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United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street Building 201
Richmond, CA 94804

Date: **10/17/2016**

Subject: **Analytical Testing Results - Project R17S02**
SDG: 16277B

From: **Peter Husby, Director**
EPA Region 9 Laboratory
EMD-3-1

To: **Alana Lee**
California Site Cleanup Section 3
SFD-7-3

Attached are the results from the analysis of samples from the **MEW 2016 Sewer Pathway Investigation** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

Volatile Organic Compounds by GC/MS

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager:	Alana Lee	**California Site Cleanup Section 3**		**SDG:**	16277B
Project Number:	R17S02	**75 Hawthorne Street**		**Reported:**	10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**			

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
870 Leong-K-BZ-4d	1610002-01	Radiello 130	10/03/16 12:52	10/03/16 16:06
870 Leong-MBath1-BZ-4d	1610002-02	Radiello 130	10/03/16 12:53	10/03/16 16:06
870 Leong-WBath2-BZ-4d	1610002-03	Radiello 130	10/03/16 12:53	10/03/16 16:06
870 Leong-OUT-4d	1610002-04	Radiello 130	10/03/16 12:26	10/03/16 16:06
F5-054-5ft-4d	1610002-05	Radiello 130	10/03/16 14:35	10/03/16 16:06
F5-054-10ft-4d	1610002-06	Radiello 130	10/03/16 14:36	10/03/16 16:06

Work Order 1610002

No sample collection temperature information was provided. Results were calculated using 25 degrees C as average temperature.

United States Environmental Protection Agency
Region 9 Laboratory
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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 16277B	
Project Number: R17S02	**75 Hawthorne Street**	**Reported:** 10/17/16 15:04	
Project: MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**		

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1610002-01									**Radiello 130 - Sampled: 10/03/16 12:52**
Sample ID: 870 Leong-K-BZ-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	U	0.25	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.25	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.25	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.25	"	"	"	"	Radiello D1
Chloroform		0.73		0.23	"	"	"	"	Radiello D1
Benzene		0.60	C1, J	0.66	"	"	"	"	Radiello D1
Trichloroethene		0.68		0.25	"	"	"	"	Radiello D1
Tetrachloroethene		ND	U	0.30	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			99 %	*70-130%*		"	"	"	
Lab ID: 1610002-02									**Radiello 130 - Sampled: 10/03/16 12:53**
Sample ID: 870 Leong-MBath1-BZ-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	U	0.25	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
trans-1,2-Dichloroethene		0.14	C1, J	0.25	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.25	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.25	"	"	"	"	Radiello D1
Chloroform		0.64		0.23	"	"	"	"	Radiello D1
Benzene		0.55	C1, J	0.66	"	"	"	"	Radiello D1
Trichloroethene		3.4		0.25	"	"	"	"	Radiello D1
Tetrachloroethene		ND	U	0.30	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			103 %	*70-130%*		"	"	"	
Lab ID: 1610002-03									**Radiello 130 - Sampled: 10/03/16 12:53**
Sample ID: 870 Leong-WBath2-BZ-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	U	0.25	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
trans-1,2-Dichloroethene		0.32		0.25	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.25	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		0.19	C1, J	0.25	"	"	"	"	Radiello D1
Chloroform		0.64		0.24	"	"	"	"	Radiello D1
Benzene		0.58	C1, J	0.66	"	"	"	"	Radiello D1
Trichloroethene		7.5		0.26	"	"	"	"	Radiello D1
Tetrachloroethene		ND	U	0.30	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			110 %	*70-130%*		"	"	"	
Lab ID: 1610002-04									**Radiello 130 - Sampled: 10/03/16 12:26**
Sample ID: 870 Leong-OUT-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	U	0.25	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.25	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.25	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.25	"	"	"	"	Radiello D1

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager:	Alana Lee	**California Site Cleanup Section 3**	**SDG:** 16277B
Project Number:	R17S02	**75 Hawthorne Street**	**Reported:** 10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1610002-04									**Radiello 130 - Sampled: 10/03/16 12:26**
Sample ID: 870 Leong-OUT-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
Chloroform		ND	U	0.23	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
Benzene		0.45	C1, J	0.66	"	"	"	"	Radiello D1
Trichloroethene		ND	U	0.26	"	"	"	"	Radiello D1
Tetrachloroethene		ND	U	0.30	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			99 %	*70-130%*		"	"	"	
Lab ID: 1610002-05									**Radiello 130 - Sampled: 10/03/16 14:35**
Sample ID: F5-054-5ft-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		1.2		0.26	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
trans-1,2-Dichloroethene		13		0.26	"	"	"	"	Radiello D1
1,1-Dichloroethane		0.14	C1, J	0.26	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene	RE1	240		2.6	"	"	"	10/10/16	Radiello D1
Chloroform	RE1	180		2.4	"	"	"	"	Radiello D1
Benzene		ND	U	0.67	"	"	"	10/06/16	Radiello D1
Trichloroethene	RE1	720		2.6	"	"	"	10/10/16	Radiello D1
Tetrachloroethene		71		0.30	"	"	"	10/06/16	Radiello D1
Surrogate: Toluene-d8			99 %	*70-130%*		"	"	"	
Lab ID: 1610002-06									**Radiello 130 - Sampled: 10/03/16 14:36**
Sample ID: F5-054-10ft-4d									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		1.1		0.26	ug/m³ Air	B16J024	10/06/16	10/06/16	Radiello D1
trans-1,2-Dichloroethene		12		0.26	"	"	"	"	Radiello D1
1,1-Dichloroethane		0.13	C1, J	0.26	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene	RE1	300		2.6	"	"	"	10/10/16	Radiello D1
Chloroform	RE1	200		2.4	"	"	"	"	Radiello D1
Benzene		ND	U	0.67	"	"	"	10/06/16	Radiello D1
Trichloroethene	RE1	760		2.6	"	"	"	10/10/16	Radiello D1
Tetrachloroethene		99		0.30	"	"	"	10/06/16	Radiello D1
Surrogate: Toluene-d8			117 %	*70-130%*		"	"	"	

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Project Manager:	Alana Lee	**California Site Cleanup Section 3**		**SDG:**	16277B
Project Number:	R17S02	**75 Hawthorne Street**		**Reported:**	10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**			

Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

EPA Region 9 Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B16J024 - Passive Air Sampler										
Blank (B16J024-BLK1)				Prepared & Analyzed: 10/06/16						
1,1-Dichloroethene	ND	0.14	ug/m³ Air							U
trans-1,2-Dichloroethene	ND	0.14	ug/m³ Air							U
1,1-Dichloroethane	ND	0.14	ug/m³ Air							U
cis-1,2-Dichloroethene	ND	0.14	ug/m³ Air							U
Chloroform	ND	0.13	ug/m³ Air							U
Benzene	ND	0.37	ug/m³ Air							U
Trichloroethene	ND	0.14	ug/m³ Air							U
Tetrachloroethene	ND	0.17	ug/m³ Air							U
Surrogate: Toluene-d8	*1020*		ug/m³ Air	*992*		*103*	*70-130*			
LCS (B16J024-BS1)				Prepared & Analyzed: 10/06/16						
1,1-Dichloroethene	12.5	0.14	ug/m³ Air	14.2		88	70-130		20	
trans-1,2-Dichloroethene	12.7	0.14	ug/m³ Air	14.2		90	70-130		20	
1,1-Dichloroethane	12.9	0.14	ug/m³ Air	14.2		91	70-130		20	
cis-1,2-Dichloroethene	12.8	0.14	ug/m³ Air	14.2		90	70-130		20	
Chloroform	11.9	0.13	ug/m³ Air	13.2		90	70-130		20	
Benzene	10.6	0.37	ug/m³ Air	12.4		85	70-130		20	
Trichloroethene	12.8	0.14	ug/m³ Air	14.4		89	70-130		20	
Tetrachloroethene	13.8	0.17	ug/m³ Air	16.8		82	70-130		20	
Surrogate: Toluene-d8	*990*		ug/m³ Air	*992*		*100*	*70-130*			
LCS Dup (B16J024-BSD1)				Prepared & Analyzed: 10/06/16						
1,1-Dichloroethene	12.0	0.14	ug/m³ Air	14.2		85	70-130	4	20	
trans-1,2-Dichloroethene	12.3	0.14	ug/m³ Air	14.2		87	70-130	4	20	
1,1-Dichloroethane	12.5	0.14	ug/m³ Air	14.2		88	70-130	3	20	
cis-1,2-Dichloroethene	12.4	0.14	ug/m³ Air	14.2		88	70-130	3	20	
Chloroform	11.6	0.13	ug/m³ Air	13.2		88	70-130	3	20	
Benzene	10.3	0.37	ug/m³ Air	12.4		83	70-130	2	20	
Trichloroethene	12.6	0.14	ug/m³ Air	14.4		88	70-130	2	20	
Tetrachloroethene	13.6	0.17	ug/m³ Air	16.8		81	70-130	1	20	
Surrogate: Toluene-d8	*995*		ug/m³ Air	*992*		*100*	*70-130*			

United States Environmental Protection Agency
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Project Manager:	Alana Lee	**California Site Cleanup Section 3**		**SDG:**	16277B
Project Number:	R17S02	**75 Hawthorne Street**		**Reported:**	10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**			

Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

EPA Region 9 Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S16J024 - B16J024										
Instrument Blank (S16J024-IBL1)				Prepared & Analyzed: 10/06/16						
1,1-Dichloroethene	ND	0.0	ug/L							U
trans-1,2-Dichloroethene	ND	0.0	ug/L							U
1,1-Dichloroethane	ND	0.0	ug/L							U
cis-1,2-Dichloroethene	ND	0.0	ug/L							U
Chloroform	ND	0.0	ug/L							U
Benzene	ND	0.0	ug/L							U
Trichloroethene	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*0.00*		ug/L				*70-130*			*U*
Instrument Blank (S16J024-IBL2)				Prepared & Analyzed: 10/06/16						
1,1-Dichloroethene	ND	0.0	ug/L							U
trans-1,2-Dichloroethene	ND	0.0	ug/L							U
1,1-Dichloroethane	ND	0.0	ug/L							U
cis-1,2-Dichloroethene	ND	0.0	ug/L							U
Chloroform	ND	0.0	ug/L							U
Benzene	ND	0.0	ug/L							U
Trichloroethene	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*0.00*		ug/L				*70-130*			*U*
Batch S16J050 - B16J024										
Instrument Blank (S16J050-IBL2)				Prepared & Analyzed: 10/10/16						
1,1-Dichloroethene	ND	0.0	ug/L							U
trans-1,2-Dichloroethene	ND	0.0	ug/L							U
1,1-Dichloroethane	ND	0.0	ug/L							U
cis-1,2-Dichloroethene	ND	0.0	ug/L							U
Chloroform	ND	0.0	ug/L							U
1,1,1-Trichloroethane	ND	0.0	ug/L							U
Carbon tetrachloride	ND	0.0	ug/L							U
Benzene	ND	0.0	ug/L							U
1,2-Dichloroethane	ND	0.0	ug/L							U
Trichloroethene	ND	0.0	ug/L							U
Toluene	ND	0.0	ug/L							U
1,1,2-Trichloroethane	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Chlorobenzene	ND	0.0	ug/L							U
1,1,1,2-Tetrachloroethane	ND	0.0	ug/L							U
Ethylbenzene	ND	0.0	ug/L							U
m&p-Xylene	ND	0.0	ug/L							U
o-Xylene	ND	0.0	ug/L							U
1,1,2,2-Tetrachloroethane	ND	0.0	ug/L							U

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Project Manager:	Alana Lee	**California Site Cleanup Section 3**		**SDG:**	16277B
Project Number:	R17S02	**75 Hawthorne Street**		**Reported:**	10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**			

Volatile Organic Compounds Collected on Passive Air Sampling Devices - Quality Control

EPA Region 9 Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S16J050 - B16J024										
Instrument Blank (S16J050-IBL2)				Prepared & Analyzed: 10/10/16						
1,3,5-Trimethylbenzene	ND	0.0	ug/L							U
1,2,4-Trimethylbenzene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*0.00*		ug/L				*70-130*			*U*

United States Environmental Protection Agency
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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager:	Alana Lee	**California Site Cleanup Section 3**		**SDG:**	16277B
Project Number:	R17S02	**75 Hawthorne Street**		**Reported:**	10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**			

Qualifiers and Comments

J	The reported result for this analyte should be considered an estimated value.
C1	The reported concentration for this analyte is below the quantitation limit.
U	Not Detected
NR	Not Reported
RE1, RE2, etc:	Result is from a sample re-analysis.

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Project Manager:	Alana Lee	**California Site Cleanup Section 3**		**SDG:**	16277B
Project Number:	R17S02	**75 Hawthorne Street**		**Reported:**	10/17/16 15:04
Project:	MEW 2016 Sewer Pathway Investigation	**San Francisco CA, 94105**			

Sample Receiving:
No beginning and ending temperatures noted on COC. Calculations performed using 25C as beginning and ending temperatures for all samples. 10/03/2016 JDM

WORK ORDER

Printed: 10/10/2016 11:32:38A

1610002

EPA Region 9 Laboratory

Client: **California Site Cleanup Section 3**
Project: **MEW 2016 Sewer Pathway Investigation**
Project Number: **R17S02**

Report To:
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3141
Fax: (415) 947-3526

Project Contact
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone :(415) 972-3141
Fax: (415) 947-3526

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
Cooler 1	Cooler	26	Yes	Yes	Yes	No	No	

Date Due:	10/18/16 17:00 (14 day TAT)	SDG:	16277B
Received By:	Jack Berges	Date Received:	10/03/16 16:06
Logged In By:	Junn Masongsong	Date Logged In:	10/03/16 16:46

Analysis	Hold Time Expires	Comments
1610002-01 870 Leong-K-BZ-4d [Radiello 130] Sampled 10/03/16 12:52 (GMT-08:00) Pacific Time (US &		**XA897**
VOCs, Passive Samplers	04/01/17	8 analytes
1610002-02 870 Leong-MBath1-BZ-4d [Radiello 130] Sampled 10/03/16 12:53 (GMT-08:00) Pacific Time (US &		**XA898**
VOCs, Passive Samplers	04/01/17	8 analytes
1610002-03 870 Leong-WBath2-BZ-4d [Radiello 130] Sampled 10/03/16 12:53 (GMT-08:00) Pacific Time (US &		**XA893**
VOCs, Passive Samplers	04/01/17	8 analytes
1610002-04 870 Leong-OUT-4d [Radiello 130] Sampled 10/03/16 12:26 (GMT-08:00) Pacific Time (US &		**823MW**
VOCs, Passive Samplers	04/01/17	8 analytes
1610002-05 F5-054-5ft-4d [Radiello 130] Sampled 10/03/16 14:35 (GMT-08:00) Pacific Time (US &		**824MW**
VOCs, Passive Samplers	04/01/17	8 analytes
1610002-06 F5-054-10ft-4d [Radiello 130] Sampled 10/03/16 14:36 (GMT-08:00) Pacific Time (US &		**825MW**
VOCs, Passive Samplers	04/01/17	8 analytes

Reviewed By

Date

U.S. Environmental Protection Agency

CHAIN OF CUSTODY RECORD

EPA REGION 9
75 Hawthorne Street
San Francisco, California 94105

Project / Case Number: EPA /R17S02 MEW - M6

Project Name: **MEW OU3 Pathway Investigation**

EPA Project Manager contact: Alana Lee, 415-972-3141 Lee.Alana@epa.gov

Laboratory: **EPA R9 Laboratory**

Samplers: *(Signature)* Alana Lee

COMMENTS: 14 day-TAT TCE, PCE,cis- & trans-1,2-DCE, 1,1-DCA, 1,1-DCE, chloroform, benzene

Start Date / End Date	Start Time / End Time	Matrix	Comp	Grab	EPA ID Number	Unique ID	Number of Containers	RAD130 - Solvent Extraction	TCE Screen ug/kg	
09/29/16 10/03/16	14:02 12:52	AIR	X		870 Leong-K-BZ-4d	XA897	1	1	5 210	1252
09/29/16 10/03/16	14:05 12:53	AIR	X		870 Leong-MBath1-BZ-4d	XA898	1	1	~10	870Leong-MBath1-BZ-4d
09/29/16 10/03/16	14:25 12:53	AIR	X		870 Leong-WBath2-BZ-4d	XA893	1	1	~5	870Leong-WBath2-BZ-4d
09/29/16 10/03/16	13:45 12:26	AIR	X		870 Leong-OUT-4d	823MW	1	1	<1	
09/29/16 10/03/16	17:18 14:35	AIR	X		F5-054-5ft-4d	824MW	1	1	7000	sample-wet-MH-4d (different)
09/29/16 10/03/16	17:23 14:36	AIR	X		F5-054-10ft-4d	825MW	1	1	72000	sample-wet-MH-4d

Alana Lee 10/3/16

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)* Date/Time	Relinquished by: *(Signature)* Date/Time
Alana Lee	10/3/16 1606		

Received for Laboratory by: *(Signature)*	Date/Time	Temp	Seals Intact? (Y/N)	Conditions / Remarks
[illegible]	10/3/16 1606	26°C		HOLD DEL

Table of Contents

Cooler/Box/Env 1 of 1

U.S. Environmental Protection Agency
Region 9 Richmond Laboratory

1337 South 46th Street
Richmond, CA 94804

Sample Receipt Checklist

Project No: R17502 **Work Order No(s):** 1610002 **Date:** 10/3/16 **by** JDM

CUSTODY SEALS Intact

☑ Yes ☐ No ☐ N/A- None

Check if applies: ☑ External Seals ☐ Internal Seals ☐ Hand Delivered

TEMPERATURE 26 °C Within Acceptable Range

☐ Yes ☐ No ☑ Ambient OK

Check if applies:
☐ Provided Temp Blank ☐ Between 6°C to 10°C ☐ Still cooling (sampled today & iced)
☐ Previously Frozen ☐ Insufficient/Melted Ice ☐ Delivery Delay

SAMPLE CONTAINERS Intact

☑ Yes ☐ No

If not intact, was volume recoverable for analysis? ☐ Yes ☐ No ☑ N/A

Check if applies: ☐ Bottle/Jar/Vial broken ☐ Cap broken or loose ☐ Other _____

CHAIN OF CUSTODY Received

☑ Yes ☐ No

COC complete and consistent with labels ☑ Yes ☐ No ☐ N/A

Check if applies: ☐ Not relinquished ☐ Inconsistency resolved ☐ Follow-up needed (see comments)

TAT and analyses match scheduling ☑ Yes ☐ No ☐ N/A

Check if applies: ☐ Preliminary Results ☐ Rush Request ☐ 7-day TAT

Within hold times ☐ Expires today ☑ Yes ☐ No ☐ N/A

All shipping and sample containers accounted for ☑ Yes ☐ No ☐ N/A

PRESERVATION / FILTRATION

☑ N/A No chem. pres./filtra.

Check if applies: ☐ Sample Receiving to preserve
☐ Analyst to filter and/or preserve

Preserved and/or filtered samples correctly identified ☐ Yes ☐ No ☑ N/A

Preserved samples (non-VOA vials) measured at correct pH ☐ Yes ☐ No ☑ N/A

Preservation/measured pH_____

Sample Receiving Preservation and/or pH Adjustments*

Sample ID	Initial pH	Pres.	Date/time Pres. added	Adjusted pH	pH after 16-hrs (metals)	Date/time of pH recheck	Rechecked by

*(continue on back, if needed)

FOLLOW-UP / COMMENTS * NO BEGINNING & ENDING TEMPS ON COC. LOGGED IN WITH TEMP OF 25C FOR BEGINNING & ENDING TEMPS

Exposure Time in Minutes

	Sample number	Retrieved Date (XX/XX/XXXX)	Time	Deployed Date	Time	Minutes	Start temp C	end temp C	Avg temp K
1	870 Leong-K-BZ-4d	10/3/2016	12:52	9/29/2016	14:02	5690	25	25	298
2	870 Leong-MBath1-BZ-4d	10/3/2016	12:53	9/29/2016	14:05	5688	25	25	298
3	870 Leong-WBath2-BZ-4d	10/3/2016	12:53	9/29/2016	14:25	5668	25	25	298
4	870 Leong-OUT-4d	10/3/2016	12:26	9/29/2016	13:45	5681	25	25	298
5	F5-054-5ft-4d	10/3/2016	14:35	9/29/2016	17:18	5597	25	25	298
6	F5-054-10ft-4d	10/3/2016	14:36	9/29/2016	17:23	5593	25	25	298

BATCH

B16J024

PREPARATION BENCH SHEET

B16J024

EPA Region 9 Laboratory

Project: R17S02

Printed: 10/10/2016 1:48:50PM

Matrix: Radiello 13 **Analysis: VOCs, Passive Sampler** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 1620057**

Lab Number	SampleName	Prepared	Initial (Tube)	Final (mL)	Source ID	Spike ID 1	ul Spike 1	ul Surrogate	Prepared by	Extraction Comments
1610002-01 A	870 Leong-K-BZ-4d	10/06/16 10:27	1	2				10	RH	8 analytes
1610002-02 A	870 Leong-MBath1-BZ -4d	10/06/16 10:27	1	2				10	RH	8 analytes
1610002-03 A	870 Leong-WBath2-BZ -4d	10/06/16 10:27	1	2				10	RH	8 analytes
1610002-04 A	870 Leong-OUT-4d	10/06/16 10:27	1	2				10	RH	8 analytes
1610002-05 A	F5-054-5ft-4d	10/06/16 10:27	1	2				10	RH	8 analytes
1610002-06 A	F5-054-10ft-4d	10/06/16 10:27	1	2				10	RH	8 analytes
B16J024-BLK1	Blank	10/06/16 10:27	1	2				10	RH	
B16J024-BS1	LCS	10/06/16 10:27	1	2		1618014	5	10	RH	
B16J024-BSD1	LCS Dup	10/06/16 10:27	1	2		1618014	5	10	RH	

Batch Comments

Reagents

Reagent #	Description
1610072	Carbon disulfide
1629137	passive air Radiello tubes

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PREPARATION BENCH SHEET

B16J024

EPA Region 9 Laboratory

Project: R17S02

Printed: 10/10/2016 1:48:50PM

Matrix: Radiello 13 **Analysis: QC** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 1620057**

Lab Number	SampleName	Prepared	Initial (Tube)	Final (mL)	Source ID	Spike ID 1	ul Spike 1	ul Surrogate	Prepared by	Extraction Comments

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Calibration

1609022

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2016\
Method File : 092916_PASSIVE_SIM_SCAN.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Sep 30 09:11:34 2016
Response Via : Initial Calibration

Calibration Files
25 =09291603.D 10 =09291604.D 5 =09291605.D 1 =09291606.D .15 =09291607.D .05 =09291608.D

		Compound	25	10	5	1	.15	.05	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------							
2)		Fluorobenzene ...			0.888				0.888	0.00
3)	T	1,1-Dichloroet...	0.493	0.594	0.534	0.493	0.606	0.515	0.539	9.21
4)		1,1-Dichloroet...			0.474				0.474	0.00
5)	T	trans-1,2-Dich...	0.433	0.515	0.473	0.442	0.561	0.538	0.494	10.61
6)		trans-1,2-Dich...			0.421				0.421	0.00
7)	T	1,1-Dichloroet...	0.531	0.628	0.577	0.537	0.647	0.576	0.583	8.08
8)		1,1-Dichloroet...			0.512				0.512	0.00
9)	T	cis-1,2-Dichlo...	0.474	0.559	0.513	0.483	0.569	0.517	0.519	7.39
10)		cis-1,2-Dichlo...			0.463				0.463	0.00
11)	T	Chloroform	0.528	0.618	0.571	0.545	0.644	0.655	0.593	8.92
12)		Chloroform SCAN			0.510				0.510	0.00
13)	T	1,1,1-Trichlor...	0.476	0.545	0.505	0.487	0.553	0.532	0.516	6.18
14)		1,1,1-Trichlor...			0.450				0.450	0.00
15)	T	Carbon tetrach...	0.417	0.472	0.436	0.423	0.469	0.465	0.447	5.49
16)		Carbon tetrach...			0.394				0.394	0.00
17)	T	Benzene	1.044	1.185	1.102	1.089	1.344		1.153	10.25
18)		Benzene SCAN			1.036				1.036	0.00
19)	T	1,2-Dichloroet...	0.388	0.450	0.416	0.399	0.449	0.424	0.421	6.03
)		1,2-Dichloroet...			0.395				0.395	0.00
)	T	Trichloroethene	0.305	0.342	0.316	0.312	0.343	0.340	0.327	5.32
)		Trichloroethen...			0.261				0.261	0.00
)	S	Toluene-d8	0.859	0.943	0.846	0.866	0.893	0.922	0.888	4.30
)		Toluene-d8 SCAN			0.781				0.781	0.00
)	T	Toluene	1.044	1.149	1.024	1.055	1.110	1.172	1.092	5.56
)		Toluene SCAN			0.893				0.893	0.00
)	T	1,1,2-Trichlor...	0.244	0.272	0.245	0.247	0.264	0.277	0.258	5.68
)		1,1,2-Trichlor...			0.211				0.211	0.00
)	T	Tetrachloroethene	0.299	0.327	0.291	0.302	0.321	0.349	0.315	6.92
)		Tetrachloroeth...			0.253				0.253	0.00
)	T	Chlorobenzene	0.698	0.765	0.670	0.694	0.730	0.763	0.720	5.42
)		Chlorobenzene ...			0.599				0.599	0.00
)	T	1,1,1,2-Tetrac...	0.251	0.274	0.241	0.249	0.264	0.270	0.258	5.08
)		1,1,1,2-Tetrac...			0.212				0.212	0.00
)	T	Ethylbenzene	1.147	1.249	1.083	1.130	1.178	1.188	1.162	4.86
)		Ethylbenzene SCAN			0.947				0.947	0.00
)	T	m&p-Xylene	0.898	0.980	0.851	0.881	0.920	0.935	0.911	4.95
)		m&p-Xylene SCAN			0.748				0.748	0.00
)	T	o-Xylene	0.928	1.012	0.873	0.907	0.951	0.964	0.939	5.13
)		o-Xylene SCAN			0.783				0.783	0.00
)	T	1,1,2,2-Tetrac...	0.396	0.439	0.380	0.392	0.408	0.419	0.406	5.22
)		1,1,2,2-Tetrac...			0.351				0.351	0.00

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2016\
Method File : 092916_PASSIVE_SIM_SCAN.M

43)	T	1,3,5-Trimethy...	0.980	1.051	0.898	0.913	0.976	0.982	0.967	5.72
44)		1,3,5-Trimethy...			0.765				0.765	0.00
45)	T	1,2,4-Trimethy...	1.014	1.084	0.920	0.935	0.986	1.021	0.993	6.10
46)		1,2,4-Trimethy...			0.803				0.803	0.00
47)	T	Naphthalene	1.614	1.716	1.454	1.417	1.577	1.552	1.555	7.00
48)		Naphthalene SCAN			1.211				1.211	0.00

(#) = Out of Range

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Table of Contents

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2016\
Method File : 092916_PASSIVE_SIM_SCAN.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Fri Sep 30 09:11:34 2016
Response Via : Initial Calibration

Total Cpnds : 48

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Fluorobenzene	-96	7.476	1.000	A	1	A	B
2		Fluorobenzene SCAN	96	7.480	1.001	A	2	A	B
3	T	1,1-Dichloroethene	-61	2.728	0.365	A	1	A	B
4		1,1-Dichloroethene SCAN	61	2.726	0.365	A	3	A	B
5	T	trans-1,2-Dichloroethene	-61	3.841	0.514	A	1	A	B
6		trans-1,2-Dichloroethene SCAN	61	3.847	0.515	A	2	A	B
7	T	1,1-Dichloroethane	-63	4.528	0.606	A	1	A	B
8		1,1-Dichloroethane SCAN	63	4.533	0.606	A	2	A	B
9	T	cis-1,2-Dichloroethene	-61	5.553	0.743	A	1	A	B
10		cis-1,2-Dichloroethene SCAN	61	5.558	0.744	A	3	A	B
11	T	Chloroform	-83	6.142	0.822	A	1	A	B
12		Chloroform SCAN	83	6.140	0.821	A	2	A	B
13	T	1,1,1-Trichloroethane	-97	6.371	0.852	A	2	A	B
14		1,1,1-Trichloroethane SCAN	97	6.368	0.852	A	2	A	B
15	T	Carbon tetrachloride	-117	6.639	0.888	A	1	A	B
16		Carbon tetrachloride SCAN	117	6.623	0.886	A	3	A	B
17	T	Benzene	-78	6.988	0.935	A	1	A	B
18		Benzene SCAN	78	6.985	0.934	A	3	A	B
19	T	1,2-Dichloroethane	-62	7.055	0.944	A	1	A	B
20		1,2-Dichloroethane SCAN	62	7.066	0.945	A	2	A	B
21	T	Trichloroethene	-130	8.062	1.078	A	1	A	B
22		Trichloroethene SCAN	95	8.066	1.079	A	3	A	B
23	S	Toluene-d8	-98	9.998	1.337	A	1	A	B
24		Toluene-d8 SCAN	98	9.995	1.337	A	2	A	B
25	T	Toluene	-91	10.099	1.351	A	1	A	B
26		Toluene SCAN	91	10.097	1.351	A	2	A	B
27	T	1,1,2-Trichloroethane	-97	10.778	1.442	A	1	A	B
28		1,1,2-Trichloroethane SCAN	97	10.787	1.443	A	3	A	B
29	T	Tetrachloroethene	-166	10.926	1.461	A	1	A	B
30		Tetrachloroethene SCAN	166	10.923	1.461	A	3	A	B
31	T	Chlorobenzene	-112	12.287	1.643	A	1	A	B
32		Chlorobenzene SCAN	112	12.284	1.643	A	3	A	B
33	T	1,1,1,2-Tetrachloroethane	-131	12.443	1.664	A	1	A	B
34		1,1,1,2-Tetrachloroethane SCAN	131	12.450	1.665	A	3	A	B
35	T	Ethylbenzene	-91	12.489	1.671	A	2	A	B
36		Ethylbenzene SCAN	91	12.496	1.671	A	2	A	B
37	T	m&p-Xylene	-91	12.682	1.696	A	2	A	B
38		m&p-Xylene SCAN	91	12.689	1.697	A	3	A	B
39	T	o-Xylene	-91	13.298	1.779	A	1	A	B
40		o-Xylene SCAN	91	13.305	1.780	A	2	A	B
41	T	1,1,2,2-Tetrachloroethane	-83	14.437	1.931	A	1	A	B
42		1,1,2,2-Tetrachloroethane SCAN	83	14.440	1.931	A	2	A	B
43	T	1,3,5-Trimethylbenzene	-105	14.866	1.988	A	1	A	B
44		1,3,5-Trimethylbenzene SCAN	105	14.863	1.988	A	2	A	B
45	T	1,2,4-Trimethylbenzene	-105	15.450	2.067	A	1	A	B
46		1,2,4-Trimethylbenzene SCAN	105	15.448	2.066	A	3	A	B
47	T	Naphthalene	-128	17.666	2.363	A	1	A	B
48		Naphthalene SCAN	128	17.664	2.363	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

CHEMSTATION CONCENTRATION REPORT

AG5975C
S16I099-SCV1
1635078 5 mg/L
9/30/2016
Fri Sep 30 09:11:34 2016
RH

#	Name	L1	L2	L3	L4	L5	L6
1)	Fluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00
2)	Fluorobenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
3)	1,1-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
4)	1,1-Dichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
5)	trans-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
6)	trans-1,2-Dichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
7)	1,1-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
8)	1,1-Dichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
9)	cis-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
10)	cis-1,2-Dichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
11)	Chloroform	25000.00	10000.00	5000.00	1000.00	150.00	50.00
12)	Chloroform SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
13)	1,1,1-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
14)	1,1,1-Trichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
15)	Carbon tetrachloride	25000.00	10000.00	5000.00	1000.00	150.00	50.00
16)	Carbon tetrachloride SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
17)	Benzene	25000.00	10000.00	5000.00	1000.00	150.00	1.00
18)	Benzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
19)	1,2-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
20)	1,2-Dichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
21)	Trichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
22)	Trichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
23)	Toluene-d8	25000.00	10000.00	5000.00	1000.00	150.00	50.00
24)	Toluene-d8 SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
25)	Toluene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
26)	Toluene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
27)	1,1,2-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00

28)	1,1,2-Trichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
29)	Tetrachloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
30)	Tetrachloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
31)	Chlorobenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
32)	Chlorobenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
33)	1,1,1,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
34)	1,1,1,2-Tetrachloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
35)	Ethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
36)	Ethylbenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
37)	m&p-Xylene	50000.00	20000.00	10000.00	2000.00	300.00	100.00
38)	m&p-Xylene SCAN	1.00	1.00	10000.00	1.00	1.00	1.00
39)	o-Xylene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
40)	o-Xylene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
41)	1,1,2,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
42)	1,1,2,2-Tetrachloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
43)	1,3,5-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
44)	1,3,5-Trimethylbenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
45)	1,2,4-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
46)	1,2,4-Trimethylbenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
47)	Naphthalene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
48)	Naphthalene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00

CHEMSTATION AREA COUNT REPORT

AG5975C
S16I099-SCV1
1635078 5 mg/L
9/30/2016
Fri Sep 30 09:11:34 2016
RH

#	Name	L1	L2	L3	L4	L5	L6
1)	Fluorobenzene	507951	423131	427522	506752	441215	555393
2)	Fluorobenzene SCAN	439940	374026	379678	447663	391173	481957
3)	1,1-Dichloroethene	1253313	502344	228442	49949	8025	2859
4)	1,1-Dichloroethene SCAN	1123519	446724	202483	43644	1596	810
5)	trans-1,2-Dichloroethene	1099848	435466	202206	44813	7427	2988
6)	trans-1,2-Dichloroethene SCAN	970410	388217	179850	40911	7688	1381
7)	1,1-Dichloroethane	1348032	531751	246612	54391	8559	3198
8)	1,1-Dichloroethane SCAN	1185011	470102	218859	51264	9549	2787
9)	cis-1,2-Dichloroethene	1204950	472732	219490	48979	7531	2871
10)	cis-1,2-Dichloroethene SCAN	1067331	412947	197886	45404	1265	3662
11)	Chloroform	1341247	522636	244220	55236	8518	3639
12)	Chloroform SCAN	1173902	476220	218243	51283	9342	6230
13)	1,1,1-Trichloroethane	1207773	461340	215789	49311	7319	2952
14)	1,1,1-Trichloroethane SCAN	1049012	402181	192592	42842	11110	5196
15)	Carbon tetrachloride	1059578	399096	186533	42851	6211	2583
16)	Carbon tetrachloride SCAN	905074	359408	168305	45283	7375	2841
17)	Benzene	2652520	1002538	470954	110411	17784	8682
18)	Benzene SCAN	2376536	906192	442871	93827	23252	13704
19)	1,2-Dichloroethane	986459	380791	177989	40406	5946	2355
20)	1,2-Dichloroethane SCAN	920568	360024	168824	36717	6675	3578
21)	Trichloroethene	773645	289546	135284	31642	4546	1890
22)	Trichloroethene SCAN	630883	238062	111797	25154	4642	3014
23)	Toluene-d8	2181295	797856	361510	87760	11818	5118
24)	Toluene-d8 SCAN	1960808	718678	333684	80632	14580	5029
25)	Toluene	2650919	972527	437658	106878	14694	6511
26)	Toluene SCAN	2354593	880797	381651	98628	15927	7734
27)	1,1,2-Trichloroethane	618523	230001	104907	25019	3490	1538
28)	1,1,2-Trichloroethane SCAN	538880	198210	90007	24105	3710	2166
29)	Tetrachloroethene	759997	276957	124256	30581	4252	1939
30)	Tetrachloroethene SCAN	664993	242561	108073	27788	3995	2237
31)	Chlorobenzene	1771573	647311	286569	70376	9667	4238
32)	Chlorobenzene SCAN	1498233	560726	256277	61284	9035	5113
33)	1,1,1,2-Tetrachloroethane	638253	232101	102914	25256	3497	1498
34)	1,1,1,2-Tetrachloroethane SCAN	538370	200656	90780	24205	2963	2284
35)	Ethylbenzene	2912746	1056696	462897	114500	15590	6597
36)	Ethylbenzene SCAN	2563650	928176	404755	98494	16725	10055
37)	m&p-Xylene	4559996	1658843	727565	178482	24362	10388
38)	m&p-Xylene SCAN	4067255	1461611	639954	155976	25091	9788
39)	o-Xylene	2357218	856148	373055	91915	12589	5353
40)	o-Xylene SCAN	2087270	761834	334762	82671	15978	6116
41)	1,1,2,2-Tetrachloroethane	1005603	371447	162435	39683	5401	2327
42)	1,1,2,2-Tetrachloroethane SCAN	888810	327185	150000	35320	6355	411

43)	1,3,5-Trimethylbenzene	2490055	889842	384016	92512	12917	5455
44)	1,3,5-Trimethylbenzene SCAN	2183180	777297	326969	82266	13588	5276
45)	1,2,4-Trimethylbenzene	2574984	917669	393205	94749	13055	5669
46)	1,2,4-Trimethylbenzene SCAN	2265128	793564	343131	82838	13456	5339
47)	Naphthalene	4099905	1451822	621419	143593	20871	8622
48)	Naphthalene SCAN	3562099	1233157	517800	119547	18693	8575

SEQUENCE

S16I099

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B16I172	SEQUENCE #:	S16I099
BATCH #:		ANALYSIS:	VOA Passive indoor air

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
DOCUMENTATION	ANALYST: Bench sheet(s) attached? REVIEWER: Bench sheet(s) reviewed?	☐	Y	Y	
	ANALYST: Sequence log(s) attached? REVIEWER: Sequence log(s) reviewed?	☐	Y	Y	
	ANALYST: Every run has a PDF in LIMS? REVIEWER: Every PDF reviewed?	☐	Y	Y	
INITIAL CALIBRATION	Date of Initial Calibration used: If applicable, note date of "Last Update" in Comments.	Fri Sep 30 09:11:34 2016			
	Initial Calibration ID (LIMS number):	1609022			
	ICAL within QC criteria?	✔			
	SCV within QC criteria?	✔			
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?	☐	Y	Y	
	CCV(s) within QC criteria?	☐	Y	Y	
	QLS(s) within QC criteria?	☐	Y	Y	
	CB(s) or storage blank(s) within QC criteria?	✔			
	Other instrument checks within QC criteria? Specify if applicable.	✔			
BATCH QCs	Method blanks < 1/2 QL?	☐	Y	Y	
	LCS(s) or SRM(s) within QC criteria?	☐	Y	Y	
	MSs/MSDs and/or DUPs within QC criteria?	✔			
	Other method-specific QCs within QC criteria? Specify if applicable.	✔			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B16I172	SEQUENCE #:	S16I099
BATCH #:		ANALYSIS:	VOA Passive indoor air

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	Y	Y	
	Surrogates within QC criteria?	☐	Y	Y	
SAMPLE DATA	Were samples prepared & analyzed within holding time?	☐	Y	Y	
	If samples need to be re-run, were RE(s) made in LIMS?	☑			
	Do any samples need to be re-digested or re-extracted?	☐	N	N	
	Were all data qualifiers appropriately applied?	☐	Y	Y	
	Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable.	☑			
MANUAL INT	Were manual integrations performed and documented? Specify if applicable.	☐	Y	Y	

APPROVALS	ANALYST INITIALS & DATE:	RH 10/03/16
	REVIEWED BY:	Ziyad Rajabi (affiliate) Digitally signed by Ziyad Rajabi (affiliate) Date: 2016.10.05 14:46:41 -07'00' SIGN HERE

COMMENTS

Injection Log

Operator: RH
Directory: C:\msdchem\1\Ravioli Data\2016\092916\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	09291601.D	1	S16I099-IBL1		30 Sep 2016 3:16
2	09291602.D	1	S16I099-TUN1	BFB 1626027	30 Sep 2016 3:41
3	09291603.D	1	S16I099-CAL1	1635072 25 mg/L	30 Sep 2016 4:05
4	09291604.D	1	S16I099-CAL2	1635073 10 mg/L	30 Sep 2016 4:30
5	09291605.D	1	S16I099-CAL3	1635074 5 mg/L	30 Sep 2016 4:54
6	09291606.D	1	S16I099-CAL4	1635075 1 mg/L	30 Sep 2016 5:19
7	09291607.D	1	S16I099-CAL5	1635076 .15 mg/L	30 Sep 2016 5:43
8	09291608.D	1	S16I099-CAL6	1635077 .05 mg/L	30 Sep 2016 6:07
9	09291609.D	1	S16I099-SCV1	1635078 5 mg/L	30 Sep 2016 6:31
1	09291610.D	1	S16I099-IBL2		30 Sep 2016 6:56
1	09291611.D	1	S16I099-IBL3		30 Sep 2016 7:22
10	09291612.D	1	B16I172-BLK1		30 Sep 2016 9:04
11	09291613.D	1	B16I172-BS1		30 Sep 2016 9:28
12	09291614.D	1	B16I172-BSD1		30 Sep 2016 9:51
13	09291615.D	1	1609095-20		30 Sep 2016 10:15
14	09291616.D	1	1609095-21		30 Sep 2016 10:39
15	09291617.D	1	1609095-22		30 Sep 2016 11:02
16	09291618.D	1	1609095-23		30 Sep 2016 11:26
17	09291619.D	1	1609095-24		30 Sep 2016 11:50
18	09291620.D	1	1609095-13		30 Sep 2016 12:13
19	09291621.D	1	1609095-14		30 Sep 2016 12:37
20	09291622.D	1	1609095-15		30 Sep 2016 13:01
21	09291623.D	1	1609095-16		30 Sep 2016 13:25
22	09291624.D	1	1609095-17		30 Sep 2016 13:48
23	09291625.D	1	1609095-18		30 Sep 2016 14:12
24	09291626.D	1	1609095-19		30 Sep 2016 14:36

GC/MS QA-QC Check Report

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Tune File : C:\msdchem\1\Ravioli Data\2016\092916\09291602.D
Tune Time : 30 Sep 2016 3:41

Daily Calibration File : C:\msdchem\1\Ravioli Data\2016\092916\09291605.D

427522

File	Sample	Surrogate Recovery %	Internal Standard Responses
09291603.D	S16I099-CA	484*	507951
09291604.D	S16I099-CA	212*	423131
09291605.D	S16I099-CA	95	427522
09291606.D	S16I099-CA	20*	506752
09291607.D	S16I099-CA	3*	441215
09291608.D	S16I099-CA	1*	555393
09291609.D	S16I099-SC	95	407676
09291610.D	S16I099-IB	102	568768
09291611.D	S16I099-IB	99	578030
09291612.D	B16I172-BL	95	813066
09291613.D	B16I172-BS	103	738026
09291614.D	B16I172-BS	101	684601
09291615.D	1609095-20	101	525324
09291616.D	1609095-21	98	554629
09291617.D	1609095-22	102	672561
09291618.D	1609095-23	94	703227
09291619.D	1609095-24	103	583933
09291620.D	1609095-13	100	570453
09291621.D	1609095-14	102	523152
09291622.D	1609095-15	99	537795
09291623.D	1609095-16	104	580846

```
09291624.D
         1609095-17  105                     564066
---------------------------------------------------------------------------
09291625.D
         1609095-18  108                     592752
---------------------------------------------------------------------------
09291626.D
         1609095-19   92                     453500
---------------------------------------------------------------------------
(fails) - fails 12hr time check   * - fails criteria

    Created: Mon Oct 03 12:01:18 2016  AG5975C
```

Analysis Sequence

S16I099

Project: R16S12
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1609022 Printed: 10/03/2016 3:02 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S16I099-IBL1	Instrument Blank	1	9/30/16 3:16			RH	09291601.D	
S16I099-TUN1	BFB	2	9/30/16 3:41	1626027		RH	09291602.D	
S16I099-CAL1	1610052	3	9/30/16 4:05	1635072		RH	09291603.D	
S16I099-CAL2	1610053	4	9/30/16 4:30	1635073		RH	09291604.D	
S16I099-CAL3	1610054	5	9/30/16 4:54	1635074		RH	09291605.D	
S16I099-CAL4	1610055	6	9/30/16 5:19	1635075		RH	09291606.D	
S16I099-CAL5	1610056	7	9/30/16 5:43	1635076		RH	09291607.D	
S16I099-CAL6	1610057	8	9/30/16 6:07	1635077		RH	09291608.D	
S16I099-SCV1	1610066	9	9/30/16 6:31	1635078		RH	09291609.D	
S16I099-IBL2	Instrument Blank	10	9/30/16 6:56			RH	09291610.D	
S16I099-IBL3	Instrument Blank	11	9/30/16 7:22			RH	09291611.D	
B16I172-BLK1	Blank	12	9/30/16 9:04			RH	09291612.D	
B16I172-BS1	LCS	13	9/30/16 9:28			RH	09291613.D	
B16I172-BSD1	LCS Dup	14	9/30/16 9:51			RH	09291614.D	
1609095-20 A	RES105-AMB-1_092816	15	9/30/16 10:15			RH	09291615.D	
1609095-21 A	RES105-AMB-2_092816	16	9/30/16 10:39			RH	09291616.D	
1609095-22 A	RES105-PATH-1_092816	17	9/30/16 11:02			RH	09291617.D	
1609095-23 A	RES105-PATH-2_092816	18	9/30/16 11:26			RH	09291618.D	
1609095-24 A	RES105-OUT-1_092816	19	9/30/16 11:50			RH	09291619.D	
1609095-13 A	RES093-OUT-1_092816	20	9/30/16 12:13			RH	09291620.D	
1609095-14 A	RES134-AMB-1_092816	21	9/30/16 12:37			RH	09291621.D	
1609095-15 A	RES134-AMB-2_092816	22	9/30/16 13:01			RH	09291622.D	

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Analysis Sequence

S16I099

(Continued)

Project: R16S12
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1609022 Printed: 10/03/2016 3:02 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
1609095-16 A	RES137-AMB-1_092816	23	9/30/16 13:25			RH	09291623.D	
1609095-17 A	RES137-AMB-2_092816	24	9/30/16 13:48			RH	09291624.D	
1609095-18 A	RES137-AMB-2D_092816	25	9/30/16 14:12			RH	09291625.D	
1609095-19 A	RES137-PATH-1_092816	26	9/30/16 14:36			RH	09291626.D	

Sequence Comments

Reagents

Reagent #	Description

SEQUENCE DATA

S16I099

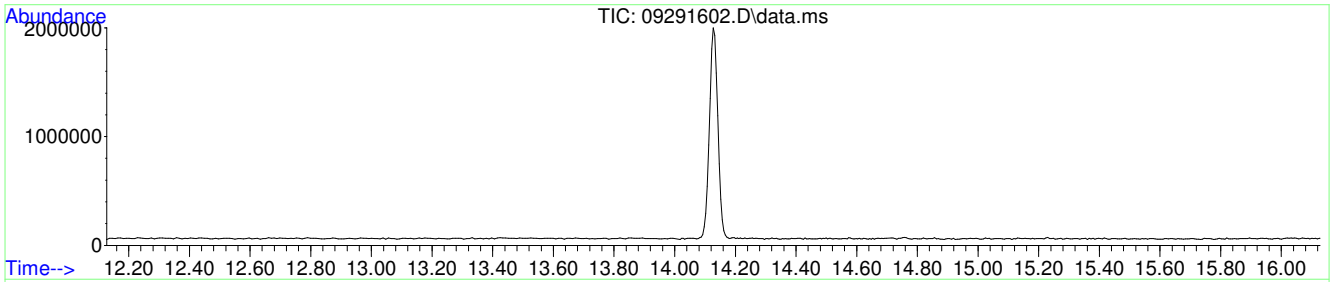
S16I099-TUN1

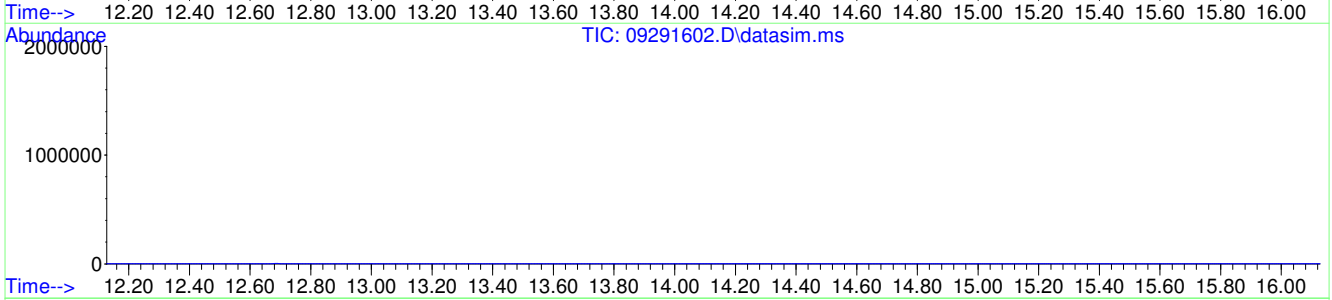
Table of Contents

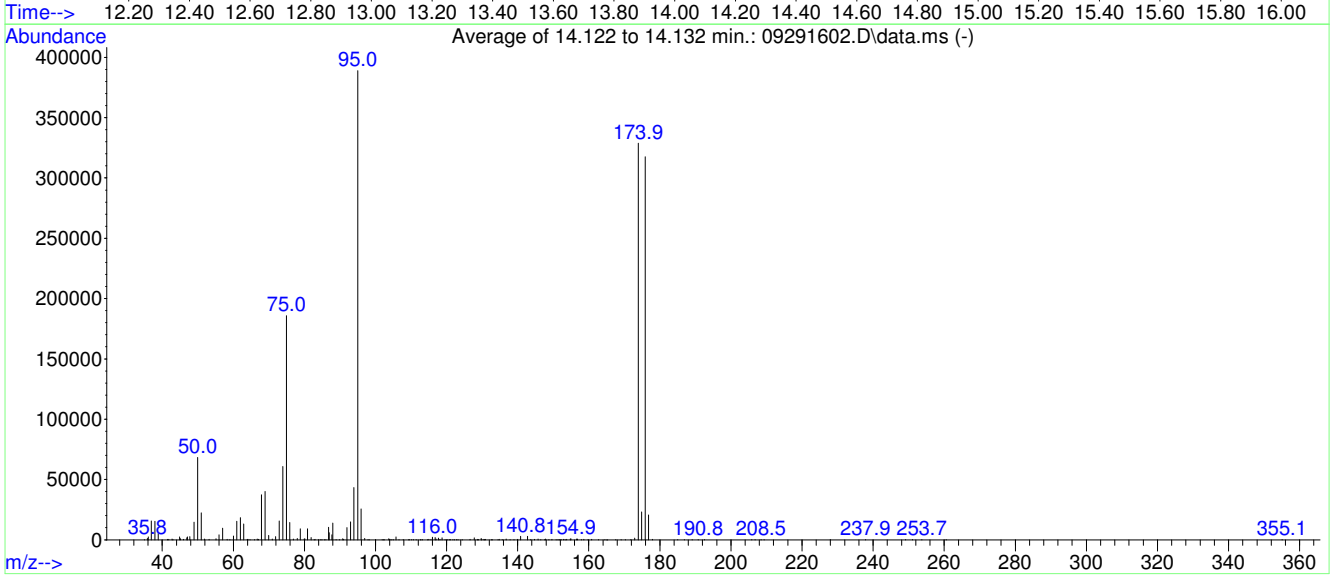
```
Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291602.D
Acq On    : 30 Sep 2016   3:41
Operator  : RH
Sample    : S16I099-TUN1
Misc      : BFB   1626027
ALS Vial  : 2   Sample Multiplier: 1
InstName  : AG5975C

Integration File signal 1: Benzene.P
Integration File signal 2: rteint2.p

Method    : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Title     : Volatile Organic Analysis  -  Passive samplers
Last Update  : Fri Sep 30 08:41:05 2016
```







AutoFind: Scans 1824, 1825, 1826; Background Corrected with Scan 1814

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	68199	PASS
75	95	30	60	47.8	185813	PASS
95	95	100	100	100.0	388861	PASS
96	95	5	9	6.6	25712	PASS
173	174	0.00	2	0.4	1340	PASS
174	95	50	120	84.6	328832	PASS
175	174	5	9	7.0	22984	PASS
176	174	95	101	96.6	317693	PASS
177	176	5	9	6.5	20587	PASS

Average of 14.122 to 14.132 min.: 09291602.D\data.ms
S16I099-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	34	45.10	931	56.00	4036	65.95	220
35.80	1105	45.95	289	56.95	9730	66.75	694
36.10	2441	46.90	1533	58.25	486	67.10	499
36.95	15506	47.05	2287	59.05	207	67.90	37421
37.95	15337	47.80	2631	60.00	3075	68.90	39956
38.90	5192	48.95	14628	60.95	15416	69.95	3529
41.50	308	49.95	68199	61.95	18245	71.00	560
41.80	456	51.00	22427	62.95	13032	71.90	2741
42.80	632	51.90	661	63.90	483	72.90	15693
43.05	111	53.15	399	64.10	457	73.95	60889
44.90	2426	55.10	808	64.70	214	74.95	185813

Average of 14.122 to 14.132 min.: 09291602.D\data.ms
S16I099-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
75.85	14297	84.60	143	91.00	369	102.20	123
76.90	748	84.90	85	91.95	10100	102.50	52
78.00	1027	85.60	241	92.95	14984	103.75	849
78.85	9056	86.00	57	93.90	43379	103.90	473
79.90	686	86.80	10256	95.00	388861	104.10	303
80.10	958	87.00	5797	95.95	25712	104.55	206
80.90	9186	87.70	4187	96.95	1088	105.00	265
81.90	1954	87.95	13932	97.90	83	105.80	2272
82.70	117	88.95	115	98.20	104	106.65	211
83.00	382	89.85	49	100.00	56	107.80	52
84.00	179	90.80	952	101.90	19	109.30	122

Average of 14.122 to 14.132 min.: 09291602.D\data.ms
S16I099-TUN1
Modified:subtracted

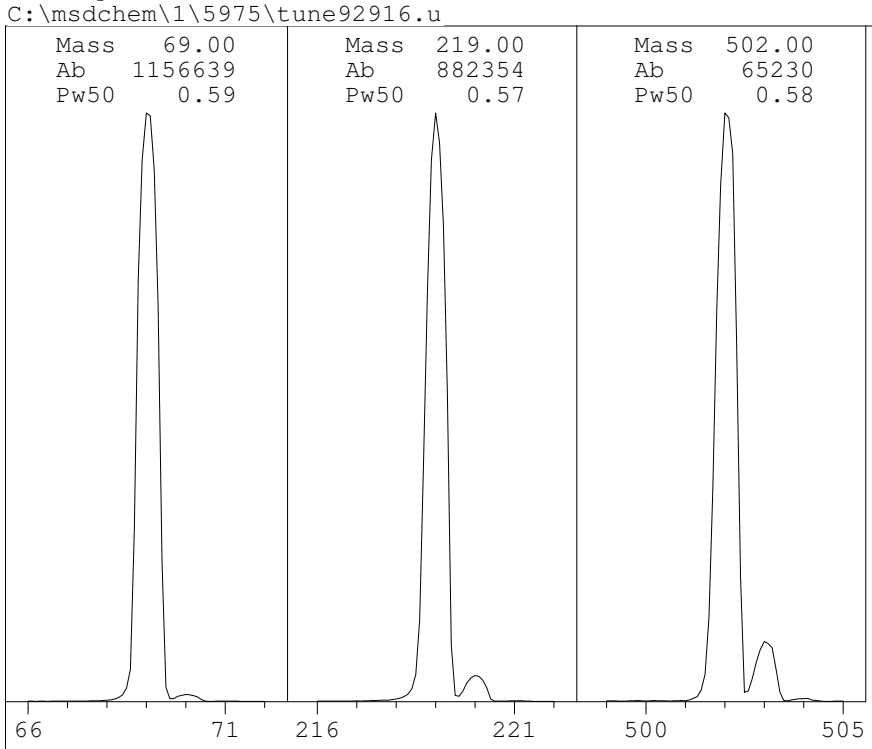
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
109.60	95	116.75	1805	122.80	30	130.70	82
110.15	169	117.00	549	123.25	133	130.95	436
110.70	20	117.75	1435	124.40	118	132.60	20
111.40	246	118.10	481	126.60	297	132.85	21
112.60	134	118.75	1599	127.80	1651	134.50	170
112.80	75	119.60	169	128.60	131	134.85	439
113.20	47	120.30	119	128.80	368	135.70	140
114.70	167	120.80	235	129.00	199	136.80	658
115.00	439	121.10	68	129.70	1031	137.90	34
115.60	227	121.80	64	129.90	376	139.00	64
116.00	2068	122.20	53	130.50	309	139.95	348

Average of 14.122 to 14.132 min.: 09291602.D\data.ms
S16I099-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.80	2872	151.30	135	157.95	85	172.90	1340
142.80	2838	151.70	208	158.65	457	173.90	328832
143.60	68	151.90	72	159.80	19	174.90	22984
144.75	479	152.30	105	160.80	317	175.90	317693
145.70	583	152.95	508	162.80	33	176.85	20587
146.50	176	153.40	156	164.50	113	177.90	511
147.60	227	153.80	399	165.05	9	185.00	17
147.85	634	154.80	753	167.60	22	186.90	35
148.80	192	154.95	797	169.10	124	189.10	32
149.65	387	156.55	552	170.30	63	190.80	135
150.80	137	156.85	703	171.80	267	192.60	63

Average of 14.122 to 14.132 min.: 09291602.D\data.ms
S16I099-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
205.85	107						
206.80	16						
208.50	156						
209.30	69						
228.00	17						
237.90	105						
249.10	60						
251.10	27						
253.70	83						
260.60	55						
355.05	97						

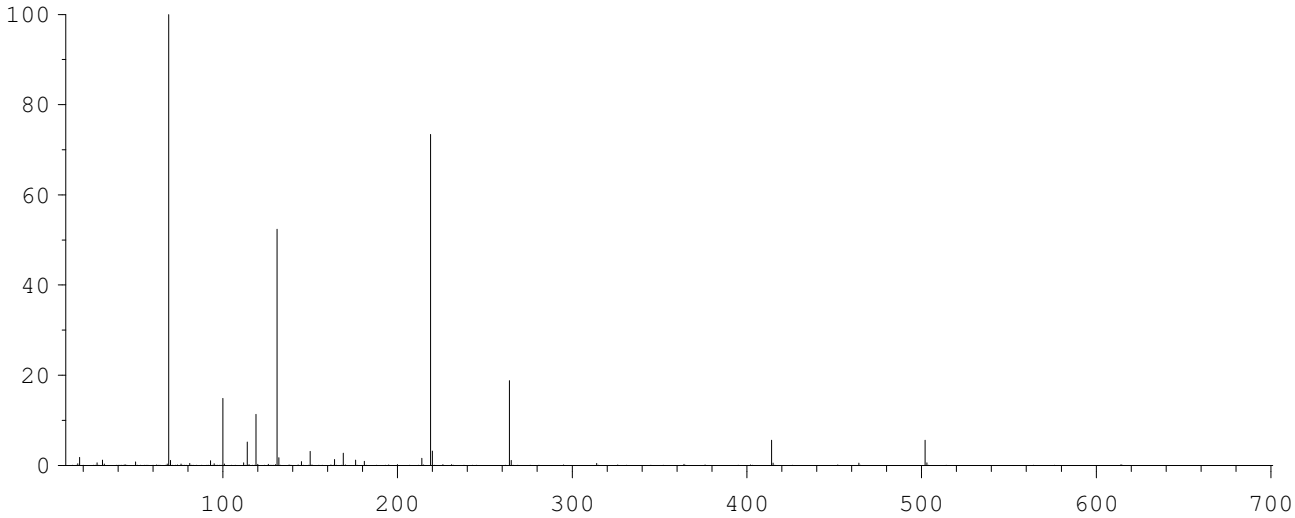


Ion Pol	Pos	MassGain	-1178
		MassOffs	-34
Emission	34.6	AmuGain	998
EIEnrgy	69.9	AmuOffs	124.00
Filament	2	Wid219	-0.009
		DC Pol	Pos
Repeller	34.81		
IonFcus	84.5	HEDEnab	On
EntLens	25.5	EMVolts	1776
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Turbo Speed	100
MS Quad	150	HiVac	0.00e00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
165 peaks Base: 69.10 Abundance: 1091072



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	1091072	100.00	70.10	11808	1.08
219.00	800768	73.39	220.00	35064	4.38
502.10	60872	5.58	503.10	6373	10.47

Air/Water Check: H20~1.78% N2~0.56% O2~0.30% CO2~0.19% N2/H2O~31.58%

Column(1) Flow: 0.97 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 63519
Repeller Maximum 35 volts using ion 219; Gain Factor 0.64

MassGain Values(Samples): -1169(3) -1160(2) -1151(1) -1118(0) -1075(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	124.0	124.0	124.0	124.0	124.0	124.0	124.0
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S16I099-CAL1

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291603.D
Acq On : 30 Sep 2016 4:05
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL1
Misc : 1635072 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 30 09:04:55 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

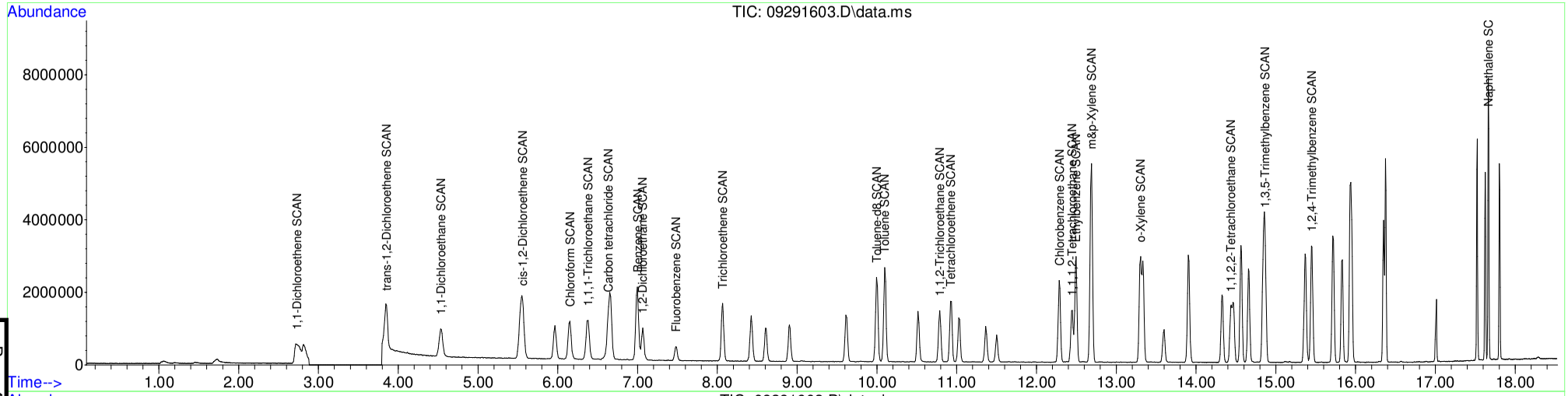
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.483	96	507951	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	2181295	24181.86 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 483.64%#		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	439940	4876.24 ug/L	99
3] 1,1-Dichloroethene	2.723	61	1253313	21767.35 ug/L	99
4) 1,1-Dichloroethene SCAN	2.731	61	1123519	23350.62 ug/L	97
5] trans-1,2-Dichloroethene	3.849	61	1099848	21931.47 ug/L	100
6) trans-1,2-Dichloroethe...	3.854	61	970410	22706.57 ug/L	97
7] 1,1-Dichloroethane	4.535	63	1348032	22779.54 ug/L	100
8) 1,1-Dichloroethane SCAN	4.533	63	1185011	22785.82 ug/L	97
9] cis-1,2-Dichloroethene	5.561	61	1204950	22841.60 ug/L	100
10) cis-1,2-Dichloroethene...	5.558	61	1067331	22698.16 ug/L	97
11] Chloroform	6.142	83	1341247	22247.28 ug/L	100
12) Chloroform SCAN	6.153	83	1173902	22635.92 ug/L	98
13] 1,1,1-Trichloroethane	6.371	97	1207773	23036.80 ug/L	100
14) 1,1,1-Trichloroethane ...	6.381	97	1049012	22921.81 ug/L	97
15] Carbon tetrachloride	6.639	117	1059578	23331.26 ug/L	100
16) Carbon tetrachloride SCAN	6.636	117	905074	22630.48 ug/L	97
17] Benzene	6.988	78	2652520	22650.70 ug/L	100
18) Benzene SCAN	6.999	78	2376536	22582.59 ug/L	93
19] 1,2-Dichloroethane	7.055	62	986459	23058.93 ug/L	100
20) 1,2-Dichloroethane SCAN	7.066	62	920568	22947.13 ug/L	97
21] Trichloroethene	8.068	130	773645	23322.44 ug/L	100
22) Trichloroethene SCAN	8.066	95	630883	23747.91 ug/L	98
24) Toluene-d8 SCAN	9.995	98	1960808	24728.99 ug/L	96
25] Toluene	10.099	91	2650919	23889.77 ug/L	100
26) Toluene SCAN	10.097	91	2354593	25963.07 ug/L	97
27] 1,1,2-Trichloroethane	10.778	97	618523	23596.24 ug/L	99
28) 1,1,2-Trichloroethane ...	10.787	97	538880	25195.47 ug/L	99
29] Tetrachloroethene	10.926	166	759997	23758.72 ug/L	100
30) Tetrachloroethene SCAN	10.923	166	664993	25894.44 ug/L	97
31] Chlorobenzene	12.287	112	1771573	24217.10 ug/L	100
32) Chlorobenzene SCAN	12.284	112	1498233	24602.34 ug/L	95
33] 1,1,1,2-Tetrachloroethane	12.443	131	638253	24329.23 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.450	131	538370	24957.28 ug/L	98
35] Ethylbenzene	12.489	91	2912746	24668.53 ug/L	100
36) Ethylbenzene SCAN	12.496	91	2563650	26654.66 ug/L	99
37] m&p-Xylene	12.682	91	4559996	49282.98 ug/L	100
38) m&p-Xylene SCAN	12.689	91	4067255	53492.06 ug/L	98
39] o-Xylene	13.298	91	2357218	24709.58 ug/L	100
40) o-Xylene SCAN	13.305	91	2087270	26239.11 ug/L	99
41] 1,1,2,2-Tetrachloroethane	14.437	83	1005603	24407.07 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.435	83	888810	24935.86 ug/L	98
43] 1,3,5-Trimethylbenzene	14.866	105	2490055	25351.56 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.863	105	2183180	28098.92 ug/L	97
45] 1,2,4-Trimethylbenzene	15.450	105	2574984	25517.50 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.447	105	2265128	27780.46 ug/L	98
47] Naphthalene	17.666	128	4099905	25954.93 ug/L	100
48) Naphthalene SCAN	17.664	128	3562099	28950.13 ug/L	99

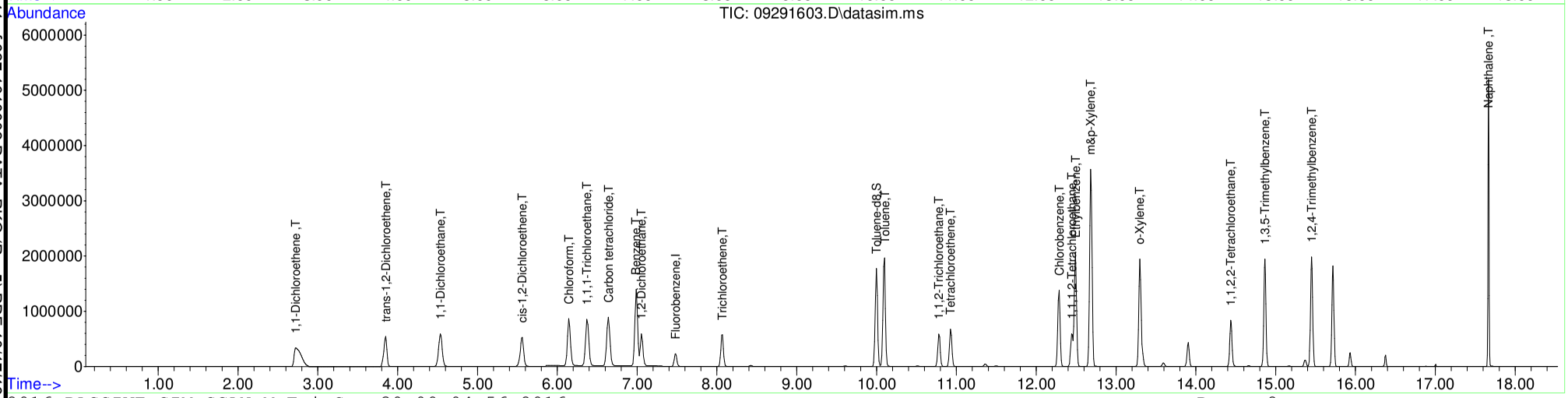
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291603.D
Acq On : 30 Sep 2016 4:05
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL1
Misc : 1635072 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 30 09:04:55 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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S16I099-CAL2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291604.D
Acq On : 30 Sep 2016 4:30
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL2
Misc : 1635073 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 30 09:05:39 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

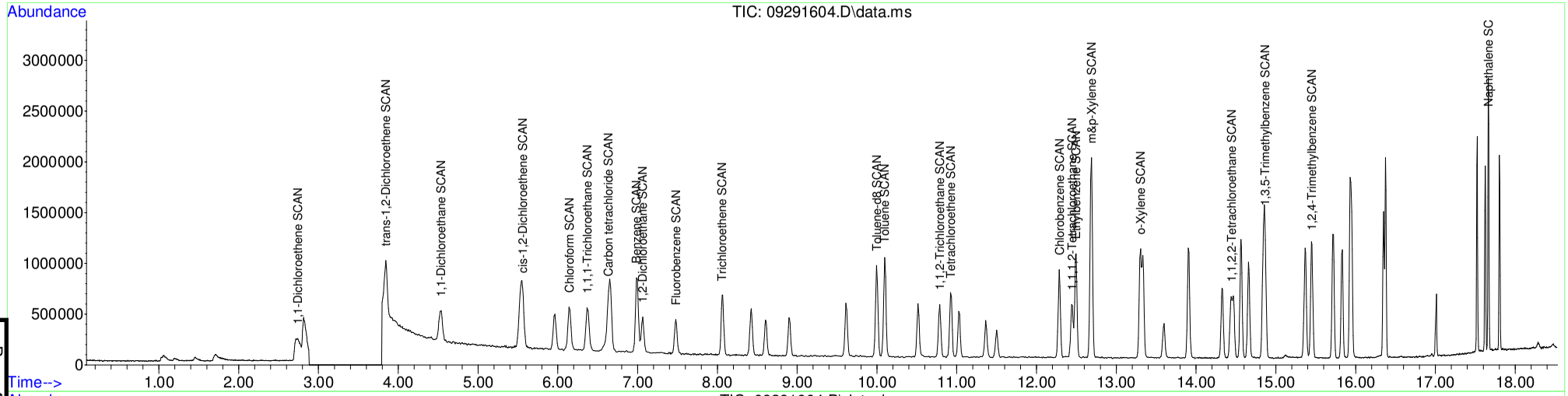
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.476	96	423131	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	797856	10618.10 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 212.36%#		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	374026	4976.68 ug/L	98
3] 1,1-Dichloroethene	2.723	61	502344	10473.56 ug/L	100
4) 1,1-Dichloroethene SCAN	2.740	61	446724	11145.62 ug/L	96
5] trans-1,2-Dichloroethene	3.841	61	435466	10424.04 ug/L	100
6) trans-1,2-Dichloroethe...	3.846	61	388217	10904.80 ug/L	95
7] 1,1-Dichloroethane	4.535	63	531751	10786.98 ug/L	100
8) 1,1-Dichloroethane SCAN	4.533	63	470102	10851.29 ug/L	98
9] cis-1,2-Dichloroethene	5.553	61	472732	10757.70 ug/L	100
10) cis-1,2-Dichloroethene...	5.558	61	412947	10542.24 ug/L	99
11] Chloroform	6.142	83	522636	10406.73 ug/L	100
12) Chloroform SCAN	6.140	83	476220	11023.54 ug/L	96
13] 1,1,1-Trichloroethane	6.370	97	461340	10563.43 ug/L	100
14) 1,1,1-Trichloroethane ...	6.368	97	402181	10549.62 ug/L	98
15] Carbon tetrachloride	6.639	117	399096	10549.44 ug/L	99
16) Carbon tetrachloride SCAN	6.636	117	359408	10788.08 ug/L	97
17] Benzene	6.988	78	1002538	10277.11 ug/L	100
18) Benzene SCAN	6.985	78	906192	10337.05 ug/L	92
19] 1,2-Dichloroethane	7.055	62	380791	10685.47 ug/L	99
20) 1,2-Dichloroethane SCAN	7.066	62	360024	10773.35 ug/L	98
21] Trichloroethene	8.061	130	289546	10478.44 ug/L	100
22) Trichloroethene SCAN	8.059	95	238062	10757.55 ug/L	97
24) Toluene-d8 SCAN	9.995	98	718678	10880.59 ug/L	96
25] Toluene	10.088	91	972527	10521.17 ug/L	100
26) Toluene SCAN	10.097	91	880797	11659.05 ug/L	97
27] 1,1,2-Trichloroethane	10.778	97	230001	10533.28 ug/L	99
28) 1,1,2-Trichloroethane ...	10.787	97	198210	11125.07 ug/L	98
29] Tetrachloroethene	10.925	166	276957	10393.71 ug/L	100
30) Tetrachloroethene SCAN	10.923	166	242561	11338.55 ug/L	96
31] Chlorobenzene	12.286	112	647311	10622.41 ug/L	100
32) Chlorobenzene SCAN	12.284	112	560726	11053.37 ug/L	95
33] 1,1,1,2-Tetrachloroethane	12.443	131	232101	10620.85 ug/L	99
34) 1,1,1,2-Tetrachloroeth...	12.440	131	200656	11166.46 ug/L	99
35] Ethylbenzene	12.489	91	1056696	10743.30 ug/L	100
36) Ethylbenzene SCAN	12.495	91	928176	11584.89 ug/L	99
37] m&p-Xylene	12.682	91	1658843	21522.10 ug/L	100
38) m&p-Xylene SCAN	12.689	91	1461611	23076.33 ug/L	99
39] o-Xylene	13.298	91	856148	10773.62 ug/L	100
40) o-Xylene SCAN	13.305	91	761834	11496.82 ug/L	99
41] 1,1,2,2-Tetrachloroethane	14.437	83	371447	10822.63 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.440	83	327185	11019.34 ug/L	97
43] 1,3,5-Trimethylbenzene	14.865	105	889842	10875.66 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.863	105	777297	12009.75 ug/L	98
45] 1,2,4-Trimethylbenzene	15.450	105	917669	10916.83 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.454	105	793564	11683.57 ug/L	99
47] Naphthalene	17.666	128	1451822	11033.32 ug/L	100
48) Naphthalene SCAN	17.664	128	1233157	12031.23 ug/L	100

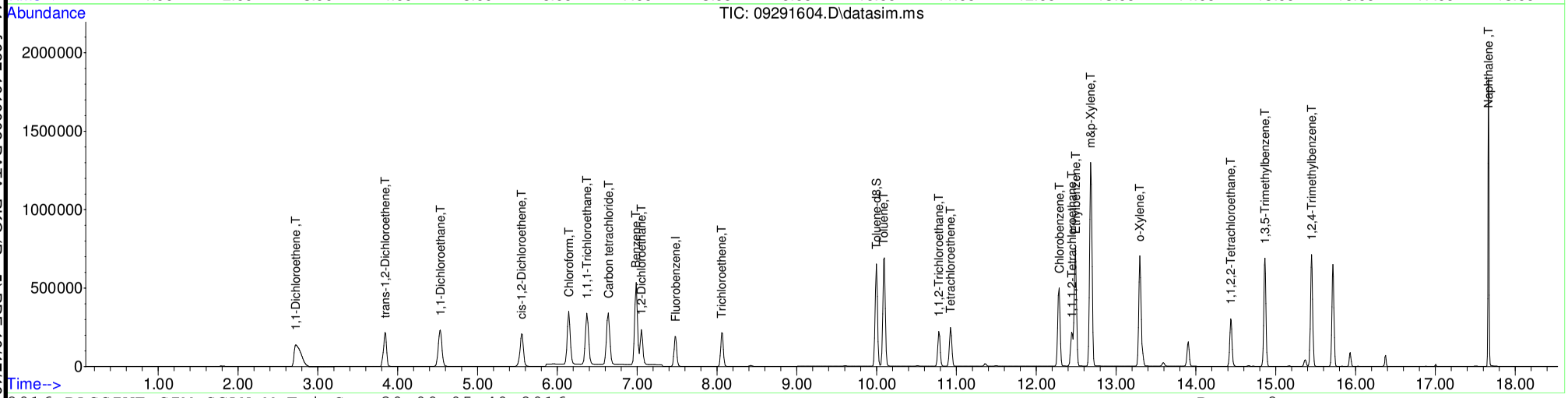
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291604.D
Acq On : 30 Sep 2016 4:30
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL2
Misc : 1635073 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 30 09:05:39 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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S16I099-CAL3

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291605.D
Acq On : 30 Sep 2016 4:54
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL3
Misc : 1635074 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 30 09:05:51 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

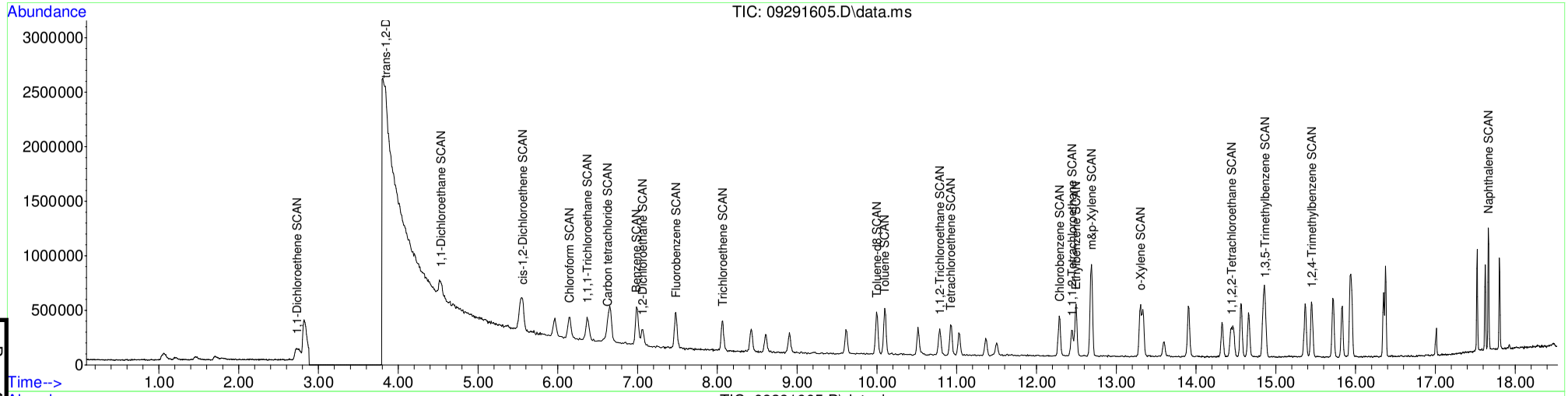
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.476	96	427522	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.998	98	361510	4761.67 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 95.23%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	379678	5000.00 ug/L	100
3] 1,1-Dichloroethene	2.728	61	228442	4713.95 ug/L	100
4) 1,1-Dichloroethene SCAN	2.726	61	202483	5000.00 ug/L	100
5] trans-1,2-Dichloroethene	3.841	61	202206	4790.63 ug/L	100
6) trans-1,2-Dichloroethe...	3.847	61	179850	5000.00 ug/L	100
7] 1,1-Dichloroethane	4.528	63	246612	4951.33 ug/L	100
8) 1,1-Dichloroethane SCAN	4.533	63	218859	5000.00 ug/L	100
9] cis-1,2-Dichloroethene	5.553	61	219490	4943.51 ug/L	100
10) cis-1,2-Dichloroethene...	5.558	61	197886	5000.00 ug/L	100
11] Chloroform	6.142	83	244220	4812.97 ug/L	100
12) Chloroform SCAN	6.140	83	218243	5000.00 ug/L	100
13] 1,1,1-Trichloroethane	6.371	97	215789	4890.23 ug/L	100
14) 1,1,1-Trichloroethane ...	6.368	97	192592	5000.00 ug/L	100
15] Carbon tetrachloride	6.639	117	186533	4880.05 ug/L	100
16) Carbon tetrachloride SCAN	6.623	117	168305	5000.00 ug/L	100
17] Benzene	6.988	78	470954	4778.21 ug/L	100
18) Benzene SCAN	6.985	78	442871	5000.00 ug/L	100
19] 1,2-Dichloroethane	7.055	62	177989	4943.30 ug/L	100
20) 1,2-Dichloroethane SCAN	7.066	62	168824	5000.00 ug/L	100
21] Trichloroethene	8.062	130	135284	4845.54 ug/L	100
22) Trichloroethene SCAN	8.066	95	111797	5000.00 ug/L	100
24) Toluene-d8 SCAN	9.995	98	333684	5000.00 ug/L	100
25] Toluene	10.099	91	437658	4686.12 ug/L	100
26) Toluene SCAN	10.097	91	381651	5000.00 ug/L	100
27] 1,1,2-Trichloroethane	10.778	97	104907	4755.05 ug/L	100
28) 1,1,2-Trichloroethane ...	10.787	97	90007	5000.00 ug/L	100
29] Tetrachloroethene	10.926	166	124256	4615.21 ug/L	100
30) Tetrachloroethene SCAN	10.923	166	108073	5000.00 ug/L	100
31] Chlorobenzene	12.287	112	286569	4654.31 ug/L	100
32) Chlorobenzene SCAN	12.284	112	256277	5000.00 ug/L	100
33] 1,1,1,2-Tetrachloroethane	12.443	131	102914	4660.94 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.450	131	90780	5000.00 ug/L	100
35] Ethylbenzene	12.489	91	462897	4657.88 ug/L	100
36) Ethylbenzene SCAN	12.496	91	404755	5000.00 ug/L	100
37] m&p-Xylene	12.682	91	727565	9342.60 ug/L	100
38) m&p-Xylene SCAN	12.689	91	639954	10000.00 ug/L	100
39] o-Xylene	13.298	91	373055	4646.24 ug/L	100
40) o-Xylene SCAN	13.305	91	334762	5000.00 ug/L	100
41] 1,1,2,2-Tetrachloroethane	14.437	83	162435	4684.16 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.440	83	150000	5000.00 ug/L	100
43] 1,3,5-Trimethylbenzene	14.866	105	384016	4645.24 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.863	105	326969	5000.00 ug/L	100
45] 1,2,4-Trimethylbenzene	15.450	105	393205	4629.63 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.448	105	343131	5000.00 ug/L	100
47] Naphthalene	17.666	128	621419	4674.06 ug/L	100
48) Naphthalene SCAN	17.664	128	517800	5000.00 ug/L	100

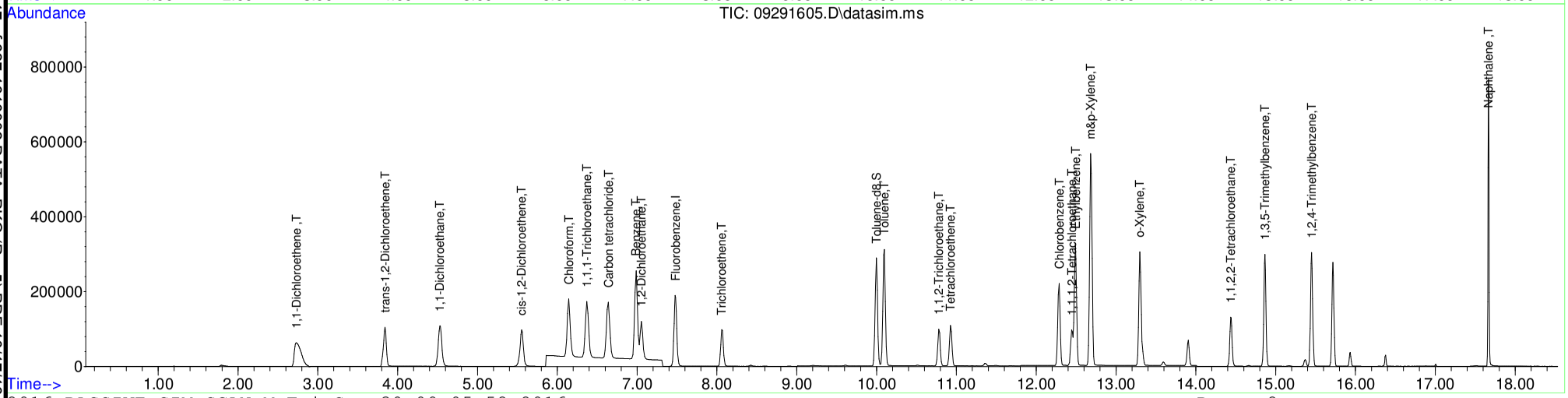
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291605.D
Acq On : 30 Sep 2016 4:54
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL3
Misc : 1635074 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 30 09:05:51 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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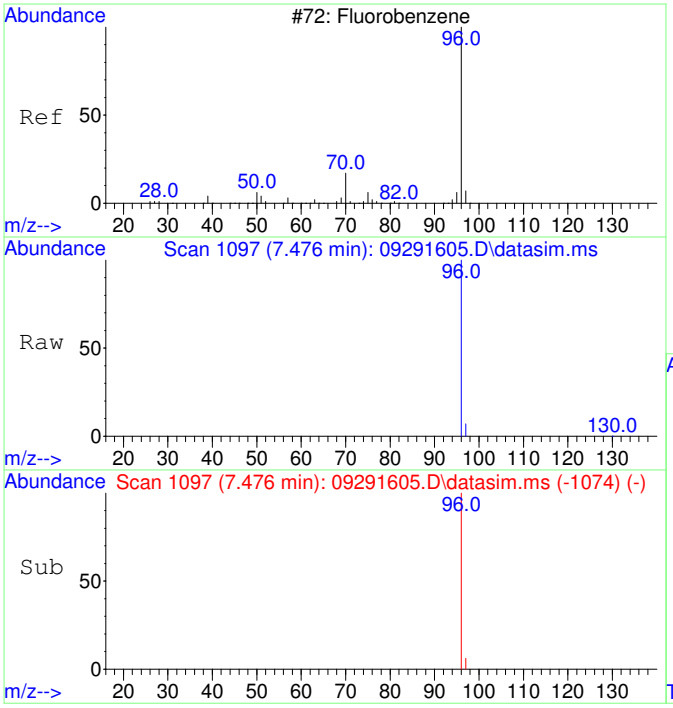
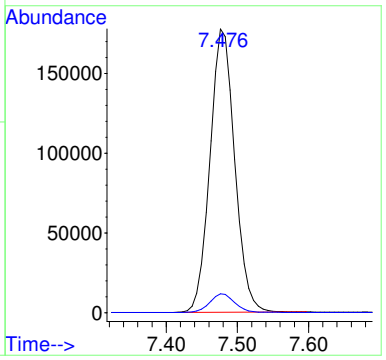
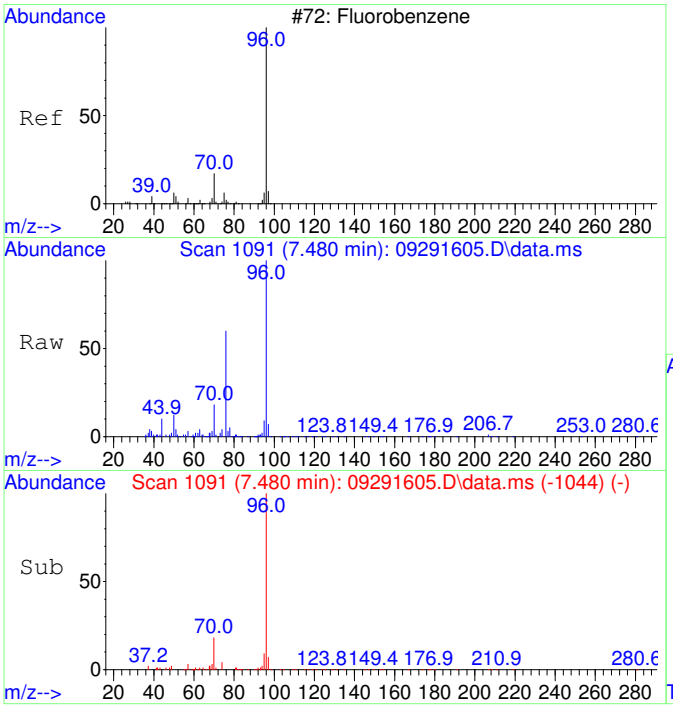


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.476 min Scan# 1097
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 96 Resp: 427522

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

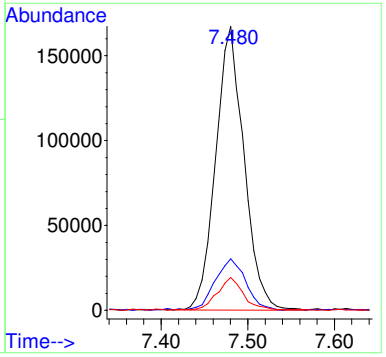


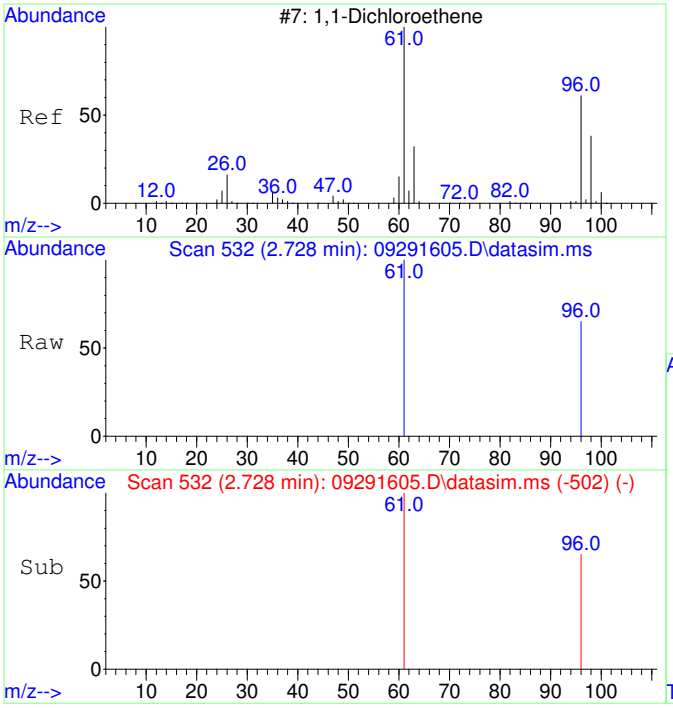


#2
Fluorobenzene SCAN
Concen: 5000.00 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 96 Resp: 379678

Ion	Ratio	Lower	Upper
96	100		
70	19.2	0.0	49.2
50	11.1	0.0	41.1

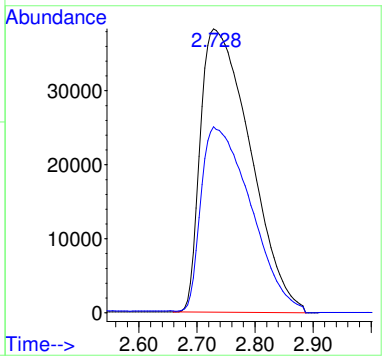


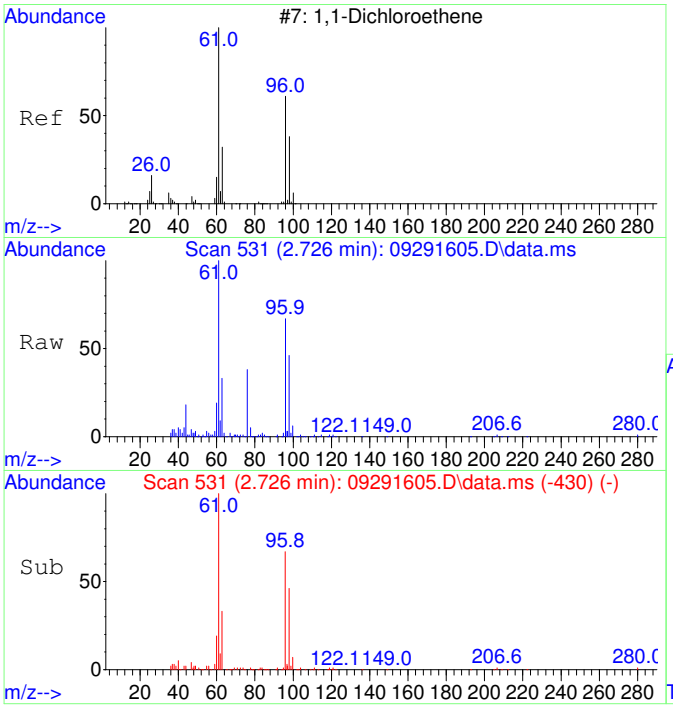


#3
1,1-Dichloroethene
Concen: 4713.95 ug/L
RT: 2.728 min Scan# 532
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 61 Resp: 228442

Ion	Ratio	Lower	Upper
61	100		
96	64.9	34.9	94.9

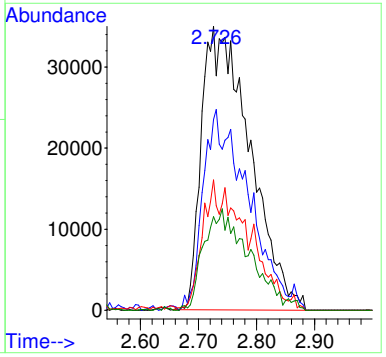


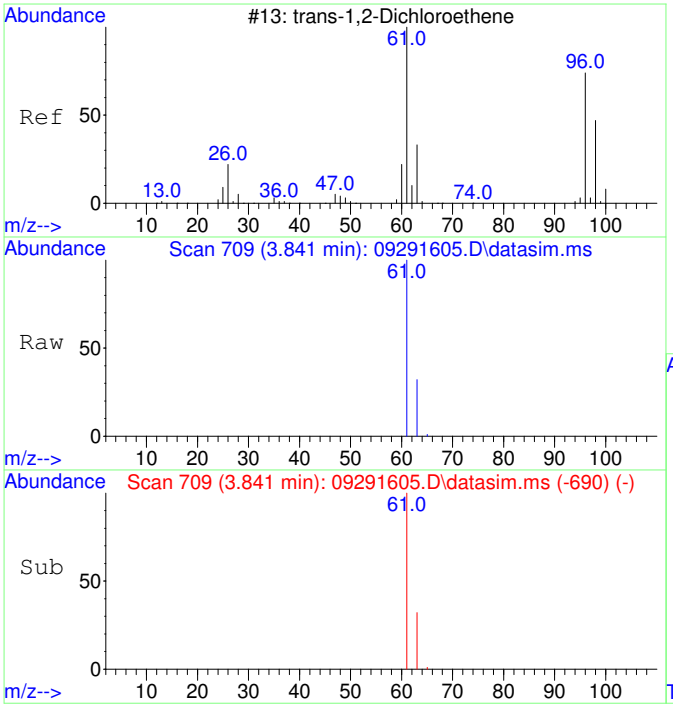


#4
1,1-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 2.726 min Scan# 531
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 61 Resp: 202483

Ion	Ratio	Lower	Upper
61	100		
96	60.2	30.2	90.2
98	42.2	12.2	72.2
63	33.7	3.7	63.7

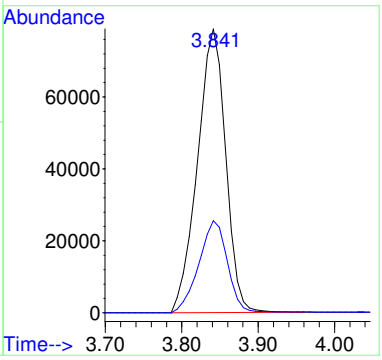


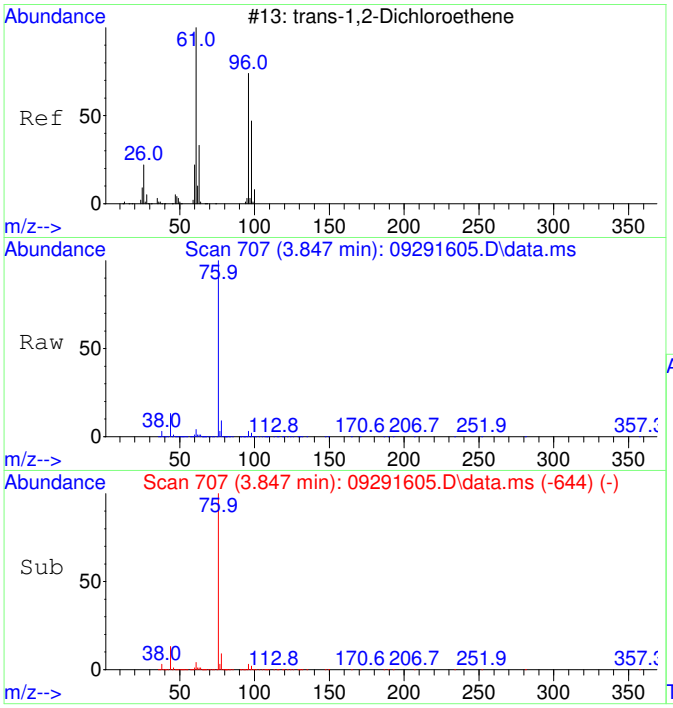


#5
trans-1,2-Dichloroethene
Concen: 4790.63 ug/L
RT: 3.841 min Scan# 709
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 61 Resp: 202206

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.5	62.5

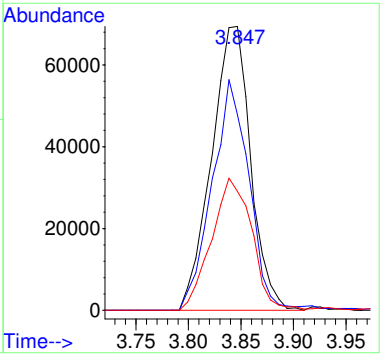


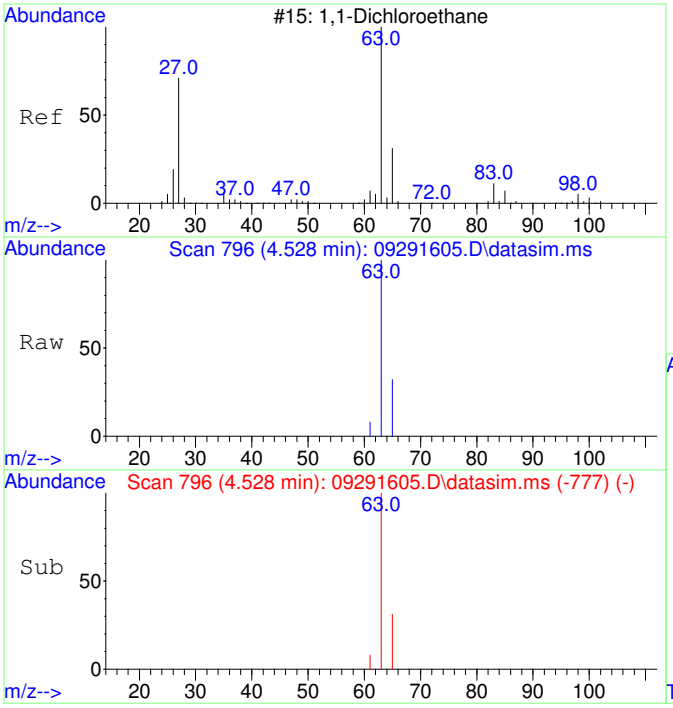


#6
trans-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 3.847 min Scan# 707
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 61 Resp: 179850

Ion	Ratio	Lower	Upper
61	100		
96	77.5	47.5	107.5
98	47.2	17.2	77.2

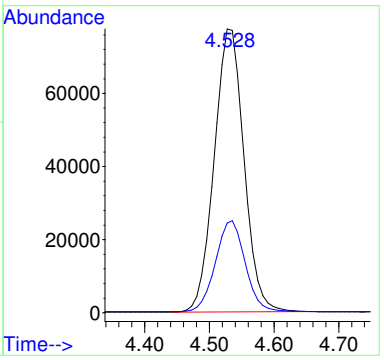


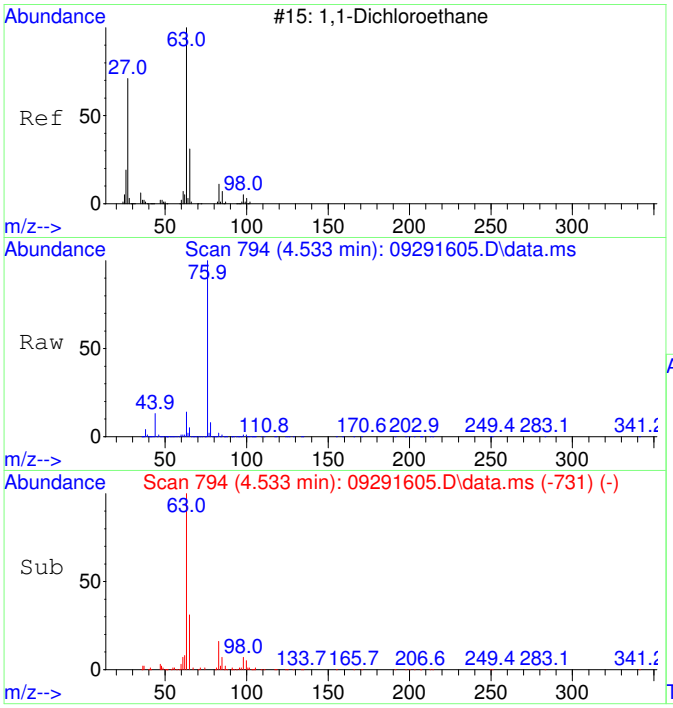


#7
1,1-Dichloroethane
Concen: 4951.33 ug/L
RT: 4.528 min Scan# 796
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 63 Resp: 246612

Ion	Ratio	Lower	Upper
63	100		
65	31.8	1.8	61.8

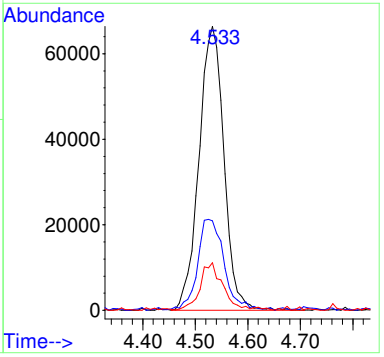


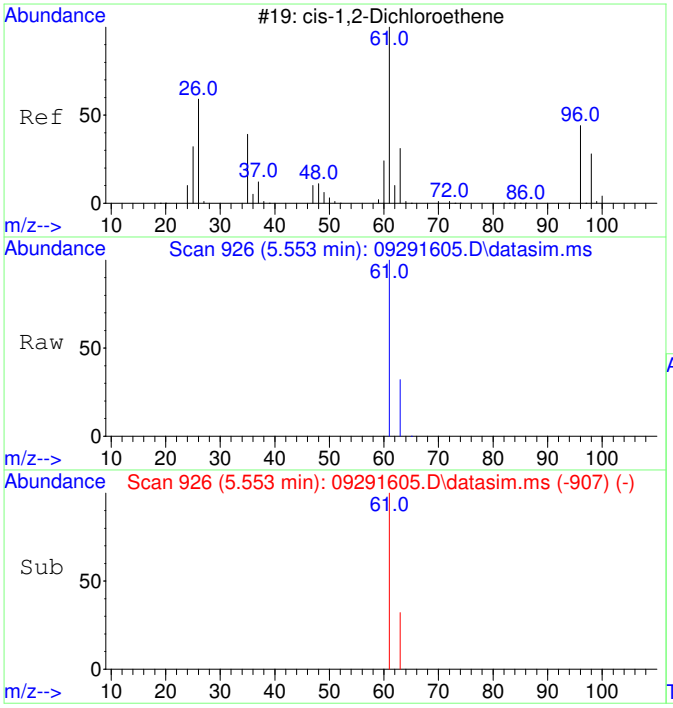


#8
1,1-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 4.533 min Scan# 794
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 63 Resp: 218859

Ion	Ratio	Lower	Upper
63	100		
65	33.9	3.9	63.9
83	15.1	0.0	45.1

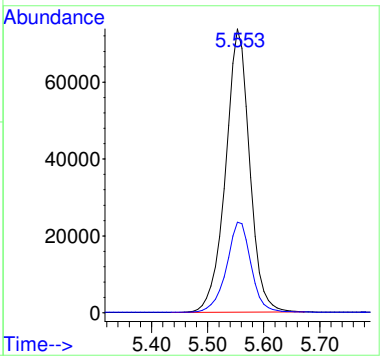


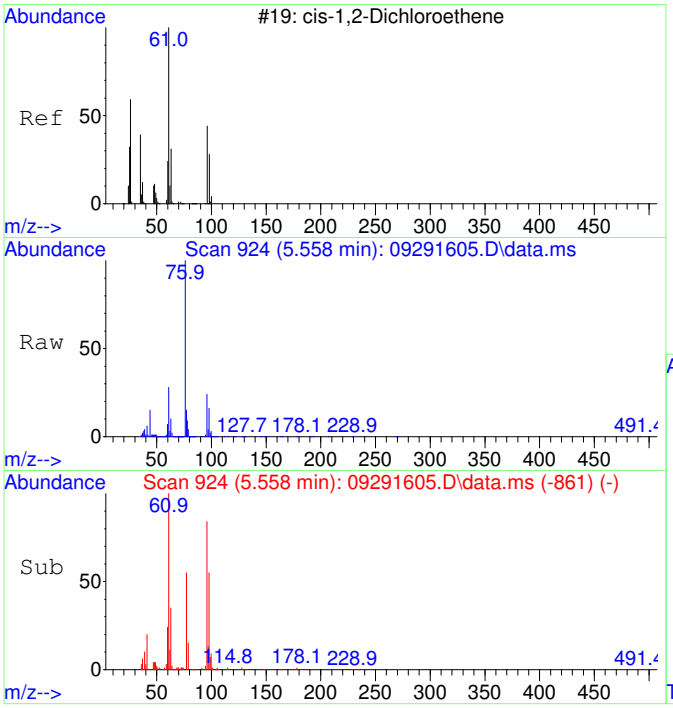


#9
cis-1,2-Dichloroethene
Concen: 4943.51 ug/L
RT: 5.553 min Scan# 926
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 61 Resp: 219490

Ion	Ratio	Lower	Upper
61	100		
63	32.3	2.4	62.4

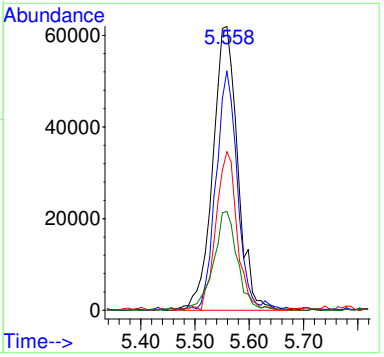


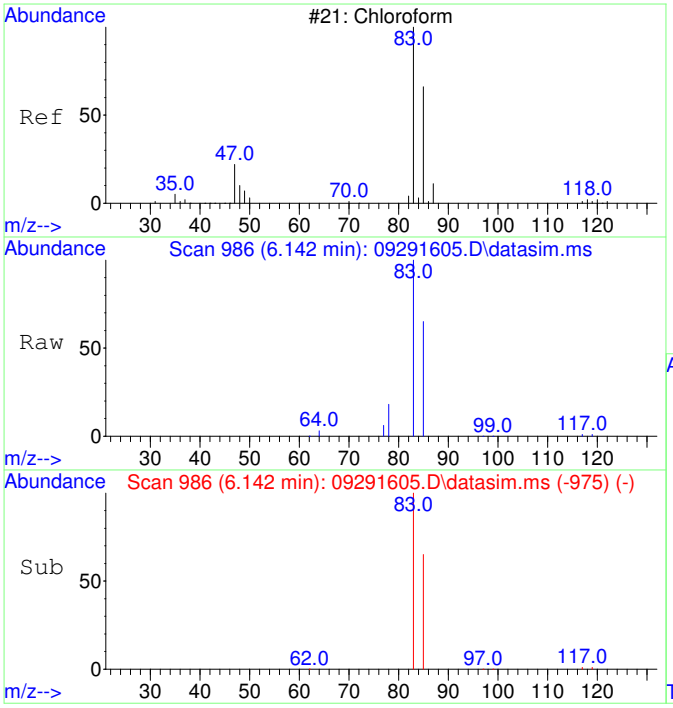


#10
cis-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 5.558 min Scan# 924
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 61 Resp: 197886

Ion	Ratio	Lower	Upper
61	100		
96	72.0	42.0	102.0
98	47.5	17.5	77.5
63	33.4	3.4	63.4

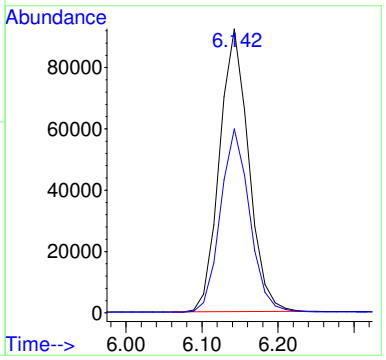


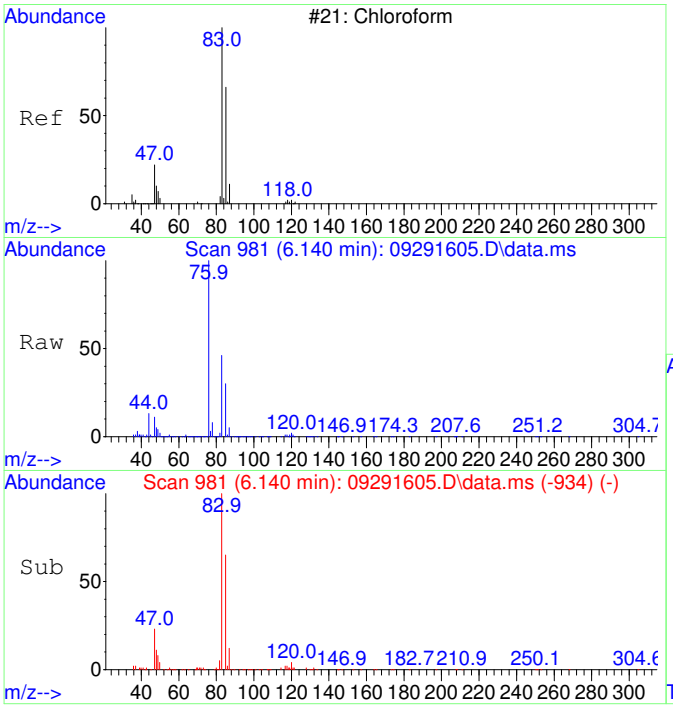


#11
Chloroform
Concen: 4812.97 ug/L
RT: 6.142 min Scan# 986
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 83 Resp: 244220

Ion	Ratio	Lower	Upper
83	100		
85	64.5	34.4	94.4

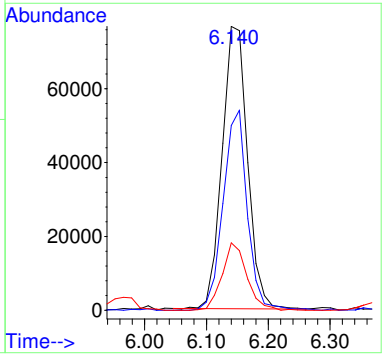


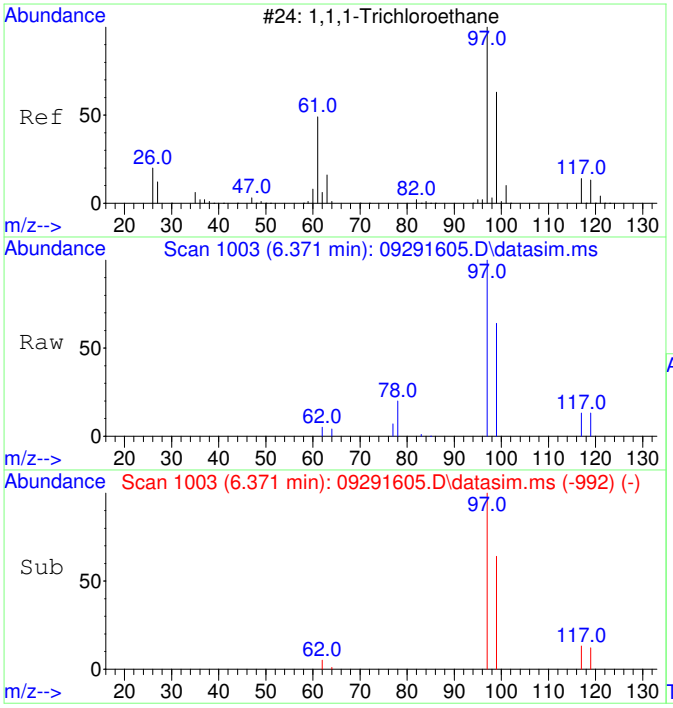


#12
Chloroform SCAN
Concen: 5000.00 ug/L
RT: 6.140 min Scan# 981
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 83 Resp: 218243

Ion	Ratio	Lower	Upper
83	100		
85	67.6	37.6	97.6
47	23.4	0.0	53.4

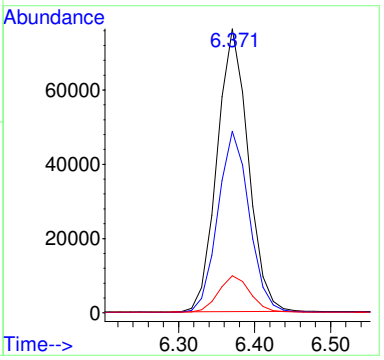


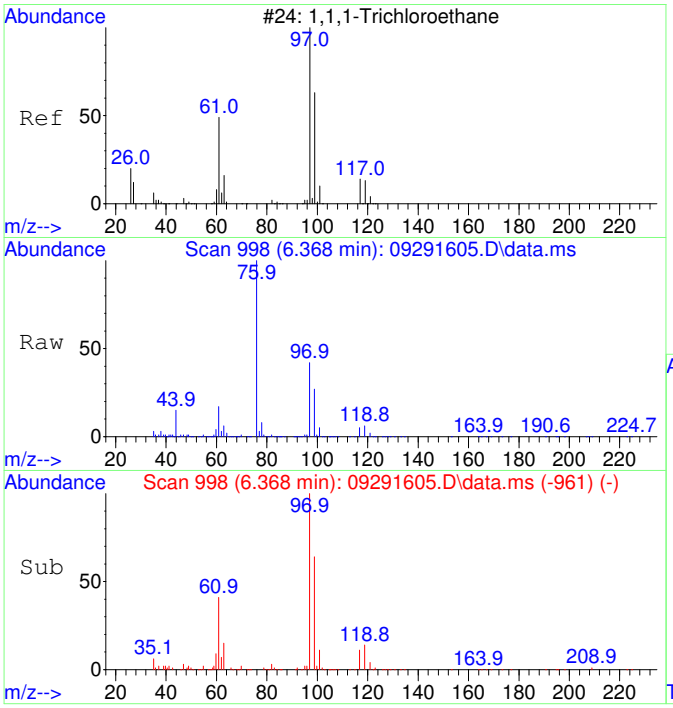


#13
1,1,1-Trichloroethane
Concen: 4890.23 ug/L
RT: 6.371 min Scan# 1003
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 97 Resp: 215789

Ion	Ratio	Lower	Upper
97	100		
99	64.2	34.2	94.2
117	13.0	0.0	43.0

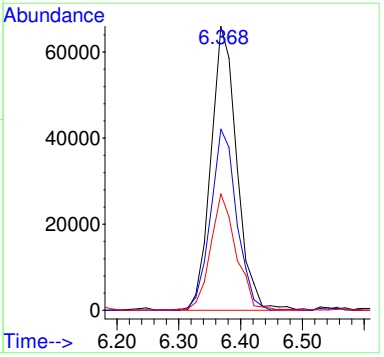


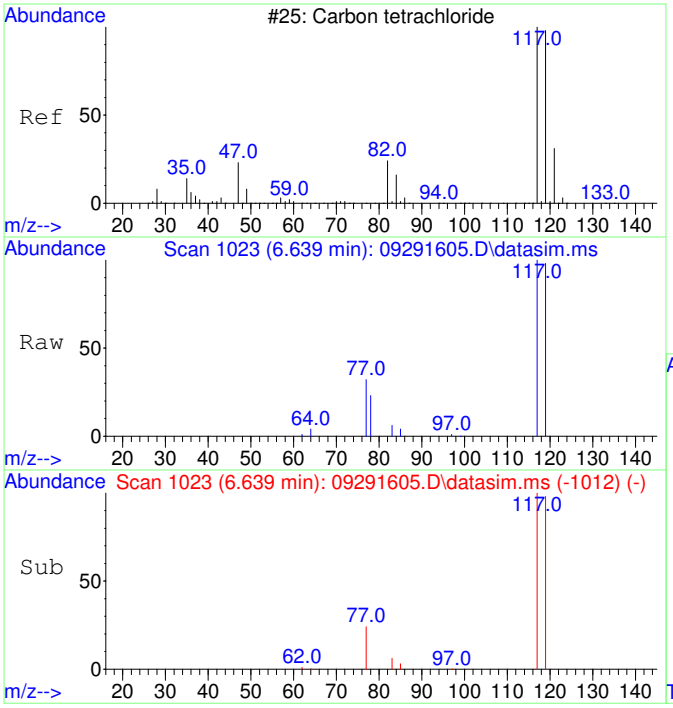


#14
1,1,1-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 6.368 min Scan# 998
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 97 Resp: 192592

Ion	Ratio	Lower	Upper
97	100		
99	63.6	33.6	93.6
61	40.7	10.7	70.7

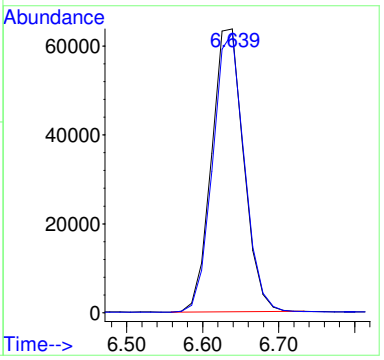


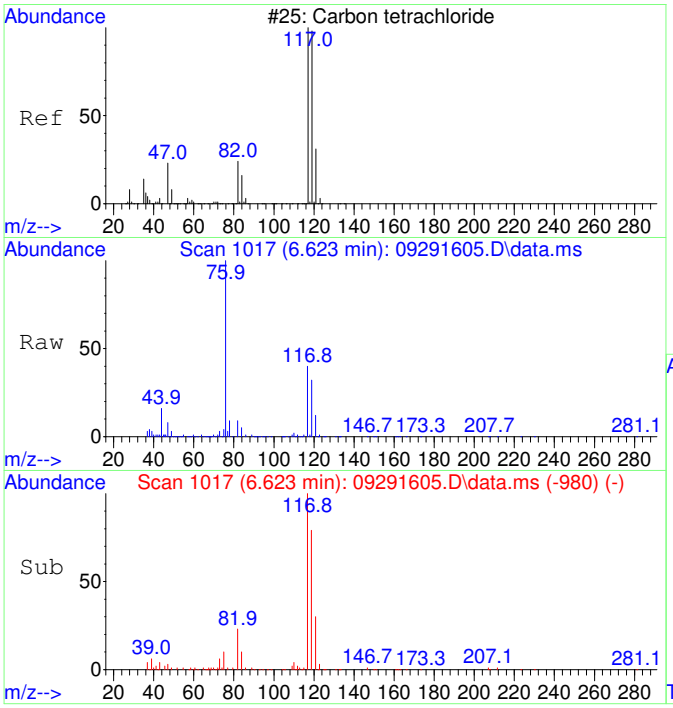


#15
Carbon tetrachloride
Concen: 4880.05 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:117 Resp: 186533

Ion	Ratio	Lower	Upper
117	100		
119	96.2	66.1	126.1

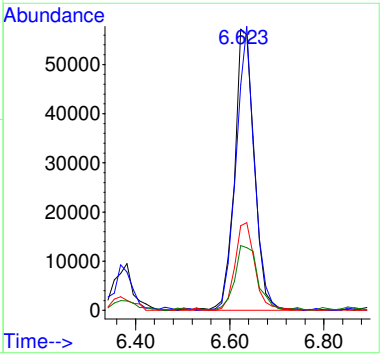


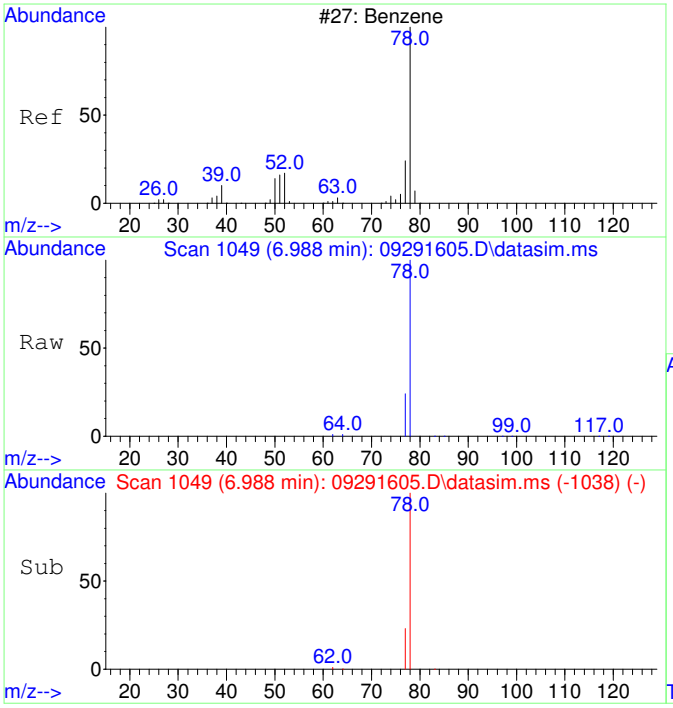


#16
Carbon tetrachloride SCAN
Concen: 5000.00 ug/L
RT: 6.623 min Scan# 1017
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:117 Resp: 168305

