100011213

Sample Delivery Group (SDG)
Cover Sheet

SDG Number: TV219

Laboratory Name: ALS Laboratory Group (SLC)

Laboratory Code: ALS

Contract No.: 97756

Case No.: 5POINTS

Analysis Price: N/A

SDG Turnaround: 21

Modified Analysis Requested: NO

Program: SOM02.4

Modification Reference No.: N/A

EPA Sample Numbers in SDG (Listed in Numerical Order)

1) 5P-MW101-159	7) 5P-MW107D-200	13) 5P-MW110D-301	19)
2) 5P-MW101-159-Y	8) 5P-MW107I-145	14) 5P-MW110I-208	20)
3) 5P-MW104-120	9) 5P-MW108D-215	15) TB-022719	21)
4) 5P-MW105-143	10) 5P-MW108I-149	16)	22)
5) 5P-MW106D-195	11) 5P-MW109D-230	17)	23)
6) 5P-MW106I-145	12) 5P-MW109I-169	18)	24)

5P-MW101-159

First Sample in SDG

TB-022719

Last Sample in SDG

02/27/19

First Sample Receipt Date

02/27/19

Last Sample Receipt Date

Note: *There are a maximum of 20 field samples (excluding PE samples) in an SDG. Attach the TR/COC records to this form in alphanumeric order (the order listed above on this form).*

Signature: /S/ Roxanne Olson

Date: 2/27/2019 3:09:42 PM

(/S/ is an electronic signature that complies with 21 CFR Part 11)

EPA Sample Receipt

Client: AECOM Contract: 97756 Case: **5POINTS** SDG: **TV219** MOD: None

Due to Client: **Wed, Mar 20, 2019** TAT: 21 Date Reported: Not Reported Status: **CLOSED**

Workorder Information Program: SOM02.4 Region: EDD Level: 3

Work Order	Received	PR	Fractions
1905930	02/27/19 12:15 PM	No	Volatiles Trace

Sample Information

Lab ID	Client ID	Type	Matrix	VT
1905930001	TB-022719	SAM	Water	X
1905930002	5P-MW107I-145	SAM	Water	X
1905930003	5P-MW107D-200	SAM	Water	X
1905930004	5P-MW106I-145	SAM	Water	X
1905930005	5P-MW106D-195	SAM	Water	X
1905930006	5P-MW109I-169	SAM	Water	X
1905930007	5P-MW109D-230	SAM	Water	X
1905930008	5P-MW108I-149	SAM	Water	X
1905930009	5P-MW108D-215	SAM	Water	X
1905930010	5P-MW110I-208	SAM	Water	X
1905930011	5P-MW110D-301	SAM	Water	X
1905930012	5P-MW101-159	SAM	Water	X
1905930013	5P-MW101-159-Y	SAM	Water	X
1905930014	5P-MW105-143	SAM	Water	X
1905930015	5P-MW105-143MS	MS	Water	X
1905930016	5P-MW105-143MSD	MSD	Water	X
1905930017	5P-MW104-120	SAM	Water	X

Field Samples: **15** MS: **1** MSD: **1** MD: 0 PE: 0

Report Parameters = SDG:TV219 Case:5POINTS Region:<NULL> Mod:<NULL> Workorder:<NULL> BeginDate:<NULL> EndDate:<NULL> OpenSummary:No SortBy:Case

(ALS) 1905930

ıental Custody Record

CoC #:

Page 1 of 2

Client Name & Address:	Project Name & No.:
AECOM 756 E Winchester St #400 SLC, UT 84107	5 points PCE 60554613i task 4
	ALS Quote No:
	Report to: Tammi Messersmith
Phone: 801 904 4000	Report to e-mail: tammi.messersmith@aecom.com
e-mail: tammi.messersmith@aecom.com	Bill to: AECOM

Matrix Codes: W) Water, B) Bulk, L) Liquid, F) Filter, S) Soil, G) Wipe, C) Solid, M) Media

Preservation Codes: 1) Cool to 4°C; 2) HCl to pH<2, 4°C; 3) H_2SO_4 to pH<2, 4°C; 4) HNO_3 to pH<2, 4°C; 5) NaOH to pH>12, 4°C; 6) ZnOAc/NaOH to pH>9, 4°C

Field Sample Number	Site ID	Depth	Date/Time	No. of Containers	Sample for Matrix QC	Analyses Requested: NOCs (SOM02.4)	Preservation Code	Sample Matrix Code	Remarks
TB-022719	5-Points	LAB Prepared		2		X			
5P-MW107I-145		145	2/27/19 0915	3		X			
5P-MW107D-200		200	2/27/19 0930	3		X			
5P-MW106I-145		145	2/27/19 0940	3		X			
5P-MW106D-195		195	2/27/19 0950	3		X			
5P-MW109I-169		169	2/27/19 1000	3		X			
5P-MW109D-230		230	2/27/19 1010	3		X			
5P-MW108I-149		149	2/27/19 1020	3		X			
* 5P-MW108D-215		215	2/27/19 1030	3		X			* Rev'd as 5P-MW108D-214
5P-MW110I-208		208	2/27/19 1040	3		X			

Possible Hazard Identification
☐ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☒ Unknown

Sample Disposal
☐ Return to Client ☐ Archive _____ Months
☒ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☒ Level 4
EDD Type:

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☒ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	2/27/19	1215	[signature]	22719	12:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy *Yellow - Client Copy*

ALSCoC 4.25.17

4/25/2017

000053

ALS Environmental
Field Chain-of-Custody Record

CoC #:

Client Name & Address: AECOM, 756 E Winchester St #400, SLC, UT 84107

Project Name & No.: 5 Points PCE 60546131 TASK 4

ALS Quote No:

Report to: Tammi Messersmith

Phone: 801 904 4000

Report to e-mail: tammi.messersmith@aecom.com

e-mail: tammi.messersmith@aecom.com

Bill to: AECOM

Matrix Codes: W) Water, B) Bulk, L) Liquid, F) Filter, S) Soil, G) Wipe, C) Solid, M) Media

Preservation Codes: 1) Cool to 4°C; 2) HCl to pH<2, 4°C; 3) H_2SO_4 to pH<2, 4°C; 4) HNO_3 to pH<2, 4°C; 5) NaOH to pH>12, 4°C; 6) ZnOAc/NaOH to pH>9, 4°C

Field Sample Number	Site ID	Depth	Date/Time	No. of Containers	Sample for Matrix QC	Analyses Requested: VOCs (SOM02.4)								Preservation Code	Sample Matrix Code	Remarks
5P-MW110D-301	5 Points	301	2/27/19 1050	3		X										
5P-MW101-159	↓	159	2/27/19 1105	3		X										
5P-MW101-159-Y		159	2/27/19 1110	3		X										
5P-MW105-143		143	2/27/19 1130	9	X	X										3x volume for MS/MSD
5P-MW104-120		120	2/27/19 1150	3		X										
~~5P-MW104ETN~~																

Possible Hazard Identification
☐ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☒ Unknown

Sample Disposal
☐ Return to Client ☐ Archive _____ Months
☒ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☒ Level 4
EDD Type:

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☒ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	2/27/19	1215	[signature]	22719	12:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy *Yellow - Client Copy*

FORM DC-2

FULL ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

Lab Name	ALS Environmental		
Lab Code	ALS		
Contract No	97756		
Case No	5POINTS	SDG No	TV219
MA No	NA		
SOW No	SOM02.4		

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.4)

		PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK REGION
1	SDG Cover Page	NA	NA	✓	
2	Traffic Report/Chain of Custody Record(s)	1	4	✓	
3	Sample Log-In Sheet (DC-1)	NA	NA	✓	
4	CSF Inventory Sheet (DC-2)	5	9	✓	
5	SDG Narrative	10	12	✓	
Organic Analysis					
Trace Volatiles					
	Quality Control Summary				
6	Deuterated Monitoring Compound Recovery (Form 2A-OR and Form 2B-OR)	13	14	✓	
7	Matrix Spike/Matrix Spike Duplicate Recovery (Form 3A-OR) (if requested by the EPA Region)	15	15	✓	
8	Method Blank Summary (Form 4-OR)	16	17	✓	
9	GC/MS Instrument Performance Check (Form 5-OR)	18	20	✓	
10	Internal Standard Area and Retention Summary (Form 8A-OR)	21	22	✓	
	Sample Data	23	160	✓	
11	TAL Results - Organic Analysis Data Sheet (Form 1A-OR)	NA	NA	✓	
12	Tentatively Identified Compounds (Form 1B-OR)	↓	↓	✓	
13	Raw Data for Each Sample:	↓	↓	✓	
	Reconstructed total ion chromatograms (RICs) for each sample	↓	↓	✓	
	Raw spectra and background-subtracted mass spectra of target analytes identified	↓	↓	✓	
	Quantitation reports	↓	↓	✓	
	Mass spectra of all reported TICs with three best library matches	↓	↓	✓	
	Standards Data (All Instruments)	161	202	✓	
14	GC-MS Initial Calibration Data (Form 6A-OR)	NA	NA	✓	
15	RICs and Quantitation Reports for all Standards	↓	↓	✓	
16	Continuing Calibration Verification for GC/MS (Form 7A-OR)	↓	↓	✓	
17	RICs and Quantitation Reports for all Standards	↓	↓	✓	
	Quality Control Data	203	236	✓	
18	Performance Check	203	208	✓	
19	Blank Data	209	226	✓	
20	Matrix Spike/Matrix Spike Duplicate Data Form 3A-OR) (if requested by the EPA Region)	227	236	✓	
21	Original Prep and Analysis forms (inc. screening records if applicable)	237	296	✓	

FORM DC-2

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK REGION
Low-Medium Volatiles					
	Quality Control Summary				
22	Deuterated Monitoring Compound Recovery (Form 2A-OR and Form 2B-OR)	NA	NA	✓	
23	Matrix Spike/Matrix Spike Duplicate Recovery (Form 3A-OR) (if requested by the EPA Region)			✓	
24	Method Blank Summary (Form 4-OR)			✓	
25	GC/MS Instrument Performance Check (Form 5-OR)			✓	
26	Internal Standard Area and Retention Summary (Form 8A-OR)			✓	
	Sample Data			✓	
27	TAL Results - Organic Analysis Data Sheet (Form 1A-OR)			✓	
28	Tentatively Identified Compounds (Form 1B-OR)			✓	
29	Raw Data for Each Sample:			✓	
	Reconstructed total ion chromatograms (RICs) for each sample			✓	
	Raw spectra and background-subtracted mass spectra of target analytes identified			✓	
	Quantitation reports			✓	
	Mass spectra of all reported TICs with three best library matches			✓	
	Standards Data (All Instruments)			✓	
30	GC-MS Initial Calibration Data (Form 6A-OR)			✓	
31	RICs and Quantitation Reports for all Standards			✓	
32	Continuing Calibration Verification for GC/MS (Form 7A-OR)			✓	
33	RICs and Quantitation Reports for all Standards			✓	
	Quality Control Data			✓	
34	Performance Check			✓	
35	Blank Data			✓	
36	Matrix Spike/Matrix Spike Duplicate Data (if requested by the EPA Region)			✓	
37	Original Prep and Analysis forms or prep and analysis logbook pages (including TCLP/SPLP logs, percent solid determination logs, and screening records if applicable)			✓	
Semivolatiles					
	Quality Control Summary				
38	Deuterated Monitoring Compound Recovery (Form 2A-OR and Form 2B-OR)			✓	
39	Matrix Spike/Matrix Spike Duplicate Recovery (Form 3A-OR) (if requested by the EPA Region)			✓	
40	Method Blank Summary (Form 4-OR)			✓	
41	GC/MS Instrument Performance Check (Form 5-OR)			✓	
42	Internal Standard Area and Retention Time Summary (Form 8A-OR)			✓	

FORM DC-2

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK REGION
	Sample Data	NA	NA	✓	
43	TAL Results - Organic Analysis Data Sheet (Form 1A-OR)			✓	
44	Tentatively Identified Compounds (Form 1B-OR)			✓	
45	Raw Data for Each Sample:			✓	
	Reconstructed total ion chromatograms (RICs) for each sample			✓	
	Raw Spectra and background-subtracted mass spectra of target analytes identified			✓	
	Quantitation Reports			✓	
	Mass Spectra of all reported TICs with three best library matches			✓	
	GPC chromatograms (if GPC is required)			✓	
	Standards Data (All Instruments)			✓	
46	GC-MS Initial Calibration Data (Form 6A-OR)			✓	
47	RICs and Quantitation Reports for all Standards			✓	
48	Continuing Calibration Verification for GC/MS (Form 7A-OR)			✓	
49	RICs and Quantitation Reports for all Standards			✓	
	Quality Control Data			✓	
50	Performance Check			✓	
51	Blank Data			✓	
52	Matrix Spike/Matrix Spike Duplicate Data (if requested by the EPA Region)			✓	
53	Raw GPC Data			✓	
54	For SIM analysis (if requested), at the same sequence as listed above, except for that Form 1B-OR and TIC spectra data which are not required for SIM method.			✓	
55	Original Prep and Analysis forms or prep and analysis logbook pages (including TCLP/SPLP logs, percent solid determination logs, and screening records if applicable)			✓	
Pesticides					
	Quality Control Summary				
56	Surrogate Recovery (Form 2C-OR)			✓	
57	Matrix Spike/Matrix Spike Duplicate Data (Form 3A-OR for each column			✓	
58	Laboratory Control Sample Recovery (Form 3B-OR for each column			✓	
59	Method Blank Summary (Form 4-OR)			✓	
	Sample Data			✓	
60	TAL Results - Organic Analysis Data Sheet (Form 1A-OR)			✓	
61	Raw Data for Each Sample:			✓	
	Chromatograms (Primary Column)			✓	
	Chromatograms (SecondaryColumn)			✓	
	Quantitation Reports			✓	
	Manual Worksheets			✓	
62	For Pesticides by GC/MS Confirmation:			✓	
	Copies of raw spectra and copies of background-subtracted mass spectra of target analytes (samples & standards)			✓	

FORM DC-2

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK REGION
	Standards Data	NA	NA	✓	
63	Initial calibration of single component analytes (Form 6B-OR and 6C-OR)			✓	
64	Initial calibration of multicomponent analytes (Form 6D-OR and 6E-OR)			✓	
65	Analyte resolution summary (Form 6G-OR)			✓	
66	Pesticide performance evaluation mixture calibration verification summary (Form 7B-OR)			✓	
67	Continuing Calibration Verification Summary (Form 7C-OR)			✓	
68	Multicomponent Continuing Calibration Verification Summary (Form 7D-OR)			✓	
69	Analytical sequence (Form 8B-OR)			✓	
70	Florisil cartridge check (Form 9A-OR)			✓	
71	GPC calibration verification (Form 9B-OR)			✓	
72	Identification summary for single component analytes (Form 10A-OR)			✓	
73	Identification summary for multicomponent analytes (Form 10B-OR)			✓	
74	Chromatograms and Quantitation Reports:			✓	
	A printout of retention times and corresponding peak areas or peak heights			✓	
	Quality Control Data			✓	
75	Blank Data			✓	
76	Matrix Spike/Matrix Spike Duplicate Data			✓	
77	Laboratory control sample			✓	
78	Raw GPC Data			✓	
79	Raw florisil data			✓	
80	Original Prep and Analysis forms or prep and analysis logbook pages (including TCLP/SPLP logs, percent solid determination logs, and screening records if applicable)			✓	
Aroclors					
	Quality Control Summary				
81	Surrogate Recovery (Form 2C-OR)			✓	
82	Matrix Spike/Matrix Spike Duplicate Data (Form 3A-OR for each column			✓	
83	Laboratory Control Sample Recovery (Form 3B-OR for each column			✓	
84	Method Blank Summary (Form 4-OR)			✓	
	Sample Data			✓	
85	TAL Results - Organic Analysis Data Sheet (Form 1A-OR)			✓	
86	Raw Data for Each Sample:			✓	
	Chromatograms (Primary Column)			✓	
	Chromatograms (SecondaryColumn)			✓	
	Quantitation Reports			✓	
	Manual Worksheets			✓	
87	For Aroclors by GC/MS Confirmation:			✓	
	Copies of raw spectra and copies of background-subtracted mass spectra of target analytes (samples & standards)			✓	

FORM DC-2

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK REGION
	Standards Data	NA	NA	✓	
88	Initial calibration of multicomponent analytes (Form 6D-OR, 6E-OR and Form 6F-OR)			✓	
89	Multicomponent Continuing Calibration Verification Summary (Form 7D-OR)			✓	
90	Analytical sequence (Form 8B-OR)			✓	
91	Identification summary for single component analytes (Form 10B-OR)			✓	
92	Chromatograms and Quantitation Reports:			✓	
	A printout of retention times and corresponding peak areas or peak heights			✓	
	Quality Control Data			✓	
93	Blank Data			✓	
94	Matrix Spike/Matrix Spike Duplicate Data			✓	
95	Laboratory control sample			✓	
96	Raw GPC Data			✓	
97	Original Prep and Analysis forms or prep and analysis logbook pages (including TCLP/SPLP logs, percent solid determination logs, and screening records if applicable)			✓	
Additional					
98	EPA Shipping/Receiving Documents				
	Airbill (no. of Shipments_____)	NA	NA	✓	
	Sample Tags	297	297	✓	
	Sample Log-in Sheet (Lab)	NA	NA	✓	
99	Misc. Shipping/Receiving Records (list all individual records)	NA	NA	✓	
100	Internal lab Sample Transfer Records & Tracking Sheets (describe or list)	298	303	✓	
101	PE/PT Instruction Forms	NA	NA	✓	
102	Other Records (describe or List)			✓	
	Communication logs				

103 Comments:

Completed by: Julie Warath

CLP Lab (Signature)

Julie Warath/Doc Control (Print Name/Title) 03/12/2019 (Date)

Audited by:

EPA (Signature)

(Print Name/Title) (Date)

960 W. LeVoy Drive
Salt Lake City, UT 84123
T: +1 801 266 7700
F: +1 801 268 9992
www.alsglobal.com

SDG Administrative Narrative

Contract: 97756

Case: 5Points

SDG: TV219

WO No(s): 1905930

Cooler # and Temperatures of each (upon receipt)

Cooler Number	NA	Arrival temperature was	7	°C
Cooler Number		Arrival temperature was		°C
Cooler Number		Arrival temperature was		°C
Cooler Number		Arrival temperature was		°C
Cooler Number		Arrival temperature was		°C
Cooler Number		Arrival temperature was		°C
Cooler Number		Arrival temperature was		°C
Cooler Number		Arrival temperature was		°C

03/12/2019

Communications:

The sample receipt for this Case/SDG is compliant with EPA CLP SOW requirements.

Comments:

None

Signature: Lulu Wardell
Document Control Officer

Date: 03/12/2019

SDG Narrative
Trace Volatiles

Contract: 97756
Laboratory: ALS Environmental
Modification Reference Number: N/A

Case: 5POINTS
SDG: TV219

EPA No.	ALS Sample	pH	Dilution	EPA No.	ALS Sample	pH	Dilution
5P-MW101-159	1905930012	1	1:1	5P-MW107D-200	1905930003	1	1:1
5P-MW101-159DL	1905930012DL	1	1:4	5P-MW107I-145	1905930002	1	1:1
5P-MW101-159-Y	1905930013	1	1:1	5P-MW108D-215	1905930009	1	1:1
5P-MW101-159-YDL	1905930013DL	1	1:4	5P-MW108I-149	1905930008	1	1:1
5P-MW104-120	1905930017	1	1:1	5P-MW109D-230	1905930007	1	1:1
5PMW105-143	1905930014	1	1:1	5P-MW109I-169	1905930006	1	1:1
5PMW105-143MS	1905930015	1	1:1	5P-MW110D-301	1905930011	1	1:1
5PMW105-143MSD	1905930016	1	1:1	5P-MW110I-208	1905930010	1	1:1
5P-MW106D-195	1905930005	1	1:1	TB-022719	1905930001	1	1:1
5P-MW106I-145	1905930004	1	1:1				

General SDG Information: Samples were analyzed according to USEPA CLP Statement of Work SOM02.4. There were no modifications except those listed below.

Instrumentation: Agilent 5975-F GC/MSD with electron impact ionization and quadrupole detector scanning a mass range of 35 to 300 amu. Column: Restek Rtx-VMS (30 m, 0.25 mm id, 1.4 µm film). Purge & Trap: OI Analytical Eclipse 4660 Concentrator (#10 trap) with Varian Archon Autosampler. Carrier and Purge Gas: Helium. Purge Flow: ~50 mL/min. at ambient. Temperature Program: 45°C (5.0 min.) 15°/min. to 200° (0 min.) 30°/min to 230° (2.67 min.).

Sample Preparation: This method has no extraction procedure for the water matrix. A 25 mL aliquot of sample was spiked with internal standard/DMC solution and purged.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for a 50 ng purging of 4-bromofluorobenzene as specified in the SOW. This tune is valid for 12 hours.

Initial Calibration and Calibration Verification: The five point initial calibration curve met the specified criteria in the SOW. Due to interfering ions, the secondary 130 ion was used in the quantitation of trichloroethene for 5975-F. Occasionally the system will fail to properly integrate a given compound. In these cases (including any listed below) a manual integration may be required. Any manual integration is noted by an "m" footnote on the quantitation report and a graphics page was included to show peak integration. Analytes which required a manual integration are summarized:

Sample	Analyte	Initial Scan	Final Scan

Blank Analysis: Method blanks were prepared using 25 mL of reagent water spiked with internal standard/DMC solution. All blanks were free of volatile organic contaminants within the specifications of the method.

Sample Analysis: All deuterated monitoring compounds and internal standard area responses were within the required acceptance criteria unless otherwise noted on forms II and VIII. All samples were analyzed within ten days of verified sample receipt.

MS/MSD Analysis: MS/MSD analysis was performed for sample 5P-MW105-143 (1905930014). Benzene was outside RPD recovery limits for the MSD.

Miscellaneous Comments: As per the SOW, alkanes were not reported separately but rather were reported as "total alkanes." With regard to the naming of tentatively identified compounds (TICs), spectral matches above 85 percent are reported as a specific isomer unless the analyst has reason to assign a different name. Reasons include but are not limited to previous experience with the compound or an instance where the retention time clearly indicates that a computer generated match is in fact not the compound in question. A specific compound name may be assigned to more than one peak. In any case, TIC naming is tentative and it cannot be assumed that reported compounds and specific isomers are correct. All samples that were analyzed at dilutions were done so in an effort to bring the target analytes in question within linear range of the instruments calibration and to preserve its integrity.

Sample Calculations:

Sample: 5P-MW101-159 Analyte: Acetone

VSTD005TF RRF = $\{\frac{(Ax)(Cis)}{(Ais)(Cx)}\}$ e.g. $\{\frac{(304275)(5.0)}{(796865)(50.0)}\} = 0.038$

Average RRF = $\{\frac{\sum_{i=1}^{n} Xi}{n}\}$ e.g. $\{\frac{(0.031)+(0.038)+(0.038)+(0.022)+(0.032)}{5}\} = 0.032$

Concentration:

Water = $\{\frac{(Ax)(Iis)(DF)}{(Ais)(ARF)(Vo)}\}$ e.g. $\{\frac{(130684)(125)(1)}{(831723)(0.032)(25)}\} = 24$ µg/L

Where,

Ax = Area of the characteristic ion of the compound to be measured.
Ais = Area of the characteristic ion of the internal standard.
Cis = Concentration of the internal standard.
Cx = Concentration of the compound to be measured.
Xi = Value.
n = Number of values.

Iis = Amount of internal standard in ng.
ARF = Mean relative response factor from the initial calibration.
Vo = Total volume of water purged in mL.
DF = Dilution factor.

FORM 2A-OR
DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Matrix: WATER

EPA SAMPLE NO.	DMC1 (VCL)	DMC2 (CLA)	DMC3 (DCE)	DMC4 (BUT)	DMC5 (CLF)	DMC6 (DCA)	DMC7 (BEN)	DMC8 (DPA)	DMC9 (TOL)
5P-MW101-159	93	89	75	95	95	99	97	93	105
5P-MW101-159DL	97	95	77	91	97	100	96	96	103
5P-MW101-159-Y	95	93	78	85	96	95	100	94	107
5P-MW101-159-YDL	95	95	76	92	95	100	99	94	105
5P-MW104-120	97	93	76	96	96	99	99	93	105
5P-MW105-143	96	94	78	101	96	103	102	98	105
5P-MW106D-195	104	99	79	98	97	100	103	98	106
5P-MW106I-145	102	97	78	89	96	103	101	95	106
5P-MW107D-200	104	99	80	101	98	106	104	97	106
5P-MW107I-145	100	95	76	86	95	102	95	95	103
5P-MW108D-215	96	96	75	92	96	102	98	95	104
5P-MW108I-149	100	99	78	87	97	100	100	97	106
5P-MW109D-230	109	108	83	96	101	101	108	100	107
5P-MW109I-169	116	110	87	89	102	101	109	103	106
5P-MW110D-301	99	95	76	89	96	98	100	96	107
5P-MW110I-208	95	92	75	87	93	98	98	93	104
TB-022719	92	92	75	95	96	98	101	95	107
5P-MW105-143MS	94	94	97	89	97	97	98	94	105
5P-MW105-143MSD	90	86	91	90	94	95	98	94	105
VBLKT1	110	103	83	108	101	108	105	101	105
VBLKT2	97	95	77	101	95	100	100	95	106
VHBLKT1	96	91	76	95	98	100	101	97	106

	QC LIMITS
DMC1 (VCL) = Vinyl chloride-d3	(40-130)
DMC2 (CLA) = Chloroethane-d5	(65-130)
DMC3 (DCE) = 1,1-Dichloroethene-d2	(60-125)
DMC4 (BUT) = 2-Butanone-d5	(40-130)
DMC5 (CLF) = Chloroform-d	(70-125)
DMC6 (DCA) = 1,2-Dichloroethane-d4	(70-130)
DMC7 (BEN) = Benzene-d6	(70-125)
DMC8 (DPA) = 1,2-Dichloropropane-d6	(60-140)
DMC9 (TOL) = Toluene-d8	(70-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D DMC diluted out

FORM 2B-OR
DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Matrix: WATER

EPA SAMPLE NO.	DMC10 (TDP)	DMC11 (HEX)	DMC12 (TCA)	DMC13 (DCZ)	DMC14	DMC15	DMC16	DMC17	TOT OUT
5P-MW101-159	95	89	85	103					0
5P-MW101-159DL	97	94	87	97					0
5P-MW101-159-Y	96	89	80	96					0
5P-MW101-159-YDL	96	92	87	98					0
5P-MW104-120	95	92	84	99					0
5P-MW105-143	99	95	86	97					0
5P-MW106D-195	100	94	88	100					0
5P-MW106I-145	100	96	93	99					0
5P-MW107D-200	101	98	93	98					0
5P-MW107I-145	103	106	91	98					0
5P-MW108D-215	94	91	86	104					0
5P-MW108I-149	95	93	86	100					0
5P-MW109D-230	92	91	90	99					0
5P-MW109I-169	95	92	95	100					0
5P-MW110D-301	93	91	86	98					0
5P-MW110I-208	94	89	84	101					0
TB-022719	97	90	82	99					0
5P-MW105-143MS	94	88	83	99					0
5P-MW105-143MSD	95	90	85	99					0
VBLKT1	100	102	96	100					0
VBLKT2	98	99	86	96					0
VHBLKT1	95	90	81	99					0

	QC LIMITS
DMC10 (TDP) = trans-1,3-Dichloropropene-d4	(55-130)
DMC11 (HEX) = 2-Hexanone-d5	(45-130)
DMC12 (TCA) = 1,1,2,2-Tetrachloroethane-d2	(65-120)
DMC13 (DCZ) = 1,2-Dichlorobenzene-d4	(80-120)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D DMC diluted out

FORM 3A-OR
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Matrix: WATER

EPA Sample No. (Matrix Spike/Matrix Spike Duplicate): 5P-MW105-143

Instrument ID: 5975-F GC Column: RTX-VMS ID: 0.25 (mm)

Concentration Units (ug/L, mg/L, ug/kg): ug/L

ANALYTE	SPIKE ADDED	SAMPLE CONCENTRATION	MS CONCENTRATION	MS %R #	QC LIMITS %R
1,1-Dichloroethene	5.0	0.0	4.3	87	61-145
Trichloroethene	5.0	0.0	4.3	86	71-120
Benzene	5.0	0.0	4.1	83	76-127
Toluene	5.0	0.0	4.4	89	76-125
Chlorobenzene	5.0	0.0	4.4	87	75-130

ANALYTE	SPIKE ADDED	MSD CONCENTRATION	MSD %R #	RPD #	QC LIMITS	
					RPD	%R
1,1-Dichloroethene	5.0	3.8	76	14	0-14	61-145
Trichloroethene	5.0	3.7	74	14	0-14	71-120
Benzene	5.0	3.7	74 *	12 *	0-11	76-127
Toluene	5.0	3.9	78	13	0-13	76-125
Chlorobenzene	5.0	3.9	79	10	0-13	75-130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 5 outside limits

Spike Recovery: 1 out of 10 outside limits

FORM 4-OR
METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642313
Instrument ID: 5975-F
Lab File ID: FF49BLK
Extraction Type: PT
Date Extracted:
GC Column (1): RTX-VMS ID: 0.25 (mm)
Date Analyzed: 03/06/2019
GC Column (2): ID: (mm)
Time Analyzed: 09:11
Heated Purge: (Y/N) Y Cleanup (Y/N):
Cleanup Types:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE/TIME ANALYZED
5P-MW107I-145	1905930002	FF50T002	03/06/2019
5P-MW107D-200	1905930003	FF51T003	03/06/2019
5P-MW106I-145	1905930004	FF52T004	03/06/2019
5P-MW106D-195	1905930005	FF53T005	03/06/2019
5P-MW109I-169	1905930006	FF54T006	03/06/2019
5P-MW109D-230	1905930007	FF55T007	03/06/2019
5P-MW108I-149	1905930008	FF56T008	03/06/2019
5P-MW108D-215	1905930009	FF57T009	03/06/2019
5P-MW110I-208	1905930010	FF58T010	03/06/2019
5P-MW110D-301	1905930011	FF59T011	03/06/2019

FORM 4-OR
METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKT2

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642314
Instrument ID: 5975-F
Lab File ID: FF64BLK
Extraction Type: PT
Date Extracted:
GC Column (1): RTX-VMS ID: 0.25 (mm)
Date Analyzed: 03/07/2019
GC Column (2): ID: (mm)
Time Analyzed: 09:06
Heated Purge: (Y/N) Y Cleanup (Y/N):
Cleanup Types:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE/TIME ANALYZED
5P-MW101-159DL	1905930012DL	FF65T012	03/07/2019
5P-MW101-159-YDL	1905930013DL	FF66T013	03/07/2019
5P-MW105-143	1905930014	FF67T014	03/07/2019
5P-MW105-143MS	1905930015	FF68T015	03/07/2019
5P-MW105-143MSD	1905930016	FF69T016	03/07/2019
TB-022719	1905930001	FF70T001	03/07/2019
5P-MW104-120	1905930017	FF71T017	03/07/2019
5P-MW101-159	1905930012	FF72T012	03/07/2019
5P-MW101-159-Y	1905930013	FF73T013	03/07/2019
VHBLKT1	642315	FF74BLK	03/07/2019

FORM 5-OR
GC/MS INSTRUMENT PERFORMANCE CHECK

EPA SAMPLE NO.

BFBTF

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Lab File ID: FF38BFB

Instrument ID: 5975-F BFB/DFTPP BFB

GC Column: RTX-VMS ID: 0.25 (mm)

Injection Date: 03/05/2019 Injection Time: 09:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.6
75	30.0 - 80.0% of mass 95	50.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.5 (0.6)
174	50.0 - 120% of mass 95	91.6
175	5.0 - 9.0% of mass 174	7.2 (7.8)
176	95.0 - 101% of mass 174	88.4 (96.5)
177	5.0 - 9.0% of mass 176	5.4 (6.1)

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD0.5TF	VSTD0.5TF	FF40S005	03/05/2019	10:48
VSTD001TF	VSTD001TF	FF41S01	03/05/2019	11:16
VSTD005TF	VSTD005TF	FF42S05	03/05/2019	11:44
VSTD010TF	VSTD010TF	FF43S10	03/05/2019	12:12
VSTD020TF	VSTD020TF	FF44S20	03/05/2019	12:41
VICVTF	VICVTF	FF46V05	03/05/2019	13:43

FORM 5-OR
GC/MS INSTRUMENT PERFORMANCE CHECK

EPA SAMPLE NO.

BFBT1

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Lab File ID: FF47BFB

Instrument ID: 5975-F BFB/DFTPP BFB

GC Column: RTX-VMS ID: 0.25 (mm)

Injection Date: 03/06/2019 Injection Time: 08:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 80.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.9 (1.0)
174	50.0 - 120% of mass 95	86.9
175	5.0 - 9.0% of mass 174	6.9 (8.0)
176	95.0 - 101% of mass 174	83.8 (96.4)
177	5.0 - 9.0% of mass 176	4.9 (5.9)

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD005T1	VSTD005T1	FF48S05	03/06/2019	08:35
VBLKT1	642313	FF49BLK	03/06/2019	09:11
5P-MW107I-145	1905930002	FF50T002	03/06/2019	09:53
5P-MW107D-200	1905930003	FF51T003	03/06/2019	10:21
5P-MW106I-145	1905930004	FF52T004	03/06/2019	10:49
5P-MW106D-195	1905930005	FF53T005	03/06/2019	11:17
5P-MW109I-169	1905930006	FF54T006	03/06/2019	11:45
5P-MW109D-230	1905930007	FF55T007	03/06/2019	12:13
5P-MW108I-149	1905930008	FF56T008	03/06/2019	12:41
5P-MW108D-215	1905930009	FF57T009	03/06/2019	13:08
5P-MW110I-208	1905930010	FF58T010	03/06/2019	13:37
5P-MW110D-301	1905930011	FF59T011	03/06/2019	14:04
VSTD005T2	VSTD005T2	FF60S05	03/06/2019	14:32

FORM 5-OR
GC/MS INSTRUMENT PERFORMANCE CHECK

EPA SAMPLE NO.

BFBT2

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Lab File ID: FF62BFB

Instrument ID: 5975-F BFB/DFTPP BFB

GC Column: RTX-VMS ID: 0.25 (mm)

Injection Date: 03/07/2019 Injection Time: 07:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.5
75	30.0 - 80.0% of mass 95	51.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.4 (0.4)
174	50.0 - 120% of mass 95	88.0
175	5.0 - 9.0% of mass 174	6.7 (7.7)
176	95.0 - 101% of mass 174	84.7 (96.3)
177	5.0 - 9.0% of mass 176	5.2 (6.1)

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD005T3	VSTD005T3	FF63S05	03/07/2019	08:34
VBLKT2	642314	FF64BLK	03/07/2019	09:06
5P-MW101-159DL	1905930012DL	FF65T012	03/07/2019	09:41
5P-MW101-159-YDL	1905930013DL	FF66T013	03/07/2019	10:09
5P-MW105-143	1905930014	FF67T014	03/07/2019	10:37
5P-MW105-143MS	1905930015	FF68T015	03/07/2019	11:05
5P-MW105-143MSD	1905930016	FF69T016	03/07/2019	11:33
TB-022719	1905930001	FF70T001	03/07/2019	12:01
5P-MW104-120	1905930017	FF71T017	03/07/2019	12:29
5P-MW101-159	1905930012	FF72T012	03/07/2019	12:57
5P-MW101-159-Y	1905930013	FF73T013	03/07/2019	13:25
VHBLKT1	642315	FF74BLK	03/07/2019	13:53
VSTD005T4	VSTD005T4	FF75S05	03/07/2019	14:21

FORM 8A-OR
INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

EPA Sample No.: VSTD005T1 Lab File ID (Standard): FF48S05

Instrument ID: 5975-F Init. Calib Date(s): 03/05/2019 03/05/2019

GC Column: RTX-VMS ID: 0.25 (mm) Date Analyzed: 03/06/2019

Heated Purge: (Y/N) Y Time Analyzed: 08:35

	IS1 (CBZ) AREA	RT	IS2 (DFB) AREA	RT	IS3 (DCB) AREA	RT
12 HOUR STD	667287	10.40	853014	7.16	368124	12.80
UPPER LIMIT	1334574	10.57	1706028	7.33	736248	12.97
LOWER LIMIT	333644	10.23	426507	6.99	184062	12.63
EPA SAMPLE NO.						
VBLKT1	593260	10.40	713728	7.16	301683	12.81
5P-MW107I-145	777522	10.40	863776	7.17	362029	12.81
5P-MW107D-200	678153	10.40	803042	7.16	330606	12.81
5P-MW106I-145	641493	10.40	753988	7.16	325585	12.80
5P-MW106D-195	615694	10.40	729551	7.16	278612	12.81
5P-MW109I-169	546307	10.40	666959	7.16	283431	12.81
5P-MW109D-230	616389	10.40	757422	7.16	317231	12.81
5P-MW108I-149	722186	10.40	830726	7.17	346302	12.80
5P-MW108D-215	730207	10.40	837277	7.16	338767	12.80
5P-MW110I-208	744220	10.40	872169	7.16	366628	12.80
5P-MW110D-301	724306	10.40	849490	7.17	353110	12.81

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = + 0.17 minutes of internal standard RT
RT LOWER LIMIT = - 0.17 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

FORM 8A-OR
INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

EPA Sample No.: VSTD005T3 Lab File ID (Standard): FF63S05

Instrument ID: 5975-F Init. Calib Date(s): 03/05/2019 03/05/2019

GC Column: RTX-VMS ID: 0.25 (mm) Date Analyzed: 03/07/2019

Heated Purge: (Y/N) Y Time Analyzed: 08:34

	IS1 (CBZ) AREA	RT	IS2 (DFB) AREA	RT	IS3 (DCB) AREA	RT
12 HOUR STD	758937	10.40	887534	7.16	388001	12.81
UPPER LIMIT	1517874	10.57	1775068	7.33	776002	12.98
LOWER LIMIT	379469	10.23	443767	6.99	194001	12.64
EPA SAMPLE NO.						
VBLKT2	740045	10.40	863645	7.17	361924	12.80
5P-MW101-159DL	771255	10.40	878687	7.16	374116	12.80
5P-MW101-159-YDL	651320	10.40	749571	7.16	311240	12.81
5P-MW105-143	633880	10.40	743870	7.17	292057	12.81
5P-MW105-143MS	701296	10.40	807014	7.16	337363	12.80
5P-MW105-143MSD	731648	10.40	855521	7.16	350025	12.81
TB-022719	684454	10.40	805673	7.16	314210	12.81
5P-MW104-120	700972	10.40	816631	7.16	327538	12.81
5P-MW101-159	721028	10.40	831723	7.16	353968	12.81
5P-MW101-159-Y	681659	10.40	799089	7.16	318003	12.81
VHBLKT1	664550	10.40	786952	7.16	303156	12.81

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = + 0.17 minutes of internal standard RT
RT LOWER LIMIT = - 0.17 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930012
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF72T012
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.87	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	24.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.17	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.51	
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930012
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF72T012
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	40.	E
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW101-159

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930012
Lab File ID: FF72T012
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

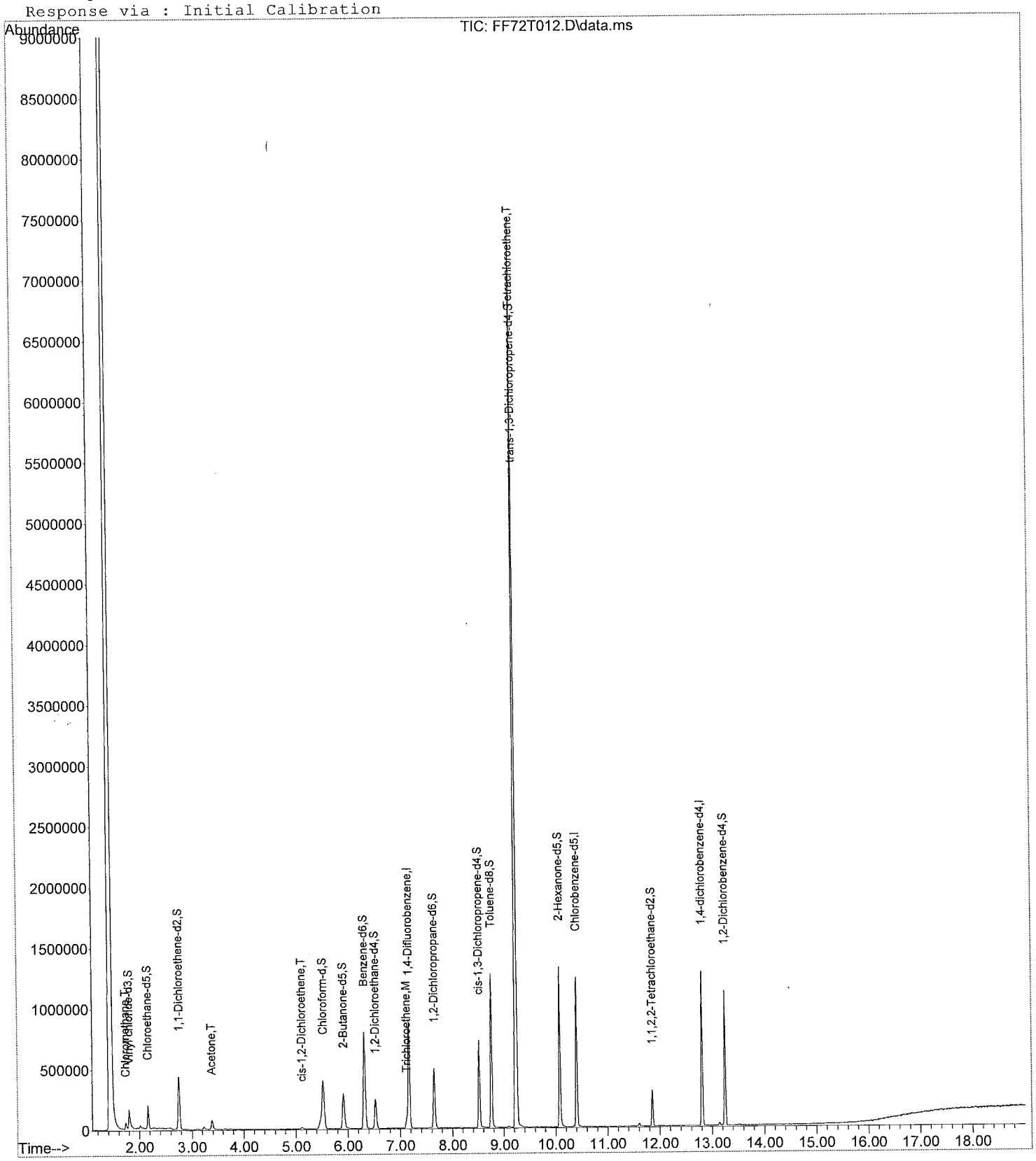
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF72T012.D Vial: 11
Acq Time : 03/07/2019 12:57 Operator: SLS
Sample : 1905930012 5P-MW101-159 Inst : 5975-F
Misc : 1905930 B Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:24:20 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF72T012.D Vial: 11
Acq Time : 03/07/2019 12:57 Operator: SLS
Sample : 1905930012 5P-MW101-159 Inst : 5975-F
Misc : 1905930 B Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:24:20 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	831723	5.00 ug/L	104.37
28) Chlorobenzene-d5	10.40	117	721028	5.00 ug/L	113.61
60) 1,4-dichlorobenzene-d4	12.81	152	353968	5.00 ug/L	99.81
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	202749	4.64 ug/L	92.79%
8) Chloroethane-d5	2.17	69	138072	4.46 ug/L	89.26%
11) 1,1-Dichloroethene-d2	2.76	63	376525	3.73 ug/L	74.66%
22) 2-Butanone-d5	5.92	46	564014	47.26 ug/L	94.51%
25) Chloroform-d	5.52	84	451066	4.76 ug/L	95.21%
27) 1,2-Dichloroethane-d4	6.52	65	222659	4.93 ug/L	98.69%
33) Benzene-d6	6.32	84	855723	4.83 ug/L	96.70%
37) 1,2-Dichloropropane-d6	7.65	67	218672	4.67 ug/L	93.46%
40) cis-1,3-Dichloropropene-d4	8.52	79	392778	4.78 ug/L	95.52%
42) trans-1,3-Dichloropropene-	9.25	79	233469	4.74 ug/L	94.71%
47) Toluene-d8	8.76	98	847060	5.24 ug/L	104.75%
50) 2-Hexanone-d5	10.08	63	420981	44.34 ug/L	88.67%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	134664	4.23 ug/L	84.63%
65) 1,2-Dichlorobenzene-d4	13.25	152	309362	5.15 ug/L	102.97%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	59513	0.8690 ug/L	99
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	130684	24.3791 ug/L	99
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	5.12	96	8415	0.1675 ug/L	96
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	7.12	130	30966	0.5088 ug/L	94
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

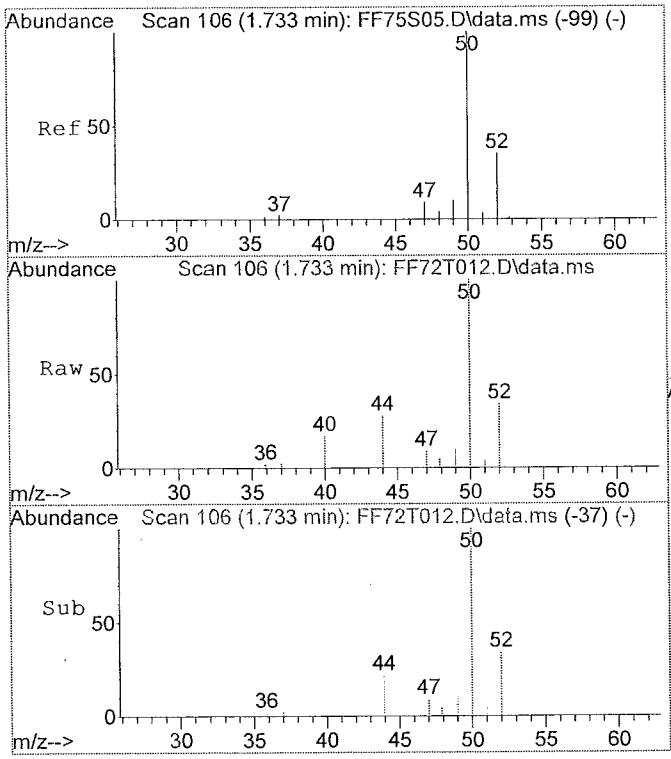
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF72T012.D Vial: 11
Acq Time : 03/07/2019 12:57 Operator: SLS
Sample : 1905930012 5P-MW101-159 Inst : 5975-F
Misc : 1905930 B Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:24:20 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	1843271	40.4837 ug/L	97
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

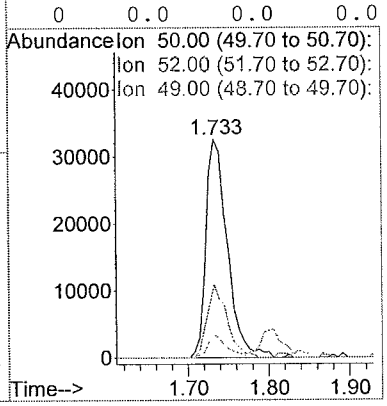
(#) = qualifier out of range (m) = manual integration

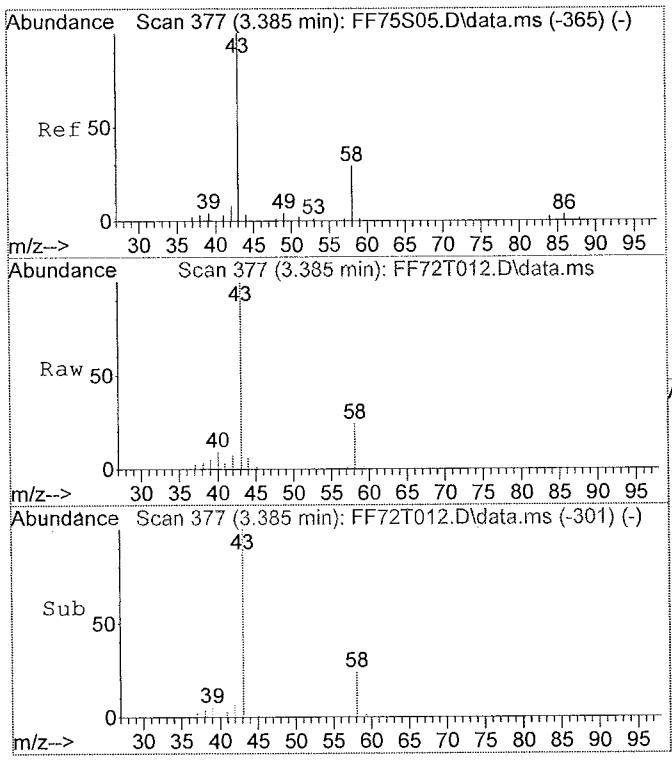


#3
Chloromethane
Concen: 0.87 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF72T012.D
Acq: 03/07/2019 12:57

Tgt Ion:50 Resp: 59513

Ion	Ratio	Lower	Upper
50	100		
52	31.2	11.1	51.1
49	9.0	0.0	30.0
0	0.0	0.0	0.0

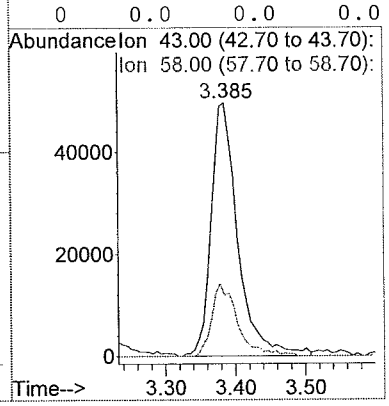


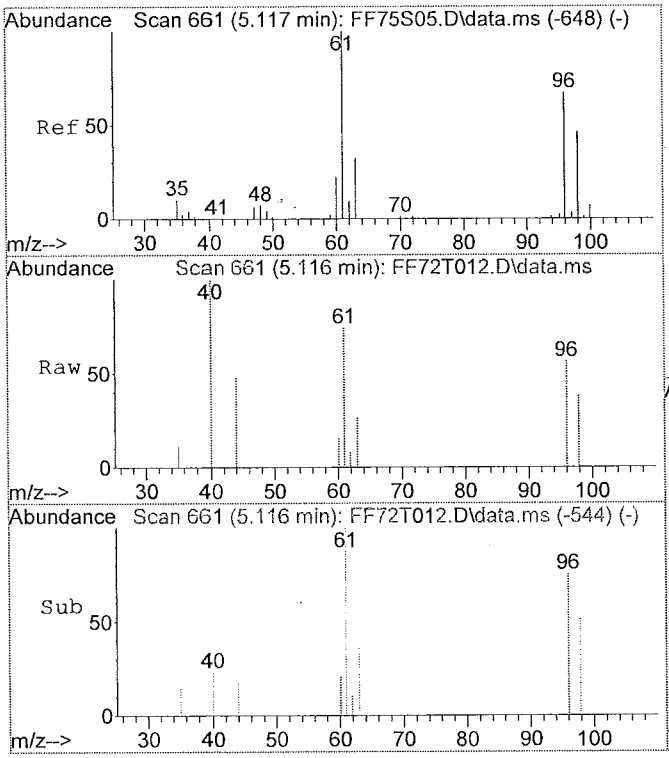


#13
Acetone
Concen: 24.38 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF72T012.D
Acq: 03/07/2019 12:57

Tgt Ion:43 Resp: 130684

Ion	Ratio	Lower	Upper
43	100		
58	27.8	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

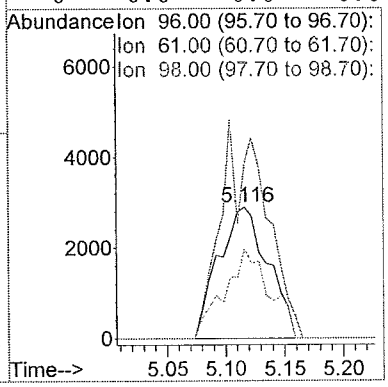


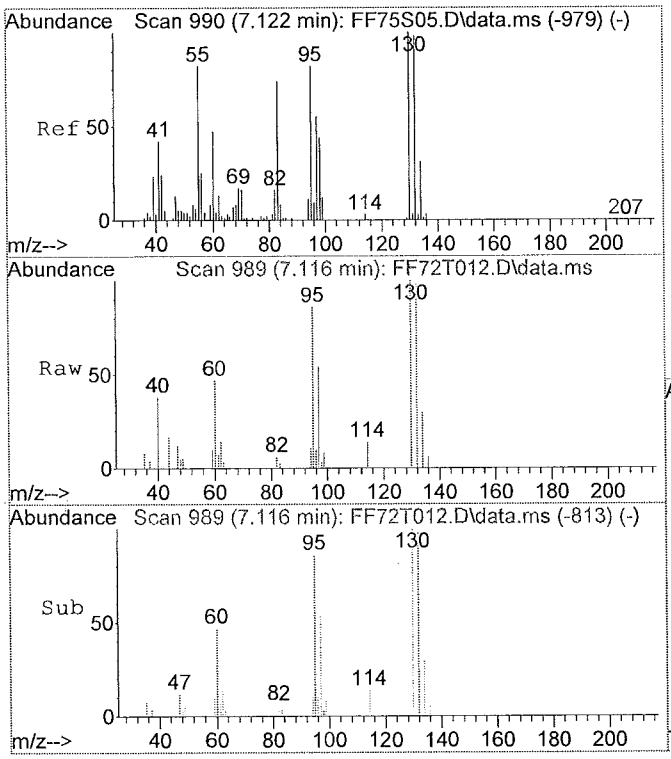


#20
cis-1,2-Dichloroethene
Concen: 0.17 ug/L
RT: 5.12 min Scan# 661
Delta R.T. -0.01 min
Lab File: FF72T012.D
Acq: 03/07/2019 12:57

Tgt Ion:96 Resp: 8415

Ion	Ratio	Lower	Upper
96	100		
61	150.3	124.8	164.8
98	62.3	45.8	85.8
0	0.0	0.0	0.0

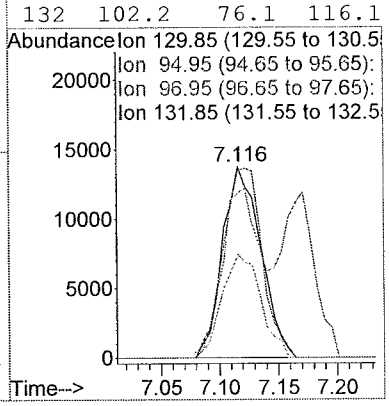


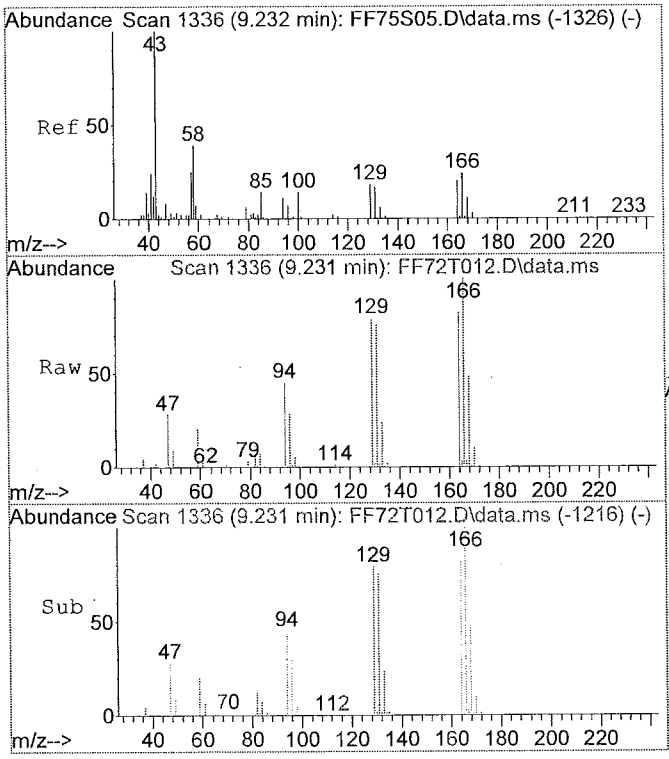


#34
Trichloroethene
Concen: 0.51 ug/L
RT: 7.12 min Scan# 989
Delta R.T. -0.01 min
Lab File: FF72T012.D
Acq: 03/07/2019 12:57

Tgt Ion:129.85 Resp: 30966

Ion	Ratio	Lower	Upper
130	100		
95	87.2	72.6	112.6
97	55.5	39.3	79.3
132	102.2	76.1	116.1

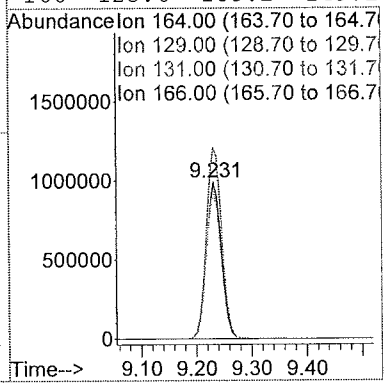




#48
Tetrachloroethene
Concen: 40.48 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF72T012.D
Acq: 03/07/2019 12:57

Tgt Ion:164 Resp: 1843271

Ion	Ratio	Lower	Upper
164	100		
129	95.8	79.2	119.2
131	93.0	74.2	114.2
166	125.6	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159DL

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930012DL
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF65T012
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 4.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	2.0	U
74-87-3	Chloromethane	0.87	JD
75-01-4	Vinyl chloride	2.0	U
74-83-9	Bromomethane	2.0	U
75-00-3	Chloroethane	2.0	U
75-69-4	Trichlorofluoromethane	2.0	U
75-35-4	1,1-Dichloroethene	2.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U
67-64-1	Acetone	9.5	JD
75-15-0	Carbon disulfide	2.0	U
79-20-9	Methyl acetate	2.0	U
75-09-2	Methylene chloride	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U
1634-04-4	Methyl tert-butyl ether	2.0	U
75-34-3	1,1-Dichloroethane	2.0	U
156-59-2	cis-1,2-Dichloroethene	2.0	U
78-93-3	2-Butanone	20.	U
74-97-5	Bromochloromethane	2.0	U
67-66-3	Chloroform	2.0	U
71-55-6	1,1,1-Trichloroethane	2.0	U
110-82-7	Cyclohexane	2.0	U
56-23-5	Carbon tetrachloride	2.0	U
71-43-2	Benzene	2.0	U
107-06-2	1,2-Dichloroethane	2.0	U
79-01-6	Trichloroethene	0.37	JD
108-87-2	Methylcyclohexane	2.0	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159DL

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930012DL
Lab File ID: FF65T012
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 4.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	2.0	U
75-27-4	Bromodichloromethane	2.0	U
10061-01-5	cis-1,3-Dichloropropene	2.0	U
108-10-1	4-Methyl-2-Pentanone	20.	U
108-88-3	Toluene	2.0	U
10061-02-6	trans-1,3-Dichloropropene	2.0	U
79-00-5	1,1,2-Trichloroethane	2.0	U
127-18-4	Tetrachloroethene	24.	D
591-78-6	2-Hexanone	20.	U
124-48-1	Dibromochloromethane	2.0	U
106-93-4	1,2-Dibromoethane	2.0	U
108-90-7	Chlorobenzene	2.0	U
100-41-4	Ethylbenzene	2.0	U
95-47-6	o-Xylene	2.0	U
179601-23-1	m,p-Xylene	2.0	U
100-42-5	Styrene	2.0	U
75-25-2	Bromoform	2.0	U
98-82-8	Isopropylbenzene	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U
541-73-1	1,3-Dichlorobenzene	2.0	U
106-46-7	1,4-Dichlorobenzene	2.0	U
95-50-1	1,2-Dichlorobenzene	2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
120-82-1	1,2,4-Trichlorobenzene	2.0	U
87-61-6	1,2,3-Trichlorobenzene	2.0	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
5P-MW101-159DL

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930012DL
Lab File ID: FF65T012
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 4.0
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

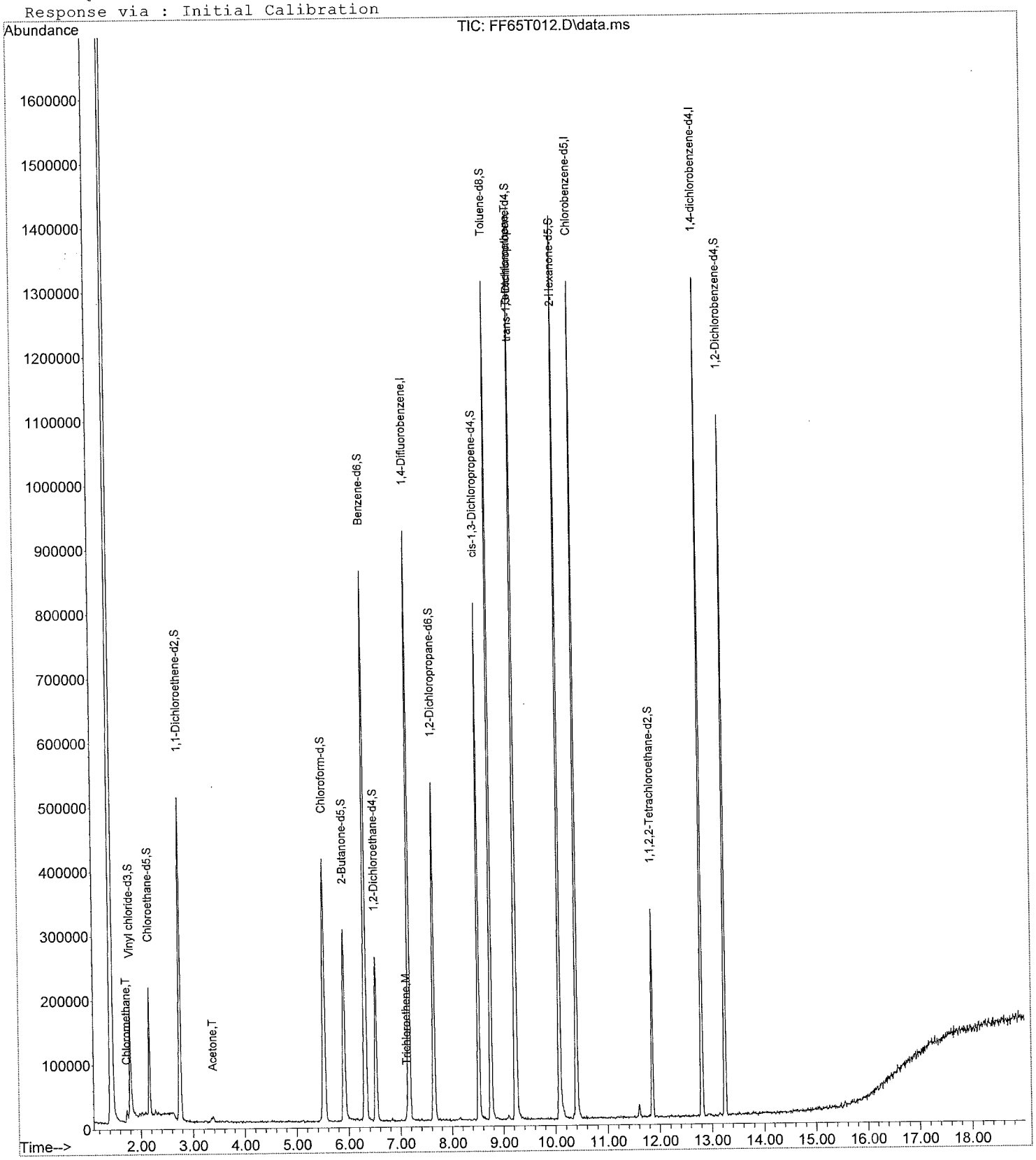
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF65T012.D Vial: 4
Acq Time : 03/07/2019 09:41 Operator: SLS
Sample : 1905930012DL 5P-MW101-159DL (4) Inst : 5975-F
Misc : 1905930 A 1:4 DILUTION Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:38:53 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF65T012.D Vial: 4
Acq Time : 03/07/2019 09:41 Operator: SLS
Sample : 1905930012DL 5P-MW101-159DL (4) Inst : 5975-F
Misc : 1905930 A 1:4 DILUTION Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:38:53 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	878687	5.00 ug/L	110.27
28) Chlorobenzene-d5	10.40	117	771255	5.00 ug/L	121.52
60) 1,4-dichlorobenzene-d4	12.80	152	374116	5.00 ug/L	105.49
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	224515	4.86 ug/L	97.25%
8) Chloroethane-d5	2.17	69	154594	4.73 ug/L	94.59%
11) 1,1-Dichloroethene-d2	2.75	63	410112	3.85 ug/L	76.97%
22) 2-Butanone-d5	5.91	46	576300	45.70 ug/L	91.41%
25) Chloroform-d	5.53	84	484891	4.84 ug/L	96.88%
27) 1,2-Dichloroethane-d4	6.52	65	239541	5.02 ug/L	100.50%
33) Benzene-d6	6.32	84	913409	4.82 ug/L	96.50%
37) 1,2-Dichloropropane-d6	7.64	67	239330	4.78 ug/L	95.62%
40) cis-1,3-Dichloropropene-d4	8.52	79	438806	4.99 ug/L	99.77%
42) trans-1,3-Dichloropropene-	9.25	79	254865	4.83 ug/L	96.66%
47) Toluene-d8	8.76	98	894412	5.17 ug/L	103.40%
50) 2-Hexanone-d5	10.07	63	477124	46.98 ug/L	93.95%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	147372	4.33 ug/L	86.58%
65) 1,2-Dichlorobenzene-d4	13.24	152	308403	4.86 ug/L	97.12%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	15772	0.2180 ug/L	93
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	13485	2.3812 ug/L	90
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	7.11	130	6086	0.0935 ug/L #	1
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

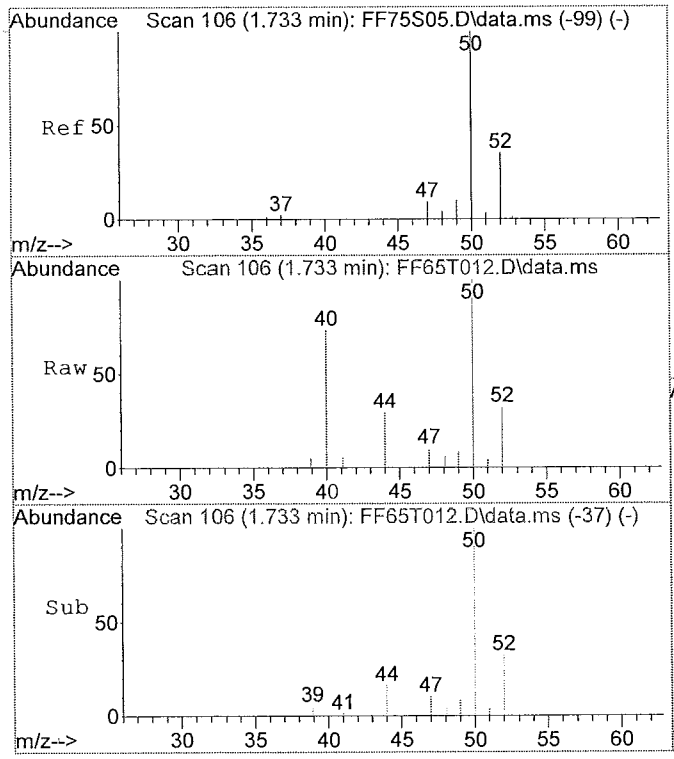
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF65T012.D Vial: 4
Acq Time : 03/07/2019 09:41 Operator: SLS
Sample : 1905930012DL 5P-MW101-159DL (4) Inst : 5975-F
Misc : 1905930 A 1:4 DILUTION Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:38:53 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	294966	6.0564 ug/L	98
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

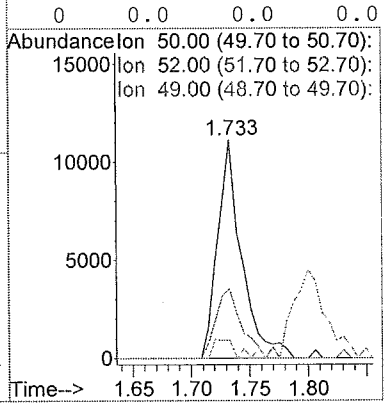
(#) = qualifier out of range (m) = manual integration

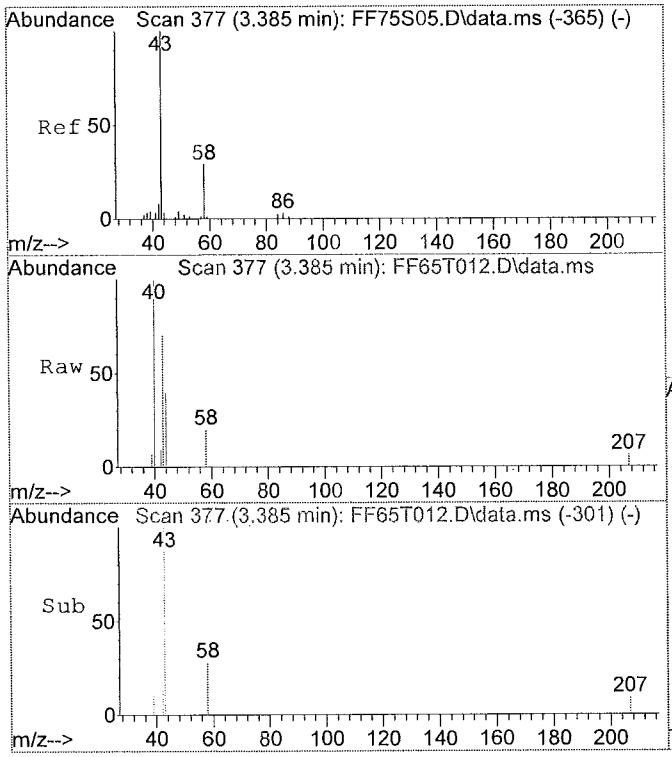


#3
Chloromethane
Concen: 0.22 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF65T012.D
Acq: 03/07/2019 09:41

Tgt Ion:50 Resp: 15772

Ion	Ratio	Lower	Upper
50	100		
52	34.9	11.1	51.1
49	7.6	0.0	30.0
0	0.0	0.0	0.0

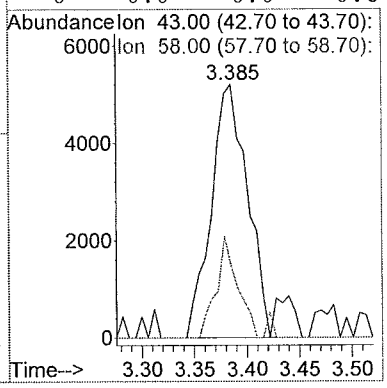


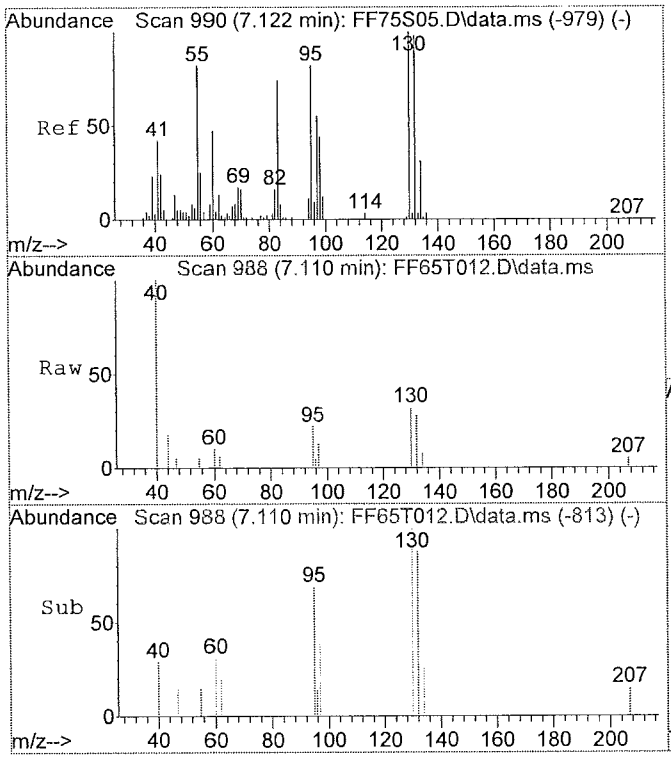


#13
Acetone
Concen: 2.38 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF65T012.D
Acq: 03/07/2019 09:41

Tgt Ion:43 Resp: 13485

Ion	Ratio	Lower	Upper
43	100		
58	23.2	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

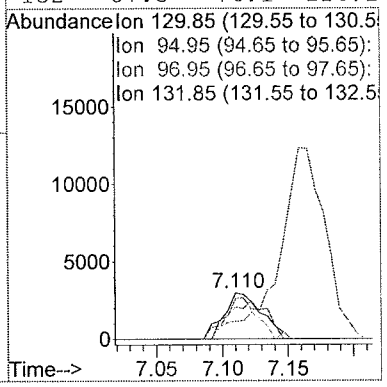


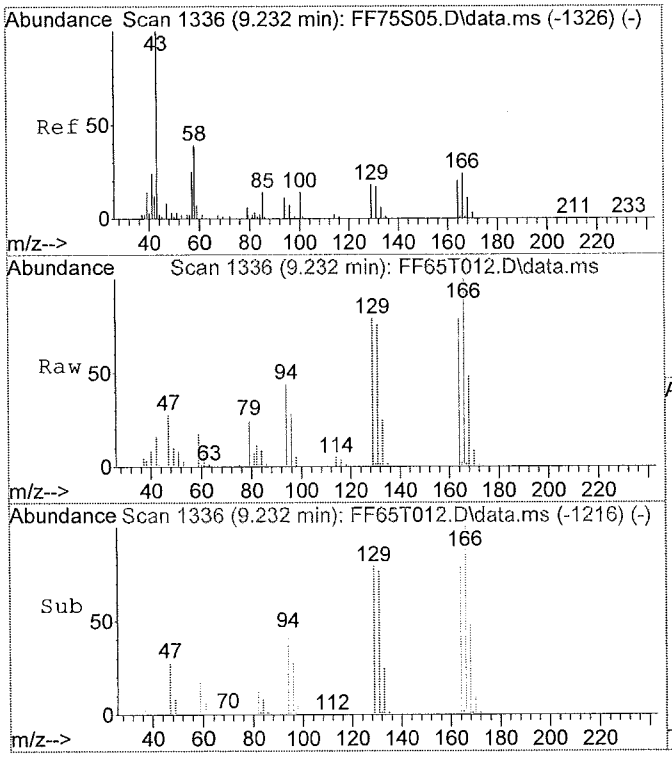


#34
Trichloroethene
Concen: 0.09 ug/L
RT: 7.11 min Scan# 988
Delta R.T. -0.01 min
Lab File: FF65T012.D
Acq: 03/07/2019 09:41

Tgt Ion:129.85 Resp: 6086

Ion	Ratio	Lower	Upper
130	100		
95	512.1	72.6	112.6#
97	51.3	39.3	79.3
132	87.5	76.1	116.1

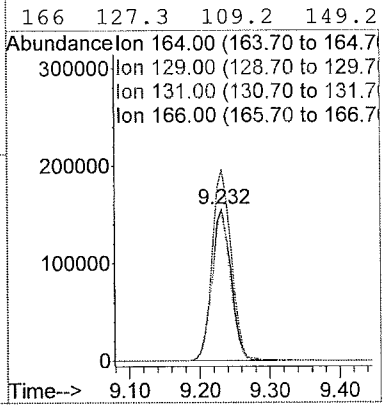




#48
Tetrachloroethene
Concen: 6.06 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF65T012.D
Acq: 03/07/2019 09:41

Tgt Ion:164 Resp: 294966

Ion	Ratio	Lower	Upper
164	100		
129	96.5	79.2	119.2
131	93.5	74.2	114.2
166	127.3	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159-Y

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930013
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF73T013
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.83	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.2	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.16	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.52	
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159-Y

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930013
Lab File ID: FF73T013
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	41.	E
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
5P-MW101-159-Y

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930013
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF73T013
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/07/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

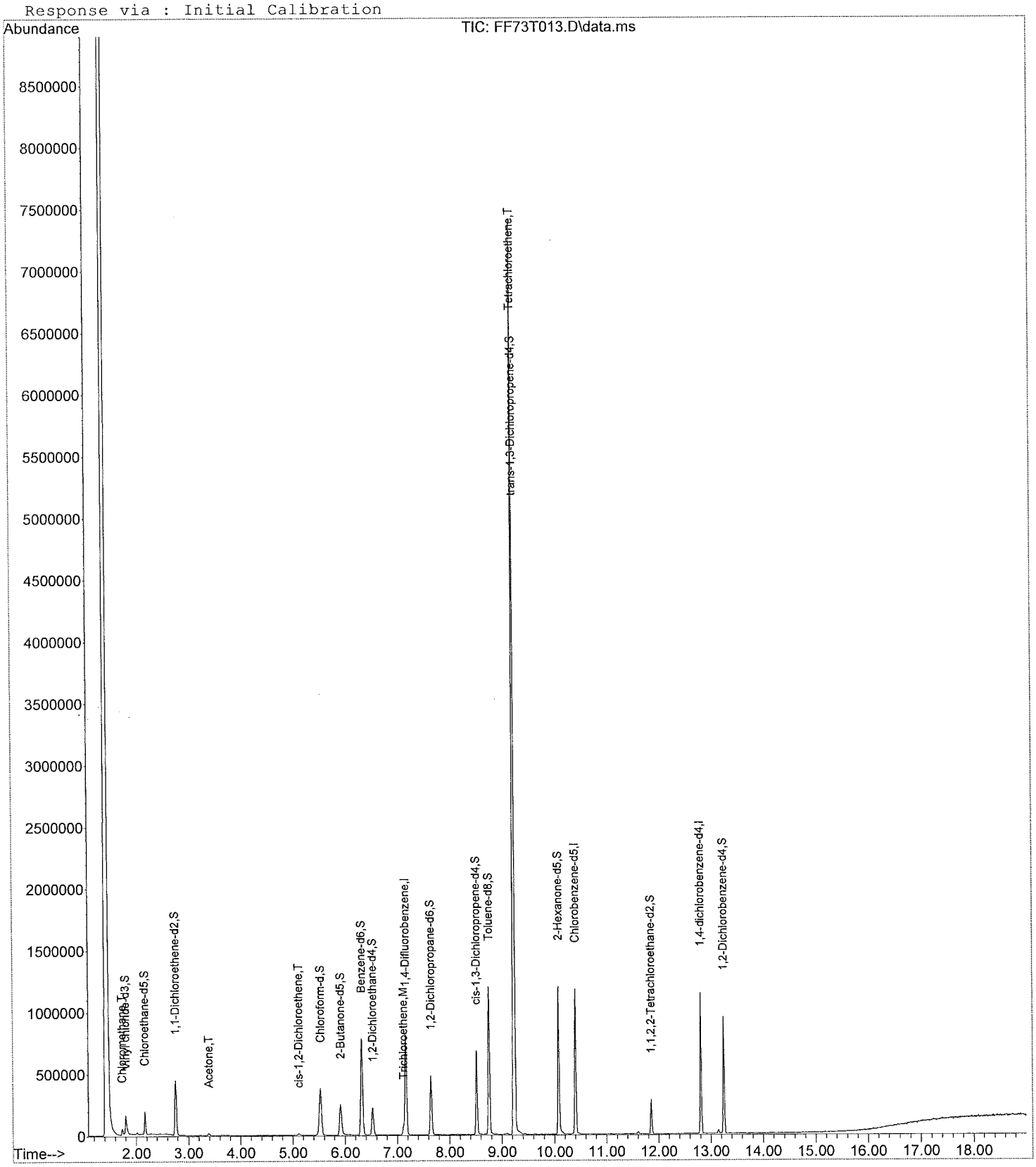
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF73T013.D Vial: 12
Acq Time : 03/07/2019 13:25 Operator: SLS
Sample : 1905930013 5P-MW101-159-Y Inst : 5975-F
Misc : 1905930 B Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:46:48 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF73T013.D Vial: 12
Acq Time : 03/07/2019 13:25 Operator: SLS
Sample : 1905930013 5P-MW101-159-Y Inst : 5975-F
Misc : 1905930 B Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:46:48 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	799089	5.00 ug/L	100.28
28) Chlorobenzene-d5	10.40	117	681659	5.00 ug/L	107.40
60) 1,4-dichlorobenzene-d4	12.81	152	318003	5.00 ug/L	89.67
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	199381	4.75 ug/L	94.97%
8) Chloroethane-d5	2.17	69	137639	4.63 ug/L	92.61%
11) 1,1-Dichloroethene-d2	2.76	63	377256	3.89 ug/L	77.86%
22) 2-Butanone-d5	5.92	46	488120	42.57 ug/L	85.13%
25) Chloroform-d	5.53	84	438435	4.82 ug/L	96.33%
27) 1,2-Dichloroethane-d4	6.52	65	205939	4.75 ug/L	95.00%
33) Benzene-d6	6.32	84	833497	4.98 ug/L	99.63%
37) 1,2-Dichloropropane-d6	7.65	67	207691	4.69 ug/L	93.89%
40) cis-1,3-Dichloropropene-d4	8.52	79	379305	4.88 ug/L	97.58%
42) trans-1,3-Dichloropropene-	9.25	79	224664	4.82 ug/L	96.40%
47) Toluene-d8	8.76	98	815761	5.34 ug/L	106.71%
50) 2-Hexanone-d5	10.08	63	399614	44.52 ug/L	89.03%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	121046	4.02 ug/L	80.46%
65) 1,2-Dichlorobenzene-d4	13.25	152	259975	4.82 ug/L	96.32%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	54319	0.8255 ug/L	98
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	26886	5.2204 ug/L	96
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	5.12	96	7825	0.1622 ug/L	96
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	7.12	130	30074	0.5227 ug/L	93
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

