98
13) Fluorene	6.73	166	96658	412.92	ng/ml	99
15) Dibenzothiophene	7.42	184	149094	425.58	ng/ml	99
16) Phenanthrene	7.53	178	142644	405.63	ng/ml	100
17) Anthracene	7.57	178	141775	432.13	ng/ml	99
18) Carbazole	7.71	167	134916	455.53	ng/ml	97
19) 1-Methylphenanthrene	8.04	192	111082	431.06	ng/ml	99
20) Fluoranthene	8.51	202	171200	432.21	ng/ml	99
23) Pyrene	8.70	202	178501	394.82	ng/ml	98
25) Benz(a)anthracene	10.01	228	161158	379.75	ng/ml	100
26) Chrysene	10.06	228	165106	437.03	ng/ml	100
28) Benzo(b)fluoranthene	12.04	252	169523	406.89	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	182374	448.62	ng/ml	100
30) Benzo(e)pyrene	12.74	252	159324	413.28	ng/ml	100
31) Benzo(a)pyrene	12.89	252	152446	390.47	ng/ml	99
32) Perylene	13.13	252	148401	407.89	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.33	276	141689	387.59	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	142576	394.04	ng/ml	95
35) Benzo(g,h,i)perylene	15.71	276	164181	394.14	ng/ml	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F009.D Vial: 9
Acq On : 1 Feb 2016 11:06 am Operator: LWeiskopf
Sample : KWG1600624-3 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration



0201F009.D 011116SIMPAH.M Tue Feb 02 12:02:10 2016 Page 2

Exception Report

Data File: J:\MS14\DATA\020116\0201F010.D
Lab ID: KWG1600624-4
RunType: DLCS
Matrix: WATER

Date Acquired: 02/01/2016 11:32
Date Quantitated: 02/02/2016 10:38
Batch ID: KWG1600877
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	

K88673

Primary Review: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:40:46
u:\Stealth\Crystal rpt\except2.rpt

Page 1 of 1

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F010.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 11:32	**Quant Date:**	02/02/2016 10:38	**Vial:**	10
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1600624-4			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	01/26/2016

Analysis Lot:	KWG1600877	**Prep Lot:**	KWG1600624	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1495844	**Prep Date:**	01/25/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\020116\0201F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\020116\0201F004.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	4.66	-0.03	136	65235	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	31026	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	57570	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	69575	200.00	OK
5	Perylene-d12	13.05	0.00	264	61663	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	6.71	0.00	0.00	176	66256	387.32	97	46-114	OK	
3	Fluoranthene-d10	8.50	0.00	0.00	212	125500	425.94	106	51-121	OK	
4	Terphenyl-d14	8.84	-0.01	0.00	244	96903	382.08	96	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	4.68	-0.01	0.00	128	140289	425.77	2.13		
1	2-Methylnaphthalene	5.35		0.00	142	89678	398.69	1.99		
1	1-Methylnaphthalene	5.44		0.00	142	77488	395.35	1.98		
1	Biphenyl	5.77		0.00	154	105794	388.61	1.94		
1	2,6-Dimethylnaphthalene	5.91		0.00	156	73617	393.23	1.97		
2	Acenaphthylene	6.14	-0.01	0.00	152	139154	436.18	2.18		
2	Acenaphthene	6.29		0.00	154	77433	425.38	2.13		
2	Dibenzofuran	6.44		0.00	168	119938	408.65	2.04		
2	2,3,5-Trimethylnaphthalene	6.62		0.00	170	74161	461.64	2.31		
2	Fluorene	6.73		0.00	166	96074	429.57	2.15		
3	Dibenzothiophene	7.42	-0.01	0.00	184	148072	440.50	2.20		
3	Phenanthrene	7.53		0.00	178	140295	415.78	2.08		
3	Anthracene	7.57		0.00	178	136938	435.00	2.18		

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\020116\0201F010.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 11:32	**Quant Date:**	02/02/2016 10:38	**Vial:**	10
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1600624-4			**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	7.71		0.00	167	133925	471.27	2.36		
3	1-Methylphenanthrene	8.04		0.00	192	110777	448.01	2.24		
3	Fluoranthene	8.51		0.00	202	170154	447.69	2.24		
4	Pyrene	8.70		0.00	202	177670	409.22	2.05		
4	Benz(a)anthracene	10.01		0.00	228	158931	389.98	1.95		
4	Chrysene	10.06	-0.01	0.00	228	163037	449.40	2.25		
5	Benzo(b)fluoranthene	12.03	-0.01	0.00	252	160745	408.14	2.04		
5	Benzo(k)fluoranthene	12.10	-0.01	0.00	252	176810	460.09	2.30		
5	Benzo(e)pyrene	12.74	-0.01	0.00	252	156366	429.08	2.15		
5	Benzo(a)pyrene	12.89		0.00	252	150390	407.50	2.04		
5	Perylene	13.13	-0.01	0.00	252	145010	421.64	2.11		
5	Indeno(1,2,3-cd)pyrene	15.33	-0.01	0.00	276	136740	395.70	1.98		
5	Dibenz(a,h)anthracene	15.39		0.00	278	139719	408.48	2.04		
5	Benzo(g,h,i)perylene	15.71	-0.01	0.00	276	158408	402.28	2.01		

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\020116\0201F010.D Vial: 10
Acq On : 1 Feb 2016 11:32 am Operator: LWeiskopf
Sample : KWG1600624-4 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:41 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

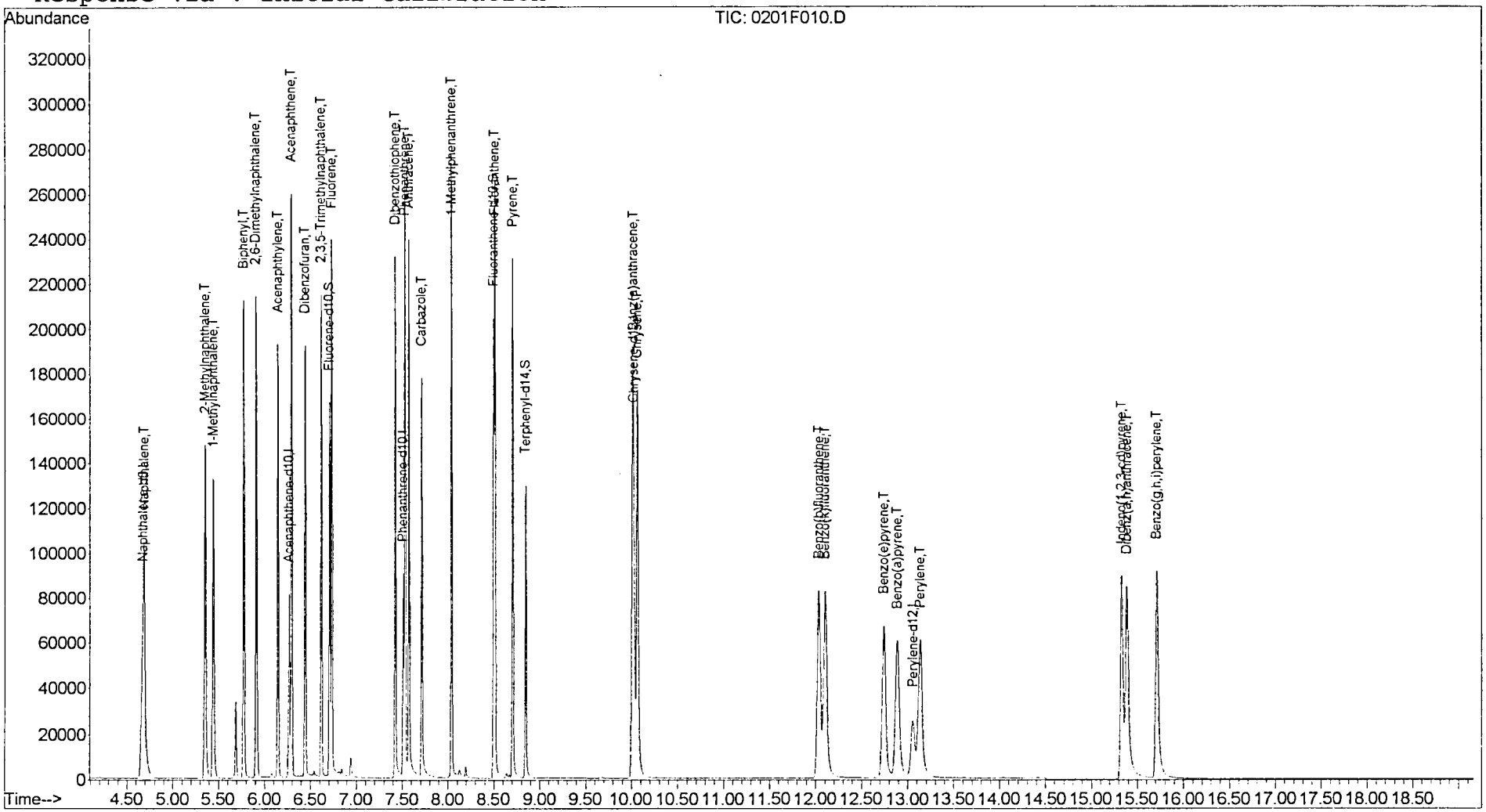
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	65235	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	31026	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	57570	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	69575	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	61663	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	66256	387.32	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.73%			
21) Fluoranthene-d10	8.50	212	125500	425.94	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.59%			
24) Terphenyl-d14	8.84	244	96903	382.08	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.21%			
Target Compounds						Qvalue
2) Naphthalene	4.68	128	140289	425.77	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	89678	398.69	ng/ml	99
4) 1-Methylnaphthalene	5.44	142	77488	395.35	ng/ml	99
5) Biphenyl	5.77	154	105794	388.61	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.91	156	73617	393.23	ng/ml	100
8) Acenaphthylene	6.14	152	139154	436.18	ng/ml	100
9) Acenaphthene	6.29	154	77433	425.38	ng/ml	98
10) Dibenzofuran	6.44	168	119938	408.65	ng/ml	93
11) 2,3,5-Trimethylnaphthalene	6.62	170	74161	461.64	ng/ml	98
13) Fluorene	6.73	166	96074	429.57	ng/ml	99
15) Dibenzothiophene	7.42	184	148072	440.50	ng/ml	99
16) Phenanthrene	7.53	178	140295	415.78	ng/ml	99
17) Anthracene	7.57	178	136938	435.00	ng/ml	99
18) Carbazole	7.71	167	133925	471.27	ng/ml	98
19) 1-Methylphenanthrene	8.04	192	110777	448.01	ng/ml	99
20) Fluoranthene	8.51	202	170154	447.69	ng/ml	99
23) Pyrene	8.70	202	177670	409.22	ng/ml	97
25) Benz(a)anthracene	10.01	228	158931	389.98	ng/ml	100
26) Chrysene	10.06	228	163037	449.40	ng/ml	100
28) Benzo(b)fluoranthene	12.03	252	160745	408.14	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	176810	460.09	ng/ml	100
30) Benzo(e)pyrene	12.74	252	156366	429.08	ng/ml	100
31) Benzo(a)pyrene	12.89	252	150390	407.50	ng/ml	98
32) Perylene	13.13	252	145010	421.64	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.33	276	136740	395.70	ng/ml	100
34) Dibenz(a,h)anthracene	15.39	278	139719	408.48	ng/ml	96
35) Benzo(g,h,i)perylene	15.71	276	158408	402.28	ng/ml	100

(#) = qualifier out of range (m) = manual integration
0201F010.D 011116SIMPAH.M Tue Feb 02 12:02:11 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F010.D Vial: 10
Acq On : 1 Feb 2016 11:32 am Operator: LWeiskopf
Sample : KWG1600624-4 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\020116

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0201F001.D	1.	DFTPP @ 3.0ug/mL | SVM52-13H		1 Feb 2016 07:13
2	2	0201F002.D	1.	Penta @ 10ug/mL | SVM52-26J		1 Feb 2016 07:46
3	3	0201F003.D	1.	SIM-PAH CCV @0.4ug/mL | SVM52-28G		1 Feb 2016 08:19
4	4	0201F004.D	1.	KWG1600624-5 MB		1 Feb 2016 08:50
5	5	0201F005.D	1.	KWG1600462-5 LOQ		1 Feb 2016 09:18
6	6	0201F006.D	1.	KWG1600348-1 LOQ		1 Feb 2016 09:45
7	7	0201F007.D	1.	KWG1600345-5 LOQ		1 Feb 2016 10:13
8	8	0201F008.D	1.	KWG1600345-4 LOD		1 Feb 2016 10:40
9	9	0201F009.D	1.	KWG1600624-3 LCS		1 Feb 2016 11:06
10	10	0201F010.D	1.	KWG1600624-4 DLCS		1 Feb 2016 11:32
11	11	0201F011.D	1.	K1600673-004MS		1 Feb 2016 11:58
12	12	0201F012.D	1.	K1600673-004DMS		1 Feb 2016 12:23
13	13	0201F013.D	1.	K1600673-004		1 Feb 2016 12:47
14	14	0201F014.D	1.	K1600673-001		1 Feb 2016 13:11
15	15	0201F015.D	1.	K1600673-002		1 Feb 2016 13:34
16	16	0201F016.D	1.	K1600673-003		1 Feb 2016 13:57
17	17	0201F017.D	1.	K1600673-005		1 Feb 2016 14:20
18	18	0201F018.D	1.	K1600673-006		1 Feb 2016 14:43
19	19	0201F019.D	1.	K1600673-007		1 Feb 2016 15:06
20	20	0201F020.D	1.	K1600673-008		1 Feb 2016 15:29
21	21	0201F021.D	1.	K1600673-009		1 Feb 2016 15:52
22	22	0201F022.D	1.	K1600673-010		1 Feb 2016 16:15
23	23	0201F023.D	1.	K1600673-011		1 Feb 2016 16:37
24	24	0201F024.D	1.	K1600673-012		1 Feb 2016 17:00
25	25	0201F025.D	1.	K1600673-013		1 Feb 2016 17:23
26	26	0201F026.D	1.	K1600673-014		1 Feb 2016 17:46
27	27	0201F027.D	1.	SIM-PAH CCV @0.4ug/mL | SVM52-28G		1 Feb 2016 18:09

CAL 14530
#R LIMS # 482299

FEB 0 2 2016

FEB 0 3 2016

FEB 0 3 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F001.D
Lab ID: KWG1600877-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 02/01/2016 07:13
Date Quantitated:
Batch ID: KWG1600877
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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:40:22
u:\Stealth\Crystal.rpt\except2.rpt

Page 1 of 1

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F001.D		**Instrument:** MS14
Acqu Date:	02/01/2016 07:13	**Quant Date:**	**Vial:** 1
Run Type:	DFTPP		**Dilution:** 1.0
Lab ID:	KWG1600877-1		**Soln Conc. Units:**

Bottle ID:		**Tier:**	**Matrix:** WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	**Receive Date:** 02/02/2016

Analysis Lot:	KWG1600877	**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	38.9	113320	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	41.7	121436	Pass
70	69	0	2	0.8	982	Pass
127	198	10	80	45.4	132472	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	60.4	291557	Pass
199	198	5	9	6.8	19838	Pass
275	198	10	60	33.0	96258	Pass
365	442	1	50	2.6	12594	Pass
441	443	0.01	100	76.6	71349	Pass
442	442	100	100	100.0	482861	Pass
443	442	15	24	19.3	93165	Pass