Ion	Ratio	Lower	Upper
117	100		
119	94.3	66.0	122.6
121	31.6	22.1	41.1
82	26.4	18.5	34.3

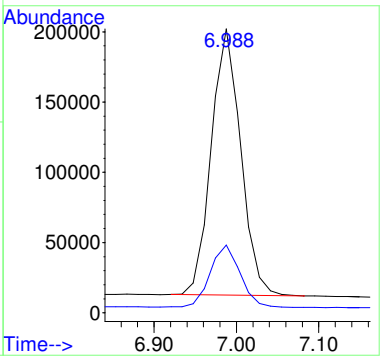


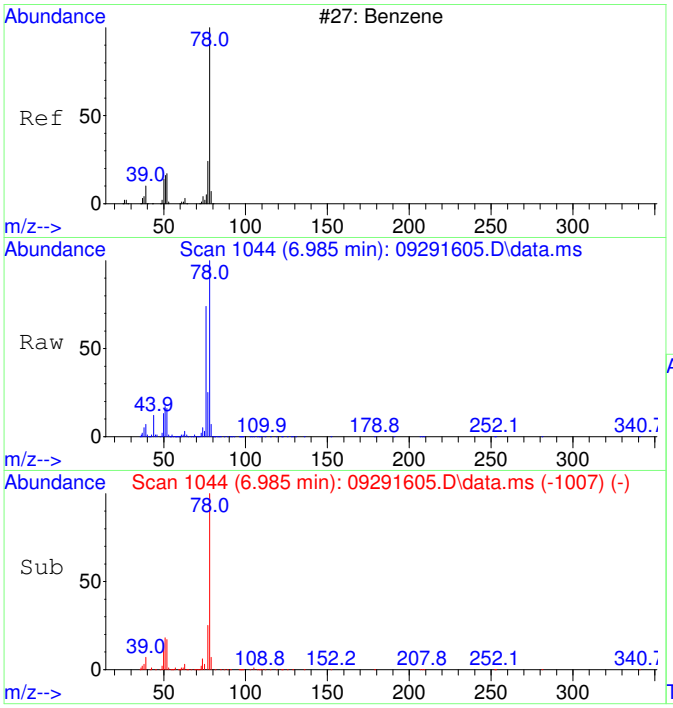


#17
Benzene
Concen: 4778.21 ug/L
RT: 6.988 min Scan# 1049
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 78 Resp: 470954

Ion	Ratio	Lower	Upper
78	100		
77	23.4	0.0	53.4

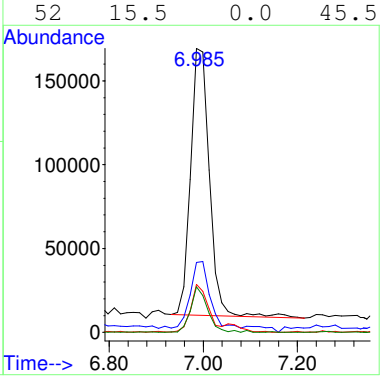


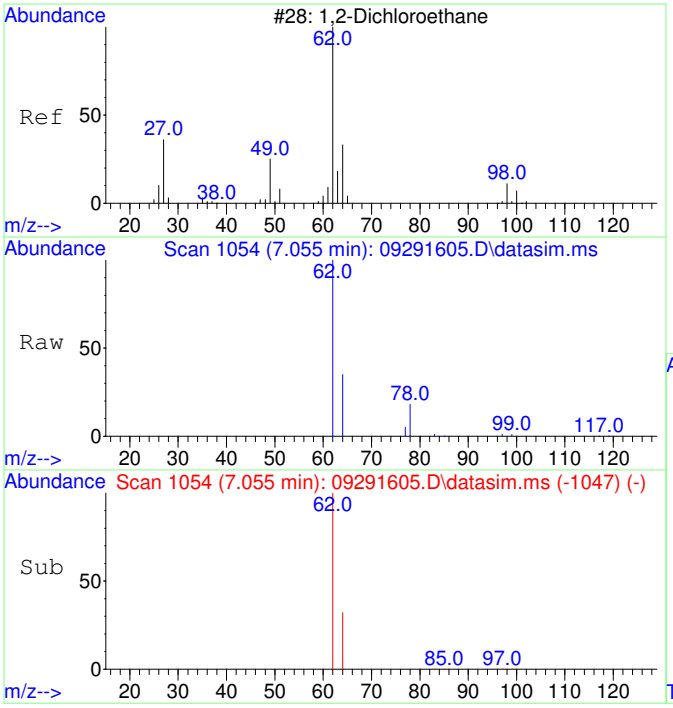


#18
Benzene SCAN
Concen: 5000.00 ug/L
RT: 6.985 min Scan# 1044
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 78 Resp: 442871

Ion	Ratio	Lower	Upper
78	100		
77	29.3	0.0	59.3
51	19.2	0.0	49.2
52	15.5	0.0	45.5

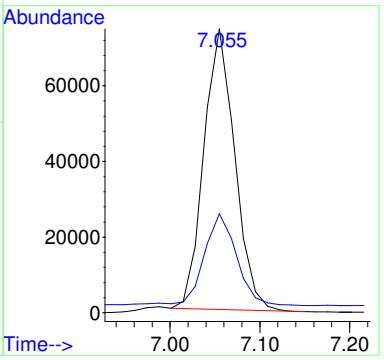


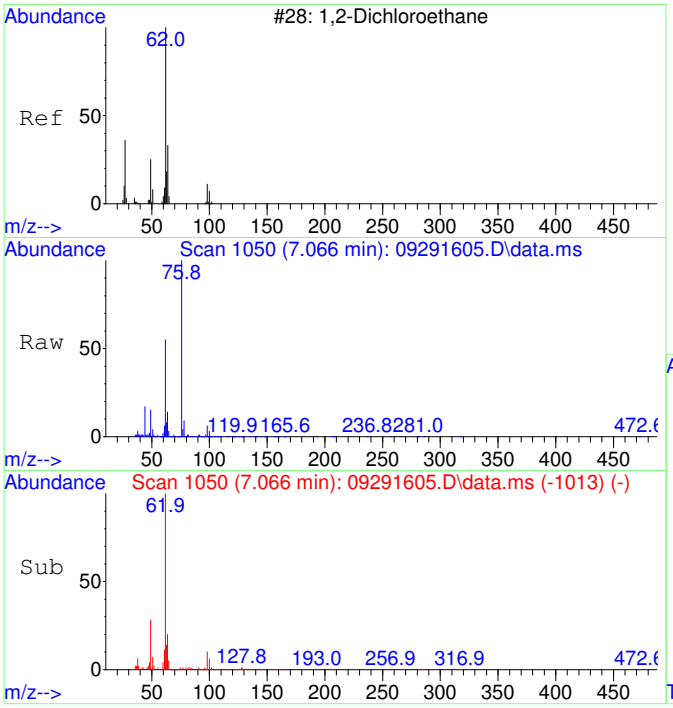


#19
1,2-Dichloroethane
Concen: 4943.30 ug/L
RT: 7.055 min Scan# 1054
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 62 Resp: 177989

Ion	Ratio	Lower	Upper
62	100		
64	32.7	2.7	62.7

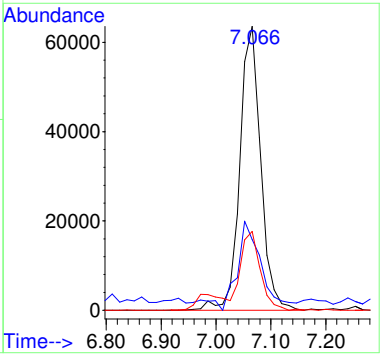


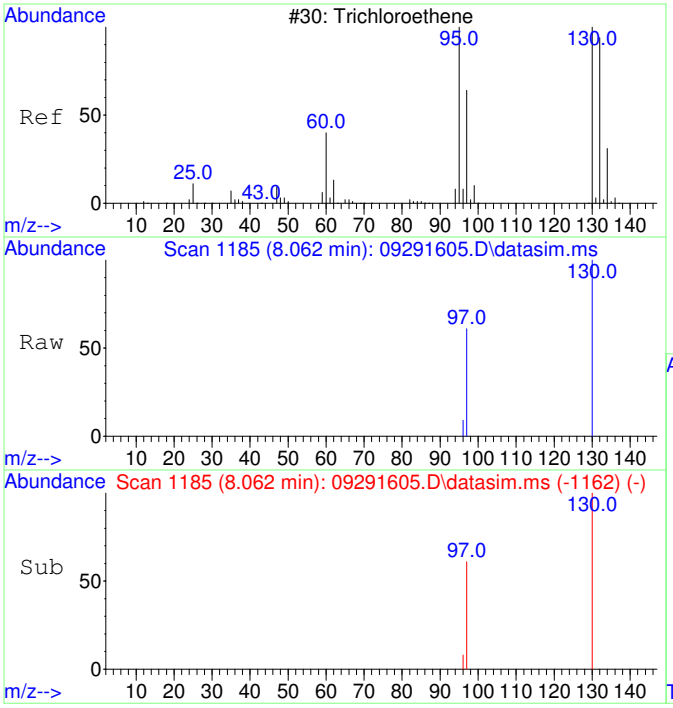


#20
1,2-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 7.066 min Scan# 1050
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 62 Resp: 168824

Ion	Ratio	Lower	Upper
62	100		
64	31.9	1.9	61.9
49	21.8	0.0	51.8

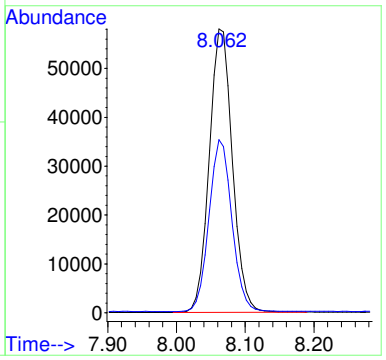


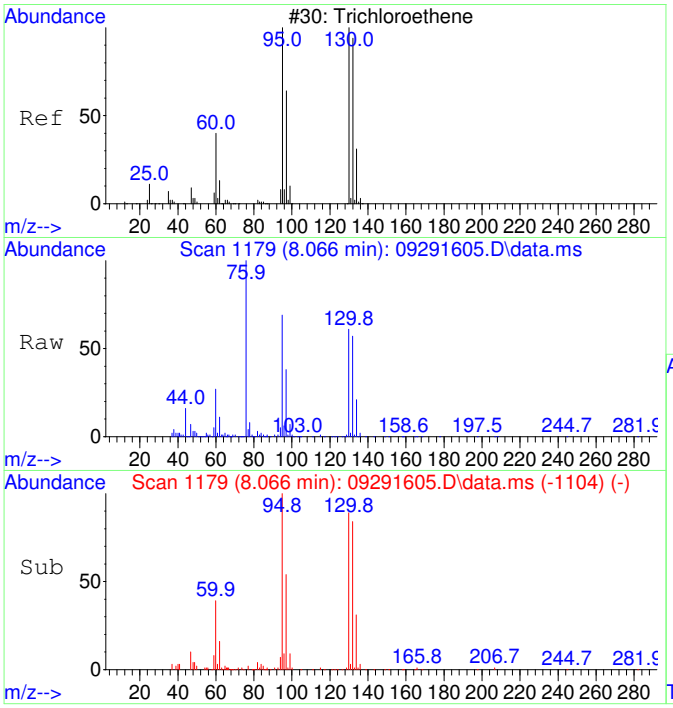


#21
Trichloroethene
Concen: 4845.54 ug/L
RT: 8.062 min Scan# 1185
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:130 Resp: 135284

Ion	Ratio	Lower	Upper
130	100		
97	59.8	29.9	89.9

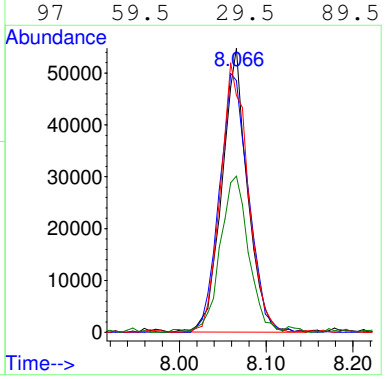


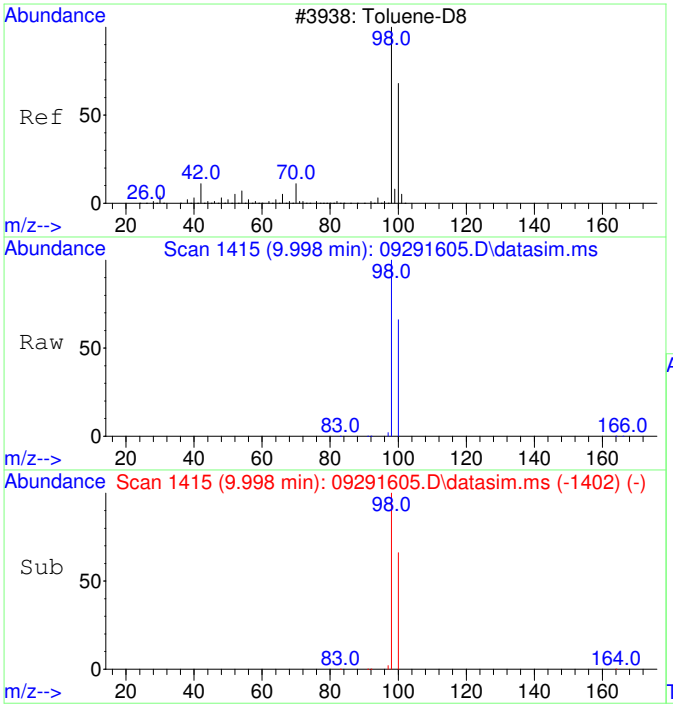


#22
Trichloroethene SCAN
Concen: 5000.00 ug/L
RT: 8.066 min Scan# 1179
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 95 Resp: 111797

Ion	Ratio	Lower	Upper
95	100		
130	104.1	74.1	134.1
132	102.1	72.1	132.1
97	59.5	29.5	89.5

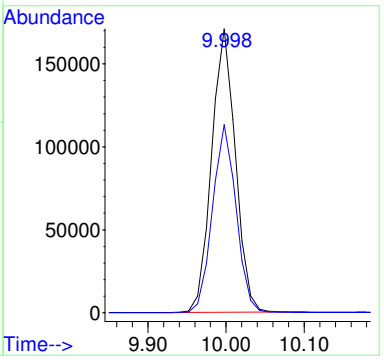


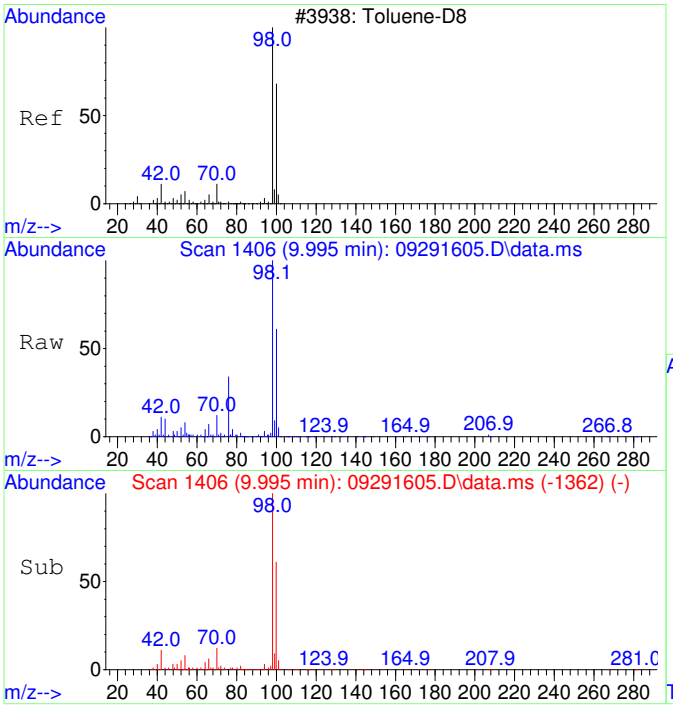


#23
Toluene-d8
Concen: 4761.67 ug/L
RT: 9.998 min Scan# 1415
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 98 Resp: 361510

Ion	Ratio	Lower	Upper
98	100		
100	65.3	35.3	95.3

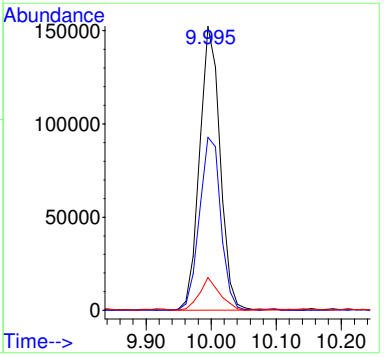


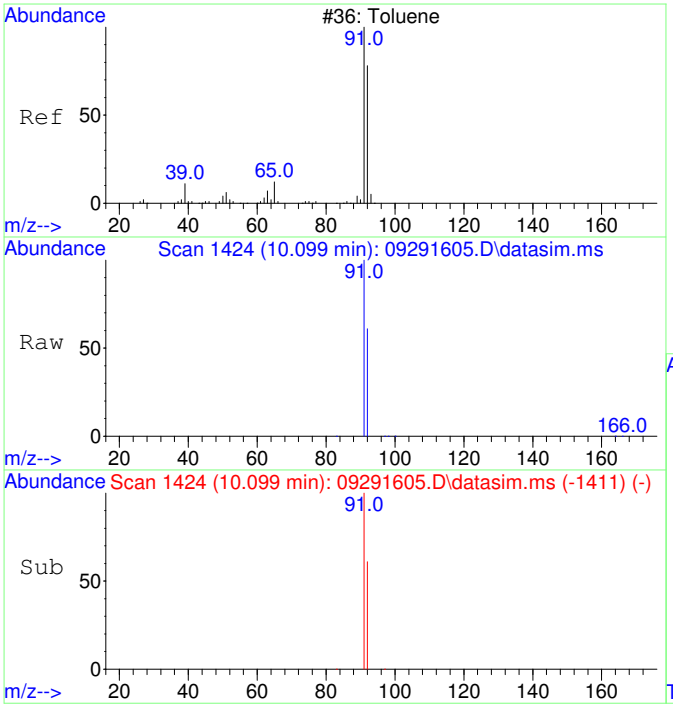


#24
Toluene-d8 SCAN
Concen: 5000.00 ug/L
RT: 9.995 min Scan# 1406
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 98 Resp: 333684

Ion	Ratio	Lower	Upper
98	100		
100	63.3	44.3	82.3
70	11.1	7.8	14.4

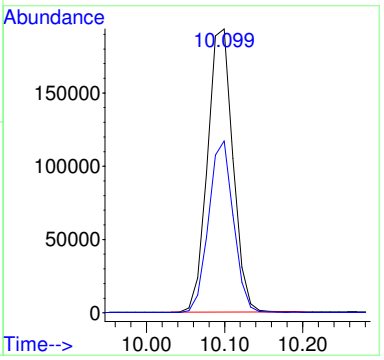


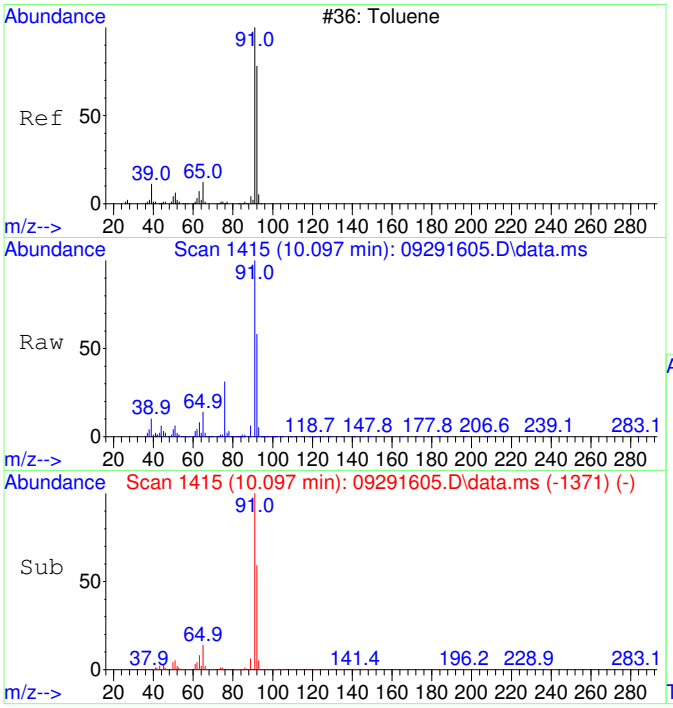


#25
Toluene
Concen: 4686.12 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 437658

Ion	Ratio	Lower	Upper
91	100		
92	58.8	28.8	88.8

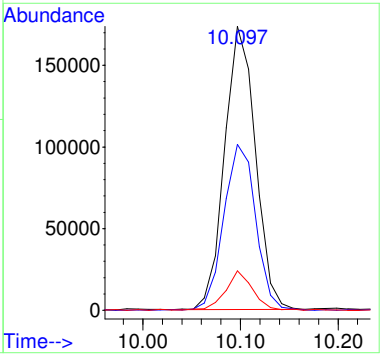


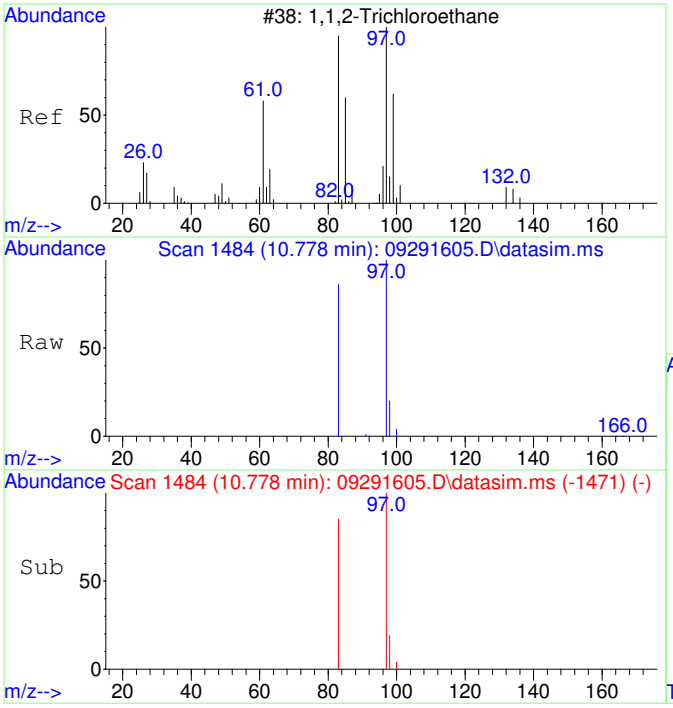


#26
Toluene SCAN
Concen: 5000.00 ug/L
RT: 10.097 min Scan# 1415
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 381651

Ion	Ratio	Lower	Upper
91	100		
92	60.7	30.7	90.7
65	12.6	0.0	42.6

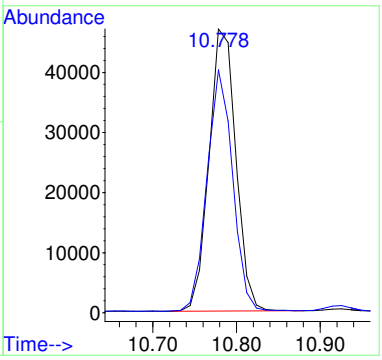


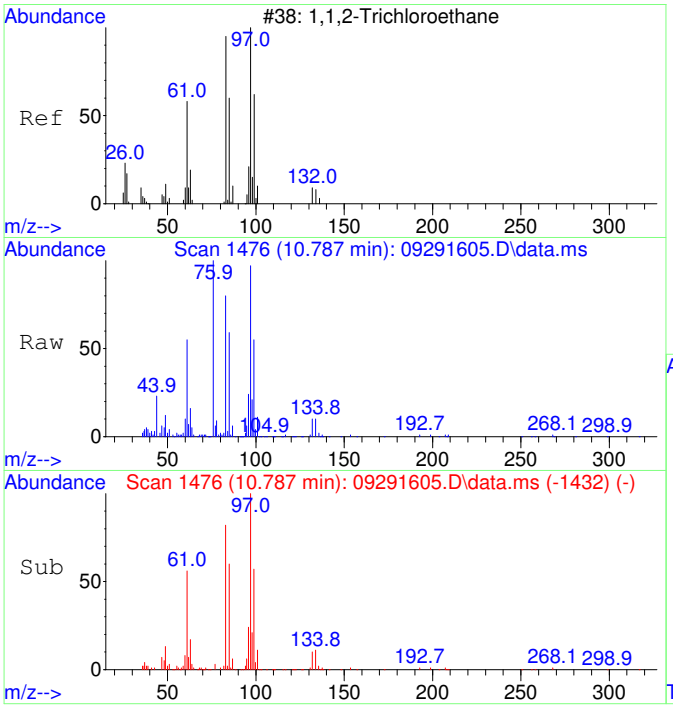


#27
1,1,2-Trichloroethane
Concen: 4755.05 ug/L
RT: 10.778 min Scan# 1484
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 97 Resp: 104907

Ion	Ratio	Lower	Upper
97	100		
83	80.5	50.5	110.5

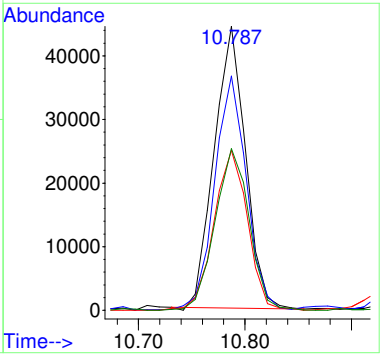


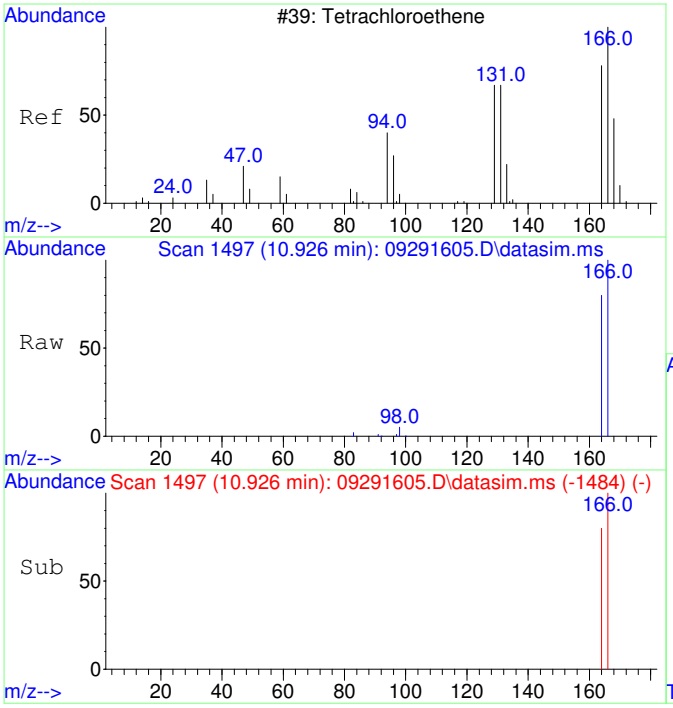


#28
1,1,2-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 10.787 min Scan# 1476
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 97 Resp: 90007

Ion	Ratio	Lower	Upper
97	100		
83	83.8	53.8	113.8
61	61.3	31.3	91.3
99	62.9	32.9	92.9

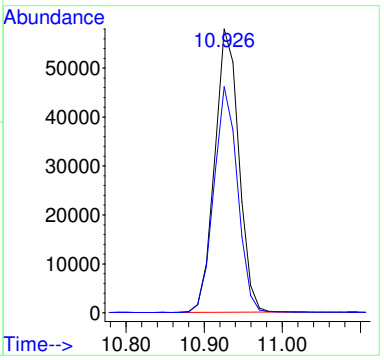


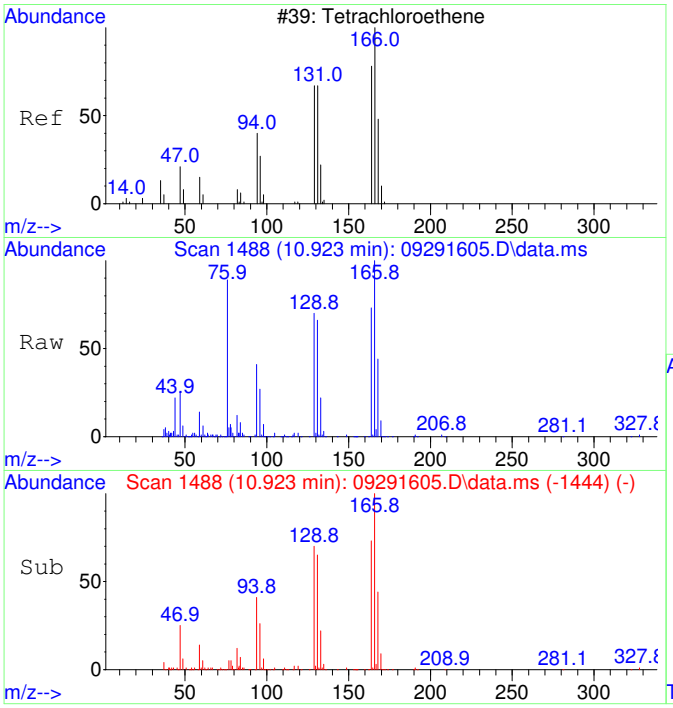


#29
Tetrachloroethene
Concen: 4615.21 ug/L
RT: 10.926 min Scan# 1497
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:166 Resp: 124256

Ion	Ratio	Lower	Upper
166	100		
164	77.8	47.7	107.7

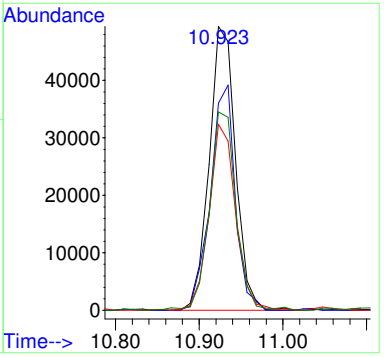


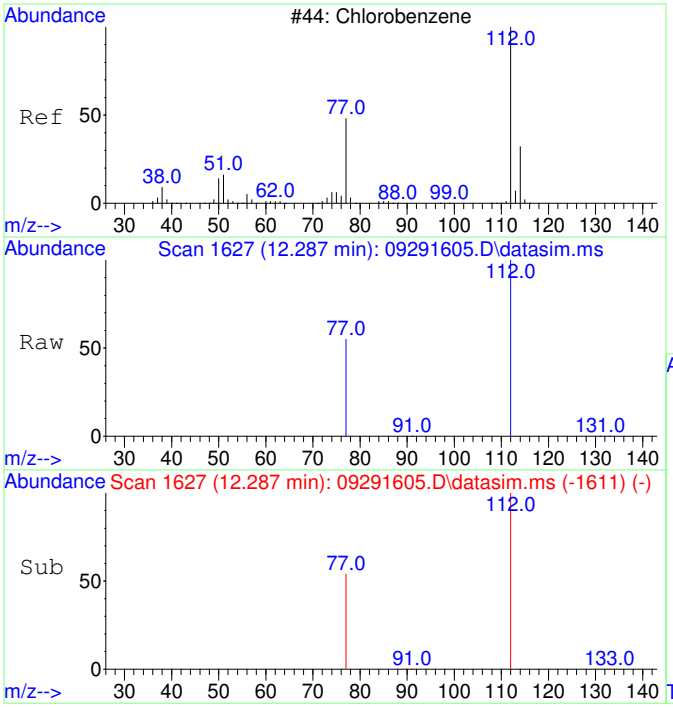


#30
Tetrachloroethene SCAN
Concen: 5000.00 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:166 Resp: 108073

Ion	Ratio	Lower	Upper
166	100		
164	74.9	44.9	104.9
131	66.1	36.1	96.1
129	70.5	40.5	100.5

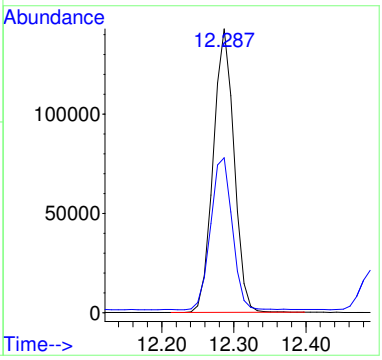


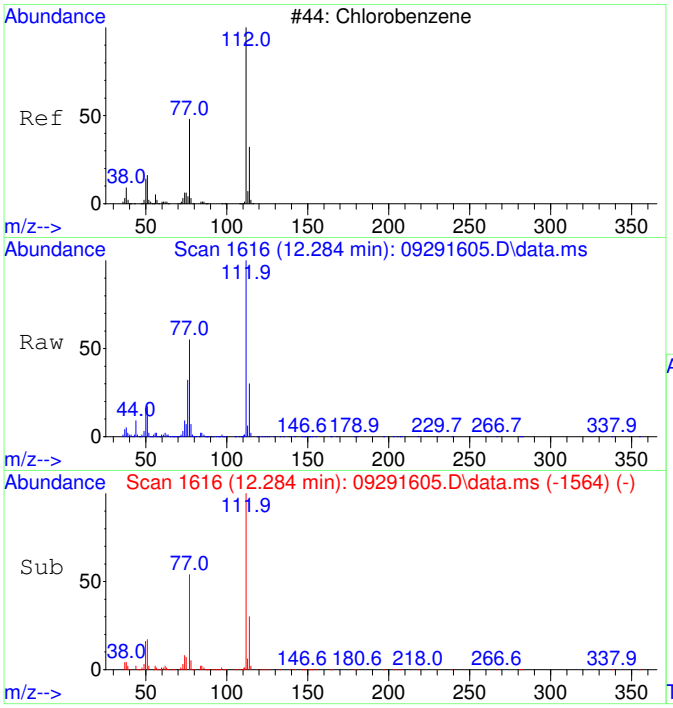


#31
Chlorobenzene
Concen: 4654.31 ug/L
RT: 12.287 min Scan# 1627
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:112 Resp: 286569

Ion	Ratio	Lower	Upper
112	100		
77	55.1	25.1	85.1

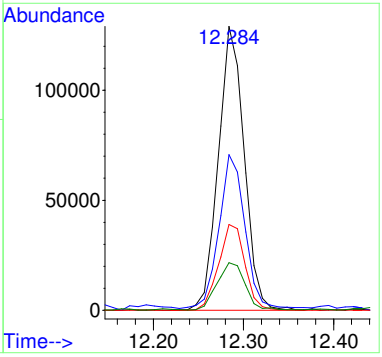


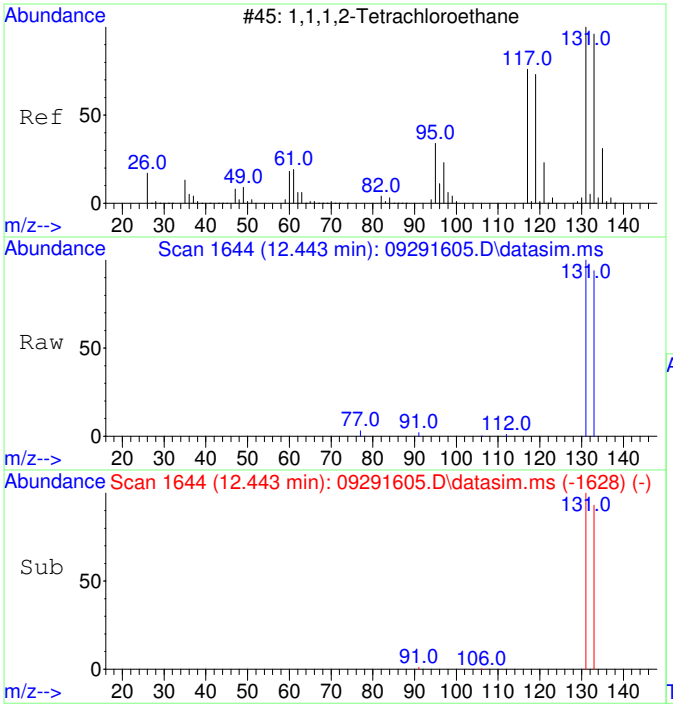


#32
Chlorobenzene SCAN
Concen: 5000.00 ug/L
RT: 12.284 min Scan# 1616
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:112 Resp: 256277

Ion	Ratio	Lower	Upper
112	100		
77	53.6	23.6	83.6
114	30.9	0.9	60.9
51	17.7	0.0	47.7

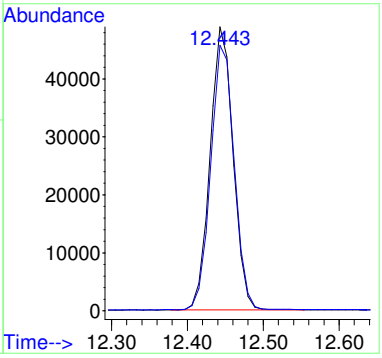


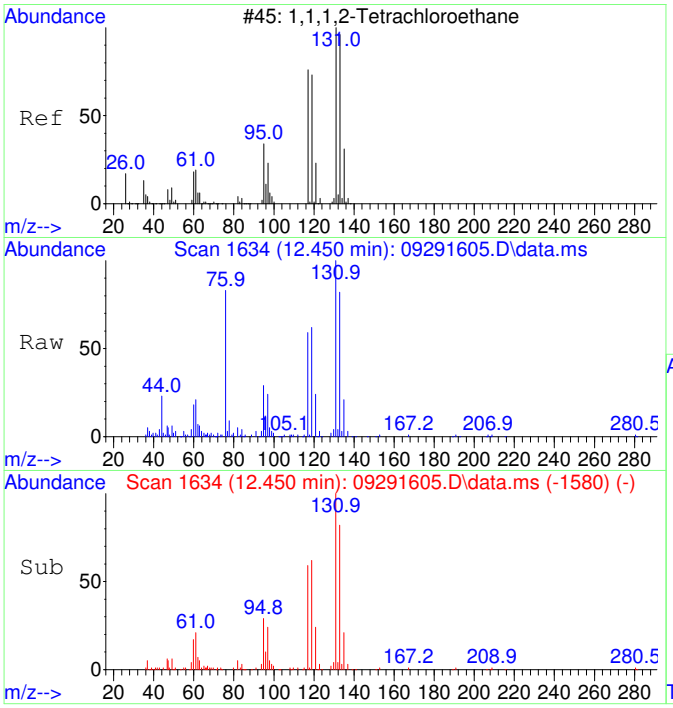


#33
1,1,1,2-Tetrachloroethane
Concen: 4660.94 ug/L
RT: 12.443 min Scan# 1644
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:131 Resp: 102914

Ion	Ratio	Lower	Upper
131	100		
133	94.8	64.8	124.8

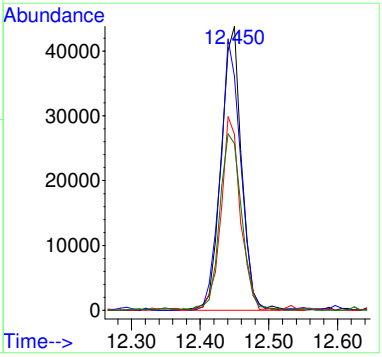


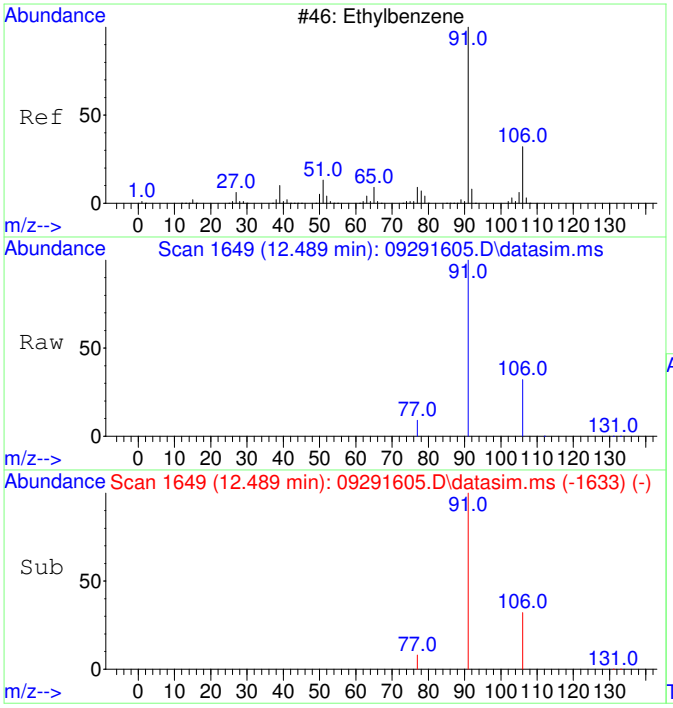


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 12.450 min Scan# 1634
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:131 Resp: 90780

Ion	Ratio	Lower	Upper
131	100		
133	94.7	64.7	124.7
119	64.9	34.9	94.9
117	66.2	36.2	96.2

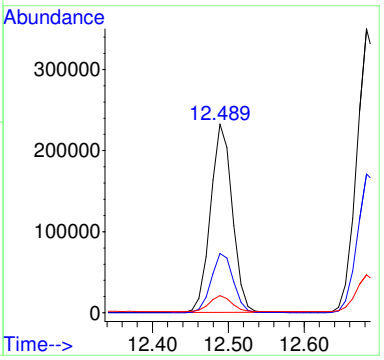


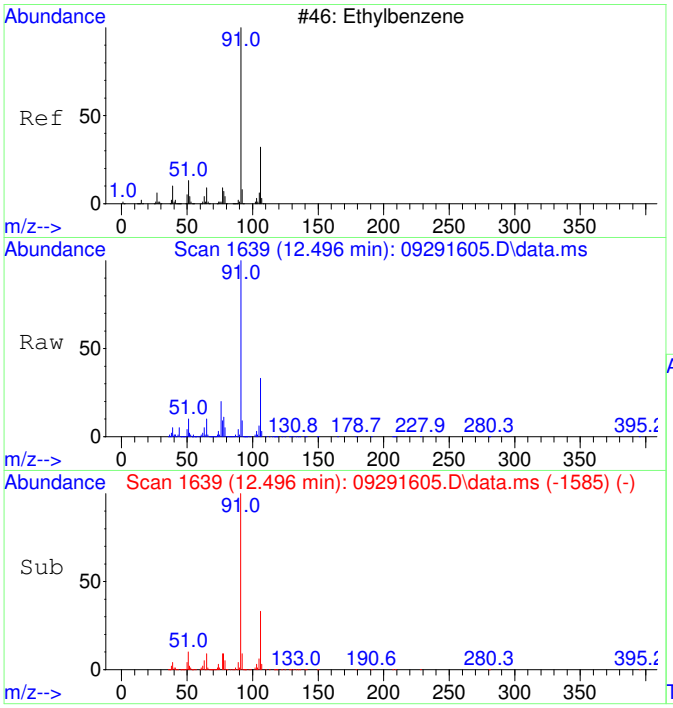


#35
Ethylbenzene
Concen: 4657.88 ug/L
RT: 12.489 min Scan# 1649
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 462897

Ion	Ratio	Lower	Upper
91	100		
106	31.7	1.7	61.7
77	8.3	0.0	38.3

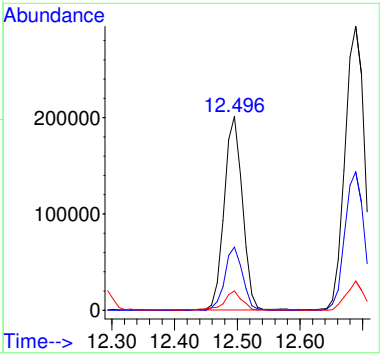


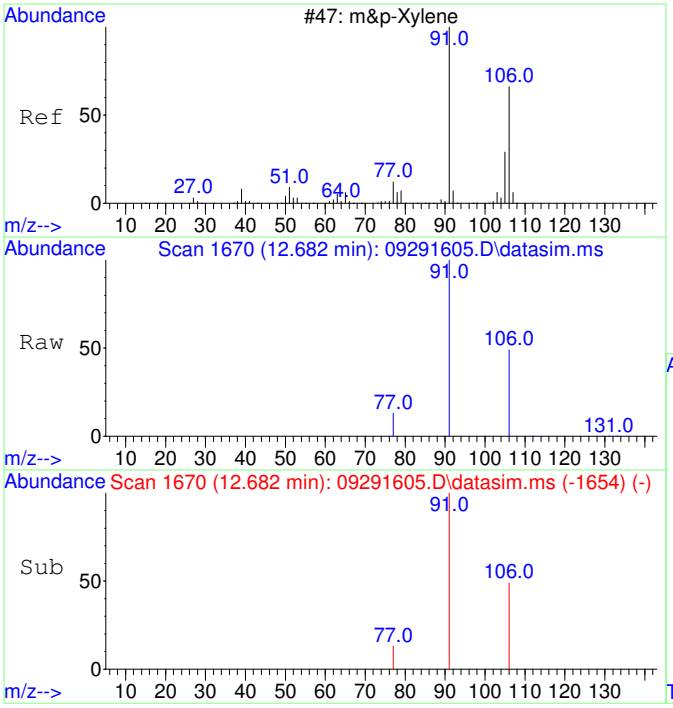


#36
Ethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 12.496 min Scan# 1639
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 404755

Ion	Ratio	Lower	Upper
91	100		
106	32.3	2.3	62.3
51	9.6	0.0	39.6

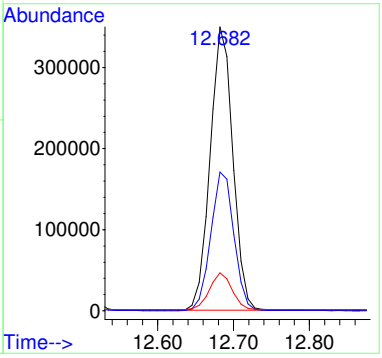


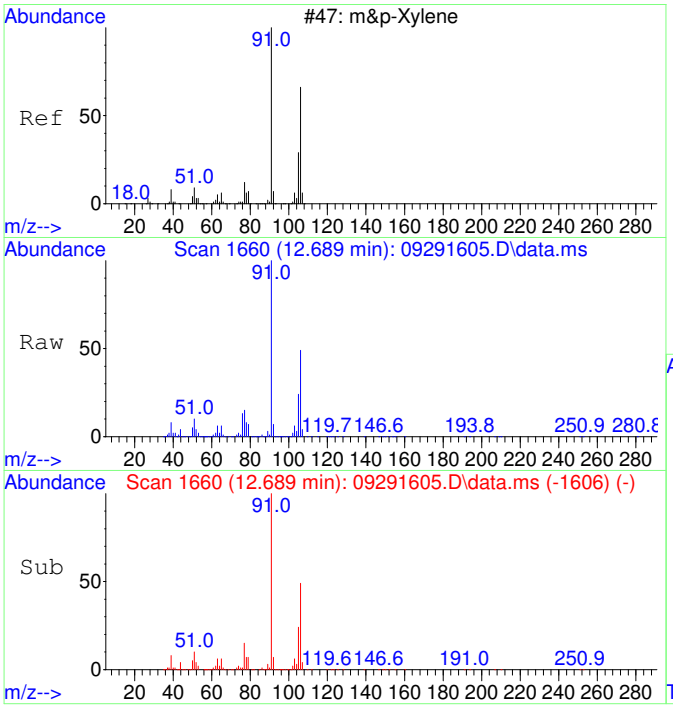


#37
m&p-Xylene
Concen: 9342.60 ug/L
RT: 12.682 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 727565

Ion	Ratio	Lower	Upper
91	100		
106	49.4	19.4	79.4
77	12.7	0.0	42.6

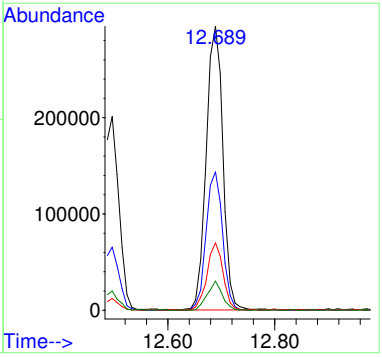


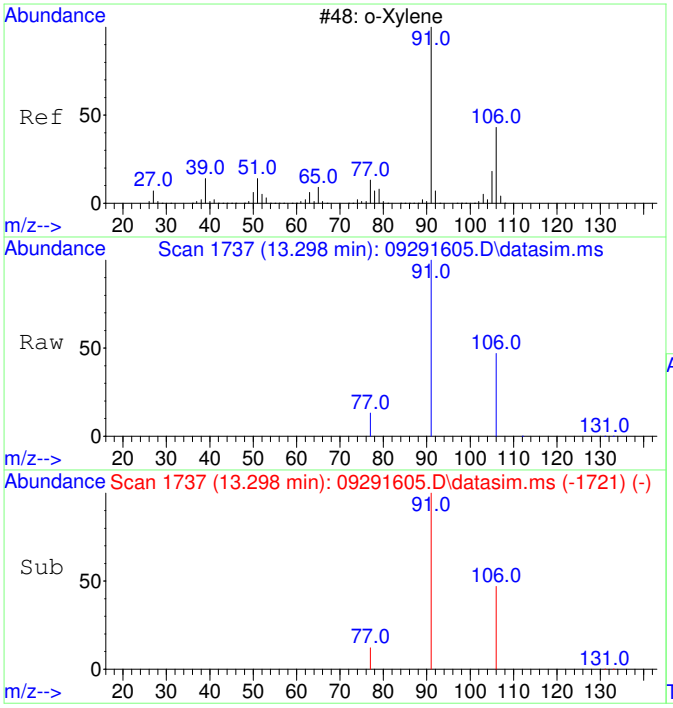


#38
m&p-Xylene SCAN
Concen: 10000.00 ug/L
RT: 12.689 min Scan# 1660
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 639954

Ion	Ratio	Lower	Upper
91	100		
106	48.0	18.0	78.0
105	23.1	0.0	53.1
51	9.4	0.0	39.4

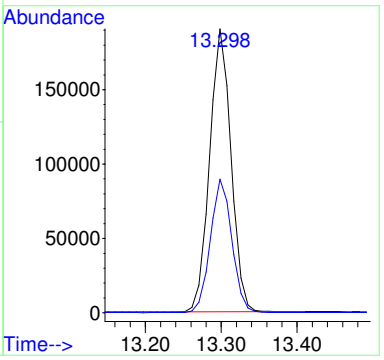


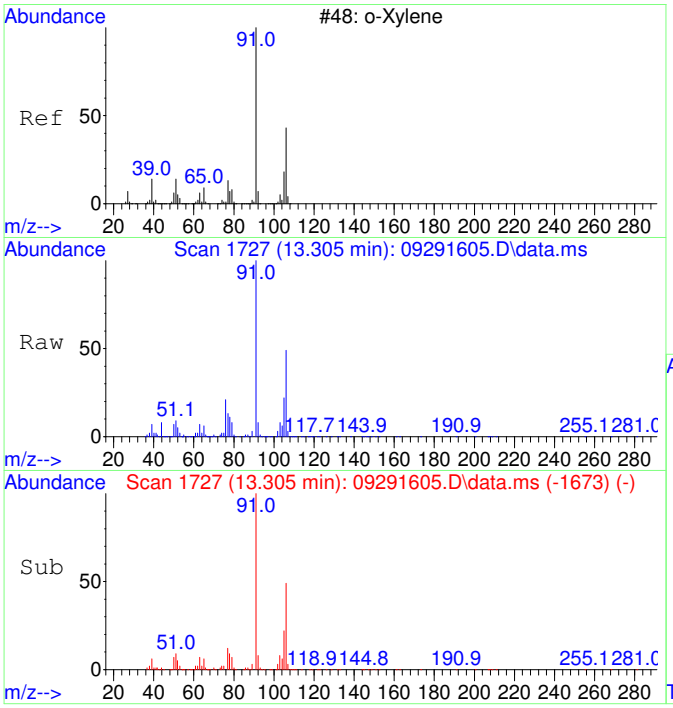


#39
o-Xylene
Concen: 4646.24 ug/L
RT: 13.298 min Scan# 1737
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 373055

Ion	Ratio	Lower	Upper
91	100		
106	47.2	17.2	77.2

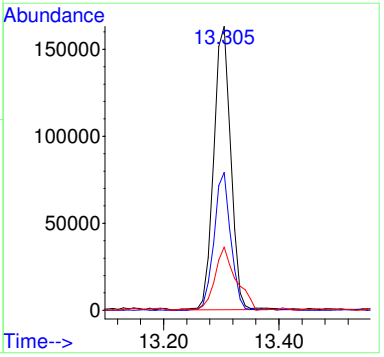


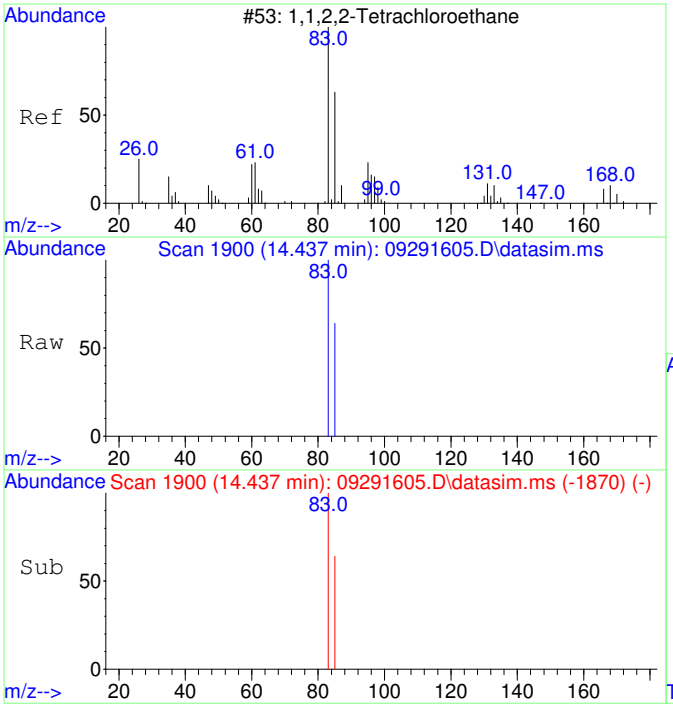


#40
o-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.305 min Scan# 1727
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 91 Resp: 334762

Ion	Ratio	Lower	Upper
91	100		
106	48.0	18.0	78.0
105	26.8	0.0	56.8

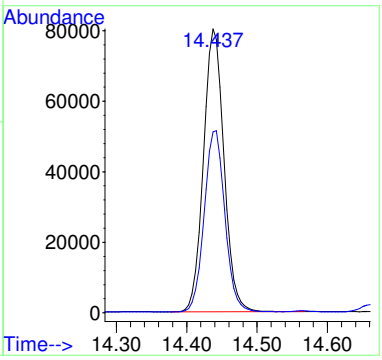


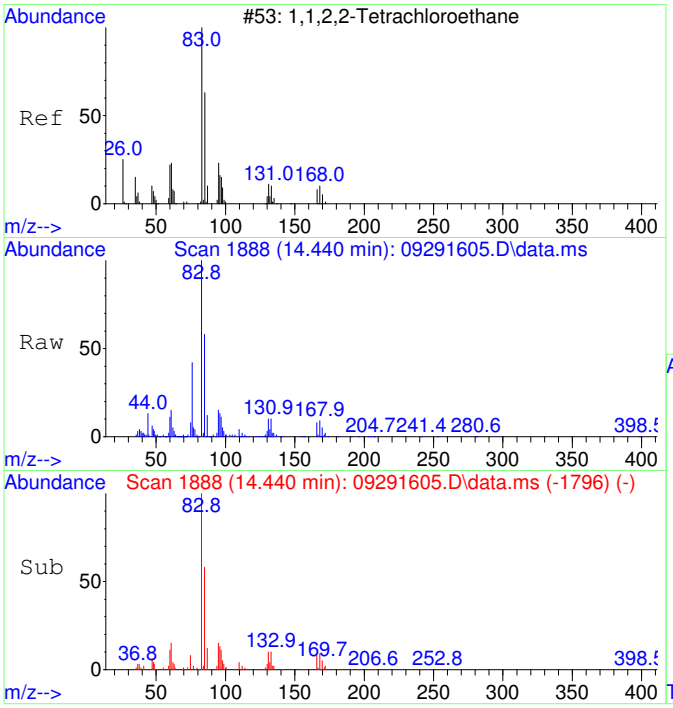


#41
1,1,2,2-Tetrachloroethane
Concen: 4684.16 ug/L
RT: 14.437 min Scan# 1900
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 83 Resp: 162435

Ion	Ratio	Lower	Upper
83	100		
85	64.5	34.4	94.4

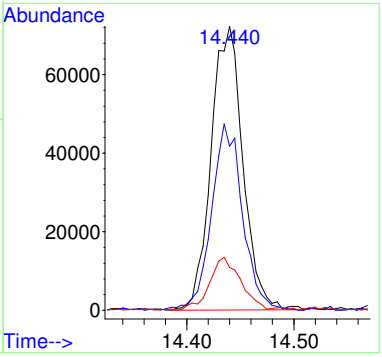


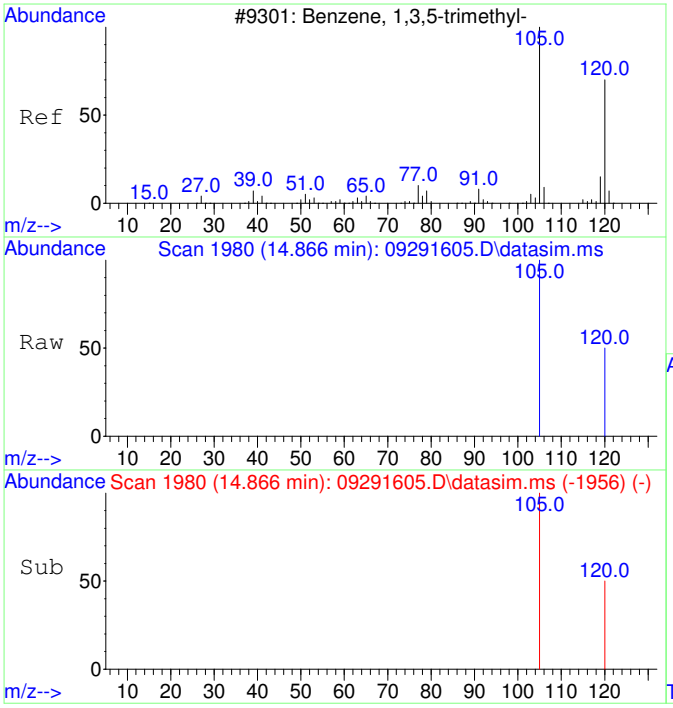


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 14.440 min Scan# 1888
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion: 83 Resp: 150000

Ion	Ratio	Lower	Upper
83	100		
85	63.2	33.2	93.2
95	17.2	0.0	47.2

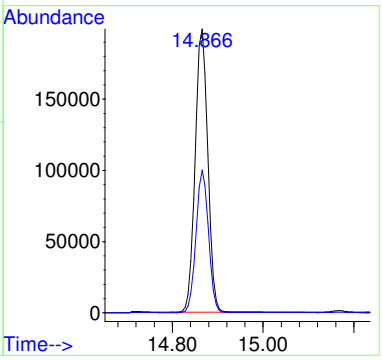


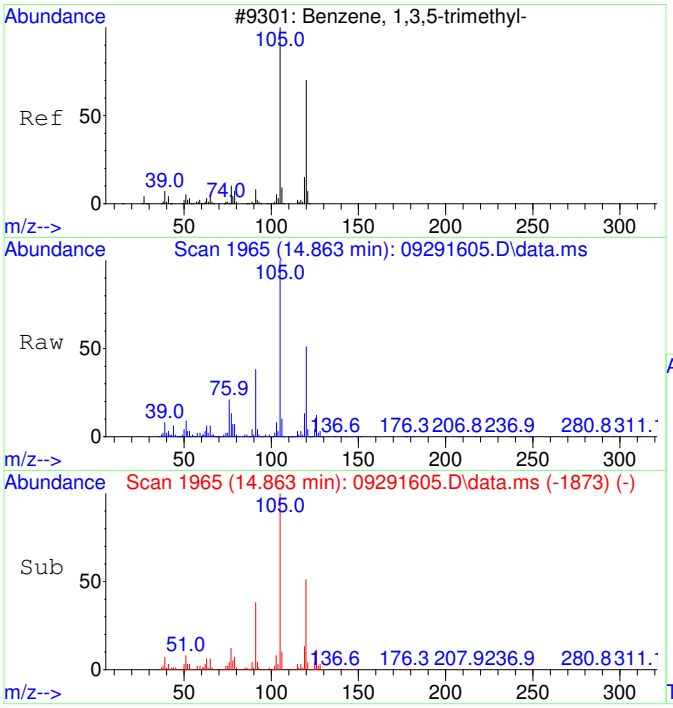


#43
1,3,5-Trimethylbenzene
Concen: 4645.24 ug/L
RT: 14.866 min Scan# 1980
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:105 Resp: 384016

Ion	Ratio	Lower	Upper
105	100		
120	49.7	19.7	79.7

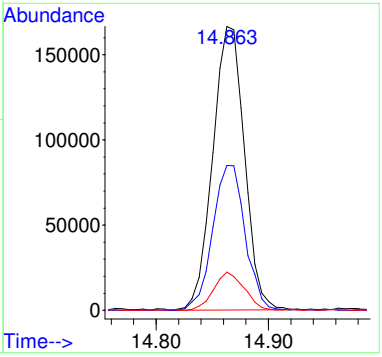


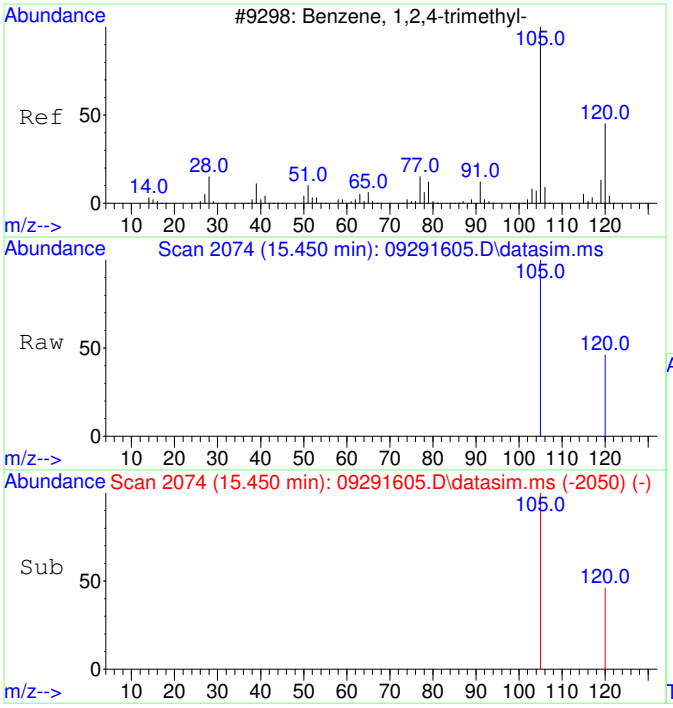


#44
1,3,5-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 14.863 min Scan# 1965
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:105 Resp: 326969

Ion	Ratio	Lower	Upper
105	100		
120	52.1	22.1	82.1
119	12.9	0.0	42.9

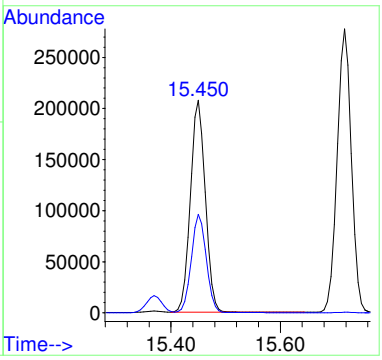


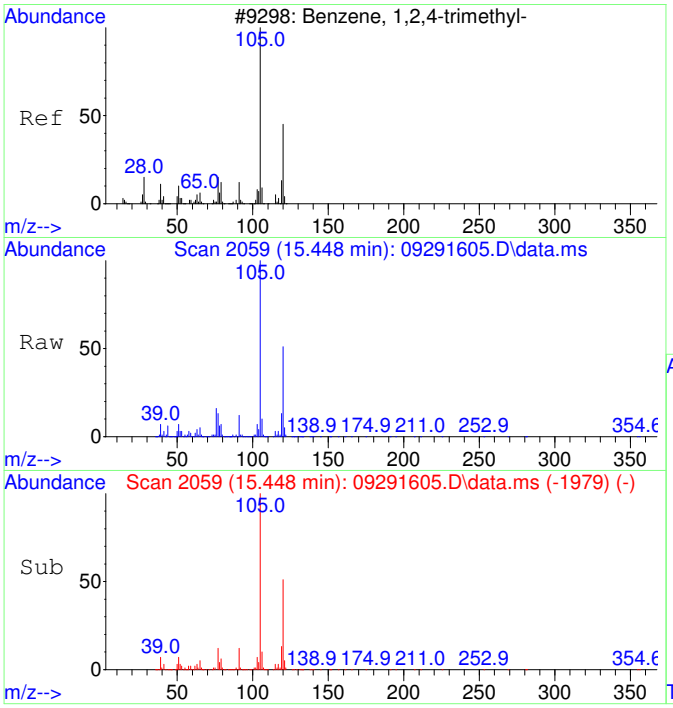


#45
1,2,4-Trimethylbenzene
Concen: 4629.63 ug/L
RT: 15.450 min Scan# 2074
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:105 Resp: 393205

Ion	Ratio	Lower	Upper
105	100		
120	45.7	15.7	75.7

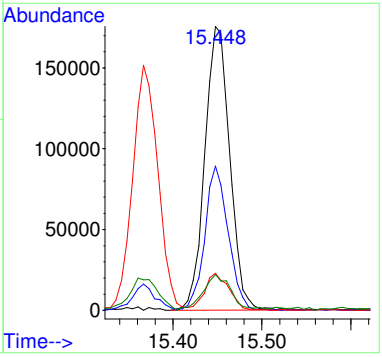


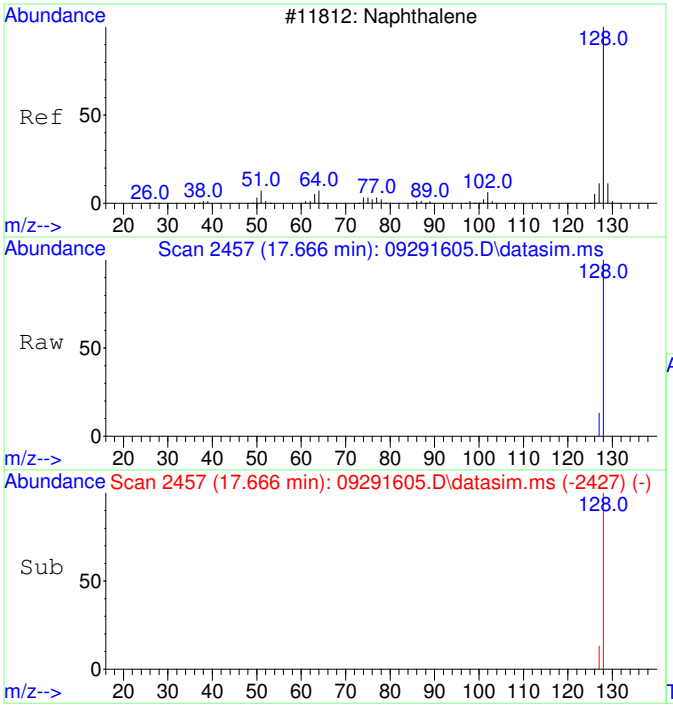


#46
1,2,4-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.448 min Scan# 2059
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:105 Resp: 343131

Ion	Ratio	Lower	Upper
105	100		
120	47.2	17.2	77.2
119	11.3	0.0	41.3
77	13.1	0.0	43.1

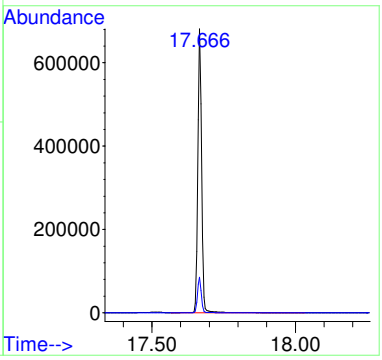


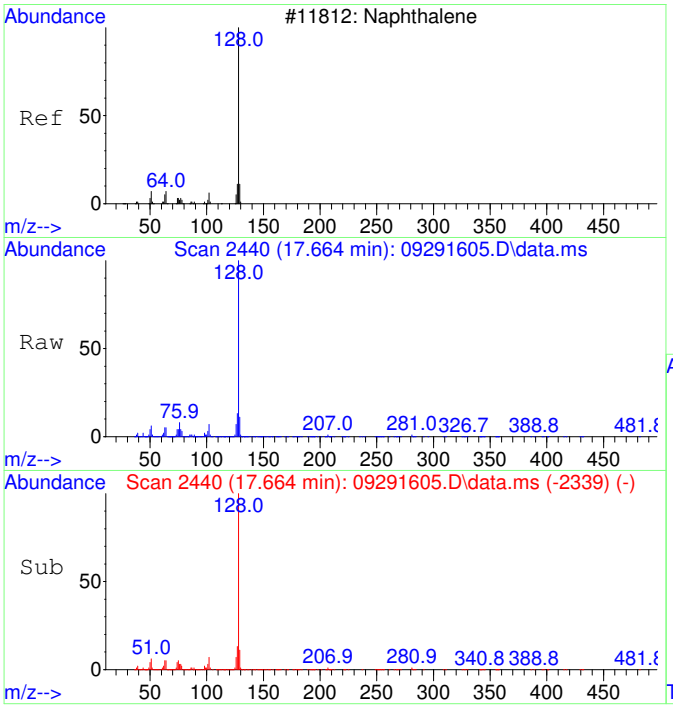


#47
Naphthalene
Concen: 4674.06 ug/L
RT: 17.666 min Scan# 2457
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:128 Resp: 621419

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.6

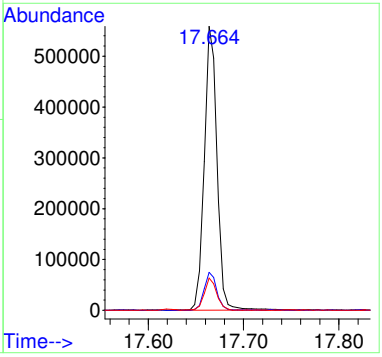




#48
Naphthalene SCAN
Concen: 5000.00 ug/L
RT: 17.664 min Scan# 2440
Delta R.T. 0.000 min
Lab File: 09291605.D
Acq: 30 Sep 2016 4:54

Tgt Ion:128 Resp: 517800

Ion	Ratio	Lower	Upper
128	100		
127	13.1	0.0	43.1
129	11.0	0.0	41.0



S16I099-CAL4

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291606.D
Acq On : 30 Sep 2016 5:19
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL4
Misc : 1635075 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 30 09:06:07 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

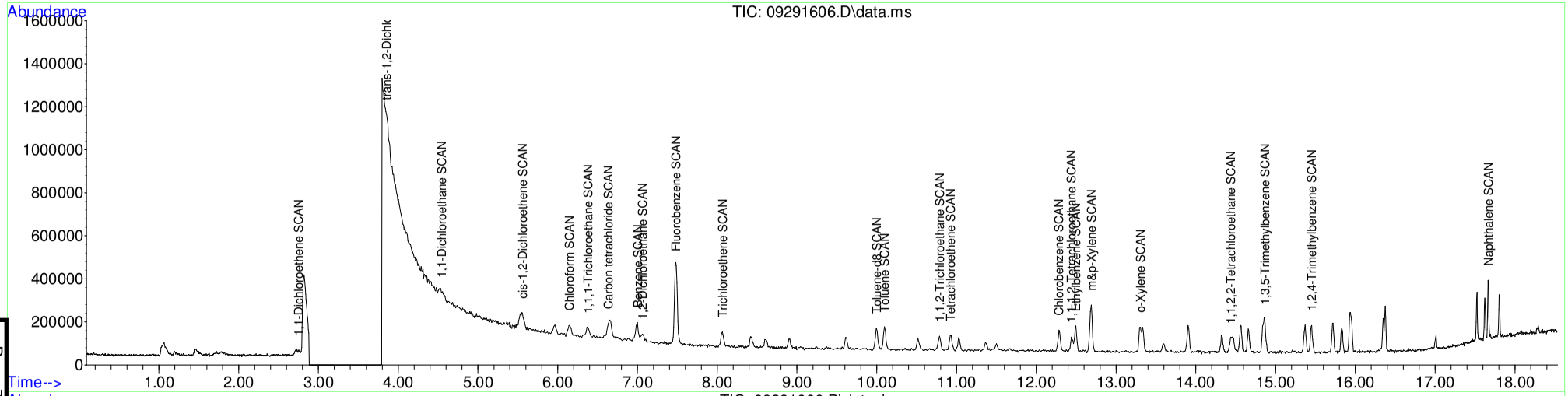
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.483	96	506752	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	87760	975.21 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 19.50%#		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.487	96	447663	4973.58 ug/L	99
3] 1,1-Dichloroethene	2.728	61	49949	869.56 ug/L	98
4) 1,1-Dichloroethene SCAN	2.750	61	43644	909.22 ug/L #	36
5] trans-1,2-Dichloroethene	3.849	61	44813	895.71 ug/L	98
6) trans-1,2-Dichloroethe...	3.854	61	40911	959.54 ug/L	98
7] 1,1-Dichloroethane	4.535	63	54391	921.29 ug/L	100
8) 1,1-Dichloroethane SCAN	4.541	63	51264	988.05 ug/L	97
9] cis-1,2-Dichloroethene	5.561	61	48979	930.67 ug/L	100
10) cis-1,2-Dichloroethene...	5.558	61	45404	967.86 ug/L	95
11] Chloroform	6.142	83	55236	918.37 ug/L	99
12) Chloroform SCAN	6.140	83	51283	991.21 ug/L	97
13] 1,1,1-Trichloroethane	6.370	97	49311	942.77 ug/L	100
14) 1,1,1-Trichloroethane ...	6.381	97	42842	938.35 ug/L	94
15] Carbon tetrachloride	6.639	117	42851	945.79 ug/L	100
16) Carbon tetrachloride SCAN	6.636	117	45283	1134.94 ug/L	90
17] Benzene	6.988	78	110411	945.07 ug/L	99
18) Benzene SCAN	6.998	78	93827	893.68 ug/L	93
19] 1,2-Dichloroethane	7.055	62	40406	946.74 ug/L	100
20) 1,2-Dichloroethane SCAN	7.065	62	36717	917.42 ug/L	88
21] Trichloroethene	8.068	130	31642	956.14 ug/L	100
22) Trichloroethene SCAN	8.065	95	25154	949.10 ug/L	90
24) Toluene-d8 SCAN	9.995	98	80632	1019.31 ug/L #	93
25] Toluene	10.099	91	106878	965.45 ug/L	100
26) Toluene SCAN	10.097	91	98628	1090.10 ug/L	94
27] 1,1,2-Trichloroethane	10.778	97	25019	956.72 ug/L	99
28) 1,1,2-Trichloroethane ...	10.787	97	24105	1129.70 ug/L	96
29] Tetrachloroethene	10.925	166	30581	958.27 ug/L	100
30) Tetrachloroethene SCAN	10.923	166	27788	1084.61 ug/L	96
31] Chlorobenzene	12.286	112	70376	964.30 ug/L	99
32) Chlorobenzene SCAN	12.284	112	61284	1008.72 ug/L	81
33] 1,1,1,2-Tetrachloroethane	12.443	131	25256	965.00 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.440	131	24205	1124.73 ug/L	97
35] Ethylbenzene	12.489	91	114500	972.01 ug/L	100
36) Ethylbenzene SCAN	12.495	91	98494	1026.48 ug/L	94
37] m&p-Xylene	12.682	91	178482	1933.54 ug/L	100
38) m&p-Xylene SCAN	12.688	91	155976	2056.23 ug/L	94
39] o-Xylene	13.298	91	91915	965.78 ug/L	100
40) o-Xylene SCAN	13.305	91	82671	1041.72 ug/L	94
41] 1,1,2,2-Tetrachloroethane	14.437	83	39683	965.43 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.435	83	35320	993.26 ug/L	95
43] 1,3,5-Trimethylbenzene	14.865	105	92512	944.10 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.863	105	82266	1061.32 ug/L	96
45] 1,2,4-Trimethylbenzene	15.450	105	94749	941.16 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.454	105	82838	1018.36 ug/L	96
47] Naphthalene	17.666	128	143593	911.18 ug/L	100
48) Naphthalene SCAN	17.664	128	119547	973.89 ug/L	98

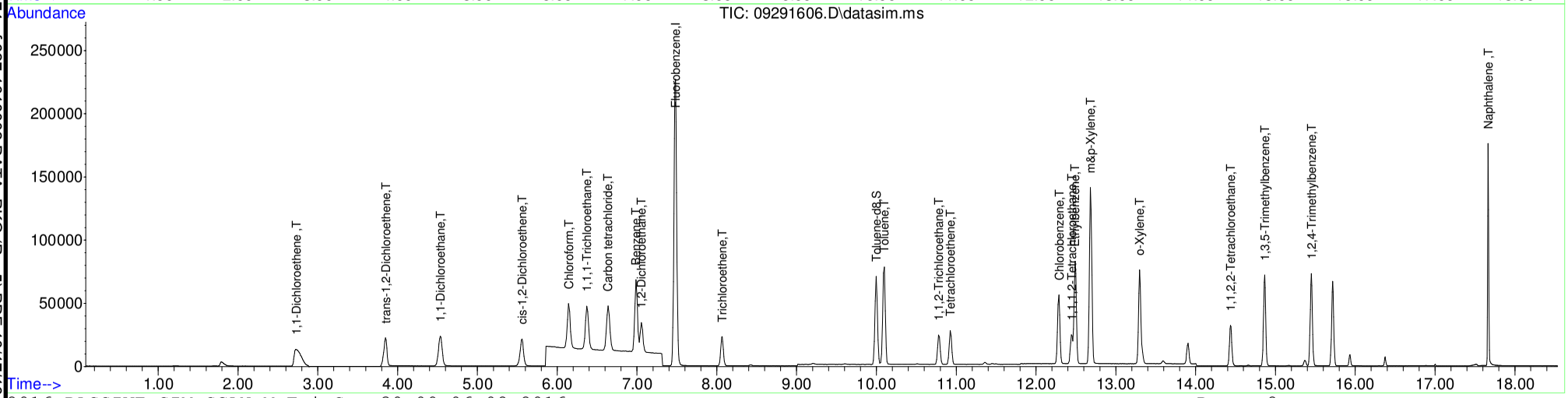
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291606.D
Acq On : 30 Sep 2016 5:19
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL4
Misc : 1635075 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 30 09:06:07 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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S16I099-CAL5

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291607.D
Acq On : 30 Sep 2016 5:43
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

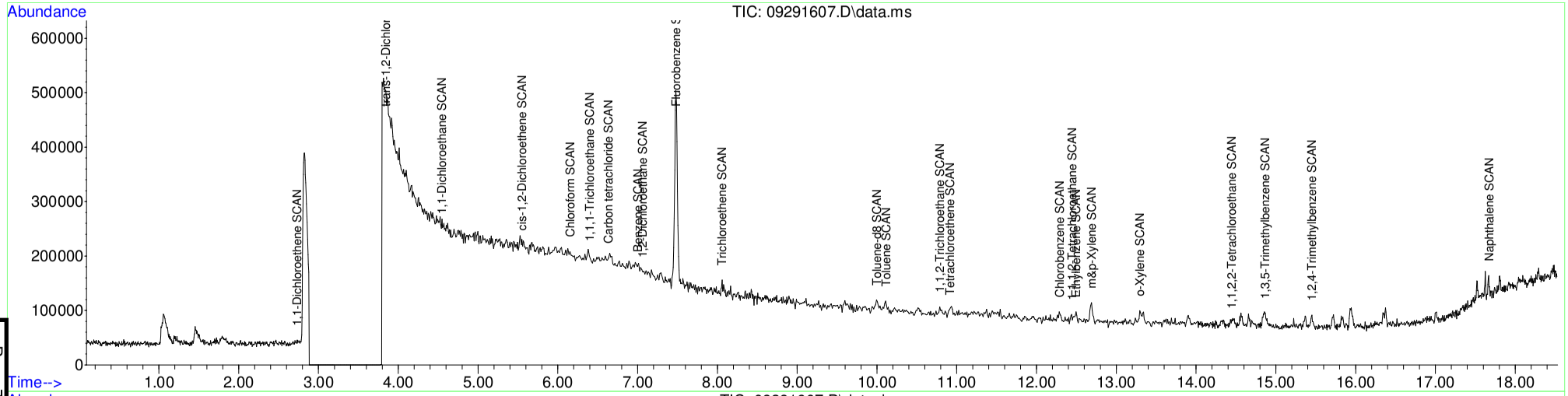
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.482	96	441215	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	11818	150.83 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery =	3.02%#	
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	391173	4991.51 ug/L	98
3] 1,1-Dichloroethene	2.728	61	8685	173.66 ug/L	89
4) 1,1-Dichloroethene SCAN	2.730	61	1596	38.19 ug/L #	63
5] trans-1,2-Dichloroethene	3.849	61	7427	170.50 ug/L	88
6) trans-1,2-Dichloroethe...	3.838	61	7688	207.10 ug/L #	42
7] 1,1-Dichloroethane	4.543	63	8559	166.51 ug/L	99
8) 1,1-Dichloroethane SCAN	4.540	63	9549	211.38 ug/L	92
9] cis-1,2-Dichloroethene	5.561	61	7531	164.35 ug/L	99
10) cis-1,2-Dichloroethene...	5.542	61	1265	30.97 ug/L #	1
11] Chloroform	6.142	83	8518	162.66 ug/L	100
12) Chloroform SCAN	6.153	83	9342	207.39 ug/L	92
13] 1,1,1-Trichloroethane	6.370	97	7319	160.72 ug/L	99
14) 1,1,1-Trichloroethane ...	6.394	97	11110	279.48 ug/L #	41
15] Carbon tetrachloride	6.639	117	6211	157.45 ug/L	98
16) Carbon tetrachloride SCAN	6.636	117	7375	212.30 ug/L #	81
17] Benzene	6.987	78	17784	174.83 ug/L	98
18) Benzene SCAN	6.998	78	23252	254.37 ug/L	81
19] 1,2-Dichloroethane	7.054	62	5946	160.01 ug/L	98
20) 1,2-Dichloroethane SCAN	7.065	62	6675	191.56 ug/L #	1
21] Trichloroethene	8.068	130	4546	157.77 ug/L	98
22) Trichloroethene SCAN	8.059	95	4642	201.17 ug/L	83
24) Toluene-d8 SCAN	9.995	98	14580	211.69 ug/L #	87
25] Toluene	10.099	91	14694	152.45 ug/L	99
26) Toluene SCAN	10.108	91	15927	202.18 ug/L	99
27] 1,1,2-Trichloroethane	10.778	97	3490	153.28 ug/L	96
28) 1,1,2-Trichloroethane ...	10.787	97	3710	199.70 ug/L	76
29] Tetrachloroethene	10.925	166	4252	153.03 ug/L	100
30) Tetrachloroethene SCAN	10.911	166	3995	179.09 ug/L #	10
31] Chlorobenzene	12.286	112	9667	152.13 ug/L	96
32) Chlorobenzene SCAN	12.284	112	9035	170.80 ug/L #	41
33] 1,1,1,2-Tetrachloroethane	12.443	131	3497	153.46 ug/L	97
34) 1,1,1,2-Tetrachloroeth...	12.440	131	2963	158.13 ug/L #	46
35] Ethylbenzene	12.489	91	15590	152.01 ug/L	98
36) Ethylbenzene SCAN	12.495	91	16725	200.19 ug/L	90
37] m&p-Xylene	12.682	91	24362	303.12 ug/L	99
38) m&p-Xylene SCAN	12.688	91	25091	379.91 ug/L	95
39] o-Xylene	13.298	91	12589	151.92 ug/L	99
40) o-Xylene SCAN	13.295	91	15978	231.24 ug/L	81
41] 1,1,2,2-Tetrachloroethane	14.437	83	5401	150.92 ug/L	98
42) 1,1,2,2-Tetrachloroeth...	14.439	83	6355	205.26 ug/L #	43
43] 1,3,5-Trimethylbenzene	14.865	105	12917	151.40 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.869	105	13588	201.34 ug/L	77
45] 1,2,4-Trimethylbenzene	15.450	105	13055	148.94 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.453	105	13456	189.99 ug/L	90
47] Naphthalene	17.666	128	20871	152.11 ug/L	100
48) Naphthalene SCAN	17.668	128	18693	174.90 ug/L	95

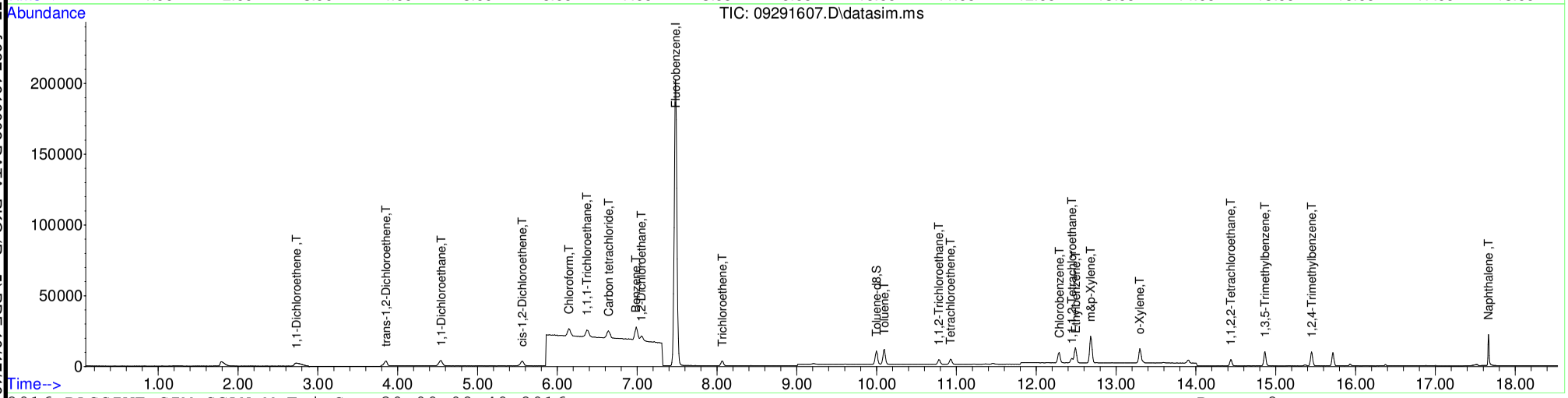
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291607.D
Acq On : 30 Sep 2016 5:43
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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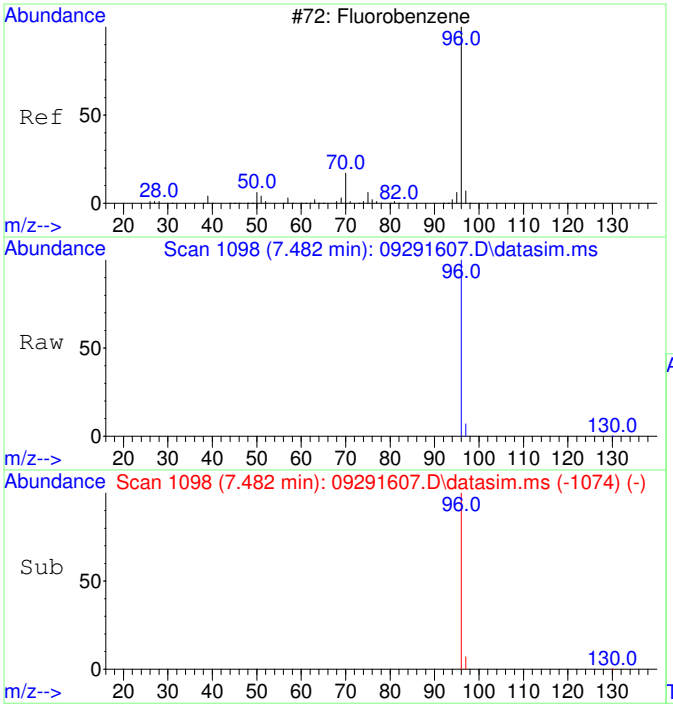
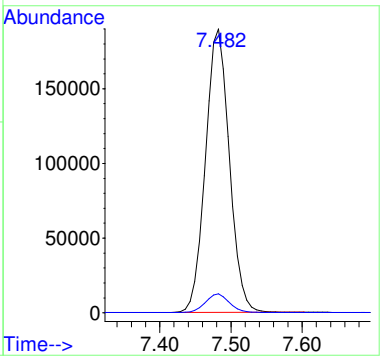
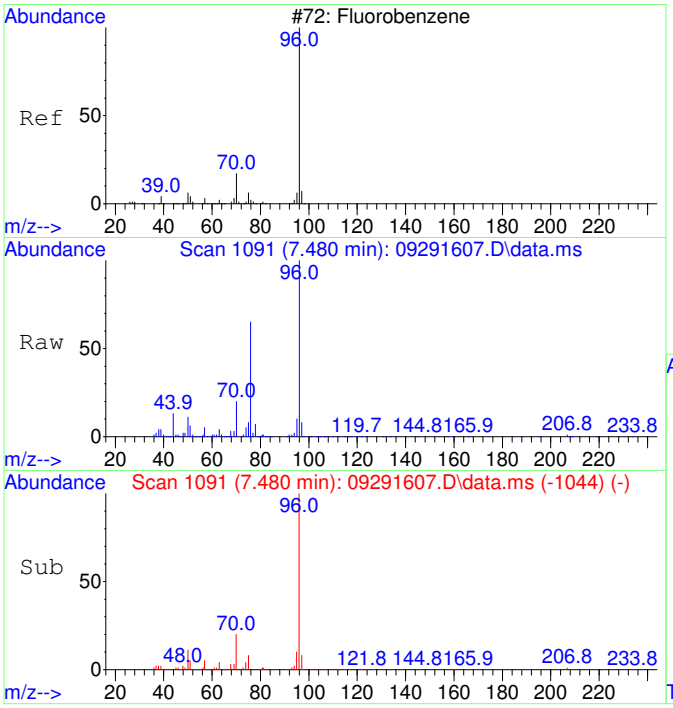


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 96 Resp: 441215

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

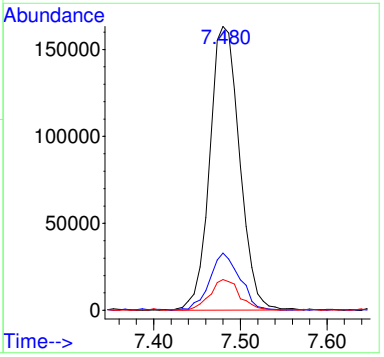


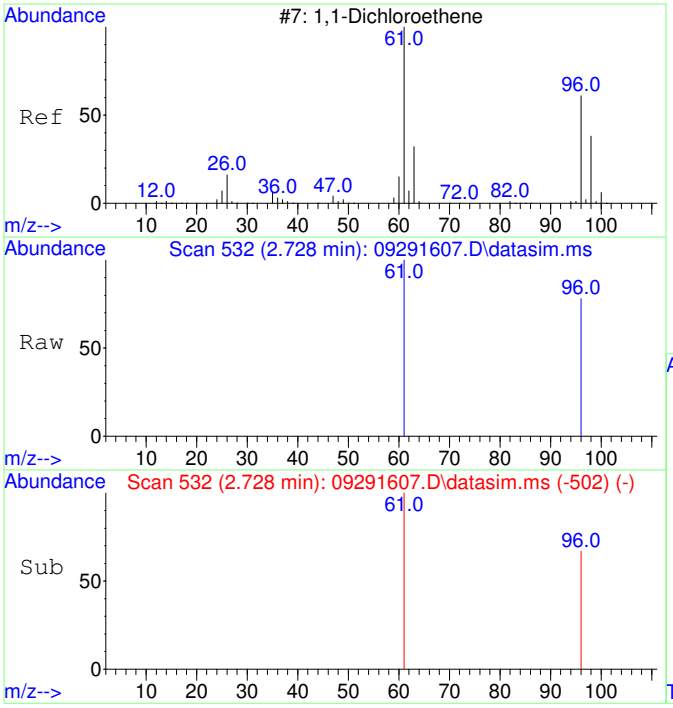


#2
Fluorobenzene SCAN
Concen: 4991.51 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 96 Resp: 391173

Ion	Ratio	Lower	Upper
96	100		
70	20.2	0.0	49.2
50	10.6	0.0	41.1

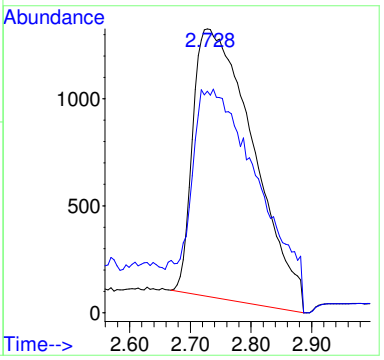




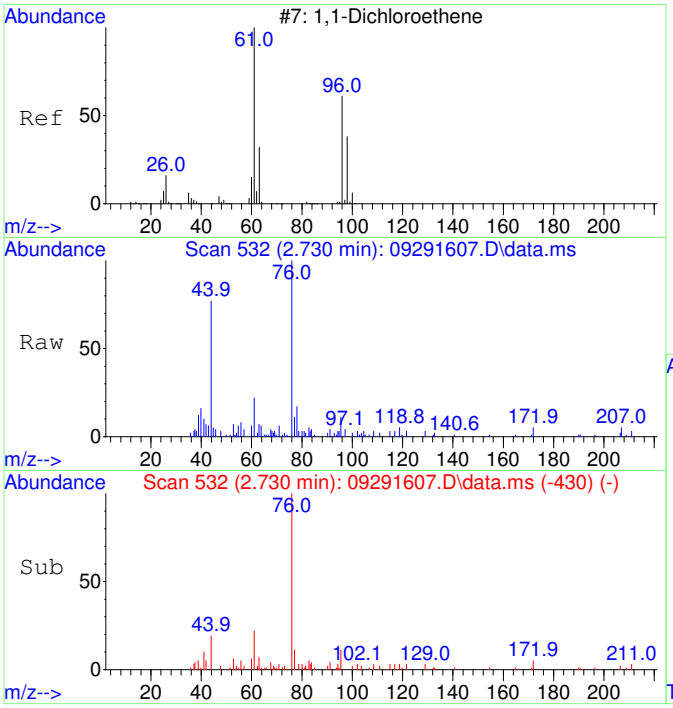
#3
1,1-Dichloroethene
Concen: 173.66 ug/L
RT: 2.728 min Scan# 532
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 8685

Ion	Ratio	Lower	Upper
61	100		
96	73.3	34.9	94.9



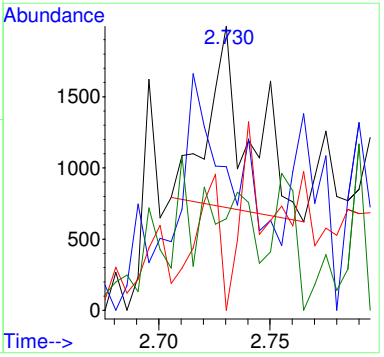
Before MI:
IMPROPER
BASELINE

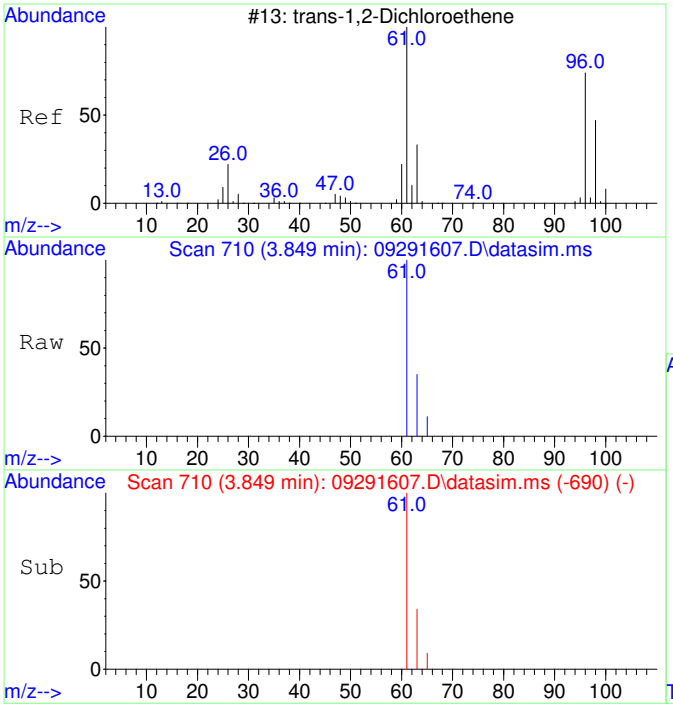


#4
1,1-Dichloroethene SCAN
Concen: 38.19 ug/L
RT: 2.730 min Scan# 532
Delta R.T. 0.005 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 1596

Ion	Ratio	Lower	Upper
61	100		
96	85.7	30.2	90.2
98	37.0	12.2	72.2
63	79.3	3.7	63.7#

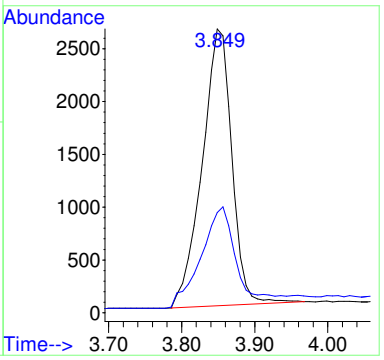


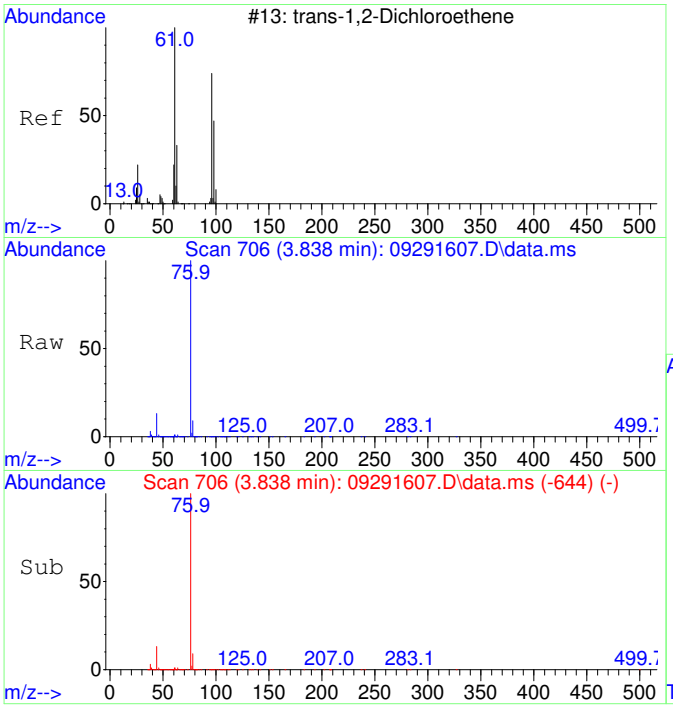


#5
trans-1,2-Dichloroethene
Concen: 170.50 ug/L
RT: 3.849 min Scan# 710
Delta R.T. 0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 7427

Ion	Ratio	Lower	Upper
61	100		
63	39.2	2.5	62.5

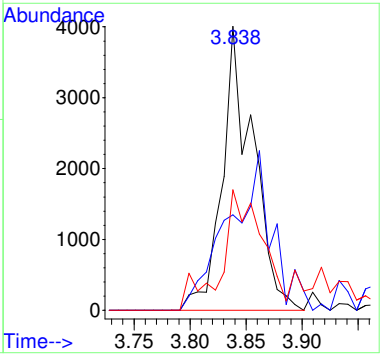


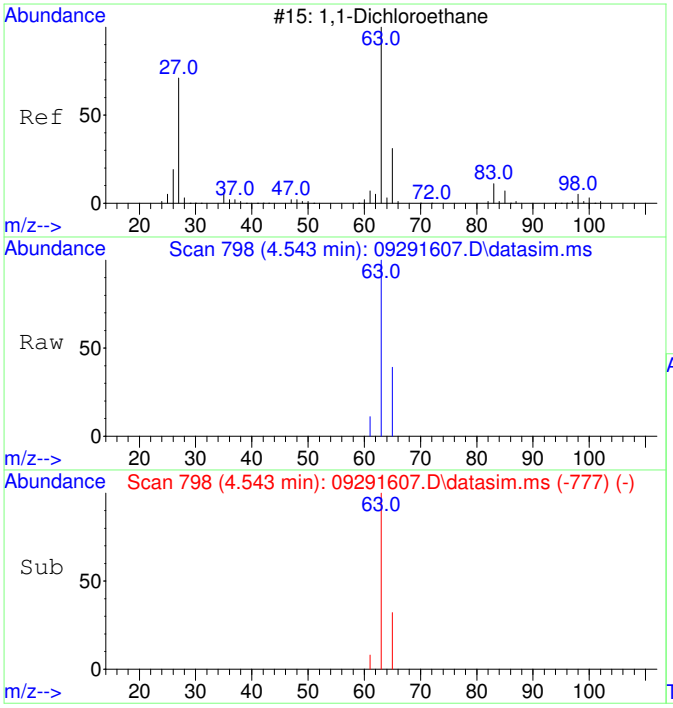


#6
trans-1,2-Dichloroethene SCAN
Concen: 207.10 ug/L
RT: 3.838 min Scan# 706
Delta R.T. -0.008 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 7688

Ion	Ratio	Lower	Upper
61	100		
96	0.0	47.5	107.5#
98	50.8	17.2	77.2

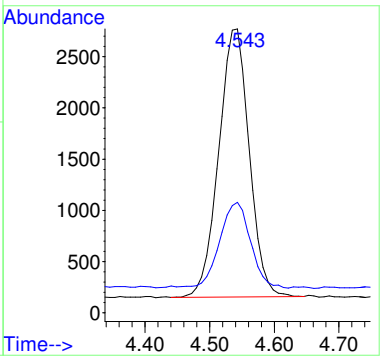


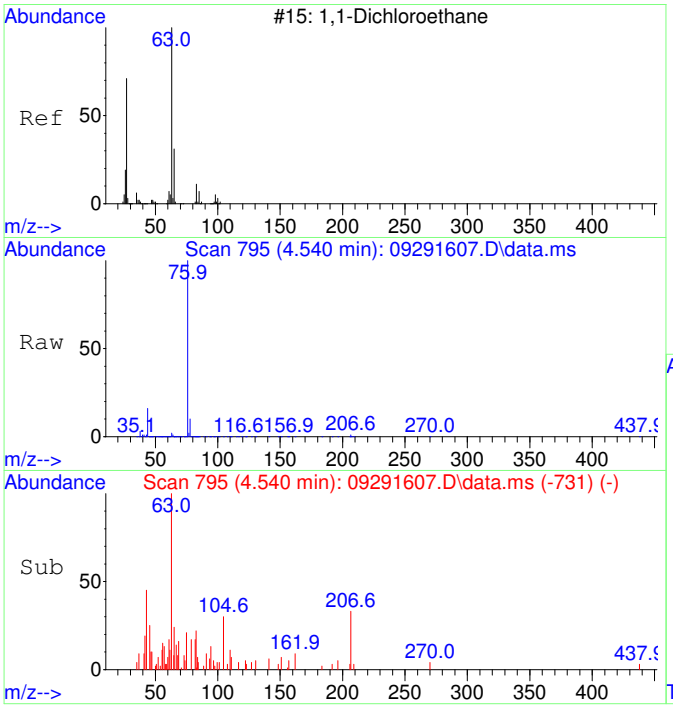


#7
1,1-Dichloroethane
Concen: 166.51 ug/L
RT: 4.543 min Scan# 798
Delta R.T. 0.015 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 63 Resp: 8559

Ion	Ratio	Lower	Upper
63	100		
65	31.1	1.8	61.8

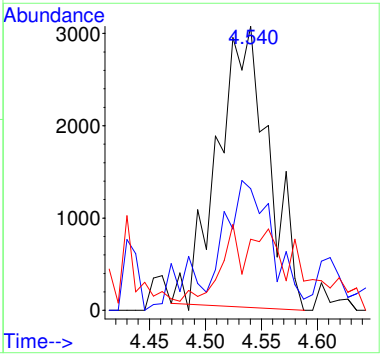


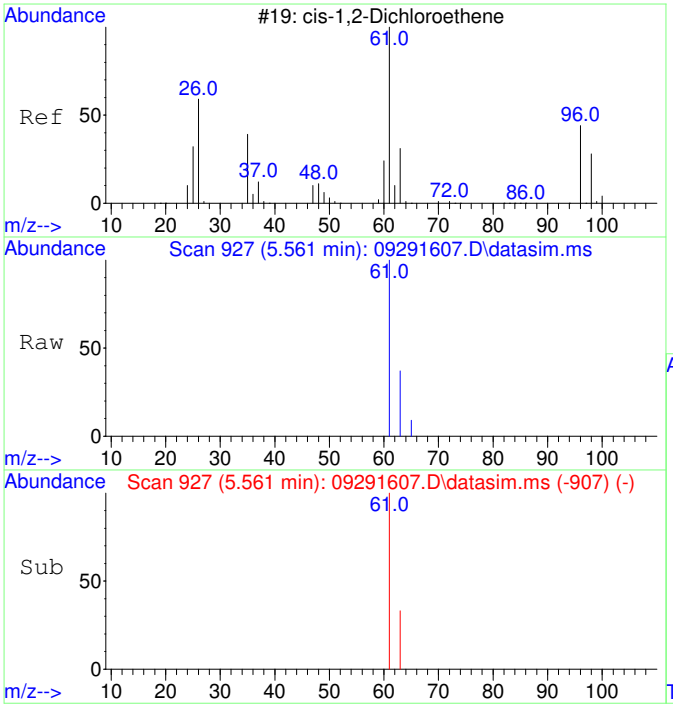


#8
1,1-Dichloroethane SCAN
Concen: 211.38 ug/L
RT: 4.540 min Scan# 795
Delta R.T. 0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 63 Resp: 9549

Ion	Ratio	Lower	Upper
63	100		
65	34.3	3.9	63.9
83	5.5	0.0	45.1

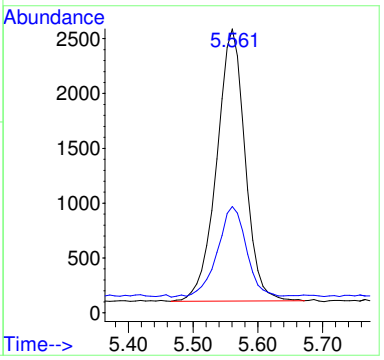


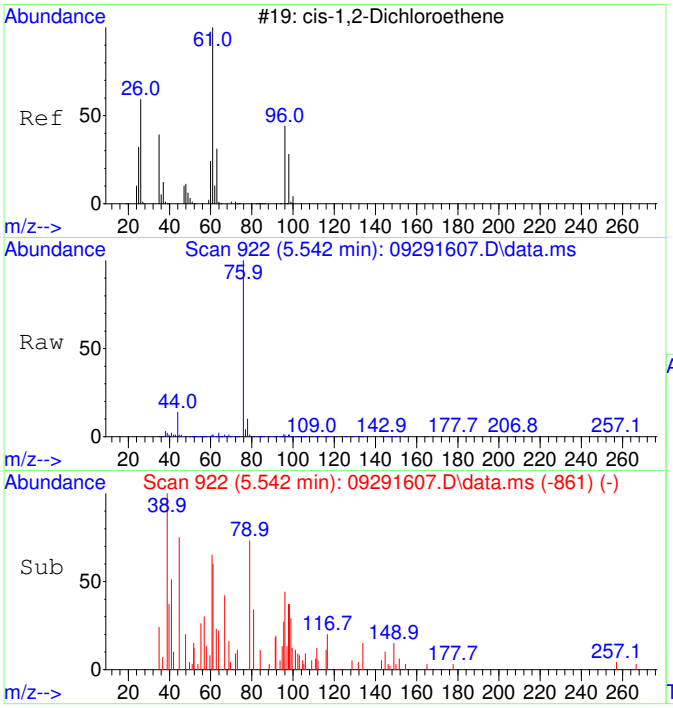


#9
cis-1,2-Dichloroethene
Concen: 164.35 ug/L
RT: 5.561 min Scan# 927
Delta R.T. 0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 7531

Ion	Ratio	Lower	Upper
61	100		
63	33.0	2.4	62.4

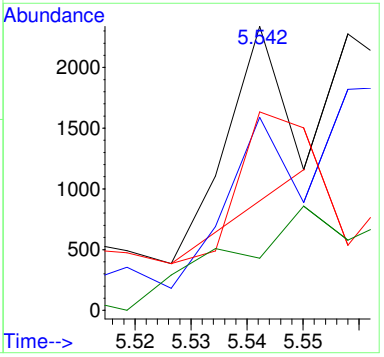


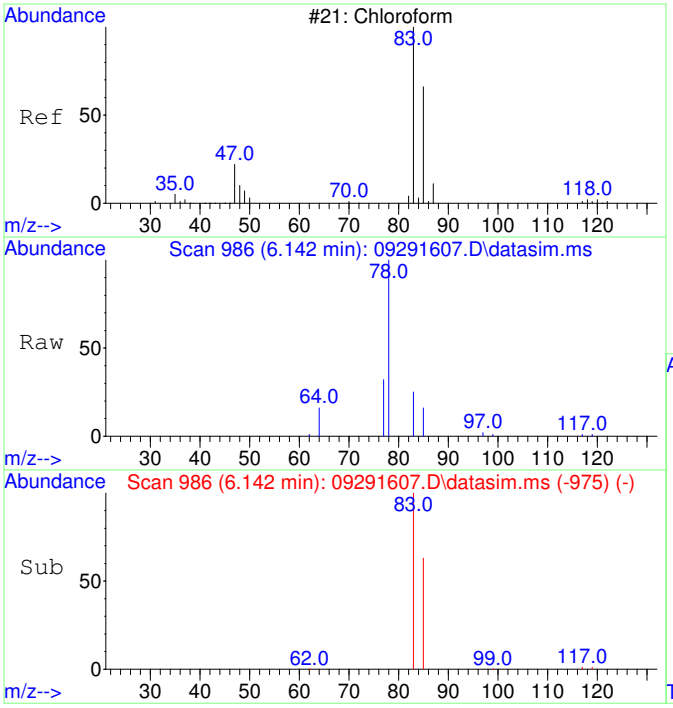


#10
cis-1,2-Dichloroethene SCAN
Concen: 30.97 ug/L
RT: 5.542 min Scan# 922
Delta R.T. -0.016 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 1265

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.0	102.0#
98	86.7	17.5	77.5#
63	206.6	3.4	63.4#

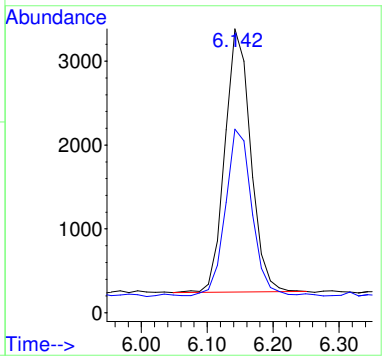


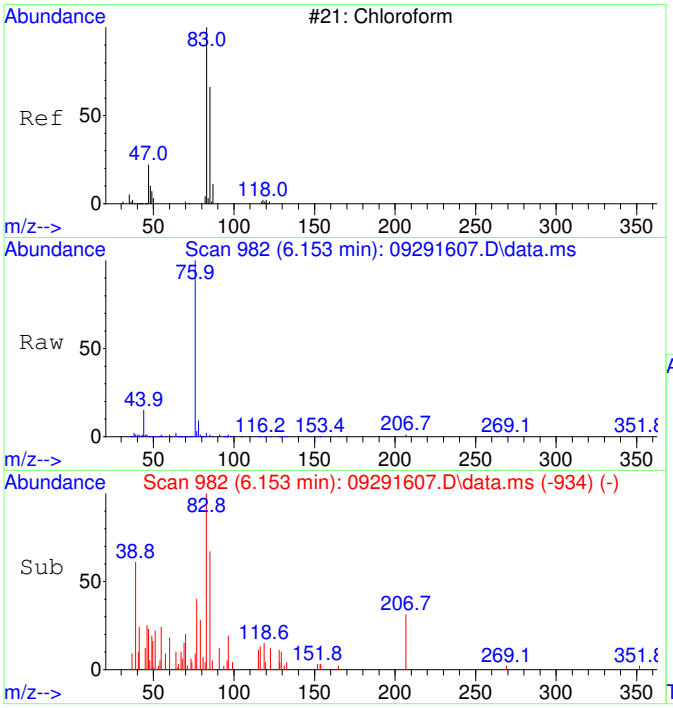


#11
Chloroform
Concen: 162.66 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 8518

Ion	Ratio	Lower	Upper
83	100		
85	64.2	34.4	94.4

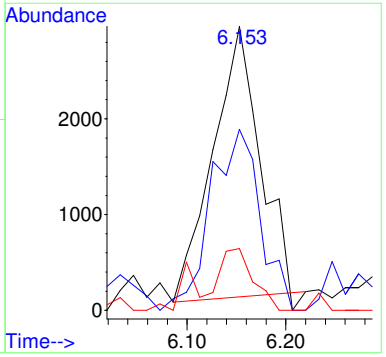


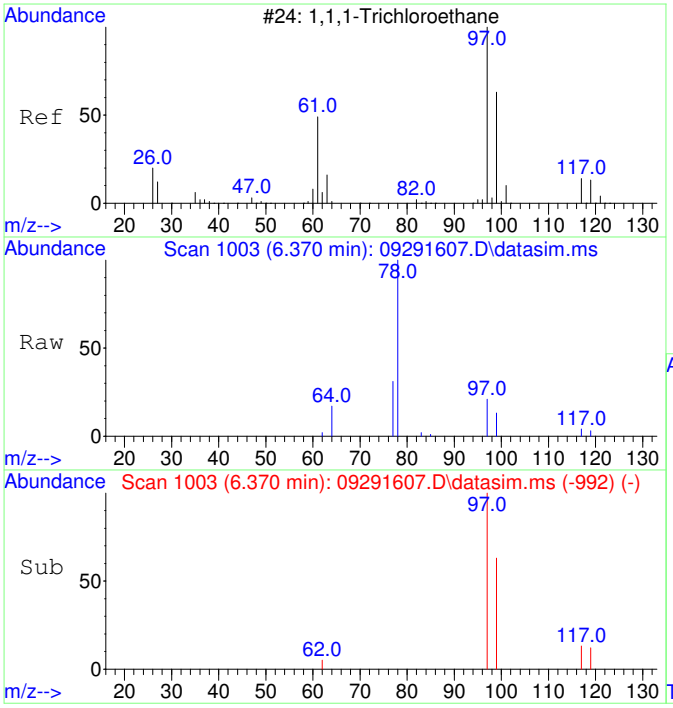


#12
Chloroform SCAN
Concen: 207.39 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 9342

Ion	Ratio	Lower	Upper
83	100		
85	70.5	37.6	97.6
47	13.3	0.0	53.4

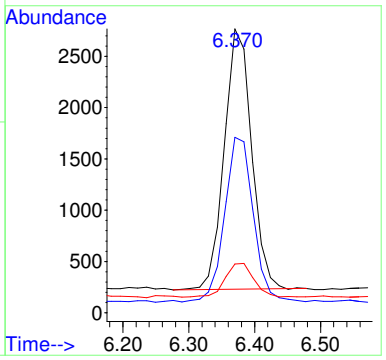


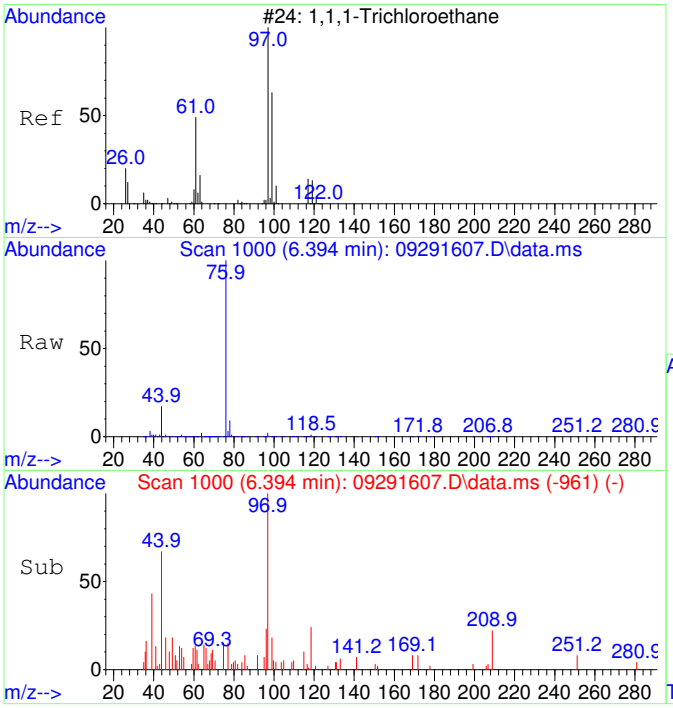


#13
1,1,1-Trichloroethane
Concen: 160.72 ug/L
RT: 6.370 min Scan# 1003
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 7319

Ion	Ratio	Lower	Upper
97	100		
99	64.8	34.2	94.2
117	12.7	0.0	43.0

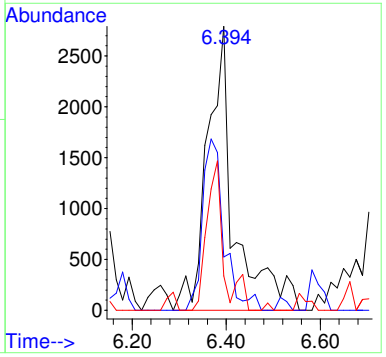


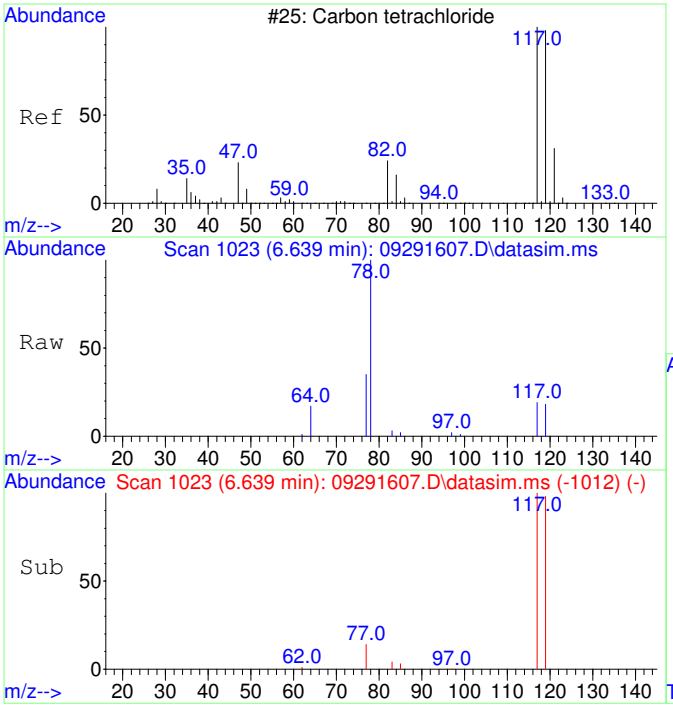


#14
1,1,1-Trichloroethane SCAN
Concen: 279.48 ug/L
RT: 6.394 min Scan# 1000
Delta R.T. 0.026 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 11110

Ion	Ratio	Lower	Upper
97	100		
99	0.0	33.6	93.6#
61	26.5	10.7	70.7

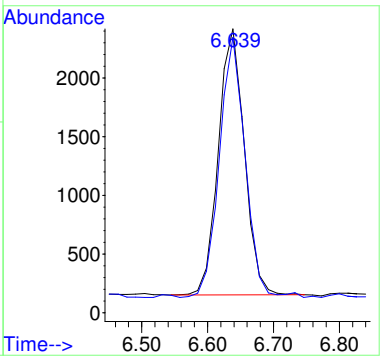


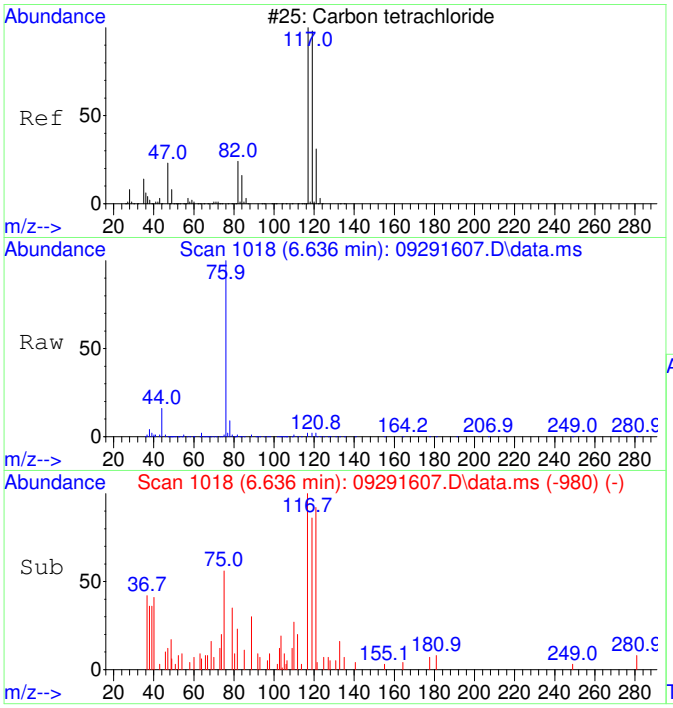


#15
Carbon tetrachloride
Concen: 157.45 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:117 Resp: 6211