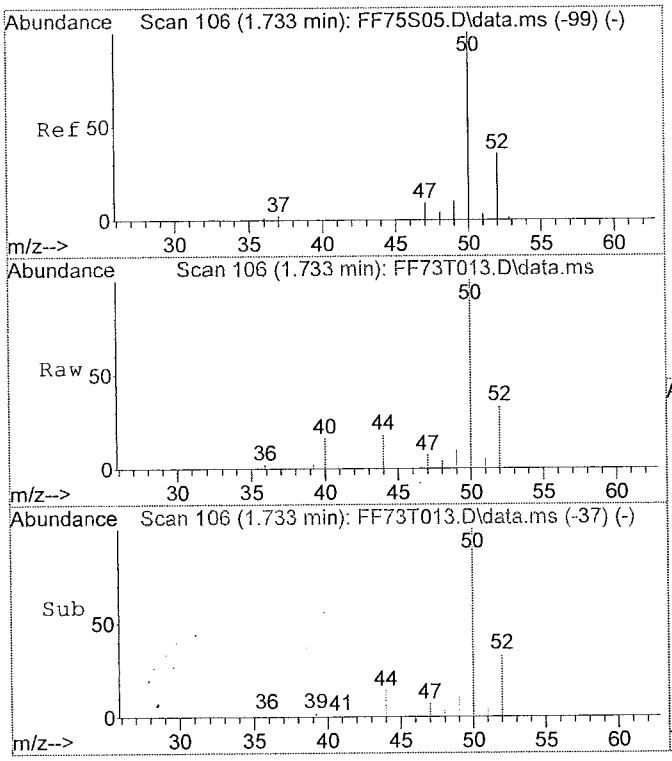
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF73T013.D Vial: 12
Acq Time : 03/07/2019 13:25 Operator: SLS
Sample : 1905930013 5P-MW101-159-Y Inst : 5975-F
Misc : 1905930 B Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:46:48 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	Tetrachloroethene	9.23	164	1779374	41.3374 ug/L	98
49)	2-Hexanone	0.00	43		Not Detected	
51)	1,2-Dibromoethane	0.00	107		Not Detected	
52)	Chlorobenzene	0.00	112		Not Detected	
53)	Ethylbenzene	0.00	91		Not Detected	
54)	m,p-Xylene	0.00	106		Not Detected	
55)	o-Xylene	0.00	106		Not Detected	
56)	Styrene	0.00	104		Not Detected	
57)	Isopropylbenzene	0.00	105		Not Detected	
58)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61)	Bromoform	0.00	173		Not Detected	
62)	1,3-Dichlorobenzene	0.00	146		Not Detected	
63)	1,4-Dichlorobenzene	0.00	146		Not Detected	
64)	1,2-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

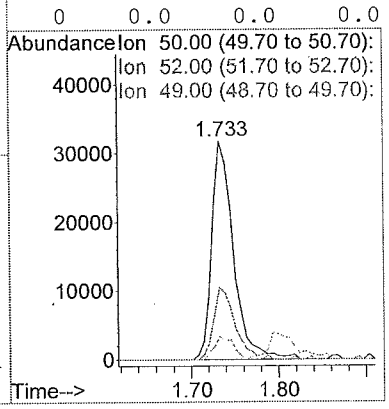
(#) = qualifier out of range (m) = manual integration

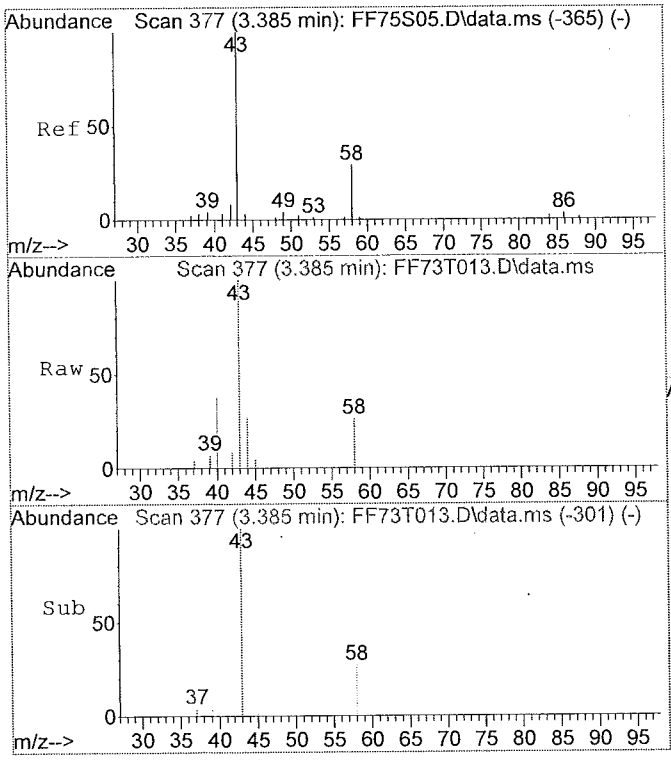


#3
Chloromethane
Concen: 0.83 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF73T013.D
Acq: 03/07/2019 13:25

Tgt Ion:50 Resp: 54319

Ion	Ratio	Lower	Upper
50	100		
52	32.4	11.1	51.1
49	9.1	0.0	30.0
0	0.0	0.0	0.0

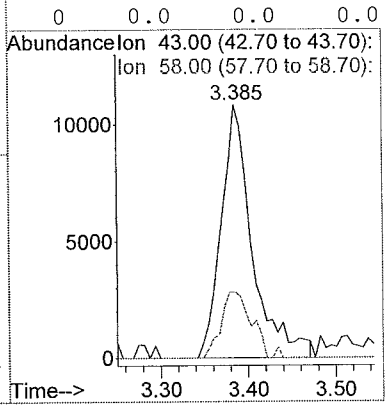


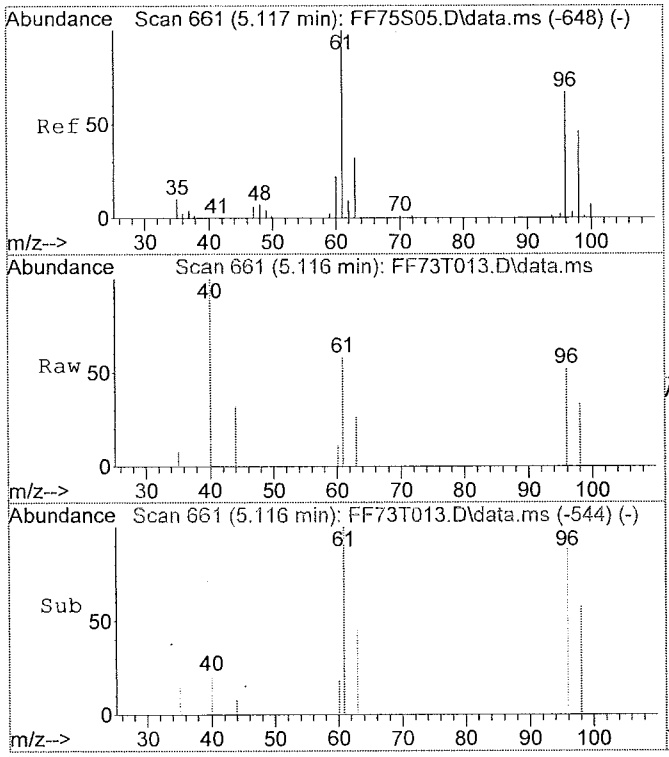


#13
Acetone
Concen: 5.22 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF73T013.D
Acq: 03/07/2019 13:25

Tgt Ion:43 Resp: 26886

Ion	Ratio	Lower	Upper
43	100		
58	26.0	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

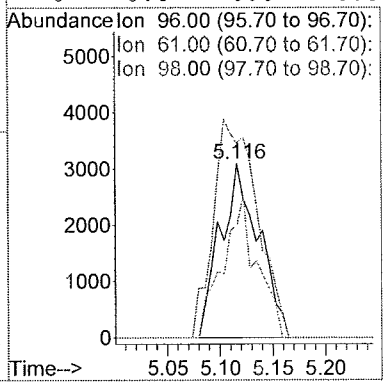


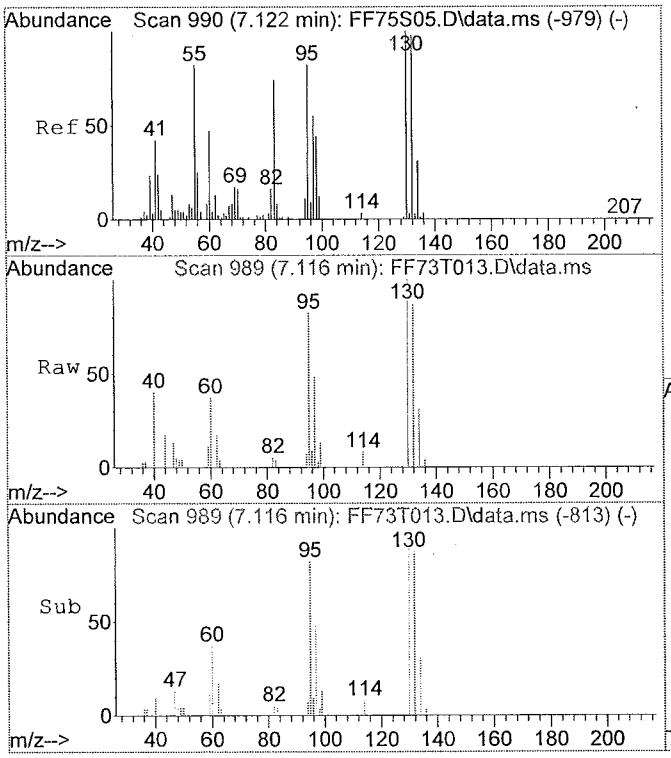


#20
cis-1,2-Dichloroethene
Concen: 0.16 ug/L
RT: 5.12 min Scan# 661
Delta R.T. -0.01 min
Lab File: FF73T013.D
Acq: 03/07/2019 13:25

Tgt Ion:96 Resp: 7825

Ion	Ratio	Lower	Upper
96	100		
61	142.8	124.8	164.8
98	72.5	45.8	85.8
0	0.0	0.0	0.0

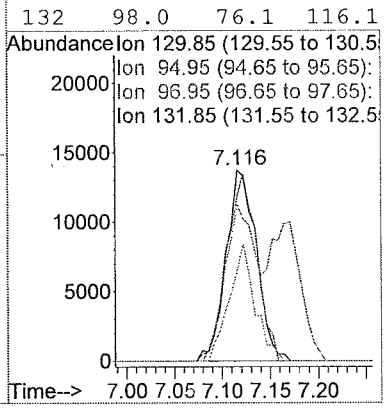


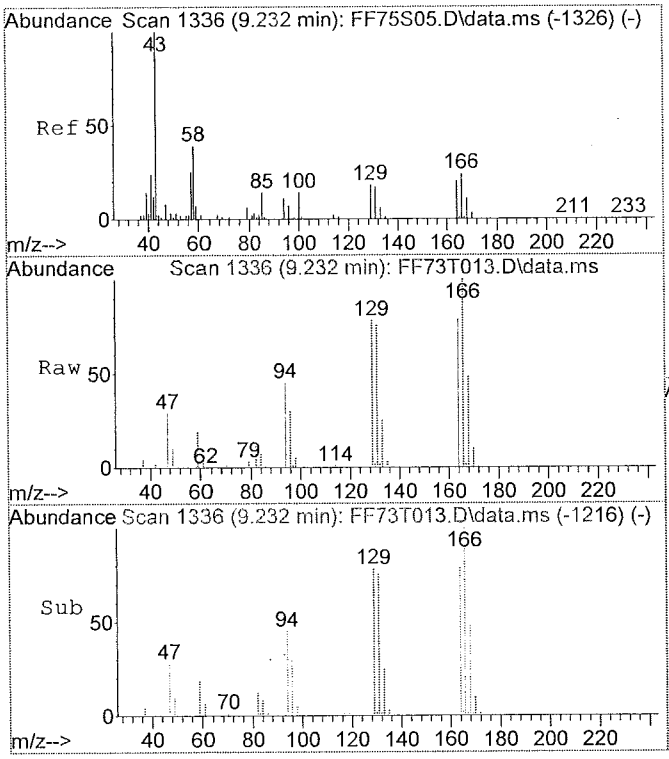


#34
Trichloroethene
Concen: 0.52 ug/L
RT: 7.12 min Scan# 989
Delta R.T. -0.01 min
Lab File: FF73T013.D
Acq: 03/07/2019 13:25

Tgt Ion:129.85 Resp: 30074

Ion	Ratio	Lower	Upper
130	100		
95	81.9	72.6	112.6
97	51.8	39.3	79.3
132	98.0	76.1	116.1

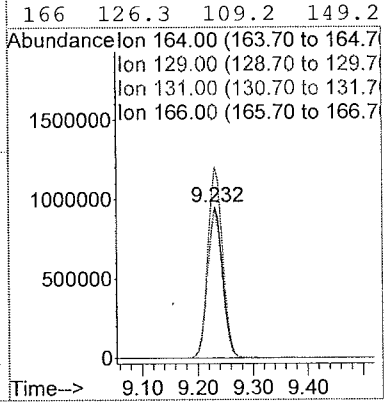




#48
Tetrachloroethene
Concen: 41.34 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF73T013.D
Acq: 03/07/2019 13:25

Tgt Ion:164 Resp: 1779374

Ion	Ratio	Lower	Upper
164	100		
129	97.3	79.2	119.2
131	94.0	74.2	114.2
166	126.3	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159-YDL

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930013DL
Lab File ID: FF66T013
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 4.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	2.0	U
74-87-3	Chloromethane	0.42	JD
75-01-4	Vinyl chloride	2.0	U
74-83-9	Bromomethane	2.0	U
75-00-3	Chloroethane	2.0	U
75-69-4	Trichlorofluoromethane	2.0	U
75-35-4	1,1-Dichloroethene	2.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U
67-64-1	Acetone	20.	U
75-15-0	Carbon disulfide	2.0	U
79-20-9	Methyl acetate	2.0	U
75-09-2	Methylene chloride	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U
1634-04-4	Methyl tert-butyl ether	2.0	U
75-34-3	1,1-Dichloroethane	2.0	U
156-59-2	cis-1,2-Dichloroethene	2.0	U
78-93-3	2-Butanone	20.	U
74-97-5	Bromochloromethane	2.0	U
67-66-3	Chloroform	2.0	U
71-55-6	1,1,1-Trichloroethane	2.0	U
110-82-7	Cyclohexane	2.0	U
56-23-5	Carbon tetrachloride	2.0	U
71-43-2	Benzene	2.0	U
107-06-2	1,2-Dichloroethane	2.0	U
79-01-6	Trichloroethene	0.36	JD
108-87-2	Methylcyclohexane	2.0	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW101-159-YDL

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930013DL
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF66T013
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 4.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	2.0	U
75-27-4	Bromodichloromethane	2.0	U
10061-01-5	cis-1,3-Dichloropropene	2.0	U
108-10-1	4-Methyl-2-Pentanone	20.	U
108-88-3	Toluene	2.0	U
10061-02-6	trans-1,3-Dichloropropene	2.0	U
79-00-5	1,1,2-Trichloroethane	2.0	U
127-18-4	Tetrachloroethene	29.	D
591-78-6	2-Hexanone	20.	U
124-48-1	Dibromochloromethane	2.0	U
106-93-4	1,2-Dibromoethane	2.0	U
108-90-7	Chlorobenzene	2.0	U
100-41-4	Ethylbenzene	2.0	U
95-47-6	o-Xylene	2.0	U
179601-23-1	m,p-Xylene	2.0	U
100-42-5	Styrene	2.0	U
75-25-2	Bromoform	2.0	U
98-82-8	Isopropylbenzene	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U
541-73-1	1,3-Dichlorobenzene	2.0	U
106-46-7	1,4-Dichlorobenzene	2.0	U
95-50-1	1,2-Dichlorobenzene	2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
120-82-1	1,2,4-Trichlorobenzene	2.0	U
87-61-6	1,2,3-Trichlorobenzene	2.0	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW101-159-YDL

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930013DL
Lab File ID: FF66T013
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 4.0
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

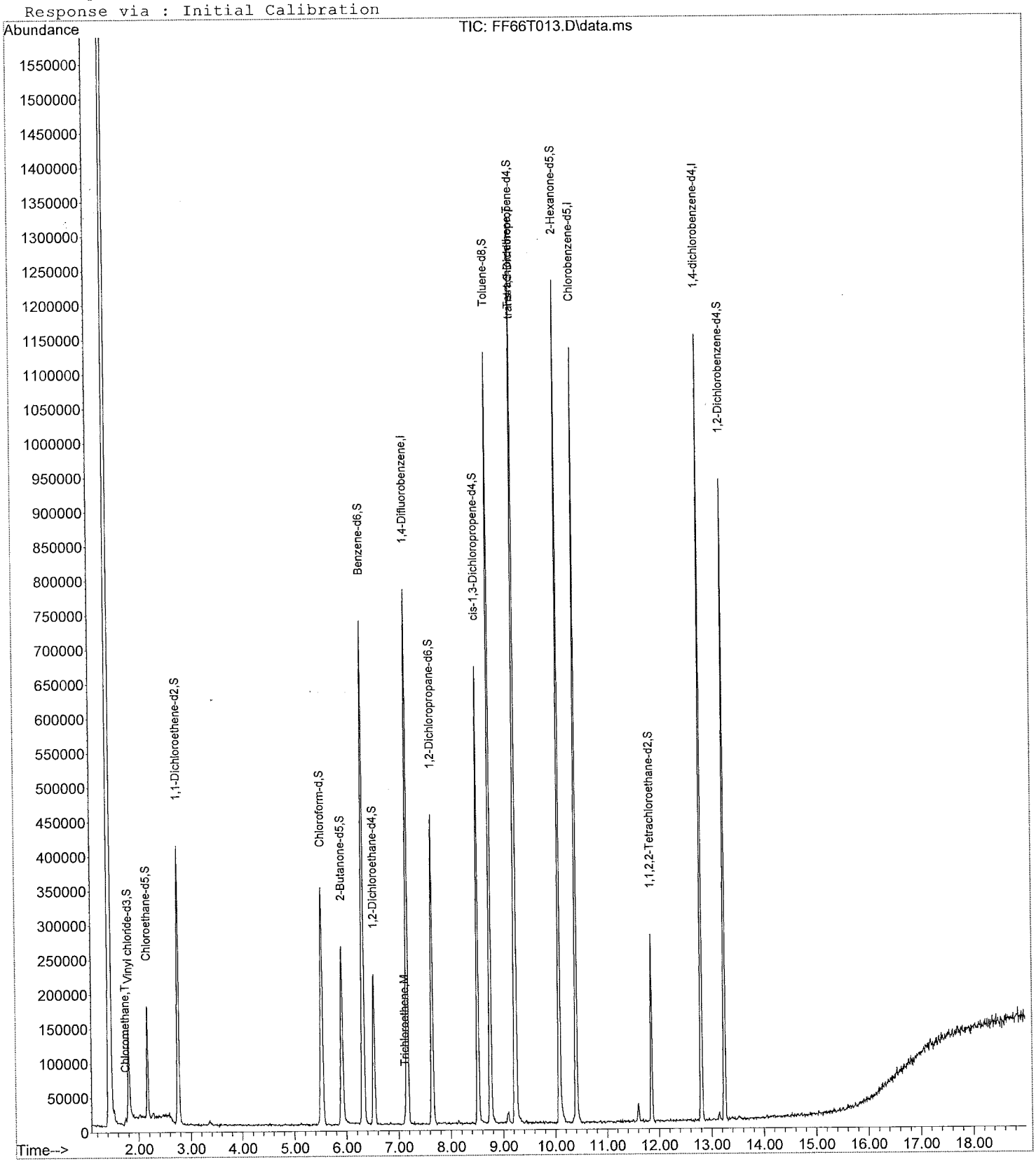
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF66T013.D Vial: 5
Acq Time : 03/07/2019 10:09 Operator: SLS
Sample : 1905930013DL 5P-MW101-159-YDL (4) Inst : 5975-F
Misc : 1905930 A 1:4 DILUTION Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:39:26 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF66T013.D Vial: 5
Acq Time : 03/07/2019 10:09 Operator: SLS
Sample : 1905930013DL 5P-MW101-159-YDL (4) Inst : 5975-F
Misc : 1905930 A 1:4 DILUTION Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:39:26 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	749571	5.00 ug/L	94.06
28) Chlorobenzene-d5	10.40	117	651320	5.00 ug/L	102.62
60) 1,4-dichlorobenzene-d4	12.81	152	311240	5.00 ug/L	87.76
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.81	65	186110	4.73 ug/L	94.51%
8) Chloroethane-d5	2.17	69	132535	4.75 ug/L	95.07%
11) 1,1-Dichloroethene-d2	2.76	63	343593	3.78 ug/L	75.59%
22) 2-Butanone-d5	5.91	46	496783	46.18 ug/L	92.37%
25) Chloroform-d	5.52	84	407320	4.77 ug/L	95.40%
27) 1,2-Dichloroethane-d4	6.52	65	203876	5.01 ug/L	100.27%
33) Benzene-d6	6.32	84	791685	4.95 ug/L	99.04%
37) 1,2-Dichloropropane-d6	7.65	67	199715	4.72 ug/L	94.49%
40) cis-1,3-Dichloropropene-d4	8.52	79	367811	4.95 ug/L	99.03%
42) trans-1,3-Dichloropropene-	9.25	79	214118	4.81 ug/L	96.16%
47) Toluene-d8	8.76	98	767719	5.26 ug/L	105.10%
50) 2-Hexanone-d5	10.08	63	396047	46.17 ug/L	92.35%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	125349	4.36 ug/L	87.20%
65) 1,2-Dichlorobenzene-d4	13.24	152	259116	4.90 ug/L	98.09%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.74	50	6428	0.1041 ug/L #	90
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	0.00	43		Not Detected	
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	7.12	130	4948	0.0900 ug/L #	1
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

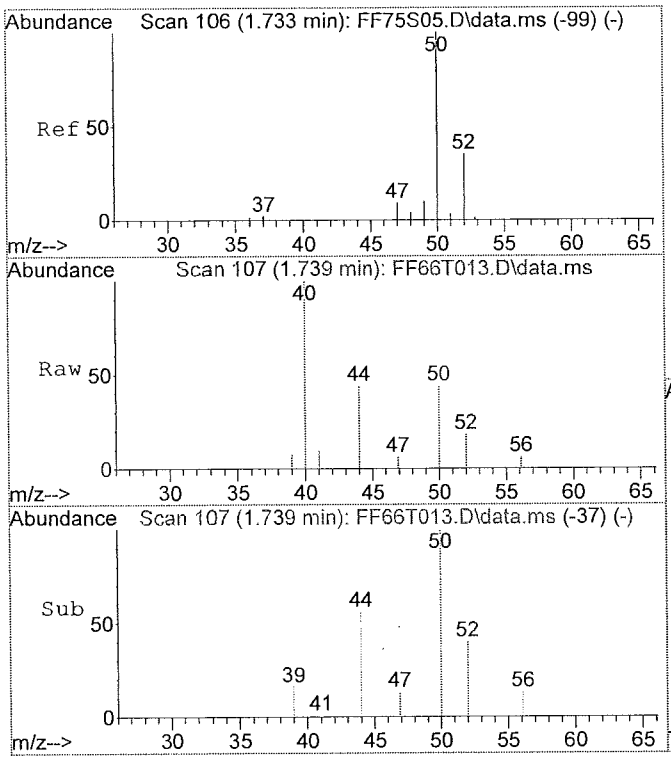
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF66T013.D Vial: 5
Acq Time : 03/07/2019 10:09 Operator: SLS
Sample : 1905930013DL 5P-MW101-159-YDL (4) Inst : 5975-F
Misc : 1905930 A 1:4 DILUTION Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:39:26 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	295845	7.1931 ug/L	98
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

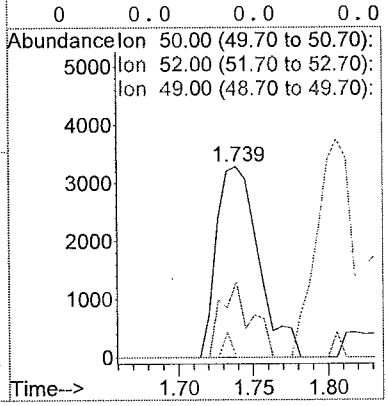
(#) = qualifier out of range (m) = manual integration

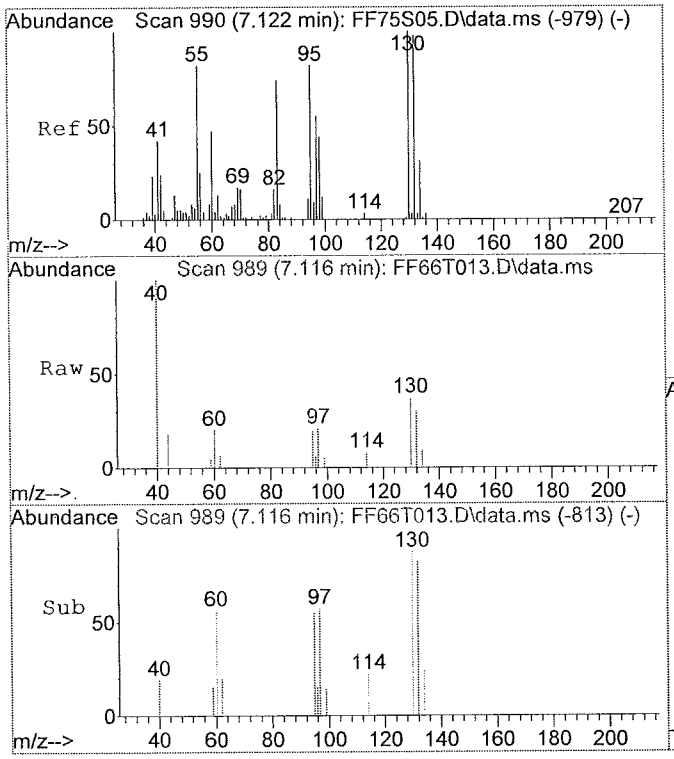


#3
Chloromethane
Concen: 0.10 ug/L
RT: 1.74 min Scan# 107
Delta R.T. 0.01 min
Lab File: FF66T013.D
Acq: 03/07/2019 10:09

Tgt Ion:50 Resp: 6428

Ion	Ratio	Lower	Upper
50	100		
52	28.7	11.1	51.1
49	0.0	0.0	30.0
0	0.0	0.0	0.0

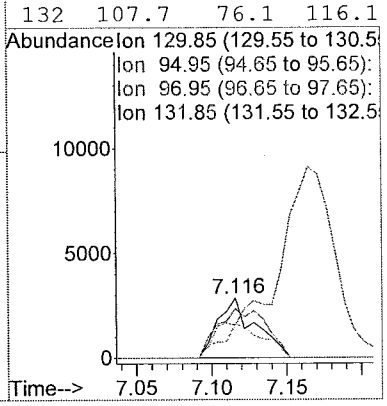


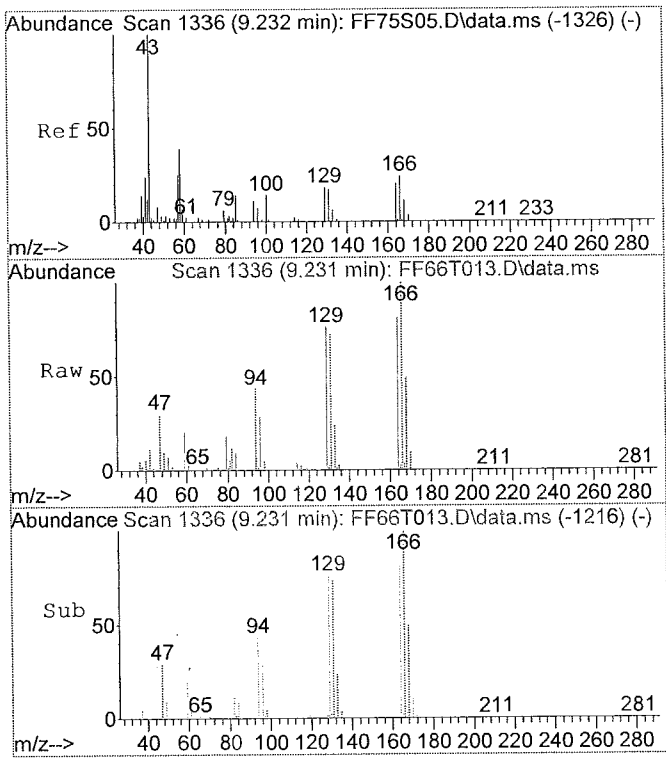


#34
Trichloroethene
Concen: 0.09 ug/L
RT: 7.12 min Scan# 989
Delta R.T. -0.01 min
Lab File: FF66T013.D
Acq: 03/07/2019 10:09

Tgt Ion:129.85 Resp: 4948

Ion	Ratio	Lower	Upper
130	100		
95	516.2	72.6	112.6#
97	62.3	39.3	79.3
132	107.7	76.1	116.1

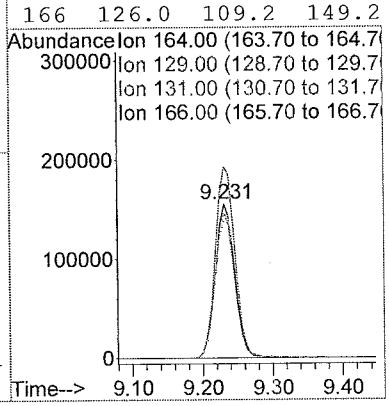




#48
Tetrachloroethene
Concen: 7.19 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. -0.00 min
Lab File: FF66T013.D
Acq: 03/07/2019 10:09

Tgt Ion:164 Resp: 295845

Ion	Ratio	Lower	Upper
164	100		
129	96.0	79.2	119.2
131	93.6	74.2	114.2
166	126.0	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW104-120

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930017
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF71T017
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	1.0	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.2	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.35	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.14	J
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW104-120

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930017
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF71T017
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	12.	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW104-120

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930017
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF71T017
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/07/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

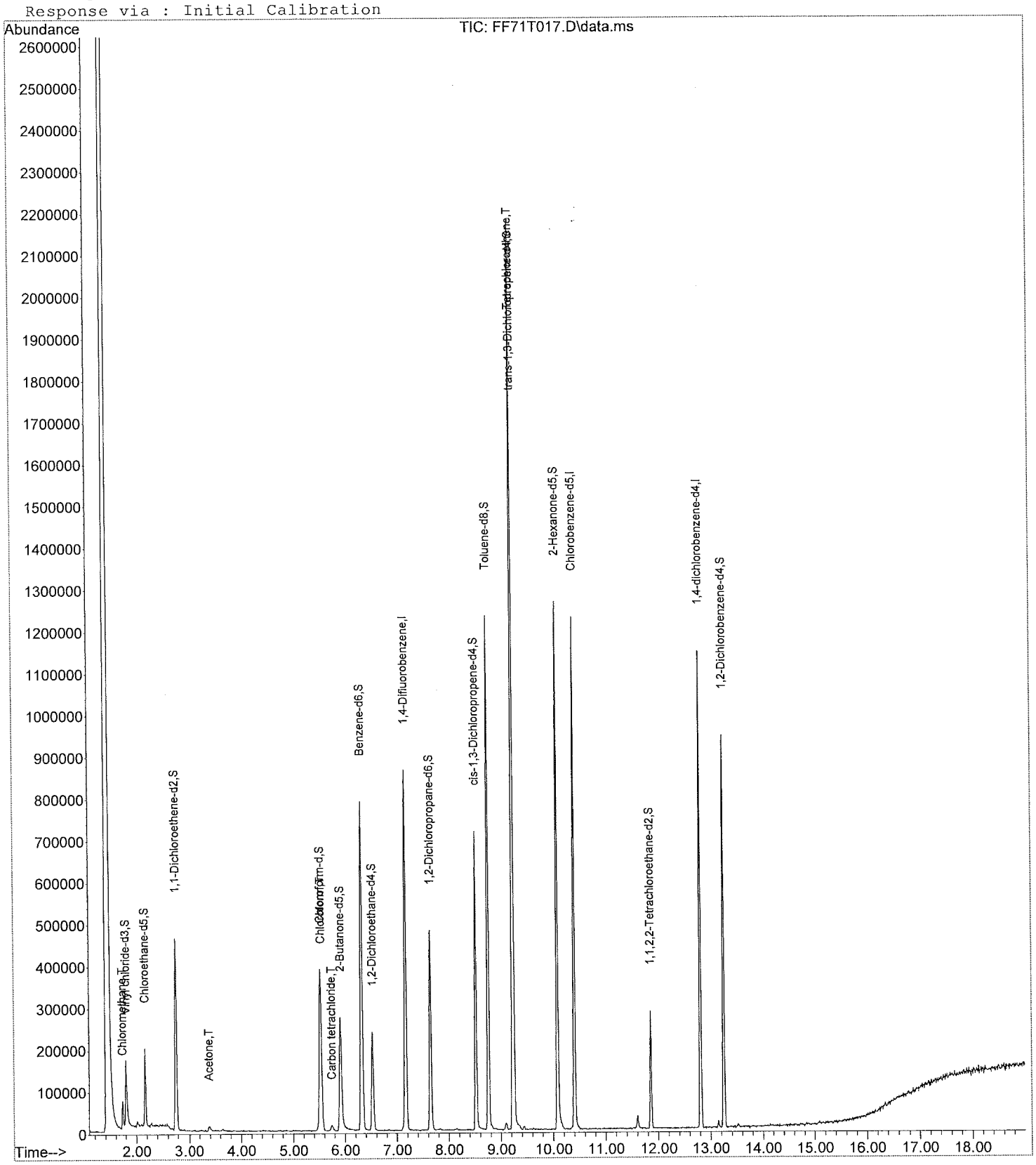
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF71T017.D Vial: 10
Acq Time : 03/07/2019 12:29 Operator: SLS
Sample : 1905930017 5P-MW104-120 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:23:36 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF71T017.D Vial: 10
Acq Time : 03/07/2019 12:29 Operator: SLS
Sample : 1905930017 5P-MW104-120 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:23:36 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	816631	5.00 ug/L	102.48
28) Chlorobenzene-d5	10.40	117	700972	5.00 ug/L	110.45
60) 1,4-dichlorobenzene-d4	12.81	152	327538	5.00 ug/L	92.35
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	207572	4.84 ug/L	96.75%
8) Chloroethane-d5	2.17	69	141029	4.64 ug/L	92.85%
11) 1,1-Dichloroethene-d2	2.76	63	376861	3.81 ug/L	76.10%
22) 2-Butanone-d5	5.91	46	559799	47.77 ug/L	95.54%
25) Chloroform-d	5.52	84	448618	4.82 ug/L	96.45%
27) 1,2-Dichloroethane-d4	6.52	65	218950	4.94 ug/L	98.84%
33) Benzene-d6	6.32	84	854785	4.97 ug/L	99.36%
37) 1,2-Dichloropropane-d6	7.65	67	212679	4.67 ug/L	93.50%
40) cis-1,3-Dichloropropene-d4	8.52	79	386859	4.84 ug/L	96.78%
42) trans-1,3-Dichloropropene-	9.25	79	228512	4.77 ug/L	95.35%
47) Toluene-d8	8.76	98	823960	5.24 ug/L	104.81%
50) 2-Hexanone-d5	10.08	63	423854	45.92 ug/L	91.83%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	129745	4.19 ug/L	83.87%
65) 1,2-Dichlorobenzene-d4	13.25	152	274413	4.94 ug/L	98.71%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	67149	0.9986 ug/L	96
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	27361	5.1985 ug/L	89
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	5.54	83	29511	0.3476 ug/L #	1
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	5.74	117	12813	0.1445 ug/L	96
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

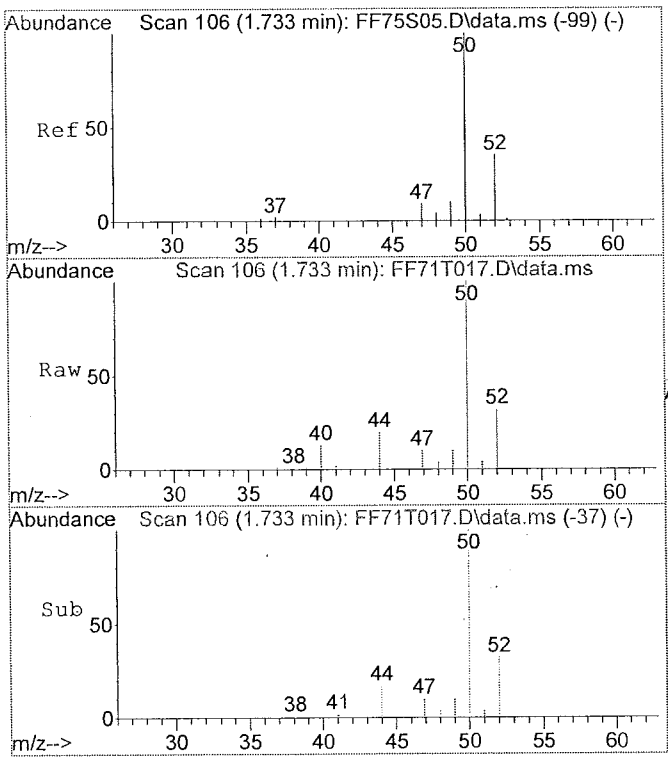
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF71T017.D Vial: 10
Acq Time : 03/07/2019 12:29 Operator: SLS
Sample : 1905930017 5P-MW104-120 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:23:36 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	513598	11.6029 ug/L	98
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

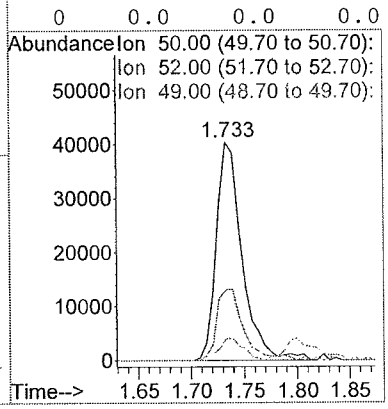
(#) = qualifier out of range (m) = manual integration

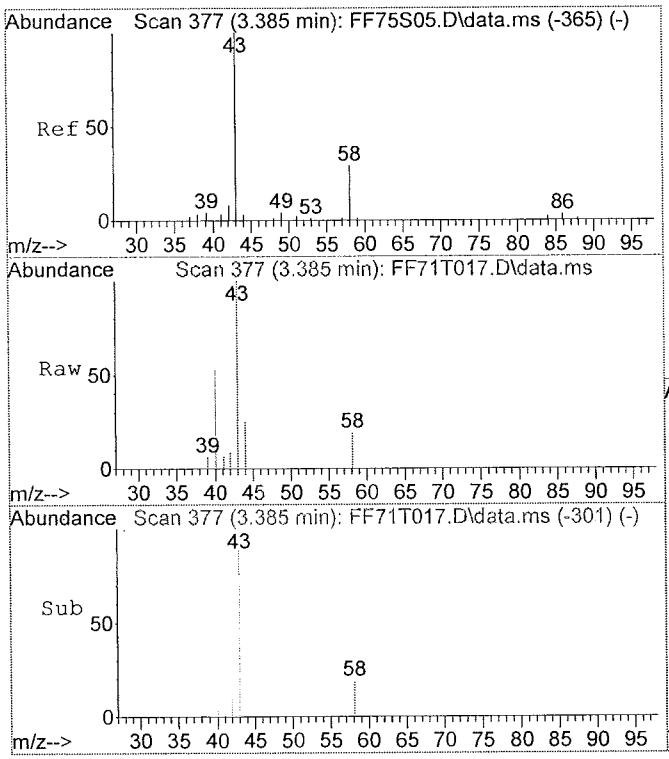


#3
Chloromethane
Concen: 1.00 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF71T017.D
Acq: 03/07/2019 12:29

Tgt Ion:50 Resp: 67149

Ion	Ratio	Lower	Upper
50	100		
52	34.1	11.1	51.1
49	9.4	0.0	30.0
0	0.0	0.0	0.0

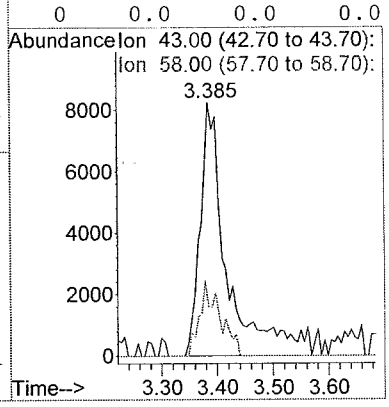


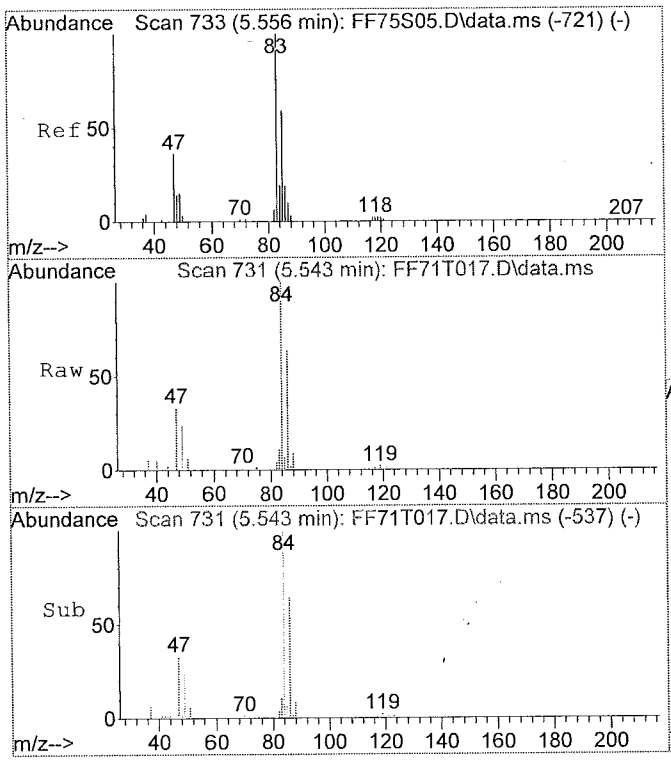


#13
Acetone
Concen: 5.20 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF71T017.D
Acq: 03/07/2019 12:29

Tgt Ion:43 Resp: 27361

Ion	Ratio	Lower	Upper
43	100		
58	22.7	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

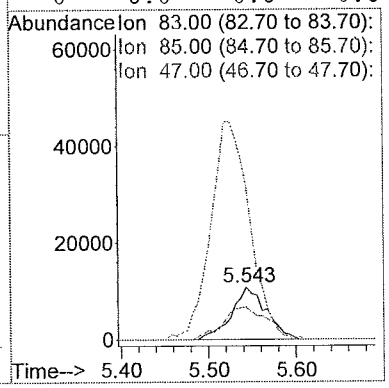


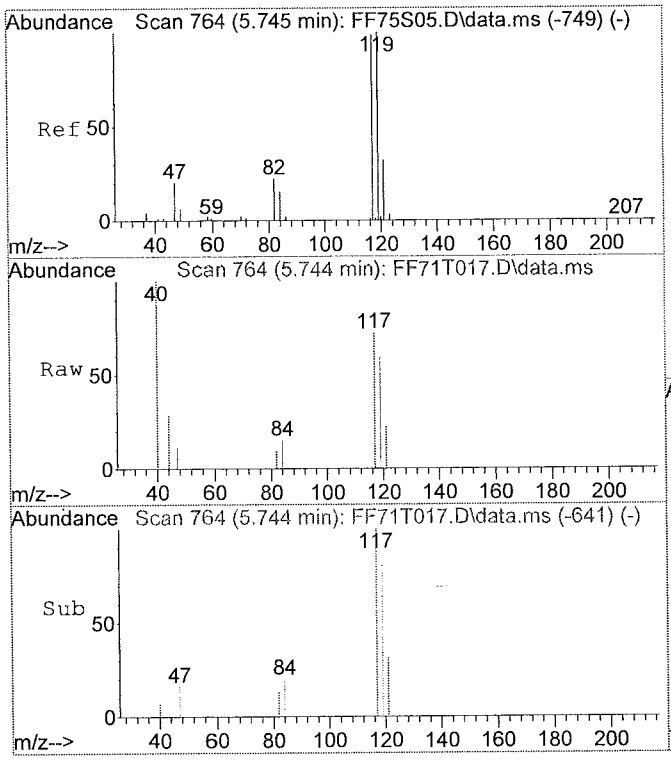


#24
Chloroform
Concen: 0.35 ug/L
RT: 5.54 min Scan# 731
Delta R.T. -0.01 min
Lab File: FF71T017.D
Acq: 03/07/2019 12:29

Tgt Ion:83 Resp: 29511

Ion	Ratio	Lower	Upper
83	100		
85	77.9	45.7	85.7
47	470.2	42.1	82.1#
0	0.0	0.0	0.0

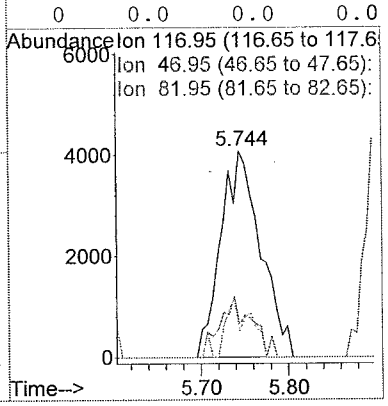


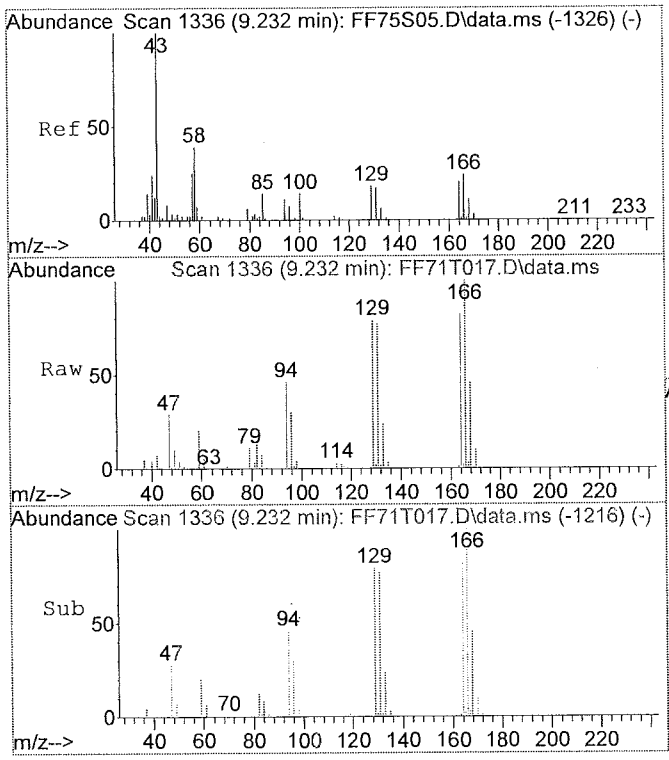


#31
Carbon tetrachloride
Concen: 0.14 ug/L
RT: 5.74 min Scan# 764
Delta R.T. 0.00 min
Lab File: FF71T017.D
Acq: 03/07/2019 12:29

Tgt Ion:116.95 Resp: 12813

Ion	Ratio	Lower	Upper
117	100		
47	23.6	1.9	41.9
82	18.5	0.5	40.5
0	0.0	0.0	0.0

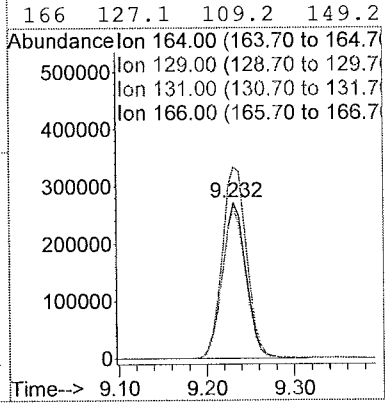




#48
Tetrachloroethene
Concen: 11.60 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF71T017.D
Acq: 03/07/2019 12:29

Tgt Ion:164 Resp: 513598

Ion	Ratio	Lower	Upper
164	100		
129	97.2	79.2	119.2
131	95.3	74.2	114.2
166	127.1	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW105-143

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930014
Lab File ID: FF67T014
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.42	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.8	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW105-143

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930014
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF67T014
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.9	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW105-143

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930014
Lab File ID: FF67T014
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/07/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

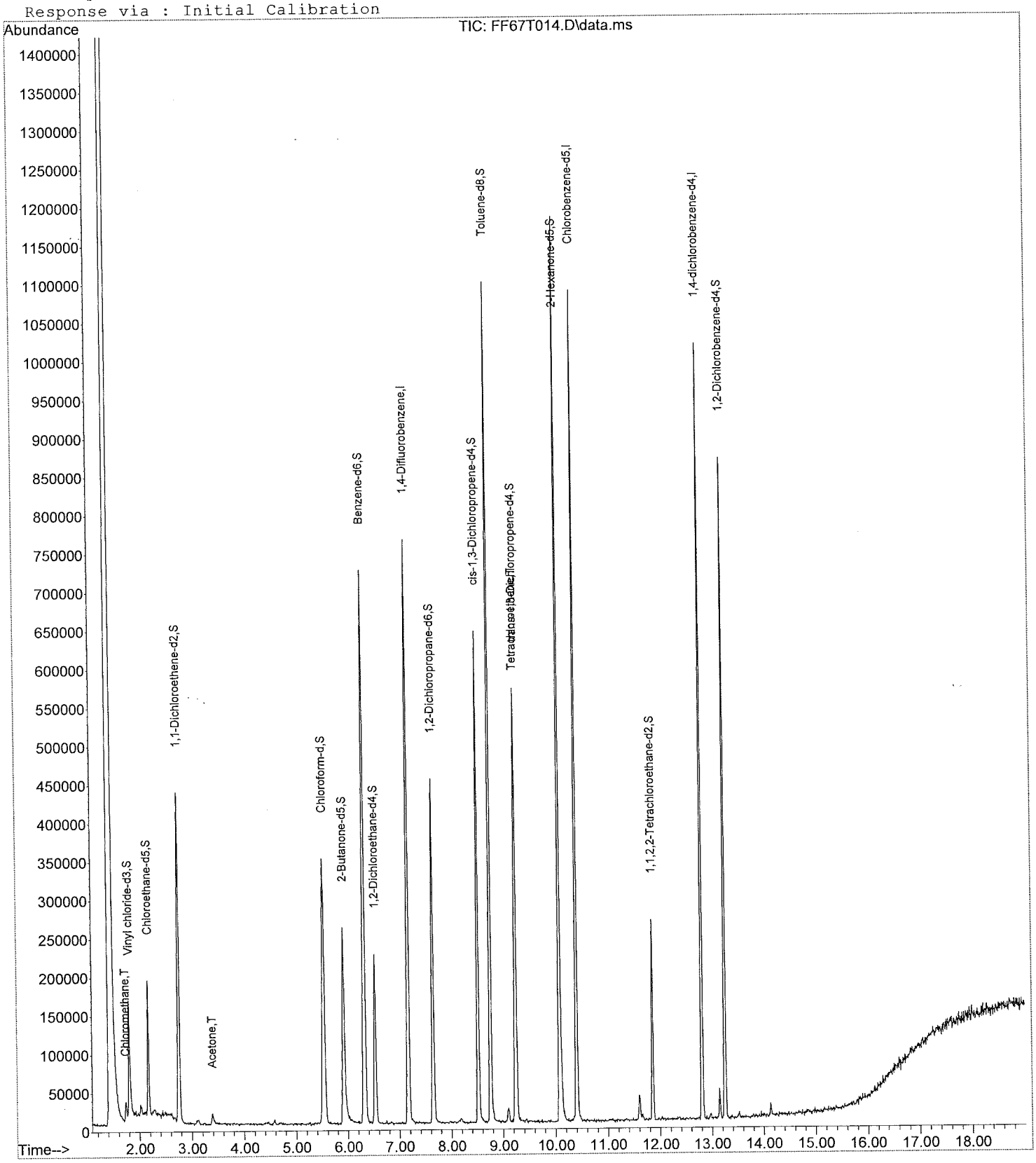
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF67T014.D Vial: 6
Acq Time : 03/07/2019 10:37 Operator: SLS
Sample : 1905930014 5P-MW105-143 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 11:10:20 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF67T014.D Vial: 6
Acq Time : 03/07/2019 10:37 Operator: SLS
Sample : 1905930014 5P-MW105-143 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 11:10:20 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	743870	5.00 ug/L	93.35
28) Chlorobenzene-d5	10.40	117	633880	5.00 ug/L	99.87
60) 1,4-dichlorobenzene-d4	12.81	152	292057	5.00 ug/L	82.35
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	188046	4.81 ug/L	96.22%
8) Chloroethane-d5	2.17	69	129940	4.70 ug/L	93.92%
11) 1,1-Dichloroethene-d2	2.76	63	350143	3.88 ug/L	77.63%
22) 2-Butanone-d5	5.92	46	539322	50.52 ug/L	101.05%
25) Chloroform-d	5.53	84	405996	4.79 ug/L	95.82%
27) 1,2-Dichloroethane-d4	6.53	65	207389	5.14 ug/L	102.78%
33) Benzene-d6	6.32	84	791073	5.08 ug/L	101.68%
37) 1,2-Dichloropropane-d6	7.65	67	201558	4.90 ug/L	97.99%
40) cis-1,3-Dichloropropene-d4	8.52	79	365761	5.06 ug/L	101.18%
42) trans-1,3-Dichloropropene-	9.25	79	213688	4.93 ug/L	98.60%
47) Toluene-d8	8.76	98	744193	5.23 ug/L	104.68%
50) 2-Hexanone-d5	10.08	63	394645	47.28 ug/L	94.55%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	119817	4.28 ug/L	85.65%
65) 1,2-Dichlorobenzene-d4	13.25	152	240704	4.86 ug/L	97.10%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	25543	0.4170 ug/L	95
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	27662	5.7698 ug/L	88
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

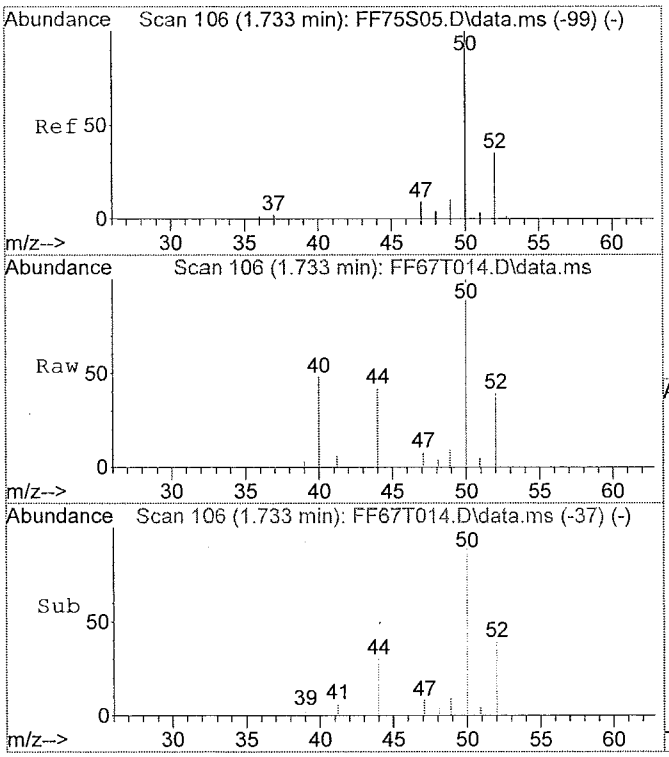
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF67T014.D Vial: 6
Acq Time : 03/07/2019 10:37 Operator: SLS
Sample : 1905930014 5P-MW105-143 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 11:10:20 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	77537	1.9371 ug/L	98
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

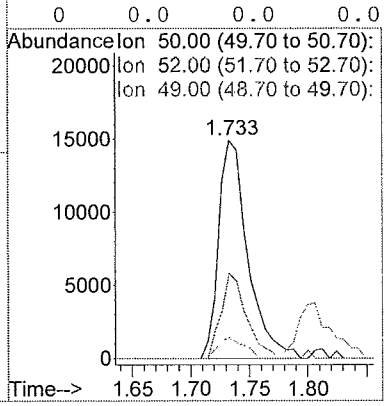
(#) = qualifier out of range (m) = manual integration

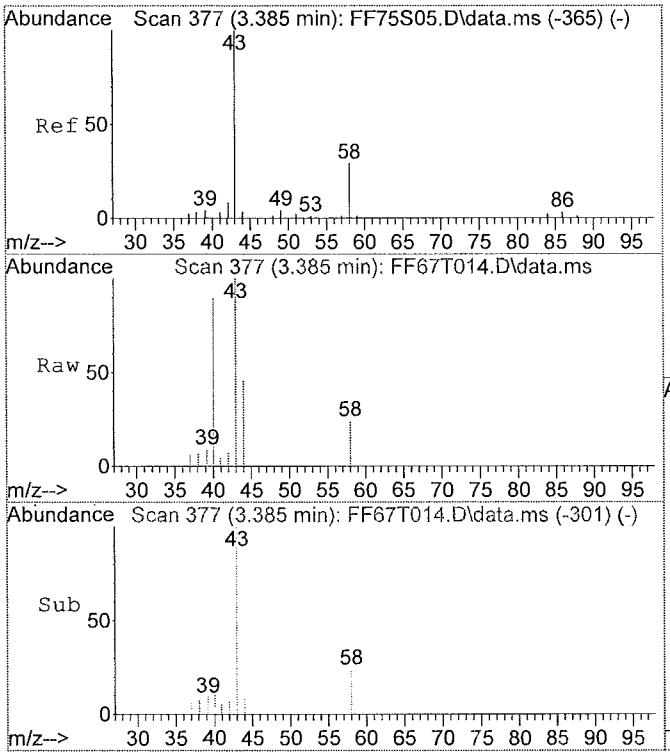


#3
Chloromethane
Concen: 0.42 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF67T014.D
Acq: 03/07/2019 10:37

Tgt Ion:50 Resp: 25543

Ion	Ratio	Lower	Upper
50	100		
52	33.9	11.1	51.1
49	8.4	0.0	30.0
0	0.0	0.0	0.0

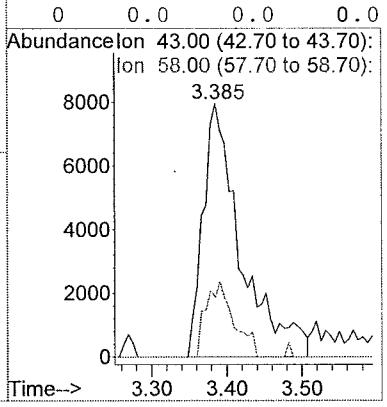


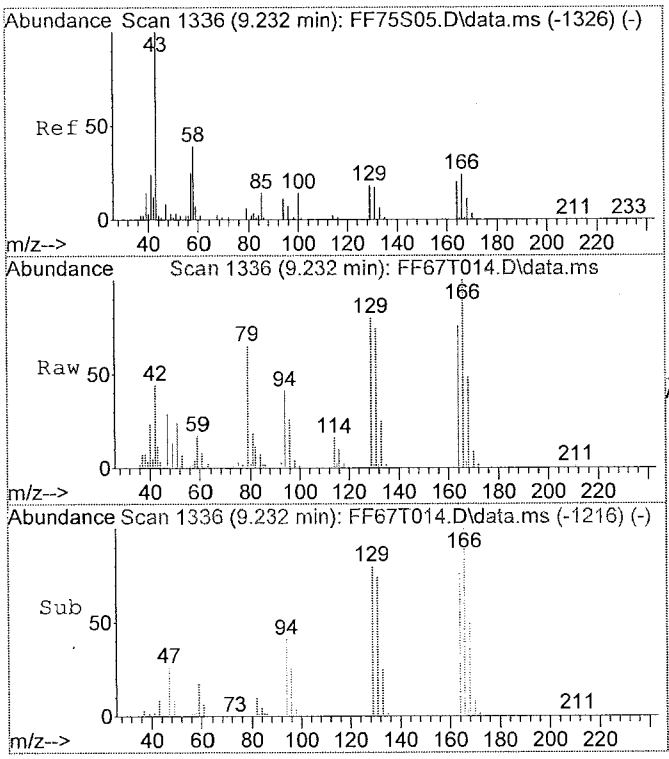


#13
Acetone
Concen: 5.77 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF67T014.D
Acq: 03/07/2019 10:37

Tgt Ion:43 Resp: 27662

Ion	Ratio	Lower	Upper
43	100		
58	21.9	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

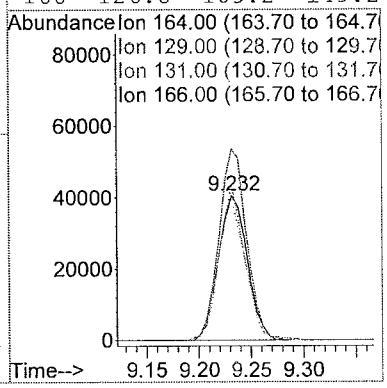




#48
Tetrachloroethene
Concen: 1.94 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF67T014.D
Acq: 03/07/2019 10:37

Tgt Ion:164 Resp: 77537

Ion	Ratio	Lower	Upper
164	100		
129	97.0	79.2	119.2
131	92.1	74.2	114.2
166	126.8	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW106D-195

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930005
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF53T005
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.19	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	4.1	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW106D-195

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930005
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF53T005
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.1	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW106D-195

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930005
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF53T005
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

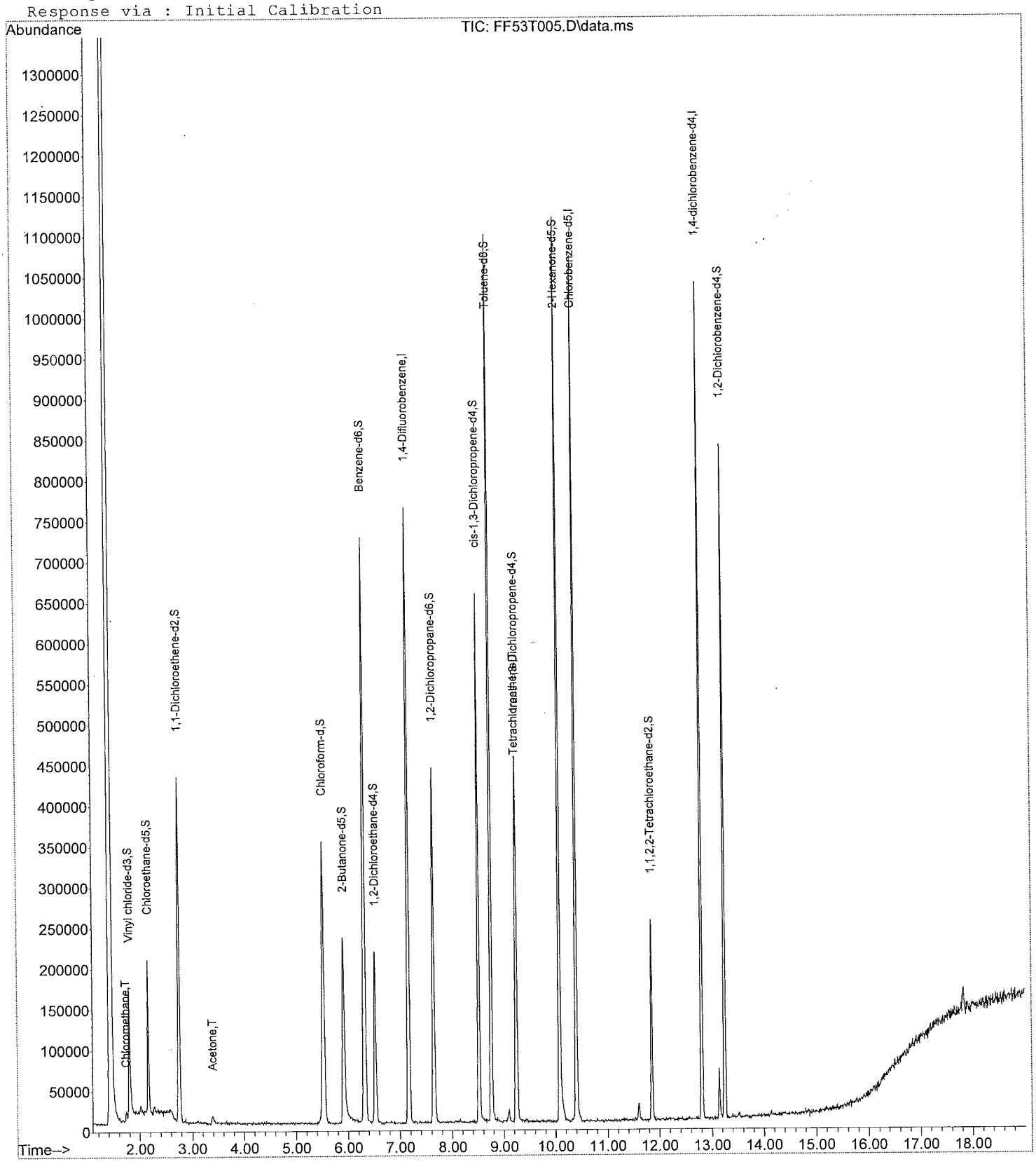
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF53T005.D Vial: 7
Acq Time : 03/06/2019 11:17 Operator: SLS
Sample : 1905930005 5P-MW106D-195 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 11:39:01 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00077

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF53T005.D Vial: 7
Acq Time : 03/06/2019 11:17 Operator: SLS
Sample : 1905930005 5P-MW106D-195 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 11:39:01 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	729551	5.00 ug/L	91.55
28) Chlorobenzene-d5	10.40	117	615694	5.00 ug/L	97.01
60) 1,4-dichlorobenzene-d4	12.81	152	278612	5.00 ug/L	78.56
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	199554	5.21 ug/L	104.11%
8) Chloroethane-d5	2.17	69	134843	4.97 ug/L	99.38%
11) 1,1-Dichloroethene-d2	2.76	63	347517	3.93 ug/L	78.56%
22) 2-Butanone-d5	5.92	46	515181	49.21 ug/L	98.42%
25) Chloroform-d	5.52	84	403008	4.85 ug/L	96.98%
27) 1,2-Dichloroethane-d4	6.53	65	197764	5.00 ug/L	99.93%
33) Benzene-d6	6.32	84	776958	5.14 ug/L	102.82%
37) 1,2-Dichloropropane-d6	7.65	67	196433	4.92 ug/L	98.32%
40) cis-1,3-Dichloropropene-d4	8.52	79	357298	5.09 ug/L	101.76%
42) trans-1,3-Dichloropropene-	9.25	79	209879	4.99 ug/L	99.71%
47) Toluene-d8	8.76	98	731795	5.30 ug/L	105.98%
50) 2-Hexanone-d5	10.08	63	382134	47.13 ug/L	94.26%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	119732	4.41 ug/L	88.12%
65) 1,2-Dichlorobenzene-d4	13.25	152	236175	4.99 ug/L	99.87%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	11676	0.1944 ug/L	98
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.40	43	19282	4.1008 ug/L	90
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

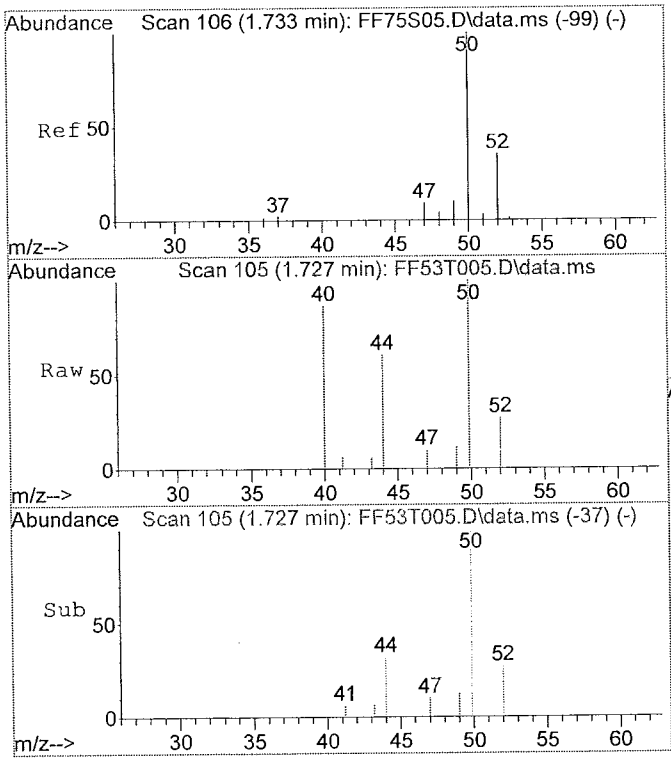
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF53T005.D Vial: 7
Acq Time : 03/06/2019 11:17 Operator: SLS
Sample : 1905930005 5P-MW106D-195 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 11:39:01 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	42735	1.0992 ug/L	98
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

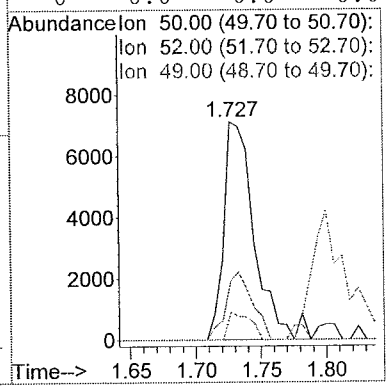
(#) = qualifier out of range (m) = manual integration

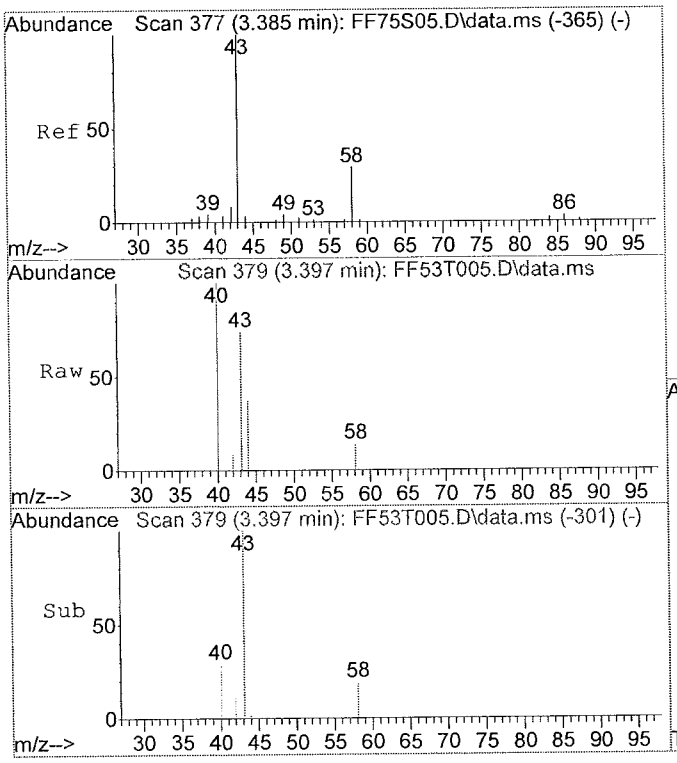


#3
Chloromethane
Concen: 0.19 ug/L
RT: 1.73 min Scan# 105
Delta R.T. -0.01 min
Lab File: FF53T005.D
Acq: 03/06/2019 11:17

Tgt Ion:50 Resp: 11676

Ion	Ratio	Lower	Upper
50	100		
52	30.0	11.1	51.1
49	9.1	0.0	30.0
0	0.0	0.0	0.0

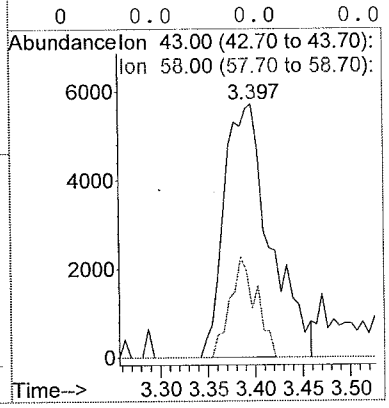


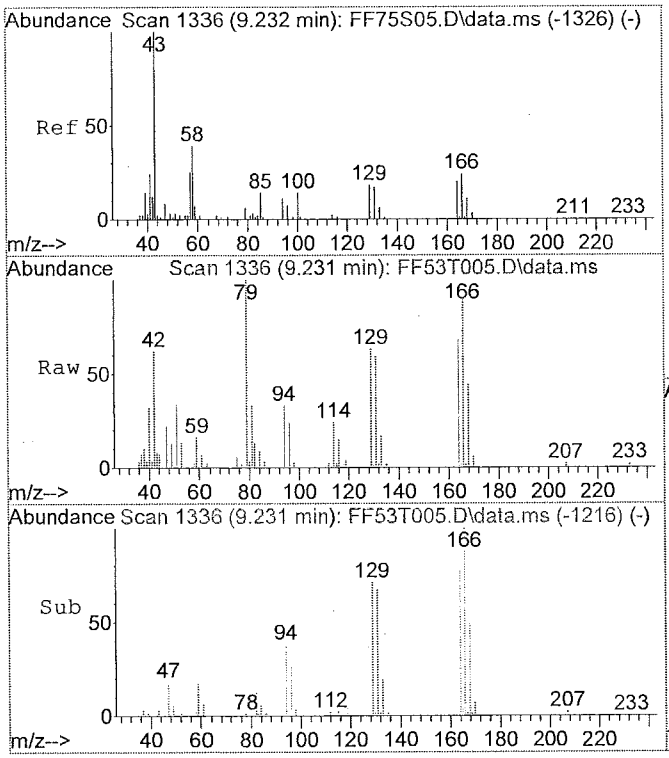


#13
Acetone
Concen: 4.10 ug/L
RT: 3.40 min Scan# 379
Delta R.T. 0.01 min
Lab File: FF53T005.D
Acq: 03/06/2019 11:17

Tgt Ion:43 Resp: 19282

Ion	Ratio	Lower	Upper
43	100		
58	22.8	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

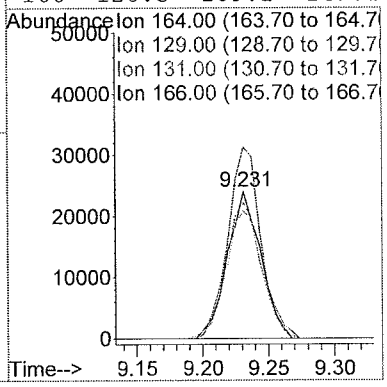




#48
Tetrachloroethene
Concen: 1.10 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF53T005.D
Acq: 03/06/2019 11:17

Tgt Ion:164 Resp: 42735

Ion	Ratio	Lower	Upper
164	100		
129	95.2	79.2	119.2
131	92.7	74.2	114.2
166	128.3	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW106I-145

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930004
Lab File ID: FF52T004
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.38	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	2.4	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.12	J
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW106I-145

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930004
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF52T004
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	3.4	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW106I-145

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930004
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF52T004
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

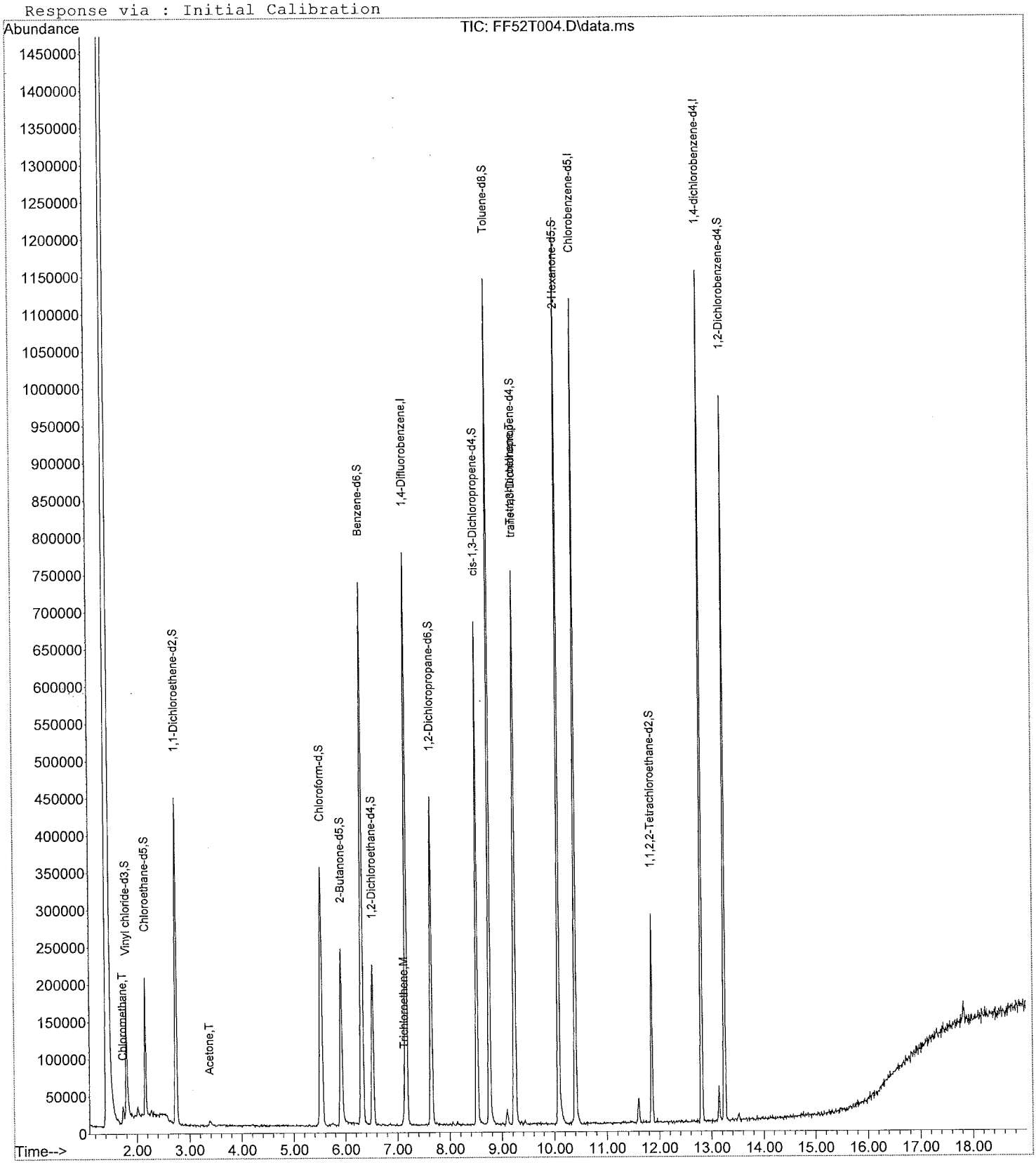
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF52T004.D Vial: 6
Acq Time : 03/06/2019 10:49 Operator: SLS
Sample : 1905930004 5P-MW106I-145 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 11:25:16 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00085

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF52T004.D Vial: 6
Acq Time : 03/06/2019 10:49 Operator: SLS
Sample : 1905930004 5P-MW106I-145 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 11:25:16 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	753988	5.00 ug/L	94.62
28) Chlorobenzene-d5	10.40	117	641493	5.00 ug/L	101.07
60) 1,4-dichlorobenzene-d4	12.80	152	325585	5.00 ug/L	91.80
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.79	65	202345	5.11 ug/L	102.15%
8) Chloroethane-d5	2.17	69	136340	4.86 ug/L	97.22%
11) 1,1-Dichloroethene-d2	2.76	63	358667	3.92 ug/L	78.45%
22) 2-Butanone-d5	5.92	46	480428	44.40 ug/L	88.80%
25) Chloroform-d	5.52	84	410816	4.78 ug/L	95.66%
27) 1,2-Dichloroethane-d4	6.52	65	210532	5.15 ug/L	102.93%
33) Benzene-d6	6.32	84	793439	5.04 ug/L	100.78%
37) 1,2-Dichloropropane-d6	7.65	67	198789	4.77 ug/L	95.49%
40) cis-1,3-Dichloropropene-d4	8.52	79	374737	5.12 ug/L	102.44%
42) trans-1,3-Dichloropropene-	9.25	79	218724	4.99 ug/L	99.73%
47) Toluene-d8	8.76	98	761005	5.29 ug/L	105.78%
50) 2-Hexanone-d5	10.08	63	407531	48.24 ug/L	96.48%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	131888	4.66 ug/L	93.16%
65) 1,2-Dichlorobenzene-d4	13.25	152	274628	4.97 ug/L	99.38%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	23323	0.3757 ug/L	98
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.38	43	11723	2.4124 ug/L	95
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	7.12	130	6462	0.1193 ug/L #	1
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

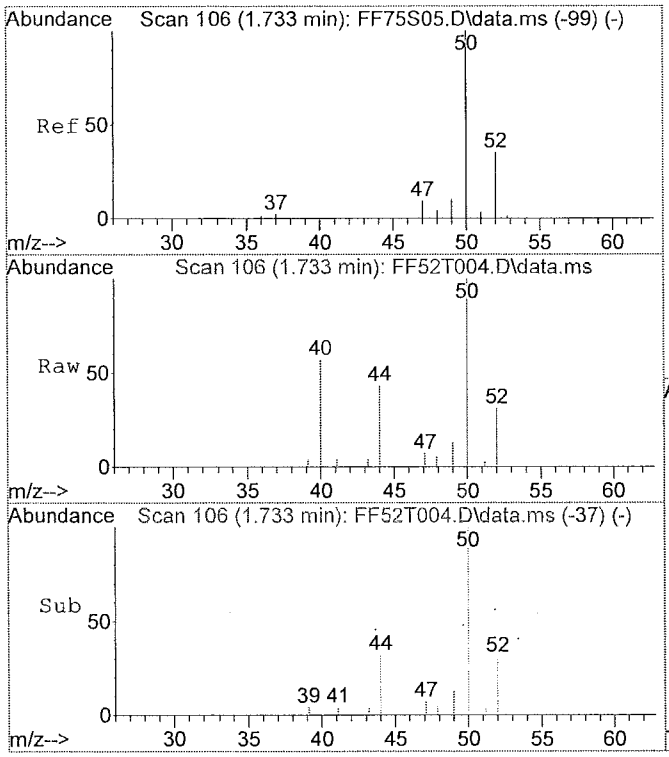
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF52T004.D Vial: 6
Acq Time : 03/06/2019 10:49 Operator: SLS
Sample : 1905930004 5P-MW106I-145 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 11:25:16 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	137062	3.3835 ug/L	97
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

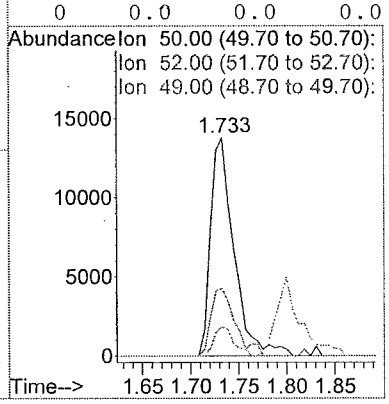
(#) = qualifier out of range (m) = manual integration