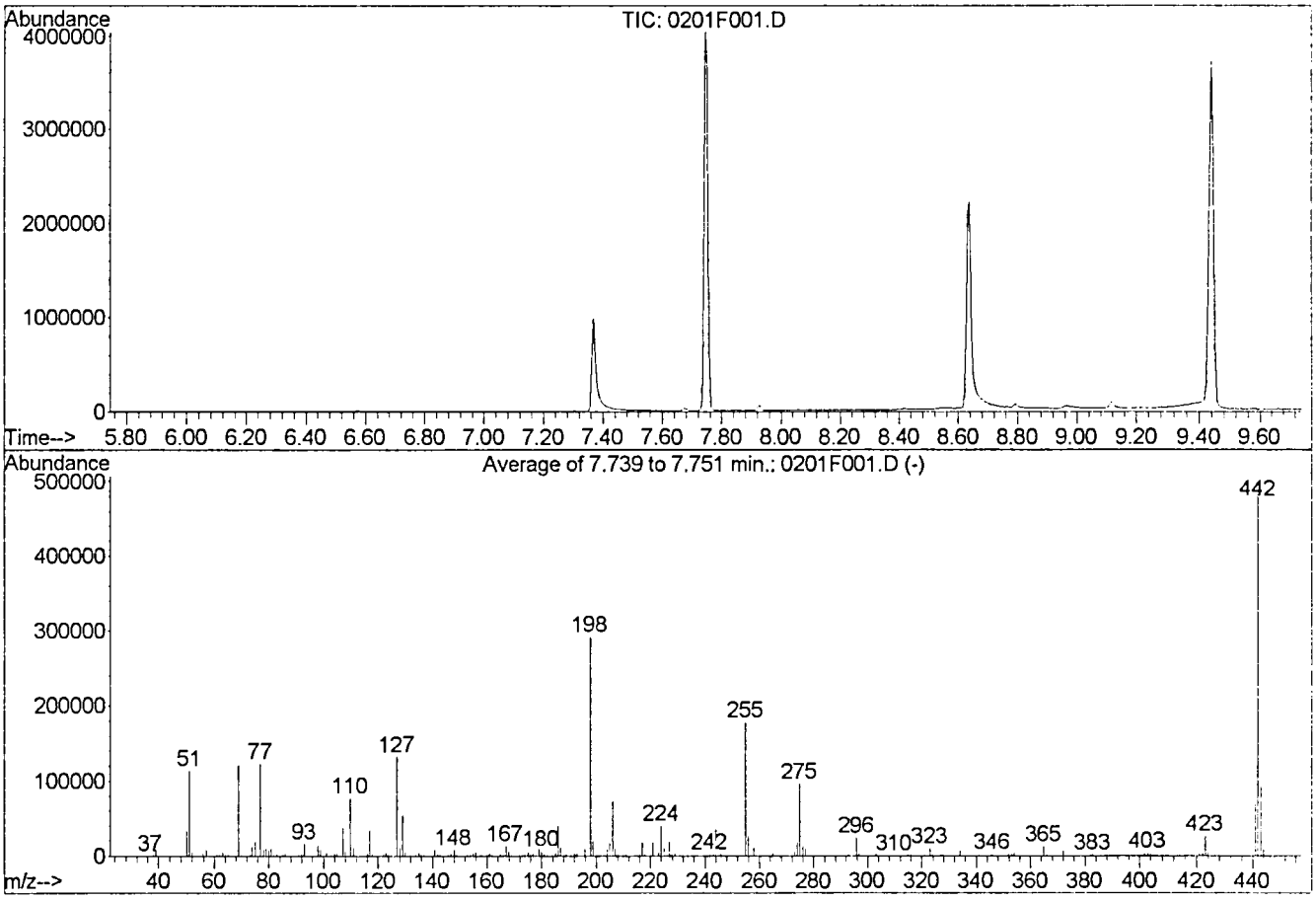
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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\020116\0201F001.D
Acq On : 1 Feb 2016 7:13 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 621, 622, 623; Background Corrected with Scan 616

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	38.9	113320	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.7	121436	PASS
70	69	0.00	2	0.8	982	PASS
127	198	10	80	45.4	132472	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	60.4	291557	PASS
199	198	5	9	6.8	19838	PASS
275	198	10	60	33.0	96258	PASS
365	442	1	50	2.6	12594	PASS
441	443	0.01	100	76.6	71349	PASS
442	442	30	100	100.0	482861	PASS
443	442	15	24	19.3	93165	PASS

0201F001.D A_DFTPP.M Tue Feb 02 10:37:03 2016

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	110	47.95	272	59.00	102	69.90	982
37.00	756	50.00	33672	59.95	62	70.95	185
38.05	2137	51.00	113320	61.00	1721	72.10	73
38.95	8876	52.00	5673	61.95	1863	73.15	1617
39.90	416	53.05	428	63.00	4649	74.00	13199
41.00	280	54.00	161	63.95	682	75.00	19240
41.95	110	54.30	125	65.05	2240	76.10	1655
43.00	162	55.00	1088	65.80	147	76.95	122670
43.90	318	55.95	3864	66.20	125	78.00	8571
44.90	294	57.00	7577	67.20	306	79.00	10279
46.90	64	57.95	443	68.90	121436	79.95	7653

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.90	9871	92.90	15757	104.95	3628	116.90	34150
81.90	2302	93.95	1114	106.90	37799	117.90	2367
82.95	2206	94.95	390	107.95	6443	118.95	461
83.95	205	96.00	719	109.90	77053	119.95	610
84.95	2010	97.90	13467	110.85	10688	121.00	270
85.95	3043	98.95	8764	111.95	1506	121.95	3131
86.90	1189	99.90	839	112.95	528	122.95	4299
87.90	478	100.90	4789	114.00	77	124.00	1908
88.90	204	101.95	276	114.90	210	124.95	1841
90.90	2485	102.90	2183	115.10	131	126.95	132472
91.95	2899	103.90	3790	116.05	3154	128.00	11321

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.90	54498	139.20	63	148.90	1645	159.90	2294
129.90	4983	139.90	883	149.95	474	160.90	3301
130.95	998	140.90	8086	150.95	1046	161.95	981
132.00	601	141.95	2383	151.90	676	162.90	358
132.90	264	142.90	1756	152.90	2228	163.80	172
133.90	1888	143.90	188	153.90	1802	164.00	246
134.95	4528	144.10	195	154.95	3980	164.85	2815
135.95	1782	144.95	404	155.95	5756	165.95	2214
136.95	2349	146.00	1732	156.95	1327	166.90	13248
137.95	527	146.90	3920	157.90	1476	167.90	5735
138.80	402	147.90	8204	158.90	1111	168.95	1065

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.90	575	180.90	2971	191.90	3153	205.00	17455
170.95	826	181.95	537	192.95	3520	206.00	73138
171.90	1376	182.95	324	193.95	701	207.00	9488
172.90	1686	183.95	966	194.80	91	207.90	2687
173.95	2865	184.90	4997	195.90	9474	208.90	782
174.95	5281	186.00	40194	197.90	291557	209.95	1128
176.00	1552	186.95	11236	198.90	19838	210.95	2959
176.90	2970	187.95	1238	199.90	1505	212.95	322
178.00	1061	188.90	2932	201.45	1521	213.80	52
178.90	10113	189.90	440	202.95	2061	214.95	906
179.95	6394	190.90	1172	204.00	9669	215.95	1686

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.90	17941	228.90	3549	238.85	712	248.95	1287
217.90	2432	229.95	614	239.85	579	249.80	69
218.95	293	230.90	1514	240.90	1151	249.95	191
219.90	50	231.95	247	241.90	2137	250.85	286
220.90	16695	232.80	70	243.00	2759	251.85	284
222.95	4296	232.95	368	244.00	34391	252.95	835
224.00	40134	233.90	971	244.95	4760	254.90	177576
225.00	10567	234.90	1277	245.90	6835	255.90	26019
226.00	1074	235.90	873	246.90	1488	256.90	2112
226.90	17592	236.90	1408	247.80	128	257.90	10339
227.90	2553	237.90	222	248.00	152	258.90	1616

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.90	355	272.90	5818	284.90	1304	296.90	3345
260.90	346	273.90	16894	286.00	231	297.85	240
262.90	133	274.90	96258	288.00	58	300.90	230
263.80	415	275.90	12904	288.95	311	302.00	435
264.90	4072	276.90	8230	289.95	244	302.95	2964
265.85	585	277.90	1107	290.85	158	303.95	967
267.00	93	278.95	275	291.95	373	304.90	52
267.80	87	280.90	54	292.95	1689	307.95	424
269.85	388	281.85	200	293.90	409	308.90	288
270.90	403	282.90	783	295.10	516	309.95	340
271.90	624	283.90	585	295.90	24196	311.90	81

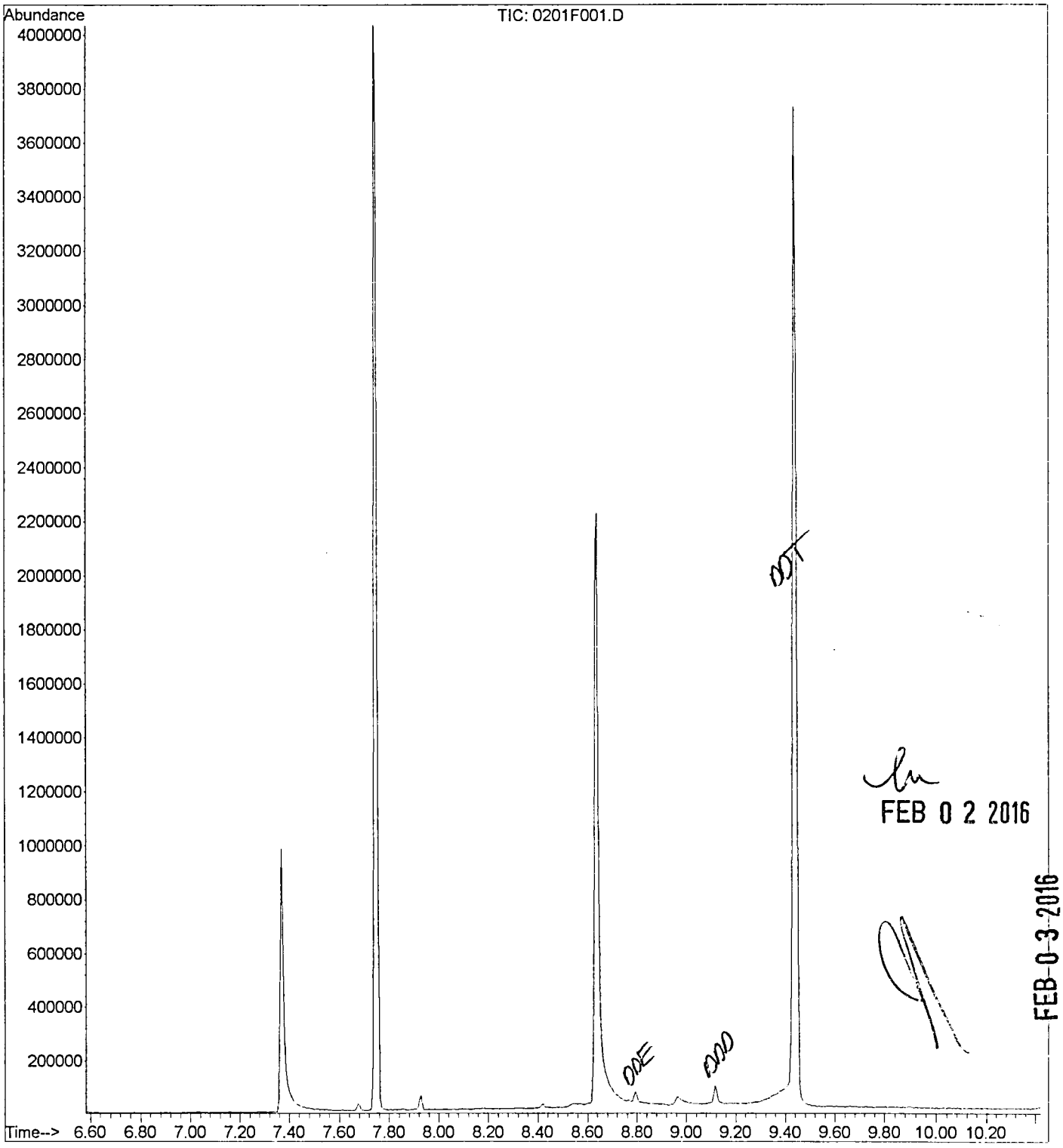
Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
312.95	225	325.90	162	340.90	1084	358.90	199
314.00	1400	326.90	1491	341.85	272	364.90	12594
314.90	2723	327.90	1016	345.90	2007	365.90	2002
315.95	1782	328.85	168	346.85	352	366.90	51
316.95	293	331.95	639	349.80	53	369.90	175
320.00	51	332.95	1013	350.85	209	370.10	111
320.90	983	334.00	6013	351.20	63	370.80	51
321.95	565	334.90	1688	351.90	2782	370.95	878
323.00	9736	335.90	233	353.00	2316	372.00	6117
323.95	1757	338.90	77	354.00	3653	373.00	1457
324.80	102	339.95	186	354.90	751	373.90	172

Average of 7.739 to 7.751 min.: 0201F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
376.90	90	404.95	192	442.00	482861		
382.90	1662	410.10	62	443.00	93165		
383.90	467	414.85	166	444.00	8487		
385.10	83	420.10	62	444.95	435		
389.90	821	420.90	3103				
390.90	547	422.00	3467				
391.95	463	423.00	26880				
400.85	366	423.90	5546				
401.90	2506	424.90	402				
402.90	3818	439.20	125				
403.90	1426	441.00	71349				

File : J:\MS14\DATA\020116\0201F001.D
Operator : LWeiskopf
Acquired : 1 Feb 2016 7:13 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 3.0ug/mL | SVM52-13H
Misc Info :
Vial Number: 1



1	4.887	rVB	0.047		4332	4.857	4.904
2	4.910	rBV	0.024		2446	4.904	4.928
3	5.640	rVB	0.041		2021	5.628	5.669
4	5.928	rVB	0.065		4281	5.887	5.951
5	6.063	rVB	0.053		4454	6.028	6.081
6	6.269	rBV	0.047		2885	6.240	6.287
7	6.381	rBV	0.041		2567	6.351	6.393
8	6.575	rBV	0.065		14220	6.545	6.610
9	6.628	rVB	0.053		2600	6.610	6.663
10	7.034	rVB	0.059		6826	7.016	7.075
11	7.116	rBV	0.047		4268	7.075	7.122
12	7.369	rBV	0.153		1125513	7.345	7.498
13	7.675	rBV	0.059		23395	7.651	7.710
14	7.745	rBV	0.082		3456931	7.710	7.792
15	7.928	rVB	0.053		45938	7.898	7.951
16	8.422	rVB	0.053		15169	8.404	8.457
17	8.545	rBV	0.065		39919	8.516	8.581
18	8.639	rVV	0.147		2737816	8.610	8.757
19	8.792	rVB	0.076	ODE	57029	8.775	8.851
20	8.963	rBV	0.094		68189	8.945	9.039
21	9.116	rVB	0.071	OOD	68983	9.092	9.163
22	9.439	rVB	0.124	OOT	3947715	9.404	9.528
23	11.869	rVB	0.094		28053	11.845	11.939
24	12.880	rVB	0.082		36361	12.857	12.939
25	14.033	rBV	0.100		68826	13.992	14.092
26	14.780	rBV	0.076		85152	14.751	14.827

