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13 March 2015

Andrew Smith, P.E., LHG
UST/Technical Services Unit Supervisor
Ecology's Toxics Cleanup Program
Southwest Regional Office
Department of Ecology
PO Box 47775
Olympia, WA 98504-7775

Subject: First Annual Compliance Groundwater Monitoring Report
Agreed Order No. DE 97TCS121
Frederickson Industrial Park Site, Pierce County, WA
Geosyntec Project: GR4631D

Dear Mr. Smith:

This letter has been prepared by Geosyntec Consultants on behalf of Olin Corporation and Mallinckrodt US LLC (the Companies) to present the results from the first annual compliance monitoring at the Frederickson Industrial Park Site (Site) in Pierce County, Washington (Figure 1). This compliance monitoring is being performed in accordance with the Washington Department of Ecology's (Ecology's) Agreed Order (AO) No. DE 9514 (Order).

Background

The Site encompasses 527 acres of land south of 176th Street East and east of Canyon Road East in the Fredrickson area of Pierce County, Washington. The Site is situated approximately 10 miles south of Tacoma and 8 miles southwest of Puyallup, and is located in unincorporated County area surrounded by a mixture of industrial, residential and commercial properties. Boeing is the current owner of the Frederickson Industrial Center; Olin and Mallinckrodt are the successors of former owners of the Site.

In 1997, the Companies entered into AO No. DE 97TC-S121 requiring the Companies to undertake the following remedial actions at the Site:

- devise and implement a permanent solution regarding the impact of carbon tetrachloride (CTC) in affected domestic drinking water wells; and

- design and implement a Remedial Investigation/Feasibility Study (RI/FS).

The RI/FS Report [Geosyntec, 2012][1] was submitted to Ecology by the Companies on 28 March 2012 and recommended monitored natural attenuation (MNA) to address CTC in groundwater.

The Cleanup Action Plan (CAP), submitted to Ecology and approved after a public comment period, is based upon Ecology's approval of MNA as the groundwater remedy. A Compliance Monitoring Work Plan (CMWP) was provided as part of the CAP, and outlines the requirements for MNA compliance monitoring. The compliance monitoring network encompasses eleven monitoring wells at the Site (listed in Table 1) and includes hydraulic monitoring and groundwater sampling for CTC analysis. As described in the CMWP, compliance monitoring for the Site consists of performance monitoring to track MNA, followed by confirmational monitoring to be performed once all monitoring wells are below cleanup standards. This first year of the CMWP consists of performance monitoring.

Performance Groundwater Monitoring Results

Hydraulic Monitoring

Water level data collected during the April-May and October groundwater monitoring events are presented in Table 1. Water level contours for Aquifer A are shown in Figure 2 for both the April-May and October monitoring events. Similar to past monitoring events, groundwater flow in Aquifer A is generally to the north-northwest, towards Clover Creek. Near Clover Creek, upward vertical hydraulic gradients were observed at the P2 intermediate and shallow monitoring wells.

Water levels decreased across the Site between the April-May and October monitoring events, as expected, due to an extended period of no precipitation during the third quarter (Figure 2). These changes in water levels confirm that the monitoring events capture the seasonal variations in groundwater elevations.

[1] Geosyntec, 2012. Remedial Investigation/Feasibility Study (RI/FS) Report, Frederickson Industrial Park, Frederickson, Washington. March 2012.

Field Parameters

Field Parameters (Attachment A) for the April-May and October monitoring events are consistent with past monitoring events, and indicate a stable aquifer environment conducive to MNA.

Carbon Tetrachloride

Eleven monitoring wells were sampled during the April-May and October monitoring events, with samples analyzed for CTC by ALS laboratory. Figure 3 presents the locations, CTC results, and updated CTC contours[2] for the Aquifer A wells for the May and October 2014 monitoring events. The CTC data are summarized in Table 2; the analytical reports are provided in Attachment B. Historical CTC data for the 11 wells, along with well screen information, are provided in Table 3. Using the historical CTC data, concentration trends for CTC were plotted for the monitoring wells (Figure 3). As evidenced in Table 3 and Figure 3, CTC concentrations in Aquifer A continue to decline over time. Within the former process area, CTC concentrations at several wells have steadily declined.

Monitoring wells BMW-18, HLA-1, and 11-CL, all with concentrations ranging between 4.4 µg/L and 5.5 µg/L, continue to have the highest concentrations in line with previous monitoring results. The intermediate concentration wells, for example 11-BL, MW-1, and MW-13, all remain in the range between 0.95 µg/L and 2.3 µg/L. The peripheral monitoring wells, MW-4 on the east, MW-7 and P-2I/P-2S on the north, and BMW-3 on the south, ranged from below detection limits of 0.096 µg/L for the northern three wells to 0.66 µg/L for the most recent, October 2014 monitoring event. The results for the peripheral monitoring wells during the May 2014 monitoring event were slightly more variable, but remained consistent with previous monitoring results. During the reporting period, four wells had concentrations below the CTC cleanup level of 0.63 µg/L for one or more of the sampling events. Monitoring well BMW-3, the furthest upgradient monitoring well, has been below the CTC cleanup level of 0.63 µg/L for four consecutive monitoring events. The CTC cleanup level of 0.63 µg/L contour line is illustrated on Figure 3. As noted previously, the concentration trends plotted in Figure 3 illustrate the decline over time[3].

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[2] The CTC contour in Figure 3 is based on the most recent CTC monitoring event.

[3] MW-13 only has results from three monitoring events; therefore no trend has been determined for this location.

Fluctuation between the semi-annual monitoring events is to be expected due to the low concentrations being analyzed, the length of time between monitoring events, and seasonal variability of groundwater recharge and discharge. Overall, the October 2014 monitoring event results are among the lowest concentrations measured for each of the monitoring wells. Seasonal variability likely will continue to produce fluctuating concentrations, particularly for boundary monitoring wells, but the primary observation is a continued decrease in CTC groundwater concentrations.

Conclusions and Recommendations

This first year of MNA monitoring confirms that, particularly for the low concentrations at the Site, seasonal variability will likely occur, but that an overall decline in CTC concentrations and contraction of the area of CTC-impacted groundwater is expected to continue.

2015 Monitoring Schedule and Requested Changes

Based on the results of the April-May and October groundwater sampling events, continued semi-annual monitoring is expected to continue through 2015, with monitoring events planned for March and September. The data collected to date support the MNA remedy.

The Companies request a change from the present low flow sampling techniques to use of passive diffusion bags (PDBs). PDBs are in common use for monitoring low concentration groundwater constituents, and would reduce or eliminate the production of purge water during sampling. With Ecology concurrence, the Sampling and Analysis Plan will be updated to delineate the specific procedures for use of PDBs for compliance monitoring at the Site.

In addition, in accordance with Section 2.2 of the Compliance Monitoring Work Plan, the Companies request the deletion of BMW-3, the most upgradient well, from the monitoring well network due to continued concentrations below reporting limits.

Please contact Julie Irwin (423-336-4084) if you have questions regarding the information presented herein.

Sincerely,

James J. Deitsch

James J. Deitsch, PhD, PE
Senior Engineer

Evan E. Cox, MSc.
Principal

Cc: Julie Irwin, Olin Corporation
Dave Share, Olin Corporation
Karen Burke, Mallinckrodt
Jim Bet, The Boeing Company
Anne Smith, Tacoma Water

GR4631D

TABLES

Table 1.
Compliance Monitoring Groundwater Sampling Event Water Level Data
Brazier Site, Frederickson, Washington

Well	Ground Elevation (ft MSL)	Top of Casing Elevation (MSL)	Top of Screen (MSL)	Bottom of Screen (MSL)	Aquifer	Sample Date	Depth to Water (ft)	Water Level (MSL)
11-BL	395.5	396.08	331.5	321.5	Lower - Aquifer A	04/30/14	32.68	363.40
						10/02/14	41.81	354.27
11-CL	403.69	404.55	329.7	319.7	Lower - Aquifer A	04/30/14	37.03	367.52
						10/02/14	47.05	357.50
BMW-18	409.74	412.09	375.7	345.7	Upper - Aquifer A	04/30/14	33.05	379.04
						10/02/14	45.78	366.31
BMW-3	414.74	416.76	381.7	351.7	Upper - Aquifer A	04/30/14	33.36	383.40
						10/02/14	44.26	372.50
HLA-1	403.86	405.81	320.9	310.9	Lower - Aquifer A	04/30/14	38.45	367.36
						10/02/14	48.42	357.39
MW-7	350.12	350.7	310.2	300.2	Upper - Aquifer A	05/01/14	24.22	326.48
						10/03/14	28.17	322.53
MW-1	413.27	415.79	324.8	314.8	Lower - Aquifer A	05/01/14	32.71	383.08
						10/02/14	45.81	369.98
MW-4	465.5	467.72	317.9	307.9	Aquifer A	05/01/14	111.61	356.11
						10/02/14	119.59	348.13
P2-I	340.65	343.23	270.7	265.7	Lower - Aquifer A	04/30/14	12.81	330.42
						10/03/14	15.05	328.18
P2-S	340.55	343.6	320.6	310.6	Upper - Aquifer A	04/30/14	15.06	328.54
						10/03/14	16.26	327.34
MW-13	394.5	394.1	284.5	274.05	Aquifer A	05/01/14	50.31	344.19
						10/03/14	55.32	338.78

Table 2.
Carbon Tetrachloride Results
Annual Report 2014
Brazier Site, Frederickson, Washington

Well	Sample Type	Sample Date	Result (µg/L)	Lab MRL	Lab MDL	Qualifiers
11-BL		04/30/14	**0.97**	0.5	0.096	
		10/02/14	**0.95**	0.5	0.096	
11-CL		04/30/14	**5.4**	0.5	0.096	
		10/02/14	**4.4**	0.5	0.096	
BMW-18		04/30/14	**5.5**	0.5	0.096	
		10/02/14	**4.8**	0.5	0.096	
BMW-3		04/30/14	0.28	0.5	0.096	J
		10/02/14	0.39	0.5	0.096	J
HLA-1		04/30/14	**5.0**	0.5	0.096	
	Duplicate	04/30/14	**5.2**	0.5	0.096	
		10/02/14	**4.6**	0.5	0.096	
MW-1		05/01/14	**1.8**	0.5	0.096	
		10/02/14	**1.4**	0.5	0.096	
MW-4		05/01/14	**0.82**	0.5	0.096	
		10/02/14	**0.66**	0.5	0.096	
MW-7		05/01/14	**2.3**	0.5	0.096	
		10/03/14	ND <0.096	0.5	0.096	
P2-I		04/30/14	**0.72**	0.5	0.096	
		10/03/14	ND <0.096	0.5	0.096	
P2-S		04/30/14	**0.76**	0.5	0.096	
		10/03/14	ND <0.096	0.5	0.096	
MW-13		05/30/14	**2.3**	0.5	0.096	
		10/03/14	**1.9**	0.5	0.096	
	Duplicate	10/03/14	**1.8**	0.5	0.096	

Notes:
BOLD = CTC value above groundwater cleanup level of 0.63 µg/L
µg/L = micrograms per liter; equivalent to parts per billion
MRL = Method Reporting Limit
MDL = Method Detection Limit
ND(XX)= Not Detected(Detection Limit)

Laboratory Qualifier:
J = Carbon Tetrachloride detected between the MDL and method reporting limit (MRL: 0.5 µg/L). The reported value is estimated.

Table 3.
Historical Carbon Tetrachloride Groundwater Data
Brazier Site, Frederickson, Washington

Wells	11-BL	11-CL	HLA-1	BMW-3	BMW-18	MW1	MW4	MW7	P2S	P2I	MW-13
Ground Elevation (MSL)	395.5	403.69	403.86	414.74	409.74	413.27	465.5	350.7	340.55	340.65	394.5
Top of Screen (MSL)	331.5	363.7	320.9	381.7	375.7	324.8	317.9	310.2	320.6	270.7	284.5
Bottom of Screen (MSL)	321.5	353.7	310.9	351.7	345.7	314.8	307.9	300.2	310.6	265.7	274.1
Aquifer Zone	A - Lower	A - Lower	A - Lower	A - Upper	A - Upper	A - Lower	A - Middle	A - Upper	A - Upper	A - Lower	Aquifer A
Data											
Jun-85	ND(1.0)	**15.7**									
Jul-85	ND(1.0)	**51.3**									
Aug-85		**25.0**									
Dec-85	0.3	**9.7**									
Jan-86	**15.7**	**19.8**									
Feb-86	**28.7**	**53.1**									
Apr-86	**1.7**	**6.9**									
Jun-86	0.5	**10.4**									
Jul-90	ND(1.0)	**11.0**									
Nov-90	**1.1**	**16.0**									
Sep-88					**13.0**						
Nov-92	**1.0**	**12.0**		**2.8**	**14.0**						
Feb-94				**2.0**							
May-94					**9.3**						
Jun-94				**0.9**	**12.0**						
Jul-94			**9.7**								
Aug-94											
Apr-95											
Jul-95	**4.3**		**9.9**	0.5	**11.0**						
Apr-99	**1.5**	**10.0**	**12.0**		**9.6**						
Nov-00	**2.2**	**12.0**	**12.0**	0.55	**12.0**	**3.4**	**1.1**		**1.5**	**1.2**	
Nov-02	**1.2**	**8.1**	**8.1**	**0.65**	**7.5**	**1.7**	**0.88**	**1.3**	**1.3**	**1.1**	
Jun-10	**1.0**	**9.4**	**8.8/9.3**	*0.35*	**7.7/7.8**	**1.2**	**1.0**	*0.11*	0.5	**0.64**	
Feb-11	*0.3*	**3.1**	**4.1/4.2**	*0.16*	**4.5/4.4**	**0.86**	0.33	*0.17*	**0.71**	0.59	**2.0**
May-14	**0.97**	**5.4**	**5.0/5.2**	*0.28*	**5.5**	**1.8**	**0.82**	**2.3**	**0.76**	**0.72**	**2.3**
Oct-14	**0.95**	**4.4**	**4.6**	*0.39*	**4.8**	**1.4**	**0.66**	ND(0.1)	ND(0.1)	ND(0.1)	**1.9/1.8**

NOTES

1.5	Bold values are above the CTC cleanup level of 0.63 µg/L
0.5	Estimated Value (i.e., concentration greater than method detection limit but less than method reporting limit)
ND(XX)	Non-Detected(Method Detection Limit)

FIGURES

Property Location

Frederickson Industrial Park
Frederickson, WA

Geosyntec consultants

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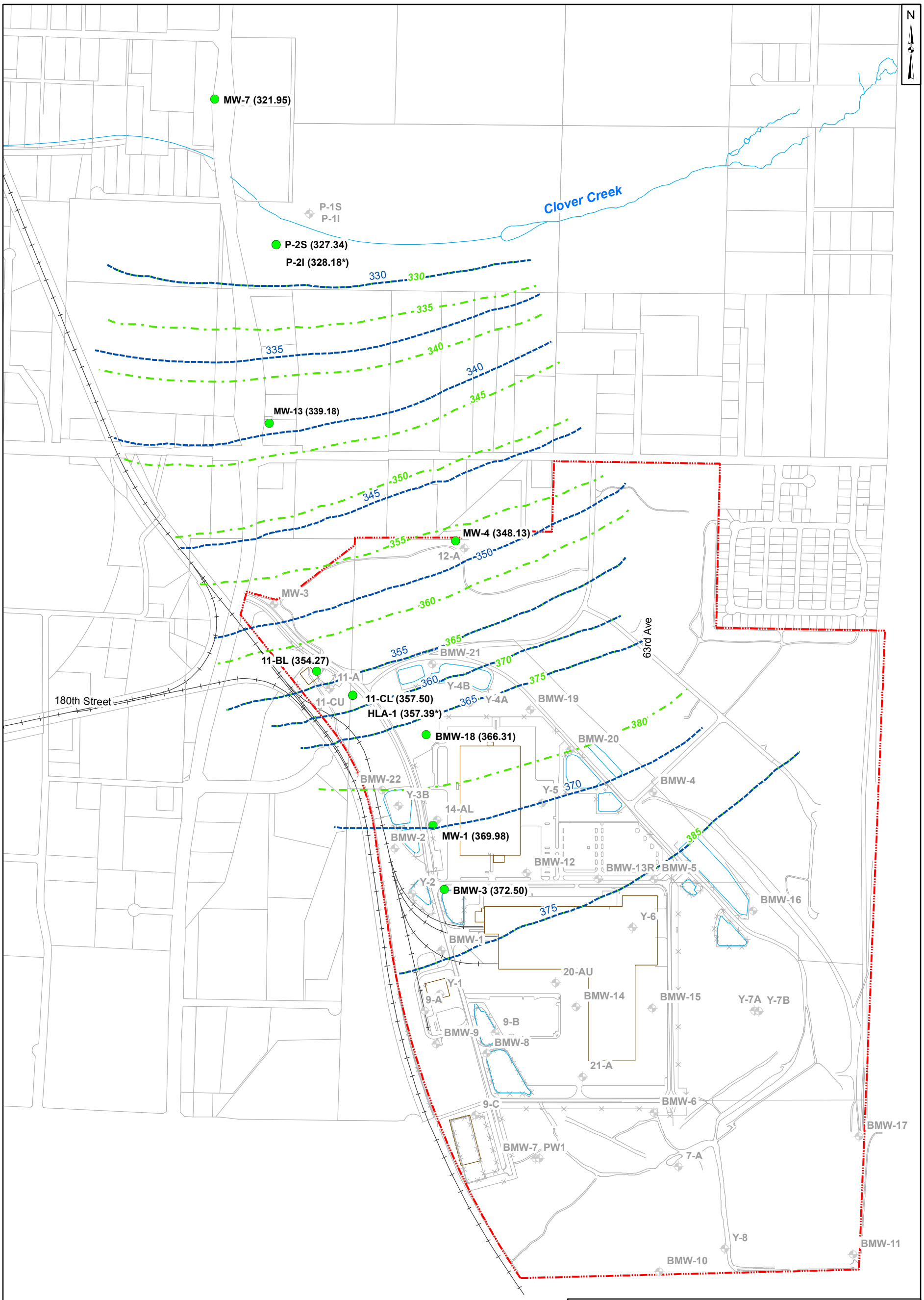
Figure 1

N:\Frederickson\GIS\Figure 1-1 Property Location.mxd: NHirons: 3/6/2015



Note:

* - Not used in water level contouring; well is screened in lower level of Aquifer A compared to wells used to develop contours.

Legend

- April 2014 Water Level Contours (ft masl)
- October 2014 Water Level Contours (ft masl)
- Aquifer A Compliance Monitoring Network Well (October 2014 Water Level (ft masl))
- Monitoring Wells
- Property Boundary

750 375 0 750 Feet

Aquifer A Groundwater Levels
April and October 2014

Frederickson Industrial Park
Frederickson, WA

Geosyntec consultants

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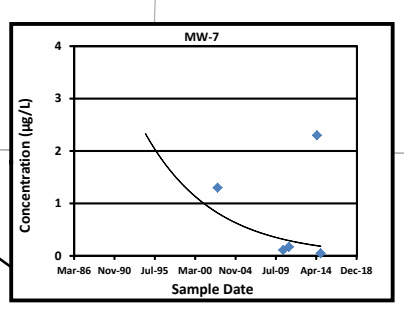
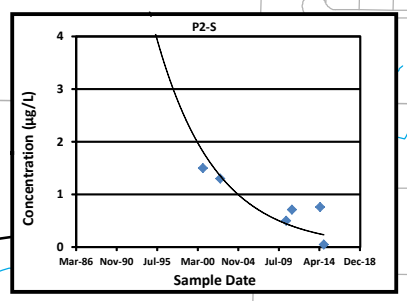
Figure **2**

N:\Frederickson\GIS\Figure 2 - Oln. GW. Elev. Oct2014.mxd: NHirons: 3/4/2015

N

MW-7 (2.3/<0.096)

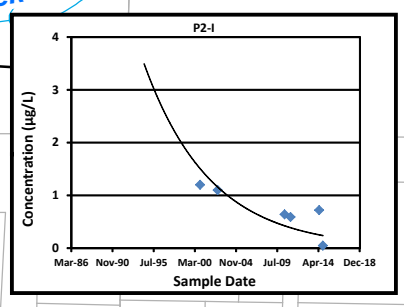


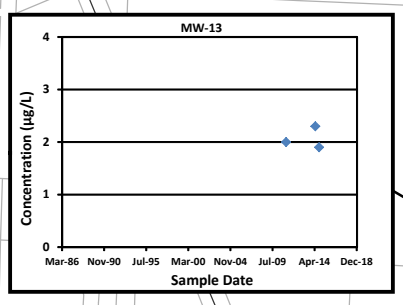


P-1S
P-1I

Clover Creek

P-2S (0.76/<0.096)
P-2I (0.72/<0.096)



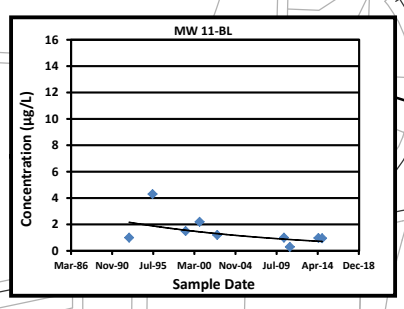


0.63 µg/L

MW-13 (2.3/1.9)

MW-4 (0.82/0.66)

12-A



63rd Ave

BMW-21

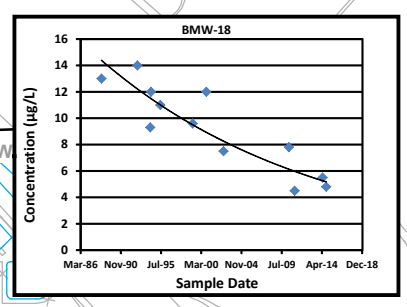
11-BL (0.97/0.95)

11-CL (5.4/4.4)

HLA-1 (5.2/4.6)

Y-4B Y-4A

11



BMW-18 (5.5/4.8)

Y-3B

Y-5

MW-1 (1.8/1.4)

AL

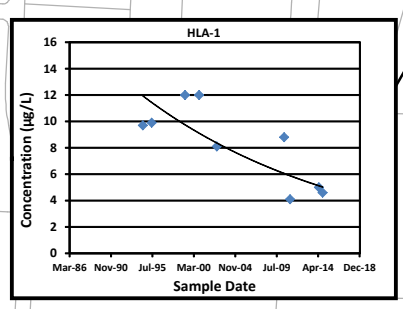
BMW-12

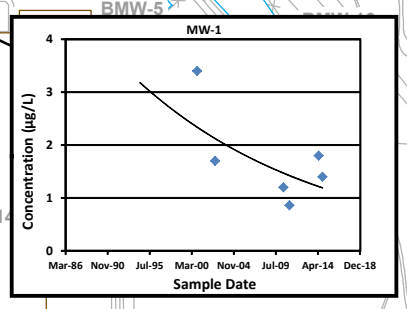
BMW-13R

Y-2

BMW-3 (0.28J/0.39J)

BMW-5





BMW-1

20-AU

Y-1

9-A

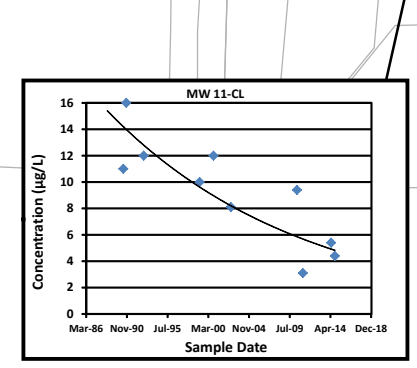
BMW-14

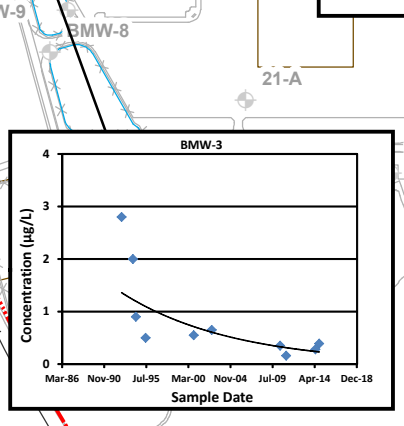
9-B

BMW-9

BMW-8

21-A





BMW-6

BMW-17

7-A

Y-8

BMW-11

BMW-10

Legend

- Aquifer A Monitoring Well (CTC Concentration (µg/L))
- Monitoring Wells
- CTC Contour for October 2014 data set
- Property Boundary

Notes:
1. (0.17 J) The results were above the Method Detection Limit (MDL), but below the Method Reporting Limit (MRL) and thus the values are estimated (i.e., J - flagged)
2. (5.2/4.6) Results from the May 2014 and October 2014 sampling events are displayed at each sampling location in parentheses. May 2014 results are shown on the left, and October 2014 results are shown on the right.

750 375 0 750 Feet

Aquifer A Carbon Tetrachloride Groundwater Results October 2014

Frederickson Industrial Park
Frederickson, WA

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Figure 3

N:\Frederickson\GIS\Figure_03_Olin_CTC_Conc_Oct2014.mxd; NHirons; 3/4/2015

Attachments

Attachment A.
Compliance Monitoring Groundwater Sampling Event Field Parameter Data
Brazier Site, Frederickson, Washington

Well	Date	Time	pH	Field SC (µS/cm)	Temperature (°C)	Turbidity (NTUs)	Field ORP (mV)	D.O. (mg/L)
11-BL	04/30/14	13:43	6.55	199	13.42	15	92.5	1.64
	10/02/14	10:42	6.69	247	12.06	4	9.6	1.08
11-CL	04/30/14	14:21	6.87	145	13.37	15	-42.5	1.22
	10/02/14	11:24	6.97	225	13.00	2	-18.2	1.04
BMW-18	04/30/14	15:06	6.85	163	13.91	12	44.1	1.31
	10/02/14	12:49	6.82	219	13.16	1	-51.4	1.08
BMW-3	04/30/14	11:45	6.75	77	15.27	14	83.6	1.87
	10/02/14	8:52	6.46	166	13.24	4	75.1	1.88
HLA-1	04/30/14	15:35	6.98	177	13.88	13	20.2	1.61
	10/02/14	12:07	6.95	223	12.78	3	36.3	1.50
MW-7	05/01/14	10:18	6.69	199	9.88	47	98.4	2.22
	10/02/14	8:34	6.52	245	12.99	7	39.1	1.44
MW-1	05/01/14	7:50	6.90	173	11.95	32	86.5	2.29
	10/02/14	8:13	6.89	225	11.98	186	112.6	2.53
MW-4	05/01/14	9:17	6.72	192	12.90	33	86.4	2.34
	10/03/14	9:49	6.73	245	11.99	10	24.6	1.51
P2-I	04/30/14	9:10	7.15	179	10.94	14	120.3	1.92
	10/03/14	9:53	6.71	216	11.96	2	177.6	2.19
P2-S	04/30/14	9:43	6.36	221	11.61	16	119.4	1.42
	10/03/14	9:28	6.49	277	11.52	10	6.3	1.08
MW-13	05/30/14	11:17	6.70	158	14.07	26	94.3	1.89
	10/03/14	10:53	6.68	204	12.41	123	23.2	1.60

Footnotes:

SC = Specific conductivity
D.O. = Dissolved oxygen
NTUs = Nephelometric Turbidity Units
ORP = Oxidation reduction potential

Attachment B

ALS Environmental
ALS Group USA, Corp.
1317 South 13th Avenue
Kelso, WA 98626
T: +1 360 577 7222
F: +1 360 636 1068
www.alsglobal.com

May 19, 2014 Analytical Report for Service Request No: K1404378

Jim Deitsch
Geosyntec Consultants
1255 Roberts Blvd.
Suite 200
Kennesaw, GA 30144-3694

RE: Brazier

Dear Jim:

Enclosed are the results of the samples submitted to our laboratory on May 02, 2014. For your reference, these analyses have been assigned our service request number K1404378.

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 call 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

GS/mj

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	2286
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Georgia DNR	http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L12-27
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Maine DHS	Not available	WA0035
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	WA35
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	WA200001
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	4704427-08-TX
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
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.caslab.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.

ALS ENVIRONMENTAL

Client:	GeoSyntec Consultants	**Service Request No.:**	K1404378
Project:	Brazier	**Date Received:**	05/02/14
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 II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

Sample Receipt

Fifteen water samples were received for analysis at ALS Environmental on 05/02/14. 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.

Volatile Organic Compounds by EPA Method 8260

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

Approved by 

ALS Environmental

CHAIN OF CUSTODY
49045

001

SR#_____

COC Set_____of_____

COC#_____

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

Project Name: Brazier	Project Number:
Project Manager: James Deitsch	
Company: Geosyntec	
Address:	
Phone #: 678-202-9507	email: jdeitsch@geosyntec.com
Sampler Signature:	Sampler Printed Name: LEE BORGS

CLIENT SAMPLE ID	LABID	SAMPLING Date	SAMPLING Time	Matrix	NUMBER OF CONTAINERS	14D	8260C / VOC FP	1	2	3	4	5	Remarks
1. GW-050114-MW-1		5/1/14	0757	GW	3		X						
2. GW-050114-MW-4		5/1/14	0918	GW	3		X						
3. GW-050114-MW-7		5/1/14	1019	GW	3		X						
4. GW-050114-MW-13		5/1/14	1118	GW	9		X						MS/MSD
5. GW-043014-BMW-3		4/30/14	1446	GW	3		X						
6. GW-043014-BMW-18		4/30/14	1507	GW	3		X						
7. GW-043014-HLA-1		4/30/14	1536	GW	3		X						
8. GW-043014-HLA-2		4/30/14	—	GW	3		X						
9. GW-043014-11-BL		4/30/14	1844	GW	3		X						
10. GW-043014-11-CL		4/30/14	1422	GW	3		X						

Report Requirements

___ I. Routine Report: Method Blank, Surrogate, as required

___ II. Report Dup., MS, MSD as required

___ III. CLP Like Summary (no raw data)

___ IV. Data Validation Report

___ V. EDD

Invoice Information

P.O.#_____

Bill To:_____

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:

CTC Only

*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: LEE BORGS	Printed Name: Dave Parkinson	Printed Name: Dave Parkinson	Printed Name: GHOKKANEN	Printed Name	Printed Name
Firm: BB	Firm: Geosyntec	Firm: Geosyntec	Firm: ALS	Firm	Firm
Date/Time: 5/1/14	Date/Time: 5/1/14	Date/Time: 5/1/14	Date/Time: 5.2.14 1150	Date/Time	Date/Time

ALS Environmental

CHAIN OF CUSTODY
49045

001

SR#_____

COC Set_____of_____

COC#_____

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

Project Name: Brazier | Project Number:

Project Manager: James Deitsch

Company: Geosyntec

Address:

Phone #: 678-202-9507 | email: JDeitsch@Geosyntec.com

Sampler Signature: | Sampler Printed Name: LEE BORES

CLIENT SAMPLE ID	LABID	SAMPLING Date	SAMPLING Time	Matrix	NUMBER OF CONTAINERS	14D	8260C / VOC FP	1	2	3	4	5	Remarks
1. GW-043014-P2-I		4/30/14	0911	GW	3		X						
2. GW1-043014-P2-S		4/30/14	0944	GW	3		X						
3. GW-050114-EB-1		5/1/14	1045	GW	3		X						
4. 52597		4/28/14	—	GW	2		X						
5. 52598		4/28/14	—	GW1	2		X						
6.													
7.													
8.													
9.													
10.													

Report Requirements

___ I. Routine Report: Method Blank, Surrogate, as required

___ II. Report Dup., MS, MSD as required

___ III. CLP Like Summary (no raw data)

___ IV. Data Validation Report

___ V. EDD

Invoice Information

P.O.#_____

Bill To:_____

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: CTC only

*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: LEE BORES	Printed Name: Dave Parkinson	Printed Name: Dave Parkinson	Printed Name: [illegible]	Printed Name	Printed Name
Firm: BTS	Firm: Geosyntec	Firm: Geosyntec	Firm: ALS	Firm	Firm
Date/Time: 5/1/14	Date/Time: 5/1/14	Date/Time: 5/1/14	Date/Time: 5/2/14 1130	Date/Time	Date/Time

PC Greg

Cooler Receipt and Preservation Form

Client / Project: Geosyntec Service Request *K14* 04378

Received: 5-2-14 Opened: 5-2-14 By: GH Unloaded: 5-2-14 By: CH

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? 2 on front
   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
4.8	4.7	2.1	2.0	-0.1	328			

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

Sample ID on Bottle	Sample ID on COC	Identified by:

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

Notes, Discrepancies, & Resolutions: _____

Page ____ *of* ____

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	05/01/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-050114-MW-1	**Units:**	ug/L
Lab Code:	K1404378-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.8**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	05/08/14	Acceptable
Toluene-d8	103	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	93	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	05/01/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-050114-MW-4	**Units:**	ug/L
Lab Code:	K1404378-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.82**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	73-122	05/08/14	Acceptable
Toluene-d8	105	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	92	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	05/01/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-050114-MW-7	**Units:**	ug/L
Lab Code:	K1404378-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**2.3**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	73-122	05/08/14	Acceptable
Toluene-d8	104	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	93	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	05/01/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-050114-MW-13	**Units:**	ug/L
Lab Code:	K1404378-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**2.3**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	05/08/14	Acceptable
Toluene-d8	103	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	91	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-BMW-3	**Units:**	ug/L
Lab Code:	K1404378-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.28**	J	0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	05/07/14	Acceptable
Toluene-d8	103	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	98	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-BMW-18	**Units:**	ug/L
Lab Code:	K1404378-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**5.5**		0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	73-122	05/07/14	Acceptable
Toluene-d8	105	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	100	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-HLA-1	**Units:**	ug/L
Lab Code:	K1404378-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**5.0**		0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	05/07/14	Acceptable
Toluene-d8	105	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	99	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazeau	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-HLA-2	**Units:**	ug/L
Lab Code:	K1404378-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**5.2**		0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	05/07/14	Acceptable
Toluene-d8	104	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	101	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-11-BL	**Units:**	ug/L
Lab Code:	K1404378-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.97**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	73-122	05/08/14	Acceptable
Toluene-d8	103	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	92	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-11-CL	**Units:**	ug/L
Lab Code:	K1404378-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**5.4**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	73-122	05/08/14	Acceptable
Toluene-d8	104	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	93	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-P2-I	**Units:**	ug/L
Lab Code:	K1404378-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.72**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	73-122	05/08/14	Acceptable
Toluene-d8	104	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	93	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/30/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-043014-P2-S	**Units:**	ug/L
Lab Code:	K1404378-012	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.76**		0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	73-122	05/08/14	Acceptable
Toluene-d8	104	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	92	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	05/01/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	GW-050114-EB-1	**Units:**	ug/L
Lab Code:	K1404378-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	05/08/14	Acceptable
Toluene-d8	105	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	93	68-117	05/08/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/28/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	52597	**Units:**	ug/L
Lab Code:	K1404378-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	73-122	05/07/14	Acceptable
Toluene-d8	106	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	99	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	04/28/2014
Sample Matrix:	Water	**Date Received:**	05/02/2014

Volatile Organic Compounds

Sample Name:	52598	**Units:**	ug/L
Lab Code:	K1404378-015	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	73-122	05/07/14	Acceptable
Toluene-d8	106	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	100	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1404137-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/07/14	05/07/14	KWG1404137	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	05/07/14	Acceptable
Toluene-d8	103	65-144	05/07/14	Acceptable
4-Bromofluorobenzene	102	68-117	05/07/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1404189-5	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/08/14	05/08/14	KWG1404189	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	73-122	05/08/14	Acceptable
Toluene-d8	103	65-144	05/08/14	Acceptable
4-Bromofluorobenzene	94	68-117	05/08/14	Acceptable

Comments:

Client: GeoSyntec Consultants **Service Request:** K1404378
Project: Brazier
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
GW-050114-MW-1	K1404378-001	99	103	93
GW-050114-MW-4	K1404378-002	97	105	92
GW-050114-MW-7	K1404378-003	100	104	93
GW-050114-MW-13	K1404378-004	99	103	91
GW-043014-BMW-3	K1404378-005	102	103	98
GW-043014-BMW-18	K1404378-006	104	105	100
GW-043014-HLA-1	K1404378-007	101	105	99
GW-043014-HLA-2	K1404378-008	102	104	101
GW-043014-11-BL	K1404378-009	100	103	92
GW-043014-11-CL	K1404378-010	100	104	93
GW-043014-P2-I	K1404378-011	103	104	93
GW-043014-P2-S	K1404378-012	104	104	92
GW-050114-EB-1	K1404378-013	102	105	93
52597	K1404378-014	104	106	99
52598	K1404378-015	103	106	100
Method Blank	KWG1404137-4	101	103	102
Method Blank	KWG1404189-5	100	103	94
GW-050114-MW-13MS	KWG1404189-1	99	107	98
GW-050114-MW-13DMS	KWG1404189-2	99	106	97
Lab Control Sample	KWG1404137-3	105	106	101
Lab Control Sample	KWG1404189-3	101	106	98
Duplicate Lab Control Sample	KWG1404189-4	98	105	98

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	73-122
Sur2	=	Toluene-d8	65-144
Sur3	=	4-Bromofluorobenzene	68-117

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

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

Client: GeoSyntec Consultants
Project: Brazier
Sample Matrix: Water

Service Request: K1404378
Date Extracted: 05/08/2014
Date Analyzed: 05/08/2014

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: GW-050114-MW-13
Lab Code: K1404378-004

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low
Extraction Lot: KWG1404189

		GW-050114-MW-13MS KWG1404189-1 Matrix Spike			GW-050114-MW-13DMS KWG1404189-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	2.3	13.4	10.0	111	12.1	10.0	97	53-161	11	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:	GeoSyntec Consultants	**Service Request:**	K1404378
Project:	Brazier	**Date Extracted:**	05/07/2014
Sample Matrix:	Water	**Date Analyzed:**	05/07/2014

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1404137

	Lab Control Sample KWG1404137-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Carbon Tetrachloride	10.1	10.0	101	55-140

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: GeoSyntec Consultants
Project: Brazier
Sample Matrix: Water

Service Request: K1404378
Date Extracted: 05/08/2014
Date Analyzed: 05/08/2014

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1404189

	Lab Control Sample KWG1404189-3 Lab Control Spike			Duplicate Lab Control Sample KWG1404189-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	11.3	10.0	113	10.3	10.0	103	55-140	10	30

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

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

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October 24, 2014 Analytical Report for Service Request No: K1410890

Dave Parkinson
GeoSyntec Consultants
1700 Seventh Ave., Suite 2100
Seattle, WA 98101

RE: Frederickson

Dear Dave:

Enclosed are the results of the samples submitted to our laboratory on October 04, 2014. For your reference, these analyses have been assigned our service request number K1410890.

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 call 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

Gregory Salata, Ph.D.
Client Services Manager

GS/aj

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
1317 South 13th Avenue, Kelso, WA 98626
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ALS ENVIRONMENTAL

Client:	GeoSyntec Consultants	**Service Request No.:**	K1410890
Project:	Frederickson	**Date Received:**	10/04/14
Sample Matrix:	Water		

Case Narrative

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

Sample Receipt

Fifteen water samples were received for analysis at ALS Environmental on 10/04/14. The samples were received in good condition and consistent with the accompanying chain of custody form, except where noted on the cooler receipt and preservation form included in this report. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Volatile Organic Compounds by EPA Method 8260

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

Approved by_____

Chain of Custody

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K1410840

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 141002-LB1

CLIENT: Geosyntec Consultants

SITE: BOEING- Frederickson
18001 Canyon Rd East
Frederickson, WA

LAB: ALS | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to: Geosyntec Consultants Attn: David Parki

CONDUCT ANALYSIS TO DETECT

#	SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	VOC's (8260)	(CTC) Carbon Tetrachloride	(RDX)	(TNT)	Perchlorate	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
	GW-100214-MW-1	10/2/14	0814	W	3	VOA			X							
2	GW-100214-MW-2	10/2/14	0950	W	3	VOA			X							
3	GW-100314-MW-7	10/3/14	0835	W	3	VOA			X							
4	GW-100314-MW-8	10/3/14	1059	W	3	VOA			X				MS/MSD			
5	GW-100214-11-EL	10/2/14	1043	W	3	VOA			X							
6	GW-100214-11-CL	10/2/14	1125	W	3	VOA			X							
7	GW-100214-BMW-3	10/2/14	0858	W	3	VOA			X							
8	GW-100214-BMW-8	10/2/14	1250	W	3	VOA			X							
9	GW-100214-HLA-1	10/2/14	1208	W	3	VOA			X							
10	GW-100314-P-21	10/3/14	0954	W	3	VOA			X							

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	10/2/14	1130	LEE BURES

RESULTS NEEDED NO LATER THAN: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10/2/14	1300	SHIPPED VIA FEDEX	10/2/14	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			Barri Krell	10/4/14	1000
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

K1410940

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 141002-LB1

CLIENT: Geosyntec Consultants

SITE: BOEING- Frederickson
18001 Canyon Rd East
Frederickson, WA

LAB: ALS | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to: Geosyntec Consultants Attn: David Parki

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX (S= SOIL W=H_2O)	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	VOC's (8260)	(CTC) Carbon Tetrachloride	(RDX)	(TNT)	Perchlorate			ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
GW-100314-P-25	10/3/14	0909	W	3	VOA			X									
GW-100314-DUP	10/3/14	—	W	3	VOA			X									
3 TB-5481B	9/23/14	—	W	2	VOA			X									
4 TB-5481A	9/23/14	—	W	2	VOA			X									
5 GW-100314-EB	10/3/14	1059	W	3	VOA			X									

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	10/2/14	1130	LEE BURES	Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10/2/14	1300	SHIPPED VIA FEDEX	10/2/14	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			Bobbi Krell	10/4/14	1000
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

PC Barry

Cooler Receipt and Preservation Form

Client / Project: Blaine Tech. Services Service Request K14 10890

Received: 10/4/14 Opened: 10/4/14 By: BK Unloaded: 10/4/14 By: BK

1. Samples were received via? *Mail* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 front
   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
0.5	0.6	—	—	0.1	316		875795549921	

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) X
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* BK 10/4/14 (NA) X 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
X GW-100314-MW-13	1 VOA			X						

Notes, Discrepancies, & Resolutions: Sample "GW-100314-MW-13" came with 9 bottles, COC indicates 3.

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: GeoSyntec Consultants **Service Request:** K1410890
Project: Frederickson

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
GW-100214-MW-1	K1410890-001	10/02/2014	10/04/2014
GW-100214-MW-4	K1410890-002	10/02/2014	10/04/2014
GW-100314-MW-7	K1410890-003	10/03/2014	10/04/2014
GW-100314-MW-13	K1410890-004	10/03/2014	10/04/2014
GW-100214-11-BL	K1410890-005	10/02/2014	10/04/2014
GW-100214-11-CL	K1410890-006	10/02/2014	10/04/2014
GW-100214-BMW-3	K1410890-007	10/02/2014	10/04/2014
GW-100214-BMW-18	K1410890-008	10/02/2014	10/04/2014
GW-100214-HLA-1	K1410890-009	10/02/2014	10/04/2014
GW-100314-P-ZI	K1410890-010	10/03/2014	10/04/2014
GW-100314-P-ZS	K1410890-011	10/03/2014	10/04/2014
GW-100314-DUP	K1410890-012	10/03/2014	10/04/2014
TB-54813	K1410890-013	10/02/2014	10/04/2014
TB-54814	K1410890-014	10/02/2014	10/04/2014
GW-100314-EB	K1410890-015	10/03/2014	10/04/2014
GW-100314-MW-13MS	KWG1413956-1	10/03/2014	10/04/2014
GW-100314-MW-13DMS	KWG1413956-2	10/03/2014	10/04/2014

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-MW-1	**Units:**	ug/L
Lab Code:	K1410890-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.4**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	10/15/14	Acceptable
Toluene-d8	98	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	96	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-MW-4	**Units:**	ug/L
Lab Code:	K1410890-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.66**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	98	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/03/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100314-MW-7	**Units:**	ug/L
Lab Code:	K1410890-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	96	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/03/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100314-MW-13	**Units:**	ug/L
Lab Code:	K1410890-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.9**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	96	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-11-BL	**Units:**	ug/L
Lab Code:	K1410890-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.95**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	10/15/14	Acceptable
Toluene-d8	96	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	97	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-11-CL	**Units:**	ug/L
Lab Code:	K1410890-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.4**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	94	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-BMW-3	**Units:**	ug/L
Lab Code:	K1410890-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.39**	J	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	97	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-BMW-18	**Units:**	ug/L
Lab Code:	K1410890-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.8**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	100	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100214-HLA-1	**Units:**	ug/L
Lab Code:	K1410890-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.6**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	97	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/03/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100314-P-ZI	**Units:**	ug/L
Lab Code:	K1410890-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/15/14	Acceptable
Toluene-d8	97	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	96	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/03/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100314-P-ZS	**Units:**	ug/L
Lab Code:	K1410890-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/15/14	Acceptable
Toluene-d8	96	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	94	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/03/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100314-DUP	**Units:**	ug/L
Lab Code:	K1410890-012	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.8**		0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/15/14	Acceptable
Toluene-d8	96	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	98	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	TB-54813	**Units:**	ug/L
Lab Code:	K1410890-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	73-122	10/15/14	Acceptable
Toluene-d8	96	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	98	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/02/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	TB-54814	**Units:**	ug/L
Lab Code:	K1410890-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	10/15/14	Acceptable
Toluene-d8	96	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	96	68-117	10/15/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	10/03/2014
Sample Matrix:	Water	**Date Received:**	10/04/2014

Volatile Organic Compounds

Sample Name:	GW-100314-EB	**Units:**	ug/L
Lab Code:	K1410890-015	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/15/14	Acceptable
Toluene-d8	98	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	97	68-117	10/15/14	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1413956-5	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/15/14	10/15/14	KWG1413956	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/15/14	Acceptable
Toluene-d8	96	65-144	10/15/14	Acceptable
4-Bromofluorobenzene	97	68-117	10/15/14	Acceptable

Comments:

Client: GeoSyntec Consultants **Service Request:** K1410890
Project: Frederickson
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
GW-100214-MW-1	K1410890-001	94	98	96
GW-100214-MW-4	K1410890-002	91	97	98
GW-100314-MW-7	K1410890-003	93	97	96
GW-100314-MW-13	K1410890-004	92	97	96
GW-100214-11-BL	K1410890-005	94	96	97
GW-100214-11-CL	K1410890-006	92	97	94
GW-100214-BMW-3	K1410890-007	93	97	97
GW-100214-BMW-18	K1410890-008	95	97	100
GW-100214-HLA-1	K1410890-009	93	97	97
GW-100314-P-ZI	K1410890-010	92	97	96
GW-100314-P-ZS	K1410890-011	93	96	94
GW-100314-DUP	K1410890-012	92	96	98
TB-54813	K1410890-013	96	96	98
TB-54814	K1410890-014	91	96	96
GW-100314-EB	K1410890-015	92	98	97
Method Blank	KWG1413956-5	93	96	97
GW-100314-MW-13MS	KWG1413956-1	97	98	98
GW-100314-MW-13DMS	KWG1413956-2	94	97	99
Lab Control Sample	KWG1413956-3	95	96	99
Duplicate Lab Control Sample	KWG1413956-4	97	98	100

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	73-122
Sur2	=	Toluene-d8	65-144
Sur3	=	4-Bromofluorobenzene	68-117

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: GeoSyntec Consultants
Project: Frederickson

Service Request: K1410890
Date Analyzed: 10/15/2014
Time Analyzed: 10:17

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS27\DATA\101514\1015F003.D
Instrument ID: MS27
Analysis Method: 8260C

Lab Code: KWG1413955-2
Analysis Lot: KWG1413955

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	1,059,853	6.47	422,763	9.65	410,693	11.99
	Upper Limit ==>	2,119,706	6.97	845,526	10.15	821,386	12.49
	Lower Limit ==>	529,927	5.97	211,382	9.15	205,347	11.49
	ICAL Result ==>	1,090,039	6.47	465,439	9.65	460,144	11.99
Associated Analyses							
Lab Control Sample	KWG1413956-3	1,135,933	6.47	456,886	9.65	447,491	11.99
Duplicate Lab Control Sample	KWG1413956-4	1,140,496	6.47	461,827	9.65	448,951	11.99
GW-100314-MW-13MS	KWG1413956-1	1,094,797	6.47	447,911	9.65	436,499	11.99
GW-100314-MW-13DMS	KWG1413956-2	1,113,945	6.47	449,707	9.65	444,978	11.99
Method Blank	KWG1413956-5	1,078,149	6.47	429,457	9.65	421,420	11.99
TB-54813	K1410890-013	1,072,058	6.47	426,432	9.65	418,171	11.99
TB-54814	K1410890-014	1,078,756	6.47	437,950	9.65	419,770	11.99
GW-100314-MW-13	K1410890-004	1,048,378	6.47	426,230	9.65	416,690	11.99
GW-100214-MW-1	K1410890-001	1,074,568	6.47	437,405	9.65	423,178	11.99
GW-100214-MW-4	K1410890-002	1,067,152	6.47	426,220	9.65	413,108	11.99
GW-100314-MW-7	K1410890-003	1,050,739	6.47	421,446	9.65	410,754	11.99
GW-100214-11-BL	K1410890-005	1,053,214	6.47	423,556	9.65	410,895	11.99
GW-100214-11-CL	K1410890-006	1,051,296	6.47	429,239	9.65	412,477	11.99
GW-100214-BMW-3	K1410890-007	1,052,171	6.47	422,091	9.65	405,900	11.99
GW-100214-BMW-18	K1410890-008	1,059,290	6.47	424,687	9.65	418,885	11.99
GW-100214-HLA-1	K1410890-009	1,048,234	6.47	420,762	9.65	409,594	11.99
GW-100314-P-ZI	K1410890-010	1,047,354	6.47	422,511	9.65	403,460	11.99
GW-100314-P-ZS	K1410890-011	1,071,199	6.47	432,364	9.65	417,567	11.99
GW-100314-DUP	K1410890-012	1,072,863	6.47	424,790	9.65	419,858	11.99
GW-100314-EB	K1410890-015	1,045,450	6.47	424,094	9.65	414,038	11.99

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

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Extracted:**	10/15/2014
Sample Matrix:	Water	**Date Analyzed:**	10/15/2014

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	GW-100314-MW-13	**Units:**	ug/L
Lab Code:	K1410890-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1413956

		GW-100314-MW-13MS KWG1413956-1 Matrix Spike			GW-100314-MW-13DMS KWG1413956-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	1.9	11.1	10.0	92	10.4	10.0	85	53-161	6	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:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Extracted:**	10/15/2014
Sample Matrix:	Water	**Date Analyzed:**	10/15/2014

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1413956

	Lab Control Sample KWG1413956-3 Lab Control Spike			Duplicate Lab Control Sample KWG1413956-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	8.58	10.0	86	7.92	10.0	79	55-140	8	30

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

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

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Extracted:**	10/15/2014
Sample Matrix:	Water	**Date Analyzed:**	10/15/2014
		Time Analyzed:	13:29

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	MS27
Lab Code:	KWG1413956-5	**File ID:**	J:\MS27\DATA\101514\1015F010.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1413956

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1413956-3	J:\MS27\DATA\101514\1015F004.D	10/15/14	10:45
Duplicate Lab Control Sample	KWG1413956-4	J:\MS27\DATA\101514\1015F005.D	10/15/14	11:12
GW-100314-MW-13MS	KWG1413956-1	J:\MS27\DATA\101514\1015F006.D	10/15/14	11:40
GW-100314-MW-13DMS	KWG1413956-2	J:\MS27\DATA\101514\1015F007.D	10/15/14	12:07
TB-54813	K1410890-013	J:\MS27\DATA\101514\1015F011.D	10/15/14	13:57
TB-54814	K1410890-014	J:\MS27\DATA\101514\1015F012.D	10/15/14	14:24
GW-100314-MW-13	K1410890-004	J:\MS27\DATA\101514\1015F013.D	10/15/14	14:52
GW-100214-MW-1	K1410890-001	J:\MS27\DATA\101514\1015F014.D	10/15/14	15:19
GW-100214-MW-4	K1410890-002	J:\MS27\DATA\101514\1015F015.D	10/15/14	15:47
GW-100314-MW-7	K1410890-003	J:\MS27\DATA\101514\1015F016.D	10/15/14	16:14
GW-100214-11-BL	K1410890-005	J:\MS27\DATA\101514\1015F017.D	10/15/14	16:41
GW-100214-11-CL	K1410890-006	J:\MS27\DATA\101514\1015F018.D	10/15/14	17:09
GW-100214-BMW-3	K1410890-007	J:\MS27\DATA\101514\1015F019.D	10/15/14	17:36
GW-100214-BMW-18	K1410890-008	J:\MS27\DATA\101514\1015F020.D	10/15/14	18:04
GW-100214-HLA-1	K1410890-009	J:\MS27\DATA\101514\1015F021.D	10/15/14	18:31
GW-100314-P-ZI	K1410890-010	J:\MS27\DATA\101514\1015F022.D	10/15/14	18:59
GW-100314-P-ZS	K1410890-011	J:\MS27\DATA\101514\1015F023.D	10/15/14	19:26
GW-100314-DUP	K1410890-012	J:\MS27\DATA\101514\1015F024.D	10/15/14	19:53
GW-100314-EB	K1410890-015	J:\MS27\DATA\101514\1015F025.D	10/15/14	20:21

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1410890
Project:	Frederickson	**Date Extracted:**	10/15/2014
Sample Matrix:	Water	**Date Analyzed:**	10/15/2014
		Time Analyzed:	10:45

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	MS27
Lab Code:	KWG1413956-3	**File ID:**	J:\MS27\DATA\101514\1015F004.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1413956

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
GW-100314-MW-13MS	KWG1413956-1	J:\MS27\DATA\101514\1015F006.D	10/15/14	11:40
GW-100314-MW-13DMS	KWG1413956-2	J:\MS27\DATA\101514\1015F007.D	10/15/14	12:07
Method Blank	KWG1413956-5	J:\MS27\DATA\101514\1015F010.D	10/15/14	13:29
TB-54813	K1410890-013	J:\MS27\DATA\101514\1015F011.D	10/15/14	13:57
TB-54814	K1410890-014	J:\MS27\DATA\101514\1015F012.D	10/15/14	14:24
GW-100314-MW-13	K1410890-004	J:\MS27\DATA\101514\1015F013.D	10/15/14	14:52
GW-100214-MW-1	K1410890-001	J:\MS27\DATA\101514\1015F014.D	10/15/14	15:19
GW-100214-MW-4	K1410890-002	J:\MS27\DATA\101514\1015F015.D	10/15/14	15:47
GW-100314-MW-7	K1410890-003	J:\MS27\DATA\101514\1015F016.D	10/15/14	16:14
GW-100214-11-BL	K1410890-005	J:\MS27\DATA\101514\1015F017.D	10/15/14	16:41
GW-100214-11-CL	K1410890-006	J:\MS27\DATA\101514\1015F018.D	10/15/14	17:09
GW-100214-BMW-3	K1410890-007	J:\MS27\DATA\101514\1015F019.D	10/15/14	17:36
GW-100214-BMW-18	K1410890-008	J:\MS27\DATA\101514\1015F020.D	10/15/14	18:04
GW-100214-HLA-1	K1410890-009	J:\MS27\DATA\101514\1015F021.D	10/15/14	18:31
GW-100314-P-ZI	K1410890-010	J:\MS27\DATA\101514\1015F022.D	10/15/14	18:59
GW-100314-P-ZS	K1410890-011	J:\MS27\DATA\101514\1015F023.D	10/15/14	19:26
GW-100314-DUP	K1410890-012	J:\MS27\DATA\101514\1015F024.D	10/15/14	19:53
GW-100314-EB	K1410890-015	J:\MS27\DATA\101514\1015F025.D	10/15/14	20:21

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson

Service Request: K1410890
Date Analyzed: 10/15/2014
Time Analyzed: 09:22

Tune Summary
Volatile Organic Compounds

File ID: J:\MS27\DATA\101514\1015F002.D
Instrument ID: MS27
Column:

Analysis Method: 8260C
Analysis Lot: KWG1413955

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.8	13846	PASS
75	95	30	60	45.5	37452	PASS
95	95	100	100	100.0	82298	PASS
96	95	5	9	6.7	5485	PASS
173	174	0	2	1.0	760	PASS
174	95	50	120	90.5	74482	PASS
175	174	5	9	7.1	5318	PASS
176	174	95	101	96.4	71768	PASS
177	176	5	9	6.0	4324	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1413955-2	J:\MS27\DATA\101514\1015F003.D	10/15/2014	10:17	
Lab Control Sample	KWG1413956-3	J:\MS27\DATA\101514\1015F004.D	10/15/2014	10:45	
Duplicate Lab Control Sample	KWG1413956-4	J:\MS27\DATA\101514\1015F005.D	10/15/2014	11:12	
GW-100314-MW-13MS	KWG1413956-1	J:\MS27\DATA\101514\1015F006.D	10/15/2014	11:40	
GW-100314-MW-13DMS	KWG1413956-2	J:\MS27\DATA\101514\1015F007.D	10/15/2014	12:07	
Method Blank	KWG1413956-5	J:\MS27\DATA\101514\1015F010.D	10/15/2014	13:29	
TB-54813	K1410890-013	J:\MS27\DATA\101514\1015F011.D	10/15/2014	13:57	
TB-54814	K1410890-014	J:\MS27\DATA\101514\1015F012.D	10/15/2014	14:24	
GW-100314-MW-13	K1410890-004	J:\MS27\DATA\101514\1015F013.D	10/15/2014	14:52	
GW-100214-MW-1	K1410890-001	J:\MS27\DATA\101514\1015F014.D	10/15/2014	15:19	
GW-100214-MW-4	K1410890-002	J:\MS27\DATA\101514\1015F015.D	10/15/2014	15:47	
GW-100314-MW-7	K1410890-003	J:\MS27\DATA\101514\1015F016.D	10/15/2014	16:14	
GW-100214-11-BL	K1410890-005	J:\MS27\DATA\101514\1015F017.D	10/15/2014	16:41	
GW-100214-11-CL	K1410890-006	J:\MS27\DATA\101514\1015F018.D	10/15/2014	17:09	
GW-100214-BMW-3	K1410890-007	J:\MS27\DATA\101514\1015F019.D	10/15/2014	17:36	
GW-100214-BMW-18	K1410890-008	J:\MS27\DATA\101514\1015F020.D	10/15/2014	18:04	
GW-100214-HLA-1	K1410890-009	J:\MS27\DATA\101514\1015F021.D	10/15/2014	18:31	
GW-100314-P-ZI	K1410890-010	J:\MS27\DATA\101514\1015F022.D	10/15/2014	18:59	
GW-100314-P-ZS	K1410890-011	J:\MS27\DATA\101514\1015F023.D	10/15/2014	19:26	
GW-100314-DUP	K1410890-012	J:\MS27\DATA\101514\1015F024.D	10/15/2014	19:53	
GW-100314-EB	K1410890-015	J:\MS27\DATA\101514\1015F025.D	10/15/2014	20:21	

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

Client: GeoSyntec Consultants **Service Request:** K1410890
Project: Frederickson **Calibration Date:** 10/08/2014

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL13596 **Column:** MS
Instrument ID: MS27

Level ID	File ID	Level ID	File ID
A	J:\MS27\DATA\100814\1008F004.D	G	J:\MS27\DATA\100814\1008F010.D
B	J:\MS27\DATA\100814\1008F005.D	H	J:\MS27\DATA\100814\1008F011.D
C	J:\MS27\DATA\100814\1008F006.D	I	J:\MS27\DATA\100814\1008F012.D
D	J:\MS27\DATA\100814\1008F007.D	J	J:\MS27\DATA\100814\1008F013.D
E	J:\MS27\DATA\100814\1008F008.D	K	J:\MS27\DATA\100814\1008F014.D
F	J:\MS27\DATA\100814\1008F009.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Carbon Tetrachloride	A	0.10	0.289	B	0.20	0.356	C	0.50	0.325	D	1.0	0.371	E	2.0	0.295
	F	5.0	0.345	G	10	0.365	H	20	0.348	I	40	0.359	J	60	0.370
	K	80	0.381												
Dibromofluoromethane	A	10	0.268	B	10	0.270	C	10	0.268	D	10	0.273	E	10	0.271
	F	10	0.272	G	10	0.274	H	10	0.275	I	10	0.276	J	10	0.281
	K	10	0.284												
Toluene-d8	A	10	0.993	B	10	0.995	C	10	0.998	D	10	1.00	E	10	0.989
	F	10	0.993	G	10	1.01	H	10	1.01	I	10	0.996	J	10	1.01
	K	10	1.01												
4-Bromofluorobenzene	A	10	0.907	B	10	0.906	C	10	0.905	D	10	0.893	E	10	0.890
	F	10	0.914	G	10	0.905	H	10	0.923	I	10	0.921	J	10	0.921
	K	10	0.908												

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

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants **Service Request:** K1410890
Project: Frederickson **Calibration Date:** 10/08/2014

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL13596 **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**
Carbon Tetrachloride	MS	AverageRF	% RSD	8.9		≤ 20	0.346		0.100
Dibromofluoromethane	SURR	AverageRF	% RSD	1.8		≤ 20	0.274		0.01
Toluene-d8	SURR	AverageRF	% RSD	0.8		≤ 20	1.00		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	1.2		≤ 20	0.908		0.01

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

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson

Service Request: K1410890
Calibration Date: 10/08/2014
Date Analyzed: 10/08/2014

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL13596
Units: PPB

File ID: J:\MS27\DATA\100814\1008F017.D
J:\MS27\DATA\100814\1008F021.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	10	0.346	0.362	5	NA	± 30 %	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants
Project: Frederickson

Service Request: K1410890
Date Analyzed: 10/15/2014

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 10/08/2014
Calibration ID: CAL13596
Analysis Lot: KWG1413955
Units: PPB

File ID: J:\MS27\DATA\101514\1015F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	9.4	0.100	0.346	0.324	-6	NA	± 20	AverageRF
Dibromofluoromethane	10	9.6	0.01	0.274	0.263	-4	NA	± 20	AverageRF
Toluene-d8	10	9.8	0.01	1.00	0.976	-2	NA	± 20	AverageRF
4-Bromofluorobenzene	10	9.9	0.01	0.908	0.895	-1	NA	± 20	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants **Service Request:** K1410890
Project: Frederickson

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C **Analysis Lot:** KWG1413955
Instrument ID: MS27

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1015F002.D	GC/MS Tuning - Bromofluorobenzene	KWG1413955-1	10/15/2014	09:22		10/15/2014	09:39
1015F003.D	Continuing Calibration Verification	KWG1413955-2	10/15/2014	10:17		10/15/2014	10:34
1015F004.D	Lab Control Sample	KWG1413956-3	10/15/2014	10:45		10/15/2014	11:02
1015F005.D	Duplicate Lab Control Sample	KWG1413956-4	10/15/2014	11:12		10/15/2014	11:29
1015F006.D	GW-100314-MW-13MS	KWG1413956-1	10/15/2014	11:40		10/15/2014	11:57
1015F007.D	GW-100314-MW-13DMS	KWG1413956-2	10/15/2014	12:07		10/15/2014	12:24
1015F010.D	Method Blank	KWG1413956-5	10/15/2014	13:29		10/15/2014	13:46
1015F011.D	TB-54813	K1410890-013	10/15/2014	13:57		10/15/2014	14:14
1015F012.D	TB-54814	K1410890-014	10/15/2014	14:24		10/15/2014	14:41
1015F013.D	GW-100314-MW-13	K1410890-004	10/15/2014	14:52		10/15/2014	15:09
1015F014.D	GW-100214-MW-1	K1410890-001	10/15/2014	15:19		10/15/2014	15:36
1015F015.D	GW-100214-MW-4	K1410890-002	10/15/2014	15:47		10/15/2014	16:04
1015F016.D	GW-100314-MW-7	K1410890-003	10/15/2014	16:14		10/15/2014	16:31
1015F017.D	GW-100214-11-BL	K1410890-005	10/15/2014	16:41		10/15/2014	16:58
1015F018.D	GW-100214-11-CL	K1410890-006	10/15/2014	17:09		10/15/2014	17:26
1015F019.D	GW-100214-BMW-3	K1410890-007	10/15/2014	17:36		10/15/2014	17:53
1015F020.D	GW-100214-BMW-18	K1410890-008	10/15/2014	18:04		10/15/2014	18:21
1015F021.D	GW-100214-HLA-1	K1410890-009	10/15/2014	18:31		10/15/2014	18:48
1015F022.D	GW-100314-P-ZI	K1410890-010	10/15/2014	18:59		10/15/2014	19:16
1015F023.D	GW-100314-P-ZS	K1410890-011	10/15/2014	19:26		10/15/2014	19:43
1015F024.D	GW-100314-DUP	K1410890-012	10/15/2014	19:53		10/15/2014	20:10
1015F025.D	GW-100314-EB	K1410890-015	10/15/2014	20:21		10/15/2014	20:38
1015F026.D	ZZZZZZ	ZZZZZZ	10/15/2014	20:48		10/15/2014	21:05
1015F027.D	ZZZZZZ	ZZZZZZ	10/15/2014	21:16		10/15/2014	21:33

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

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson
Sample Matrix: Water

Service Request: K1410890
Date Extracted: 10/15/2014

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Extraction Lot: KWG1413956
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
GW-100214-MW-1	K1410890-001	10/02/14	10/04/14	10ml	10ml	NA	
GW-100214-MW-4	K1410890-002	10/02/14	10/04/14	10ml	10ml	NA	
GW-100314-MW-7	K1410890-003	10/03/14	10/04/14	10ml	10ml	NA	
GW-100314-MW-13	K1410890-004	10/03/14	10/04/14	10ml	10ml	NA	
GW-100214-11-BL	K1410890-005	10/02/14	10/04/14	10ml	10ml	NA	
GW-100214-11-CL	K1410890-006	10/02/14	10/04/14	10ml	10ml	NA	
GW-100214-BMW-3	K1410890-007	10/02/14	10/04/14	10ml	10ml	NA	
GW-100214-BMW-18	K1410890-008	10/02/14	10/04/14	10ml	10ml	NA	
GW-100214-HLA-1	K1410890-009	10/02/14	10/04/14	10ml	10ml	NA	
GW-100314-P-ZI	K1410890-010	10/03/14	10/04/14	10ml	10ml	NA	
GW-100314-P-ZS	K1410890-011	10/03/14	10/04/14	10ml	10ml	NA	
GW-100314-DUP	K1410890-012	10/03/14	10/04/14	10ml	10ml	NA	
TB-54813	K1410890-013	10/02/14	10/04/14	10ml	10ml	NA	
TB-54814	K1410890-014	10/02/14	10/04/14	10ml	10ml	NA	
GW-100314-EB	K1410890-015	10/03/14	10/04/14	10ml	10ml	NA	
Method Blank	KWG1413956-5	NA	NA	10ml	10ml	NA	
GW-100314-MW-13MS	KWG1413956-1	10/03/14	10/04/14	10ml	10ml	NA	
GW-100314-MW-13DMS	KWG1413956-2	10/03/14	10/04/14	10ml	10ml	NA	
Lab Control Sample	KWG1413956-3	NA	NA	10ml	10ml	NA	
Duplicate Lab Control Sample	KWG1413956-4	NA	NA	10ml	10ml	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

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\101514\1015F014.D
Lab ID: K1410890-001
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 15:19
Date Quantitated: 10/15/2014 16:23
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/15/14

Secondary Review: [signature] 10/27/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F014.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 15:19	**Quant Date:**	10/15/2014 16:23	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-001			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385156	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1074568	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	437405	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	423178	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	5.73	0.00	0.00	113	275075	9.35	94	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1056330	9.82	98	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	382032	9.61	96	68-117	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	Carbon Tetrachloride	5.80		0.00	117	53414	1.44	1.4		

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\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:18:50 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

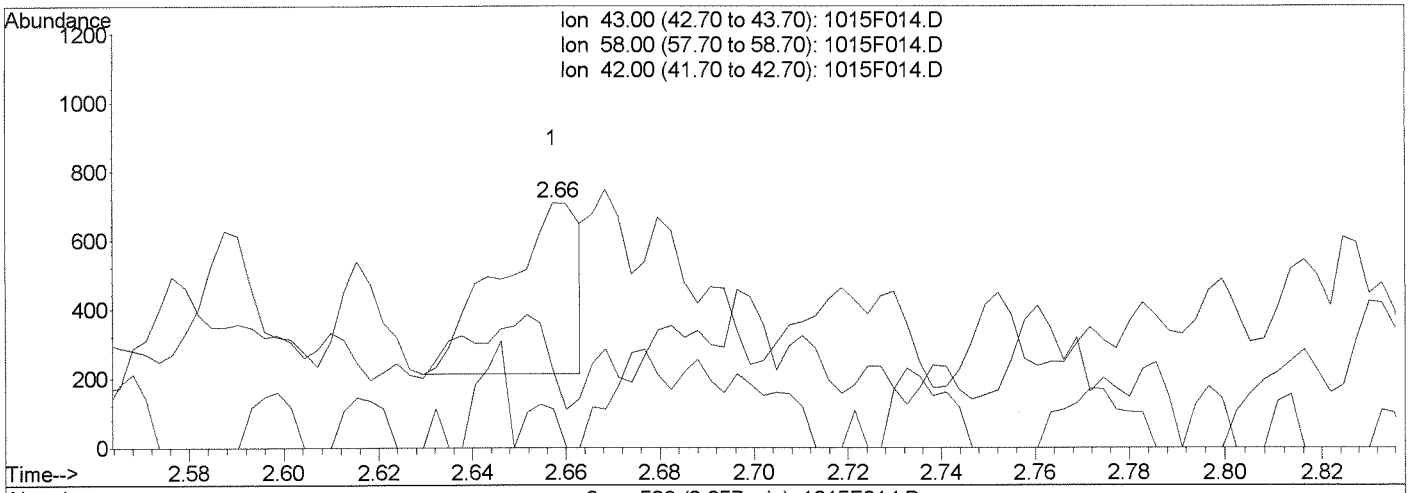
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1074568	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	437405	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	423178	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	275075	9.35	PPB	0.00
Spiked Amount 10.000			Recovery =	93.50%		
47) 1,2-Dichloroethane-d4	6.15	65	265526	9.80	PPB	0.00
Spiked Amount 10.000			Recovery =	98.00%		
62) Toluene-d8	8.16	98	1056330	9.82	PPB	0.00
Spiked Amount 10.000			Recovery =	98.20%		
84) 4-Bromofluorobenzene	10.84	95	382032	9.61	PPB	0.00
Spiked Amount 10.000			Recovery =	96.10%		
Target Compounds						Qvalue
6) Bromomethane	1.73	96	628	Below Cal	#	42
14) Acetone	2.67	43	1230m	0.31	PPB	
16) Carbon Disulfide	2.70	76	2717	0.03	PPB	90
21) Methylene Chloride	3.17	84	1692m	0.06	PPB	
40) Chloroform	5.52	83	7864	0.16	PPB	87
44) Carbon Tetrachloride	5.80	117	53414	1.44	PPB	97
63) Toluene	8.23	92	3979	0.06	PPB	97
69) Tetrachloroethene	8.76	164	1027	0.04	PPB	92
74) 1-Chlorohexane	9.65	91	3025m	0.08	PPB	
104) 1,2,4-Trichlorobenzene	13.97	180	1249m	0.03	PPB	
107) 1,2,3-Trichlorobenzene	14.47	180	994	0.03	PPB	# 63

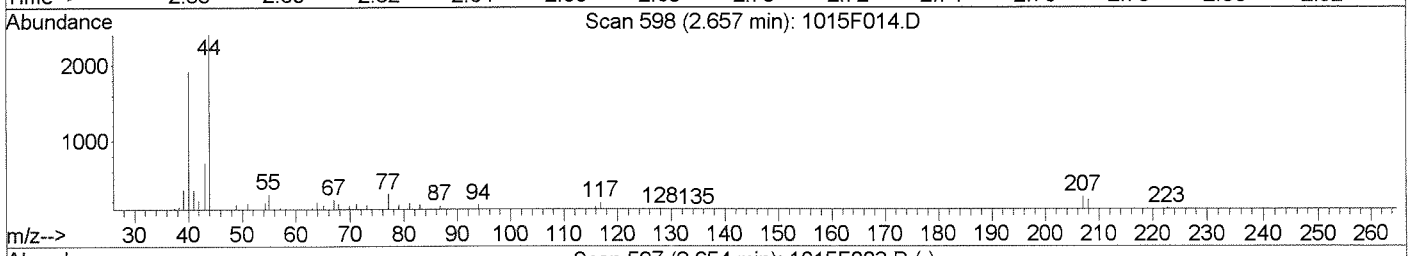
(#) = qualifier out of range (m) = manual integration

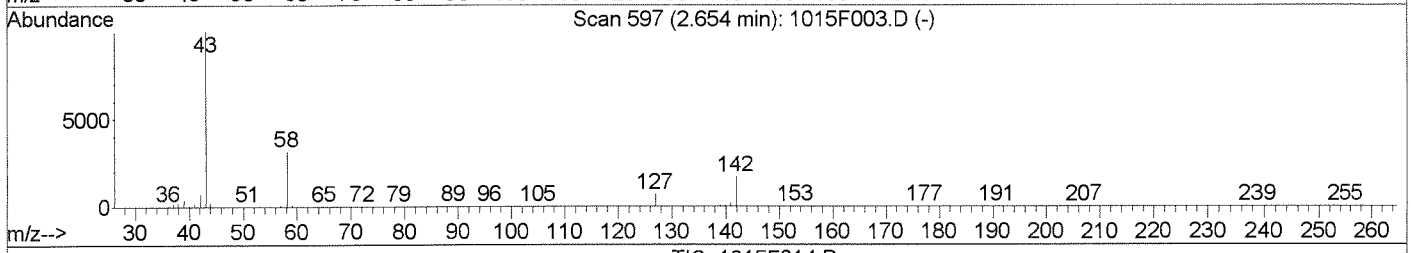
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:19 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F014.D

(14) Acetone (T)

2.66min 0.15PPB

response 589

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	22.54
42.00	7.10	16.10
0.00	0.00	0.00

Manual Integration:

Before

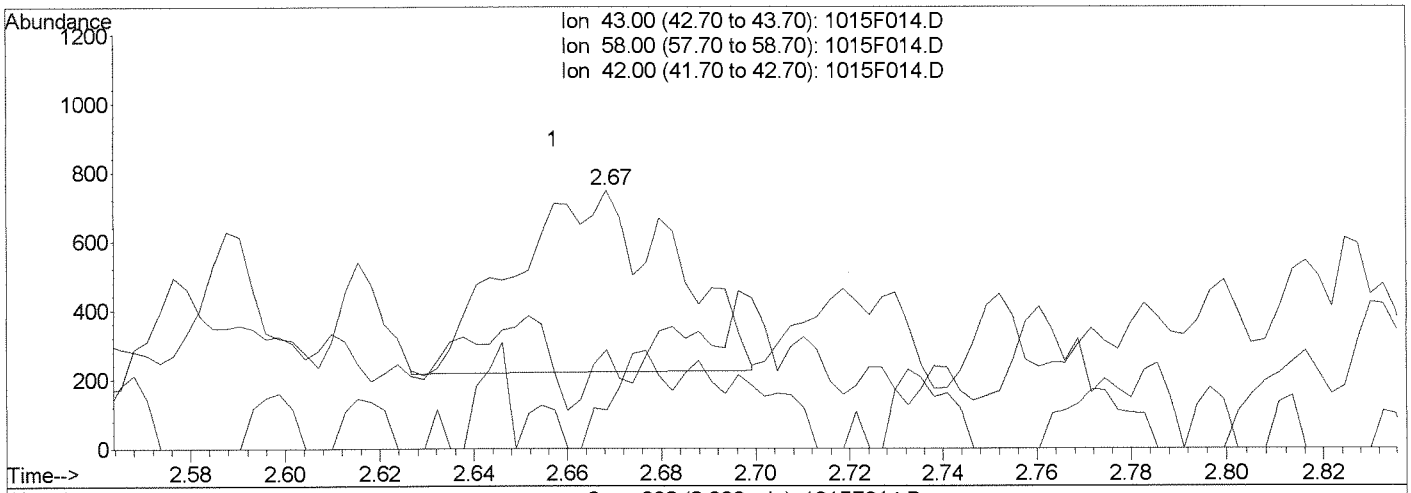
10/15/14

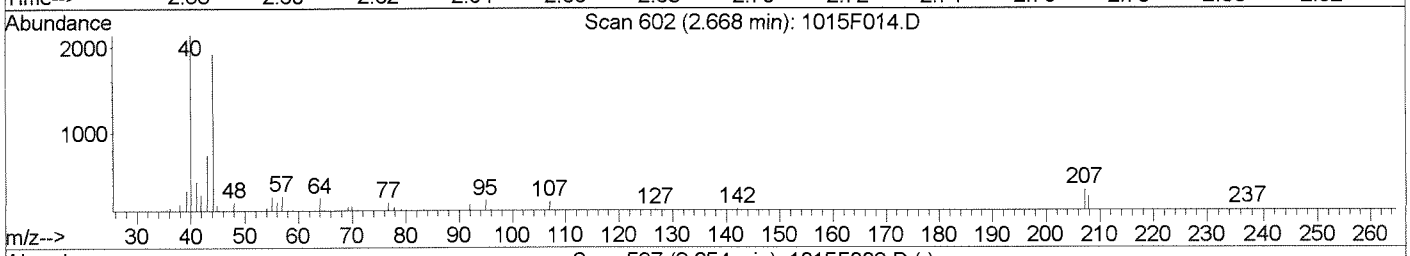
MK analyzed

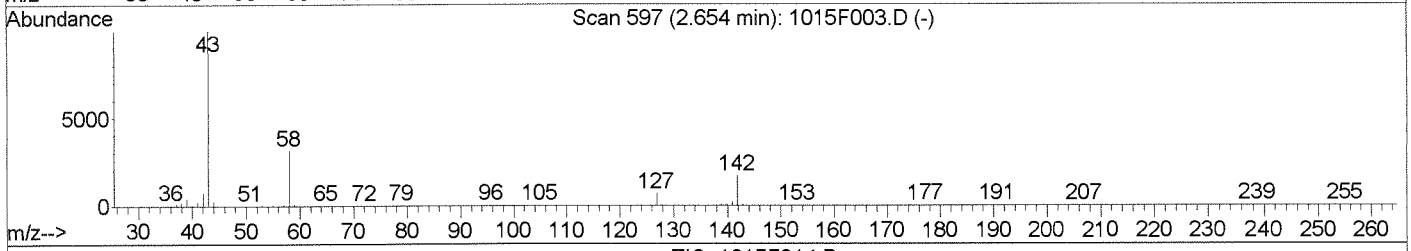
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:19 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F014.D

(14) Acetone (T)

2.67min 0.31PPB m

response 1230

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	14.84
42.00	7.10	38.10#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

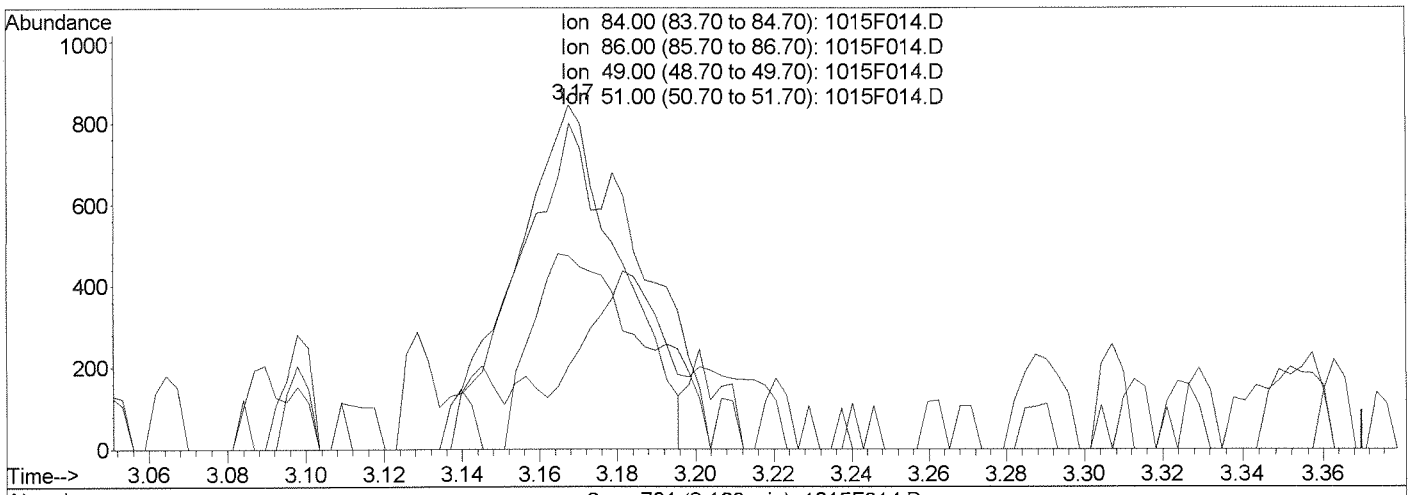
10/15/14

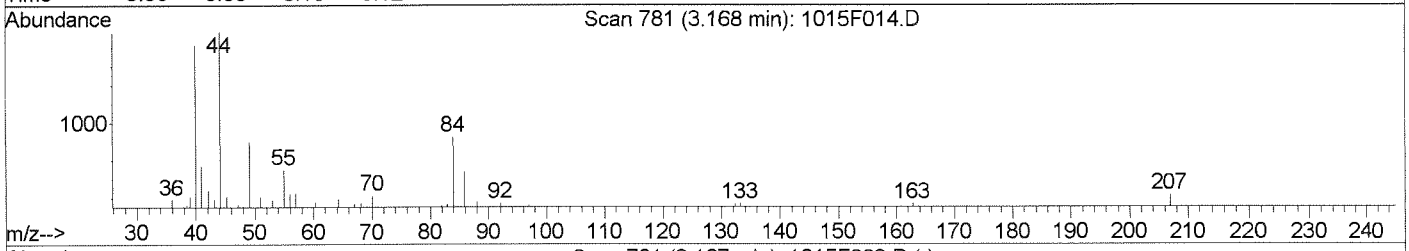
1015F014.D 100814MS27_8260.M Wed Oct 15 16:19:50 2014

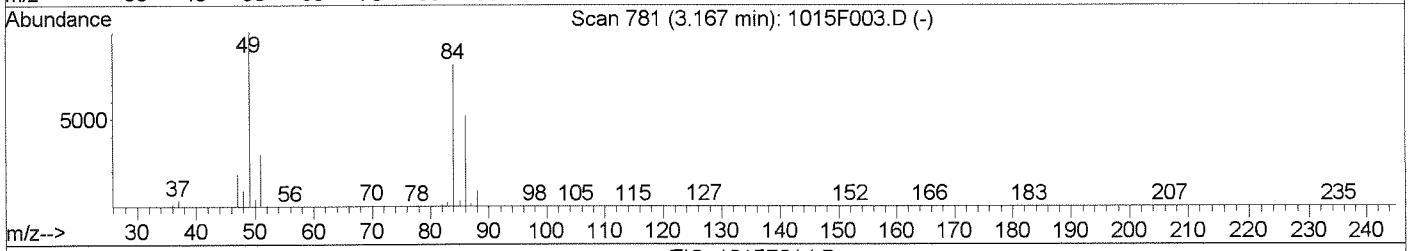
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:20 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F014.D

(21) Methylene Chloride (T)

3.17min 0.05PPB

response 1553

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	56.04
49.00	120.60	94.67
51.00	37.60	12.09

Manual Integration:

Before

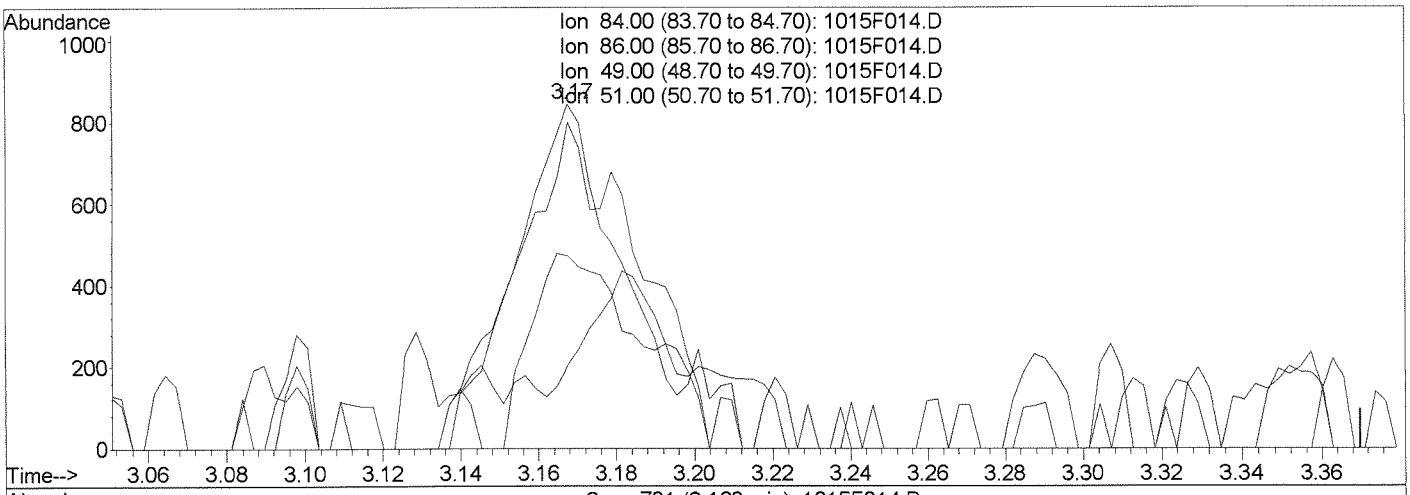
10/15/14

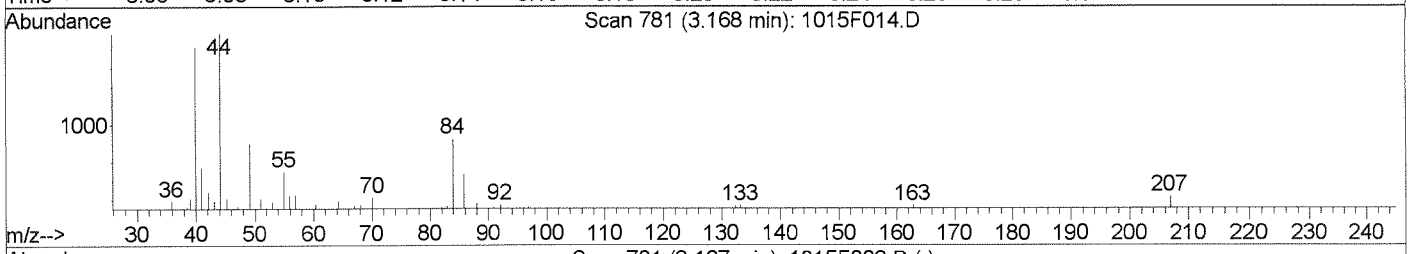
Quantitation Report (Qedit)

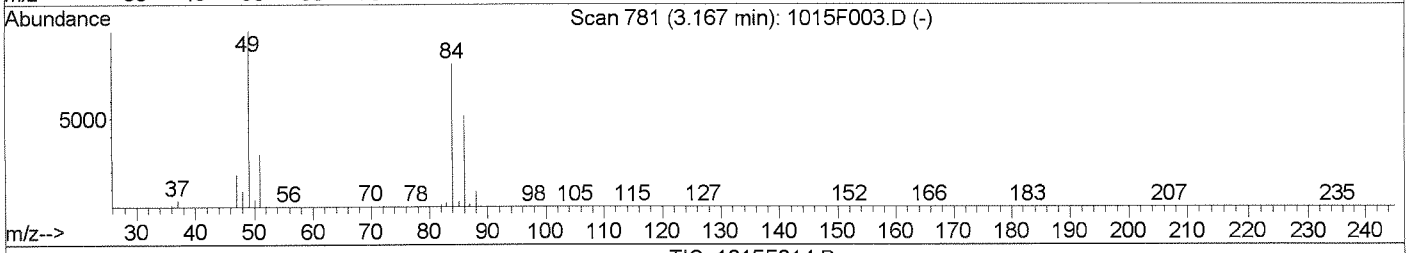
Data File : J:\MS27\DATA\101514\1015F014.D
Acq On : 15 Oct 2014 3:19 pm
Sample : K10890-001
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 16:20 2014

Vial: 12
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F014.D

(21) Methylene Chloride (T)

3.17min 0.06PPB m

response 1692

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	56.04
49.00	120.60	94.67
51.00	37.60	24.29

Manual Integration:

After

Baseline correction

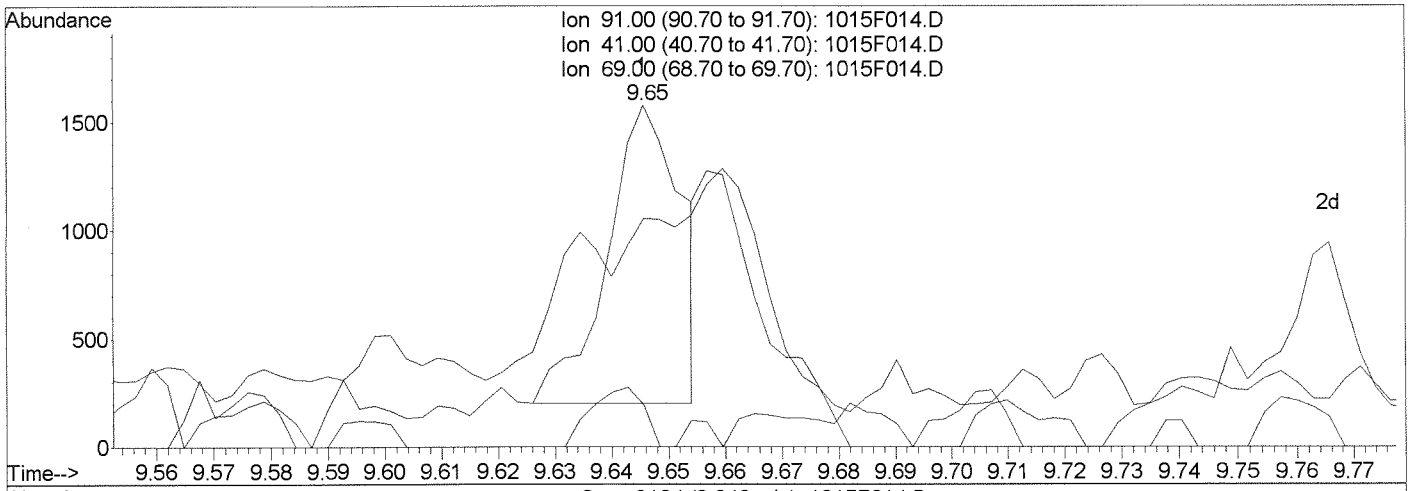
10/15/14

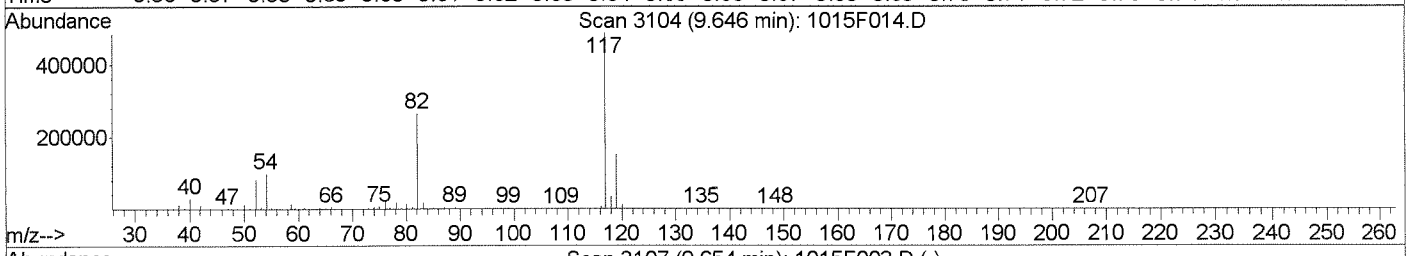
MK

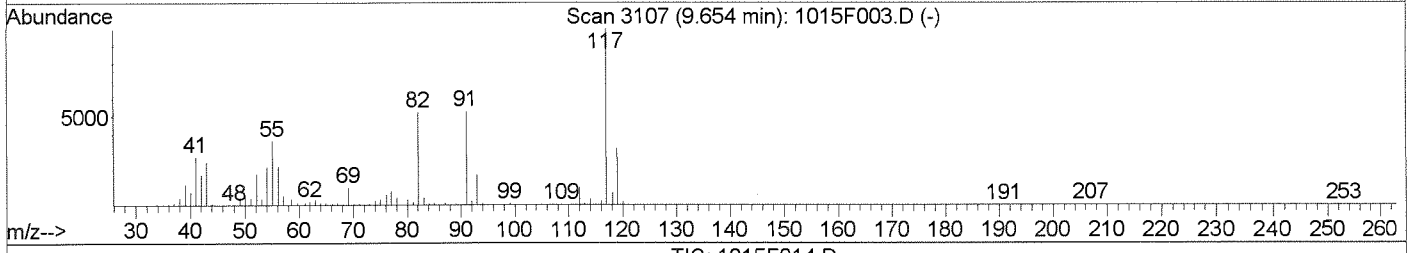
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:21 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F014.D

(74) 1-Chlorohexane (T)

9.65min 0.03PPB

response 1247

Ion	Exp%	Act%
91.00	100	100
41.00	51.80	44.69
69.00	18.60	14.03
0.00	0.00	0.00

Manual Integration:

Before

10/15/14

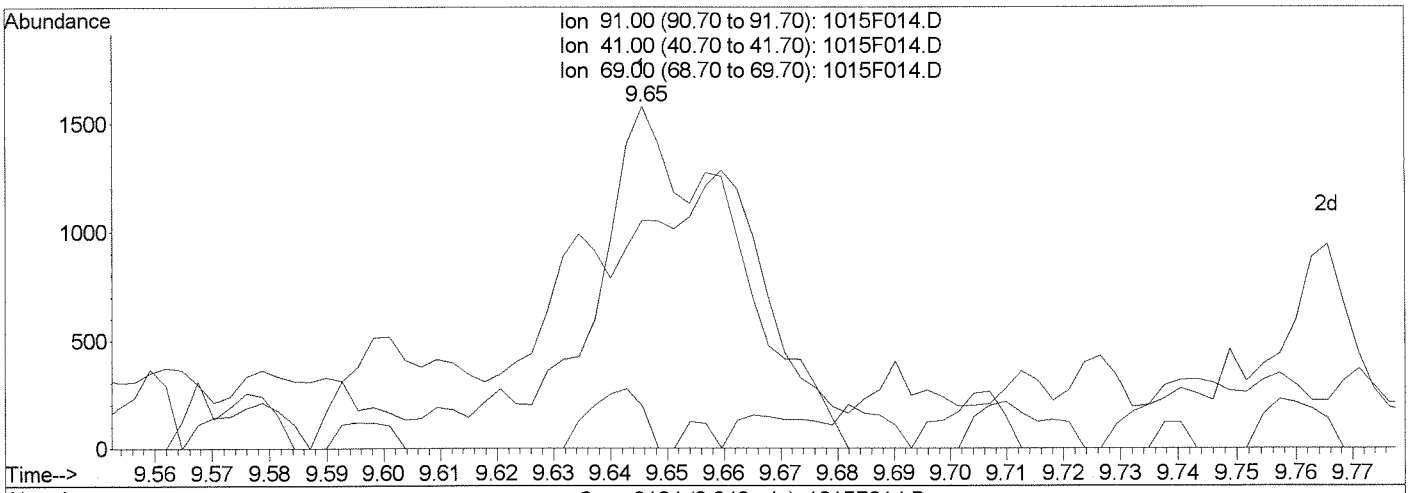
MK

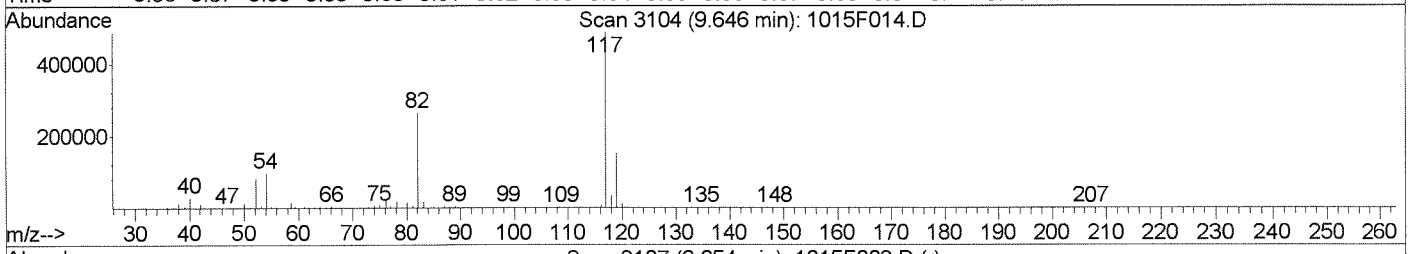
1015F014.D 100814MS27_8260.M Wed Oct 15 16:21:39 2014

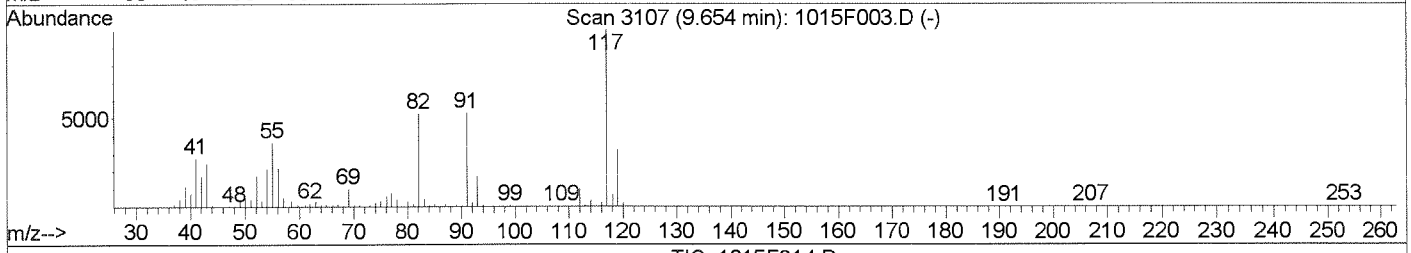
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:21 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F014.D

(74) 1-Chlorohexane (T)

9.65min 0.08PPB m

response 3025

Ion	Exp%	Act%
91.00	100	100
41.00	51.80	66.77
69.00	18.60	12.24
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/15/14

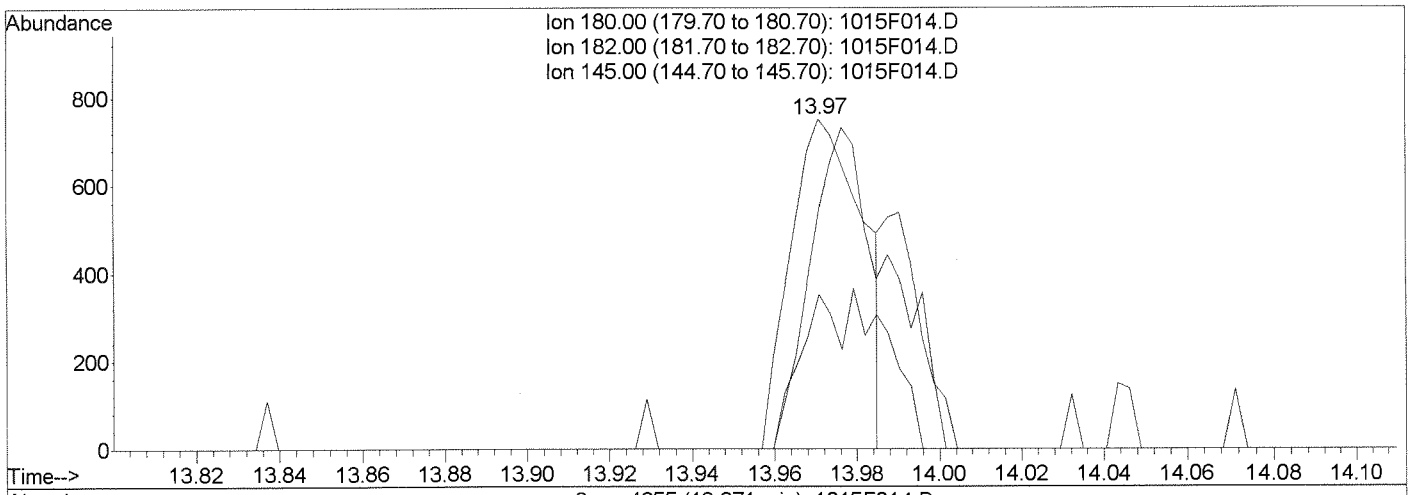
MK

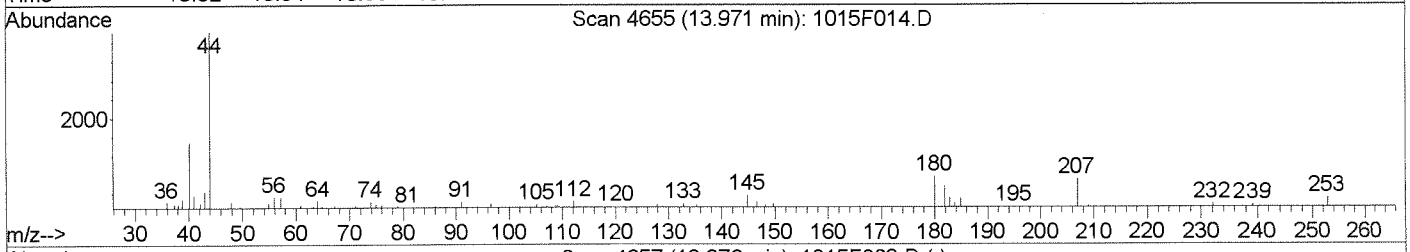
1015F014.D 100814MS27_8260.M Wed Oct 15 16:21:49 2014

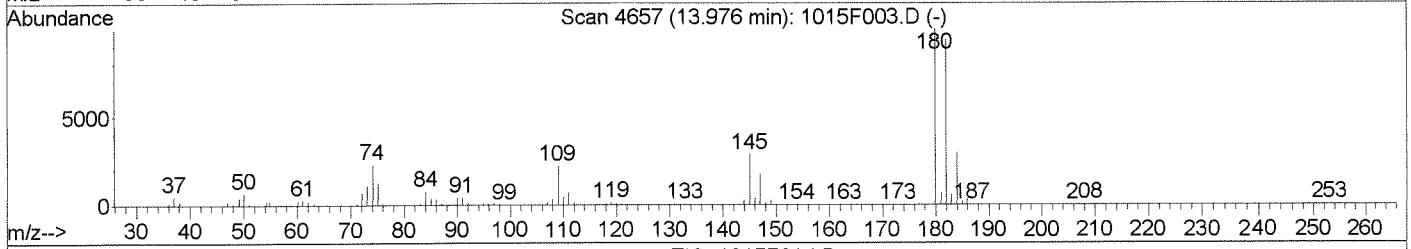
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:23 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F014.D

(104) 1,2,4-Trichlorobenzene (T)

13.97min 0.02PPB

response 915

Ion	Exp%	Act%
180.00	100	100
182.00	94.90	72.17
145.00	27.80	46.87
0.00	0.00	0.00

Manual Integration:

Before

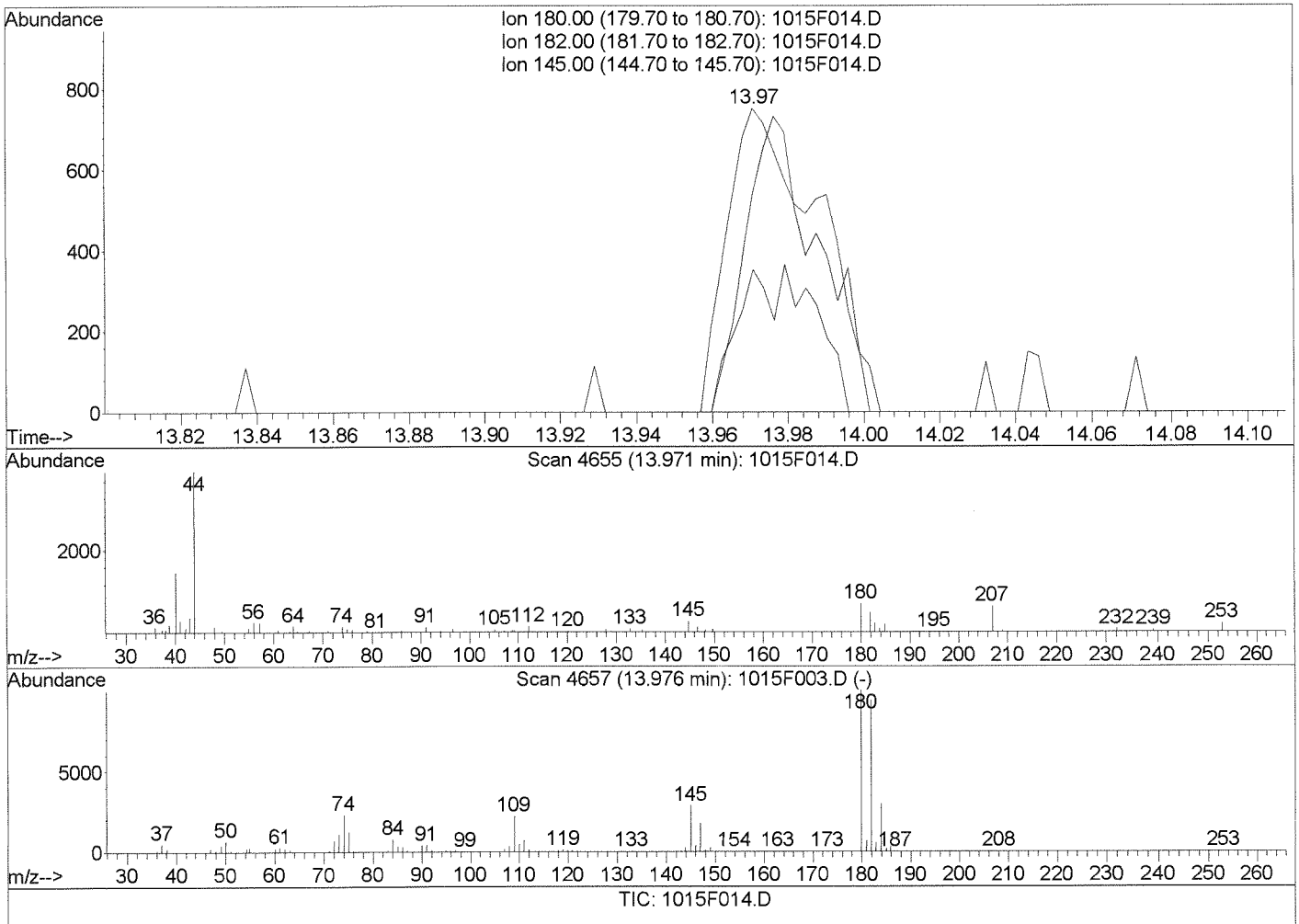
10/15/14

1015F014.D 100814MS27_8260.M Wed Oct 15 16:23:11 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:23 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration



TIC: 1015F014.D

(104) 1,2,4-Trichlorobenzene (T)

13.97min 0.03PPB m

response 1249

Ion	Exp%	Act%
180.00	100	100
182.00	94.90	72.17
145.00	27.80	46.87
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

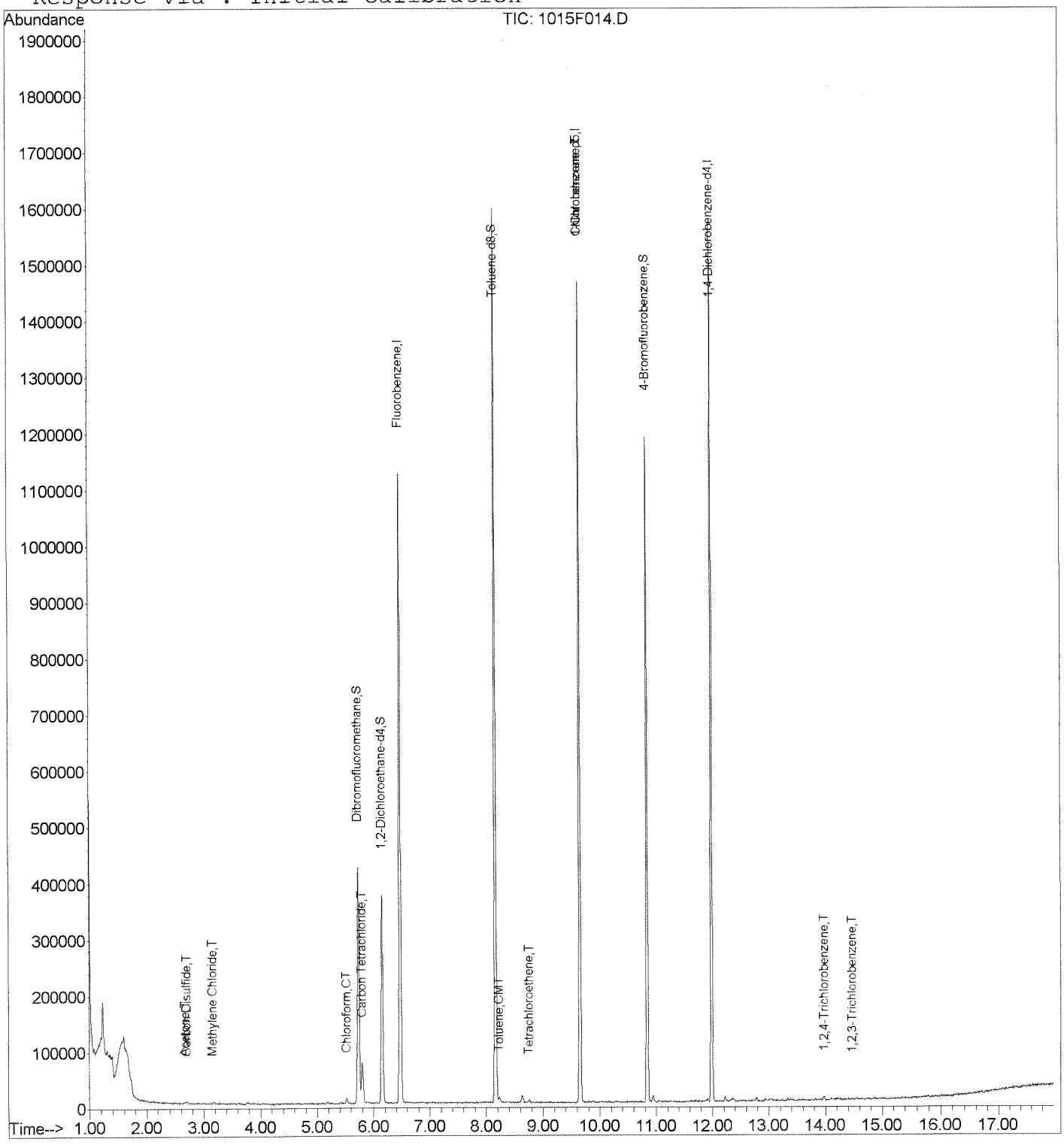
10/15/14

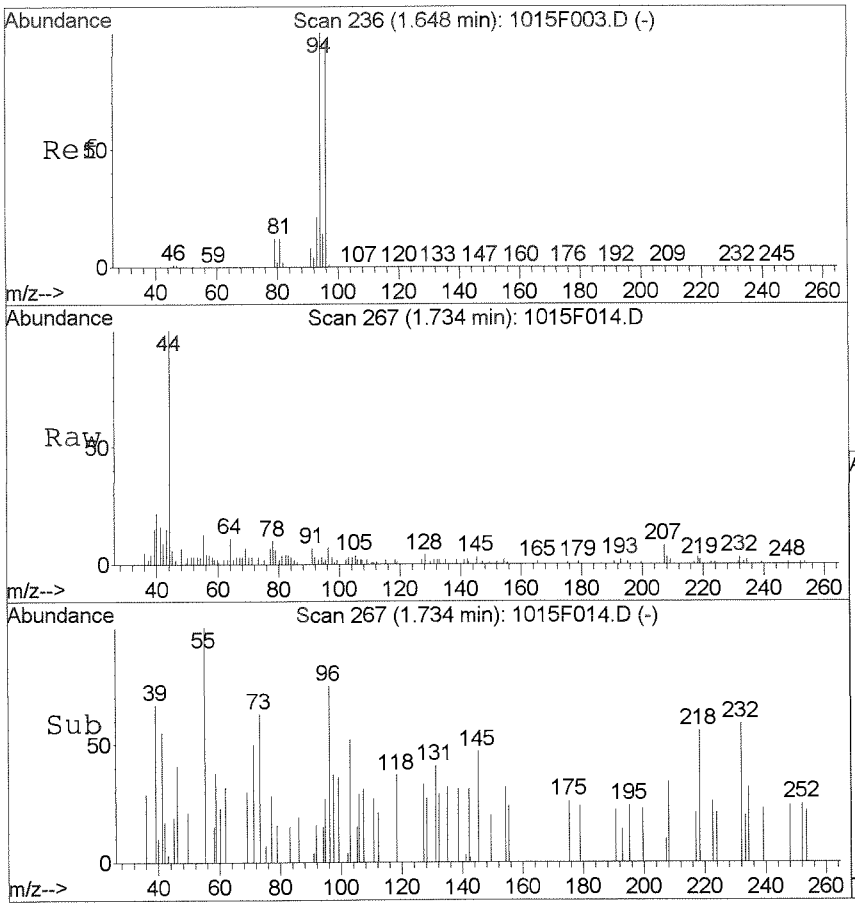
1015F014.D 100814MS27_8260.M Wed Oct 15 16:23:16 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F014.D Vial: 12
Acq On : 15 Oct 2014 3:19 pm Operator: MK
Sample : K10890-001 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:23 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

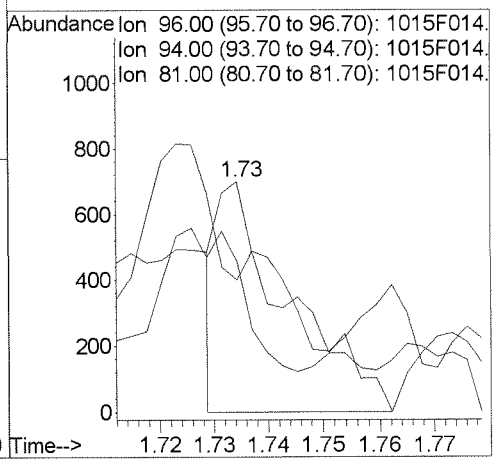


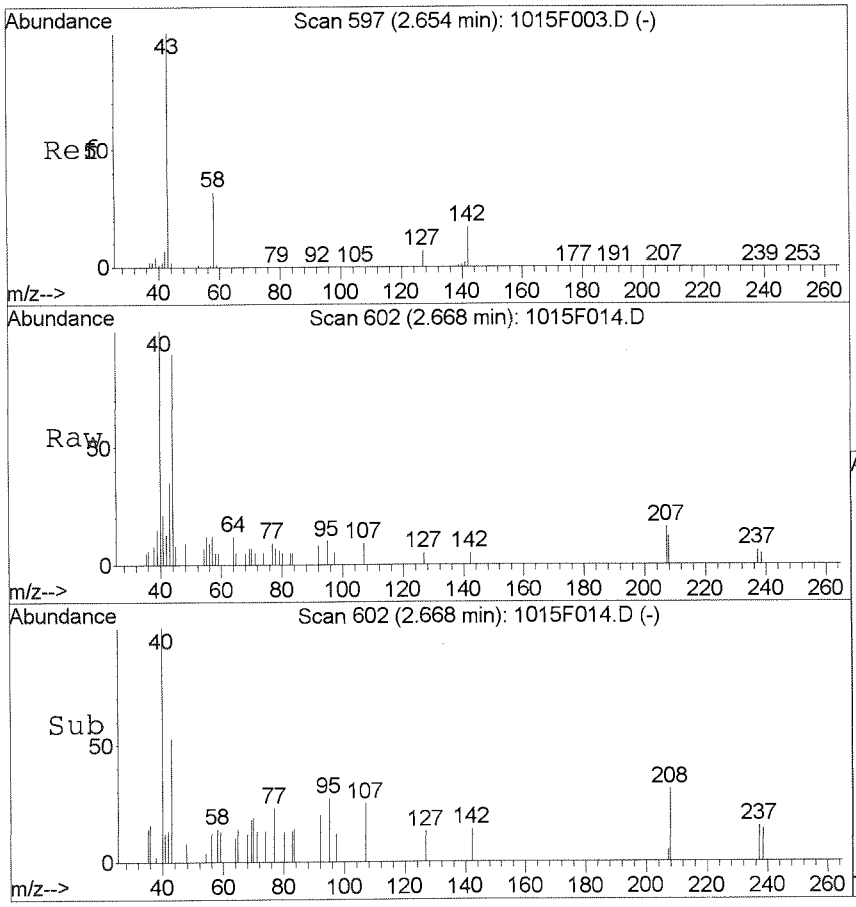


#6
Bromomethane
Concen: Below Cal
RT: 1.73 min Scan# 267
Delta R.T. 0.08 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 96 Resp: 628

Ion	Ratio	Lower	Upper
96	100		
94	43.1	77.8	137.8#
81	2.3	0.0	43.8

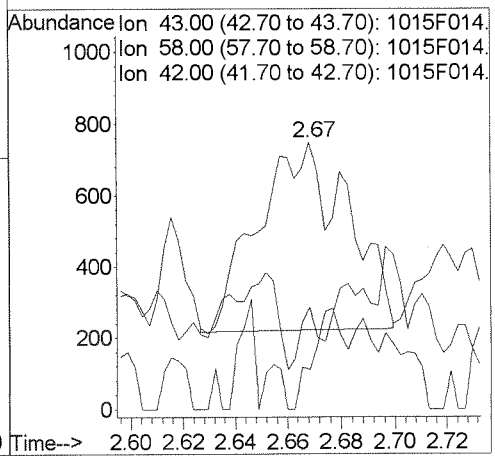


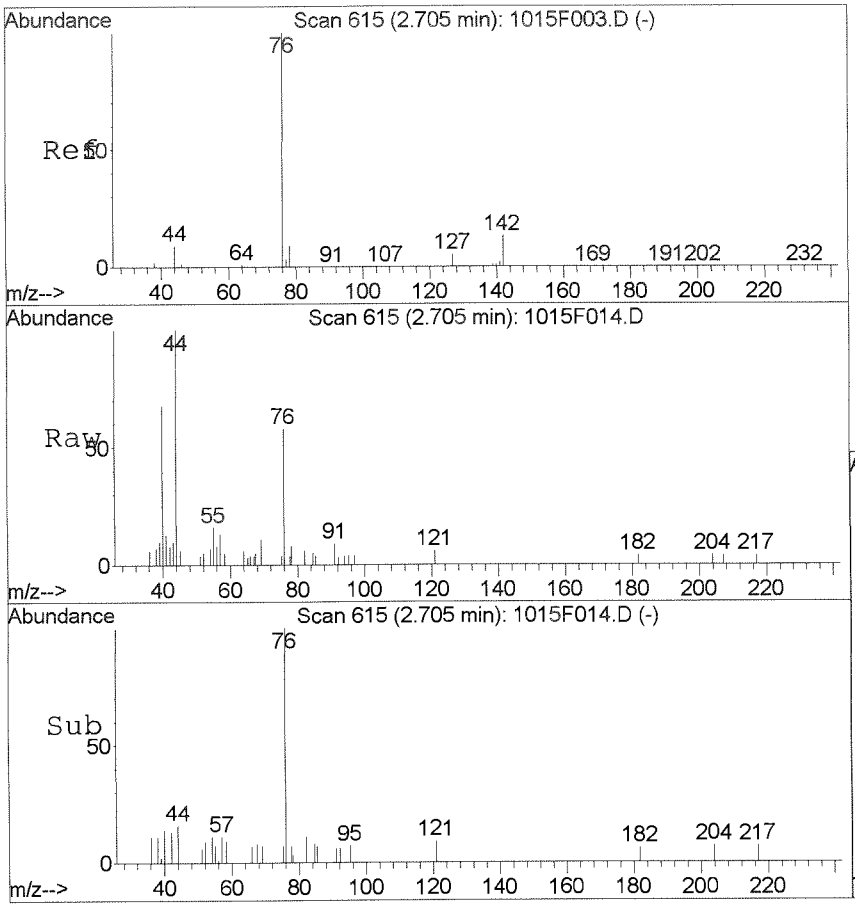


#14
Acetone
Concen: 0.31 PPB m
RT: 2.67 min Scan# 602
Delta R.T. 0.01 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 43 Resp: 1230

Ion	Ratio	Lower	Upper
43	100		
58	14.8	0.9	60.9
42	38.1	0.0	37.1#

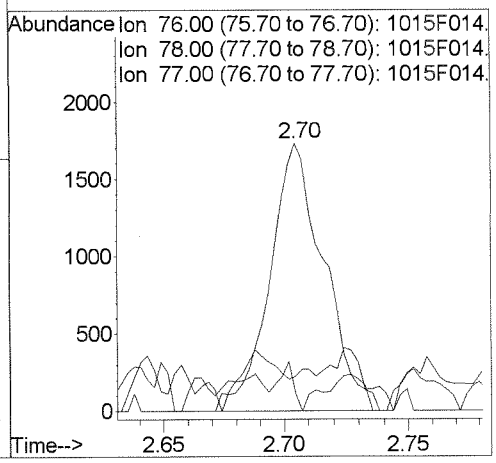


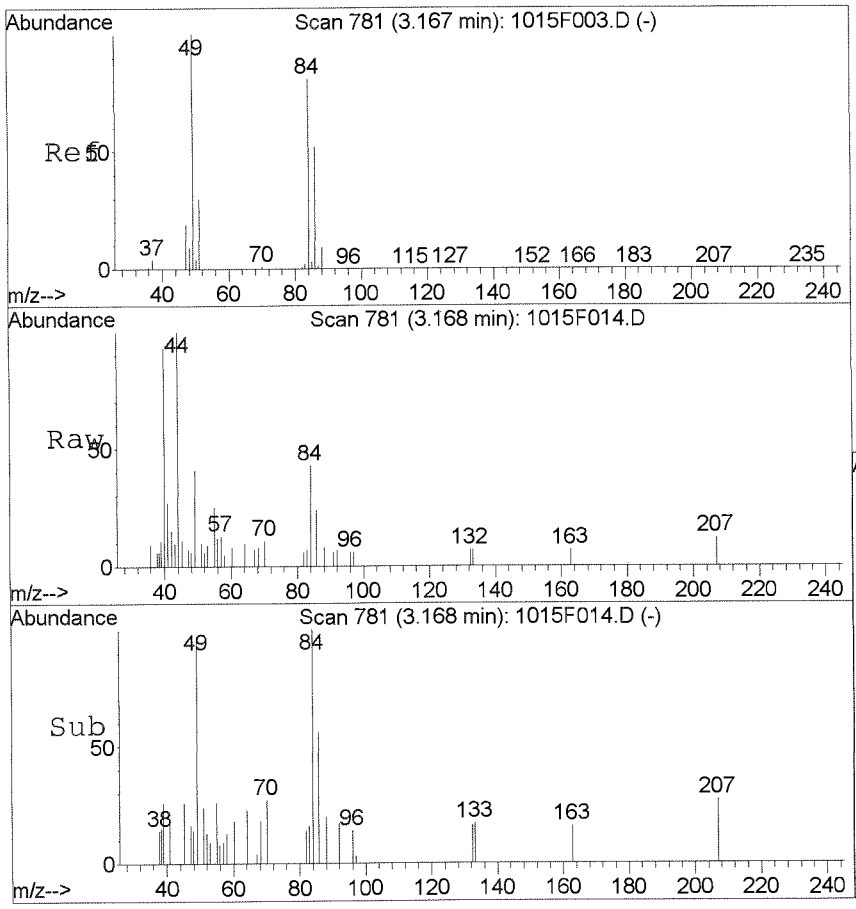


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.70 min Scan# 615
Delta R.T. -0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 76 Resp: 2717

Ion	Ratio	Lower	Upper
76	100		
78	13.0	0.0	39.1
77	0.0	0.0	32.6

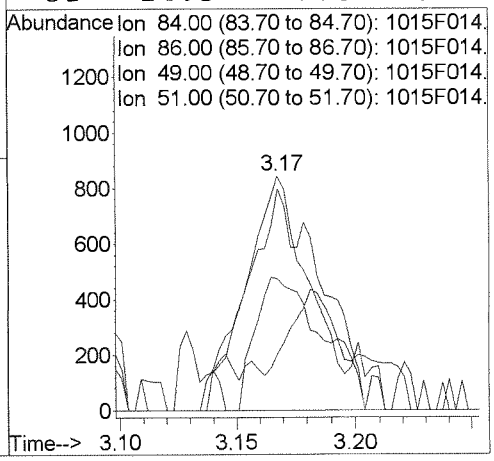


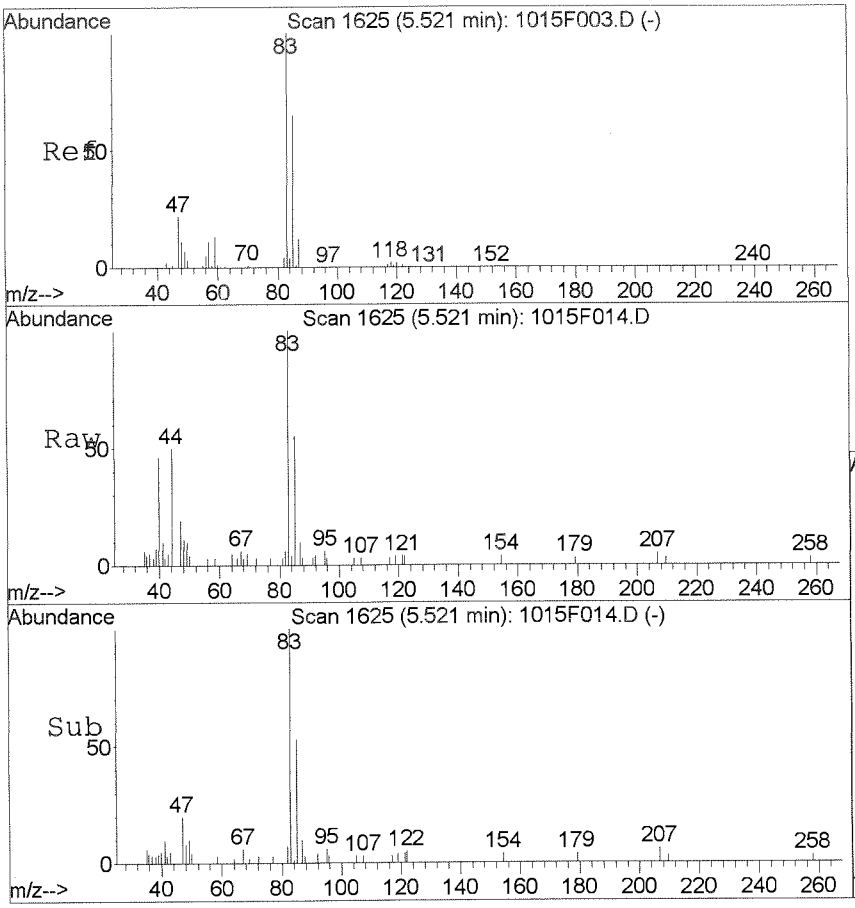


#21
Methylene Chloride
Concen: 0.06 PPB m
RT: 3.17 min Scan# 781
Delta R.T. -0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 84 Resp: 1692

Ion	Ratio	Lower	Upper
84	100		
86	56.0	33.9	93.9
49	94.7	90.6	150.6
51	24.3	7.6	67.6

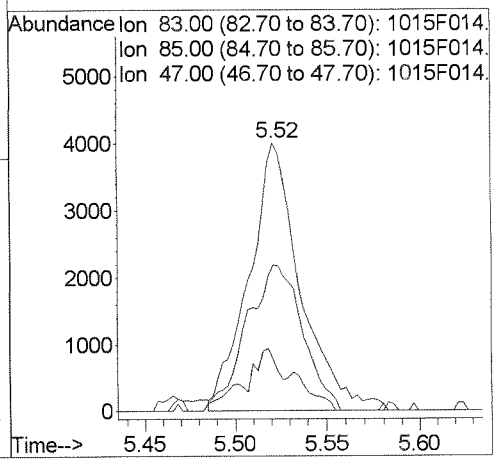


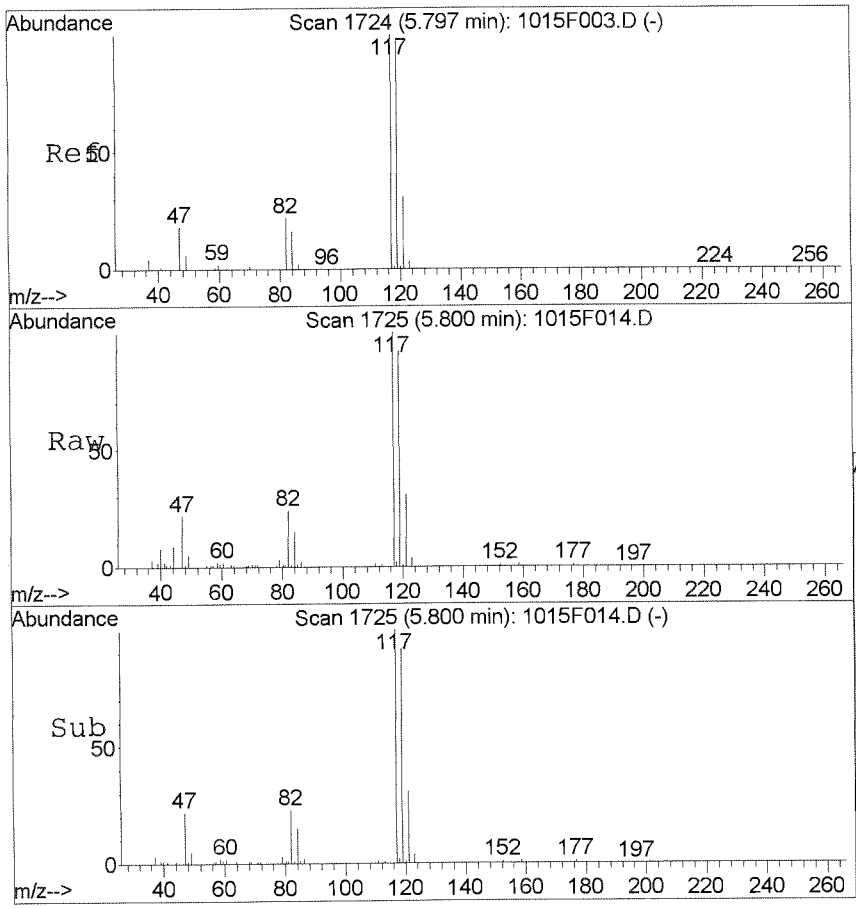


#40
Chloroform
Concen: 0.16 PPB
RT: 5.52 min Scan# 1625
Delta R.T. 0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 83 Resp: 7864

Ion	Ratio	Lower	Upper
83	100		
85	52.2	33.2	93.2
47	19.0	0.0	52.9

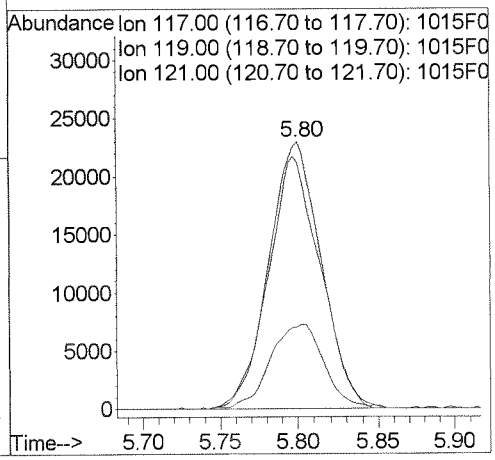


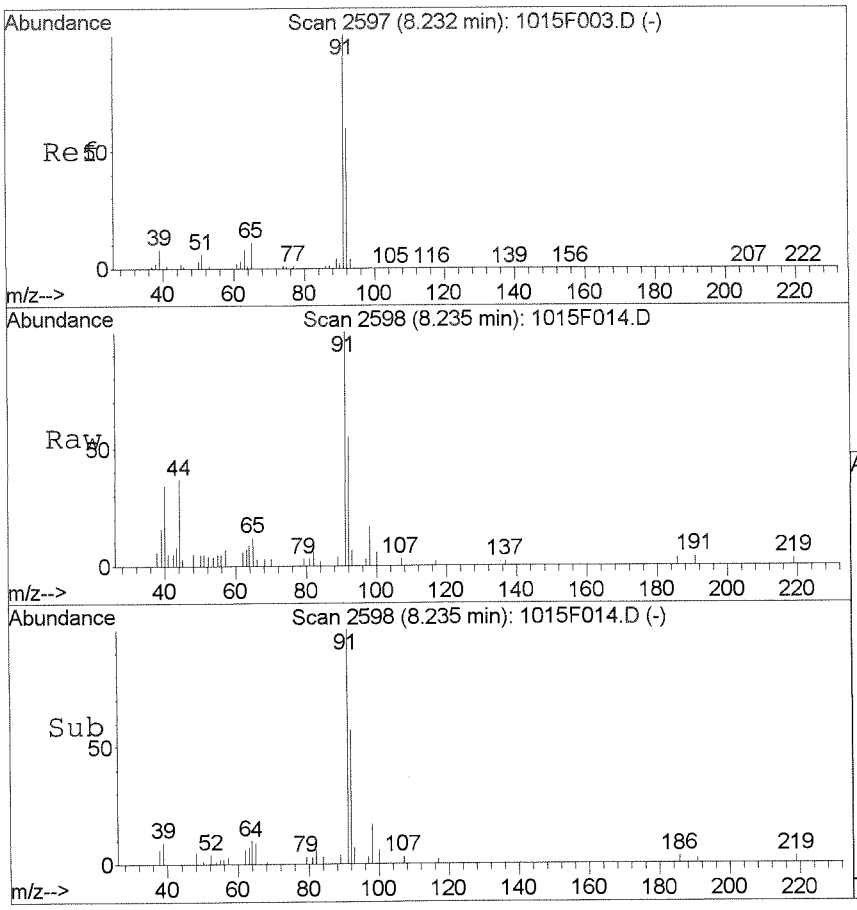


#44
Carbon Tetrachloride
Concen: 1.44 PPB
RT: 5.80 min Scan# 1725
Delta R.T. 0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion:117 Resp: 53414

Ion	Ratio	Lower	Upper
117	100		
119	92.3	66.6	126.6
121	30.8	0.5	60.5

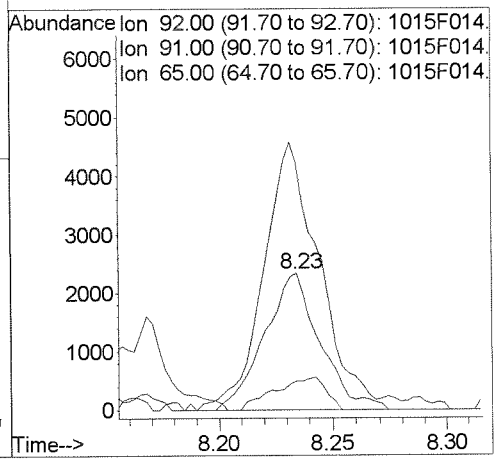


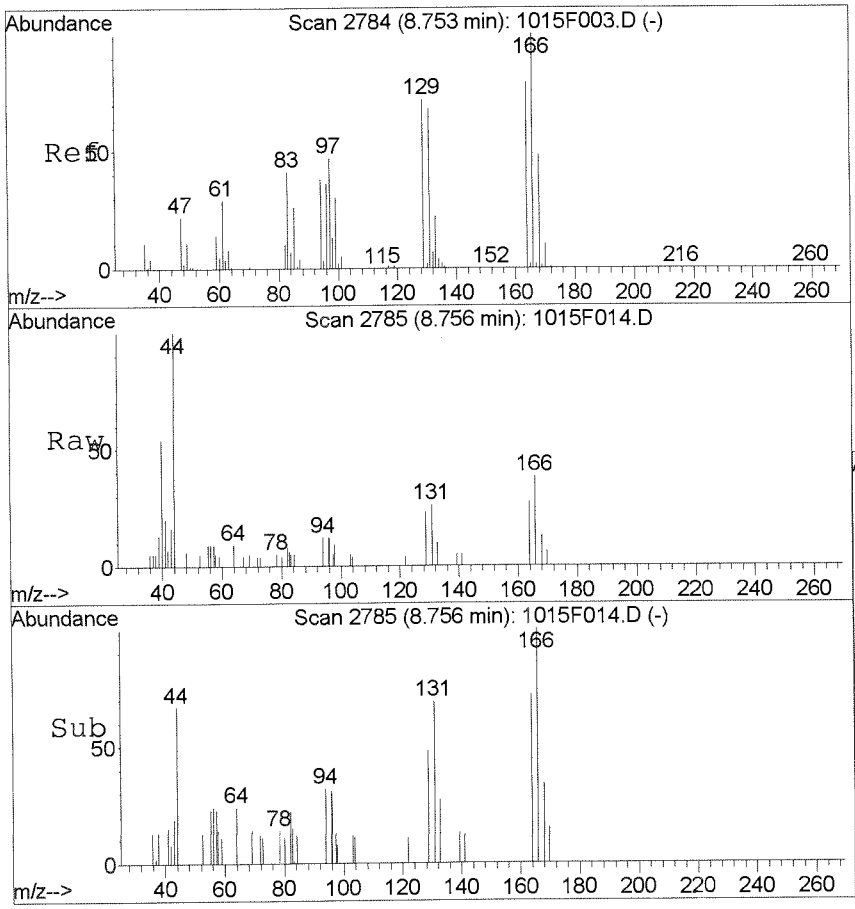


#63
Toluene
Concen: 0.06 PPB
RT: 8.23 min Scan# 2598
Delta R.T. 0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 92 Resp: 3979

Ion	Ratio	Lower	Upper
92	100		
91	175.1	142.0	202.0
65	21.3	0.0	48.9

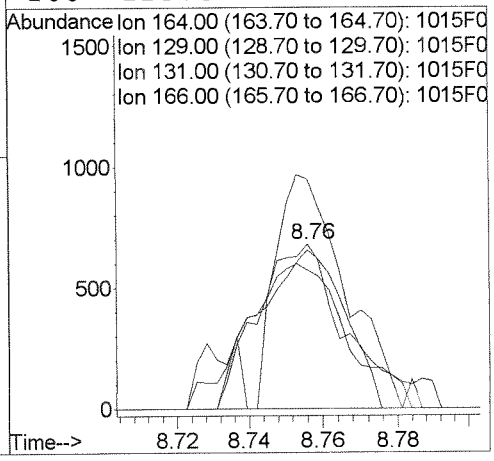


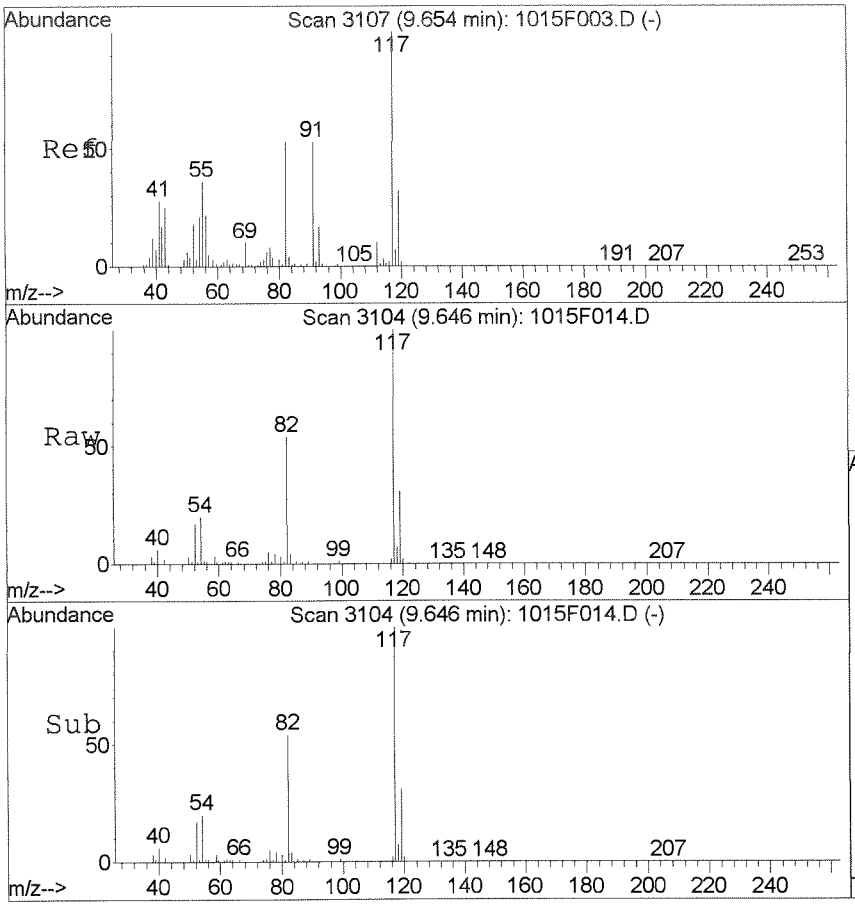


#69
Tetrachloroethene
Concen: 0.04 PPB
RT: 8.76 min Scan# 2785
Delta R.T. 0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion:164 Resp: 1027

Ion	Ratio	Lower	Upper
164	100		
129	84.3	62.3	122.3
131	76.3	58.9	118.9
166	123.8	97.5	157.5

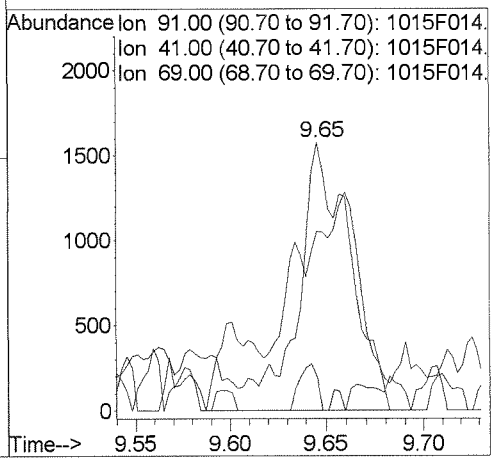


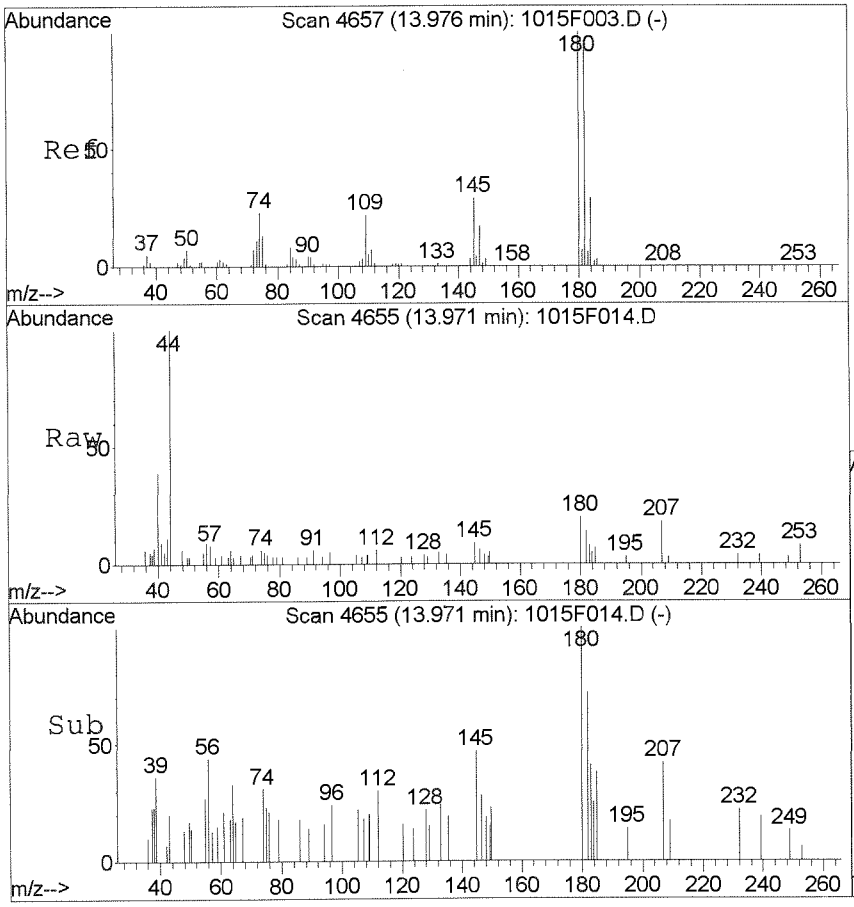


#74
1-Chlorohexane
Concen: 0.08 PPB m
RT: 9.65 min Scan# 3104
Delta R.T. -0.01 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion: 91 Resp: 3025

Ion	Ratio	Lower	Upper
91	100		
41	66.8	21.8	81.8
69	12.2	0.0	48.6

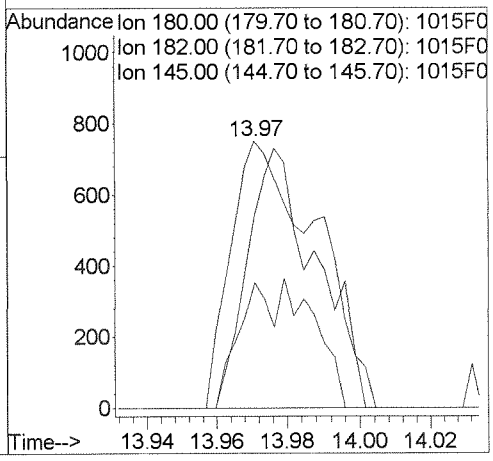


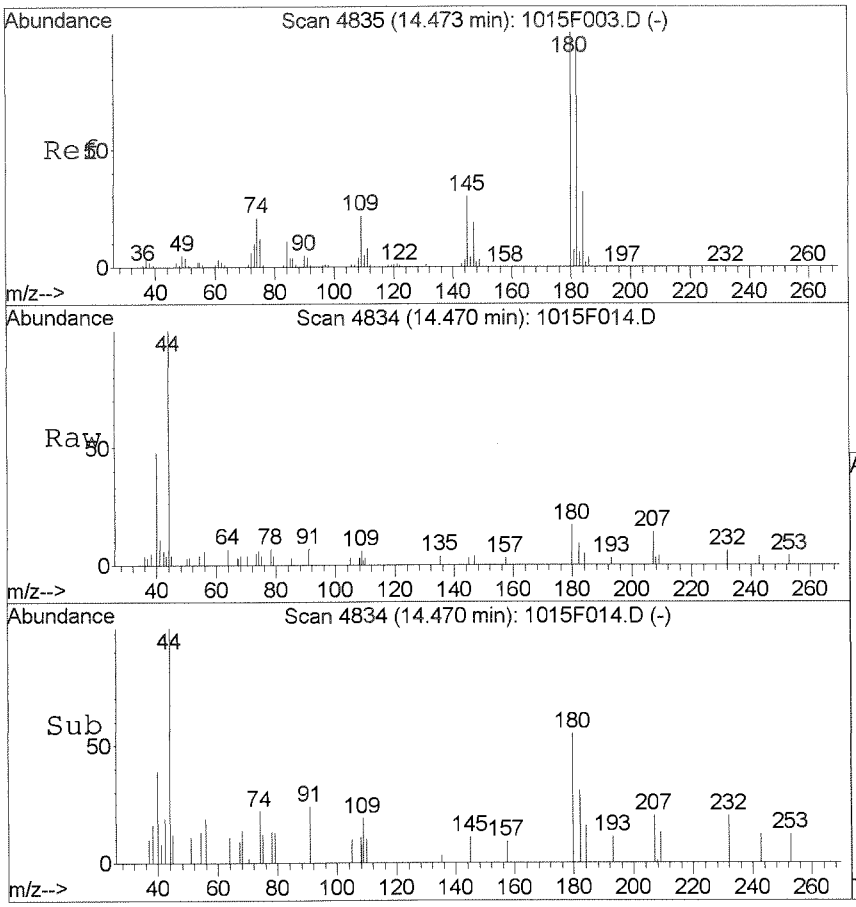


#104
1,2,4-Trichlorobenzene
Concen: 0.03 PPB m
RT: 13.97 min Scan# 4655
Delta R.T. -0.01 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion:180 Resp: 1249

Ion	Ratio	Lower	Upper
180	100		
182	72.2	64.9	124.9
145	46.9	0.0	57.8

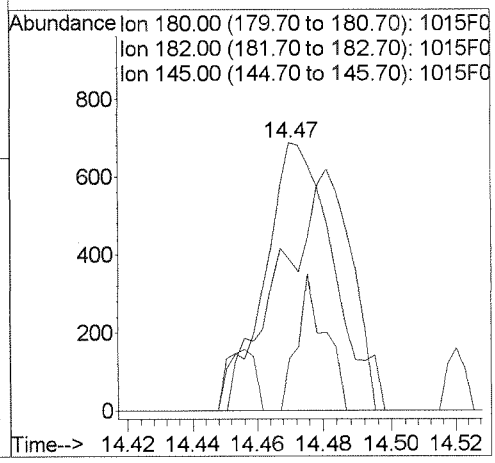




#107
1,2,3-Trichlorobenzene
Concen: 0.03 PPB
RT: 14.47 min Scan# 4834
Delta R.T. -0.00 min
Lab File: 1015F014.D
Acq: 15 Oct 2014 3:19 pm

Tgt Ion:180 Resp: 994

Ion	Ratio	Lower	Upper
180	100		
182	56.3	68.4	128.4#
145	19.5	1.4	61.4



Exception Report

Data File: J:\MS27\DATA\101514\1015F015.D
Lab ID: K1410890-002
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 15:47
Date Quantitated: 10/15/2014 16:29
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: mc 10/15/14

Secondary Review: [signature] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F015.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 15:47	**Quant Date:**	10/15/2014 16:29	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-002			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385157	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1067152	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	426220	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	413108	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	5.73	0.00	0.00	113	266363	9.12	91	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1035415	9.70	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	379063	9.79	98	68-117	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	Carbon Tetrachloride	5.80		0.00	117	24282	0.6600	0.66		

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\101514\1015F015.D Vial: 13
Acq On : 15 Oct 2014 3:47 pm Operator: MK
Sample : K10890-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:24:23 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

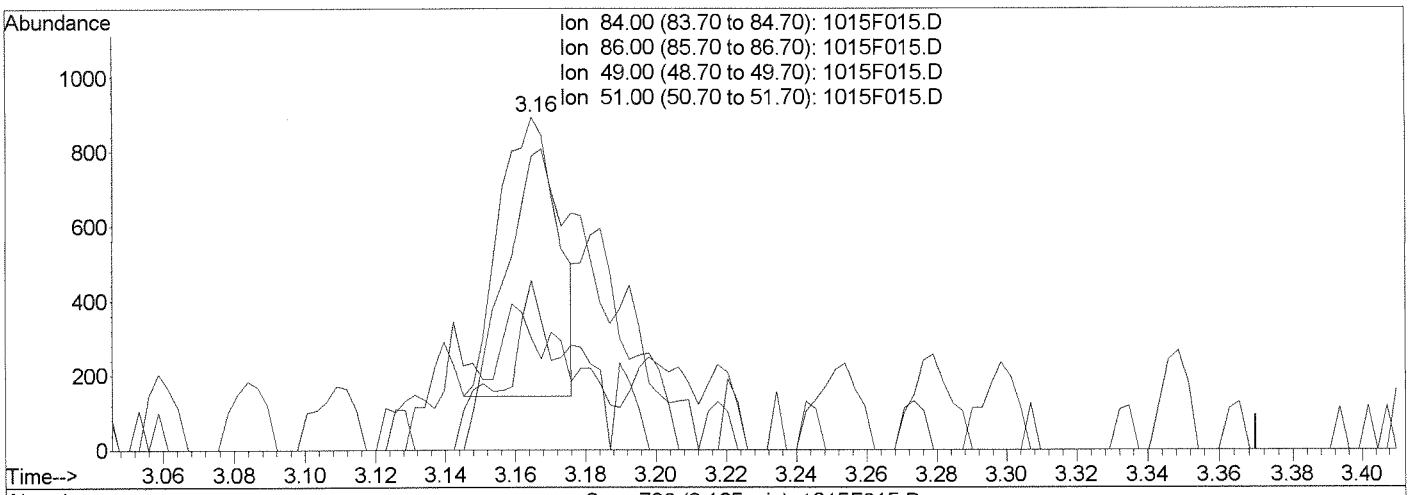
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1067152	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	426220	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	413108	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	266363	9.12	PPB		0.00
Spiked Amount 10.000			Recovery =	91.20%			
47) 1,2-Dichloroethane-d4	6.15	65	261581	9.72	PPB		0.00
Spiked Amount 10.000			Recovery =	97.20%			
62) Toluene-d8	8.16	98	1035415	9.70	PPB		0.00
Spiked Amount 10.000			Recovery =	97.00%			
84) 4-Bromofluorobenzene	10.84	95	379063	9.79	PPB		0.00
Spiked Amount 10.000			Recovery =	97.90%			
Target Compounds							Qvalue
7) Chloroethane	1.82	64	677	0.04	PPB		82
16) Carbon Disulfide	2.71	76	2400	0.03	PPB		78
21) Methylene Chloride	3.16	84	1907m	0.06	PPB		
42) 1,1,1-Trichloroethane	5.65	97	3249	0.08	PPB		80
44) Carbon Tetrachloride	5.80	117	24282	0.66	PPB		95
63) Toluene	8.23	92	3241	0.05	PPB		81
69) Tetrachloroethene	8.75	164	1020	0.04	PPB	#	75
74) 1-Chlorohexane	9.65	91	2859	0.08	PPB	#	53
100) n-Butylbenzene	12.33	91	2204	0.02	PPB		76

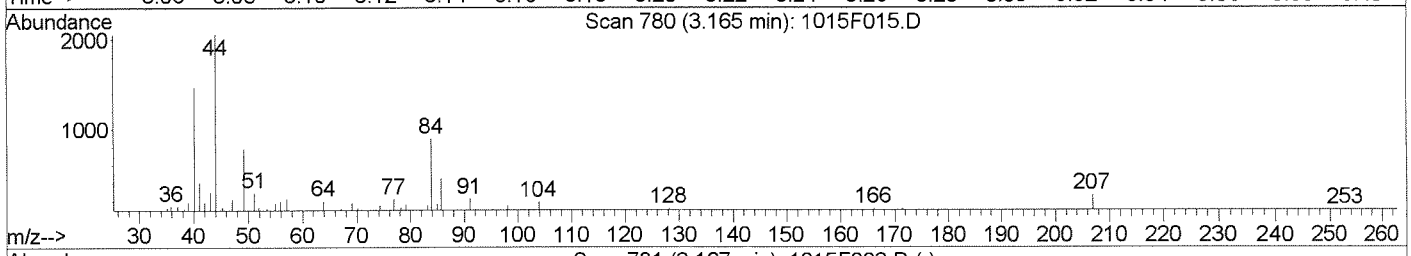
(#) = qualifier out of range (m) = manual integration

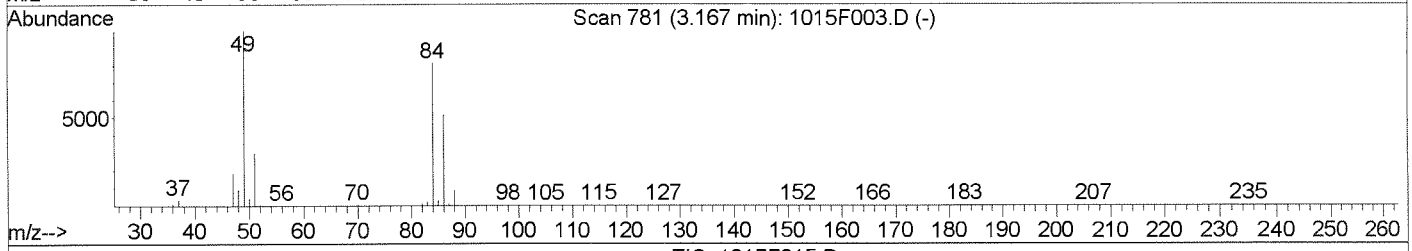
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F015.D Vial: 13
Acq On : 15 Oct 2014 3:47 pm Operator: MK
Sample : K10890-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:25 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F015.D

(21) Methylene Chloride (T)

3.16min 0.03PPB

response 863

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	46.33
49.00	120.60	105.21
51.00	37.60	15.35

Manual Integration:

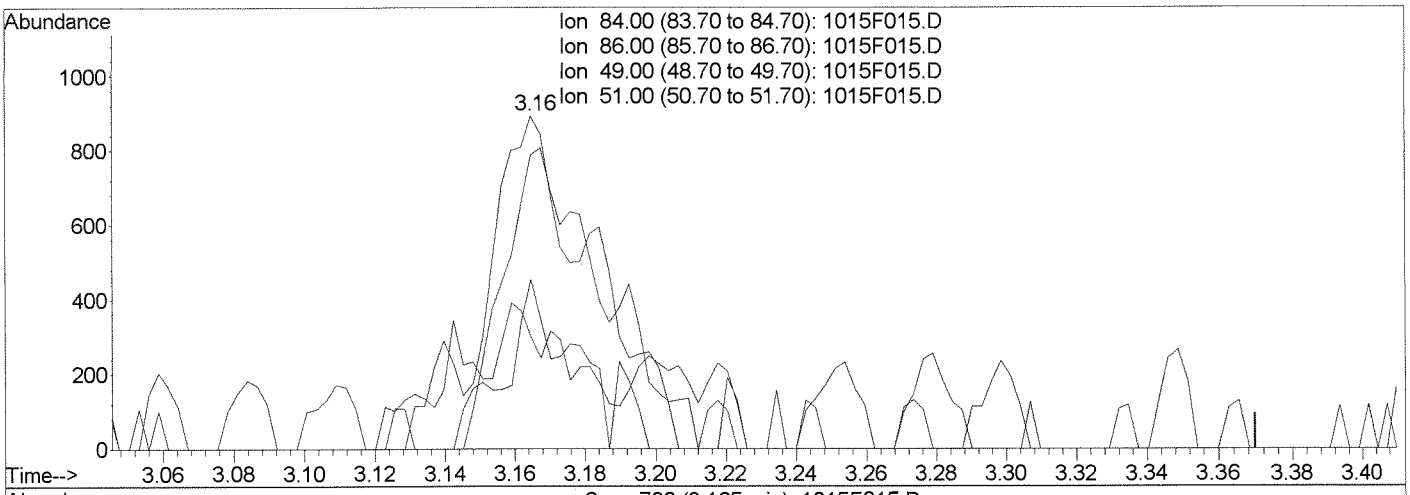
Before

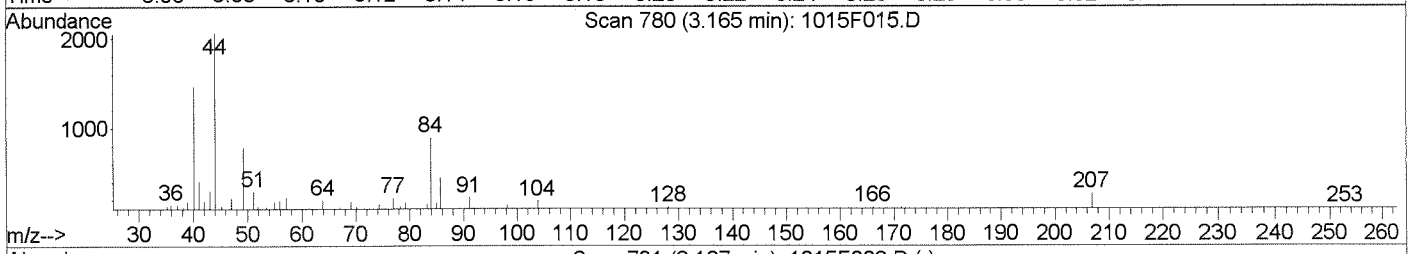
10/15/14

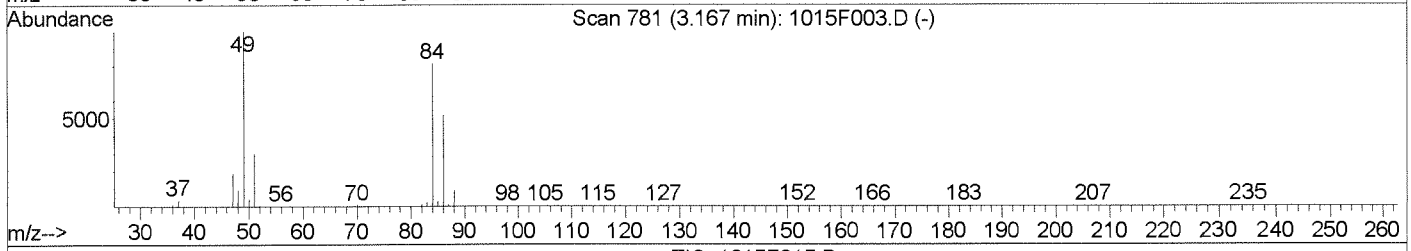
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F015.D Vial: 13
Acq On : 15 Oct 2014 3:47 pm Operator: MK
Sample : K10890-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:25 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F015.D

(21) Methylene Chloride (T)

3.16min 0.06PPB m

response 1907

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	50.84
49.00	120.60	88.24#
51.00	37.60	33.48

Manual Integration:

After

Baseline correction

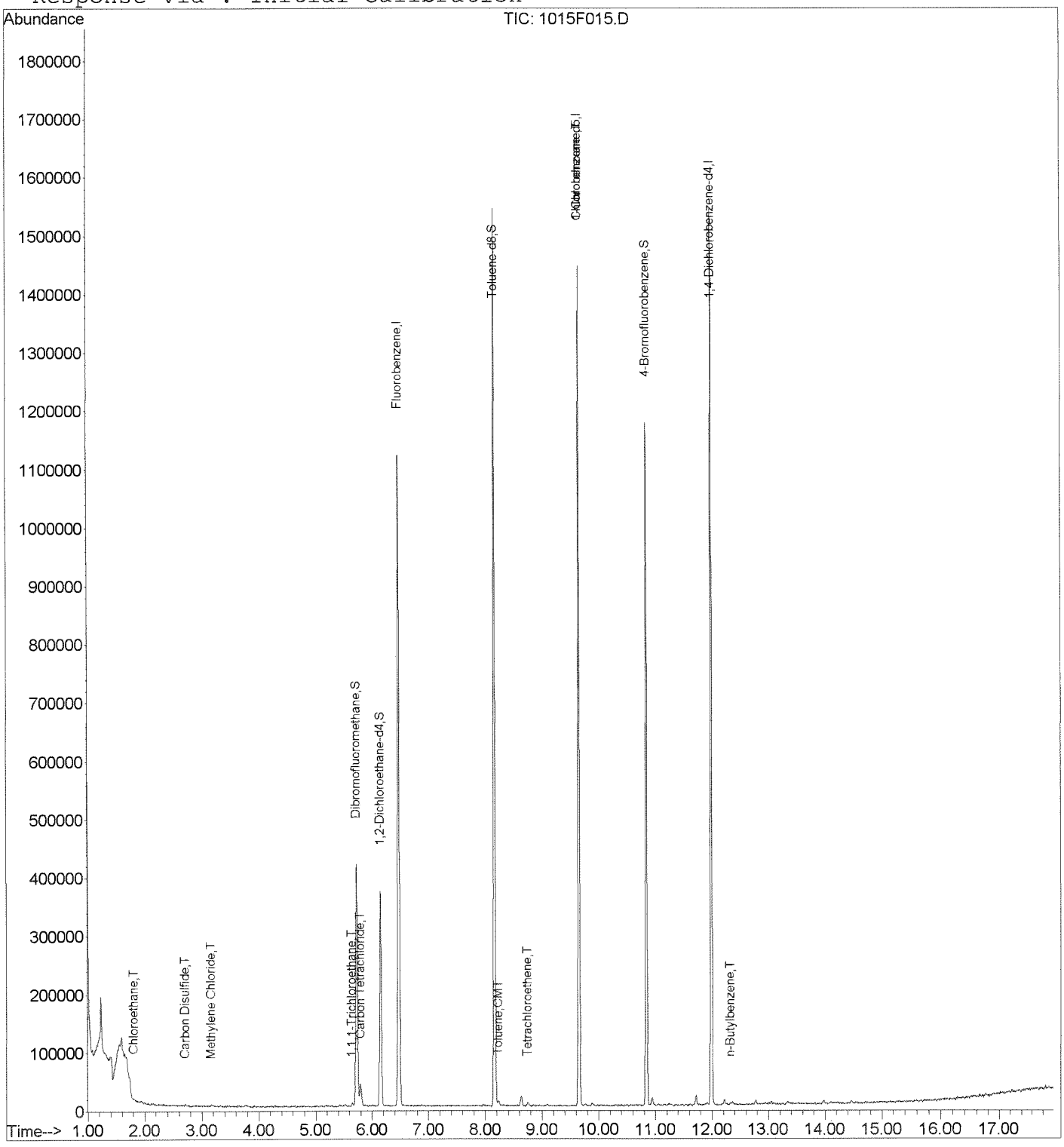
10/15/14

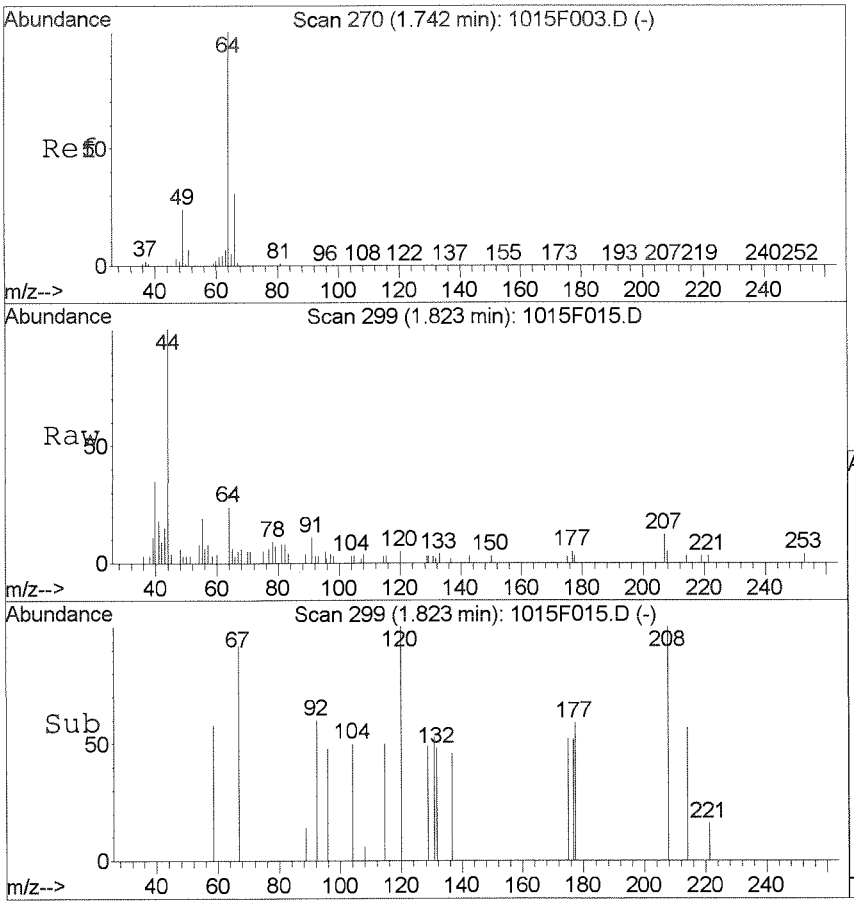
1015F015.D 100814MS27_8260.M Wed Oct 15 16:25:41 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F015.D Vial: 13
Acq On : 15 Oct 2014 3:47 pm Operator: MK
Sample : K10890-002 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:29 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

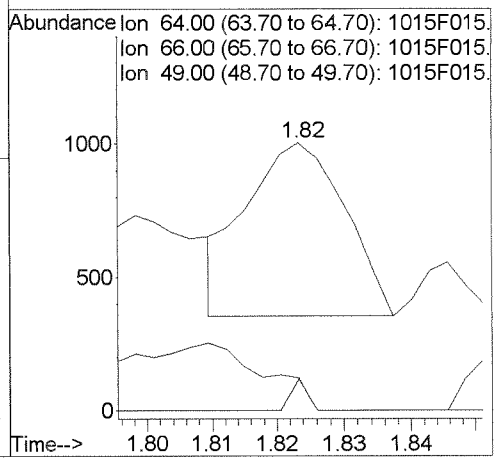


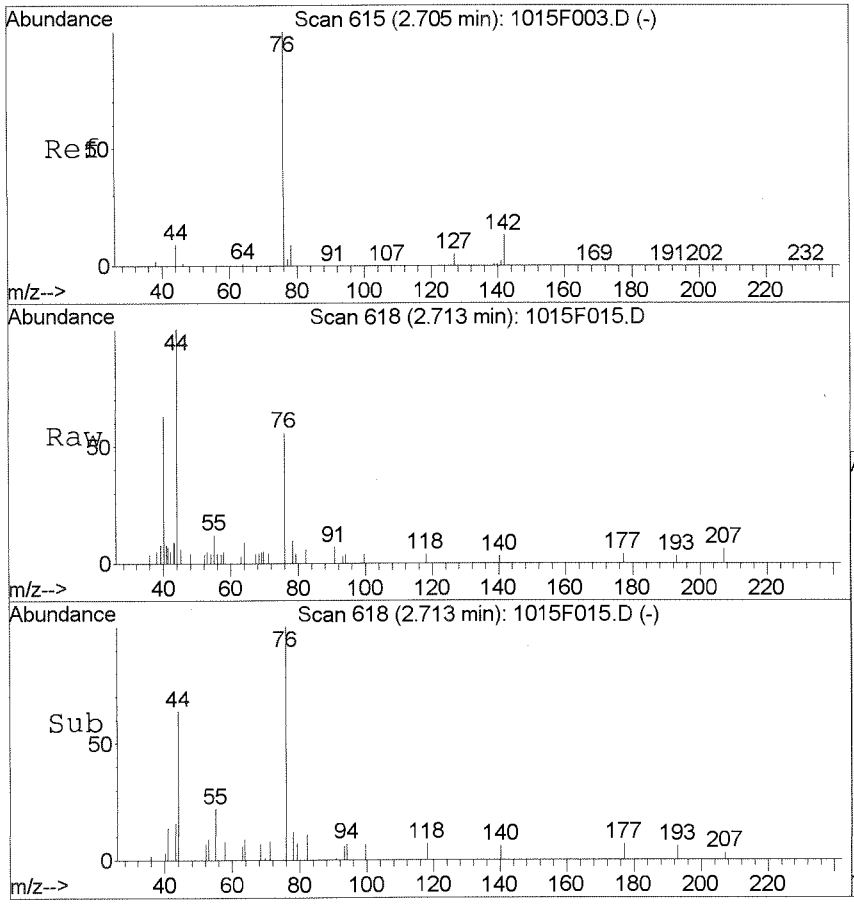


#7
Chloroethane
Concen: 0.04 PPB
RT: 1.82 min Scan# 299
Delta R.T. 0.08 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 64 Resp: 677

Ion	Ratio	Lower	Upper
64	100		
66	19.0	2.3	62.3
49	18.5	0.0	53.4

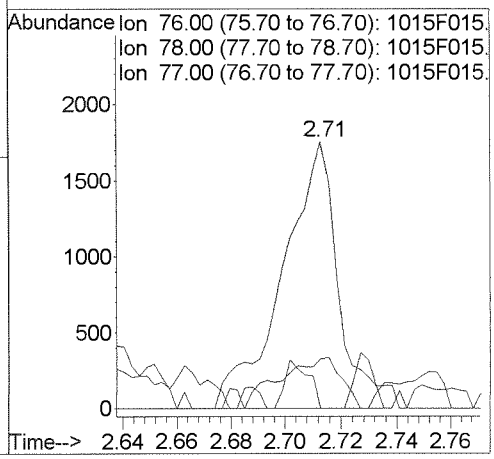


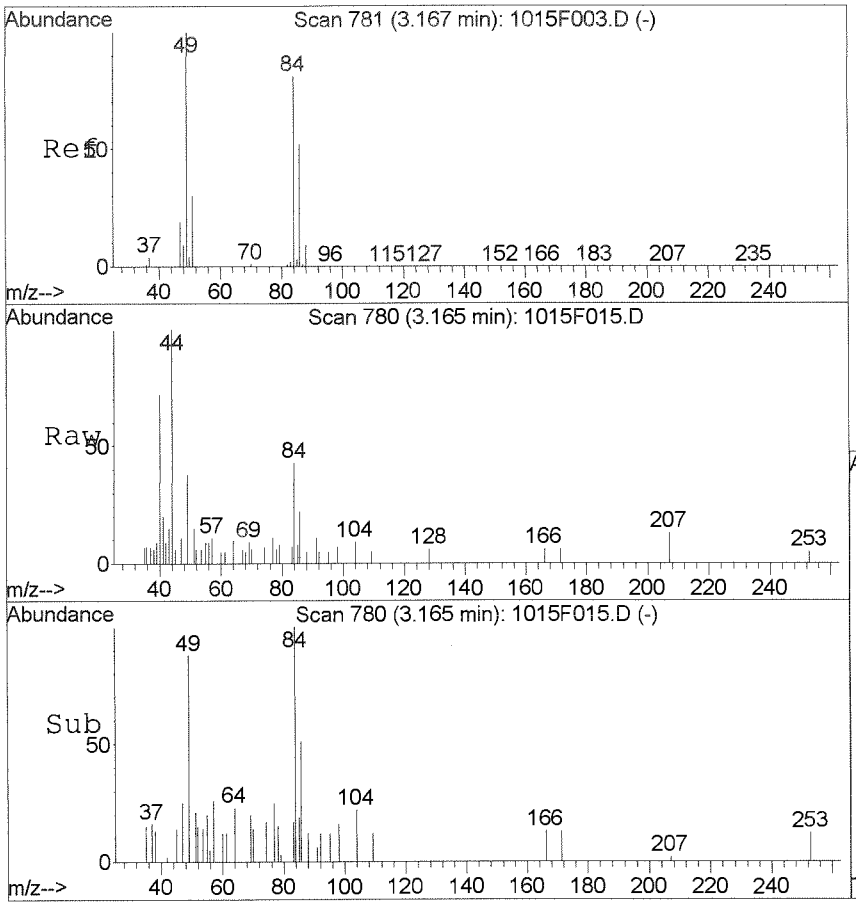


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.71 min Scan# 618
Delta R.T. 0.01 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 76 Resp: 2400

Ion	Ratio	Lower	Upper
76	100		
78	18.6	0.0	39.1
77	0.0	0.0	32.6

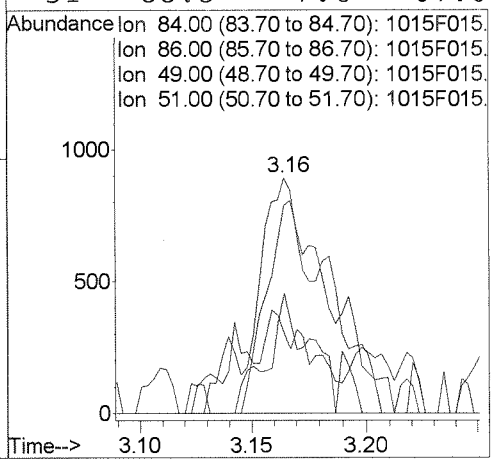


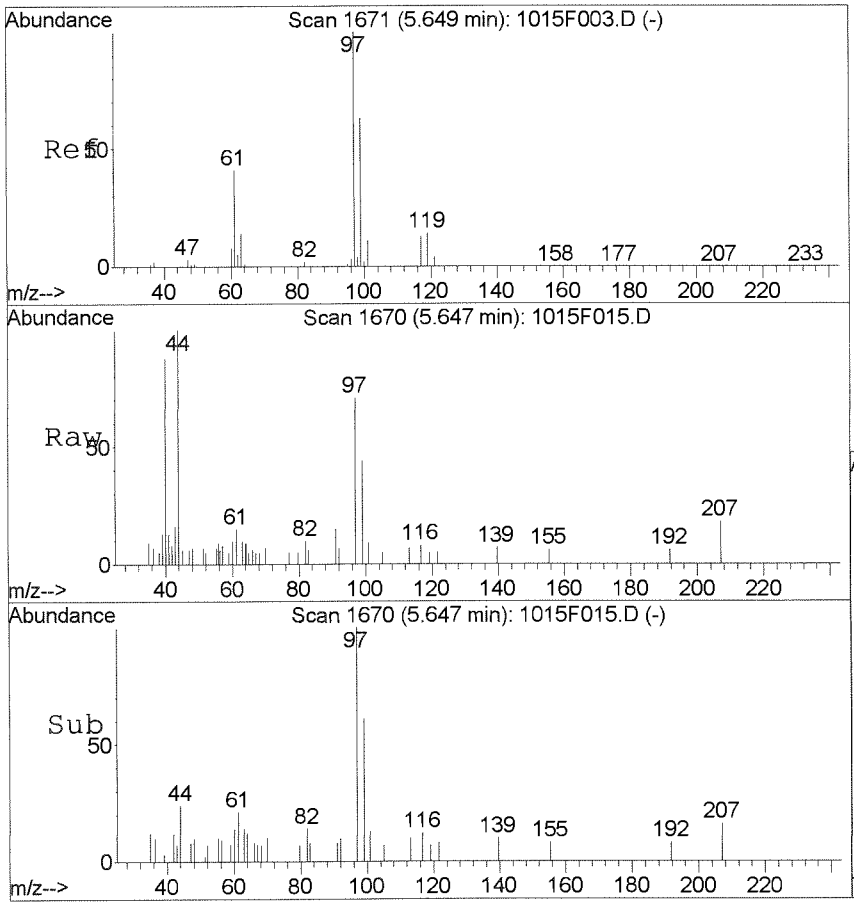


#21
Methylene Chloride
Concen: 0.06 PPB m
RT: 3.16 min Scan# 780
Delta R.T. -0.01 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 84 Resp: 1907

Ion	Ratio	Lower	Upper
84	100		
86	50.8	33.9	93.9
49	88.2	90.6	150.6#
51	33.5	7.6	67.6

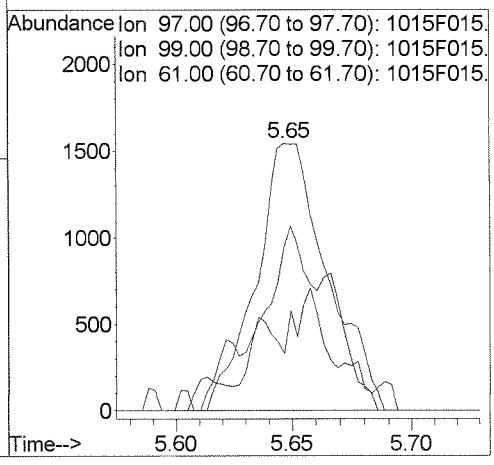


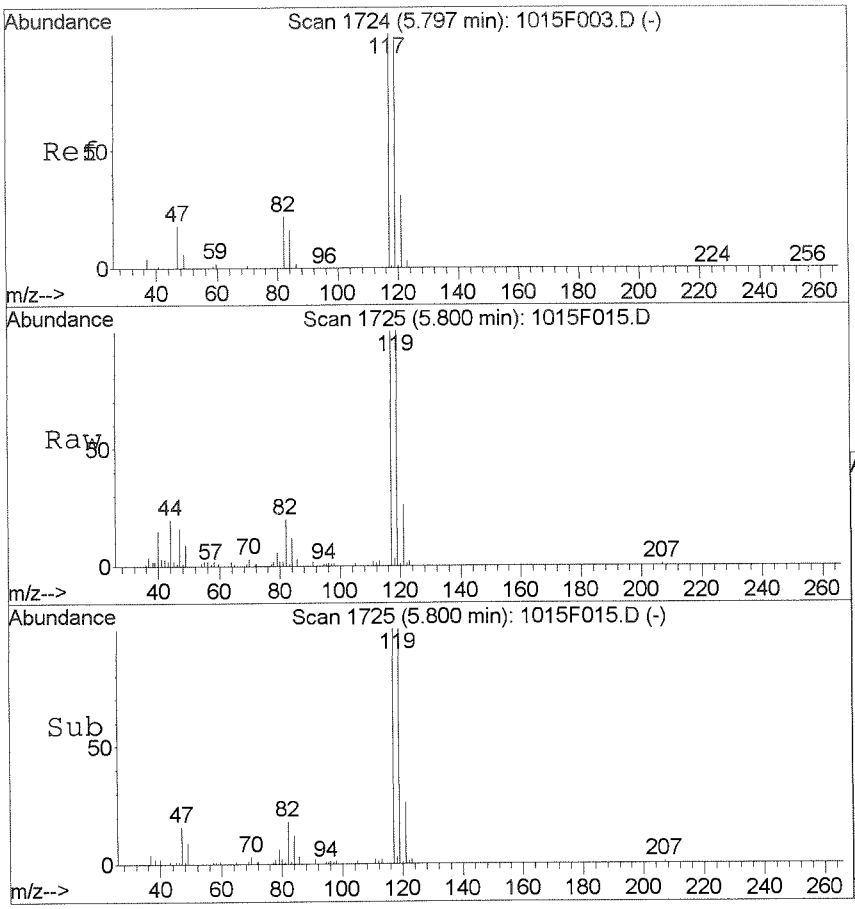


#42
1,1,1-Trichloroethane
Concen: 0.08 PPB
RT: 5.65 min Scan# 1670
Delta R.T. -0.00 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 97 Resp: 3249

Ion	Ratio	Lower	Upper
97	100		
99	54.4	33.6	93.6
61	21.4	11.2	71.2

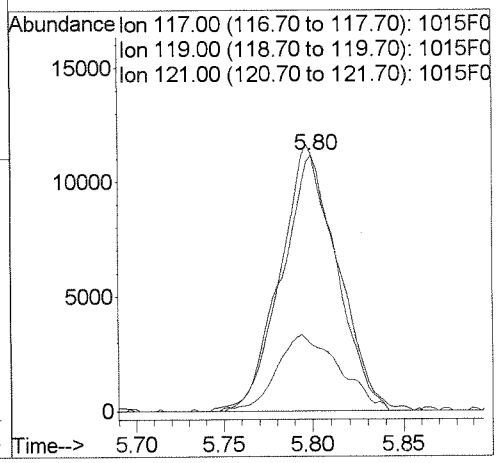


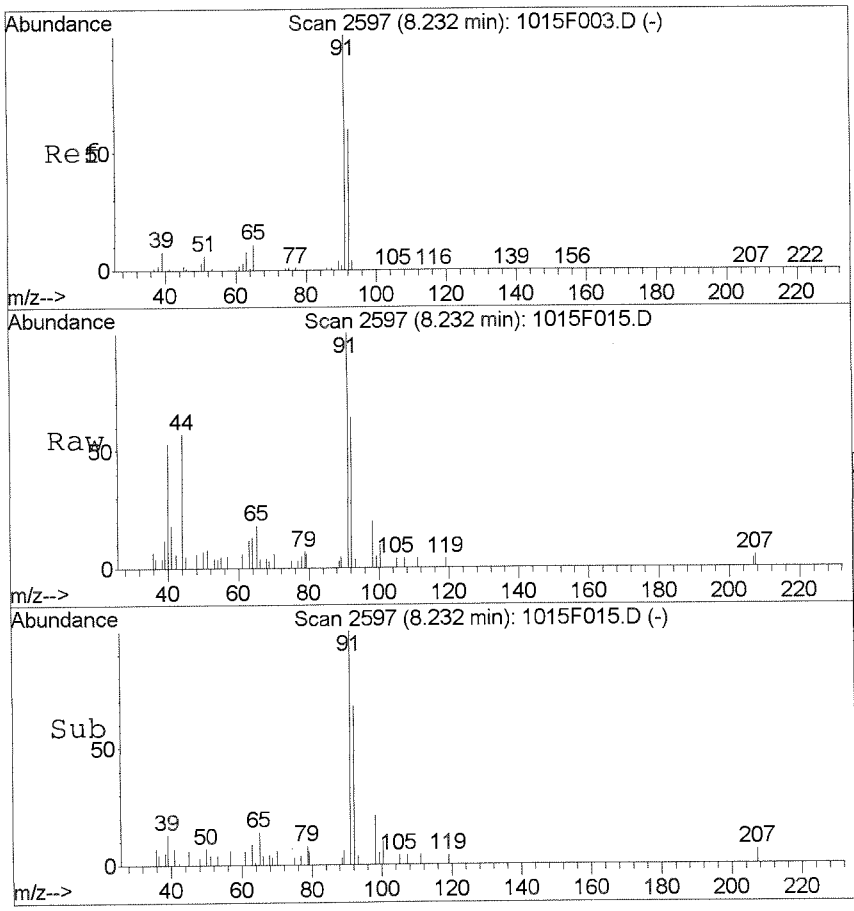


#44
Carbon Tetrachloride
Concen: 0.66 PPB
RT: 5.80 min Scan# 1725
Delta R.T. 0.00 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion:117 Resp: 24282

Ion	Ratio	Lower	Upper
117	100		
119	99.9	66.6	126.6
121	25.8	0.5	60.5

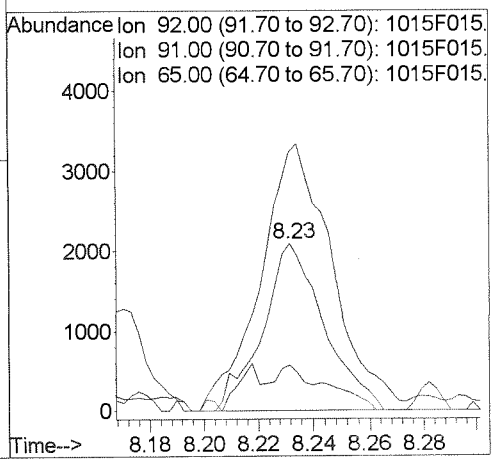


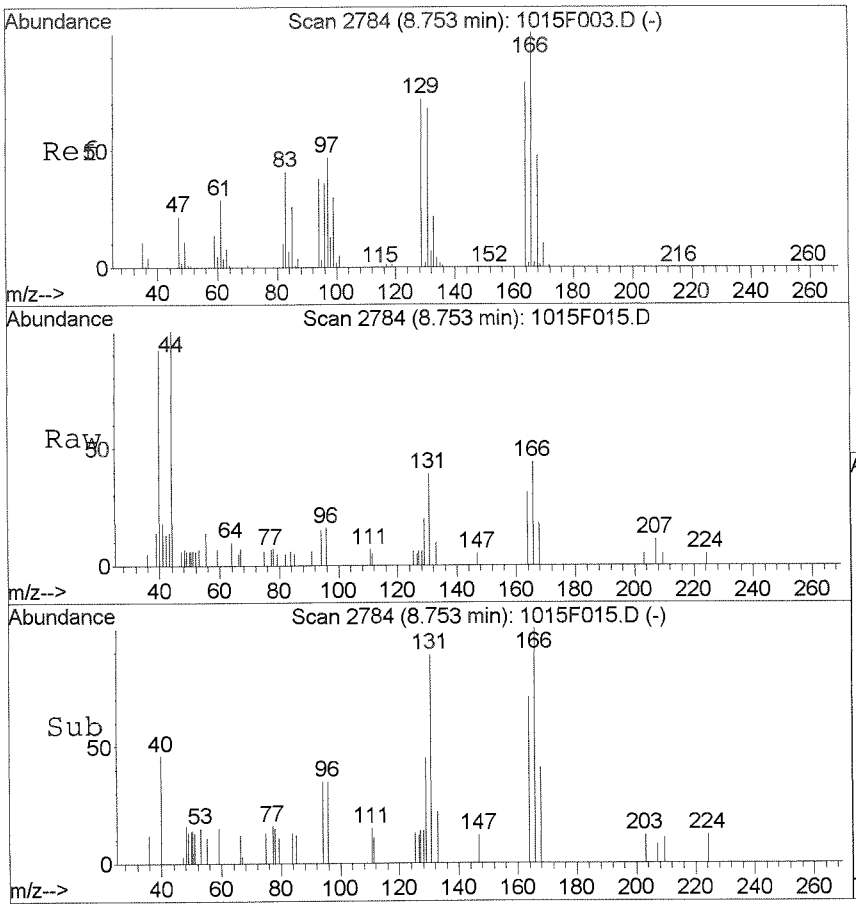


#63
Toluene
Concen: 0.05 PPB
RT: 8.23 min Scan# 2597
Delta R.T. -0.00 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 92 Resp: 3241

Ion	Ratio	Lower	Upper
92	100		
91	146.1	142.0	202.0
65	27.3	0.0	48.9

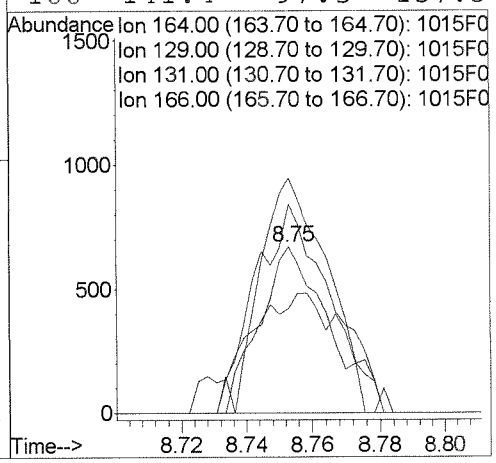


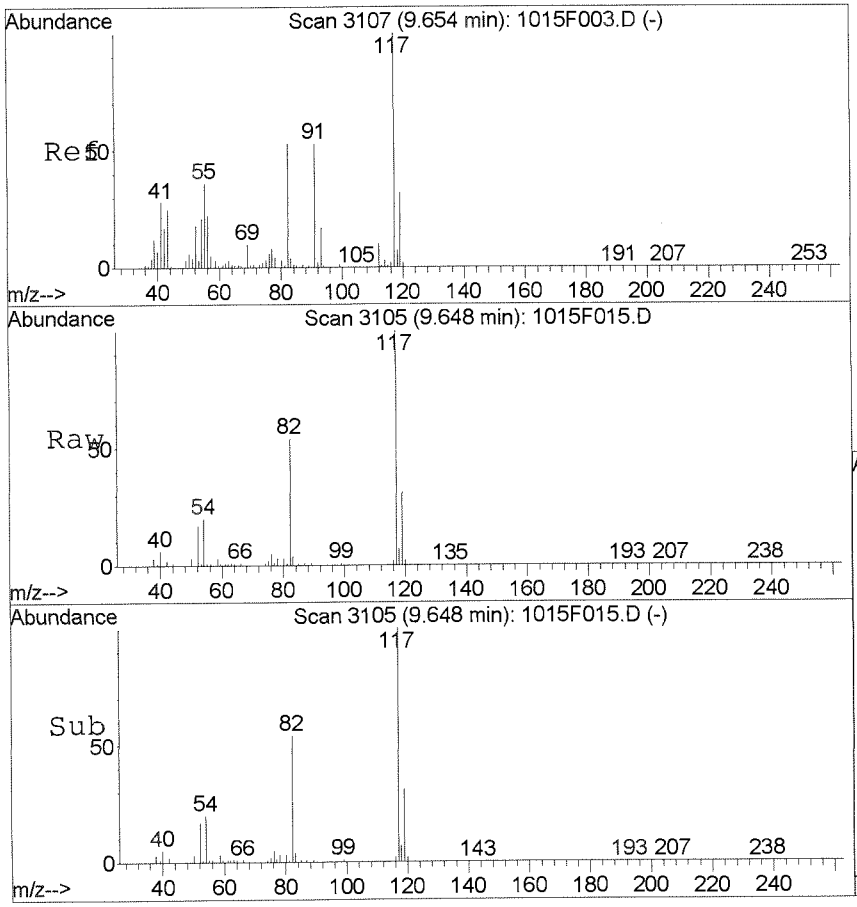


#69
Tetrachloroethene
Concen: 0.04 PPB
RT: 8.75 min Scan# 2784
Delta R.T. 0.00 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion:164 Resp: 1020

Ion	Ratio	Lower	Upper
164	100		
129	63.2	62.3	122.3
131	125.6	58.9	118.9#
166	141.4	97.5	157.5

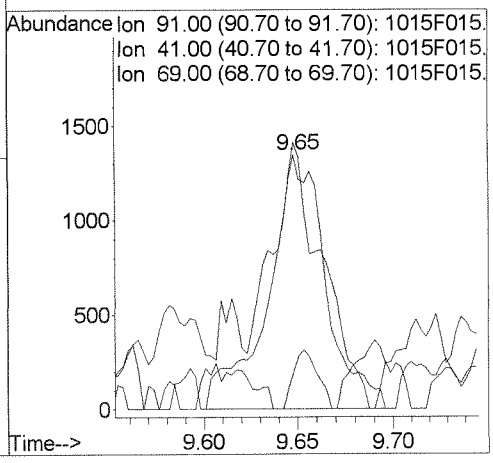


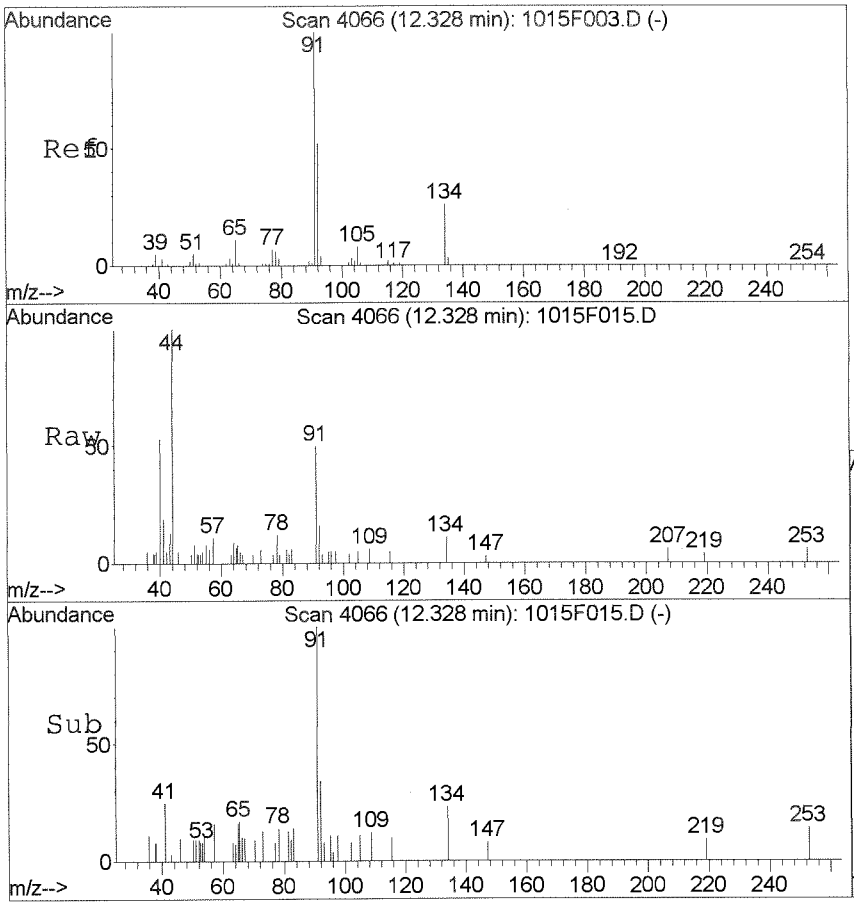


#74
1-Chlorohexane
Concen: 0.08 PPB
RT: 9.65 min Scan# 3105
Delta R.T. -0.01 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 91 Resp: 2859

Ion	Ratio	Lower	Upper
91	100		
41	86.5	21.8	81.8#
69	0.8	0.0	48.6

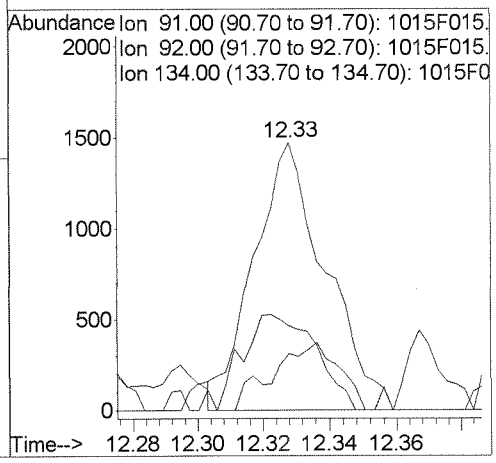




#100
n-Butylbenzene
Concen: 0.02 PPB
RT: 12.33 min Scan# 4066
Delta R.T. 0.00 min
Lab File: 1015F015.D
Acq: 15 Oct 2014 3:47 pm

Tgt Ion: 91 Resp: 2204

Ion	Ratio	Lower	Upper
91	100		
92	31.5	23.9	83.9
134	21.2	0.0	56.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F016.D
Lab ID: K1410890-003
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 16:14
Date Quantitated: 10/16/2014 09:15
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F016.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 16:14	**Quant Date:**	10/16/2014 09:15	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-003			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/03/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385158	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1050739	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	421446	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	410754	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	5.73	0.00	0.00	113	266907	9.28	93	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1017021	9.67	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	367429	9.60	96	68-117	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	Carbon Tetrachloride	5.79	-0.01	0.00	117	1375**m**	0.0400	0.096	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\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:10:34 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

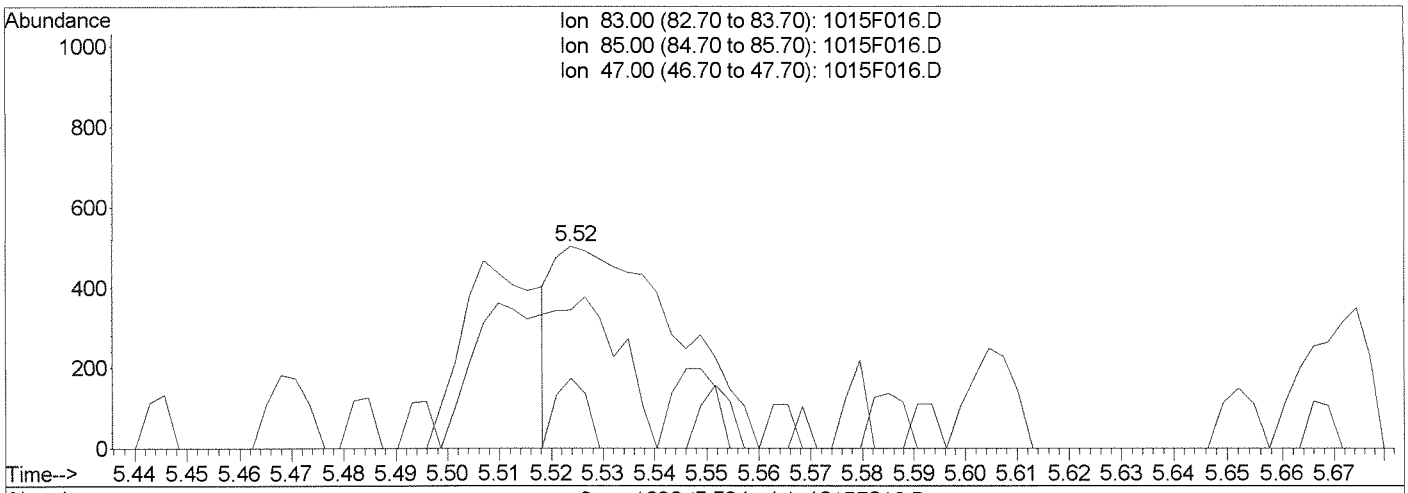
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1050739	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	421446	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	410754	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	266907	9.28	PPB		0.00
Spiked Amount 10.000			Recovery =	92.80%			
47) 1,2-Dichloroethane-d4	6.15	65	258996	9.78	PPB		0.00
Spiked Amount 10.000			Recovery =	97.80%			
62) Toluene-d8	8.16	98	1017021	9.67	PPB		0.00
Spiked Amount 10.000			Recovery =	96.70%			
84) 4-Bromofluorobenzene	10.84	95	367429	9.60	PPB		0.00
Spiked Amount 10.000			Recovery =	96.00%			
Target Compounds							Qvalue
3) Chloromethane	1.27	50	1161	0.03	PPB		71
6) Bromomethane	1.75	96	713	Below Cal		#	42
16) Carbon Disulfide	2.71	76	2470	0.03	PPB		70
21) Methylene Chloride	3.16	84	1545	0.05	PPB	#	61
40) Chloroform	5.52	83	1294m	0.03	PPB		
44) Carbon Tetrachloride	5.79	117	1375m	0.04	PPB		
63) Toluene	8.23	92	5561	0.08	PPB		90
69) Tetrachloroethene	8.75	164	1086m	0.05	PPB		
74) 1-Chlorohexane	9.65	91	2617m	0.07	PPB		

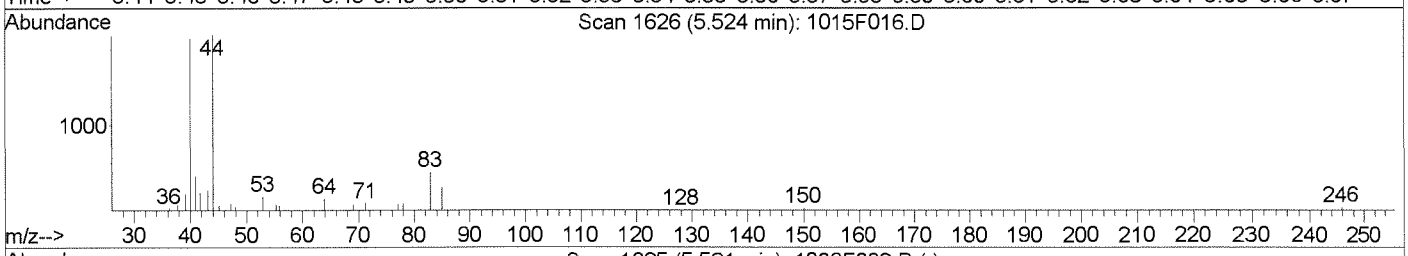
(#) = qualifier out of range (m) = manual integration

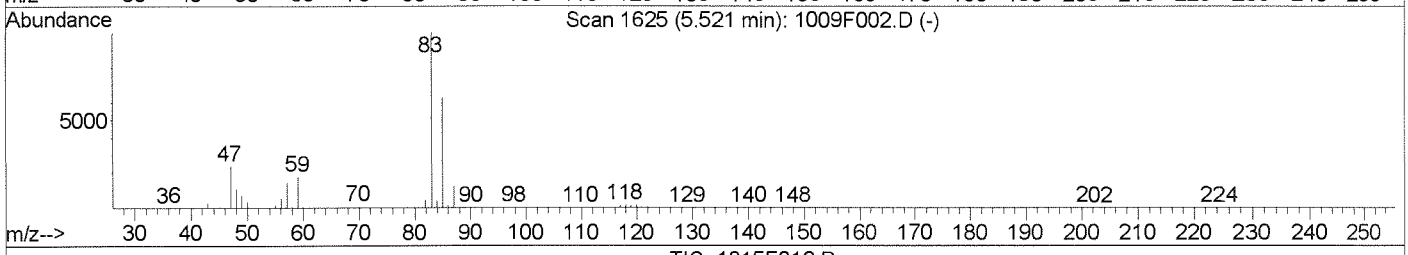
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:11 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(40) Chloroform (CT)

5.52min 0.02PPB

response 826

Ion	Exp%	Act%
83.00	100	100
85.00	63.20	46.61
47.00	22.90	34.46
0.00	0.00	0.00

Manual Integration:

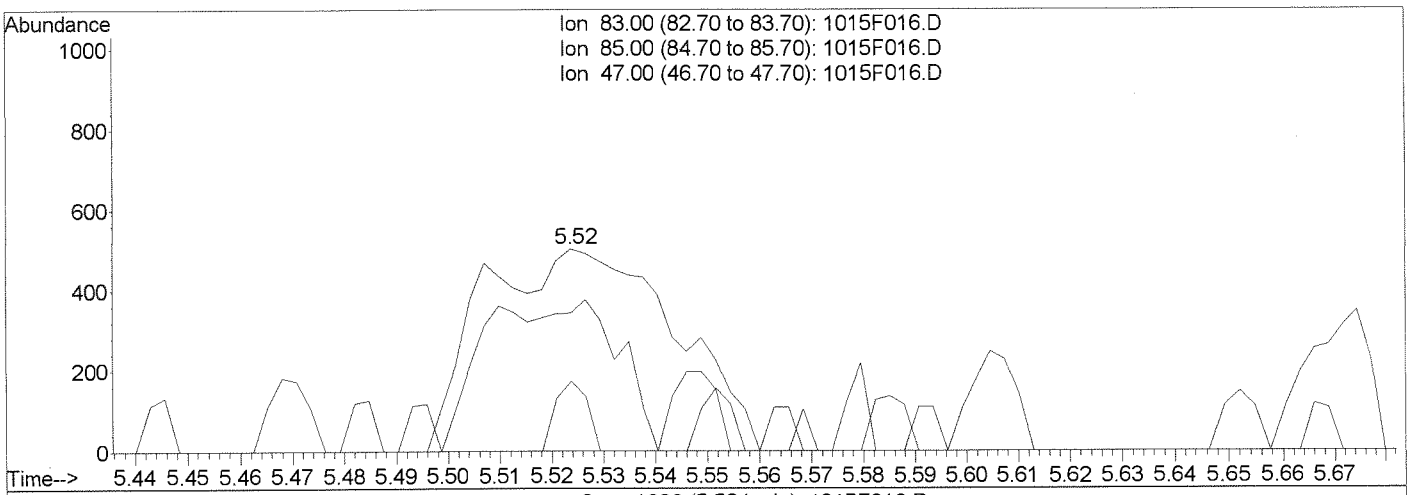
Before

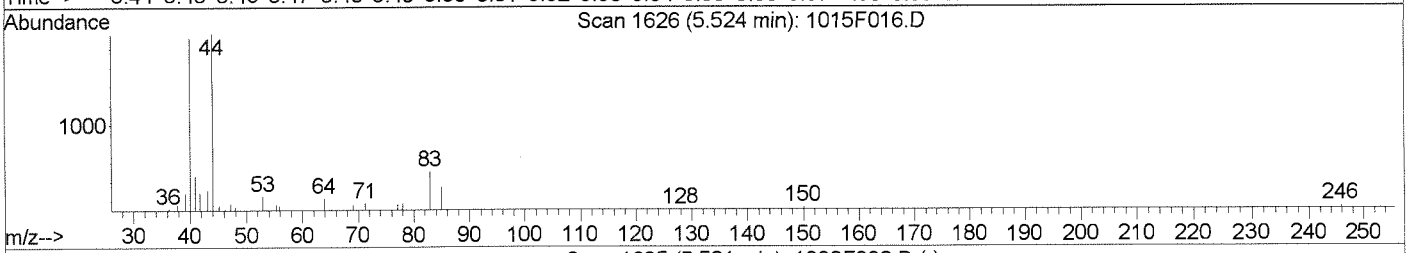
10/16/14

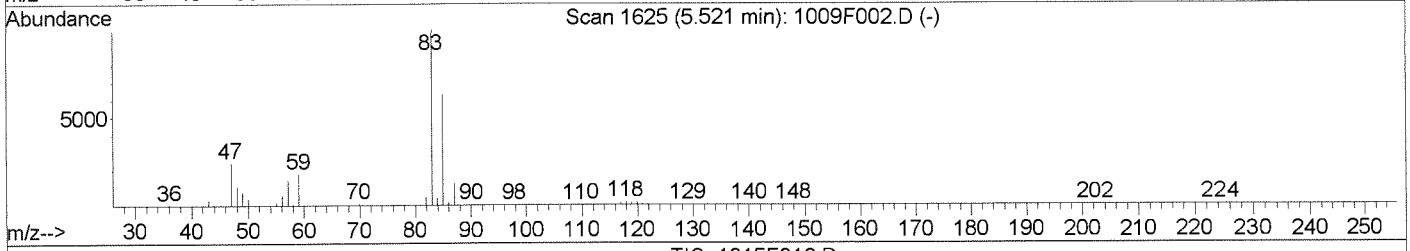
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:12 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(40) Chloroform (CT)