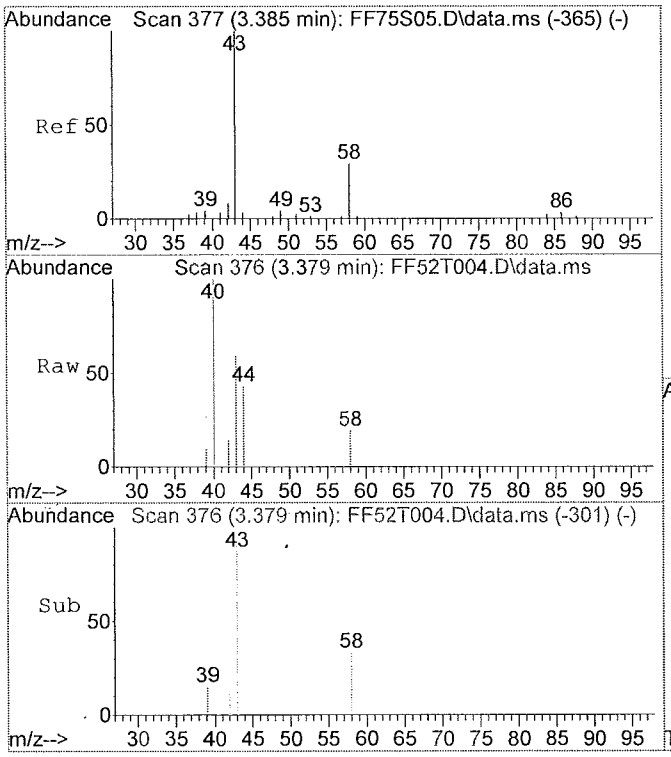


#3
Chloromethane
Concen: 0.38 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF52T004.D
Acq: 03/06/2019 10:49

Tgt Ion:50 Resp: 23323

Ion	Ratio	Lower	Upper
50	100		
52	32.0	11.1	51.1
49	11.2	0.0	30.0
0	0.0	0.0	0.0

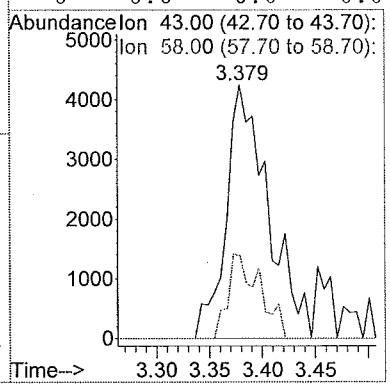


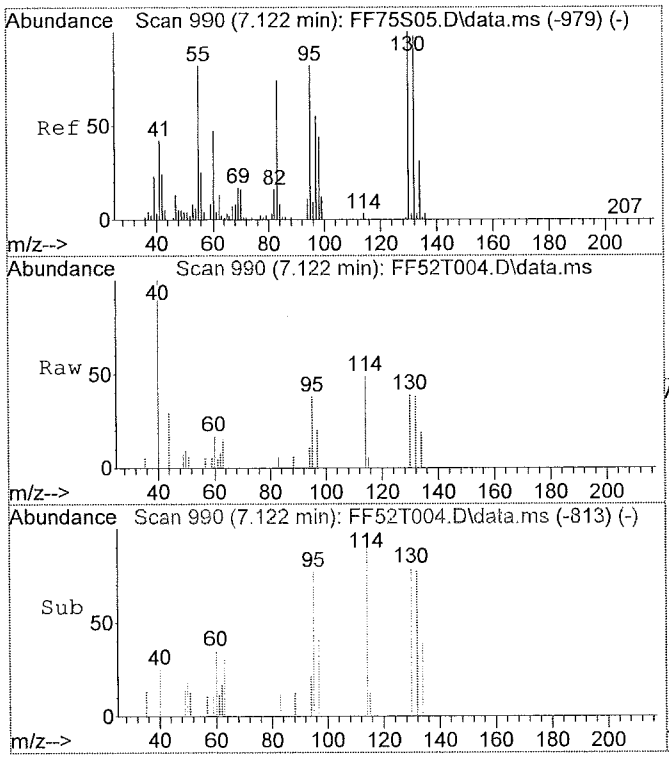


#13
Acetone
Concen: 2.41 ug/L
RT: 3.38 min Scan# 376
Delta R.T. -0.01 min
Lab File: FF52T004.D
Acq: 03/06/2019 10:49

Tgt Ion:43 Resp: 11723

Ion	Ratio	Lower	Upper
43	100		
58	25.4	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

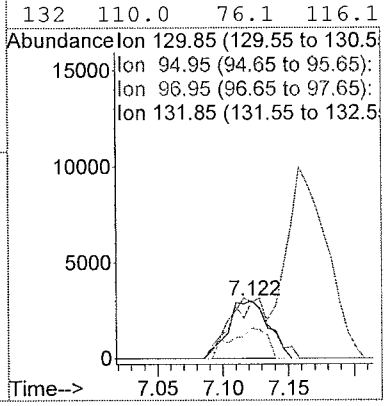


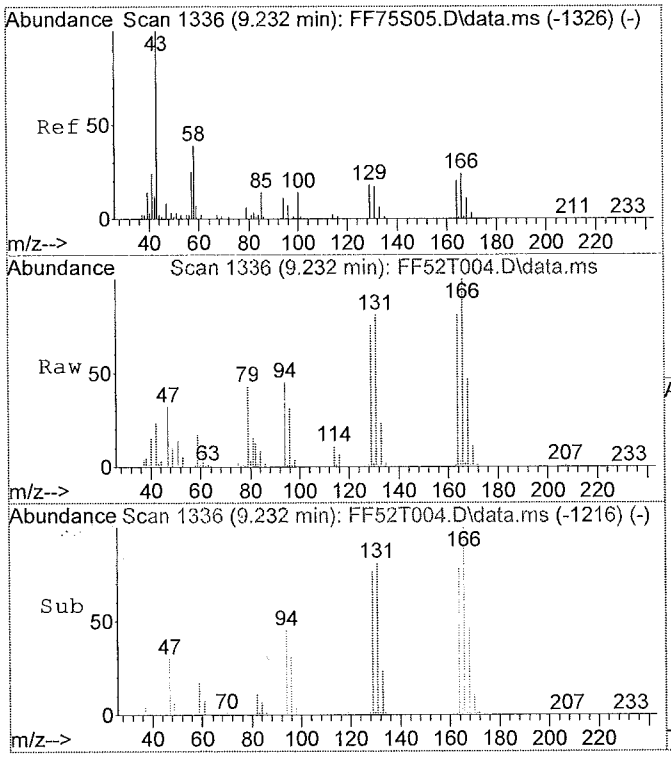


#34
Trichloroethene
Concen: 0.12 ug/L
RT: 7.12 min Scan# 990
Delta R.T. 0.00 min
Lab File: FF52T004.D
Acq: 03/06/2019 10:49

Tgt Ion:129.85 Resp: 6462

Ion	Ratio	Lower	Upper
130	100		
95	417.8	72.6	112.6#
97	47.2	39.3	79.3
132	110.0	76.1	116.1

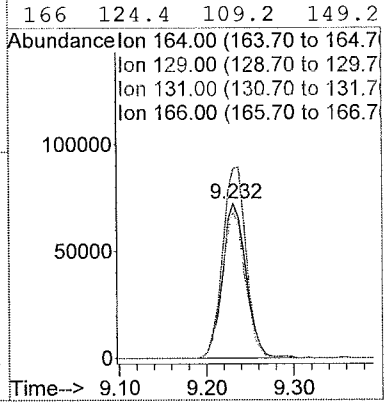




#48
Tetrachloroethene
Concen: 3.38 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF52T004.D
Acq: 03/06/2019 10:49

Tgt Ion:164 Resp: 137062

Ion	Ratio	Lower	Upper
164	100		
129	95.0	79.2	119.2
131	93.4	74.2	114.2
166	124.4	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW107D-200

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930003
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF51T003
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.97	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	15.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW107D-200

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930003
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF51T003
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.44	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW107D-200

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930003
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF51T003
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01		Unknown 1-Hexanol, 2-ethyl-	13.14	0.79	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

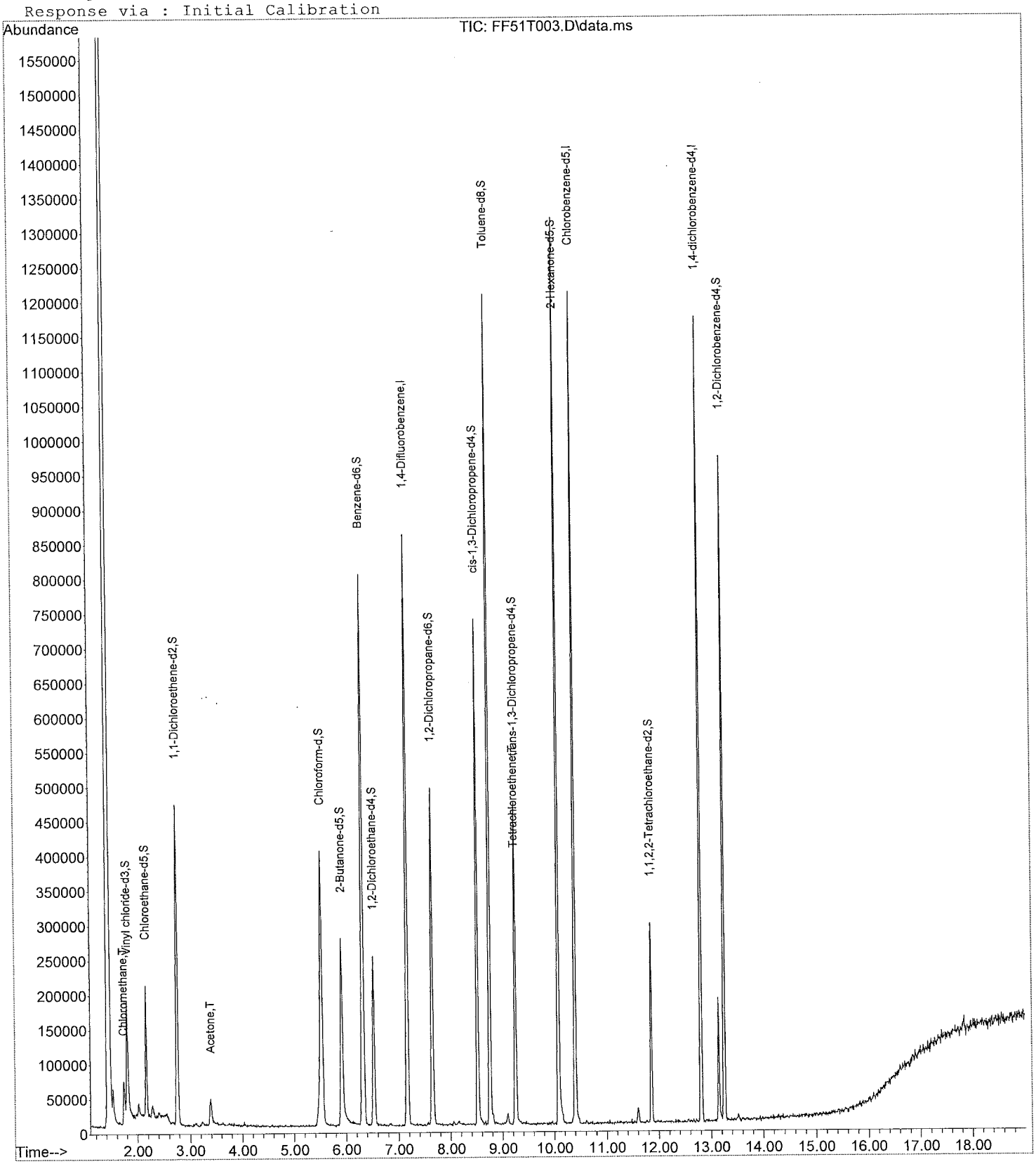
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF51T003.D Vial: 5
Acq Time : 03/06/2019 10:21 Operator: SLS
Sample : 1905930003 5P-MW107D-200 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:58:17 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF51T003.D Vial: 5
Acq Time : 03/06/2019 10:21 Operator: SLS
Sample : 1905930003 5P-MW107D-200 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:58:17 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	803042	5.00 ug/L	100.78
28) Chlorobenzene-d5	10.40	117	678153	5.00 ug/L	106.85
60) 1,4-dichlorobenzene-d4	12.81	152	330606	5.00 ug/L	93.22
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	218769	5.18 ug/L	103.69%
8) Chloroethane-d5	2.17	69	148165	4.96 ug/L	99.20%
11) 1,1-Dichloroethene-d2	2.76	63	389544	4.00 ug/L	80.00%
22) 2-Butanone-d5	5.91	46	580721	50.39 ug/L	100.79%
25) Chloroform-d	5.53	84	445975	4.88 ug/L	97.50%
27) 1,2-Dichloroethane-d4	6.52	65	230368	5.29 ug/L	105.75%
33) Benzene-d6	6.32	84	862217	5.18 ug/L	103.59%
37) 1,2-Dichloropropane-d6	7.65	67	214027	4.86 ug/L	97.26%
40) cis-1,3-Dichloropropene-d4	8.52	79	405281	5.24 ug/L	104.80%
42) trans-1,3-Dichloropropene-	9.25	79	234642	5.06 ug/L	101.20%
47) Toluene-d8	8.76	98	807469	5.31 ug/L	106.17%
50) 2-Hexanone-d5	10.08	63	439639	49.23 ug/L	98.46%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	138709	4.63 ug/L	92.68%
65) 1,2-Dichlorobenzene-d4	13.25	152	275493	4.91 ug/L	98.18%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	64174	0.9705 ug/L	96
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	79810	15.4203 ug/L	92
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

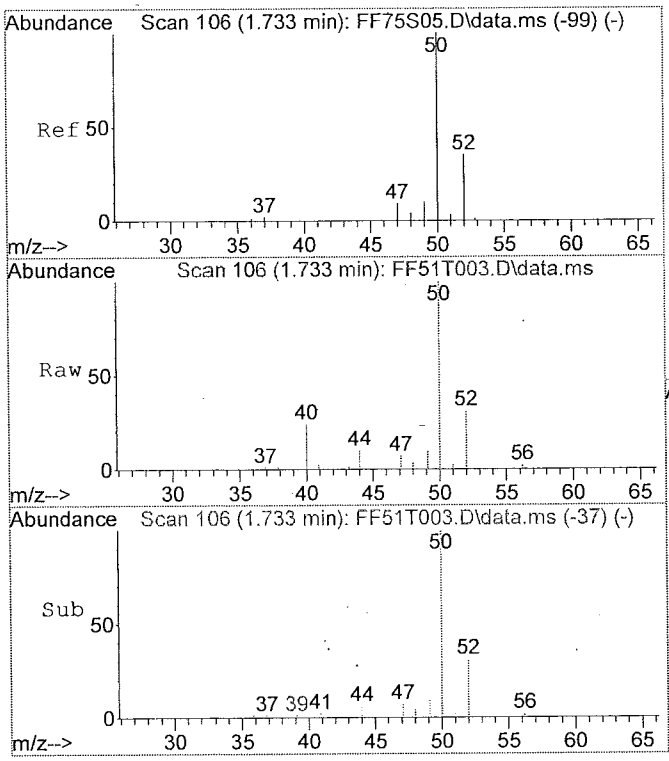
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF51T003.D Vial: 5
Acq Time : 03/06/2019 10:21 Operator: SLS
Sample : 1905930003 5P-MW107D-200 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:58:17 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	18797	0.4389 ug/L	93
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

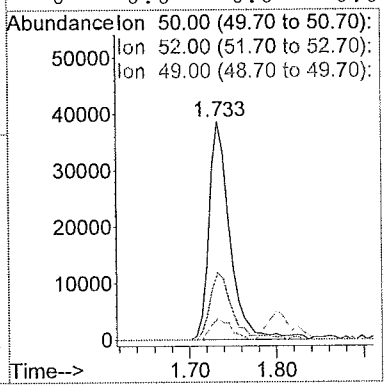
(#) = qualifier out of range (m) = manual integration

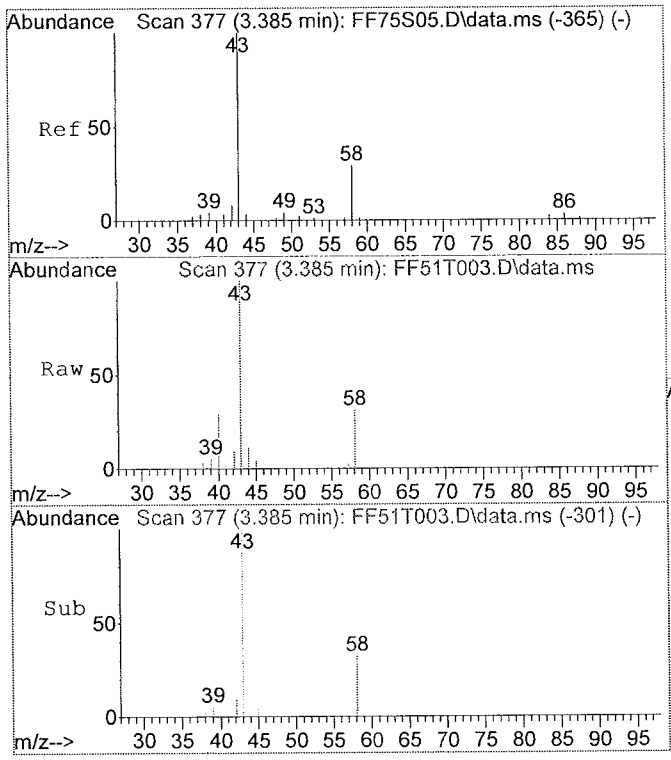


#3
Chloromethane
Concen: 0.97 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF51T003.D
Acq: 03/06/2019 10:21

Tgt Ion:50 Resp: 64174

Ion	Ratio	Lower	Upper
50	100		
52	33.5	11.1	51.1
49	9.4	0.0	30.0
0	0.0	0.0	0.0

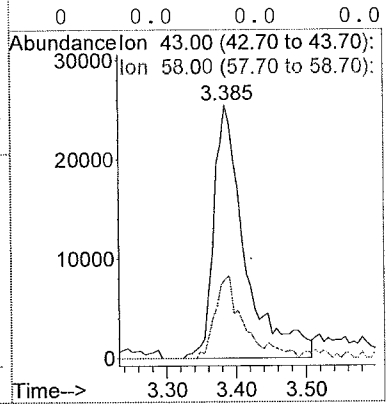


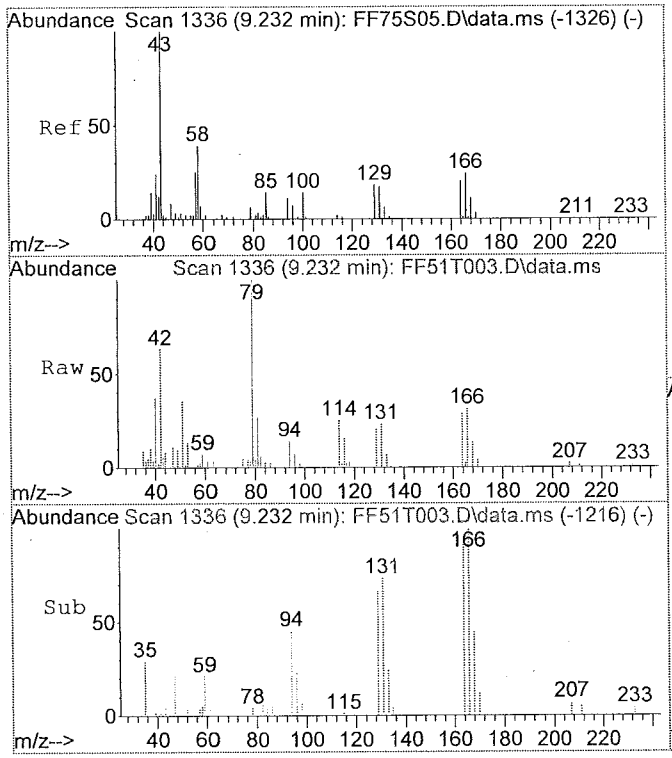


#13
Acetone
Concen: 15.42 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF51T003.D
Acq: 03/06/2019 10:21

Tgt Ion:43 Resp: 79810

Ion	Ratio	Lower	Upper
43	100		
58	32.3	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

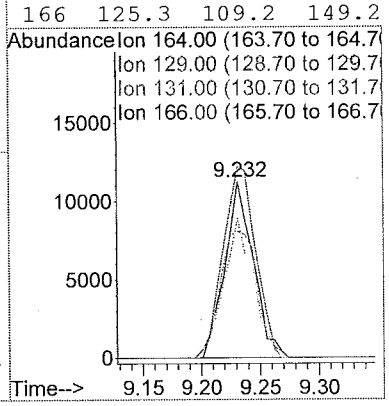




#48
Tetrachloroethene
Concen: 0.44 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF51T003.D
Acq: 03/06/2019 10:21

Tgt Ion:164 Resp: 18797

Ion	Ratio	Lower	Upper
164	100		
129	92.0	79.2	119.2
131	82.4	74.2	114.2
166	125.3	109.2	149.2



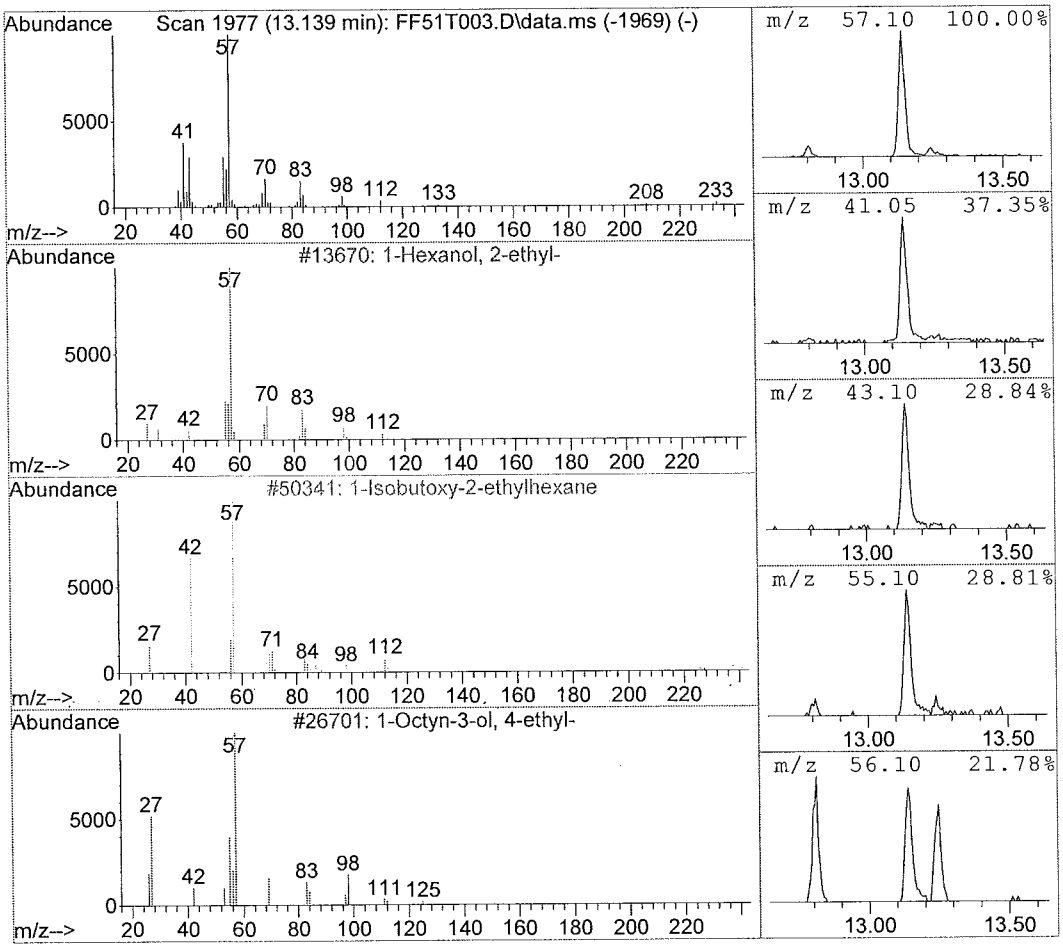
Library Search Compound Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF51T003.D Vial: 5
Acq Time : 03/06/2019 10:21 Operator: SLS
Sample : 1905930003 5P-MW107D-200 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Library : C:\Database\NIST11.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.14	0.79 ug/L	312511	1,4-dichlorobenzene-d4	1982108

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13670	000104-76-7	78.00
2	1-Isobutoxy-2-ethylhexane	50341	1000139-90-3	72.00
3	1-Octyn-3-ol, 4-ethyl-	26701	005877-42-9	59.00
4	2-Propyl-1-pentanol	13668	058175-57-8	59.00
5	Decyl isobutyl carbonate	109129	959226-07-4	56.00



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW107I-145

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930002
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF50T002
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.18	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	26.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW107I-145

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930002
Lab File ID: FF50T002
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.35	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW107I-145

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930002
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF50T002
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

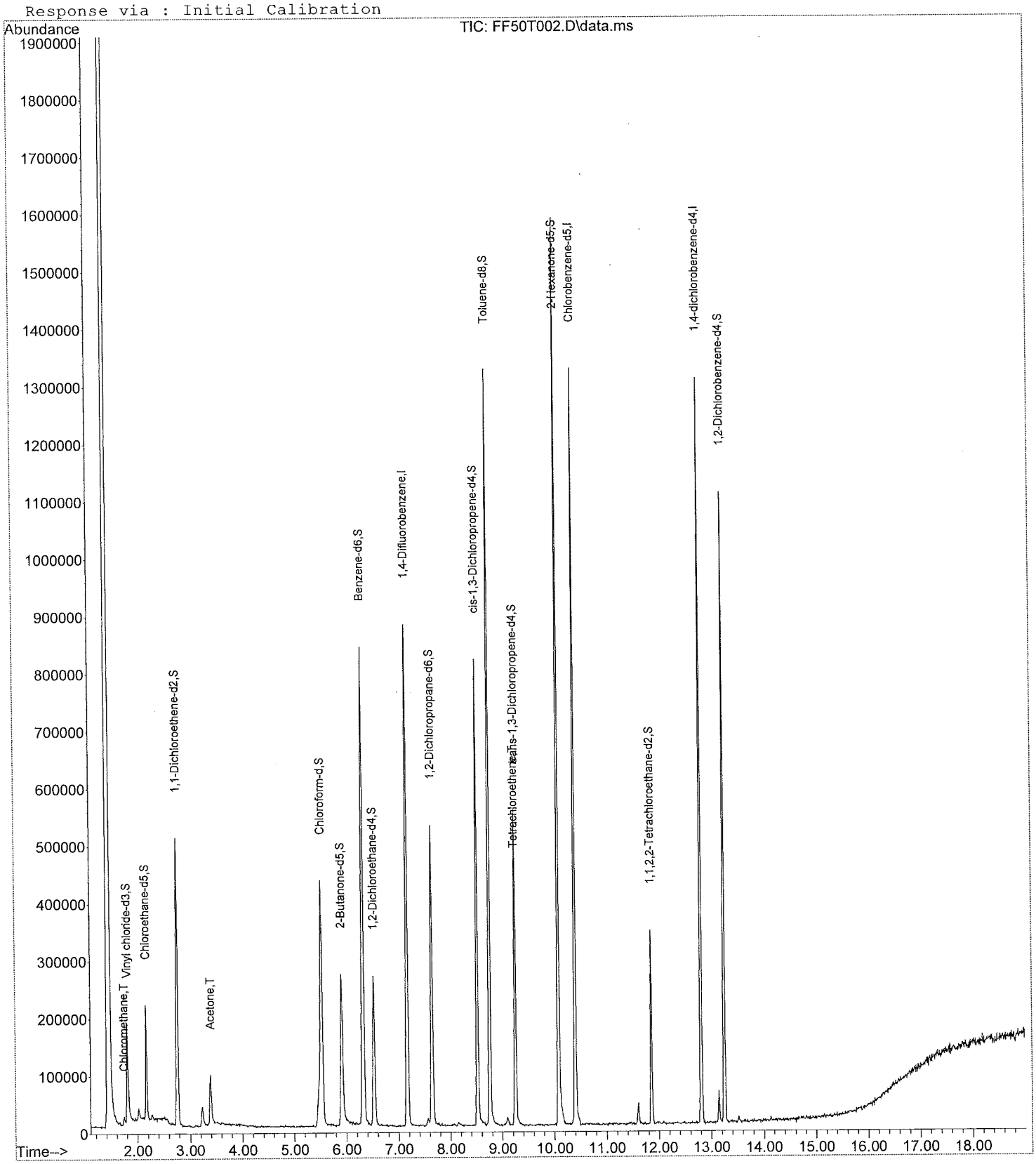
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF50T002.D Vial: 4
Acq Time : 03/06/2019 09:53 Operator: SLS
Sample : 1905930002 5P-MW107I-145 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:31:24 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF50T002.D Vial: 4
Acq Time : 03/06/2019 09:53 Operator: SLS
Sample : 1905930002 5P-MW107I-145 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:31:24 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	863776	5.00 ug/L	108.40
28) Chlorobenzene-d5	10.40	117	777522	5.00 ug/L	122.51
60) 1,4-dichlorobenzene-d4	12.81	152	362029	5.00 ug/L	102.08
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	225894	4.98 ug/L	99.54%
8) Chloroethane-d5	2.17	69	151908	4.73 ug/L	94.56%
11) 1,1-Dichloroethene-d2	2.76	63	400261	3.82 ug/L	76.42%
22) 2-Butanone-d5	5.92	46	530789	42.82 ug/L	85.64%
25) Chloroform-d	5.53	84	465043	4.73 ug/L	94.52%
27) 1,2-Dichloroethane-d4	6.52	65	239195	5.10 ug/L	102.08%
33) Benzene-d6	6.32	84	907855	4.76 ug/L	95.14%
37) 1,2-Dichloropropane-d6	7.65	67	238779	4.73 ug/L	94.64%
40) cis-1,3-Dichloropropene-d4	8.52	79	454918	5.13 ug/L	102.60%
42) trans-1,3-Dichloropropene-	9.25	79	274312	5.16 ug/L	103.19%
47) Toluene-d8	8.76	98	898426	5.15 ug/L	103.03%
50) 2-Hexanone-d5	10.08	63	542510	52.98 ug/L	105.97%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	156100	4.55 ug/L	90.97%
65) 1,2-Dichlorobenzene-d4	13.24	152	300661	4.89 ug/L	97.85%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	13081	0.1839 ug/L	94
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	144554	25.9659 ug/L	93
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

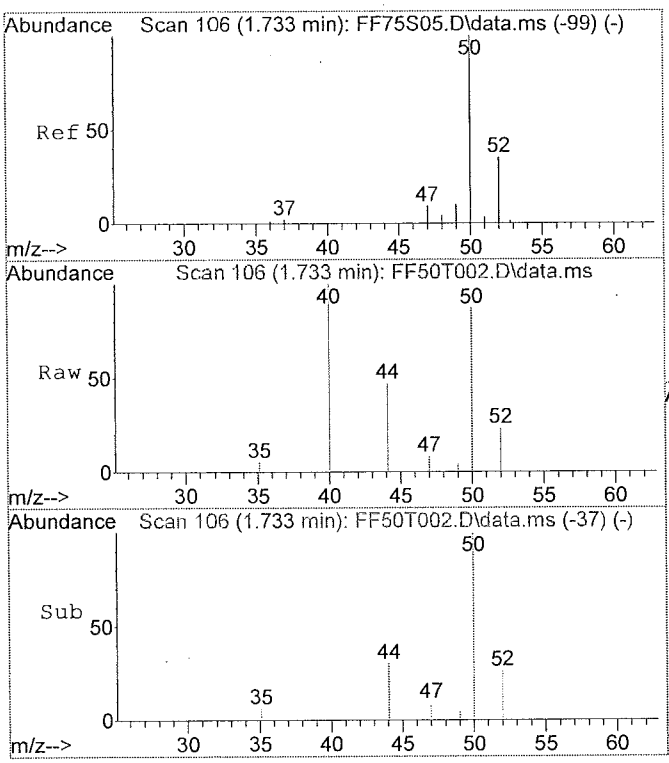
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF50T002.D Vial: 4
Acq Time : 03/06/2019 09:53 Operator: SLS
Sample : 1905930002 5P-MW107I-145 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:31:24 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	17288	0.3521 ug/L	96
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

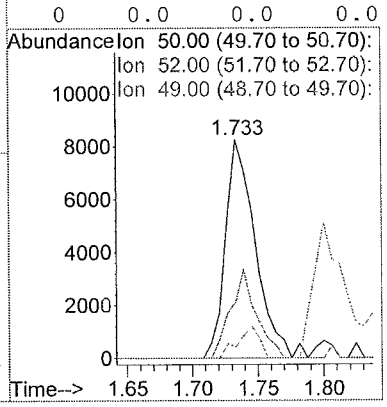
(#) = qualifier out of range (m) = manual integration

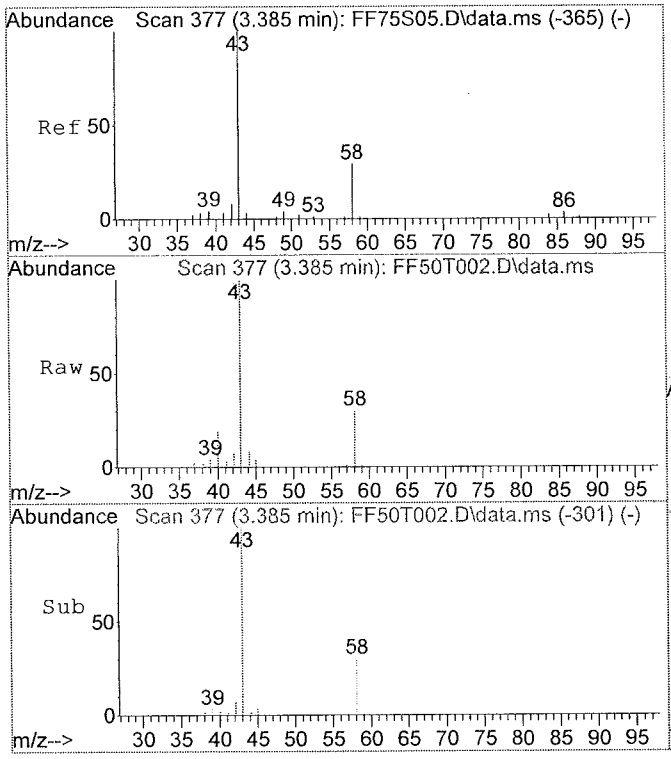


#3
Chloromethane
Concen: 0.18 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF50T002.D
Acq: 03/06/2019 09:53

Tgt Ion:50 Resp: 13081

Ion	Ratio	Lower	Upper
50	100		
52	34.9	11.1	51.1
49	10.5	0.0	30.0
0	0.0	0.0	0.0

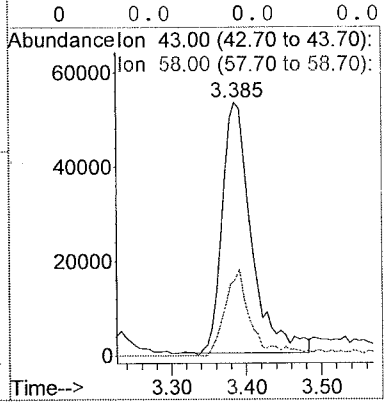


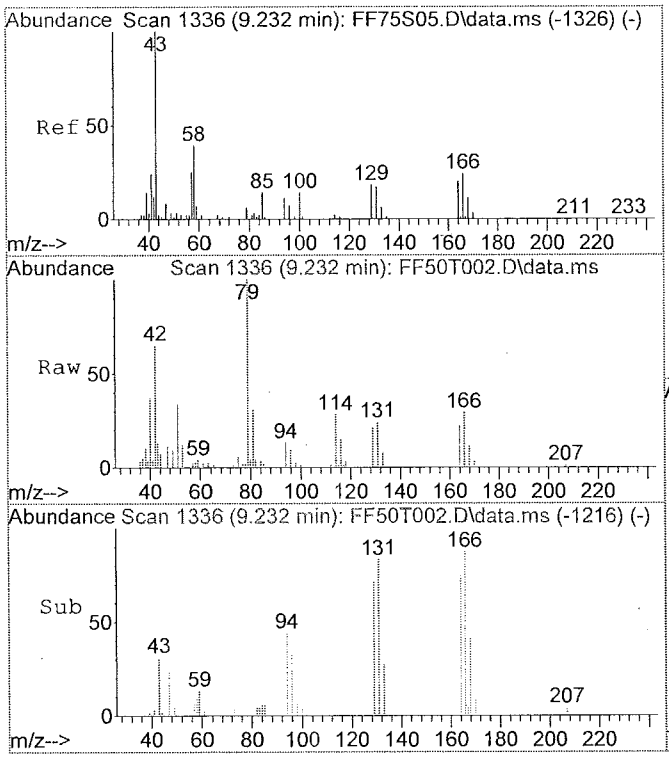


#13
Acetone
Concen: 25.97 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF50T002.D
Acq: 03/06/2019 09:53

Tgt Ion:43 Resp: 144554

Ion	Ratio	Lower	Upper
43	100		
58	32.0	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

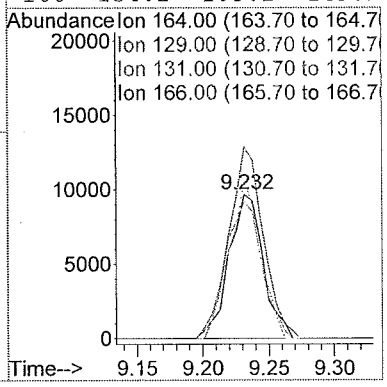




#48
Tetrachloroethene
Concen: 0.35 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF50T002.D
Acq: 03/06/2019 09:53

Tgt Ion:164 Resp: 17288

Ion	Ratio	Lower	Upper
164	100		
129	99.6	79.2	119.2
131	102.6	74.2	114.2
166	134.2	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW108D-215

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930009
Lab File ID: FF57T009
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.36	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	1.5	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW108D-215

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930009
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF57T009
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	3.2	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
5P-MW108D-215

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930009
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF57T009
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

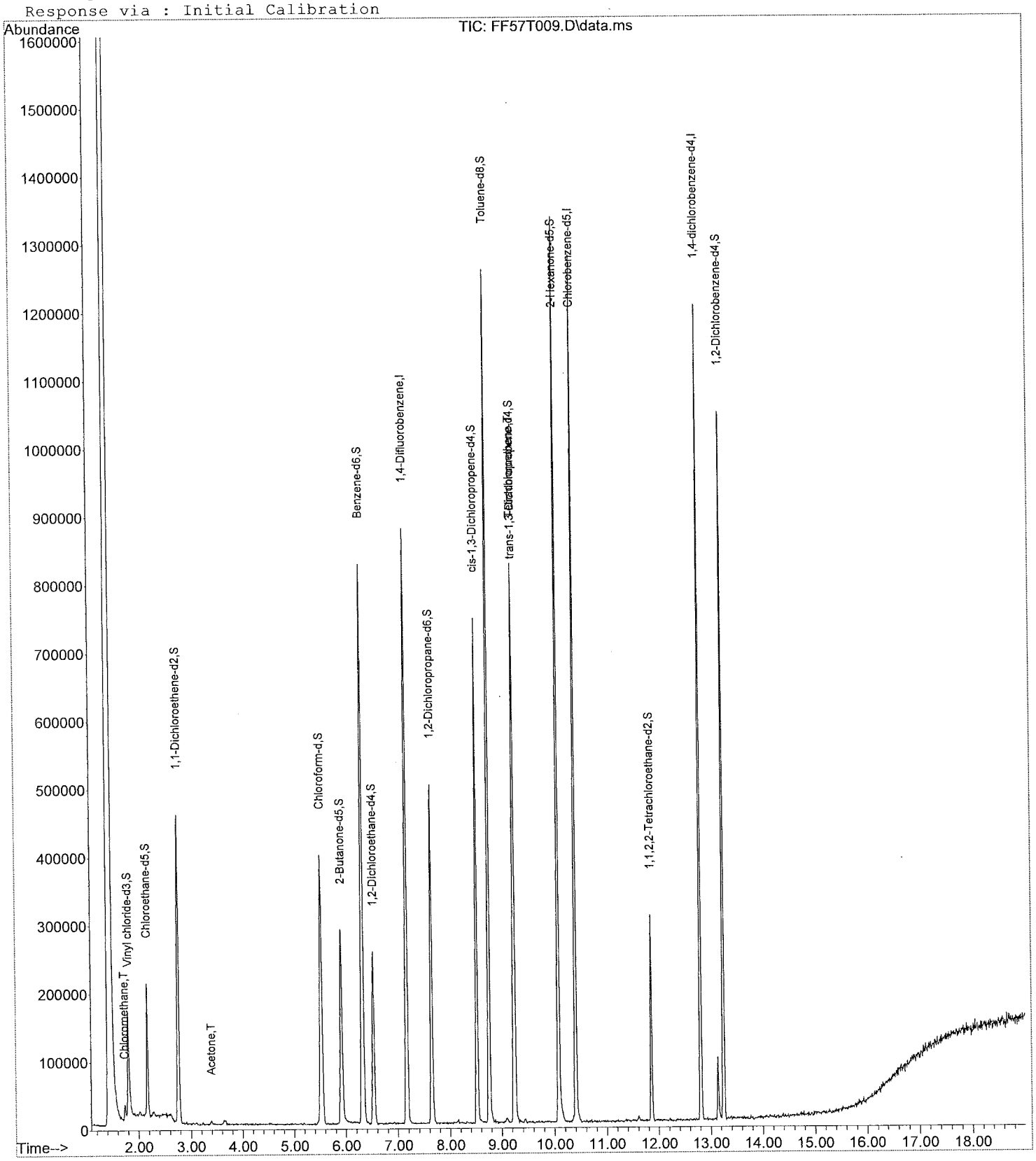
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF57T009.D Vial: 11
Acq Time : 03/06/2019 13:08 Operator: SLS
Sample : 1905930009 5P-MW108D-215 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:48:59 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF57T009.D Vial: 11
Acq Time : 03/06/2019 13:08 Operator: SLS
Sample : 1905930009 5P-MW108D-215 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:48:59 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	837277	5.00 ug/L	105.07
28) Chlorobenzene-d5	10.40	117	730207	5.00 ug/L	115.05
60) 1,4-dichlorobenzene-d4	12.80	152	338767	5.00 ug/L	95.52
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	211841	4.82 ug/L	96.30%
8) Chloroethane-d5	2.17	69	149727	4.81 ug/L	96.15%
11) 1,1-Dichloroethene-d2	2.76	63	381191	3.75 ug/L	75.08%
22) 2-Butanone-d5	5.91	46	550150	45.79 ug/L	91.58%
25) Chloroform-d	5.52	84	457781	4.80 ug/L	95.99%
27) 1,2-Dichloroethane-d4	6.53	65	231999	5.11 ug/L	102.15%
33) Benzene-d6	6.32	84	874228	4.88 ug/L	97.55%
37) 1,2-Dichloropropane-d6	7.65	67	224402	4.74 ug/L	94.70%
40) cis-1,3-Dichloropropene-d4	8.52	79	404401	4.86 ug/L	97.11%
42) trans-1,3-Dichloropropene-	9.25	79	233800	4.68 ug/L	93.65%
47) Toluene-d8	8.76	98	855564	5.22 ug/L	104.47%
50) 2-Hexanone-d5	10.08	63	436441	45.39 ug/L	90.77%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	137831	4.28 ug/L	85.53%
65) 1,2-Dichlorobenzene-d4	13.25	152	299569	5.21 ug/L	104.19%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	24719	0.3585 ug/L	99
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	8276	1.5336 ug/L	92
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

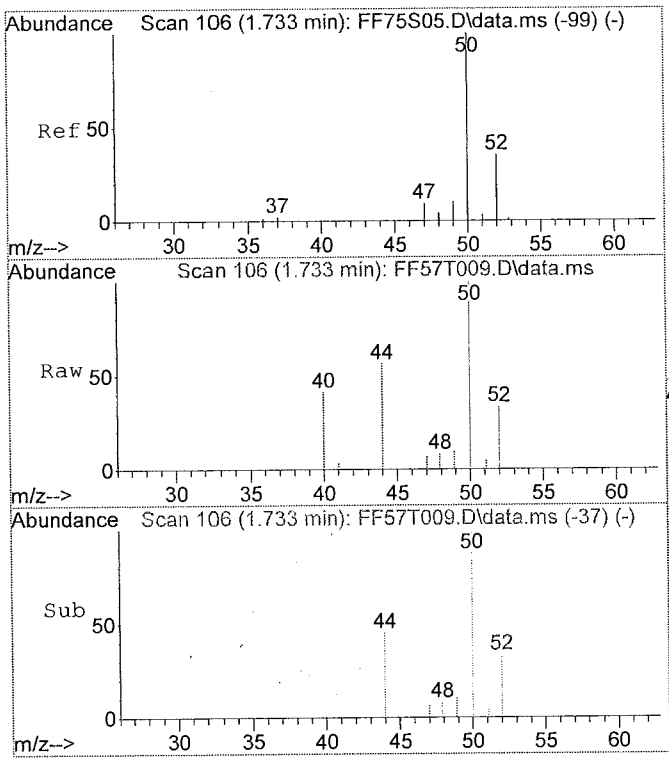
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF57T009.D Vial: 11
Acq Time : 03/06/2019 13:08 Operator: SLS
Sample : 1905930009 5P-MW108D-215 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:48:59 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	147282	3.1941 ug/L	97
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

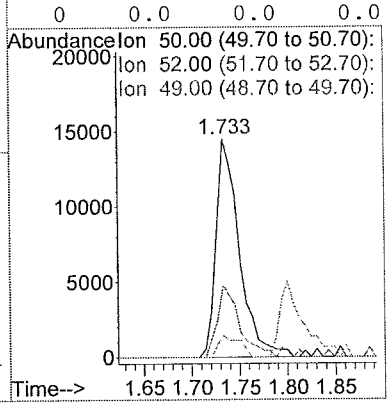
(#) = qualifier out of range (m) = manual integration

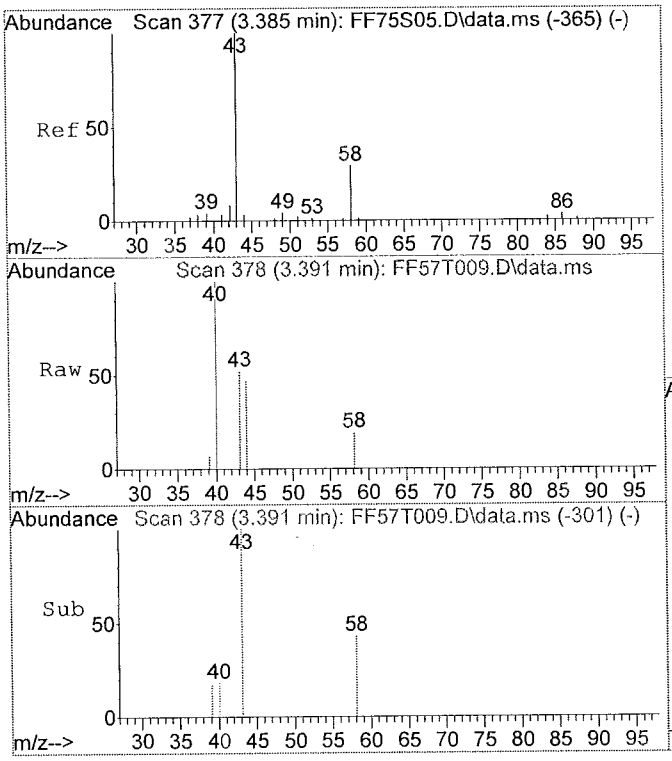


#3
Chloromethane
Concen: 0.36 ug/L
RT: 1.73 min Scan# 106
Delta R.T. -0.00 min
Lab File: FF57T009.D
Acq: 03/06/2019 13:08

Tgt Ion:50 Resp: 24719

Ion	Ratio	Lower	Upper
50	100		
52	31.2	11.1	51.1
49	9.1	0.0	30.0
0	0.0	0.0	0.0

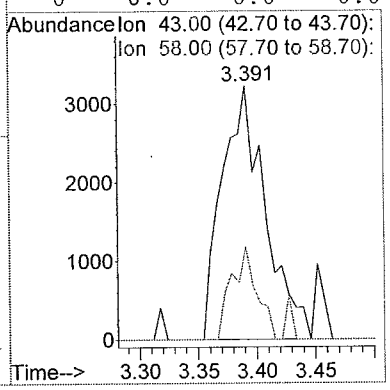


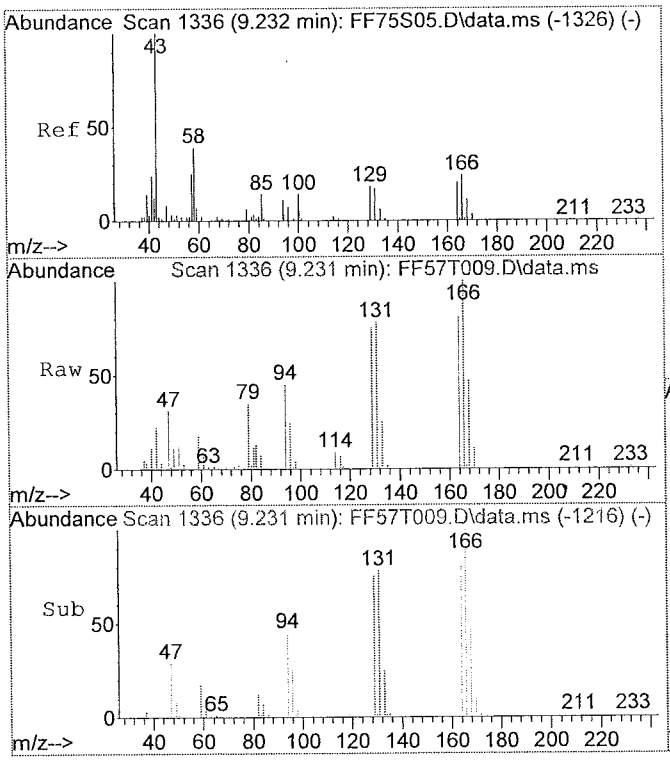


#13
Acetone
Concen: 1.53 ug/L
RT: 3.39 min Scan# 378
Delta R.T. 0.01 min
Lab File: FF57T009.D
Acq: 03/06/2019 13:08

Tgt Ion:43 Resp: 8276

Ion	Ratio	Lower	Upper
43	100		
58	24.1	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

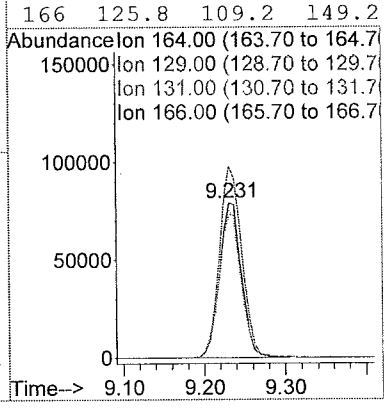




#48
Tetrachloroethene
Concen: 3.19 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. -0.00 min
Lab File: FF57T009.D
Acq: 03/06/2019 13:08

Tgt Ion:164 Resp: 147282

Ion	Ratio	Lower	Upper
164	100		
129	94.5	79.2	119.2
131	93.8	74.2	114.2
166	125.8	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW108I-149

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930008
Lab File ID: FF56T008
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.59	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	2.2	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW108I-149

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930008
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF56T008
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.58	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
5P-MW108I-149

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930008
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF56T008
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

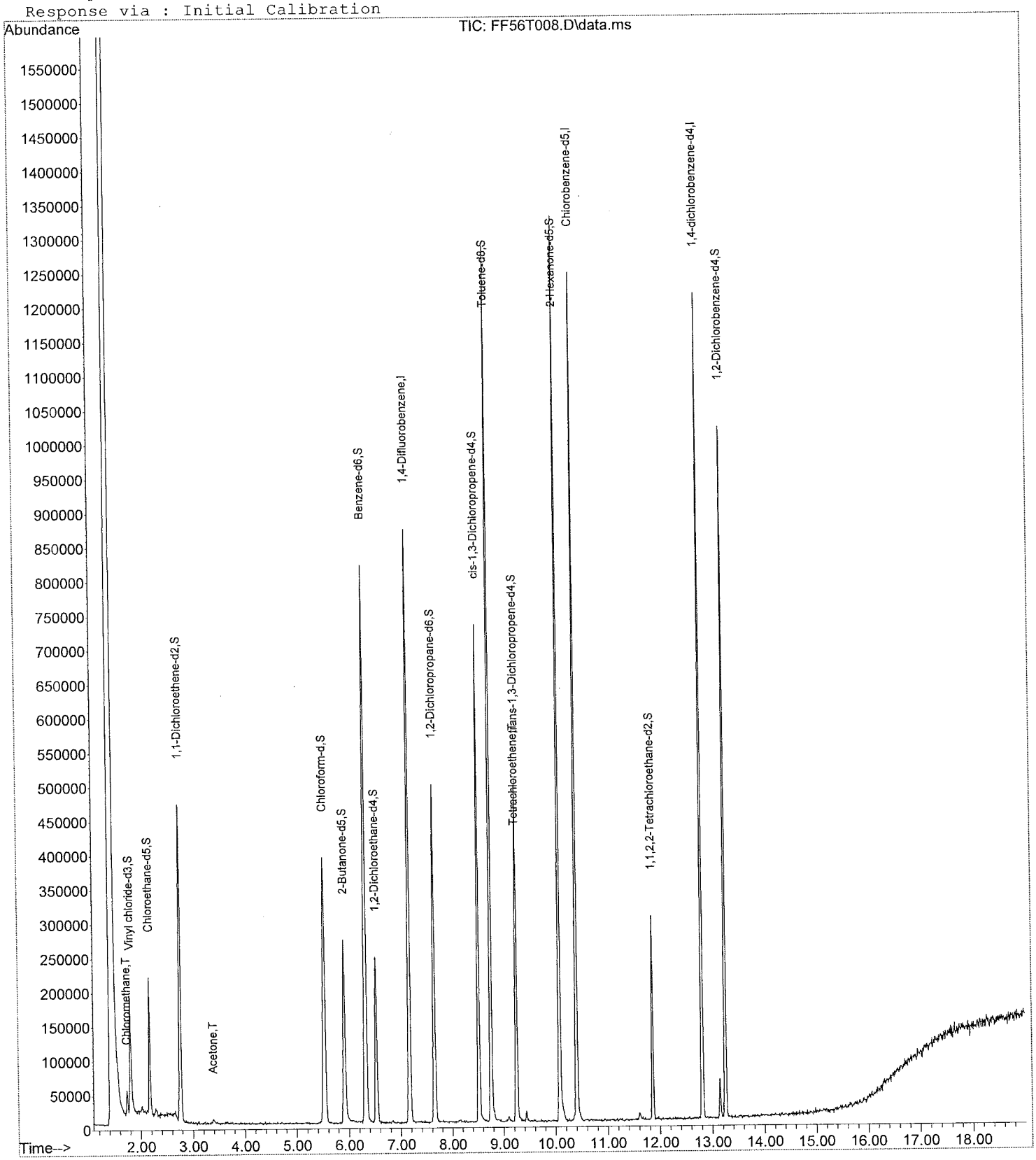
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF56T008.D Vial: 10
Acq Time : 03/06/2019 12:41 Operator: SLS
Sample : 1905930008 5P-MW108I-149 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:20:45 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF56T008.D Vial: 10
Acq Time : 03/06/2019 12:41 Operator: SLS
Sample : 1905930008 5P-MW108I-149 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:20:45 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.17	114	830726	5.00 ug/L	104.25
28) Chlorobenzene-d5	10.40	117	722186	5.00 ug/L	113.79
60) 1,4-dichlorobenzene-d4	12.80	152	346302	5.00 ug/L	97.64
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.81	65	218332	5.00 ug/L	100.04%
8) Chloroethane-d5	2.17	69	152798	4.94 ug/L	98.89%
11) 1,1-Dichloroethene-d2	2.76	63	390621	3.88 ug/L	77.55%
22) 2-Butanone-d5	5.92	46	519338	43.56 ug/L	87.13%
25) Chloroform-d	5.53	84	458039	4.84 ug/L	96.80%
27) 1,2-Dichloroethane-d4	6.53	65	225518	5.00 ug/L	100.08%
33) Benzene-d6	6.32	84	883709	4.99 ug/L	99.70%
37) 1,2-Dichloropropane-d6	7.65	67	226749	4.84 ug/L	96.75%
40) cis-1,3-Dichloropropene-d4	8.52	79	405489	4.92 ug/L	98.46%
42) trans-1,3-Dichloropropene-	9.25	79	234738	4.75 ug/L	95.07%
47) Toluene-d8	8.76	98	858938	5.30 ug/L	106.05%
50) 2-Hexanone-d5	10.08	63	440389	46.30 ug/L	92.61%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	136308	4.28 ug/L	85.52%
65) 1,2-Dichlorobenzene-d4	13.25	152	293997	5.00 ug/L	100.02%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	40300	0.5891 ug/L	95
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	11739	2.1925 ug/L	100
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

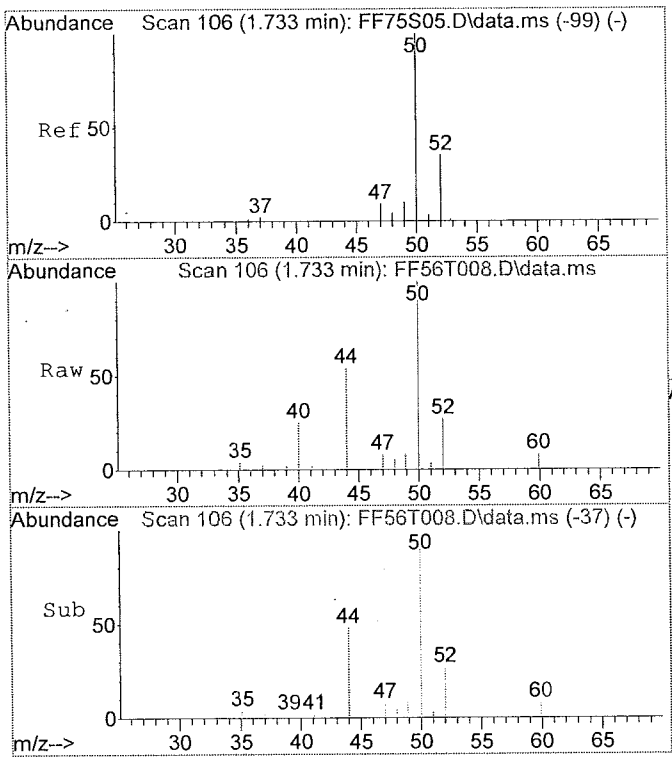
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF56T008.D Vial: 10
Acq Time : 03/06/2019 12:41 Operator: SLS
Sample : 1905930008 5P-MW108I-149 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:20:45 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	26339	0.5776 ug/L	97
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

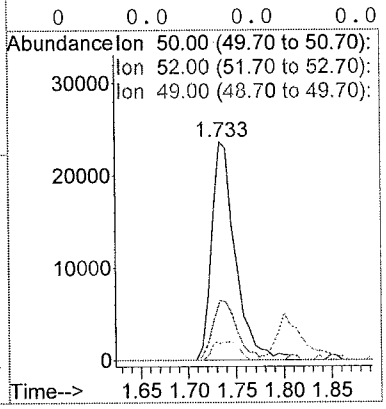
(#) = qualifier out of range (m) = manual integration

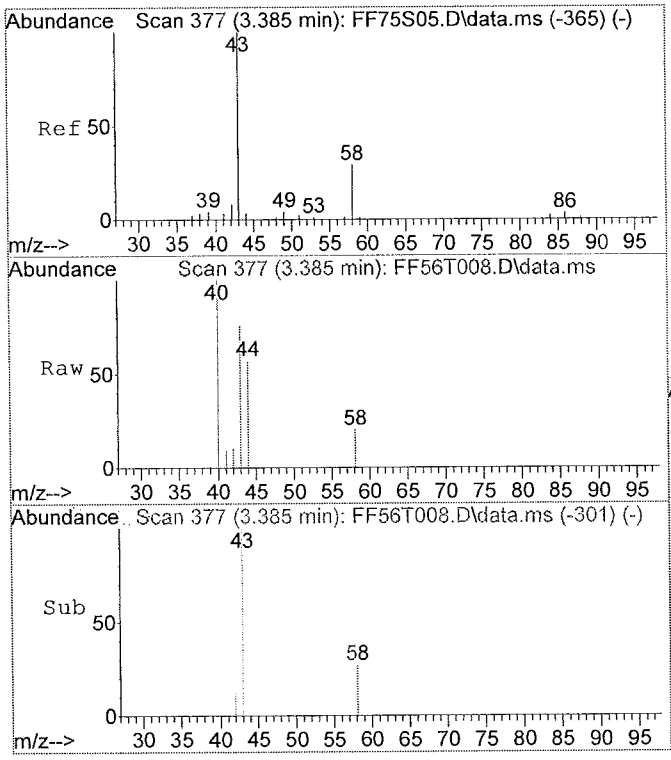


#3
Chloromethane
Concen: 0.59 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF56T008.D
Acq: 03/06/2019 12:41

Tgt Ion:50 Resp: 40300

Ion	Ratio	Lower	Upper
50	100		
52	27.7	11.1	51.1
49	9.2	0.0	30.0
0	0.0	0.0	0.0

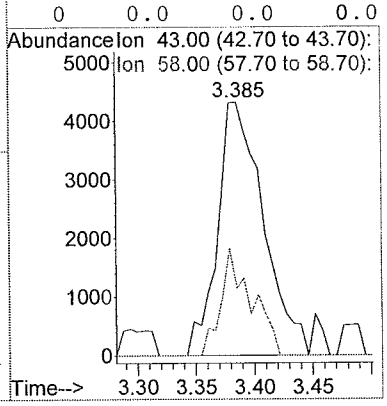


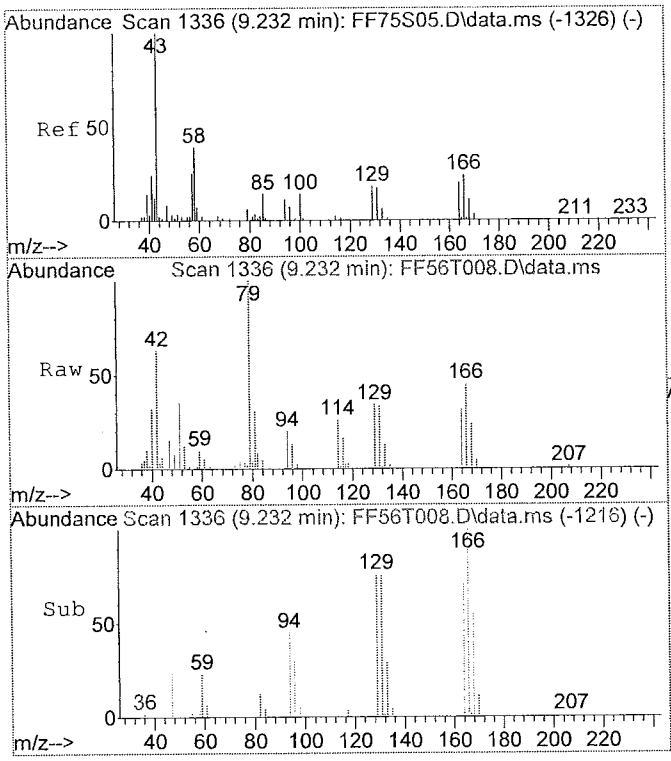


#13
Acetone
Concen: 2.19 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF56T008.D
Acq: 03/06/2019 12:41

Tgt Ion:43 Resp: 11739

Ion	Ratio	Lower	Upper
43	100		
58	28.3	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

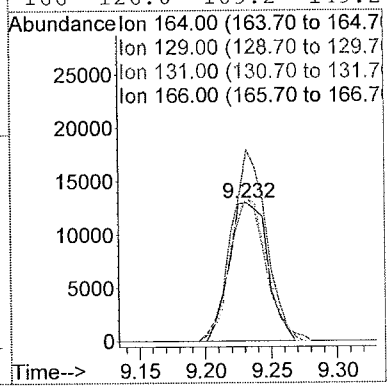




#48
Tetrachloroethene
Concen: 0.58 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF56T008.D
Acq: 03/06/2019 12:41

Tgt Ion:164 Resp: 26339

Ion	Ratio	Lower	Upper
164	100		
129	96.2	79.2	119.2
131	98.7	74.2	114.2
166	126.0	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW109D-230

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930007
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF55T007
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	1.2	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	9.1	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.32	J
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW109D-230

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
GC Column: ID: (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930007
Lab File ID: FF55T007
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.53	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
5P-MW109D-230

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930007
Lab File ID: FF55T007
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

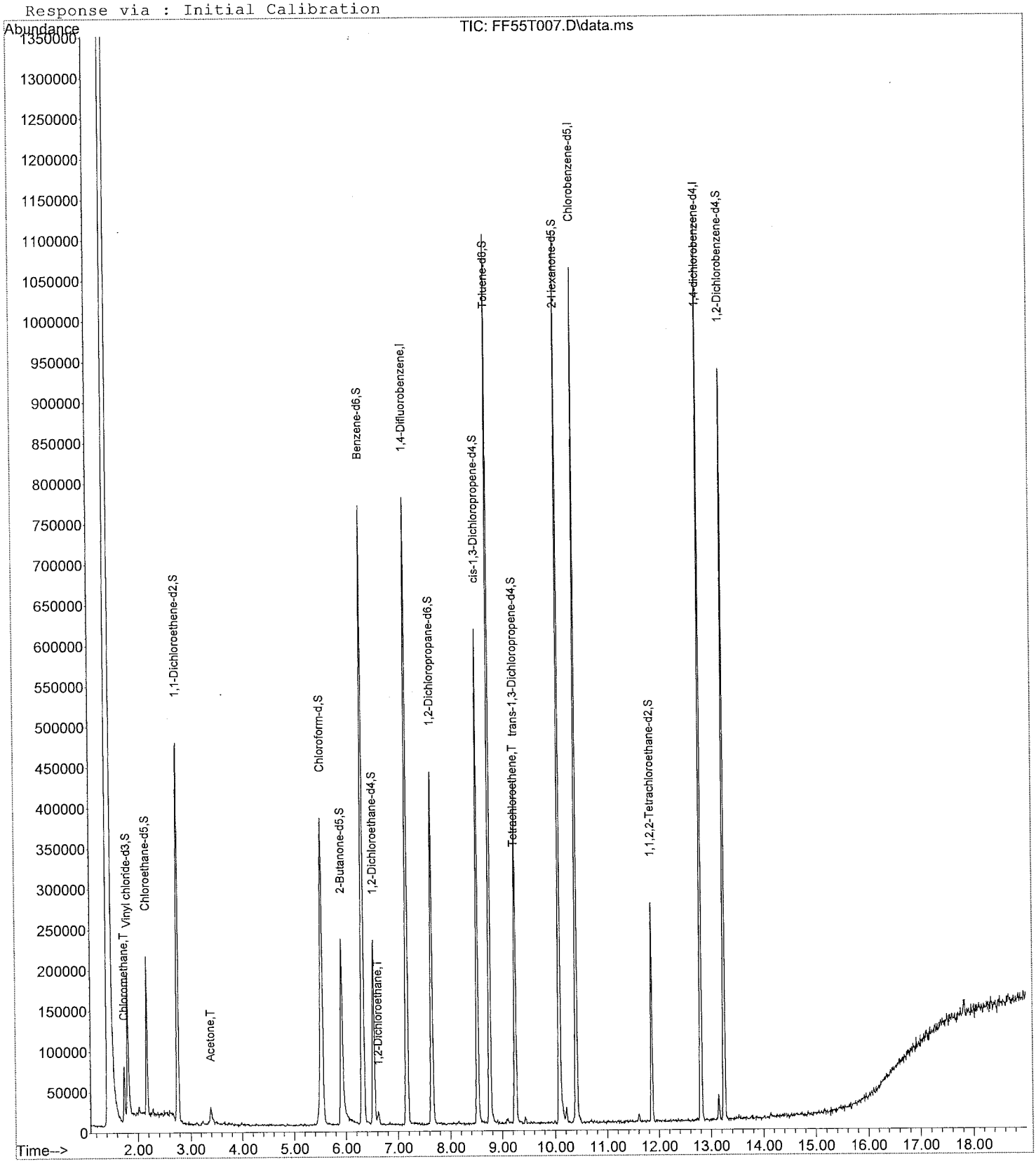
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF55T007.D Vial: 9
Acq Time : 03/06/2019 12:13 Operator: SLS
Sample : 1905930007 5P-MW109D-230 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:20:10 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00126

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF55T007.D Vial: 9
Acq Time : 03/06/2019 12:13 Operator: SLS
Sample : 1905930007 5P-MW109D-230 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:20:10 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	757422	5.00 ug/L	95.05
28) Chlorobenzene-d5	10.40	117	616389	5.00 ug/L	97.12
60) 1,4-dichlorobenzene-d4	12.81	152	317231	5.00 ug/L	89.45
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	217873	5.47 ug/L	109.49%
8) Chloroethane-d5	2.17	69	152335	5.41 ug/L	108.14%
11) 1,1-Dichloroethene-d2	2.76	63	379777	4.13 ug/L	82.69%
22) 2-Butanone-d5	5.92	46	519925	47.83 ug/L	95.67%
25) Chloroform-d	5.53	84	436731	5.06 ug/L	101.23%
27) 1,2-Dichloroethane-d4	6.53	65	207475	5.05 ug/L	100.98%
33) Benzene-d6	6.32	84	817893	5.41 ug/L	108.11%
37) 1,2-Dichloropropane-d6	7.65	67	199293	4.98 ug/L	99.63%
40) cis-1,3-Dichloropropene-d4	8.52	79	347717	4.95 ug/L	98.92%
42) trans-1,3-Dichloropropene-	9.25	79	194132	4.61 ug/L	92.12%
47) Toluene-d8	8.76	98	738458	5.34 ug/L	106.82%
50) 2-Hexanone-d5	10.08	63	368008	45.34 ug/L	90.67%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	122278	4.49 ug/L	89.89%
65) 1,2-Dichlorobenzene-d4	13.25	152	265394	4.93 ug/L	98.57%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.74	50	72209	1.1578 ug/L	98
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	44618	9.1400 ug/L	89
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	6.62	62	16789	0.3198 ug/L	87
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

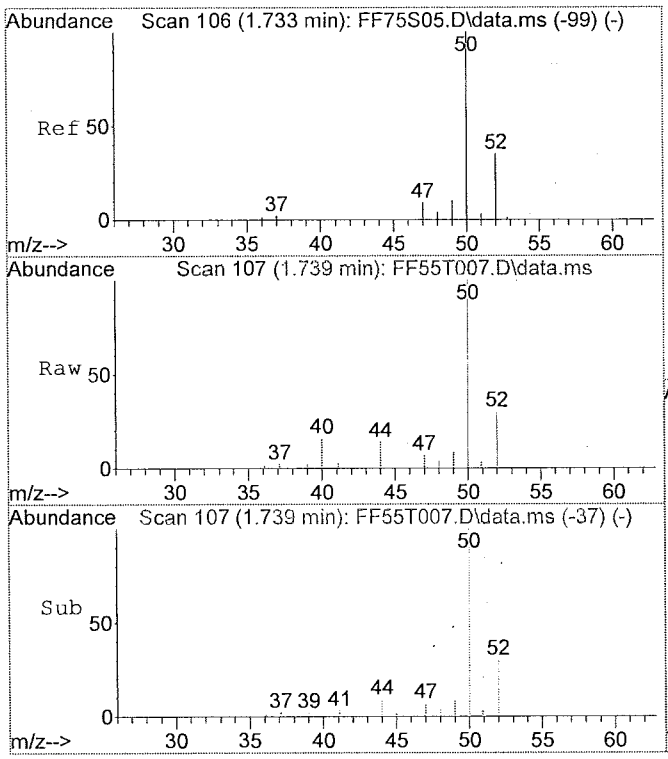
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF55T007.D Vial: 9
Acq Time : 03/06/2019 12:13 Operator: SLS
Sample : 1905930007 5P-MW109D-230 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 13:20:10 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	20515	0.5271 ug/L	97
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

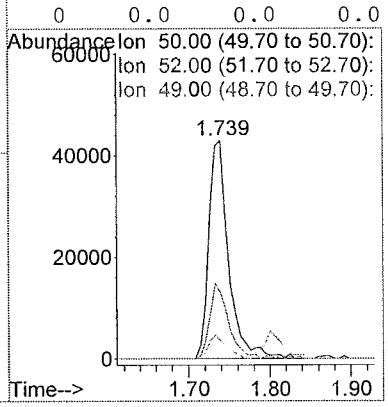
(#) = qualifier out of range (m) = manual integration

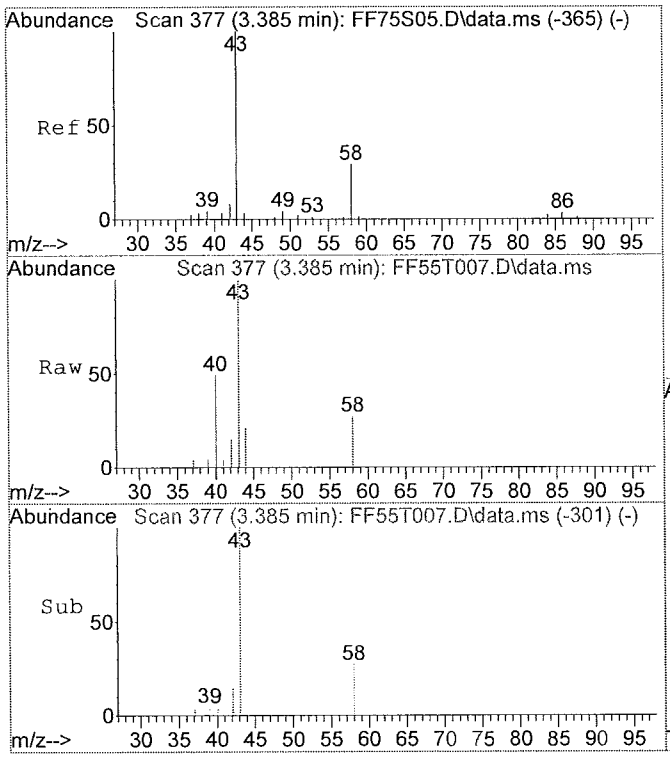


#3
Chloromethane
Concen: 1.16 ug/L
RT: 1.74 min Scan# 107
Delta R.T. 0.01 min
Lab File: FF55T007.D
Acq: 03/06/2019 12:13

Tgt Ion:50 Resp: 72209

Ion	Ratio	Lower	Upper
50	100		
52	32.3	11.1	51.1
49	10.0	0.0	30.0
0	0.0	0.0	0.0

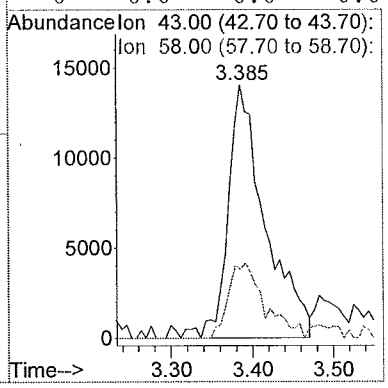


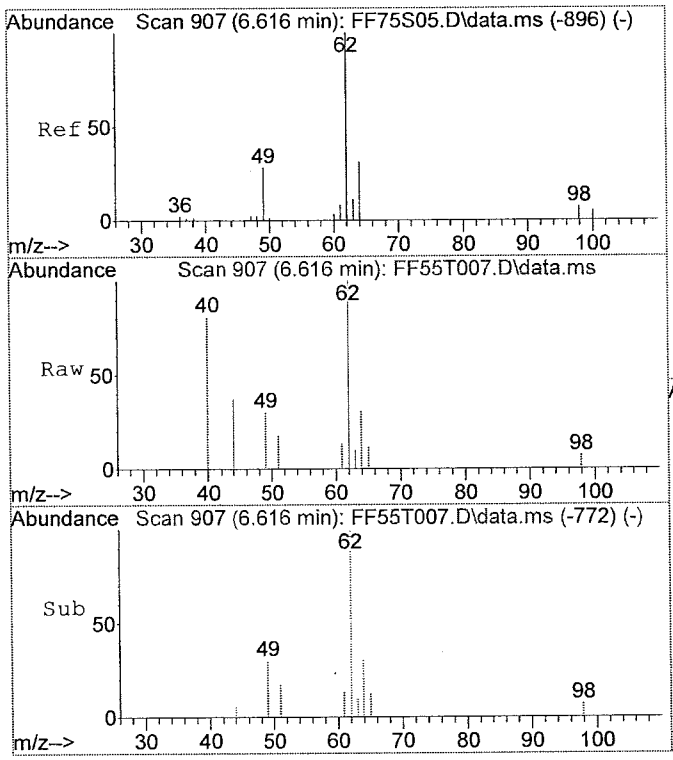


#13
Acetone
Concen: 9.14 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF55T007.D
Acq: 03/06/2019 12:13

Tgt Ion:43 Resp: 44618

Ion	Ratio	Lower	Upper
43	100		
58	34.2	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

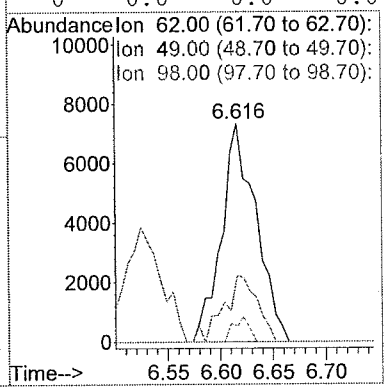


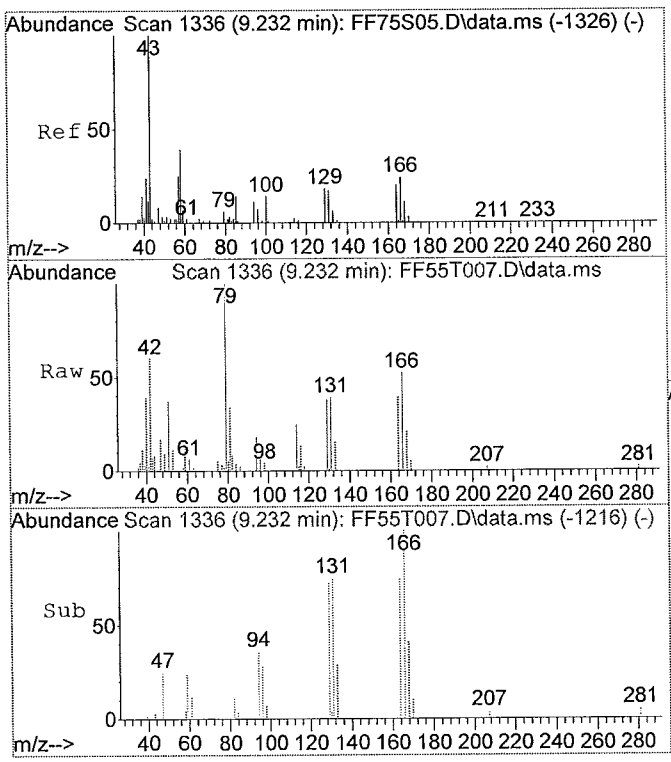


#26
1,2-Dichloroethane
Concen: 0.32 ug/L
RT: 6.62 min Scan# 907
Delta R.T. 0.00 min
Lab File: FF55T007.D
Acq: 03/06/2019 12:13

Tgt Ion:62 Resp: 16789

Ion	Ratio	Lower	Upper
62	100		
49	28.4	16.8	56.8
98	5.2	0.0	29.0
0	0.0	0.0	0.0

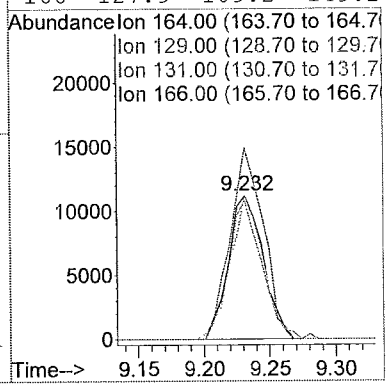




#48
Tetrachloroethene
Concen: 0.53 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF55T007.D
Acq: 03/06/2019 12:13

Tgt Ion:164 Resp: 20515

Ion	Ratio	Lower	Upper
164	100		
129	91.8	79.2	119.2
131	93.7	74.2	114.2
166	127.9	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW109I-169

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930006
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF54T006
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	1.1	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.5	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW109I-169

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930006
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF54T006
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.1	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW109I-169

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930006
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF54T006
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