ODT Breakdown - 32 /

126012 / 4073727

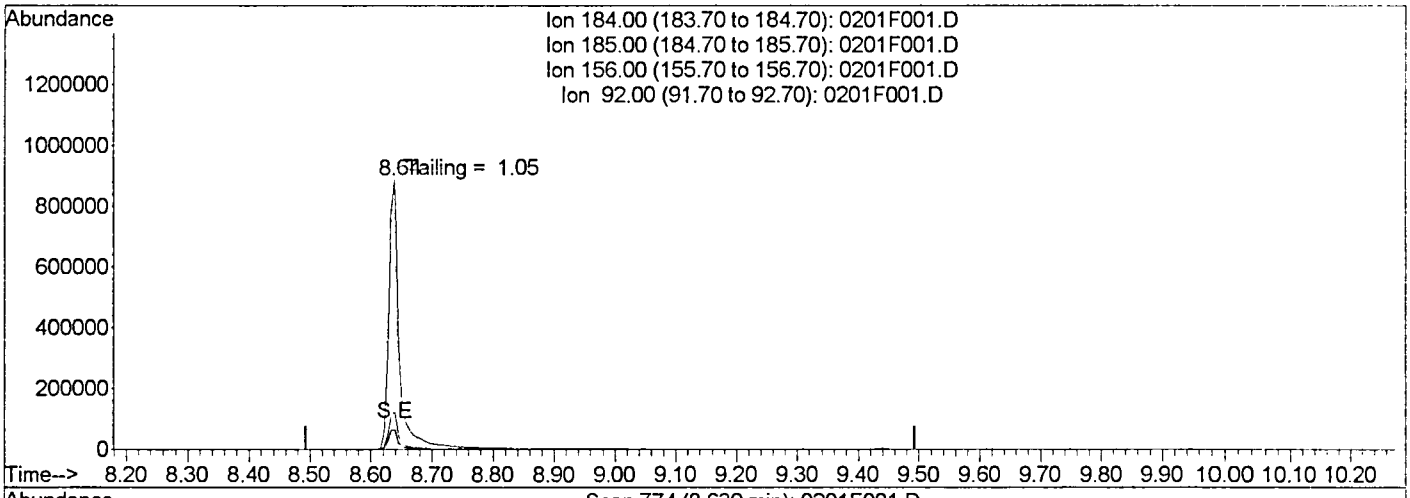
FEB 0 2 2016

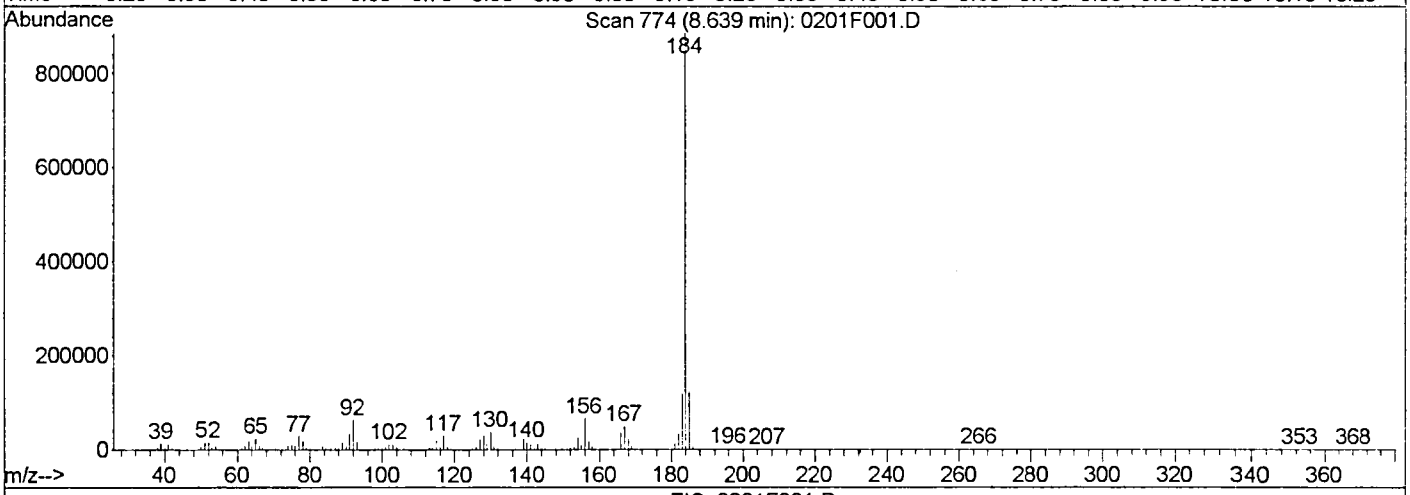
FEB 0 3 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F001.D Vial: 1
Acq On : 1 Feb 2016 7:13 am Operator: LWeiskopf
Sample : DFTPP @ 3.0ug/mL | SVM52-13H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 2 10:37 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: 0201F001.D

(3) Benzidine (T)

8.64min 19.12ug/ml m

response 1101901

Ion	Exp%	Act%
184.00	100	100
185.00	28.30	13.96
156.00	6.00	7.52
92.00	5.30	7.12

FEB 0 2 2016

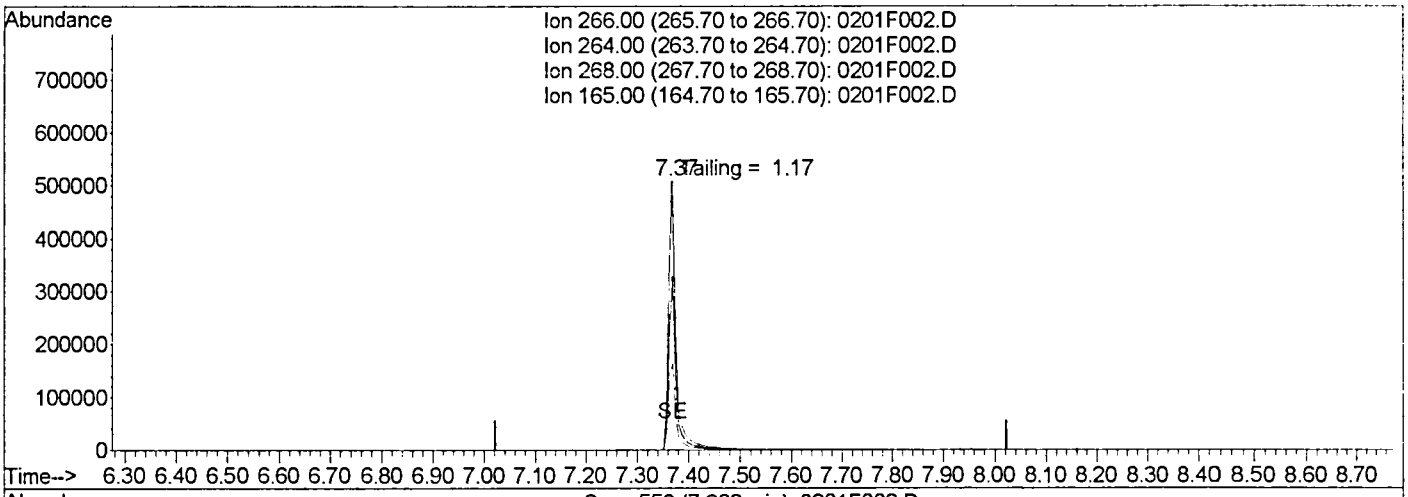
FEB 0 3 2016

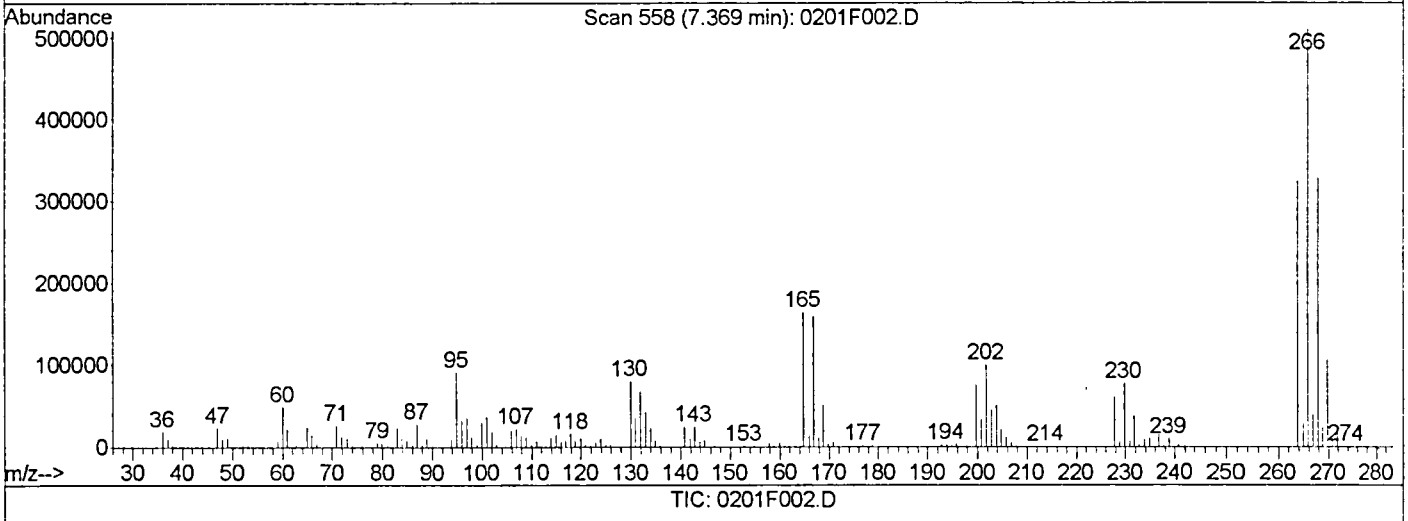
0201F001.D A_DFTPP.M Tue Feb 02 10:37:21 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F002.D Vial: 2
Acq On : 1 Feb 2016 7:46 am Operator: LWeiskopf
Sample : Penta @ 10ug/mL | SVM52-26J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 1 8:06 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: 0201F002.D

(1) Pentachlorophenol

7.37min 22.52ng/ml

response 518194

Ion	Exp%	Act%
266.00	100	100
264.00	63.70	63.78
268.00	63.30	64.49
165.00	71.50	32.22#

FEB 0 2 2016

FEB 0 3 2016

0201F002.D A_DFTPP.M Tue Feb 02 10:37:47 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F003.D
Lab ID: KWG1600877-2
RunType: CCV
Matrix: WATER

Date Acquired: 02/01/2016 08:19
Date Quantitated: 02/02/2016 10:38
Batch ID: KWG1600877
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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:40:25
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F003.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 08:19	**Quant Date:**	02/02/2016 10:38	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600877-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	02/02/2016

Analysis Lot:	KWG1600877	**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\020116\0201F001.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	4.66	-0.03	136	78101	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	36942	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	71222	200.00	OK
4	Chrysene-d12	10.03	0.00	240	84773	200.00	OK
5	Perylene-d12	13.06	0.01	264	77658	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	6.71			176	77427	380.14		46-114	NA
3	Fluoranthene-d10	8.50			212	150334	412.42		51-121	NA
4	Terphenyl-d14	8.85			244	117633	380.67		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	4.69			128	158920	402.86			
1	2-Methylnaphthalene	5.35			142	102544	380.79			
1	1-Methylnaphthalene	5.44			142	87598	373.31			
1	Biphenyl	5.77			154	119120	365.48			
1	2,6-Dimethylnaphthalene	5.91			156	84382	376.48			
2	Acenaphthylene	6.15			152	148786	391.69			
2	Acenaphthene	6.29			154	85457	394.28			
2	Dibenzofuran	6.44			168	132567	379.34			
2	2,3,5-Trimethylnaphthalene	6.62			170	75350	393.93			
2	Fluorene	6.73			166	102823	386.12			
3	Dibenzothiophene	7.43			184	162693	391.22			
3	Phenanthrene	7.53			178	153911	368.70			
3	Anthracene	7.57			178	156956	403.02			

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\020116\0201F003.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 08:19	**Quant Date:**	02/02/2016 10:38	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600877-2			**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	7.71			167	144620	411.35			
3	1-Methylphenanthrene	8.04			192	121327	396.62			
3	Fluoranthene	8.51			202	186206	396.02			
4	Pyrene	8.70			202	200792	379.57			
4	Benz(a)anthracene	10.01			228	183048	368.64			
4	Chrysene	10.07			228	180630	408.63			
5	Benzo(b)fluoranthene	12.04			252	190611	384.29			
5	Benzo(k)fluoranthene	12.11			252	204812m	423.19			
5	Benzo(e)pyrene	12.75			252	179068	390.16			
5	Benzo(a)pyrene	12.89			252	179089	385.31			
5	Perylene	13.14			252	164075	378.81			
5	Indeno(1,2,3-cd)pyrene	15.34			276	180433	414.59			
5	Dibenz(a,h)anthracene	15.39			278	173374	402.48			
5	Benzo(g,h,i)perylene	15.72			276	192716	388.61			

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 (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F003.D Vial: 3
Acq On : 1 Feb 2016 8:19 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 01 08:40:03 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jan 28 05:17:55 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