5.52min 0.03PPB m

response 1294

Ion	Exp%	Act%
83.00	100	100
85.00	63.20	68.33
47.00	22.90	34.46
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

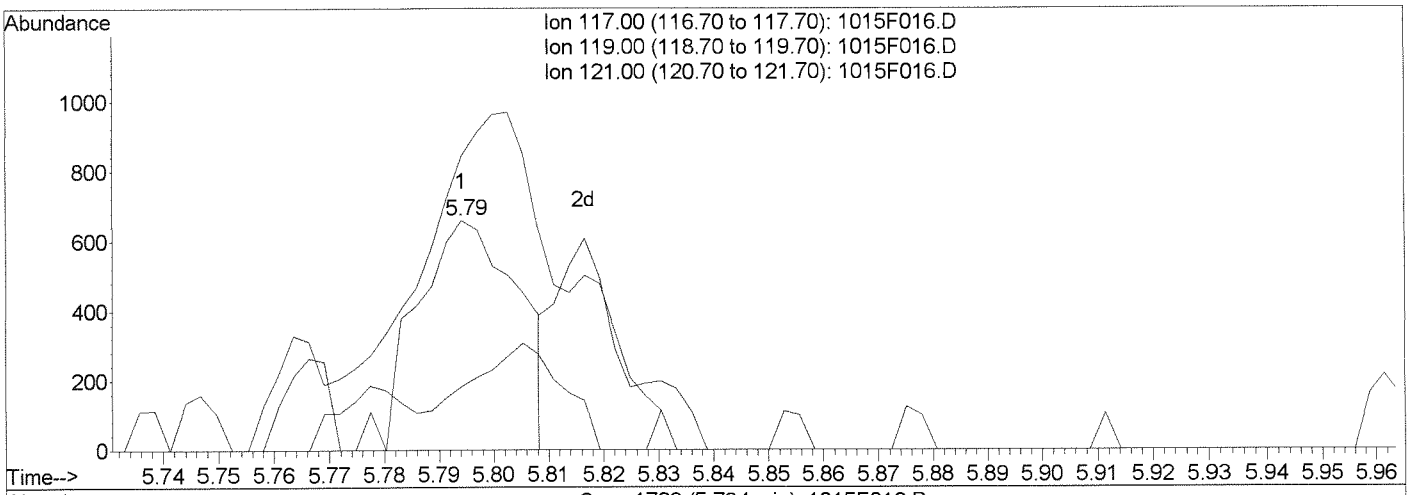
10/16/14

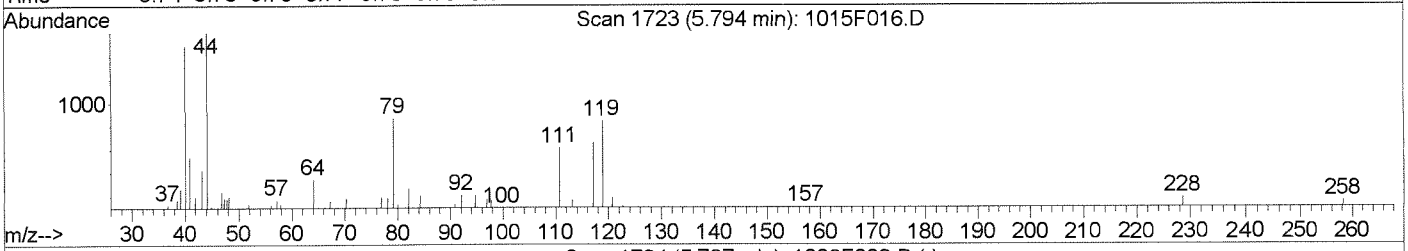
Quantitation Report (Qedit)

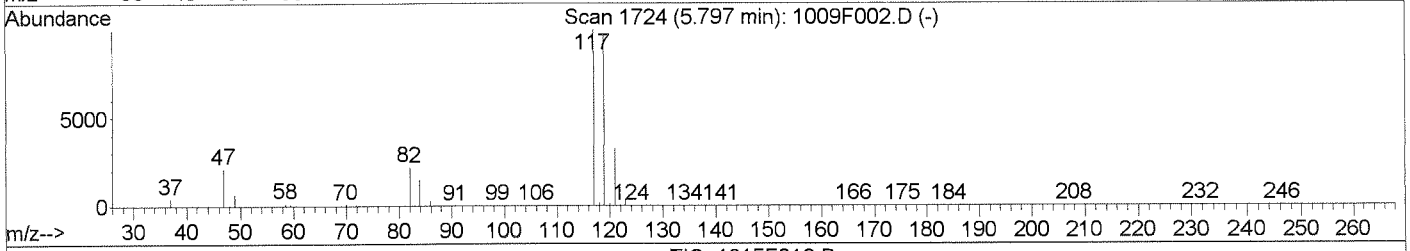
Data File : J:\MS27\DATA\101514\1015F016.D
Acq On : 15 Oct 2014 4:14 pm
Sample : K10890-003
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:12 2014

Vial: 14
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(44) Carbon Tetrachloride (T)

5.79min 0.02PPB

response 859

Ion	Exp%	Act%
117.00	100	100
119.00	96.60	92.41
121.00	30.50	6.53
0.00	0.00	0.00

Manual Integration:

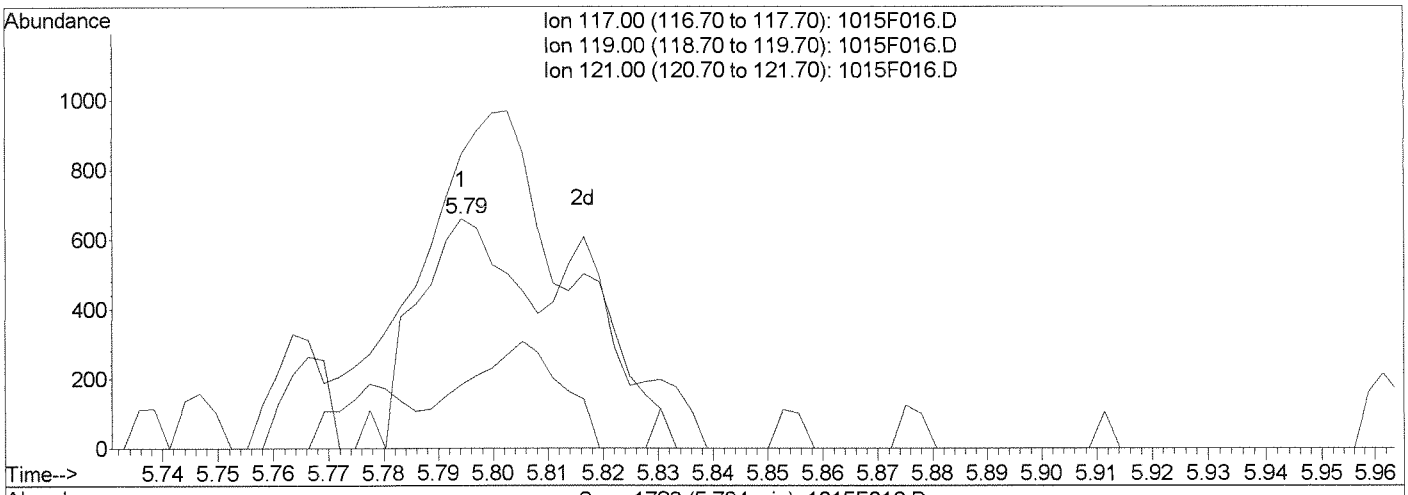
Before

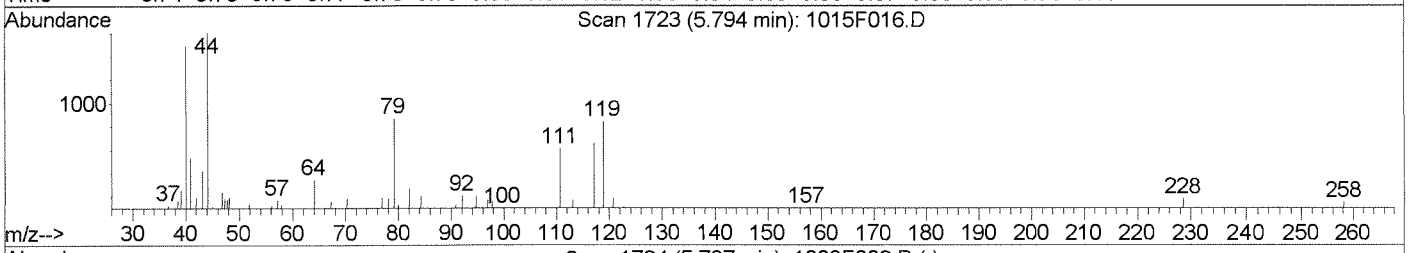
10/16/14

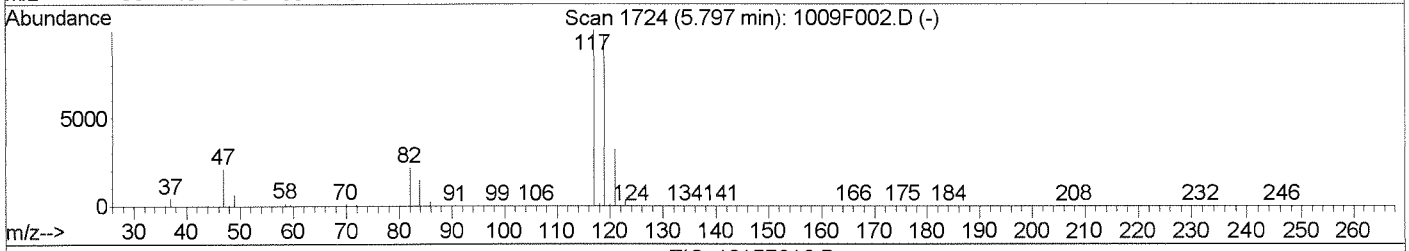
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:12 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(44) Carbon Tetrachloride (T)

5.79min 0.04PPB m

response 1375

Ion	Exp%	Act%
117.00	100	100
119.00	96.60	128.07#
121.00	30.50	27.77
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

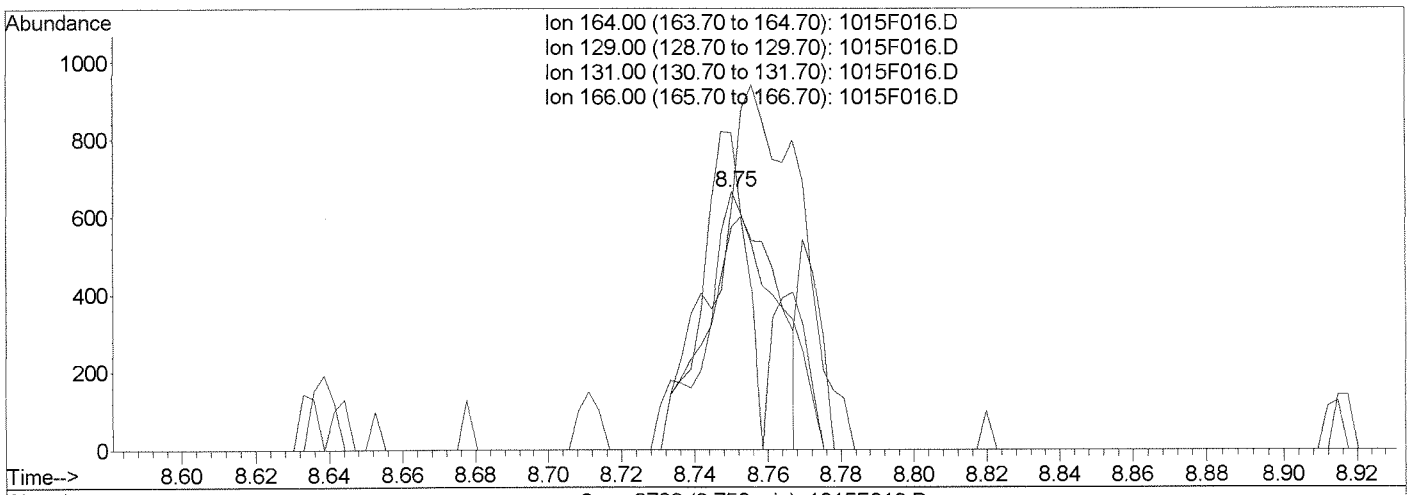
10/16/14

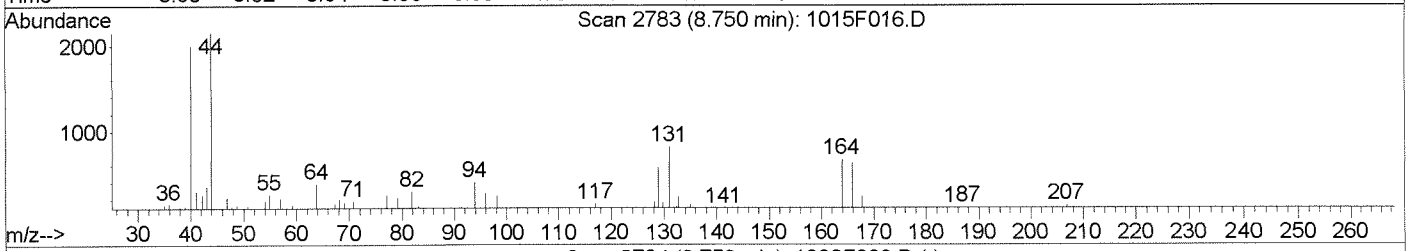
1015F016.D 100814MS27_8260.M Thu Oct 16 09:12:36 2014

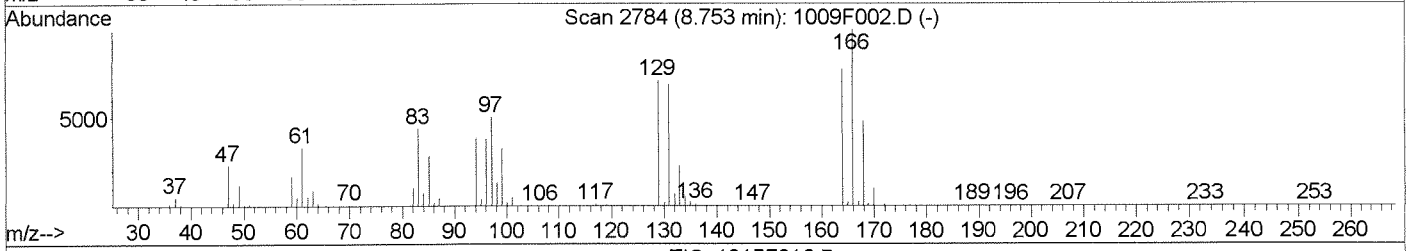
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:13 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(69) Tetrachloroethene (T)

8.75min 0.04PPB

response 871

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	86.32
131.00	88.90	122.71#
166.00	127.50	94.14#

Manual Integration:

Before

10/16/14

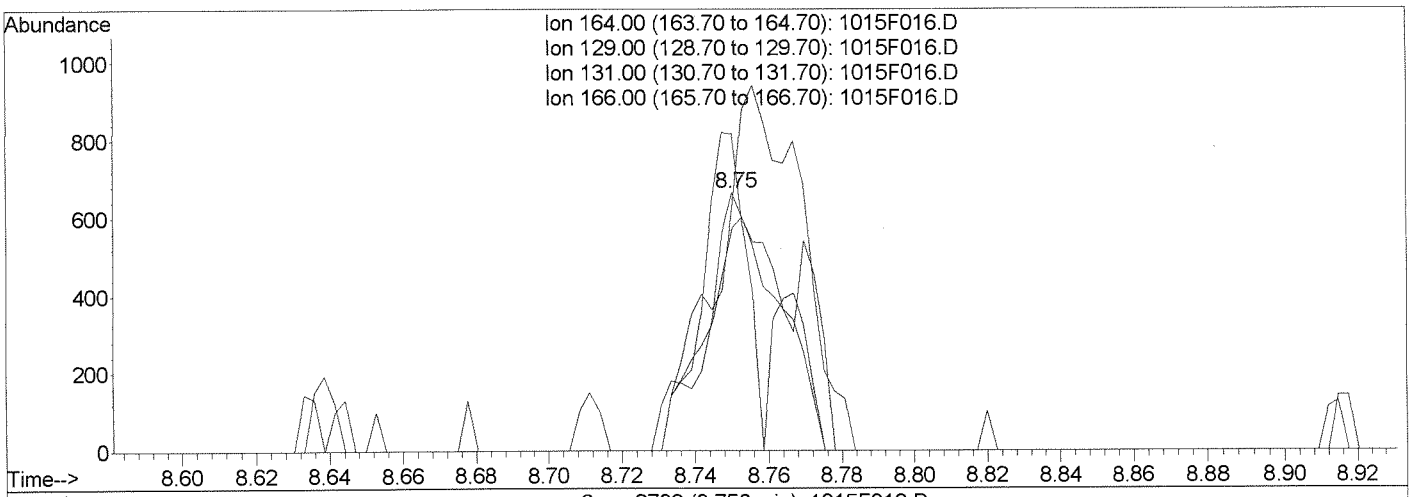
MK

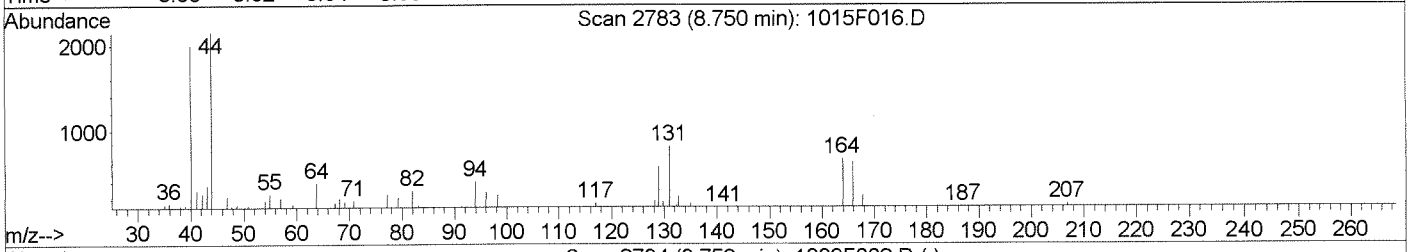
1015F016.D 100814MS27_8260.M Thu Oct 16 09:13:54 2014

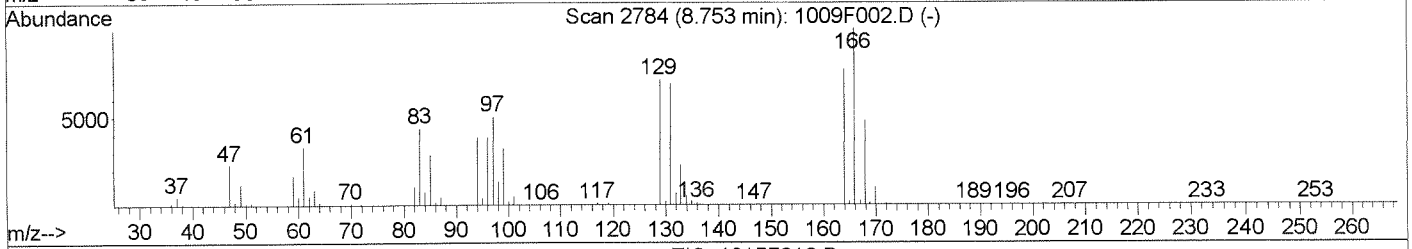
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:13 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(69) Tetrachloroethene (T)

8.75min 0.05PPB m

response 1086

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	86.32
131.00	88.90	122.71#
166.00	127.50	94.14#

Manual Integration:

After

Baseline correction

10/16/14 MK

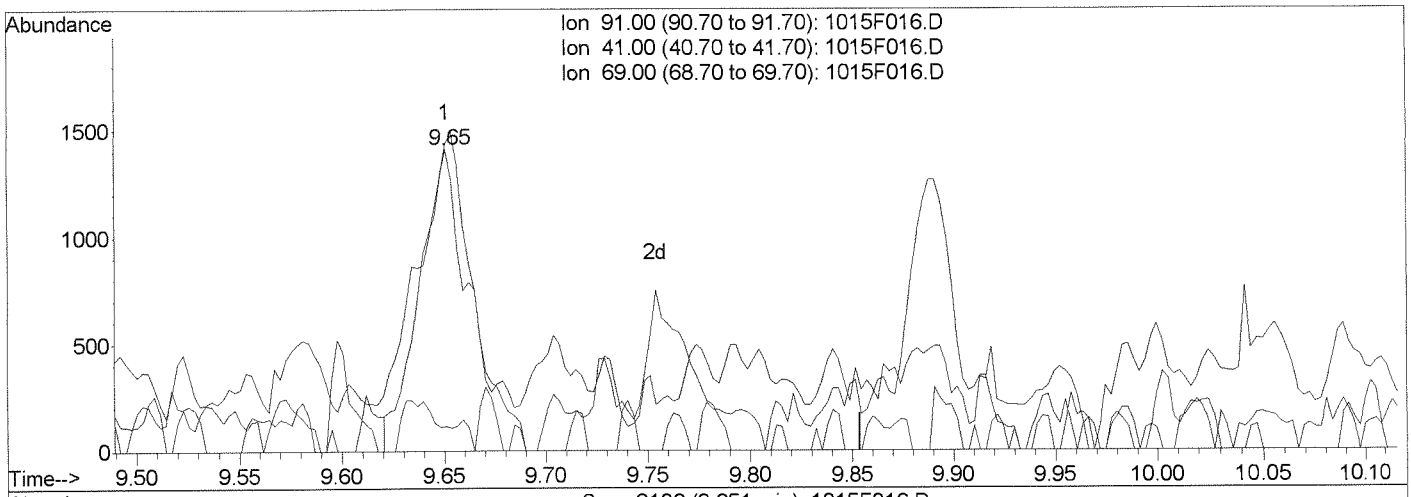
1015F016.D 100814MS27_8260.M Thu Oct 16 09:13:59 2014

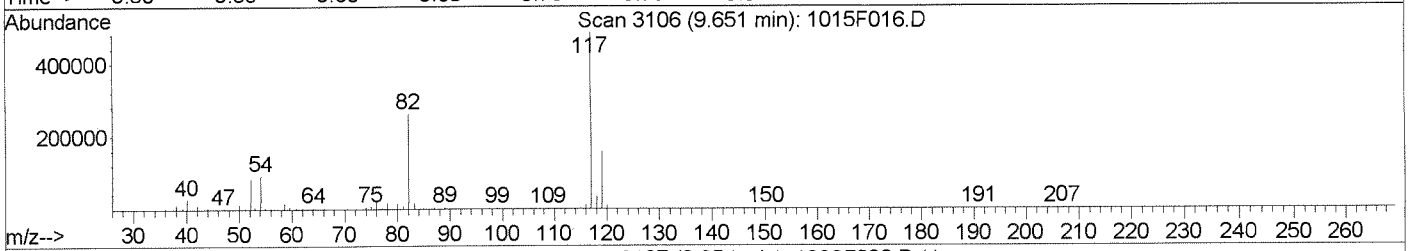
Quantitation Report (Qedit)

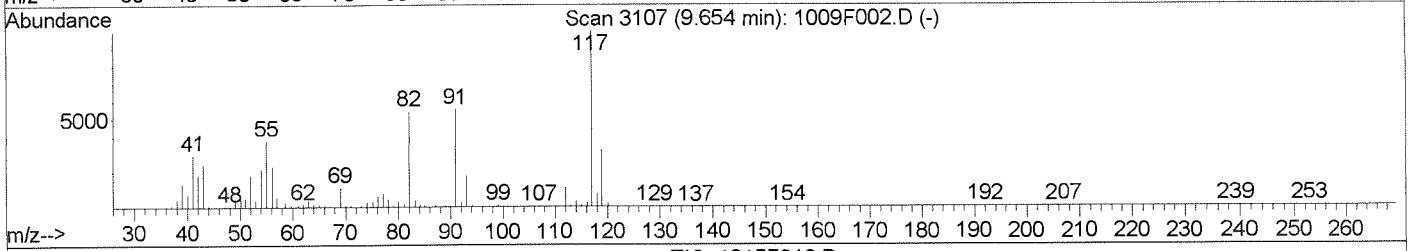
Data File : J:\MS27\DATA\101514\1015F016.D
Acq On : 15 Oct 2014 4:14 pm
Sample : K10890-003
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:13 2014

Vial: 14
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(74) 1-Chlorohexane (T)

9.65min 0.07PPB

response 2469

Ion	Exp%	Act%
91.00	100	100
41.00	51.80	83.42#
69.00	18.60	8.22
0.00	0.00	0.00

Manual Integration:

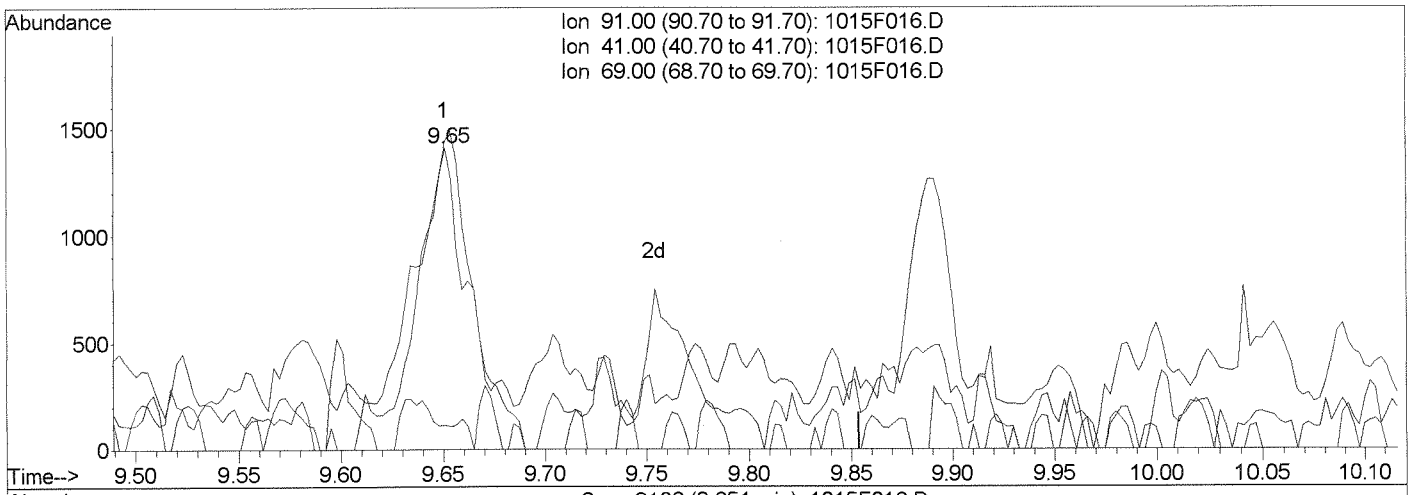
Before

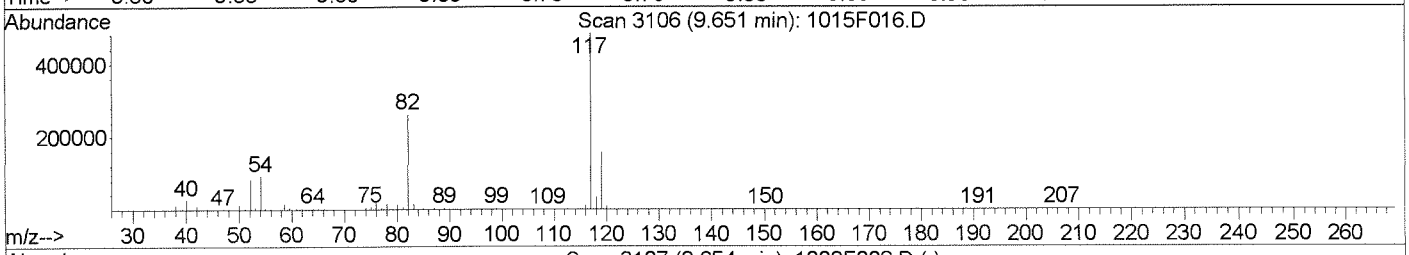
10/16/14

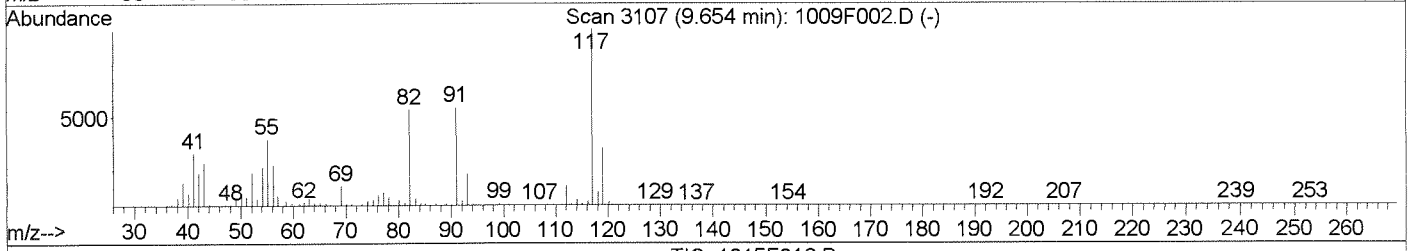
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:14 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F016.D

(74) 1-Chlorohexane (T)

9.65min 0.07PPB m

response 2617

Ion	Exp%	Act%
91.00	100	100
41.00	51.80	101.84#
69.00	18.60	8.22
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

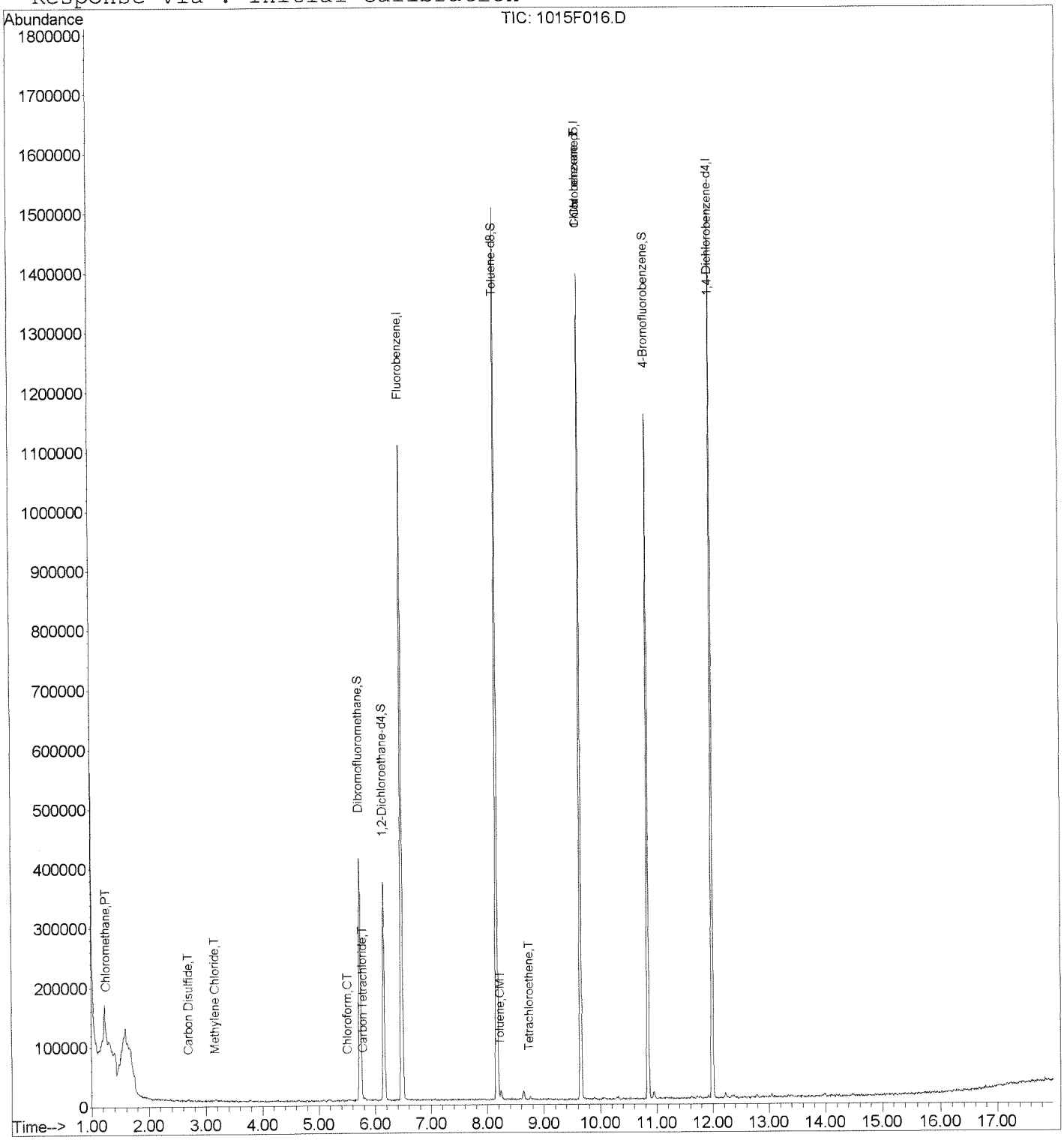
10/16/14

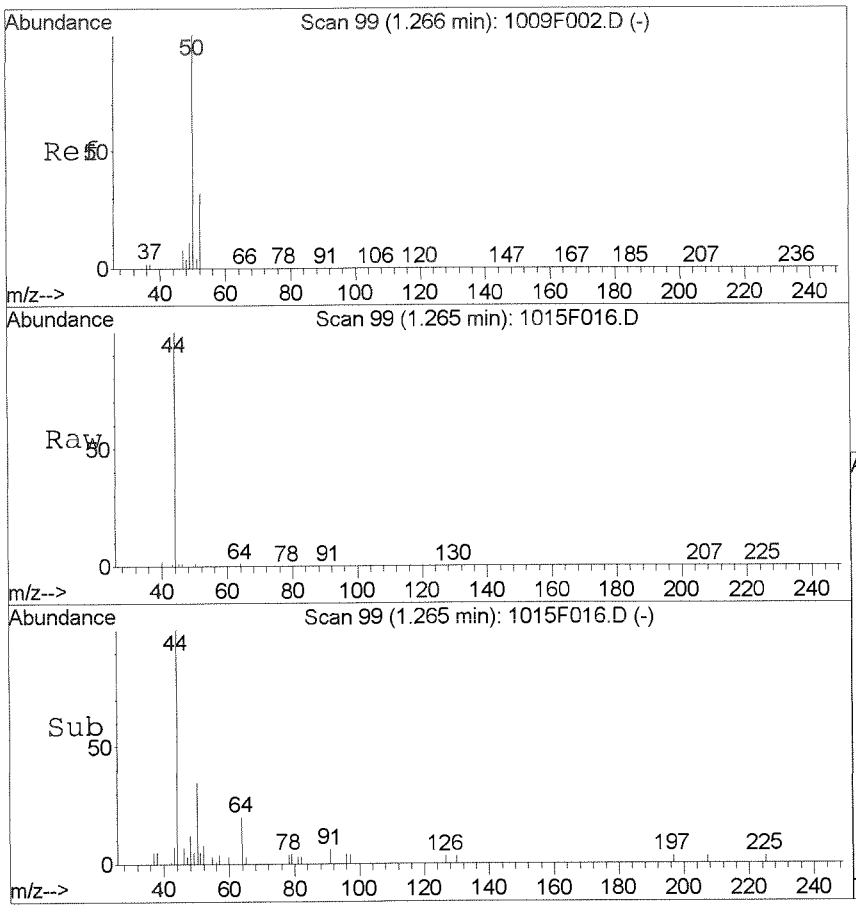
1015F016.D 100814MS27_8260.M Thu Oct 16 09:14:18 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F016.D Vial: 14
Acq On : 15 Oct 2014 4:14 pm Operator: MK
Sample : K10890-003 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:15 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

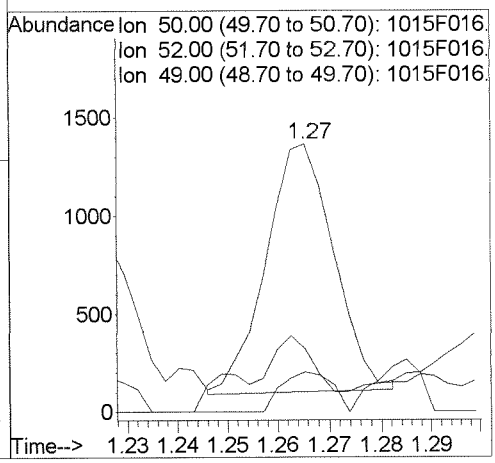


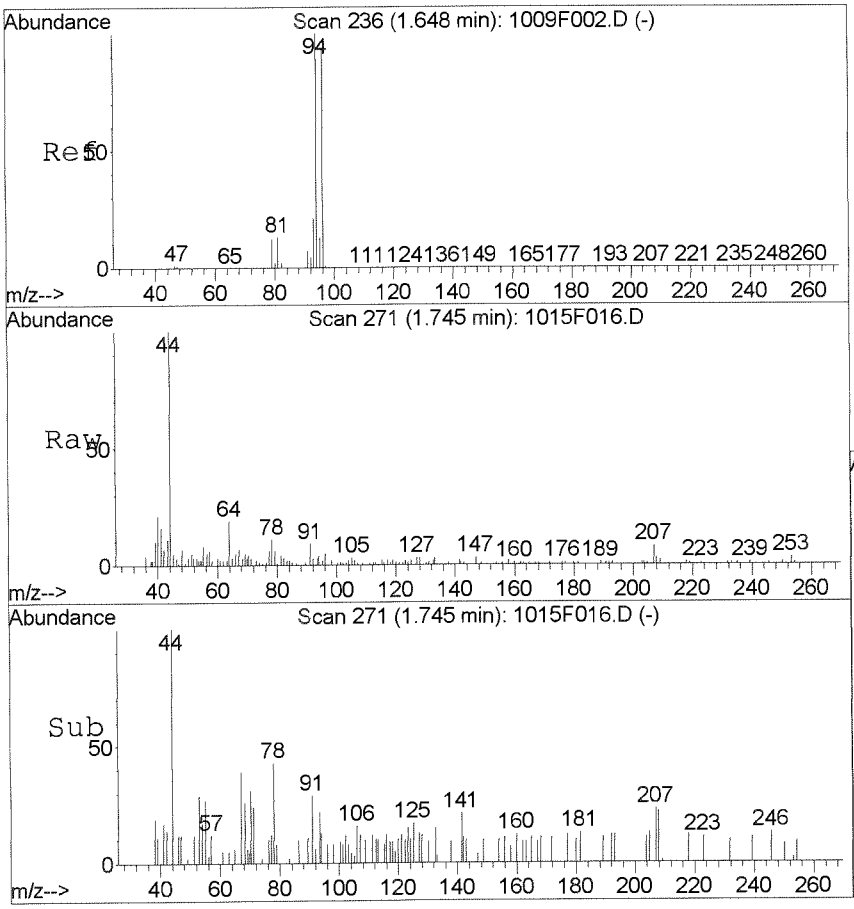


#3
Chloromethane
Concen: 0.03 PPB
RT: 1.27 min Scan# 99
Delta R.T. 0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 50 Resp: 1161

Ion	Ratio	Lower	Upper
50	100		
52	14.7	3.4	63.4
49	16.2	0.0	40.1

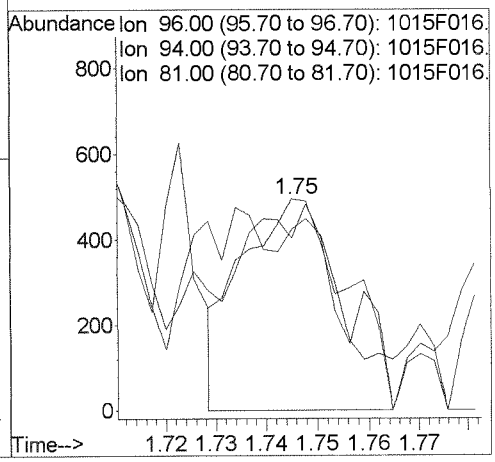


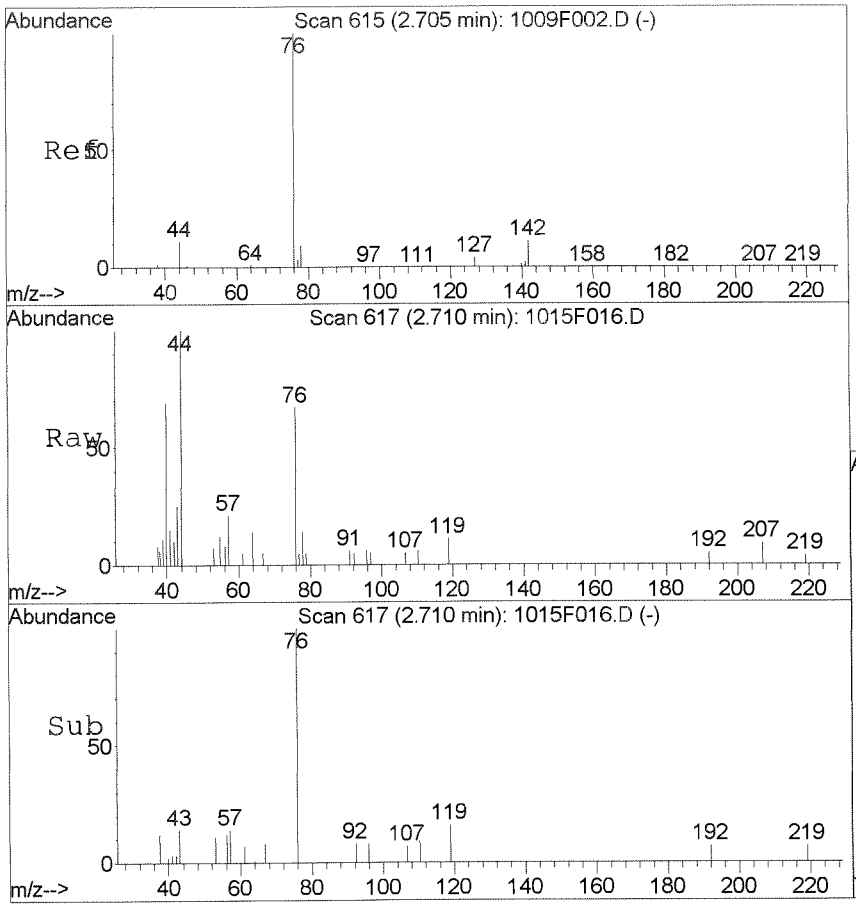


#6
Bromomethane
Concen: Below Cal
RT: 1.75 min Scan# 271
Delta R.T. 0.10 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 96 Resp: 713

Ion	Ratio	Lower	Upper
96	100		
94	61.6	77.8	137.8#
81	81.6	0.0	43.8#

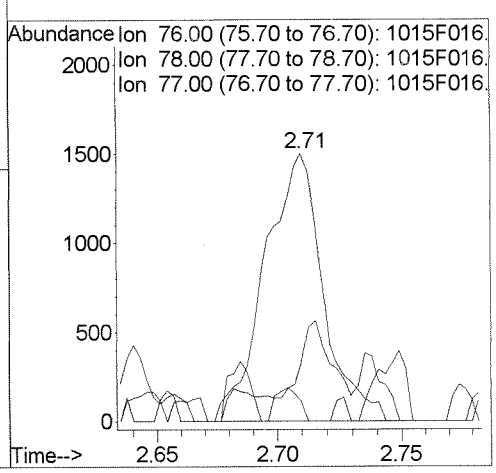


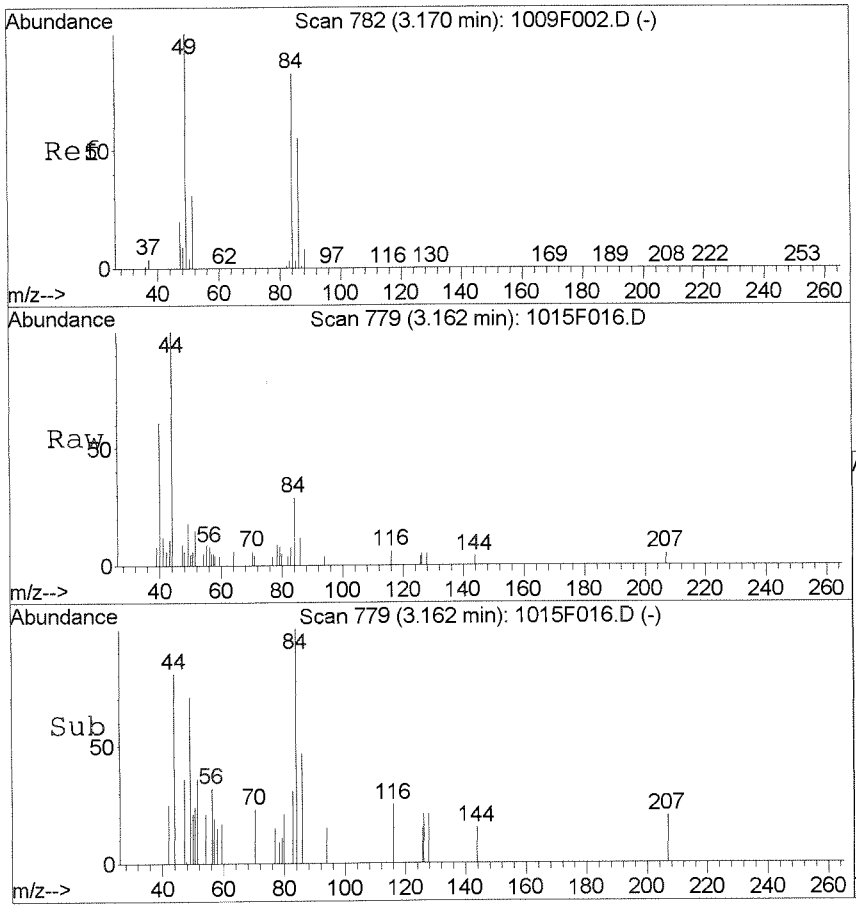


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.71 min Scan# 617
Delta R.T. 0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 76 Resp: 2470

Ion	Ratio	Lower	Upper
76	100		
78	21.6	0.0	39.1
77	7.5	0.0	32.6

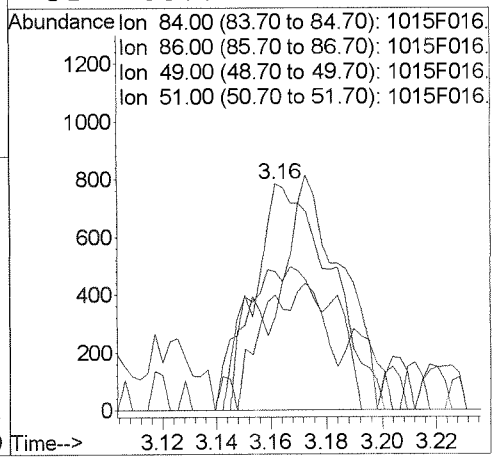


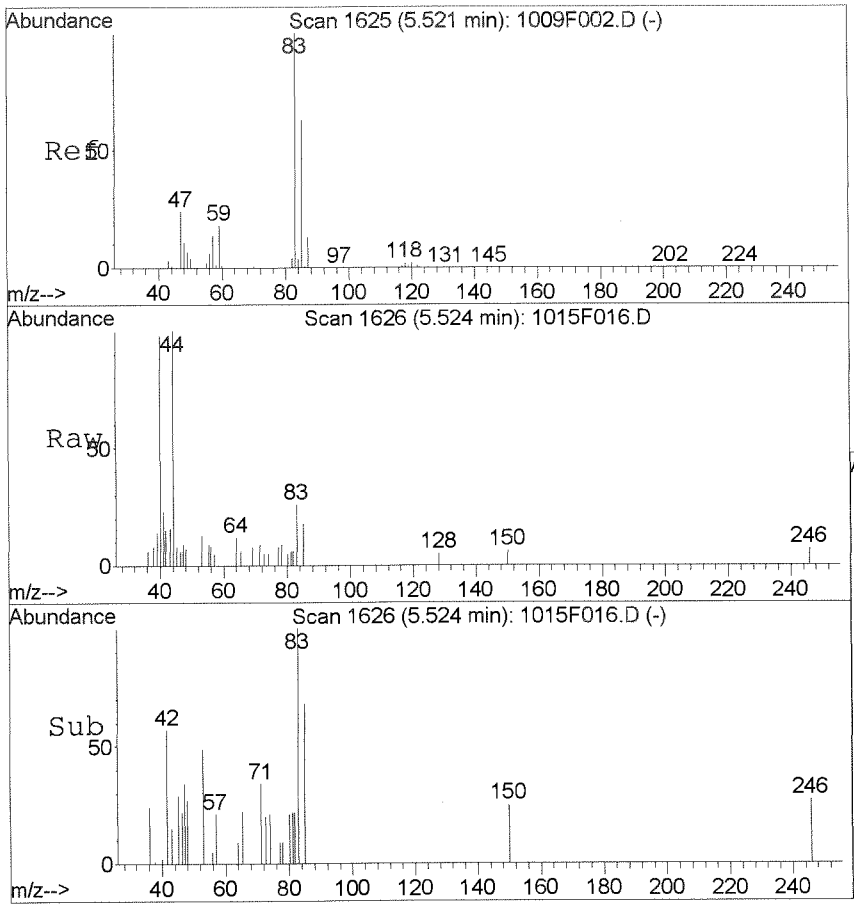


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.16 min Scan# 779
Delta R.T. -0.01 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 84 Resp: 1545

Ion	Ratio	Lower	Upper
84	100		
86	41.1	33.9	93.9
49	61.1	90.6	150.6#
51	33.0	7.6	67.6

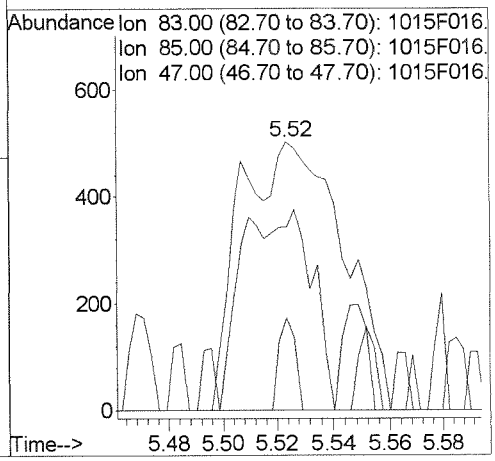


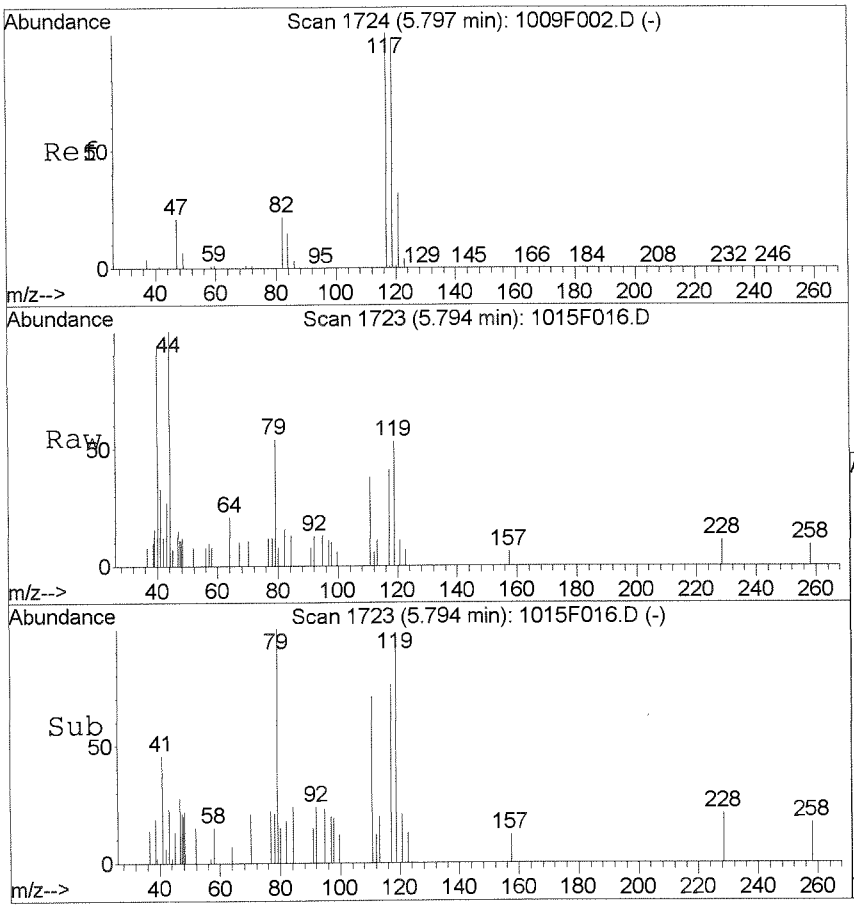


#40
Chloroform
Concen: 0.03 PPB m
RT: 5.52 min Scan# 1626
Delta R.T. 0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 83 Resp: 1294

Ion	Ratio	Lower	Upper
83	100		
85	68.3	33.2	93.2
47	34.5	0.0	52.9

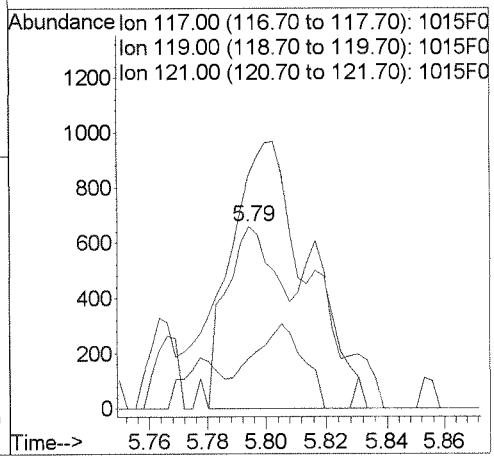


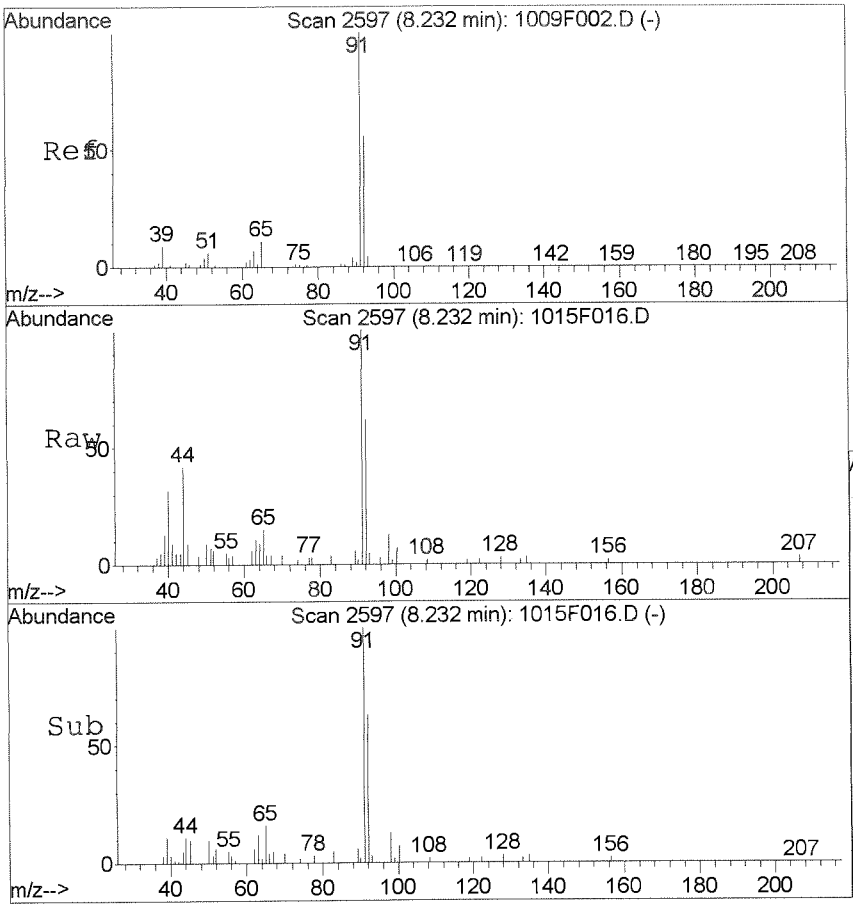


#44
Carbon Tetrachloride
Concen: 0.04 PPB m
RT: 5.79 min Scan# 1723
Delta R.T. -0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion:117 Resp: 1375

Ion	Ratio	Lower	Upper
117	100		
119	128.1	66.6	126.6#
121	27.8	0.5	60.5

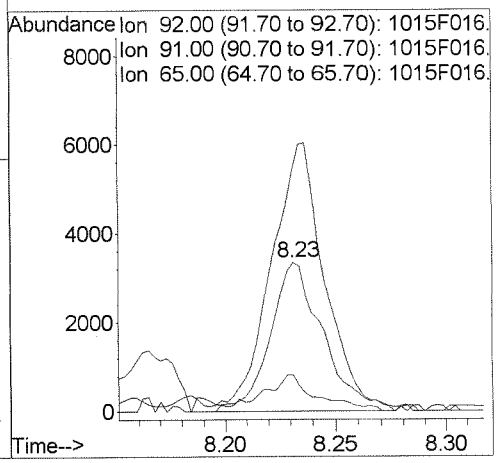


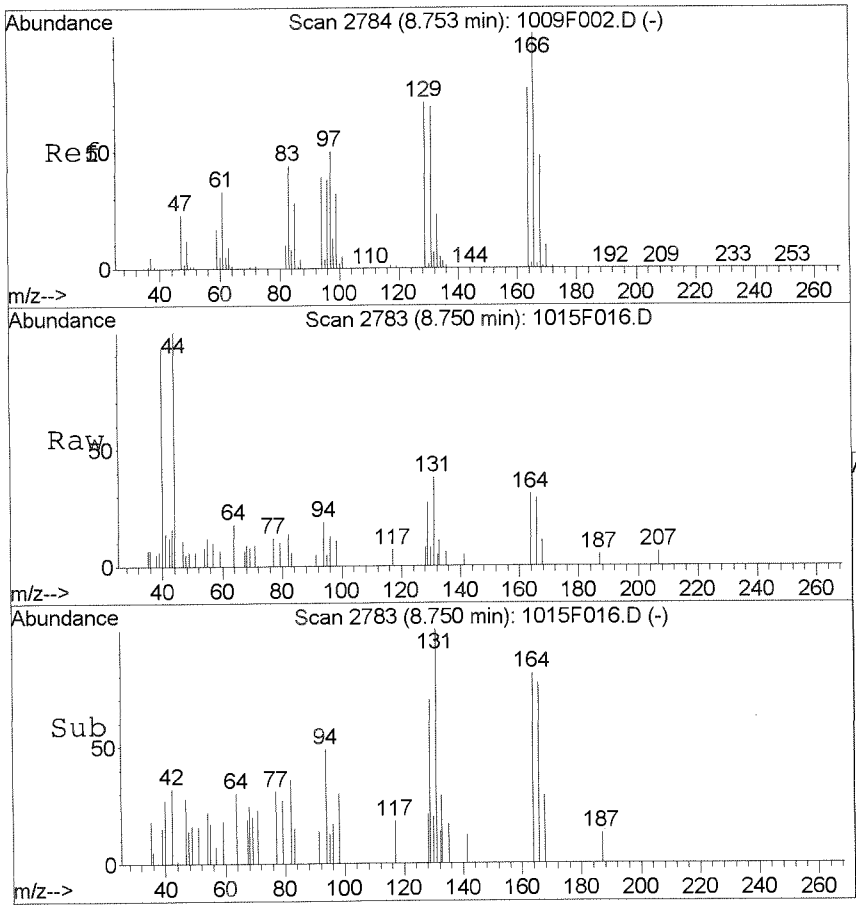


#63
Toluene
Concen: 0.08 PPB
RT: 8.23 min Scan# 2597
Delta R.T. -0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 92 Resp: 5561

Ion	Ratio	Lower	Upper
92	100		
91	159.2	142.0	202.0
65	24.6	0.0	48.9

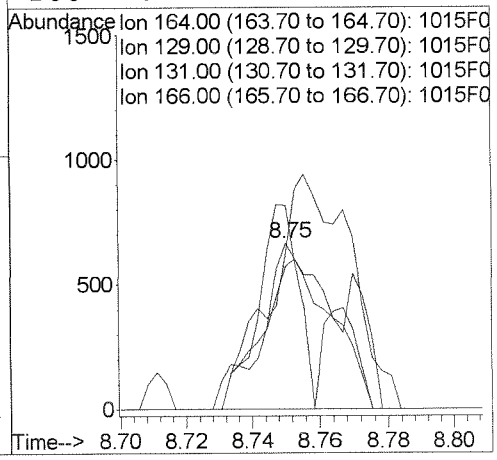


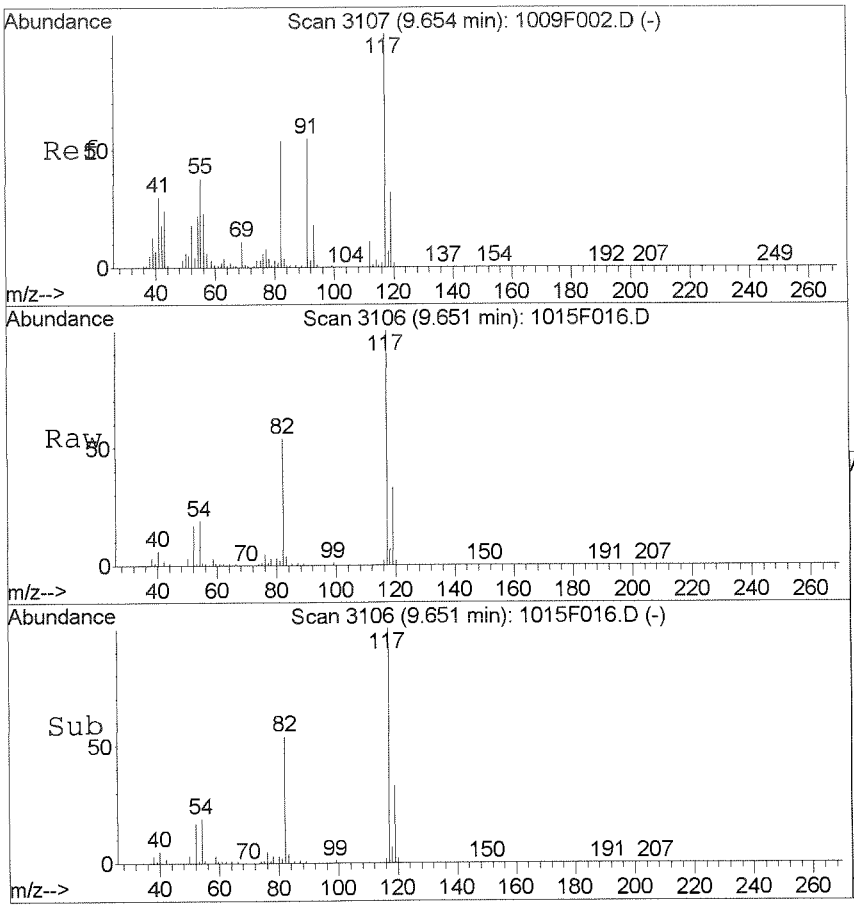


#69
Tetrachloroethene
Concen: 0.05 PPB m
RT: 8.75 min Scan# 2783
Delta R.T. -0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion:164 Resp: 1086

Ion	Ratio	Lower	Upper
164	100		
129	86.3	62.3	122.3
131	122.7	58.9	118.9#
166	94.1	97.5	157.5#

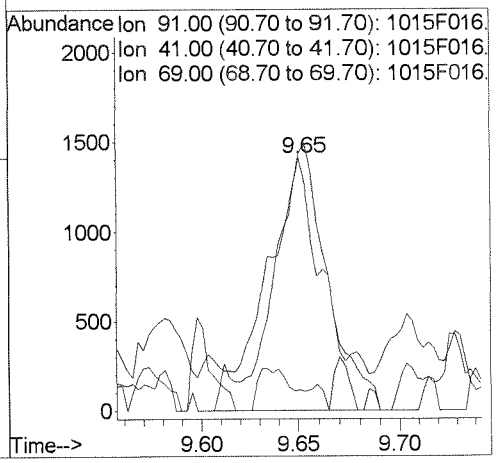




#74
1-Chlorohexane
Concen: 0.07 PPB m
RT: 9.65 min Scan# 3106
Delta R.T. -0.00 min
Lab File: 1015F016.D
Acq: 15 Oct 2014 4:14 pm

Tgt Ion: 91 Resp: 2617

Ion	Ratio	Lower	Upper
91	100		
41	101.8	21.8	81.8#
69	8.2	0.0	48.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F017.D
Lab ID: K1410890-005
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 16:41
Date Quantitated: 10/16/2014 09:21
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: [signature] 10/24/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F017.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 16:41	**Quant Date:**	10/16/2014 09:21	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-005			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385160	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1053214	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	423556	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	410895	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	5.73	0.00	0.00	113	270864	9.40	94	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1016243	9.64	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	372497	9.68	97	68-117	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	Carbon Tetrachloride	5.80		0.00	117	34604	0.9500	0.95		

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\101514\1015F017.D Vial: 15
Acq On : 15 Oct 2014 4:41 pm Operator: MK
Sample : K10890-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:17:05 2014 Quant Results File: 100814MS27_8260

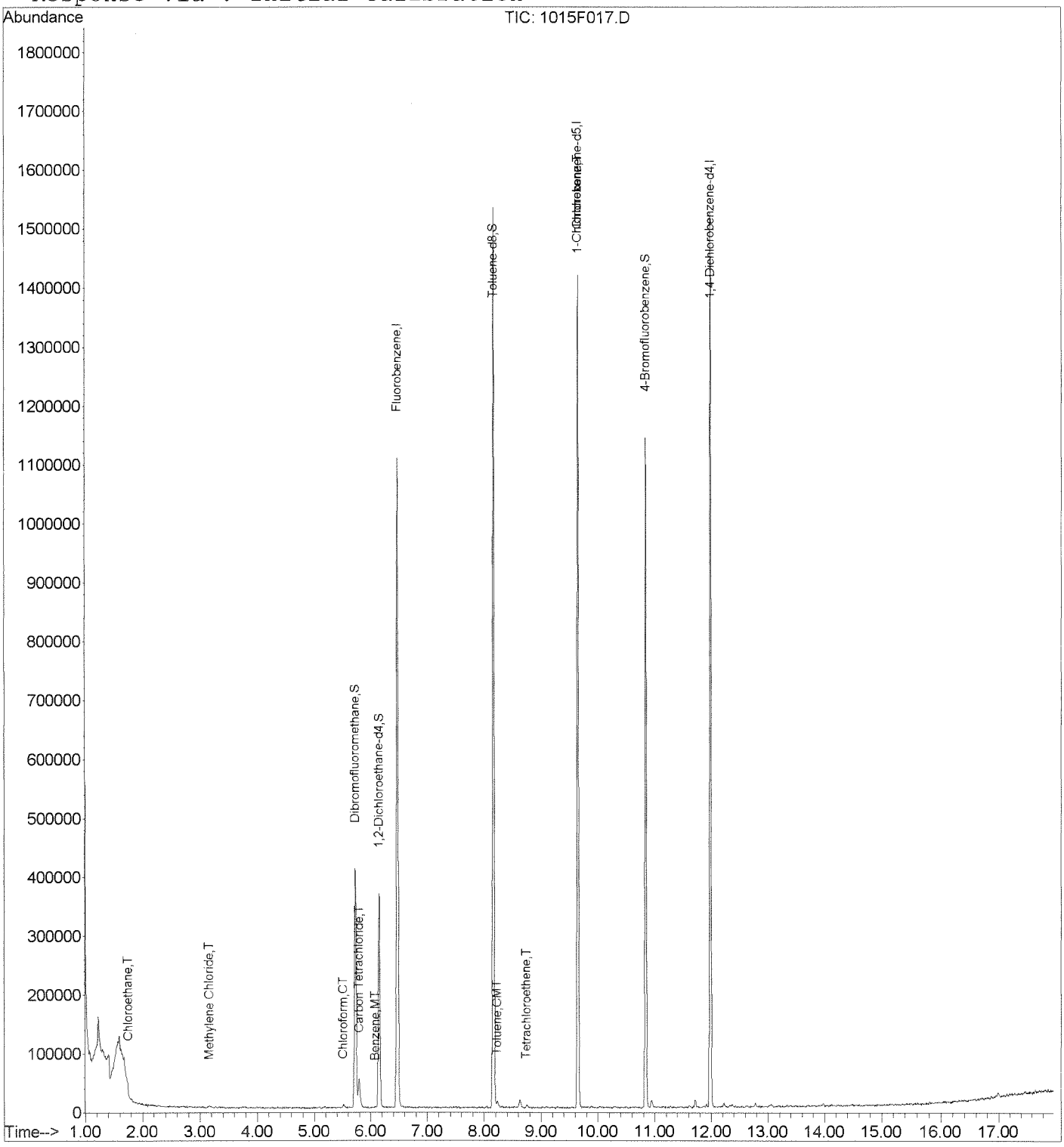
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

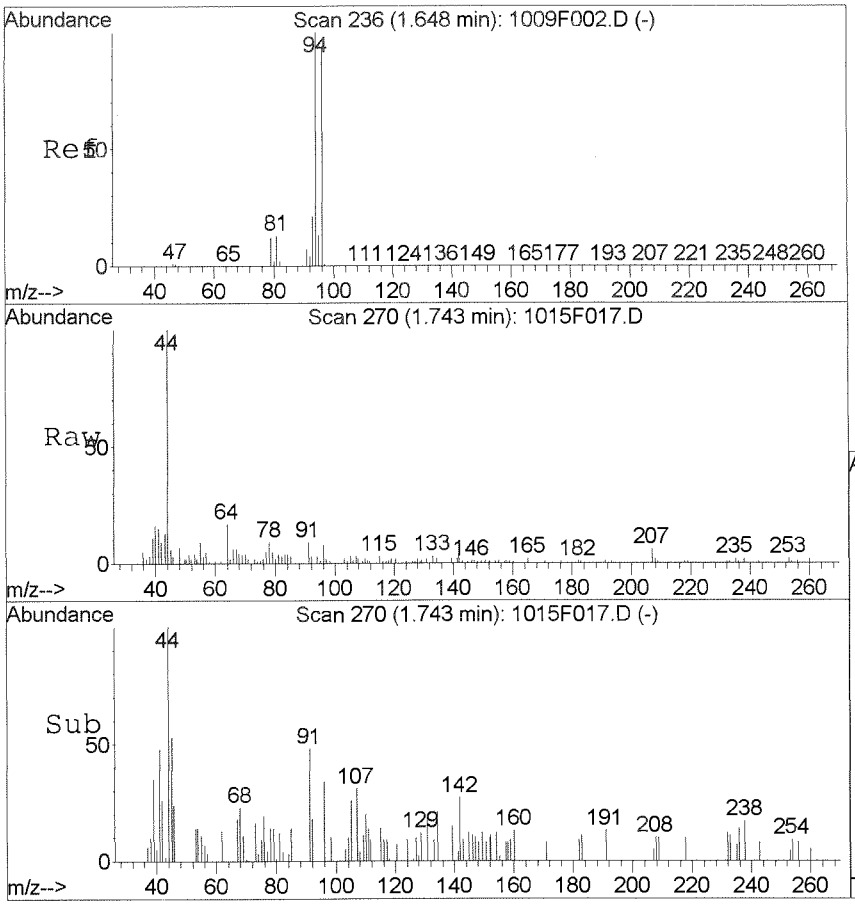
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1053214	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	423556	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	410895	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	270864	9.40	PPB	0.00
Spiked Amount 10.000			Recovery =	94.00%		
47) 1,2-Dichloroethane-d4	6.15	65	257730	9.71	PPB	0.00
Spiked Amount 10.000			Recovery =	97.10%		
62) Toluene-d8	8.16	98	1016243	9.64	PPB	0.00
Spiked Amount 10.000			Recovery =	96.40%		
84) 4-Bromofluorobenzene	10.84	95	372497	9.68	PPB	0.00
Spiked Amount 10.000			Recovery =	96.80%		
Target Compounds						Qvalue
6) Bromomethane	1.74	96	569	Below Cal	#	27
7) Chloroethane	1.76	64	602	0.03	PPB	62
21) Methylene Chloride	3.17	84	1575	0.05	PPB #	75
40) Chloroform	5.52	83	4658	0.10	PPB	95
44) Carbon Tetrachloride	5.80	117	34604	0.95	PPB	95
48) Benzene	6.09	78	613	0.01	PPB	84
63) Toluene	8.23	92	3818	0.06	PPB	94
69) Tetrachloroethene	8.75	164	1117	0.05	PPB #	72
74) 1-Chlorohexane	9.64	91	2255	0.06	PPB	92

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

Data File : J:\MS27\DATA\101514\1015F017.D Vial: 15
Acq On : 15 Oct 2014 4:41 pm Operator: MK
Sample : K10890-005 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:21 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

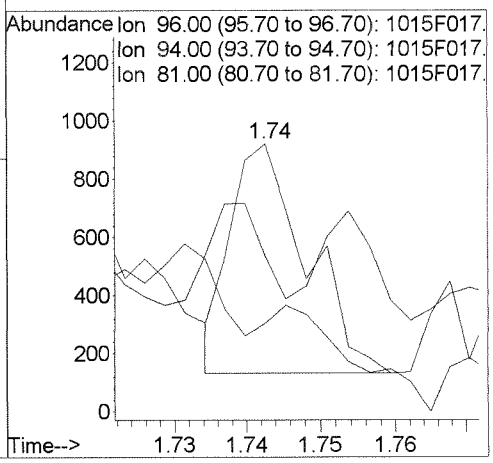


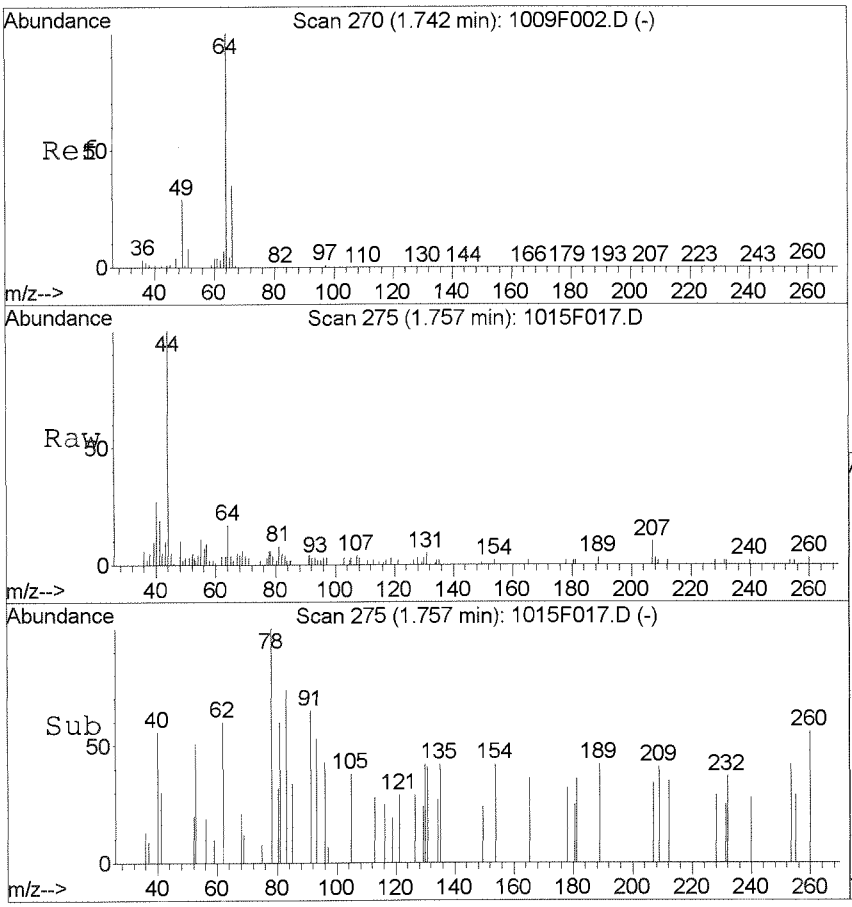


#6
Bromomethane
Concen: Below Cal
RT: 1.74 min Scan# 270
Delta R.T. 0.09 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 96 Resp: 569

Ion	Ratio	Lower	Upper
96	100		
94	25.8	77.8	137.8#
81	24.7	0.0	43.8

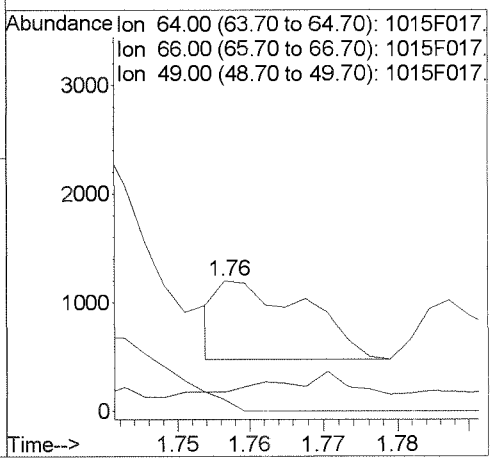


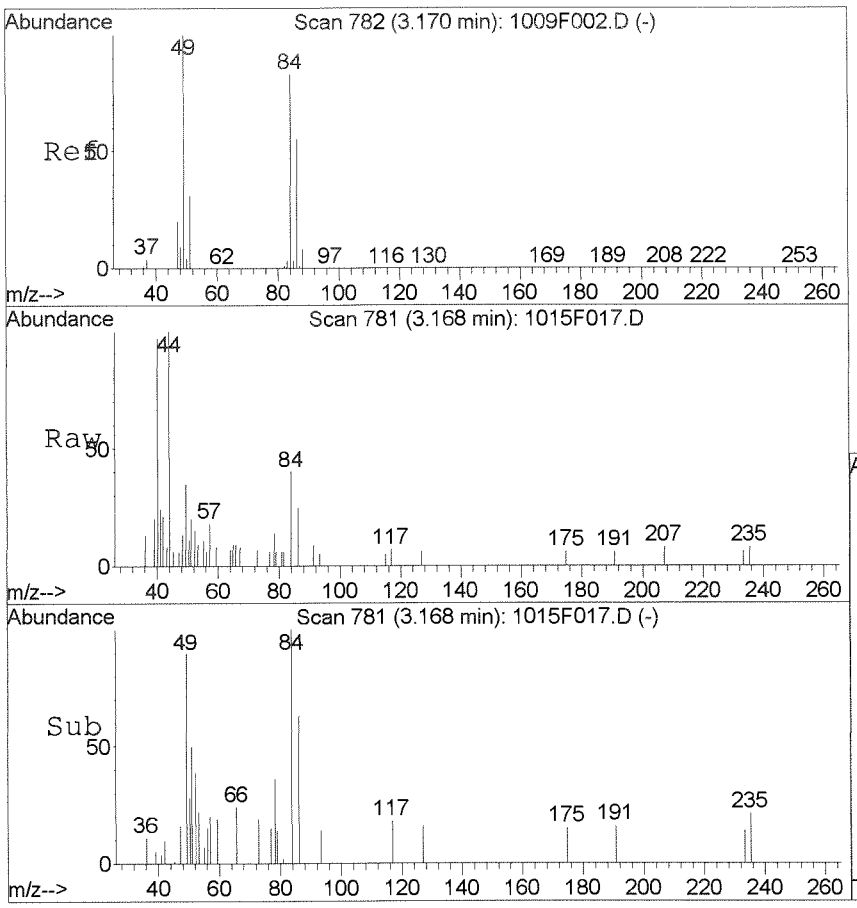


#7
Chloroethane
Concen: 0.03 PPB
RT: 1.76 min Scan# 275
Delta R.T. 0.01 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 64 Resp: 602

Ion	Ratio	Lower	Upper
64	100		
66	2.8	2.3	62.3
49	14.8	0.0	53.4

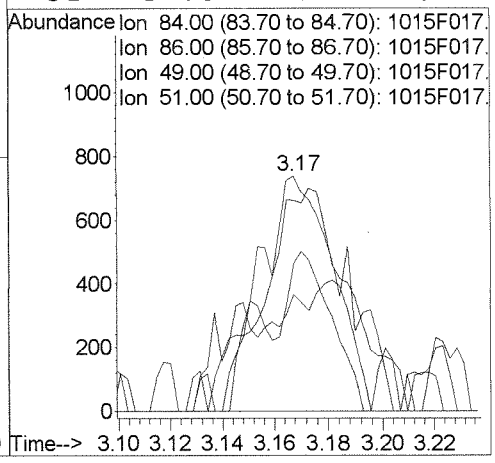


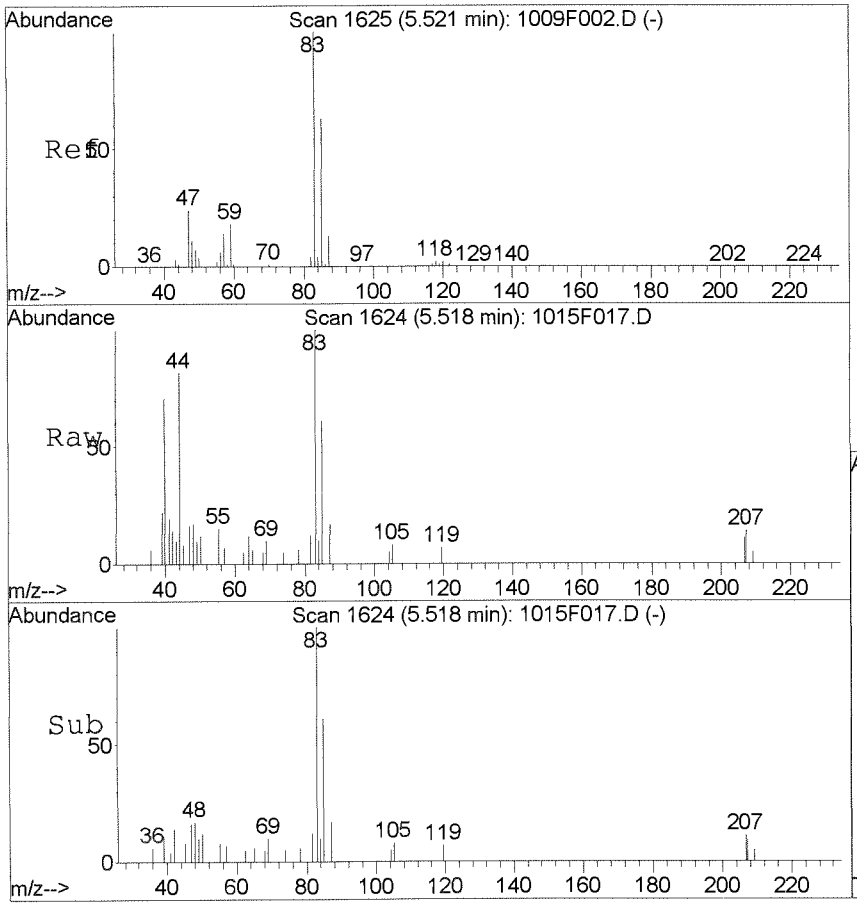


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.17 min Scan# 781
Delta R.T. -0.00 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 84 Resp: 1575

Ion	Ratio	Lower	Upper
84	100		
86	63.0	33.9	93.9
49	73.8	90.6	150.6#
51	31.0	7.6	67.6

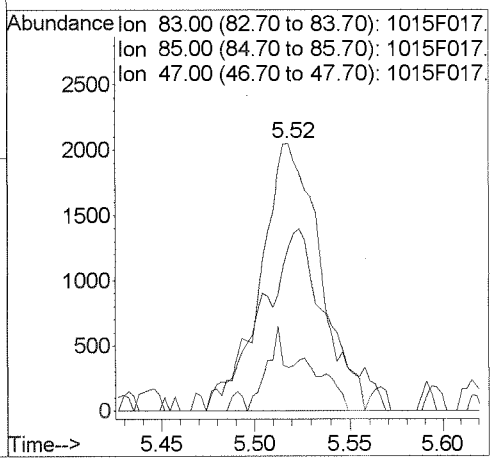


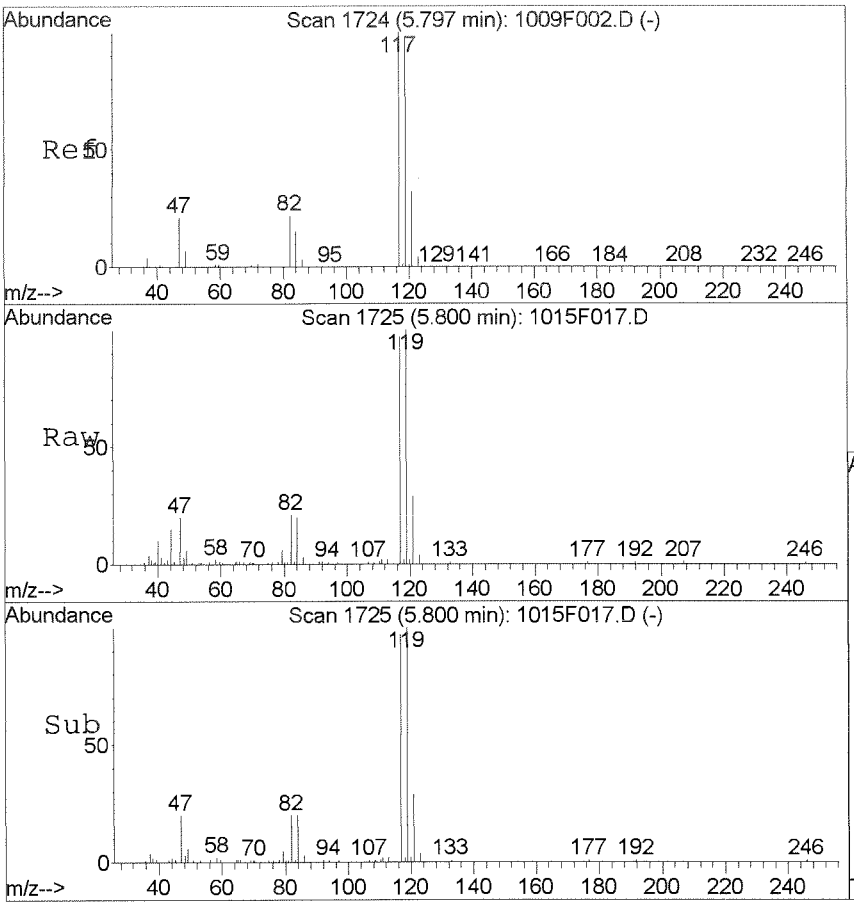


#40
Chloroform
Concen: 0.10 PPB
RT: 5.52 min Scan# 1624
Delta R.T. -0.00 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 83 Resp: 4658

Ion	Ratio	Lower	Upper
83	100		
85	61.3	33.2	93.2
47	16.3	0.0	52.9

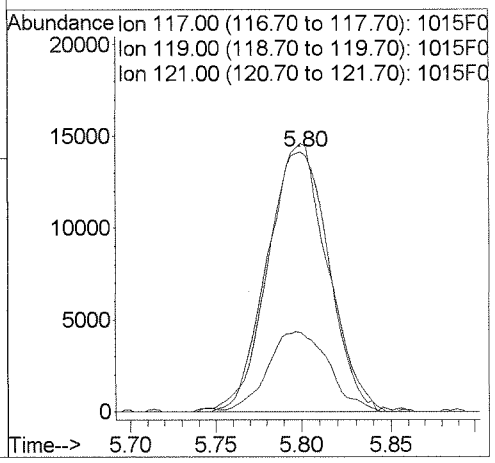


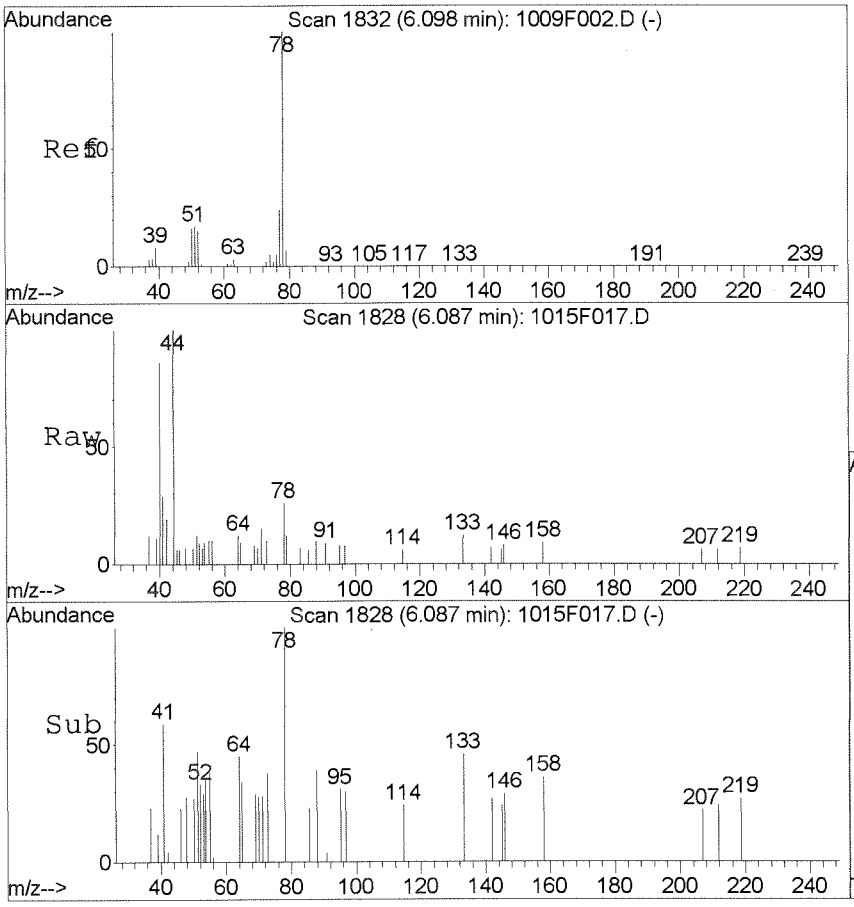


#44
Carbon Tetrachloride
Concen: 0.95 PPB
RT: 5.80 min Scan# 1725
Delta R.T. 0.00 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion:117 Resp: 34604

Ion	Ratio	Lower	Upper
117	100		
119	103.4	66.6	126.6
121	30.4	0.5	60.5

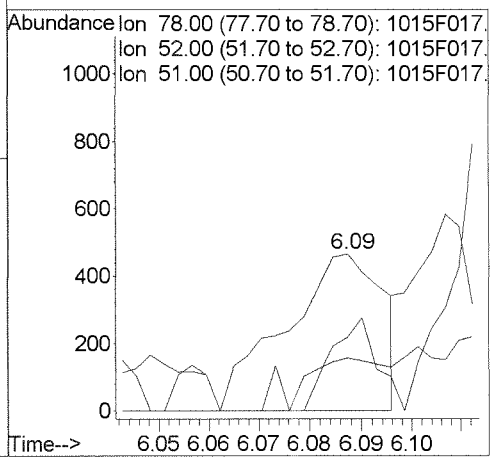


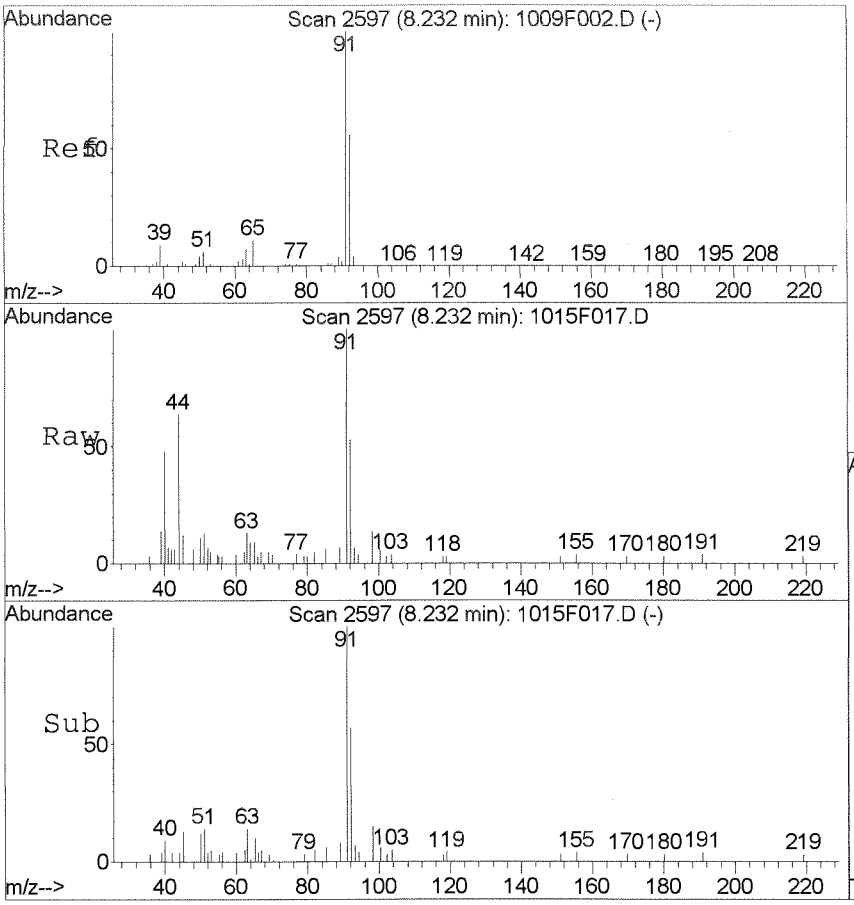


#48
Benzene
Concen: 0.01 PPB
RT: 6.09 min Scan# 1828
Delta R.T. -0.01 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 78 Resp: 613

Ion	Ratio	Lower	Upper
78	100		
52	10.5	0.0	45.1
51	24.9	0.0	46.1

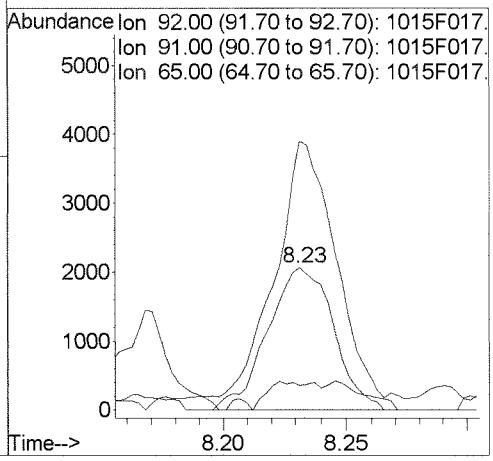


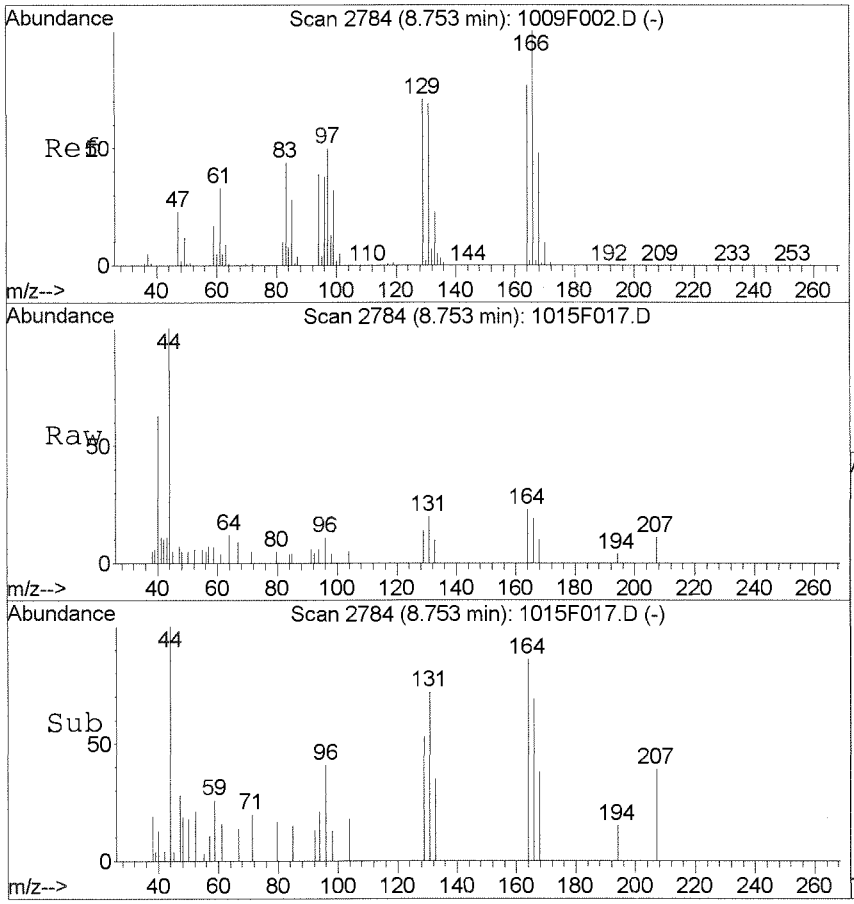


#63
Toluene
Concen: 0.06 PPB
RT: 8.23 min Scan# 2597
Delta R.T. -0.00 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 92 Resp: 3818

Ion	Ratio	Lower	Upper
92	100		
91	179.1	142.0	202.0
65	10.7	0.0	48.9

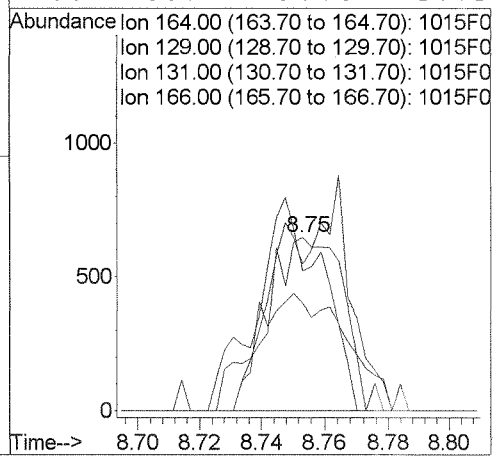


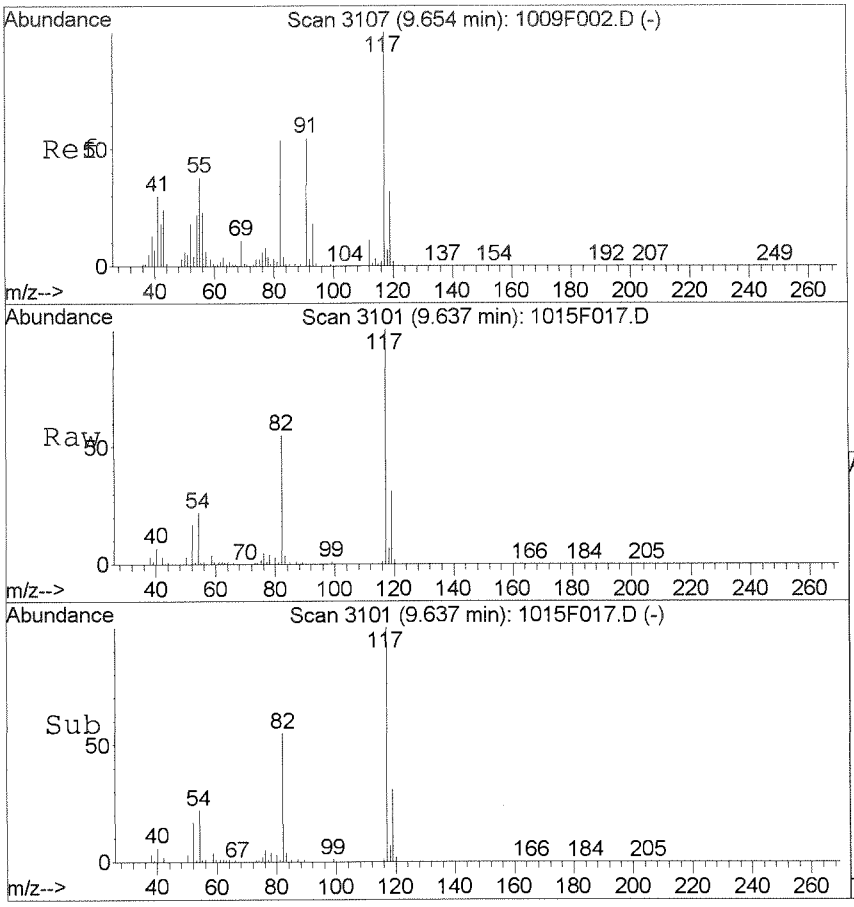


#69
Tetrachloroethene
Concen: 0.05 PPB
RT: 8.75 min Scan# 2784
Delta R.T. 0.00 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion:164 Resp: 1117

Ion	Ratio	Lower	Upper
164	100		
129	62.0	62.3	122.3#
131	84.7	58.9	118.9
166	80.7	97.5	157.5#

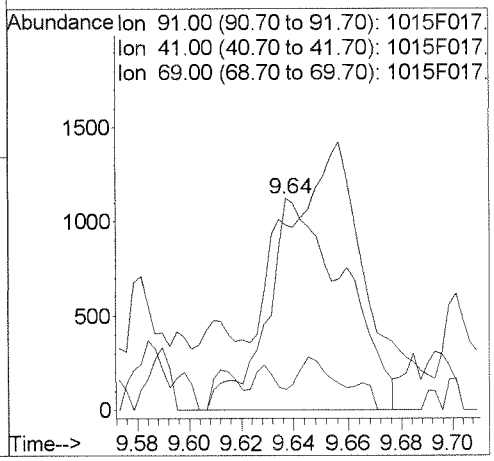




#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.64 min Scan# 3101
Delta R.T. -0.02 min
Lab File: 1015F017.D
Acq: 15 Oct 2014 4:41 pm

Tgt Ion: 91 Resp: 2255

Ion	Ratio	Lower	Upper
91	100		
41	54.8	21.8	81.8
69	9.8	0.0	48.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F018.D
Lab ID: K1410890-006
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 17:09
Date Quantitated: 10/16/2014 09:27
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: [signature] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F018.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 17:09	**Quant Date:**	10/16/2014 09:27	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-006			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385161	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1051296	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	429239	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	412477	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	5.73	0.00	0.00	113	265235	9.22	92	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1015839	9.66	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	368223	9.44	94	68-117	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	Carbon Tetrachloride	5.80		0.00	117	158508	4.36	4.4		

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\101514\1015F018.D Vial: 16
Acq On : 15 Oct 2014 5:09 pm Operator: MK
Sample : K10890-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:22:55 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

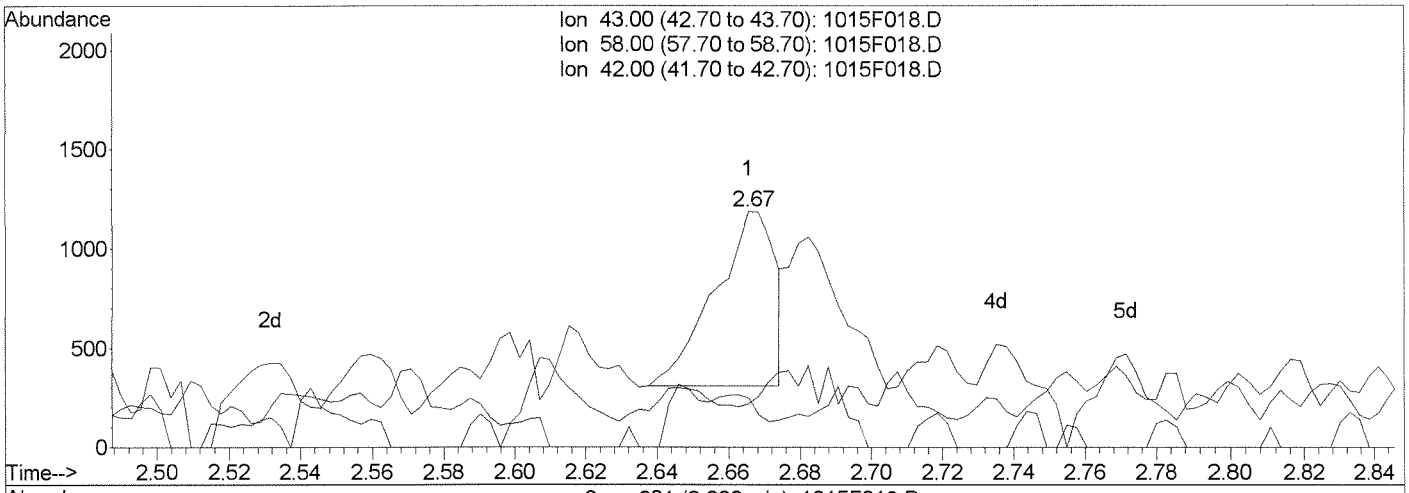
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1051296	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	429239	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	412477	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	265235	9.22	PPB		0.00
Spiked Amount 10.000			Recovery =	92.20%			
47) 1,2-Dichloroethane-d4	6.15	65	257303	9.71	PPB		0.00
Spiked Amount 10.000			Recovery =	97.10%			
62) Toluene-d8	8.16	98	1015839	9.66	PPB		0.00
Spiked Amount 10.000			Recovery =	96.60%			
84) 4-Bromofluorobenzene	10.84	95	368223	9.44	PPB		0.00
Spiked Amount 10.000			Recovery =	94.40%			
Target Compounds							Qvalue
9) Trichlorofluoromethane	1.95	101	3056	0.07	PPB		82
14) Acetone	2.67	43	1887m	0.49	PPB		
21) Methylene Chloride	3.17	84	1341m	0.04	PPB		
40) Chloroform	5.52	83	12342	0.26	PPB		97
44) Carbon Tetrachloride	5.80	117	158508	4.36	PPB		99
50) tert-Amyl Methyl Ether	6.25	55	512	0.04	PPB	#	1
63) Toluene	8.23	92	3588	0.05	PPB	#	76
74) 1-Chlorohexane	9.65	91	1384	0.04	PPB	#	42

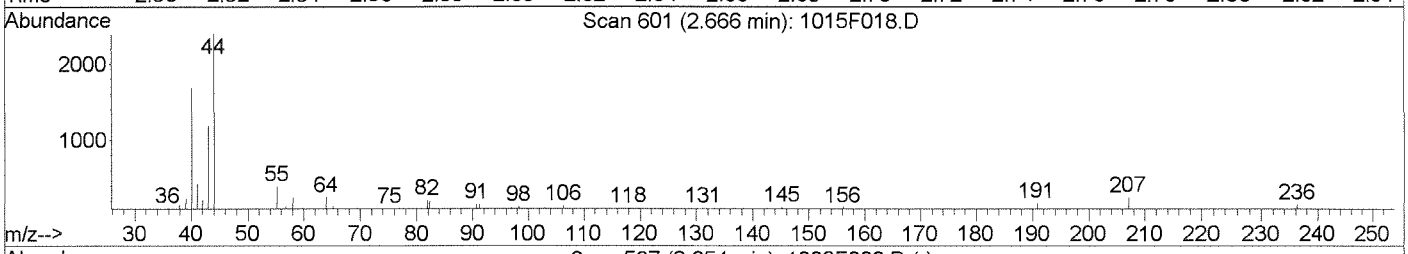
(#) = qualifier out of range (m) = manual integration

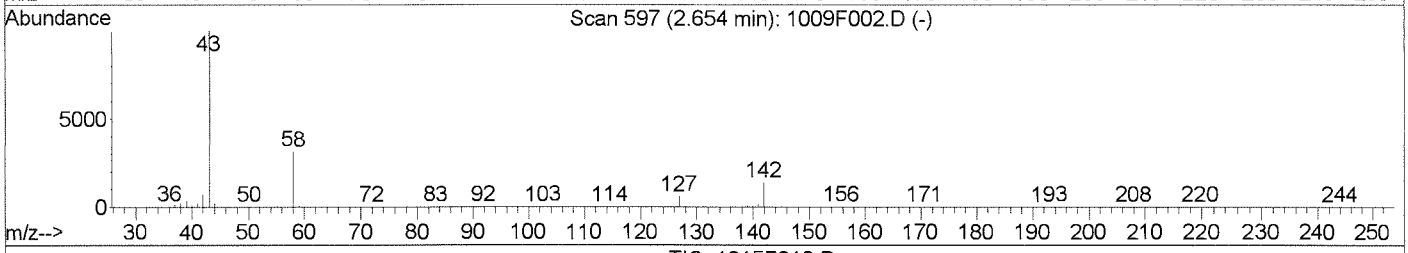
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F018.D Vial: 16
Acq On : 15 Oct 2014 5:09 pm Operator: MK
Sample : K10890-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:23 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F018.D

(14) Acetone (T)

2.67min 0.26PPB

response 1027

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.25
42.00	7.10	3.99
0.00	0.00	0.00

Manual Integration:

Before

10/16/14

MK 10/16/14

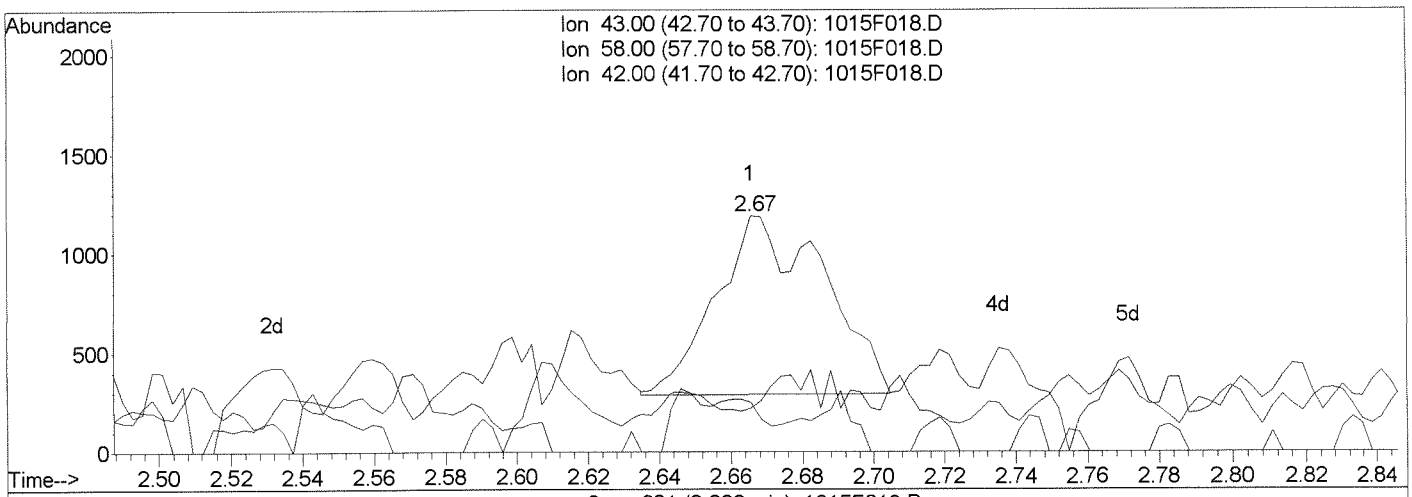
1015F018.D 100814MS27_8260.M Thu Oct 16 09:23:25 2014

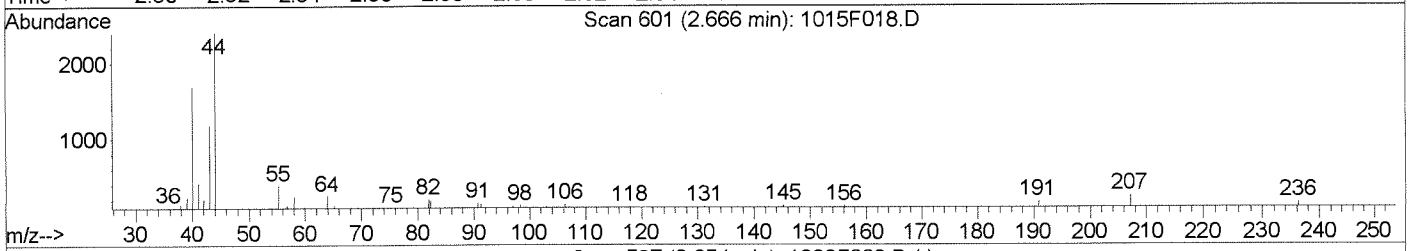
Quantitation Report (Qedit)

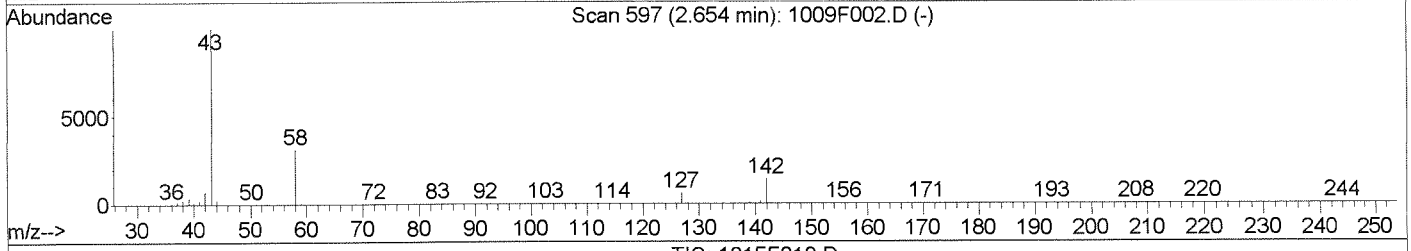
Data File : J:\MS27\DATA\101514\1015F018.D
Acq On : 15 Oct 2014 5:09 pm
Sample : K10890-006
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:23 2014

Vial: 16
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F018.D

(14) Acetone (T)

2.67min 0.49PPB m

response 1887

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	20.89
42.00	7.10	18.45
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/16/14

MK 10/27/2014

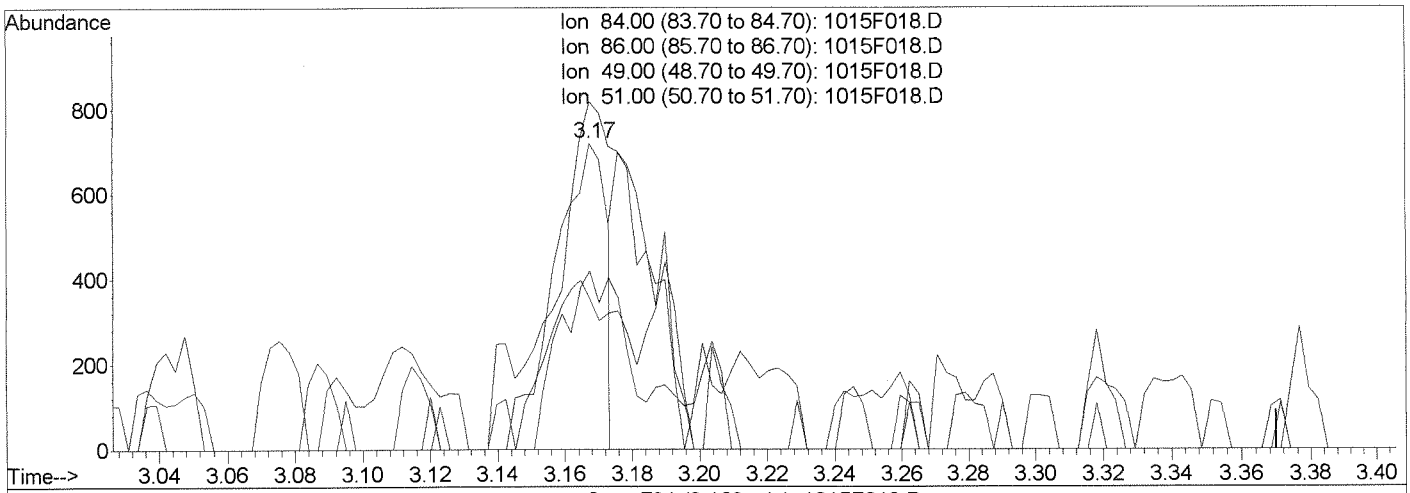
1015F018.D 100814MS27_8260.M Thu Oct 16 09:23:41 2014

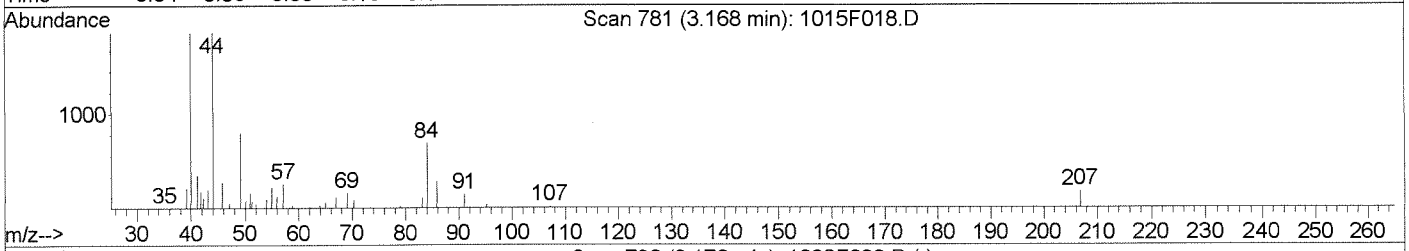
Quantitation Report (Qedit)

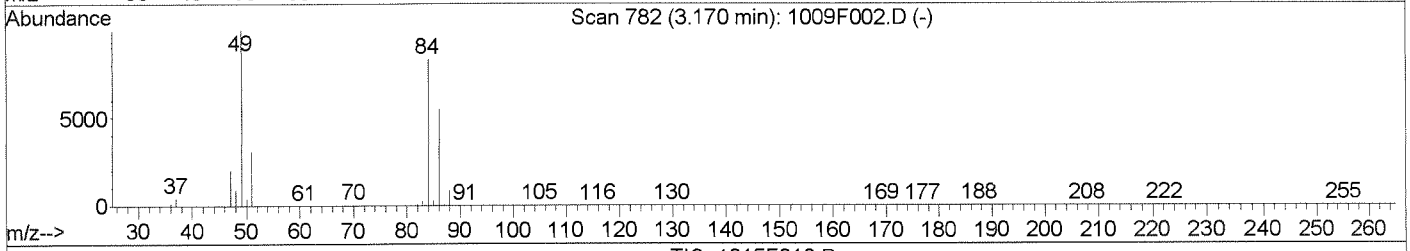
Data File : J:\MS27\DATA\101514\1015F018.D
Acq On : 15 Oct 2014 5:09 pm
Sample : K10890-006
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:24 2014

Vial: 16
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F018.D

(21) Methylene Chloride (T)

3.17min 0.03PPB

response 785

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	34.54
49.00	120.60	79.33#
51.00	37.60	58.11

Manual Integration:

Before

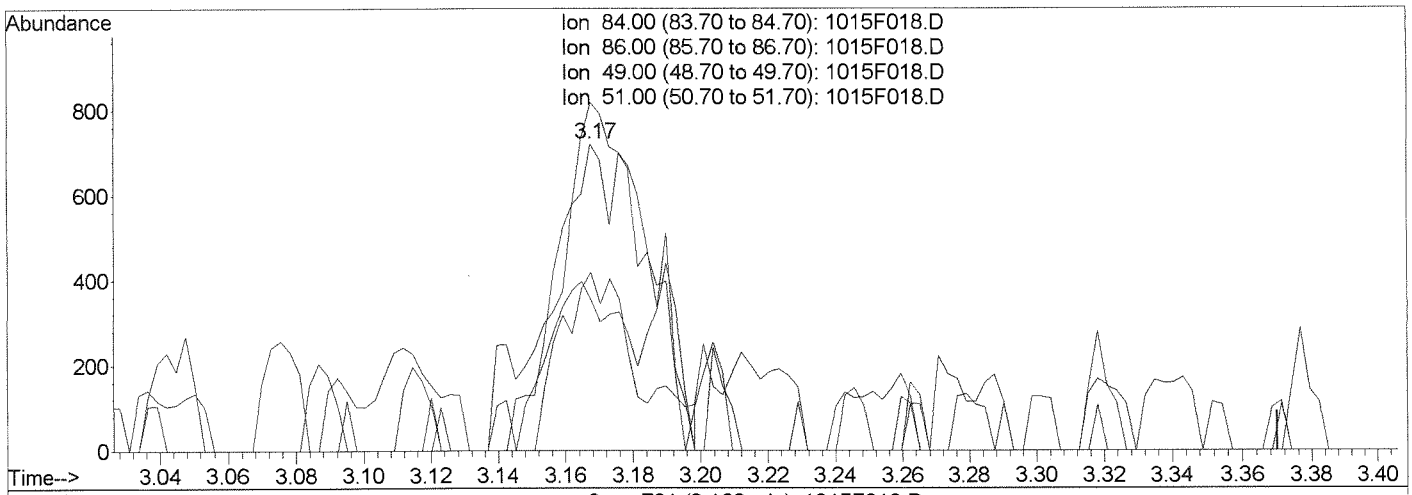
10/16/14

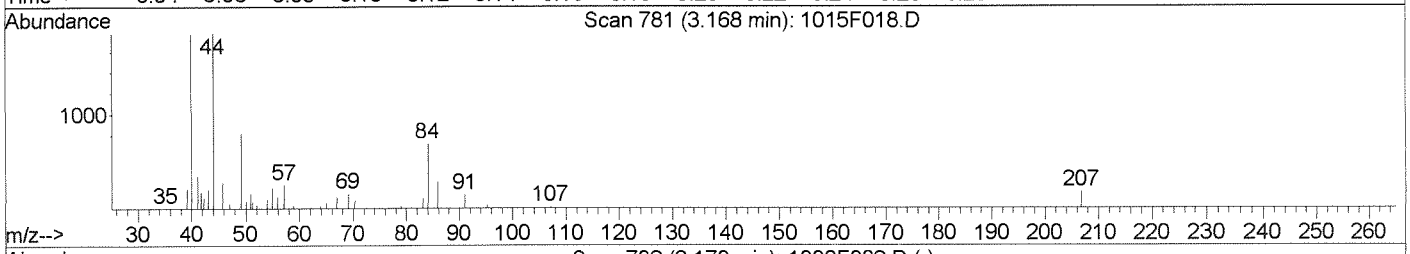
1015F018.D 100814MS27_8260.M Thu Oct 16 09:24:36 2014

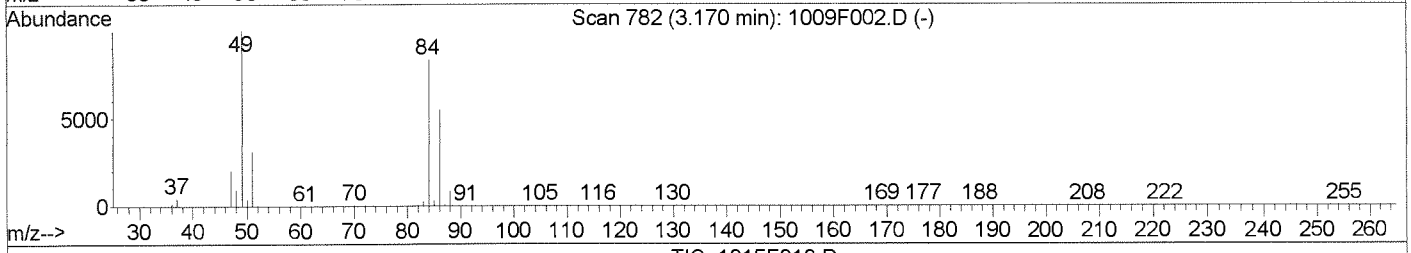
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F018.D Vial: 16
Acq On : 15 Oct 2014 5:09 pm Operator: MK
Sample : K10890-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:24 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F018.D

(21) Methylene Chloride (T)

3.17min 0.04PPB m

response 1341

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	49.10
49.00	120.60	113.59
51.00	37.60	34.67

Manual Integration:

After

Baseline correction

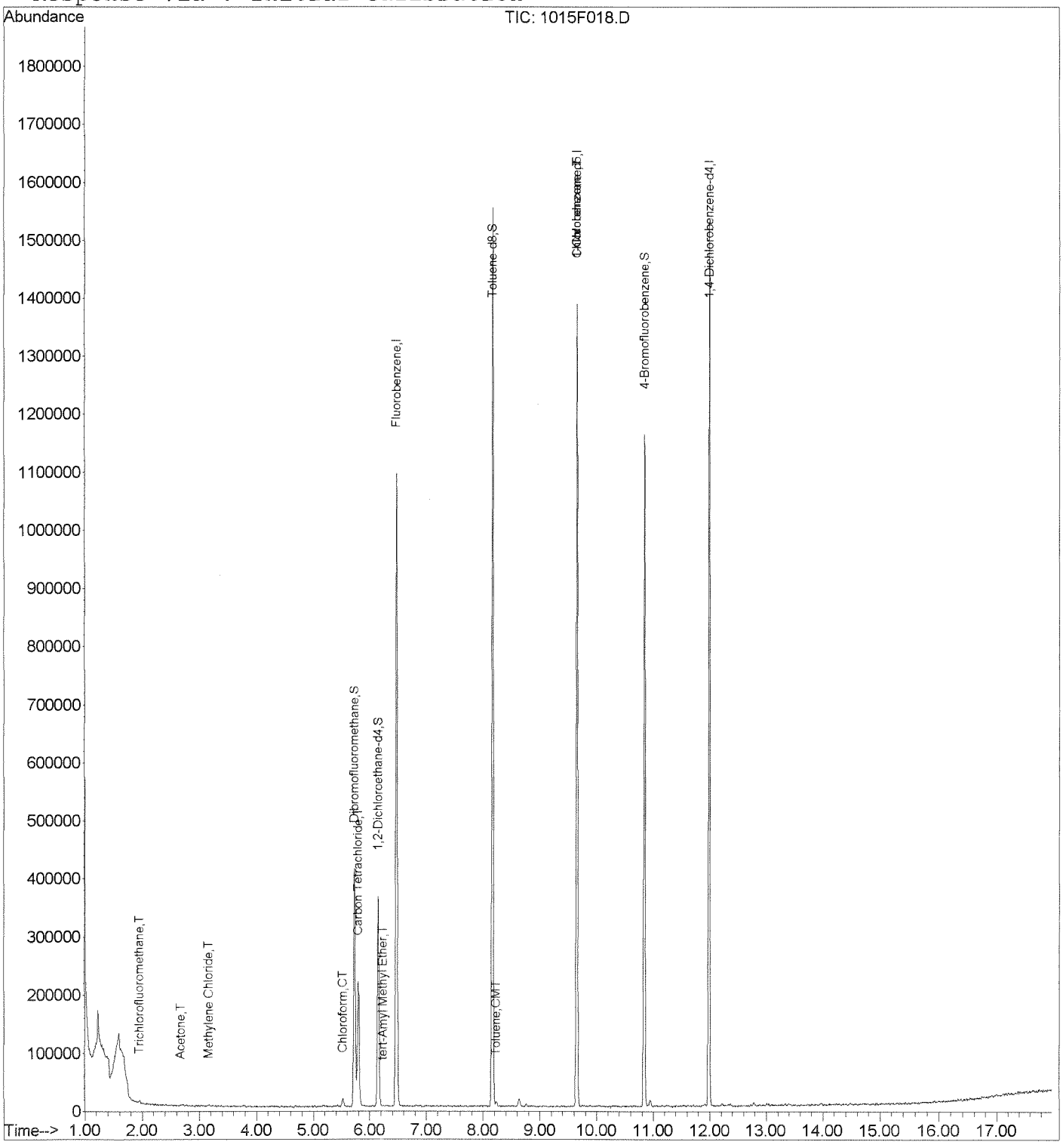
10/16/14

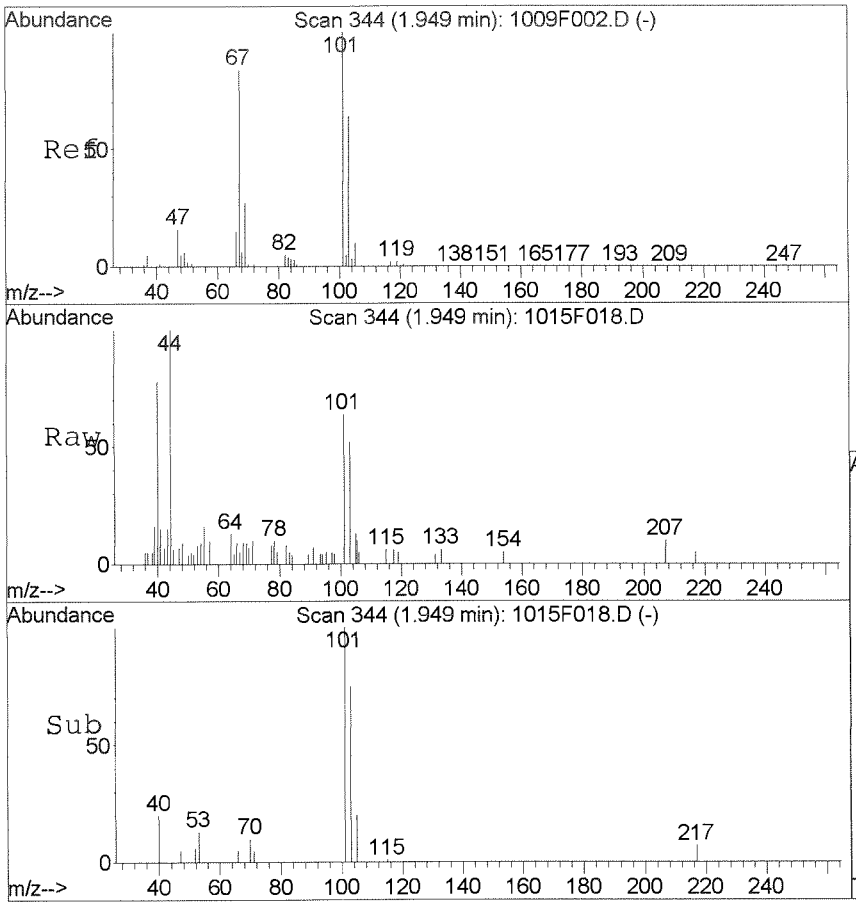
1015F018.D 100814MS27_8260.M Thu Oct 16 09:24:43 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F018.D Vial: 16
Acq On : 15 Oct 2014 5:09 pm Operator: MK
Sample : K10890-006 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:27 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

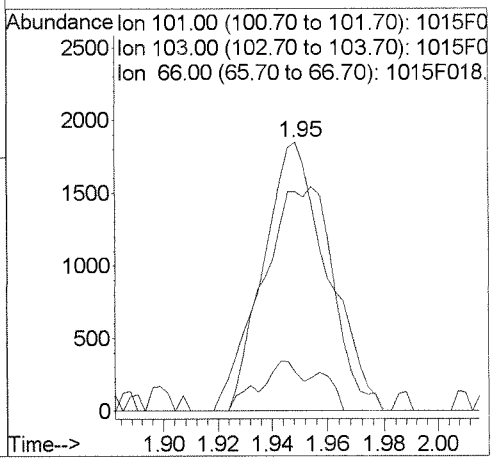


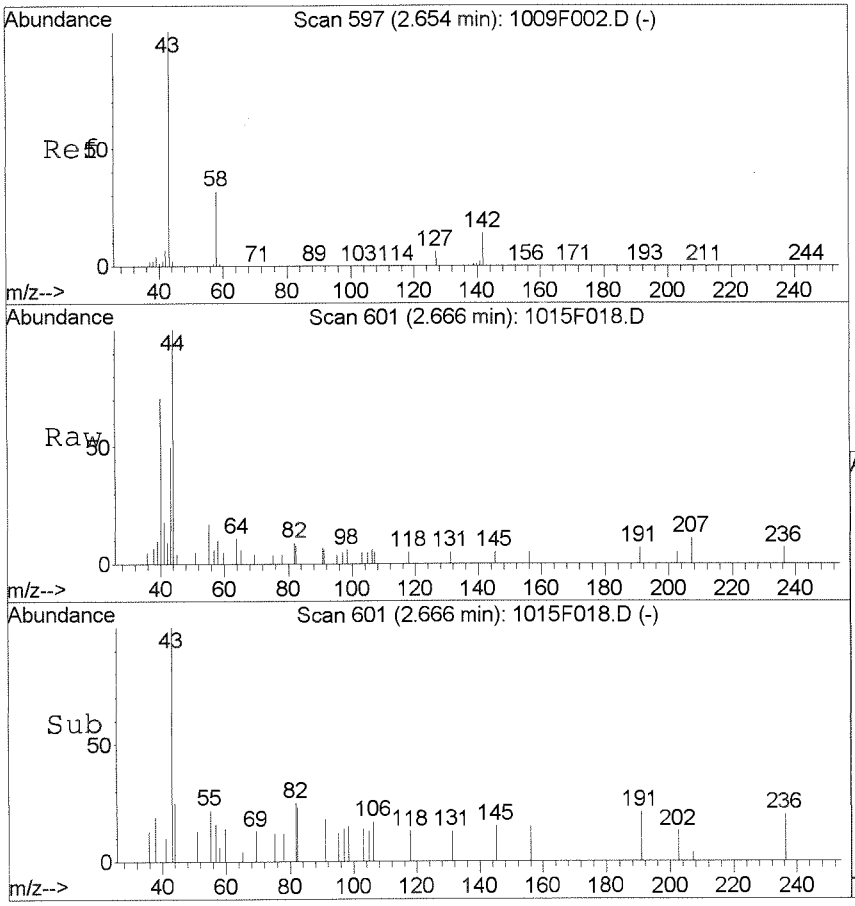


#9
Trichlorofluoromethane
Concen: 0.07 PPB
RT: 1.95 min Scan# 344
Delta R.T. 0.00 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion:101 Resp: 3056

Ion	Ratio	Lower	Upper
101	100		
103	81.6	34.4	94.4
66	14.1	0.0	44.4

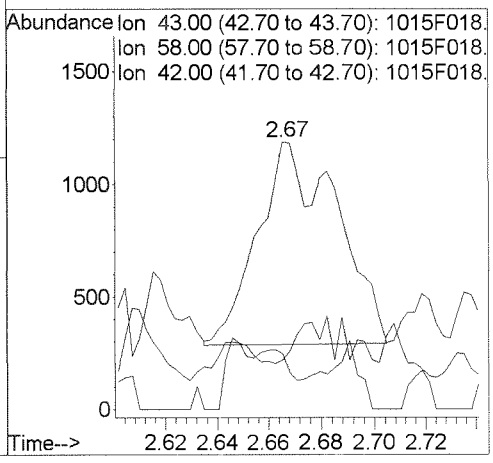


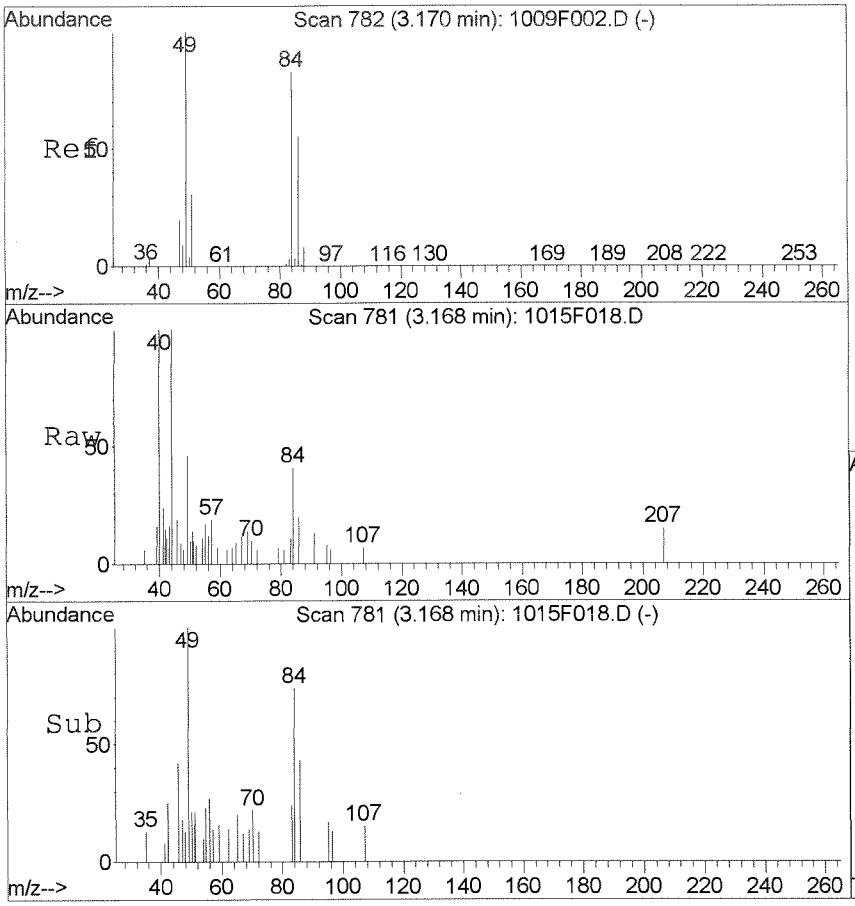


#14
Acetone
Concen: 0.49 PPB m
RT: 2.67 min Scan# 601
Delta R.T. 0.01 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion: 43 Resp: 1887

Ion	Ratio	Lower	Upper
43	100		
58	20.9	0.9	60.9
42	18.4	0.0	37.1

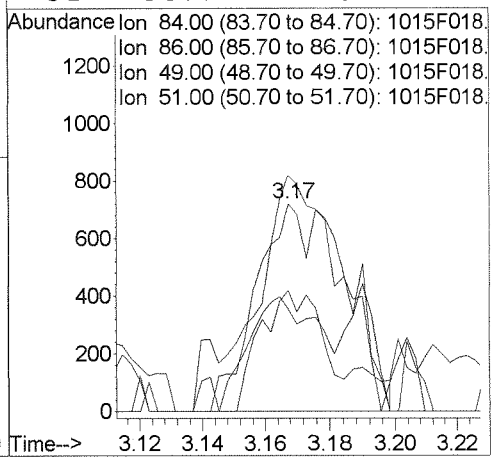


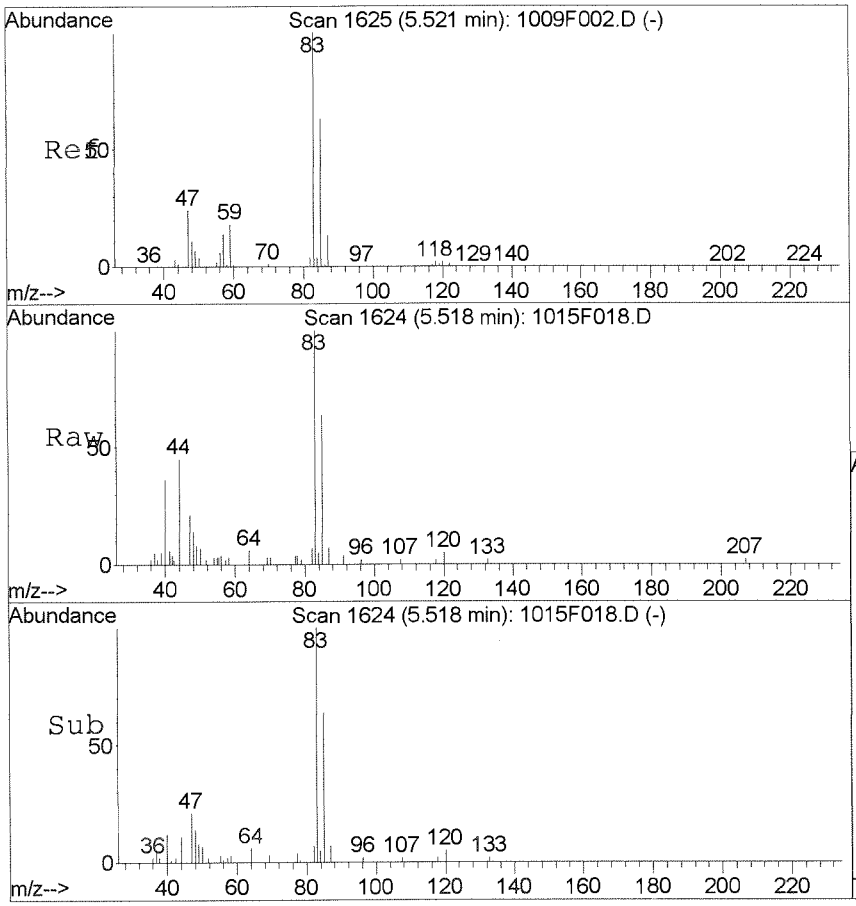


#21
Methylene Chloride
Concen: 0.04 PPB m
RT: 3.17 min Scan# 781
Delta R.T. -0.00 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion: 84 Resp: 1341

Ion	Ratio	Lower	Upper
84	100		
86	49.1	33.9	93.9
49	113.6	90.6	150.6
51	34.7	7.6	67.6

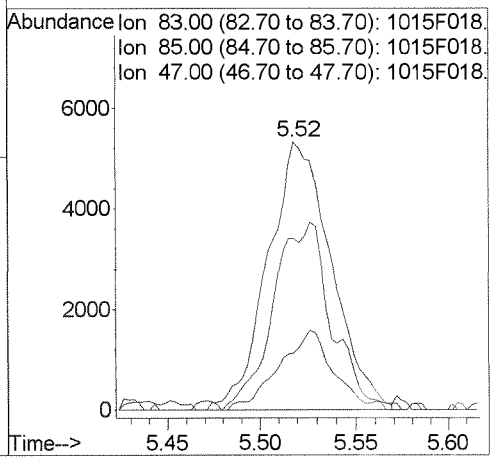


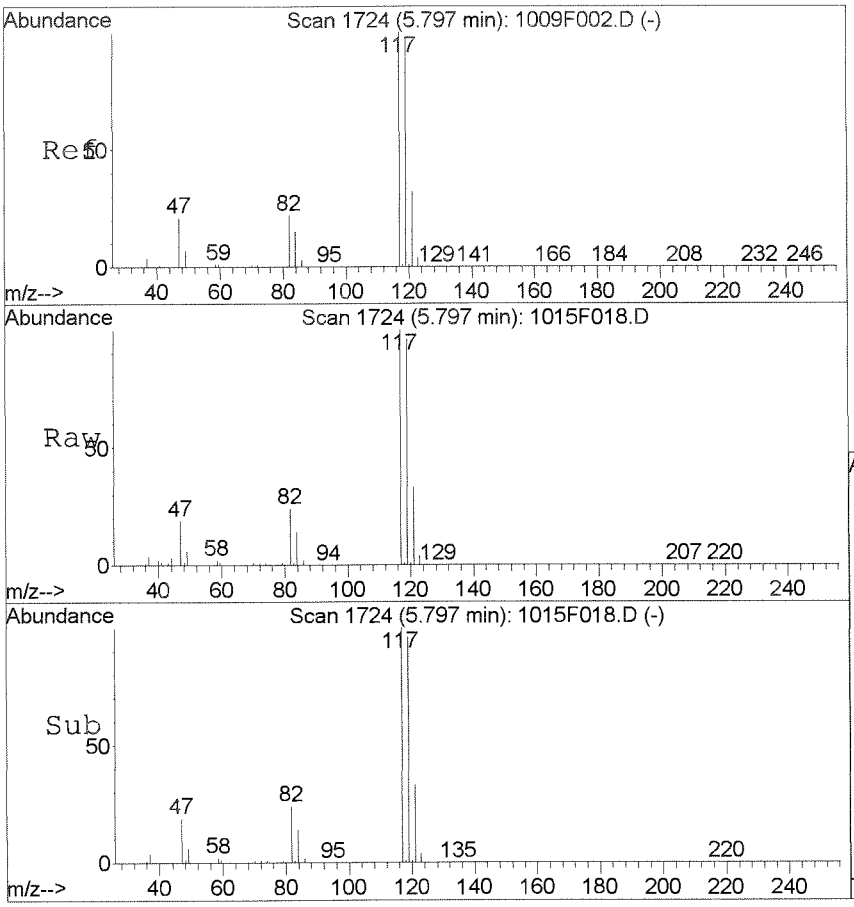


#40
Chloroform
Concen: 0.26 PPB
RT: 5.52 min Scan# 1624
Delta R.T. -0.00 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion: 83 Resp: 12342

Ion	Ratio	Lower	Upper
83	100		
85	61.4	33.2	93.2
47	21.3	0.0	52.9

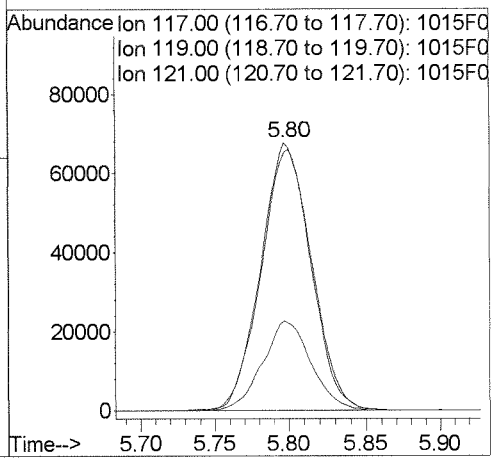


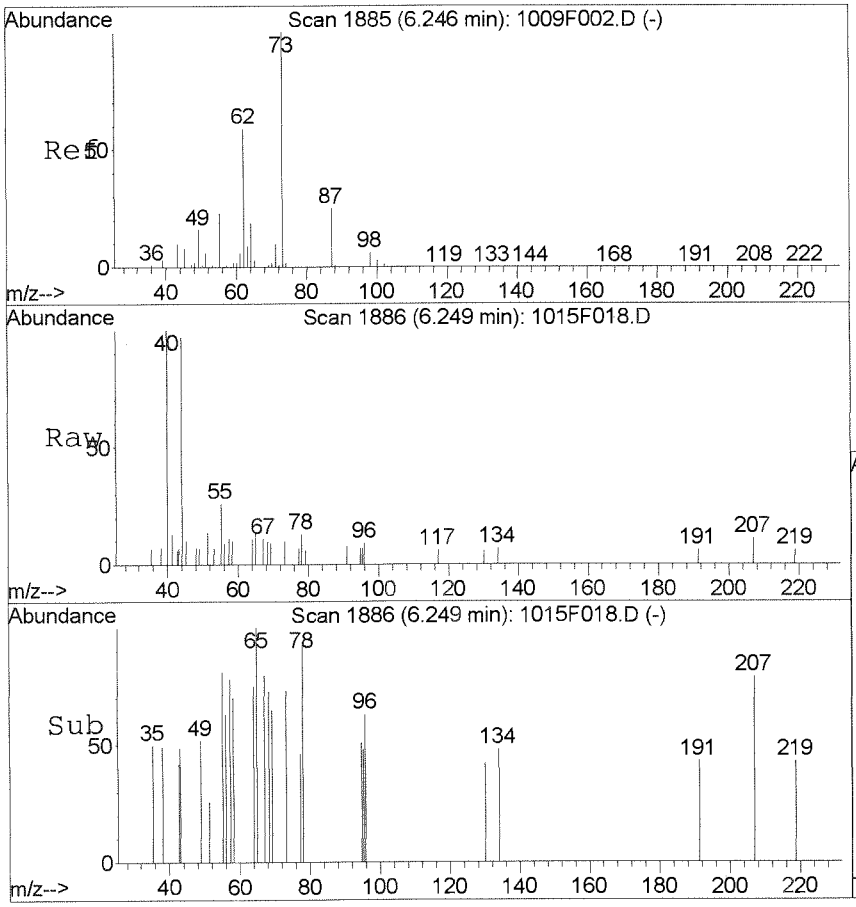


#44
Carbon Tetrachloride
Concen: 4.36 PPB
RT: 5.80 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion:117 Resp: 158508

Ion	Ratio	Lower	Upper
117	100		
119	96.3	66.6	126.6
121	33.4	0.5	60.5

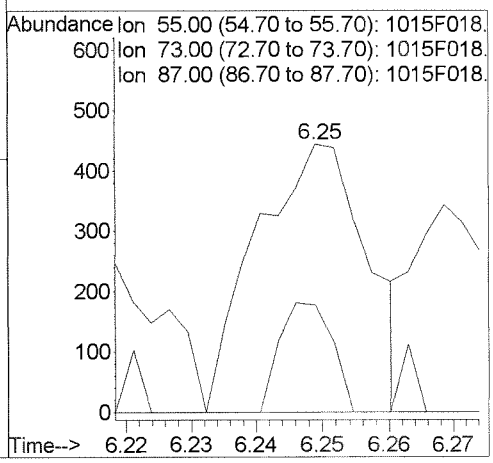


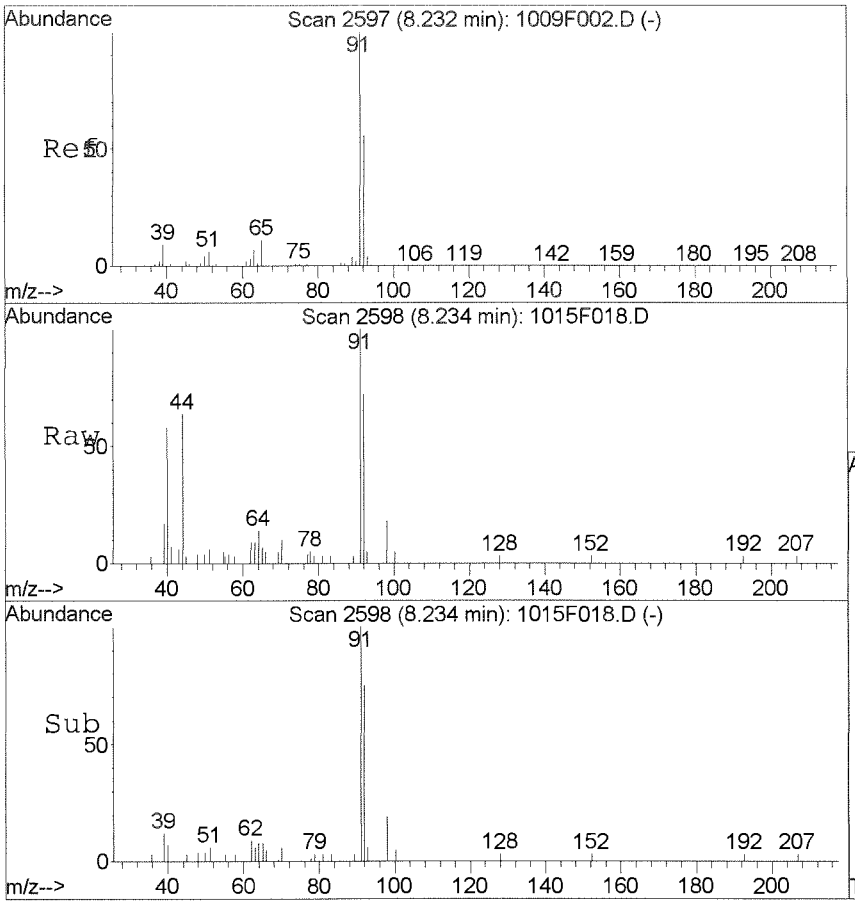


#50
tert-Amyl Methyl Ether
Concen: 0.04 PPB
RT: 6.25 min Scan# 1886
Delta R.T. 0.01 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion: 55 Resp: 512

Ion	Ratio	Lower	Upper
55	100		
73	39.9	388.0	448.0#
87	0.0	72.2	132.2#

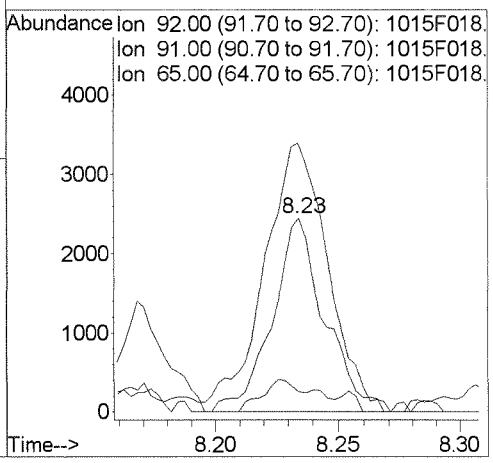


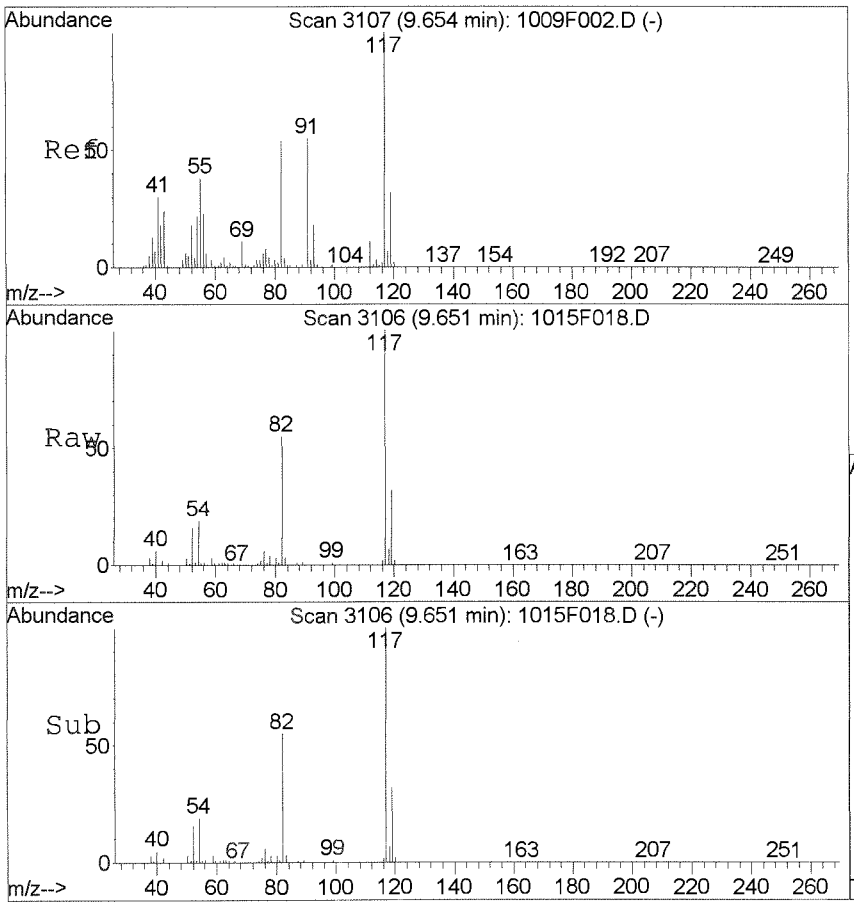


#63
Toluene
Concen: 0.05 PPB
RT: 8.23 min Scan# 2598
Delta R.T. 0.00 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion: 92 Resp: 3588

Ion	Ratio	Lower	Upper
92	100		
91	138.6	142.0	202.0#
65	10.4	0.0	48.9

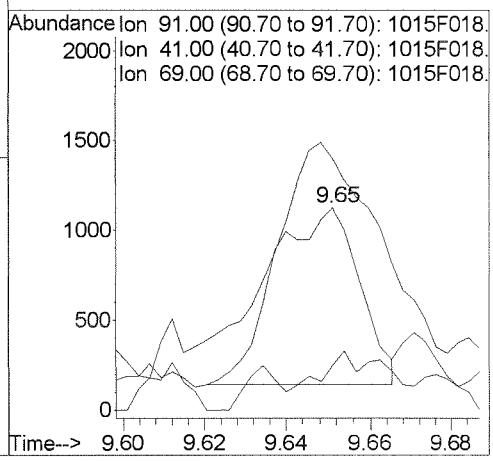




#74
1-Chlorohexane
Concen: 0.04 PPB
RT: 9.65 min Scan# 3106
Delta R.T. -0.00 min
Lab File: 1015F018.D
Acq: 15 Oct 2014 5:09 pm

Tgt Ion: 91 Resp: 1384

Ion	Ratio	Lower	Upper
91	100		
41	103.3	21.8	81.8#
69	25.2	0.0	48.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F019.D
Lab ID: K1410890-007
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 17:36
Date Quantitated: 10/16/2014 09:33
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: 10/17/2014

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F019.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 17:36	**Quant Date:**	10/16/2014 09:33	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-007			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385162	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1052171	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	422091	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	405900	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	5.73	0.00	0.00	113	267685	9.30	93	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1019907	9.69	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	373541	9.74	97	68-117	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	Carbon Tetrachloride	5.80		0.00	117	14106	0.3900	0.39	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\101514\1015F019.D Vial: 17
Acq On : 15 Oct 2014 5:36 pm Operator: MK
Sample : K10890-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:27:53 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

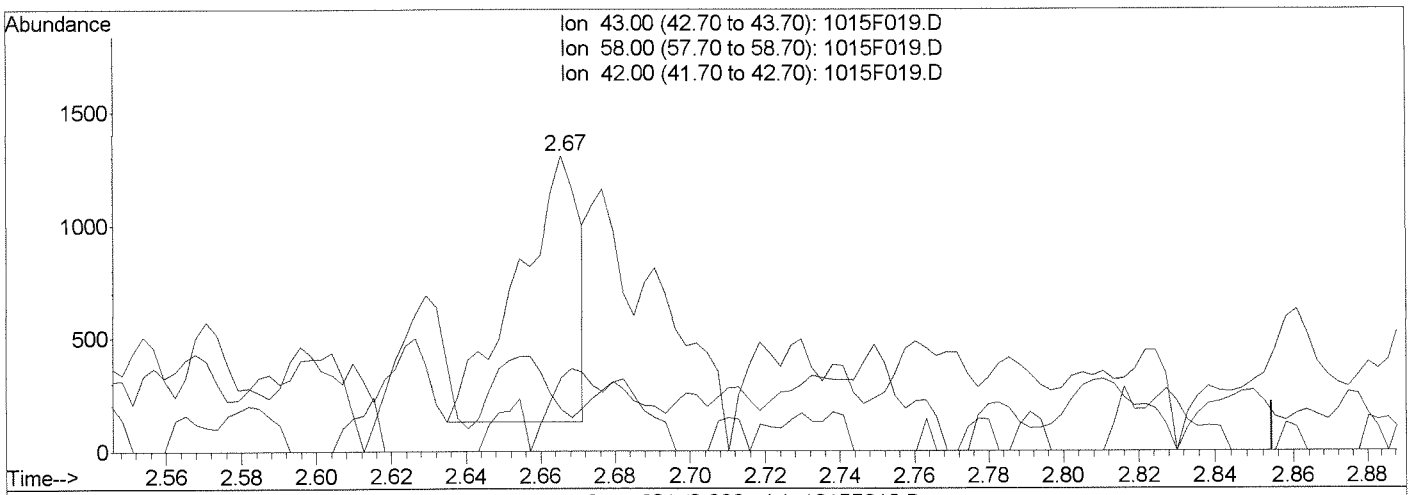
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1052171	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	422091	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	405900	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	267685	9.30	PPB	0.00
Spiked Amount 10.000			Recovery =	93.00%		
47) 1,2-Dichloroethane-d4	6.15	65	259271	9.77	PPB	0.00
Spiked Amount 10.000			Recovery =	97.70%		
62) Toluene-d8	8.16	98	1019907	9.69	PPB	0.00
Spiked Amount 10.000			Recovery =	96.90%		
84) 4-Bromofluorobenzene	10.84	95	373541	9.74	PPB	0.00
Spiked Amount 10.000			Recovery =	97.40%		
Target Compounds						Qvalue
6) Bromomethane	1.59	96	787	Below Cal	#	16
14) Acetone	2.67	43	3161m	0.81	PPB	
16) Carbon Disulfide	2.71	76	2333	0.03	PPB	78
21) Methylene Chloride	3.17	84	1537	0.05	PPB #	81
40) Chloroform	5.52	83	27968	0.59	PPB	94
44) Carbon Tetrachloride	5.80	117	14106	0.39	PPB	80
51) Trichloroethene	6.87	95	1969	0.07	PPB #	73
57) Bromodichloromethane	7.47	83	1675	0.05	PPB	71
63) Toluene	8.24	92	6779	0.10	PPB #	67
74) 1-Chlorohexane	9.65	91	1966	0.05	PPB #	38
78) m,p-Xylenes	9.89	106	1632	0.04	PPB	84
82) Isopropylbenzene	10.64	105	543	0.00	PPB	90

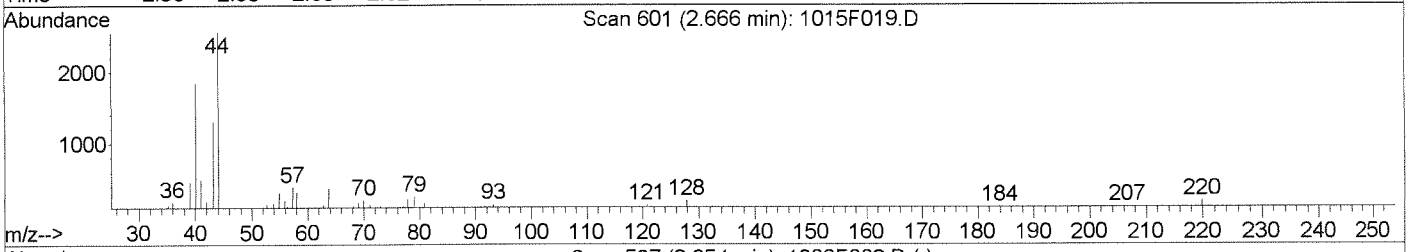
(#) = qualifier out of range (m) = manual integration

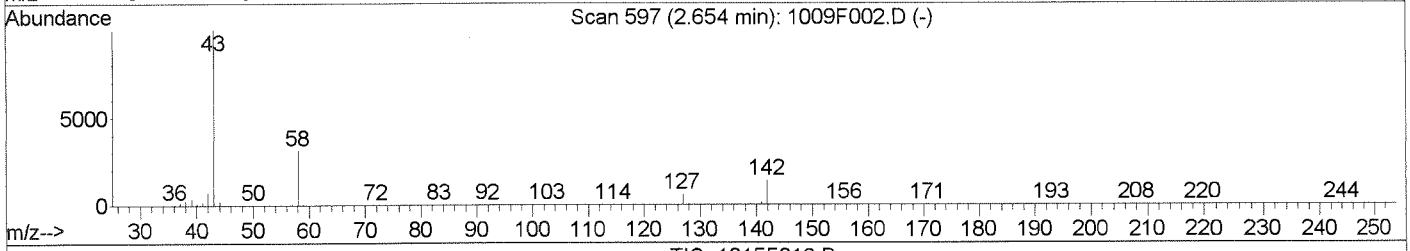
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F019.D Vial: 17
Acq On : 15 Oct 2014 5:36 pm Operator: MK
Sample : K10890-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:28 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F019.D

(14) Acetone (T)

2.67min 0.35PPB

response 1365

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	27.44
42.00	7.10	0.00
0.00	0.00	0.00

Manual Integration:

Before

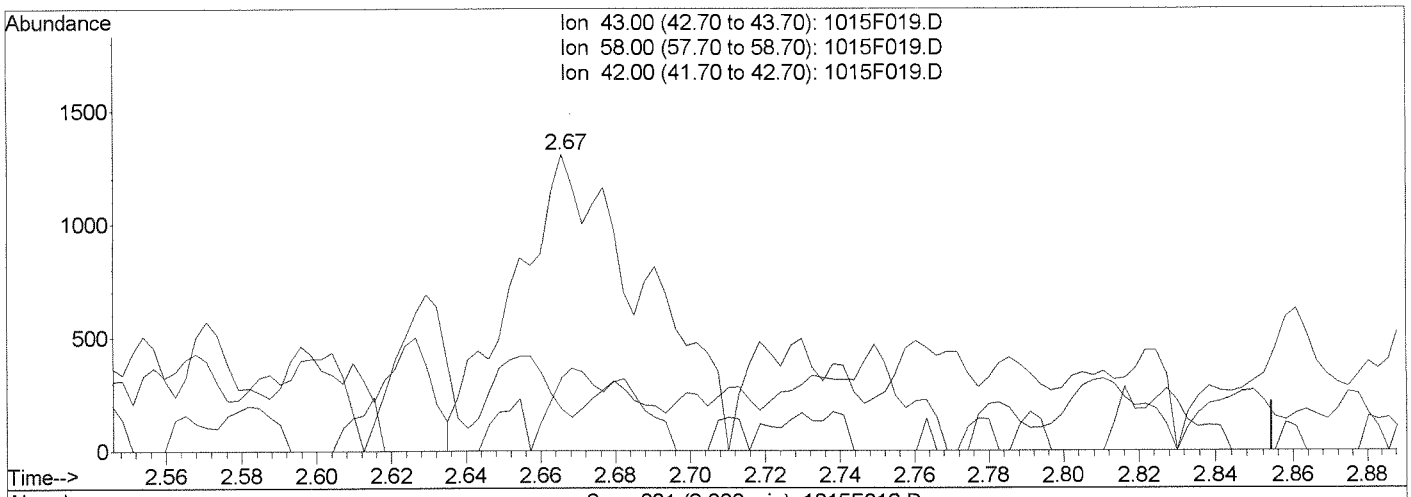
10/16/14

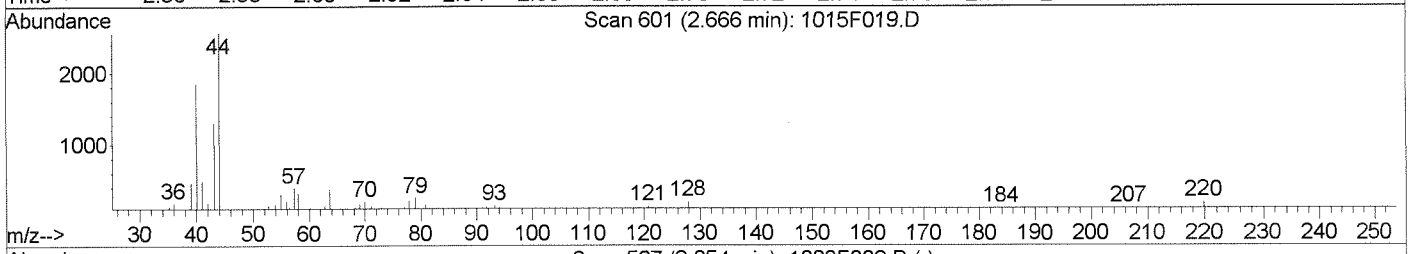
1015F019.D 100814MS27_8260.M Thu Oct 16 09:29:01 2014

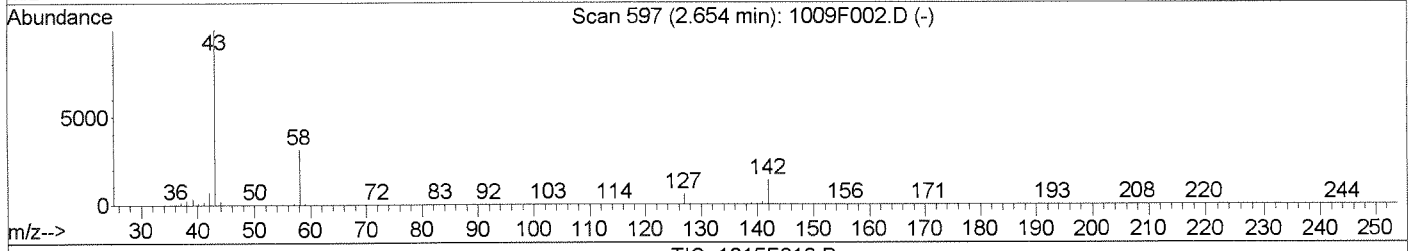
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F019.D Vial: 17
Acq On : 15 Oct 2014 5:36 pm Operator: MK
Sample : K10890-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:29 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F019.D

(14) Acetone (T)

2.67min 0.81PPB m

response 3161

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	24.71
42.00	7.10	14.08
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/16/14

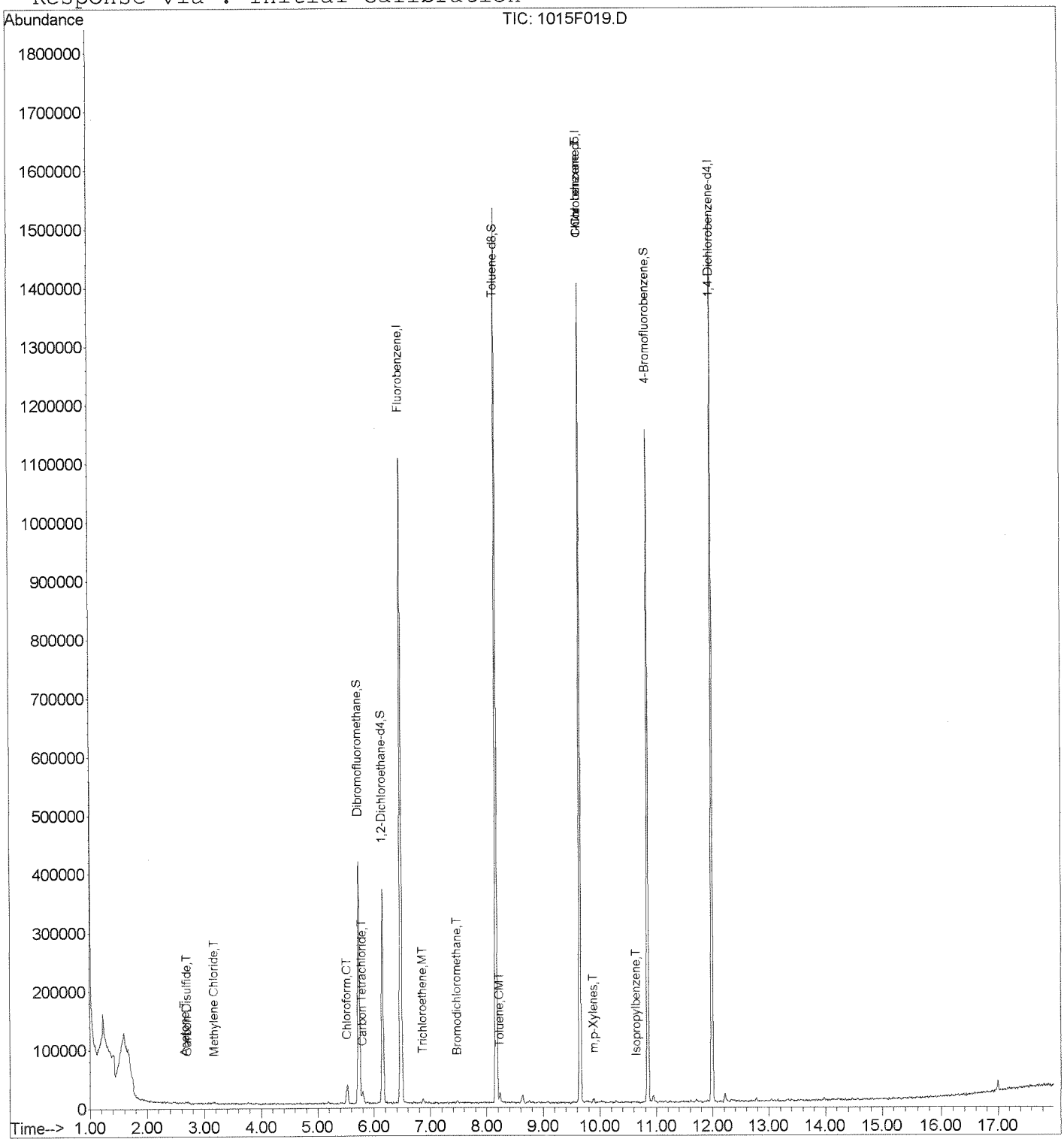
MK

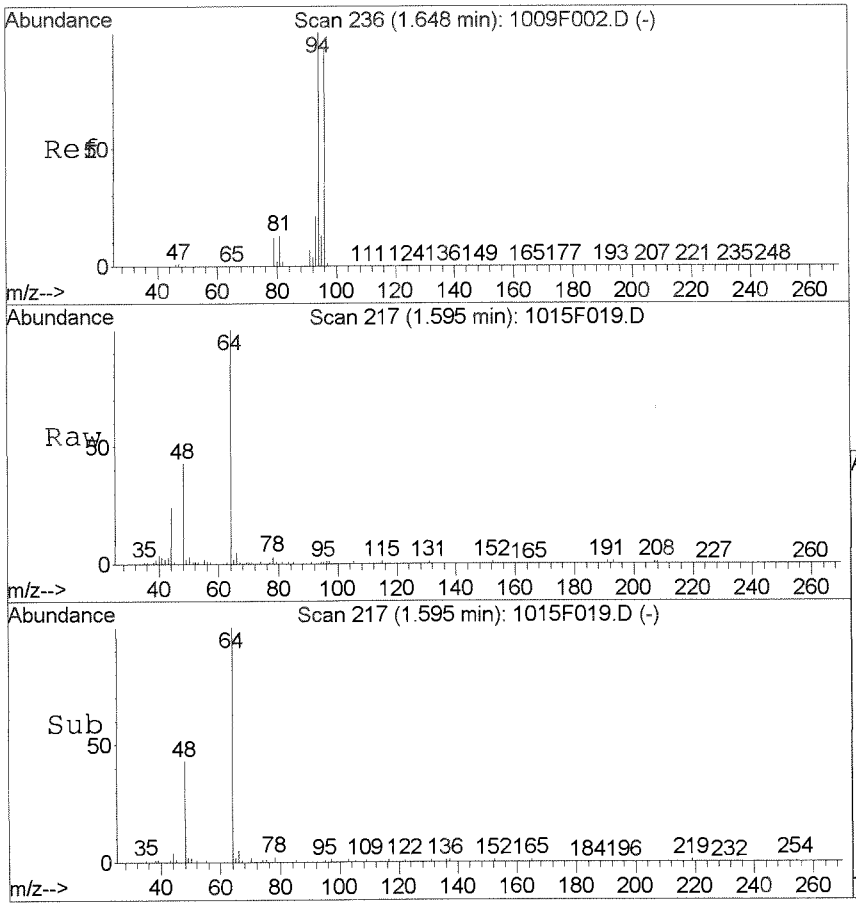
1015F019.D 100814MS27_8260.M Thu Oct 16 09:29:20 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F019.D Vial: 17
Acq On : 15 Oct 2014 5:36 pm Operator: MK
Sample : K10890-007 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:33 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

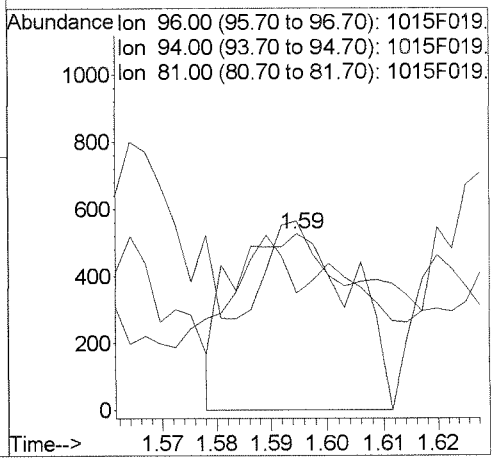


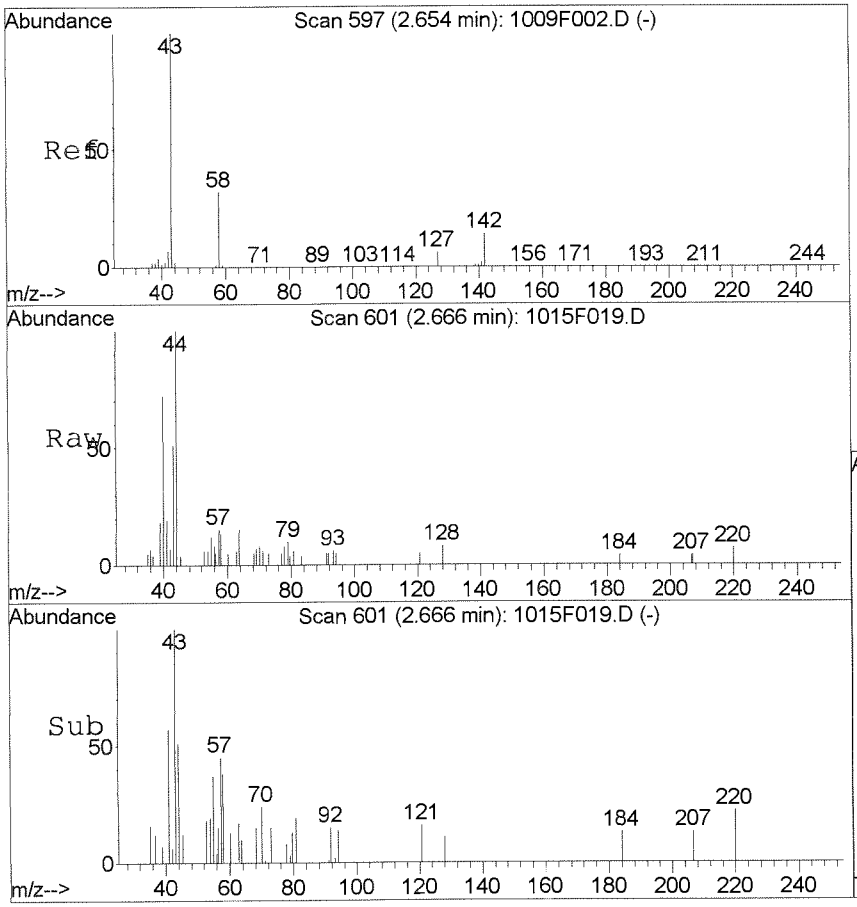


#6
Bromomethane
Concen: Below Cal
RT: 1.59 min Scan# 217
Delta R.T. -0.06 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 96 Resp: 787

Ion	Ratio	Lower	Upper
96	100		
94	15.8	77.8	137.8#
81	35.6	0.0	43.8

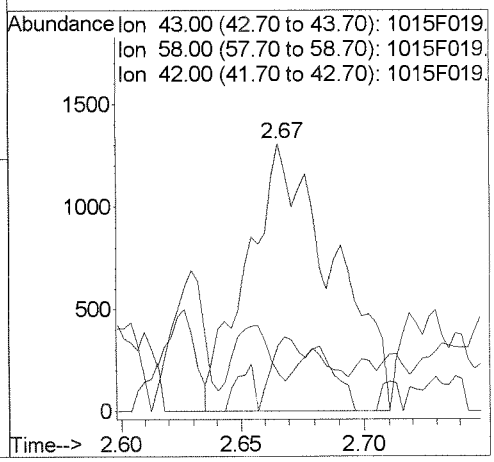


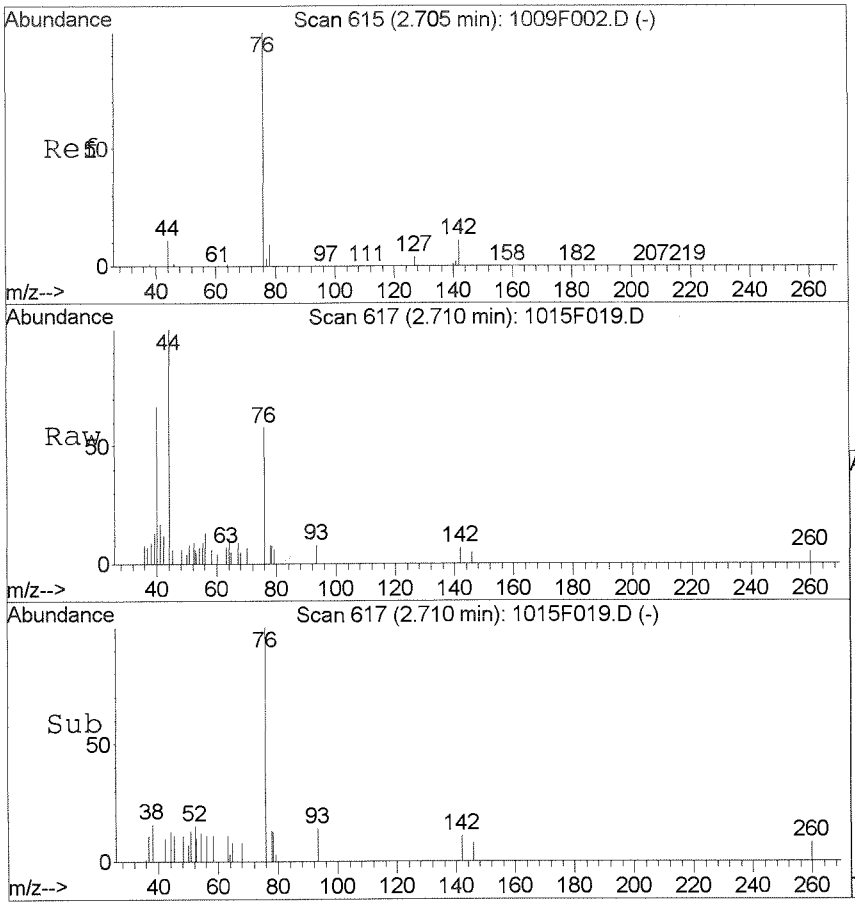


#14
Acetone
Concen: 0.81 PPB m
RT: 2.67 min Scan# 601
Delta R.T. 0.01 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 43 Resp: 3161

Ion	Ratio	Lower	Upper
43	100		
58	24.7	0.9	60.9
42	14.1	0.0	37.1

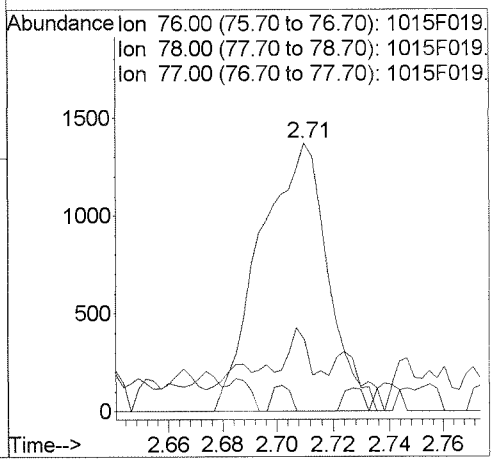


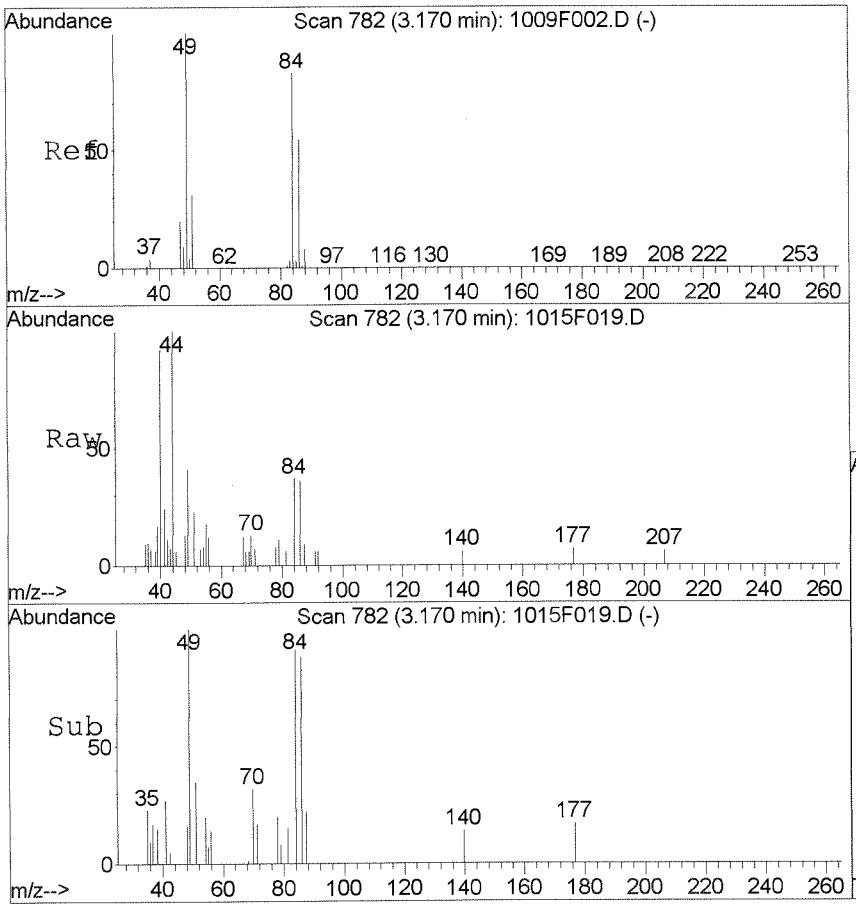


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.71 min Scan# 617
Delta R.T. 0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 76 Resp: 2333

Ion	Ratio	Lower	Upper
76	100		
78	18.5	0.0	39.1
77	0.0	0.0	32.6

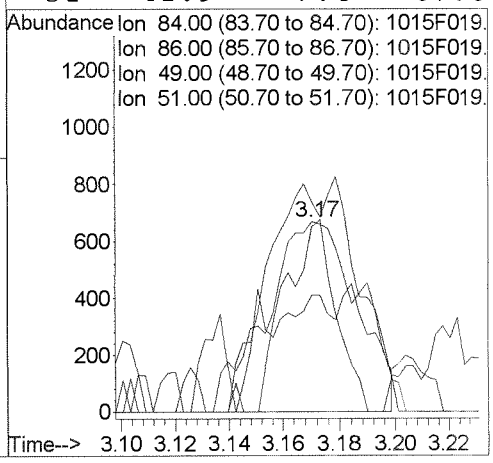


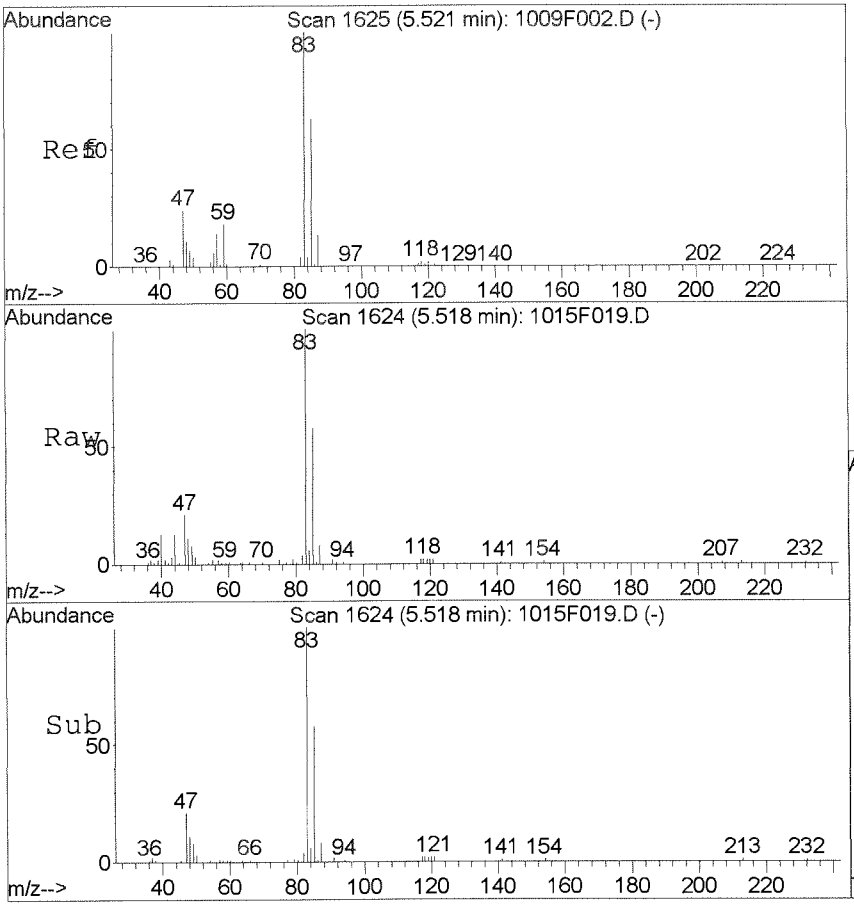


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.17 min Scan# 782
Delta R.T. 0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 84 Resp: 1537

Ion	Ratio	Lower	Upper
84	100		
86	97.3	33.9	93.9#
49	110.3	90.6	150.6
51	41.9	7.6	67.6

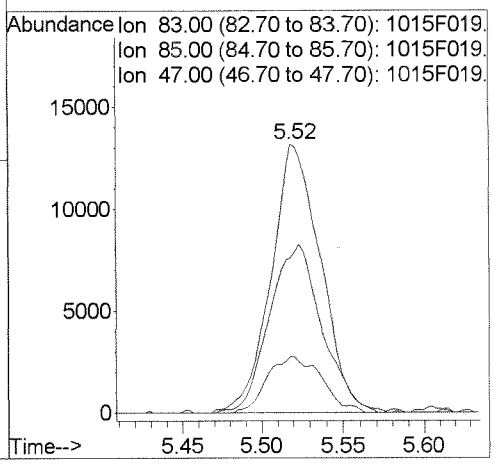


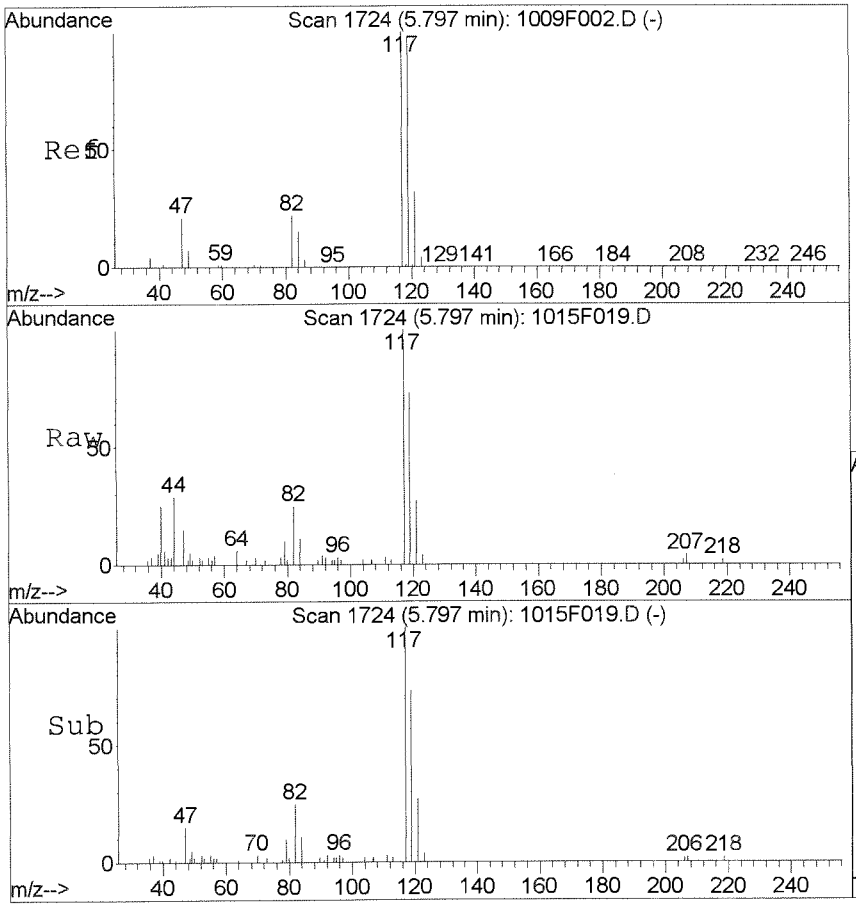


#40
Chloroform
Concen: 0.59 PPB
RT: 5.52 min Scan# 1624
Delta R.T. -0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 83 Resp: 27968

Ion	Ratio	Lower	Upper
83	100		
85	57.6	33.2	93.2
47	21.0	0.0	52.9

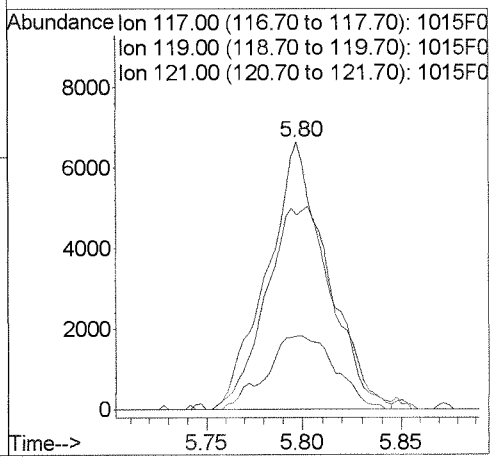


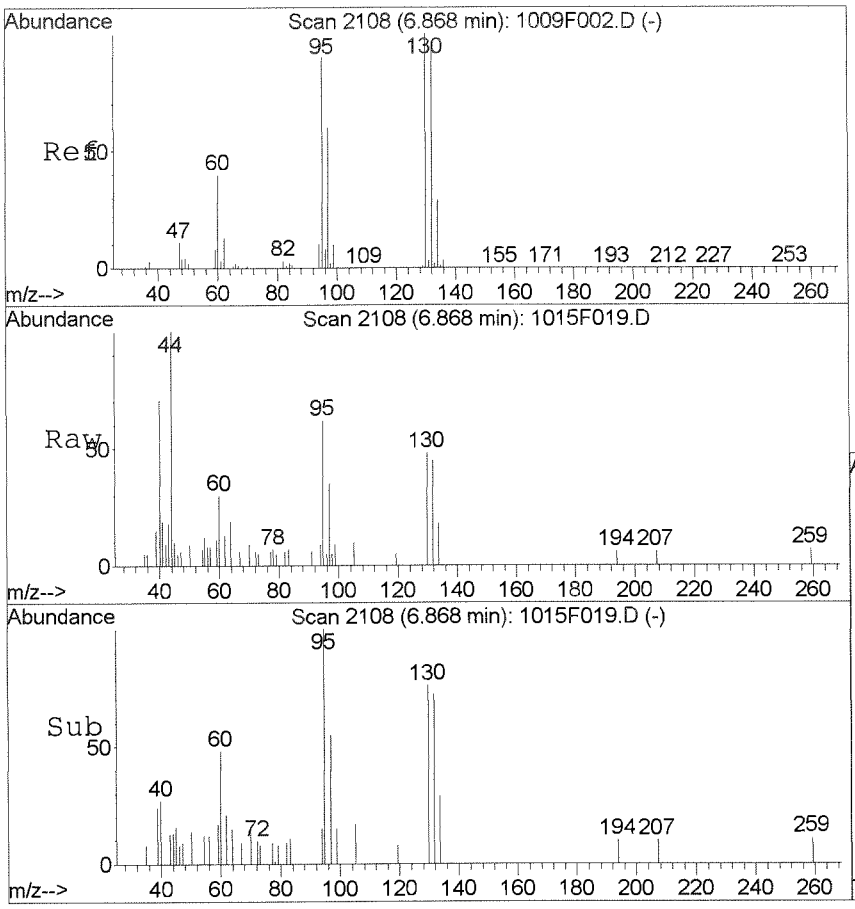


#44
Carbon Tetrachloride
Concen: 0.39 PPB
RT: 5.80 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion:117 Resp: 14106

Ion	Ratio	Lower	Upper
117	100		
119	72.7	66.6	126.6
121	27.4	0.5	60.5

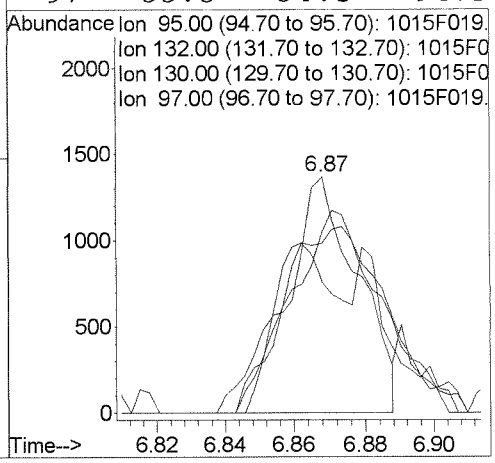


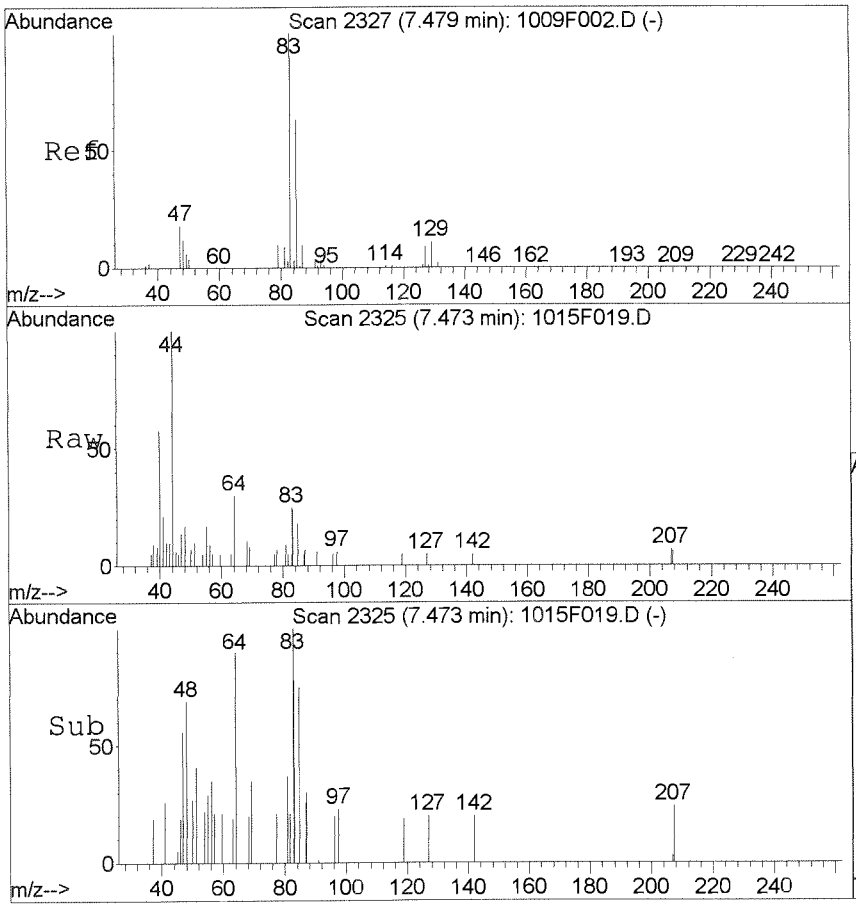


#51
Trichloroethene
Concen: 0.07 PPB
RT: 6.87 min Scan# 2108
Delta R.T. -0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 95 Resp: 1969

Ion	Ratio	Lower	Upper
95	100		
132	71.9	75.7	135.7#
130	76.4	78.0	138.0#
97	55.3	34.5	94.5

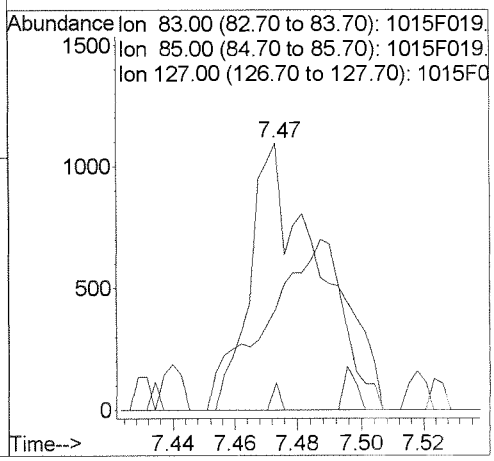


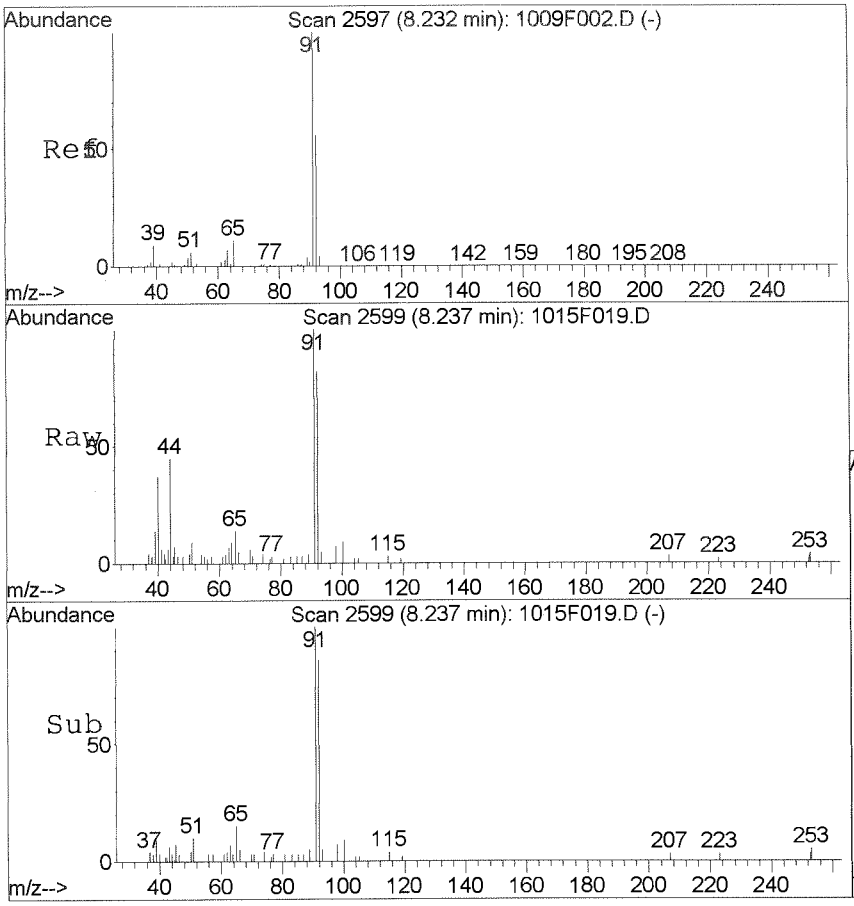


#57
Bromodichloromethane
Concen: 0.05 PPB
RT: 7.47 min Scan# 2325
Delta R.T. -0.01 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 83 Resp: 1675

Ion	Ratio	Lower	Upper
83	100		
85	37.8	33.2	93.2
127	10.3	0.0	38.8

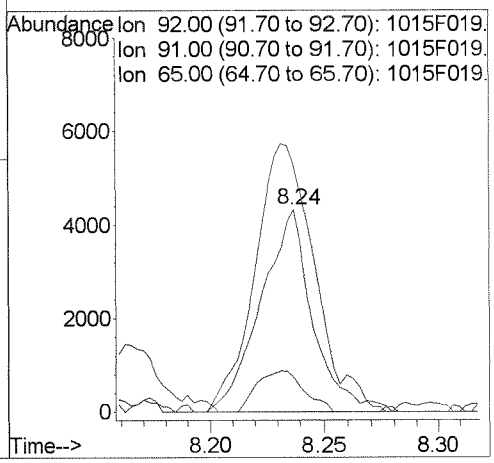


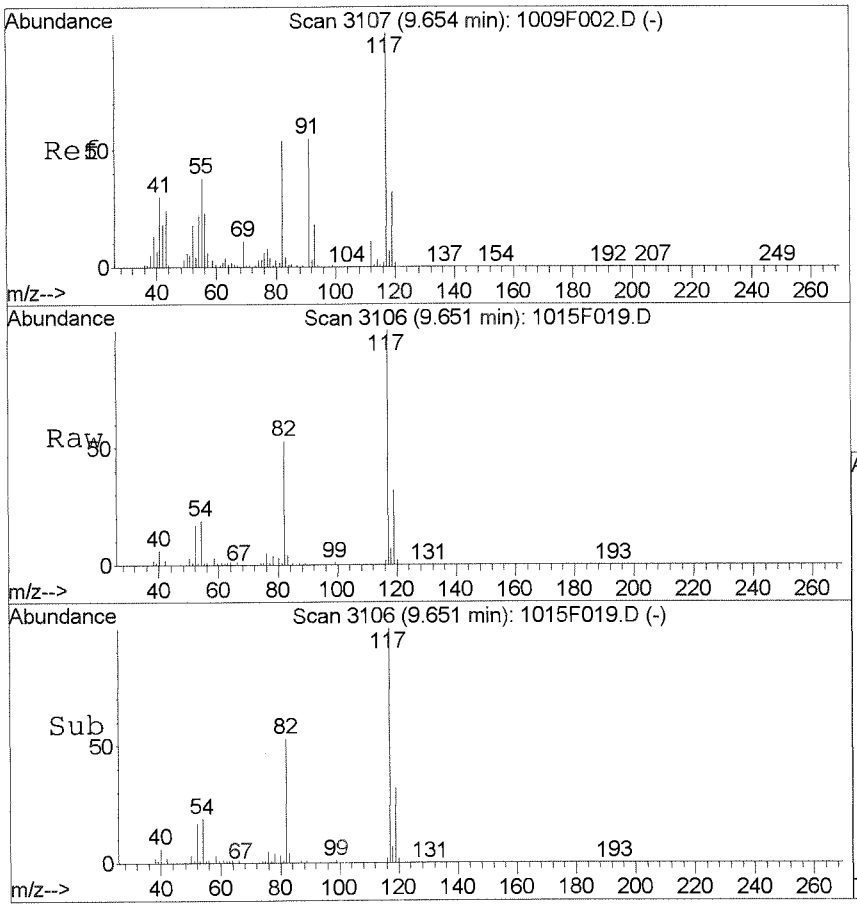


#63
Toluene
Concen: 0.10 PPB
RT: 8.24 min Scan# 2599
Delta R.T. 0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 92 Resp: 6779