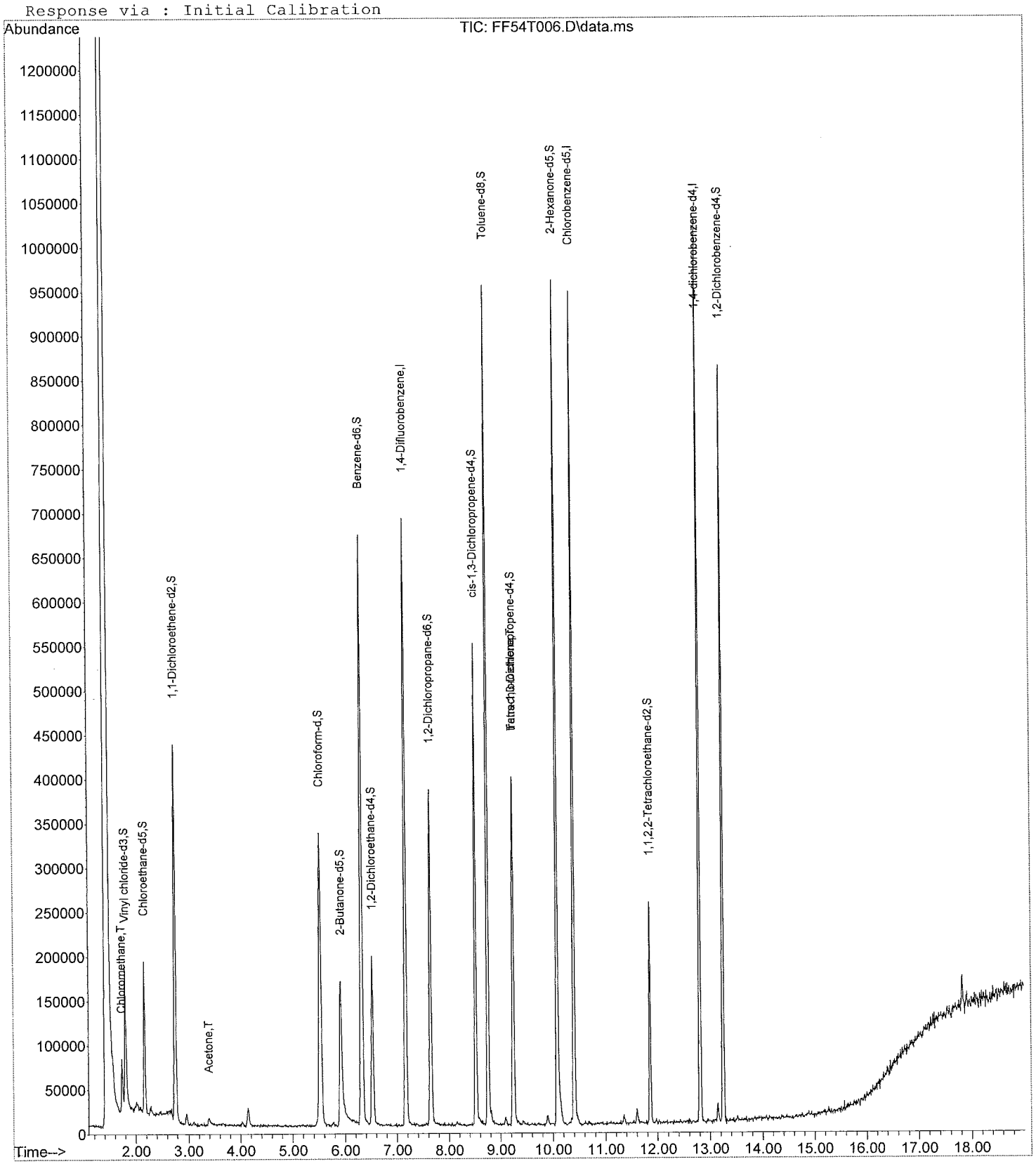
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF54T006.D Vial: 8
Acq Time : 03/06/2019 11:45 Operator: SLS
Sample : 1905930006 5P-MW109I-169 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 12:06:45 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00134

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF54T006.D Vial: 8
Acq Time : 03/06/2019 11:45 Operator: SLS
Sample : 1905930006 5P-MW109I-169 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 12:06:45 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	666959	5.00 ug/L	83.70
28) Chlorobenzene-d5	10.40	117	546307	5.00 ug/L	86.08
60) 1,4-dichlorobenzene-d4	12.81	152	283431	5.00 ug/L	79.92
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	203556	5.81 ug/L	116.17%
8) Chloroethane-d5	2.17	69	136272	5.49 ug/L	109.85%
11) 1,1-Dichloroethene-d2	2.76	63	351489	4.35 ug/L	86.91%
22) 2-Butanone-d5	5.92	46	424751	44.38 ug/L	88.76%
25) Chloroform-d	5.52	84	387354	5.10 ug/L	101.96%
27) 1,2-Dichloroethane-d4	6.53	65	182824	5.05 ug/L	101.05%
33) Benzene-d6	6.32	84	729225	5.44 ug/L	108.76%
37) 1,2-Dichloropropane-d6	7.65	67	182164	5.14 ug/L	102.75%
40) cis-1,3-Dichloropropene-d4	8.52	79	310165	4.98 ug/L	99.56%
42) trans-1,3-Dichloropropene-	9.25	79	177223	4.74 ug/L	94.89%
47) Toluene-d8	8.76	98	650487	5.31 ug/L	106.17%
50) 2-Hexanone-d5	10.08	63	329910	45.86 ug/L	91.71%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	114285	4.74 ug/L	94.79%
65) 1,2-Dichlorobenzene-d4	13.25	152	240010	4.99 ug/L	99.77%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	61266	1.1156 ug/L	99
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	23458	5.4572 ug/L	83
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

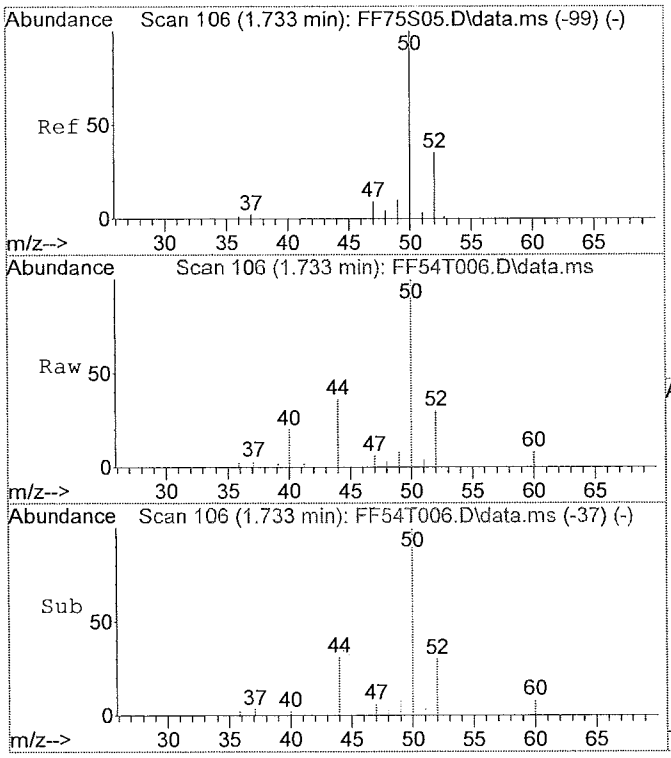
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF54T006.D Vial: 8
Acq Time : 03/06/2019 11:45 Operator: SLS
Sample : 1905930006 5P-MW109I-169 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 12:06:45 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.24	164	38226	1.1081 ug/L	97
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

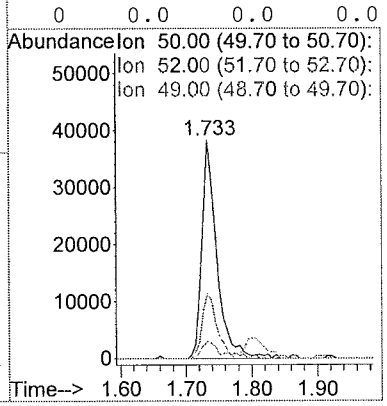
(#) = qualifier out of range (m) = manual integration

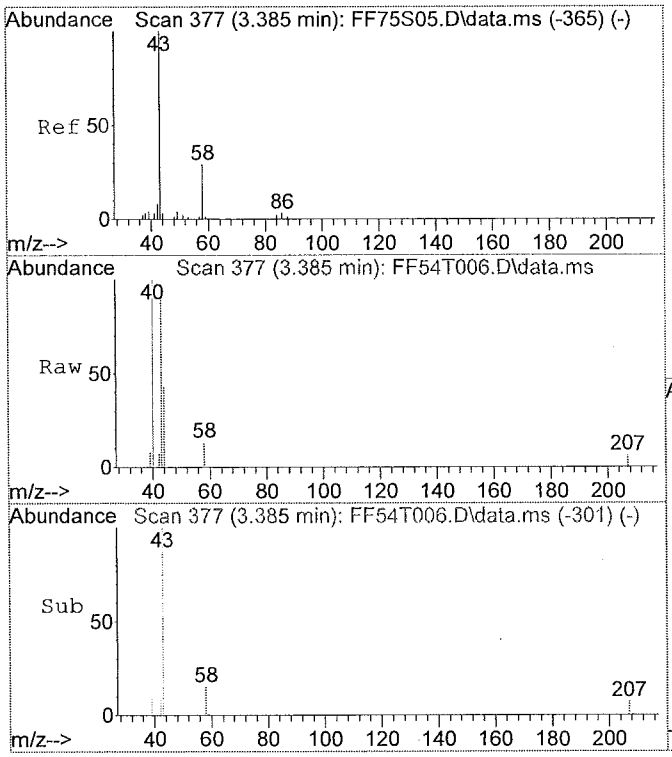


#3
Chloromethane
Concen: 1.12 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF54T006.D
Acq: 03/06/2019 11:45

Tgt Ion:50 Resp: 61266

Ion	Ratio	Lower	Upper
50	100		
52	31.1	11.1	51.1
49	8.5	0.0	30.0
0	0.0	0.0	0.0

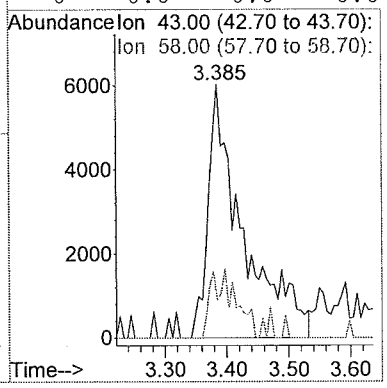


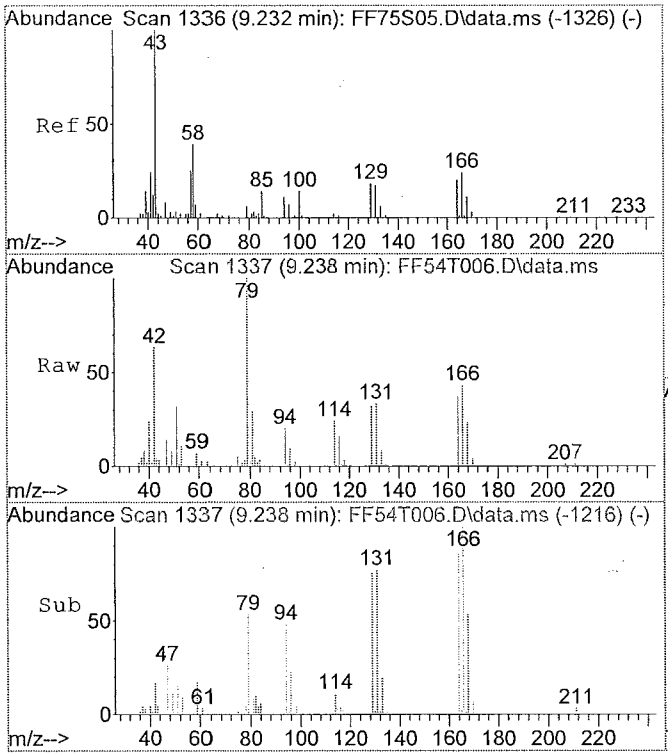


#13
Acetone
Concen: 5.46 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF54T006.D
Acq: 03/06/2019 11:45

Tgt Ion:43 Resp: 23458

Ion	Ratio	Lower	Upper
43	100		
58	19.1	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

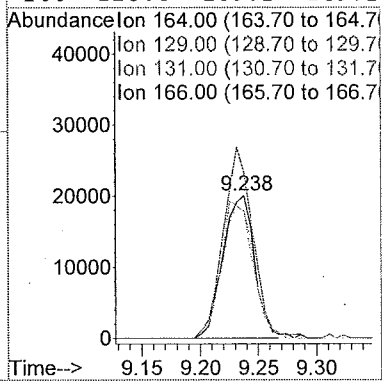




#48
Tetrachloroethene
Concen: 1.11 ug/L
RT: 9.24 min Scan# 1337
Delta R.T. 0.01 min
Lab File: FF54T006.D
Acq: 03/06/2019 11:45

Tgt Ion:164 Resp: 38226

Ion	Ratio	Lower	Upper
164	100		
129	97.3	79.2	119.2
131	91.9	74.2	114.2
166	125.0	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW110D-301

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930011
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF59T011
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.35	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	1.9	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW110D-301

Lab Name: ALS Environmental (SLC) Contract: 97756
Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219
Analytical Method: Trace VOA Level: TRACE
Matrix: WATER Lab Sample ID: 1905930011
Sample wt/vol: 25.0 (g/mL) mL Lab File ID: FF59T011
% Solids: Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm) Date Extracted:
GC Column: ID: (mm) Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N) Extract Volume: (uL)
Soil Aliquot (VOA): (uL) Extraction Type: PT
Heated Purge:(Y/N) Y Injection Volume: (uL)
Purge Volume: 25.0 (mL) pH: 1.0 Dilution Factor: 1.0
Cleanup Types: Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.26	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW110D-301

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated:(Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge:(Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930011
Lab File ID: FF59T011
Date Received: 02/27/2019
Date Extracted:
Date Analyzed: 03/06/2019
Extract Volume: (uL)
Extraction Type: PT
Injection Volume: (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

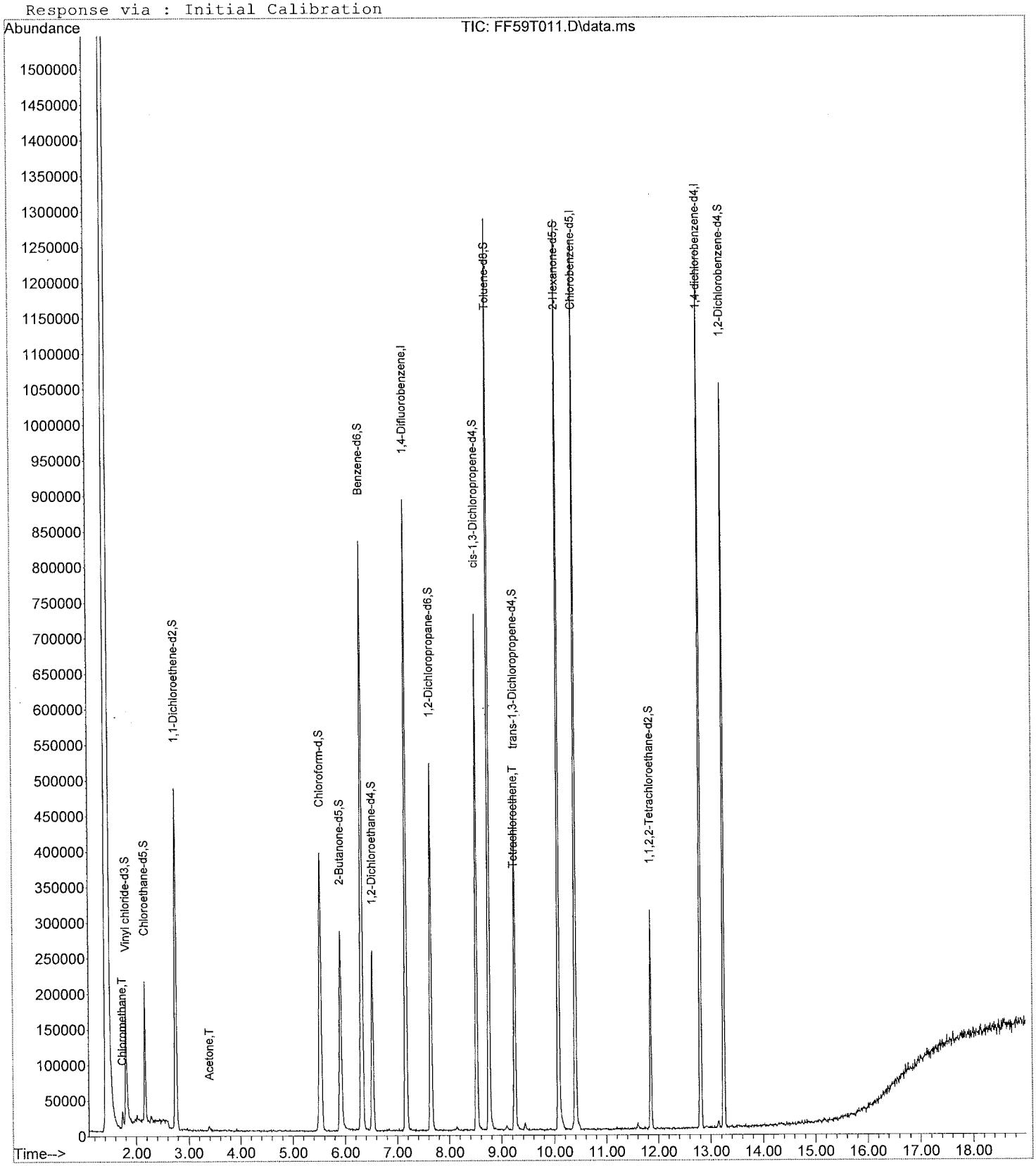
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF59T011.D Vial: 13
Acq Time : 03/06/2019 14:04 Operator: SLS
Sample : 1905930011 5P-MW110D-301 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:27:00 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF59T011.D Vial: 13
Acq Time : 03/06/2019 14:04 Operator: SLS
Sample : 1905930011 5P-MW110D-301 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:27:00 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.17	114	849490	5.00 ug/L	106.60
28) Chlorobenzene-d5	10.40	117	724306	5.00 ug/L	114.12
60) 1,4-dichlorobenzene-d4	12.81	152	353110	5.00 ug/L	99.56
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	220669	4.94 ug/L	98.87%
8) Chloroethane-d5	2.17	69	149678	4.74 ug/L	94.73%
11) 1,1-Dichloroethene-d2	2.76	63	392667	3.81 ug/L	76.23%
22) 2-Butanone-d5	5.91	46	544883	44.70 ug/L	89.39%
25) Chloroform-d	5.53	84	464620	4.80 ug/L	96.02%
27) 1,2-Dichloroethane-d4	6.53	65	226689	4.92 ug/L	98.37%
33) Benzene-d6	6.32	84	890983	5.01 ug/L	100.23%
37) 1,2-Dichloropropane-d6	7.65	67	224520	4.78 ug/L	95.52%
40) cis-1,3-Dichloropropene-d4	8.52	79	401915	4.87 ug/L	97.30%
42) trans-1,3-Dichloropropene-	9.25	79	231472	4.67 ug/L	93.47%
47) Toluene-d8	8.76	98	869597	5.35 ug/L	107.05%
50) 2-Hexanone-d5	10.08	63	434593	45.56 ug/L	91.12%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	136690	4.28 ug/L	85.51%
65) 1,2-Dichlorobenzene-d4	13.25	152	294320	4.91 ug/L	98.20%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	24671	0.3527 ug/L	97
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	10130	1.8502 ug/L	95
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

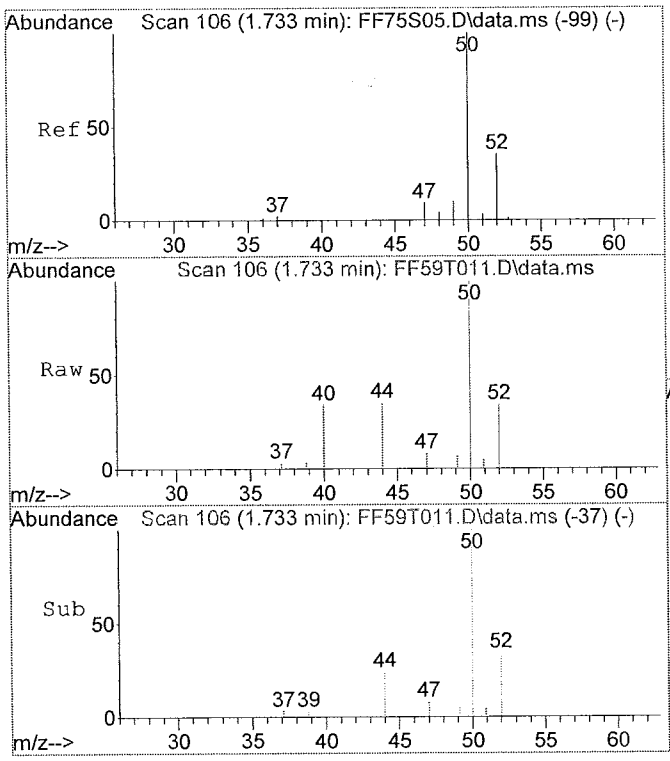
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF59T011.D Vial: 13
Acq Time : 03/06/2019 14:04 Operator: SLS
Sample : 1905930011 5P-MW110D-301 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:27:00 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	11701	0.2558 ug/L	92
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

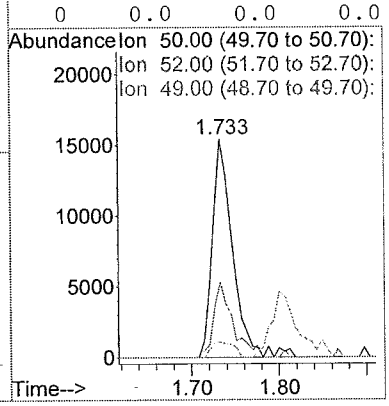
(#) = qualifier out of range (m) = manual integration

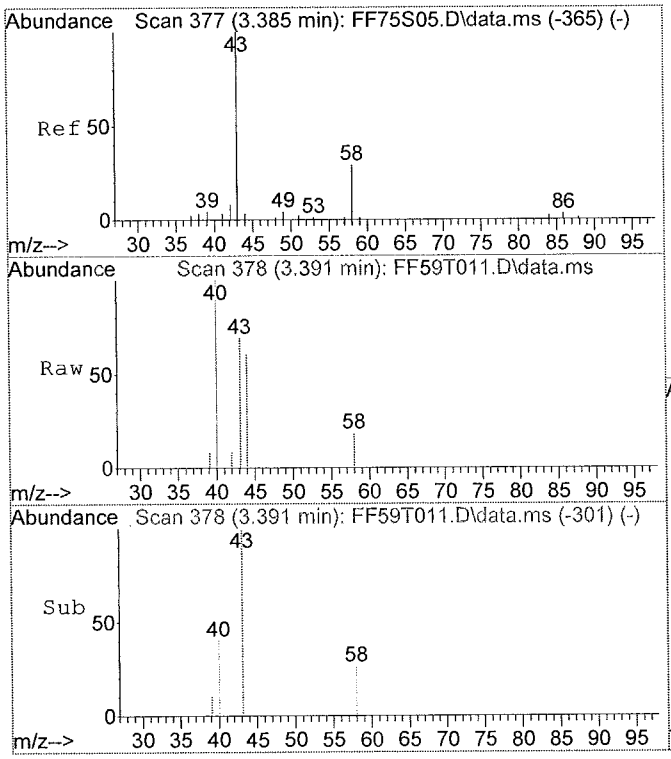


#3
Chloromethane
Concen: 0.35 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF59T011.D
Acq: 03/06/2019 14:04

Tgt Ion:50 Resp: 24671

Ion	Ratio	Lower	Upper
50	100		
52	32.4	11.1	51.1
49	7.7	0.0	30.0
0	0.0	0.0	0.0

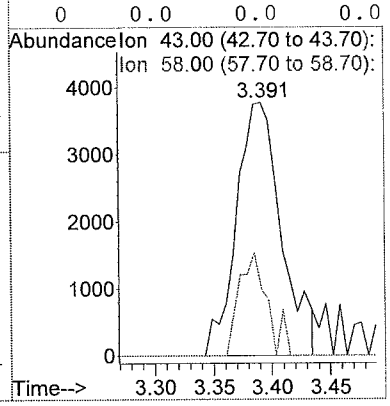


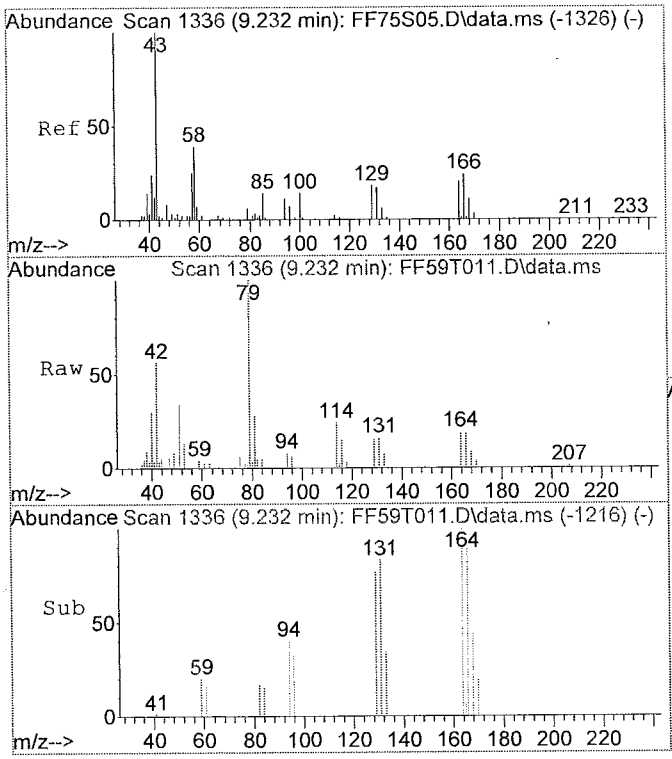


#13
Acetone
Concen: 1.85 ug/L
RT: 3.39 min Scan# 378
Delta R.T. 0.01 min
Lab File: FF59T011.D
Acq: 03/06/2019 14:04

Tgt Ion:43 Resp: 10130

Ion	Ratio	Lower	Upper
43	100		
58	25.4	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

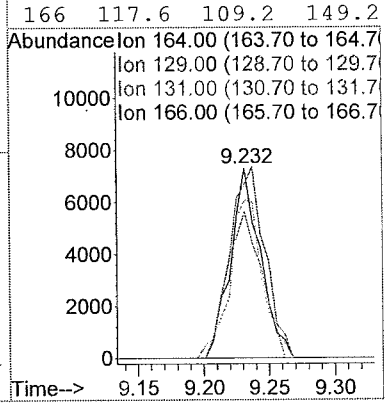




#48
Tetrachloroethene
Concen: 0.26 ug/L
RT: 9.23 min Scan# 1336
Delta R.T. 0.00 min
Lab File: FF59T011.D
Acq: 03/06/2019 14:04

Tgt Ion:164 Resp: 11701

Ion	Ratio	Lower	Upper
164	100		
129	89.9	79.2	119.2
131	90.6	74.2	114.2
166	117.6	109.2	149.2



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW110I-208

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930010
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF58T010
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.83	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.9	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
5P-MW110I-208

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930010
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF58T010
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW110I-208

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930010
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF58T010
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

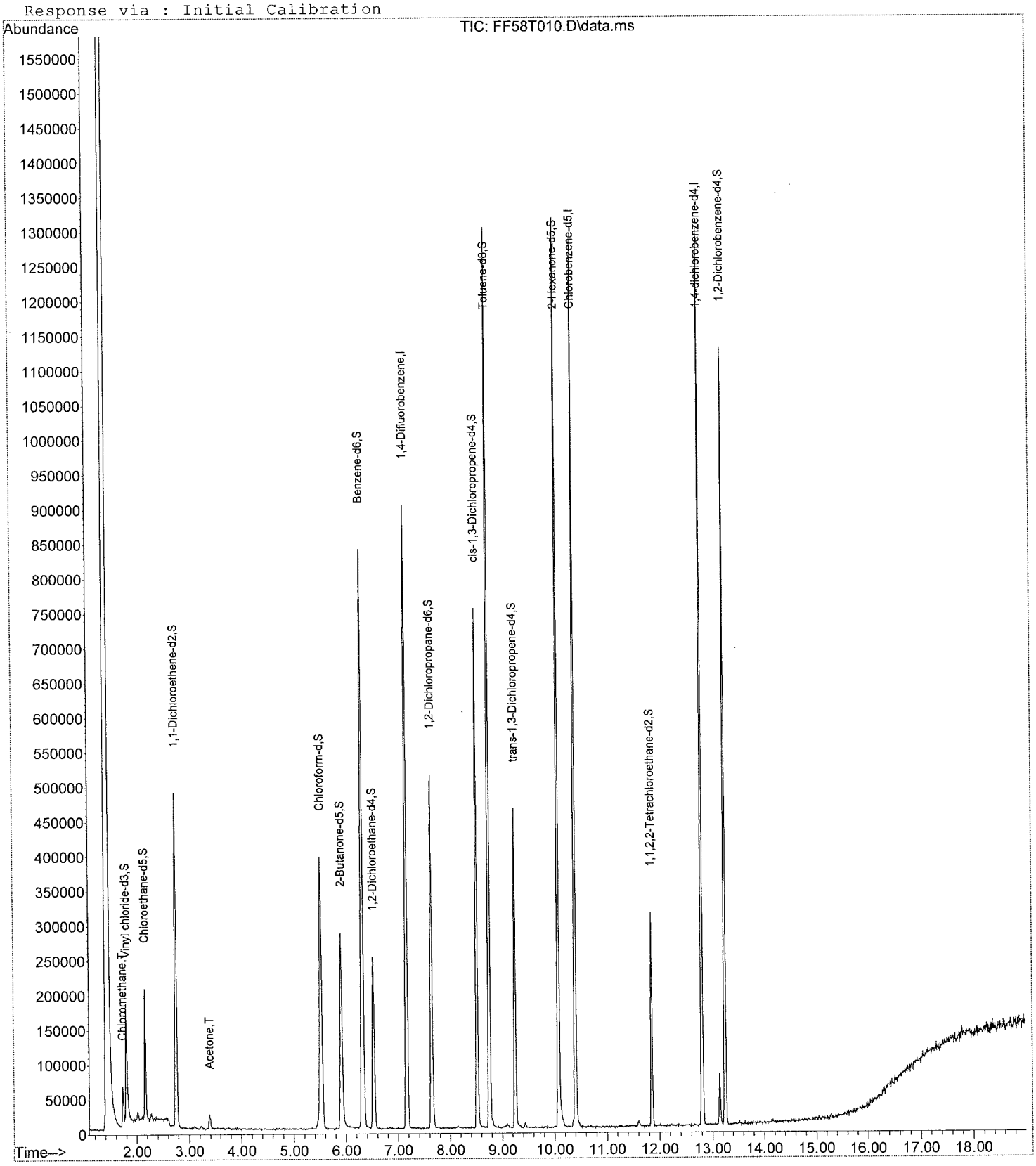
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF58T010.D Vial: 12
Acq Time : 03/06/2019 13:37 Operator: SLS
Sample : 1905930010 5P-MW110I-208 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:10:40 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF58T010.D Vial: 12
Acq Time : 03/06/2019 13:37 Operator: SLS
Sample : 1905930010 5P-MW110I-208 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:10:40 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	872169	5.00 ug/L	109.45
28) Chlorobenzene-d5	10.40	117	744220	5.00 ug/L	117.26
60) 1,4-dichlorobenzene-d4	12.80	152	366628	5.00 ug/L	103.38
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	217038	4.74 ug/L	94.72%
8) Chloroethane-d5	2.17	69	149321	4.60 ug/L	92.05%
11) 1,1-Dichloroethene-d2	2.76	63	396678	3.75 ug/L	75.01%
22) 2-Butanone-d5	5.92	46	541620	43.27 ug/L	86.55%
25) Chloroform-d	5.52	84	460651	4.64 ug/L	92.73%
27) 1,2-Dichloroethane-d4	6.52	65	231392	4.89 ug/L	97.80%
33) Benzene-d6	6.32	84	899034	4.92 ug/L	98.43%
37) 1,2-Dichloropropane-d6	7.65	67	224592	4.65 ug/L	93.00%
40) cis-1,3-Dichloropropene-d4	8.52	79	407618	4.80 ug/L	96.04%
42) trans-1,3-Dichloropropene-	9.25	79	239474	4.71 ug/L	94.12%
47) Toluene-d8	8.76	98	869357	5.21 ug/L	104.16%
50) 2-Hexanone-d5	10.08	63	438228	44.71 ug/L	89.43%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	138095	4.20 ug/L	84.08%
65) 1,2-Dichlorobenzene-d4	13.24	152	314409	5.05 ug/L	101.04%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	59941	0.8346 ug/L	97
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	33061	5.8815 ug/L	94
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

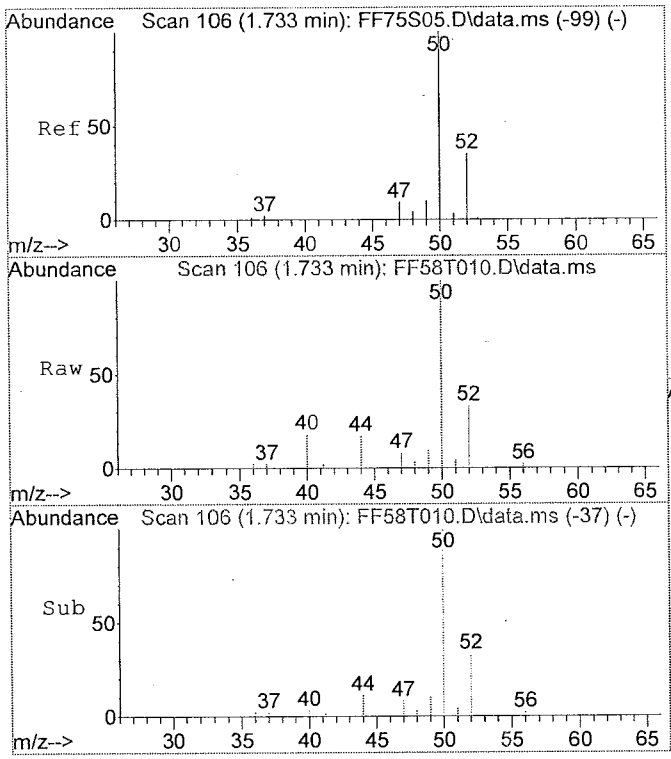
Data File : Q:\F-5975-F\2019\DAT...F\06MAR19F\FF58T010.D Vial: 12
Acq Time : 03/06/2019 13:37 Operator: SLS
Sample : 1905930010 5P-MW110I-208 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:10:40 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

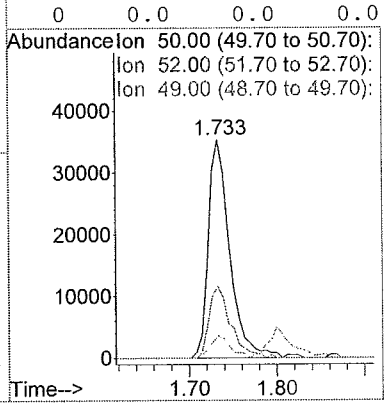
(#) = qualifier out of range (m) = manual integration

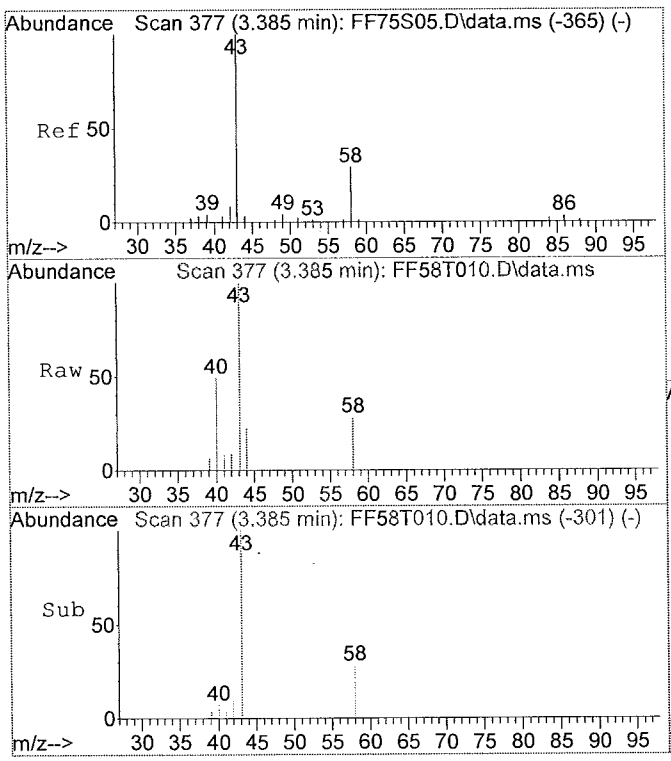


#3
Chloromethane
Concen: 0.83 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF58T010.D
Acq: 03/06/2019 13:37

Tgt Ion:50 Resp: 59941

Ion	Ratio	Lower	Upper
50	100		
52	33.1	11.1	51.1
49	9.8	0.0	30.0
0	0.0	0.0	0.0

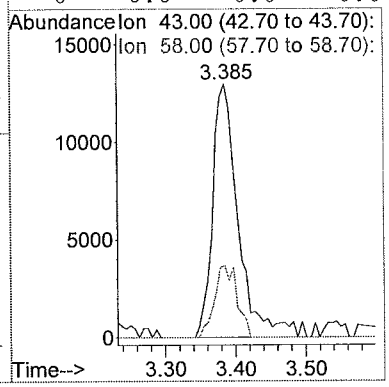




#13
Acetone
Concen: 5.88 ug/L
RT: 3.39 min Scan# 377
Delta R.T. 0.00 min
Lab File: FF58T010.D
Acq: 03/06/2019 13:37

Tgt Ion:43 Resp: 33061

Ion	Ratio	Lower	Upper
43	100		
58	24.9	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
TB-022719

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930001
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF70T001
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	3.0	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	38.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

TB-022719

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930001
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF70T001
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB-022719

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930001
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF70T001
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/07/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: 1.0 Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

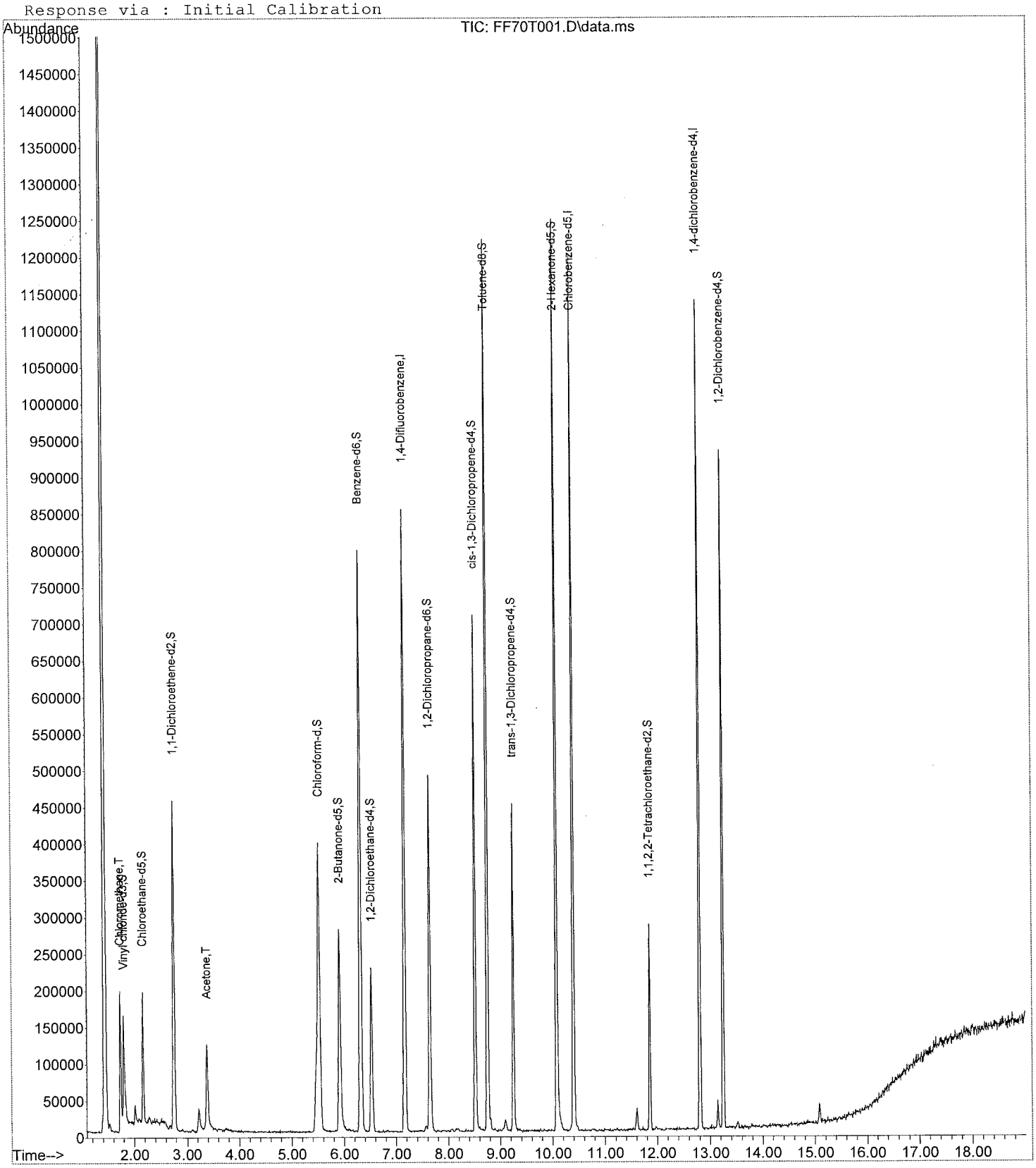
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF70T001.D Vial: 9
Acq Time : 03/07/2019 12:01 Operator: SLS
Sample : 1905930001 TB-022719 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:21:29 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF70T001.D Vial: 9
Acq Time : 03/07/2019 12:01 Operator: SLS
Sample : 1905930001 TB-022719 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:21:29 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	805673	5.00 ug/L	101.11
28) Chlorobenzene-d5	10.40	117	684454	5.00 ug/L	107.84
60) 1,4-dichlorobenzene-d4	12.81	152	314210	5.00 ug/L	88.60
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	195662	4.62 ug/L	92.44%
8) Chloroethane-d5	2.17	69	138251	4.61 ug/L	92.26%
11) 1,1-Dichloroethene-d2	2.76	63	364674	3.73 ug/L	74.65%
22) 2-Butanone-d5	5.91	46	547568	47.36 ug/L	94.72%
25) Chloroform-d	5.52	84	440824	4.80 ug/L	96.06%
27) 1,2-Dichloroethane-d4	6.52	65	214376	4.90 ug/L	98.09%
33) Benzene-d6	6.32	84	846868	5.04 ug/L	100.81%
37) 1,2-Dichloropropane-d6	7.64	67	212054	4.77 ug/L	95.47%
40) cis-1,3-Dichloropropene-d4	8.52	79	384020	4.92 ug/L	98.38%
42) trans-1,3-Dichloropropene-	9.25	79	226173	4.83 ug/L	96.65%
47) Toluene-d8	8.76	98	818088	5.33 ug/L	106.57%
50) 2-Hexanone-d5	10.08	63	407692	45.23 ug/L	90.46%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	124369	4.12 ug/L	82.33%
65) 1,2-Dichlorobenzene-d4	13.24	152	264312	4.96 ug/L	99.11%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	201953	3.0442 ug/L	96
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.38	43	198402	38.2087 ug/L	98
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

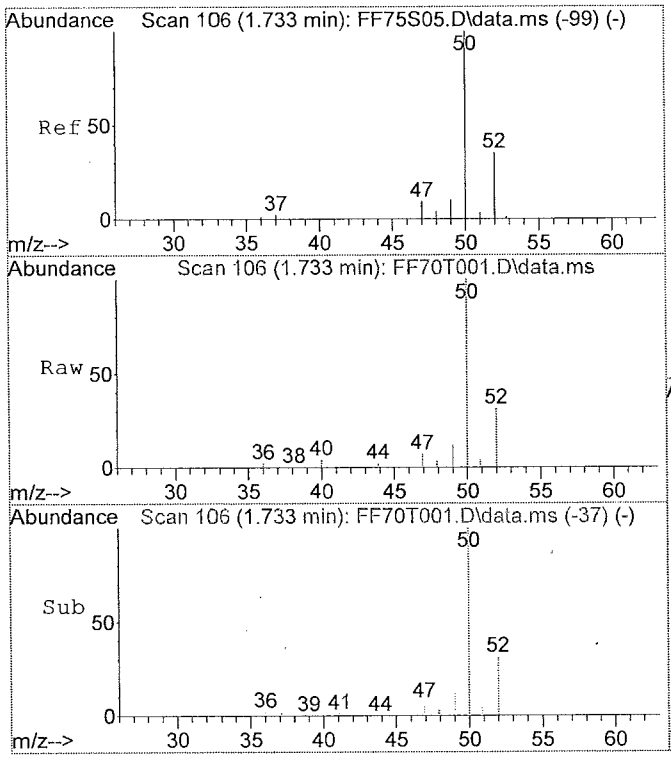
Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF70T001.D Vial: 9
Acq Time : 03/07/2019 12:01 Operator: SLS
Sample : 1905930001 TB-022719 Inst : 5975-F
Misc : 1905930 A Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 13:21:29 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

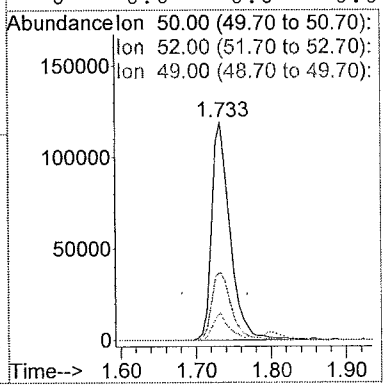
(#) = qualifier out of range (m) = manual integration

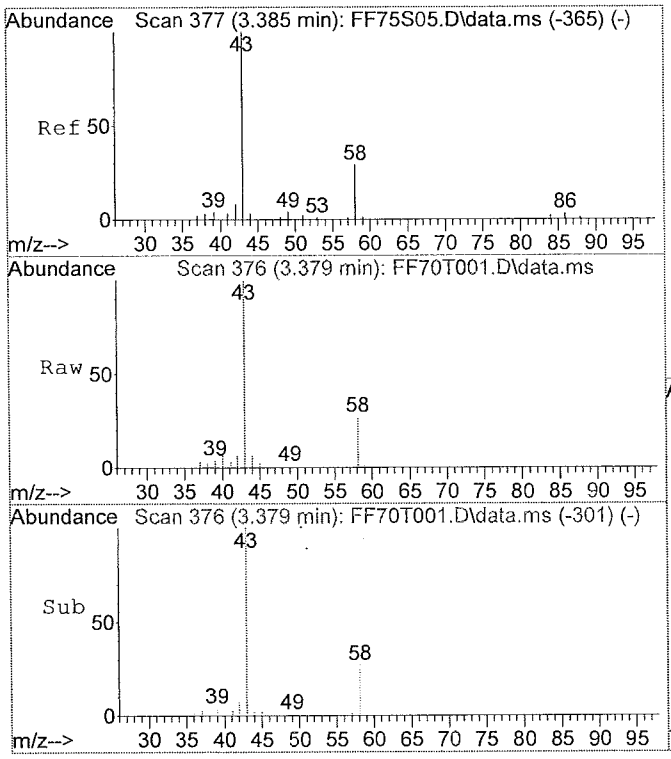


#3
Chloromethane
Concen: 3.04 ug/L
RT: 1.73 min Scan# 106
Delta R.T. 0.00 min
Lab File: FF70T001.D
Acq: 03/07/2019 12:01

Tgt Ion:50 Resp: 201953

Ion	Ratio	Lower	Upper
50	100		
52	33.4	11.1	51.1
49	11.0	0.0	30.0
0	0.0	0.0	0.0

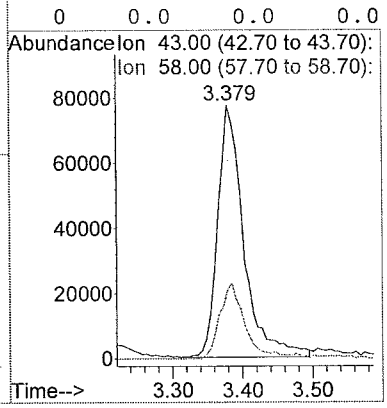




#13
Acetone
Concen: 38.21 ug/L
RT: 3.38 min Scan# 376
Delta R.T. -0.01 min
Lab File: FF70T001.D
Acq: 03/07/2019 12:01

Tgt Ion:43 Resp: 198402

Ion	Ratio	Lower	Upper
43	100		
58	29.3	8.2	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



FORM 6A-OR
GC/MS INITIAL CALIBRATION DATA

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Calibration Date(s): 03/05/2019 03/05/2019

GC Column: RTX-VMS ID: 0.25 (mm) Calibration Time(s): 10:48 12:41

Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

LAB FILE ID: FF40S005 RRF 0.5 = FF40S005 RRF 1 = FF41S01
RRF 5 = FF42S05 RRF 10 = FF43S10 RRF 20 = FF44S20

ANALYTE	RRF 0.5	RRF 1	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.269	0.188	0.239	0.210	0.207	0.223	14.2
Chloromethane	0.513	0.398	0.408	0.379	0.360	0.412	14.5
Vinyl chloride	0.360	0.269	0.292	0.272	0.267	0.292	13.5
Bromomethane	0.186	0.162	0.169	0.153	0.152	0.164	8.6
Chloroethane	0.224	0.160	0.168	0.154	0.149	0.171	17.9
Trichlorofluoromethane	0.535	0.404	0.465	0.429	0.418	0.450	11.7
1,1-Dichloroethene	0.268	0.231	0.246	0.224	0.217	0.237	8.5
1,1,2-Trichloro-1,2,2-trifluoroethane	0.321	0.238	0.282	0.253	0.246	0.268	12.7
Acetone	0.031	0.038	0.038	0.022	0.032	0.032	20.5
Carbon disulfide	0.789	0.646	0.686	0.637	0.607	0.673	10.5
Methyl acetate	0.146	0.111	0.102	0.082	0.104	0.109	21.4
Methylene chloride	0.355	0.273	0.248	0.221	0.215	0.262	21.7
trans-1,2-Dichloroethene	0.339	0.277	0.288	0.272	0.263	0.288	10.5
Methyl tert-butyl ether	0.628	0.617	0.609	0.522	0.555	0.586	7.8
1,1-Dichloroethane	0.664	0.565	0.569	0.524	0.514	0.567	10.5
cis-1,2-Dichloroethene	0.337	0.311	0.306	0.277	0.277	0.302	8.4
2-Butanone	0.063	0.071	0.076	0.051	0.068	0.066	14.4
Bromochloromethane	0.156	0.147	0.148	0.131	0.136	0.144	6.8
Chloroform	0.597	0.519	0.534	0.474	0.474	0.520	9.8
1,1,1-Trichloroethane	0.728	0.549	0.645	0.583	0.596	0.620	11.2
Cyclohexane	0.793	0.590	0.749	0.677	0.715	0.705	10.9
Carbon tetrachloride	0.737	0.563	0.658	0.594	0.611	0.632	10.7
Benzene	1.346	1.146	1.239	1.117	1.173	1.204	7.6
1,2-Dichloroethane	0.378	0.357	0.359	0.314	0.326	0.347	7.5
Trichloroethene	0.448	0.371	0.443	0.414	0.434	0.422	7.4
Methylcyclohexane	0.792	0.532	0.568	0.531	0.542	0.593	18.9
1,2-Dichloropropane	0.388	0.314	0.320	0.292	0.319	0.327	11.1
Bromodichloromethane	0.493	0.427	0.456	0.402	0.434	0.442	7.7
cis-1,3-Dichloropropene	0.498	0.446	0.442	0.414	0.444	0.449	6.8
4-Methyl-2-Pentanone	0.222	0.226	0.227	0.184	0.209	0.214	8.3
Toluene	1.436	1.184	1.274	1.218	1.228	1.268	7.8
trans-1,3-Dichloropropene	0.417	0.382	0.369	0.339	0.348	0.371	8.3
1,1,2-Trichloroethane	0.217	0.214	0.198	0.176	0.186	0.198	9.1
Tetrachloroethene	0.388	0.280	0.316	0.297	0.299	0.316	13.3

FORM 6A-OR
GC/MS INITIAL CALIBRATION DATA

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Calibration Date(s): 03/05/2019 03/05/2019

GC Column: RTX-VMS ID: 0.25 (mm) Calibration Time(s): 10:48 12:41

Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

LAB FILE ID: FF40S005 RRF 0.5 = FF40S005 RRF 1 = FF41S01
RRF 5 = FF42S05 RRF 10 = FF43S10 RRF 20 = FF44S20

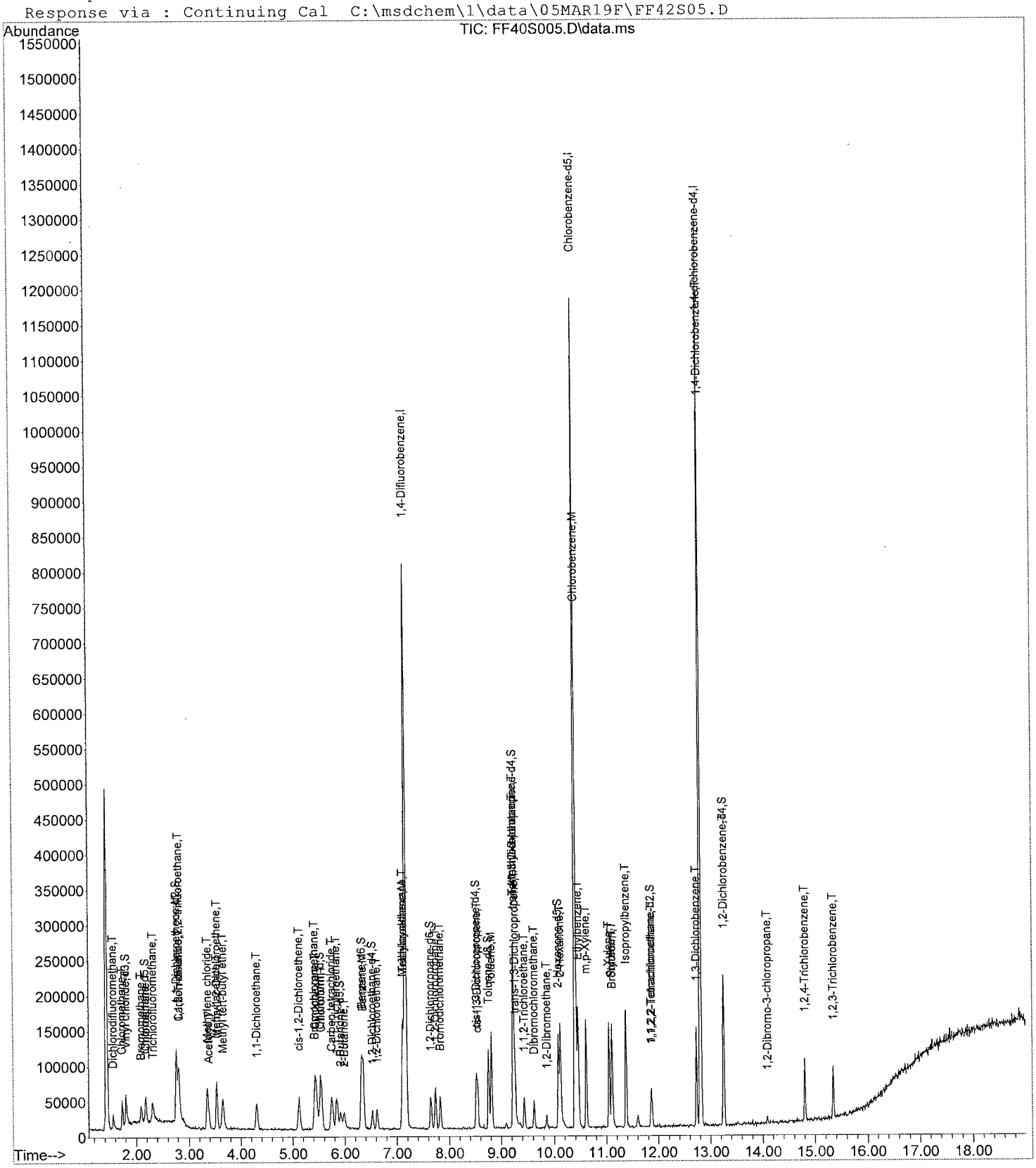
ANALYTE	RRF 0.5	RRF 1	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD
2-Hexanone	0.183	0.162	0.160	0.141	0.141	0.158	11.1
Dibromochloromethane	0.363	0.322	0.318	0.296	0.303	0.320	8.2
1,2-Dibromoethane	0.223	0.204	0.197	0.182	0.189	0.199	8.0
Chlorobenzene	1.051	0.879	0.887	0.837	0.839	0.898	9.8
Ethylbenzene	1.722	1.340	1.453	1.382	1.359	1.451	10.8
o-Xylene	0.612	0.539	0.578	0.548	0.545	0.564	5.4
m,p-Xylene	0.689	0.557	0.596	0.575	0.561	0.596	9.1
Styrene	1.050	0.885	0.933	0.885	0.880	0.926	7.8
Bromoform	0.419	0.376	0.335	0.311	0.328	0.354	12.3
Isopropylbenzene	1.724	1.336	1.511	1.460	1.411	1.488	9.9
1,1,2,2-Tetrachloroethane	0.246	0.228	0.227	0.191	0.201	0.219	10.1
1,3-Dichlorobenzene	1.777	1.515	1.438	1.409	1.375	1.503	10.7
1,4-Dichlorobenzene	1.848	1.534	1.475	1.419	1.386	1.532	12.1
1,2-Dichlorobenzene	1.530	1.362	1.297	1.207	1.185	1.316	10.6
1,2-Dibromo-3-chloropropane	0.072	0.084	0.079	0.062	0.068	0.073	12.0
1,2,4-Trichlorobenzene	0.835	0.700	0.696	0.672	0.588	0.698	12.7
1,2,3-Trichlorobenzene	0.644	0.554	0.562	0.507	0.441	0.542	13.8
Vinyl chloride-d3	0.288	0.266	0.265	0.241	0.253	0.263	6.5
Chloroethane-d5	0.233	0.193	0.182	0.159	0.163	0.186	15.8
1,1-Dichloroethene-d2	0.663	0.630	0.624	0.553	0.561	0.606	7.8
2-Butanone-d5	0.062	0.085	0.081	0.052	0.079	0.072	19.8
Chloroform-d	0.646	0.588	0.570	0.507	0.537	0.570	9.3
1,2-Dichloroethane-d4	0.295	0.287	0.277	0.233	0.264	0.271	9.0
Benzene-d6	1.267	1.248	1.265	1.105	1.251	1.227	5.6
1,2-Dichloropropane-d6	0.376	0.333	0.318	0.273	0.322	0.325	11.3
Toluene-d8	1.190	1.138	1.123	1.020	1.136	1.122	5.5
trans-1,3-Dichloropropene-d4	0.366	0.363	0.340	0.303	0.338	0.342	7.4
2-Hexanone-d5	0.071	0.069	0.067	0.057	0.065	0.066	8.1
1,1,2,2-Tetrachloroethane-d2	0.248	0.229	0.226	0.192	0.208	0.221	9.7
1,2-Dichlorobenzene-d4	1.008	0.871	0.842	0.742	0.781	0.849	12.0

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\05MAR19F\FF40S005.D Vial: 4
Acq Time : 03/05/2019 10:48 Operator: SLS
Sample : VSTD0.5TF VSTD0.5TF 0.5 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 0.5 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:33 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Wed Mar 06 08:49:40 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\05MAR19F\FF40S005.D Vial: 4
Acq Time : 03/05/2019 10:48 Operator: SLS
Sample : VSTD0.5TF VSTD0.5TF 0.5 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 0.5 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:33 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:06:20 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	785024	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.40	117	660334	5.00 ug/L	0.00
60) 1,4-dichlorobenzene-d4	12.81	152	347718	5.00 ug/L	0.00
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	22583	0.54 ug/L	10.86%#
8) Chloroethane-d5	2.17	69	18255	0.64 ug/L	12.81%#
11) 1,1-Dichloroethene-d2	2.76	63	52059	0.53 ug/L	10.62%#
22) 2-Butanone-d5	5.92	46	48377	3.78 ug/L	7.57%#
25) Chloroform-d	5.53	84	50721	0.57 ug/L	11.34%#
27) 1,2-Dichloroethane-d4	6.53	65	23181	0.53 ug/L	10.67%#
33) Benzene-d6	6.32	84	83676	0.50 ug/L	10.01%#
37) 1,2-Dichloropropane-d6	7.64	67	24800	0.59 ug/L	11.80%#
40) cis-1,3-Dichloropropene-d4	8.52	79	39951	0.53 ug/L	10.54%
42) trans-1,3-Dichloropropene-	9.24	79	24176	0.54 ug/L	10.77%#
47) Toluene-d8	8.76	98	78580	0.53 ug/L	10.59%#
50) 2-Hexanone-d5	10.08	63	46789	5.25 ug/L	10.51%#
59) 1,1,2,2-Tetrachloroethane-	11.85	84	16374	0.55 ug/L	10.97%#
65) 1,2-Dichlorobenzene-d4	13.25	152	35045	0.60 ug/L	11.97%#
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	21120	0.5625 ug/L #	96
3) Chloromethane	1.73	50	40304	0.6290 ug/L	99
4) Vinyl chloride	1.81	62	28246	0.6152 ug/L	98
6) Bromomethane	2.09	94	14629	0.5507 ug/L	92
7) Chloroethane	2.19	64	17614	0.6675 ug/L	96
9) Trichlorofluoromethane	2.32	101	42004	0.5756 ug/L	98
10) 1,1-Dichloroethene	2.78	96	21008	0.5440 ug/L #	82
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	25195	0.5688 ug/L	97
13) Acetone	3.39	43	24169	4.0315 ug/L	93
14) Carbon disulfide	2.82	76	61969	0.5757 ug/L #	1
15) Methyl acetate	3.53	43	11471	0.7192 ug/L #	63
16) Methylene chloride	3.35	84	27891	0.7176 ug/L	98
17) trans-1,2-Dichloroethene	3.53	96	26608	0.5884 ug/L	96
18) Methyl tert-butyl ether	3.65	73	49324	0.5157 ug/L	93
19) 1,1-Dichloroethane	4.31	63	52144	0.5836 ug/L	99
20) cis-1,2-Dichloroethene	5.12	96	26480	0.5506 ug/L	93
21) 2-Butanone	5.99	43	49340	4.1265 ug/L	97
23) Bromochloromethane	5.42	128	12237	0.5282 ug/L	89
24) Chloroform	5.54	83	46891	0.5597 ug/L	97
26) 1,2-Dichloroethane	6.61	62	29653	0.5266 ug/L	90
29) 1,1,1-Trichloroethane	5.83	97	48074	0.5647 ug/L	97
30) Cyclohexane	5.44	56	52353	0.5296 ug/L	93
31) Carbon tetrachloride	5.74	117	48658	0.5599 ug/L	99
32) Benzene	6.35	78	88910	0.5433 ug/L	97
34) Trichloroethene	7.12	130	29576	0.5058 ug/L	86
35) Methylcyclohexane	7.11	83	52306	0.6974 ug/L	88
36) 1,2-Dichloropropane	7.74	63	25627	0.6063 ug/L	96
38) Bromodichloromethane	7.82	83	32540	0.5409 ug/L	96
39) cis-1,3-Dichloropropene	8.55	75	32903	0.5634 ug/L	91
41) trans-1,3-Dichloropropene	9.27	75	27520	0.5649 ug/L	91
43) 1,1,2-Trichloroethane	9.43	97	14352	0.5493 ug/L	92
44) Dibromochloromethane	9.62	129	23999	0.5721 ug/L	97
45) 4-Methyl-2-pentanone	9.23	43	146326	4.8893 ug/L	97
46) Toluene	8.81	91	94836	0.5638 ug/L	96

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\05MAR19F\FF40S005.D Vial: 4
Acq Time : 03/05/2019 10:48 Operator: SLS
Sample : VSTD0.5TF VSTD0.5TF 0.5 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 0.5 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:33 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:06:20 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.24	164	25590	0.6133 ug/L	94
49) 2-Hexanone	10.12	43	120967	5.7378 ug/L	99
51) 1,2-Dibromoethane	9.86	107	14726	0.5665 ug/L	94
52) Chlorobenzene	10.42	112	69406	0.5928 ug/L	87
53) Ethylbenzene	10.46	91	113728	0.5925 ug/L	99
54) m,p-Xylene	10.61	106	45500	0.5781 ug/L	98
55) o-Xylene	11.05	106	40390	0.5290 ug/L #	86
56) Styrene	11.10	104	69314	0.5622 ug/L	95
57) Isopropylbenzene	11.38	105	113856	0.5706 ug/L	97
58) 1,1,2,2-Tetrachloroethane	11.87	83	16214	0.5397 ug/L	94
61) Bromoform	11.12	173	14556	0.6251 ug/L	96
62) 1,3-Dichlorobenzene	12.73	146	61775	0.6178 ug/L	96
63) 1,4-Dichlorobenzene	12.82	146	64252	0.6263 ug/L #	78
64) 1,2-Dichlorobenzene	13.26	146	53185	0.5898 ug/L	96
66) 1,2-Dibromo-3-chloropropan	14.08	75	2519	0.4590 ug/L	95
67) 1,2,4-Trichlorobenzene	14.80	180	29032	0.5995 ug/L	98
68) 1,2,3-Trichlorobenzene	15.34	180	22407	0.5733 ug/L	95

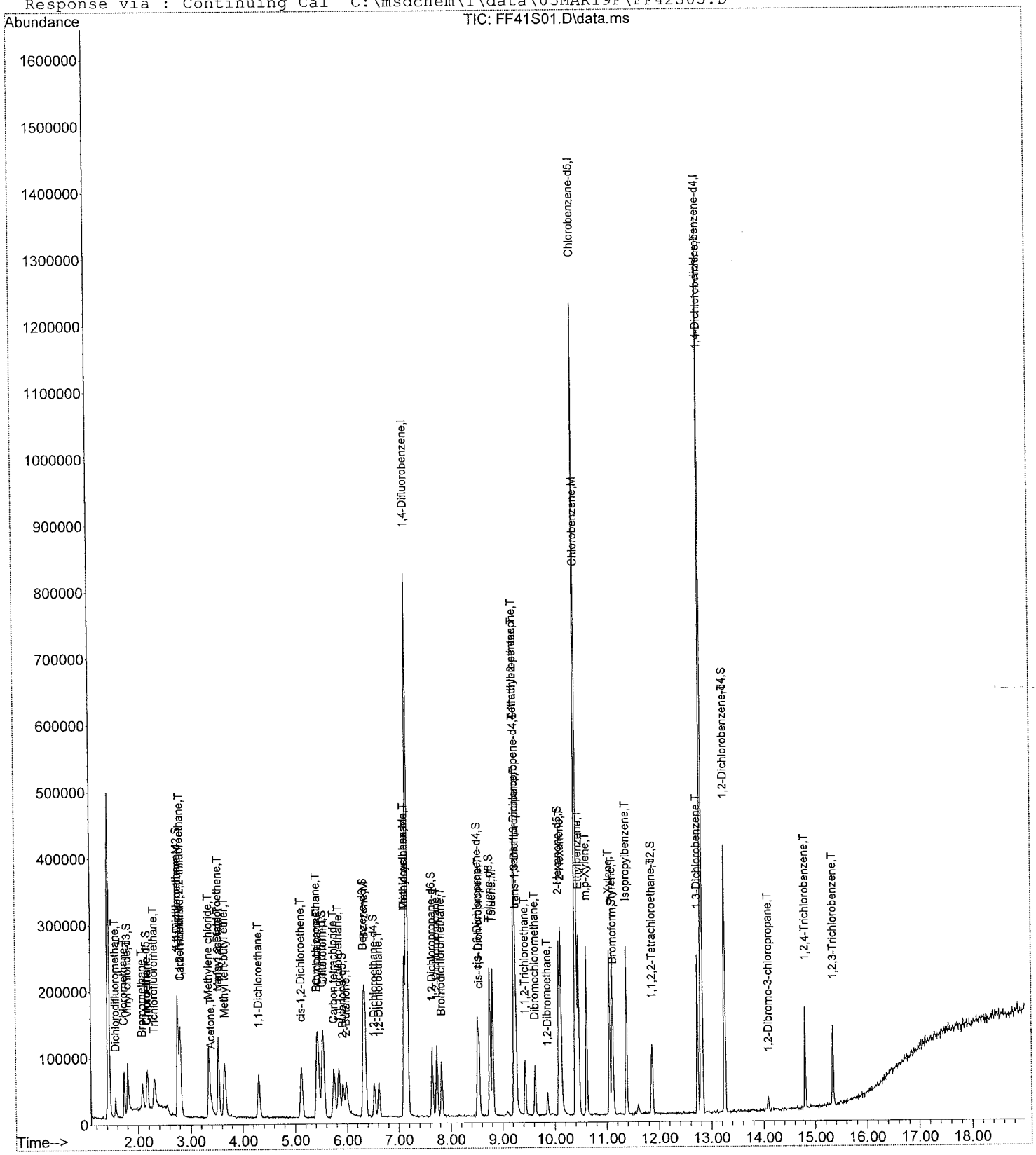
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF41S01.D Vial: 5
Acq Time : 03/05/2019 11:16 Operator: SLS
Sample : VSTD001TF VSTD001TF 1.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 1.0 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:55 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Wed Mar 06 08:49:40 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF41S01.D Vial: 5
Acq Time : 03/05/2019 11:16 Operator: SLS
Sample : VSTD001TF VSTD001TF 1.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 1.0 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:55 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:06:44 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	814572	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.40	117	674366	5.00 ug/L	0.00
60) 1,4-dichlorobenzene-d4	12.81	152	353802	5.00 ug/L	0.00
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	43391	1.01 ug/L	20.11%#
8) Chloroethane-d5	2.17	69	31497	1.07 ug/L	21.30%#
11) 1,1-Dichloroethene-d2	2.76	63	102683	1.01 ug/L	20.19%#
22) 2-Butanone-d5	5.92	46	137883	10.39 ug/L	20.78%#
25) Chloroform-d	5.53	84	95839	1.03 ug/L	20.65%#
27) 1,2-Dichloroethane-d4	6.52	65	46799	1.04 ug/L	20.75%#
33) Benzene-d6	6.32	84	168371	0.99 ug/L	19.73%#
37) 1,2-Dichloropropane-d6	7.64	67	44980	1.05 ug/L	20.96%#
40) cis-1,3-Dichloropropene-d4	8.52	79	79189	1.02 ug/L	20.45%
42) trans-1,3-Dichloropropene-	9.26	79	48900	1.07 ug/L	21.34%#
47) Toluene-d8	8.76	98	153524	1.01 ug/L	20.26%#
50) 2-Hexanone-d5	10.08	63	92689	10.19 ug/L	20.38%#
59) 1,1,2,2-Tetrachloroethane-	11.86	84	30944	1.02 ug/L	20.30%#
65) 1,2-Dichlorobenzene-d4	13.24	152	61597	1.03 ug/L	20.67%#
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.57	85	30637	0.7863 ug/L #	94
3) Chloromethane	1.73	50	64768	0.9741 ug/L	96
4) Vinyl chloride	1.81	62	43782	0.9190 ug/L	97
6) Bromomethane	2.08	94	26388	0.9574 ug/L	98
7) Chloroethane	2.18	64	26034	0.9508 ug/L	99
9) Trichlorofluoromethane	2.30	101	65802	0.8691 ug/L	96
10) 1,1-Dichloroethene	2.77	96	37556	0.9372 ug/L	93
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	38709	0.8422 ug/L	97
13) Acetone	3.39	43	61769	9.9296 ug/L	97
14) Carbon disulfide	2.81	76	105293	0.9427 ug/L	95
15) Methyl acetate	3.53	43	18074	1.0920 ug/L	94
16) Methylene chloride	3.35	84	44536	1.1042 ug/L	93
17) trans-1,2-Dichloroethene	3.53	96	45146	0.9620 ug/L	98
18) Methyl tert-butyl ether	3.65	73	100501	1.0126 ug/L	98
19) 1,1-Dichloroethane	4.31	63	92024	0.9925 ug/L	97
20) cis-1,2-Dichloroethene	5.12	96	50725	1.0166 ug/L	95
21) 2-Butanone	5.99	43	116007	9.3501 ug/L	99
23) Bromochloromethane	5.42	128	23927	0.9953 ug/L	96
24) Chloroform	5.55	83	84609	0.9733 ug/L	99
26) 1,2-Dichloroethane	6.62	62	58143	0.9950 ug/L	89
29) 1,1,1-Trichloroethane	5.84	97	73979	0.8510 ug/L	94
30) Cyclohexane	5.44	56	79639	0.7889 ug/L	95
31) Carbon tetrachloride	5.75	117	75937	0.8556 ug/L	98
32) Benzene	6.35	78	154556	0.9248 ug/L	93
34) Trichloroethene	7.12	130	50055	0.8382 ug/L #	79
35) Methylcyclohexane	7.11	83	71792	0.9373 ug/L	92
36) 1,2-Dichloropropane	7.74	63	42327	0.9806 ug/L	93
38) Bromodichloromethane	7.82	83	57633	0.9381 ug/L	97
39) cis-1,3-Dichloropropene	8.55	75	60155	1.0086 ug/L	97
41) trans-1,3-Dichloropropene	9.26	75	51561	1.0364 ug/L	93
43) 1,1,2-Trichloroethane	9.43	97	28883	1.0825 ug/L	97
44) Dibromochloromethane	9.62	129	43480	1.0150 ug/L	97
45) 4-Methyl-2-pentanone	9.23	43	304718	9.9699 ug/L	98
46) Toluene	8.81	91	159688	0.9295 ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF41S01.D Vial: 5
Acq Time : 03/05/2019 11:16 Operator: SLS
Sample : VSTD001TF VSTD001TF 1.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 1.0 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:55 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:06:44 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	Tetrachloroethene	9.23	164	37726	0.8853 ug/L		97
49)	2-Hexanone	10.12	43	218790	10.1619 ug/L		97
51)	1,2-Dibromoethane	9.85	107	27544	1.0375 ug/L		93
52)	Chlorobenzene	10.42	112	118528	0.9913 ug/L		95
53)	Ethylbenzene	10.46	91	180782	0.9223 ug/L		99
54)	m,p-Xylene	10.61	106	75131	0.9346 ug/L		98
55)	o-Xylene	11.05	106	72657	0.9317 ug/L		97
56)	Styrene	11.10	104	119306	0.9476 ug/L		91
57)	Isopropylbenzene	11.38	105	180232	0.8845 ug/L		97
58)	1,1,2,2-Tetrachloroethane	11.87	83	30726	1.0014 ug/L		95
61)	Bromoform	11.12	173	26598	1.1226 ug/L		100
62)	1,3-Dichlorobenzene	12.73	146	107180	1.0535 ug/L		97
63)	1,4-Dichlorobenzene	12.82	146	108524	1.0396 ug/L	#	89
64)	1,2-Dichlorobenzene	13.26	146	96399	1.0507 ug/L		97
66)	1,2-Dibromo-3-chloropropan	14.10	75	5924	1.0609 ug/L	#	82
67)	1,2,4-Trichlorobenzene	14.80	180	49521	1.0050 ug/L		95
68)	1,2,3-Trichlorobenzene	15.34	180	39170	0.9849 ug/L		97

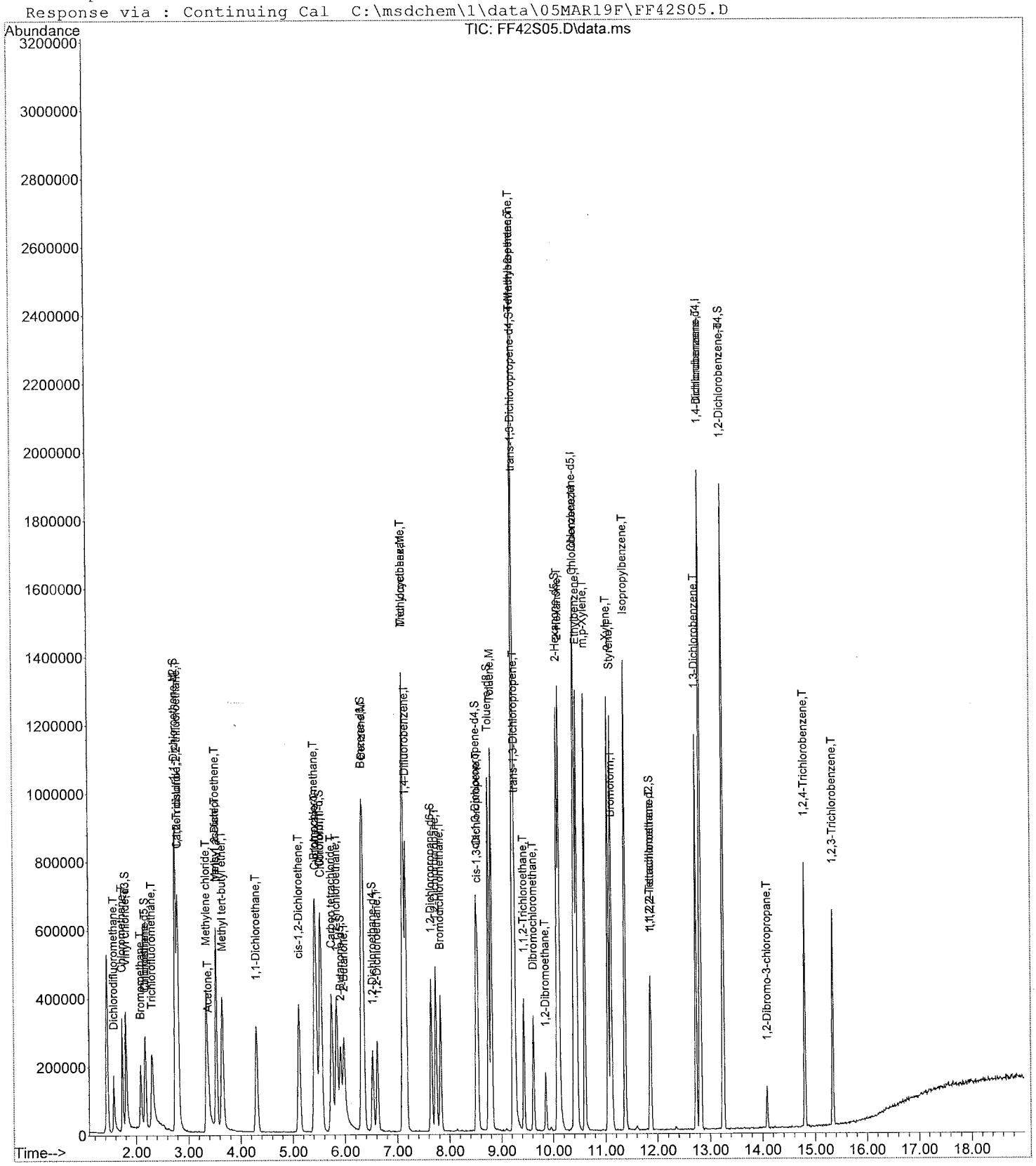
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF42S05.D Vial: 6
Acq Time : 03/05/2019 11:44 Operator: SLS
Sample : VSTD005TF VSTD005TF 5.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 5.0 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:04 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Wed Mar 06 08:49:40 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF42S05.D Vial: 6
Acq Time : 03/05/2019 11:44 Operator: SLS
Sample : VSTD005TF VSTD005TF 5.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 5.0 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:04 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:06:00 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	796865	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.40	117	634678	5.00 ug/L	0.00
60) 1,4-dichlorobenzene-d4	12.81	152	354656	5.00 ug/L	0.00

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	211113	5.00 ug/L	100.00%
8) Chloroethane-d5	2.17	69	144653	5.00 ug/L	100.00%
11) 1,1-Dichloroethene-d2	2.76	63	497405	5.00 ug/L	100.00%
22) 2-Butanone-d5	5.92	46	649110	50.00 ug/L	100.00%
25) Chloroform-d	5.53	84	454073	5.00 ug/L	100.00%
27) 1,2-Dichloroethane-d4	6.53	65	220603	5.00 ug/L	100.00%
33) Benzene-d6	6.32	84	803075	5.00 ug/L	100.00%
37) 1,2-Dichloropropane-d6	7.65	67	201988	5.00 ug/L	100.00%
40) cis-1,3-Dichloropropene-d4	8.52	79	364360	5.00 ug/L	100.00%
42) trans-1,3-Dichloropropene-	9.25	79	215661	5.00 ug/L	100.00%
47) Toluene-d8	8.76	98	713025	5.00 ug/L	100.00%
50) 2-Hexanone-d5	10.08	63	427989	50.00 ug/L	100.00%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	143429	5.00 ug/L	100.00%
65) 1,2-Dichlorobenzene-d4	13.24	152	298715	5.00 ug/L	100.00%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.57	85	190573	5.0000 ug/L #	98
3) Chloromethane	1.73	50	325222	5.0000 ug/L	98
4) Vinyl chloride	1.81	62	233037	5.0000 ug/L	98
6) Bromomethane	2.09	94	134820	5.0000 ug/L	98
7) Chloroethane	2.18	64	133936	5.0000 ug/L	98
9) Trichlorofluoromethane	2.31	101	370354	5.0000 ug/L	99
10) 1,1-Dichloroethene	2.76	96	196008	5.0000 ug/L	88
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	224805	5.0000 ug/L	98
13) Acetone	3.39	43	304275	50.0000 ug/L	89
14) Carbon disulfide	2.81	76	546304	5.0000 ug/L	92
15) Methyl acetate	3.53	43	80956	5.0000 ug/L	96
16) Methylene chloride	3.35	84	197280	5.0000 ug/L	93
17) trans-1,2-Dichloroethene	3.53	96	229534	5.0000 ug/L	94
18) Methyl tert-butyl ether	3.65	73	485471	5.0000 ug/L	98
19) 1,1-Dichloroethane	4.30	63	453520	5.0000 ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	244072	5.0000 ug/L	94
21) 2-Butanone	5.98	43	606866	50.0000 ug/L	98
23) Bromochloromethane	5.42	128	117582	5.0000 ug/L	97
24) Chloroform	5.55	83	425222	5.0000 ug/L	98
26) 1,2-Dichloroethane	6.62	62	285816	5.0000 ug/L	92
29) 1,1,1-Trichloroethane	5.84	97	409099	5.0000 ug/L	97
30) Cyclohexane	5.45	56	475058	5.0000 ug/L	91
31) Carbon tetrachloride	5.74	117	417638	5.0000 ug/L	98
32) Benzene	6.35	78	786421	5.0000 ug/L	96
34) Trichloroethene	7.12	130	281020	5.0000 ug/L	97
35) Methylcyclohexane	7.11	83	360442	5.0000 ug/L	94
36) 1,2-Dichloropropane	7.74	63	203129	5.0000 ug/L	95
38) Bromodichloromethane	7.83	83	289103	5.0000 ug/L	99
39) cis-1,3-Dichloropropene	8.55	75	280658	5.0000 ug/L	96
41) trans-1,3-Dichloropropene	9.27	75	234116	5.0000 ug/L	94
43) 1,1,2-Trichloroethane	9.43	97	125563	5.0000 ug/L	94
44) Dibromochloromethane	9.62	129	201580	5.0000 ug/L	98
45) 4-Methyl-2-pentanone	9.23	43	1438256	50.0000 ug/L	95
46) Toluene	8.81	91	808408	5.0000 ug/L	98