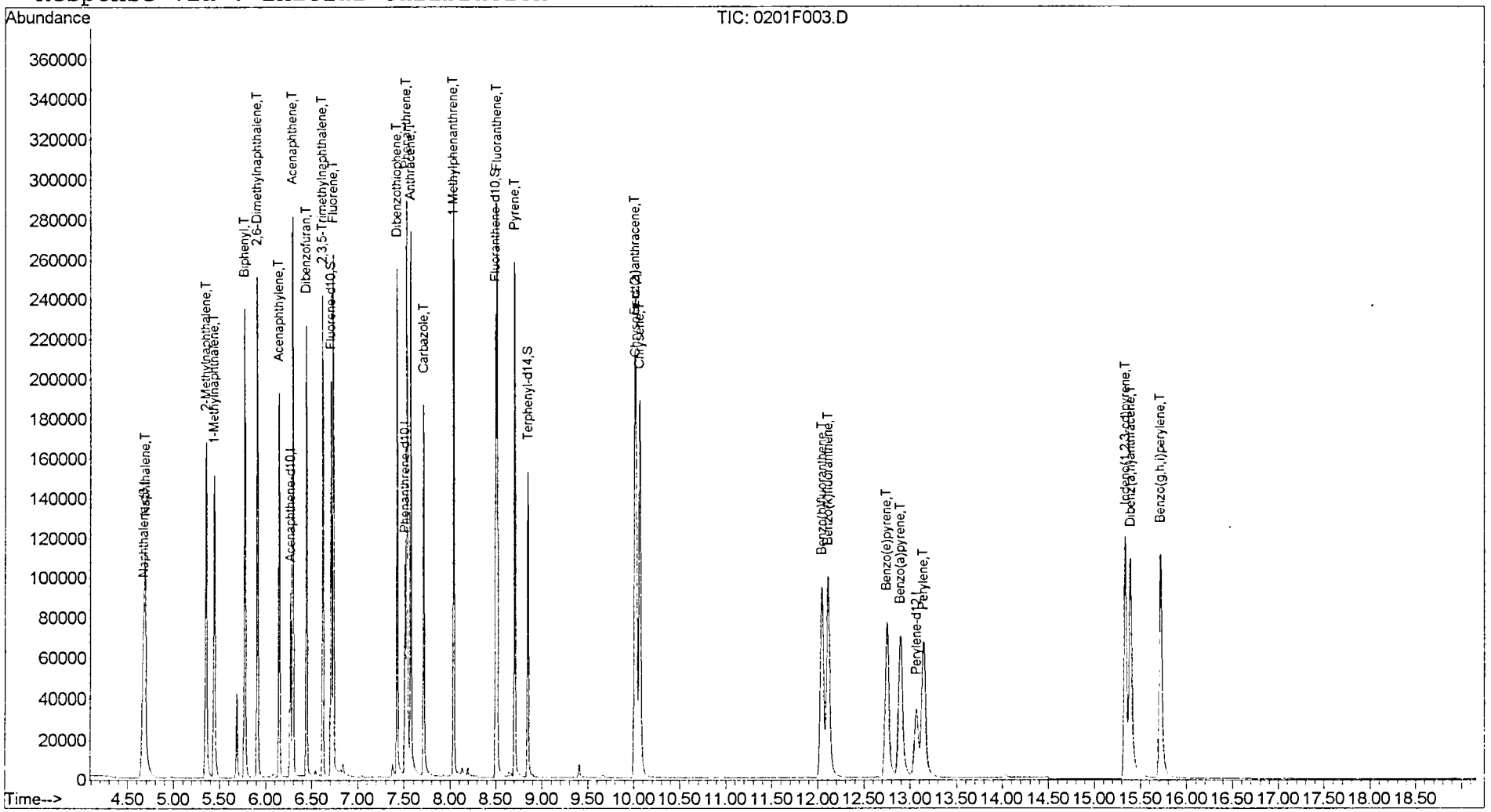
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.66	136	78101	200.00	ng/ml	-0.04
7) Acenaphthene-d10	6.27	164	36942	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	71222	200.00	ng/ml	-0.02
22) Chrysene-d12	10.03	240	84773	200.00	ng/ml	-0.03
27) Perylene-d12	13.06	264	77658	200.00	ng/ml	-0.04
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	77427	380.14	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.01%			
21) Fluoranthene-d10	8.50	212	150334	412.42	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.24%			
24) Terphenyl-d14	8.85	244	117633	380.67	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.07%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	158920	402.86	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	102544	380.79	ng/ml	99
4) 1-Methylnaphthalene	5.44	142	87598	373.31	ng/ml	100
5) Biphenyl	5.77	154	119120	365.48	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.91	156	84382	376.48	ng/ml	99
8) Acenaphthylene	6.15	152	148786	391.69	ng/ml	100
9) Acenaphthene	6.29	154	85457	394.28	ng/ml	98
10) Dibenzofuran	6.44	168	132567	379.34	ng/ml	98
11) 2,3,5-Trimethylnaphthalene	6.62	170	75350	393.93	ng/ml	96
13) Fluorene	6.73	166	102823	386.12	ng/ml	100
15) Dibenzothiophene	7.43	184	162693	391.22	ng/ml	99
16) Phenanthrene	7.53	178	153911	368.70	ng/ml	100
17) Anthracene	7.57	178	156956	403.02	ng/ml	99
18) Carbazole	7.71	167	144620	411.35	ng/ml	99
19) 1-Methylphenanthrene	8.04	192	121327	396.62	ng/ml	100
20) Fluoranthene	8.51	202	186206	396.02	ng/ml	99
23) Pyrene	8.70	202	200792	379.57	ng/ml	95
25) Benz(a)anthracene	10.01	228	183048	368.64	ng/ml	100
26) Chrysene	10.07	228	180630	408.63	ng/ml	100
28) Benzo(b)fluoranthene	12.04	252	190611	384.29	ng/ml	100
29) Benzo(k)fluoranthene	12.11	252	204812m	423.19	ng/ml	
30) Benzo(e)pyrene	12.75	252	179068	390.16	ng/ml	100
31) Benzo(a)pyrene	12.89	252	179089	385.31	ng/ml	100
32) Perylene	13.14	252	164075	378.81	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.34	276	180433	414.59	ng/ml	100
34) Dibenz(a,h)anthracene	15.39	278	173374	402.48	ng/ml	100
35) Benzo(g,h,i)perylene	15.72	276	192716	388.61	ng/ml	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F003.D Vial: 3
Acq On : 1 Feb 2016 8:19 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: 011116SIMPAH.RES

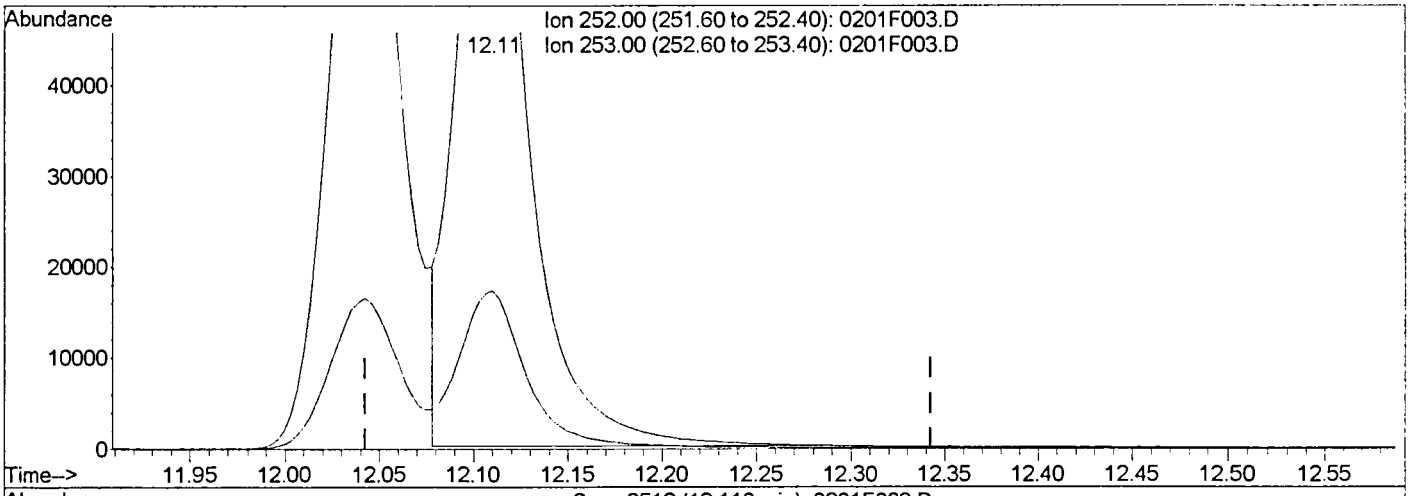
Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration

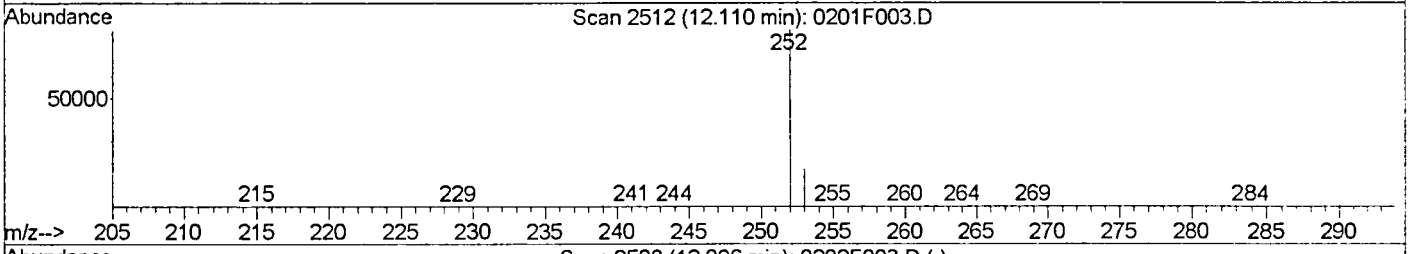


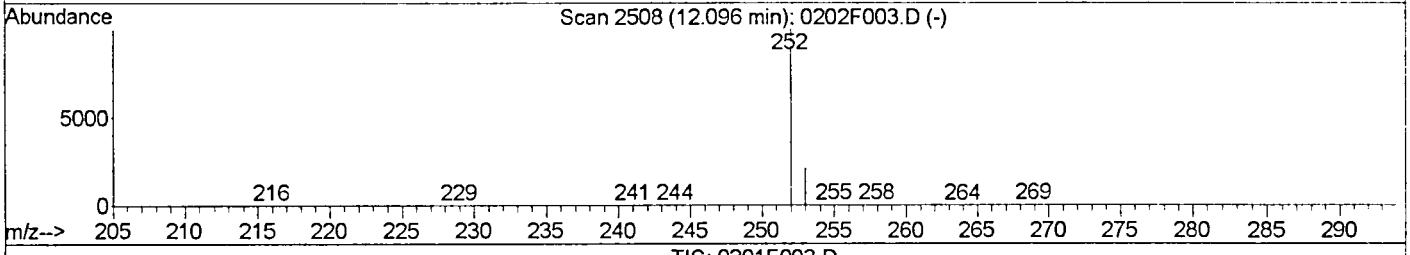
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F003.D Vial: 3
Acq On : 1 Feb 2016 8:19 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 1 8:39 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jan 28 05:17:55 2016
Response via : Multiple Level Calibration







TIC: 0201F003.D

(29) Benzo(k)fluoranthene (T)

12.11min 413.93ng/ml

response 200331

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	21.31
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/02/16

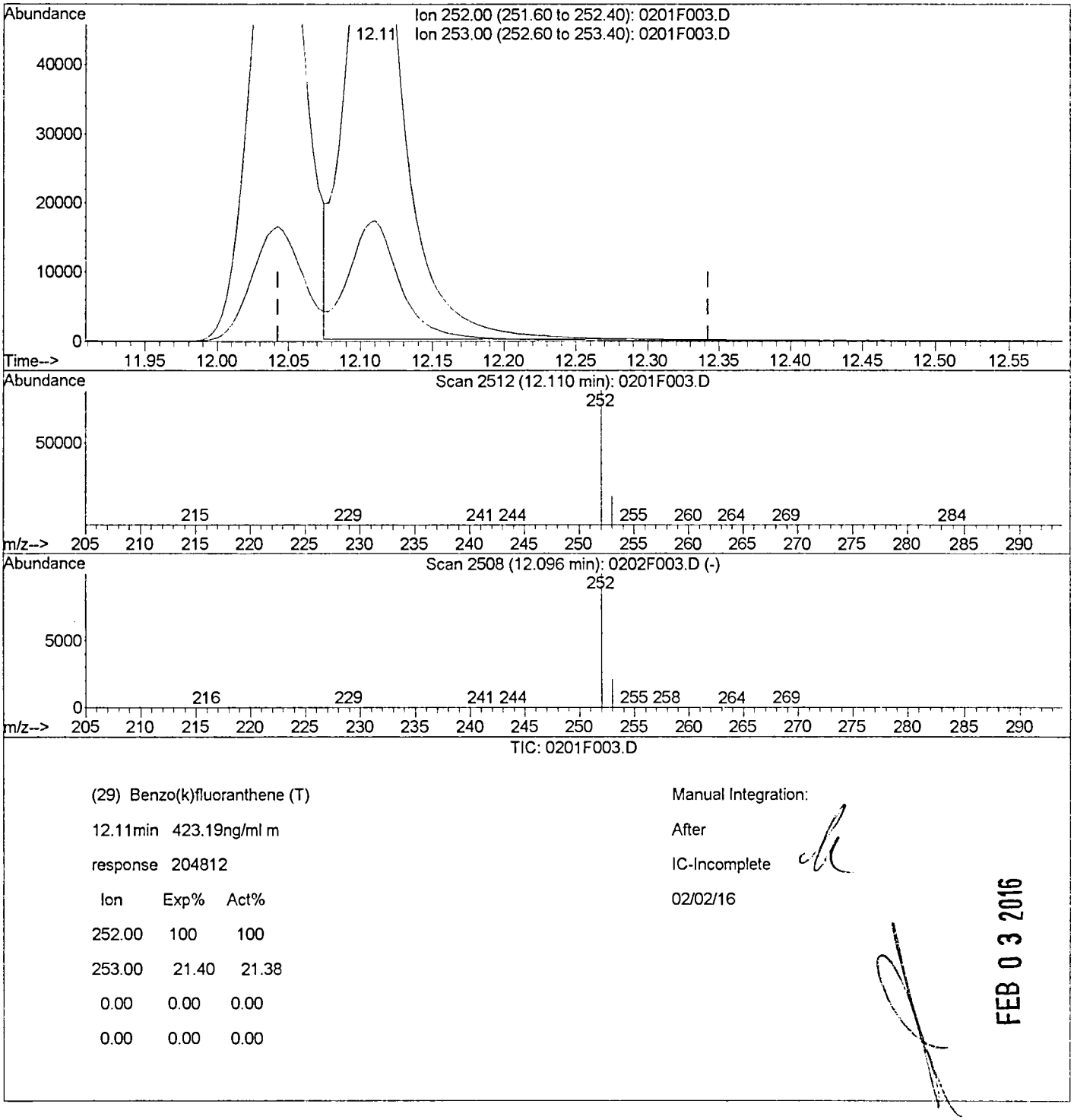
FEB 03 2016

0201F003.D 011116SIMPAH.M Tue Feb 02 10:38:10 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020116\0201F003.D Vial: 3
Acq On : 1 Feb 2016 8:19 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jan 28 05:17:55 2016
Response via : Multiple Level Calibration



TIC: 0201F003.D

(29) Benzo(k)fluoranthene (T)

12.11min 423.19ng/ml m

response 204812

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	21.38
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

02/02/16

FEB 03 2016

0201F003.D 011116SIMPAH.M Tue Feb 02 10:38:16 2016

Exception Report

Data File: J:\MS14\DATA\020116\0201F027.D
Lab ID: KWG1600877-3
RunType: CCVA
Matrix: WATER

Date Acquired: 02/01/2016 18:09
Date Quantitated: 02/02/2016 10:38
Batch ID: KWG1600877
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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 12:41:37
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020116\0201F027.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 18:09	**Quant Date:**	02/02/2016 10:38	**Vial:**	27
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600877-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	02/02/2016

Analysis Lot:	KWG1600877	**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\020116\0201F001.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	4.67	-0.02	136	59077	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	28780	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	56838	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	69840	200.00	OK
5	Perylene-d12	13.04	-0.01	264	63251	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	6.71			176	60676	382.38		46-114	NA	
3	Fluoranthene-d10	8.50			212	121670	418.26		51-121	NA	
4	Terphenyl-d14	8.84			244	96737	379.98		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	4.69			128	121916	408.58			
1	2-Methylnaphthalene	5.35			142	79135	388.49			
1	1-Methylnaphthalene	5.44			142	68611	386.55			
1	Biphenyl	5.77			154	92991	377.19			
1	2,6-Dimethylnaphthalene	5.91			156	65239	384.81			
2	Acenaphthylene	6.14			152	115862	391.52			
2	Acenaphthene	6.29			154	67861	401.89			
2	Dibenzofuran	6.44			168	105396	387.13			
2	2,3,5-Trimethylnaphthalene	6.62			170	58533	392.79			
2	Fluorene	6.73			166	82476	397.55			
3	Dibenzothiophene	7.42			184	129379	389.84			
3	Phenanthrene	7.53			178	123276	370.05			
3	Anthracene	7.57			178	125530	403.89			

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

Data File:	J:\MS14\DATA\020116\0201F027.D			**Instrument:**	MS14
Acqu Date:	02/01/2016 18:09	**Quant Date:**	02/02/2016 10:38	**Vial:**	27
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600877-3			**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	7.71			167	116642	415.74			
3	1-Methylphenanthrene	8.04			192	97868	400.90			
3	Fluoranthene	8.51			202	151741	404.39			
4	Pyrene	8.70			202	164203	376.77			
4	Benz(a)anthracene	10.01			228	145945	356.76			
4	Chrysene	10.06			228	149625	410.86			
5	Benzo(b)fluoranthene	12.03			252	153908	380.97			
5	Benzo(k)fluoranthene	12.10			252	164188	416.52			
5	Benzo(e)pyrene	12.73			252	141993	379.85			
5	Benzo(a)pyrene	12.88			252	140846	372.05			
5	Perylene	13.12			252	131022	371.40			
5	Indeno(1,2,3-cd)pyrene	15.32			276	135110	381.16			
5	Dibenz(a,h)anthracene	15.38			278	139115	396.51			
5	Benzo(g,h,i)perylene	15.70			276	158337	392.01			