Ion	Ratio	Lower	Upper
92	100		
91	122.5	142.0	202.0#
65	14.7	0.0	48.9

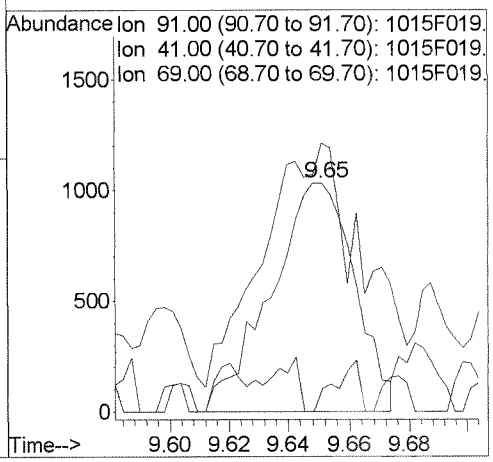


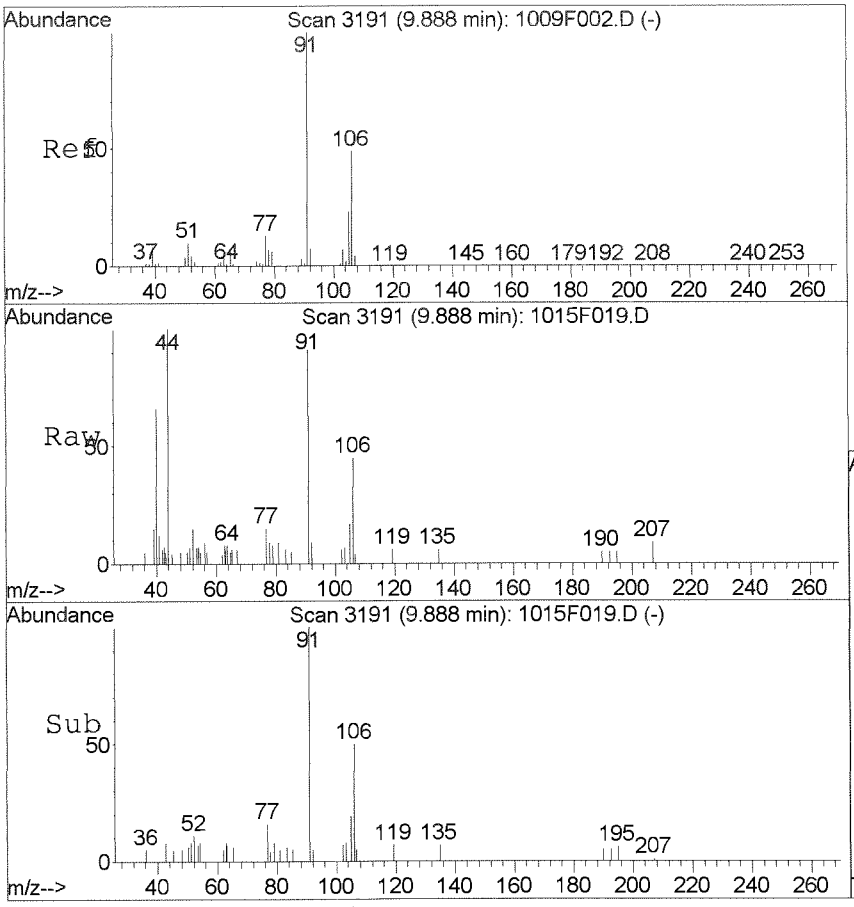


#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.65 min Scan# 3106
Delta R.T. -0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion: 91 Resp: 1966

Ion	Ratio	Lower	Upper
91	100		
41	106.5	21.8	81.8#
69	10.0	0.0	48.6

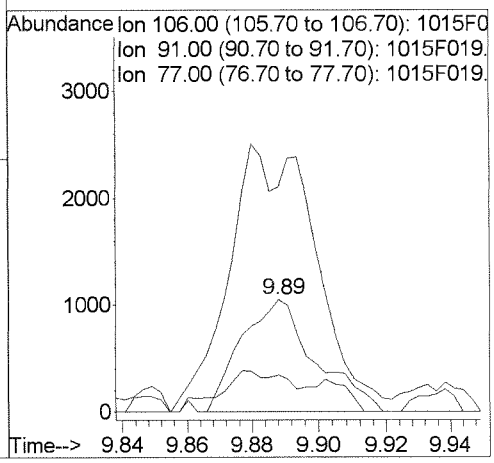


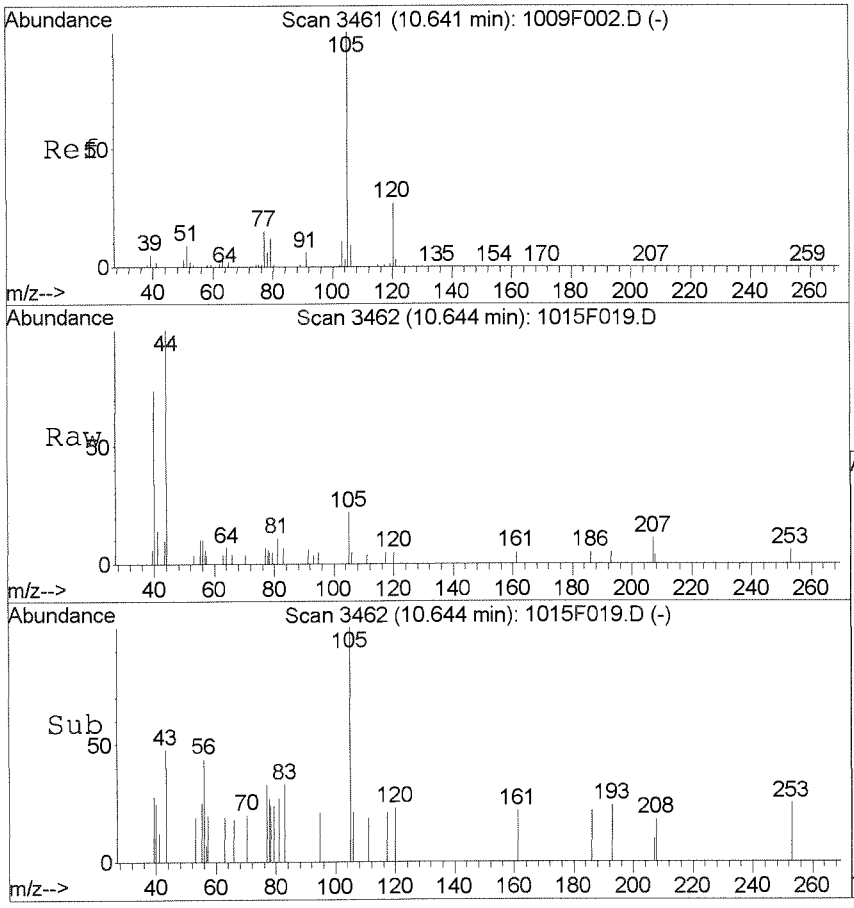


#78
m,p-Xylenes
Concen: 0.04 PPB
RT: 9.89 min Scan# 3191
Delta R.T. 0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion:106 Resp: 1632

Ion	Ratio	Lower	Upper
106	100		
91	172.9	168.8	228.8
77	29.8	0.0	55.8

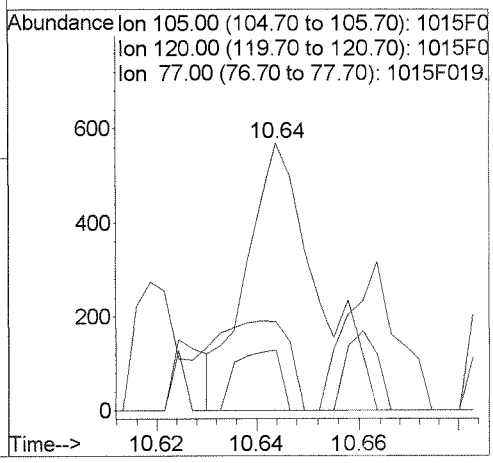




#82
Isopropylbenzene
Concen: 0.00 PPB
RT: 10.64 min Scan# 3462
Delta R.T. 0.00 min
Lab File: 1015F019.D
Acq: 15 Oct 2014 5:36 pm

Tgt Ion:105 Resp: 543

Ion	Ratio	Lower	Upper
105	100		
120	22.7	0.0	57.2
77	9.7	0.0	44.9



Exception Report

Data File: J:\MS27\DATA\101514\1015F020.D
Lab ID: K1410890-008
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 18:04
Date Quantitated: 10/16/2014 09:38
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: 10/24/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F020.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 18:04	**Quant Date:**	10/16/2014 09:38	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-008			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385163	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1059290	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	424687	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	418885	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	5.73	0.00	0.00	113	274127	9.46	95	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1029099	9.71	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	383863	9.95	100	68-117	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	Carbon Tetrachloride	5.80		0.00	117	174074	4.75	4.8		

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\101514\1015F020.D Vial: 18
Acq On : 15 Oct 2014 6:04 pm Operator: MK
Sample : K10890-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:33:33 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

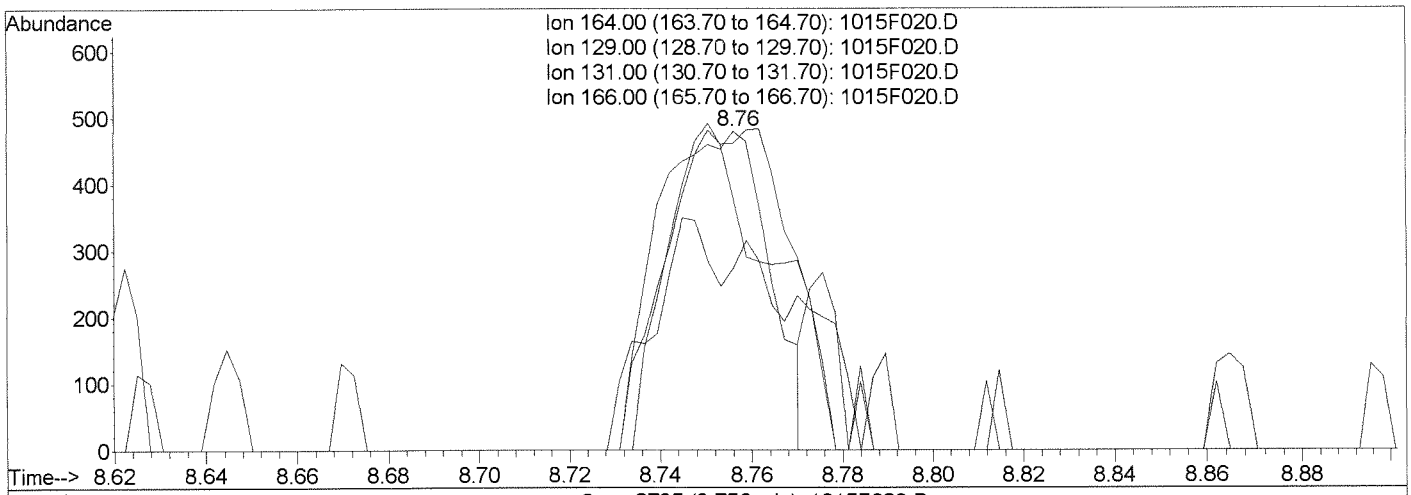
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1059290	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	424687	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	418885	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	274127	9.46	PPB		0.00
Spiked Amount 10.000			Recovery =	94.60%			
47) 1,2-Dichloroethane-d4	6.15	65	259888	9.73	PPB		0.00
Spiked Amount 10.000			Recovery =	97.30%			
62) Toluene-d8	8.16	98	1029099	9.71	PPB		0.00
Spiked Amount 10.000			Recovery =	97.10%			
84) 4-Bromofluorobenzene	10.84	95	383863	9.95	PPB		0.00
Spiked Amount 10.000			Recovery =	99.50%			
Target Compounds							Qvalue
3) Chloromethane	1.27	50	1074	0.03	PPB		85
6) Bromomethane	1.69	96	588	Below Cal		#	9
9) Trichlorofluoromethane	1.94	101	4033	0.09	PPB		69
14) Acetone	2.67	43	1761	0.45	PPB	#	57
21) Methylene Chloride	3.17	84	1515	0.05	PPB	#	44
40) Chloroform	5.53	83	13809	0.29	PPB		83
44) Carbon Tetrachloride	5.80	117	174074	4.75	PPB		96
63) Toluene	8.24	92	3430	0.05	PPB		80
69) Tetrachloroethene	8.76	164	932m	0.04	PPB		
74) 1-Chlorohexane	9.65	91	1819	0.05	PPB		87

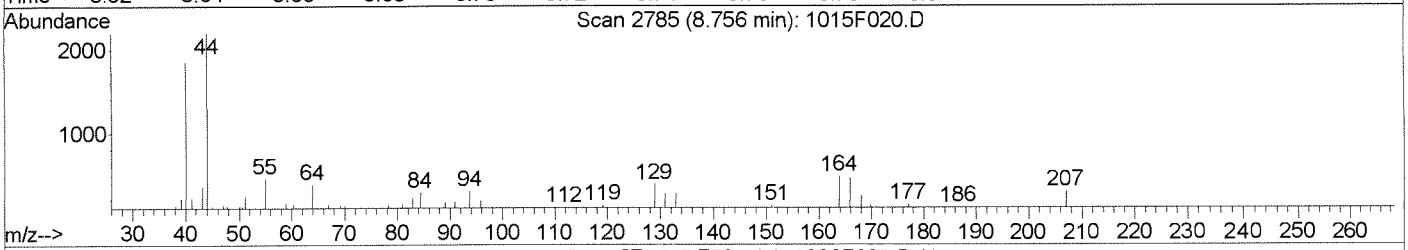
(#) = qualifier out of range (m) = manual integration

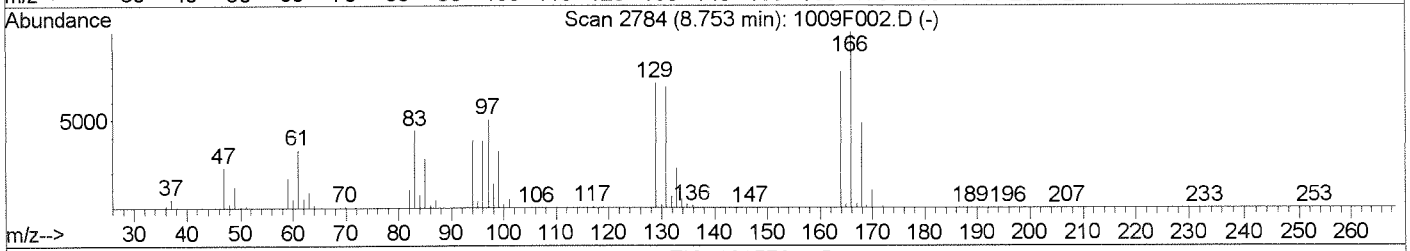
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F020.D Vial: 18
Acq On : 15 Oct 2014 6:04 pm Operator: MK
Sample : K10890-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:36 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F020.D

(69) Tetrachloroethene (T)

8.76min 0.03PPB

response 813

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	79.12
131.00	88.90	57.20#
166.00	127.50	96.24#

Manual Integration:

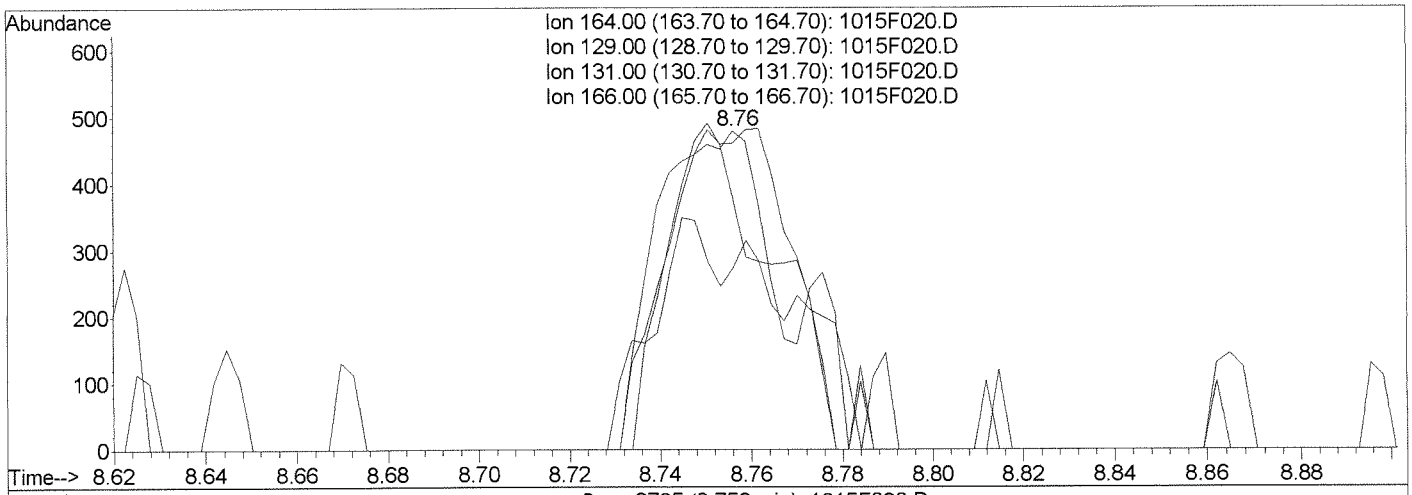
Before

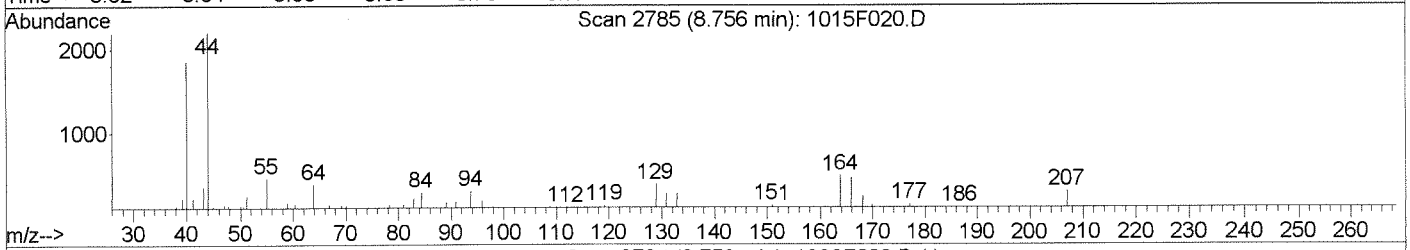
10/16/14

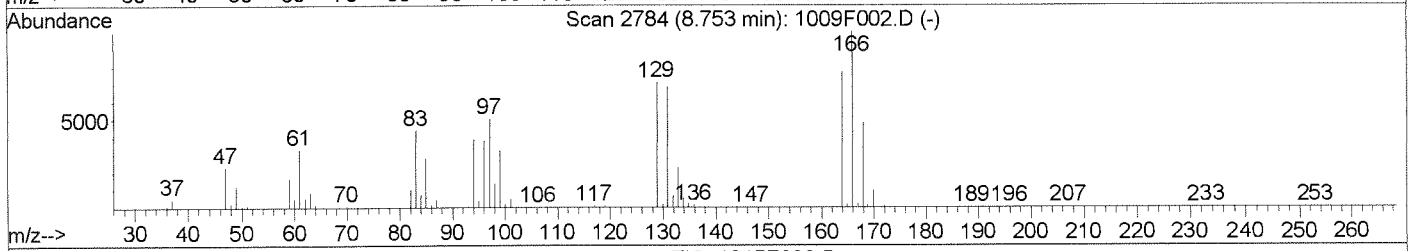
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F020.D Vial: 18
Acq On : 15 Oct 2014 6:04 pm Operator: MK
Sample : K10890-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:36 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F020.D

(69) Tetrachloroethene (T)

8.76min 0.04PPB m

response 932

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	79.12
131.00	88.90	57.20#
166.00	127.50	96.24#

Manual Integration:

After

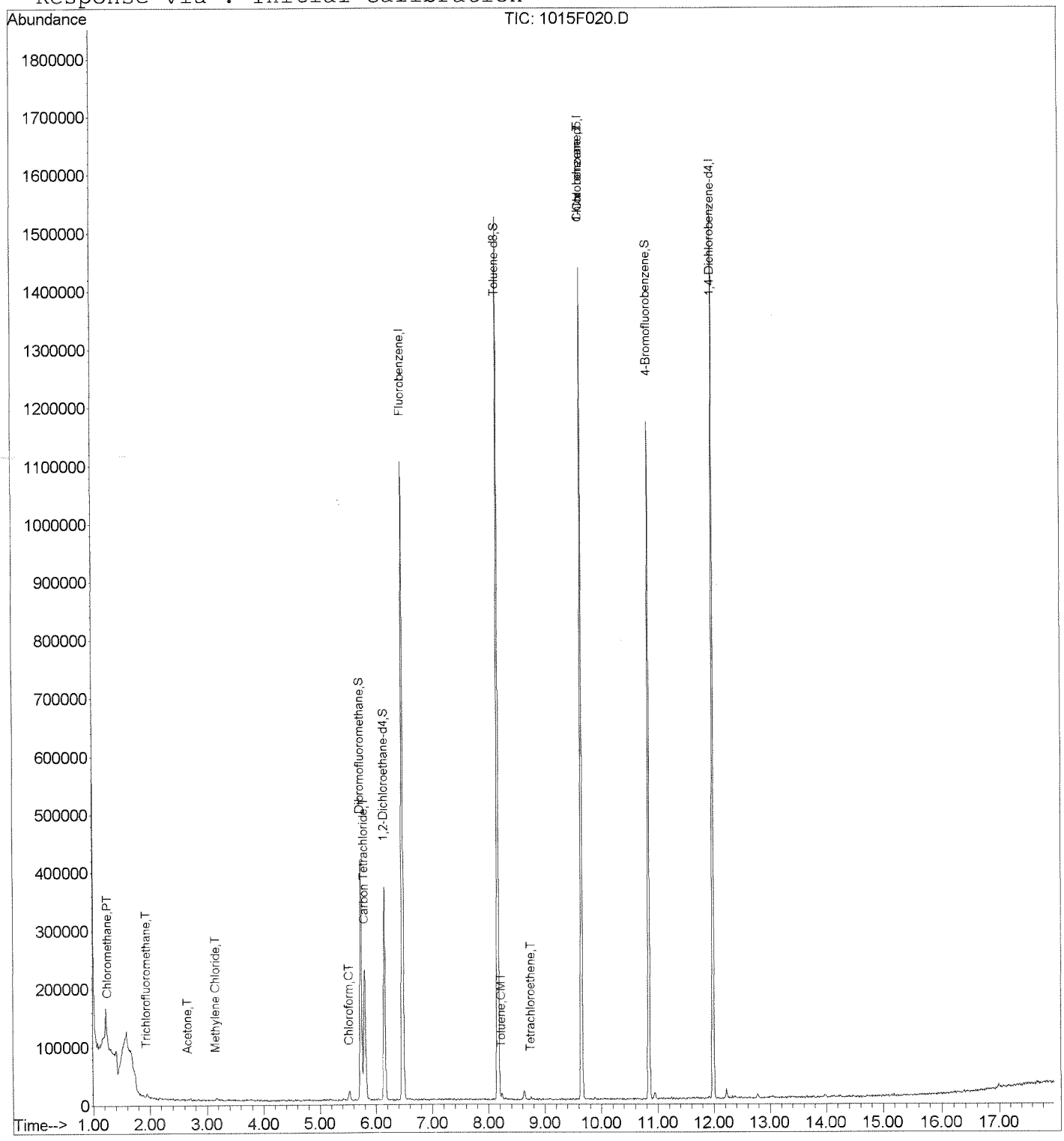
Baseline correction

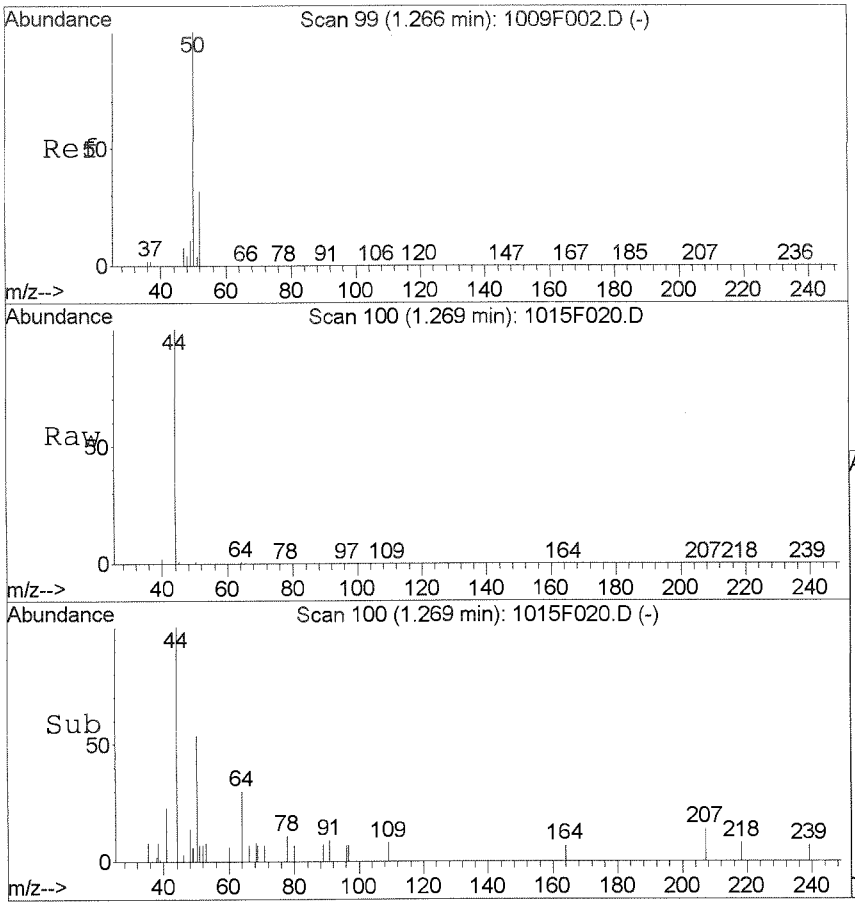
10/16/14

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F020.D Vial: 18
Acq On : 15 Oct 2014 6:04 pm Operator: MK
Sample : K10890-008 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:38 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

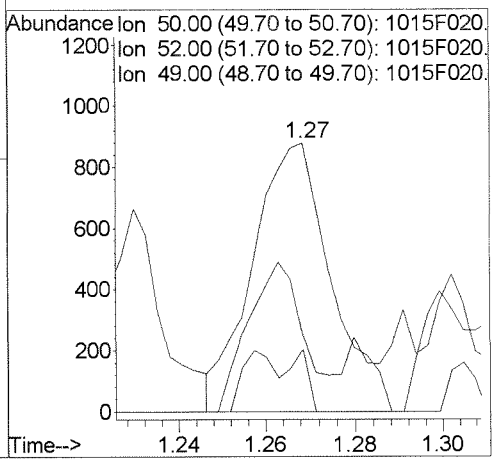


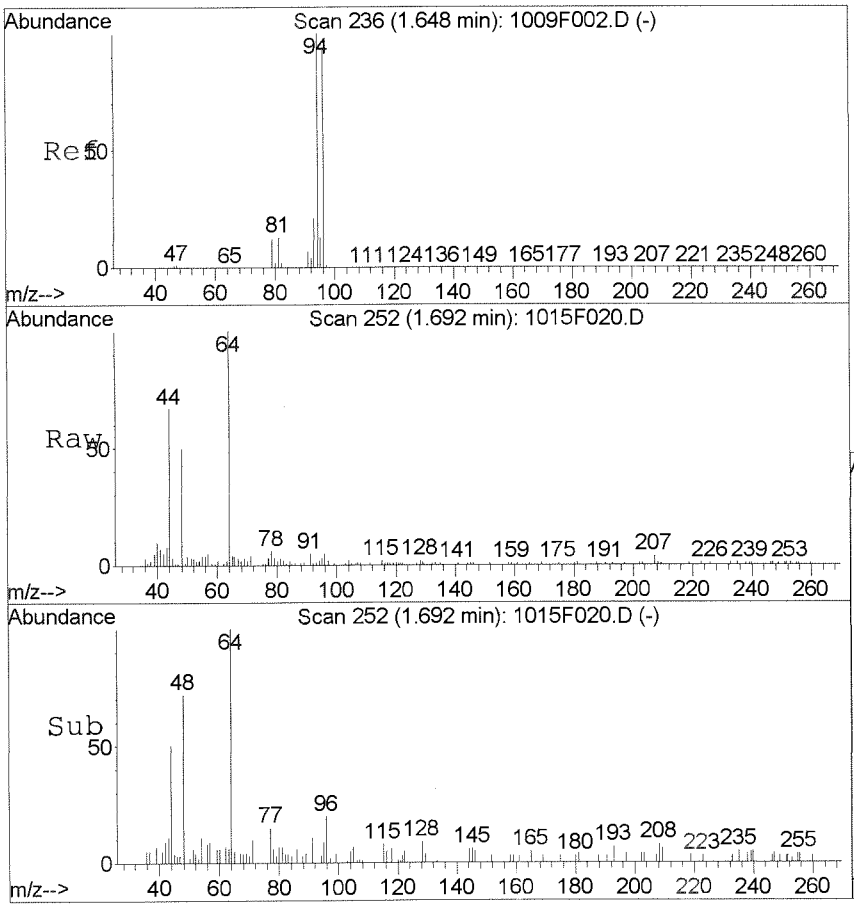


#3
Chloromethane
Concen: 0.03 PPB
RT: 1.27 min Scan# 100
Delta R.T. 0.00 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 50 Resp: 1074

Ion	Ratio	Lower	Upper
50	100		
52	28.6	3.4	63.4
49	23.1	0.0	40.1

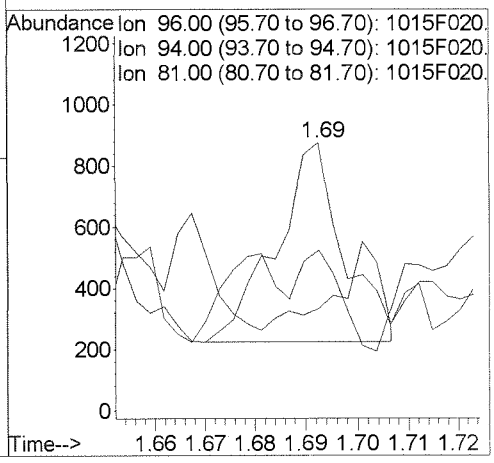


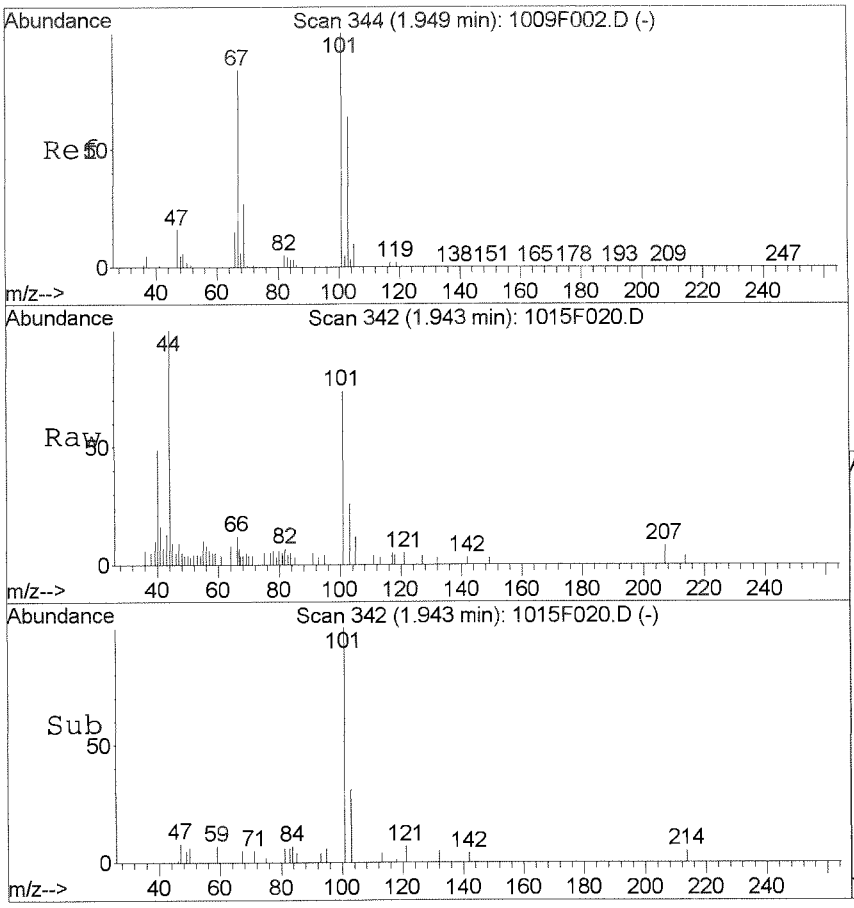


#6
Bromomethane
Concen: Below Cal
RT: 1.69 min Scan# 252
Delta R.T. 0.04 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 96 Resp: 588

Ion	Ratio	Lower	Upper
96	100		
94	8.1	77.8	137.8#
81	35.8	0.0	43.8

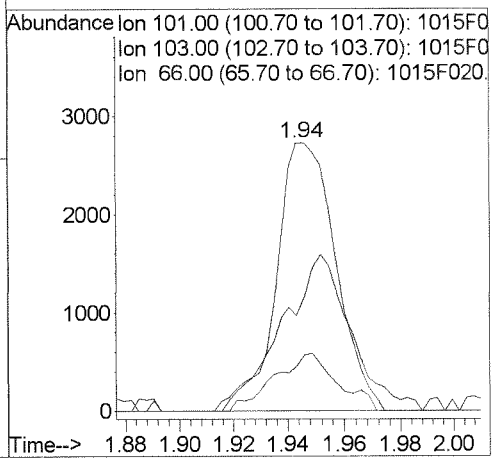


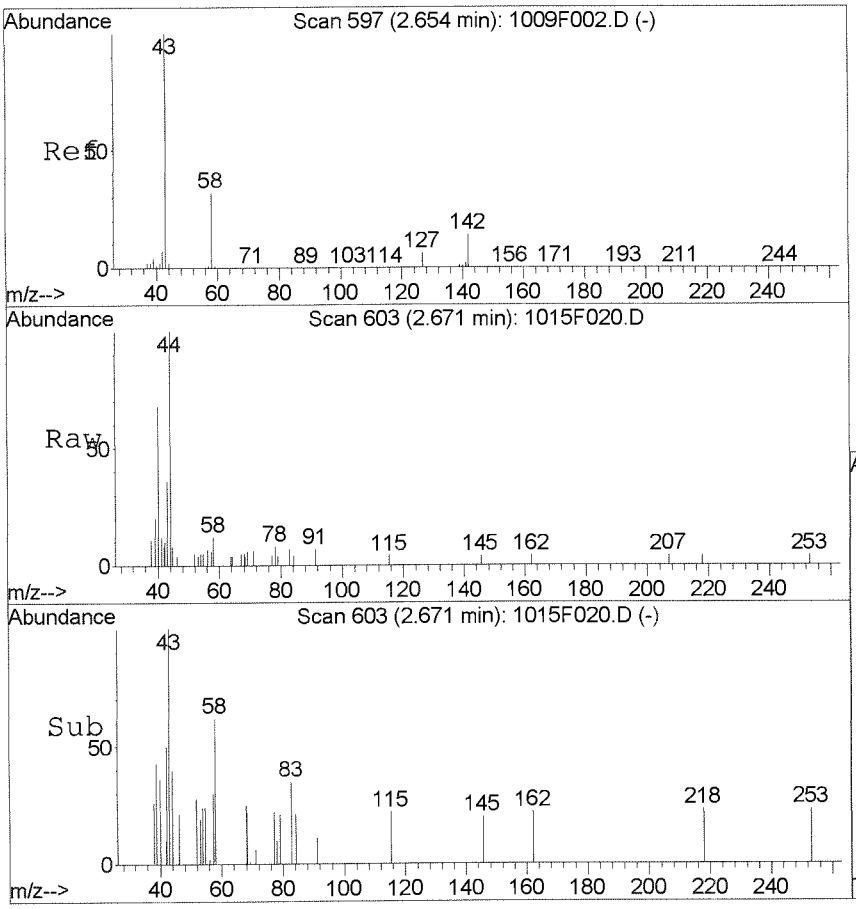


#9
Trichlorofluoromethane
Concen: 0.09 PPB
RT: 1.94 min Scan# 342
Delta R.T. -0.01 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion:101 Resp: 4033

Ion	Ratio	Lower	Upper
101	100		
103	35.5	34.4	94.4
66	16.6	0.0	44.4

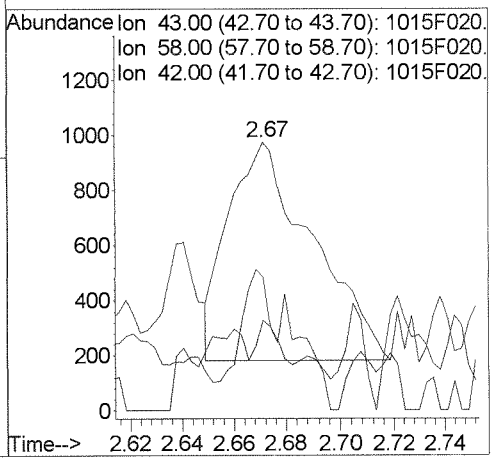


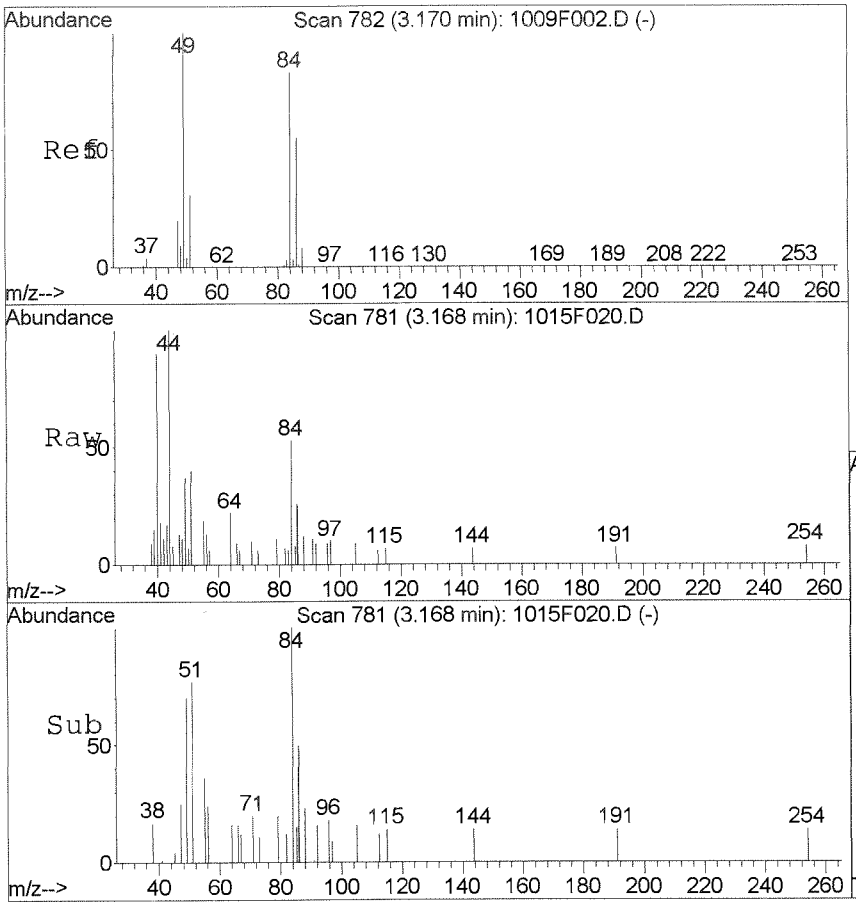


#14
Acetone
Concen: 0.45 PPB
RT: 2.67 min Scan# 603
Delta R.T. 0.02 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 43 Resp: 1761

Ion	Ratio	Lower	Upper
43	100		
58	15.1	0.9	60.9
42	43.5	0.0	37.1#

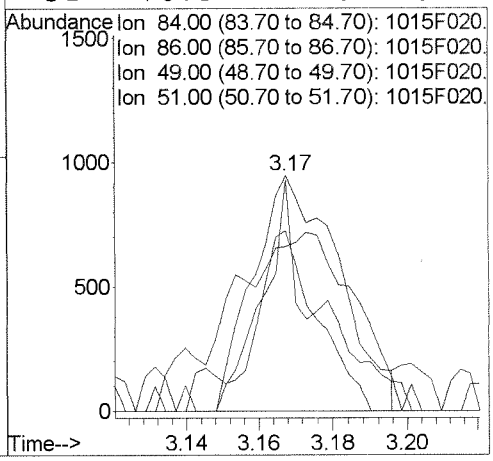


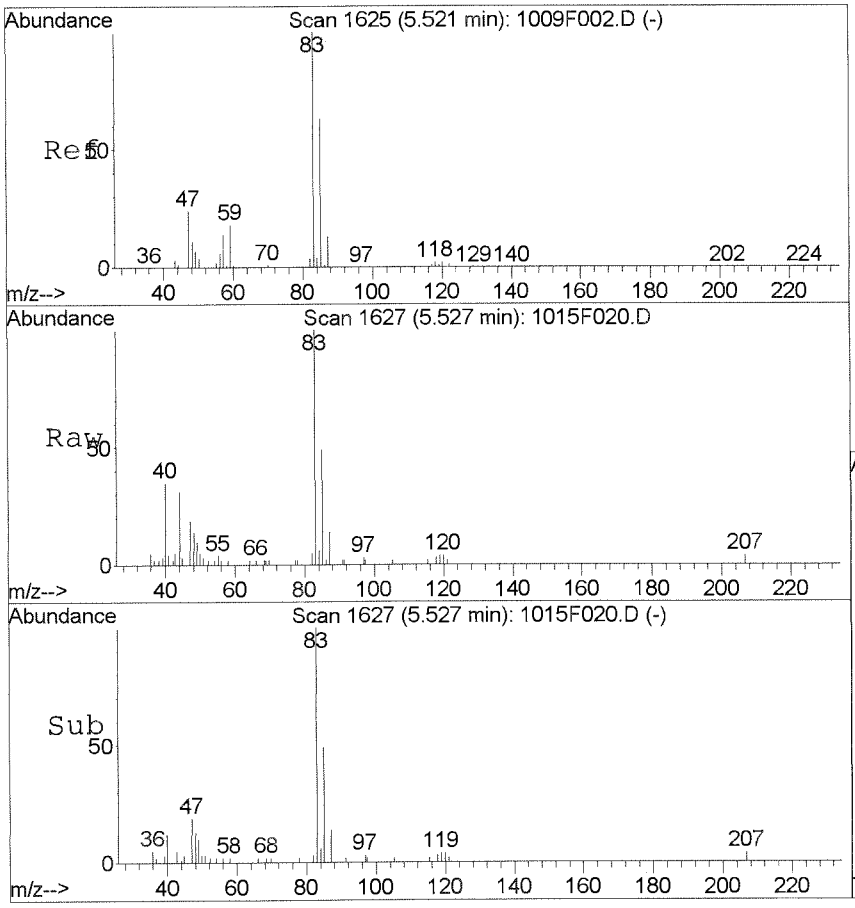


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.17 min Scan# 781
Delta R.T. -0.00 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 84 Resp: 1515

Ion	Ratio	Lower	Upper
84	100		
86	98.2	33.9	93.9#
49	54.5	90.6	150.6#
51	76.5	7.6	67.6#

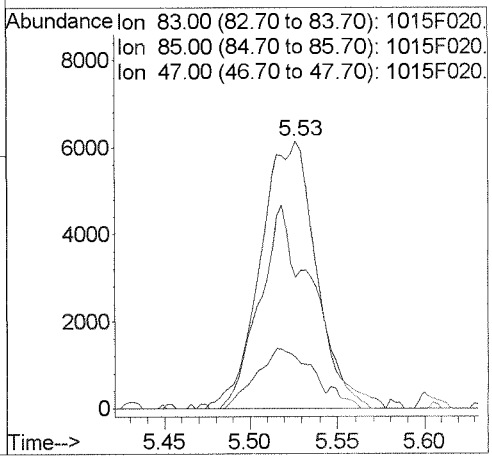


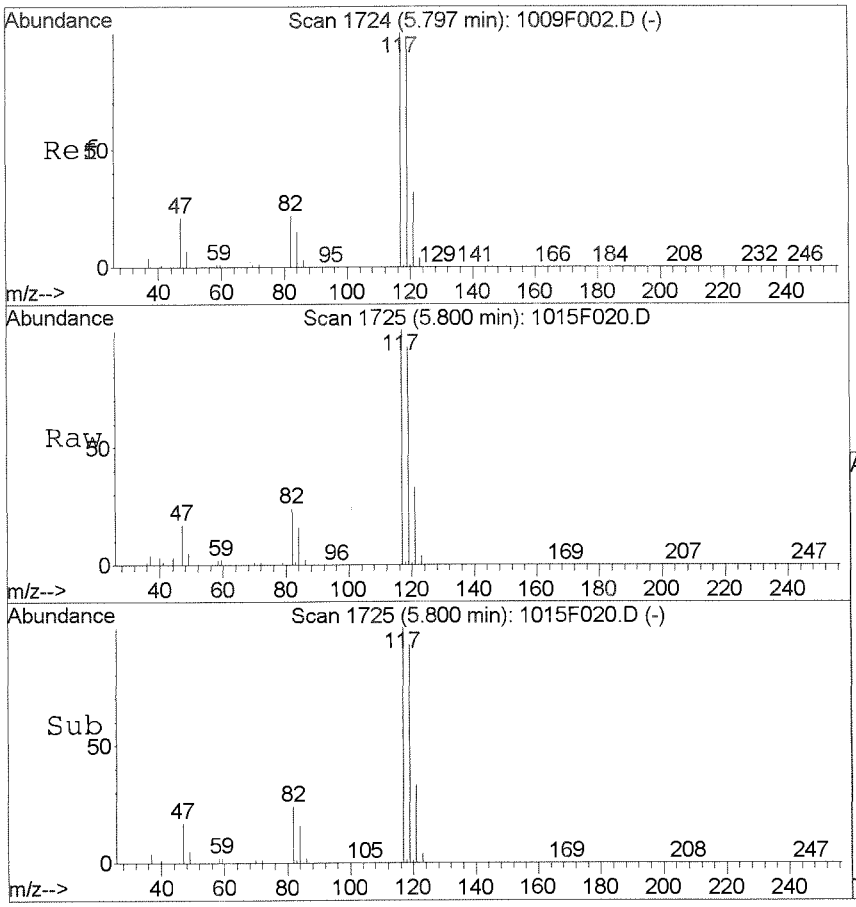


#40
Chloroform
Concen: 0.29 PPB
RT: 5.53 min Scan# 1627
Delta R.T. 0.01 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 83 Resp: 13809

Ion	Ratio	Lower	Upper
83	100		
85	47.3	33.2	93.2
47	19.0	0.0	52.9

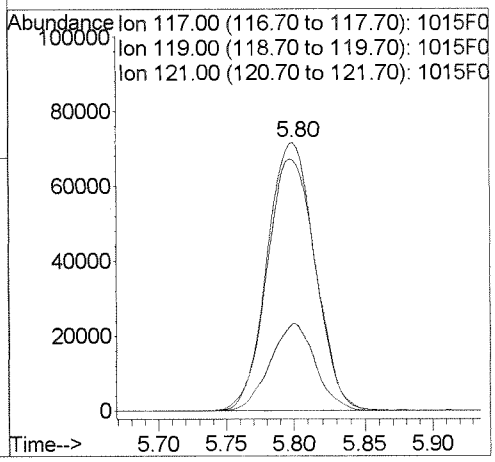


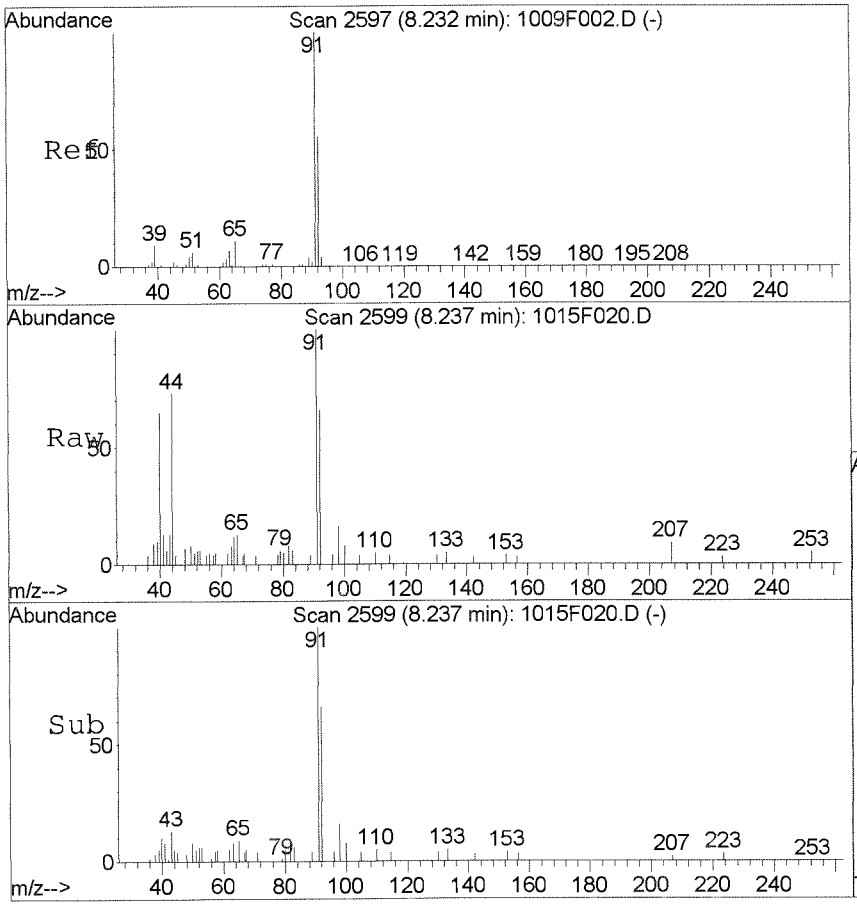


#44
Carbon Tetrachloride
Concen: 4.75 PPB
RT: 5.80 min Scan# 1725
Delta R.T. 0.00 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion:117 Resp: 174074

Ion	Ratio	Lower	Upper
117	100		
119	93.3	66.6	126.6
121	32.8	0.5	60.5

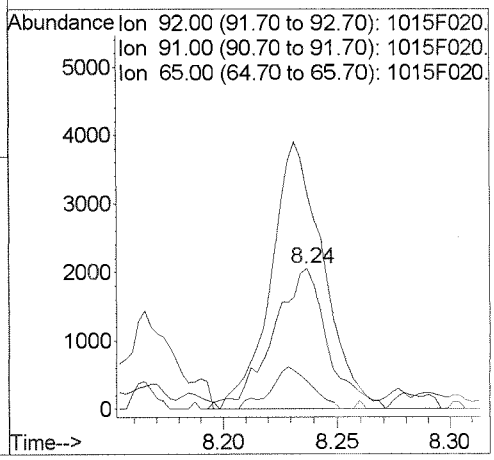


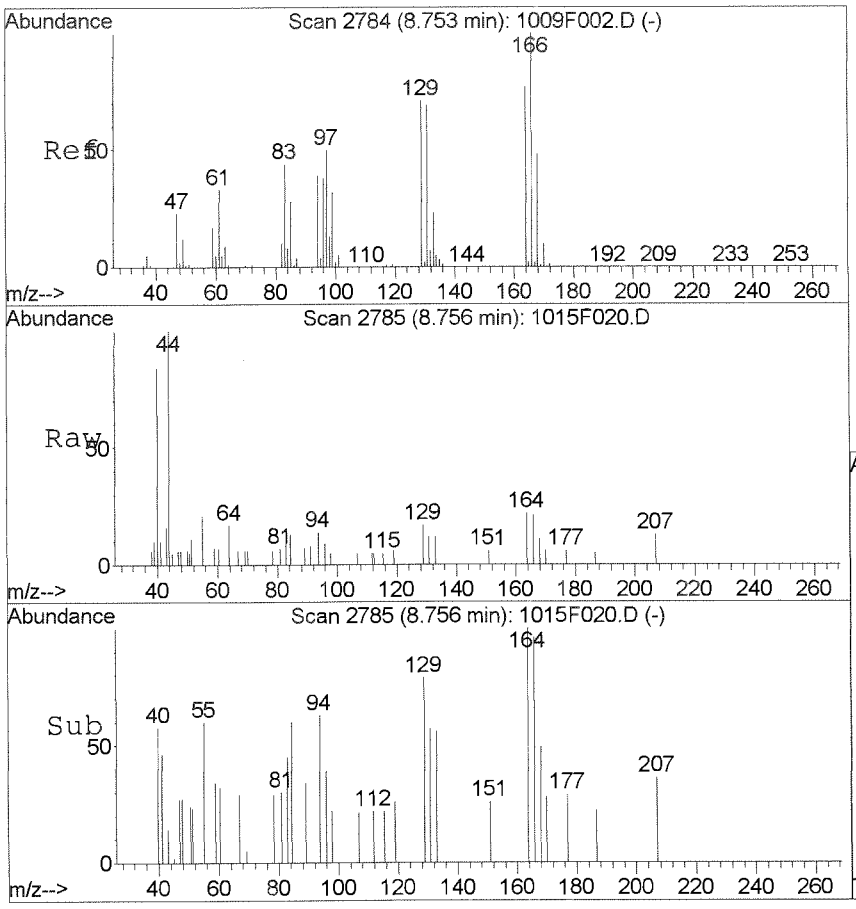


#63
Toluene
Concen: 0.05 PPB
RT: 8.24 min Scan# 2599
Delta R.T. 0.00 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 92 Resp: 3430

Ion	Ratio	Lower	Upper
92	100		
91	146.1	142.0	202.0
65	6.2	0.0	48.9

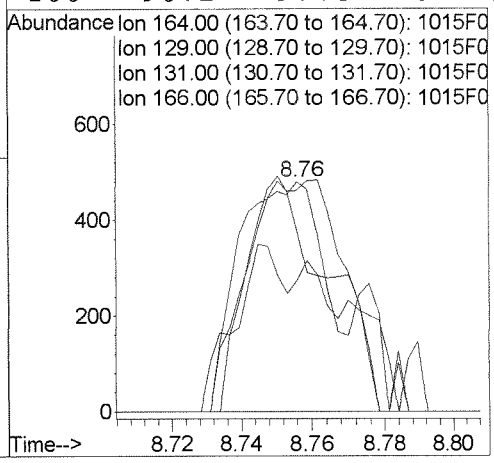


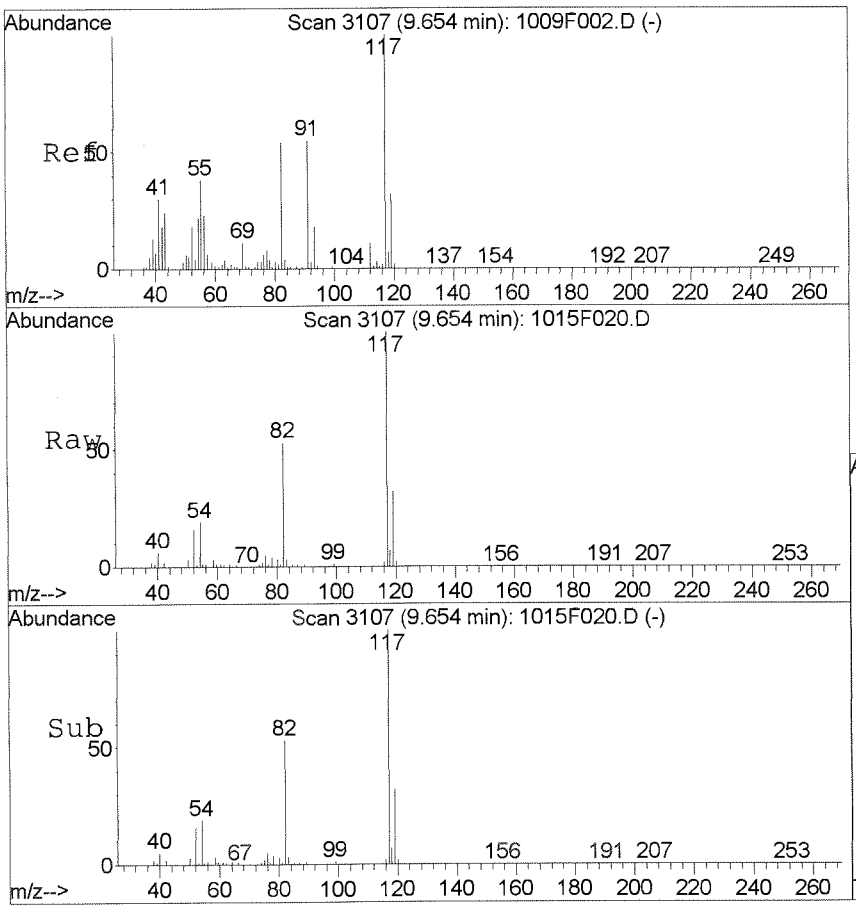


#69
Tetrachloroethene
Concen: 0.04 PPB m
RT: 8.76 min Scan# 2785
Delta R.T. 0.00 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion:164 Resp: 932

Ion	Ratio	Lower	Upper
164	100		
129	79.1	62.3	122.3
131	57.2	58.9	118.9#
166	96.2	97.5	157.5#

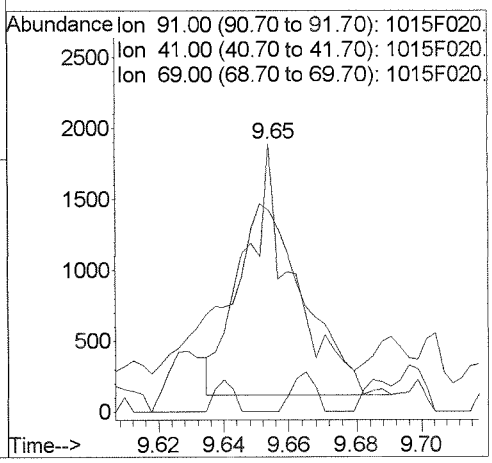




#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.65 min Scan# 3107
Delta R.T. 0.00 min
Lab File: 1015F020.D
Acq: 15 Oct 2014 6:04 pm

Tgt Ion: 91 Resp: 1819

Ion	Ratio	Lower	Upper
91	100		
41	50.3	21.8	81.8
69	0.0	0.0	48.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F021.D
Lab ID: K1410890-009
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 18:31
Date Quantitated: 10/16/2014 09:44
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: [illegible] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F021.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 18:31	**Quant Date:**	10/16/2014 09:44	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-009			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385164	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1048234	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	420762	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	409594	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	5.73	0.00	0.00	113	266392	9.29	93	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1018161	9.71	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	372298	9.74	97	68-117	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	Carbon Tetrachloride	5.80		0.00	117	167604	4.62	4.6		

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

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

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

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

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F021.D Vial: 19
Acq On : 15 Oct 2014 6:31 pm Operator: MK
Sample : K10890-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:40:10 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

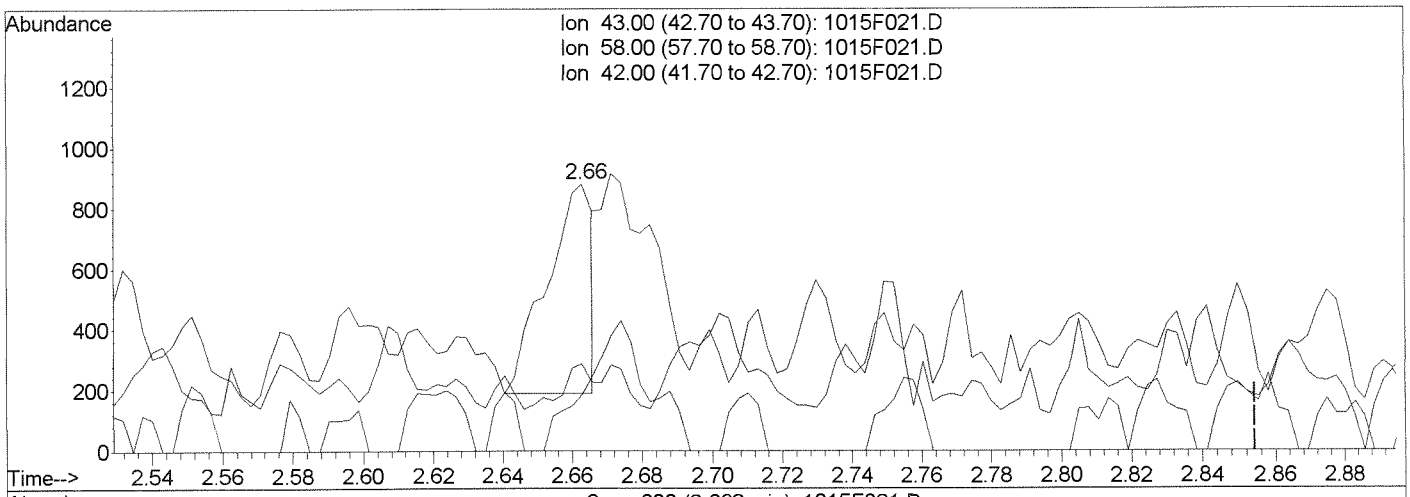
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1048234	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	420762	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	409594	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	266392	9.29	PPB	0.00
Spiked Amount 10.000			Recovery =	92.90%		
47) 1,2-Dichloroethane-d4	6.15	65	253296	9.59	PPB	0.00
Spiked Amount 10.000			Recovery =	95.90%		
62) Toluene-d8	8.16	98	1018161	9.71	PPB	0.00
Spiked Amount 10.000			Recovery =	97.10%		
84) 4-Bromofluorobenzene	10.84	95	372298	9.74	PPB	0.00
Spiked Amount 10.000			Recovery =	97.40%		
Target Compounds						Qvalue
9) Trichlorofluoromethane	1.94	101	3821	0.09	PPB	67
14) Acetone	2.67	43	1512m	0.39	PPB	
21) Methylene Chloride	3.18	84	1557	0.05	PPB	# 70
40) Chloroform	5.52	83	13321	0.28	PPB	97
44) Carbon Tetrachloride	5.80	117	167604	4.62	PPB	97
63) Toluene	8.24	92	3814m	0.06	PPB	
74) 1-Chlorohexane	9.65	91	1809	0.05	PPB	74

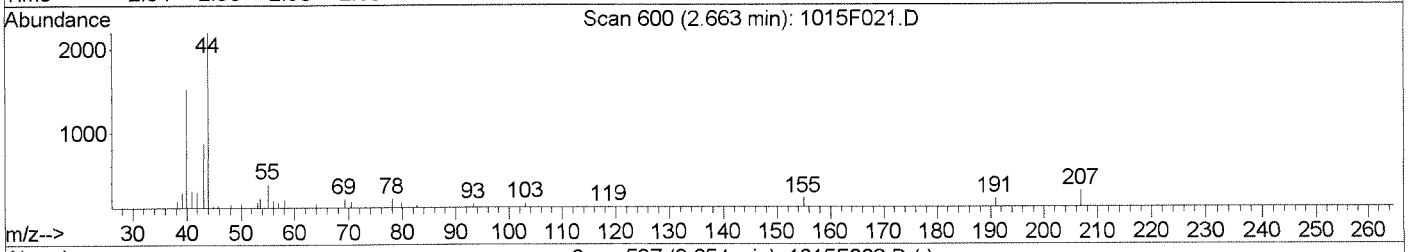
(#) = qualifier out of range (m) = manual integration

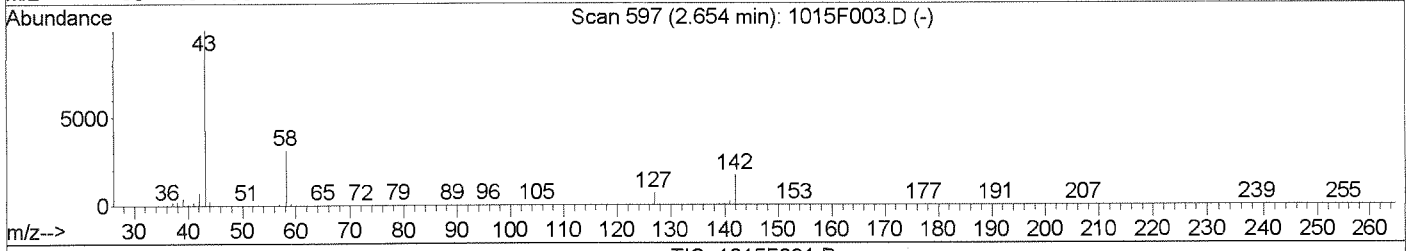
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F021.D Vial: 19
Acq On : 15 Oct 2014 6:31 pm Operator: MK
Sample : K10890-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:40 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F021.D

(14) Acetone (T)

2.66min 0.16PPB

response 624

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	0.00#
42.00	7.10	8.68
0.00	0.00	0.00

Manual Integration:

Before

10/16/14

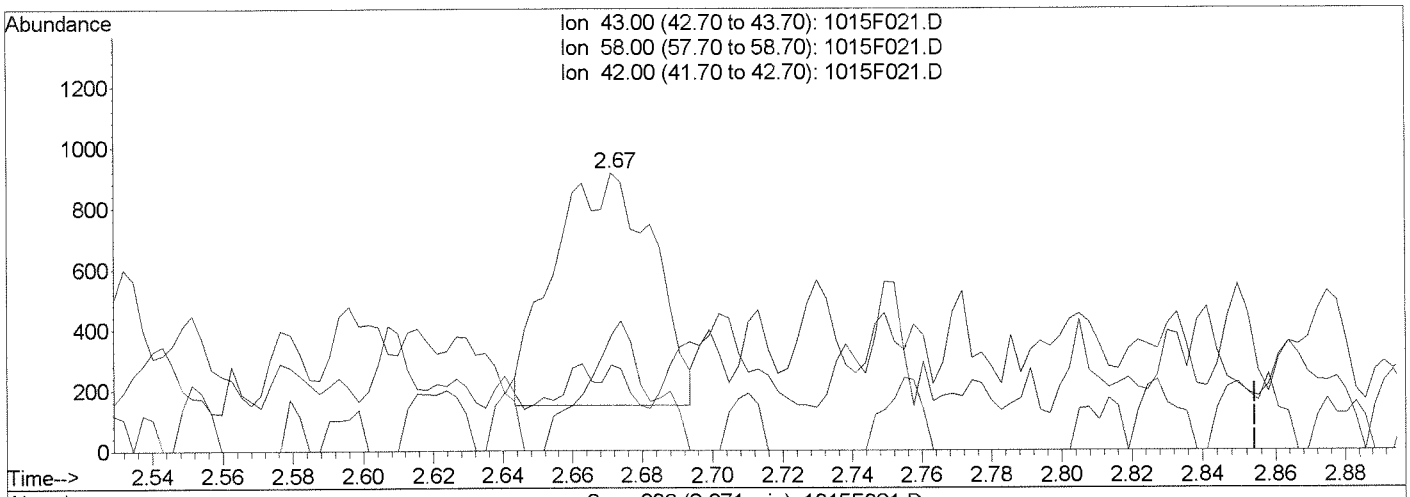
MK

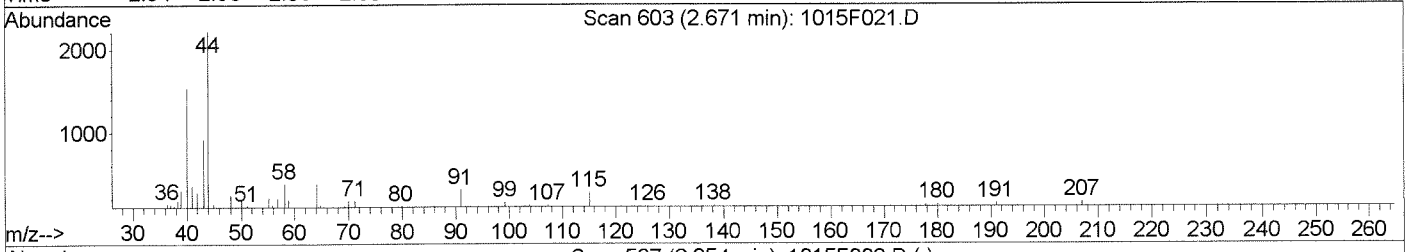
Quantitation Report (Qedit)

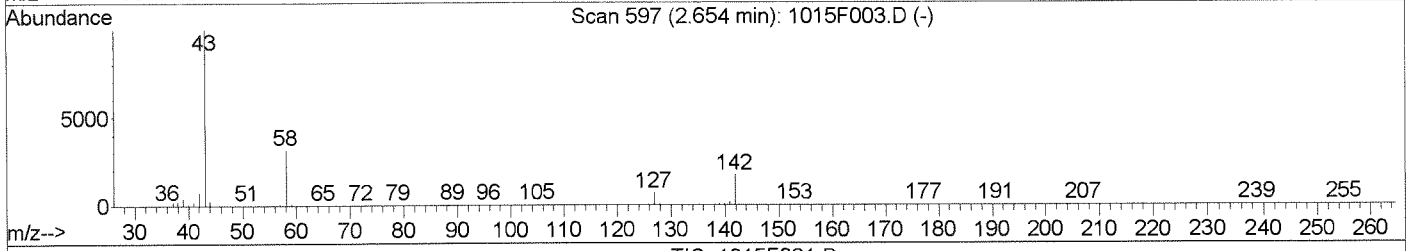
Data File : J:\MS27\DATA\101514\1015F021.D
Acq On : 15 Oct 2014 6:31 pm
Sample : K10890-009
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:41 2014

Vial: 19
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F021.D

(14) Acetone (T)

2.67min 0.39PPB m

response 1512

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	41.64
42.00	7.10	30.93
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/16/14

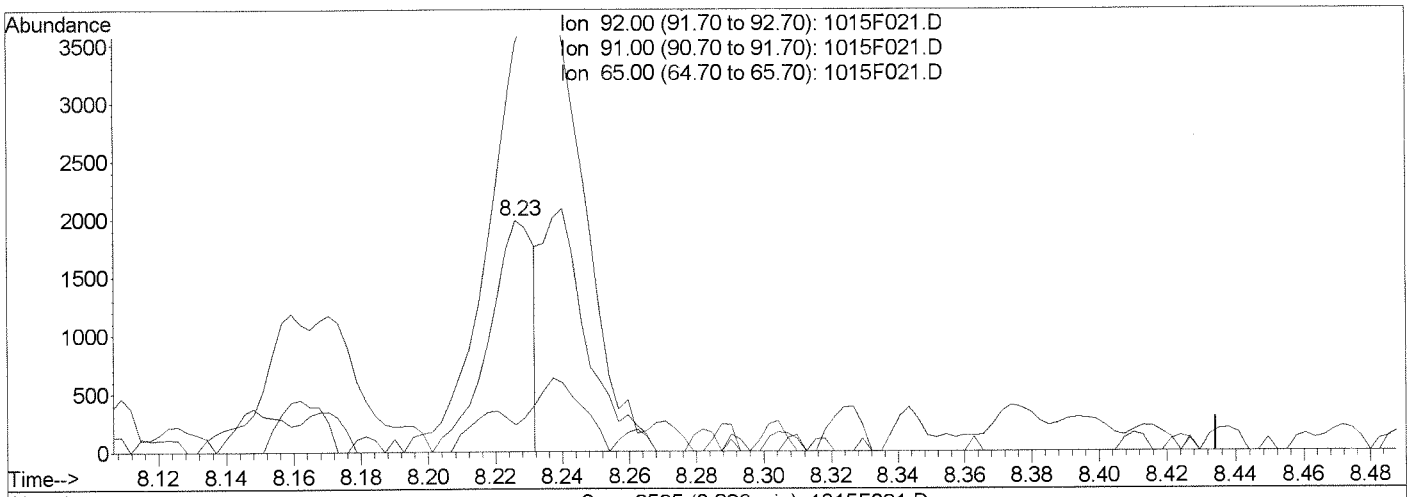
MK

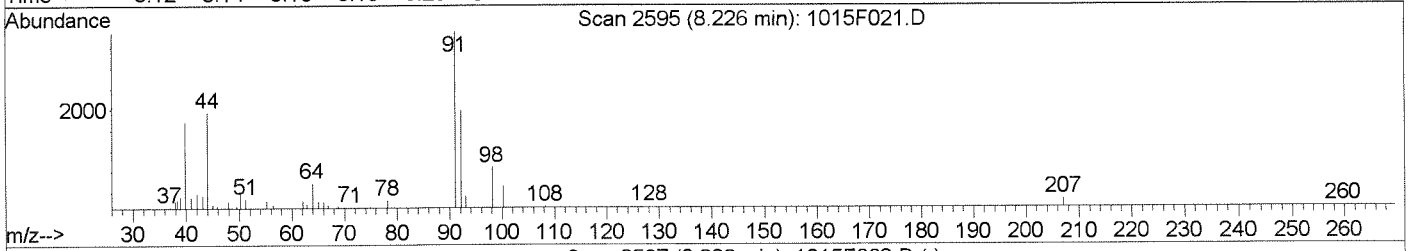
Quantitation Report (Qedit)

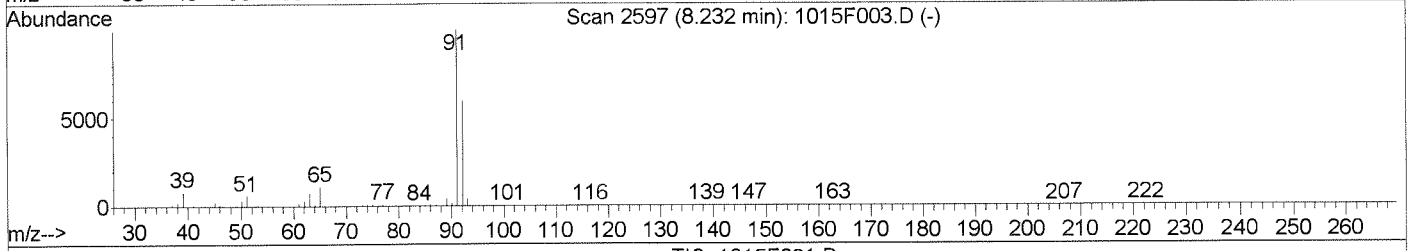
Data File : J:\MS27\DATA\101514\1015F021.D
Acq On : 15 Oct 2014 6:31 pm
Sample : K10890-009
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:42 2014

Vial: 19
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F021.D

(63) Toluene (CMT)

8.23min 0.03PPB

response 1891

Ion	Exp%	Act%
92.00	100	100
91.00	172.00	168.36
65.00	18.90	3.43
0.00	0.00	0.00

Manual Integration:

Before

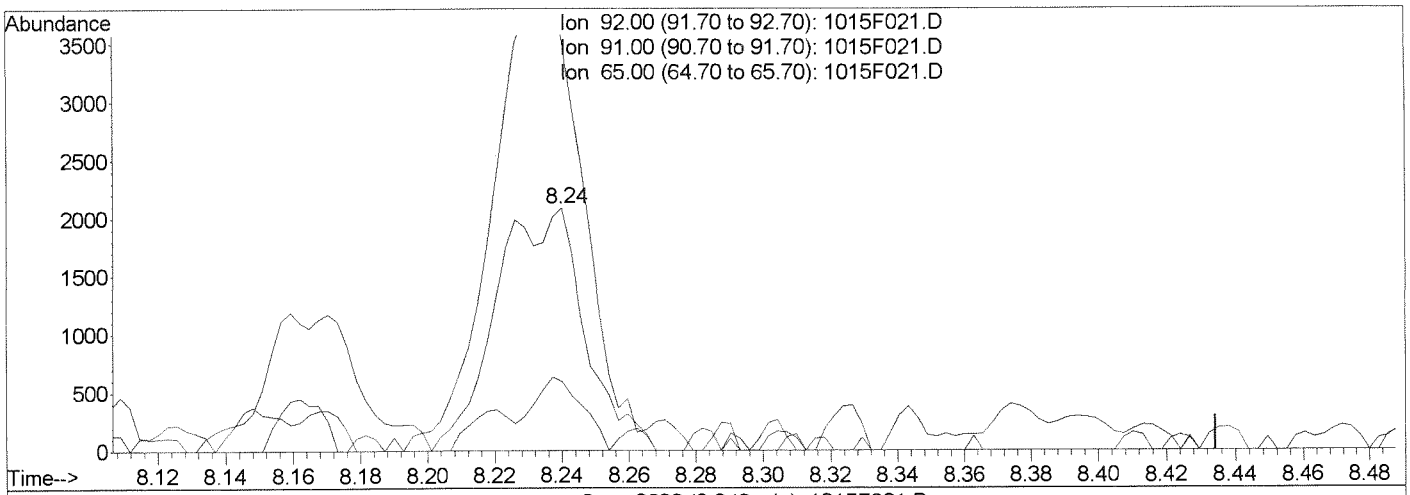
10/16/14

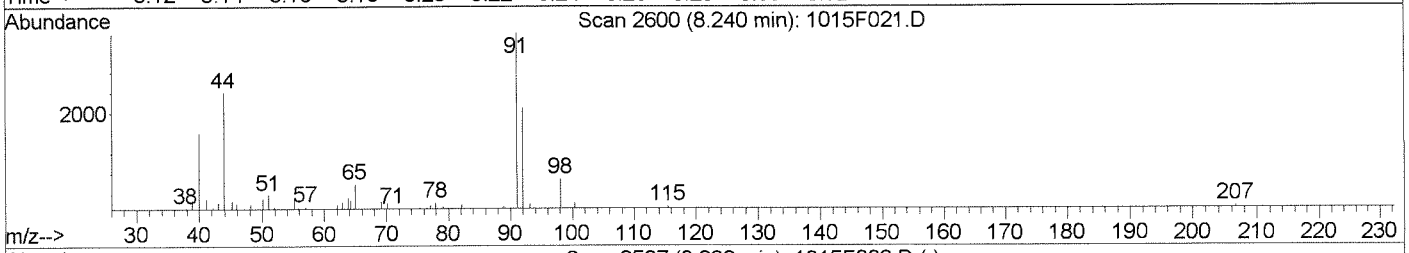
Quantitation Report (Qedit)

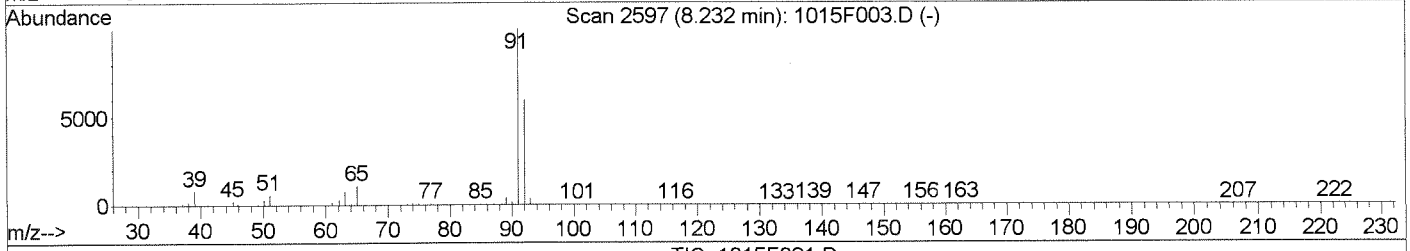
Data File : J:\MS27\DATA\101514\1015F021.D
Acq On : 15 Oct 2014 6:31 pm
Sample : K10890-009
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:43 2014

Vial: 19
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F021.D

(63) Toluene (CMT)

8.24min 0.06PPB m

response 3814

Ion	Exp%	Act%
92.00	100	100
91.00	172.00	171.22
65.00	18.90	28.39
0.00	0.00	0.00

Manual Integration:

After

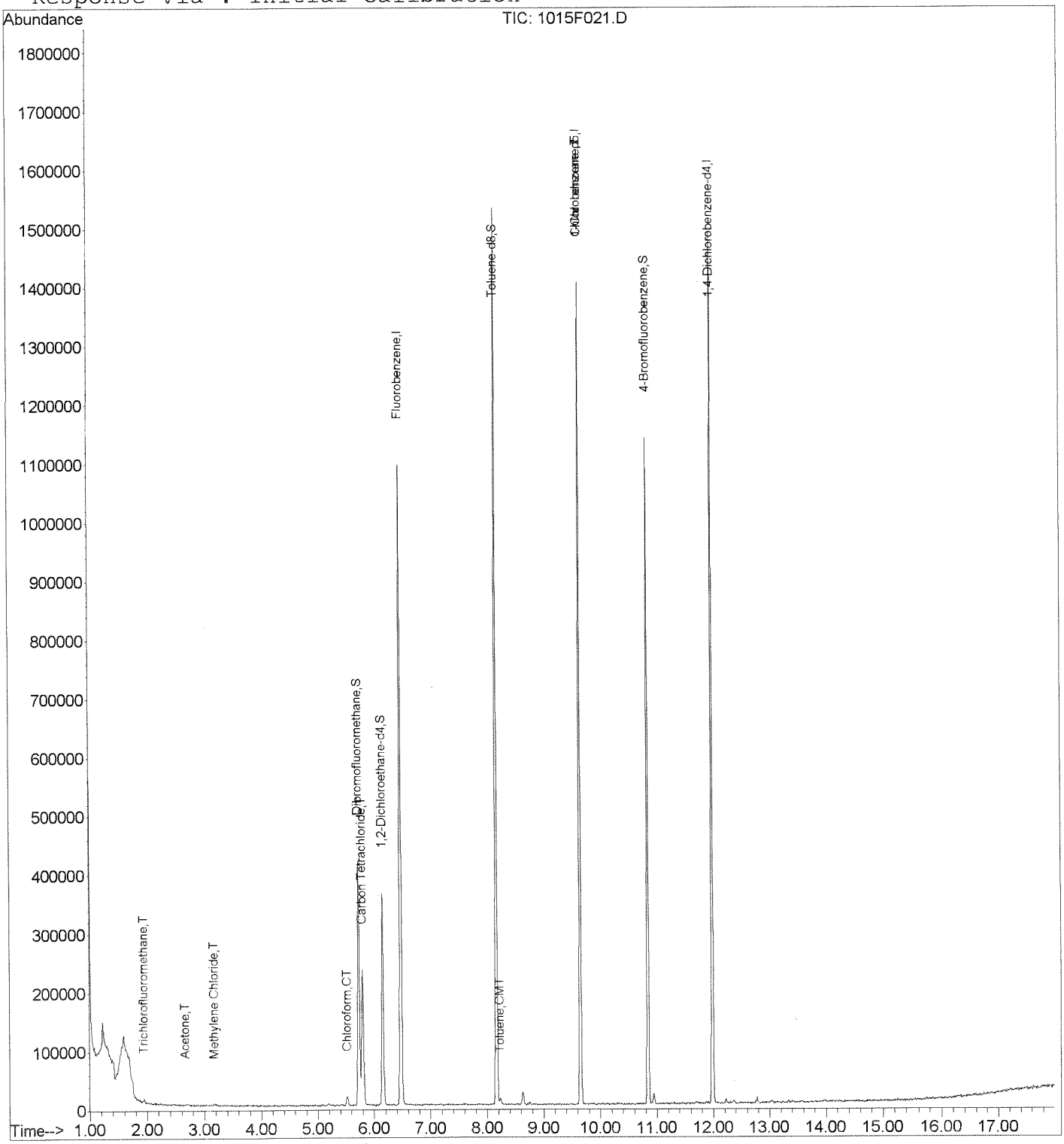
Baseline correction

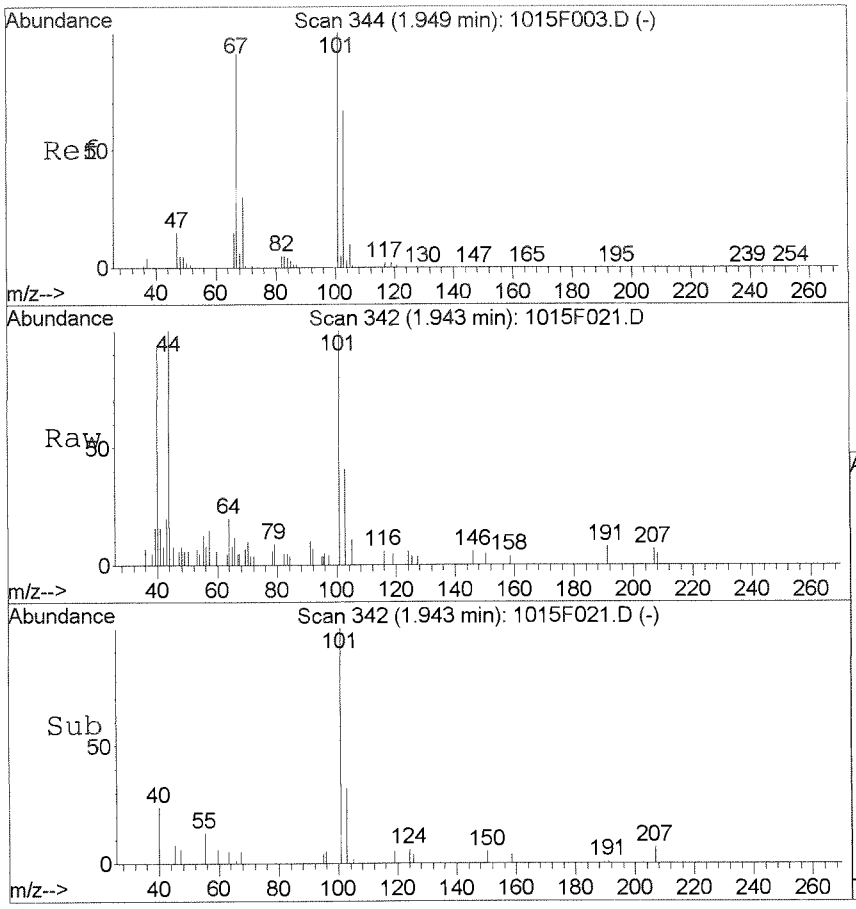
10/16/14

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F021.D Vial: 19
Acq On : 15 Oct 2014 6:31 pm Operator: MK
Sample : K10890-009 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:44 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration

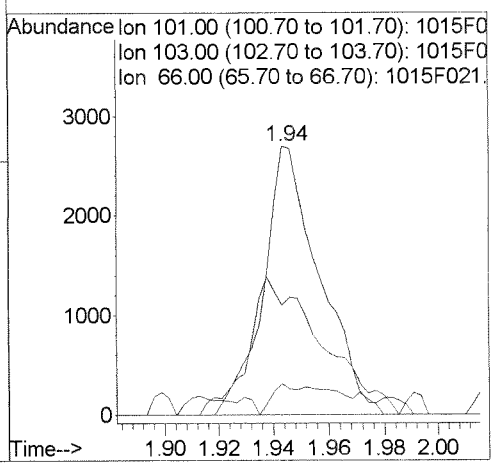


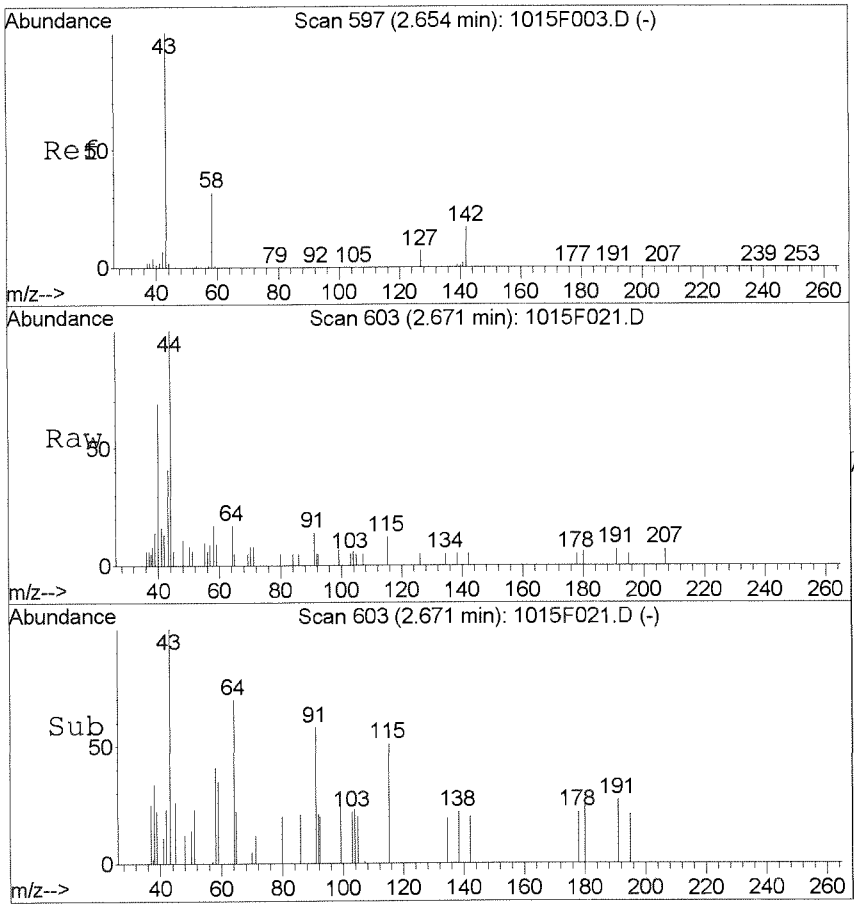


#9
Trichlorofluoromethane
Concen: 0.09 PPB
RT: 1.94 min Scan# 342
Delta R.T. -0.01 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion:101 Resp: 3821

Ion	Ratio	Lower	Upper
101	100		
103	36.5	34.4	94.4
66	5.6	0.0	44.4

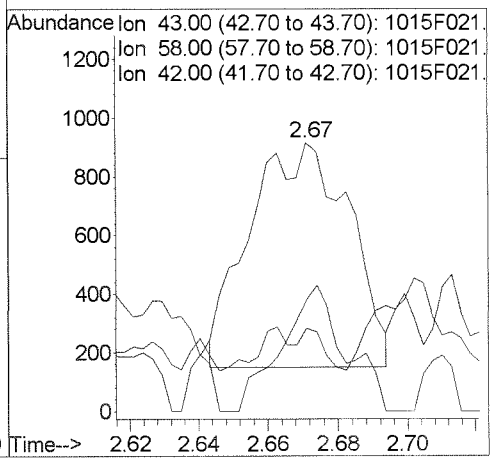


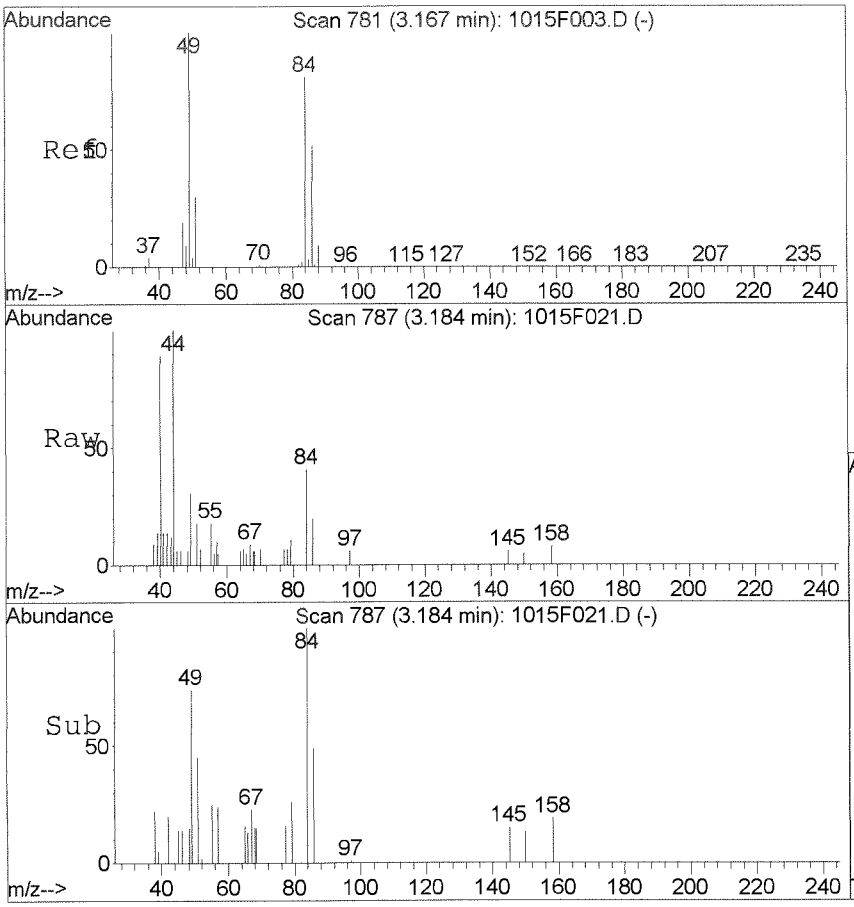


#14
Acetone
Concen: 0.39 PPB m
RT: 2.67 min Scan# 603
Delta R.T. 0.02 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion: 43 Resp: 1512

Ion	Ratio	Lower	Upper
43	100		
58	41.6	0.9	60.9
42	30.9	0.0	37.1

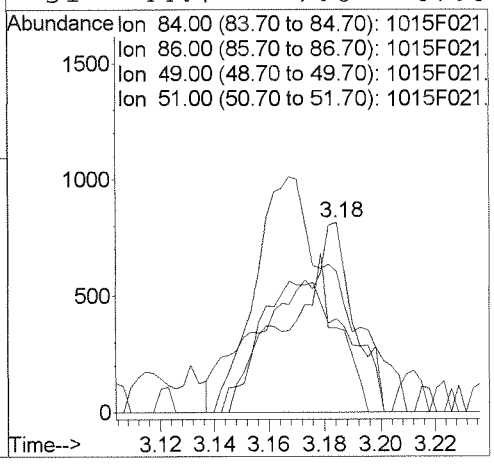


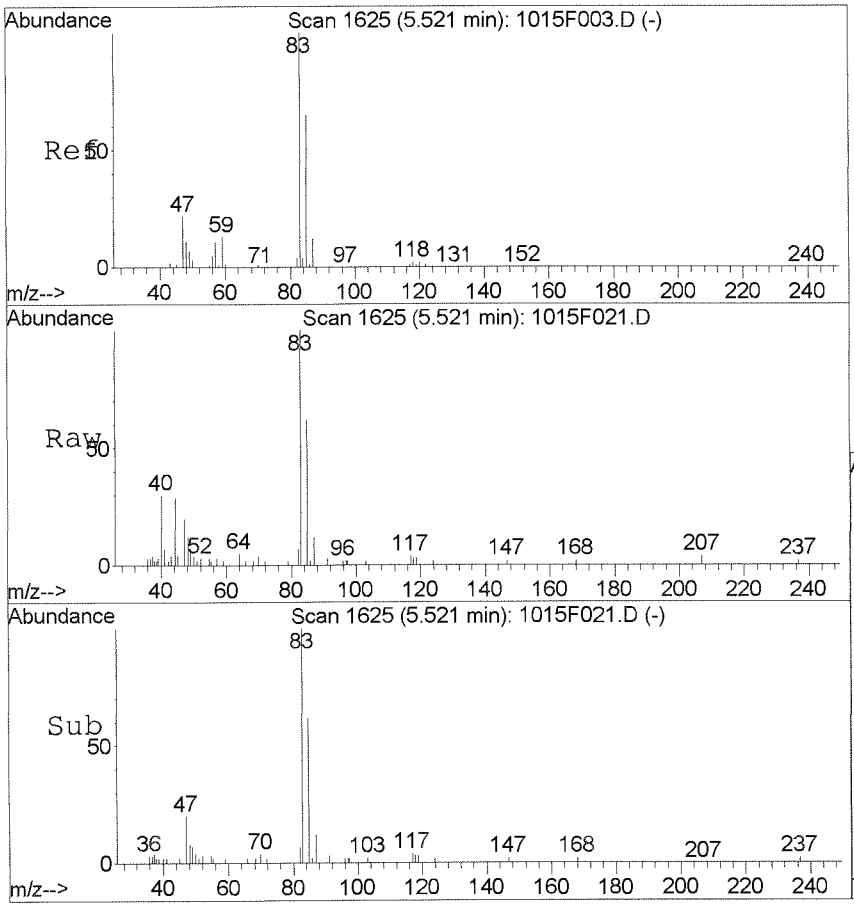


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.18 min Scan# 787
Delta R.T. 0.01 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion: 84 Resp: 1557

Ion	Ratio	Lower	Upper
84	100		
86	49.3	33.9	93.9
49	74.0	90.6	150.6#
51	44.7	7.6	67.6

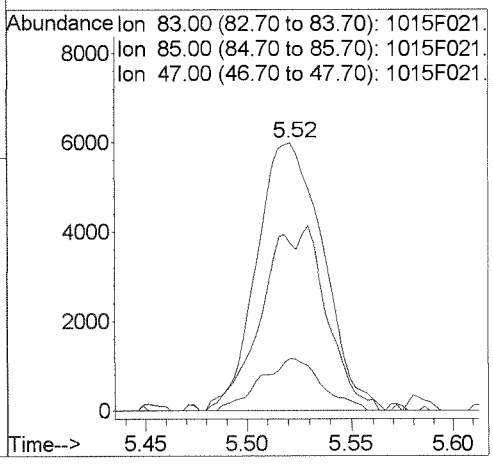


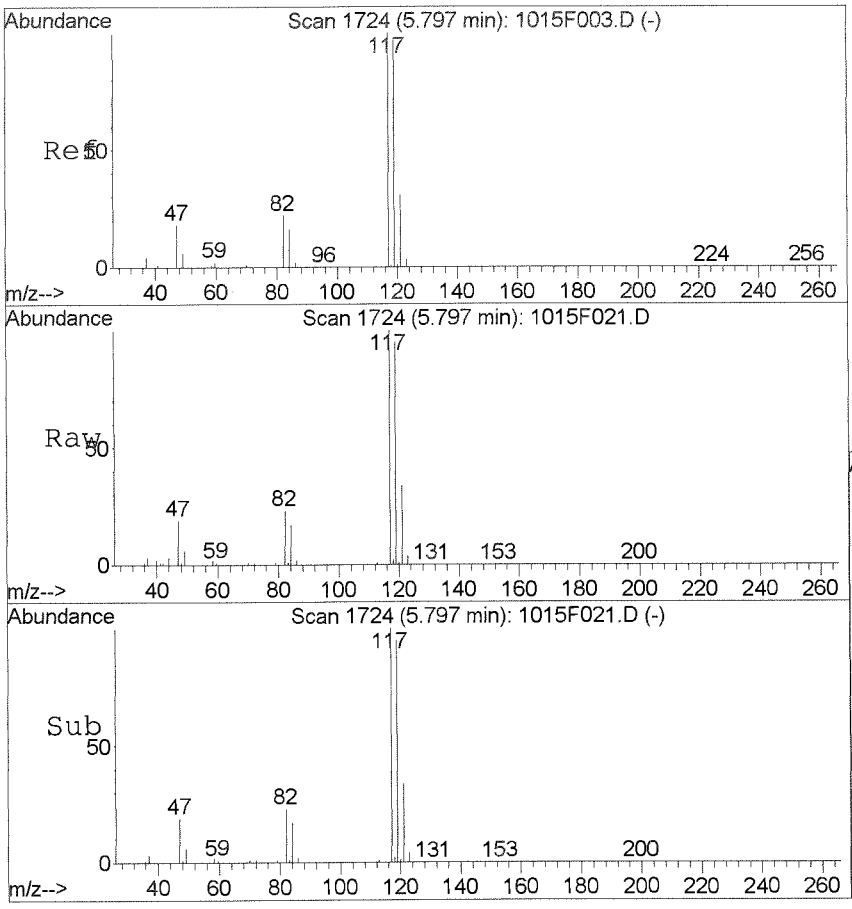


#40
Chloroform
Concen: 0.28 PPB
RT: 5.52 min Scan# 1625
Delta R.T. 0.00 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion: 83 Resp: 13321

Ion	Ratio	Lower	Upper
83	100		
85	62.2	33.2	93.2
47	19.6	0.0	52.9

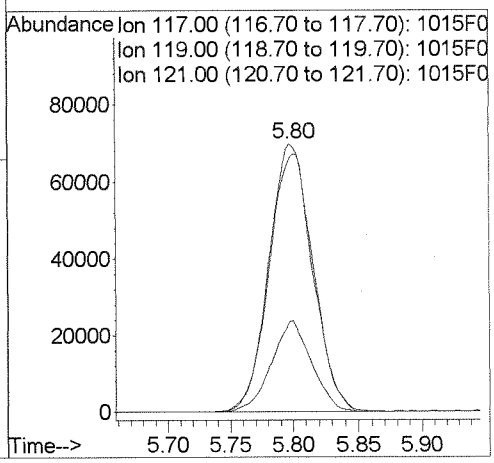


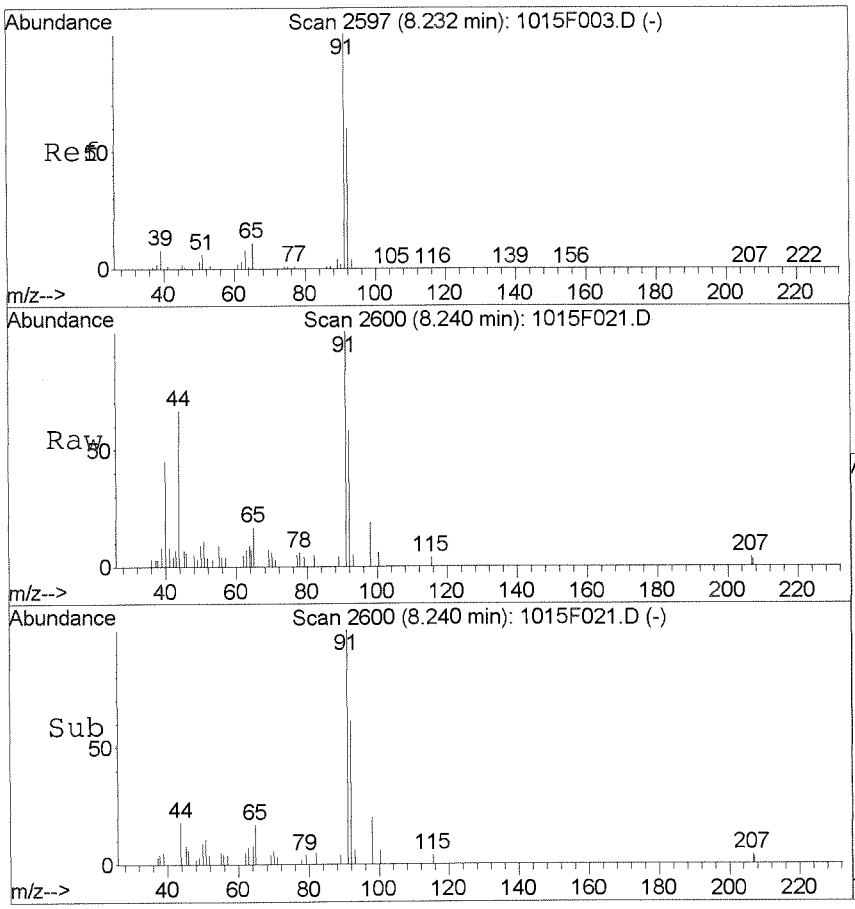


#44
Carbon Tetrachloride
Concen: 4.62 PPB
RT: 5.80 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion:117 Resp: 167604

Ion	Ratio	Lower	Upper
117	100		
119	94.7	66.6	126.6
121	33.9	0.5	60.5

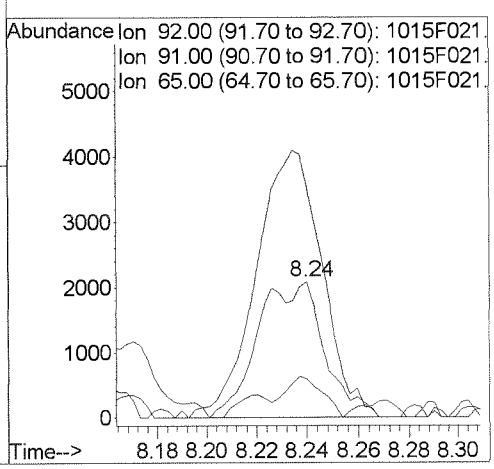


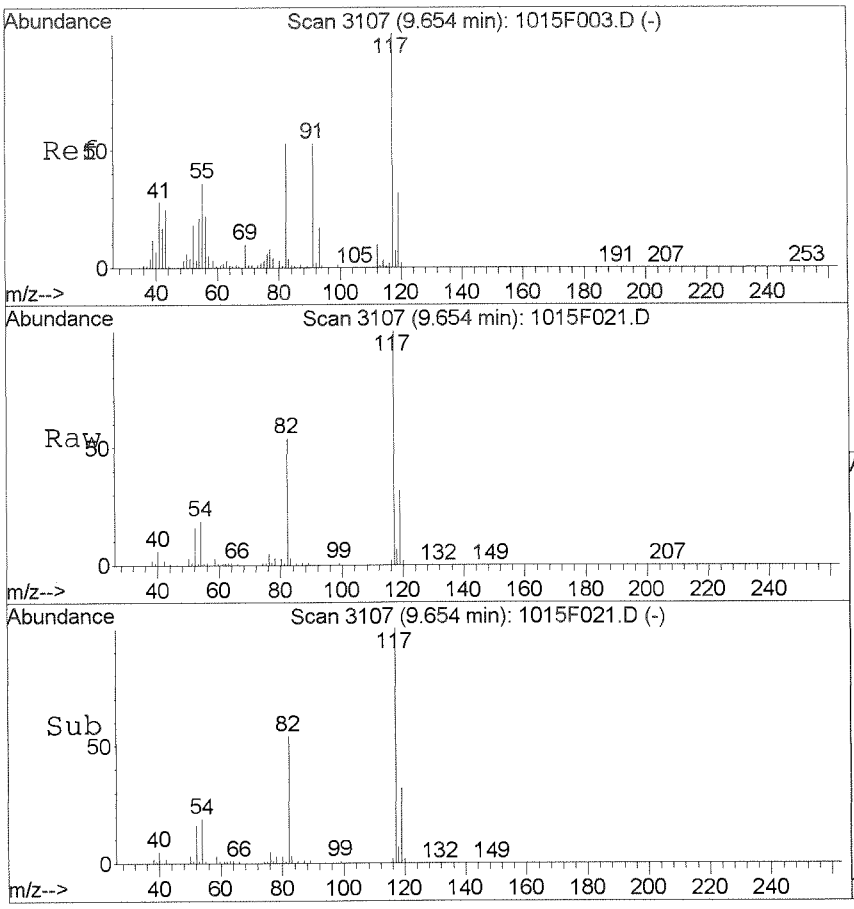


#63
Toluene
Concen: 0.06 PPB m
RT: 8.24 min Scan# 2600
Delta R.T. 0.01 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion: 92 Resp: 3814

Ion	Ratio	Lower	Upper
92	100		
91	171.2	142.0	202.0
65	28.4	0.0	48.9

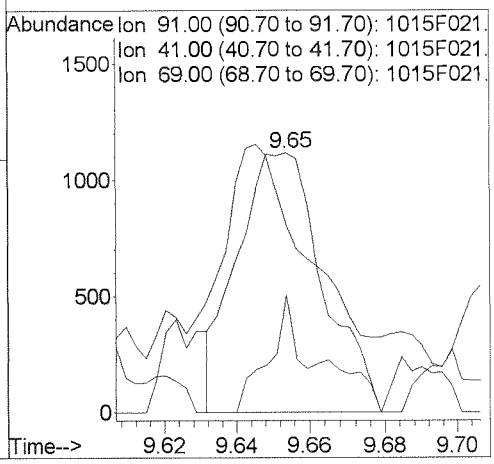




#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.65 min Scan# 3107
Delta R.T. 0.00 min
Lab File: 1015F021.D
Acq: 15 Oct 2014 6:31 pm

Tgt Ion: 91 Resp: 1809

Ion	Ratio	Lower	Upper
91	100		
41	41.8	21.8	81.8
69	45.1	0.0	48.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F022.D
Lab ID: K1410890-010
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 18:59
Date Quantitated: 10/16/2014 09:57
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: [illegible] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F022.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 18:59	**Quant Date:**	10/16/2014 09:57	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-010			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/03/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385165	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1047354	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	422511	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	403460	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	5.73	0.00	0.00	113	264728	9.24	92	73-122	OK
1	Toluene-d8	8.16	0.00	0.00	98	1017446	9.71	97	65-144	OK
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	368334	9.60	96	68-117	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	Carbon Tetrachloride				117	0d		0.096	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\101514\1015F022.D Vial: 20
Acq On : 15 Oct 2014 6:59 pm Operator: MK
Sample : K10890-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 09:45:55 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

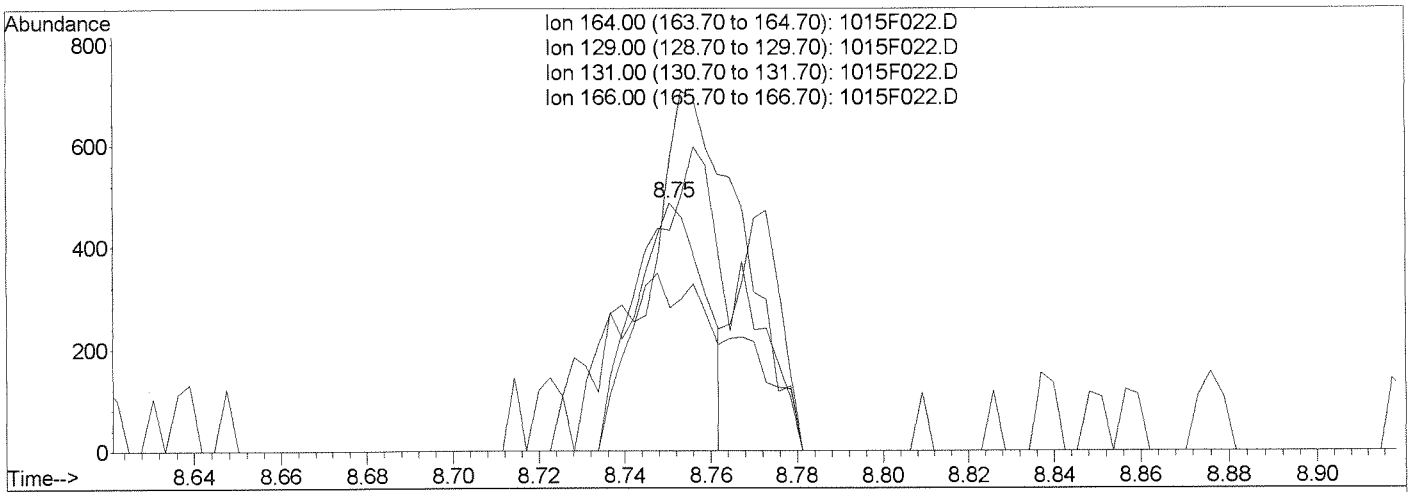
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1047354	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	422511	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	403460	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	264728	9.24	PPB		0.00
Spiked Amount 10.000			Recovery =	92.40%			
47) 1,2-Dichloroethane-d4	6.15	65	258174	9.78	PPB		0.00
Spiked Amount 10.000			Recovery =	97.80%			
62) Toluene-d8	8.16	98	1017446	9.71	PPB		0.00
Spiked Amount 10.000			Recovery =	97.10%			
84) 4-Bromofluorobenzene	10.84	95	368334	9.60	PPB		0.00
Spiked Amount 10.000			Recovery =	96.00%			
Target Compounds							Qvalue
3) Chloromethane	1.27	50	991	0.03	PPB		80
6) Bromomethane	1.65	96	630	Below Cal		#	48
14) Acetone	2.65	43	787	0.20	PPB		70
21) Methylene Chloride	3.17	84	1065	0.04	PPB	#	75
40) Chloroform	5.52	83	1717	0.04	PPB	#	58
63) Toluene	8.23	92	9578	0.14	PPB		87
69) Tetrachloroethene	8.75	164	997m	0.04	PPB		
74) 1-Chlorohexane	9.65	91	1853	0.05	PPB		88
78) m,p-Xylenes	9.89	106	3936	0.08	PPB		90
79) o-Xylene	10.28	106	1390	0.03	PPB	#	79
95) 1,2,4-Trimethylbenzene	11.61	105	3668	0.04	PPB		90
106) Naphthalene	14.23	128	2469	0.04	PPB		89

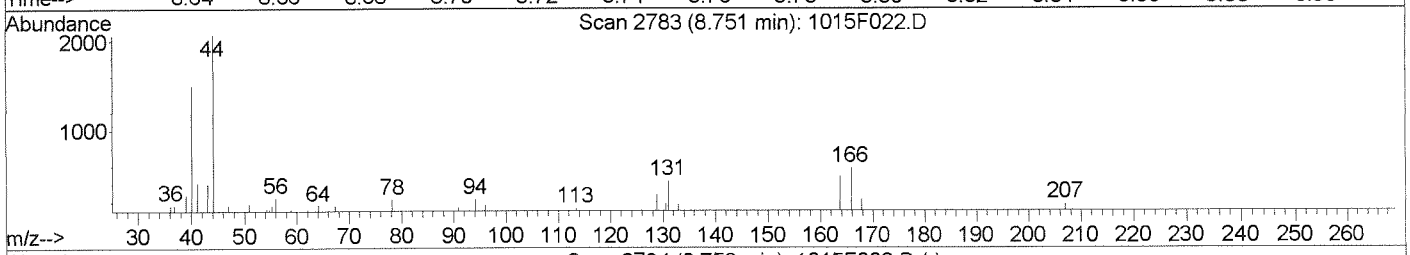
(#) = qualifier out of range (m) = manual integration

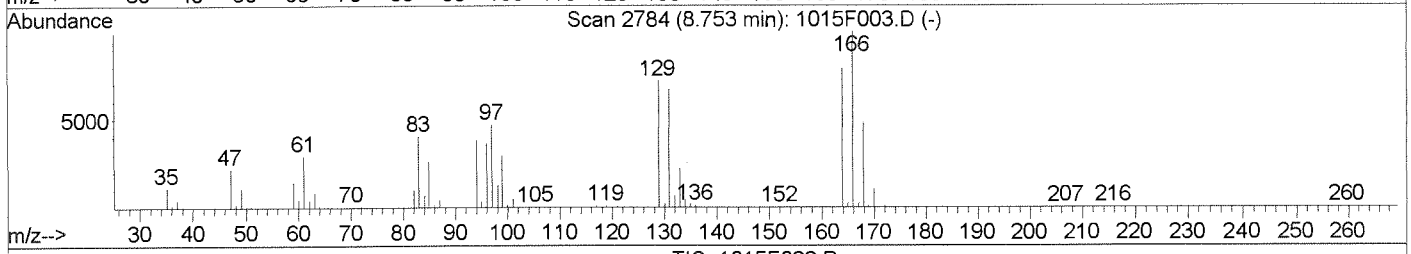
Data File : J:\MS27\DATA\101514\1015F022.D
Acq On : 15 Oct 2014 6:59 pm
Sample : K10890-010
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 16 9:55 2014

Vial: 20
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F022.D

(69) Tetrachloroethene (T)

8.75min 0.03PPB

response 664

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	57.61#
131.00	88.90	88.89
166.00	127.50	88.48#

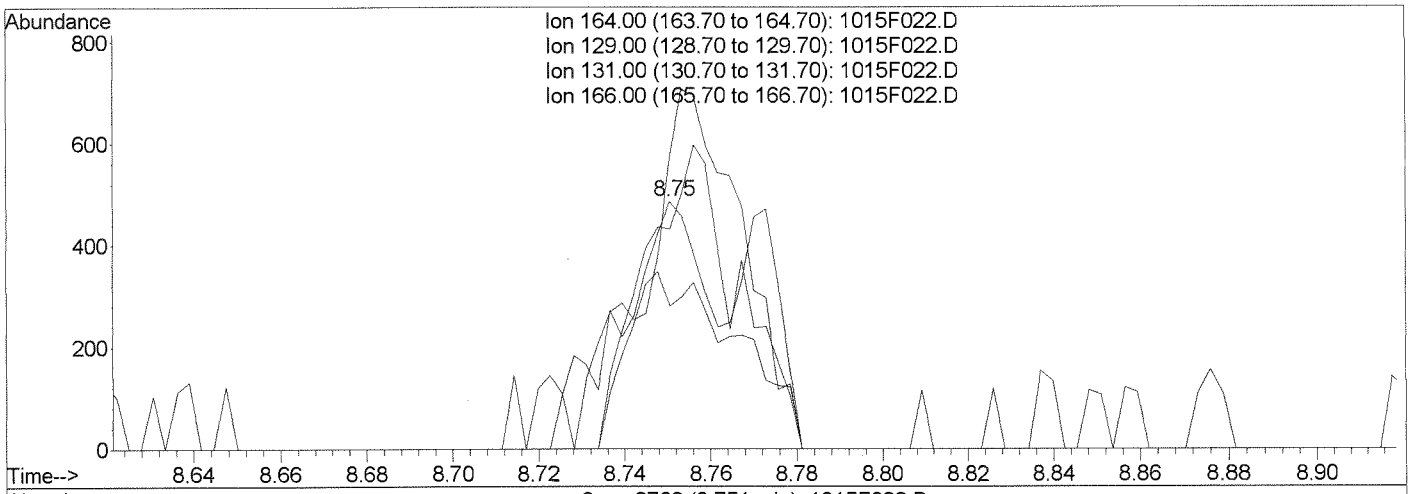
Manual Integration:

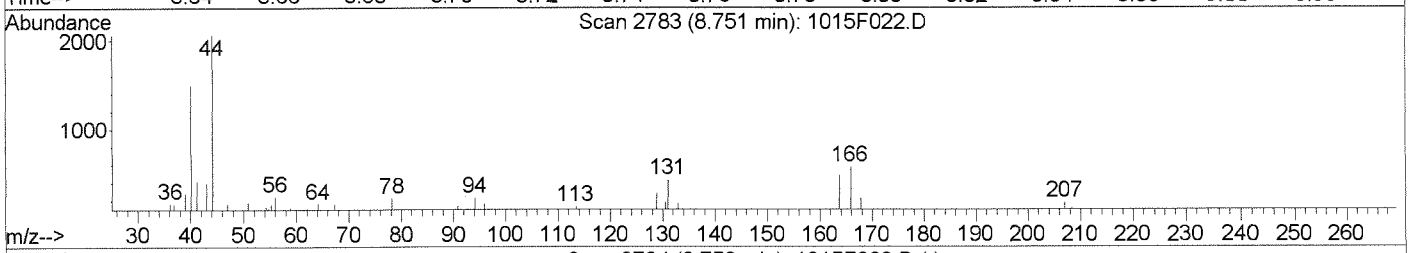
Before

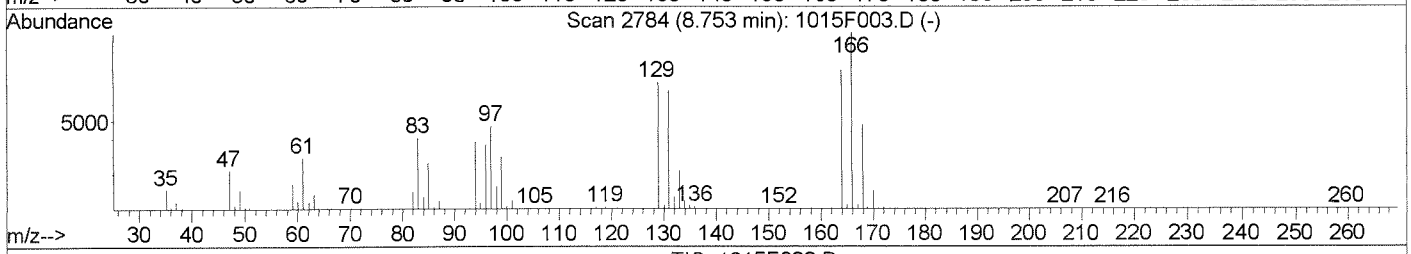
10/16/14

Data File : J:\MS27\DATA\101514\1015F022.D Vial: 20
Acq On : 15 Oct 2014 6:59 pm Operator: MK
Sample : K10890-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:56 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F022.D

(69) Tetrachloroethene (T)

8.75min 0.04PPB m

response 997

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	57.61#
131.00	88.90	88.89
166.00	127.50	118.11

Manual Integration:

After

Baseline correction

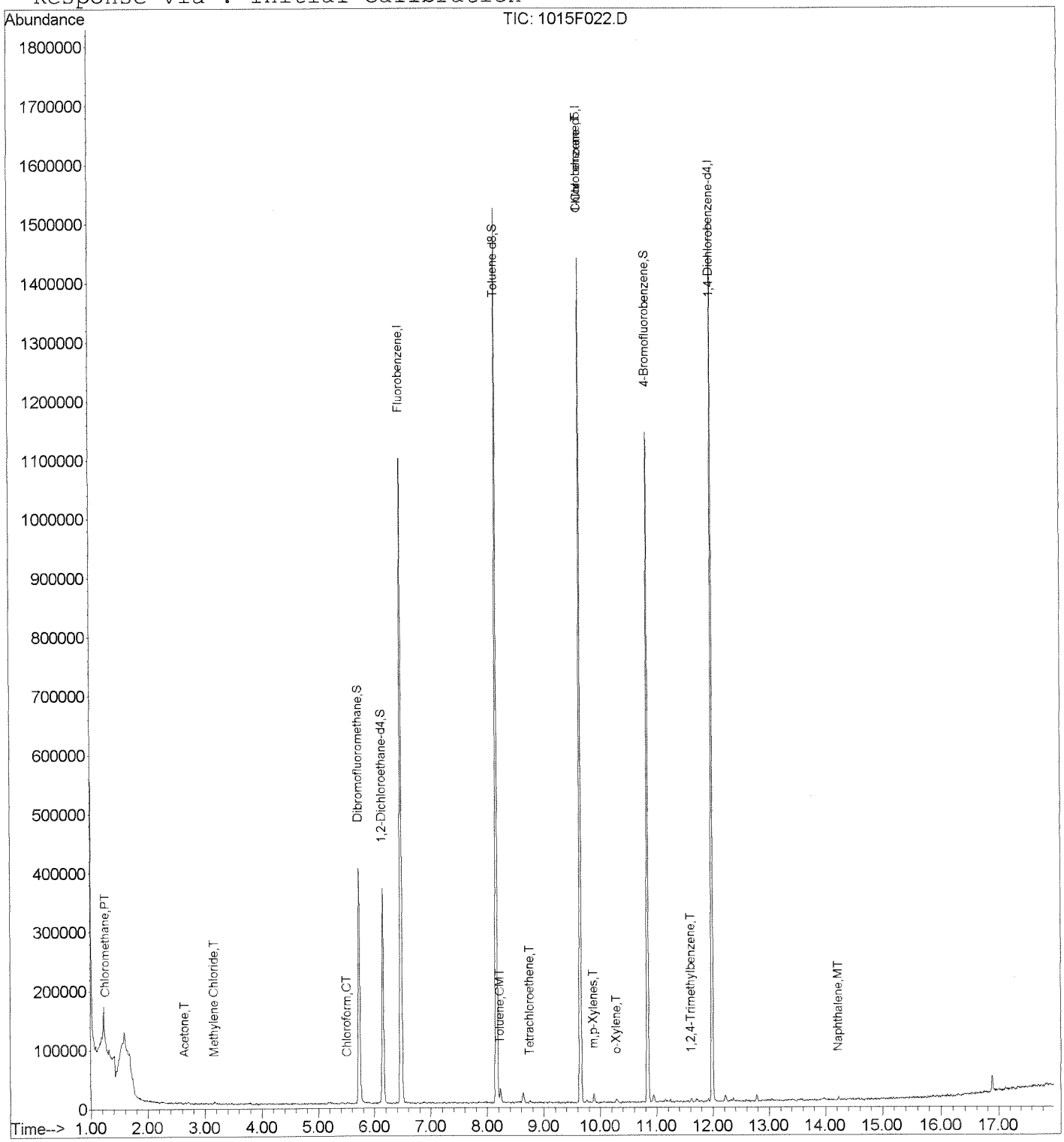
10/16/14

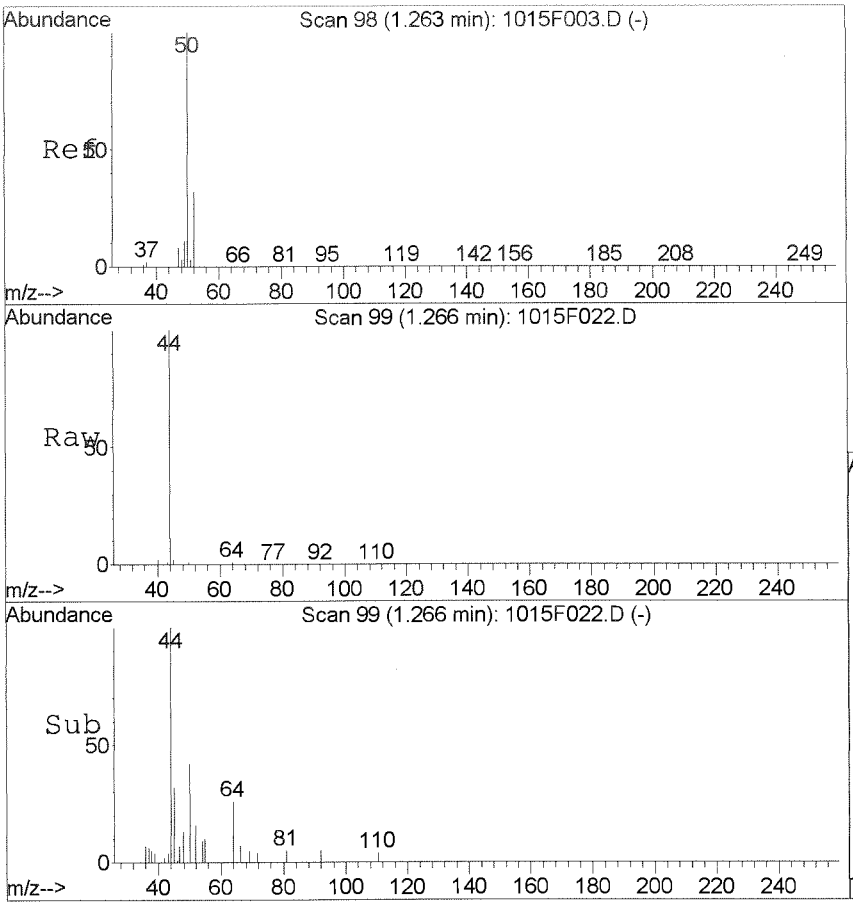
MC 10/16/14

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F022.D Vial: 20
Acq On : 15 Oct 2014 6:59 pm Operator: MK
Sample : K10890-010 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 9:57 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration

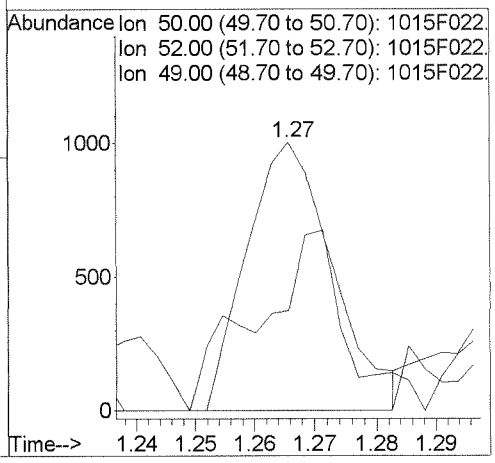


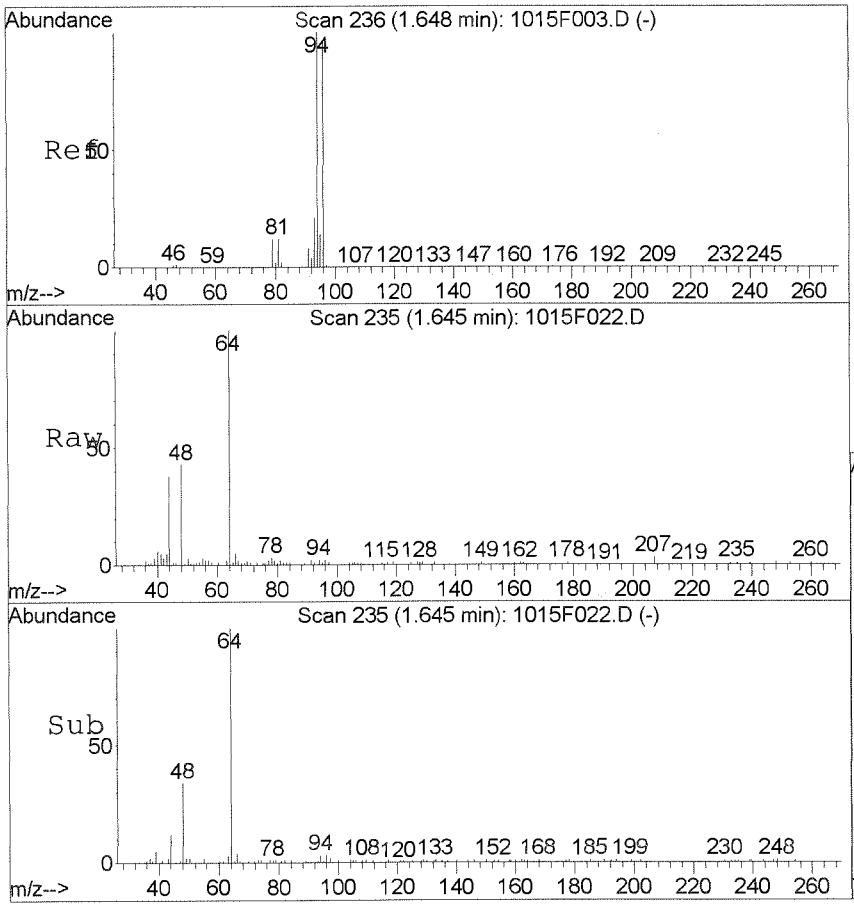


#3
Chloromethane
Concen: 0.03 PPB
RT: 1.27 min Scan# 99
Delta R.T. 0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 50 Resp: 991

Ion	Ratio	Lower	Upper
50	100		
52	23.1	3.4	63.4
49	0.0	0.0	40.1

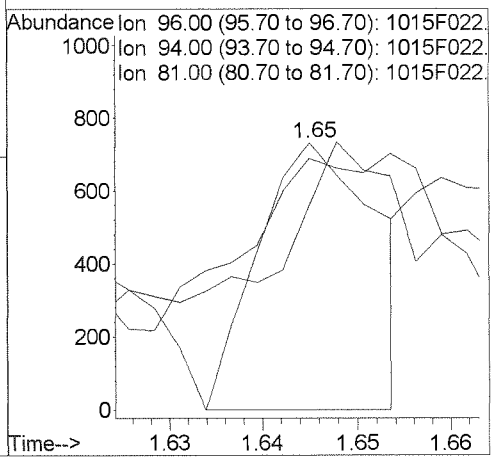


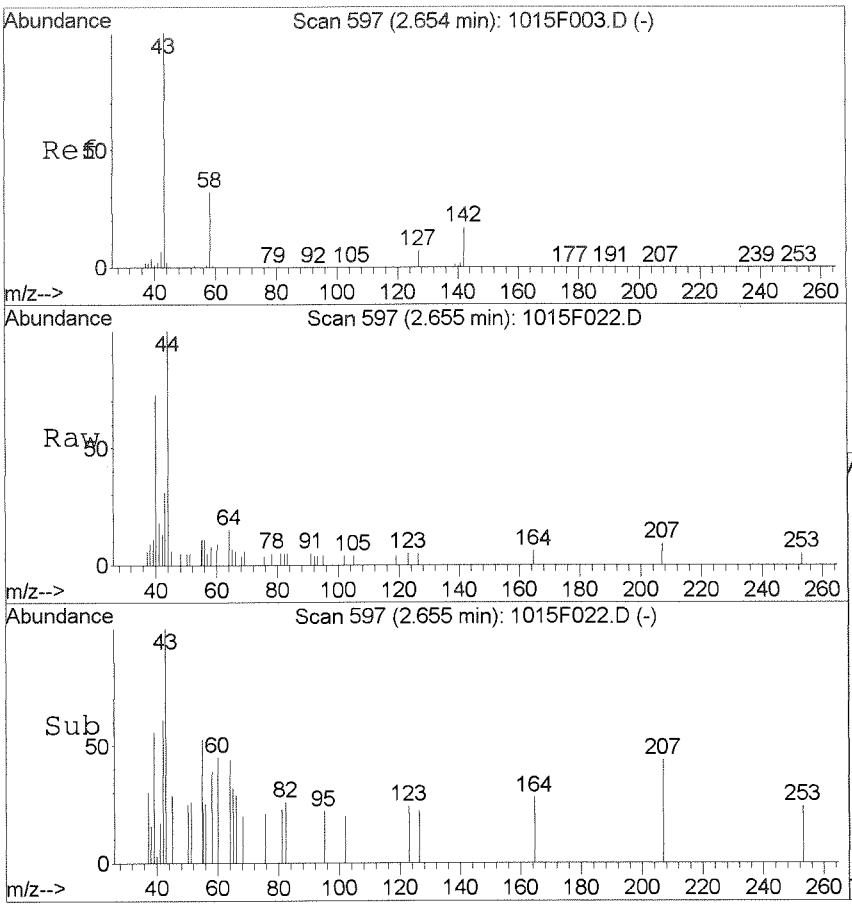


#6
Bromomethane
Concen: Below Cal
RT: 1.65 min Scan# 235
Delta R.T. -0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 96 Resp: 630

Ion	Ratio	Lower	Upper
96	100		
94	56.1	77.8	137.8#
81	43.3	0.0	43.8

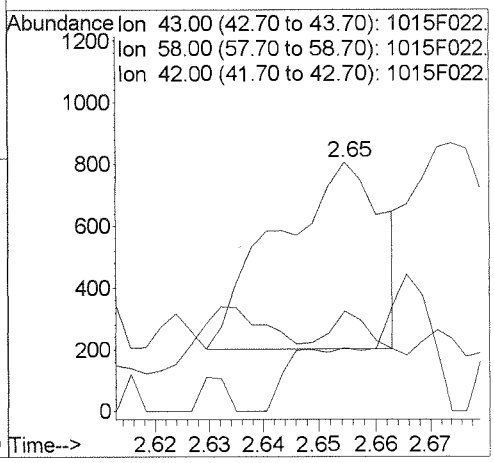


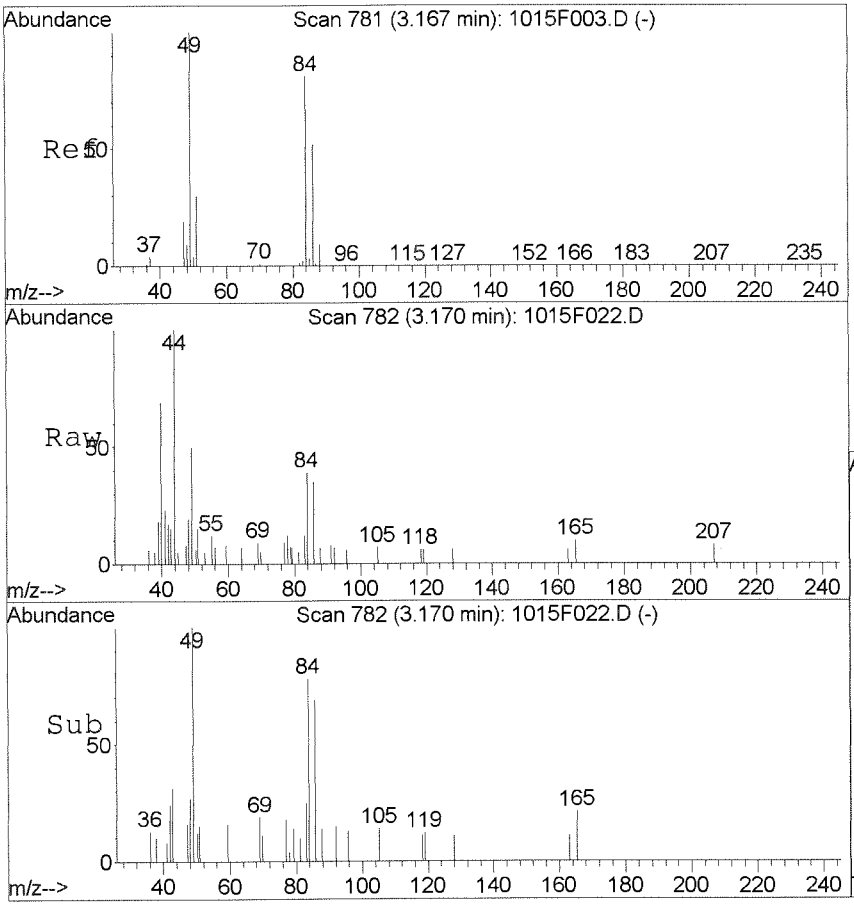


#14
Acetone
Concen: 0.20 PPB
RT: 2.65 min Scan# 597
Delta R.T. 0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 43 Resp: 787

Ion	Ratio	Lower	Upper
43	100		
58	15.6	0.9	60.9
42	20.0	0.0	37.1

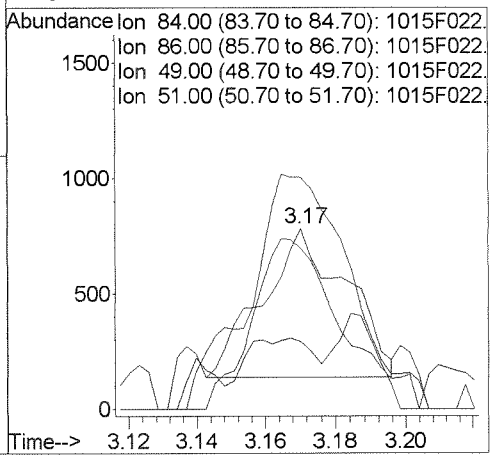


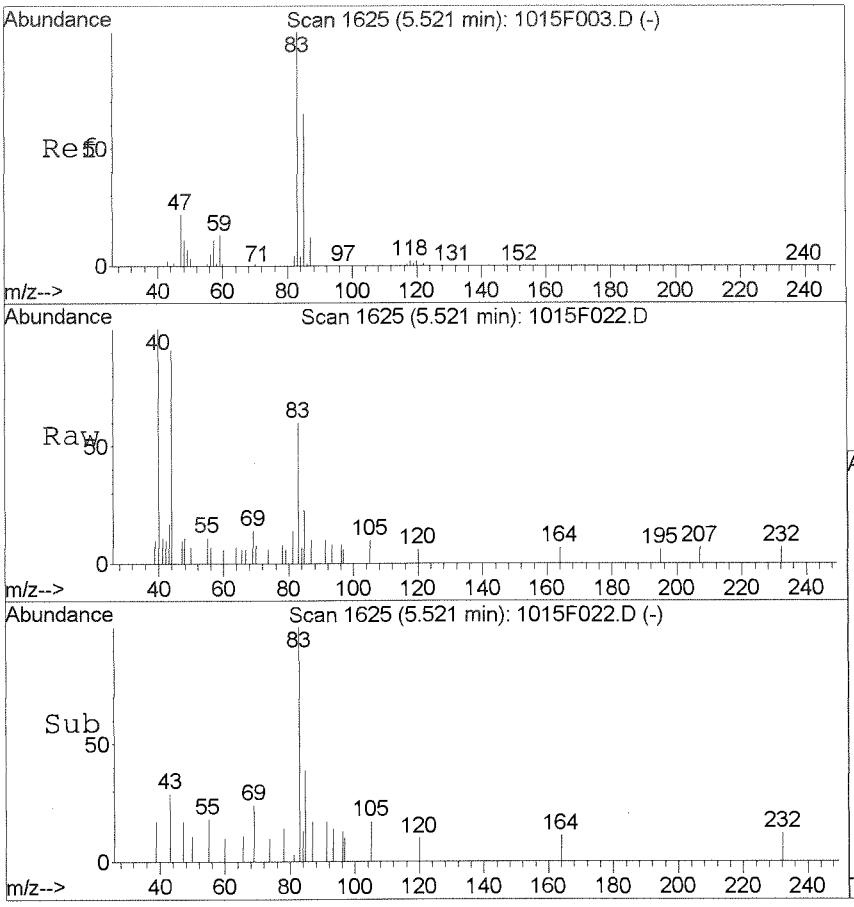


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 3.17 min Scan# 782
Delta R.T. 0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 84 Resp: 1065

Ion	Ratio	Lower	Upper
84	100		
86	107.9	33.9	93.9#
49	132.4	90.6	150.6
51	27.6	7.6	67.6

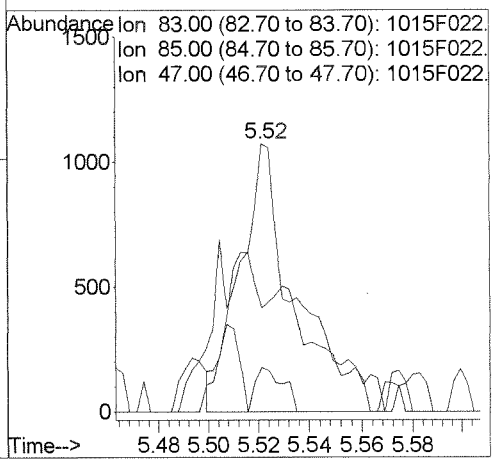


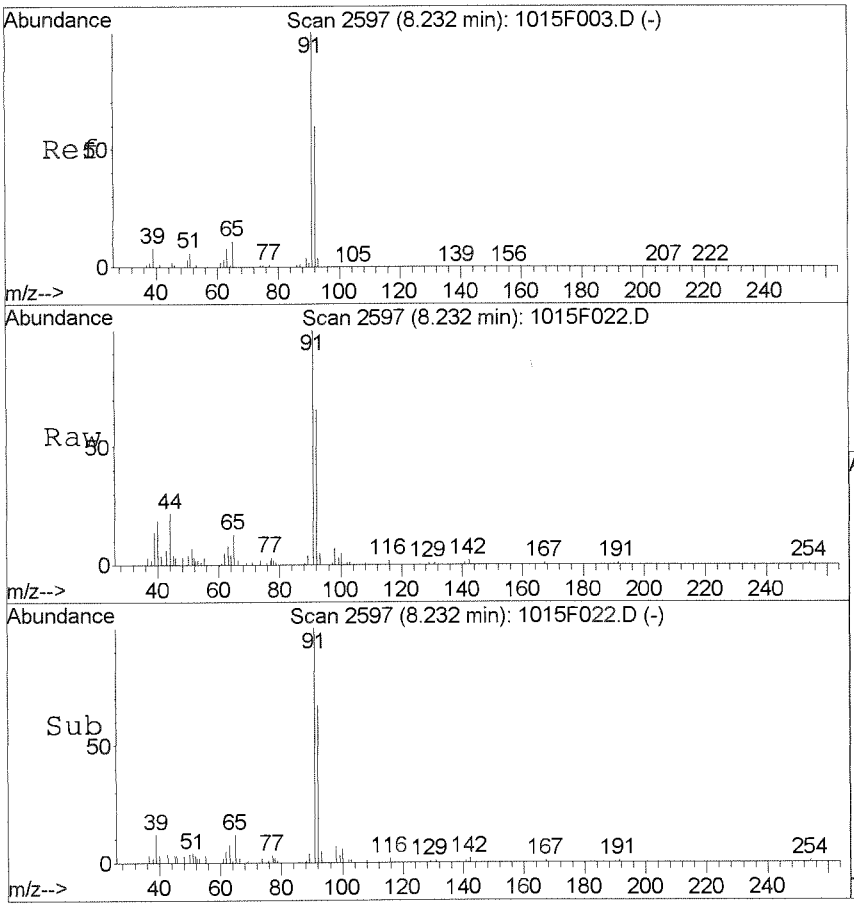


#40
Chloroform
Concen: 0.04 PPB
RT: 5.52 min Scan# 1625
Delta R.T. 0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 83 Resp: 1717

Ion	Ratio	Lower	Upper
83	100		
85	27.9	33.2	93.2#
47	6.5	0.0	52.9

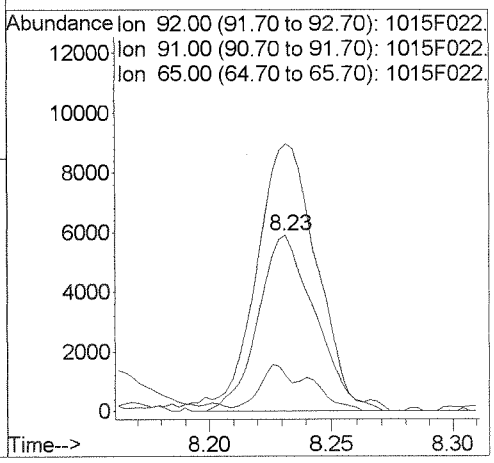


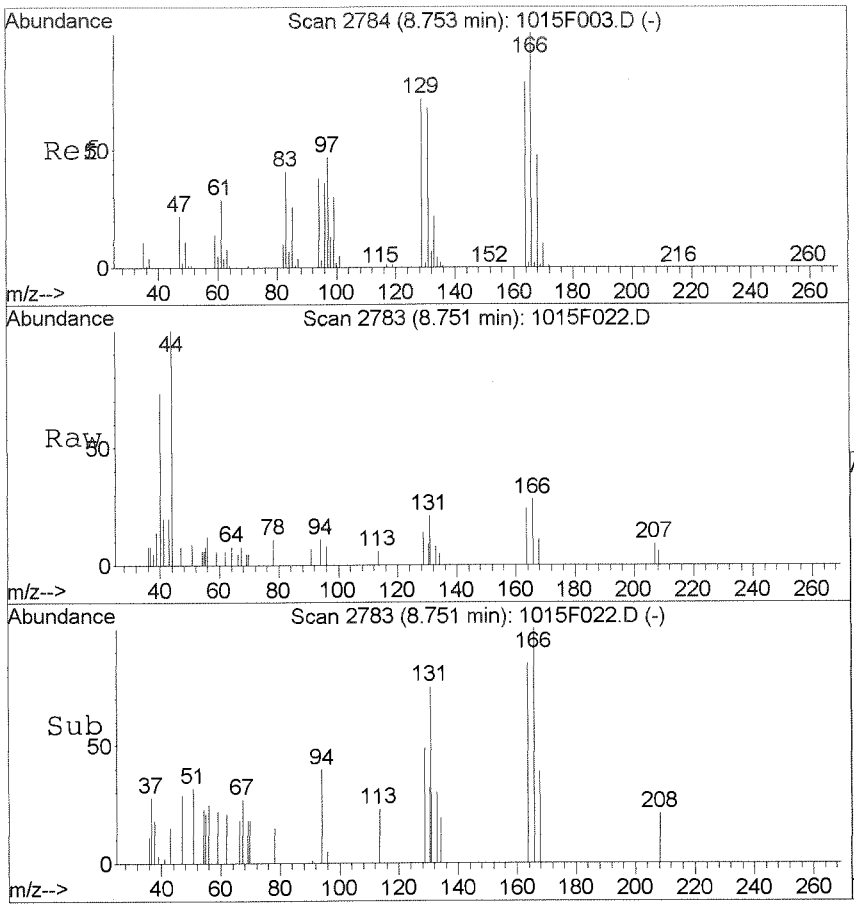


#63
Toluene
Concen: 0.14 PPB
RT: 8.23 min Scan# 2597
Delta R.T. -0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 92 Resp: 9578

Ion	Ratio	Lower	Upper
92	100		
91	151.9	142.0	202.0
65	17.9	0.0	48.9

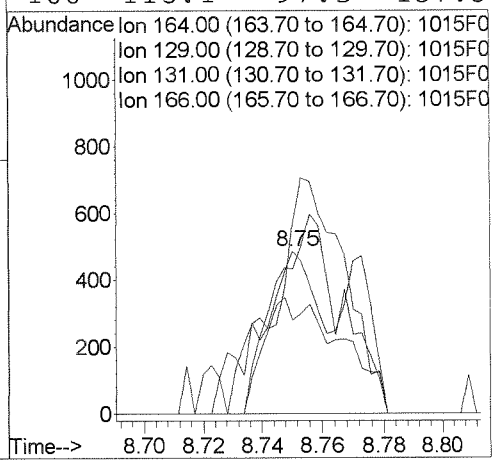


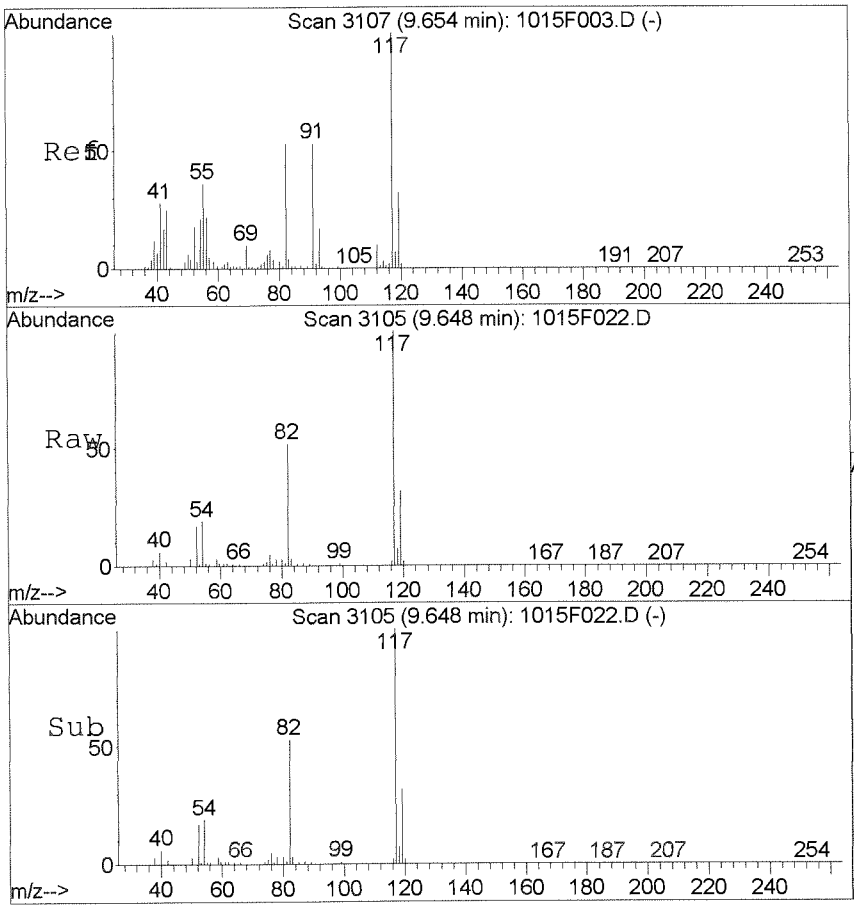


#69
Tetrachloroethene
Concen: 0.04 PPB m
RT: 8.75 min Scan# 2783
Delta R.T. -0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion:164 Resp: 997

Ion	Ratio	Lower	Upper
164	100		
129	57.6	62.3	122.3#
131	88.9	58.9	118.9
166	118.1	97.5	157.5

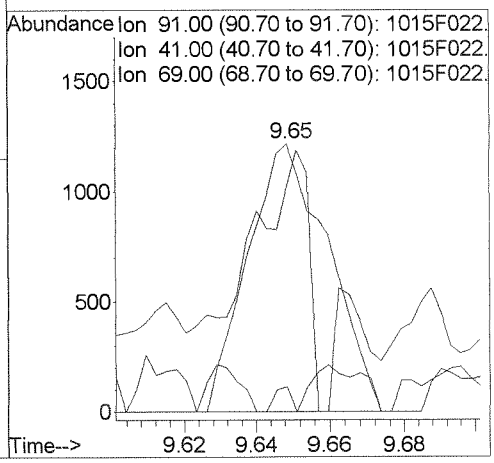


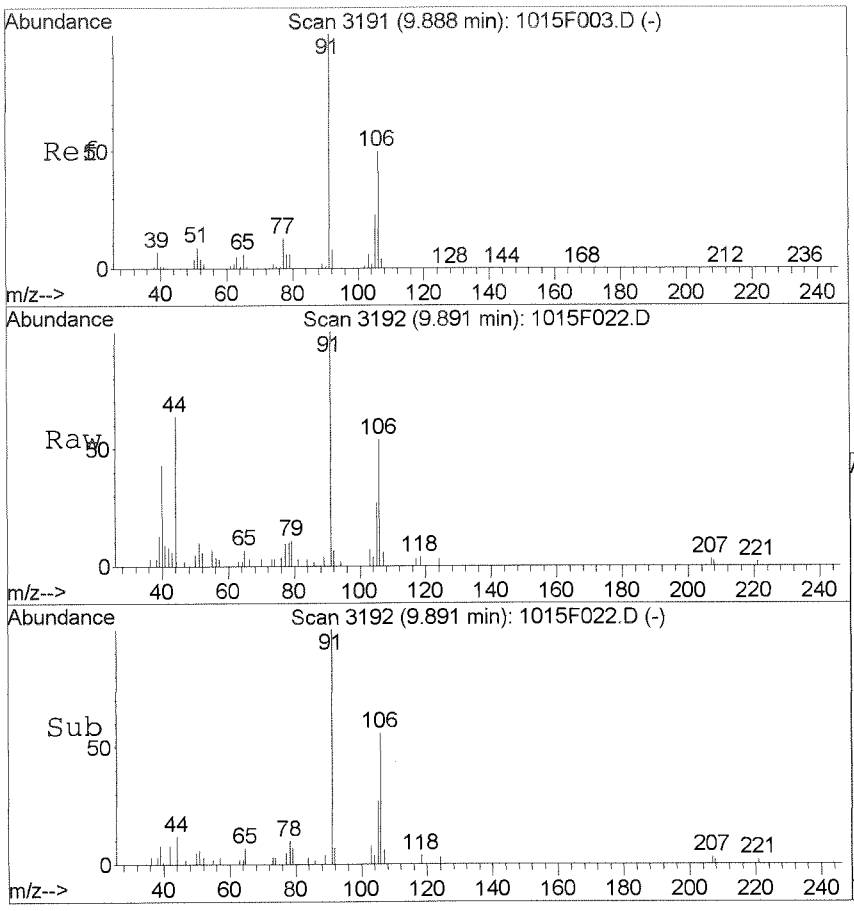


#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.65 min Scan# 3105
Delta R.T. -0.01 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion: 91 Resp: 1853

Ion	Ratio	Lower	Upper
91	100		
41	58.5	21.8	81.8
69	9.4	0.0	48.6

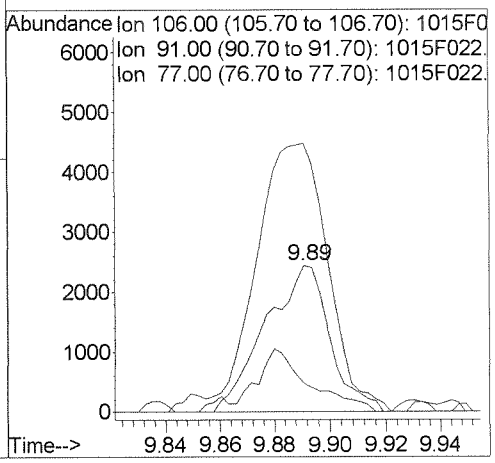


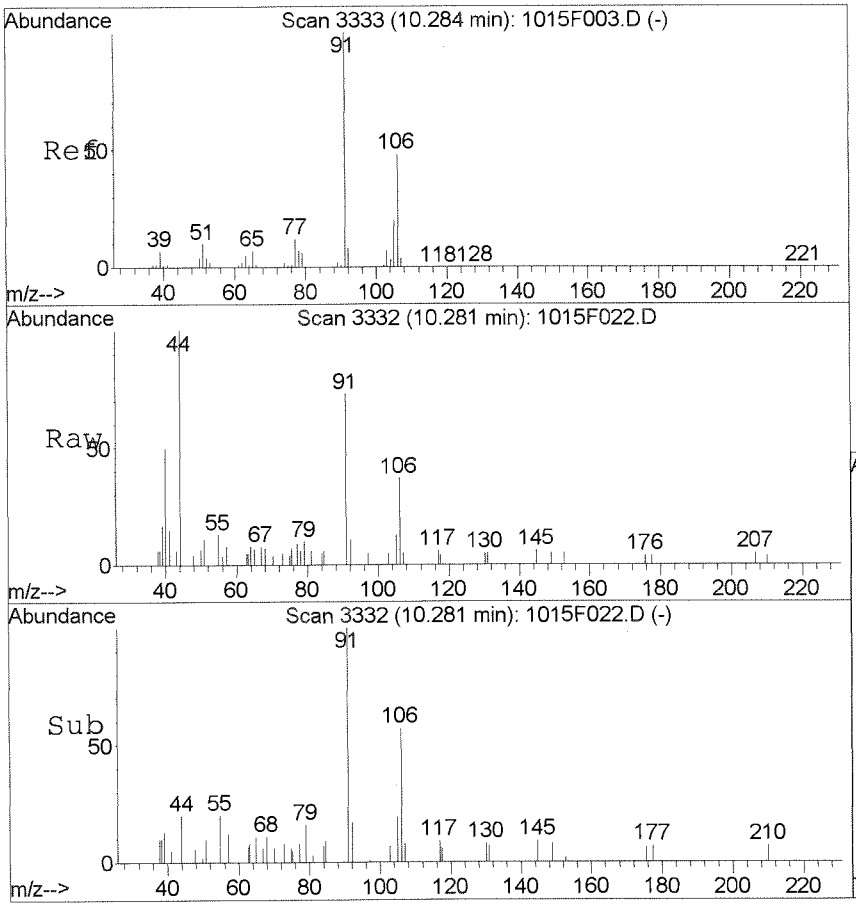


#78
m,p-Xylenes
Concen: 0.08 PPB
RT: 9.89 min Scan# 3192
Delta R.T. 0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion:106 Resp: 3936

Ion	Ratio	Lower	Upper
106	100		
91	183.6	168.8	228.8
77	19.2	0.0	55.8

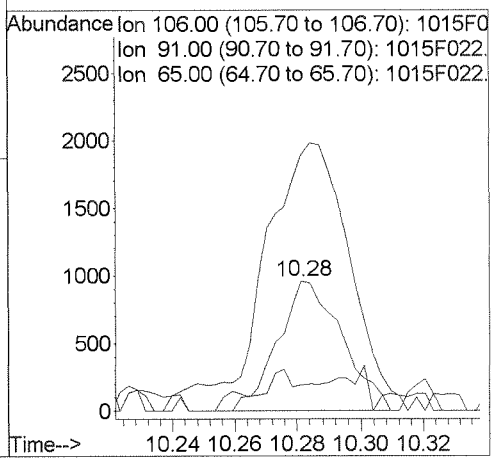


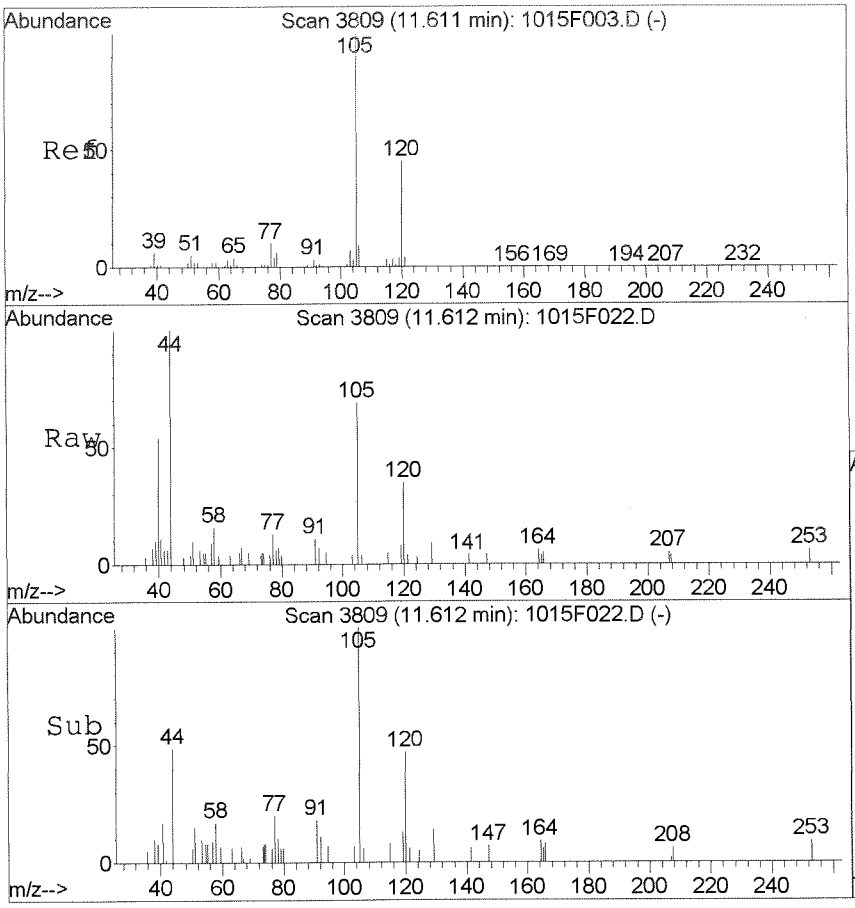


#79
o-Xylene
Concen: 0.03 PPB
RT: 10.28 min Scan# 3332
Delta R.T. -0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion:106 Resp: 1390

Ion	Ratio	Lower	Upper
106	100		
91	180.9	184.3	244.3#
65	20.0	0.0	45.0

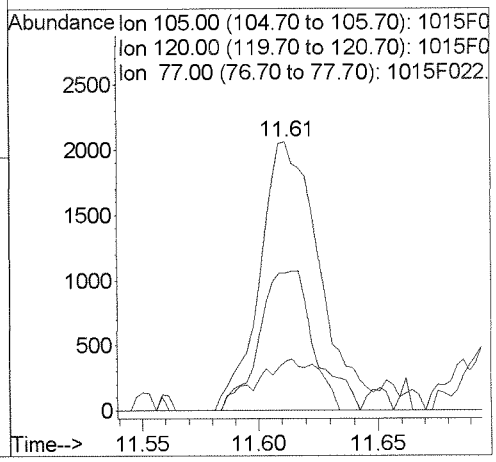


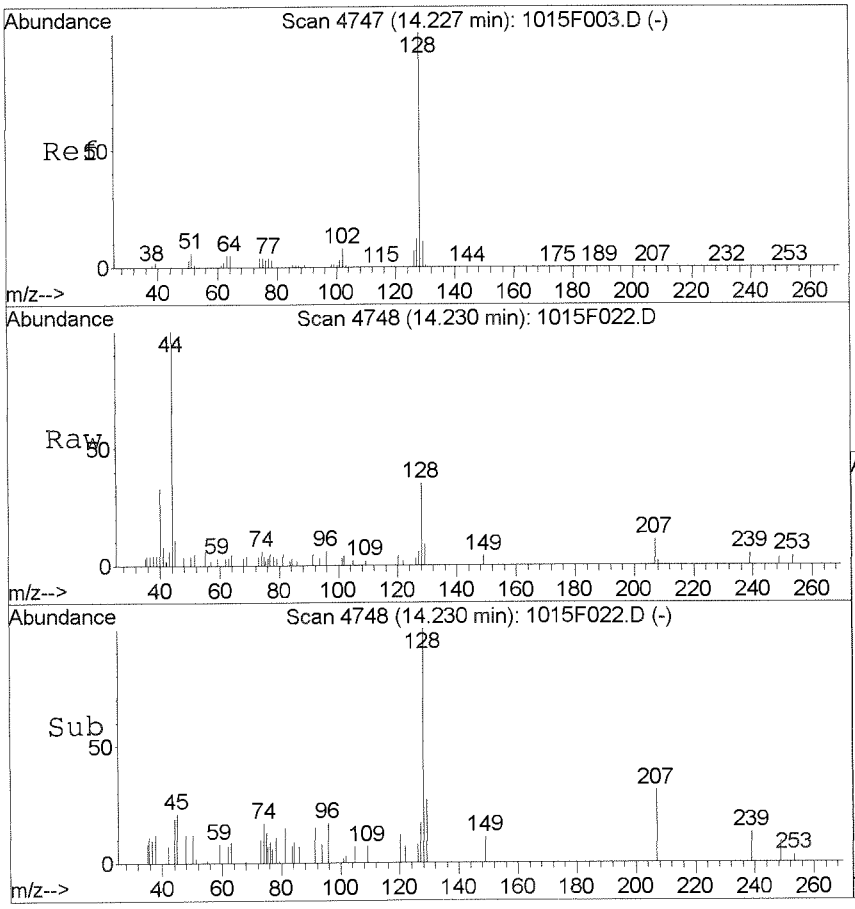


#95
1,2,4-Trimethylbenzene
Concen: 0.04 PPB
RT: 11.61 min Scan# 3809
Delta R.T. -0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion:105 Resp: 3668

Ion	Ratio	Lower	Upper
105	100		
120	51.3	15.9	75.9
77	18.3	0.0	41.6

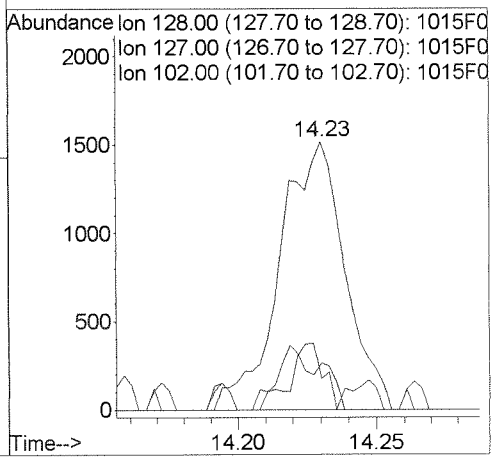




#106
Naphthalene
Concen: 0.04 PPB
RT: 14.23 min Scan# 4748
Delta R.T. 0.00 min
Lab File: 1015F022.D
Acq: 15 Oct 2014 6:59 pm

Tgt Ion:128 Resp: 2469

Ion	Ratio	Lower	Upper
128	100		
127	17.4	0.0	42.7
102	11.6	0.0	37.9



Exception Report

Data File: J:\MS27\DATA\101514\1015F023.D
Lab ID: K1410890-011
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 19:26
Date Quantitated: 10/16/2014 10:06
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F023.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 19:26	**Quant Date:**	10/16/2014 10:06	**Vial:**	21
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-011			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/03/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385166	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1071199	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	432364	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	417567	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	5.73	0.00	0.00	113	271359	9.26	93	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1031532	9.62	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	369716	9.41	94	68-117	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	Carbon Tetrachloride	5.79	-0.01	0.00	117	2445	0.0700	0.096	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\101514\1015F023.D Vial: 21
Acq On : 15 Oct 2014 7:26 pm Operator: MK
Sample : K10890-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:02:18 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

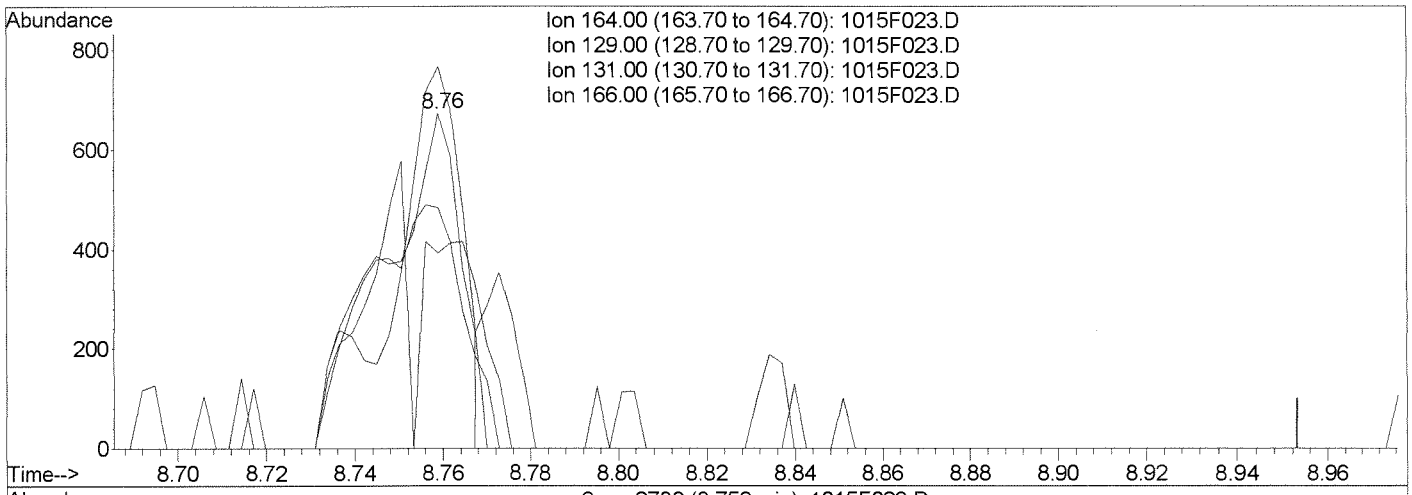
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1071199	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	432364	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	417567	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	271359	9.26	PPB		0.00
Spiked Amount 10.000			Recovery =	92.60%			
47) 1,2-Dichloroethane-d4	6.15	65	257603	9.54	PPB		0.00
Spiked Amount 10.000			Recovery =	95.40%			
62) Toluene-d8	8.16	98	1031532	9.62	PPB		0.00
Spiked Amount 10.000			Recovery =	96.20%			
84) 4-Bromofluorobenzene	10.84	95	369716	9.41	PPB		0.00
Spiked Amount 10.000			Recovery =	94.10%			
Target Compounds							Qvalue
3) Chloromethane	1.27	50	1258	0.03	PPB		89
21) Methylene Chloride	3.17	84	1856	0.06	PPB	#	76
40) Chloroform	5.52	83	2880	0.06	PPB		90
44) Carbon Tetrachloride	5.79	117	2445	0.07	PPB	#	66
63) Toluene	8.23	92	10021	0.14	PPB		94
69) Tetrachloroethene	8.76	164	1019m	0.04	PPB		
74) 1-Chlorohexane	9.65	91	2143	0.06	PPB	#	50
78) m,p-Xylenes	9.89	106	4328	0.09	PPB		96
79) o-Xylene	10.28	106	1391	0.03	PPB	#	81
95) 1,2,4-Trimethylbenzene	11.61	105	2859	0.03	PPB		86
106) Naphthalene	14.23	128	1929	0.03	PPB		93

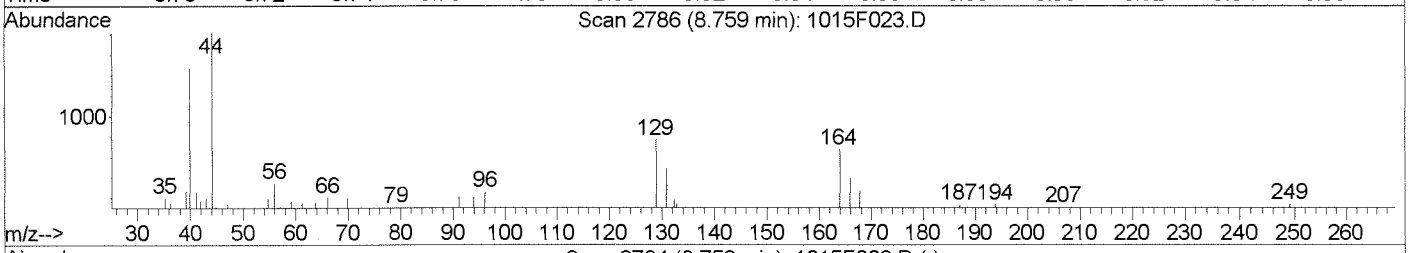
(#) = qualifier out of range (m) = manual integration

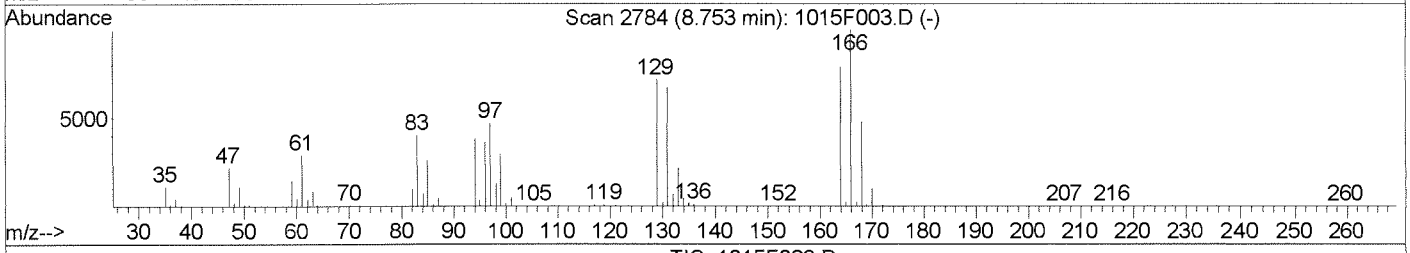
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F023.D Vial: 21
Acq On : 15 Oct 2014 7:26 pm Operator: MK
Sample : K10890-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F023.D

(69) Tetrachloroethene (T)

8.76min 0.03PPB

response 843

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	113.97
131.00	88.90	71.92
166.00	127.50	58.40#

Manual Integration:

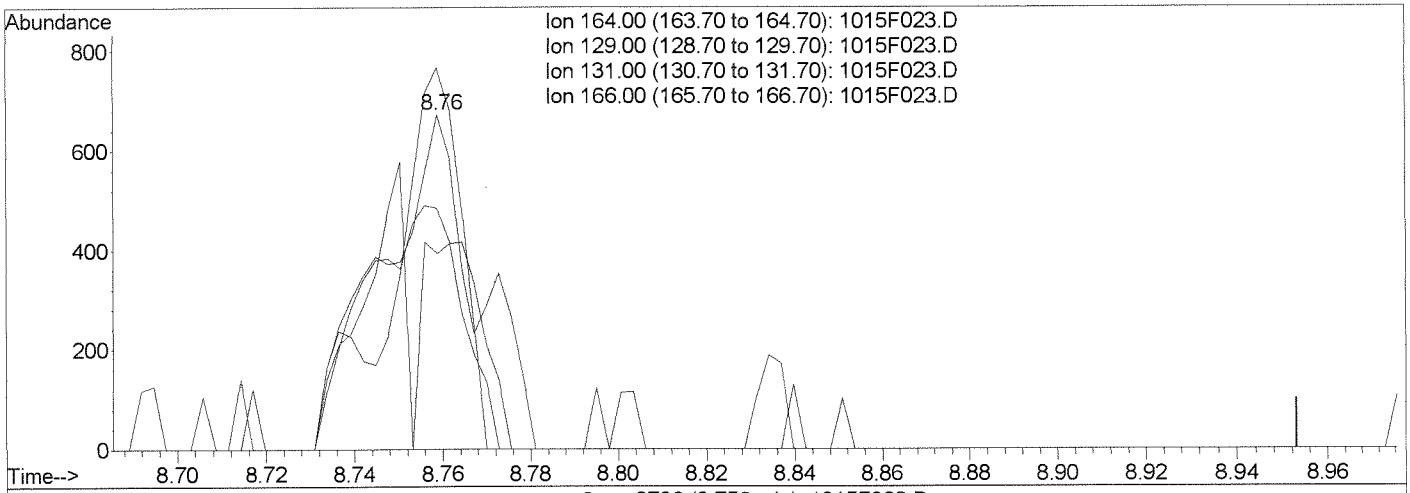
Before

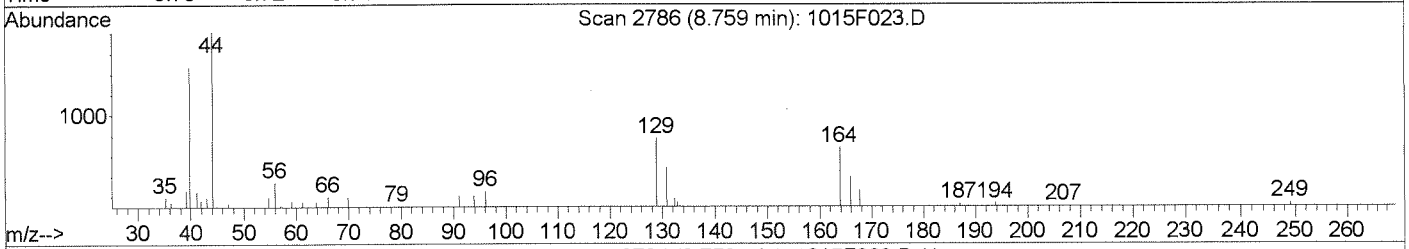
10/16/14

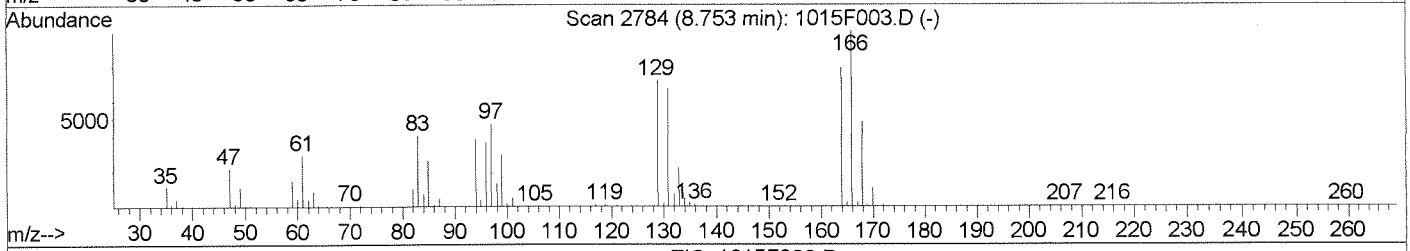
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F023.D Vial: 21
Acq On : 15 Oct 2014 7:26 pm Operator: MK
Sample : K10890-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Multiple Level Calibration







TIC: 1015F023.D

(69) Tetrachloroethene (T)

8.76min 0.04PPB m

response 1019

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	113.97
131.00	88.90	71.92
166.00	127.50	58.40#

Manual Integration:

After

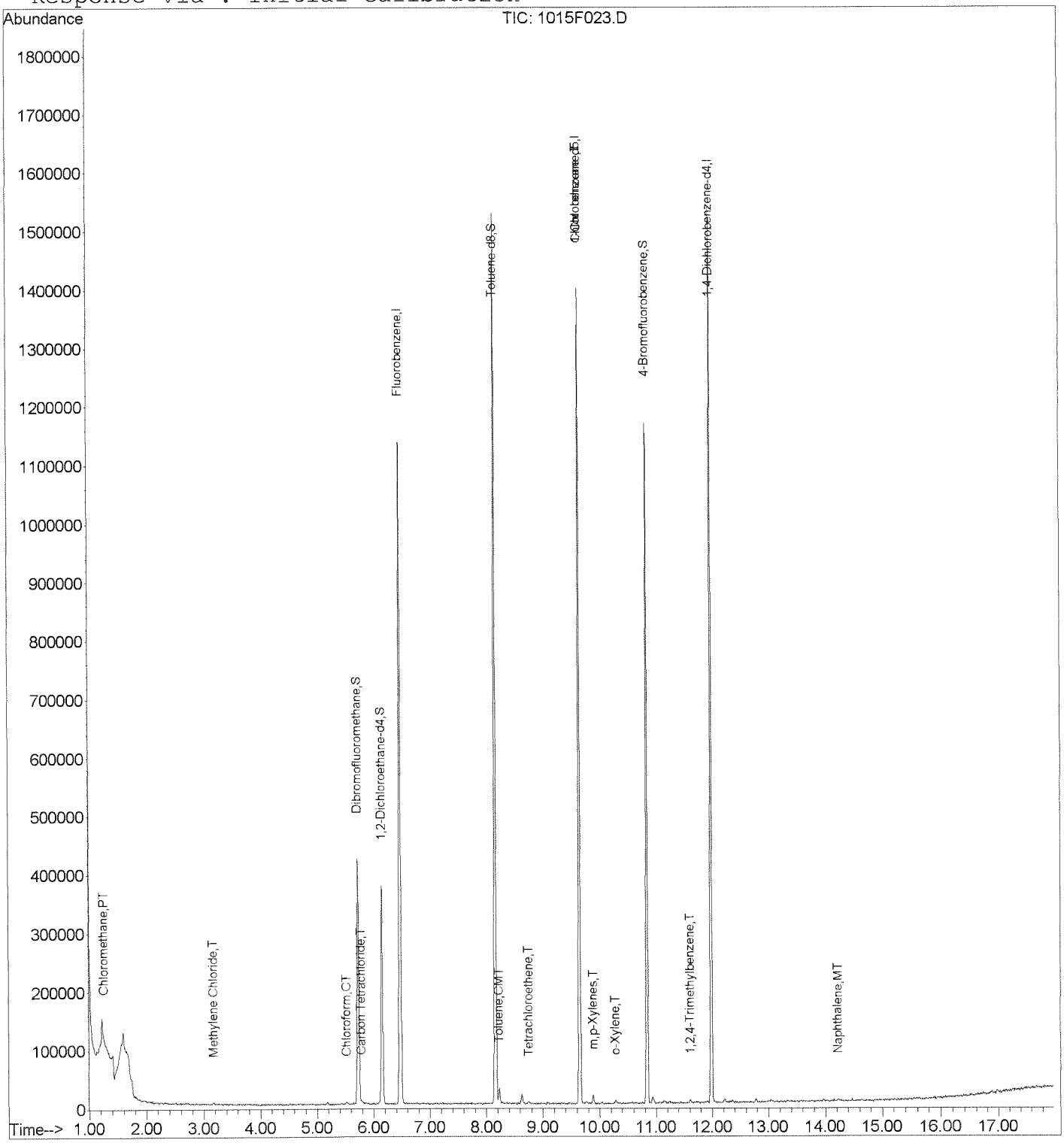
Baseline correction

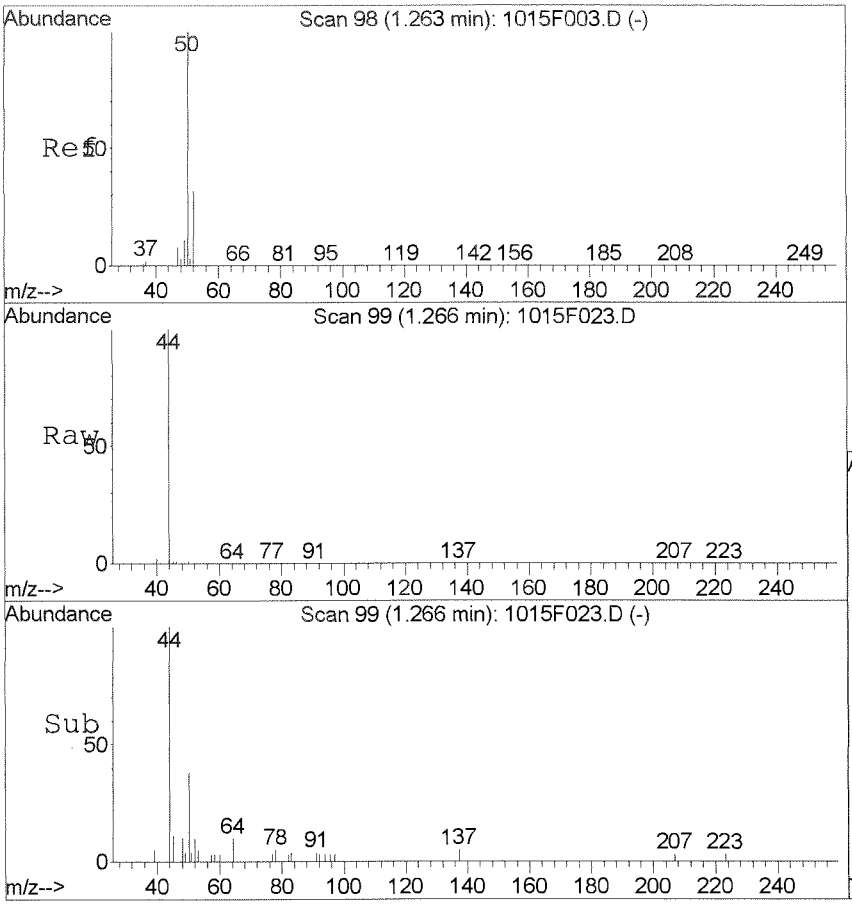
10/16/14

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F023.D Vial: 21
Acq On : 15 Oct 2014 7:26 pm Operator: MK
Sample : K10890-011 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:06 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration

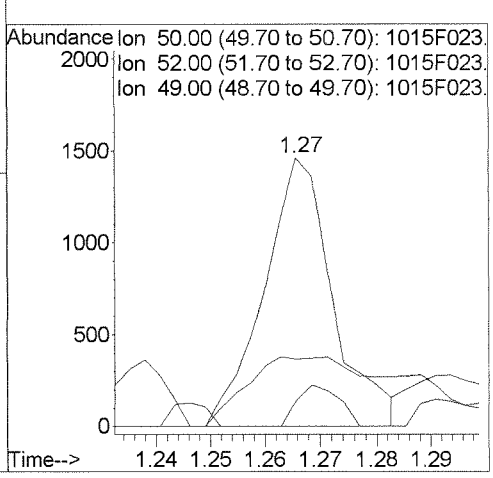


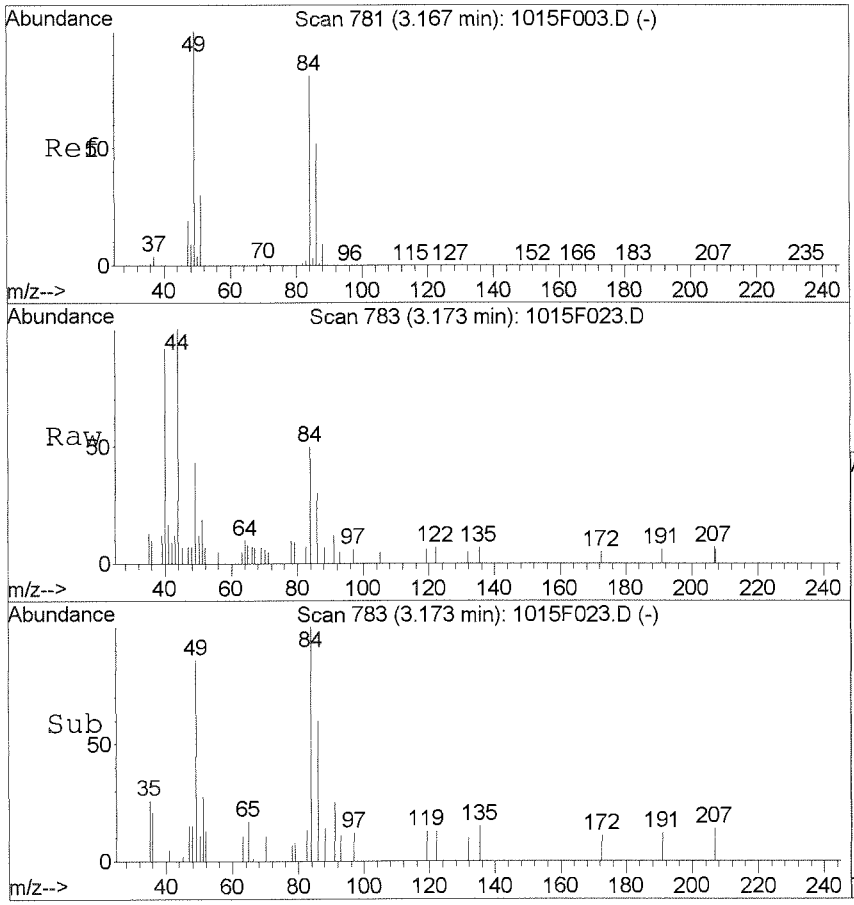


#3
Chloromethane
Concen: 0.03 PPB
RT: 1.27 min Scan# 99
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion: 50 Resp: 1258

Ion	Ratio	Lower	Upper
50	100		
52	25.1	3.4	63.4
49	9.8	0.0	40.1

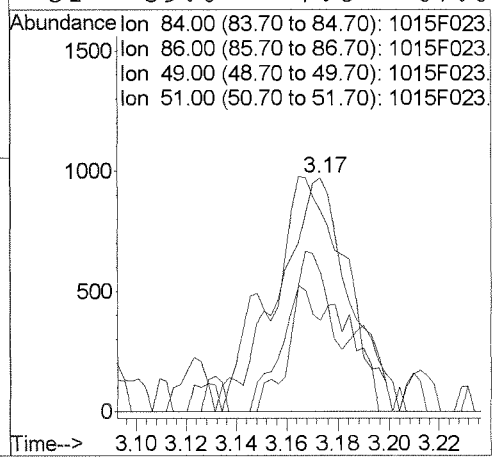


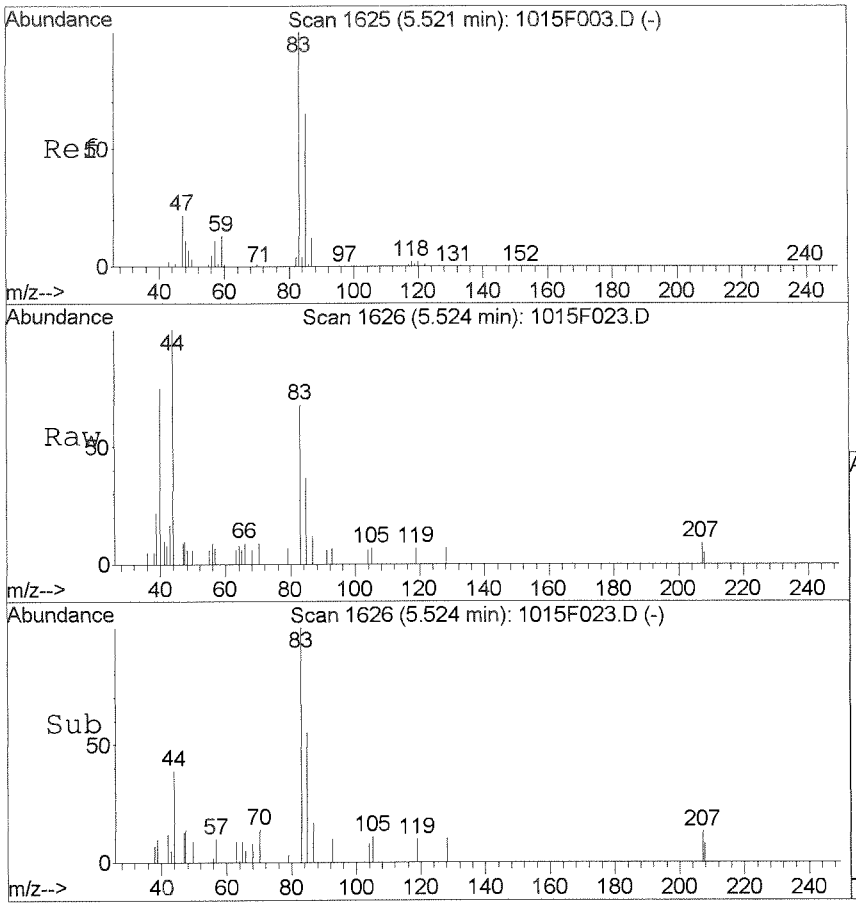


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 3.17 min Scan# 783
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion: 84 Resp: 1856

Ion	Ratio	Lower	Upper
84	100		
86	47.0	33.9	93.9
49	85.8	90.6	150.6#
51	39.0	7.6	67.6

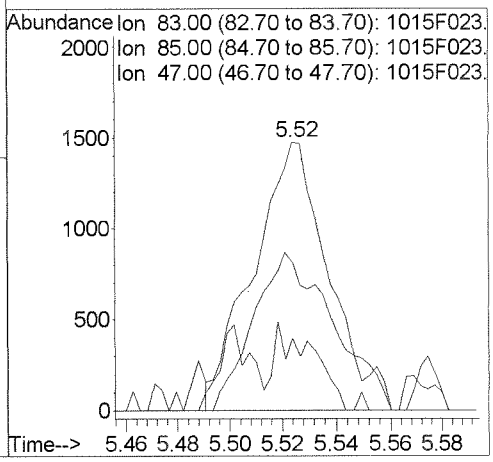


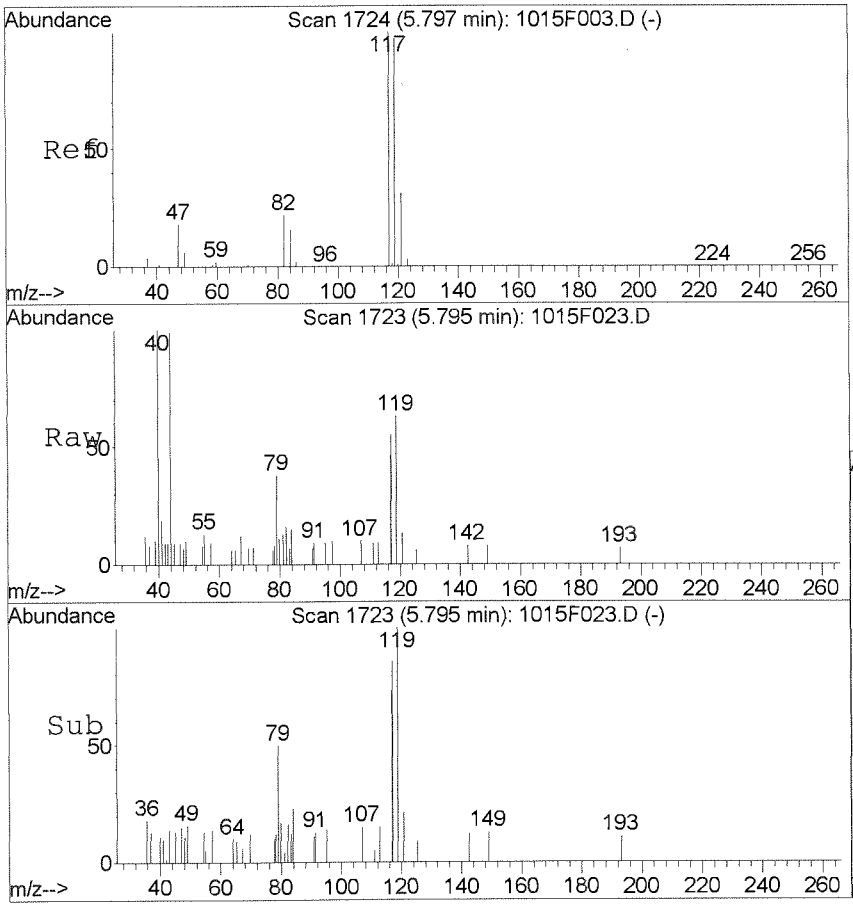


#40
Chloroform
Concen: 0.06 PPB
RT: 5.52 min Scan# 1626
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion: 83 Resp: 2880

Ion	Ratio	Lower	Upper
83	100		
85	55.2	33.2	93.2
47	26.8	0.0	52.9

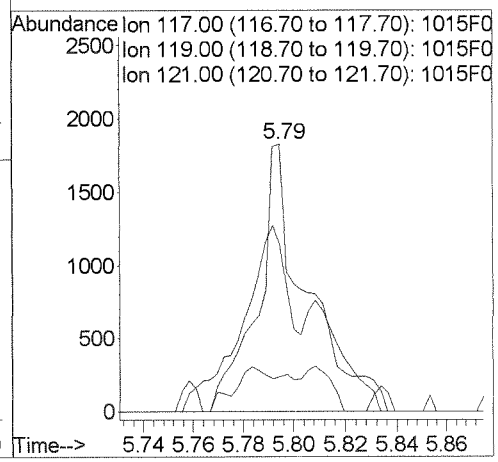


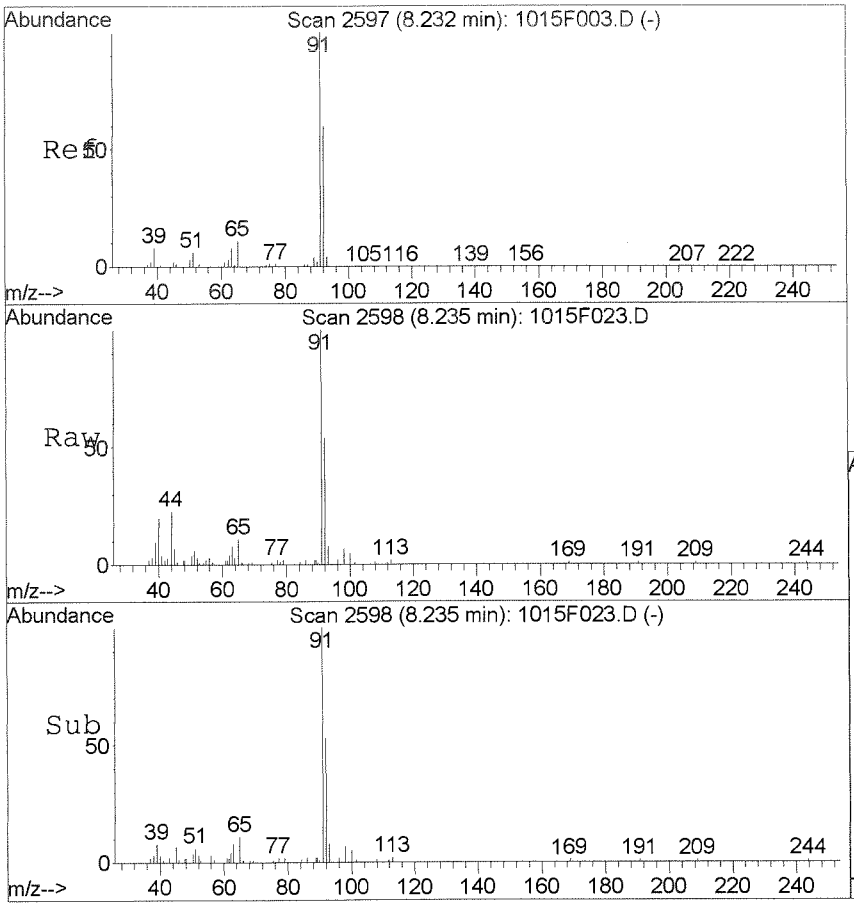


#44
Carbon Tetrachloride
Concen: 0.07 PPB
RT: 5.79 min Scan# 1723
Delta R.T. -0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion:117 Resp: 2445

Ion	Ratio	Lower	Upper
117	100		
119	62.9	66.6	126.6#
121	13.1	0.5	60.5

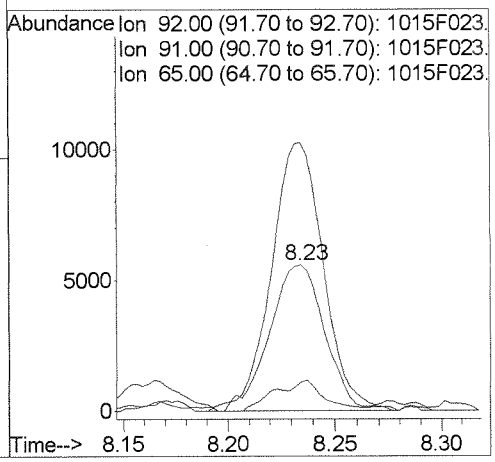


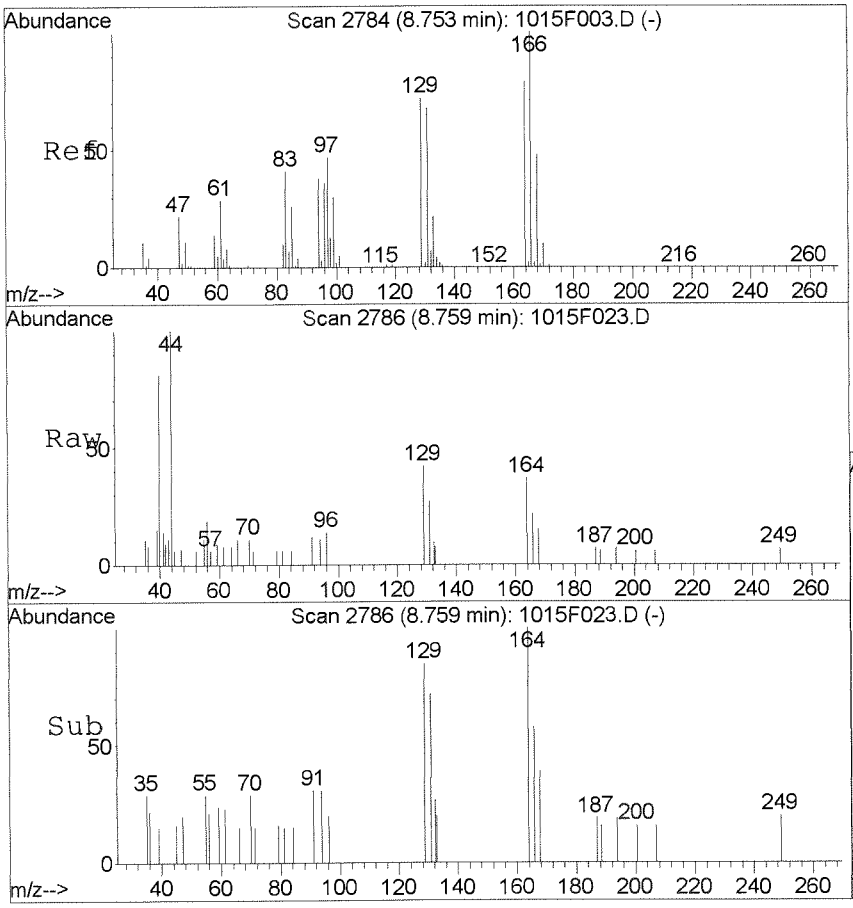


#63
Toluene
Concen: 0.14 PPB
RT: 8.23 min Scan# 2598
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion: 92 Resp: 10021

Ion	Ratio	Lower	Upper
92	100		
91	181.1	142.0	202.0
65	17.6	0.0	48.9

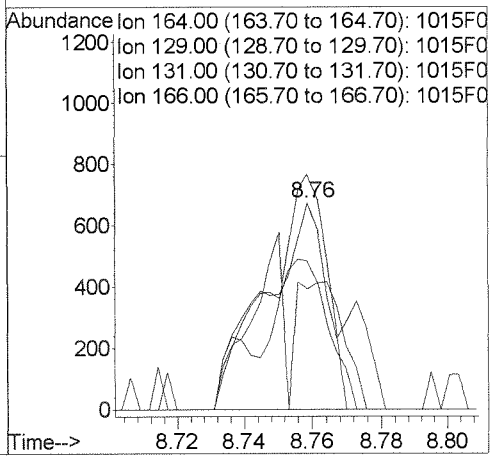


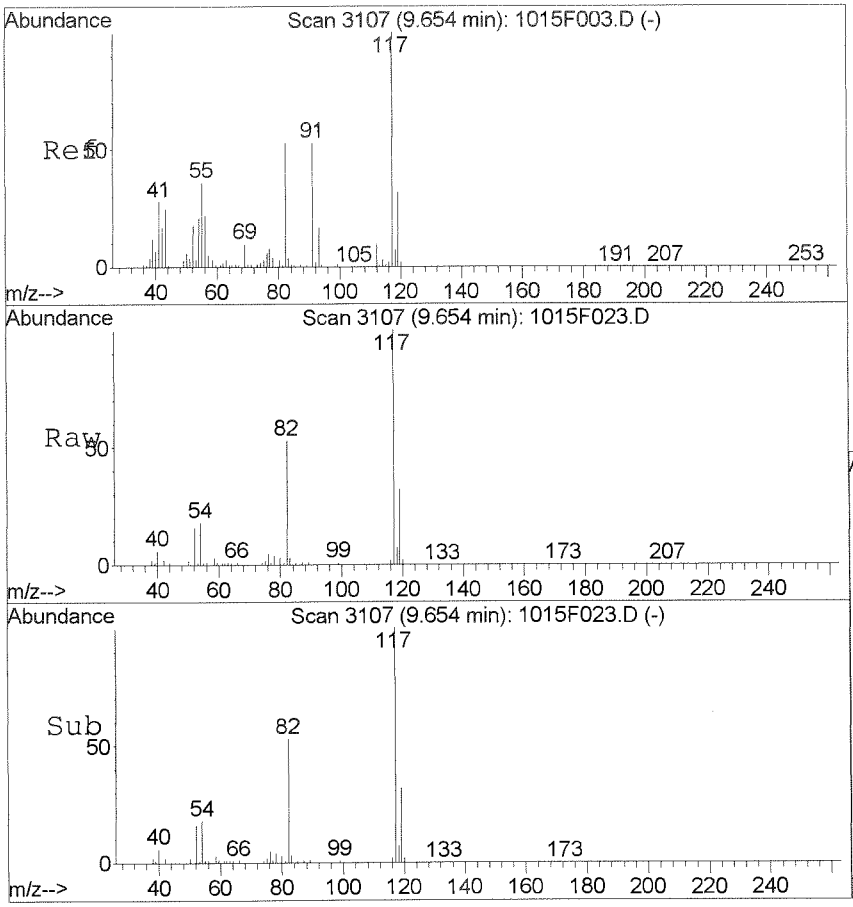


#69
Tetrachloroethene
Concen: 0.04 PPB m
RT: 8.76 min Scan# 2786
Delta R.T. 0.01 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion:164 Resp: 1019

Ion	Ratio	Lower	Upper
164	100		
129	114.0	62.3	122.3
131	71.9	58.9	118.9
166	58.4	97.5	157.5#