Ion	Ratio	Lower	Upper
117	100		
119	94.2	66.1	126.1

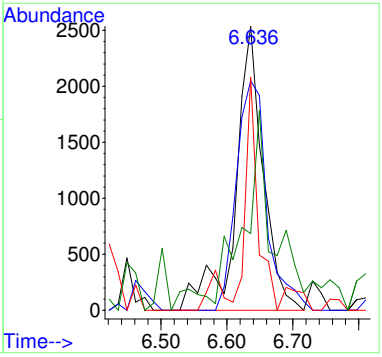


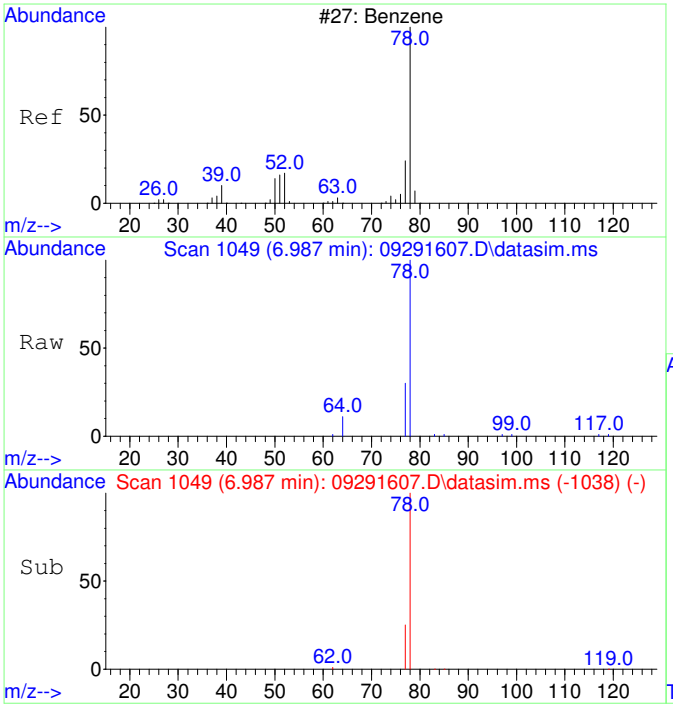


#16
Carbon tetrachloride SCAN
Concen: 212.30 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:117 Resp: 7375

Ion	Ratio	Lower	Upper
117	100		
119	89.6	66.0	122.6
121	34.1	22.1	41.1
82	72.3	18.5	34.3#

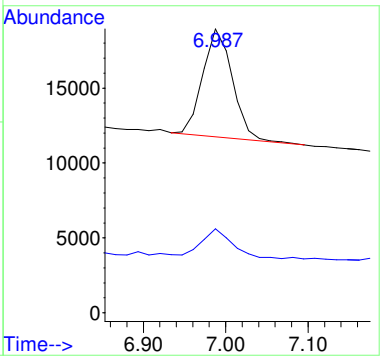


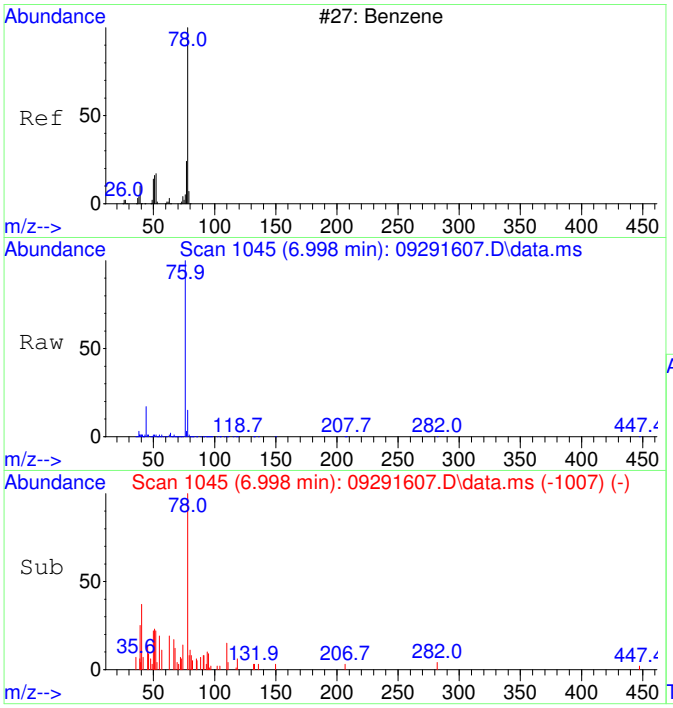


#17
Benzene
Concen: 174.83 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 78 Resp: 17784

Ion	Ratio	Lower	Upper
78	100		
77	24.4	0.0	53.4

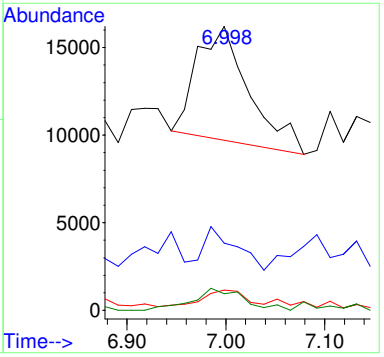


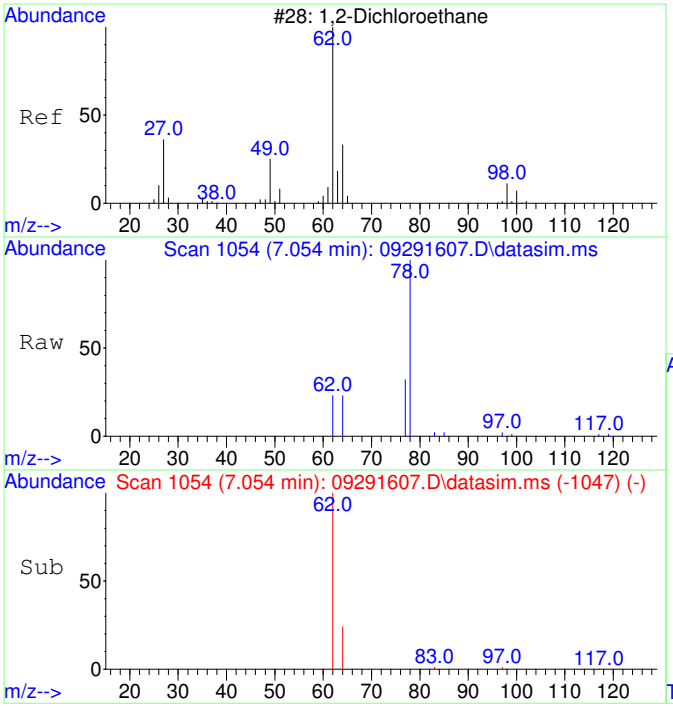


#18
Benzene SCAN
Concen: 254.37 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 78 Resp: 23252

Ion	Ratio	Lower	Upper
78	100		
77	11.3	0.0	59.3
51	21.2	0.0	49.2
52	19.3	0.0	45.5

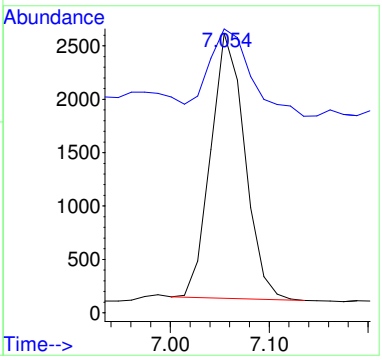


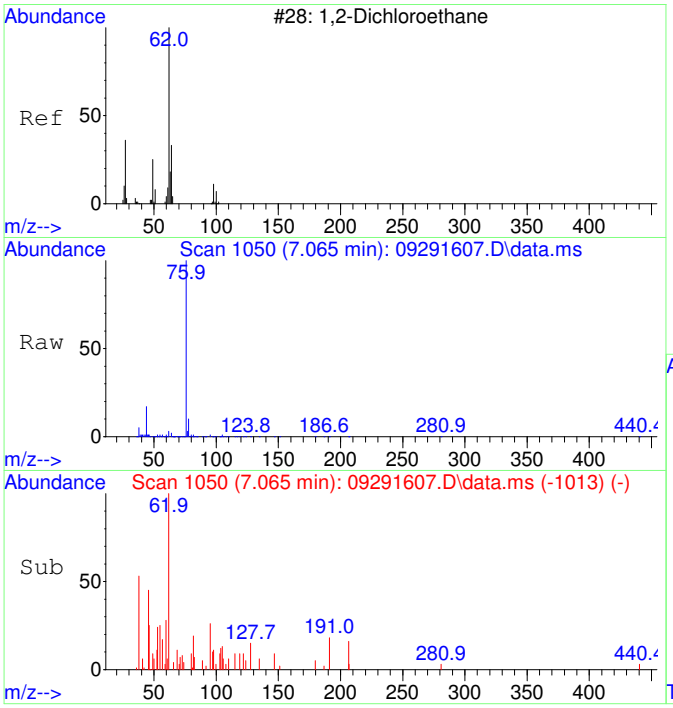


#19
1,2-Dichloroethane
Concen: 160.01 ug/L
RT: 7.054 min Scan# 1054
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 62 Resp: 5946

Ion	Ratio	Lower	Upper
62	100		
64	34.1	2.7	62.7

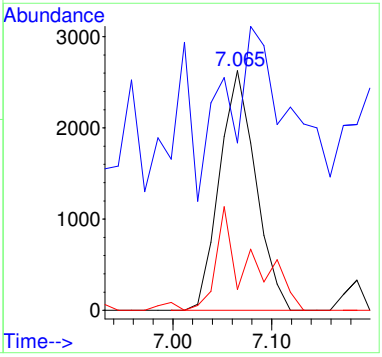


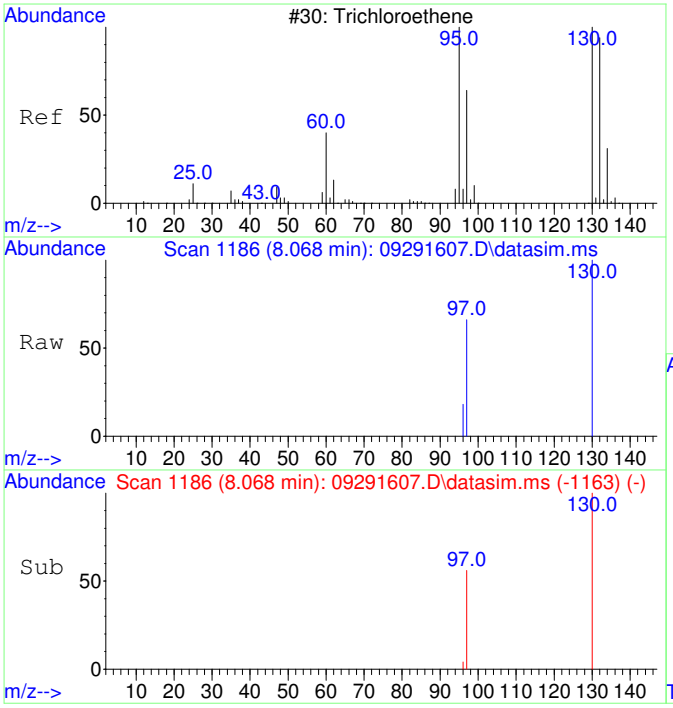


#20
1,2-Dichloroethane SCAN
Concen: 191.56 ug/L
RT: 7.065 min Scan# 1050
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 62 Resp: 6675

Ion	Ratio	Lower	Upper
62	100		
64	110.5	1.9	61.9#
49	0.0	0.0	51.8

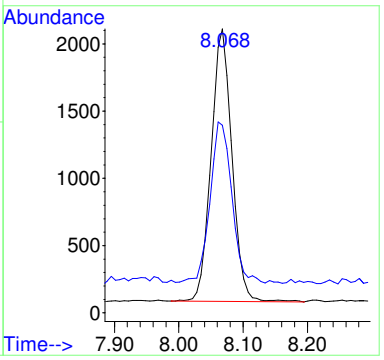


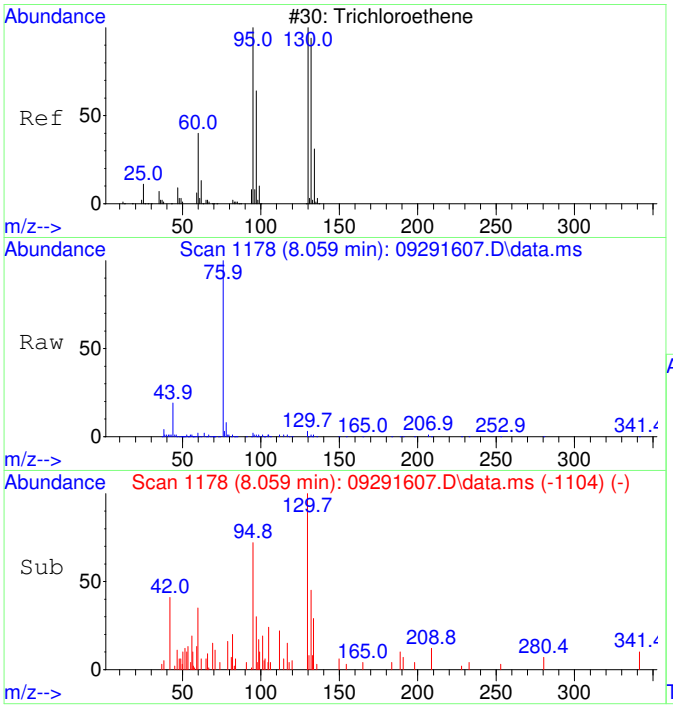


#21
Trichloroethene
Concen: 157.77 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:130 Resp: 4546

Ion	Ratio	Lower	Upper
130	100		
97	58.7	29.9	89.9

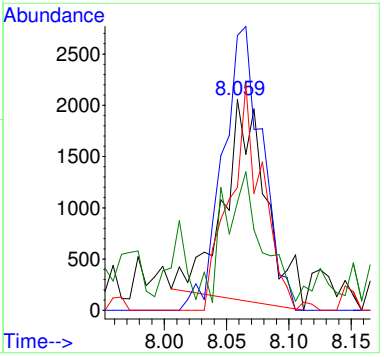


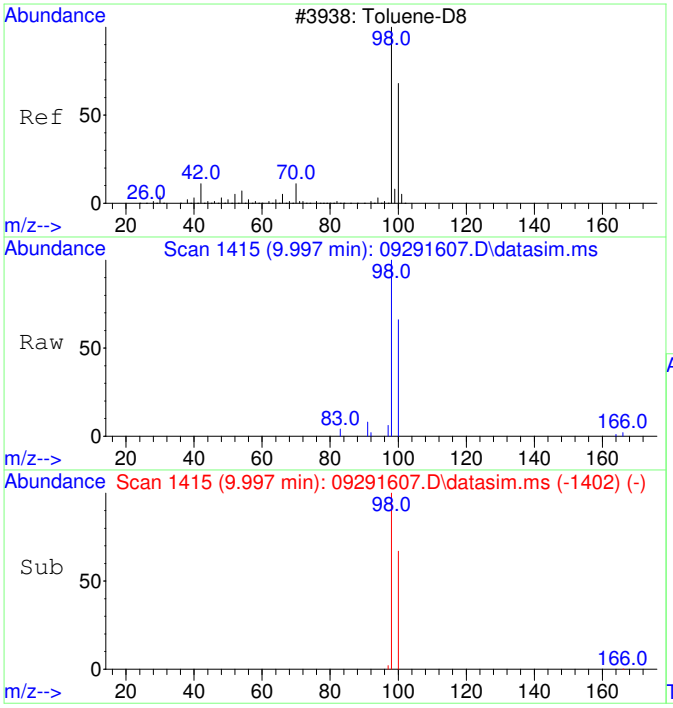


#22
Trichloroethene SCAN
Concen: 201.17 ug/L
RT: 8.059 min Scan# 1178
Delta R.T. -0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 95 Resp: 4642

Ion	Ratio	Lower	Upper
95	100		
130	131.3	74.1	134.1
132	87.5	72.1	132.1
97	55.4	29.5	89.5

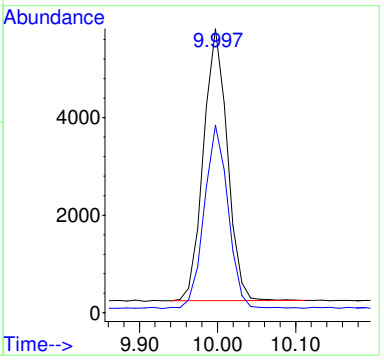


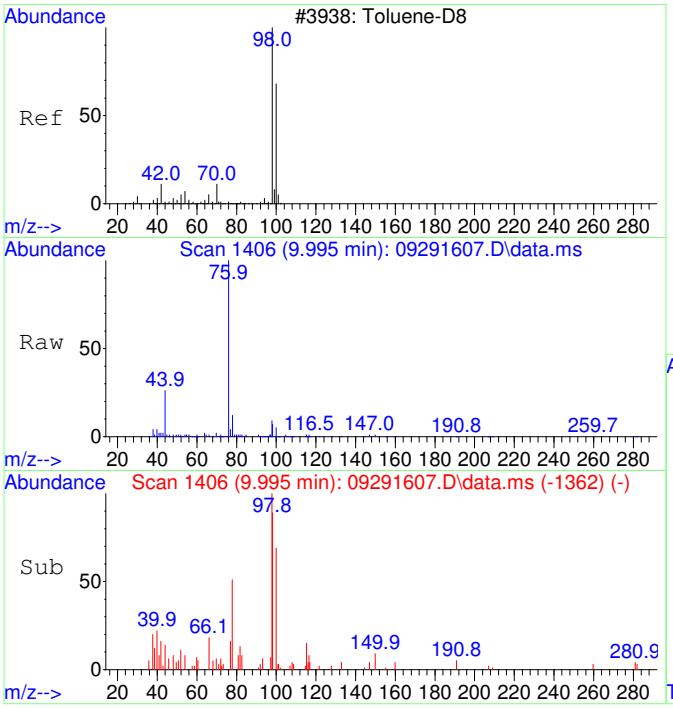


#23
Toluene-d8
Concen: 150.83 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 98 Resp: 11818

Ion	Ratio	Lower	Upper
98	100		
100	65.8	35.3	95.3

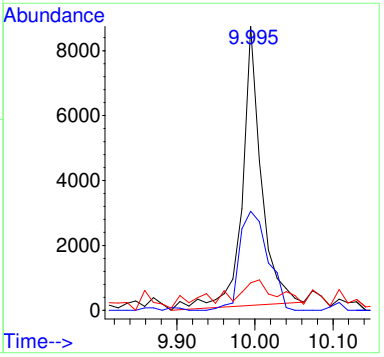


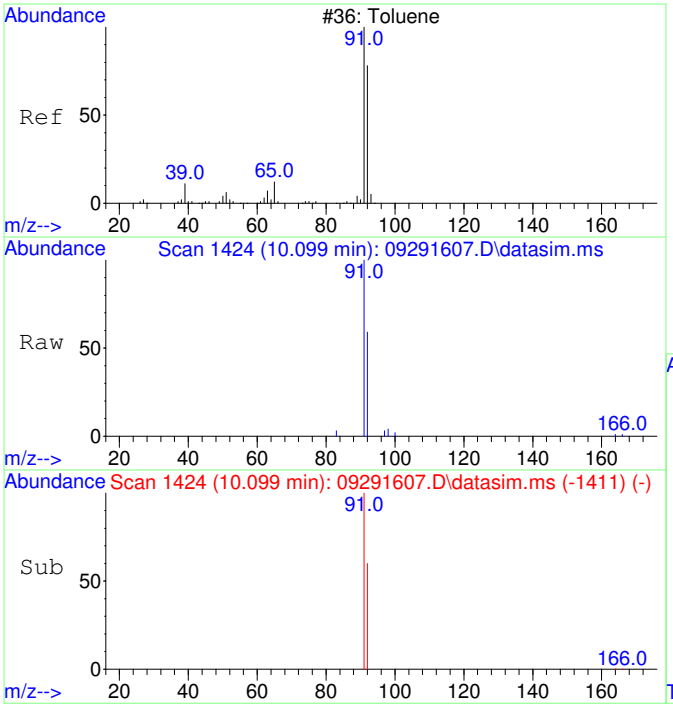


#24
Toluene-d8 SCAN
Concen: 211.69 ug/L
RT: 9.995 min Scan# 1406
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 98 Resp: 14580

Ion	Ratio	Lower	Upper
98	100		
100	53.3	44.3	82.3
70	15.6	7.8	14.4#

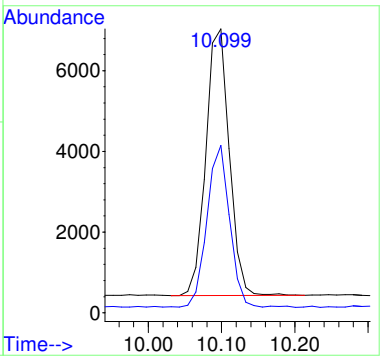


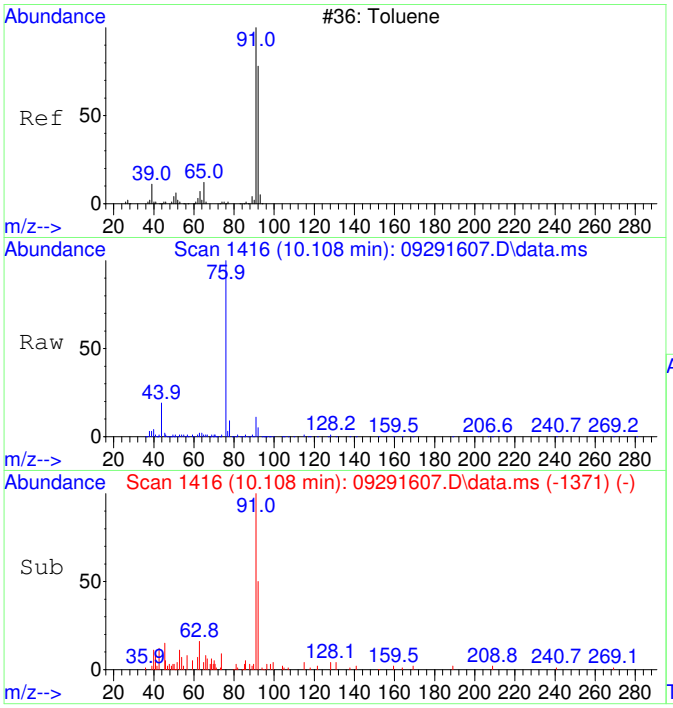


#25
Toluene
Concen: 152.45 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 14694

Ion	Ratio	Lower	Upper
91	100		
92	58.2	28.8	88.8

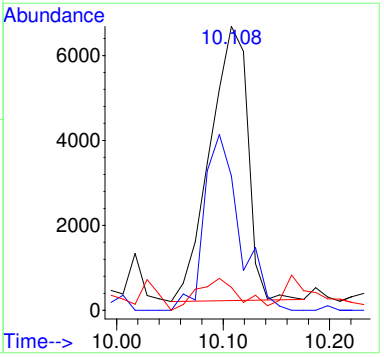


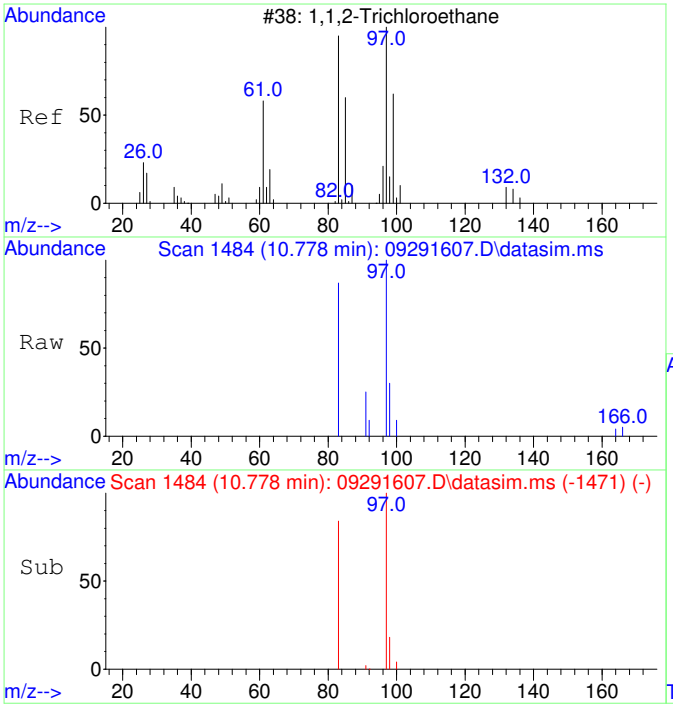


#26
Toluene SCAN
Concen: 202.18 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 15927

Ion	Ratio	Lower	Upper
91	100		
92	59.9	30.7	90.7
65	11.6	0.0	42.6

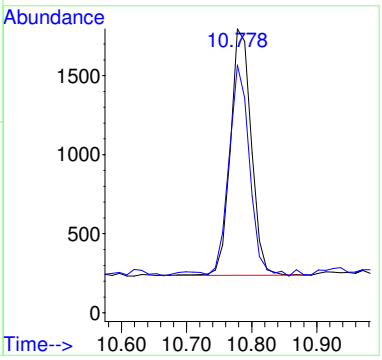


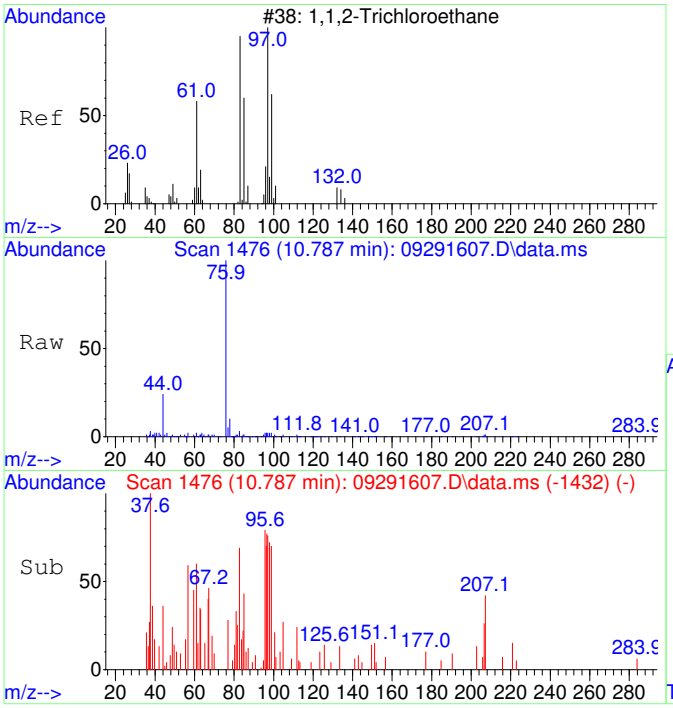


#27
1,1,2-Trichloroethane
Concen: 153.28 ug/L
RT: 10.778 min Scan# 1484
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 3490

Ion	Ratio	Lower	Upper
97	100		
83	83.7	50.5	110.5

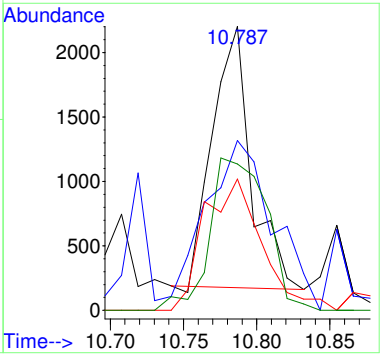


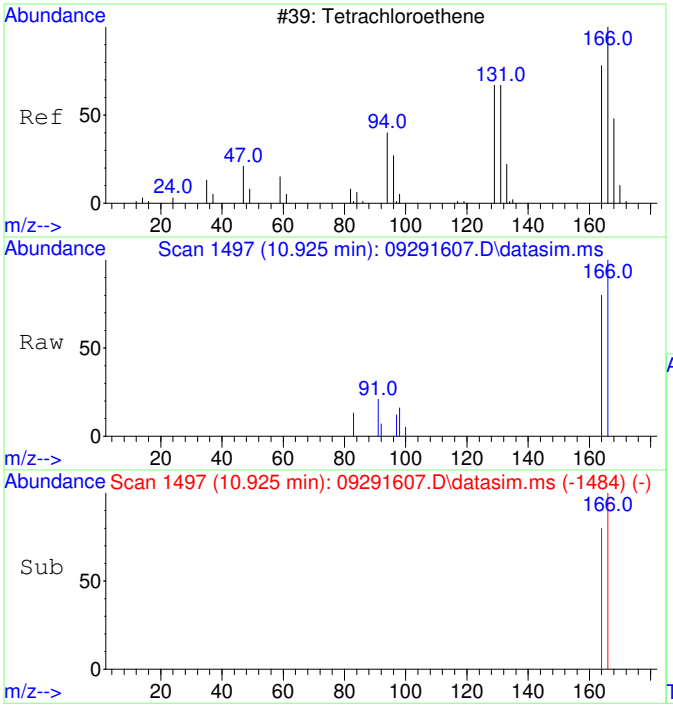


#28
1,1,2-Trichloroethane SCAN
Concen: 199.70 ug/L
RT: 10.787 min Scan# 1476
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 3710

Ion	Ratio	Lower	Upper
97	100		
83	104.7	53.8	113.8
61	75.5	31.3	91.3
99	86.5	32.9	92.9

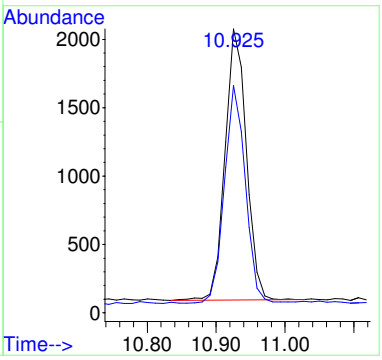


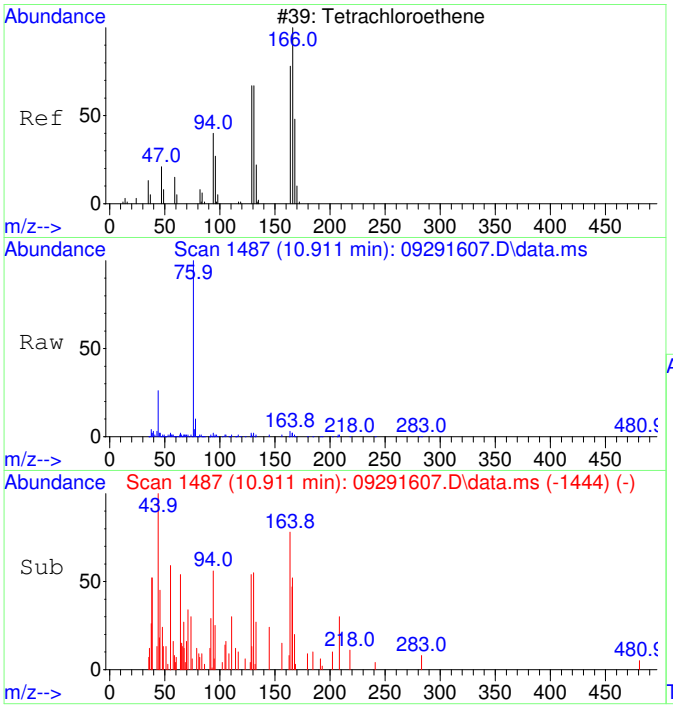


#29
Tetrachloroethene
Concen: 153.03 ug/L
RT: 10.925 min Scan# 1497
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:166 Resp: 4252

Ion	Ratio	Lower	Upper
166	100		
164	77.4	47.7	107.7

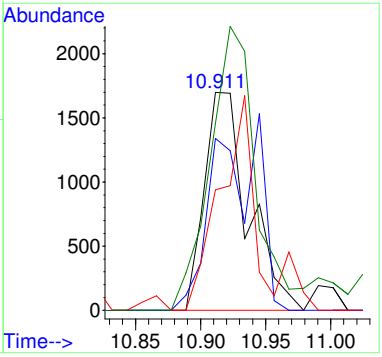


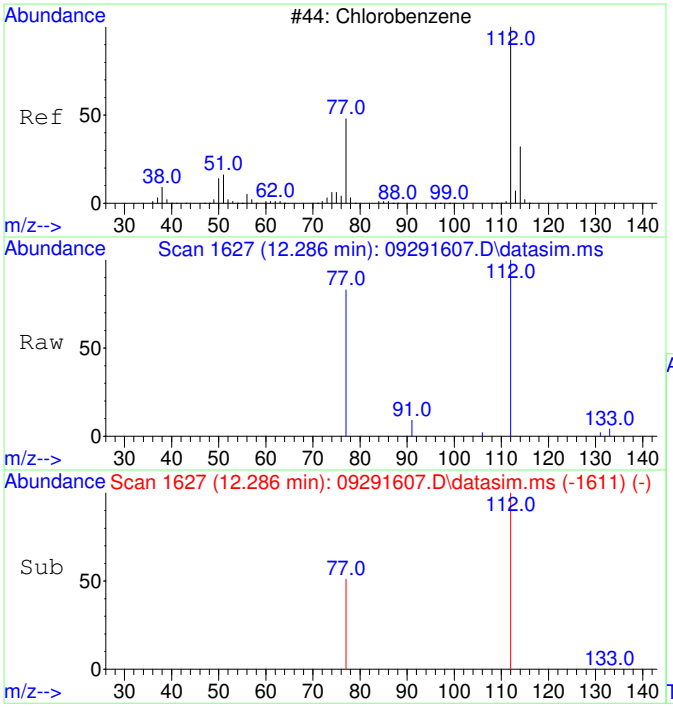


#30
Tetrachloroethene SCAN
Concen: 179.09 ug/L
RT: 10.911 min Scan# 1487
Delta R.T. -0.012 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:166 Resp: 3995

Ion	Ratio	Lower	Upper
166	100		
164	0.0	44.9	104.9#
131	0.0	36.1	96.1#
129	152.4	40.5	100.5#

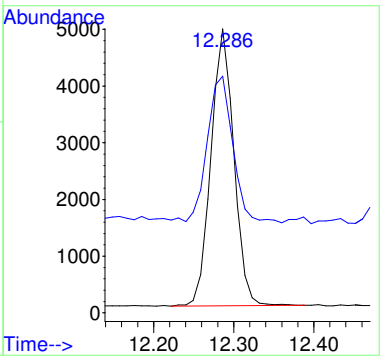


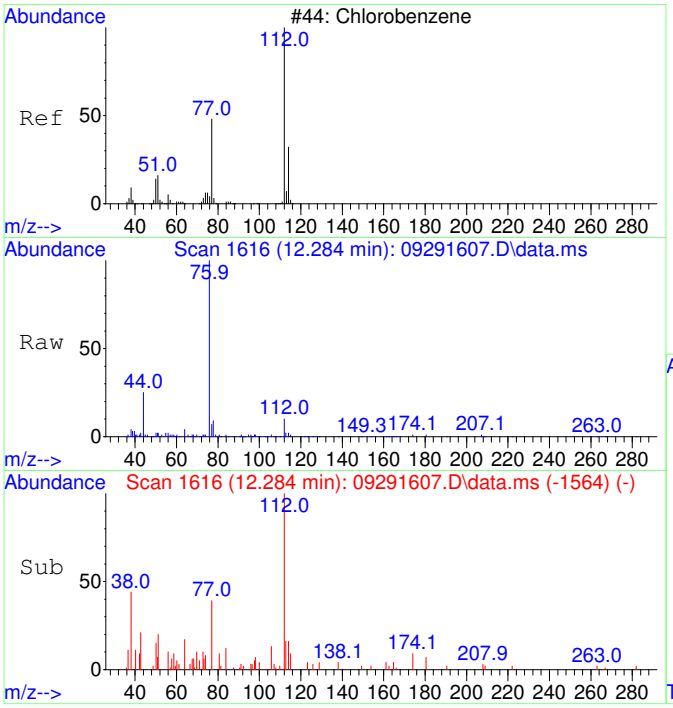


#31
Chlorobenzene
Concen: 152.13 ug/L
RT: 12.286 min Scan# 1627
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:112 Resp: 9667

Ion	Ratio	Lower	Upper
112	100		
77	58.2	25.1	85.1

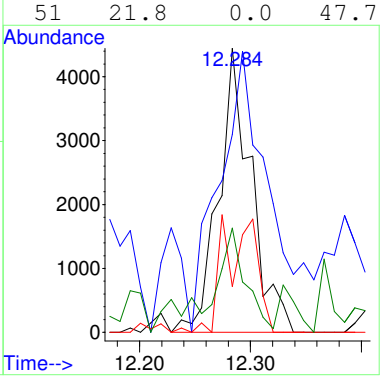


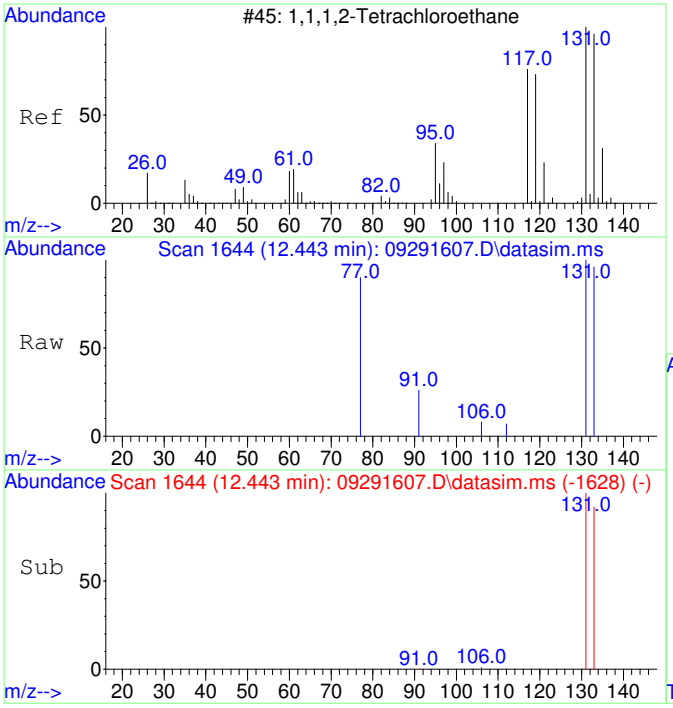


#32
Chlorobenzene SCAN
Concen: 170.80 ug/L
RT: 12.284 min Scan# 1616
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:112 Resp: 9035

Ion	Ratio	Lower	Upper
112	100		
77	125.2	23.6	83.6#
114	40.2	0.9	60.9
51	21.8	0.0	47.7

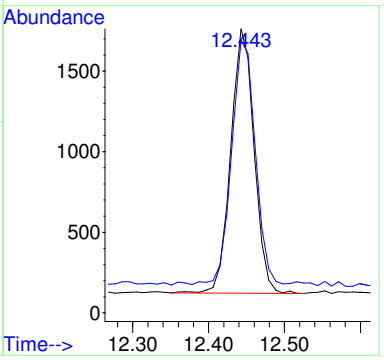


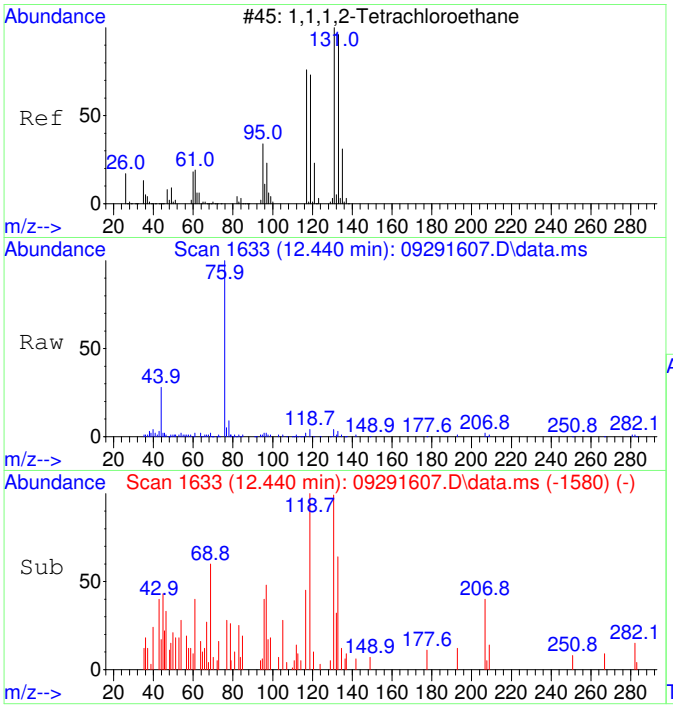


#33
1,1,1,2-Tetrachloroethane
Concen: 153.46 ug/L
RT: 12.443 min Scan# 1644
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:131 Resp: 3497

Ion	Ratio	Lower	Upper
131	100		
133	91.5	64.8	124.8

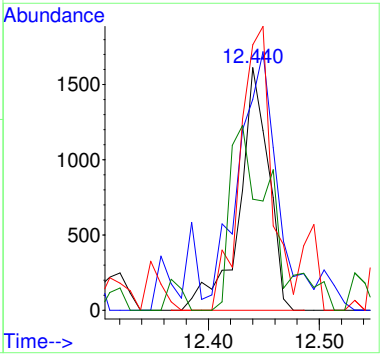


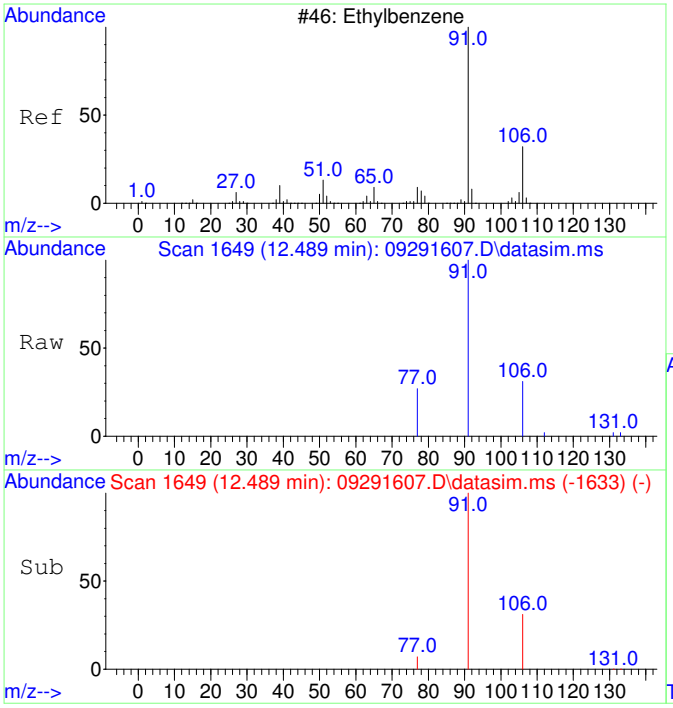


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 158.13 ug/L
RT: 12.440 min Scan# 1633
Delta R.T. -0.010 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:131 Resp: 2963

Ion	Ratio	Lower	Upper
131	100		
133	141.4	64.7	124.7#
119	117.1	34.9	94.9#
117	107.1	36.2	96.2#

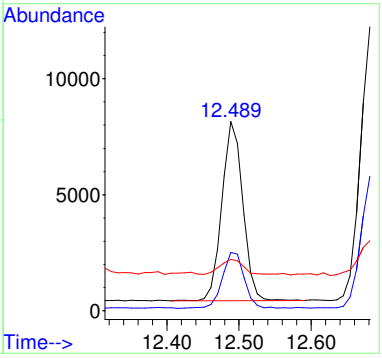


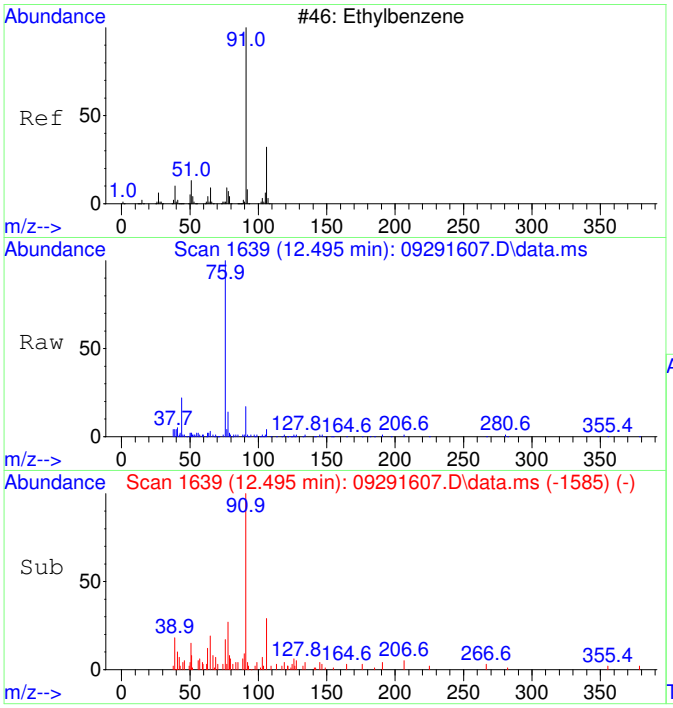


#35
Ethylbenzene
Concen: 152.01 ug/L
RT: 12.489 min Scan# 1649
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 15590

Ion	Ratio	Lower	Upper
91	100		
106	31.1	1.7	61.7
77	9.6	0.0	38.3

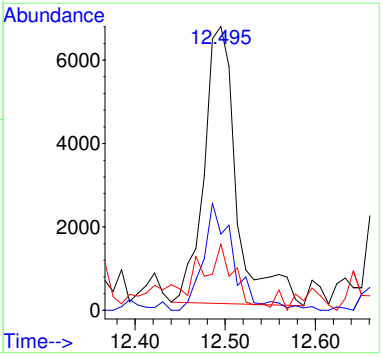


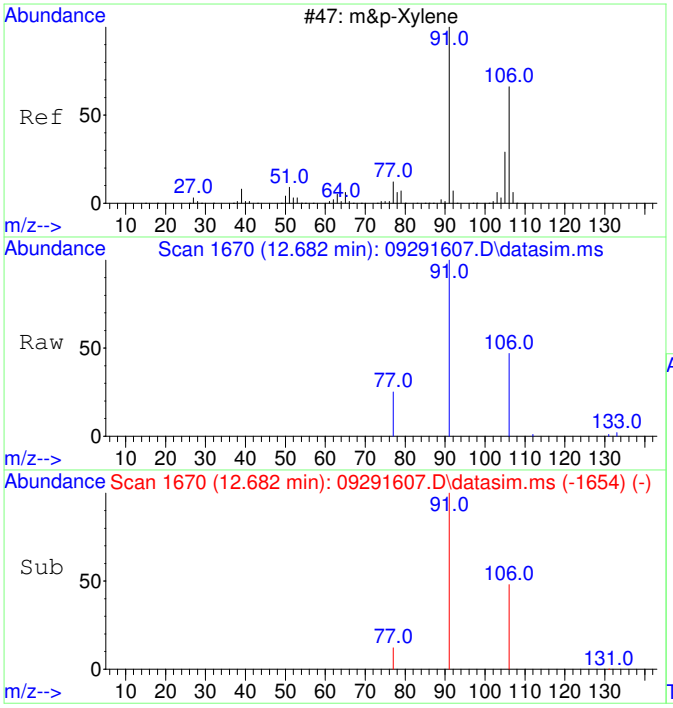


#36
Ethylbenzene SCAN
Concen: 200.19 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 16725

Ion	Ratio	Lower	Upper
91	100		
106	36.5	2.3	62.3
51	15.9	0.0	39.6

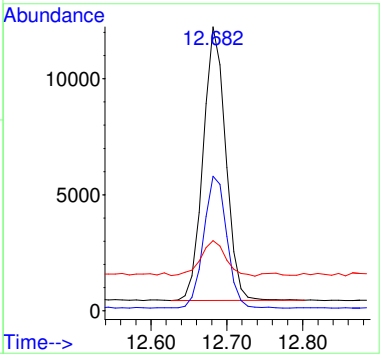


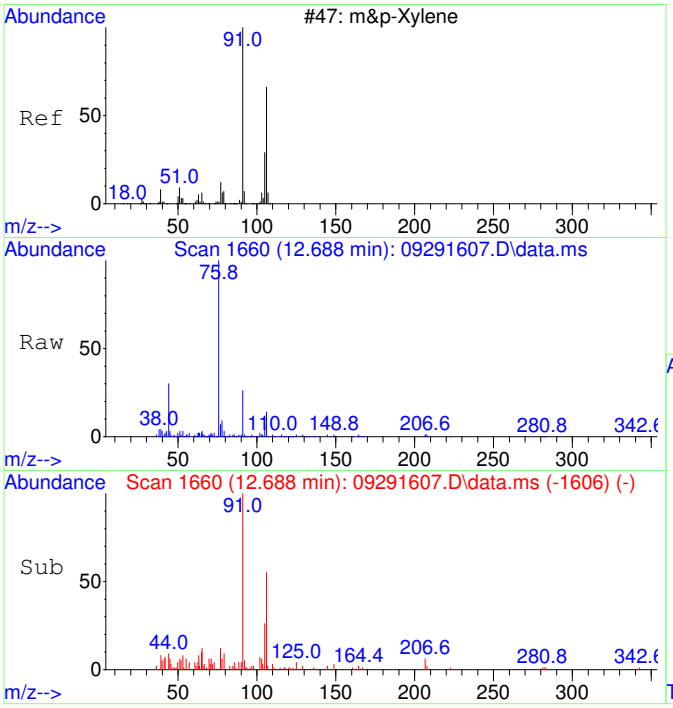


#37
m&p-Xylene
Concen: 303.12 ug/L
RT: 12.682 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 24362

Ion	Ratio	Lower	Upper
91	100		
106	49.0	19.4	79.4
77	13.5	0.0	42.6

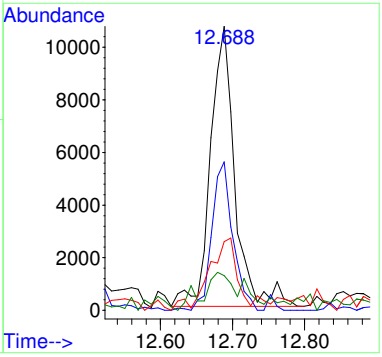


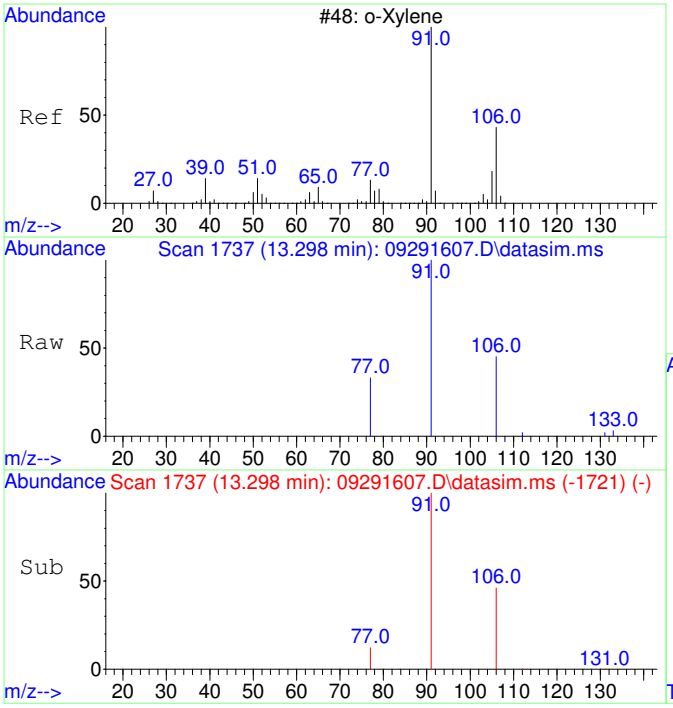


#38
m&p-Xylene SCAN
Concen: 379.91 ug/L
RT: 12.688 min Scan# 1660
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 25091

Ion	Ratio	Lower	Upper
91	100		
106	45.7	18.0	78.0
105	27.1	0.0	53.1
51	11.6	0.0	39.4

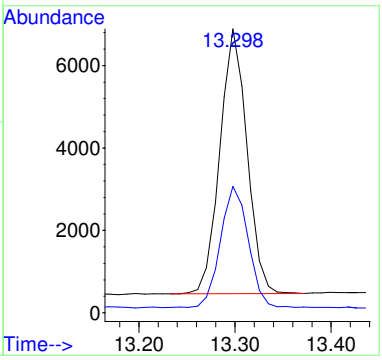


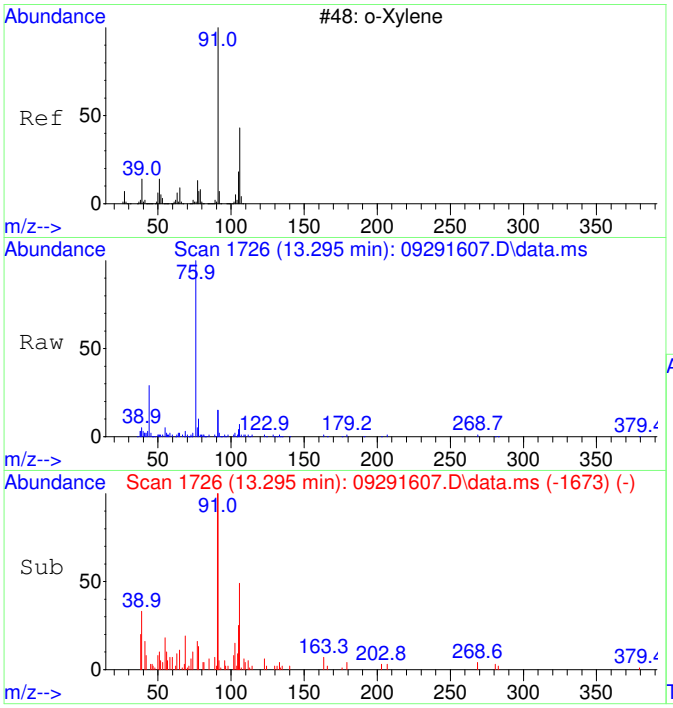


#39
o-Xylene
Concen: 151.92 ug/L
RT: 13.298 min Scan# 1737
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 12589

Ion	Ratio	Lower	Upper
91	100		
106	46.3	17.2	77.2

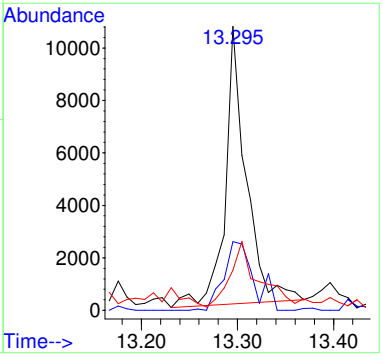


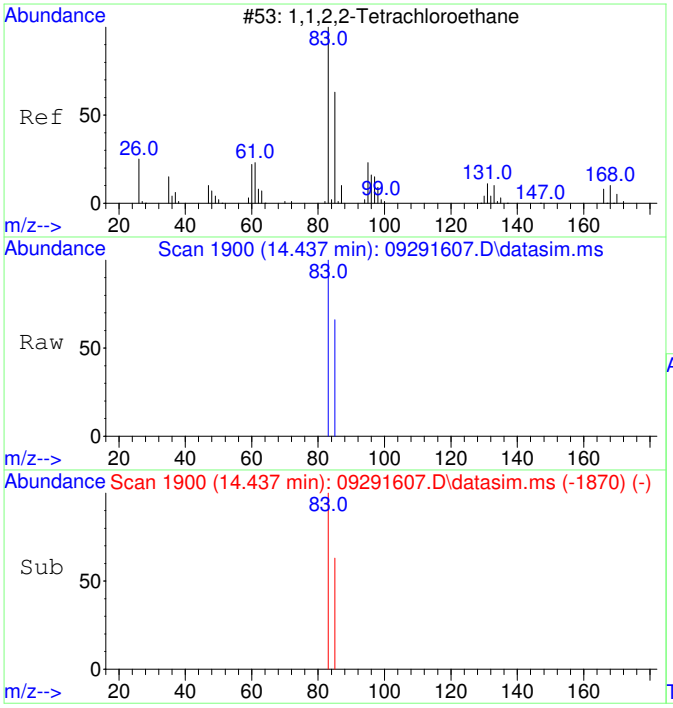


#40
o-Xylene SCAN
Concen: 231.24 ug/L
RT: 13.295 min Scan# 1726
Delta R.T. -0.010 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 15978

Ion	Ratio	Lower	Upper
91	100		
106	35.8	18.0	78.0
105	37.5	0.0	56.8

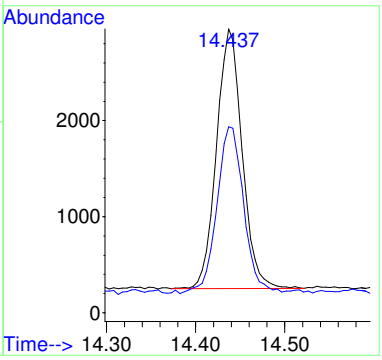


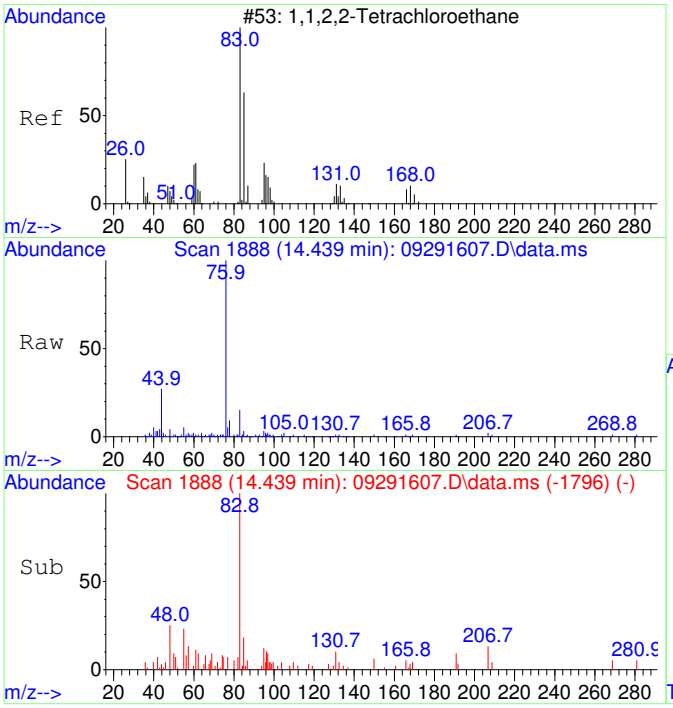


#41
1,1,2,2-Tetrachloroethane
Concen: 150.92 ug/L
RT: 14.437 min Scan# 1900
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 5401

Ion	Ratio	Lower	Upper
83	100		
85	65.8	34.4	94.4

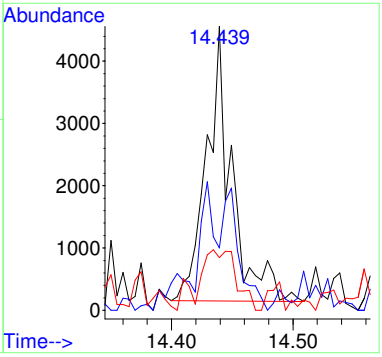


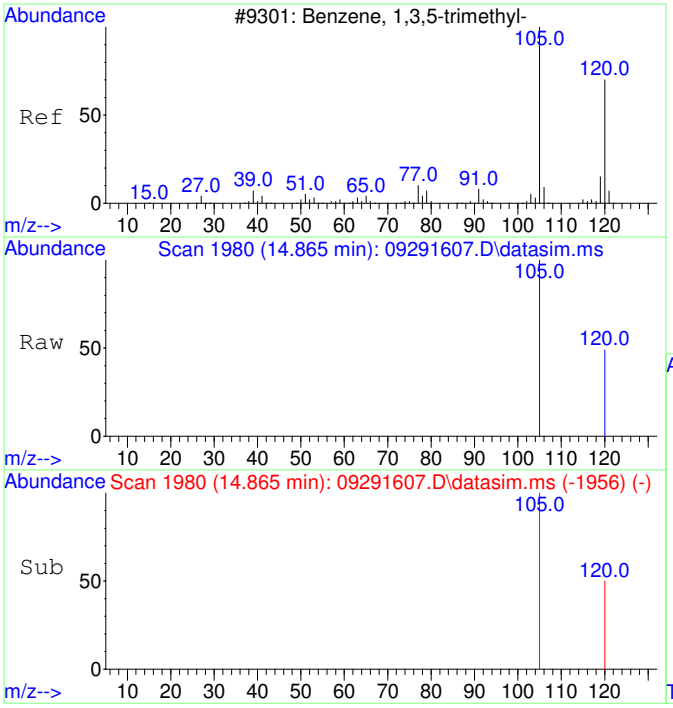


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 205.26 ug/L
RT: 14.439 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 6355

Ion	Ratio	Lower	Upper
83	100		
85	14.5	33.2	93.2#
95	33.3	0.0	47.2

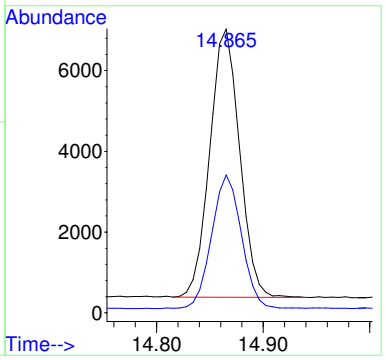


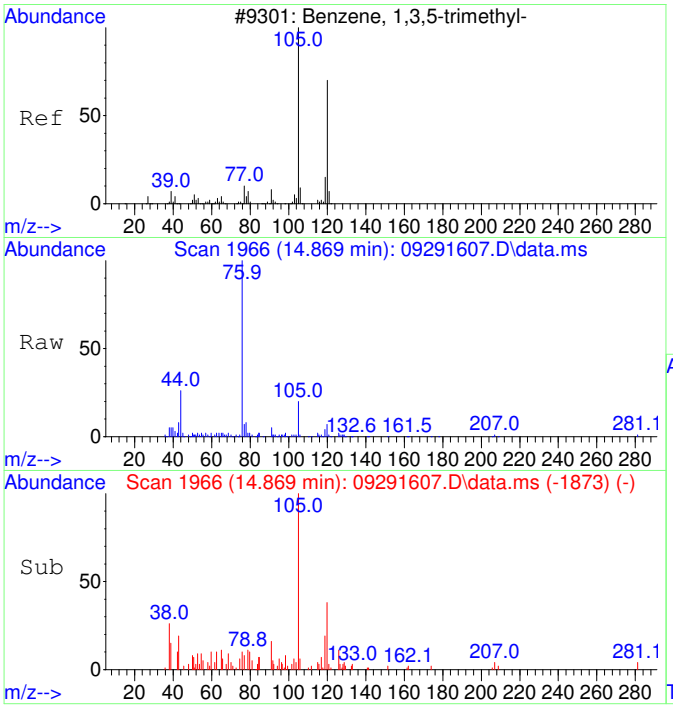


#43
1,3,5-Trimethylbenzene
Concen: 151.40 ug/L
RT: 14.865 min Scan# 1980
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 12917

Ion	Ratio	Lower	Upper
105	100		
120	49.9	19.7	79.7

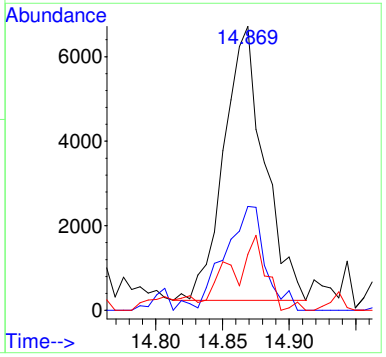


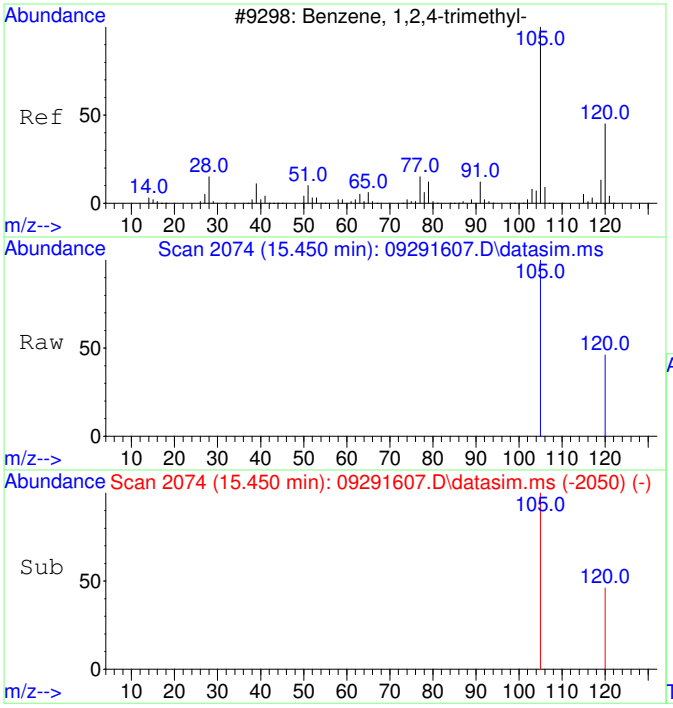


#44
1,3,5-Trimethylbenzene SCAN
Concen: 201.34 ug/L
RT: 14.869 min Scan# 1966
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 13588

Ion	Ratio	Lower	Upper
105	100		
120	34.8	22.1	82.1
119	20.5	0.0	42.9

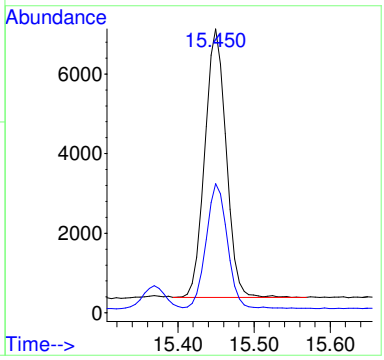


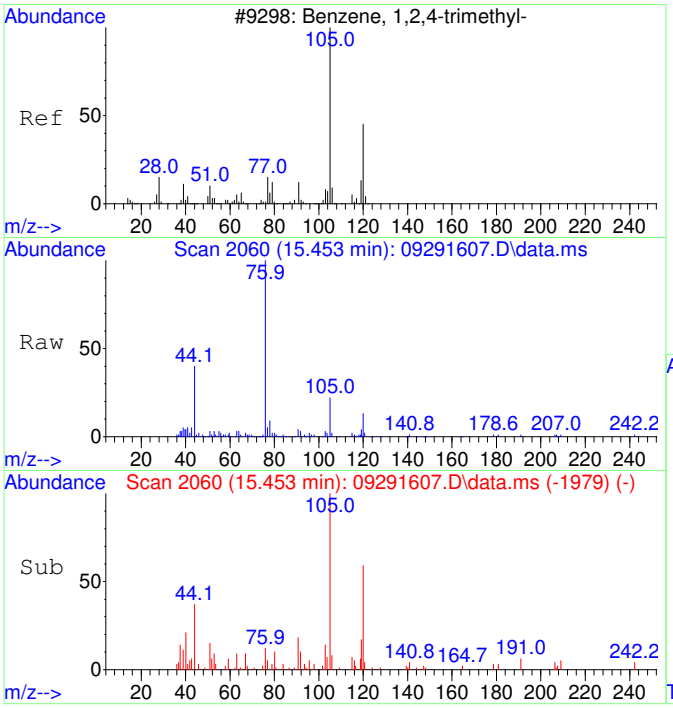


#45
1,2,4-Trimethylbenzene
Concen: 148.94 ug/L
RT: 15.450 min Scan# 2074
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 13055

Ion	Ratio	Lower	Upper
105	100		
120	45.8	15.7	75.7

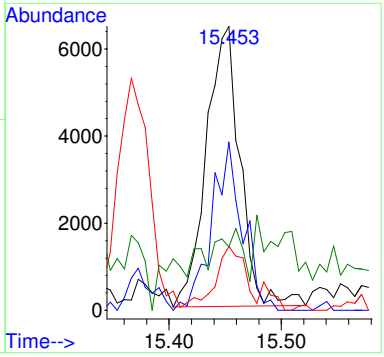


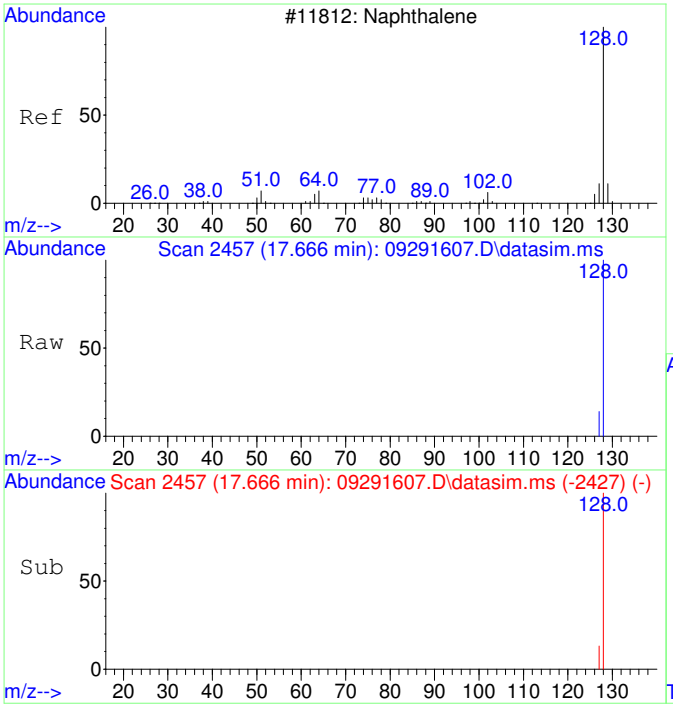


#46
1,2,4-Trimethylbenzene SCAN
Concen: 189.99 ug/L
RT: 15.453 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 13456

Ion	Ratio	Lower	Upper
105	100		
120	54.7	17.2	77.2
119	15.2	0.0	41.3
77	10.6	0.0	43.1

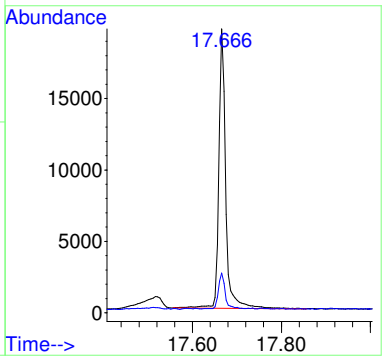


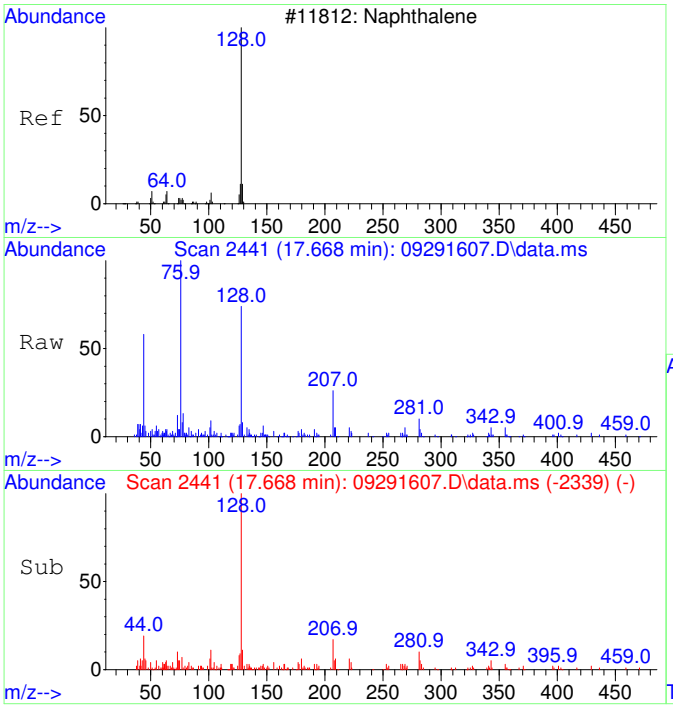


#47
Naphthalene
Concen: 152.11 ug/L
RT: 17.666 min Scan# 2457
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:128 Resp: 20871

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	42.6

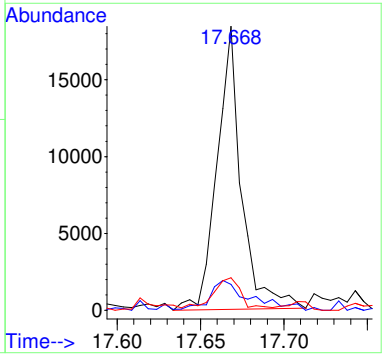




#48
Naphthalene SCAN
Concen: 174.90 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:128 Resp: 18693

Ion	Ratio	Lower	Upper
128	100		
127	16.7	0.0	43.1
129	11.1	0.0	41.0



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291607.D
Acq On : 30 Sep 2016 5:43
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
RH at 9:10 am, Sep 30, 2016

M.I. Approved By:
ZAR at 1:04 pm, Sep 30, 2016

Quant Time: Sep 30 09:06:16 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

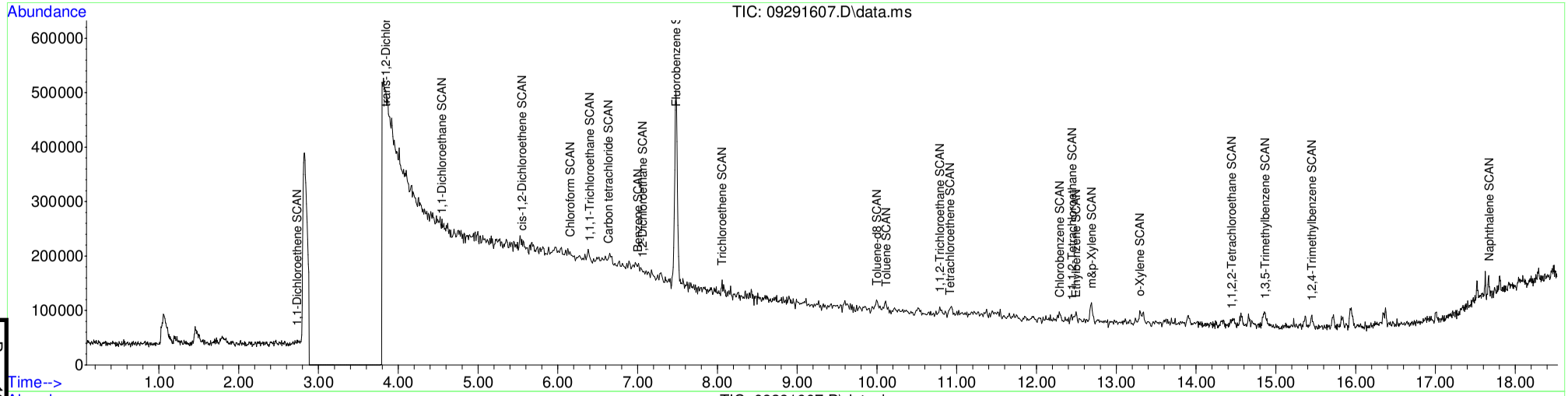
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.482	96	441215	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	11818	150.83 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery =	3.02%#	
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	391173	4991.51 ug/L	98
3] 1,1-Dichloroethene	2.728	61	8025m	160.46 ug/L	
4) 1,1-Dichloroethene SCAN	2.730	61	1596	38.19 ug/L #	63
5] trans-1,2-Dichloroethene	3.849	61	7427	170.50 ug/L	88
6) trans-1,2-Dichloroethe...	3.838	61	7688	207.10 ug/L #	42
7] 1,1-Dichloroethane	4.543	63	8559	166.51 ug/L	99
8) 1,1-Dichloroethane SCAN	4.540	63	9549	211.38 ug/L	92
9] cis-1,2-Dichloroethene	5.561	61	7531	164.35 ug/L	99
10) cis-1,2-Dichloroethene...	5.542	61	1265	30.97 ug/L #	1
11] Chloroform	6.142	83	8518	162.66 ug/L	100
12) Chloroform SCAN	6.153	83	9342	207.39 ug/L	92
13] 1,1,1-Trichloroethane	6.370	97	7319	160.72 ug/L	99
14) 1,1,1-Trichloroethane ...	6.394	97	11110	279.48 ug/L #	41
15] Carbon tetrachloride	6.639	117	6211	157.45 ug/L	98
16) Carbon tetrachloride SCAN	6.636	117	7375	212.30 ug/L #	81
17] Benzene	6.987	78	17784	174.83 ug/L	98
18) Benzene SCAN	6.998	78	23252	254.37 ug/L	81
19] 1,2-Dichloroethane	7.054	62	5946	160.01 ug/L	98
20) 1,2-Dichloroethane SCAN	7.065	62	6675	191.56 ug/L #	1
21] Trichloroethene	8.068	130	4546	157.77 ug/L	98
22) Trichloroethene SCAN	8.059	95	4642	201.17 ug/L	83
24) Toluene-d8 SCAN	9.995	98	14580	211.69 ug/L #	87
25] Toluene	10.099	91	14694	152.45 ug/L	99
26) Toluene SCAN	10.108	91	15927	202.18 ug/L	99
27] 1,1,2-Trichloroethane	10.778	97	3490	153.28 ug/L	96
28) 1,1,2-Trichloroethane ...	10.787	97	3710	199.70 ug/L	76
29] Tetrachloroethene	10.925	166	4252	153.03 ug/L	100
30) Tetrachloroethene SCAN	10.911	166	3995	179.09 ug/L #	10
31] Chlorobenzene	12.286	112	9667	152.13 ug/L	96
32) Chlorobenzene SCAN	12.284	112	9035	170.80 ug/L #	41
33] 1,1,1,2-Tetrachloroethane	12.443	131	3497	153.46 ug/L	97
34) 1,1,1,2-Tetrachloroeth...	12.440	131	2963	158.13 ug/L #	46
35] Ethylbenzene	12.489	91	15590	152.01 ug/L	98
36) Ethylbenzene SCAN	12.495	91	16725	200.19 ug/L	90
37] m&p-Xylene	12.682	91	24362	303.12 ug/L	99
38) m&p-Xylene SCAN	12.688	91	25091	379.91 ug/L	95
39] o-Xylene	13.298	91	12589	151.92 ug/L	99
40) o-Xylene SCAN	13.295	91	15978	231.24 ug/L	81
41] 1,1,2,2-Tetrachloroethane	14.437	83	5401	150.92 ug/L	98
42) 1,1,2,2-Tetrachloroeth...	14.439	83	6355	205.26 ug/L #	43
43] 1,3,5-Trimethylbenzene	14.865	105	12917	151.40 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.869	105	13588	201.34 ug/L	77
45] 1,2,4-Trimethylbenzene	15.450	105	13055	148.94 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.453	105	13456	189.99 ug/L	90
47] Naphthalene	17.666	128	20871	152.11 ug/L	100
48) Naphthalene SCAN	17.668	128	18693	174.90 ug/L	95

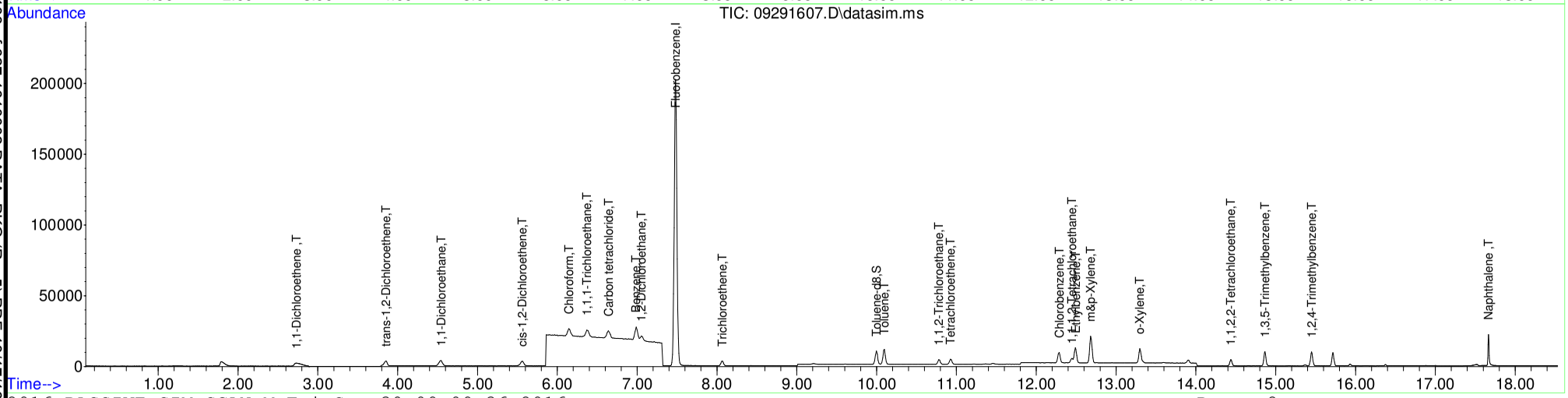
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291607.D
Acq On : 30 Sep 2016 5:43
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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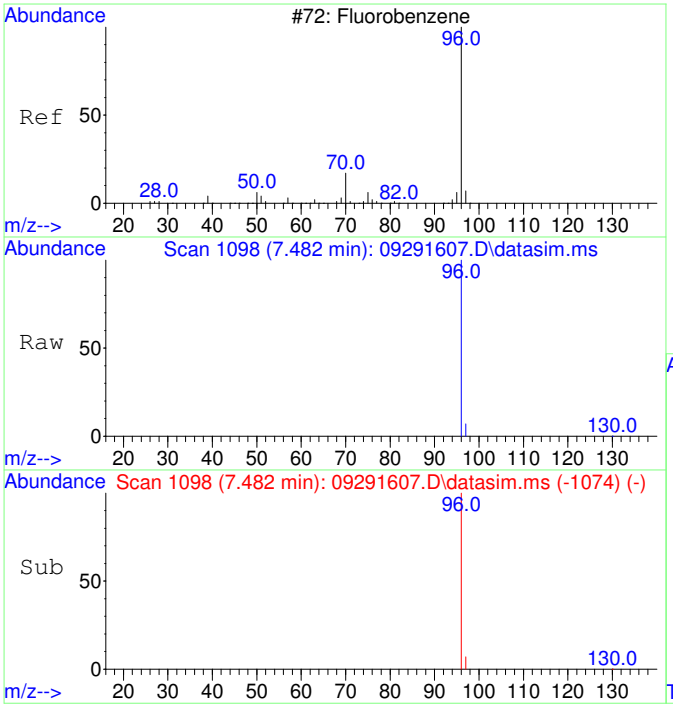
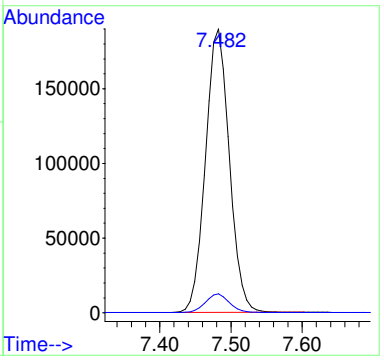
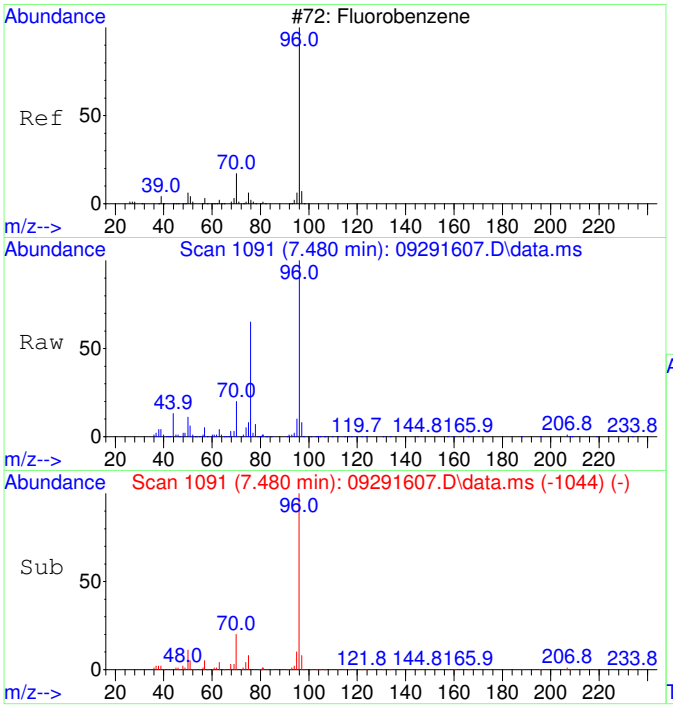


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 96 Resp: 441215

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

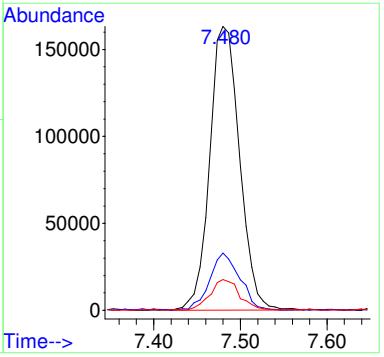


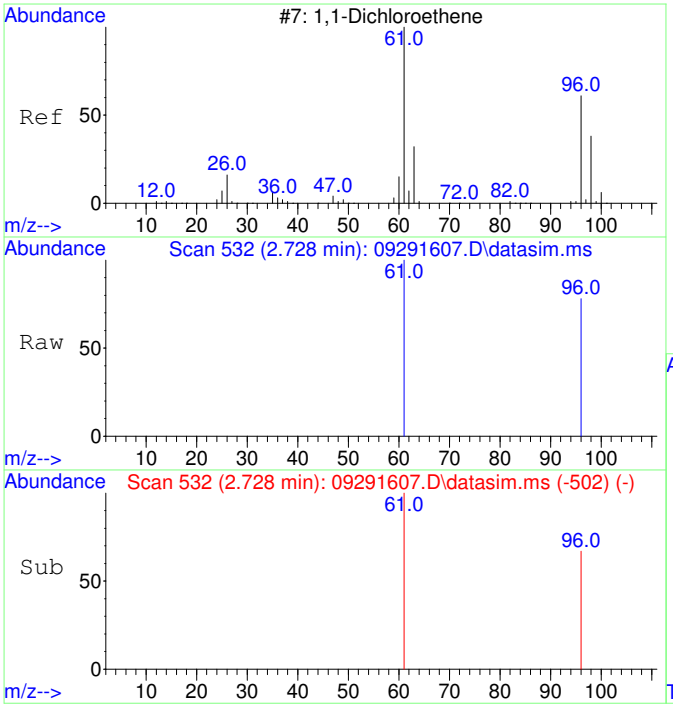


#2
Fluorobenzene SCAN
Concen: 4991.51 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 96 Resp: 391173

Ion	Ratio	Lower	Upper
96	100		
70	20.2	0.0	49.2
50	10.6	0.0	41.1

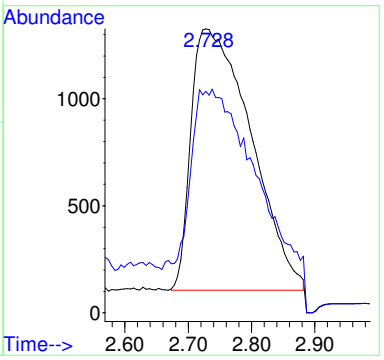


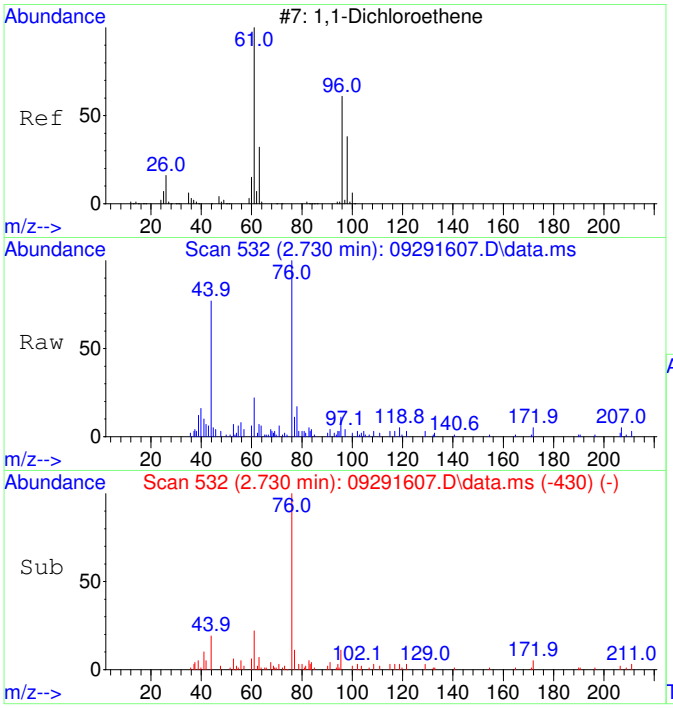


#3
1,1-Dichloroethene
Concen: 160.46 ug/L m
RT: 2.728 min Scan# 532
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 8025

Ion	Ratio	Lower	Upper
61	100		
96	79.3	34.9	94.9

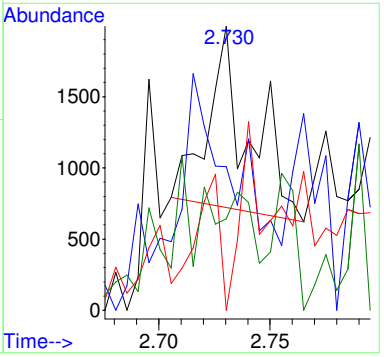


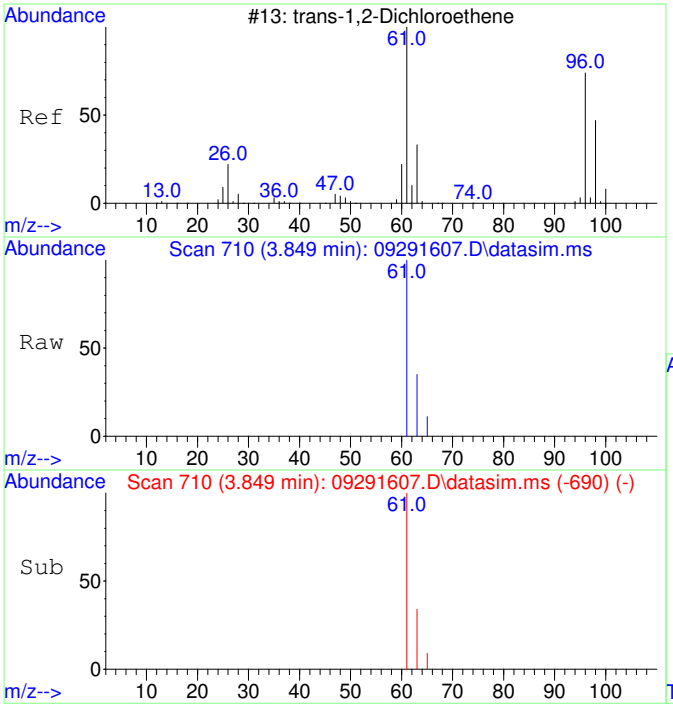


#4
1,1-Dichloroethene SCAN
Concen: 38.19 ug/L
RT: 2.730 min Scan# 532
Delta R.T. 0.005 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 1596

Ion	Ratio	Lower	Upper
61	100		
96	85.7	30.2	90.2
98	37.0	12.2	72.2
63	79.3	3.7	63.7#

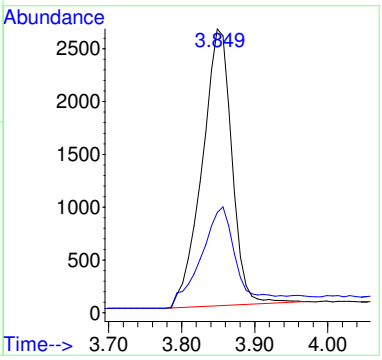


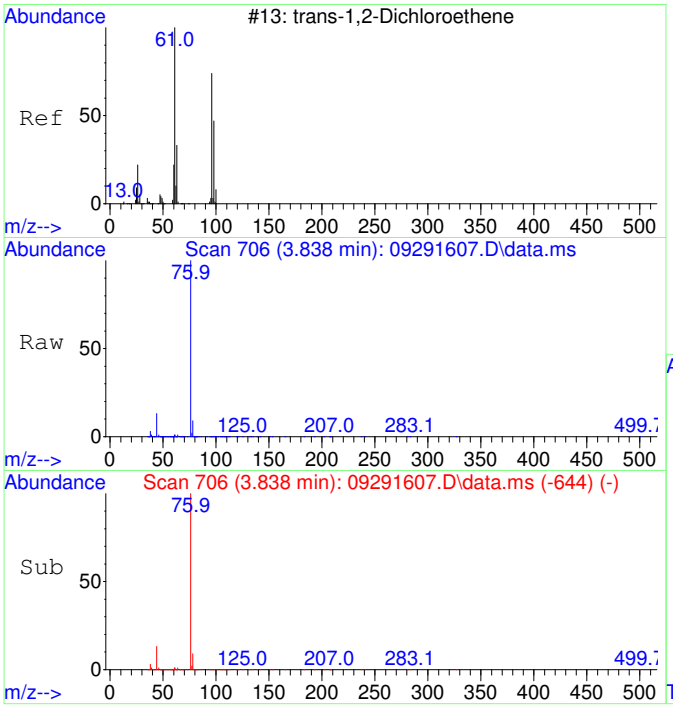


#5
trans-1,2-Dichloroethene
Concen: 170.50 ug/L
RT: 3.849 min Scan# 710
Delta R.T. 0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 7427

Ion	Ratio	Lower	Upper
61	100		
63	39.2	2.5	62.5

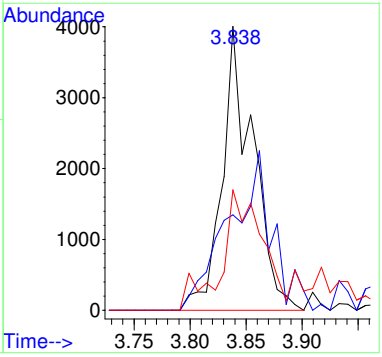


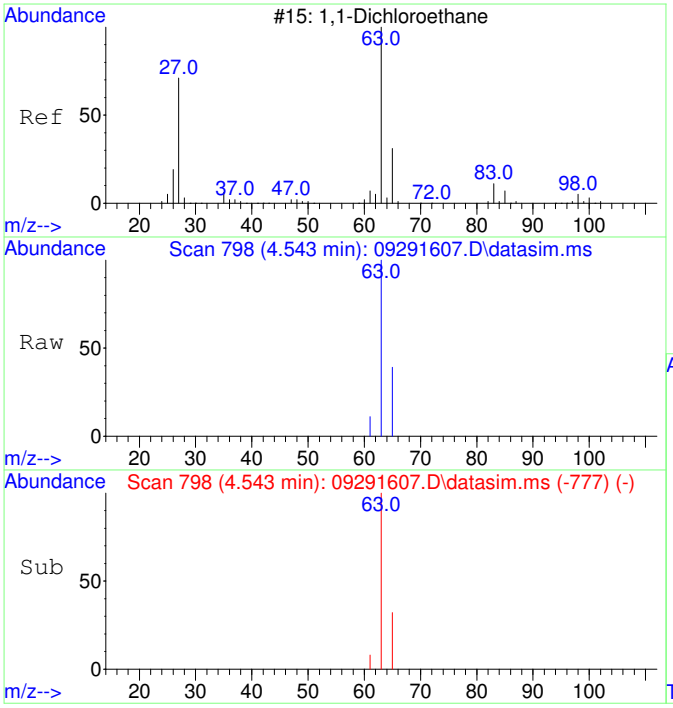


#6
trans-1,2-Dichloroethene SCAN
Concen: 207.10 ug/L
RT: 3.838 min Scan# 706
Delta R.T. -0.008 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 7688

Ion	Ratio	Lower	Upper
61	100		
96	0.0	47.5	107.5#
98	50.8	17.2	77.2

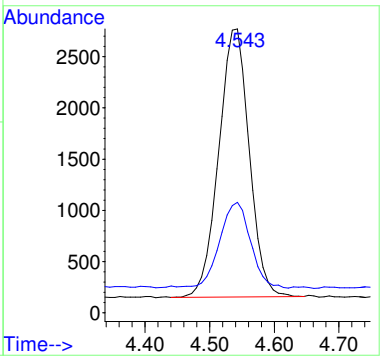


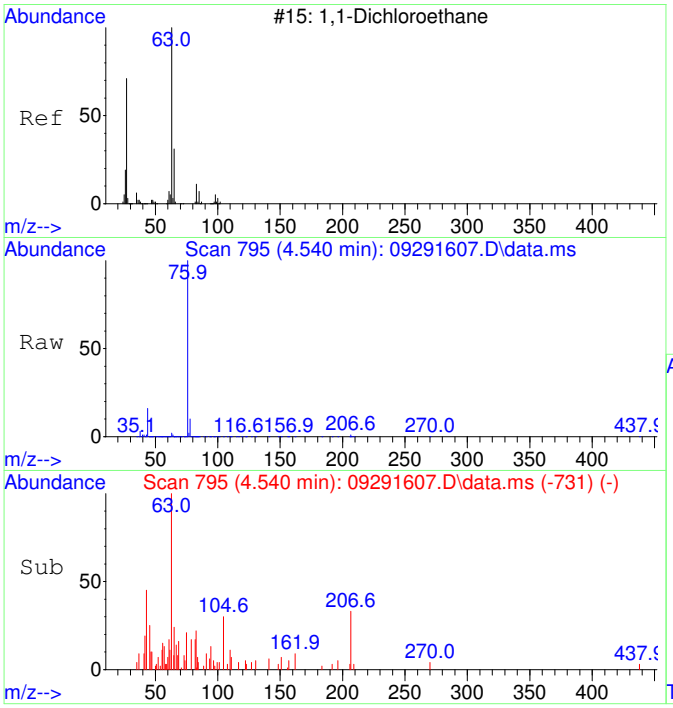


#7
1,1-Dichloroethane
Concen: 166.51 ug/L
RT: 4.543 min Scan# 798
Delta R.T. 0.015 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 63 Resp: 8559

Ion	Ratio	Lower	Upper
63	100		
65	31.1	1.8	61.8

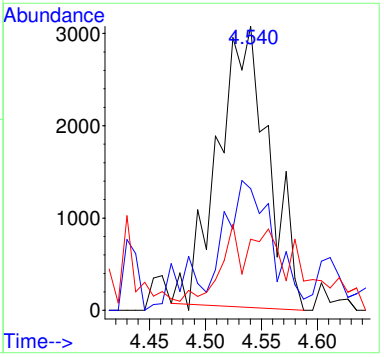


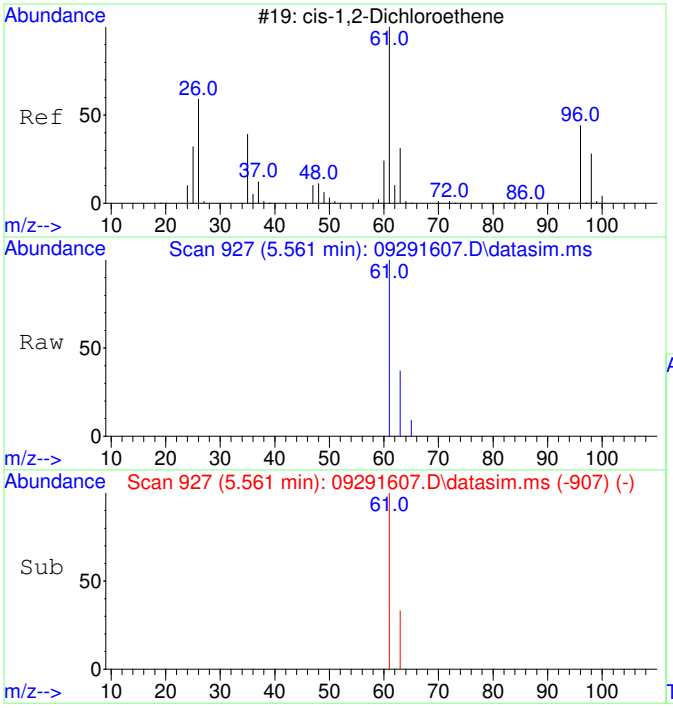


#8
1,1-Dichloroethane SCAN
Concen: 211.38 ug/L
RT: 4.540 min Scan# 795
Delta R.T. 0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 63 Resp: 9549

Ion	Ratio	Lower	Upper
63	100		
65	34.3	3.9	63.9
83	5.5	0.0	45.1

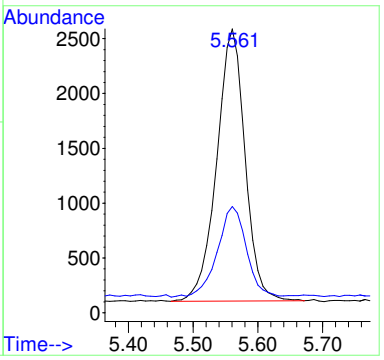


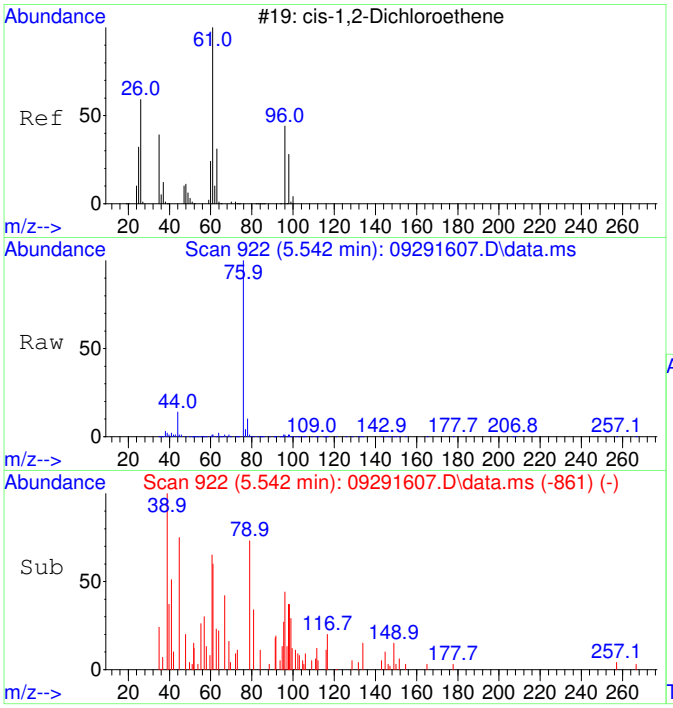


#9
cis-1,2-Dichloroethene
Concen: 164.35 ug/L
RT: 5.561 min Scan# 927
Delta R.T. 0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 7531

Ion	Ratio	Lower	Upper
61	100		
63	33.0	2.4	62.4

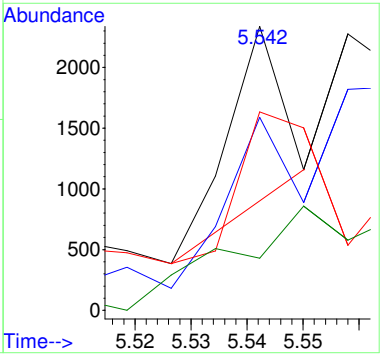


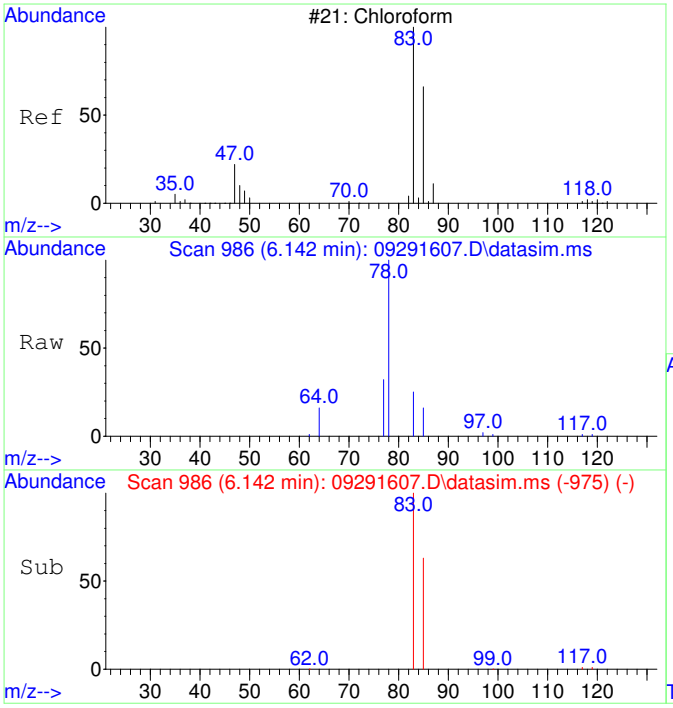


#10
cis-1,2-Dichloroethene SCAN
Concen: 30.97 ug/L
RT: 5.542 min Scan# 922
Delta R.T. -0.016 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 61 Resp: 1265

Ion	Ratio	Lower	Upper
61	100		
96	0.0	42.0	102.0#
98	86.7	17.5	77.5#
63	206.6	3.4	63.4#

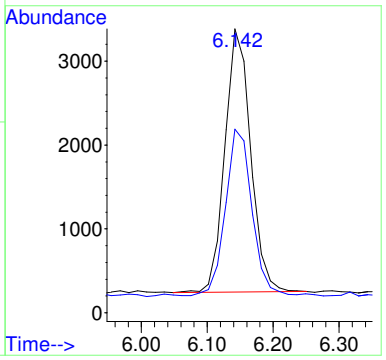


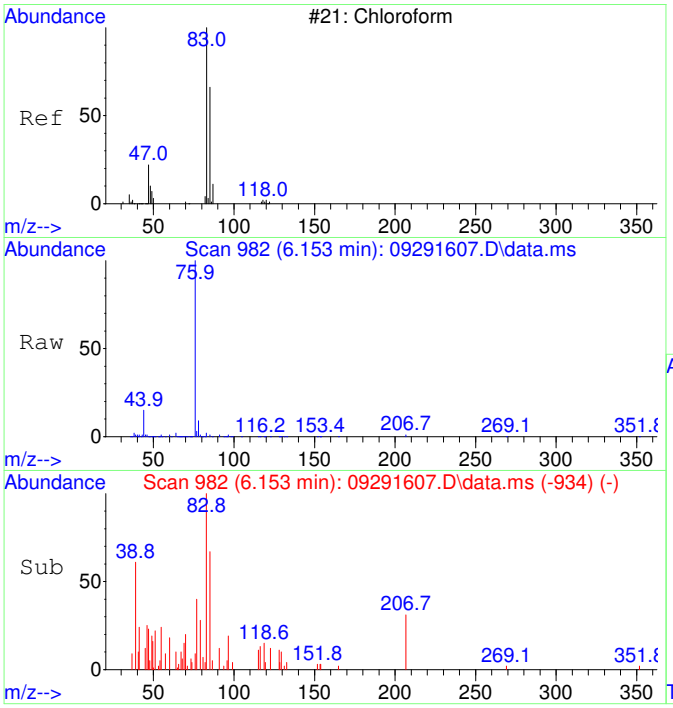


#11
Chloroform
Concen: 162.66 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 8518

Ion	Ratio	Lower	Upper
83	100		
85	64.2	34.4	94.4

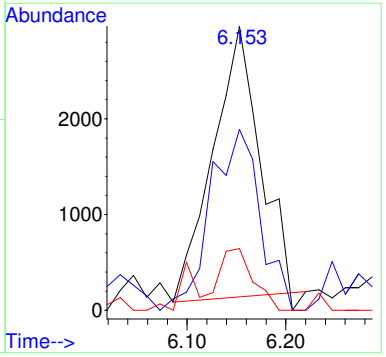


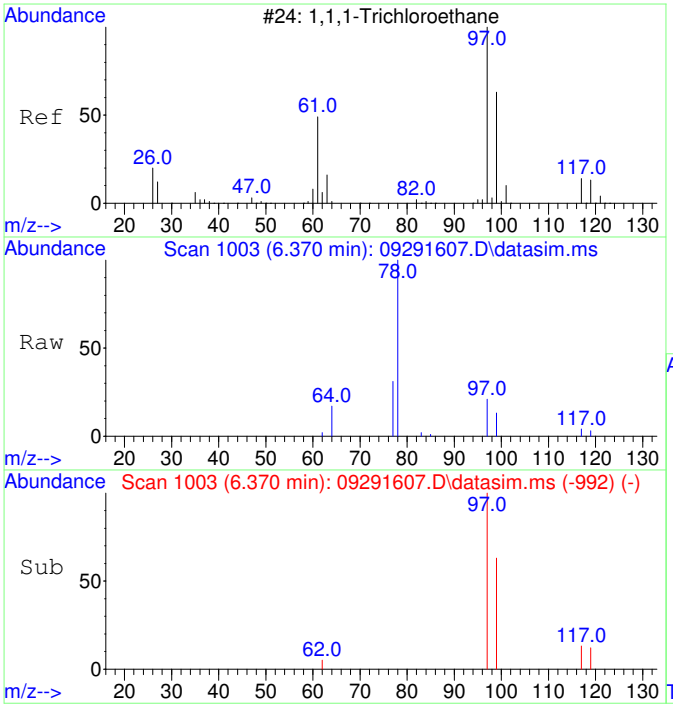


#12
Chloroform SCAN
Concen: 207.39 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 9342

Ion	Ratio	Lower	Upper
83	100		
85	70.5	37.6	97.6
47	13.3	0.0	53.4

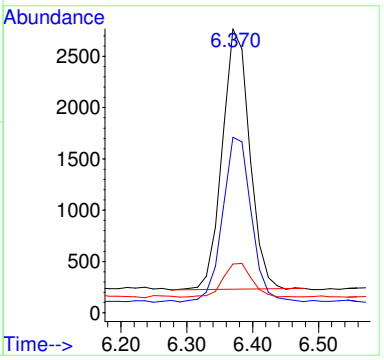


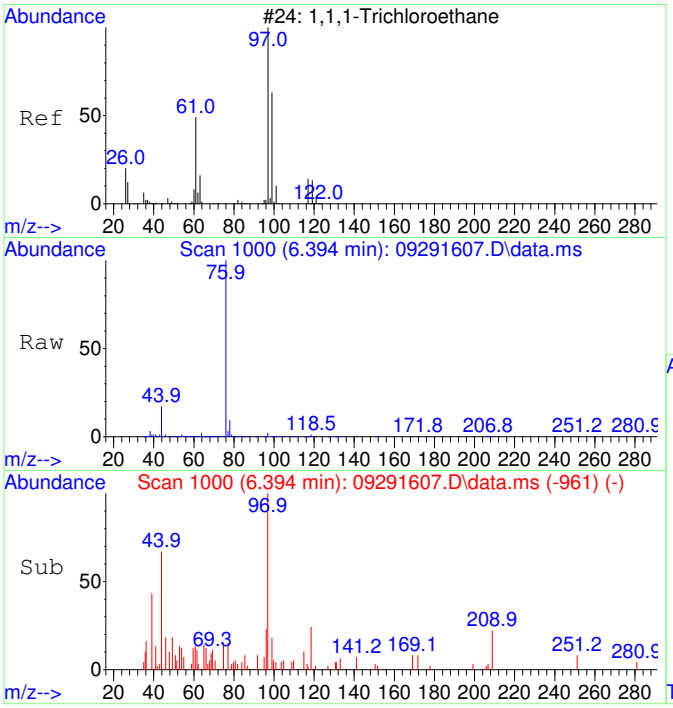


#13
1,1,1-Trichloroethane
Concen: 160.72 ug/L
RT: 6.370 min Scan# 1003
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 7319

Ion	Ratio	Lower	Upper
97	100		
99	64.8	34.2	94.2
117	12.7	0.0	43.0

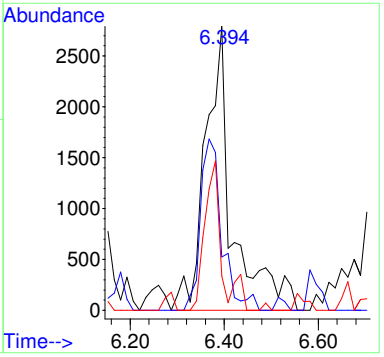


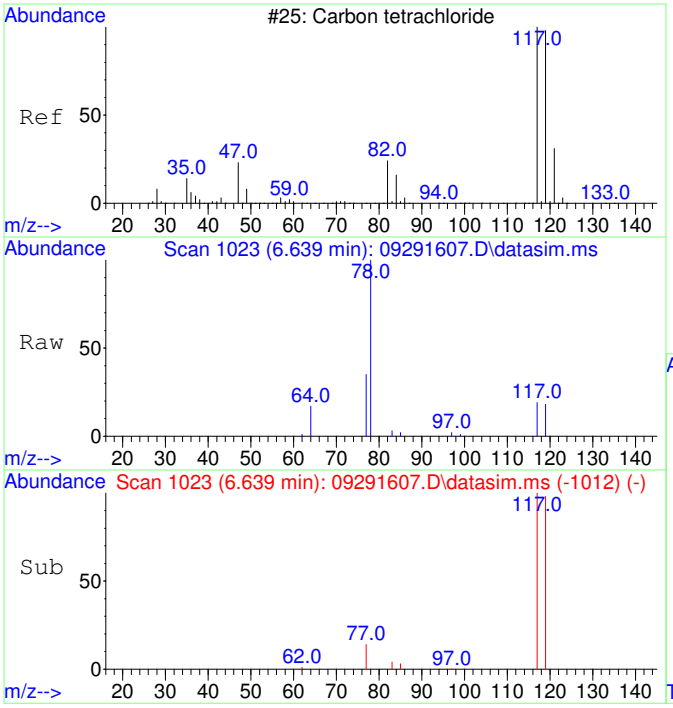


#14
1,1,1-Trichloroethane SCAN
Concen: 279.48 ug/L
RT: 6.394 min Scan# 1000
Delta R.T. 0.026 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 11110

Ion	Ratio	Lower	Upper
97	100		
99	0.0	33.6	93.6#
61	26.5	10.7	70.7

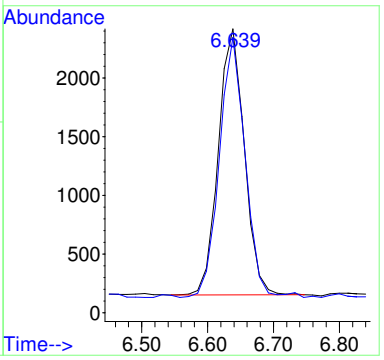


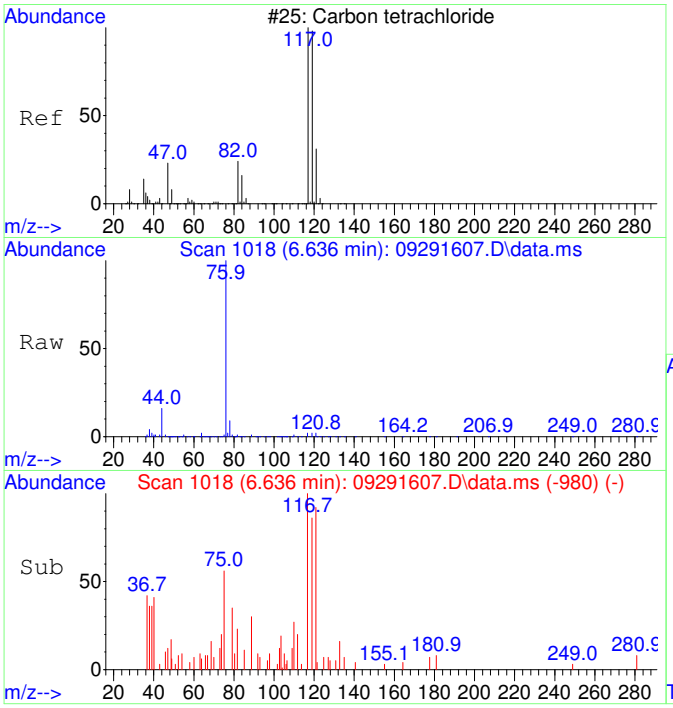


#15
Carbon tetrachloride
Concen: 157.45 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:117 Resp: 6211

Ion	Ratio	Lower	Upper
117	100		
119	94.2	66.1	126.1

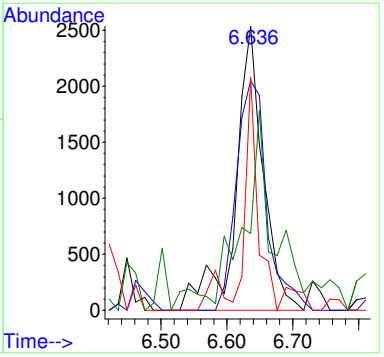


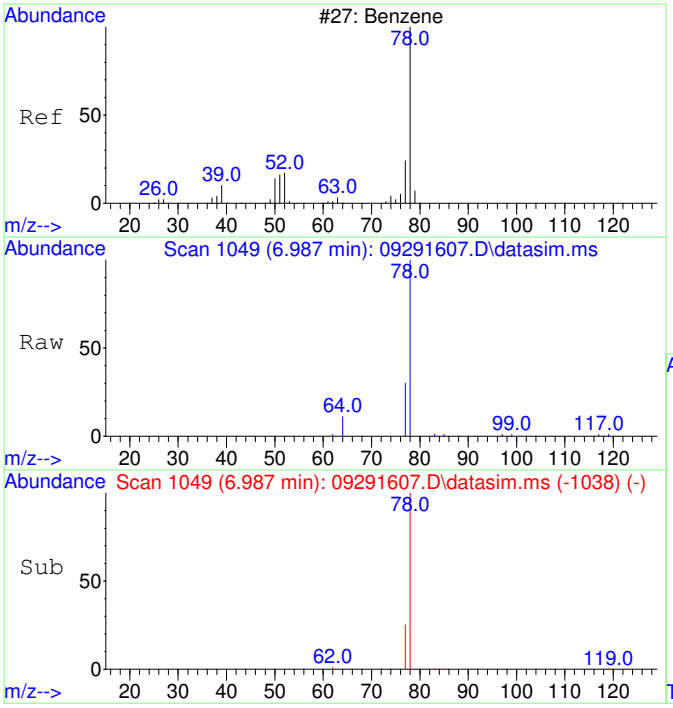


#16
Carbon tetrachloride SCAN
Concen: 212.30 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:117 Resp: 7375

Ion	Ratio	Lower	Upper
117	100		
119	89.6	66.0	122.6
121	34.1	22.1	41.1
82	72.3	18.5	34.3#

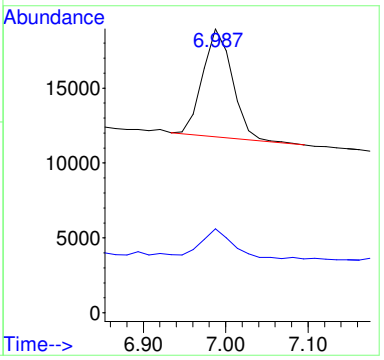


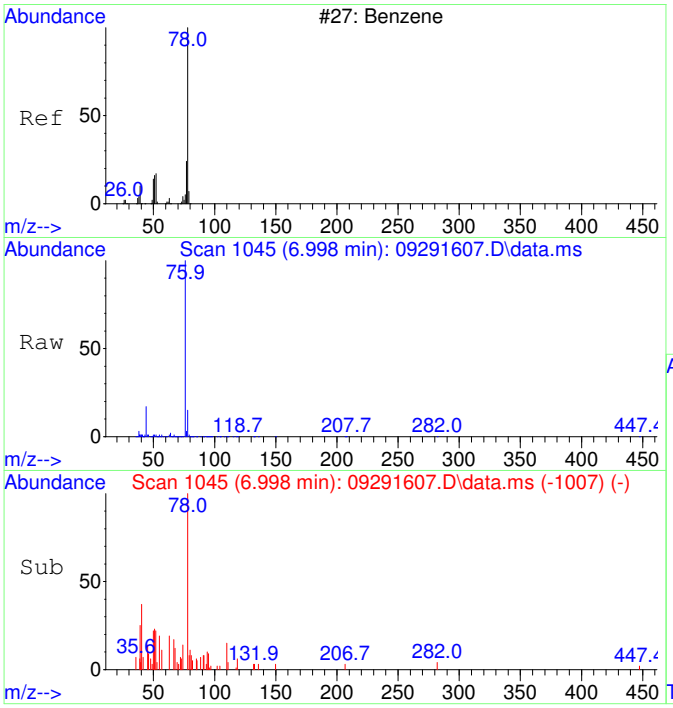


#17
Benzene
Concen: 174.83 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 78 Resp: 17784

Ion	Ratio	Lower	Upper
78	100		
77	24.4	0.0	53.4

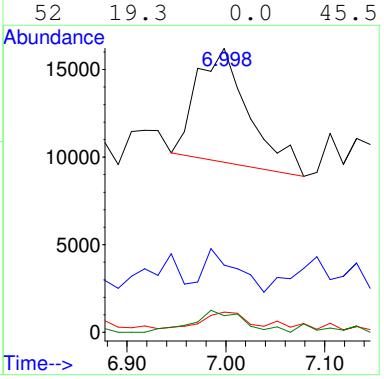


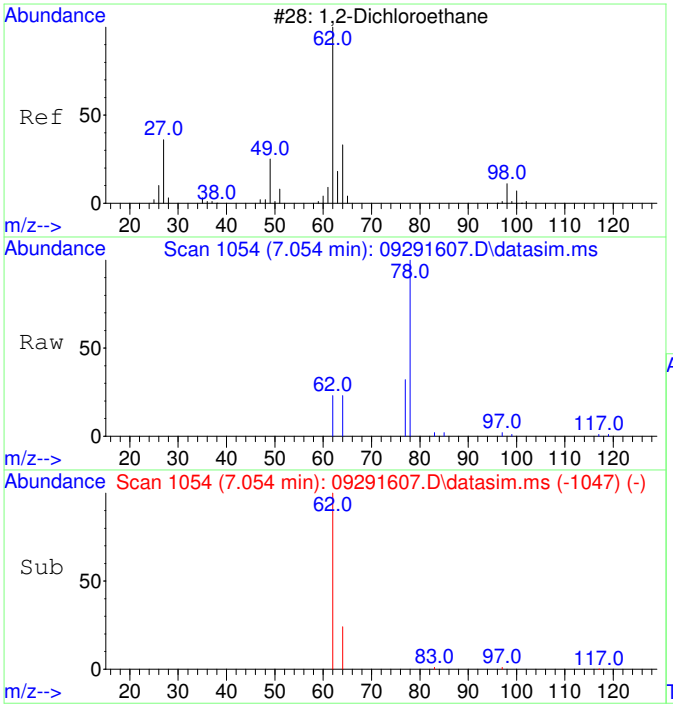


#18
Benzene SCAN
Concen: 254.37 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 78 Resp: 23252