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F027.D Vial: 27
Acq On : 1 Feb 2016 6:09 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 10:38:46 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

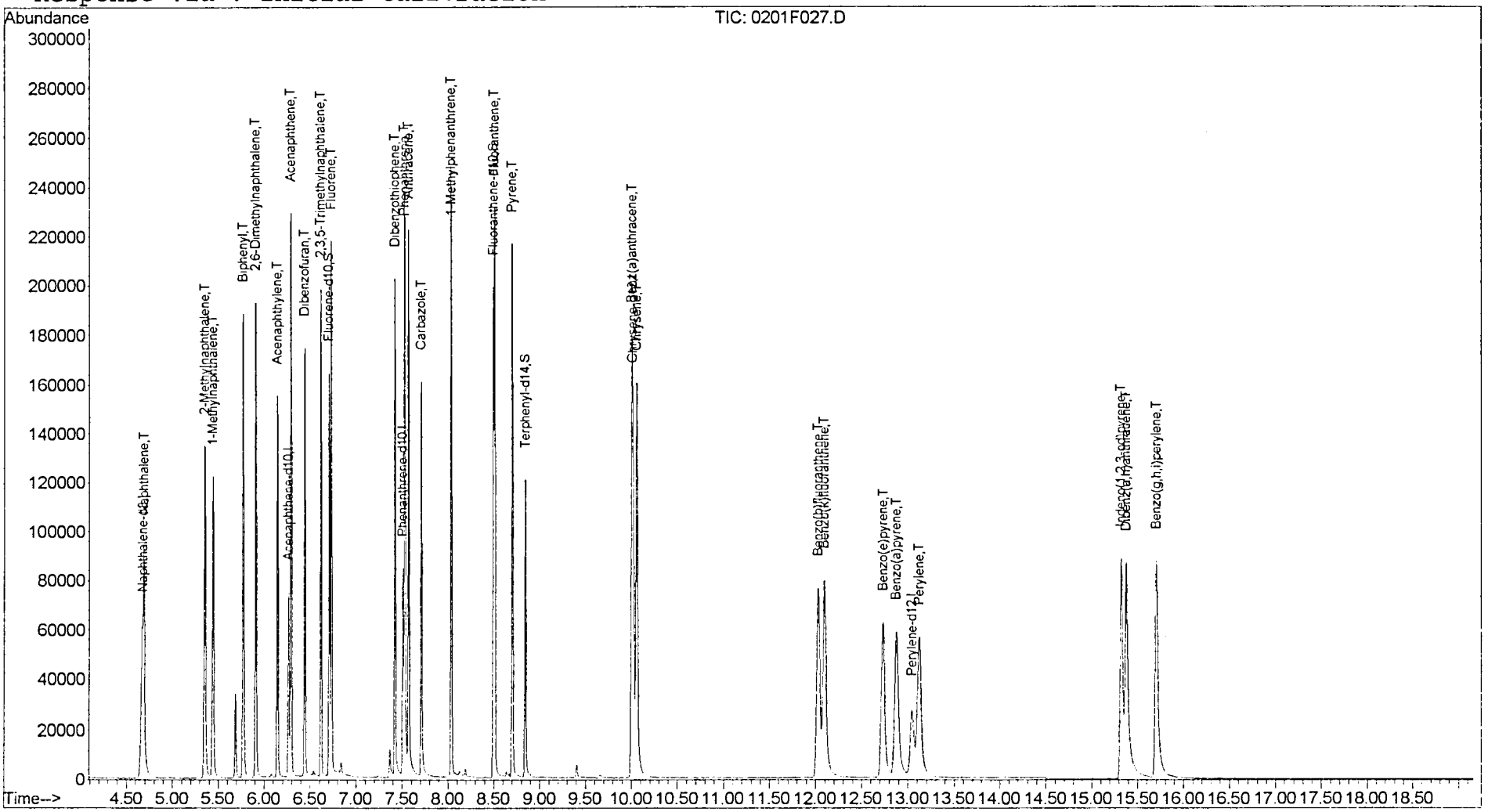
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	59077	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	28780	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	56838	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	69840	200.00	ng/ml	-0.03
27) Perylene-d12	13.04	264	63251	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	60676	382.38	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.24%			
21) Fluoranthene-d10	8.50	212	121670	418.26	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.83%			
24) Terphenyl-d14	8.84	244	96737	379.98	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.00%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	121916	408.58	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	79135	388.49	ng/ml	100
4) 1-Methylnaphthalene	5.44	142	68611	386.55	ng/ml	99
5) Biphenyl	5.77	154	92991	377.19	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.91	156	65239	384.81	ng/ml	100
8) Acenaphthylene	6.14	152	115862	391.52	ng/ml	100
9) Acenaphthene	6.29	154	67861	401.89	ng/ml	98
10) Dibenzofuran	6.44	168	105396	387.13	ng/ml	94
11) 2,3,5-Trimethylnaphthalene	6.62	170	58533	392.79	ng/ml	97
13) Fluorene	6.73	166	82476	397.55	ng/ml	99
15) Dibenzothiophene	7.42	184	129379	389.84	ng/ml	100
16) Phenanthrene	7.53	178	123276	370.05	ng/ml	99
17) Anthracene	7.57	178	125530	403.89	ng/ml	99
18) Carbazole	7.71	167	116642	415.74	ng/ml	99
19) 1-Methylphenanthrene	8.04	192	97868	400.90	ng/ml	99
20) Fluoranthene	8.51	202	151741	404.39	ng/ml	100
23) Pyrene	8.70	202	164203	376.77	ng/ml	95
25) Benz(a)anthracene	10.01	228	145945	356.76	ng/ml	100
26) Chrysene	10.06	228	149625	410.86	ng/ml	100
28) Benzo(b)fluoranthene	12.03	252	153908	380.97	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	164188	416.52	ng/ml	100
30) Benzo(e)pyrene	12.73	252	141993	379.85	ng/ml	100
31) Benzo(a)pyrene	12.88	252	140846	372.05	ng/ml	100
32) Perylene	13.12	252	131022	371.40	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.32	276	135110	381.16	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	139115	396.51	ng/ml	89
35) Benzo(g,h,i)perylene	15.70	276	158337	392.01	ng/ml	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020116\0201F027.D Vial: 27
Acq On : 1 Feb 2016 6:09 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 10:38 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 10:38:24 2016
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\020216

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0202F001.D	1.	DFTPP @ 3.0ug/mL | SVM52-13H	2/2/16	2 Feb 2016 05:2
2	2	0202F002.D	1.	~~SIM-PAH CCV @0.4ug/mL | SVM52-28G~~ NR-not used	10 ppm Penta SVM52-26J	2 Feb 2016 05:4
3	3	0202F003.D	1.	SIM-PAH CCV @0.4ug/mL | SVM52-28G		2 Feb 2016 06:1
4	4	0202F004.D	1.	KWG1600619-3 MB		2 Feb 2016 06:3
5	5	0202F005.D	1.	K1600673-011DIL 5X		2 Feb 2016 06:5
6	6	0202F006.D	1.	KWG1600619-1 LCS		2 Feb 2016 07:21
7	7	0202F007.D	1.	KWG1600619-2 DLCS		2 Feb 2016 07:4
8	8	0202F008.D	1.	K1600628-001		2 Feb 2016 08:0
9	9	0202F009.D	1.	K1600673-011DIL 50X (NR)		2 Feb 2016 08:3
10	10	0202F010.D	1.	K1600673-011DIL 50X		2 Feb 2016 08:57
11	2	0202F011.D	1.	SIM-PAH CCV @0.4ug/mL | SVM52-28G		2 Feb 2016 09:1

CAL 14530

~~LIMS~~ LIMS# 482285

2/2/16

FEB 0 2 2016

FEB 0 3 2016

DILUTION LOG MS 14

Date: 2/2/16 Prepared by: LWeiskopf Solvent Lot #: DN070

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1600673-11	200ul	1.0mL	5X	
1 -11	20ul	1	50X	
K1600673-11	20ul	1.0mL	50X	

2/2/16

FEB 03 2016

Exception Report

Data File: J:\MS14\DATA\020216\0202F001.D
Lab ID: KWG1600865-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 02/02/2016 05:26
Date Quantitated:
Batch ID: KWG1600865
Analysis Method: DFTPP
ListJoinID: LJ1965

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

FEB 0 2 2016
Primary Review:
FEB 0 3 2016
Secondary Review:

Printed: 02/02/2016 10:25:38
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020216\0202F001.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 05:26	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP			**Dilution:**	1.0
Lab ID:	KWG1600865-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	02/02/2016

Analysis Lot:	KWG1600865	**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	39.5	88746	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	41.8	93928	Pass
70	69	0	2	0.6	563	Pass
127	198	10	80	45.1	101285	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	53.4	224496	Pass
199	198	5	9	6.9	15400	Pass
275	198	10	60	33.9	76136	Pass
365	442	1	50	2.7	11504	Pass
441	443	0.01	100	77.0	62786	Pass
442	442	100	100	100.0	420245	Pass
443	442	15	24	19.4	81568	Pass

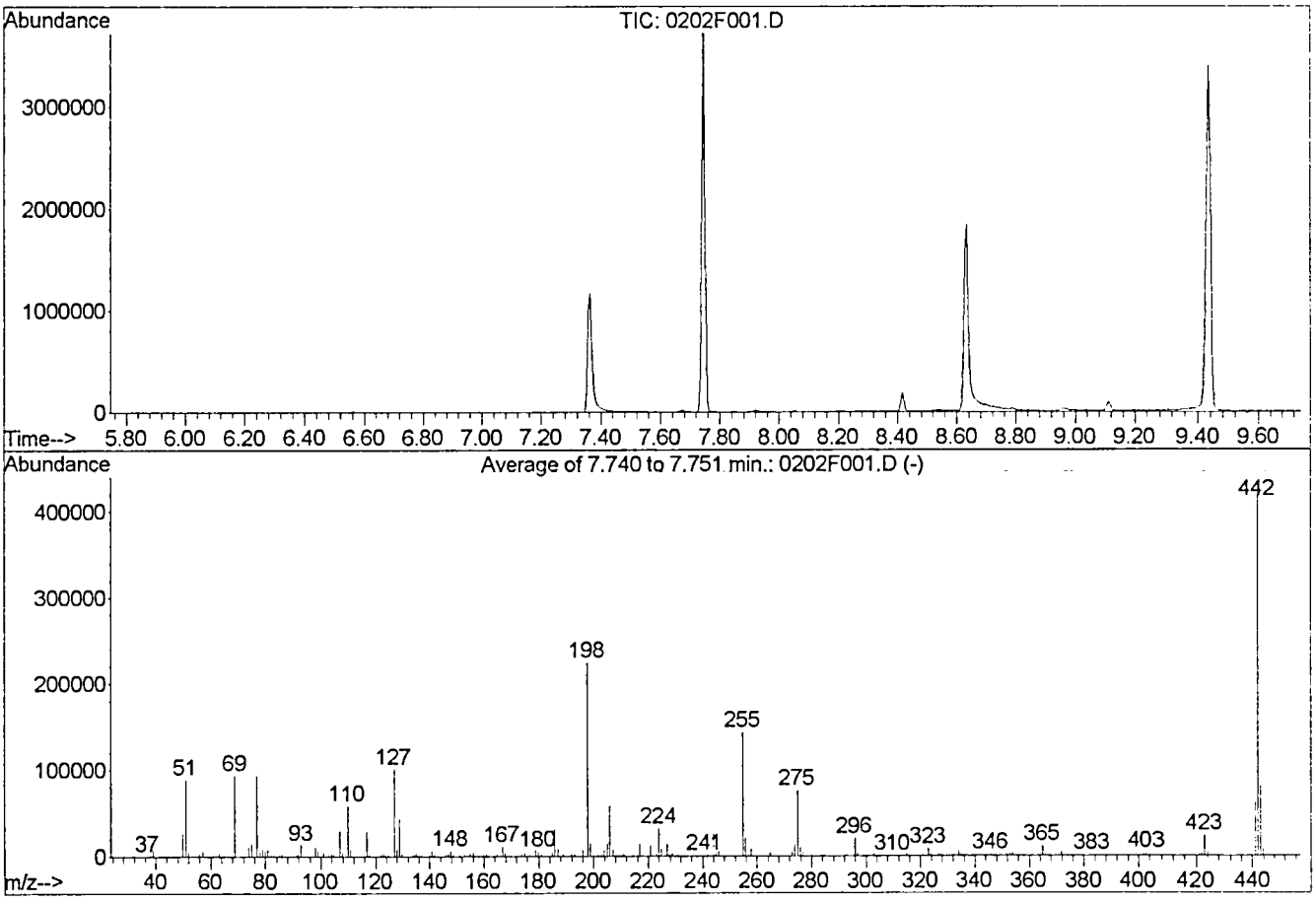
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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\020216\0202F001.D
Acq On : 2 Feb 2016 5:26 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 621, 622, 623; Background Corrected with Scan 616

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	39.5	88746	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.8	93928	PASS
70	69	0.00	2	0.6	563	PASS
127	198	10	80	45.1	101285	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	53.4	224496	PASS
199	198	5	9	6.9	15400	PASS
275	198	10	60	33.9	76136	PASS
365	442	1	50	2.7	11504	PASS
441	443	0.01	100	77.0	62786	PASS
442	442	30	100	100.0	420245	PASS
443	442	15	24	19.4	81568	PASS

0202F001.D A_DFTPP.M Tue Feb 02 09:27:02 2016

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	628	52.90	189	65.90	70	76.10	669
38.05	1577	54.95	663	66.10	75	77.00	93320
39.00	6832	56.00	2890	67.00	104	78.00	6245
39.95	277	57.00	5972	68.90	93928	79.00	8461
41.00	163	57.80	238	69.90	563	79.95	5798
43.00	220	60.00	68	70.95	224	80.90	7527
43.95	334	61.00	1257	72.10	74	81.95	1742
44.90	169	62.00	1384	73.00	600	82.95	1441
50.00	26577	63.00	3793	73.20	508	83.95	240
51.00	88746	63.95	567	74.00	10884	85.00	1521
52.00	4813	65.00	1537	75.00	15136	85.95	2390

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.90	996	100.00	769	111.90	1068	123.90	1655
87.90	332	100.90	3603	112.90	340	124.95	1503
88.90	131	101.90	209	114.95	253	127.00	101285
91.00	1903	102.90	1782	116.00	1625	128.00	8609
92.00	2271	103.90	2984	116.90	28052	128.90	43434
92.90	13245	104.95	2501	117.90	2009	129.90	3651
93.85	883	106.10	198	118.85	284	130.90	898
95.00	165	106.90	29842	119.90	377	131.90	532
95.95	606	107.90	4666	120.90	124	132.90	211
97.90	10861	109.90	58202	121.90	2549	133.90	1476
98.90	7063	110.90	8371	122.95	3673	134.90	3718