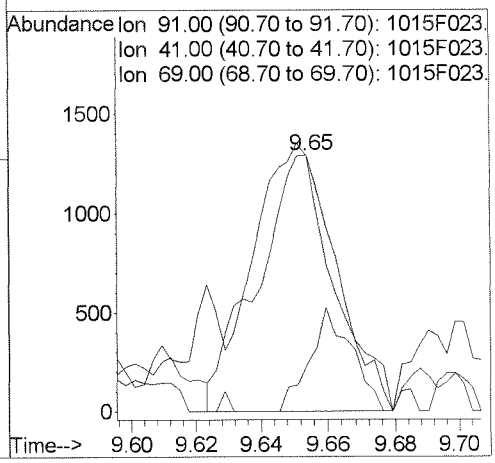


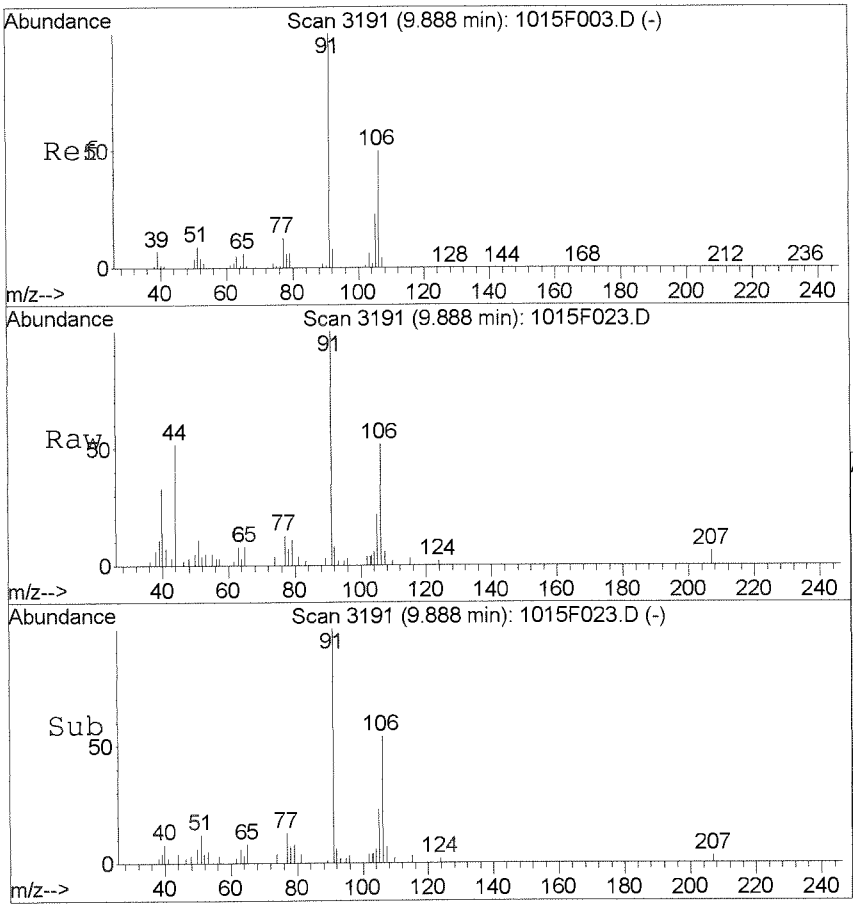


#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.65 min Scan# 3107
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion: 91 Resp: 2143

Ion	Ratio	Lower	Upper
91	100		
41	99.8	21.8	81.8#
69	18.4	0.0	48.6

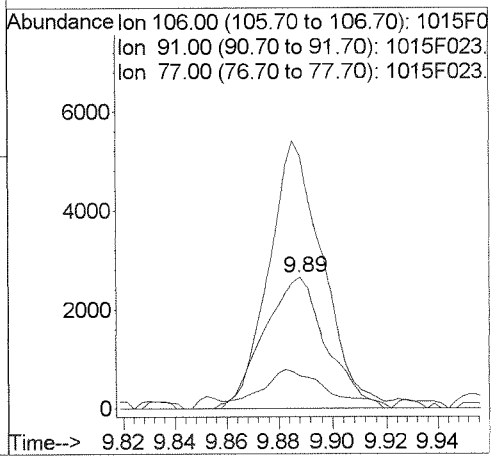


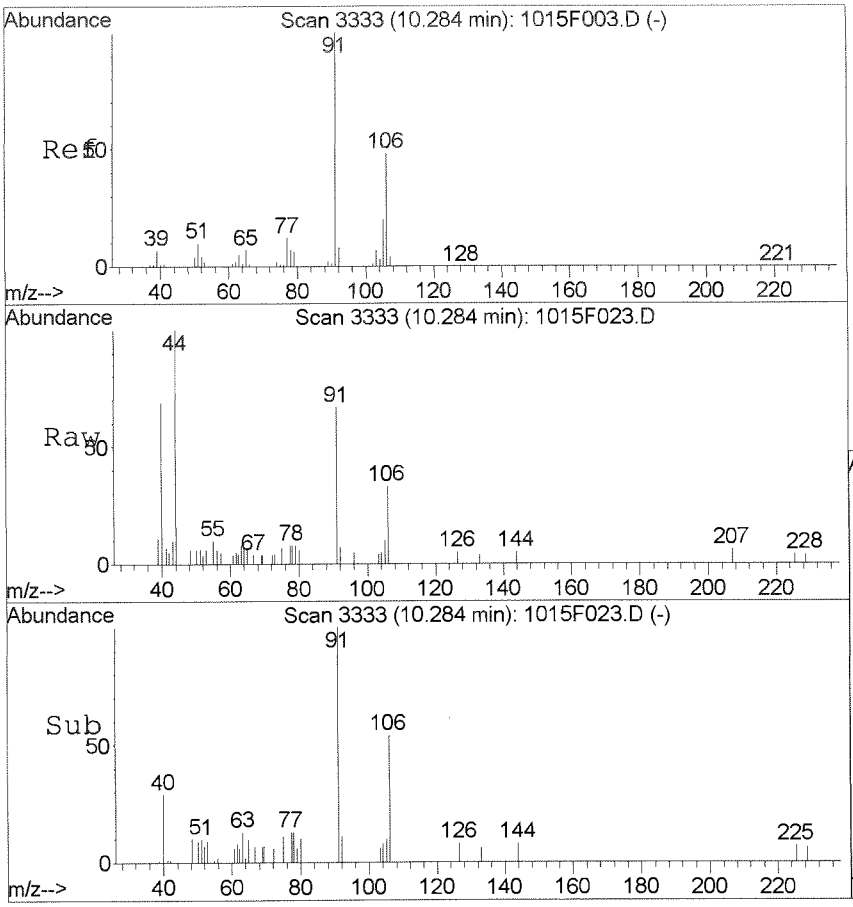


#78
m,p-Xylenes
Concen: 0.09 PPB
RT: 9.89 min Scan# 3191
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion:106 Resp: 4328

Ion	Ratio	Lower	Upper
106	100		
91	191.5	168.8	228.8
77	24.8	0.0	55.8

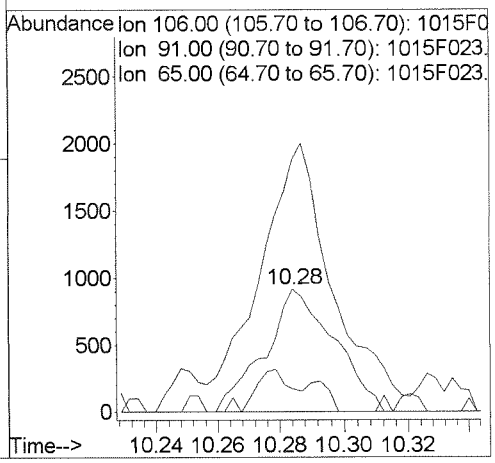


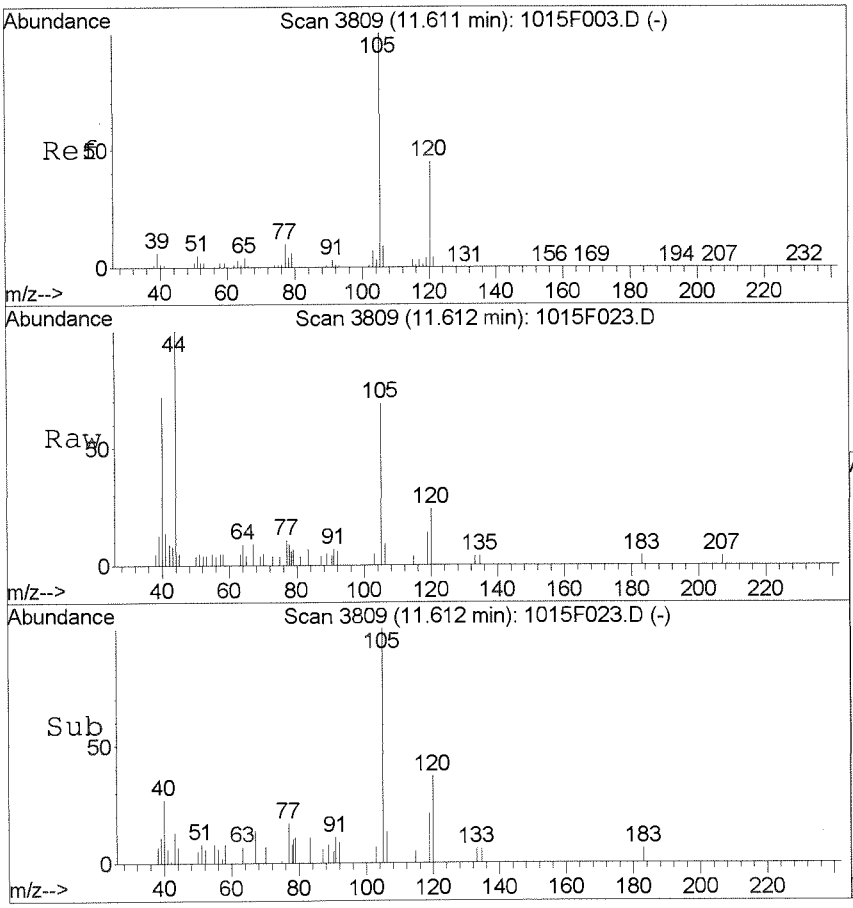


#79
o-Xylene
Concen: 0.03 PPB
RT: 10.28 min Scan# 3333
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion:106 Resp: 1391

Ion	Ratio	Lower	Upper
106	100		
91	183.8	184.3	244.3#
65	18.6	0.0	45.0

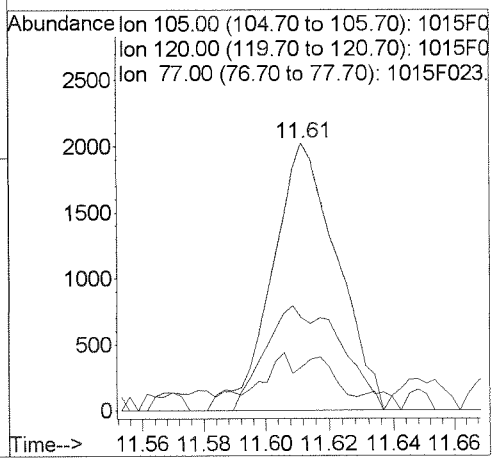


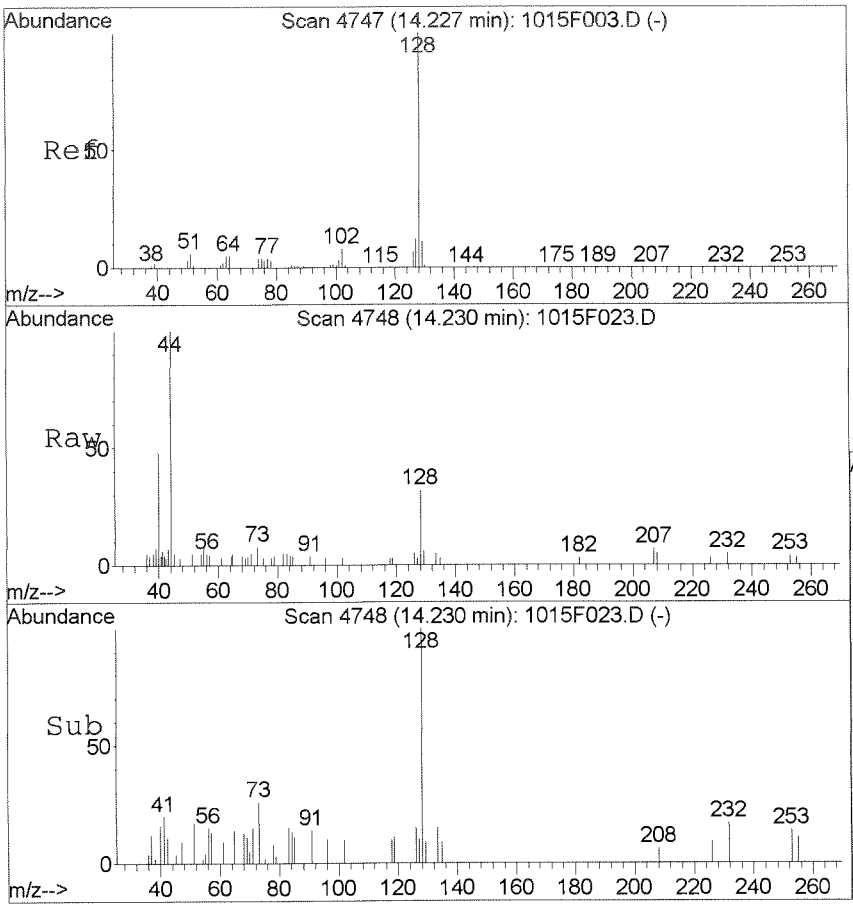


#95
1,2,4-Trimethylbenzene
Concen: 0.03 PPB
RT: 11.61 min Scan# 3809
Delta R.T. -0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion:105 Resp: 2859

Ion	Ratio	Lower	Upper
105	100		
120	34.6	15.9	75.9
77	10.8	0.0	41.6

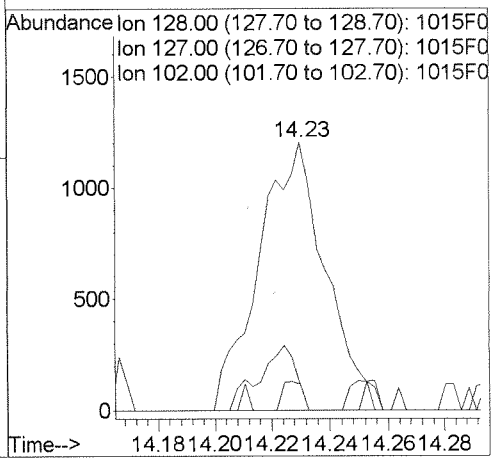




#106
Naphthalene
Concen: 0.03 PPB
RT: 14.23 min Scan# 4748
Delta R.T. 0.00 min
Lab File: 1015F023.D
Acq: 15 Oct 2014 7:26 pm

Tgt Ion:128 Resp: 1929

Ion	Ratio	Lower	Upper
128	100		
127	9.7	0.0	42.7
102	9.9	0.0	37.9



Exception Report

Data File: J:\MS27\DATA\101514\1015F024.D
Lab ID: K1410890-012
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 19:53
Date Quantitated: 10/16/2014 10:09
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: 10/24/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F024.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 19:53	**Quant Date:**	10/16/2014 10:09	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-012			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/03/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385167	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1072863	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	424790	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	419858	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	5.73	0.00	0.00	113	269803	9.19	92	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1031169	9.61	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	377417	9.78	98	68-117	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	Carbon Tetrachloride	5.80		0.00	117	67326	1.81	1.8		

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\101514\1015F024.D Vial: 22
Acq On : 15 Oct 2014 7:53 pm Operator: MK
Sample : K10890-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:06:44 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

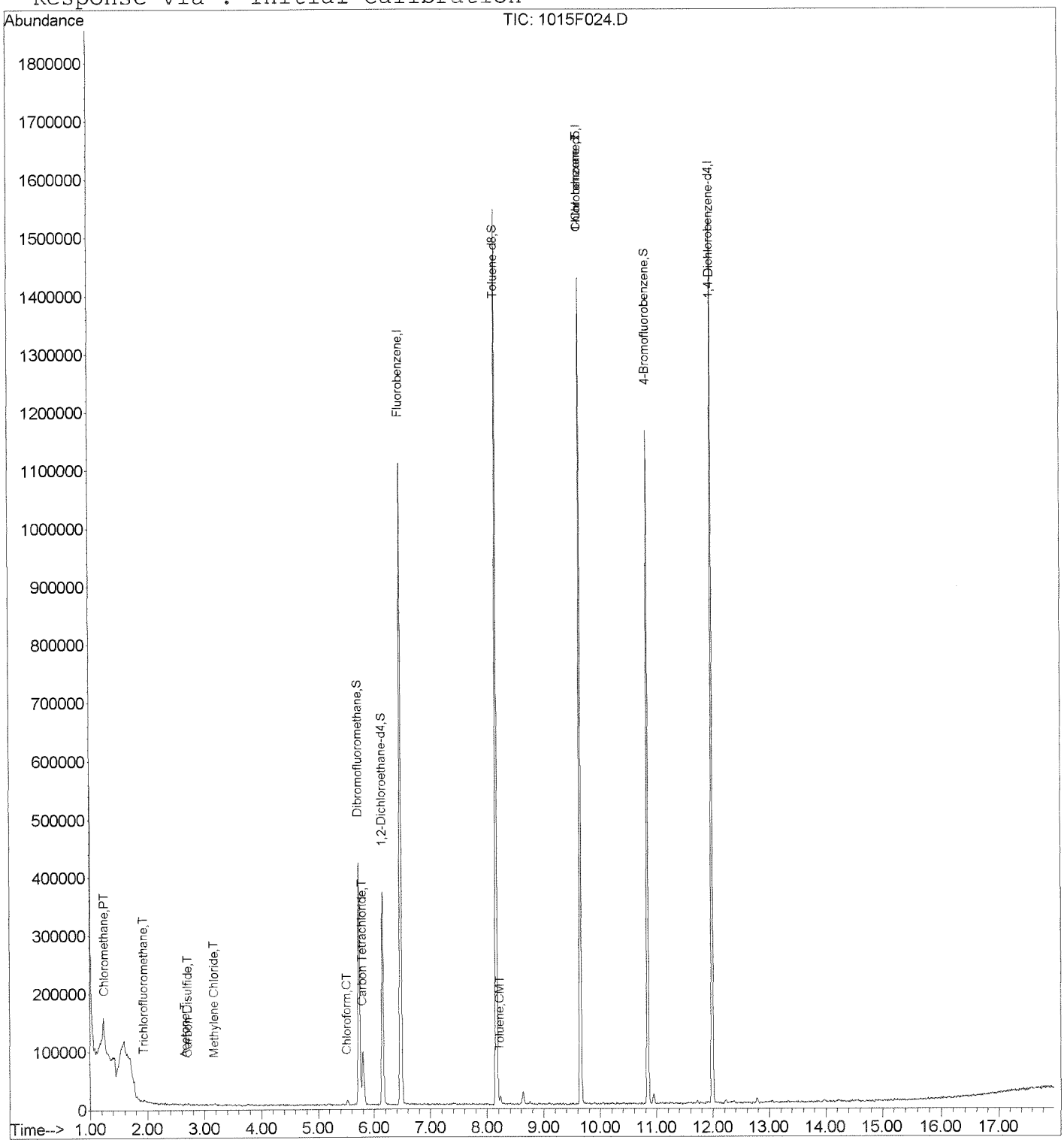
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1072863	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	424790	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	419858	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	269803	9.19	PPB		0.00
Spiked Amount 10.000			Recovery =	91.90%			
47) 1,2-Dichloroethane-d4	6.15	65	256273	9.48	PPB		0.00
Spiked Amount 10.000			Recovery =	94.80%			
62) Toluene-d8	8.16	98	1031169	9.61	PPB		0.00
Spiked Amount 10.000			Recovery =	96.10%			
84) 4-Bromofluorobenzene	10.84	95	377417	9.78	PPB		0.00
Spiked Amount 10.000			Recovery =	97.80%			
Target Compounds							Qvalue
3) Chloromethane	1.26	50	1053	0.03	PPB		60
6) Bromomethane	1.76	96	502	Below Cal		#	75
9) Trichlorofluoromethane	1.94	101	1265	0.03	PPB	#	64
14) Acetone	2.67	43	1160	0.29	PPB		60
16) Carbon Disulfide	2.70	76	2438	0.03	PPB		97
21) Methylene Chloride	3.17	84	1618	0.05	PPB	#	71
40) Chloroform	5.52	83	5817	0.12	PPB		95
44) Carbon Tetrachloride	5.80	117	67326	1.81	PPB		92
63) Toluene	8.23	92	5531	0.08	PPB		88
74) 1-Chlorohexane	9.64	91	2370	0.06	PPB		95

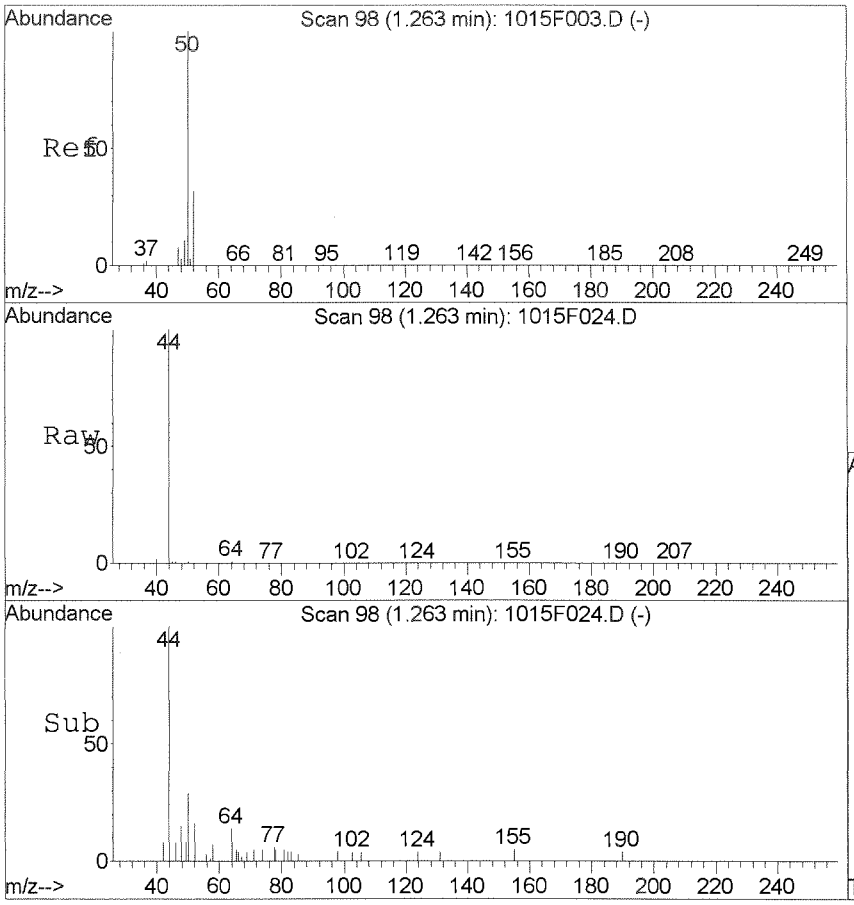
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F024.D Vial: 22
Acq On : 15 Oct 2014 7:53 pm Operator: MK
Sample : K10890-012 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:09 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration

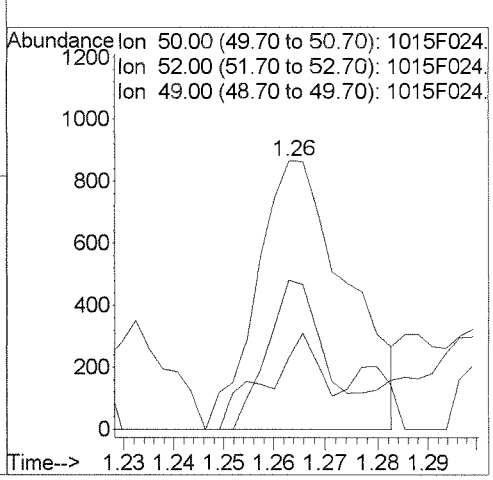


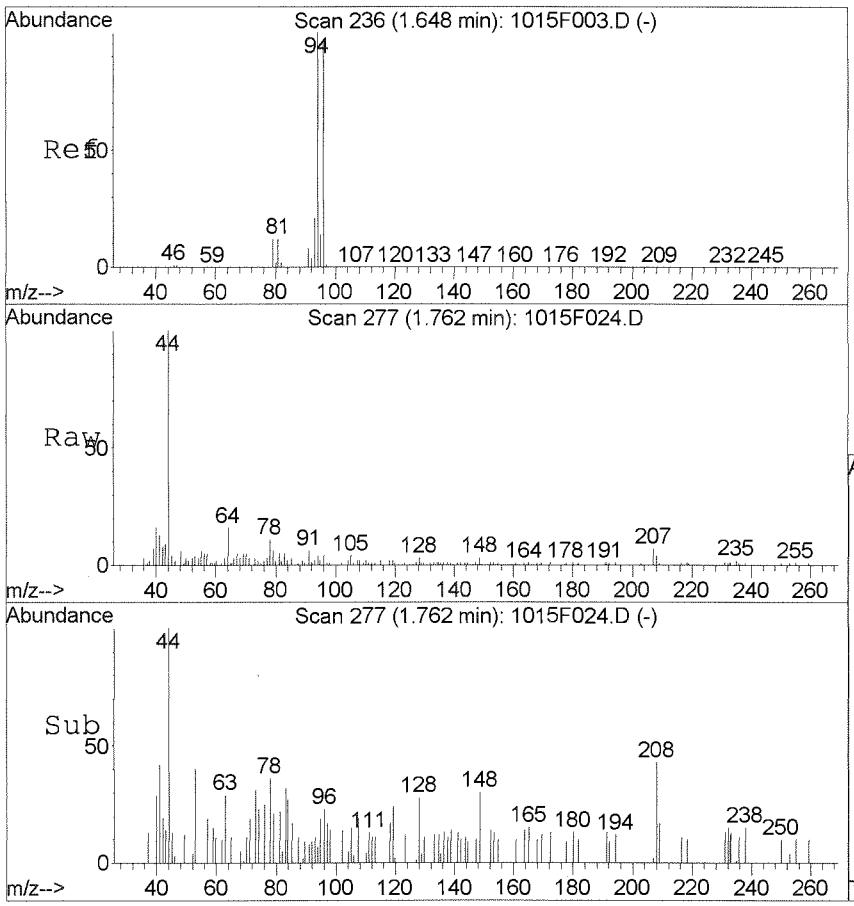


#3
Chloromethane
Concen: 0.03 PPB
RT: 1.26 min Scan# 98
Delta R.T. -0.00 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 50 Resp: 1053

Ion	Ratio	Lower	Upper
50	100		
52	55.6	3.4	63.4
49	26.5	0.0	40.1

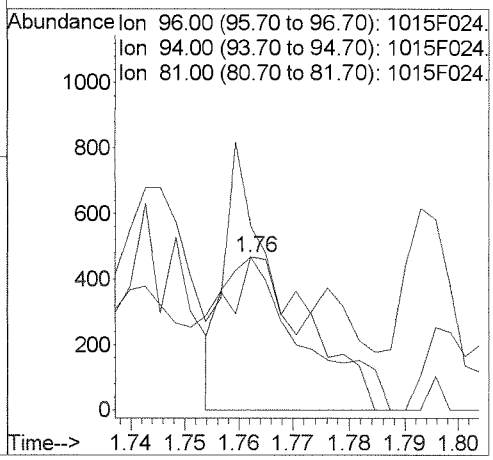


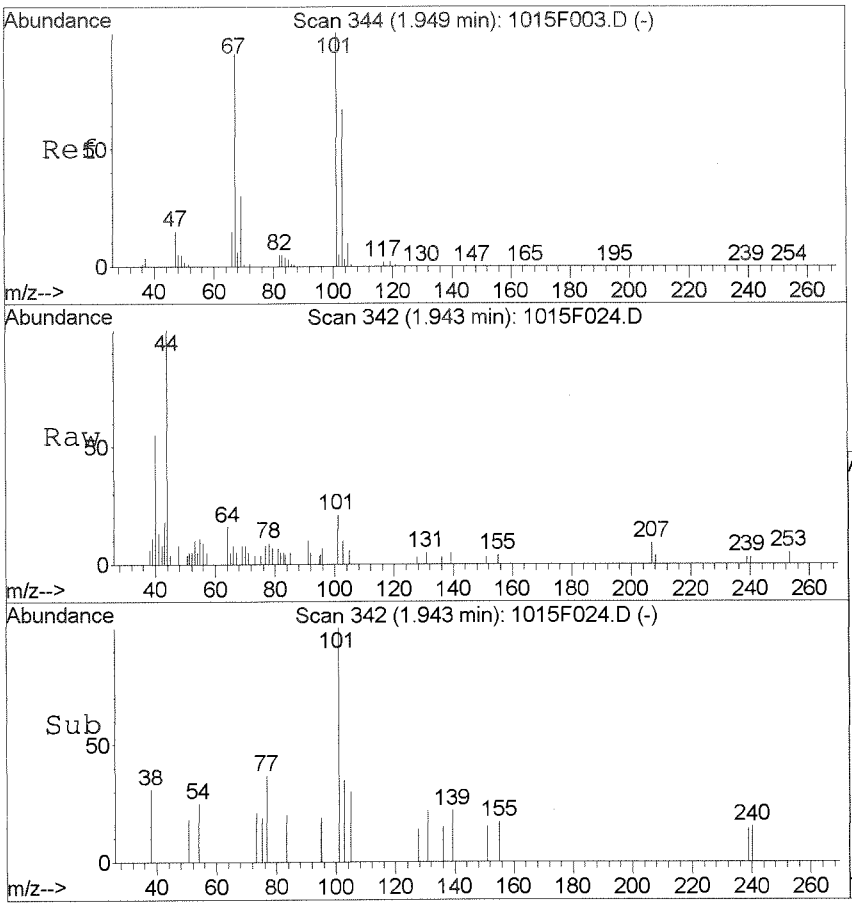


#6
Bromomethane
Concen: Below Cal
RT: 1.76 min Scan# 277
Delta R.T. 0.11 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 96 Resp: 502

Ion	Ratio	Lower	Upper
96	100		
94	99.8	77.8	137.8
81	80.1	0.0	43.8#

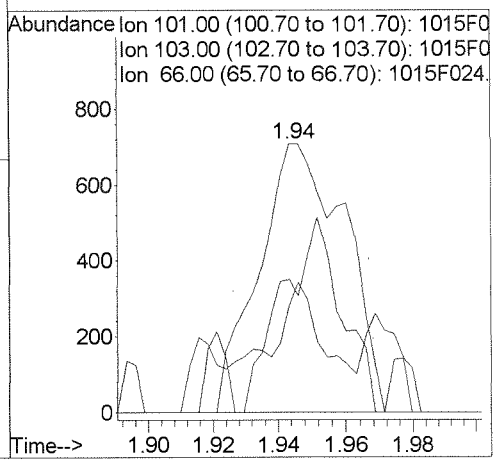


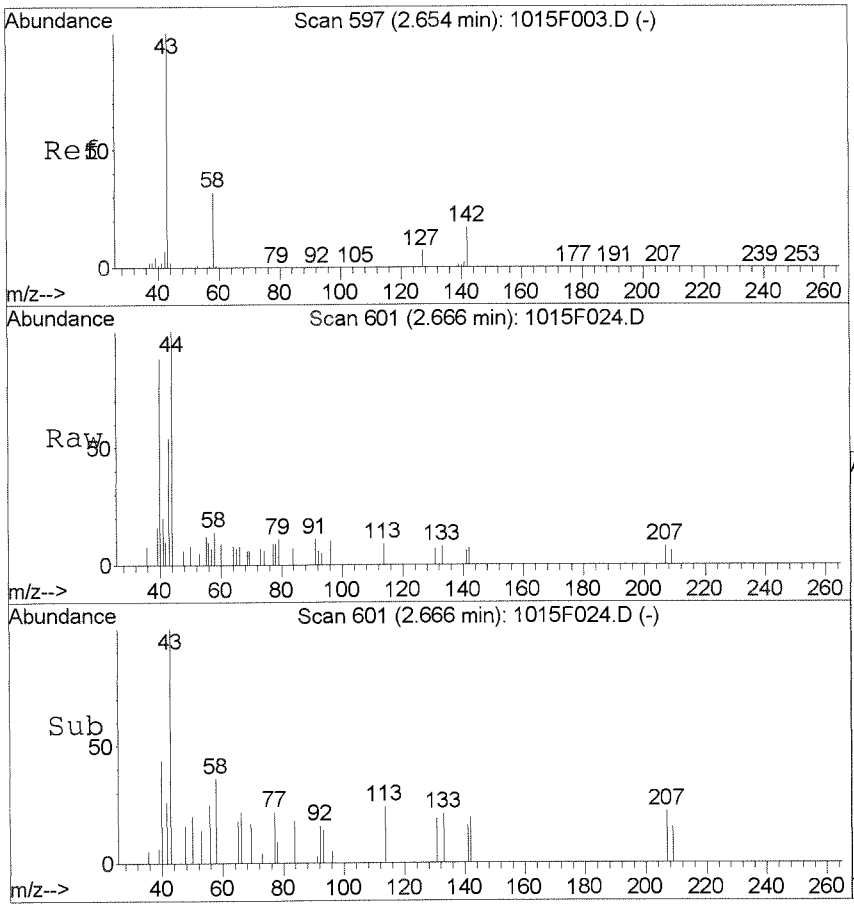


#9
Trichlorofluoromethane
Concen: 0.03 PPB
RT: 1.94 min Scan# 342
Delta R.T. -0.01 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion:101 Resp: 1265

Ion	Ratio	Lower	Upper
101	100		
103	29.9	34.4	94.4#
66	14.4	0.0	44.4

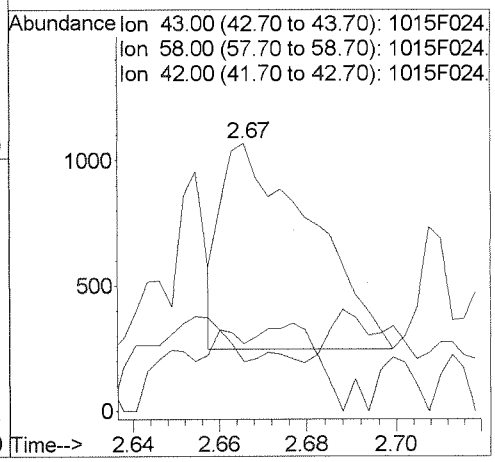


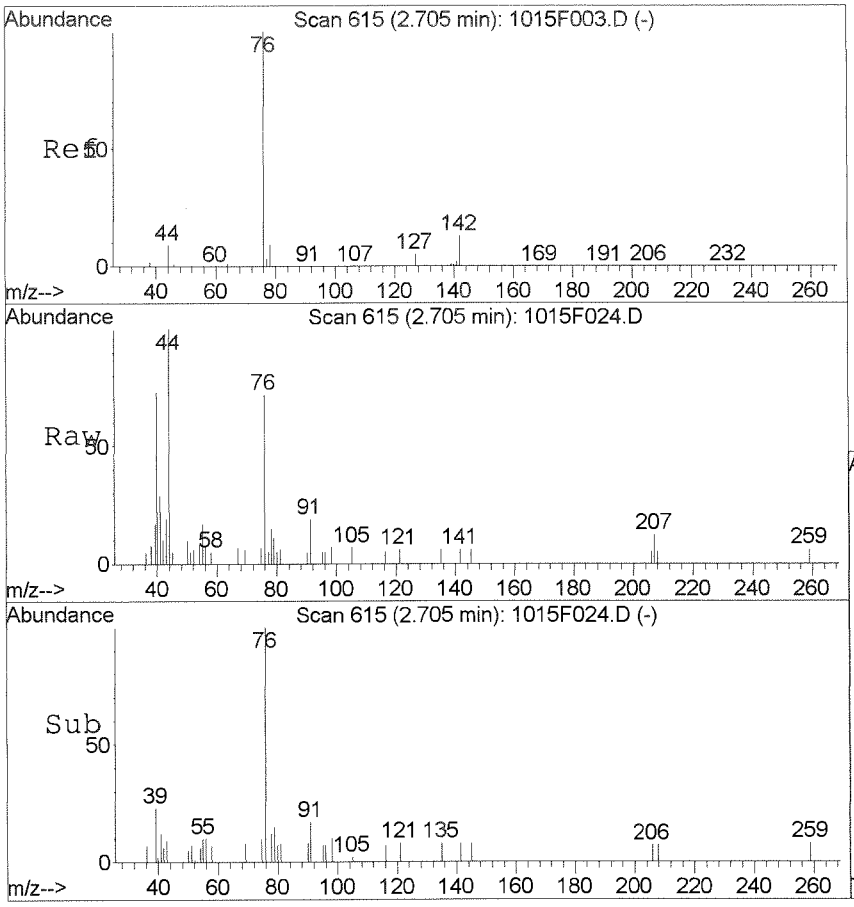


#14
Acetone
Concen: 0.29 PPB
RT: 2.67 min Scan# 601
Delta R.T. 0.01 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 43 Resp: 1160

Ion	Ratio	Lower	Upper
43	100		
58	6.7	0.9	60.9
42	0.0	0.0	37.1

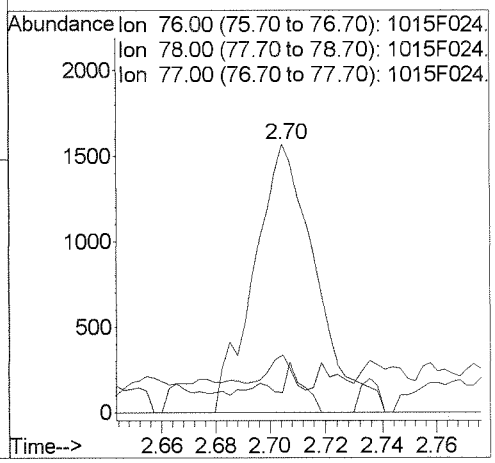


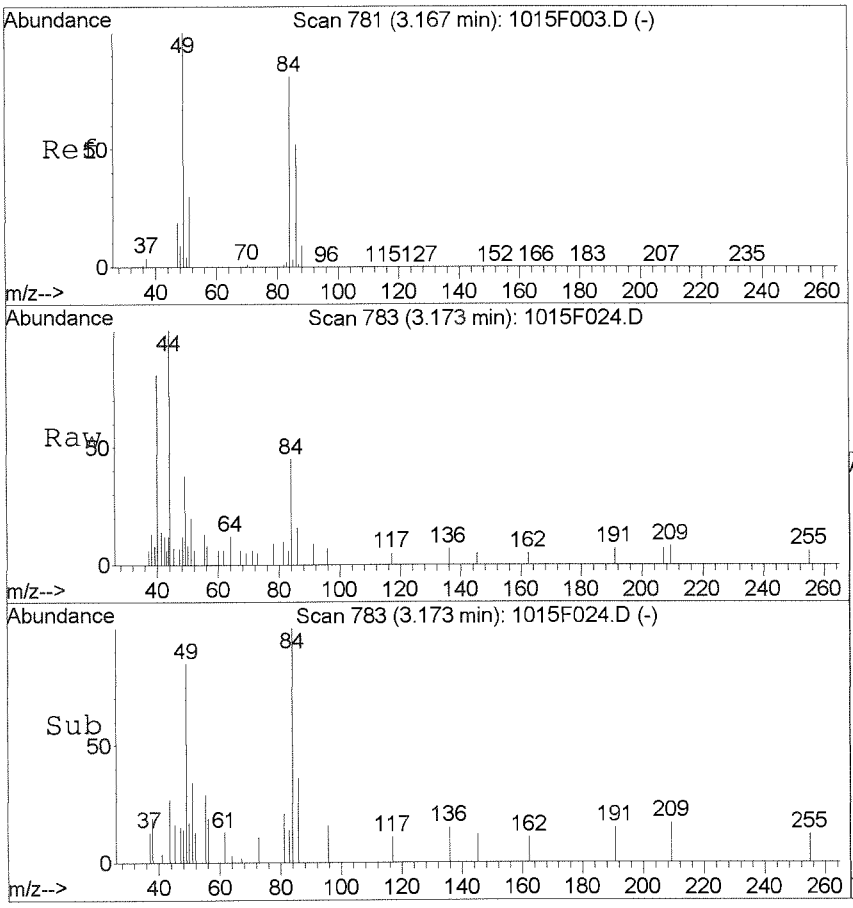


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.70 min Scan# 615
Delta R.T. -0.00 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 76 Resp: 2438

Ion	Ratio	Lower	Upper
76	100		
78	9.1	0.0	39.1
77	7.5	0.0	32.6

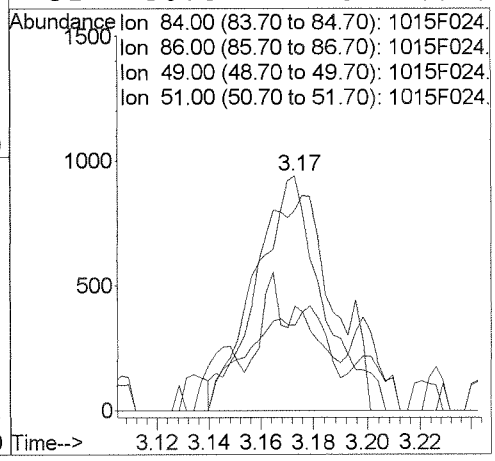


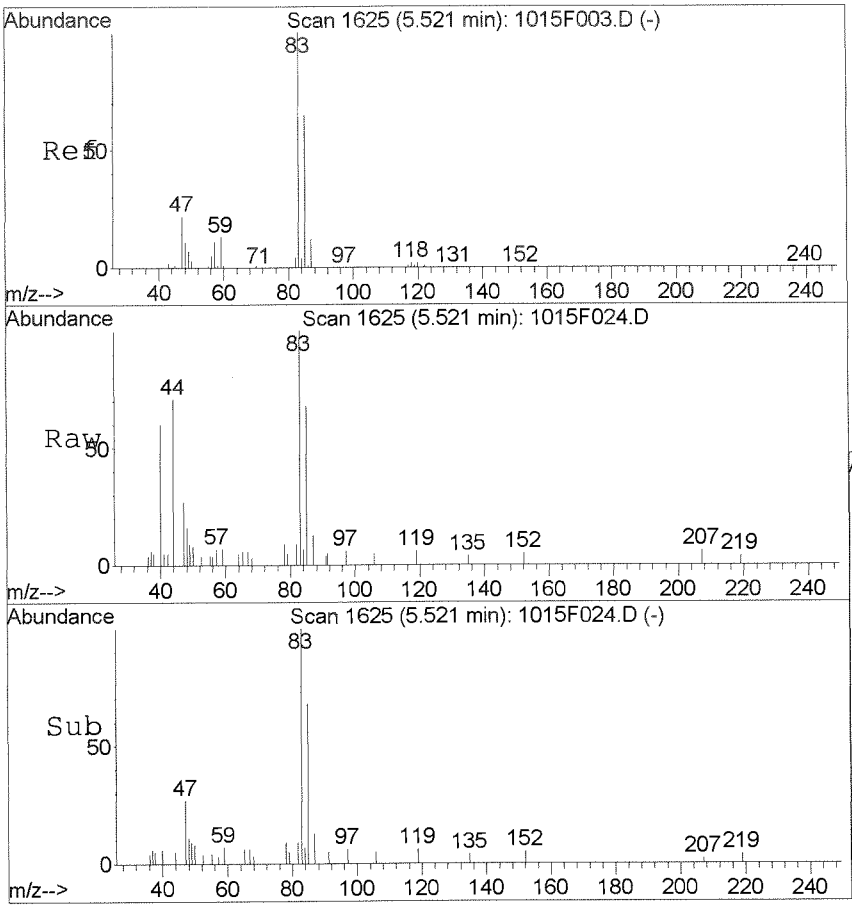


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.17 min Scan# 783
Delta R.T. 0.00 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 84 Resp: 1618

Ion	Ratio	Lower	Upper
84	100		
86	36.3	33.9	93.9
49	85.4	90.6	150.6#
51	30.6	7.6	67.6

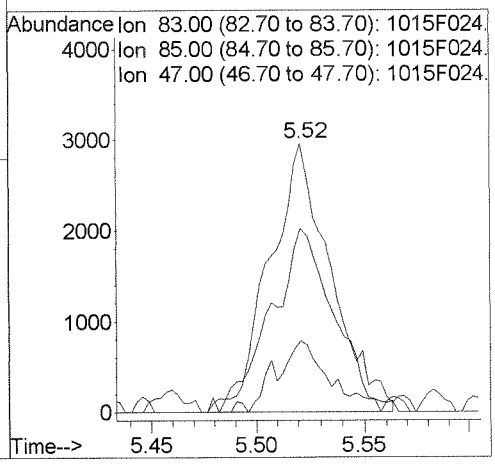


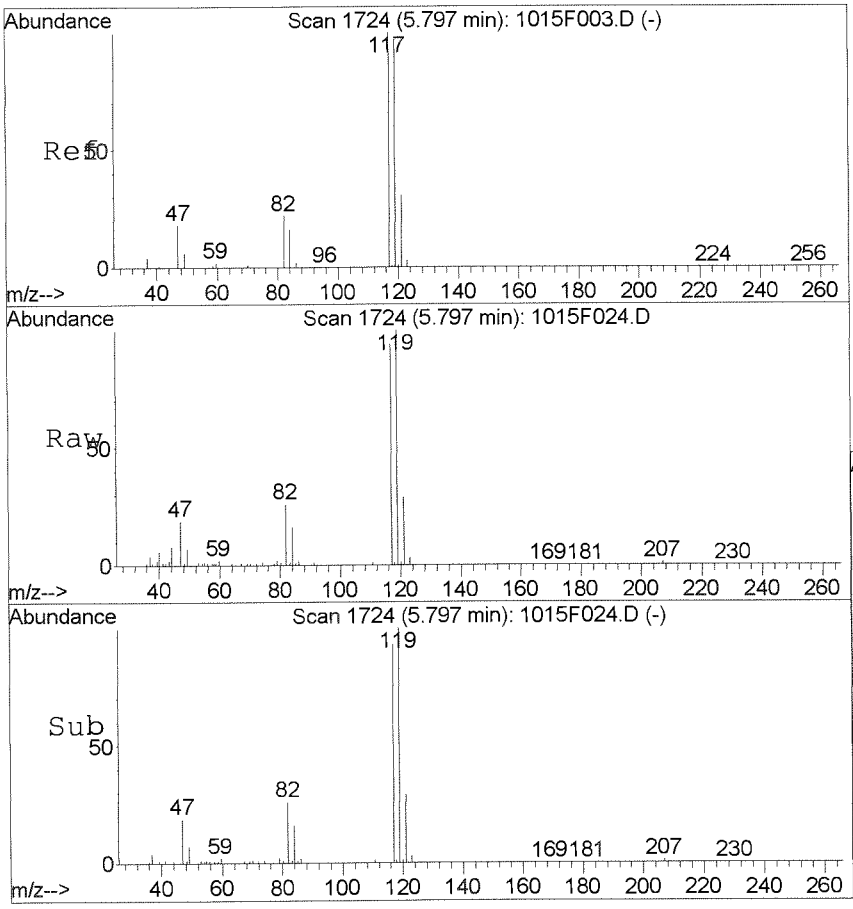


#40
Chloroform
Concen: 0.12 PPB
RT: 5.52 min Scan# 1625
Delta R.T. 0.00 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 83 Resp: 5817

Ion	Ratio	Lower	Upper
83	100		
85	68.4	33.2	93.2
47	22.1	0.0	52.9

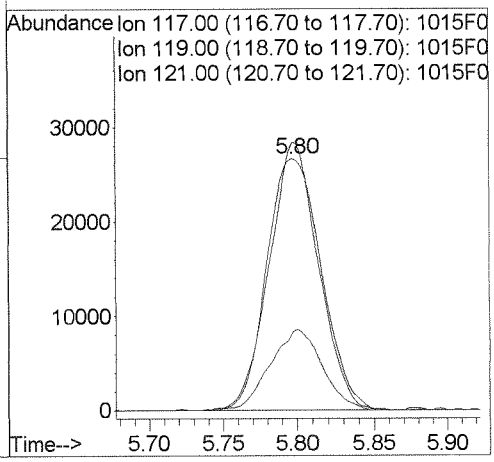


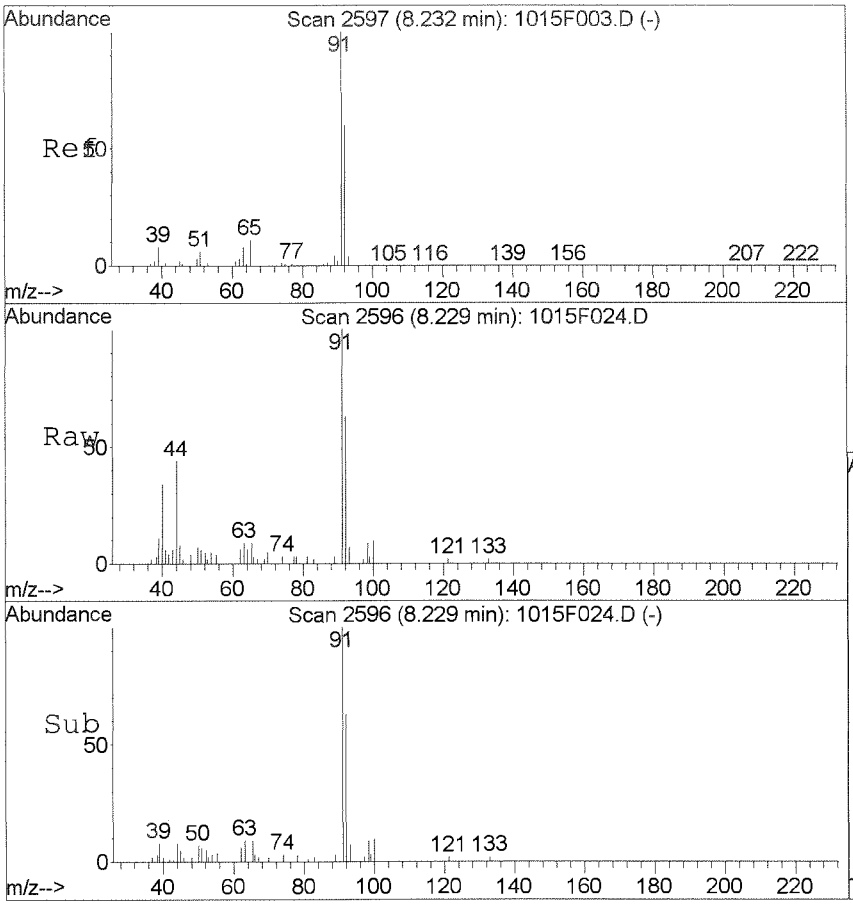


#44
Carbon Tetrachloride
Concen: 1.81 PPB
RT: 5.80 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion:117 Resp: 67326

Ion	Ratio	Lower	Upper
117	100		
119	106.4	66.6	126.6
121	31.3	0.5	60.5

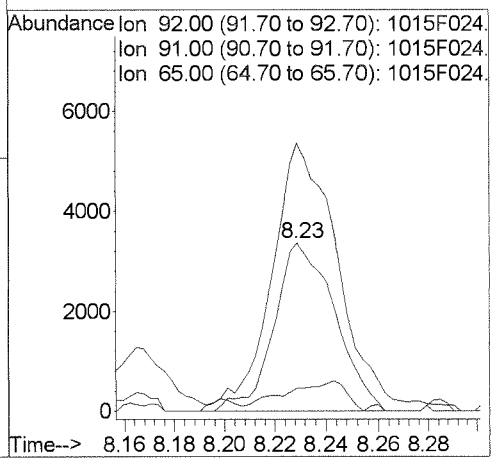


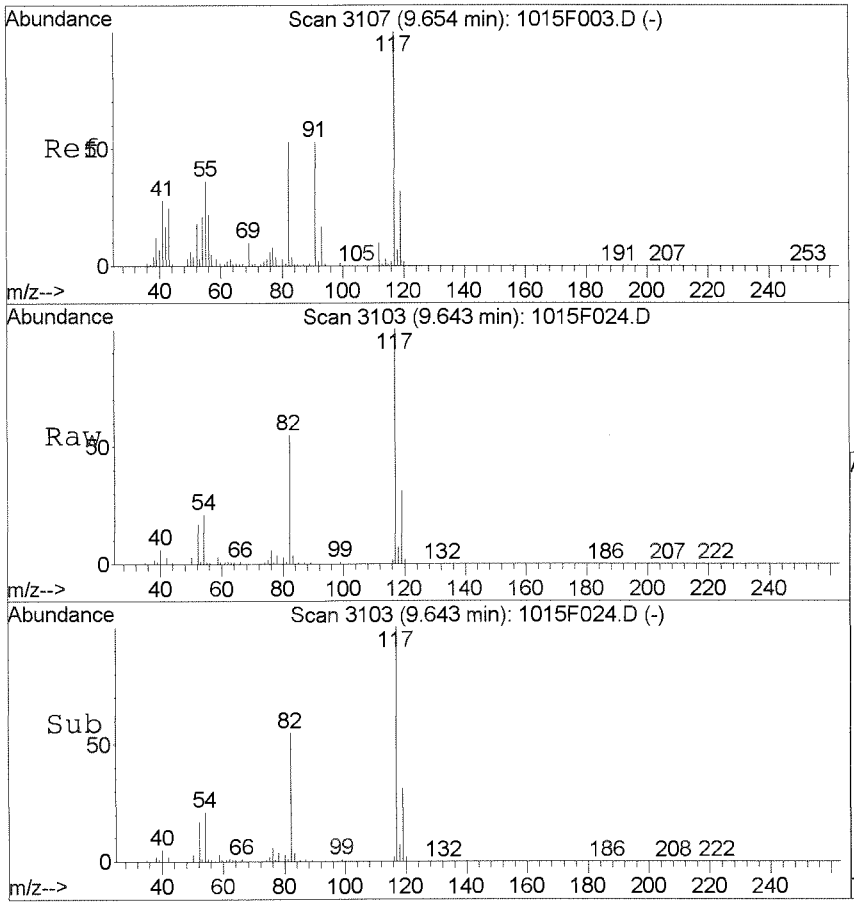


#63
Toluene
Concen: 0.08 PPB
RT: 8.23 min Scan# 2596
Delta R.T. -0.01 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 92 Resp: 5531

Ion	Ratio	Lower	Upper
92	100		
91	155.4	142.0	202.0
65	13.7	0.0	48.9

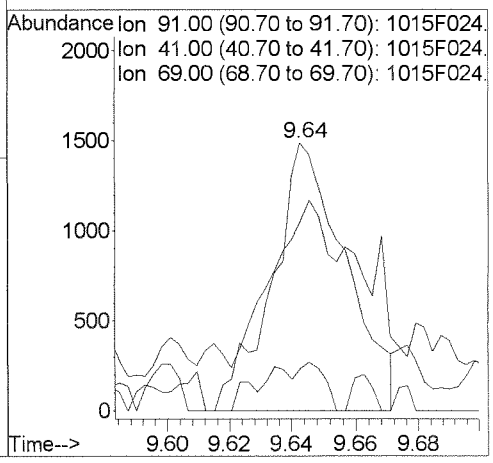




#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.64 min Scan# 3103
Delta R.T. -0.01 min
Lab File: 1015F024.D
Acq: 15 Oct 2014 7:53 pm

Tgt Ion: 91 Resp: 2370

Ion	Ratio	Lower	Upper
91	100		
41	48.2	21.8	81.8
69	15.8	0.0	48.6



Exception Report

Data File: J:\MS27\DATA\101514\1015F011.D
Lab ID: K1410890-013
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 13:57
Date Quantitated: 10/15/2014 15:57
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MC 10/15/14

Secondary Review: [signature] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F011.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 13:57	**Quant Date:**	10/15/2014 15:57	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-013			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385168	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1072058	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	426432	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	418171	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	5.73	0.00	0.00	113	281128	9.58	96	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1030029	9.60	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	377621	9.75	98	68-117	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	Carbon Tetrachloride				117	0		0.096	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\101514\1015F011.D Vial: 9
Acq On : 15 Oct 2014 1:57 pm Operator: MK
Sample : K10890-013 TB 54814 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:53:20 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

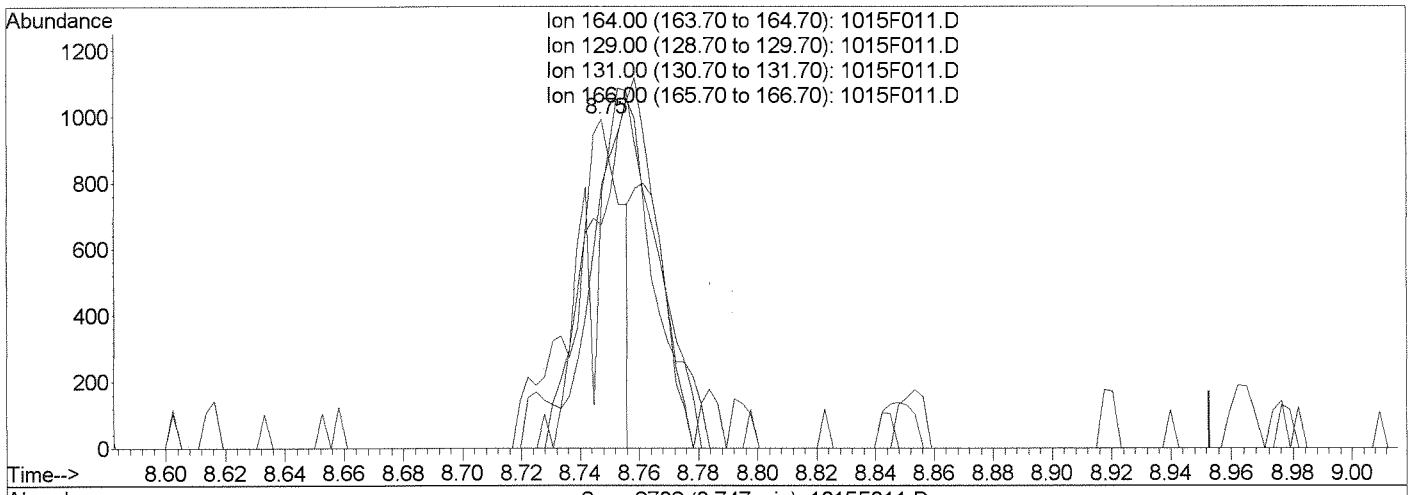
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1072058	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	426432	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	418171	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	281128	9.58	PPB		0.00
Spiked Amount 10.000			Recovery =	95.80%			
47) 1,2-Dichloroethane-d4	6.15	65	265944	9.84	PPB		0.00
Spiked Amount 10.000			Recovery =	98.40%			
62) Toluene-d8	8.16	98	1030029	9.60	PPB		0.00
Spiked Amount 10.000			Recovery =	96.00%			
84) 4-Bromofluorobenzene	10.84	95	377621	9.75	PPB		0.00
Spiked Amount 10.000			Recovery =	97.50%			
Target Compounds							Qvalue
3) Chloromethane	1.26	50	1054	0.03	PPB		84
6) Bromomethane	1.65	96	512	Below Cal		#	11
14) Acetone	2.66	43	3646	0.92	PPB		78
16) Carbon Disulfide	2.70	76	4094	0.05	PPB		91
21) Methylene Chloride	3.17	84	4794	0.16	PPB	#	76
63) Toluene	8.24	92	1826	0.03	PPB		93
69) Tetrachloroethene	8.75	164	1799m	0.08	PPB		
99) 1,4-Dichlorobenzene	12.01	146	1624	0.03	PPB		90
100) n-Butylbenzene	12.33	91	3304	0.03	PPB		82
101) 1,2-Dichlorobenzene	12.38	146	998	0.02	PPB		82
103) 1,3,5-Trichlorobenzene	13.33	180	1987	0.04	PPB		93
104) 1,2,4-Trichlorobenzene	13.98	180	1930	0.05	PPB		77
105) Hexachlorobutadiene	14.10	225	652	0.04	PPB	#	54
106) Naphthalene	14.23	128	2262	0.03	PPB		95
107) 1,2,3-Trichlorobenzene	14.48	180	1182	0.03	PPB		85

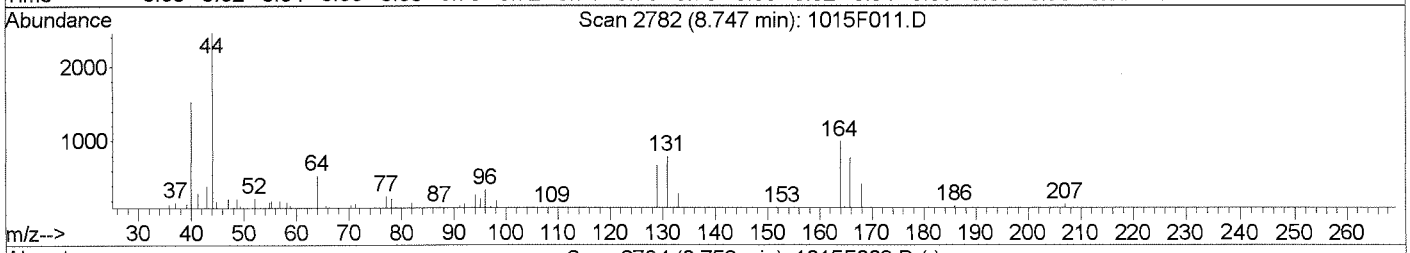
(#) = qualifier out of range (m) = manual integration

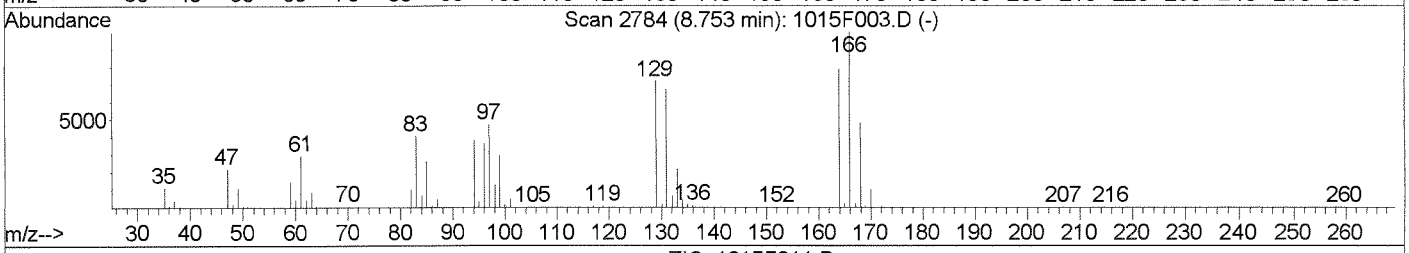
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F011.D Vial: 9
Acq On : 15 Oct 2014 1:57 pm Operator: MK
Sample : K10890-013 TB 54814 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:55 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F011.D

(69) Tetrachloroethene (T)

8.75min 0.05PPB

response 1168

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	67.71
131.00	88.90	80.18
166.00	127.50	77.97#

Manual Integration:

Before

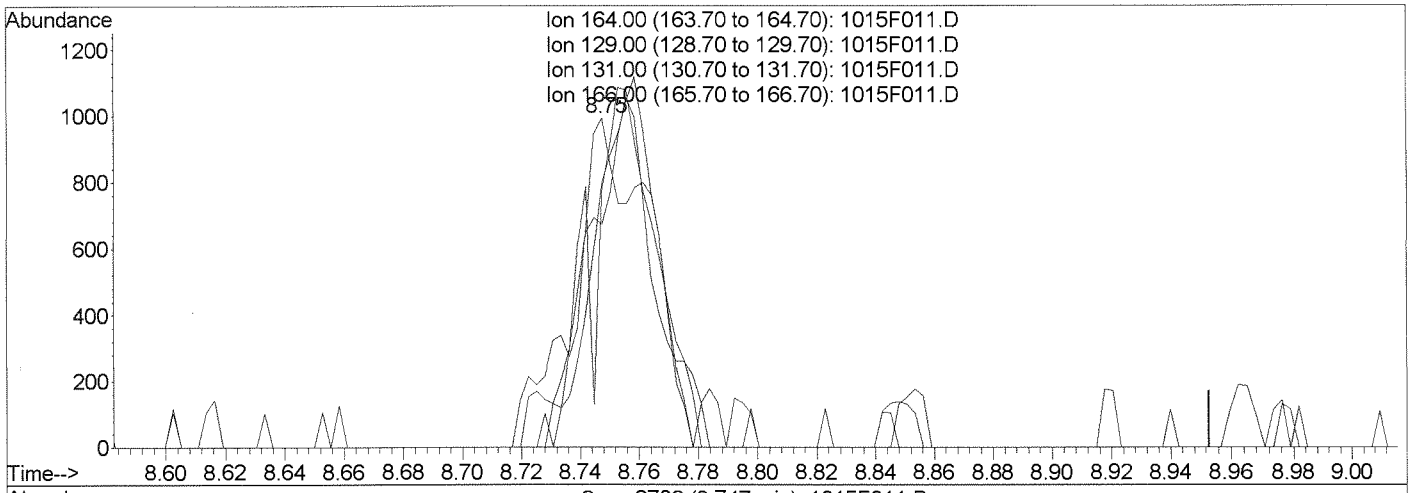
10/15/14

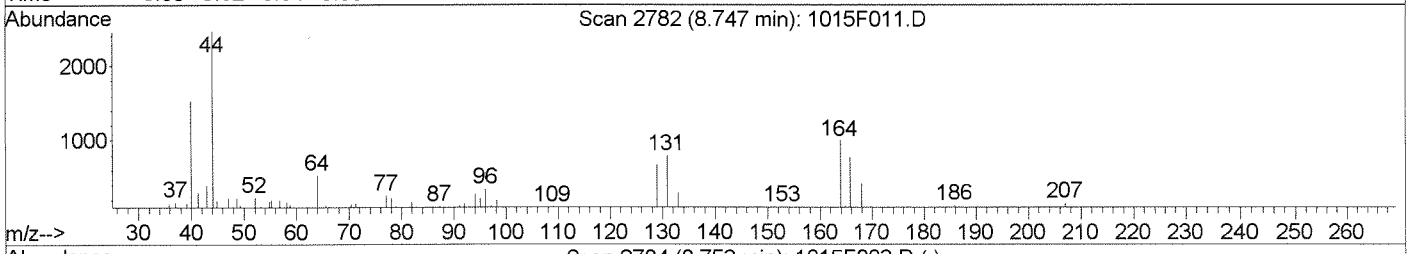
1015F011.D 100814MS27_8260.M Wed Oct 15 15:55:59 2014

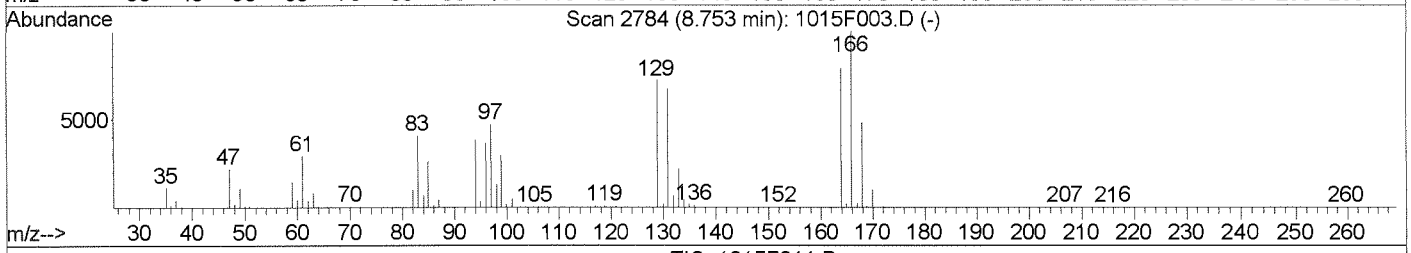
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F011.D Vial: 9
Acq On : 15 Oct 2014 1:57 pm Operator: MK
Sample : K10890-013 TB 54814 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:56 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F011.D

(69) Tetrachloroethene (T)

8.75min 0.08PPB m

response 1799

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	67.71
131.00	88.90	80.18
166.00	127.50	77.97#

Manual Integration:

After

Baseline correction

10/15/14

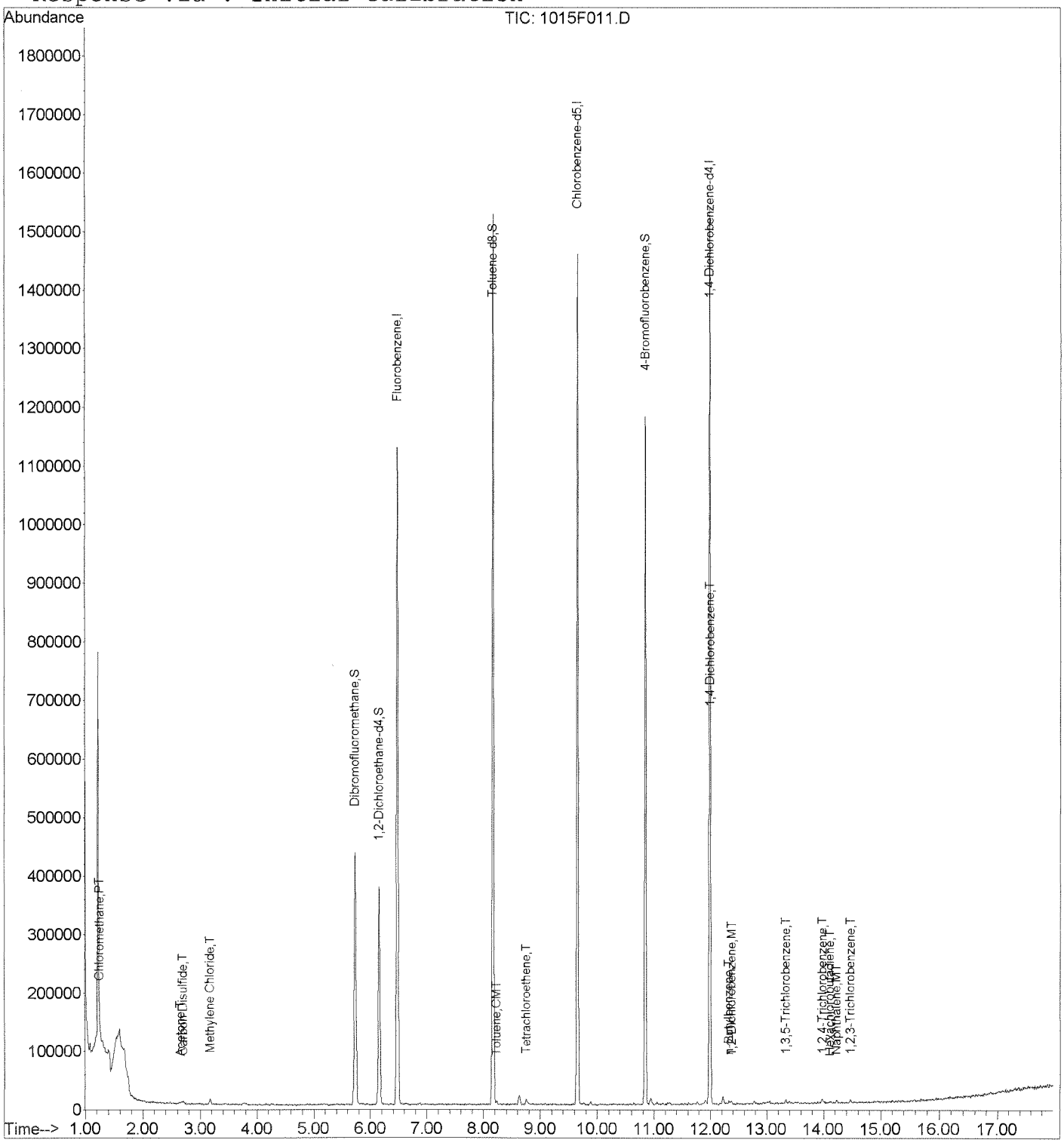
MK 10/17/2014

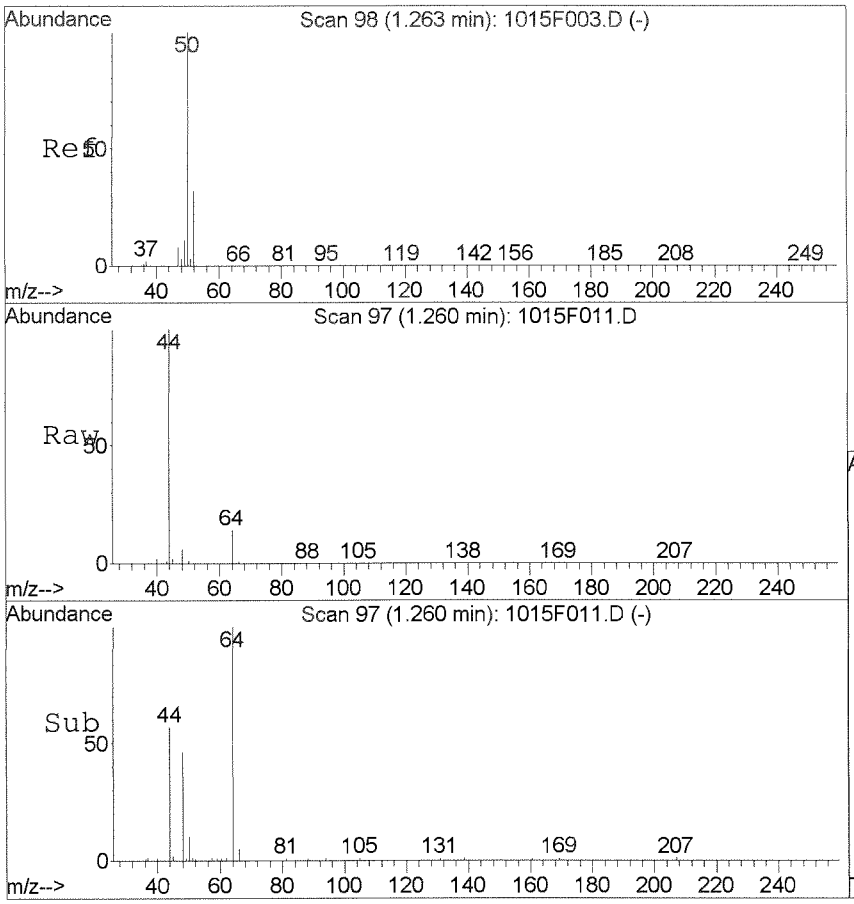
1015F011.D 100814MS27_8260.M Wed Oct 15 15:56:09 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F011.D Vial: 9
Acq On : 15 Oct 2014 1:57 pm Operator: MK
Sample : K10890-013 TB 54814 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:57 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

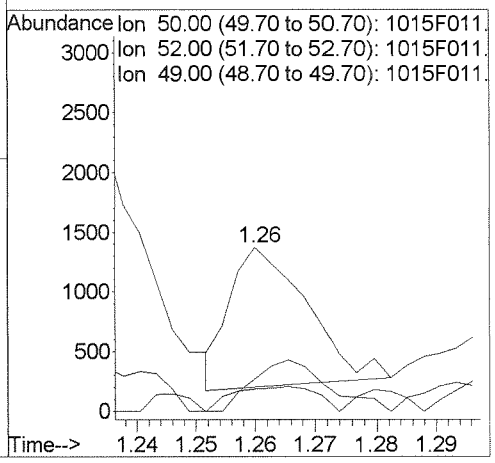


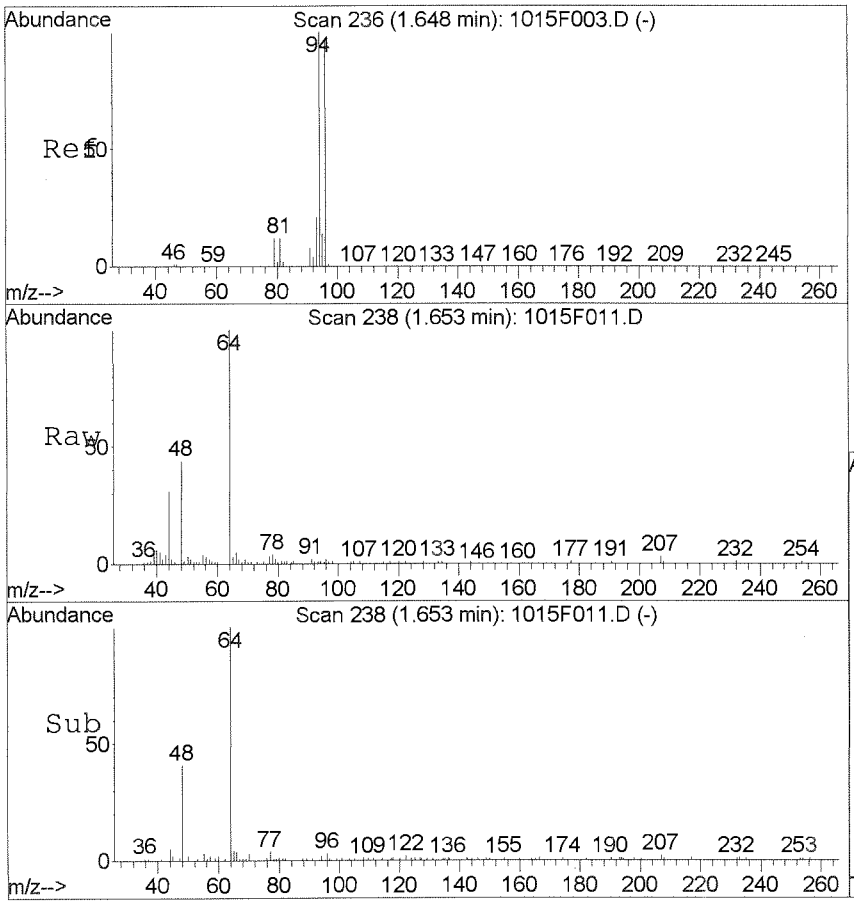


#3
Chloromethane
Concen: 0.03 PPB
RT: 1.26 min Scan# 97
Delta R.T. -0.01 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 50 Resp: 1054

Ion	Ratio	Lower	Upper
50	100		
52	25.1	3.4	63.4
49	17.1	0.0	40.1

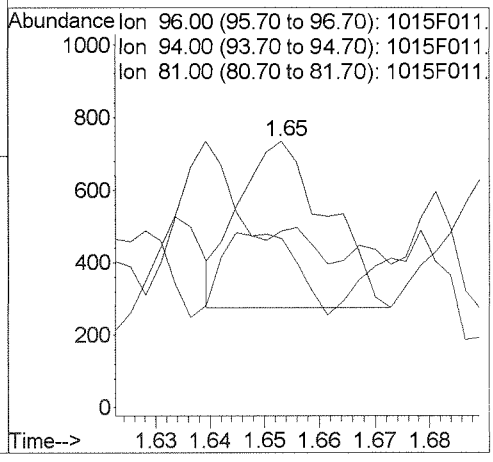


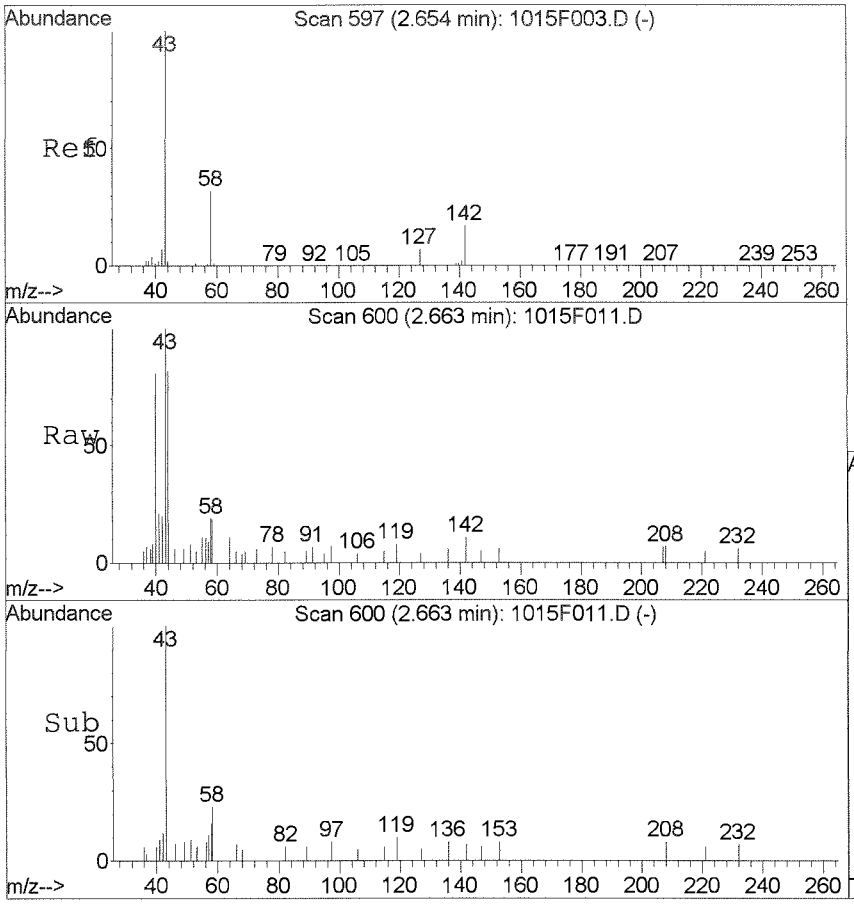


#6
Bromomethane
Concen: Below Cal
RT: 1.65 min Scan# 238
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 96 Resp: 512

Ion	Ratio	Lower	Upper
96	100		
94	8.4	77.8	137.8#
81	31.4	0.0	43.8

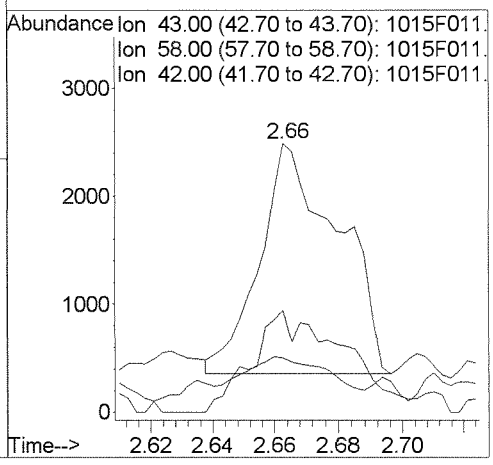


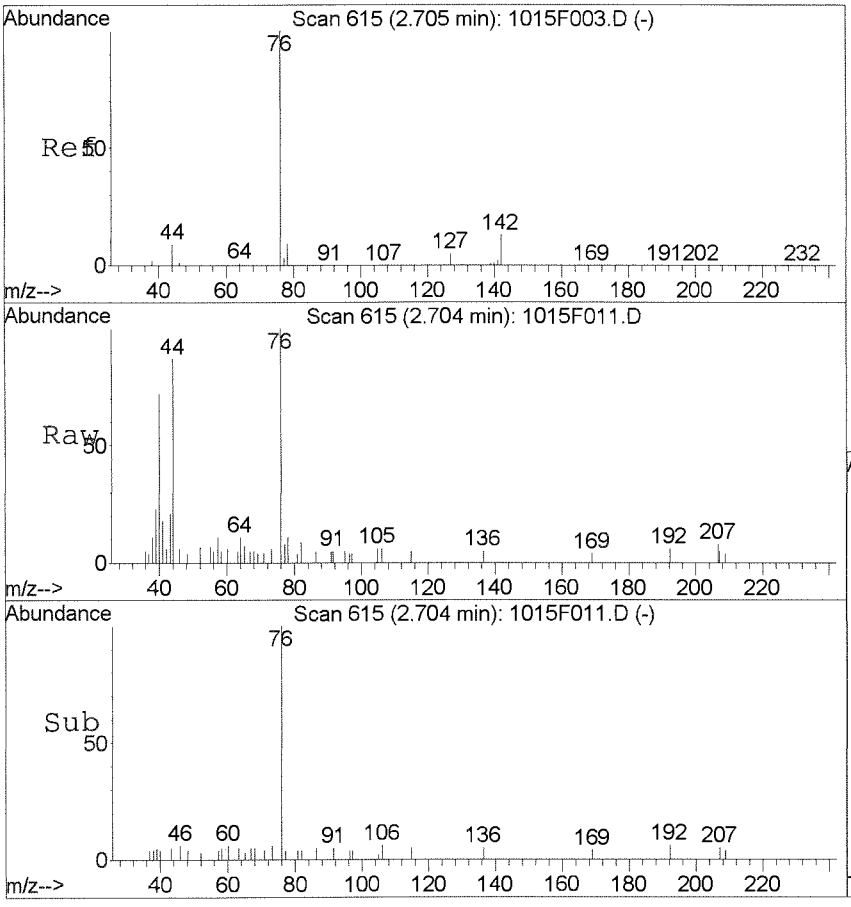


#14
Acetone
Concen: 0.92 PPB
RT: 2.66 min Scan# 600
Delta R.T. 0.01 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 43 Resp: 3646

Ion	Ratio	Lower	Upper
43	100		
58	44.2	0.9	60.9
42	10.9	0.0	37.1

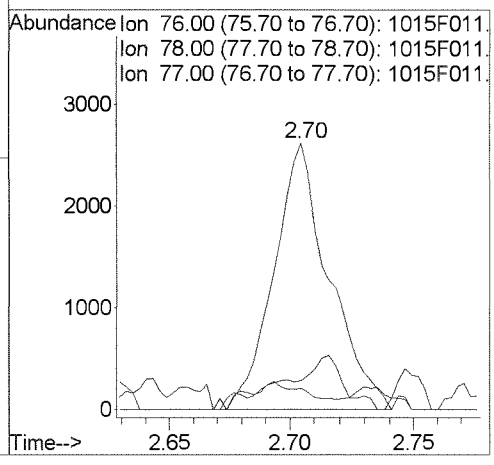


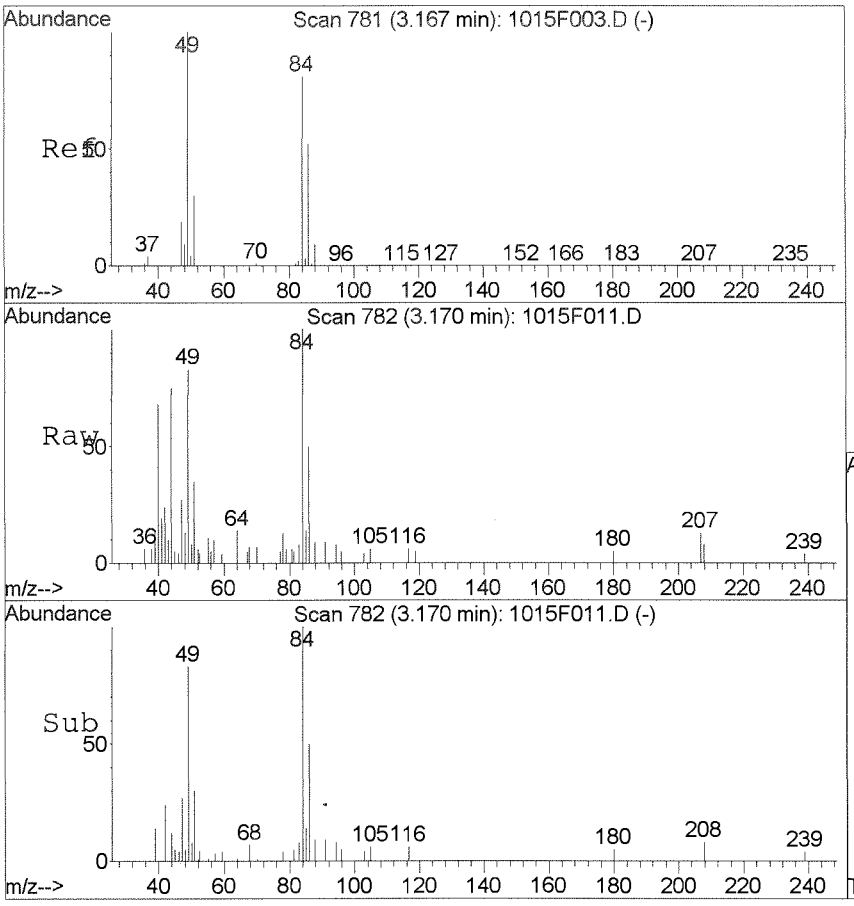


#16
Carbon Disulfide
Concen: 0.05 PPB
RT: 2.70 min Scan# 615
Delta R.T. -0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 76 Resp: 4094

Ion	Ratio	Lower	Upper
76	100		
78	6.5	0.0	39.1
77	8.0	0.0	32.6

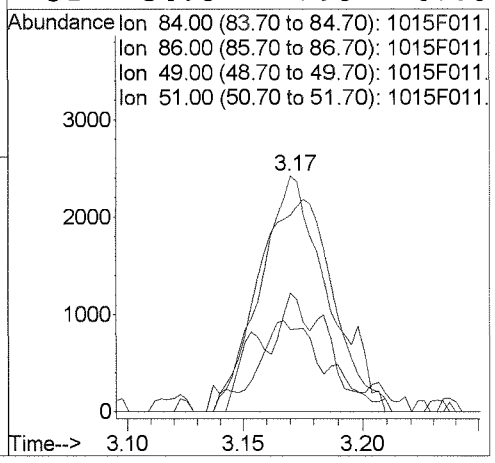


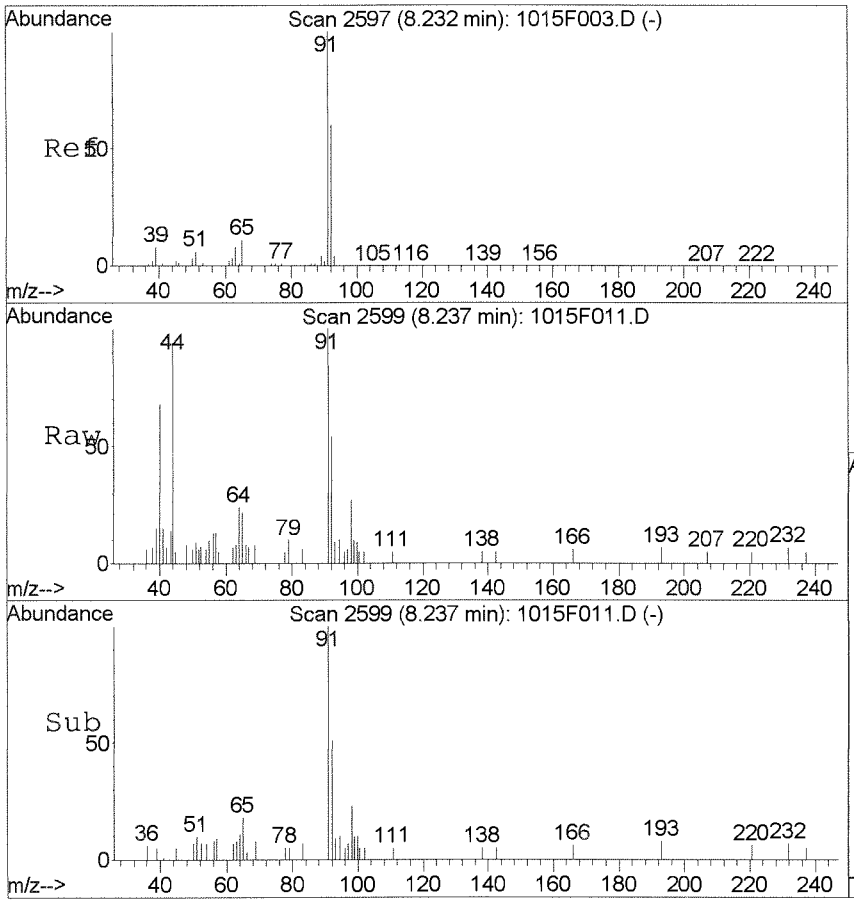


#21
Methylene Chloride
Concen: 0.16 PPB
RT: 3.17 min Scan# 782
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 84 Resp: 4794

Ion	Ratio	Lower	Upper
84	100		
86	50.2	33.9	93.9
49	83.2	90.6	150.6#
51	34.8	7.6	67.6

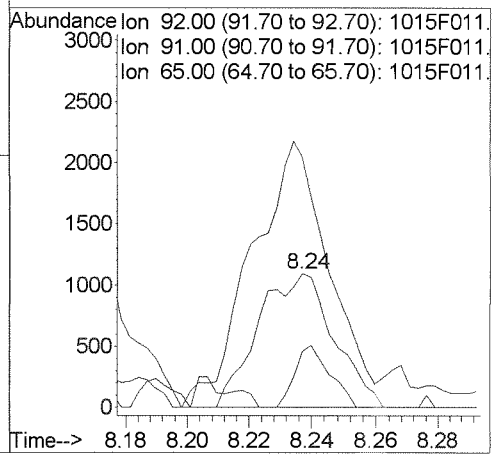


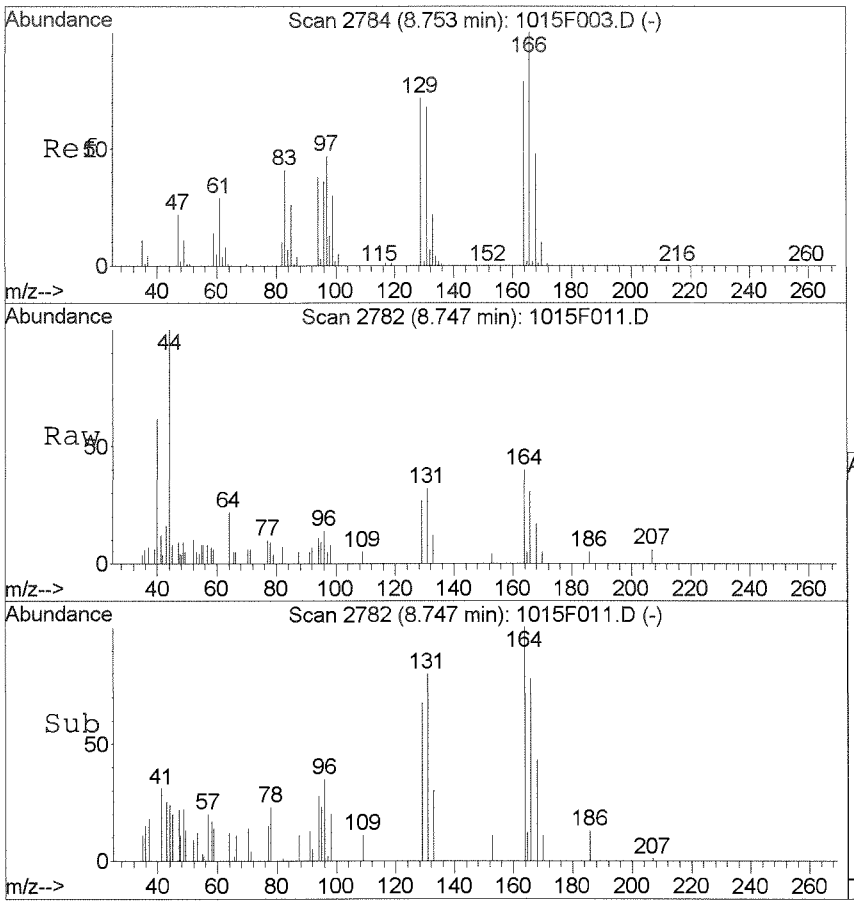


#63
Toluene
Concen: 0.03 PPB
RT: 8.24 min Scan# 2599
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 92 Resp: 1826

Ion	Ratio	Lower	Upper
92	100		
91	168.4	142.0	202.0
65	41.8	0.0	48.9

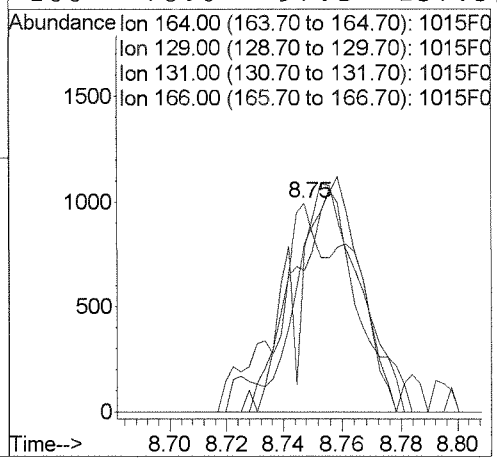


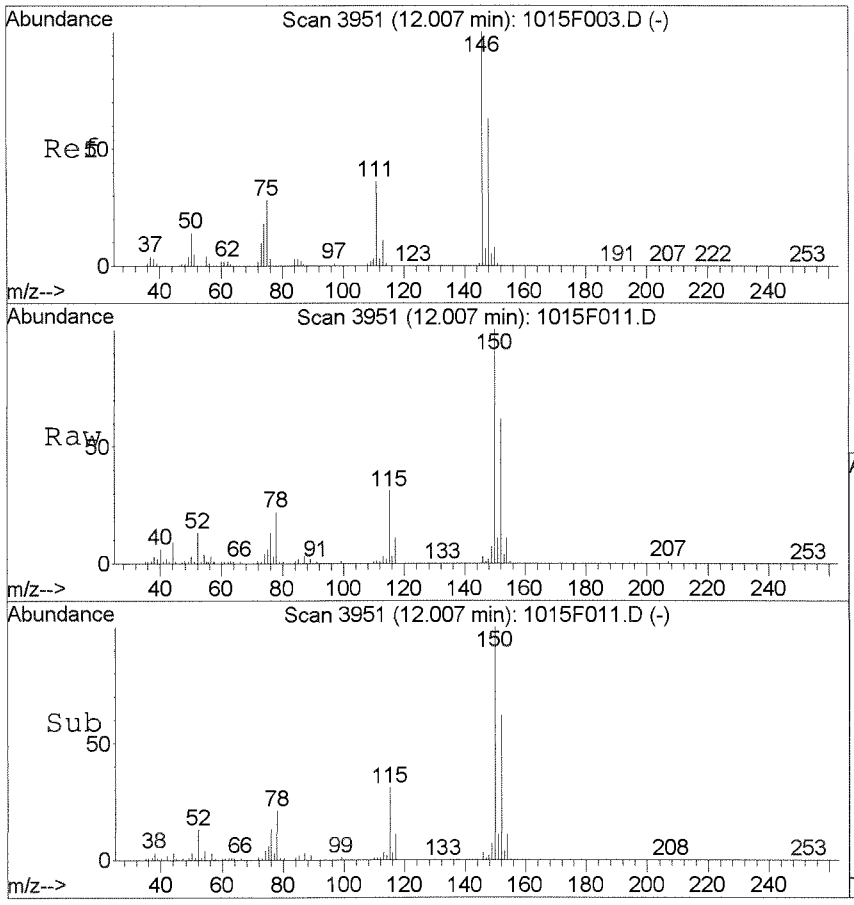


#69
Tetrachloroethene
Concen: 0.08 PPB m
RT: 8.75 min Scan# 2782
Delta R.T. -0.01 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:164 Resp: 1799

Ion	Ratio	Lower	Upper
164	100		
129	67.7	62.3	122.3
131	80.2	58.9	118.9
166	78.0	97.5	157.5#

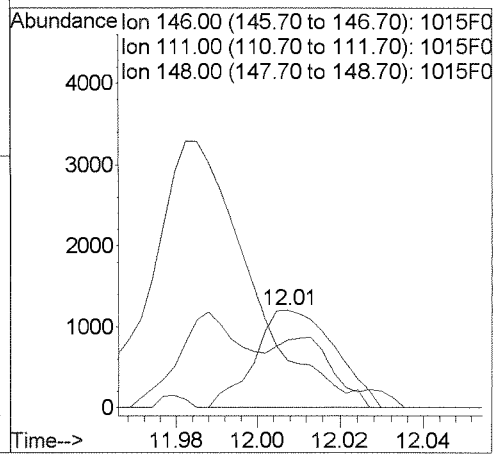


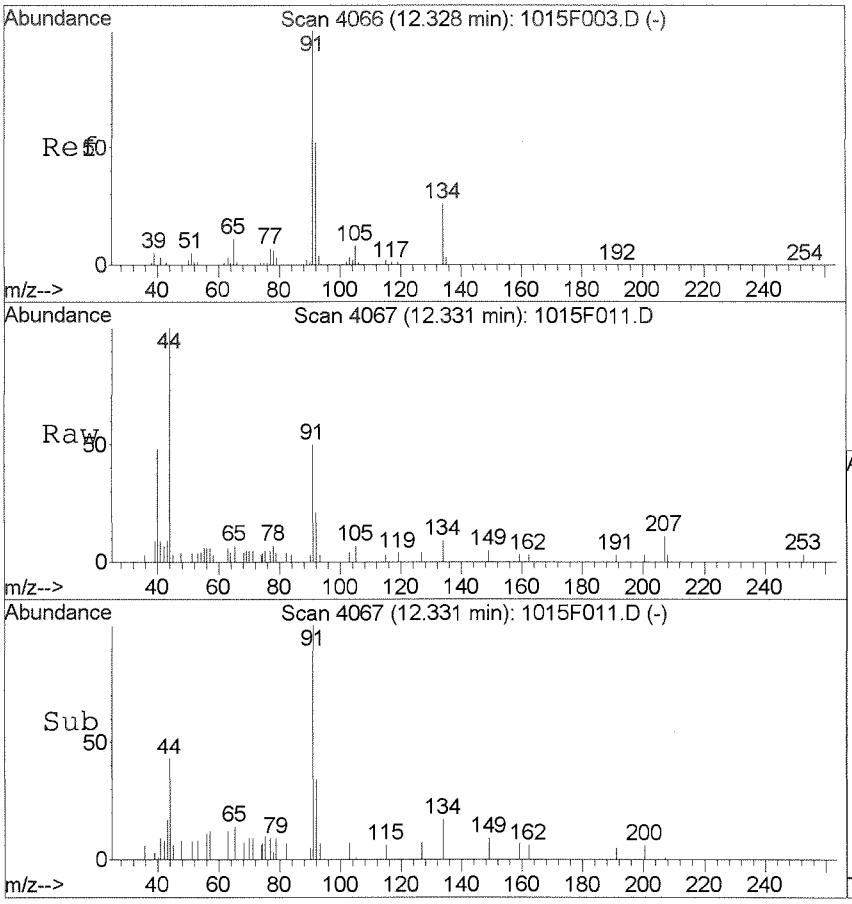


#99
1,4-Dichlorobenzene
Concen: 0.03 PPB
RT: 12.01 min Scan# 3951
Delta R.T. -0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:146 Resp: 1624

Ion	Ratio	Lower	Upper
146	100		
111	48.2	7.5	67.5
148	59.4	34.0	94.0

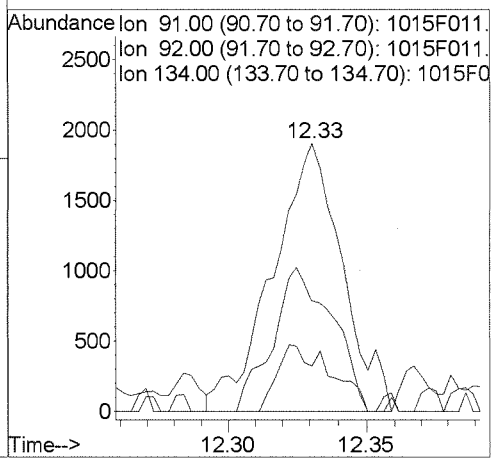


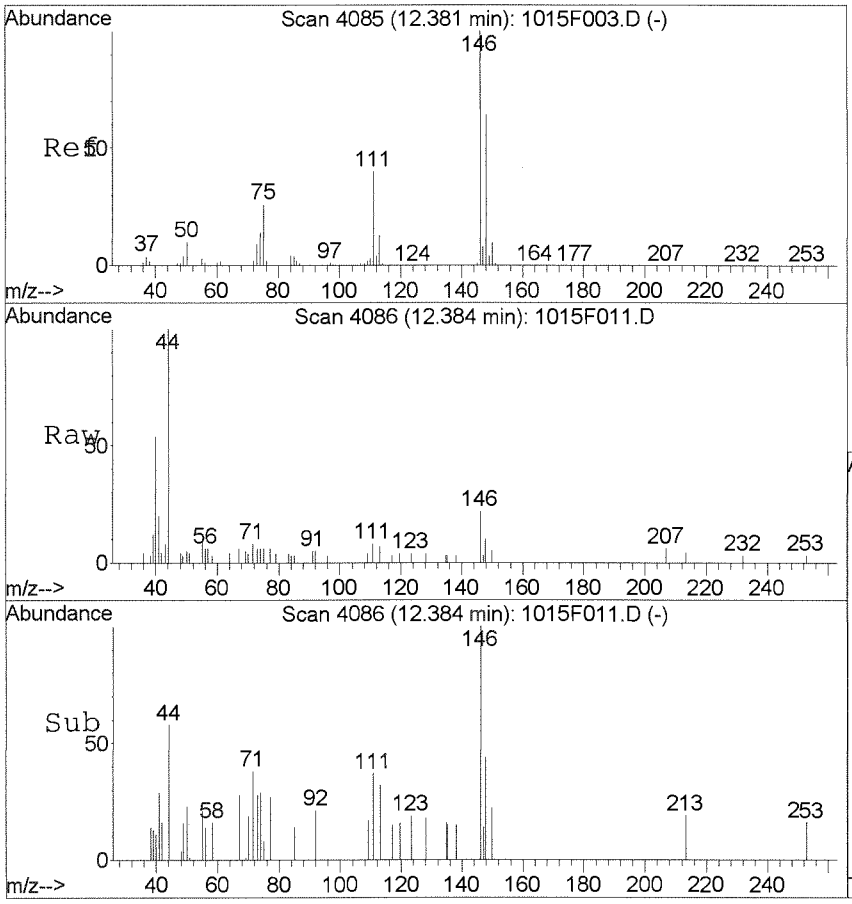


#100
n-Butylbenzene
Concen: 0.03 PPB
RT: 12.33 min Scan# 4067
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion: 91 Resp: 3304

Ion	Ratio	Lower	Upper
91	100		
92	41.4	23.9	83.9
134	16.9	0.0	56.6

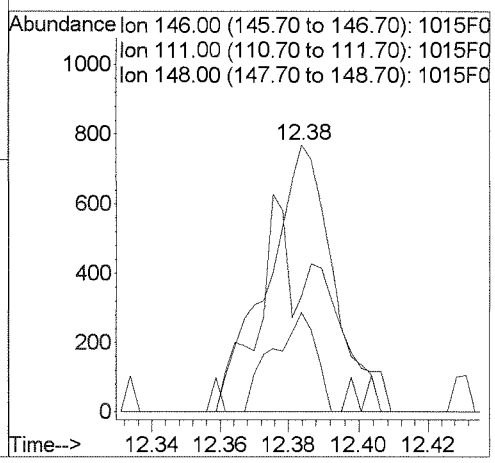


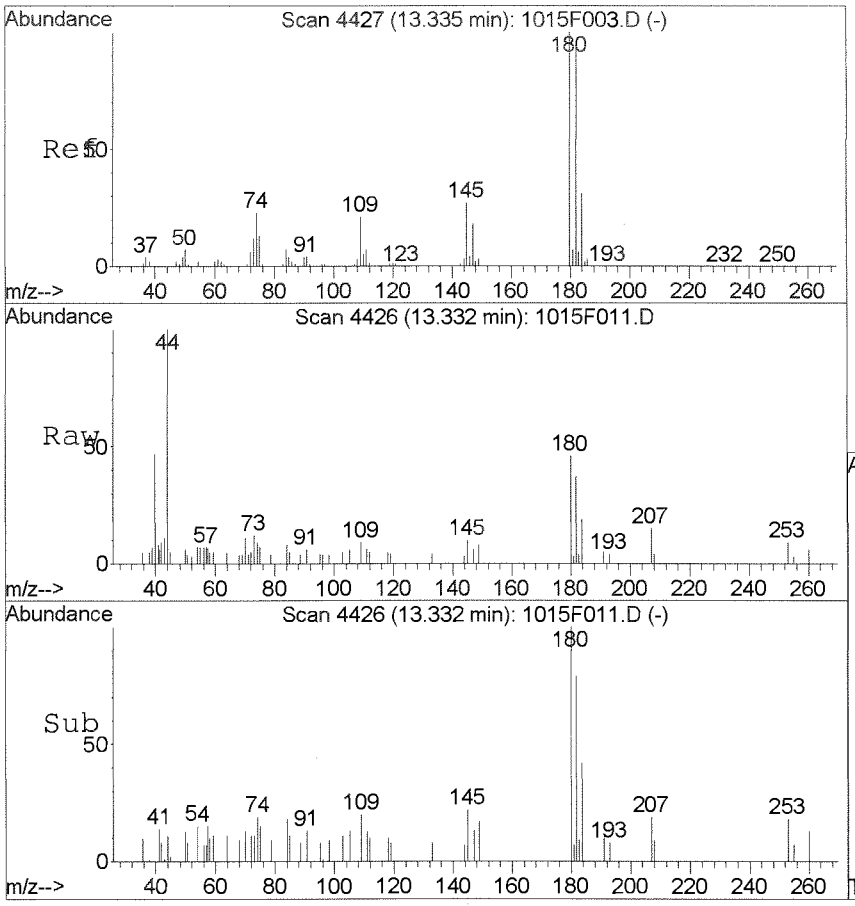


#101
1,2-Dichlorobenzene
Concen: 0.02 PPB
RT: 12.38 min Scan# 4086
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:146 Resp: 998

Ion	Ratio	Lower	Upper
146	100		
111	37.3	9.7	69.7
148	43.9	34.9	94.9

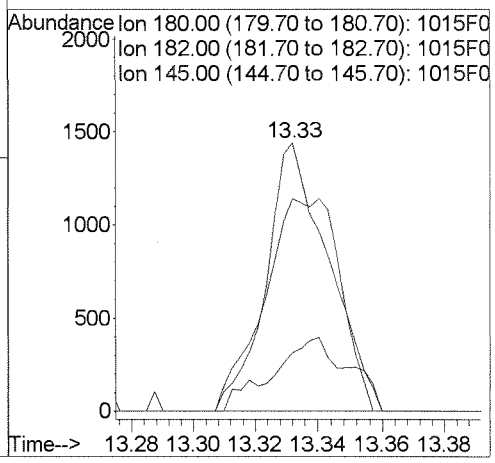


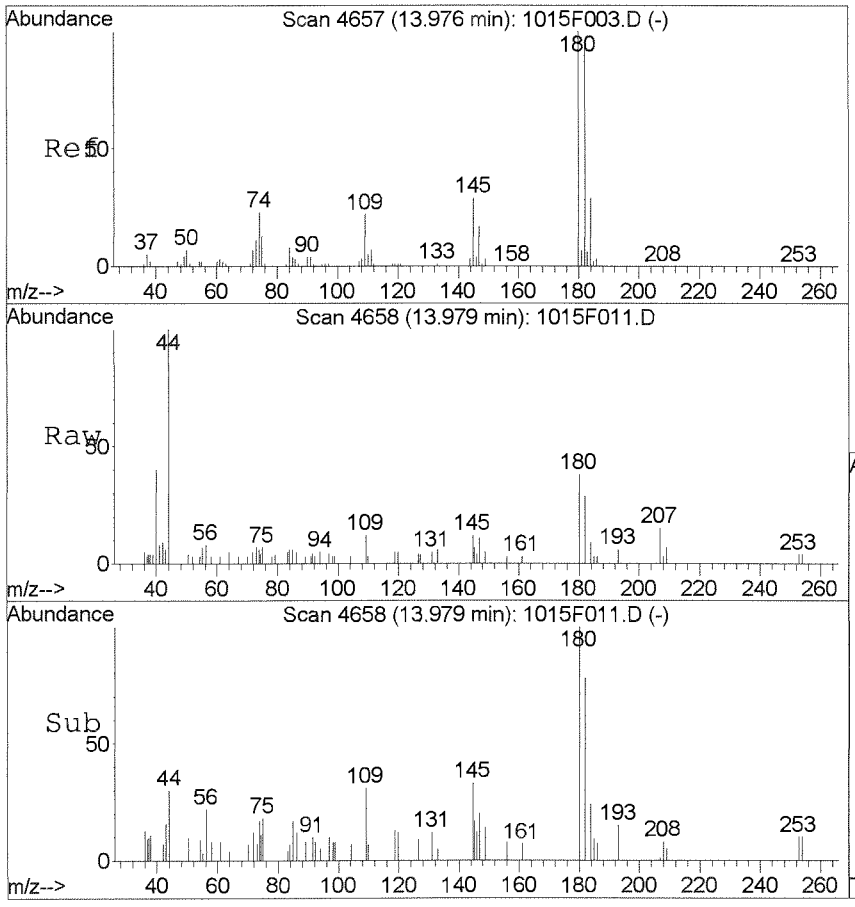


#103
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.33 min Scan# 4426
Delta R.T. -0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:180 Resp: 1987

Ion	Ratio	Lower	Upper
180	100		
182	88.3	64.5	124.5
145	21.9	0.0	57.2

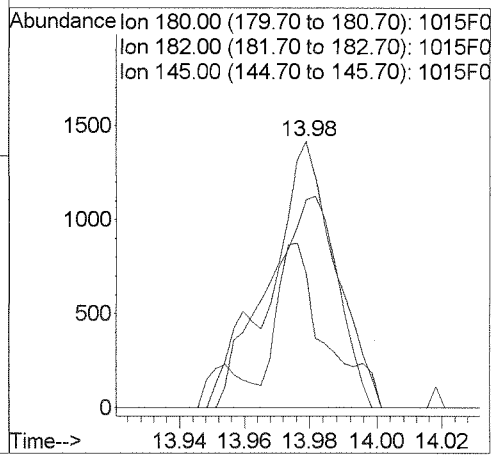


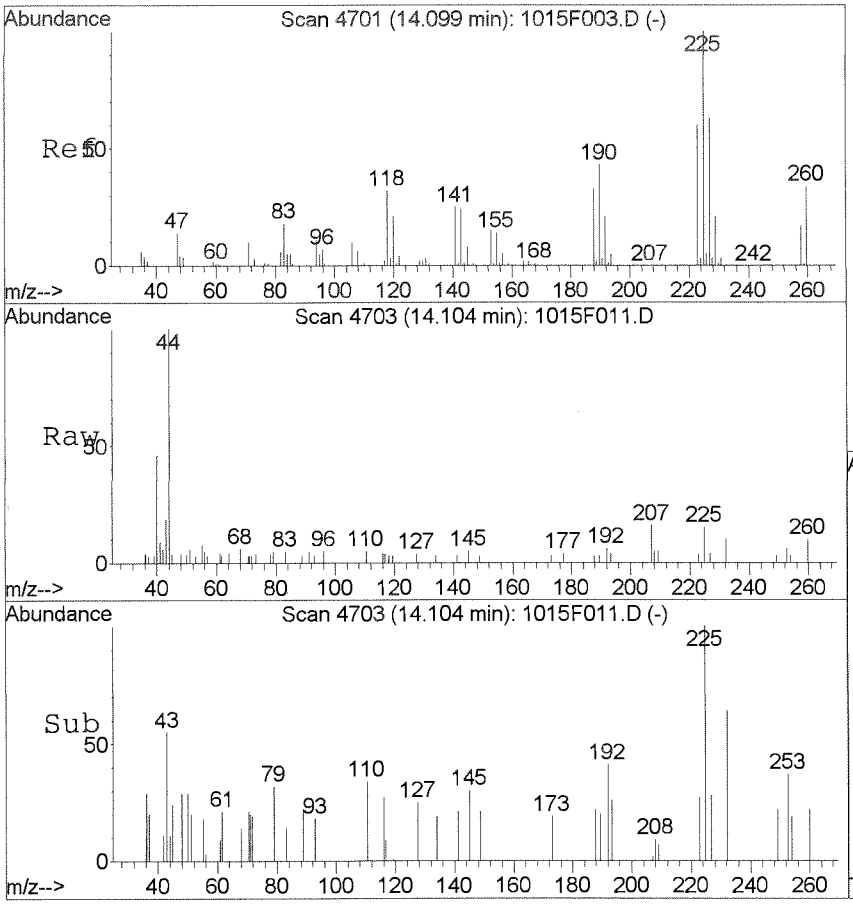


#104
1,2,4-Trichlorobenzene
Concen: 0.05 PPB
RT: 13.98 min Scan# 4658
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:180 Resp: 1930

Ion	Ratio	Lower	Upper
180	100		
182	78.2	64.9	124.9
145	49.9	0.0	57.8

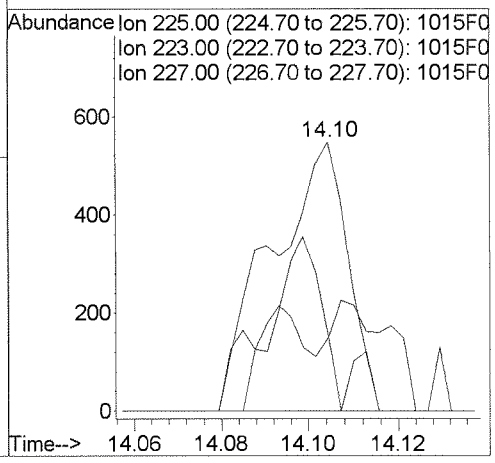


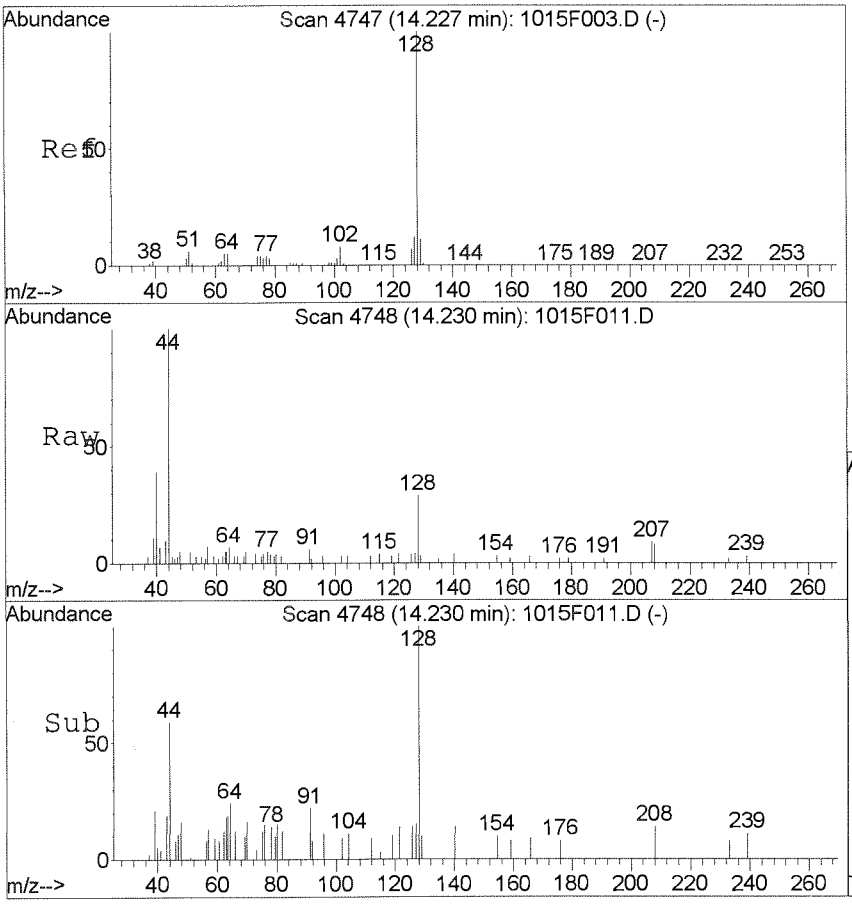


#105
Hexachlorobutadiene
Concen: 0.04 PPB
RT: 14.10 min Scan# 4703
Delta R.T. 0.01 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:225 Resp: 652

Ion	Ratio	Lower	Upper
225	100		
223	27.4	31.5	91.5#
227	28.1	35.4	95.4#

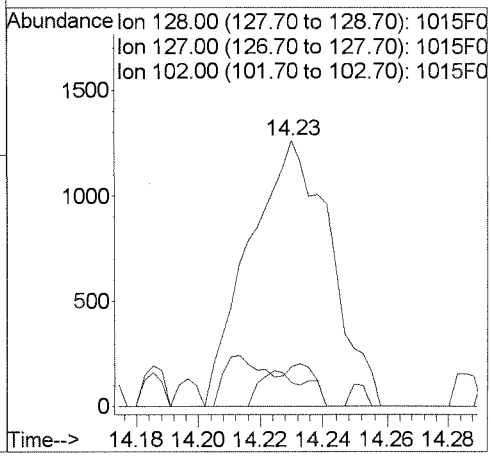


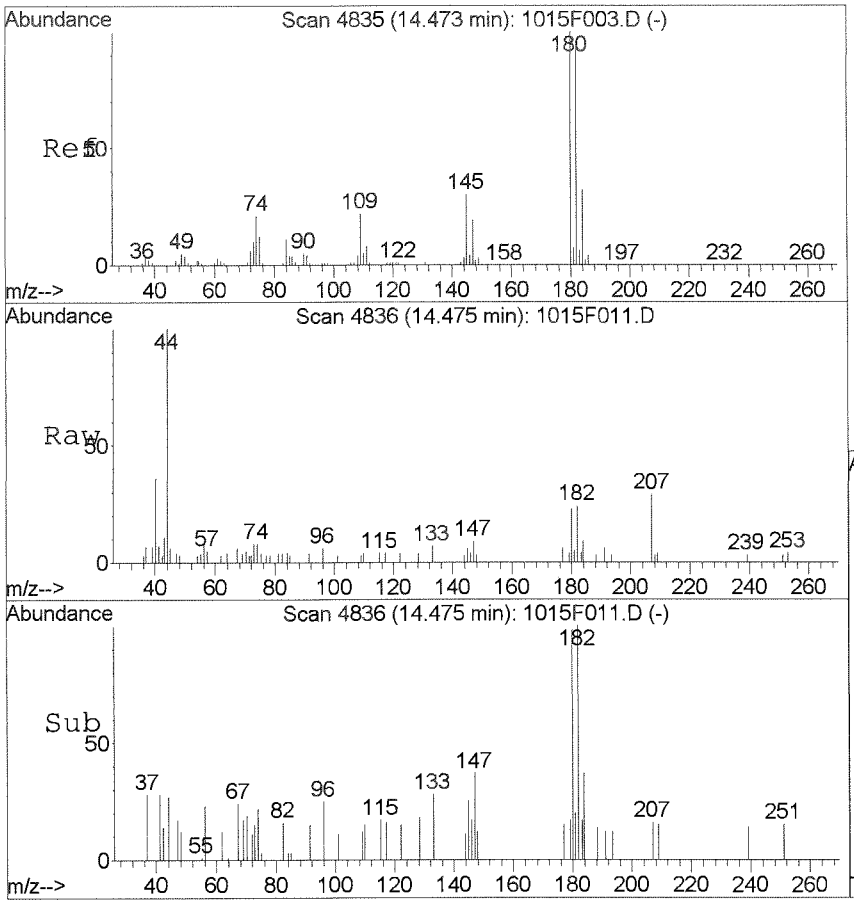


#106
Naphthalene
Concen: 0.03 PPB
RT: 14.23 min Scan# 4748
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:128 Resp: 2262

Ion	Ratio	Lower	Upper
128	100		
127	15.1	0.0	42.7
102	8.9	0.0	37.9

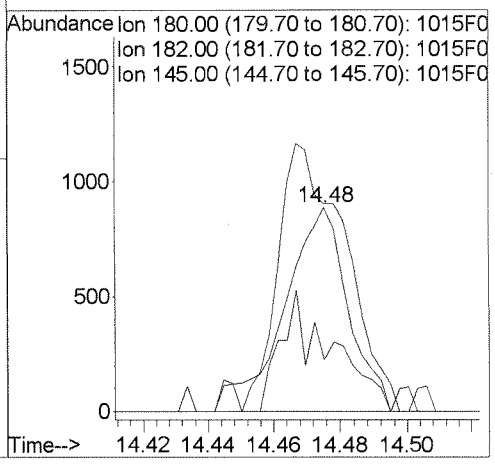




#107
1,2,3-Trichlorobenzene
Concen: 0.03 PPB
RT: 14.48 min Scan# 4836
Delta R.T. 0.00 min
Lab File: 1015F011.D
Acq: 15 Oct 2014 1:57 pm

Tgt Ion:180 Resp: 1182

Ion	Ratio	Lower	Upper
180	100		
182	84.4	68.4	128.4
145	21.1	1.4	61.4



Exception Report

Data File: J:\MS27\DATA\101514\1015F012.D
Lab ID: K1410890-014
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 14:24
Date Quantitated: 10/15/2014 16:03
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MC 10/15/14

Secondary Review: 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F012.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 14:24	**Quant Date:**	10/15/2014 16:03	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-014			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/02/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385169	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1078756	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	437950	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	419770	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	5.73	0.00	0.00	113	269869	9.14	91	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1040477	9.64	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	380566	9.56	96	68-117	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	Carbon Tetrachloride				117	0		0.096	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\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:58:36 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

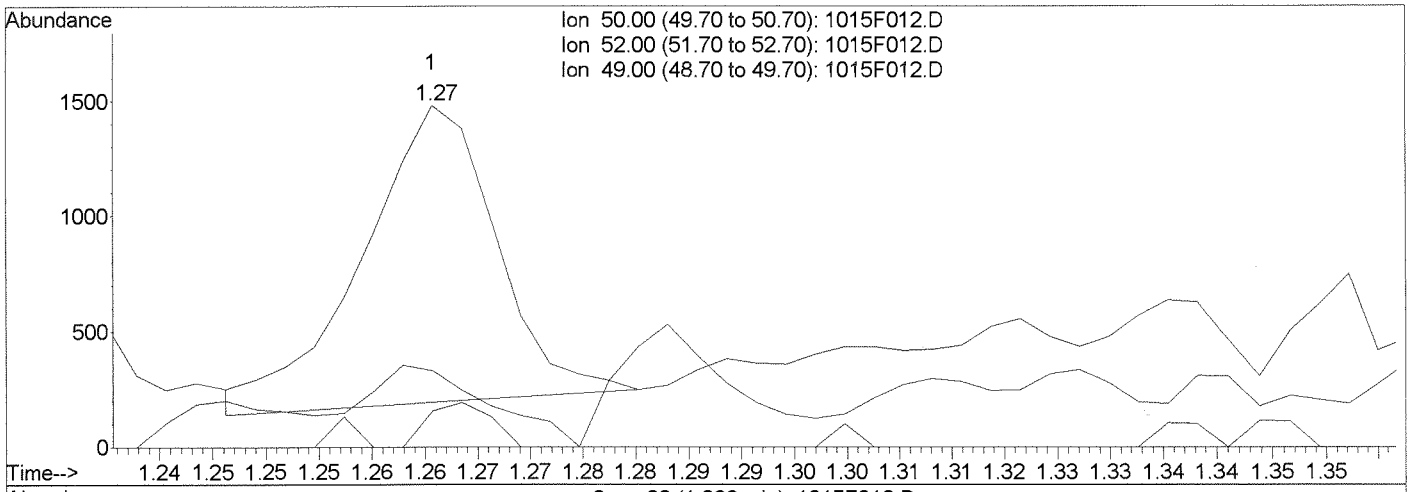
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1078756	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	437950	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	419770	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	269869	9.14	PPB	0.00
Spiked Amount 10.000			Recovery =	91.40%		
47) 1,2-Dichloroethane-d4	6.15	65	263855	9.70	PPB	0.00
Spiked Amount 10.000			Recovery =	97.00%		
62) Toluene-d8	8.16	98	1040477	9.64	PPB	0.00
Spiked Amount 10.000			Recovery =	96.40%		
84) 4-Bromofluorobenzene	10.84	95	380566	9.56	PPB	0.00
Spiked Amount 10.000			Recovery =	95.60%		
Target Compounds						Qvalue
3) Chloromethane	1.27	50	1104m	0.03	PPB	
6) Bromomethane	1.64	96	832	Below Cal	#	21
14) Acetone	2.67	43	4008m	1.01	PPB	
16) Carbon Disulfide	2.71	76	3654m	0.04	PPB	
21) Methylene Chloride	3.17	84	5271	0.17	PPB	86
63) Toluene	8.23	92	3492	0.05	PPB	88
69) Tetrachloroethene	8.75	164	1127	0.05	PPB	# 75
74) 1-Chlorohexane	9.65	91	2084	0.05	PPB	80
78) m,p-Xylenes	9.90	106	1243m	0.03	PPB	
103) 1,3,5-Trichlorobenzene	13.33	180	1556	0.03	PPB	# 71
104) 1,2,4-Trichlorobenzene	13.98	180	2152	0.05	PPB	81
107) 1,2,3-Trichlorobenzene	14.46	180	1007m	0.03	PPB	

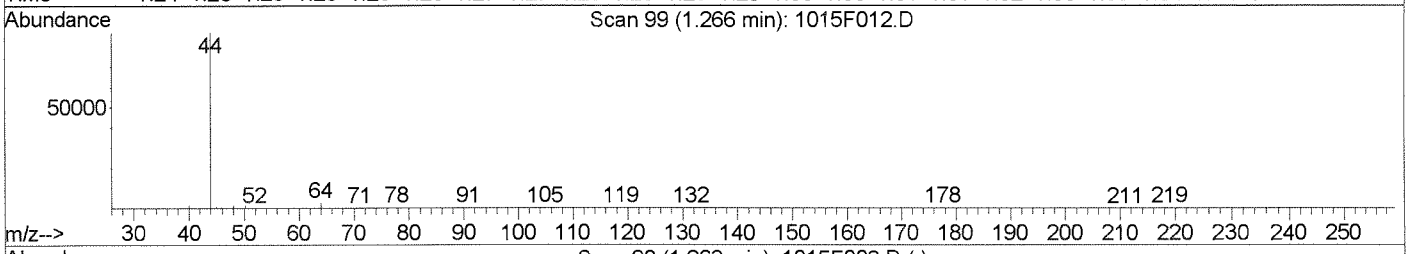
(#) = qualifier out of range (m) = manual integration

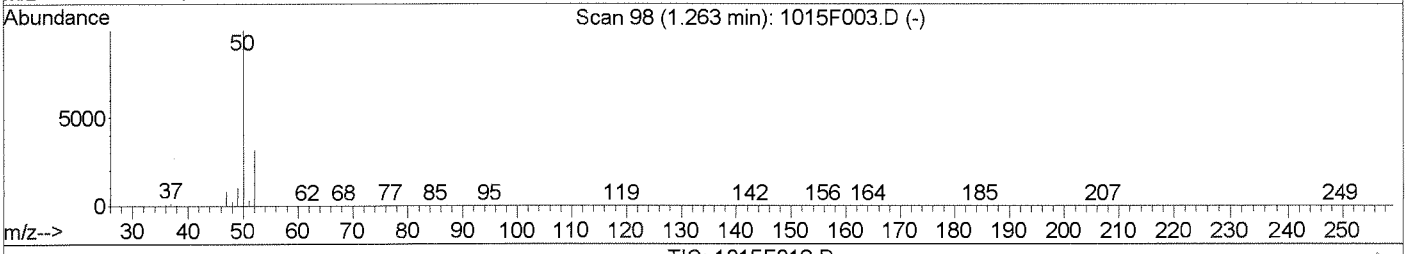
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:58 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F012.D

(3) Chloromethane (PT)

1.27min 0.03PPB

response 1137

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	9.44
49.00	10.10	11.32
0.00	0.00	0.00

Manual Integration:

Before

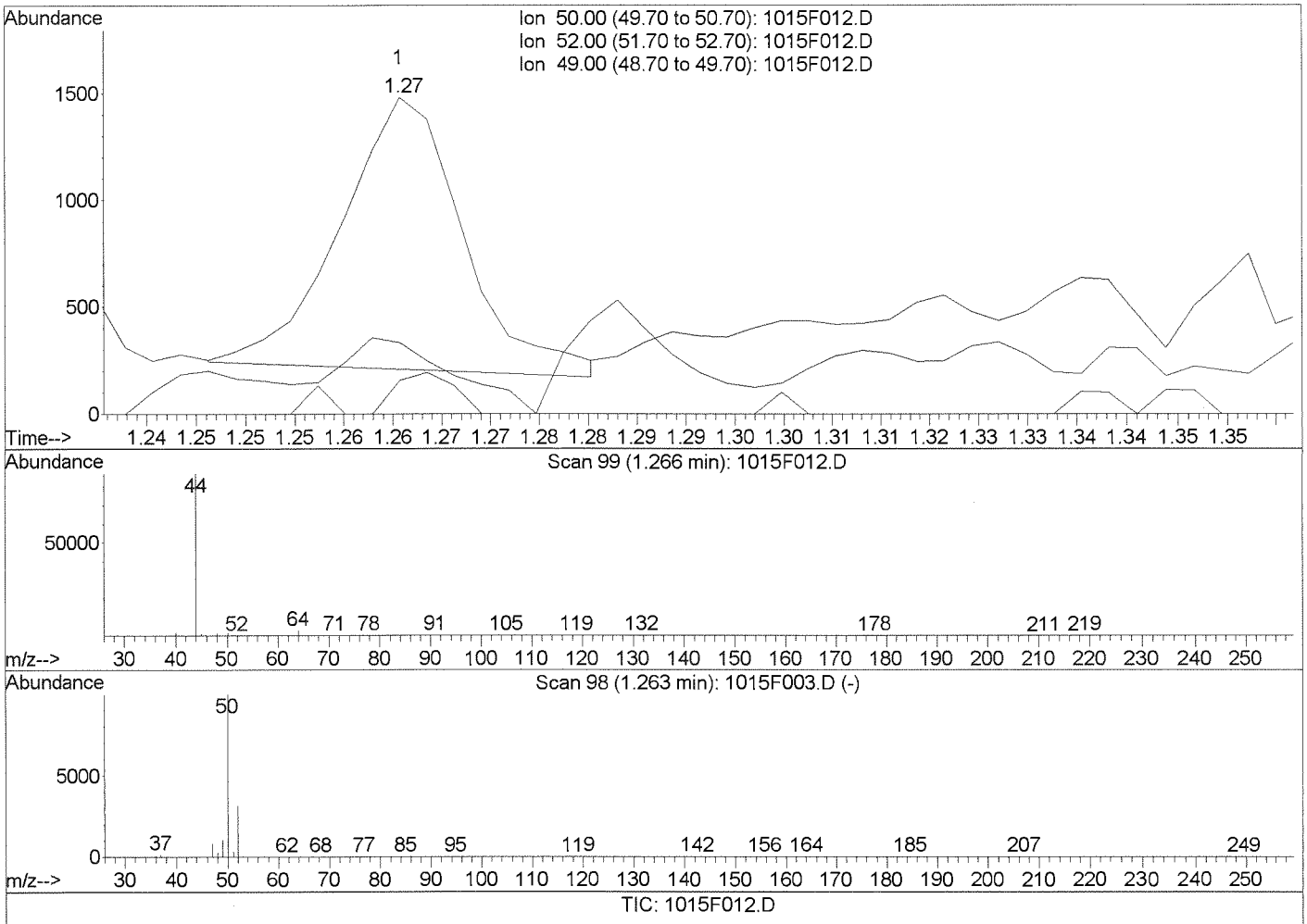
10/15/14

MK 10/9/2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:58 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration



TIC: 1015F012.D

(3) Chloromethane (PT)

1.27min 0.03PPB m

response 1104

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	22.43
49.00	10.10	10.61
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

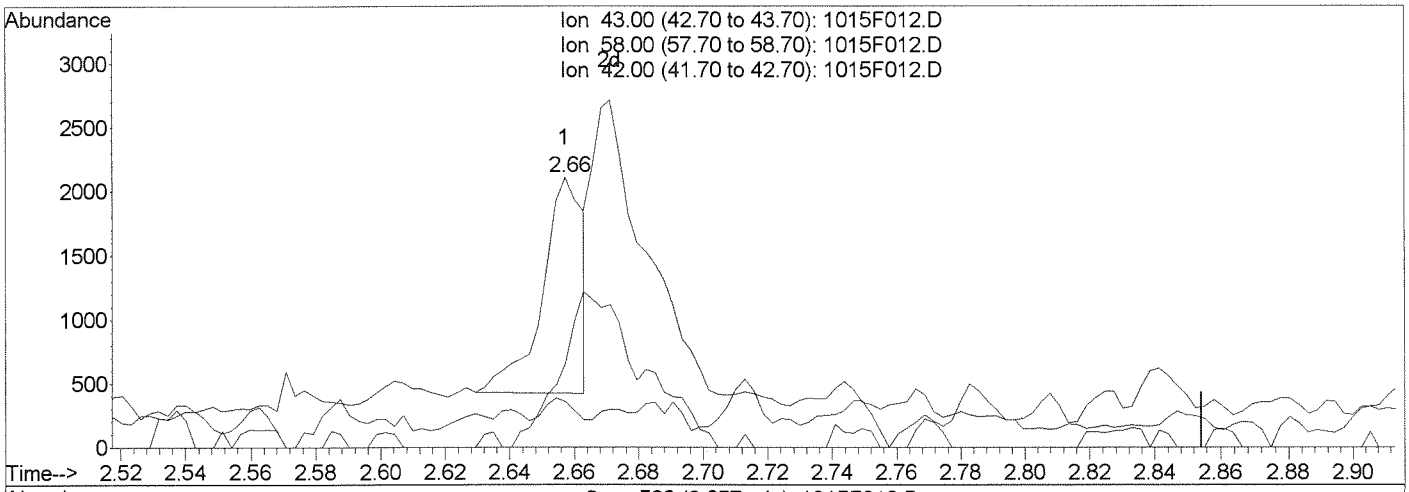
10/15/14

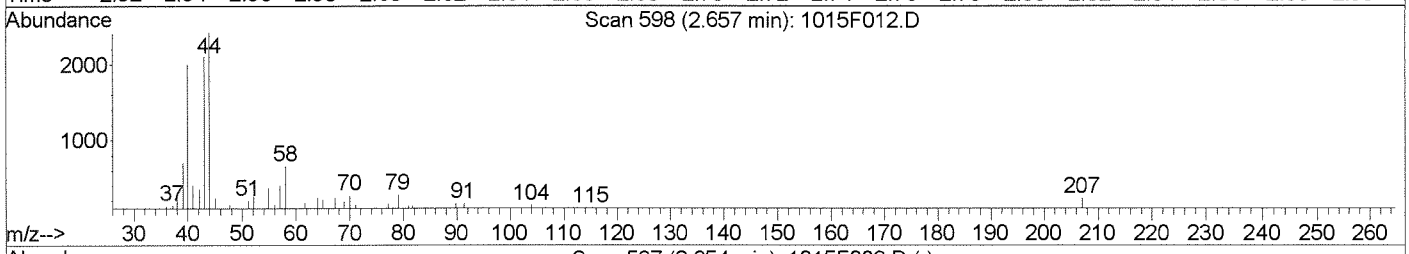
MK

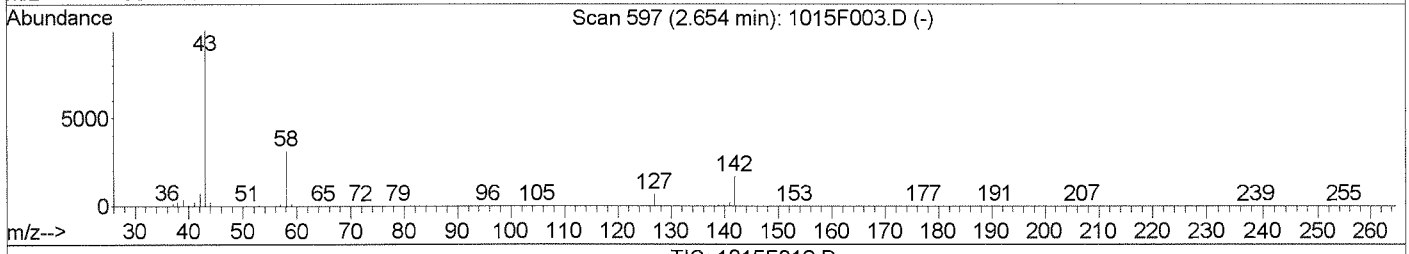
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:59 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(14) Acetone (T)

2.66min 0.37PPB

response 1470

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	39.17
42.00	7.10	8.39
0.00	0.00	0.00

Manual Integration:

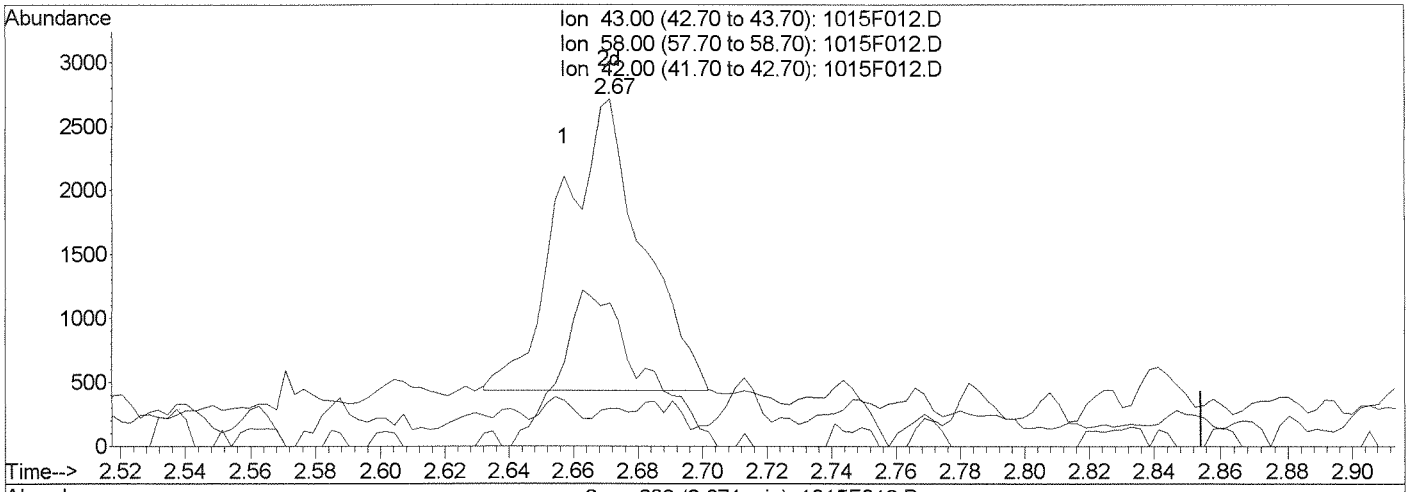
Before

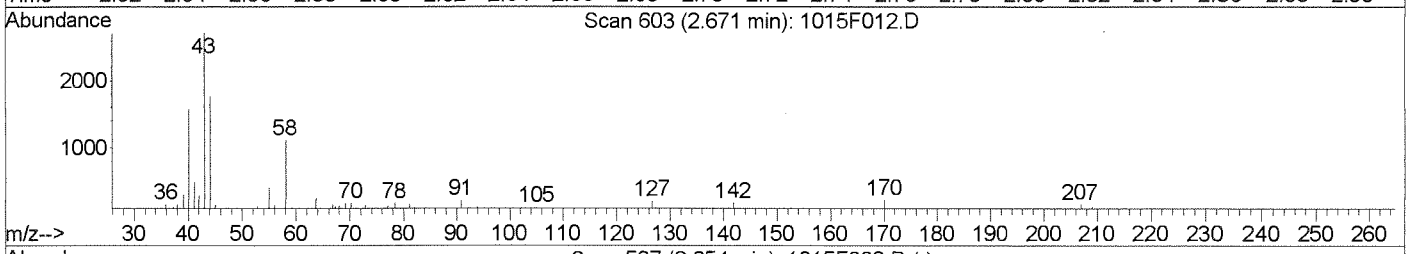
10/15/14

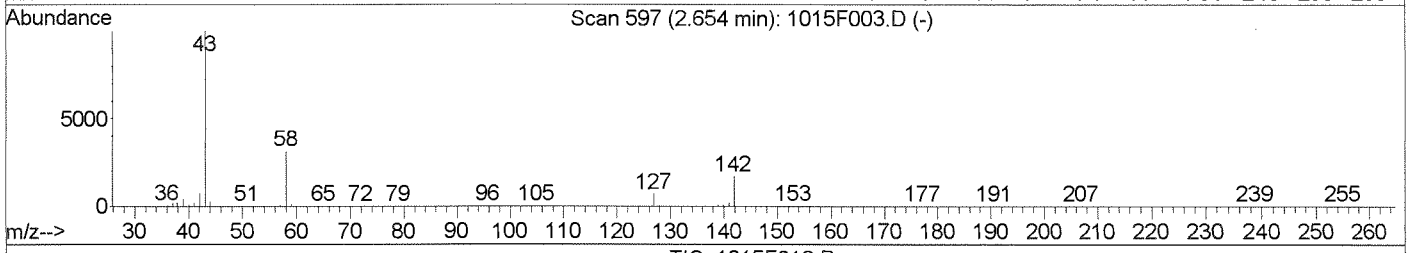
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:59 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(14) Acetone (T)

2.67min 1.01PPB m

response 4008

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	41.10
42.00	7.10	10.94
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/15/14

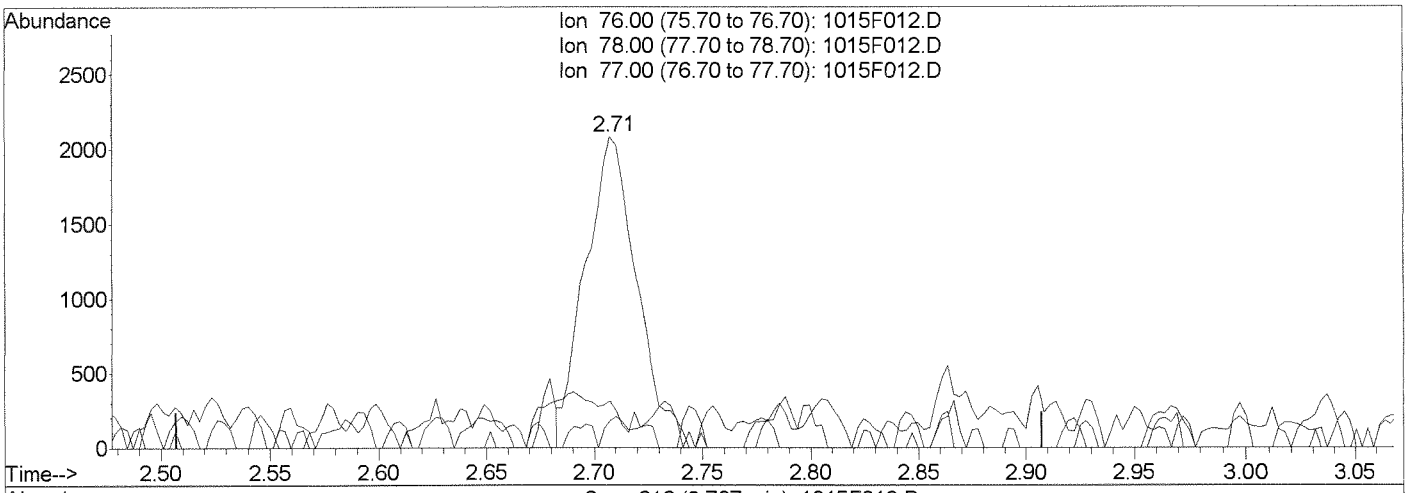
MK

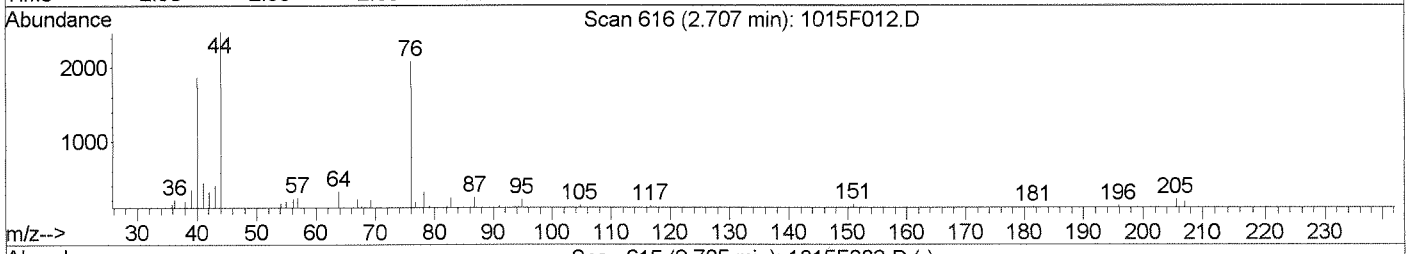
1015F012.D 100814MS27_8260.M Wed Oct 15 15:59:25 2014

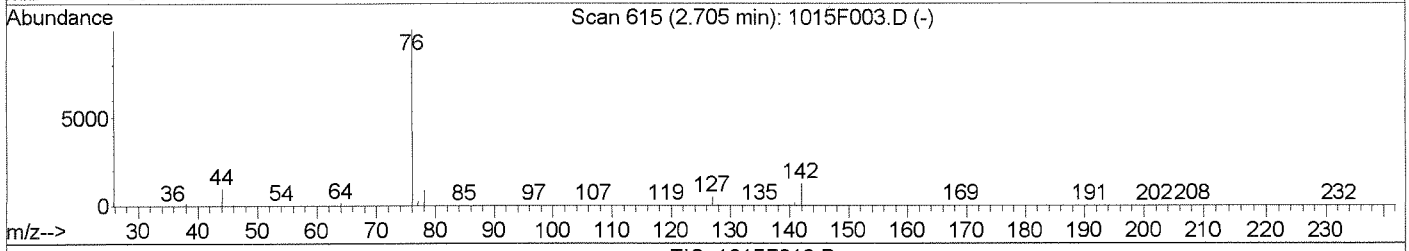
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:59 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(16) Carbon Disulfide (T)

2.71min 0.04PPB

response 3453

Ion	Exp%	Act%
76.00	100	100
78.00	9.10	15.01
77.00	2.60	8.54
0.00	0.00	0.00

Manual Integration:

Before

10/15/14

MK

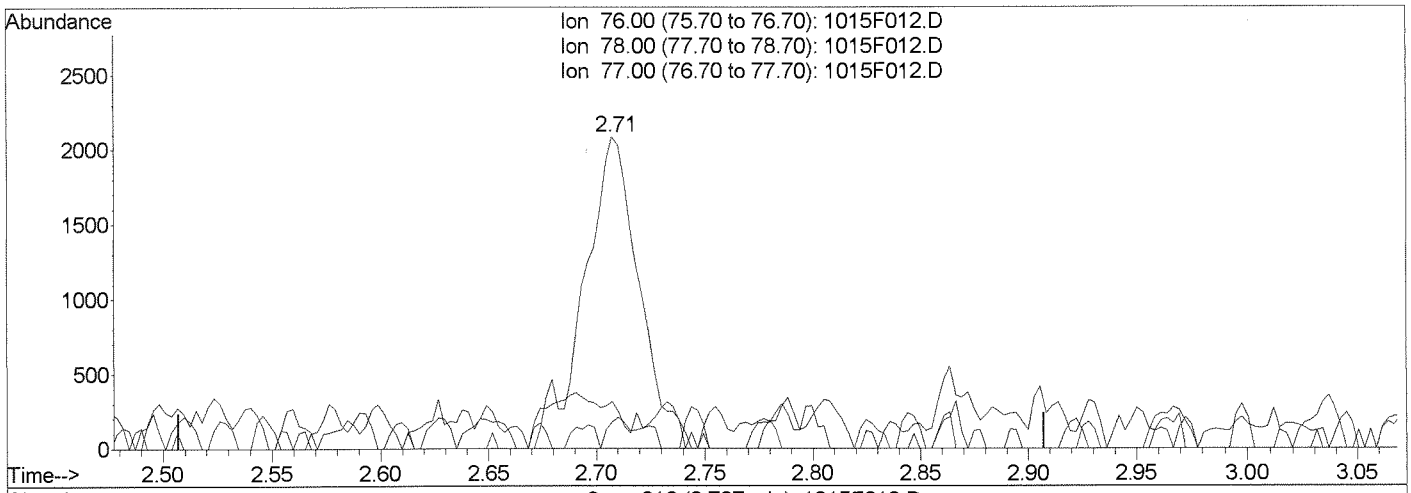
1015F012.D 100814MS27_8260.M Wed Oct 15 15:59:35 2014

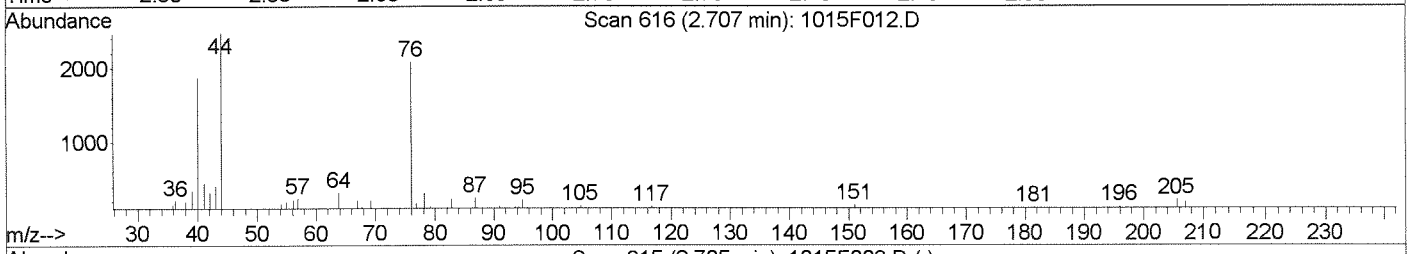
Quantitation Report (Qedit)

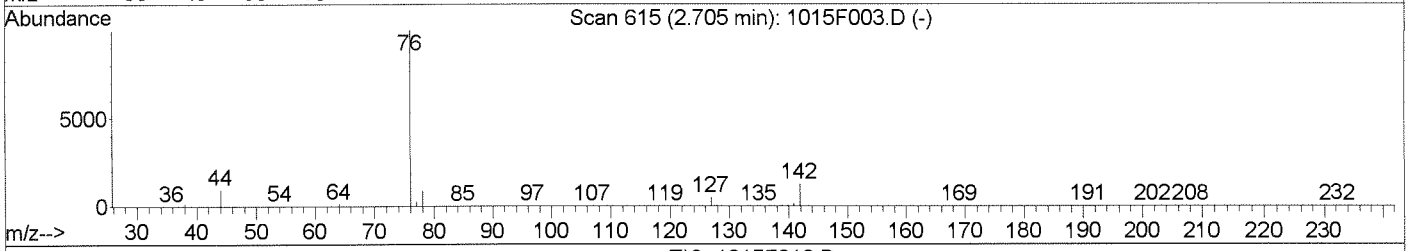
Data File : J:\MS27\DATA\101514\1015F012.D
Acq On : 15 Oct 2014 2:24 pm
Sample : K10890-014 TB 54813
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 15:59 2014

Vial: 10
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(16) Carbon Disulfide (T)

2.71min 0.04PPB m

response 3654

Ion	Exp%	Act%
76.00	100	100
78.00	9.10	15.01
77.00	2.60	8.54
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/15/14

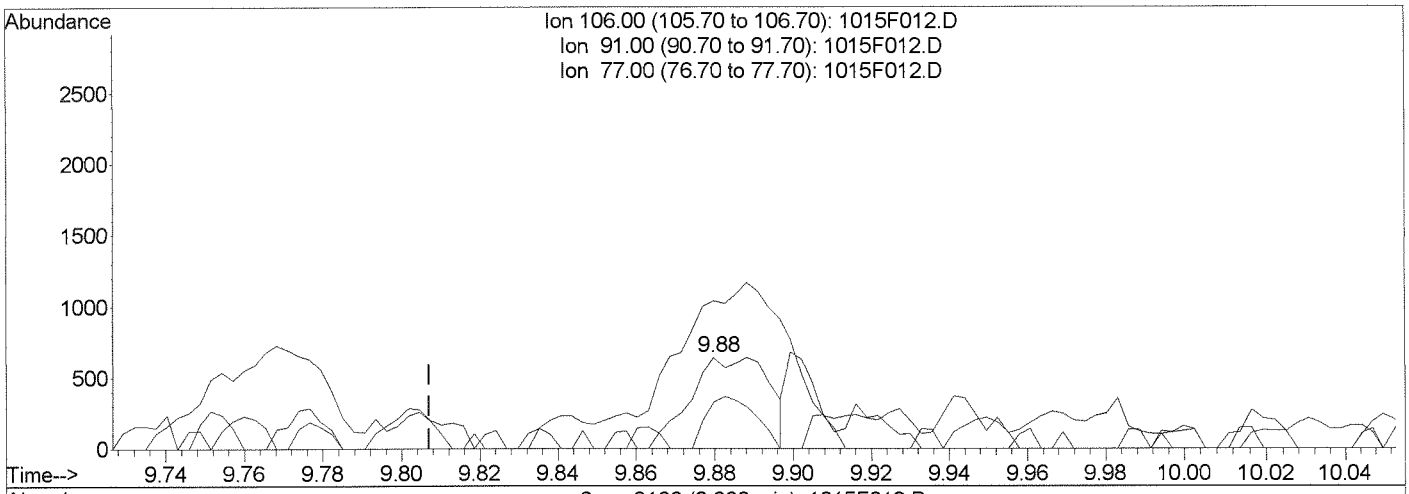
MK

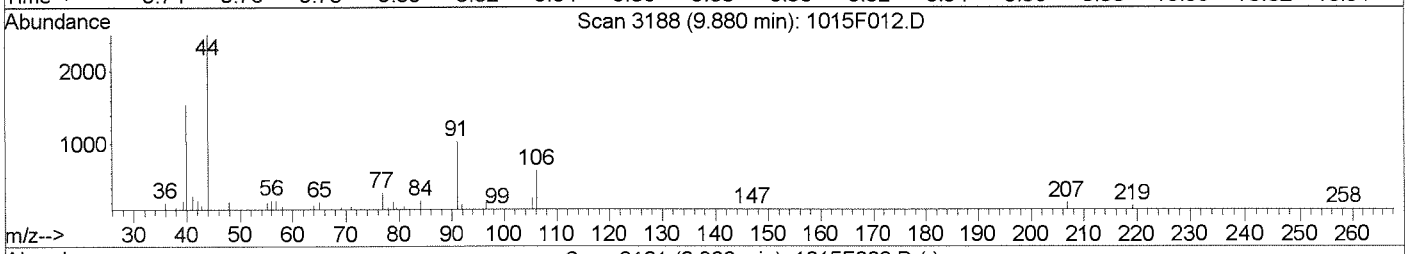
1015F012.D 100814MS27_8260.M Wed Oct 15 15:59:39 2014

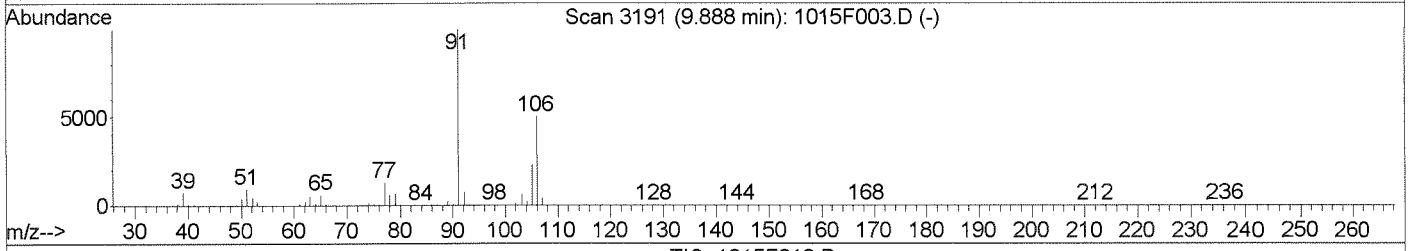
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:01 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(78) m,p-Xylenes (T)

9.88min 0.02PPB

response 887

Ion	Exp%	Act%
106.00	100	100
91.00	198.80	120.81#
77.00	25.80	51.33
0.00	0.00	0.00

Manual Integration:

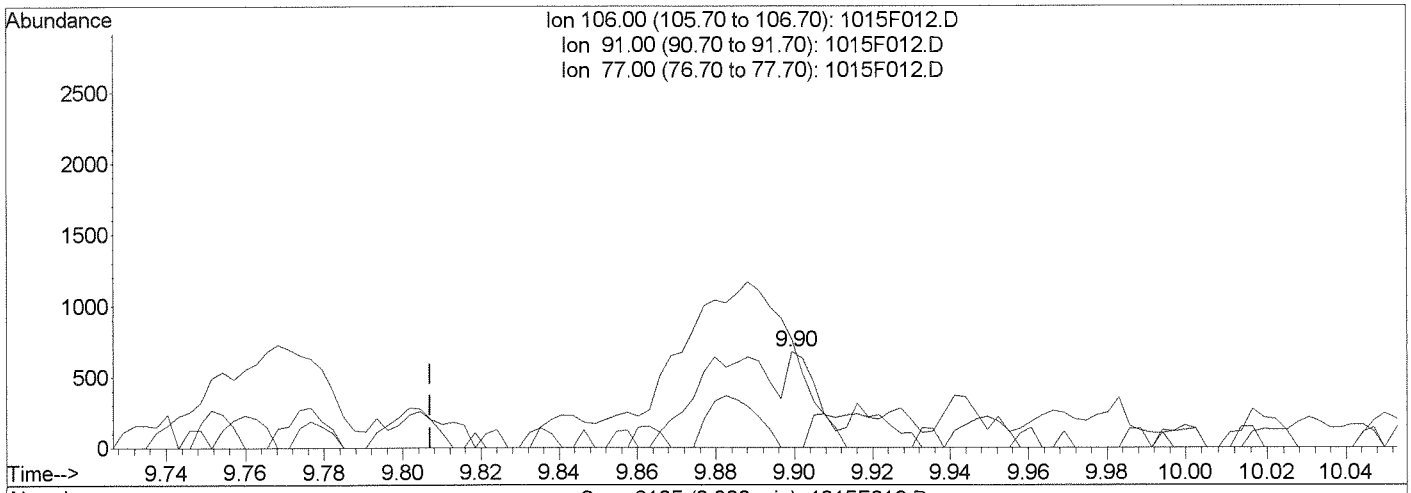
Before

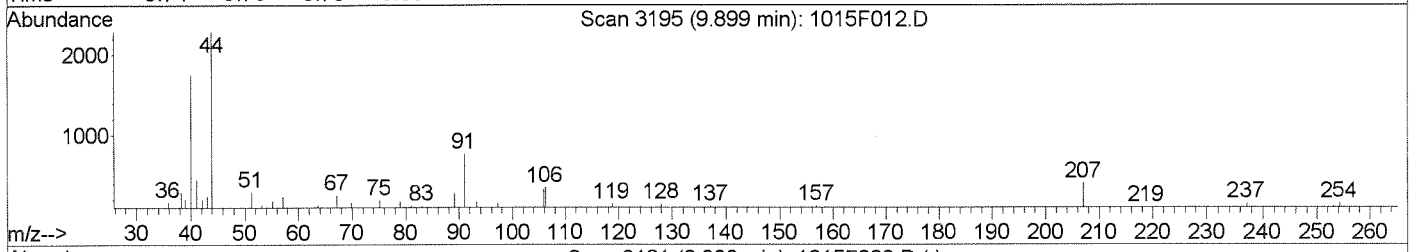
10/15/14

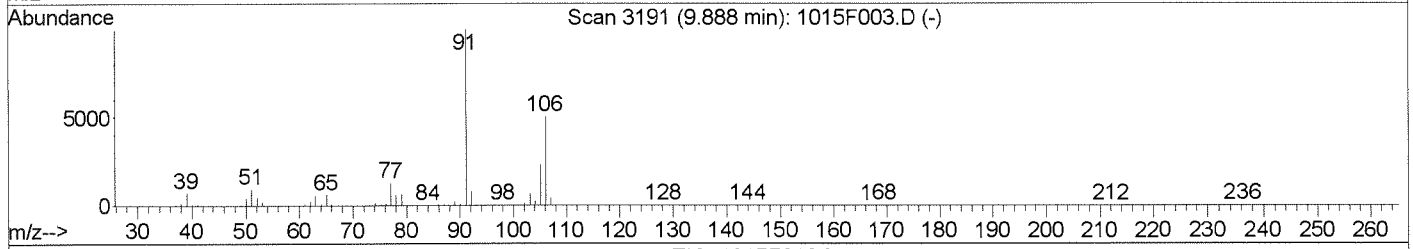
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:01 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(78) m,p-Xylenes (T)

9.90min 0.03PPB m

response 1243

Ion	Exp%	Act%
106.00	100	100
91.00	198.80	220.11
77.00	25.80	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

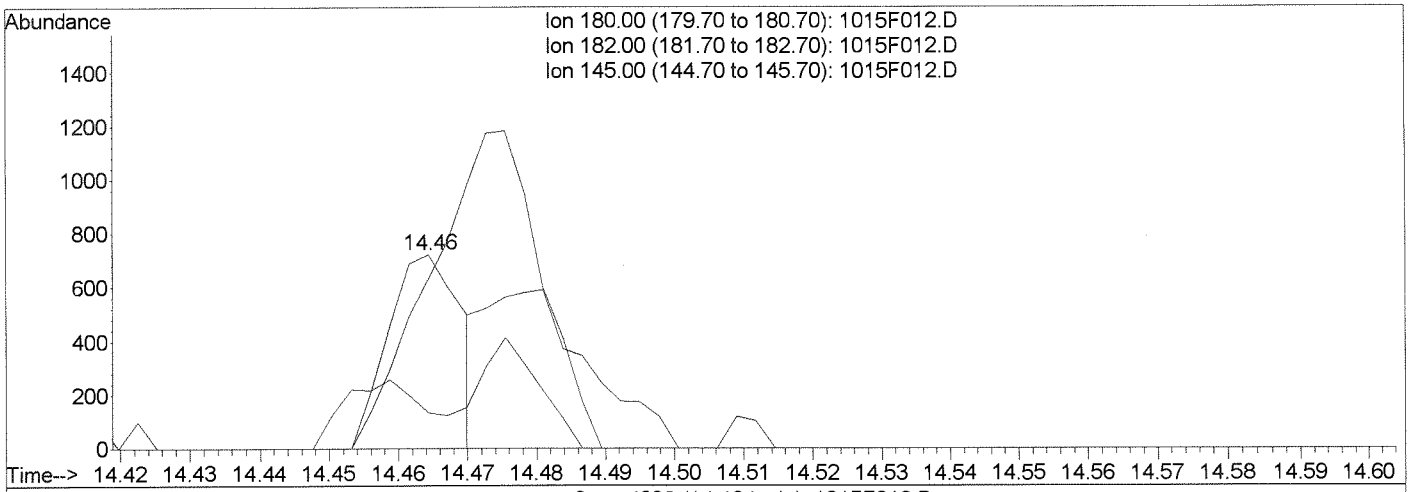
10/15/14

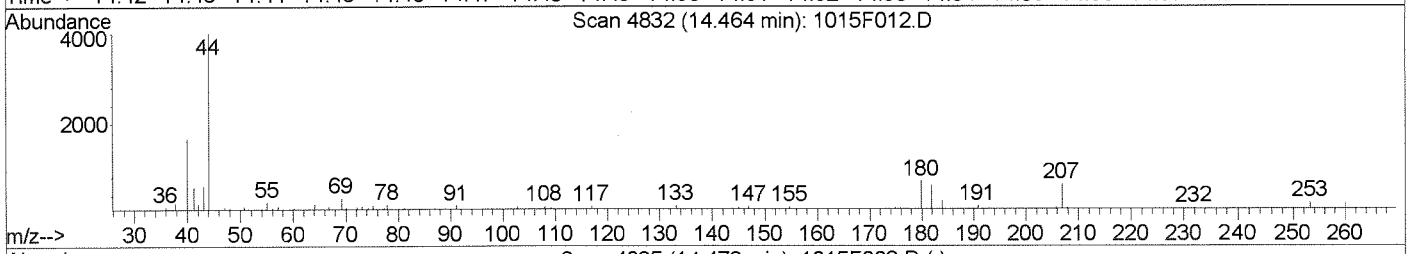
1015F012.D 100814MS27_8260.M Wed Oct 15 16:01:39 2014

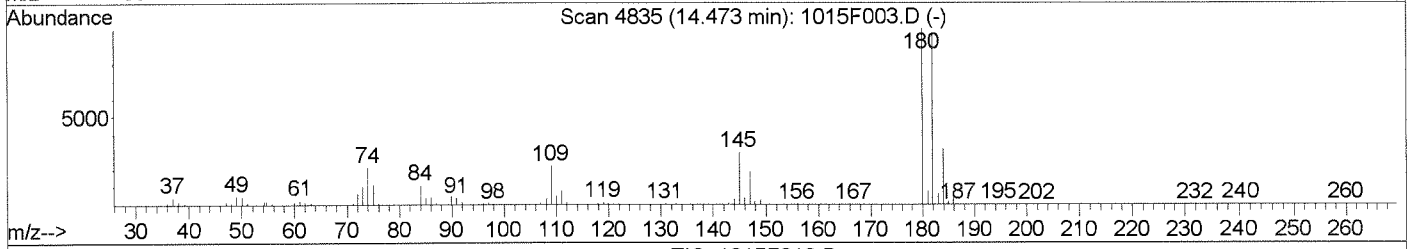
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:03 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(107) 1,2,3-Trichlorobenzene (T)

14.46min 0.01PPB

response 532

Ion	Exp%	Act%
180.00	100	100
182.00	98.40	102.22
145.00	31.40	1.25#
0.00	0.00	0.00

Manual Integration:

Before

10/15/14

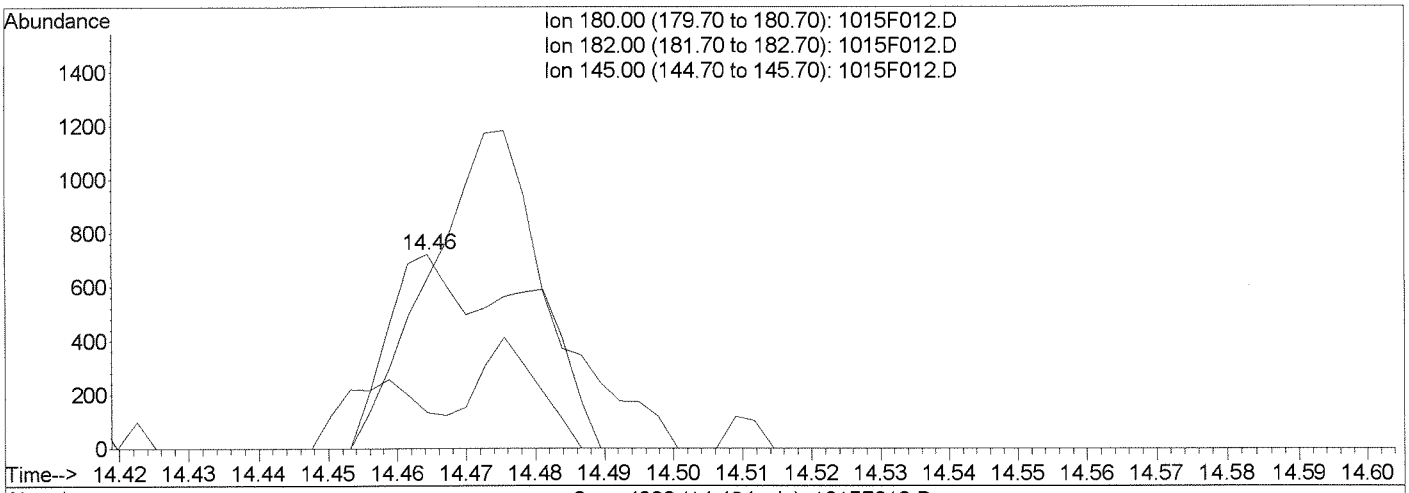
MK

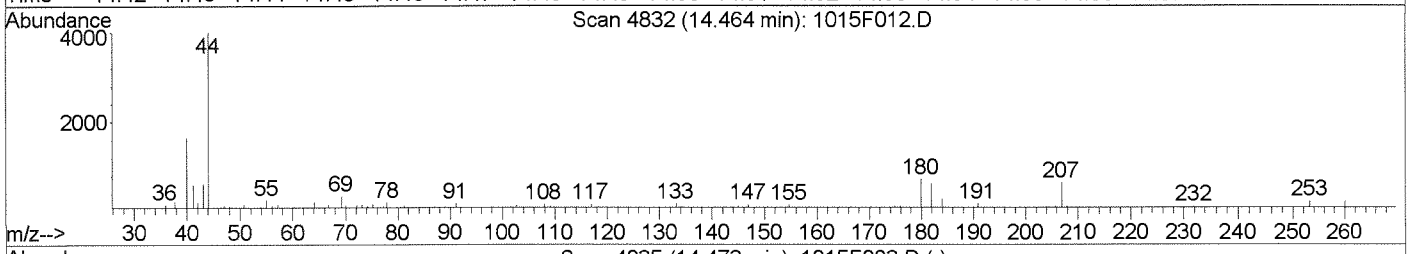
1015F012.D 100814MS27_8260.M Wed Oct 15 16:03:10 2014

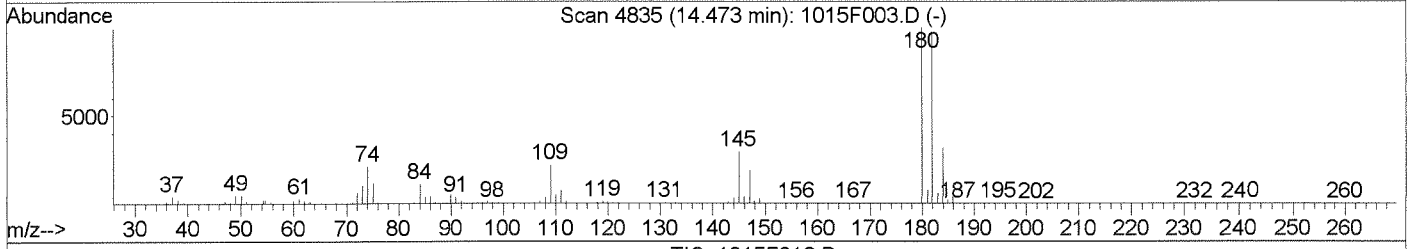
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:03 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F012.D

(107) 1,2,3-Trichlorobenzene (T)

14.46min 0.03PPB m

response 1007

Ion	Exp%	Act%
180.00	100	100
182.00	98.40	87.53
145.00	31.40	18.42
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/15/14

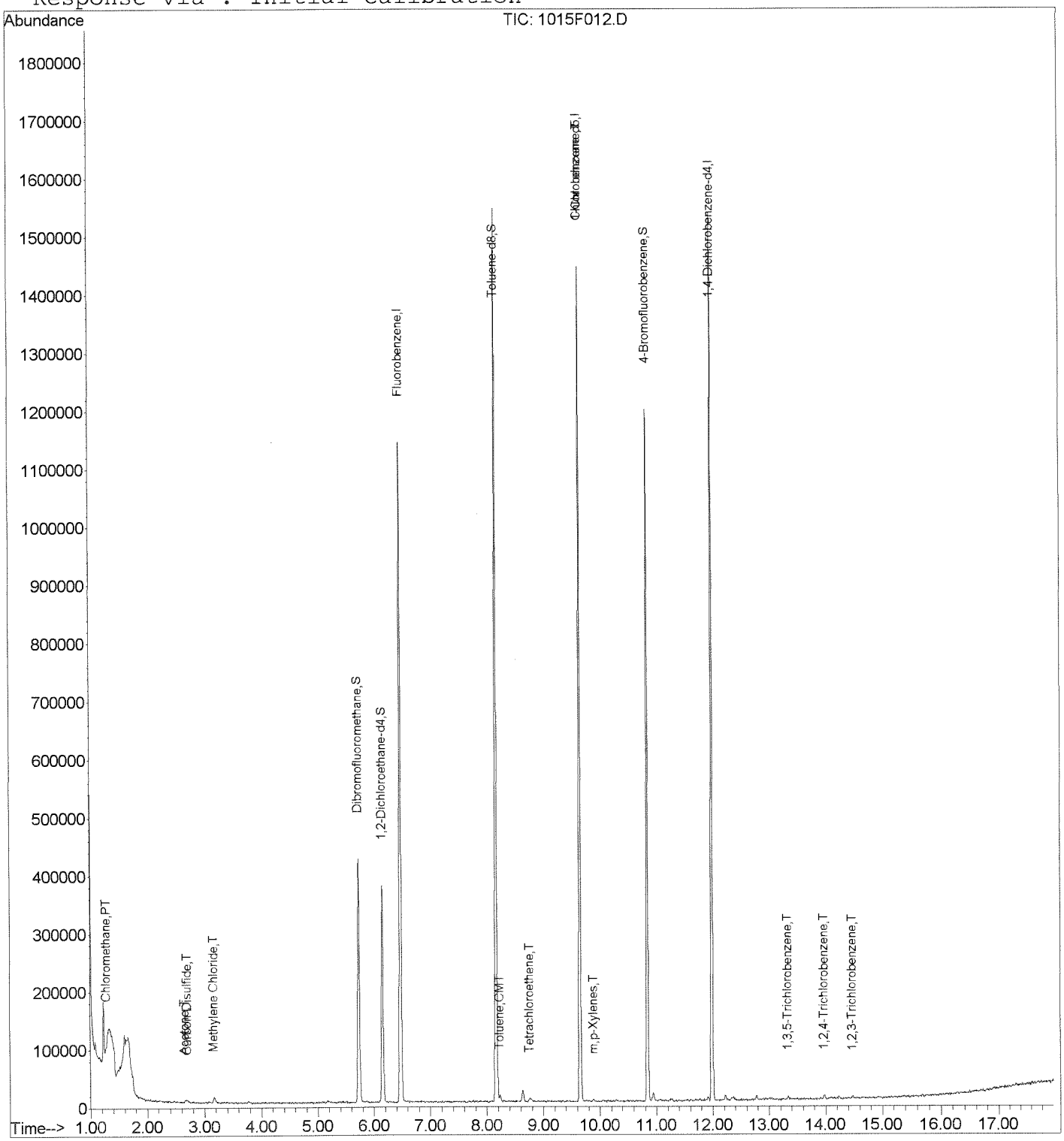
MK

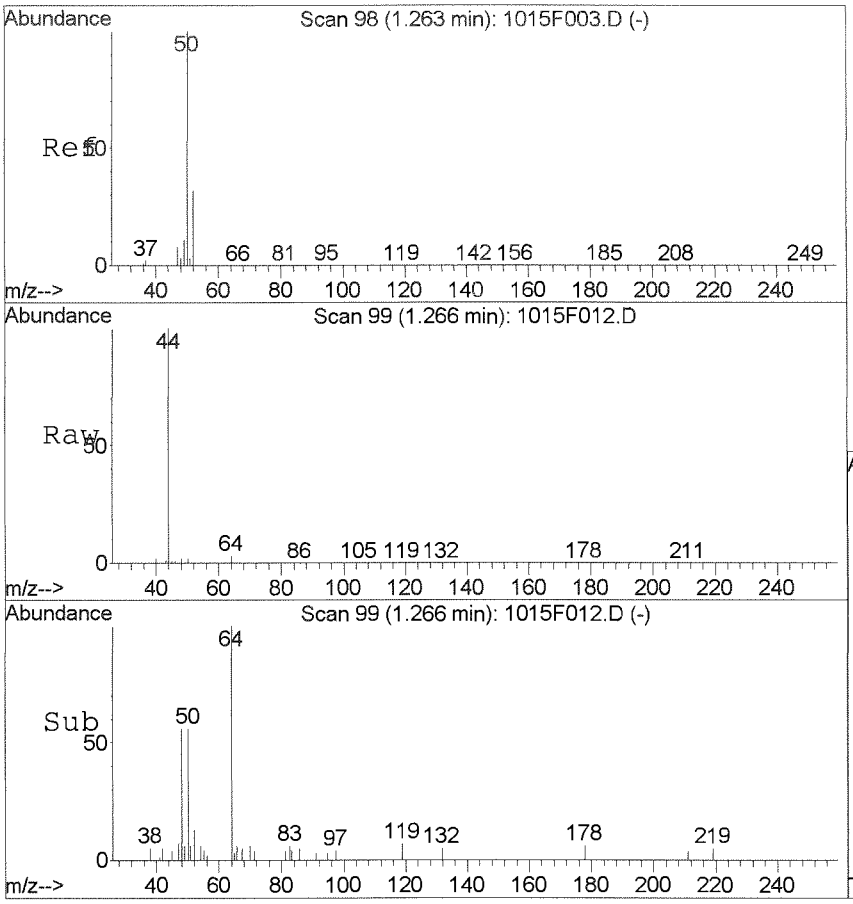
10/21/14

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F012.D Vial: 10
Acq On : 15 Oct 2014 2:24 pm Operator: MK
Sample : K10890-014 TB 54813 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:03 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

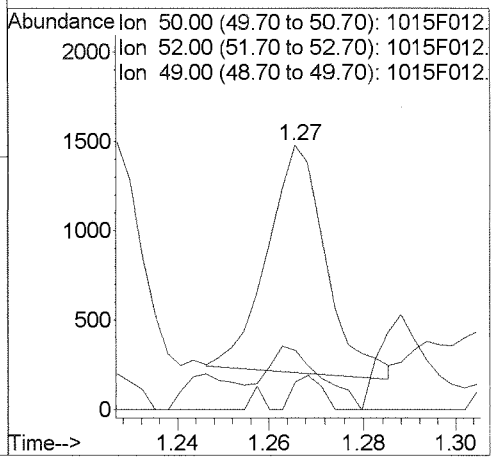


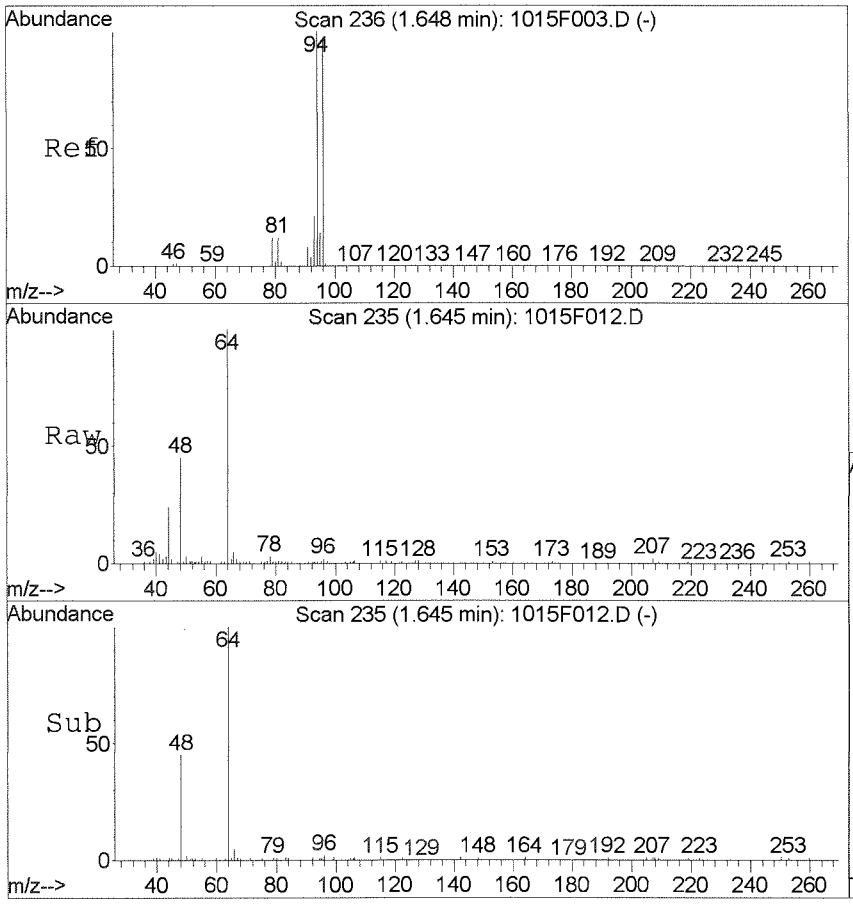


#3
Chloromethane
Concen: 0.03 PPB m
RT: 1.27 min Scan# 99
Delta R.T. 0.00 min
Lab File: 1015F012.D
Acq: 15 Oct 2014 2:24 pm

Tgt Ion: 50 Resp: 1104

Ion	Ratio	Lower	Upper
50	100		
52	22.4	3.4	63.4
49	10.6	0.0	40.1

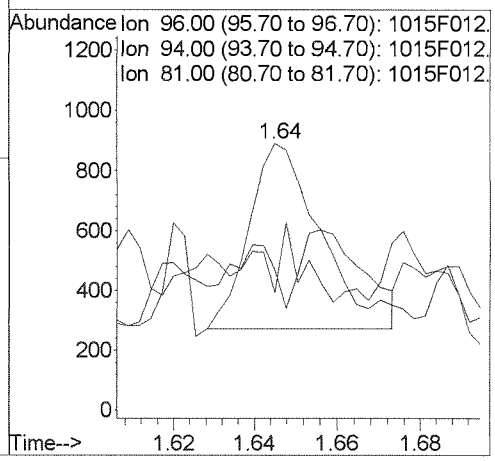


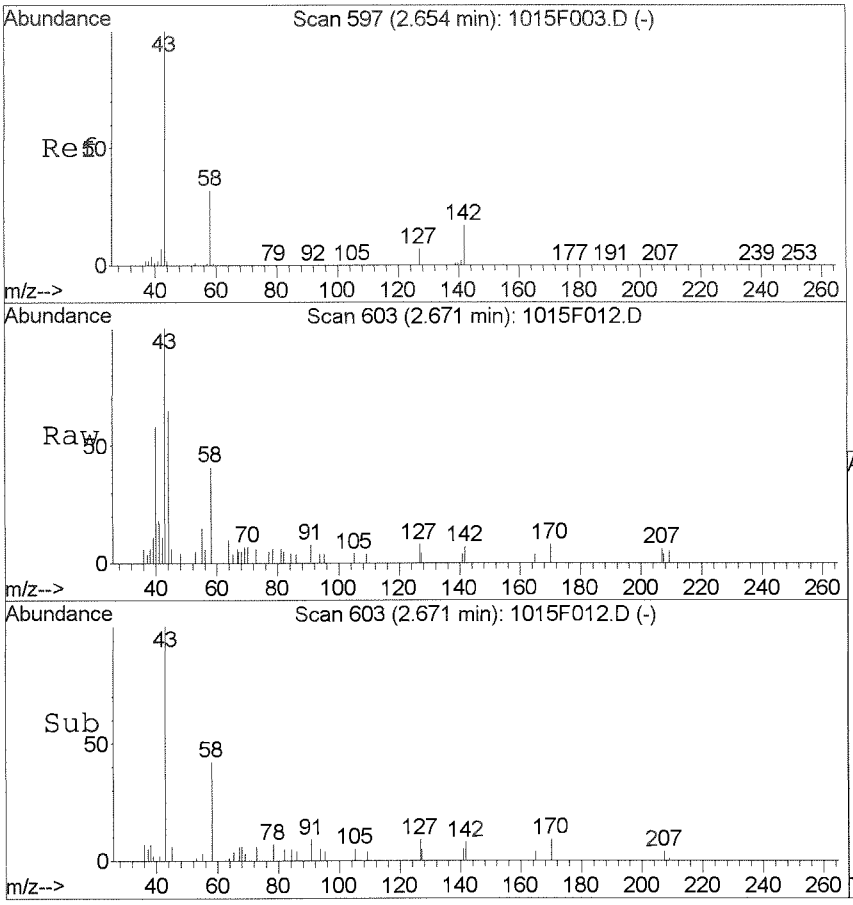


#6
Bromomethane
Concen: Below Cal
RT: 1.64 min Scan# 235
Delta R.T. -0.01 min
Lab File: 1015F012.D
Acq: 15 Oct 2014 2:24 pm

Tgt Ion: 96 Resp: 832

Ion	Ratio	Lower	Upper
96	100		
94	18.9	77.8	137.8#
81	0.0	0.0	43.8

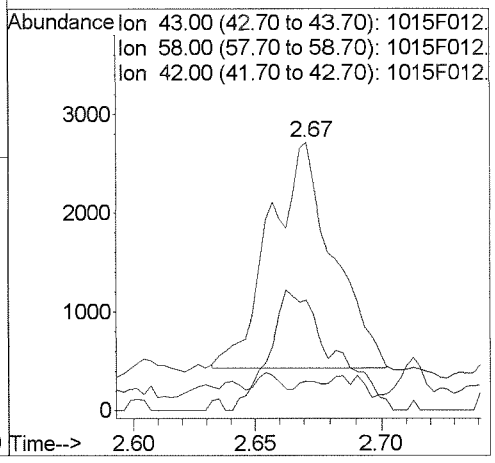


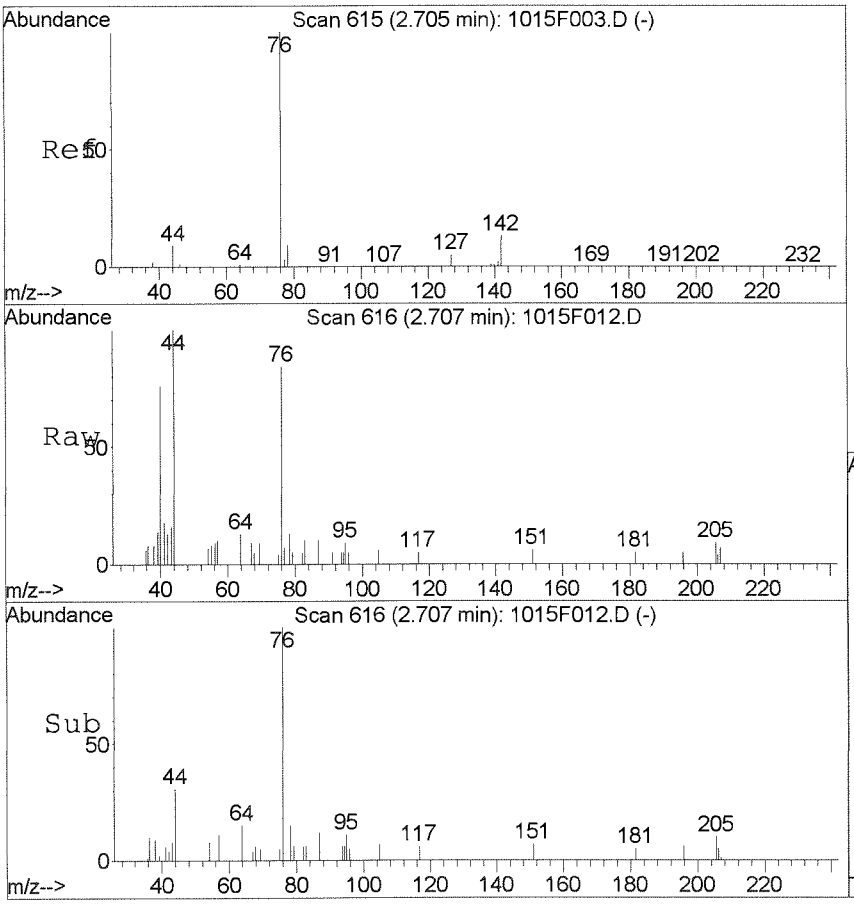


#14
Acetone
Concen: 1.01 PPB m
RT: 2.67 min Scan# 603
Delta R.T. 0.02 min
Lab File: 1015F012.D
Acq: 15 Oct 2014 2:24 pm

Tgt Ion: 43 Resp: 4008

Ion	Ratio	Lower	Upper
43	100		
58	41.1	0.9	60.9
42	10.9	0.0	37.1

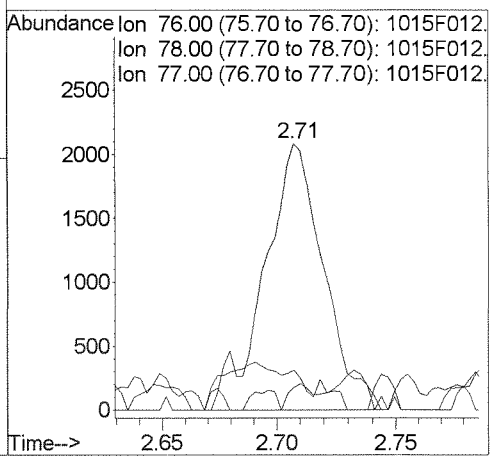


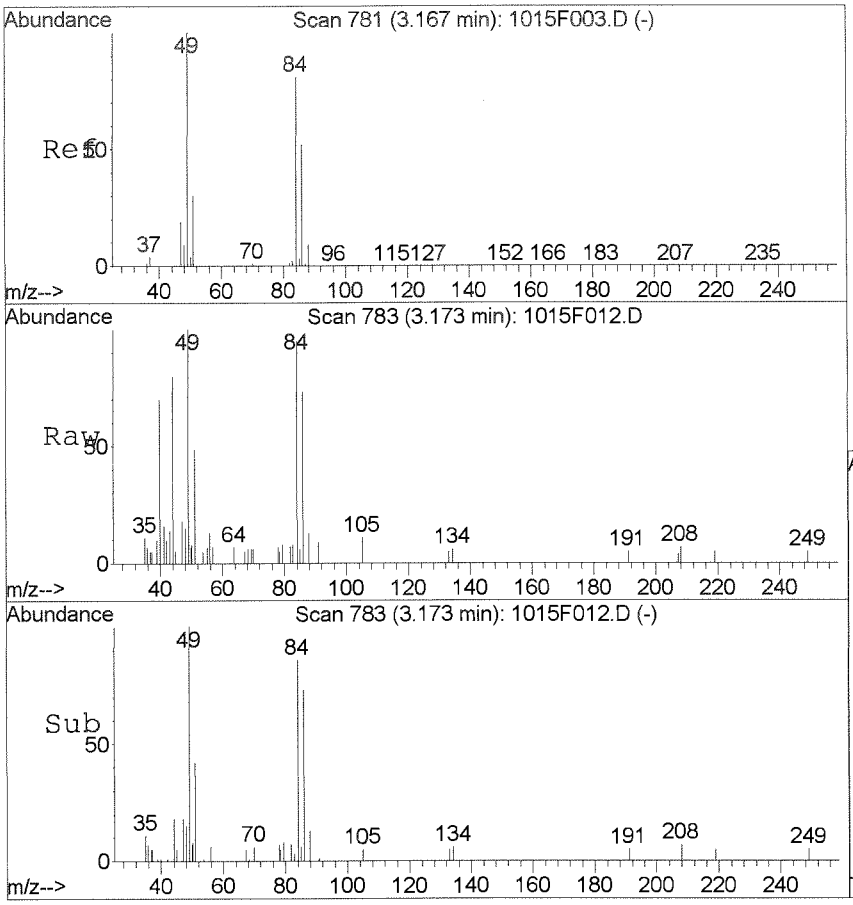


#16
Carbon Disulfide
Concen: 0.04 PPB m
RT: 2.71 min Scan# 616
Delta R.T. 0.00 min
Lab File: 1015F012.D
Acq: 15 Oct 2014 2:24 pm

Tgt Ion: 76 Resp: 3654

Ion	Ratio	Lower	Upper
76	100		
78	15.0	0.0	39.1
77	8.5	0.0	32.6

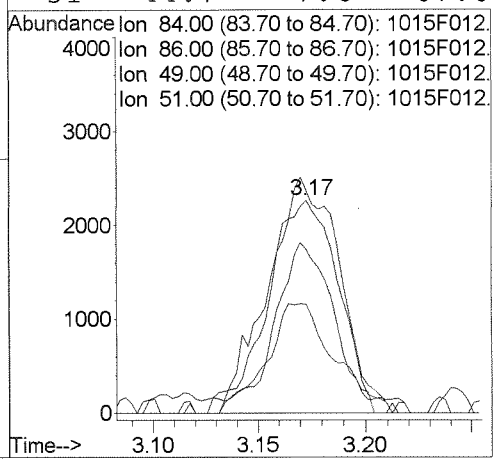


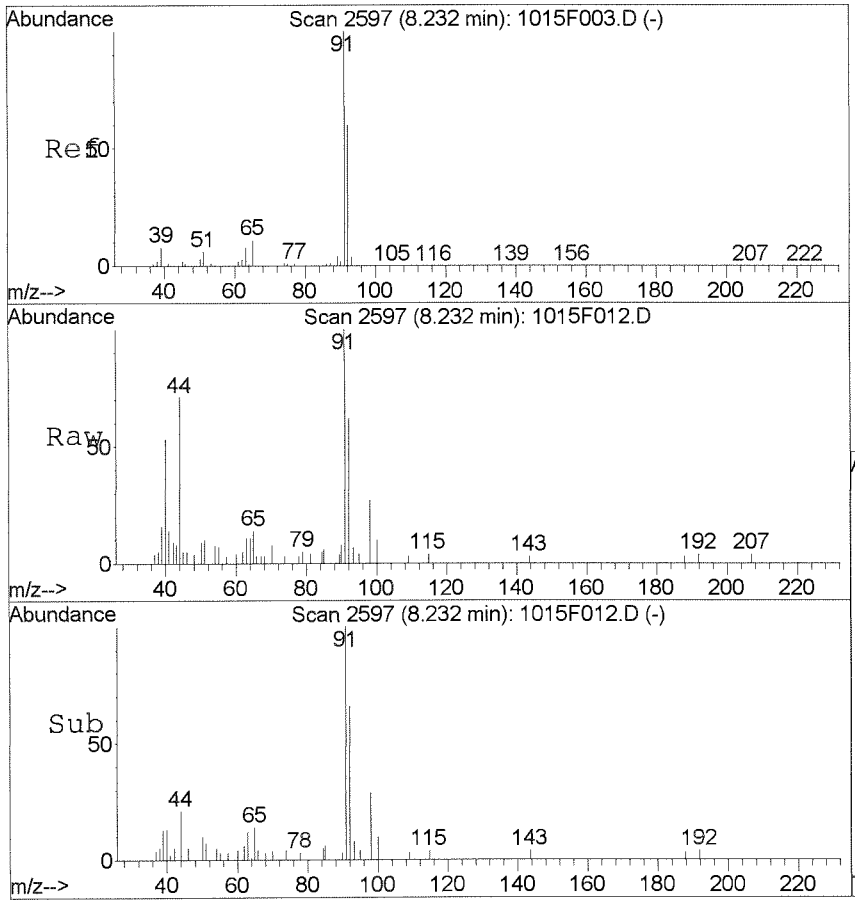


#21
Methylene Chloride
Concen: 0.17 PPB
RT: 3.17 min Scan# 783
Delta R.T. 0.00 min
Lab File: 1015F012.D
Acq: 15 Oct 2014 2:24 pm

Tgt Ion: 84 Resp: 5271

Ion	Ratio	Lower	Upper
84	100		
86	77.0	33.9	93.9
49	104.9	90.6	150.6
51	44.7	7.6	67.6

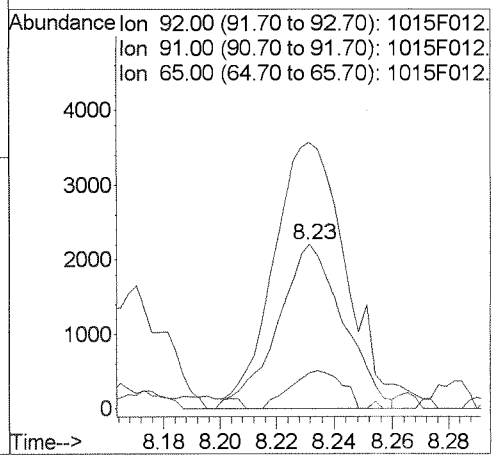




#63
Toluene
Concen: 0.05 PPB
RT: 8.23 min Scan# 2597
Delta R.T. -0.00 min
Lab File: 1015F012.D
Acq: 15 Oct 2014 2:24 pm

Tgt Ion: 92 Resp: 3492

Ion	Ratio	Lower	Upper
92	100		
91	154.1	142.0	202.0
65	21.9	0.0	48.9



Exception Report

Data File: J:\MS27\DATA\101514\1015F025.D
Lab ID: K1410890-015
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 20:21
Date Quantitated: 10/16/2014 10:12
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/16/14

Secondary Review: [signature]

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F025.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 20:21	**Quant Date:**	10/16/2014 10:12	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-015			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/03/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385155	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1045450	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	424094	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	414038	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	5.73	0.00	0.00	113	264255	9.24	92	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1022086	9.77	98	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	374402	9.72	97	68-117	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	Carbon Tetrachloride				117	0		0.096	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\101514\1015F025.D Vial: 23
Acq On : 15 Oct 2014 8:21 pm Operator: MK
Sample : K10890-015 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:10:11 2014 Quant Results File: 100814MS27_8260

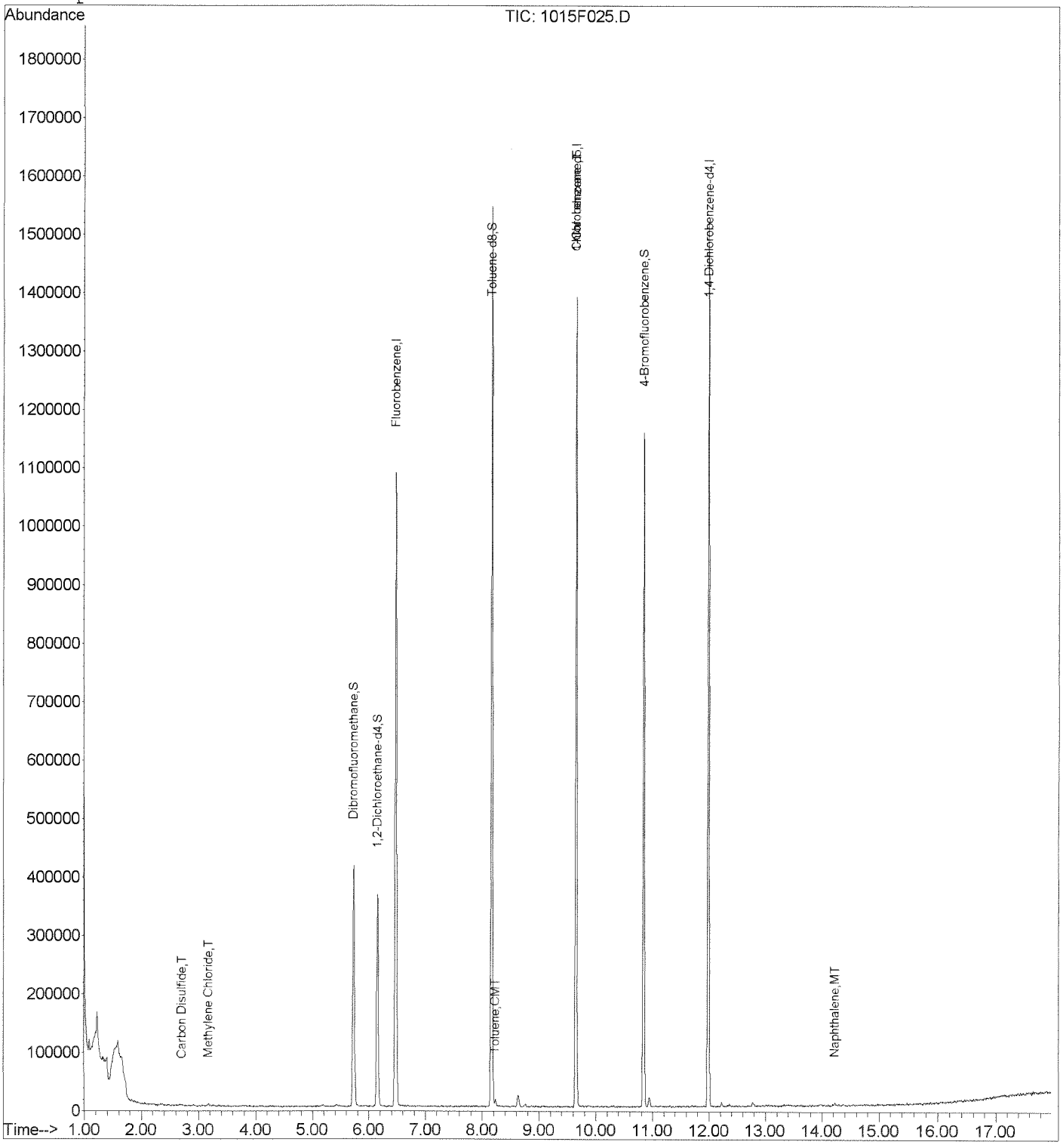
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

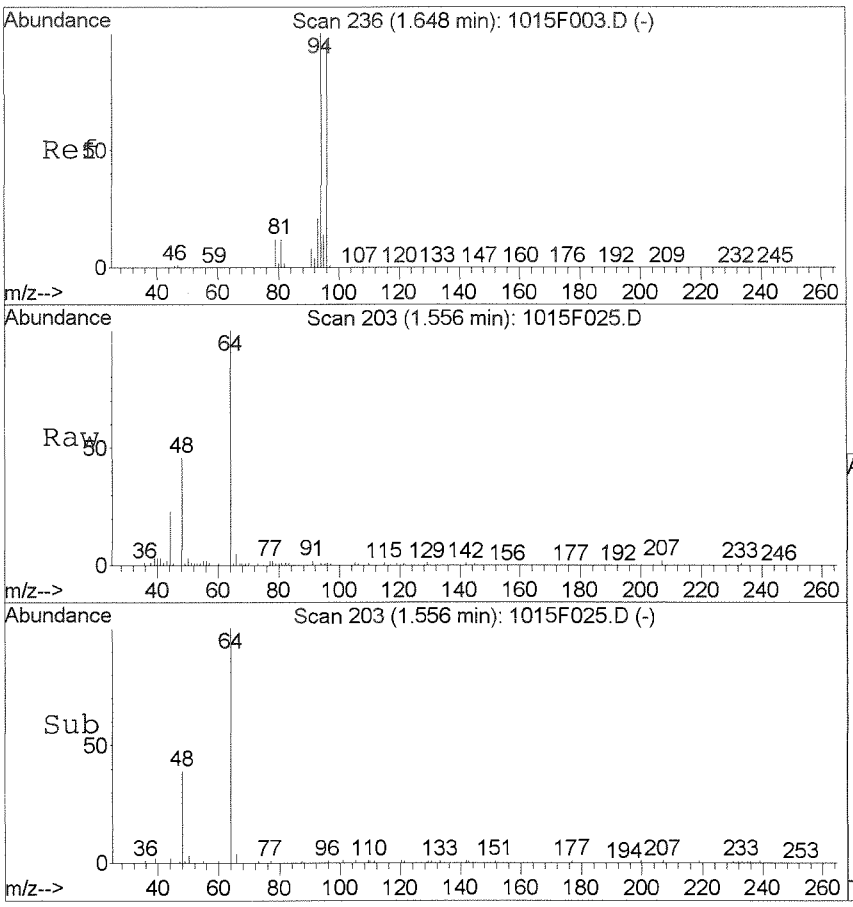
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1045450	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	424094	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	414038	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	264255	9.24	PPB	0.00
Spiked Amount 10.000			Recovery =	92.40%		
47) 1,2-Dichloroethane-d4	6.15	65	256322	9.73	PPB	0.00
Spiked Amount 10.000			Recovery =	97.30%		
62) Toluene-d8	8.16	98	1022086	9.77	PPB	0.00
Spiked Amount 10.000			Recovery =	97.70%		
84) 4-Bromofluorobenzene	10.84	95	374402	9.72	PPB	0.00
Spiked Amount 10.000			Recovery =	97.20%		
Target Compounds						Qvalue
6) Bromomethane	1.56	96	638	Below Cal	#	8
16) Carbon Disulfide	2.71	76	2322	0.03	PPB	80
21) Methylene Chloride	3.17	84	1598	0.05	PPB #	68
63) Toluene	8.23	92	4067	0.06	PPB #	70
74) 1-Chlorohexane	9.65	91	1876	0.05	PPB #	21
106) Naphthalene	14.23	128	2411	0.03	PPB	100