Ion	Ratio	Lower	Upper
78	100		
77	11.3	0.0	59.3
51	21.2	0.0	49.2
52	19.3	0.0	45.5

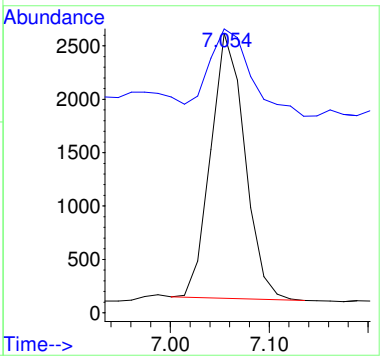


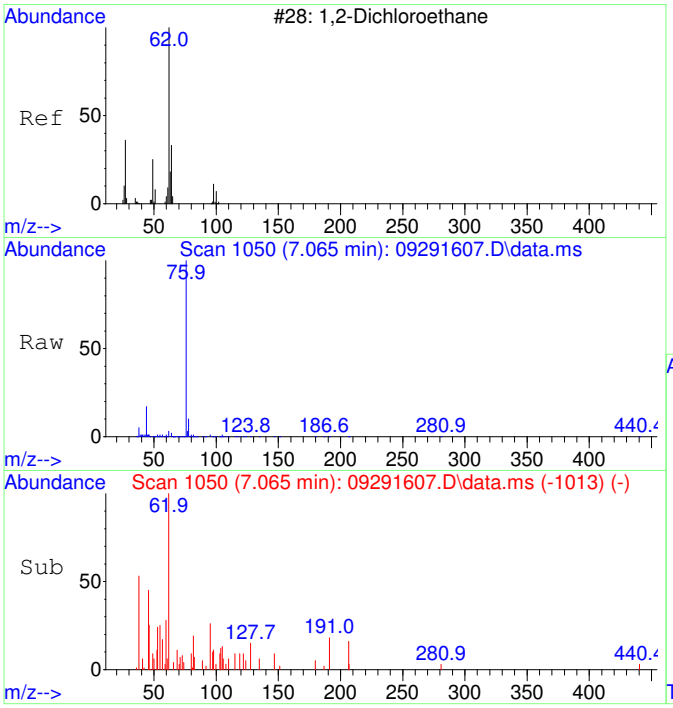


#19
1,2-Dichloroethane
Concen: 160.01 ug/L
RT: 7.054 min Scan# 1054
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 62 Resp: 5946

Ion	Ratio	Lower	Upper
62	100		
64	34.1	2.7	62.7

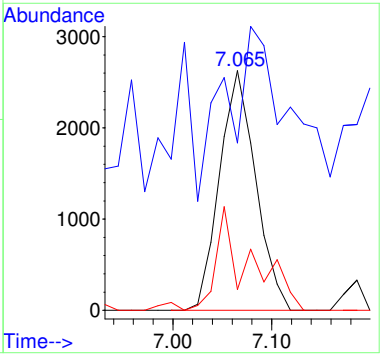


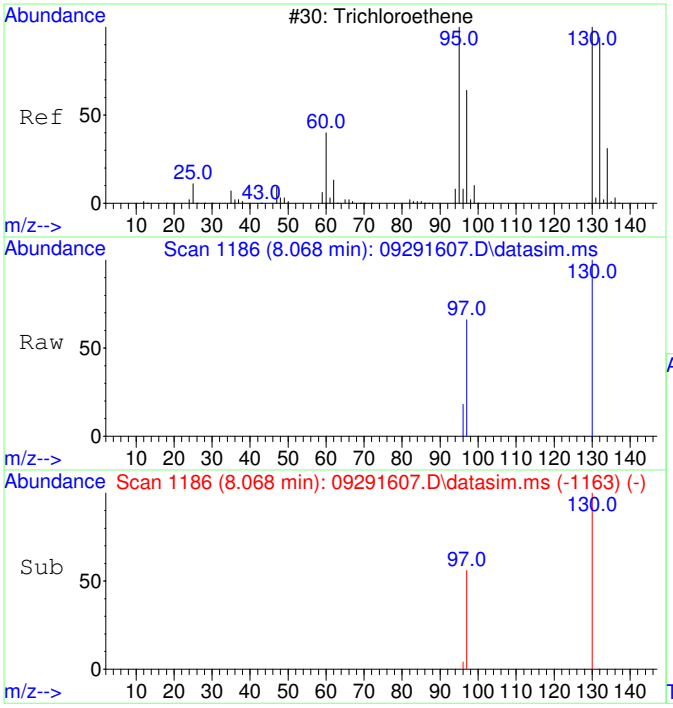


#20
1,2-Dichloroethane SCAN
Concen: 191.56 ug/L
RT: 7.065 min Scan# 1050
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 62 Resp: 6675

Ion	Ratio	Lower	Upper
62	100		
64	110.5	1.9	61.9#
49	0.0	0.0	51.8

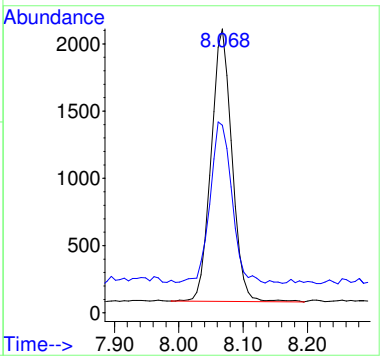


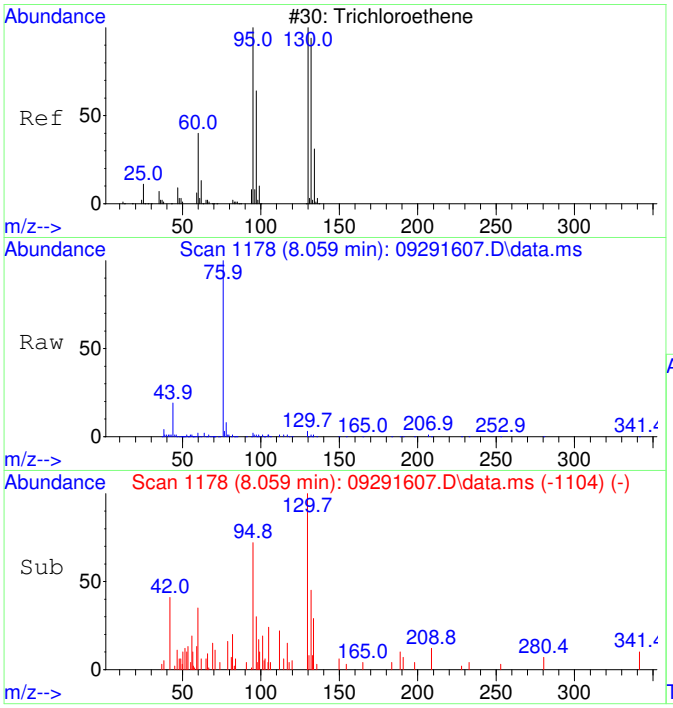


#21
Trichloroethene
Concen: 157.77 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:130 Resp: 4546

Ion	Ratio	Lower	Upper
130	100		
97	58.7	29.9	89.9

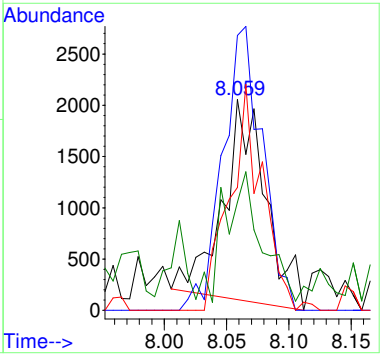


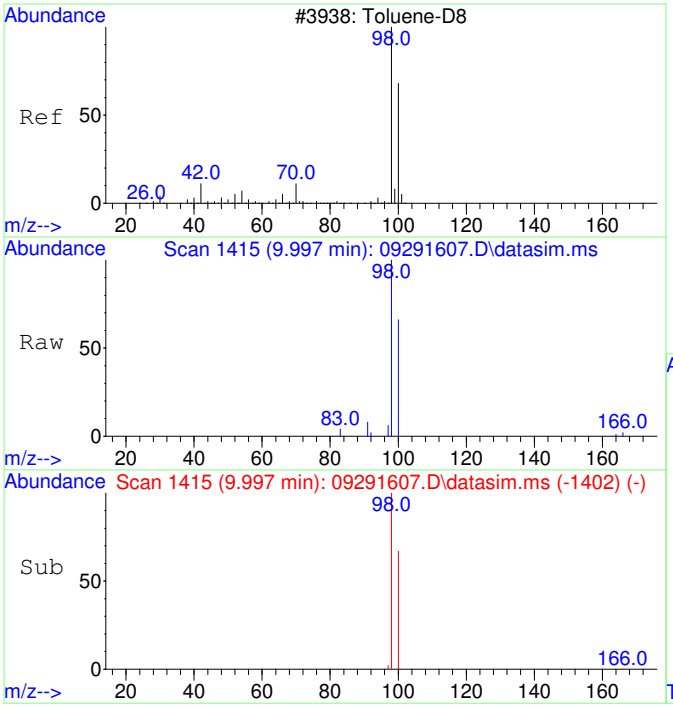


#22
Trichloroethene SCAN
Concen: 201.17 ug/L
RT: 8.059 min Scan# 1178
Delta R.T. -0.007 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 95 Resp: 4642

Ion	Ratio	Lower	Upper
95	100		
130	131.3	74.1	134.1
132	87.5	72.1	132.1
97	55.4	29.5	89.5

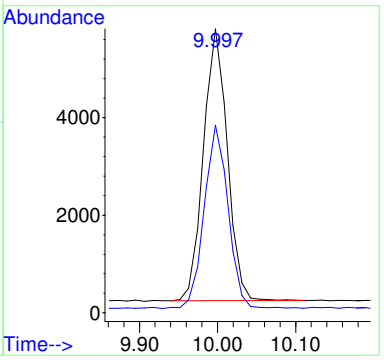


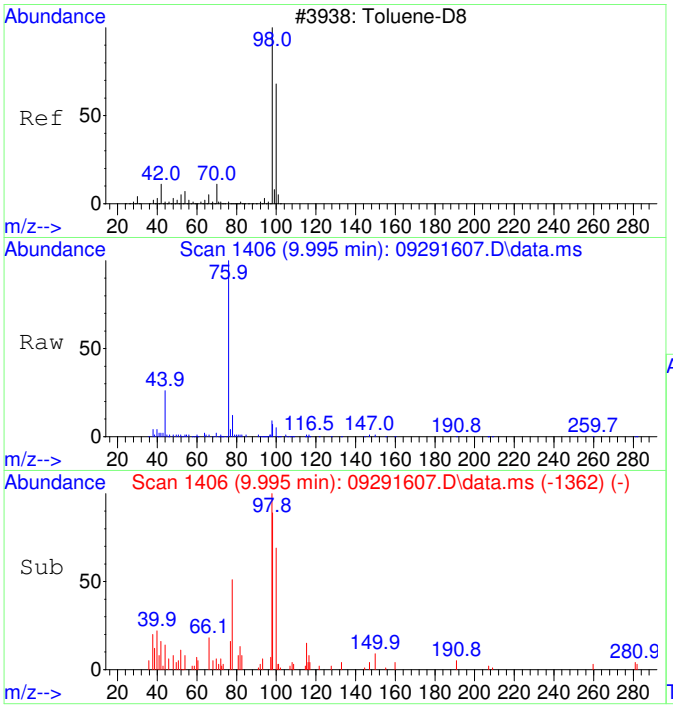


#23
Toluene-d8
Concen: 150.83 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 98 Resp: 11818

Ion	Ratio	Lower	Upper
98	100		
100	65.8	35.3	95.3

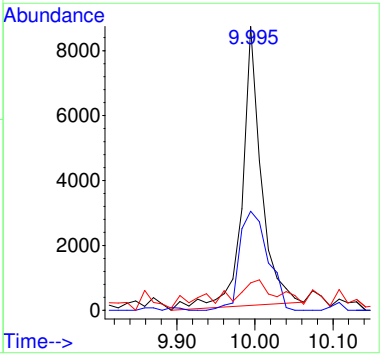


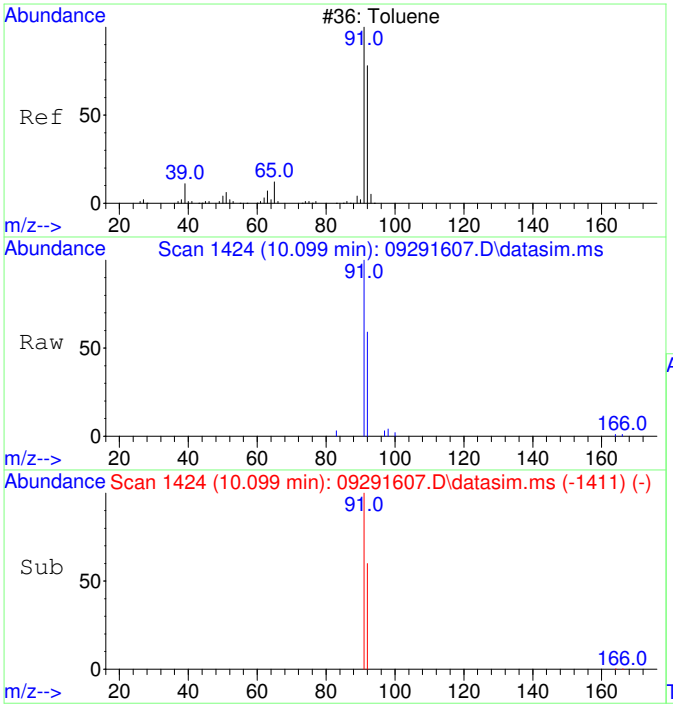


#24
Toluene-d8 SCAN
Concen: 211.69 ug/L
RT: 9.995 min Scan# 1406
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 98 Resp: 14580

Ion	Ratio	Lower	Upper
98	100		
100	53.3	44.3	82.3
70	15.6	7.8	14.4#

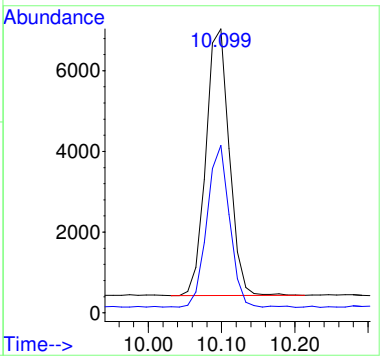


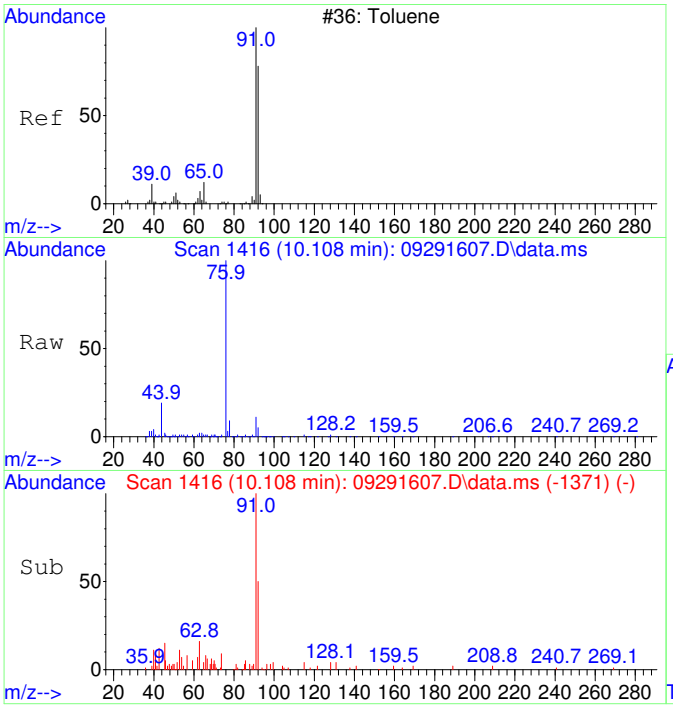


#25
Toluene
Concen: 152.45 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 14694

Ion	Ratio	Lower	Upper
91	100		
92	58.2	28.8	88.8

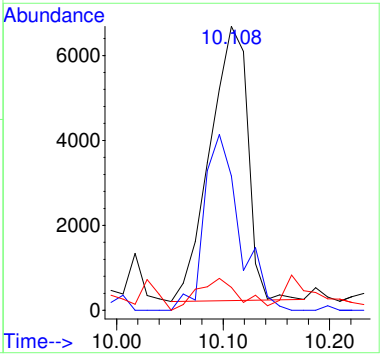


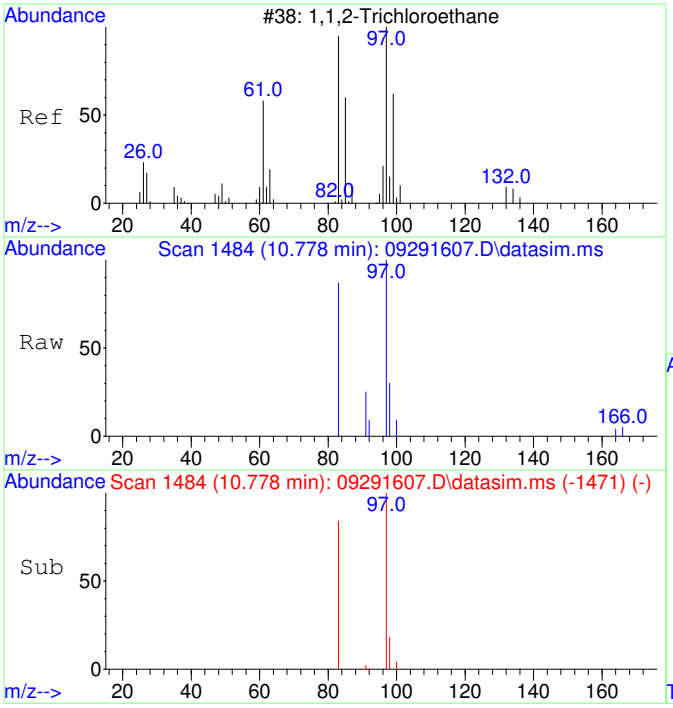


#26
Toluene SCAN
Concen: 202.18 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 15927

Ion	Ratio	Lower	Upper
91	100		
92	59.9	30.7	90.7
65	11.6	0.0	42.6

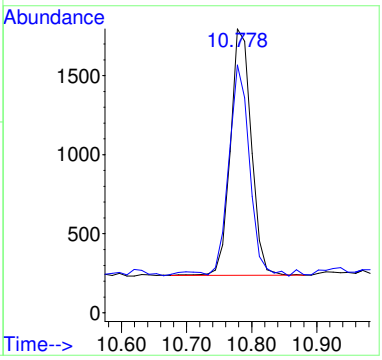


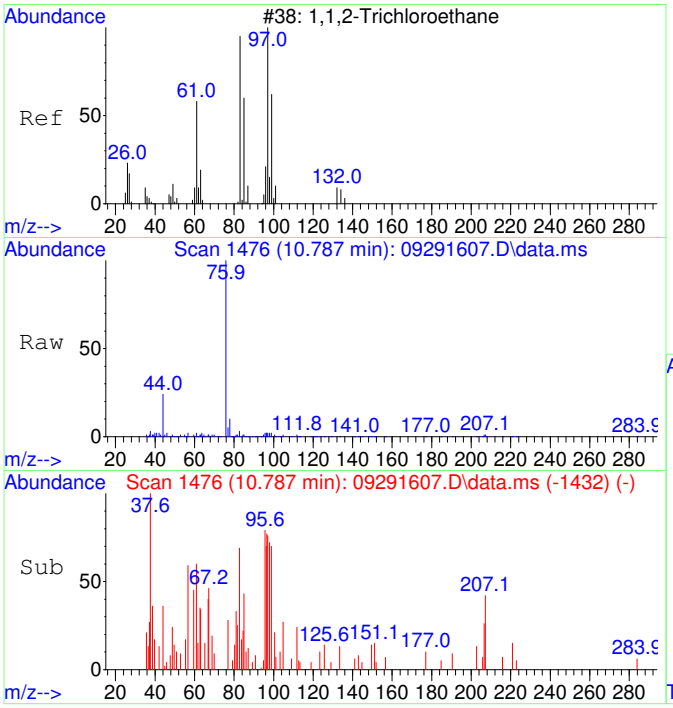


#27
1,1,2-Trichloroethane
Concen: 153.28 ug/L
RT: 10.778 min Scan# 1484
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 3490

Ion	Ratio	Lower	Upper
97	100		
83	83.7	50.5	110.5

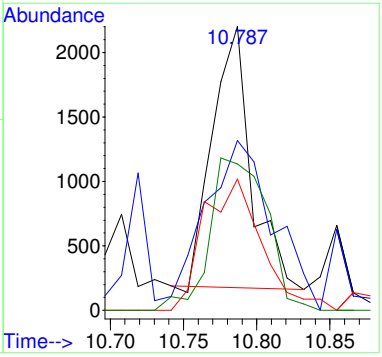


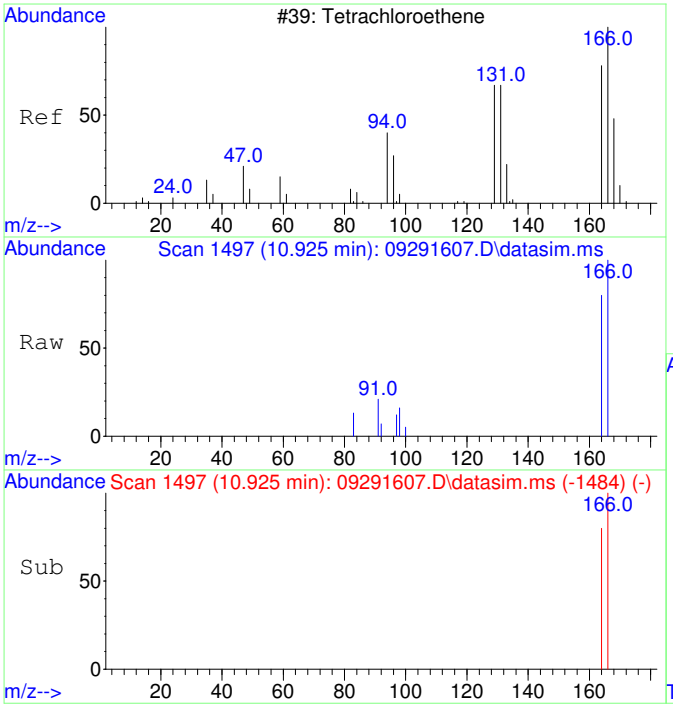


#28
1,1,2-Trichloroethane SCAN
Concen: 199.70 ug/L
RT: 10.787 min Scan# 1476
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 97 Resp: 3710

Ion	Ratio	Lower	Upper
97	100		
83	104.7	53.8	113.8
61	75.5	31.3	91.3
99	86.5	32.9	92.9

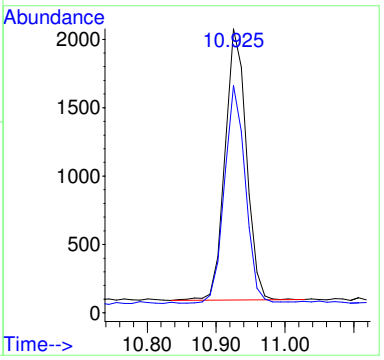


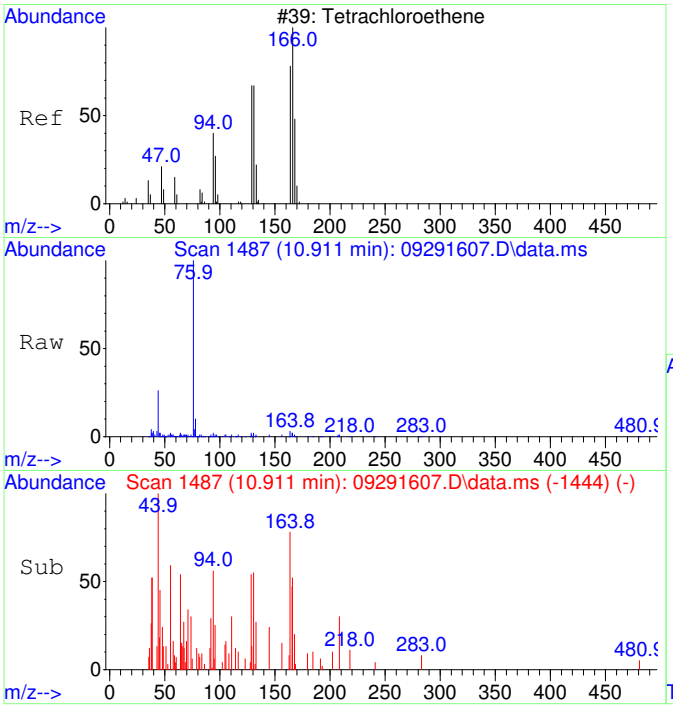


#29
Tetrachloroethene
Concen: 153.03 ug/L
RT: 10.925 min Scan# 1497
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:166 Resp: 4252

Ion	Ratio	Lower	Upper
166	100		
164	77.4	47.7	107.7

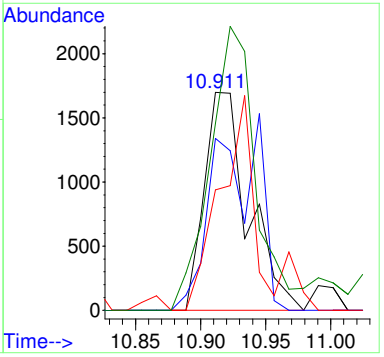


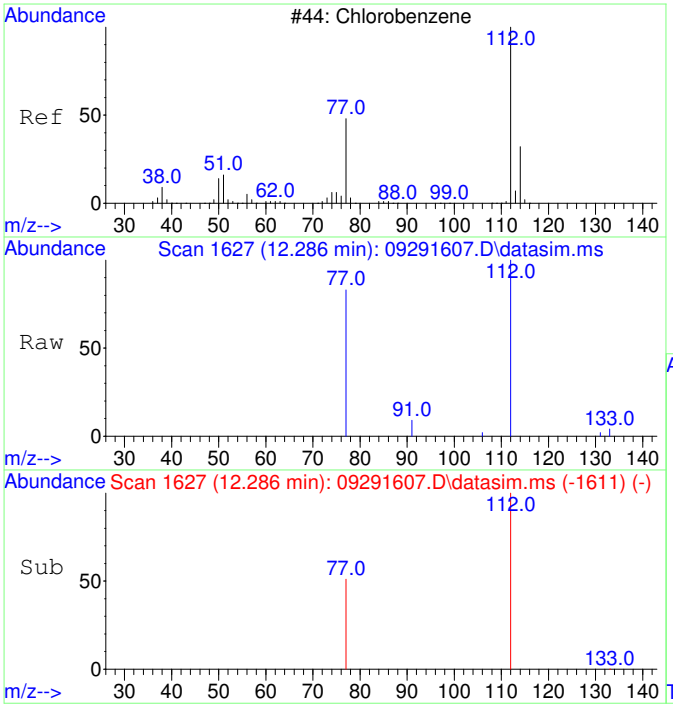


#30
Tetrachloroethene SCAN
Concen: 179.09 ug/L
RT: 10.911 min Scan# 1487
Delta R.T. -0.012 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:166 Resp: 3995

Ion	Ratio	Lower	Upper
166	100		
164	0.0	44.9	104.9#
131	0.0	36.1	96.1#
129	152.4	40.5	100.5#

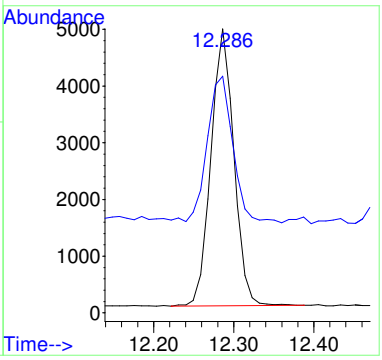


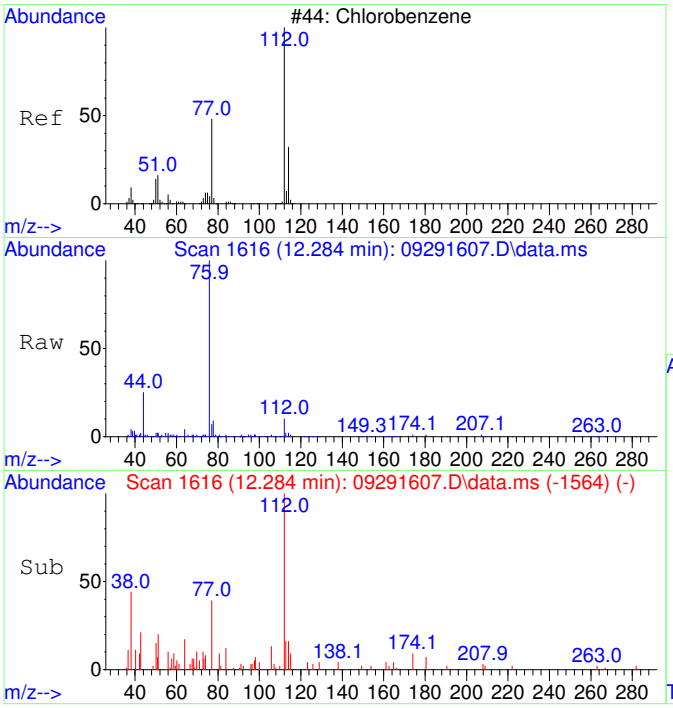


#31
Chlorobenzene
Concen: 152.13 ug/L
RT: 12.286 min Scan# 1627
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:112 Resp: 9667

Ion	Ratio	Lower	Upper
112	100		
77	58.2	25.1	85.1

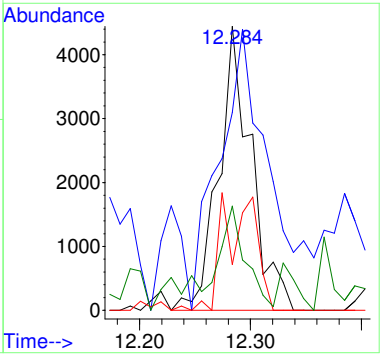


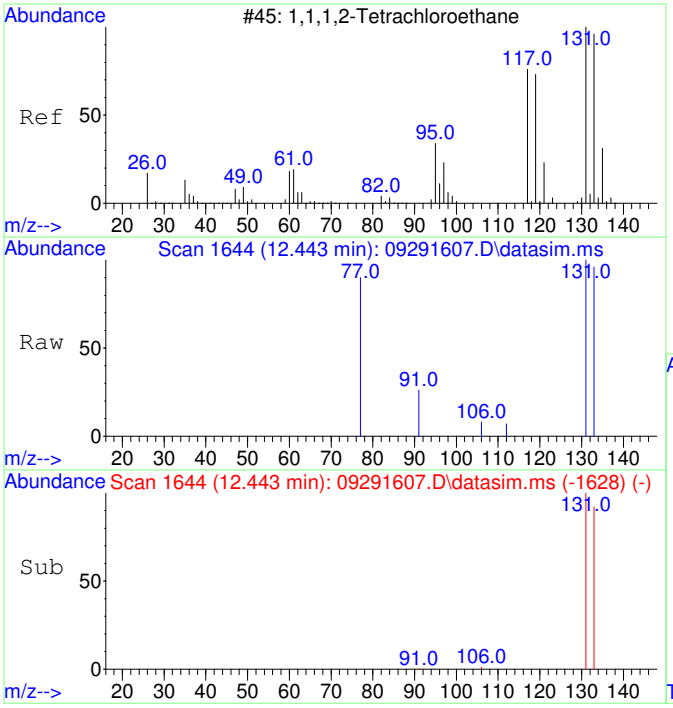


#32
Chlorobenzene SCAN
Concen: 170.80 ug/L
RT: 12.284 min Scan# 1616
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:112 Resp: 9035

Ion	Ratio	Lower	Upper
112	100		
77	125.2	23.6	83.6#
114	40.2	0.9	60.9
51	21.8	0.0	47.7

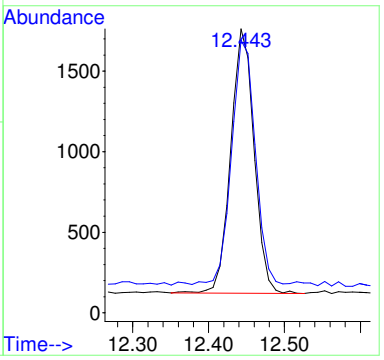


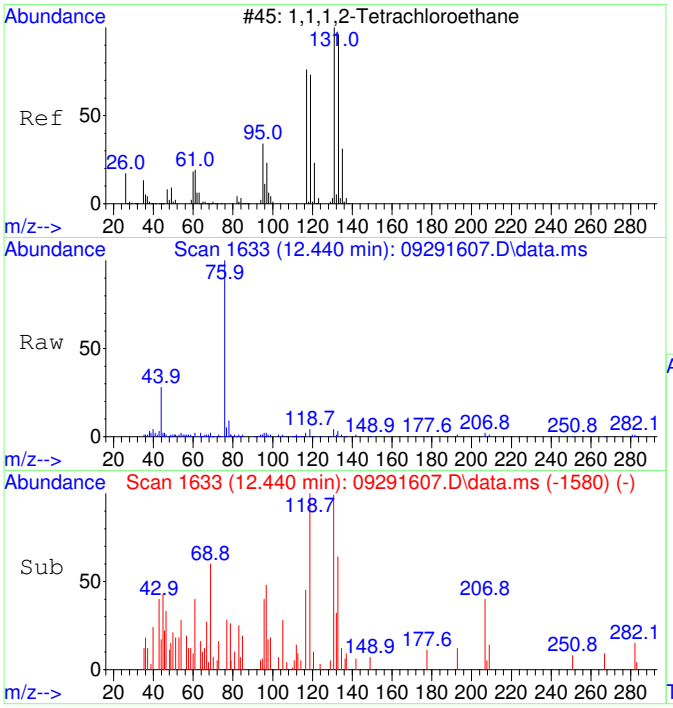


#33
1,1,1,2-Tetrachloroethane
Concen: 153.46 ug/L
RT: 12.443 min Scan# 1644
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:131 Resp: 3497

Ion	Ratio	Lower	Upper
131	100		
133	91.5	64.8	124.8

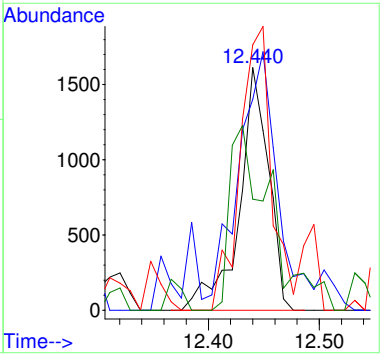


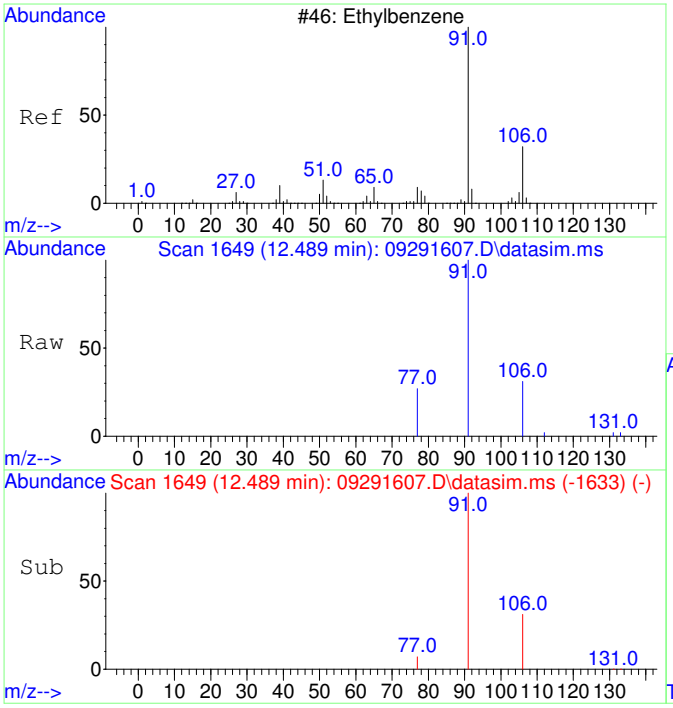


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 158.13 ug/L
RT: 12.440 min Scan# 1633
Delta R.T. -0.010 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:131 Resp: 2963

Ion	Ratio	Lower	Upper
131	100		
133	141.4	64.7	124.7#
119	117.1	34.9	94.9#
117	107.1	36.2	96.2#

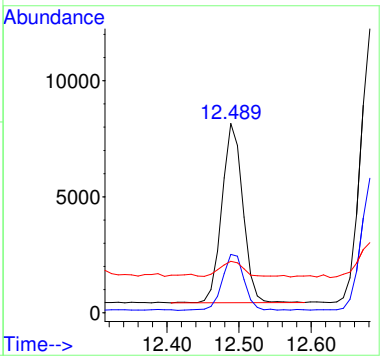


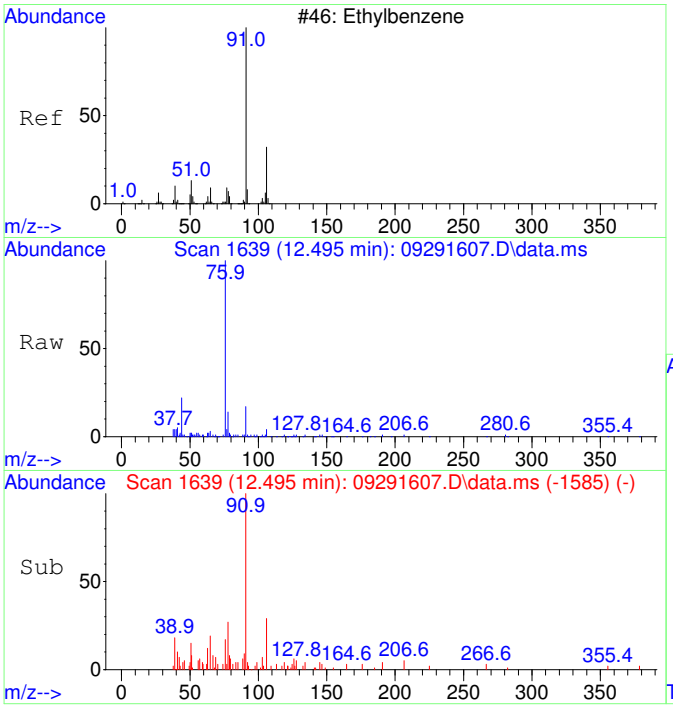


#35
Ethylbenzene
Concen: 152.01 ug/L
RT: 12.489 min Scan# 1649
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 15590

Ion	Ratio	Lower	Upper
91	100		
106	31.1	1.7	61.7
77	9.6	0.0	38.3

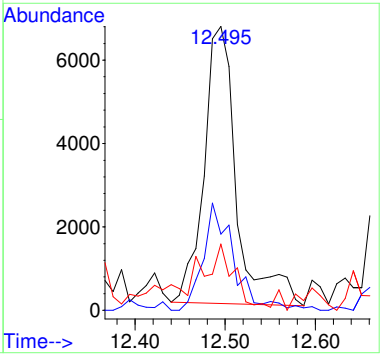


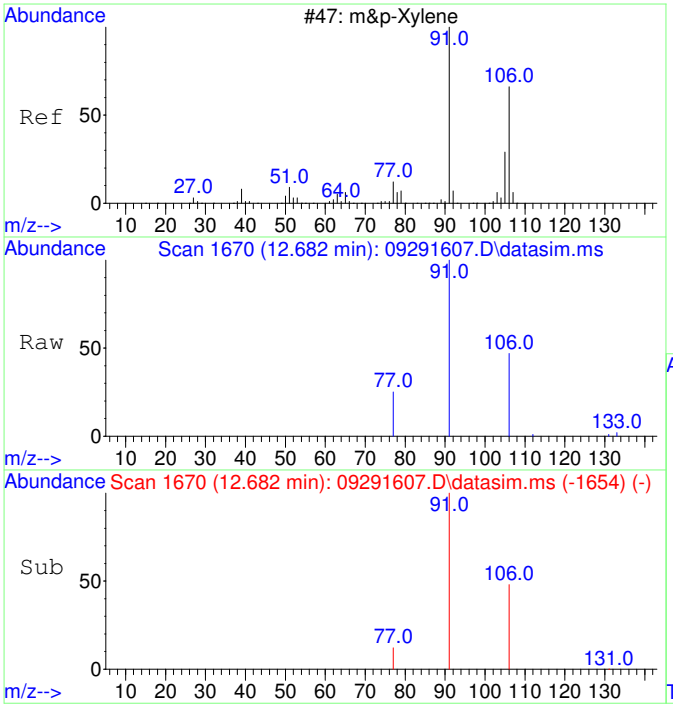


#36
Ethylbenzene SCAN
Concen: 200.19 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 16725

Ion	Ratio	Lower	Upper
91	100		
106	36.5	2.3	62.3
51	15.9	0.0	39.6

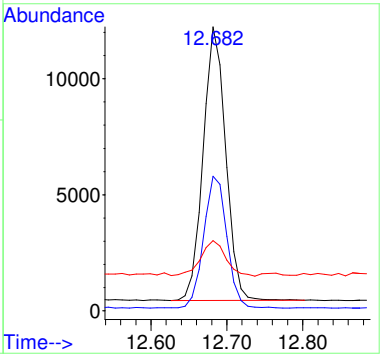


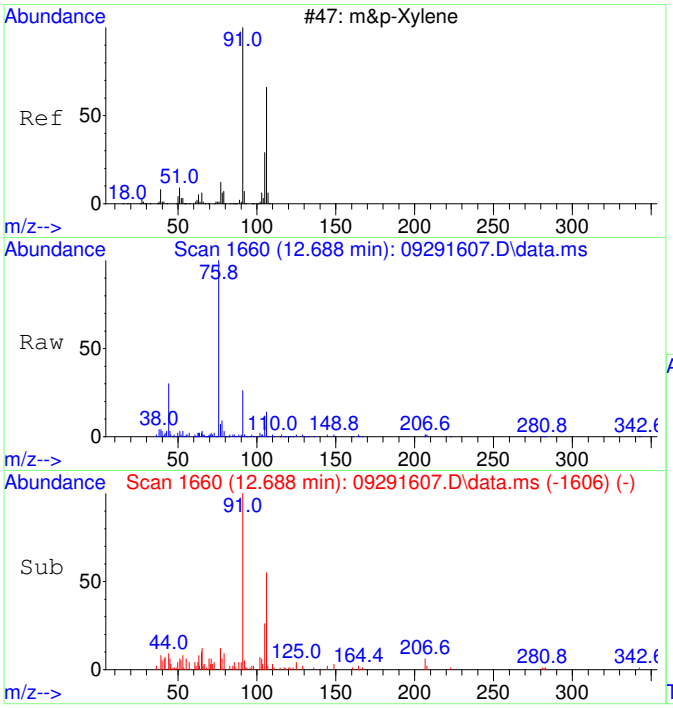


#37
m&p-Xylene
Concen: 303.12 ug/L
RT: 12.682 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 24362

Ion	Ratio	Lower	Upper
91	100		
106	49.0	19.4	79.4
77	13.5	0.0	42.6

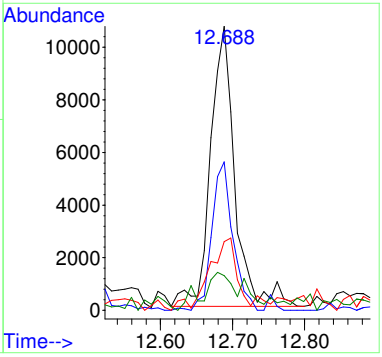


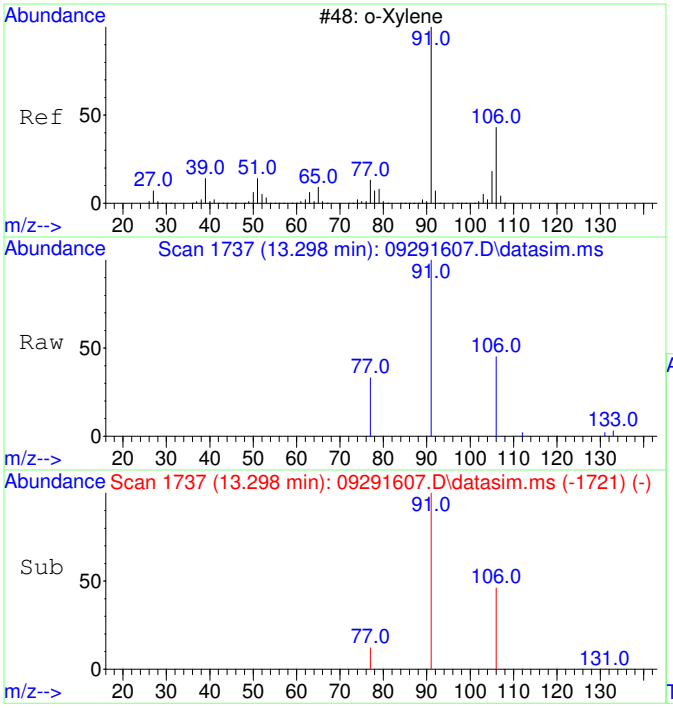


#38
m&p-Xylene SCAN
Concen: 379.91 ug/L
RT: 12.688 min Scan# 1660
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 25091

Ion	Ratio	Lower	Upper
91	100		
106	45.7	18.0	78.0
105	27.1	0.0	53.1
51	11.6	0.0	39.4

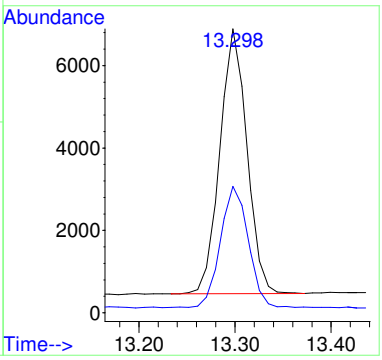


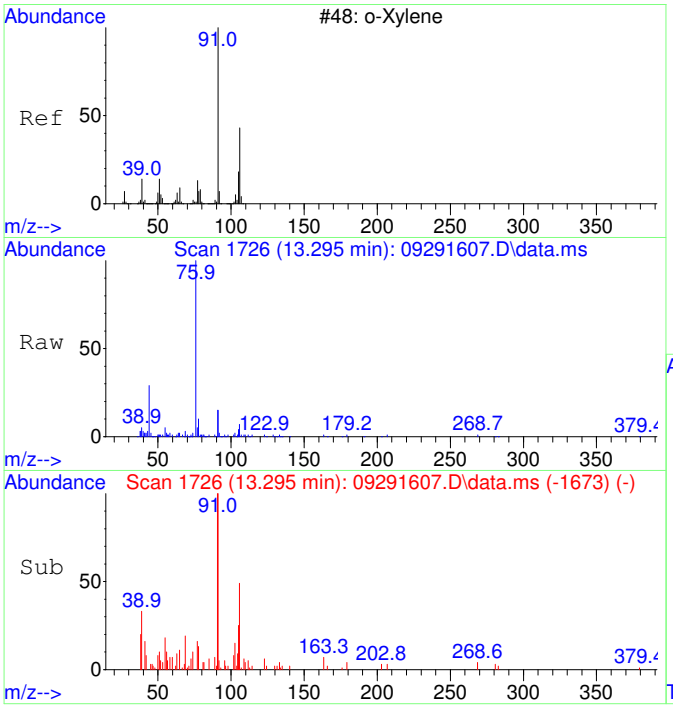


#39
o-Xylene
Concen: 151.92 ug/L
RT: 13.298 min Scan# 1737
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 12589

Ion	Ratio	Lower	Upper
91	100		
106	46.3	17.2	77.2

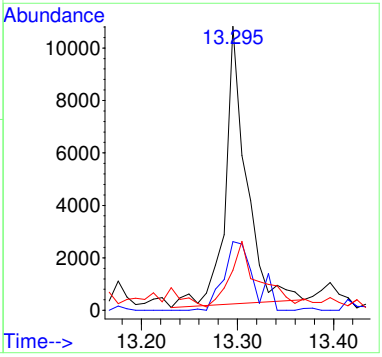


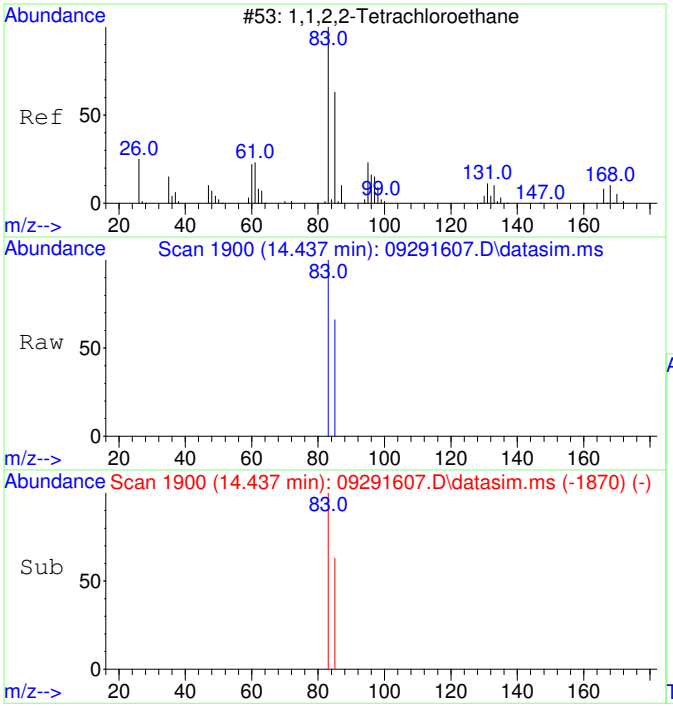


#40
o-Xylene SCAN
Concen: 231.24 ug/L
RT: 13.295 min Scan# 1726
Delta R.T. -0.010 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 91 Resp: 15978

Ion	Ratio	Lower	Upper
91	100		
106	35.8	18.0	78.0
105	37.5	0.0	56.8

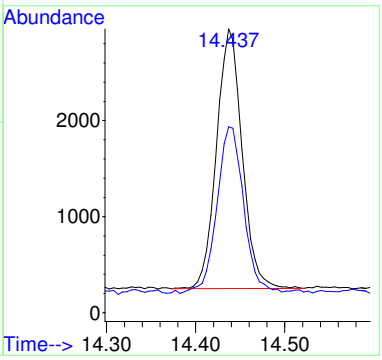


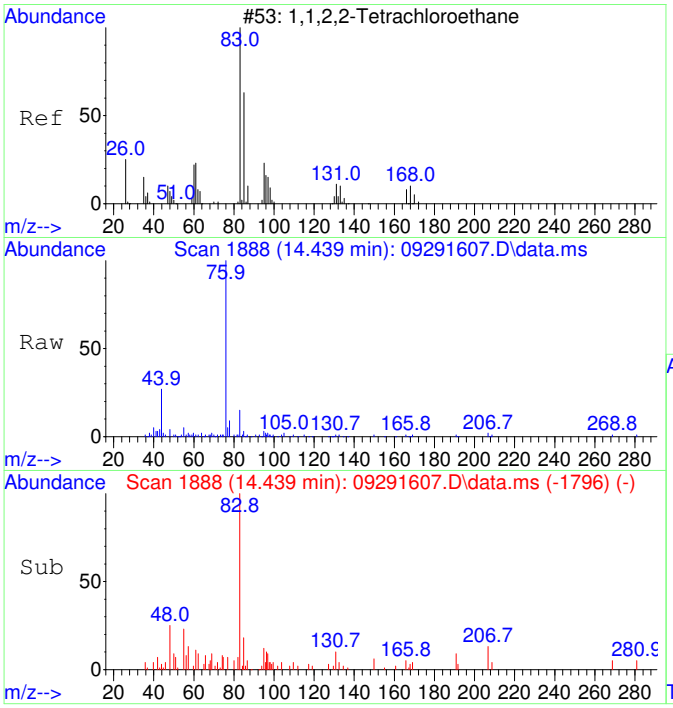


#41
1,1,2,2-Tetrachloroethane
Concen: 150.92 ug/L
RT: 14.437 min Scan# 1900
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 5401

Ion	Ratio	Lower	Upper
83	100		
85	65.8	34.4	94.4

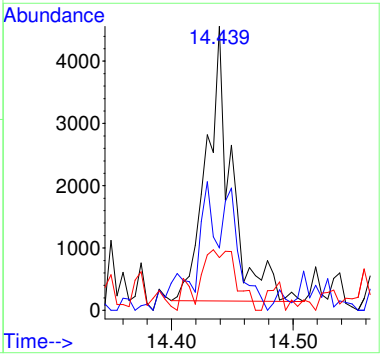


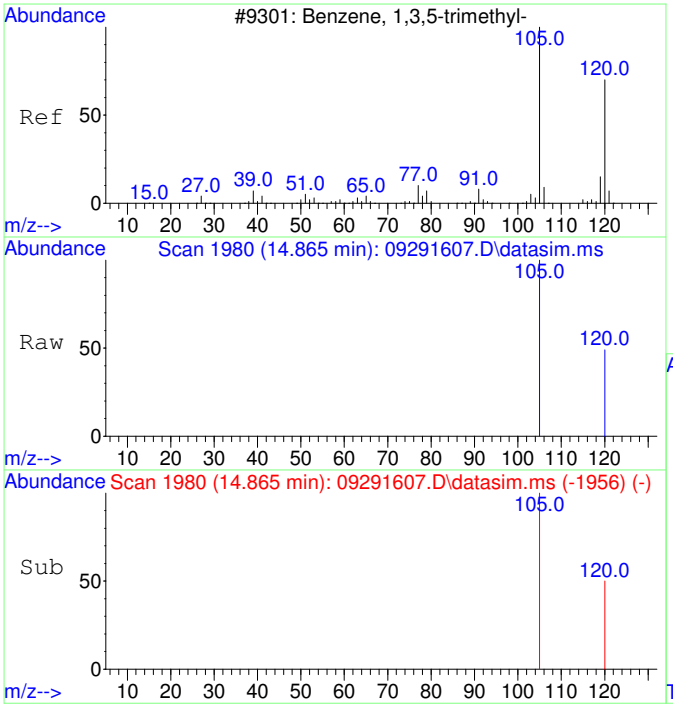


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 205.26 ug/L
RT: 14.439 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion: 83 Resp: 6355

Ion	Ratio	Lower	Upper
83	100		
85	14.5	33.2	93.2#
95	33.3	0.0	47.2

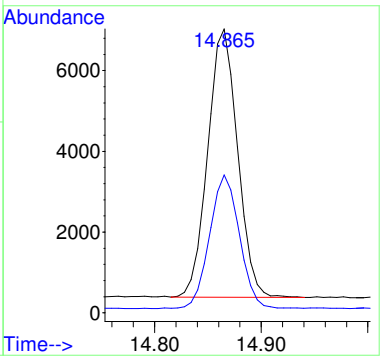


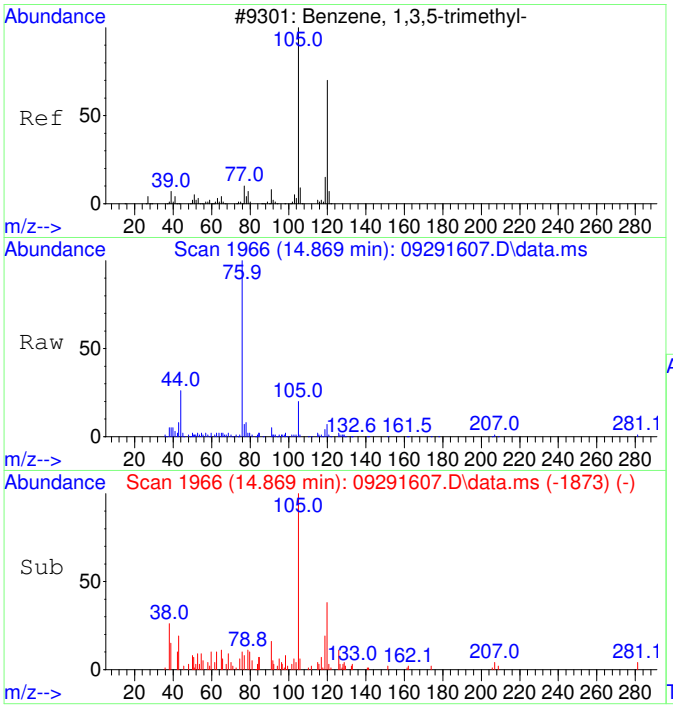


#43
1,3,5-Trimethylbenzene
Concen: 151.40 ug/L
RT: 14.865 min Scan# 1980
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 12917

Ion	Ratio	Lower	Upper
105	100		
120	49.9	19.7	79.7

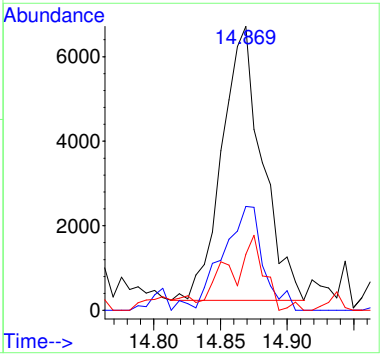


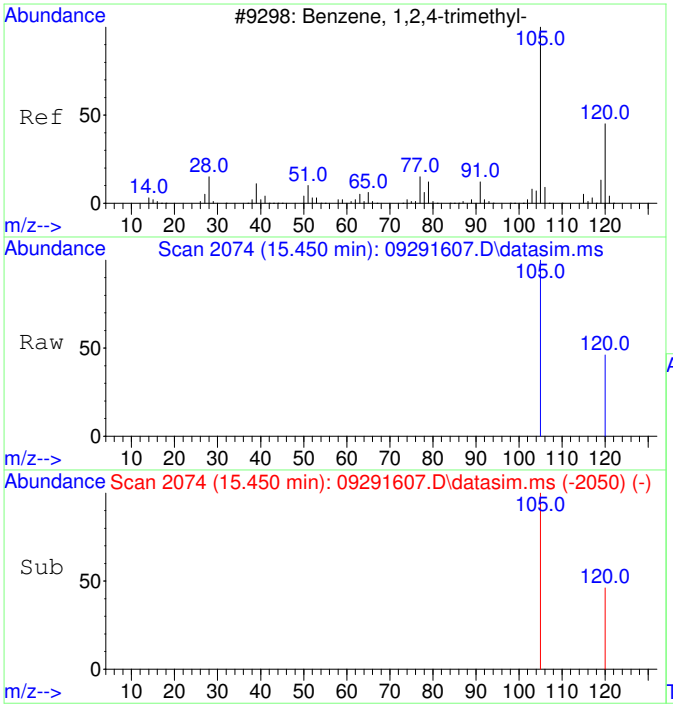


#44
1,3,5-Trimethylbenzene SCAN
Concen: 201.34 ug/L
RT: 14.869 min Scan# 1966
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 13588

Ion	Ratio	Lower	Upper
105	100		
120	34.8	22.1	82.1
119	20.5	0.0	42.9

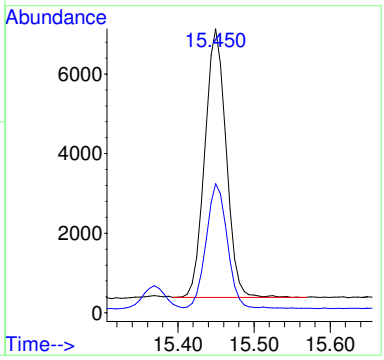


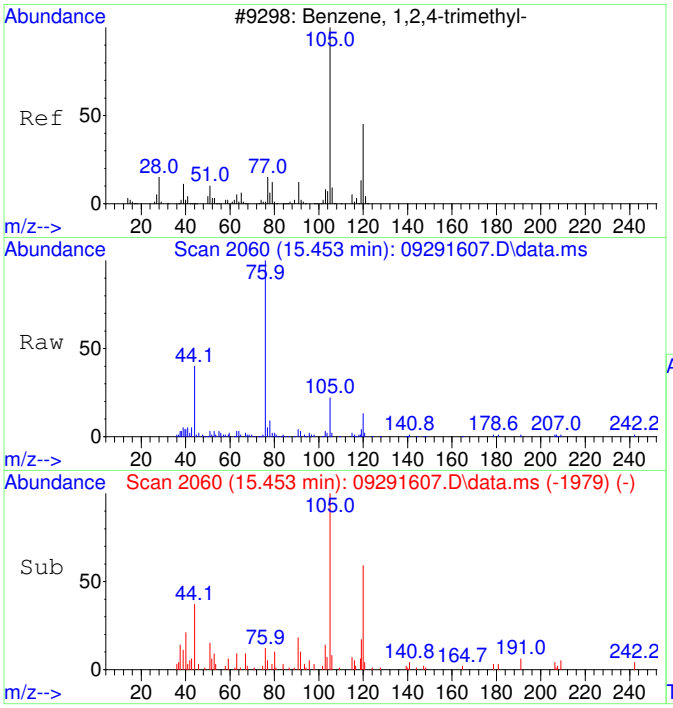


#45
1,2,4-Trimethylbenzene
Concen: 148.94 ug/L
RT: 15.450 min Scan# 2074
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 13055

Ion	Ratio	Lower	Upper
105	100		
120	45.8	15.7	75.7

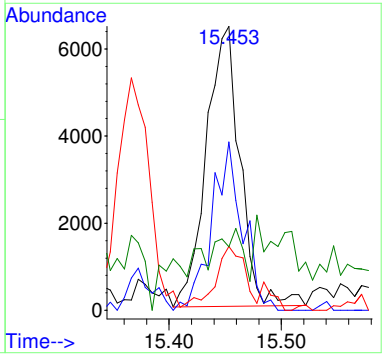


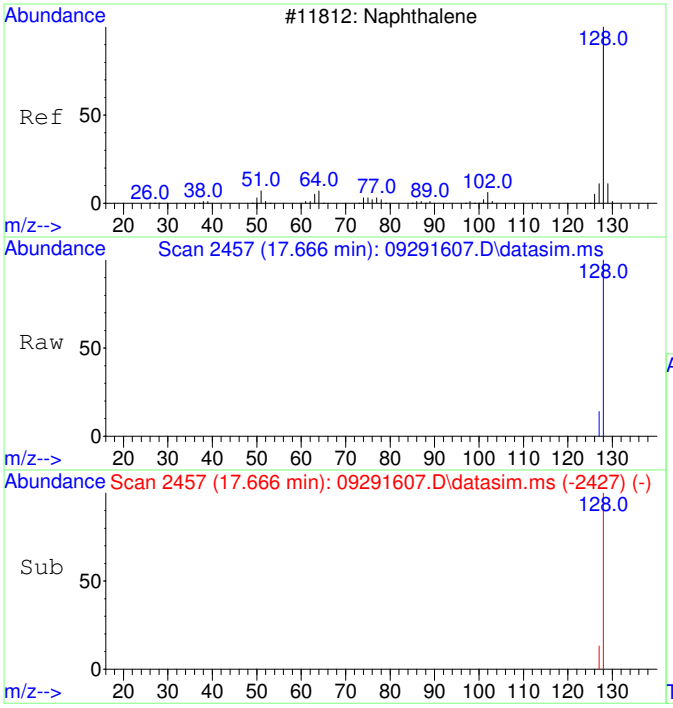


#46
1,2,4-Trimethylbenzene SCAN
Concen: 189.99 ug/L
RT: 15.453 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:105 Resp: 13456

Ion	Ratio	Lower	Upper
105	100		
120	54.7	17.2	77.2
119	15.2	0.0	41.3
77	10.6	0.0	43.1

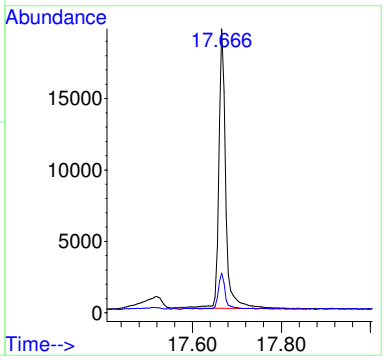


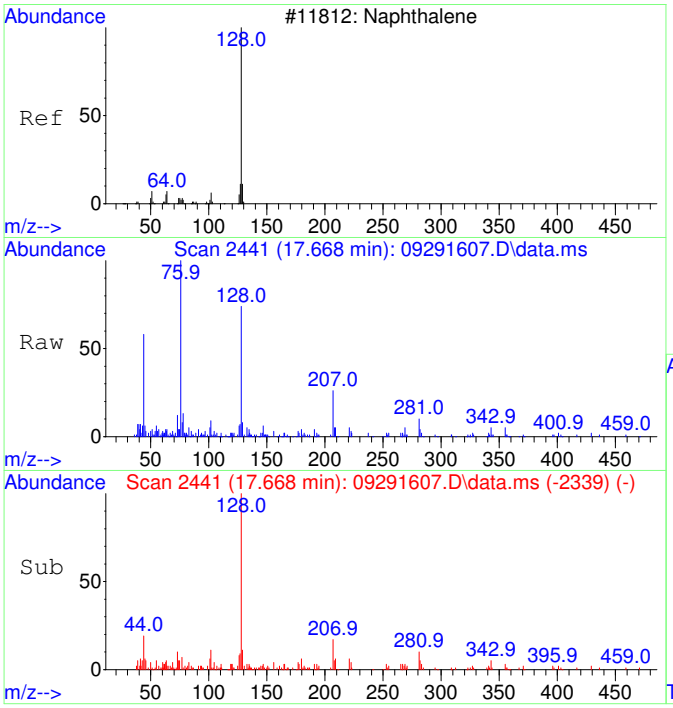


#47
Naphthalene
Concen: 152.11 ug/L
RT: 17.666 min Scan# 2457
Delta R.T. -0.000 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:128 Resp: 20871

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	42.6

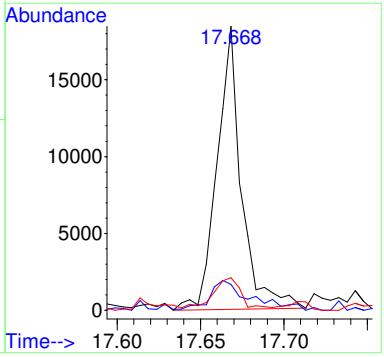




#48
Naphthalene SCAN
Concen: 174.90 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 09291607.D
Acq: 30 Sep 2016 5:43

Tgt Ion:128 Resp: 18693

Ion	Ratio	Lower	Upper
128	100		
127	16.7	0.0	43.1
129	11.1	0.0	41.0



S16I099-CAL6

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291608.D
Acq On : 30 Sep 2016 6:07
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 30 09:06:27 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

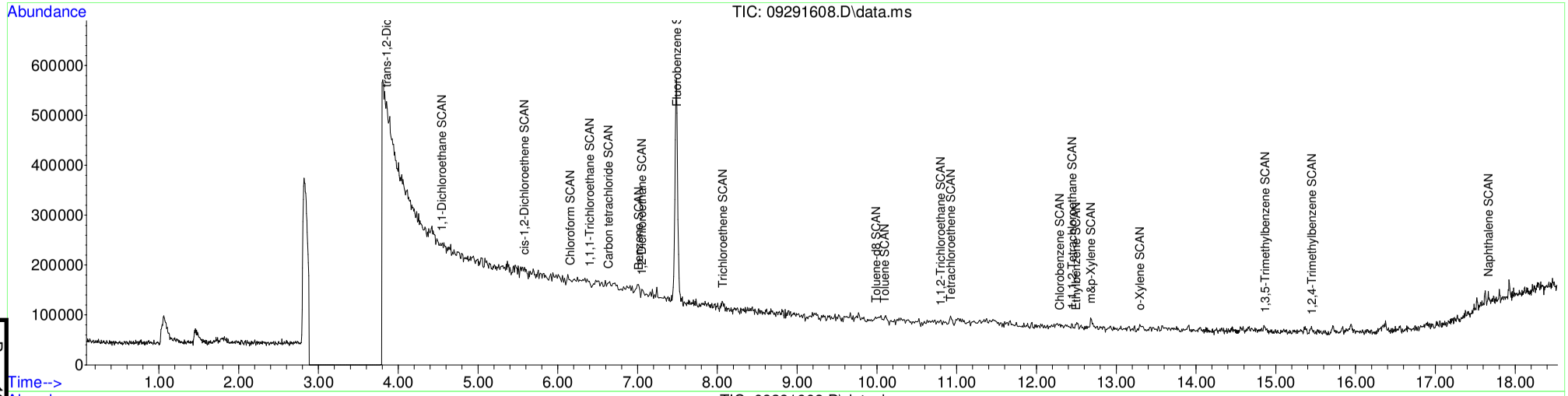
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.483	96	555393	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	5118	51.89	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 1.04%#			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.487	96	481957	4885.63	ug/L	100
3] 1,1-Dichloroethene	2.728	61	3500	55.59	ug/L	77
5] trans-1,2-Dichloroethene	3.865	61	2988	54.49	ug/L	75
6) trans-1,2-Dichloroethe...	3.854	61	1381	29.55	ug/L #	1
7] 1,1-Dichloroethane	4.551	63	3198	49.42	ug/L	100
8) 1,1-Dichloroethane SCAN	4.541	63	2787	49.01	ug/L #	74
9] cis-1,2-Dichloroethene	5.569	61	2871	49.78	ug/L	96
10) cis-1,2-Dichloroethene...	5.574	61	3662	71.22	ug/L	75
11] Chloroform	6.156	83	3639	55.20	ug/L	95
12) Chloroform SCAN	6.153	83	6230	109.87	ug/L #	64
13] 1,1,1-Trichloroethane	6.384	97	2952	51.50	ug/L	96
14) 1,1,1-Trichloroethane ...	6.395	97	5196	103.84	ug/L #	25
15] Carbon tetrachloride	6.639	117	2583	52.02	ug/L	99
16) Carbon tetrachloride SCAN	6.636	117	2841	64.97	ug/L #	64
17] Benzene	7.001	78	8682	67.81	ug/L	89
18) Benzene SCAN	7.012	78	13704	119.10	ug/L #	82
19] 1,2-Dichloroethane	7.068	62	2355	50.35	ug/L	71
20) 1,2-Dichloroethane SCAN	7.052	62	3578	81.57	ug/L #	57
21] Trichloroethene	8.068	130	1890	52.11	ug/L	88
22) Trichloroethene SCAN	8.066	95	3014	103.76	ug/L	84
24) Toluene-d8 SCAN	9.984	98	5029	58.01	ug/L #	90
25] Toluene	10.099	91	6511	53.66	ug/L	99
26) Toluene SCAN	10.097	91	7734	77.99	ug/L #	86
27] 1,1,2-Trichloroethane	10.790	97	1538	53.66	ug/L	97
28) 1,1,2-Trichloroethane ...	10.798	97	2166	92.62	ug/L #	41
29] Tetrachloroethene	10.926	166	1939	55.44	ug/L	96
30) Tetrachloroethene SCAN	10.923	166	2237	79.67	ug/L #	82
31] Chlorobenzene	12.287	112	4238	52.98	ug/L	90
32) Chlorobenzene SCAN	12.284	112	5113	76.79	ug/L #	73
33] 1,1,1,2-Tetrachloroethane	12.443	131	1498	52.22	ug/L	98
34) 1,1,1,2-Tetrachloroeth...	12.440	131	2284	96.84	ug/L #	64
35] Ethylbenzene	12.489	91	6597	51.10	ug/L	99
36) Ethylbenzene SCAN	12.496	91	10055	95.61	ug/L	74
37] m&p-Xylene	12.682	91	10388	102.68	ug/L	99
38) m&p-Xylene SCAN	12.679	91	9788	117.73	ug/L	77
39] o-Xylene	13.298	91	5353	51.32	ug/L	99
40) o-Xylene SCAN	13.296	91	6116	70.32	ug/L	89
41] 1,1,2,2-Tetrachloroethane	14.437	83	2327	51.65	ug/L	98
43] 1,3,5-Trimethylbenzene	14.866	105	5455	50.79	ug/L	99
44) 1,3,5-Trimethylbenzene...	14.863	105	5276	62.10	ug/L	79
45] 1,2,4-Trimethylbenzene	15.450	105	5669	51.38	ug/L	99
46) 1,2,4-Trimethylbenzene...	15.454	105	5339	59.89	ug/L #	56
47] Naphthalene	17.666	128	8622	49.92	ug/L	96
48) Naphthalene SCAN	17.664	128	8575	63.74	ug/L	86

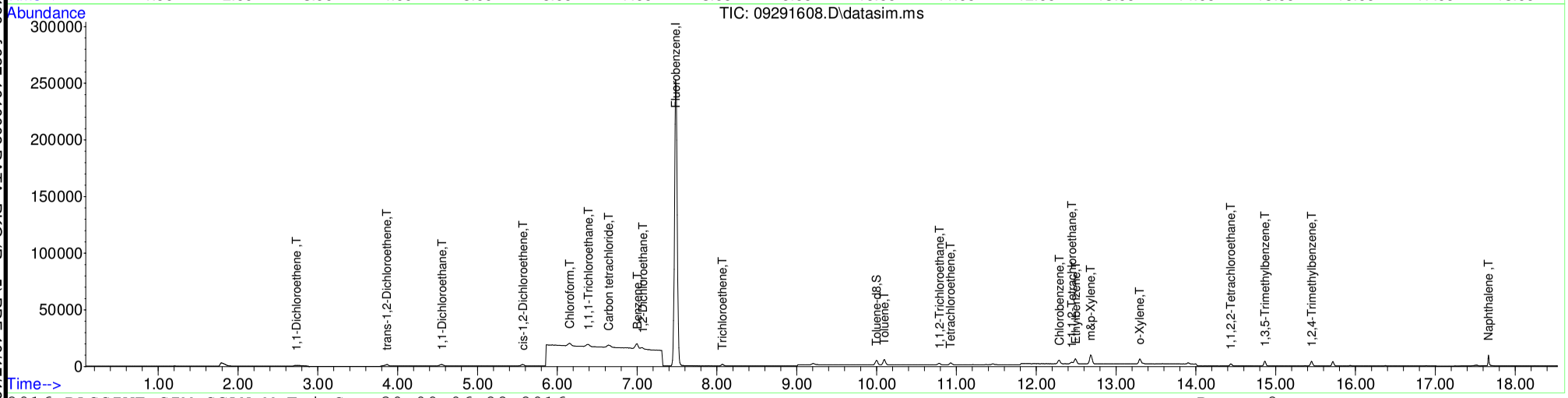
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291608.D
Acq On : 30 Sep 2016 6:07
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 30 09:06:27 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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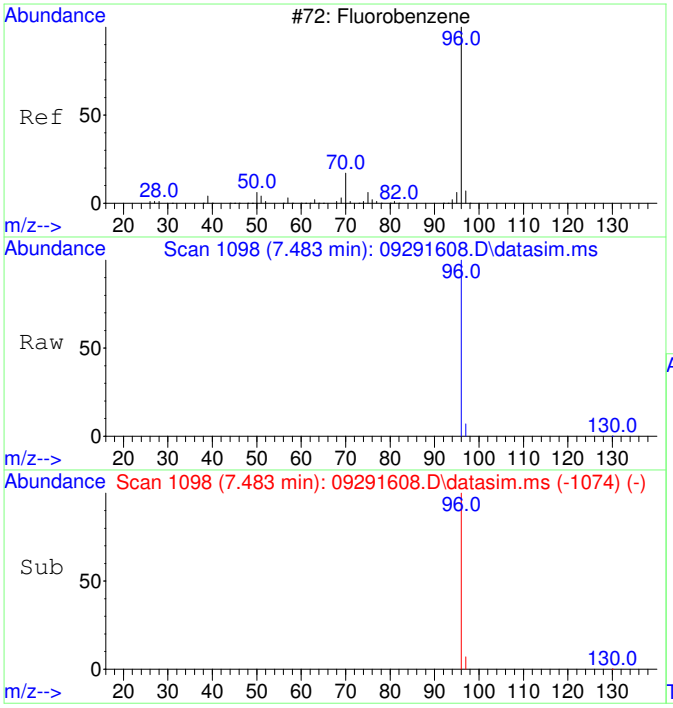
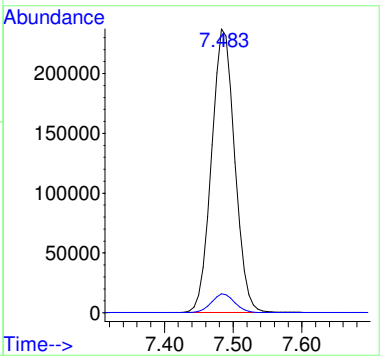
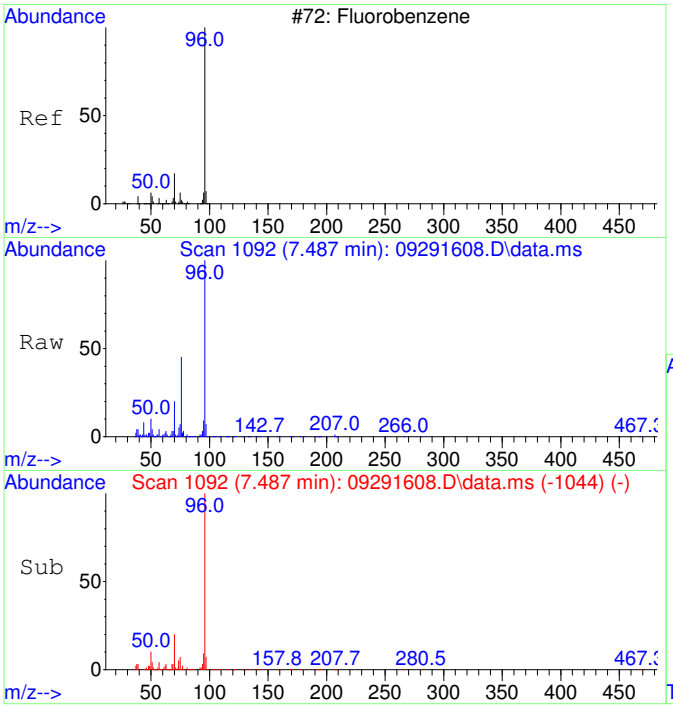


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.483 min Scan# 1098
Delta R.T. 0.007 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 96 Resp: 555393

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

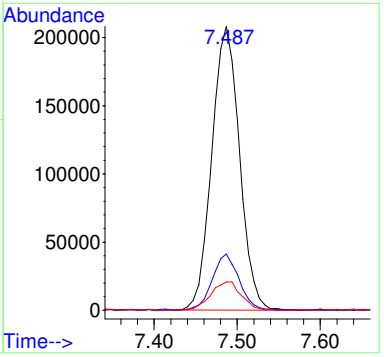


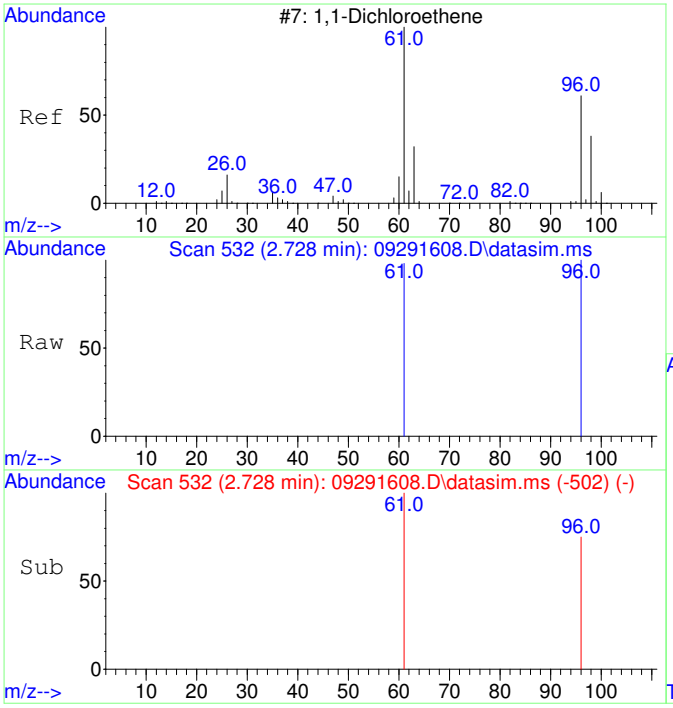


#2
Fluorobenzene SCAN
Concen: 4885.63 ug/L
RT: 7.487 min Scan# 1092
Delta R.T. 0.007 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 96 Resp: 481957

Ion	Ratio	Lower	Upper
96	100		
70	19.3	0.0	49.2
50	11.1	0.0	41.1

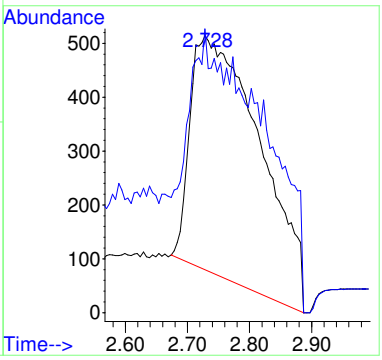




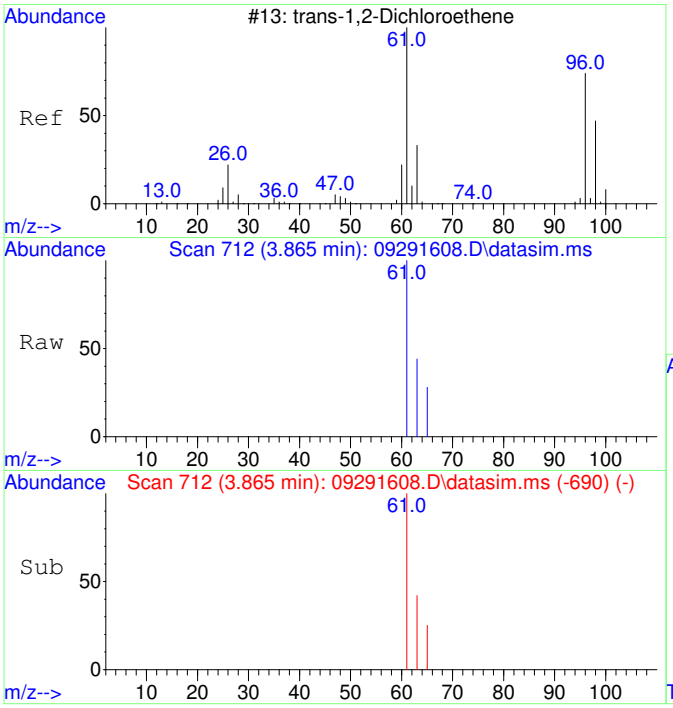
#3
1,1-Dichloroethene
Concen: 55.59 ug/L
RT: 2.728 min Scan# 532
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 3500

Ion	Ratio	Lower	Upper
61	100		
96	83.3	34.9	94.9



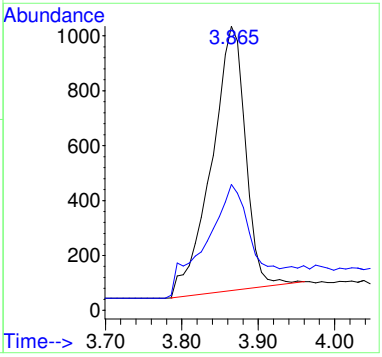
Before MI:
IMPROPER
BASELINE

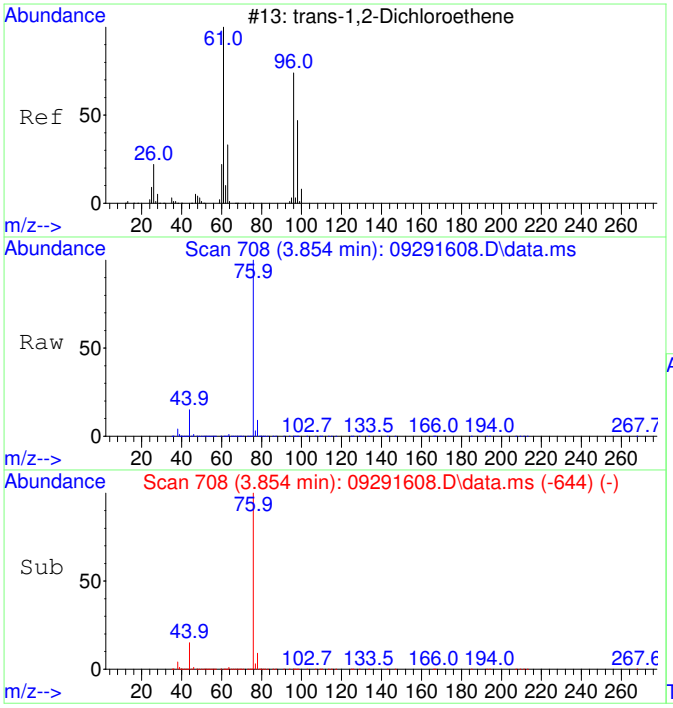


#5
trans-1,2-Dichloroethene
Concen: 54.49 ug/L
RT: 3.865 min Scan# 712
Delta R.T. 0.024 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 2988

Ion	Ratio	Lower	Upper
61	100		
63	46.6	2.5	62.5

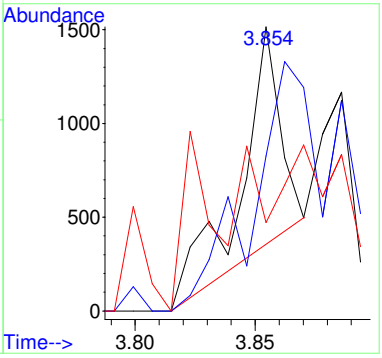


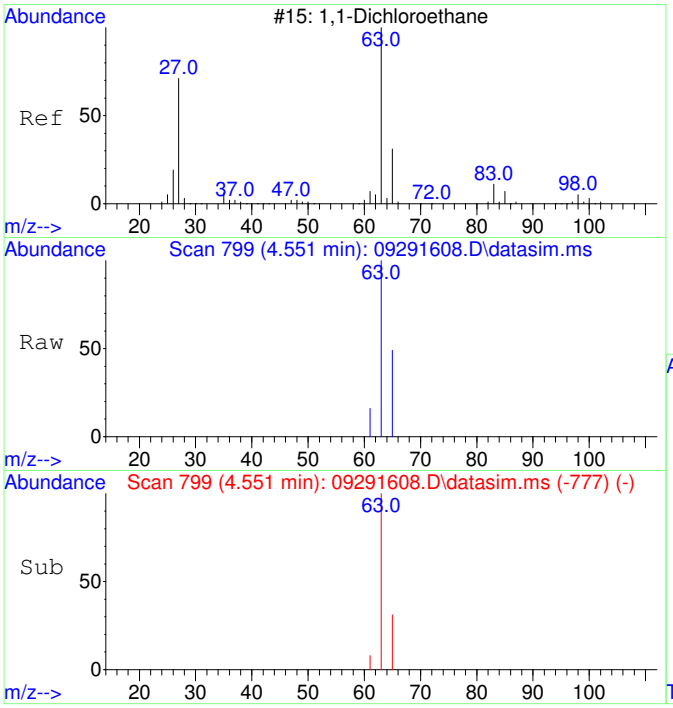


#6
trans-1,2-Dichloroethene SCAN
Concen: 29.55 ug/L
RT: 3.854 min Scan# 708
Delta R.T. 0.008 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 1381

Ion	Ratio	Lower	Upper
61	100		
96	242.3	47.5	107.5#
98	48.8	17.2	77.2

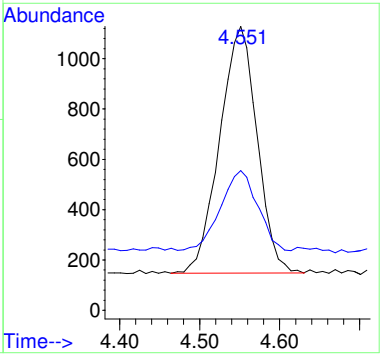


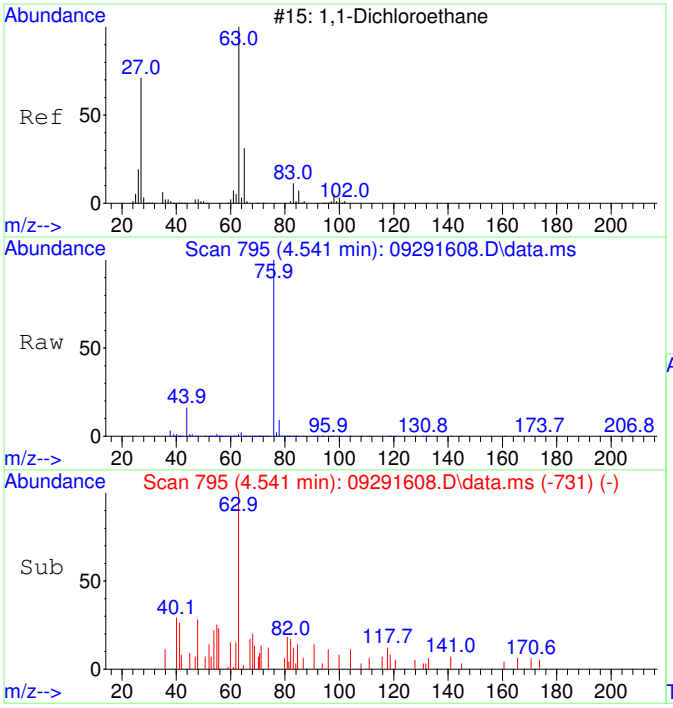


#7
1,1-Dichloroethane
Concen: 49.42 ug/L
RT: 4.551 min Scan# 799
Delta R.T. 0.024 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 63 Resp: 3198

Ion	Ratio	Lower	Upper
63	100		
65	31.6	1.8	61.8

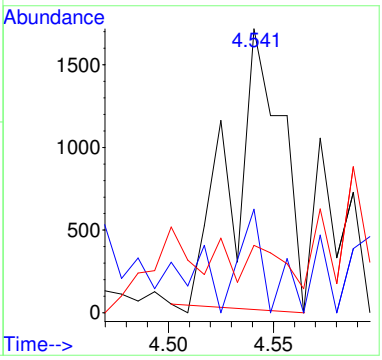


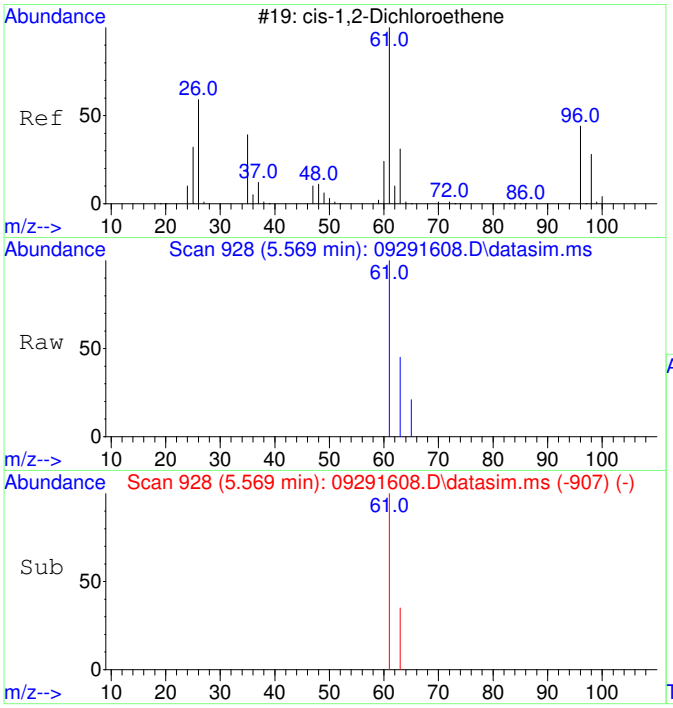


#8
1,1-Dichloroethane SCAN
Concen: 49.01 ug/L
RT: 4.541 min Scan# 795
Delta R.T. 0.008 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 63 Resp: 2787

Ion	Ratio	Lower	Upper
63	100		
65	21.7	3.9	63.9
83	0.0	0.0	45.1

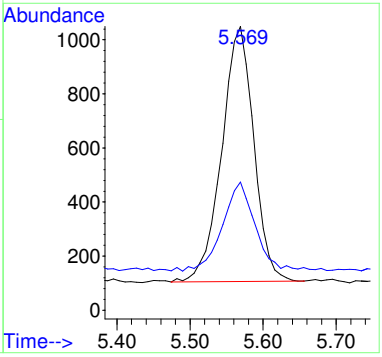


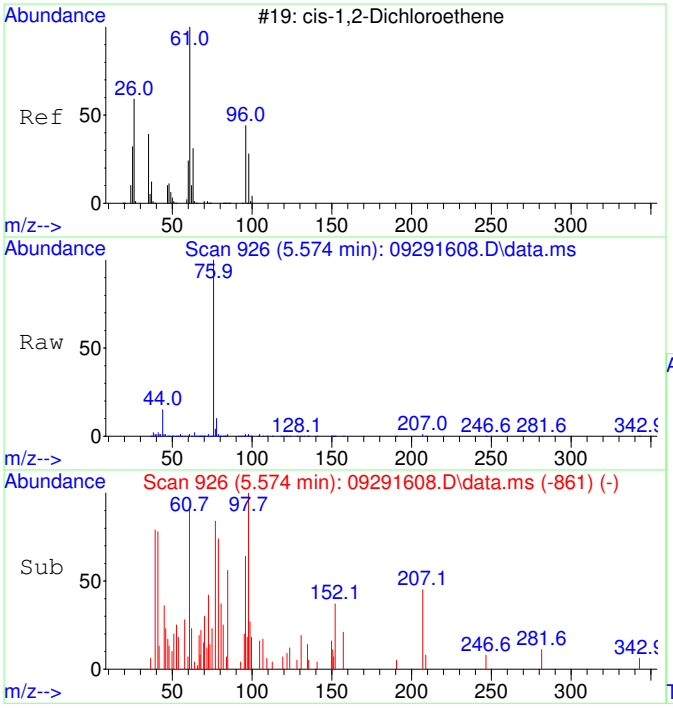


#9
cis-1,2-Dichloroethene
Concen: 49.78 ug/L
RT: 5.569 min Scan# 928
Delta R.T. 0.016 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 2871

Ion	Ratio	Lower	Upper
61	100		
63	34.6	2.4	62.4

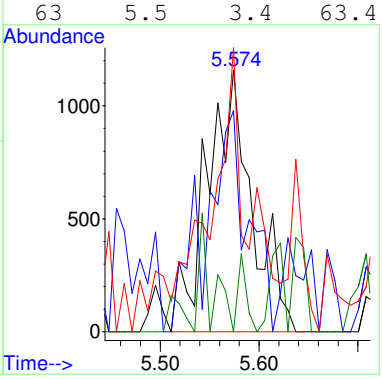


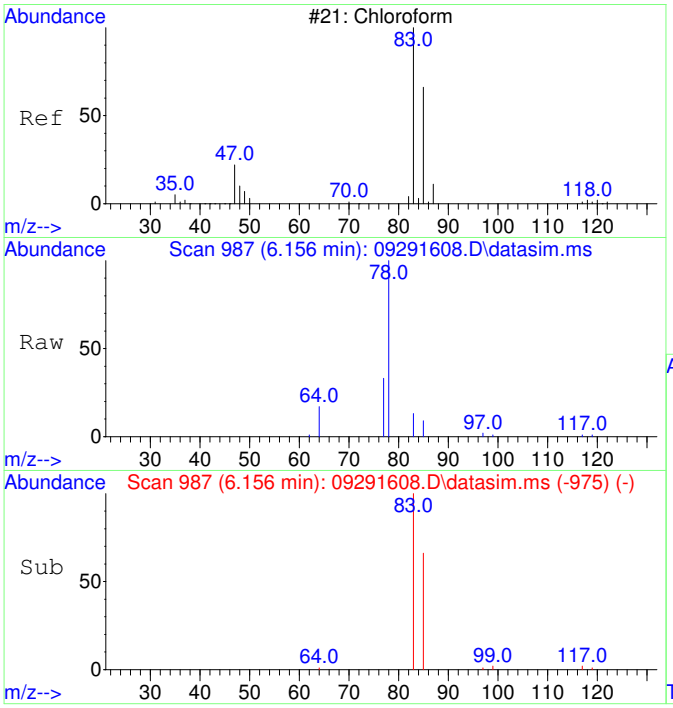


#10
cis-1,2-Dichloroethene SCAN
Concen: 71.22 ug/L
RT: 5.574 min Scan# 926
Delta R.T. 0.016 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 3662

Ion	Ratio	Lower	Upper
61	100		
96	56.2	42.0	102.0
98	58.9	17.5	77.5
63	5.5	3.4	63.4

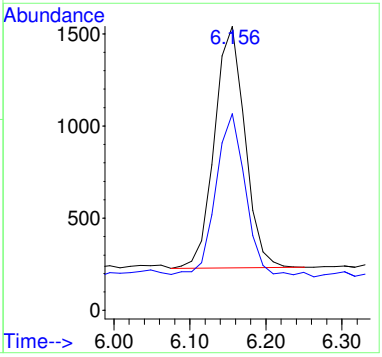


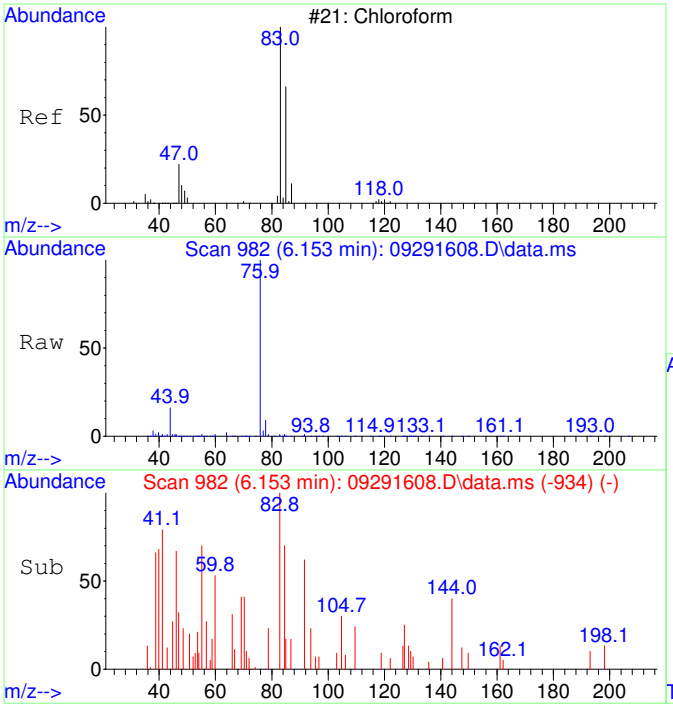


#11
Chloroform
Concen: 55.20 ug/L
RT: 6.156 min Scan# 987
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 83 Resp: 3639

Ion	Ratio	Lower	Upper
83	100		
85	60.6	34.4	94.4

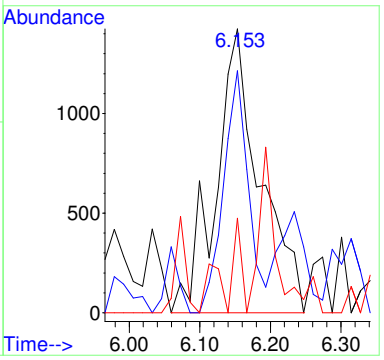


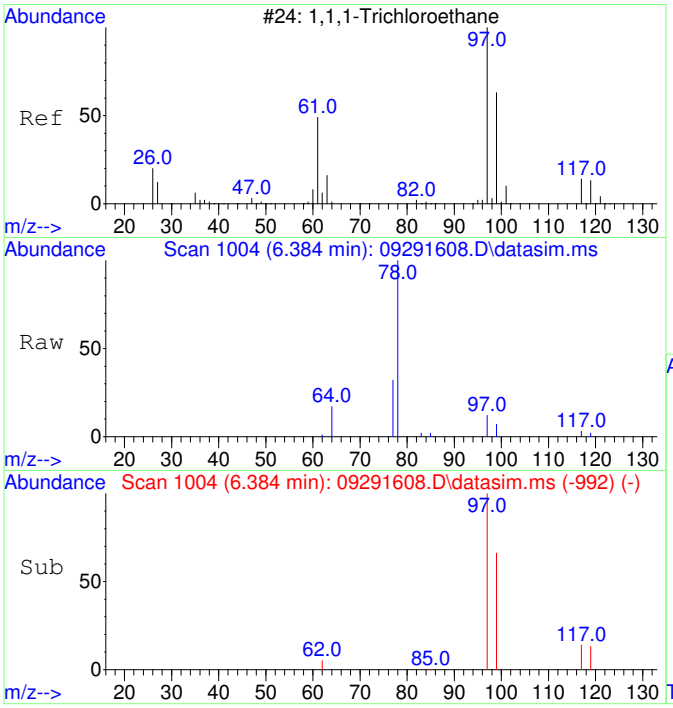


#12
Chloroform SCAN
Concen: 109.87 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 83 Resp: 6230

Ion	Ratio	Lower	Upper
83	100		
85	42.2	37.6	97.6
47	0.0	0.0	53.4

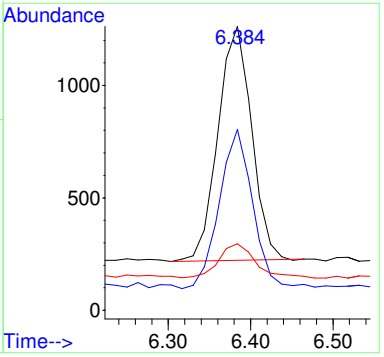


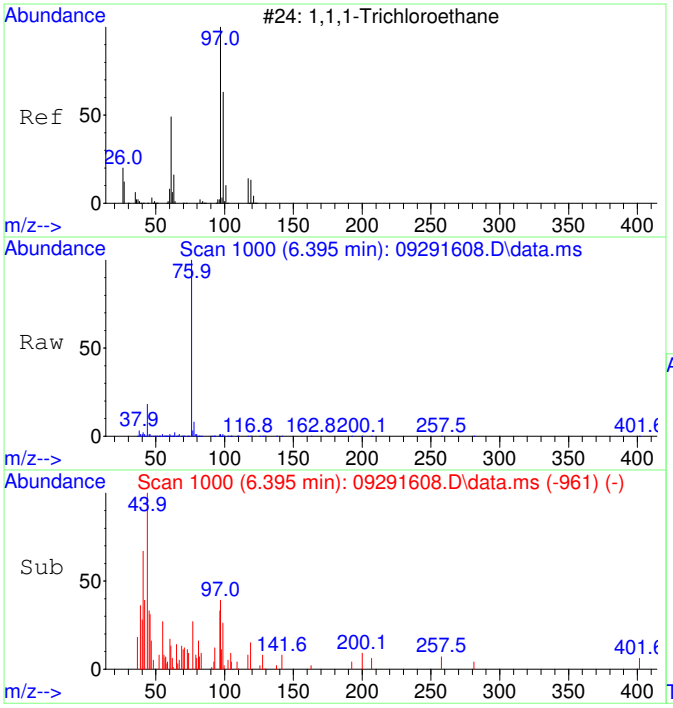


#13
1,1,1-Trichloroethane
Concen: 51.50 ug/L
RT: 6.384 min Scan# 1004
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 2952

Ion	Ratio	Lower	Upper
97	100		
99	66.7	34.2	94.2
117	15.8	0.0	43.0

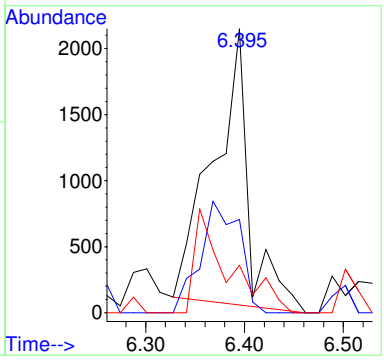


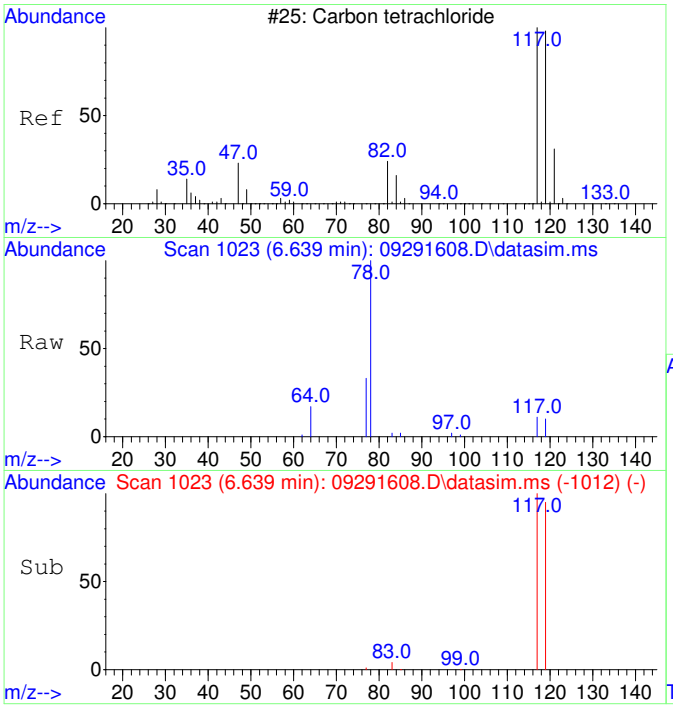


#14
1,1,1-Trichloroethane SCAN
Concen: 103.84 ug/L
RT: 6.395 min Scan# 1000
Delta R.T. 0.027 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 5196

Ion	Ratio	Lower	Upper
97	100		
99	0.0	33.6	93.6#
61	0.0	10.7	70.7#

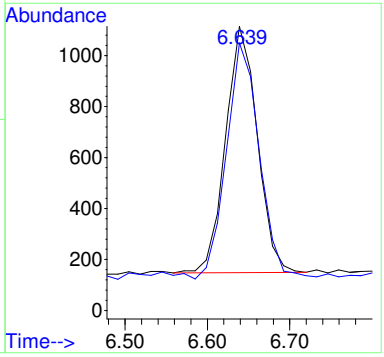


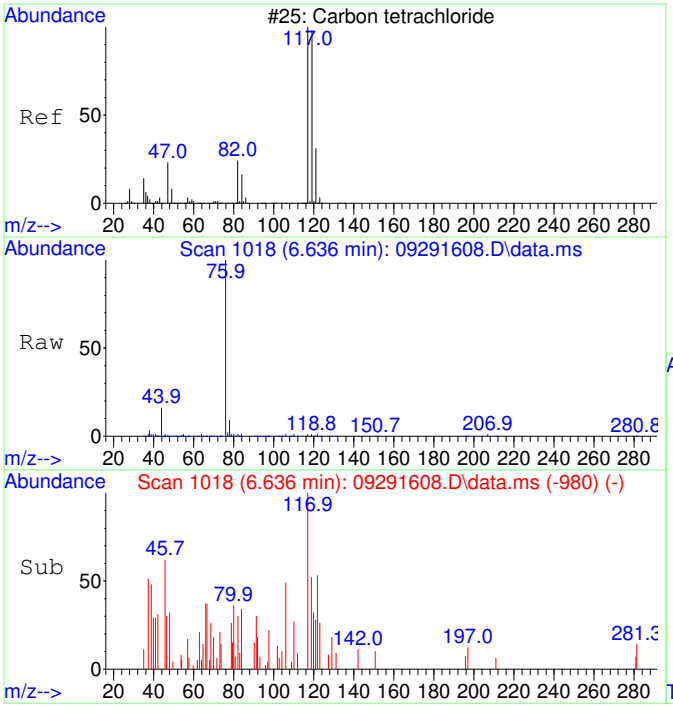


#15
Carbon tetrachloride
Concen: 52.02 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:117 Resp: 2583

Ion	Ratio	Lower	Upper
117	100		
119	97.4	66.1	126.1

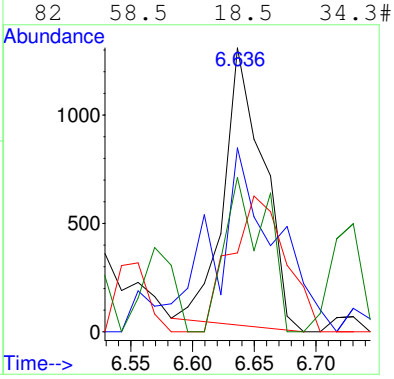


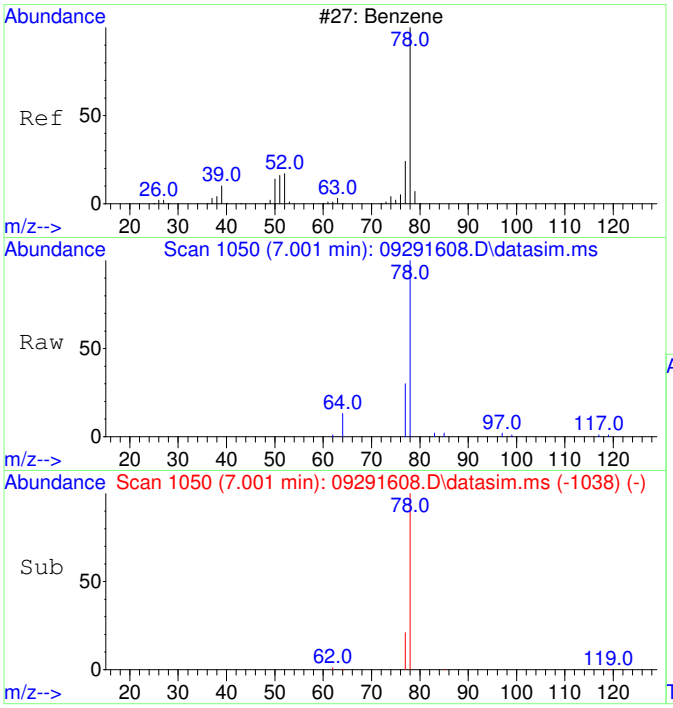


#16
Carbon tetrachloride SCAN
Concen: 64.97 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:117 Resp: 2841

Ion	Ratio	Lower	Upper
117	100		
119	111.6	66.0	122.6
121	68.4	22.1	41.1#
82	58.5	18.5	34.3#

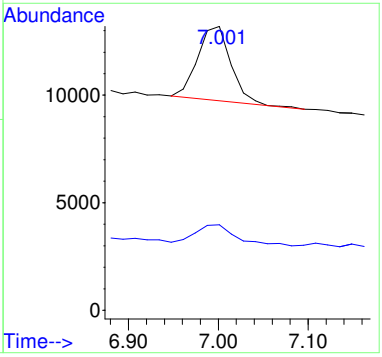


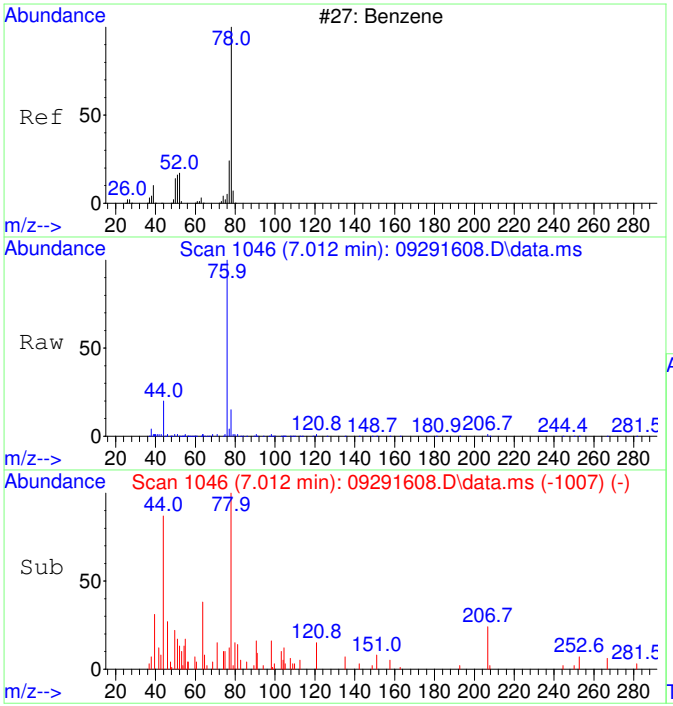


#17
Benzene
Concen: 67.81 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 78 Resp: 8682

Ion	Ratio	Lower	Upper
78	100		
77	28.7	0.0	53.4

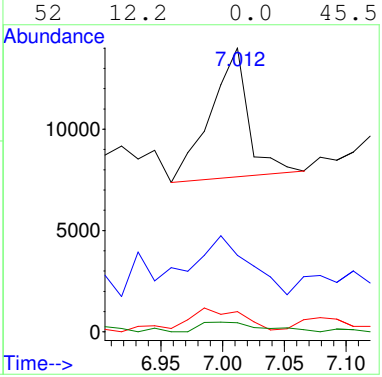


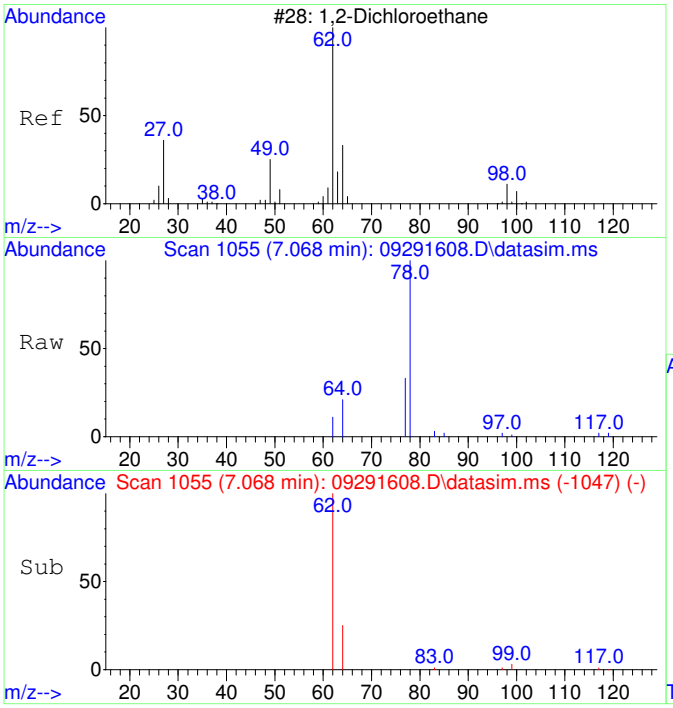


#18
Benzene SCAN
Concen: 119.10 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.027 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 78 Resp: 13704

Ion	Ratio	Lower	Upper
78	100		
77	32.9	0.0	59.3
51	0.0	0.0	49.2
52	12.2	0.0	45.5

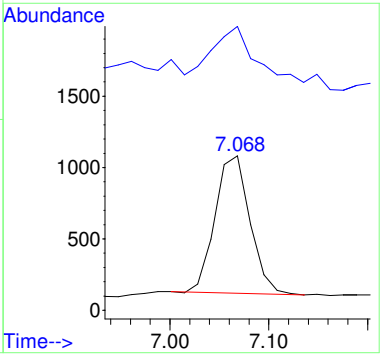


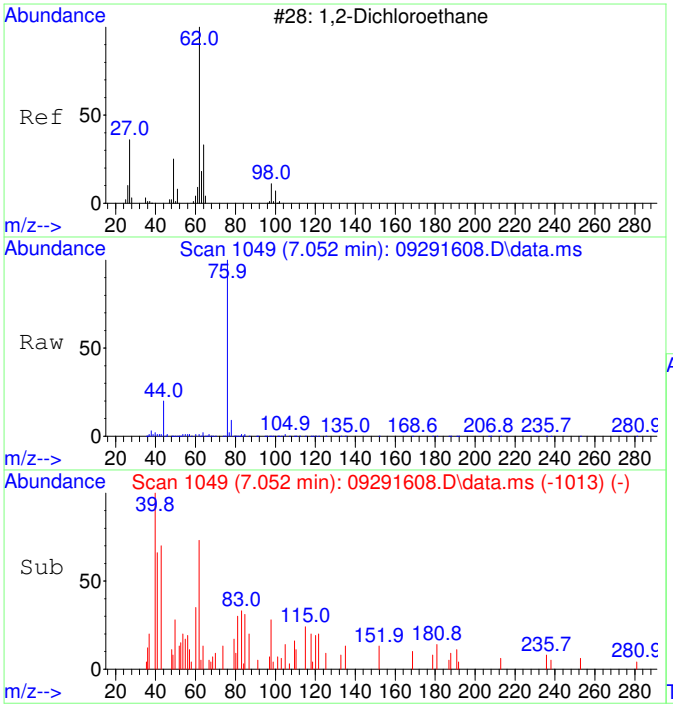


#19
1,2-Dichloroethane
Concen: 50.35 ug/L
RT: 7.068 min Scan# 1055
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 62 Resp: 2355

Ion	Ratio	Lower	Upper
62	100		
64	49.3	2.7	62.7

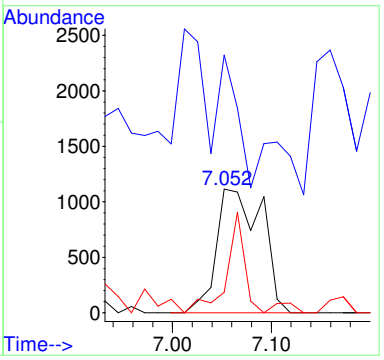


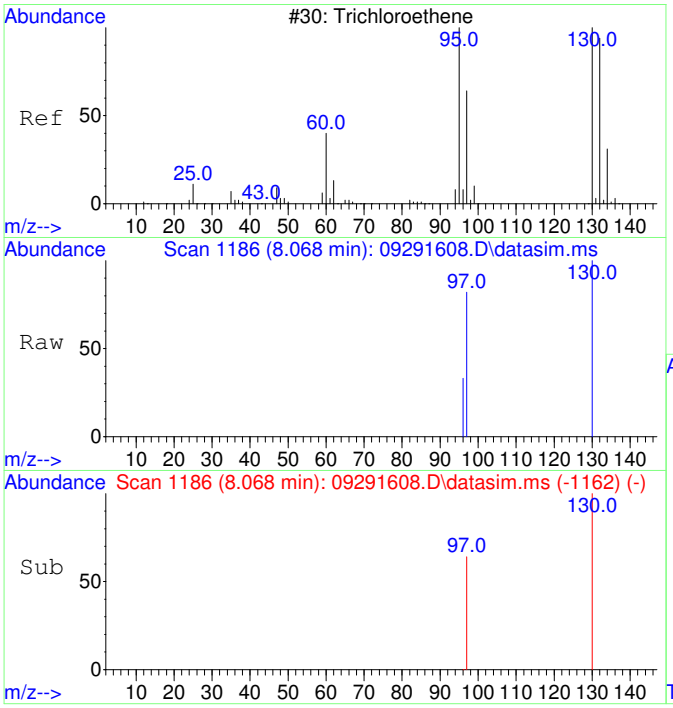


#20
1,2-Dichloroethane SCAN
Concen: 81.57 ug/L
RT: 7.052 min Scan# 1049
Delta R.T. -0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 62 Resp: 3578

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	31.7	0.0	51.8

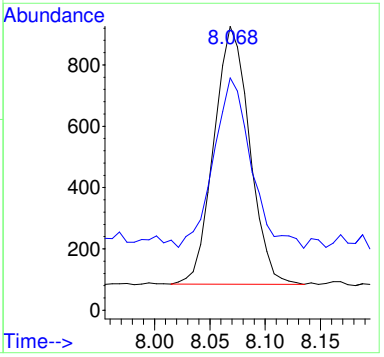


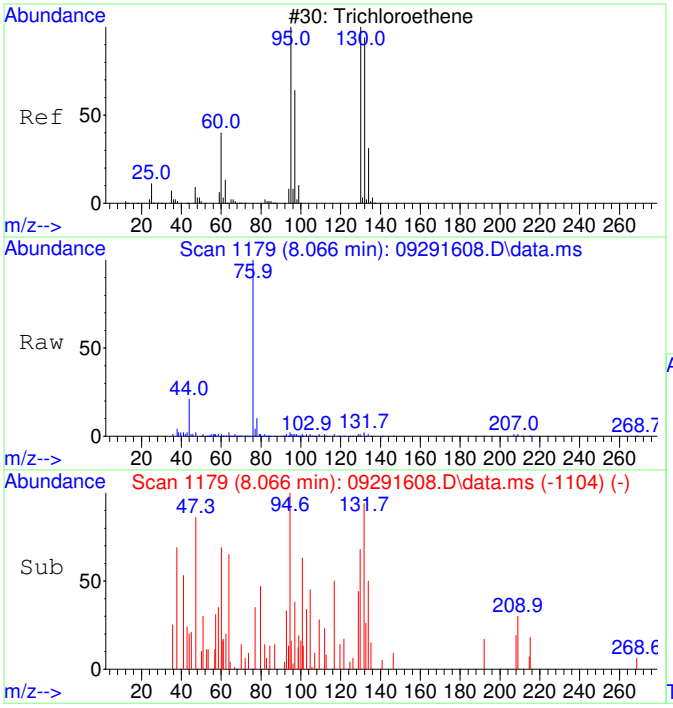


#21
Trichloroethene
Concen: 52.11 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.007 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:130 Resp: 1890