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.90	1536	145.95	1314	154.95	3246	165.95	1856
137.00	1755	146.90	3094	156.00	4583	166.90	10855
137.80	144	147.90	6513	156.95	1044	167.90	4512
138.00	215	148.90	1384	157.90	1315	168.90	828
138.90	289	149.90	397	158.95	911	169.95	444
139.95	641	150.95	716	159.90	1671	170.90	475
140.90	6298	151.30	72	160.95	2592	171.90	1142
141.90	1773	151.60	190	161.85	746	172.90	1138
142.90	1149	152.00	93	162.90	123	173.90	2272
144.00	325	152.90	1913	163.95	476	175.00	4167
144.95	370	153.90	1398	164.90	2214	176.00	1144

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.90	2490	187.95	922	199.85	1137	209.95	464
177.95	848	188.90	2422	200.80	106	210.30	579
178.90	7979	189.95	326	201.45	1089	210.95	2176
179.95	5278	190.95	992	202.10	289	211.85	384
180.95	2393	191.90	2584	202.95	1570	212.85	207
181.90	322	192.95	2713	203.95	7948	214.90	850
182.90	305	193.95	595	205.00	14051	215.95	1279
183.95	777	194.90	87	206.00	58152	216.90	14620
184.95	4264	195.95	7309	207.00	7342	217.95	1827
185.95	30853	197.90	224496	207.90	2113	218.90	226
187.00	8893	198.90	15400	208.90	708	220.00	102

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
220.90	12518	231.90	131	241.95	1870	252.95	895
221.80	1073	232.85	212	243.00	2114	254.90	143509
222.95	3497	233.90	951	244.00	26109	255.90	20891
224.00	31938	234.90	1074	244.95	3551	256.95	1531
224.95	8407	235.90	752	245.90	5695	257.90	8421
226.00	1082	236.90	1126	246.95	1205	258.90	1386
226.90	14195	237.80	52	247.90	293	259.80	266
227.90	2023	238.05	125	248.85	932	260.90	234
228.90	2934	238.85	700	249.95	183	263.80	357
229.90	508	239.90	448	250.80	267	264.90	3691
230.90	1315	240.90	841	252.00	219	265.80	492

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.75	248	282.00	102	294.70	124	308.90	204
269.80	122	282.90	617	295.90	20428	309.90	337
270.95	266	283.95	497	296.90	2823	311.80	64
271.95	493	284.90	1035	297.80	59	312.90	97
272.95	4508	285.90	188	298.05	140	313.95	1015
273.90	13785	288.90	288	300.90	333	314.90	2619
274.90	76136	289.85	142	302.00	455	315.90	1415
275.90	9771	291.00	96	302.95	2657	316.85	216
276.90	5988	291.80	273	303.80	165	321.00	808
277.85	1012	292.90	1443	303.95	583	321.90	484
278.90	111	293.85	358	307.90	349	323.00	8101

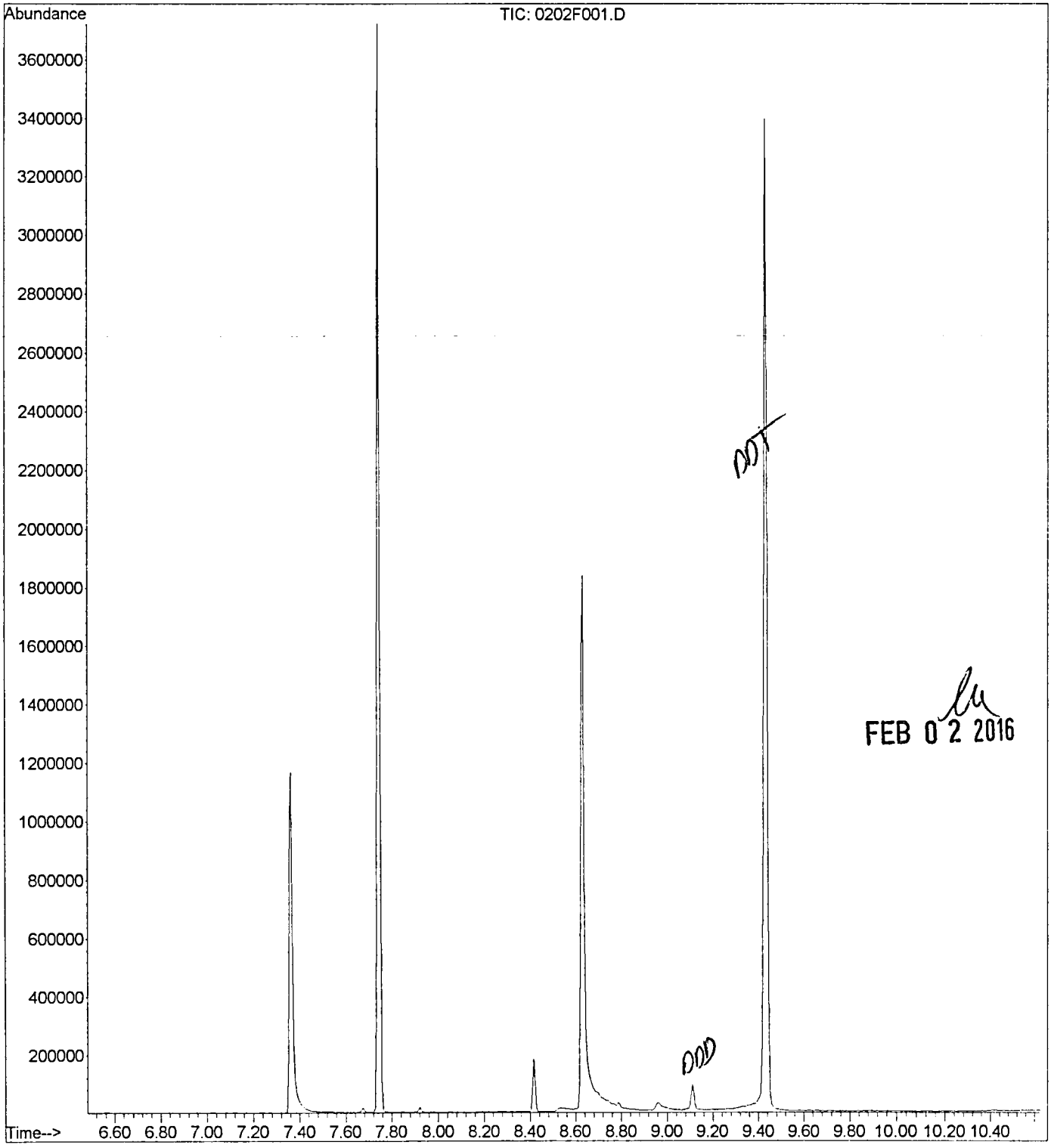
Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.90	1330	342.00	174	366.90	54	391.85	432
326.00	113	345.90	1549	369.85	348	400.90	377
326.90	1343	346.85	272	370.90	747	401.90	2111
327.90	774	350.90	119	371.95	4997	402.90	3148
331.90	550	351.90	2598	372.95	1204	403.90	1278
332.90	867	352.95	2012	373.90	78	404.85	231
333.95	5228	353.95	3126	376.90	59	415.00	88
334.90	1407	354.90	592	382.95	1347	420.95	2823
335.90	131	358.90	154	383.90	341	421.90	2987
340.95	980	364.90	11504	389.95	660	422.95	23681
341.80	147	365.85	1713	390.90	596	423.95	4645

Average of 7.740 to 7.751 min.: 0202F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
424.80	61						
424.95	396						
438.70	89						
439.05	136						
441.00	62786						
442.00	420245						
442.95	81568						
443.95	7503						
444.85	381						

File : J:\MS14\DATA\020216\0202F001.D
Operator : LWeiskopf
Acquired : 2 Feb 2016 5:26 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 3.0ug/mL | SVM52-13H
Misc Info :
Vial Number: 1



1	6.563	rVB	0.047		4240	6.546	6.593
2	7.028	rBV	0.071		2758	6.987	7.057
3	7.363	rBV	0.165		1279703	7.328	7.493
4	7.675	rBV	0.065		14197	7.640	7.704
5	7.746	rVV	0.088		2732252	7.710	7.798
6	7.851	rVB	0.035		2645	7.834	7.869
7	7.922	rVB	0.065		15556	7.887	7.951
8	8.275	rBV	0.035		2001	8.251	8.287
9	8.416	rBV	0.065		137225	8.387	8.451
10	8.534	rBV	0.088		45807	8.498	8.587
11	8.634	rVV	0.182		2169096	8.593	8.775
12	8.963	rBV	0.129		66172	8.934	9.063
13	9.110	rVB	0.094	OOO	89788	9.069	9.163
14	9.269	rBV	0.024		4028	9.251	9.275
15	9.434	rVB	0.224	OOT	3584060	9.298	9.522
16	10.422	rVB	0.065		5727	10.392	10.457
17	11.051	rVB	0.094		17965	11.022	11.116
18	11.498	rBV	0.047		2349	11.486	11.534
19	11.869	rVB	0.100		20986	11.816	11.916
20	12.763	rBV	0.071		7128	12.733	12.804
21	12.869	rVV	0.118		32800	12.828	12.945
22	12.998	rVB	0.088		9049	12.951	13.039
23	14.022	rBV	0.129		61031	13.969	14.098
24	14.510	rBV	0.053		5468	14.492	14.545
25	14.769	rBV	0.094		69569	14.733	14.827
26	15.327	rVB	0.082		69094	15.298	15.380
27	15.869	rVB	0.141		59692	15.845	15.986
28	16.457	rVB	0.129		49843	16.439	16.568

OOT Breakdown
= 2% ✓

FEB 03 2016

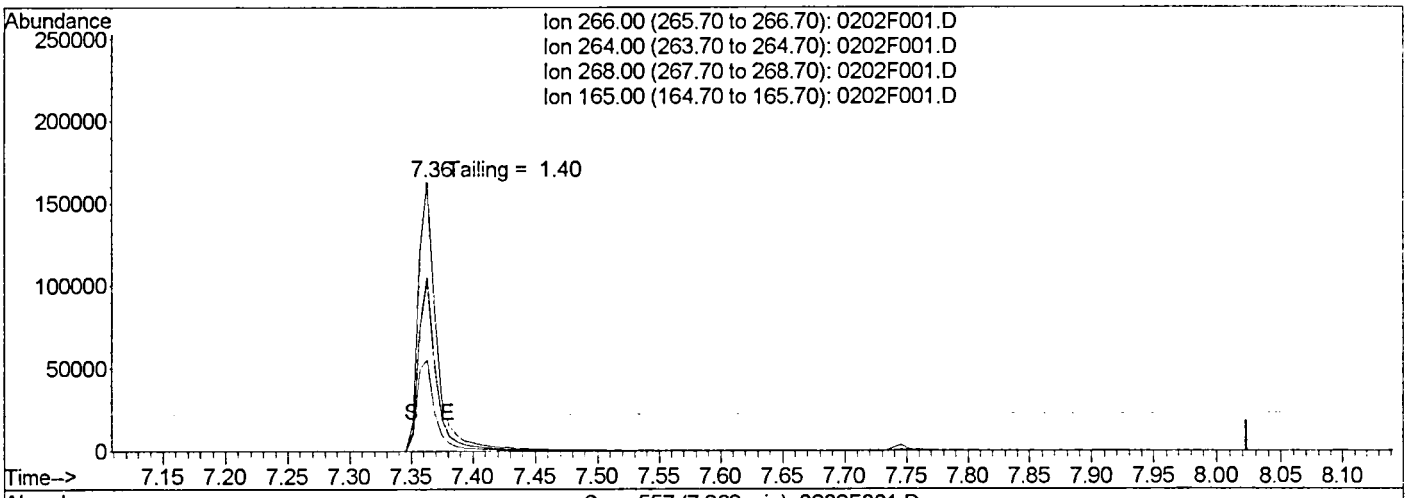
FEB 02 2016

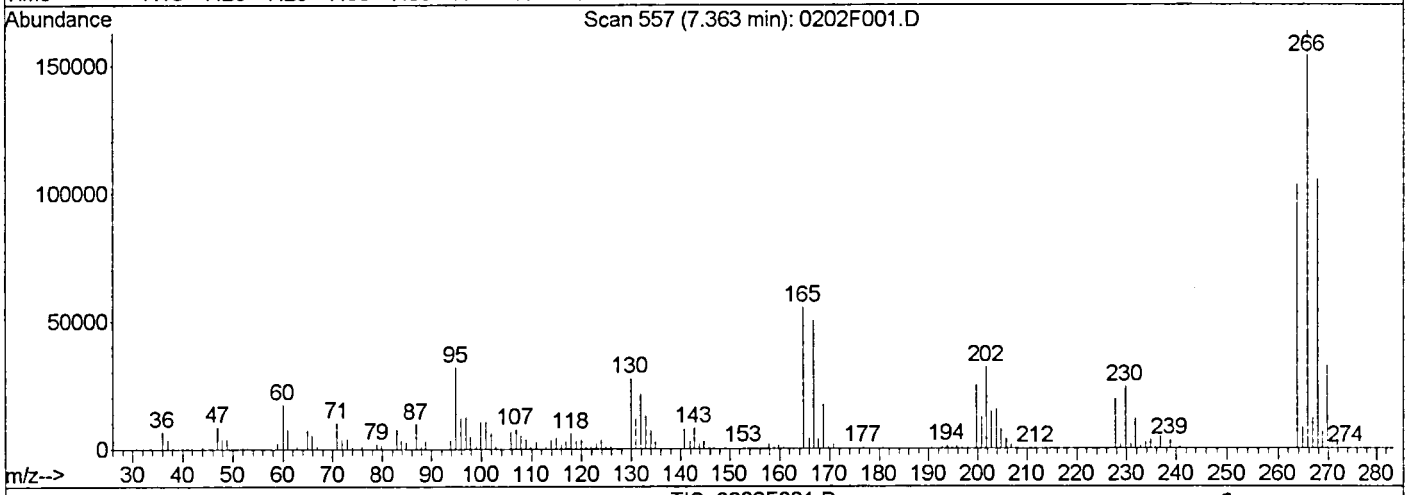
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020216\0202F001.D
Acq On : 2 Feb 2016 5:26 am
Sample : DFTPP @ 3.0ug/mL | SVM52-13H
Misc :
MS Integration Params: rteint.p
Quant Time: Feb 2 5:46 2016

Vial: 1
Operator: LWeiskopf
Inst : MS14
Multiplr: 1.00
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: 0202F001.D

(1) Pentachlorophenol

7.36min 7.42ng/ml

response 170761

Ion	Exp%	Act%
266.00	100	100
264.00	63.70	63.26
268.00	63.30	64.46
165.00	71.50	33.91#