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

Data File : J:\MS27\DATA\101514\1015F025.D Vial: 23
Acq On : 15 Oct 2014 8:21 pm Operator: MK
Sample : K10890-015 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 10:12 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 16 09:39:59 2014
Response via : Initial Calibration

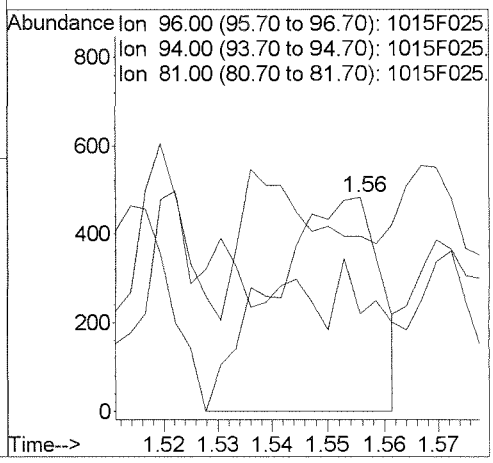


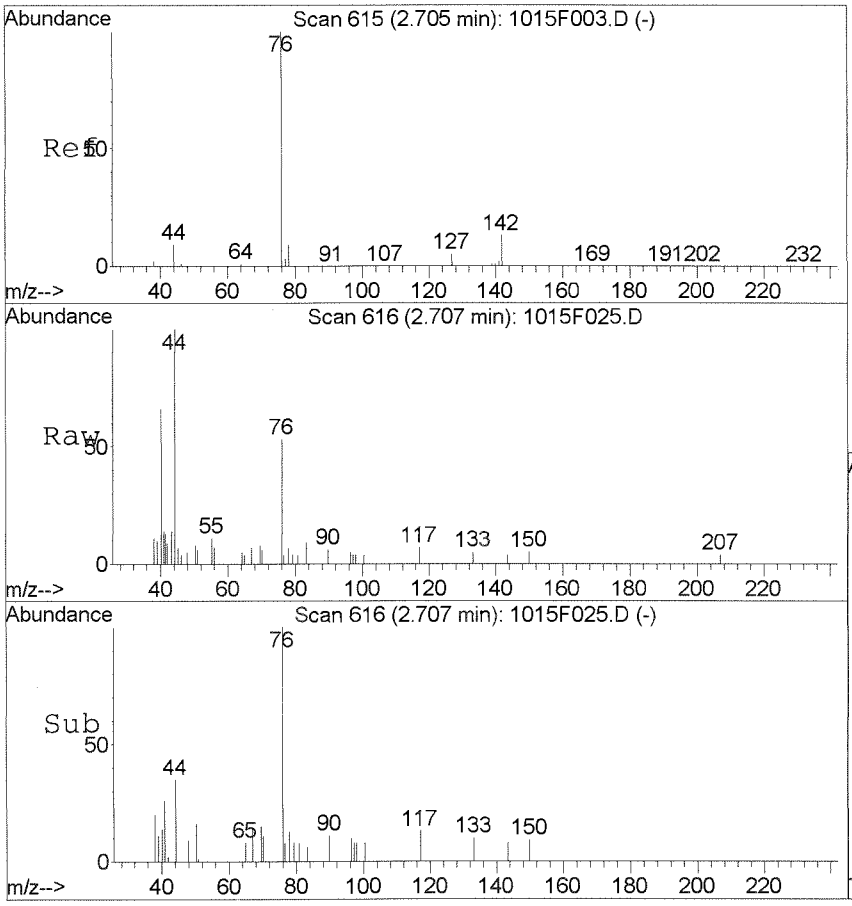


#6
Bromomethane
Concen: Below Cal
RT: 1.56 min Scan# 203
Delta R.T. -0.09 min
Lab File: 1015F025.D
Acq: 15 Oct 2014 8:21 pm

Tgt Ion: 96 Resp: 638

Ion	Ratio	Lower	Upper
96	100		
94	3.7	77.8	137.8#
81	27.7	0.0	43.8

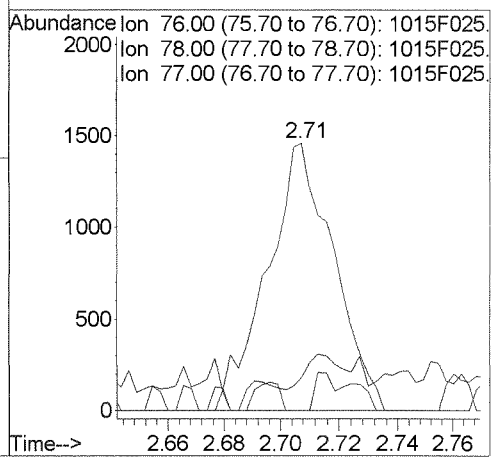


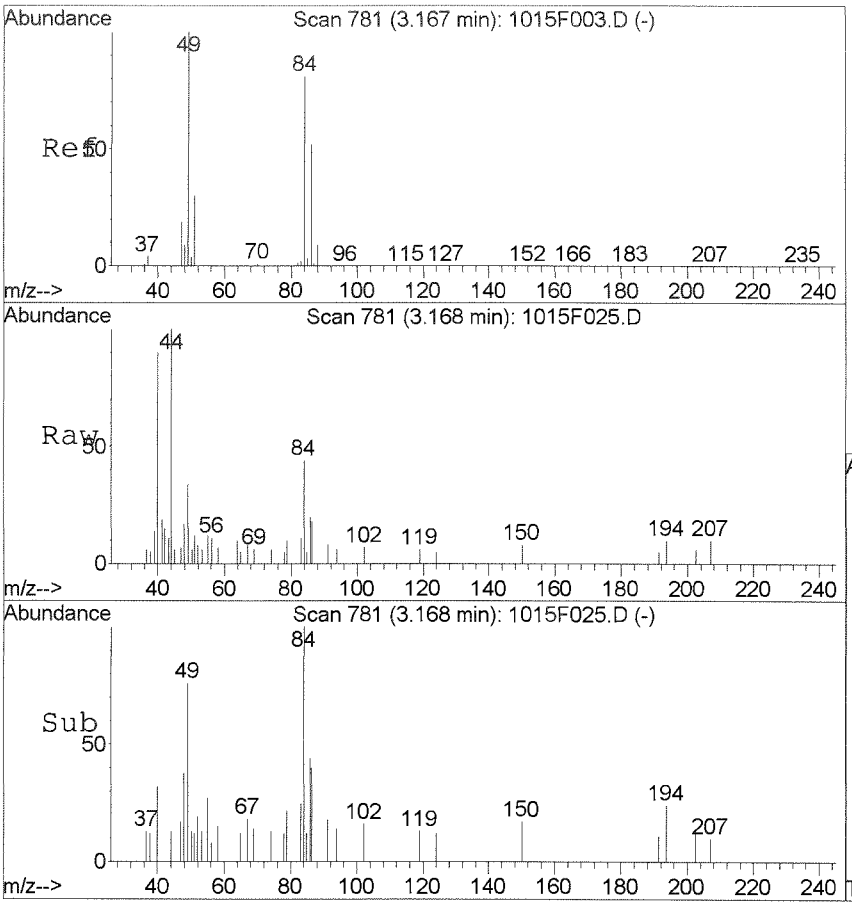


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.71 min Scan# 616
Delta R.T. 0.00 min
Lab File: 1015F025.D
Acq: 15 Oct 2014 8:21 pm

Tgt Ion: 76 Resp: 2322

Ion	Ratio	Lower	Upper
76	100		
78	0.7	0.0	39.1
77	0.0	0.0	32.6

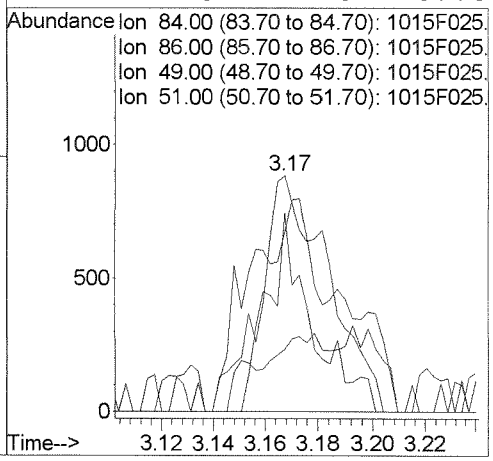


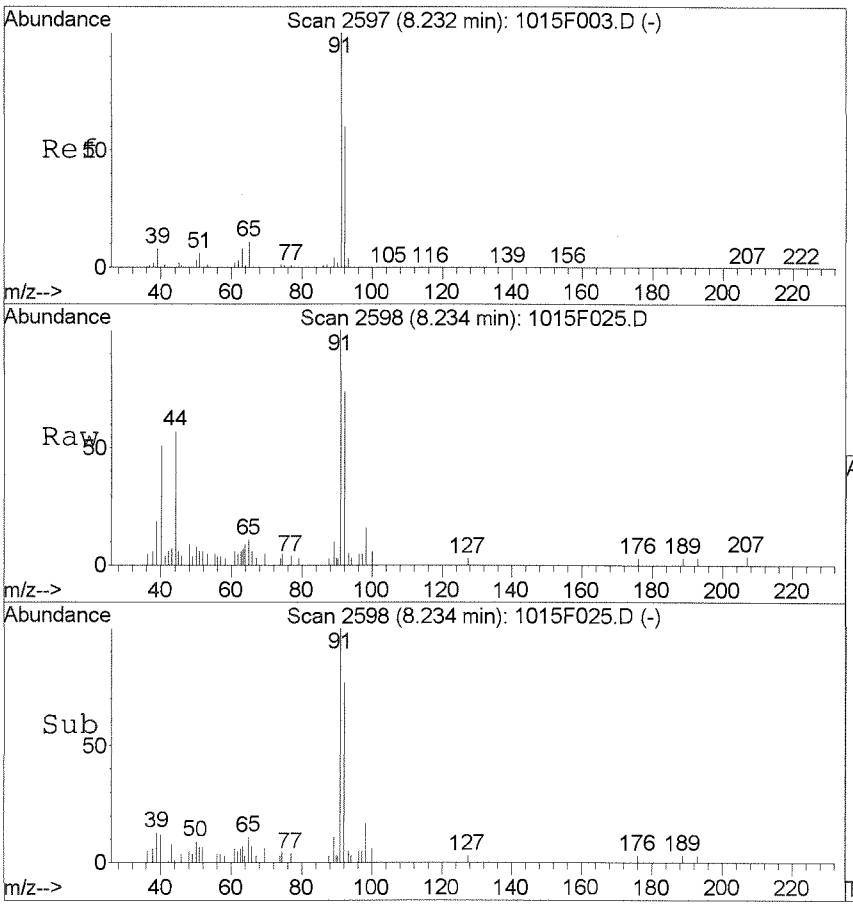


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.17 min Scan# 781
Delta R.T. -0.00 min
Lab File: 1015F025.D
Acq: 15 Oct 2014 8:21 pm

Tgt Ion: 84 Resp: 1598

Ion	Ratio	Lower	Upper
84	100		
86	84.2	33.9	93.9
49	76.0	90.6	150.6#
51	26.5	7.6	67.6

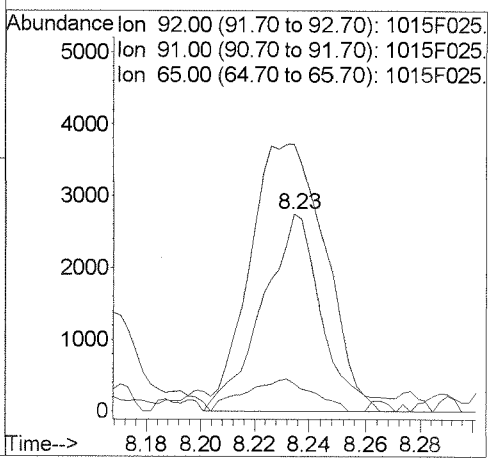


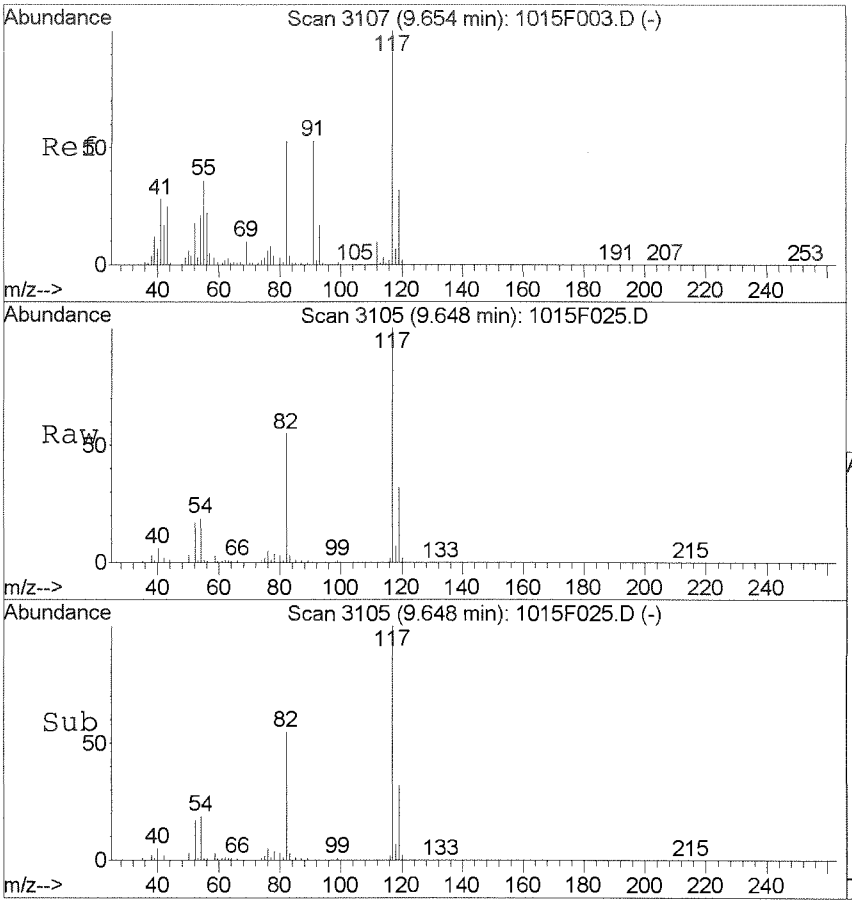


#63
Toluene
Concen: 0.06 PPB
RT: 8.23 min Scan# 2598
Delta R.T. 0.00 min
Lab File: 1015F025.D
Acq: 15 Oct 2014 8:21 pm

Tgt Ion: 92 Resp: 4067

Ion	Ratio	Lower	Upper
92	100		
91	128.7	142.0	202.0#
65	10.6	0.0	48.9

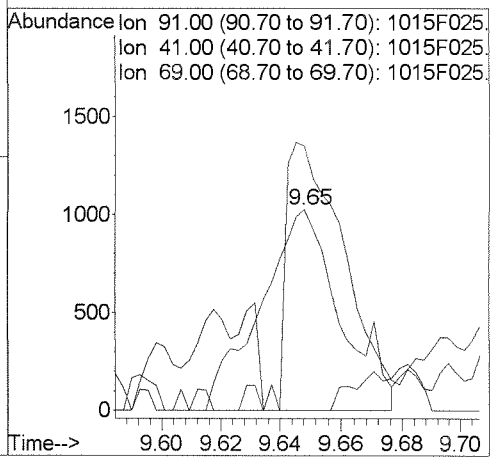


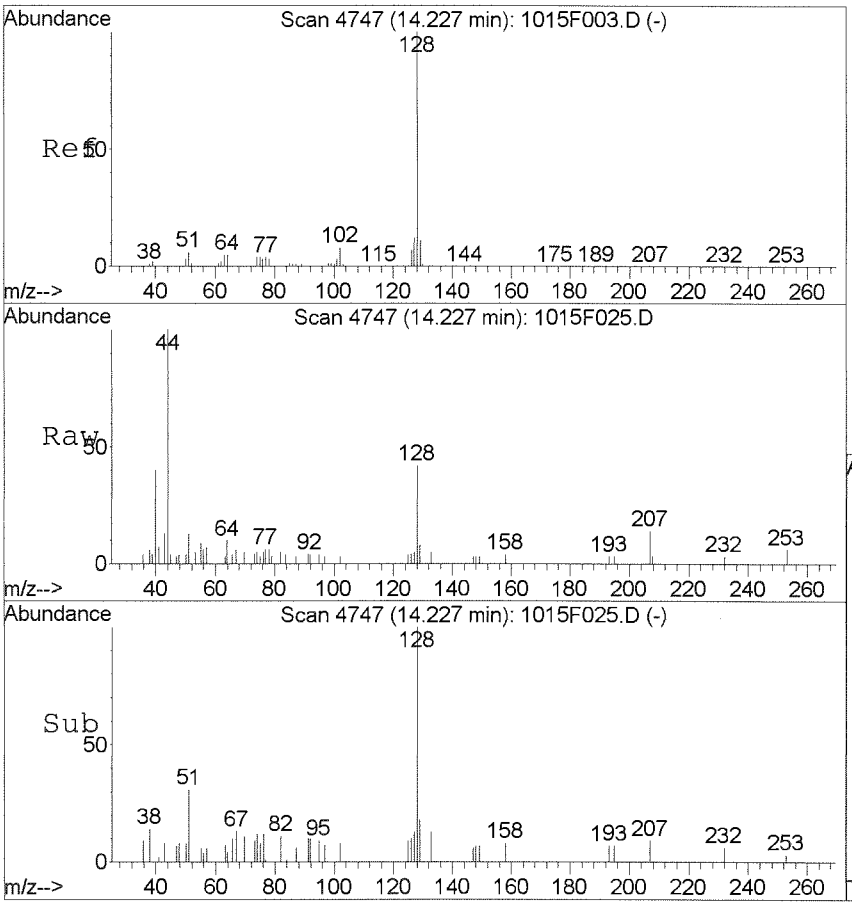


#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.65 min Scan# 3105
Delta R.T. -0.01 min
Lab File: 1015F025.D
Acq: 15 Oct 2014 8:21 pm

Tgt Ion: 91 Resp: 1876

Ion	Ratio	Lower	Upper
91	100		
41	116.4	21.8	81.8#
69	0.0	0.0	48.6

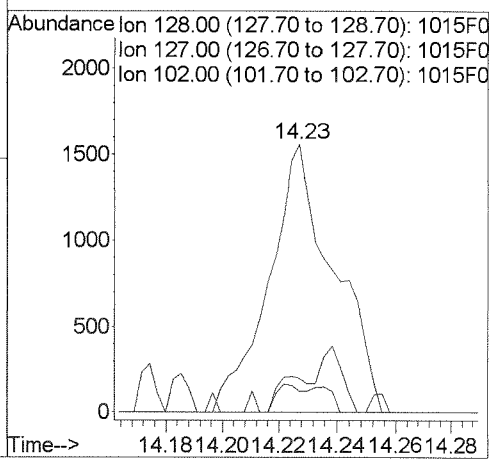




#106
Naphthalene
Concen: 0.03 PPB
RT: 14.23 min Scan# 4747
Delta R.T. 0.00 min
Lab File: 1015F025.D
Acq: 15 Oct 2014 8:21 pm

Tgt Ion:128 Resp: 2411

Ion	Ratio	Lower	Upper
128	100		
127	12.7	0.0	42.7
102	7.9	0.0	37.9



Exception Report

Data File: J:\MS27\DATA\101514\1015F010.D
Lab ID: KWG1413956-5
RunType: MB
Matrix: WATER

Date Acquired: 10/15/2014 13:29
Date Quantitated: 10/15/2014 15:52
Batch ID: KWG1413955
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA		x
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acrolein	0.0062	0.01	NA	NT
	2-Propanol	0.0058	0.01	NA	
	Acetonitrile	0.0092	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0012	0.01	NA	
Continuing Calibration Recovery	2-Chloroethyl Vinyl Ether	-54.4	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0067	0.01	NA	
	Acetonitrile	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0045	0.01	NA	
	1,4-Dioxane	0.0014	0.01	NA	
Analyte Co-elution	1,3-Dichlorobenzene	12.01	NA	NA	
	1,4-Dichlorobenzene	12.01	NA	NA	

Primary Review: MK 10/15/14

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F010.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 13:29	**Quant Date:**	10/15/2014 15:52	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1413956-5			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385051	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:			
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
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	6.47	0.00	96	1078149	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	429457	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	421420	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	5.73	0.00	0.00	113	272940	9.25	93	73-122	OK	
1	1,2-Dichloroethane-d4	6.15	0.00	0.00	65	261896	9.64	96	59-127	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1032919	9.57	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	378900	9.71	97	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.13	U	
1	Chloromethane				50	0d		0.068	U	
1	Vinyl Chloride				62	0		0.075	U	
1	1,3-Butadiene				54	0		0.50	U	
1	Bromomethane				96	583		0.10	U	
1	Chloroethane				64	0		0.16	U	
1	Dichlorofluoromethane (CFC 21				67	0d		0.065	U	
1	Trichlorofluoromethane				101	0		0.12	U	
1	Ethyl Ether				59	0		0.075	U	
1	Acrolein				56	0d		1.2	U	
1	Trichlorotrifluoroethane				151	0		0.13	U	
1	1,1-Dichloroethene				96	0		0.080	U	
1	Acetone	2.67	0.02	0.00	43	3941	0.9900	3.3	U	
1	Iodomethane				142	0		0.12	U	

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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

Data File:	J:\MS27\DATA\101514\1015F010.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 13:29	**Quant Date:**	10/15/2014 15:52	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1413956-5			**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	2.70		0.00	76	4910	0.0600	0.069	U	
1	2-Propanol				45	0		17	U	
1	3-Chloro-1-propene				76	0d		0.094	U	
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile				40	0d		4.5	U	
1	Methylene Chloride	3.17		0.00	84	4715	0.1500	0.150	J	
1	tert-Butyl Alcohol				59	0		4.4	U	
1	Acrylonitrile				53	0		0.28	U	
1	Methyl tert-Butyl Ether				73	0		0.11	U	
1	trans-1,2-Dichloroethene				96	0		0.072	U	
1	n-Hexane	3.78	0.01	0.00	57	3627m	0.1100	0.110	J	
1	Diisopropyl Ether				45	0		0.048	U	
1	1,1-Dichloroethane				63	0		0.077	U	
1	Vinyl Acetate				86	0		0.43	U	
1	Chloroprene				53	0		3.6	U	
1	tert-Butyl Ethyl Ether				59	0		0.048	U	
1	2,2-Dichloropropane				77	0		0.060	U	
1	cis-1,2-Dichloroethene				96	0		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Ethyl Acetate				61	0		0.57	U	
1	Propionitrile				54	0		1.1	U	
1	Methacrylonitrile				67	0		0.32	U	
1	Bromochloromethane				128	0		0.16	U	
1	Tetrahydrofuran				71	0		0.94	U	
1	Chloroform				83	0		0.072	U	
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.075	U	
1	Carbon Tetrachloride				117	0		0.096	U	
1	1,1-Dichloropropene				75	0		0.089	U	
1	Isobutyl Alcohol				43	0d		6.9	U	
1	Benzene				78	0d		0.062	U	
1	1,2-Dichloroethane (EDC)				62	0		0.080	U	
1	tert-Amyl Methyl Ether				55	0d		0.098	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	Methylcyclohexane				83	0		0.33	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	Dibromomethane				93	0		0.15	U	
1	Methyl Methacrylate				69	0		0.13	U	
1	1,4-Dioxane				88	0		11	U	
1	Bromodichloromethane				83	0		0.091	U	
1	2-Nitropropane				41	0d		0.96	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.16	U	

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e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS27\DATA\101514\1015F010.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 13:29	**Quant Date:**	10/15/2014 15:52	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1413956-5			**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	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene				92	0d		0.054	U	
2	n-Octane				85	0		0.16	U	
2	trans-1,3-Dichloropropene				75	0		0.068	U	
2	Ethyl Methacrylate				69	0d		0.15	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)	8.75		0.00	164	1983	0.0800	0.099	U	
2	2-Hexanone				57	0		2.7	U	
2	1,3-Dichloropropane				76	0		0.14	U	
2	Dibromochloromethane				129	0		0.14	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	1-Chlorohexane	9.65		0.00	91	2475	0.0700	0.0700	J	
2	Chlorobenzene				112	0d		0.11	U	
2	Ethylbenzene				106	0d		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes	9.88	-0.01	0.00	106	1569	0.0300	0.11	U	
2	o-Xylene				106	0d		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
2	Isopropylbenzene				105	0d		0.051	U	
2	cis-1,4-Dichloro-2-butene				89	0		1.4	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.16	U	
3	trans-1,4-Dichloro-2-butene				53	0		0.35	U	
3	Bromobenzene				156	0		0.12	U	
3	n-Propylbenzene				91	0d		0.054	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	2-Chlorotoluene	11.15	-0.01	0.00	91	2264m	0.0300	0.10	U	
3	1,3,5-Trimethylbenzene				105	0d		0.089	U	
3	4-Chlorotoluene	11.28		0.00	91	2946	0.0300	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	11.92		0.00	119	2754	0.0300	0.060	U	
3	1,3-Dichlorobenzene	12.01c	0.10	0.01	146	2303m	0.0400	0.10	U	
3	1,4-Dichlorobenzene	12.01c		0.00	146	1984	0.0300	0.12	U	
3	n-Butylbenzene	12.33		0.00	91	4912	0.0500	0.054	U	
3	1,2-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.20	U	
3	1,3,5-Trichlorobenzene	13.33		0.00	180	2013	0.0400	0.10	U	
3	1,2,4-Trichlorobenzene	13.98		0.00	180	3066m	0.0700	0.096	U	
3	Hexachlorobutadiene	14.10		0.00	225	858	0.0500	0.11	U	

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c: check for co-elution

Data File:	J:\MS27\DATA\101514\1015F010.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 13:29	**Quant Date:**	10/15/2014 15:52	**Vial:**	8
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1413956-5			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.22	-0.01	0.00	128	2860	0.0400	0.088	U	
3	1,2,3-Trichlorobenzene	14.47		0.00	180	2415	0.0600	0.11	U	
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

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

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:46:22 2014 Quant Results File: 100814MS27_8260

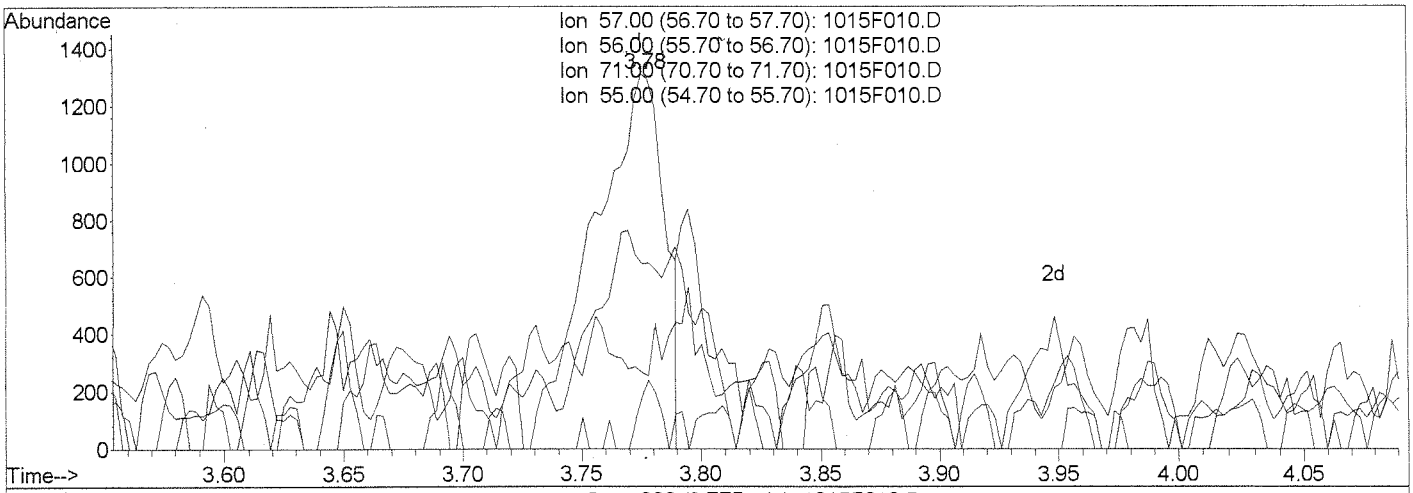
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

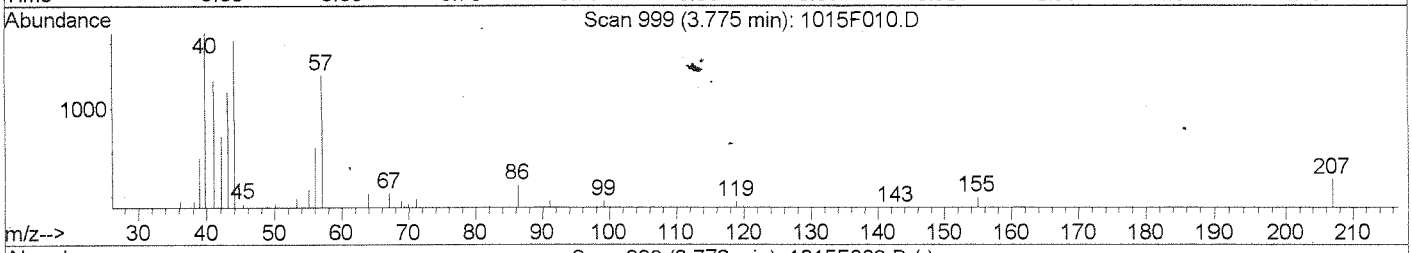
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1078149	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	429457	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	421420	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	272940	9.25	PPB	0.00
Spiked Amount 10.000			Recovery =	92.50%		
47) 1,2-Dichloroethane-d4	6.15	65	261896	9.64	PPB	0.00
Spiked Amount 10.000			Recovery =	96.40%		
62) Toluene-d8	8.16	98	1032919	9.57	PPB	0.00
Spiked Amount 10.000			Recovery =	95.70%		
84) 4-Bromofluorobenzene	10.84	95	378900	9.71	PPB	0.00
Spiked Amount 10.000			Recovery =	97.10%		
Target Compounds						Qvalue
6) Bromomethane	1.70	96	583	Below Cal	#	50
14) Acetone	2.67	43	3941	0.99	PPB	71
16) Carbon Disulfide	2.70	76	4910	0.06	PPB	98
21) Methylene Chloride	3.17	84	4715	0.15	PPB	87
26) Hexane	3.78	57	3627m	0.11	PPB	
69) Tetrachloroethene	8.75	164	1983	0.08	PPB	# 44
74) 1-Chlorohexane	9.65	91	2475	0.07	PPB	69
78) m,p-Xylenes	9.88	106	1569	0.03	PPB	# 77
91) 2-Chlorotoluene	11.15	91	2264m	0.03	PPB	
93) 4-Chlorotoluene	11.28	91	2946	0.03	PPB	92
97) p-Isopropyltoluene	11.92	119	2754	0.03	PPB	93
98) 1,3-Dichlorobenzene	12.01	146	2303m	0.04	PPB	
99) 1,4-Dichlorobenzene	12.01	146	1984	0.03	PPB	80
100) n-Butylbenzene	12.33	91	4912	0.05	PPB	78
103) 1,3,5-Trichlorobenzene	13.33	180	2013	0.04	PPB	92
104) 1,2,4-Trichlorobenzene	13.98	180	3066m	0.07	PPB	
105) Hexachlorobutadiene	14.10	225	858	0.05	PPB	87
106) Naphthalene	14.22	128	2860	0.04	PPB	77
107) 1,2,3-Trichlorobenzene	14.47	180	2415	0.06	PPB	96

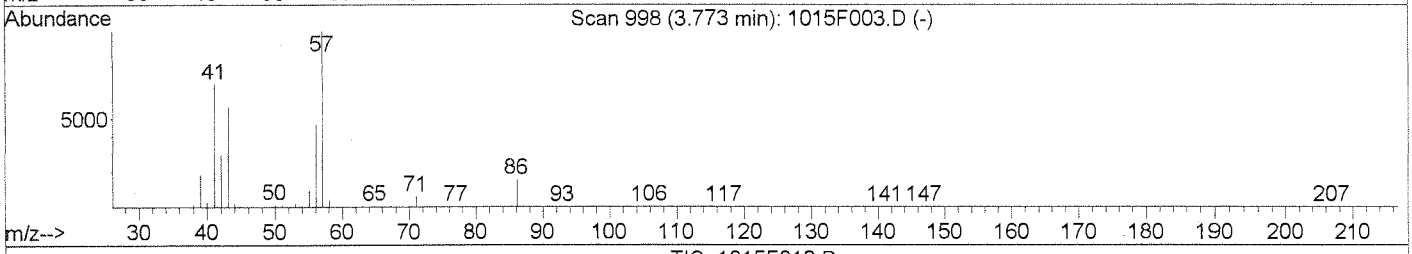
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:47 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(26) Hexane (T)

3.78min 0.08PPB

response 2736

Ion	Exp%	Act%
57.00	100	100
56.00	46.20	32.49
71.00	5.30	13.88
55.00	7.60	0.00

Manual Integration:

Before

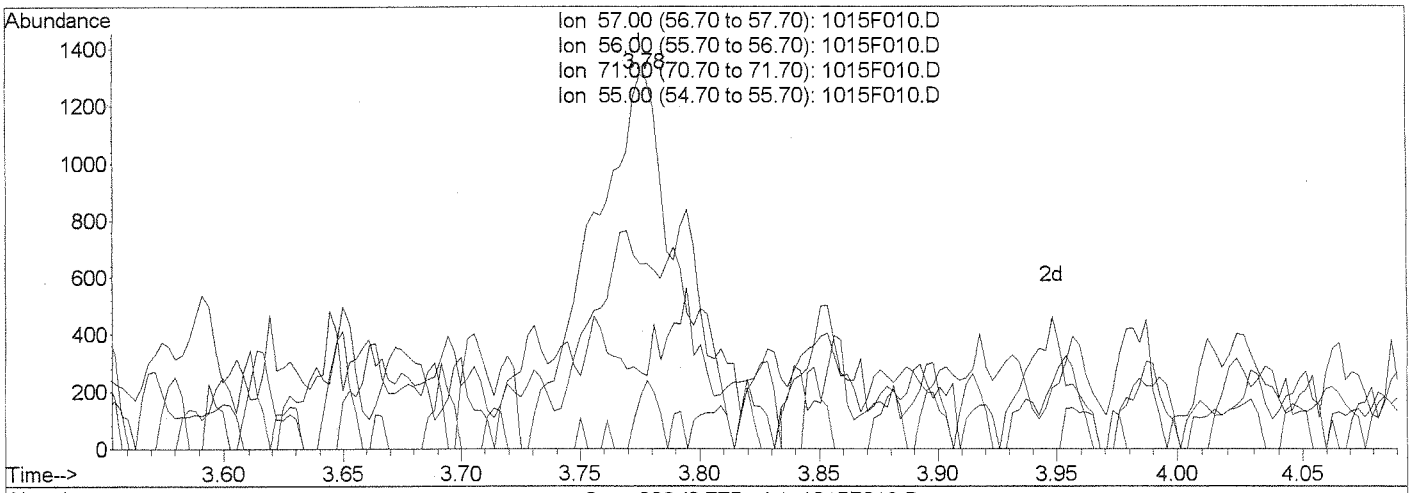
10/15/14

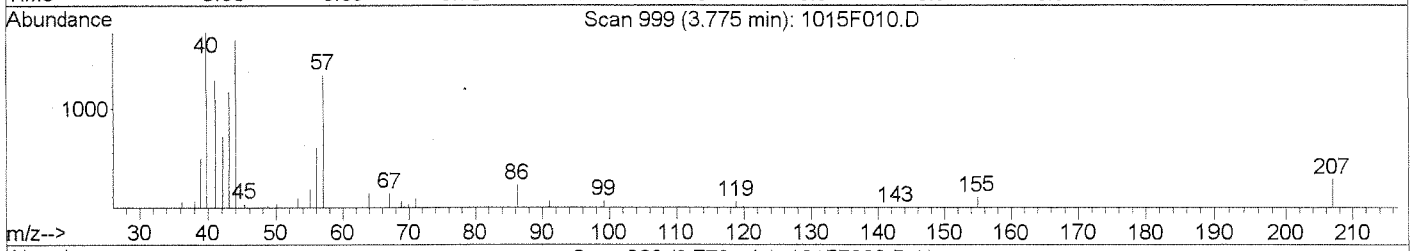
MK 10/21/14

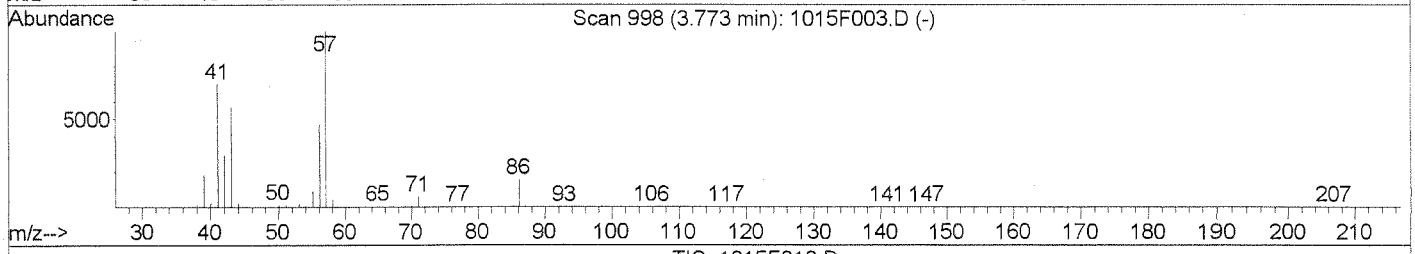
1015F010.D 100814MS27_8260.M Wed Oct 15 15:47:36 2014

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:47 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(26) Hexane (T)

3.78min 0.11PPB m

response 3627

Ion	Exp%	Act%
57.00	100	100
56.00	46.20	49.35
71.00	5.30	13.88
55.00	7.60	20.37

Manual Integration:

After

Baseline correction

10/15/14

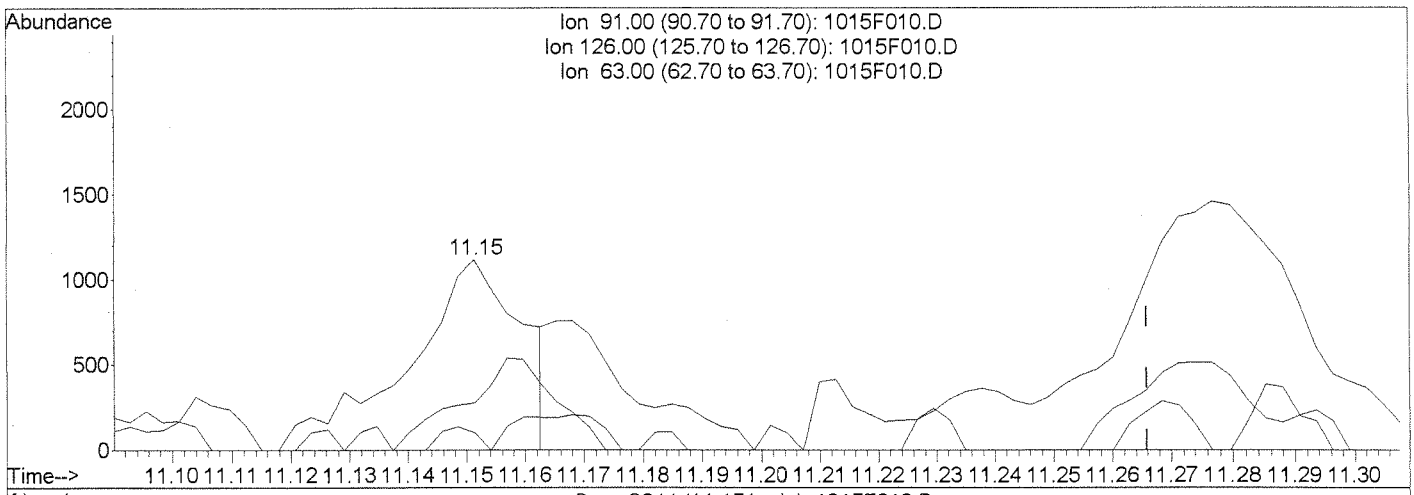
MK

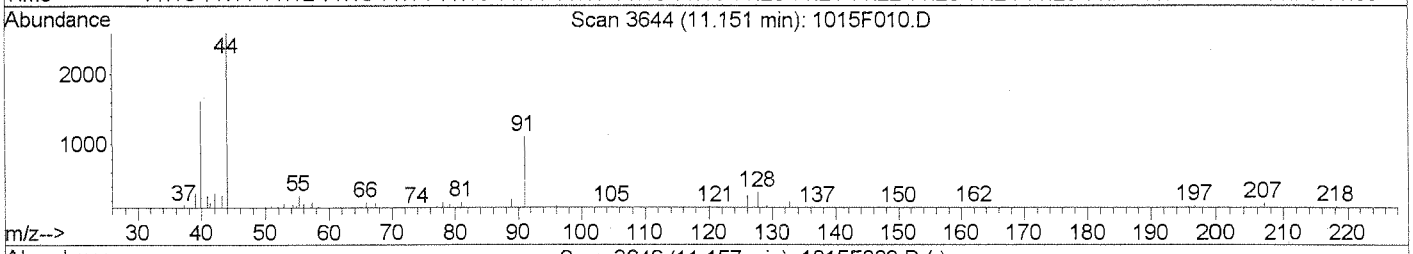
1015F010.D 100814MS27_8260.M Wed Oct 15 15:47:46 2014

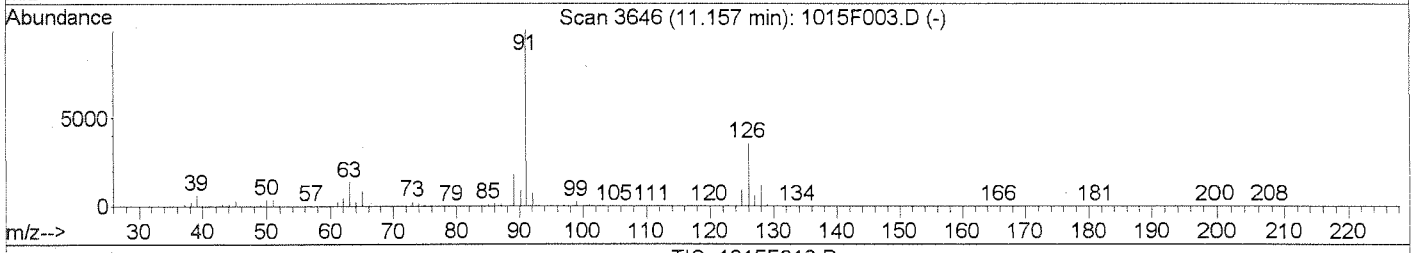
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:50 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(91) 2-Chlorotoluene (T)

11.15min 0.02PPB

response 1503

Ion	Exp%	Act%
91.00	100	100
126.00	35.00	24.60
63.00	13.40	19.23
0.00	0.00	0.00

Manual Integration:

Before

10/15/14

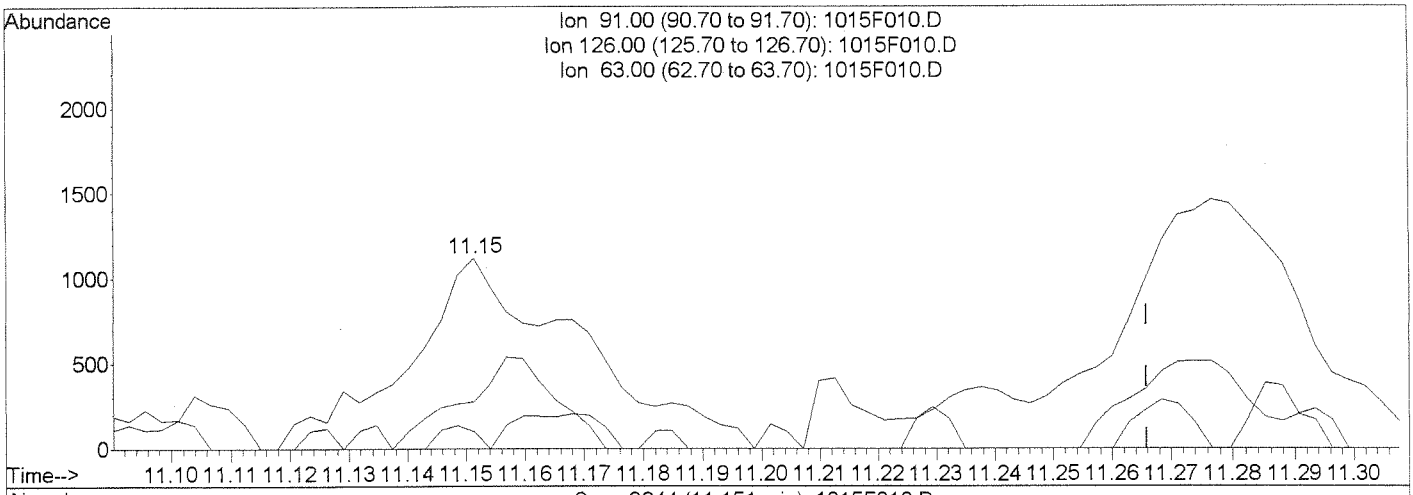
1015F010.D 100814MS27_8260.M Wed Oct 15 15:50:29 2014

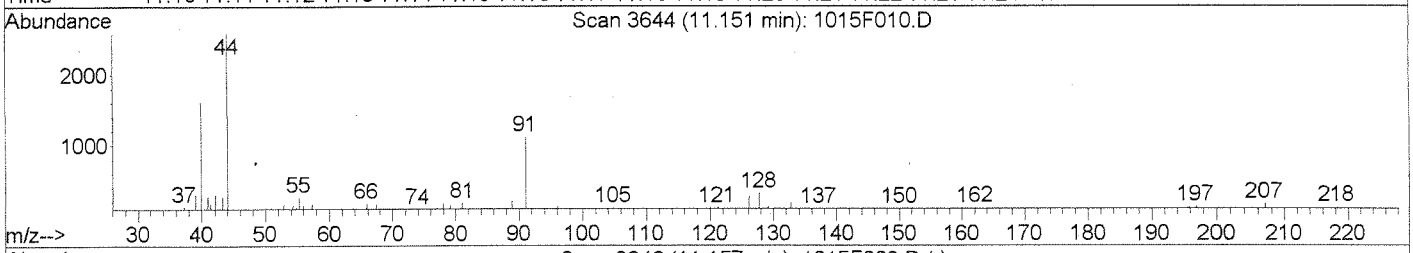
Quantitation Report (Qedit)

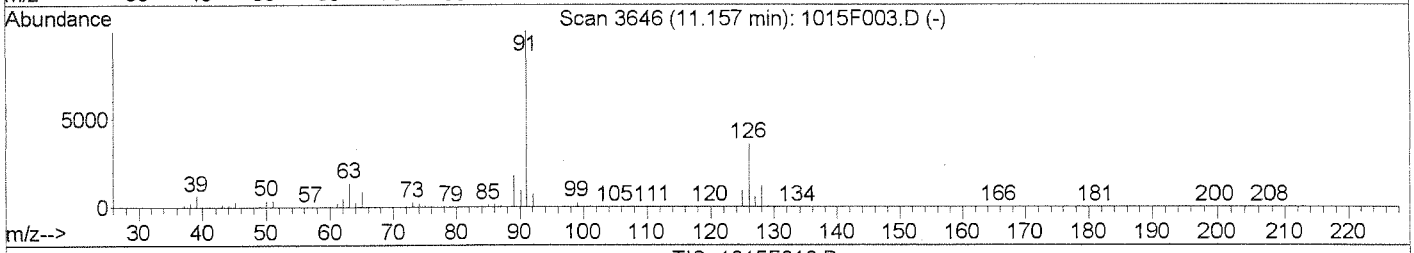
Data File : J:\MS27\DATA\101514\1015F010.D
Acq On : 15 Oct 2014 1:29 pm
Sample : MB
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 15:50 2014

Vial: 8
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(91) 2-Chlorotoluene (T)

11.15min 0.03PPB m

response 2264

Ion	Exp%	Act%
91.00	100	100
126.00	35.00	24.60
63.00	13.40	10.29
0.00	0.00	0.00

Manual Integration:

After

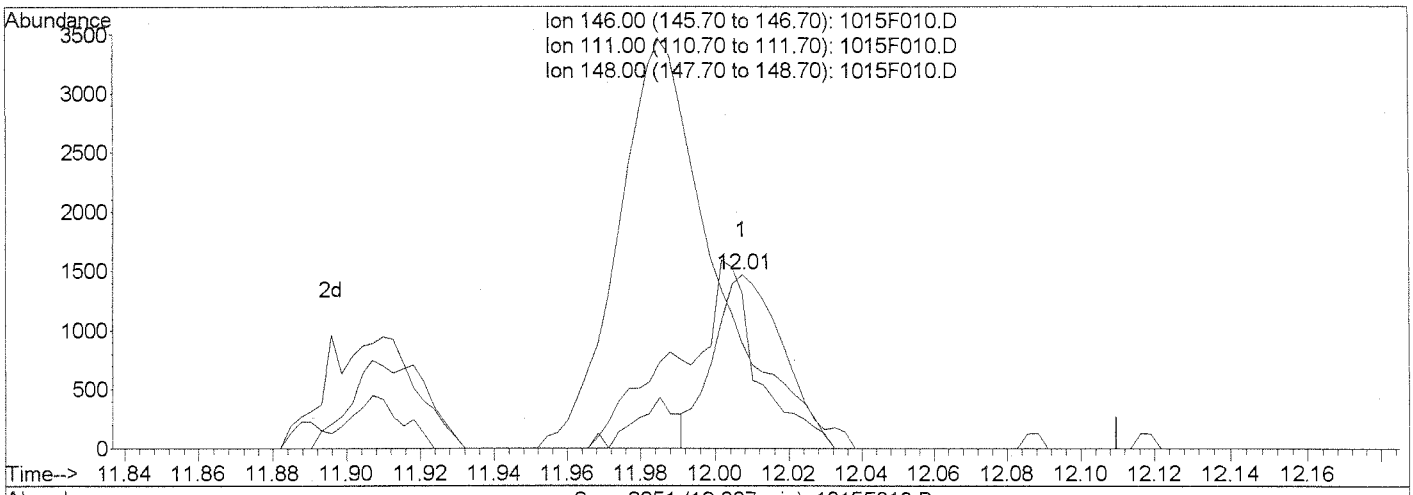
Baseline correction

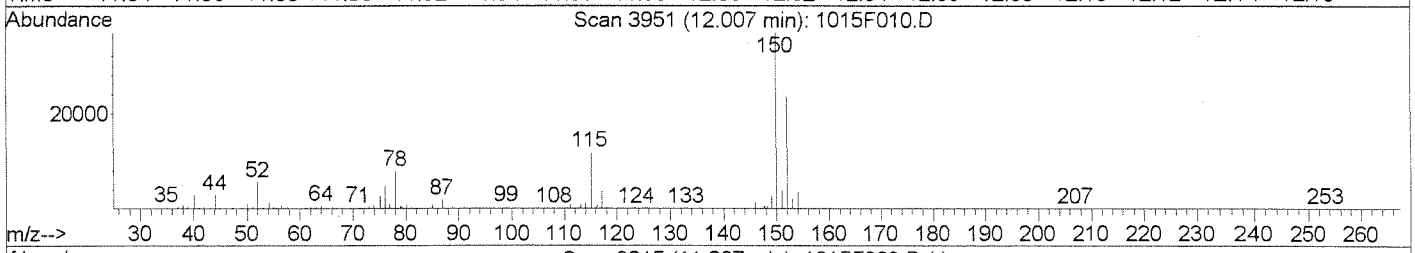
10/15/14

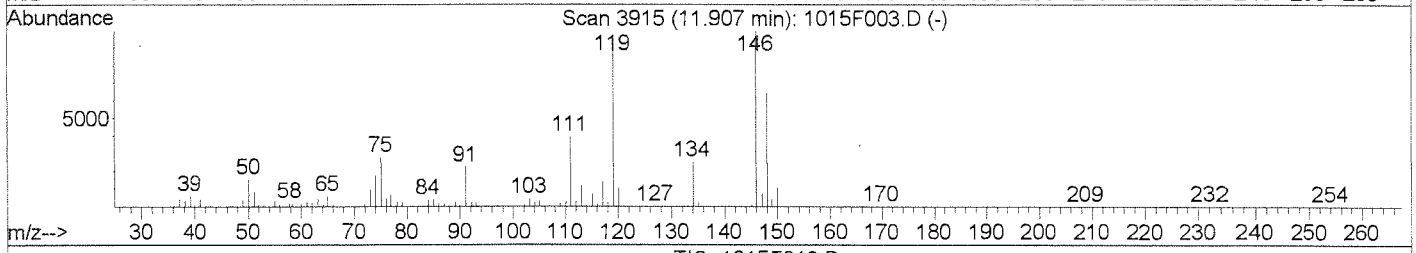
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:51 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(98) 1,3-Dichlorobenzene (T)

12.01min 0.03PPB

response 1984

Ion	Exp%	Act%
146.00	100	100
111.00	38.70	52.14
148.00	63.30	77.18
0.00	0.00	0.00

Manual Integration:

Before

10/15/14

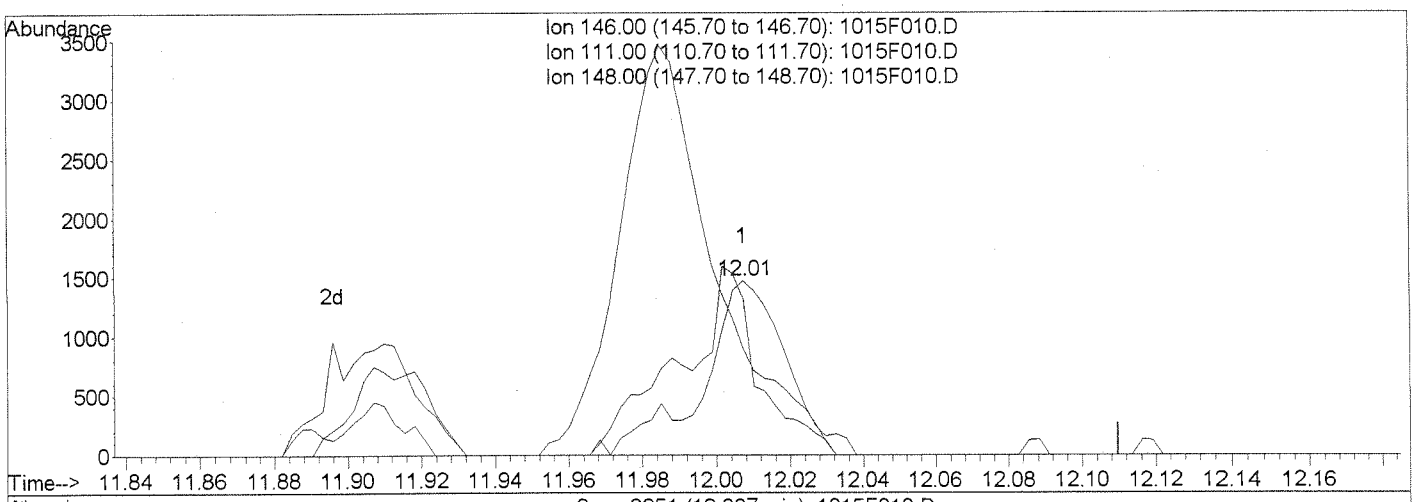
1015F010.D 100814MS27_8260.M Wed Oct 15 15:51:18 2014

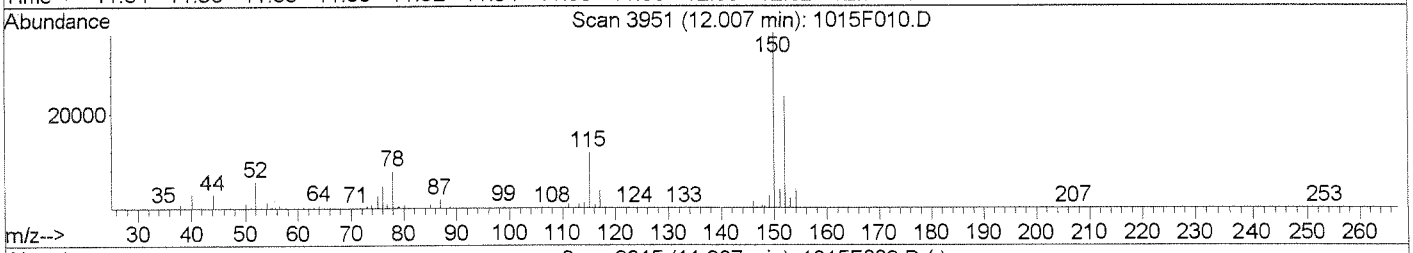
Quantitation Report (Qedit)

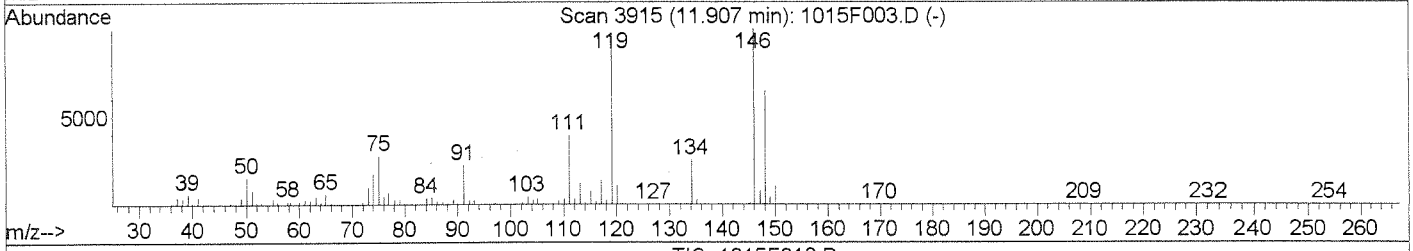
Data File : J:\MS27\DATA\101514\1015F010.D
Acq On : 15 Oct 2014 1:29 pm
Sample : MB
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 15:51 2014

Vial: 8
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(98) 1,3-Dichlorobenzene (T)

12.01min 0.04PPB m

response 2303

Ion	Exp%	Act%
146.00	100	100
111.00	38.70	60.57
148.00	63.30	50.10
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

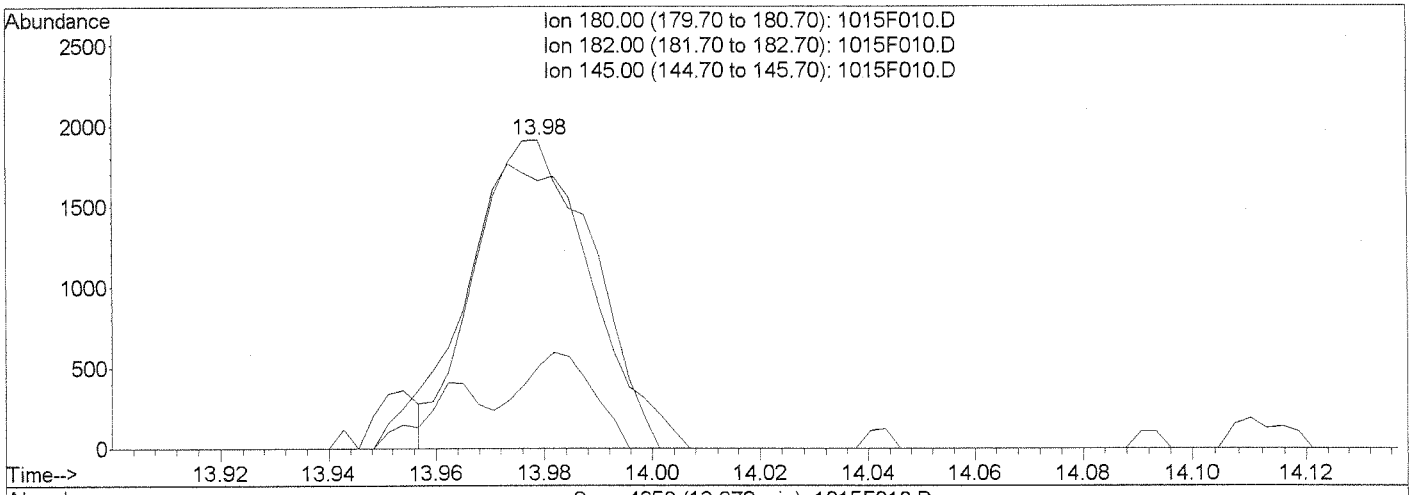
10/15/14

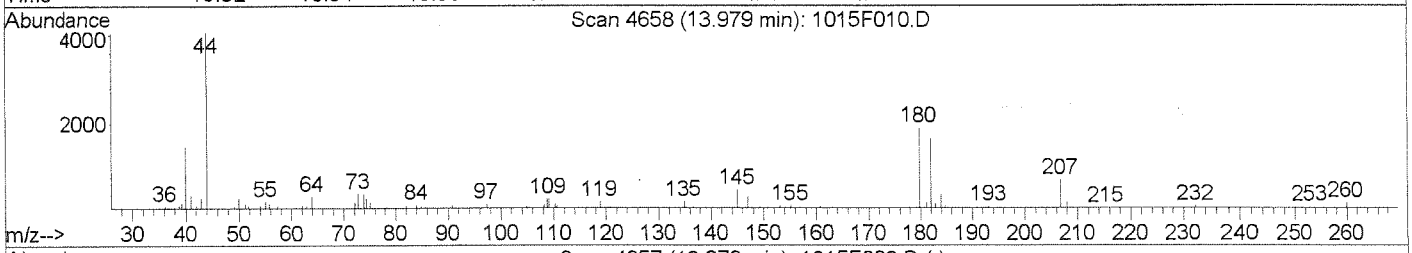
Quantitation Report (Qedit)

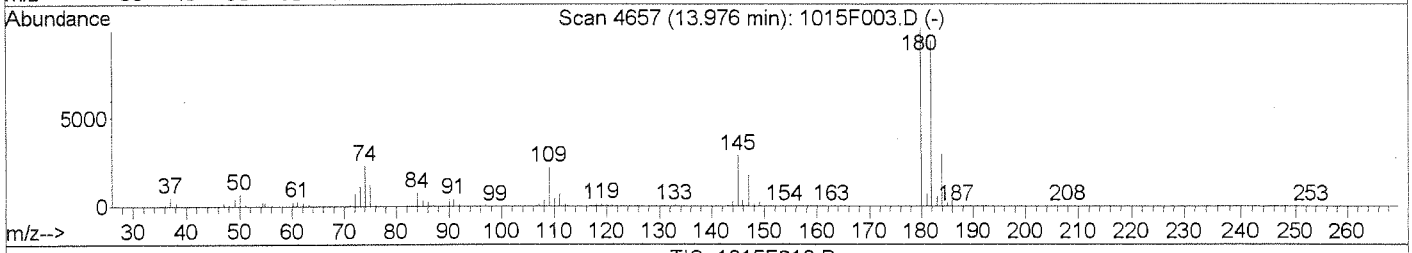
Data File : J:\MS27\DATA\101514\1015F010.D
Acq On : 15 Oct 2014 1:29 pm
Sample : MB
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 15:51 2014

Vial: 8
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(104) 1,2,4-Trichlorobenzene (T)

13.98min 0.07PPB

response 2867

Ion	Exp%	Act%
180.00	100	100
182.00	94.90	81.27
145.00	27.80	26.69
0.00	0.00	0.00

Manual Integration:

Before

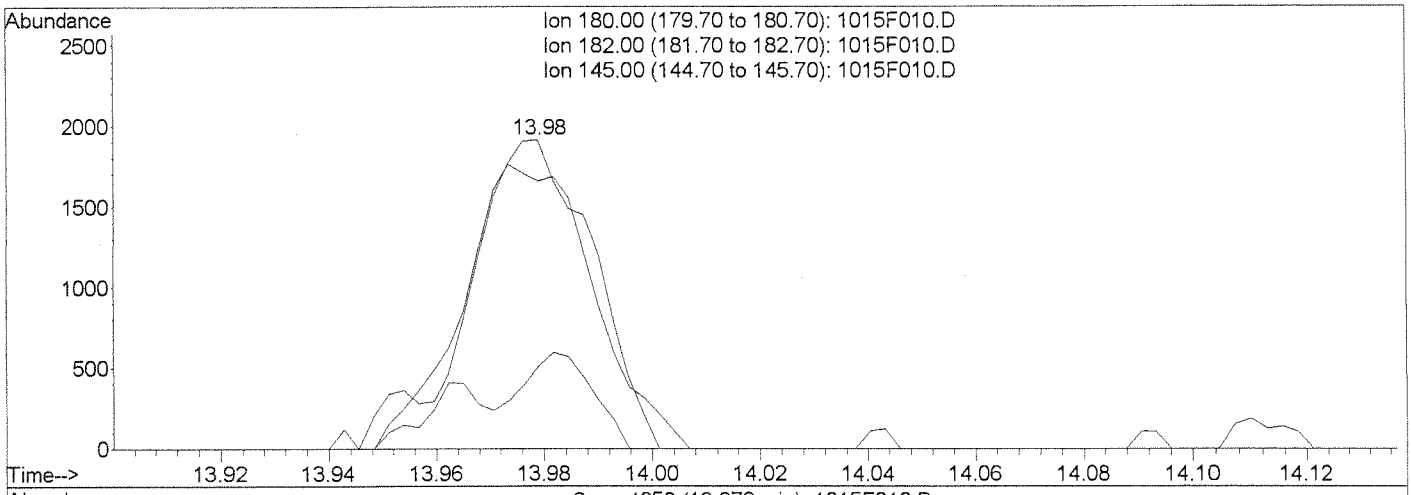
10/15/14

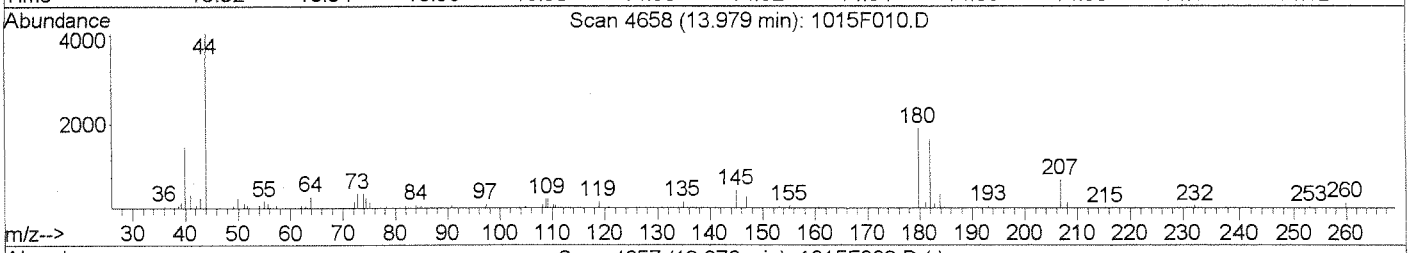
MK

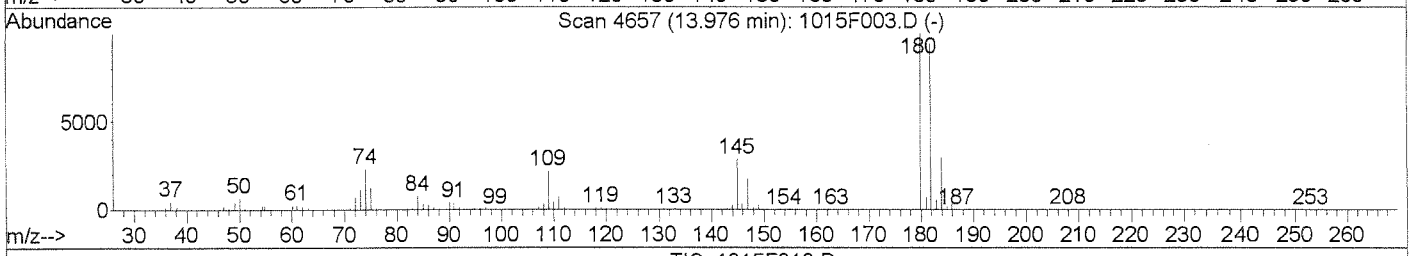
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:52 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F010.D

(104) 1,2,4-Trichlorobenzene (T)

13.98min 0.07PPB m

response 3066

Ion	Exp%	Act%
180.00	100	100
182.00	94.90	86.76
145.00	27.80	26.69
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/15/14

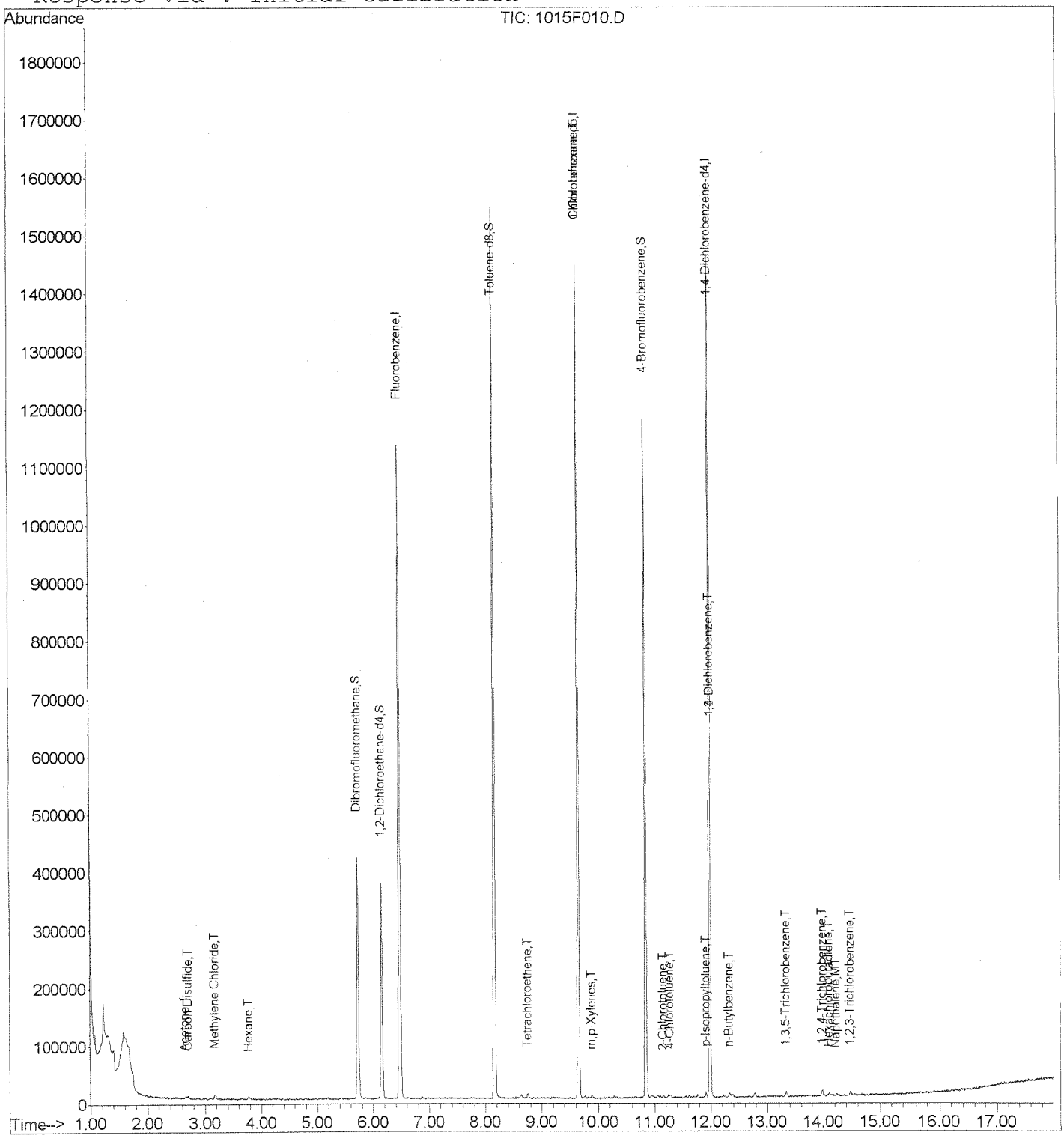
MK

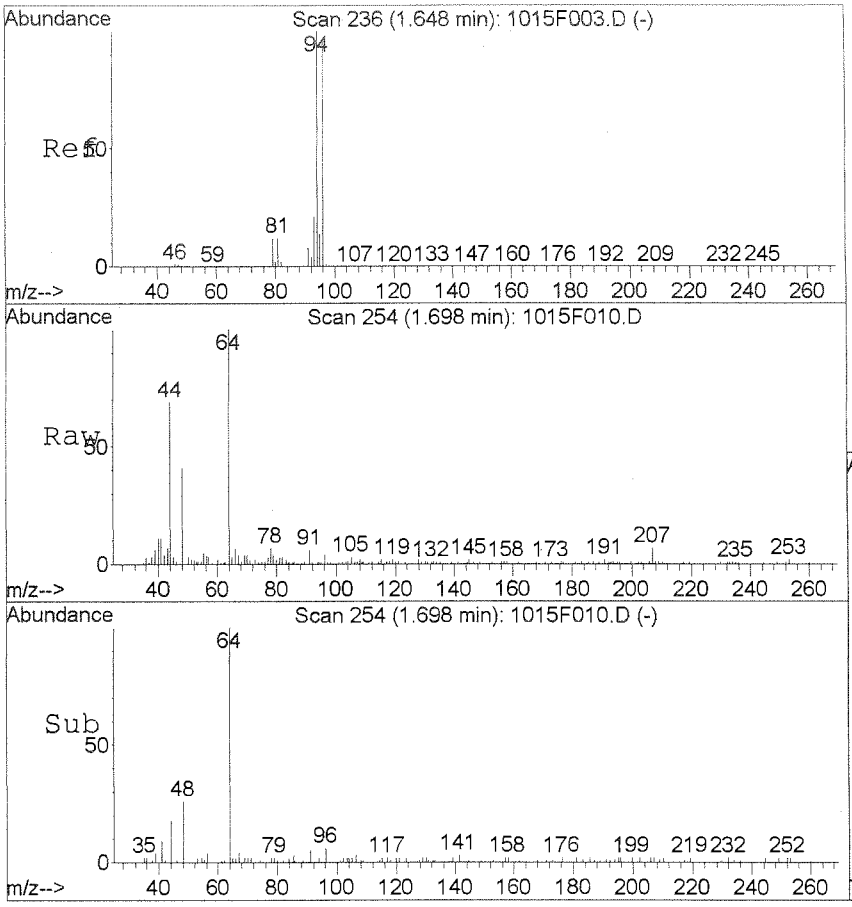
1015F010.D 100814MS27_8260.M Wed Oct 15 15:52:10 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\101514\1015F010.D Vial: 8
Acq On : 15 Oct 2014 1:29 pm Operator: MK
Sample : MB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:52 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

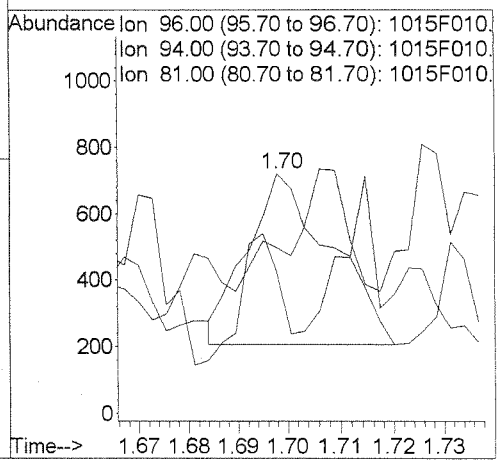


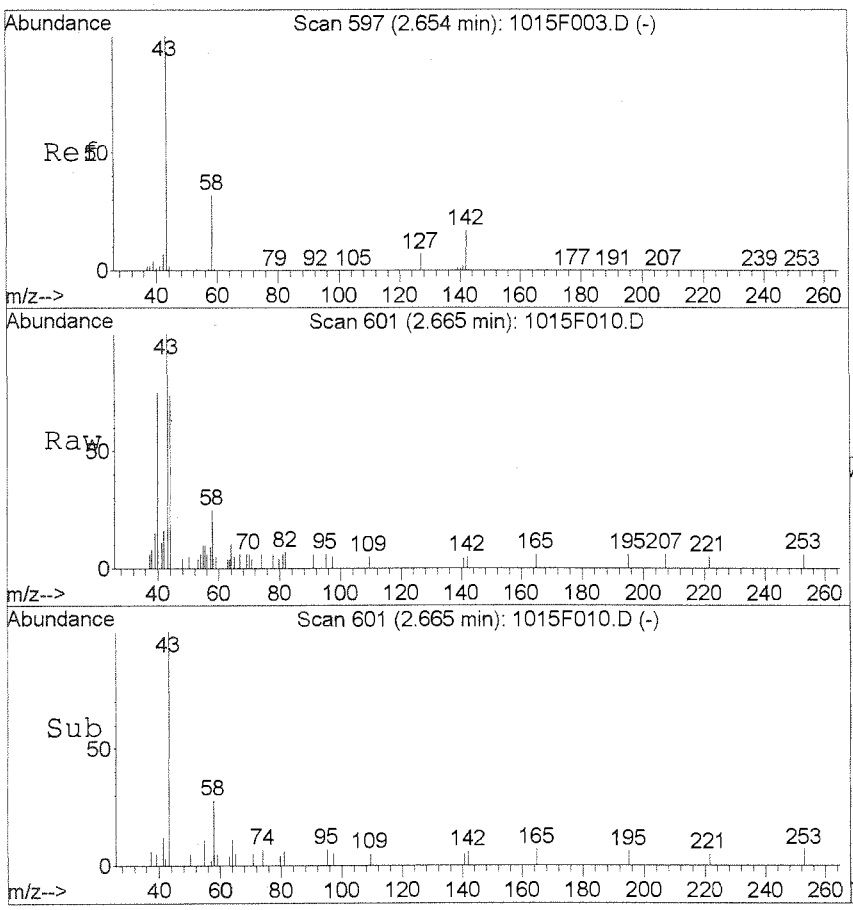


#6
Bromomethane
Concen: Below Cal
RT: 1.70 min Scan# 254
Delta R.T. 0.05 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 96 Resp: 583

Ion	Ratio	Lower	Upper
96	100		
94	51.3	77.8	137.8#
81	6.2	0.0	43.8

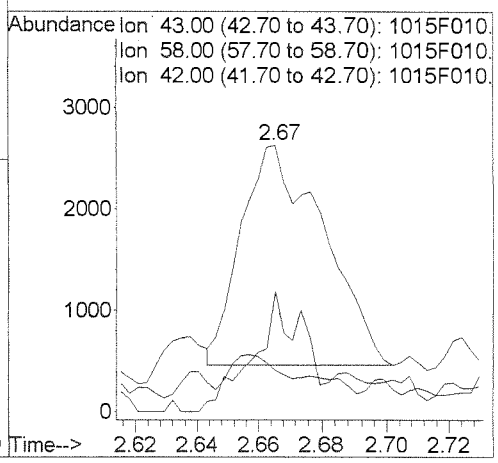


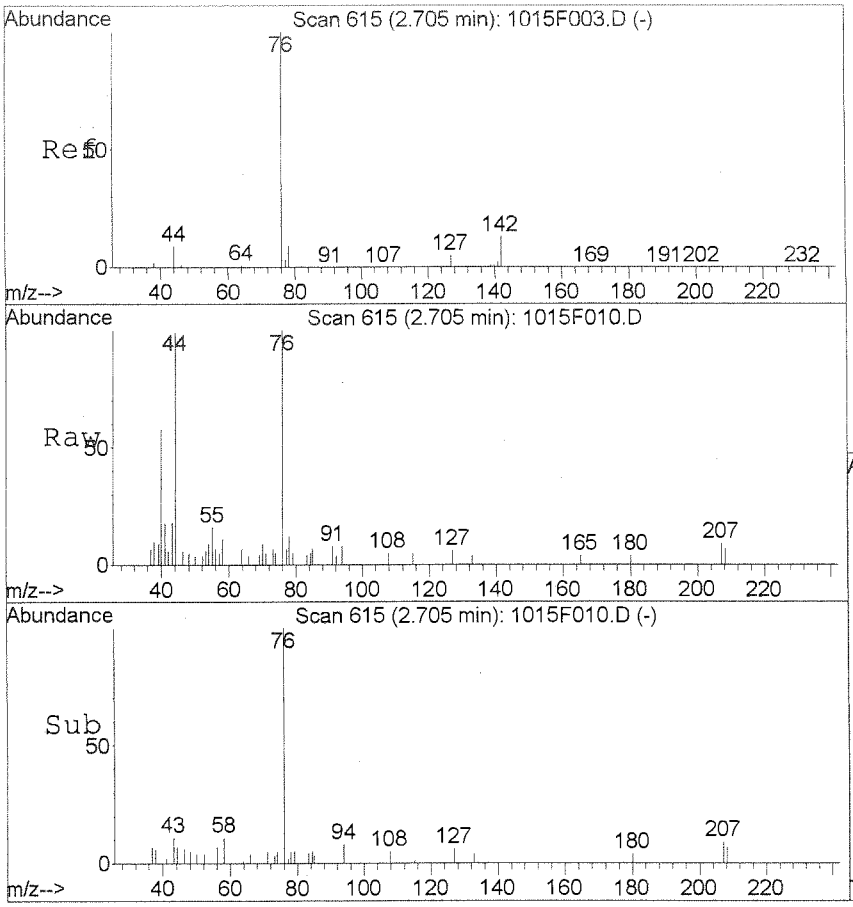


#14
Acetone
Concen: 0.99 PPB
RT: 2.67 min Scan# 601
Delta R.T. 0.01 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 43 Resp: 3941

Ion	Ratio	Lower	Upper
43	100		
58	50.0	0.9	60.9
42	8.7	0.0	37.1

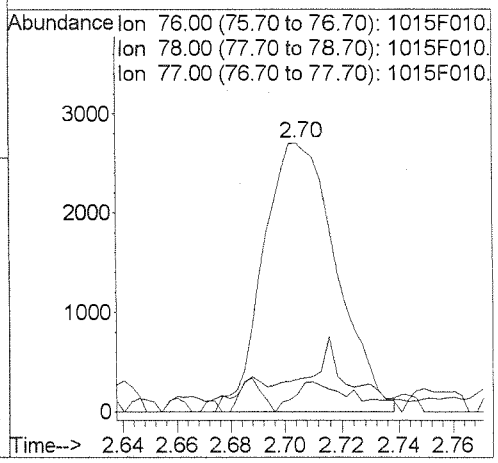


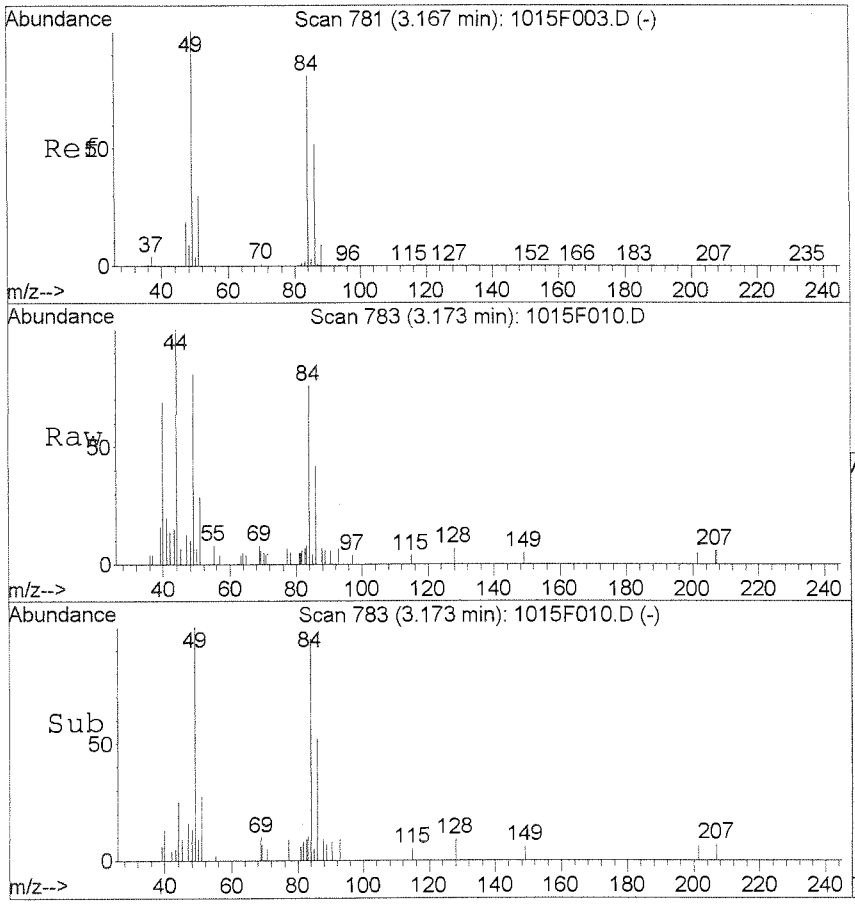


#16
Carbon Disulfide
Concen: 0.06 PPB
RT: 2.70 min Scan# 615
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 76 Resp: 4910

Ion	Ratio	Lower	Upper
76	100		
78	8.4	0.0	39.1
77	2.4	0.0	32.6

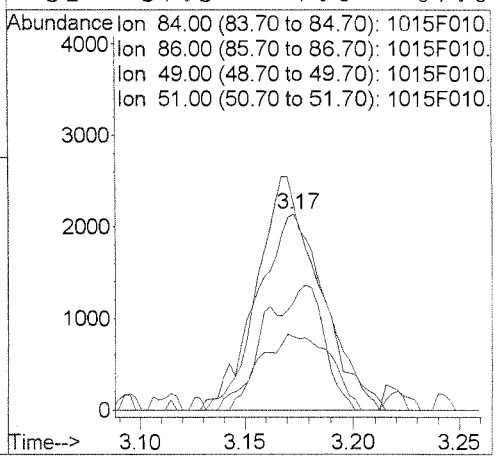


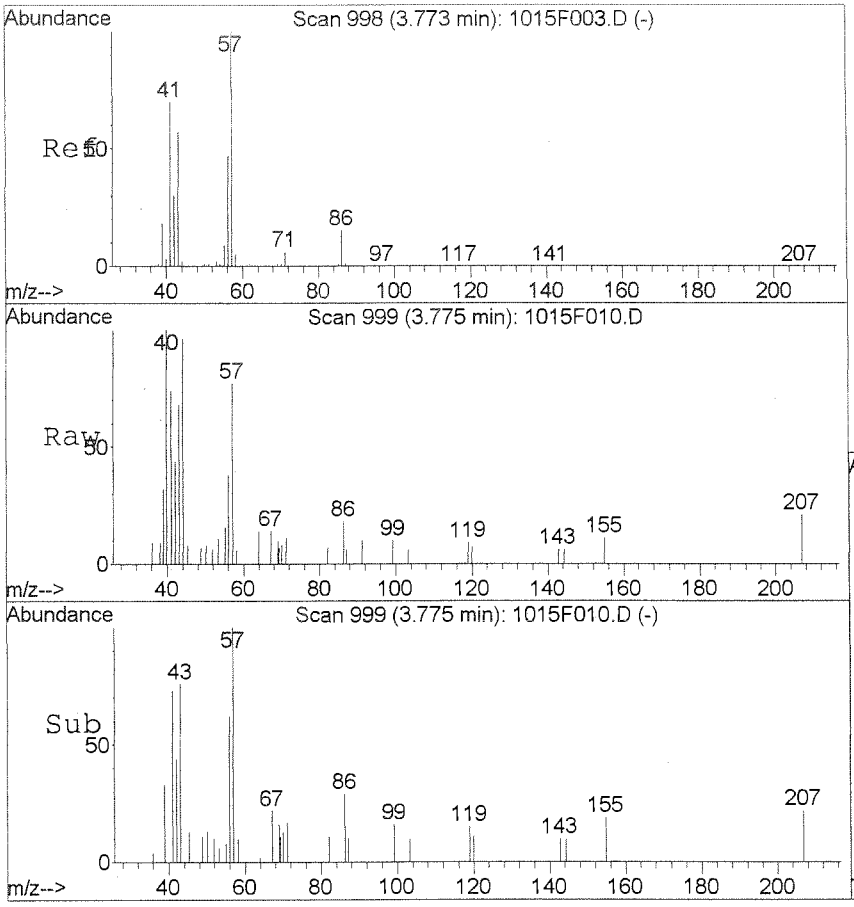


#21
Methylene Chloride
Concen: 0.15 PPB
RT: 3.17 min Scan# 783
Delta R.T. 0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 84 Resp: 4715

Ion	Ratio	Lower	Upper
84	100		
86	55.1	33.9	93.9
49	100.3	90.6	150.6
51	37.5	7.6	67.6

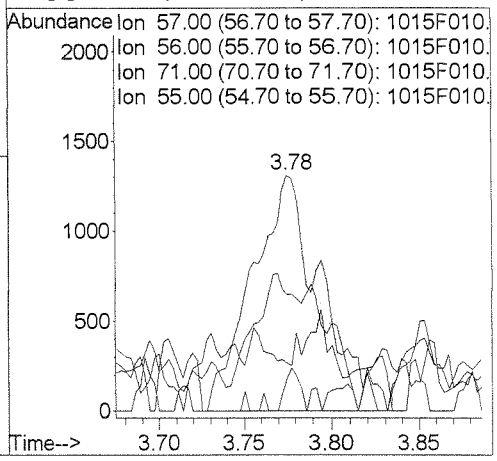


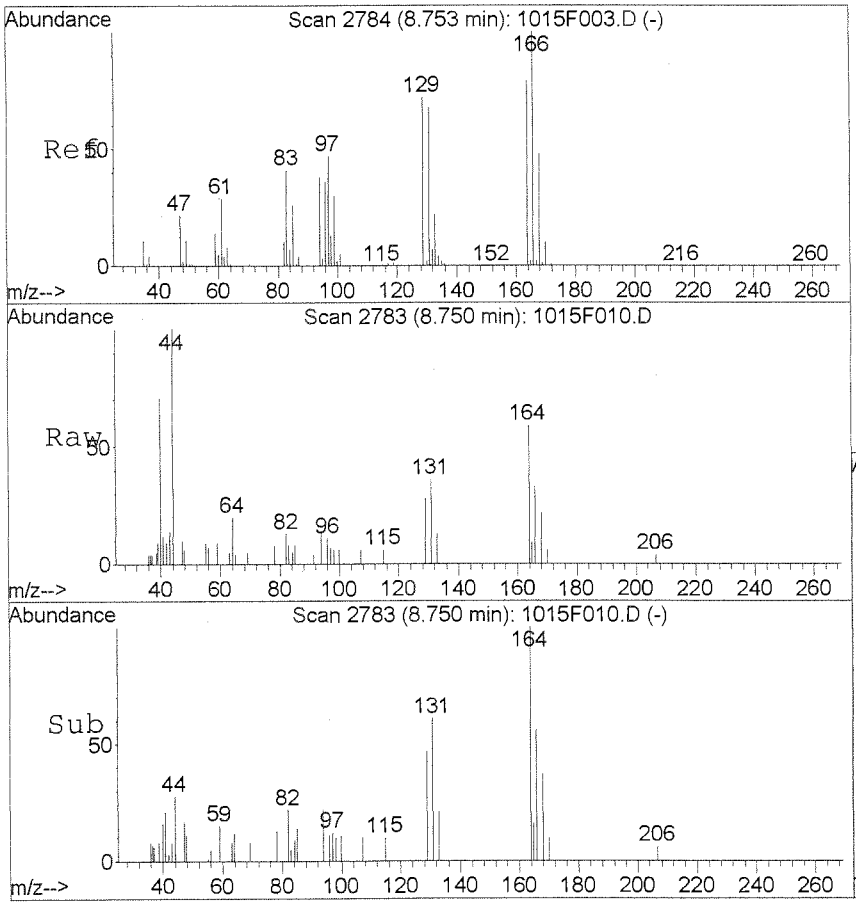


#26
Hexane
Concen: 0.11 PPB m
RT: 3.78 min Scan# 999
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 57 Resp: 3627

Ion	Ratio	Lower	Upper
57	100		
56	49.4	16.2	76.2
71	13.9	0.0	35.3
55	20.4	0.0	37.6

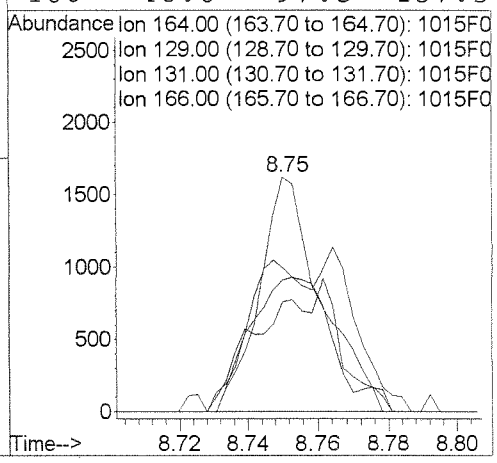


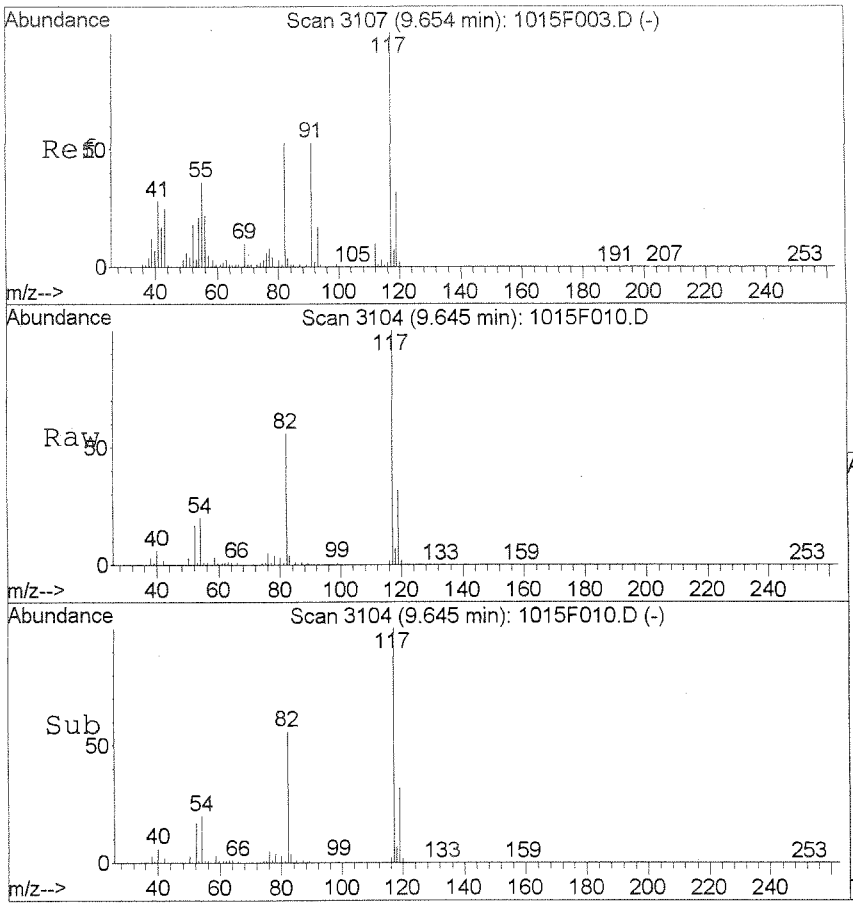


#69
Tetrachloroethene
Concen: 0.08 PPB
RT: 8.75 min Scan# 2783
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:164 Resp: 1983

Ion	Ratio	Lower	Upper
164	100		
129	40.6	62.3	122.3#
131	52.9	58.9	118.9#
166	48.6	97.5	157.5#

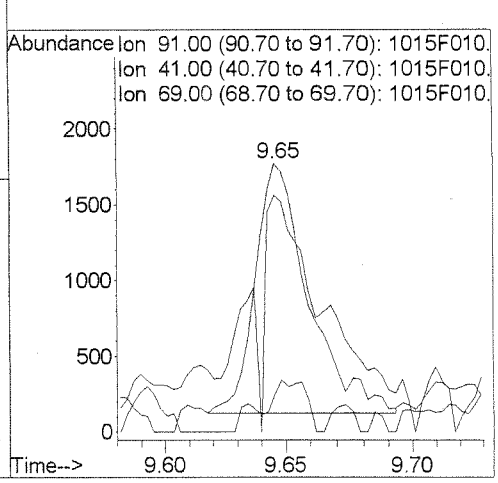


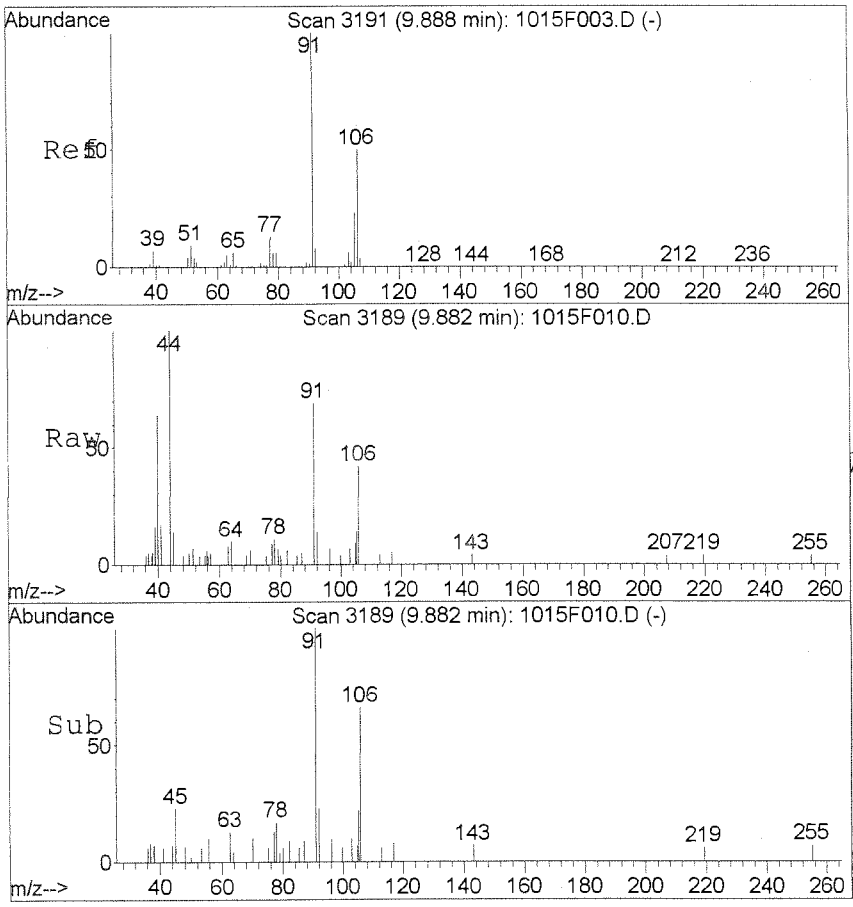


#74
1-Chlorohexane
Concen: 0.07 PPB
RT: 9.65 min Scan# 3104
Delta R.T. -0.01 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 91 Resp: 2475

Ion	Ratio	Lower	Upper
91	100		
41	79.5	21.8	81.8
69	15.4	0.0	48.6

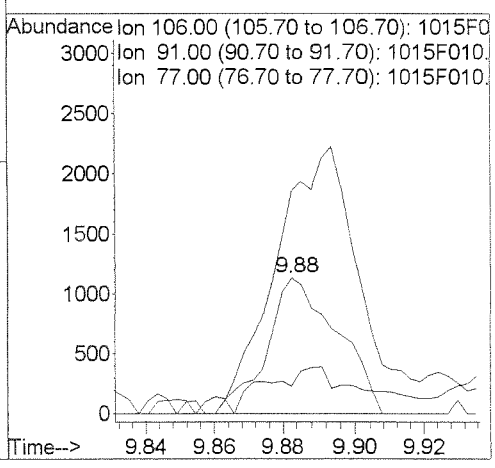


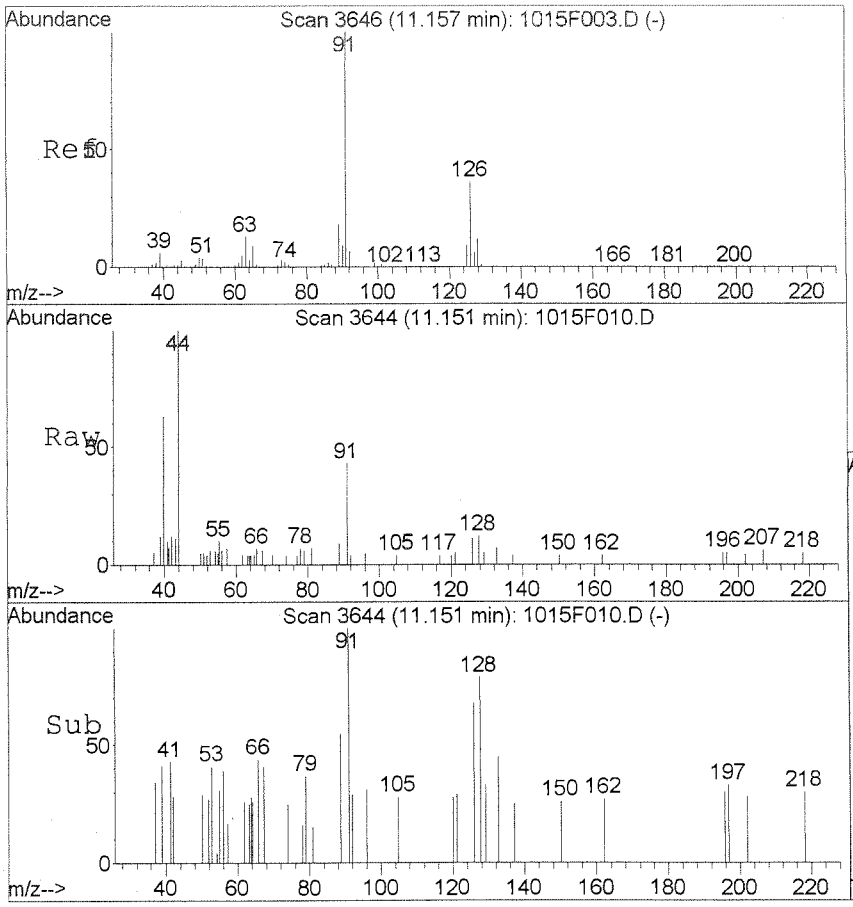


#78
m,p-Xylenes
Concen: 0.03 PPB
RT: 9.88 min Scan# 3189
Delta R.T. -0.01 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:106 Resp: 1569

Ion	Ratio	Lower	Upper
106	100		
91	164.3	168.8	228.8#
77	11.6	0.0	55.8

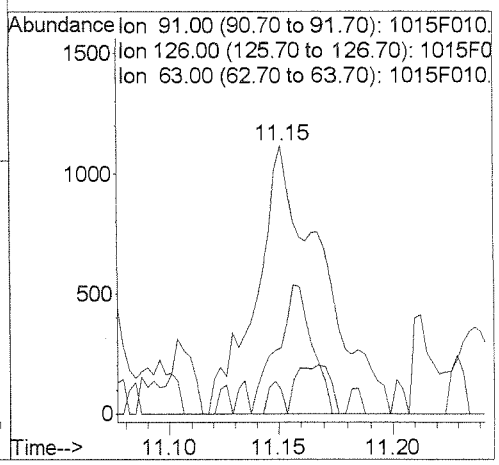


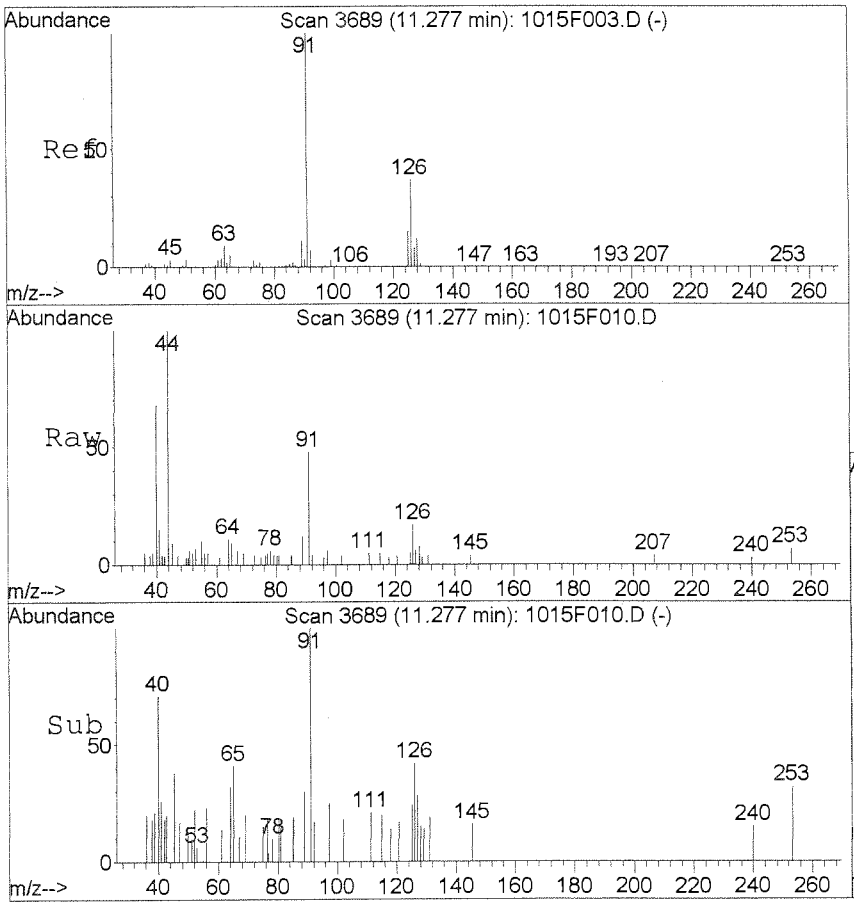


#91
2-Chlorotoluene
Concen: 0.03 PPB m
RT: 11.15 min Scan# 3644
Delta R.T. -0.01 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 91 Resp: 2264

Ion	Ratio	Lower	Upper
91	100		
126	24.6	5.0	65.0
63	10.3	0.0	43.4

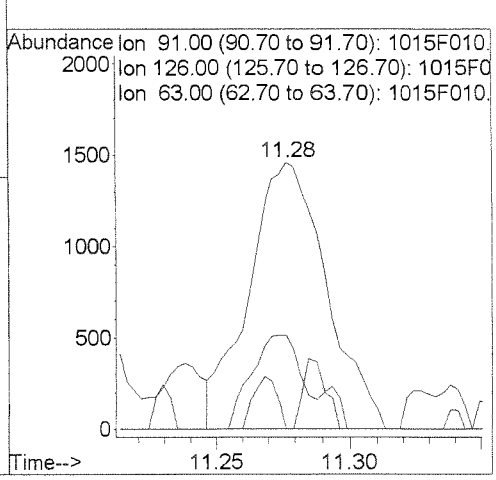


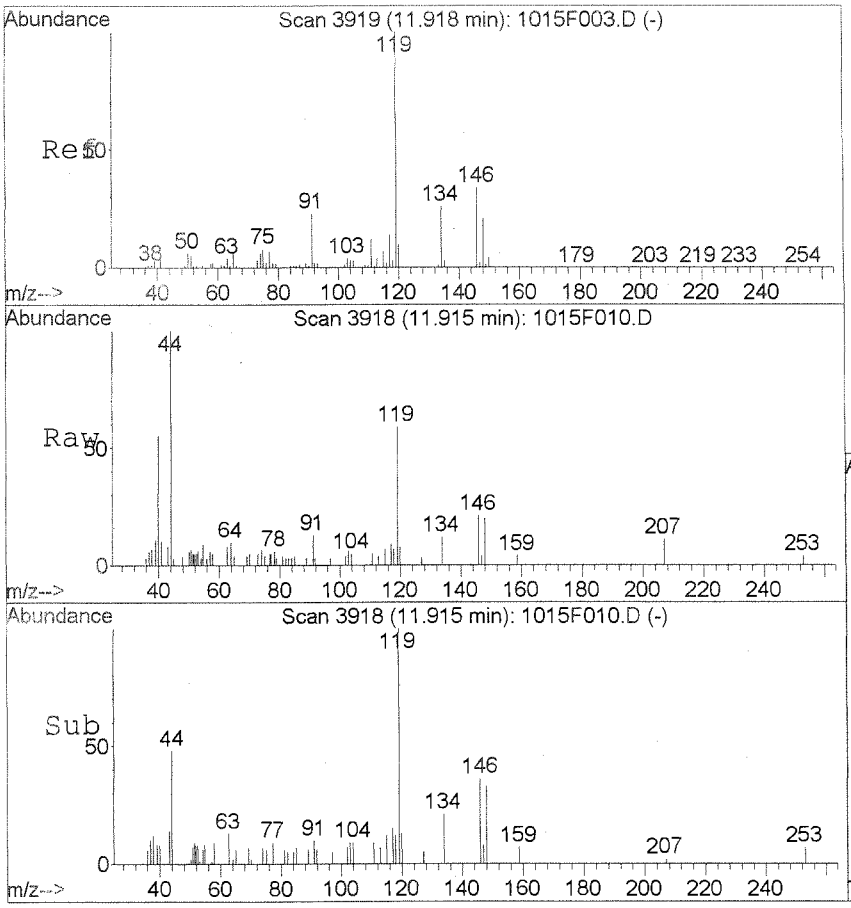


#93
4-Chlorotoluene
Concen: 0.03 PPB
RT: 11.28 min Scan# 3689
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 91 Resp: 2946

Ion	Ratio	Lower	Upper
91	100		
126	35.1	4.6	64.6
63	0.0	0.0	41.4

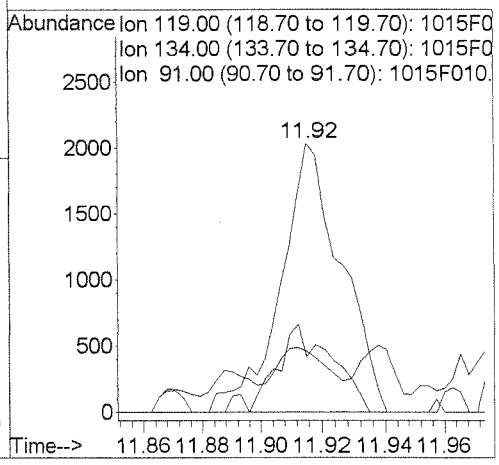


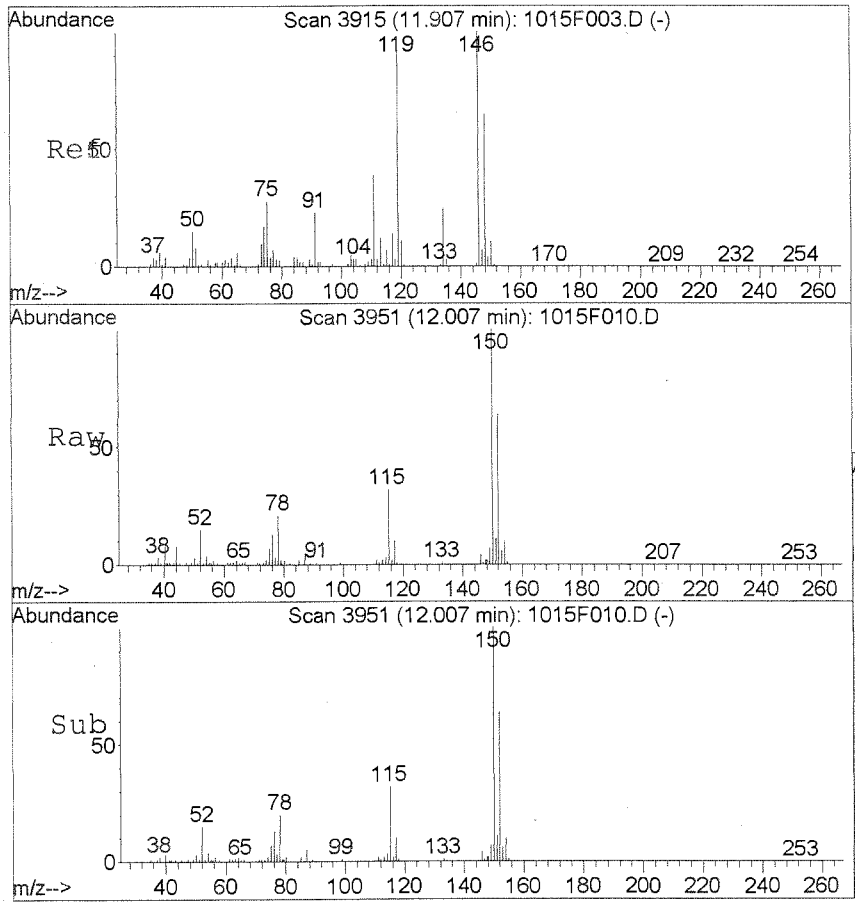


#97
p-Isopropyltoluene
Concen: 0.03 PPB
RT: 11.92 min Scan# 3918
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:119 Resp: 2754

Ion	Ratio	Lower	Upper
119	100		
134	20.7	0.0	56.2
91	20.7	0.0	52.4

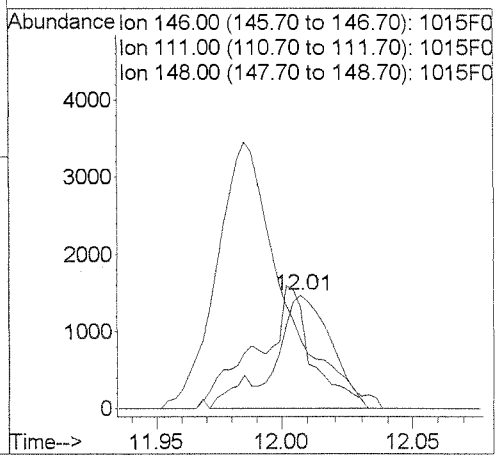


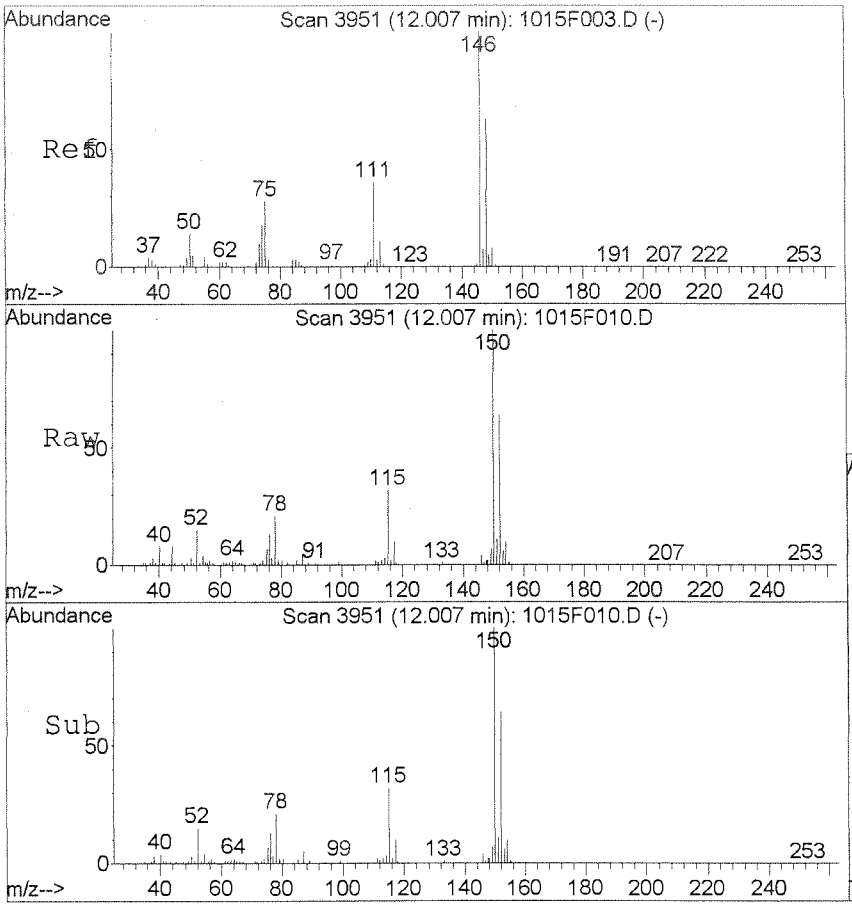


#98
1,3-Dichlorobenzene
Concen: 0.04 PPB m
RT: 12.01 min Scan# 3951
Delta R.T. 0.10 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:146 Resp: 2303

Ion	Ratio	Lower	Upper
146	100		
111	60.6	8.7	68.7
148	50.1	33.3	93.3

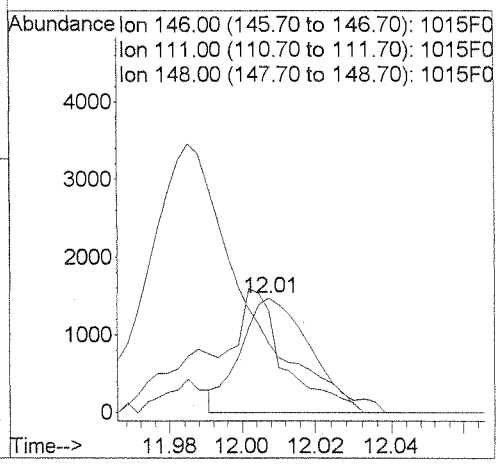


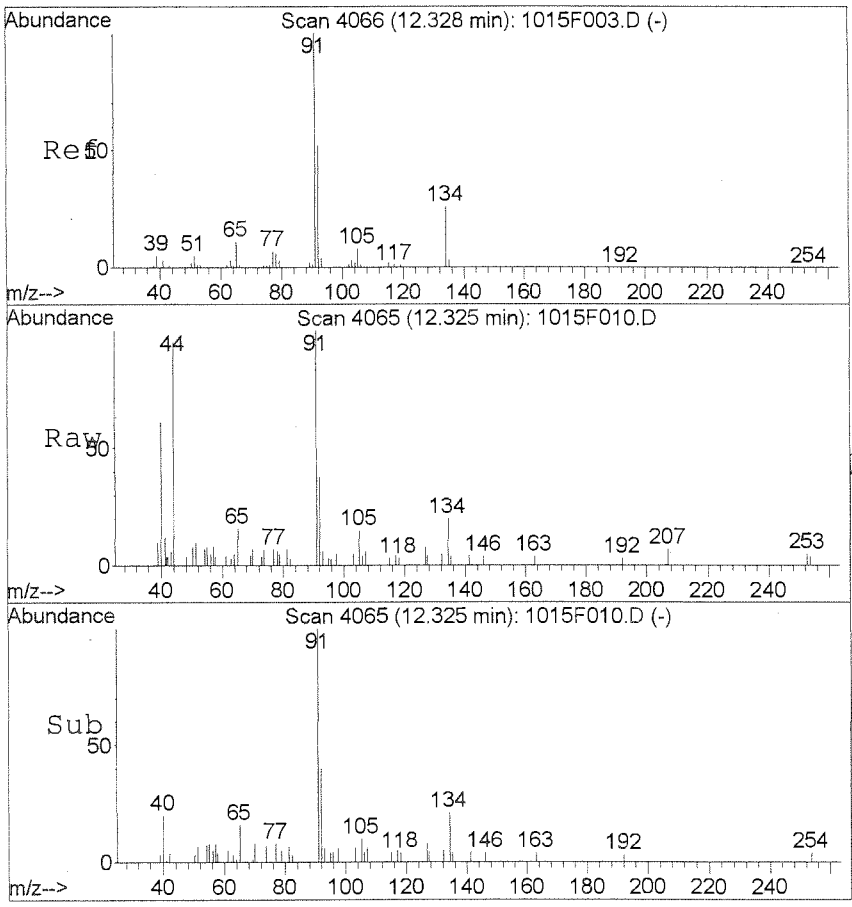


#99
1,4-Dichlorobenzene
Concen: 0.03 PPB
RT: 12.01 min Scan# 3951
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:146 Resp: 1984

Ion	Ratio	Lower	Upper
146	100		
111	52.1	7.5	67.5
148	77.2	34.0	94.0

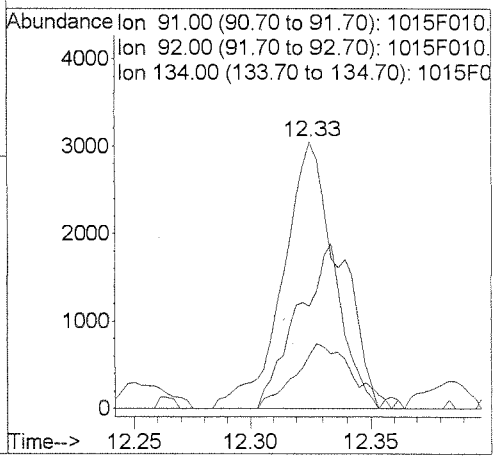


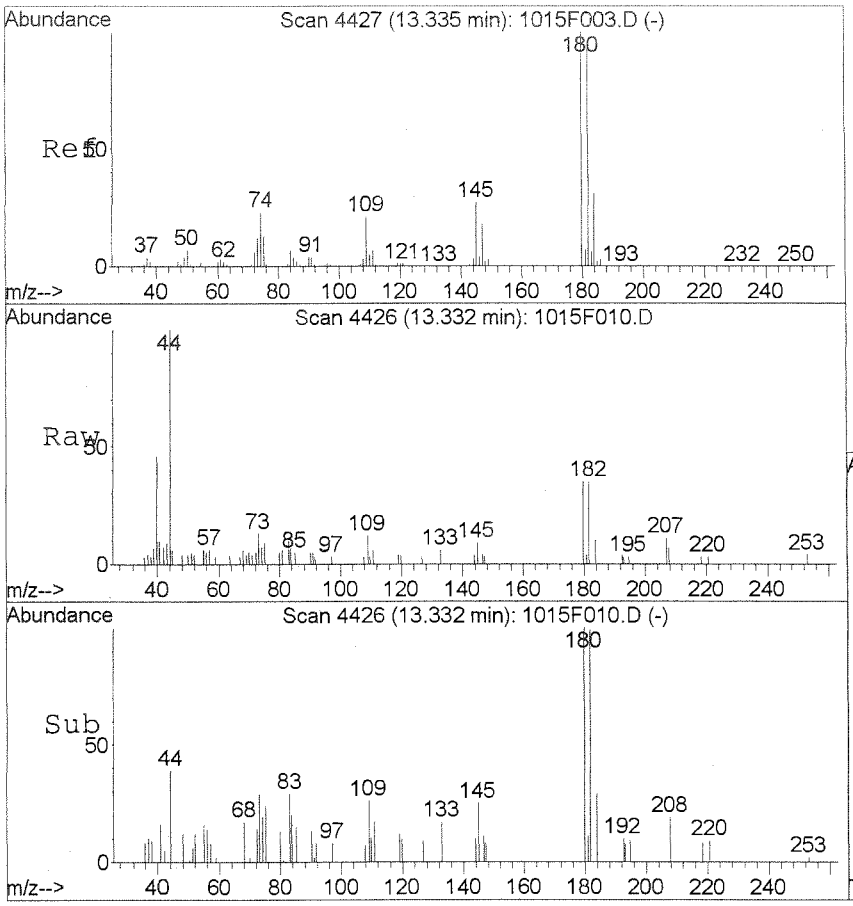


#100
n-Butylbenzene
Concen: 0.05 PPB
RT: 12.33 min Scan# 4065
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion: 91 Resp: 4912

Ion	Ratio	Lower	Upper
91	100		
92	34.6	23.9	83.9
134	19.9	0.0	56.6

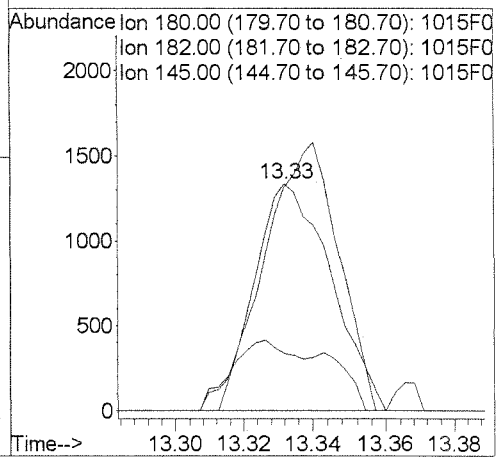


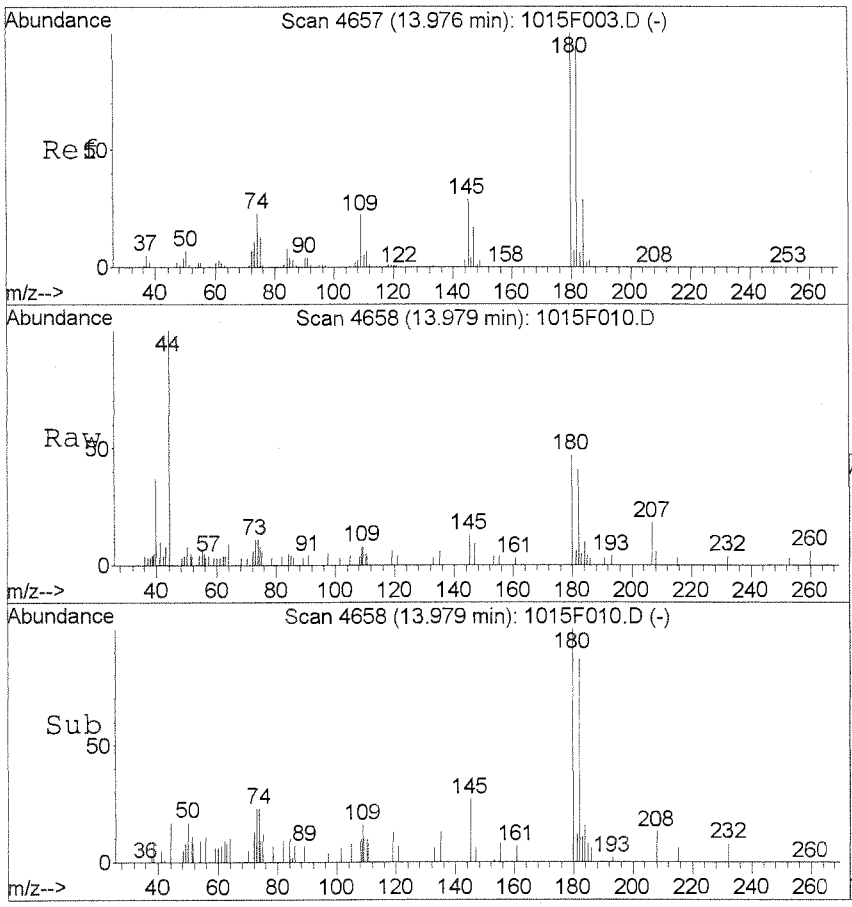


#103
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.33 min Scan# 4426
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:180 Resp: 2013

Ion	Ratio	Lower	Upper
180	100		
182	98.7	64.5	124.5
145	17.0	0.0	57.2

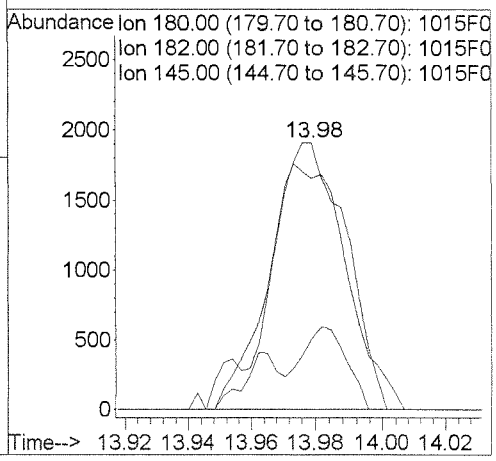


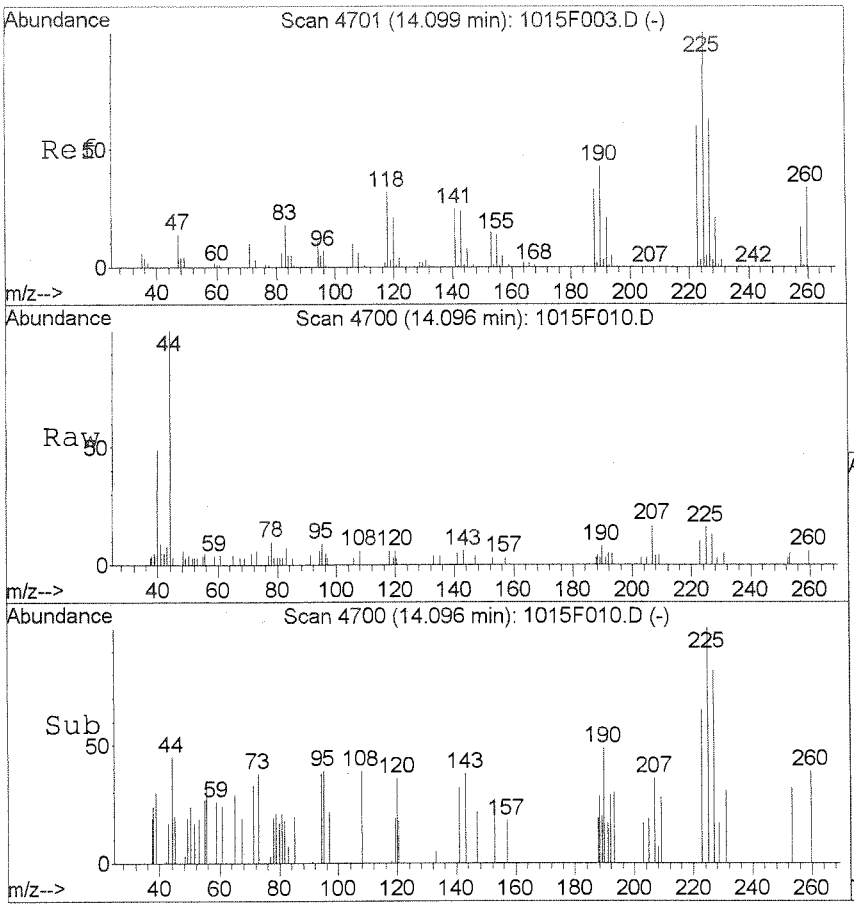


#104
1,2,4-Trichlorobenzene
Concen: 0.07 PPB m
RT: 13.98 min Scan# 4658
Delta R.T. 0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:180 Resp: 3066

Ion	Ratio	Lower	Upper
180	100		
182	86.8	64.9	124.9
145	26.7	0.0	57.8

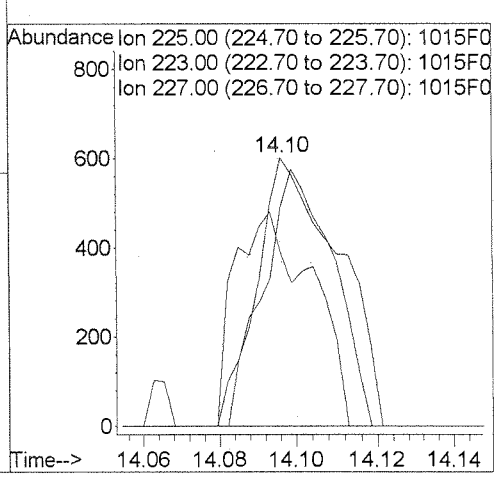


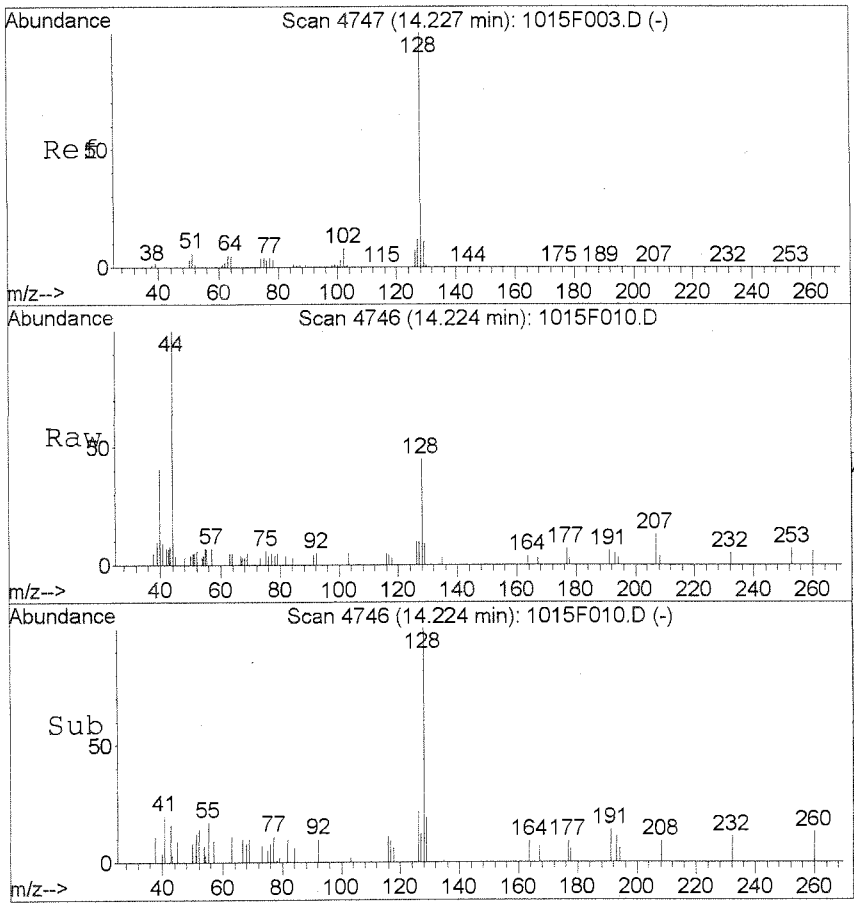


#105
Hexachlorobutadiene
Concen: 0.05 PPB
RT: 14.10 min Scan# 4700
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:225 Resp: 858

Ion	Ratio	Lower	Upper
225	100		
223	64.6	31.5	91.5
227	81.9	35.4	95.4

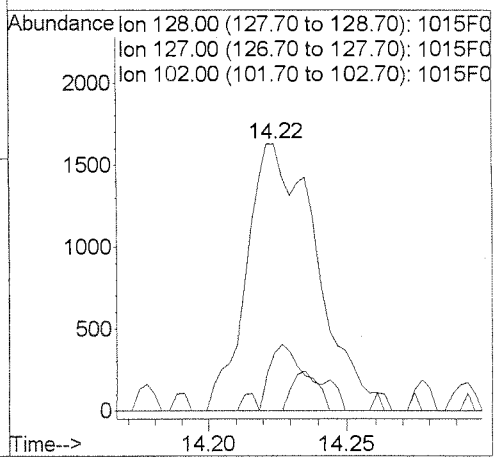


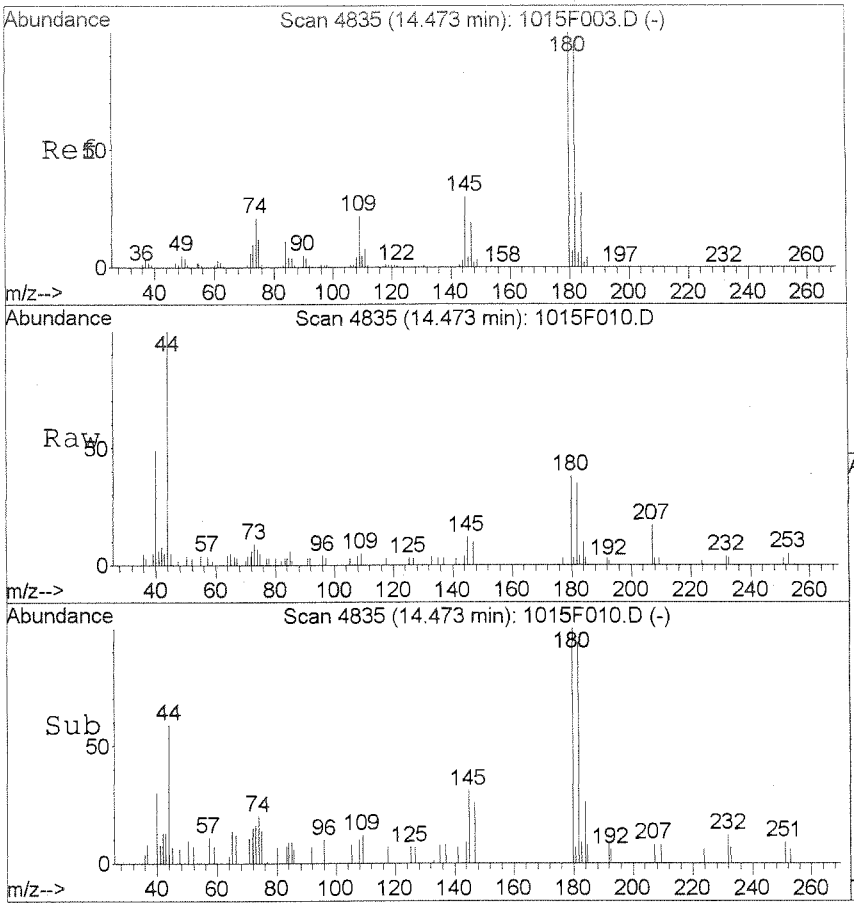


#106
Naphthalene
Concen: 0.04 PPB
RT: 14.22 min Scan# 4746
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:128 Resp: 2860

Ion	Ratio	Lower	Upper
128	100		
127	21.8	0.0	42.7
102	0.0	0.0	37.9

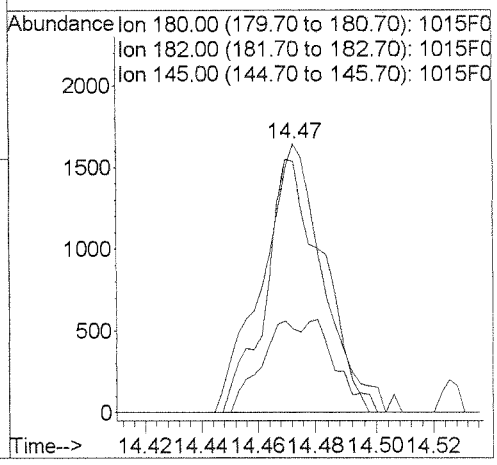




#107
1,2,3-Trichlorobenzene
Concen: 0.06 PPB
RT: 14.47 min Scan# 4835
Delta R.T. -0.00 min
Lab File: 1015F010.D
Acq: 15 Oct 2014 1:29 pm

Tgt Ion:180 Resp: 2415

Ion	Ratio	Lower	Upper
180	100		
182	103.0	68.4	128.4
145	31.0	1.4	61.4



Exception Report

Data File: J:\MS27\DATA\101514\1015F013.D
Lab ID: K1410890-004
RunType: SMPL
Matrix: WATER

Date Acquired: 10/15/2014 14:52
Date Quantitated: 10/15/2014 16:10
Batch ID: KWG1413955
Analysis Method: 8260C
ListJoinID: LJ1423

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	
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: MK 10/15/14

Secondary Review: [signature] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F013.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 14:52	**Quant Date:**	10/15/2014 16:10	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1410890-004			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/03/2014	**Receive Date:**	10/04/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	K1410890
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385159	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.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	6.47	0.00	96	1048378	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	426230	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	416690	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	5.73	0.00	0.00	113	264904	9.23	92	73-122	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1021225	9.74	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	370006	9.56	96	68-117	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	Carbon Tetrachloride	5.80		0.00	117	67983	1.87	1.9		

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

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

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

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

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

Data File : J:\MS27\DATA\101514\1015F013.D Vial: 11
Acq On : 15 Oct 2014 2:52 pm Operator: MK
Sample : K10890-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:03:25 2014 Quant Results File: 100814MS27_8260

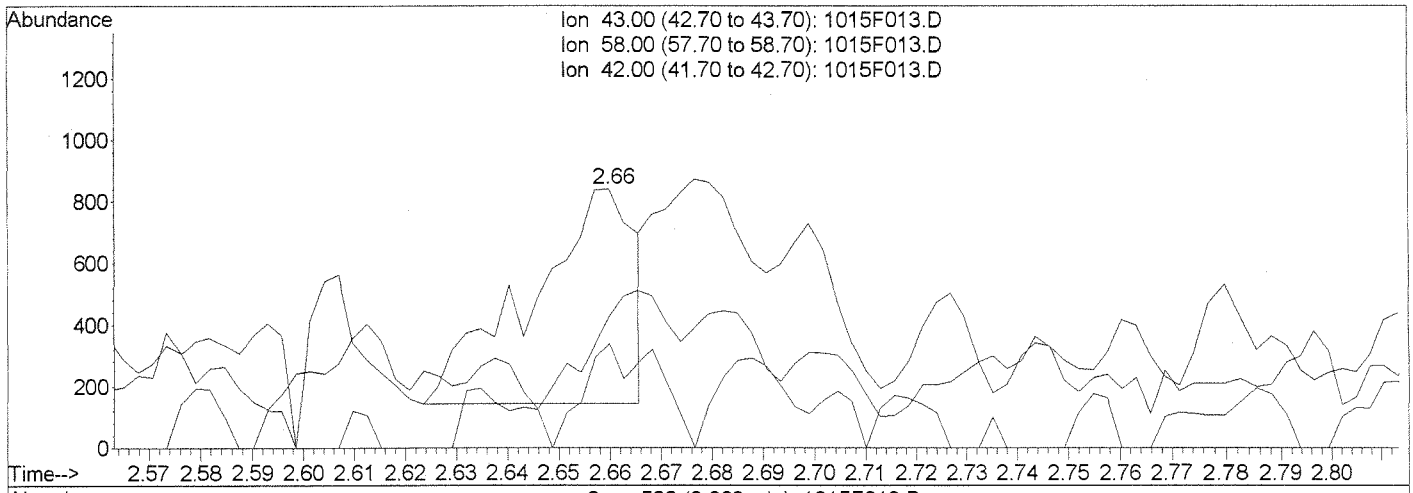
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

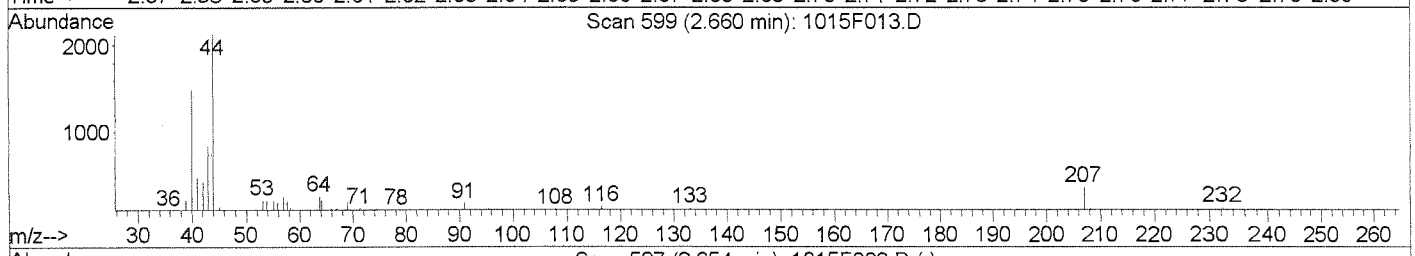
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1048378	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	426230	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	416690	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	264904	9.23	PPB	0.00
Spiked Amount 10.000			Recovery =	92.30%		
47) 1,2-Dichloroethane-d4	6.15	65	261912	9.91	PPB	0.00
Spiked Amount 10.000			Recovery =	99.10%		
62) Toluene-d8	8.16	98	1021225	9.74	PPB	0.00
Spiked Amount 10.000			Recovery =	97.40%		
84) 4-Bromofluorobenzene	10.84	95	370006	9.56	PPB	0.00
Spiked Amount 10.000			Recovery =	95.60%		
Target Compounds						Qvalue
6) Bromomethane	1.58	96	523	Below Cal	#	9
14) Acetone	2.68	43	2504m	0.65	PPB	
16) Carbon Disulfide	2.70	76	4045	0.05	PPB	80
21) Methylene Chloride	3.18	84	1378m	0.05	PPB	
40) Chloroform	5.52	83	6131	0.13	PPB	81
44) Carbon Tetrachloride	5.80	117	67983	1.87	PPB	98
63) Toluene	8.23	92	5774	0.08	PPB #	69
69) Tetrachloroethene	8.75	164	1145m	0.05	PPB	
100) n-Butylbenzene	12.33	91	2791	0.03	PPB	87
104) 1,2,4-Trichlorobenzene	13.97	180	1086	0.03	PPB	89
107) 1,2,3-Trichlorobenzene	14.47	180	1379	0.04	PPB #	65

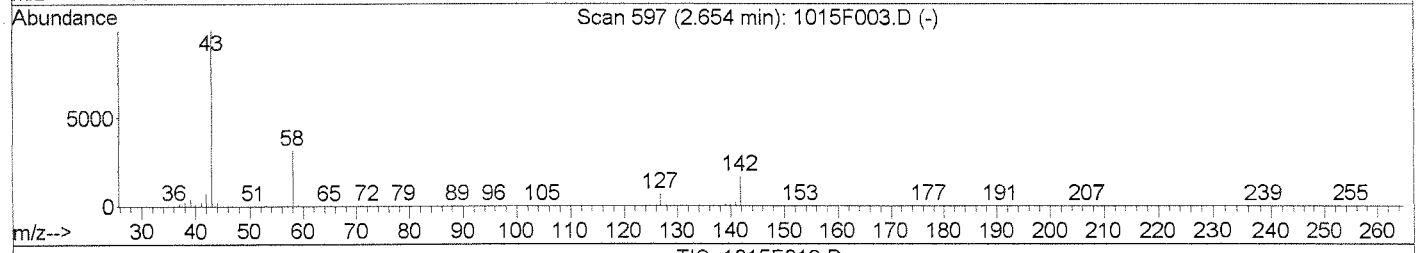
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F013.D Vial: 11
Acq On : 15 Oct 2014 2:52 pm Operator: MK
Sample : K10890-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:06 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F013.D

(14) Acetone (T)

2.66min 0.25PPB

response 981

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	48.42
42.00	7.10	25.50
0.00	0.00	0.00

Manual Integration:

Before

MK

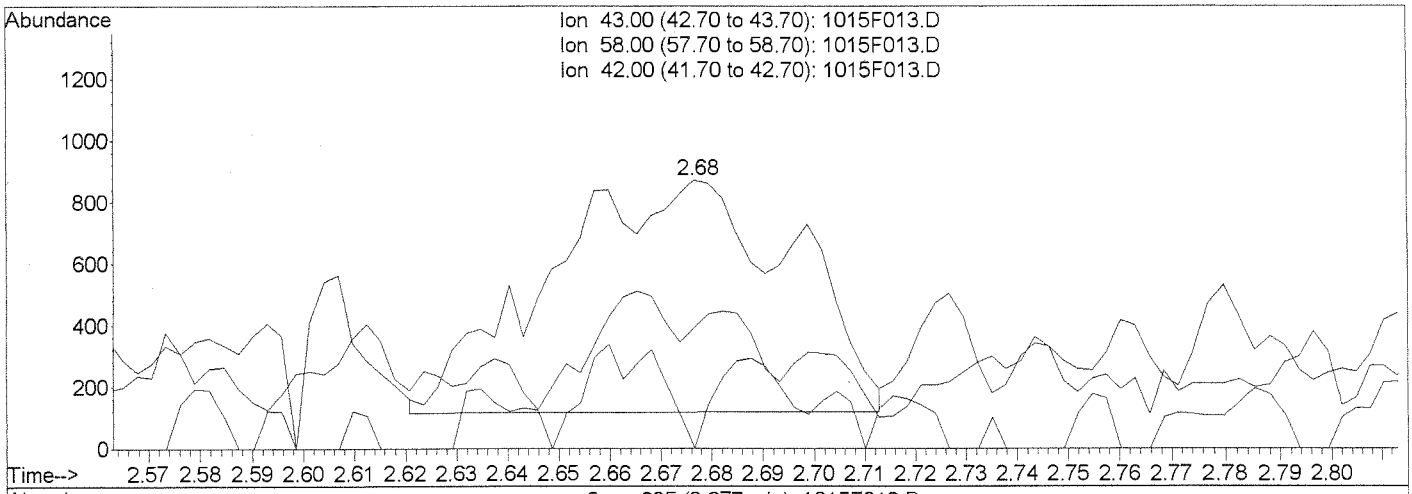
10/15/14

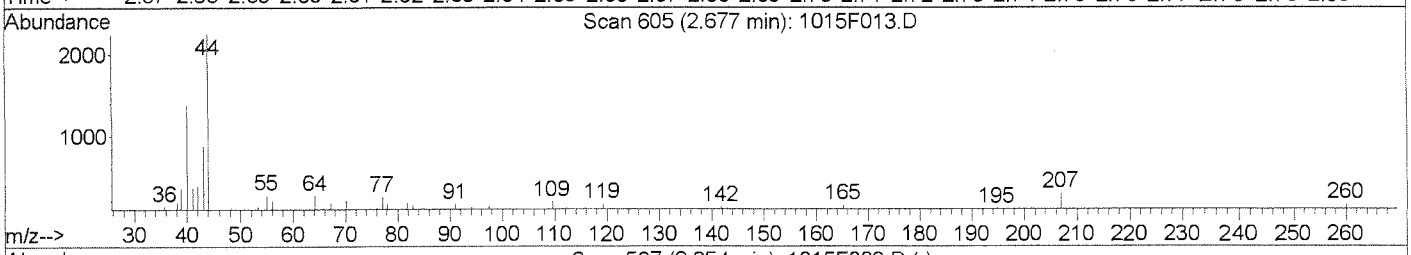
1015F013.D 100814MS27_8260.M Wed Oct 15 16:06:27 2014

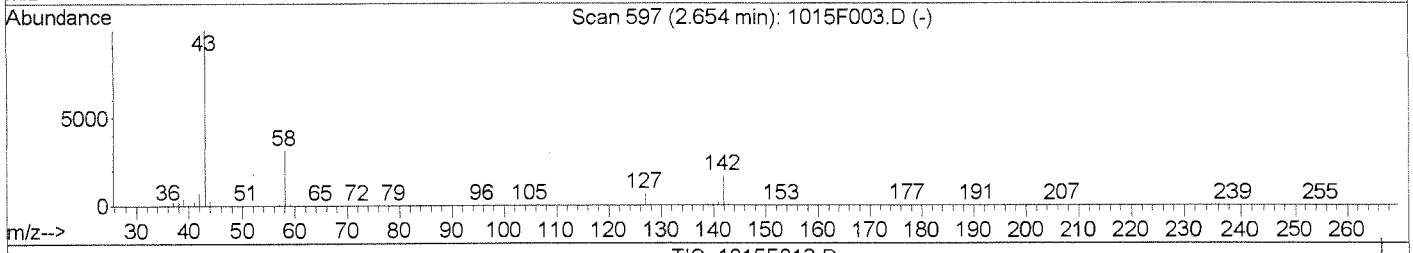
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\101514\1015F013.D Vial: 11
Acq On : 15 Oct 2014 2:52 pm Operator: MK
Sample : K10890-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:06 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F013.D

(14) Acetone (T)

2.68min 0.65PPB m

response 2504

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	0.00#
42.00	7.10	44.84#
0.00	0.00	0.00

Manual Integration:

After

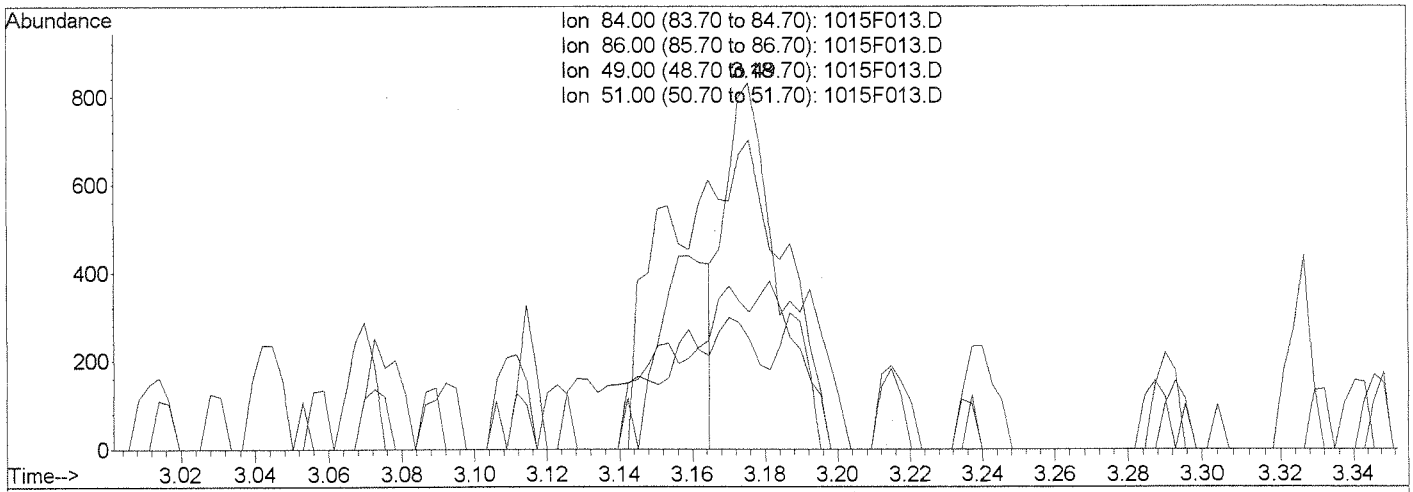
Baseline correction

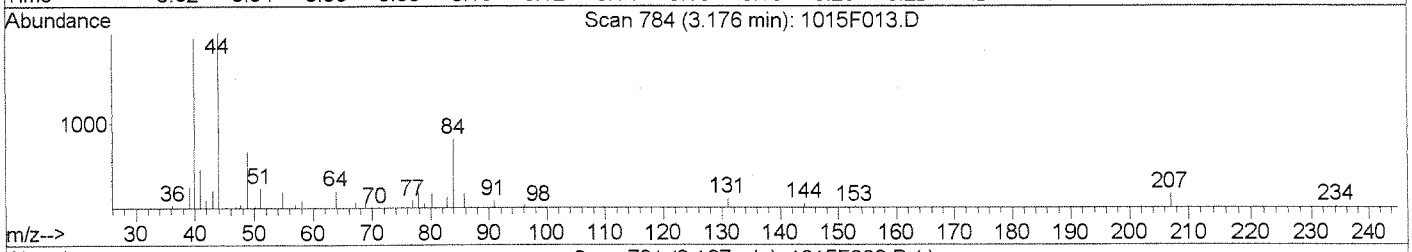
10/15/14

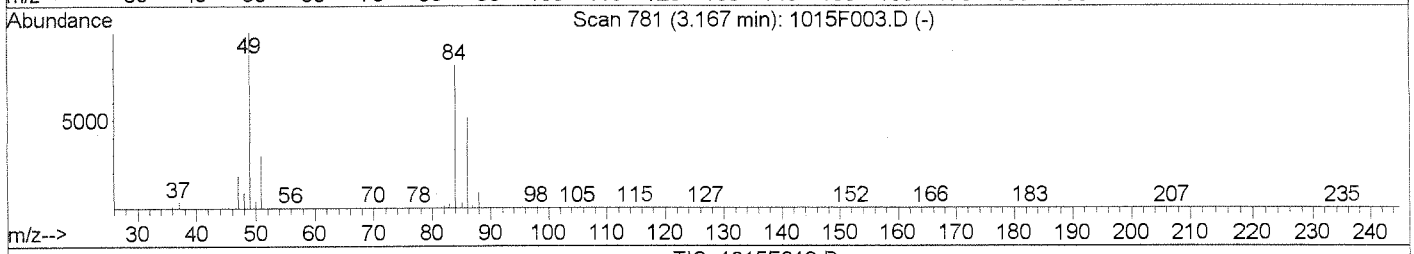
1015F013.D 100814MS27_8260.M Wed Oct 15 16:06:54 2014

Data File : J:\MS27\DATA\101514\1015F013.D Vial: 11
Acq On : 15 Oct 2014 2:52 pm Operator: MK
Sample : K10890-004 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 16:07 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F013.D

(21) Methylene Chloride (T)

3.18min 0.03PPB

response 964

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	29.96#
49.00	120.60	84.48#
51.00	37.60	25.27

Manual Integration:

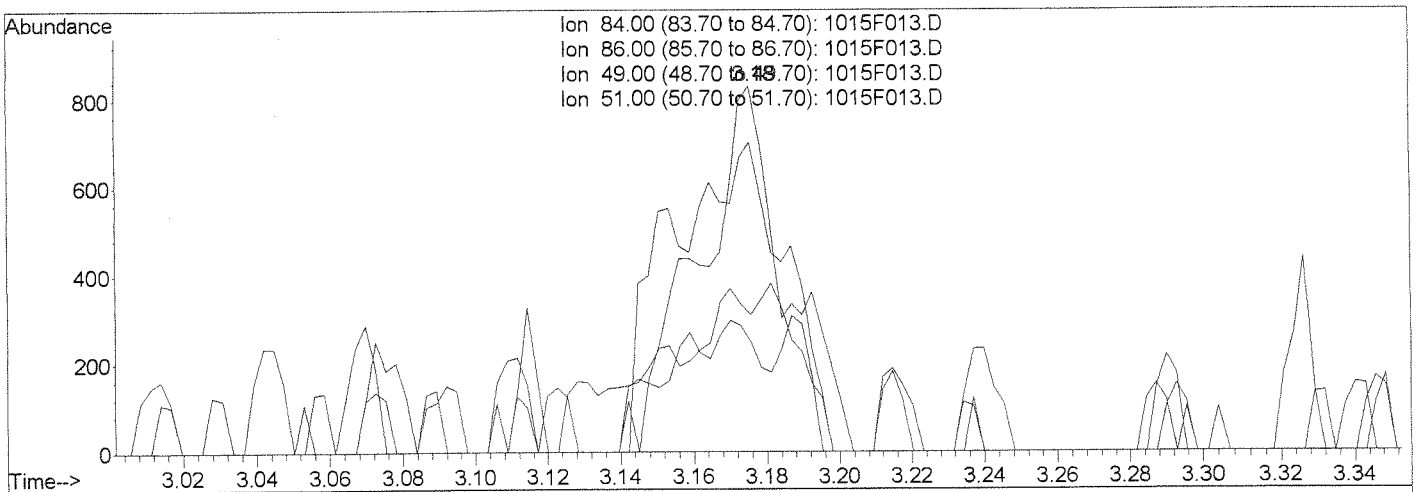
Before

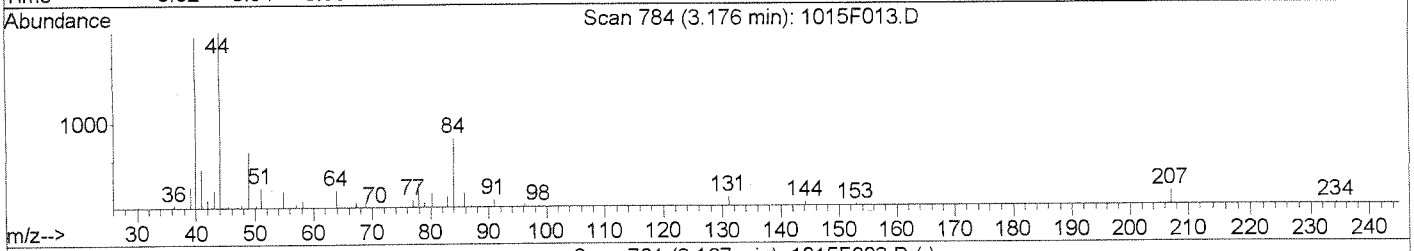
10/15/14

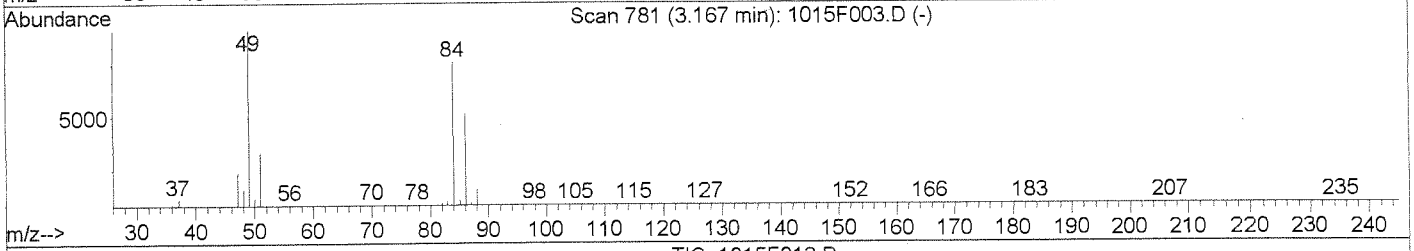
Data File : J:\MS27\DATA\101514\1015F013.D
Acq On : 15 Oct 2014 2:52 pm
Sample : K10890-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 16:07 2014

Vial: 11
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Single Level Calibration







TIC: 1015F013.D

(21) Methylene Chloride (T)

3.18min 0.05PPB m

response 1378

Ion	Exp%	Act%
84.00	100	100
86.00	63.90	29.96#
49.00	120.60	84.48#
51.00	37.60	37.30

Manual Integration:

After

Baseline correction

10/15/14

MK

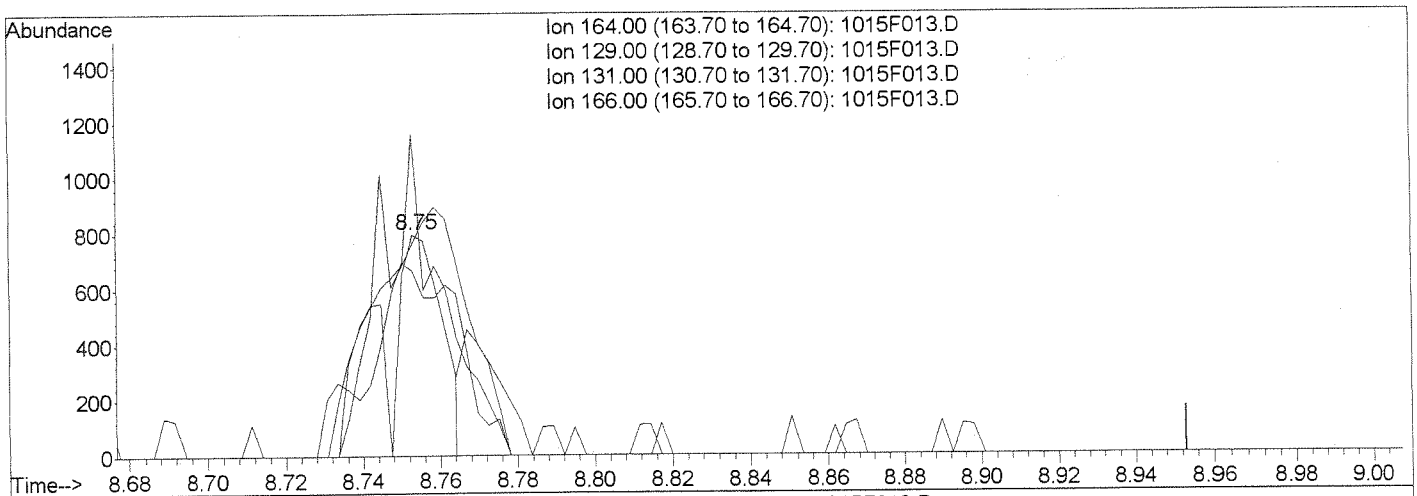
Quantitation Report (Qedit)

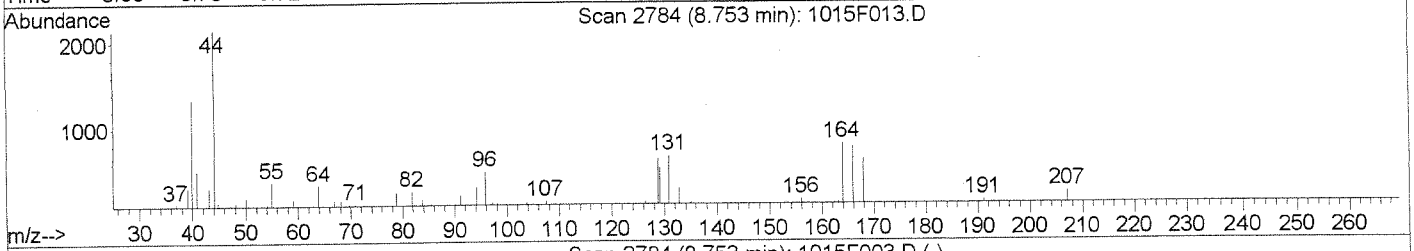
Data File : J:\MS27\DATA\101514\1015F013.D
Acq On : 15 Oct 2014 2:52 pm
Sample : K10890-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 16:08 2014

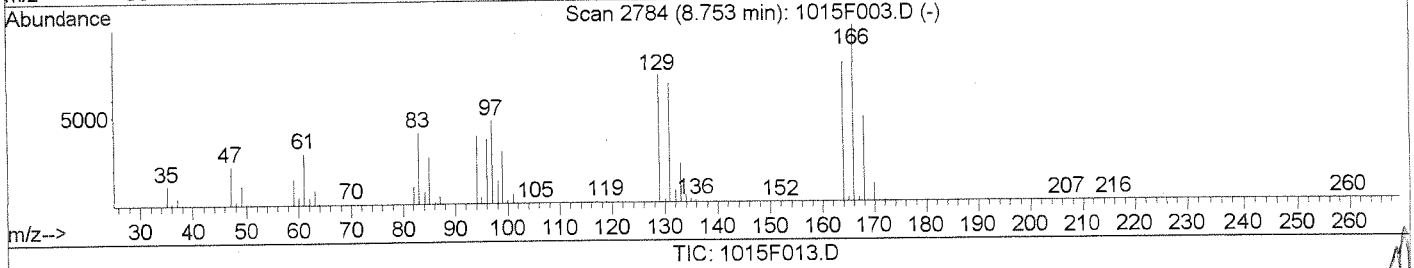
Vial: 11
Operator: MK
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F013.D

(69) Tetrachloroethene (T)

8.75min 0.03PPB

response 599

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	91.73
131.00	88.90	10.28#
166.00	127.50	15.54#

Manual Integration:

Before

10/15/14 ME

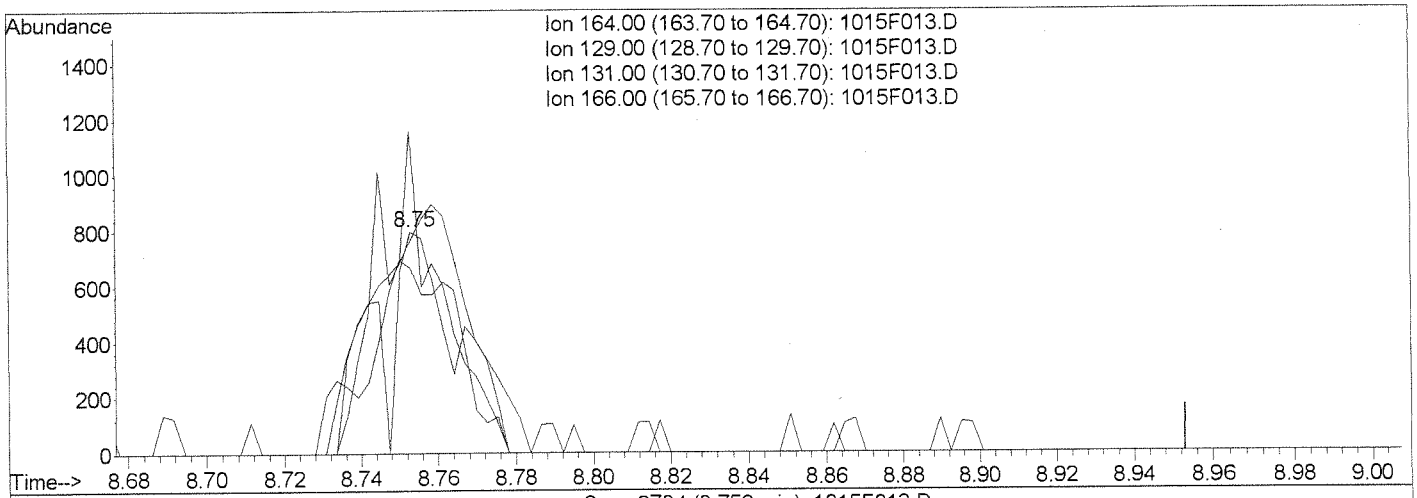
1015F013.D 100814MS27_8260.M Wed Oct 15 16:08:58 2014

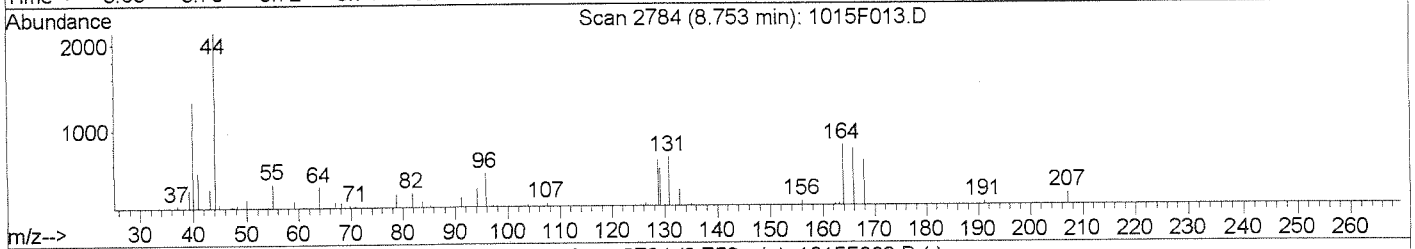
Data File : J:\MS27\DATA\101514\1015F013.D
Acq On : 15 Oct 2014 2:52 pm
Sample : K10890-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 16:09 2014

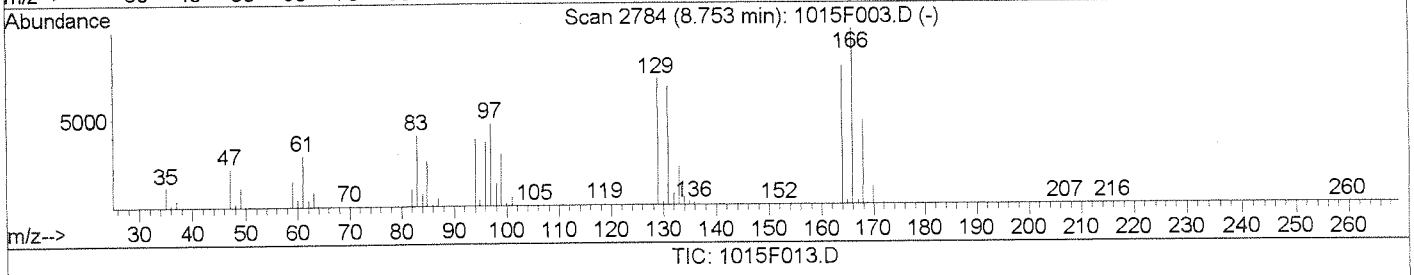
Vial: 11
Operator: MK
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F013.D

(69) Tetrachloroethene (T)

8.75min 0.05PPB m

response 1145

Ion	Exp%	Act%
164.00	100	100
129.00	92.30	79.07
131.00	88.90	83.58
166.00	127.50	95.99#

Manual Integration:

After

Baseline correction

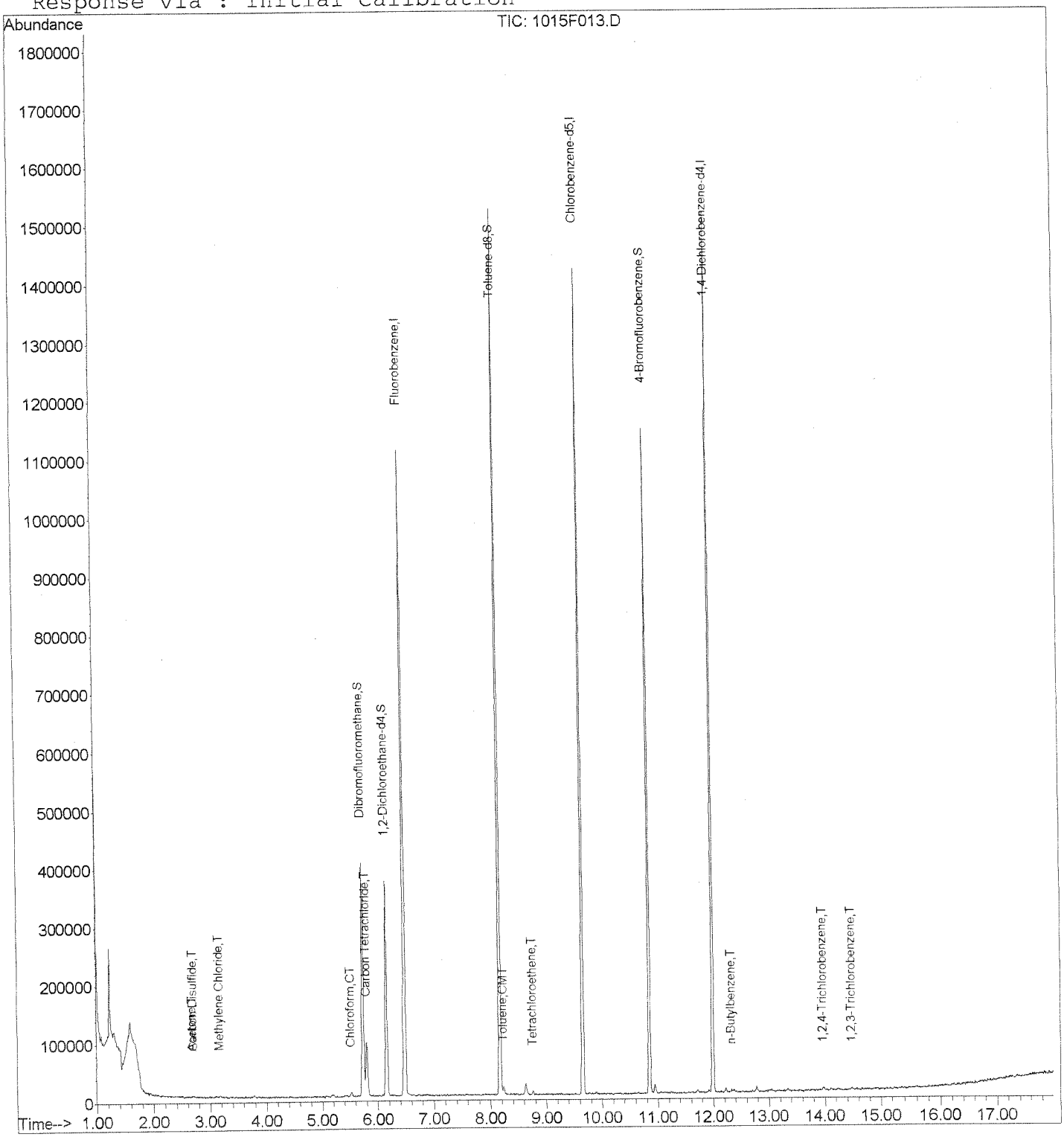
10/15/14

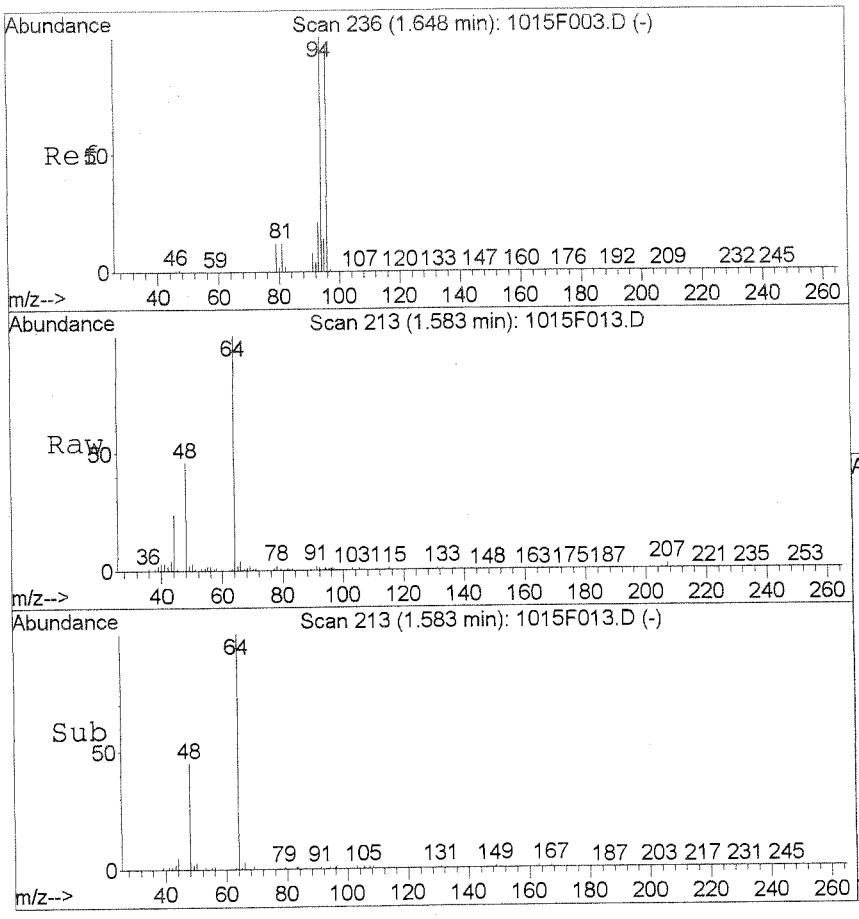
Data File : J:\MS27\DATA\101514\1015F013.D
Acq On : 15 Oct 2014 2:52 pm
Sample : K10890-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 16:10 2014

Vial: 11
Operator: MK
Inst : MS27
Multiplr: 1.00

Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration

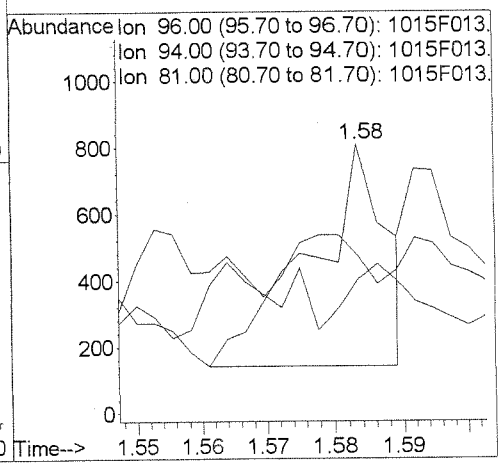


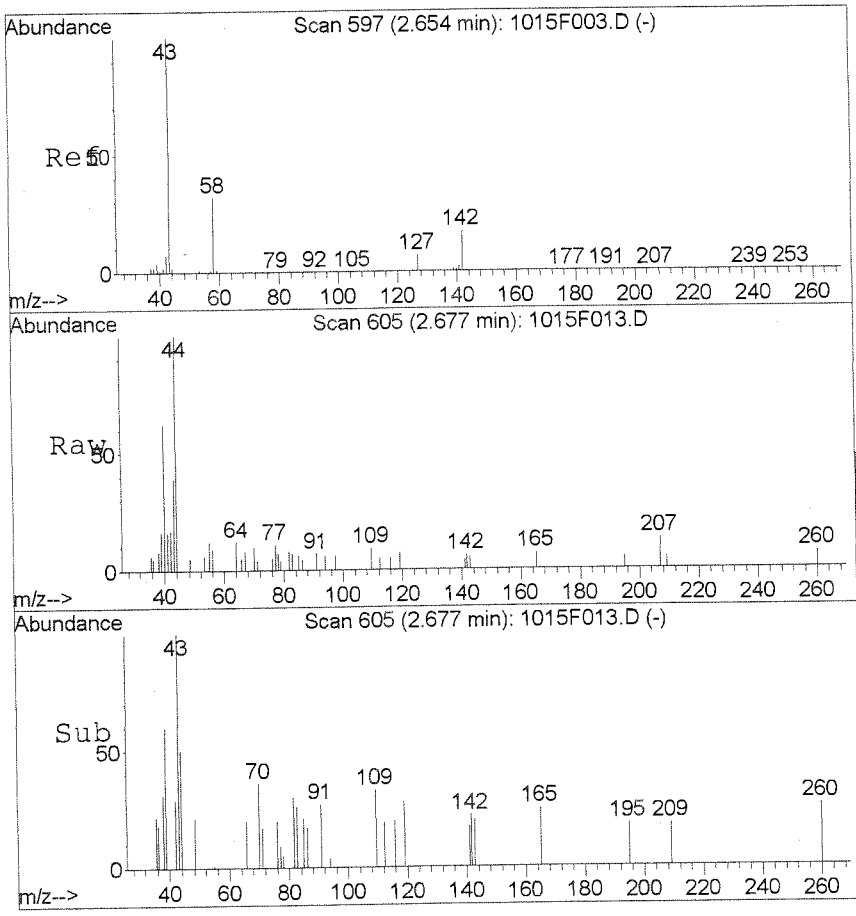


#6
Bromomethane
Concen: Below Cal
RT: 1.58 min Scan# 213
Delta R.T. -0.07 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 96 Resp: 523

Ion	Ratio	Lower	Upper
96	100		
94	2.9	77.8	137.8#
81	7.1	0.0	43.8

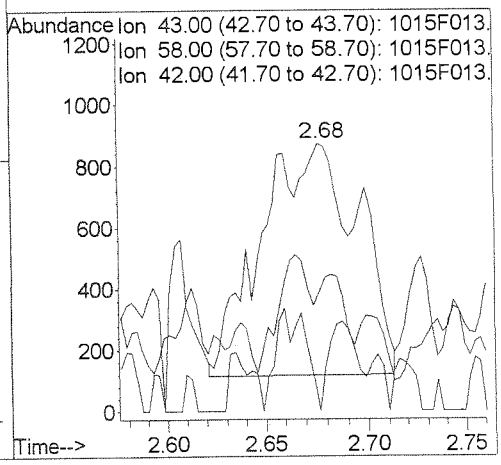


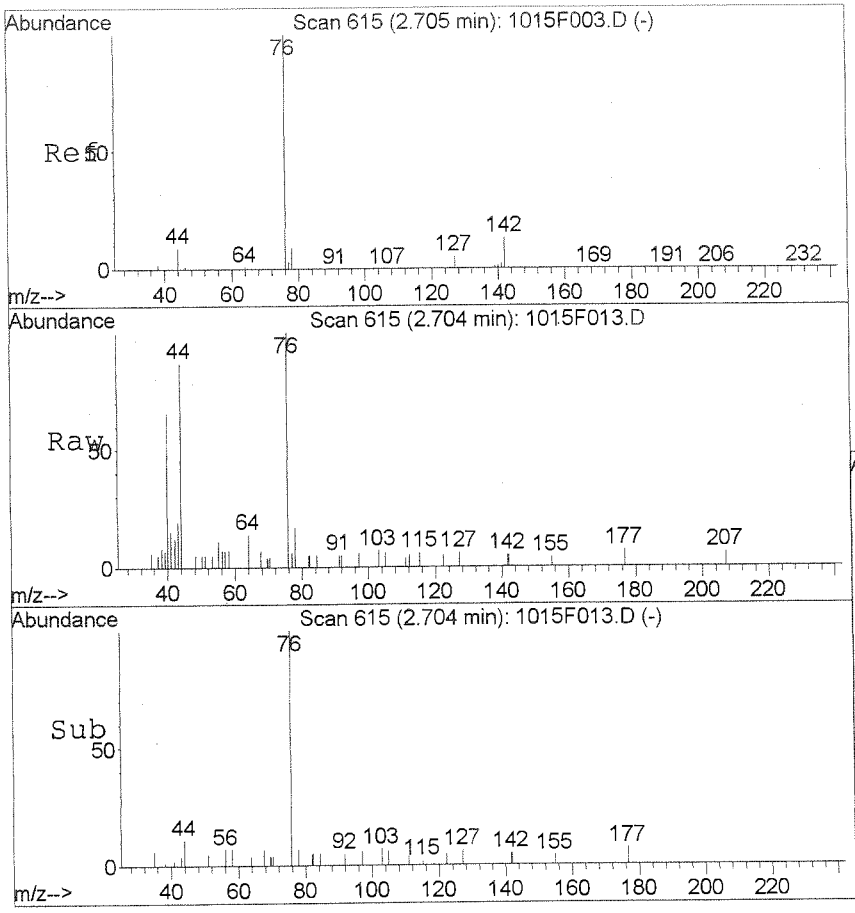


#14
Acetone
Concen: 0.65 PPB m
RT: 2.68 min Scan# 605
Delta R.T. 0.02 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 43 Resp: 2504

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.9	60.9#
42	44.8	0.0	37.1#

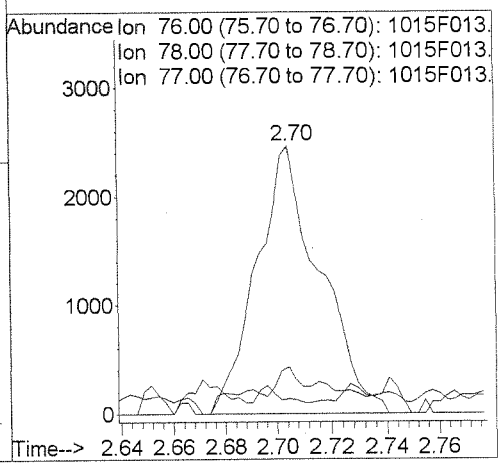


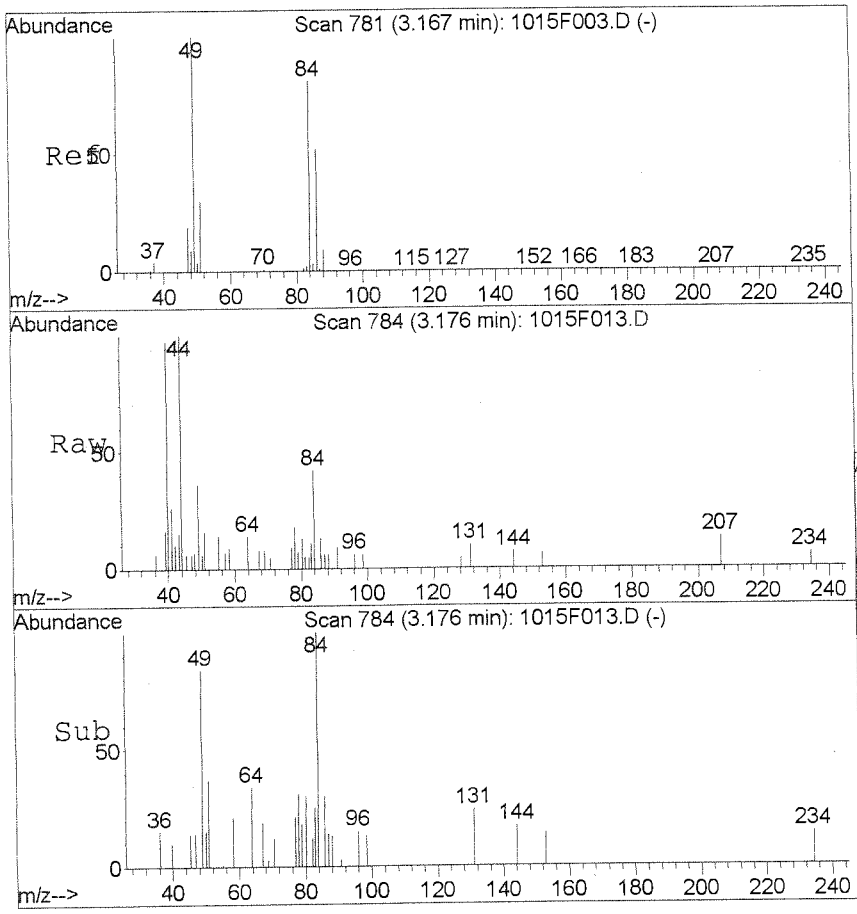


#16
Carbon Disulfide
Concen: 0.05 PPB
RT: 2.70 min Scan# 615
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 76 Resp: 4045

Ion	Ratio	Lower	Upper
76	100		
78	17.4	0.0	39.1
77	0.0	0.0	32.6

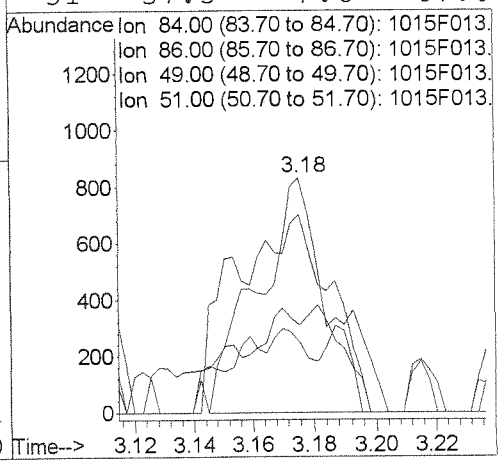


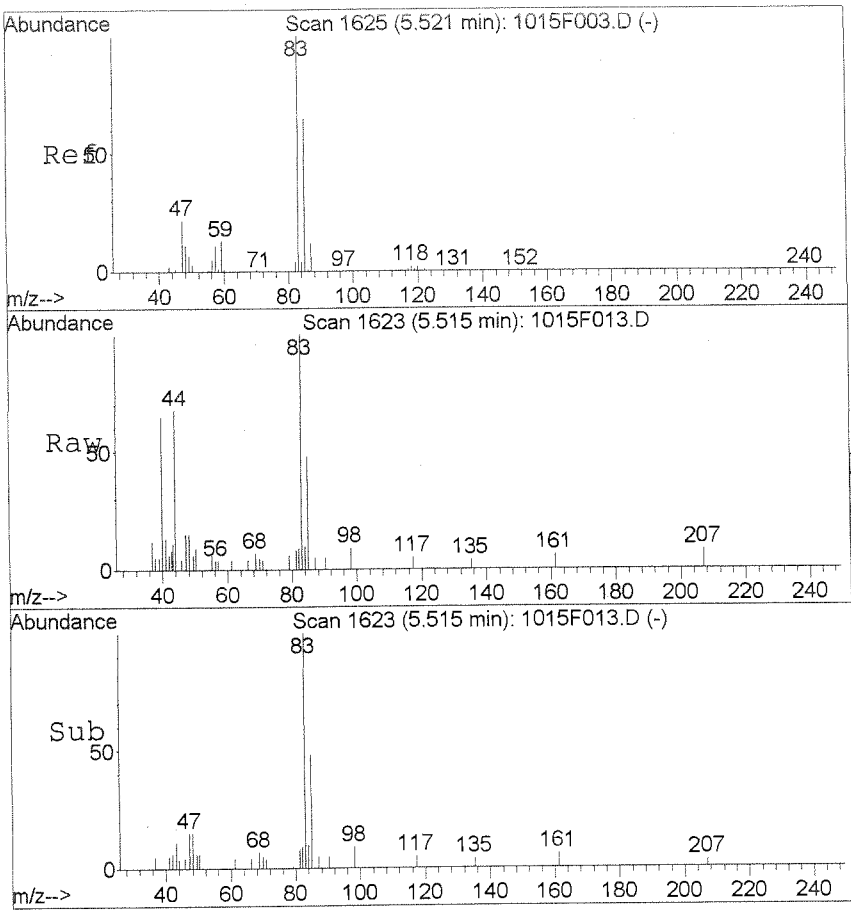


#21
Methylene Chloride
Concen: 0.05 PPB m
RT: 3.18 min Scan# 784
Delta R.T. 0.01 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 84 Resp: 1378

Ion	Ratio	Lower	Upper
84	100		
86	30.0	33.9	93.9#
49	84.5	90.6	150.6#
51	37.3	7.6	67.6

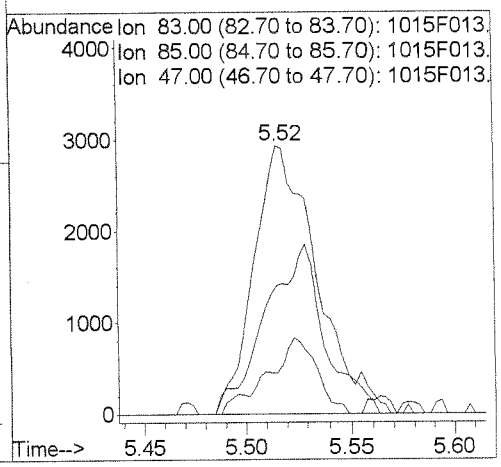


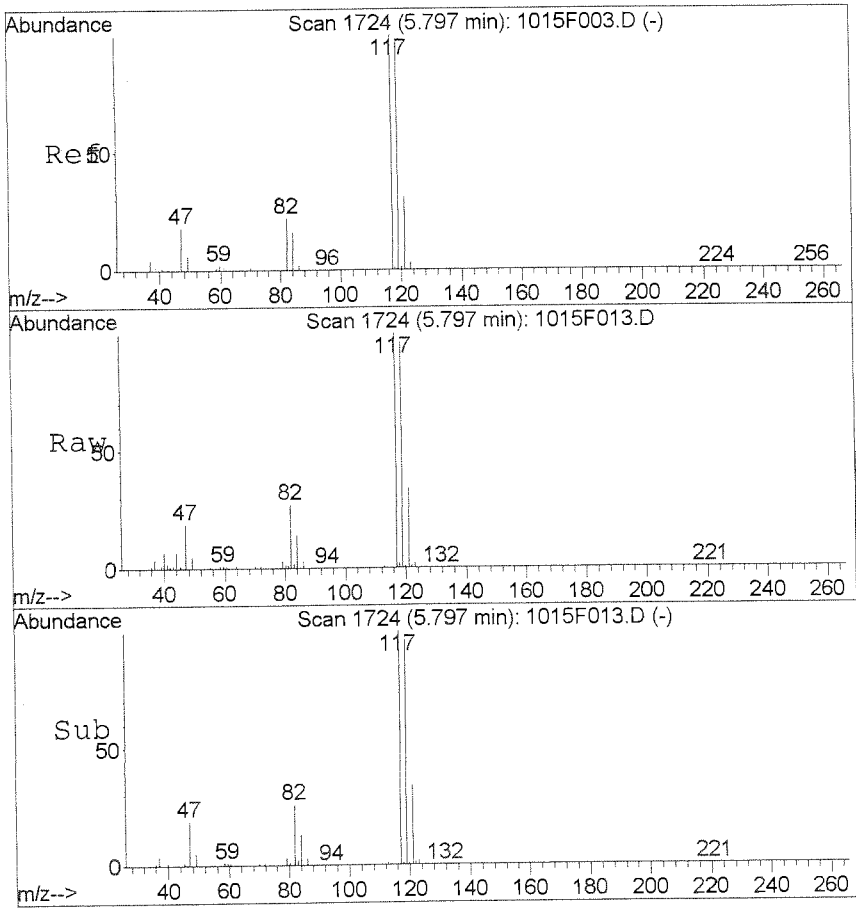


#40
Chloroform
Concen: 0.13 PPB
RT: 5.52 min Scan# 1623
Delta R.T. -0.01 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 83 Resp: 6131

Ion	Ratio	Lower	Upper
83	100		
85	47.8	33.2	93.2
47	15.3	0.0	52.9

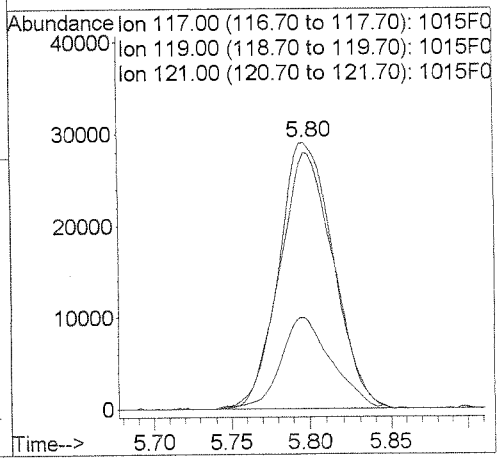


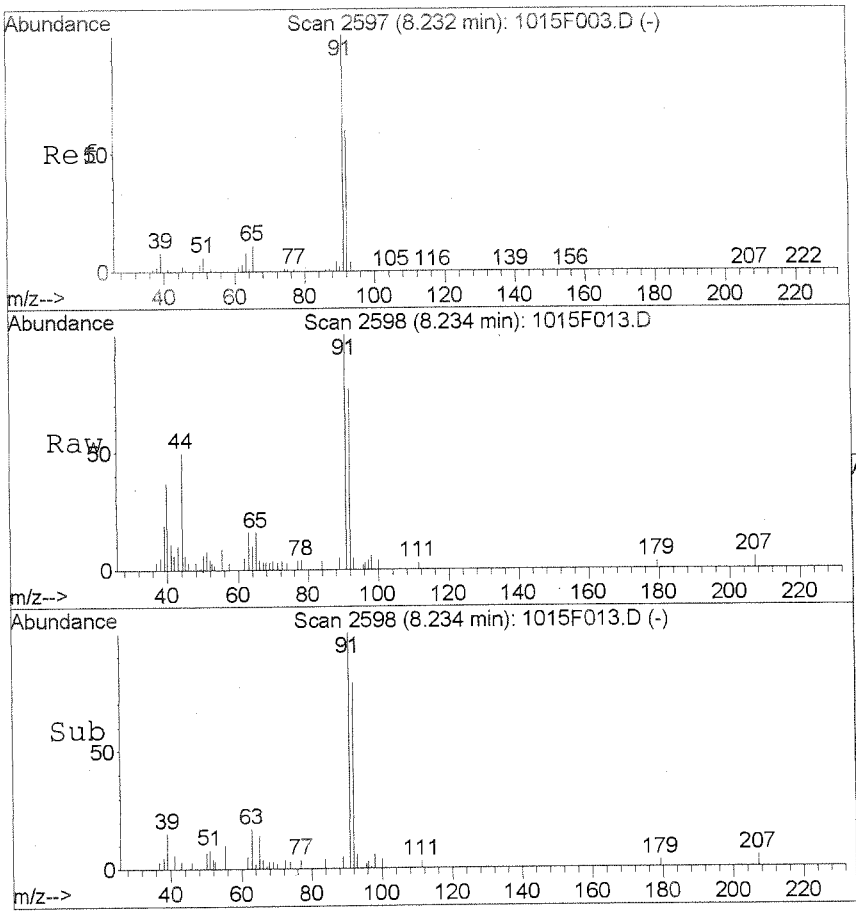


#44
Carbon Tetrachloride
Concen: 1.87 PPB
RT: 5.80 min Scan# 1724
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion:117 Resp: 67983

Ion	Ratio	Lower	Upper
117	100		
119	96.2	66.6	126.6
121	34.2	0.5	60.5

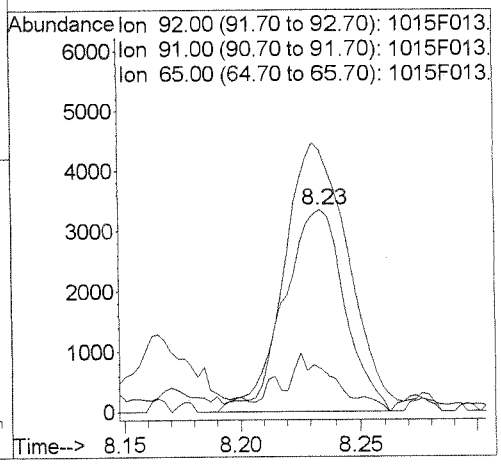


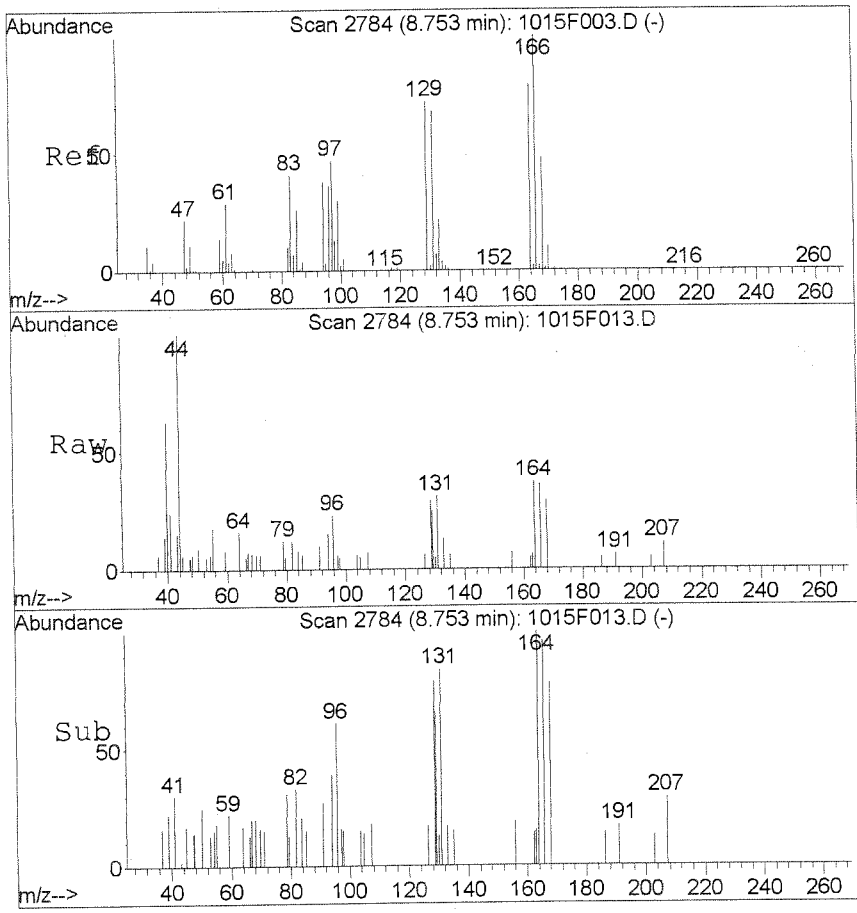


#63
Toluene
Concen: 0.08 PPB
RT: 8.23 min Scan# 2598
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 92 Resp: 5774

Ion	Ratio	Lower	Upper
92	100		
91	124.8	142.0	202.0#
65	17.3	0.0	48.9

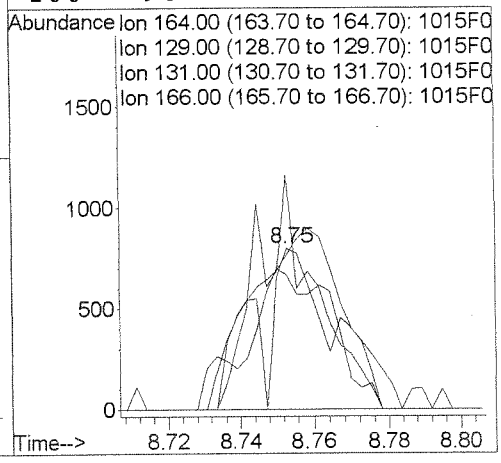


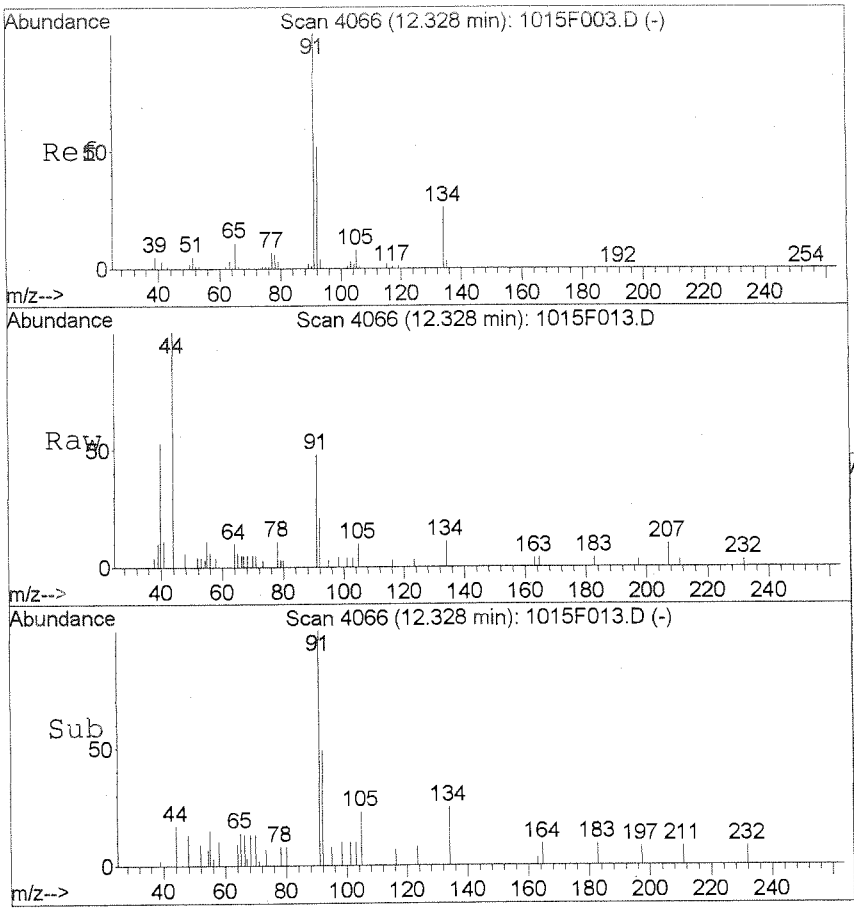


#69
Tetrachloroethene
Concen: 0.05 PPB m
RT: 8.75 min Scan# 2784
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion:164 Resp: 1145

Ion	Ratio	Lower	Upper
164	100		
129	79.1	62.3	122.3
131	83.6	58.9	118.9
166	96.0	97.5	157.5#