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF42S05.D Vial: 6
Acq Time : 03/05/2019 11:44 Operator: SLS
Sample : VSTD005TF VSTD005TF 5.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 5.0 uL of 46310, 46312/ Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 12:06:04 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:06:00 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48) Tetrachloroethene	9.23	164	200525	5.0000	ug/L	97
49) 2-Hexanone	10.12	43	1013161	50.0000	ug/L	97
51) 1,2-Dibromoethane	9.85	107	124933	5.0000	ug/L	99
52) Chlorobenzene	10.42	112	562681	5.0000	ug/L	97
53) Ethylbenzene	10.46	91	922371	5.0000	ug/L	100
54) m,p-Xylene	10.61	106	378273	5.0000	ug/L	98
55) o-Xylene	11.05	106	366954	5.0000	ug/L	98
56) Styrene	11.10	104	592459	5.0000	ug/L	98
57) Isopropylbenzene	11.38	105	958916	5.0000	ug/L	97
58) 1,1,2,2-Tetrachloroethane	11.87	83	144386	5.0000	ug/L	97
61) Bromoform	11.12	173	118749	5.0000	ug/L	100
62) 1,3-Dichlorobenzene	12.73	146	509922	5.0000	ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	523190	5.0000	ug/L	99
64) 1,2-Dichlorobenzene	13.26	146	459863	5.0000	ug/L	98
66) 1,2-Dibromo-3-chloropropan	14.08	75	27988	5.0000	ug/L	92
67) 1,2,4-Trichlorobenzene	14.80	180	246978	5.0000	ug/L	100
68) 1,2,3-Trichlorobenzene	15.34	180	199335	5.0000	ug/L	98

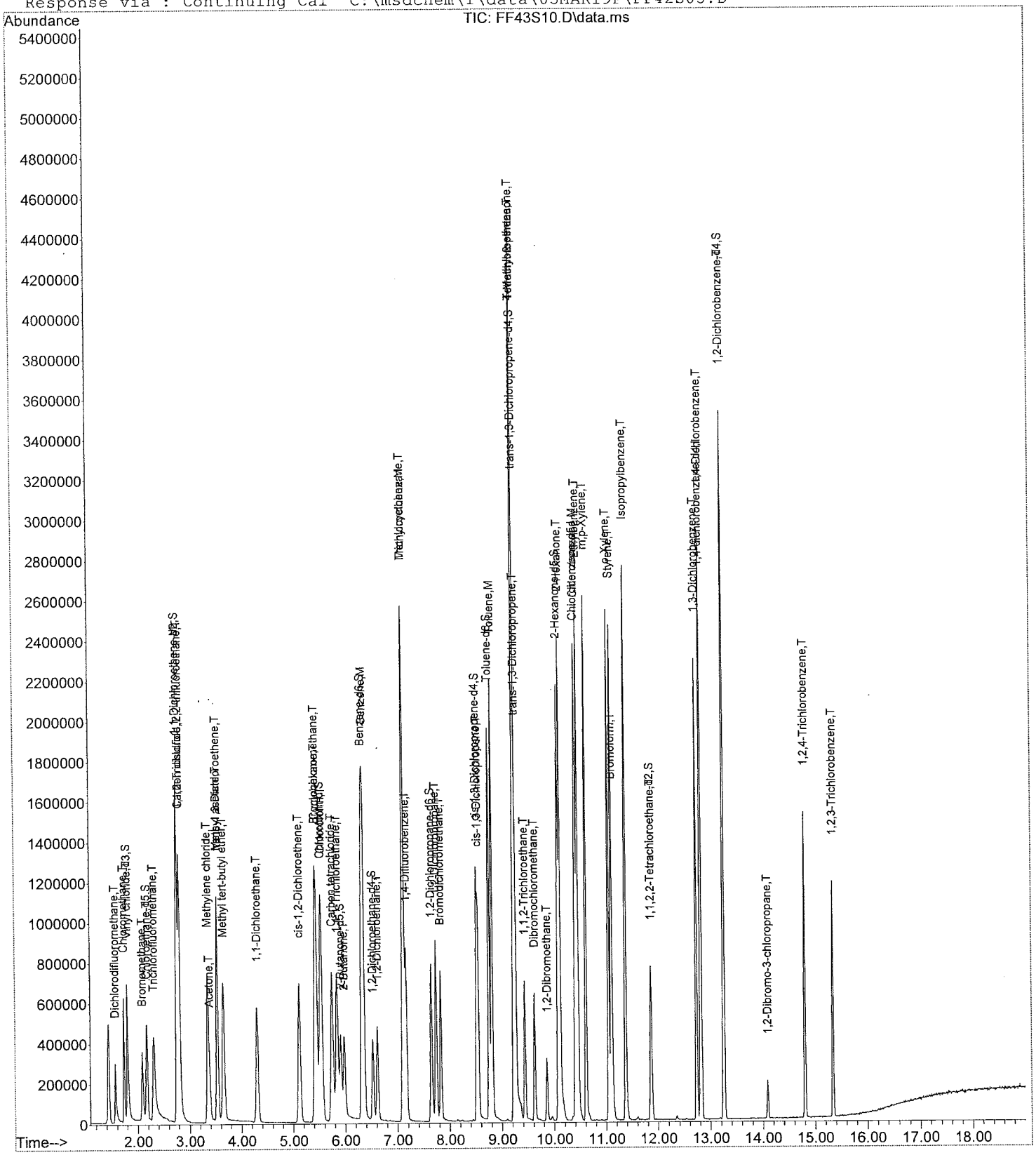
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF43S10.D Vial: 7
Acq Time : 03/05/2019 12:12 Operator: SLS
Sample : VSTD010TF VSTD010TF 10.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 10 uL of 46310, 46312/5 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 13:23:11 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Wed Mar 06 08:49:40 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF43S10.D Vial: 7
Acq Time : 03/05/2019 12:12 Operator: SLS
Sample : VSTD010TF VSTD010TF 10.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 10 uL of 46310, 46312/5 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 13:23:11 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:07:07 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	800540	5.00 ug/L	0.00
28) Chlorobenzene-d5	10.40	117	656950	5.00 ug/L	0.00
60) 1,4-dichlorobenzene-d4	12.80	152	361936	5.00 ug/L	0.00
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	386504	9.11 ug/L	182.24%#
8) Chloroethane-d5	2.17	69	255039	8.78 ug/L	175.50%#
11) 1,1-Dichloroethene-d2	2.76	63	885613	8.86 ug/L	177.23%#
22) 2-Butanone-d5	5.91	46	831819	63.78 ug/L	127.56%
25) Chloroform-d	5.52	84	811253	8.89 ug/L	177.84%#
27) 1,2-Dichloroethane-d4	6.52	65	372337	8.40 ug/L	168.01%#
33) Benzene-d6	6.32	84	1451576	8.73 ug/L	174.62%#
37) 1,2-Dichloropropane-d6	7.64	67	359139	8.59 ug/L	171.77%#
40) cis-1,3-Dichloropropene-d4	8.52	79	655780	8.69 ug/L	173.88%
42) trans-1,3-Dichloropropene-	9.25	79	398353	8.92 ug/L	178.45%#
47) Toluene-d8	8.76	98	1340536	9.08 ug/L	181.63%#
50) 2-Hexanone-d5	10.08	63	749815	84.63 ug/L	169.26%#
59) 1,1,2,2-Tetrachloroethane-	11.85	84	251820	8.48 ug/L	169.62%#
65) 1,2-Dichlorobenzene-d4	13.24	152	536918	8.81 ug/L	176.13%#
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.56	85	336267	8.7820 ug/L #	97
3) Chloromethane	1.73	50	606954	9.2885 ug/L	99
4) Vinyl chloride	1.80	62	434699	9.2840 ug/L	97
6) Bromomethane	2.09	94	244252	9.0169 ug/L	98
7) Chloroethane	2.18	64	246866	9.1735 ug/L	97
9) Trichlorofluoromethane	2.31	101	687161	9.2345 ug/L	98
10) 1,1-Dichloroethene	2.77	96	358614	9.1059 ug/L	88
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	405314	8.9734 ug/L	93
13) Acetone	3.39	43	351646	57.5190 ug/L	95
14) Carbon disulfide	2.81	76	1019524	9.2883 ug/L	96
15) Methyl acetate	3.53	43	131488	8.0837 ug/L	99
16) Methylene chloride	3.35	84	353182	8.9102 ug/L	97
17) trans-1,2-Dichloroethene	3.53	96	435070	9.4337 ug/L	98
18) Methyl tert-butyl ether	3.65	73	835497	8.5655 ug/L	98
19) 1,1-Dichloroethane	4.30	63	838971	9.2071 ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	444123	9.0564 ug/L	93
21) 2-Butanone	5.98	43	819996	67.2497 ug/L	98
23) Bromochloromethane	5.42	128	209908	8.8850 ug/L	95
24) Chloroform	5.55	83	759476	8.8894 ug/L	99
26) 1,2-Dichloroethane	6.62	62	502116	8.7436 ug/L	91
29) 1,1,1-Trichloroethane	5.84	97	765488	9.0386 ug/L	99
30) Cyclohexane	5.44	56	890140	9.0511 ug/L	95
31) Carbon tetrachloride	5.74	117	779911	9.0206 ug/L	98
32) Benzene	6.35	78	1467699	9.0152 ug/L	96
34) Trichloroethene	7.12	130	544441	9.3585 ug/L	96
35) Methylcyclohexane	7.11	83	697578	9.3486 ug/L	92
36) 1,2-Dichloropropane	7.73	63	384044	9.1327 ug/L	99
38) Bromodichloromethane	7.82	83	528456	8.8297 ug/L	99
39) cis-1,3-Dichloropropene	8.55	75	543934	9.3618 ug/L	98
41) trans-1,3-Dichloropropene	9.26	75	445539	9.1928 ug/L #	49
43) 1,1,2-Trichloroethane	9.43	97	230749	8.8771 ug/L	93
44) Dibromochloromethane	9.62	129	389127	9.3247 ug/L	98
45) 4-Methyl-2-pentanone	9.23	43	2423645	81.3999 ug/L	95
46) Toluene	8.81	91	1600374	9.5627 ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF43S10.D Vial: 7
Acq Time : 03/05/2019 12:12 Operator: SLS
Sample : VSTD010TF VSTD010TF 10.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 10 uL of 46310, 46312/5 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 13:23:11 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 12:07:07 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	389784	9.3896 ug/L	99
49) 2-Hexanone	10.12	43	1853855	88.3870 ug/L	96
51) 1,2-Dibromoethane	9.85	107	238621	9.2262 ug/L	95
52) Chlorobenzene	10.42	112	1100225	9.4452 ug/L	98
53) Ethylbenzene	10.46	91	1815411	9.5074 ug/L	99
54) m,p-Xylene	10.61	106	755685	9.6500 ug/L	99
55) o-Xylene	11.05	106	719551	9.4720 ug/L	98
56) Styrene	11.10	104	1162432	9.4776 ug/L	97
57) Isopropylbenzene	11.38	105	1917734	9.6605 ug/L	98
58) 1,1,2,2-Tetrachloroethane	11.87	83	251007	8.3975 ug/L	98
61) Bromoform	11.12	173	225373	9.2986 ug/L	99
62) 1,3-Dichlorobenzene	12.73	146	1020081	9.8011 ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	1026964	9.6170 ug/L	98
64) 1,2-Dichlorobenzene	13.26	146	873483	9.3062 ug/L	99
66) 1,2-Dibromo-3-chloropropan	14.08	75	44720	7.8284 ug/L	90
67) 1,2,4-Trichlorobenzene	14.80	180	486229	9.6456 ug/L	98
68) 1,2,3-Trichlorobenzene	15.34	180	366765	9.0147 ug/L	99

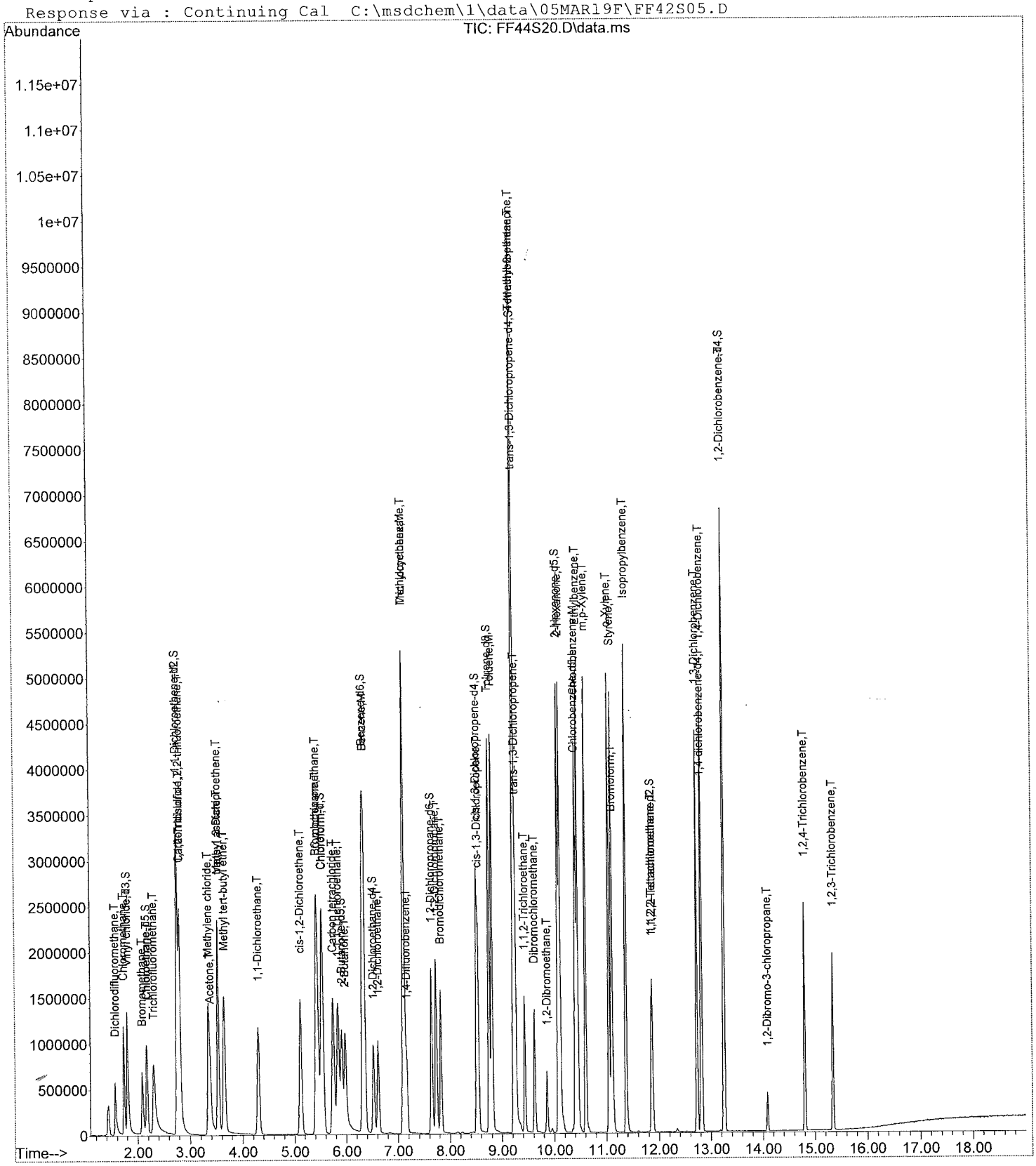
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF44S20.D Vial: 8
Acq Time : 03/05/2019 12:41 Operator: SLS
Sample : VSTD020TF VSTD020TF 20.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 20 uL of 46310, 46312/5 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 13:23:27 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Wed Mar 06 08:49:40 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF44S20.D Vial: 8
Acq Time : 03/05/2019 12:41 Operator: SLS
Sample : VSTD020TF VSTD020TF 20.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 20 uL of 46310, 46312/5 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 13:23:27 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:18 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) 1,4-Difluorobenzene	7.16	114	843784	5.00	ug/L	0.00
28) Chlorobenzene-d5	10.40	117	651784	5.00	ug/L	0.00
60) 1,4-dichlorobenzene-d4	12.80	152	345173	5.00	ug/L	0.00

System Monitoring Compounds						%Recovery
5) Vinyl chloride-d3	1.80	65	854840	19.12	ug/L	382.40%#
8) Chloroethane-d5	2.17	69	551015	17.99	ug/L	359.74%#
11) 1,1-Dichloroethene-d2	2.76	63	1893811	17.98	ug/L	359.57%#
22) 2-Butanone-d5	5.92	46	2669310	194.18	ug/L	388.36%#
25) Chloroform-d	5.52	84	1812698	18.85	ug/L	377.01%#
27) 1,2-Dichloroethane-d4	6.52	65	892359	19.10	ug/L	382.02%#
33) Benzene-d6	6.32	84	3261508	19.77	ug/L	395.47%#
37) 1,2-Dichloropropane-d6	7.65	67	839219	20.23	ug/L	404.58%#
40) cis-1,3-Dichloropropene-d4	8.52	79	1527822	20.42	ug/L	408.31%#
42) trans-1,3-Dichloropropene-	9.25	79	880638	19.88	ug/L	397.63%#
47) Toluene-d8	8.76	98	2960461	20.22	ug/L	404.30%#
50) 2-Hexanone-d5	10.08	63	1698528	193.22	ug/L	386.45%#
59) 1,1,2,2-Tetrachloroethane-	11.85	84	543433	18.45	ug/L	368.94%#
65) 1,2-Dichlorobenzene-d4	13.25	152	1078937	18.56	ug/L	371.12%#

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.57	85	698527	17.3079	ug/L #	98
3) Chloromethane	1.73	50	1216321	17.6600	ug/L	99
4) Vinyl chloride	1.81	62	900461	18.2458	ug/L	96
6) Bromomethane	2.09	94	512746	17.9586	ug/L	96
7) Chloroethane	2.18	64	502831	17.7275	ug/L	97
9) Trichlorofluoromethane	2.31	101	1409209	17.9673	ug/L	99
10) 1,1-Dichloroethene	2.77	96	731732	17.6279	ug/L	89
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	831291	17.4611	ug/L	93
13) Acetone	3.39	43	1089369	169.0566	ug/L	88
14) Carbon disulfide	2.81	76	2048606	17.7071	ug/L	97
15) Methyl acetate	3.53	43	351352	20.4935	ug/L	99
16) Methylene chloride	3.35	84	725878	17.3742	ug/L	97
17) trans-1,2-Dichloroethene	3.53	96	886295	18.2329	ug/L	95
18) Methyl tert-butyl ether	3.65	73	1872078	18.2089	ug/L	97
19) 1,1-Dichloroethane	4.30	63	1735631	18.0711	ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	936329	18.1148	ug/L	93
21) 2-Butanone	5.98	43	2285096	177.8014	ug/L	98
23) Bromochloromethane	5.42	128	460159	18.4795	ug/L	94
24) Chloroform	5.55	83	1600944	17.7780	ug/L	100
26) 1,2-Dichloroethane	6.62	62	1100086	18.1745	ug/L	91
29) 1,1,1-Trichloroethane	5.84	97	1554796	18.5040	ug/L	97
30) Cyclohexane	5.44	56	1864962	19.1136	ug/L	93
31) Carbon tetrachloride	5.75	117	1592715	18.5677	ug/L	98
32) Benzene	6.35	78	3058225	18.9336	ug/L	96
34) Trichloroethene	7.12	130	1131290	19.6000	ug/L	95
35) Methylcyclohexane	7.11	83	1413393	19.0918	ug/L	93
36) 1,2-Dichloropropane	7.73	63	831315	19.9257	ug/L	99
38) Bromodichloromethane	7.82	83	1131832	19.0612	ug/L	98
39) cis-1,3-Dichloropropene	8.55	75	1158637	20.0997	ug/L	98
41) trans-1,3-Dichloropropene	9.27	75	908378	18.8910	ug/L	97
43) 1,1,2-Trichloroethane	9.43	97	483689	18.7553	ug/L	92
44) Dibromochloromethane	9.62	129	789204	19.0617	ug/L	98
45) 4-Methyl-2-pentanone	9.23	43	5460147	184.8366	ug/L	94
46) Toluene	8.81	91	3202218	19.2859	ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF44S20.D Vial: 8
Acq Time : 03/05/2019 12:41 Operator: SLS
Sample : VSTD020TF VSTD020TF 20.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46309; 20 uL of 46310, 46312/5 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 13:23:27 2019 Results File: FTRACEG0.RES

Quant Method : C:\msdchem\1\methods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:18 2019
Response via : Continuing Cal C:\msdchem\1\data\05MAR19F\FF42S05.D
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	779099	18.9166 ug/L	98
49) 2-Hexanone	10.12	43	3687251	177.1920 ug/L	96
51) 1,2-Dibromoethane	9.86	107	493497	19.2321 ug/L	94
52) Chlorobenzene	10.42	112	2186400	18.9185 ug/L	99
53) Ethylbenzene	10.46	91	3543253	18.7032 ug/L	99
54) m,p-Xylene	10.61	106	1463629	18.8385 ug/L	99
55) o-Xylene	11.05	106	1421599	18.8619 ug/L	98
56) Styrene	11.10	104	2294343	18.8547 ug/L	98
57) Isopropylbenzene	11.38	105	3677740	18.6733 ug/L	98
58) 1,1,2,2-Tetrachloroethane	11.87	83	523700	17.6595 ug/L	97
61) Bromoform	11.12	173	452717	19.5856 ug/L	100
62) 1,3-Dichlorobenzene	12.73	146	1898925	19.1313 ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	1913370	18.7880 ug/L	97
64) 1,2-Dichlorobenzene	13.26	146	1635926	18.2758 ug/L	99
66) 1,2-Dibromo-3-chloropropan	14.08	75	93250	17.1166 ug/L	95
67) 1,2,4-Trichlorobenzene	14.80	180	811507	16.8801 ug/L	98
68) 1,2,3-Trichlorobenzene	15.34	180	609321	15.7037 ug/L	100

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

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/05/2019 Time: 13:43

Lab File ID: FF46V05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VICVTF Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.223	0.300	0.010	34.9	40.0
Chloromethane	0.412	0.451	0.010	9.5	30.0
Vinyl chloride	0.292	0.331	0.010	13.5	30.0
Bromomethane	0.164	0.179	0.010	8.9	30.0
Chloroethane	0.171	0.180	0.010	5.4	30.0
Trichlorofluoromethane	0.450	0.491	0.010	9.1	30.0
1,1-Dichloroethene	0.237	0.238	0.020	0.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.268	0.256	0.010	-4.5	30.0
Acetone	0.032	0.035	0.010	7.7	40.0
Carbon disulfide	0.673	0.664	0.010	-1.4	25.0
Methyl acetate	0.109	0.098	0.010	-9.9	40.0
Methylene chloride	0.262	0.239	0.010	-8.9	30.0
trans-1,2-Dichloroethene	0.288	0.275	0.070	-4.4	20.0
Methyl tert-butyl ether	0.586	0.551	0.010	-6.0	30.0
1,1-Dichloroethane	0.567	0.539	0.100	-5.0	20.0
cis-1,2-Dichloroethene	0.302	0.297	0.100	-1.7	20.0
2-Butanone	0.066	0.076	0.010	15.6	40.0
Bromochloromethane	0.144	0.139	0.020	-3.3	20.0
Chloroform	0.520	0.505	0.040	-2.9	20.0
1,1,1-Trichloroethane	0.620	0.621	0.050	0.2	20.0
Cyclohexane	0.705	0.710	0.100	0.7	25.0
Carbon tetrachloride	0.632	0.626	0.020	-1.1	25.0
Benzene	1.204	1.154	0.300	-4.2	20.0
1,2-Dichloroethane	0.347	0.341	0.010	-1.6	25.0
Trichloroethene	0.422	0.435	0.100	3.2	20.0
Methylcyclohexane	0.593	0.549	0.200	-7.5	25.0
1,2-Dichloropropane	0.327	0.310	0.100	-5.0	20.0
Bromodichloromethane	0.442	0.424	0.090	-4.0	20.0
cis-1,3-Dichloropropene	0.449	0.425	0.100	-5.3	20.0
4-Methyl-2-Pentanone	0.214	0.220	0.010	2.9	30.0
Toluene	1.268	1.224	0.400	-3.5	20.0
trans-1,3-Dichloropropene	0.371	0.350	0.010	-5.7	20.0
1,1,2-Trichloroethane	0.198	0.189	0.040	-4.4	20.0
Tetrachloroethene	0.316	0.304	0.100	-3.7	20.0

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/05/2019 Time: 13:43

Lab File ID: FF46V05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VICVTF Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

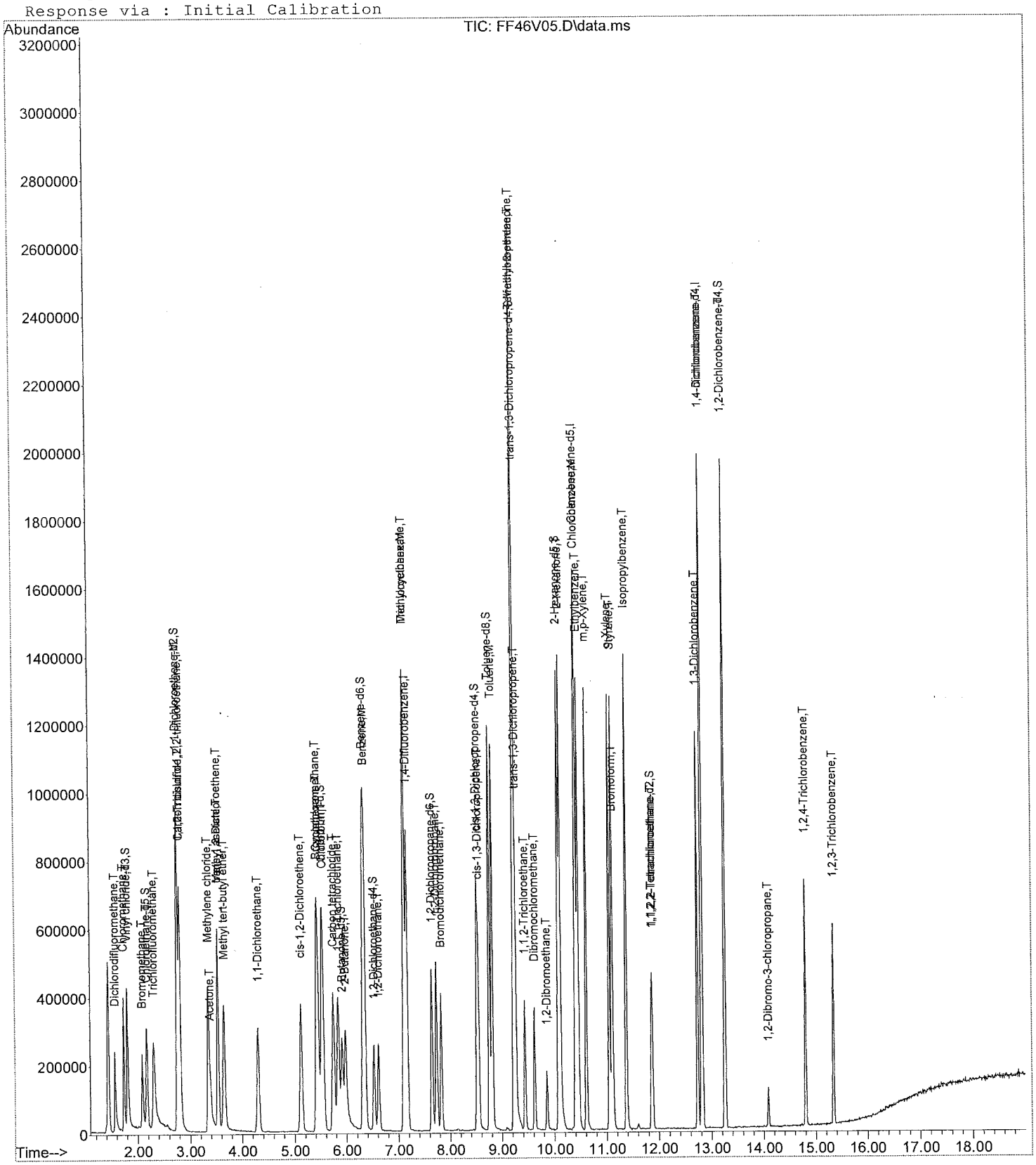
ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
2-Hexanone	0.158	0.159	0.010	1.3	40.0
Dibromochloromethane	0.320	0.315	0.050	-1.7	20.0
1,2-Dibromoethane	0.199	0.193	0.010	-3.1	20.0
Chlorobenzene	0.898	0.861	0.400	-4.2	20.0
Ethylbenzene	1.451	1.411	0.500	-2.8	20.0
o-Xylene	0.564	0.544	0.300	-3.6	20.0
m,p-Xylene	0.596	0.568	0.200	-4.7	20.0
Styrene	0.926	0.897	0.200	-3.2	20.0
Bromoform	0.354	0.326	0.010	-7.9	30.0
Isopropylbenzene	1.488	1.428	0.700	-4.1	25.0
1,1,2,2-Tetrachloroethane	0.219	0.208	0.050	-4.9	25.0
1,3-Dichlorobenzene	1.503	1.398	0.500	-7.0	20.0
1,4-Dichlorobenzene	1.532	1.405	0.700	-8.3	20.0
1,2-Dichlorobenzene	1.316	1.223	0.400	-7.0	20.0
1,2-Dibromo-3-chloropropane	0.073	0.073	0.010	0.2	40.0
1,2,4-Trichlorobenzene	0.698	0.621	0.300	-11.0	30.0
1,2,3-Trichlorobenzene	0.542	0.503	0.200	-7.1	40.0
Vinyl chloride-d3	0.263	0.293	0.010	11.5	30.0
Chloroethane-d5	0.186	0.193	0.010	3.6	30.0
1,1-Dichloroethene-d2	0.606	0.648	0.010	6.8	25.0
2-Butanone-d5	0.072	0.079	0.010	10.5	40.0
Chloroform-d	0.570	0.604	0.010	6.1	20.0
1,2-Dichloroethane-d4	0.271	0.280	0.010	3.2	25.0
Benzene-d6	1.227	1.357	0.030	10.6	20.0
1,2-Dichloropropane-d6	0.325	0.334	0.100	2.8	20.0
Toluene-d8	1.122	1.213	0.200	8.1	20.0
trans-1,3-Dichloropropene-d4	0.342	0.357	0.010	4.5	25.0
2-Hexanone-d5	0.066	0.069	0.010	4.0	40.0
1,1,2,2-Tetrachloroethane-d2	0.221	0.225	0.010	1.7	25.0
1,2-Dichlorobenzene-d4	0.849	0.842	0.060	-0.8	20.0

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF46V05.D Vial: 10
Acq Time : 03/05/2019 13:43 Operator: SLS
Sample : VICVTF VICVTF 5.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46311, 46314 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 14:03:05 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Wed Mar 06 08:49:40 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF46V05.D Vial: 10
Acq Time : 03/05/2019 13:43 Operator: SLS
Sample : VICVTF VICVTF 5.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46311, 46314 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 14:03:05 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.17	114	835565	5.00 ug/L	104.86
28) Chlorobenzene-d5	10.40	117	670087	5.00 ug/L	105.58
60) 1,4-dichlorobenzene-d4	12.81	152	371853	5.00 ug/L	104.85
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	244710	5.57 ug/L	111.47%
8) Chloroethane-d5	2.17	69	160982	5.18 ug/L	103.59%
11) 1,1-Dichloroethene-d2	2.76	63	541176	5.34 ug/L	106.81%
22) 2-Butanone-d5	5.92	46	662333	55.24 ug/L	110.47%
25) Chloroform-d	5.53	84	504770	5.30 ug/L	106.06%
27) 1,2-Dichloroethane-d4	6.53	65	233824	5.16 ug/L	103.16%
33) Benzene-d6	6.32	84	909366	5.53 ug/L	110.57%
37) 1,2-Dichloropropane-d6	7.65	67	223476	5.14 ug/L	102.77%
40) cis-1,3-Dichloropropene-d4	8.52	79	394117	5.16 ug/L	103.14%
42) trans-1,3-Dichloropropene-	9.25	79	239416	5.23 ug/L	104.51%
47) Toluene-d8	8.76	98	812545	5.41 ug/L	108.12%
50) 2-Hexanone-d5	10.08	63	459096	52.02 ug/L	104.05%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	150455	5.09 ug/L	101.74%
65) 1,2-Dichlorobenzene-d4	13.24	152	313119	4.96 ug/L	99.21%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.57	85	250874	6.7426 ug/L #	100
3) Chloromethane	1.73	50	376582	5.4734 ug/L	98
4) Vinyl chloride	1.81	62	276814	5.6755 ug/L	97
6) Bromomethane	2.09	94	149618	5.4460 ug/L	99
7) Chloroethane	2.18	64	150659	5.2695 ug/L	97
9) Trichlorofluoromethane	2.31	101	410138	5.4528 ug/L	100
10) 1,1-Dichloroethene	2.76	96	198527	5.0130 ug/L	94
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	213938	4.7765 ug/L	95
13) Acetone	3.39	43	289883	53.8291 ug/L	92
14) Carbon disulfide	2.81	76	554545	4.9307 ug/L	96
15) Methyl acetate	3.53	43	82059	4.5059 ug/L	98
16) Methylene chloride	3.35	84	199740	4.5554 ug/L	97
17) trans-1,2-Dichloroethene	3.53	96	229895	4.7819 ug/L	97
18) Methyl tert-butyl ether	3.65	73	460633	4.7023 ug/L	98
19) 1,1-Dichloroethane	4.31	63	450262	4.7495 ug/L	97
20) cis-1,2-Dichloroethene	5.12	96	247895	4.9126 ug/L	95
21) 2-Butanone	5.98	43	636011	57.8164 ug/L	99
23) Bromochloromethane	5.42	128	115936	4.8329 ug/L	95
24) Chloroform	5.55	83	421825	4.8561 ug/L	99
26) 1,2-Dichloroethane	6.62	62	284829	4.9179 ug/L	90
29) 1,1,1-Trichloroethane	5.84	97	416245	5.0094 ug/L	97
30) Cyclohexane	5.44	56	475880	5.0373 ug/L	93
31) Carbon tetrachloride	5.74	117	419185	4.9453 ug/L	99
32) Benzene	6.35	78	773029	4.7896 ug/L	93
34) Trichloroethene	7.12	130	291758	5.1586 ug/L	97
35) Methylcyclohexane	7.11	83	367672	4.6258 ug/L	96
36) 1,2-Dichloropropane	7.73	63	207852	4.7484 ug/L	96
38) Bromodichloromethane	7.82	83	284447	4.7977 ug/L	97
39) cis-1,3-Dichloropropene	8.55	75	284760	4.7325 ug/L	98
41) trans-1,3-Dichloropropene	9.27	75	234451	4.7143 ug/L	93
43) 1,1,2-Trichloroethane	9.43	97	126852	4.7782 ug/L	92
44) Dibromochloromethane	9.62	129	211135	4.9162 ug/L	98
45) 4-Methyl-2-pentanone	9.23	43	1472403	51.4343 ug/L	95
46) Toluene	8.81	91	820143	4.8261 ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF46V05.D Vial: 10
Acq Time : 03/05/2019 13:43 Operator: SLS
Sample : VICVTF VICVTF 5.0 ug/L ICS Inst : 5975-F
Misc : 2.5 uL of 46311, 46314 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 05 14:03:05 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	203806	4.8165 ug/L	99
49) 2-Hexanone	10.12	43	1068762	50.6293 ug/L	97
51) 1,2-Dibromoethane	9.85	107	129211	4.8450 ug/L	96
52) Chlorobenzene	10.42	112	576657	4.7890 ug/L	96
53) Ethylbenzene	10.46	91	945249	4.8598 ug/L	99
54) m,p-Xylene	10.61	106	380615	4.7673 ug/L	99
55) o-Xylene	11.05	106	364695	4.8224 ug/L	99
56) Styrene	11.10	104	601087	4.8410 ug/L	97
57) Isopropylbenzene	11.38	105	956861	4.7972 ug/L	98
58) 1,1,2,2-Tetrachloroethane	11.87	83	139254	4.7543 ug/L	96
61) Bromoform	11.12	173	121112	4.6040 ug/L	100
62) 1,3-Dichlorobenzene	12.73	146	519753	4.6507 ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	522583	4.5859 ug/L	99
64) 1,2-Dichlorobenzene	13.26	146	454869	4.6476 ug/L	98
66) 1,2-Dibromo-3-chloropropan	14.08	75	27147	5.0086 ug/L #	89
67) 1,2,4-Trichlorobenzene	14.80	180	230983	4.4488 ug/L	99
68) 1,2,3-Trichlorobenzene	15.34	180	187000	4.6426 ug/L	98

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

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/06/2019 Time: 08:35

Lab File ID: FF48S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T1 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.223	0.228	0.010	2.6	40.0
Chloromethane	0.412	0.389	0.010	-5.5	30.0
Vinyl chloride	0.292	0.297	0.010	1.7	30.0
Bromomethane	0.164	0.162	0.010	-1.2	30.0
Chloroethane	0.171	0.164	0.010	-4.4	30.0
Trichlorofluoromethane	0.450	0.451	0.010	0.3	30.0
1,1-Dichloroethene	0.237	0.232	0.020	-1.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.268	0.275	0.010	2.8	30.0
Acetone	0.032	0.037	0.010	15.1	40.0
Carbon disulfide	0.673	0.648	0.010	-3.7	25.0
Methyl acetate	0.109	0.094	0.010	-13.5	40.0
Methylene chloride	0.262	0.223	0.010	-15.0	30.0
trans-1,2-Dichloroethene	0.288	0.280	0.070	-2.7	20.0
Methyl tert-butyl ether	0.586	0.556	0.010	-5.1	30.0
1,1-Dichloroethane	0.567	0.549	0.100	-3.3	20.0
cis-1,2-Dichloroethene	0.302	0.290	0.100	-4.1	20.0
2-Butanone	0.066	0.074	0.010	12.0	40.0
Bromochloromethane	0.144	0.141	0.020	-2.1	20.0
Chloroform	0.520	0.498	0.040	-4.2	20.0
1,1,1-Trichloroethane	0.620	0.644	0.050	3.8	20.0
Cyclohexane	0.705	0.748	0.100	6.1	25.0
Carbon tetrachloride	0.632	0.659	0.020	4.1	25.0
Benzene	1.204	1.213	0.300	0.7	20.0
1,2-Dichloroethane	0.347	0.343	0.010	-1.2	25.0
Trichloroethene	0.422	0.451	0.100	6.9	20.0
Methylcyclohexane	0.593	0.566	0.200	-4.6	25.0
1,2-Dichloropropane	0.327	0.326	0.100	-0.1	20.0
Bromodichloromethane	0.442	0.451	0.090	1.8	20.0
cis-1,3-Dichloropropene	0.449	0.451	0.100	0.4	20.0
4-Methyl-2-Pentanone	0.214	0.218	0.010	2.1	30.0
Toluene	1.268	1.292	0.400	1.9	20.0
trans-1,3-Dichloropropene	0.371	0.370	0.010	-0.3	20.0
1,1,2-Trichloroethane	0.198	0.194	0.040	-2.1	20.0
Tetrachloroethene	0.316	0.320	0.100	1.3	20.0

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/06/2019 Time: 08:35

Lab File ID: FF48S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T1 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

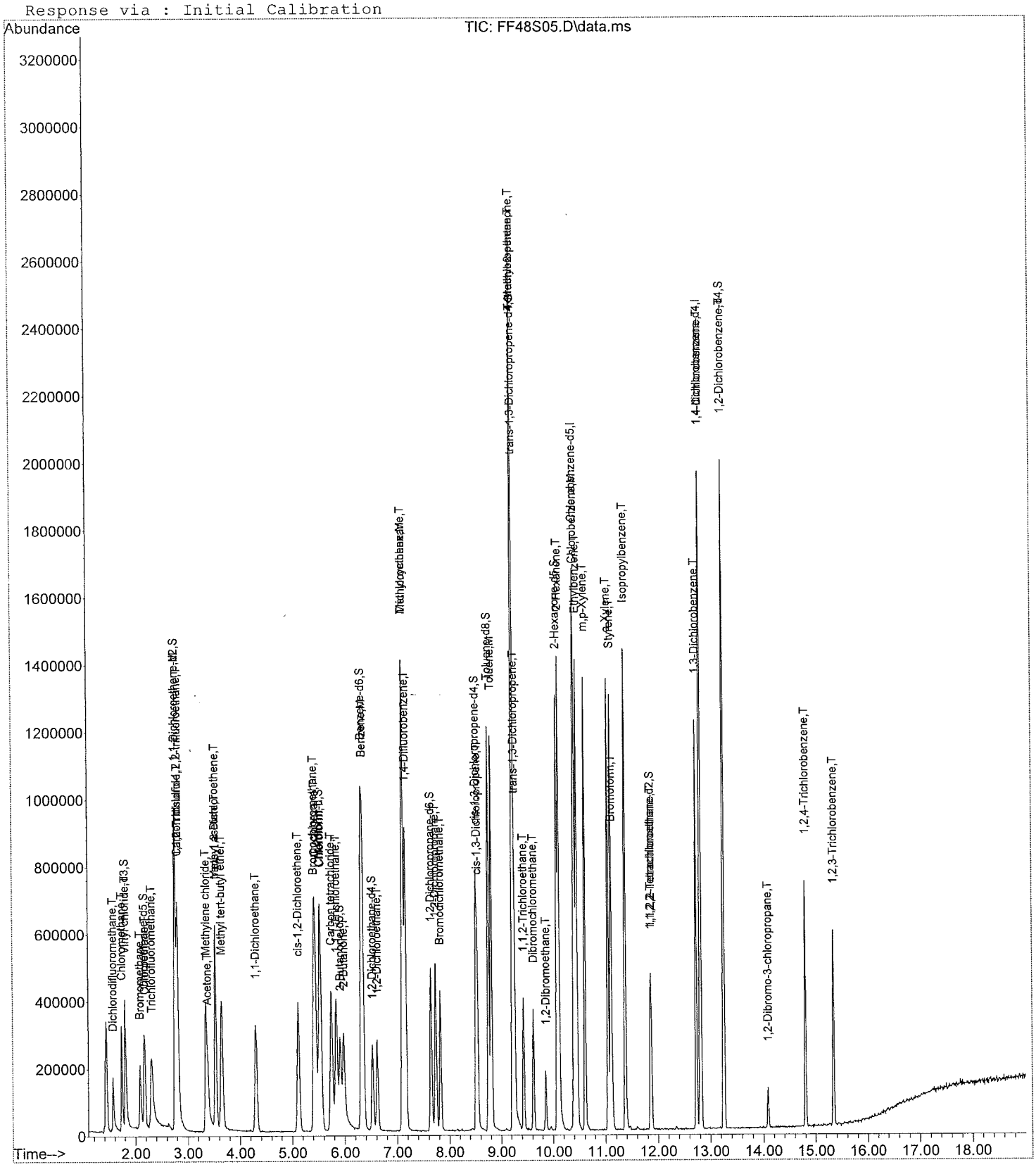
ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
2-Hexanone	0.158	0.159	0.010	1.2	40.0
Dibromochloromethane	0.320	0.320	0.050	-0.3	20.0
1,2-Dibromoethane	0.199	0.196	0.010	-1.5	20.0
Chlorobenzene	0.898	0.881	0.400	-1.9	20.0
Ethylbenzene	1.451	1.447	0.500	-0.3	20.0
o-Xylene	0.564	0.578	0.300	2.4	20.0
m,p-Xylene	0.596	0.602	0.200	1.0	20.0
Styrene	0.926	0.923	0.200	-0.4	20.0
Bromoform	0.354	0.332	0.010	-6.1	30.0
Isopropylbenzene	1.488	1.483	0.700	-0.3	25.0
1,1,2,2-Tetrachloroethane	0.219	0.214	0.050	-2.0	25.0
1,3-Dichlorobenzene	1.503	1.428	0.500	-5.0	20.0
1,4-Dichlorobenzene	1.532	1.481	0.700	-3.3	20.0
1,2-Dichlorobenzene	1.316	1.270	0.400	-3.5	20.0
1,2-Dibromo-3-chloropropane	0.073	0.077	0.010	5.8	40.0
1,2,4-Trichlorobenzene	0.698	0.649	0.300	-7.0	30.0
1,2,3-Trichlorobenzene	0.542	0.494	0.200	-8.8	40.0
Vinyl chloride-d3	0.263	0.280	0.010	6.5	30.0
Chloroethane-d5	0.186	0.183	0.010	-1.3	30.0
1,1-Dichloroethene-d2	0.606	0.622	0.010	2.6	25.0
2-Butanone-d5	0.072	0.076	0.010	5.9	40.0
Chloroform-d	0.570	0.588	0.010	3.3	20.0
1,2-Dichloroethane-d4	0.271	0.279	0.010	2.8	25.0
Benzene-d6	1.227	1.327	0.030	8.1	20.0
1,2-Dichloropropane-d6	0.325	0.335	0.100	3.2	20.0
Toluene-d8	1.122	1.218	0.200	8.6	20.0
trans-1,3-Dichloropropene-d4	0.342	0.360	0.010	5.3	25.0
2-Hexanone-d5	0.066	0.067	0.010	1.2	40.0
1,1,2,2-Tetrachloroethane-d2	0.221	0.227	0.010	2.9	25.0
1,2-Dichlorobenzene-d4	0.849	0.833	0.060	-1.9	20.0

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF48S05.D Vial: 2
Acq Time : 03/06/2019 08:35 Operator: SLS
Sample : VSTD005T1 VSTD005T1 5.0 ug/L CVS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 08:55:00 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00185

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF48S05.D Vial: 2
Acq Time : 03/06/2019 08:35 Operator: SLS
Sample : VSTD005T1 VSTD005T1 5.0 ug/L CVS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 08:55:00 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	853014	5.00 ug/L	107.05
28) Chlorobenzene-d5	10.40	117	667287	5.00 ug/L	105.14
60) 1,4-dichlorobenzene-d4	12.80	152	368124	5.00 ug/L	103.80
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	238680	5.33 ug/L	106.50%
8) Chloroethane-d5	2.17	69	156526	4.93 ug/L	98.66%
11) 1,1-Dichloroethene-d2	2.76	63	530921	5.13 ug/L	102.64%
22) 2-Butanone-d5	5.92	46	648081	52.94 ug/L	105.89%
25) Chloroform-d	5.53	84	501901	5.16 ug/L	103.30%
27) 1,2-Dichloroethane-d4	6.53	65	237977	5.14 ug/L	102.84%
33) Benzene-d6	6.32	84	885607	5.41 ug/L	108.14%
37) 1,2-Dichloropropane-d6	7.64	67	223427	5.16 ug/L	103.18%
40) cis-1,3-Dichloropropene-d4	8.52	79	405714	5.33 ug/L	106.62%
42) trans-1,3-Dichloropropene-	9.25	79	240174	5.26 ug/L	105.28%
47) Toluene-d8	8.76	98	813035	5.43 ug/L	108.64%
50) 2-Hexanone-d5	10.08	63	444469	50.58 ug/L	101.16%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	151546	5.15 ug/L	102.91%
65) 1,2-Dichlorobenzene-d4	13.25	152	306619	4.91 ug/L	98.13%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.57	85	194869	5.1303 ug/L #	99
3) Chloromethane	1.74	50	331788	4.7237 ug/L	99
4) Vinyl chloride	1.81	62	253194	5.0851 ug/L	96
6) Bromomethane	2.09	94	138599	4.9417 ug/L	99
7) Chloroethane	2.19	64	139501	4.7795 ug/L	99
9) Trichlorofluoromethane	2.32	101	384952	5.0133 ug/L	100
10) 1,1-Dichloroethene	2.77	96	198226	4.9030 ug/L #	89
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	234952	5.1383 ug/L	96
13) Acetone	3.39	43	316508	57.5709 ug/L	91
14) Carbon disulfide	2.82	76	552747	4.8142 ug/L	94
15) Methyl acetate	3.54	43	80389	4.3239 ug/L	98
16) Methylene chloride	3.35	84	190265	4.2506 ug/L	94
17) trans-1,2-Dichloroethene	3.54	96	238713	4.8637 ug/L	96
18) Methyl tert-butyl ether	3.65	73	474289	4.7426 ug/L	99
19) 1,1-Dichloroethane	4.31	63	468000	4.8356 ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	246953	4.7939 ug/L	93
21) 2-Butanone	5.98	43	628743	55.9865 ug/L	97
23) Bromochloromethane	5.42	128	119913	4.8964 ug/L	95
24) Chloroform	5.55	83	424645	4.7886 ug/L	98
26) 1,2-Dichloroethane	6.62	62	292181	4.9417 ug/L	90
29) 1,1,1-Trichloroethane	5.84	97	429508	5.1907 ug/L	97
30) Cyclohexane	5.45	56	498931	5.3034 ug/L	91
31) Carbon tetrachloride	5.74	117	439519	5.2070 ug/L	98
32) Benzene	6.35	78	809456	5.0363 ug/L	94
34) Trichloroethene	7.12	130	301116	5.3464 ug/L	98
35) Methylcyclohexane	7.11	83	377501	4.7694 ug/L	96
36) 1,2-Dichloropropane	7.74	63	217655	4.9932 ug/L	99
38) Bromodichloromethane	7.82	83	300632	5.0920 ug/L	97
39) cis-1,3-Dichloropropene	8.55	75	300801	5.0201 ug/L	97
41) trans-1,3-Dichloropropene	9.27	75	246772	4.9828 ug/L #	53
43) 1,1,2-Trichloroethane	9.43	97	129417	4.8952 ug/L	93
44) Dibromochloromethane	9.62	129	213301	4.9874 ug/L	97
45) 4-Methyl-2-pentanone	9.23	43	1455316	51.0507 ug/L	94
46) Toluene	8.81	91	862092	5.0942 ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF48S05.D Vial: 2
Acq Time : 03/06/2019 08:35 Operator: SLS
Sample : VSTD005T1 VSTD005T1 5.0 ug/L CVS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 08:55:00 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	213516	5.0671 ug/L	98
49) 2-Hexanone	10.12	43	1063526	50.5926 ug/L	96
51) 1,2-Dibromoethane	9.86	107	130829	4.9263 ug/L	98
52) Chlorobenzene	10.42	112	588105	4.9046 ug/L	97
53) Ethylbenzene	10.46	91	965232	4.9833 ug/L	99
54) m,p-Xylene	10.61	106	401682	5.0523 ug/L	99
55) o-Xylene	11.05	106	385654	5.1210 ug/L	98
56) Styrene	11.10	104	615795	4.9802 ug/L	97
57) Isopropylbenzene	11.37	105	989782	4.9831 ug/L	97
58) 1,1,2,2-Tetrachloroethane	11.87	83	142916	4.8998 ug/L	97
61) Bromoform	11.12	173	122291	4.6959 ug/L	97
62) 1,3-Dichlorobenzene	12.73	146	525805	4.7525 ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	545211	4.8330 ug/L	99
64) 1,2-Dichlorobenzene	13.26	146	467502	4.8250 ug/L	97
66) 1,2-Dibromo-3-chloropropan	14.08	75	28391	5.2912 ug/L	90
67) 1,2,4-Trichlorobenzene	14.80	180	238880	4.6475 ug/L	98
68) 1,2,3-Trichlorobenzene	15.34	180	181819	4.5597 ug/L	99

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

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/06/2019 Time: 14:32

Lab File ID: FF60S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T2 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.223	0.180	0.010	-19.0	50.0
Chloromethane	0.412	0.333	0.010	-19.2	50.0
Vinyl chloride	0.292	0.245	0.010	-16.1	50.0
Bromomethane	0.164	0.139	0.010	-15.5	50.0
Chloroethane	0.171	0.141	0.010	-17.9	50.0
Trichlorofluoromethane	0.450	0.396	0.010	-12.1	50.0
1,1-Dichloroethene	0.237	0.210	0.020	-11.6	25.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.268	0.234	0.010	-12.8	50.0
Acetone	0.032	0.024	0.010	-26.6	50.0
Carbon disulfide	0.673	0.572	0.010	-15.0	25.0
Methyl acetate	0.109	0.084	0.010	-22.5	50.0
Methylene chloride	0.262	0.194	0.010	-26.0	50.0
trans-1,2-Dichloroethene	0.288	0.249	0.070	-13.6	25.0
Methyl tert-butyl ether	0.586	0.462	0.010	-21.2	50.0
1,1-Dichloroethane	0.567	0.478	0.100	-15.8	25.0
cis-1,2-Dichloroethene	0.302	0.253	0.100	-16.2	25.0
2-Butanone	0.066	0.055	0.010	-17.2	50.0
Bromochloromethane	0.144	0.120	0.020	-16.7	25.0
Chloroform	0.520	0.452	0.040	-13.0	25.0
1,1,1-Trichloroethane	0.620	0.531	0.050	-14.4	25.0
Cyclohexane	0.705	0.600	0.100	-14.9	50.0
Carbon tetrachloride	0.632	0.543	0.020	-14.1	50.0
Benzene	1.204	1.033	0.300	-14.2	25.0
1,2-Dichloroethane	0.347	0.293	0.010	-15.5	50.0
Trichloroethene	0.422	0.382	0.100	-9.5	25.0
Methylcyclohexane	0.593	0.475	0.200	-19.8	50.0
1,2-Dichloropropane	0.327	0.275	0.100	-15.8	25.0
Bromodichloromethane	0.442	0.366	0.090	-17.4	25.0
cis-1,3-Dichloropropene	0.449	0.402	0.100	-10.4	25.0
4-Methyl-2-Pentanone	0.214	0.175	0.010	-17.9	50.0
Toluene	1.268	1.175	0.400	-7.4	25.0
trans-1,3-Dichloropropene	0.371	0.339	0.010	-8.7	25.0
1,1,2-Trichloroethane	0.198	0.171	0.040	-13.7	25.0
Tetrachloroethene	0.316	0.297	0.100	-6.0	25.0

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/06/2019 Time: 14:32

Lab File ID: FF60S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T2 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

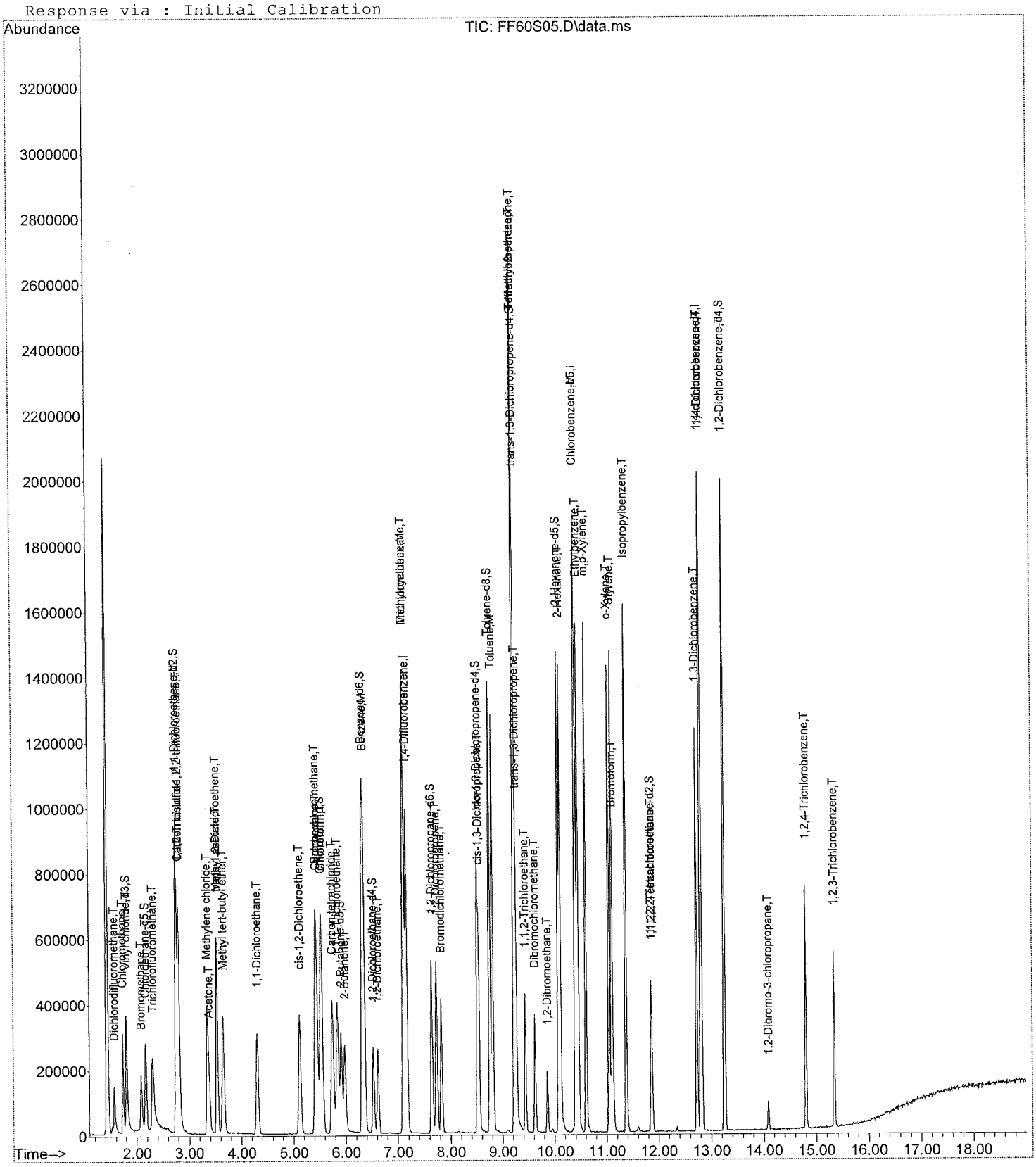
ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
2-Hexanone	0.158	0.134	0.010	-14.8	50.0
Dibromochloromethane	0.320	0.272	0.050	-15.0	25.0
1,2-Dibromoethane	0.199	0.165	0.010	-17.1	25.0
Chlorobenzene	0.898	0.845	0.400	-6.0	25.0
Ethylbenzene	1.451	1.374	0.500	-5.3	25.0
o-Xylene	0.564	0.521	0.300	-7.7	25.0
m,p-Xylene	0.596	0.561	0.200	-5.9	25.0
Styrene	0.926	0.854	0.200	-7.9	25.0
Bromoform	0.354	0.305	0.010	-13.7	50.0
Isopropylbenzene	1.488	1.404	0.700	-5.6	25.0
1,1,2,2-Tetrachloroethane	0.219	0.174	0.050	-20.4	25.0
1,3-Dichlorobenzene	1.503	1.399	0.500	-6.9	25.0
1,4-Dichlorobenzene	1.532	1.393	0.700	-9.1	25.0
1,2-Dichlorobenzene	1.316	1.163	0.400	-11.6	25.0
1,2-Dibromo-3-chloropropane	0.073	0.056	0.010	-22.6	50.0
1,2,4-Trichlorobenzene	0.698	0.623	0.300	-10.7	50.0
1,2,3-Trichlorobenzene	0.542	0.445	0.200	-17.9	50.0
Vinyl chloride-d3	0.263	0.248	0.010	-5.5	50.0
Chloroethane-d5	0.186	0.165	0.010	-11.2	50.0
1,1-Dichloroethene-d2	0.606	0.572	0.010	-5.6	25.0
2-Butanone-d5	0.072	0.062	0.010	-13.1	50.0
Chloroform-d	0.570	0.552	0.010	-3.1	25.0
1,2-Dichloroethane-d4	0.271	0.264	0.010	-2.5	25.0
Benzene-d6	1.227	1.194	0.030	-2.7	25.0
1,2-Dichloropropane-d6	0.325	0.304	0.100	-6.4	25.0
Toluene-d8	1.122	1.171	0.200	4.4	25.0
trans-1,3-Dichloropropene-d4	0.342	0.338	0.010	-1.3	25.0
2-Hexanone-d5	0.066	0.061	0.010	-7.5	50.0
1,1,2,2-Tetrachloroethane-d2	0.221	0.192	0.010	-13.0	25.0
1,2-Dichlorobenzene-d4	0.849	0.814	0.060	-4.1	25.0

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF60S05.D Vial: 14
Acq Time : 03/06/2019 14:32 Operator: SLS
Sample : VSTD005T2 VSTD005T2 5.0 ug/L FCS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:51:34 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF60S05.D Vial: 14
Acq Time : 03/06/2019 14:32 Operator: SLS
Sample : VSTD005T2 VSTD005T2 5.0 ug/L FCS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:51:34 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	933292	5.00 ug/L	117.12
28) Chlorobenzene-d5	10.40	117	790962	5.00 ug/L	124.62
60) 1,4-dichlorobenzene-d4	12.80	152	388868	5.00 ug/L	109.65
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	231779	4.73 ug/L	94.53%
8) Chloroethane-d5	2.17	69	154095	4.44 ug/L	88.77%
11) 1,1-Dichloroethene-d2	2.76	63	534139	4.72 ug/L	94.38%
22) 2-Butanone-d5	5.92	46	581703	43.43 ug/L	86.87%
25) Chloroform-d	5.53	84	514866	4.84 ug/L	96.85%
27) 1,2-Dichloroethane-d4	6.53	65	246755	4.87 ug/L	97.47%
33) Benzene-d6	6.32	84	944093	4.86 ug/L	97.25%
37) 1,2-Dichloropropane-d6	7.65	67	240305	4.68 ug/L	93.62%
40) cis-1,3-Dichloropropene-d4	8.52	79	438084	4.86 ug/L	97.12%
42) trans-1,3-Dichloropropene-	9.25	79	266978	4.94 ug/L	98.73%
47) Toluene-d8	8.76	98	925929	5.22 ug/L	104.38%
50) 2-Hexanone-d5	10.08	63	481586	46.23 ug/L	92.47%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	151787	4.35 ug/L	86.95%
65) 1,2-Dichlorobenzene-d4	13.24	152	316593	4.80 ug/L	95.92%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	1.57	85	168340	4.0506 ug/L #	98
3) Chloromethane	1.73	50	310396	4.0390 ug/L	98
4) Vinyl chloride	1.81	62	228645	4.1970 ug/L	98
6) Bromomethane	2.09	94	129619	4.2240 ug/L	97
7) Chloroethane	2.18	64	131168	4.1074 ug/L	98
9) Trichlorofluoromethane	2.31	101	369141	4.3939 ug/L	99
10) 1,1-Dichloroethene	2.77	96	195525	4.4202 ug/L	93
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	218052	4.3586 ug/L	94
13) Acetone	3.39	43	220667	36.6855 ug/L	98
14) Carbon disulfide	2.81	76	533816	4.2494 ug/L	95
15) Methyl acetate	3.53	43	78821	3.8749 ug/L	98
16) Methylene chloride	3.35	84	181106	3.6979 ug/L	95
17) trans-1,2-Dichloroethene	3.54	96	232091	4.3221 ug/L	96
18) Methyl tert-butyl ether	3.65	73	430860	3.9378 ug/L	99
19) 1,1-Dichloroethane	4.30	63	445958	4.2115 ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	236269	4.1920 ug/L	94
21) 2-Butanone	5.98	43	508972	41.4231 ug/L	98
23) Bromochloromethane	5.43	128	111562	4.1636 ug/L	95
24) Chloroform	5.55	83	422265	4.3522 ug/L	97
26) 1,2-Dichloroethane	6.62	62	273307	4.2249 ug/L	91
29) 1,1,1-Trichloroethane	5.84	97	419902	4.2811 ug/L	98
30) Cyclohexane	5.45	56	474677	4.2567 ug/L	93
31) Carbon tetrachloride	5.74	117	429844	4.2961 ug/L	97
32) Benzene	6.35	78	816871	4.2878 ug/L	93
34) Trichloroethene	7.12	130	301963	4.5231 ug/L	97
35) Methylcyclohexane	7.11	83	375988	4.0076 ug/L	94
36) 1,2-Dichloropropane	7.73	63	217611	4.2116 ug/L	97
38) Bromodichloromethane	7.82	83	289154	4.1318 ug/L	98
39) cis-1,3-Dichloropropene	8.55	75	318353	4.4823 ug/L	98
41) trans-1,3-Dichloropropene	9.27	75	268037	4.5660 ug/L #	50
43) 1,1,2-Trichloroethane	9.43	97	135253	4.3161 ug/L	92
44) Dibromochloromethane	9.62	129	215406	4.2491 ug/L	98
45) 4-Methyl-2-pentanone	9.23	43	1386634	41.0359 ug/L	95
46) Toluene	8.81	91	929217	4.6323 ug/L	98

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF60S05.D Vial: 14
Acq Time : 03/06/2019 14:32 Operator: SLS
Sample : VSTD005T2 VSTD005T2 5.0 ug/L FCS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 14:51:34 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	234731	4.6996 ug/L	98
49) 2-Hexanone	10.12	43	1060864	42.5751 ug/L	96
51) 1,2-Dibromoethane	9.86	107	130421	4.1430 ug/L	99
52) Chlorobenzene	10.41	112	668293	4.7019 ug/L	99
53) Ethylbenzene	10.46	91	1086905	4.7341 ug/L	100
54) m,p-Xylene	10.61	106	443402	4.7050 ug/L	98
55) o-Xylene	11.05	106	412039	4.6158 ug/L	98
56) Styrene	11.10	104	675182	4.6067 ug/L	97
57) Isopropylbenzene	11.38	105	1110814	4.7180 ug/L	97
58) 1,1,2,2-Tetrachloroethane	11.87	83	137641	3.9811 ug/L	96
61) Bromoform	11.12	173	118664	4.3136 ug/L	100
62) 1,3-Dichlorobenzene	12.73	146	544002	4.6547 ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	541627	4.5451 ug/L	99
64) 1,2-Dichlorobenzene	13.26	146	452251	4.4186 ug/L	99
66) 1,2-Dibromo-3-chloropropan	14.08	75	21925	3.8682 ug/L	87
67) 1,2,4-Trichlorobenzene	14.80	180	242298	4.4626 ug/L	98
68) 1,2,3-Trichlorobenzene	15.34	180	172871	4.1040 ug/L	98

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

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/07/2019 Time: 08:34

Lab File ID: FF63S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T3 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.223	0.181	0.010	-18.5	40.0
Chloromethane	0.412	0.348	0.010	-15.5	30.0
Vinyl chloride	0.292	0.253	0.010	-13.3	30.0
Bromomethane	0.164	0.150	0.010	-8.6	30.0
Chloroethane	0.171	0.150	0.010	-12.1	30.0
Trichlorofluoromethane	0.450	0.423	0.010	-6.0	30.0
1,1-Dichloroethene	0.237	0.214	0.020	-9.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.268	0.254	0.010	-5.4	30.0
Acetone	0.032	0.028	0.010	-13.4	40.0
Carbon disulfide	0.673	0.612	0.010	-9.1	25.0
Methyl acetate	0.109	0.101	0.010	-7.7	40.0
Methylene chloride	0.262	0.210	0.010	-20.0	30.0
trans-1,2-Dichloroethene	0.288	0.257	0.070	-10.8	20.0
Methyl tert-butyl ether	0.586	0.501	0.010	-14.5	30.0
1,1-Dichloroethane	0.567	0.505	0.100	-10.9	20.0
cis-1,2-Dichloroethene	0.302	0.271	0.100	-10.4	20.0
2-Butanone	0.066	0.061	0.010	-6.7	40.0
Bromochloromethane	0.144	0.127	0.020	-11.8	20.0
Chloroform	0.520	0.469	0.040	-9.7	20.0
1,1,1-Trichloroethane	0.620	0.562	0.050	-9.4	20.0
Cyclohexane	0.705	0.636	0.100	-9.8	25.0
Carbon tetrachloride	0.632	0.592	0.020	-6.4	25.0
Benzene	1.204	1.080	0.300	-10.3	20.0
1,2-Dichloroethane	0.347	0.317	0.010	-8.6	25.0
Trichloroethene	0.422	0.397	0.100	-5.8	20.0
Methylcyclohexane	0.593	0.495	0.200	-16.5	25.0
1,2-Dichloropropane	0.327	0.295	0.100	-9.7	20.0
Bromodichloromethane	0.442	0.407	0.090	-8.0	20.0
cis-1,3-Dichloropropene	0.449	0.423	0.100	-5.7	20.0
4-Methyl-2-Pentanone	0.214	0.190	0.010	-10.9	30.0
Toluene	1.268	1.239	0.400	-2.3	20.0
trans-1,3-Dichloropropene	0.371	0.363	0.010	-2.2	20.0
1,1,2-Trichloroethane	0.198	0.181	0.040	-8.6	20.0
Tetrachloroethene	0.316	0.313	0.100	-0.9	20.0

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/07/2019 Time: 08:34

Lab File ID: FF63S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T3 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

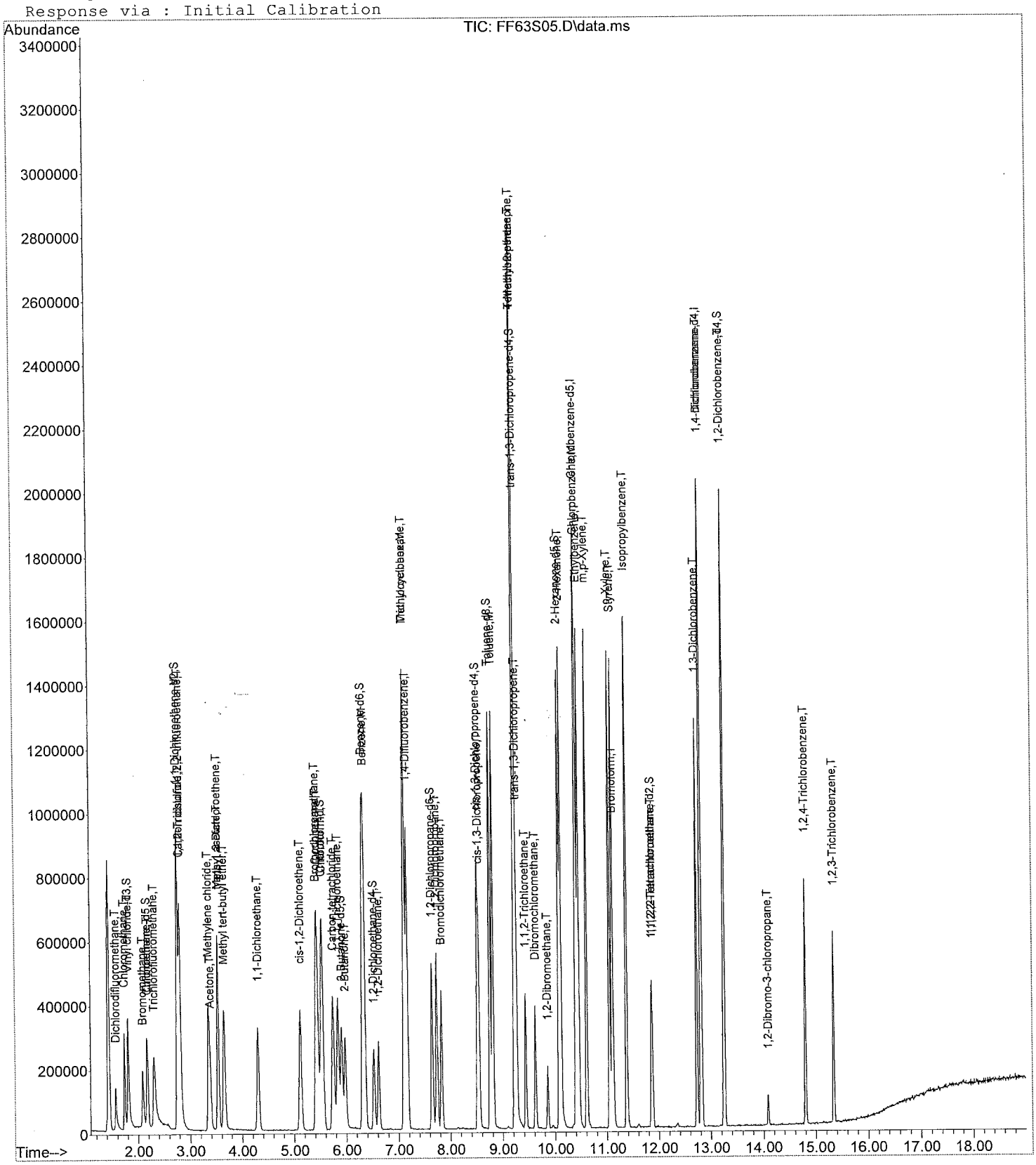
ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
2-Hexanone	0.158	0.147	0.010	-6.8	40.0
Dibromochloromethane	0.320	0.302	0.050	-5.9	20.0
1,2-Dibromoethane	0.199	0.177	0.010	-11.0	20.0
Chlorobenzene	0.898	0.871	0.400	-3.0	20.0
Ethylbenzene	1.451	1.431	0.500	-1.4	20.0
o-Xylene	0.564	0.558	0.300	-1.0	20.0
m,p-Xylene	0.596	0.593	0.200	-0.5	20.0
Styrene	0.926	0.901	0.200	-2.7	20.0
Bromoform	0.354	0.324	0.010	-8.5	30.0
Isopropylbenzene	1.488	1.475	0.700	-0.9	25.0
1,1,2,2-Tetrachloroethane	0.219	0.188	0.050	-13.8	25.0
1,3-Dichlorobenzene	1.503	1.449	0.500	-3.6	20.0
1,4-Dichlorobenzene	1.532	1.439	0.700	-6.1	20.0
1,2-Dichlorobenzene	1.316	1.239	0.400	-5.9	20.0
1,2-Dibromo-3-chloropropane	0.073	0.062	0.010	-15.2	40.0
1,2,4-Trichlorobenzene	0.698	0.653	0.300	-6.5	30.0
1,2,3-Trichlorobenzene	0.542	0.479	0.200	-11.5	40.0
Vinyl chloride-d3	0.263	0.249	0.010	-5.2	30.0
Chloroethane-d5	0.186	0.172	0.010	-7.7	30.0
1,1-Dichloroethene-d2	0.606	0.598	0.010	-1.4	25.0
2-Butanone-d5	0.072	0.066	0.010	-7.4	40.0
Chloroform-d	0.570	0.561	0.010	-1.5	20.0
1,2-Dichloroethane-d4	0.271	0.267	0.010	-1.7	25.0
Benzene-d6	1.227	1.211	0.030	-1.4	20.0
1,2-Dichloropropane-d6	0.325	0.311	0.100	-4.2	20.0
Toluene-d8	1.122	1.198	0.200	6.9	20.0
trans-1,3-Dichloropropene-d4	0.342	0.350	0.010	2.3	25.0
2-Hexanone-d5	0.066	0.063	0.010	-4.6	40.0
1,1,2,2-Tetrachloroethane-d2	0.221	0.197	0.010	-10.7	25.0
1,2-Dichlorobenzene-d4	0.849	0.815	0.060	-3.9	20.0

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF63S05.D Vial: 2
Acq Time : 03/07/2019 08:34 Operator: SLS
Sample : VSTD005T3 VSTD005T3 5.0 ug/L CVS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 08:54:08 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF63S05.D Vial: 2
Acq Time : 03/07/2019 08:34 Operator: SLS
Sample : VSTD005T3 VSTD005T3 5.0 ug/L CVS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 08:54:08 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	887534	5.00 ug/L	111.38
28) Chlorobenzene-d5	10.40	117	758937	5.00 ug/L	119.58
60) 1,4-dichlorobenzene-d4	12.81	152	388001	5.00 ug/L	109.40
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	221036	4.74 ug/L	94.79%
8) Chloroethane-d5	2.17	69	152387	4.62 ug/L	92.32%
11) 1,1-Dichloroethene-d2	2.76	63	530516	4.93 ug/L	98.58%
22) 2-Butanone-d5	5.91	46	589806	46.31 ug/L	92.62%
25) Chloroform-d	5.53	84	498053	4.93 ug/L	98.52%
27) 1,2-Dichloroethane-d4	6.52	65	236741	4.92 ug/L	98.33%
33) Benzene-d6	6.32	84	918759	4.93 ug/L	98.64%
37) 1,2-Dichloropropane-d6	7.64	67	235890	4.79 ug/L	95.78%
40) cis-1,3-Dichloropropene-d4	8.52	79	426801	4.93 ug/L	98.61%
42) trans-1,3-Dichloropropene-	9.25	79	265425	5.11 ug/L	102.29%
47) Toluene-d8	8.76	98	909573	5.34 ug/L	106.86%
50) 2-Hexanone-d5	10.08	63	476497	47.68 ug/L	95.35%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	149602	4.47 ug/L	89.32%
65) 1,2-Dichlorobenzene-d4	13.24	152	316392	4.80 ug/L	96.07%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	1.57	85	160964	4.0728 ug/L #	99
3) Chloromethane	1.73	50	308716	4.2243 ug/L	98
4) Vinyl chloride	1.81	62	224515	4.3337 ug/L	96
6) Bromomethane	2.09	94	133309	4.5682 ug/L	98
7) Chloroethane	2.18	64	133502	4.3960 ug/L	97
9) Trichlorofluoromethane	2.31	101	375645	4.7018 ug/L	100
10) 1,1-Dichloroethene	2.77	96	189572	4.5066 ug/L #	90
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	225111	4.7316 ug/L	95
13) Acetone	3.39	43	247594	43.2842 ug/L	97
14) Carbon disulfide	2.81	76	542920	4.5447 ug/L	94
15) Methyl acetate	3.53	43	89261	4.6144 ug/L	99
16) Methylene chloride	3.35	84	186193	3.9978 ug/L	96
17) trans-1,2-Dichloroethene	3.53	96	227780	4.4605 ug/L	93
18) Methyl tert-butyl ether	3.65	73	444576	4.2726 ug/L	98
19) 1,1-Dichloroethane	4.30	63	448395	4.4528 ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	240081	4.4792 ug/L	93
21) 2-Butanone	5.98	43	545271	46.6653 ug/L	99
23) Bromochloromethane	5.42	128	112371	4.4100 ug/L	96
24) Chloroform	5.54	83	416437	4.5134 ug/L	97
26) 1,2-Dichloroethane	6.62	62	281026	4.5681 ug/L	92
29) 1,1,1-Trichloroethane	5.84	97	426366	4.5305 ug/L	97
30) Cyclohexane	5.44	56	482702	4.5113 ug/L	93
31) Carbon tetrachloride	5.74	117	449251	4.6796 ug/L	98
32) Benzene	6.35	78	819652	4.4839 ug/L	94
34) Trichloroethene	7.12	130	301673	4.7095 ug/L	98
35) Methylcyclohexane	7.11	83	375786	4.1744 ug/L	93
36) 1,2-Dichloropropane	7.74	63	223771	4.5136 ug/L	97
38) Bromodichloromethane	7.82	83	308821	4.5991 ug/L	99
39) cis-1,3-Dichloropropene	8.55	75	321323	4.7150 ug/L	95
41) trans-1,3-Dichloropropene	9.27	75	275322	4.8880 ug/L #	51
43) 1,1,2-Trichloroethane	9.43	97	137435	4.5707 ug/L	93
44) Dibromochloromethane	9.62	129	228921	4.7063 ug/L	97
45) 4-Methyl-2-pentanone	9.23	43	1443896	44.5336 ug/L	95
46) Toluene	8.81	91	940604	4.8870 ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF63S05.D Vial: 2
Acq Time : 03/07/2019 08:34 Operator: SLS
Sample : VSTD005T3 VSTD005T3 5.0 ug/L CVS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 08:54:08 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	237427	4.9541 ug/L	98
49) 2-Hexanone	10.12	43	1114177	46.6015 ug/L	96
51) 1,2-Dibromoethane	9.85	107	134456	4.4515 ug/L	100
52) Chlorobenzene	10.42	112	661358	4.8494 ug/L	98
53) Ethylbenzene	10.46	91	1085778	4.9287 ug/L	98
54) m,p-Xylene	10.61	106	449744	4.9737 ug/L	98
55) o-Xylene	11.05	106	423856	4.9486 ug/L	97
56) Styrene	11.10	104	684002	4.8638 ug/L	97
57) Isopropylbenzene	11.38	105	1119225	4.9543 ug/L	97
58) 1,1,2,2-Tetrachloroethane	11.87	83	142924	4.3084 ug/L	97
61) Bromoform	11.12	173	125634	4.5771 ug/L	99
62) 1,3-Dichlorobenzene	12.73	146	562225	4.8214 ug/L	99
63) 1,4-Dichlorobenzene	12.82	146	558389	4.6962 ug/L	99
64) 1,2-Dichlorobenzene	13.26	146	480612	4.7062 ug/L	97
66) 1,2-Dibromo-3-chloropropan	14.08	75	23987	4.2414 ug/L	85
67) 1,2,4-Trichlorobenzene	14.80	180	253398	4.6774 ug/L	99
68) 1,2,3-Trichlorobenzene	15.34	180	185954	4.4245 ug/L	99

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

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/07/2019 Time: 14:21

Lab File ID: FF75S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T4 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.223	0.197	0.010	-11.7	50.0
Chloromethane	0.412	0.368	0.010	-10.5	50.0
Vinyl chloride	0.292	0.273	0.010	-6.6	50.0
Bromomethane	0.164	0.158	0.010	-4.1	50.0
Chloroethane	0.171	0.159	0.010	-7.0	50.0
Trichlorofluoromethane	0.450	0.466	0.010	3.5	50.0
1,1-Dichloroethene	0.237	0.233	0.020	-1.8	25.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.268	0.266	0.010	-0.9	50.0
Acetone	0.032	0.034	0.010	6.8	50.0
Carbon disulfide	0.673	0.643	0.010	-4.5	25.0
Methyl acetate	0.109	0.101	0.010	-7.7	50.0
Methylene chloride	0.262	0.225	0.010	-14.4	50.0
trans-1,2-Dichloroethene	0.288	0.281	0.070	-2.5	25.0
Methyl tert-butyl ether	0.586	0.529	0.010	-9.8	50.0
1,1-Dichloroethane	0.567	0.538	0.100	-5.2	25.0
cis-1,2-Dichloroethene	0.302	0.291	0.100	-3.7	25.0
2-Butanone	0.066	0.066	0.010	-0.1	50.0
Bromochloromethane	0.144	0.136	0.020	-5.6	25.0
Chloroform	0.520	0.506	0.040	-2.7	25.0
1,1,1-Trichloroethane	0.620	0.601	0.050	-3.0	25.0
Cyclohexane	0.705	0.663	0.100	-5.9	50.0
Carbon tetrachloride	0.632	0.626	0.020	-1.1	50.0
Benzene	1.204	1.151	0.300	-4.5	25.0
1,2-Dichloroethane	0.347	0.337	0.010	-2.7	50.0
Trichloroethene	0.422	0.428	0.100	1.4	25.0
Methylcyclohexane	0.593	0.526	0.200	-11.4	50.0
1,2-Dichloropropane	0.327	0.309	0.100	-5.3	25.0
Bromodichloromethane	0.442	0.414	0.090	-6.5	25.0
cis-1,3-Dichloropropene	0.449	0.445	0.100	-1.0	25.0
4-Methyl-2-Pentanone	0.214	0.196	0.010	-8.1	50.0
Toluene	1.268	1.327	0.400	4.7	25.0
trans-1,3-Dichloropropene	0.371	0.372	0.010	0.2	25.0
1,1,2-Trichloroethane	0.198	0.190	0.040	-4.3	25.0
Tetrachloroethene	0.316	0.332	0.100	5.2	25.0