FEB 0 2 2016

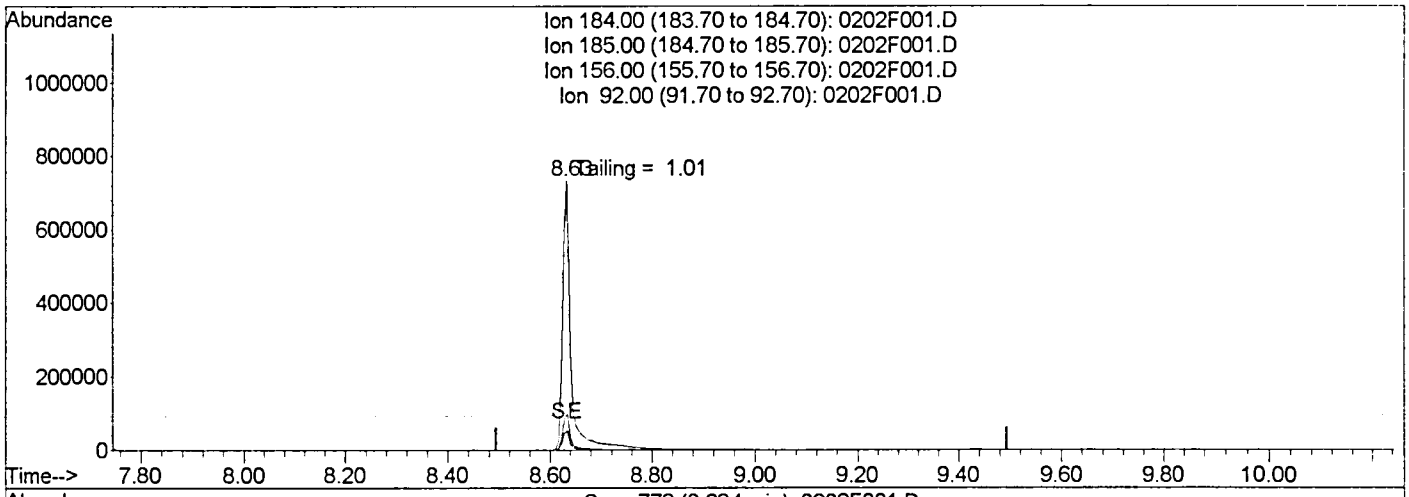
FEB 0 3 2016

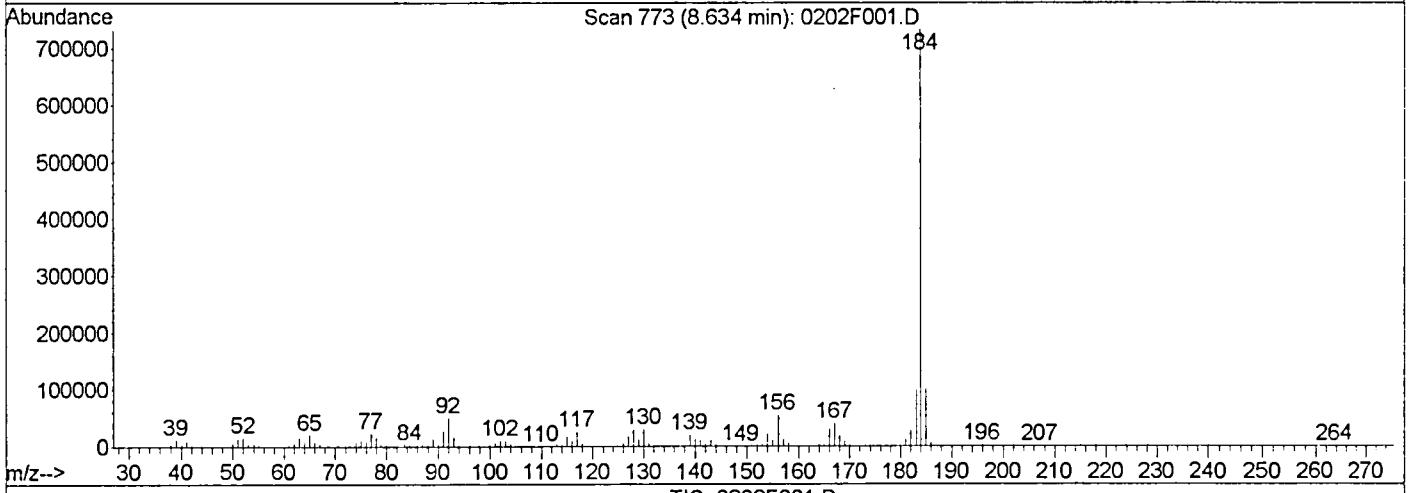
0202F001.D A_DFTPP.M Tue Feb 02 09:27:33 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\020216\0202F001.D Vial: 1
Acq On : 2 Feb 2016 5:26 am Operator: LWeiskopf
Sample : DFTPP @ 3.0ug/mL | SVM52-13H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 2 9:27 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: 0202F001.D

(3) Benzidine (T)

8.63min 14.69ug/ml m

response 846833

Ion	Exp%	Act%
184.00	100	100
185.00	28.30	13.75
156.00	6.00	7.47
92.00	5.30	6.85

FEB 0 2 2016

FEB 0 3 2016

0202F001.D A_DFTPP.M Tue Feb 02 09:27:41 2016

Exception Report

Data File: J:\MS14\DATA\020216\0202F003.D
Lab ID: KWG1600865-2
RunType: CCV
Matrix: WATER

Date Acquired: 02/02/2016 06:12
Date Quantitated: 02/02/2016 06:32
Batch ID: KWG1600865
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 10:25:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020216\0202F003.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 06:12	**Quant Date:**	02/02/2016 06:32	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600865-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	02/02/2016

Analysis Lot:	KWG1600865	**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\020216\0202F001.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	4.67	-0.02	136	63736	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30555	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	59786	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	72912	200.00	OK
5	Perylene-d12	13.05	0.00	264	66745	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	6.71			176	64943	385.50		46-114	NA
3	Fluoranthene-d10	8.50			212	127258	415.90		51-121	NA
4	Terphenyl-d14	8.84			244	101606	382.29		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	4.69			128	131316	407.91			
1	2-Methylnaphthalene	5.35			142	84604	384.98			
1	1-Methylnaphthalene	5.44			142	72944	380.92			
1	Biphenyl	5.77			154	99171	372.85			
1	2,6-Dimethylnaphthalene	5.91			156	69676	380.93			
2	Acenaphthylene	6.14			152	123534	393.19			
2	Acenaphthene	6.29			154	72169	402.57			
2	Dibenzofuran	6.44			168	112007	387.51			
2	2,3,5-Trimethylnaphthalene	6.62			170	68012	429.89			
2	Fluorene	6.73			166	87005	395.02			
3	Dibenzothiophene	7.42			184	137685	394.41			
3	Phenanthrene	7.53			178	130569	372.61			
3	Anthracene	7.57			178	132562	405.49			

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\020216\0202F003.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 06:12	**Quant Date:**	02/02/2016 06:32	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1600865-2			**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	7.71			167	123793	419.47			
3	1-Methylphenanthrene	8.04			192	103348	402.47			
3	Fluoranthene	8.51			202	159501	404.11			
4	Pyrene	8.70			202	172993	380.21			
4	Benz(a)anthracene	10.01			228	153757	360.02			
4	Chrysene	10.06			228	157442	414.11			
5	Benzo(b)fluoranthene	12.03			252	162255	380.61			
5	Benzo(k)fluoranthene	12.10			252	173895	418.05			
5	Benzo(e)pyrene	12.73			252	149234	378.33			
5	Benzo(a)pyrene	12.88			252	149070	373.16			
5	Perylene	13.12			252	138431	371.86			
5	Indeno(1,2,3-cd)pyrene	15.33			276	146761	392.36			
5	Dibenz(a,h)anthracene	15.38			278	149325	403.33			
5	Benzo(g,h,i)perylene	15.71			276	168545	395.44			

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020216\0202F003.D Vial: 3
Acq On : 2 Feb 2016 6:12 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 06:33:09 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jan 28 05:17:55 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

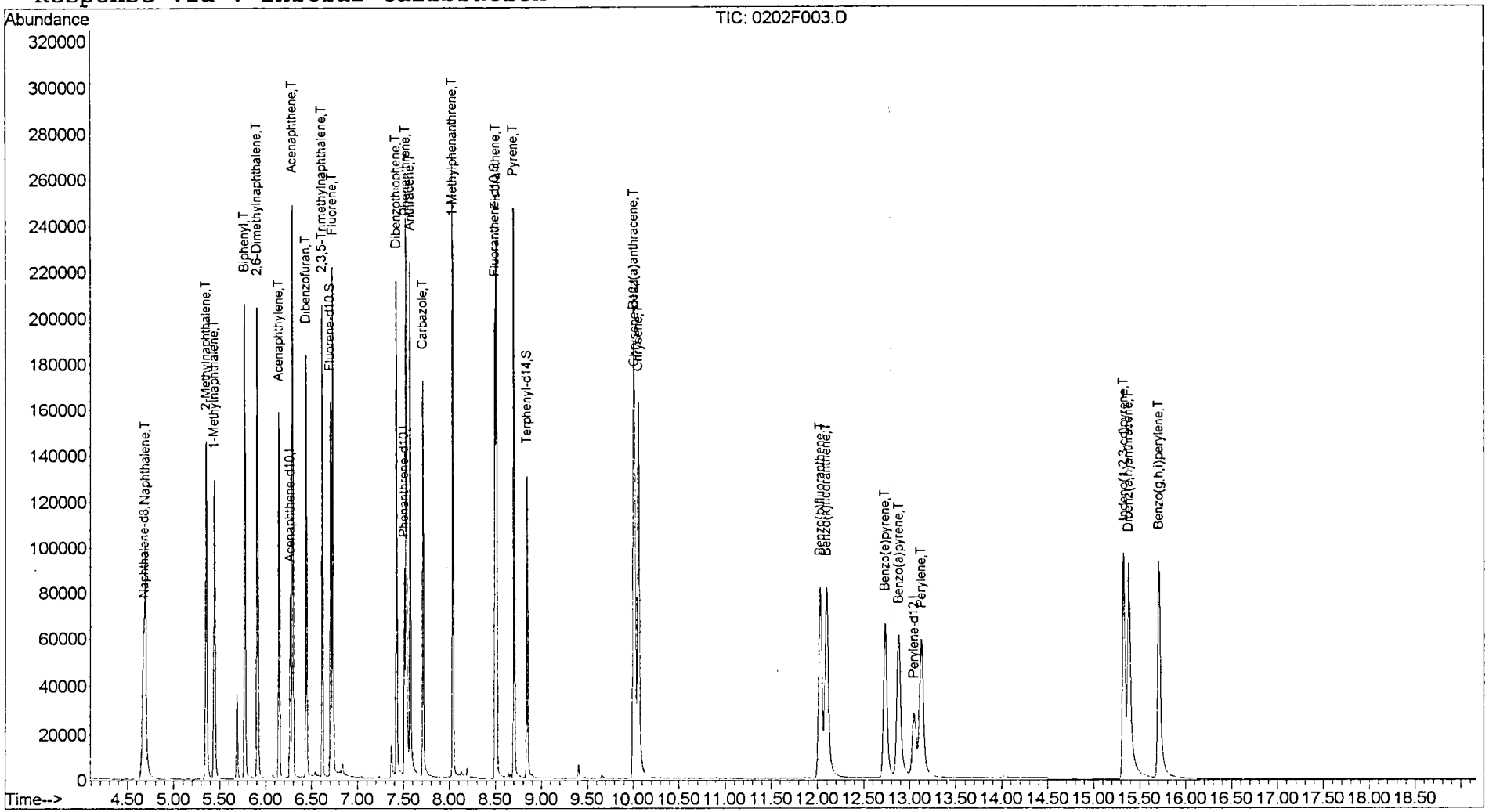
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	63736	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	30555	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	59786	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	72912	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	66745	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	64943	385.50	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.55%			
21) Fluoranthene-d10	8.50	212	127258	415.90	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.59%			
24) Terphenyl-d14	8.84	244	101606	382.29	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.23%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	131316	407.91	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	84604	384.98	ng/ml	100
4) 1-Methylnaphthalene	5.44	142	72944	380.92	ng/ml	99
5) Biphenyl	5.77	154	99171	372.85	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.91	156	69676	380.93	ng/ml	100
8) Acenaphthylene	6.14	152	123534	393.19	ng/ml	100
9) Acenaphthene	6.29	154	72169	402.57	ng/ml	99
10) Dibenzofuran	6.44	168	112007	387.51	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.62	170	68012	429.89	ng/ml	100
13) Fluorene	6.73	166	87005	395.02	ng/ml	99
15) Dibenzothiophene	7.42	184	137685	394.41	ng/ml	100
16) Phenanthrene	7.53	178	130569	372.61	ng/ml	100
17) Anthracene	7.57	178	132562	405.49	ng/ml	99
18) Carbazole	7.71	167	123793	419.47	ng/ml	99
19) 1-Methylphenanthrene	8.04	192	103348	402.47	ng/ml	100
20) Fluoranthene	8.51	202	159501	404.11	ng/ml	99
23) Pyrene	8.70	202	172993	380.21	ng/ml	95
25) Benz(a)anthracene	10.01	228	153757	360.02	ng/ml	100
26) Chrysene	10.06	228	157442	414.11	ng/ml	99
28) Benzo(b)fluoranthene	12.03	252	162255	380.61	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	173895	418.05	ng/ml	100
30) Benzo(e)pyrene	12.73	252	149234	378.33	ng/ml	99
31) Benzo(a)pyrene	12.88	252	149070	373.16	ng/ml	99
32) Perylene	13.12	252	138431	371.86	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.33	276	146761	392.36	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	149325	403.33	ng/ml	91
35) Benzo(g,h,i)perylene	15.71	276	168545	395.44	ng/ml	100

(#) = qualifier out of range (m) = manual integration
0202F003.D 011116SIMPAH.M Tue Feb 02 09:28:23 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020216\0202F003.D Vial: 3
Acq On : 2 Feb 2016 6:12 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 6:32 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\020216\0202F011.D
Lab ID: KWG1600865-3
RunType: CCVA
Matrix: WATER

Date Acquired: 02/02/2016 09:19
Date Quantitated: 02/02/2016 09:40
Batch ID: KWG1600865
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

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: FEB 0 2 2016

Secondary Review: FEB 0 3 2016

Printed: 02/02/2016 10:26:02
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\020216\0202F011.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 09:19	**Quant Date:**	02/02/2016 09:40	**Vial:**	2
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600865-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	02/02/2016

Analysis Lot:	KWG1600865	**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\020216\0202F001.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	4.67	-0.02	136	63680	200.00	OK
2	Acenaphthene-d10	6.27	-0.01	164	30583	200.00	OK
3	Phenanthrene-d10	7.51	-0.01	188	59135	200.00	OK
4	Chrysene-d12	10.02	-0.01	240	72341	200.00	OK
5	Perylene-d12	13.05	0.00	264	66906	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	6.71			176	64372	381.76		46-114	NA
3	Fluoranthene-d10	8.49			212	125992	416.29		51-121	NA
4	Terphenyl-d14	8.84			244	100252	380.18		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	4.69			128	131200	407.91			
1	2-Methylnaphthalene	5.35			142	84229	383.61			
1	1-Methylnaphthalene	5.44			142	72767	380.33			
1	Biphenyl	5.77			154	98428	370.38			
1	2,6-Dimethylnaphthalene	5.91			156	69568	380.68			
2	Acenaphthylene	6.14			152	123415	392.45			
2	Acenaphthene	6.29			154	72157	402.14			
2	Dibenzofuran	6.44			168	111605	385.76			
2	2,3,5-Trimethylnaphthalene	6.62			170	68120	430.18			
2	Fluorene	6.73			166	87086	395.02			
3	Dibenzothiophene	7.42			184	136183	394.41			
3	Phenanthrene	7.53			178	128896	371.89			
3	Anthracene	7.57			178	130993	405.10			

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

Data File:	J:\MS14\DATA\020216\0202F011.D			**Instrument:**	MS14
Acqu Date:	02/02/2016 09:19	**Quant Date:**	02/02/2016 09:40	**Vial:**	2
Run Type:	CCVA			**Dilution:**	1.0
Lab ID:	KWG1600865-3			**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	7.71			167	121953	417.78			
3	1-Methylphenanthrene	8.04			192	102873	405.03			
3	Fluoranthene	8.51			202	158544	406.11			
4	Pyrene	8.70			202	172694	382.55			
4	Benz(a)anthracene	10.01			228	151113	356.62			
4	Chrysene	10.06			228	156782	415.63			
5	Benzo(b)fluoranthene	12.03			252	159008	372.09			
5	Benzo(k)fluoranthene	12.10			252	171650	411.66			
5	Benzo(e)pyrene	12.73			252	148310	375.08			
5	Benzo(a)pyrene	12.88			252	149097	372.33			
5	Perylene	13.12			252	138452	371.02			
5	Indeno(1,2,3-cd)pyrene	15.32			276	146724	391.31			
5	Dibenz(a,h)anthracene	15.38			278	143041	385.42			
5	Benzo(g,h,i)perylene	15.71			276	167555	392.17			