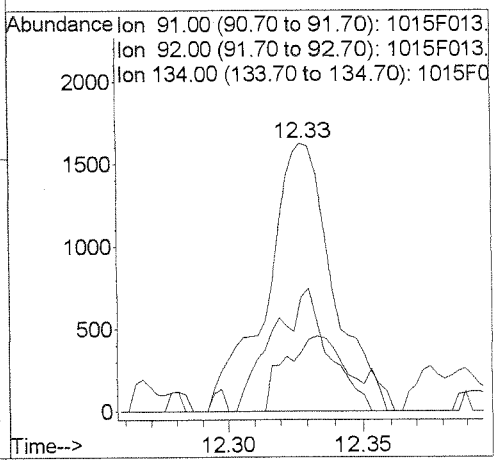


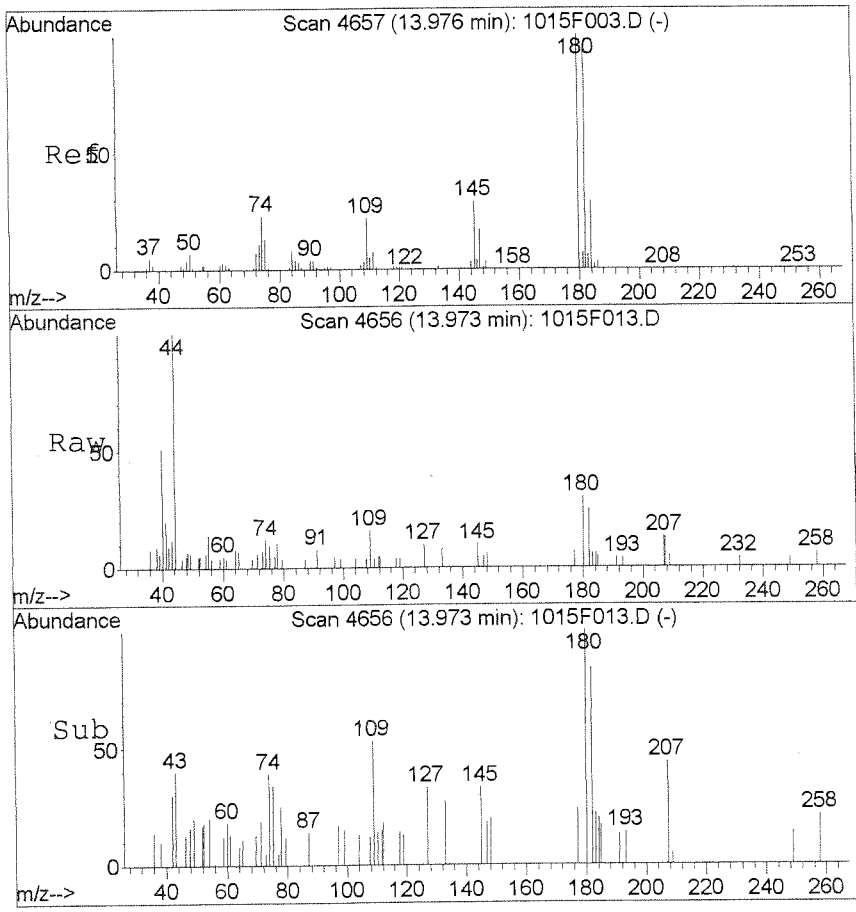


#100
n-Butylbenzene
Concen: 0.03 PPB
RT: 12.33 min Scan# 4066
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion: 91 Resp: 2791

Ion	Ratio	Lower	Upper
91	100		
92	42.7	23.9	83.9
134	22.0	0.0	56.6

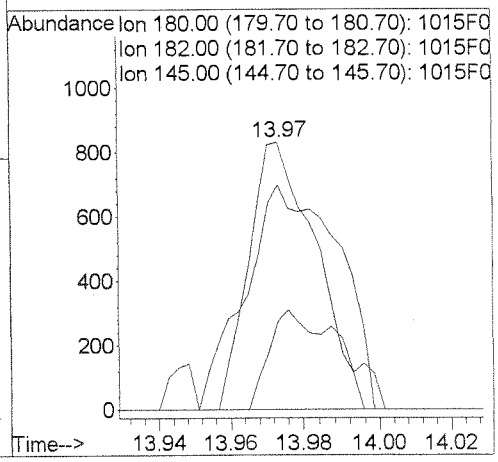


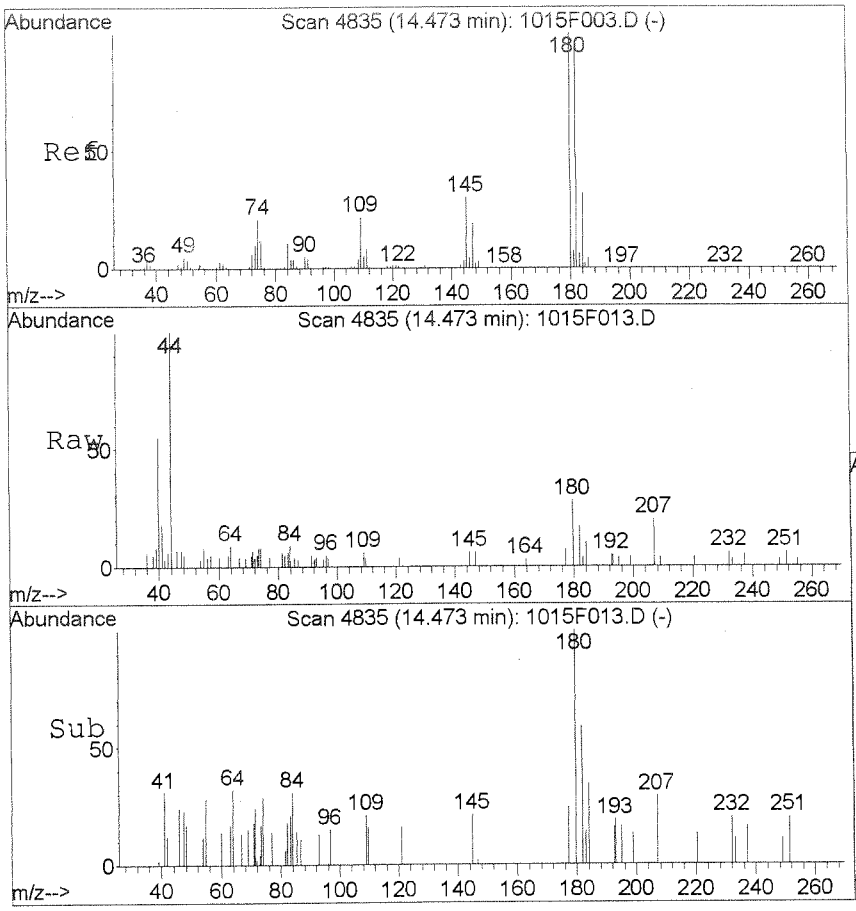


#104
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.97 min Scan# 4656
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion:180 Resp: 1086

Ion	Ratio	Lower	Upper
180	100		
182	84.1	64.9	124.9
145	33.3	0.0	57.8

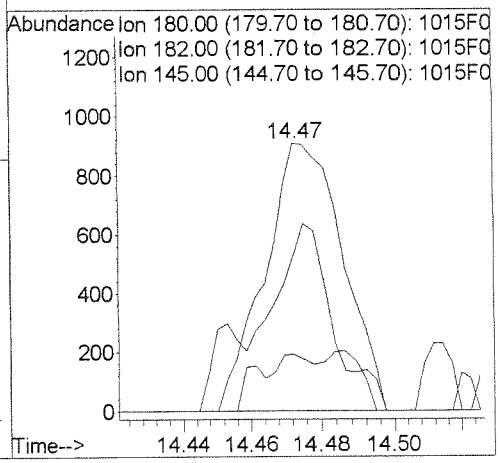




#107
1,2,3-Trichlorobenzene
Concen: 0.04 PPB
RT: 14.47 min Scan# 4835
Delta R.T. -0.00 min
Lab File: 1015F013.D
Acq: 15 Oct 2014 2:52 pm

Tgt Ion:180 Resp: 1379

Ion	Ratio	Lower	Upper
180	100		
182	58.8	68.4	128.4#
145	21.0	1.4	61.4



Exception Report

Data File: J:\MS27\DATA\101514\1015F006.D
Lab ID: KWG1413956-1 -- K1410890-004MS
RunType: MS
Matrix: WATER

Date Acquired: 10/15/2014 11:40
Date Quantitated: 10/15/2014 12:05
Batch ID: KWG1413955
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acrolein	0.0062	0.01	NA	NT
	2-Propanol	0.0058	0.01	NA	
	Acetonitrile	0.0092	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0012	0.01	NA	
Continuing Calibration Recovery	Acrolein	366.2	NA	20	
	2-Chloroethyl Vinyl Ether	-54.4	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0067	0.01	NA	
	Acetonitrile	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0045	0.01	NA	
	1,4-Dioxane	0.0014	0.01	NA	

Primary Review: MK 10/15/14

Secondary Review: [signature] 10/15/2014

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F006.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:40	**Quant Date:**	10/15/2014 12:05	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1413956-1 -- K1410890-004MS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385047	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:			
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.47	0.00	96	1094797	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	447911	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	436499	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	5.73	0.00	0.00	113	291547	9.73	97	73-122	OK	
1	1,2-Dichloroethane-d4	6.15	0.00	0.00	65	267047	9.68	97	59-127	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1073250	9.80	98	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	397216	9.76	98	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	267147	7.73	7.73		
1	Chloromethane	1.26		0.00	50	311033	7.55	7.55		
1	Vinyl Chloride	1.35		0.00	62	327707	8.80	8.80		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.64	-0.01	0.00	96	194336	8.16	8.16		
1	Chloroethane	1.74		0.00	64	187695	10.04	10.0		
1	Dichlorofluoromethane (CFC 21	1.96		0.00	67	480637	9.49	9.49		
1	Trichlorofluoromethane	1.95		0.00	101	381209	8.13	8.13		
1	Ethyl Ether	2.26		0.00	59	163741	8.76	8.76		
1	Acrolein	2.48		0.00	56	168669	247.46	247		
1	Trichlorotrifluoroethane	2.47		0.00	151	202681	9.10	9.10		
1	1,1-Dichloroethene	2.50		0.00	96	230249	9.82	9.82		
1	Acetone	2.66	0.01	0.00	43	179338	44.34	44.3		
1	Iodomethane	2.68		0.00	142	946197	32.88	32.9		

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

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

*: Result fails acceptance criteria
#: Acceptance 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\101514\1015F006.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:40	**Quant Date:**	10/15/2014 12:05	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1413956-1 -- K1410890-004MS			**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	2.70		0.00	76	1621866	18.78	18.8		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.97		0.00	76	406351	26.91	26.9		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.09		0.00	40	295031	293.87	294		
1	Methylene Chloride	3.17		0.00	84	235868	7.60	7.60		
1	tert-Butyl Alcohol	3.38		0.00	59	113582	97.78	97.8		
1	Acrylonitrile	3.64	0.01	0.00	53	209061	33.48	33.5		
1	Methyl tert-Butyl Ether	3.46		0.00	73	531647	8.69	8.69		
1	trans-1,2-Dichloroethene	3.47		0.00	96	265060	9.81	9.81		
1	n-Hexane	3.78	0.01	0.00	57	1011152	29.22	29.2		
1	Diisopropyl Ether	4.24	0.01	0.00	45	1401353	17.07	17.1		
1	1,1-Dichloroethane	4.21	0.01	0.00	63	455712	9.40	9.40		
1	Vinyl Acetate	4.32		0.00	86	201904	59.96	60.0		
1	Chloroprene	4.28		0.00	53	1181752	28.73	28.7		
1	tert-Butyl Ethyl Ether	4.78		0.00	59	1295151	17.79	17.8		
1	2,2-Dichloropropane	5.01		0.00	77	376181	9.63	9.63		
1	cis-1,2-Dichloroethene	5.08		0.00	96	273981	8.81	8.81		
1	2-Butanone (MEK)	5.16		0.00	72	79073	44.25	44.3		
1	Ethyl Acetate	5.21		0.00	61	64357	28.56	28.6		
1	Propionitrile	5.34		0.00	54	61844	28.23	28.2		
1	Methacrylonitrile	5.48		0.00	67	206718	26.04	26.0		
1	Bromochloromethane	5.40		0.00	128	134894	9.66	9.66		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.52		0.00	83	457156	9.25	9.25		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.65		0.00	97	388587	9.06	9.06		
1	Carbon Tetrachloride	5.80		0.00	117	418842	11.06	11.1		
1	1,1-Dichloropropene	5.86		0.00	75	355790	9.71	9.71		
1	Isobutyl Alcohol	6.19		0.00	43	136615	285.29	285		
1	Benzene	6.10		0.00	78	1027227	8.76	8.76		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	281420	8.57	8.57		
1	tert-Amyl Methyl Ether	6.24	-0.01	0.00	55	280281	18.75	18.8		
1	Trichloroethene (TCE)	6.87		0.00	95	264137	8.76	8.76		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.17		0.00	63	257035	8.87	8.87		
1	Dibromomethane	7.30		0.00	93	139623	8.82	8.82		
1	Methyl Methacrylate	7.32		0.00	69	365832	26.34	26.3		
1	1,4-Dioxane	7.31	-0.01	0.00	88	47217	347.79	348		
1	Bromodichloromethane	7.48		0.00	83	321919	8.59	8.59		
1	2-Nitropropane	7.81		0.00	41	108095	24.32	24.3		
1	2-Chloroethyl Vinyl Ether				63	0d		0.16	U	

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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:\MS27\DATA\101514\1015F006.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:40	**Quant Date:**	10/15/2014 12:05	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1413956-1 -- K1410890-004MS			**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	7.96		0.00	75	383691	8.61	8.61		
1	4-Methyl-2-pentanone (MIBK)	8.13		0.00	58	288746	44.90	44.9		
1	Toluene	8.23		0.00	92	662757	9.20	9.20		
2	n-Octane				85	0d		0.16	U	
2	trans-1,3-Dichloropropene	8.57		0.00	75	299385	8.43	8.43		
2	Ethyl Methacrylate	8.62	0.01	0.00	69	738038	29.13	29.1		
2	1,1,2-Trichloroethane	8.75	0.01	0.00	83	165737	9.02	9.02		
2	Tetrachloroethene (PCE)	8.75		0.00	164	242653	9.65	9.65		
2	2-Hexanone	8.99		0.00	57	94428	49.74	49.7		
2	1,3-Dichloropropane	8.91		0.00	76	325185	9.04	9.04		
2	Dibromochloromethane	9.10		0.00	129	241312	9.00	9.00		
2	1,2-Dibromoethane (EDB)	9.21		0.00	107	193116	8.96	8.96		
2	1-Chlorohexane	9.65		0.00	91	324600	8.26	8.26		
2	Chlorobenzene	9.68		0.00	112	735787	9.33	9.33		
2	Ethylbenzene	9.76		0.00	106	384479	9.17	9.17		
2	1,1,1,2-Tetrachloroethane	9.78		0.00	131	249708	8.76	8.76		
2	m,p-Xylenes	9.89		0.00	106	946143	19.13	19.1		
2	o-Xylene	10.28		0.00	106	452072	9.16	9.16		
2	Styrene	10.31		0.00	103	365167m	9.08	9.08		
2	Bromoform	10.52		0.00	173	146175	8.72	8.72		
2	Isopropylbenzene	10.64		0.00	105	1184694	9.43	9.43		
2	cis-1,4-Dichloro-2-butene	10.81		0.00	89	97999	27.70	27.7		
3	1,1,2,2-Tetrachloroethane	11.03		0.00	83	210815	9.21	9.21		
3	trans-1,4-Dichloro-2-butene	11.10		0.00	53	171756	31.08	31.1		
3	Bromobenzene	10.97		0.00	156	311544	9.35	9.35		
3	n-Propylbenzene	11.05		0.00	91	1409779	9.48	9.48		
3	1,2,3-Trichloropropane	11.08		0.00	110	62156	9.24	9.24		
3	2-Chlorotoluene	11.16		0.00	91	840140	9.61	9.61		
3	1,3,5-Trimethylbenzene	11.24		0.00	105	993856	9.40	9.40		
3	4-Chlorotoluene	11.28		0.00	91	859718	9.09	9.09		
3	tert-Butylbenzene	11.55		0.00	119	875246	9.53	9.53		
3	1,2,4-Trimethylbenzene	11.61		0.00	105	983898	9.17	9.17		
3	sec-Butylbenzene	11.77		0.00	105	1224312	9.34	9.34		
3	4-Isopropyltoluene	11.92		0.00	119	1062036	9.73	9.73		
3	1,3-Dichlorobenzene	11.91		0.00	146	599024	9.38	9.38		
3	1,4-Dichlorobenzene	12.01		0.00	146	600851	9.36	9.36		
3	n-Butylbenzene	12.33		0.00	91	960798	9.33	9.33		
3	1,2-Dichlorobenzene	12.38		0.00	146	535955	9.14	9.14		
3	1,2-Dibromo-3-chloropropane	13.19		0.00	155	30928	8.69	8.69		
3	1,3,5-Trichlorobenzene	13.34	0.01	0.00	180	467527	9.06	9.06		
3	1,2,4-Trichlorobenzene	13.98		0.00	180	399351	8.93	8.93		
3	Hexachlorobutadiene	14.10		0.00	225	187365	9.79	9.79		

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

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

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

Data File:	J:\MS27\DATA\101514\1015F006.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:40	**Quant Date:**	10/15/2014 12:05	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1413956-1 -- K1410890-004MS			**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	Naphthalene	14.23		0.00	128	674765	8.87	8.87		
3	1,2,3-Trichlorobenzene	14.47		0.00	180	352982	8.98	8.98		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

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\101514\1015F006.D Vial: 5
Acq On : 15 Oct 2014 11:40 am Operator: MK
Sample : K10890-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 12:03:15 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1094797	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	447911	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	436499	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	291547	9.73	PPB		0.00
Spiked Amount 10.000			Recovery =	97.30%			
47) 1,2-Dichloroethane-d4	6.15	65	267047	9.68	PPB		0.00
Spiked Amount 10.000			Recovery =	96.80%			
62) Toluene-d8	8.16	98	1073250	9.80	PPB		0.00
Spiked Amount 10.000			Recovery =	98.00%			
84) 4-Bromofluorobenzene	10.84	95	397216	9.76	PPB		0.00
Spiked Amount 10.000			Recovery =	97.60%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	267147	7.73	PPB		97
3) Chloromethane	1.26	50	311033	7.55	PPB		98
4) Vinyl Chloride	1.35	62	327707	8.80	PPB		96
6) Bromomethane	1.64	96	194336	8.16	PPB		95
7) Chloroethane	1.74	64	187695	10.04	PPB		98
8) Dichlorofluoromethane	1.96	67	480637	9.49	PPB		97
9) Trichlorofluoromethane	1.95	101	381209	8.13	PPB		99
10) Ethyl Ether	2.26	59	163741	8.76	PPB		99
11) Acrolein	2.48	56	168669	247.46	PPB		96
12) Trichlorotrifluoroethane	2.47	151	202681	9.10	PPB		99
13) 1,1-Dichloroethene	2.50	96	230249	9.82	PPB		94
14) Acetone	2.66	43	179338	44.34	PPB		96
15) Iodomethane	2.68	142	946197	32.88	PPB		97
16) Carbon Disulfide	2.70	76	1621866	18.78	PPB		100
18) 3-Chloro-1-propene	2.97	76	406351	26.91	PPB		96
20) Acetonitrile	3.09	40	295031	293.87	PPB		96
21) Methylene Chloride	3.17	84	235868	7.60	PPB		99
22) tert-Butyl Alcohol	3.38	59	113582	97.78	PPB		99
23) Acrylonitrile	3.64	53	209061	33.48	PPB		98
24) Methyl tert-Butyl Ether	3.46	73	531647	8.69	PPB		99
25) trans-1,2-Dichloroethene	3.47	96	265060	9.81	PPB		95
26) Hexane	3.78	57	1011152	29.22	PPB		94
27) Diisopropyl Ether	4.24	45	1401353	17.07	PPB		99
28) 1,1-Dichloroethane	4.21	63	455712	9.40	PPB		99
29) Vinyl Acetate	4.32	86	201904	59.96	PPB	#	87
30) Chloroprene	4.28	53	1181752	28.73	PPB		97
31) tert-Butyl Ethyl Ether	4.78	59	1295151	17.79	PPB		98

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

Data File : J:\MS27\DATA\101514\1015F006.D Vial: 5
Acq On : 15 Oct 2014 11:40 am Operator: MK
Sample : K10890-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 12:03:15 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32) 2,2-Dichloropropane	5.01	77	376181	9.63	PPB		99
33) cis-1,2-Dichloroethene	5.08	96	273981	8.81	PPB		97
34) 2-Butanone	5.16	72	79073	44.25	PPB		100
35) Ethyl Acetate	5.21	61	64357	28.56	PPB		95
36) Propionitrile	5.34	54	61844	28.23	PPB		96
37) Methacrylonitrile	5.48	67	206718	26.04	PPB		98
38) Bromochloromethane	5.40	128	134894	9.66	PPB		96
40) Chloroform	5.52	83	457156	9.25	PPB		98
42) 1,1,1-Trichloroethane	5.65	97	388587	9.06	PPB		97
44) Carbon Tetrachloride	5.80	117	418842	11.06	PPB		99
45) 1,1-Dichloropropene	5.86	75	355790	9.71	PPB		97
46) Isobutyl Alcohol	6.19	43	136615	285.29	PPB		94
48) Benzene	6.10	78	1027227	8.76	PPB		99
49) 1,2-Dichloroethane	6.24	62	281420	8.57	PPB		96
50) tert-Amyl Methyl Ether	6.24	55	280281	18.75	PPB		97
51) Trichloroethene	6.87	95	264137	8.76	PPB		99
53) 1,2-Dichloropropane	7.17	63	257035	8.87	PPB		95
54) Dibromomethane	7.30	93	139623	8.82	PPB		99
55) Methyl methacrylate	7.32	69	365832	26.34	PPB		95
56) 1,4-Dioxane	7.31	88	47217	347.79	PPB		93
57) Bromodichloromethane	7.48	83	321919	8.59	PPB		98
58) 2-Nitropropane	7.81	41	108095	24.32	PPB		95
60) cis-1,3-Dichloropropene	7.96	75	383691	8.61	PPB		96
61) 4-Methyl-2-pentanone (MIBK	8.13	58	288746	44.90	PPB		99
63) Toluene	8.23	92	662757	9.20	PPB		99
66) trans-1,3-Dichloropropene	8.57	75	299385	8.43	PPB		98
67) Ethyl methacrylate	8.62	69	738038	29.13	PPB		97
68) 1,1,2-Trichloroethane	8.75	83	165737	9.02	PPB		97
69) Tetrachloroethene	8.75	164	242653	9.65	PPB		99
70) 2-Hexanone	8.99	57	94428	49.74	PPB	#	86
71) 1,3-Dichloropropane	8.91	76	325185	9.04	PPB		97
72) Dibromochloromethane	9.10	129	241312	9.00	PPB		98
73) 1,2-Dibromoethane (EDB)	9.21	107	193116	8.96	PPB		95
74) 1-Chlorohexane	9.65	91	324600	8.26	PPB		99
75) Chlorobenzene	9.68	112	735787	9.33	PPB		98
76) Ethylbenzene	9.76	106	384479	9.17	PPB		97
77) 1,1,1,2-Tetrachloroethane	9.78	131	249708	8.76	PPB		98
78) m,p-Xylenes	9.89	106	946143	19.13	PPB		99
79) o-Xylene	10.28	106	452072	9.16	PPB		99
80) Styrene	10.31	103	365167m	9.08	PPB		
81) Bromoform	10.52	173	146175	8.72	PPB		96

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

Data File : J:\MS27\DATA\101514\1015F006.D Vial: 5
Acq On : 15 Oct 2014 11:40 am Operator: MK
Sample : K10890-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 12:03:15 2014 Quant Results File: 100814MS27_8260

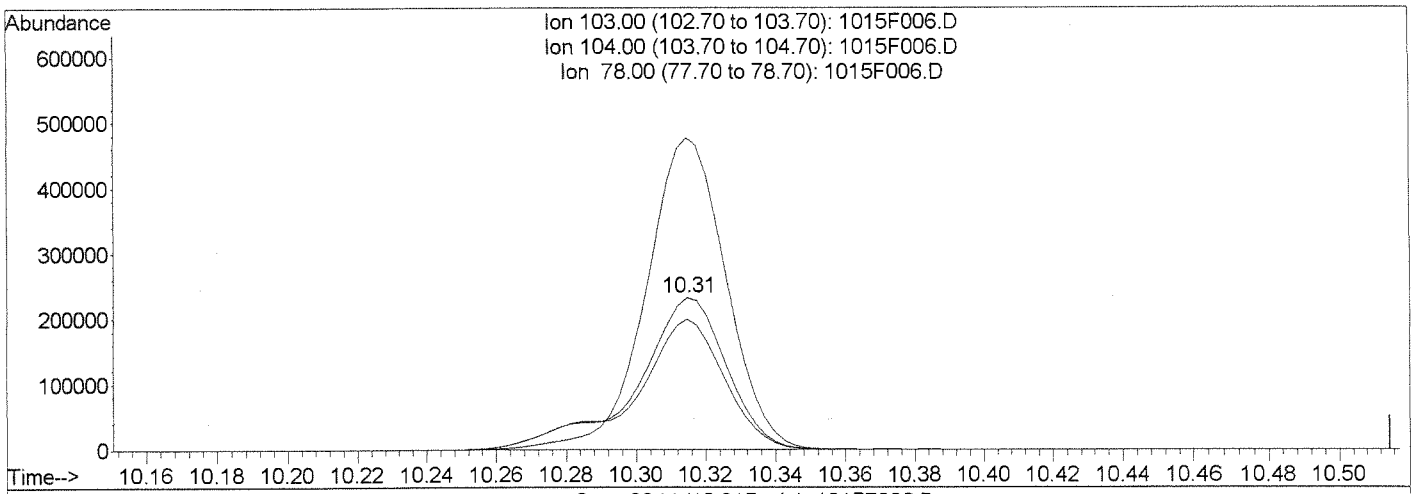
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

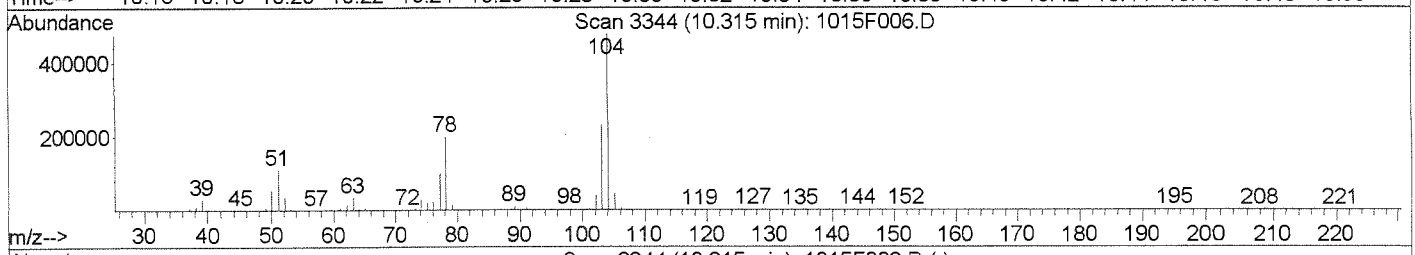
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82) Isopropylbenzene	10.64	105	1184694	9.43	PPB	99
83) cis-1,4-Dichloro-2-butene	10.81	89	97999	27.70	PPB	95
86) 1,1,2,2-Tetrachloroethane	11.03	83	210815	9.21	PPB	98
87) trans-1,4-Dichloro-2-buten	11.10	53	171756	31.08	PPB	84
88) Bromobenzene	10.97	156	311544	9.35	PPB	99
89) n-Propylbenzene	11.05	91	1409779	9.48	PPB	99
90) 1,2,3-Trichloropropane	11.08	110	62156	9.24	PPB	98
91) 2-Chlorotoluene	11.16	91	840140	9.61	PPB	99
92) 1,3,5-Trimethylbenzene	11.24	105	993856	9.40	PPB	99
93) 4-Chlorotoluene	11.28	91	859718	9.09	PPB	99
94) tert-Butylbenzene	11.55	119	875246	9.53	PPB	99
95) 1,2,4-Trimethylbenzene	11.61	105	983898	9.17	PPB	98
96) sec-Butylbenzene	11.77	105	1224312	9.34	PPB	100
97) p-Isopropyltoluene	11.92	119	1062036	9.73	PPB	99
98) 1,3-Dichlorobenzene	11.91	146	599024	9.38	PPB	99
99) 1,4-Dichlorobenzene	12.01	146	600851	9.36	PPB	99
100) n-Butylbenzene	12.33	91	960798	9.33	PPB	99
101) 1,2-Dichlorobenzene	12.38	146	535955	9.14	PPB	99
102) 1,2-Dibromo-3-chloropropan	13.19	155	30928	8.69	PPB	96
103) 1,3,5-Trichlorobenzene	13.34	180	467527	9.06	PPB	96
104) 1,2,4-Trichlorobenzene	13.98	180	399351	8.93	PPB	100
105) Hexachlorobutadiene	14.10	225	187365	9.79	PPB	96
106) Naphthalene	14.23	128	674765	8.87	PPB	99
107) 1,2,3-Trichlorobenzene	14.47	180	352982	8.98	PPB	96

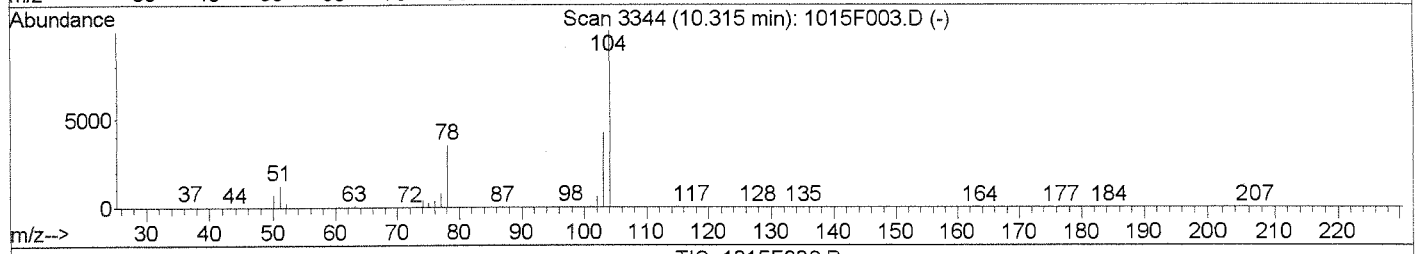
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F006.D Vial: 5
Acq On : 15 Oct 2014 11:40 am Operator: MK
Sample : K10890-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 12:05 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F006.D

(80) Styrene (T)

10.31min 10.33PPB

response 415205

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	205.47
78.00	87.30	85.68
0.00	0.00	0.00

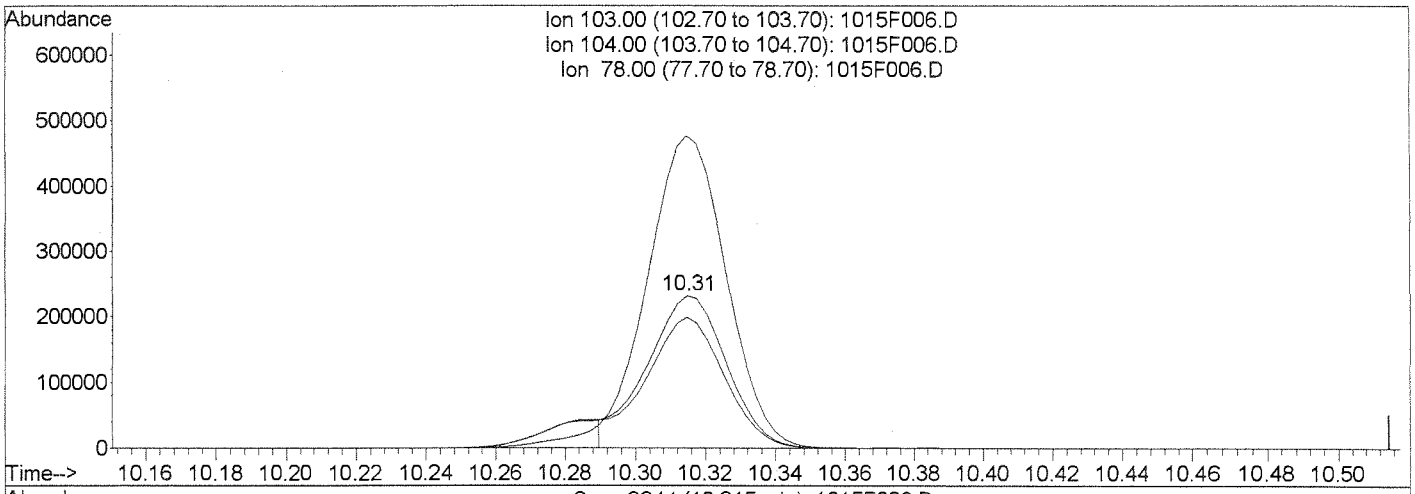
Manual Integration:

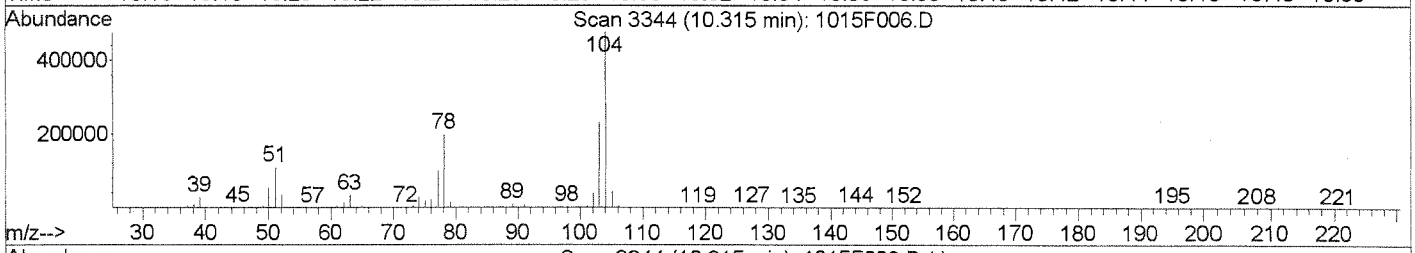
Before

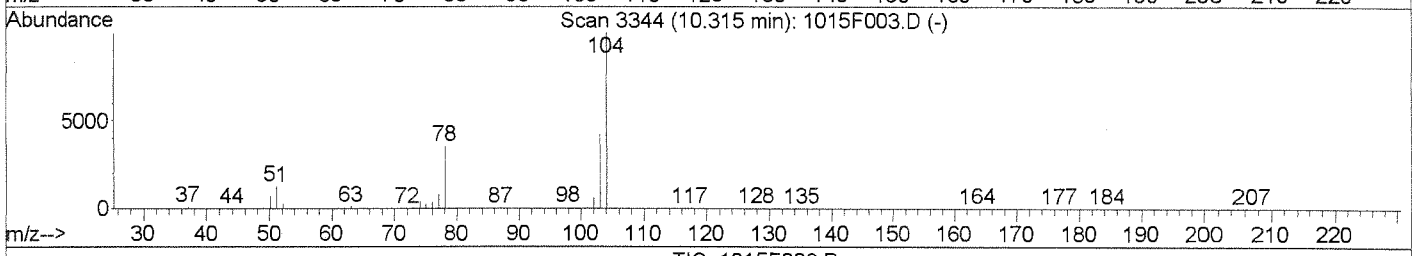
10/15/14

Data File : J:\MS27\DATA\101514\1015F006.D Vial: 5
Acq On : 15 Oct 2014 11:40 am Operator: MK
Sample : K10890-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 12:05 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F006.D

(80) Styrene (T)

10.31min 9.08PPB m

response 365167

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	205.52
78.00	87.30	85.75
0.00	0.00	0.00

Manual Integration:

After

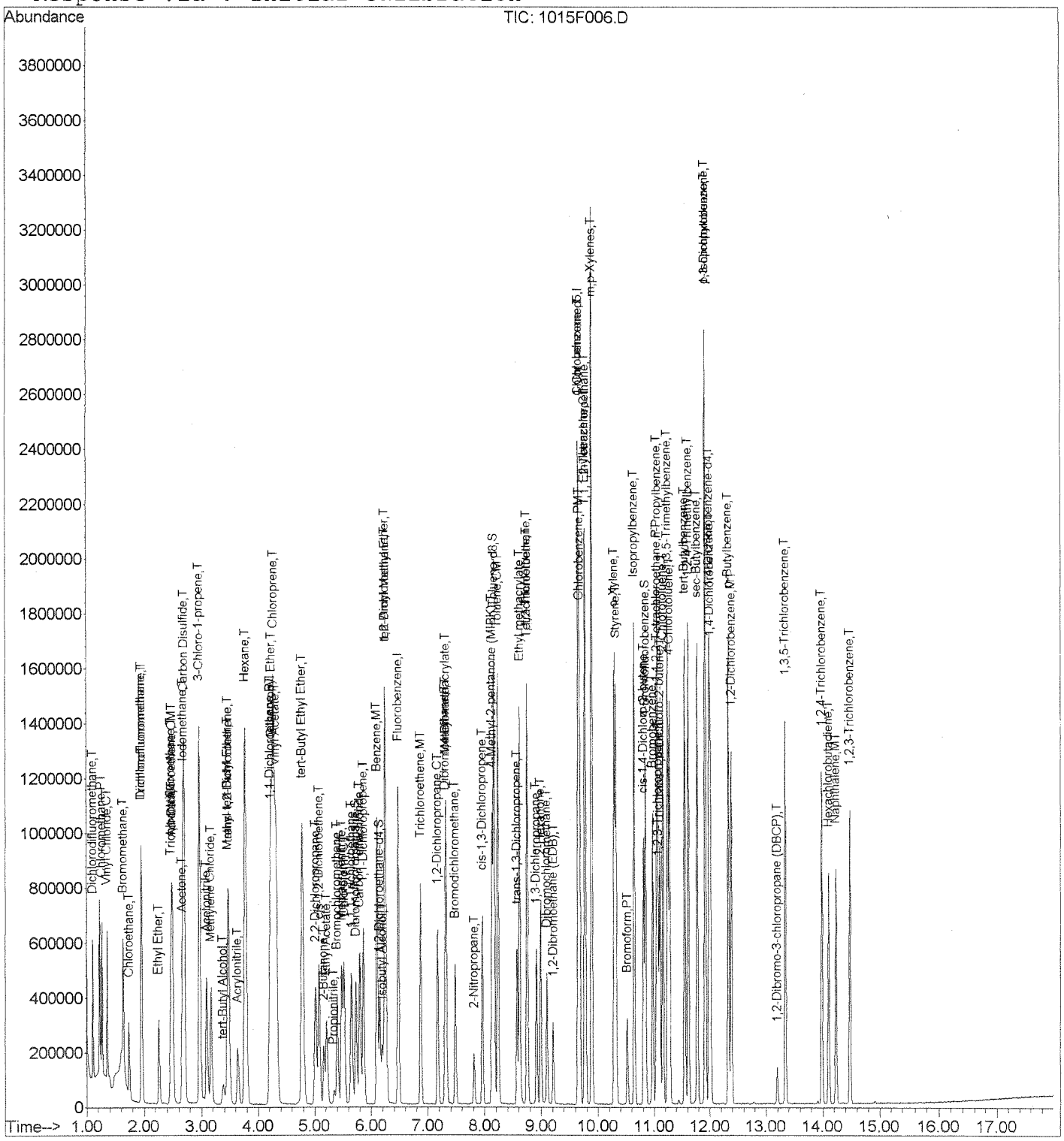
Shoulder

10/15/14

1015F006.D 100814MS27_8260.M Wed Oct 15 12:05:22 2014

Data File : J:\MS27\DATA\101514\1015F006.D Vial: 5
Acq On : 15 Oct 2014 11:40 am Operator: MK
Sample : K10890-004MS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 12:05 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration



Exception Report

Data File: J:\MS27\DATA\101514\1015F007.D
Lab ID: KWG1413956-2 -- K1410890-004DMS
RunType: DMS
Matrix: WATER

Date Acquired: 10/15/2014 12:07
Date Quantitated: 10/15/2014 15:43
Batch ID: KWG1413955
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acrolein	0.0062	0.01	NA	NT
	2-Propanol	0.0058	0.01	NA	
	Acetonitrile	0.0092	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0012	0.01	NA	
Continuing Calibration Recovery	Acrolein	366.2	NA	20	
	2-Chloroethyl Vinyl Ether	-54.4	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0067	0.01	NA	
	Acetonitrile	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0045	0.01	NA	
	1,4-Dioxane	0.0014	0.01	NA	

Primary Review: MC 10/15/14

Secondary Review: [illegible] 10/24/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F007.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 12:07	**Quant Date:**	10/15/2014 15:43	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1413956-2 -- K1410890-004DMS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	10/15/2014		
Prep Ref:	1385048				

Quant Method:	J:\MS27\METHODS\100814MS27_8			**Calibration ID:**	CAL13596
Title:					
Tune Ref:	J:\MS27\DATA\101514\1015F002.D			**Method ID:**	MJ119
MB Ref:	J:\MS27\DATA\101514\1015F010.D			**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.47	0.00	96	1113945	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	449707	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	444978	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	5.73	0.00	0.00	113	287020	9.41	94	73-122	OK	
1	1,2-Dichloroethane-d4	6.15	0.00	0.00	65	268568	9.56	96	59-127	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1085909	9.74	97	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	405116	9.92	99	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	248269	7.06	7.06		
1	Chloromethane	1.26		0.00	50	296938	7.09	7.09		
1	Vinyl Chloride	1.35		0.00	62	302811	7.99	7.99		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.64	-0.01	0.00	96	187379	7.70	7.70		
1	Chloroethane	1.74		0.00	64	180663	9.50	9.50		
1	Dichlorofluoromethane (CFC 21	1.96		0.00	67	466889	9.06	9.06		
1	Trichlorofluoromethane	1.95		0.00	101	364815	7.64	7.64		
1	Ethyl Ether	2.26		0.00	59	163685	8.61	8.61		
1	Acrolein	2.48		0.00	56	193205	278.59	279		
1	Trichlorotrifluoroethane	2.47		0.00	151	189537	8.36	8.36		
1	1,1-Dichloroethene	2.50		0.00	96	223257	9.36	9.36		
1	Acetone	2.66	0.01	0.00	43	178325	43.33	43.3		
1	Iodomethane	2.68		0.00	142	887576	30.65	30.7		

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

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

*: Result fails acceptance criteria
#: Acceptance 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\101514\1015F007.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 12:07	**Quant Date:**	10/15/2014 15:43	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1413956-2 -- K1410890-004DMS			**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	2.70		0.00	76	1525321	17.36	17.4		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.97		0.00	76	388226	25.26	25.3		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.09		0.00	40	287620	281.57	282		
1	Methylene Chloride	3.17		0.00	84	228503	7.23	7.23		
1	tert-Butyl Alcohol	3.38		0.00	59	109597	92.72	92.7		
1	Acrylonitrile	3.64	0.01	0.00	53	220433	34.69	34.7		
1	Methyl tert-Butyl Ether	3.46		0.00	73	517500	8.31	8.31		
1	trans-1,2-Dichloroethene	3.47		0.00	96	251699	9.15	9.15		
1	n-Hexane	3.78	0.01	0.00	57	939259	26.68	26.7		
1	Diisopropyl Ether	4.23		0.00	45	1350452	16.17	16.2		
1	1,1-Dichloroethane	4.20		0.00	63	446216	9.05	9.05		
1	Vinyl Acetate	4.32		0.00	86	190863	55.70	55.7		
1	Chloroprene	4.28		0.00	53	1129825	27.00	27.0		
1	tert-Butyl Ethyl Ether	4.78		0.00	59	1273986	17.20	17.2		
1	2,2-Dichloropropane	5.02	0.01	0.00	77	361204	9.09	9.09		
1	cis-1,2-Dichloroethene	5.08		0.00	96	267459	8.45	8.45		
1	2-Butanone (MEK)	5.17	0.01	0.00	72	79189	43.56	43.6		
1	Ethyl Acetate	5.21		0.00	61	63134	27.53	27.5		
1	Propionitrile	5.34		0.00	54	62008	27.82	27.8		
1	Methacrylonitrile	5.48		0.00	67	204835	25.36	25.4		
1	Bromochloromethane	5.40		0.00	128	130446	9.18	9.18		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.52		0.00	83	439360	8.73	8.73		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.65		0.00	97	371644	8.52	8.52		
1	Carbon Tetrachloride	5.80		0.00	117	400775	10.40	10.4		
1	1,1-Dichloropropene	5.86		0.00	75	335725	9.00	9.00		
1	Isobutyl Alcohol	6.19		0.00	43	129325	265.43	265		
1	Benzene	6.10		0.00	78	989587	8.30	8.30		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	276212	8.27	8.27		
1	tert-Amyl Methyl Ether	6.25		0.00	55	276050	18.15	18.2		
1	Trichloroethene (TCE)	6.87		0.00	95	255665	8.34	8.34		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.17		0.00	63	248845	8.44	8.44		
1	Dibromomethane	7.30		0.00	93	140569	8.72	8.72		
1	Methyl Methacrylate	7.32		0.00	69	364156	25.77	25.8		
1	1,4-Dioxane	7.32		0.00	88	43851	317.45	317		
1	Bromodichloromethane	7.48		0.00	83	311239	8.16	8.16		
1	2-Nitropropane	7.81		0.00	41	108246	23.94	23.9		
1	2-Chloroethyl Vinyl Ether				63	0d		0.16	U	

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#: Acceptance 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\101514\1015F007.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 12:07	**Quant Date:**	10/15/2014 15:43	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1413956-2 -- K1410890-004DMS			**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	7.96		0.00	75	373825	8.24	8.24		
1	4-Methyl-2-pentanone (MIBK)	8.13		0.00	58	288562	44.10	44.1		
1	Toluene	8.23		0.00	92	648332	8.84	8.84		
2	n-Octane				85	0d		0.16	U	
2	trans-1,3-Dichloropropene	8.57		0.00	75	288738	8.10	8.10		
2	Ethyl Methacrylate	8.62	0.01	0.00	69	732981	28.81	28.8		
2	1,1,2-Trichloroethane	8.74		0.00	83	166347	9.02	9.02		
2	Tetrachloroethene (PCE)	8.75		0.00	164	227340	9.01	9.01		
2	2-Hexanone	8.99		0.00	57	89997	47.22	47.2		
2	1,3-Dichloropropane	8.91		0.00	76	316908	8.77	8.77		
2	Dibromochloromethane	9.10		0.00	129	236071	8.77	8.77		
2	1,2-Dibromoethane (EDB)	9.21		0.00	107	189440	8.76	8.76		
2	1-Chlorohexane	9.65		0.00	91	309576	7.85	7.85		
2	Chlorobenzene	9.68		0.00	112	702489	8.87	8.87		
2	Ethylbenzene	9.77	0.01	0.00	106	361929	8.60	8.60		
2	1,1,1,2-Tetrachloroethane	9.78		0.00	131	242478	8.48	8.48		
2	m,p-Xylenes	9.89		0.00	106	903074	18.19	18.2		
2	o-Xylene	10.28		0.00	106	433145	8.74	8.74		
2	Styrene	10.31		0.00	103	351394m	8.70	8.70		
2	Bromoform	10.52		0.00	173	142789	8.49	8.49		
2	Isopropylbenzene	10.64		0.00	105	1136167	9.00	9.00		
2	cis-1,4-Dichloro-2-butene	10.81		0.00	89	95523	26.90	26.9		
3	1,1,2,2-Tetrachloroethane	11.03		0.00	83	203910	8.74	8.74		
3	trans-1,4-Dichloro-2-butene	11.10		0.00	53	165041	29.30	29.3		
3	Bromobenzene	10.97		0.00	156	301103	8.87	8.87		
3	n-Propylbenzene	11.05		0.00	91	1333857	8.80	8.80		
3	1,2,3-Trichloropropane	11.08		0.00	110	60385	8.81	8.81		
3	2-Chlorotoluene	11.16		0.00	91	794396	8.91	8.91		
3	1,3,5-Trimethylbenzene	11.24		0.00	105	948731	8.81	8.81		
3	4-Chlorotoluene	11.28		0.00	91	831939	8.63	8.63		
3	tert-Butylbenzene	11.55		0.00	119	828206	8.85	8.85		
3	1,2,4-Trimethylbenzene	11.61		0.00	105	952568	8.71	8.71		
3	sec-Butylbenzene	11.77		0.00	105	1173038	8.78	8.78		
3	4-Isopropyltoluene	11.92		0.00	119	1012766	9.10	9.10		
3	1,3-Dichlorobenzene	11.91		0.00	146	566372	8.70	8.70		
3	1,4-Dichlorobenzene	12.01		0.00	146	572159	8.74	8.74		
3	n-Butylbenzene	12.33		0.00	91	905257	8.62	8.62		
3	1,2-Dichlorobenzene	12.38		0.00	146	515636	8.62	8.62		
3	1,2-Dibromo-3-chloropropane	13.19		0.00	155	30044	8.28	8.28		
3	1,3,5-Trichlorobenzene	13.33		0.00	180	453641	8.62	8.62		
3	1,2,4-Trichlorobenzene	13.98		0.00	180	391827	8.60	8.60		
3	Hexachlorobutadiene	14.10		0.00	225	173463	8.89	8.89		

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

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#: Acceptance 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\101514\1015F007.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 12:07	**Quant Date:**	10/15/2014 15:43	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1413956-2 -- K1410890-004DMS			**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	Naphthalene	14.23		0.00	128	656345	8.47	8.47		
3	1,2,3-Trichlorobenzene	14.47		0.00	180	342213	8.54	8.54		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

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

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS27\DATA\101514\1015F007.D Vial: 5
Acq On : 15 Oct 2014 12:07 pm Operator: MK
Sample : K10890-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:41:10 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1113945	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	449707	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	444978	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	287020	9.41	PPB		0.00
Spiked Amount 10.000			Recovery =	94.10%			
47) 1,2-Dichloroethane-d4	6.15	65	268568	9.56	PPB		0.00
Spiked Amount 10.000			Recovery =	95.60%			
62) Toluene-d8	8.16	98	1085909	9.74	PPB		0.00
Spiked Amount 10.000			Recovery =	97.40%			
84) 4-Bromofluorobenzene	10.84	95	405116	9.92	PPB		0.00
Spiked Amount 10.000			Recovery =	99.20%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	248269	7.06	PPB		96
3) Chloromethane	1.26	50	296938	7.09	PPB		99
4) Vinyl Chloride	1.35	62	302811	7.99	PPB		98
6) Bromomethane	1.64	96	187379	7.70	PPB		100
7) Chloroethane	1.74	64	180663	9.50	PPB		98
8) Dichlorofluoromethane	1.96	67	466889	9.06	PPB		97
9) Trichlorofluoromethane	1.95	101	364815	7.64	PPB		99
10) Ethyl Ether	2.26	59	163685	8.61	PPB		99
11) Acrolein	2.48	56	193205	278.59	PPB		94
12) Trichlorotrifluoroethane	2.47	151	189537	8.36	PPB		100
13) 1,1-Dichloroethene	2.50	96	223257	9.36	PPB		94
14) Acetone	2.66	43	178325	43.33	PPB		97
15) Iodomethane	2.68	142	887576	30.65	PPB		97
16) Carbon Disulfide	2.70	76	1525321	17.36	PPB		100
18) 3-Chloro-1-propene	2.97	76	388226	25.26	PPB		100
20) Acetonitrile	3.09	40	287620	281.57	PPB		95
21) Methylene Chloride	3.17	84	228503	7.23	PPB		95
22) tert-Butyl Alcohol	3.38	59	109597	92.72	PPB		96
23) Acrylonitrile	3.64	53	220433	34.69	PPB		98
24) Methyl tert-Butyl Ether	3.46	73	517500	8.31	PPB		98
25) trans-1,2-Dichloroethene	3.47	96	251699	9.15	PPB		97
26) Hexane	3.78	57	939259	26.68	PPB		96
27) Diisopropyl Ether	4.23	45	1350452	16.17	PPB		99
28) 1,1-Dichloroethane	4.20	63	446216	9.05	PPB		99
29) Vinyl Acetate	4.32	86	190863	55.70	PPB	#	84
30) Chloroprene	4.28	53	1129825	27.00	PPB		100
31) tert-Butyl Ethyl Ether	4.78	59	1273986	17.20	PPB		98

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

Data File : J:\MS27\DATA\101514\1015F007.D Vial: 5
Acq On : 15 Oct 2014 12:07 pm Operator: MK
Sample : K10890-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:41:10 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) 2,2-Dichloropropane	5.02	77	361204	9.09	PPB	99
33) cis-1,2-Dichloroethene	5.08	96	267459	8.45	PPB	98
34) 2-Butanone	5.17	72	79189	43.56	PPB	99
35) Ethyl Acetate	5.21	61	63134	27.53	PPB	92
36) Propionitrile	5.34	54	62008	27.82	PPB	98
37) Methacrylonitrile	5.48	67	204835	25.36	PPB	99
38) Bromochloromethane	5.40	128	130446	9.18	PPB	98
40) Chloroform	5.52	83	439360	8.73	PPB	98
42) 1,1,1-Trichloroethane	5.65	97	371644	8.52	PPB	99
44) Carbon Tetrachloride	5.80	117	400775	10.40	PPB	99
45) 1,1-Dichloropropene	5.86	75	335725	9.00	PPB	99
46) Isobutyl Alcohol	6.19	43	129325	265.43	PPB	98
48) Benzene	6.10	78	989587	8.30	PPB	99
49) 1,2-Dichloroethane	6.24	62	276212	8.27	PPB	98
50) tert-Amyl Methyl Ether	6.25	55	276050	18.15	PPB	96
51) Trichloroethene	6.87	95	255665	8.34	PPB	97
53) 1,2-Dichloropropane	7.17	63	248845	8.44	PPB	97
54) Dibromomethane	7.30	93	140569	8.72	PPB	95
55) Methyl methacrylate	7.32	69	364156	25.77	PPB	93
56) 1,4-Dioxane	7.32	88	43851	317.45	PPB	90
57) Bromodichloromethane	7.48	83	311239	8.16	PPB	96
58) 2-Nitropropane	7.81	41	108246	23.94	PPB	99
60) cis-1,3-Dichloropropene	7.96	75	373825	8.24	PPB	97
61) 4-Methyl-2-pentanone (MIBK	8.13	58	288562	44.10	PPB	96
63) Toluene	8.23	92	648332	8.84	PPB	99
66) trans-1,3-Dichloropropene	8.57	75	288738	8.10	PPB	98
67) Ethyl methacrylate	8.62	69	732981	28.81	PPB	96
68) 1,1,2-Trichloroethane	8.74	83	166347	9.02	PPB	100
69) Tetrachloroethene	8.75	164	227340	9.01	PPB	97
70) 2-Hexanone	8.99	57	89997	47.22	PPB	95
71) 1,3-Dichloropropane	8.91	76	316908	8.77	PPB	99
72) Dibromochloromethane	9.10	129	236071	8.77	PPB	99
73) 1,2-Dibromoethane (EDB)	9.21	107	189440	8.76	PPB	97
74) 1-Chlorohexane	9.65	91	309576	7.85	PPB	98
75) Chlorobenzene	9.68	112	702489	8.87	PPB	99
76) Ethylbenzene	9.77	106	361929	8.60	PPB	98
77) 1,1,1,2-Tetrachloroethane	9.78	131	242478	8.48	PPB	99
78) m,p-Xylenes	9.89	106	903074	18.19	PPB	98
79) o-Xylene	10.28	106	433145	8.74	PPB	95
80) Styrene	10.31	103	351394m	8.70	PPB	
81) Bromoform	10.52	173	142789	8.49	PPB	97

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

Data File : J:\MS27\DATA\101514\1015F007.D Vial: 5
Acq On : 15 Oct 2014 12:07 pm Operator: MK
Sample : K10890-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:41:10 2014 Quant Results File: 100814MS27_8260

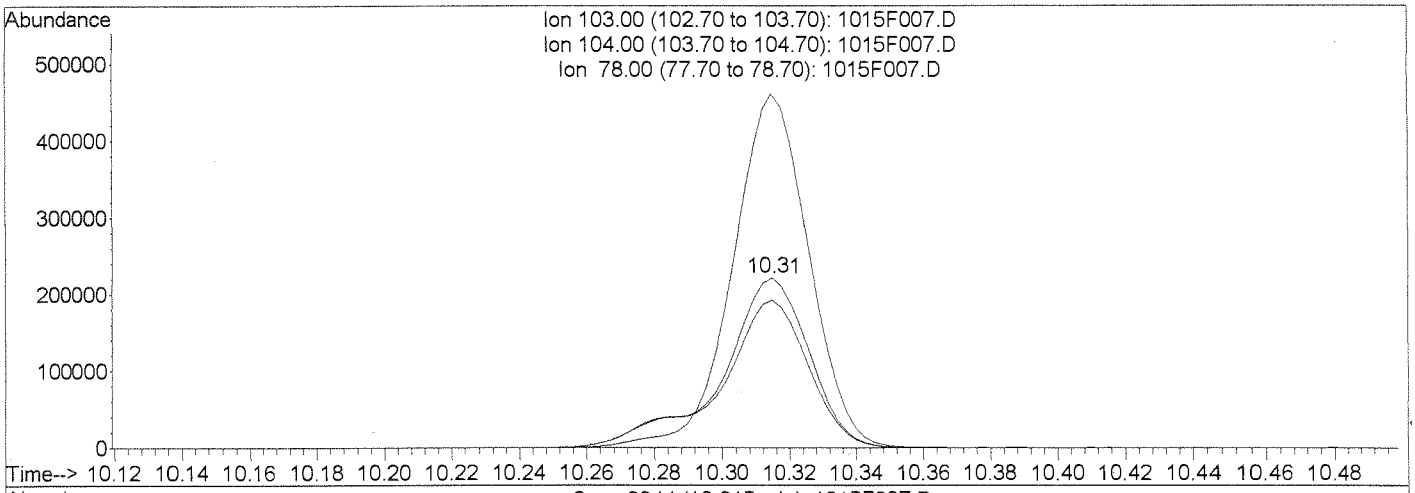
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

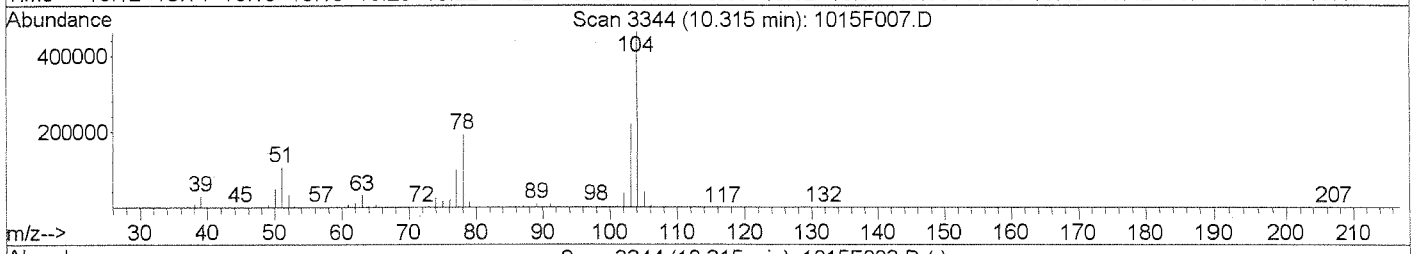
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
82)	Isopropylbenzene	10.64	105	1136167	9.00	PPB	99
83)	cis-1,4-Dichloro-2-butene	10.81	89	95523	26.90	PPB	96
86)	1,1,2,2-Tetrachloroethane	11.03	83	203910	8.74	PPB	97
87)	trans-1,4-Dichloro-2-buten	11.10	53	165041	29.30	PPB	78
88)	Bromobenzene	10.97	156	301103	8.87	PPB	99
89)	n-Propylbenzene	11.05	91	1333857	8.80	PPB	99
90)	1,2,3-Trichloropropane	11.08	110	60385	8.81	PPB	86
91)	2-Chlorotoluene	11.16	91	794396	8.91	PPB	98
92)	1,3,5-Trimethylbenzene	11.24	105	948731	8.81	PPB	98
93)	4-Chlorotoluene	11.28	91	831939	8.63	PPB	99
94)	tert-Butylbenzene	11.55	119	828206	8.85	PPB	99
95)	1,2,4-Trimethylbenzene	11.61	105	952568	8.71	PPB	100
96)	sec-Butylbenzene	11.77	105	1173038	8.78	PPB	99
97)	p-Isopropyltoluene	11.92	119	1012766	9.10	PPB	100
98)	1,3-Dichlorobenzene	11.91	146	566372	8.70	PPB	98
99)	1,4-Dichlorobenzene	12.01	146	572159	8.74	PPB	99
100)	n-Butylbenzene	12.33	91	905257	8.62	PPB	99
101)	1,2-Dichlorobenzene	12.38	146	515636	8.62	PPB	98
102)	1,2-Dibromo-3-chloropropan	13.19	155	30044	8.28	PPB	99
103)	1,3,5-Trichlorobenzene	13.33	180	453641	8.62	PPB	99
104)	1,2,4-Trichlorobenzene	13.98	180	391827	8.60	PPB	99
105)	Hexachlorobutadiene	14.10	225	173463	8.89	PPB	97
106)	Naphthalene	14.23	128	656345	8.47	PPB	99
107)	1,2,3-Trichlorobenzene	14.47	180	342213	8.54	PPB	96

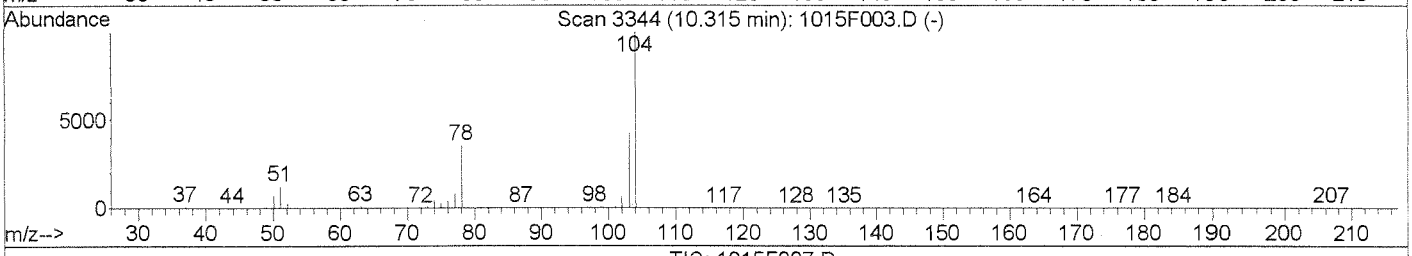
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F007.D Vial: 5
Acq On : 15 Oct 2014 12:07 pm Operator: MK
Sample : K10890-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:42 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F007.D

(80) Styrene (T)

10.31min 9.87PPB

response 398617

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.50
78.00	87.30	86.96
0.00	0.00	0.00

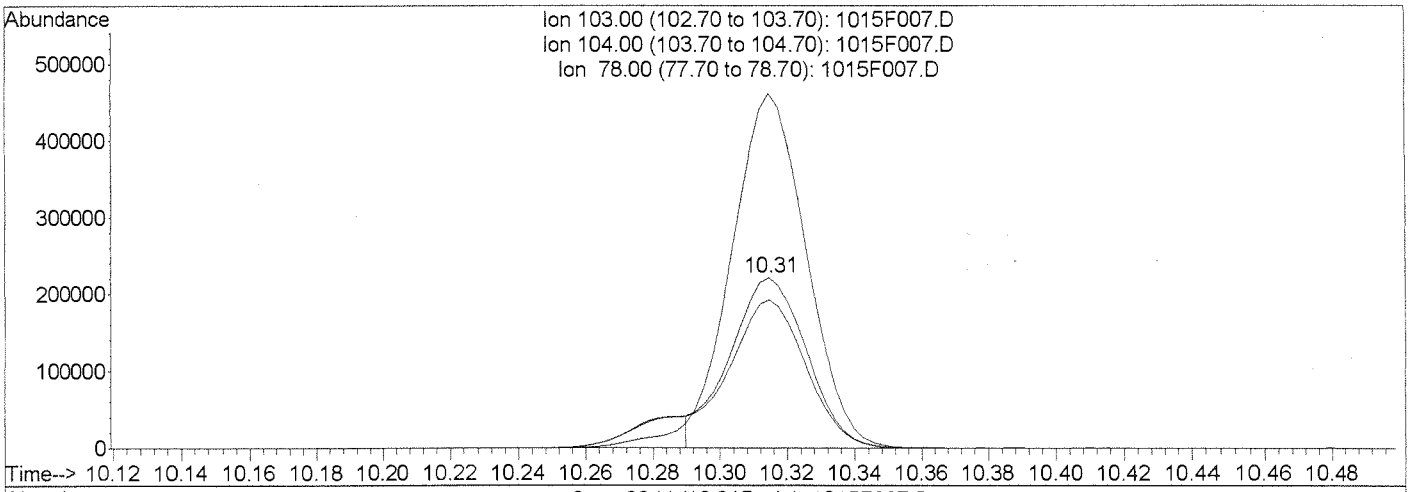
Manual Integration:

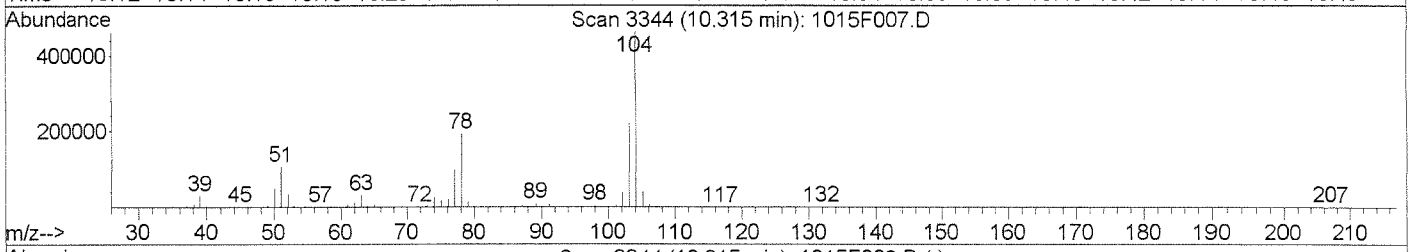
Before

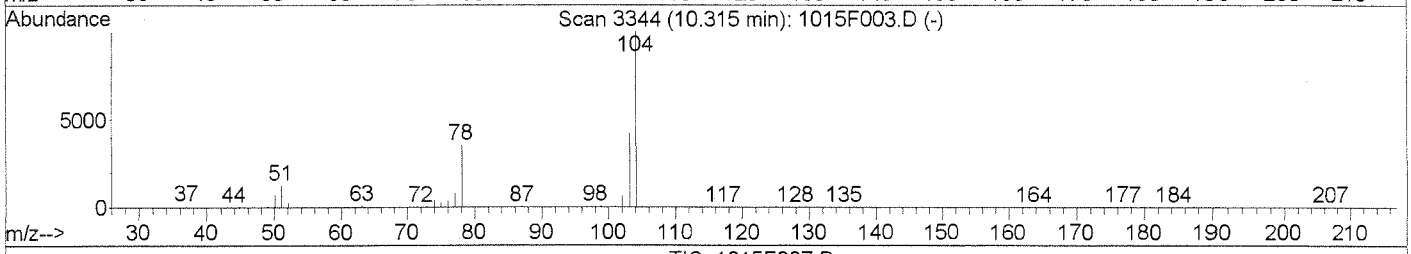
10/15/14 MK

Data File : J:\MS27\DATA\101514\1015F007.D Vial: 5
Acq On : 15 Oct 2014 12:07 pm Operator: MK
Sample : K10890-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:43 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F007.D

(80) Styrene (T)

10.31min 8.70PPB m

response 351394

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.50
78.00	87.30	86.96
0.00	0.00	0.00

Manual Integration:

After

Shoulder

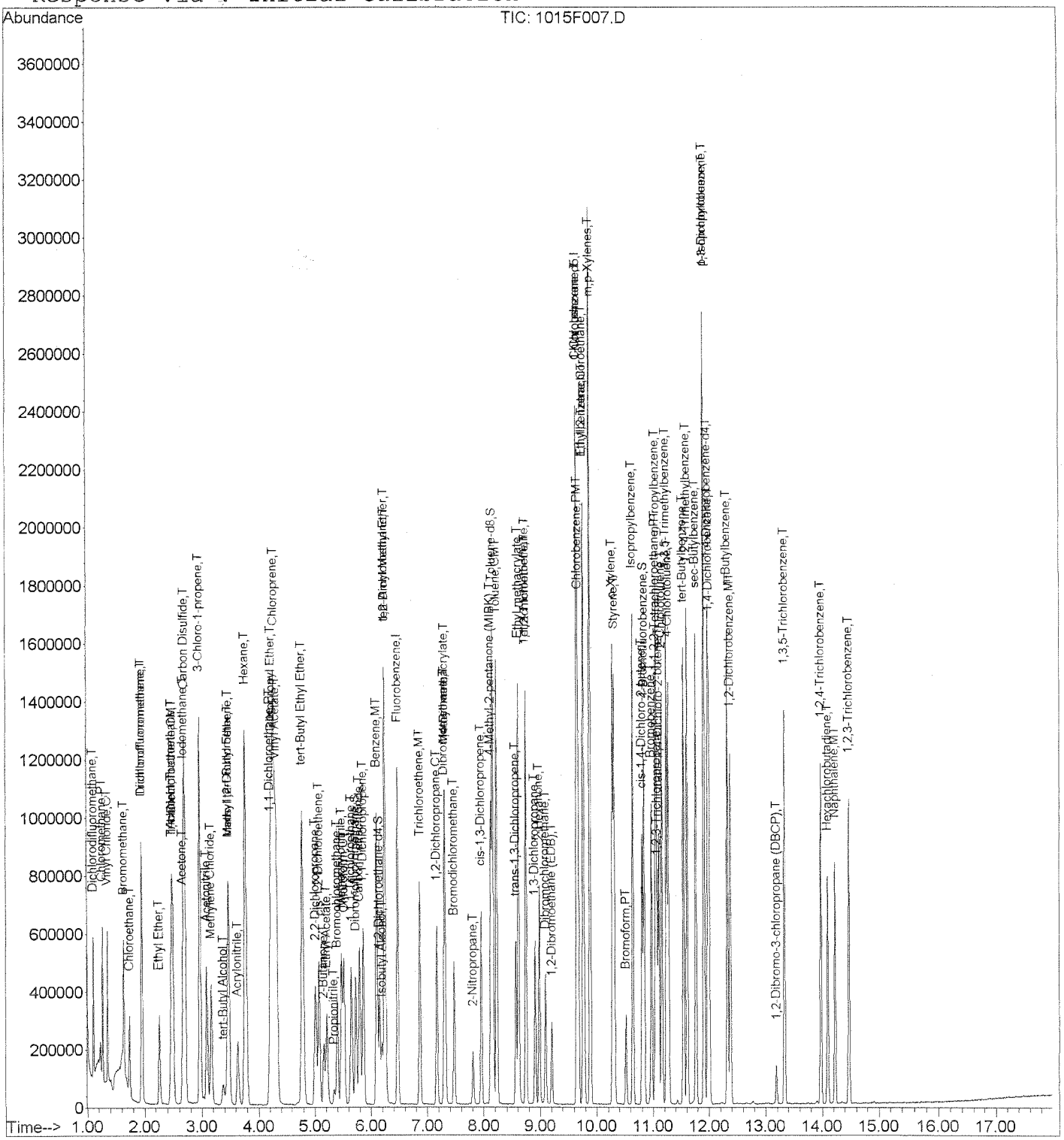
10/15/14

MK 10/29/14

1015F007.D 100814MS27_8260.M Wed Oct 15 15:43:24 2014

Data File : J:\MS27\DATA\101514\1015F007.D Vial: 5
Acq On : 15 Oct 2014 12:07 pm Operator: MK
Sample : K10890-004DMS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:43 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration



Exception Report

Data File: J:\MS27\DATA\101514\1015F004.D
Lab ID: KWG1413956-3
RunType: LCS
Matrix: WATER

Date Acquired: 10/15/2014 10:45
Date Quantitated: 10/15/2014 11:50
Batch ID: KWG1413955
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acrolein	0.0062	0.01	NA	NT
	2-Propanol	0.0058	0.01	NA	
	Acetonitrile	0.0092	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0012	0.01	NA	
Continuing Calibration Recovery	Acrolein	366.2	NA	20	
	2-Chloroethyl Vinyl Ether	-54.4	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0067	0.01	NA	
	Acetonitrile	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0045	0.01	NA	
	1,4-Dioxane	0.0014	0.01	NA	

Primary Review: MK 10/15/14

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F004.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:45	**Quant Date:**	10/15/2014 11:50	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1413956-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	10/15/2014		
Prep Ref:	1385049				

Quant Method:	J:\MS27\METHODS\100814MS27_8			**Calibration ID:**	CAL13596
Title:					
Tune Ref:	J:\MS27\DATA\101514\1015F002.D			**Method ID:**	MJ119
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	6.47	0.00	96	1135933	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	456886	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	447491	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	5.73	0.00	0.00	113	294389	9.47	95	73-122	OK	
1	1,2-Dichloroethane-d4	6.15	0.00	0.00	65	265380	9.27	93	59-127	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1096024	9.64	96	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	409672	9.87	99	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	243178	6.78	6.78		
1	Chloromethane	1.26		0.00	50	296277	6.93	6.93		
1	Vinyl Chloride	1.35		0.00	62	303309	7.85	7.85		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.64	-0.01	0.00	96	196285	7.92	7.92		
1	Chloroethane	1.74		0.00	64	186198	9.60	9.60		
1	Dichlorofluoromethane (CFC 21	1.96		0.00	67	455741	8.67	8.67		
1	Trichlorofluoromethane	1.95		0.00	101	363436	7.47	7.47		
1	Ethyl Ether	2.26		0.00	59	165074	8.51	8.51		
1	Acrolein	2.48		0.00	56	191750	271.14	271		
1	Trichlorotrifluoroethane	2.47		0.00	151	190566	8.25	8.25		
1	1,1-Dichloroethene	2.50		0.00	96	222966	9.16	9.16		
1	Acetone	2.66	0.01	0.00	43	221160	52.70	52.7		
1	Iodomethane	2.68		0.00	142	890187	30.22	30.2		

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

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

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

Data File:	J:\MS27\DATA\101514\1015F004.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:45	**Quant Date:**	10/15/2014 11:50	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1413956-3			**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	2.70		0.00	76	1530271	17.08	17.1		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.97		0.00	76	391842	25.01	25.0		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.09		0.00	40	285105	273.70	274		
1	Methylene Chloride	3.17		0.00	84	255725	7.94	7.94		
1	tert-Butyl Alcohol	3.38		0.00	59	118294	98.15	98.2		
1	Acrylonitrile	3.63		0.00	53	213576	32.96	33.0		
1	Methyl tert-Butyl Ether	3.46		0.00	73	519845	8.19	8.19		
1	trans-1,2-Dichloroethene	3.47		0.00	96	253369	9.04	9.04		
1	n-Hexane	3.77		0.00	57	943443	26.28	26.3		
1	Diisopropyl Ether	4.24	0.01	0.00	45	1463921	17.19	17.2		
1	1,1-Dichloroethane	4.20		0.00	63	456964	9.09	9.09		
1	Vinyl Acetate	4.32		0.00	86	174027	49.81	49.8		
1	Chloroprene	4.28		0.00	53	1147708	26.89	26.9		
1	tert-Butyl Ethyl Ether	4.78		0.00	59	1374414	18.20	18.2		
1	2,2-Dichloropropane	5.02	0.01	0.00	77	357981	8.83	8.83		
1	cis-1,2-Dichloroethene	5.08		0.00	96	280713	8.70	8.70		
1	2-Butanone (MEK)	5.16		0.00	72	91660	49.44	49.4		
1	Ethyl Acetate	5.21		0.00	61	60917	26.05	26.1		
1	Propionitrile	5.34		0.00	54	61782	27.18	27.2		
1	Methacrylonitrile	5.48		0.00	67	208272	25.29	25.3		
1	Bromochloromethane	5.40		0.00	128	133241	9.19	9.19		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.52		0.00	83	441650	8.61	8.61		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.65		0.00	97	375678	8.44	8.44		
1	Carbon Tetrachloride	5.80		0.00	117	337181	8.58	8.58		
1	1,1-Dichloropropene	5.86		0.00	75	334611	8.80	8.80		
1	Isobutyl Alcohol	6.19		0.00	43	130926	263.51	264		
1	Benzene	6.10		0.00	78	1007476	8.28	8.28		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	287503	8.44	8.44		
1	tert-Amyl Methyl Ether	6.25		0.00	55	280460	18.08	18.1		
1	Trichloroethene (TCE)	6.87		0.00	95	267259	8.55	8.55		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.17		0.00	63	256450	8.53	8.53		
1	Dibromomethane	7.30		0.00	93	140158	8.53	8.53		
1	Methyl Methacrylate	7.32		0.00	69	364459	25.29	25.3		
1	1,4-Dioxane	7.32		0.00	88	44862	318.48	318		
1	Bromodichloromethane	7.48		0.00	83	320679	8.24	8.24		
1	2-Nitropropane	7.81		0.00	41	109516	23.75	23.8		
1	2-Chloroethyl Vinyl Ether	7.84		0.00	63	77517	5.42	5.42		

U: Undetected at or above MDL
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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:\MS27\DATA\101514\1015F004.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:45	**Quant Date:**	10/15/2014 11:50	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1413956-3			**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	7.96		0.00	75	384845	8.32	8.32		
1	4-Methyl-2-pentanone (MIBK)	8.13		0.00	58	293652	44.01	44.0		
1	Toluene	8.23		0.00	92	643169	8.60	8.60		
2	n-Octane				85	0d		0.16	U	
2	trans-1,3-Dichloropropene	8.57		0.00	75	294861	8.14	8.14		
2	Ethyl Methacrylate	8.62	0.01	0.00	69	732146	28.33	28.3		
2	1,1,2-Trichloroethane	8.74		0.00	83	171057	9.13	9.13		
2	Tetrachloroethene (PCE)	8.75		0.00	164	234435	9.14	9.14		
2	2-Hexanone	8.99		0.00	57	92164	47.59	47.6		
2	1,3-Dichloropropane	8.91		0.00	76	325920	8.88	8.88		
2	Dibromochloromethane	9.10		0.00	129	239281	8.74	8.74		
2	1,2-Dibromoethane (EDB)	9.21		0.00	107	193609	8.81	8.81		
2	1-Chlorohexane	9.65		0.00	91	308891	7.71	7.71		
2	Chlorobenzene	9.68		0.00	112	734867	9.13	9.13		
2	Ethylbenzene	9.77	0.01	0.00	106	376490	8.80	8.80		
2	1,1,1,2-Tetrachloroethane	9.78		0.00	131	248630	8.56	8.56		
2	m,p-Xylenes	9.89		0.00	106	931393	18.46	18.5		
2	o-Xylene	10.28		0.00	106	453393	9.01	9.01		
2	Styrene	10.31		0.00	103	362200m	8.83	8.83		
2	Bromoform	10.52		0.00	173	148698	8.70	8.70		
2	Isopropylbenzene	10.64		0.00	105	1149205	8.96	8.96		
2	cis-1,4-Dichloro-2-butene	10.81		0.00	89	100411	27.83	27.8		
3	1,1,2,2-Tetrachloroethane	11.03		0.00	83	201434	8.59	8.59		
3	trans-1,4-Dichloro-2-butene	11.10		0.00	53	167318	29.54	29.5		
3	Bromobenzene	10.97		0.00	156	311419	9.12	9.12		
3	n-Propylbenzene	11.05		0.00	91	1380158	9.05	9.05		
3	1,2,3-Trichloropropane	11.08		0.00	110	60645	8.80	8.80		
3	2-Chlorotoluene	11.16		0.00	91	820796	9.16	9.16		
3	1,3,5-Trimethylbenzene	11.24		0.00	105	979791	9.04	9.04		
3	4-Chlorotoluene	11.28		0.00	91	856650	8.83	8.83		
3	tert-Butylbenzene	11.55		0.00	119	844112	8.96	8.96		
3	1,2,4-Trimethylbenzene	11.61		0.00	105	982404	8.93	8.93		
3	sec-Butylbenzene	11.77		0.00	105	1189877	8.85	8.85		
3	4-Isopropyltoluene	11.92		0.00	119	1028441	9.19	9.19		
3	1,3-Dichlorobenzene	11.91		0.00	146	594737	9.08	9.08		
3	1,4-Dichlorobenzene	12.01		0.00	146	601112	9.13	9.13		
3	n-Butylbenzene	12.33		0.00	91	918868	8.70	8.70		
3	1,2-Dichlorobenzene	12.38		0.00	146	535759	8.91	8.91		
3	1,2-Dibromo-3-chloropropane	13.19		0.00	155	31147	8.54	8.54		
3	1,3,5-Trichlorobenzene	13.33		0.00	180	466203	8.81	8.81		
3	1,2,4-Trichlorobenzene	13.98		0.00	180	399328	8.71	8.71		
3	Hexachlorobutadiene	14.10		0.00	225	178381	9.09	9.09		

U: Undetected at or above MDL
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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

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#: Acceptance 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\101514\1015F004.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:45	**Quant Date:**	10/15/2014 11:50	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1413956-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.23		0.00	128	668231	8.57	8.57		
3	1,2,3-Trichlorobenzene	14.47		0.00	180	351038	8.71	8.71		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

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

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

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

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

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

Data File : J:\MS27\DATA\101514\1015F004.D Vial: 4
Acq On : 15 Oct 2014 10:45 am Operator: MK
Sample : 8260 LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:46:42 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1135933	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	456886	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	447491	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	294389	9.47	PPB		0.00
Spiked Amount 10.000			Recovery = 94.70%				
47) 1,2-Dichloroethane-d4	6.15	65	265380	9.27	PPB		0.00
Spiked Amount 10.000			Recovery = 92.70%				
62) Toluene-d8	8.16	98	1096024	9.64	PPB		0.00
Spiked Amount 10.000			Recovery = 96.40%				
84) 4-Bromofluorobenzene	10.84	95	409672	9.87	PPB		0.00
Spiked Amount 10.000			Recovery = 98.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	243178	6.78	PPB		100
3) Chloromethane	1.26	50	296277	6.93	PPB		98
4) Vinyl Chloride	1.35	62	303309	7.85	PPB		98
6) Bromomethane	1.64	96	196285	7.92	PPB		95
7) Chloroethane	1.74	64	186198	9.60	PPB		97
8) Dichlorofluoromethane	1.96	67	455741	8.67	PPB		98
9) Trichlorofluoromethane	1.95	101	363436	7.47	PPB		99
10) Ethyl Ether	2.26	59	165074	8.51	PPB		99
11) Acrolein	2.48	56	191750	271.14	PPB		94
12) Trichlorotrifluoroethane	2.47	151	190566	8.25	PPB		97
13) 1,1-Dichloroethene	2.50	96	222966	9.16	PPB		94
14) Acetone	2.66	43	221160	52.70	PPB		95
15) Iodomethane	2.68	142	890187	30.22	PPB		96
16) Carbon Disulfide	2.70	76	1530271	17.08	PPB		100
18) 3-Chloro-1-propene	2.97	76	391842	25.01	PPB		99
20) Acetonitrile	3.09	40	285105	273.70	PPB		98
21) Methylene Chloride	3.17	84	255725	7.94	PPB		97
22) tert-Butyl Alcohol	3.38	59	118294	98.15	PPB		95
23) Acrylonitrile	3.63	53	213576	32.96	PPB		93
24) Methyl tert-Butyl Ether	3.46	73	519845	8.19	PPB		99
25) trans-1,2-Dichloroethene	3.47	96	253369	9.04	PPB		92
26) Hexane	3.77	57	943443	26.28	PPB		95
27) Diisopropyl Ether	4.24	45	1463921	17.19	PPB		99
28) 1,1-Dichloroethane	4.20	63	456964	9.09	PPB		99
29) Vinyl Acetate	4.32	86	174027	49.81	PPB	#	90
30) Chloroprene	4.28	53	1147708	26.89	PPB		97
31) tert-Butyl Ethyl Ether	4.78	59	1374414	18.20	PPB		98

(#) = qualifier out of range (m) = manual integration
1015F004.D 100814MS27_8260.M Wed Oct 15 11:51:15 2014 Page 1

Data File : J:\MS27\DATA\101514\1015F004.D Vial: 4
Acq On : 15 Oct 2014 10:45 am Operator: MK
Sample : 8260 LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:46:42 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32)	2,2-Dichloropropane	5.02	77	357981	8.83	PPB	99
33)	cis-1,2-Dichloroethene	5.08	96	280713	8.70	PPB	97
34)	2-Butanone	5.16	72	91660	49.44	PPB	99
35)	Ethyl Acetate	5.21	61	60917	26.05	PPB	96
36)	Propionitrile	5.34	54	61782	27.18	PPB	96
37)	Methacrylonitrile	5.48	67	208272	25.29	PPB	90
38)	Bromochloromethane	5.40	128	133241	9.19	PPB	97
40)	Chloroform	5.52	83	441650	8.61	PPB	99
42)	1,1,1-Trichloroethane	5.65	97	375678	8.44	PPB	97
44)	Carbon Tetrachloride	5.80	117	337181	8.58	PPB	100
45)	1,1-Dichloropropene	5.86	75	334611	8.80	PPB	99
46)	Isobutyl Alcohol	6.19	43	130926	263.51	PPB	95
48)	Benzene	6.10	78	1007476	8.28	PPB	98
49)	1,2-Dichloroethane	6.24	62	287503	8.44	PPB	99
50)	tert-Amyl Methyl Ether	6.25	55	280460	18.08	PPB	100
51)	Trichloroethene	6.87	95	267259	8.55	PPB	98
53)	1,2-Dichloropropane	7.17	63	256450	8.53	PPB	95
54)	Dibromomethane	7.30	93	140158	8.53	PPB	99
55)	Methyl methacrylate	7.32	69	364459	25.29	PPB	95
56)	1,4-Dioxane	7.32	88	44862	318.48	PPB	96
57)	Bromodichloromethane	7.48	83	320679	8.24	PPB	97
58)	2-Nitropropane	7.81	41	109516	23.75	PPB	96
59)	2-Chloroethyl Vinyl Ether	7.84	63	77517	5.42	PPB	98
60)	cis-1,3-Dichloropropene	7.96	75	384845	8.32	PPB	97
61)	4-Methyl-2-pentanone (MIBK	8.13	58	293652	44.01	PPB	96
63)	Toluene	8.23	92	643169	8.60	PPB	98
66)	trans-1,3-Dichloropropene	8.57	75	294861	8.14	PPB	99
67)	Ethyl methacrylate	8.62	69	732146	28.33	PPB	96
68)	1,1,2-Trichloroethane	8.74	83	171057	9.13	PPB	99
69)	Tetrachloroethene	8.75	164	234435	9.14	PPB	99
70)	2-Hexanone	8.99	57	92164	47.59	PPB	98
71)	1,3-Dichloropropane	8.91	76	325920	8.88	PPB	95
72)	Dibromochloromethane	9.10	129	239281	8.74	PPB	99
73)	1,2-Dibromoethane (EDB)	9.21	107	193609	8.81	PPB	93
74)	1-Chlorohexane	9.65	91	308891	7.71	PPB	99
75)	Chlorobenzene	9.68	112	734867	9.13	PPB	98
76)	Ethylbenzene	9.77	106	376490	8.80	PPB	99
77)	1,1,1,2-Tetrachloroethane	9.78	131	248630	8.56	PPB	99
78)	m,p-Xylenes	9.89	106	931393	18.46	PPB	99
79)	o-Xylene	10.28	106	453393	9.01	PPB	97
80)	Styrene	10.31	103	362200m	8.83	PPB	

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

Data File : J:\MS27\DATA\101514\1015F004.D Vial: 4
Acq On : 15 Oct 2014 10:45 am Operator: MK
Sample : 8260 LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:46:42 2014 Quant Results File: 100814MS27_8260

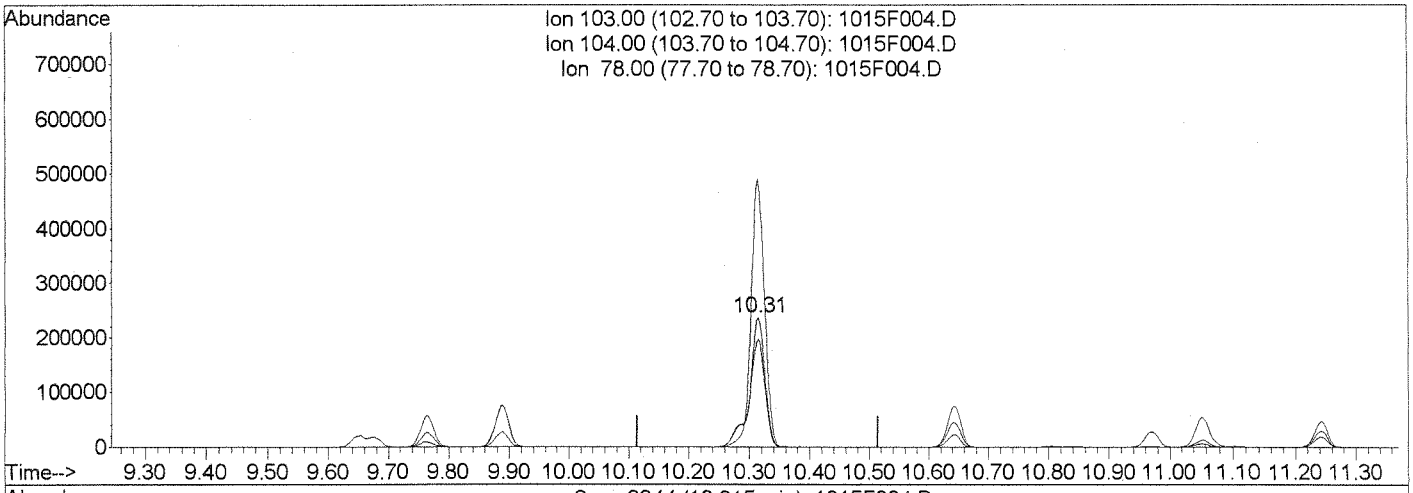
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

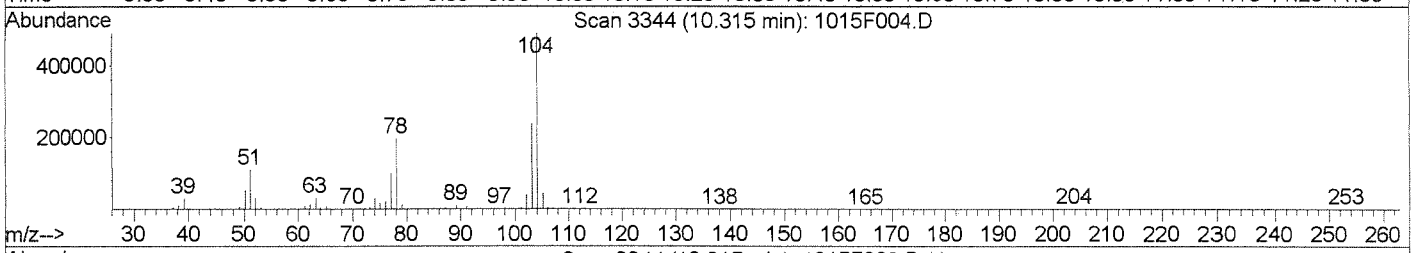
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromoform	10.52	173	148698	8.70	PPB	97
82)	Isopropylbenzene	10.64	105	1149205	8.96	PPB	100
83)	cis-1,4-Dichloro-2-butene	10.81	89	100411	27.83	PPB	95
86)	1,1,2,2-Tetrachloroethane	11.03	83	201434	8.59	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.10	53	167318	29.54	PPB	85
88)	Bromobenzene	10.97	156	311419	9.12	PPB	100
89)	n-Propylbenzene	11.05	91	1380158	9.05	PPB	98
90)	1,2,3-Trichloropropane	11.08	110	60645	8.80	PPB	93
91)	2-Chlorotoluene	11.16	91	820796	9.16	PPB	100
92)	1,3,5-Trimethylbenzene	11.24	105	979791	9.04	PPB	99
93)	4-Chlorotoluene	11.28	91	856650	8.83	PPB	99
94)	tert-Butylbenzene	11.55	119	844112	8.96	PPB	99
95)	1,2,4-Trimethylbenzene	11.61	105	982404	8.93	PPB	100
96)	sec-Butylbenzene	11.77	105	1189877	8.85	PPB	98
97)	p-Isopropyltoluene	11.92	119	1028441	9.19	PPB	99
98)	1,3-Dichlorobenzene	11.91	146	594737	9.08	PPB	99
99)	1,4-Dichlorobenzene	12.01	146	601112	9.13	PPB	99
100)	n-Butylbenzene	12.33	91	918868	8.70	PPB	99
101)	1,2-Dichlorobenzene	12.38	146	535759	8.91	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.19	155	31147	8.54	PPB	96
103)	1,3,5-Trichlorobenzene	13.33	180	466203	8.81	PPB	100
104)	1,2,4-Trichlorobenzene	13.98	180	399328	8.71	PPB	99
105)	Hexachlorobutadiene	14.10	225	178381	9.09	PPB	96
106)	Naphthalene	14.23	128	668231	8.57	PPB	100
107)	1,2,3-Trichlorobenzene	14.47	180	351038	8.71	PPB	97

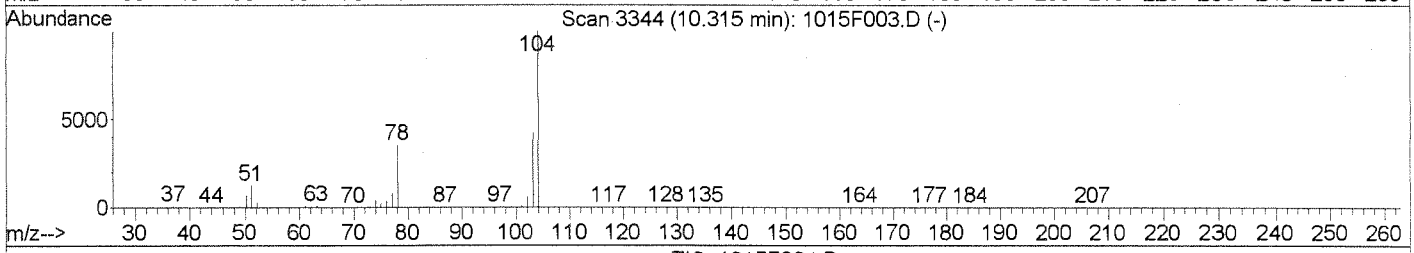
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F004.D Vial: 4
Acq On : 15 Oct 2014 10:45 am Operator: MK
Sample : 8260 LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:50 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F004.D

(80) Styrene (T)

10.31min 10.18PPB

response 417550

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	207.53
78.00	87.30	83.21
0.00	0.00	0.00

Manual Integration:

Before

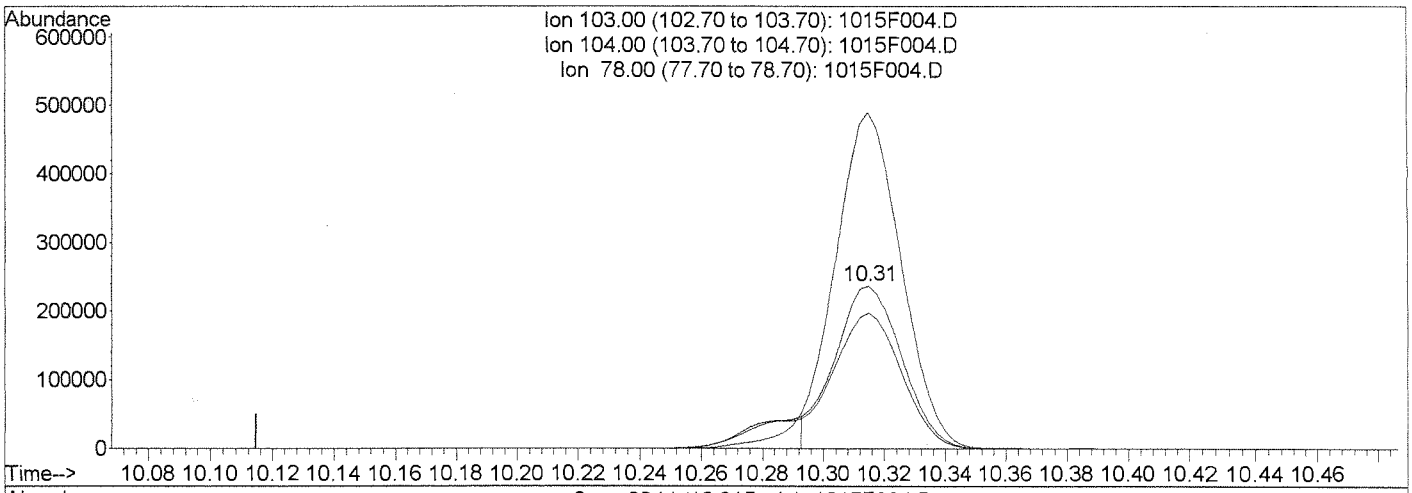
10/15/14

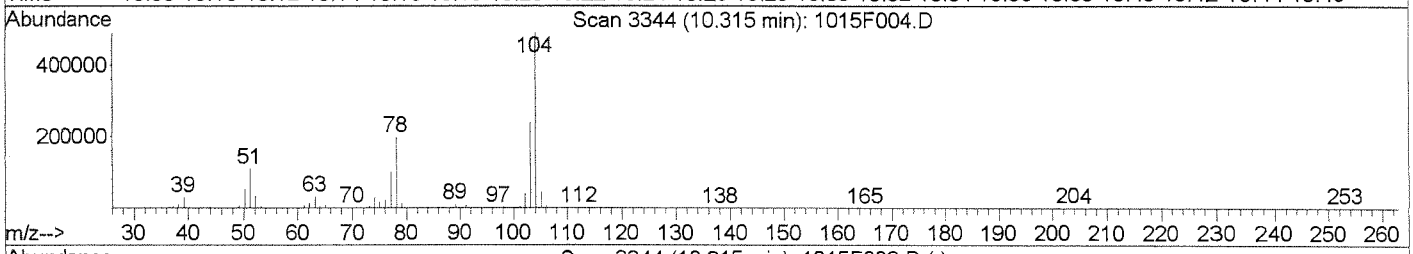
MK

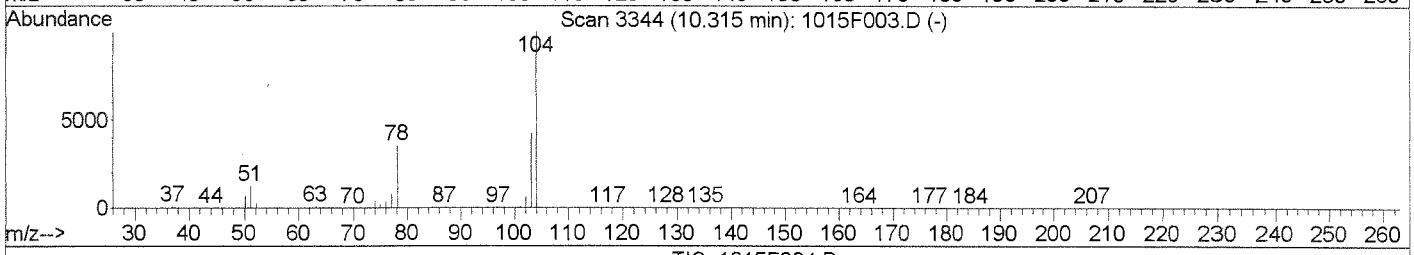
1015F004.D 100814MS27_8260.M Wed Oct 15 11:50:52 2014

Data File : J:\MS27\DATA\101514\1015F004.D Vial: 4
Acq On : 15 Oct 2014 10:45 am Operator: MK
Sample : 8260 LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:50 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F004.D

(80) Styrene (T)

10.31min 8.83PPB m

response 362200

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	207.53
78.00	87.30	83.36
0.00	0.00	0.00

Manual Integration:

After

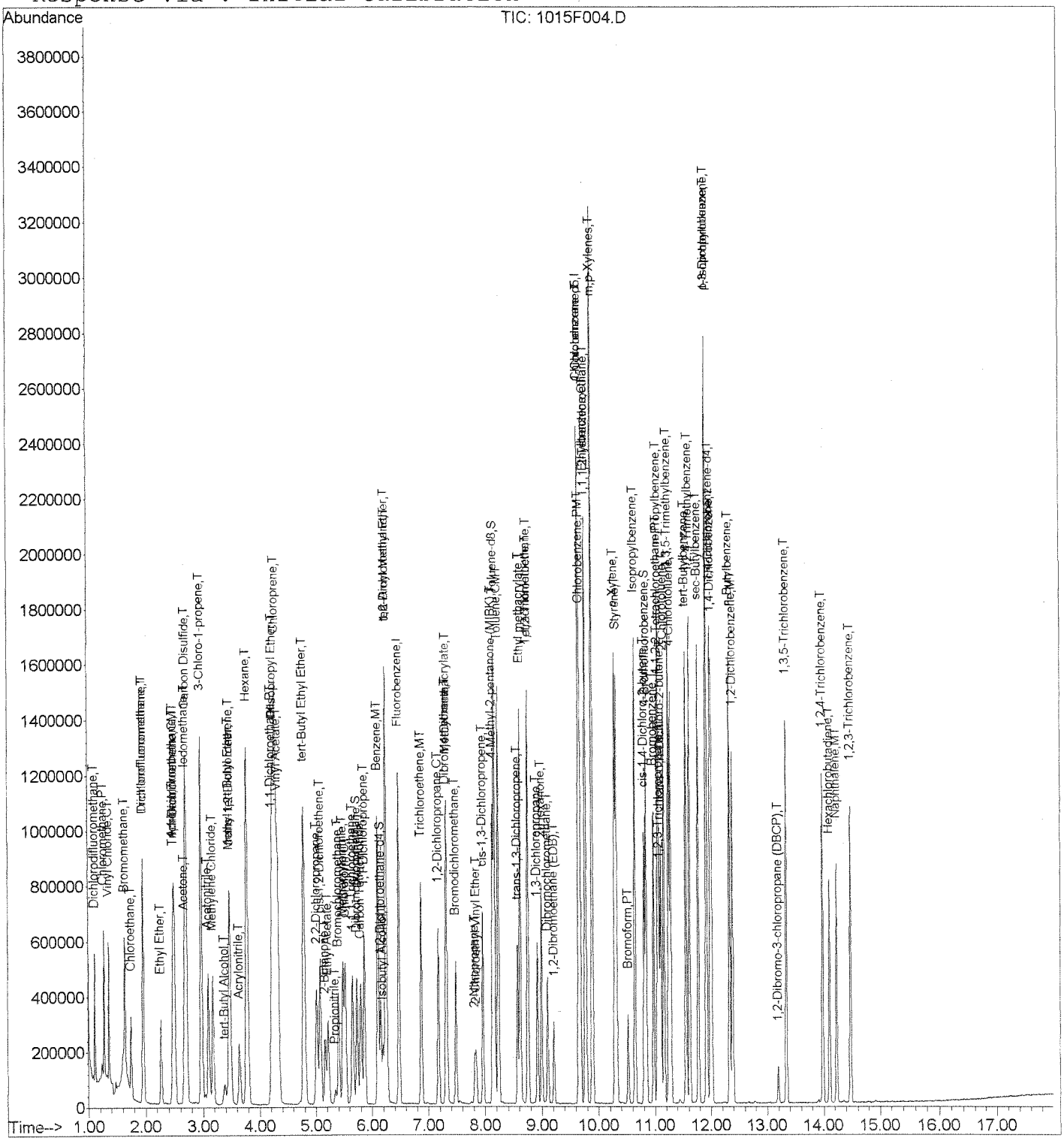
Shoulder

10/15/14

1015F004.D 100814MS27_8260.M Wed Oct 15 11:50:59 2014

Data File : J:\MS27\DATA\101514\1015F004.D Vial: 4
Acq On : 15 Oct 2014 10:45 am Operator: MK
Sample : 8260 LCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:50 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration



Exception Report

Data File: J:\MS27\DATA\101514\1015F005.D
Lab ID: KWG1413956-4
RunType: DLCS
Matrix: WATER

Date Acquired: 10/15/2014 11:12
Date Quantitated: 10/15/2014 11:53
Batch ID: KWG1413955
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acrolein	0.0062	0.01	NA	
	2-Propanol	0.0058	0.01	NA	
	Acetonitrile	0.0092	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0012	0.01	NA	
Continuing Calibration Recovery	Acrolein	366.2	NA	20	
	2-Chloroethyl Vinyl Ether	-54.4	NA	20	
Continuing Calibration Minimum RF	2-Propanol	0.0067	0.01	NA	
	Acetonitrile	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0045	0.01	NA	
	1,4-Dioxane	0.0014	0.01	NA	

Primary Review: MK 10/15/14

Secondary Review: [illegible] 10.19.2014

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F005.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:12	**Quant Date:**	10/15/2014 11:53	**Vial:**	4
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1413956-4			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**	KWG1413956	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1385050	**Prep Date:**	10/15/2014		

Quant Method:	J:\MS27\METHODS\100814MS27_8	**Calibration ID:**	CAL13596
Title:			
Tune Ref:	J:\MS27\DATA\101514\1015F002.D	**Method ID:**	MJ119
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	6.47	0.00	96	1140496	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	461827	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	448951	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	5.73	0.00	0.00	113	302250	9.68	97	73-122	OK	
1	1,2-Dichloroethane-d4	6.15	0.00	0.00	65	269727	9.38	94	59-127	OK	
1	Toluene-d8	8.16	0.00	0.00	98	1114232	9.76	98	65-144	OK	
2	4-Bromofluorobenzene	10.84	0.00	0.00	95	418201	9.97	100	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	228267	6.34	6.34		
1	Chloromethane	1.26		0.00	50	271947	6.34	6.34		
1	Vinyl Chloride	1.35		0.00	62	278661	7.18	7.18		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.64	-0.01	0.00	96	183468	7.34	7.34		
1	Chloroethane	1.74		0.00	64	168541	8.66	8.66		
1	Dichlorofluoromethane (CFC 21	1.96		0.00	67	427404	8.10	8.10		
1	Trichlorofluoromethane	1.95		0.00	101	334295	6.84	6.84		
1	Ethyl Ether	2.26		0.00	59	166596	8.56	8.56		
1	Acrolein	2.48		0.00	56	179390	252.65	253		
1	Trichlorotrifluoroethane	2.47		0.00	151	179670	7.74	7.74		
1	1,1-Dichloroethene	2.50		0.00	96	212628	8.70	8.70		
1	Acetone	2.66	0.01	0.00	43	222190	52.73	52.7		
1	Iodomethane	2.68		0.00	142	831253	28.39	28.4		

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

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

*: Result fails acceptance criteria
#: Acceptance 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\101514\1015F005.D			Instrument:	MS27
Acqu Date:	10/15/2014 11:12	Quant Date:	10/15/2014 11:53	Vial:	4
Run Type:	DLCS			Dilution:	1.0
Lab ID:	KWG1413956-4			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	2.70		0.00	76	1420874	15.79	15.8		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.97		0.00	76	365093	23.21	23.2		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.09		0.00	40	292463	279.64	280		
1	Methylene Chloride	3.17		0.00	84	242495	7.50	7.50		
1	tert-Butyl Alcohol	3.37	-0.01	0.00	59	118993	98.33	98.3		
1	Acrylonitrile	3.64	0.01	0.00	53	220237	33.85	33.9		
1	Methyl tert-Butyl Ether	3.46		0.00	73	532880	8.36	8.36		
1	trans-1,2-Dichloroethene	3.47		0.00	96	237658	8.44	8.44		
1	n-Hexane	3.78	0.01	0.00	57	880411	24.42	24.4		
1	Diisopropyl Ether	4.23		0.00	45	1425777	16.68	16.7		
1	1,1-Dichloroethane	4.21	0.01	0.00	63	432477	8.57	8.57		
1	Vinyl Acetate	4.32		0.00	86	168447	48.02	48.0		
1	Chloroprene	4.28		0.00	53	1078316	25.17	25.2		
1	tert-Butyl Ethyl Ether	4.78		0.00	59	1349962	17.80	17.8		
1	2,2-Dichloropropane	5.02	0.01	0.00	77	330016	8.11	8.11		
1	cis-1,2-Dichloroethene	5.08		0.00	96	270911	8.36	8.36		
1	2-Butanone (MEK)	5.16		0.00	72	92445	49.67	49.7		
1	Ethyl Acetate	5.22	0.01	0.00	61	64802	27.60	27.6		
1	Propionitrile	5.34		0.00	54	61065	26.76	26.8		
1	Methacrylonitrile	5.48		0.00	67	208268	25.19	25.2		
1	Bromochloromethane	5.40		0.00	128	130651	8.98	8.98		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.52		0.00	83	424410	8.24	8.24		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.65		0.00	97	354153	7.93	7.93		
1	Carbon Tetrachloride	5.80		0.00	117	312337	7.92	7.92		
1	1,1-Dichloropropene	5.86		0.00	75	319724	8.37	8.37		
1	Isobutyl Alcohol	6.19		0.00	43	130818	262.24	262		
1	Benzene	6.10		0.00	78	967237	7.92	7.92		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	277334	8.11	8.11		
1	tert-Amyl Methyl Ether	6.25		0.00	55	292085	18.75	18.8		
1	Trichloroethene (TCE)	6.87		0.00	95	252257	8.03	8.03		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.17		0.00	63	246347	8.16	8.16		
1	Dibromomethane	7.30		0.00	93	138527	8.40	8.40		
1	Methyl Methacrylate	7.32		0.00	69	371408	25.67	25.7		
1	1,4-Dioxane	7.31	-0.01	0.00	88	43133	304.98	305		
1	Bromodichloromethane	7.48		0.00	83	310920	7.96	7.96		
1	2-Nitropropane	7.81		0.00	41	111407	24.06	24.1		
1	2-Chloroethyl Vinyl Ether	7.84		0.00	63	78493	5.47	5.47		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
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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:\MS27\DATA\101514\1015F005.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:12	**Quant Date:**	10/15/2014 11:53	**Vial:**	4
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1413956-4			**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	7.96		0.00	75	377568	8.13	8.13		
1	4-Methyl-2-pentanone (MIBK)	8.13		0.00	58	299139	44.66	44.7		
1	Toluene	8.23		0.00	92	604847	8.06	8.06		
2	n-Octane				85	0d		0.16	U	
2	trans-1,3-Dichloropropene	8.57		0.00	75	296340	8.09	8.09		
2	Ethyl Methacrylate	8.62	0.01	0.00	69	733977	28.09	28.1		
2	1,1,2-Trichloroethane	8.74		0.00	83	167272	8.83	8.83		
2	Tetrachloroethene (PCE)	8.75		0.00	164	219255	8.46	8.46		
2	2-Hexanone	8.99		0.00	57	95939	49.01	49.0		
2	1,3-Dichloropropane	8.91		0.00	76	323348	8.72	8.72		
2	Dibromochloromethane	9.10		0.00	129	236388	8.55	8.55		
2	1,2-Dibromoethane (EDB)	9.21		0.00	107	192437	8.66	8.66		
2	1-Chlorohexane	9.65		0.00	91	289689	7.15	7.15		
2	Chlorobenzene	9.68		0.00	112	694673	8.54	8.54		
2	Ethylbenzene	9.76		0.00	106	351083	8.12	8.12		
2	1,1,1,2-Tetrachloroethane	9.78		0.00	131	243487	8.29	8.29		
2	m,p-Xylenes	9.89		0.00	106	877016	17.20	17.2		
2	o-Xylene	10.28		0.00	106	427197	8.39	8.39		
2	Styrene	10.31		0.00	103	343184m	8.28	8.28		
2	Bromoform	10.52		0.00	173	146609	8.49	8.49		
2	Isopropylbenzene	10.64		0.00	105	1093320	8.44	8.44		
2	cis-1,4-Dichloro-2-butene	10.81		0.00	89	96979	26.59	26.6		
3	1,1,2,2-Tetrachloroethane	11.03		0.00	83	204704	8.70	8.70		
3	trans-1,4-Dichloro-2-butene	11.10		0.00	53	165397	29.10	29.1		
3	Bromobenzene	10.97		0.00	156	304213	8.88	8.88		
3	n-Propylbenzene	11.05		0.00	91	1285883	8.41	8.41		
3	1,2,3-Trichloropropane	11.08		0.00	110	60062	8.68	8.68		
3	2-Chlorotoluene	11.16		0.00	91	790103	8.78	8.78		
3	1,3,5-Trimethylbenzene	11.24		0.00	105	929594	8.55	8.55		
3	4-Chlorotoluene	11.28		0.00	91	816331	8.39	8.39		
3	tert-Butylbenzene	11.55		0.00	119	800512	8.47	8.47		
3	1,2,4-Trimethylbenzene	11.61		0.00	105	928776	8.42	8.42		
3	sec-Butylbenzene	11.77		0.00	105	1140063	8.46	8.46		
3	4-Isopropyltoluene	11.92		0.00	119	965356	8.60	8.60		
3	1,3-Dichlorobenzene	11.91		0.00	146	571040	8.69	8.69		
3	1,4-Dichlorobenzene	12.01		0.00	146	563790	8.54	8.54		
3	n-Butylbenzene	12.33		0.00	91	880345	8.31	8.31		
3	1,2-Dichlorobenzene	12.38		0.00	146	519498	8.61	8.61		
3	1,2-Dibromo-3-chloropropane	13.19		0.00	155	30559	8.35	8.35		
3	1,3,5-Trichlorobenzene	13.34	0.01	0.00	180	446870	8.42	8.42		
3	1,2,4-Trichlorobenzene	13.98		0.00	180	389000	8.46	8.46		
3	Hexachlorobutadiene	14.10		0.00	225	170640	8.67	8.67		

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NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance 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\101514\1015F005.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 11:12	**Quant Date:**	10/15/2014 11:53	**Vial:**	4
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1413956-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.23		0.00	128	667501	8.54	8.54		
3	1,2,3-Trichlorobenzene	14.47		0.00	180	345762	8.55	8.55		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

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
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d: Compound manually deleted
NR: Analyte not reported from this analysis

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#: Acceptance 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\101514\1015F005.D Vial: 4
Acq On : 15 Oct 2014 11:12 am Operator: MK
Sample : 8260 DLCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:51:22 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1140496	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	461827	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	448951	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	302250	9.68	PPB		0.00
Spiked Amount 10.000			Recovery = 96.80%				
47) 1,2-Dichloroethane-d4	6.15	65	269727	9.38	PPB		0.00
Spiked Amount 10.000			Recovery = 93.80%				
62) Toluene-d8	8.16	98	1114232	9.76	PPB		0.00
Spiked Amount 10.000			Recovery = 97.60%				
84) 4-Bromofluorobenzene	10.84	95	418201	9.97	PPB		0.00
Spiked Amount 10.000			Recovery = 99.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	228267	6.34	PPB		99
3) Chloromethane	1.26	50	271947	6.34	PPB		99
4) Vinyl Chloride	1.35	62	278661	7.18	PPB		98
6) Bromomethane	1.64	96	183468	7.34	PPB		98
7) Chloroethane	1.74	64	168541	8.66	PPB		98
8) Dichlorofluoromethane	1.96	67	427404	8.10	PPB		97
9) Trichlorofluoromethane	1.95	101	334295	6.84	PPB		97
10) Ethyl Ether	2.26	59	166596	8.56	PPB		98
11) Acrolein	2.48	56	179390	252.65	PPB		94
12) Trichlorotrifluoroethane	2.47	151	179670	7.74	PPB		97
13) 1,1-Dichloroethene	2.50	96	212628	8.70	PPB		93
14) Acetone	2.66	43	222190	52.73	PPB		98
15) Iodomethane	2.68	142	831253	28.39	PPB		97
16) Carbon Disulfide	2.70	76	1420874	15.79	PPB		99
18) 3-Chloro-1-propene	2.97	76	365093	23.21	PPB		100
20) Acetonitrile	3.09	40	292463	279.64	PPB		100
21) Methylene Chloride	3.17	84	242495	7.50	PPB		98
22) tert-Butyl Alcohol	3.37	59	118993	98.33	PPB		98
23) Acrylonitrile	3.64	53	220237	33.85	PPB		95
24) Methyl tert-Butyl Ether	3.46	73	532880	8.36	PPB		99
25) trans-1,2-Dichloroethene	3.47	96	237658	8.44	PPB		94
26) Hexane	3.78	57	880411	24.42	PPB		95
27) Diisopropyl Ether	4.23	45	1425777	16.68	PPB		100
28) 1,1-Dichloroethane	4.21	63	432477	8.57	PPB		98
29) Vinyl Acetate	4.32	86	168447	48.02	PPB	#	88
30) Chloroprene	4.28	53	1078316	25.17	PPB		100
31) tert-Butyl Ethyl Ether	4.78	59	1349962	17.80	PPB		99

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

Data File : J:\MS27\DATA\101514\1015F005.D Vial: 4
Acq On : 15 Oct 2014 11:12 am Operator: MK
Sample : 8260 DLCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:51:22 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) 2,2-Dichloropropane	5.02	77	330016	8.11	PPB	97
33) cis-1,2-Dichloroethene	5.08	96	270911	8.36	PPB	98
34) 2-Butanone	5.16	72	92445	49.67	PPB	91
35) Ethyl Acetate	5.22	61	64802	27.60	PPB	96
36) Propionitrile	5.34	54	61065	26.76	PPB	96
37) Methacrylonitrile	5.48	67	208268	25.19	PPB	94
38) Bromochloromethane	5.40	128	130651	8.98	PPB	99
40) Chloroform	5.52	83	424410	8.24	PPB	98
42) 1,1,1-Trichloroethane	5.65	97	354153	7.93	PPB	99
44) Carbon Tetrachloride	5.80	117	312337	7.92	PPB	99
45) 1,1-Dichloropropene	5.86	75	319724	8.37	PPB	97
46) Isobutyl Alcohol	6.19	43	130818	262.24	PPB	97
48) Benzene	6.10	78	967237	7.92	PPB	99
49) 1,2-Dichloroethane	6.24	62	277334	8.11	PPB	98
50) tert-Amyl Methyl Ether	6.25	55	292085	18.75	PPB	98
51) Trichloroethene	6.87	95	252257	8.03	PPB	98
53) 1,2-Dichloropropane	7.17	63	246347	8.16	PPB	97
54) Dibromomethane	7.30	93	138527	8.40	PPB	99
55) Methyl methacrylate	7.32	69	371408	25.67	PPB	93
56) 1,4-Dioxane	7.31	88	43133	304.98	PPB	97
57) Bromodichloromethane	7.48	83	310920	7.96	PPB	100
58) 2-Nitropropane	7.81	41	111407	24.06	PPB	96
59) 2-Chloroethyl Vinyl Ether	7.84	63	78493	5.47	PPB	96
60) cis-1,3-Dichloropropene	7.96	75	377568	8.13	PPB	95
61) 4-Methyl-2-pentanone (MIBK	8.13	58	299139	44.66	PPB	95
63) Toluene	8.23	92	604847	8.06	PPB	97
66) trans-1,3-Dichloropropene	8.57	75	296340	8.09	PPB	97
67) Ethyl methacrylate	8.62	69	733977	28.09	PPB	96
68) 1,1,2-Trichloroethane	8.74	83	167272	8.83	PPB	98
69) Tetrachloroethene	8.75	164	219255	8.46	PPB	96
70) 2-Hexanone	8.99	57	95939	49.01	PPB	92
71) 1,3-Dichloropropane	8.91	76	323348	8.72	PPB	98
72) Dibromochloromethane	9.10	129	236388	8.55	PPB	98
73) 1,2-Dibromoethane (EDB)	9.21	107	192437	8.66	PPB	96
74) 1-Chlorohexane	9.65	91	289689	7.15	PPB	99
75) Chlorobenzene	9.68	112	694673	8.54	PPB	97
76) Ethylbenzene	9.76	106	351083	8.12	PPB	99
77) 1,1,1,2-Tetrachloroethane	9.78	131	243487	8.29	PPB	98
78) m,p-Xylenes	9.89	106	877016	17.20	PPB	98
79) o-Xylene	10.28	106	427197	8.39	PPB	99
80) Styrene	10.31	103	343184m	8.28	PPB	

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

Data File : J:\MS27\DATA\101514\1015F005.D Vial: 4
Acq On : 15 Oct 2014 11:12 am Operator: MK
Sample : 8260 DLCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:51:22 2014 Quant Results File: 100814MS27_8260

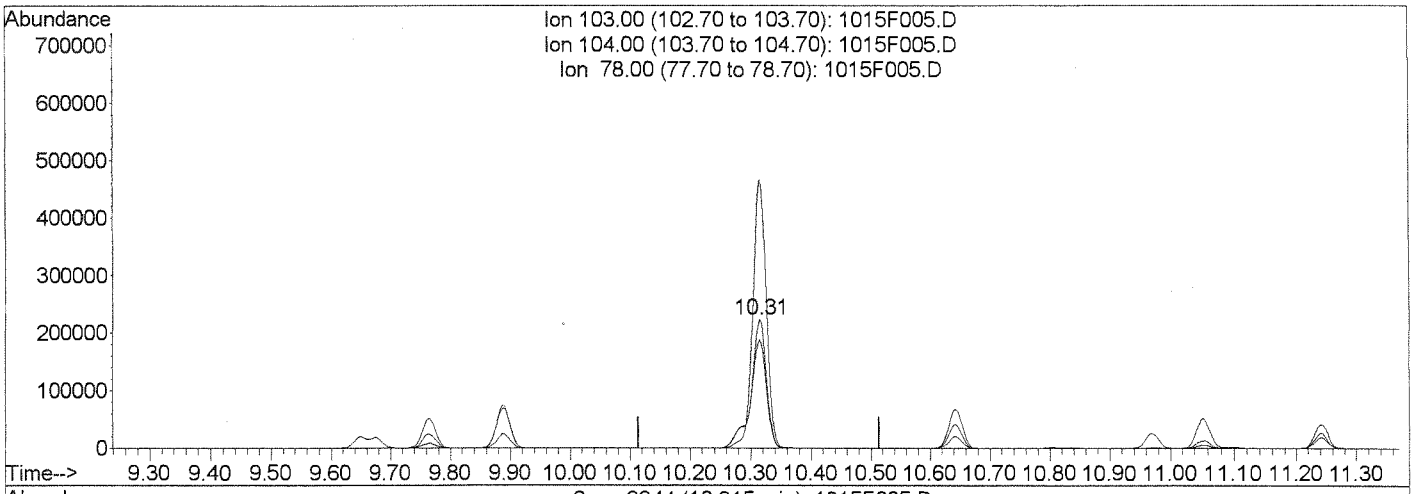
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

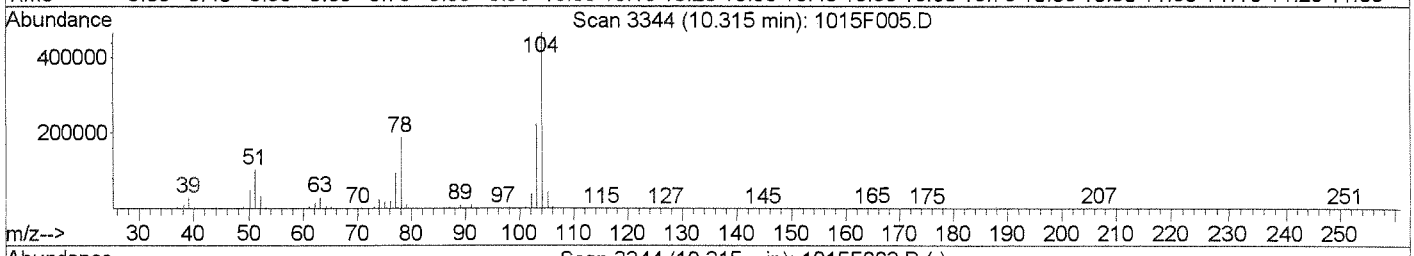
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
81)	Bromoform	10.52	173	146609	8.49	PPB	98
82)	Isopropylbenzene	10.64	105	1093320	8.44	PPB	99
83)	cis-1,4-Dichloro-2-butene	10.81	89	96979	26.59	PPB	94
86)	1,1,2,2-Tetrachloroethane	11.03	83	204704	8.70	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.10	53	165397	29.10	PPB	86
88)	Bromobenzene	10.97	156	304213	8.88	PPB	98
89)	n-Propylbenzene	11.05	91	1285883	8.41	PPB	98
90)	1,2,3-Trichloropropane	11.08	110	60062	8.68	PPB	88
91)	2-Chlorotoluene	11.16	91	790103	8.78	PPB	99
92)	1,3,5-Trimethylbenzene	11.24	105	929594	8.55	PPB	97
93)	4-Chlorotoluene	11.28	91	816331	8.39	PPB	99
94)	tert-Butylbenzene	11.55	119	800512	8.47	PPB	99
95)	1,2,4-Trimethylbenzene	11.61	105	928776	8.42	PPB	98
96)	sec-Butylbenzene	11.77	105	1140063	8.46	PPB	99
97)	p-Isopropyltoluene	11.92	119	965356	8.60	PPB	98
98)	1,3-Dichlorobenzene	11.91	146	571040	8.69	PPB	99
99)	1,4-Dichlorobenzene	12.01	146	563790	8.54	PPB	99
100)	n-Butylbenzene	12.33	91	880345	8.31	PPB	99
101)	1,2-Dichlorobenzene	12.38	146	519498	8.61	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.19	155	30559	8.35	PPB	97
103)	1,3,5-Trichlorobenzene	13.34	180	446870	8.42	PPB	96
104)	1,2,4-Trichlorobenzene	13.98	180	389000	8.46	PPB	99
105)	Hexachlorobutadiene	14.10	225	170640	8.67	PPB	99
106)	Naphthalene	14.23	128	667501	8.54	PPB	99
107)	1,2,3-Trichlorobenzene	14.47	180	345762	8.55	PPB	97

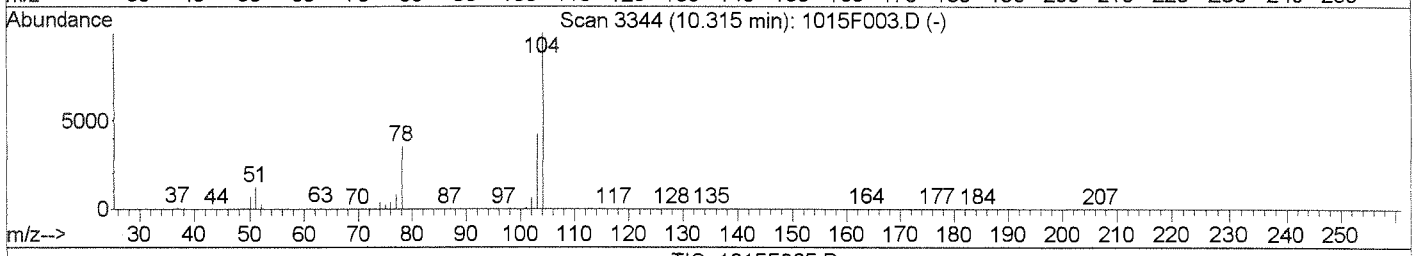
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F005.D Vial: 4
Acq On : 15 Oct 2014 11:12 am Operator: MK
Sample : 8260 DLCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:52 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F005.D

(80) Styrene (T)

10.31min 9.53PPB

response 395264

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.70
78.00	87.30	84.01
0.00	0.00	0.00

Manual Integration:

Before

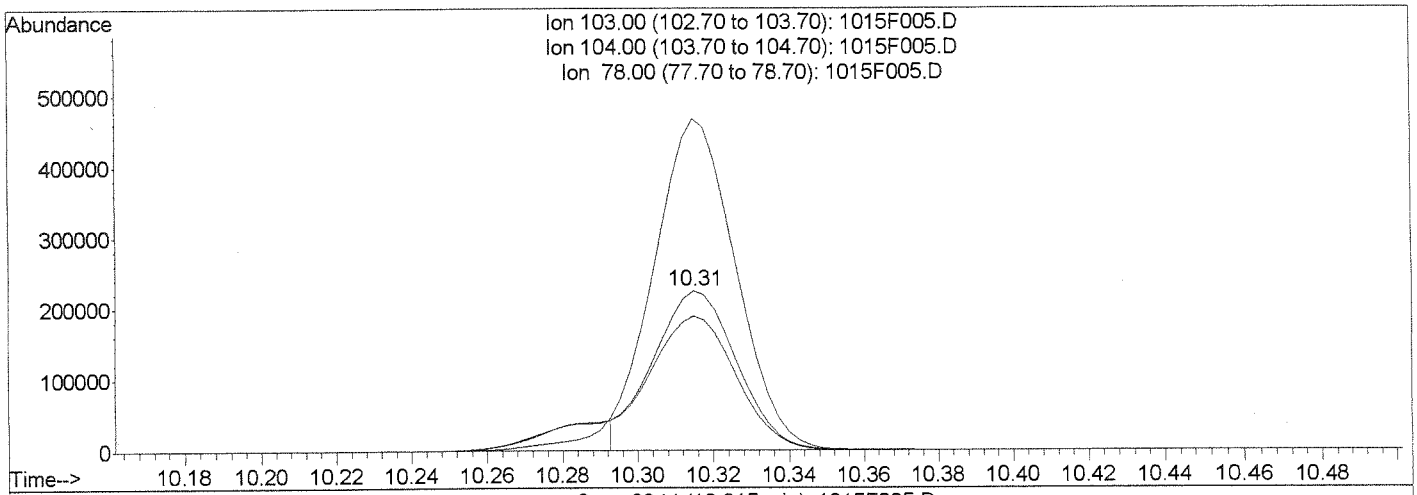
10/15/14 MK

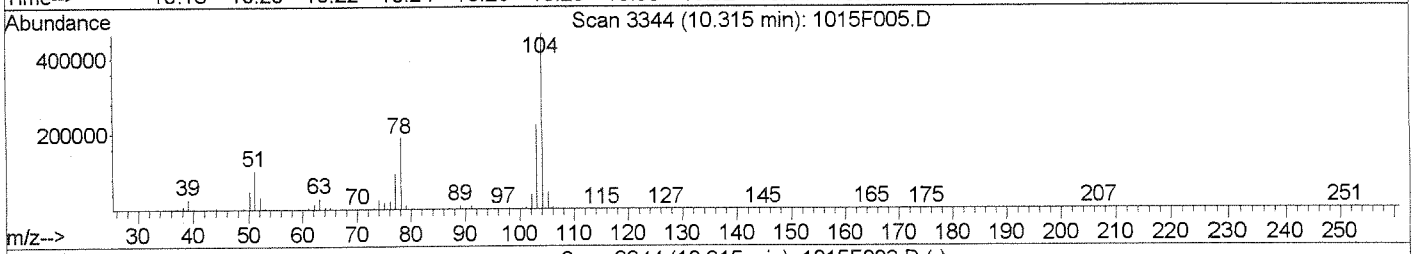
1015F005.D 100814MS27_8260.M Wed Oct 15 11:53:08 2014

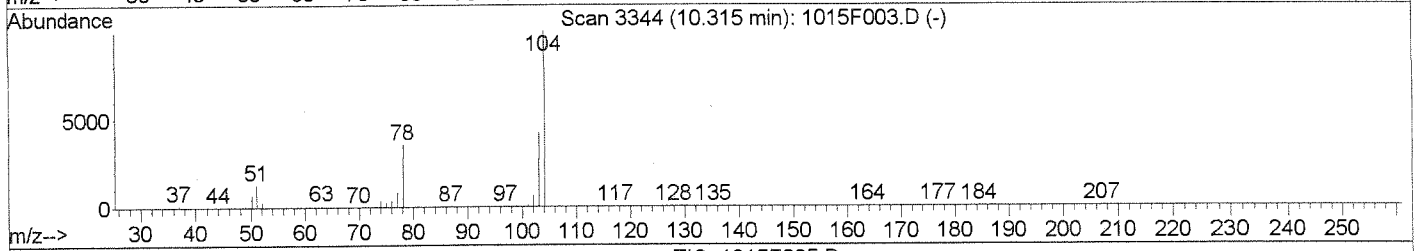
Data File : J:\MS27\DATA\101514\1015F005.D
Acq On : 15 Oct 2014 11:12 am
Sample : 8260 DLCS
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 15 11:53 2014

Vial: 4
Operator: MK
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F005.D

(80) Styrene (T)

10.31min 8.28PPB m

response 343184

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.70
78.00	87.30	84.12
0.00	0.00	0.00

Manual Integration:

After

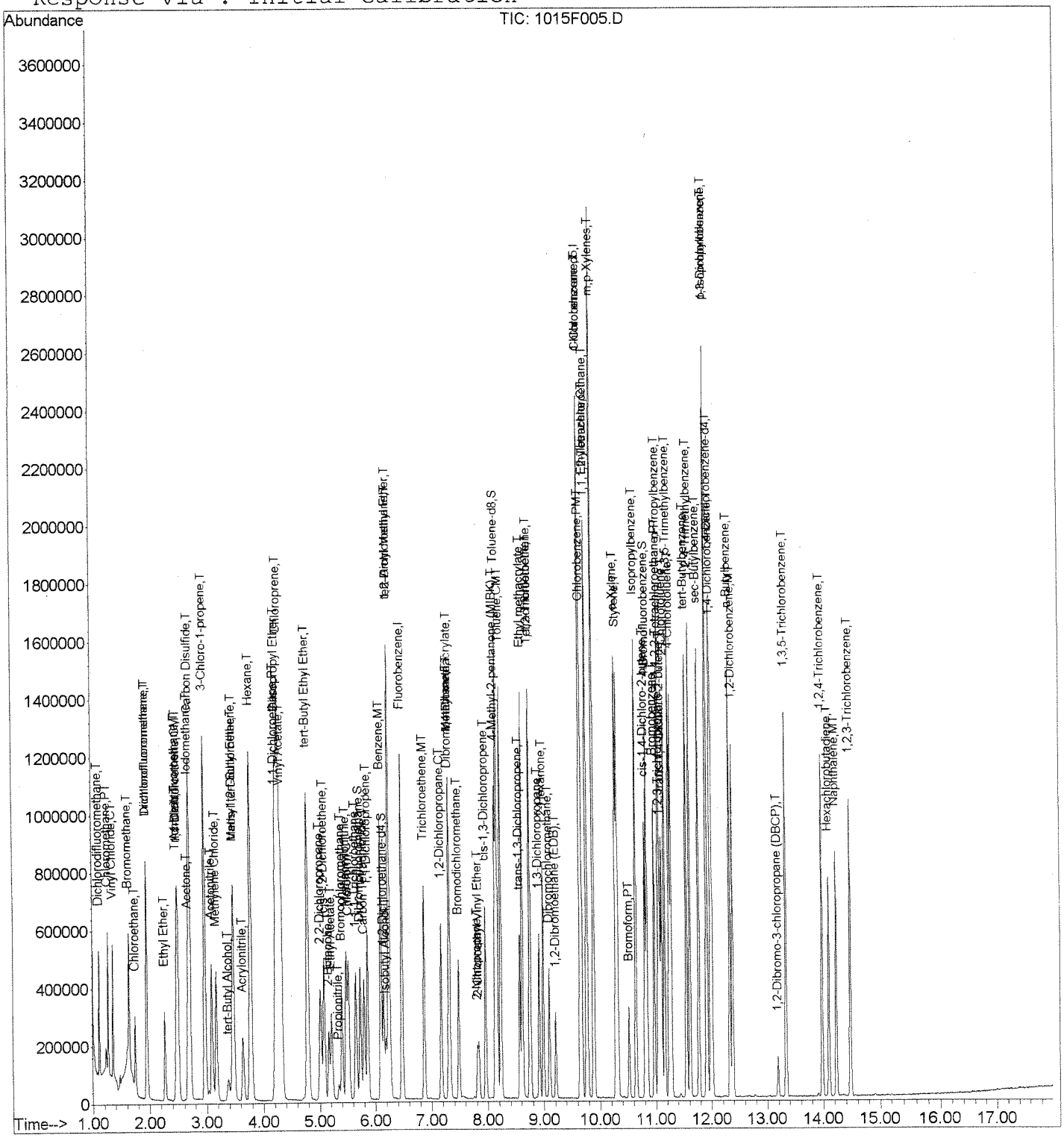
Shoulder

10/15/14

1015F005.D 100814MS27_8260.M Wed Oct 15 11:53:16 2014

Data File : J:\MS27\DATA\101514\1015F005.D Vial: 4
Acq On : 15 Oct 2014 11:12 am Operator: MK
Sample : 8260 DLCS Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 11:53 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration



Date: 10/8/14

By: KR

IS/SS Std. ID: 76voA-39B10/8

ALS Environmental
Injection Log
MS27 - Agilent 5975C

Tune File: BFBatune.U

New Tune: yes

CCV Std ID: See prepsheet

MS/DMS/LCS/ICV Std ID:

BFB Std. ID: 76voA-31F10/20

ICAL Date: 10/8/14 Cal 13596

Second RV: 10/9KY

LIMS ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	100BF001	8260-Soil Md	4.4µ→4mL		
2	IB	2				
3	8260 Ical 0.1	4				
4	0.2	5				
5	0.5	6				
6	1	7				
7	2	8				
8	5	9				
9	10	10				
10	20	11				
11	40	12				
12	60	13				
13	80	14				
14	IB	15				
15	IB	16				
16	ICV	17-18				F/C KR NR instructed
17	IB	19				
18	BFB	20		4.4µ→4mL		
19	Mix 6 ICV	21				GMcl
20						
21						
22						
23						
24						
25						
26						
27						

INTIAL CALIBRATION CURVE

Date 10/8/17 Analysis: 8260

Prepared By KR Instrument: MJ27

Matrix: Water

Stock Solution #1 ___ Analytes: Surrogate Init. Concentration: 100ppm

Stock Solution #2 76w0A-588 10/15 Analytes: Low 8260 Init. Concentration: 5/10/20/100/200ppm

Stock Solution #3 584 10/15 Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm

Stock Solution #4 578 10/15 Analytes: Low Ketones Init. Concentration: 200ppm

Stock Solution #5 5811 1/18 Analytes: Ketones Init. Concentration: 2000ppm

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)	Aliquot of Stock Solution #5 (µL)	Final Conc. of #5 (µg/L)	Final Volume (mL)
		1	0.1			1	4			50
		2	0.2			2	8			50
		5.0	0.5			5	20			50
2.0	4	10	1			10	40			50
3.0	6			2.0	2			2	80	50
4.0	8			5.0	5			2.5	100	50
5.0	10			10	10			5.0	200	50
6	12			20	20			10	400	50
7	14			40	40			20	800	50
8	16			60	60			40	1600	50
10	20			80	80			50	2000	50

8260 ICV: 10uL of 50/250ppm Accustd ICV (76w0A-538 10/4/17) + 50uL of 100ppm Acrolein (76w0A-576 10/4/17) +

5uL of 100ppm Dichlorofluoromethane (76w0A-526 10/10/17) + 5uL of 200ppm n-Octane/TBF/Tetrahydrafuran (76w0A-575 10/15/17

5uL of 100ppm Oxygenates (76w0A-526 10/10/17) + 7.5uL of Appendix ICV mix(76w0A-590 10/15/17) + 25uL of 1000ppm 2-Propanol(76w0A-570 10/11/17)

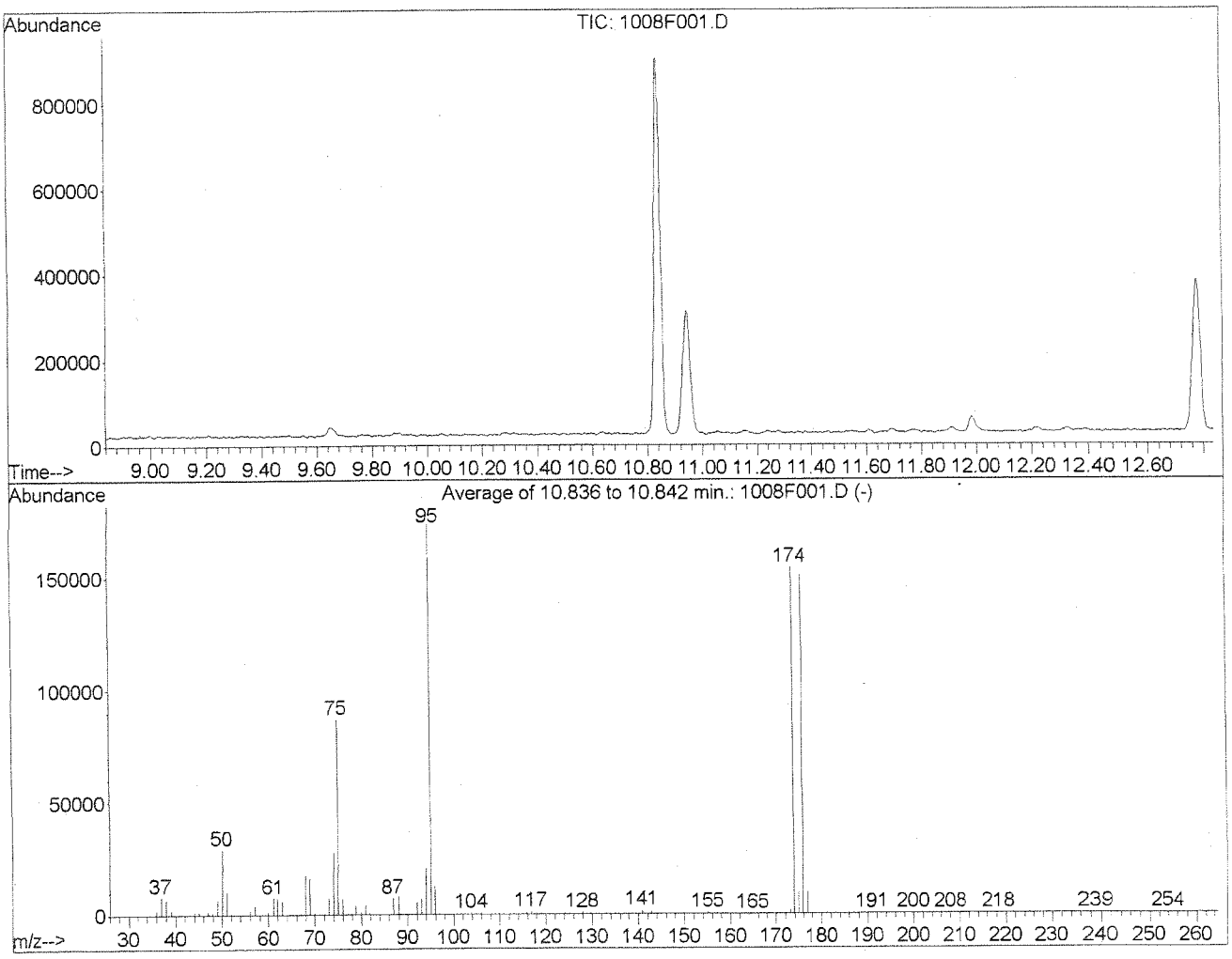
5uL of 100ppm CLP ICV (76w0A-595 10/15/17) 5µL of 1,3-Butadiene ICV 76w0A-590 10/15/17

303

BFB

Data File : J:\MS27\DATA\100814\1008F001.D
Acq On : 8 Oct 2014 12:50 pm
Sample : BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS27\METHODS\093014MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B

Vial: 1
Operator: KR
Inst : MS27
Multiplr: 1.00



KR 10/8/14

AutoFind: Scans 3531, 3532, 3533; Background Corrected with Scan 3516

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	29156	PASS
75	95	30	60	50.0	87017	PASS
95	95	100	100	100.0	173967	PASS
96	95	5	9	7.2	12600	PASS
173	174	0.00	2	1.0	1571	PASS
174	95	50	120	88.6	154176	PASS
175	174	5	9	6.0	9302	PASS
176	174	95	101	97.9	150954	PASS
177	176	5	9	6.3	9507	PASS

1008F001.D 093014MS27_8260.M Wed Oct 08 13:16:33 2014

10/9/14

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F002.D Vial: 2
Acq On : 8 Oct 2014 1:17 pm Operator: KR
Sample : IB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 13:36:16 2014 Quant Results File: 093014MS27_8260

Quant Method : J:\MS27\METHODS\093014MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Mon Oct 06 15:11:43 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/8/14

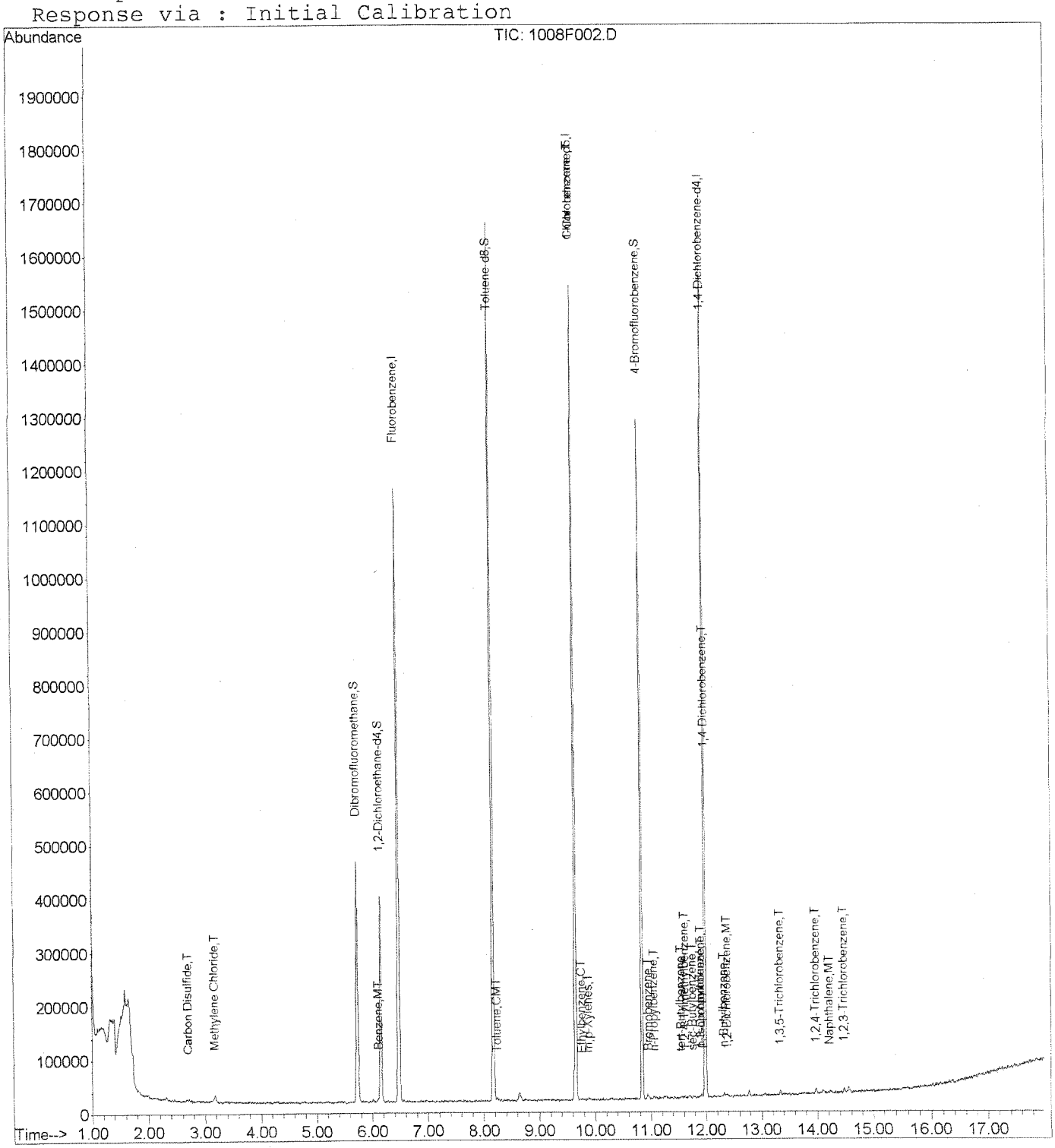
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1093778	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	458116	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	437520	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	287499	9.68	PPB		0.00
Spiked Amount 10.000			Recovery =	96.80%			
47) 1,2-Dichloroethane-d4	6.15	65	275837	8.92	PPB		0.00
Spiked Amount 10.000			Recovery =	89.20%			
62) Toluene-d8	8.16	98	1080400	10.08	PPB		0.02
Spiked Amount 10.000			Recovery =	100.80%			
84) 4-Bromofluorobenzene	10.84	95	408014	9.66	PPB		0.00
Spiked Amount 10.000			Recovery =	96.60%			
Target Compounds							Qvalue
16) Carbon Disulfide	2.70	76	1748	0.03	PPB		95
21) Methylene Chloride	3.17	84	7257	0.25	PPB		90
48) Benzene	6.11	78	5316	0.05	PPB		93
63) Toluene	8.23	92	2210	0.03	PPB	#	65
74) 1-Chlorohexane	9.65	91	2464	0.06	PPB		86
76) Ethylbenzene	9.76	106	779	0.02	PPB	#	36
78) m,p-Xylenes	9.89	106	1608	0.03	PPB	#	77
88) Bromobenzene	10.97	156	569	0.02	PPB	#	52
89) n-Propylbenzene	11.06	91	3225	0.02	PPB		91
94) tert-Butylbenzene	11.54	119	1638	0.02	PPB		96
95) 1,2,4-Trimethylbenzene	11.61	105	2751	0.02	PPB		81
96) sec-Butylbenzene	11.76	105	2501	0.02	PPB		82
97) p-Isopropyltoluene	11.92	119	2957	0.03	PPB		71
98) 1,3-Dichlorobenzene	11.91	146	1920	0.03	PPB		77
99) 1,4-Dichlorobenzene	12.01	146	2071	0.03	PPB		85
100) n-Butylbenzene	12.33	91	3080	0.03	PPB		88
101) 1,2-Dichlorobenzene	12.38	146	1218	0.02	PPB	#	66
103) 1,3,5-Trichlorobenzene	13.33	180	2535	0.05	PPB		88
104) 1,2,4-Trichlorobenzene	13.97	180	2472	0.06	PPB		82
106) Naphthalene	14.23	128	3102	0.04	PPB		81
107) 1,2,3-Trichlorobenzene	14.48	180	1800	0.05	PPB	#	55

(#) = qualifier out of range (m) = manual integration
1008F002.D 093014MS27_8260.M Wed Oct 08 13:48:14 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F002.D Vial: 2
Acq On : 8 Oct 2014 1:17 pm Operator: KR
Sample : IB Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 13:48 2014 Quant Results File: 093014MS27_8

Method : J:\MS27\METHODS\093014MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Mon Oct 06 15:11:43 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:01:43 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/8/14

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene	6.47	96	1052318	10.00 PPB		0.00
64) Chlorobenzene-d5	9.65	82	441257	10.00 PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	425859	10.00 PPB		0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	281829	9.86 PPB		0.00
Spiked Amount 10.000			Recovery =	98.60%		
47) 1,2-Dichloroethane-d4	6.15	65	267313	8.98 PPB		0.00
Spiked Amount 10.000			Recovery =	89.80%		
62) Toluene-d8	8.16	98	1044479	10.13 PPB		0.00
Spiked Amount 10.000			Recovery =	101.30%		
84) 4-Bromofluorobenzene	10.84	95	400069	9.83 PPB		0.00
Spiked Amount 10.000			Recovery =	98.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	3224	0.10 PPB		87
3) Chloromethane	1.26	50	4244	0.11 PPB		96
4) Vinyl Chloride	1.35	62	2920	0.08 PPB	#	39
5) 1,3-Butadiene	1.38	54	2621	0.09 PPB		75
6) Bromomethane	1.65	96	4026	0.18 PPB		87
8) Dichlorofluoromethane	1.96	67	3552	0.08 PPB		95
9) Trichlorofluoromethane	1.95	101	3756	0.09 PPB		93
12) Trichlorotrifluoroethane	2.48	151	2107	0.14 PPB	#	57
14) Acetone	2.67	43	16218	3.56 PPB		89
16) Carbon Disulfide	2.70	76	8181	0.15 PPB		95
21) Methylene Chloride	3.17	84	9475	0.34 PPB		91
24) Methyl tert-Butyl Ether	3.47	73	9331	0.16 PPB		90
27) Diisopropyl Ether	4.24	45	7893m	0.10 PPB		
28) 1,1-Dichloroethane	4.20	63	4575m	0.10 PPB		
30) Chloroprene	4.27	53	13701m	0.32 PPB		
31) tert-Butyl Ethyl Ether	4.80	59	5888	0.08 PPB		88
33) cis-1,2-Dichloroethene	5.07	96	2992m	0.11 PPB		
34) 2-Butanone	5.18	72	6701	3.65 PPB	#	66
40) Chloroform	5.52	83	3956	0.08 PPB		93
42) 1,1,1-Trichloroethane	5.65	97	3700	0.09 PPB		93
44) Carbon Tetrachloride	5.80	117	3039m	0.09 PPB		
45) 1,1-Dichloropropene	5.86	75	3295	0.10 PPB		78
48) Benzene	6.10	78	13622	0.13 PPB		98
49) 1,2-Dichloroethane	6.25	62	2708m	0.08 PPB		
51) Trichloroethene	6.87	95	3191	0.12 PPB	#	59
53) 1,2-Dichloropropane	7.17	63	2796	0.10 PPB		82
54) Dibromomethane	7.29	93	1440m	0.09 PPB		

(#) = qualifier out of range (m) = manual integration
1008F004.D 100814MS27_8260.M Wed Oct 08 17:07:19 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:01:43 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

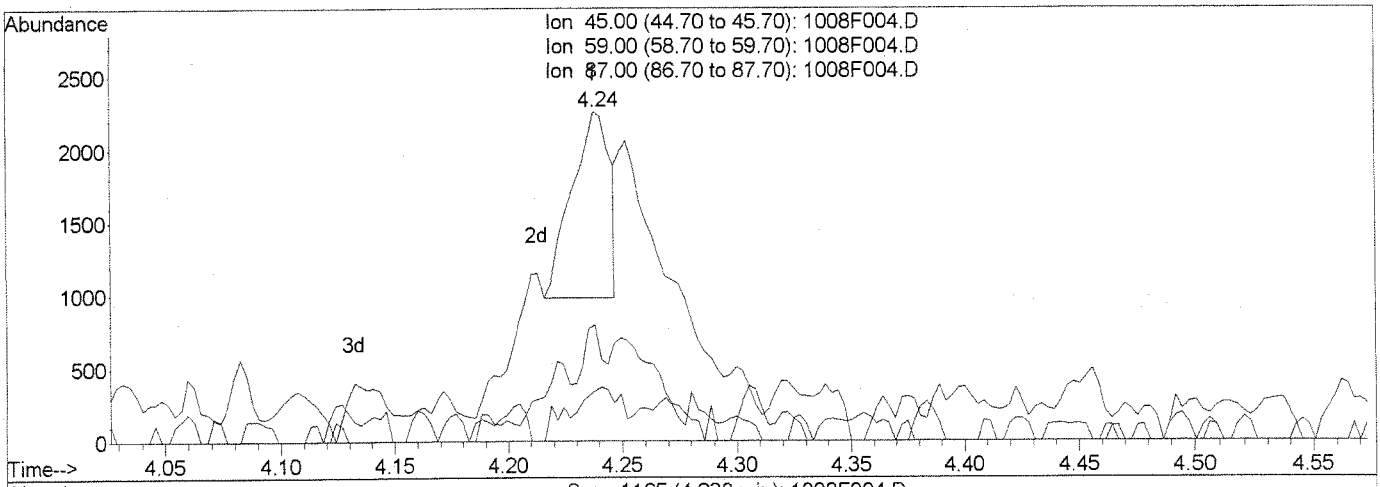
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
57) Bromodichloromethane	7.48	83	3749	0.10	PPB		68
59) 2-Chloroethyl Vinyl Ether	7.85	63	1490m	0.11	PPB		
60) cis-1,3-Dichloropropene	7.96	75	4116	0.10	PPB		97
61) 4-Methyl-2-pentanone (MIBK	8.14	58	29257	4.26	PPB	#	71
63) Toluene	8.23	92	6314	0.10	PPB		88
65) n-Octane	8.30	85	1580	0.12	PPB	#	75
66) trans-1,3-Dichloropropene	8.57	75	3409	0.09	PPB		71
69) Tetrachloroethene	8.76	164	2306	0.11	PPB		82
70) 2-Hexanone	8.99	57	6954	3.23	PPB	#	78
71) 1,3-Dichloropropane	8.91	76	3551	0.10	PPB		88
72) Dibromochloromethane	9.10	129	2661	0.10	PPB		97
73) 1,2-Dibromoethane (EDB)	9.21	107	1999	0.10	PPB		88
74) 1-Chlorohexane	9.65	91	4369	0.12	PPB		70
75) Chlorobenzene	9.68	112	7060	0.10	PPB		90
76) Ethylbenzene	9.76	106	4234	0.11	PPB	#	74
77) 1,1,1,2-Tetrachloroethane	9.78	131	2798	0.11	PPB		86
78) m,p-Xylenes	9.89	106	8139	0.18	PPB		95
79) o-Xylene	10.28	106	4642	0.10	PPB		83
80) Styrene	10.32	103	3960	0.11	PPB		90
81) Bromoform	10.52	173	1758	0.11	PPB		91
82) Isopropylbenzene	10.64	105	9579	0.08	PPB		90
83) cis-1,4-Dichloro-2-butene	10.81	89	1513	0.40	PPB	#	66
86) 1,1,2,2-Tetrachloroethane	11.04	83	1898	0.07	PPB		82
88) Bromobenzene	10.97	156	2964	0.09	PPB	#	47
89) n-Propylbenzene	11.05	91	14595	0.09	PPB		96
91) 2-Chlorotoluene	11.16	91	7787	0.08	PPB		94
92) 1,3,5-Trimethylbenzene	11.24	105	9164	0.08	PPB		98
93) 4-Chlorotoluene	11.28	91	8621	0.09	PPB		88
94) tert-Butylbenzene	11.55	119	8417	0.09	PPB		98
95) 1,2,4-Trimethylbenzene	11.61	105	10055	0.09	PPB		94
96) sec-Butylbenzene	11.77	105	12066	0.09	PPB		93
97) p-Isopropyltoluene	11.92	119	9254	0.08	PPB		96
98) 1,3-Dichlorobenzene	11.90	146	6183	0.10	PPB		93
99) 1,4-Dichlorobenzene	12.01	146	6260	0.10	PPB		86
100) n-Butylbenzene	12.33	91	10274	0.09	PPB		97
101) 1,2-Dichlorobenzene	12.38	146	5713	0.10	PPB		94
103) 1,3,5-Trichlorobenzene	13.33	180	5586	0.12	PPB		94
104) 1,2,4-Trichlorobenzene	13.98	180	4777	0.12	PPB		85
105) Hexachlorobutadiene	14.10	225	2099	0.13	PPB		68
106) Naphthalene	14.23	128	8245	0.11	PPB		95
107) 1,2,3-Trichlorobenzene	14.47	180	4121	0.12	PPB		92

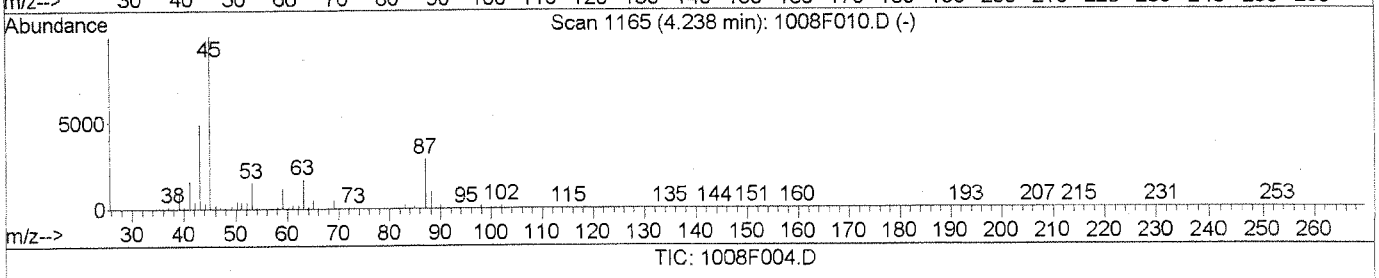
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:03 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F004.D

(27) Diisopropyl Ether (T)

4.24min 0.02PPB

response 1491

Ion	Exp%	Act%
45.00	100	100
59.00	11.80	26.92
87.00	28.60	38.50
0.00	0.00	0.00

Manual Integration:

Before

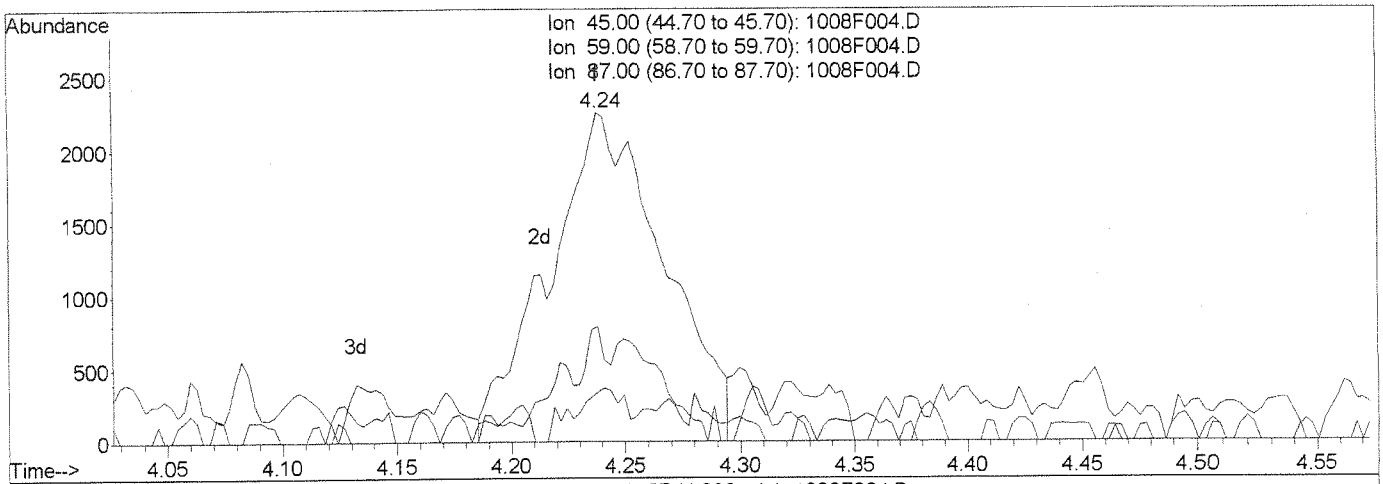
10/08/14

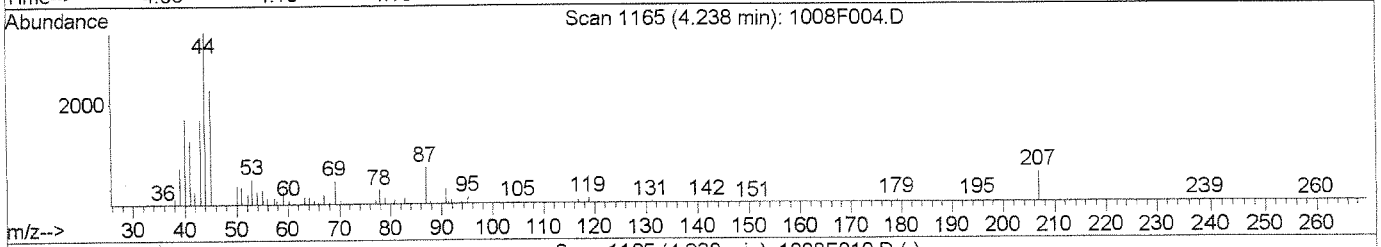
1008F004.D 100814MS27_8260.M Wed Oct 08 17:03:59 2014

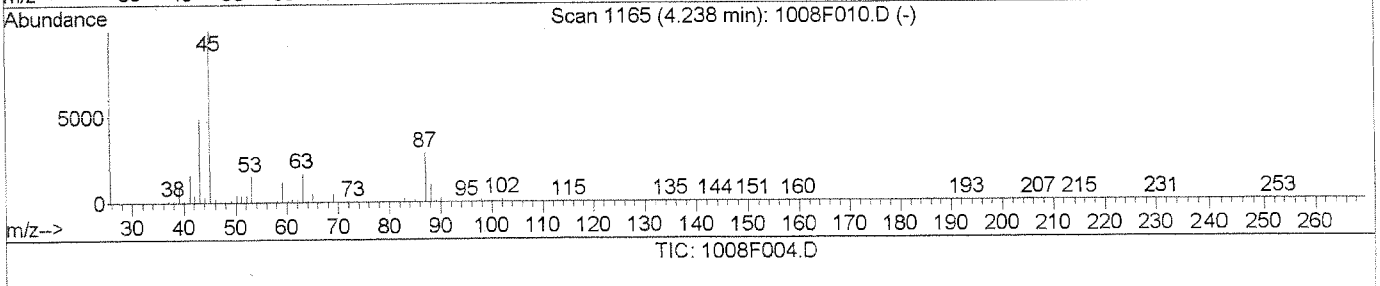
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(27) Diisopropyl Ether (T)

4.24min 0.10PPB m

response 7893

Ion	Exp%	Act%
45.00	100	100
59.00	11.80	15.22
87.00	28.60	35.18
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/08/14

1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:06 2014

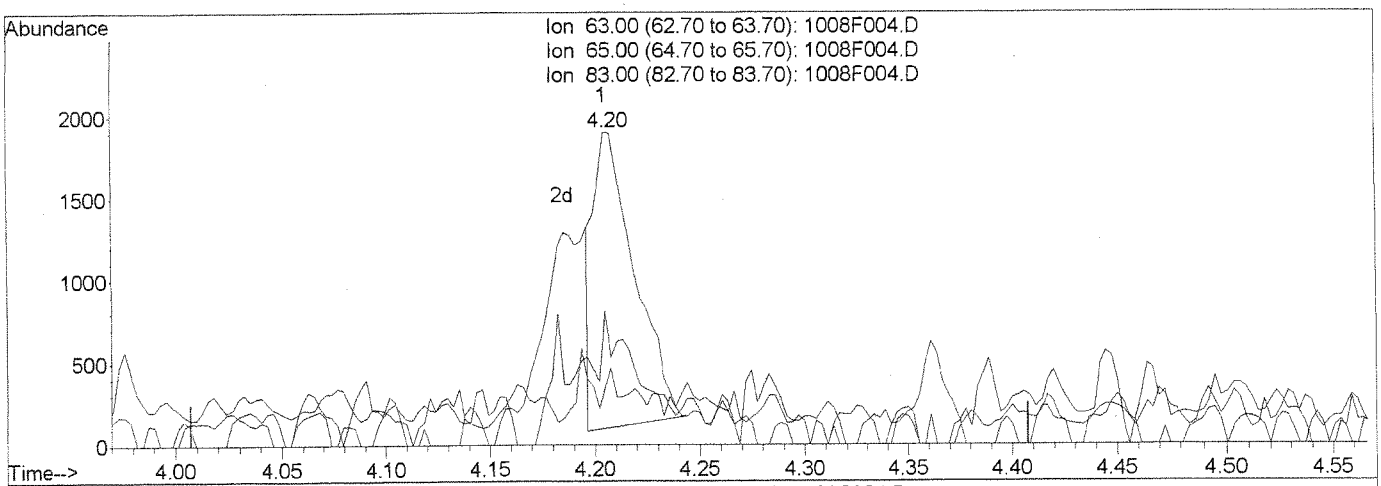
Quantitation Report (Qedit)

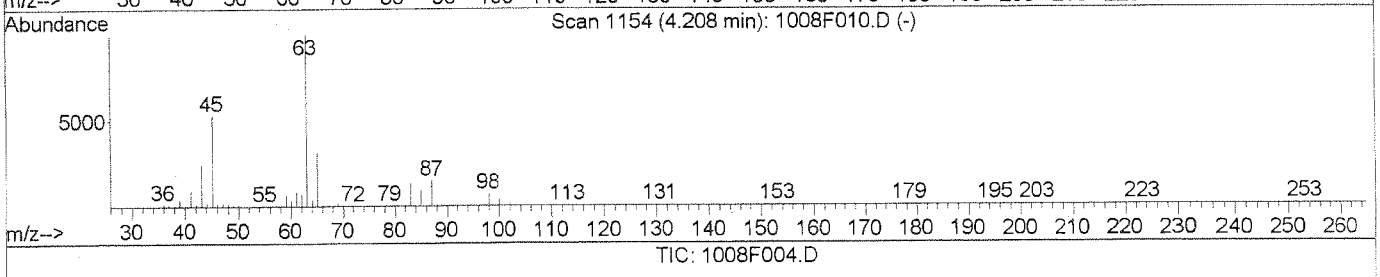
Data File : J:\MS27\DATA\100814\1008F004.D
Acq On : 8 Oct 2014 1:53 pm
Sample : 8260 ICAL 0.1
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014

Vial: 3
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F004.D

(28) 1,1-Dichloroethane (PT)

4.20min 0.05PPB

response 2422

Ion	Exp%	Act%
63.00	100	100
65.00	31.20	30.94
83.00	13.10	0.00
0.00	0.00	0.00

Manual Integration:

Before

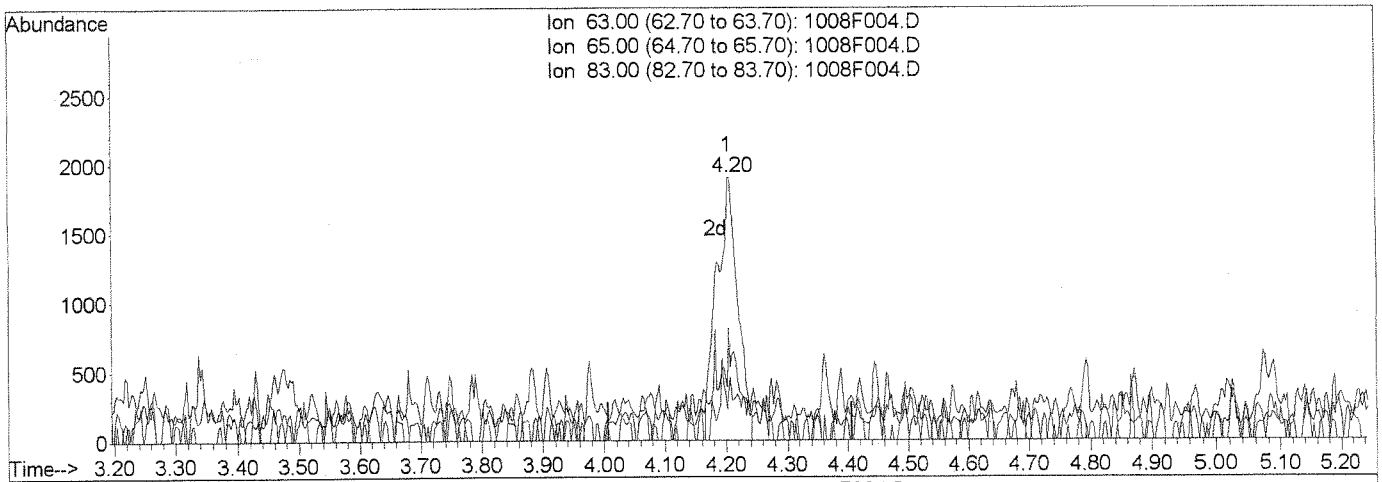
10/08/14

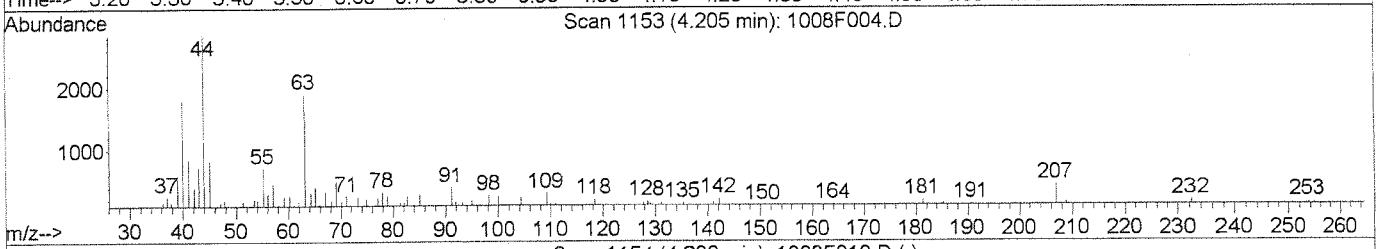
1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:10 2014

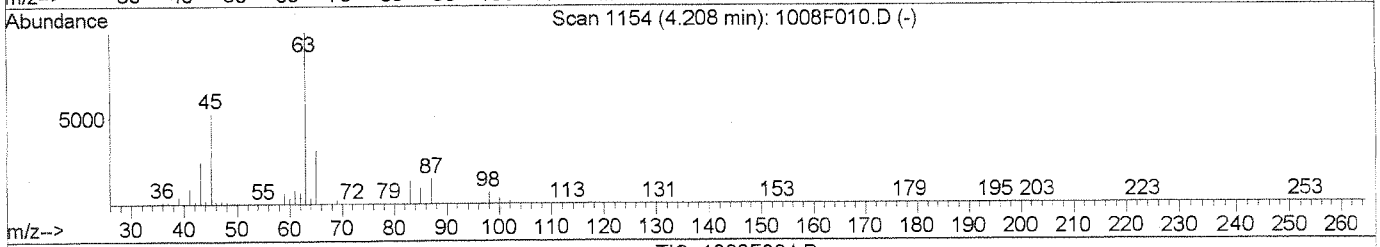
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(28) 1,1-Dichloroethane (PT)

4.20min 0.10PPB m

response 4575

Ion	Exp%	Act%
63.00	100	100
65.00	31.20	21.77
83.00	13.10	13.30
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

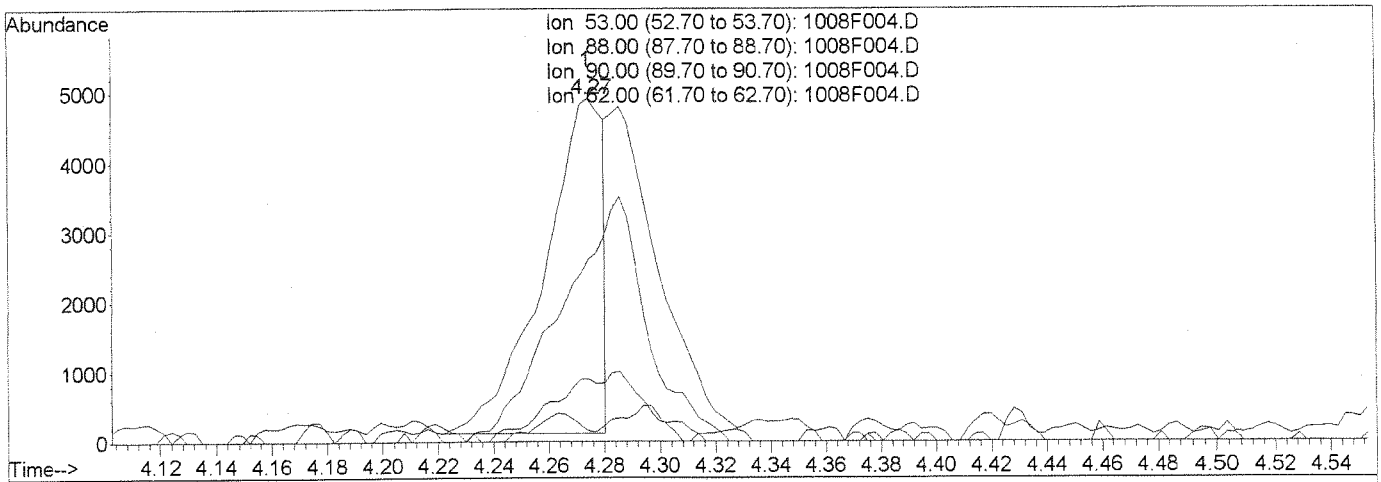
10/08/14

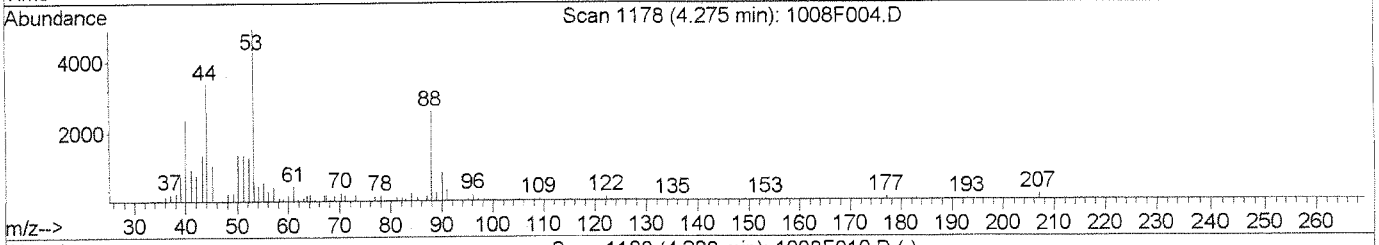
1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:17 2014

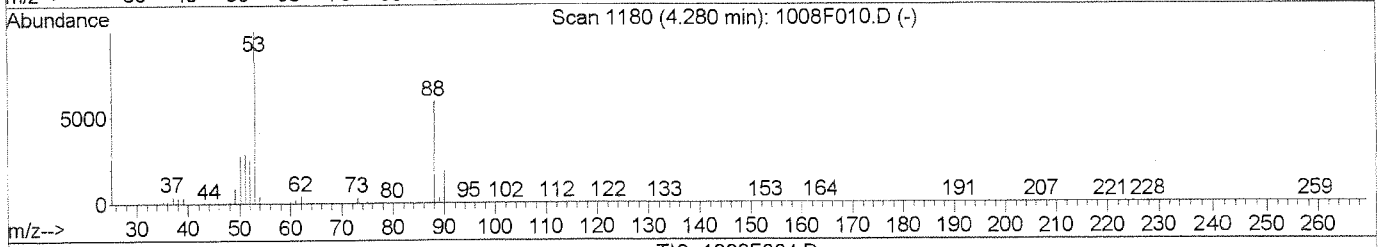
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(30) Chloroprene (T)

4.27min 0.17PPB

response 7208

Ion	Exp%	Act%
53.00	100	100
88.00	59.20	50.79
90.00	19.00	18.69
62.00	6.20	0.00

Manual Integration:

Before

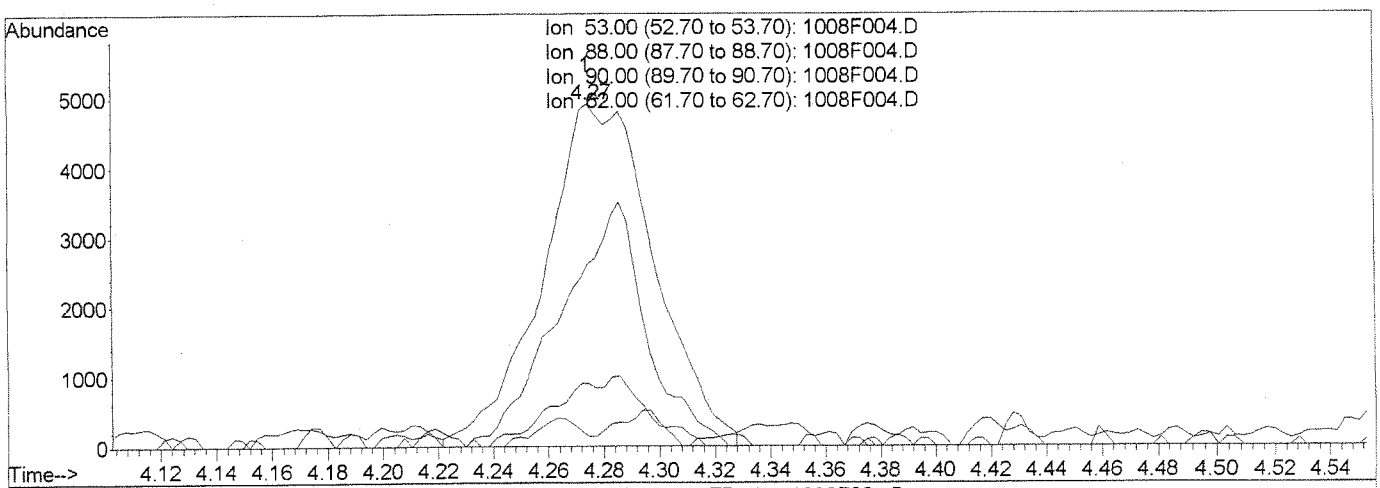
10/08/14

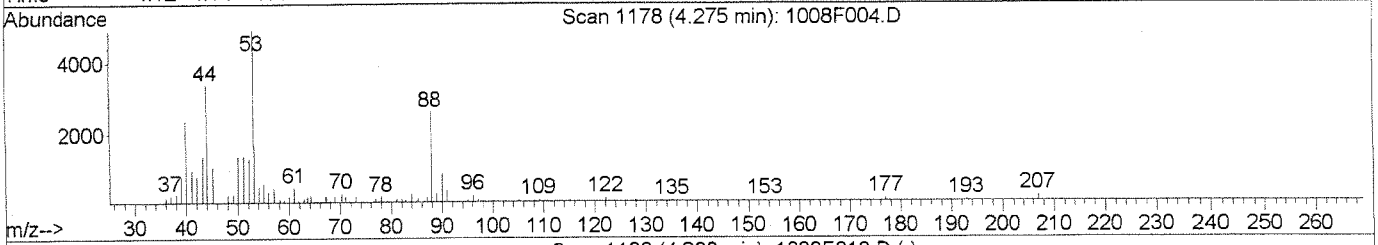
1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:22 2014

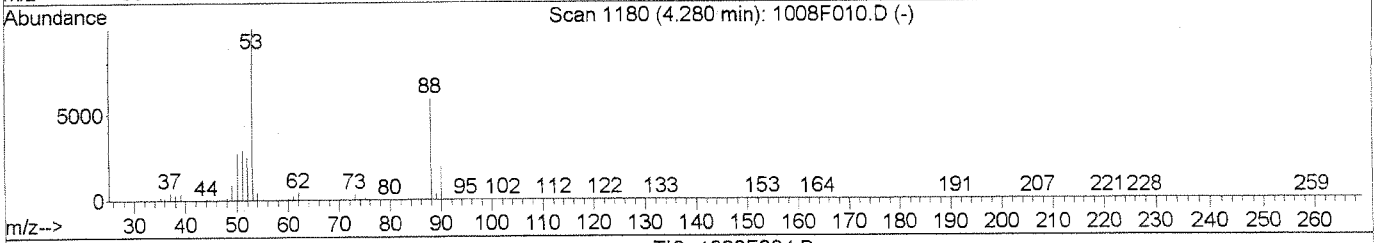
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(30) Chloroprene (T)

4.27min 0.32PPB m

response 13701

Ion	Exp%	Act%
53.00	100	100
88.00	59.20	53.28
90.00	19.00	18.26
62.00	6.20	3.01

Manual Integration:

After

Baseline correction

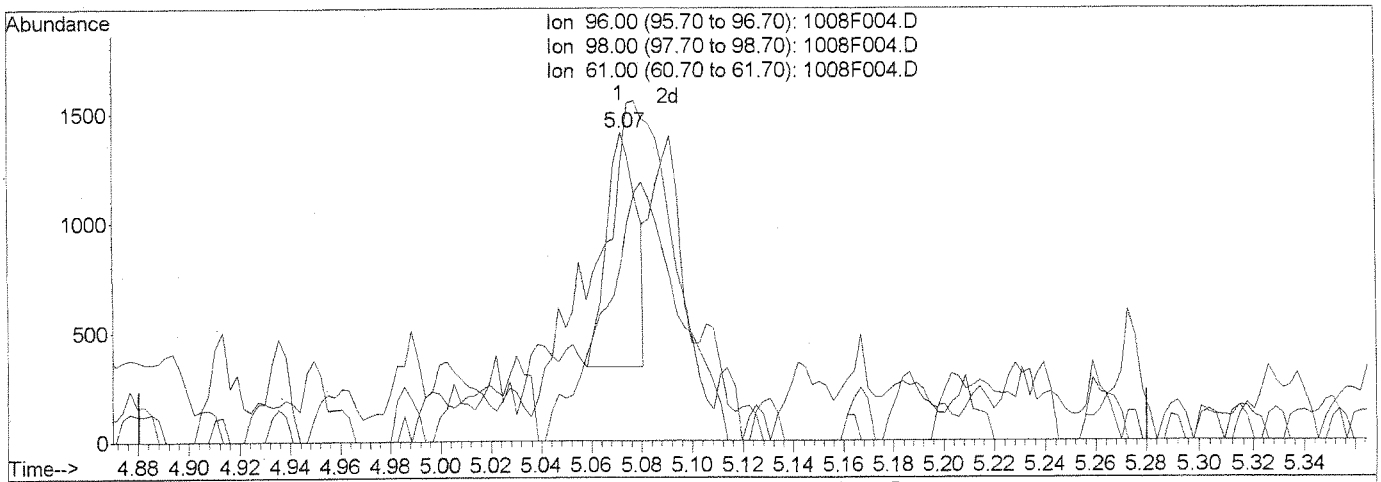
10/08/14

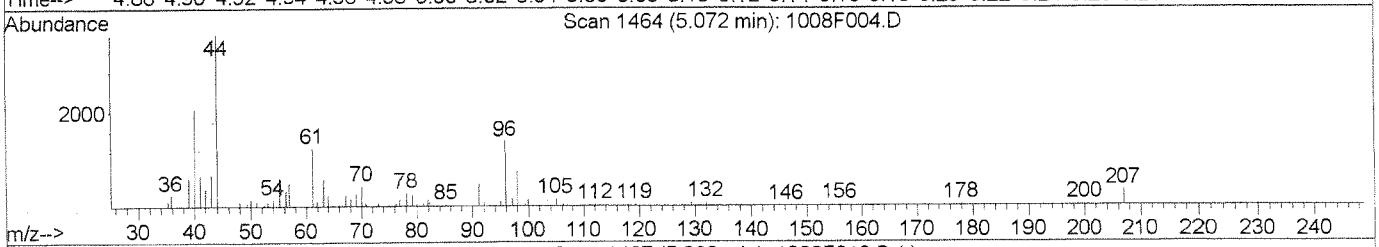
1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:26 2014

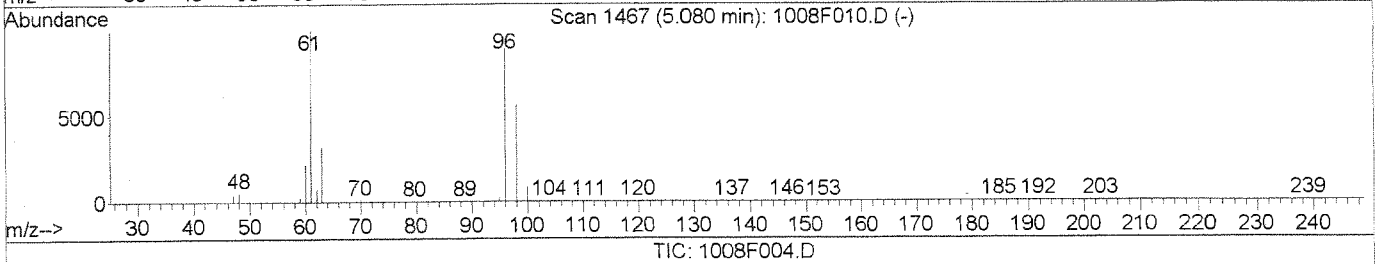
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(33) cis-1,2-Dichloroethene (T)

5.07min 0.03PPB

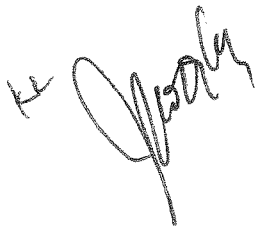
response 911

Ion	Exp%	Act%
96.00	100	100
98.00	63.50	38.21
61.00	126.50	58.62#
0.00	0.00	0.00

Manual Integration:

Before

10/08/14



1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:35 2014

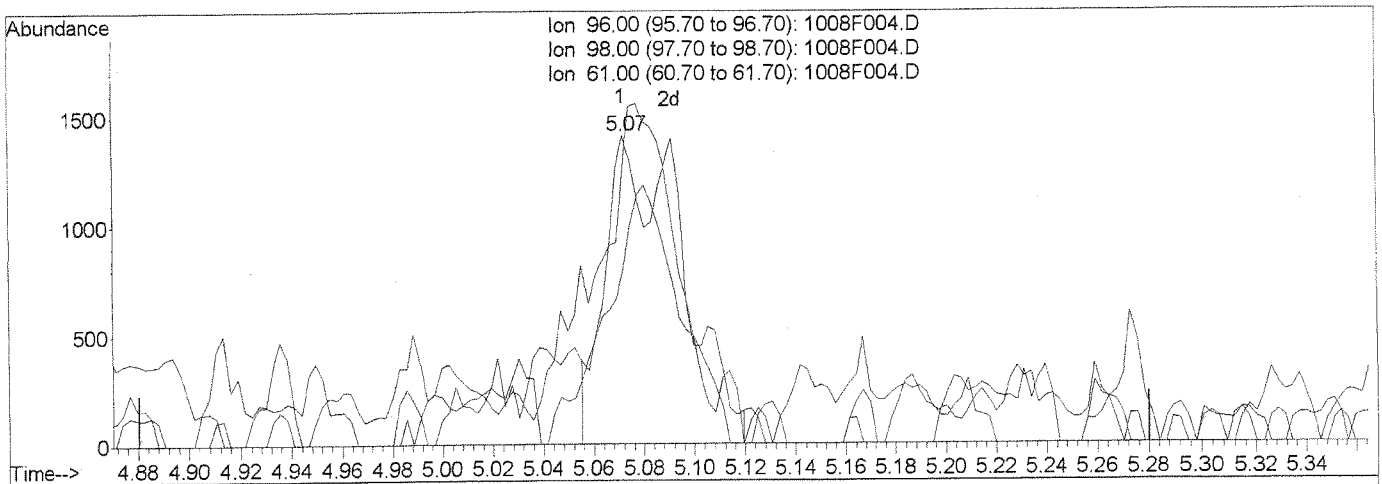
Quantitation Report (Qedit)

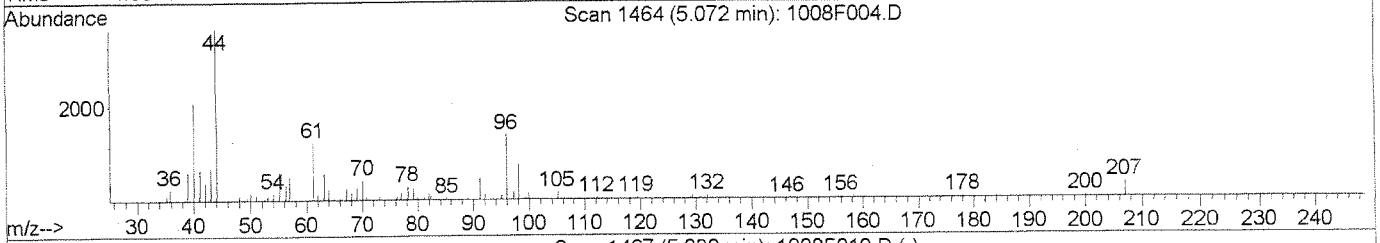
Data File : J:\MS27\DATA\100814\1008F004.D
Acq On : 8 Oct 2014 1:53 pm
Sample : 8260 ICAL 0.1
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014

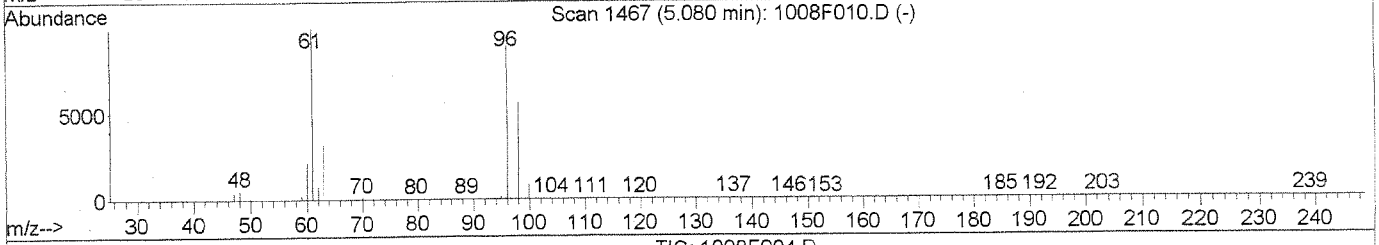
Vial: 3
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(33) cis-1,2-Dichloroethene (T)

5.07min 0.11PPB m

response 2992

Ion	Exp%	Act%
96.00	100	100
98.00	63.50	56.88
61.00	126.50	90.28#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

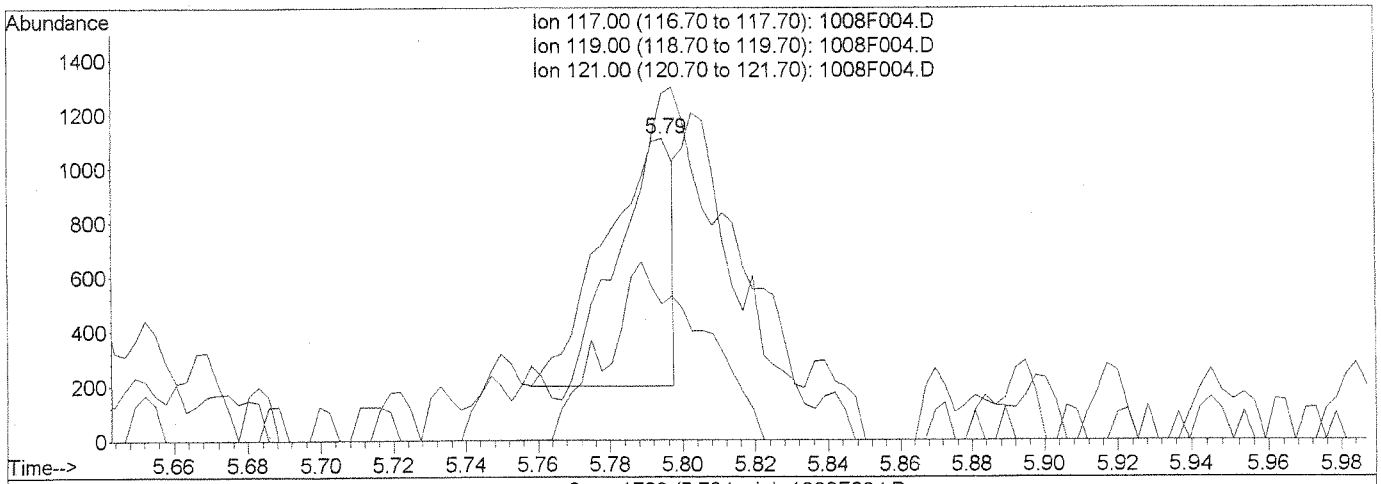
10/08/14

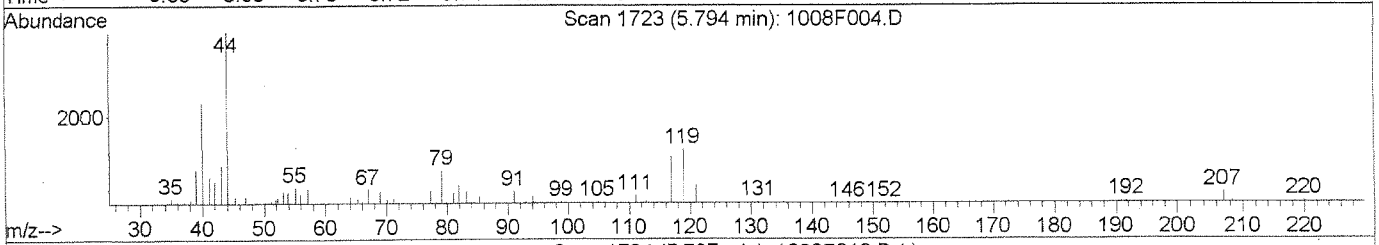
1008F004.D 100814MS27_8260.M Wed Oct 08 17:04:40 2014

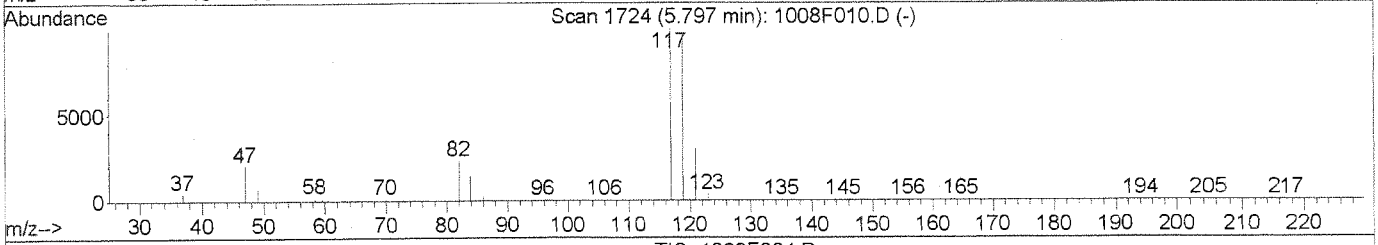
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:04 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(44) Carbon Tetrachloride (T)

5.79min 0.03PPB

response 1185

Ion	Exp%	Act%
117.00	100	100
119.00	96.60	109.89
121.00	30.50	54.84
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

1008F004.D 100814MS27_8260.M Wed Oct 08 17:05:08 2014

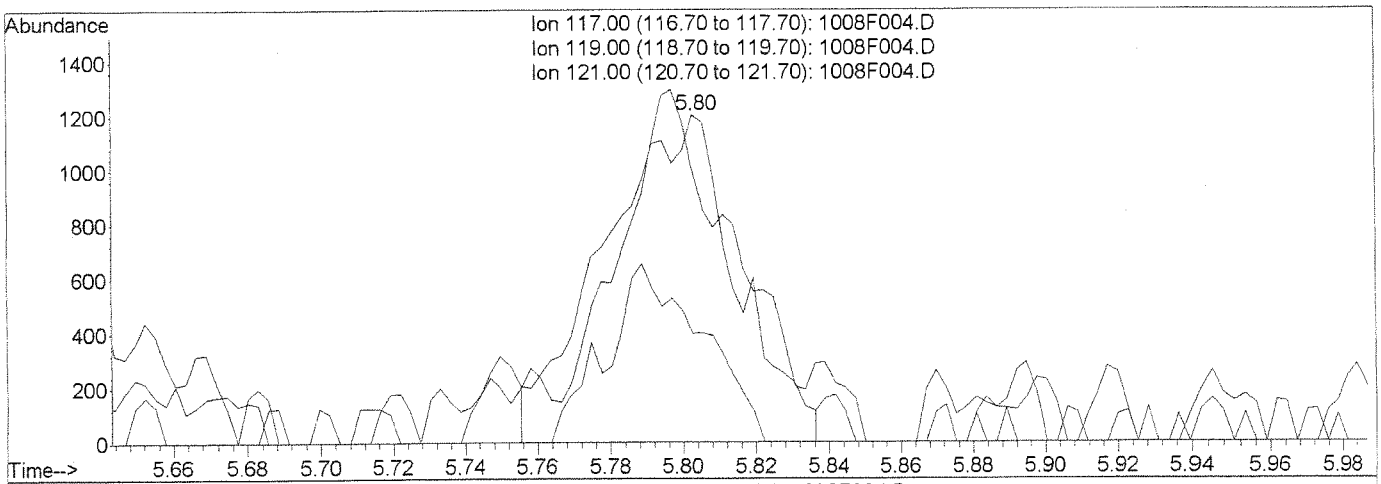
Quantitation Report (Qedit)

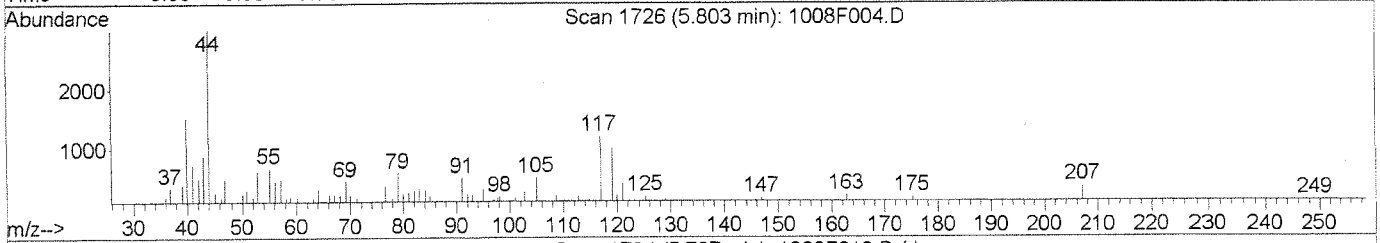
Data File : J:\MS27\DATA\100814\1008F004.D
Acq On : 8 Oct 2014 1:53 pm
Sample : 8260 ICAL 0.1
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:05 2014

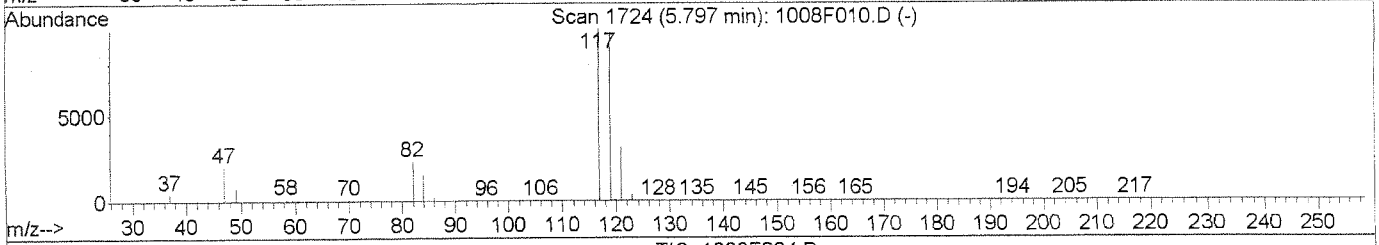
Vial: 3
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(44) Carbon Tetrachloride (T)

5.80min 0.09PPB m

response 3039

Ion	Exp%	Act%
117.00	100	100
119.00	96.60	83.13
121.00	30.50	33.17
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

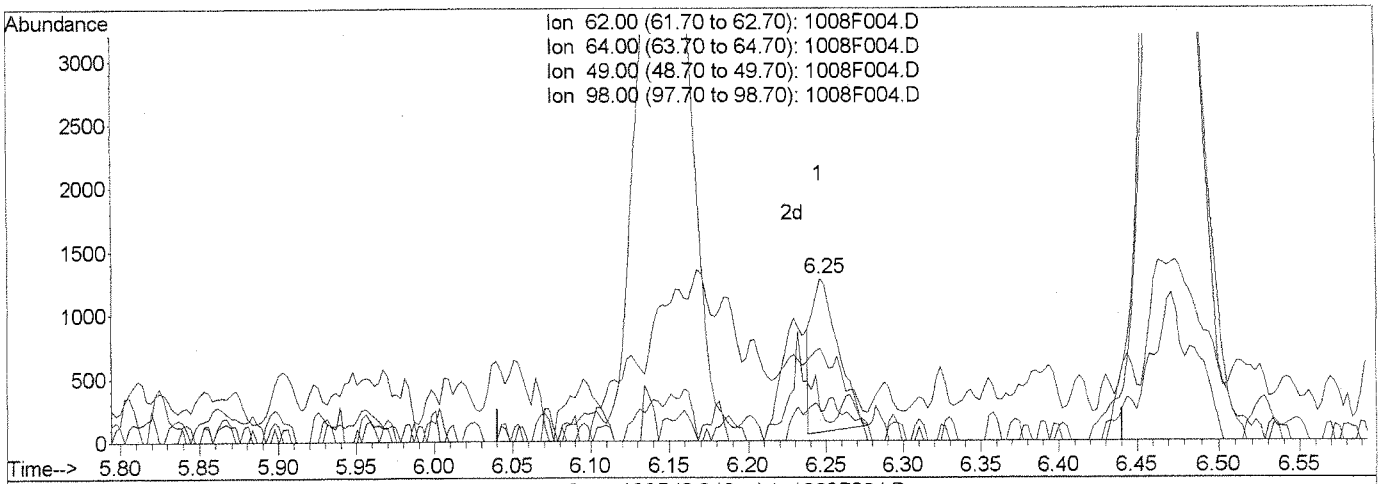
10/08/14

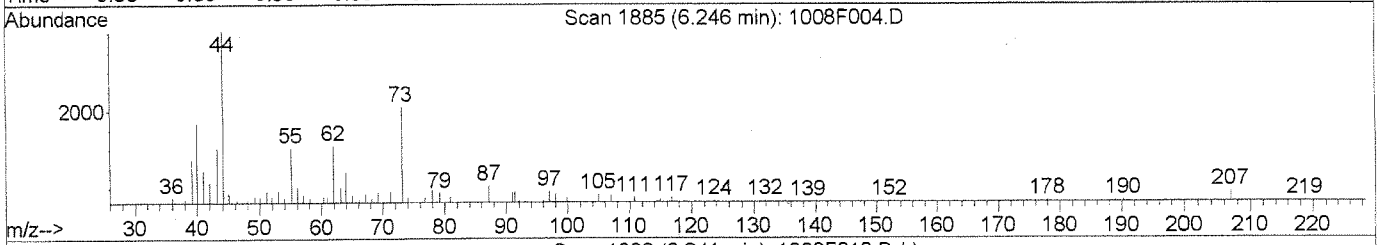
1008F004.D 100814MS27_8260.M Wed Oct 08 17:05:12 2014