FORM 7A-OR

INITIAL CALIBRATION VERIFICATION AND CONTINUING CALIBRATION VERIFICATION FOR GC/MS

Lab Name: ALS Environmental (SLC) Contract: 97756

Lab Code: ALS Case No.: 5POINTS MA No.: SDG No.: TV219

Analytical Method: Trace VOA Level: TRACE

Instrument ID: 5975-F Date Analyzed: 03/07/2019 Time: 14:21

Lab File ID: FF75S05 Init. Calib Date(s): 03/05/2019 03/05/2019

EPA Sample No.: VSTD005T4 Init. Calib Time(s): 10:48 12:41

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Heated Purge: (Y/N) Y Purge Volume: 25.0 (mL)

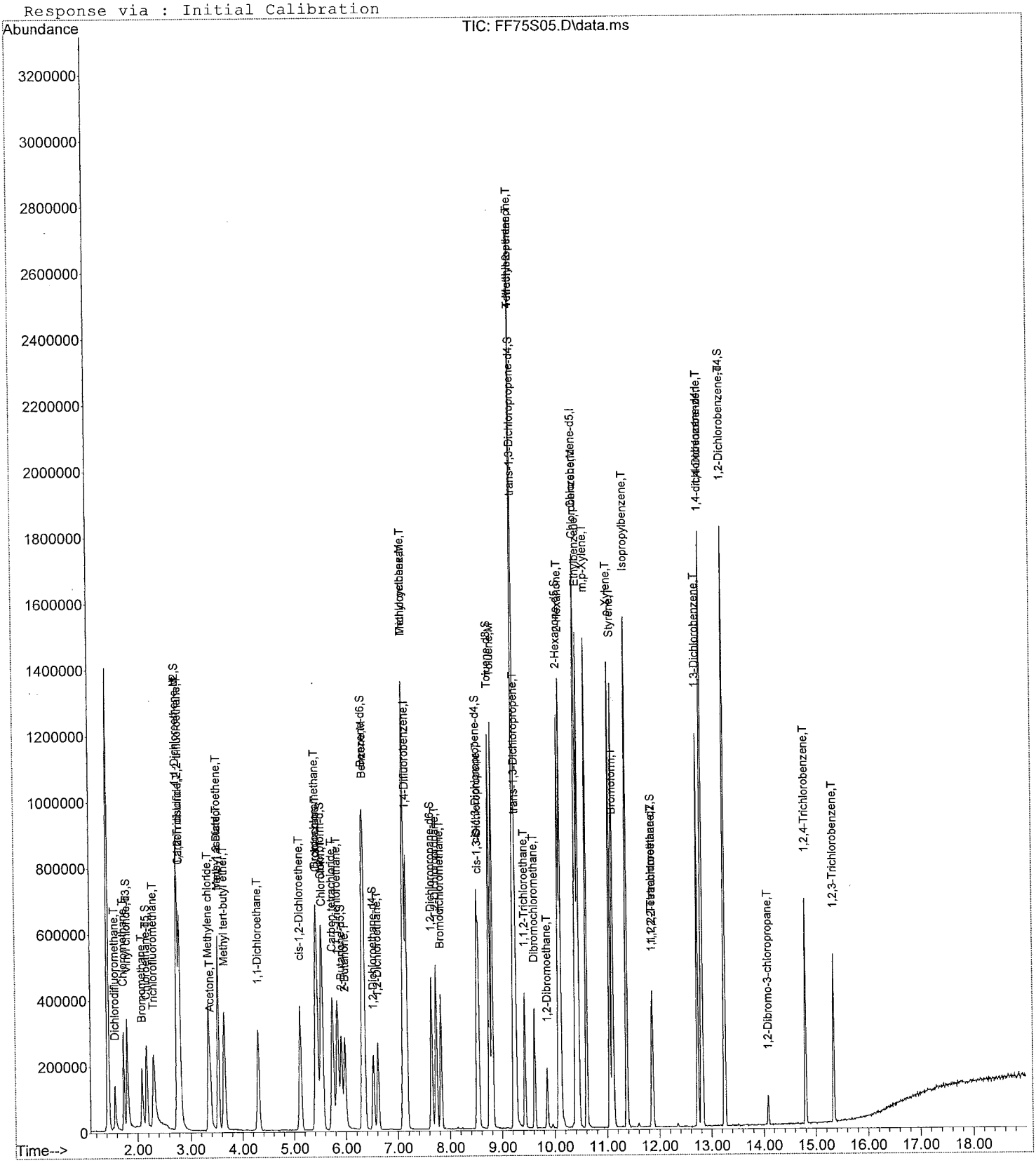
ANALYTE	$\overline{RRF}$	RRF 5	MIN RRF	%D	MAX %D
2-Hexanone	0.158	0.147	0.010	-6.7	50.0
Dibromochloromethane	0.320	0.307	0.050	-4.2	25.0
1,2-Dibromoethane	0.199	0.186	0.010	-6.5	25.0
Chlorobenzene	0.898	0.907	0.400	0.9	25.0
Ethylbenzene	1.451	1.514	0.500	4.3	25.0
o-Xylene	0.564	0.578	0.300	2.4	25.0
m,p-Xylene	0.596	0.615	0.200	3.2	25.0
Styrene	0.926	0.937	0.200	1.1	25.0
Bromoform	0.354	0.332	0.010	-6.1	50.0
Isopropylbenzene	1.488	1.538	0.700	3.3	25.0
1,1,2,2-Tetrachloroethane	0.219	0.188	0.050	-14.1	25.0
1,3-Dichlorobenzene	1.503	1.559	0.500	3.7	25.0
1,4-Dichlorobenzene	1.532	1.536	0.700	0.3	25.0
1,2-Dichlorobenzene	1.316	1.303	0.400	-1.0	25.0
1,2-Dibromo-3-chloropropane	0.073	0.064	0.010	-12.6	50.0
1,2,4-Trichlorobenzene	0.698	0.649	0.300	-7.0	50.0
1,2,3-Trichlorobenzene	0.542	0.495	0.200	-8.6	50.0
Vinyl chloride-d3	0.263	0.240	0.010	-8.6	50.0
Chloroethane-d5	0.186	0.169	0.010	-9.3	50.0
1,1-Dichloroethene-d2	0.606	0.596	0.010	-1.8	25.0
2-Butanone-d5	0.072	0.069	0.010	-3.4	50.0
Chloroform-d	0.570	0.563	0.010	-1.1	25.0
1,2-Dichloroethane-d4	0.271	0.265	0.010	-2.5	25.0
Benzene-d6	1.227	1.200	0.030	-2.2	25.0
1,2-Dichloropropane-d6	0.325	0.307	0.100	-5.5	25.0
Toluene-d8	1.122	1.178	0.200	5.0	25.0
trans-1,3-Dichloropropene-d4	0.342	0.333	0.010	-2.6	25.0
2-Hexanone-d5	0.066	0.060	0.010	-9.2	50.0
1,1,2,2-Tetrachloroethane-d2	0.221	0.190	0.010	-13.8	25.0
1,2-Dichlorobenzene-d4	0.849	0.836	0.060	-1.5	25.0

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF75S05.D Vial: 14
Acq Time : 03/07/2019 14:21 Operator: SLS
Sample : VSTD005T4 VSTD005T4 5.0 ug/L FCS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 14:40:45 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00200

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF75S05.D Vial: 14
Acq Time : 03/07/2019 14:21 Operator: SLS
Sample : VSTD005T4 VSTD005T4 5.0 ug/L FCS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 14:40:45 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.17	114	800494	5.00 ug/L	100.46
28) Chlorobenzene-d5	10.40	117	677654	5.00 ug/L	106.77
60) 1,4-dichlorobenzene-d4	12.80	152	335610	5.00 ug/L	94.63
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	192122	4.57 ug/L	91.35%
8) Chloroethane-d5	2.17	69	134993	4.53 ug/L	90.67%
11) 1,1-Dichloroethene-d2	2.76	63	476784	4.91 ug/L	98.22%
22) 2-Butanone-d5	5.91	46	554958	48.31 ug/L	96.62%
25) Chloroform-d	5.53	84	450907	4.94 ug/L	98.89%
27) 1,2-Dichloroethane-d4	6.52	65	211733	4.88 ug/L	97.51%
33) Benzene-d6	6.32	84	813026	4.89 ug/L	97.75%
37) 1,2-Dichloropropane-d6	7.64	67	207756	4.72 ug/L	94.48%
40) cis-1,3-Dichloropropene-d4	8.52	79	368744	4.77 ug/L	95.42%
42) trans-1,3-Dichloropropene-	9.25	79	225707	4.87 ug/L	97.42%
47) Toluene-d8	8.76	98	798083	5.25 ug/L	105.01%
50) 2-Hexanone-d5	10.08	63	405148	45.40 ug/L	90.80%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	128906	4.31 ug/L	86.19%
65) 1,2-Dichlorobenzene-d4	13.25	152	280619	4.93 ug/L	98.51%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	1.57	85	157431	4.4166 ug/L #	99
3) Chloromethane	1.73	50	294815	4.4727 ug/L	98
4) Vinyl chloride	1.81	62	218289	4.6717 ug/L	95
6) Bromomethane	2.09	94	126217	4.7955 ug/L	96
7) Chloroethane	2.18	64	127371	4.6502 ug/L	97
9) Trichlorofluoromethane	2.31	101	372924	5.1753 ug/L	98
10) 1,1-Dichloroethene	2.76	96	186210	4.9080 ug/L	90
12) 1,1,2-Trichloro-1,2,2-trif	2.81	101	212725	4.9575 ug/L	93
13) Acetone	3.39	43	275383	53.3769 ug/L	98
14) Carbon disulfide	2.81	76	514542	4.7755 ug/L	96
15) Methyl acetate	3.53	43	80542	4.6164 ug/L	99
16) Methylene chloride	3.35	84	179752	4.2792 ug/L	98
17) trans-1,2-Dichloroethene	3.53	96	224562	4.8756 ug/L	96
18) Methyl tert-butyl ether	3.65	73	423352	4.5110 ug/L	98
19) 1,1-Dichloroethane	4.30	63	430326	4.7381 ug/L	98
20) cis-1,2-Dichloroethene	5.12	96	232812	4.8159 ug/L	95
21) 2-Butanone	5.98	43	526452	49.9536 ug/L	99
23) Bromochloromethane	5.42	128	108497	4.7209 ug/L	95
24) Chloroform	5.56	83	404715	4.8633 ug/L	99
26) 1,2-Dichloroethane	6.62	62	269913	4.8646 ug/L	91
29) 1,1,1-Trichloroethane	5.84	97	407496	4.8493 ug/L	97
30) Cyclohexane	5.45	56	449578	4.7057 ug/L	95
31) Carbon tetrachloride	5.74	117	423968	4.9459 ug/L	98
32) Benzene	6.35	78	779676	4.7768 ug/L	95
34) Trichloroethene	7.12	130	290070	5.0715 ug/L	97
35) Methylcyclohexane	7.11	83	356117	4.4304 ug/L	94
36) 1,2-Dichloropropane	7.73	63	209501	4.7326 ug/L	98
38) Bromodichloromethane	7.82	83	280292	4.6749 ug/L	100
39) cis-1,3-Dichloropropene	8.55	75	301332	4.9520 ug/L	99
41) trans-1,3-Dichloropropene	9.27	75	251892	5.0084 ug/L	99
43) 1,1,2-Trichloroethane	9.43	97	128531	4.7874 ug/L	92
44) Dibromochloromethane	9.62	129	207965	4.7883 ug/L	99
45) 4-Methyl-2-pentanone	9.23	43	1329588	45.9268 ug/L	95
46) Toluene	8.81	91	899546	5.2342 ug/L	99

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF75S05.D Vial: 14
Acq Time : 03/07/2019 14:21 Operator: SLS
Sample : VSTD005T4 VSTD005T4 5.0 ug/L FCS Inst : 5975-F
Misc : 2.5 uL of 46311, 46312 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 14:40:45 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

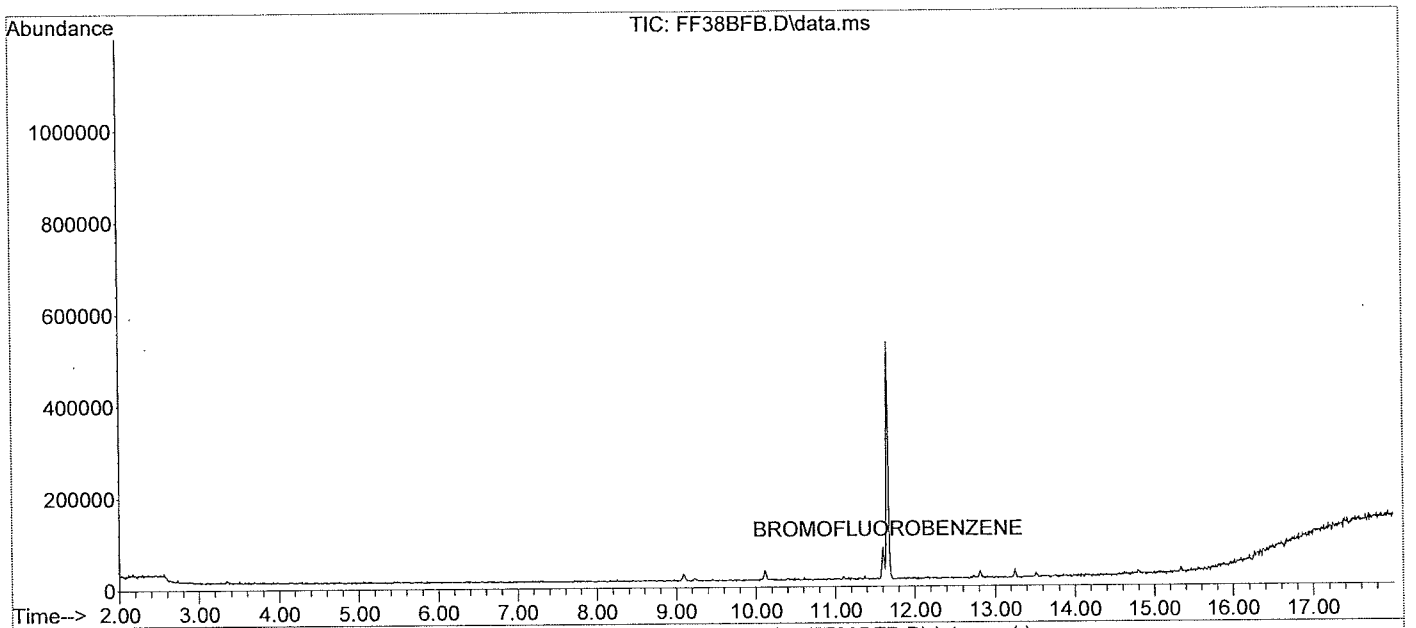
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	225124	5.2609 ug/L	97
49) 2-Hexanone	10.12	43	996003	46.6557 ug/L	96
51) 1,2-Dibromoethane	9.85	107	126025	4.6728 ug/L	100
52) Chlorobenzene	10.42	112	614405	5.0455 ug/L	97
53) Ethylbenzene	10.46	91	1026284	5.2175 ug/L	100
54) m,p-Xylene	10.61	106	416436	5.1578 ug/L	97
55) o-Xylene	11.05	106	391697	5.1216 ug/L	96
56) Styrene	11.10	104	634729	5.0548 ug/L	97
57) Isopropylbenzene	11.38	105	1042084	5.1662 ug/L	97
58) 1,1,2,2-Tetrachloroethane	11.87	83	127182	4.2937 ug/L	96
61) Bromoform	11.12	173	111513	4.6969 ug/L	99
62) 1,3-Dichlorobenzene	12.73	146	523153	5.1866 ug/L	97
63) 1,4-Dichlorobenzene	12.82	146	515640	5.0136 ug/L	100
64) 1,2-Dichlorobenzene	13.26	146	437312	4.9507 ug/L	97
66) 1,2-Dibromo-3-chloropropan	14.08	75	21389	4.3724 ug/L	91
67) 1,2,4-Trichlorobenzene	14.80	180	217943	4.6510 ug/L	100
68) 1,2,3-Trichlorobenzene	15.34	180	166100	4.5691 ug/L	97

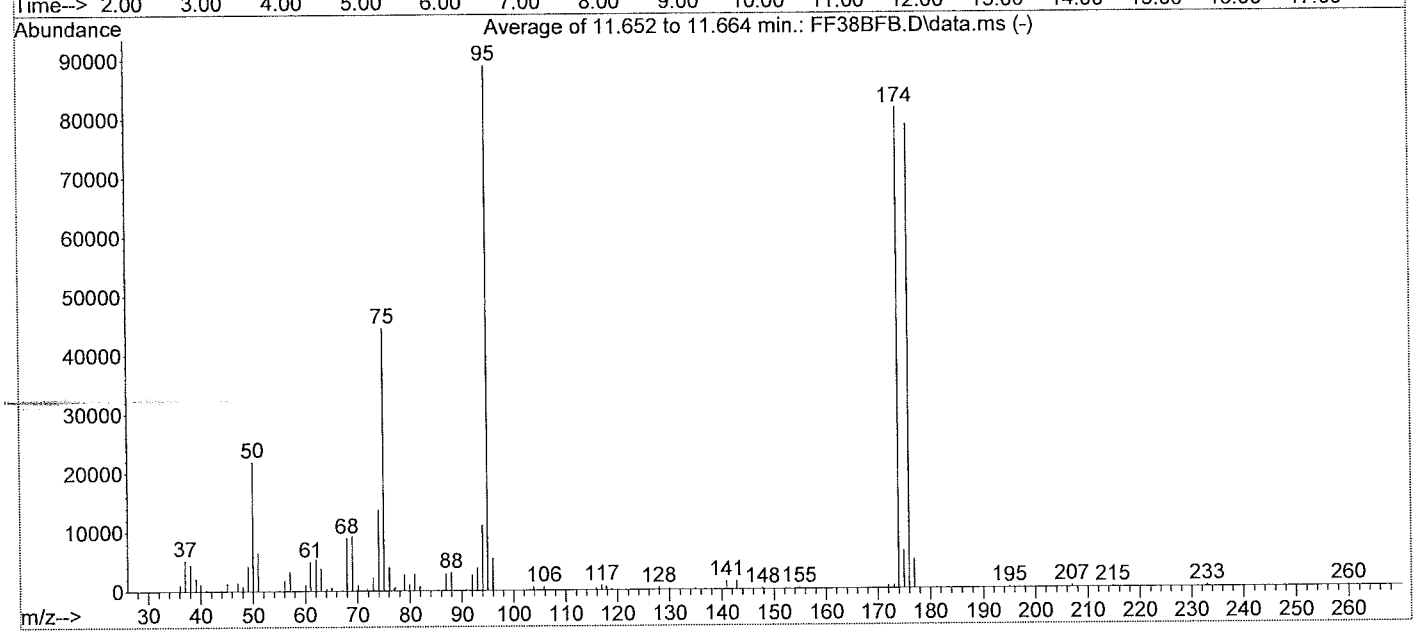
(#) = qualifier out of range (m) = manual integration

SOM01.2 BFB

Data File : Q:\F-5975-F\2019\DAT...9F\05MAR19F\FF38BFB.D Vial: 1
Acq Time : 03/05/2019 09:09 Operator: SLS
Sample : BFBTF 50 ng BFB Inst : 5975-F
Misc : 2.0 uL of 46308 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Method : Q:\E-5975-E\2018\Methods\BFB_SOM.M (RTE Integrator)
Title : VOA COMPOUND LIST





Peak Apex is scan: 1734
Average of 3 Scans: 1733,1734,1735 minus Background scan: 1726

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.58	21875	PASS
75	95	30	80	50.04	44528	PASS
95	95	100	100	100.00	88989	PASS
96	95	5	9	6.03	5368	PASS
173	174	0.00	2	0.57	467	PASS
174	95	50	120	91.56	81477	PASS
175	174	5	9	7.82	6372	PASS
176	174	95	101	96.53	78651	PASS
177	176	5	9	6.12	4816	PASS

Data File : Q:\F-5975-F\2019\DATA\MAR19F\05MAR19F\FF38BFB.D
Inject Time: 03/05/2019 09:09 Operator:SLS
Sample : BFBTF 5 Inst :5975-F
Misc : 2.0 uL of 46308

verage of 11.652 to 11.664 min.: FF38BFB.D\data.ms
FBTF 50 ng BFB
odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1029	50.00	21875	67.10	142	78.95	2725
37.05	5188	51.00	6413	68.00	8952	79.95	1022
38.05	4409	55.00	139	69.00	9250	80.90	2824
39.10	2151	56.05	1765	70.10	851	81.95	702
40.00	1134	57.05	3187	71.90	346	86.95	2828
41.10	147	60.05	1020	73.00	2173	87.95	2994
44.00	167	61.00	4896	74.00	13717	90.90	189
45.05	1281	62.05	5338	75.00	44528	92.00	2617
47.00	1369	63.00	3753	76.05	3967	93.05	3856
48.05	774	64.10	322	76.90	332	94.00	11047
49.05	4166	65.05	529	77.10	524	95.00	88989

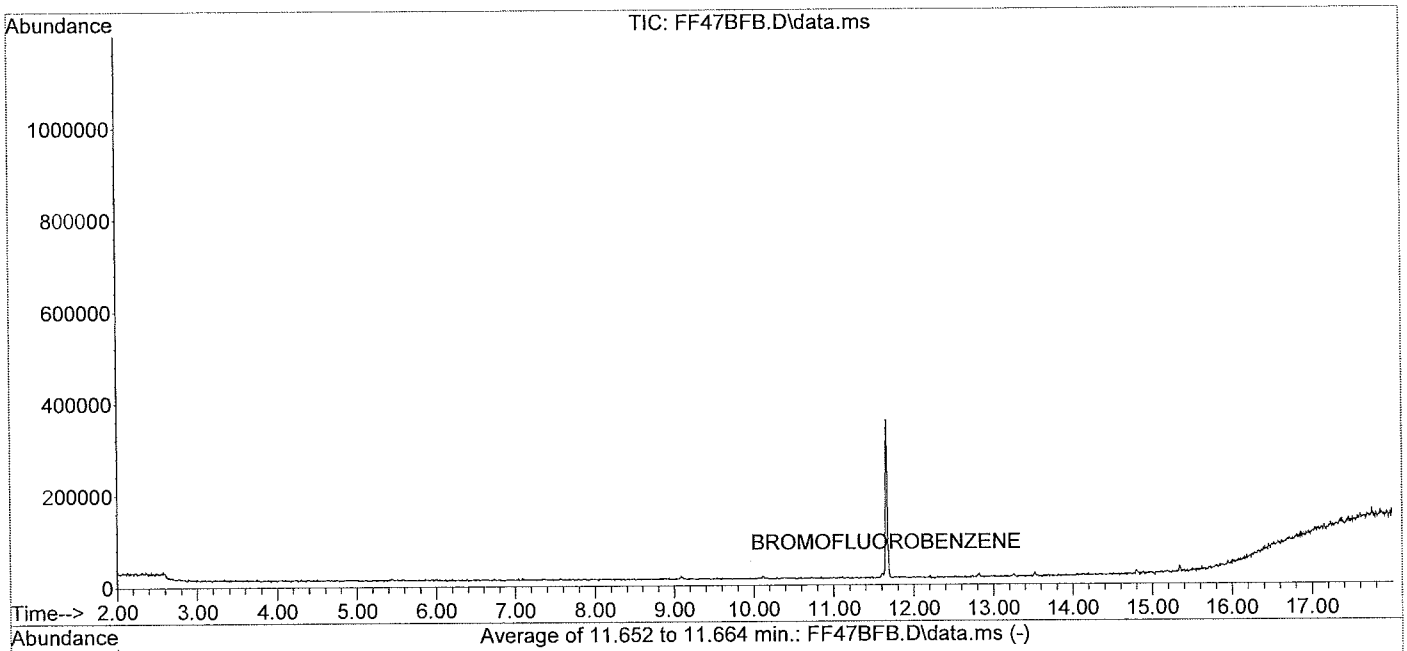
verage of 11.652 to 11.664 min.: FF38BFB.D\data.ms
FBTF 50 ng BFB
odified:subtracted

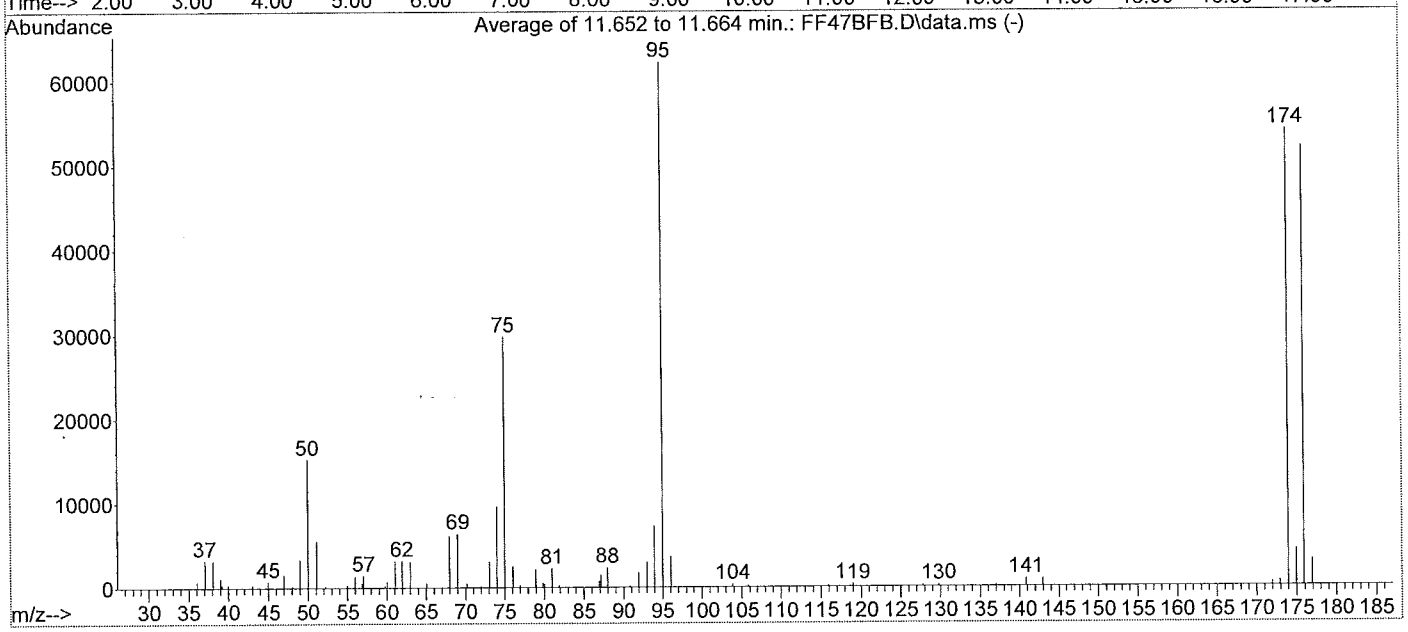
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	5368	140.90	1378	195.00	160		
103.80	520	142.85	1338	206.95	324		
105.85	559	147.80	159	214.80	140		
115.90	285	154.90	203	232.80	135		
116.95	761	156.90	136	233.00	257		
117.85	540	171.95	420	260.00	147		
118.85	213	173.10	467				
127.95	378	173.90	81477				
130.00	181	174.95	6372				
135.00	168	175.95	78651				
136.80	164	176.90	4816				

SOM01.2 BFB

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF47BFB.D Vial: 1
Acq Time : 03/06/2019 08:01 Operator: SLS
Sample : BFBT1 50 ng BFB Inst : 5975-F
Misc : 2.0 uL of 46308 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Method : Q:\E-5975-E\2018\Methods\BFB_SOM.M (RTE Integrator)
Title : VOA COMPOUND LIST





Peak Apex is scan: 1734
Average of 3 Scans: 1733,1734,1735 minus Background scan: 1727

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.47	15221	PASS
75	95	30	80	47.74	29701	PASS
95	95	100	100	100.00	62211	PASS
96	95	5	9	5.80	3607	PASS
173	174	0.00	2	0.99	534	PASS
174	95	50	120	86.90	54059	PASS
175	174	5	9	7.96	4303	PASS
176	174	95	101	96.40	52112	PASS
177	176	5	9	5.85	3047	PASS

Data File : Q:\F-5975-F\2019\DATA\MAR19F\06MAR19F\FF47BFB.D
Inject Time: 03/06/2019 08:01 Operator:SLS
Sample : BFBT1 5 Inst :5975-F
Misc : 2.0 uL of 46308

verage of 11.652 to 11.664 min.: FF47BFB.D\data.ms
FBT1 50 ng BFB
odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	645	50.00	15221	63.00	2986	78.95	2147
37.05	3225	51.10	5568	65.05	482	79.85	497
38.05	3167	52.20	149	68.00	6084	80.05	433
39.00	1022	55.00	287	69.00	6358	80.95	2195
39.20	338	56.00	1299	70.15	431	81.90	176
40.00	282	56.90	547	72.00	159	86.90	732
43.00	257	57.05	1422	73.05	3073	87.10	1411
45.00	719	59.80	182	74.00	9580	87.95	2301
47.00	1483	60.05	675	75.00	29701	90.80	141
48.10	145	61.05	3149	76.05	2471	91.95	1684
49.00	3291	61.95	3151	77.00	174	93.05	2956

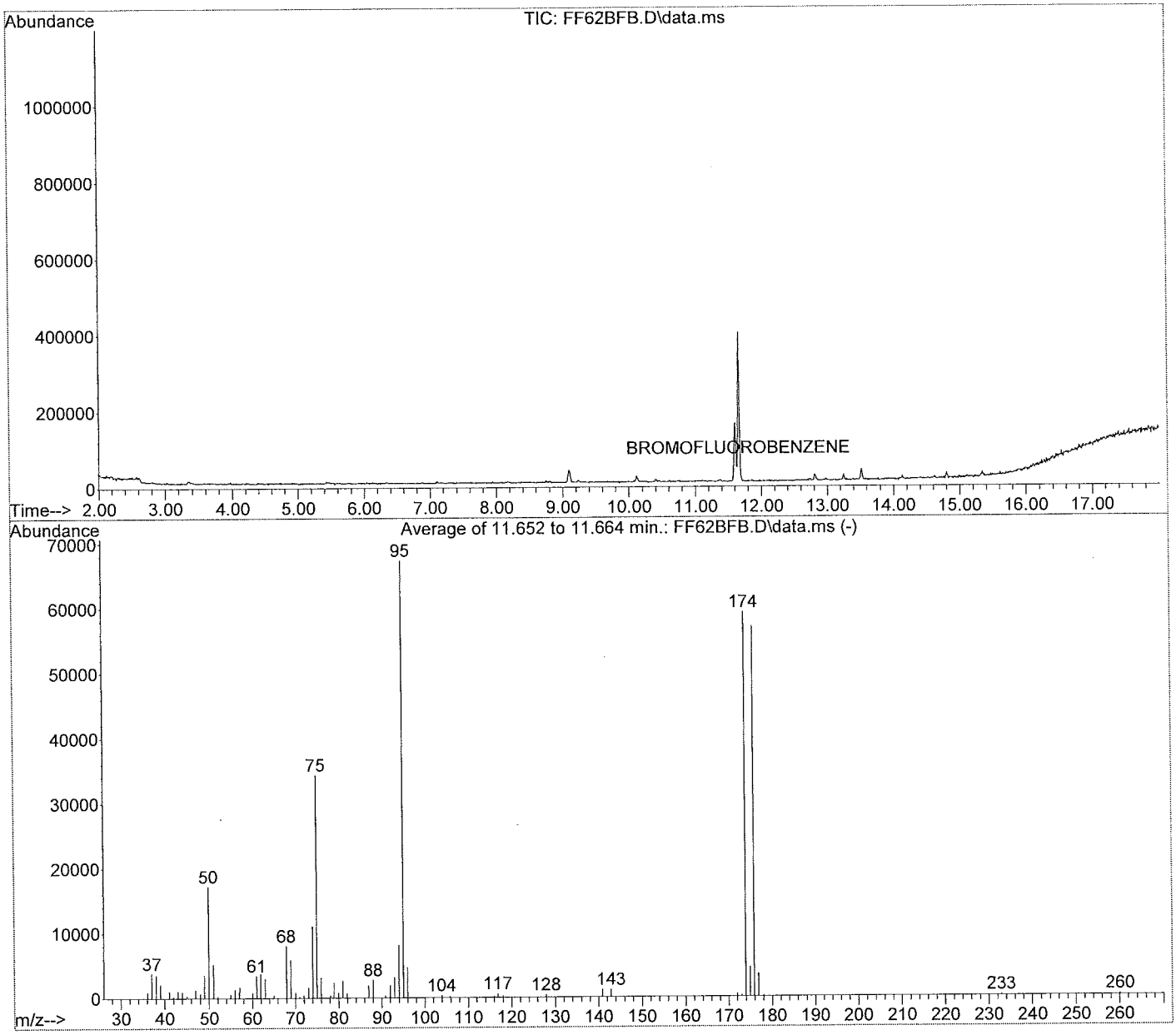
verage of 11.652 to 11.664 min.: FF47BFB.D\data.ms
FBT1 50 ng BFB
odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.95	7206	142.95	828				
95.00	62211	171.95	416				
96.05	3607	172.90	534				
103.85	293	173.95	54059				
105.80	147	174.95	4303				
115.90	156	175.90	52112				
119.00	301	176.95	3047				
127.80	171						
129.80	176						
137.00	176						
140.85	886						

SOM01.2 BFB

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF62BFB.D Vial: 1
Acq Time : 03/07/2019 07:54 Operator: SLS
Sample : BFBT2 50 ng BFB Inst : 5975-F
Misc : 2.0 uL of 46308 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Method : Q:\E-5975-E\2018\Methods\BFB_SOM.M (RTE Integrator)
Title : VOA COMPOUND LIST



Peak Apex is scan: 1734
Average of 3 Scans: 1733,1734,1735 minus Background scan: 1727

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.52	17187	PASS
75	95	30	80	50.99	34339	PASS
95	95	100	100	100.00	67341	PASS
96	95	5	9	6.88	4635	PASS
173	174	0.00	2	0.42	249	PASS
174	95	50	120	87.95	59227	PASS
175	174	5	9	7.67	4543	PASS
176	174	95	101	96.29	57029	PASS
177	176	5	9	6.14	3503	PASS

Data File : Q:\F-5975-F\2019\DATA\MAR19F\07MAR19F\FF62BFB.D
Inject Time: 03/07/2019 07:54 Operator:SLS
Sample : BFBT2 5 Inst :5975-F
Misc : 2.0 uL of 46308

verage of 11.652 to 11.664 min.: FF62BFB.D\data.ms
FBT2 50 ng BFB
odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	842	49.00	3495	63.00	2913	78.10	355
37.05	3783	50.00	17187	65.05	381	78.90	2328
38.05	3438	51.05	5173	68.00	7995	79.95	761
39.05	2049	52.00	190	69.00	5852	80.95	2592
41.05	998	54.95	535	70.05	839	81.90	662
42.00	207	56.00	1263	71.00	147	86.95	1876
43.00	1060	56.90	938	71.95	378	88.00	2724
44.00	926	57.10	1638	73.05	1563	90.90	320
45.00	322	60.05	750	74.05	11025	92.00	1913
46.95	1181	61.00	3391	75.00	34339	92.95	3129
48.00	635	61.95	3688	76.00	3091	94.00	8092

verage of 11.652 to 11.664 min.: FF62BFB.D\data.ms
FBT2 50 ng BFB
lodified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	67341	171.95	414				
96.00	4635	173.00	249				
103.90	315	173.95	59227				
105.80	149	174.95	4543				
116.00	184	175.90	57029				
116.85	547	176.85	3503				
118.00	239	178.00	145				
118.95	11	232.90	136				
127.95	346	260.10	172				
140.90	1111						
142.90	1122						

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
VBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642313
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF49BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
VBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642313
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF49BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/06/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642313
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF49BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/06/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

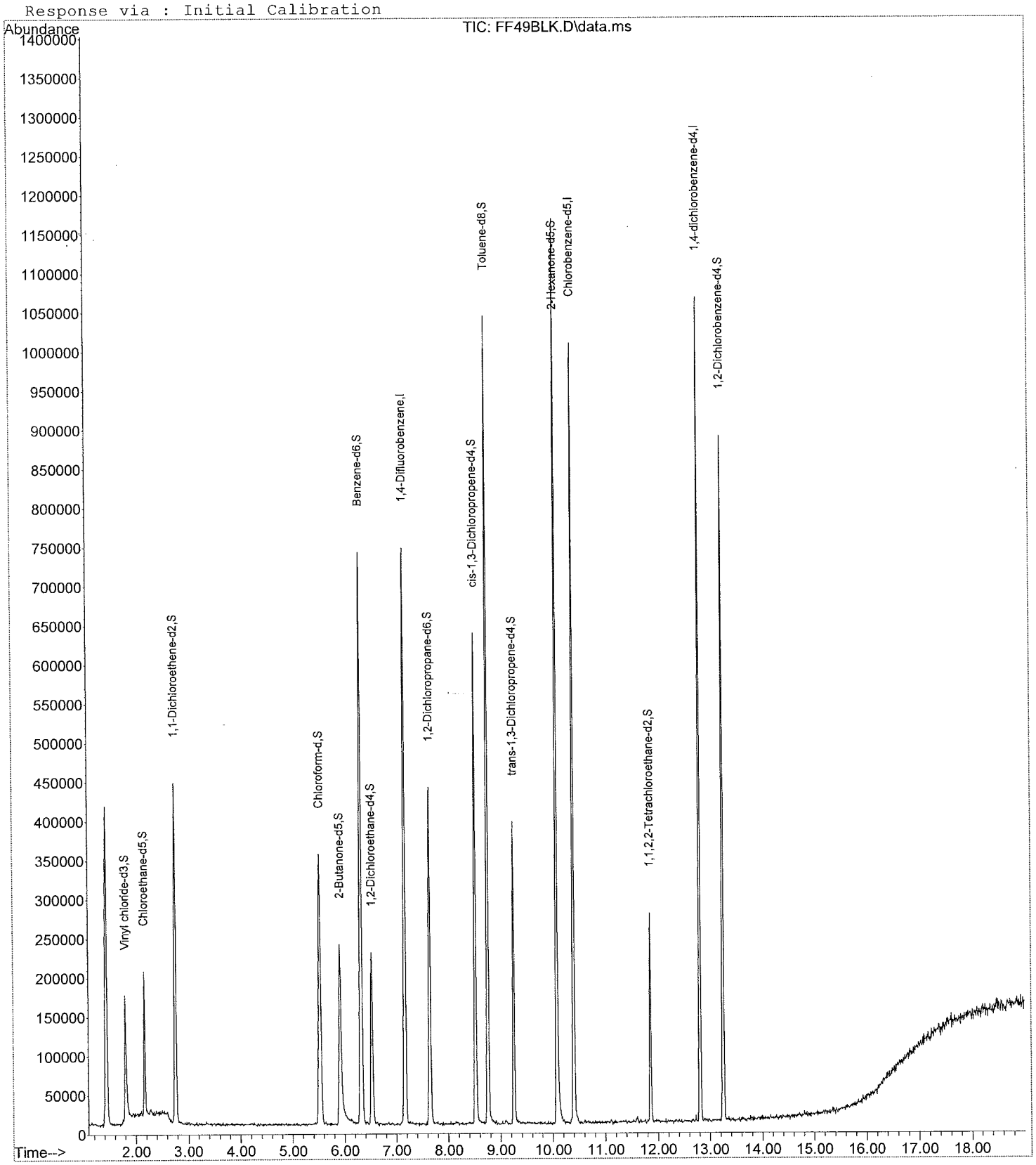
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF49BLK.D Vial: 3
Acq Time : 03/06/2019 09:11 Operator: SLS
Sample : 642313 VBLKT1 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:30:43 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



00212

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF49BLK.D Vial: 3
Acq Time : 03/06/2019 09:11 Operator: SLS
Sample : 642313 VBLKT1 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:30:43 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	713728	5.00 ug/L	89.57
28) Chlorobenzene-d5	10.40	117	593260	5.00 ug/L	93.47
60) 1,4-dichlorobenzene-d4	12.81	152	301683	5.00 ug/L	85.06
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	206288	5.50 ug/L	110.01%
8) Chloroethane-d5	2.17	69	137046	5.16 ug/L	103.24%
11) 1,1-Dichloroethene-d2	2.76	63	357080	4.13 ug/L	82.51%
22) 2-Butanone-d5	5.91	46	555358	54.22 ug/L	108.44%
25) Chloroform-d	5.52	84	410742	5.05 ug/L	101.03%
27) 1,2-Dichloroethane-d4	6.52	65	208744	5.39 ug/L	107.82%
33) Benzene-d6	6.32	84	766842	5.27 ug/L	105.32%
37) 1,2-Dichloropropane-d6	7.65	67	193554	5.03 ug/L	100.54%
40) cis-1,3-Dichloropropene-d4	8.52	79	349878	5.17 ug/L	103.42%
42) trans-1,3-Dichloropropene-	9.25	79	202201	4.98 ug/L	99.69%
47) Toluene-d8	8.76	98	699915	5.26 ug/L	105.20%
50) 2-Hexanone-d5	10.08	63	400112	51.21 ug/L	102.43%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	125558	4.79 ug/L	95.90%
65) 1,2-Dichlorobenzene-d4	13.25	152	256719	5.01 ug/L	100.26%

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.00	85	Not Detected	
3) Chloromethane	0.00	50	Not Detected	
4) Vinyl chloride	0.00	62	Not Detected	
6) Bromomethane	0.00	94	Not Detected	
7) Chloroethane	0.00	64	Not Detected	
9) Trichlorofluoromethane	0.00	101	Not Detected	
10) 1,1-Dichloroethene	0.00	96	Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101	Not Detected	
13) Acetone	0.00	43	Not Detected	
14) Carbon disulfide	0.00	76	Not Detected	
15) Methyl acetate	0.00	43	Not Detected	
16) Methylene chloride	0.00	84	Not Detected	
17) trans-1,2-Dichloroethene	0.00	96	Not Detected	
18) Methyl tert-butyl ether	0.00	73	Not Detected	
19) 1,1-Dichloroethane	0.00	63	Not Detected	
20) cis-1,2-Dichloroethene	0.00	96	Not Detected	
21) 2-Butanone	0.00	43	Not Detected	
23) Bromochloromethane	0.00	128	Not Detected	
24) Chloroform	0.00	83	Not Detected	
26) 1,2-Dichloroethane	0.00	62	Not Detected	
29) 1,1,1-Trichloroethane	0.00	97	Not Detected	
30) Cyclohexane	0.00	56	Not Detected	
31) Carbon tetrachloride	0.00	117	Not Detected	
32) Benzene	0.00	78	Not Detected	
34) Trichloroethene	0.00	130	Not Detected	
35) Methylcyclohexane	0.00	83	Not Detected	
36) 1,2-Dichloropropane	0.00	63	Not Detected	
38) Bromodichloromethane	0.00	83	Not Detected	
39) cis-1,3-Dichloropropene	0.00	75	Not Detected	
41) trans-1,3-Dichloropropene	0.00	75	Not Detected	
43) 1,1,2-Trichloroethane	0.00	97	Not Detected	
44) Dibromochloromethane	0.00	129	Not Detected	
45) 4-Methyl-2-pentanone	0.00	43	Not Detected	
46) Toluene	0.00	91	Not Detected	

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\06MAR19F\FF49BLK.D Vial: 3
Acq Time : 03/06/2019 09:11 Operator: SLS
Sample : 642313 VBLKT1 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 06 10:30:43 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	Tetrachloroethene	0.00	164		Not Detected	
49)	2-Hexanone	0.00	43		Not Detected	
51)	1,2-Dibromoethane	0.00	107		Not Detected	
52)	Chlorobenzene	0.00	112		Not Detected	
53)	Ethylbenzene	0.00	91		Not Detected	
54)	m,p-Xylene	0.00	106		Not Detected	
55)	o-Xylene	0.00	106		Not Detected	
56)	Styrene	0.00	104		Not Detected	
57)	Isopropylbenzene	0.00	105		Not Detected	
58)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61)	Bromoform	0.00	173		Not Detected	
62)	1,3-Dichlorobenzene	0.00	146		Not Detected	
63)	1,4-Dichlorobenzene	0.00	146		Not Detected	
64)	1,2-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
VBLKT2

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642314
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF64BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
VBLKT2

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642314
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF64BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKT2

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS
Case No.: 5POINTS
MA No.:
SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642314
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF64BLK
% Solids:
Date Received:
GC Column: RTX-VMS
ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/07/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH:
Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

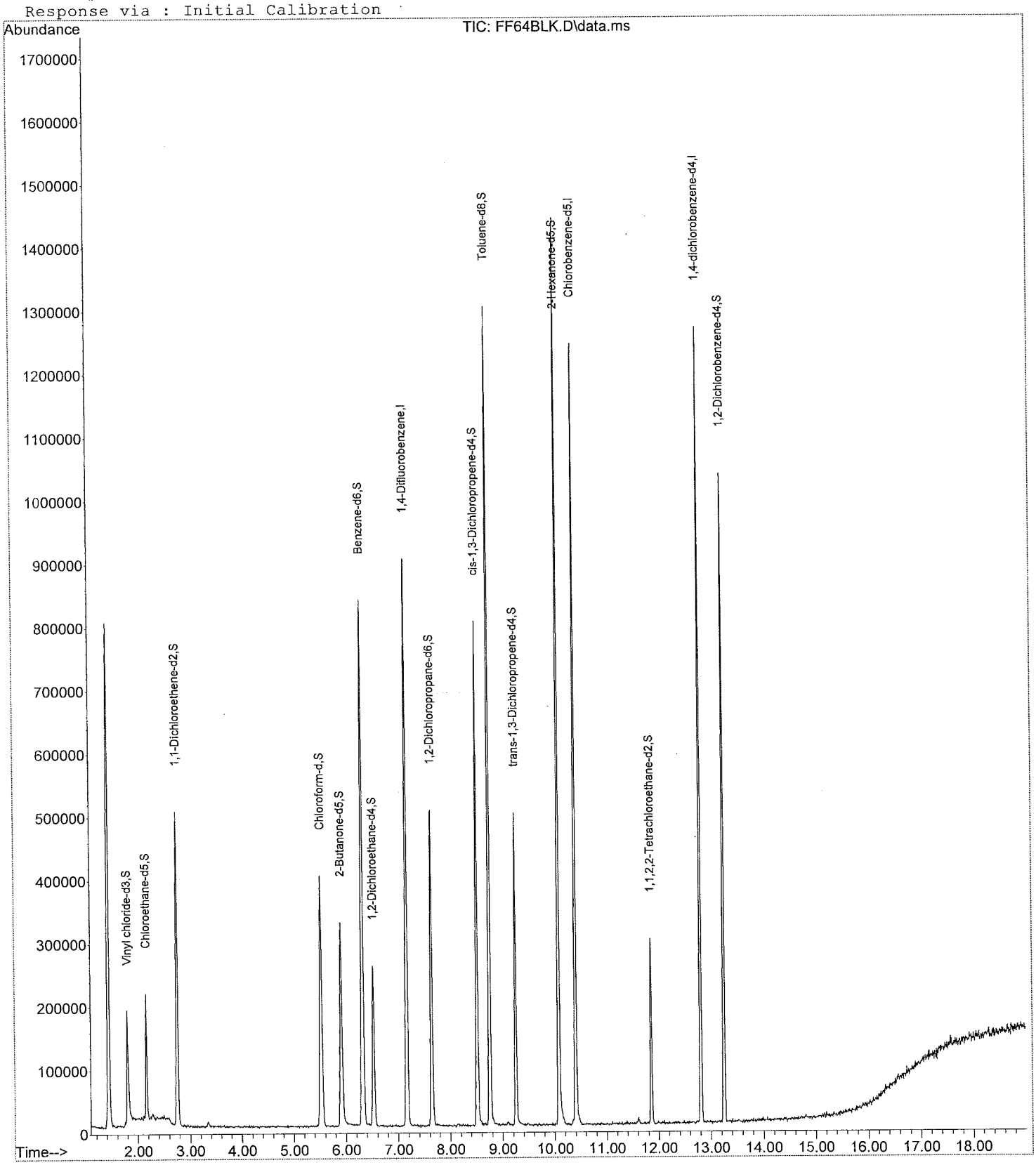
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF64BLK.D Vial: 3
Acq Time : 03/07/2019 09:06 Operator: SLS
Sample : 642314 VBLKT2 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:38:15 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF64BLK.D Vial: 3
Acq Time : 03/07/2019 09:06 Operator: SLS
Sample : 642314 VBLKT2 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:38:15 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) 1,4-Difluorobenzene	7.16	114	863645	5.00	ug/L	108.38
28) Chlorobenzene-d5	10.40	117	740045	5.00	ug/L	116.60
60) 1,4-dichlorobenzene-d4	12.80	152	361924	5.00	ug/L	102.05
System Monitoring Compounds						**%Recovery**
5) Vinyl chloride-d3	1.80	65	219643	4.84	ug/L	96.80%
8) Chloroethane-d5	2.17	69	152575	4.75	ug/L	94.99%
11) 1,1-Dichloroethene-d2	2.76	63	402774	3.85	ug/L	76.91%
22) 2-Butanone-d5	5.91	46	625062	50.43	ug/L	100.87%
25) Chloroform-d	5.53	84	466693	4.74	ug/L	94.87%
27) 1,2-Dichloroethane-d4	6.52	65	233803	4.99	ug/L	99.80%
33) Benzene-d6	6.32	84	905334	4.98	ug/L	99.68%
37) 1,2-Dichloropropane-d6	7.64	67	228867	4.77	ug/L	95.30%
40) cis-1,3-Dichloropropene-d4	8.52	79	423119	5.01	ug/L	100.26%
42) trans-1,3-Dichloropropene-	9.25	79	248876	4.92	ug/L	98.37%
47) Toluene-d8	8.76	98	876833	5.28	ug/L	105.65%
50) 2-Hexanone-d5	10.08	63	484576	49.72	ug/L	99.44%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	139980	4.29	ug/L	85.71%
65) 1,2-Dichlorobenzene-d4	13.24	152	293833	4.78	ug/L	95.65%

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.00	85	Not Detected	
3) Chloromethane	0.00	50	Not Detected	
4) Vinyl chloride	0.00	62	Not Detected	
6) Bromomethane	0.00	94	Not Detected	
7) Chloroethane	0.00	64	Not Detected	
9) Trichlorofluoromethane	0.00	101	Not Detected	
10) 1,1-Dichloroethene	0.00	96	Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101	Not Detected	
13) Acetone	0.00	43	Not Detected	
14) Carbon disulfide	0.00	76	Not Detected	
15) Methyl acetate	0.00	43	Not Detected	
16) Methylene chloride	0.00	84	Not Detected	
17) trans-1,2-Dichloroethene	0.00	96	Not Detected	
18) Methyl tert-butyl ether	0.00	73	Not Detected	
19) 1,1-Dichloroethane	0.00	63	Not Detected	
20) cis-1,2-Dichloroethene	0.00	96	Not Detected	
21) 2-Butanone	0.00	43	Not Detected	
23) Bromochloromethane	0.00	128	Not Detected	
24) Chloroform	0.00	83	Not Detected	
26) 1,2-Dichloroethane	0.00	62	Not Detected	
29) 1,1,1-Trichloroethane	0.00	97	Not Detected	
30) Cyclohexane	0.00	56	Not Detected	
31) Carbon tetrachloride	0.00	117	Not Detected	
32) Benzene	0.00	78	Not Detected	
34) Trichloroethene	0.00	130	Not Detected	
35) Methylcyclohexane	0.00	83	Not Detected	
36) 1,2-Dichloropropane	0.00	63	Not Detected	
38) Bromodichloromethane	0.00	83	Not Detected	
39) cis-1,3-Dichloropropene	0.00	75	Not Detected	
41) trans-1,3-Dichloropropene	0.00	75	Not Detected	
43) 1,1,2-Trichloroethane	0.00	97	Not Detected	
44) Dibromochloromethane	0.00	129	Not Detected	
45) 4-Methyl-2-pentanone	0.00	43	Not Detected	
46) Toluene	0.00	91	Not Detected	

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF64BLK.D Vial: 3
Acq Time : 03/07/2019 09:06 Operator: SLS
Sample : 642314 VBLKT2 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 10:38:15 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
VHBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642315
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF74BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.
VHBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642315
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF74BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLKT1

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 642315
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF74BLK
% Solids:
Date Received:
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
Extract Concentrated:(Y/N)
Date Analyzed: 03/07/2019
Soil Aliquot (VOA): (uL)
Extract Volume: (uL)
Heated Purge:(Y/N) Y
Extraction Type: PT
Purge Volume: 25.0 (mL)
Injection Volume: (uL)
Cleanup Types:
pH: Dilution Factor: 1.0
Concentration Units (ug/L, ug/kg): ug/L
Cleanup Factor:

	CAS No.	ANALYTE	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

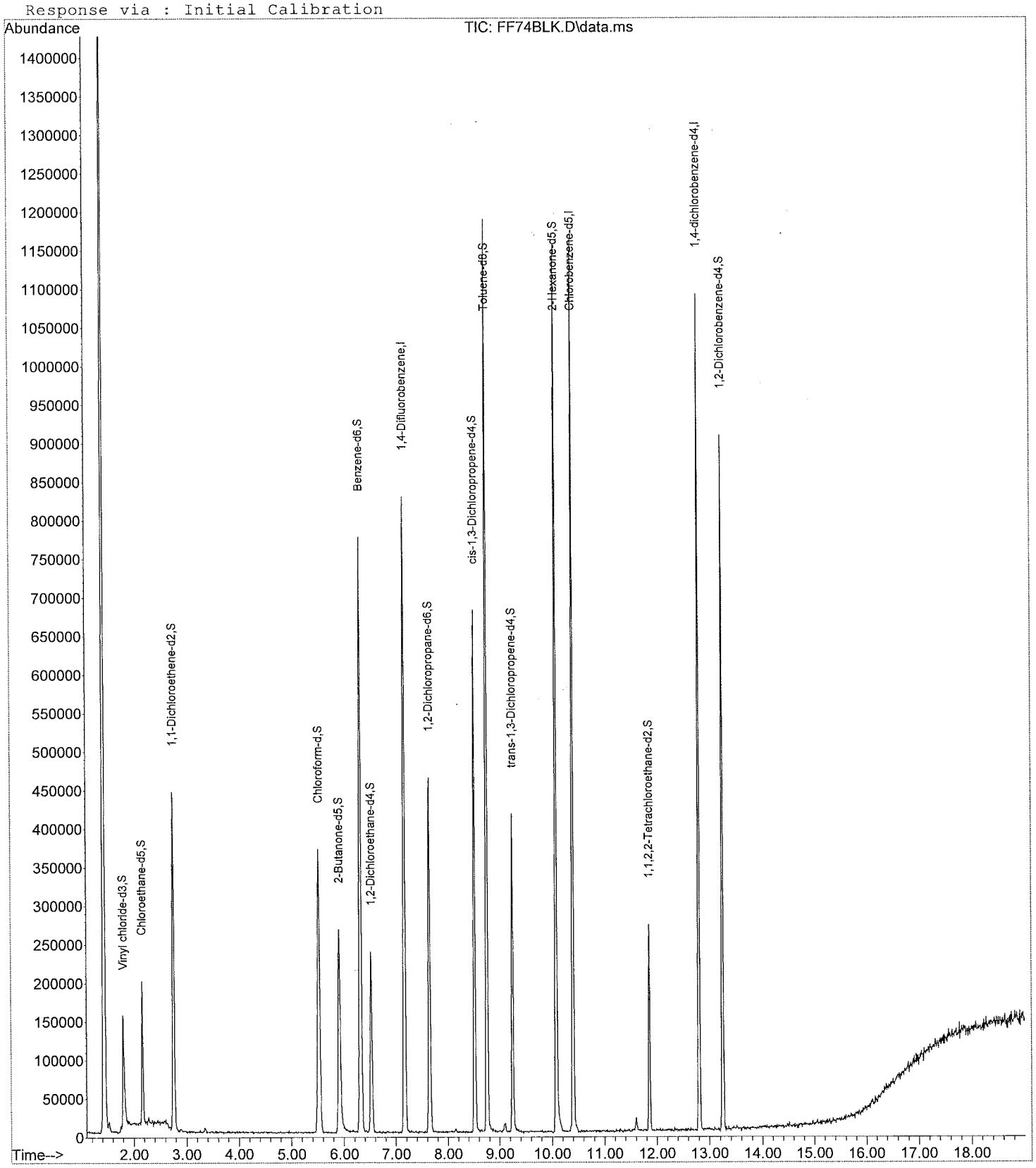
[1] EPA-designated Registry Number.

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF74BLK.D Vial: 13
Acq Time : 03/07/2019 13:53 Operator: SLS
Sample : 642315 VHBLKT1 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 16:44:58 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF74BLK.D Vial: 13
Acq Time : 03/07/2019 13:53 Operator: SLS
Sample : 642315 VHBLKT1 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 16:44:58 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	786952	5.00 ug/L	98.76
28) Chlorobenzene-d5	10.40	117	664550	5.00 ug/L	104.71
60) 1,4-dichlorobenzene-d4	12.81	152	303156	5.00 ug/L	85.48
System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	1.80	65	197956	4.79 ug/L	95.75%
8) Chloroethane-d5	2.17	69	133688	4.57 ug/L	91.34%
11) 1,1-Dichloroethene-d2	2.76	63	361762	3.79 ug/L	75.81%
22) 2-Butanone-d5	5.92	46	538104	47.65 ug/L	95.30%
25) Chloroform-d	5.52	84	437053	4.88 ug/L	97.50%
27) 1,2-Dichloroethane-d4	6.52	65	213581	5.00 ug/L	100.05%
33) Benzene-d6	6.32	84	820550	5.03 ug/L	100.60%
37) 1,2-Dichloropropane-d6	7.65	67	208566	4.84 ug/L	96.71%
40) cis-1,3-Dichloropropene-d4	8.52	79	363769	4.80 ug/L	95.99%
42) trans-1,3-Dichloropropene-	9.25	79	215948	4.75 ug/L	95.05%
47) Toluene-d8	8.76	98	787627	5.28 ug/L	105.68%
50) 2-Hexanone-d5	10.08	63	392557	44.86 ug/L	89.71%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	119290	4.07 ug/L	81.34%
65) 1,2-Dichlorobenzene-d4	13.24	152	254180	4.94 ug/L	98.78%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	0.00	43		Not Detected	
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...9F\07MAR19F\FF74BLK.D Vial: 13
Acq Time : 03/07/2019 13:53 Operator: SLS
Sample : 642315 VHBLKT1 Inst : 5975-F
Misc : 2.5 uL of 46311 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 16:44:58 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	Tetrachloroethene	0.00	164		Not Detected	
49)	2-Hexanone	0.00	43		Not Detected	
51)	1,2-Dibromoethane	0.00	107		Not Detected	
52)	Chlorobenzene	0.00	112		Not Detected	
53)	Ethylbenzene	0.00	91		Not Detected	
54)	m,p-Xylene	0.00	106		Not Detected	
55)	o-Xylene	0.00	106		Not Detected	
56)	Styrene	0.00	104		Not Detected	
57)	Isopropylbenzene	0.00	105		Not Detected	
58)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61)	Bromoform	0.00	173		Not Detected	
62)	1,3-Dichlorobenzene	0.00	146		Not Detected	
63)	1,4-Dichlorobenzene	0.00	146		Not Detected	
64)	1,2-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68)	1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW105-143MS

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930015
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF68T015
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.16	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	4.3	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	2.2	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	4.1	
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	4.3	
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW105-143MS

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930015
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF68T015
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

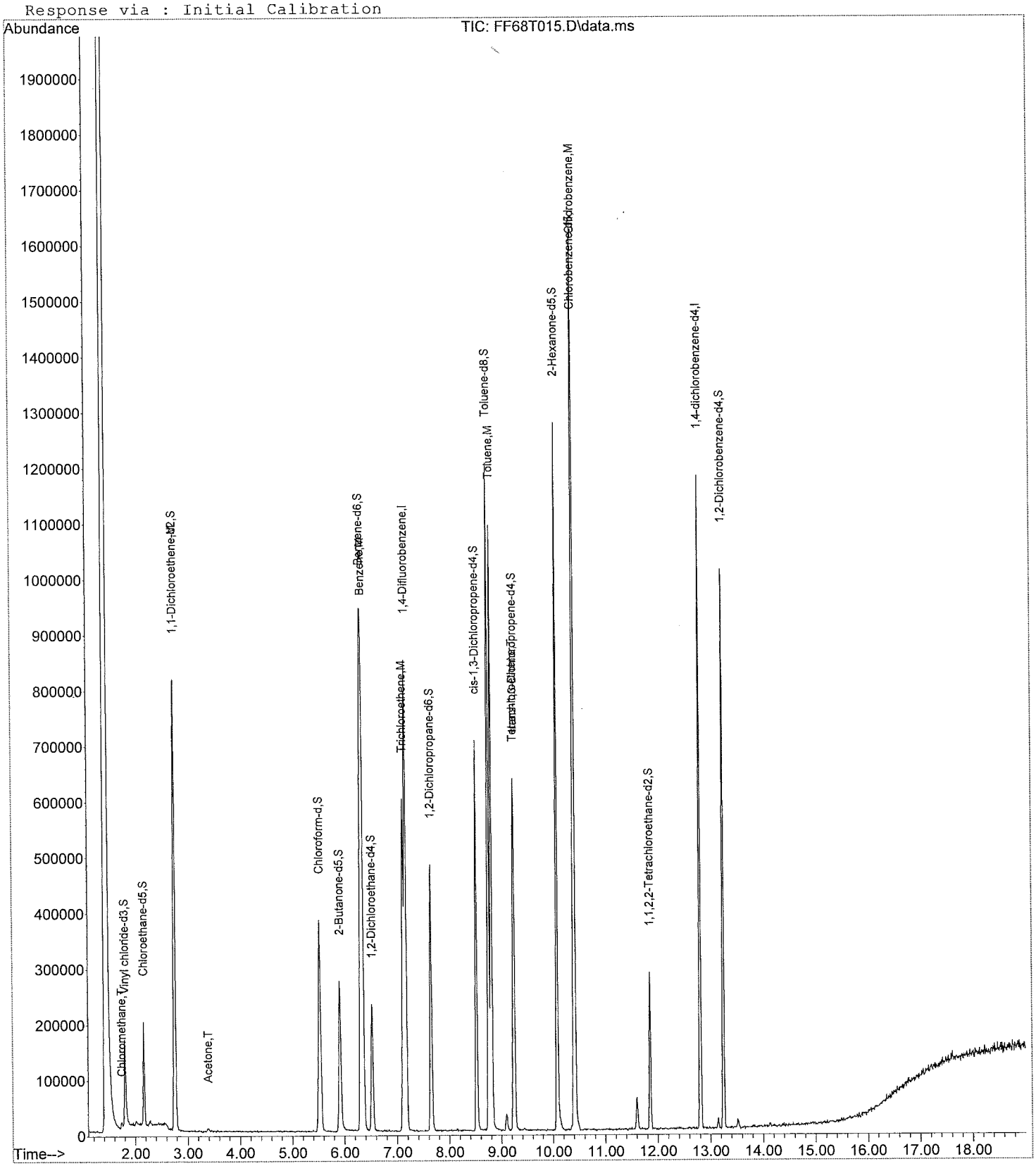
CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	4.4	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	2.2	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.4	
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF68T015.D Vial: 7
Acq Time : 03/07/2019 11:05 Operator: SLS
Sample : 1905930015 5P-MW105-143MS Inst : 5975-F
Misc : 1905930 A MS Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 11:36:20 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF68T015.D Vial: 7
Acq Time : 03/07/2019 11:05 Operator: SLS
Sample : 1905930015 5P-MW105-143MS Inst : 5975-F
Misc : 1905930 A MS Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 11:36:20 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	807014	5.00 ug/L	101.27
28) Chlorobenzene-d5	10.40	117	701296	5.00 ug/L	110.50
60) 1,4-dichlorobenzene-d4	12.80	152	337363	5.00 ug/L	95.12
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	198875	4.69 ug/L	93.80%
8) Chloroethane-d5	2.17	69	140372	4.68 ug/L	93.52%
11) 1,1-Dichloroethene-d2	2.76	63	476353	4.87 ug/L	97.34%
22) 2-Butanone-d5	5.91	46	517442	44.68 ug/L	89.36%
25) Chloroform-d	5.53	84	443914	4.83 ug/L	96.57%
27) 1,2-Dichloroethane-d4	6.53	65	212262	4.85 ug/L	96.96%
33) Benzene-d6	6.32	84	845002	4.91 ug/L	98.17%
37) 1,2-Dichloropropane-d6	7.65	67	214890	4.72 ug/L	94.42%
40) cis-1,3-Dichloropropene-d4	8.52	79	384974	4.81 ug/L	96.26%
42) trans-1,3-Dichloropropene-	9.25	79	226408	4.72 ug/L	94.43%
47) Toluene-d8	8.76	98	827361	5.26 ug/L	105.19%
50) 2-Hexanone-d5	10.08	63	406259	43.99 ug/L	87.98%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	128846	4.16 ug/L	83.25%
65) 1,2-Dichlorobenzene-d4	13.25	152	282963	4.94 ug/L	98.82%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	10884	0.1638 ug/L	88
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	2.77	96	165716	4.3326 ug/L #	92
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	11491	2.2093 ug/L	84
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	6.35	78	700147	4.1450 ug/L	92
34) Trichloroethene	7.12	130	254235	4.2951 ug/L	95
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	8.81	91	789778	4.4406 ug/L	98

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF68T015.D Vial: 7
Acq Time : 03/07/2019 11:05 Operator: SLS
Sample : 1905930015 5P-MW105-143MS Inst : 5975-F
Misc : 1905930 A MS Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 11:36:20 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.23	164	98870	2.2326 ug/L	96
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	10.42	112	550290	4.3666 ug/L	89
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW105-143MSD

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930016
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF69T016
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.18	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	3.8	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	3.0	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	3.7	
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	3.7	
108-87-2	Methylcyclohexane	0.50	U

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW105-143MSD

Lab Name: ALS Environmental (SLC)
Contract: 97756
Lab Code: ALS Case No.: 5POINTS
MA No.: SDG No.: TV219
Analytical Method: Trace VOA
Level: TRACE
Matrix: WATER
Lab Sample ID: 1905930016
Sample wt/vol: 25.0 (g/mL) mL
Lab File ID: FF69T016
% Solids:
Date Received: 02/27/2019
GC Column: RTX-VMS ID: 0.25 (mm)
Date Extracted:
GC Column: ID: (mm)
Date Analyzed: 03/07/2019
Extract Concentrated:(Y/N)
Extract Volume: (uL)
Soil Aliquot (VOA): (uL)
Extraction Type: PT
Heated Purge:(Y/N) Y
Injection Volume: (uL)
Purge Volume: 25.0 (mL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Types:
Cleanup Factor:
Concentration Units (ug/L, mg/L, ug/kg): ug/L

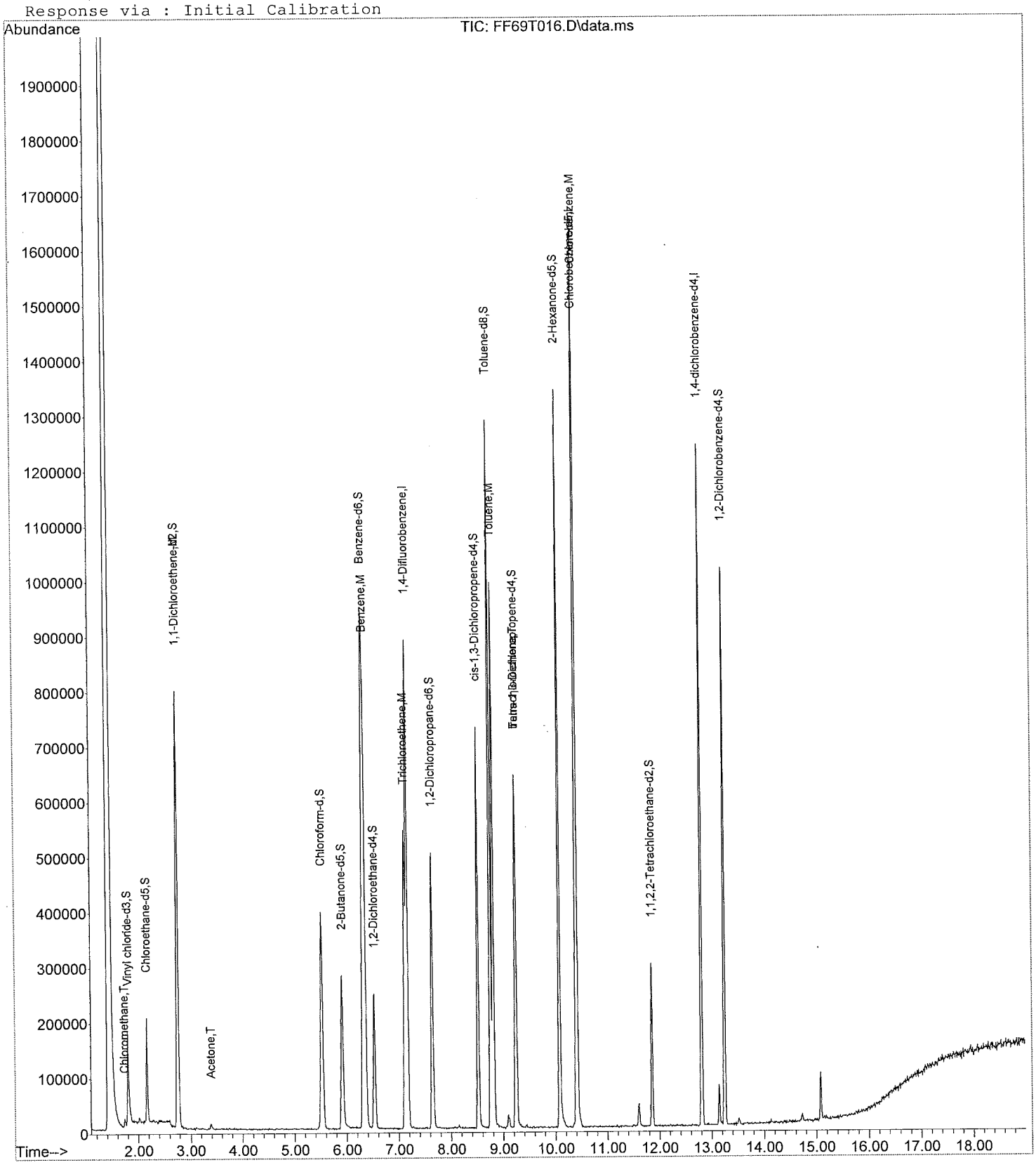
CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	3.9	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	2.0	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	3.9	
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF69T016.D Vial: 8
Acq Time : 03/07/2019 11:33 Operator: SLS
Sample : 1905930016 5P-MW105-143MSD Inst : 5975-F
Misc : 1905930 A MSD Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 12:00:15 2019 Results File: FTRACEG0.RES

Method : Q:\F-5975-F\Curr...thods\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Mar 07 16:45:19 2019
Response via : Initial Calibration



Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF69T016.D Vial: 8
Acq Time : 03/07/2019 11:33 Operator: SLS
Sample : 1905930016 5P-MW105-143MSD Inst : 5975-F
Misc : 1905930 A MSD Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 12:00:15 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.16	114	855521	5.00 ug/L	107.36
28) Chlorobenzene-d5	10.40	117	731648	5.00 ug/L	115.28
60) 1,4-dichlorobenzene-d4	12.81	152	350025	5.00 ug/L	98.69
System Monitoring Compounds					**%Recovery**
5) Vinyl chloride-d3	1.80	65	202005	4.49 ug/L	89.87%
8) Chloroethane-d5	2.17	69	136993	4.30 ug/L	86.09%
11) 1,1-Dichloroethene-d2	2.76	63	474201	4.57 ug/L	91.41%
22) 2-Butanone-d5	5.92	46	551300	44.90 ug/L	89.81%
25) Chloroform-d	5.52	84	456199	4.68 ug/L	93.62%
27) 1,2-Dichloroethane-d4	6.53	65	220979	4.76 ug/L	95.22%
33) Benzene-d6	6.32	84	880555	4.90 ug/L	98.06%
37) 1,2-Dichloropropane-d6	7.65	67	223111	4.70 ug/L	93.97%
40) cis-1,3-Dichloropropene-d4	8.52	79	396209	4.75 ug/L	94.96%
42) trans-1,3-Dichloropropene-	9.25	79	238256	4.76 ug/L	95.25%
47) Toluene-d8	8.76	98	860580	5.24 ug/L	104.88%
50) 2-Hexanone-d5	10.08	63	433099	44.95 ug/L	89.90%
59) 1,1,2,2-Tetrachloroethane-	11.85	84	137068	4.24 ug/L	84.89%
65) 1,2-Dichlorobenzene-d4	13.24	152	295044	4.97 ug/L	99.31%
Target Compounds					**Qvalue**
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	1.73	50	12828	0.1821 ug/L	95
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	2.77	96	153276	3.7801 ug/L #	88
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.39	43	16330	2.9616 ug/L	91
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	6.35	78	650730	3.6926 ug/L	89
34) Trichloroethene	7.12	130	229616	3.7183 ug/L	94
35) Methylcyclohexane	0.00	83		Not Detected	
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	8.81	91	720673	3.8840 ug/L	98

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

Quantitation Report

Data File : Q:\F-5975-F\2019\DAT...F\07MAR19F\FF69T016.D Vial: 8
Acq Time : 03/07/2019 11:33 Operator: SLS
Sample : 1905930016 5P-MW105-143MSD Inst : 5975-F
Misc : 1905930 A MSD Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 07 12:00:15 2019 Results File: FTRACEG0.RES

Quant Method : C:\MSDCHEM\1\METHODS\FTRACEG0.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Tue Mar 05 13:23:38 2019
Response via : Initial Calibration
DataAcq Meth : FTRACEG0.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.24	164	94116	2.0371 ug/L	99
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	10.42	112	518519	3.9438 ug/L	87
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

ALS Laboratory Group GC/MS Volatile Organic Analysis

ALS Ref ID:	Samples:	HBN:	Case/SDG:	Date Received:	Date Analyzed:
1905930	15	233981	5POINTS/TV219	2/27/19	3/6/19-3/7/19

Sample Matrix: Water

Method: EPA CLP SOM02.4 Trace Water

Instrument: 5975-F

Column: Rtx-VMS 30 m 0.250 mm

Temp. Program: 45° C (5.0 min) 15°C /min ramp to 200°C (0 min) 30°C /min ramp to 230°C (2.67 min). Run Time = 19.0 min.

Carrier Gas: Helium

Purge/Trap: OI Analytical Eclipse 4660/#10 Trap; Varian Archon Autosampler.

Purge/Trap Conditions: Purge Time: 11 min. (1 min. dry purge); Desorb Time: 0.8 min. @ 190° C.

Purge Gas: Helium

Purge Flow: ~50 mL/min. Sample heated to 40° C.

Trap Temp: < 35° C

Initial Calibration Curve: The calibration curve is FTRACEG0 analyzed on 3/5/19

Initial Calibration Standards: VSTD0.5TF, 001TF, 005TF, 010TF, 020TF (Trace Water Curve) - 46309, 46310, 46312

Initial Calibration Verification Standards: VICVTE - 46311, 46314

Calibration Verification/MS Standards: VSTD005TX - 46311, 46312

Balance I.D.: 40090067

All analyses meet established QC acceptance criteria.