Ion	Ratio	Lower	Upper
130	100		
97	68.8	29.9	89.9

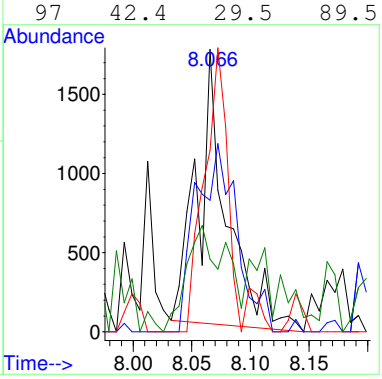


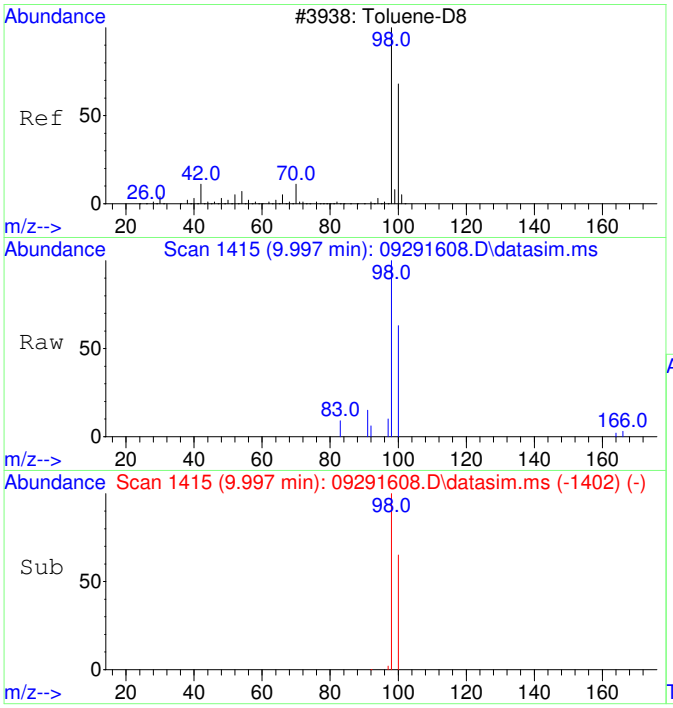


#22
Trichloroethene SCAN
Concen: 103.76 ug/L
RT: 8.066 min Scan# 1179
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 95 Resp: 3014

Ion	Ratio	Lower	Upper
95	100		
130	95.9	74.1	134.1
132	81.0	72.1	132.1
97	42.4	29.5	89.5

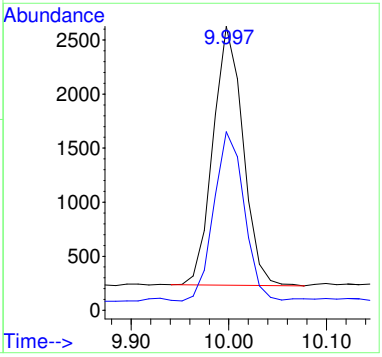


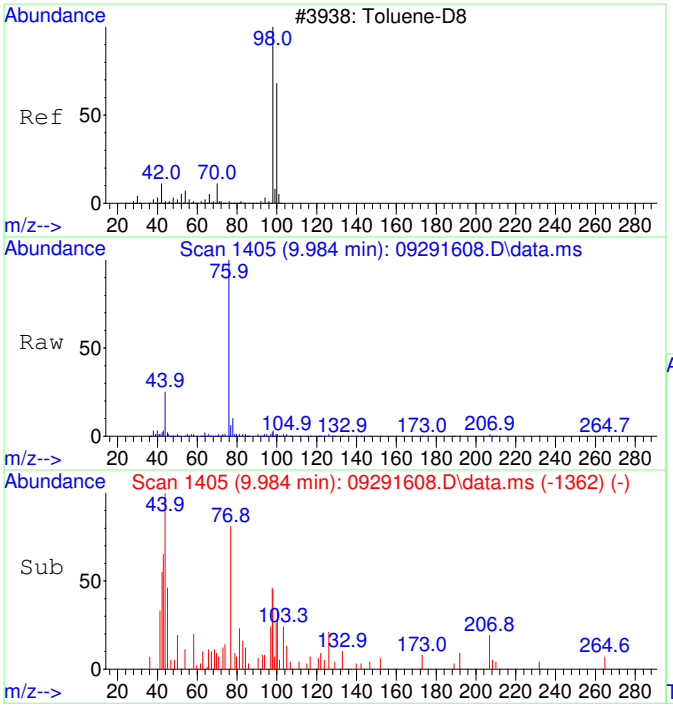


#23
Toluene-d8
Concen: 51.89 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 98 Resp: 5118

Ion	Ratio	Lower	Upper
98	100		
100	65.3	35.3	95.3

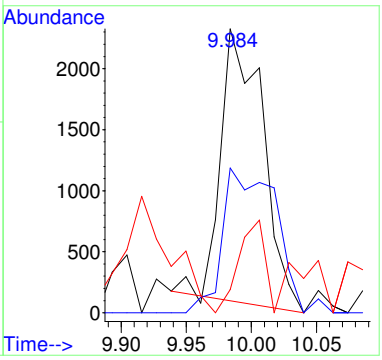


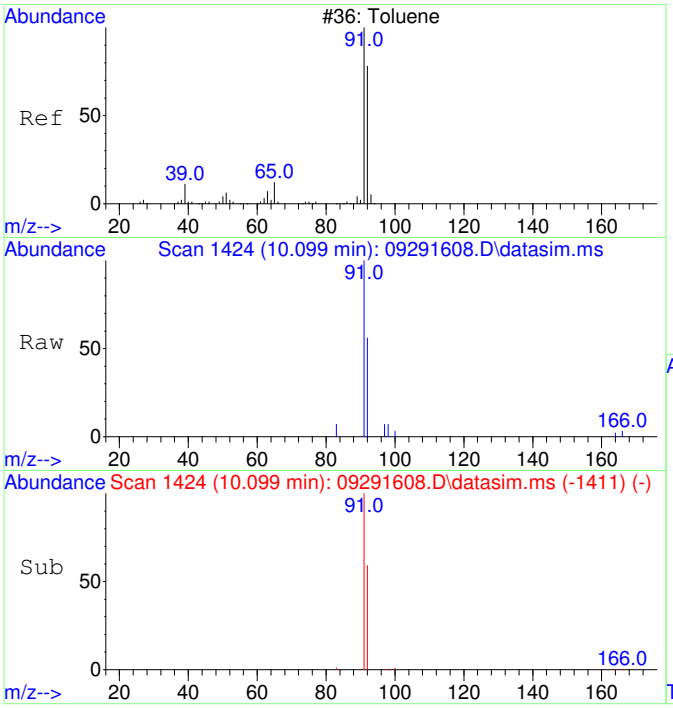


#24
Toluene-d8 SCAN
Concen: 58.01 ug/L
RT: 9.984 min Scan# 1405
Delta R.T. -0.011 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 98 Resp: 5029

Ion	Ratio	Lower	Upper
98	100		
100	68.1	44.3	82.3
70	0.0	7.8	14.4#

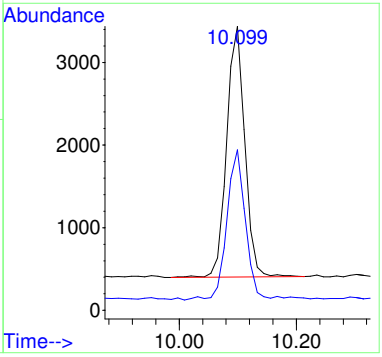


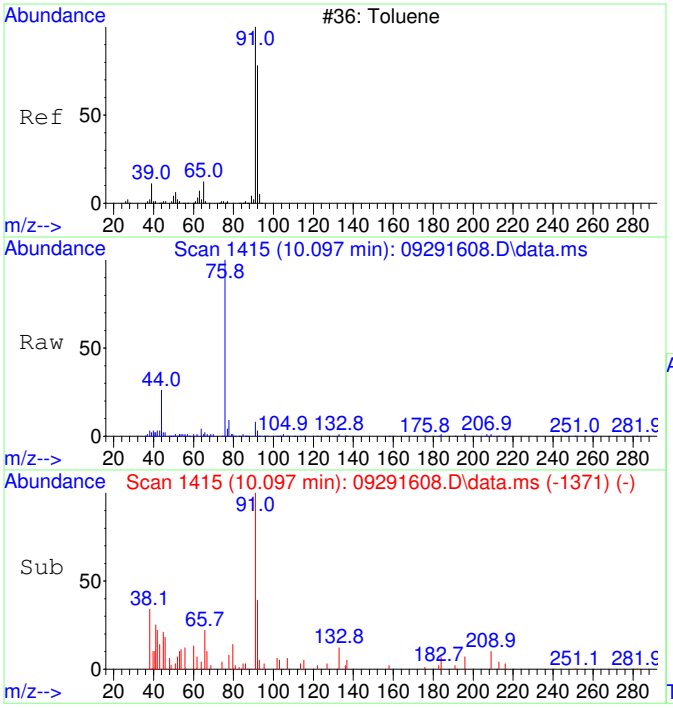


#25
Toluene
Concen: 53.66 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 6511

Ion	Ratio	Lower	Upper
91	100		
92	58.4	28.8	88.8

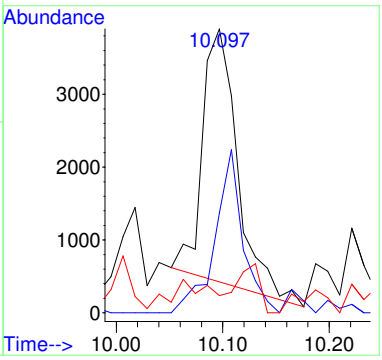


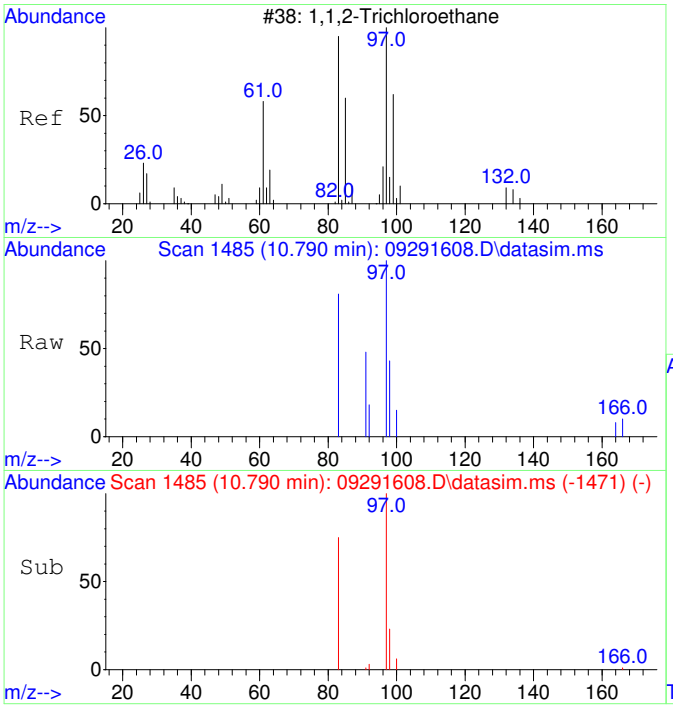


#26
Toluene SCAN
Concen: 77.99 ug/L
RT: 10.097 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 7734

Ion	Ratio	Lower	Upper
91	100		
92	52.8	30.7	90.7
65	0.0	0.0	42.6

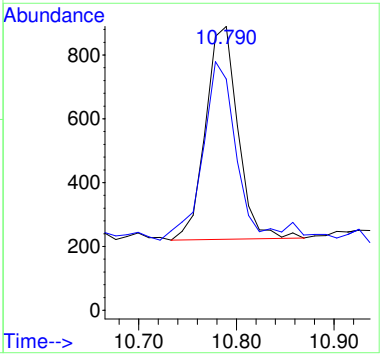


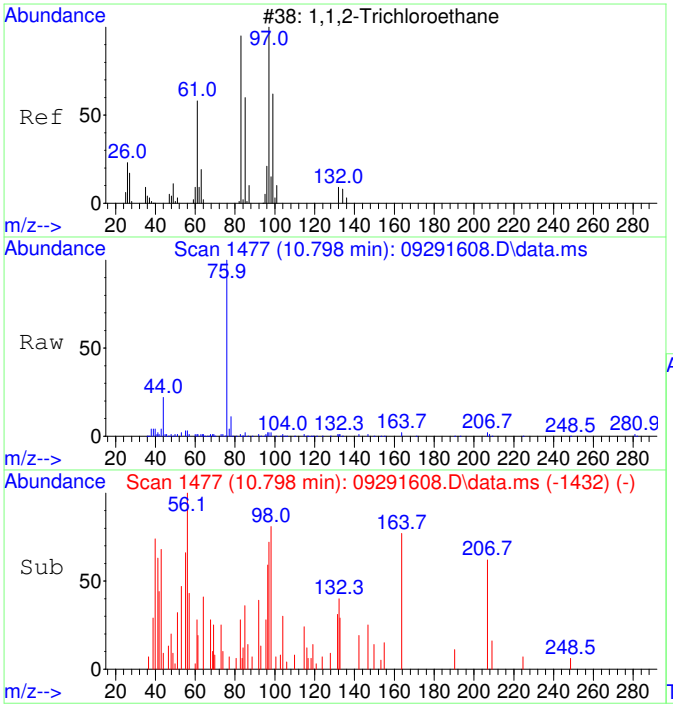


#27
1,1,2-Trichloroethane
Concen: 53.66 ug/L
RT: 10.790 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 1538

Ion	Ratio	Lower	Upper
97	100		
83	78.2	50.5	110.5

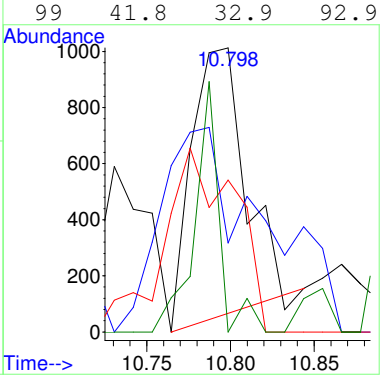


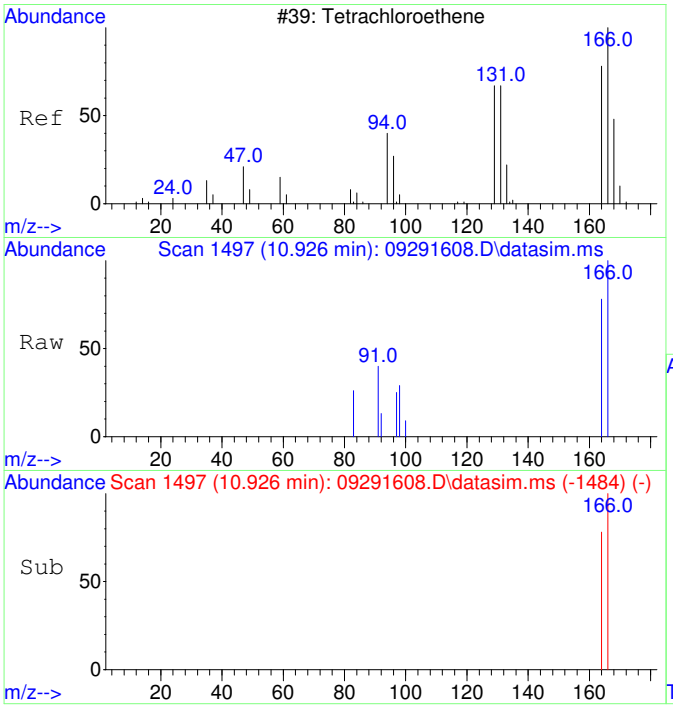


#28
1,1,2-Trichloroethane SCAN
Concen: 92.62 ug/L
RT: 10.798 min Scan# 1477
Delta R.T. 0.011 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 2166

Ion	Ratio	Lower	Upper
97	100		
83	143.8	53.8	113.8#
61	0.0	31.3	91.3#
99	41.8	32.9	92.9

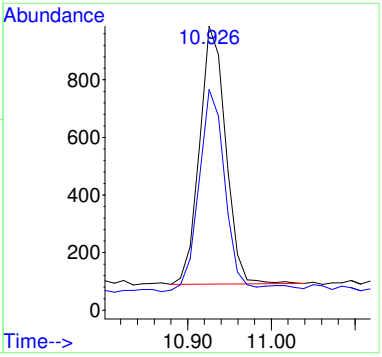


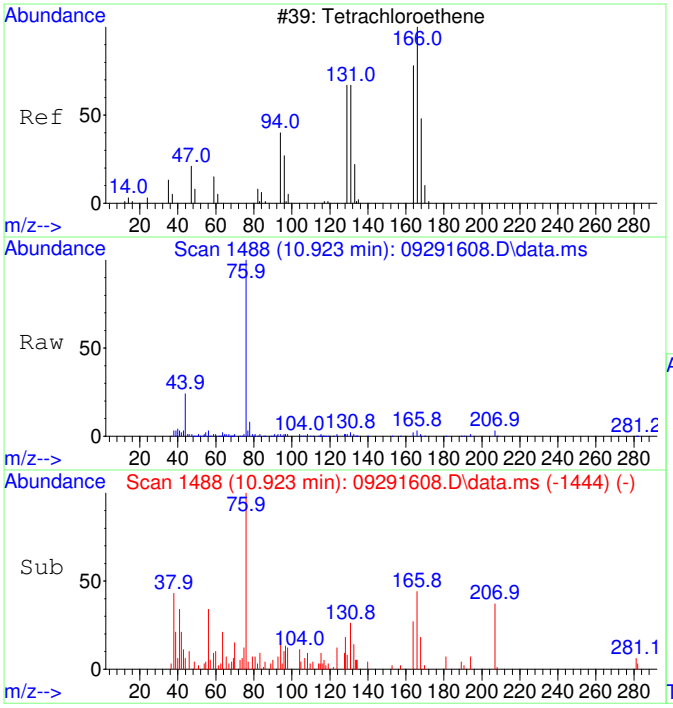


#29
Tetrachloroethene
Concen: 55.44 ug/L
RT: 10.926 min Scan# 1497
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:166 Resp: 1939

Ion	Ratio	Lower	Upper
166	100		
164	74.5	47.7	107.7

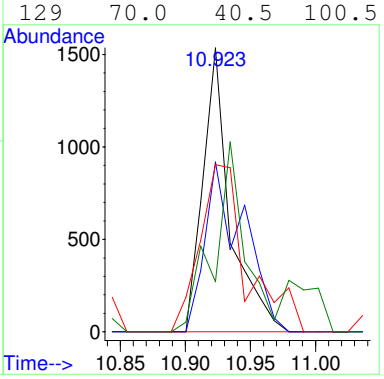


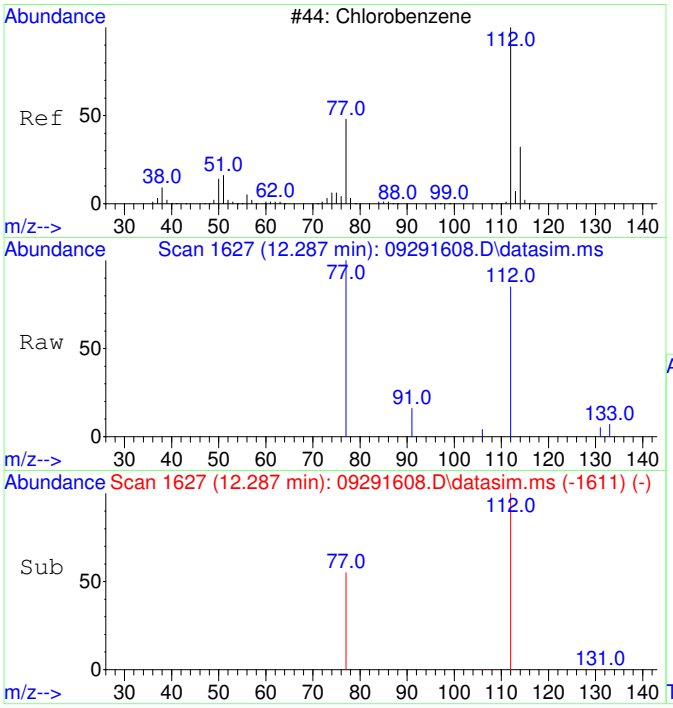


#30
Tetrachloroethene SCAN
Concen: 79.67 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:166 Resp: 2237

Ion	Ratio	Lower	Upper
166	100		
164	84.8	44.9	104.9
131	101.2	36.1	96.1#
129	70.0	40.5	100.5

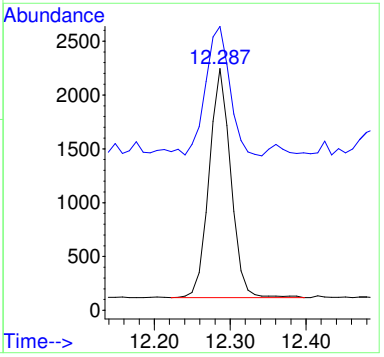


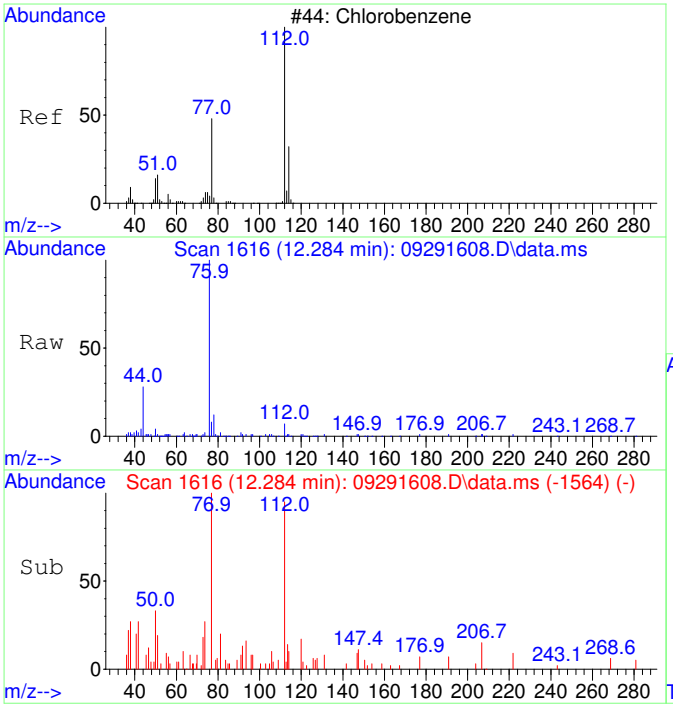


#31
Chlorobenzene
Concen: 52.98 ug/L
RT: 12.287 min Scan# 1627
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:112 Resp: 4238

Ion	Ratio	Lower	Upper
112	100		
77	62.0	25.1	85.1

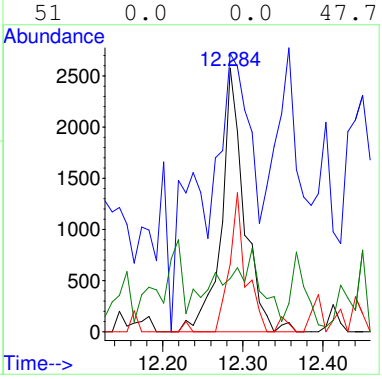


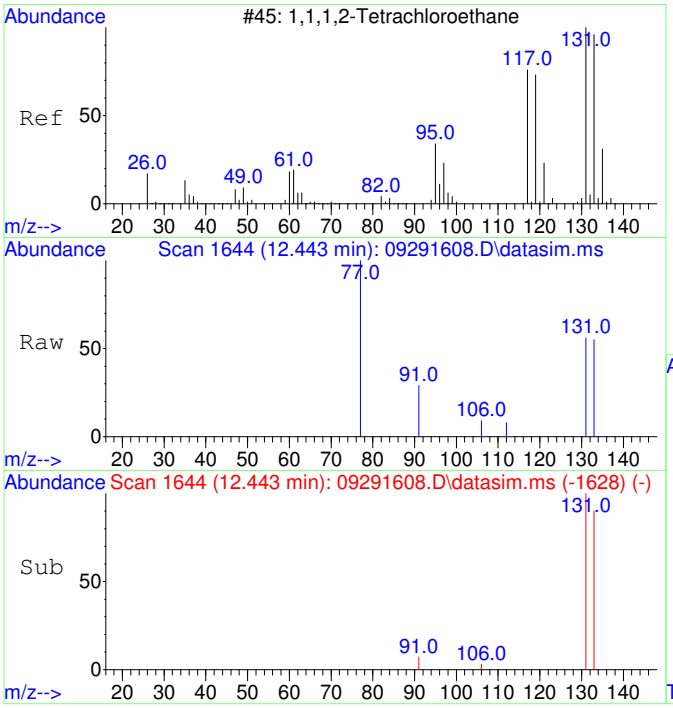


#32
Chlorobenzene SCAN
Concen: 76.79 ug/L
RT: 12.284 min Scan# 1616
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:112 Resp: 5113

Ion	Ratio	Lower	Upper
112	100		
77	76.2	23.6	83.6
114	37.6	0.9	60.9
51	0.0	0.0	47.7

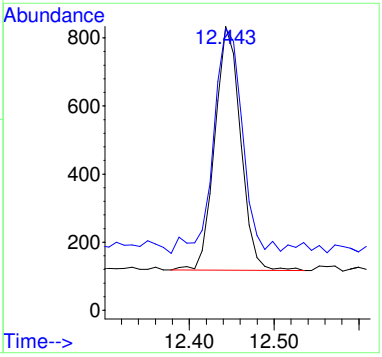


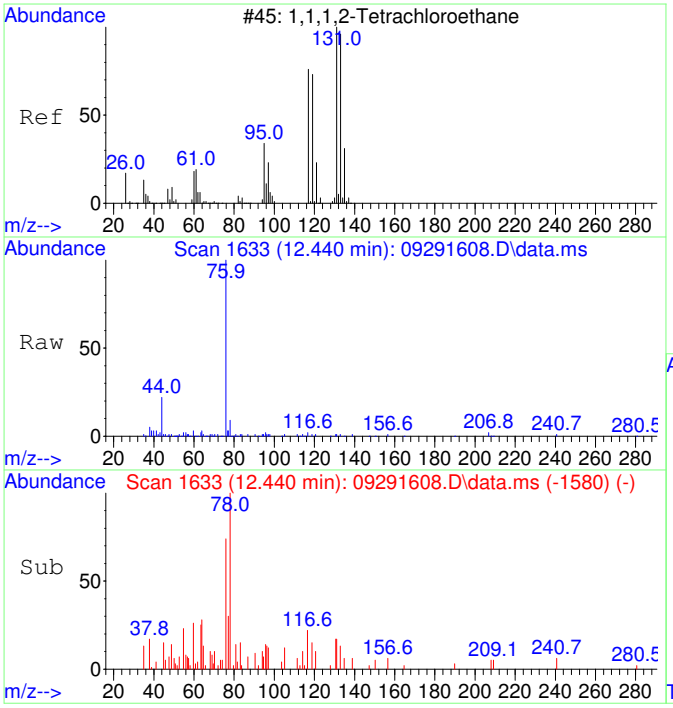


#33
1,1,1,2-Tetrachloroethane
Concen: 52.22 ug/L
RT: 12.443 min Scan# 1644
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:131 Resp: 1498

Ion	Ratio	Lower	Upper
131	100		
133	92.7	64.8	124.8

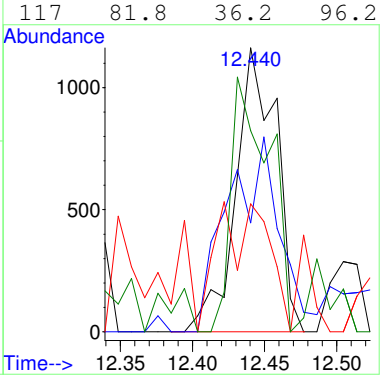


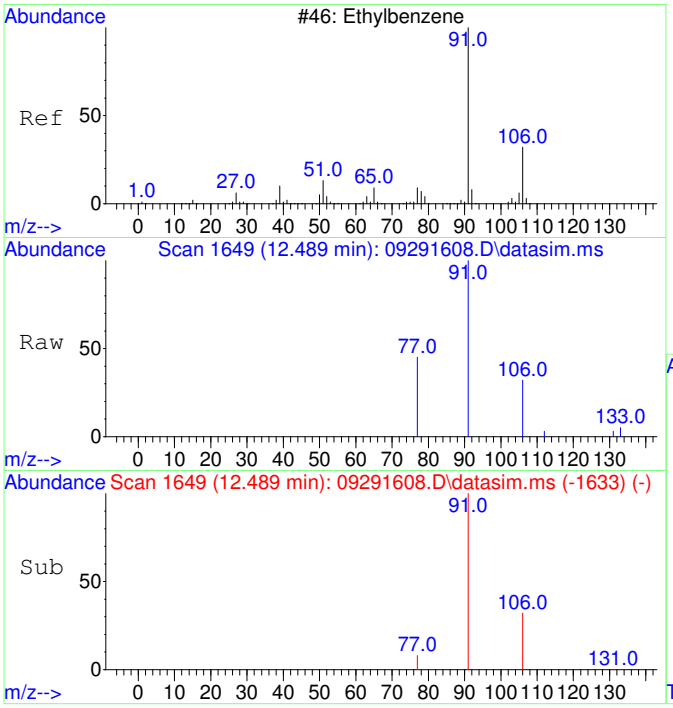


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 96.84 ug/L
RT: 12.440 min Scan# 1633
Delta R.T. -0.009 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:131 Resp: 2284

Ion	Ratio	Lower	Upper
131	100		
133	79.6	64.7	124.7
119	0.0	34.9	94.9#
117	81.8	36.2	96.2

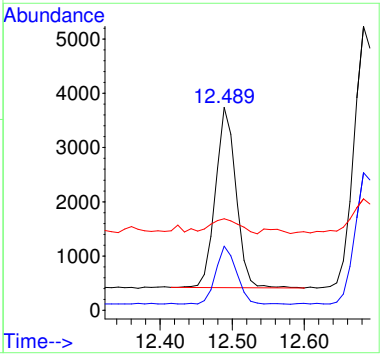


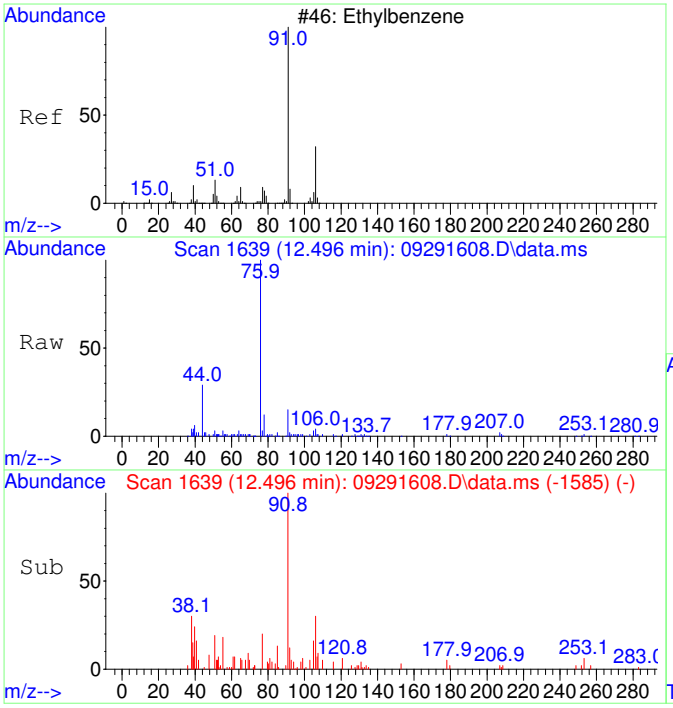


#35
Ethylbenzene
Concen: 51.10 ug/L
RT: 12.489 min Scan# 1649
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 6597

Ion	Ratio	Lower	Upper
91	100		
106	31.9	1.7	61.7
77	9.4	0.0	38.3

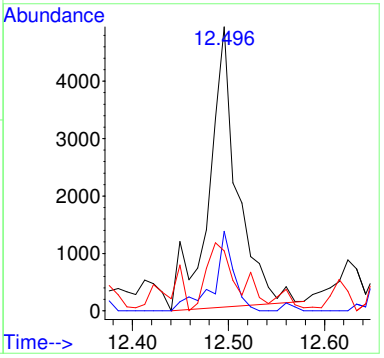


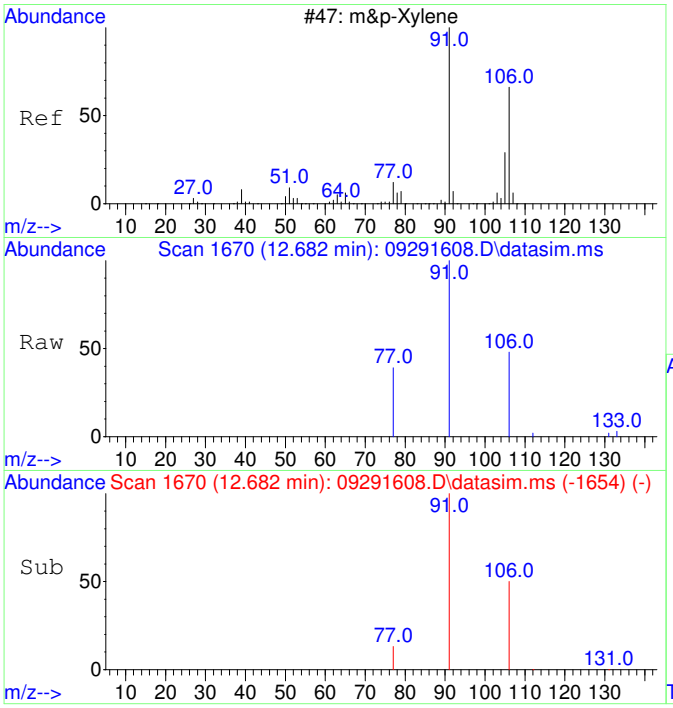


#36
Ethylbenzene SCAN
Concen: 95.61 ug/L
RT: 12.496 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 10055

Ion	Ratio	Lower	Upper
91	100		
106	20.1	2.3	62.3
51	23.9	0.0	39.6

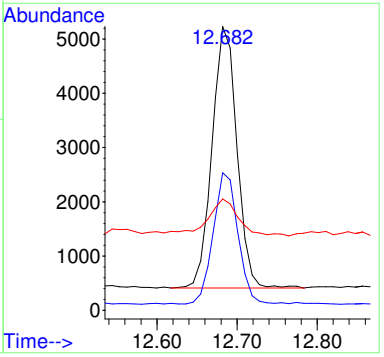


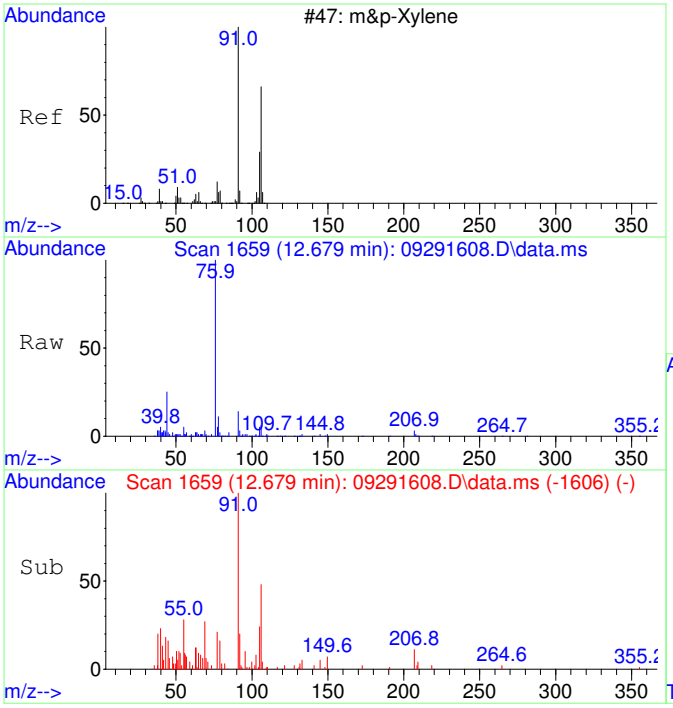


#37
m&p-Xylene
Concen: 102.68 ug/L
RT: 12.682 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 10388

Ion	Ratio	Lower	Upper
91	100		
106	50.1	19.4	79.4
77	13.0	0.0	42.6

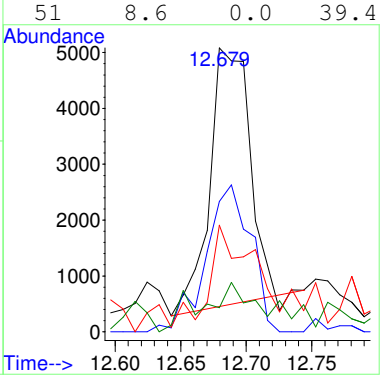


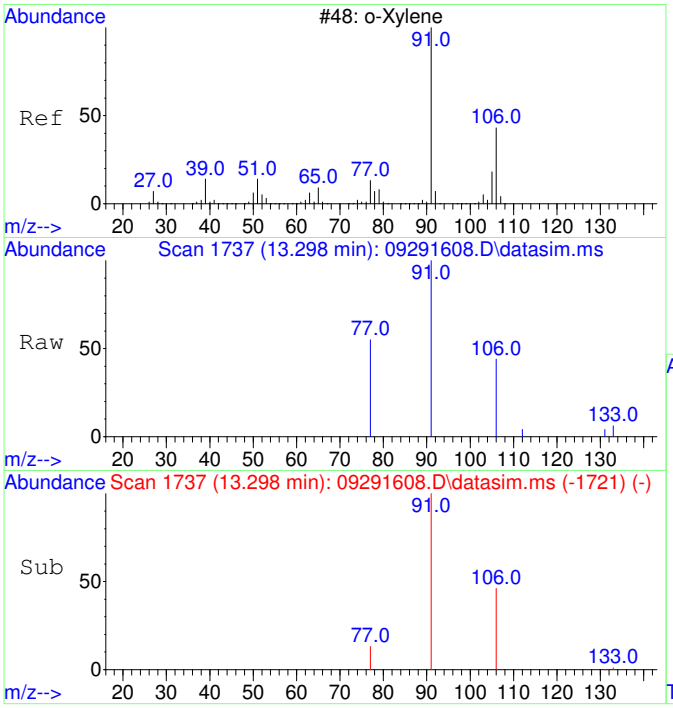


#38
m&p-Xylene SCAN
Concen: 117.73 ug/L
RT: 12.679 min Scan# 1659
Delta R.T. -0.009 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 9788

Ion	Ratio	Lower	Upper
91	100		
106	64.6	18.0	78.0
105	36.4	0.0	53.1
51	8.6	0.0	39.4

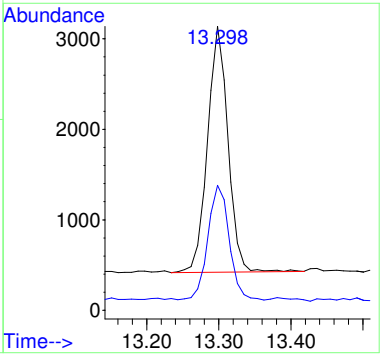


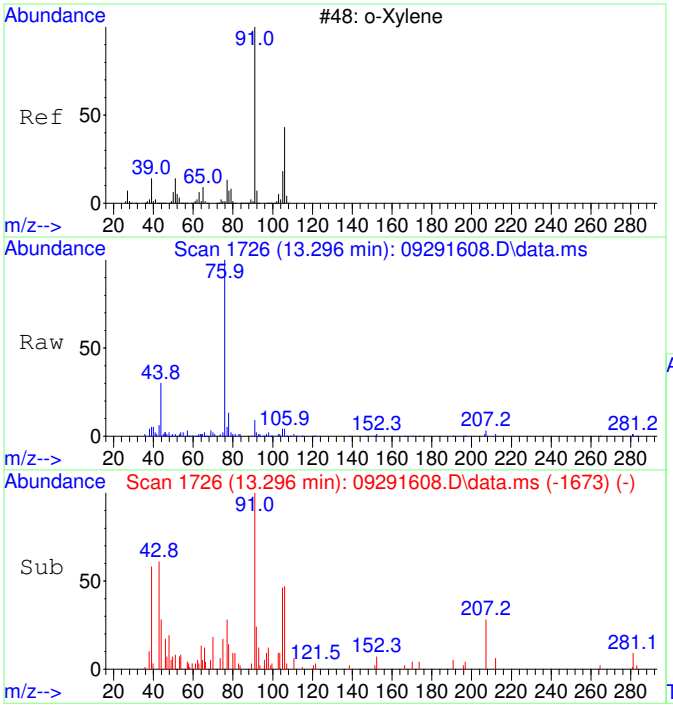


#39
o-Xylene
Concen: 51.32 ug/L
RT: 13.298 min Scan# 1737
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 5353

Ion	Ratio	Lower	Upper
91	100		
106	47.6	17.2	77.2

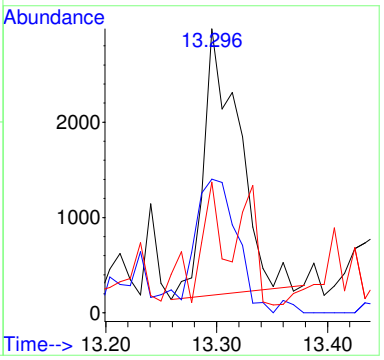


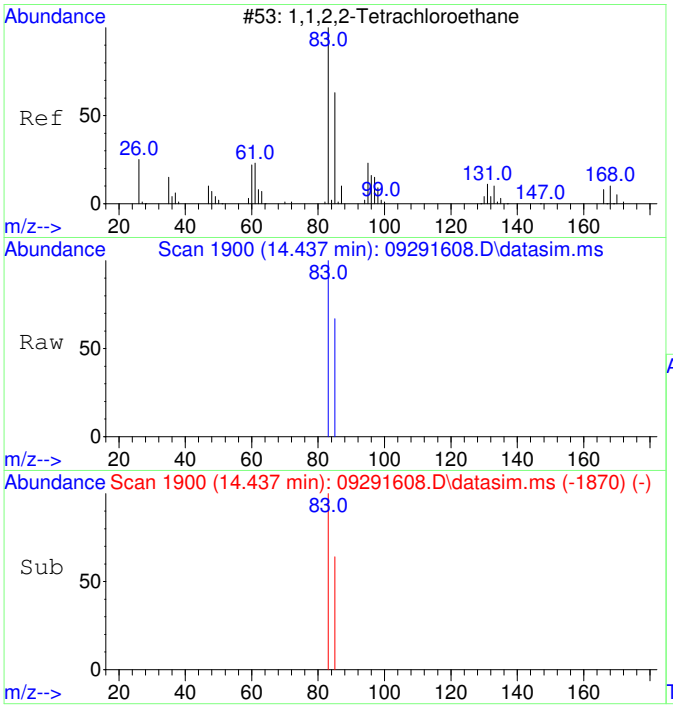


#40
o-Xylene SCAN
Concen: 70.32 ug/L
RT: 13.296 min Scan# 1726
Delta R.T. -0.009 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 6116

Ion	Ratio	Lower	Upper
91	100		
106	52.7	18.0	78.0
105	17.2	0.0	56.8

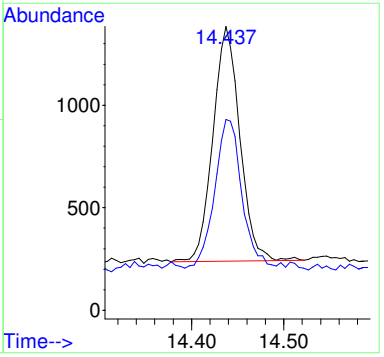


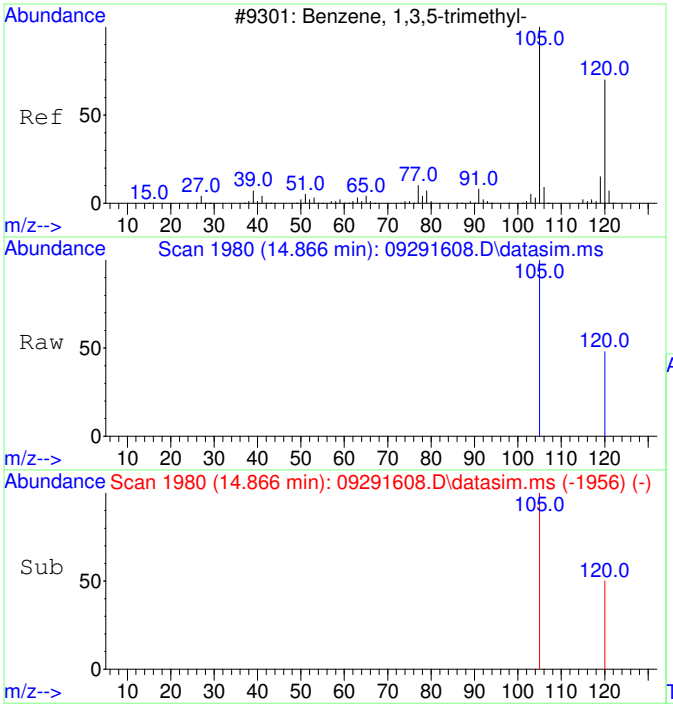


#41
1,1,2,2-Tetrachloroethane
Concen: 51.65 ug/L
RT: 14.437 min Scan# 1900
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 83 Resp: 2327

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.4	94.4

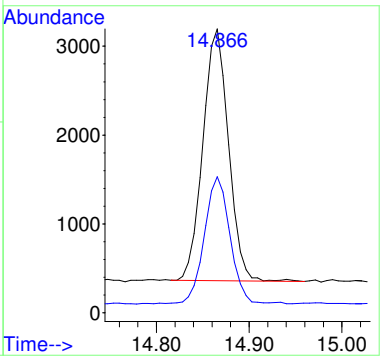


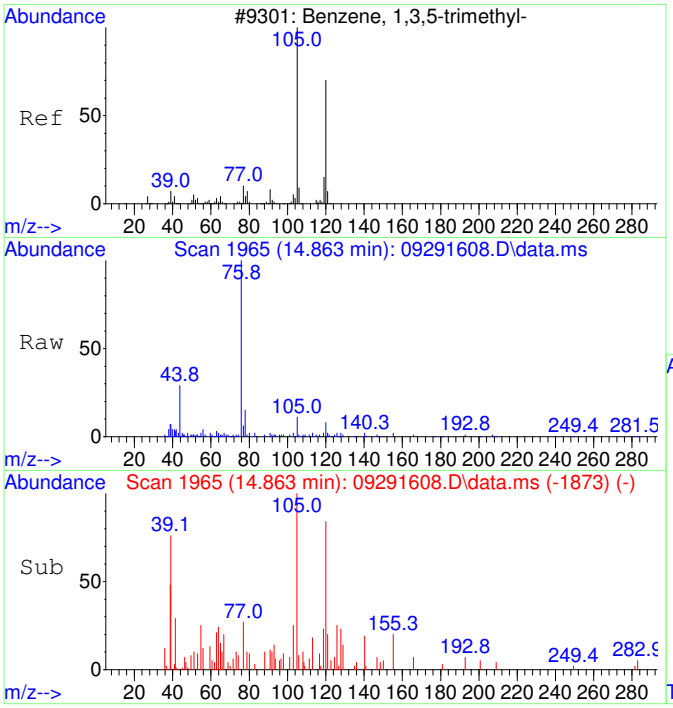


#43
1,3,5-Trimethylbenzene
Concen: 50.79 ug/L
RT: 14.866 min Scan# 1980
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5455

Ion	Ratio	Lower	Upper
105	100		
120	50.6	19.7	79.7

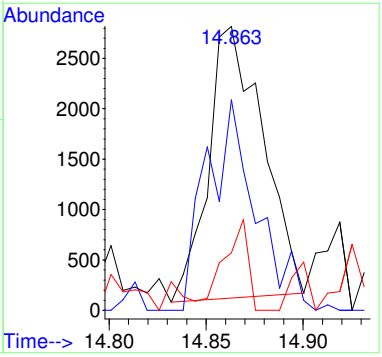


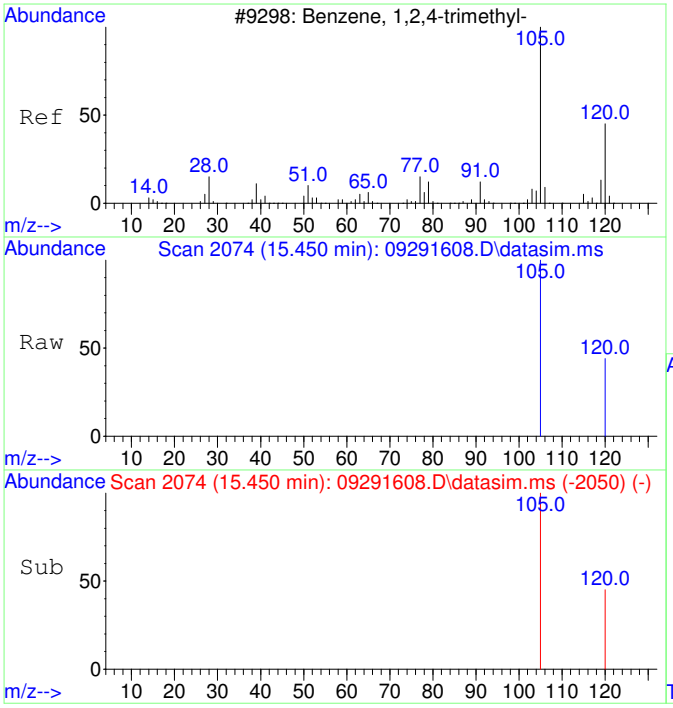


#44
1,3,5-Trimethylbenzene SCAN
Concen: 62.10 ug/L
RT: 14.863 min Scan# 1965
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5276

Ion	Ratio	Lower	Upper
105	100		
120	70.9	22.1	82.1
119	13.0	0.0	42.9

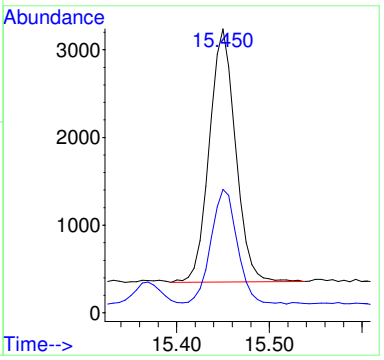


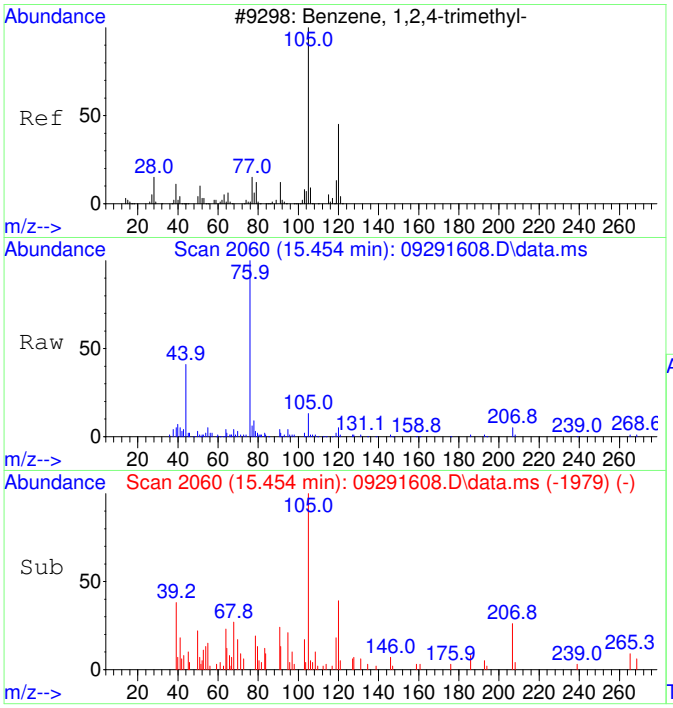


#45
1,2,4-Trimethylbenzene
Concen: 51.38 ug/L
RT: 15.450 min Scan# 2074
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5669

Ion	Ratio	Lower	Upper
105	100		
120	44.8	15.7	75.7

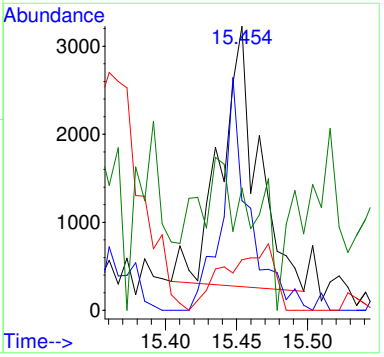


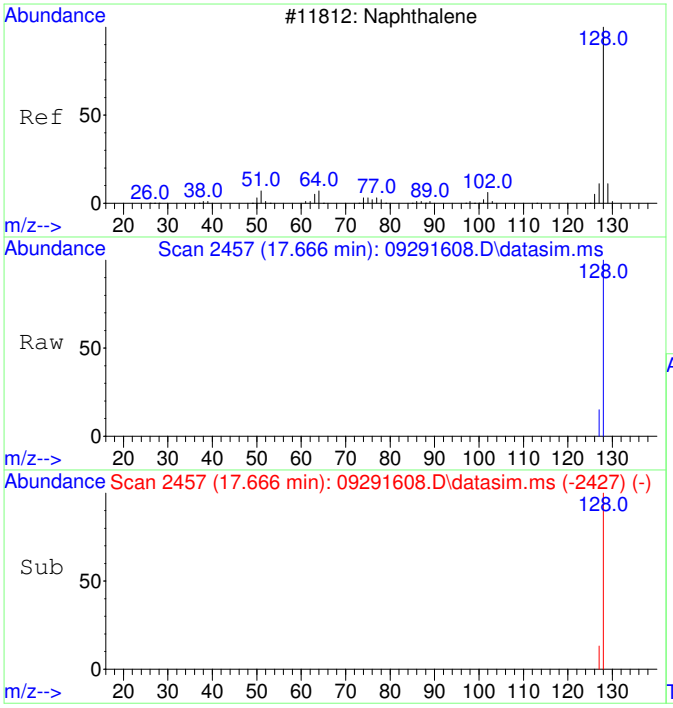


#46
1,2,4-Trimethylbenzene SCAN
Concen: 59.89 ug/L
RT: 15.454 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5339

Ion	Ratio	Lower	Upper
105	100		
120	65.1	17.2	77.2
119	0.0	0.0	41.3
77	59.4	0.0	43.1#

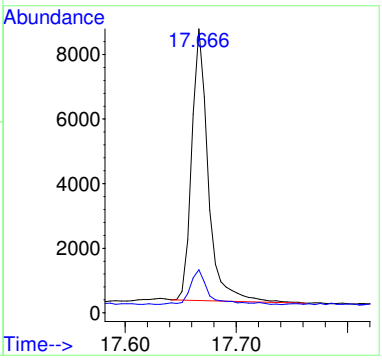


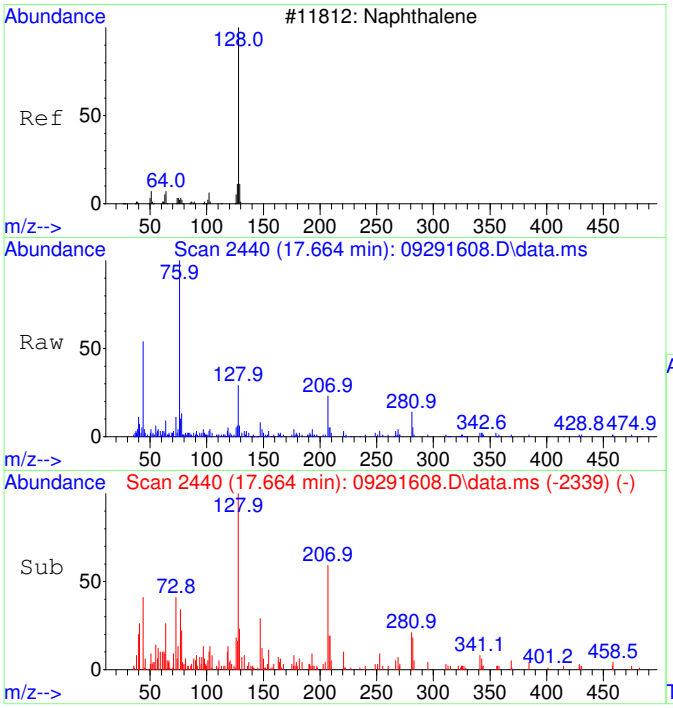


#47
Naphthalene
Concen: 49.92 ug/L
RT: 17.666 min Scan# 2457
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:128 Resp: 8622

Ion	Ratio	Lower	Upper
128	100		
127	14.2	0.0	42.6

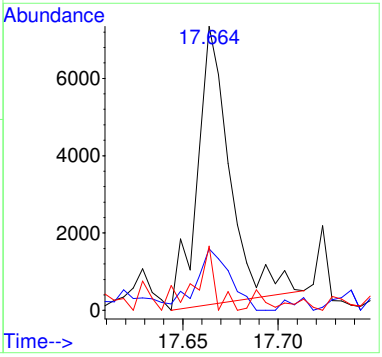




#48
Naphthalene SCAN
Concen: 63.74 ug/L
RT: 17.664 min Scan# 2440
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:128 Resp: 8575

Ion	Ratio	Lower	Upper
128	100		
127	20.0	0.0	43.1
129	14.6	0.0	41.0



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291608.D
Acq On : 30 Sep 2016 6:07
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
RH at 9:08 am, Sep 30, 2016

M.I. Approved By:
ZAR at 1:04 pm, Sep 30, 2016

Quant Time: Sep 30 09:06:27 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration

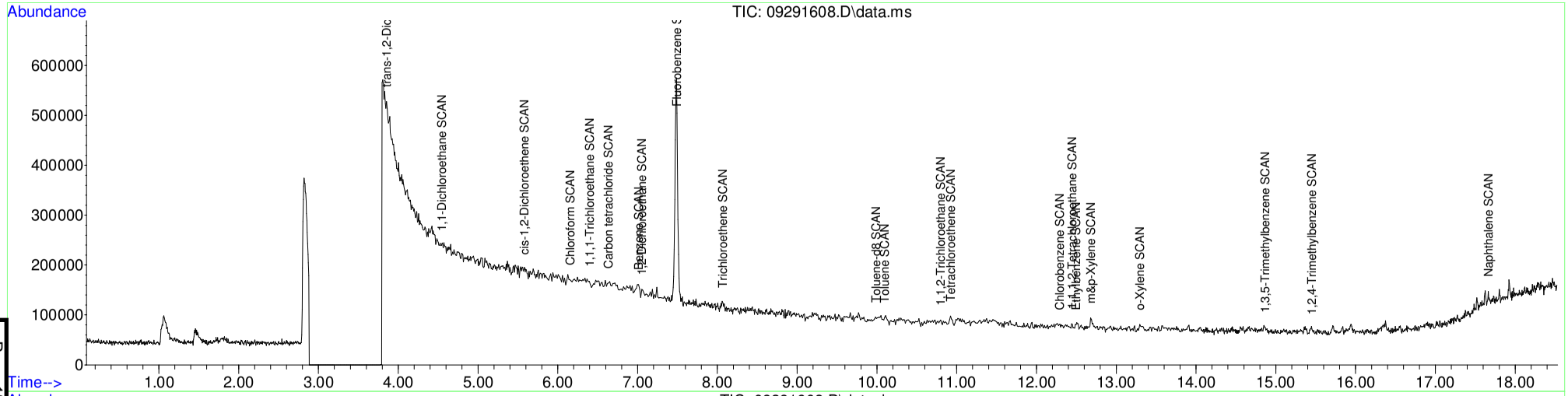
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.483	96	555393	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	5118	51.89	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 1.04%#			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.487	96	481957	4885.63	ug/L	100
3] 1,1-Dichloroethene	2.728	61	2859m	45.41	ug/L	
5] trans-1,2-Dichloroethene	3.865	61	2988	54.49	ug/L	75
6) trans-1,2-Dichloroethe...	3.854	61	1381	29.55	ug/L #	1
7] 1,1-Dichloroethane	4.551	63	3198	49.42	ug/L	100
8) 1,1-Dichloroethane SCAN	4.541	63	2787	49.01	ug/L #	74
9] cis-1,2-Dichloroethene	5.569	61	2871	49.78	ug/L	96
10) cis-1,2-Dichloroethene...	5.574	61	3662	71.22	ug/L	75
11] Chloroform	6.156	83	3639	55.20	ug/L	95
12) Chloroform SCAN	6.153	83	6230	109.87	ug/L #	64
13] 1,1,1-Trichloroethane	6.384	97	2952	51.50	ug/L	96
14) 1,1,1-Trichloroethane ...	6.395	97	5196	103.84	ug/L #	25
15] Carbon tetrachloride	6.639	117	2583	52.02	ug/L	99
16) Carbon tetrachloride SCAN	6.636	117	2841	64.97	ug/L #	64
17] Benzene	7.001	78	8682	67.81	ug/L	89
18) Benzene SCAN	7.012	78	13704	119.10	ug/L #	82
19] 1,2-Dichloroethane	7.068	62	2355	50.35	ug/L	71
20) 1,2-Dichloroethane SCAN	7.052	62	3578	81.57	ug/L #	57
21] Trichloroethene	8.068	130	1890	52.11	ug/L	88
22) Trichloroethene SCAN	8.066	95	3014	103.76	ug/L	84
24) Toluene-d8 SCAN	9.984	98	5029	58.01	ug/L #	90
25] Toluene	10.099	91	6511	53.66	ug/L	99
26) Toluene SCAN	10.097	91	7734	77.99	ug/L #	86
27] 1,1,2-Trichloroethane	10.790	97	1538	53.66	ug/L	97
28) 1,1,2-Trichloroethane ...	10.798	97	2166	92.62	ug/L #	41
29] Tetrachloroethene	10.926	166	1939	55.44	ug/L	96
30) Tetrachloroethene SCAN	10.923	166	2237	79.67	ug/L #	82
31] Chlorobenzene	12.287	112	4238	52.98	ug/L	90
32) Chlorobenzene SCAN	12.284	112	5113	76.79	ug/L #	73
33] 1,1,1,2-Tetrachloroethane	12.443	131	1498	52.22	ug/L	98
34) 1,1,1,2-Tetrachloroeth...	12.440	131	2284	96.84	ug/L #	64
35] Ethylbenzene	12.489	91	6597	51.10	ug/L	99
36) Ethylbenzene SCAN	12.496	91	10055	95.61	ug/L	74
37] m&p-Xylene	12.682	91	10388	102.68	ug/L	99
38) m&p-Xylene SCAN	12.679	91	9788	117.73	ug/L	77
39] o-Xylene	13.298	91	5353	51.32	ug/L	99
40) o-Xylene SCAN	13.296	91	6116	70.32	ug/L	89
41] 1,1,2,2-Tetrachloroethane	14.437	83	2327	51.65	ug/L	98
43] 1,3,5-Trimethylbenzene	14.866	105	5455	50.79	ug/L	99
44) 1,3,5-Trimethylbenzene...	14.863	105	5276	62.10	ug/L	79
45] 1,2,4-Trimethylbenzene	15.450	105	5669	51.38	ug/L	99
46) 1,2,4-Trimethylbenzene...	15.454	105	5339	59.89	ug/L #	56
47] Naphthalene	17.666	128	8622	49.92	ug/L	96
48) Naphthalene SCAN	17.664	128	8575	63.74	ug/L	86

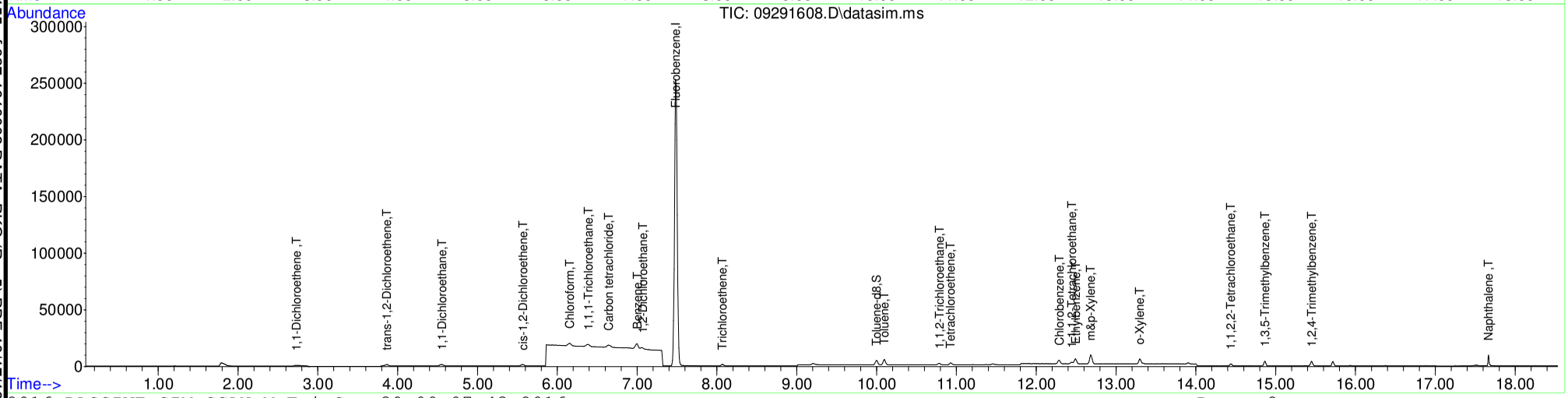
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291608.D
Acq On : 30 Sep 2016 6:07
InstName : AG5975C
Operator : RH
Sample : S16I099-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 30 09:06:27 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 08:41:05 2016
Response via : Initial Calibration





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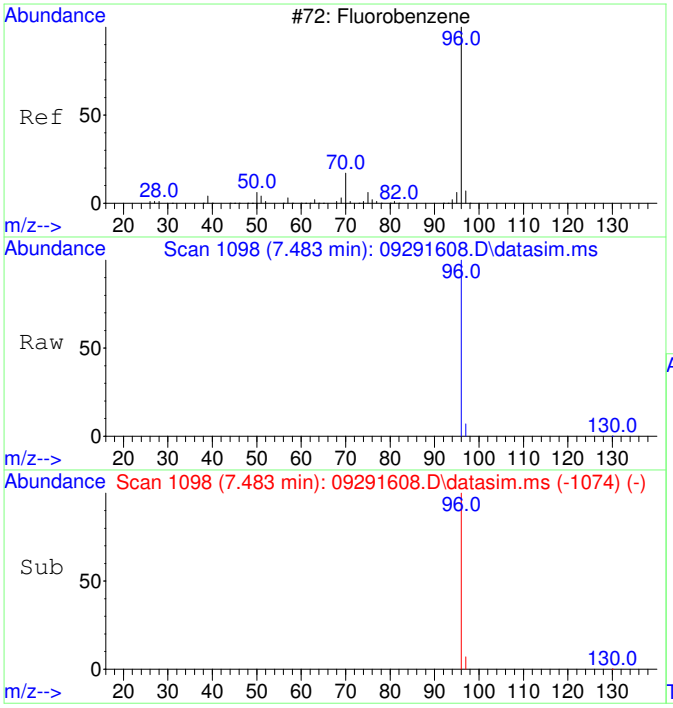
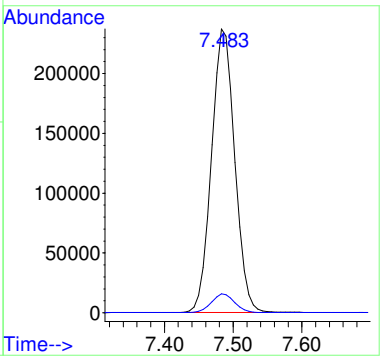
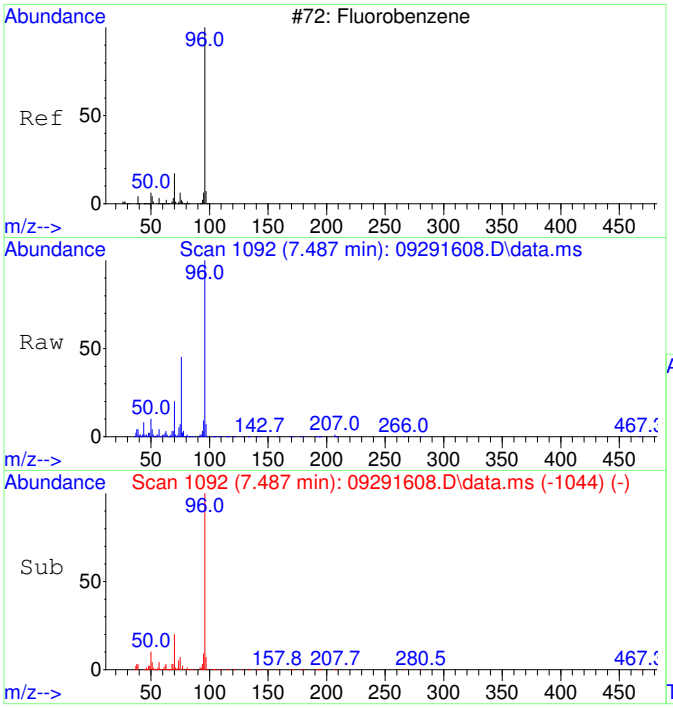


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.483 min Scan# 1098
Delta R.T. 0.007 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 96 Resp: 555393

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

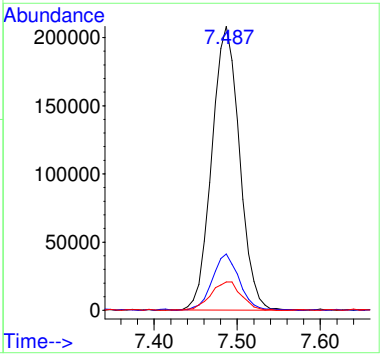


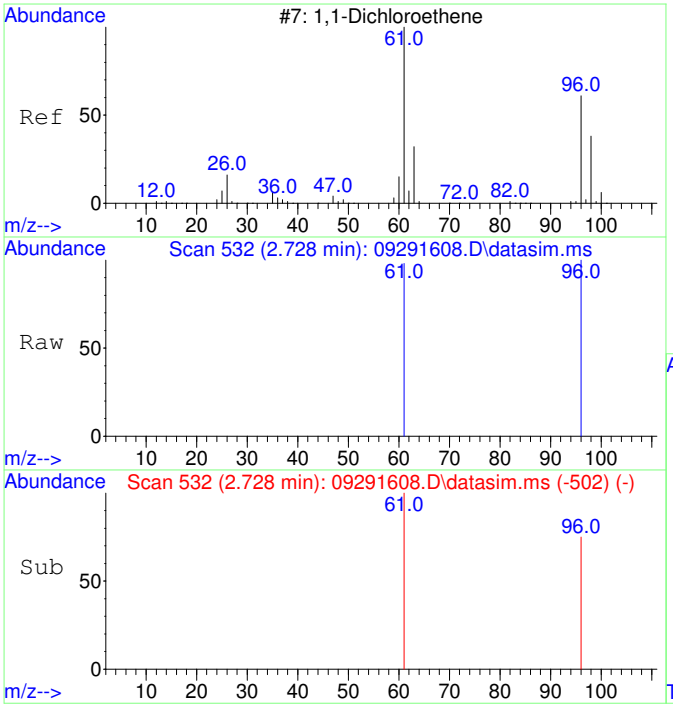


#2
Fluorobenzene SCAN
Concen: 4885.63 ug/L
RT: 7.487 min Scan# 1092
Delta R.T. 0.007 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 96 Resp: 481957

Ion	Ratio	Lower	Upper
96	100		
70	19.3	0.0	49.2
50	11.1	0.0	41.1

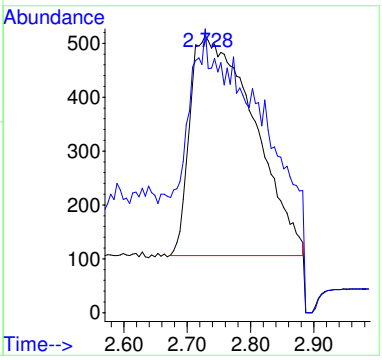


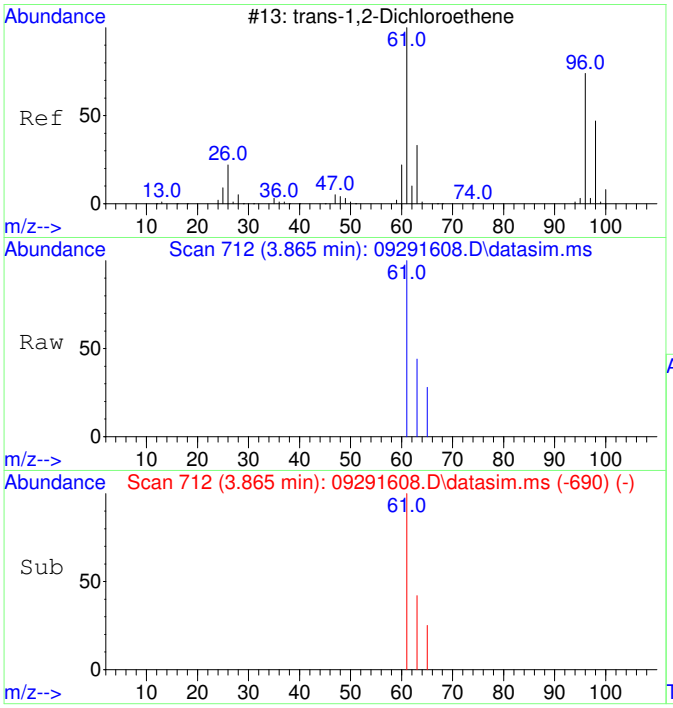


#3
1,1-Dichloroethene
Concen: 45.41 ug/L m
RT: 2.728 min Scan# 532
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 2859

Ion	Ratio	Lower	Upper
61	100		
96	101.9	34.9	94.9#

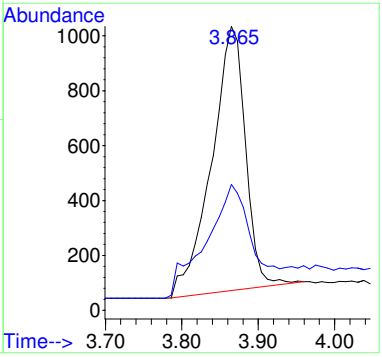


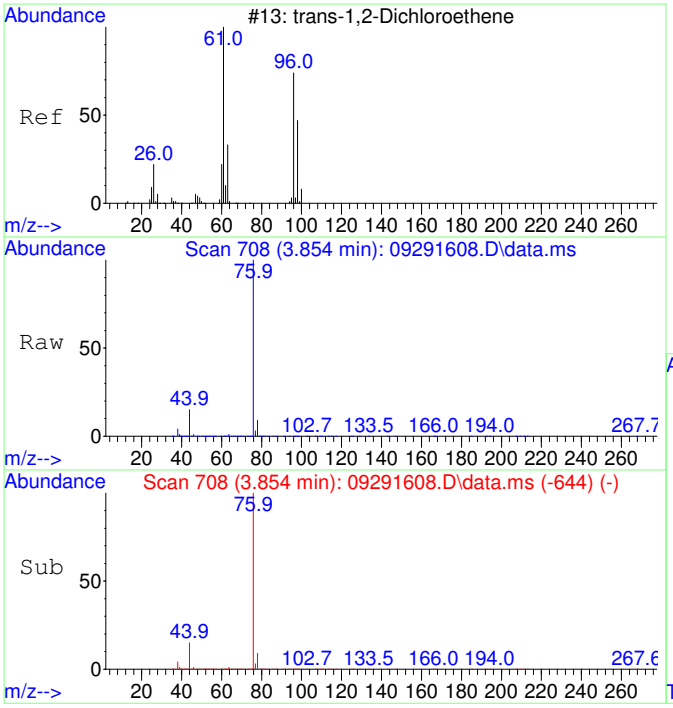


#5
trans-1,2-Dichloroethene
Concen: 54.49 ug/L
RT: 3.865 min Scan# 712
Delta R.T. 0.024 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 2988

Ion	Ratio	Lower	Upper
61	100		
63	46.6	2.5	62.5

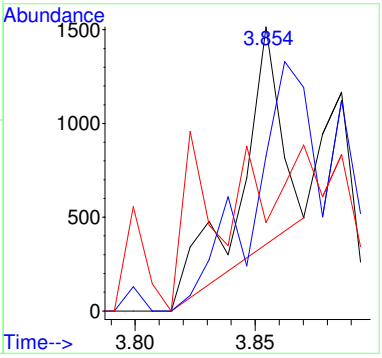


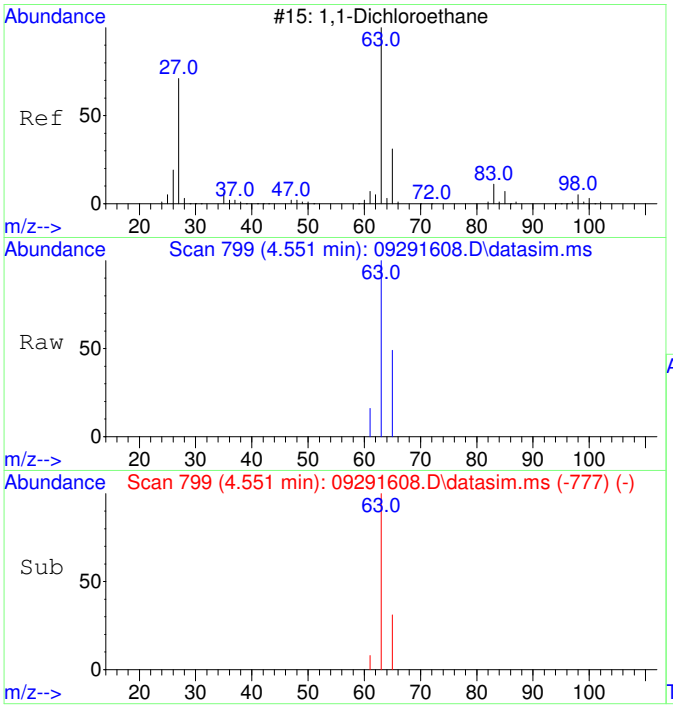


#6
trans-1,2-Dichloroethene SCAN
Concen: 29.55 ug/L
RT: 3.854 min Scan# 708
Delta R.T. 0.008 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 1381

Ion	Ratio	Lower	Upper
61	100		
96	242.3	47.5	107.5#
98	48.8	17.2	77.2

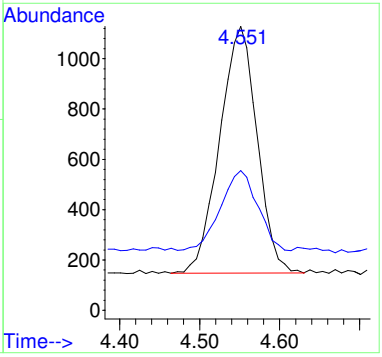


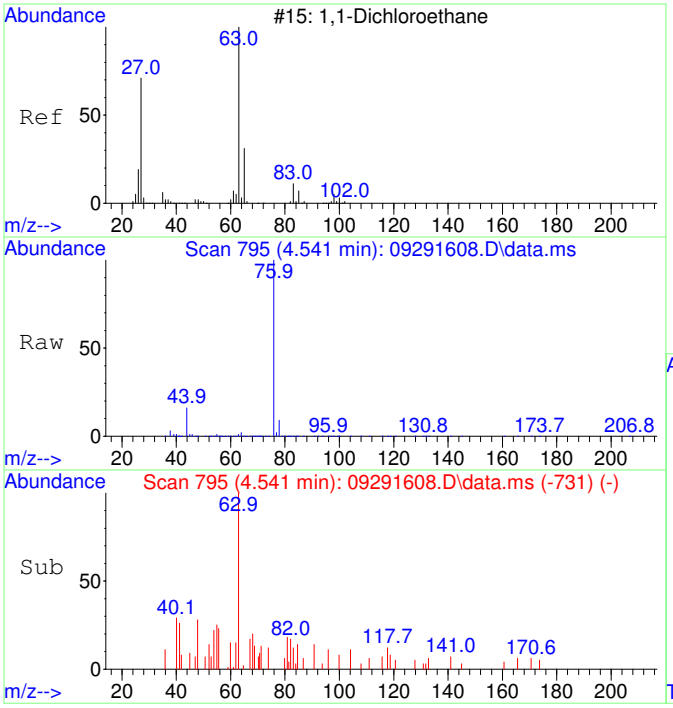


#7
1,1-Dichloroethane
Concen: 49.42 ug/L
RT: 4.551 min Scan# 799
Delta R.T. 0.024 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 63 Resp: 3198

Ion	Ratio	Lower	Upper
63	100		
65	31.6	1.8	61.8

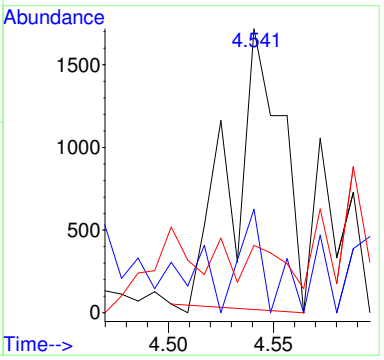


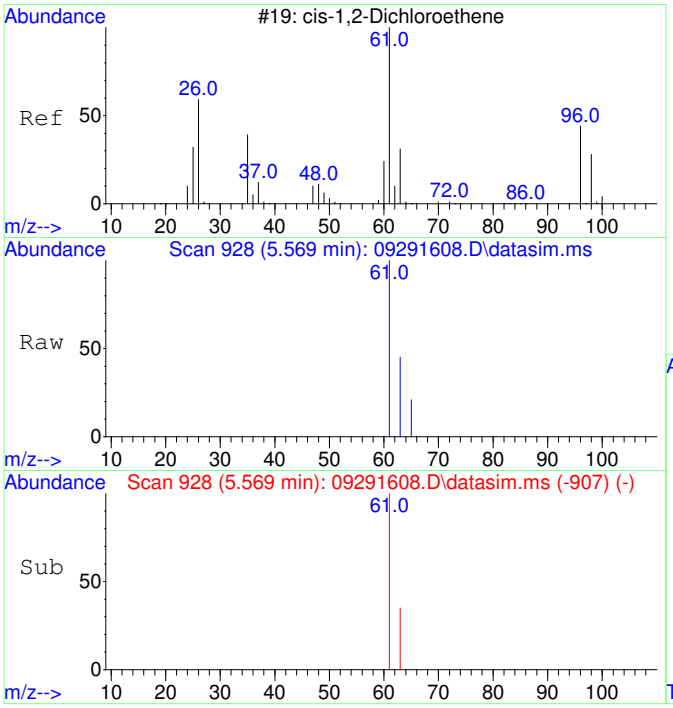


#8
1,1-Dichloroethane SCAN
Concen: 49.01 ug/L
RT: 4.541 min Scan# 795
Delta R.T. 0.008 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 63 Resp: 2787

Ion	Ratio	Lower	Upper
63	100		
65	21.7	3.9	63.9
83	0.0	0.0	45.1

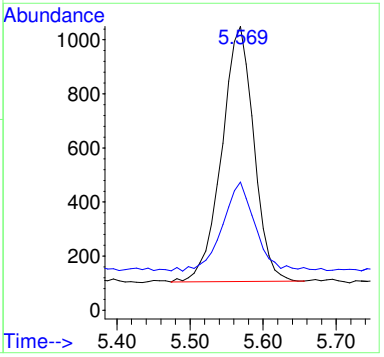


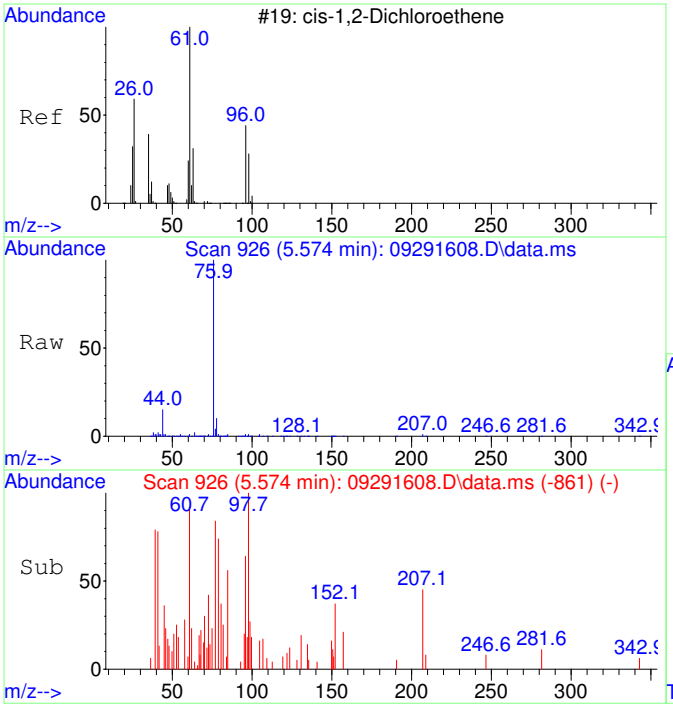


#9
cis-1,2-Dichloroethene
Concen: 49.78 ug/L
RT: 5.569 min Scan# 928
Delta R.T. 0.016 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 2871

Ion	Ratio	Lower	Upper
61	100		
63	34.6	2.4	62.4

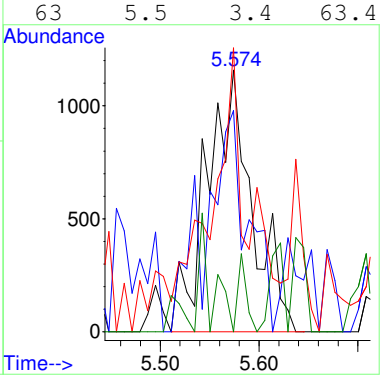


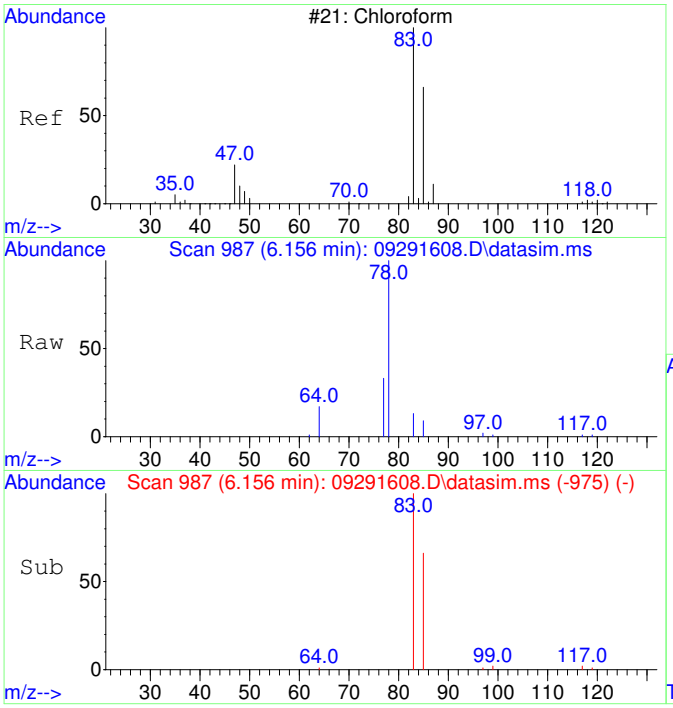


#10
cis-1,2-Dichloroethene SCAN
Concen: 71.22 ug/L
RT: 5.574 min Scan# 926
Delta R.T. 0.016 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 61 Resp: 3662

Ion	Ratio	Lower	Upper
61	100		
96	56.2	42.0	102.0
98	58.9	17.5	77.5
63	5.5	3.4	63.4

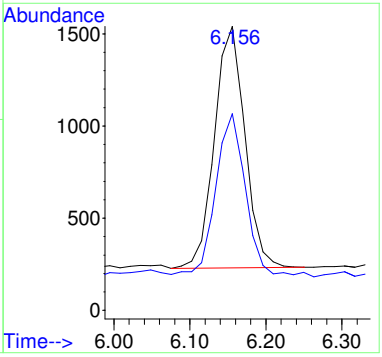


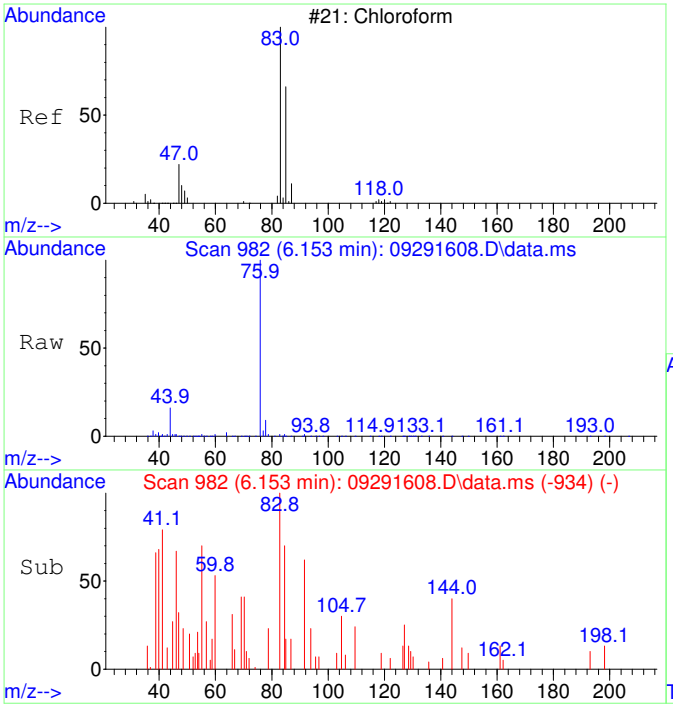


#11
Chloroform
Concen: 55.20 ug/L
RT: 6.156 min Scan# 987
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 83 Resp: 3639

Ion	Ratio	Lower	Upper
83	100		
85	60.6	34.4	94.4

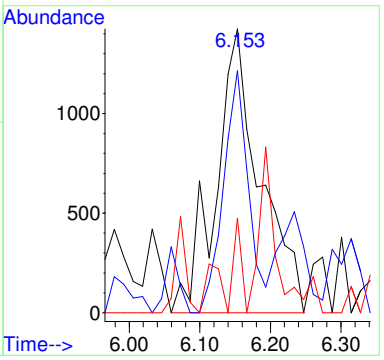


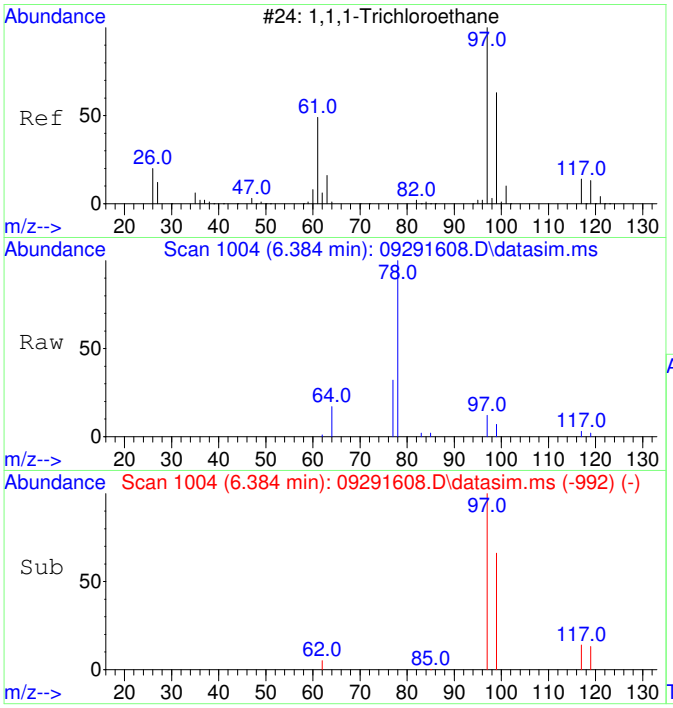


#12
Chloroform SCAN
Concen: 109.87 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 83 Resp: 6230

Ion	Ratio	Lower	Upper
83	100		
85	42.2	37.6	97.6
47	0.0	0.0	53.4

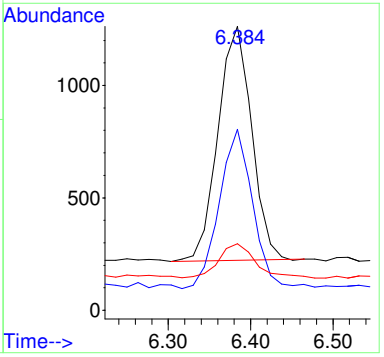


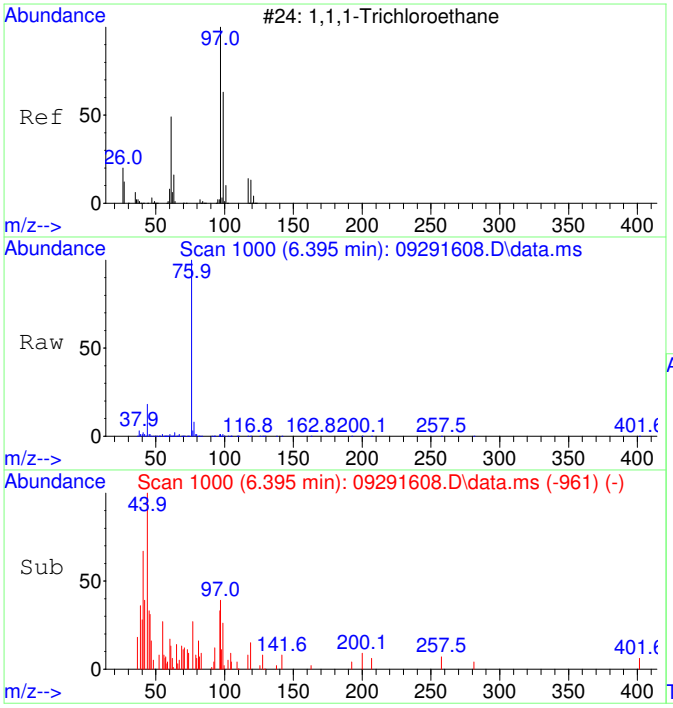


#13
1,1,1-Trichloroethane
Concen: 51.50 ug/L
RT: 6.384 min Scan# 1004
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 2952

Ion	Ratio	Lower	Upper
97	100		
99	66.7	34.2	94.2
117	15.8	0.0	43.0

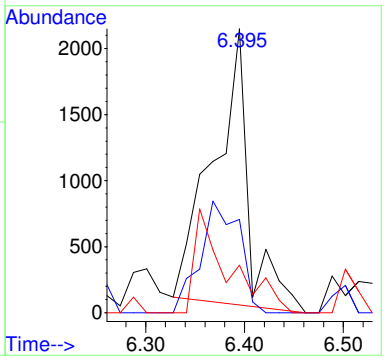


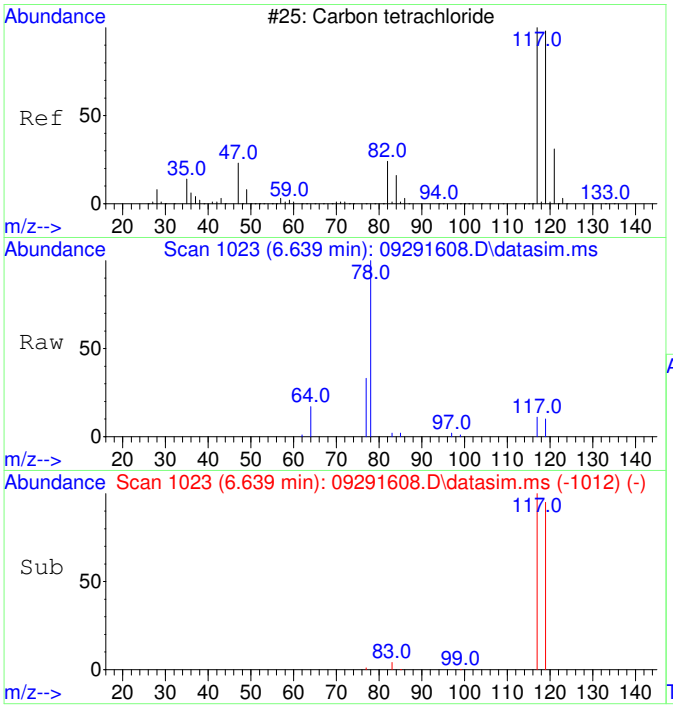


#14
1,1,1-Trichloroethane SCAN
Concen: 103.84 ug/L
RT: 6.395 min Scan# 1000
Delta R.T. 0.027 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 5196

Ion	Ratio	Lower	Upper
97	100		
99	0.0	33.6	93.6#
61	0.0	10.7	70.7#

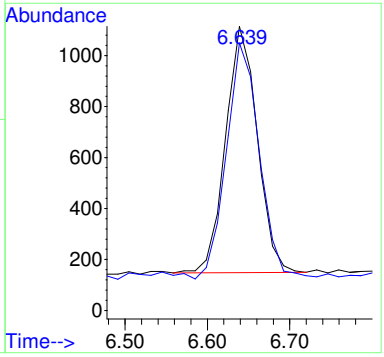


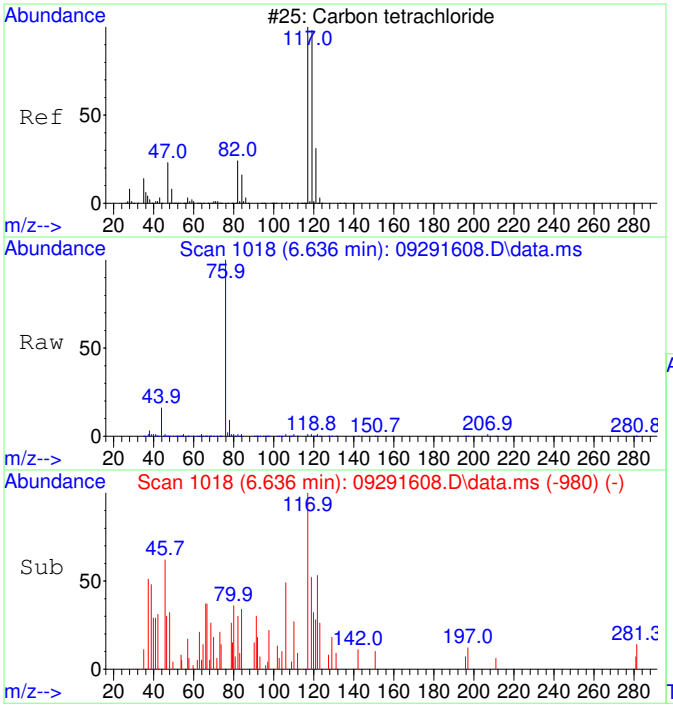


#15
Carbon tetrachloride
Concen: 52.02 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:117 Resp: 2583

Ion	Ratio	Lower	Upper
117	100		
119	97.4	66.1	126.1

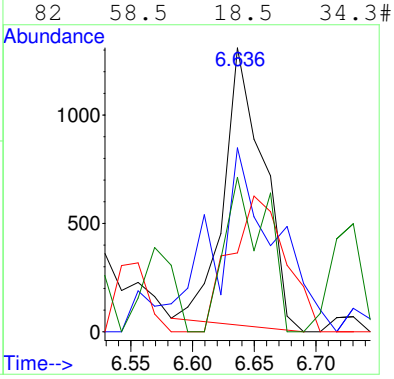


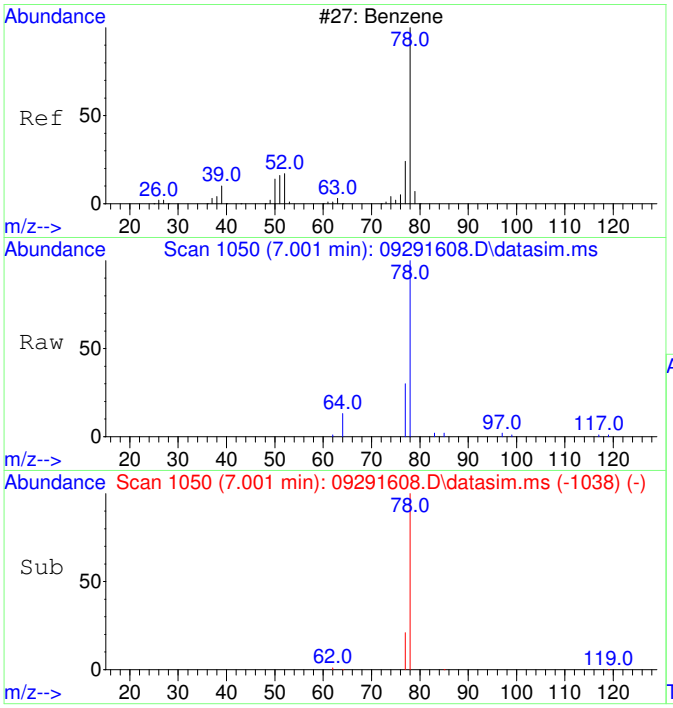


#16
Carbon tetrachloride SCAN
Concen: 64.97 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:117 Resp: 2841

Ion	Ratio	Lower	Upper
117	100		
119	111.6	66.0	122.6
121	68.4	22.1	41.1#
82	58.5	18.5	34.3#

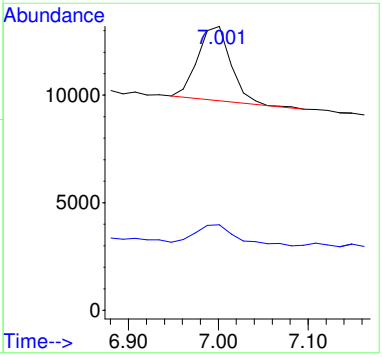


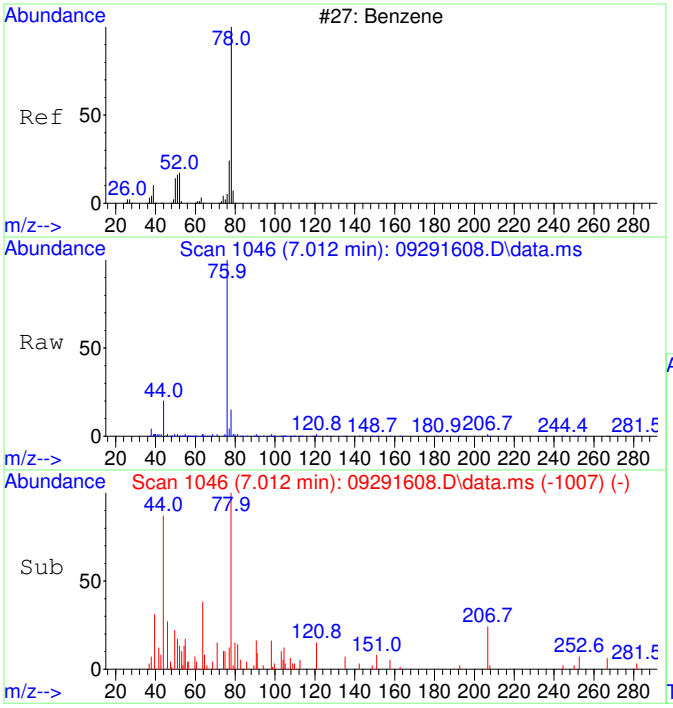


#17
Benzene
Concen: 67.81 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 78 Resp: 8682

Ion	Ratio	Lower	Upper
78	100		
77	28.7	0.0	53.4

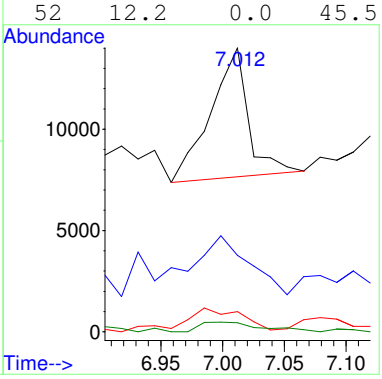


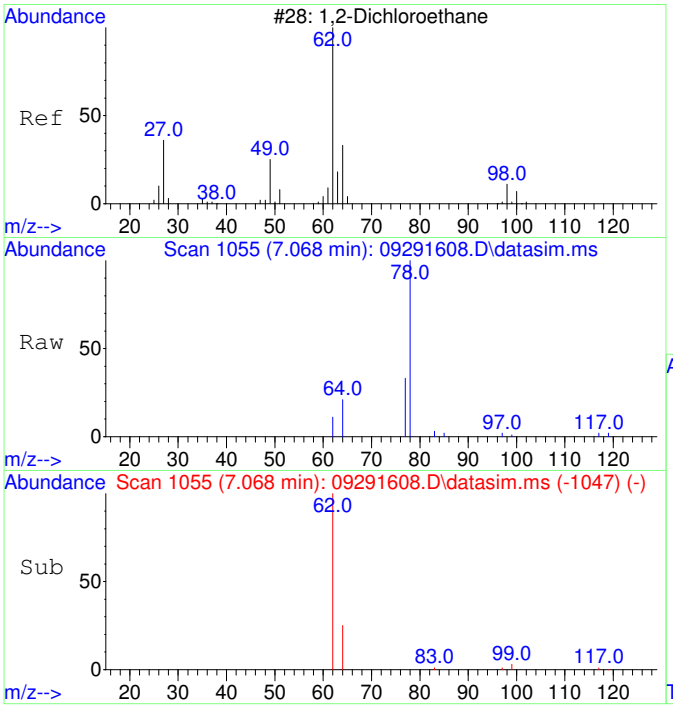


#18
Benzene SCAN
Concen: 119.10 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.027 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 78 Resp: 13704

Ion	Ratio	Lower	Upper
78	100		
77	32.9	0.0	59.3
51	0.0	0.0	49.2
52	12.2	0.0	45.5

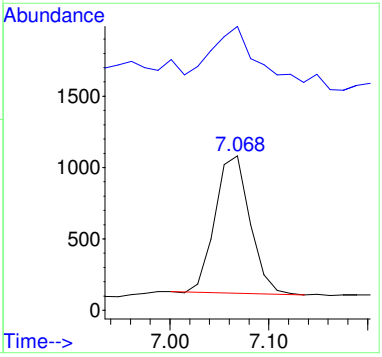


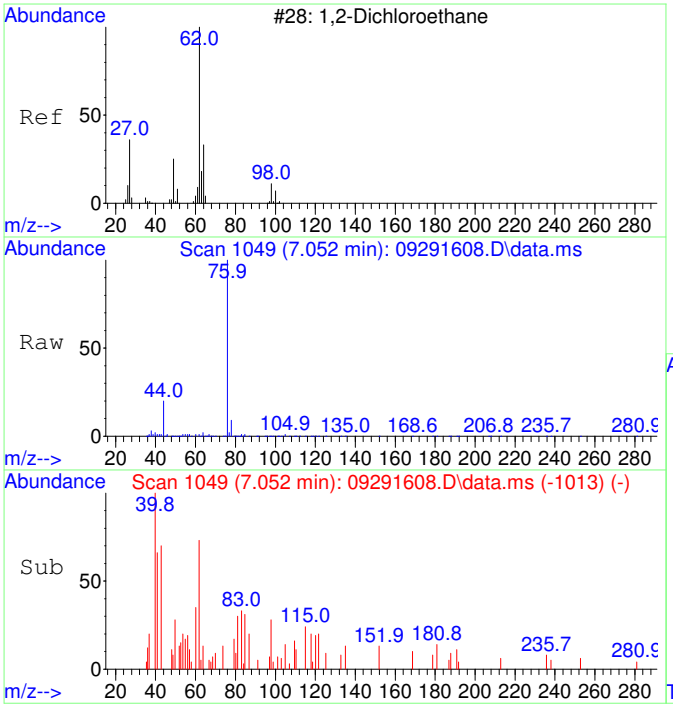


#19
1,2-Dichloroethane
Concen: 50.35 ug/L
RT: 7.068 min Scan# 1055
Delta R.T. 0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 62 Resp: 2355

Ion	Ratio	Lower	Upper
62	100		
64	49.3	2.7	62.7

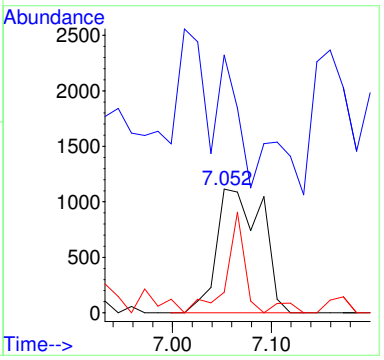


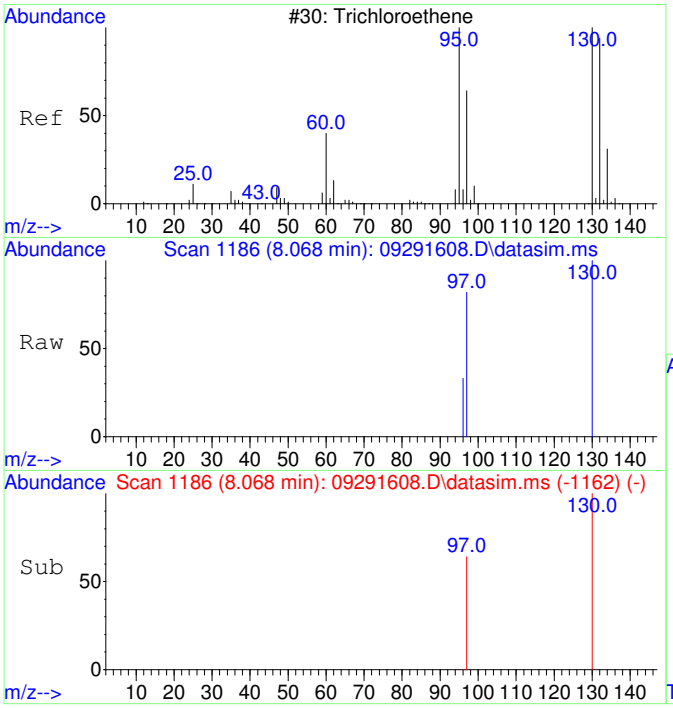


#20
1,2-Dichloroethane SCAN
Concen: 81.57 ug/L
RT: 7.052 min Scan# 1049
Delta R.T. -0.013 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 62 Resp: 3578

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	31.7	0.0	51.8

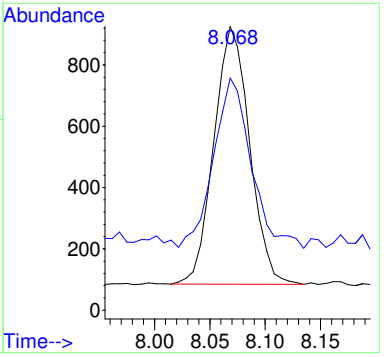


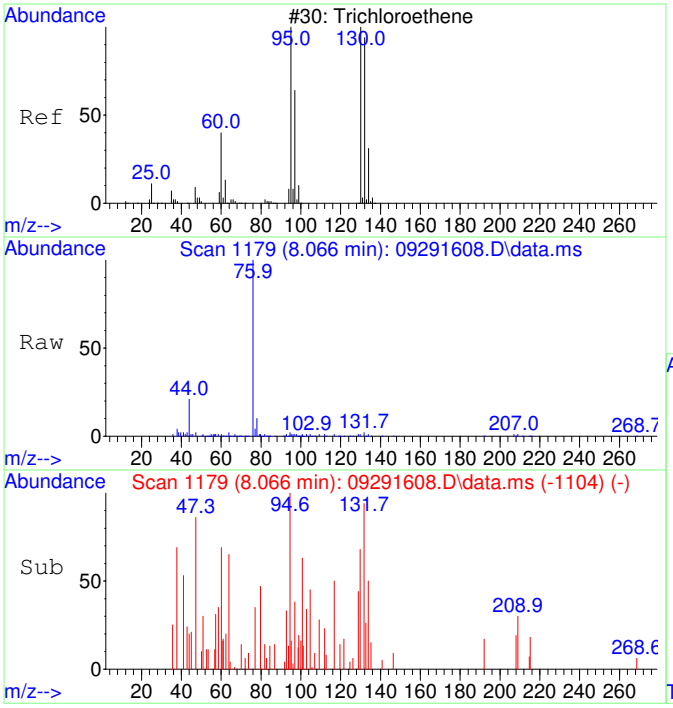


#21
Trichloroethene
Concen: 52.11 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.007 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:130 Resp: 1890

Ion	Ratio	Lower	Upper
130	100		
97	68.8	29.9	89.9

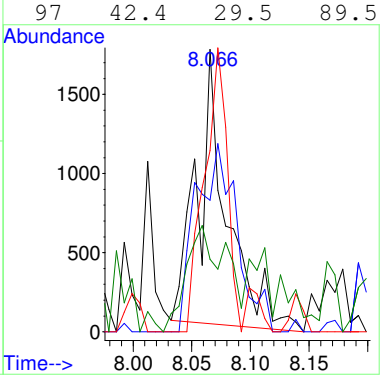


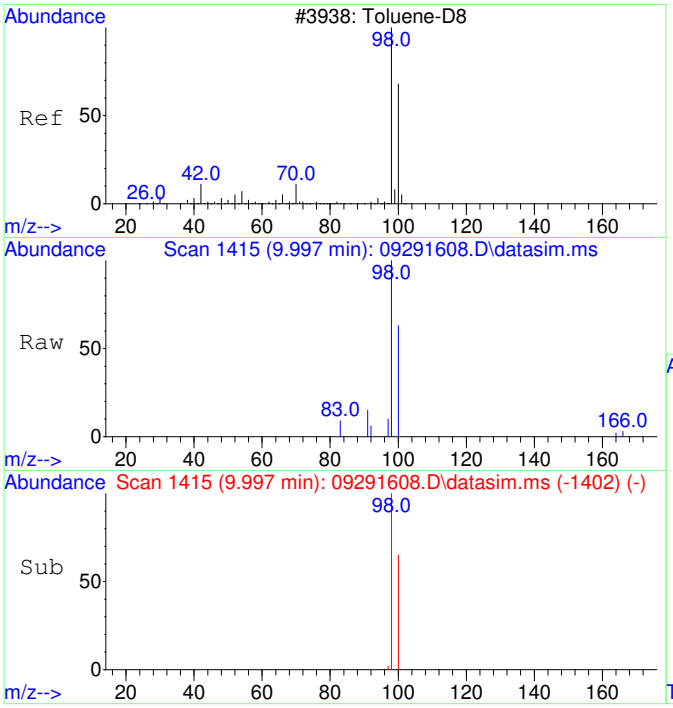


#22
Trichloroethene SCAN
Concen: 103.76 ug/L
RT: 8.066 min Scan# 1179
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 95 Resp: 3014

Ion	Ratio	Lower	Upper
95	100		
130	95.9	74.1	134.1
132	81.0	72.1	132.1
97	42.4	29.5	89.5

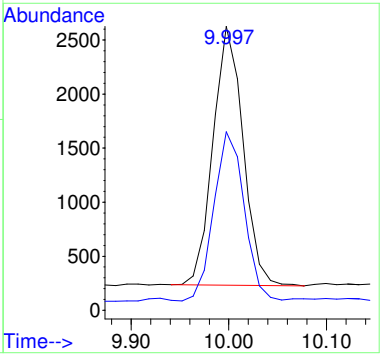


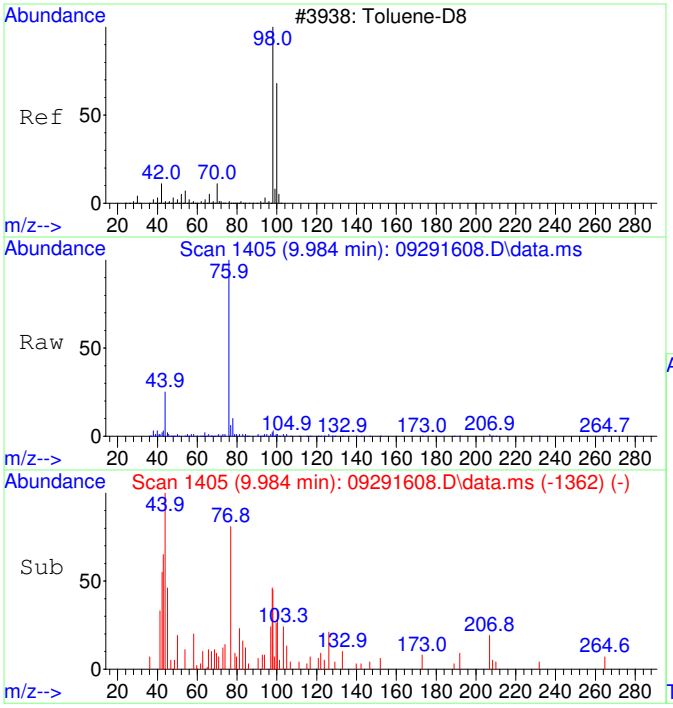


#23
Toluene-d8
Concen: 51.89 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 98 Resp: 5118

Ion	Ratio	Lower	Upper
98	100		
100	65.3	35.3	95.3

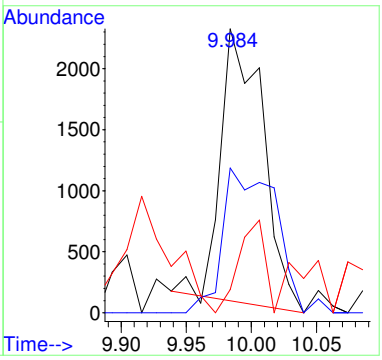


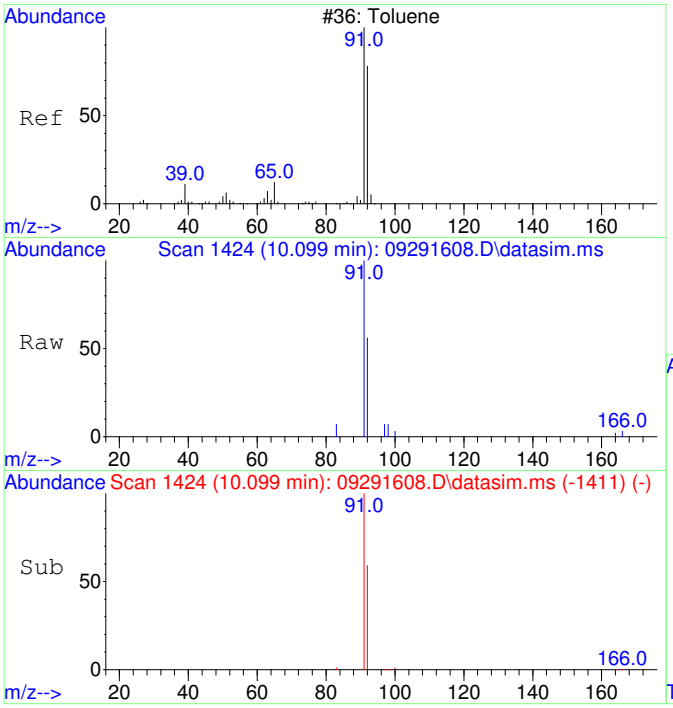


#24
Toluene-d8 SCAN
Concen: 58.01 ug/L
RT: 9.984 min Scan# 1405
Delta R.T. -0.011 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 98 Resp: 5029

Ion	Ratio	Lower	Upper
98	100		
100	68.1	44.3	82.3
70	0.0	7.8	14.4#

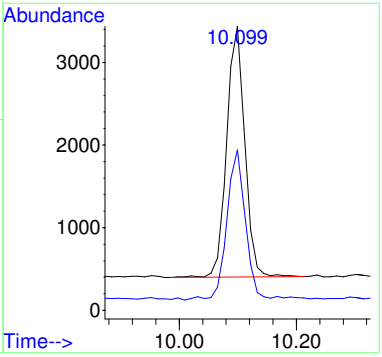


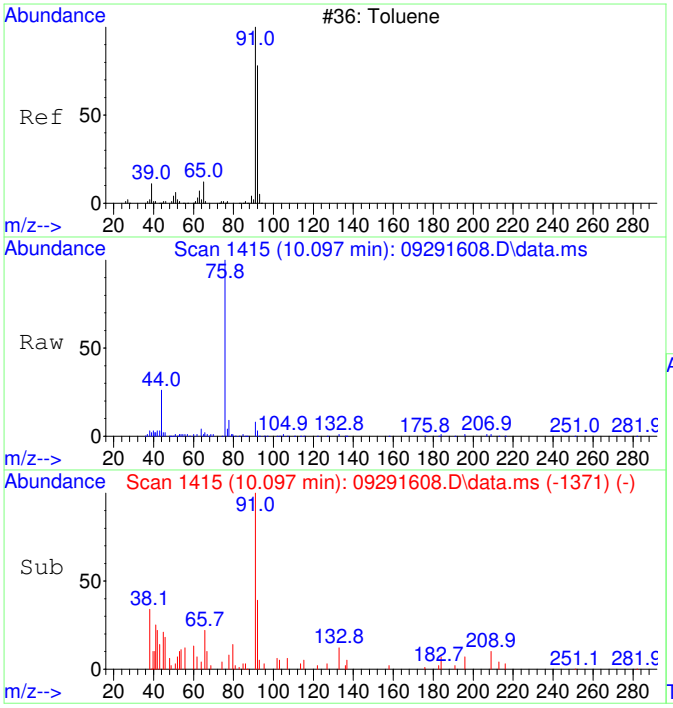


#25
Toluene
Concen: 53.66 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 6511

Ion	Ratio	Lower	Upper
91	100		
92	58.4	28.8	88.8

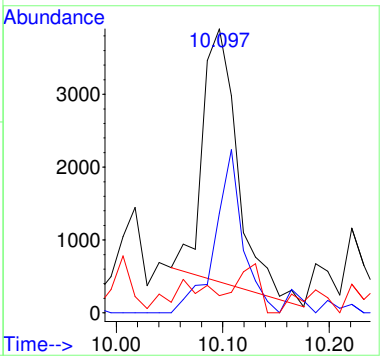


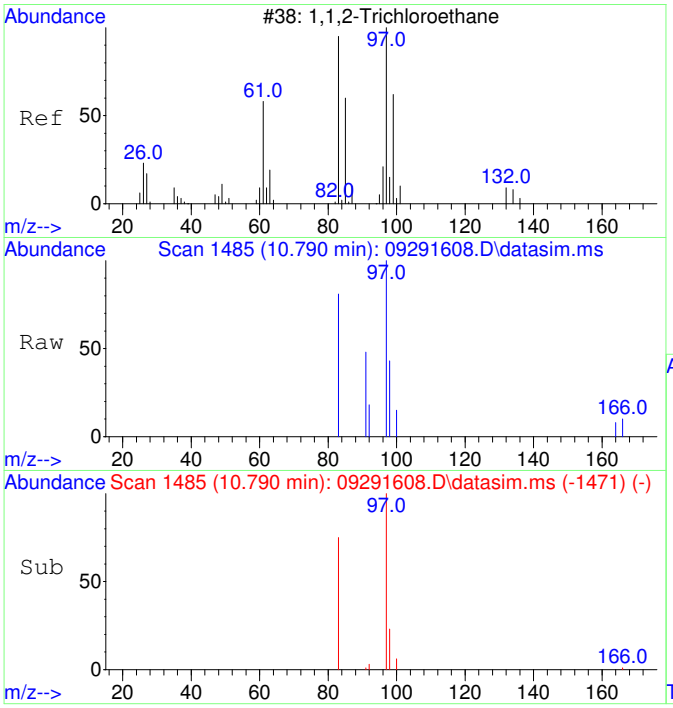


#26
Toluene SCAN
Concen: 77.99 ug/L
RT: 10.097 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 7734