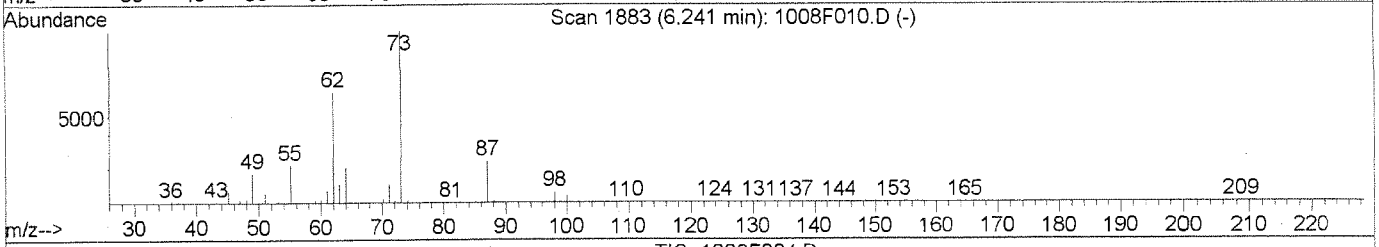
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:05 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(49) 1,2-Dichloroethane (T)

6.25min 0.04PPB

response 1443

Ion	Exp%	Act%
62.00	100	100
64.00	31.80	43.67
49.00	26.90	8.10
98.00	9.30	21.88

Manual Integration:

Before

10/08/14

1008F004.D 100814MS27_8260.M Wed Oct 08 17:05:22 2014

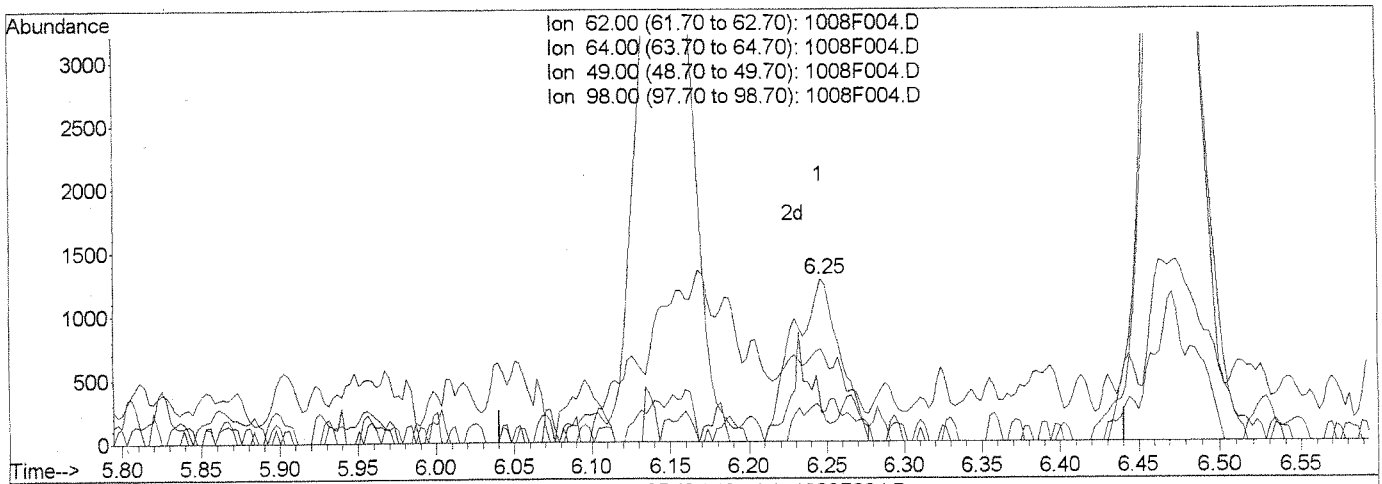
Quantitation Report (Qedit)

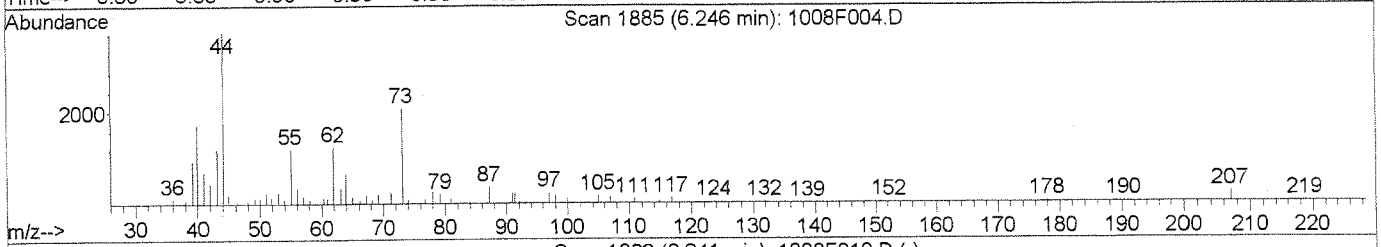
Data File : J:\MS27\DATA\100814\1008F004.D
Acq On : 8 Oct 2014 1:53 pm
Sample : 8260 ICAL 0.1
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:05 2014

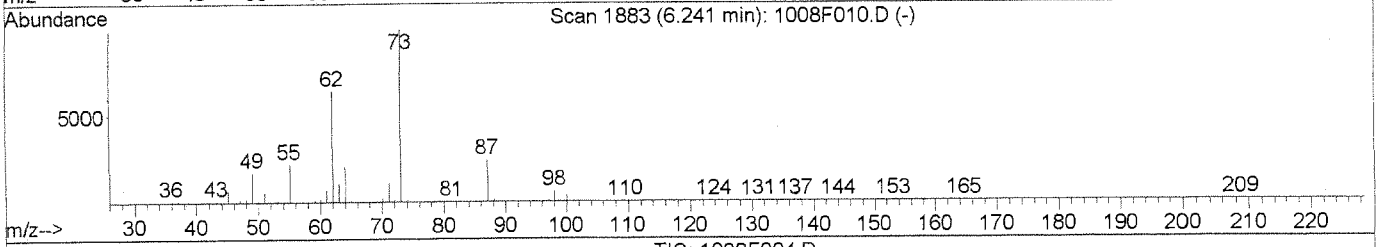
Vial: 3
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(49) 1,2-Dichloroethane (T)

6.25min 0.08PPB m

response 2708

Ion	Exp%	Act%
62.00	100	100
64.00	31.80	56.88
49.00	26.90	17.66
98.00	9.30	19.84

Manual Integration:

After

Baseline correction

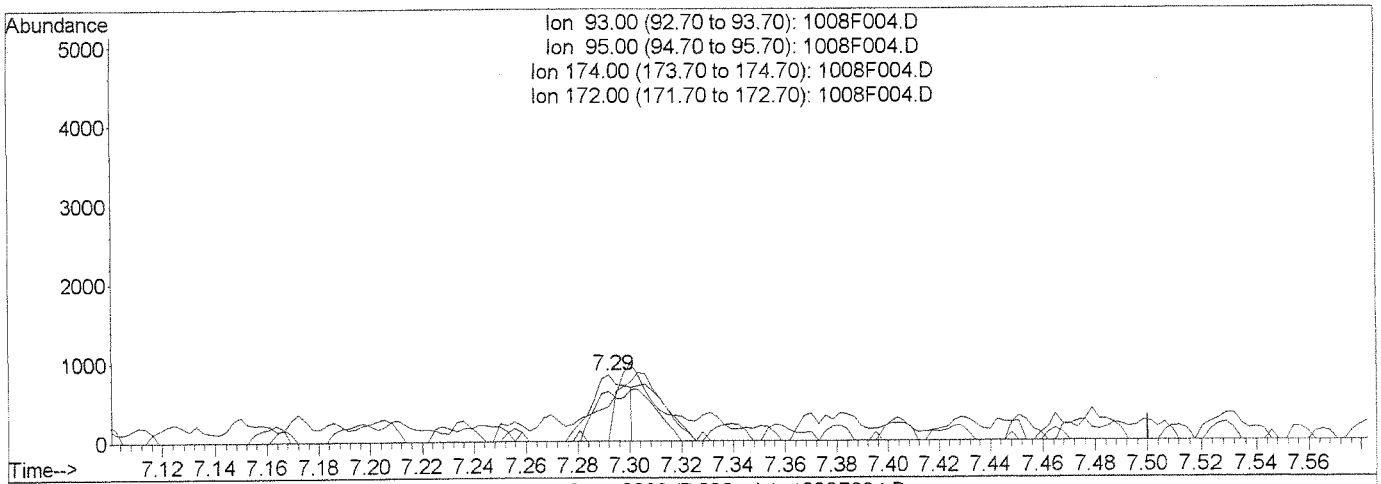
10/08/14

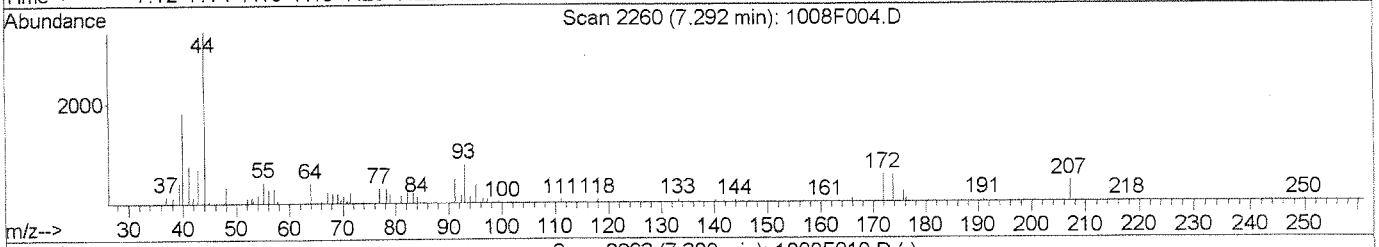
1008F004.D 100814MS27_8260.M Wed Oct 08 17:05:27 2014

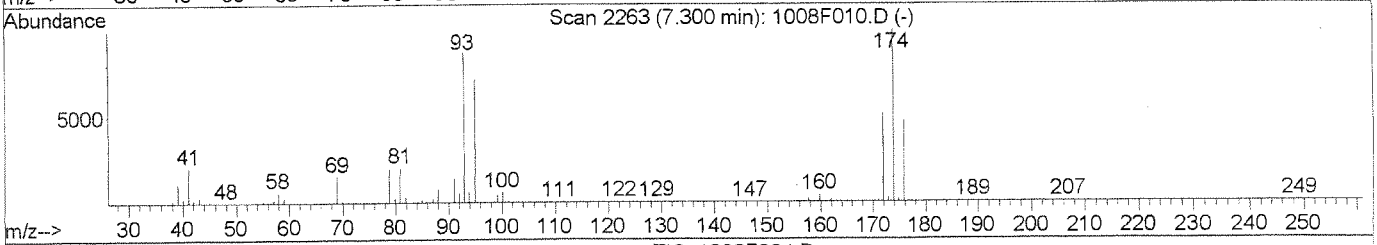
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:05 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(54) Dibromomethane (T)

7.29min 0.05PPB

response 826

Ion	Exp%	Act%
93.00	100	100
95.00	82.10	20.64#
174.00	115.10	0.00#
172.00	58.90	75.18

Manual Integration:

Before

10/08/14

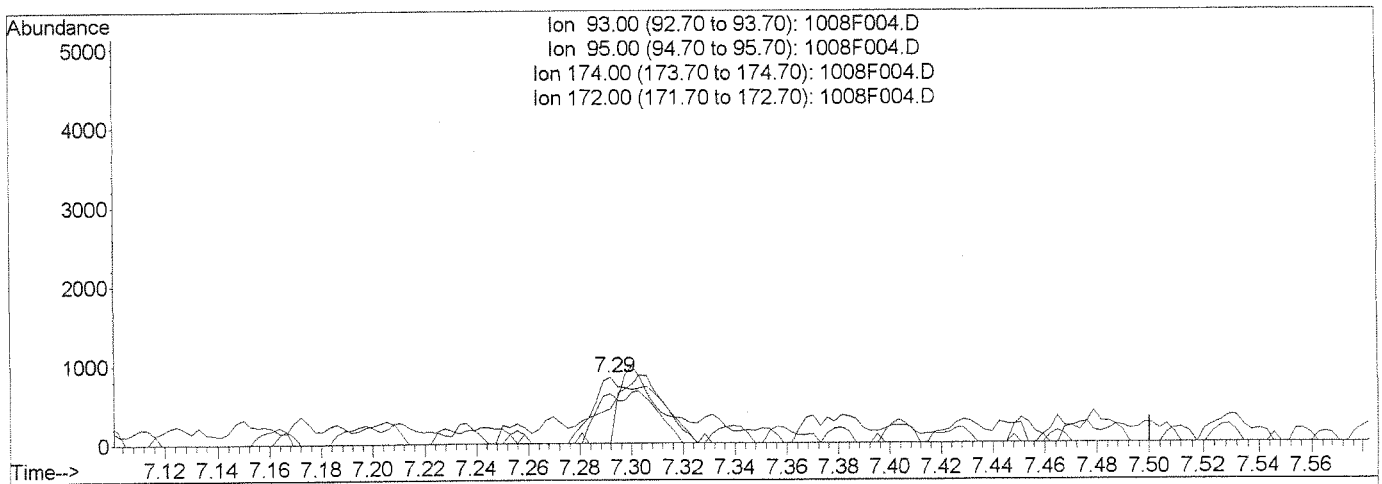
1008F004.D 100814MS27_8260.M Wed Oct 08 17:05:43 2014

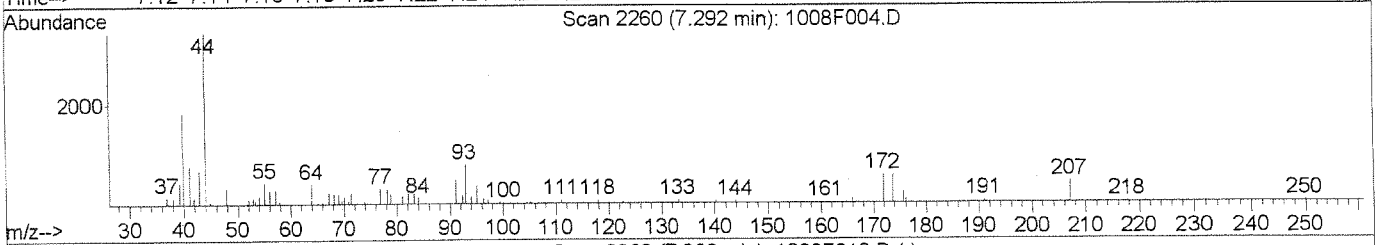
Quantitation Report (Qedit)

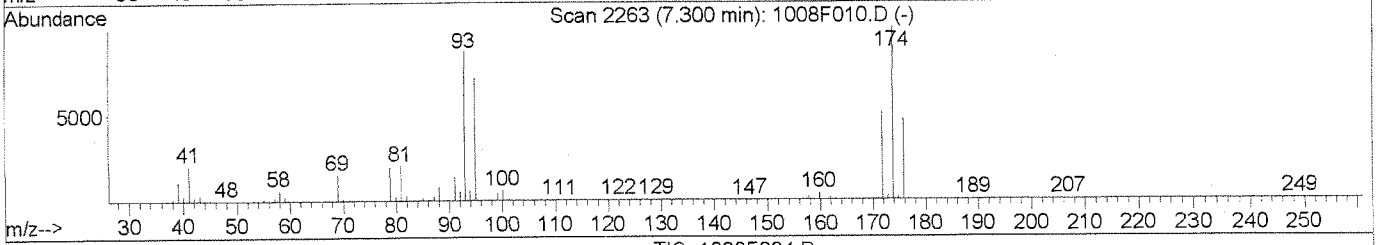
Data File : J:\MS27\DATA\100814\1008F004.D
Acq On : 8 Oct 2014 1:53 pm
Sample : 8260 ICAL 0.1
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:05 2014

Vial: 3
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(54) Dibromomethane (T)

7.29min 0.09PPB m

response 1440

Ion	Exp%	Act%
93.00	100	100
95.00	82.10	52.51
174.00	115.10	0.00#
172.00	58.90	75.18

Manual Integration:

After

Baseline correction

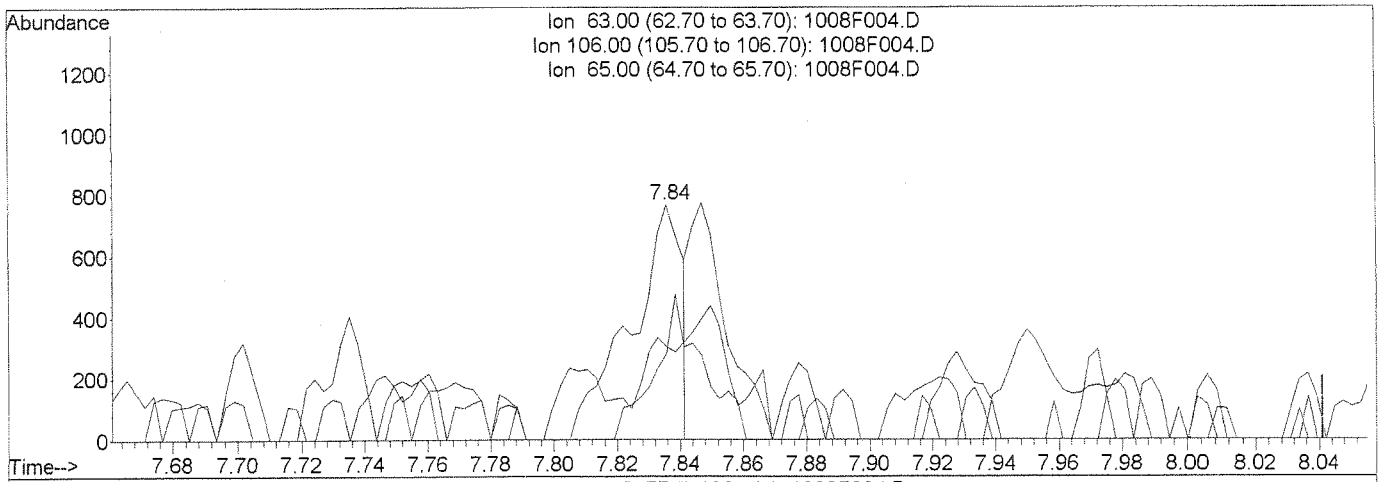
10/08/14

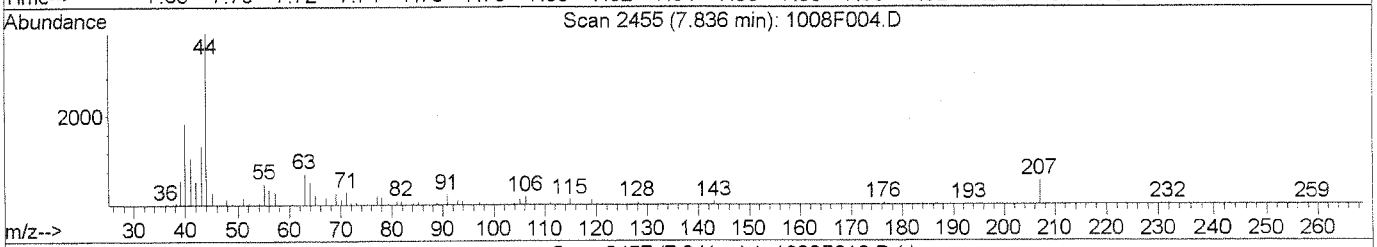
1008F004.D 100814MS27_8260.M Wed Oct 08 17:05:47 2014

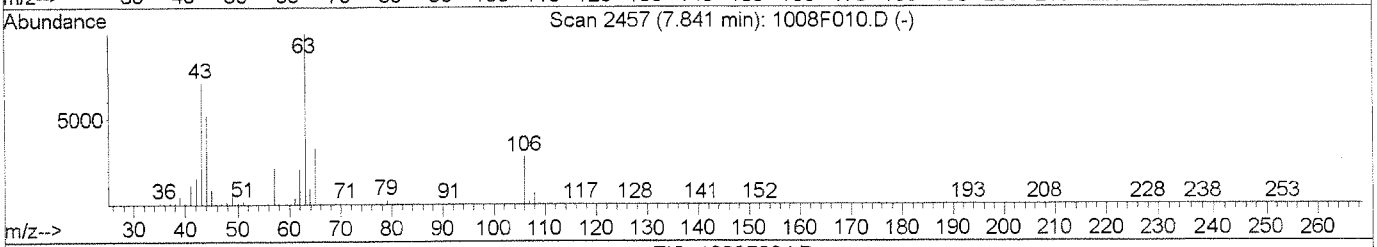
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:06 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(59) 2-Chloroethyl Vinyl Ether (T)

7.84min 0.07PPB

response 876

Ion	Exp%	Act%
63.00	100	100
106.00	27.70	36.72
65.00	32.70	16.15
0.00	0.00	0.00

Manual Integration:

Before

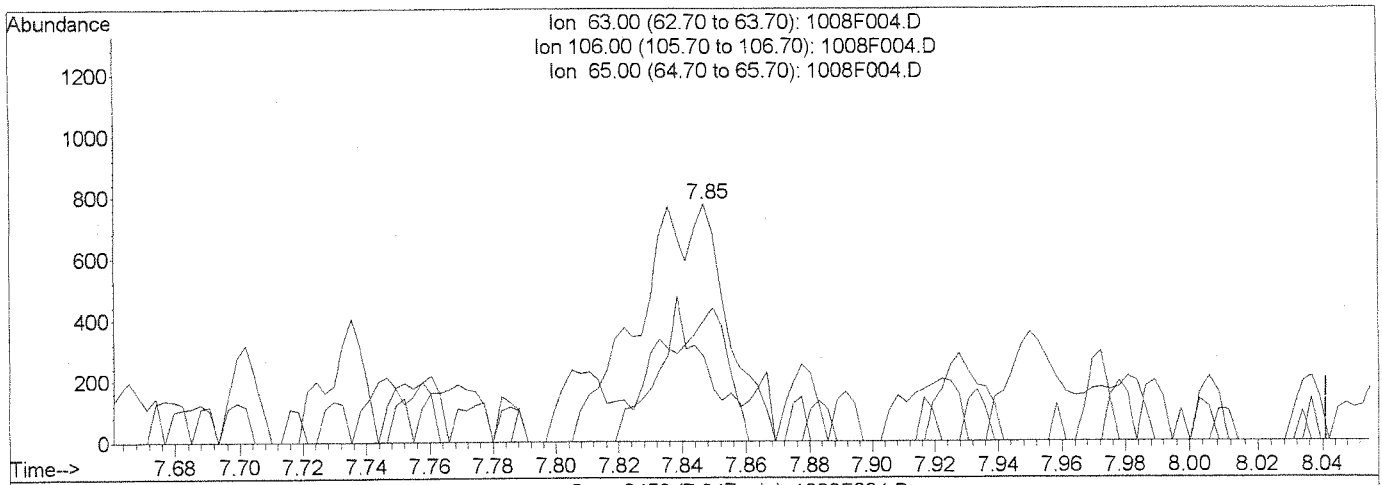
10/08/14

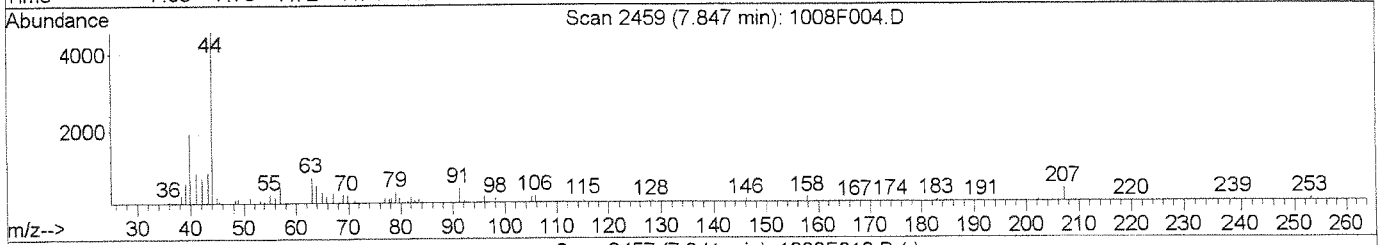
1008F004.D 100814MS27_8260.M Wed Oct 08 17:06:04 2014

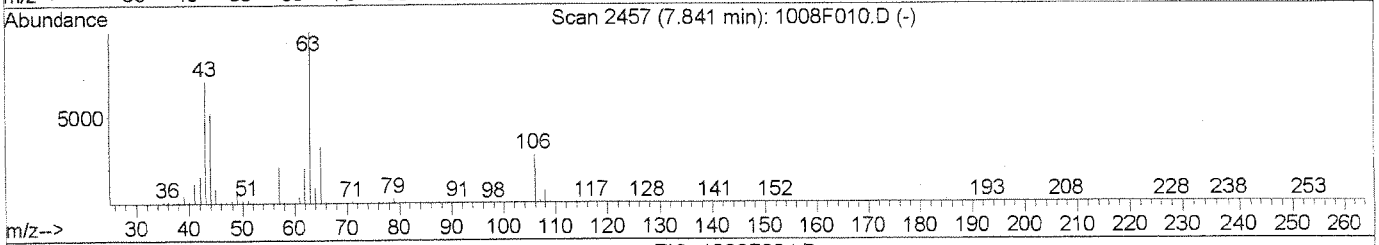
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:06 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F004.D

(59) 2-Chloroethyl Vinyl Ether (T)

7.85min 0.11PPB m

response 1490

Ion	Exp%	Act%
63.00	100	100
106.00	27.70	35.48
65.00	32.70	51.10
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

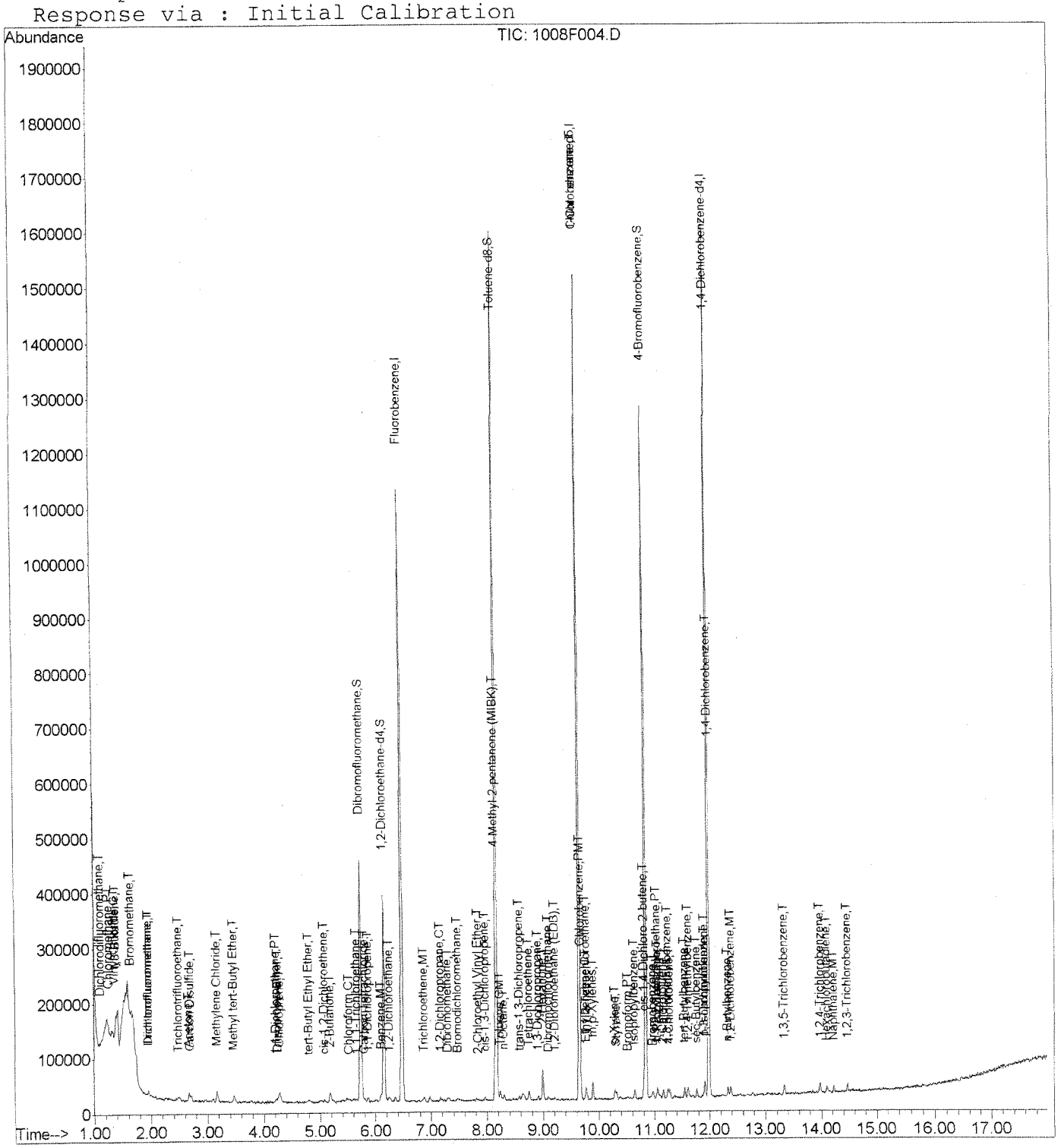
10/08/14

1008F004.D 100814MS27_8260.M Wed Oct 08 17:06:08 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F004.D Vial: 3
Acq On : 8 Oct 2014 1:53 pm Operator: KR
Sample : 8260 ICAL 0.1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:07 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:07:37 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/8/14

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene	6.47	96	1064436	10.00 PPB		0.00
64) Chlorobenzene-d5	9.65	82	447077	10.00 PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	429602	10.00 PPB		0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	286948	9.93 PPB		0.00
Spiked Amount 10.000			Recovery =	99.30%		
47) 1,2-Dichloroethane-d4	6.15	65	272071	9.04 PPB		0.00
Spiked Amount 10.000			Recovery =	90.40%		
62) Toluene-d8	8.16	98	1059561	10.16 PPB		0.00
Spiked Amount 10.000			Recovery =	101.60%		
84) 4-Bromofluorobenzene	10.84	95	405033	9.82 PPB		0.00
Spiked Amount 10.000			Recovery =	98.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	6959	0.22 PPB		84
3) Chloromethane	1.26	50	9380	0.23 PPB		97
4) Vinyl Chloride	1.35	62	7878	0.22 PPB		91
5) 1,3-Butadiene	1.38	54	5799	0.19 PPB		94
6) Bromomethane	1.65	96	8530	0.38 PPB		91
8) Dichlorofluoromethane	1.96	67	10144	0.23 PPB		99
9) Trichlorofluoromethane	1.95	101	9158	0.21 PPB		87
10) Ethyl Ether	2.27	59	4009	0.24 PPB		86
12) Trichlorotrifluoroethane	2.47	151	4559m	0.29 PPB		
13) 1,1-Dichloroethene	2.50	96	4437	0.22 PPB	#	82
14) Acetone	2.67	43	31971	6.93 PPB		98
15) Iodomethane	2.68	142	6386	0.28 PPB		89
16) Carbon Disulfide	2.70	76	18373	0.33 PPB		96
20) Acetonitrile	3.09	40	7289	6.48 PPB		96
21) Methylene Chloride	3.17	84	13028	0.46 PPB		93
23) Acrylonitrile	3.64	53	5673	0.85 PPB	#	73
24) Methyl tert-Butyl Ether	3.47	73	25292	0.42 PPB		82
25) trans-1,2-Dichloroethene	3.47	96	5212	0.21 PPB		88
27) Diisopropyl Ether	4.24	45	16766m	0.20 PPB		
28) 1,1-Dichloroethane	4.21	63	9729	0.21 PPB		82
30) Chloroprene	4.27	53	31885	0.75 PPB		95
31) tert-Butyl Ethyl Ether	4.79	59	11886	0.15 PPB		78
32) 2,2-Dichloropropane	5.02	77	8176	0.24 PPB		94
33) cis-1,2-Dichloroethene	5.08	96	5450	0.20 PPB		90
34) 2-Butanone	5.18	72	15271	8.22 PPB	#	65
37) Methacrylonitrile	5.48	67	5414	0.64 PPB	#	71
38) Bromochloromethane	5.39	128	2477m	0.20 PPB		

(#) = qualifier out of range (m) = manual integration
1008F005.D 100814MS27_8260.M Wed Oct 08 17:11:37 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:07:37 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40) Chloroform	5.52	83	10587	0.22	PPB		85
41) Cyclohexane	5.60	56	9686m	0.23	PPB		
42) 1,1,1-Trichloroethane	5.65	97	7981	0.20	PPB		84
44) Carbon Tetrachloride	5.80	117	7587	0.22	PPB		93
45) 1,1-Dichloropropene	5.86	75	7445	0.22	PPB		91
48) Benzene	6.10	78	24048	0.23	PPB		99
49) 1,2-Dichloroethane	6.24	62	6398	0.18	PPB		93
51) Trichloroethene	6.87	95	5932	0.22	PPB		91
52) Methylcyclohexane	6.97	83	9584	0.22	PPB		88
53) 1,2-Dichloropropane	7.18	63	5169	0.18	PPB		91
54) Dibromomethane	7.30	93	3135	0.20	PPB		85
57) Bromodichloromethane	7.48	83	7185	0.20	PPB		95
58) 2-Nitropropane	7.82	41	5065	0.91	PPB		80
59) 2-Chloroethyl Vinyl Ether	7.84	63	2512	0.19	PPB		87
60) cis-1,3-Dichloropropene	7.96	75	8980	0.21	PPB		97
61) 4-Methyl-2-pentanone (MIBK	8.13	58	56633	8.16	PPB		94
63) Toluene	8.23	92	15491	0.24	PPB		91
65) n-Octane	8.31	85	2776	0.21	PPB		98
66) trans-1,3-Dichloropropene	8.57	75	6240	0.16	PPB		87
67) Ethyl methacrylate	8.62	69	4534	0.16	PPB		83
68) 1,1,2-Trichloroethane	8.75	83	3586	0.19	PPB		84
69) Tetrachloroethene	8.75	164	5348	0.25	PPB		90
70) 2-Hexanone	8.99	57	16201	7.44	PPB	#	73
71) 1,3-Dichloropropane	8.91	76	7098	0.19	PPB		93
72) Dibromochloromethane	9.10	129	5308	0.21	PPB		95
73) 1,2-Dibromoethane (EDB)	9.21	107	4580	0.22	PPB		98
74) 1-Chlorohexane	9.65	91	9350	0.24	PPB		89
75) Chlorobenzene	9.68	112	16139	0.22	PPB		92
76) Ethylbenzene	9.77	106	8106	0.21	PPB		99
77) 1,1,1,2-Tetrachloroethane	9.79	131	5478	0.21	PPB		93
78) m,p-Xylenes	9.89	106	19995	0.43	PPB		97
79) o-Xylene	10.29	106	9474	0.20	PPB		90
80) Styrene	10.31	103	7695	0.20	PPB		88
81) Bromoform	10.52	173	3476	0.22	PPB		83
82) Isopropylbenzene	10.64	105	26080	0.22	PPB		98
83) cis-1,4-Dichloro-2-butene	10.81	89	2540	0.66	PPB		95
86) 1,1,2,2-Tetrachloroethane	11.03	83	4157	0.15	PPB		95
88) Bromobenzene	10.97	156	6793	0.20	PPB		95
89) n-Propylbenzene	11.05	91	29729	0.19	PPB		92
91) 2-Chlorotoluene	11.16	91	17059	0.18	PPB		94
92) 1,3,5-Trimethylbenzene	11.24	105	22165	0.20	PPB		88

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

Data File : J:\MS27\DATA\100814\1008F005.D
Acq On : 8 Oct 2014 2:21 pm
Sample : 8260 ICAL 0.2
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 08 17:07:37 2014

Vial: 4
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
93)	4-Chlorotoluene	11.28	91	20558	0.20	PPB		98
94)	tert-Butylbenzene	11.55	119	19188	0.20	PPB		92
95)	1,2,4-Trimethylbenzene	11.61	105	22667	0.20	PPB		92
96)	sec-Butylbenzene	11.77	105	24541	0.18	PPB		97
97)	p-Isopropyltoluene	11.92	119	21512	0.19	PPB		97
98)	1,3-Dichlorobenzene	11.91	146	12980	0.20	PPB		95
99)	1,4-Dichlorobenzene	12.01	146	13795	0.22	PPB		96
100)	n-Butylbenzene	12.33	91	21611	0.19	PPB		93
101)	1,2-Dichlorobenzene	12.38	146	12388	0.21	PPB		92
102)	1,2-Dibromo-3-chloropropan	13.19	155	747	0.19	PPB	#	30
103)	1,3,5-Trichlorobenzene	13.33	180	10504	0.22	PPB		93
104)	1,2,4-Trichlorobenzene	13.98	180	10010	0.25	PPB		96
105)	Hexachlorobutadiene	14.10	225	3939	0.23	PPB		84
106)	Naphthalene	14.22	128	16881	0.22	PPB		98
107)	1,2,3-Trichlorobenzene	14.48	180	8810	0.25	PPB		89

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

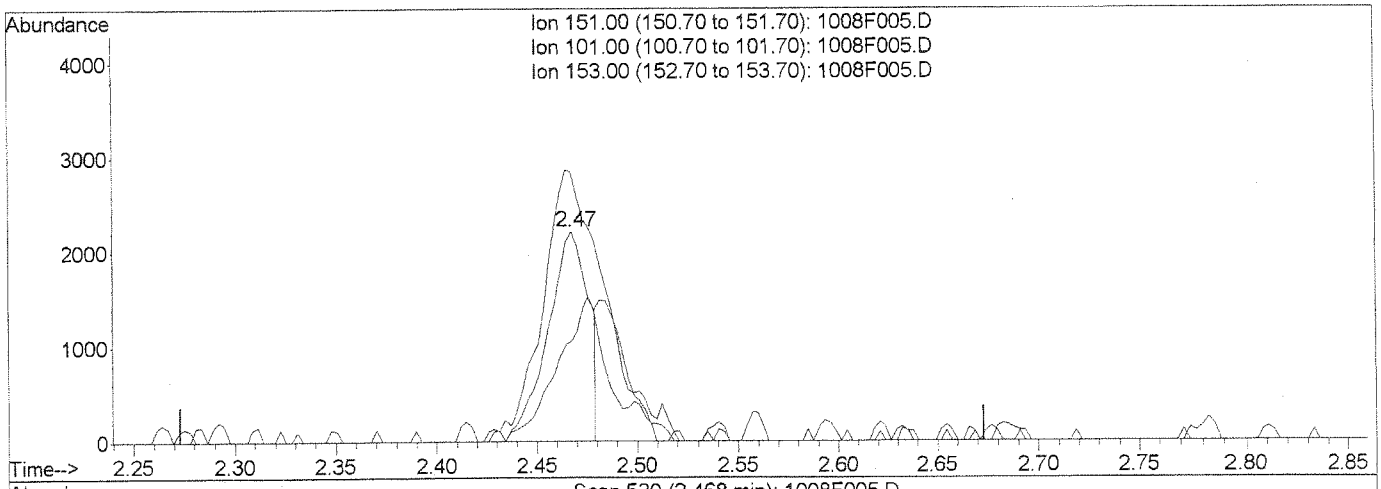
Quantitation Report (Qedit)

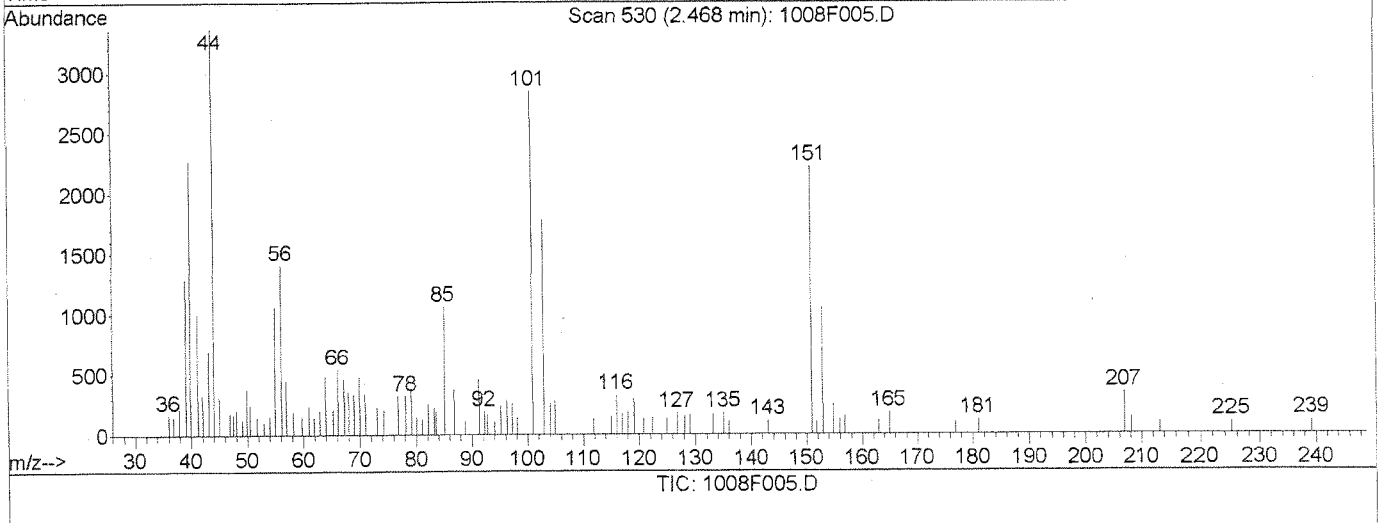
Data File : J:\MS27\DATA\100814\1008F005.D
Acq On : 8 Oct 2014 2:21 pm
Sample : 8260 ICAL 0.2
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:07 2014

Vial: 4
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F005.D

(12) Trichlorotrifluoroethane (T)

2.47min 0.20PPB

response 3134

Ion	Exp%	Act%
151.00	100	100
101.00	114.50	118.08
153.00	63.40	47.52
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

1008F005.D 100814MS27_8260.M Wed Oct 08 17:08:02 2014

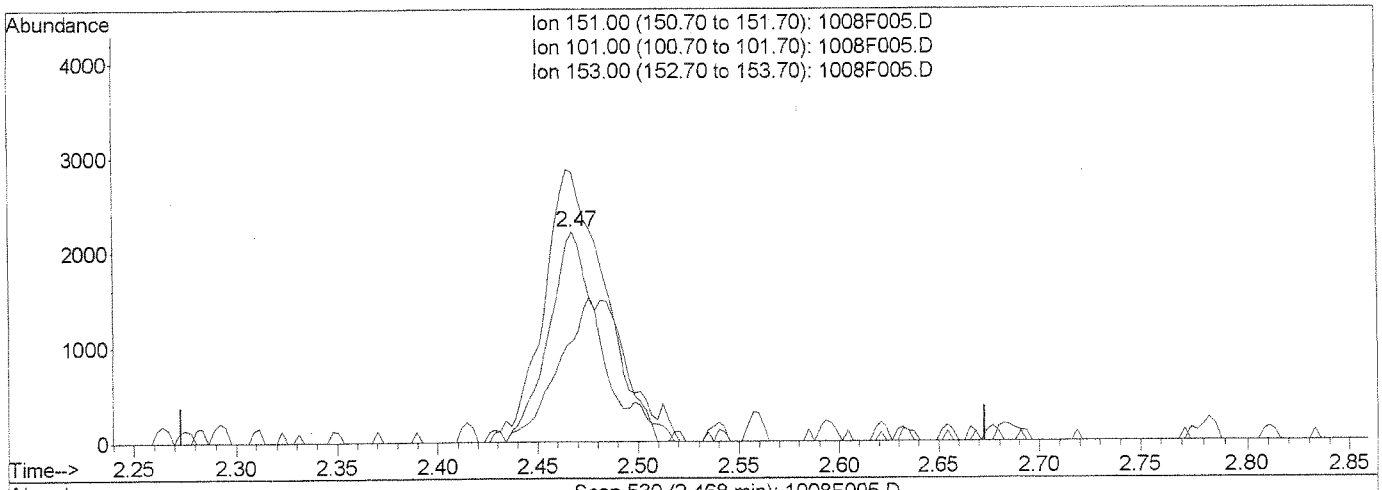
Quantitation Report (Qedit)

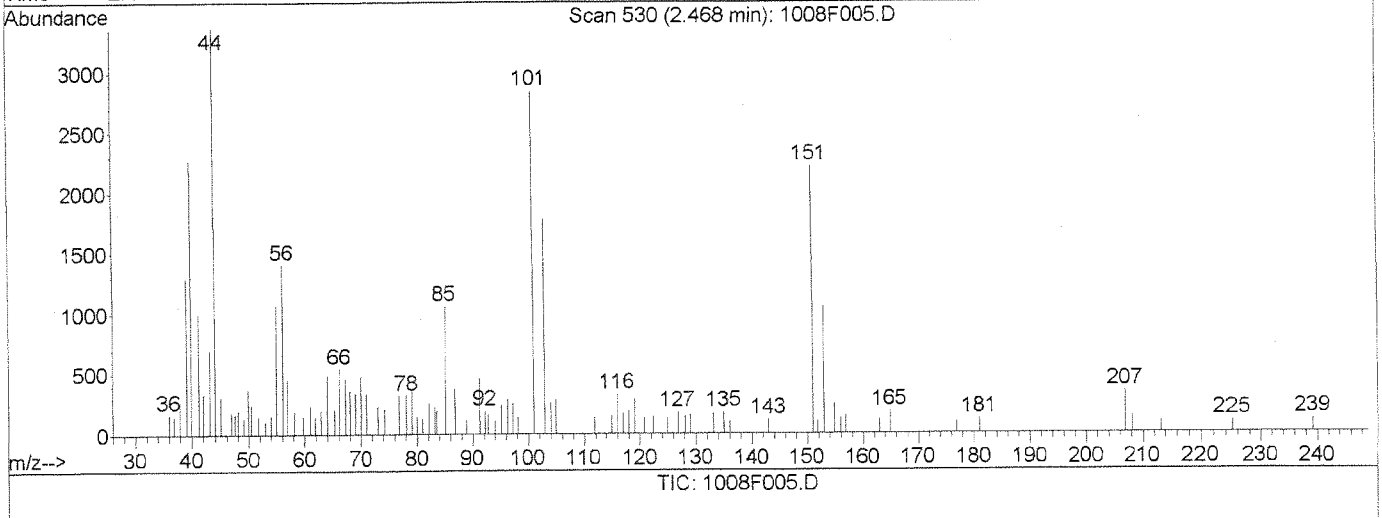
Data File : J:\MS27\DATA\100814\1008F005.D
Acq On : 8 Oct 2014 2:21 pm
Sample : 8260 ICAL 0.2
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:08 2014

Vial: 4
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F005.D

(12) Trichlorotrifluoroethane (T)

2.47min 0.29PPB m

response 4559

Ion	Exp%	Act%
151.00	100	100
101.00	114.50	128.22
153.00	63.40	47.52
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

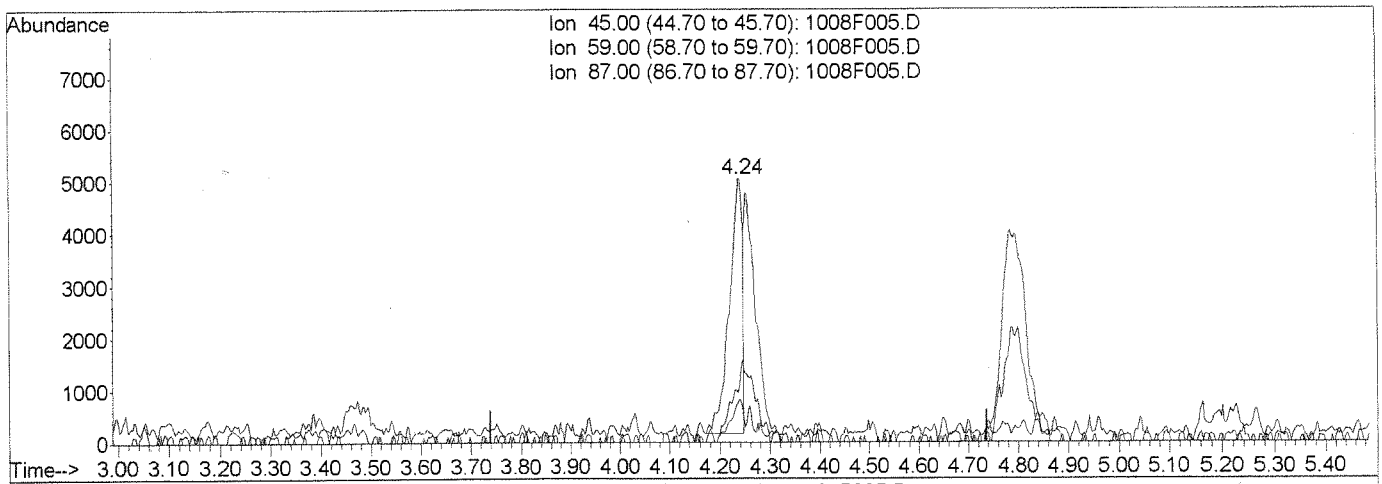
10/08/14

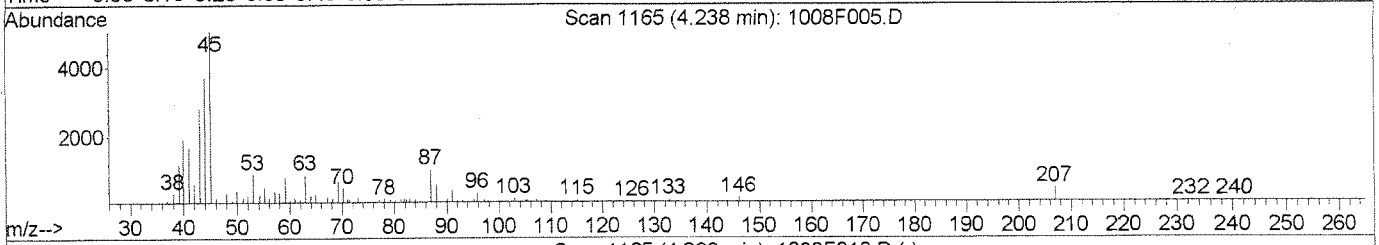
1008F005.D 100814MS27_8260.M Wed Oct 08 17:08:06 2014

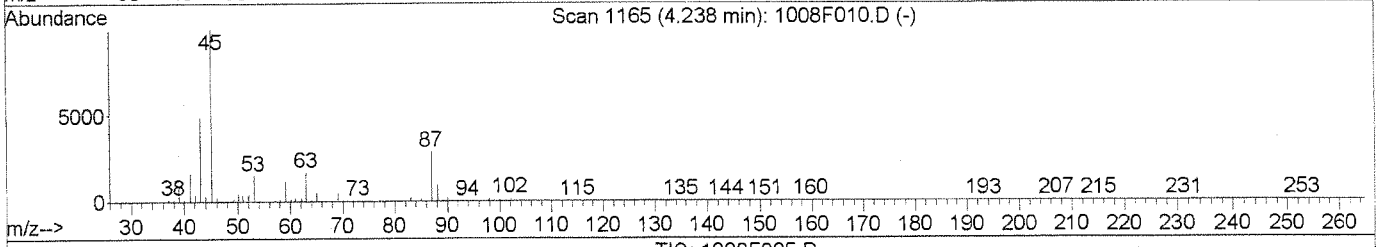
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:08 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F005.D

(27) Diisopropyl Ether (T)

4.24min 0.11PPB

response 8770

Ion	Exp%	Act%
45.00	100	100
59.00	11.80	16.81
87.00	28.60	21.36
0.00	0.00	0.00

Manual Integration:

Before

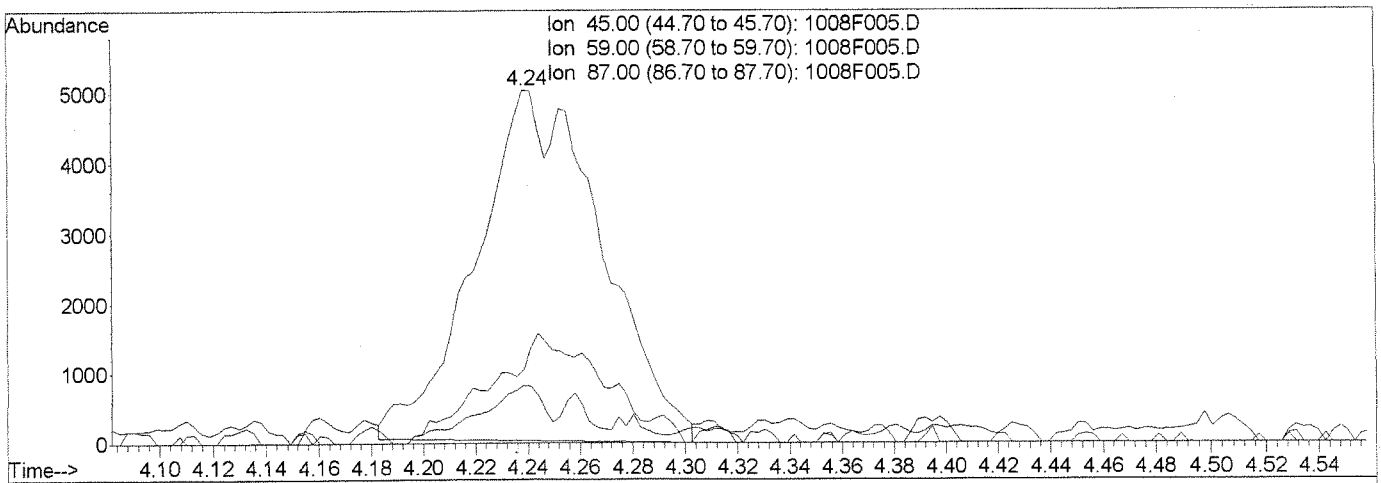
10/08/14

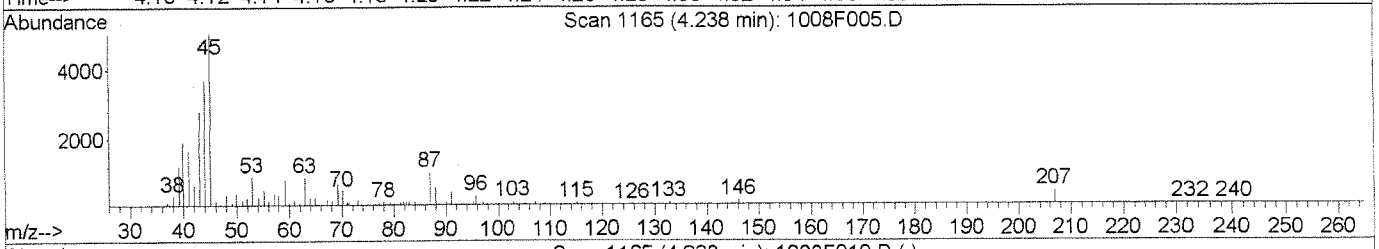
1008F005.D 100814MS27_8260.M Wed Oct 08 17:08:42 2014

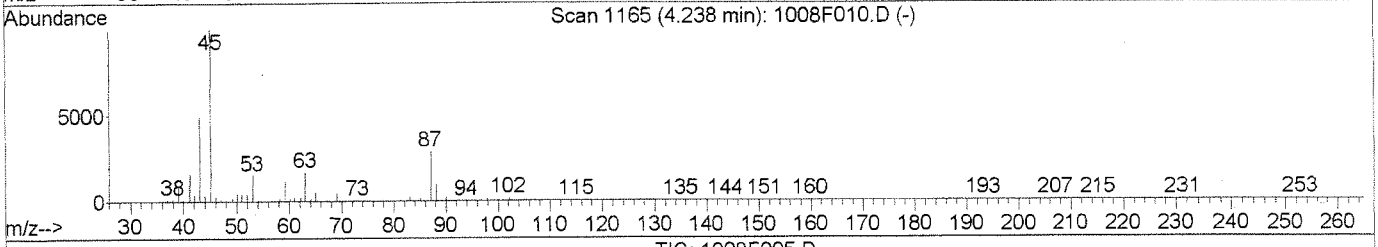
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:08 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F005.D

(27) Diisopropyl Ether (T)

4.24min 0.20PPB m

response 16766

Ion	Exp%	Act%
45.00	100	100
59.00	11.80	16.26
87.00	28.60	20.66
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

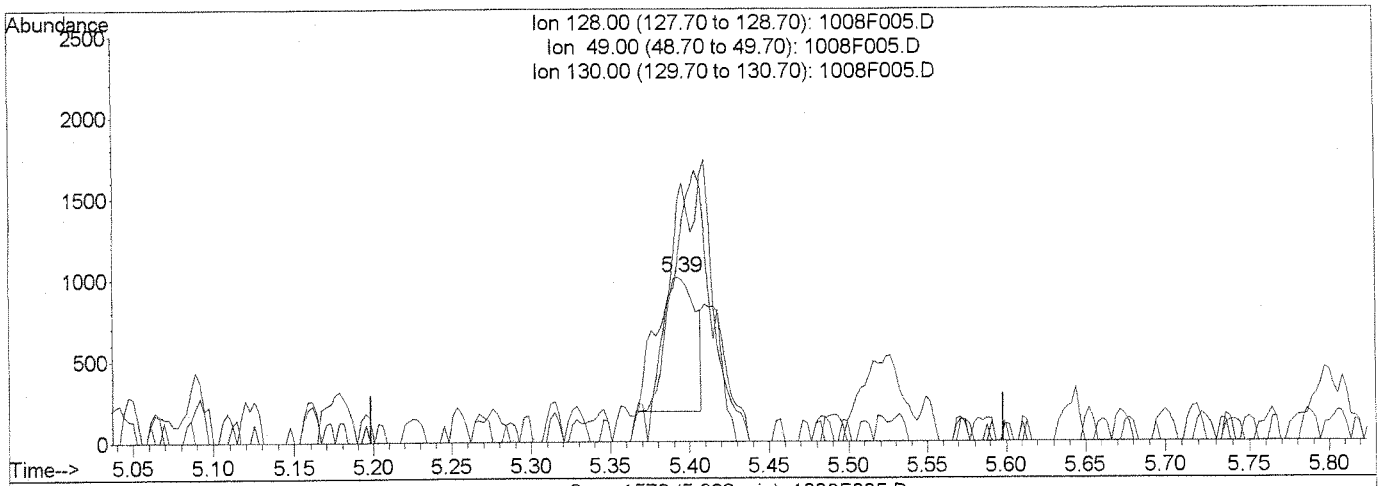
10/08/14

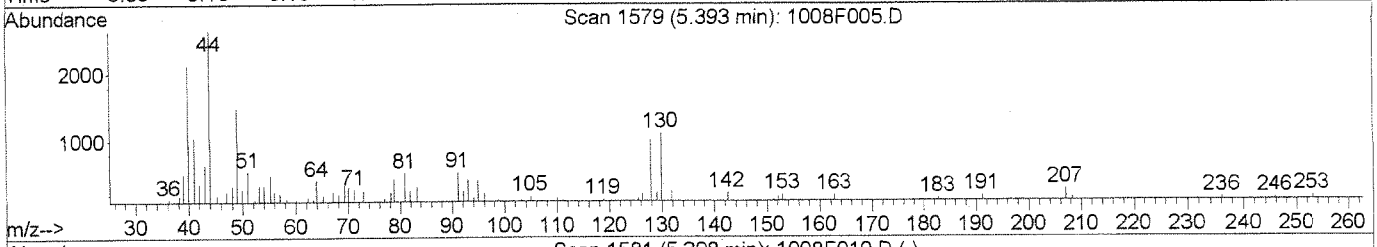
1008F005.D 100814MS27_8260.M Wed Oct 08 17:08:49 2014

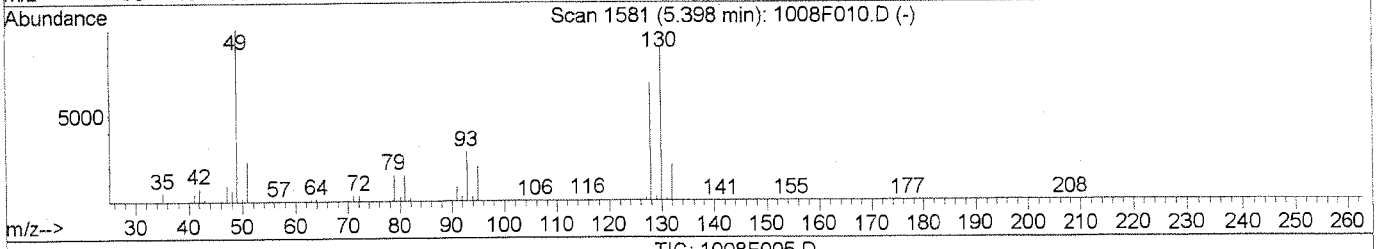
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:09 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F005.D

(38) Bromochloromethane (T)

5.39min 0.09PPB

response 1132

Ion	Exp%	Act%
128.00	100	100
49.00	146.90	154.00
130.00	129.80	104.96
0.00	0.00	0.00

Manual Integration:

Before

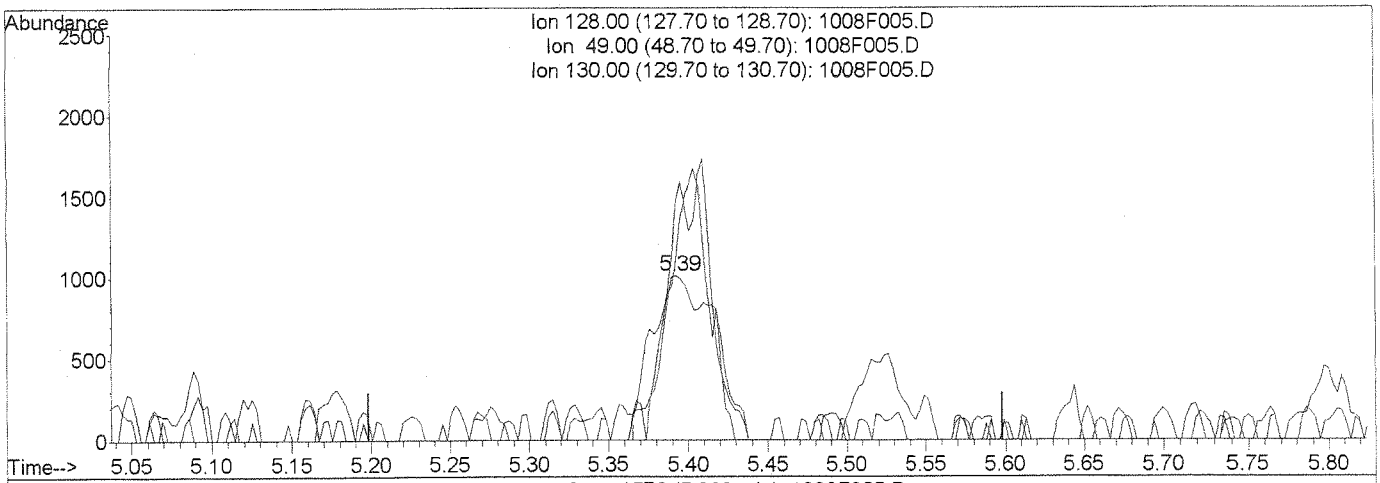
10/08/14

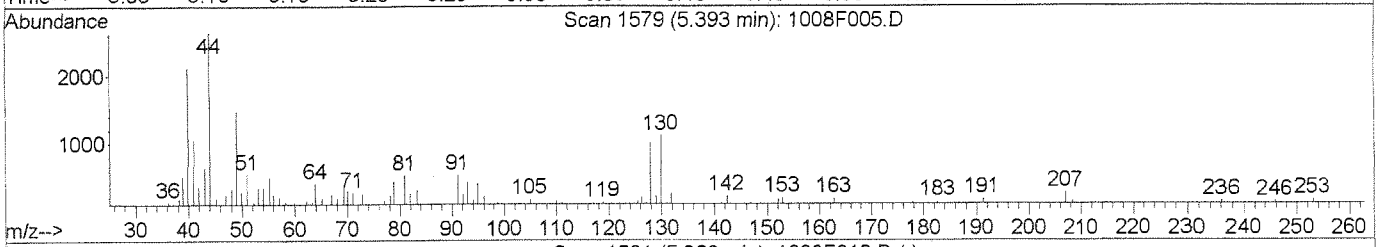
1008F005.D 100814MS27_8260.M Wed Oct 08 17:09:13 2014

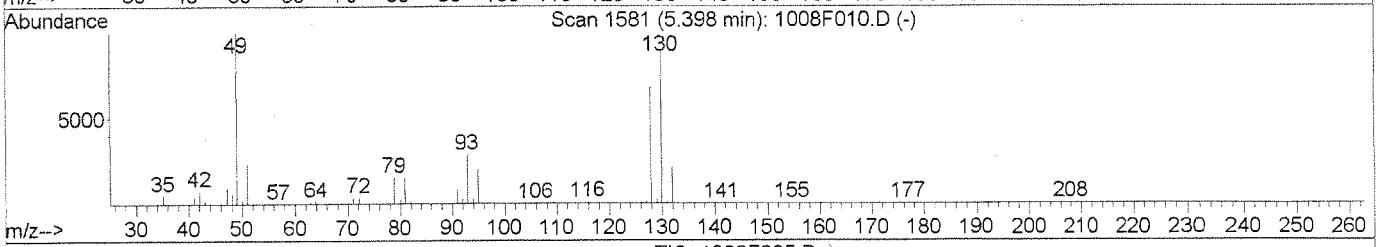
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:09 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F005.D

(38) Bromochloromethane (T)

5.39min 0.20PPB m

response 2477

Ion	Exp%	Act%
128.00	100	100
49.00	146.90	146.44
130.00	129.80	109.78
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

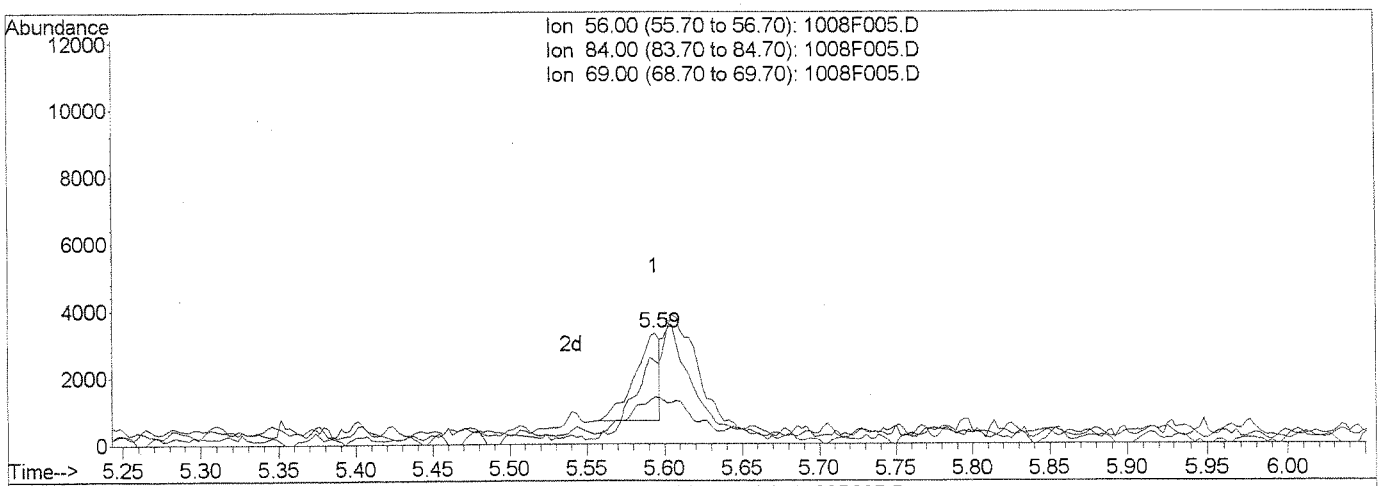
10/08/14

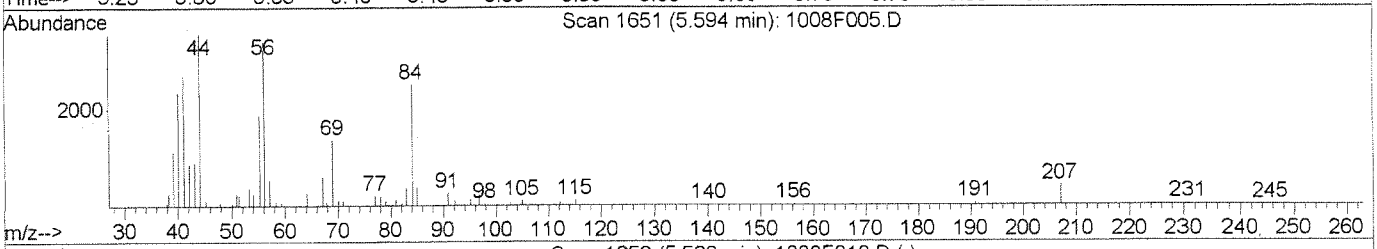
1008F005.D 100814MS27_8260.M Wed Oct 08 17:09:17 2014

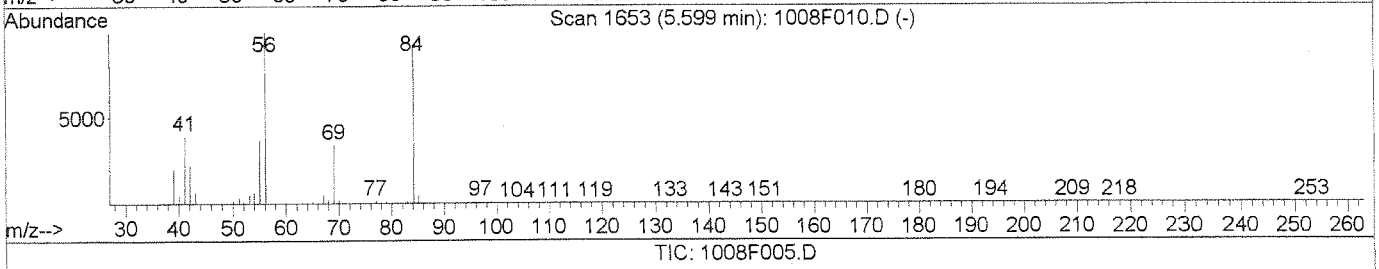
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:09 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F005.D

(41) Cyclohexane (T)

5.59min 0.07PPB

response 2852

Ion	Exp%	Act%
56.00	100	100
84.00	83.90	87.62
69.00	31.80	41.35
0.00	0.00	0.00

Manual Integration:

Before

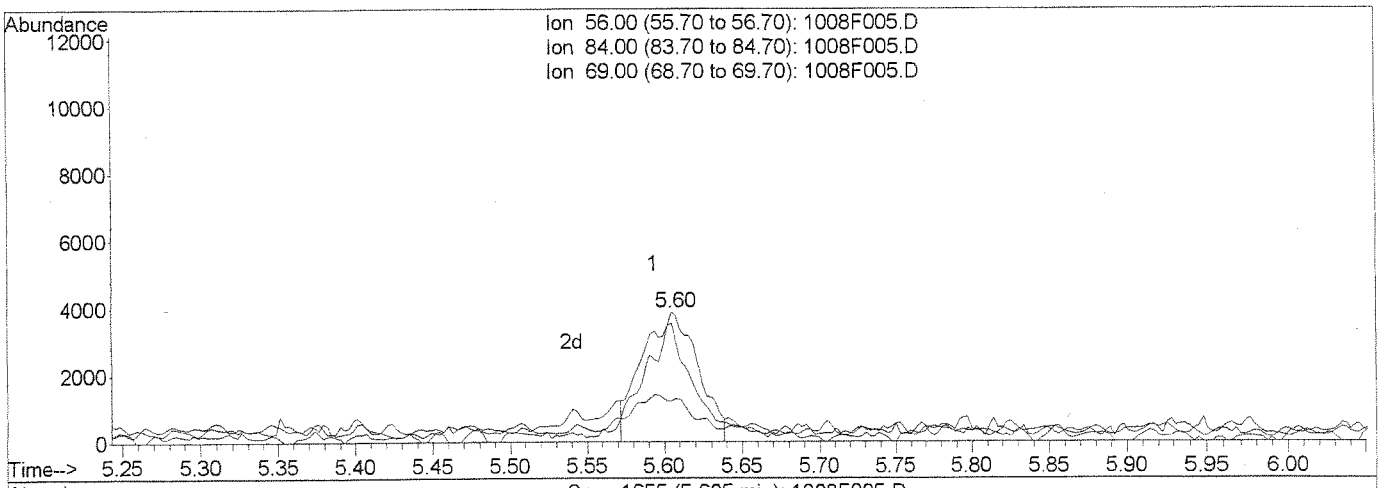
10/08/14

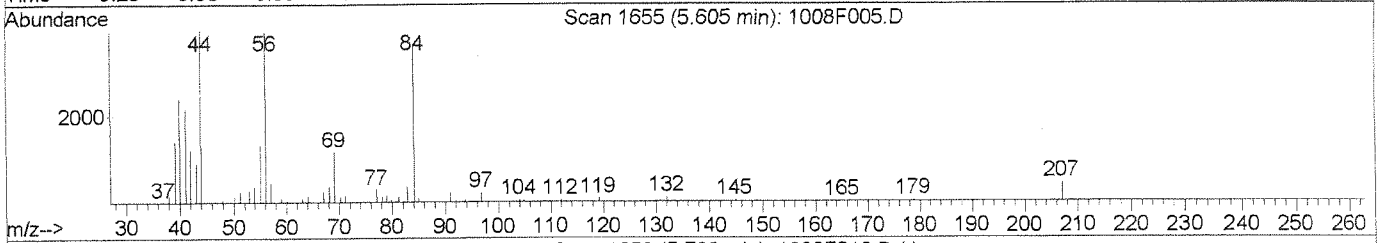
1008F005.D 100814MS27_8260.M Wed Oct 08 17:09:22 2014

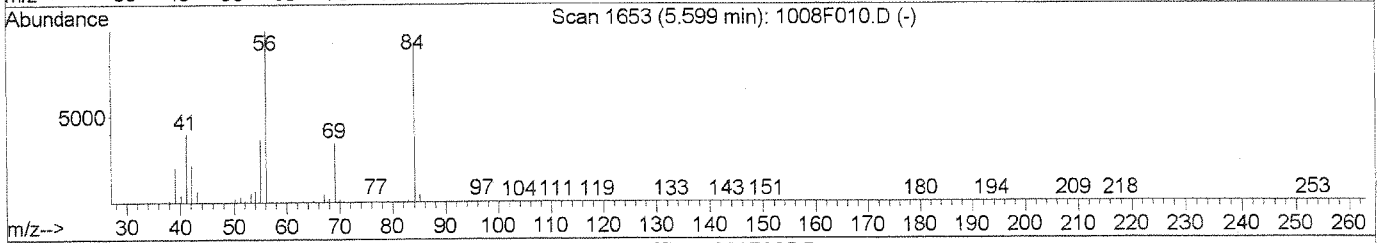
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:09 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F005.D

(41) Cyclohexane (T)

5.60min 0.23PPB m

response 9686

Ion	Exp%	Act%
56.00	100	100
84.00	83.90	91.68
69.00	31.80	31.58
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

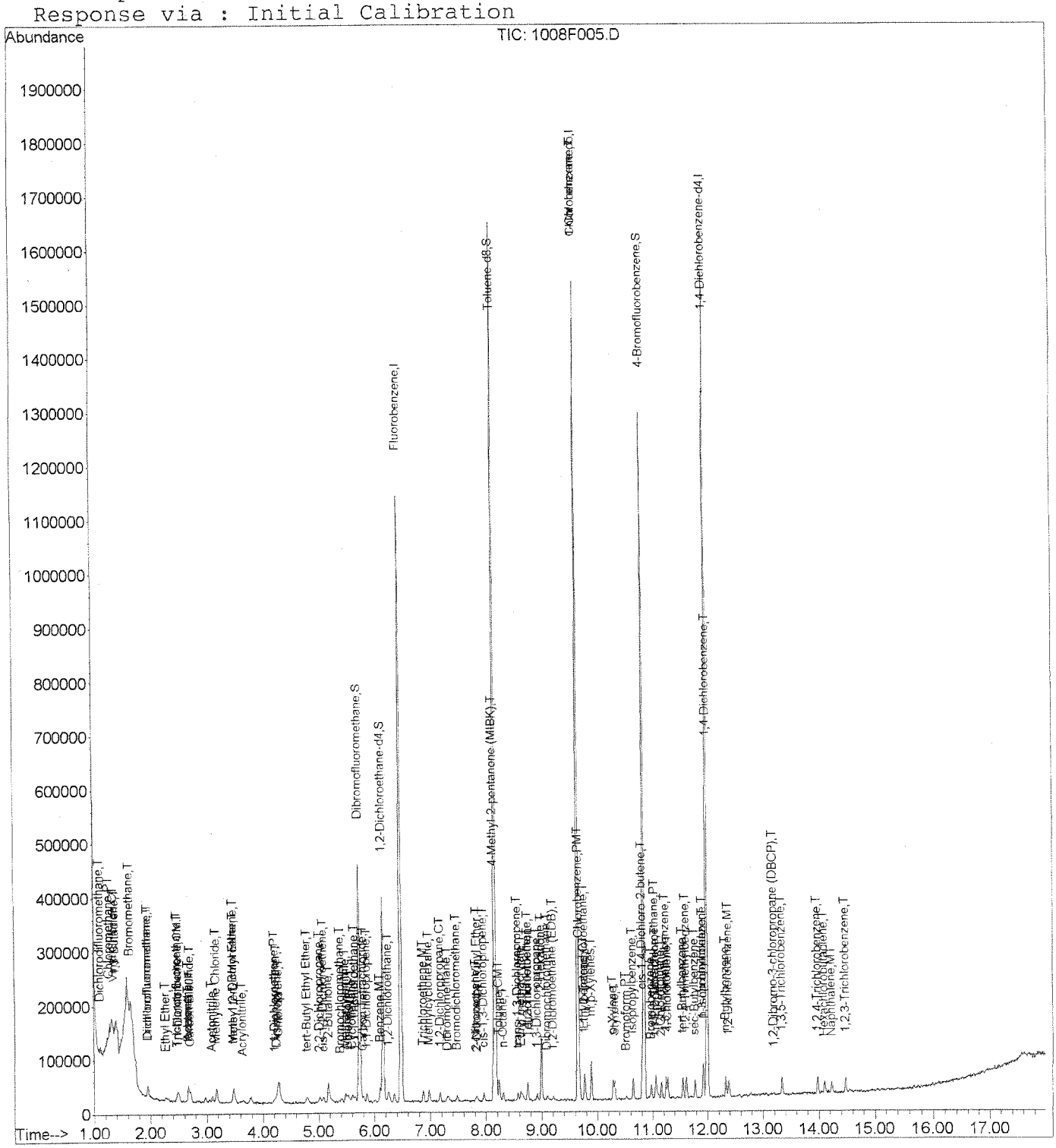
10/08/14

1008F005.D 100814MS27_8260.M Wed Oct 08 17:09:33 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F005.D Vial: 4
Acq On : 8 Oct 2014 2:21 pm Operator: KR
Sample : 8260 ICAL 0.2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:11 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:11:48 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/8/14

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1093940	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	455944	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	448454	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	293375	9.88	PPB	0.00
Spiked Amount 10.000			Recovery =	98.80%		
47) 1,2-Dichloroethane-d4	6.15	65	281497	9.10	PPB	0.00
Spiked Amount 10.000			Recovery =	91.00%		
62) Toluene-d8	8.16	98	1091925	10.19	PPB	0.00
Spiked Amount 10.000			Recovery =	101.90%		
84) 4-Bromofluorobenzene	10.84	95	412812	9.82	PPB	0.00
Spiked Amount 10.000			Recovery =	98.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	15744	0.49	PPB	97
3) Chloromethane	1.27	50	24028	0.58	PPB	99
4) Vinyl Chloride	1.35	62	19075	0.51	PPB	88
5) 1,3-Butadiene	1.38	54	13527	0.43	PPB	95
6) Bromomethane	1.65	96	22111	0.97	PPB	99
7) Chloroethane	1.74	64	10634	0.47	PPB	96
8) Dichlorofluoromethane	1.96	67	26708	0.60	PPB	93
9) Trichlorofluoromethane	1.95	101	22886	0.50	PPB	96
10) Ethyl Ether	2.27	59	9659	0.57	PPB	99
11) Acrolein	2.48	56	5812	3.42	PPB	89
12) Trichlorotrifluoroethane	2.47	151	10577	0.66	PPB	93
13) 1,1-Dichloroethene	2.50	96	10946	0.52	PPB	94
14) Acetone	2.66	43	80404	16.96	PPB	98
15) Iodomethane	2.69	142	18505	0.79	PPB	94
16) Carbon Disulfide	2.71	76	41574	0.73	PPB	99
17) 2-Propanol (Isopropyl Alco	2.85	45	11866m	12.84	PPB	
18) 3-Chloro-1-propene	2.97	76	6750	0.50	PPB #	71
19) Methyl Acetate	3.03	43	9314	0.43	PPB	90
20) Acetonitrile	3.10	40	21064	18.23	PPB	98
21) Methylene Chloride	3.18	84	21855	0.74	PPB	97
23) Acrylonitrile	3.64	53	11921	1.74	PPB	89
24) Methyl tert-Butyl Ether	3.46	73	61558	0.99	PPB	99
25) trans-1,2-Dichloroethene	3.47	96	14020	0.56	PPB	91
26) Hexane	3.78	57	16988	0.62	PPB	95
27) Diisopropyl Ether	4.24	45	38839	0.46	PPB	97
28) 1,1-Dichloroethane	4.21	63	23651	0.50	PPB	92
30) Chloroprene	4.28	53	80567	1.84	PPB	98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:11:48 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) tert-Butyl Ethyl Ether	4.79	59	35939	0.45 PPB		91
32) 2,2-Dichloropropane	5.02	77	20339	0.57 PPB		95
33) cis-1,2-Dichloroethene	5.08	96	15476	0.55 PPB		94
34) 2-Butanone	5.17	72	33861	17.73 PPB		98
35) Ethyl Acetate	5.22	61	2716m	1.01 PPB		
37) Methacrylonitrile	5.48	67	16325	1.88 PPB	#	82
38) Bromochloromethane	5.40	128	6037	0.46 PPB		96
40) Chloroform	5.52	83	23026	0.47 PPB		98
41) Cyclohexane	5.60	56	22122	0.50 PPB		96
42) 1,1,1-Trichloroethane	5.65	97	22013	0.53 PPB		93
44) Carbon Tetrachloride	5.80	117	17793	0.50 PPB		99
45) 1,1-Dichloropropene	5.86	75	17222	0.49 PPB		93
46) Isobutyl Alcohol	6.19	43	6907	10.25 PPB		76
48) Benzene	6.10	78	59970	0.55 PPB		95
49) 1,2-Dichloroethane	6.24	62	16344	0.46 PPB		91
50) tert-Amyl Methyl Ether	6.25	55	5897	0.35 PPB	#	71
51) Trichloroethene	6.87	95	14548	0.52 PPB		99
52) Methylcyclohexane	6.97	83	22811	0.51 PPB		91
53) 1,2-Dichloropropane	7.17	63	14638	0.49 PPB		98
54) Dibromomethane	7.31	93	7973	0.50 PPB		96
55) Methyl methacrylate	7.32	69	6906	0.46 PPB		95
57) Bromodichloromethane	7.48	83	19271	0.51 PPB		94
58) 2-Nitropropane	7.82	41	9219	1.61 PPB		91
59) 2-Chloroethyl Vinyl Ether	7.84	63	7013	0.50 PPB		95
60) cis-1,3-Dichloropropene	7.96	75	21882	0.49 PPB		96
61) 4-Methyl-2-pentanone (MIBK	8.13	58	123172	17.27 PPB		97
63) Toluene	8.23	92	36068	0.53 PPB		96
65) n-Octane	8.30	85	7288	0.54 PPB		93
66) trans-1,3-Dichloropropene	8.57	75	17646	0.46 PPB		96
67) Ethyl methacrylate	8.62	69	12805	0.45 PPB		89
68) 1,1,2-Trichloroethane	8.74	83	8656	0.45 PPB		91
69) Tetrachloroethene	8.75	164	13247	0.62 PPB		86
70) 2-Hexanone	8.99	57	38287	17.23 PPB		92
71) 1,3-Dichloropropane	8.91	76	18839	0.49 PPB		89
72) Dibromochloromethane	9.10	129	12351	0.47 PPB		95
73) 1,2-Dibromoethane (EDB)	9.21	107	11356	0.54 PPB		87
74) 1-Chlorohexane	9.65	91	21014	0.54 PPB		96
75) Chlorobenzene	9.68	112	40819	0.55 PPB		96
76) Ethylbenzene	9.76	106	21226	0.54 PPB		96
77) 1,1,1,2-Tetrachloroethane	9.78	131	15055	0.57 PPB		87
78) m,p-Xylenes	9.89	106	50843	1.08 PPB		93

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

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:11:48 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
79)	o-Xylene	10.28	106	25359	0.53	PPB		88
80)	Styrene	10.31	103	20008	0.52	PPB		91
81)	Bromoform	10.52	173	8652	0.54	PPB		89
82)	Isopropylbenzene	10.64	105	63370	0.52	PPB		93
83)	cis-1,4-Dichloro-2-butene	10.81	89	7258	1.86	PPB		88
86)	1,1,2,2-Tetrachloroethane	11.03	83	13300	0.46	PPB		93
87)	trans-1,4-Dichloro-2-buten	11.10	53	3294	0.47	PPB		71
88)	Bromobenzene	10.97	156	17247	0.49	PPB		90
89)	n-Propylbenzene	11.05	91	74349	0.45	PPB		96
90)	1,2,3-Trichloropropane	11.08	110	4047	0.53	PPB	#	71
91)	2-Chlorotoluene	11.16	91	45748	0.45	PPB		96
92)	1,3,5-Trimethylbenzene	11.24	105	52413	0.45	PPB		94
93)	4-Chlorotoluene	11.28	91	48642m	0.46	PPB		
94)	tert-Butylbenzene	11.55	119	48570	0.50	PPB		96
95)	1,2,4-Trimethylbenzene	11.61	105	53750	0.45	PPB		96
96)	sec-Butylbenzene	11.77	105	65996	0.45	PPB		96
97)	p-Isopropyltoluene	11.92	119	54751	0.47	PPB		98
98)	1,3-Dichlorobenzene	11.91	146	33446	0.50	PPB		96
99)	1,4-Dichlorobenzene	12.01	146	32257	0.49	PPB		91
100)	n-Butylbenzene	12.33	91	51032	0.44	PPB		98
101)	1,2-Dichlorobenzene	12.38	146	30942	0.51	PPB		98
102)	1,2-Dibromo-3-chloropropan	13.19	155	1952	0.47	PPB	#	80
103)	1,3,5-Trichlorobenzene	13.33	180	26856	0.54	PPB		97
104)	1,2,4-Trichlorobenzene	13.98	180	23569	0.57	PPB		98
105)	Hexachlorobutadiene	14.10	225	9987	0.57	PPB		92
106)	Naphthalene	14.23	128	38558	0.48	PPB		95
107)	1,2,3-Trichlorobenzene	14.47	180	20443	0.55	PPB		96

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

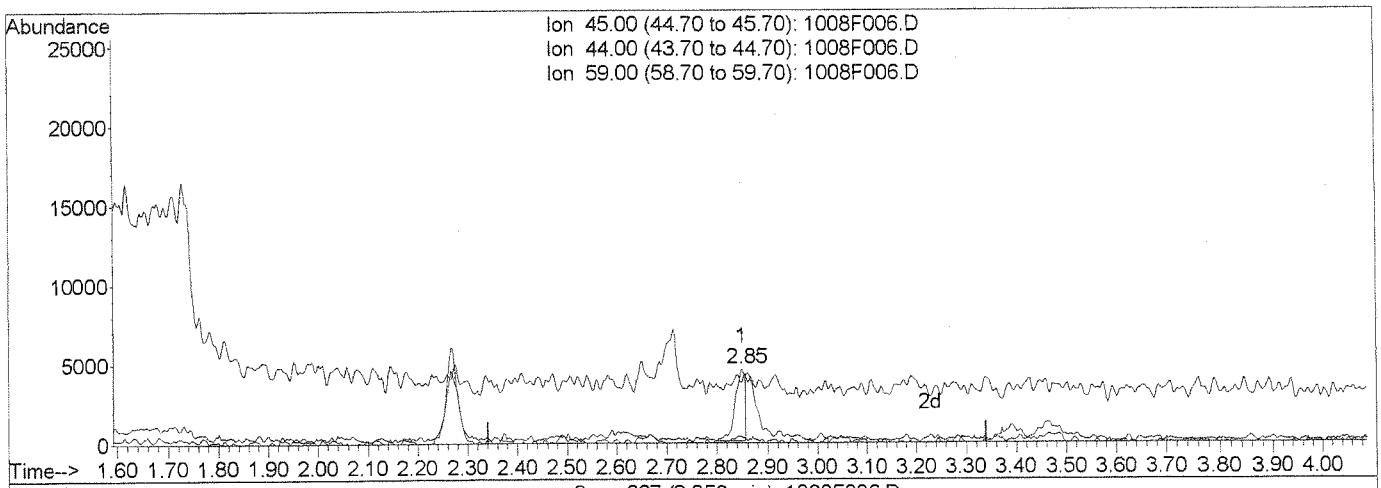
Quantitation Report (Qedit)

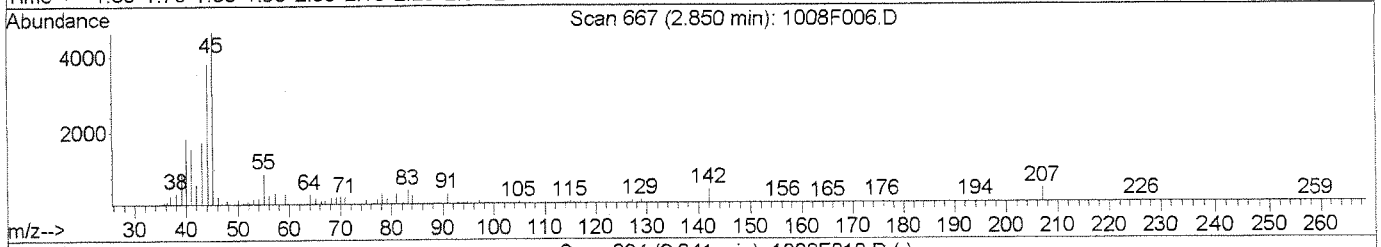
Data File : J:\MS27\DATA\100814\1008F006.D
Acq On : 8 Oct 2014 2:48 pm
Sample : 8260 ICAL 0.5
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:11 2014

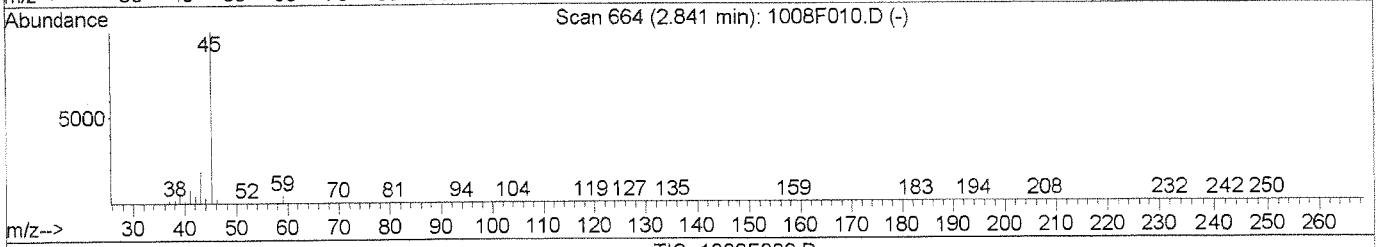
Vial: 5
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration







TIC: 1008F006.D

(17) 2-Propanol (Isopropyl Alcohol) (T)

2.85min 6.52PPB

response 6025

Ion	Exp%	Act%
45.00	100	100
44.00	3.40	3.25
59.00	4.10	8.00
0.00	0.00	0.00

Manual Integration:

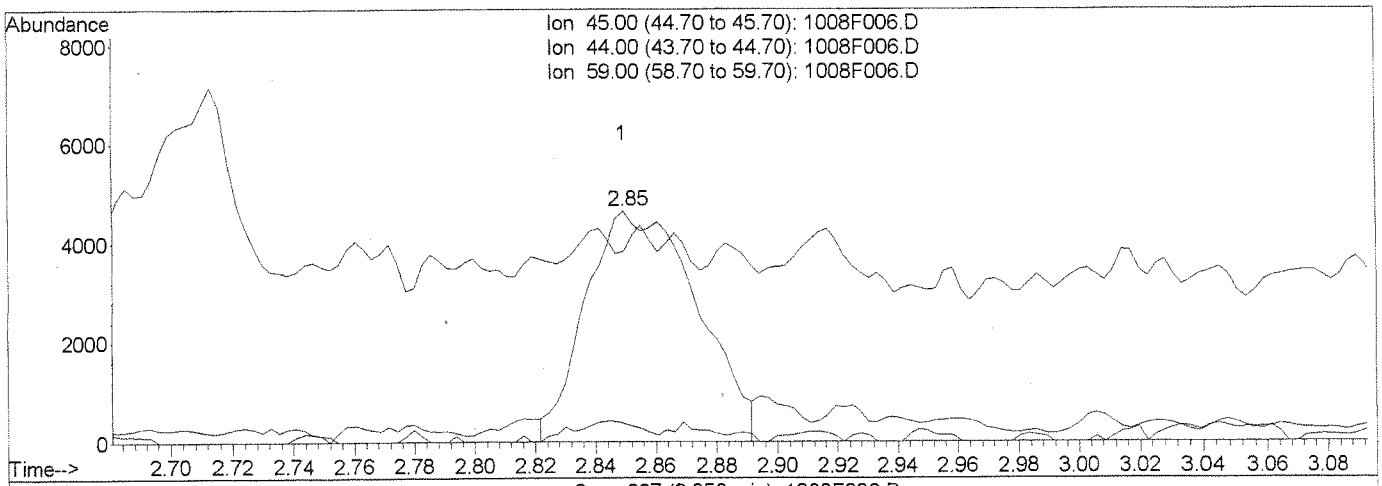
Before

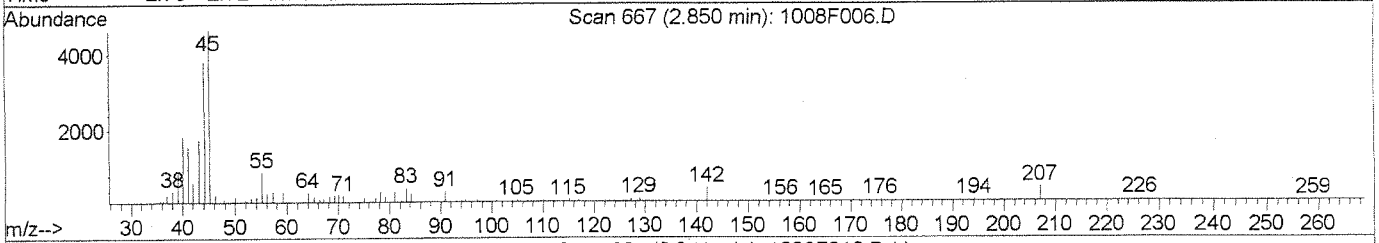
10/08/14

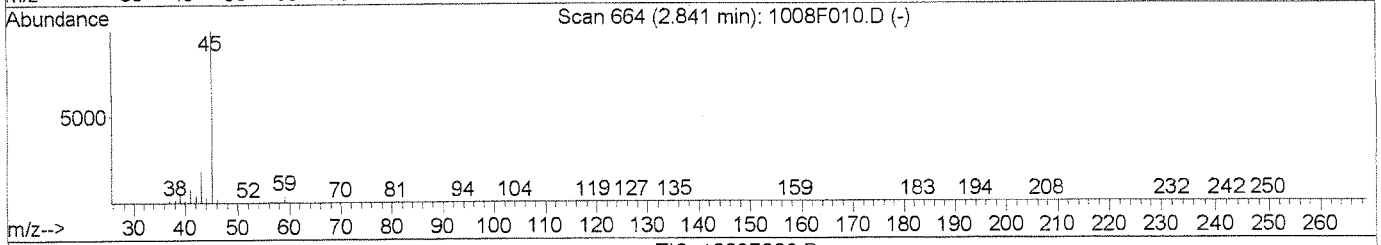
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:12 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration







TIC: 1008F006.D

(17) 2-Propanol (Isopropyl Alcohol) (T)

2.85min 12.84PPB m

response 11866

Ion	Exp%	Act%
45.00	100	100
44.00	3.40	82.46#
59.00	4.10	7.78
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

10/08/14

1008F006.D 100814MS27_8260.M Wed Oct 08 17:12:17 2014

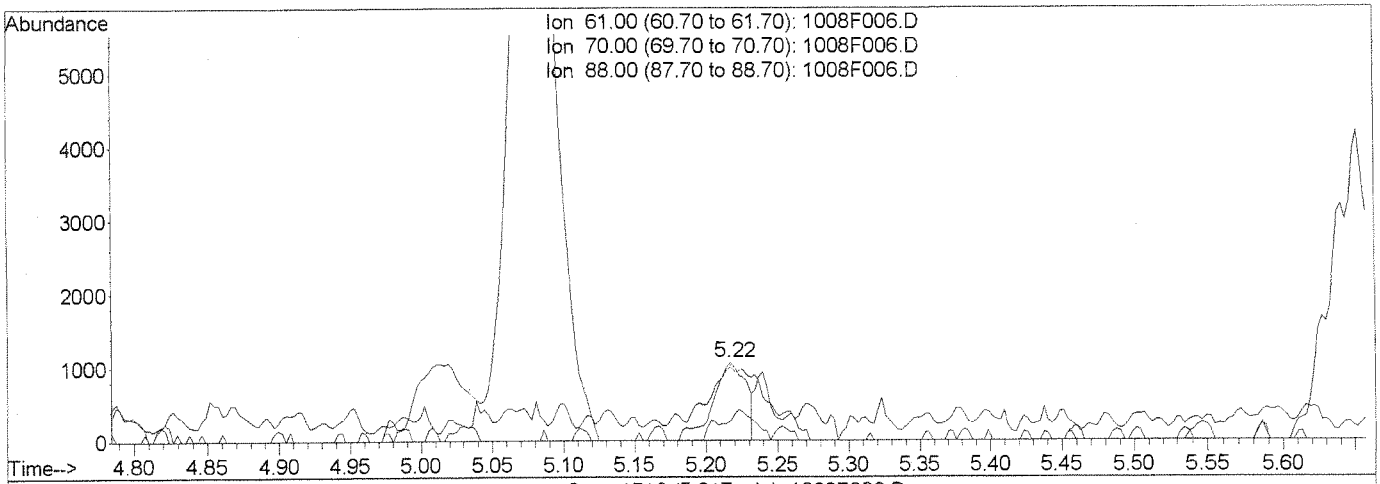
Quantitation Report (Qedit)

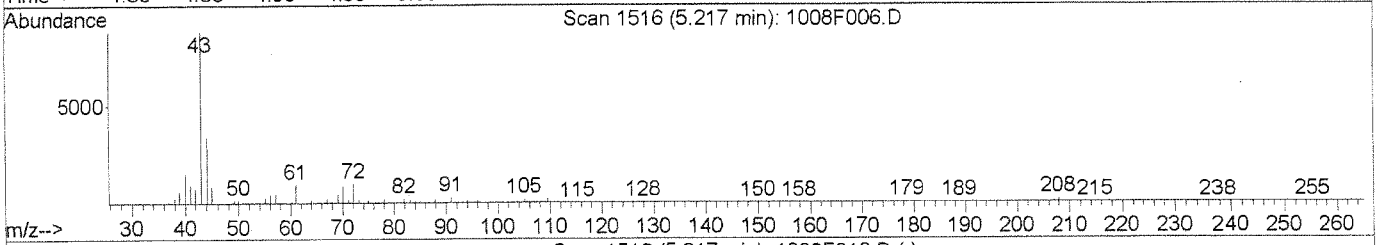
Data File : J:\MS27\DATA\100814\1008F006.D
Acq On : 8 Oct 2014 2:48 pm
Sample : 8260 ICAL 0.5
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:12 2014

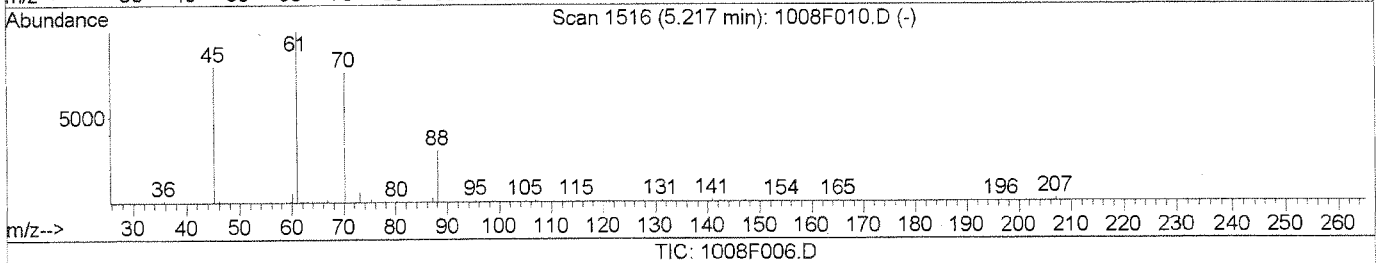
Vial: 5
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration







TIC: 1008F006.D

(35) Ethyl Acetate (T)

5.22min 0.63PPB

response 1706

Ion	Exp%	Act%
61.00	100	100
70.00	76.40	58.65
88.00	30.20	25.09
0.00	0.00	0.00

Manual Integration:

Before

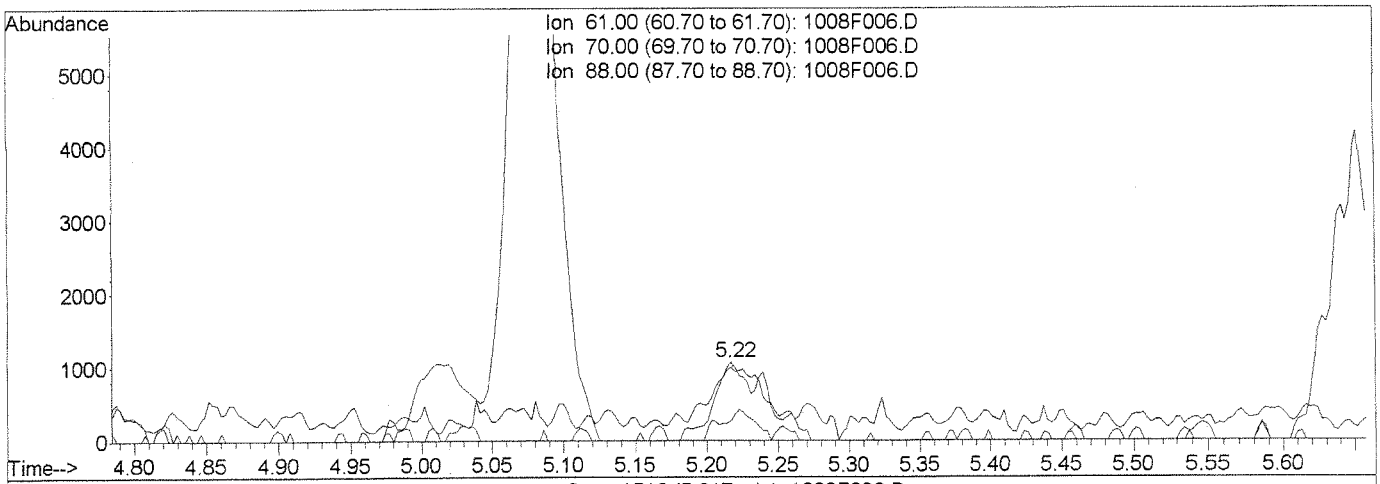
10/08/14

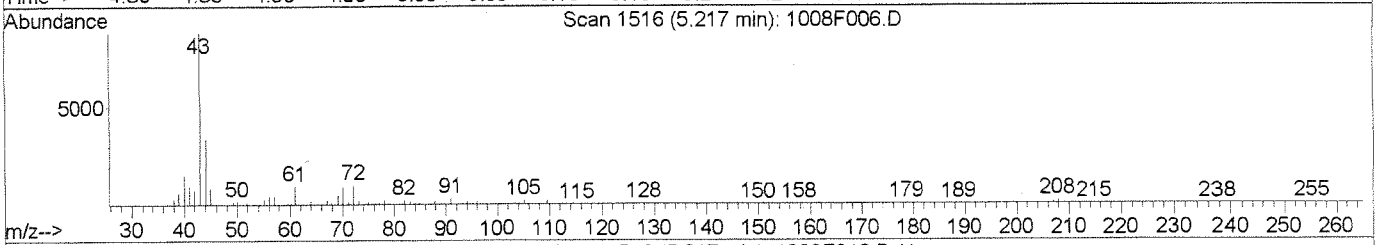
1008F006.D 100814MS27_8260.M Wed Oct 08 17:12:41 2014

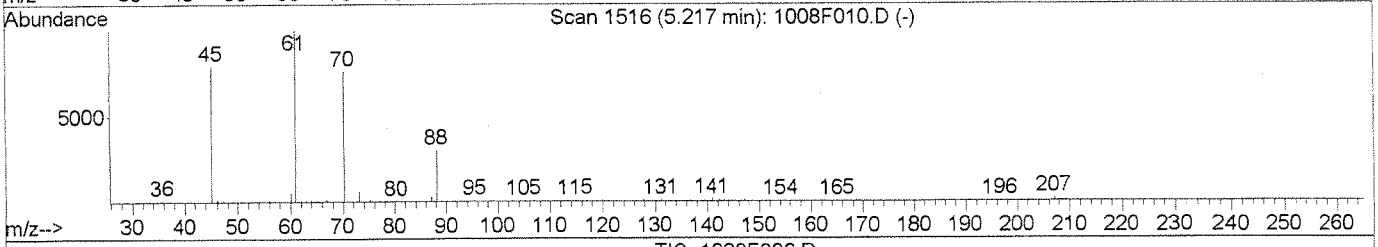
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:12 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration







TIC: 1008F006.D

(35) Ethyl Acetate (T)

5.22min 1.01PPB m

response 2716

Ion	Exp%	Act%
61.00	100	100
70.00	76.40	93.42
88.00	30.20	25.09
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

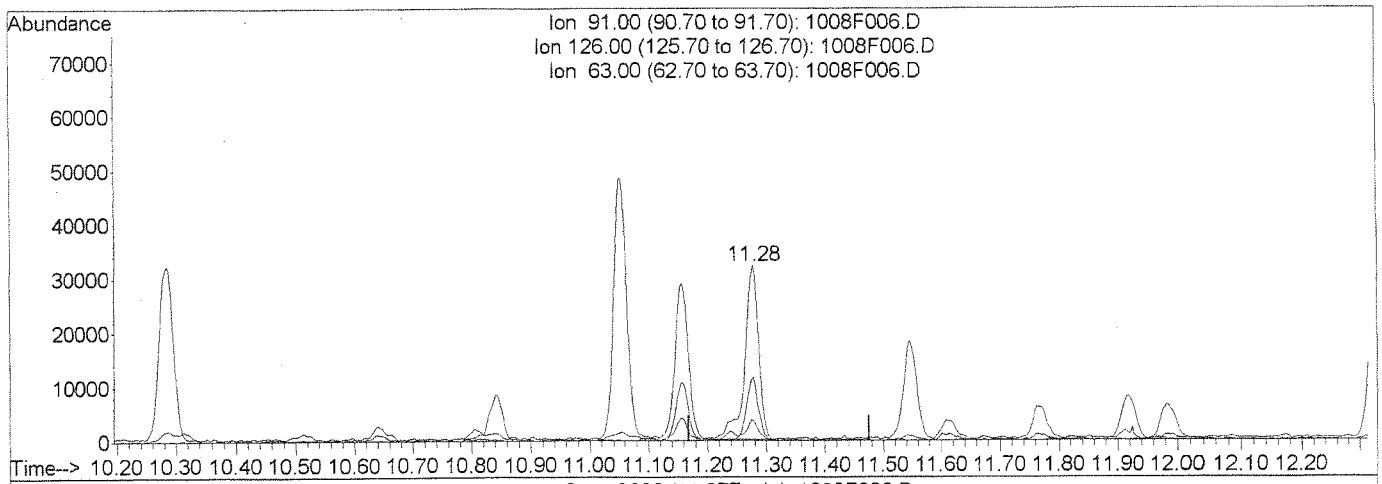
10/08/14

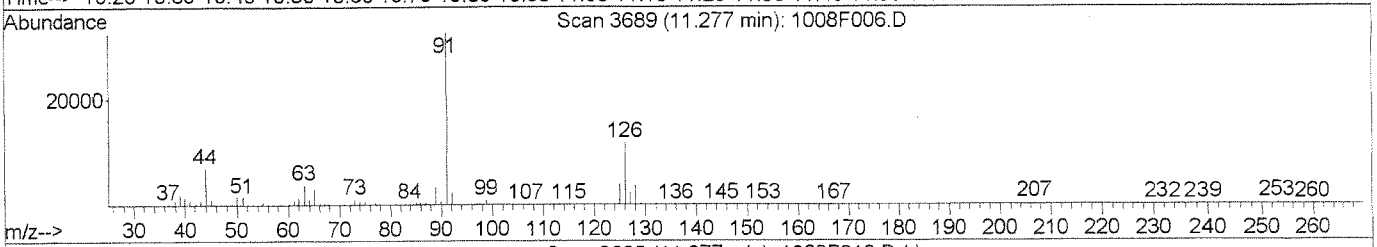
1008F006.D 100814MS27_8260.M Wed Oct 08 17:12:44 2014

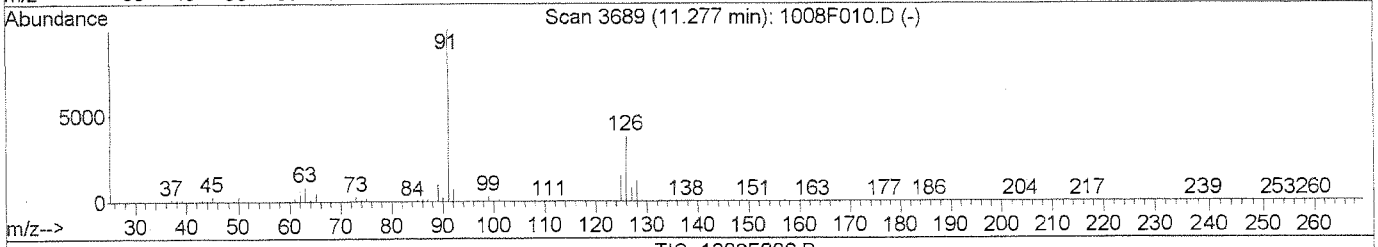
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:13 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F006.D

(93) 4-Chlorotoluene (T)

11.28min 0.51PPB

response 53582

Ion	Exp%	Act%
91.00	100	100
126.00	34.60	36.46
63.00	11.40	11.70
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

1008F006.D 100814MS27_8260.M Wed Oct 08 17:13:34 2014

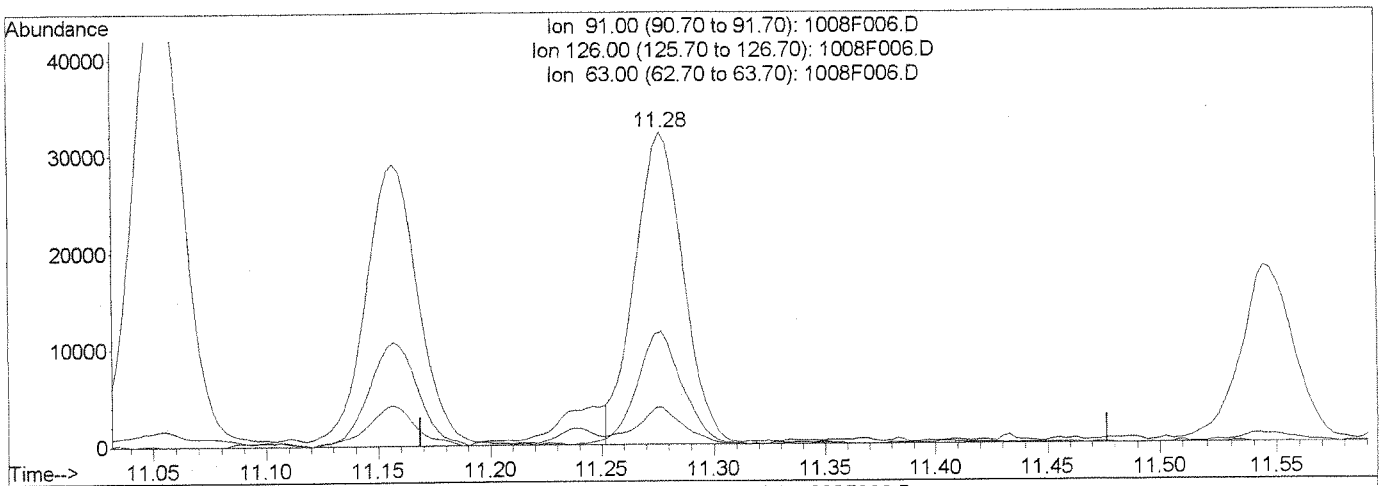
Quantitation Report (Qedit)

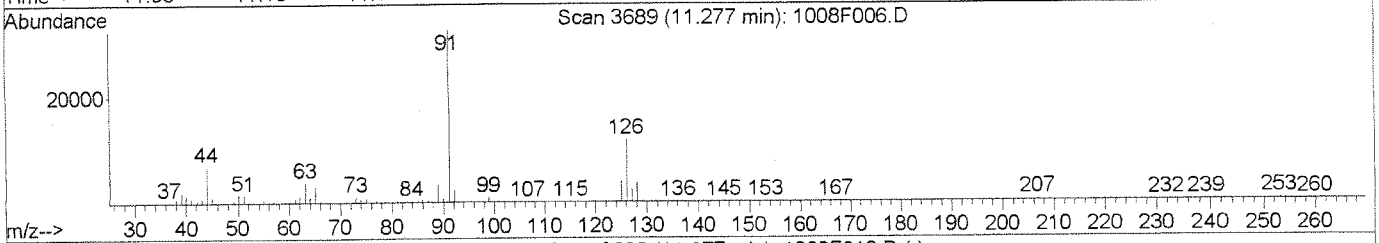
Data File : J:\MS27\DATA\100814\1008F006.D
Acq On : 8 Oct 2014 2:48 pm
Sample : 8260 ICAL 0.5
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:13 2014

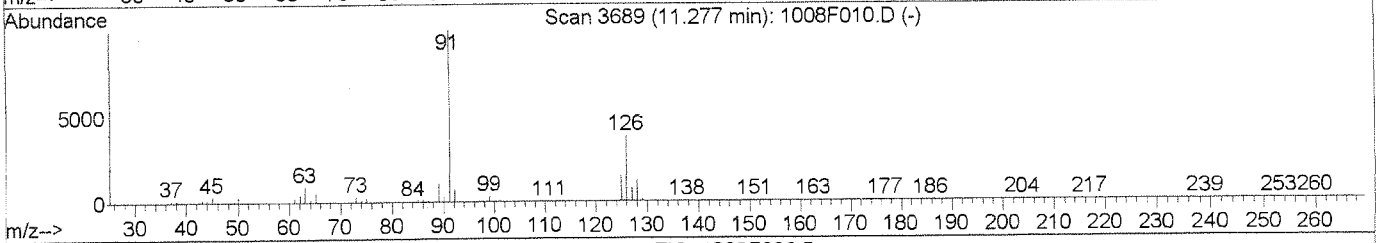
Vial: 5
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration







TIC: 1008F006.D

(93) 4-Chlorotoluene (T)

11.28min 0.46PPB m

response 48642

Ion	Exp%	Act%
91.00	100	100
126.00	34.60	36.22
63.00	11.40	11.96
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

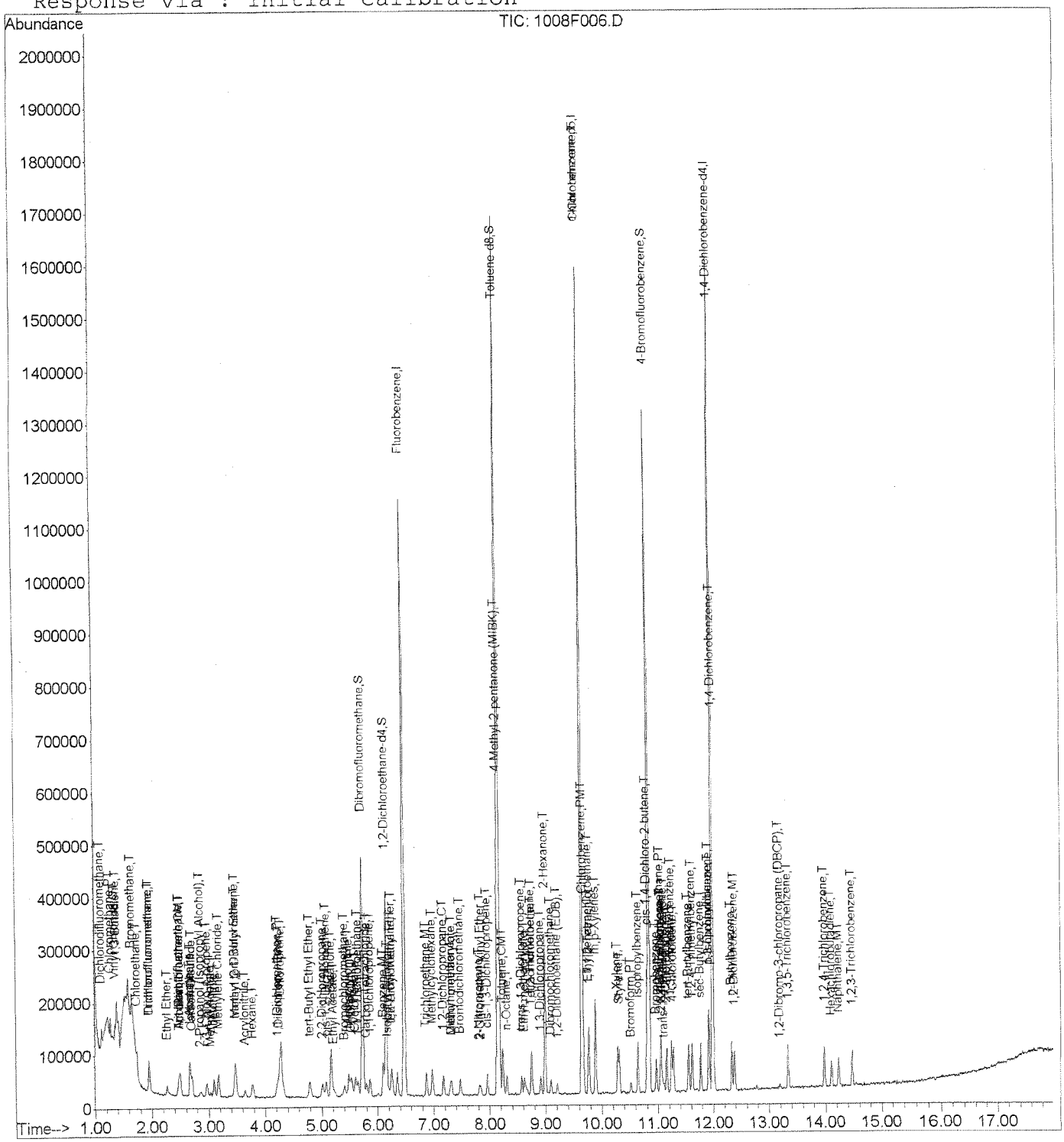
10/08/14

1008F006.D 100814MS27_8260.M Wed Oct 08 17:13:39 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F006.D Vial: 5
Acq On : 8 Oct 2014 2:48 pm Operator: KR
Sample : 8260 ICAL 0.5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:13 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:14:00 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1081398	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	457966	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	437639	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	294814	10.04	PPB		0.00
Spiked Amount 10.000			Recovery =	100.40%			
47) 1,2-Dichloroethane-d4	6.15	65	270650	8.85	PPB		0.00
Spiked Amount 10.000			Recovery =	88.50%			
62) Toluene-d8	8.16	98	1082862	10.22	PPB		0.00
Spiked Amount 10.000			Recovery =	102.20%			
84) 4-Bromofluorobenzene	10.84	95	408795	9.68	PPB		0.00
Spiked Amount 10.000			Recovery =	96.80%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	36499	1.15	PPB		99
3) Chloromethane	1.27	50	48611	1.20	PPB		98
4) Vinyl Chloride	1.35	62	39940	1.09	PPB		95
5) 1,3-Butadiene	1.38	54	31131	1.00	PPB		97
6) Bromomethane	1.65	96	38364	1.70	PPB		93
7) Chloroethane	1.74	64	19787	0.89	PPB		99
8) Dichlorofluoromethane	1.96	67	52616	1.19	PPB		97
9) Trichlorofluoromethane	1.95	101	49407	1.09	PPB		96
10) Ethyl Ether	2.27	59	19077	1.13	PPB		98
11) Acrolein	2.48	56	14144	8.41	PPB		91
12) Trichlorotrifluoroethane	2.47	151	22222	1.39	PPB		91
13) 1,1-Dichloroethene	2.50	96	25448	1.23	PPB		94
14) Acetone	2.66	43	160829	34.32	PPB		98
15) Iodomethane	2.68	142	51727	2.22	PPB		95
16) Carbon Disulfide	2.71	76	85710	1.51	PPB		99
17) 2-Propanol (Isopropyl Alco	2.85	45	27421	30.01	PPB		95
18) 3-Chloro-1-propene	2.97	76	15674	1.19	PPB	#	74
19) Methyl Acetate	3.04	43	18655	0.88	PPB		97
20) Acetonitrile	3.09	40	38481	33.69	PPB		90
21) Methylene Chloride	3.17	84	36046	1.24	PPB		97
22) tert-Butyl Alcohol	3.39	59	5945m	4.04	PPB		
23) Acrylonitrile	3.64	53	24465	3.61	PPB		90
24) Methyl tert-Butyl Ether	3.46	73	126103	2.05	PPB		95
25) trans-1,2-Dichloroethene	3.48	96	27568	1.11	PPB		84
26) Hexane	3.78	57	35781	1.32	PPB		84
27) Diisopropyl Ether	4.24	45	81190	0.97	PPB		97
28) 1,1-Dichloroethane	4.21	63	48962	1.05	PPB		97

(#) = qualifier out of range (m) = manual integration
1008F007.D 100814MS27_8260.M Wed Oct 08 17:15:35 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:14:00 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.32	86	6253	1.77	PPB	#	71
30) Chloroprene	4.28	53	171427	3.95	PPB		98
31) tert-Butyl Ethyl Ether	4.78	59	79051	1.01	PPB		95
32) 2,2-Dichloropropane	5.02	77	43023	1.23	PPB		94
33) cis-1,2-Dichloroethene	5.08	96	33646	1.20	PPB		94
34) 2-Butanone	5.17	72	70985	37.59	PPB		90
35) Ethyl Acetate	5.22	61	4311	1.62	PPB		78
36) Propionitrile	5.35	54	8870	3.60	PPB		95
37) Methacrylonitrile	5.48	67	33229	3.88	PPB		93
38) Bromochloromethane	5.40	128	13696	1.06	PPB		93
39) Tetrahydrofuran	5.43	71	1699	0.87	PPB	#	72
40) Chloroform	5.52	83	51793	1.07	PPB		100
41) Cyclohexane	5.60	56	45125	1.04	PPB		99
42) 1,1,1-Trichloroethane	5.65	97	45610	1.11	PPB		98
44) Carbon Tetrachloride	5.80	117	40134	1.14	PPB		97
45) 1,1-Dichloropropene	5.86	75	37598	1.08	PPB		97
46) Isobutyl Alcohol	6.20	43	19656	29.52	PPB		83
48) Benzene	6.10	78	119143	1.11	PPB		96
49) 1,2-Dichloroethane	6.24	62	34924	0.99	PPB		94
50) tert-Amyl Methyl Ether	6.25	55	16381	0.98	PPB	#	81
51) Trichloroethene	6.87	95	30858	1.11	PPB		96
52) Methylcyclohexane	6.98	83	48520	1.11	PPB		96
53) 1,2-Dichloropropane	7.17	63	29494	0.99	PPB		93
54) Dibromomethane	7.30	93	17352	1.11	PPB		98
55) Methyl methacrylate	7.32	69	13707	0.92	PPB		85
56) 1,4-Dioxane	7.33	88	4901	29.04	PPB		99
57) Bromodichloromethane	7.48	83	37254	1.00	PPB		97
58) 2-Nitropropane	7.81	41	22278	3.93	PPB		90
59) 2-Chloroethyl Vinyl Ether	7.84	63	13455	0.98	PPB		93
60) cis-1,3-Dichloropropene	7.96	75	43839	0.99	PPB		93
61) 4-Methyl-2-pentanone (MIBK	8.13	58	255039	36.18	PPB		99
63) Toluene	8.23	92	73553	1.10	PPB		98
65) n-Octane	8.30	85	18357	1.37	PPB		97
66) trans-1,3-Dichloropropene	8.57	75	38390	0.99	PPB		98
67) Ethyl methacrylate	8.62	69	25546	0.90	PPB		100
68) 1,1,2-Trichloroethane	8.75	83	20203	1.06	PPB		93
69) Tetrachloroethene	8.76	164	26765	1.24	PPB		93
70) 2-Hexanone	8.99	57	82047	36.77	PPB		92
71) 1,3-Dichloropropane	8.91	76	37963	0.98	PPB		97
72) Dibromochloromethane	9.10	129	28391	1.07	PPB		96
73) 1,2-Dibromoethane (EDB)	9.21	107	23108	1.09	PPB		90

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:14:00 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

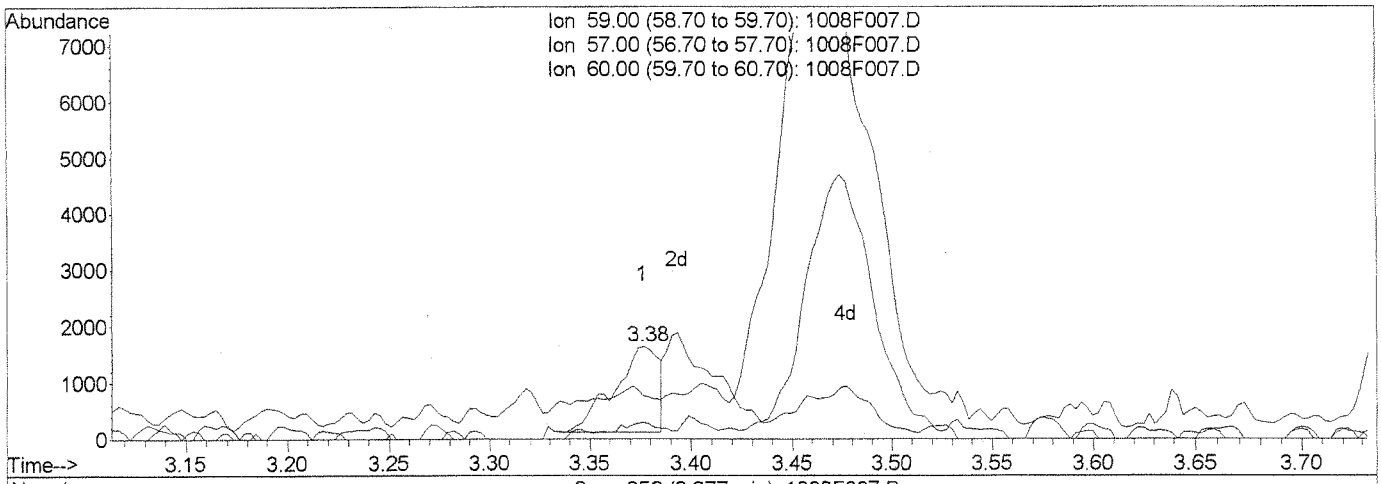
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74) 1-Chlorohexane	9.65	91	42272	1.08	PPB		95
75) Chlorobenzene	9.68	112	85139	1.14	PPB		99
76) Ethylbenzene	9.76	106	46394	1.18	PPB	#	75
77) 1,1,1,2-Tetrachloroethane	9.78	131	29962	1.12	PPB		98
78) m,p-Xylenes	9.89	106	106773	2.25	PPB		96
79) o-Xylene	10.28	106	53075	1.11	PPB		96
80) Styrene	10.31	103	42128m	1.08	PPB		
81) Bromoform	10.52	173	17129	1.07	PPB		91
82) Isopropylbenzene	10.64	105	132934	1.08	PPB		98
83) cis-1,4-Dichloro-2-butene	10.81	89	13728	3.50	PPB		94
86) 1,1,2,2-Tetrachloroethane	11.03	83	23969	0.86	PPB		95
87) trans-1,4-Dichloro-2-buten	11.10	53	5808	0.85	PPB		79
88) Bromobenzene	10.97	156	36445	1.07	PPB		95
89) n-Propylbenzene	11.05	91	157684	0.97	PPB		95
90) 1,2,3-Trichloropropane	11.08	110	7189	0.97	PPB	#	73
91) 2-Chlorotoluene	11.15	91	92805	0.94	PPB		99
92) 1,3,5-Trimethylbenzene	11.24	105	113285	0.99	PPB		98
93) 4-Chlorotoluene	11.28	91	100839	0.99	PPB		96
94) tert-Butylbenzene	11.55	119	96507	1.01	PPB		100
95) 1,2,4-Trimethylbenzene	11.61	105	109644	0.95	PPB		96
96) sec-Butylbenzene	11.77	105	137277	0.96	PPB		98
97) p-Isopropyltoluene	11.92	119	114087	1.00	PPB		100
98) 1,3-Dichlorobenzene	11.91	146	67956	1.05	PPB		98
99) 1,4-Dichlorobenzene	12.01	146	68507	1.06	PPB		98
100) n-Butylbenzene	12.33	91	107732	0.95	PPB		95
101) 1,2-Dichlorobenzene	12.38	146	61587	1.04	PPB		95
102) 1,2-Dibromo-3-chloropropan	13.20	155	3639	0.90	PPB		85
103) 1,3,5-Trichlorobenzene	13.34	180	52147	1.08	PPB		95
104) 1,2,4-Trichlorobenzene	13.98	180	47157	1.17	PPB		97
105) Hexachlorobutadiene	14.10	225	20377	1.19	PPB		98
106) Naphthalene	14.23	128	75887	0.96	PPB		99
107) 1,2,3-Trichlorobenzene	14.47	180	41342	1.14	PPB		91

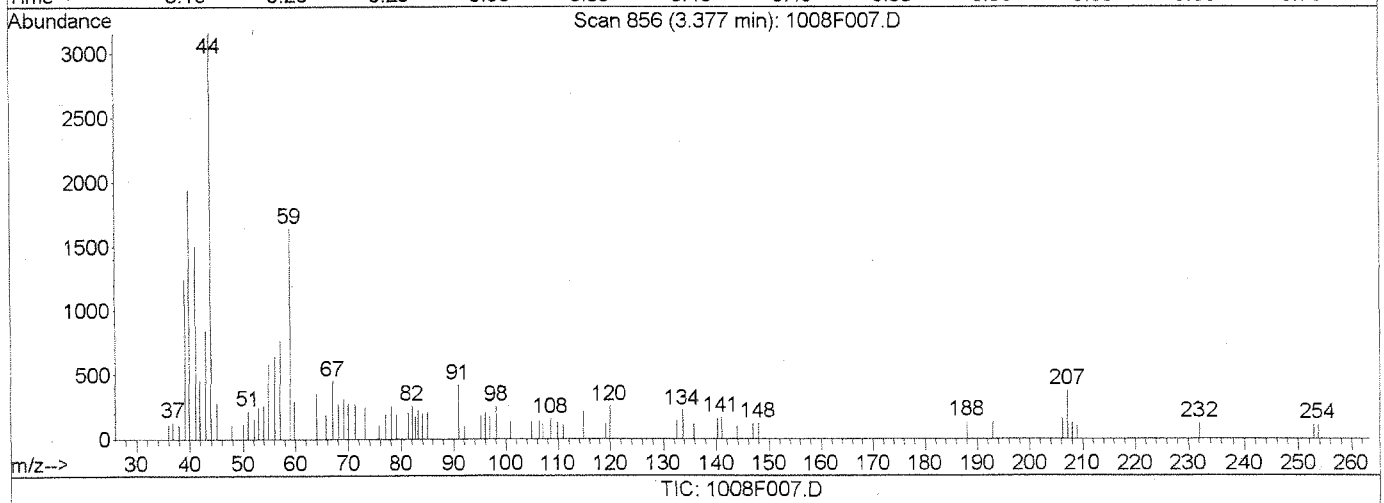
(#) = qualifier out of range (m) = manual integration
1008F007.D 100814MS27_8260.M Wed Oct 08 17:15:35 2014 Page 3

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:14 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration





TIC: 1008F007.D

(22) tert-Butyl Alcohol (T)

3.38min 1.60PPB

response 2356

Ion	Exp%	Act%
59.00	100	100
57.00	13.50	8.20
60.00	2.80	19.29
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

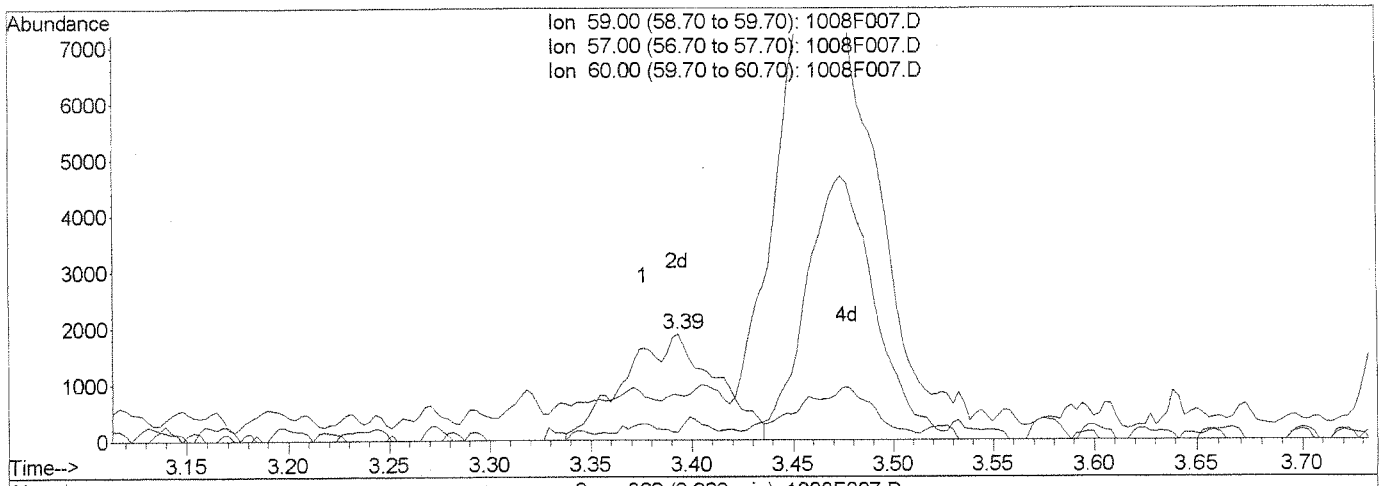
KR

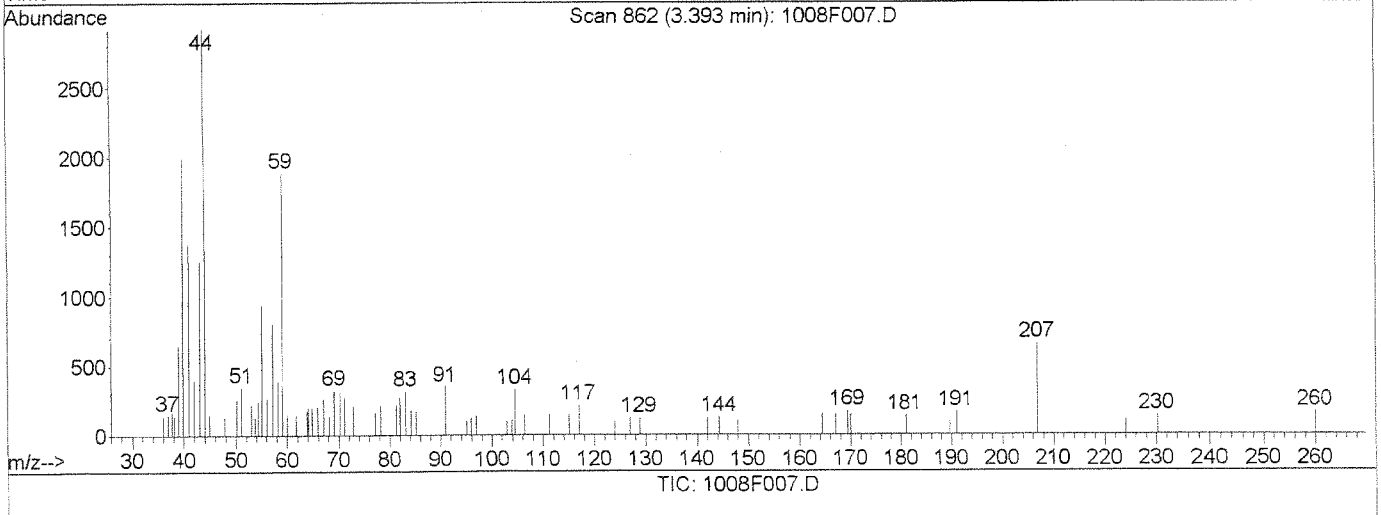
1008F007.D 100814MS27_8260.M Wed Oct 08 17:14:16 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:14 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration





TIC: 1008F007.D

(22) tert-Butyl Alcohol (T)

3.39min 4.04PPB m

response 5945

Ion	Exp%	Act%
59.00	100	100
57.00	13.50	42.49
60.00	2.80	7.88
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

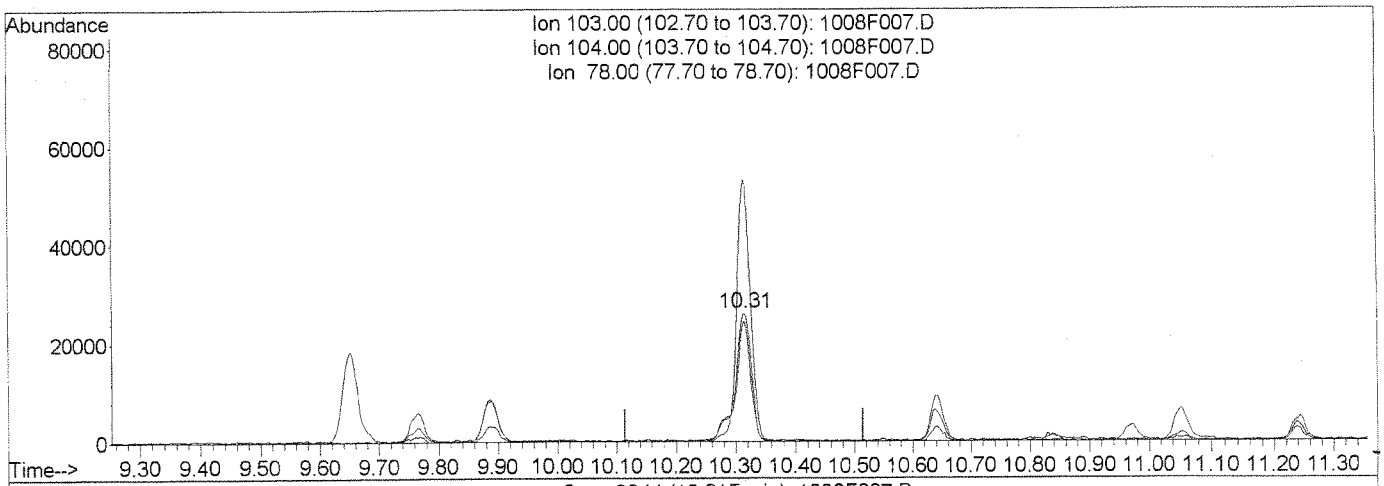
10/08/14

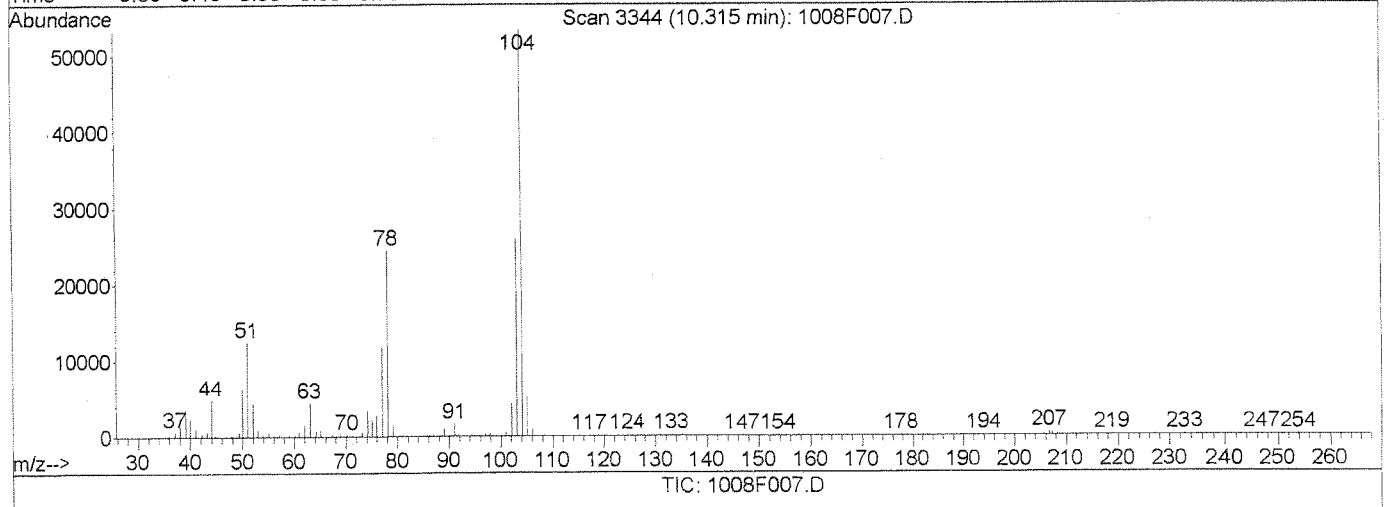
1008F007.D 100814MS27_8260.M Wed Oct 08 17:14:20 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:14 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F007.D

(80) Styrene (T)

10.31min 1.26PPB

response 49177

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	203.89
78.00	87.30	92.74
0.00	0.00	0.00

Manual Integration:

Before

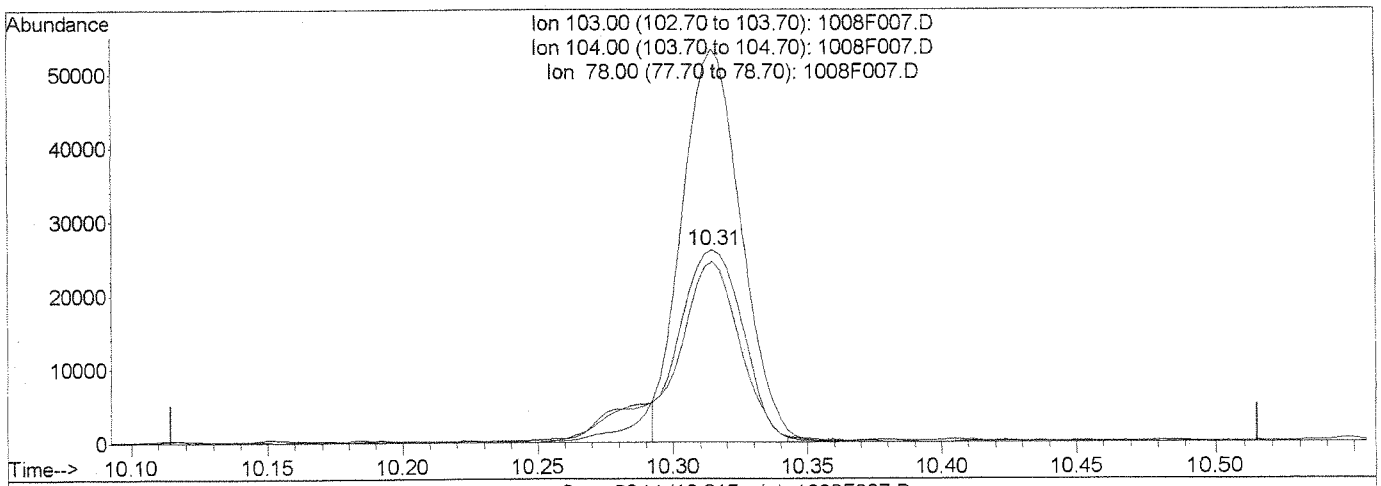
10/08/14

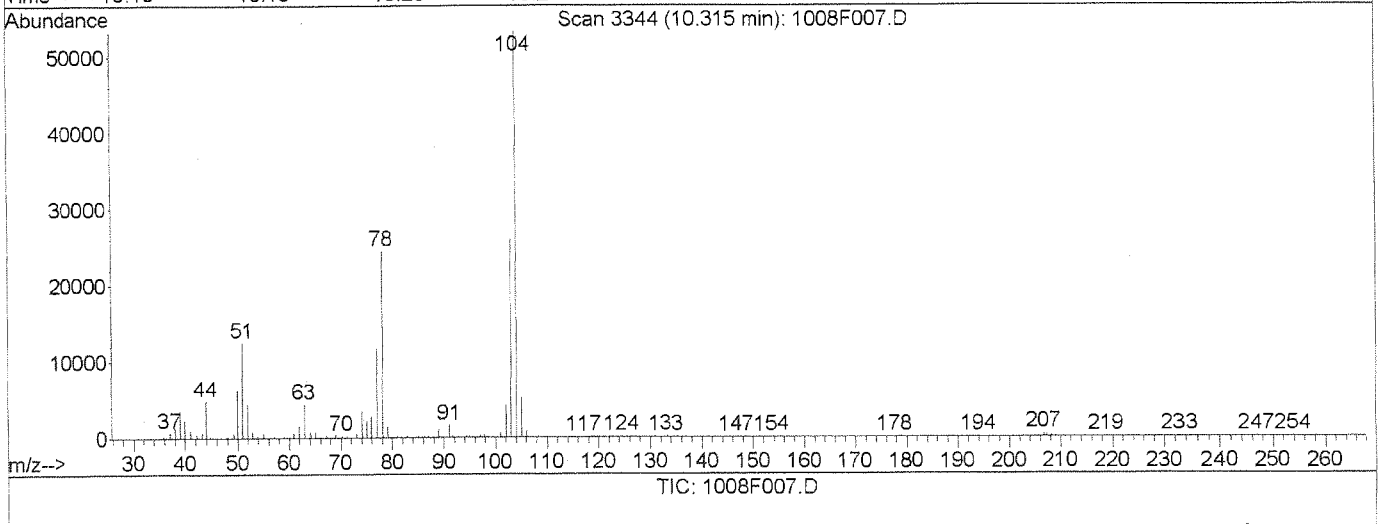
1008F007.D 100814MS27_8260.M Wed Oct 08 17:15:13 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:15 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F007.D

(80) Styrene (T)

10.31min 1.08PPB m

response 42128

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	204.51
78.00	87.30	93.86
0.00	0.00	0.00

Manual Integration:

After

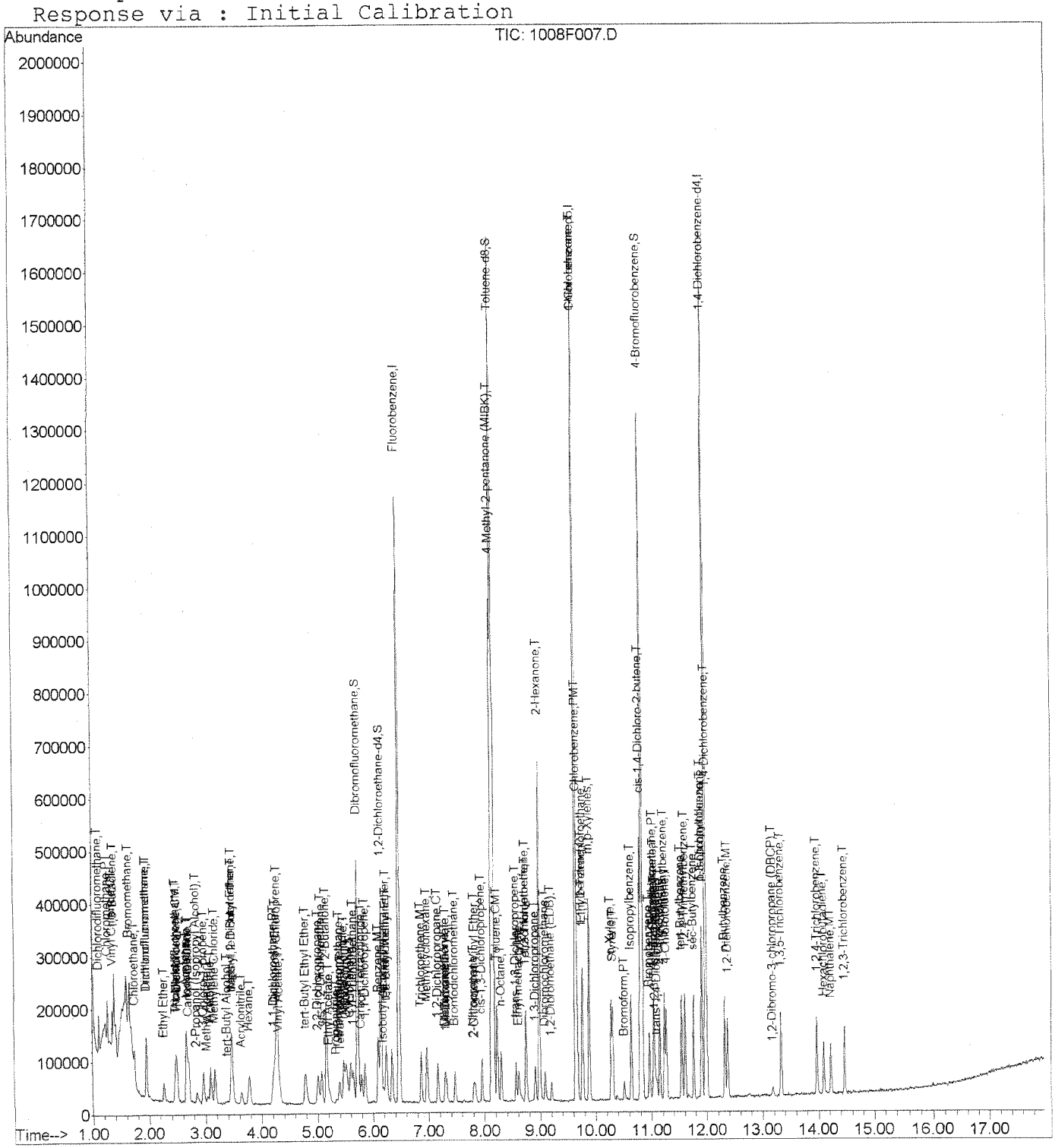
Baseline correction

10/08/14

1008F007.D 100814MS27_8260.M Wed Oct 08 17:15:17 2014

Data File : J:\MS27\DATA\100814\1008F007.D Vial: 6
Acq On : 8 Oct 2014 3:15 pm Operator: KR
Sample : 8260 ICAL 1 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:15 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F008.D Vial: 7
Acq On : 8 Oct 2014 3:43 pm Operator: KR
Sample : 8260 ICAL 2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:15:44 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1097177	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	464378	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	445096	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	297272	9.98	PPB	0.00
Spiked Amount 10.000			Recovery =	99.80%		
47) 1,2-Dichloroethane-d4	6.15	65	275913	8.89	PPB	0.00
Spiked Amount 10.000			Recovery =	88.90%		
62) Toluene-d8	8.16	98	1084892	10.09	PPB	0.00
Spiked Amount 10.000			Recovery =	100.90%		
84) 4-Bromofluorobenzene	10.84	95	413290	9.65	PPB	0.00
Spiked Amount 10.000			Recovery =	96.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	56337	1.76	PPB	97
3) Chloromethane	1.27	50	78666	1.91	PPB	98
4) Vinyl Chloride	1.35	62	64975	1.74	PPB	77
5) 1,3-Butadiene	1.38	54	47950	1.52	PPB	94
6) Bromomethane	1.65	96	53995	2.36	PPB	97
7) Chloroethane	1.74	64	31459	1.40	PPB	96
8) Dichlorofluoromethane	1.96	67	90403	2.02	PPB	99
9) Trichlorofluoromethane	1.95	101	82503	1.80	PPB	98
10) Ethyl Ether	2.27	59	31690	1.86	PPB	98
11) Acrolein	2.48	56	24424	14.32	PPB	82
12) Trichlorotrifluoroethane	2.47	151	38286	2.36	PPB	98
13) 1,1-Dichloroethene	2.50	96	40002	1.91	PPB	94
14) Acetone	2.66	43	289325	60.85	PPB	99
15) Iodomethane	2.68	142	118482	4.99	PPB	98
16) Carbon Disulfide	2.71	76	144364	2.51	PPB	100
17) 2-Propanol (Isopropyl Alco	2.85	45	51211	55.24	PPB	96
18) 3-Chloro-1-propene	2.97	76	26565	1.98	PPB	94
19) Methyl Acetate	3.04	43	34185	1.59	PPB	90
20) Acetonitrile	3.09	40	69976	60.38	PPB	95
21) Methylene Chloride	3.17	84	57713	1.96	PPB	98
22) tert-Butyl Alcohol	3.38	59	10213	6.85	PPB	81
23) Acrylonitrile	3.64	53	43249	6.30	PPB	93
24) Methyl tert-Butyl Ether	3.46	73	217080	3.49	PPB	99
25) trans-1,2-Dichloroethene	3.48	96	44625	1.78	PPB	96
26) Hexane	3.78	57	57951	2.11	PPB	93
27) Diisopropyl Ether	4.24	45	143076	1.68	PPB	99
28) 1,1-Dichloroethane	4.21	63	84757	1.79	PPB	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F008.D Vial: 7
Acq On : 8 Oct 2014 3:43 pm Operator: KR
Sample : 8260 ICAL 2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:15:44 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) Vinyl Acetate	4.32	86	12471m	3.47	PPB	
30) Chloroprene	4.28	53	283153	6.43	PPB	99
31) tert-Butyl Ethyl Ether	4.79	59	130976	1.64	PPB	98
32) 2,2-Dichloropropane	5.01	77	67291	1.89	PPB	97
33) cis-1,2-Dichloroethene	5.08	96	55529	1.96	PPB	92
34) 2-Butanone	5.16	72	130169	67.94	PPB	93
35) Ethyl Acetate	5.22	61	7548	2.79	PPB	88
36) Propionitrile	5.35	54	14564	5.83	PPB	94
37) Methacrylonitrile	5.48	67	56839	6.54	PPB	95
38) Bromochloromethane	5.40	128	24142	1.84	PPB	98
40) Chloroform	5.52	83	87753	1.79	PPB	98
41) Cyclohexane	5.60	56	72461	1.65	PPB	96
42) 1,1,1-Trichloroethane	5.65	97	72384	1.73	PPB	97
44) Carbon Tetrachloride	5.79	117	64761	1.81	PPB	97
45) 1,1-Dichloropropene	5.87	75	64281	1.81	PPB	99
46) Isobutyl Alcohol	6.20	43	31326	46.36	PPB	98
48) Benzene	6.10	78	197409	1.81	PPB	98
49) 1,2-Dichloroethane	6.24	62	60989	1.71	PPB	97
50) tert-Amyl Methyl Ether	6.25	55	25696	1.51	PPB	97
51) Trichloroethene	6.87	95	50165	1.78	PPB	96
52) Methylcyclohexane	6.97	83	76428	1.72	PPB	98
53) 1,2-Dichloropropane	7.17	63	51343	1.70	PPB	97
54) Dibromomethane	7.30	93	27417	1.73	PPB	96
55) Methyl methacrylate	7.32	69	24633	1.64	PPB	95
56) 1,4-Dioxane	7.33	88	9105	53.18	PPB	87
57) Bromodichloromethane	7.48	83	64512	1.71	PPB	99
58) 2-Nitropropane	7.81	41	38402	6.67	PPB	95
59) 2-Chloroethyl Vinyl Ether	7.84	63	24565	1.76	PPB	95
60) cis-1,3-Dichloropropene	7.96	75	78483	1.75	PPB	97
61) 4-Methyl-2-pentanone (MIBK	8.13	58	453126	63.35	PPB	98
63) Toluene	8.23	92	123525	1.82	PPB	98
65) n-Octane	8.30	85	24922	1.83	PPB	91
66) trans-1,3-Dichloropropene	8.57	75	61877	1.57	PPB	94
67) Ethyl methacrylate	8.62	69	44730	1.55	PPB	92
68) 1,1,2-Trichloroethane	8.75	83	32892	1.69	PPB	98
69) Tetrachloroethene	8.75	164	45432	2.08	PPB	91
70) 2-Hexanone	8.99	57	142653	63.05	PPB	98
71) 1,3-Dichloropropane	8.91	76	64189	1.63	PPB	97
72) Dibromochloromethane	9.10	129	46919	1.75	PPB	97
73) 1,2-Dibromoethane (EDB)	9.21	107	38335	1.78	PPB	100
74) 1-Chlorohexane	9.65	91	66768	1.68	PPB	98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F008.D Vial: 7
Acq On : 8 Oct 2014 3:43 pm Operator: KR
Sample : 8260 ICAL 2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:15:44 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

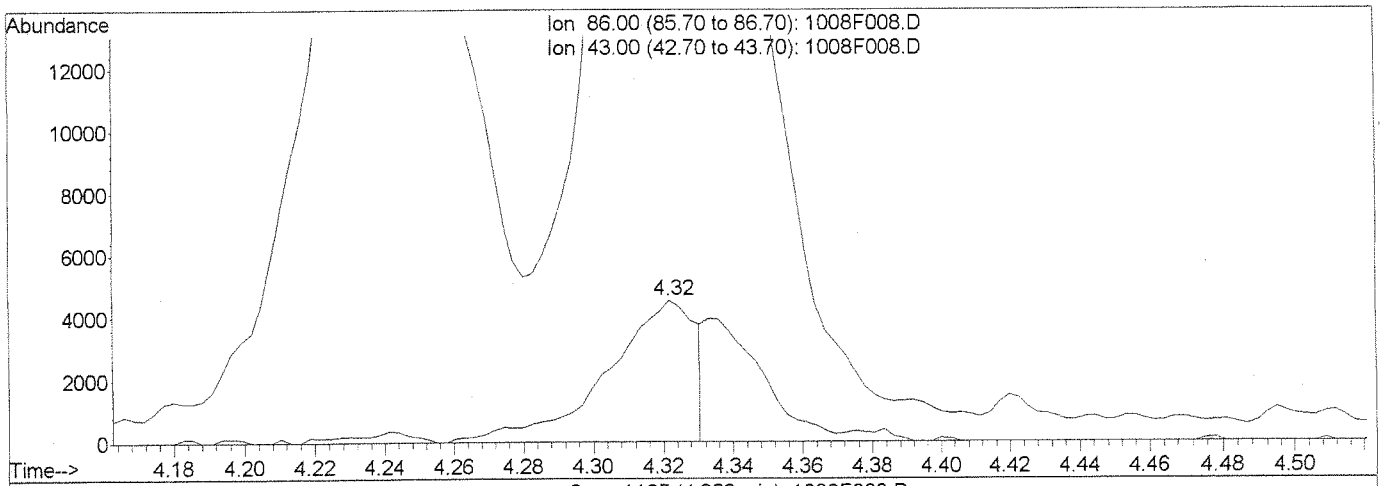
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
75)	Chlorobenzene	9.68	112	141041	1.86	PPB		98
76)	Ethylbenzene	9.76	106	75372	1.90	PPB		94
77)	1,1,1,2-Tetrachloroethane	9.78	131	50266	1.86	PPB		95
78)	m,p-Xylenes	9.89	106	178727	3.72	PPB		99
79)	o-Xylene	10.28	106	88706	1.83	PPB		99
80)	Styrene	10.31	103	68704m	1.74	PPB		
81)	Bromoform	10.52	173	28147	1.73	PPB		98
82)	Isopropylbenzene	10.64	105	225596	1.81	PPB		99
83)	cis-1,4-Dichloro-2-butene	10.81	89	24787	6.23	PPB		91
86)	1,1,2,2-Tetrachloroethane	11.03	83	40818	1.44	PPB		98
87)	trans-1,4-Dichloro-2-buten	11.10	53	9308	1.34	PPB		92
88)	Bromobenzene	10.97	156	60440	1.75	PPB		94
89)	n-Propylbenzene	11.05	91	261942	1.58	PPB		98
90)	1,2,3-Trichloropropane	11.08	110	11982	1.58	PPB	#	86
91)	2-Chlorotoluene	11.16	91	159027	1.58	PPB		99
92)	1,3,5-Trimethylbenzene	11.24	105	187801	1.62	PPB		97
93)	4-Chlorotoluene	11.28	91	165542	1.59	PPB		95
94)	tert-Butylbenzene	11.55	119	157885	1.63	PPB		98
95)	1,2,4-Trimethylbenzene	11.61	105	186847	1.59	PPB		100
96)	sec-Butylbenzene	11.77	105	235204	1.62	PPB		98
97)	p-Isopropyltoluene	11.92	119	193096	1.66	PPB		98
98)	1,3-Dichlorobenzene	11.91	146	114972	1.75	PPB		97
99)	1,4-Dichlorobenzene	12.01	146	116567	1.77	PPB		99
100)	n-Butylbenzene	12.33	91	180924	1.57	PPB		98
101)	1,2-Dichlorobenzene	12.38	146	103222	1.72	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.19	155	6514	1.59	PPB		91
103)	1,3,5-Trichlorobenzene	13.33	180	90580	1.84	PPB		96
104)	1,2,4-Trichlorobenzene	13.98	180	79646	1.94	PPB		97
105)	Hexachlorobutadiene	14.10	225	35023	2.01	PPB		95
106)	Naphthalene	14.23	128	132478	1.65	PPB		99
107)	1,2,3-Trichlorobenzene	14.47	180	68957	1.87	PPB		99

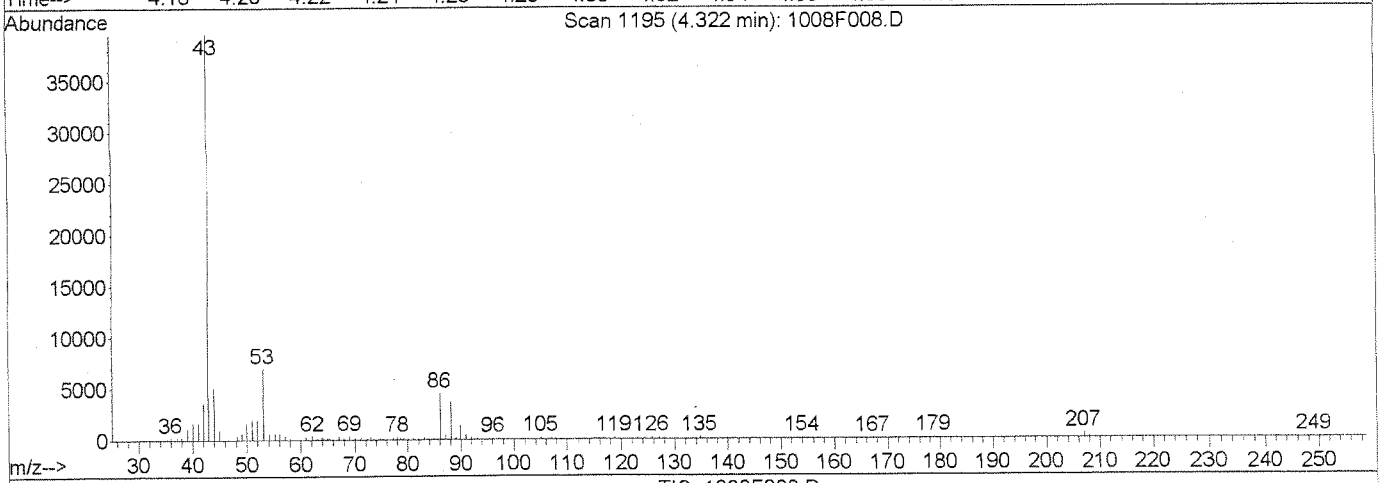
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F008.D Vial: 7
Acq On : 8 Oct 2014 3:43 pm Operator: KR
Sample : 8260 ICAL 2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:15 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F008.D

(29) Vinyl Acetate (T)

4.32min 2.23PPB

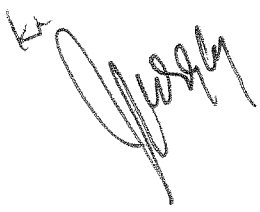
response 8023

Ion	Exp%	Act%
86.00	100	100
43.00	987.30	514.98#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

10/08/14



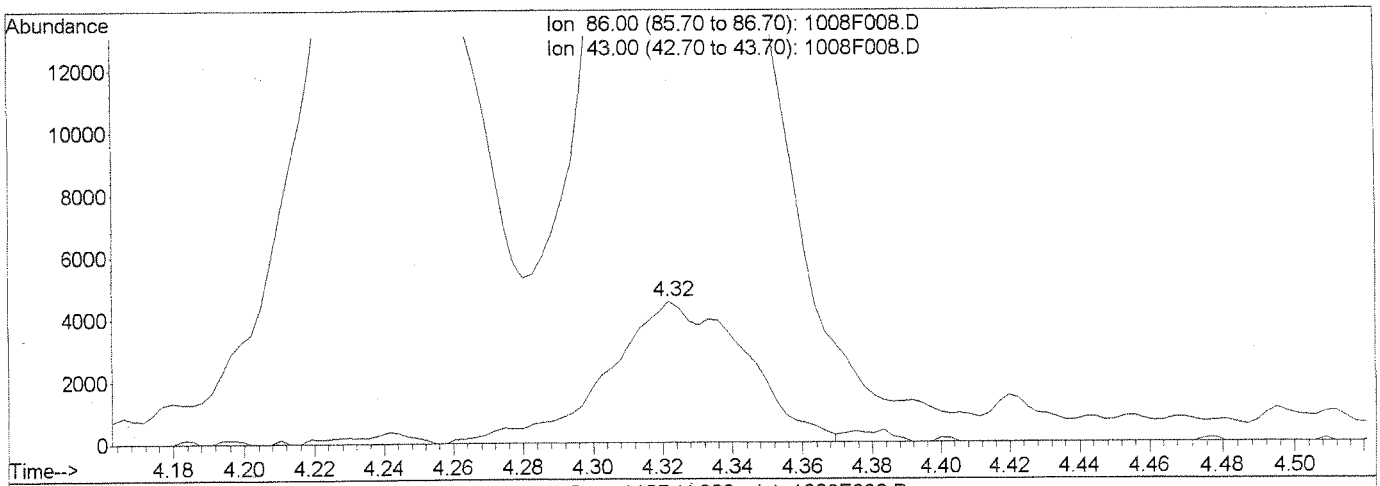
1008F008.D 100814MS27_8260.M Wed Oct 08 17:16:02 2014

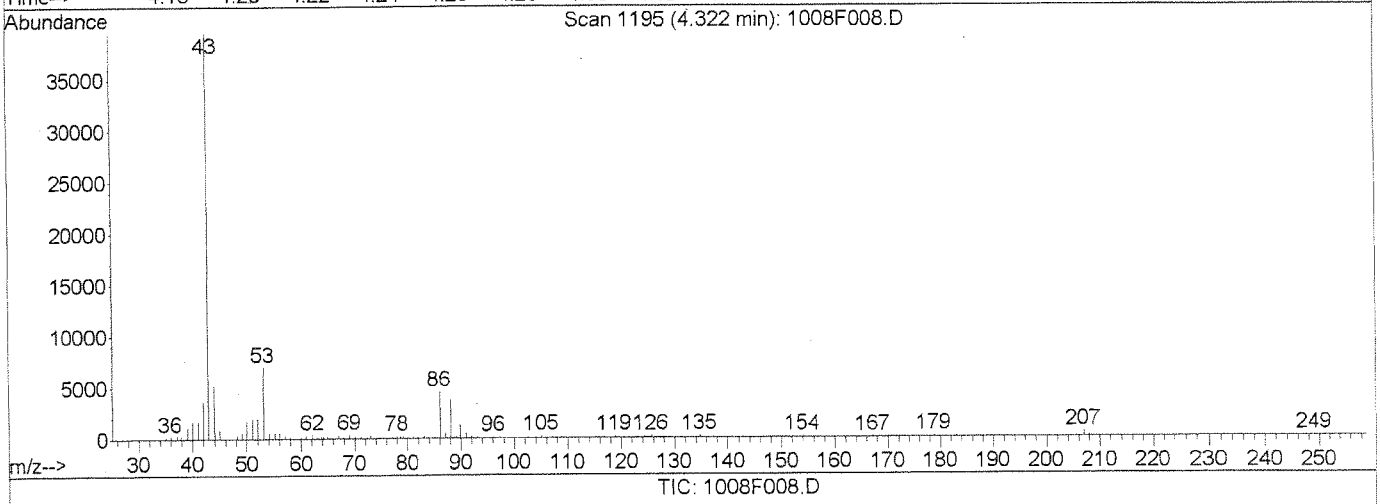
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F008.D
Acq On : 8 Oct 2014 3:43 pm
Sample : 8260 ICAL 2
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:16 2014

Vial: 7
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F008.D

(29) Vinyl Acetate (T)

4.32min 3.47PPB m

response 12471

Ion	Exp%	Act%
86.00	100	100
43.00	987.30	872.28#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

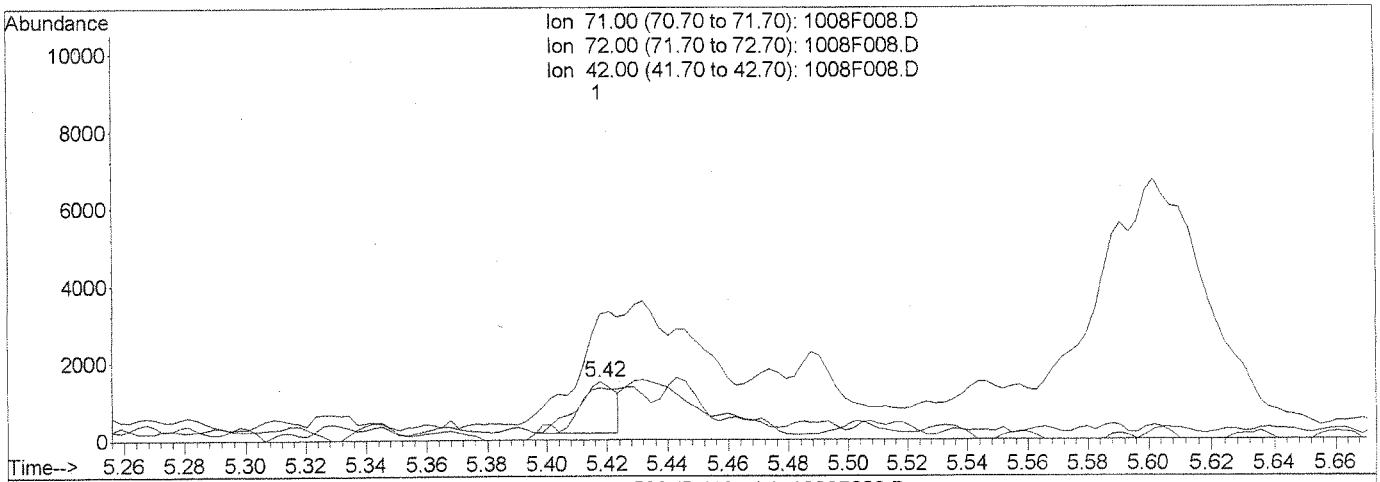
10/08/14

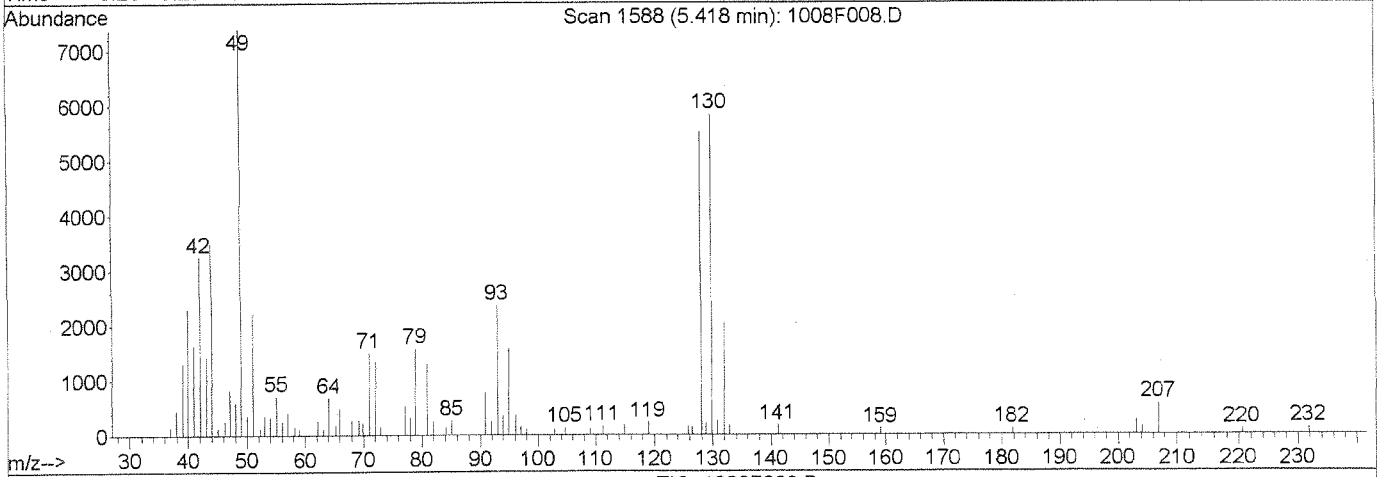
1008F008.D 100814MS27_8260.M Wed Oct 08 17:16:06 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F008.D Vial: 7
Acq On : 8 Oct 2014 3:43 pm Operator: KR
Sample : 8260 ICAL 2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:16 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Single Level Calibration





TIC: 1008F008.D

(39) Tetrahydrofuran (T)

5.42min 0.60PPB

response 1185

Ion	Exp%	Act%
71.00	100	100
72.00	100.30	92.17
42.00	241.20	198.18#
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

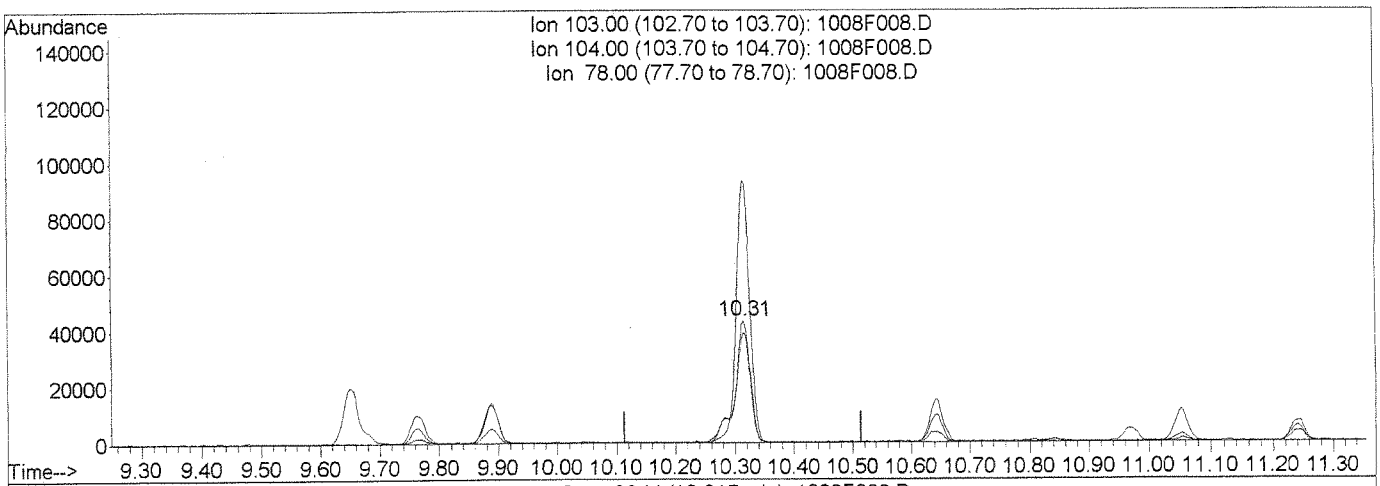
1008F008.D 100814MS27_8260.M Wed Oct 08 17:16:16 2014

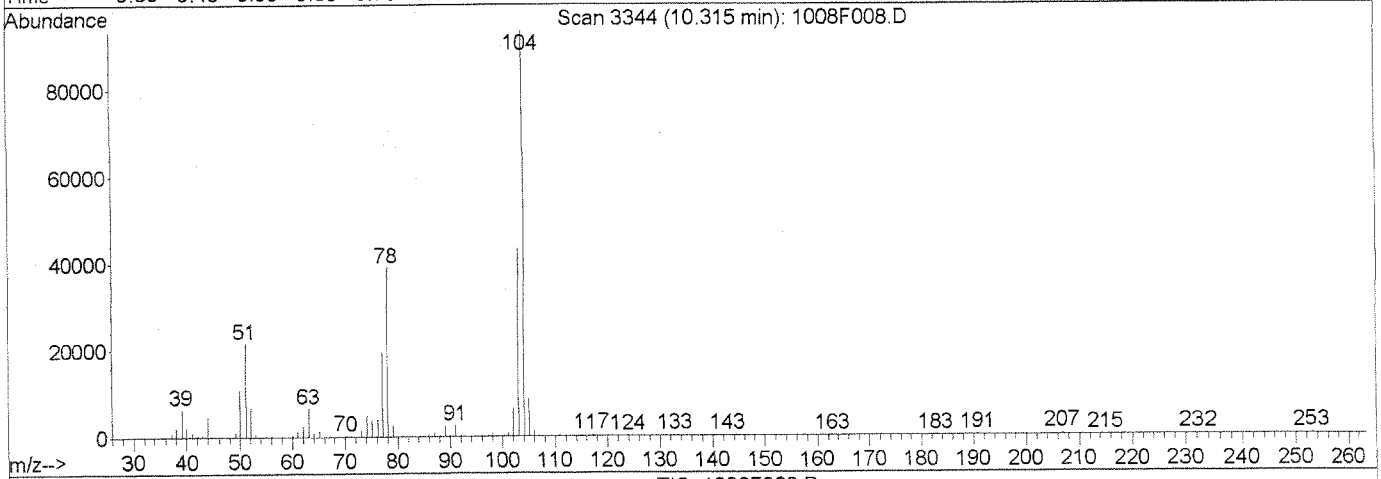
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F008.D
Acq On : 8 Oct 2014 3:43 pm
Sample : 8260 ICAL 2
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:16 2014

Vial: 7
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F008.D

(80) Styrene (T)

10.31min 2.00PPB

response 78812

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	215.82
78.00	87.30	89.50
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

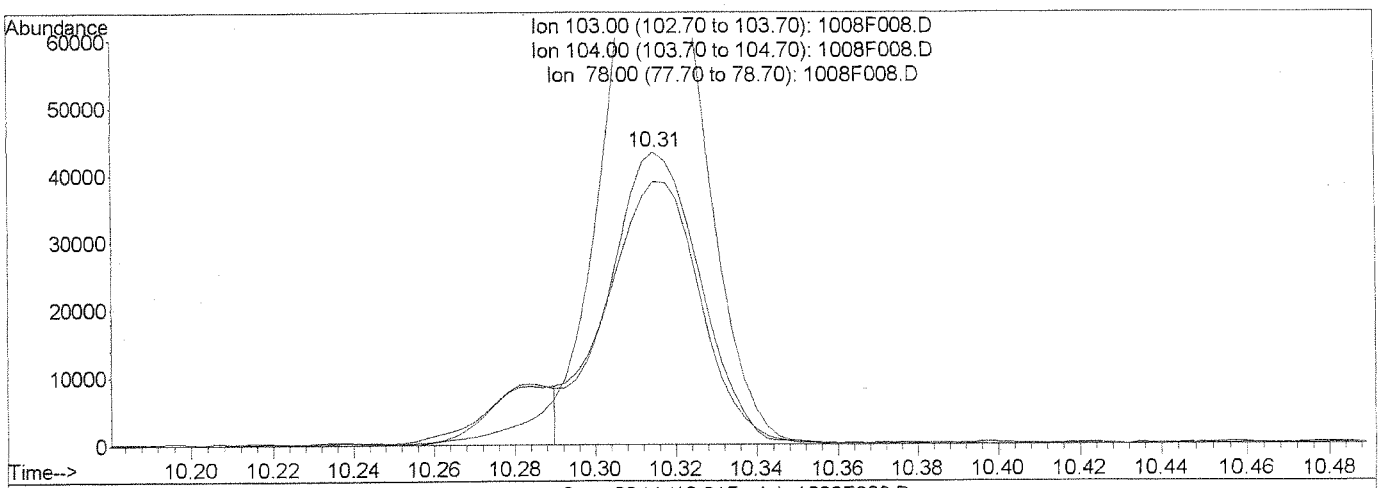
1008F008.D 100814MS27_8260.M Wed Oct 08 17:16:46 2014

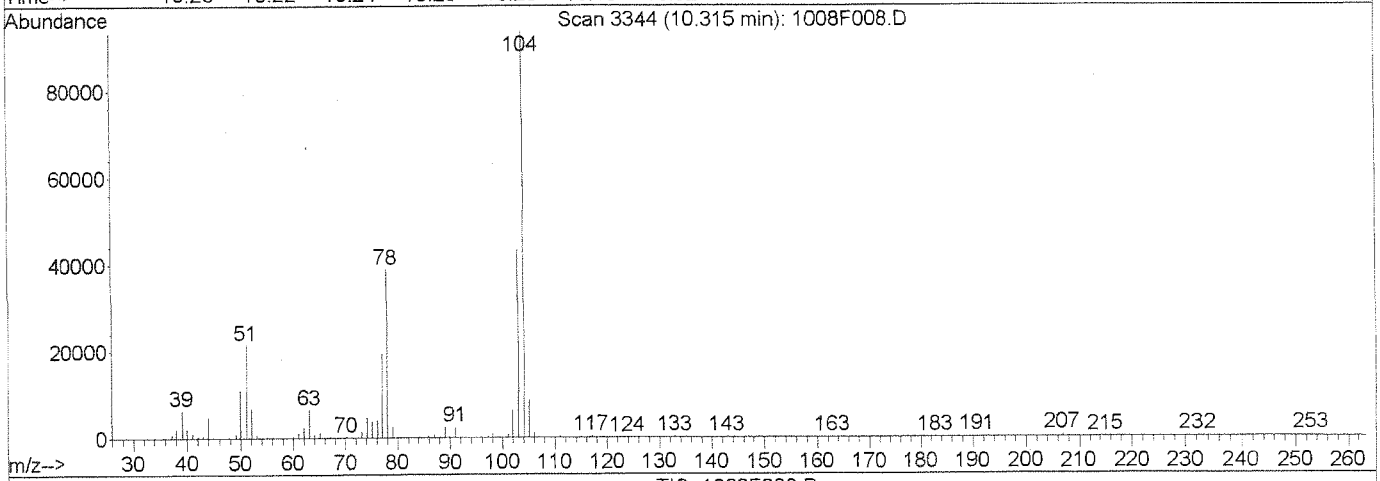
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F008.D
Acq On : 8 Oct 2014 3:43 pm
Sample : 8260 ICAL 2
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:16 2014

Vial: 7
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F008.D

(80) Styrene (T)

10.31min 1.74PPB m

response 68704

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	215.82
78.00	87.30	89.98
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

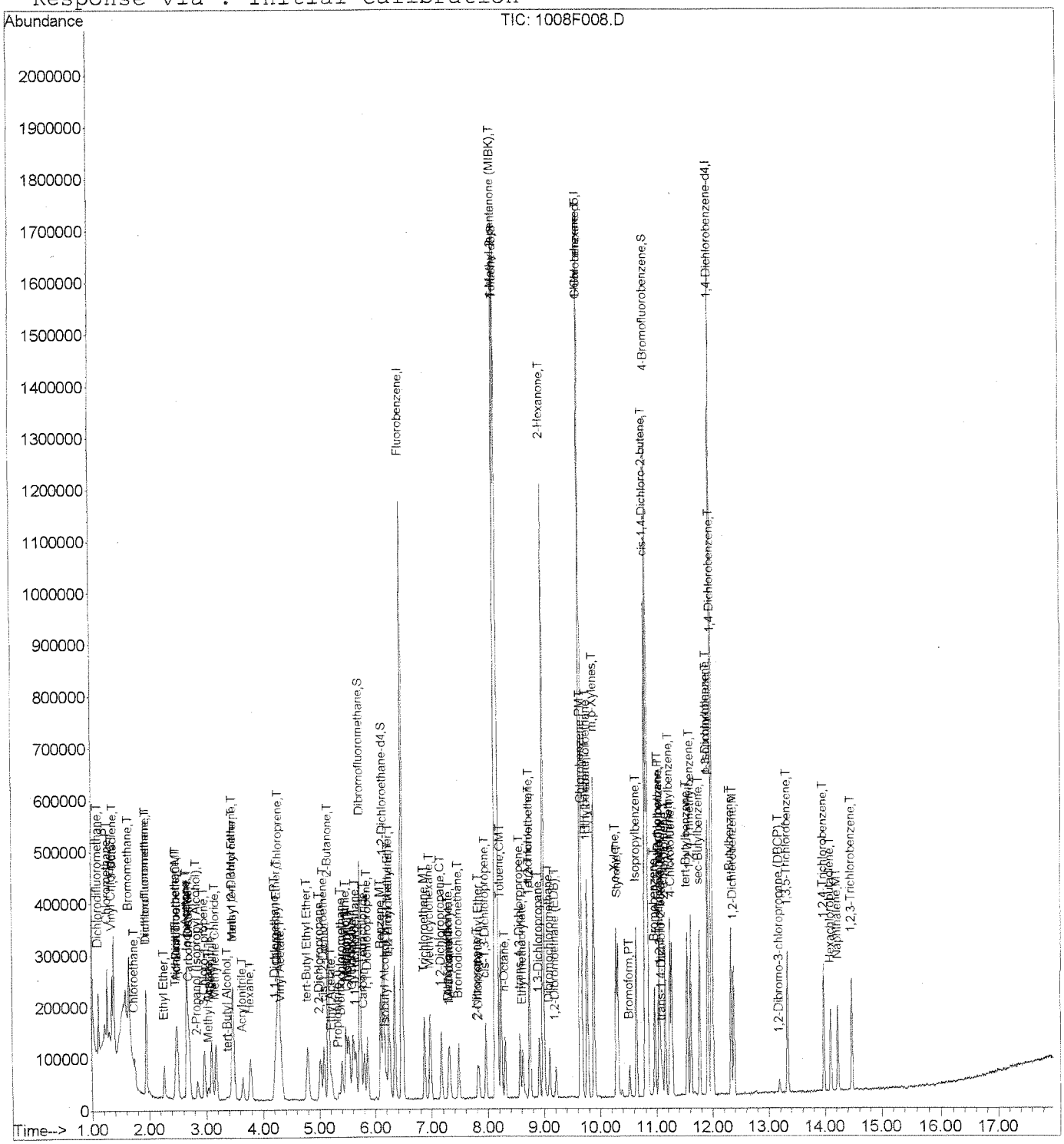
10/08/14

1008F008.D 100814MS27_8260.M Wed Oct 08 17:16:51 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F008.D Vial: 7
Acq On : 8 Oct 2014 3:43 pm Operator: KR
Sample : 8260 ICAL 2 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:16 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F009.D Vial: 8
Acq On : 8 Oct 2014 4:10 pm Operator: KR
Sample : 8260 ICAL 5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:17:16 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/8/14

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1095383	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	457266	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	453327	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	298044	10.02	PPB	0.00
Spiked Amount 10.000			Recovery =	100.20%		
47) 1,2-Dichloroethane-d4	6.15	65	278440	8.99	PPB	0.00
Spiked Amount 10.000			Recovery =	89.90%		
62) Toluene-d8	8.16	98	1088220	10.14	PPB	0.00
Spiked Amount 10.000			Recovery =	101.40%		
84) 4-Bromofluorobenzene	10.84	95	417922	9.91	PPB	0.00
Spiked Amount 10.000			Recovery =	99.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	171742	5.36	PPB	99
3) Chloromethane	1.27	50	217479	5.30	PPB	98
4) Vinyl Chloride	1.35	62	182614	4.90	PPB	99
5) 1,3-Butadiene	1.38	54	144440	4.58	PPB	97
6) Bromomethane	1.65	96	126992	5.56	PPB	97
7) Chloroethane	1.74	64	99013	4.51	PPB	94
8) Dichlorofluoromethane	1.96	67	255308	5.72	PPB	99
9) Trichlorofluoromethane	1.95	101	235910	5.16	PPB	99
10) Ethyl Ether	2.26	59	88742	5.20	PPB	95
11) Acrolein	2.48	56	69420	40.77	PPB	94
12) Trichlorotrifluoroethane	2.47	151	107966	6.68	PPB	99
13) 1,1-Dichloroethene	2.50	96	117176	5.60	PPB	92
14) Acetone	2.66	43	370493	78.05	PPB	98
15) Iodomethane	2.68	142	478718	19.82	PPB	99
16) Carbon Disulfide	2.71	76	420925	7.34	PPB	100
17) 2-Propanol (Isopropyl Alco	2.84	45	160408	173.32	PPB	98
18) 3-Chloro-1-propene	2.97	76	73444	5.48	PPB	97
19) Methyl Acetate	3.03	43	87627	4.08	PPB	98
20) Acetonitrile	3.09	40	201398	174.06	PPB	98
21) Methylene Chloride	3.17	84	143110	4.87	PPB	98
22) tert-Butyl Alcohol	3.38	59	27021	18.14	PPB	87
23) Acrylonitrile	3.64	53	119050	17.36	PPB	92
24) Methyl tert-Butyl Ether	3.46	73	608704	9.79	PPB	99
25) trans-1,2-Dichloroethene	3.48	96	131344	5.24	PPB	98
26) Hexane	3.78	57	169575	6.18	PPB	99
27) Diisopropyl Ether	4.24	45	401544	4.72	PPB	98
28) 1,1-Dichloroethane	4.21	63	241555	5.12	PPB	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F009.D Vial: 8
Acq On : 8 Oct 2014 4:10 pm Operator: KR
Sample : 8260 ICAL 5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:17:16 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.32	86	32635	9.10	PPB		95
30) Chloroprene	4.28	53	822455	18.71	PPB		98
31) tert-Butyl Ethyl Ether	4.78	59	368428	4.63	PPB		99
32) 2,2-Dichloropropane	5.02	77	190996	5.38	PPB		99
33) cis-1,2-Dichloroethene	5.08	96	154999	5.48	PPB		99
34) 2-Butanone	5.16	72	160203	83.75	PPB		98
35) Ethyl Acetate	5.22	61	22157	8.20	PPB		100
36) Propionitrile	5.34	54	42565	17.08	PPB		94
37) Methacrylonitrile	5.48	67	155819	17.95	PPB		95
38) Bromochloromethane	5.40	128	72191	5.52	PPB		92
39) Tetrahydrofuran	5.42	71	8790	4.45	PPB	#	77
40) Chloroform	5.52	83	245366	5.00	PPB		99
41) Cyclohexane	5.60	56	216106	4.92	PPB		96
42) 1,1,1-Trichloroethane	5.65	97	213843	5.12	PPB		96
44) Carbon Tetrachloride	5.79	117	189221	5.28	PPB		98
45) 1,1-Dichloropropene	5.86	75	181729	5.14	PPB		98
46) Isobutyl Alcohol	6.19	43	94035	139.41	PPB		97
48) Benzene	6.10	78	557176	5.12	PPB		100
49) 1,2-Dichloroethane	6.24	62	163920	4.60	PPB		96
50) tert-Amyl Methyl Ether	6.25	55	75071	4.42	PPB		97
51) Trichloroethene	6.87	95	151644	5.40	PPB		93
52) Methylcyclohexane	6.97	83	221926	4.99	PPB		97
53) 1,2-Dichloropropane	7.17	63	143381	4.75	PPB		95
54) Dibromomethane	7.30	93	77572	4.90	PPB		95
55) Methyl methacrylate	7.32	69	65924	4.38	PPB		97
56) 1,4-Dioxane	7.32	88	26769	156.60	PPB		90
57) Bromodichloromethane	7.48	83	177977	4.72	PPB		100
58) 2-Nitropropane	7.82	41	112272	19.53	PPB		97
59) 2-Chloroethyl Vinyl Ether	7.84	63	66386	4.75	PPB		97
60) cis-1,3-Dichloropropene	7.96	75	216171	4.84	PPB		98
61) 4-Methyl-2-pentanone (MIBK	8.13	58	564465	79.05	PPB		100
63) Toluene	8.23	92	348911	5.14	PPB		100
65) n-Octane	8.30	85	68691	5.12	PPB		93
66) trans-1,3-Dichloropropene	8.57	75	181746	4.70	PPB		99
67) Ethyl methacrylate	8.62	69	128489	4.53	PPB		98
68) 1,1,2-Trichloroethane	8.74	83	95627	5.00	PPB		95
69) Tetrachloroethene	8.76	164	123497	5.74	PPB		98
70) 2-Hexanone	8.99	57	177496	79.67	PPB		96
71) 1,3-Dichloropropane	8.91	76	184081	4.76	PPB		98
72) Dibromochloromethane	9.10	129	134701	5.10	PPB		99
73) 1,2-Dibromoethane (EDB)	9.21	107	108801	5.14	PPB		94

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F009.D Vial: 8
Acq On : 8 Oct 2014 4:10 pm Operator: KR
Sample : 8260 ICAL 5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:17:16 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

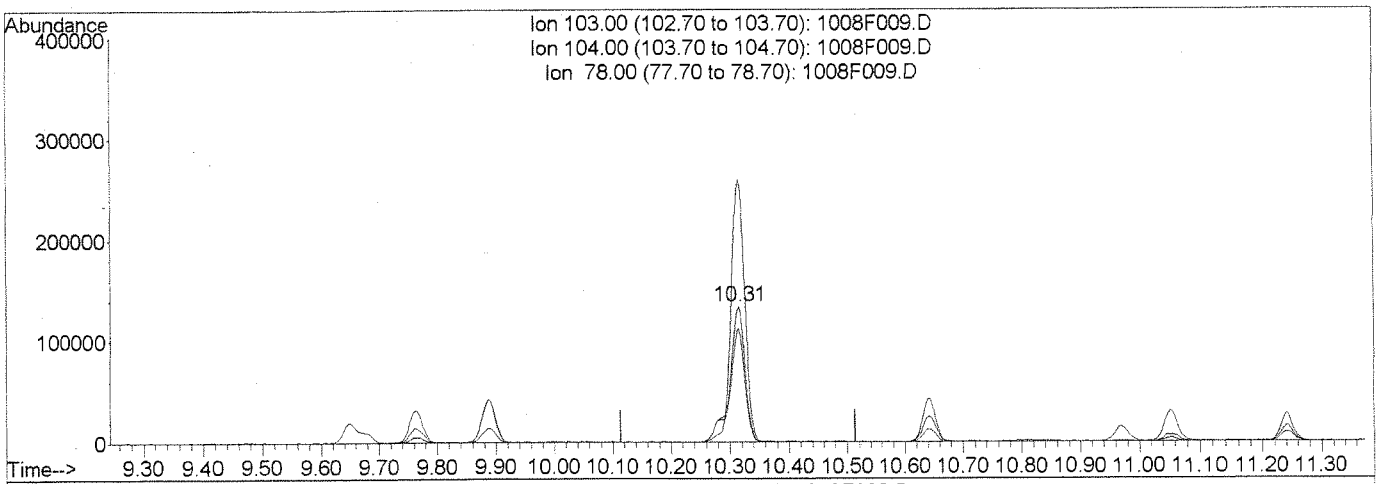
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.66	91	189196	4.84	PPB	100
75)	Chlorobenzene	9.68	112	402095	5.37	PPB	96
76)	Ethylbenzene	9.77	106	207316	5.30	PPB	93
77)	1,1,1,2-Tetrachloroethane	9.78	131	145259	5.46	PPB	98
78)	m,p-Xylenes	9.89	106	509675	10.77	PPB	100
79)	o-Xylene	10.28	106	254727	5.34	PPB	96
80)	Styrene	10.31	103	206048m	5.30	PPB	
81)	Bromoform	10.52	173	79833	4.99	PPB	97
82)	Isopropylbenzene	10.64	105	639577	5.22	PPB	99
83)	cis-1,4-Dichloro-2-butene	10.81	89	70012	17.88	PPB	100
86)	1,1,2,2-Tetrachloroethane	11.03	83	114293	3.95	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.10	53	27173	3.84	PPB	91
88)	Bromobenzene	10.97	156	168013	4.76	PPB	96
89)	n-Propylbenzene	11.05	91	763356	4.53	PPB	98
90)	1,2,3-Trichloropropane	11.08	110	34320	4.45	PPB	94
91)	2-Chlorotoluene	11.16	91	449439	4.39	PPB	98
92)	1,3,5-Trimethylbenzene	11.24	105	544083	4.61	PPB	99
93)	4-Chlorotoluene	11.28	91	475154	4.49	PPB	98
94)	tert-Butylbenzene	11.55	119	472348	4.78	PPB	99
95)	1,2,4-Trimethylbenzene	11.61	105	546847	4.56	PPB	98
96)	sec-Butylbenzene	11.77	105	674930	4.56	PPB	98
97)	p-Isopropyltoluene	11.92	119	562421	4.74	PPB	99
98)	1,3-Dichlorobenzene	11.91	146	321983	4.80	PPB	99
99)	1,4-Dichlorobenzene	12.01	146	324528	4.85	PPB	98
100)	n-Butylbenzene	12.33	91	518919	4.43	PPB	97
101)	1,2-Dichlorobenzene	12.38	146	295307	4.84	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.19	155	18316	4.39	PPB	94
103)	1,3,5-Trichlorobenzene	13.33	180	259114	5.16	PPB	98
104)	1,2,4-Trichlorobenzene	13.98	180	223460	5.35	PPB	98
105)	Hexachlorobutadiene	14.10	225	97728	5.52	PPB	97
106)	Naphthalene	14.23	128	376369	4.61	PPB	99
107)	1,2,3-Trichlorobenzene	14.47	180	197927	5.28	PPB	98

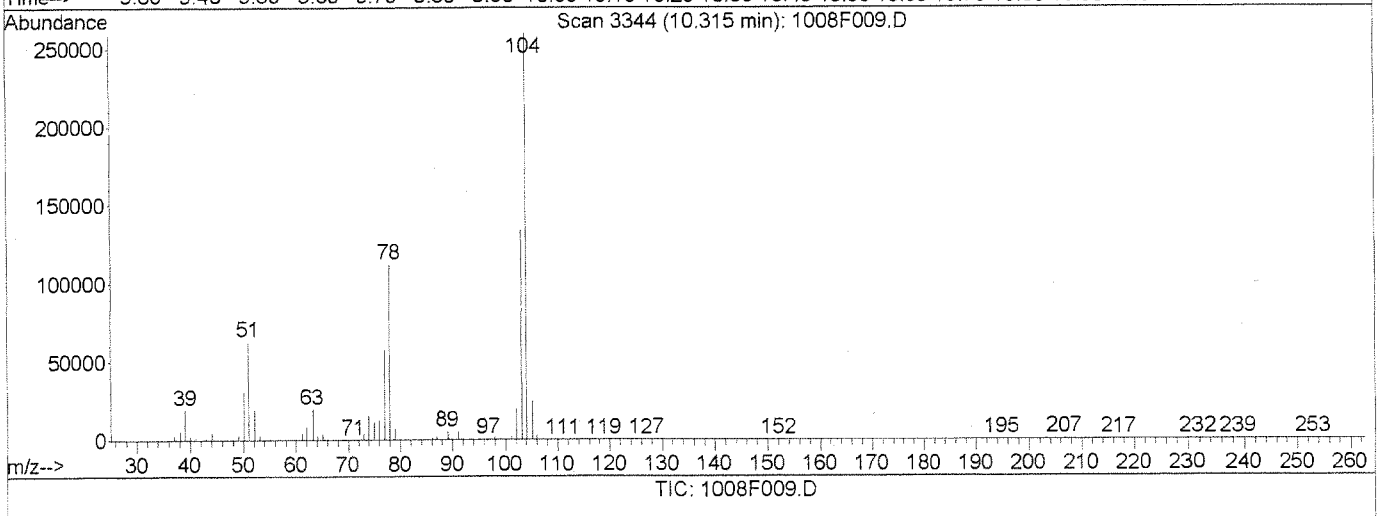
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F009.D Vial: 8
Acq On : 8 Oct 2014 4:10 pm Operator: KR
Sample : 8260 ICAL 5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:17 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F009.D

(80) Styrene (T)

10.31min 6.16PPB

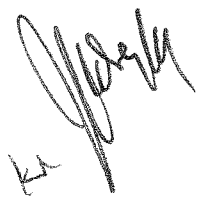
response 239434

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	193.72
78.00	87.30	83.46
0.00	0.00	0.00

Manual Integration:

Before

10/08/14



1008F009.D 100814MS27_8260.M Wed Oct 08 17:17:57 2014

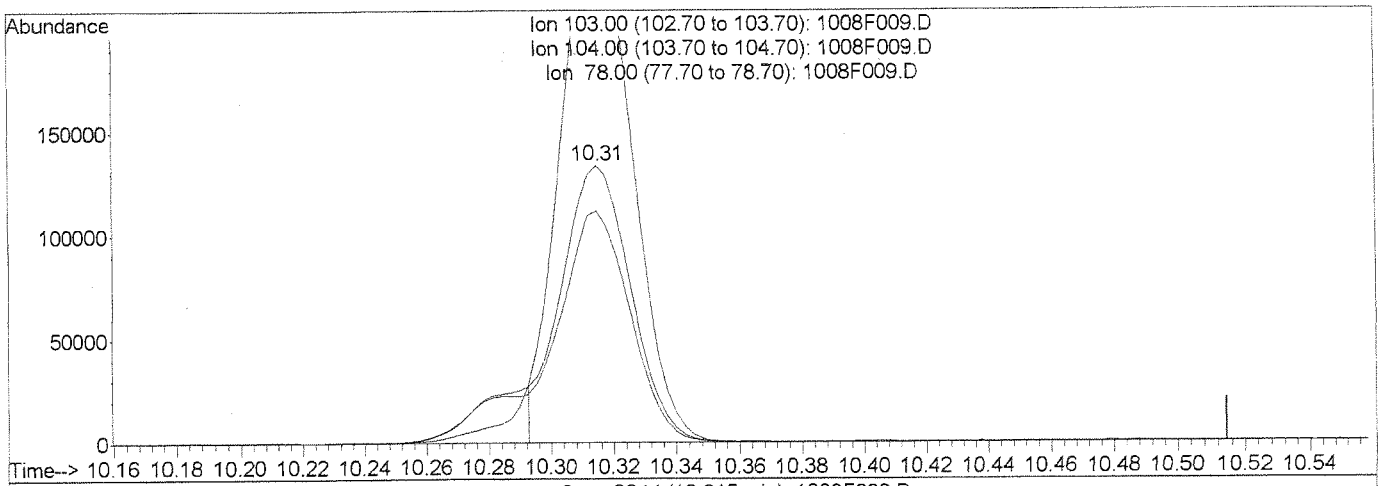
Quantitation Report (Qedit)

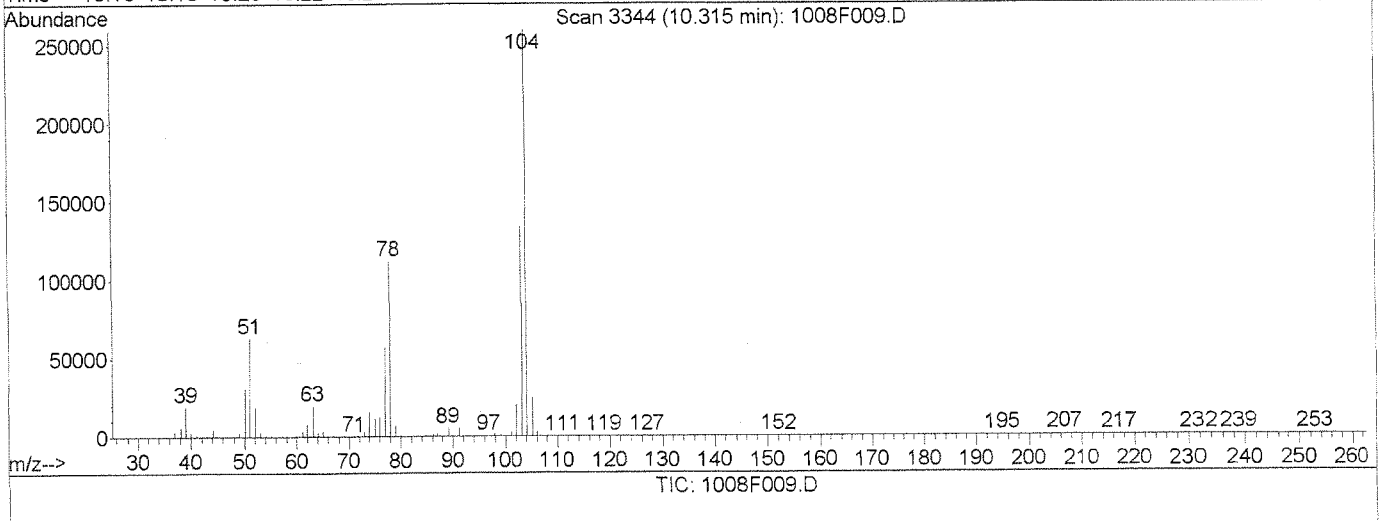
Data File : J:\MS27\DATA\100814\1008F009.D
Acq On : 8 Oct 2014 4:10 pm
Sample : 8260 ICAL 5
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:18 2014

Vial: 8
Operator: KR
Inst : MS27
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F009.D

(80) Styrene (T)

10.31min 5.30PPB m

response 206048

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	193.83
78.00	87.30	83.62
0.00	0.00	0.00