Results reported in units of ug/L. Data processed by: SLS Notebook generated by: SLS

ALS ENVIROMENTAL - GC\MS VOLATILE ANALYSIS
INJECTION LOGBOOK
INSTRUMENT 5975-F

FILE NAME	DATE & TIME INJECTED	OP	METHOD	SPAR GER#	RUN LENGTH	DIL FAC	MATRIX	SAMPLE	(STANDARD) (SOLUTION)	ISTD #1 AREA
FF37BFB	03/05/2019 08:37	SLS	FTRACEF9	1	19.00	1	WATER	BFBTx	50 ng BFB	0
	COMMENTS: 2.0 uL of 46308									
FF38BFB	03/05/2019 09:09	SLS	FTRACEF9	1	19.00	1	WATER	BFBTF	50 ng BFB	0
	COMMENTS: 2.0 uL of 46308									
FF38S05	03/05/2019 09:41	SLS	FTRACEF9	2	19.00	1	WATER	VSTD005Tx	VSTD005x 5.0	906271
	COMMENTS: 2.5 uL of 46311, 46312									
FF39BLK	03/05/2019 10:20	SLS	FTRACEF9	3	19.00	1	WATER	SYSTEM BLANK		819590
	COMMENTS: 2.5 uL of 46311									
FF40S005	03/05/2019 10:48	SLS	FTRACEG0	4	19.00	1	WATER	VSTD0.5TF	VSTD0.5TF 0.5	785024
	COMMENTS: 2.5 uL of 46309; 0.5 uL of 46310, 46312/50 mL									
FF41S01	03/05/2019 11:16	SLS	FTRACEG0	5	19.00	1	WATER	VSTD001TF	VSTD0 1TF 1.0 u	814572
	COMMENTS: 2.5 uL of 46309; 1.0 uL of 46310, 46312/50 mL									
FF42S05	03/05/2019 11:44	SLS	FTRACEG0	6	19.00	1	WATER	VSTD005TF	VSTD005TF 5.0	796865
	COMMENTS: 2.5 uL of 46309; 5.0 uL of 46310, 46312/50 mL									
FF43S10	03/05/2019 12:12	SLS	FTRACEG0	7	19.00	1	WATER	VSTD010TF	VSTD010TF 10.0	800540
	COMMENTS: 2.5 uL of 46309; 10 uL of 46310, 46312/50 mL									
FF44S20	03/05/2019 12:41	SLS	FTRACEG0	8	19.00	1	WATER	VSTD020TF	VSTD020TF 20.0	843784
	COMMENTS: 2.5 uL of 46309; 20 uL of 46310, 46312/50 mL									
FF45BLK	03/05/2019 13:09	SLS	FTRACEG0	9	19.00	1	WATER	SYSTEM BLANK		787881
	COMMENTS: 2.5 uL of 46311									
FF46V05	03/05/2019 13:43	SLS	FTRACEG0	10	19.00	1	WATER	VICVTF	VICVTF 5.0 ug/L I	835565
	COMMENTS: 2.5 uL of 46311, 46314									

ALS ENVIROMENTAL - GC\MS VOLATILE ANALYSIS
INJECTION LOGBOOK
INSTRUMENT 5975-F

FILE NAME	DATE & TIME INJECTED	OP	METHOD	SPAR GER#	RUN LENGTH	DIL FAC	MATRIX	SAMPLE	(STANDARD) (SOLUTION)	ISTD #1 AREA
FF47BFB	03/06/2019 08:01	SLS	FTRACEG0	1	19.00	1	WATER	BFBT1	50 ng BFB	0
	COMMENTS: 2.0 uL of 46308									
FF48S05	03/06/2019 08:35	SLS	FTRACEG0	2	19.00	1	WATER	VSTD005T1	VSTD005T1 5.0	853014
	COMMENTS: 2.5 uL of 46311, 46312									
FF49BLK	03/06/2019 09:11	SLS	FTRACEG0	3	19.00	1	WATER	642313	VBLKT1	713728
	COMMENTS: 2.5 uL of 46311									
FF50T002	03/06/2019 09:53	SLS	FTRACEG0	4	19.00	1	WATER	1905930002	5P-MW107I-145	863776
	COMMENTS: 1905930 A									
FF51T003	03/06/2019 10:21	SLS	FTRACEG0	5	19.00	1	WATER	1905930003	5P-MW107D-200	803042
	COMMENTS: 1905930 A									
FF52T004	03/06/2019 10:49	SLS	FTRACEG0	6	19.00	1	WATER	1905930004	5P-MW106I-145	753988
	COMMENTS: 1905930 A									
FF53T005	03/06/2019 11:17	SLS	FTRACEG0	7	19.00	1	WATER	1905930005	5P-MW106D-195	729551
	COMMENTS: 1905930 A									
FF54T006	03/06/2019 11:45	SLS	FTRACEG0	8	19.00	1	WATER	1905930006	5P-MW109I-169	666959
	COMMENTS: 1905930 A									
FF55T007	03/06/2019 12:13	SLS	FTRACEG0	9	19.00	1	WATER	1905930007	5P-MW109D-230	757422
	COMMENTS: 1905930 A									
FF56T008	03/06/2019 12:41	SLS	FTRACEG0	10	19.00	1	WATER	1905930008	5P-MW108I-149	830726
	COMMENTS: 1905930 A									
FF57T009	03/06/2019 13:08	SLS	FTRACEG0	11	19.00	1	WATER	1905930009	5P-MW108D-215	837277
	COMMENTS: 1905930 A									
FF58T010	03/06/2019 13:37	SLS	FTRACEG0	12	19.00	1	WATER	1905930010	5P-MW110I-208	872169
	COMMENTS: 1905930 A									
FF59T011	03/06/2019 14:04	SLS	FTRACEG0	13	19.00	1	WATER	1905930011	5P-MW110D-301	849490
	COMMENTS: 1905930 A									
FF60S05	03/06/2019 14:32	SLS	FTRACEG0	14	19.00	1	WATER	VSTD005T2	VSTD005T2 5.0	933292
	COMMENTS: 2.5 uL of 46311, 46312									
FF61S05	03/06/2019 15:00	SLS	FTRACEG0	15	19.00	1	WATER	VSTD005TX	VSTD005TX 5.0	923723
	COMMENTS: 2.5 uL of 46311, 46312									

ALS ENVIROMENTAL - GC\MS VOLATILE ANALYSIS
INJECTION LOGBOOK
INSTRUMENT 5975-F

FILE NAME	DATE & TIME INJECTED	OP	METHOD	SPAR GER#	RUN LENGTH	DIL FAC	MATRIX	SAMPLE	(STANDARD) (SOLUTION)	ISTD #1 AREA
FF62BFB	03/07/2019 07:54	SLS	FTRACEG0	1	19.00	1	WATER	BFBT2	50 ng BFB	0
	COMMENTS: 2.0 uL of 46308									
FF63S05	03/07/2019 08:34	SLS	FTRACEG0	2	19.00	1	WATER	VSTD005T3	VSTD005T3 5.0	887534
	COMMENTS: 2.5 uL of 46311, 46312									
FF64BLK	03/07/2019 09:06	SLS	FTRACEG0	3	19.00	1	WATER	642314	VBLKT2	863645
	COMMENTS: 2.5 uL of 46311									
FF65T012	03/07/2019 09:41	SLS	FTRACEG0	4	19.00	4	WATER	1905930012DL	5P-MW101-159	878687
	COMMENTS: 1905930 A 1:4 DILUTION									
FF66T013	03/07/2019 10:09	SLS	FTRACEG0	5	19.00	4	WATER	1905930013DL	5P-MW101-159	749571
	COMMENTS: 1905930 A 1:4 DILUTION									
FF67T014	03/07/2019 10:37	SLS	FTRACEG0	6	19.00	1	WATER	1905930014	5P-MW105-143	743870
	COMMENTS: 1905930 A									
FF68T015	03/07/2019 11:05	SLS	FTRACEG0	7	19.00	1	WATER	1905930015	5P-MW105-143MS	807014
	COMMENTS: 1905930 A MS									
FF69T016	03/07/2019 11:33	SLS	FTRACEG0	8	19.00	1	WATER	1905930016	5P-MW105-143MS	855521
	COMMENTS: 1905930 A MSD									
FF70T001	03/07/2019 12:01	SLS	FTRACEG0	9	19.00	1	WATER	1905930001	TB-022719	805673
	COMMENTS: 1905930 A									
FF71T017	03/07/2019 12:29	SLS	FTRACEG0	10	19.00	1	WATER	1905930017	5P-MW104-120	816631
	COMMENTS: 1905930 A									
FF72T012	03/07/2019 12:57	SLS	FTRACEG0	11	19.00	1	WATER	1905930012	5P-MW101-159	831723
	COMMENTS: 1905930 B									
FF73T013	03/07/2019 13:25	SLS	FTRACEG0	12	19.00	1	WATER	1905930013	5P-MW101-159-Y	799089
	COMMENTS: 1905930 B									
FF74BLK	03/07/2019 13:53	SLS	FTRACEG0	13	19.00	1	WATER	642315	VHBLKT1	786952
	COMMENTS: 2.5 uL of 46311									
FF75S05	03/07/2019 14:21	SLS	FTRACEG0	14	19.00	1	WATER	VSTD005T4	VSTD005T4 5.0	800494
	COMMENTS: 2.5 uL of 46311, 46312									
FF76S05	03/07/2019 14:49	SLS	FTRACEG0	15	19.00	1	WATER	VSTD005TX	VSTD005TX 5.0	870251
	COMMENTS: 2.5 uL of 46311, 46312									

STANDARD REPORT

Working Standard - 4-BFB

4-BFB	Description - 4-Bromofluorobenzene
Standard: 46308	Created By: Christopher Q. Coleman
MFG: NA	Create Date: 03/04/2019 06:03AM
MFG Lot: CH-3248Z	
Pipette ID: NA	
Amount: 5 mL	
Expires: 05/04/2019	
Usable: Yes	
Lab Lot: 4-BFB CH-3248Z	

Pos.	Analyte	Name	Concentration
1	460-00-4	4-Bromofluorobenzene	25 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-615	4.9375 mL	08/10/2025
34352	BFB	Bromofluorobenzene Stock	BFB CH-3248Z	62.5 uL	10/31/2019

STANDARD REPORT

Constituent

Solvent Standard - Methanol

Methanol	Description - Purge & Trap Methanol Solvent
Standard: 33018	Created By: Christopher Q. Coleman
MFG: B&J	Create Date: 08/10/2016 08:08PM
MFG Lot: DN-615	
Part ID: Not Provided	
Amount: 235 mL	
Expires: 08/10/2025	
Usable: Yes	
Lab Lot: P&T MeOH DN-615	

Pos.	Analyte	Name	Concentration

Solvent - Analyte(s) not applicable

STANDARD REPORT

Constituent

Stock Standard - BFB

BFB	Description - Bromofluorobenzene Stock
Standard: 34352	Created By: Christopher Q. Coleman
MFG: Ultra Scientific	Create Date: 11/15/2018 06:11PM
MFG Lot: CH-3248Z	
Part ID: Not Provided	
Amount: Not Provided	
Expires: 10/31/2019	
Usable: Yes	
Lab Lot: BFB CH-3248Z	

Pos.	Analyte	Name	Concentration
1	460-00-4	4-Bromofluorobenzene	2000 ug/mL

STANDARD REPORT

Working Standard - Trace Istd

Trace Istd	Description - Trace Istd Only
Standard: 46309	Created By: Christopher Q. Coleman
MFG: NA	Create Date: 03/04/2019 06:03AM
MFG Lot: NA	
Pipette ID: NA	
Amount: 2 mL	
Expires: 04/03/2019	
Usable: Yes	
Lab Lot: Trace Istd Only	

Pos.	Analyte	Name	Concentration
1	540-36-3	1,4-Difluorobenzene	50 ug/mL
2	3114-55-4	Chlorobenzene-d5	50 ug/mL
3	3855-82-1	1,4-Dichlorobenzene-d4	50 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-615	1960 uL	08/10/2025
36944	CLP Istd	EPA CLP Istd Stock	CLP Istd 011917	40 uL	01/19/2022

STANDARD REPORT

Constituent

Solvent Standard - Methanol

Methanol	Description - Purge & Trap Methanol Solvent

Standard: 33018
MFG: B&J
MFG Lot: DN-615
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 08/10/2016 08:08PM

Amount: 235 mL
Expires: 08/10/2025
Usable: Yes
Lab Lot: P&T MeOH DN-615

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - CLP Istd

CLP Istd	Description - EPA CLP Istd Stock

Standard: 36944
MFG: Absolute Standards, Inc.
MFG Lot: 011917
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 05/23/2017 07:05PM

Amount: Not Provided
Expires: 01/19/2022
Usable: Yes
Lab Lot: CLP Istd 011917

Pos.	Analyte	Name	Concentration
1	540-36-3	1,4-Difluorobenzene	2500 ug/mL
2	3114-55-4	Chlorobenzene-d5	2500 ug/mL
3	3855-82-1	1,4-Dichlorobenzene-d4	2500 ug/mL

STANDARD REPORT

Working Standard - Trace DMC

Trace DMC	Description - Trace DMC Only

Standard: 46319
MFG: NA
MFG Lot: NA
Pipette ID: NA

Created By: Christopher Q. Coleman
Create Date: 03/04/2019 06:03AM

Amount: 2 mL
Expires: 04/03/2019
Usable: Yes
Lab Lot: Trace DMC Only

Pos.	Analyte	Name	Concentration
1	1076-43-3	Benzene-d6	50 ug/mL
2	865-49-6	Chloroform-d	50 ug/mL
3	2199-69-1	1,2-Dichlorobenzene-d4	50 ug/mL
4	17060-07-0	1,2-Dichloroethane-d4	50 ug/mL
5	22250-73-5	1,1-Dichloroethene-d2	50 ug/mL
6	78-87-5(d6)	1,2-Dichloropropane-d6	50 ug/mL
7	93951-86-1	trans-1,3-Dichloropropene-d4	50 ug/mL
8	33685-54-0	1,1,2,2-Tetrachloroethane-d2	50 ug/mL
9	2037-26-5	Toluene-d8	50 ug/mL
10	19199-91-8	Chloroethane-d5	50 ug/mL
11	6745-35-3	Vinyl Chloride-d3	50 ug/mL
12	24313-50-8	2-Butanone-d5	500 ug/mL
13	4840-82-8	2-Hexanone-d5	500 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-615	1500 uL	08/10/2025
39971	CLPDMCGases	EPA CLP DMC Gases Stock	CLPDMCGases072617	50 uL	07/26/2020
41785	CLP DMC	EPA CLP DMC Liquids Stock	CLP DMC 022017	50 uL	02/20/2020
43828	CLP DMC KET	EPA CLP DMC Ketones Stock	CLP DMC Ket 081018	400 uL	08/10/2021

STANDARD REPORT

Constituent

Solvent Standard - Methanol

Methanol	Description - Purge & Trap Methanol Solvent

Standard: 33018
MFG: B&J
MFG Lot: DN-615
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 08/10/2016 08:08PM

Amount: 235 mL
Expires: 08/10/2025
Usable: Yes
Lab Lot: P&T MeOH DN-615

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - CLP DMC KET

CLP DMC KET	Description - EPA CLP DMC Ketones Stock

Standard: 43828
MFG: Absolute Standards, Inc.
MFG Lot: 081018
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 09/26/2018 06:09AM

Amount: Not Provided
Expires: 08/10/2021
Usable: Yes
Lab Lot: CLP DMC Ket 081018

Pos.	Analyte	Name	Concentration
1	24313-50-6	2-Butanone-d5	2500 ug/mL
2	4840-82-8	2-Hexanone-d5	2500 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP DMC

CLP DMC	Description - EPA CLP DMC Liquids Stock

Standard: 41785
MFG: Absolute Standards, Inc.
MFG Lot: 022017
Part ID: 94155

Created By: Christopher Q. Coleman
Create Date: 05/10/2018 06:05AM

Amount: Not Provided
Expires: 02/20/2020
Usable: Yes
Lab Lot: CLP DMC 022017

Pos.	Analyte	Name	Concentration
1	1076-43-3	Benzene-d6	2000 ug/mL
2	865-49-6	Chloroform-d	2000 ug/mL
3	2199-69-1	1,2-Dichlorobenzene-d4	2000 ug/mL
4	17060-07-0	1,2-Dichloroethane-d4	2000 ug/mL
5	22280-73-5	1,1-Dichloroethene-d2	2000 ug/mL
6	78-87-5(d6)	1,2-Dichloropropane-d6	2000 ug/mL
7	93951-86-1	trans-1,3-Dichloropropene-d4	2000 ug/mL
8	33685-54-0	1,1,2,2-Tetrachloroethane-d2	2000 ug/mL
9	2037-26-5	Toluene-d8	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLPDMCGases

CLPDMCGases	Description - EPA CLP DMC Gases Stock

Standard: 39971
MFG: Absolute Standards, Inc.
MFG Lot: 072617
Part ID: 94156

Created By: Christopher Q. Coleman
Create Date: 12/29/2017 08:12AM

Amount: Not Provided
Expires: 07/26/2020
Usable: Yes
Lab Lot: CLPDMCGases072617

Pos.	Analyte	Name	Concentration
1	19199-91-8	Chloroethane-d5	2000 ug/mL
2	6745-35-3	Vinyl Chloride-d3	2000 ug/mL

STANDARD REPORT

Working Standard - TraceIstdDMC

TraceIstdDMC	Description - Trace Istd/DMC

Standard: 46311
MFG: NA
MFG Lot: NA
Pipette ID: NA

Created By: Christopher Q. Coleman
Create Date: 03/04/2019 06:03AM

Amount: 2 mL
Expires: 04/03/2019
Usable: Yes
Lab Lot: Trace Istd/DMC

Pos.	Analyte	Name	Concentration
1	1076-43-3	Benzene-d6	50 ug/mL
2	865-49-6	Chloroform-d	50 ug/mL
3	2199-69-1	1,2-Dichlorobenzene-d4	50 ug/mL
4	17060-07-0	1,2-Dichloroethane-d4	50 ug/mL
5	22280-73-5	1,1-Dichloroethene-d2	50 ug/mL
6	78-87-5(d6)	1,2-Dichloropropane-d6	50 ug/mL
7	93951-86-1	trans-1,3-Dichloropropene-d4	50 ug/mL
8	33685-54-0	1,1,2,2-Tetrachloroethane-d2	50 ug/mL
9	2037-26-5	Toluene-d8	50 ug/mL
10	540-36-3	1,4-Difluorobenzene	50 ug/mL
11	3114-55-4	Chlorobenzene-d5	50 ug/mL
12	3855-82-1	1,4-Dichlorobenzene-d4	50 ug/mL
13	19199-91-8	Chloroethane-d5	50 ug/mL
14	6745-35-3	Vinyl Chloride-d3	50 ug/mL
15	24313-50-6	2-Butanone-d5	500 ug/mL
16	4840-82-8	2-Hexanone-d5	500 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-515	1460 uL	08/10/2025
36944	CLP Istd	EPA CLP Istd Stock	CLP Istd 011917	40 uL	01/19/2022
39971	CLPDMCGases	EPA CLP DMC Gases Stock	CLPDMCGases072617	50 uL	07/26/2020
41785	CLP DMC	EPA CLP DMC Liquids Stock	CLP DMC 022017	50 uL	02/20/2020
43828	CLP DMC KET	EPA CLP DMC Ketones Stock	CLP DMC Ket 081018	400 uL	08/10/2021

STANDARD REPORT

Constituent

Solvent Standard - Methanol

Methanol	Description - Purge & Trap Methanol Solvent

Standard: 33018
MFG: B&J
MFG Lot: DN-615
Part ID: Not Provided

Created By: Christopher O. Coleman
Create Date: 08/10/2016 08:08PM

Amount: 235 mL
Expires: 08/10/2025
Usable: Yes
Lab Lot: P&T MeOH DN-615

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - CLP Istd

CLP Istd	Description - EPA CLP Istd Stock

Standard: 36944
MFG: Absolute Standards, Inc.
MFG Lot: 011917
Part ID: Not Provided

Created By: Christopher O. Coleman
Create Date: 05/23/2017 07:05PM

Amount: Not Provided
Expires: 01/19/2022
Usable: Yes
Lab Lot: CLP Istd 011917

Pos.	Analyte	Name	Concentration
1	540-36-3	1,4-Difluorobenzene	2500 ug/mL
2	3114-55-4	Chlorobenzene-d5	2500 ug/mL
3	3855-82-1	1,4-Dichlorobenzene-d4	2500 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP DMC KET

CLP DMC KET	Description - EPA CLP DMC Ketones Stock

Standard: 43828
MFG: Absolute Standards, Inc.
MFG Lot: 081018
Part ID: Not Provided

Created By: Christopher O. Coleman
Create Date: 09/26/2018 08:09AM

Amount: Not Provided
Expires: 08/10/2021
Usable: Yes
Lab Lot: CLP DMC Ket 081018

Pos.	Analyte	Name	Concentration
1	24313-50-6	2-Butanone-d5	2500 ug/mL
2	4840-82-8	2-Hexanone-d5	2500 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP DMC

CLP DMC	Description - EPA CLP DMC Liquids Stock

Standard: 41785
MFG: Absolute Standards, Inc.
MFG Lot: 022017
Part ID: 94155

Created By: Christopher O. Coleman
Create Date: 05/10/2018 08:05AM

Amount: Not Provided
Expires: 02/20/2020
Usable: Yes
Lab Lot: CLP DMC 022017

Pos.	Analyte	Name	Concentration
1	1076-43-3	Benzene-d6	2000 ug/mL
2	865-49-6	Chloroform-d	2000 ug/mL
3	2199-69-1	1,2-Dichlorobenzene-d4	2000 ug/mL
4	17060-07-0	1,2-Dichloroethane-d4	2000 ug/mL
5	22280-73-5	1,1-Dichloroethene-d2	2000 ug/mL
6	78-87-5(d6)	1,2-Dichloropropane-d6	2000 ug/mL
7	93951-86-1	trans-1,3-Dichloropropene-d4	2000 ug/mL
8	33685-54-0	1,1,2,2-Tetrachloroethane-d2	2000 ug/mL
9	2037-26-5	Toluene-d8	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLPDMCGases

CLPDMCGases — Description - EPA CLP DMC Gases Stock

Standard: 39971
MFG: Absolute Standards, Inc.
MFG Lot: 072617
Part ID: 94156

Created By: Christopher Q. Coleman
Create Date: 12/29/2017 08:12AM

Amount: Not Provided
Expires: 07/26/2020
Usable: Yes
Lab Lot: CLPDMCGases072617

Pos.	Analyte	Name	Concentration
1	19199-91-8	Chloroethane-d5	2000 ug/mL
2	6745-35-3	Vinyl Chloride-d3	2000 ug/mL

STANDARD REPORT

Working Standard - Trace VOA

Trace VOA — Description - Trace VOA

Standard: 46312
MFG: NA
MFG Lot: NA
Pipette ID: NA

Created By: Christopher Q. Coleman
Create Date: 03/04/2019 06:03AM

Amount: 2 mL
Expires: 04/03/2019
Usable: Yes
Lab Lot: Trace VOA

Pos.	Analyte	Name	Concentration
1	67-64-1	Acetone	500 ug/mL
2	78-93-3	Methyl ethyl ketone	500 ug/mL
3	108-10-1	Methyl isobutyl ketone	500 ug/mL
4	591-78-6	2-Hexanone	500 ug/mL
5	75-71-8	Dichlorodifluoromethane	50 ug/mL
6	74-87-3	Methyl chloride	50 ug/mL
7	75-01-4	Vinyl chloride	50 ug/mL
8	74-83-9	Bromomethane	50 ug/mL
9	75-00-3	Ethyl chloride	50 ug/mL
10	75-69-4	Freon 11	50 ug/mL
11	71-43-2	Benzene	50 ug/mL
12	108-88-3	Toluene	50 ug/mL
13	100-41-4	Ethyl benzene	50 ug/mL
14	95-47-6	o-Xylene	50 ug/mL
15	108-38-3	m-Xylene	25 ug/mL
16	106-42-3	p-Xylene	25 ug/mL
17	75-27-4	Bromodichloromethane	50 ug/mL
18	124-48-1	Dibromochloromethane	50 ug/mL
19	75-35-4	1,1-Dichloroethene	50 ug/mL
20	156-59-2	cis-1,2-Dichloroethene	50 ug/mL
21	156-60-5	trans-1,2-Dichloroethene	50 ug/mL
22	75-09-2	Methylene chloride	50 ug/mL
23	74-97-5	Bromochloromethane	50 ug/mL
24	75-25-2	Bromoform	50 ug/mL
25	56-23-5	Carbon tetrachloride	50 ug/mL
26	67-66-3	Chloroform	50 ug/mL
27	75-34-3	1,1-Dichloroethane	50 ug/mL
28	127-18-4	Tetrachloroethene	50 ug/mL
29	71-55-6	1,1,1-Trichloroethane	50 ug/mL
30	96-12-8	1,2-Dibromo-3-Chloropropane	50 ug/mL
31	106-93-4	1,2-Dibromoethane	50 ug/mL
32	107-06-2	1,2-Dichloroethane	50 ug/mL
33	78-87-5	1,2-Dichloropropane	50 ug/mL
34	10061-01-5	cis-1,3-Dichloropropene	50 ug/mL
35	10061-02-6	trans-1,3-Dichloropropene	50 ug/mL
36	79-34-5	1,1,2,2-Tetrachloroethane	50 ug/mL
37	79-00-5	1,1,2-Trichloroethane	50 ug/mL
38	79-01-6	Trichloroethene	50 ug/mL
39	108-90-7	Chlorobenzene	50 ug/mL

STANDARD REPORT

Working Standard - Trace VOA

Trace VOA — Description - Trace VOA

Standard: 46312
MFG: NA
MFG Lot: NA
Pipette ID: NA

Created By: Christopher Q. Coleman
Create Date: 03/04/2019 06:03AM

Amount: 2 mL
Expires: 04/03/2019
Usable: Yes
Lab Lot: Trace VOA

Pos.	Analyte	Name	Concentration
40	95-50-1	1,2-Dichlorobenzene	50 ug/mL
41	541-73-1	1,3-Dichlorobenzene	50 ug/mL
42	106-46-7	1,4-Dichlorobenzene	50 ug/mL
43	98-82-8	Cumene	50 ug/mL
44	100-42-5	Styrene	50 ug/mL
45	87-61-6	1,2,3-Trichlorobenzene	50 ug/mL
46	120-82-1	1,2,4-Trichlorobenzene	50 ug/mL
47	75-15-0	Carbon disulfide	50 ug/mL
48	110-82-7	Cyclohexane	50 ug/mL
49	79-20-9	Methyl Acetate	50 ug/mL
50	108-87-2	Methylcyclohexane	50 ug/mL
51	1634-04-4	Methyl t-butyl ether	50 ug/mL
52	76-13-1	Freon 113	50 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-615	1850 uL	08/10/2025
39972	CLP Gases	EPA CLP Gases Stock	CLP Gases 082117	50 uL	08/21/2020
43827	CLP VOA	EPA CLP VOA Stock	CLP VOA 091318	50 uL	09/13/2021
46049	CLP Ketones	EPA CLP Ketones Stock	CLP Ketones 011719	50 uL	01/17/2022

STANDARD REPORT

Constituent

Stock Standard - CLP Gases

CLP Gases — Description - EPA CLP Gases Stock

Standard: 39972
MFG: Absolute Standards, Inc.
MFG Lot: 082117
Part ID: 30058

Created By: Christopher Q. Coleman
Create Date: 12/29/2017 08:12AM

Amount: Not Provided
Expires: 08/21/2020
Usable: Yes
Lab Lot: CLP Gases 082117

Pos.	Analyte	Name	Concentration
1	75-71-8	Dichlorodifluoromethane	2000 ug/mL
2	74-87-3	Methyl chloride	2000 ug/mL
3	75-01-4	Vinyl chloride	2000 ug/mL
4	74-83-9	Bromomethane	2000 ug/mL
5	75-00-3	Ethyl chloride	2000 ug/mL
6	75-69-4	Freon 11	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP VOA

CLP VOA — Description - EPA CLP VOA Stock

Standard: 43827
MFG: Absolute Standards, Inc.
MFG Lot: 091318
Part ID: 94159

Created By: Christopher Q. Coleman
Create Date: 09/26/2018 06:09AM

Amount: 1
Expires: 09/13/2021
Usable: Yes
Lab Lot: CLP VOA 091318

Pos.	Analyte	Name	Concentration
1	71-43-2	Benzene	2000 ug/mL
2	108-88-3	Toluene	2000 ug/mL
3	100-41-4	Ethyl benzene	2000 ug/mL
4	95-47-6	o-Xylene	2000 ug/mL
5	108-38-3	m-Xylene	1000 ug/mL
6	106-42-3	p-Xylene	1000 ug/mL
7	75-27-4	Bromodichloromethane	2000 ug/mL
8	124-48-1	Dibromochloromethane	2000 ug/mL
9	75-35-4	1,1-Dichloroethene	2000 ug/mL
10	156-59-2	cis-1,2-Dichloroethene	2000 ug/mL
11	156-60-5	trans-1,2-Dichloroethene	2000 ug/mL
12	75-09-2	Methylene chloride	2000 ug/mL
13	74-97-5	Bromochloromethane	2000 ug/mL
14	75-25-2	Bromoform	2000 ug/mL
15	56-23-5	Carbon tetrachloride	2000 ug/mL
16	67-66-3	Chloroform	2000 ug/mL
17	75-34-3	1,1-Dichloroethane	2000 ug/mL
18	127-18-4	Tetrachloroethene	2000 ug/mL
19	71-55-6	1,1,1-Trichloroethane	2000 ug/mL
20	96-12-8	1,2-Dibromo-3-Chloropropane	2000 ug/mL
21	106-93-4	1,2-Dibromoethane	2000 ug/mL
22	107-06-2	1,2-Dichloroethane	2000 ug/mL
23	78-87-5	1,2-Dichloropropane	2000 ug/mL
24	10061-01-5	cis-1,3-Dichloropropene	2000 ug/mL
25	10061-02-6	trans-1,3-Dichloropropene	2000 ug/mL
26	79-34-5	1,1,2,2-Tetrachloroethane	2000 ug/mL
27	79-00-5	1,1,2-Trichloroethane	2000 ug/mL
28	79-01-6	Trichloroethene	2000 ug/mL
29	108-90-7	Chlorobenzene	2000 ug/mL
30	95-50-1	1,2-Dichlorobenzene	2000 ug/mL
31	541-73-1	1,3-Dichlorobenzene	2000 ug/mL
32	106-46-7	1,4-Dichlorobenzene	2000 ug/mL
33	98-82-8	Cumene	2000 ug/mL
34	100-42-5	Styrene	2000 ug/mL
35	87-61-6	1,2,3-Trichlorobenzene	2000 ug/mL
36	120-82-1	1,2,4-Trichlorobenzene	2000 ug/mL
37	75-15-0	Carbon disulfide	2000 ug/mL
38	110-82-7	Cyclohexane	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP VOA

CLP VOA — Description - EPA CLP VOA Stock

Standard: 43827
MFG: Absolute Standards, Inc.
MFG Lot: 091318
Part ID: 94159

Created By: Christopher Q. Coleman
Create Date: 09/26/2018 06:09AM

Amount: 1
Expires: 09/13/2021
Usable: Yes
Lab Lot: CLP VOA 091318

Pos.	Analyte	Name	Concentration
39	79-20-9	Methyl Acetate	2000 ug/mL
40	108-87-2	Methylcyclohexane	2000 ug/mL
41	1634-04-4	Methyl t-butyl ether	2000 ug/mL
42	76-13-1	Freon 113	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP Ketones

CLP Ketones — Description - EPA CLP Ketones Stock

Standard: 46949
MFG: Absolute Standards, Inc.
MFG Lot: 011719
Part ID: 82492

Created By: Christopher Q. Coleman
Create Date: 02/13/2019 09:02AM

Amount: Not Provided
Expires: 01/17/2022
Usable: Yes
Lab Lot: CLP Ketones 011719

Pos.	Analyte	Name	Concentration
1	67-64-1	Acetone	20000 ug/mL
2	78-93-3	Methyl ethyl ketone	20000 ug/mL
3	108-10-1	Methyl isobutyl ketone	20000 ug/mL
4	591-78-6	2-Hexanone	20000 ug/mL

STANDARD REPORT

Constituent

Solvent Standard - Methanol

Methanol — Description - Purge & Trap Methanol Solvent

Standard: 33018
MFG: B&J
MFG Lot: DN-615
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 08/10/2016 08:08PM

Amount: 235 mL
Expires: 08/10/2025
Usable: Yes
Lab Lot: P&T MeOH DN-615

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Working Standard - Trace MS

Trace MS — Description - Trace Matrix Spike

Standard: 46313
MFG: NA
MFG Lot: NA
Pipette ID: NA

Created By: Christopher Q. Coleman
Create Date: 03/04/2019 06:03AM

Amount: 2 mL
Expires: 04/03/2019
Usable: Yes
Lab Lot: Trace Matrix Spike

Pos.	Analyte	Name	Concentration
1	75-35-4	1,1-Dichloroethene	50 ug/mL
2	71-43-2	Benzene	50 ug/mL
3	79-01-6	Trichloroethene	50 ug/mL
4	108-88-3	Toluene	50 ug/mL
5	108-90-7	Chlorobenzene	50 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-615	1900 uL	08/10/2025
40254	CLP M.S.	CLP Matrix Spike Stock	CLP MS CP-4257	100 uL	09/30/2019

STANDARD REPORT
Constituent

Solvent Standard - Methanol

Methanol — Description - Purge & Trap Methanol Solvent

Standard: 33018
MFG: B&J
MFG Lot: DN-615
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 08/10/2015 08:08PM

Amount: 235 mL
Expires: 08/10/2025
Usable: Yes
Lab Lot: P&T MeOH DN-615

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT
Constituent

Stock Standard - CLP M.S.

CLP M.S. — Description - CLP Matrix Spike Stock

Standard: 40254
MFG: Ultra Scientific
MFG Lot: CP-4257
Part ID: Not Provided

Created By: Christopher Q. Coleman
Create Date: 01/22/2018 07:01AM

Amount: Not Provided
Expires: 09/30/2019
Usable: Yes
Lab Lot: CLP MS CP-4257

Pos.	Analyte	Name	Concentration
1	75-35-4	1,1-Dichloroethene	1000 ug/mL
2	71-43-2	Benzene	1000 ug/mL
3	79-01-6	Trichloroethene	1000 ug/mL
4	108-88-3	Toluene	1000 ug/mL
5	108-90-7	Chlorobenzene	1000 ug/mL

STANDARD REPORT

Working Standard - CLP TraceICV

CLP TraceICV — Description - CLP Trace ICV

Standard: 46314
MFG: NA
MFG Lot: NA
Pipette ID: NA

Created By: Christopher Q. Coleman
Create Date: 03/04/2019 06:03AM

Amount: 2 mL
Expires: 04/03/2019
Usable: Yes
Lab Lot: CLP Trace ICV

Pos.	Analyte	Name	Concentration
1	71-43-2	Benzene	50 ug/mL
2	108-88-3	Toluene	50 ug/mL
3	100-41-4	Ethyl benzene	50 ug/mL
4	95-47-6	o-Xylene	50 ug/mL
5	108-38-3	m-Xylene	25 ug/mL
6	106-42-3	p-Xylene	25 ug/mL
7	75-27-4	Bromodichloromethane	50 ug/mL
8	124-48-1	Dibromochloromethane	50 ug/mL
9	75-35-4	1,1-Dichloroethene	50 ug/mL
10	156-59-2	cis-1,2-Dichloroethene	50 ug/mL
11	156-60-5	trans-1,2-Dichloroethene	50 ug/mL
12	75-09-2	Methylene chloride	50 ug/mL
13	74-97-5	Bromochloromethane	50 ug/mL
14	75-25-2	Bromoform	50 ug/mL
15	56-23-5	Carbon tetrachloride	50 ug/mL
16	67-66-3	Chloroform	50 ug/mL
17	75-34-3	1,1-Dichloroethane	50 ug/mL
18	127-18-4	Tetrachloroethene	50 ug/mL
19	71-55-6	1,1,1-Trichloroethane	50 ug/mL
20	96-12-8	1,2-Dibromo-3-Chloropropane	50 ug/mL
21	106-93-4	1,2-Dibromoethane	50 ug/mL
22	107-06-2	1,2-Dichloroethane	50 ug/mL
23	78-87-5	1,2-Dichloropropane	50 ug/mL
24	10061-01-5	cis-1,3-Dichloropropene	50 ug/mL
25	10061-02-6	trans-1,3-Dichloropropene	50 ug/mL
26	79-34-5	1,1,2,2-Tetrachloroethane	50 ug/mL
27	79-00-5	1,1,2-Trichloroethane	50 ug/mL
28	79-01-6	Trichloroethene	50 ug/mL
29	108-90-7	Chlorobenzene	50 ug/mL
30	95-50-1	1,2-Dichlorobenzene	50 ug/mL
31	541-73-1	1,3-Dichlorobenzene	50 ug/mL
32	106-46-7	1,4-Dichlorobenzene	50 ug/mL
33	98-82-8	Cumene	50 ug/mL
34	100-42-5	Styrene	50 ug/mL
35	87-61-6	1,2,3-Trichlorobenzene	50 ug/mL
36	120-82-1	1,2,4-Trichlorobenzene	50 ug/mL
37	75-15-0	Carbon disulfide	50 ug/mL
38	110-82-7	Cyclohexane	50 ug/mL
39	79-20-9	Methyl Acetate	50 ug/mL

STANDARD REPORT

Working Standard - CLP TraceICV

CLP TraceICV	Description - CLP Trace ICV
Standard: 46314 MFG: NA MFG Lot: NA Pipette ID: NA	Created By: Christopher Q. Coleman Create Date: 03/04/2019 06:03AM Amount: 2 mL Expires: 04/03/2019 Usable: Yes Lab Lot: CLP Trace ICV

Pos.	Analyte	Name	Concentration
40	108-87-2	Methylcyclohexane	50 ug/mL
41	1634-04-4	Methyl t-butyl ether	50 ug/mL
42	76-13-1	Freon 113	50 ug/mL
43	75-71-8	Dichlorodifluoromethane	50 ug/mL
44	74-87-3	Methyl chloride	50 ug/mL
45	75-01-4	Vinyl chloride	50 ug/mL
46	74-83-9	Bromomethane	50 ug/mL
47	75-00-3	Ethyl chloride	50 ug/mL
48	75-69-4	Freon 11	50 ug/mL
49	67-64-1	Acetone	500 ug/mL
50	78-93-3	Methyl ethyl ketone	500 ug/mL
51	108-10-1	Methyl isobutyl ketone	500 ug/mL
52	591-78-6	2-Hexanone	500 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
33018	Methanol	Purge & Trap Methanol Solvent	P&T MeOH DN-615	1.25 mL	08/10/2025
43826	8260 Gases	VOAL Gases Stock	Ab Gases 062618	0.5 mL	06/26/2021
44973	CLPKetoneICV	EPA CLP Ketones ICV Stock	CLP Ketones ICV	200 uL	04/30/2021
45795	CLP VOA ICV	EPA CLP VOA ICV Stock	CLP VOA ICV	50 uL	02/29/2020

STANDARD REPORT

Constituent

Stock Standard - CLPKetoneICV

CLPKetoneICV	Description - EPA CLP Ketones ICV Stock
Standard: 44973 MFG: Restek MFG Lot: A0134324 Part ID: 30006	Created By: Christopher Q. Coleman Create Date: 11/30/2018 06:11AM Amount: Not Provided Expires: 04/30/2021 Usable: Yes Lab Lot: CLP Ketones ICV

Pos.	Analyte	Name	Concentration
1	67-64-1	Acetone	5000 ug/mL
2	78-93-3	Methyl ethyl ketone	5000 ug/mL
3	108-10-1	Methyl isobutyl ketone	5000 ug/mL
4	591-78-6	2-Hexanone	5000 ug/mL

STANDARD REPORT

Constituent

Solvent Standard - Methanol

Methanol	Description - Purge & Trap Methanol Solvent
Standard: 33018 MFG: B&J MFG Lot: DN-615 Part ID: Not Provided	Created By: Christopher Q. Coleman Create Date: 08/10/2016 08:08PM Amount: 235 mL Expires: 08/10/2025 Usable: Yes Lab Lot: P&T MeOH DN-615

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - 8260 Gases

8260 Gases	Description - VOAL Gases Stock
Standard: 43826 MFG: Absolute Standards, Inc. MFG Lot: 062618 Part ID: 30002	Created By: Christopher Q. Coleman Create Date: 09/26/2018 06:09AM Amount: Not Provided Expires: 06/26/2021 Usable: Yes Lab Lot: Ab Gases 062618

Pos.	Analyte	Name	Concentration
1	75-71-8	Dichlorodifluoromethane	200 ug/mL
2	74-87-3	Methyl chloride	200 ug/mL
3	75-01-4	Vinyl chloride	200 ug/mL
4	74-83-9	Bromomethane	200 ug/mL
5	75-00-3	Ethyl chloride	200 ug/mL
6	75-69-4	Freon 11	200 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP VOA ICV

CLP VOA ICV — Description - EPA CLP VOA ICV Stock

Standard: 45795
MFG: Restek
MFG Lot: A0125239
Part ID: 30492

Created By: Christopher Q. Coleman
Create Date: 01/28/2019 09:01AM

Amount: 1
Expires: 02/29/2020
Usable: Yes
Lab Lot: CLP VOA ICV A0125239

Pos.	Analyte	Name	Concentration
1	71-43-2	Benzene	2000 ug/mL
2	108-88-3	Toluene	2000 ug/mL
3	100-41-4	Ethyl benzene	2000 ug/mL
4	95-47-6	o-Xylene	2000 ug/mL
5	108-38-3	m-Xylene	1000 ug/mL
6	106-42-3	p-Xylene	1000 ug/mL
7	75-27-4	Bromodichloromethane	2000 ug/mL
8	124-48-1	Dibromochloromethane	2000 ug/mL
9	75-35-4	1,1-Dichloroethene	2000 ug/mL
10	156-59-2	cis-1,2-Dichloroethene	2000 ug/mL
11	156-60-5	trans-1,2-Dichloroethene	2000 ug/mL
12	75-09-2	Methylene chloride	2000 ug/mL
13	74-97-5	Bromochloromethane	2000 ug/mL
14	75-25-2	Bromoform	2000 ug/mL
15	56-23-5	Carbon tetrachloride	2000 ug/mL
16	67-66-3	Chloroform	2000 ug/mL
17	75-34-3	1,1-Dichloroethane	2000 ug/mL
18	127-18-4	Tetrachloroethene	2000 ug/mL
19	71-55-6	1,1,1-Trichloroethane	2000 ug/mL
20	96-12-8	1,2-Dibromo-3-Chloropropane	2000 ug/mL
21	106-93-4	1,2-Dibromoethane	2000 ug/mL
22	107-06-2	1,2-Dichloroethane	2000 ug/mL
23	78-87-5	1,2-Dichloropropane	2000 ug/mL
24	10061-01-5	cis-1,3-Dichloropropene	2000 ug/mL
25	10061-02-6	trans-1,3-Dichloropropene	2000 ug/mL
26	79-34-5	1,1,2,2-Tetrachloroethane	2000 ug/mL
27	79-00-5	1,1,2-Trichloroethane	2000 ug/mL
28	79-01-6	Trichloroethene	2000 ug/mL
29	108-90-7	Chlorobenzene	2000 ug/mL
30	95-50-1	1,2-Dichlorobenzene	2000 ug/mL
31	541-73-1	1,3-Dichlorobenzene	2000 ug/mL
32	106-46-7	1,4-Dichlorobenzene	2000 ug/mL
33	98-82-8	Cumene	2000 ug/mL
34	100-42-5	Styrene	2000 ug/mL
35	87-61-6	1,2,3-Trichlorobenzene	2000 ug/mL
36	120-82-1	1,2,4-Trichlorobenzene	2000 ug/mL
37	75-15-0	Carbon disulfide	2000 ug/mL
38	110-82-7	Cyclohexane	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - CLP VOA ICV

CLP VOA ICV — Description - EPA CLP VOA ICV Stock

Standard: 45795
MFG: Restek
MFG Lot: A0125239
Part ID: 30492

Created By: Christopher Q. Coleman
Create Date: 01/28/2019 09:01AM

Amount: 1
Expires: 02/29/2020
Usable: Yes
Lab Lot: CLP VOA ICV A0125239

Pos.	Analyte	Name	Concentration
39	79-20-9	Methyl Acetate	2000 ug/mL
40	108-87-2	Methylcyclohexane	2000 ug/mL
41	1634-04-4	Methyl t-butyl ether	2000 ug/mL
42	76-13-1	Freon 113	2000 ug/mL

ULTRA SCIENTIFIC Analytical Solutions

Certificate of Analysis

4-Bromofluorobenzene Solution

Product Number: STS-110N — Page: 1 of 1

Lot Number: CH-3248Z — Lot Issue Date: 31-Aug-2016 — Expiration Date: 31-Oct-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
4-bromofluorobenzene	000460-00-4	RM03365	2005 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store Frozen (-25° to -10°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

S 34352

ANAB ACCREDITED — ISO 9001 Registered TÜV USA, Inc.

John Russo, President

Vincent Wang, Ph.D., Director of QA/RA

Absolute Standards, Inc.
800-380-1131
www.absolutestandards.com

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

Certified Reference Material CRM

CERTIFIED WEIGHT REPORT

Part Number: 20048
Lot Number: 011917
Description: CLP Volatiles - Low Concentration Internal Standard
3 components
Expiration Date: 011922
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2500
NIST Test ID#: 822-278872-11
Weight(s) shown below were combined and diluted to (mL): 100.0

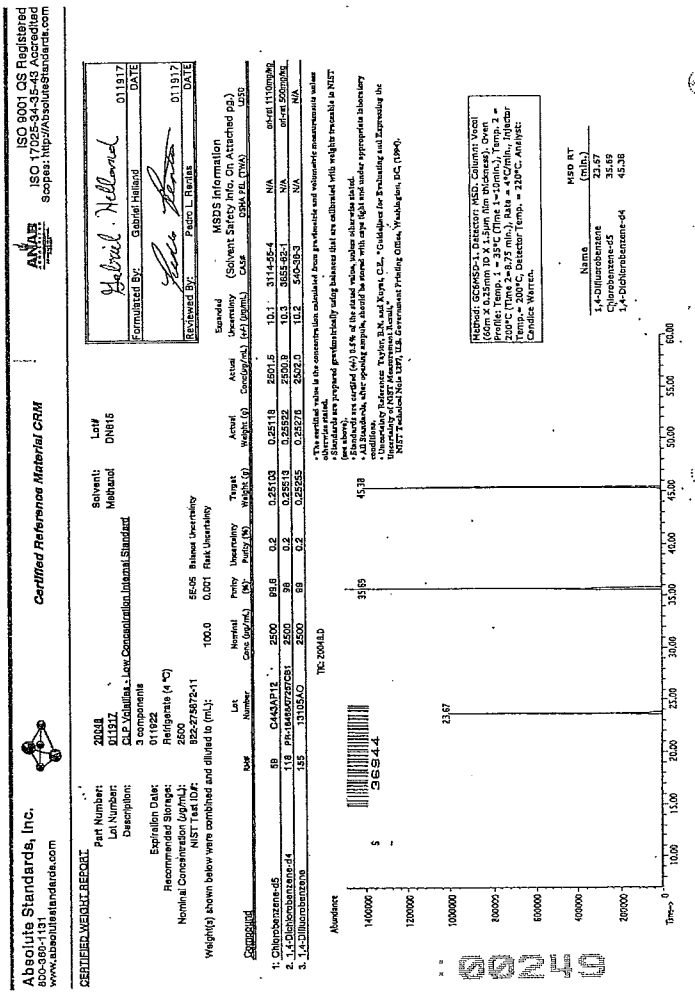
Solvent: Methanol
Lot#: DN616

Formulated By: Gabriel Halland — 011917 DATE
Reviewed By: Pedro L. Rentas — 011917 DATE

Compound	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Laboratory Purity (%)	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/- µg/mL)	MSDS Information (Solvent Safety Info, On Attached pg.) CAS	OSHA PEL (TWA)	USG
1: Chlorobenzene-d5	6B C443AP12	2500	99.6	0.2	0.25103	0.25119	2501.6	10.1	3114-55-4	N/A	0/+/+/1 1110mg/kg
2: 1,4-Dichlorobenzene-d4	118 PR-164SMZ2FCB1	2500	98	0.2	0.25513	0.25522	2500.9	10.3	3855-82-1	N/A	0/+/+/1 500mg/kg
3: 1,4-Dichlorobenzene	155 131105AO	2500	99	0.2	0.25255	0.25278	2502.0	10.2	540-36-3	N/A	N/A

Balance Uncertainty: 0.1 mg
Flask Uncertainty: 0.001 mL
TIC: 20048.D

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (Class 1).
* Standards are certified (+/-) 5.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Laboratory Reference: Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results", 1994 Edition, NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC (1994).



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 94156
Lot Number: 072617
Description: CLP SOM 01.1 VOC DMC Gases
2 components
Expiration Date: 072620
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2506734D 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 50.0 0.007 Flask Uncertainty

Solvent(s): Methanol Lot# DC538

Formulated By: Vincent K. Criado, Jr. 072617 DATE
Reviewed By: Pedro L. Rentas 072617 DATE

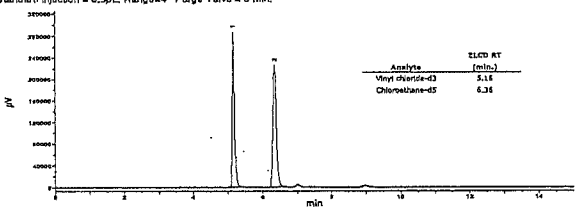
Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Chloroethane-d5	94176	072617	0.24	12.00	0.042	8353.2	2004.9	16.3	19199-91-8	N/A	N/A
2. Vinyl chloride-d3	94177	072617	0.20	10.00	0.042	10018.8	2003.8	18.6	6745-35-3	N/A	orl-rat 500mg/kg

Run 1, "P94156 L072617 [2000µg/mL in MeOH]"

Run Length: 15.00 min, 8999 points at 10 points/second.
Created: Wed, Jul 26, 2017 at 4:35:41 PM.
Sampled: Sequence "072617-GC1", Method "GC1-MS".
Analyzed using Method "GC1-MS".

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Comments
GC1-MS Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=150mL/min., Helium (carrier)=1.0mL/min.,
Helium(make-up)=40mL/min., Hydrogen(make-up)=100mL/min.
Oven Profile: Temp. 1=35°C (Time 1=3 min.) Temp 2=200°C (Time 2=1 min.)
Rate = 30°C/min. Total run time=15 min. Injector temp.=200°C, FID Temp.=200°C.
ELCD Signal = Edaq Channel 1 FID Signal = Edaq Channel 2
Standard Injection = 0.3µL Range=4 Purge Valve = 0 min.



Analyte	ELCD RT (min.)
Vinyl chloride-d3	5.16
Chloroethane-d5	6.36

S 39971

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

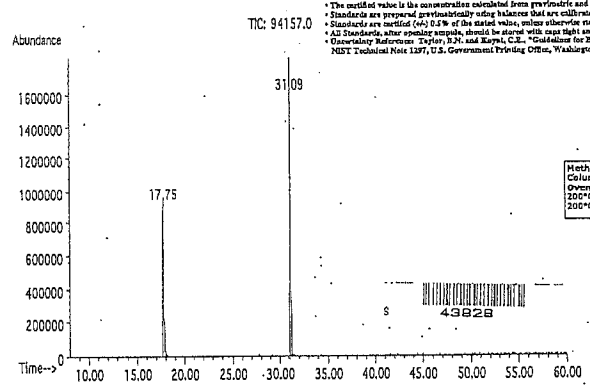
Part Number: 94157
Lot Number: 081018
Description: CLP SOM 01.1 DMC Ketones
2 components
Expiration Date: 081021
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2500
NIST Test ID#: 2684188 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.002 Flask Uncertainty

Solvent(s): Methanol Lot# DS26 (90%) Water 032118 (10%)

Formulated By: El Allegra 081018 DATE
Reviewed By: Pedro L. Rentas 081018 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Butanone-1,1,1,3,3-d5	2557	M-276	2500	99	0.2	0.06314	0.06325	2504.3	10.8	24313-50-6	N/A	orl-rat 2737mg/kg
2. 2-Hexanone-1,1,1,3,3-d5	2558	I-500	2500	98.1	0.2	0.06308	0.06315	2502.8	10.9	4640-62-6	N/A	orl-rat 2590mg/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Method: GC6MSD-1. Detector: Mass Selective Detector. Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1=10min.), Temp. 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector Temp.= 200°C, Detector Temp. = 220°C. Analyst: Candice Warren.

Name	MSD RT (min.)
2-Butanone-1,1,1,3,3-d5	17.75
2-Hexanone-1,1,1,3,3-d5	31.12

S 43828

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

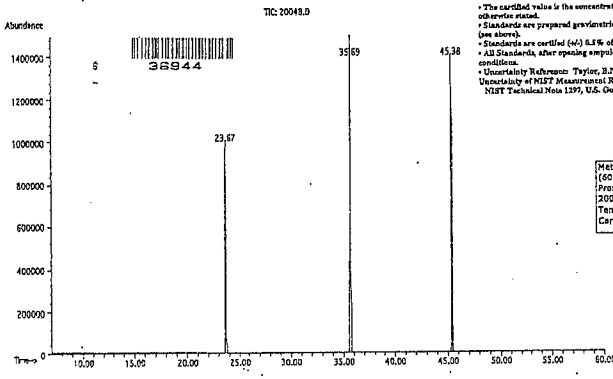
CERTIFIED WEIGHT REPORT

Part Number: 20048
Lot Number: 011917
Description: CLP Volatiles - Low Concentration Internal Standard
3 components
Expiration Date: 011922
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2500
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Solvent: Methanol Lot# DN615

Formulated By: Gabriel Helland 011917 DATE
Reviewed By: Pedro L. Rentas 011917 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Chlorobenzene-d5	89	C443AP12	2500	99.8	0.2	0.25103	0.25118	2501.5	10.1	3114-55-4	N/A	orl-rat 1110mg/kg
2. 1,4-Dichlorobenzene-d4	118	PR-18488/7267CB1	2500	98	0.2	0.25513	0.25522	2500.9	10.3	3855-82-1	N/A	orl-rat 500mg/kg
3. 1,4-Difluorobenzene	155	13105AO	2500	99	0.2	0.25255	0.25276	2502.0	10.2	540-36-3	N/A	N/A



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method: GC6MSD-1. Detector: MSD. Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1=10min.), Temp. 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector Temp.= 200°C, Detector Temp. = 220°C. Analyst: Candice Warren.

Name	MSD RT (min.)
1,4-Difluorobenzene	23.67
Chlorobenzene-d5	35.69
1,4-Dichlorobenzene-d4	45.38

S 38944

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

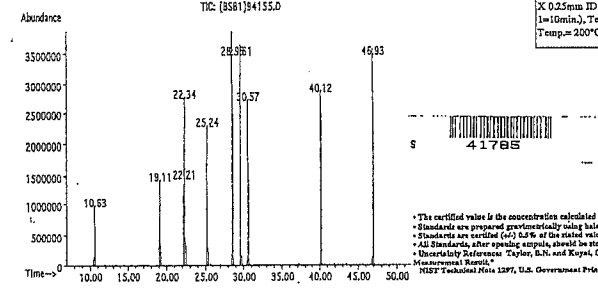
CERTIFIED WEIGHT REPORT

Part Number: 94155
Lot Number: 022017
Description: CLP SOM 01.1 DMC Volatiles
5 components
Expiration Date: 022020
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Solvent(s): Methanol Lot# DC538

Formulated By: Gabriel Helland 022017 DATE
Reviewed By: Pedro L. Rentas 022017 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzene-d6	26	4805DKDK	2000	99	0.2	0.20204	0.20245	2004.0	8.2	1076-43-3	1 ppm (8-H)	N/A
2. Chloroform-d	2556	V210P1	2000	99.8	0.2	0.20042	0.20101	2005.9	8.1	865-49-6	N/A	orl-hmn 140mg/kg
3. 1,2-Dichlorobenzene-d4	128	PR-18553/12207DB2	2000	99	0.2	0.20204	0.20263	2007.8	8.2	2199-69-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
4. 1,2-Dichloroethane-d4	137	V268P25	2000	99.6	0.2	0.20083	0.20116	2003.2	8.1	17060-07-0	N/A	orl-mus 825mg/kg
5. 1,1-Dichloroethene-d2	2047	W151P10	2000	99	0.2	0.20204	0.20215	2001.1	8.1	22280-73-5	N/A	orl-rat 200mg/kg
6. 1,2-Dichloropropane-d6	2051	Z322P1	2000	99.4	0.2	0.20123	0.20166	2004.3	8.1	93952-08-0	N/A	orl-rat 1947mg/kg
7. cis,trans-1,3-Dichloropropene-d4	2052	Z-181	2000	42.0	0.2	0.47524	0.47735	2004.6	19.1	202656-23-3	N/A	orl-rat 470mg/kg
8. 1,1,2,2-Tetrachloroethane-d2	2053	F465P1	2000	99.6	0.2	0.20083	0.20130	2004.7	8.1	33685-54-0	N/A	orl-rat 600mg/kg
9. Toluene-d8	282	12E-434	2000	99.5	0.2	0.20109	0.20185	2008.2	8.1	2037-26-5	200 ppm	orl-rat 5000mg/kg



Method: GC6MSD-1. Detector: Mass Selective Detector. Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1=10min.), Temp. 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector Temp.= 200°C, Detector Temp. = 220°C. Analyst: Candice Warren.

Name	MSD RT (min.)
1,1-Dichloroethene-d2	10.61
Chloroform-d	19.13
1,2-Dichloroethane-d4	22.20
Benzene-d6	22.36
1,2-Dichloropropane-d6	25.22
cis-1,3-Dichloropropene-d4	28.53
Toluene-d8	29.62
trans-1,3-Dichloropropene-d4	30.59
1,1,2,2-Tetrachloroethane-d2	40.08
1,2-Dichlorobenzene-d4	46.93

S 41785

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 94156
Lot Number: 072617
Description: CLP SOM 01.1 VOC DMC Gases
2 components
Expiration Date: 072620
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2506734D 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 50.0 0.007 Flask Uncertainty

Solvent(s): Methanol Lot# DQ536

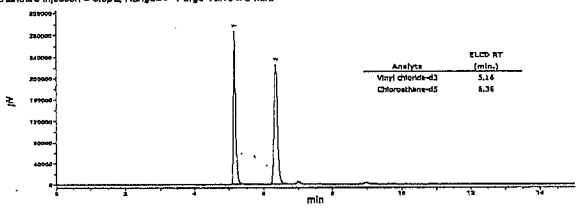
Formulated By: Vincent K. Criscio, Jr. DATE 072617
Reviewed By: Pedro L. Rentas DATE 072617

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (ug/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Chloroethane-d5	94178	072617	0.24	12.00	0.042	8353.2	2004.9	18.3	19199-91-6	N/A	N/A
2. Vinyl chloride-d3	94177	072617	0.20	10.00	0.042	10016.8	2003.8	18.6	6745-35-3	N/A	ori-rat 500mg/kg

Run 1, "P94156 L072617 [2000µg/mL in MeOH]"

Run Length: 15.00 min. 6999 points at 10 points/second.
Created: Wed, Jul 26, 2017 at 4:35:41 PM.
Sampled: Sequence "072617-GC1", Method "GC1-M9".
Analyzed using Method "GC1-M9".

Comments
GC1-M9 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flows150mL/min., Helium (carrier=10mL/min.,
Helium(make-up)=40mL/min., Hydrogen(make-up)=100mL/min.
Oven Profile: Temp. 1=35°C (Time 1=9 min.), Temp 2=200°C (Time 2=1 min.),
Rate = 33°C/min., Total run time=15 min. Injector temp.=200°C, PID Temp.=200°C.
ELCD Signal = Edaq Channel 1 PID Signal = Edaq Channel 2
Standard Injection = 0.5µL Range=4 Purge Valve = 0 min.



Analyte	ELCD RT (min.)
Vinyl chloride-d3	5.16
Chloroethane-d5	6.36

S 39971

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

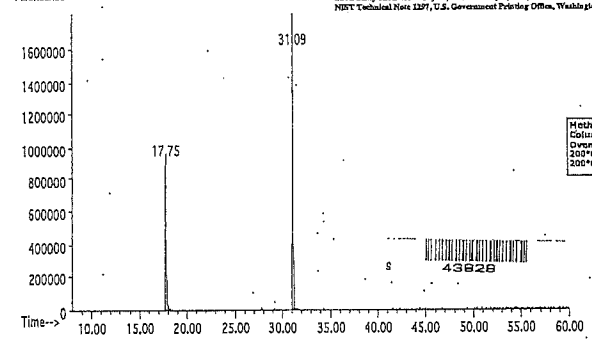
Part Number: 94157
Lot Number: 081018
Description: CLP SOM 01.1 DMC Ketones
2 components
Expiration Date: 081021
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2500
NIST Test ID#: 2564198 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.002 Flask Uncertainty

Solvent(s): Methanol Lot# DS526 (90%)
Water 032118 (10%)

Formulated By: Eli Alagon DATE 081018
Reviewed By: Pedro L. Rentas DATE 081018

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Butanone-1,1,1,3,3-d5	2557	M-276	2500	99	0.2	0.06314	0.06325	2504.3	10.9	24313-50-6	N/A	ori-rat 2737mg/kg
2. 2-Hexanone-1,1,1,3,3-d5	2558	I-500	2500	98.1	0.2	0.06308	0.06315	2502.9	10.9	4640-62-8	N/A	ori-rat 2290mg/kg

TIC: 94157.D



Method: GC6MSD-1. Detector: Mass Selective Detector. Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1=10min.), Temp. 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector Temp.= 200°C, Detector Temp. = 220°C. Analyst: Candice Warren.

Name	MSD RT (min.)
2-Butanone-1,1,1,3,3-d5	17.75
2-Hexanone-1,1,1,3,3-d5	31.12

S 43628

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 30058
Lot Number: 082117
Description: EPA Method 502/524 - Volatile Gases Mix #1
6 components
Expiration Date: 082120
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2506734D 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 500.0 0.058 Flask Uncertainty

Solvent(s): Methanol Lot# DQ536

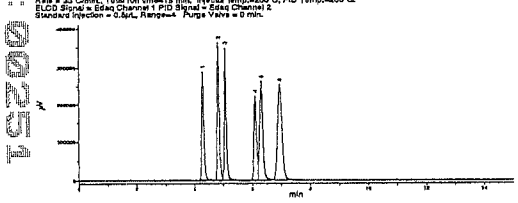
Formulated By: Vincent K. Criscio, Jr. DATE 082117
Reviewed By: Pedro L. Rentas DATE 082117

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Bromomethane	50	01611JX	2000	99.5	0.2	1.00508	1.0110	2011.8	8.1	74-83-9	5 ppm (20mg/m3/8H) (skin)	ori-rat 214mg/kg
2. Chloroethane	72	00727KX	2000	99	0.2	1.01016	1.0140	2007.5	8.1	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
3. Chloromethane	79	0890BMS	2000	99.5	0.2	1.00508	1.0071	2004.0	8.1	74-87-3	100 ppm	ori-rat 1800mg/kg
4. Dichlorodifluoromethane	134	92-0467	2000	99	0.2	1.01016	1.0145	2008.6	8.1	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
5. Trichlorofluoromethane	284	0182GMW	2000	99	0.2	1.01016	1.0150	2009.5	8.1	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
6. Vinyl chloride	305	0485AEA	2000	99.5	0.2	1.00508	1.0072	2004.2	8.1	75-01-4	N/A	N/A

Run 1, "P30058 L082117 [2000µg/mL in MeOH]"

Run Length: 15.00 min. 6999 points at 10 points/second.
Created: Tue, Aug 22, 2017 at 2:36:02 PM.
Sampled: Sequence "081717-GC1", Method "GC1-M9".
Analyzed using Method "GC1-M9".

Comments
GC1-M9 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flows150mL/min., Helium (carrier=10mL/min.,
Helium(make-up)=40mL/min., Hydrogen(make-up)=100mL/min.
Oven Profile: Temp. 1=35°C (Time 1=9 min.), Temp 2=200°C (Time 2=1 min.),
Rate = 33°C/min., Total run time=15 min. Injector temp.=200°C, PID Temp.=200°C.
ELCD Signal = Edaq Channel 1 PID Signal = Edaq Channel 2
Standard Injection = 0.5µL Range=4 Purge Valve = 0 min.



Analyte	ELCD RT (min.)
Dichlorodifluoromethane	4.34
Chloromethane	4.89
Vinyl chloride	5.14
Bromomethane	5.19
Chloroethane	5.40
Trichlorofluoromethane	7.05

S 39972

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

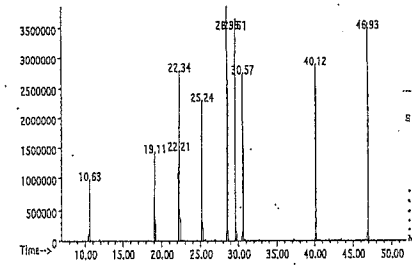
Part Number: 94155
Lot Number: 022017
Description: CLP SOM 01.1 DMC Volatiles
9 components
Expiration Date: 022020
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 622-275872-11 SE-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Solvent(s): Methanol Lot# DQ536

Formulated By: Gabriel Helland DATE 022017
Reviewed By: Pedro L. Rentas DATE 022017

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzene-d6	26	4805DKDK	2000	99	0.2	0.20204	0.20245	2004.0	8.2	1076-43-8	1 ppm (8H)	N/A
2. Chloroform-d	2558	V210P1	2000	99.8	0.2	0.20042	0.20101	2005.9	8.1	865-49-6	N/A	ori-mus 140mg/kg
3. 1,2-Dichlorobenzene-d4	128	PR-1853/12207D82	2000	99	0.2	0.20204	0.20283	2007.8	8.2	2199-69-1	50 ppm (300mg/m3) (CL)	ori-rat 500mg/kg
4. 1,2-Dichloroethane-d4	137	V288P25	2000	99.8	0.2	0.20083	0.20115	2003.2	8.1	17060-07-0	N/A	ori-mus 825mg/kg
5. 1,1-Dichloroethene-d2	2047	W151P10	2000	99	0.2	0.20204	0.20215	2001.1	8.1	22280-73-5	N/A	ori-rat 200mg/kg
6. 1,2-Dichloropropane-d6	2051	Z322P1	2000	99.4	0.2	0.20123	0.20156	2004.3	8.1	93952-08-0	N/A	ori-rat 1947mg/kg
7. cis,trans-1,3-Dichloropropene-d4	2052	Z-181	2000	42.0	0.2	0.47824	0.47735	2004.6	19.1	202656-23-3	N/A	ori-rat 470mg/kg
8. 1,1,2,2-Tetrachloroethane-d2	2053	F465P1	2000	99.8	0.2	0.20083	0.20130	2004.7	8.1	33685-54-0	N/A	ori-rat 800mg/kg
9. Toluene-d8	282	12E-434	2000	99.5	0.2	0.20103	0.20165	2006.2	8.1	2037-26-5	200 ppm	ori-rat 5000mg/kg

TIC: [BSB]94155.D



Method: GC6MSD-1. Detector: Mass Selective Detector. Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1=10min.), Temp. 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector Temp.= 200°C, Detector Temp. = 220°C. Analyst: Candice Warren.

Name	MSD RT (min.)
1,1-Dichloroethene-d2	10.61
Chloroform-d	19.13
1,2-Dichloroethane-d4	22.20
Benzene-d6	22.36
1,2-Dichloropropane-d6	25.23
cis-1,3-Dichloropropene-d4	28.53
Toluene-d8	29.62
trans-1,3-Dichloropropene-d4	30.59
1,1,2,2-Tetrachloroethane-d2	40.08
1,2-Dichlorobenzene-d4	46.93

S 41785

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
00-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB
ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 94159
Lot Number: 091318
Description: CLP SOM 01.1 Volatiles
42 components
Expiration Date: 091321
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 2684186
Volume(s) shown below were combined and diluted to (mL): 100.0

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Solvent(s): Methanol
Lot# DT14001

Formulated By: Mario Lujo 091318 DATE
Reviewed By: Pedro L. Rentas 091318 DATE

SDS Information (Solvent Safety Info. On Attached pg.)

	Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1.	Benzene	93831	060618	0.10	10.00	0.042	20008.6	2000.4	18.7	71-43-2	1 ppm	orl-rat 4894mg/kg
2.	Toluene	93831	060618	0.10	10.00	0.042	20002.8	2000.1	18.7	108-88-3	200 ppm	orl-rat 5000mg/kg
3.	Ethylbenzene	93831	060618	0.10	10.00	0.042	20002.5	2000.0	18.7	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
4.	o-Xylene	93831	060618	0.10	10.00	0.042	20003.6	2000.2	18.7	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
5.	m-Xylene	93831	060618	0.10	10.00	0.042	10003.3	1000.2	9.3	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
6.	p-Xylene	93831	060618	0.10	10.00	0.042	10005.2	1000.4	9.3	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
7.	Bromodichloromethane	35171	051118	0.05	5.00	0.017	40001.7	1999.9	15.9	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	35171	051118	0.05	5.00	0.017	40000.8	1999.8	15.9	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	35171	051118	0.05	5.00	0.017	40002.0	1999.9	15.8	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	35171	051118	0.05	5.00	0.017	40000.8	1999.6	15.8	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	35171	051118	0.05	5.00	0.017	40003.2	1999.5	15.8	75-09-2	300 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	32251	070218	0.10	10.00	0.042	20000.8	1999.9	18.7	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	94170	010618	0.10	10.00	0.042	20017.5	2001.5	18.7	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	94170	010618	0.10	10.00	0.042	20010.4	2000.8	18.7	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	94170	010618	0.10	10.00	0.042	20006.0	2000.4	18.7	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	94170	010618	0.10	10.00	0.042	20019.5	2001.7	18.7	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	1,1-Dichloroethane	94170	010618	0.10	10.00	0.042	20007.5	2000.5	18.7	75-34-3	100 ppm	orl-rat 725mg/kg
18.	Tetrachloroethene	94170	010618	0.10	10.00	0.042	20015.7	2001.4	18.7	127-18-4	25 ppm (170mg/m3/8H)(Vac)	orl-rat 2629mg/kg
19.	1,1,1-Trichloroethane	94170	010618	0.10	10.00	0.042	20007.4	2000.5	18.7	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10000mg/kg
20.	1,2-Dibromo-3-chloropropane	94171	010618	0.10	10.00	0.042	20015.3	2001.3	18.7	96-12-8	0.001 ppm	orl-rat 170mg/kg
21.	1,2-Dibromoethane	94171	010618	0.10	10.00	0.042	20017.3	2001.5	18.7	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
22.	1,2-Dichloroethane	94171	010618	0.10	10.00	0.042	20005.4	2000.3	18.7	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
23.	1,2-Dichloropropane	94171	010618	0.10	10.00	0.042	20006.4	2000.4	18.7	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
24.	cis-1,3-Dichloropropene	94171	010618	0.10	10.00	0.042	20018.0	2001.4	18.7	10061-01-5	N/A	N/A
25.	[illegible]1,3-Dichloropropene	94171	010618	0.10	10.00	0.042	20011.4	2000.9	18.7	10061-02-6	N/A	N/A
26.	[illegible]-2-Tetrachloroethane	94171	010318	0.10	10.00	0.042	20014.3	2001.2	18.7	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
27.	1,1,2-Trichloroethane	94171	010618	0.10	10.00	0.042	20024.9	2002.3	18.7	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
28.	Trichloroethene	94171	010618	0.10	10.00	0.042	20012.9	2001.1	18.7	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2403mg/kg
29.	Chlorobenzene	99783	091118	0.10	10.00	0.042	20001.9	2000.0	18.7	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
30.	1,2-Dichlorobenzene	99783	091118	0.10	10.00	0.042	20002.9	2000.1	18.7	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
31.	1,3-Dichlorobenzene	99783	091118	0.10	10.00	0.042	20003.7	2000.2	18.7	541-73-1	N/A	ipr-mus 1062mg/kg
32.	1,4-Dichlorobenzene	99783	091118	0.10	10.00	0.042	20005.9	2000.4	18.7	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
33.	Isopropylbenzene	99783	091118	0.10	10.00	0.042	20003.8	2000.2	18.7	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
34.	1,2,3-Trichlorobenzene	99783	091118	0.10	10.00	0.042	20003.7	2000.2	18.7	87-61-6	N/A	ipr-mus 1390mg/kg
35.	1,2,4-Trichlorobenzene	99783	091118	0.10	10.00	0.042	20003.8	2000.2	18.7	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
36.	Styrene	32381	020518	0.10	10.00	0.042	20000.8	1999.9	18.7	100-42-5	100 ppm	orl-rat 5000mg/kg
37.	Carbon disulphide	94173	010718	0.10	10.00	0.042	20001.9	2000.0	18.7	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
38.	Cyclohexane	94173	010718	0.10	10.00	0.042	20002.0	2000.0	18.7	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
39.	Methyl acetate	94173	010718	0.10	10.00	0.042	20002.4	2000.0	18.7	79-20-9	200 ppm (610mg/m3/8H)	orl-rat 3705mg/kg
40.	Methylcyclohexane	94173	010718	0.10	10.00	0.042	20001.7	1999.9	18.7	108-87-2	N/A	orl-mus 2250mg/kg
41.	Methyl tert-butyl ether (MTBE)	94173	010718	0.10	10.00	0.042	20001.2	1999.9	18.7	1634-04-4	N/A	orl-rat 4g/kg
42.	1,1,2-Trichloro-1,2,2-trifluoroethane	94173	010718	0.10	10.00	0.042	20001.9	2000.0	18.7	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

S 43827

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB
ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 82492
Lot Number: 011719
Description: EPA Method 8240A - Mix #2 Conc
Ketones - 4 components
Expiration Date: 011722
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 20000
NIST Test ID#: 2684186
Weight(s) shown below were combined and diluted to (mL): 200.0

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Solvent(s): Methanol, Lot# DU230-US (90%)
Water, Lot# 092118 (10%)

Formulated By: Eli Allego 011719 DATE
Reviewed By: Pedro L. Rentas 011719 DATE

SDS Information (Solvent Safety Info. On Attached pg.)

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1.	Acetone	4	MKBX4789V	20000	99.5	0.2	4.01983	4.02005	20000.6	81.2	67-64-1	750 ppm	orl-rat 5800mg/kg
2.	2-Butanone (Methyl ethyl ketone)	53	4805EL	20000	99.9	0.2	4.00384	4.00395	20000.6	80.9	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
3.	2-Hexanone	200	Z5VCO-PO	20000	98	0.2	4.08146	4.08155	20000.4	82.5	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
4.	4-Methyl-2-pentanone (MIBK)	210	SHBB2157V	20000	99.5	0.2	4.01993	4.02000	20000.3	81.2	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg

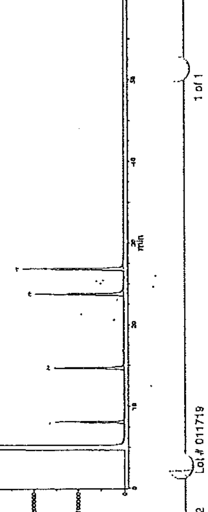
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 93, "P82492 L011719 [20mg/mL in M:W(9:1)]"

Run Length: 60.00 min, 35999 points at 10 points/second.
Created: Sun, Jan 20, 2019 at 12:08:13 AM.
Sampled: Sequence "011519-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments
GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard Injection = 0.5µL, Range=5

Name	FID RT (min.)
Acetone	8.11
2-Butanone	14.59
4-Methyl-2-pentanone	23.68
2-Hexanone	26.75



S 46049

ULTRA SCIENTIFIC
Analytical Solutions

Certificate of Analysis

Volatiles Matrix Spiking Solution

Product Number: CLP-100N
Page: 1 of 1
Lot Number: CP-4257
Lot Issue Date: 22-Aug-2016
Expiration Date: 30-Sep-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
benzene	000071-43-2	RM03830	1005 ± 5 µg/mL
chlorobenzene	000108-90-7	RM01874	1002 ± 5 µg/mL
1,1-dichloroethene	000075-35-4	RM09189	1003 ± 5 µg/mL
toluene	000108-88-3	RM10201	1005 ± 5 µg/mL
trichloroethene	000079-01-6	RM06644	1004 ± 5 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store Frozen (-25° to -10°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

S 40254

John Russo, President
Vincent Wang, Ph.D., Director of QA/RA

ANAB ISO 9001 Registered TÜV USA, Inc.

RESTEK CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309
www.restek.com

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.
This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 30006
Lot No.: A0134324
Description: VOA Calibration Mix #1
VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul
Container Size: 2 mL
Pkg Amt: > 1 mL
Expiration Date: April 30, 2021
Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone CAS # 67-64-1 Purity 99%	(Lot SHBH6933)	5,002.7 µg/mL	+/- 29.0861 µg/mL +/- 301.8351 µg/mL +/- 302.5517 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) CAS # 78-93-3 Purity 99%	(Lot SHBF2461V)	5,004.7 µg/mL	+/- 29.0978 µg/mL +/- 301.9557 µg/mL +/- 302.6726 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) CAS # 108-10-1 Purity 99%	(Lot SHBH7006)	5,000.1 µg/mL	+/- 29.0710 µg/mL +/- 301.6782 µg/mL +/- 302.3944 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone CAS # 591-78-6 Purity 99%	(Lot MKBW0198V)	5,007.4 µg/mL	+/- 29.1135 µg/mL +/- 302.1186 µg/mL +/- 302.8359 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

S 44973

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 30002
Lot Number: 062618
Description: EPA Method 502.2 - Volatile Gases Mix #1
6 components
Expiration Date: 062621
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 200
NIST Test ID#: 2664186
Solvent(s): Methanol Lot# DS435

Formulated By: Vincent K. Criscio, Jr. 062618 DATE
Reviewed By: Pedro L. Rentas 062618 DATE

Volume(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty Balance Uncertainty

SDS Information (Solvent Safety Info. On Attached pg.)

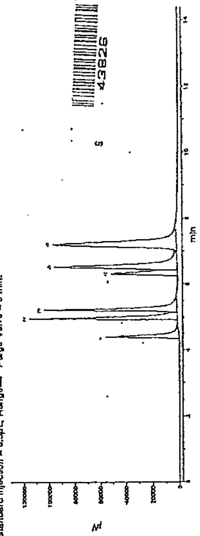
Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. Bromomethane	30058	041018	0.10	20.0	0.003	2006.8	200.7	1.4	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
2. Chloroethane	30058	041018	0.10	20.0	0.003	2001.1	200.1	1.4	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
3. Chloromethane	30058	041018	0.10	20.0	0.003	2002.8	200.3	1.4	74-87-3	100 ppm	orl-rat 1800mg/kg
4. Dichlorodifluoromethane	30058	041018	0.10	20.0	0.003	2009.8	201.0	1.4	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
5. Trichlorofluoromethane	30058	041018	0.10	20.0	0.003	2009.8	201.0	1.4	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
6. Vinyl chloride	30058	041018	0.10	20.0	0.003	2002.6	200.3	1.4	75-01-4	N/A	N/A

Run 2. "P30002 L062618 (200µg/mL in MeOH)"

Run Length: 15.00 min, 9000 points at 10 points/second.
Created: Tue, Jun 26, 2018 at 11:24:50 AM.
Sampled: Sequence "062618-GC1", Method "GC1-M9".
Analyzed using Method "GC1-M9".

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Comments
GC1-M9 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=150mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=40mL/min., Hydogen(make-up)=100mL/min.
Oven Profile: Temp. 1=35°C (Time 1=9 min.), Temp 2=200°C (Time 2=1 min.),
Rate = 33°C/min., Total run time=15 min. Injector temp.=200°C, FID Temp.=200°C.
ELCD Signal = Edaq Channel 1 PID Signal = Edaq Channel 2
Standard Injection = 0.5µL, Range=4 Purge Valve = 0 min.