Ion	Ratio	Lower	Upper
91	100		
92	52.8	30.7	90.7
65	0.0	0.0	42.6

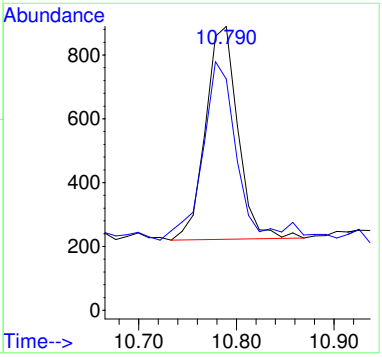


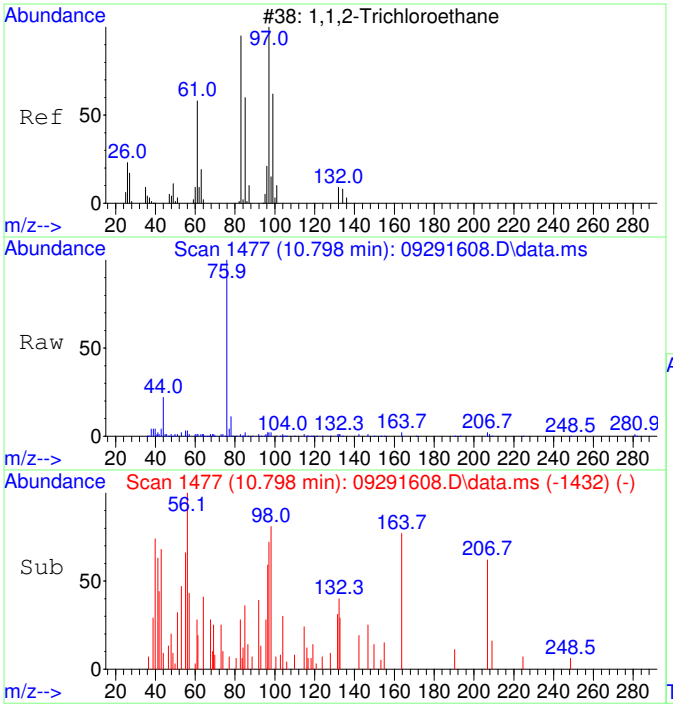


#27
1,1,2-Trichloroethane
Concen: 53.66 ug/L
RT: 10.790 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 1538

Ion	Ratio	Lower	Upper
97	100		
83	78.2	50.5	110.5

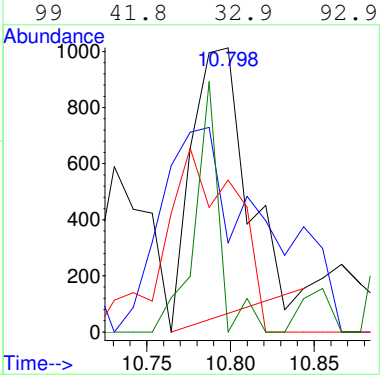


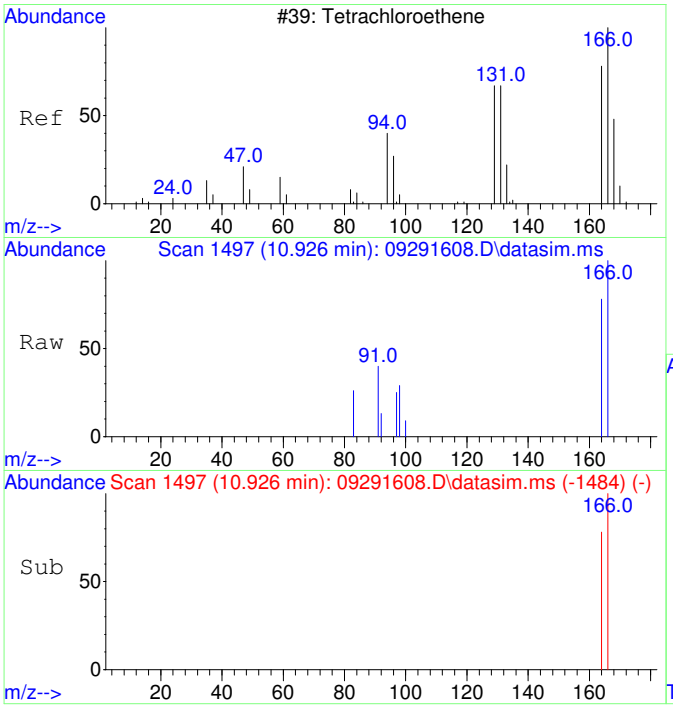


#28
1,1,2-Trichloroethane SCAN
Concen: 92.62 ug/L
RT: 10.798 min Scan# 1477
Delta R.T. 0.011 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 97 Resp: 2166

Ion	Ratio	Lower	Upper
97	100		
83	143.8	53.8	113.8#
61	0.0	31.3	91.3#
99	41.8	32.9	92.9

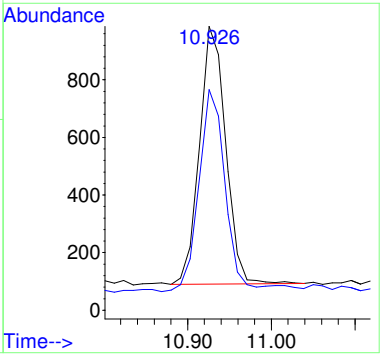


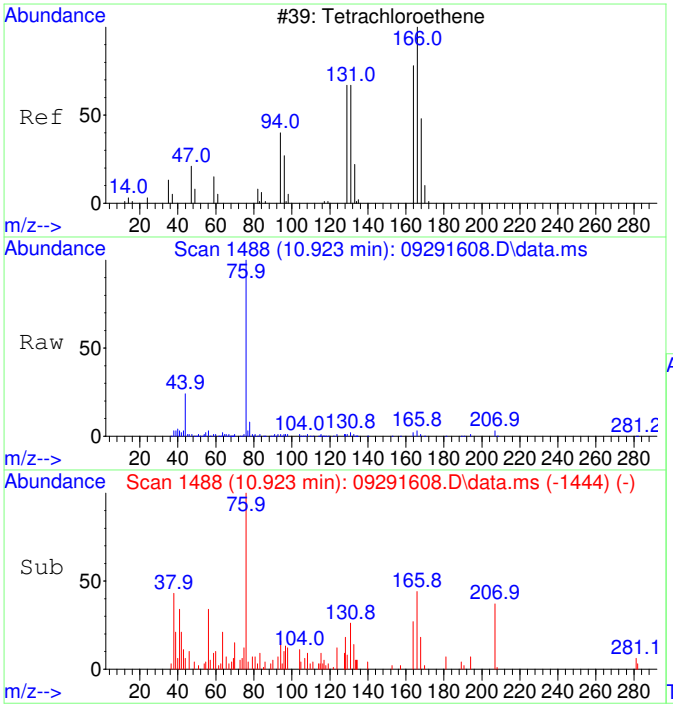


#29
Tetrachloroethene
Concen: 55.44 ug/L
RT: 10.926 min Scan# 1497
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:166 Resp: 1939

Ion	Ratio	Lower	Upper
166	100		
164	74.5	47.7	107.7

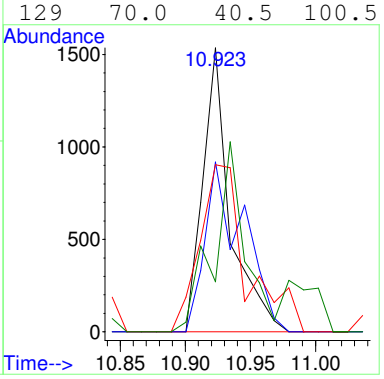


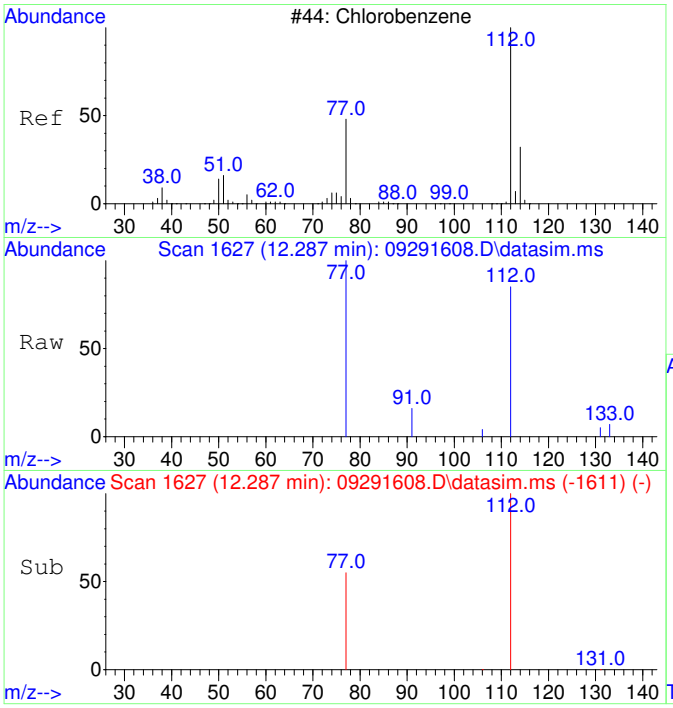


#30
Tetrachloroethene SCAN
Concen: 79.67 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:166 Resp: 2237

Ion	Ratio	Lower	Upper
166	100		
164	84.8	44.9	104.9
131	101.2	36.1	96.1#
129	70.0	40.5	100.5

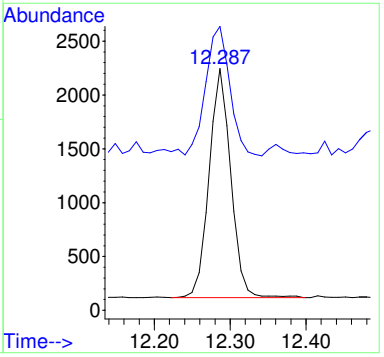


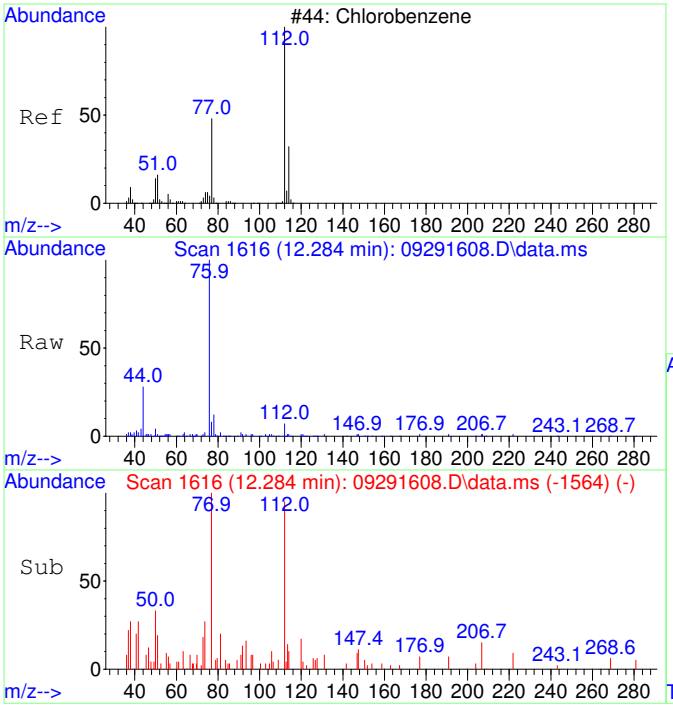


#31
Chlorobenzene
Concen: 52.98 ug/L
RT: 12.287 min Scan# 1627
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:112 Resp: 4238

Ion	Ratio	Lower	Upper
112	100		
77	62.0	25.1	85.1

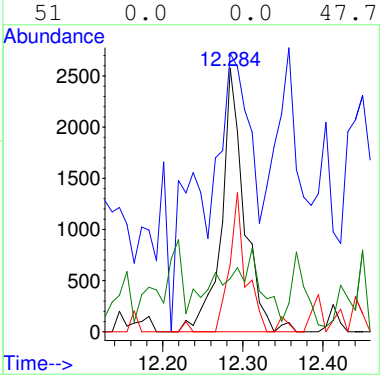


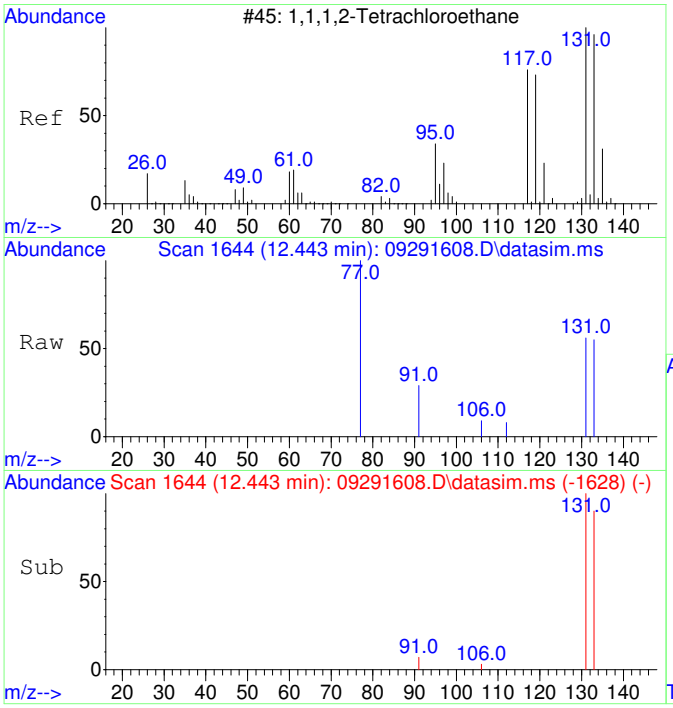


#32
Chlorobenzene SCAN
Concen: 76.79 ug/L
RT: 12.284 min Scan# 1616
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:112 Resp: 5113

Ion	Ratio	Lower	Upper
112	100		
77	76.2	23.6	83.6
114	37.6	0.9	60.9
51	0.0	0.0	47.7

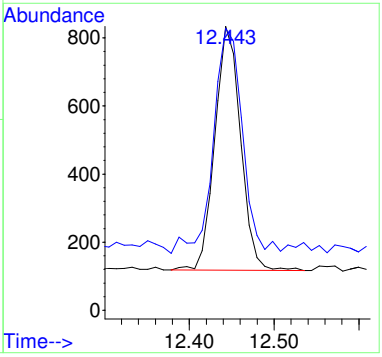


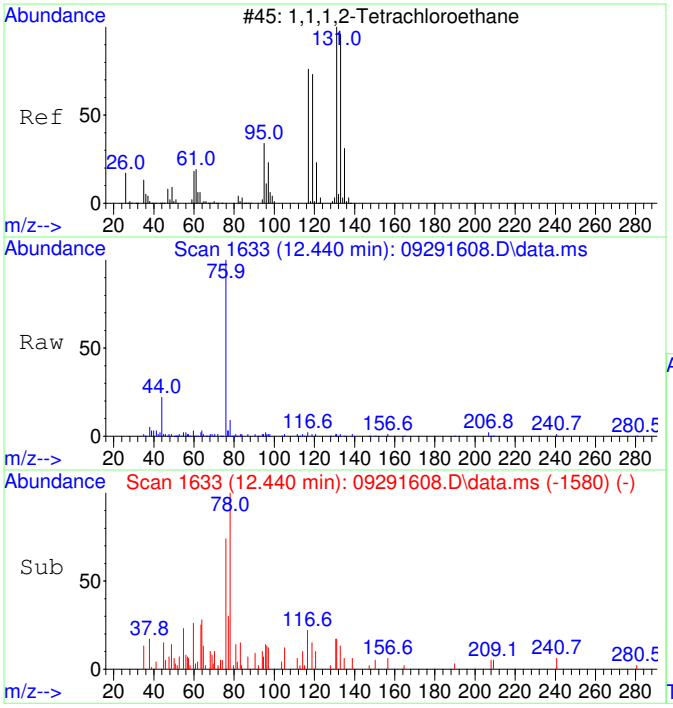


#33
1,1,1,2-Tetrachloroethane
Concen: 52.22 ug/L
RT: 12.443 min Scan# 1644
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:131 Resp: 1498

Ion	Ratio	Lower	Upper
131	100		
133	92.7	64.8	124.8

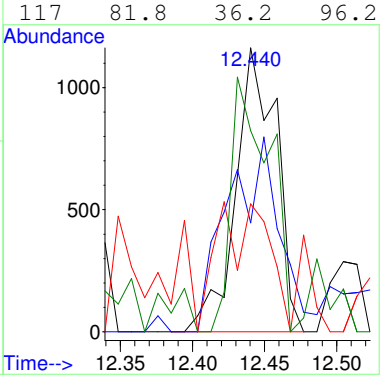


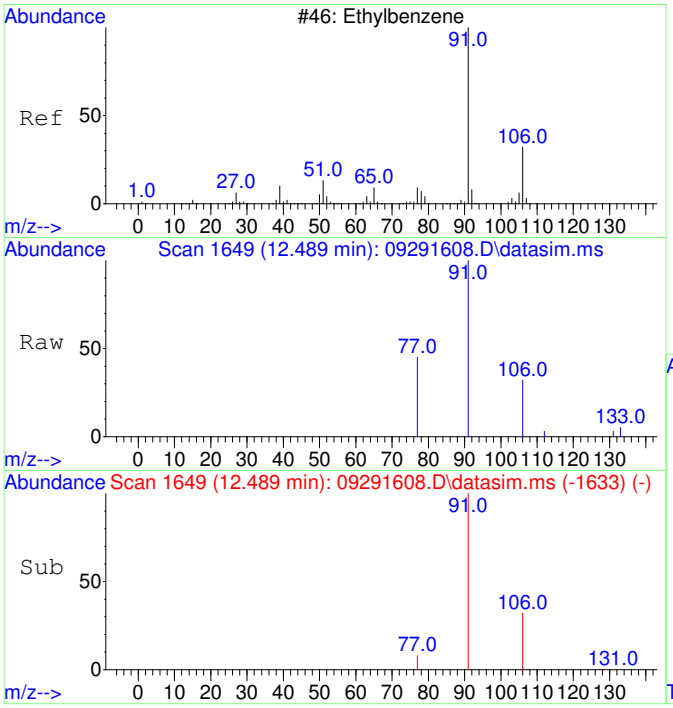


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 96.84 ug/L
RT: 12.440 min Scan# 1633
Delta R.T. -0.009 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:131 Resp: 2284

Ion	Ratio	Lower	Upper
131	100		
133	79.6	64.7	124.7
119	0.0	34.9	94.9#
117	81.8	36.2	96.2

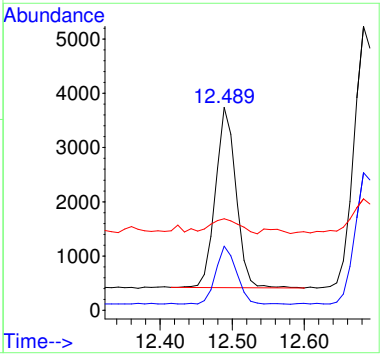


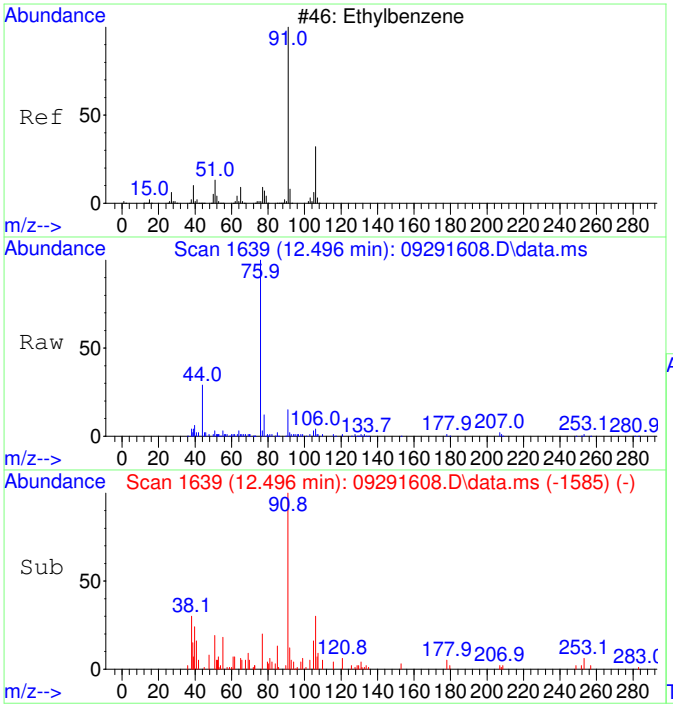


#35
Ethylbenzene
Concen: 51.10 ug/L
RT: 12.489 min Scan# 1649
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 6597

Ion	Ratio	Lower	Upper
91	100		
106	31.9	1.7	61.7
77	9.4	0.0	38.3

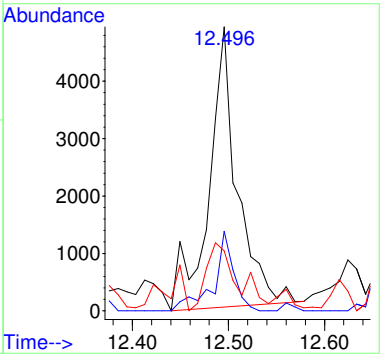


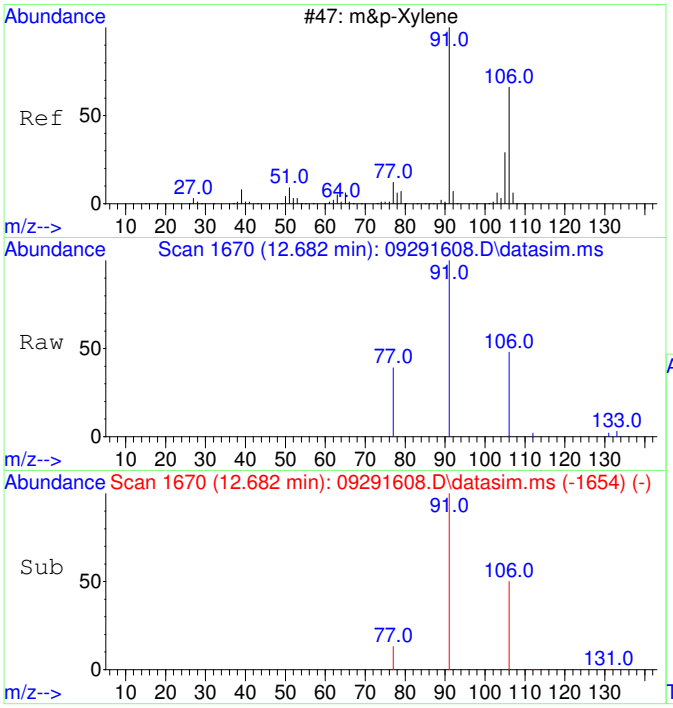


#36
Ethylbenzene SCAN
Concen: 95.61 ug/L
RT: 12.496 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 10055

Ion	Ratio	Lower	Upper
91	100		
106	20.1	2.3	62.3
51	23.9	0.0	39.6

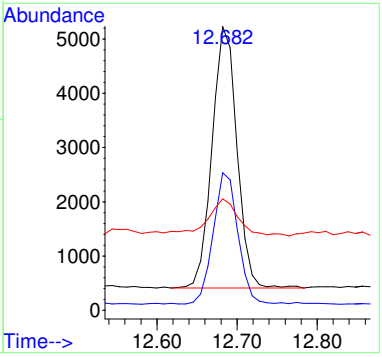


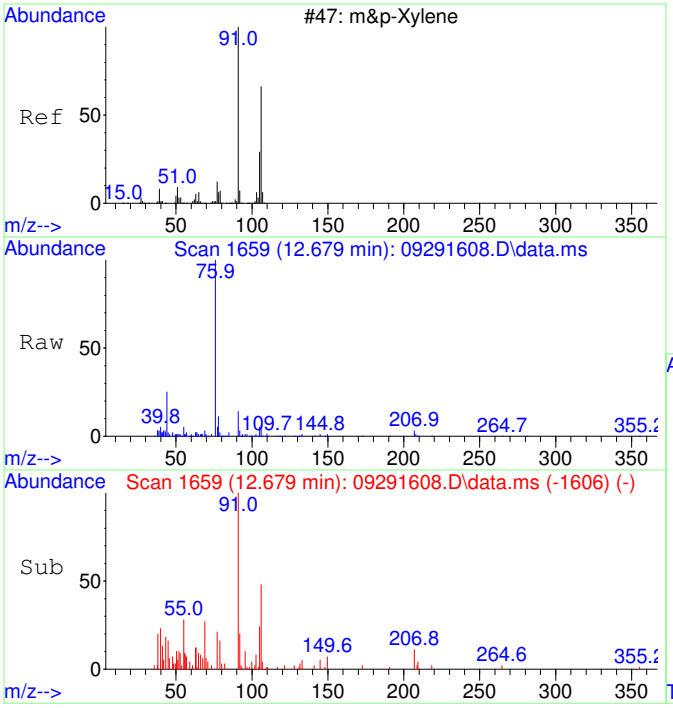


#37
m&p-Xylene
Concen: 102.68 ug/L
RT: 12.682 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 10388

Ion	Ratio	Lower	Upper
91	100		
106	50.1	19.4	79.4
77	13.0	0.0	42.6

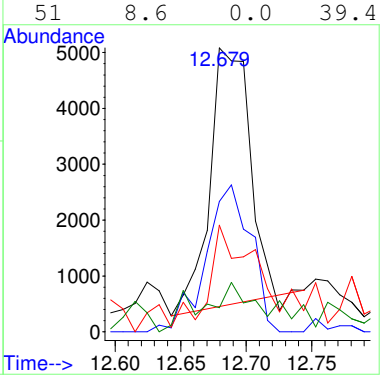


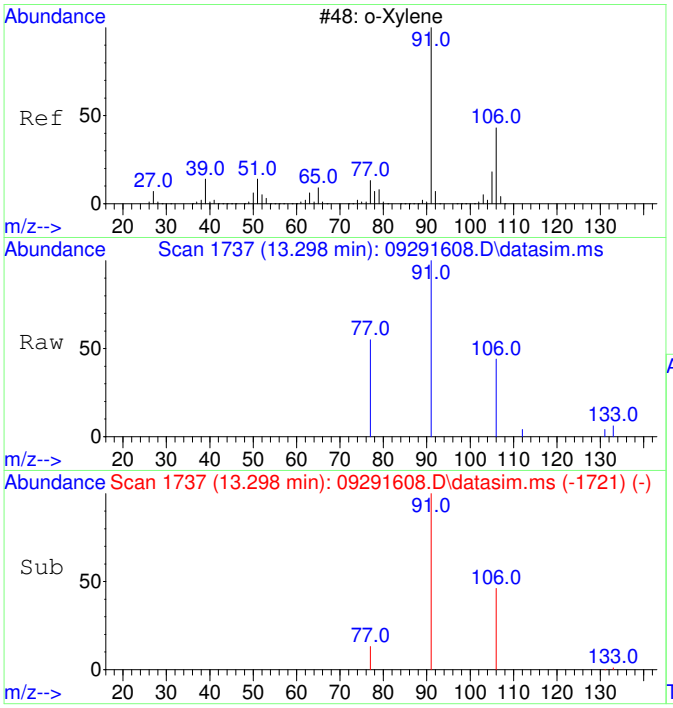


#38
m&p-Xylene SCAN
Concen: 117.73 ug/L
RT: 12.679 min Scan# 1659
Delta R.T. -0.009 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 9788

Ion	Ratio	Lower	Upper
91	100		
106	64.6	18.0	78.0
105	36.4	0.0	53.1
51	8.6	0.0	39.4

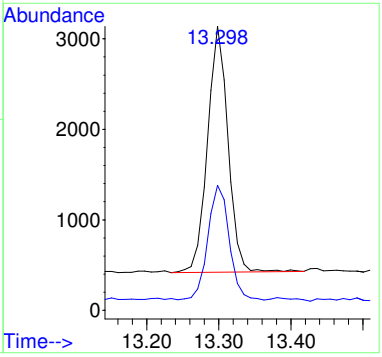


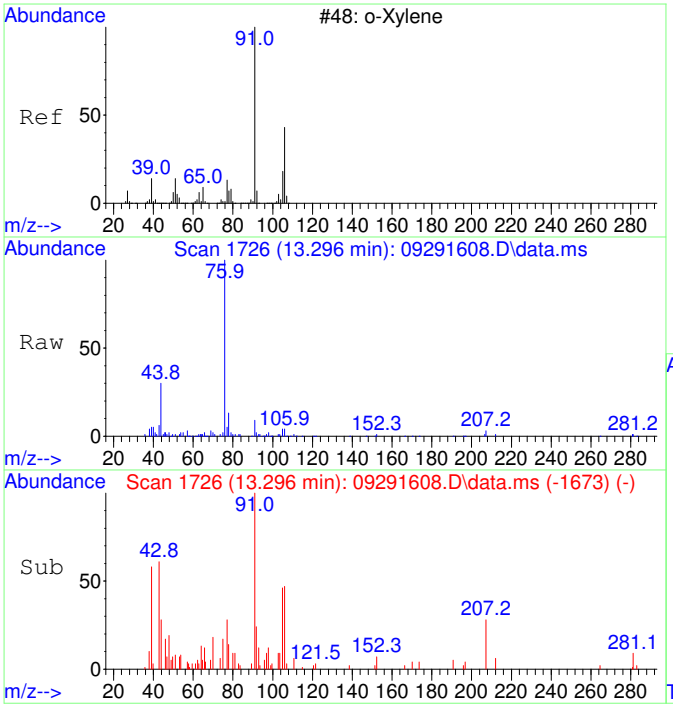


#39
o-Xylene
Concen: 51.32 ug/L
RT: 13.298 min Scan# 1737
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 5353

Ion	Ratio	Lower	Upper
91	100		
106	47.6	17.2	77.2

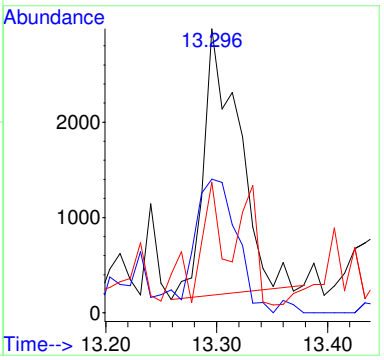


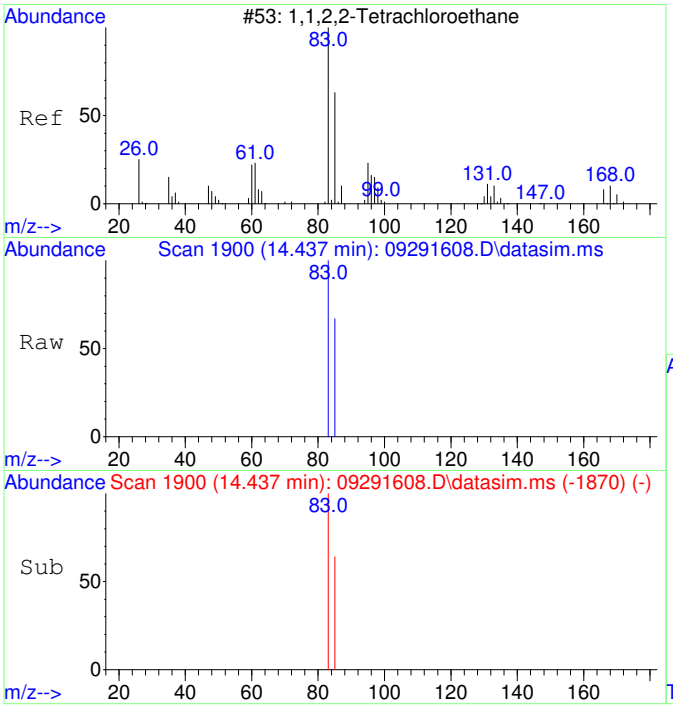


#40
o-Xylene SCAN
Concen: 70.32 ug/L
RT: 13.296 min Scan# 1726
Delta R.T. -0.009 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 91 Resp: 6116

Ion	Ratio	Lower	Upper
91	100		
106	52.7	18.0	78.0
105	17.2	0.0	56.8

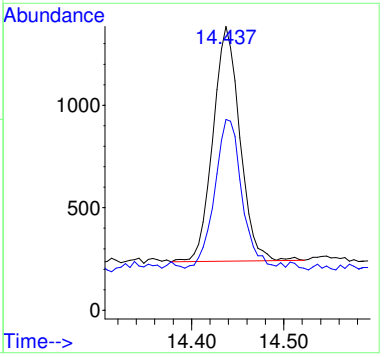


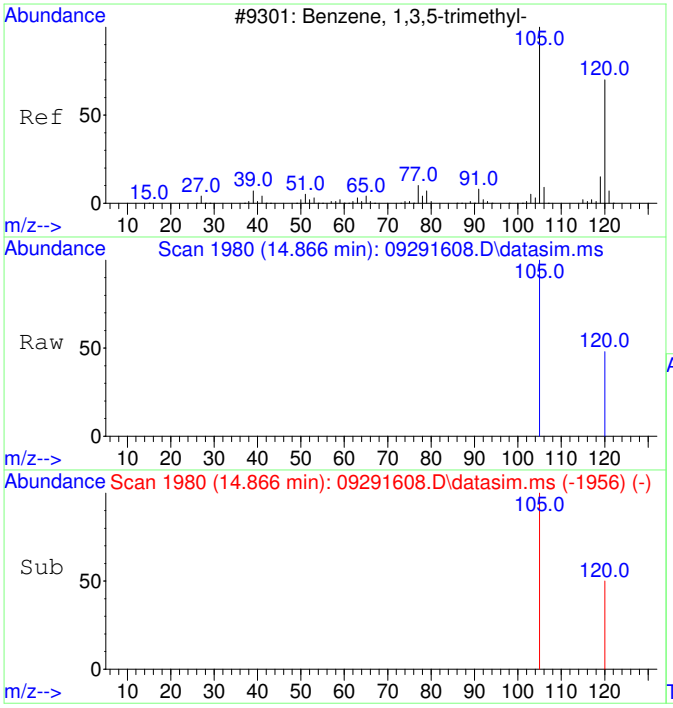


#41
1,1,2,2-Tetrachloroethane
Concen: 51.65 ug/L
RT: 14.437 min Scan# 1900
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion: 83 Resp: 2327

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.4	94.4

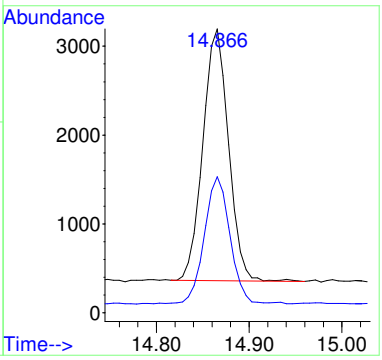


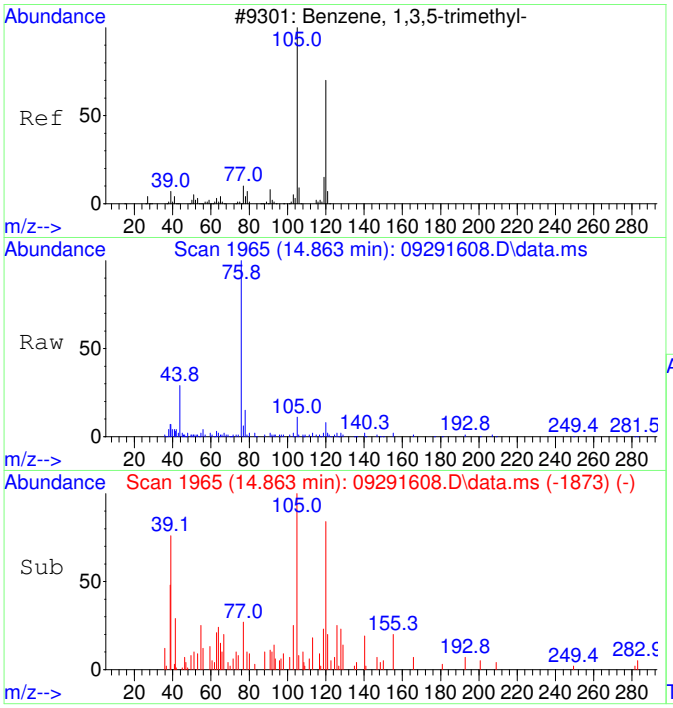


#43
1,3,5-Trimethylbenzene
Concen: 50.79 ug/L
RT: 14.866 min Scan# 1980
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5455

Ion	Ratio	Lower	Upper
105	100		
120	50.6	19.7	79.7

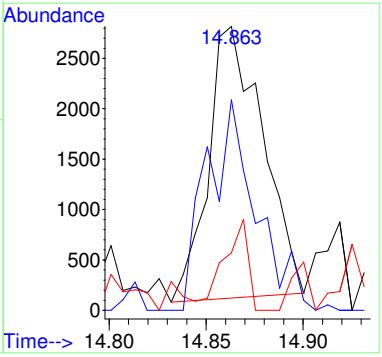


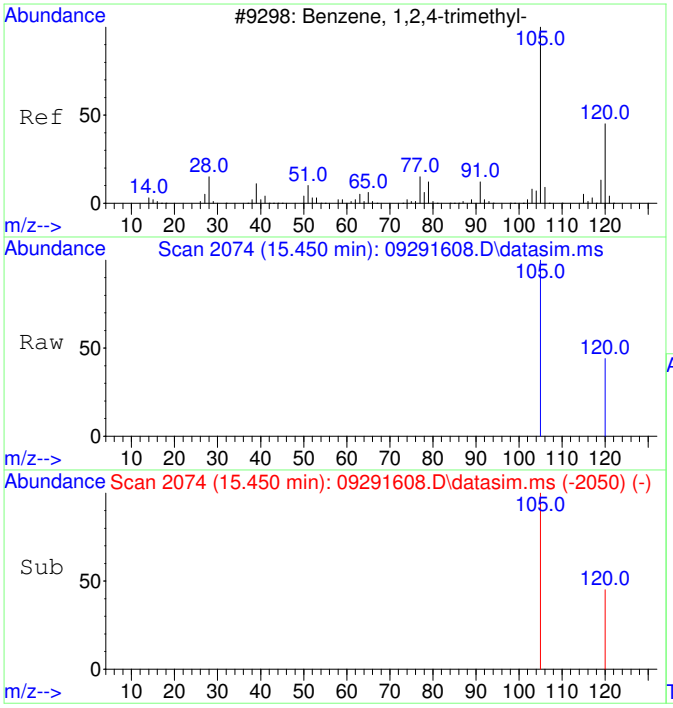


#44
1,3,5-Trimethylbenzene SCAN
Concen: 62.10 ug/L
RT: 14.863 min Scan# 1965
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5276

Ion	Ratio	Lower	Upper
105	100		
120	70.9	22.1	82.1
119	13.0	0.0	42.9

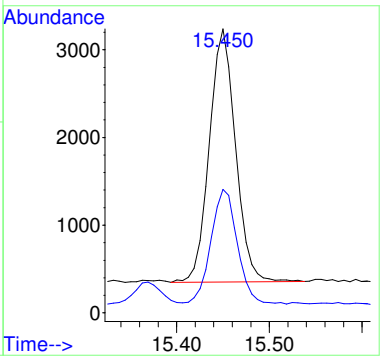


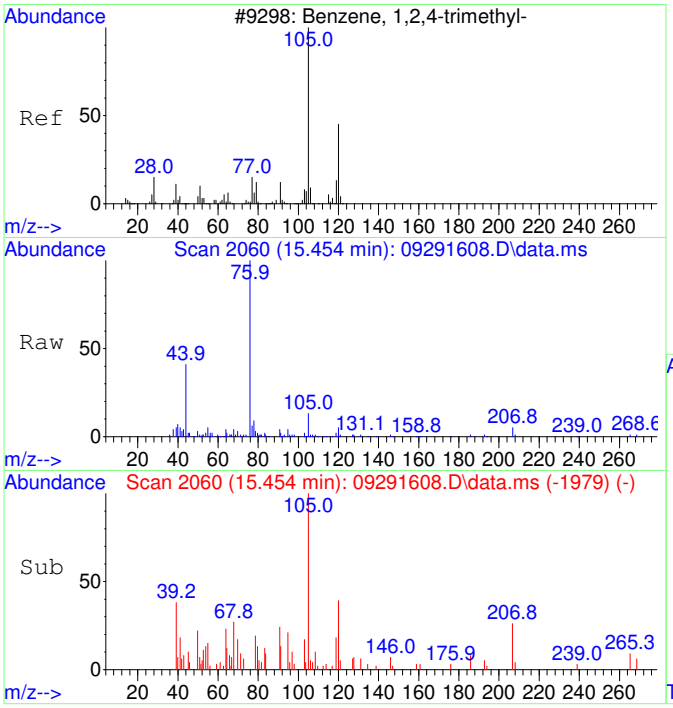


#45
1,2,4-Trimethylbenzene
Concen: 51.38 ug/L
RT: 15.450 min Scan# 2074
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5669

Ion	Ratio	Lower	Upper
105	100		
120	44.8	15.7	75.7

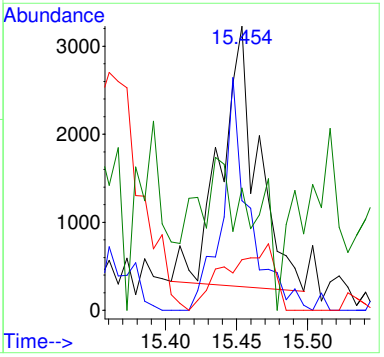


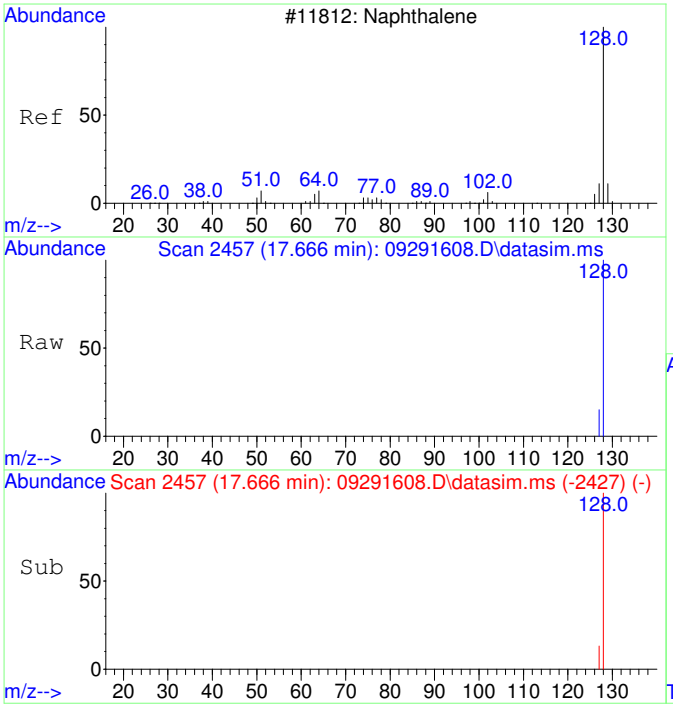


#46
1,2,4-Trimethylbenzene SCAN
Concen: 59.89 ug/L
RT: 15.454 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:105 Resp: 5339

Ion	Ratio	Lower	Upper
105	100		
120	65.1	17.2	77.2
119	0.0	0.0	41.3
77	59.4	0.0	43.1#

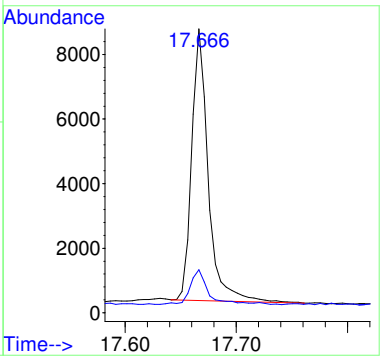


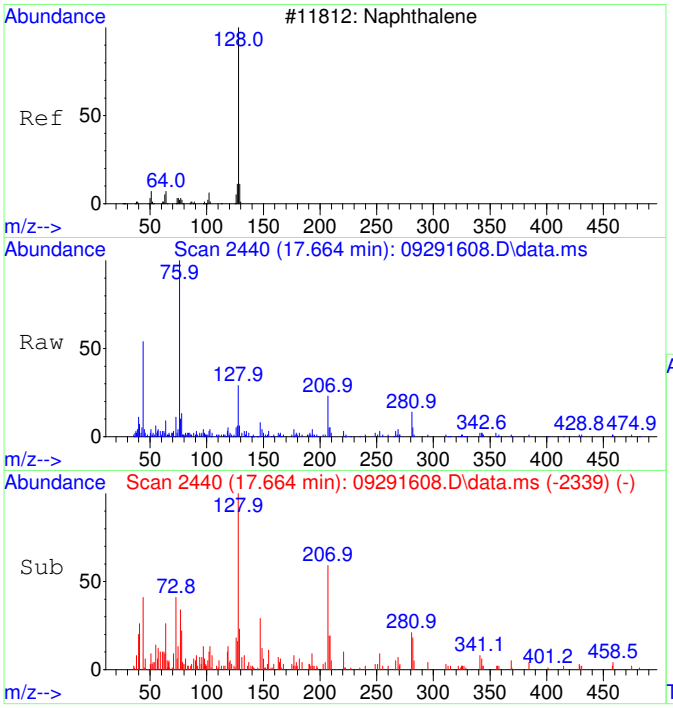


#47
Naphthalene
Concen: 49.92 ug/L
RT: 17.666 min Scan# 2457
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:128 Resp: 8622

Ion	Ratio	Lower	Upper
128	100		
127	14.2	0.0	42.6

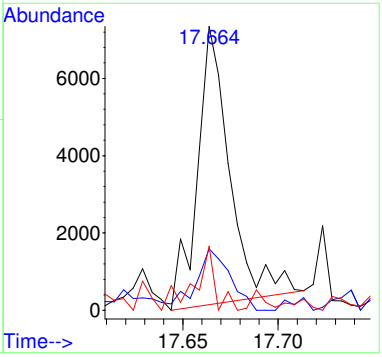




#48
Naphthalene SCAN
Concen: 63.74 ug/L
RT: 17.664 min Scan# 2440
Delta R.T. -0.000 min
Lab File: 09291608.D
Acq: 30 Sep 2016 6:07

Tgt Ion:128 Resp: 8575

Ion	Ratio	Lower	Upper
128	100		
127	20.0	0.0	43.1
129	14.6	0.0	41.0



S16I099-SCV1

SCV REPORT

Instrument Name: AG5975C
Sample Name: S16I099-SCV1
Misc Info: 1635078 5 mg/L
Date Acquired: 9/30/2016
QLast Update: Fri Sep 30 09:11:34 2016
Operator: RH

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	Fluorobenzene	7.476	5000	5000.00	100%	70	130	pass
3)	1,1-Dichloroethene	2.728	5000	5334.03	107%	70	130	pass
5)	trans-1,2-Dichloroethene	3.841	5000	5111.22	102%	70	130	pass
7)	1,1-Dichloroethane	4.528	5000	5128.62	103%	70	130	pass
9)	cis-1,2-Dichloroethene	5.553	5000	5174.41	103%	70	130	pass
11)	Chloroform	6.142	5000	4904.25	98%	70	130	pass
13)	1,1,1-Trichloroethane	6.371	5000	5093.60	102%	70	130	pass
15)	Carbon tetrachloride	6.639	5000	4972.81	99%	70	130	pass
17)	Benzene	6.988	5000	4922.62	98%	70	130	pass
19)	1,2-Dichloroethane	7.055	5000	5079.64	102%	70	130	pass
21)	Trichloroethene	8.062	5000	4876.94	98%	70	130	pass
23)	Toluene-d8	9.998	5000	4745.04	95%	70	130	pass
25)	Toluene	10.099	5000	4718.21	94%	70	130	pass
27)	1,1,2-Trichloroethane	10.778	5000	4806.23	96%	70	130	pass
29)	Tetrachloroethene	10.926	5000	4529.41	91%	70	130	pass
31)	Chlorobenzene	12.287	5000	4597.18	92%	70	130	pass
33)	1,1,1,2-Tetrachloroethane	12.443	5000	4677.01	94%	70	130	pass
35)	Ethylbenzene	12.489	5000	4544.88	91%	70	130	pass
37)	m&p-Xylene	12.682	10000	9104.10	91%	70	130	pass
39)	o-Xylene	13.298	5000	4418.29	88%	70	130	pass
41)	1,1,2,2-Tetrachloroethane	14.437	5000	4544.34	91%	70	130	pass
43)	1,3,5-Trimethylbenzene	14.866	5000	4470.41	89%	70	130	pass
45)	1,2,4-Trimethylbenzene	15.450	5000	4290.60	86%	70	130	pass
47)	Naphthalene	17.666	5000	4342.98	87%	70	130	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291609.D
Acq On : 30 Sep 2016 6:31
InstName : AG5975C
Operator : RH
Sample : S16I099-SCV1
Misc : 1635078 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 30 09:12:06 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

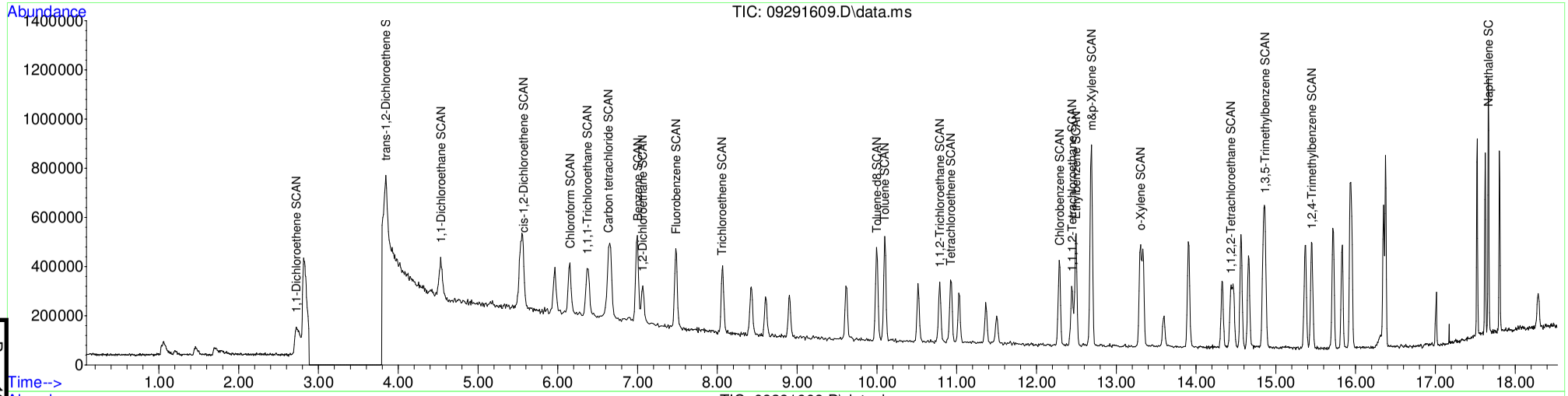
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.483	96	407676	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	343525	4745.04	ug/L	0.00
Spiked Amount 5000.000 Range 70 - 130 Recovery = 94.90%						
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.480	96	364636	5035.67	ug/L	99
3] 1,1-Dichloroethene	2.723	61	234512	5334.03	ug/L	100
4) 1,1-Dichloroethene SCAN	2.721	61	212675	5507.33	ug/L	98
5] trans-1,2-Dichloroethene	3.841	61	205723	5111.22	ug/L	100
6) trans-1,2-Dichloroethe...	3.846	61	181891	5302.91	ug/L	98
7] 1,1-Dichloroethane	4.535	63	243584	5128.62	ug/L	100
8) 1,1-Dichloroethane SCAN	4.533	63	220904	5292.40	ug/L	97
9] cis-1,2-Dichloroethene	5.553	61	219077	5174.41	ug/L	100
10) cis-1,2-Dichloroethene...	5.566	61	190809	5055.88	ug/L	98
11] Chloroform	6.142	83	237300	4904.25	ug/L	100
12) Chloroform SCAN	6.153	83	208647	5012.86	ug/L	98
13] 1,1,1-Trichloroethane	6.370	97	214329	5093.60	ug/L	100
14) 1,1,1-Trichloroethane ...	6.368	97	192642	5244.77	ug/L	98
15] Carbon tetrachloride	6.639	117	181255	4972.81	ug/L	100
16) Carbon tetrachloride SCAN	6.636	117	159170	4958.81	ug/L	94
17] Benzene	6.988	78	462665	4922.62	ug/L	100
18) Benzene SCAN	6.998	78	418697	4957.19	ug/L	94
19] 1,2-Dichloroethane	7.055	62	174408	5079.64	ug/L	100
20) 1,2-Dichloroethane SCAN	7.066	62	162483	5046.46	ug/L	96
21] Trichloroethene	8.061	130	129840	4876.94	ug/L	100
22) Trichloroethene SCAN	8.059	95	103669	4862.19	ug/L	94
24) Toluene-d8 SCAN	9.995	98	311347	4892.41	ug/L	96
25] Toluene	10.099	91	420199	4718.21	ug/L	100
26) Toluene SCAN	10.097	91	372959	5123.99	ug/L	99
27] 1,1,2-Trichloroethane	10.778	97	101114	4806.23	ug/L	100
28) 1,1,2-Trichloroethane ...	10.787	97	95069	5538.29	ug/L	97
29] Tetrachloroethene	10.925	166	116285	4529.41	ug/L	100
30) Tetrachloroethene SCAN	10.923	166	101042	4902.28	ug/L	99
31] Chlorobenzene	12.286	112	269912	4597.18	ug/L	100
32) Chlorobenzene SCAN	12.284	112	228896	4683.19	ug/L	92
33] 1,1,1,2-Tetrachloroethane	12.443	131	98475	4677.01	ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.440	131	83771	4838.57	ug/L	96
35] Ethylbenzene	12.489	91	430700	4544.88	ug/L	100
36) Ethylbenzene SCAN	12.495	91	385618	4995.49	ug/L	98
37] m&p-Xylene	12.682	91	676080	9104.10	ug/L	100
38) m&p-Xylene SCAN	12.689	91	592821	9714.45	ug/L	97
39] o-Xylene	13.298	91	338284	4418.29	ug/L	100
40) o-Xylene SCAN	13.305	91	300228	4702.50	ug/L	98
41] 1,1,2,2-Tetrachloroethane	14.437	83	150271	4544.34	ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.435	83	132791	4641.85	ug/L	96
43] 1,3,5-Trimethylbenzene	14.865	105	352407	4470.41	ug/L	100
44) 1,3,5-Trimethylbenzene...	14.863	105	309625	4965.27	ug/L	96
45] 1,2,4-Trimethylbenzene	15.450	105	347494	4290.60	ug/L	100
46) 1,2,4-Trimethylbenzene...	15.454	105	301057	4600.47	ug/L	99
47] Naphthalene	17.666	128	550599	4342.98	ug/L	100
48) Naphthalene SCAN	17.664	128	464110	4699.72	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\092916\
Data File : 09291609.D
Acq On : 30 Sep 2016 6:31
InstName : AG5975C
Operator : RH
Sample : S16I099-SCV1
Misc : 1635078 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 30 09:12:06 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\092916_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration



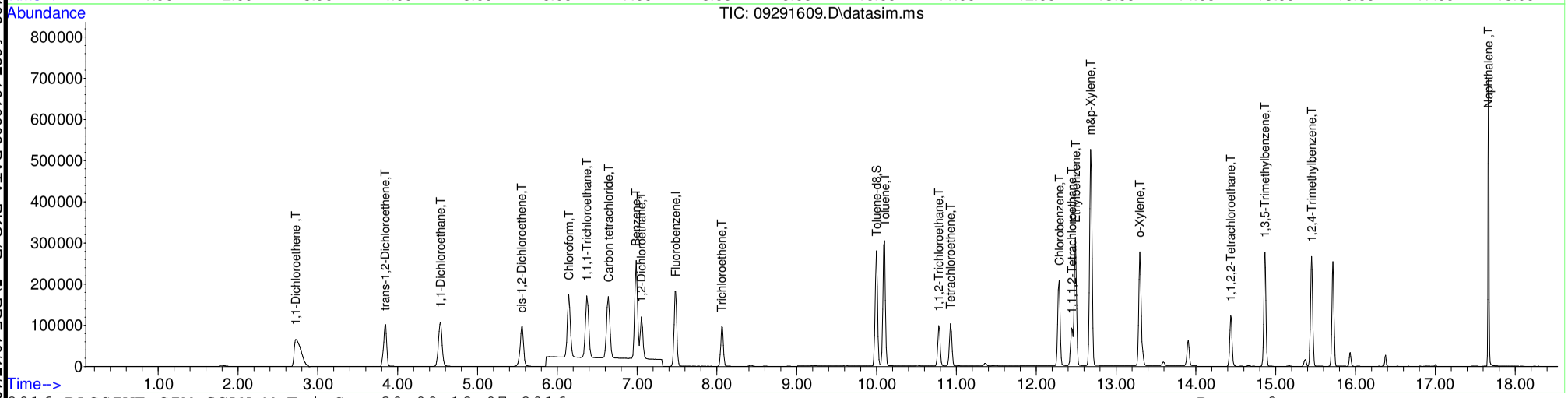


Table of Contents

SEQUENCE

S16J024

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B16J024	SEQUENCE #:	S16J024
BATCH #:		ANALYSIS:	VOA Passive indoor air

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
DOCUMENTATION	ANALYST: Bench sheet(s) attached? REVIEWER: Bench sheet(s) reviewed?	☐	Y	Y	
	ANALYST: Sequence log(s) attached? REVIEWER: Sequence log(s) reviewed?	☐	Y	Y	
	ANALYST: Every run has a PDF in LIMS? REVIEWER: Every PDF reviewed?	☐	Y	Y	
INITIAL CALIBRATION	Date of Initial Calibration used: If applicable, note date of "Last Update" in Comments.	Fri Sep 30 09:11:34 2016			
	Initial Calibration ID (LIMS number):	1609022			
	ICAL within QC criteria?	✔			
	SCV within QC criteria?	✔			
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?	☐	Y	Y	
	CCV(s) within QC criteria?	☐	Y	Y	
	QLS(s) within QC criteria?	☐	Y	Y	
	CB(s) or storage blank(s) within QC criteria?	✔			
	Other instrument checks within QC criteria? Specify if applicable.	✔			
BATCH QCs	Method blanks < 1/2 QL?	☐	Y	Y	
	LCS(s) or SRM(s) within QC criteria?	☐	Y	Y	
	MSs/MSDs and/or DUPs within QC criteria?	✔			
	Other method-specific QCs within QC criteria? Specify if applicable.	✔			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B16J024	SEQUENCE #:	S16J024
BATCH #:		ANALYSIS:	VOA Passive indoor air

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	Y	Y	
	Surrogates within QC criteria?	☐	Y	Y	
SAMPLE DATA	Were samples prepared & analyzed within holding time?	☐	Y	Y	
	If samples need to be re-run, were RE(s) made in LIMS?	☐	Y	Y	
	Do any samples need to be re-digested or re-extracted?	☐	N	N	
	Were all data qualifiers appropriately applied?	☐	Y	Y	
	Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable.	✔			
MANUAL INT	Were manual integrations performed and documented? Specify if applicable.	☐	Y	Y	

APPROVALS	ANALYST INITIALS & DATE:	RH 10/10/16
	REVIEWED BY:	Ziyad Rajabi (affiliate) Digitally signed by Ziyad Rajabi (affiliate) Date: 2016.10.14 09:43:08 -07'00' SIGN HERE

COMMENTS

FORM #: Q015
REV #: 1

Injection Log

Operator: RH
Directory: C:\msdchem\1\Ravioli Data\2016\100616\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	10061601.D	1	S16J024-IBL1		6 Oct 2016 11:30
2	10061602.D	1	S16J024-TUN1	BFB 1626027	6 Oct 2016 11:54
3	10061603.D	1	S16J024-CCV1	16335074 5 mg/L	6 Oct 2016 12:18
2	10061604.D	1	S16J024-TUN2	BFB 1626027	6 Oct 2016 12:43
3	10061605.D	1	S16J024-CCV2	BFB 1626027	6 Oct 2016 13:07
4	10061606.D	1	S16J024-CRL1	1635077 0.05 mg/L	6 Oct 2016 13:30
4	10061607.D	1	S16J024-CRL2	1635077 0.05 mg/L	6 Oct 2016 13:56
5	10061608.D	1	B16J024-BLK1		6 Oct 2016 14:31
6	10061609.D	1	B16J024-BS1		6 Oct 2016 14:54
7	10061610.D	1	B16J024-BSD1		6 Oct 2016 15:18
8	10061611.D	1	1610002-01		6 Oct 2016 15:42
9	10061612.D	1	1610002-02		6 Oct 2016 16:06
10	10061613.D	1	1610002-03		6 Oct 2016 16:30
11	10061614.D	1	1610002-04		6 Oct 2016 16:54
12	10061615.D	1	1610002-05		6 Oct 2016 17:17
13	10061616.D	1	1610002-06		6 Oct 2016 17:41
1	10061617.D	1	S16J024-IBL2		6 Oct 2016 18:05

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2016\100616\10061602.D
Tune Time : 6 Oct 2016 11:54

Daily Calibration File : C:\msdchem\1\Ravioli Data\2016\100616\10061605.D

449950

File	Sample	Surrogate Recovery %	Internal Standard Responses
10061606.D			
	S16J024-CR	1*	465175
10061607.D			
	S16J024-CR	1*	446935
10061608.D			
	B16J024-BL	103	487937
10061609.D			
	B16J024-BS	100	491225
10061610.D			
	B16J024-BS	100	515496
10061611.D			
	1610002-01	99	479634
10061612.D			
	1610002-02	103	559672
10061613.D			
	1610002-03	110	647161
10061614.D			
	1610002-04	99	598709
10061615.D			
	1610002-05	99	688064
10061616.D			
	1610002-06	117	672810

(fails) - fails 12hr time check * - fails criteria

Created: Mon Oct 10 11:50:09 2016 AG5975C

Analysis Sequence

S16J024

Project: R17S02
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1609022 Printed: 10/10/2016 2:59 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S16J024-IBL1	Instrument Blank	1	10/6/16 11:30			RH	10061601.D	
S16J024-TUN1	BFB	2	10/6/16 11:54	1626027		RH	10061602.D	
S16J024-CCV1	1635074	3	10/6/16 12:18	1635074		RH	10061603.D	
S16J024-TUN2	BFB	4	10/6/16 12:43	1626027		RH	10061604.D	
S16J024-CCV2	1635074	5	10/6/16 13:07	1635074		RH	10061605.D	
S16J024-CRL1	1635077	6	10/6/16 13:30	1635077		RH	10061606.D	
S16J024-CRL2	1610057	7	10/6/16 13:56	1635077		RH	10061607.D	
B16J024-BLK1	Blank	8	10/6/16 14:31			RH	10061608.D	
B16J024-BS1	LCS	9	10/6/16 14:54			RH	10061609.D	
B16J024-BSD1	LCS Dup	10	10/6/16 15:18			RH	10061610.D	
1610002-01 A	870 Leong-K-BZ-4d	11	10/6/16 15:42			RH	10061611.D	
1610002-02 A	870 Leong-MBath1-BZ-4d	12	10/6/16 16:06			RH	10061612.D	
1610002-03 A	870 Leong-WBath2-BZ-4d	13	10/6/16 16:30			RH	10061613.D	
1610002-04 A	870 Leong-OUT-4d	14	10/6/16 16:54			RH	10061614.D	
1610002-05 A	F5-054-5ft-4d	15	10/6/16 17:17			RH	10061615.D	
1610002-06 A	F5-054-10ft-4d	16	10/6/16 17:41			RH	10061616.D	
S16J024-IBL2	Instrument Blank	17	10/6/16 18:05			RH	10061617.D	

Sequence Comments

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Analysis Sequence

S16J024

(Continued)

Project: R17S02
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1609022 Printed: 10/10/2016 2:59 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments

Reagents

Reagent #	Description

SEQUENCE DATA

S16J024

S16J024-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061601.D
Acq On : 6 Oct 2016 11:30
InstName : AG5975C
Operator : RH
Sample : S16J024-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 13:16:21 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

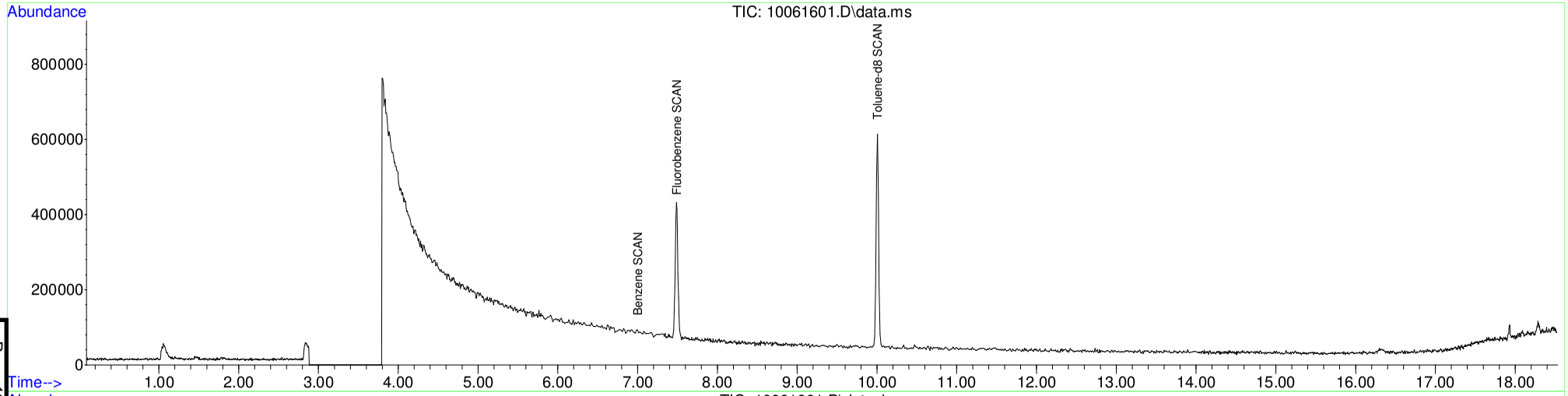
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.489	96	470684	5000.00	ug/L	0.01
System Monitoring Compounds						
23) Toluene-d8	10.008	98	540245	6463.36	ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 129.27%			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.493	96	412838	4938.14	ug/L	98
17] Benzene	7.001	78	3903	35.97	ug/L	89
18) Benzene SCAN	6.998	78	9655	99.01	ug/L #	64
24) Toluene-d8 SCAN	10.006	98	466894	6354.51	ug/L	94

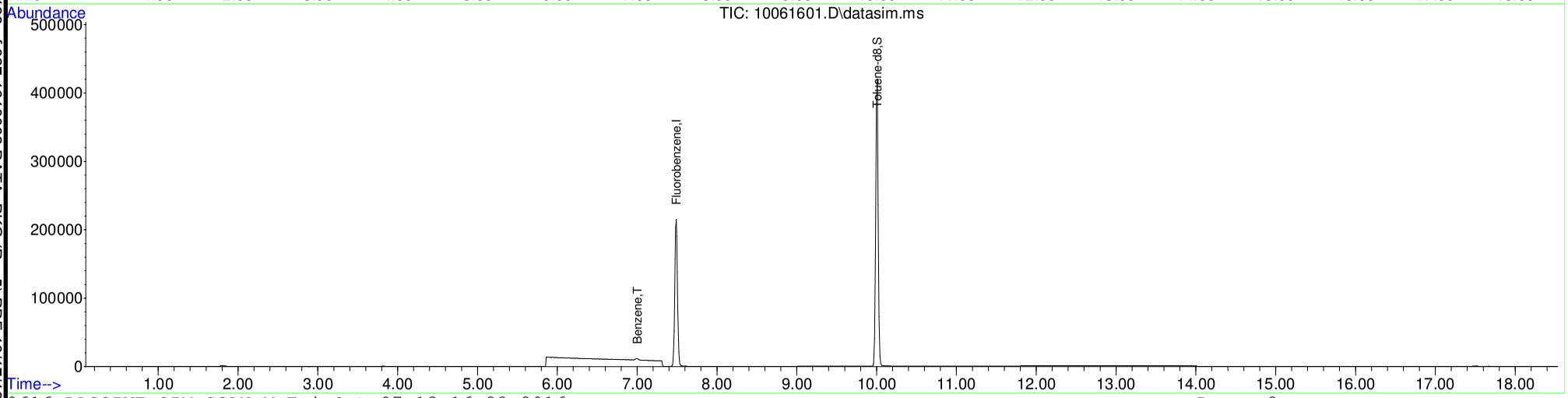
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061601.D
Acq On : 6 Oct 2016 11:30
InstName : AG5975C
Operator : RH
Sample : S16J024-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 13:16:21 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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S16J024-TUN1

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NOT USED

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Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061602.D
Acq On    :  6 Oct 2016  11:54
Operator  : RH
Sample    : S16J024-TUN1
Misc      : BFB   1626027
ALS Vial  : 2   Sample Multiplier: 1
InstName  : AG5975C

Integration File signal 1: Benzene.P
Integration File signal 2: rteint2.p

Method    : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Title     : Volatile Organic Analysis  -  Passive samplers
Last Update  : Fri Sep 30 09:11:34 2016
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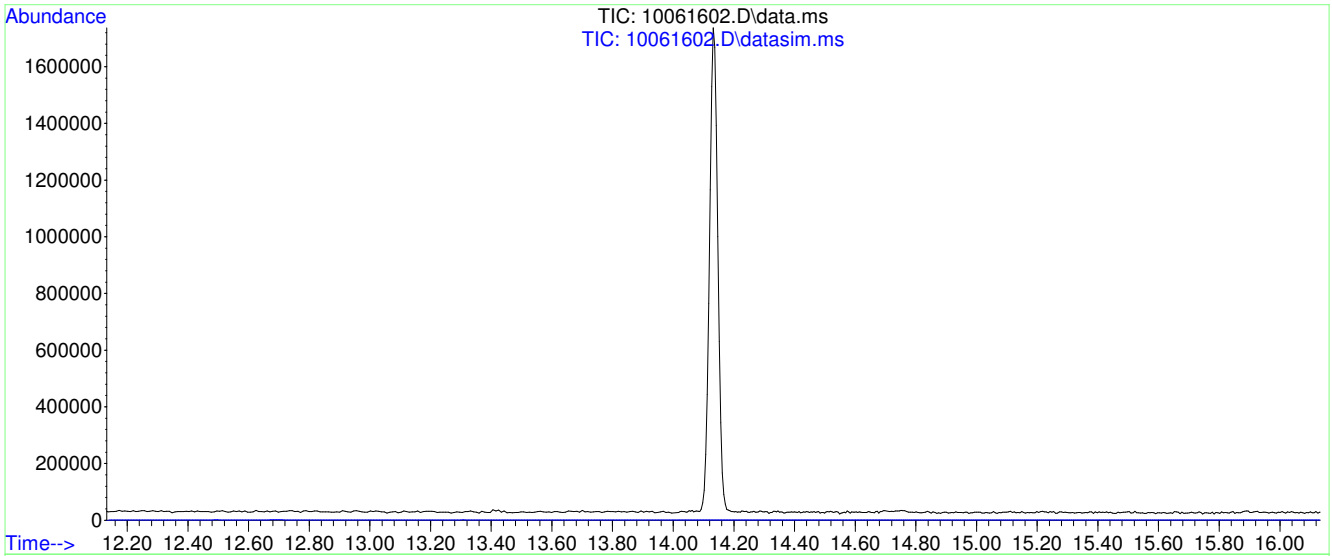
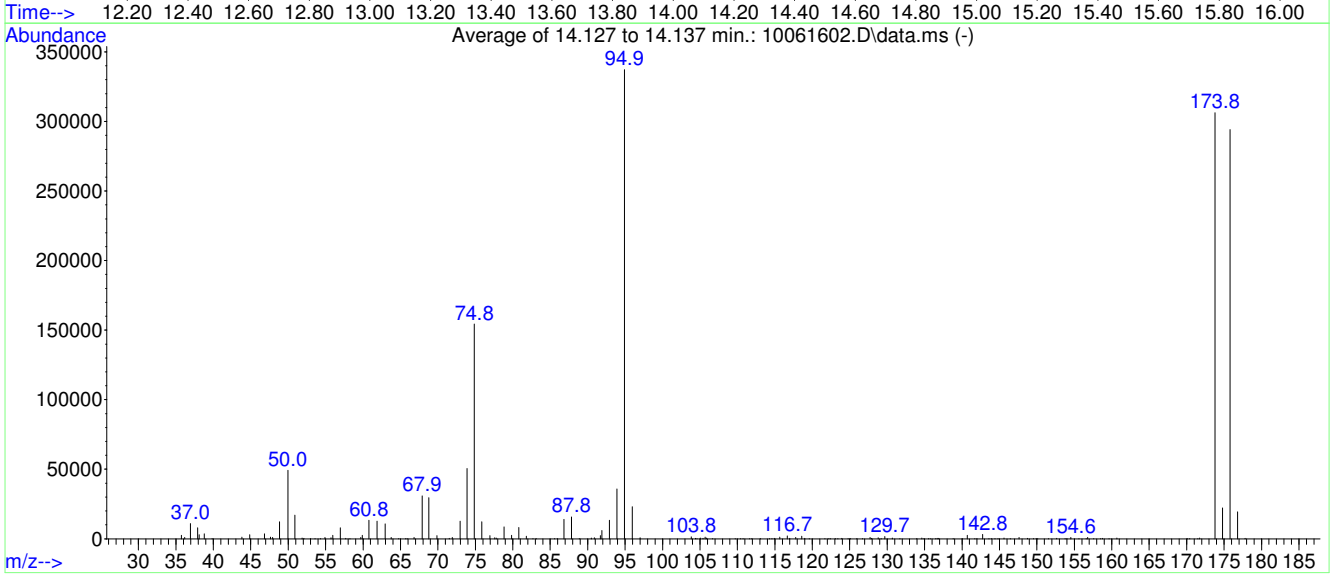




AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1814

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	14.6	49307	FAIL*
75	95	30	60	45.8	154486	PASS
95	95	100	100	100.0	337152	PASS
96	95	5	9	6.9	23107	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.8	306197	PASS
175	174	5	9	7.3	22283	PASS
176	174	95	101	96.0	294101	PASS
177	176	5	9	6.6	19296	PASS

Average of 14.127 to 14.137 min.: 10061602.D\data.ms
S16J024-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.75	2490	47.90	885	55.95	2446	65.70	30
36.20	1029	48.85	12201	56.95	7988	65.90	76
36.95	10892	49.95	49307	57.70	325	66.80	889
37.90	7906	50.90	16957	58.25	102	67.90	30909
38.10	3036	51.85	497	59.70	903	68.80	29455
38.80	3543	52.10	273	59.90	2474	69.85	2273
39.85	140	53.00	67	60.80	13391	71.50	371
43.80	1201	53.60	62	61.85	12720	71.90	948
44.85	2847	54.30	32	62.95	10708	72.95	12696
46.85	3501	54.90	990	63.75	1035	73.90	50531
47.65	1139	55.70	850	64.75	139	74.85	154486

Average of 14.127 to 14.137 min.: 10061602.D\data.ms
S16J024-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
75.85	12160	85.95	177	95.95	23107	110.45	178
76.95	2331	86.85	13870	97.00	809	110.75	129
77.60	715	87.85	15663	103.85	1315	111.65	71
77.80	616	88.90	22	104.40	393	111.90	85
78.85	8550	90.50	571	104.60	102	113.10	20
79.85	2515	90.90	759	105.05	456	114.30	143
80.80	8147	91.70	2369	105.40	395	114.60	192
81.80	1925	91.90	5997	105.70	1142	114.95	447
82.70	46	92.90	13265	105.90	519	115.65	1150
83.15	100	93.90	35763	106.70	19	116.65	2074
85.60	23	94.90	337152	109.70	207	117.00	444

Average of 14.127 to 14.137 min.: 10061602.D\data.ms
S16J024-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
117.80	1099	125.10	36	134.65	611	142.00	144
118.60	1867	125.95	117	134.90	207	142.75	3195
119.00	261	126.70	153	135.50	70	143.60	108
119.60	35	127.70	940	135.75	142	143.90	59
121.70	99	127.90	428	136.50	223	144.40	103
122.20	23	128.80	825	136.70	413	144.80	208
122.40	60	129.20	160	136.90	230	145.60	593
123.10	24	129.70	1596	138.80	38	146.45	116
123.40	81	130.70	621	140.00	32	147.60	994
123.95	275	131.70	18	140.70	2605	148.75	278
124.80	58	133.95	62	141.70	167	149.55	159

Average of 14.127 to 14.137 min.: 10061602.D\data.ms
S16J024-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
149.90	215	158.50	148	176.80	19296		
150.10	116	158.75	247	177.80	291		
151.55	86	159.65	167				
152.65	287	160.70	463				
153.75	158	170.10	38				
154.00	197	170.40	52				
154.55	1060	171.50	63				
155.60	179	171.75	481				
156.60	205	173.80	306197				
156.80	970	174.80	22283				
157.60	45	175.80	294101				

S16J024-CCV1

Quantitation Report (Not Reviewed)

NOT USED

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061603.D
Acq On : 6 Oct 2016 12:18
InstName : AG5975C
Operator : RH
Sample : S16J024-CCV1
Misc : 16335074 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Need to re-run the tune RH 10/7/16

Quant Time: Oct 06 12:37:00 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

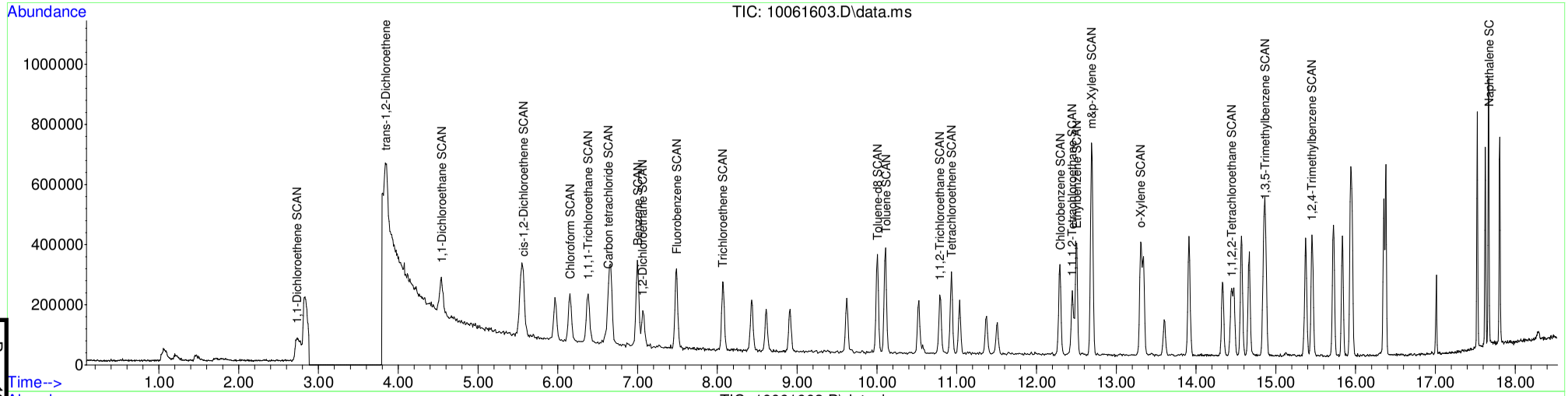
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.483	96	350653	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	311330	4999.66 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 99.99%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.487	96	306214	4916.55 ug/L	98
3] 1,1-Dichloroethene	2.733	61	165102	4365.97 ug/L	96
4) 1,1-Dichloroethene SCAN	2.736	61	153557	4623.09 ug/L	84
5] trans-1,2-Dichloroethene	3.849	61	150459	4346.08 ug/L	100
6) trans-1,2-Dichloroethe...	3.847	61	134046	4543.54 ug/L	93
7] 1,1-Dichloroethane	4.543	63	185327	4536.57 ug/L	100
8) 1,1-Dichloroethane SCAN	4.541	63	163779	4561.89 ug/L	97
9] cis-1,2-Dichloroethene	5.561	61	163325	4484.92 ug/L	100
10) cis-1,2-Dichloroethene...	5.566	61	144228	4443.09 ug/L	95
11] Chloroform	6.142	83	191268	4595.73 ug/L	100
12) Chloroform SCAN	6.153	83	179579	5016.10 ug/L	95
13] 1,1,1-Trichloroethane	6.384	97	177088	4892.94 ug/L	99
14) 1,1,1-Trichloroethane ...	6.381	97	156945	4967.75 ug/L	97
15] Carbon tetrachloride	6.639	117	151224	4823.59 ug/L	100
16) Carbon tetrachloride SCAN	6.636	117	138892	5030.73 ug/L	98
17] Benzene	6.988	78	386436	4780.19 ug/L	100
18) Benzene SCAN	6.999	78	345714	4758.73 ug/L	94
19] 1,2-Dichloroethane	7.055	62	136284	4614.76 ug/L	100
20) 1,2-Dichloroethane SCAN	7.066	62	144479	5217.01 ug/L	93
21] Trichloroethene	8.068	130	111112	4852.19 ug/L	99
22) Trichloroethene SCAN	8.066	95	94595	5158.09 ug/L	96
24) Toluene-d8 SCAN	10.006	98	269989	4932.44 ug/L	94
25] Toluene	10.099	91	369636	4825.41 ug/L	100
26) Toluene SCAN	10.108	91	320801	5124.13 ug/L	97
27] 1,1,2-Trichloroethane	10.790	97	85225	4709.75 ug/L	98
28) 1,1,2-Trichloroethane ...	10.787	97	76445	5177.54 ug/L	96
29] Tetrachloroethene	10.937	166	103192	4673.06 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	99370	5605.17 ug/L	97
31] Chlorobenzene	12.296	112	244049	4832.64 ug/L	97
32) Chlorobenzene SCAN	12.293	112	208204	4952.57 ug/L	95
33] 1,1,1,2-Tetrachloroethane	12.452	131	82393	4549.57 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.450	131	72157	4845.51 ug/L	96
35] Ethylbenzene	12.498	91	384559	4717.89 ug/L	99
36) Ethylbenzene SCAN	12.505	91	344949	5195.34 ug/L	99
37] m&p-Xylene	12.691	91	604417	9462.66 ug/L	98
38) m&p-Xylene SCAN	12.689	91	529858	10094.66 ug/L	96
39] o-Xylene	13.307	91	310117	4709.07 ug/L	99
40) o-Xylene SCAN	13.305	91	261181	4756.16 ug/L	97
41] 1,1,2,2-Tetrachloroethane	14.442	83	125682	4418.82 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.440	83	118300	4807.78 ug/L	99
43] 1,3,5-Trimethylbenzene	14.872	105	314945	4644.88 ug/L	99
44) 1,3,5-Trimethylbenzene...	14.869	105	269496	5024.54 ug/L	98
45] 1,2,4-Trimethylbenzene	15.456	105	321348	4613.00 ug/L	99
46) 1,2,4-Trimethylbenzene...	15.454	105	279086	4958.26 ug/L	99
47] Naphthalene	17.666	128	506365	4643.59 ug/L	100
48) Naphthalene SCAN	17.669	128	429307	5054.25 ug/L	99

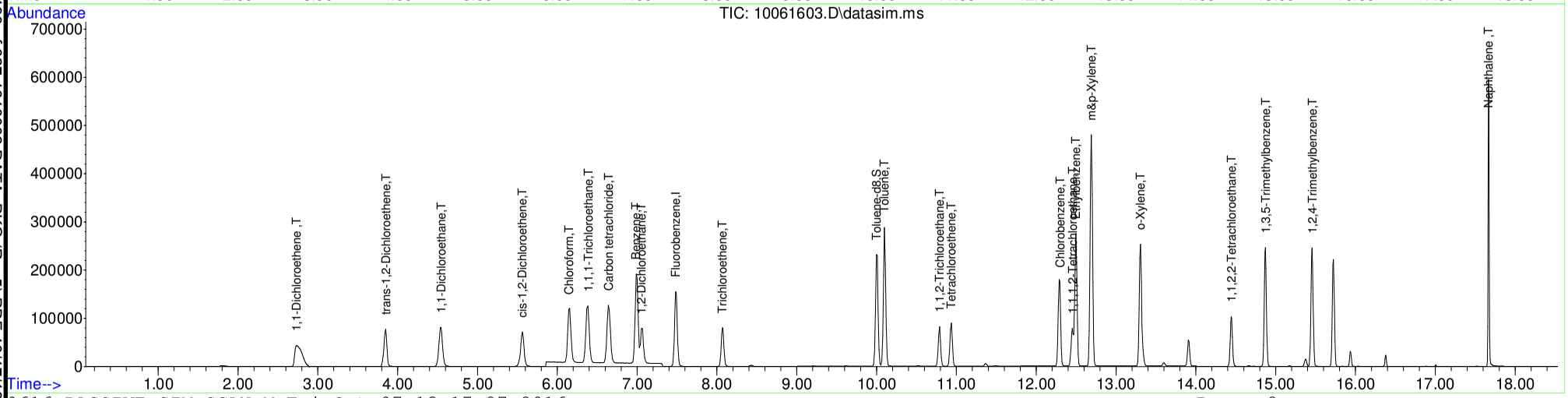
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061603.D
Acq On : 6 Oct 2016 12:18
InstName : AG5975C
Operator : RH
Sample : S16J024-CCV1
Misc : 16335074 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 06 12:37:00 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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S16J024-TUN2

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Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061604.D
Acq On    :  6 Oct 2016  12:43
Operator  : RH
Sample    : S16J024-TUN2
Misc      : BFB   1626027
ALS Vial  : 2   Sample Multiplier: 1
InstName  : AG5975C

Integration File signal 1: Benzene.P
Integration File signal 2: rteint2.p

Method    : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Title     : Volatile Organic Analysis  -  Passive samplers
Last Update  : Fri Sep 30 09:11:34 2016
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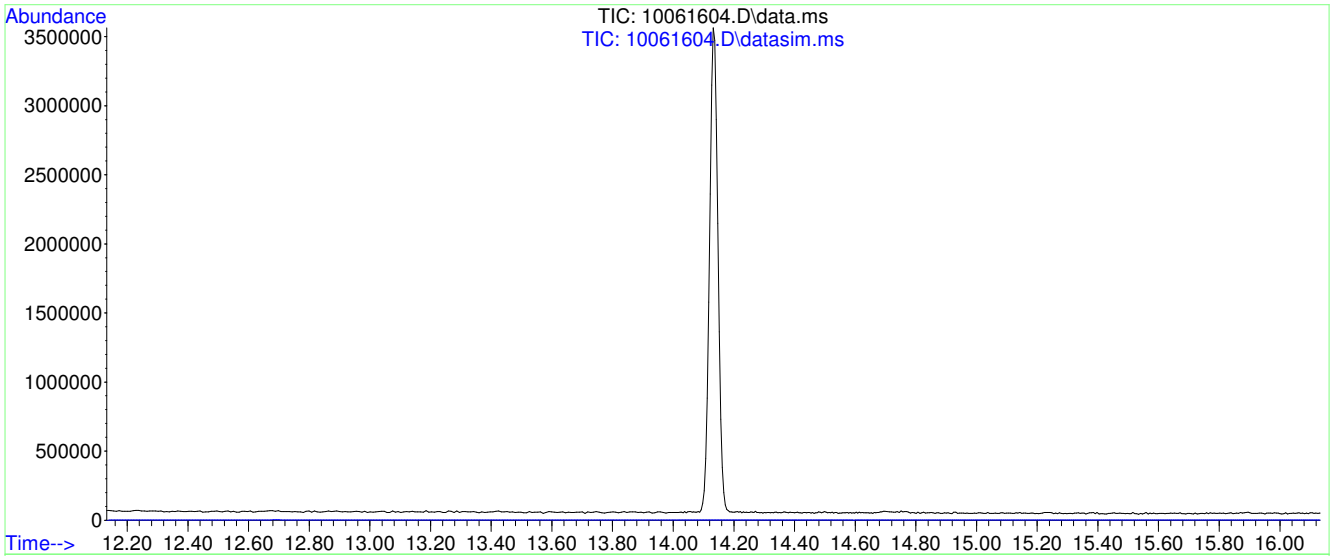
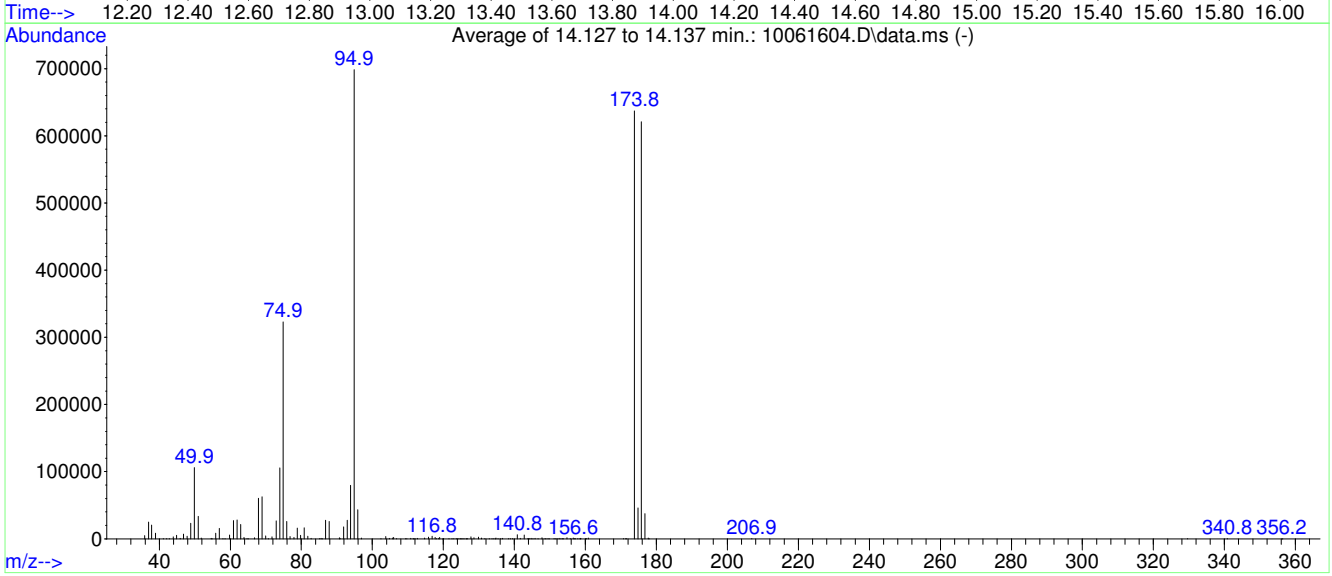




AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1815

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	105941	PASS
75	95	30	60	46.2	322773	PASS
95	95	100	100	100.0	698283	PASS
96	95	5	9	6.2	43176	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.3	637205	PASS
175	174	5	9	7.2	46024	PASS
176	174	95	101	97.4	620779	PASS
177	176	5	9	6.0	37400	PASS

Average of 14.127 to 14.137 min.: 10061604.D\data.ms
S16J024-TUN2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.85	4559	47.85	4026	59.80	5720	70.70	155
36.95	24680	48.85	23120	60.90	26965	71.70	2921
37.85	20431	49.90	105941	61.90	27997	72.90	26653
38.95	8318	50.95	33395	62.90	21371	73.90	105648
41.15	97	51.85	1269	63.85	1851	74.90	322773
42.10	46	54.65	821	64.70	167	75.90	25845
42.80	96	54.90	409	65.05	237	76.80	3556
43.95	3102	55.90	8255	66.85	1670	77.95	1870
44.85	4994	56.90	15665	67.90	60288	78.85	15955
45.90	490	57.90	250	68.90	62426	79.75	5007
46.85	7120	58.55	159	69.95	4090	80.80	16497

Average of 14.127 to 14.137 min.: 10061604.D\data.ms
S16J024-TUN2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
81.85	4018	93.90	79621	109.75	298	118.70	922
82.75	492	94.90	698283	110.80	530	118.95	2085
85.10	73	95.90	43176	111.50	167	119.80	18
85.55	645	96.90	1079	111.70	162	120.10	43
85.90	396	102.40	120	112.00	324	121.60	179
86.80	27495	103.75	3388	112.65	810	122.40	220
87.85	25715	104.80	915	114.70	975	122.95	62
90.70	1384	105.70	1083	115.85	2272	123.60	308
90.90	573	105.95	1988	116.80	3868	123.90	110
91.90	17859	106.80	363	117.65	2034	124.40	83
92.90	27619	109.40	190	118.10	479	124.80	176

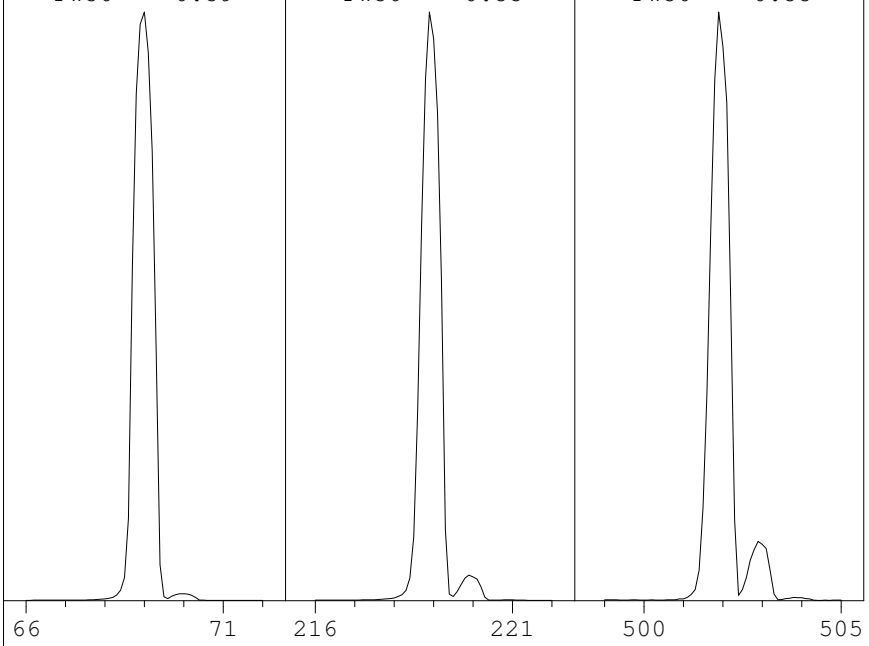
Average of 14.127 to 14.137 min.: 10061604.D\data.ms
S16J024-TUN2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
125.10	46	132.95	54	140.85	6211	148.60	51
125.50	95	133.70	232	141.70	583	148.85	280
125.80	131	134.20	143	142.80	5808	149.50	348
126.40	84	134.60	342	143.80	112	149.80	348
126.60	92	134.85	931	144.00	132	151.20	72
126.80	146	135.40	43	144.20	131	151.55	162
127.75	2906	136.20	64	144.70	864	152.00	80
128.65	1395	136.70	805	145.20	273	152.65	633
129.90	2559	138.40	48	145.80	894	153.10	213
130.75	1234	138.85	109	146.70	344	153.55	247
131.70	116	139.50	110	147.75	1528	153.80	159

Average of 14.127 to 14.137 min.: 10061604.D\data.ms
S16J024-TUN2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.80	1756	160.80	1089	329.60	46		
155.75	114	170.80	38	340.80	117		
156.60	950	171.35	75	356.20	24		
156.90	353	171.60	162				
157.20	286	173.80	637205				
157.85	123	174.80	46024				
158.50	178	175.80	620779				
158.60	368	176.80	37400				
158.75	482	177.75	1082				
160.10	66	178.00	341				
160.35	330	206.90	121				

Mass	69.00	Mass	218.90	Mass	501.90
Ab	912635	Ab	801643	Ab	65162
Pw50	0.59	Pw50	0.55	Pw50	0.55

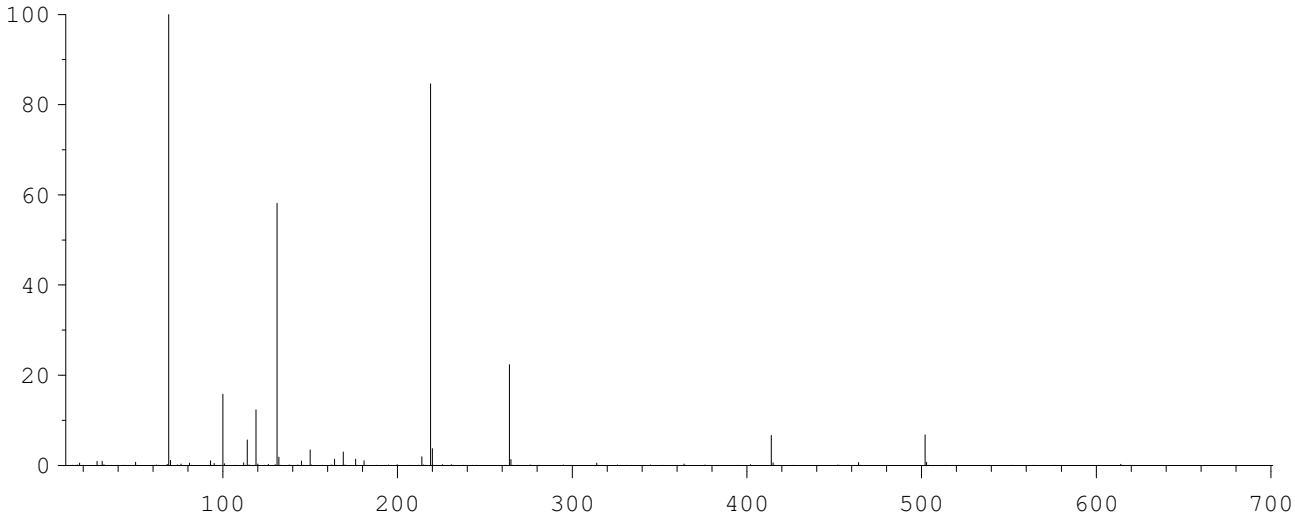


Ion Pol	Pos	MassGain	-1185
		MassOffs	-38
Emission	34.6	AmuGain	998
EIEnrgy	69.9	AmuOffs	124.00
Filament	2	Wid219	-0.009
		DC Pol	Pos
Repeller	34.81		
IonFcus	84.5	HEDEnab	On
EntLens	25.5	EMVolts	1776
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Turbo Speed	100
MS Quad	150	HiVac	0.00e00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
124 peaks Base: 69.00 Abundance: 870720



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	870720	100.00	70.00	9684	1.11
219.00	736896	84.63	220.00	32008	4.34
502.00	59328	6.81	503.00	6099	10.28

Air/Water Check: H20~0.50% N2~0.93% O2~0.20% CO2~0.03% N2/H2O~188.54%

Column(1) Flow: 0.97 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 60228
Repeller Maximum 35 volts using ion 219; Gain Factor 0.60

MassGain Values(Samples): -1176(3) -1166(2) -1157(1) -1124(0) -1081(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	124.0	124.0	124.0	124.0	124.0	124.0	124.0
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S16J024-CCV2

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061605.D
Acq On : 6 Oct 2016 13:07
InstName : AG5975C
Operator : RH
Sample : S16J024-CCV2
Misc : BFB 1626027
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 06 13:25:48 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.03min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	105	0.01
2		Fluorobenzene SCAN	0.888	0.889	-0.1	105	0.01
3	T	1,1-Dichloroethene	0.539	0.409	24.1	81	0.01
4		1,1-Dichloroethene SCAN	0.474	0.375	20.9	83	0.04#
5	T	trans-1,2-Dichloroethene	0.494	0.386	21.9	86	0.03#
6		trans-1,2-Dichloroethene SC	0.421	0.342	18.8	86	0.02
7	T	1,1-Dichloroethane	0.583	0.478	18.0	87	0.02
8		1,1-Dichloroethane SCAN	0.512	0.429	16.2	88	0.02
9	T	cis-1,2-Dichloroethene	0.519	0.430	17.1	88	0.02
10		cis-1,2-Dichloroethene SCAN	0.463	0.392	15.3	89	0.02
11	T	Chloroform	0.593	0.515	13.2	95	0.01
12		Chloroform SCAN	0.510	0.469	8.0	97	0.03
13	T	1,1,1-Trichloroethane	0.516	0.499	3.3	104	0.01
14		1,1,1-Trichloroethane SCAN	0.450	0.446	0.9	104	0.01
15	T	Carbon tetrachloride	0.447	0.440	1.6	106	0.01
16		Carbon tetrachloride SCAN	0.394	0.416	-5.6	111	0.03
17	T	Benzene	1.153	1.111	3.6	106	0.01
18		Benzene SCAN	1.036	1.029	0.7	105	0.03
19	T	1,2-Dichloroethane	0.421	0.379	10.0	96	0.01
20		1,2-Dichloroethane SCAN	0.395	0.364	7.8	97	0.01
21	T	Trichloroethene	0.327	0.333	-1.8	111	0.01
22		Trichloroethene SCAN	0.261	0.272	-4.2	109	0.00
23	S	Toluene-d8	0.888	1.012	-14.0	126	0.01
24		Toluene-d8 SCAN	0.781	0.876	-12.2	118	0.01
25	T	Toluene	1.092	1.199	-9.8	123	0.00
26		Toluene SCAN	0.893	1.055	-18.1	124	0.01
27	T	1,1,2-Trichloroethane	0.258	0.271	-5.0	116	0.01
28		1,1,2-Trichloroethane SCAN	0.211	0.242	-14.7	121	0.01
29	T	Tetrachloroethene	0.315	0.344	-9.2	125	0.01
30		Tetrachloroethene SCAN	0.253	0.327	-29.2	136	0.01
31	T	Chlorobenzene	0.720	0.820	-13.9	129	0.00
32		Chlorobenzene SCAN	0.599	0.704	-17.5	124	0.00
33	T	1,1,1,2-Tetrachloroethane	0.258	0.281	-8.9	123	0.00
34		1,1,1,2-Tetrachloroethane S	0.212	0.258	-21.7	128	0.00
35	T	Ethylbenzene	1.162	1.334	-14.8	130	0.00
36		Ethylbenzene SCAN	0.947	1.175	-24.1	131	0.00
37	T	m&p-Xylene	0.911	1.055	-15.8	130	0.00
38		m&p-Xylene SCAN	0.748	0.914	-22.2	128	0.00
39	T	o-Xylene	0.939	1.079	-14.9	130	0.00
40		o-Xylene SCAN	0.783	0.958	-22.3	129	0.00
41	T	1,1,2,2-Tetrachloroethane	0.406	0.438	-7.9	121	0.00
42		1,1,2,2-Tetrachloroethane S	0.351	0.408	-16.2	123	0.00
43	T	1,3,5-Trimethylbenzene	0.967	1.135	-17.4	133	0.00
44		1,3,5-Trimethylbenzene SCAN	0.765	0.968	-26.5	133	0.00
45	T	1,2,4-Trimethylbenzene	0.993	1.159	-16.7	133	0.00
46		1,2,4-Trimethylbenzene SCAN	0.803	0.989	-23.2	130	0.00
47	T	Naphthalene	1.555	1.804	-16.0	131	0.00
48		Naphthalene SCAN	1.211	1.515	-25.1	132	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061605.D
Acq On : 6 Oct 2016 13:07
InstName : AG5975C
Operator : RH
Sample : S16J024-CCV2
Misc : BFB 1626027
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 06 13:25:48 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

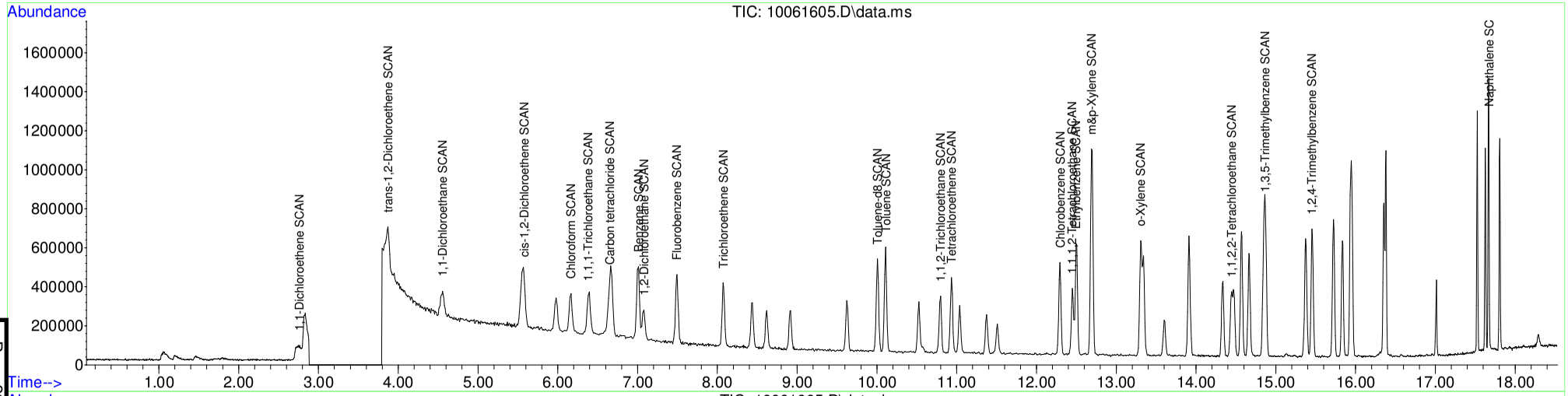
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.489	96	449950	5000.00 ug/L	0.01
System Monitoring Compounds					
23) Toluene-d8	10.009	98	455164	5696.40 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 113.93%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.494	96	399838	5003.03 ug/L	98
3] 1,1-Dichloroethene	2.743	61	183912	3790.11 ug/L	96
4) 1,1-Dichloroethene SCAN	2.766	61	168888	3962.55 ug/L #	54
5] trans-1,2-Dichloroethene	3.873	61	173567	3907.15 ug/L	100
6) trans-1,2-Dichloroethe...	3.870	61	153869	4064.48 ug/L	96
7] 1,1-Dichloroethane	4.551	63	215224	4105.75 ug/L	100
8) 1,1-Dichloroethane SCAN	4.557	63	192965	4188.69 ug/L	99
9] cis-1,2-Dichloroethene	5.569	61	193573	4142.47 ug/L	100
10) cis-1,2-Dichloroethene...	5.574	61	176240	4231.10 ug/L	99
11] Chloroform	6.156	83	231793	4340.36 ug/L	100
12) Chloroform SCAN	6.167	83	211090	4595.06 ug/L	96
13] 1,1,1-Trichloroethane	6.384	97	224355	4830.92 ug/L	99
14) 1,1,1-Trichloroethane ...	6.381	97	200586	4947.96 ug/L	97
15] Carbon tetrachloride	6.652	117	197898	4919.31 ug/L	99
16) Carbon tetrachloride SCAN	6.650	117	187037	5279.52 ug/L	98
17] Benzene	7.001	78	499957	4819.62 ug/L	100
18) Benzene SCAN	7.012	78	462840	4964.98 ug/L	96
19] 1,2-Dichloroethane	7.068	62	170753	4505.95 ug/L	100
20) 1,2-Dichloroethane SCAN	7.079	62	163927	4612.97 ug/L	98
21] Trichloroethene	8.075	130	149839	5099.35 ug/L	99
22) Trichloroethene SCAN	8.072	95	122417	5202.07 ug/L	90
24) Toluene-d8 SCAN	10.006	98	394102	5610.96 ug/L	97
25] Toluene	10.099	91	539647	5490.13 ug/L	100
26) Toluene SCAN	10.108	91	474782	5910.06 ug/L	96
27] 1,1,2-Trichloroethane	10.790	97	121769	5244.22 ug/L	99
28) 1,1,2-Trichloroethane ...	10.799	97	108666	5735.64 ug/L	97
29] Tetrachloroethene	10.937	166	154700	5459.58 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	147274	6474.01 ug/L	98
31] Chlorobenzene	12.296	112	368977	5694.03 ug/L	98
32) Chlorobenzene SCAN	12.293	112	316735	5871.52 ug/L	95
33] 1,1,1,2-Tetrachloroethane	12.452	131	126300	5434.96 ug/L	99
34) 1,1,1,2-Tetrachloroeth...	12.450	131	116293	6085.94 ug/L	98
35] Ethylbenzene	12.498	91	600033	5736.85 ug/L	99
36) Ethylbenzene SCAN	12.496	91	528795	6206.68 ug/L	99
37] m&p-Xylene	12.691	91	949344	11582.80 ug/L	98
38) m&p-Xylene SCAN	12.689	91	822169	12206.93 ug/L	98
39] o-Xylene	13.307	91	485706	5747.73 ug/L	99
40) o-Xylene SCAN	13.305	91	431128	6118.35 ug/L	98
41] 1,1,2,2-Tetrachloroethane	14.442	83	196897	5394.93 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.445	83	183758	5819.95 ug/L	100
43] 1,3,5-Trimethylbenzene	14.872	105	510566	5868.20 ug/L	99
44) 1,3,5-Trimethylbenzene...	14.869	105	435631	6329.60 ug/L	97
45] 1,2,4-Trimethylbenzene	15.456	105	521330	5832.22 ug/L	98
46) 1,2,4-Trimethylbenzene...	15.454	105	444931	6160.23 ug/L	99
47] Naphthalene	17.666	128	811901	5802.39 ug/L	100
48) Naphthalene SCAN	17.669	128	681762	6255.11 ug/L	99

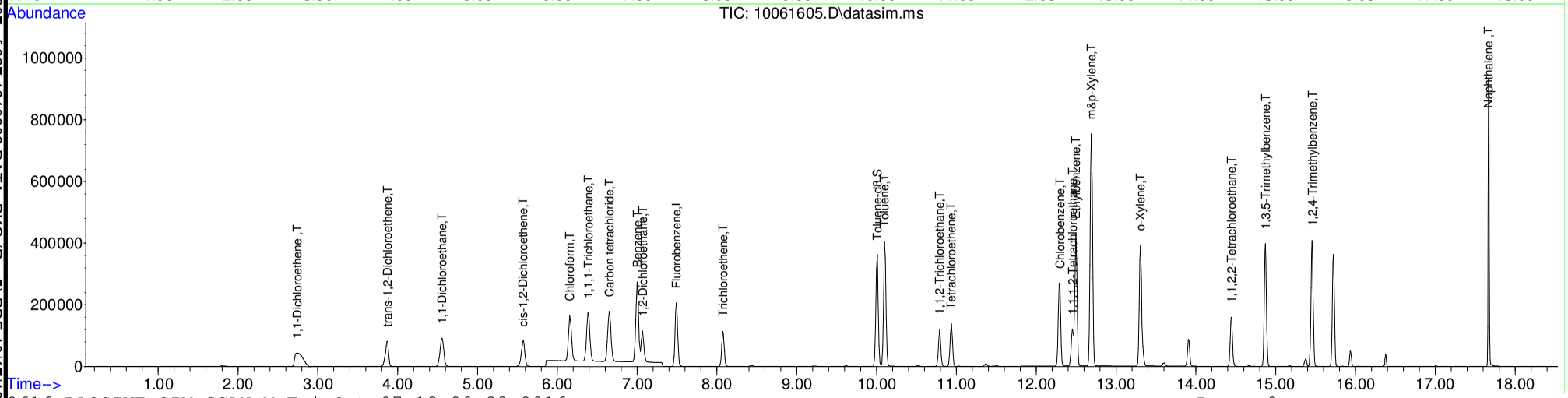
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061605.D
Acq On : 6 Oct 2016 13:07
InstName : AG5975C
Operator : RH
Sample : S16J024-CCV2
Misc : BFB 1626027
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 06 13:25:48 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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S16J024-CRL1

NOT USED

QLS REPORT

Instrument Name: AG5975C
Sample Name: S16J024-CRL1
Misc Info: 1635077 0.05 mg/L
Date Acquired: 10/6/16 13:30
QLast Update: Fri Sep 30 09:11:34 2016
Operator: RH

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	Fluorobenzene	7.476	5000.0	5000.00	100%	60	140	pass
3)	1,1-Dichloroethene	2.728	50.0	40.68	81%	60	140	pass
5)	trans-1,2-Dichloroethene	3.841	50.0	37.15	74%	60	140	pass
7)	1,1-Dichloroethane	4.528	50.0	38.68	77%	60	140	pass
9)	cis-1,2-Dichloroethene	5.553	50.0	39.33	79%	60	140	pass
11)	Chloroform	6.142	50.0	46.42	93%	60	140	pass
13)	1,1,1-Trichloroethane	6.371	50.0	51.40	103%	60	140	pass
15)	Carbon tetrachloride	6.639	50.0	54.03	108%	60	140	pass
19)	1,2-Dichloroethane	7.055	50.0	45.79	92%	60	140	pass
21)	Trichloroethene	8.062	50.0	58.89	118%	60	140	pass
23)	Toluene-d8	9.998	50.0	71.49	143%	60	140	FAIL
25)	Toluene	10.099	50.0	71.49	143%	60	140	FAIL
27)	1,1,2-Trichloroethane	10.778	50.0	65.28	131%	60	140	pass
29)	Tetrachloroethene	10.926	50.0	77.35	155%	60	140	FAIL
31)	Chlorobenzene	12.287	50.0	78.01	156%	60	140	FAIL
33)	1,1,1,2-Tetrachloroethane	12.443	50.0	72.18	144%	60	140	FAIL
35)	Ethylbenzene	12.489	50.0	76.06	152%	60	140	FAIL
37)	m&p-Xylene	12.682	100.0	152.75	153%	60	140	FAIL
39)	o-Xylene	13.298	50.0	78.00	156%	60	140	FAIL
41)	1,1,2,2-Tetrachloroethane	14.437	50.0	71.21	142%	60	140	FAIL
43)	1,3,5-Trimethylbenzene	14.866	50.0	77.01	154%	60	140	FAIL
45)	1,2,4-Trimethylbenzene	15.450	50.0	76.13	152%	60	140	FAIL
47)	Naphthalene	17.666	50.0	78.21	156%	60	140	FAIL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061606.D
Acq On : 6 Oct 2016 13:30
InstName : AG5975C
Operator : RH
Sample : S16J024-CRL1
Misc : 1635077 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 13:49:33 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

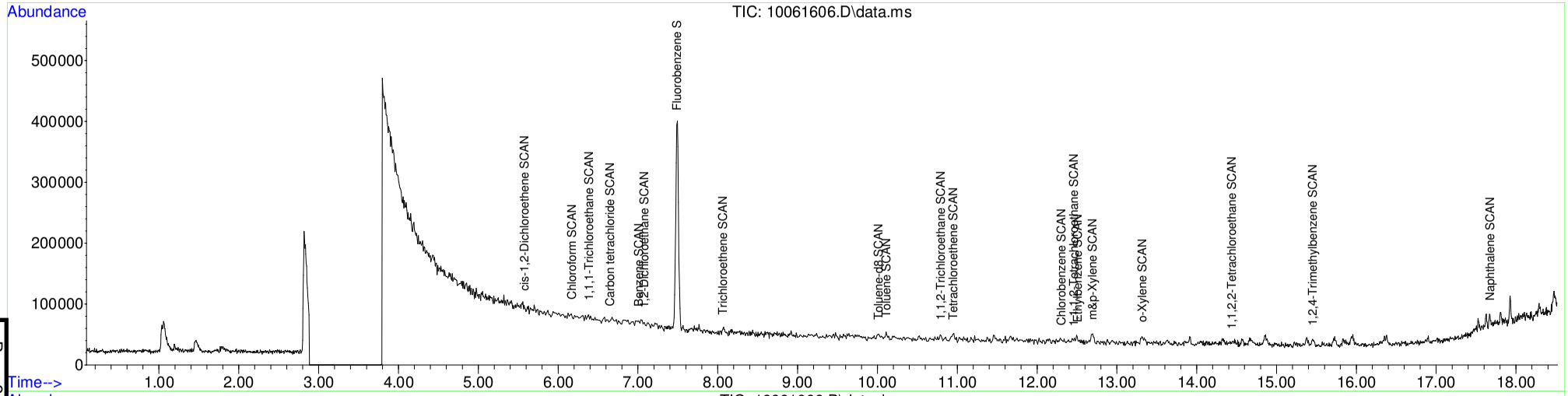
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.489	96	465175	5000.00 ug/L	0.01
System Monitoring Compounds					
23) Toluene-d8	10.008	98	5906	71.49 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery =	1.43%#	
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.487	96	401487	4859.24 ug/L	98
3] 1,1-Dichloroethene	2.728	61	2041	40.68 ug/L	94
5] trans-1,2-Dichloroethene	3.865	61	1706	37.15 ug/L	80
7] 1,1-Dichloroethane	4.551	63	2096	38.68 ug/L	99
9] cis-1,2-Dichloroethene	5.568	61	1900	39.33 ug/L	99
10) cis-1,2-Dichloroethene...	5.574	61	2174	50.48 ug/L #	61
11] Chloroform	6.156	83	2563	46.42 ug/L	98
12) Chloroform SCAN	6.166	83	4075	85.80 ug/L #	59
13] 1,1,1-Trichloroethane	6.384	97	2468	51.40 ug/L	99
14) 1,1,1-Trichloroethane ...	6.381	97	3129	74.66 ug/L #	25
15] Carbon tetrachloride	6.639	117	2247	54.03 ug/L	100
16) Carbon tetrachloride SCAN	6.649	117	2443	66.70 ug/L	90
17] Benzene	7.001	78	7704	71.84 ug/L	98
18) Benzene SCAN	7.012	78	8505	88.25 ug/L #	1
19] 1,2-Dichloroethane	7.068	62	1794	45.79 ug/L	83
20) 1,2-Dichloroethane SCAN	7.079	62	2058	56.02 ug/L #	64
21] Trichloroethene	8.075	130	1789	58.89 ug/L	99
22) Trichloroethene SCAN	8.065	95	2169	89.15 ug/L #	77
24) Toluene-d8 SCAN	10.006	98	5442	74.94 ug/L #	29
25] Toluene	10.099	91	7265	71.49 ug/L	99
26) Toluene SCAN	10.108	91	7646	92.06 ug/L	78
27] 1,1,2-Trichloroethane	10.789	97	1567	65.28 ug/L	95
28) 1,1,2-Trichloroethane ...	10.787	97	3089	157.71 ug/L #	27
29] Tetrachloroethene	10.937	166	2266	77.35 ug/L	96
30) Tetrachloroethene SCAN	10.945	166	2237	95.12 ug/L #	80
31] Chlorobenzene	12.295	112	5226	78.01 ug/L	96
32) Chlorobenzene SCAN	12.302	112	4772	85.57 ug/L	70
33] 1,1,1,2-Tetrachloroethane	12.452	131	1734	72.18 ug/L	99
34) 1,1,1,2-Tetrachloroeth...	12.458	131	1931	97.75 ug/L #	76
35] Ethylbenzene	12.498	91	8225	76.06 ug/L	98
36) Ethylbenzene SCAN	12.504	91	8632	98.00 ug/L	92
37] m&p-Xylene	12.691	91	12943	152.75 ug/L	99
38) m&p-Xylene SCAN	12.688	91	11585	166.38 ug/L	84
39] o-Xylene	13.307	91	6814	78.00 ug/L	99
40) o-Xylene SCAN	13.314	91	8488	116.51 ug/L	86
41] 1,1,2,2-Tetrachloroethane	14.442	83	2687	71.21 ug/L	99
42) 1,1,2,2-Tetrachloroeth...	14.439	83	2948	90.31 ug/L	95
43] 1,3,5-Trimethylbenzene	14.871	105	6927	77.01 ug/L	100
45] 1,2,4-Trimethylbenzene	15.456	105	7035	76.13 ug/L	99
46) 1,2,4-Trimethylbenzene...	15.447	105	6972	93.37 ug/L	84
47] Naphthalene	17.671	128	11314	78.21 ug/L	99
48) Naphthalene SCAN	17.673	128	11296	100.25 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061606.D
Acq On : 6 Oct 2016 13:30
InstName : AG5975C
Operator : RH
Sample : S16J024-CRL1
Misc : 1635077 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 13:49:33 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration



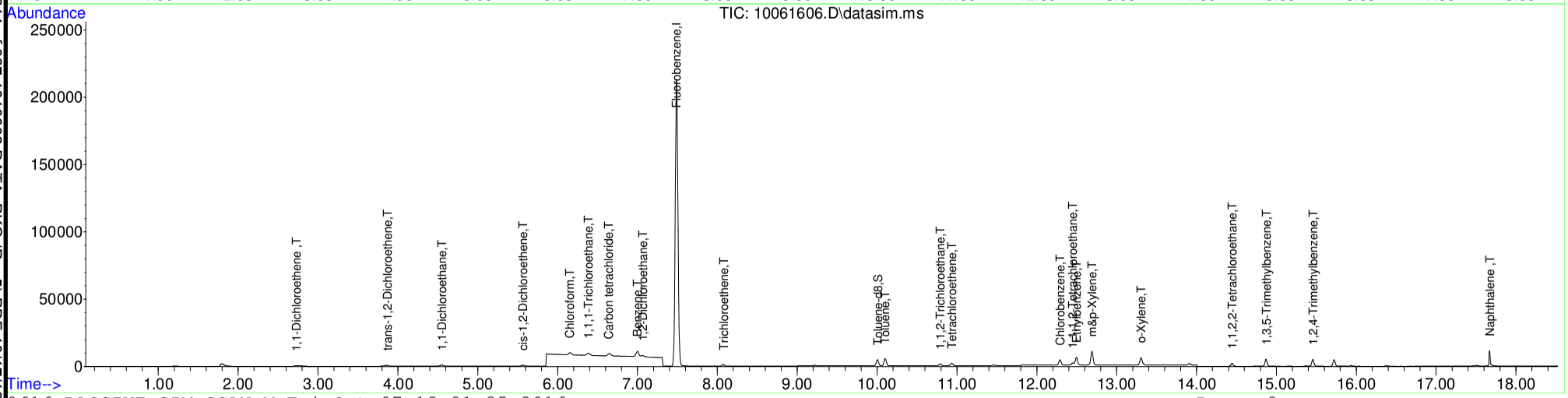


Table of Contents

S16J024-CRL2

QLS REPORT

Instrument Name: AG5975C
Sample Name: S16J024-CRL2
Misc Info: 1635077 0.05 mg/L
Date Acquired: 10/6/16 13:56
QLast Update: Fri Sep 30 09:11:34 2016
Operator: RH