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020216\0202F011.D Vial: 2
Acq On : 2 Feb 2016 9:19 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 02 09:40:26 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

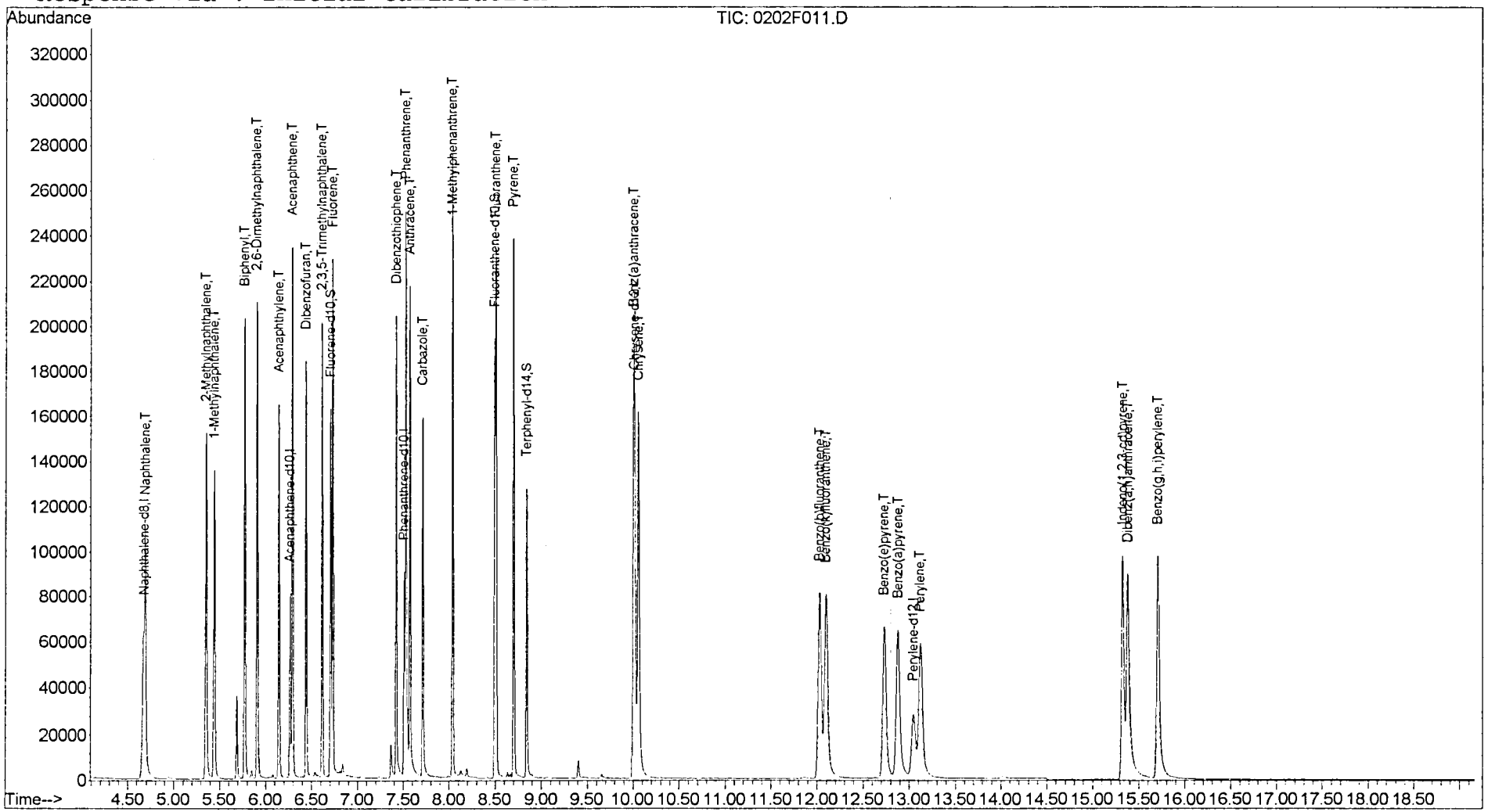
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.67	136	63680	200.00	ng/ml	-0.03
7) Acenaphthene-d10	6.27	164	30583	200.00	ng/ml	-0.02
14) Phenanthrene-d10	7.51	188	59135	200.00	ng/ml	-0.02
22) Chrysene-d12	10.02	240	72341	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	66906	200.00	ng/ml	-0.06
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	64372	381.76	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.18%			
21) Fluoranthene-d10	8.49	212	125992	416.29	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.63%			
24) Terphenyl-d14	8.84	244	100252	380.18	ng/ml	-0.03
Spiked Amount 1000.000			Recovery = 38.02%			
Target Compounds						Qvalue
2) Naphthalene	4.69	128	131200	407.91	ng/ml	100
3) 2-Methylnaphthalene	5.35	142	84229	383.61	ng/ml	100
4) 1-Methylnaphthalene	5.44	142	72767	380.33	ng/ml	99
5) Biphenyl	5.77	154	98428	370.38	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.91	156	69568	380.68	ng/ml	100
8) Acenaphthylene	6.14	152	123415	392.45	ng/ml	100
9) Acenaphthene	6.29	154	72157	402.14	ng/ml	100
10) Dibenzofuran	6.44	168	111605	385.76	ng/ml	91
11) 2,3,5-Trimethylnaphthalene	6.62	170	68120	430.18	ng/ml	99
13) Fluorene	6.73	166	87086	395.02	ng/ml	99
15) Dibenzothiophene	7.42	184	136183	394.41	ng/ml	99
16) Phenanthrene	7.53	178	128896	371.89	ng/ml	99
17) Anthracene	7.57	178	130993	405.10	ng/ml	99
18) Carbazole	7.71	167	121953	417.78	ng/ml	100
19) 1-Methylphenanthrene	8.04	192	102873	405.03	ng/ml	100
20) Fluoranthene	8.51	202	158544	406.11	ng/ml	100
23) Pyrene	8.70	202	172694	382.55	ng/ml	94
25) Benz(a)anthracene	10.01	228	151113	356.62	ng/ml	100
26) Chrysene	10.06	228	156782	415.63	ng/ml	100
28) Benzo(b)fluoranthene	12.03	252	159008	372.09	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	171650	411.66	ng/ml	99
30) Benzo(e)pyrene	12.73	252	148310	375.08	ng/ml	99
31) Benzo(a)pyrene	12.88	252	149097	372.33	ng/ml	100
32) Perylene	13.12	252	138452	371.02	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.32	276	146724	391.31	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	143041	385.42	ng/ml	93
35) Benzo(g,h,i)perylene	15.71	276	167555	392.17	ng/ml	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\020216\0202F011.D Vial: 2
Acq On : 2 Feb 2016 9:19 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM52-28G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 2 9:40 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Feb 02 09:28:17 2016
Response via : Initial Calibration



0202F011.D 011116SIMPAH.M Tue Feb 02 09:40:52 2016 Page 2

Preparation Information

Group ID:	KWG1600624	**Prep Method:**	EPA 3520C	**Prep Date:**	01/25/16 12:04
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K1600673-001	ERH015	8270D PAH SIM	WATER	1000ml	5ml
K1600673-002	ERH016	8270D PAH SIM	WATER	1000ml	5ml
K1600673-003	ERH017	8270D PAH SIM	WATER	1000ml	5ml
K1600673-004	ERH018	8270D PAH SIM	WATER	1020ml	5ml
K1600673-005	ERH019	8270D PAH SIM	WATER	1000ml	5ml
K1600673-006	ERH020	8270D PAH SIM	WATER	1020ml	5ml
K1600673-007	ERH021	8270D PAH SIM	WATER	1000ml	5ml
K1600673-008	ERH022	8270D PAH SIM	WATER	1000ml	5ml
K1600673-009	ERH023	8270D PAH SIM	WATER	1000ml	5ml
K1600673-010	ERH024	8270D PAH SIM	WATER	1000ml	5ml
K1600673-011	ERH025	8270D PAH SIM	WATER	1020ml	5ml
K1600673-012	ERH026	8270D PAH SIM	WATER	1000ml	5ml
K1600673-013	ERH027	8270D PAH SIM	WATER	1020ml	5ml
K1600673-014	ERH028	8270D PAH SIM	WATER	1000ml	5ml
KWG1600624-1	Matrix Spike	8270D PAH SIM	WATER	1020ml	5ml
KWG1600624-2	Duplicate Matrix Spike	8270D PAH SIM	WATER	1040ml	5ml
KWG1600624-3	Lab Control Sample	8270D PAH SIM	WATER	1000ml	5ml
KWG1600624-4	Duplicate Lab Control Sampl	8270D PAH SIM	WATER	1000ml	5ml
KWG1600624-5	Method Blank	8270D PAH SIM	WATER	1040ml	5ml

Lab Code	Parent Lab Code	Comments
KWG1600624-1	K1600673-004	
KWG1600624-2	K1600673-004	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1600673-001	1495828	SVM50-83J	20uL			JJohnson
K1600673-002	1495829	SVM50-83J	20uL			JJohnson
K1600673-003	1495830	SVM50-83J	20uL			JJohnson
K1600673-004	1495831	SVM50-83J	20uL			JJohnson
K1600673-005	1495832	SVM50-83J	20uL			JJohnson
K1600673-006	1495833	SVM50-83J	20uL			JJohnson
K1600673-007	1495834	SVM50-83J	20uL			JJohnson
K1600673-008	1495835	SVM50-83J	20uL			JJohnson
K1600673-009	1495836	SVM50-83J	20uL			JJohnson
K1600673-010	1495837	SVM50-83J	20uL			JJohnson
K1600673-011	1495838	SVM50-83J	20uL			JJohnson

Comments: IS = SVM50-36G

Started By: CPollard Assisted By: Training Yes No

Completed By: SEldridg Assisted By: Yes No

Reviewed By: J. Tennant Date: 1/27/16 Storage: AM14

Chain of Custody

Relinquished By: Susan Date: 1-26-16

Received By: Date: 2/2/16 Extracts Examined Yes No

Group ID:	KWG1600624	**Prep Method:**	EPA 3520C	**Prep Date:**	01/25/16 12:04
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1600673-012	1495839	SVM50-83J	20uL			JJohnson
K1600673-013	1495840	SVM50-83J	20uL			JJohnson
K1600673-014	1495827	SVM50-83J	20uL			JJohnson
KWG1600624-1	1495841	SVM50-83J	20uL	SVM52-1V	100uL	JJohnson
KWG1600624-2	1495842	SVM50-83J	20uL	SVM52-1V	100uL	JJohnson
KWG1600624-3	1495843	SVM50-83J	20uL	SVM52-1V	100uL	JJohnson
KWG1600624-4	1495844	SVM50-83J	20uL	SVM52-1V	100uL	JJohnson
KWG1600624-5	1495845	SVM50-83J	20uL			JJohnson

Comments:

Started By: CPollard Assisted By: Training Yes No

Completed By: SEldridg Assisted By: Yes No

Reviewed By: Date: Storage:

Chain of Custody

Relinquished By: Date: Extracts Examined

Received By: Date: Yes No

Preparation Information

Due 1/29/16

Group ID: KWG1600624 **Prep Method:** EPA 3520C **Prep Date:** 01/25/16 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	K1600673-001	ERH015	.01	/	8270D PAH SIM	WATER	1000	7	NA	5	20µl	—
2	K1600673-002	ERH016	.01	/	8270D PAH SIM	WATER	1000	9		5		—
3	K1600673-003	ERH017	.01	/	8270D PAH SIM	WATER	1000	7		5		—
4	K1600673-004	ERH018	.5	/	8270D PAH SIM	WATER	1020	7		5		—
5	K1600673-005	ERH019	.01	/	8270D PAH SIM	WATER	1000	7		5		—
6	K1600673-006	ERH020	.01	/	8270D PAH SIM	WATER	1020	7		5		—
7	K1600673-007	ERH021	.01	/	8270D PAH SIM	WATER	1000	7		5		—
8	K1600673-008	ERH022	.01	/	8270D PAH SIM	WATER	1000	7		5		—
9	K1600673-009	ERH023	.01	/	8270D PAH SIM	WATER	1000	7		5		—
10	K1600673-010	ERH024	.01	/	8270D PAH SIM	WATER	1000	7		5		—
11	K1600673-011	ERH025	.01	/	8270D PAH SIM	WATER	1020	7		5		—
12	K1600673-012	ERH026	.01	/	8270D PAH SIM	WATER	1000	7		5		—
13	K1600673-013	ERH027	.01	/	8270D PAH SIM	WATER	1020	5		5		—
14	K1600673-014	ERH028	.01	/	8270D PAH SIM	WATER	1000	5		5		—
15	KWG1600624-1	Matrix Spike K1600673-004	.01	/	8270D PAH SIM	WATER	1020	7		5		100µl
16	KWG1600624-2	Duplicate Matrix Spike K1600673-004	.16	/	8270D PAH SIM	WATER	1040	7		5		
17	KWG1600624-3	Lab Control Sample	—		8270D PAH SIM	WATER	1000	5		5		
18	KWG1600624-4	Duplicate Lab Control Sample	—		8270D PAH SIM	WATER	1000	5		5		

Comments: #254320

Surrogate ID: SVM50-83J, 100/150 ppm, exp 2-24-16, 20µl, SS9

Spike ID: SVM52-IV, 25ppm, exp 6-20-16, 100µl, 2BBpp

Witness: JJ 1/25/16

Started By: CPollard Assisted By:

Completed By: SE 1.26.16 Assisted By:

Group ID:	KWG1600624	**Prep Method:**	EPA 3520C					**Prep Date:**	01/25/16 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	KWG1600624-5	Method Blank			8270D PAH SIM	WATER	1040	5	NA	5	20µL	–

Comments:

Surrogate ID:

Spike ID:

Witness: JJ 1/25/16

Started By: CPollard Assisted By:

Completed By: SE 1.26.16 Assisted By:

Additional Prep Information For EPA 3520C for waters by EXT-3520

Service Request 1606673 Workgroup WG1600624

DCM (GC^2) Lot#: DN993 Sulfuric Acid Lot#: — NaOH Lot#: —

pH<2 (Time/Date/Initial): —

pH>11 (Time/Date/Initial): —

Continuous Start$_1$ (Time/Date/Initial): 1204/hs/01-25-16/dP

Continuous Stop$_1$ (Time/Date/Initial): 0911/hs/01-26-16/dP

Continuous Start$_2$ (Time/Date/Initial): —

Continuous Stop$_2$ (Time/Date/Initial): —

Sulfate Lot # — Glass Wool Lot#: —

S-Evap (Time/Date/Initial): 1148/1-26-16/se S-Evap Therm. ID: X-SVM-005

Temp as measured: 74 °C Correction factor: 0.0 °C Adjusted temp: 74 °C

N-Evap (Time/Date/Initial): 1524/1-26-16/se N-Evap Therm. ID: X-SVM-010

Temp as measured: 30 °C Correction factor: 0.0 °C Adjusted temp: 30 °C

Clean-up #1: — Time/Date/Initial: —

Clean-up #2: — Time/Date/Initial: —

Pipet Lot: Final Volume 04715647 Archive Storage: halloween

Date Completed (Time/Date/Initial): 1734/1-26-16/se

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