Analyte	ELCD RT (min.)
Dichlorodifluoromethane	4.46
Chloromethane	5.04
Vinyl chloride	5.30
Bromomethane	6.42
Chloroethane	6.64
Trichlorofluoromethane	7.33

S 43826

RESTEK CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309
www.restek.com

Certificate of Analysis

ACCREDITED

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.
This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 30492 Lot No.: A0125239
Description: OLC 03.2 VOA Mega Mix
OLC 03.2 VOA Mega Mix 1,000-2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: February 29, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1,2-Trichlorotrifluoroethane (CFC-113)		2,017.0 µg/mL	+/- 11.8369	µg/mL	Gravimetric
	CAS # 76-13-1	(Lot 00009482)		+/- 121.7052	µg/mL	Unstressed
	Purity 99%			+/- 121.9941	µg/mL	Stressed
2	1,1-dichloroethene		2,000.3 µg/mL	+/- 15.4219	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot 73896KMV)		+/- 121.1082	µg/mL	Unstressed
	Purity 99%			+/- 121.3937	µg/mL	Stressed
3	Methyl acetate		2,002.5 µg/mL	+/- 11.7518	µg/mL	Gravimetric
	CAS # 79-20-9	(Lot SHBG4345V)		+/- 120.8303	µg/mL	Unstressed
	Purity 99%			+/- 121.1171	µg/mL	Stressed
4	Methylene chloride (dichloromethane)		2,000.5 µg/mL	+/- 15.4236	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBO6426V)		+/- 121.1218	µg/mL	Unstressed
	Purity 99%			+/- 121.4074	µg/mL	Stressed
5	Carbon disulfide		2,008.0 µg/mL	+/- 11.7841	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot S20A856)		+/- 121.1621	µg/mL	Unstressed
	Purity 99%			+/- 121.4497	µg/mL	Stressed
6	Methyl-tert-butyl ether (MTBE)		2,006.0 µg/mL	+/- 11.7723	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBG2655V)		+/- 121.0414	µg/mL	Unstressed
	Purity 99%			+/- 121.3288	µg/mL	Stressed
7	trans-1,2-Dichloroethene		2,000.3 µg/mL	+/- 15.4222	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)		+/- 121.1132	µg/mL	Unstressed
	Purity 99%			+/- 121.3968	µg/mL	Stressed

S 45795

8	1,1-Dichloroethane		2,000.8 µg/mL	+/- 15.4257	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 00009677)		+/- 121.1385	µg/mL	Unstressed
	Purity 99%			+/- 121.4241	µg/mL	Stressed
9	cis-1,2-Dichloroethene		2,011.5 µg/mL	+/- 11.8043	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBV2831V)		+/- 121.3703	µg/mL	Unstressed
	Purity 98%			+/- 121.6584	µg/mL	Stressed
10	chloroform		2,000.8 µg/mL	+/- 15.4261	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot MKBV2089V)		+/- 121.1415	µg/mL	Unstressed
	Purity 99%			+/- 121.4271	µg/mL	Stressed
11	Bromochloromethane		2,019.5 µg/mL	+/- 11.8516	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)		+/- 121.8560	µg/mL	Unstressed
	Purity 99%			+/- 122.1453	µg/mL	Stressed
12	1,1,1-trichloroethane		2,000.8 µg/mL	+/- 15.4257	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B15W12061)		+/- 121.1385	µg/mL	Unstressed
	Purity 99%			+/- 121.4241	µg/mL	Stressed
13	Cyclohexane		2,008.5 µg/mL	+/- 11.7870	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKBX4768V)		+/- 121.1923	µg/mL	Unstressed
	Purity 99%			+/- 121.4800	µg/mL	Stressed
14	carbon tetrachloride		2,000.8 µg/mL	+/- 15.4257	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG1763V)		+/- 121.1385	µg/mL	Unstressed
	Purity 99%			+/- 121.4241	µg/mL	Stressed
15	1,2-Dichloroethane		2,001.8 µg/mL	+/- 15.4336	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot SHBF9313V)		+/- 121.2006	µg/mL	Unstressed
	Purity 99%			+/- 121.4863	µg/mL	Stressed
16	Benzene		2,008.5 µg/mL	+/- 11.7870	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBG7315V)		+/- 121.1923	µg/mL	Unstressed
	Purity 99%			+/- 121.4800	µg/mL	Stressed
17	Trichloroethene		2,001.0 µg/mL	+/- 15.4276	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBF0943V)		+/- 121.1536	µg/mL	Unstressed
	Purity 99%			+/- 121.4393	µg/mL	Stressed
18	Methylcyclohexane		2,005.5 µg/mL	+/- 11.7694	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot 50996APV)		+/- 121.0113	µg/mL	Unstressed
	Purity 99%			+/- 121.2985	µg/mL	Stressed
19	1,2-Dichloropropane		2,000.4 µg/mL	+/- 15.4226	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot 01113D0V)		+/- 121.1143	µg/mL	Unstressed
	Purity 99%			+/- 121.3998	µg/mL	Stressed
20	bromodichloromethane		2,001.4 µg/mL	+/- 15.4306	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKBL1617V)		+/- 121.1767	µg/mL	Unstressed
	Purity 98%			+/- 121.4623	µg/mL	Stressed
21	cis-1,3-Dichloropropene		2,001.0 µg/mL	+/- 15.4276	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 22622)		+/- 121.1536	µg/mL	Unstressed
	Purity 99%			+/- 121.4393	µg/mL	Stressed
22	Toluene		2,008.0 µg/mL	+/- 11.7841	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBH1932V)		+/- 121.1621	µg/mL	Unstressed
	Purity 99%			+/- 121.4497	µg/mL	Stressed
23	trans-1,3-Dichloropropene		2,001.1 µg/mL	+/- 15.4282	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot C584177)		+/- 121.1582	µg/mL	Unstressed
	Purity 99%			+/- 121.4438	µg/mL	Stressed

24	1,1,2-Trichloroethane		2,000.2 µg/mL	+/- 15.4217	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)		+/- 121.1067	µg/mL	Unstressed
	Purity 99%			+/- 121.3922	µg/mL	Stressed
25	Tetrachloroethene		2,000.8 µg/mL	+/- 15.4263	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBD9374V)		+/- 121.1430	µg/mL	Unstressed
	Purity 99%			+/- 121.4286	µg/mL	Stressed
26	dibromochloromethane		2,001.4 µg/mL	+/- 15.4304	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBW3597V)		+/- 121.1752	µg/mL	Unstressed
	Purity 98%			+/- 121.4609	µg/mL	Stressed
27	1,2-Dibromoethane (EDB)		2,007.0 µg/mL	+/- 11.7782	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)		+/- 121.1018	µg/mL	Unstressed
	Purity 99%			+/- 121.3893	µg/mL	Stressed
28	Chlorobenzene		2,000.3 µg/mL	+/- 15.4224	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)		+/- 121.1128	µg/mL	Unstressed
	Purity 99%			+/- 121.3983	µg/mL	Stressed
29	Ethylbenzene		2,011.5 µg/mL	+/- 11.8046	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBF8969V)		+/- 121.3733	µg/mL	Unstressed
	Purity 99%			+/- 121.6614	µg/mL	Stressed
30	m-Xylene		1,004.5 µg/mL	+/- 5.8950	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBG9538V)		+/- 60.6112	µg/mL	Unstressed
	Purity 99%			+/- 60.7551	µg/mL	Stressed
31	p-Xylene		1,001.0 µg/mL	+/- 5.8744	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBG3928V)		+/- 60.4000	µg/mL	Unstressed
	Purity 99%			+/- 60.5434	µg/mL	Stressed
32	o-Xylene		2,009.0 µg/mL	+/- 11.7899	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBH3432V)		+/- 121.2225	µg/mL	Unstressed
	Purity 99%			+/- 121.5102	µg/mL	Stressed
33	Styrene		2,017.5 µg/mL	+/- 11.8398	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKBS7097V)		+/- 121.7354	µg/mL	Unstressed
	Purity 99%			+/- 122.0243	µg/mL	Stressed
34	Isopropylbenzene (cumene)		2,010.0 µg/mL	+/- 11.7958	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10185056)		+/- 121.2828	µg/mL	Unstressed
	Purity 99%			+/- 121.5707	µg/mL	Stressed
35	bromoform		2,000.6 µg/mL	+/- 15.4248	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBD8459V)		+/- 121.1309	µg/mL	Unstressed
	Purity 99%			+/- 121.4165	µg/mL	Stressed
36	1,1,2,2-Tetrachloroethane		2,000.8 µg/mL	+/- 15.4259	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)		+/- 121.1400	µg/mL	Unstressed
	Purity 99%			+/- 121.4256	µg/mL	Stressed
37	1,3-Dichlorobenzene		2,000.5 µg/mL	+/- 15.4240	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBM5751V)		+/- 121.1249	µg/mL	Unstressed
	Purity 99%			+/- 121.4104	µg/mL	Stressed
38	1,4-Dichlorobenzene		2,001.7 µg/mL	+/- 15.4327	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)		+/- 121.1930	µg/mL	Unstressed
	Purity 99%			+/- 121.4787	µg/mL	Stressed
39	1,2-Dichlorobenzene		2,000.6 µg/mL	+/- 15.4244	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)		+/- 121.1279	µg/mL	Unstressed
	Purity 99%			+/- 121.4135	µg/mL	Stressed

40	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,019.0 µg/mL	+/-	11.8436	µg/mL	Gravimetric
				+/-	121.8259	µg/mL	Unstressed
				+/-	122.1150	µg/mL	Stressed
41	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBC5541V)	2,008.0 µg/mL	+/-	11.7841	µg/mL	Gravimetric
				+/-	121.1621	µg/mL	Unstressed
				+/-	121.4497	µg/mL	Stressed
42	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	(Lot 12912PFV)	2,018.5 µg/mL	+/-	11.8457	µg/mL	Gravimetric
				+/-	121.7957	µg/mL	Unstressed
				+/-	122.0848	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10914)

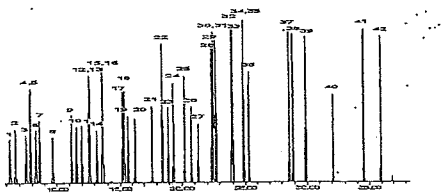
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
300°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Hughes - Mix Technician — Date Mixed: 22-Feb-2017 — Balance: 1127510105

Diane Shelter - Operations Mgr. ARM QC — Date Passed: 28-Mar-2017

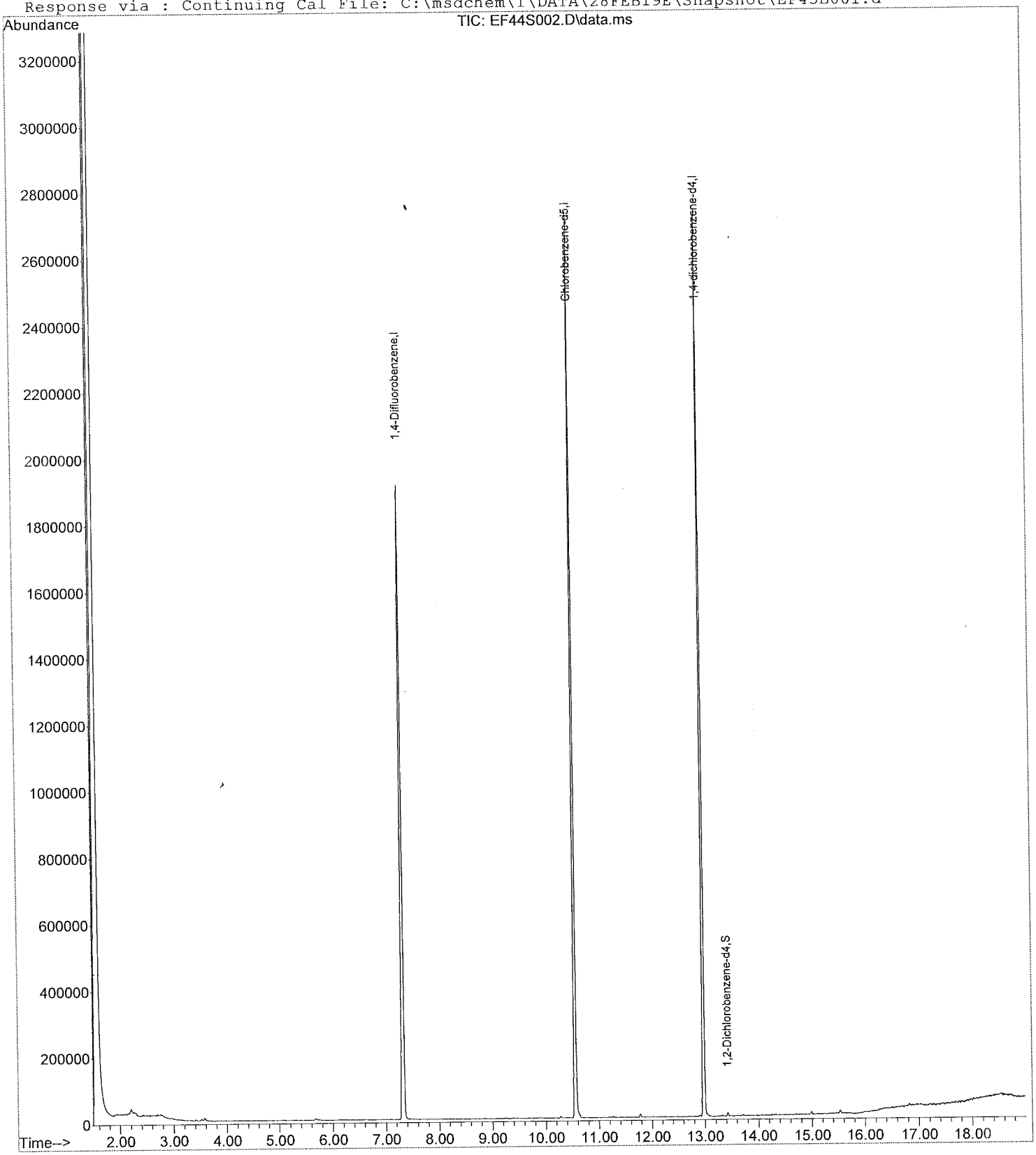
Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #PM 80397

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S002.D Vial: 1
Acq Time : 02/28/2019 12:14 Operator: SLS
Sample : 5P-MW107I-145 Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Feb 28 12:34:00 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S002.D
Acq Time : 02/28/2019 12:14
Sample : 5P-MW107I-145
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 1
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 12:34:00 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1787923	50.0000 ug/Kg	96.09
28) Chlorobenzene-d5	10.55	117	1520800	50.0000 ug/Kg	96.02
60) 1,4-dichlorobenzene-d4	12.98	152	758479	50.0000 ug/Kg	100.79

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	13.42	152	2192	0.1776 ug/Kg	0.36%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	13201	2.7446 ug/Kg	89
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1725	0.1805 ug/Kg#	86
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	6.18	43	2064	0.3521 ug/Kg#	65
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	22893	1.2504 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S002.D
Acq Time : 02/28/2019 12:14
Sample : 5P-MW107I-145
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 1
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 12:34:00 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	10.28	43	3398	0.3604 ug/Kg#	76
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	14.99	180	3297	0.3767 ug/Kg	98
68) 1,2,3-Trichlorobenzene	15.53	180	3295	0.5006 ug/Kg	95

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

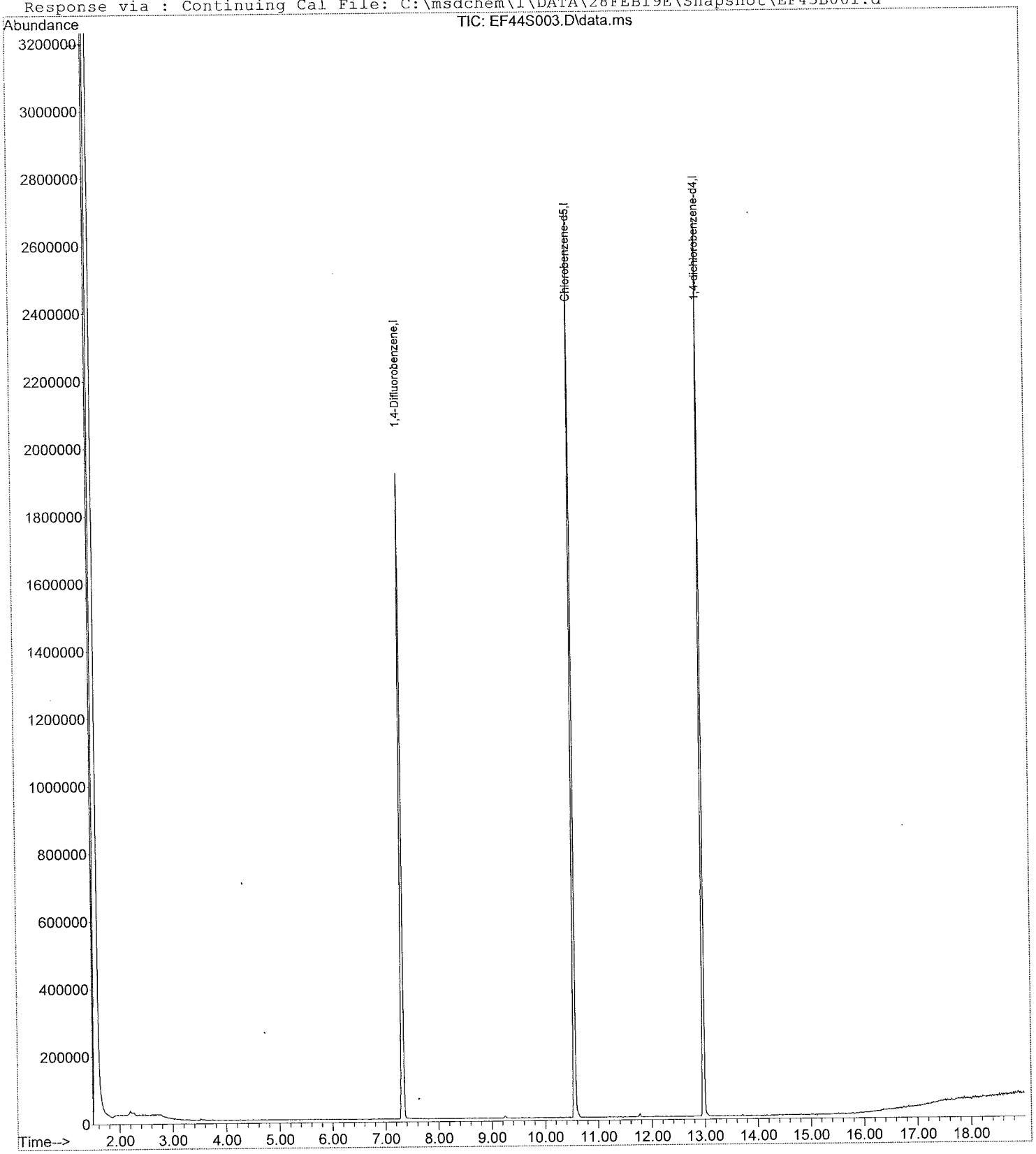
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S003.D
Acq Time : 02/28/2019 12:38
Sample : 5P-MW107D-200
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 3
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 12:58:10 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S003.D
Acq Time : 02/28/2019 12:38
Sample : 5P-MW107D-200
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 3
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 12:58:10 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1784878	50.0000 ug/Kg	95.92
28) Chlorobenzene-d5	10.55	117	1541748	50.0000 ug/Kg	97.34
60) 1,4-dichlorobenzene-d4	12.98	152	714525	50.0000 ug/Kg	94.95

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	3908	0.8139 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1507	0.1580 ug/Kg#	90
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	6.17	43	1004	0.1715 ug/Kg#	65
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.33	83	23213	1.2507 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S003.D
Acq Time : 02/28/2019 12:38
Sample : 5P-MW107D-200
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 3
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 12:58:10 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

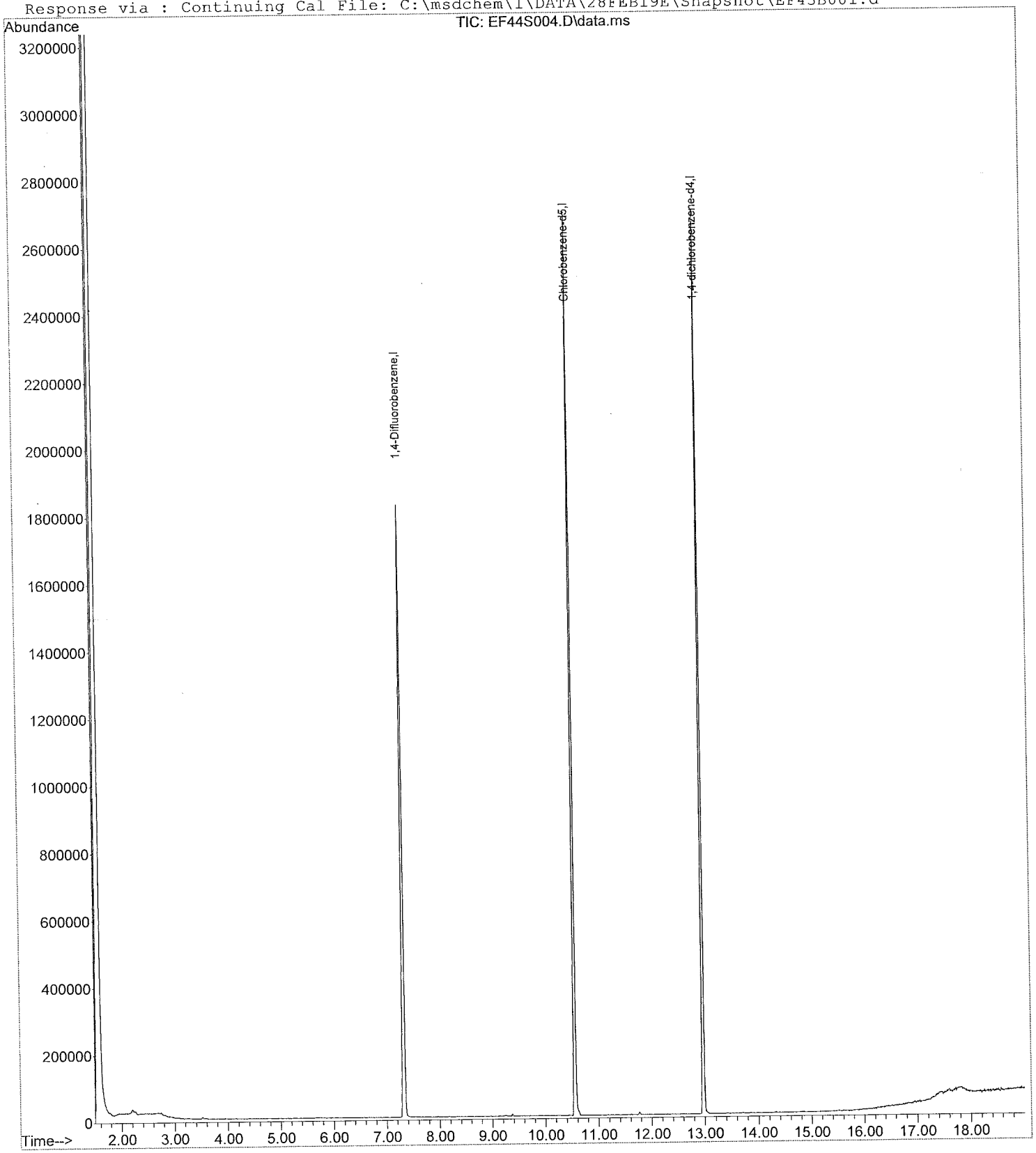
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S004.D
Acq Time : 02/28/2019 13:03
Sample : 5P-MW106I-145
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 4
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 13:22:17 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S004.D
Acq Time : 02/28/2019 13:03
Sample : 5P-MW106I-145
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 4
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 13:22:17 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1715657	50.0000 ug/Kg	92.20
28) Chlorobenzene-d5	10.55	117	1491681	50.0000 ug/Kg	94.18
60) 1,4-dichlorobenzene-d4	12.97	152	725658	50.0000 ug/Kg	96.43

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	3780	0.8190 ug/Kg	65
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1940	0.2116 ug/Kg	94
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	22730	1.2658 ug/Kg#	30
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S004.D
Acq Time : 02/28/2019 13:03
Sample : 5P-MW106I-145
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 4
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 13:22:17 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.37	164	1432	0.1737 ug/Kg	93
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

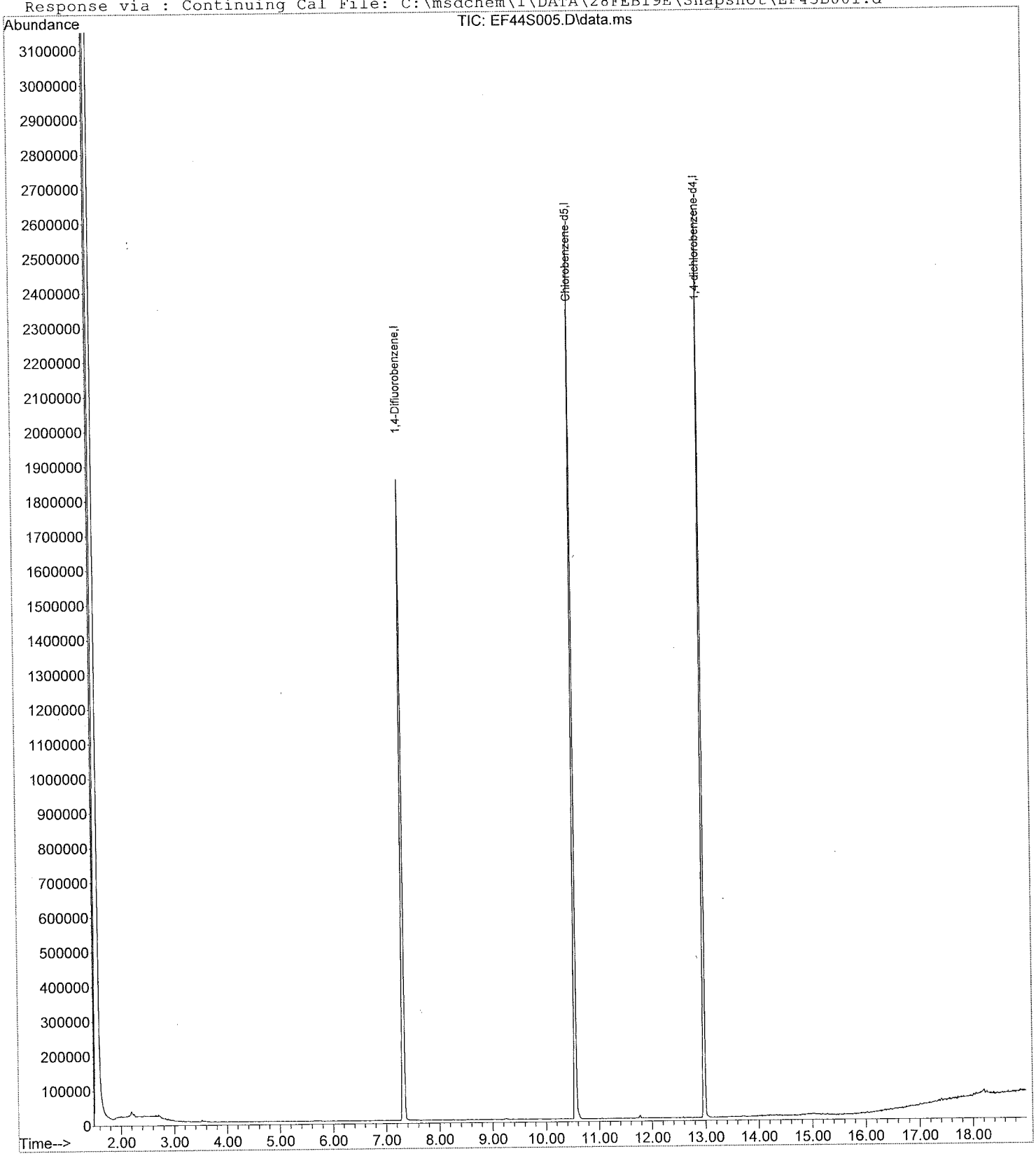
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S005.D
Acq Time : 02/28/2019 13:27
Sample : 5P-MW106D-195
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 5
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 13:46:22 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S005.D
Acq Time : 02/28/2019 13:27
Sample : 5P-MW106D-195
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 5
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 13:46:22 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1689527	50.0000 ug/Kg	90.80
28) Chlorobenzene-d5	10.55	117	1471429	50.0000 ug/Kg	92.90
60) 1,4-dichlorobenzene-d4	12.98	152	695056	50.0000 ug/Kg	92.36

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.57	43	4304	0.9469 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1523	0.1687 ug/Kg#	69
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	6.19	43	1251	0.2258 ug/Kg#	65
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	21953	1.2393 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S005.D
Acq Time : 02/28/2019 13:27
Sample : 5P-MW106D-195
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 5
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 13:46:22 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

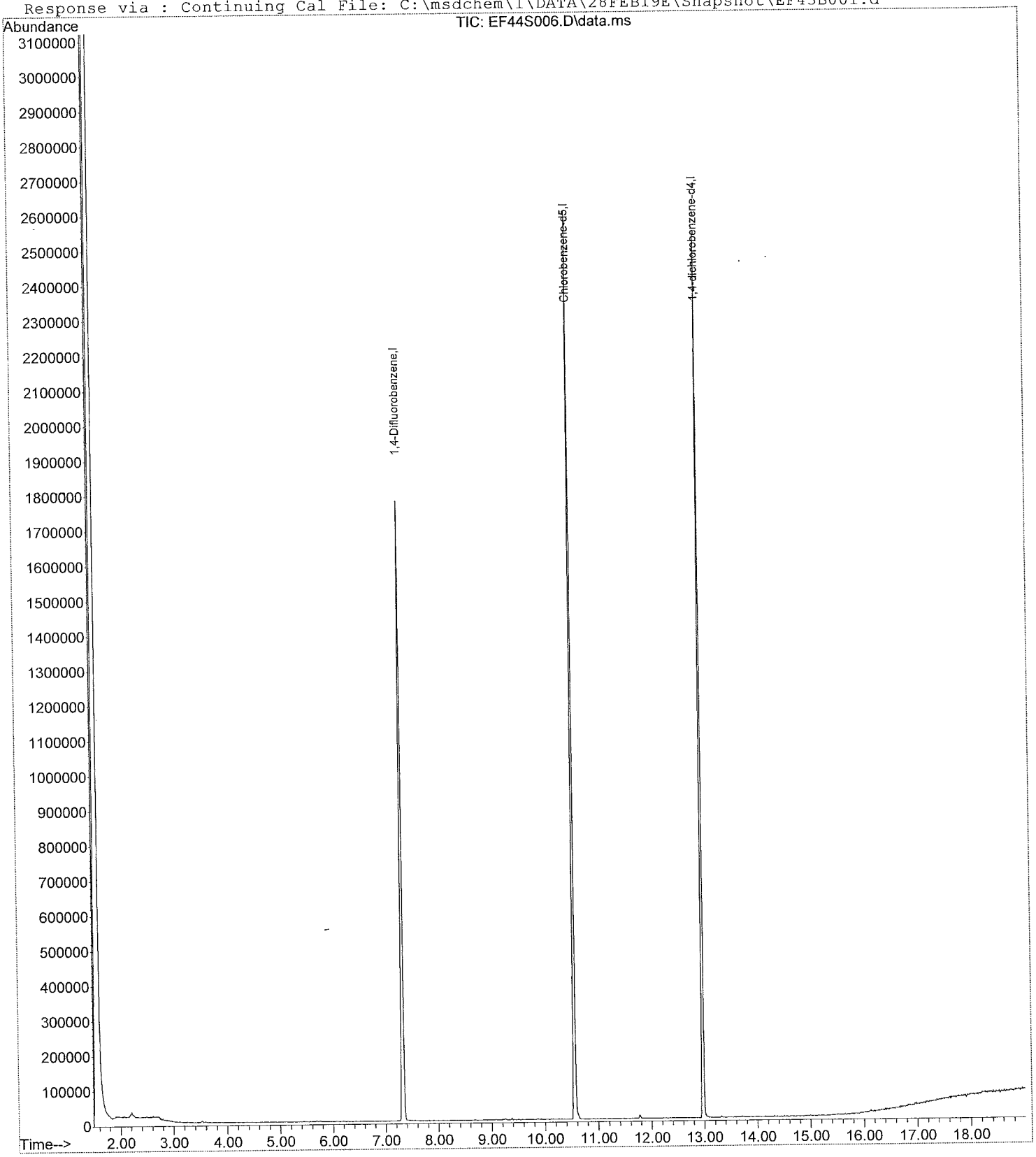
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S006.D Vial: 6
Acq Time : 02/28/2019 13:51 Operator: SLS
Sample : 5P-MW109I-169 Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Feb 28 14:10:25 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S006.D
Acq Time : 02/28/2019 13:51
Sample : 5P-MW109I-169
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 6
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 14:10:25 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.33	114	1666605	50.0000 ug/Kg	89.57
28) Chlorobenzene-d5	10.55	117	1440713	50.0000 ug/Kg	90.96
60) 1,4-dichlorobenzene-d4	12.98	152	686094	50.0000 ug/Kg	91.17

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	3849	0.8585 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1919	0.2155 ug/Kg#	85
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	24000	1.3838 ug/Kg#	27
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S006.D
Acq Time : 02/28/2019 13:51
Sample : 5P-MW109I-169
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 6
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 14:10:25 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

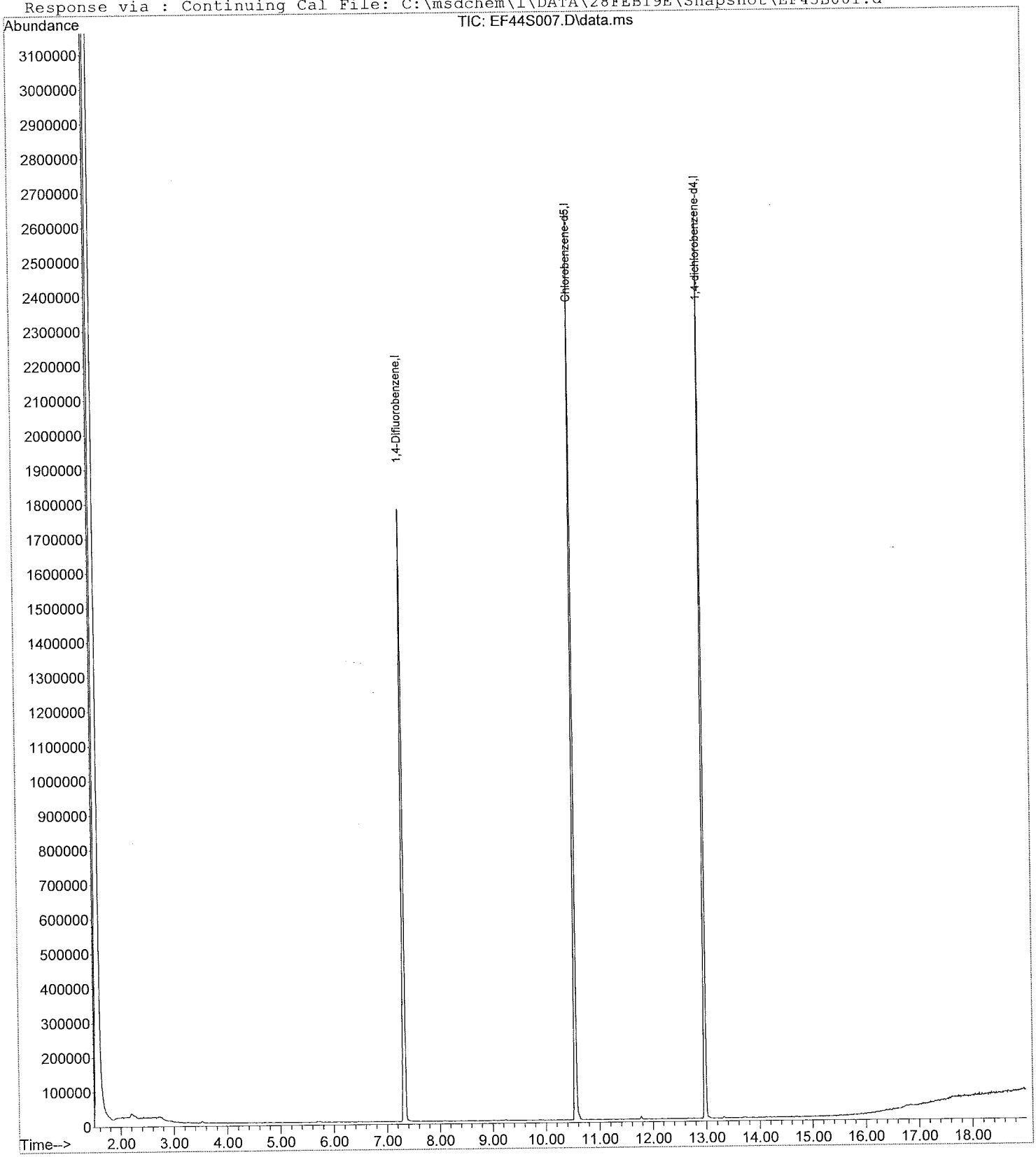
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S007.D Vial: 7
Acq Time : 02/28/2019 14:15 Operator: SLS
Sample : 5P-MW109D-230 Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Feb 28 14:34:28 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S007.D
Acq Time : 02/28/2019 14:15
Sample : 5P-MW109D-230
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 7
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 14:34:28 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.33	114	1670521	50.0000 ug/Kg	89.78
28) Chlorobenzene-d5	10.55	117	1476174	50.0000 ug/Kg	93.20
60) 1,4-dichlorobenzene-d4	12.97	152	716240	50.0000 ug/Kg	95.18

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	3244	0.7218 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	2351	0.2633 ug/Kg	94
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	22216	1.2501 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S007.D
Acq Time : 02/28/2019 14:15
Sample : 5P-MW109D-230
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 7
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 14:34:28 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

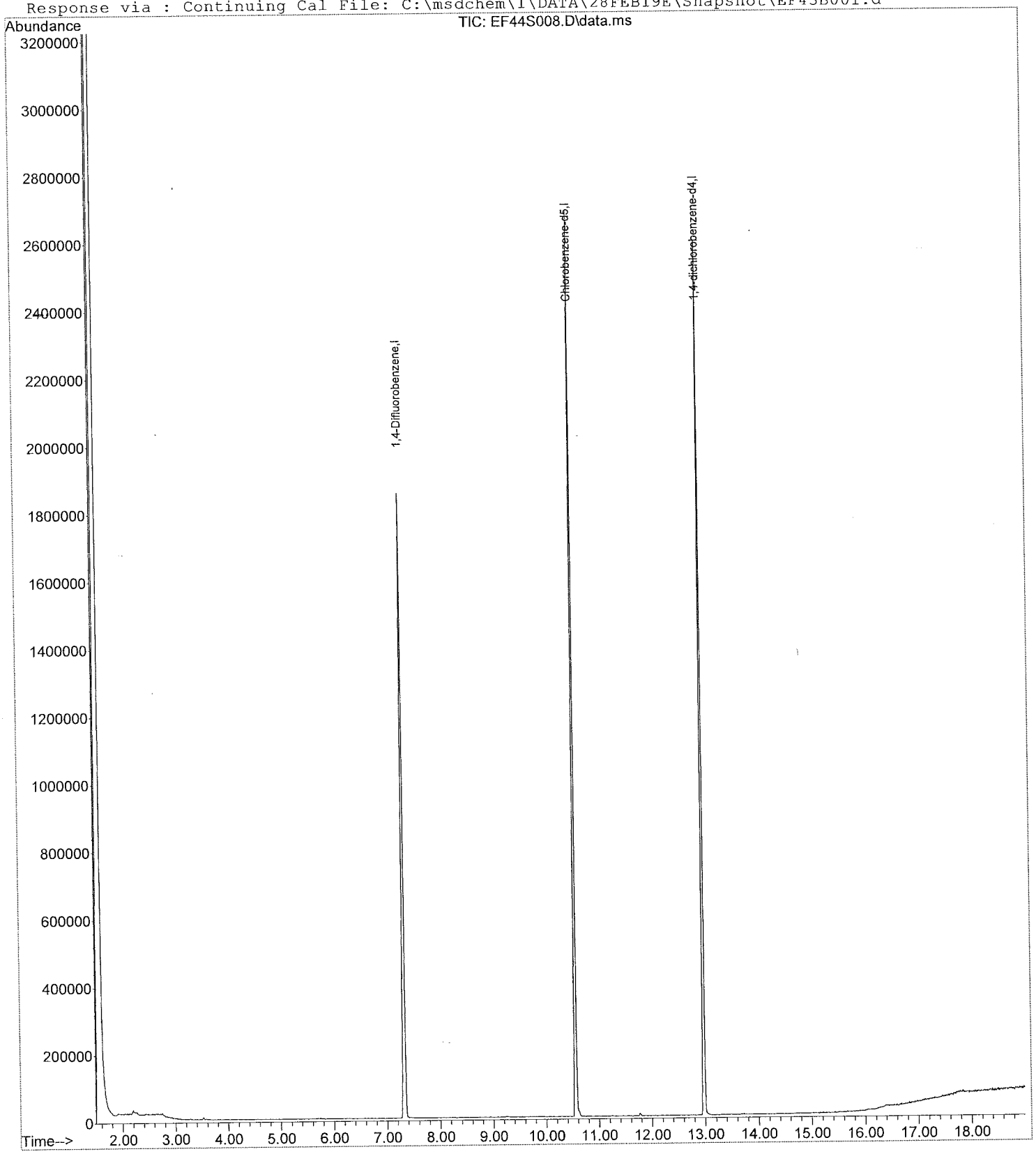
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S008.D Vial: 8
Acq Time : 02/28/2019 14:39 Operator: SLS
Sample : 5P-MW108I-149 Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Feb 28 14:58:32 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S008.D
Acq Time : 02/28/2019 14:39
Sample : 5P-MW108I-149
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 8
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 14:58:32 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1704088	50.0000 ug/Kg	91.58
28) Chlorobenzene-d5	10.55	117	1501222	50.0000 ug/Kg	94.78
60) 1,4-dichlorobenzene-d4	12.97	152	690850	50.0000 ug/Kg	91.80

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	13.09	152	334	0.0297 ug/Kg	0.06%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.57	43	3413	0.7445 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	2362	0.2594 ug/Kg	91
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	22784	1.2607 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S008.D
Acq Time : 02/28/2019 14:39
Sample : 5P-MW108I-149
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 8
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 14:58:32 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

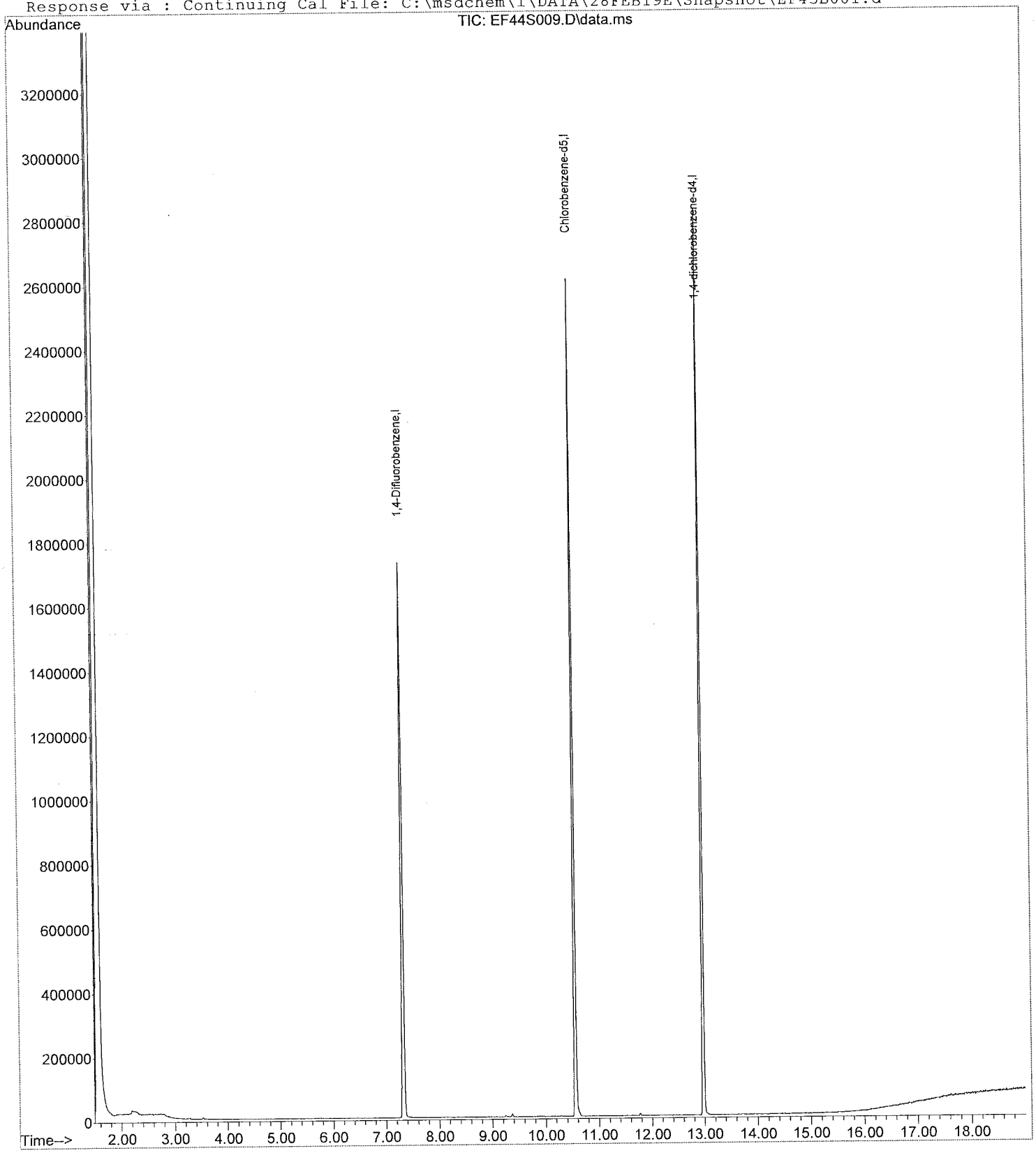
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S009.D Vial: 9
Acq Time : 02/28/2019 15:03 Operator: SLS
Sample : 5P-MW108D-215 Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Feb 28 15:22:34 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S009.D
Acq Time : 02/28/2019 15:03
Sample : 5P-MW108D-215
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 9
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 15:22:34 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.33	114	1624288	50.0000 ug/Kg	87.29
28) Chlorobenzene-d5	10.55	117	1482521	50.0000 ug/Kg	93.60
60) 1,4-dichlorobenzene-d4	12.98	152	787963	50.0000 ug/Kg	104.71

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	2327	0.5325 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.54	84	1786	0.2057 ug/Kg	98
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	21464	1.2026 ug/Kg#	28
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S009.D
Acq Time : 02/28/2019 15:03
Sample : 5P-MW108D-215
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 9
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 15:22:34 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.37	164	2295	0.2801 ug/Kg	93
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

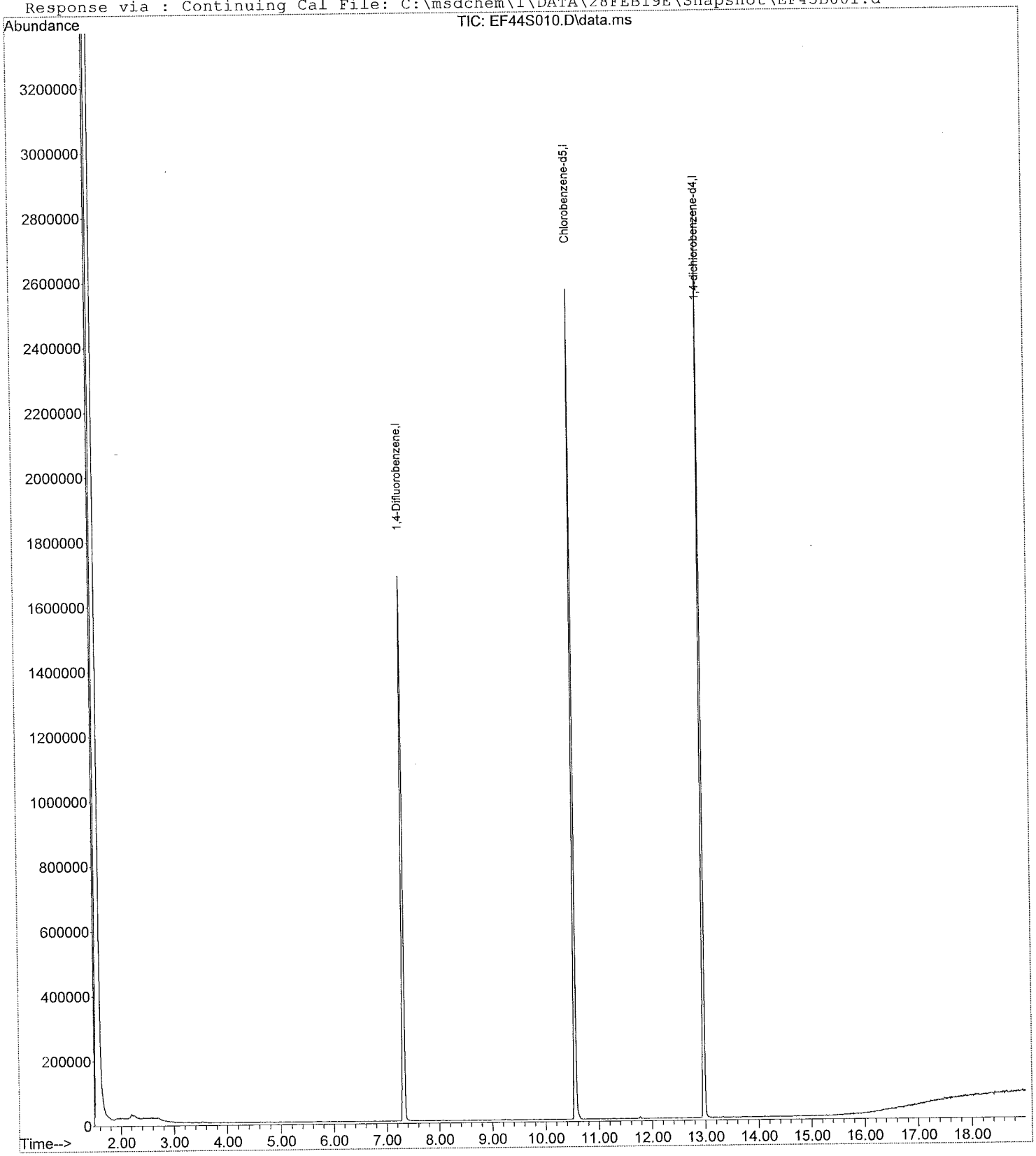
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S010.D
Acq Time : 02/28/2019 15:27
Sample : 5P-MW110I-208
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 10
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 15:47:08 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S010.D
Acq Time : 02/28/2019 15:27
Sample : 5P-MW110I-208
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 10
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 15:47:08 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1598252	50.0000 ug/Kg	85.89
28) Chlorobenzene-d5	10.55	117	1470600	50.0000 ug/Kg	92.85
60) 1,4-dichlorobenzene-d4	12.98	152	767770	50.0000 ug/Kg	102.03

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.57	43	3231	0.7515 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.54	84	1763	0.2064 ug/Kg#	85
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	21197	1.1973 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S010.D
Acq Time : 02/28/2019 15:27
Sample : 5P-MW110I-208
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 10
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 15:47:08 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

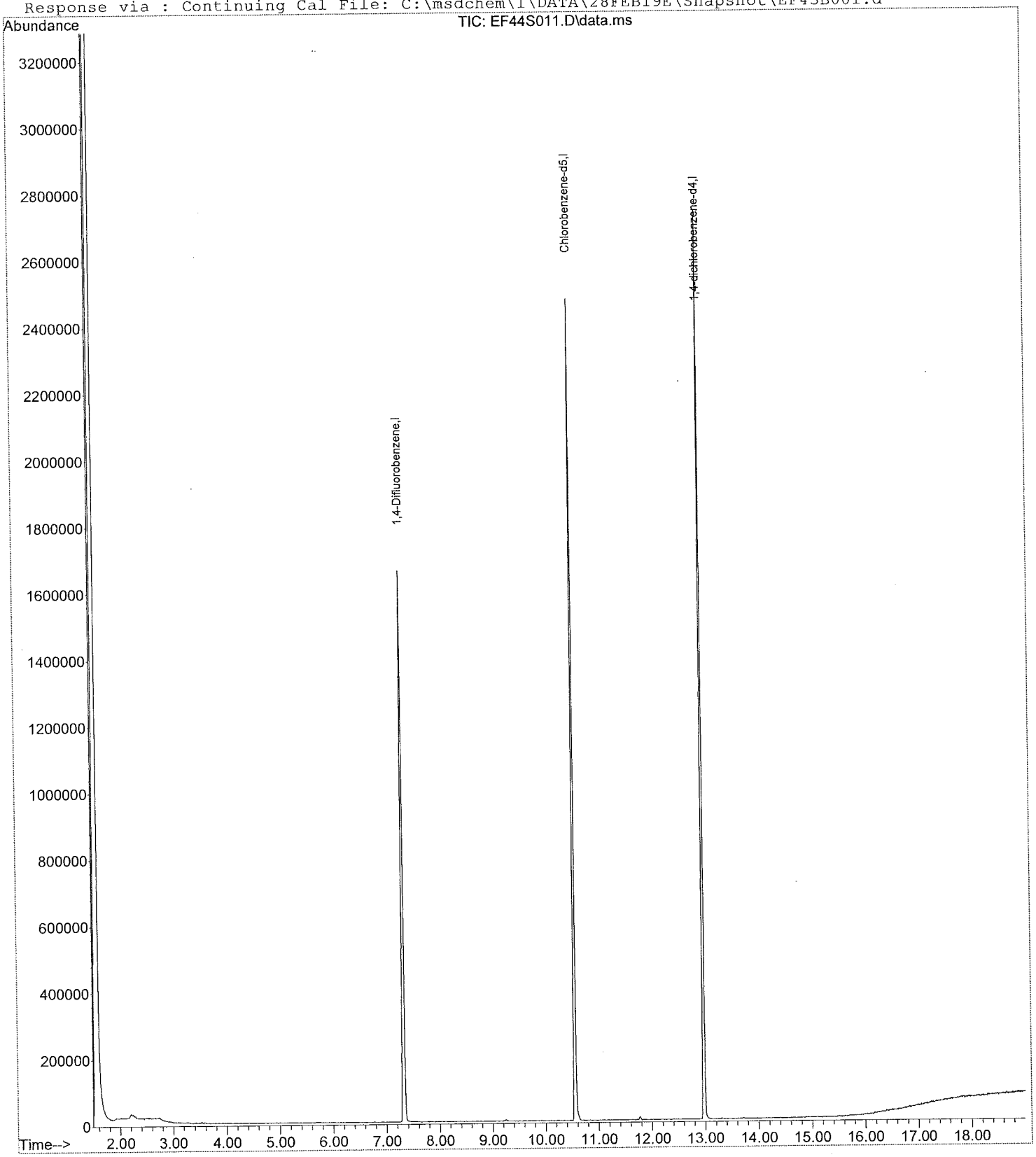
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S011.D
Acq Time : 02/28/2019 15:52
Sample : 5P-MW110D-301
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 11
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 16:11:17 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S011.D
Acq Time : 02/28/2019 15:52
Sample : 5P-MW110D-301
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 11
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 16:11:17 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1553562	50.0000 ug/Kg	83.49
28) Chlorobenzene-d5	10.55	117	1427050	50.0000 ug/Kg	90.10
60) 1,4-dichlorobenzene-d4	12.98	152	744029	50.0000 ug/Kg	98.87

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	3379	0.8085 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1523	0.1834 ug/Kg#	83
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.33	83	21877	1.2734 ug/Kg#	28
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S011.D
Acq Time : 02/28/2019 15:52
Sample : 5P-MW110D-301
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 11
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 16:11:17 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

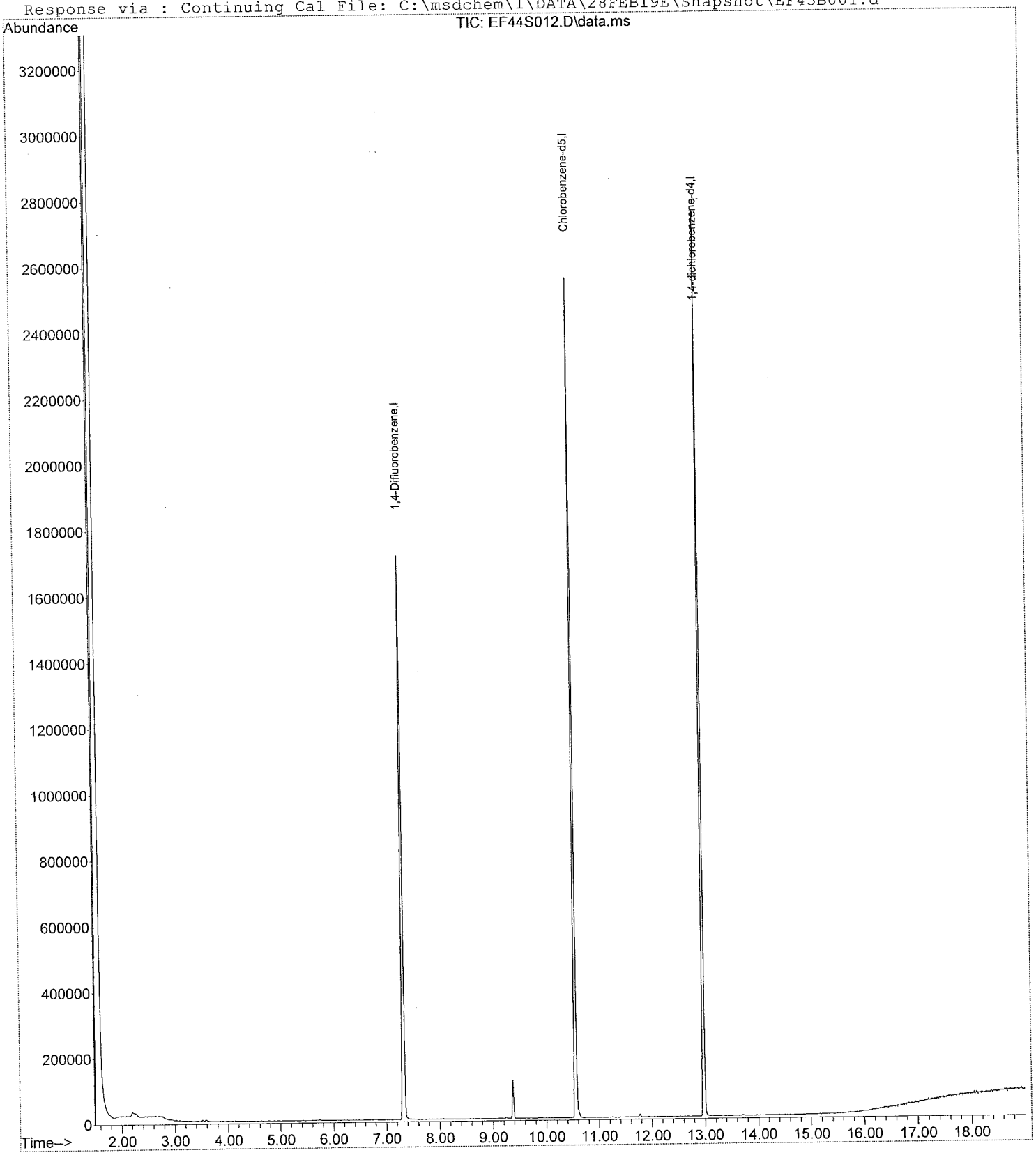
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S012.D
Acq Time : 02/28/2019 16:16
Sample : 5P-MW101-159
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 12
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 16:35:24 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S012.D
Acq Time : 02/28/2019 16:16
Sample : 5P-MW101-159
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 12
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 16:35:24 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1583961	50.0000 ug/Kg	85.13
28) Chlorobenzene-d5	10.55	117	1456452	50.0000 ug/Kg	91.95
60) 1,4-dichlorobenzene-d4	12.98	152	749994	50.0000 ug/Kg	99.66

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	13.08	152	413	0.0338 ug/Kg	0.07%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	6470	1.5184 ug/Kg	84
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.52	84	1475	0.1742 ug/Kg#	72
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	22027	1.2563 ug/Kg#	28
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S012.D
Acq Time : 02/28/2019 16:16
Sample : 5P-MW101-159
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 12
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 16:35:24 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.37	164	27489	3.4152 ug/Kg	91
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

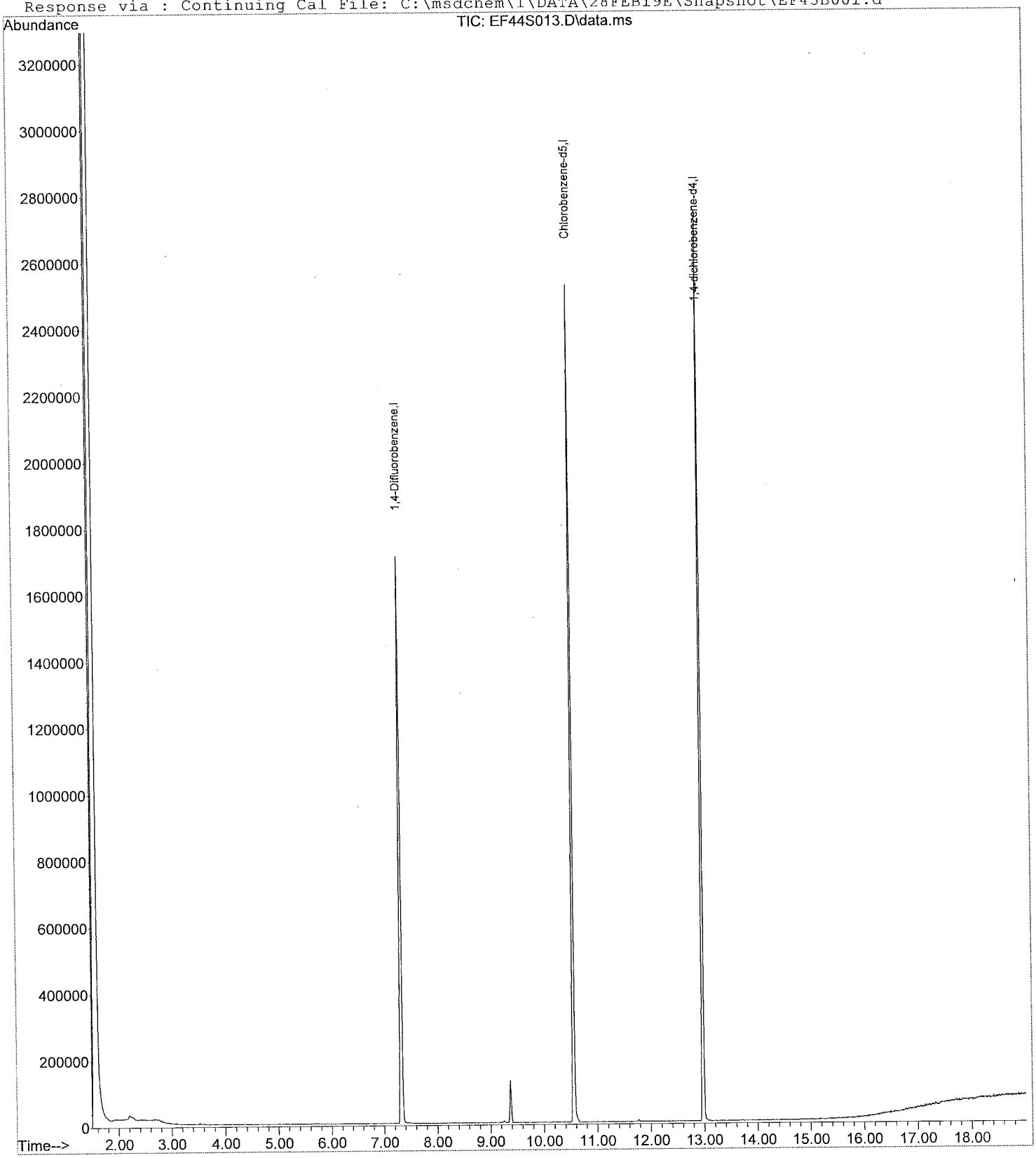
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S013.D Vial: 13
Acq Time : 02/28/2019 16:40 Operator: SLS
Sample : 5P-MW101-159Y Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 01 12:18:07 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S013.D
Acq Time : 02/28/2019 16:40
Sample : 5P-MW101-159Y
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 13
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Mar 01 12:18:07 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1598717	50.0000 ug/Kg	85.92
28) Chlorobenzene-d5	10.55	117	1466289	50.0000 ug/Kg	92.57
60) 1,4-dichlorobenzene-d4	12.98	152	762920	50.0000 ug/Kg	101.38

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	3741	0.8698 ug/Kg#	60
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	3.53	84	1458	0.1706 ug/Kg	93
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.33	83	21510	1.2186 ug/Kg#	29
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S013.D
Acq Time : 02/28/2019 16:40
Sample : 5P-MW101-159Y
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 13
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Mar 01 12:18:07 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.38	164	29620	3.6553 ug/Kg	91
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

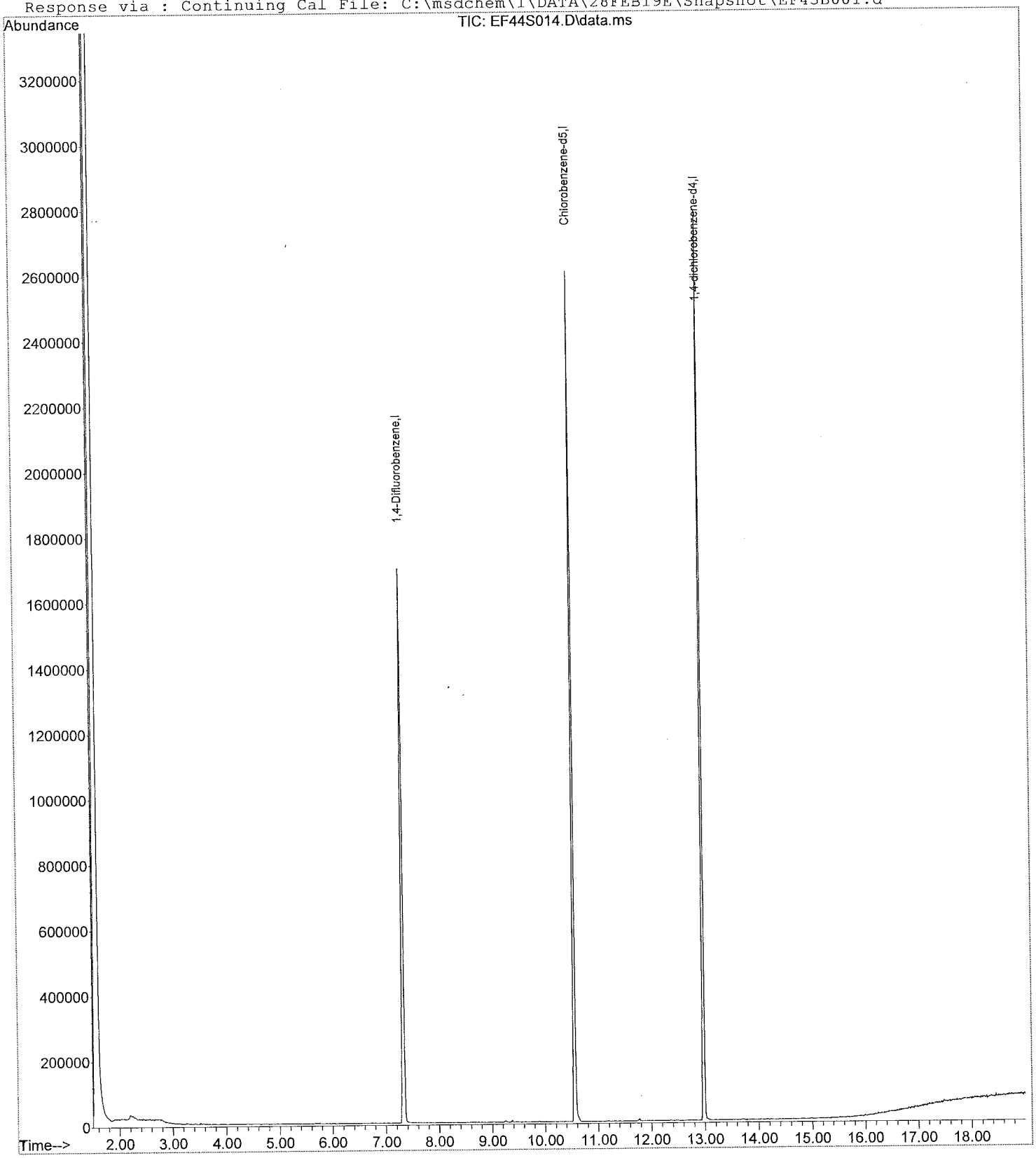
Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S014.D
Acq Time : 02/28/2019 17:04
Sample : 5P-MW105-143
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 14
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 17:23:32 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S014.D
Acq Time : 02/28/2019 17:04
Sample : 5P-MW105-143
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 14
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 17:23:32 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1578709	50.0000 ug/Kg	84.84
28) Chlorobenzene-d5	10.55	117	1475654	50.0000 ug/Kg	93.17
60) 1,4-dichlorobenzene-d4	12.98	152	767378	50.0000 ug/Kg	101.97

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	0.00	152	0	0.0000 ug/Kg	0.00%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.57	43	1426	0.3358 ug/Kg#	45
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.33	83	22228	1.2512 ug/Kg#	28
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S014.D
Acq Time : 02/28/2019 17:04
Sample : 5P-MW105-143
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 14
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Feb 28 17:23:32 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	0.00	164		Not Detected	
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

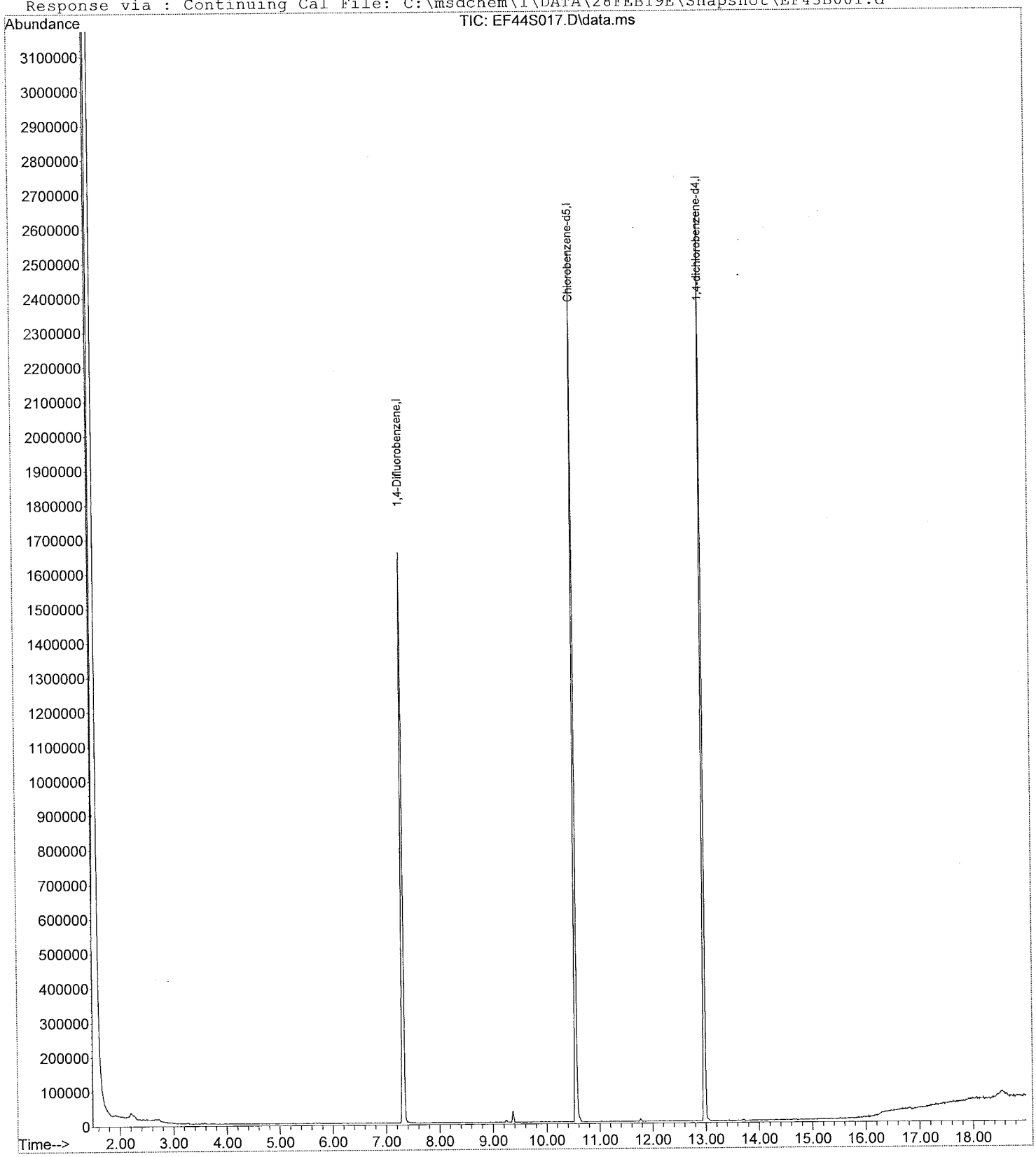
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S017.D Vial: 15
Acq Time : 03/01/2019 07:40 Operator: SLS
Sample : 5P-MW104-120 Inst : 5975-E
Misc : 1905930 C 1:10 Multiplr: 1.00
MS Integration Params: rteint.p Column ID: Rtx-VMS

Quant Time: Mar 01 07:59:49 2019 Results File: ECLPSCREEN.RES

Method : C:\msdchem\1\methods\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:07 2019
Response via : Continuing Cal File: C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d



Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S017.D
Acq Time : 03/01/2019 07:40
Sample : 5P-MW104-120
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 15
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Mar 01 07:59:49 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) 1,4-Difluorobenzene	7.32	114	1540517	50.0000 ug/Kg	82.79
28) Chlorobenzene-d5	10.55	117	1427408	50.0000 ug/Kg	90.12
60) 1,4-dichlorobenzene-d4	12.98	152	736785	50.0000 ug/Kg	97.91

System Monitoring Compounds					%Recovery
5) Vinyl chloride-d3	0.00	65	0	0.0000 ug/Kg	0.00%#
8) Chloroethane-d5	0.00	69	0	0.0000 ug/Kg	0.00%#
11) 1,1-Dichloroethene-d2	0.00	63	0	0.0000 ug/Kg	0.00%#
22) 2-Butanone-d5	0.00	46	0	0.0000 ug/Kg	0.00%#
25) Chloroform-d	0.00	84	0	0.0000 ug/Kg	0.00%#
27) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/Kg	0.00%#
33) Benzene-d6	0.00	84	0	0.0000 ug/Kg	0.00%#
37) 1,2-Dichloropropane-d6	0.00	67	0	0.0000 ug/Kg	0.00%#
40) cis-1,3-Dichloropropene-d4	0.00	79	0	0.0000 ug/Kg	0.00%
42) trans-1,3-Dichloropropene-	0.00	79	0	0.0000 ug/Kg	0.00%#
47) Toluene-d8	0.00	98	0	0.0000 ug/Kg	0.00%#
50) 2-Hexanone-d5	0.00	63	0	0.0000 ug/Kg	0.00%#
59) 1,1,2,2-Tetrachloroethane-	0.00	84	0	0.0000 ug/Kg	0.00%#
65) 1,2-Dichlorobenzene-d4	13.10	152	506	0.0422 ug/Kg	0.08%#

Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.00	85		Not Detected	
3) Chloromethane	0.00	50		Not Detected	
4) Vinyl chloride	0.00	62		Not Detected	
6) Bromomethane	0.00	94		Not Detected	
7) Chloroethane	0.00	64		Not Detected	
9) Trichlorofluoromethane	0.00	101		Not Detected	
10) 1,1-Dichloroethene	0.00	96		Not Detected	
12) 1,1,2-Trichloro-1,2,2-trif	0.00	101		Not Detected	
13) Acetone	3.58	43	4468	1.0781 ug/Kg#	61
14) Carbon disulfide	0.00	76		Not Detected	
15) Methyl acetate	0.00	43		Not Detected	
16) Methylene chloride	0.00	84		Not Detected	
17) trans-1,2-Dichloroethene	0.00	96		Not Detected	
18) Methyl tert-butyl ether	0.00	73		Not Detected	
19) 1,1-Dichloroethane	0.00	63		Not Detected	
20) cis-1,2-Dichloroethene	0.00	96		Not Detected	
21) 2-Butanone	0.00	43		Not Detected	
23) Bromochloromethane	0.00	128		Not Detected	
24) Chloroform	0.00	83		Not Detected	
26) 1,2-Dichloroethane	0.00	62		Not Detected	
29) 1,1,1-Trichloroethane	0.00	97		Not Detected	
30) Cyclohexane	0.00	56		Not Detected	
31) Carbon tetrachloride	0.00	117		Not Detected	
32) Benzene	0.00	78		Not Detected	
34) Trichloroethene	0.00	130		Not Detected	
35) Methylcyclohexane	7.32	83	20870	1.2145 ug/Kg#	28
36) 1,2-Dichloropropane	0.00	63		Not Detected	
38) Bromodichloromethane	0.00	83		Not Detected	
39) cis-1,3-Dichloropropene	0.00	75		Not Detected	
41) trans-1,3-Dichloropropene	0.00	75		Not Detected	
43) 1,1,2-Trichloroethane	0.00	97		Not Detected	
44) Dibromochloromethane	0.00	129		Not Detected	
45) 4-Methyl-2-pentanone	0.00	43		Not Detected	
46) Toluene	0.00	91		Not Detected	

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

Quantitation Report

Data File : C:\msdchem\1\DATA\28FEB19E\EF44S017.D
Acq Time : 03/01/2019 07:40
Sample : 5P-MW104-120
Misc : 1905930 C 1:10
MS Integration Params: rteint.p

Vial: 15
Operator: SLS
Inst : 5975-E
Multiplr: 1.00
Column ID: Rtx-VMS

Quant Time: Mar 01 07:59:49 2019 Results File: ECLPSCREEN.RES

Quant Method : C:\MSDCHEM\1\METHODS\ECLPSCREEN.M (RTE Integrator)
Title : VOA COMPOUND LIST
Last Update : Thu Feb 28 11:31:08 2019
Response via : Continuing Cal C:\msdchem\1\DATA\28FEB19E\Snapshot\EF43B001.d
DataAcq Meth : ECLPSCREEN.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) Tetrachloroethene	9.37	164	7530	0.9546 ug/Kg	93
49) 2-Hexanone	0.00	43		Not Detected	
51) 1,2-Dibromoethane	0.00	107		Not Detected	
52) Chlorobenzene	0.00	112		Not Detected	
53) Ethylbenzene	0.00	91		Not Detected	
54) m,p-Xylene	0.00	106		Not Detected	
55) o-Xylene	0.00	106		Not Detected	
56) Styrene	0.00	104		Not Detected	
57) Isopropylbenzene	0.00	105		Not Detected	
58) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
61) Bromoform	0.00	173		Not Detected	
62) 1,3-Dichlorobenzene	0.00	146		Not Detected	
63) 1,4-Dichlorobenzene	0.00	146		Not Detected	
64) 1,2-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2-Dibromo-3-chloropropan	0.00	75		Not Detected	
67) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
68) 1,2,3-Trichlorobenzene	0.00	180		Not Detected	

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

SAMPLE TAG INFORMATION SHEET

There are no Sample Tags included with this SDG

Notations concerning the location of the Sample Tags are included in Forms DC-1,, DC-2 and in the SDG Administrative Narrative (if it is required).

ALS Environmental

CHAIN-OF-CUSTODY

Project / Job / Task: 97756	Split:	Workorder ID: 1905930	Level: EPACLP_PDF	Requested Analysis
Client: AECOM [5POINTS/TV219]		Account: 8201	Type: 40AGVOA	
Comments:			Preservatives: HCL	

Item	Collect Date/Time	Sample ID	pH	Lab ID	QC	Matrix		Containers ID(s)	Containers Count	EPA-CLP VOA Trace, Water
1		TB-022719		1905930001		Water		A,B	2	A
2	02/27/2019 09:15	5P-MW107I-145		1905930002		Water		A,B,C	3	A
3	02/27/2019 09:30	5P-MW107D-200		1905930003		Water		A,B,C	3	A
4	02/27/2019 09:40	5P-MW106I-145		1905930004		Water		A,B,C	3	A
5	02/27/2019 09:50	5P-MW106D-195		1905930005		Water		A,B,C	3	A
6	02/27/2019 10:00	5P-MW109I-169		1905930006		Water		A,B,C	3	A
7	02/27/2019 10:10	5P-MW109D-230		1905930007		Water		A,B,C	3	A
8	02/27/2019 10:20	5P-MW108I-149		1905930008		Water		A,B,C	3	A
9	02/27/2019 10:30	5P-MW108D-215		1905930009		Water		A,B,C	3	A
10	02/27/2019 10:40	5P-MW110I-208		1905930010		Water		A,B,C	3	A

ORIGINAL FIELD SAMPLE CHAIN-OF-CUSTODY

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location
Schmith, Marianne	02/27/2019 12:15	ALS Sample Receiving	Sample Login
[signature]	02/27/2019 15:30	R-24-2	Storage
R-24-2	2/28/19 10:45	[signature]	VOA-Analysis R-61-4C

SAMPLE PREPARATION / ANALYSIS CHAIN-OF-CUSTODY

Sample Prep / Analysis for: _____ Lab Notebook No.: _____

Prepared / Analyzed by: _____ Date / Time: _____

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location

Wed, 02/27/19 2:28 PM

ALSCOCV3.1

ALS Environmental

CHAIN-OF-CUSTODY

Project / Job / Task: 97756	Split:	Workorder ID: 1905930	Level: EPACLP_PDF	Requested Analysis
Client: AECOM [5POINTS/TV219]		Account: 8201	Type: 40AGVOA	
Comments:			Preservatives: HCL	

Item	Collect Date/Time	Sample ID	pH	Lab ID	QC	Matrix		Containers ID(s)	Containers Count	EPA-CLP VOA Trace, Water			Total								
11	02/27/2019 10:50	5P-MW110D-301	1	1905930011		Water	1:1	A,B,C	3	A											
12	02/27/2019 11:05	5P-MW101-159	1	1905930012		Water	1:1, 1:4	A,B,C	3	A			35								
13	02/27/2019 11:10	5P-MW101-159-Y	1	1905930013		Water	1:1, 1:4	A,B,C	3	A			37								
14	02/27/2019 11:30	5P-MW105-143	1	1905930014		Water	1:1	A,B,C	3	A											
15	02/27/2019 11:30	5P-MW105-143MS	1	1905930015	MS	Water	1:1	A,B,C	3	A											
16	02/27/2019 11:30	5P-MW105-143MSD	1	1905930016	MSD	Water	1:1	A,B,C	3	A											
17	02/27/2019 11:50	5P-MW104-120	1	1905930017		Water	1:1	A,B,C	3	A											
18																					
19																					
20																					

ORIGINAL FIELD SAMPLE CHAIN-OF-CUSTODY

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location
Schmith, Marianne	02/27/2019 12:15	ALS Sample Receiving	Sample Login
[signature]	02/27/2019 14:28	R-24-2	Storage
R-24-2	2/28/19 10:45	[signature]	VOA-Analysis R-601-Ulc

SAMPLE PREPARATION / ANALYSIS CHAIN-OF-CUSTODY

Sample Prep / Analysis for: _____ Lab Notebook No.: _____

Prepared / Analyzed by: _____ Date / Time: _____

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location

00293

EPA-CLP CHECKING DOCUMENTATION FORM
FOR GC/MS ORGANICS Analysis

Case 5POINTS SDG TV219 Fraction VOA-TRACE

DELIVERABLES CHECK - All forms are present and have been checked for completeness and accuracy. All raw data such as quantitation reports and chromatograms are included and are in the correct order.

Signature _____ Date 3/8/19

CHEMIST CHECK or PEER REVIEW – The entire data package has been reviewed for completeness and accuracy, including a deliverables check as well as review of the QC data. Target compounds reported have been verified against the retention time windows for both columns. All target compounds present are reported on the Form I and the reported values are correct.

Signature _____ Date 3.8.19

MANAGER CHECK – The data package for the fraction includes all samples submitted for the sample delivery group. All QC requirements of the contract were met with the exception of items specifically mentioned in the narrative. All documents necessary for the case file are included.

Signature _____ Date 3.8.19

DOCUMENT CONTROL CHECK – All documents, forms, and data required for reporting are present and in the correct order. All required miscellaneous data (e.g., Traffic reports, Sample tags, Air bills, etc.) are also included.

Signature _____ Date 03/12/2019

GC/MS QC Checklist

Method: VOA-TRACE Instrument: 5975-F Analysis Date: 3/6/19

☑ **1. Tune pass all acceptance criteria.**
- a. All abundances were within appropriate method limits
- b. Area of primary ion was as expected.

☑ **2. Calibration curve, ICV, and Continuing Calibration all passed acceptance criteria.**
- a. Curve - All compounds of interest calibrated and within appropriate method limits.
- b. All reference spectra updated to new calibration.
- c. Appropriate curve fit was set up and documented.
- d. ICV passed appropriate method limits.
- e. Continuing Calibration passed appropriate method limits.

NA **3. Laboratory Control Spikes passed all acceptance criteria.**
- a. Internal Standards pass appropriate QC limits.
- b. Surrogates/DMCs pass appropriate QC limits.
- c. All spiked target compounds passed appropriate QC limits.

NA **4. RLVS passed all acceptance criteria.**
- a. All analytes of interest were detected at or above 1/2 the reporting limit.

☑ **5. Method Blank passed all acceptance criteria.**
- a. Internal Standards pass appropriate method limits.
- b. Surrogates/DMCs pass appropriate method limits.
- c. No target compounds above the reporting limits.
- d. No TIC's above 10% of ISTD.

☑ **6. Each sample passed Internal Standard, Surrogate/DMC, and Dilution Criteria.**
- a. Internal Standards pass appropriate QC limits.
- b. Surrogates/DMCs pass appropriate QC limits.
- c. All target compounds are appropriately identified.
- d. All identified target compounds are within the range of the curve.
- e. All dilutions have been performed as per method/SOP requirements.
- f. All diluted results match undiluted results.
- g. All requested TICs are searched and identified.
- h. All appropriate instrument blanks were analyzed after high level samples (VOAs).
- i. All samples analyzed within the appropriate methods analytical clock.

☑ **7. MS/MSD were analyzed and reviewed.**
- a. Spiked compounds were within QC Limits.
- b. If any QC out, was it due to an obvious mis-spike or instrument issue.

☑ **8. Ending Calibration was performed and passed all acceptance criteria.**
- a. Calibration passed appropriate method limits.
- b. Calibration was analyzed within the appropriate methods analytical clock.

Comments: _____

Analyst Signature: [signature] Date: 3/7/19

GC/MS QC Checklist

Method: VOA-TRACE Instrument: 5975-F Analysis Date: 3/6/19 3/7/19 SS 3/8/19

☑ **1. Tune pass all acceptance criteria.**
- a. All abundances were within appropriate method limits
- b. Area of primary ion was as expected.

☑ **2. Calibration curve, ICV, and Continuing Calibration all passed acceptance criteria.**
- a. Curve - All compounds of interest calibrated and within appropriate method limits.
- b. All reference spectra updated to new calibration.
- c. Appropriate curve fit was set up and documented.
- d. ICV passed appropriate method limits.
- e. Continuing Calibration passed appropriate method limits.

NA **3. Laboratory Control Spikes passed all acceptance criteria.**
- a. Internal Standards pass appropriate QC limits.
- b. Surrogates/DMCs pass appropriate QC limits.
- c. All spiked target compounds passed appropriate QC limits.

NA **4. RLVS passed all acceptance criteria.**
- a. All analytes of interest were detected at or above 1/2 the reporting limit.

☑ **5. Method Blank passed all acceptance criteria.**
- a. Internal Standards pass appropriate method limits.
- b. Surrogates/DMCs pass appropriate method limits.
- c. No target compounds above the reporting limits.
- d. No TIC's above 10% of ISTD.

☑ **6. Each sample passed Internal Standard, Surrogate/DMC, and Dilution Criteria.**
- a. Internal Standards pass appropriate QC limits.
- b. Surrogates/DMCs pass appropriate QC limits.
- c. All target compounds are appropriately identified.
- d. All identified target compounds are within the range of the curve.
- e. All dilutions have been performed as per method/SOP requirements.
- f. All diluted results match undiluted results.
- g. All requested TICs are searched and identified.
- h. All appropriate instrument blanks were analyzed after high level samples (VOAs).
- i. All samples analyzed within the appropriate methods analytical clock.

☑ **7. MS/MSD were analyzed and reviewed.**
- a. Spiked compounds were within QC Limits.
- b. If any QC out, was it due to an obvious mis-spike or instrument issue.

☑ **8. Ending Calibration was performed and passed all acceptance criteria.**
- a. Calibration passed appropriate method limits.
- b. Calibration was analyzed within the appropriate methods analytical clock.

Comments: _____

Analyst Signature: [signature] Date: 3/8/19

5.6 GC/MS Technical Review

Note: It is the peer reviewer's responsibility to ensure that appropriate criteria are used as defined in the HORIZON PROFILE. The evaluation criteria are prioritized as per Section 2.2 of this SOP. These items must be checked for all projects. The following checklist will be completed by both the analyst and the peer reviewer and scanned into the HBN folder with the raw data.

GC/MS Technical Review Criteria Batch(es)/SDG: 233981 / TV219-5POINTS Sample Set IDs if Applicable: 1905930	Analyst Initials	Reviewer Initials
GC/MS Tuning passed criteria (BFB or DFTPP)	SS	CR
Calibration standards analyzed and meets criteria	SS	CR
Standards traceability checked and meets criteria	SS	CR
Standard curve coefficient evaluated and meets criteria	SS	CR
ICVs analyzed and meet acceptance criteria	SS	CR
CCVs analyzed and meet acceptance criteria	SS	CR
Review of spectral assignments	SS	CR
Relative Retention Time checked	SS	CR
Internal Standards checked	SS	CR
Surrogate recoveries checked and appropriately addressed	SS	CR
Sample Frequency – Analyzed within appropriate tune window	SS	CR
Method Preparation Blanks analyzed and meet acceptance criteria	SS	CR
MSs, MSDs, and/or MDs analyzed and calculations checked; applicable flags applied on QC reports; LCSs analyzed and meet acceptance criteria when performed	SS	CR
RLVS analyzed	SS	CR
Preparation and analysis hold times met	SS	CR
Preparation deviations and re-preparations noted when performed	SS	CR
Analysis deviations and re-analyses noted when performed	SS	CR
Sample dilution factors noted on reports	SS	CR
Electronic records in HBN transcription accuracy and completeness checked	SS	CR
Preparation and analysis calculations checked	SS	CR
NCRs are completed as necessary NC/CAR#	SS	CR
Report forms are complete and accurate	SS	CR
Manual integrations checked	SS	CR