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	Fluorobenzene	7.476	5000.0	5000.00	100%	60	140	pass
3)	1,1-Dichloroethene	2.728	50.0	38.78	78%	60	140	pass
5)	trans-1,2-Dichloroethene	3.841	50.0	42.31	85%	60	140	pass
7)	1,1-Dichloroethane	4.528	50.0	44.00	88%	60	140	pass
9)	cis-1,2-Dichloroethene	5.553	50.0	43.11	86%	60	140	pass
11)	Chloroform	6.142	50.0	50.79	102%	60	140	pass
13)	1,1,1-Trichloroethane	6.371	50.0	53.07	106%	60	140	pass
15)	Carbon tetrachloride	6.639	50.0	54.78	110%	60	140	pass
17)	Benzene	6.988	50.0	69.66	139%	60	140	pass
19)	1,2-Dichloroethane	7.055	50.0	47.71	95%	60	140	pass
21)	Trichloroethene	8.062	50.0	55.26	111%	60	140	pass
23)	Toluene-d8	9.998	50.0	59.19	118%	60	140	pass
25)	Toluene	10.099	50.0	59.61	119%	60	140	pass
27)	1,1,2-Trichloroethane	10.778	50.0	55.37	111%	60	140	pass
29)	Tetrachloroethene	10.926	50.0	60.47	121%	60	140	pass
31)	Chlorobenzene	12.287	50.0	59.69	119%	60	140	pass
33)	1,1,1,2-Tetrachloroethane	12.443	50.0	54.33	109%	60	140	pass
35)	Ethylbenzene	12.489	50.0	57.27	115%	60	140	pass
37)	m&p-Xylene	12.682	100.0	112.40	112%	60	140	pass
39)	o-Xylene	13.298	50.0	56.63	113%	60	140	pass
41)	1,1,2,2-Tetrachloroethane	14.437	50.0	52.22	104%	60	140	pass
43)	1,3,5-Trimethylbenzene	14.866	50.0	51.98	104%	60	140	pass
45)	1,2,4-Trimethylbenzene	15.450	50.0	51.85	104%	60	140	pass
47)	Naphthalene	17.666	50.0	53.62	107%	60	140	pass

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061607.D
Acq On : 6 Oct 2016 13:56
InstName : AG5975C
Operator : RH
Sample : S16J024-CRL2
Misc : 1635077 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 14:26:10 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

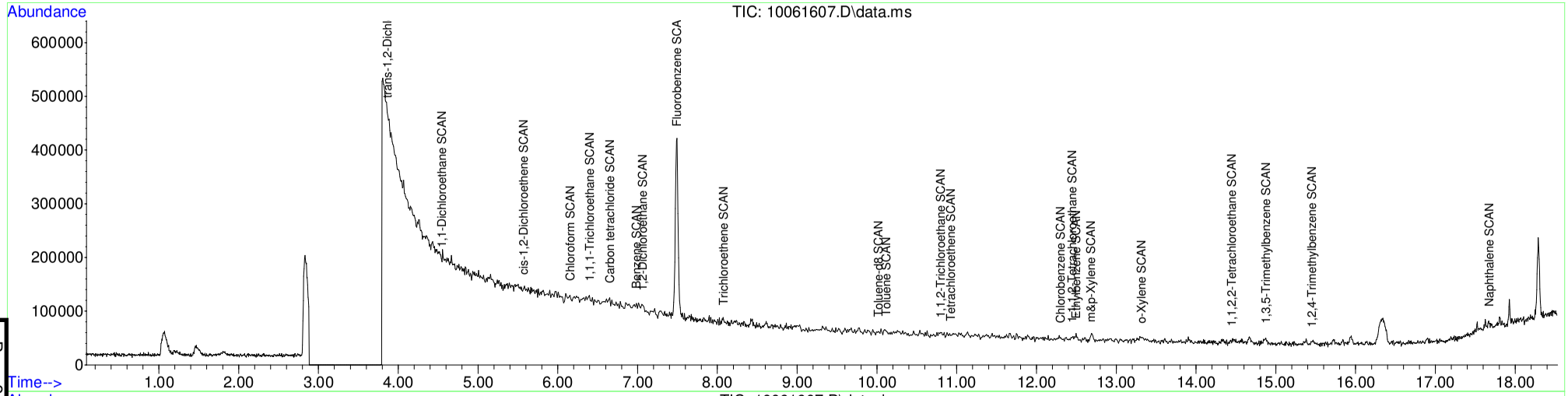
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.489	96	446935	5000.00	ug/L	0.01
System Monitoring Compounds						
23) Toluene-d8	10.009	98	4698	59.19	ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 1.18%#			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.487	96	386339	4866.73	ug/L	98
3] 1,1-Dichloroethene	2.743	61	2221	46.08	ug/L	87
5] trans-1,2-Dichloroethene	3.865	61	1867	42.31	ug/L	82
6) trans-1,2-Dichloroethe...	3.862	61	2321	61.72	ug/L	83
7] 1,1-Dichloroethane	4.551	63	2291	44.00	ug/L	99
8) 1,1-Dichloroethane SCAN	4.549	63	1888	41.26	ug/L #	67
9] cis-1,2-Dichloroethene	5.569	61	2001	43.11	ug/L	99
10) cis-1,2-Dichloroethene...	5.566	61	2470	59.70	ug/L #	56
11] Chloroform	6.156	83	2694	50.79	ug/L	97
12) Chloroform SCAN	6.153	83	2857	62.61	ug/L #	25
13] 1,1,1-Trichloroethane	6.384	97	2448	53.07	ug/L	99
14) 1,1,1-Trichloroethane ...	6.395	97	3146	78.13	ug/L #	65
15] Carbon tetrachloride	6.639	117	2189	54.78	ug/L	99
16) Carbon tetrachloride SCAN	6.650	117	1899	53.96	ug/L #	15
17] Benzene	7.001	78	7178	69.66	ug/L	89
18) Benzene SCAN	6.985	78	31402	339.13	ug/L #	57
19] 1,2-Dichloroethane	7.068	62	1796	47.71	ug/L	97
20) 1,2-Dichloroethane SCAN	7.066	62	1805	51.14	ug/L #	62
21] Trichloroethene	8.075	130	1613	55.26	ug/L	99
22) Trichloroethene SCAN	8.079	95	1220	52.19	ug/L	77
24) Toluene-d8 SCAN	10.018	98	4894	70.15	ug/L #	91
25] Toluene	10.099	91	5820	59.61	ug/L	99
26) Toluene SCAN	10.108	91	6490	81.33	ug/L	97
27] 1,1,2-Trichloroethane	10.790	97	1277	55.37	ug/L	99
28) 1,1,2-Trichloroethane ...	10.798	97	1446	76.84	ug/L #	49
29] Tetrachloroethene	10.937	166	1702	60.47	ug/L	100
30) Tetrachloroethene SCAN	10.923	166	2720	120.37	ug/L #	14
31] Chlorobenzene	12.296	112	3842	59.69	ug/L	97
32) Chlorobenzene SCAN	12.302	112	3116	58.15	ug/L	84
33] 1,1,1,2-Tetrachloroethane	12.452	131	1254	54.33	ug/L	97
34) 1,1,1,2-Tetrachloroeth...	12.450	131	1466	77.24	ug/L #	75
35] Ethylbenzene	12.498	91	5950	57.27	ug/L	98
36) Ethylbenzene SCAN	12.496	91	6716	79.36	ug/L	93
37] m&p-Xylene	12.691	91	9151	112.40	ug/L	98
38) m&p-Xylene SCAN	12.679	91	9519	142.28	ug/L	87
39] o-Xylene	13.307	91	4753	56.63	ug/L	100
40) o-Xylene SCAN	13.314	91	5156	73.66	ug/L	85
41] 1,1,2,2-Tetrachloroethane	14.442	83	1893	52.22	ug/L	96
42) 1,1,2,2-Tetrachloroeth...	14.440	83	2768	88.26	ug/L	76
43] 1,3,5-Trimethylbenzene	14.872	105	4492	51.98	ug/L	97
44) 1,3,5-Trimethylbenzene...	14.875	105	4866	71.18	ug/L	100
45] 1,2,4-Trimethylbenzene	15.456	105	4604	51.85	ug/L	99
46) 1,2,4-Trimethylbenzene...	15.454	105	4791	66.78	ug/L #	69
47] Naphthalene	17.671	128	7453	53.62	ug/L	100
48) Naphthalene SCAN	17.669	128	5423	50.09	ug/L	92

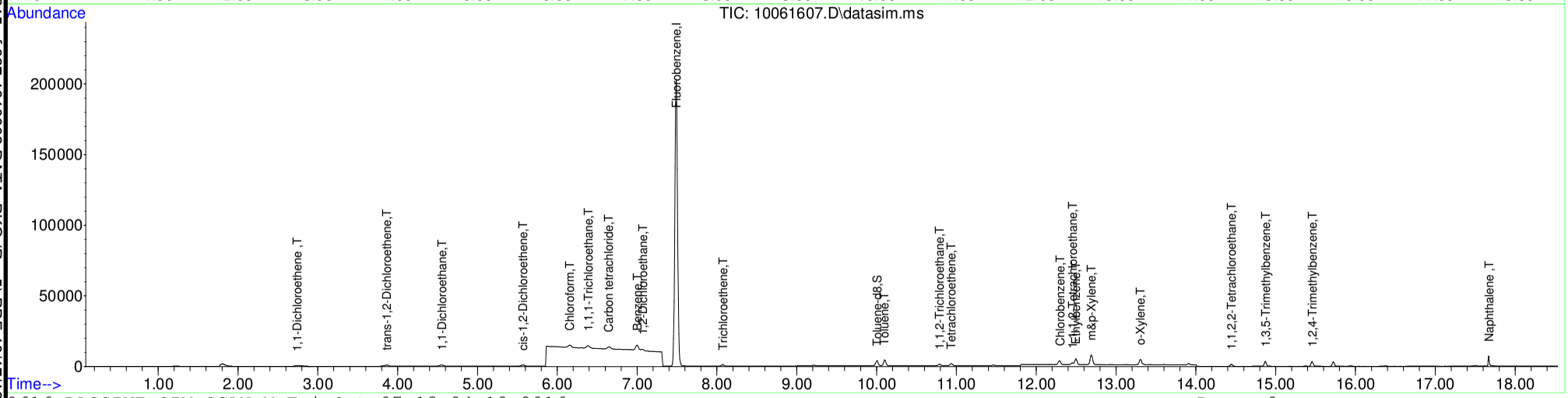
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061607.D
Acq On : 6 Oct 2016 13:56
InstName : AG5975C
Operator : RH
Sample : S16J024-CRL2
Misc : 1635077 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 14:26:10 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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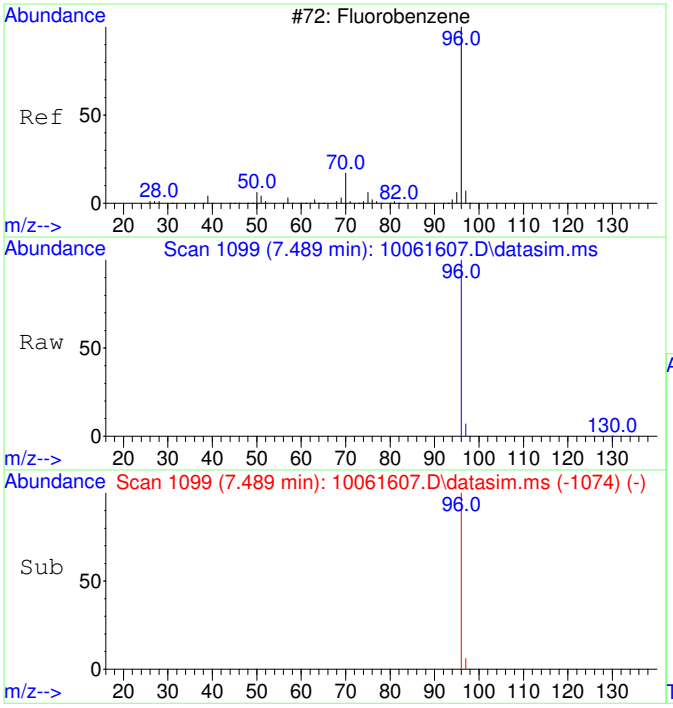
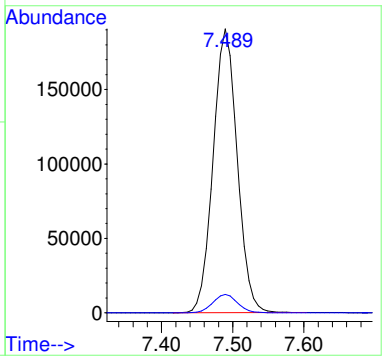
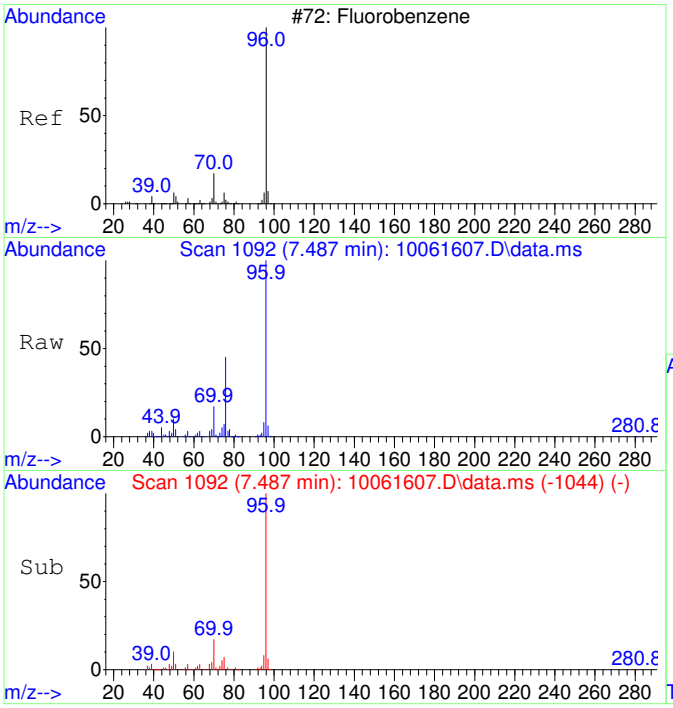


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.489 min Scan# 1099
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 96 Resp: 446935

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

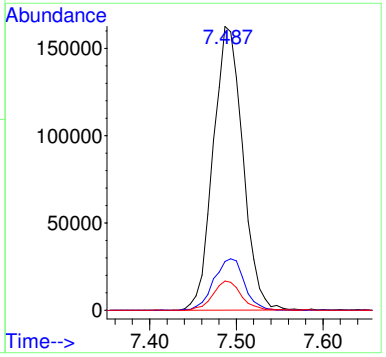


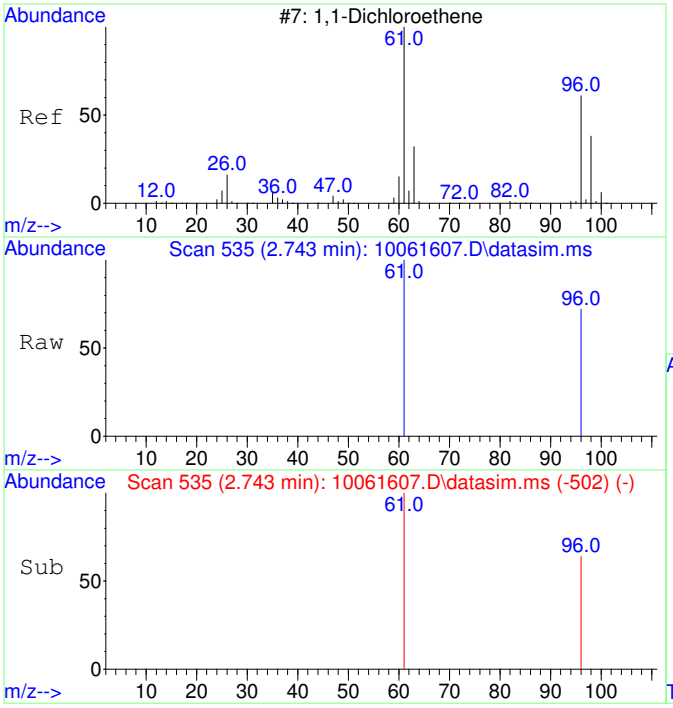


#2
Fluorobenzene SCAN
Concen: 4866.73 ug/L
RT: 7.487 min Scan# 1092
Delta R.T. 0.007 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 96 Resp: 386339

Ion	Ratio	Lower	Upper
96	100		
70	18.8	0.0	49.2
50	10.0	0.0	41.1

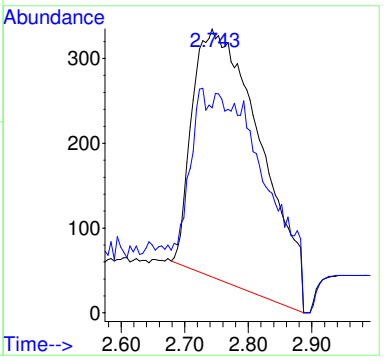




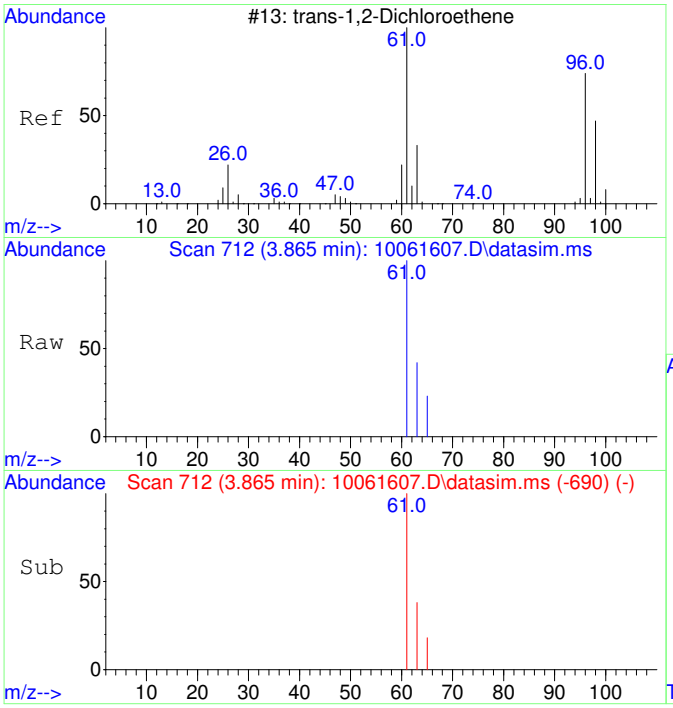
#3
1,1-Dichloroethene
Concen: 46.08 ug/L
RT: 2.743 min Scan# 535
Delta R.T. 0.015 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2221

Ion	Ratio	Lower	Upper
61	100		
96	75.2	34.9	94.9



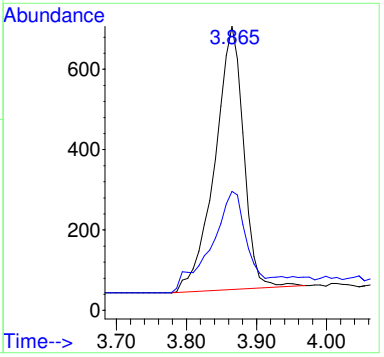
Before MI:
IMPROPER
BASELINE

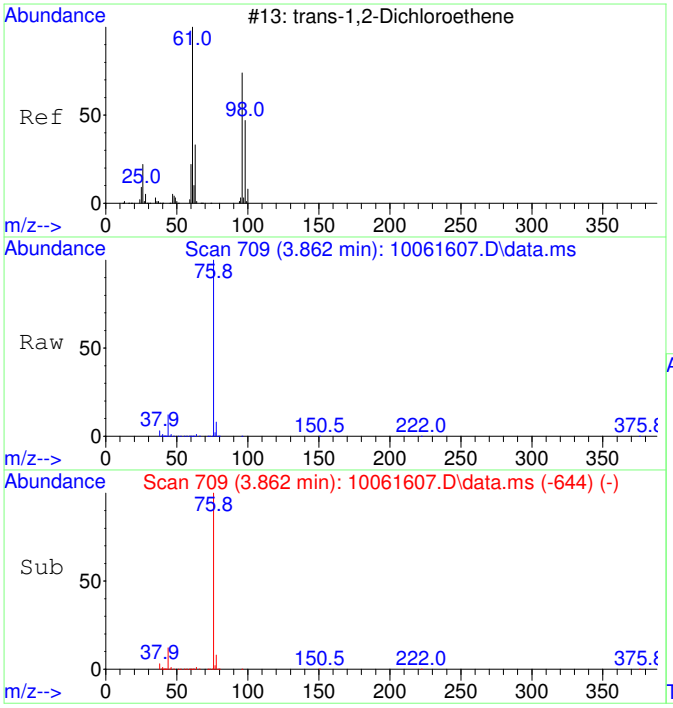


#5
trans-1,2-Dichloroethene
Concen: 42.31 ug/L
RT: 3.865 min Scan# 712
Delta R.T. 0.024 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 1867

Ion	Ratio	Lower	Upper
61	100		
63	42.7	2.5	62.5

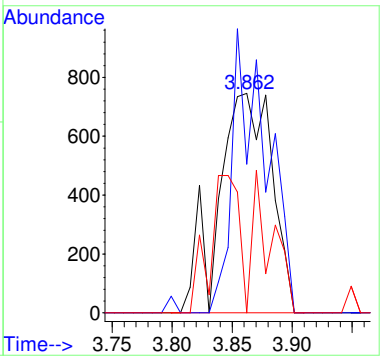


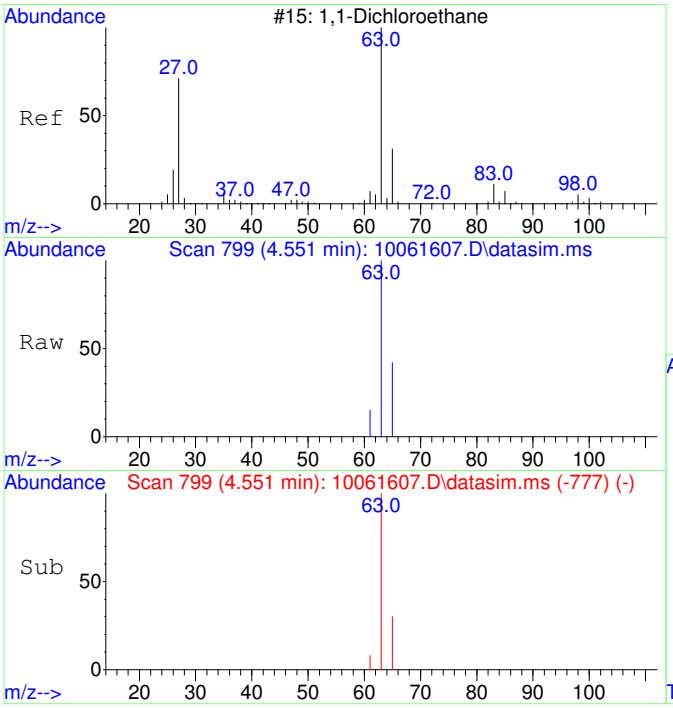


#6
trans-1,2-Dichloroethene SCAN
Concen: 61.72 ug/L
RT: 3.862 min Scan# 709
Delta R.T. 0.016 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2321

Ion	Ratio	Lower	Upper
61	100		
96	81.6	47.5	107.5
98	22.9	17.2	77.2

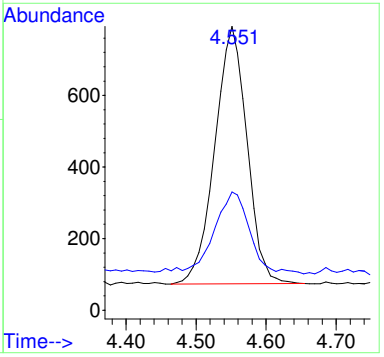


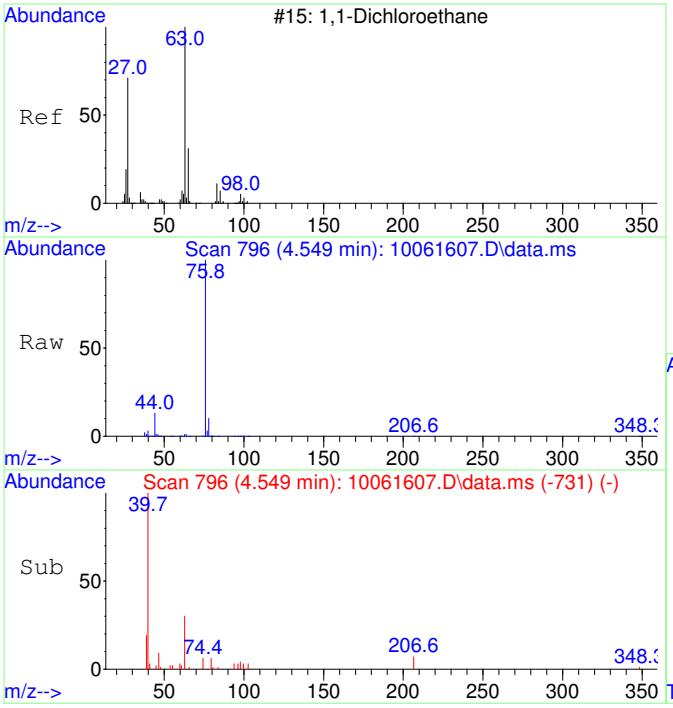


#7
1,1-Dichloroethane
Concen: 44.00 ug/L
RT: 4.551 min Scan# 799
Delta R.T. 0.024 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 63 Resp: 2291

Ion	Ratio	Lower	Upper
63	100		
65	32.6	1.8	61.8

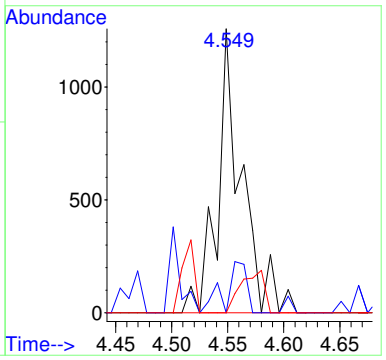


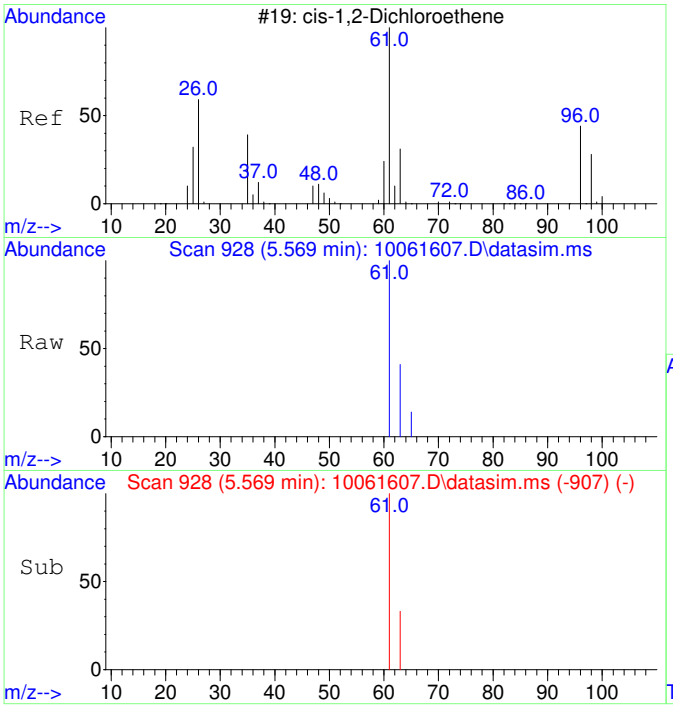


#8
1,1-Dichloroethane SCAN
Concen: 41.26 ug/L
RT: 4.549 min Scan# 796
Delta R.T. 0.016 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 63 Resp: 1888

Ion	Ratio	Lower	Upper
63	100		
65	15.7	3.9	63.9
83	0.0	0.0	45.1

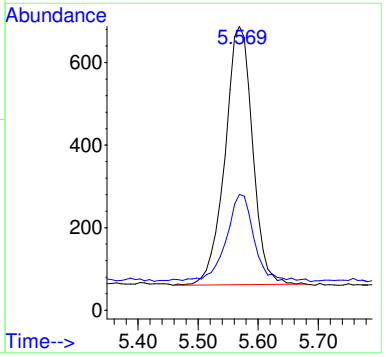


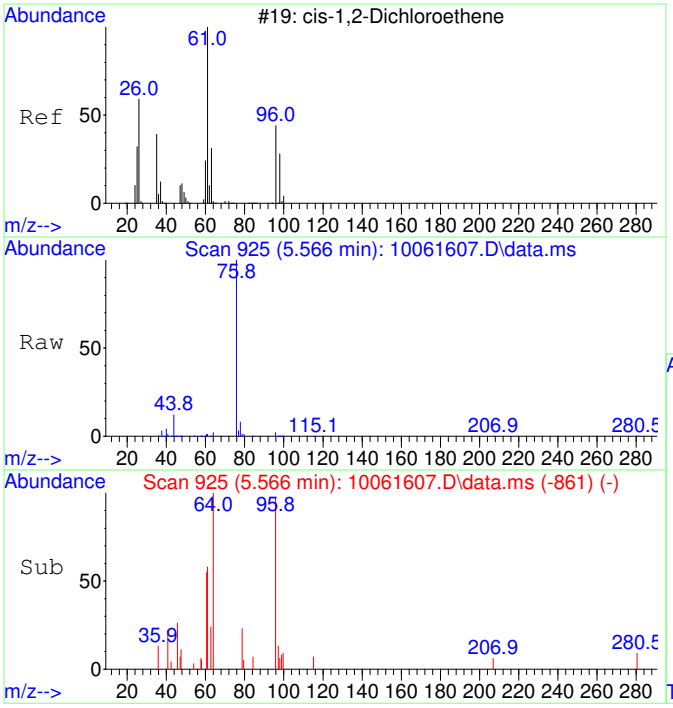


#9
cis-1,2-Dichloroethene
Concen: 43.11 ug/L
RT: 5.569 min Scan# 928
Delta R.T. 0.016 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2001

Ion	Ratio	Lower	Upper
61	100		
63	32.1	2.4	62.4

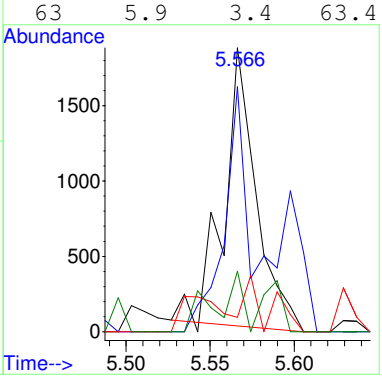


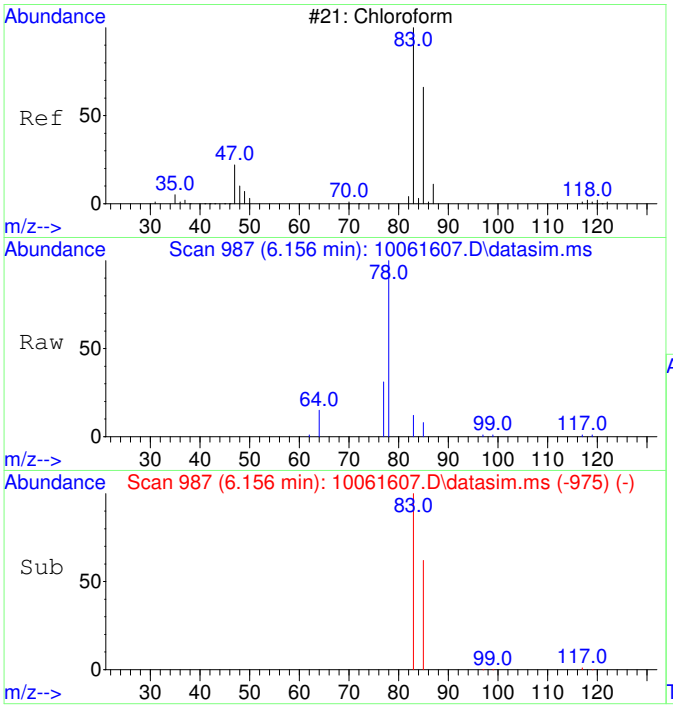


#10
cis-1,2-Dichloroethene SCAN
Concen: 59.70 ug/L
RT: 5.566 min Scan# 925
Delta R.T. 0.008 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2470

Ion	Ratio	Lower	Upper
61	100		
96	47.4	42.0	102.0
98	5.3	17.5	77.5#
63	5.9	3.4	63.4

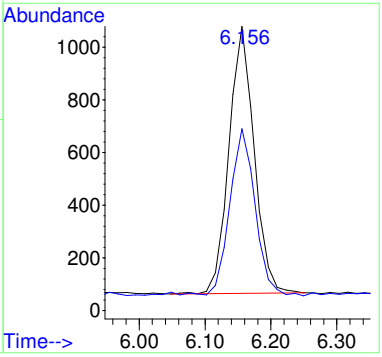


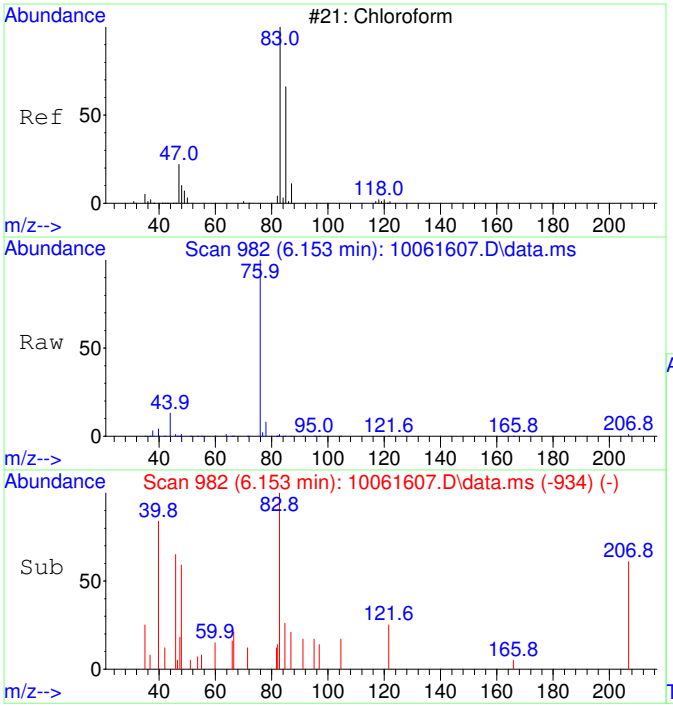


#11
Chloroform
Concen: 50.79 ug/L
RT: 6.156 min Scan# 987
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 2694

Ion	Ratio	Lower	Upper
83	100		
85	62.0	34.4	94.4

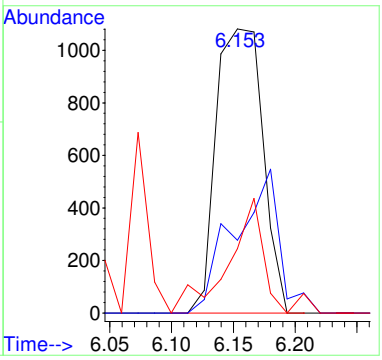


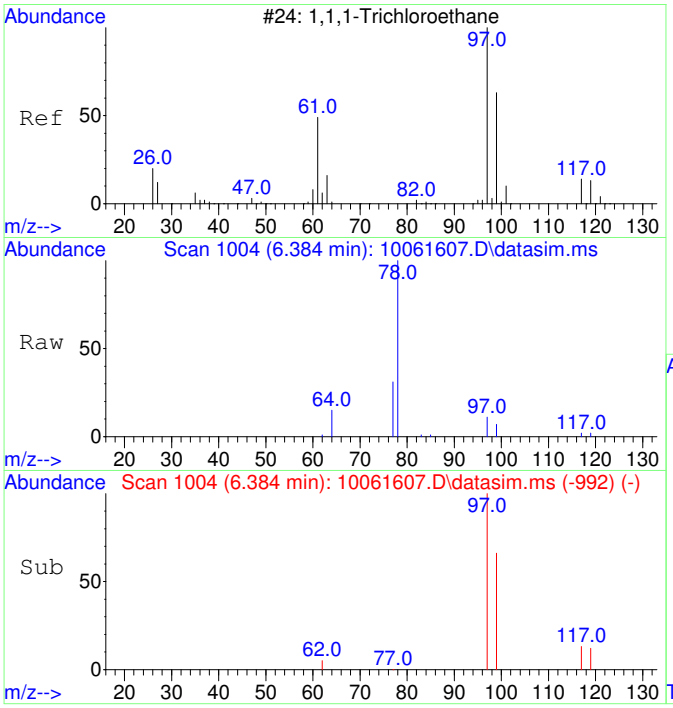


#12
Chloroform SCAN
Concen: 62.61 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 2857

Ion	Ratio	Lower	Upper
83	100		
85	0.0	37.6	97.6#
47	0.0	0.0	53.4

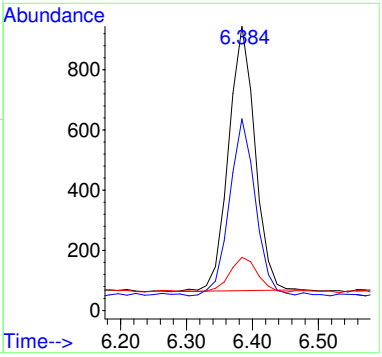


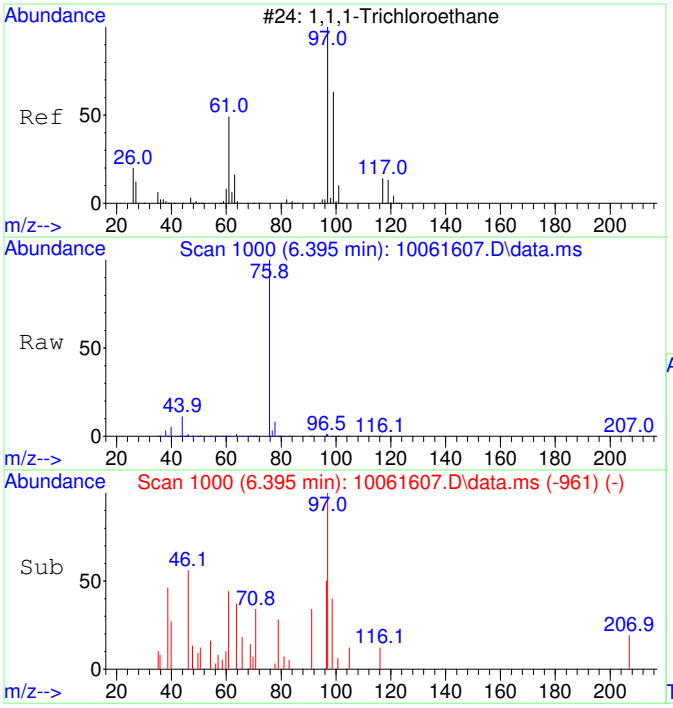


#13
1,1,1-Trichloroethane
Concen: 53.07 ug/L
RT: 6.384 min Scan# 1004
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 2448

Ion	Ratio	Lower	Upper
97	100		
99	65.0	34.2	94.2
117	13.7	0.0	43.0

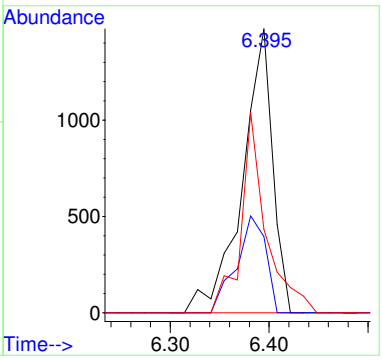


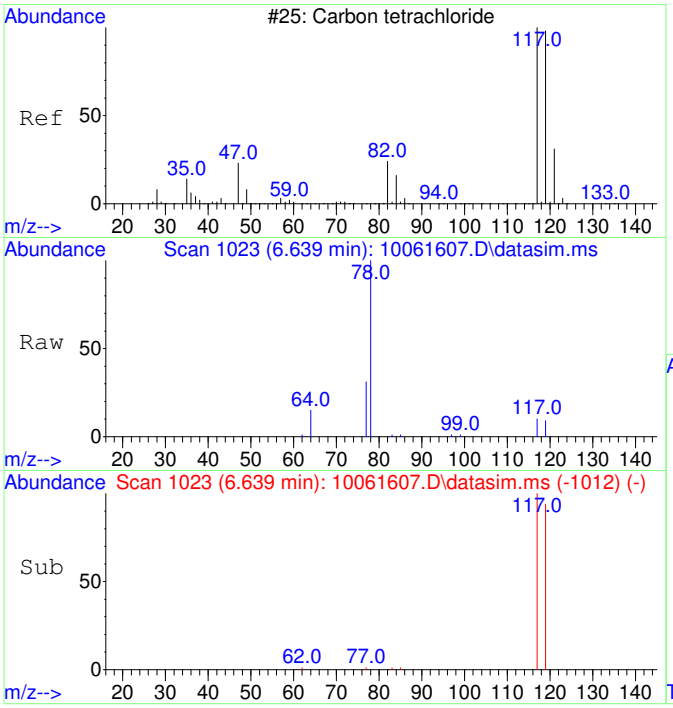


#14
1,1,1-Trichloroethane SCAN
Concen: 78.13 ug/L
RT: 6.395 min Scan# 1000
Delta R.T. 0.027 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 3146

Ion	Ratio	Lower	Upper
97	100		
99	33.2	33.6	93.6#
61	57.9	10.7	70.7

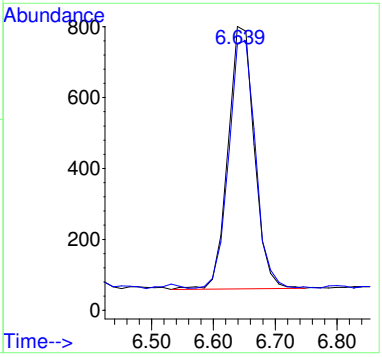


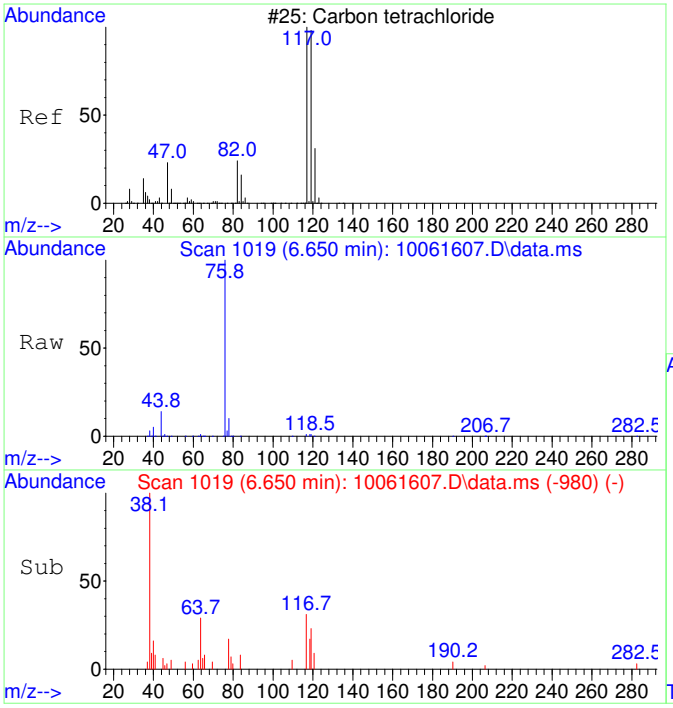


#15
Carbon tetrachloride
Concen: 54.78 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:117 Resp: 2189

Ion	Ratio	Lower	Upper
117	100		
119	95.2	66.1	126.1

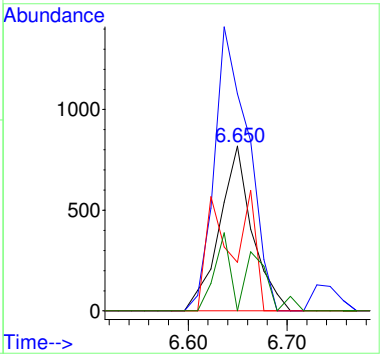


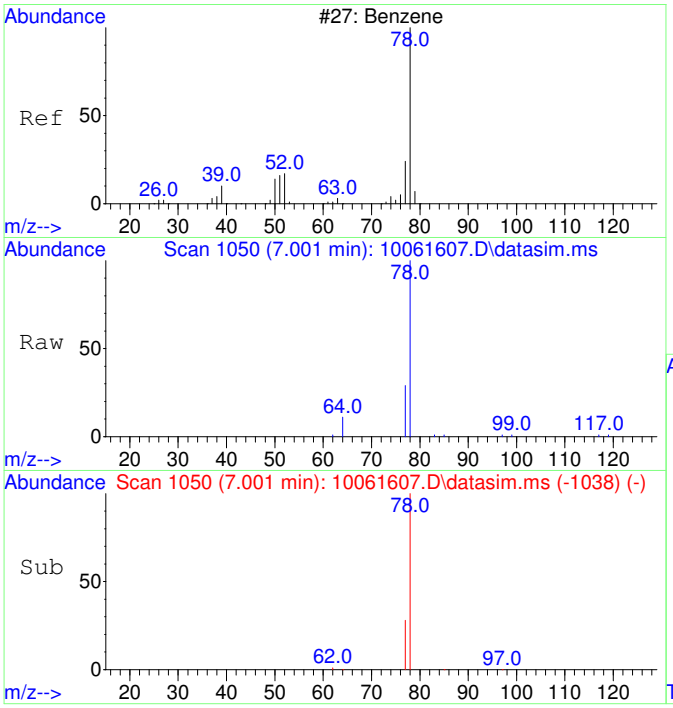


#16
Carbon tetrachloride SCAN
Concen: 53.96 ug/L
RT: 6.650 min Scan# 1019
Delta R.T. 0.027 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:117 Resp: 1899

Ion	Ratio	Lower	Upper
117	100		
119	0.0	66.0	122.6#
121	73.1	22.1	41.1#
82	0.0	18.5	34.3#

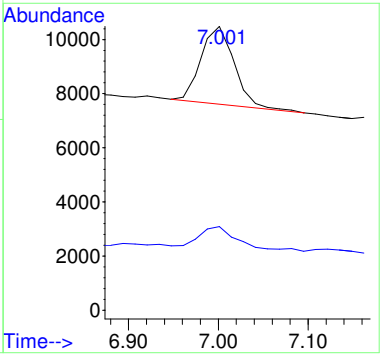


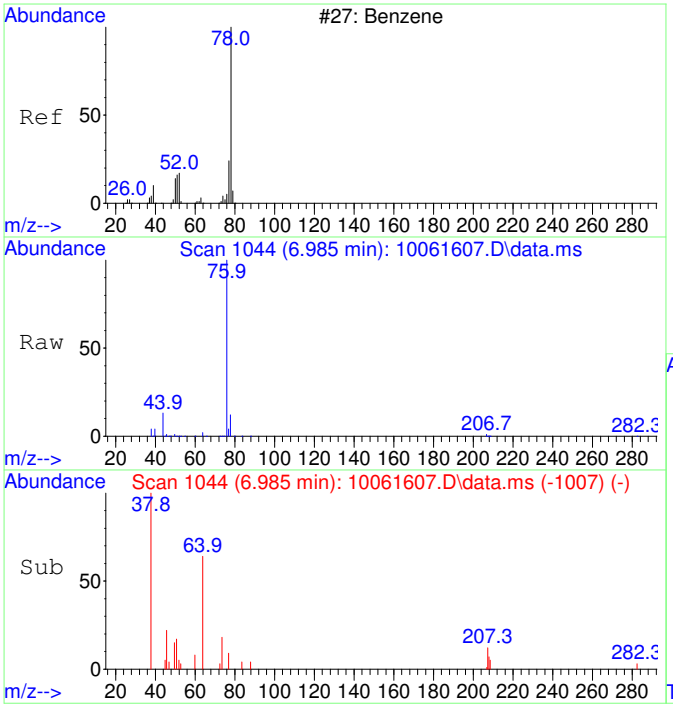


#17
Benzene
Concen: 69.66 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 78 Resp: 7178

Ion	Ratio	Lower	Upper
78	100		
77	28.9	0.0	53.4

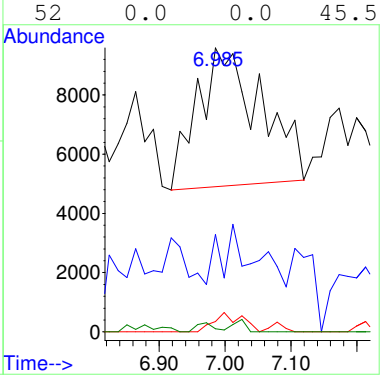


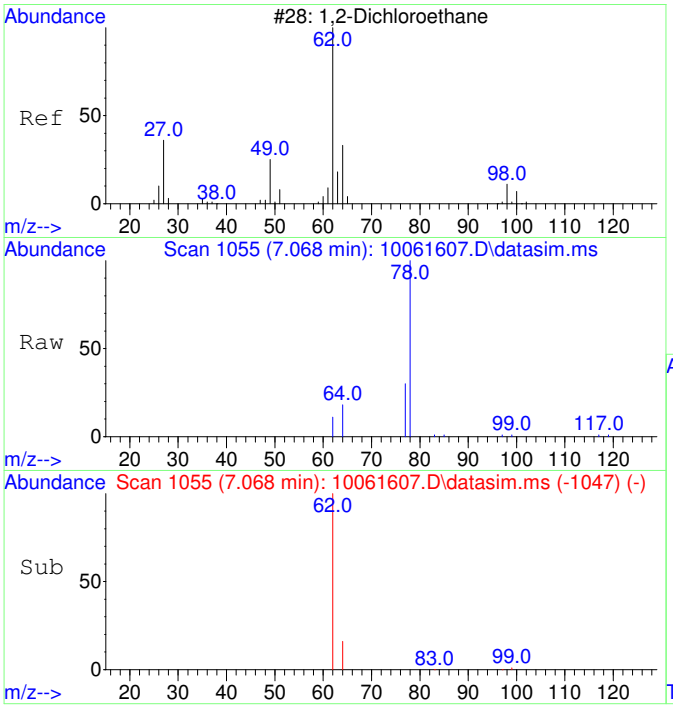


#18
Benzene SCAN
Concen: 339.13 ug/L
RT: 6.985 min Scan# 1044
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 78 Resp: 31402

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	59.3
51	6.1	0.0	49.2
52	0.0	0.0	45.5

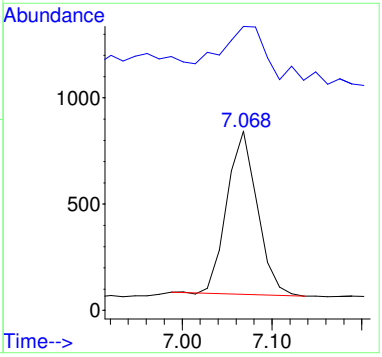


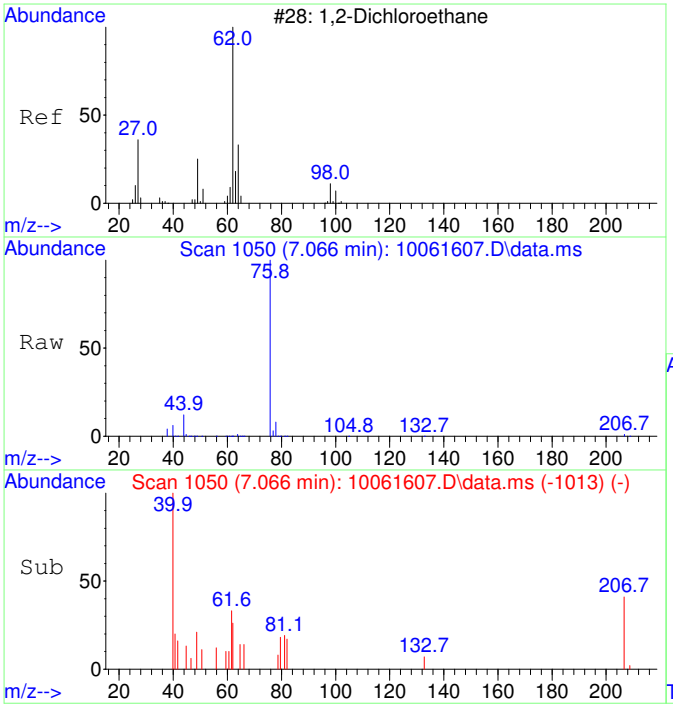


#19
1,2-Dichloroethane
Concen: 47.71 ug/L
RT: 7.068 min Scan# 1055
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 62 Resp: 1796

Ion	Ratio	Lower	Upper
62	100		
64	34.4	2.7	62.7

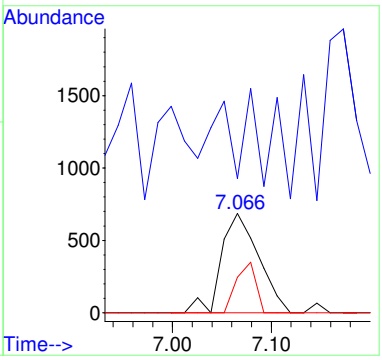


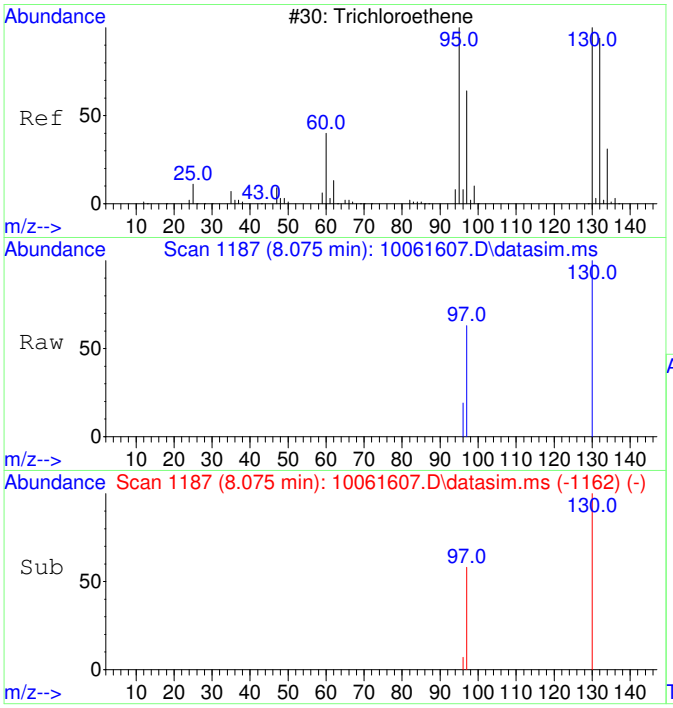


#20
1,2-Dichloroethane SCAN
Concen: 51.14 ug/L
RT: 7.066 min Scan# 1050
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 62 Resp: 1805

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	26.5	0.0	51.8

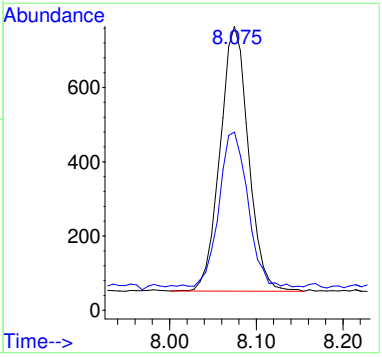


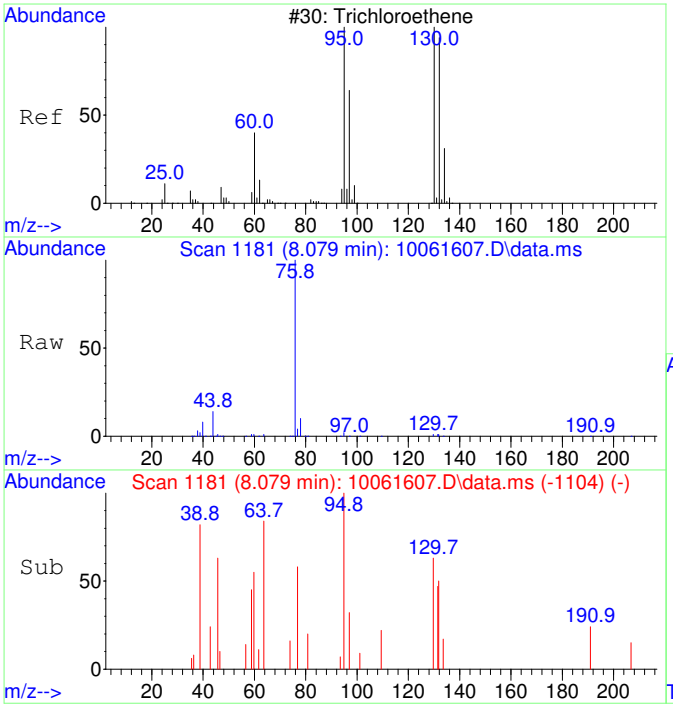


#21
Trichloroethene
Concen: 55.26 ug/L
RT: 8.075 min Scan# 1187
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:130 Resp: 1613

Ion	Ratio	Lower	Upper
130	100		
97	59.0	29.9	89.9

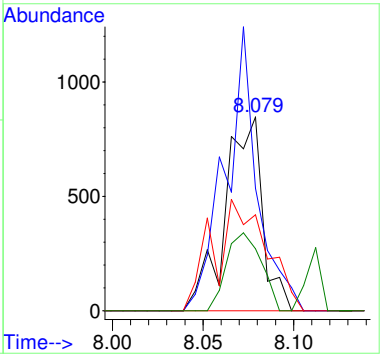


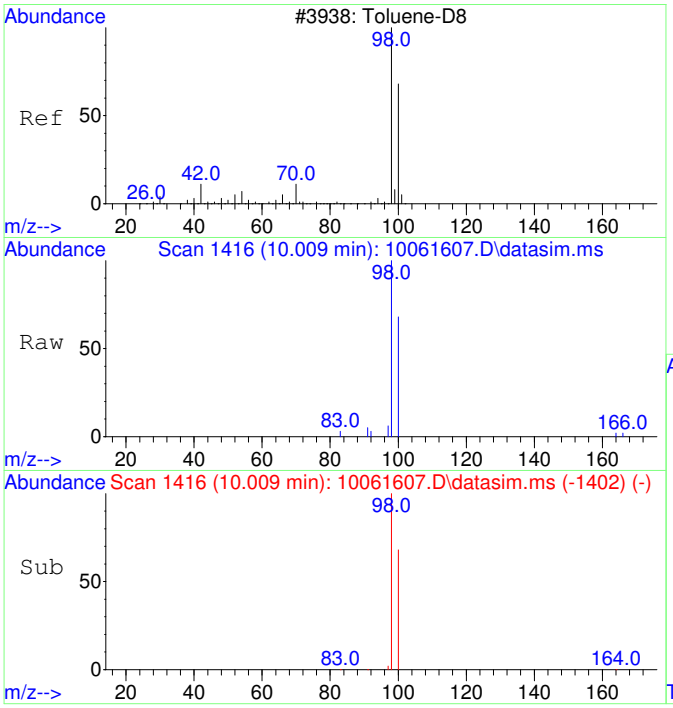


#22
Trichloroethene SCAN
Concen: 52.19 ug/L
RT: 8.079 min Scan# 1181
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 95 Resp: 1220

Ion	Ratio	Lower	Upper
95	100		
130	125.2	74.1	134.1
132	80.7	72.1	132.1
97	37.6	29.5	89.5

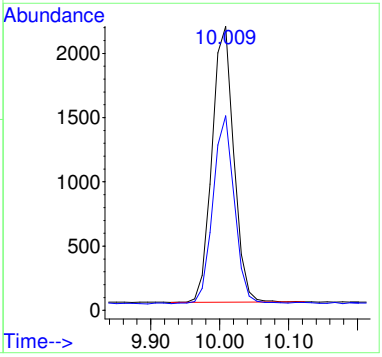


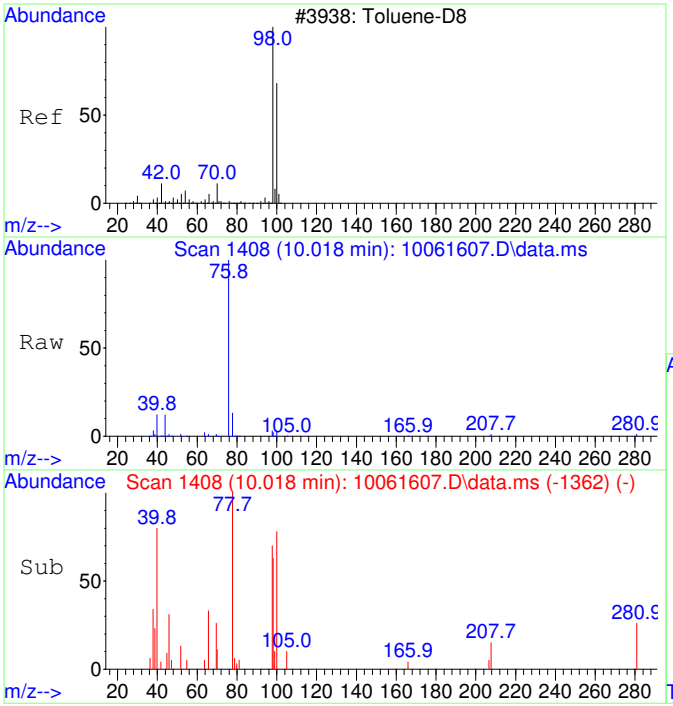


#23
Toluene-d8
Concen: 59.19 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 98 Resp: 4698

Ion	Ratio	Lower	Upper
98	100		
100	65.8	35.3	95.3

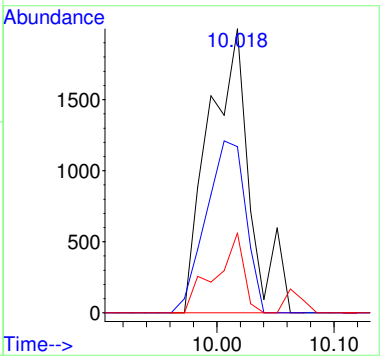


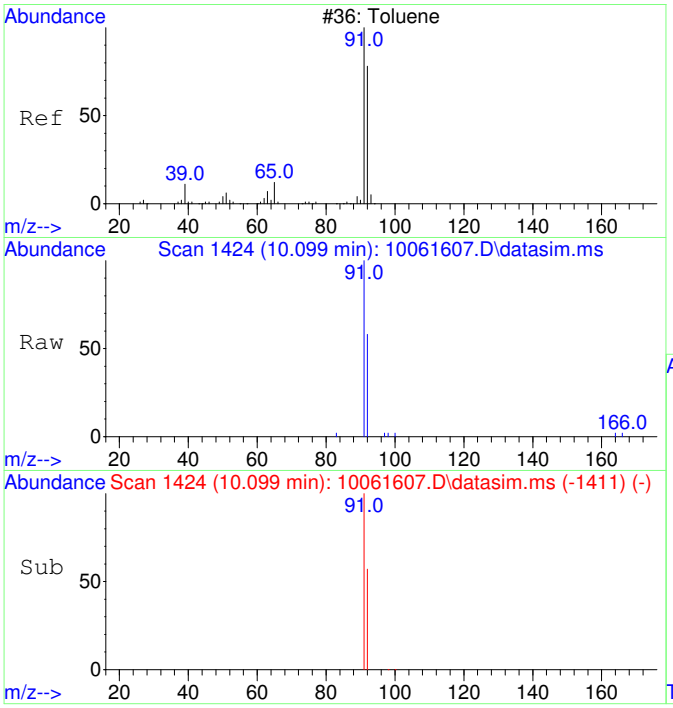


#24
Toluene-d8 SCAN
Concen: 70.15 ug/L
RT: 10.018 min Scan# 1408
Delta R.T. 0.023 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 98 Resp: 4894

Ion	Ratio	Lower	Upper
98	100		
100	58.4	44.3	82.3
70	19.4	7.8	14.4#

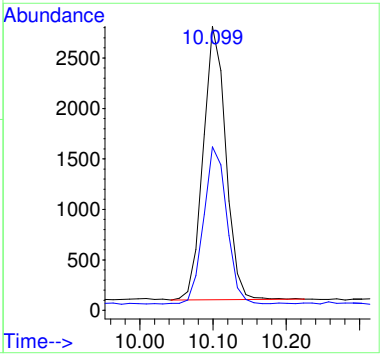


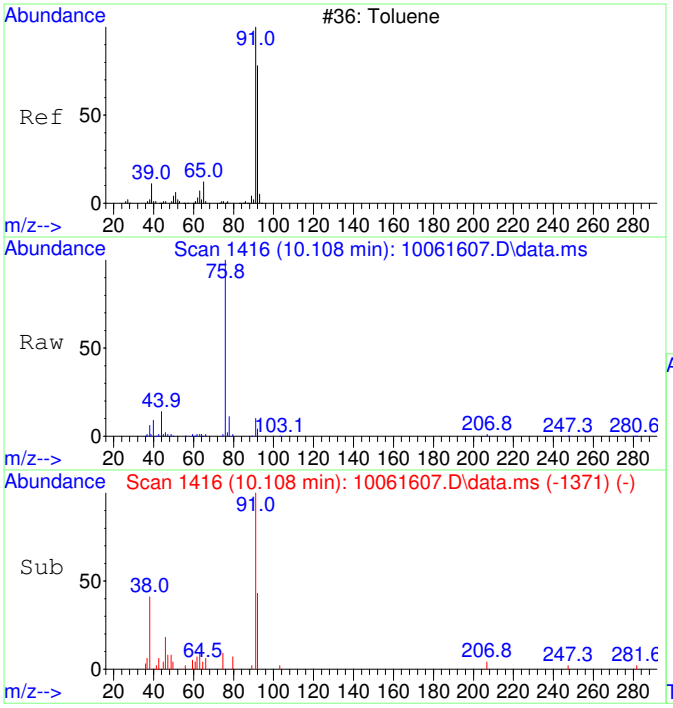


#25
Toluene
Concen: 59.61 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 5820

Ion	Ratio	Lower	Upper
91	100		
92	58.2	28.8	88.8

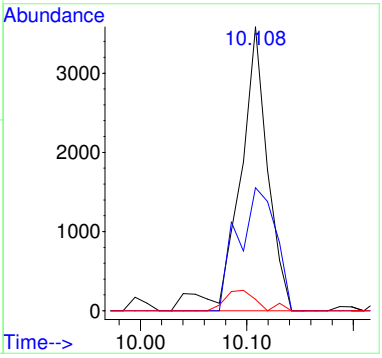


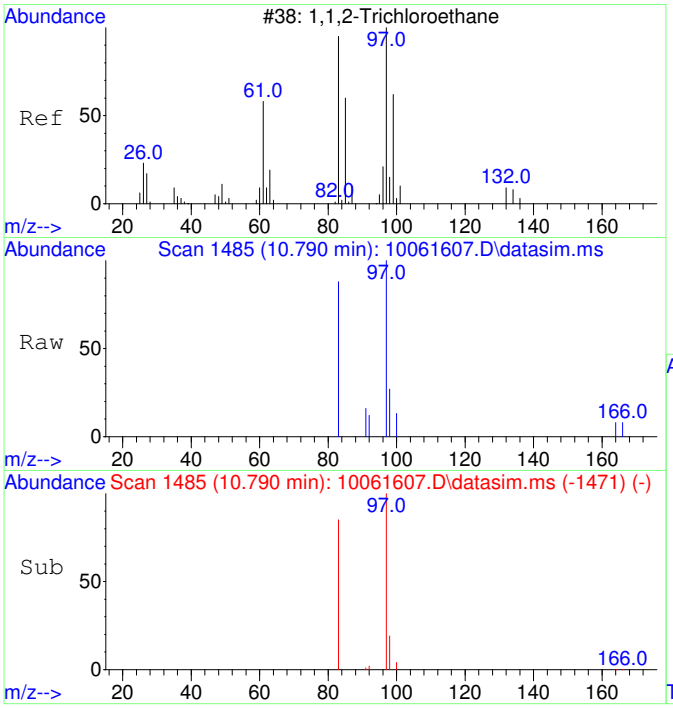


#26
Toluene SCAN
Concen: 81.33 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 6490

Ion	Ratio	Lower	Upper
91	100		
92	59.3	30.7	90.7
65	8.5	0.0	42.6

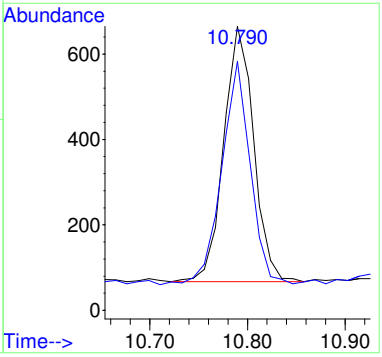


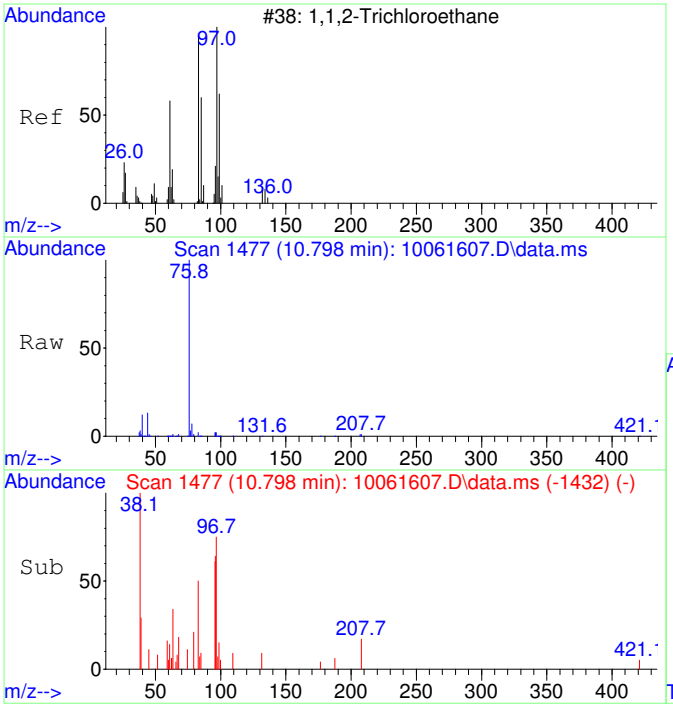


#27
1,1,2-Trichloroethane
Concen: 55.37 ug/L
RT: 10.790 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 1277

Ion	Ratio	Lower	Upper
97	100		
83	81.4	50.5	110.5

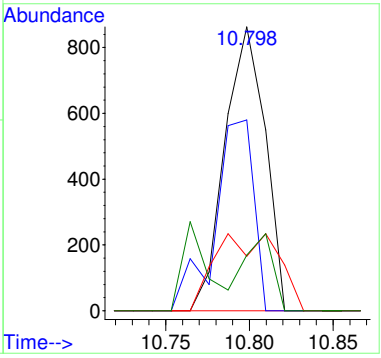


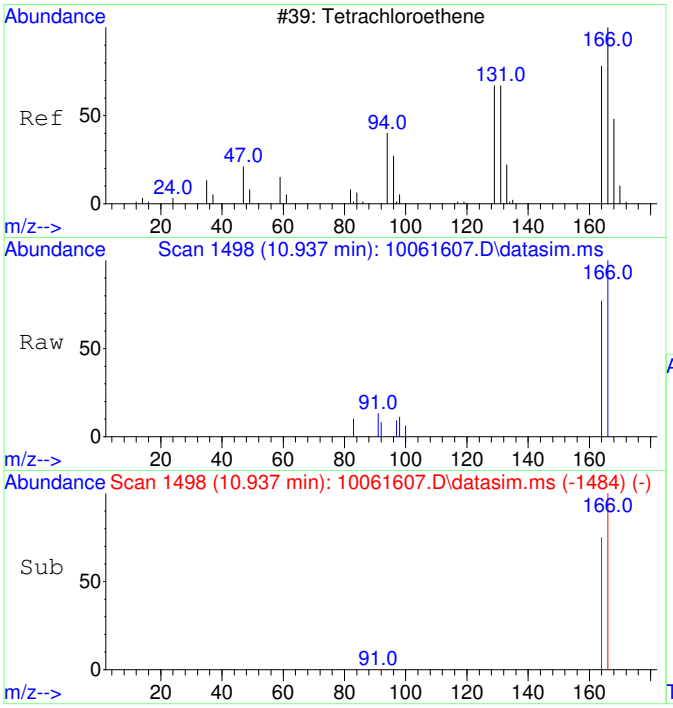


#28
1,1,2-Trichloroethane SCAN
Concen: 76.84 ug/L
RT: 10.798 min Scan# 1477
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 1446

Ion	Ratio	Lower	Upper
97	100		
83	64.9	53.8	113.8
61	0.0	31.3	91.3#
99	14.5	32.9	92.9#

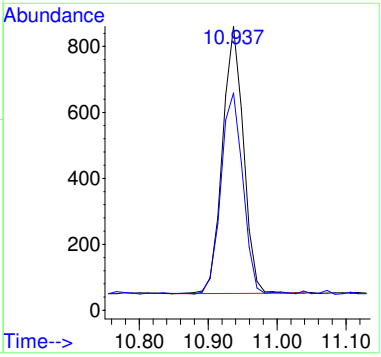


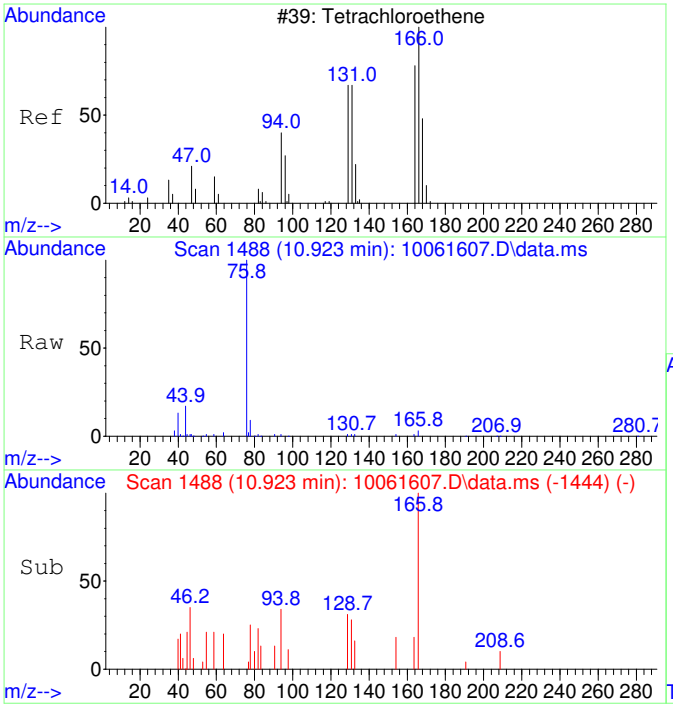


#29
Tetrachloroethene
Concen: 60.47 ug/L
RT: 10.937 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:166 Resp: 1702

Ion	Ratio	Lower	Upper
166	100		
164	78.1	47.7	107.7

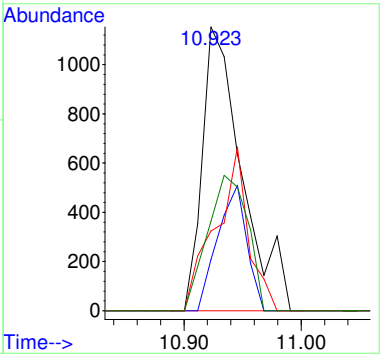


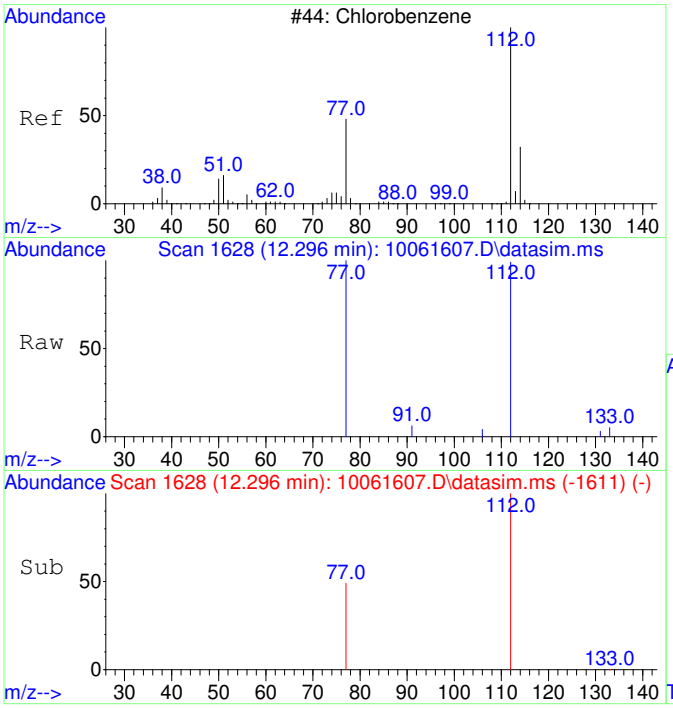


#30
Tetrachloroethene SCAN
Concen: 120.37 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:166 Resp: 2720

Ion	Ratio	Lower	Upper
166	100		
164	0.0	44.9	104.9#
131	0.0	36.1	96.1#
129	0.0	40.5	100.5#

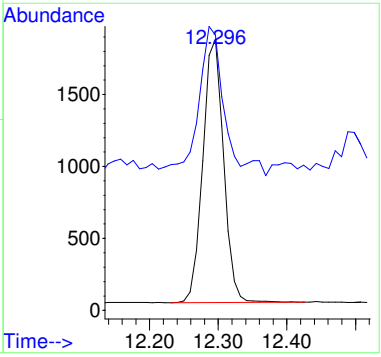


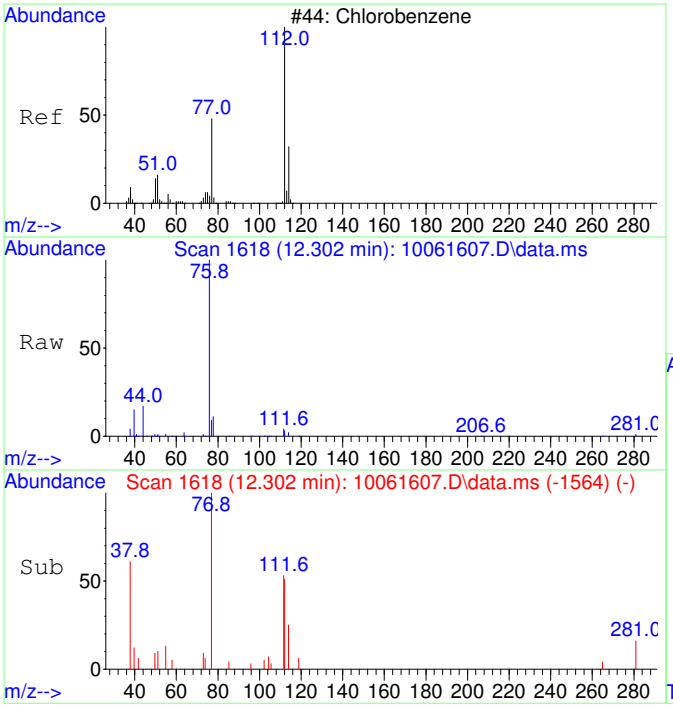


#31
Chlorobenzene
Concen: 59.69 ug/L
RT: 12.296 min Scan# 1628
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:112 Resp: 3842

Ion	Ratio	Lower	Upper
112	100		
77	53.0	25.1	85.1

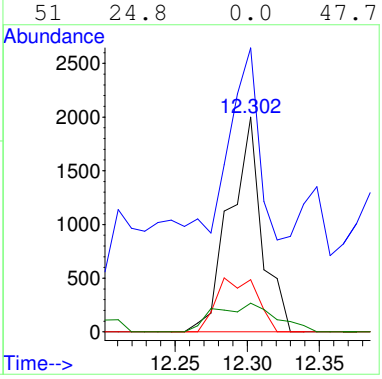


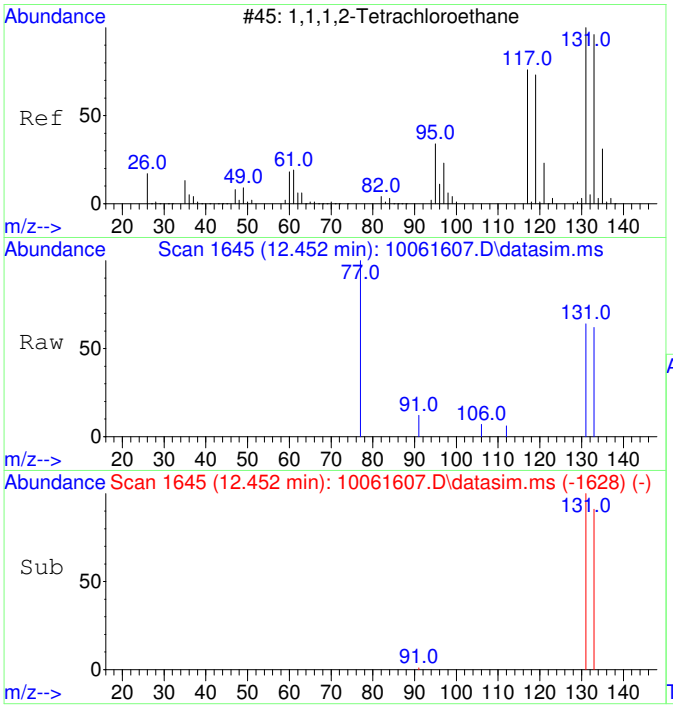


#32
Chlorobenzene SCAN
Concen: 58.15 ug/L
RT: 12.302 min Scan# 1618
Delta R.T. 0.018 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:112 Resp: 3116

Ion	Ratio	Lower	Upper
112	100		
77	71.7	23.6	83.6
114	31.6	0.9	60.9
51	24.8	0.0	47.7

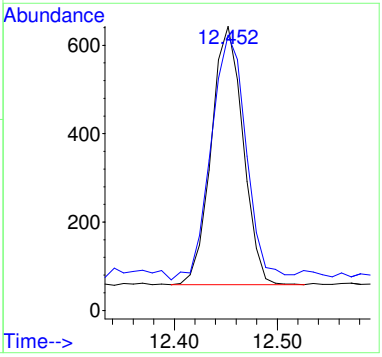


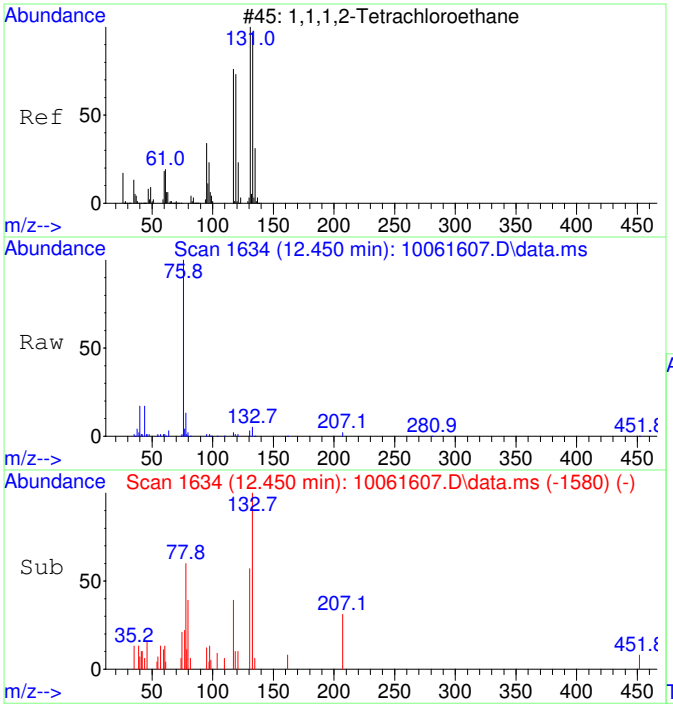


#33
1,1,1,2-Tetrachloroethane
Concen: 54.33 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:131 Resp: 1254

Ion	Ratio	Lower	Upper
131	100		
133	98.1	64.8	124.8

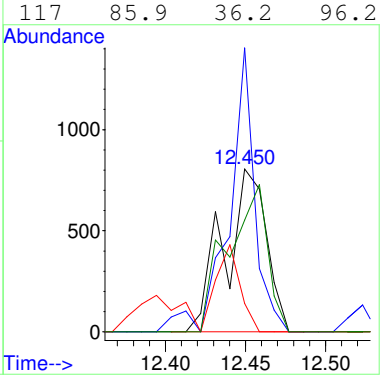


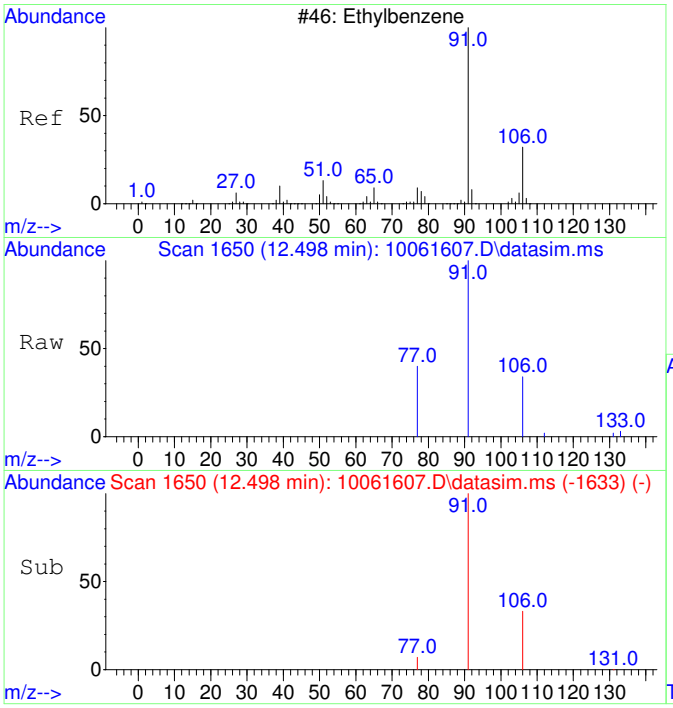


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 77.24 ug/L
RT: 12.450 min Scan# 1634
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:131 Resp: 1466

Ion	Ratio	Lower	Upper
131	100		
133	106.9	64.7	124.7
119	31.1	34.9	94.9#
117	85.9	36.2	96.2

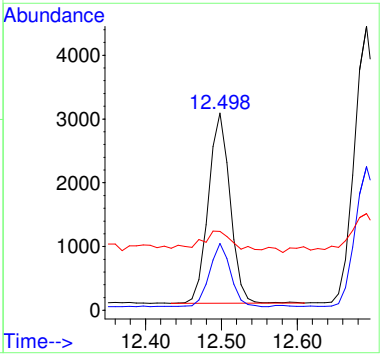


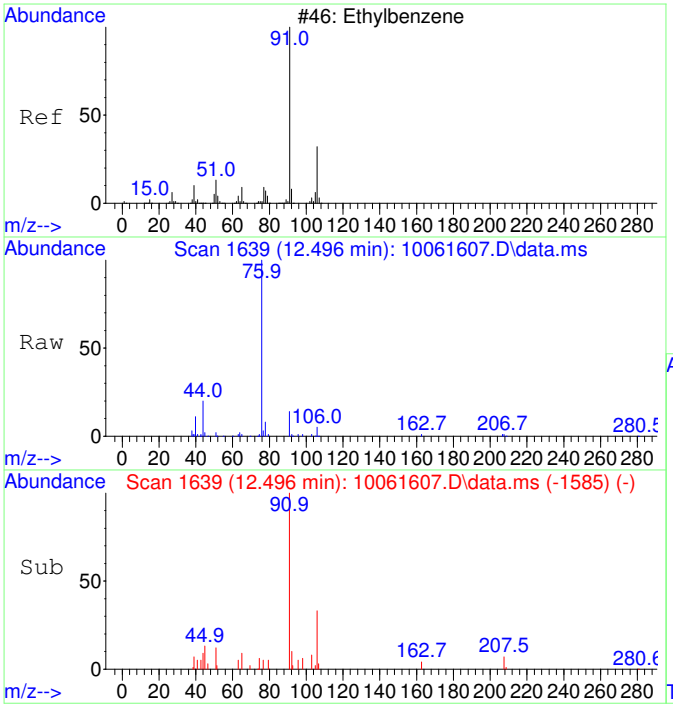


#35
Ethylbenzene
Concen: 57.27 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 5950

Ion	Ratio	Lower	Upper
91	100		
106	31.5	1.7	61.7
77	12.1	0.0	38.3

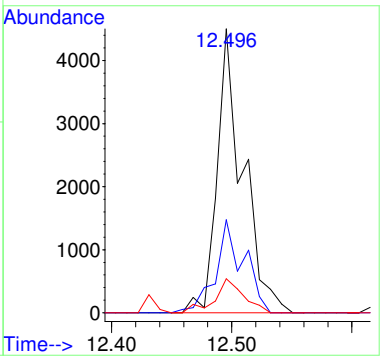


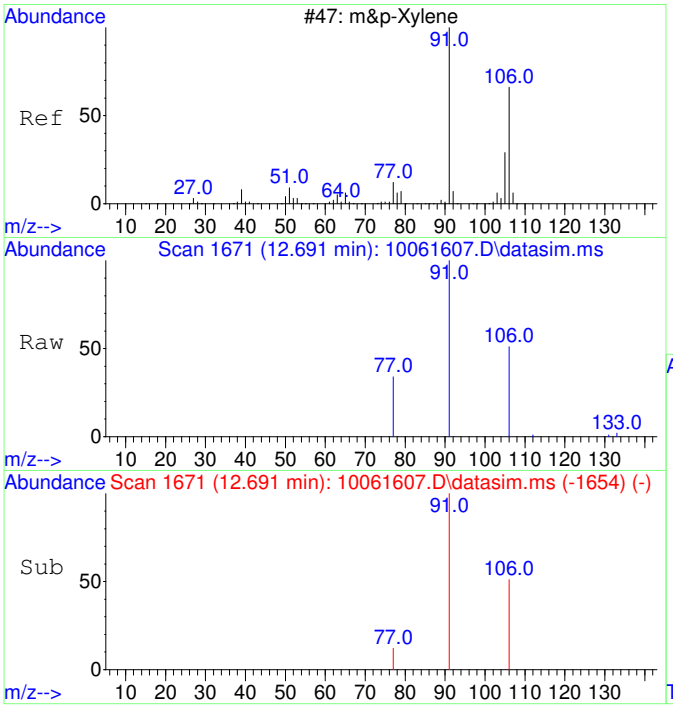


#36
Ethylbenzene SCAN
Concen: 79.36 ug/L
RT: 12.496 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 6716

Ion	Ratio	Lower	Upper
91	100		
106	36.0	2.3	62.3
51	13.3	0.0	39.6

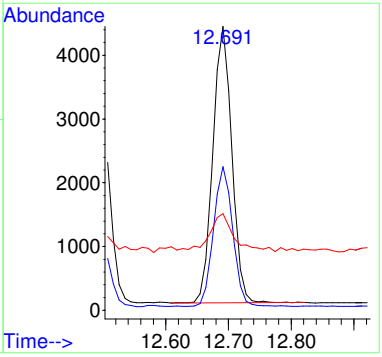


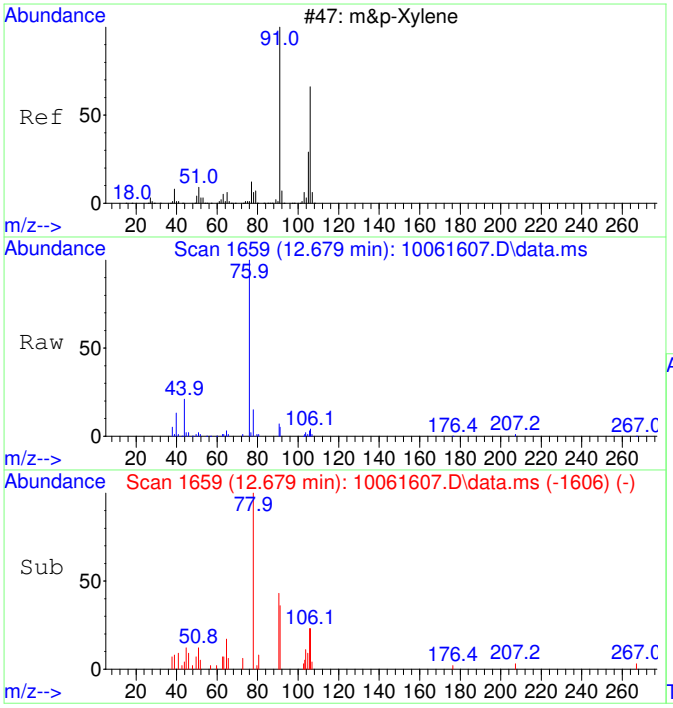


#37
m&p-Xylene
Concen: 112.40 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 9151

Ion	Ratio	Lower	Upper
91	100		
106	50.9	19.4	79.4
77	13.6	0.0	42.6

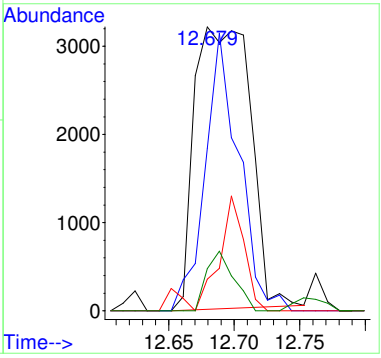


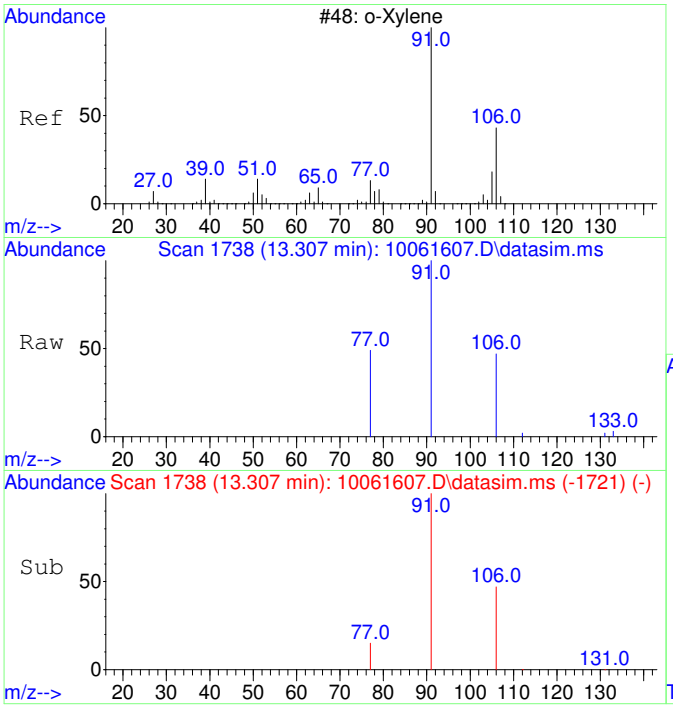


#38
m&p-Xylene SCAN
Concen: 142.28 ug/L
RT: 12.679 min Scan# 1659
Delta R.T. -0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 9519

Ion	Ratio	Lower	Upper
91	100		
106	59.2	18.0	78.0
105	17.9	0.0	53.1
51	10.3	0.0	39.4

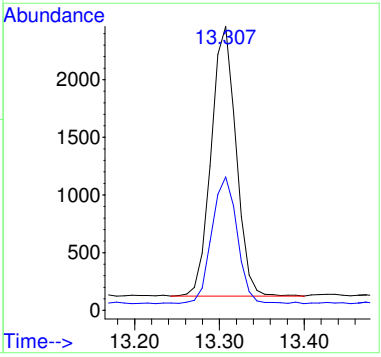


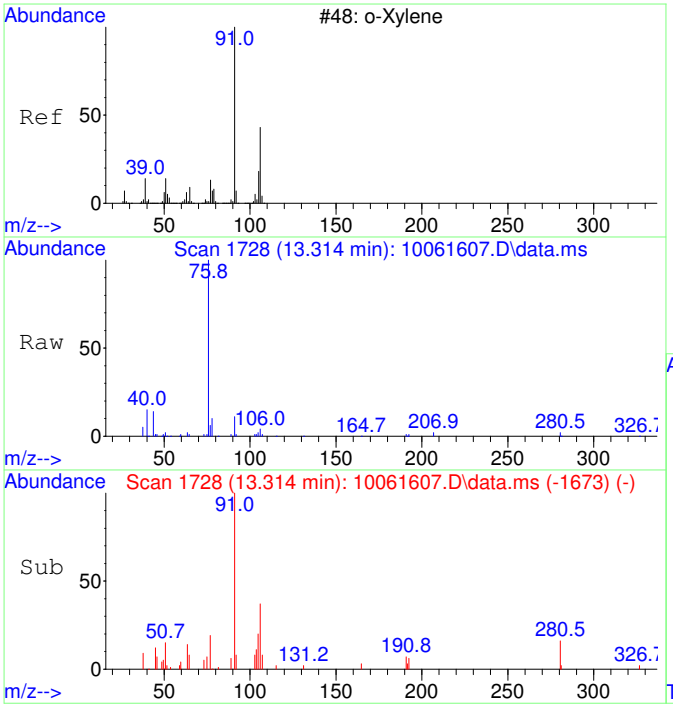


#39
o-Xylene
Concen: 56.63 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 4753

Ion	Ratio	Lower	Upper
91	100		
106	46.9	17.2	77.2

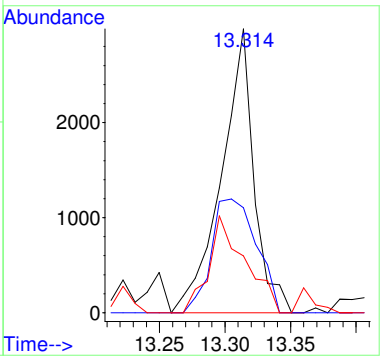


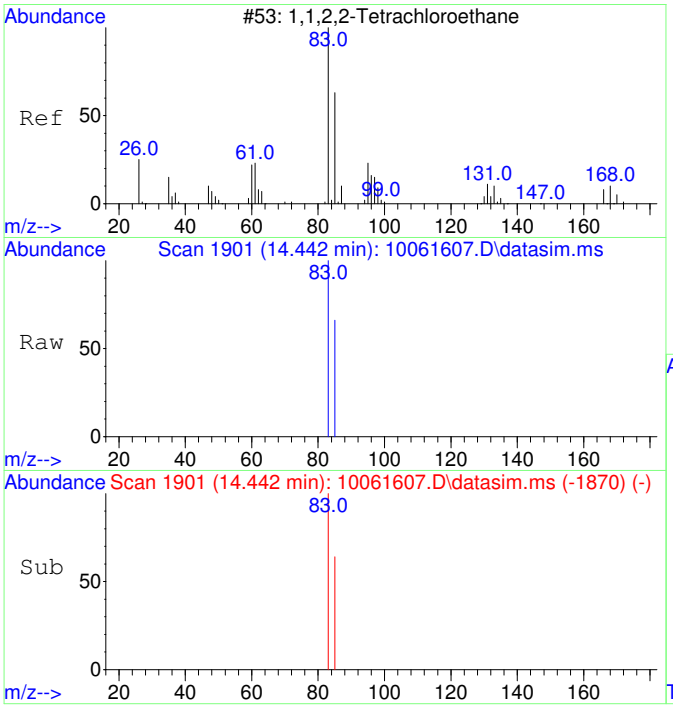


#40
o-Xylene SCAN
Concen: 73.66 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 5156

Ion	Ratio	Lower	Upper
91	100		
106	56.0	18.0	78.0
105	38.1	0.0	56.8

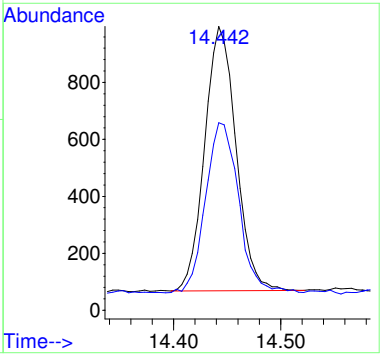


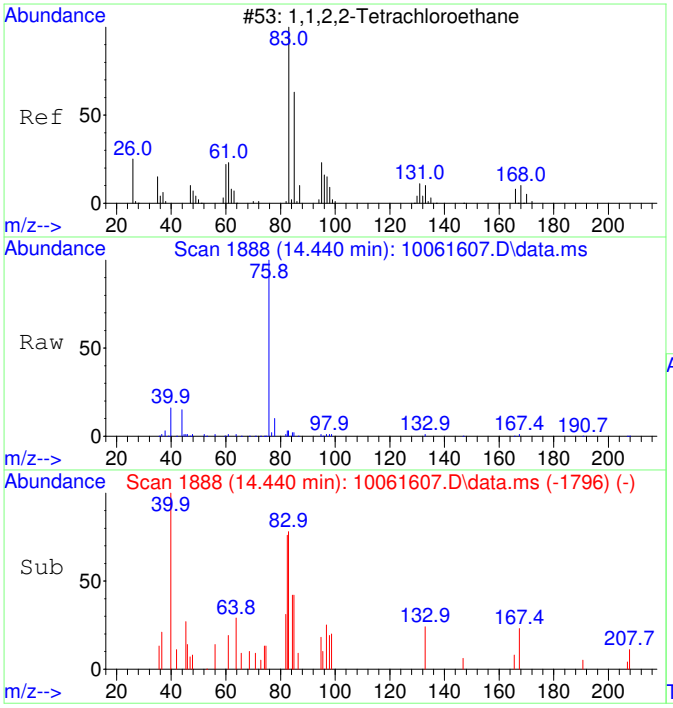


#41
1,1,2,2-Tetrachloroethane
Concen: 52.22 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 1893

Ion	Ratio	Lower	Upper
83	100		
85	67.7	34.4	94.4

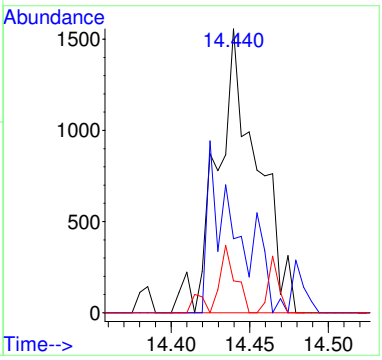


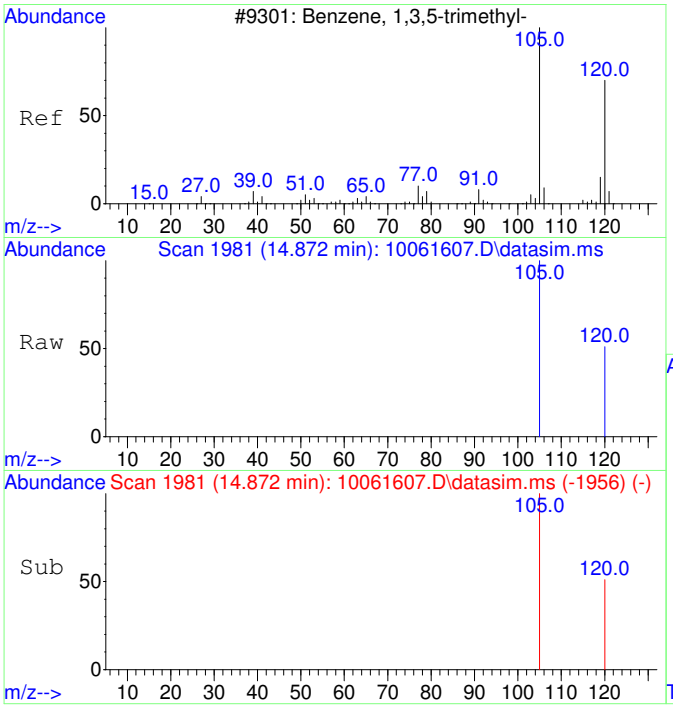


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 88.26 ug/L
RT: 14.440 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 2768

Ion	Ratio	Lower	Upper
83	100		
85	42.6	33.2	93.2
95	11.1	0.0	47.2

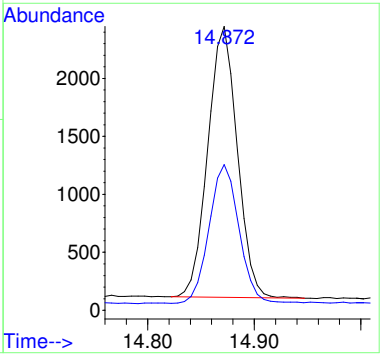


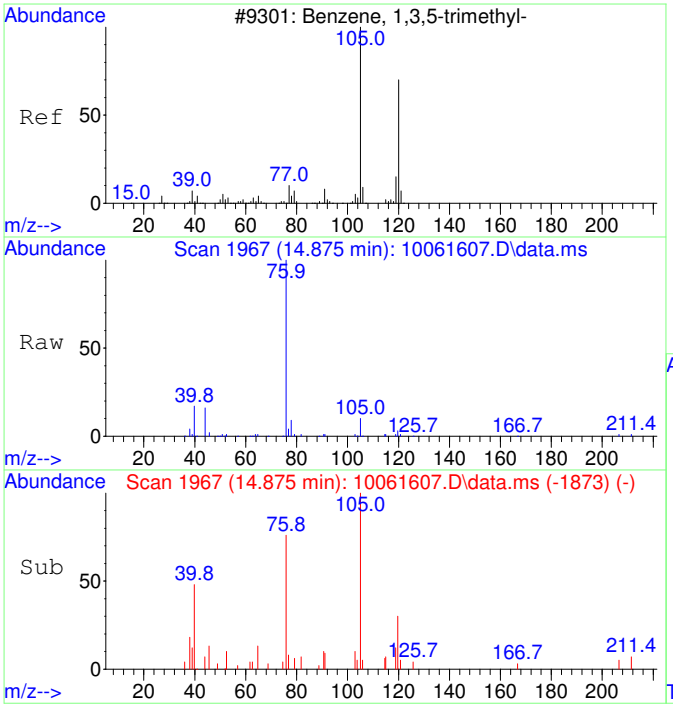


#43
1,3,5-Trimethylbenzene
Concen: 51.98 ug/L
RT: 14.872 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4492

Ion	Ratio	Lower	Upper
105	100		
120	51.9	19.7	79.7

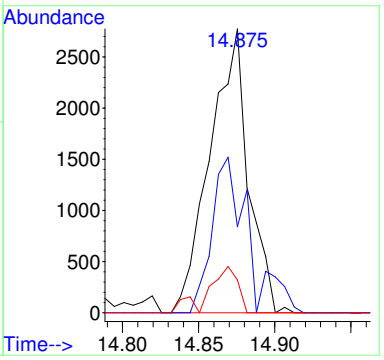


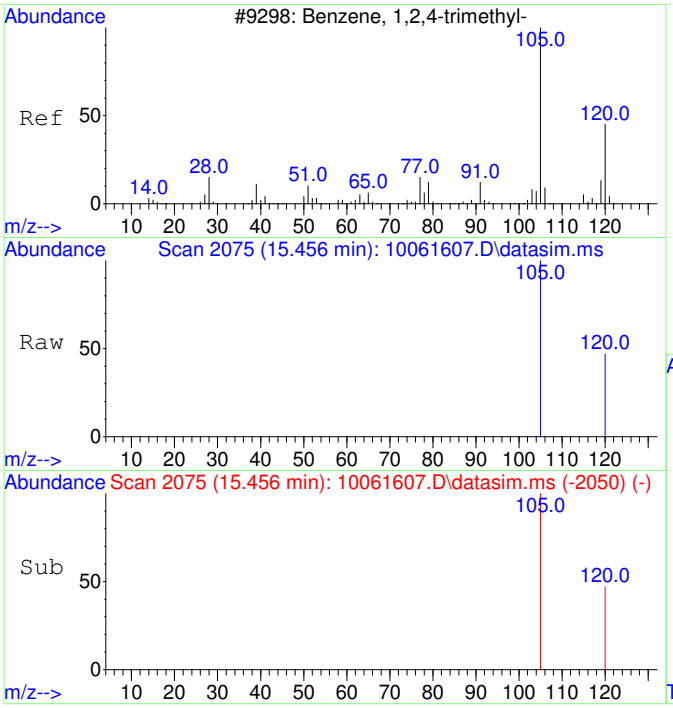


#44
1,3,5-Trimethylbenzene SCAN
Concen: 71.18 ug/L
RT: 14.875 min Scan# 1967
Delta R.T. 0.012 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4866

Ion	Ratio	Lower	Upper
105	100		
120	52.2	22.1	82.1
119	12.7	0.0	42.9

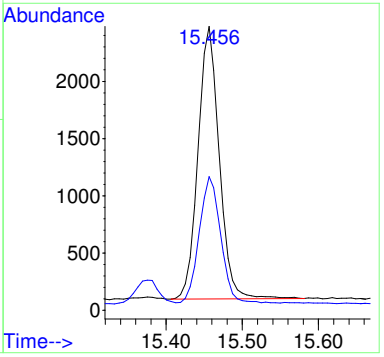


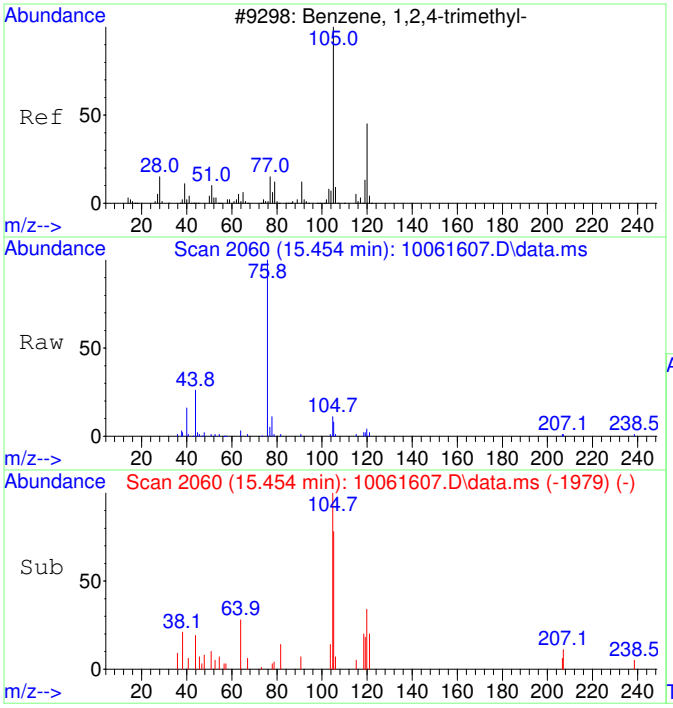


#45
1,2,4-Trimethylbenzene
Concen: 51.85 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4604

Ion	Ratio	Lower	Upper
105	100		
120	46.2	15.7	75.7

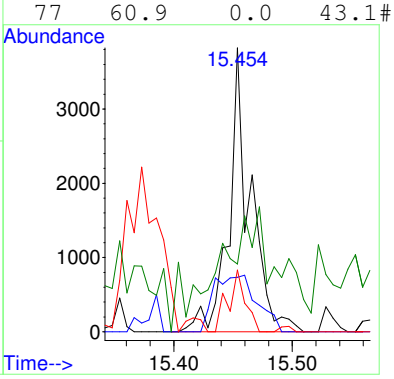


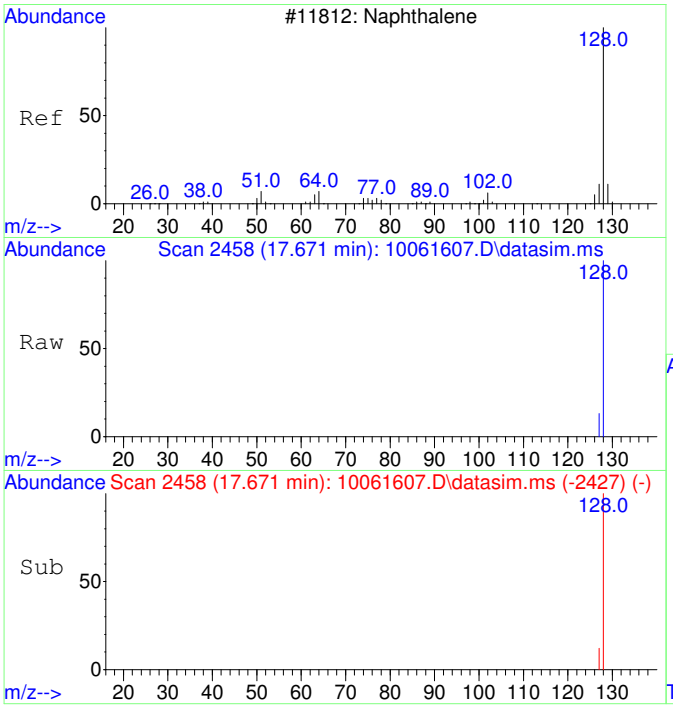


#46
1,2,4-Trimethylbenzene SCAN
Concen: 66.78 ug/L
RT: 15.454 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4791

Ion	Ratio	Lower	Upper
105	100		
120	40.3	17.2	77.2
119	17.7	0.0	41.3
77	60.9	0.0	43.1#

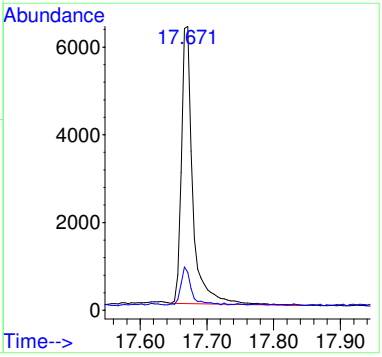


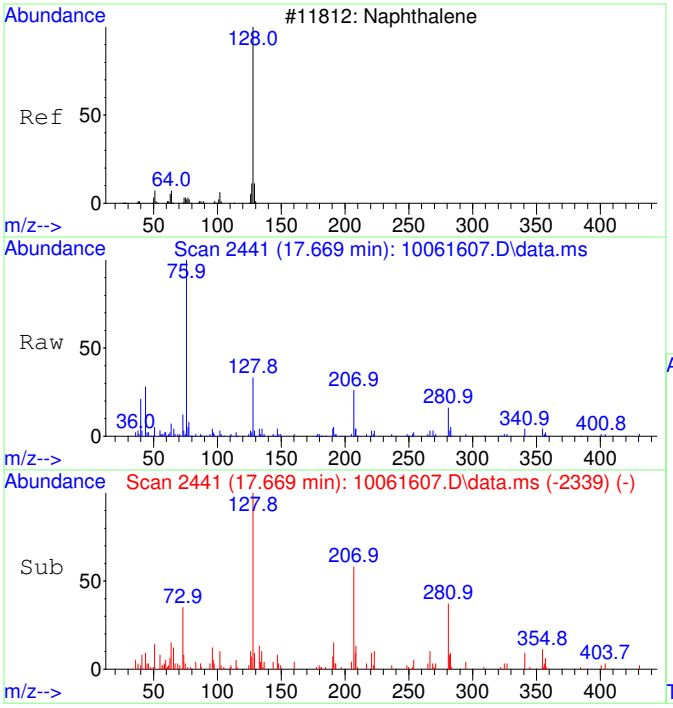


#47
Naphthalene
Concen: 53.62 ug/L
RT: 17.671 min Scan# 2458
Delta R.T. 0.005 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:128 Resp: 7453

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	42.6

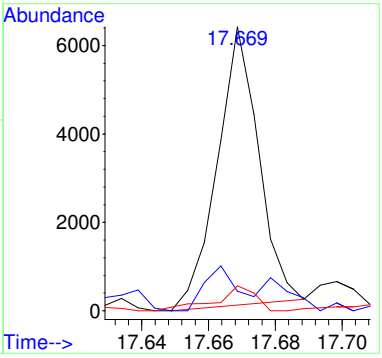




#48
Naphthalene SCAN
Concen: 50.09 ug/L
RT: 17.669 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:128 Resp: 5423

Ion	Ratio	Lower	Upper
128	100		
127	9.8	0.0	43.1
129	8.6	0.0	41.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061607.D
Acq On : 6 Oct 2016 13:56
InstName : AG5975C
Operator : RH
Sample : S16J024-CRL2
Misc : 1635077 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

M.I. Performed By:
RH at 1:26 pm, Oct 07, 2016

M.I. Approved By:
ZAR at 9:38 am, Oct 14, 2016

Quant Time: Oct 06 14:26:10 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

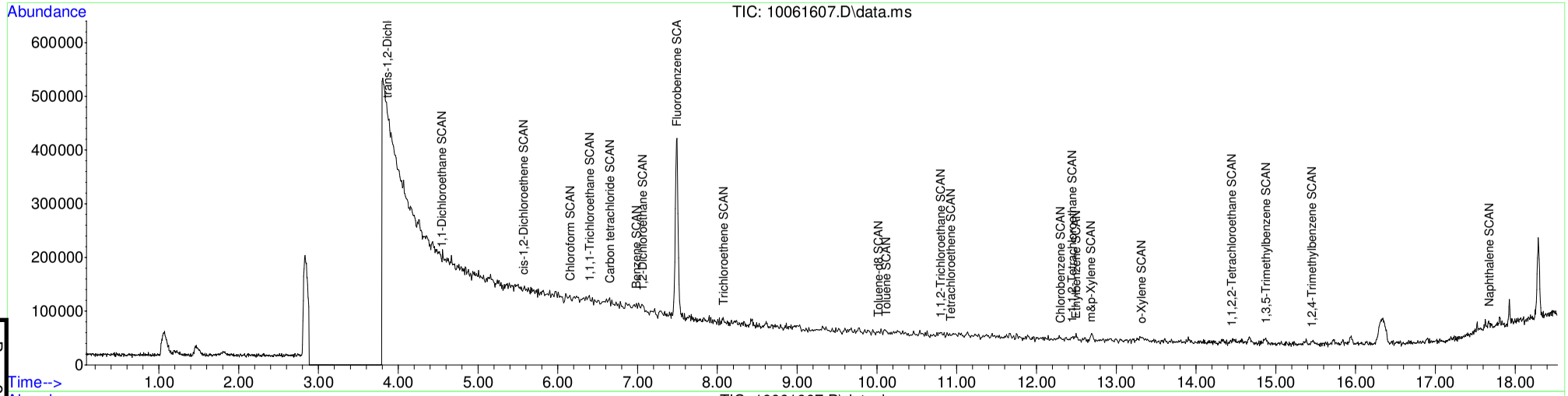
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.489	96	446935	5000.00	ug/L	0.01
System Monitoring Compounds						
23) Toluene-d8	10.009	98	4698	59.19	ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 1.18%#			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.487	96	386339	4866.73	ug/L	98
3] 1,1-Dichloroethene	2.743	61	1869m	38.78	ug/L	
5] trans-1,2-Dichloroethene	3.865	61	1867	42.31	ug/L	82
6) trans-1,2-Dichloroethe...	3.862	61	2321	61.72	ug/L	83
7] 1,1-Dichloroethane	4.551	63	2291	44.00	ug/L	99
8) 1,1-Dichloroethane SCAN	4.549	63	1888	41.26	ug/L #	67
9] cis-1,2-Dichloroethene	5.569	61	2001	43.11	ug/L	99
10) cis-1,2-Dichloroethene...	5.566	61	2470	59.70	ug/L #	56
11] Chloroform	6.156	83	2694	50.79	ug/L	97
12) Chloroform SCAN	6.153	83	2857	62.61	ug/L #	25
13] 1,1,1-Trichloroethane	6.384	97	2448	53.07	ug/L	99
14) 1,1,1-Trichloroethane ...	6.395	97	3146	78.13	ug/L #	65
15] Carbon tetrachloride	6.639	117	2189	54.78	ug/L	99
16) Carbon tetrachloride SCAN	6.650	117	1899	53.96	ug/L #	15
17] Benzene	7.001	78	7178	69.66	ug/L	89
18) Benzene SCAN	6.985	78	31402	339.13	ug/L #	57
19] 1,2-Dichloroethane	7.068	62	1796	47.71	ug/L	97
20) 1,2-Dichloroethane SCAN	7.066	62	1805	51.14	ug/L #	62
21] Trichloroethene	8.075	130	1613	55.26	ug/L	99
22) Trichloroethene SCAN	8.079	95	1220	52.19	ug/L	77
24) Toluene-d8 SCAN	10.018	98	4894	70.15	ug/L #	91
25] Toluene	10.099	91	5820	59.61	ug/L	99
26) Toluene SCAN	10.108	91	6490	81.33	ug/L	97
27] 1,1,2-Trichloroethane	10.790	97	1277	55.37	ug/L	99
28) 1,1,2-Trichloroethane ...	10.798	97	1446	76.84	ug/L #	49
29] Tetrachloroethene	10.937	166	1702	60.47	ug/L	100
30) Tetrachloroethene SCAN	10.923	166	2720	120.37	ug/L #	14
31] Chlorobenzene	12.296	112	3842	59.69	ug/L	97
32) Chlorobenzene SCAN	12.302	112	3116	58.15	ug/L	84
33] 1,1,1,2-Tetrachloroethane	12.452	131	1254	54.33	ug/L	97
34) 1,1,1,2-Tetrachloroeth...	12.450	131	1466	77.24	ug/L #	75
35] Ethylbenzene	12.498	91	5950	57.27	ug/L	98
36) Ethylbenzene SCAN	12.496	91	6716	79.36	ug/L	93
37] m&p-Xylene	12.691	91	9151	112.40	ug/L	98
38) m&p-Xylene SCAN	12.679	91	9519	142.28	ug/L	87
39] o-Xylene	13.307	91	4753	56.63	ug/L	100
40) o-Xylene SCAN	13.314	91	5156	73.66	ug/L	85
41] 1,1,2,2-Tetrachloroethane	14.442	83	1893	52.22	ug/L	96
42) 1,1,2,2-Tetrachloroeth...	14.440	83	2768	88.26	ug/L	76
43] 1,3,5-Trimethylbenzene	14.872	105	4492	51.98	ug/L	97
44) 1,3,5-Trimethylbenzene...	14.875	105	4866	71.18	ug/L	100
45] 1,2,4-Trimethylbenzene	15.456	105	4604	51.85	ug/L	99
46) 1,2,4-Trimethylbenzene...	15.454	105	4791	66.78	ug/L #	69
47] Naphthalene	17.671	128	7453	53.62	ug/L	100
48) Naphthalene SCAN	17.669	128	5423	50.09	ug/L	92