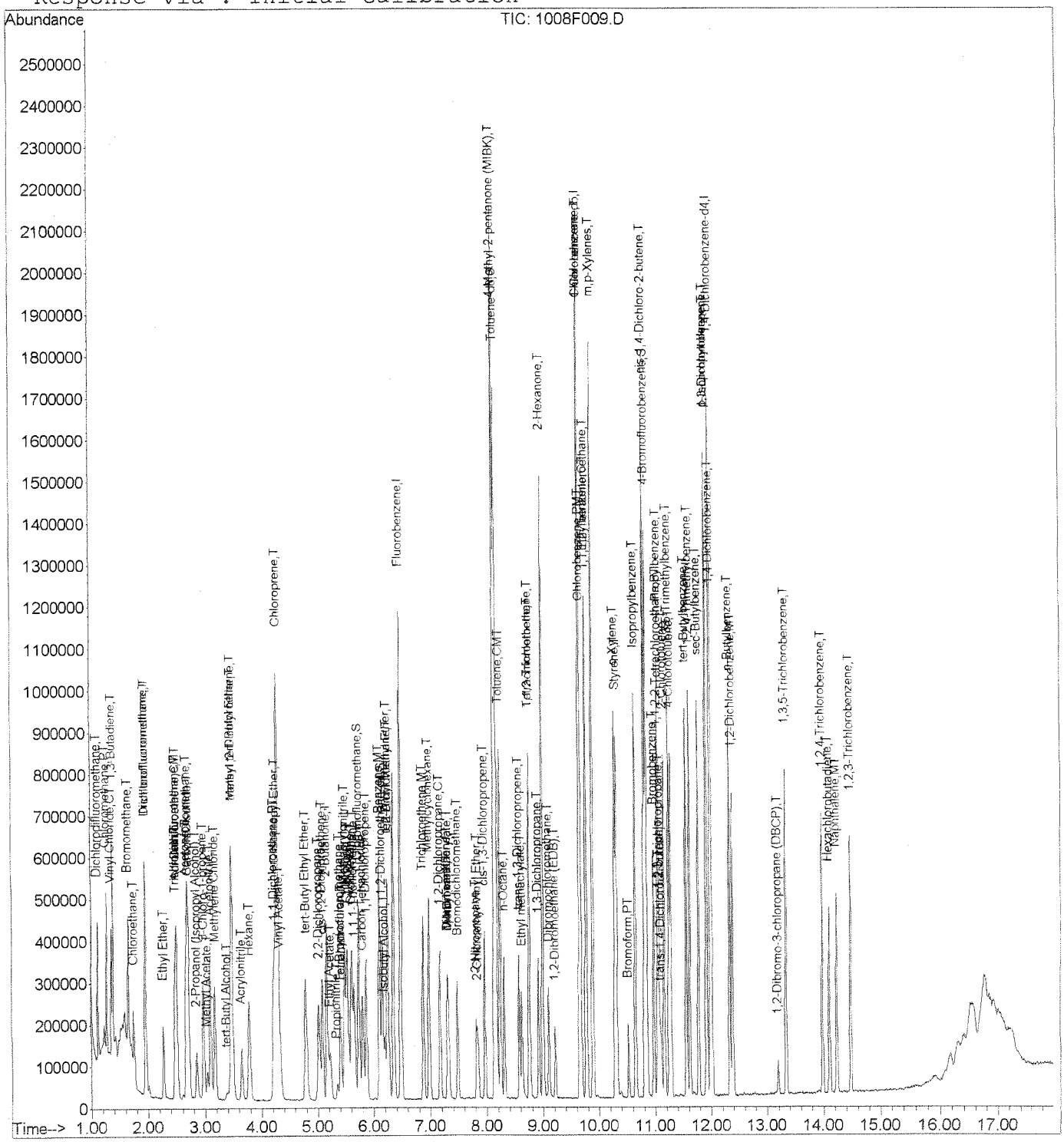
Manual Integration:
After
Baseline correction
10/08/14

1008F009.D 100814MS27_8260.M Wed Oct 08 17:18:02 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F009.D Vial: 8
Acq On : 8 Oct 2014 4:10 pm Operator: KR
Sample : 8260 ICAL 5 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:18 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F010.D Vial: 9
Acq On : 8 Oct 2014 4:37 pm Operator: KR
Sample : 8260 ICAL 10 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:18:26 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1090039	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	465439	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	460144	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	299198	10.11	PPB	0.00
Spiked Amount 10.000			Recovery =	101.10%		
47) 1,2-Dichloroethane-d4	6.15	65	274605	8.91	PPB	0.00
Spiked Amount 10.000			Recovery =	89.10%		
62) Toluene-d8	8.16	98	1102170	10.32	PPB	0.00
Spiked Amount 10.000			Recovery =	103.20%		
84) 4-Bromofluorobenzene	10.84	95	421431	9.82	PPB	0.00
Spiked Amount 10.000			Recovery =	98.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	370804	11.63	PPB	100
3) Chloromethane	1.27	50	415268	10.21	PPB	100
4) Vinyl Chloride	1.35	62	393585	10.62	PPB	100
5) 1,3-Butadiene	1.38	54	307086	9.79	PPB	100
6) Bromomethane	1.65	96	243171	10.72	PPB	100
7) Chloroethane	1.74	64	187358	8.79	PPB	100
8) Dichlorofluoromethane	1.96	67	539415	12.13	PPB	100
9) Trichlorofluoromethane	1.95	101	499990	10.99	PPB	100
10) Ethyl Ether	2.26	59	194793	11.48	PPB	100
11) Acrolein	2.48	56	148279	87.50	PPB	100
12) Trichlorotrifluoroethane	2.47	151	237695	14.77	PPB	100
13) 1,1-Dichloroethene	2.50	96	245100	11.77	PPB	100
14) Acetone	2.65	43	793866	168.06	PPB	100
15) Iodomethane	2.68	142	1223328	49.10	PPB	100
16) Carbon Disulfide	2.71	76	895900	15.70	PPB	100
17) 2-Propanol (Isopropyl Alco	2.84	45	355473	385.96	PPB	100
18) 3-Chloro-1-propene	2.97	76	159705	11.98	PPB	100
19) Methyl Acetate	3.03	43	195470	9.14	PPB	100
20) Acetonitrile	3.09	40	421547	366.10	PPB	100
21) Methylene Chloride	3.17	84	296745	10.15	PPB	100
22) tert-Butyl Alcohol	3.38	59	61562	41.54	PPB	100
23) Acrylonitrile	3.64	53	257063	37.67	PPB	100
24) Methyl tert-Butyl Ether	3.46	73	1307601	21.14	PPB	100
25) trans-1,2-Dichloroethene	3.47	96	283900	11.37	PPB	100
26) Hexane	3.78	57	365006	13.37	PPB	100
27) Diisopropyl Ether	4.24	45	862550	10.20	PPB	100
28) 1,1-Dichloroethane	4.21	63	512053	10.91	PPB	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F010.D Vial: 9
Acq On : 8 Oct 2014 4:37 pm Operator: KR
Sample : 8260 ICAL 10 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:18:26 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) Vinyl Acetate	4.32	86	70839	19.85	PPB	100
30) Chloroprene	4.28	53	1739194	39.76	PPB	100
31) tert-Butyl Ethyl Ether	4.78	59	791847	10.01	PPB	100
32) 2,2-Dichloropropane	5.01	77	398538	11.28	PPB	100
33) cis-1,2-Dichloroethene	5.08	96	327608	11.64	PPB	100
34) 2-Butanone	5.16	72	348401	183.04	PPB	100
35) Ethyl Acetate	5.22	61	47115	17.53	PPB	100
36) Propionitrile	5.34	54	91043	36.70	PPB	100
37) Methacrylonitrile	5.48	67	331277	38.34	PPB	100
38) Bromochloromethane	5.40	128	149958	11.53	PPB	100
39) Tetrahydrofuran	5.41	71	19008	9.68	PPB	100
40) Chloroform	5.52	83	524832	10.75	PPB	100
41) Cyclohexane	5.60	56	461985	10.57	PPB	100
42) 1,1,1-Trichloroethane	5.65	97	457059	11.00	PPB	100
44) Carbon Tetrachloride	5.80	117	397721	11.16	PPB	100
45) 1,1-Dichloropropene	5.86	75	387663	11.01	PPB	100
46) Isobutyl Alcohol	6.19	43	203556	303.25	PPB	100
48) Benzene	6.10	78	1173308	10.84	PPB	100
49) 1,2-Dichloroethane	6.24	62	348770	9.85	PPB	100
50) tert-Amyl Methyl Ether	6.24	55	166067	9.83	PPB	100
51) Trichloroethene	6.87	95	309597	11.07	PPB	100
52) Methylcyclohexane	6.98	83	479060	10.83	PPB	100
53) 1,2-Dichloropropane	7.17	63	303830	10.11	PPB	100
54) Dibromomethane	7.30	93	164669	10.46	PPB	100
55) Methyl methacrylate	7.32	69	146701	9.81	PPB	100
56) 1,4-Dioxane	7.32	88	54516	320.48	PPB	100
57) Bromodichloromethane	7.48	83	390013	10.40	PPB	100
58) 2-Nitropropane	7.81	41	240844	42.10	PPB	100
59) 2-Chloroethyl Vinyl Ether	7.84	63	139669	10.05	PPB	100
60) cis-1,3-Dichloropropene	7.96	75	468113	10.54	PPB	100
61) 4-Methyl-2-pentanone (MIBK	8.13	58	1229969	173.09	PPB	100
63) Toluene	8.23	92	750008	11.11	PPB	100
65) n-Octane	8.30	85	149840	10.97	PPB	100
66) trans-1,3-Dichloropropene	8.57	75	392671	9.97	PPB	100
67) Ethyl methacrylate	8.62	69	278217	9.63	PPB	100
68) 1,1,2-Trichloroethane	8.74	83	200940	10.33	PPB	100
69) Tetrachloroethene	8.75	164	266147	12.16	PPB	100
70) 2-Hexanone	8.99	57	392360	173.01	PPB	100
71) 1,3-Dichloropropane	8.91	76	389453	9.88	PPB	100
72) Dibromochloromethane	9.10	129	291720	10.84	PPB	100
73) 1,2-Dibromoethane (EDB)	9.21	107	230047	10.68	PPB	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F010.D Vial: 9
Acq On : 8 Oct 2014 4:37 pm Operator: KR
Sample : 8260 ICAL 10 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:18:26 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

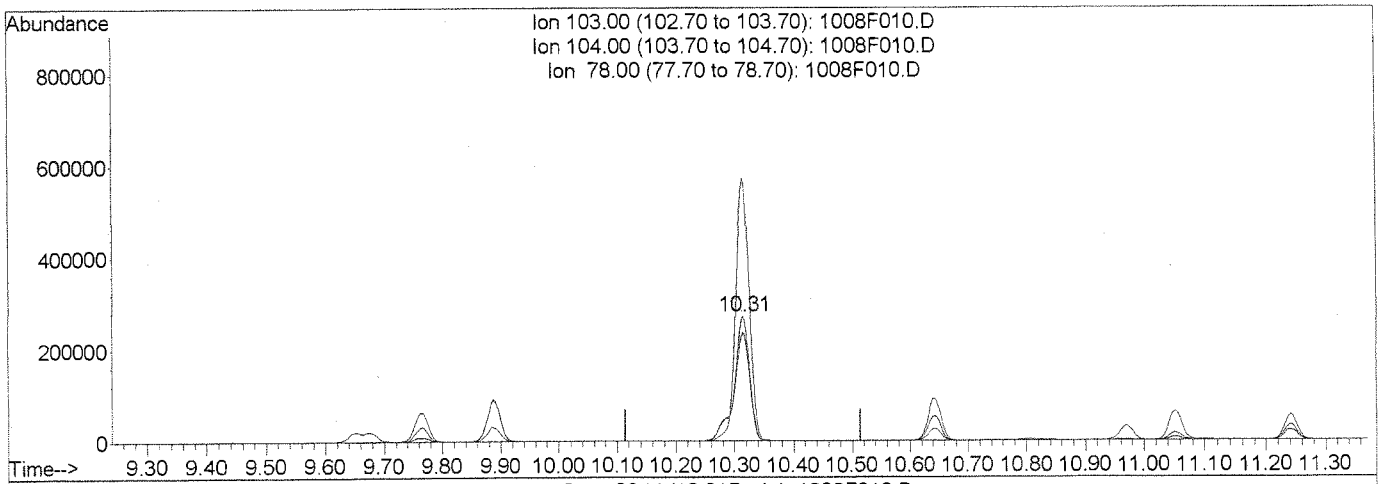
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.65	91	408225	10.26	PPB	100
75)	Chlorobenzene	9.68	112	851075	11.17	PPB	100
76)	Ethylbenzene	9.77	106	441904	11.10	PPB	100
77)	1,1,1,2-Tetrachloroethane	9.78	131	307023	11.34	PPB	100
78)	m,p-Xylenes	9.89	106	1082736	22.47	PPB	100
79)	o-Xylene	10.28	106	536140	11.05	PPB	100
80)	Styrene	10.31	103	433579m	10.96	PPB	
81)	Bromoform	10.52	173	177952	10.92	PPB	100
82)	Isopropylbenzene	10.64	105	1380168	11.08	PPB	100
83)	cis-1,4-Dichloro-2-butene	10.81	89	150857	37.86	PPB	100
86)	1,1,2,2-Tetrachloroethane	11.03	83	249160	8.48	PPB	100
87)	trans-1,4-Dichloro-2-buten	11.10	53	60188	8.39	PPB	100
88)	Bromobenzene	10.97	156	363581	10.16	PPB	100
89)	n-Propylbenzene	11.05	91	1623271	9.49	PPB	100
90)	1,2,3-Trichloropropane	11.08	110	73285	9.36	PPB	100
91)	2-Chlorotoluene	11.16	91	957058	9.21	PPB	100
92)	1,3,5-Trimethylbenzene	11.24	105	1146648	9.57	PPB	100
93)	4-Chlorotoluene	11.28	91	1026470	9.55	PPB	100
94)	tert-Butylbenzene	11.55	119	989715	9.86	PPB	100
95)	1,2,4-Trimethylbenzene	11.61	105	1167415	9.58	PPB	100
96)	sec-Butylbenzene	11.77	105	1445236	9.63	PPB	100
97)	p-Isopropyltoluene	11.92	119	1212703	10.06	PPB	100
98)	1,3-Dichlorobenzene	11.91	146	691167	10.15	PPB	100
99)	1,4-Dichlorobenzene	12.01	146	687928	10.12	PPB	100
100)	n-Butylbenzene	12.33	91	1102895	9.28	PPB	100
101)	1,2-Dichlorobenzene	12.38	146	633332	10.22	PPB	100
102)	1,2-Dibromo-3-chloropropan	13.19	155	37813	8.94	PPB	100
103)	1,3,5-Trichlorobenzene	13.33	180	559967	11.00	PPB	100
104)	1,2,4-Trichlorobenzene	13.98	180	474921	11.21	PPB	100
105)	Hexachlorobutadiene	14.10	225	207984	11.57	PPB	100
106)	Naphthalene	14.23	128	811454	9.80	PPB	100
107)	1,2,3-Trichlorobenzene	14.47	180	414562	10.90	PPB	100

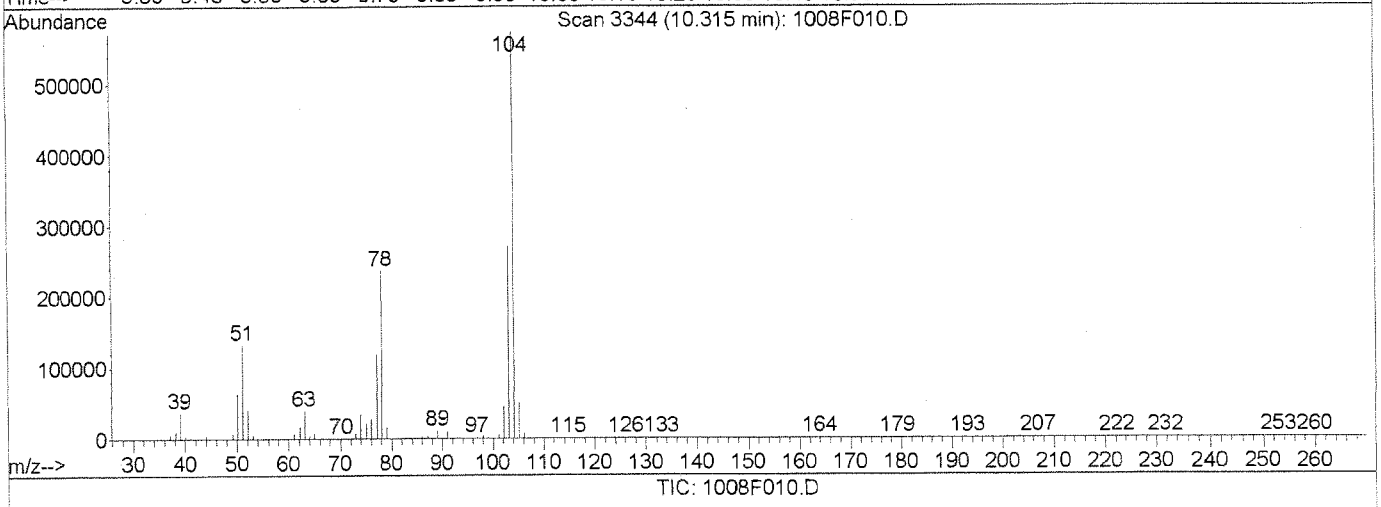
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F010.D Vial: 9
Acq On : 8 Oct 2014 4:37 pm Operator: KR
Sample : 8260 ICAL 10 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:18 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F010.D

(80) Styrene (T)

10.31min 12.43PPB

response 491559

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	211.27
78.00	87.30	87.26
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

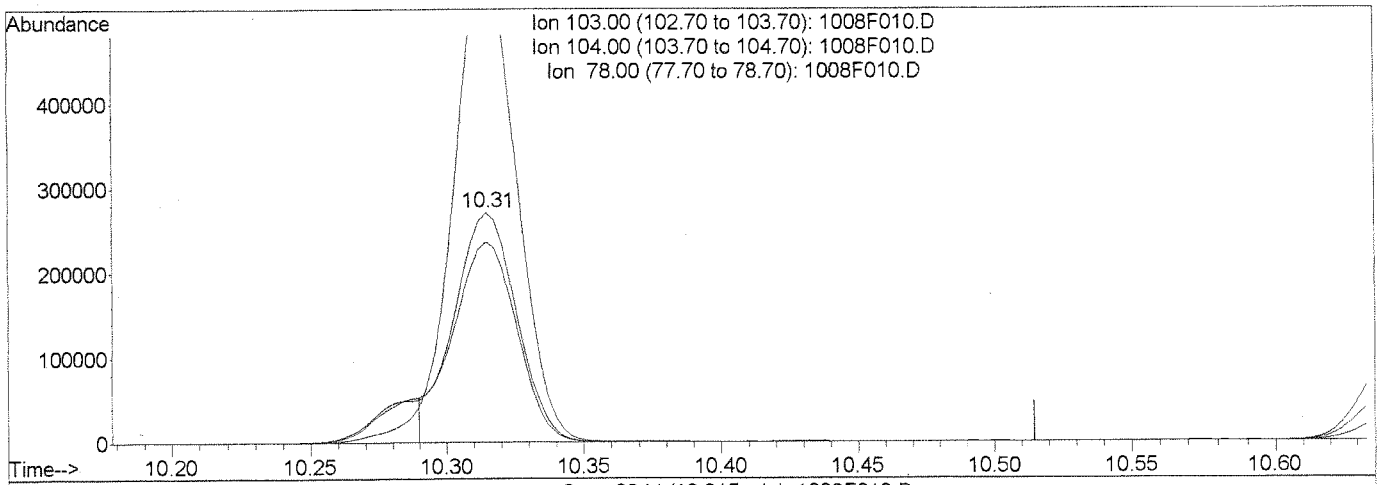
KR

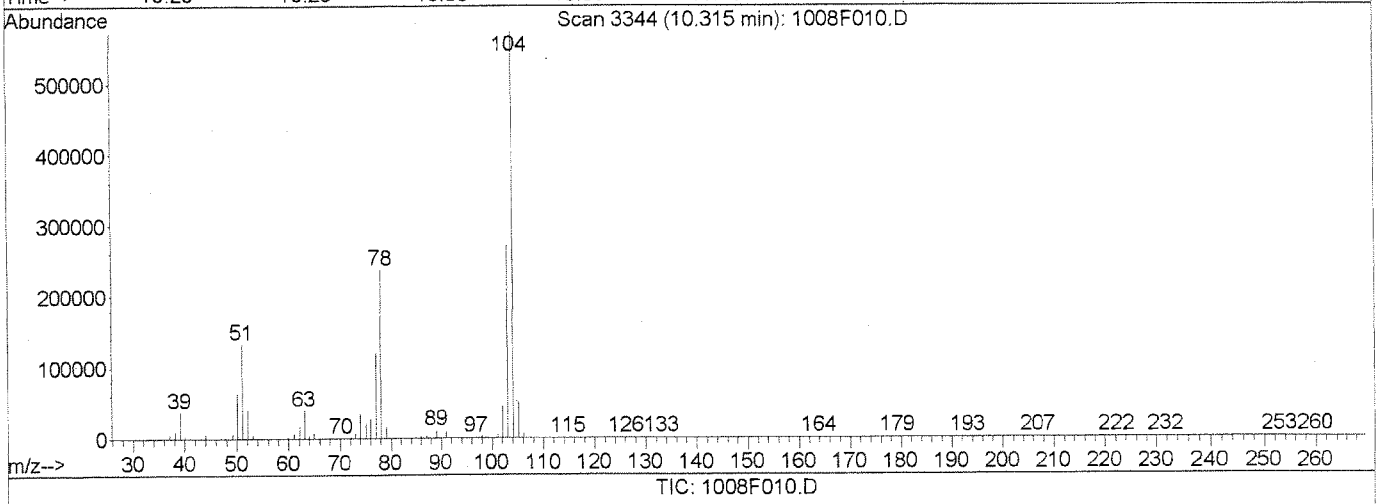
1008F010.D 100814MS27_8260.M Wed Oct 08 17:19:00 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F010.D Vial: 9
Acq On : 8 Oct 2014 4:37 pm Operator: KR
Sample : 8260 ICAL 10 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:19 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Multiple Level Calibration





TIC: 1008F010.D

(80) Styrene (T)

10.31min 10.96PPB m

response 433579

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	211.27
78.00	87.30	87.36
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

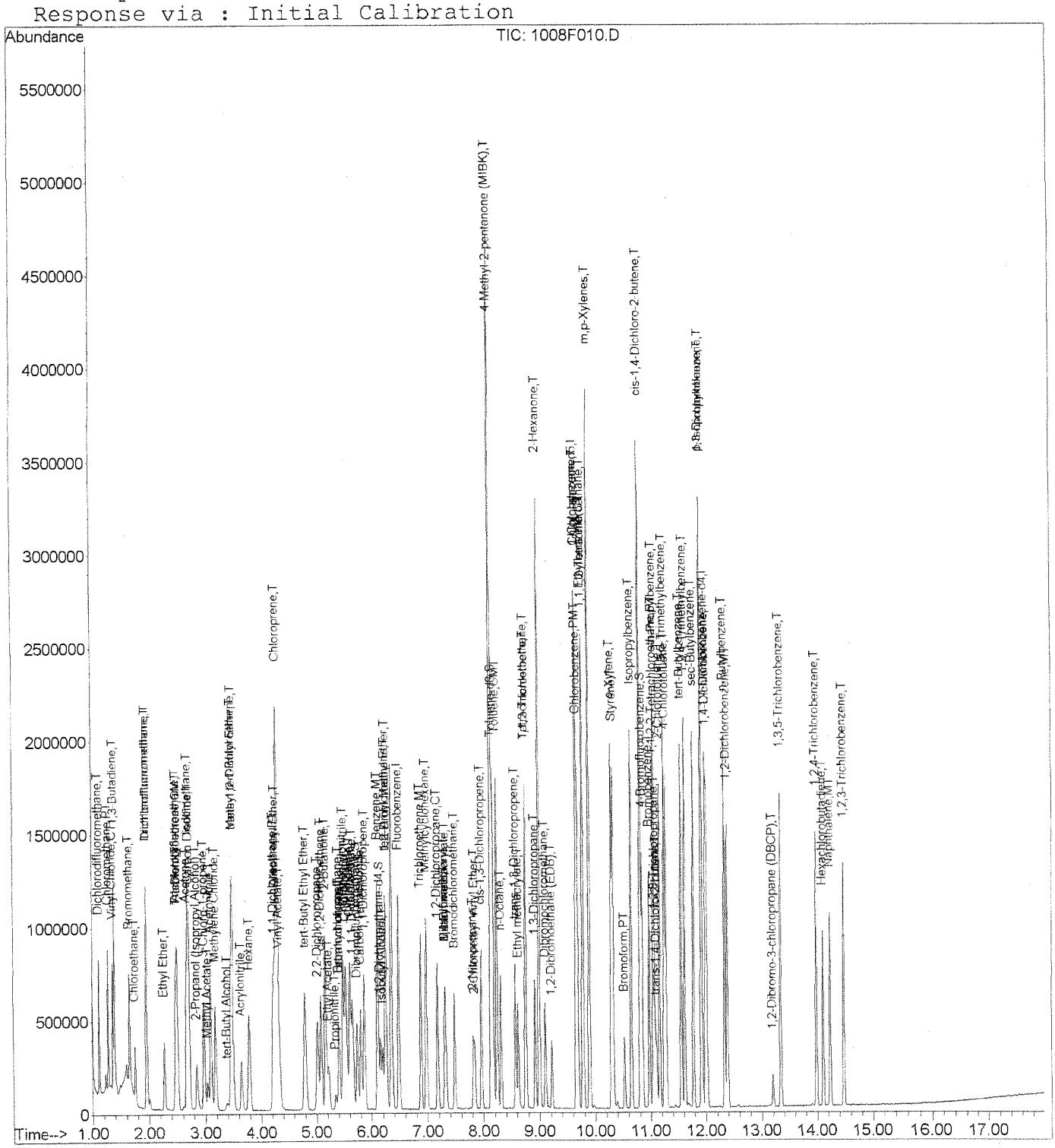
10/08/14

1008F010.D 100814MS27_8260.M Wed Oct 08 17:19:05 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F010.D Vial: 9
Acq On : 8 Oct 2014 4:37 pm Operator: KR
Sample : 8260 ICAL 10 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:19 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:00:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F011.D Vial: 10
Acq On : 8 Oct 2014 5:04 pm Operator: KR
Sample : 8260 ICAL 20 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:24:00 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:23:32 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1106644	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	466948	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	464962	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	303897	10.14	PPB	0.00
Spiked Amount 10.000			Recovery =	101.40%		
47) 1,2-Dichloroethane-d4	6.15	65	284000	10.12	PPB	0.00
Spiked Amount 10.000			Recovery =	101.20%		
62) Toluene-d8	8.16	98	1115711	10.11	PPB	0.00
Spiked Amount 10.000			Recovery =	101.10%		
84) 4-Bromofluorobenzene	10.84	95	430965	10.22	PPB	0.00
Spiked Amount 10.000			Recovery =	102.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	690405	20.13	PPB	100
3) Chloromethane	1.27	50	752864	16.79	PPB	99
4) Vinyl Chloride	1.35	62	731347	19.63	PPB	98
5) 1,3-Butadiene	1.38	54	565545	19.51	PPB	99
6) Bromomethane	1.65	96	454732	14.07	PPB	99
7) Chloroethane	1.74	64	353613	18.29	PPB	98
8) Dichlorofluoromethane	1.96	67	1021743	20.44	PPB	98
9) Trichlorofluoromethane	1.95	101	949842	20.52	PPB	99
10) Ethyl Ether	2.26	59	362828	19.16	PPB	98
11) Acrolein	2.48	56	275600	407.50	PPB	90
12) Trichlorotrifluoroethane	2.47	151	439058	19.80	PPB	99
13) 1,1-Dichloroethene	2.50	96	458648	19.66	PPB	98
14) Acetone	2.65	43	1710083	427.20	PPB	100
15) Iodomethane	2.68	142	2596824	124.54	PPB	100
16) Carbon Disulfide	2.71	76	1673643	19.46	PPB	100
17) 2-Propanol (Isopropyl Alco	2.84	45	688124	1175.11	PPB	99
18) 3-Chloro-1-propene	2.97	76	303944	20.50	PPB	99
19) Methyl Acetate	3.03	43	369991	19.95	PPB	99
20) Acetonitrile	3.09	40	798201	795.11	PPB	96
21) Methylene Chloride	3.17	84	548031	16.19	PPB	99
22) tert-Butyl Alcohol	3.38	59	119806	106.59	PPB	96
23) Acrylonitrile	3.64	53	488309	77.81	PPB	98
24) Methyl tert-Butyl Ether	3.46	73	2489639	41.08	PPB	99
25) trans-1,2-Dichloroethene	3.48	96	536786	19.94	PPB	97
26) Hexane	3.78	57	687486	20.04	PPB	96
27) Diisopropyl Ether	4.24	45	1647663	20.14	PPB	99
28) 1,1-Dichloroethane	4.20	63	954372	19.64	PPB	99

(#) = qualifier out of range (m) = manual integration
1008F011.D 100814MS27_8260.M Wed Oct 08 17:25:06 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F011.D Vial: 10
Acq On : 8 Oct 2014 5:04 pm Operator: KR
Sample : 8260 ICAL 20 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:24:00 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:23:32 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.32	86	132567	40.06	PPB	#	90
30) Chloroprene	4.28	53	3304450	81.60	PPB		99
31) tert-Butyl Ethyl Ether	4.78	59	1502539	21.11	PPB		99
32) 2,2-Dichloropropane	5.02	77	750105	18.70	PPB		99
33) cis-1,2-Dichloroethene	5.08	96	605938	19.45	PPB		98
34) 2-Butanone	5.16	72	749931	426.68	PPB		98
35) Ethyl Acetate	5.21	61	92287	42.24	PPB		97
36) Propionitrile	5.34	54	176357	82.35	PPB		97
37) Methacrylonitrile	5.48	67	634880	80.64	PPB		97
38) Bromochloromethane	5.40	128	289512	21.42	PPB		97
39) Tetrahydrofuran	5.41	71	37063	20.00	PPB	#	86
40) Chloroform	5.52	83	993839	20.26	PPB		99
41) Cyclohexane	5.60	56	859780	19.22	PPB		99
42) 1,1,1-Trichloroethane	5.65	97	856094	20.13	PPB		98
44) Carbon Tetrachloride	5.80	117	769472	20.74	PPB		98
45) 1,1-Dichloropropene	5.86	75	720632	19.77	PPB		97
46) Isobutyl Alcohol	6.19	43	404401	903.15	PPB		96
48) Benzene	6.10	78	2193702	18.22	PPB		99
49) 1,2-Dichloroethane	6.24	62	659767	20.09	PPB		99
50) tert-Amyl Methyl Ether	6.24	55	309570	21.01	PPB		95
51) Trichloroethene	6.87	95	581083	19.12	PPB		98
52) Methylcyclohexane	6.97	83	901177	19.47	PPB		98
53) 1,2-Dichloropropane	7.17	63	582395	20.20	PPB		98
54) Dibromomethane	7.30	93	312000	19.58	PPB		98
55) Methyl methacrylate	7.32	69	275259	20.05	PPB		97
56) 1,4-Dioxane	7.32	88	112212	866.77	PPB		96
57) Bromodichloromethane	7.48	83	744263	19.89	PPB		99
58) 2-Nitropropane	7.81	41	463173	107.26	PPB		98
59) 2-Chloroethyl Vinyl Ether	7.84	63	272066	19.70	PPB		99
60) cis-1,3-Dichloropropene	7.96	75	889472	20.09	PPB		98
61) 4-Methyl-2-pentanone (MIBK	8.13	58	2670920	411.22	PPB		99
63) Toluene	8.23	92	1414575	19.64	PPB		99
65) n-Octane	8.30	85	286451	19.04	PPB		98
66) trans-1,3-Dichloropropene	8.57	75	739584	20.59	PPB		98
67) Ethyl methacrylate	8.62	69	530597	20.86	PPB		99
68) 1,1,2-Trichloroethane	8.74	83	377171	19.98	PPB		99
69) Tetrachloroethene	8.76	164	506780	19.54	PPB		99
70) 2-Hexanone	8.99	57	860340	443.46	PPB		98
71) 1,3-Dichloropropane	8.91	76	741477	19.90	PPB		98
72) Dibromochloromethane	9.10	129	562329	20.66	PPB		100
73) 1,2-Dibromoethane (EDB)	9.21	107	441125	19.74	PPB		98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F011.D Vial: 10
Acq On : 8 Oct 2014 5:04 pm Operator: KR
Sample : 8260 ICAL 20 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:24:00 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:23:32 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74) 1-Chlorohexane	9.66	91	760686	18.39	PPB	98
75) Chlorobenzene	9.68	112	1628001	20.07	PPB	99
76) Ethylbenzene	9.77	106	852373	19.73	PPB	100
77) 1,1,1,2-Tetrachloroethane	9.78	131	583905	19.90	PPB	99
78) m,p-Xylenes	9.89	106	2087145	41.38	PPB	98
79) o-Xylene	10.28	106	1009179	19.90	PPB	99
80) Styrene	10.31	103	843986m	20.65	PPB	
81) Bromoform	10.52	173	343619	20.28	PPB	98
82) Isopropylbenzene	10.64	105	2631672	20.81	PPB	100
83) cis-1,4-Dichloro-2-butene	10.81	89	298433	84.35	PPB	97
86) 1,1,2,2-Tetrachloroethane	11.03	83	479665	19.78	PPB	99
87) trans-1,4-Dichloro-2-buten	11.10	53	118143	20.01	PPB	95
88) Bromobenzene	10.97	156	694971	19.75	PPB	97
89) n-Propylbenzene	11.05	91	3117122	19.85	PPB	98
90) 1,2,3-Trichloropropane	11.08	110	137357	18.70	PPB	97
91) 2-Chlorotoluene	11.16	91	1835577	19.99	PPB	99
92) 1,3,5-Trimethylbenzene	11.24	105	2206818	19.94	PPB	98
93) 4-Chlorotoluene	11.28	91	1958551	19.56	PPB	99
94) tert-Butylbenzene	11.55	119	1901588	19.62	PPB	100
95) 1,2,4-Trimethylbenzene	11.61	105	2250014	19.98	PPB	100
96) sec-Butylbenzene	11.77	105	2762382	20.26	PPB	99
97) p-Isopropyltoluene	11.92	119	2318634	20.52	PPB	100
98) 1,3-Dichlorobenzene	11.91	146	1318464	19.42	PPB	98
99) 1,4-Dichlorobenzene	12.01	146	1321415	19.28	PPB	99
100) n-Butylbenzene	12.33	91	2108983	19.38	PPB	99
101) 1,2-Dichlorobenzene	12.38	146	1205311	19.28	PPB	98
102) 1,2-Dibromo-3-chloropropan	13.19	155	72987	19.31	PPB	97
103) 1,3,5-Trichlorobenzene	13.33	180	1052544	19.09	PPB	98
104) 1,2,4-Trichlorobenzene	13.98	180	905145	18.82	PPB	100
105) Hexachlorobutadiene	14.10	225	390685	19.05	PPB	98
106) Naphthalene	14.23	128	1553677	19.41	PPB	99
107) 1,2,3-Trichlorobenzene	14.47	180	799506	19.00	PPB	98

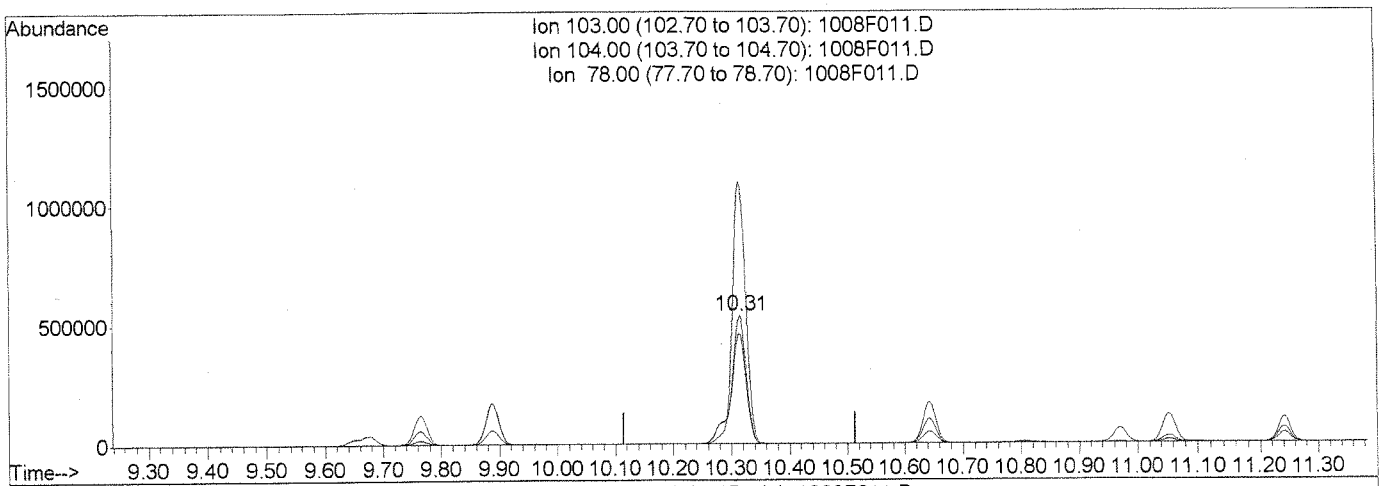
(#) = qualifier out of range (m) = manual integration

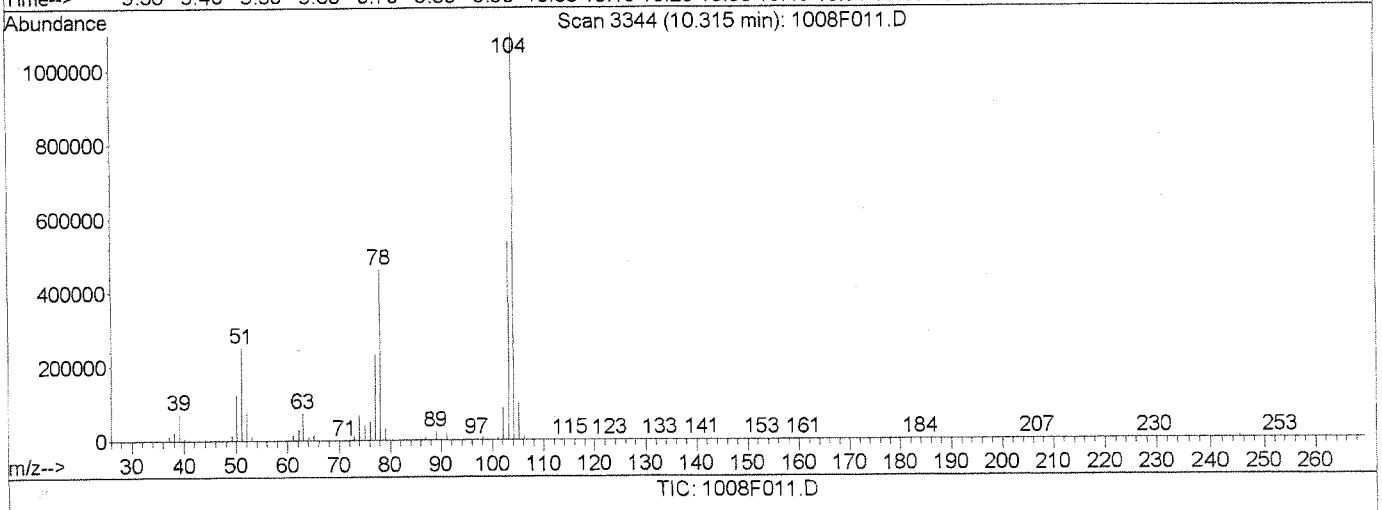
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F011.D
Acq On : 8 Oct 2014 5:04 pm
Sample : 8260 ICAL 20
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:24 2014

Vial: 10
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:23:32 2014
Response via : Multiple Level Calibration





TIC: 1008F011.D

(80) Styrene (T)

10.31min 23.32PPB

response 953370

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	204.85
78.00	87.30	86.22
0.00	0.00	0.00

Manual Integration:

Before

10/08/14

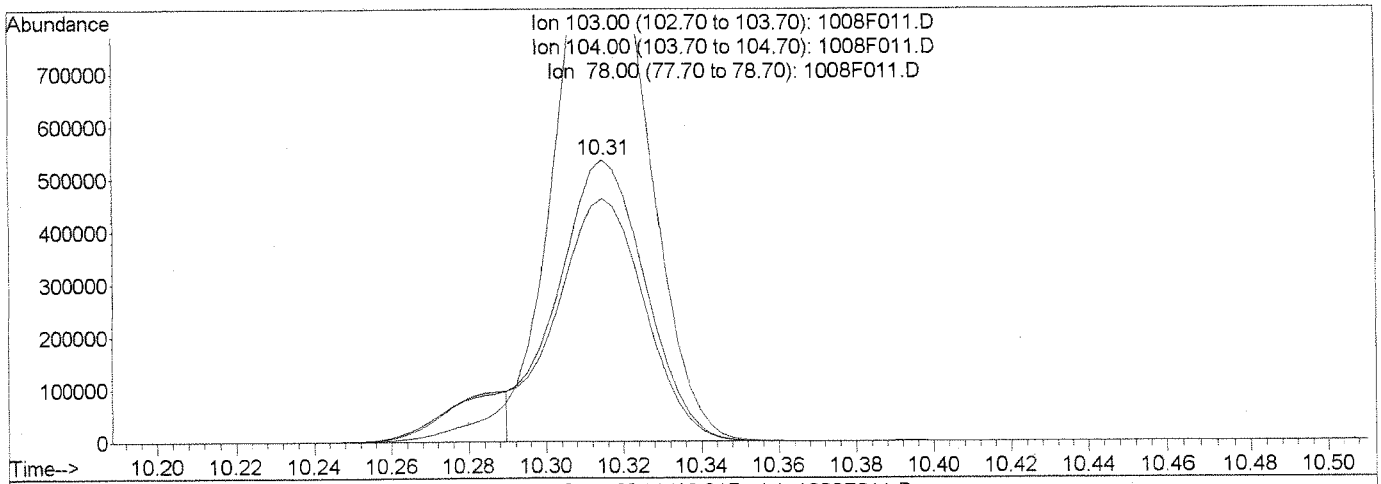
1008F011.D 100814MS27_8260.M Wed Oct 08 17:24:36 2014

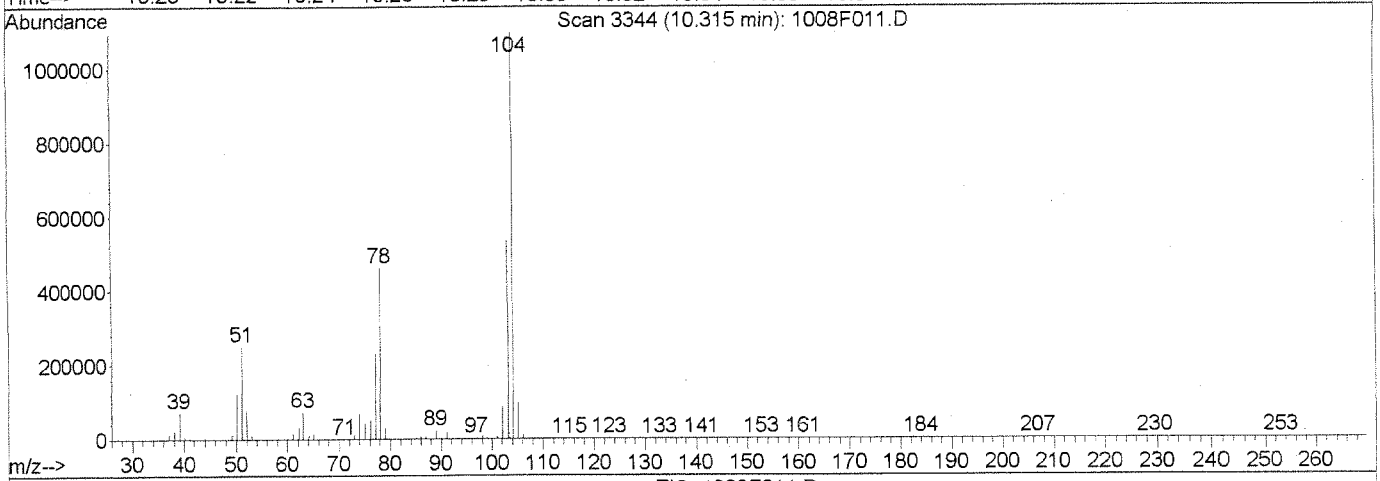
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F011.D
Acq On : 8 Oct 2014 5:04 pm
Sample : 8260 ICAL 20
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 8 17:24 2014

Vial: 10
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:23:32 2014
Response via : Multiple Level Calibration





TIC: 1008F011.D

(80) Styrene (T)

10.31min 20.65PPB m

response 843986

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	204.85
78.00	87.30	86.26
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

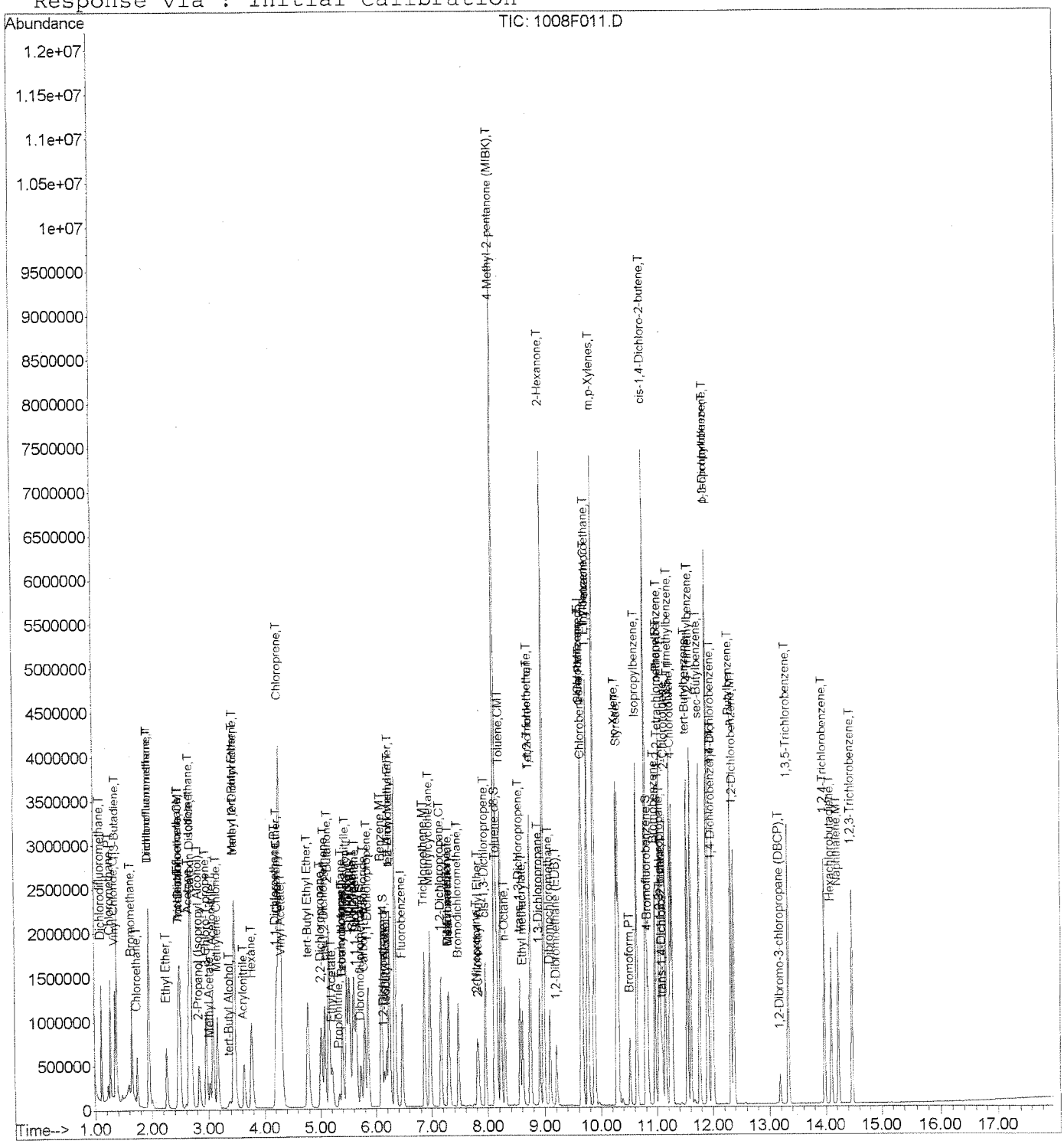
10/08/14

1008F011.D 100814MS27_8260.M Wed Oct 08 17:24:41 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F011.D Vial: 10
Acq On : 8 Oct 2014 5:04 pm Operator: KR
Sample : 8260 ICAL 20 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:24 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:23:32 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F012.D Vial: 11
Acq On : 8 Oct 2014 5:32 pm Operator: KR
Sample : 8260 ICAL 40 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:52:09 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:27:10 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KM 10/8/14

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1117707	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	466361	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	463091	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	308088	10.16	PPB	0.00
Spiked Amount 10.000			Recovery =	101.60%		
47) 1,2-Dichloroethane-d4	6.15	65	274064	9.66	PPB	0.00
Spiked Amount 10.000			Recovery =	96.60%		
62) Toluene-d8	8.16	98	1113742	9.98	PPB	0.00
Spiked Amount 10.000			Recovery =	99.80%		
84) 4-Bromofluorobenzene	10.84	95	429609	10.17	PPB	0.00
Spiked Amount 10.000			Recovery =	101.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	1432734	41.33	PPB	99
3) Chloromethane	1.26	50	1494432	33.91	PPB	98
4) Vinyl Chloride	1.35	62	1533456	40.85	PPB	98
5) 1,3-Butadiene	1.38	54	1202707	41.23	PPB	99
6) Bromomethane	1.64	96	911170	26.63	PPB	98
7) Chloroethane	1.74	64	735704	38.22	PPB	97
8) Dichlorofluoromethane	1.96	67	2119797	41.87	PPB	99
9) Trichlorofluoromethane	1.95	101	1967572	41.95	PPB	98
10) Ethyl Ether	2.26	59	749764	39.45	PPB	99
11) Acrolein	2.48	56	607811	887.05	PPB	95
12) Trichlorotrifluoroethane	2.47	151	915159	40.91	PPB	97
13) 1,1-Dichloroethene	2.50	96	970465	41.28	PPB	98
14) Acetone	2.65	43	3236700	793.82	PPB	99
15) Iodomethane	2.68	142	5814913	147.71	PPB	98
16) Carbon Disulfide	2.71	76	3572051	41.25	PPB	99
17) 2-Propanol (Isopropyl Alco	2.84	45	1334732	2192.77	PPB	100
18) 3-Chloro-1-propene	2.97	76	630477	41.92	PPB	99
19) Methyl Acetate	3.03	43	757544	40.46	PPB	100
20) Acetonitrile	3.09	40	1607579	1587.12	PPB	98
21) Methylene Chloride	3.17	84	1125579	34.00	PPB	99
22) tert-Butyl Alcohol	3.37	59	228373	197.91	PPB	93
23) Acrylonitrile	3.64	53	1014550	160.70	PPB	94
24) Methyl tert-Butyl Ether	3.45	73	5080062	82.72	PPB	100
25) trans-1,2-Dichloroethene	3.47	96	1106365	40.71	PPB	97
26) Hexane	3.78	57	1429273	41.24	PPB	96
27) Diisopropyl Ether	4.24	45	3378198	40.85	PPB	100
28) 1,1-Dichloroethane	4.21	63	1979346	40.42	PPB	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F012.D Vial: 11
Acq On : 8 Oct 2014 5:32 pm Operator: KR
Sample : 8260 ICAL 40 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:52:09 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:27:10 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.32	86	278615	83.33	PPB	#	91
30) Chloroprene	4.28	53	6976150	170.15	PPB		100
31) tert-Butyl Ethyl Ether	4.78	59	3089467	42.68	PPB		98
32) 2,2-Dichloropropane	5.01	77	1554931	38.74	PPB		99
33) cis-1,2-Dichloroethene	5.08	96	1276795	40.71	PPB		99
34) 2-Butanone	5.16	72	1459978	815.64	PPB		99
35) Ethyl Acetate	5.21	61	183350	82.17	PPB		99
36) Propionitrile	5.34	54	360376	165.64	PPB		96
37) Methacrylonitrile	5.48	67	1308502	164.36	PPB		96
38) Bromochloromethane	5.40	128	602786	43.71	PPB		98
39) Tetrahydrofuran	5.41	71	72536	38.76	PPB		94
40) Chloroform	5.52	83	2066208	41.64	PPB		100
41) Cyclohexane	5.60	56	1801971	40.11	PPB		98
42) 1,1,1-Trichloroethane	5.65	97	1786518	41.55	PPB		99
44) Carbon Tetrachloride	5.80	117	1605675	42.65	PPB		99
45) 1,1-Dichloropropene	5.86	75	1532742	41.69	PPB		99
46) Isobutyl Alcohol	6.19	43	820322	1775.73	PPB		95
48) Benzene	6.10	78	4596432	38.22	PPB		99
49) 1,2-Dichloroethane	6.24	62	1354495	40.82	PPB		99
50) tert-Amyl Methyl Ether	6.24	55	617055	41.11	PPB		93
51) Trichloroethene	6.87	95	1222415	40.04	PPB		99
52) Methylcyclohexane	6.97	83	1897923	40.76	PPB		98
53) 1,2-Dichloropropane	7.17	63	1200366	41.18	PPB		98
54) Dibromomethane	7.30	93	639526	39.84	PPB		99
55) Methyl methacrylate	7.32	69	570312	41.12	PPB		97
56) 1,4-Dioxane	7.31	88	215821	1616.84	PPB		98
57) Bromodichloromethane	7.48	83	1533100	40.59	PPB		99
58) 2-Nitropropane	7.81	41	928514	210.35	PPB		94
59) 2-Chloroethyl Vinyl Ether	7.84	63	562525	40.41	PPB		99
60) cis-1,3-Dichloropropene	7.96	75	1849192	41.33	PPB		99
61) 4-Methyl-2-pentanone (MIBK	8.13	58	5135938	780.18	PPB		99
63) Toluene	8.23	92	2944913	40.58	PPB		99
65) n-Octane	8.30	85	600165	40.26	PPB		98
66) trans-1,3-Dichloropropene	8.57	75	1535249	42.62	PPB		99
67) Ethyl methacrylate	8.62	69	1111786	43.50	PPB		98
68) 1,1,2-Trichloroethane	8.74	83	783410	41.55	PPB		100
69) Tetrachloroethene	8.75	164	1072304	41.52	PPB		99
70) 2-Hexanone	8.99	57	1662175	846.34	PPB		99
71) 1,3-Dichloropropane	8.91	76	1511677	40.64	PPB		97
72) Dibromochloromethane	9.10	129	1163994	42.65	PPB		99
73) 1,2-Dibromoethane (EDB)	9.21	107	901315	40.44	PPB		98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F012.D Vial: 11
Acq On : 8 Oct 2014 5:32 pm Operator: KR
Sample : 8260 ICAL 40 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 08 17:52:09 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:27:10 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

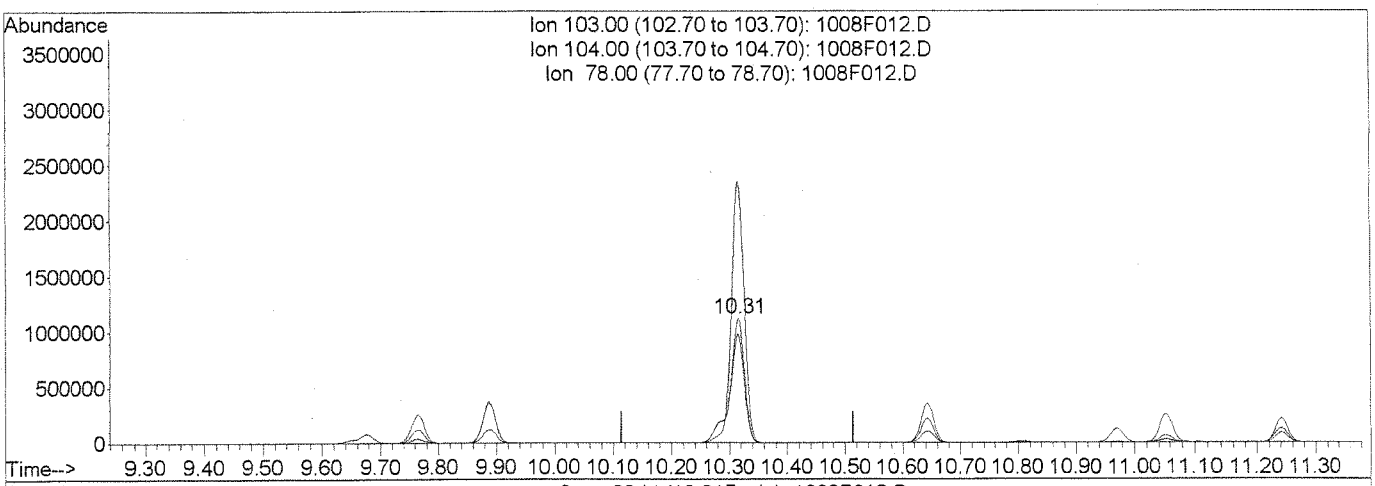
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.65	91	1622536	39.74	PPB	98
75)	Chlorobenzene	9.68	112	3353545	41.38	PPB	99
76)	Ethylbenzene	9.77	106	1773348	41.16	PPB	98
77)	1,1,1,2-Tetrachloroethane	9.78	131	1210083	41.33	PPB	98
78)	m,p-Xylenes	9.89	106	4383310	86.64	PPB	98
79)	o-Xylene	10.28	106	2098342	41.45	PPB	100
80)	Styrene	10.31	103	1755193m	42.82	PPB	
81)	Bromoform	10.52	173	730605	43.09	PPB	98
82)	Isopropylbenzene	10.64	105	5557071	43.77	PPB	99
83)	cis-1,4-Dichloro-2-butene	10.81	89	619661	173.79	PPB	98
86)	1,1,2,2-Tetrachloroethane	11.03	83	990795	41.09	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.10	53	240124	40.83	PPB	89
88)	Bromobenzene	10.97	156	1428351	40.81	PPB	99
89)	n-Propylbenzene	11.05	91	6520903	41.73	PPB	99
90)	1,2,3-Trichloropropane	11.08	110	276003	38.13	PPB	97
91)	2-Chlorotoluene	11.16	91	3807572	41.64	PPB	100
92)	1,3,5-Trimethylbenzene	11.24	105	4637497	42.09	PPB	100
93)	4-Chlorotoluene	11.28	91	4062941	40.85	PPB	99
94)	tert-Butylbenzene	11.55	119	3969348	41.22	PPB	99
95)	1,2,4-Trimethylbenzene	11.61	105	4674936	41.69	PPB	100
96)	sec-Butylbenzene	11.77	105	5774707	42.45	PPB	99
97)	p-Isopropyltoluene	11.92	119	4860348	43.05	PPB	100
98)	1,3-Dichlorobenzene	11.91	146	2727115	40.48	PPB	100
99)	1,4-Dichlorobenzene	12.01	146	2711493	39.91	PPB	99
100)	n-Butylbenzene	12.33	91	4446560	41.18	PPB	99
101)	1,2-Dichlorobenzene	12.38	146	2487985	40.16	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.19	155	148336	39.64	PPB	97
103)	1,3,5-Trichlorobenzene	13.33	180	2170702	39.75	PPB	98
104)	1,2,4-Trichlorobenzene	13.98	180	1861873	39.20	PPB	99
105)	Hexachlorobutadiene	14.10	225	798652	39.37	PPB	99
106)	Naphthalene	14.23	128	3250788	40.94	PPB	100
107)	1,2,3-Trichlorobenzene	14.47	180	1649835	39.65	PPB	98

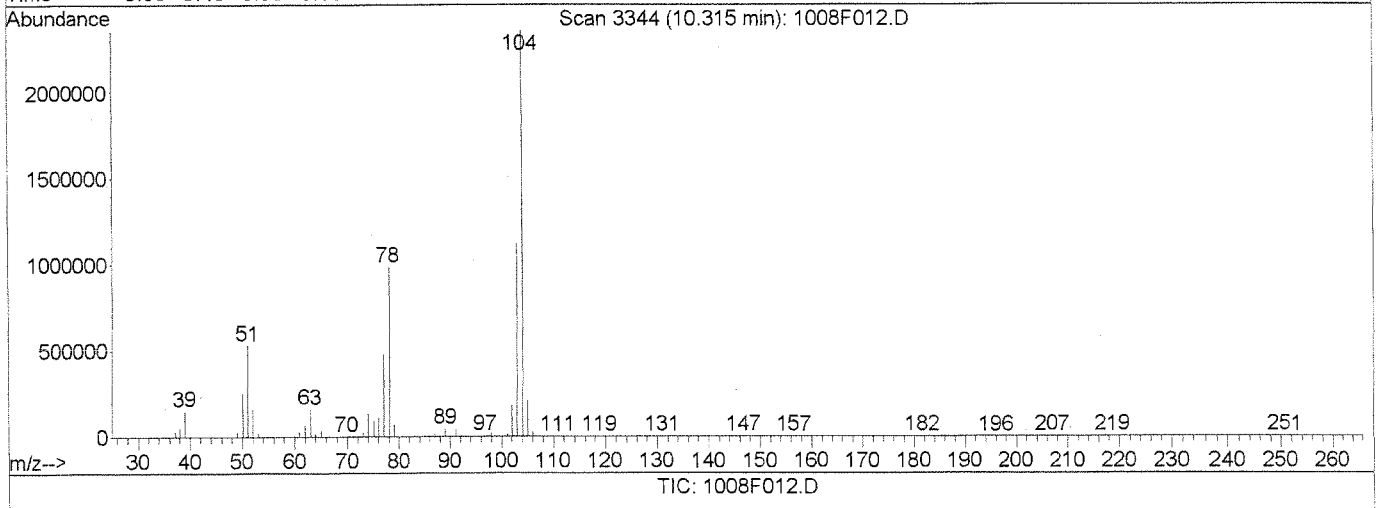
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F012.D Vial: 11
Acq On : 8 Oct 2014 5:32 pm Operator: KR
Sample : 8260 ICAL 40 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:52 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:27:10 2014
Response via : Multiple Level Calibration





TIC: 1008F012.D

(80) Styrene (T)

10.31min 48.36PPB

response 1982509

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	210.06
78.00	87.30	87.57
0.00	0.00	0.00

Manual Integration:

Before

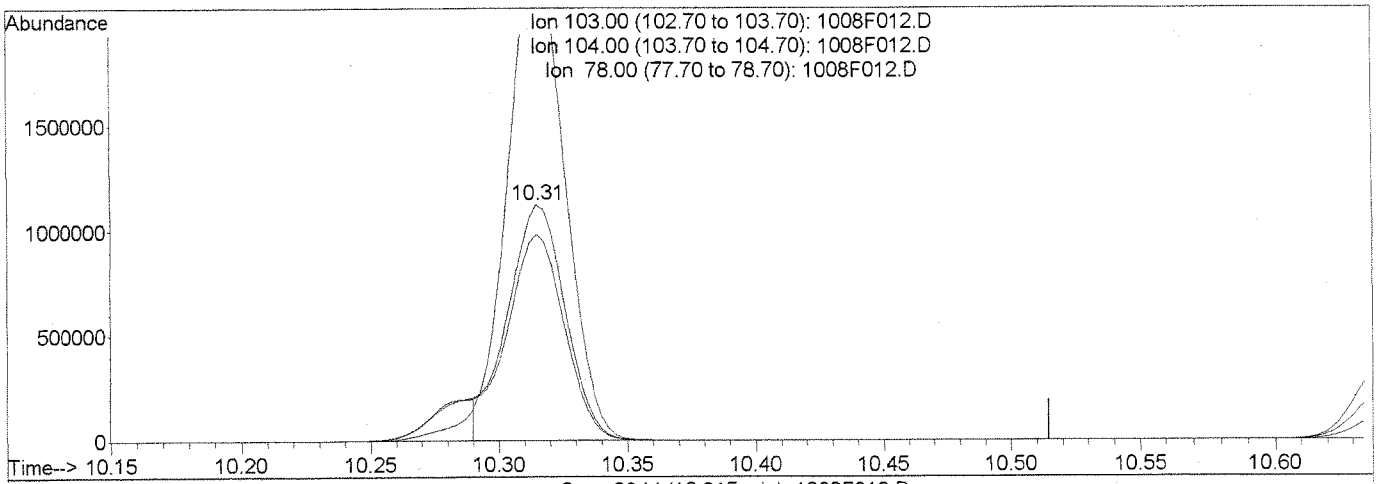
10/08/14

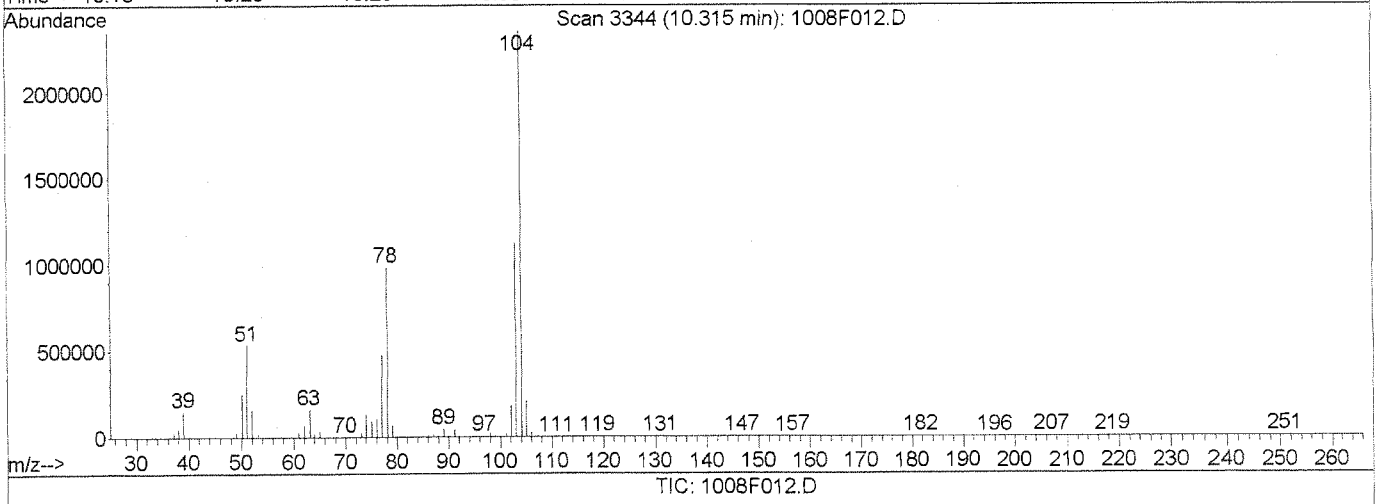
1008F012.D 100814MS27_8260.M Wed Oct 08 17:52:57 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F012.D Vial: 11
Acq On : 8 Oct 2014 5:32 pm Operator: KR
Sample : 8260 ICAL 40 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:53 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:27:10 2014
Response via : Multiple Level Calibration





TIC: 1008F012.D

(80) Styrene (T)

10.31min 42.82PPB m

response 1755193

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	210.04
78.00	87.30	87.59
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

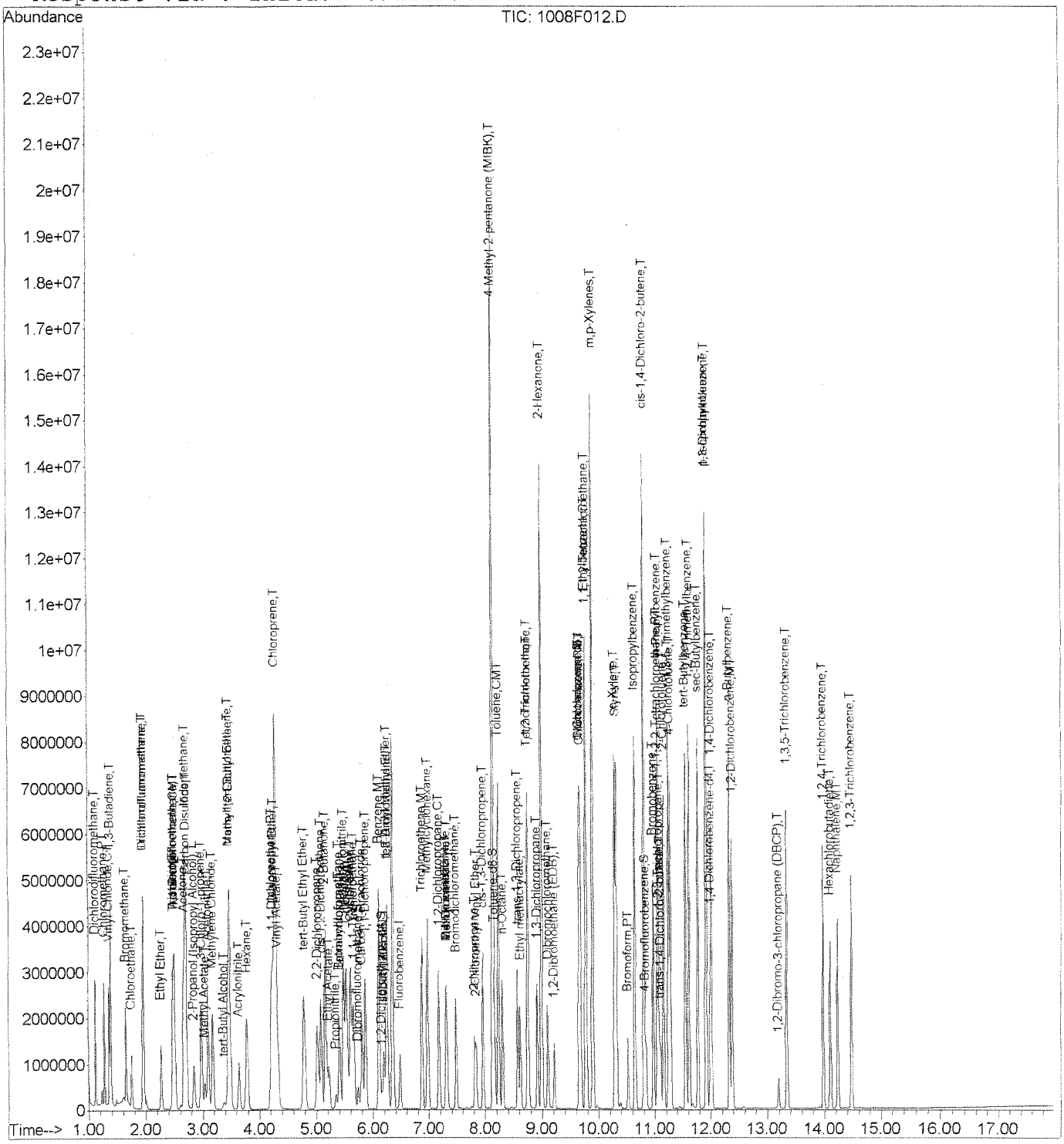
10/08/14

1008F012.D 100814MS27_8260.M Wed Oct 08 17:53:04 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F012.D Vial: 11
Acq On : 8 Oct 2014 5:32 pm Operator: KR
Sample : 8260 ICAL 40 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 8 17:53 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:27:10 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F013.D Vial: 12
Acq On : 8 Oct 2014 5:59 pm Operator: KR
Sample : 8260 ICAL 60 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 03:49:31 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:54:08 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1133459	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	484066	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	480597	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	318219	10.33	PPB	0.00
Spiked Amount 10.000			Recovery =	103.30%		
47) 1,2-Dichloroethane-d4	6.15	65	282839	9.86	PPB	0.00
Spiked Amount 10.000			Recovery =	98.60%		
62) Toluene-d8	8.16	98	1147186	10.14	PPB	0.00
Spiked Amount 10.000			Recovery =	101.40%		
84) 4-Bromofluorobenzene	10.84	95	445985	10.16	PPB	0.00
Spiked Amount 10.000			Recovery =	101.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	2238533	63.45	PPB	100
3) Chloromethane	1.26	50	2308959	52.82	PPB	98
4) Vinyl Chloride	1.35	62	2391117	62.67	PPB	97
5) 1,3-Butadiene	1.38	54	1867813	62.89	PPB	100
6) Bromomethane	1.64	96	1414500	64.59	PPB	99
7) Chloroethane	1.74	64	1131756	58.36	PPB	98
8) Dichlorofluoromethane	1.96	67	3320790	64.35	PPB	99
9) Trichlorofluoromethane	1.95	101	3075061	64.30	PPB	100
10) Ethyl Ether	2.26	59	1169086	60.76	PPB	98
11) Acrolein	2.48	56	1024544	1451.88	PPB	94
12) Trichlorotrifluoroethane	2.47	151	1447530	63.64	PPB	100
13) 1,1-Dichloroethene	2.50	96	1514083	63.26	PPB	98
14) Acetone	2.65	43	6917790	1674.50	PPB	98
15) Iodomethane	2.68	142	9359560	230.68	PPB	99
16) Carbon Disulfide	2.71	76	5595596	63.50	PPB	100
17) 2-Propanol (Isopropyl Alco	2.84	45	2271808	3630.39	PPB	99
18) 3-Chloro-1-propene	2.97	76	993521	64.70	PPB	99
19) Methyl Acetate	3.03	43	1217134	64.00	PPB	99
20) Acetonitrile	3.09	40	2543615	2479.20	PPB	96
21) Methylene Chloride	3.17	84	1760959	53.60	PPB	100
22) tert-Butyl Alcohol	3.37	59	385010	329.70	PPB	95
23) Acrylonitrile	3.64	53	1586781	247.71	PPB	94
24) Methyl tert-Butyl Ether	3.45	73	7946648	127.12	PPB	99
25) trans-1,2-Dichloroethene	3.47	96	1742364	63.07	PPB	96
26) Hexane	3.78	57	2221181	62.91	PPB	95
27) Diisopropyl Ether	4.24	45	5285806	62.88	PPB	100
28) 1,1-Dichloroethane	4.21	63	3095735	62.26	PPB	98

(#) = qualifier out of range (m) = manual integration
1008F013.D 100814MS27_8260.M Thu Oct 09 03:50:51 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F013.D Vial: 12
Acq On : 8 Oct 2014 5:59 pm Operator: KR
Sample : 8260 ICAL 60 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 03:49:31 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:54:08 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29) Vinyl Acetate	4.32	86	436798	127.94 PPB	#	88
30) Chloroprene	4.28	53	10866327	259.52 PPB		100
31) tert-Butyl Ethyl Ether	4.78	59	4840399	65.46 PPB		99
32) 2,2-Dichloropropane	5.01	77	2379220	58.69 PPB		99
33) cis-1,2-Dichloroethene	5.08	96	2012523	63.15 PPB		99
34) 2-Butanone	5.15	72	3083196	1694.86 PPB		99
35) Ethyl Acetate	5.21	61	294631	129.62 PPB		99
36) Propionitrile	5.34	54	566247	255.14 PPB		97
37) Methacrylonitrile	5.48	67	2049426	252.99 PPB		95
38) Bromochloromethane	5.40	128	943110	66.67 PPB		98
39) Tetrahydrofuran	5.40	71	114891	61.01 PPB		95
40) Chloroform	5.52	83	3197884	63.26 PPB		99
41) Cyclohexane	5.60	56	2832154	62.14 PPB		97
42) 1,1,1-Trichloroethane	5.65	97	2797504	63.89 PPB		99
44) Carbon Tetrachloride	5.80	117	2518612	65.49 PPB		99
45) 1,1-Dichloropropene	5.86	75	2367853	63.22 PPB		98
46) Isobutyl Alcohol	6.19	43	1340240	2816.68 PPB		96
48) Benzene	6.10	78	7192436	59.27 PPB		99
49) 1,2-Dichloroethane	6.24	62	2093253	62.07 PPB		98
50) tert-Amyl Methyl Ether	6.24	55	948611	62.08 PPB	#	88
51) Trichloroethene	6.87	95	1904422	61.50 PPB		98
52) Methylcyclohexane	6.97	83	2987276	63.12 PPB		98
53) 1,2-Dichloropropane	7.17	63	1874902	63.22 PPB		96
54) Dibromomethane	7.30	93	1002123	61.59 PPB		98
55) Methyl methacrylate	7.32	69	899962	63.73 PPB		98
56) 1,4-Dioxane	7.31	88	361605	2665.74 PPB		99
57) Bromodichloromethane	7.48	83	2417309	63.00 PPB		99
58) 2-Nitropropane	7.81	41	1454166	322.47 PPB		97
59) 2-Chloroethyl Vinyl Ether	7.84	63	881474	62.37 PPB		99
60) cis-1,3-Dichloropropene	7.96	75	2901445	63.72 PPB		98
61) 4-Methyl-2-pentanone (MIBK	8.13	58	10966637	1647.28 PPB	#	48
63) Toluene	8.23	92	4648147	63.06 PPB		99
65) n-Octane	8.30	85	933118	60.25 PPB		96
66) trans-1,3-Dichloropropene	8.57	75	2429718	64.46 PPB		99
67) Ethyl methacrylate	8.62	69	1748974	65.22 PPB		97
68) 1,1,2-Trichloroethane	8.74	83	1224694	62.28 PPB		99
69) Tetrachloroethene	8.75	164	1674642	62.21 PPB		100
70) 2-Hexanone	8.99	57	3480830	1696.61 PPB	#	53
71) 1,3-Dichloropropane	8.92	76	2356604	60.93 PPB		97
72) Dibromochloromethane	9.10	129	1834636	64.29 PPB		99
73) 1,2-Dibromoethane (EDB)	9.21	107	1416079	61.14 PPB		97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F013.D Vial: 12
Acq On : 8 Oct 2014 5:59 pm Operator: KR
Sample : 8260 ICAL 60 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 03:49:31 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:54:08 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

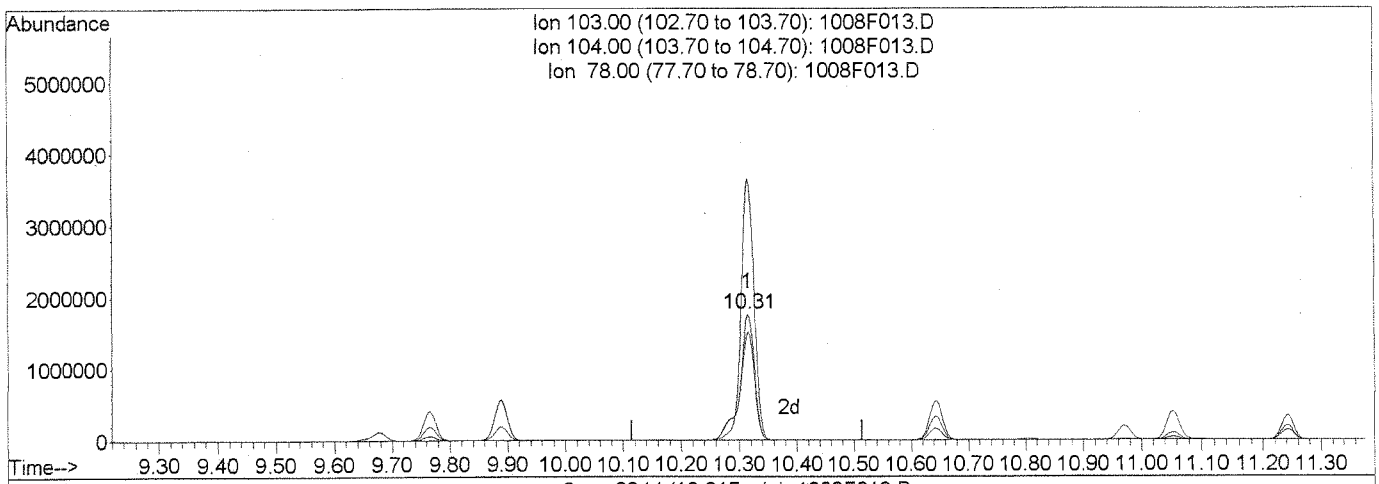
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.66	91	2536598	59.90	PPB	100
75)	Chlorobenzene	9.68	112	5257241	62.25	PPB	99
76)	Ethylbenzene	9.77	106	2796748	62.34	PPB	99
77)	1,1,1,2-Tetrachloroethane	9.78	131	1903467	62.40	PPB	98
78)	m,p-Xylenes	9.89	106	6903270	130.26	PPB	95
79)	o-Xylene	10.28	106	3319394	62.91	PPB	100
80)	Styrene	10.31	103	2769193m	64.58	PPB	
81)	Bromoform	10.52	173	1151120	64.79	PPB	99
82)	Isopropylbenzene	10.64	105	8745510	65.67	PPB	99
83)	cis-1,4-Dichloro-2-butene	10.81	89	972010	259.45	PPB	97
86)	1,1,2,2-Tetrachloroethane	11.04	83	1511900	60.21	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.10	53	358234	58.53	PPB	87
88)	Bromobenzene	10.97	156	2237846	61.47	PPB	98
89)	n-Propylbenzene	11.05	91	10266248	63.00	PPB	98
90)	1,2,3-Trichloropropane	11.08	110	432272	57.94	PPB	98
91)	2-Chlorotoluene	11.16	91	5929906	62.20	PPB	100
92)	1,3,5-Trimethylbenzene	11.24	105	7259755	63.13	PPB	100
93)	4-Chlorotoluene	11.28	91	6347822	61.35	PPB	100
94)	tert-Butylbenzene	11.55	119	6200098	61.83	PPB	99
95)	1,2,4-Trimethylbenzene	11.61	105	7296466	62.41	PPB	100
96)	sec-Butylbenzene	11.77	105	9100908	64.03	PPB	99
97)	p-Isopropyltoluene	11.92	119	7609466	64.40	PPB	100
98)	1,3-Dichlorobenzene	11.91	146	4251318	60.72	PPB	99
99)	1,4-Dichlorobenzene	12.01	146	4231194	60.03	PPB	100
100)	n-Butylbenzene	12.33	91	6974130	62.04	PPB	99
101)	1,2-Dichlorobenzene	12.38	146	3886732	60.43	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.19	155	235805	60.80	PPB	95
103)	1,3,5-Trichlorobenzene	13.34	180	3426928	60.51	PPB	99
104)	1,2,4-Trichlorobenzene	13.98	180	2915280	59.29	PPB	99
105)	Hexachlorobutadiene	14.10	225	1252417	59.61	PPB	99
106)	Naphthalene	14.23	128	5167515	62.53	PPB	100
107)	1,2,3-Trichlorobenzene	14.47	180	2591589	60.07	PPB	96

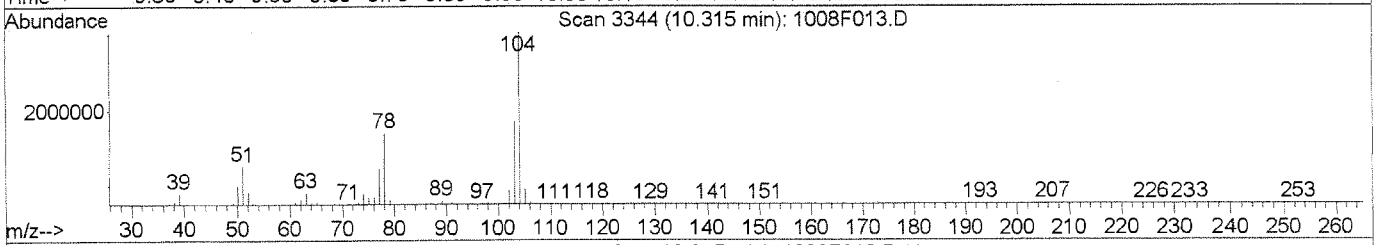
(#) = qualifier out of range (m) = manual integration

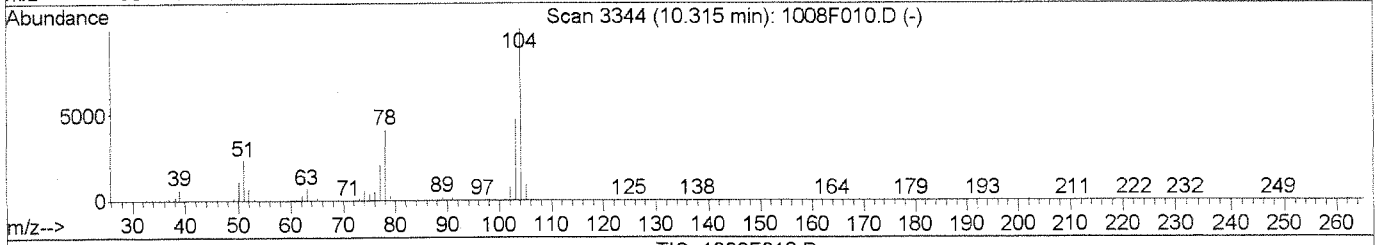
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F013.D Vial: 12
Acq On : 8 Oct 2014 5:59 pm Operator: KR
Sample : 8260 ICAL 60 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 3:49 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:54:08 2014
Response via : Multiple Level Calibration







TIC: 1008F013.D

(80) Styrene (T)

10.31min 72.79PPB

response 3121174

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	207.38
78.00	87.30	85.72
0.00	0.00	0.00

Manual Integration:

Before

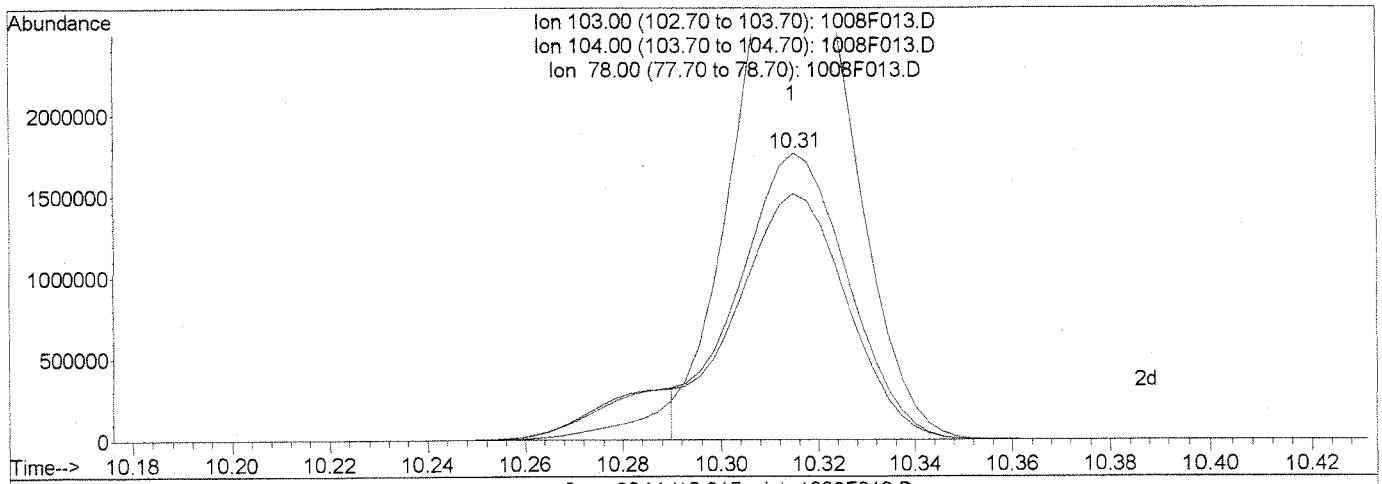
10/09/14

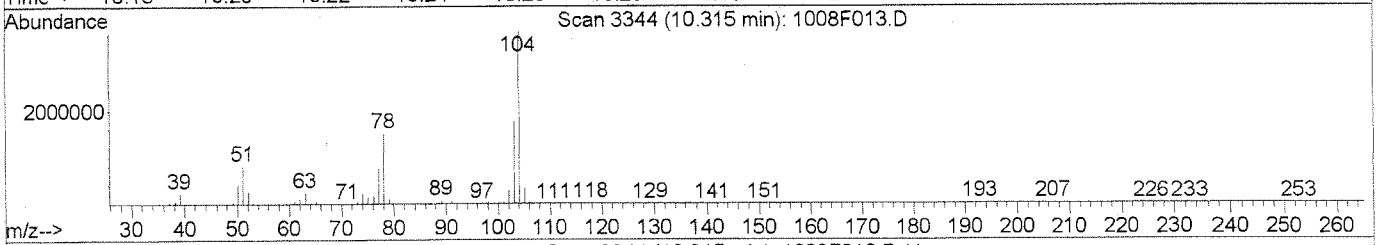
1008F013.D 100814MS27_8260.M Thu Oct 09 03:50:29 2014

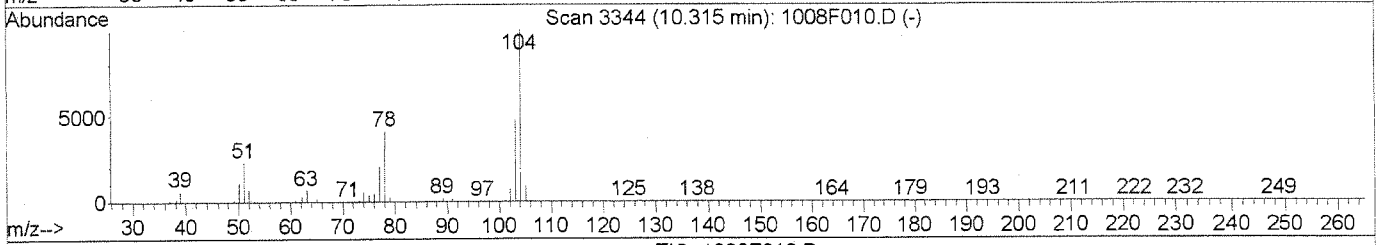
Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F013.D Vial: 12
Acq On : 8 Oct 2014 5:59 pm Operator: KR
Sample : 8260 ICAL 60 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 3:50 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:54:08 2014
Response via : Multiple Level Calibration







TIC: 1008F013.D

(80) Styrene (T)

10.31min 64.58PPB m

response 2769193

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	207.38
78.00	87.30	85.74
0.00	0.00	0.00

Manual Integration:

After

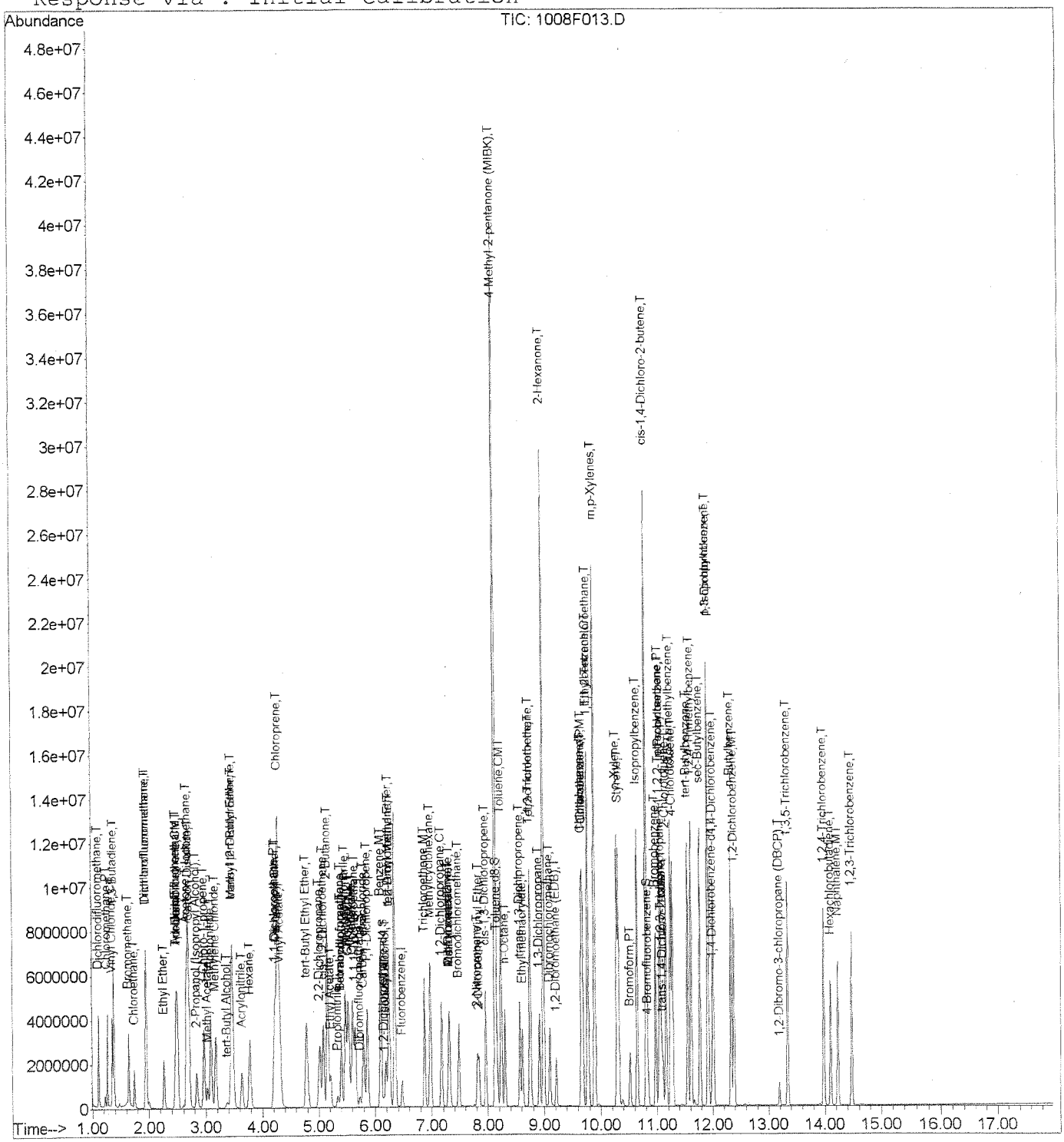
Baseline correction

10/09/14

1008F013.D 100814MS27_8260.M Thu Oct 09 03:50:34 2014

Data File : J:\MS27\DATA\100814\1008F013.D Vial: 12
Acq On : 8 Oct 2014 5:59 pm Operator: KR
Sample : 8260 ICAL 60 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 3:50 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 08 17:54:08 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F014.D Vial: 13
Acq On : 8 Oct 2014 6:26 pm Operator: KR
Sample : 8260 ICAL 80 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 03:51:06 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 03:50:57 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1109249	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	475381	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	469816	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	314664	10.40	PPB	0.00
Spiked Amount 10.000			Recovery =	104.00%		
47) 1,2-Dichloroethane-d4	6.15	65	273787	9.77	PPB	0.00
Spiked Amount 10.000			Recovery =	97.70%		
62) Toluene-d8	8.16	98	1119204	10.09	PPB	0.00
Spiked Amount 10.000			Recovery =	100.90%		
84) 4-Bromofluorobenzene	10.84	95	431621	9.99	PPB	0.00
Spiked Amount 10.000			Recovery =	99.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	3022087	87.02	PPB	99
3) Chloromethane	1.26	50	3075796	72.99	PPB	99
4) Vinyl Chloride	1.35	62	3199793	85.31	PPB	98
5) 1,3-Butadiene	1.38	54	2488728	85.17	PPB	99
6) Bromomethane	1.64	96	1918351	83.57	PPB	98
7) Chloroethane	1.74	64	1530253	80.90	PPB	99
8) Dichlorofluoromethane	1.96	67	4474375	87.96	PPB	98
9) Trichlorofluoromethane	1.95	101	4122116	87.45	PPB	100
10) Ethyl Ether	2.26	59	1567934	83.15	PPB	99
11) Acrolein	2.48	56	1573172	2278.00	PPB	94
12) Trichlorotrifluoroethane	2.47	151	1944732	86.84	PPB	98
13) 1,1-Dichloroethene	2.50	96	2040531	86.60	PPB	98
14) Acetone	2.65	43	8925530	2197.41	PPB	99
15) Iodomethane	2.68	142	12685745	310.99	PPB	99
16) Carbon Disulfide	2.71	76	7604369	87.67	PPB	100
17) 2-Propanol (Isopropyl Alco	2.84	45	3028699	4818.98	PPB	100
18) 3-Chloro-1-propene	2.97	76	1304976	85.99	PPB	98
19) Methyl Acetate	3.03	43	1628741	86.79	PPB	100
20) Acetonitrile	3.09	40	3484801	3456.42	PPB	96
21) Methylene Chloride	3.17	84	2349603	74.07	PPB	98
22) tert-Butyl Alcohol	3.38	59	507510	436.88	PPB	96
23) Acrylonitrile	3.64	53	2128444	338.31	PPB	96
24) Methyl tert-Butyl Ether	3.45	73	10682375	173.58	PPB	100
25) trans-1,2-Dichloroethene	3.47	96	2330113	85.70	PPB	97
26) Hexane	3.78	57	2995611	86.18	PPB	96
27) Diisopropyl Ether	4.24	45	7048632	85.27	PPB	99
28) 1,1-Dichloroethane	4.21	63	4135315	84.67	PPB	99

(#) = qualifier out of range (m) = manual integration
1008F014.D 100814MS27_8260.M Thu Oct 09 03:52:44 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F014.D Vial: 13
Acq On : 8 Oct 2014 6:26 pm Operator: KR
Sample : 8260 ICAL 80 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 03:51:06 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 03:50:57 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.32	86	589963	174.92	PPB		95
30) Chloroprene	4.28	53	14496784	350.92	PPB		100
31) tert-Butyl Ethyl Ether	4.78	59	6475990	88.68	PPB		98
32) 2,2-Dichloropropane	5.01	77	3169758	80.09	PPB		99
33) cis-1,2-Dichloroethene	5.08	96	2641665	84.26	PPB		99
34) 2-Butanone	5.16	72	4010739	2239.58	PPB		99
35) Ethyl Acetate	5.21	61	402609	178.94	PPB		98
36) Propionitrile	5.34	54	773251	352.84	PPB		96
37) Methacrylonitrile	5.48	67	2765170	346.71	PPB		93
38) Bromochloromethane	5.40	128	1232076	87.91	PPB		97
39) Tetrahydrofuran	5.41	71	154689	83.65	PPB		94
40) Chloroform	5.52	83	4289894	86.25	PPB		98
41) Cyclohexane	5.60	56	3820994	85.33	PPB		97
42) 1,1,1-Trichloroethane	5.65	97	3736226	86.63	PPB		100
44) Carbon Tetrachloride	5.80	117	3383339	89.07	PPB		99
45) 1,1-Dichloropropene	5.86	75	3194663	86.69	PPB		98
46) Isobutyl Alcohol	6.19	43	1793678	3770.09	PPB		97
48) Benzene	6.10	78	9616243	81.08	PPB		99
49) 1,2-Dichloroethane	6.24	62	2768750	83.60	PPB		99
50) tert-Amyl Methyl Ether	6.24	55	1294036	86.16	PPB		91
51) Trichloroethene	6.87	95	2570100	84.60	PPB		98
52) Methylcyclohexane	6.97	83	4021637	86.33	PPB		98
53) 1,2-Dichloropropane	7.17	63	2491185	85.37	PPB		96
54) Dibromomethane	7.30	93	1346720	84.35	PPB		98
55) Methyl methacrylate	7.32	69	1218409	87.48	PPB		96
56) 1,4-Dioxane	7.31	88	485355	3589.86	PPB		97
57) Bromodichloromethane	7.48	83	3244351	85.97	PPB		100
58) 2-Nitropropane	7.81	41	1956483	439.22	PPB		94
59) 2-Chloroethyl Vinyl Ether	7.84	63	1170861	84.32	PPB		98
60) cis-1,3-Dichloropropene	7.96	75	3863460	86.16	PPB		98
61) 4-Methyl-2-pentanone (MIBK	8.13	58	14181563	2176.68	PPB	#	36
63) Toluene	8.23	92	6233549	85.97	PPB		99
65) n-Octane	8.30	85	1220999	80.23	PPB		98
66) trans-1,3-Dichloropropene	8.57	75	3275150	87.75	PPB		98
67) Ethyl methacrylate	8.62	69	2369853	89.12	PPB		96
68) 1,1,2-Trichloroethane	8.74	83	1636208	84.37	PPB		99
69) Tetrachloroethene	8.75	164	2247028	84.69	PPB		99
70) 2-Hexanone	8.99	57	4513705	2240.25	PPB	#	27
71) 1,3-Dichloropropane	8.91	76	3167822	83.27	PPB		97
72) Dibromochloromethane	9.10	129	2473537	87.64	PPB		99
73) 1,2-Dibromoethane (EDB)	9.21	107	1894397	83.13	PPB		97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F014.D Vial: 13
Acq On : 8 Oct 2014 6:26 pm Operator: KR
Sample : 8260 ICAL 80 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 03:51:06 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 03:50:57 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	1-Chlorohexane	9.66	91	3417706	82.20	PPB		99
75)	Chlorobenzene	9.68	112	7069580	84.92	PPB		99
76)	Ethylbenzene	9.77	106	3778934	85.44	PPB		100
77)	1,1,1,2-Tetrachloroethane	9.78	131	2546911	84.68	PPB		99
78)	m,p-Xylenes	9.89	106	9303328	177.24	PPB	#	67
79)	o-Xylene	10.28	106	4445014	85.37	PPB		99
80)	Styrene	10.31	103	3611217m	85.10	PPB		
81)	Bromoform	10.52	173	1553126	88.23	PPB		99
82)	Isopropylbenzene	10.64	105	11772784	89.18	PPB		99
83)	cis-1,4-Dichloro-2-butene	10.81	89	1297778	349.19	PPB		98
86)	1,1,2,2-Tetrachloroethane	11.03	83	2021867	82.34	PPB		100
87)	trans-1,4-Dichloro-2-buten	11.10	53	464193	77.82	PPB		85
88)	Bromobenzene	10.97	156	3003813	84.20	PPB		98
89)	n-Propylbenzene	11.05	91	13586006	84.86	PPB		99
90)	1,2,3-Trichloropropane	11.08	110	564361	77.71	PPB		94
91)	2-Chlorotoluene	11.16	91	7995035	85.47	PPB		100
92)	1,3,5-Trimethylbenzene	11.24	105	9704445	85.87	PPB		99
93)	4-Chlorotoluene	11.28	91	8503356	83.88	PPB		100
94)	tert-Butylbenzene	11.55	119	8337804	84.80	PPB		99
95)	1,2,4-Trimethylbenzene	11.61	105	9836815	85.73	PPB		100
96)	sec-Butylbenzene	11.77	105	12264857	87.68	PPB		99
97)	p-Isopropyltoluene	11.92	119	10269084	88.25	PPB		99
98)	1,3-Dichlorobenzene	11.91	146	5690702	83.05	PPB		99
99)	1,4-Dichlorobenzene	12.01	146	5683906	82.48	PPB		100
100)	n-Butylbenzene	12.33	91	9355062	84.84	PPB		99
101)	1,2-Dichlorobenzene	12.38	146	5192741	82.52	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.19	155	326382	85.94	PPB		99
103)	1,3,5-Trichlorobenzene	13.33	180	4565598	82.40	PPB		99
104)	1,2,4-Trichlorobenzene	13.98	180	3923488	81.73	PPB		99
105)	Hexachlorobutadiene	14.10	225	1698518	82.76	PPB		99
106)	Naphthalene	14.23	128	7029302	86.61	PPB		100
107)	1,2,3-Trichlorobenzene	14.47	180	3489625	82.74	PPB		98

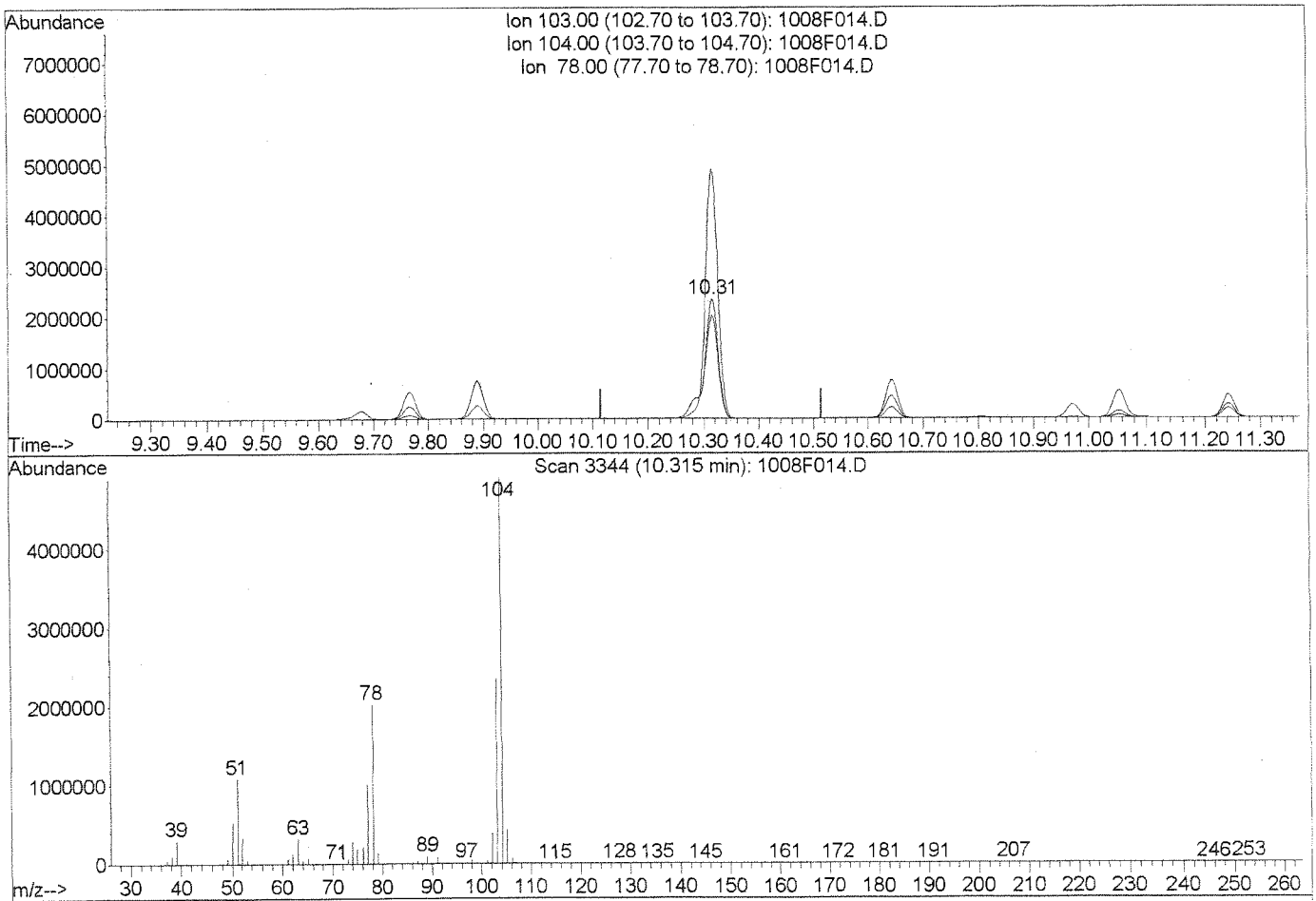
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F014.D
Acq On : 8 Oct 2014 6:26 pm
Sample : 8260 ICAL 80
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 9 3:51 2014

Vial: 13
Operator: KR
Inst : MS27
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 03:50:57 2014
Response via : Multiple Level Calibration



TIC: 1008F014.D

(80) Styrene (T)

10.31min 98.15PPB

response 4164908

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.77
78.00	87.30	86.12
0.00	0.00	0.00

Manual Integration:

Before

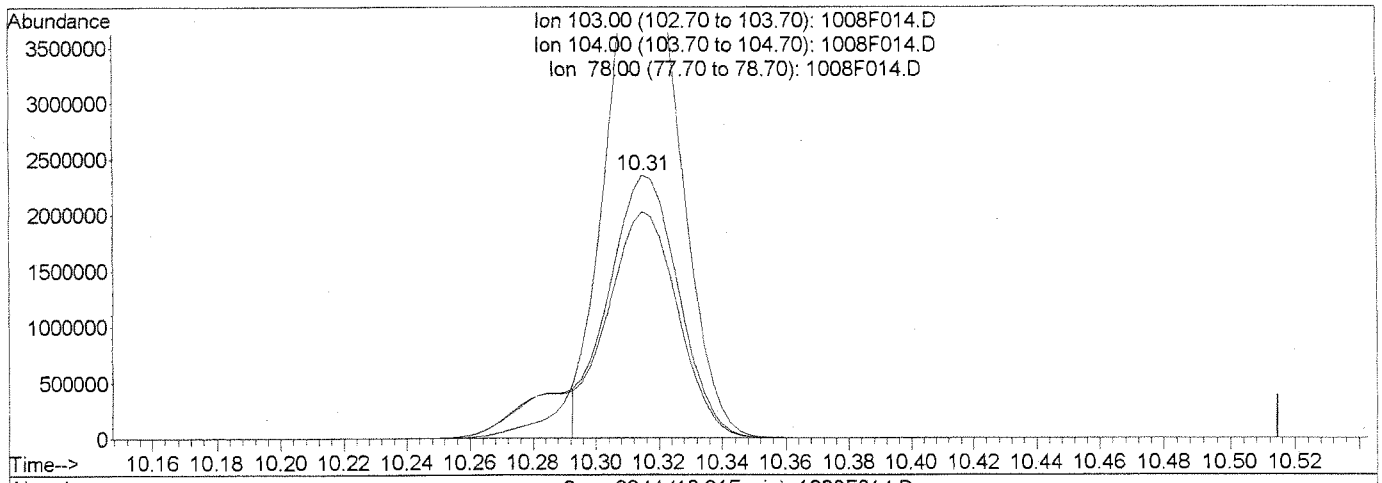
10/09/14

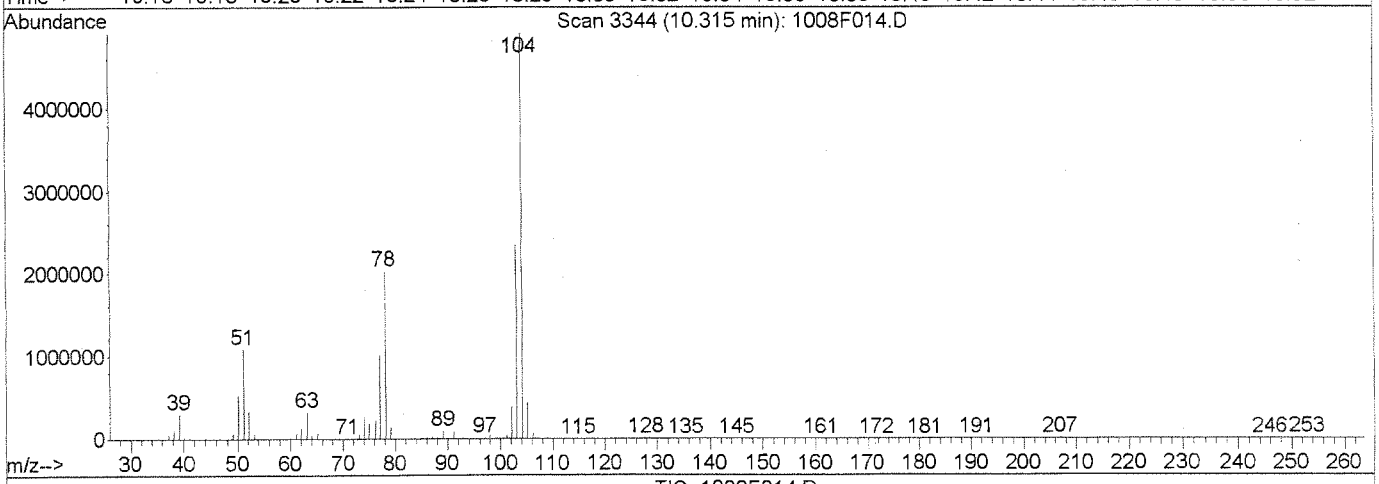
1008F014.D 100814MS27_8260.M Thu Oct 09 03:52:10 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F014.D Vial: 13
Acq On : 8 Oct 2014 6:26 pm Operator: KR
Sample : 8260 ICAL 80 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 3:52 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 03:50:57 2014
Response via : Multiple Level Calibration





TIC: 1008F014.D

(80) Styrene (T)

10.31min 85.10PPB m

response 3611217

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.77
78.00	87.30	86.13
0.00	0.00	0.00

Manual Integration:

After

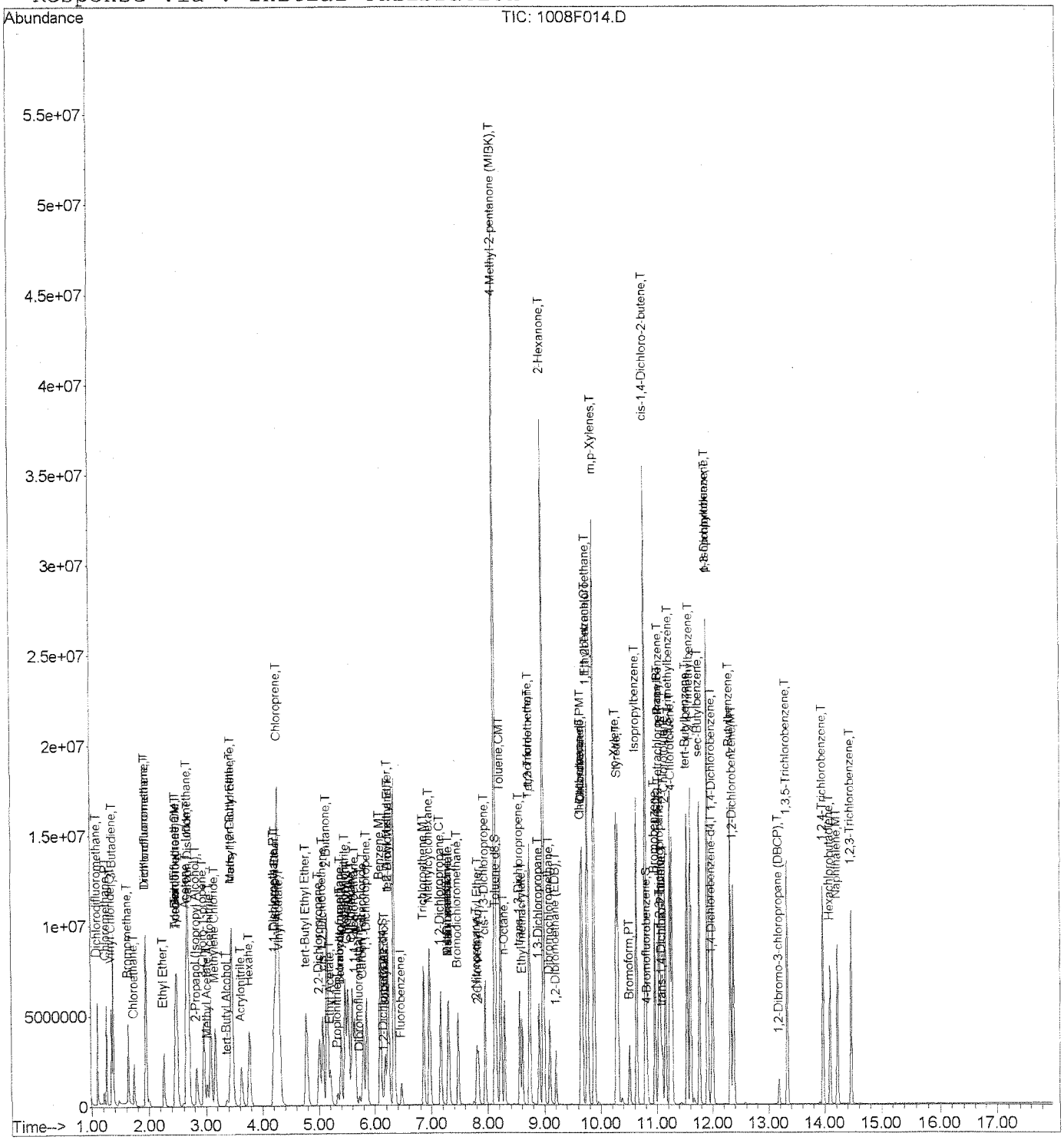
Baseline correction

10/09/14

1008F014.D 100814MS27_8260.M Thu Oct 09 03:52:15 2014

Data File : J:\MS27\DATA\100814\1008F014.D Vial: 13
Acq On : 8 Oct 2014 6:26 pm Operator: KR
Sample : 8260 ICAL 80 Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 3:52 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 03:50:57 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F017.D Vial: 16
Acq On : 8 Oct 2014 7:48 pm Operator: KR
Sample : ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 06:45:32 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/9/14

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1095075	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	464377	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	465063	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	298025	9.94	PPB		0.00
Spiked Amount 10.000			Recovery =	99.40%			
47) 1,2-Dichloroethane-d4	6.15	65	279176	10.11	PPB		0.00
Spiked Amount 10.000			Recovery =	101.10%			
62) Toluene-d8	8.16	98	1104918	10.08	PPB		0.00
Spiked Amount 10.000			Recovery =	100.80%			
84) 4-Bromofluorobenzene	10.84	95	429457	10.18	PPB		0.00
Spiked Amount 10.000			Recovery =	101.80%			
Target Compounds							Qvalue
5) 1,3-Butadiene	1.38	54	135860	4.68	PPB		99
8) Dichlorofluoromethane	1.96	67	540628	10.67	PPB		98
10) Ethyl Ether	2.26	59	191392	10.24	PPB		96
11) Acrolein	2.48	56	65472	96.03	PPB		92
12) Trichlorotrifluoroethane	2.47	151	212514	9.54	PPB		97
13) 1,1-Dichloroethene	2.50	96	250082	10.66	PPB		99
14) Acetone	2.66	43	218289	53.95	PPB		99
15) Iodomethane	2.68	142	768599	27.49	PPB		100
16) Carbon Disulfide	2.70	76	1743550	20.19	PPB		100
17) 2-Propanol (Isopropyl Alco	2.84	45	300687	473.84	PPB		98
18) 3-Chloro-1-propene	2.97	76	378265	25.04	PPB		98
19) Methyl Acetate	3.03	43	145470	7.78	PPB		97
20) Acetonitrile	3.09	40	275335	274.19	PPB		94
21) Methylene Chloride	3.17	84	277049	8.92	PPB		98
22) tert-Butyl Alcohol	3.38	59	111738	96.17	PPB		98
23) Acrylonitrile	3.64	53	225864	36.16	PPB		97
24) Methyl tert-Butyl Ether	3.46	73	618871	10.11	PPB		98
25) trans-1,2-Dichloroethene	3.47	96	289954	10.73	PPB		97
26) Hexane	3.78	57	850844	24.58	PPB		95
27) Diisopropyl Ether	4.24	45	1615364	19.68	PPB		99
28) 1,1-Dichloroethane	4.21	63	530902	10.95	PPB		99
29) Vinyl Acetate	4.32	86	200676	59.58	PPB	#	92
30) Chloroprene	4.28	53	1163521	28.28	PPB		99
31) tert-Butyl Ethyl Ether	4.78	59	1531937	21.04	PPB		99
32) 2,2-Dichloropropane	5.02	77	374313	9.58	PPB		99
33) cis-1,2-Dichloroethene	5.08	96	323863	10.41	PPB		95
34) 2-Butanone	5.17	72	93167	52.13	PPB		89

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F017.D Vial: 16
Acq On : 8 Oct 2014 7:48 pm Operator: KR
Sample : ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 06:45:32 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) Ethyl Acetate	5.21	61	64792	28.74	PPB	91
36) Propionitrile	5.34	54	58048	26.49	PPB	97
37) Methacrylonitrile	5.48	67	211048	26.58	PPB	87
38) Bromochloromethane	5.40	128	154429	11.05	PPB	97
39) Tetrahydrofuran	5.41	71	36461	19.82	PPB	87
40) Chloroform	5.52	83	599408	12.12	PPB	97
41) Cyclohexane	5.60	56	400365	9.00	PPB	98
42) 1,1,1-Trichloroethane	5.65	97	451655	10.53	PPB	99
44) Carbon Tetrachloride	5.80	117	396661	10.47	PPB	99
45) 1,1-Dichloropropene	5.86	75	390273	10.65	PPB	98
46) Isobutyl Alcohol	6.19	43	108519	226.56	PPB	96
48) Benzene	6.10	78	1169236	9.97	PPB	99
49) 1,2-Dichloroethane	6.24	62	349349	10.64	PPB	99
50) tert-Amyl Methyl Ether	6.25	55	317608	21.24	PPB	97
51) Trichloroethene	6.87	95	306543	10.17	PPB	96
52) Methylcyclohexane	6.97	83	422317	9.11	PPB	96
53) 1,2-Dichloropropane	7.17	63	299555	10.34	PPB	98
54) Dibromomethane	7.30	93	160327	10.12	PPB	98
55) Methyl methacrylate	7.32	69	380846	27.41	PPB	98
56) 1,4-Dioxane	7.32	88	35488	261.33	PPB	98
57) Bromodichloromethane	7.48	83	388367	10.35	PPB	100
58) 2-Nitropropane	7.81	41	131276	29.53	PPB	95
59) 2-Chloroethyl Vinyl Ether	7.84	63	147870	10.73	PPB	98
60) cis-1,3-Dichloropropene	7.96	75	448222	10.06	PPB	98
61) 4-Methyl-2-pentanone (MIBK	8.13	58	326799	50.81	PPB	96
63) Toluene	8.23	92	734817	10.20	PPB	100
65) n-Octane	8.30	85	279200	18.78	PPB	96
66) trans-1,3-Dichloropropene	8.57	75	354870	9.64	PPB	99
67) Ethyl methacrylate	8.62	69	769487	29.29	PPB	99
68) 1,1,2-Trichloroethane	8.74	83	194759	10.22	PPB	99
69) Tetrachloroethene	8.75	164	269338	10.34	PPB	98
70) 2-Hexanone	8.99	57	105594	53.65	PPB	98
71) 1,3-Dichloropropane	8.91	76	382787	10.26	PPB	97
72) Dibromochloromethane	9.10	129	289938	10.43	PPB	99
73) 1,2-Dibromoethane (EDB)	9.21	107	224642	10.06	PPB	96
74) 1-Chlorohexane	9.65	91	353470	8.68	PPB	96
75) Chlorobenzene	9.68	112	845198	10.34	PPB	98
76) Ethylbenzene	9.77	106	428779	9.86	PPB	99
77) 1,1,1,2-Tetrachloroethane	9.78	131	296207	10.03	PPB	96
78) m,p-Xylenes	9.89	106	1081237	21.09	PPB	100
79) o-Xylene	10.28	106	524595	10.25	PPB	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F017.D Vial: 16
Acq On : 8 Oct 2014 7:48 pm Operator: KR
Sample : ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 06:45:32 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

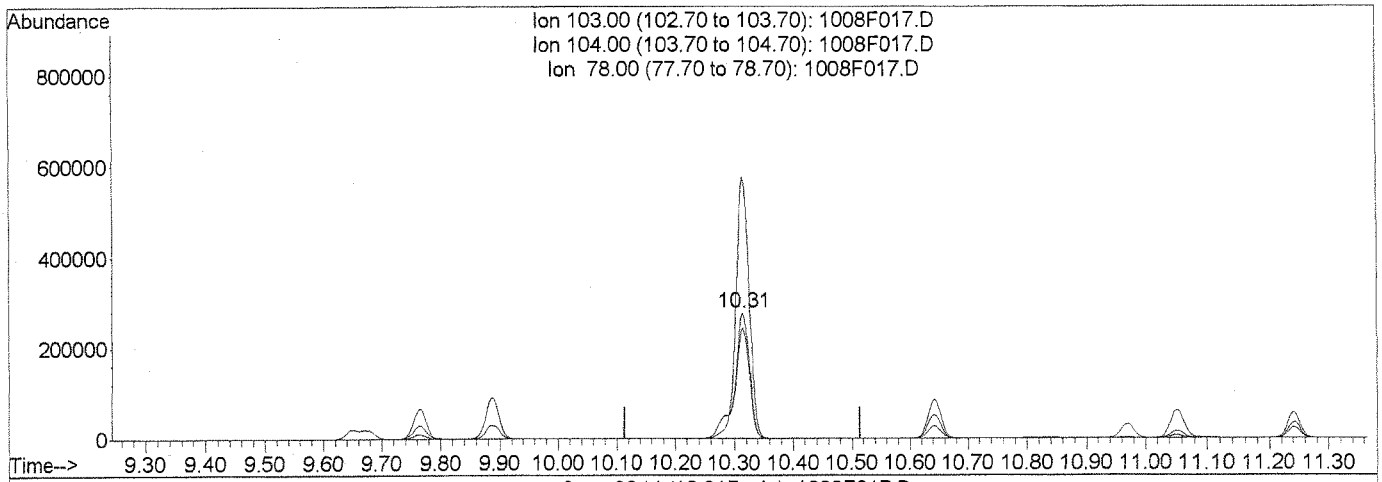
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Styrene	10.31	103	424356m	10.18	PPB	
81) Bromoform	10.52	173	177062	10.19	PPB	98
82) Isopropylbenzene	10.64	105	1348230	10.35	PPB	100
83) cis-1,4-Dichloro-2-butene	10.81	89	98752	26.93	PPB	99
86) 1,1,2,2-Tetrachloroethane	11.03	83	238270	9.77	PPB	99
87) trans-1,4-Dichloro-2-buten	11.10	53	170995	29.05	PPB	85
88) Bromobenzene	10.97	156	364239	10.27	PPB	99
89) n-Propylbenzene	11.05	91	1593356	10.05	PPB	99
90) 1,2,3-Trichloropropane	11.08	110	70383	9.82	PPB	99
91) 2-Chlorotoluene	11.16	91	957922	10.28	PPB	99
92) 1,3,5-Trimethylbenzene	11.24	105	1144303	10.16	PPB	99
93) 4-Chlorotoluene	11.28	91	1006810	9.99	PPB	99
94) tert-Butylbenzene	11.55	119	988454	10.10	PPB	99
95) 1,2,4-Trimethylbenzene	11.61	105	1138521	9.96	PPB	100
96) sec-Butylbenzene	11.77	105	1382978	9.90	PPB	99
97) p-Isopropyltoluene	11.92	119	1215126	10.45	PPB	99
98) 1,3-Dichlorobenzene	11.91	146	691907	10.17	PPB	99
99) 1,4-Dichlorobenzene	12.01	146	701791	10.26	PPB	98
100) n-Butylbenzene	12.33	91	1094437	9.97	PPB	98
101) 1,2-Dichlorobenzene	12.38	146	631259	10.10	PPB	99
102) 1,2-Dibromo-3-chloropropan	13.19	155	36182	9.55	PPB	97
103) 1,3,5-Trichlorobenzene	13.33	180	533573	9.70	PPB	99
104) 1,2,4-Trichlorobenzene	13.98	180	480093	10.08	PPB	99
105) Hexachlorobutadiene	14.10	225	207592	10.18	PPB	96
106) Naphthalene	14.23	128	797026	9.84	PPB	99
107) 1,2,3-Trichlorobenzene	14.47	180	423377	10.11	PPB	97

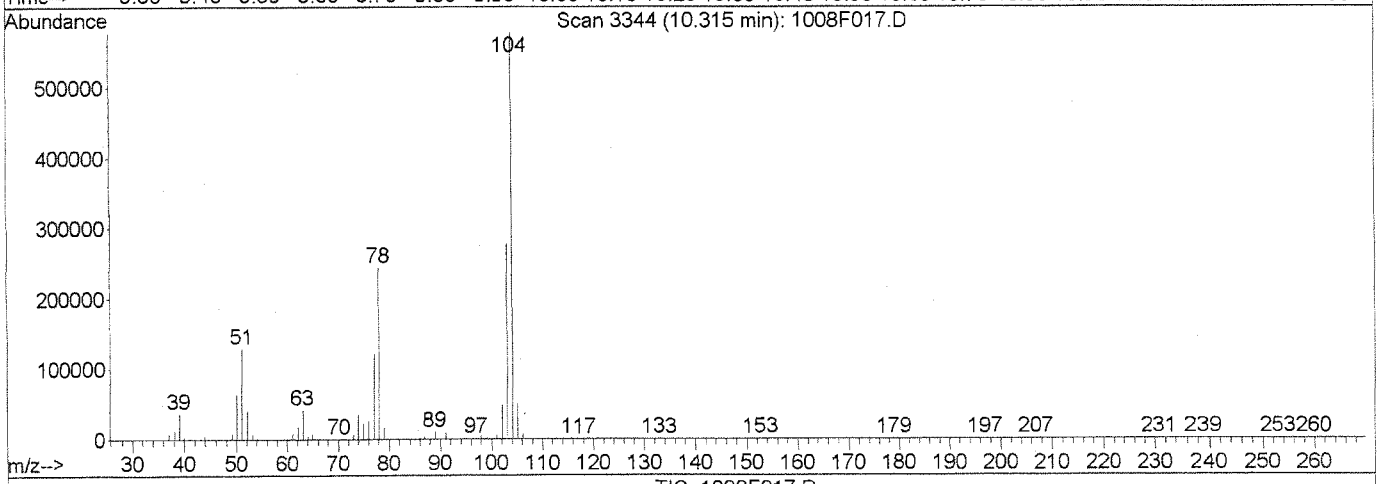
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F017.D Vial: 16
Acq On : 8 Oct 2014 7:48 pm Operator: KR
Sample : ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 6:45 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Multiple Level Calibration





TIC: 1008F017.D

(80) Styrene (T)

10.31min 11.81PPB

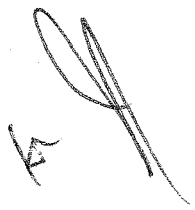
response 492212

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.38
78.00	87.30	87.85
0.00	0.00	0.00

Manual Integration:

Before

10/09/14

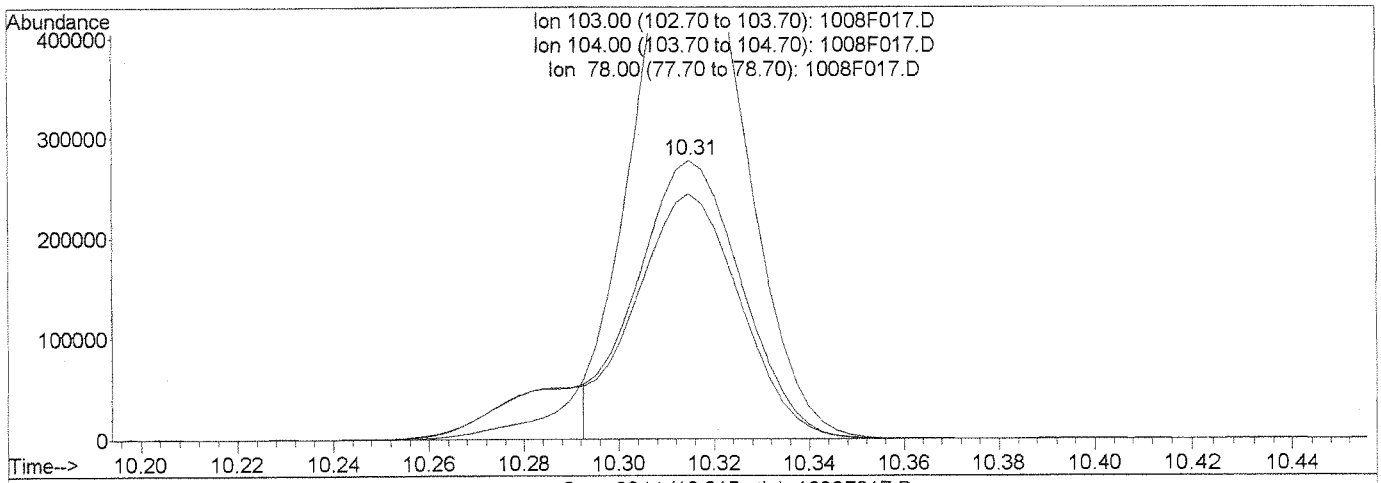


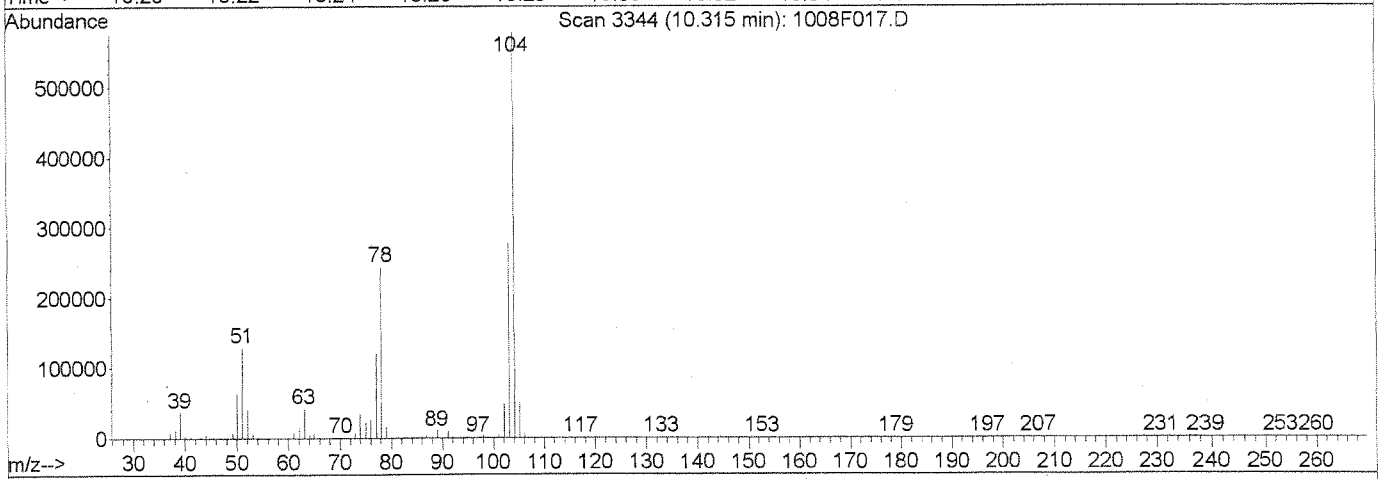
1008F017.D 100814MS27_8260.M Thu Oct 09 06:46:22 2014

Quantitation Report (Qedit)

Data File : J:\MS27\DATA\100814\1008F017.D Vial: 16
Acq On : 8 Oct 2014 7:48 pm Operator: KR
Sample : ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 6:46 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Multiple Level Calibration





TIC: 1008F017.D

(80) Styrene (T)

10.31min 10.18PPB m

response 424356

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	208.29
78.00	87.30	87.95
0.00	0.00	0.00

Manual Integration:

After

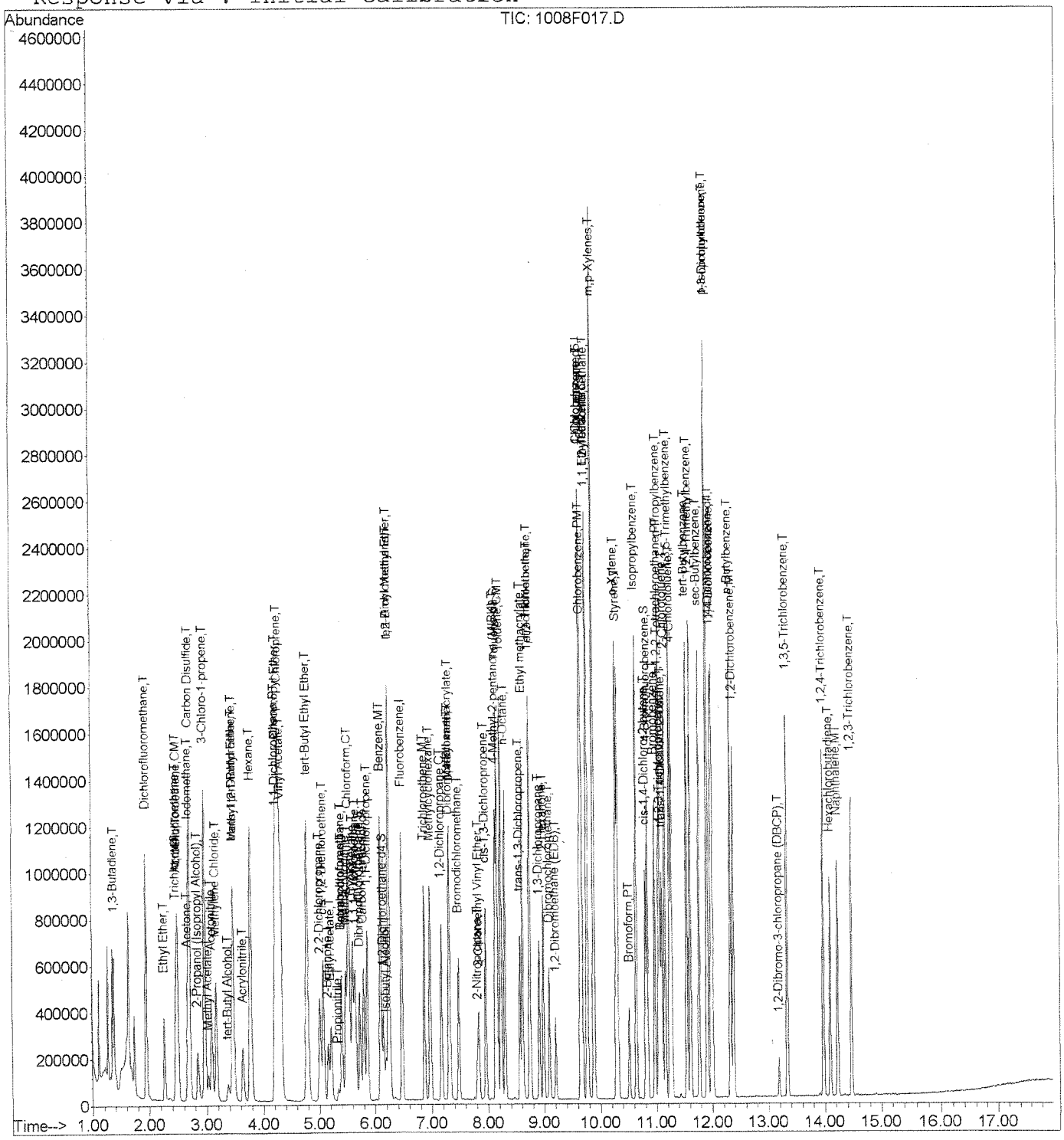
Baseline correction

10/09/14

1008F017.D 100814MS27_8260.M Thu Oct 09 06:46:27 2014

Data File : J:\MS27\DATA\100814\1008F017.D Vial: 16
Acq On : 8 Oct 2014 7:48 pm Operator: KR
Sample : ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 6:46 2014 Quant Results File: 100814MS27_8

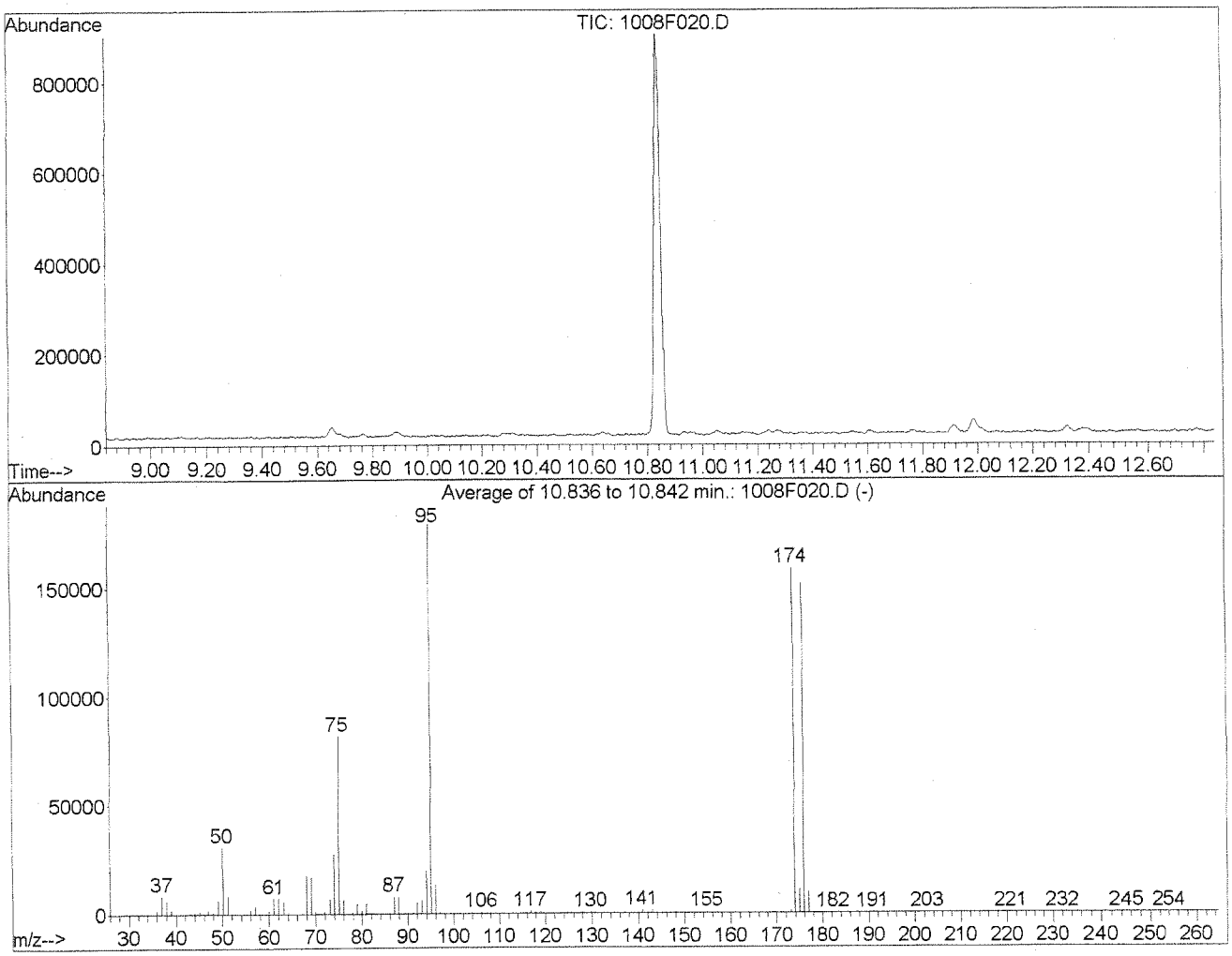
Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration



BFB

Data File : J:\MS27\DATA\100814\1008F020.D
Acq On : 9 Oct 2014 4:45 am
Sample : BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B

Vial: 19
Operator: KR
Inst : MS27
Multiplr: 1.00



AutoFind: Scans 3531, 3532, 3533; Background Corrected with Scan 3514

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	30805	PASS
75	95	30	60	45.6	81870	PASS
95	95	100	100	100.0	179562	PASS
96	95	5	9	7.2	12867	PASS
173	174	0.00	2	0.7	1082	PASS
174	95	50	120	88.4	158656	PASS
175	174	5	9	6.9	10909	PASS
176	174	95	101	95.7	151872	PASS
177	176	5	9	6.5	9832	PASS

KR 10/9/14

1008F020.D 100814MS27_8260.M Thu Oct 09 05:11:10 2014

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F021.D Vial: 20
Acq On : 9 Oct 2014 5:27 am Operator: KR
Sample : MIX 6 ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 09 06:44:30 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

KR 10/9/14

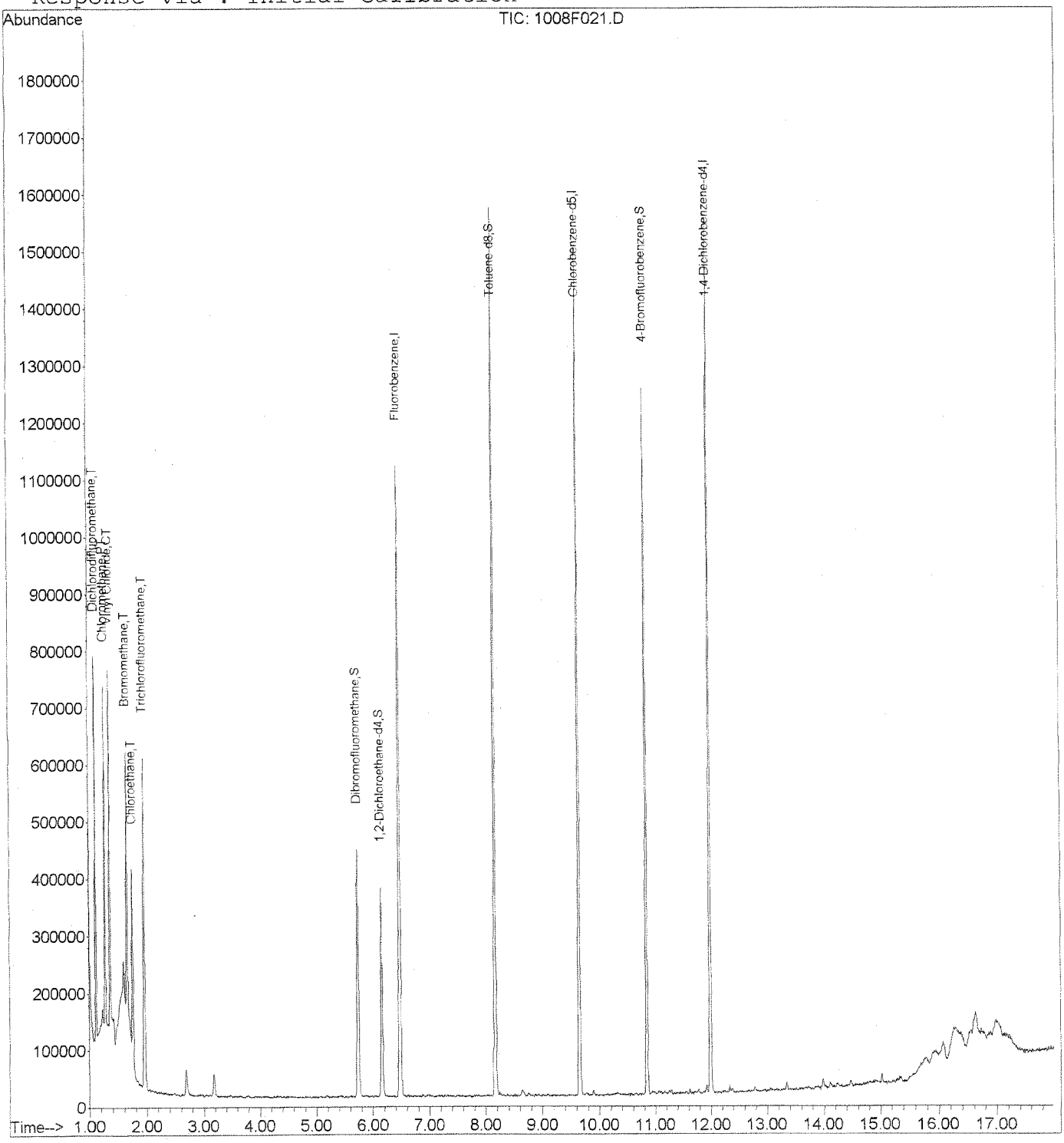
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	6.47	96	1045681	10.00 PPB	0.00
64) Chlorobenzene-d5	9.65	82	432506	10.00 PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	409846	10.00 PPB	0.00
System Monitoring Compounds					
43) Dibromofluoromethane	5.73	113	277869	9.71 PPB	0.00
Spiked Amount 10.000			Recovery =	97.10%	
47) 1,2-Dichloroethane-d4	6.15	65	261864	9.93 PPB	0.00
Spiked Amount 10.000			Recovery =	99.30%	
62) Toluene-d8	8.16	98	1028624	9.83 PPB	0.00
Spiked Amount 10.000			Recovery =	98.30%	
84) 4-Bromofluorobenzene	10.84	95	385826	9.82 PPB	0.00
Spiked Amount 10.000			Recovery =	98.20%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.11	85	347819	10.54 PPB	99
3) Chloromethane	1.27	50	338940	8.62 PPB	99
4) Vinyl Chloride	1.35	62	372797	10.48 PPB	99
6) Bromomethane	1.65	96	192315	8.47 PPB	98
7) Chloroethane	1.74	64	215777	12.09 PPB	98
9) Trichlorofluoromethane	1.95	101	424710	9.48 PPB	99

(#) = qualifier out of range (m) = manual integration
1008F021.D 100814MS27_8260.M Thu Oct 09 06:45:23 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS27\DATA\100814\1008F021.D Vial: 20
Acq On : 9 Oct 2014 5:27 am Operator: KR
Sample : MIX 6 ICV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 6:45 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration



Date: 10/15/14

ALS Environmental
Injection Log
MS27 - Agilent 5975C

Tune File: BFB.ATUNE

By: MC

New Tune: NO

IS/SS Std. ID: 7600A-39B 10/8

4/63/04

CCV Std ID: 7600A455A 10/15 594 ~~12/7~~ 10/14/14

ICAL Date: 100814 Cal 13596

MS/DMS/LCS/ICV Std ID: 7600A-60A 10/17 60E 10/17 61B 10/17 59D 10/15

Second RV: 10/21/14

BFB Std. ID: 7600A-39F 10/20 39A 10/15

LIMS ID: KWG-1483955 / 13956

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	1015F002	8260 Beta MD	4.4ml → 44mL		
2	CCV	3		10/5µl → 50mL		
3	LCS	4		10/50/5/15/75µl → 750mL		
4	DLCS	5		↓		
5	K10890-004MS	6		8.8/44/4.4/4.4/6.6 → 44mL		
6	↓ 004DMS	7		↓	/	
7	IB	8				
8	MRL V	9				
9	MB	10				
10	10890-13TB	11			/	
11	14TB	12			/	
12	4	13			/	
13	1	14			/	
14	2	15			/	
15	3	16			/	
16	5	17			/	
17	6	18			/	
18	7	19			/	
19	8	20			/	
20	9	21			/	
21	10	22			/	
22	11	23			/	
23	12	24			/	
24	↓ 15	25			/	
25	10567-37	26		1mL → 50mL 50X	/	
26	↓ 37	27		10mL → 50mL 5X	/	
27	IB	28				

Exception Report

Data File: J:\MS27\DATA\101514\1015F002.D
Lab ID: KWG1413955-1
RunType: BFB
Matrix: WATER

Date Acquired: 10/15/2014 09:22
Date Quantitated:
Batch ID: KWG1413955
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: MK 10/15/14

Secondary Review: [signature] 10/24/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F002.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 09:22	**Quant Date:**		**Vial:**	2
Run Type:	BFB			**Dilution:**	1.0
Lab ID:	KWG1413955-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\100814MS27_8			**Calibration ID:**	CAL13596
Title:	GC/MS Tuning Evaluation			**Report List ID:**	LJ774
Tune Ref:				**Method ID:**	MJ159
MB Ref:				**Quant based on Report List**	

Tune Results

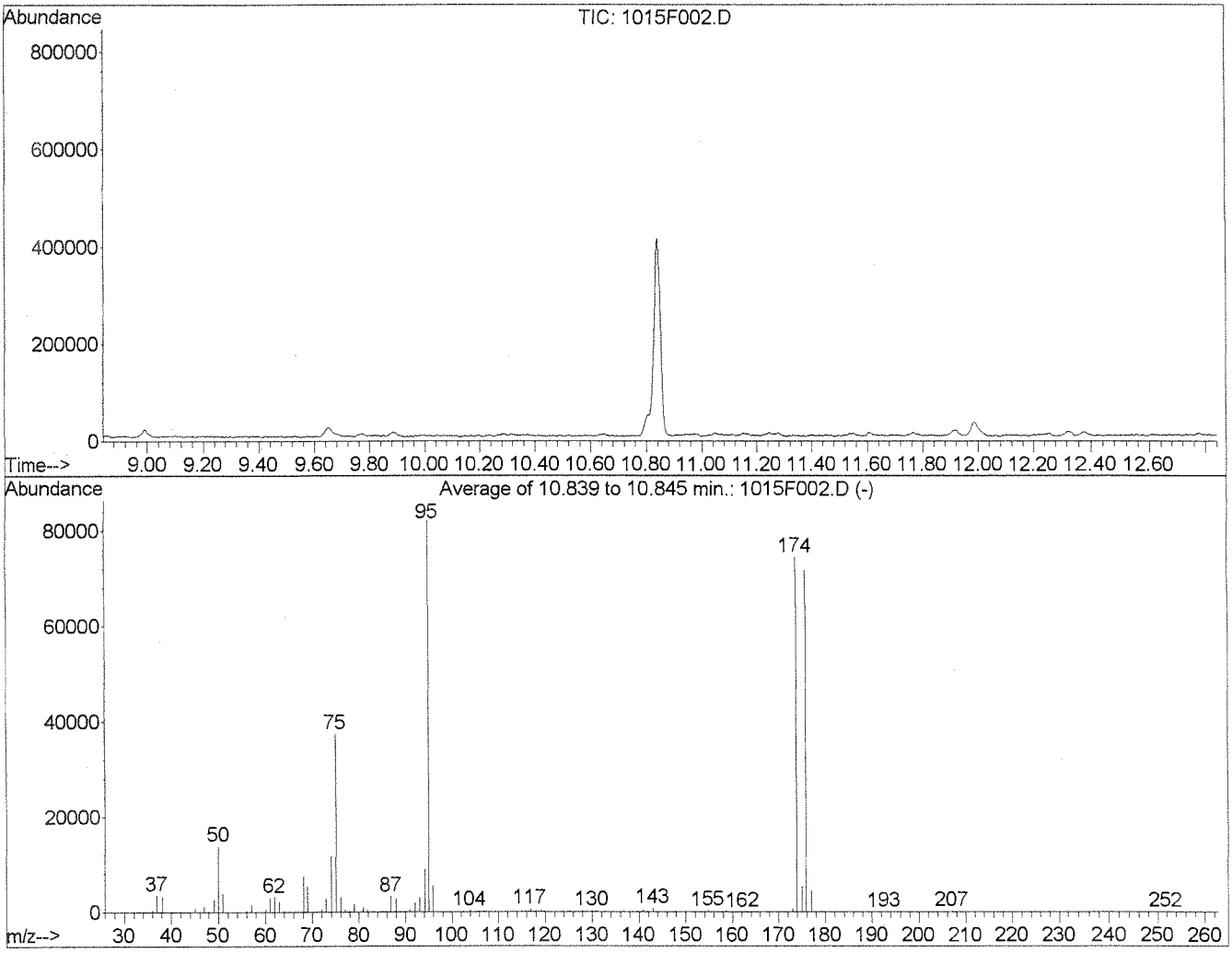
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.8	13846	Pass
75	95	30	60	45.5	37452	Pass
95	95	100	100	100.0	82298	Pass
96	95	5	9	6.7	5485	Pass
173	174	0	2	1.0	760	Pass
174	95	50	120	90.5	74482	Pass
175	174	5	9	7.1	5318	Pass
176	174	95	101	96.4	71768	Pass
177	176	5	9	6.0	4324	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\101514\1015F002.D Vial: 2
Acq On : 15 Oct 2014 9:22 am Operator: MK
Sample : BFB 50NG Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B



AutoFind: Scans 3532, 3533, 3534; Background Corrected with Scan 3516

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	13846	PASS
75	95	30	60	45.5	37452	PASS
95	95	100	100	100.0	82298	PASS
96	95	5	9	6.7	5485	PASS
173	174	0.00	2	1.0	760	PASS
174	95	50	120	90.5	74482	PASS
175	174	5	9	7.1	5318	PASS
176	174	95	101	96.4	71768	PASS
177	176	5	9	6.0	4324	PASS

1015F002.D 100814MS27_8260.M Wed Oct 15 09:44:33 2014

Exception Report

Data File: J:\MS27\DATA\101514\1015F003.D
Lab ID: KWG1413955-2
RunType: CCV
Matrix: WATER

Date Acquired: 10/15/2014 10:17
Date Quantitated: 10/15/2014 10:46
Batch ID: KWG1413955
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	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	
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	Acrolein	0.0062	0.01	NA	LT
	2-Propanol	0.0058	0.01	NA	
	Acetonitrile	0.0092	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0012	0.01	NA	

Primary Review: MK 10/15/14

Secondary Review: [illegible] 10/21/14

Quantitation Report

Data File:	J:\MS27\DATA\101514\1015F003.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:17	**Quant Date:**	10/15/2014 10:46	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1413955-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	10/15/2014

Analysis Lot:	KWG1413955	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS27\METHODS\100814MS27_8			**Calibration ID:**	CAL13596
Title:					
Tune Ref:	J:\MS27\DATA\101514\1015F002.D			**Method ID:**	MJ119
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	6.47	0.00	96	1059853	10.00	OK
2	Chlorobenzene-d5	9.65	0.00	82	422763	10.00	OK
3	1,4-Dichlorobenzene-d4	11.99	0.00	152	410693	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	5.73			113	278353	9.60		73-122	NA
1	1,2-Dichloroethane-d4	6.15			65	260227	9.74		59-127	NA
1	Toluene-d8	8.16			98	1034020	9.75		65-144	NA
2	4-Bromofluorobenzene	10.84			95	378546	9.86		68-117	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11			85	300804	8.99			
1	Chloromethane	1.26			50	330884	8.30			
1	Vinyl Chloride	1.35			62	337608	9.36			
1	1,3-Butadiene	1.38			54	263904	9.39			
1	Bromomethane	1.65			96	209061	9.12			
1	Chloroethane	1.74			64	169205	9.35			
1	Dichlorofluoromethane (CFC 21)	1.96			67	477789	9.74			
1	Trichlorofluoromethane	1.95			101	435197	9.58			
1	Ethyl Ether	2.26			59	165710	9.16			
1	Acrolein	2.48			56	615261	932.44			
1	Trichlorotrifluoroethane	2.47			151	211457	9.81			
1	1,1-Dichloroethene	2.50			96	216782	9.55			
1	Acetone	2.65			43	765371	195.46			
1	Iodomethane	2.68			142	1090038	38.28			

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

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

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

Data File:	J:\MS27\DATA\101514\1015F003.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:17	**Quant Date:**	10/15/2014 10:46	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1413955-2			**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	2.70			76	789232	9.44			
1	2-Propanol	2.84			45	355785	579.30			
1	3-Chloro-1-propene	2.97			76	145148	9.93			
1	Methyl Acetate	3.03			43	175978	9.72			
1	Acetonitrile	3.09			40	380425	391.43			
1	Methylene Chloride	3.17			84	273453	9.10			
1	tert-Butyl Alcohol	3.38			59	64714	57.55			
1	Acrylonitrile	3.63			53	231946	38.37			
1	Methyl tert-Butyl Ether	3.46			73	1083956	18.29			
1	trans-1,2-Dichloroethene	3.47			96	249290	9.53			
1	n-Hexane	3.77			57	357598	10.68			
1	Diisopropyl Ether	4.23			45	737483	9.28			
1	1,1-Dichloroethane	4.20			63	441405	9.41			
1	Vinyl Acetate	4.32			86	58513	17.95			
1	Chloroprene	4.28			53	1503311	37.76			
1	tert-Butyl Ethyl Ether	4.78			59	668275	9.48			
1	2,2-Dichloropropane	5.01			77	371436	9.82			
1	cis-1,2-Dichloroethene	5.08			96	279680	9.29			
1	2-Butanone (MEK)	5.16			72	326342	188.67			
1	Ethyl Acetate	5.21			61	40532	18.58			
1	Propionitrile	5.34			54	84575	39.88			
1	Methacrylonitrile	5.48			67	289307	37.65			
1	Bromochloromethane	5.40			128	132904	9.83			
1	Tetrahydrofuran	5.42			71	14648	8.23			
1	Chloroform	5.52			83	449144	9.38			
1	Cyclohexane	5.60			56	421544	9.79			
1	1,1,1-Trichloroethane (TCA)	5.65			97	386985	9.32			
1	Carbon Tetrachloride	5.80			117	343226	9.36			
1	1,1-Dichloropropene	5.86			75	339850	9.58			
1	Isobutyl Alcohol	6.19			43	190857	411.70			
1	Benzene	6.10			78	1022029	9.01			
1	1,2-Dichloroethane (EDC)	6.24			62	291020	9.16			
1	tert-Amyl Methyl Ether	6.25			55	137162	9.48			
1	Trichloroethene (TCE)	6.87			95	269146	9.22			
1	Methylcyclohexane	6.97			83	438336	9.77			
1	1,2-Dichloropropane	7.17			63	262055	9.34			
1	Dibromomethane	7.30			93	143193	9.34			
1	Methyl Methacrylate	7.32			69	123842	9.21			
1	1,4-Dioxane	7.32			88	60190	457.97			
1	Bromodichloromethane	7.48			83	323250	8.90			
1	2-Nitropropane	7.81			41	187104	43.49			
1	2-Chloroethyl Vinyl Ether	7.84			63	60758	4.56			

U: Undetected at or above MDL
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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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

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

Data File:	J:\MS27\DATA\101514\1015F003.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:17	**Quant Date:**	10/15/2014 10:46	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1413955-2			**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	7.96			75	394806	9.15			
1	4-Methyl-2-pentanone (MIBK)	8.13			58	1118301	179.64			
1	Toluene	8.23			92	650052	9.32			
2	n-Octane	8.30			85	153937	11.37			
2	trans-1,3-Dichloropropene	8.57			75	325332	9.71			
2	Ethyl Methacrylate	8.61			69	228664	9.56			
2	1,1,2-Trichloroethane	8.74			83	173315	9.99			
2	Tetrachloroethene (PCE)	8.75			164	242060	10.20			
2	2-Hexanone	8.99			57	354755	197.99			
2	1,3-Dichloropropane	8.91			76	333469	9.82			
2	Dibromochloromethane	9.10			129	242593	9.58			
2	1,2-Dibromoethane (EDB)	9.21			107	193702	9.52			
2	1-Chlorohexane	9.65			91	353867	9.54			
2	Chlorobenzene	9.68			112	733615	9.85			
2	Ethylbenzene	9.76			106	386820	9.77			
2	1,1,1,2-Tetrachloroethane	9.78			131	258593	9.62			
2	m,p-Xylenes	9.89			106	934524	20.02			
2	o-Xylene	10.28			106	455530	9.78			
2	Styrene	10.31			103	366277**m**	9.65			
2	Bromoform	10.52			173	147307	9.31			
2	Isopropylbenzene	10.64			105	1202756	10.14			
2	cis-1,4-Dichloro-2-butene	10.81			89	127257	38.12			
3	1,1,2,2-Tetrachloroethane	11.03			83	210980	9.80			
3	trans-1,4-Dichloro-2-butene	11.10			53	48490	9.33			
3	Bromobenzene	10.97			156	310884	9.92			
3	n-Propylbenzene	11.05			91	1413171	10.10			
3	1,2,3-Trichloropropane	11.08			110	58785	9.29			
3	2-Chlorotoluene	11.16			91	826634	10.05			
3	1,3,5-Trimethylbenzene	11.24			105	999050	10.05			
3	4-Chlorotoluene	11.28			91	877231	9.86			
3	tert-Butylbenzene	11.55			119	866423	10.03			
3	1,2,4-Trimethylbenzene	11.61			105	1005191	9.96			
3	sec-Butylbenzene	11.77			105	1264123	10.25			
3	4-Isopropyltoluene	11.92			119	1047981	10.21			
3	1,3-Dichlorobenzene	11.91			146	594007	9.88			
3	1,4-Dichlorobenzene	12.01			146	598776	9.91			
3	n-Butylbenzene	12.33			91	974064	10.05			
3	1,2-Dichlorobenzene	12.38			146	543698	9.85			
3	1,2-Dibromo-3-chloropropane	13.19			155	31583	9.44			
3	1,3,5-Trichlorobenzene	13.33			180	487954	10.05			
3	1,2,4-Trichlorobenzene	13.98			180	404471	9.62			
3	Hexachlorobutadiene	14.10			225	189396	10.52			

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS27\DATA\101514\1015F003.D			**Instrument:**	MS27
Acqu Date:	10/15/2014 10:17	**Quant Date:**	10/15/2014 10:46	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1413955-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	14.23			128	670805	9.38			
3	1,2,3-Trichlorobenzene	14.47			180	358121	9.68			

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

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

*: Result fails acceptance criteria
#: Acceptance 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\101514\1015F003.D Vial: 3
Acq On : 15 Oct 2014 10:17 am Operator: MK
Sample : 8260 CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 10:44:46 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.47	96	1059853	10.00	PPB	0.00
64) Chlorobenzene-d5	9.65	82	422763	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	410693	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.73	113	278353	9.60	PPB	0.00
Spiked Amount 10.000			Recovery =	96.00%		
47) 1,2-Dichloroethane-d4	6.15	65	260227	9.74	PPB	0.00
Spiked Amount 10.000			Recovery =	97.40%		
62) Toluene-d8	8.16	98	1034020	9.75	PPB	0.00
Spiked Amount 10.000			Recovery =	97.50%		
84) 4-Bromofluorobenzene	10.84	95	378546	9.86	PPB	0.00
Spiked Amount 10.000			Recovery =	98.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	300804	8.99	PPB	100
3) Chloromethane	1.26	50	330884	8.30	PPB	98
4) Vinyl Chloride	1.35	62	337608	9.36	PPB	99
5) 1,3-Butadiene	1.38	54	263904	9.39	PPB	99
6) Bromomethane	1.65	96	209061	9.12	PPB	96
7) Chloroethane	1.74	64	169205	9.35	PPB	97
8) Dichlorofluoromethane	1.96	67	477789	9.74	PPB	98
9) Trichlorofluoromethane	1.95	101	435197	9.58	PPB	98
10) Ethyl Ether	2.26	59	165710	9.16	PPB	98
11) Acrolein	2.48	56	615261	932.44	PPB	93
12) Trichlorotrifluoroethane	2.47	151	211457	9.81	PPB	95
13) 1,1-Dichloroethene	2.50	96	216782	9.55	PPB	96
14) Acetone	2.65	43	765371	195.46	PPB	99
15) Iodomethane	2.68	142	1090038	38.28	PPB	98
16) Carbon Disulfide	2.70	76	789232	9.44	PPB	99
17) 2-Propanol (Isopropyl Alco	2.84	45	355785	579.30	PPB	100
18) 3-Chloro-1-propene	2.97	76	145148	9.93	PPB	97
19) Methyl Acetate	3.03	43	175978	9.72	PPB	95
20) Acetonitrile	3.09	40	380425	391.43	PPB	96
21) Methylene Chloride	3.17	84	273453	9.10	PPB	98
22) tert-Butyl Alcohol	3.38	59	64714	57.55	PPB	100
23) Acrylonitrile	3.63	53	231946	38.37	PPB	91
24) Methyl tert-Butyl Ether	3.46	73	1083956	18.29	PPB	99
25) trans-1,2-Dichloroethene	3.47	96	249290	9.53	PPB	95
26) Hexane	3.77	57	357598	10.68	PPB	98
27) Diisopropyl Ether	4.23	45	737483	9.28	PPB	97
28) 1,1-Dichloroethane	4.20	63	441405	9.41	PPB	98

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

Data File : J:\MS27\DATA\101514\1015F003.D Vial: 3
Acq On : 15 Oct 2014 10:17 am Operator: MK
Sample : 8260 CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 10:44:46 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29) Vinyl Acetate	4.32	86	58513	17.95 PPB	#	86
30) Chloroprene	4.28	53	1503311	37.76 PPB		99
31) tert-Butyl Ethyl Ether	4.78	59	668275	9.48 PPB		97
32) 2,2-Dichloropropane	5.01	77	371436	9.82 PPB		97
33) cis-1,2-Dichloroethene	5.08	96	279680	9.29 PPB		99
34) 2-Butanone	5.16	72	326342	188.67 PPB		97
35) Ethyl Acetate	5.21	61	40532	18.58 PPB		97
36) Propionitrile	5.34	54	84575	39.88 PPB		96
37) Methacrylonitrile	5.48	67	289307	37.65 PPB		94
38) Bromochloromethane	5.40	128	132904	9.83 PPB		98
39) Tetrahydrofuran	5.42	71	14648	8.23 PPB	#	88
40) Chloroform	5.52	83	449144	9.38 PPB		98
41) Cyclohexane	5.60	56	421544	9.79 PPB		96
42) 1,1,1-Trichloroethane	5.65	97	386985	9.32 PPB		100
44) Carbon Tetrachloride	5.80	117	343226	9.36 PPB		99
45) 1,1-Dichloropropene	5.86	75	339850	9.58 PPB		98
46) Isobutyl Alcohol	6.19	43	190857	411.70 PPB		96
48) Benzene	6.10	78	1022029	9.01 PPB		99
49) 1,2-Dichloroethane	6.24	62	291020	9.16 PPB		99
50) tert-Amyl Methyl Ether	6.25	55	137162	9.48 PPB		97
51) Trichloroethene	6.87	95	269146	9.22 PPB		97
52) Methylcyclohexane	6.97	83	438336	9.77 PPB		98
53) 1,2-Dichloropropane	7.17	63	262055	9.34 PPB		98
54) Dibromomethane	7.30	93	143193	9.34 PPB		99
55) Methyl methacrylate	7.32	69	123842	9.21 PPB		95
56) 1,4-Dioxane	7.32	88	60190	457.97 PPB		95
57) Bromodichloromethane	7.48	83	323250	8.90 PPB		98
58) 2-Nitropropane	7.81	41	187104	43.49 PPB		99
59) 2-Chloroethyl Vinyl Ether	7.84	63	60758	4.56 PPB		97
60) cis-1,3-Dichloropropene	7.96	75	394806	9.15 PPB		97
61) 4-Methyl-2-pentanone (MIBK	8.13	58	1118301	179.64 PPB		98
63) Toluene	8.23	92	650052	9.32 PPB		97
65) n-Octane	8.30	85	153937	11.37 PPB		97
66) trans-1,3-Dichloropropene	8.57	75	325332	9.71 PPB		97
67) Ethyl methacrylate	8.61	69	228664	9.56 PPB		98
68) 1,1,2-Trichloroethane	8.74	83	173315	9.99 PPB		99
69) Tetrachloroethene	8.75	164	242060	10.20 PPB		98
70) 2-Hexanone	8.99	57	354755	197.99 PPB		96
71) 1,3-Dichloropropane	8.91	76	333469	9.82 PPB		98
72) Dibromochloromethane	9.10	129	242593	9.58 PPB		99
73) 1,2-Dibromoethane (EDB)	9.21	107	193702	9.52 PPB		94

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

Data File : J:\MS27\DATA\101514\1015F003.D Vial: 3
Acq On : 15 Oct 2014 10:17 am Operator: MK
Sample : 8260 CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 10:44:46 2014 Quant Results File: 100814MS27_8260

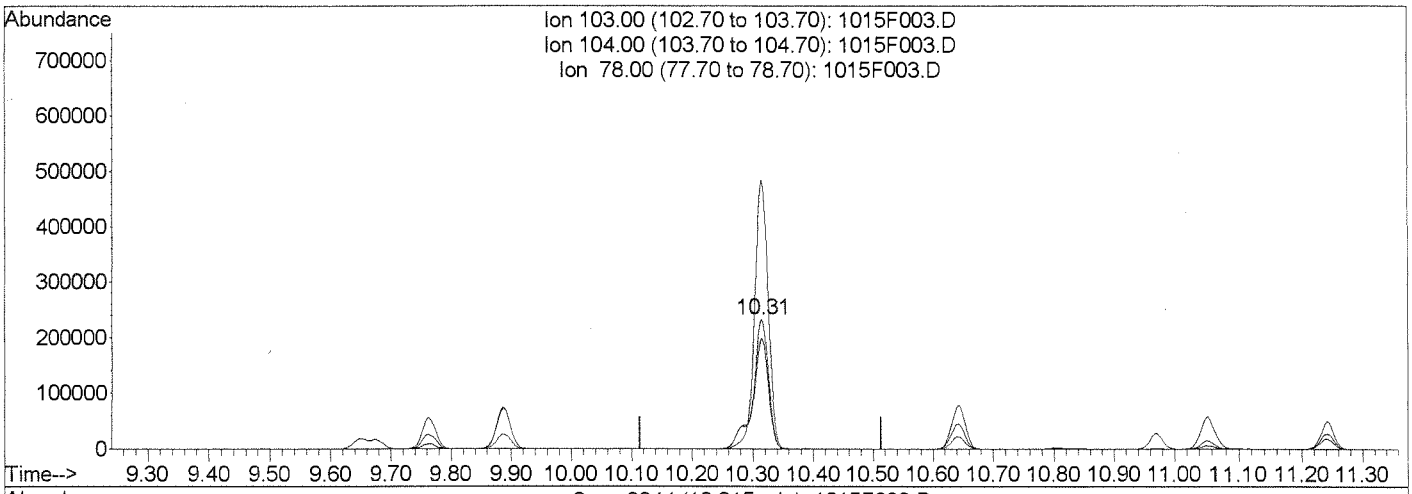
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

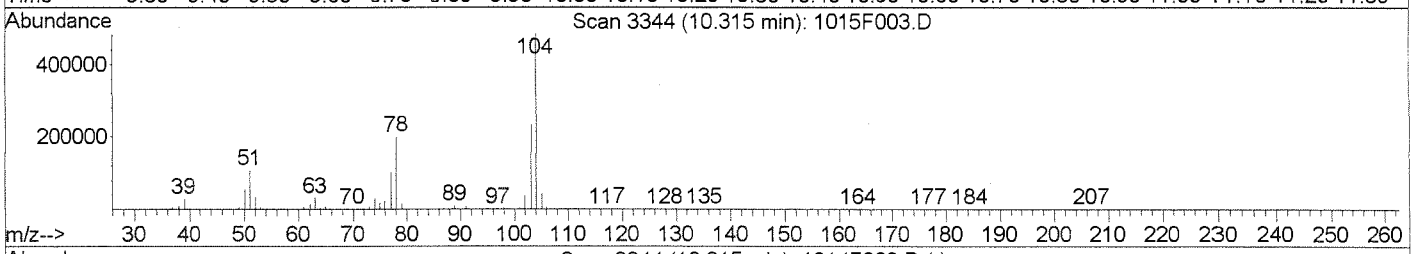
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.65	91	353867	9.54	PPB	99
75)	Chlorobenzene	9.68	112	733615	9.85	PPB	99
76)	Ethylbenzene	9.76	106	386820	9.77	PPB	100
77)	1,1,1,2-Tetrachloroethane	9.78	131	258593	9.62	PPB	99
78)	m,p-Xylenes	9.89	106	934524	20.02	PPB	100
79)	o-Xylene	10.28	106	455530	9.78	PPB	96
80)	Styrene	10.31	103	366277m	9.65	PPB	
81)	Bromoform	10.52	173	147307	9.31	PPB	98
82)	Isopropylbenzene	10.64	105	1202756	10.14	PPB	99
83)	cis-1,4-Dichloro-2-butene	10.81	89	127257	38.12	PPB	97
86)	1,1,2,2-Tetrachloroethane	11.03	83	210980	9.80	PPB	98
87)	trans-1,4-Dichloro-2-buten	11.10	53	48490	9.33	PPB	93
88)	Bromobenzene	10.97	156	310884	9.92	PPB	100
89)	n-Propylbenzene	11.05	91	1413171	10.10	PPB	100
90)	1,2,3-Trichloropropane	11.08	110	58785	9.29	PPB	86
91)	2-Chlorotoluene	11.16	91	826634	10.05	PPB	99
92)	1,3,5-Trimethylbenzene	11.24	105	999050	10.05	PPB	100
93)	4-Chlorotoluene	11.28	91	877231	9.86	PPB	99
94)	tert-Butylbenzene	11.55	119	866423	10.03	PPB	98
95)	1,2,4-Trimethylbenzene	11.61	105	1005191	9.96	PPB	99
96)	sec-Butylbenzene	11.77	105	1264123	10.25	PPB	99
97)	p-Isopropyltoluene	11.92	119	1047981	10.21	PPB	100
98)	1,3-Dichlorobenzene	11.91	146	594007	9.88	PPB	99
99)	1,4-Dichlorobenzene	12.01	146	598776	9.91	PPB	99
100)	n-Butylbenzene	12.33	91	974064	10.05	PPB	98
101)	1,2-Dichlorobenzene	12.38	146	543698	9.85	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.19	155	31583	9.44	PPB	97
103)	1,3,5-Trichlorobenzene	13.33	180	487954	10.05	PPB	99
104)	1,2,4-Trichlorobenzene	13.98	180	404471	9.62	PPB	99
105)	Hexachlorobutadiene	14.10	225	189396	10.52	PPB	97
106)	Naphthalene	14.23	128	670805	9.38	PPB	99
107)	1,2,3-Trichlorobenzene	14.47	180	358121	9.68	PPB	98

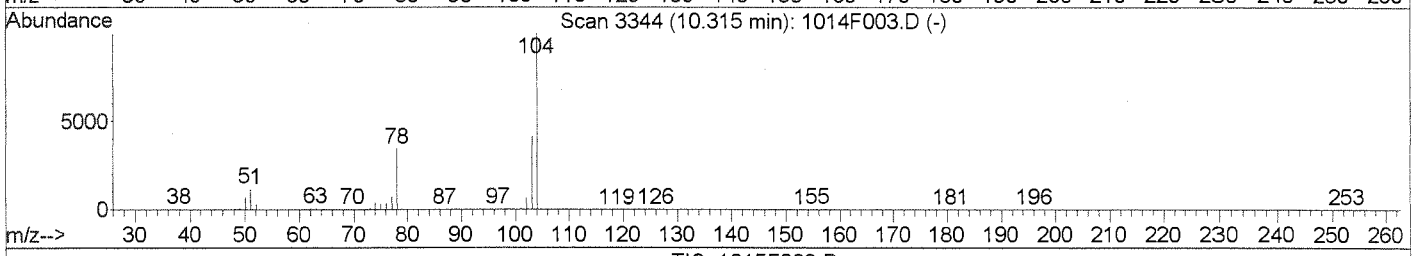
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F003.D Vial: 3
Acq On : 15 Oct 2014 10:17 am Operator: MK
Sample : 8260 CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 10:44 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Multiple Level Calibration







TIC: 1015F003.D

(80) Styrene (T)

10.31min 11.01PPB

response 417938

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	207.89
78.00	87.30	85.44
0.00	0.00	0.00

Manual Integration:

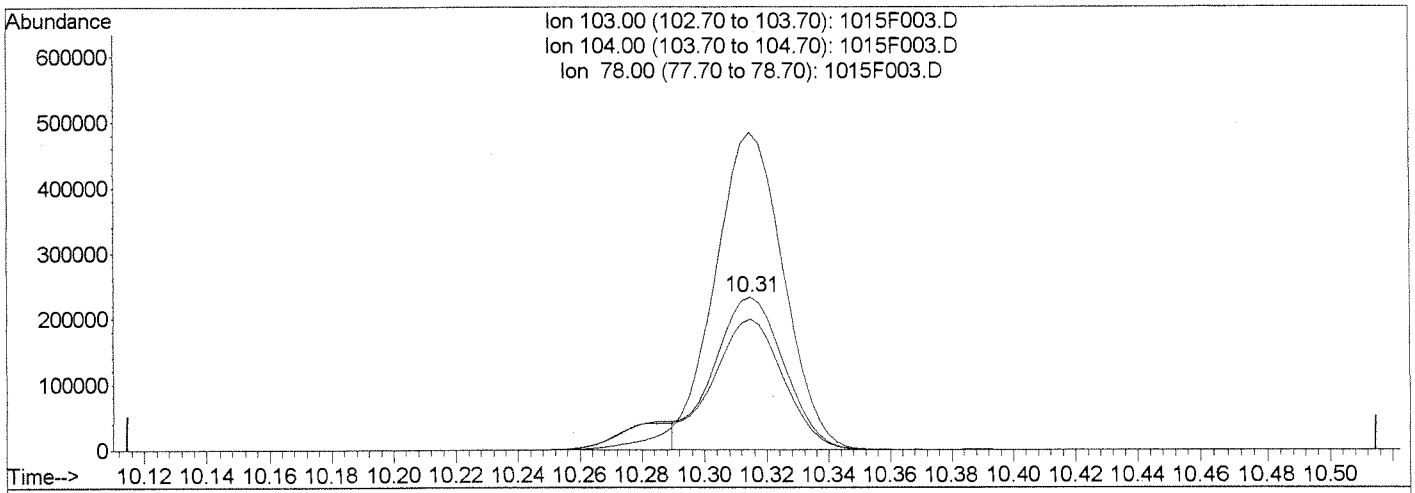
Before

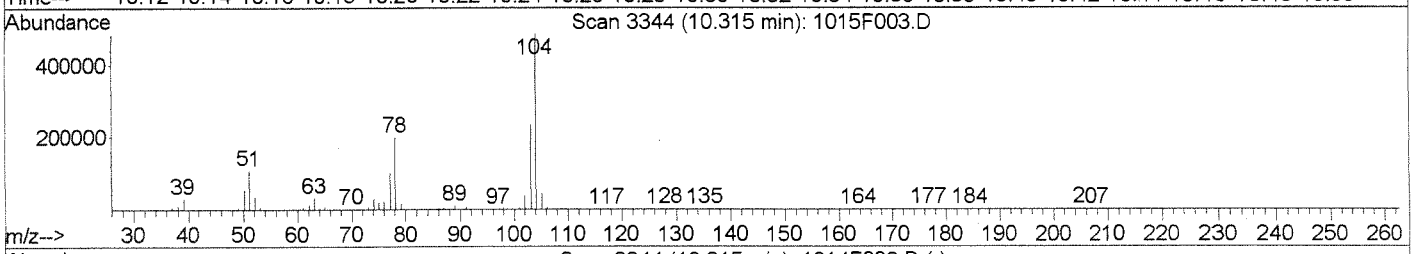
10/15/14

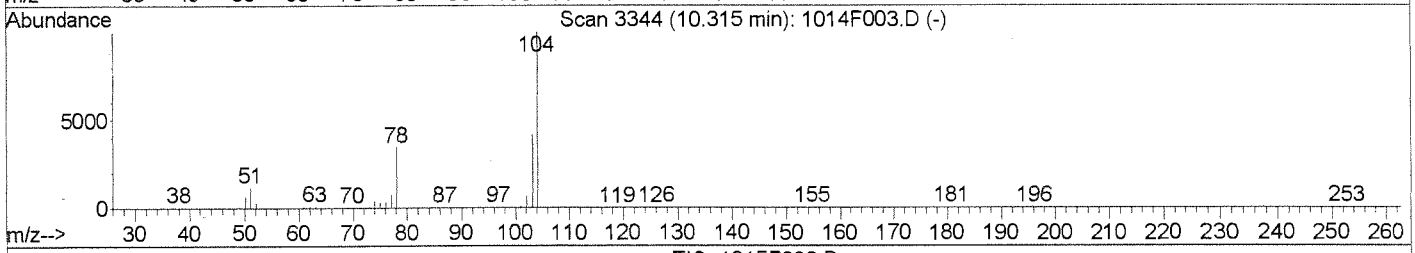
1015F003.D 100814MS27_8260.M Wed Oct 15 10:46:39 2014

Data File : J:\MS27\DATA\101514\1015F003.D Vial: 3
Acq On : 15 Oct 2014 10:17 am Operator: MK
Sample : 8260 CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 10:46 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Multiple Level Calibration







TIC: 1015F003.D

(80) Styrene (T)

10.31min 9.65PPB m

response 366277

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	207.89
78.00	87.30	85.55
0.00	0.00	0.00

Manual Integration:

After

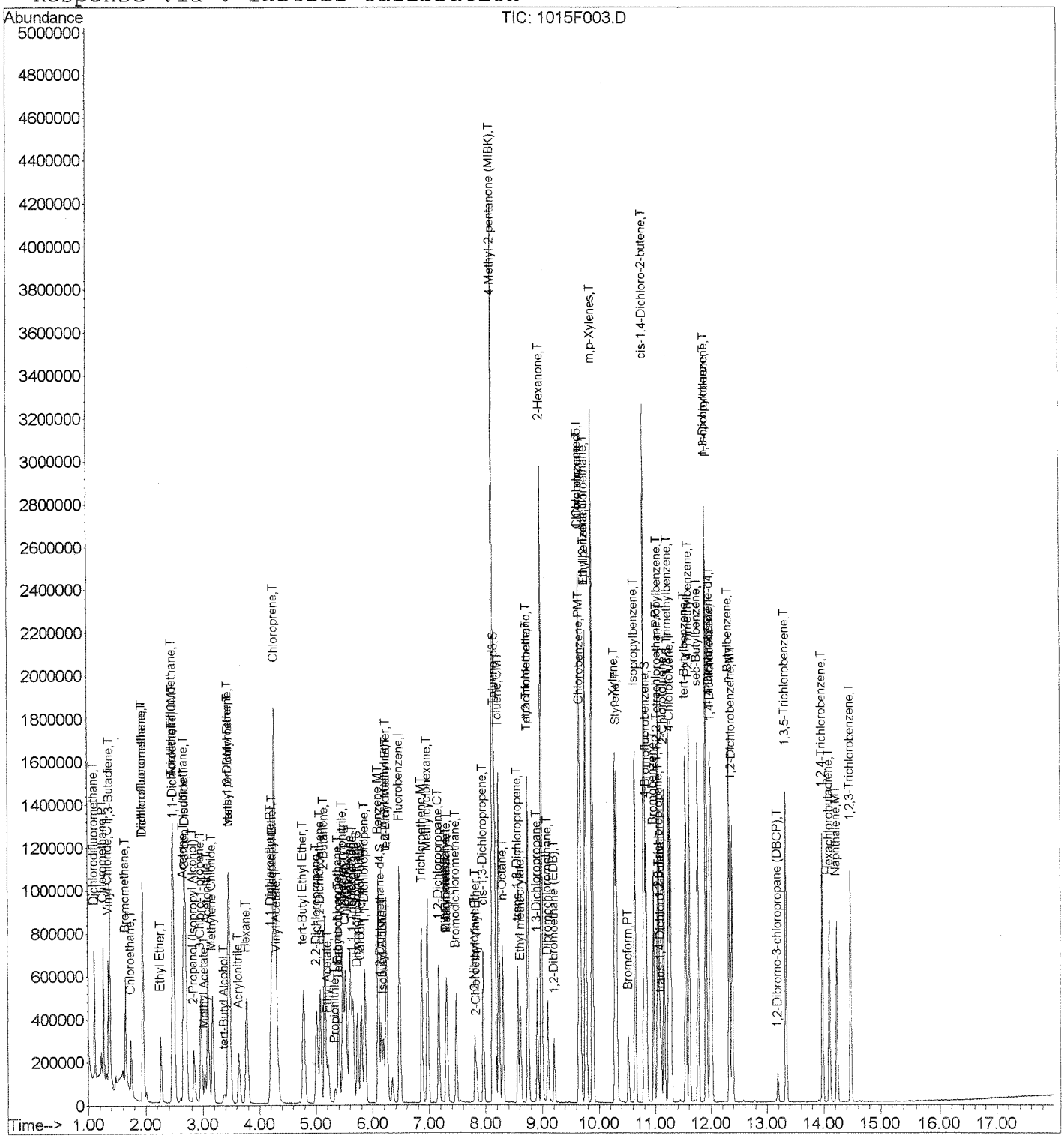
Shoulder

10/15/14

1015F003.D 100814MS27_8260.M Wed Oct 15 10:46:48 2014

Data File : J:\MS27\DATA\101514\1015F003.D Vial: 3
Acq On : 15 Oct 2014 10:17 am Operator: MK
Sample : 8260 CCV Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 10:46 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Oct 09 06:43:46 2014
Response via : Initial Calibration



Data File : J:\MS27\DATA\101514\1015F009.D Vial: 7
Acq On : 15 Oct 2014 1:02 pm Operator: MK
Sample : MRL CHECK Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:44:43 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.47	96	1084737	10.00	PPB		0.00
64) Chlorobenzene-d5	9.65	82	437241	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	11.99	152	424160	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.73	113	275658	9.29	PPB		0.00
Spiked Amount 10.000			Recovery = 92.90%				
47) 1,2-Dichloroethane-d4	6.15	65	261642	9.57	PPB		0.00
Spiked Amount 10.000			Recovery = 95.70%				
62) Toluene-d8	8.16	98	1049094	9.67	PPB		0.00
Spiked Amount 10.000			Recovery = 96.70%				
84) 4-Bromofluorobenzene	10.84	95	386646	9.73	PPB		0.00
Spiked Amount 10.000			Recovery = 97.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	10866	0.32	PPB		96
3) Chloromethane	1.27	50	12945	0.32	PPB		99
4) Vinyl Chloride	1.35	62	13436	0.36	PPB		81
5) 1,3-Butadiene	1.38	54	11024	0.38	PPB		97
6) Bromomethane	1.65	96	12408	0.03	PPB		97
7) Chloroethane	1.74	64	7341	0.40	PPB		92
8) Dichlorofluoromethane	1.96	67	17819	0.35	PPB		95
9) Trichlorofluoromethane	1.95	101	16898	0.36	PPB		91
10) Ethyl Ether	2.27	59	6897	0.37	PPB		92
11) Acrolein	2.48	56	19459	28.81	PPB		99
12) Trichlorotrifluoroethane	2.47	151	8866	0.40	PPB	#	70
13) 1,1-Dichloroethene	2.50	96	8595	0.37	PPB	#	80
14) Acetone	2.66	43	35139	8.77	PPB		92
15) Iodomethane	2.68	142	23885	4.25	PPB		93
16) Carbon Disulfide	2.70	76	35205	0.41	PPB		99
17) 2-Propanol (Isopropyl Alco	2.85	45	10593	16.85	PPB		91
18) 3-Chloro-1-propene	2.97	76	4831	0.32	PPB	#	73
19) Methyl Acetate	3.04	43	5309	0.29	PPB		96
20) Acetonitrile	3.09	40	5450	5.48	PPB		86
21) Methylene Chloride	3.17	84	22907	0.74	PPB		96
22) tert-Butyl Alcohol	3.38	59	845	0.73	PPB		60
23) Acrylonitrile	3.64	53	7957	1.29	PPB		88
24) Methyl tert-Butyl Ether	3.47	73	42322	0.70	PPB		99
25) trans-1,2-Dichloroethene	3.48	96	10373	0.39	PPB		94
26) Hexane	3.78	57	15060	0.44	PPB		100
27) Diisopropyl Ether	4.24	45	28625	0.35	PPB		96
28) 1,1-Dichloroethane	4.21	63	16744	0.35	PPB		89

(#) = qualifier out of range (m) = manual integration
1015F009.D 100814MS27_8260.M Wed Oct 15 15:45:31 2014 Page 1

Data File : J:\MS27\DATA\101514\1015F009.D Vial: 7
Acq On : 15 Oct 2014 1:02 pm Operator: MK
Sample : MRL CHECK Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:44:43 2014 Quant Results File: 100814MS27_8260

Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	4.28	53	54056	1.33	PPB		90
31)	tert-Butyl Ethyl Ether	4.79	59	25926	0.36	PPB		97
32)	2,2-Dichloropropane	5.02	77	12392	0.32	PPB		93
33)	cis-1,2-Dichloroethene	5.09	96	11570	0.38	PPB		91
34)	2-Butanone	5.17	72	12758	7.21	PPB	#	86
35)	Ethyl Acetate	5.22	61	1202	0.54	PPB		79
36)	Propionitrile	5.35	54	3970	1.83	PPB		83
37)	Methacrylonitrile	5.48	67	11683	1.49	PPB		91
38)	Bromochloromethane	5.40	128	5505	0.40	PPB	#	76
39)	Tetrahydrofuran	5.45	71	565	0.31	PPB	#	1
40)	Chloroform	5.52	83	17351	0.35	PPB		97
41)	Cyclohexane	5.61	56	14456	0.33	PPB		93
42)	1,1,1-Trichloroethane	5.65	97	14607	0.34	PPB		91
44)	Carbon Tetrachloride	5.79	117	12370	0.33	PPB		93
45)	1,1-Dichloropropene	5.86	75	13599	0.37	PPB		98
46)	Isobutyl Alcohol	6.20	43	5746	12.11	PPB		79
48)	Benzene	6.10	78	39736	0.34	PPB		98
49)	1,2-Dichloroethane	6.24	62	11790	0.36	PPB		92
50)	tert-Amyl Methyl Ether	6.24	55	2652	0.18	PPB		94
51)	Trichloroethene	6.87	95	10727	0.36	PPB		86
52)	Methylcyclohexane	6.97	83	15272	0.33	PPB		97
53)	1,2-Dichloropropane	7.17	63	10066	0.35	PPB		95
54)	Dibromomethane	7.30	93	6280	0.40	PPB		82
55)	Methyl methacrylate	7.32	69	4256	0.31	PPB		90
56)	1,4-Dioxane	7.33	88	2121	15.77	PPB		89
57)	Bromodichloromethane	7.48	83	12992	0.35	PPB		86
58)	2-Nitropropane	7.81	41	6955	1.58	PPB		91
59)	2-Chloroethyl Vinyl Ether	7.84	63	2605	0.19	PPB		79
60)	cis-1,3-Dichloropropene	7.96	75	15025	0.34	PPB		95
61)	4-Methyl-2-pentanone (MIBK	8.13	58	52038	8.17	PPB		94
63)	Toluene	8.23	92	25667	0.36	PPB		93
65)	n-Octane	8.30	85	5656	0.40	PPB		74
66)	trans-1,3-Dichloropropene	8.57	75	12953	0.37	PPB		93
67)	Ethyl methacrylate	8.62	69	10008	0.40	PPB		84
68)	1,1,2-Trichloroethane	8.74	83	6296	0.35	PPB		90
69)	Tetrachloroethene	8.75	164	10835	0.44	PPB		85
70)	2-Hexanone	8.99	57	12015	6.48	PPB		91
71)	1,3-Dichloropropane	8.91	76	13565	0.39	PPB		97
72)	Dibromochloromethane	9.10	129	8169	0.31	PPB		97
73)	1,2-Dibromoethane (EDB)	9.21	107	8124	0.39	PPB		84
74)	1-Chlorohexane	9.65	91	15733	0.41	PPB		95

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

Data File : J:\MS27\DATA\101514\1015F009.D Vial: 7
Acq On : 15 Oct 2014 1:02 pm Operator: MK
Sample : MRL CHECK Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:44:43 2014 Quant Results File: 100814MS27_8260

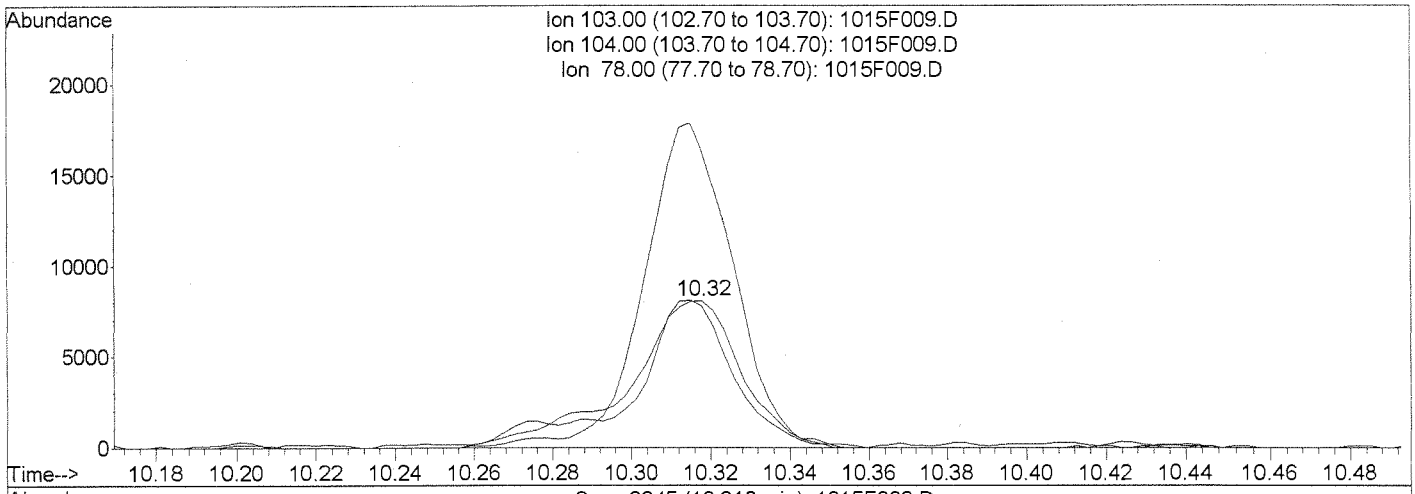
Quant Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration
DataAcq Meth : 8260_BETA_MD

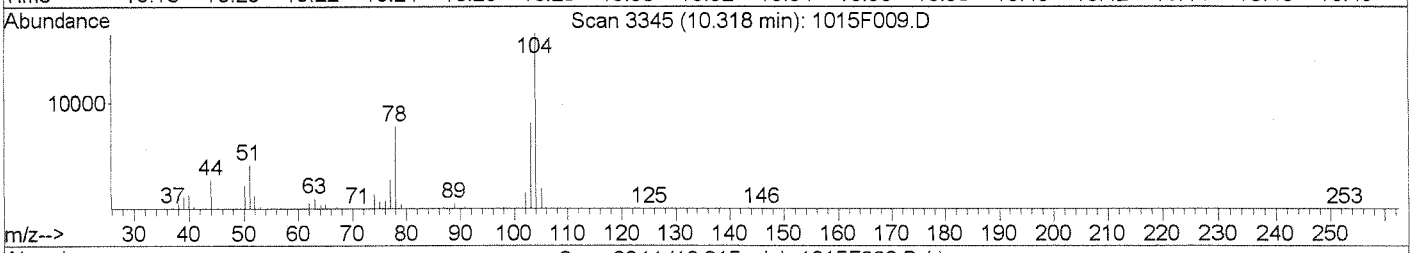
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
75)	Chlorobenzene	9.68	112	29021	0.38	PPB		98
76)	Ethylbenzene	9.76	106	14956	0.37	PPB		96
77)	1,1,1,2-Tetrachloroethane	9.78	131	9658	0.35	PPB		89
78)	m,p-Xylenes	9.89	106	33752	0.70	PPB		94
79)	o-Xylene	10.28	106	18208	0.38	PPB		85
80)	Styrene	10.32	103	13820m	0.35	PPB		
81)	Bromoform	10.52	173	5095	0.31	PPB		94
82)	Isopropylbenzene	10.64	105	43937	0.36	PPB		99
83)	cis-1,4-Dichloro-2-butene	10.81	89	5136	1.49	PPB	#	75
86)	1,1,2,2-Tetrachloroethane	11.04	83	7891	0.35	PPB		87
87)	trans-1,4-Dichloro-2-buten	11.11	53	2582	0.48	PPB		91
88)	Bromobenzene	10.97	156	12596	0.39	PPB		97
89)	n-Propylbenzene	11.05	91	53133	0.37	PPB		96
90)	1,2,3-Trichloropropane	11.08	110	2488	0.38	PPB		92
91)	2-Chlorotoluene	11.16	91	33165	0.39	PPB		93
92)	1,3,5-Trimethylbenzene	11.24	105	37999	0.37	PPB		92
93)	4-Chlorotoluene	11.28	91	33514	0.36	PPB		96
94)	tert-Butylbenzene	11.54	119	31976	0.36	PPB		93
95)	1,2,4-Trimethylbenzene	11.61	105	39924	0.38	PPB		98
96)	sec-Butylbenzene	11.77	105	47238	0.37	PPB		97
97)	p-Isopropyltoluene	11.92	119	38134	0.36	PPB		99
98)	1,3-Dichlorobenzene	11.91	146	24019	0.39	PPB		90
99)	1,4-Dichlorobenzene	12.01	146	24864	0.40	PPB		95
100)	n-Butylbenzene	12.33	91	37433	0.37	PPB		95
101)	1,2-Dichlorobenzene	12.38	146	21630	0.38	PPB		97
102)	1,2-Dibromo-3-chloropropan	13.18	155	1206	0.35	PPB		99
103)	1,3,5-Trichlorobenzene	13.34	180	21550	0.43	PPB		91
104)	1,2,4-Trichlorobenzene	13.98	180	17955	0.41	PPB		97
105)	Hexachlorobutadiene	14.10	225	8085	0.43	PPB		90
106)	Naphthalene	14.23	128	29405	0.40	PPB		97
107)	1,2,3-Trichlorobenzene	14.47	180	16484	0.43	PPB		99

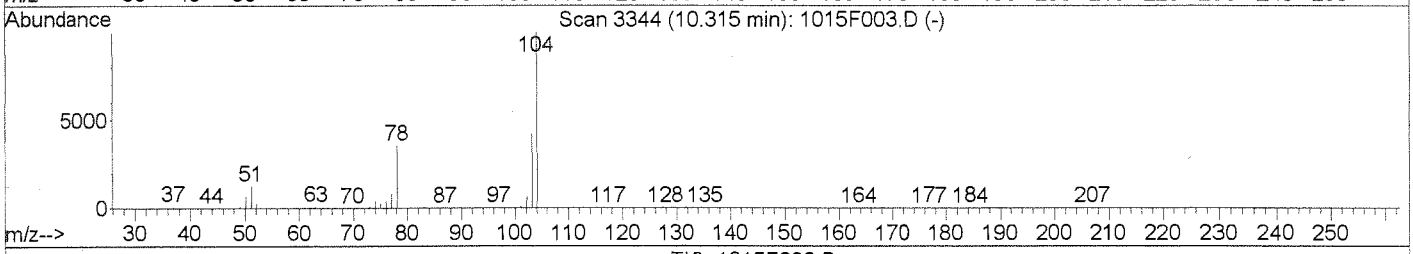
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS27\DATA\101514\1015F009.D Vial: 7
Acq On : 15 Oct 2014 1:02 pm Operator: MK
Sample : MRL CHECK Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:44 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration







TIC: 1015F009.D

(80) Styrene (T)

10.32min 0.41PPB

response 15930

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	204.11
78.00	87.30	94.29
0.00	0.00	0.00

Manual Integration:

Before

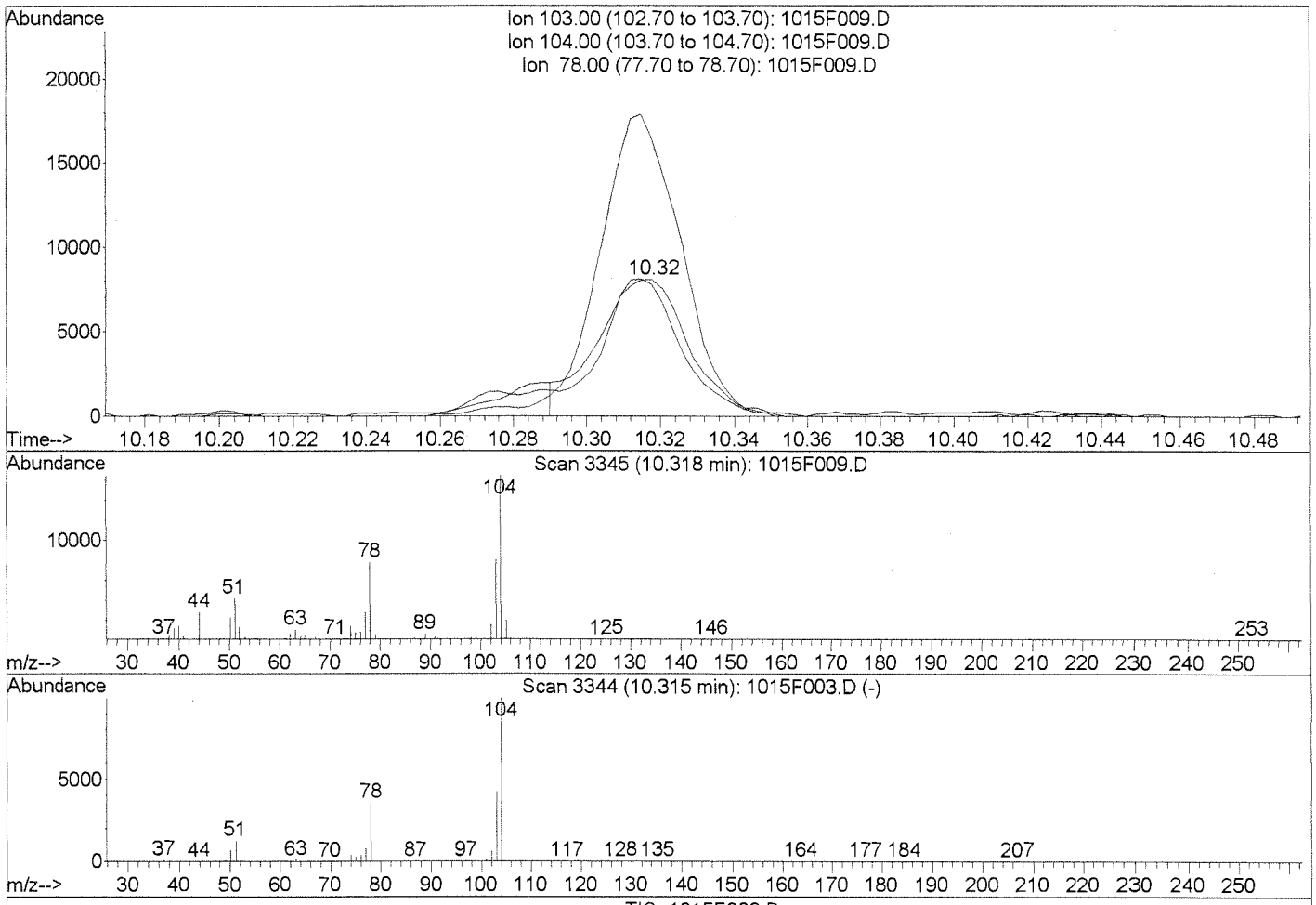
10/15/14

MK

1015F009.D 100814MS27_8260.M Wed Oct 15 15:45:06 2014

Data File : J:\MS27\DATA\101514\1015F009.D Vial: 7
Acq On : 15 Oct 2014 1:02 pm Operator: MK
Sample : MRL CHECK Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:45 2014 Quant Results File: temp.res

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Multiple Level Calibration



TIC: 1015F009.D

(80) Styrene (T)

10.32min 0.35PPB m

response 13820

Ion	Exp%	Act%
103.00	100	100
104.00	211.30	204.11
78.00	87.30	96.46
0.00	0.00	0.00

Manual Integration:

After

Shoulder

10/15/14

1015F009.D 100814MS27_8260.M Wed Oct 15 15:45:12 2014

Data File : J:\MS27\DATA\101514\1015F009.D Vial: 7
Acq On : 15 Oct 2014 1:02 pm Operator: MK
Sample : MRL CHECK Inst : MS27
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 15 15:45 2014 Quant Results File: 100814MS27_8

Method : J:\MS27\METHODS\100814MS27_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Wed Oct 15 11:46:34 2014
Response via : Initial Calibration