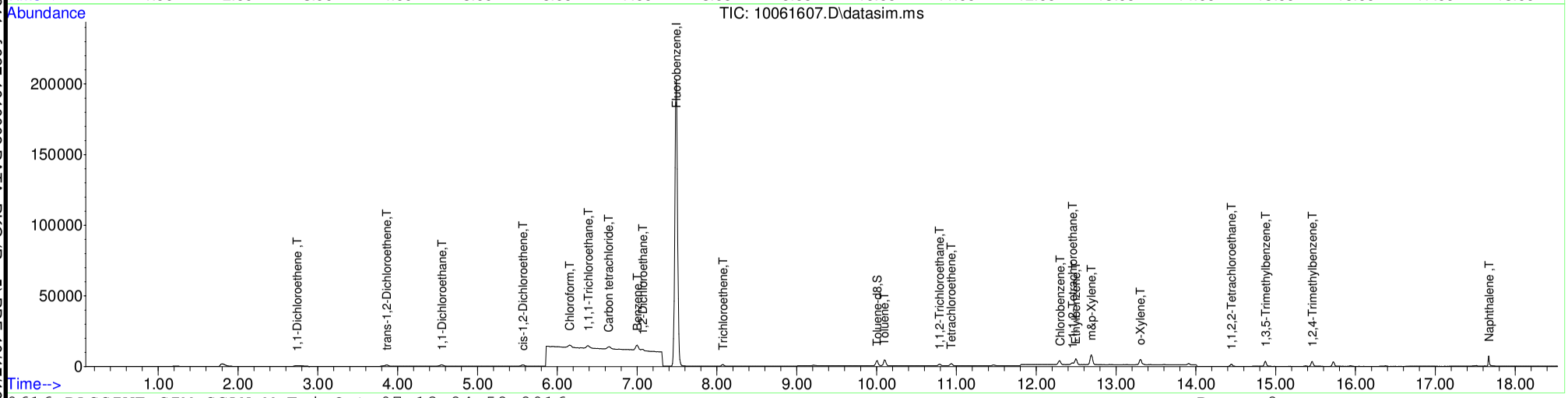
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061607.D
Acq On : 6 Oct 2016 13:56
InstName : AG5975C
Operator : RH
Sample : S16J024-CRL2
Misc : 1635077 0.05 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 14:26:10 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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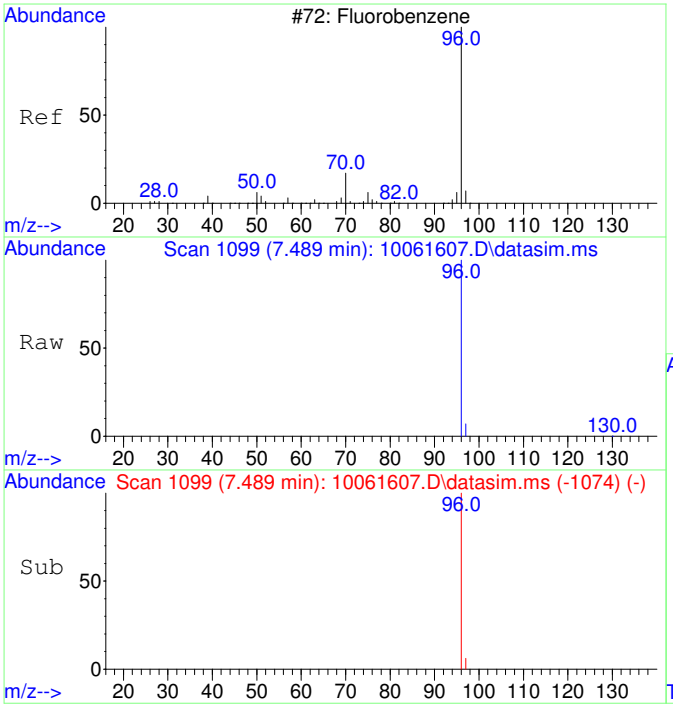
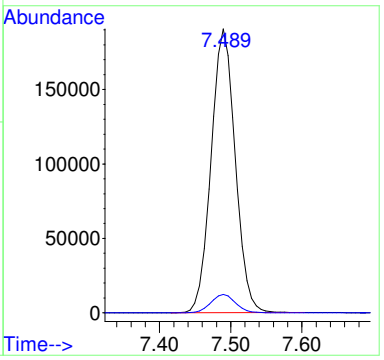
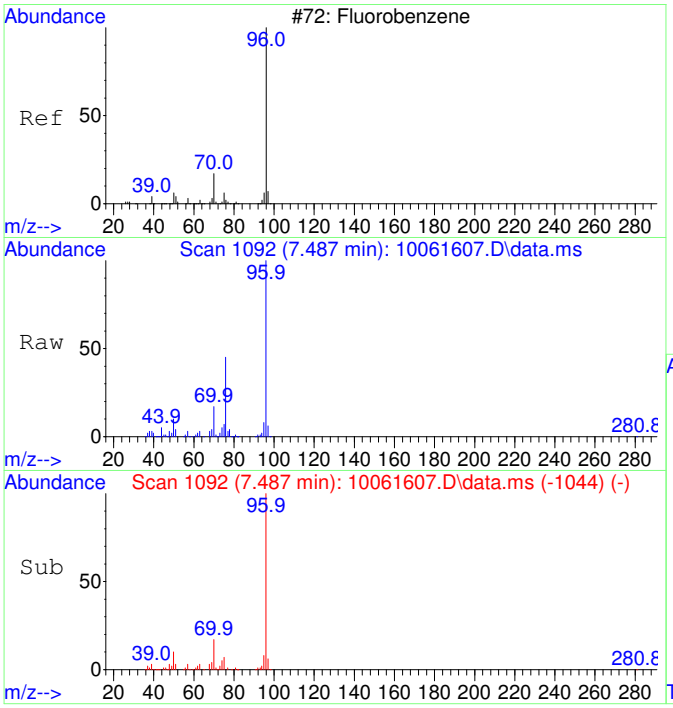


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.489 min Scan# 1099
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 96 Resp: 446935

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

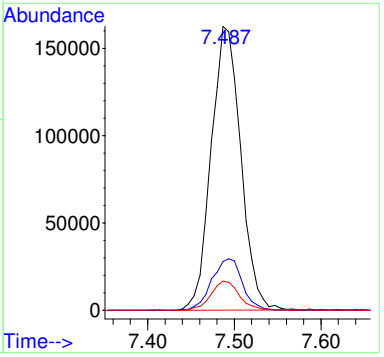


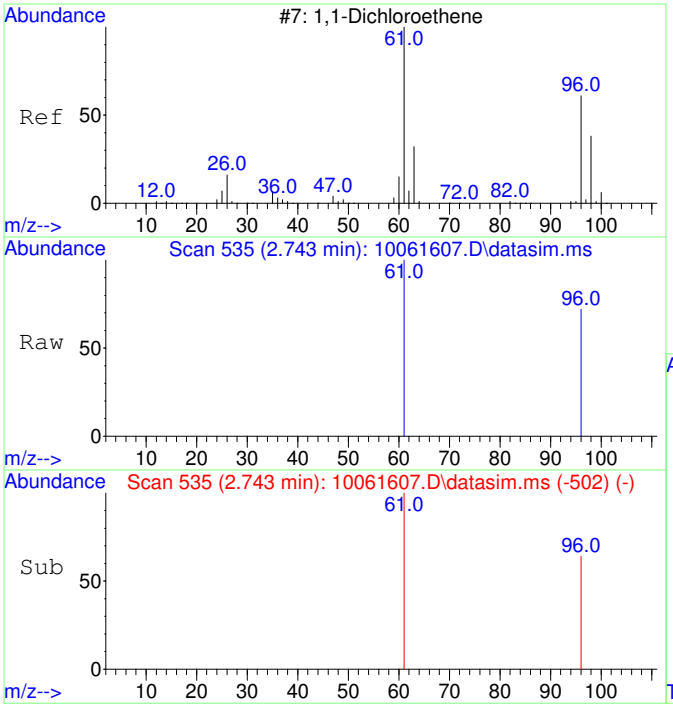


#2
Fluorobenzene SCAN
Concen: 4866.73 ug/L
RT: 7.487 min Scan# 1092
Delta R.T. 0.007 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 96 Resp: 386339

Ion	Ratio	Lower	Upper
96	100		
70	18.8	0.0	49.2
50	10.0	0.0	41.1

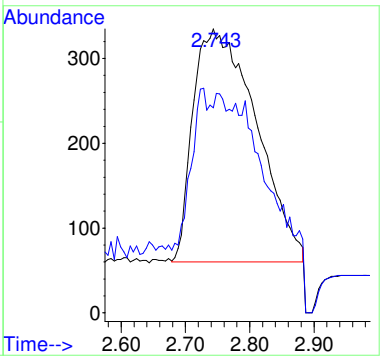


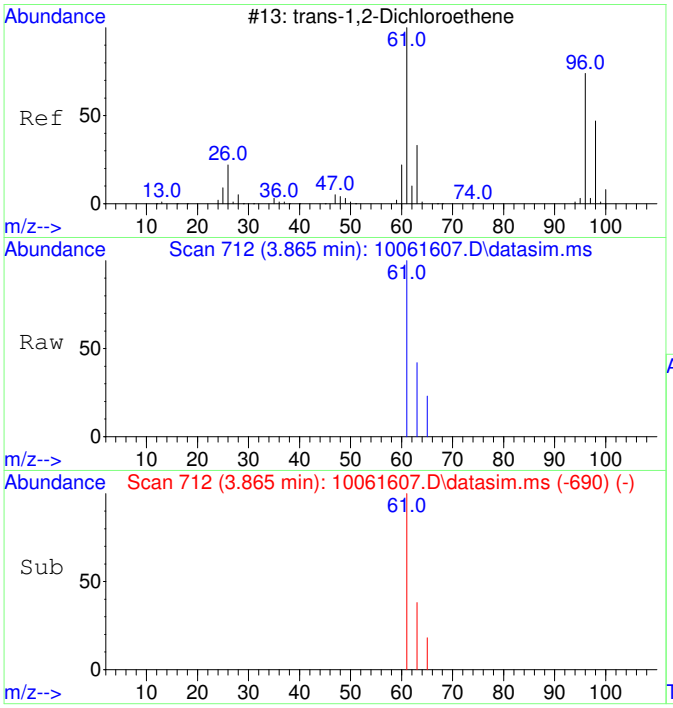


#3
1,1-Dichloroethene
Concen: 38.78 ug/L m
RT: 2.743 min Scan# 535
Delta R.T. 0.015 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 1869

Ion	Ratio	Lower	Upper
61	100		
96	89.4	34.9	94.9

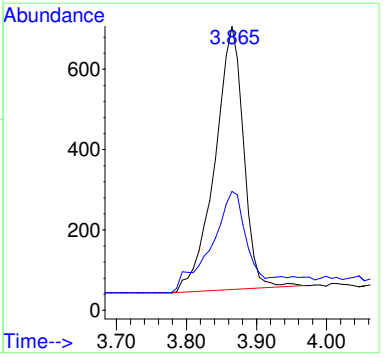


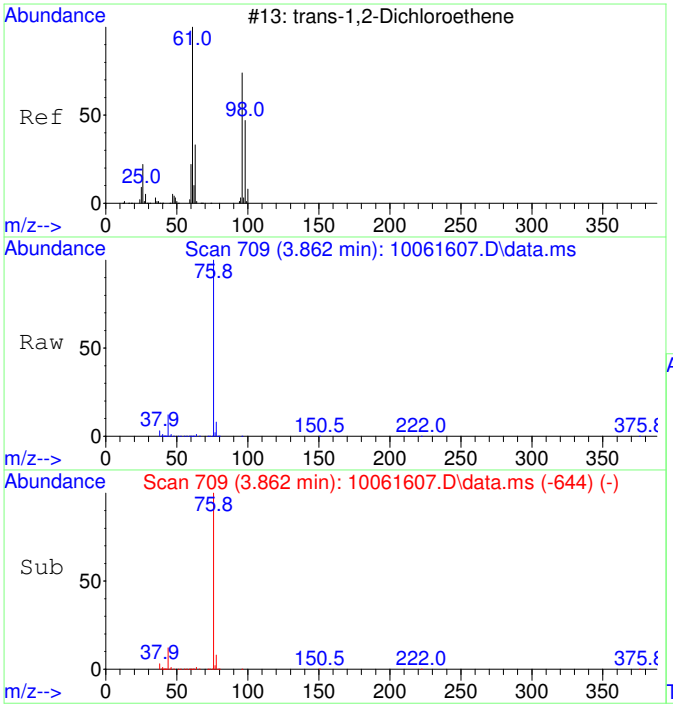


#5
trans-1,2-Dichloroethene
Concen: 42.31 ug/L
RT: 3.865 min Scan# 712
Delta R.T. 0.024 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 1867

Ion	Ratio	Lower	Upper
61	100		
63	42.7	2.5	62.5

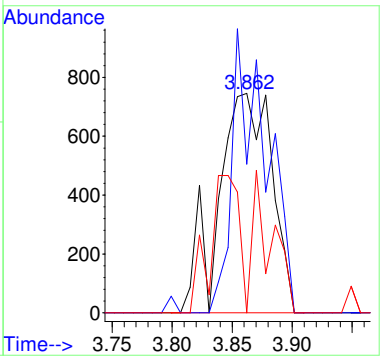


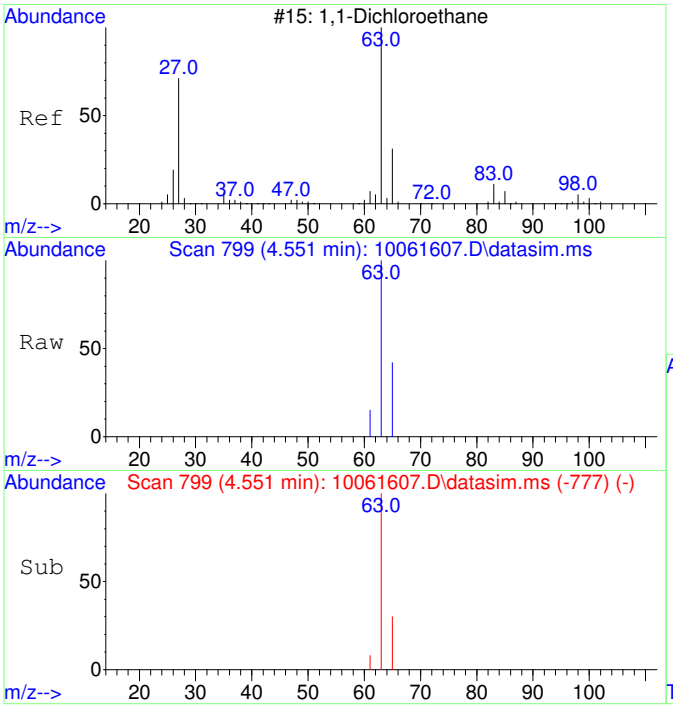


#6
trans-1,2-Dichloroethene SCAN
Concen: 61.72 ug/L
RT: 3.862 min Scan# 709
Delta R.T. 0.016 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2321

Ion	Ratio	Lower	Upper
61	100		
96	81.6	47.5	107.5
98	22.9	17.2	77.2

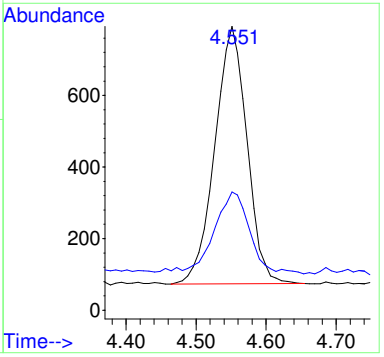


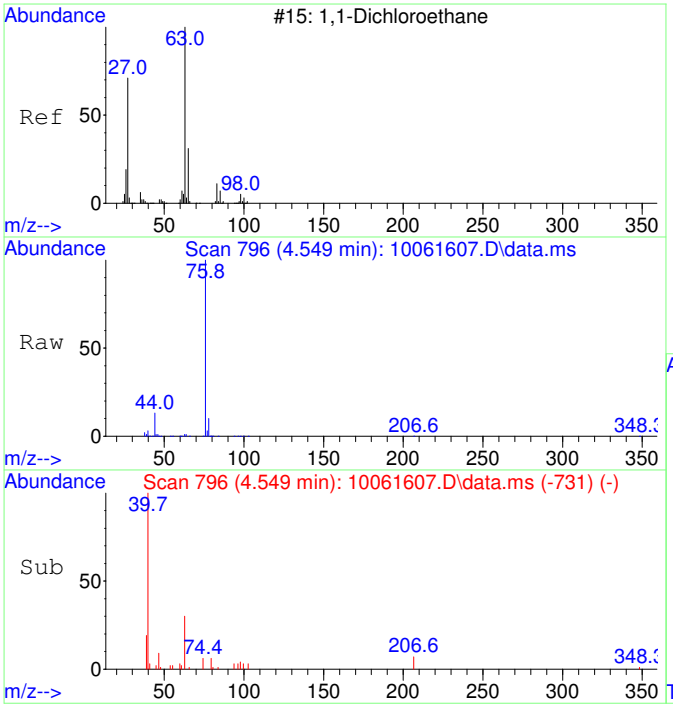


#7
1,1-Dichloroethane
Concen: 44.00 ug/L
RT: 4.551 min Scan# 799
Delta R.T. 0.024 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 63 Resp: 2291

Ion	Ratio	Lower	Upper
63	100		
65	32.6	1.8	61.8

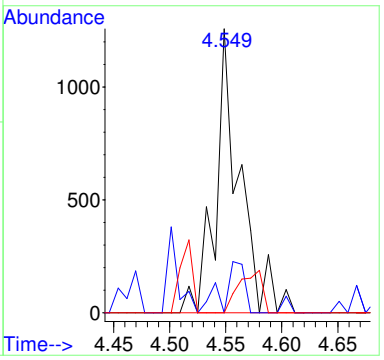


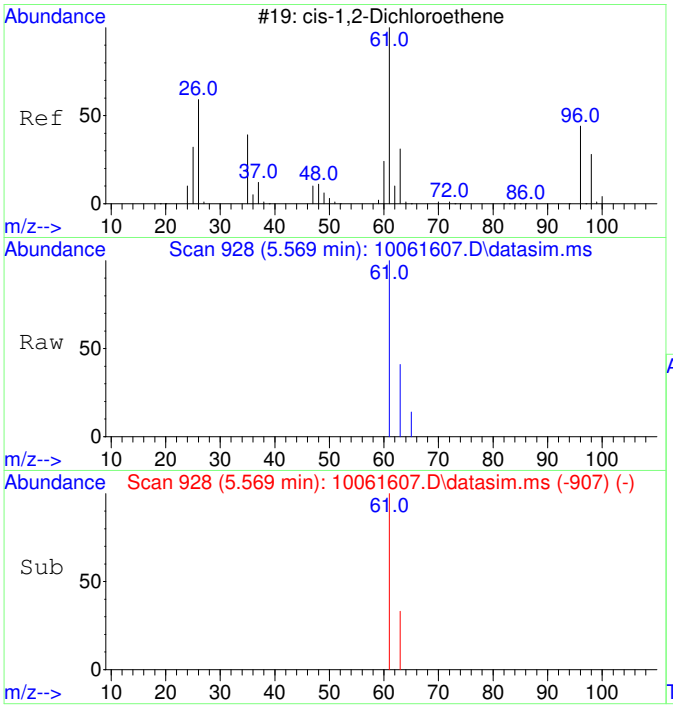


#8
1,1-Dichloroethane SCAN
Concen: 41.26 ug/L
RT: 4.549 min Scan# 796
Delta R.T. 0.016 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 63 Resp: 1888

Ion	Ratio	Lower	Upper
63	100		
65	15.7	3.9	63.9
83	0.0	0.0	45.1

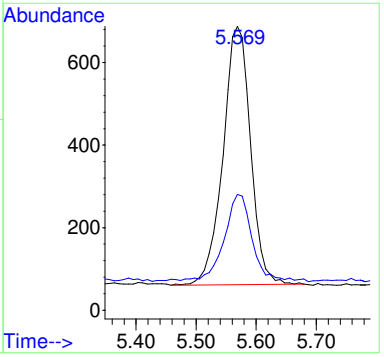


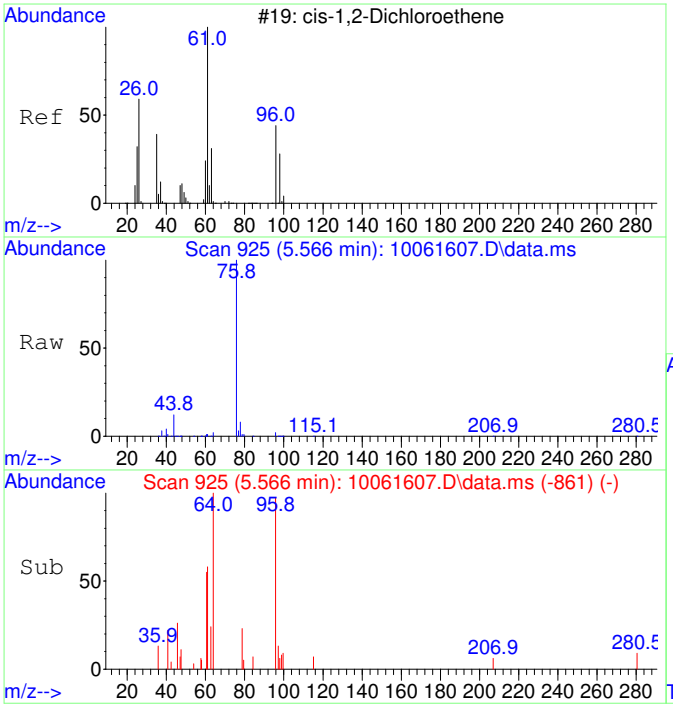


#9
cis-1,2-Dichloroethene
Concen: 43.11 ug/L
RT: 5.569 min Scan# 928
Delta R.T. 0.016 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2001

Ion	Ratio	Lower	Upper
61	100		
63	32.1	2.4	62.4

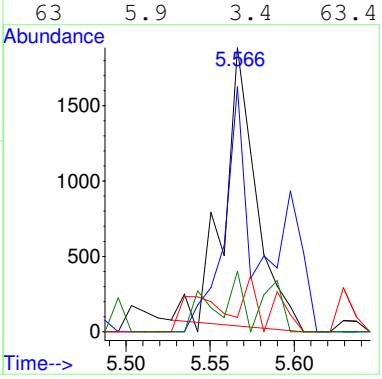


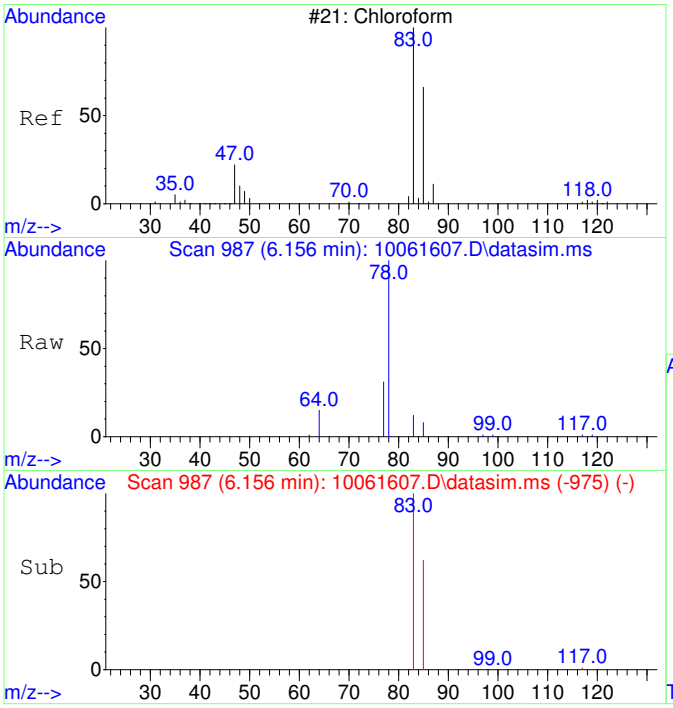


#10
cis-1,2-Dichloroethene SCAN
Concen: 59.70 ug/L
RT: 5.566 min Scan# 925
Delta R.T. 0.008 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 61 Resp: 2470

Ion	Ratio	Lower	Upper
61	100		
96	47.4	42.0	102.0
98	5.3	17.5	77.5#
63	5.9	3.4	63.4

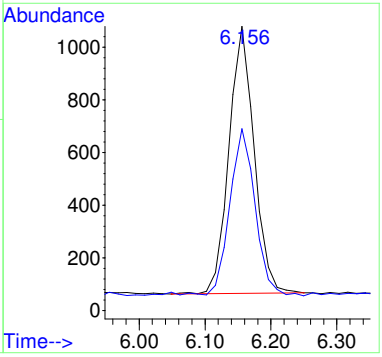


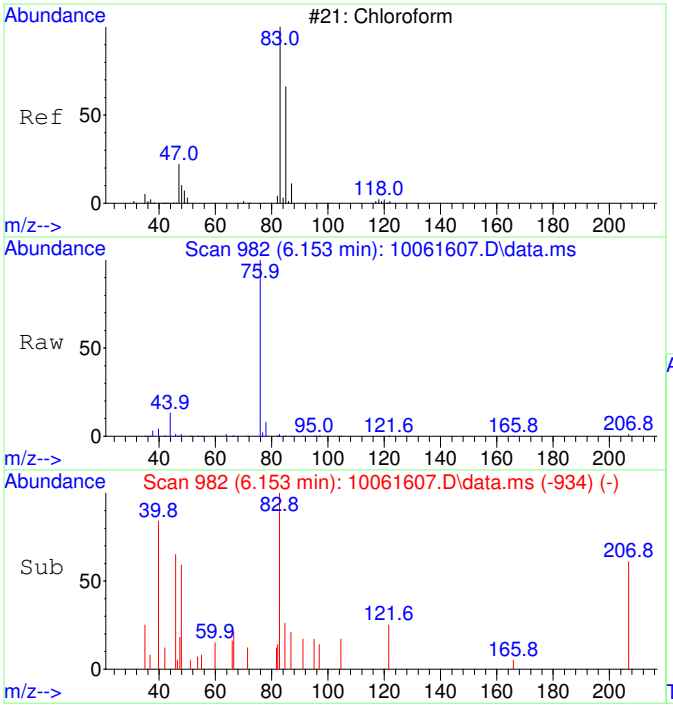


#11
Chloroform
Concen: 50.79 ug/L
RT: 6.156 min Scan# 987
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 2694

Ion	Ratio	Lower	Upper
83	100		
85	62.0	34.4	94.4

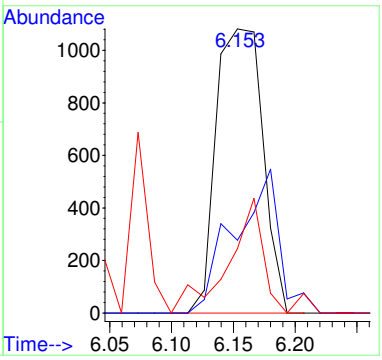


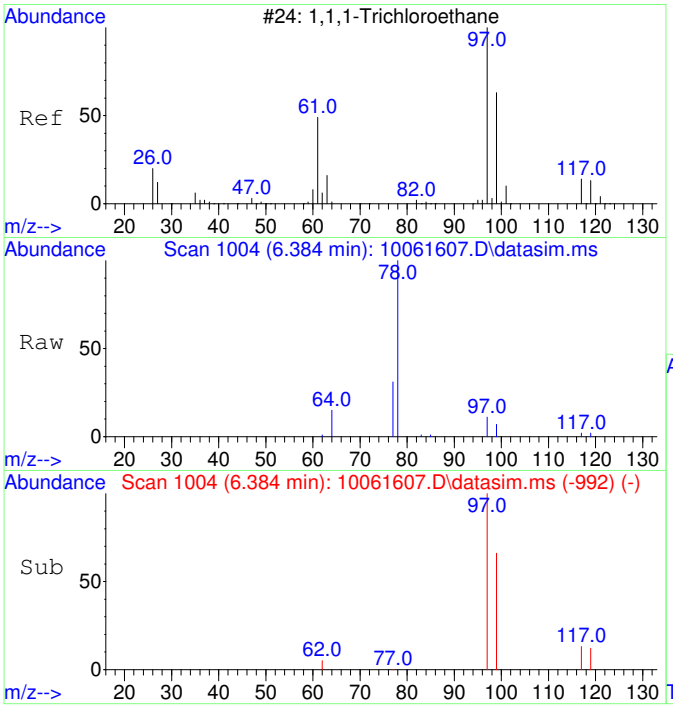


#12
Chloroform SCAN
Concen: 62.61 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 2857

Ion	Ratio	Lower	Upper
83	100		
85	0.0	37.6	97.6#
47	0.0	0.0	53.4

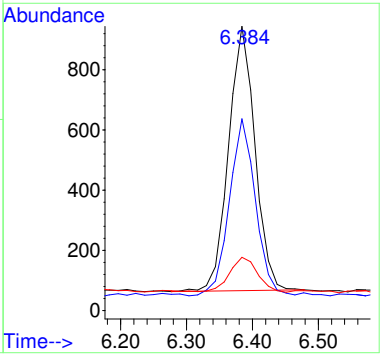


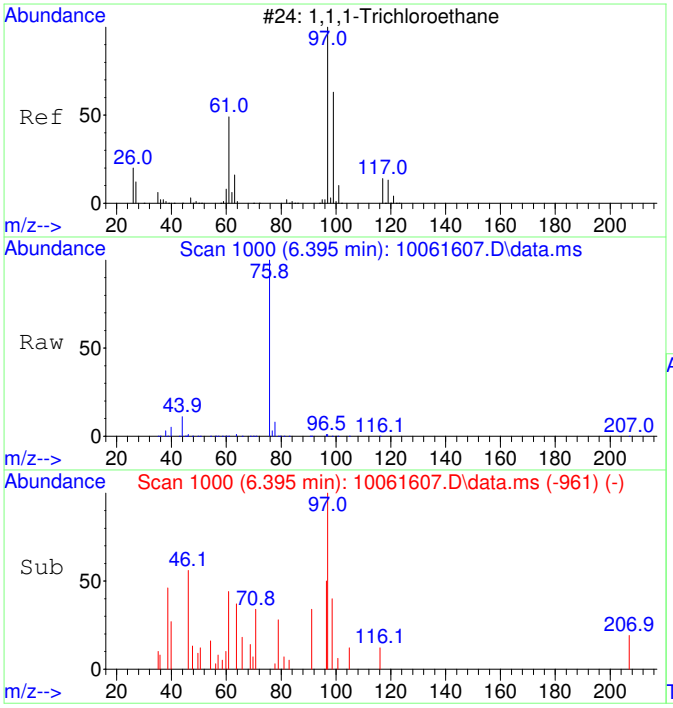


#13
1,1,1-Trichloroethane
Concen: 53.07 ug/L
RT: 6.384 min Scan# 1004
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 2448

Ion	Ratio	Lower	Upper
97	100		
99	65.0	34.2	94.2
117	13.7	0.0	43.0

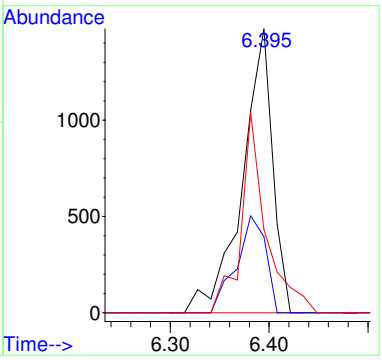


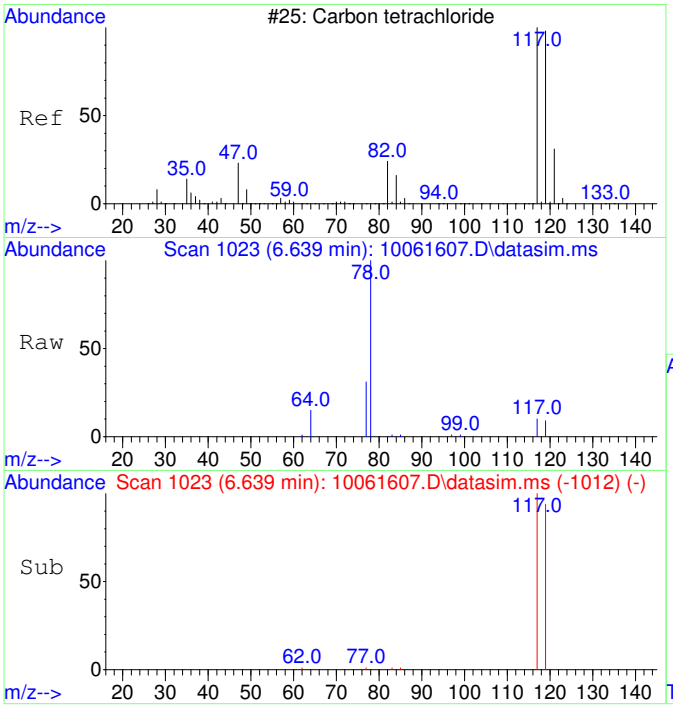


#14
1,1,1-Trichloroethane SCAN
Concen: 78.13 ug/L
RT: 6.395 min Scan# 1000
Delta R.T. 0.027 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 3146

Ion	Ratio	Lower	Upper
97	100		
99	33.2	33.6	93.6#
61	57.9	10.7	70.7

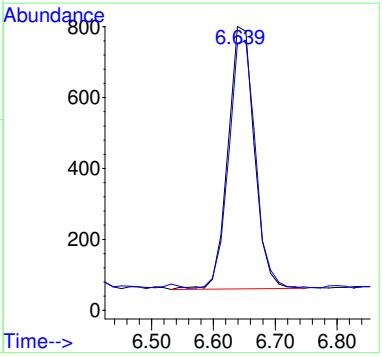


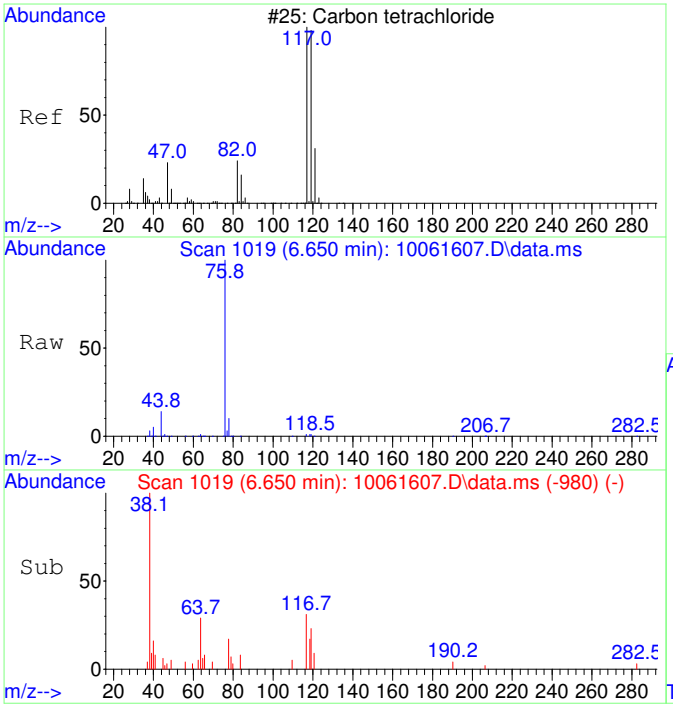


#15
Carbon tetrachloride
Concen: 54.78 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:117 Resp: 2189

Ion	Ratio	Lower	Upper
117	100		
119	95.2	66.1	126.1

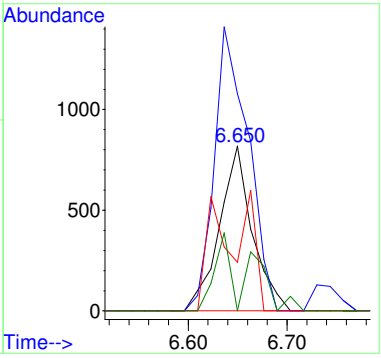


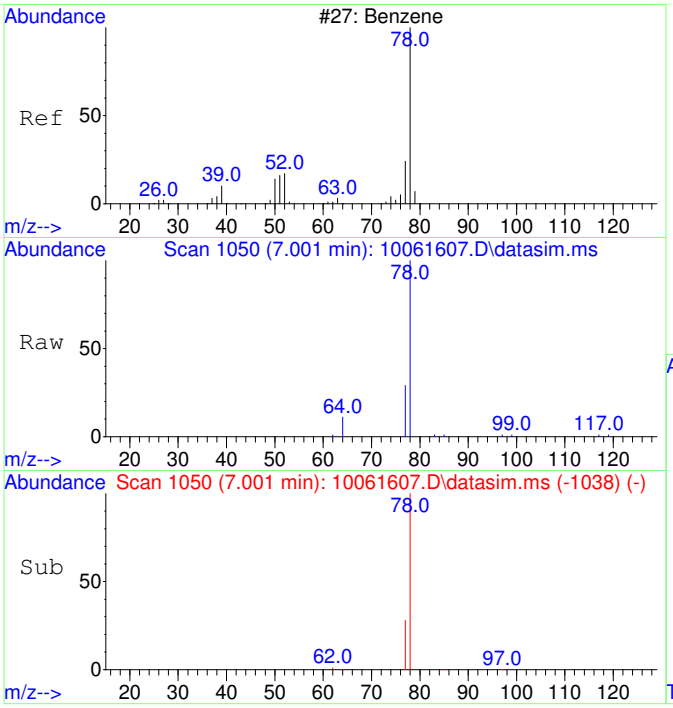


#16
Carbon tetrachloride SCAN
Concen: 53.96 ug/L
RT: 6.650 min Scan# 1019
Delta R.T. 0.027 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:117 Resp: 1899

Ion	Ratio	Lower	Upper
117	100		
119	0.0	66.0	122.6#
121	73.1	22.1	41.1#
82	0.0	18.5	34.3#

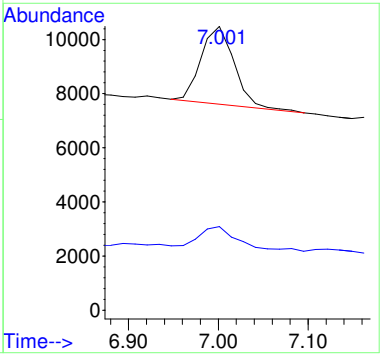


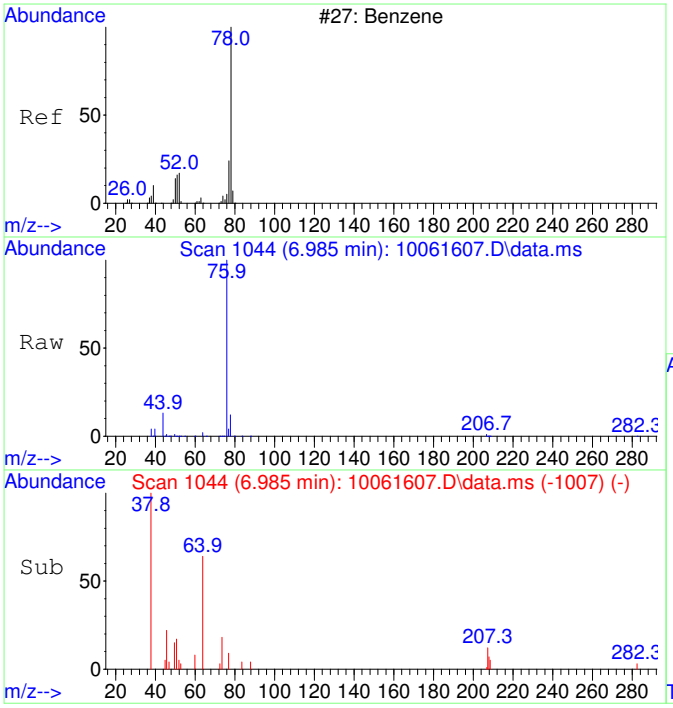


#17
Benzene
Concen: 69.66 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 78 Resp: 7178

Ion	Ratio	Lower	Upper
78	100		
77	28.9	0.0	53.4

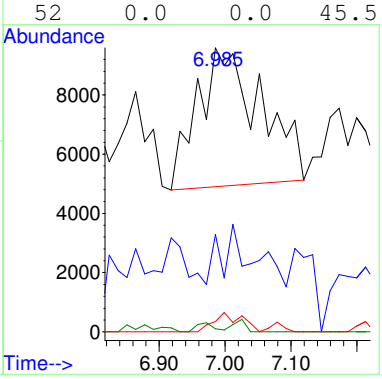


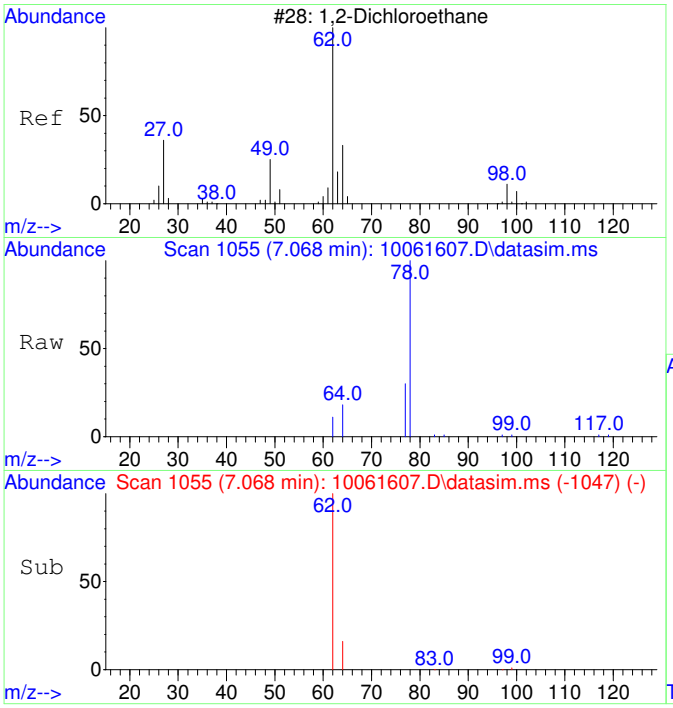


#18
Benzene SCAN
Concen: 339.13 ug/L
RT: 6.985 min Scan# 1044
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 78 Resp: 31402

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	59.3
51	6.1	0.0	49.2
52	0.0	0.0	45.5

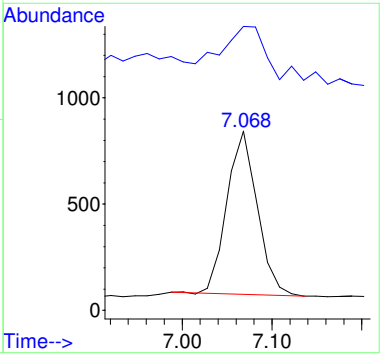


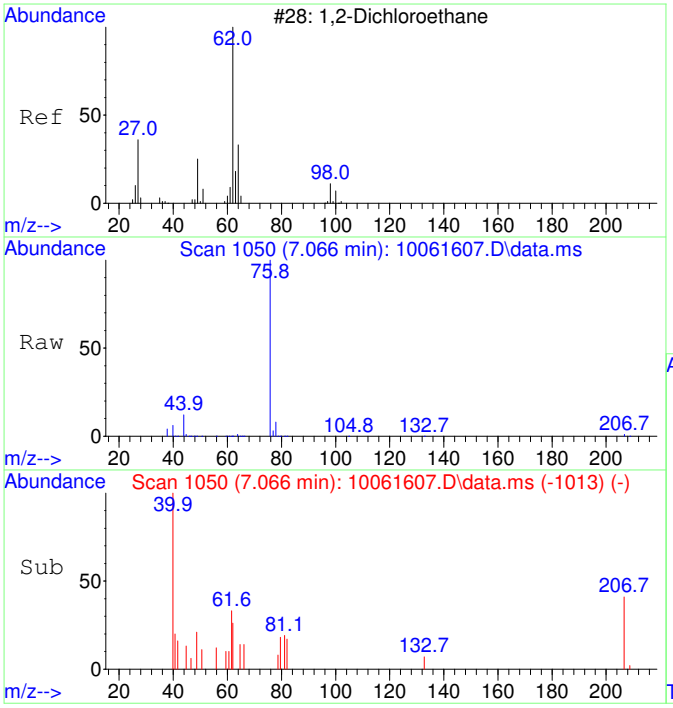


#19
1,2-Dichloroethane
Concen: 47.71 ug/L
RT: 7.068 min Scan# 1055
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 62 Resp: 1796

Ion	Ratio	Lower	Upper
62	100		
64	34.4	2.7	62.7

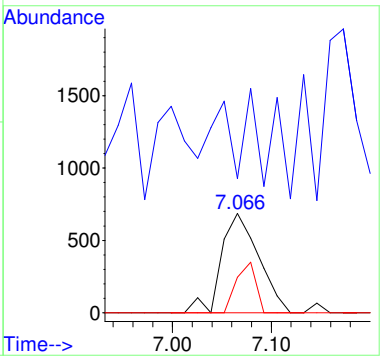


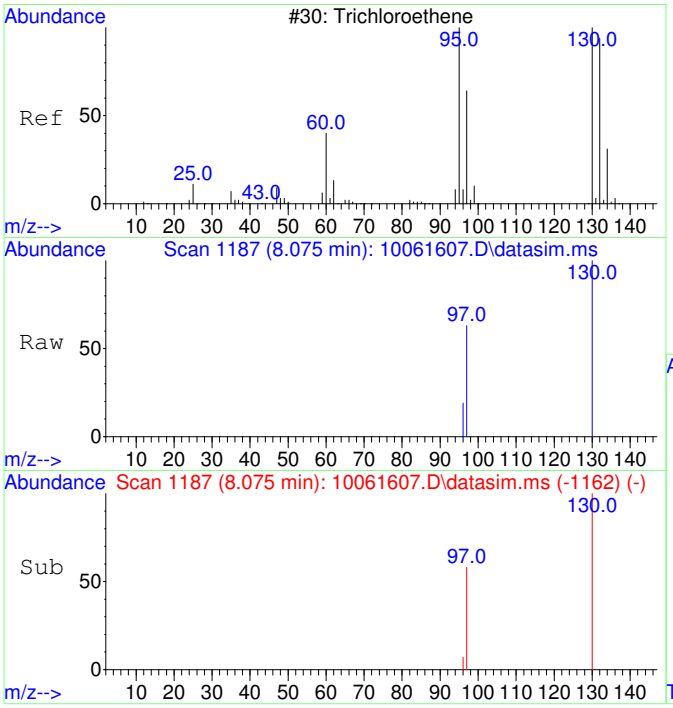


#20
1,2-Dichloroethane SCAN
Concen: 51.14 ug/L
RT: 7.066 min Scan# 1050
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 62 Resp: 1805

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	26.5	0.0	51.8

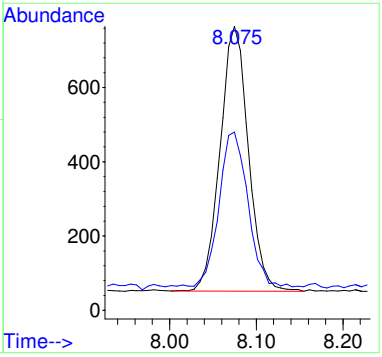


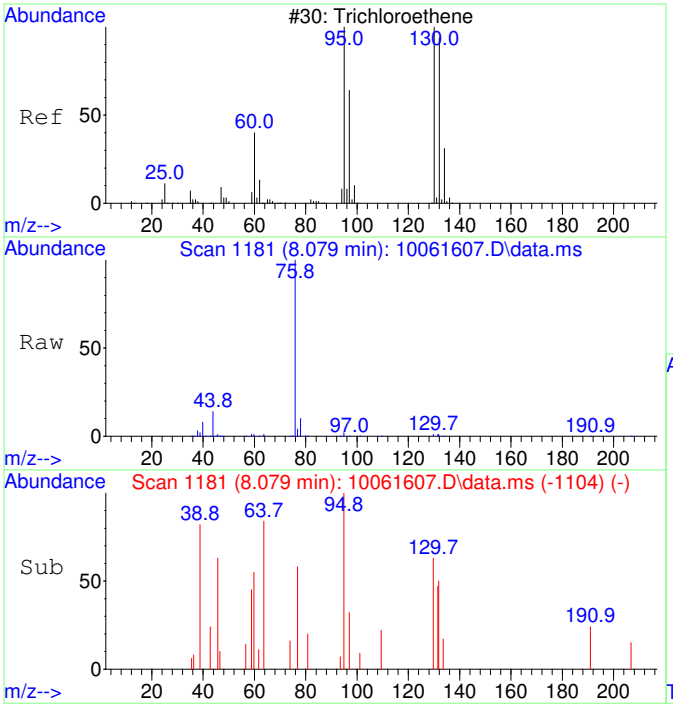


#21
Trichloroethene
Concen: 55.26 ug/L
RT: 8.075 min Scan# 1187
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:130 Resp: 1613

Ion	Ratio	Lower	Upper
130	100		
97	59.0	29.9	89.9

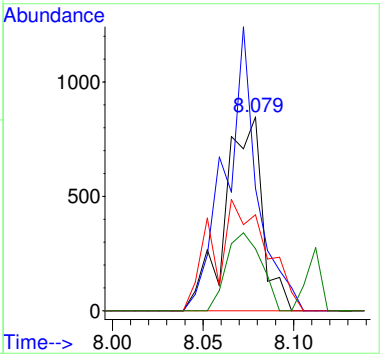


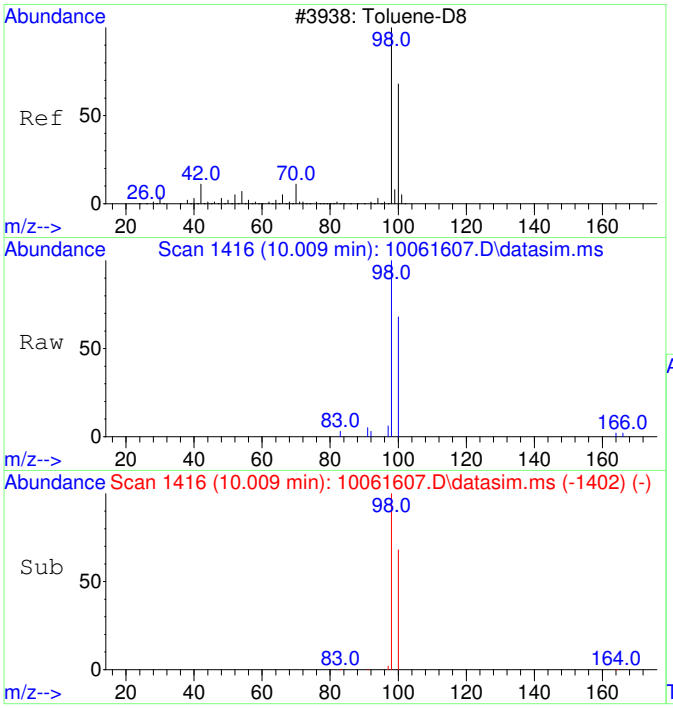


#22
Trichloroethene SCAN
Concen: 52.19 ug/L
RT: 8.079 min Scan# 1181
Delta R.T. 0.013 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 95 Resp: 1220

Ion	Ratio	Lower	Upper
95	100		
130	125.2	74.1	134.1
132	80.7	72.1	132.1
97	37.6	29.5	89.5

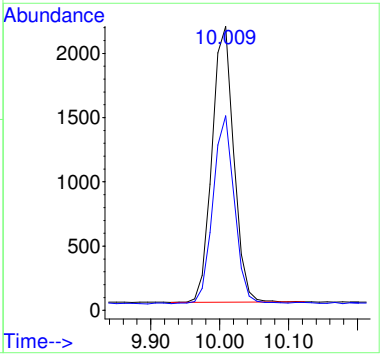


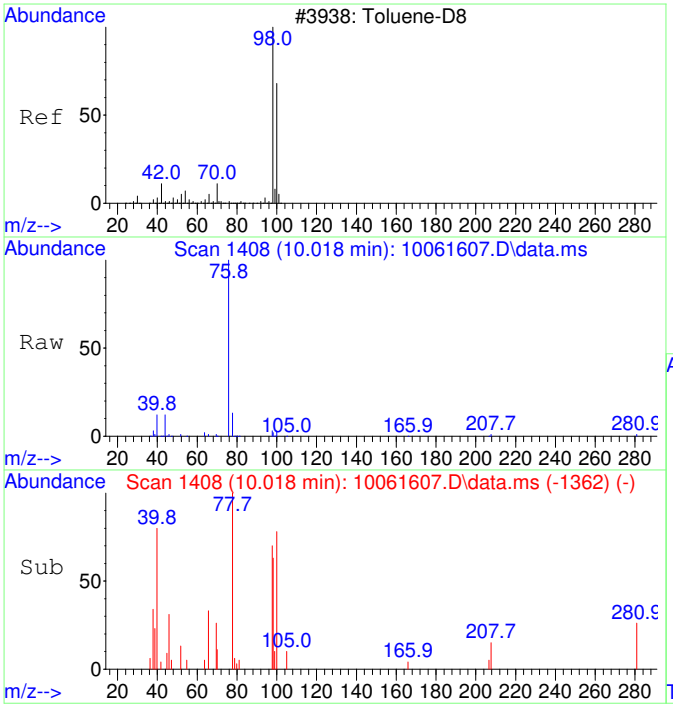


#23
Toluene-d8
Concen: 59.19 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 98 Resp: 4698

Ion	Ratio	Lower	Upper
98	100		
100	65.8	35.3	95.3

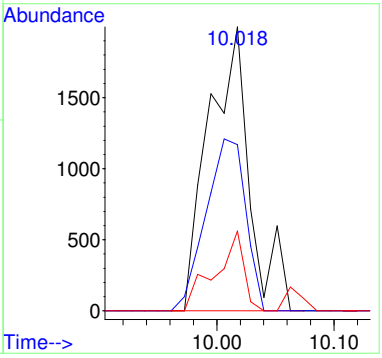


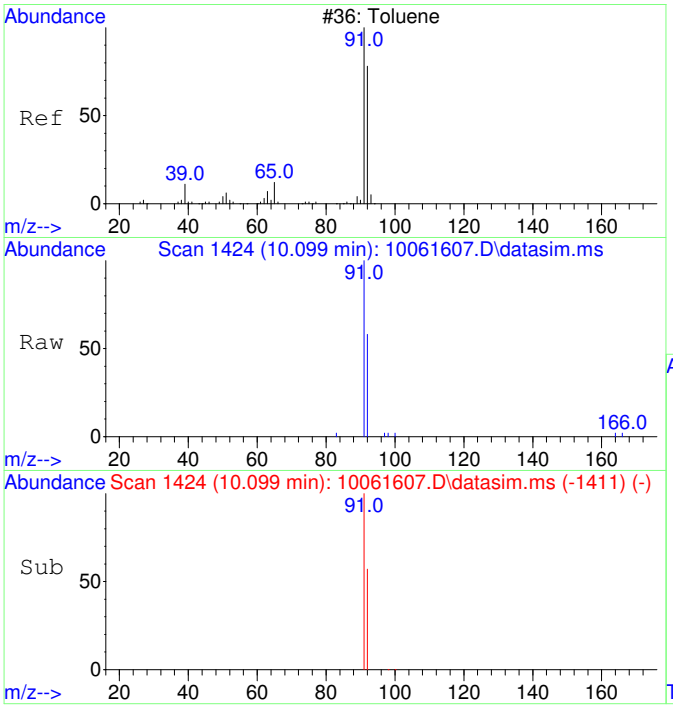


#24
Toluene-d8 SCAN
Concen: 70.15 ug/L
RT: 10.018 min Scan# 1408
Delta R.T. 0.023 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 98 Resp: 4894

Ion	Ratio	Lower	Upper
98	100		
100	58.4	44.3	82.3
70	19.4	7.8	14.4#

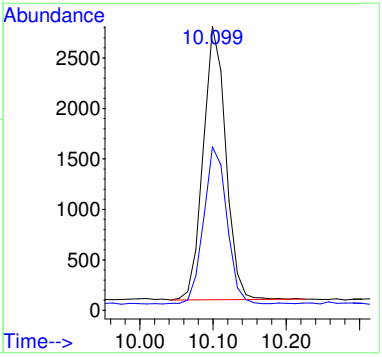


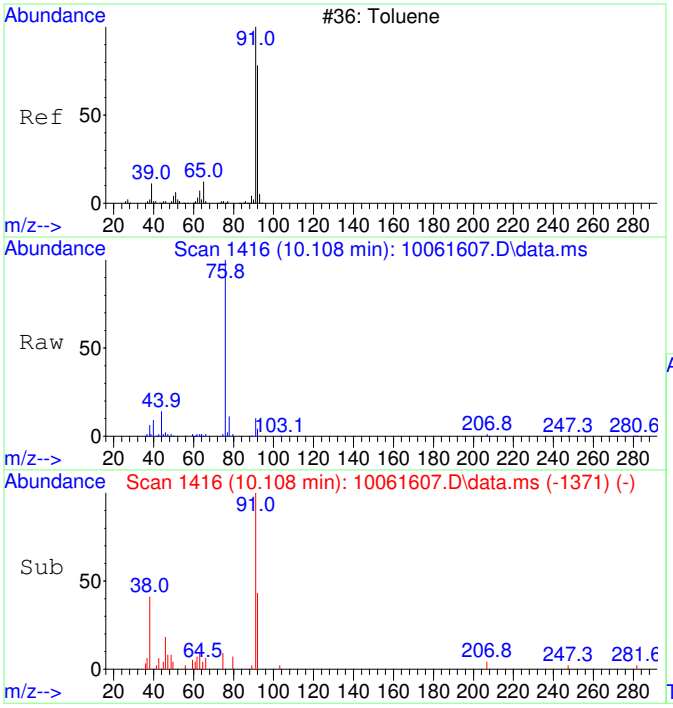


#25
Toluene
Concen: 59.61 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 5820

Ion	Ratio	Lower	Upper
91	100		
92	58.2	28.8	88.8

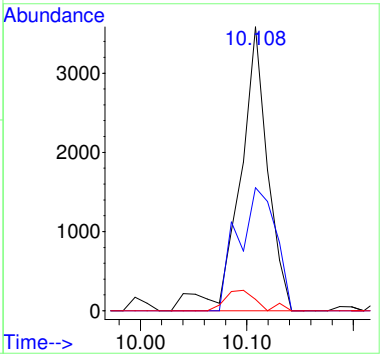


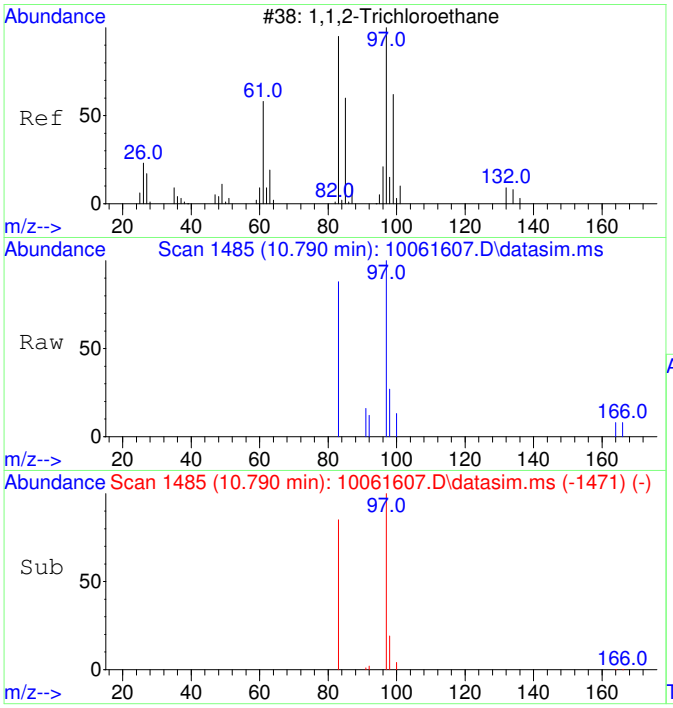


#26
Toluene SCAN
Concen: 81.33 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 6490

Ion	Ratio	Lower	Upper
91	100		
92	59.3	30.7	90.7
65	8.5	0.0	42.6

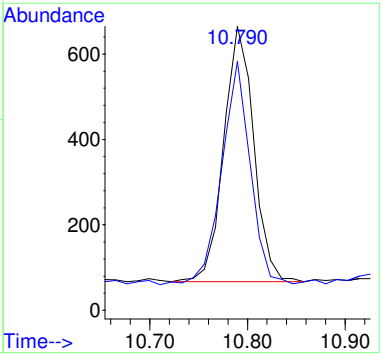


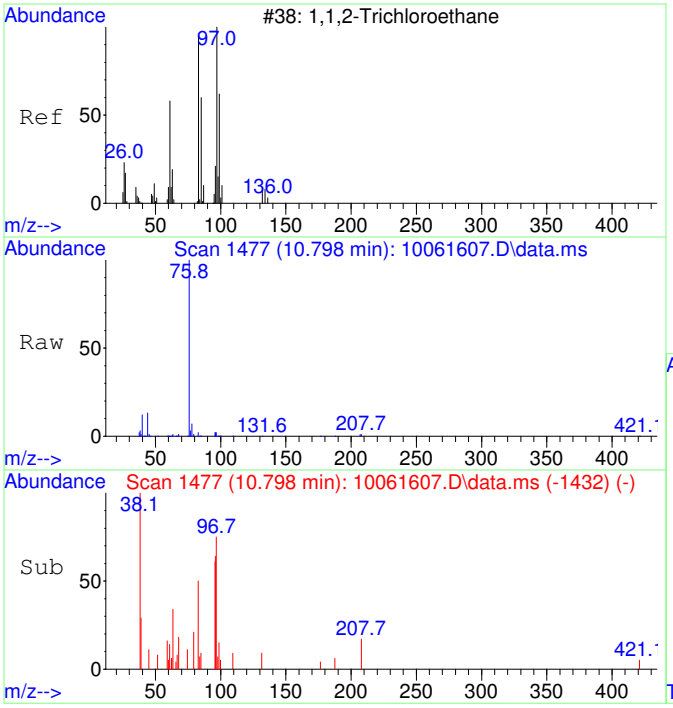


#27
1,1,2-Trichloroethane
Concen: 55.37 ug/L
RT: 10.790 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 1277

Ion	Ratio	Lower	Upper
97	100		
83	81.4	50.5	110.5

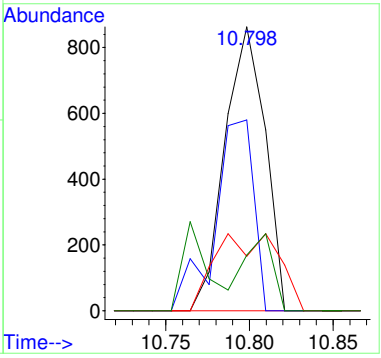


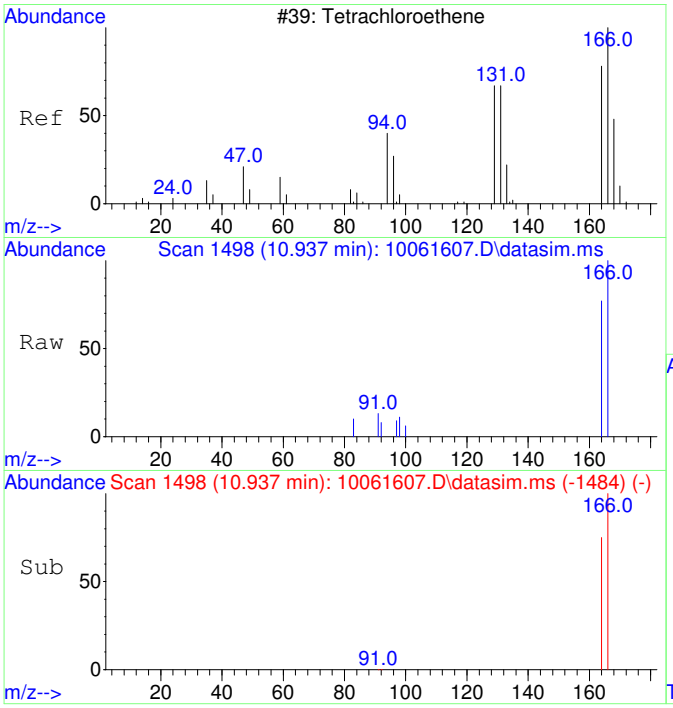


#28
1,1,2-Trichloroethane SCAN
Concen: 76.84 ug/L
RT: 10.798 min Scan# 1477
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 97 Resp: 1446

Ion	Ratio	Lower	Upper
97	100		
83	64.9	53.8	113.8
61	0.0	31.3	91.3#
99	14.5	32.9	92.9#

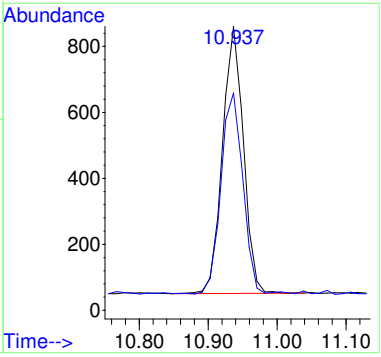


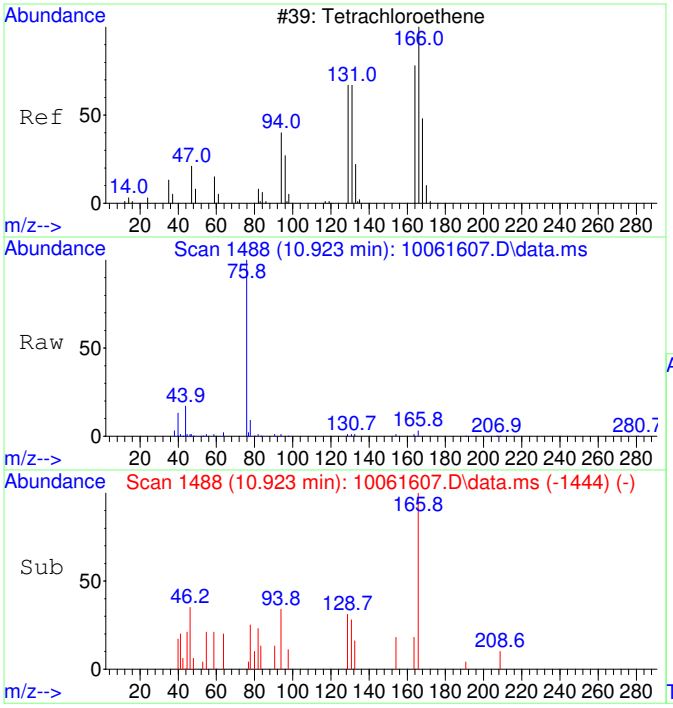


#29
Tetrachloroethene
Concen: 60.47 ug/L
RT: 10.937 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:166 Resp: 1702

Ion	Ratio	Lower	Upper
166	100		
164	78.1	47.7	107.7

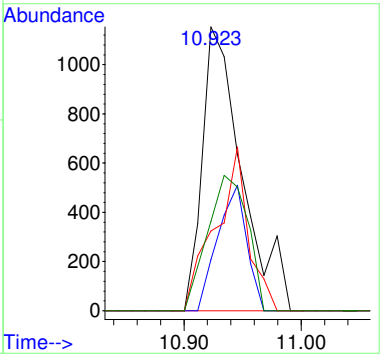


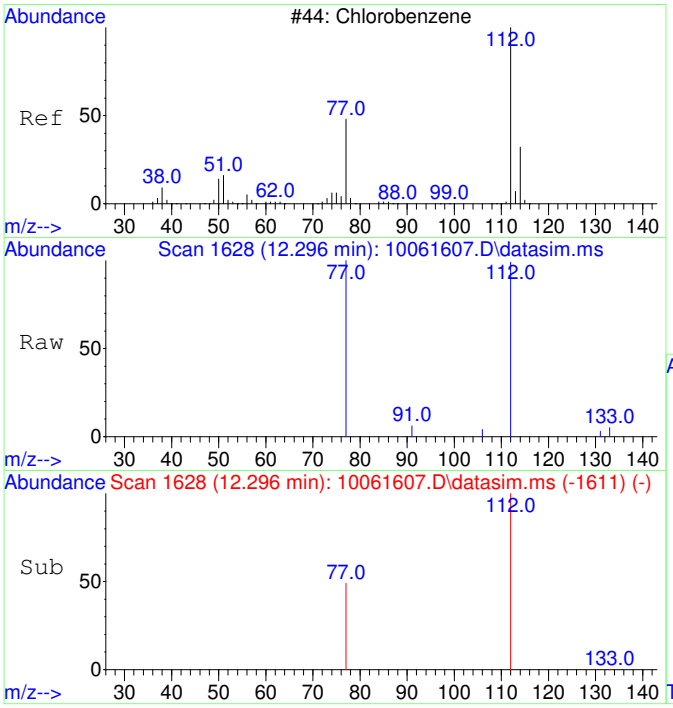


#30
Tetrachloroethene SCAN
Concen: 120.37 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:166 Resp: 2720

Ion	Ratio	Lower	Upper
166	100		
164	0.0	44.9	104.9#
131	0.0	36.1	96.1#
129	0.0	40.5	100.5#

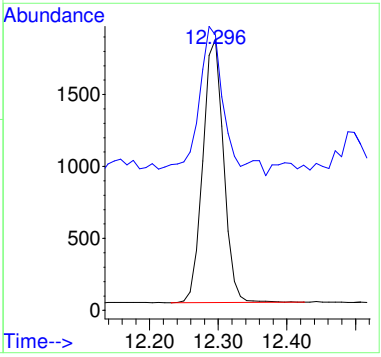


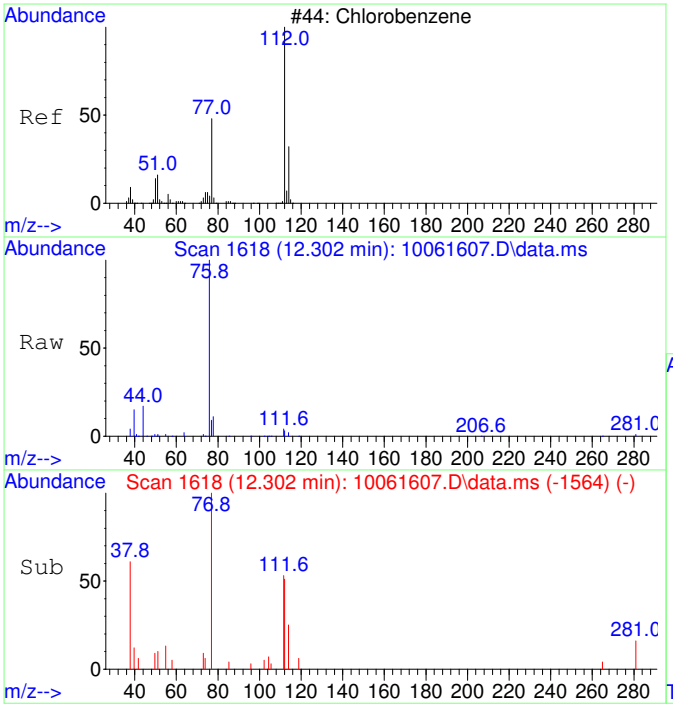


#31
Chlorobenzene
Concen: 59.69 ug/L
RT: 12.296 min Scan# 1628
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:112 Resp: 3842

Ion	Ratio	Lower	Upper
112	100		
77	53.0	25.1	85.1

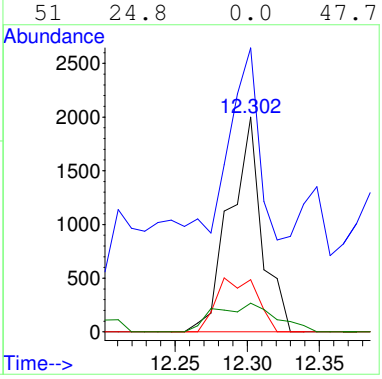


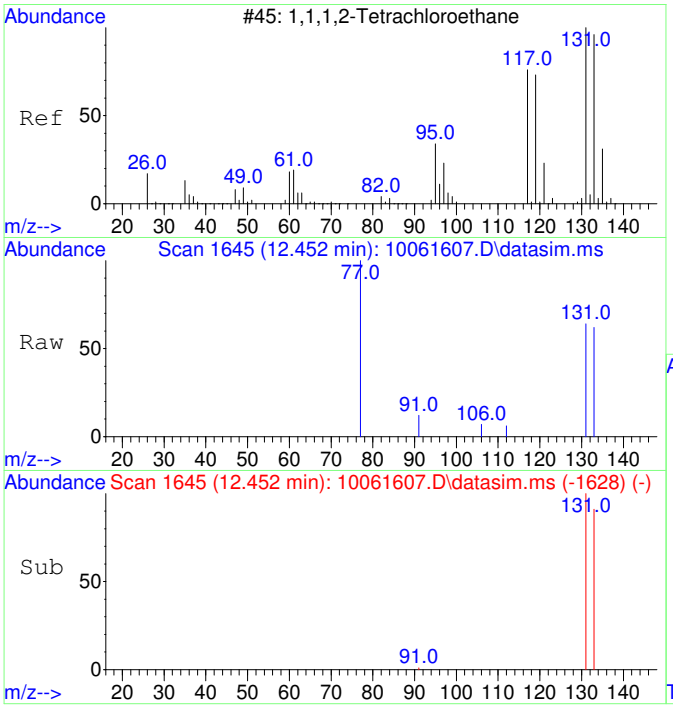


#32
Chlorobenzene SCAN
Concen: 58.15 ug/L
RT: 12.302 min Scan# 1618
Delta R.T. 0.018 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:112 Resp: 3116

Ion	Ratio	Lower	Upper
112	100		
77	71.7	23.6	83.6
114	31.6	0.9	60.9
51	24.8	0.0	47.7

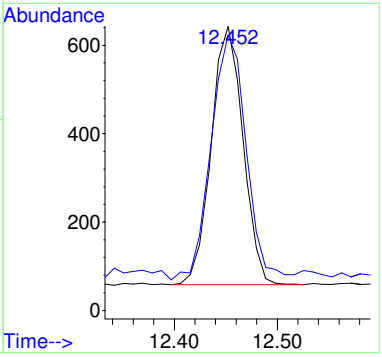


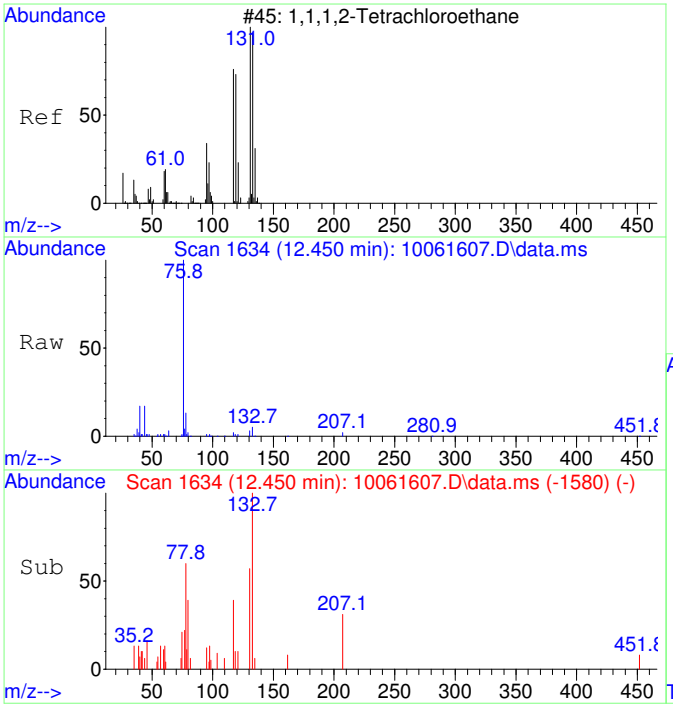


#33
1,1,1,2-Tetrachloroethane
Concen: 54.33 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:131 Resp: 1254

Ion	Ratio	Lower	Upper
131	100		
133	98.1	64.8	124.8

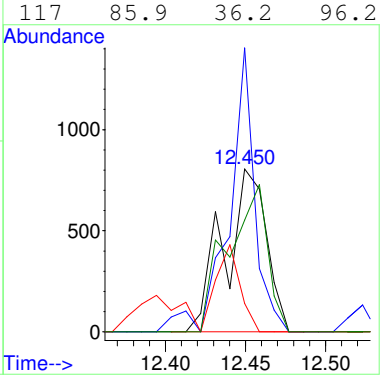


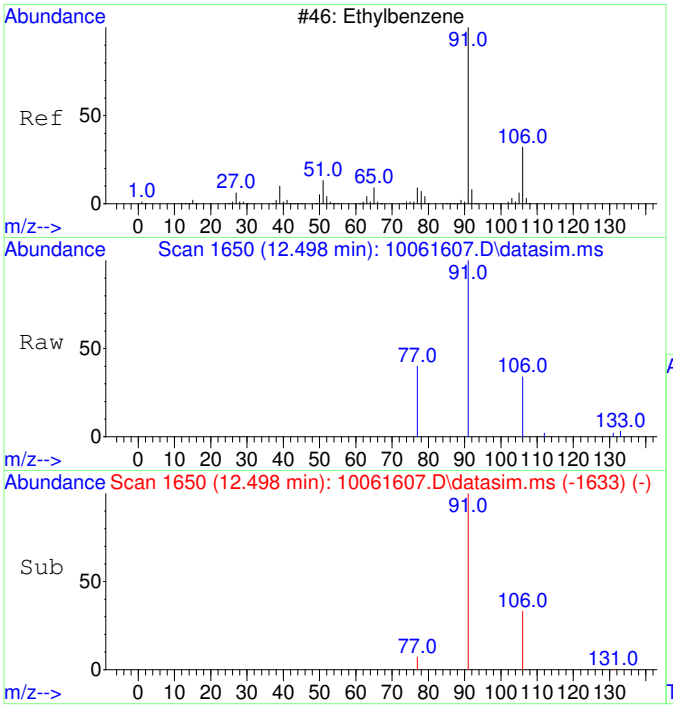


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 77.24 ug/L
RT: 12.450 min Scan# 1634
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:131 Resp: 1466

Ion	Ratio	Lower	Upper
131	100		
133	106.9	64.7	124.7
119	31.1	34.9	94.9#
117	85.9	36.2	96.2

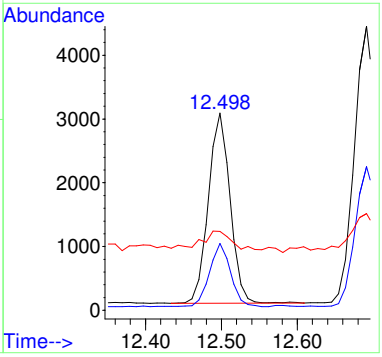


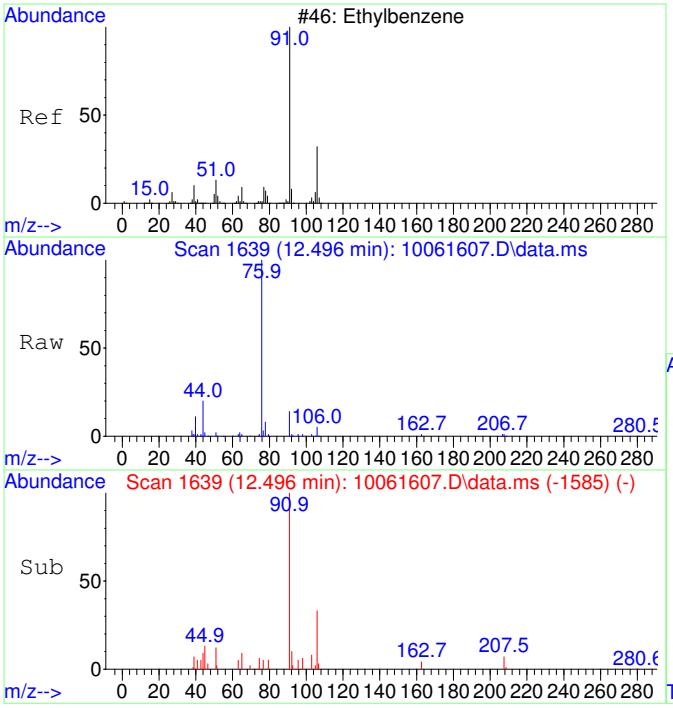


#35
Ethylbenzene
Concen: 57.27 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 5950

Ion	Ratio	Lower	Upper
91	100		
106	31.5	1.7	61.7
77	12.1	0.0	38.3

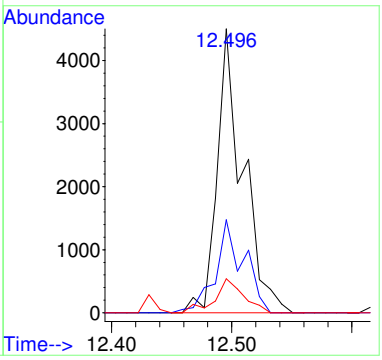


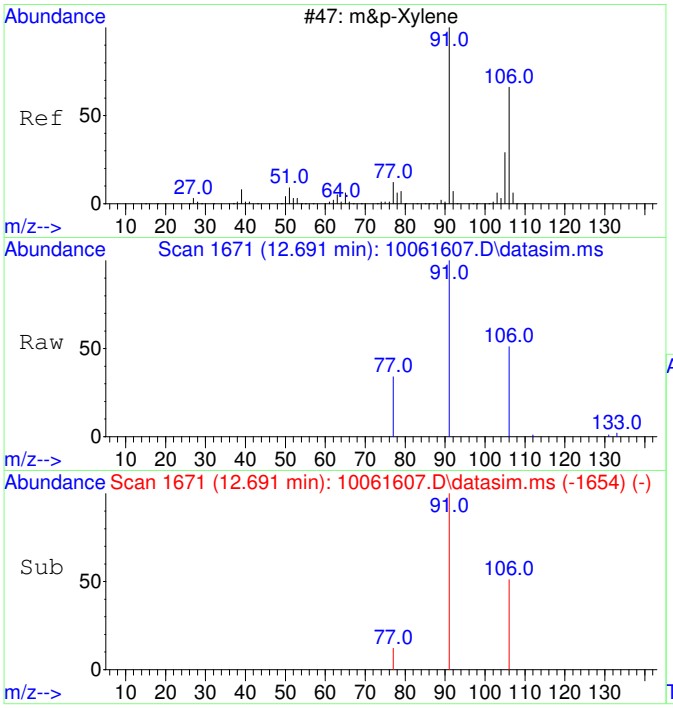


#36
Ethylbenzene SCAN
Concen: 79.36 ug/L
RT: 12.496 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 6716

Ion	Ratio	Lower	Upper
91	100		
106	36.0	2.3	62.3
51	13.3	0.0	39.6

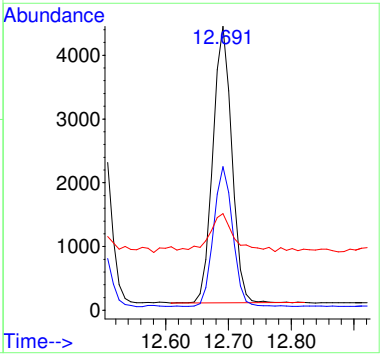


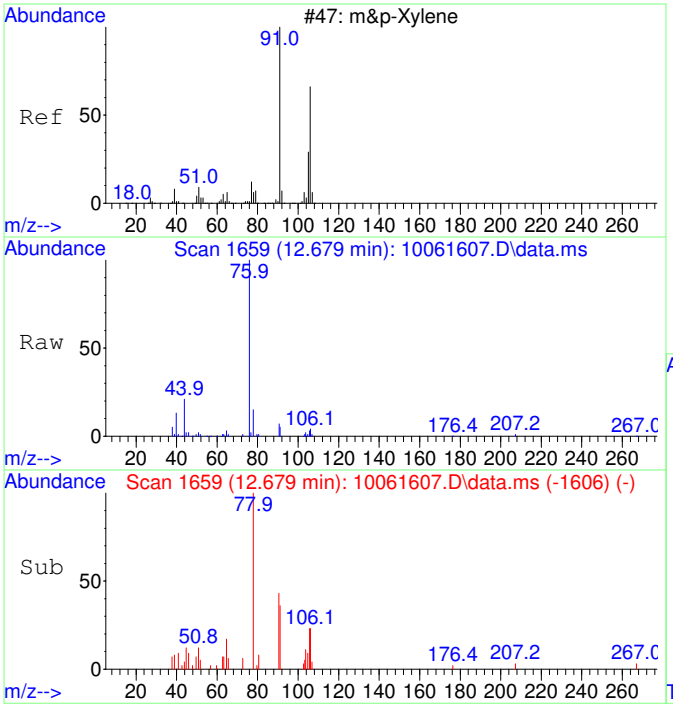


#37
m&p-Xylene
Concen: 112.40 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 9151

Ion	Ratio	Lower	Upper
91	100		
106	50.9	19.4	79.4
77	13.6	0.0	42.6

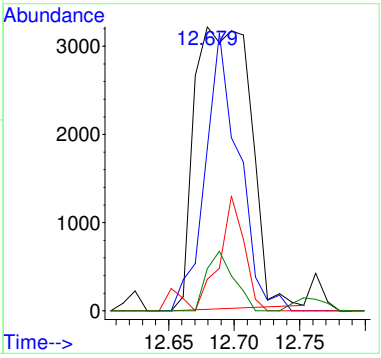


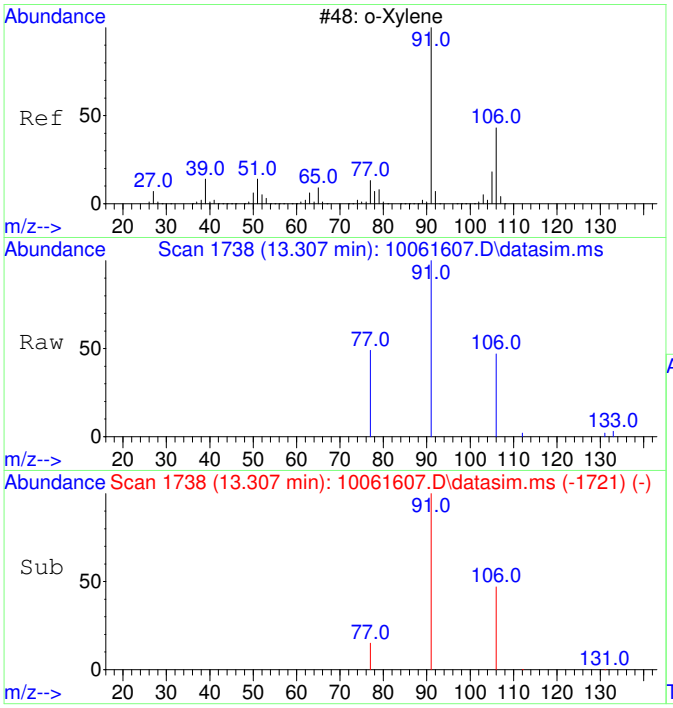


#38
m&p-Xylene SCAN
Concen: 142.28 ug/L
RT: 12.679 min Scan# 1659
Delta R.T. -0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 9519

Ion	Ratio	Lower	Upper
91	100		
106	59.2	18.0	78.0
105	17.9	0.0	53.1
51	10.3	0.0	39.4

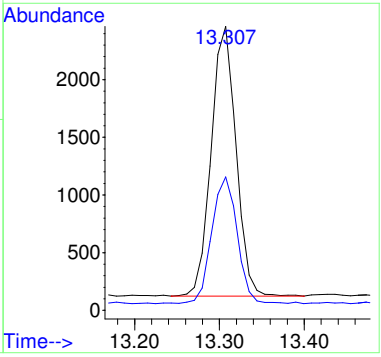


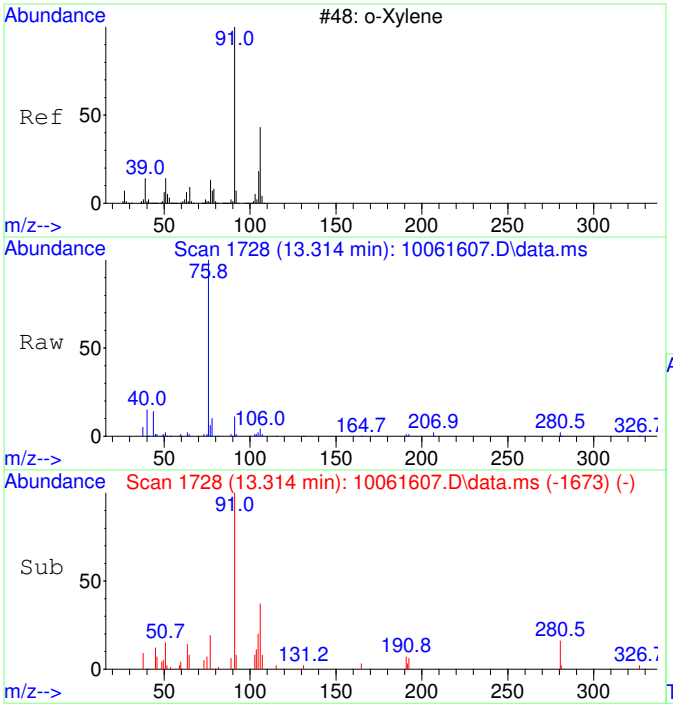


#39
o-Xylene
Concen: 56.63 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 4753

Ion	Ratio	Lower	Upper
91	100		
106	46.9	17.2	77.2

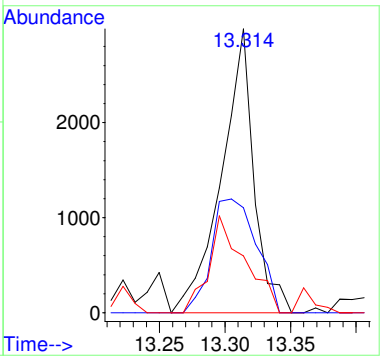


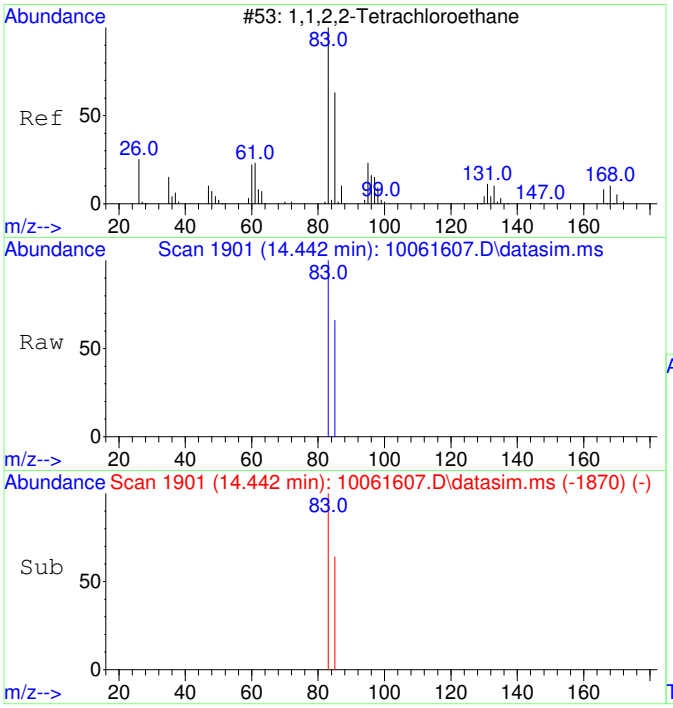


#40
o-Xylene SCAN
Concen: 73.66 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 91 Resp: 5156

Ion	Ratio	Lower	Upper
91	100		
106	56.0	18.0	78.0
105	38.1	0.0	56.8

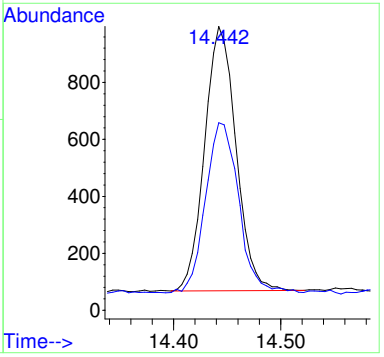


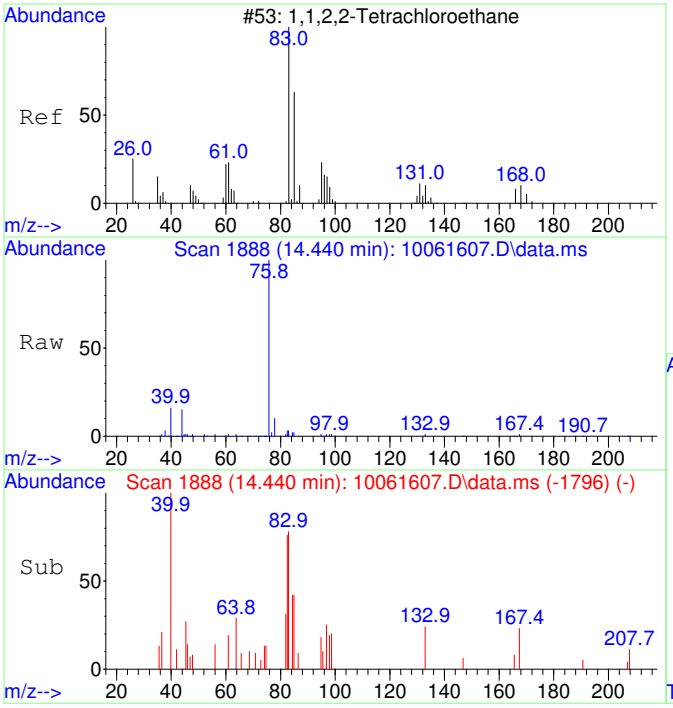


#41
1,1,2,2-Tetrachloroethane
Concen: 52.22 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 1893

Ion	Ratio	Lower	Upper
83	100		
85	67.7	34.4	94.4

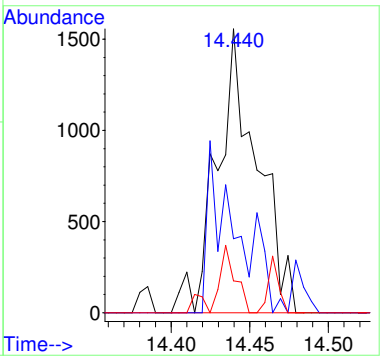


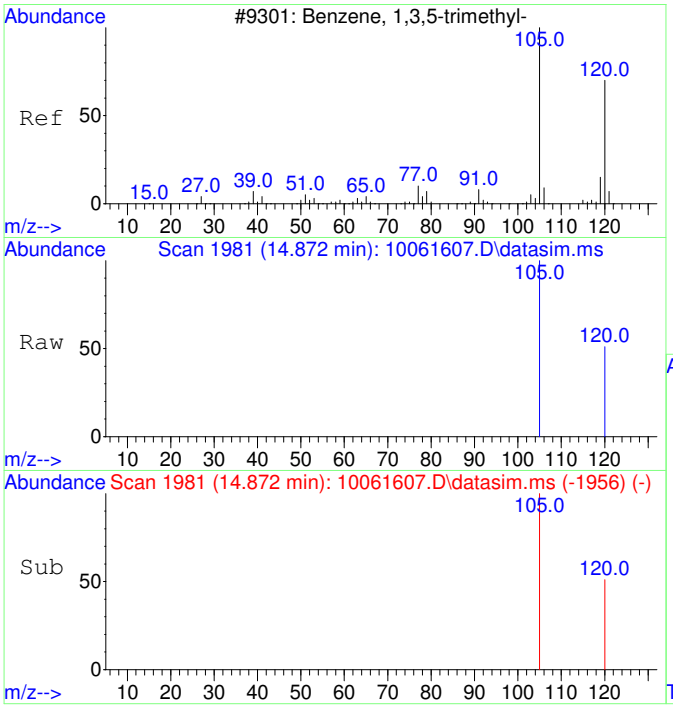


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 88.26 ug/L
RT: 14.440 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion: 83 Resp: 2768

Ion	Ratio	Lower	Upper
83	100		
85	42.6	33.2	93.2
95	11.1	0.0	47.2

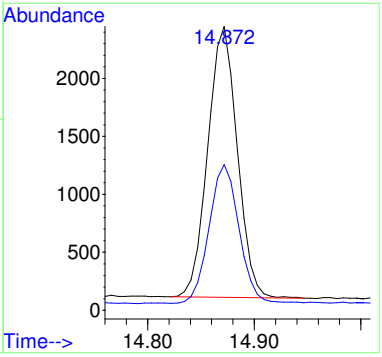


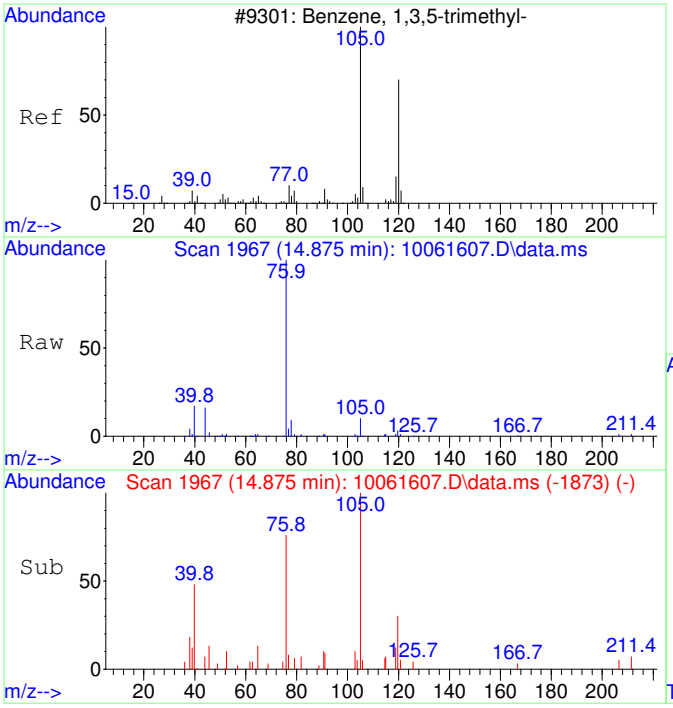


#43
1,3,5-Trimethylbenzene
Concen: 51.98 ug/L
RT: 14.872 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4492

Ion	Ratio	Lower	Upper
105	100		
120	51.9	19.7	79.7

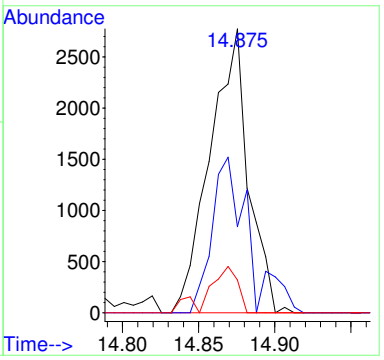


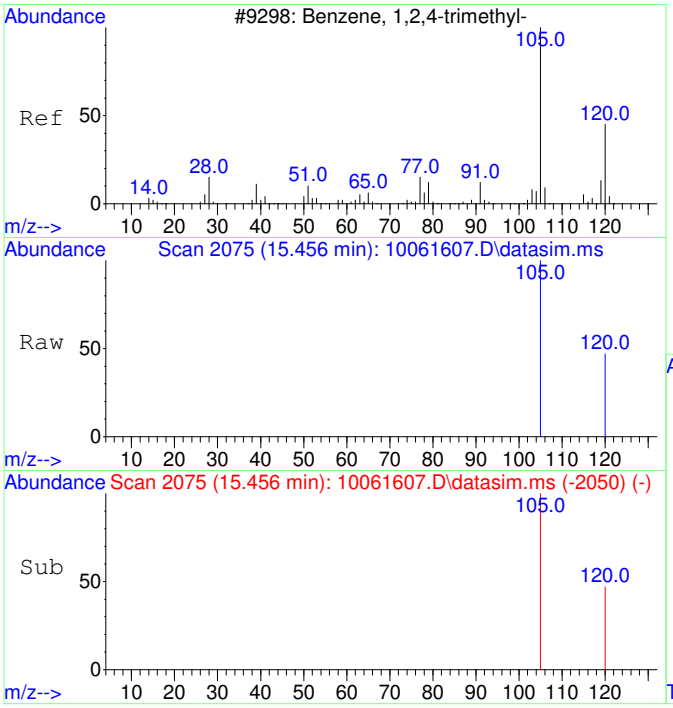


#44
1,3,5-Trimethylbenzene SCAN
Concen: 71.18 ug/L
RT: 14.875 min Scan# 1967
Delta R.T. 0.012 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4866

Ion	Ratio	Lower	Upper
105	100		
120	52.2	22.1	82.1
119	12.7	0.0	42.9

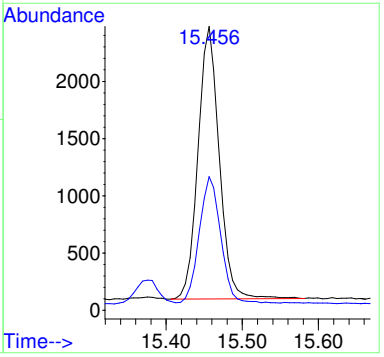


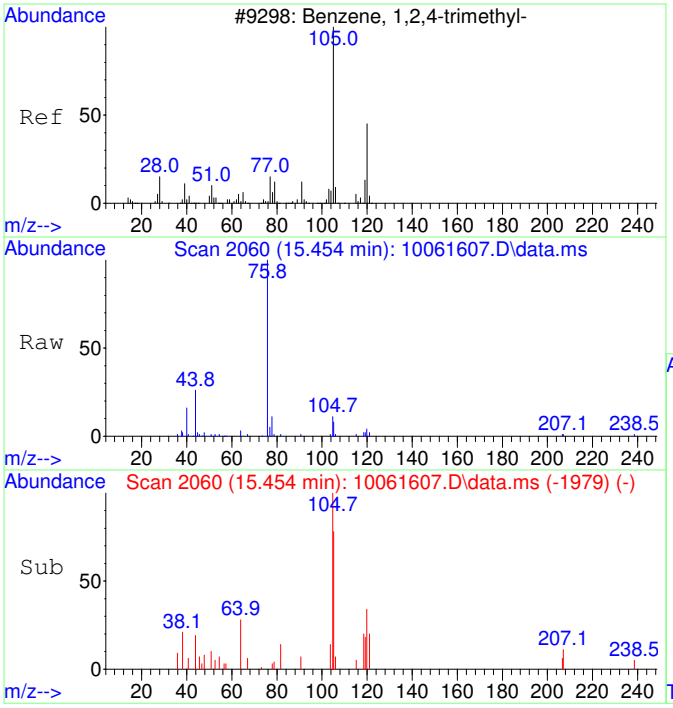


#45
1,2,4-Trimethylbenzene
Concen: 51.85 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4604

Ion	Ratio	Lower	Upper
105	100		
120	46.2	15.7	75.7

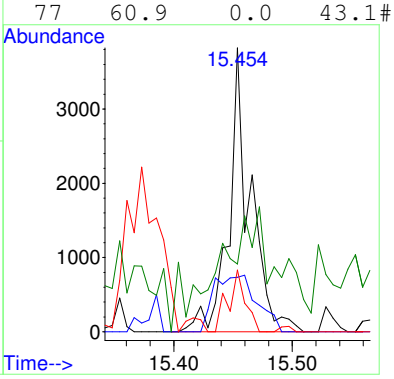


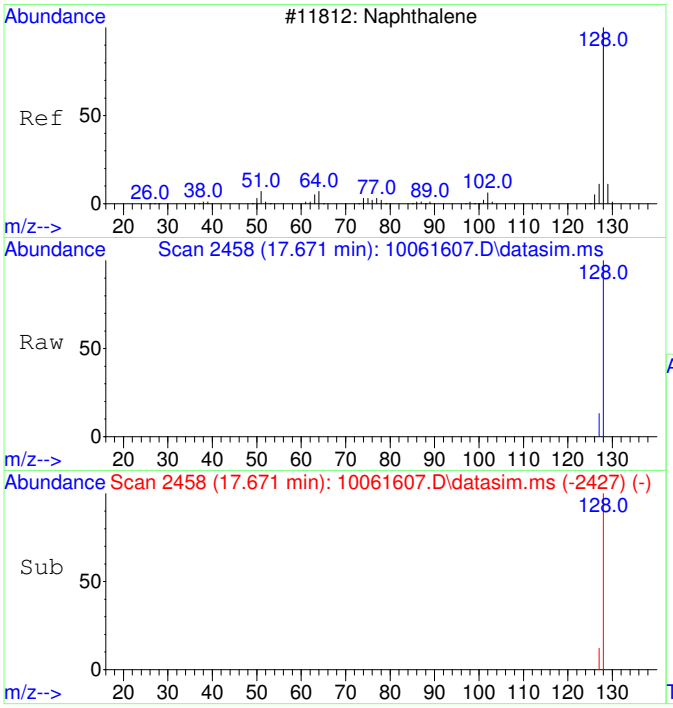


#46
1,2,4-Trimethylbenzene SCAN
Concen: 66.78 ug/L
RT: 15.454 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:105 Resp: 4791

Ion	Ratio	Lower	Upper
105	100		
120	40.3	17.2	77.2
119	17.7	0.0	41.3
77	60.9	0.0	43.1#

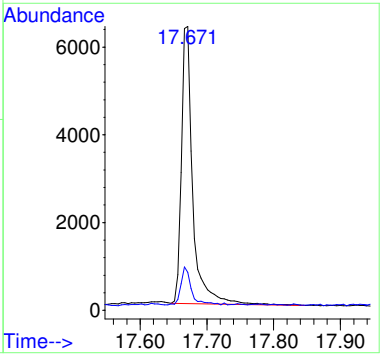


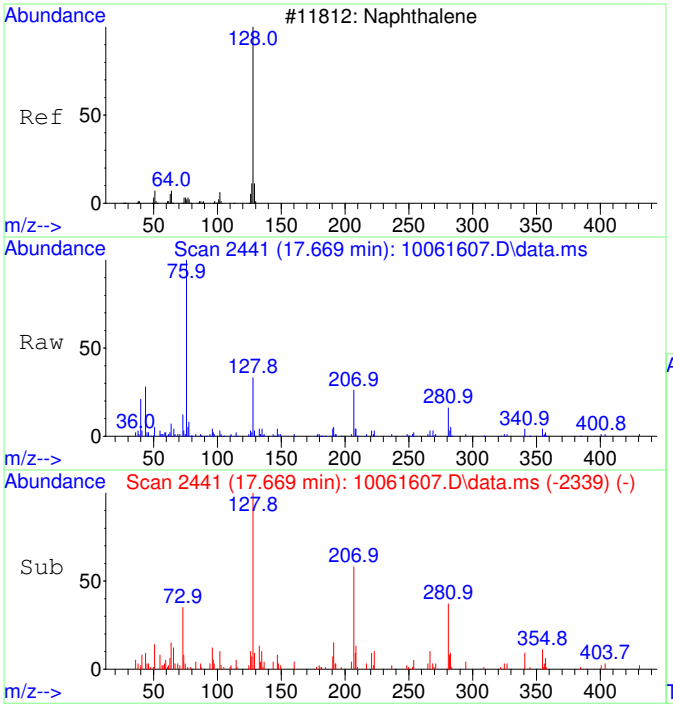


#47
Naphthalene
Concen: 53.62 ug/L
RT: 17.671 min Scan# 2458
Delta R.T. 0.005 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:128 Resp: 7453

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	42.6

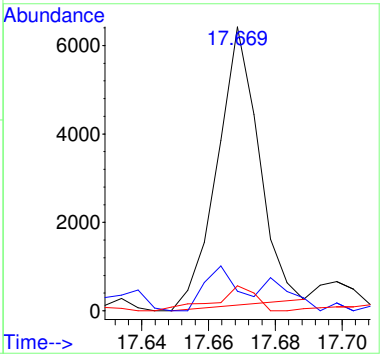




#48
Naphthalene SCAN
Concen: 50.09 ug/L
RT: 17.669 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10061607.D
Acq: 6 Oct 2016 13:56

Tgt Ion:128 Resp: 5423

Ion	Ratio	Lower	Upper
128	100		
127	9.8	0.0	43.1
129	8.6	0.0	41.0



B16J024-BLK1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061608.D
Acq On : 6 Oct 2016 14:31
InstName : AG5975C
Operator : RH
Sample : B16J024-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 06 14:49:51 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

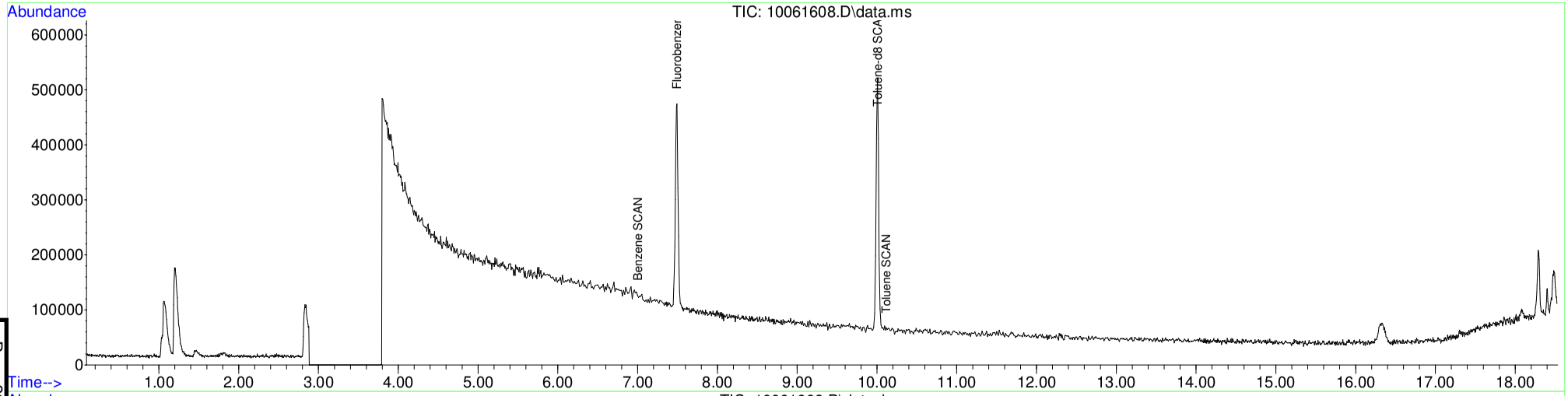
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.489	96	487937	5000.00	ug/L	0.01
System Monitoring Compounds						
23) Toluene-d8	10.009	98	446771	5156.06	ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 103.12%			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.493	96	429367	4954.25	ug/L	97
17] Benzene	7.001	78	4177	37.13	ug/L	97
18) Benzene SCAN	6.998	78	5884	58.20	ug/L #	65
24) Toluene-d8 SCAN	10.006	98	391425	5138.99	ug/L	96
26) Toluene SCAN	10.119	91	2170	24.91	ug/L	81

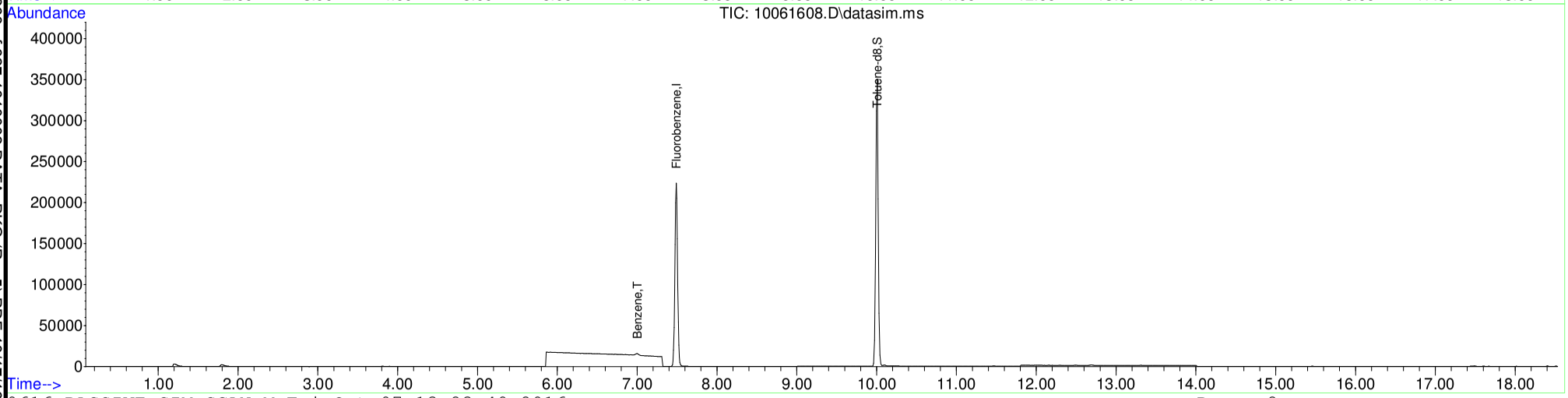
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061608.D
Acq On : 6 Oct 2016 14:31
InstName : AG5975C
Operator : RH
Sample : B16J024-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 06 14:49:51 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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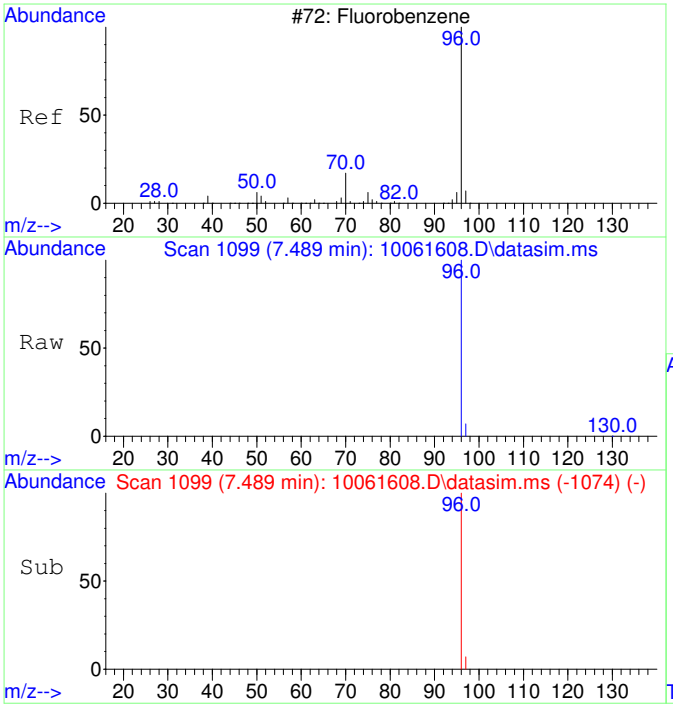
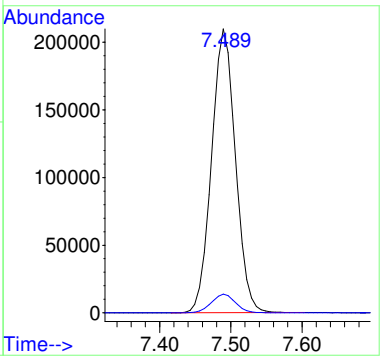
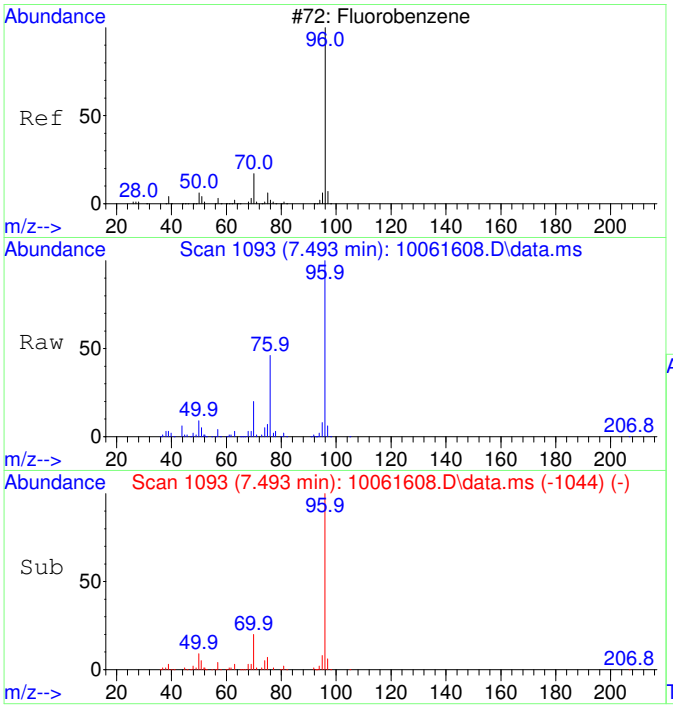


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.489 min Scan# 1099
Delta R.T. 0.013 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 96 Resp: 487937

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

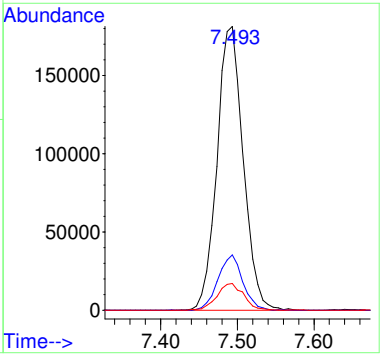


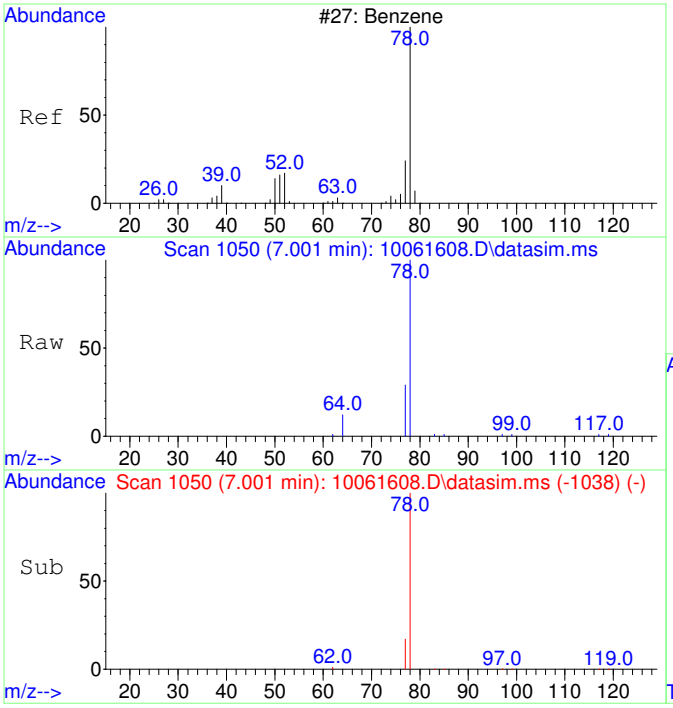


#2
Fluorobenzene SCAN
Concen: 4954.25 ug/L
RT: 7.493 min Scan# 1093
Delta R.T. 0.013 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 96 Resp: 429367

Ion	Ratio	Lower	Upper
96	100		
70	18.4	0.0	49.2
50	9.6	0.0	41.1

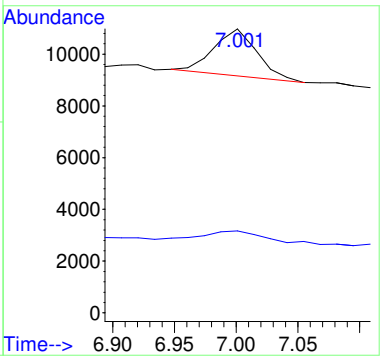


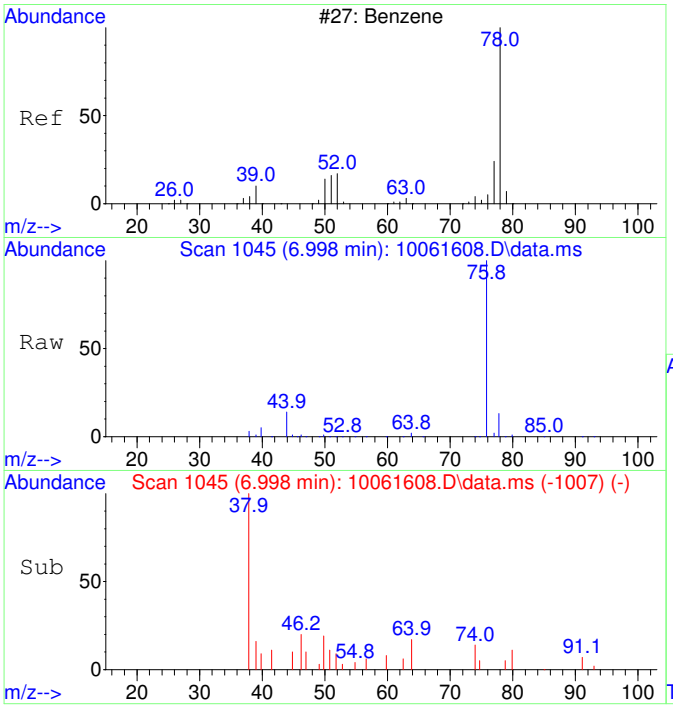


#17
Benzene
Concen: 37.13 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 78 Resp: 4177

Ion	Ratio	Lower	Upper
78	100		
77	25.0	0.0	53.4

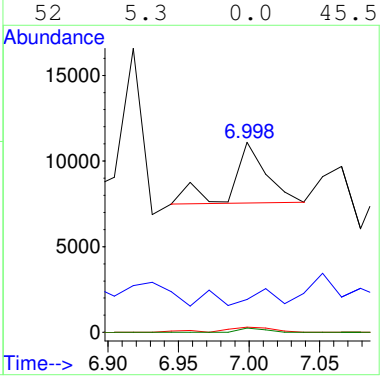


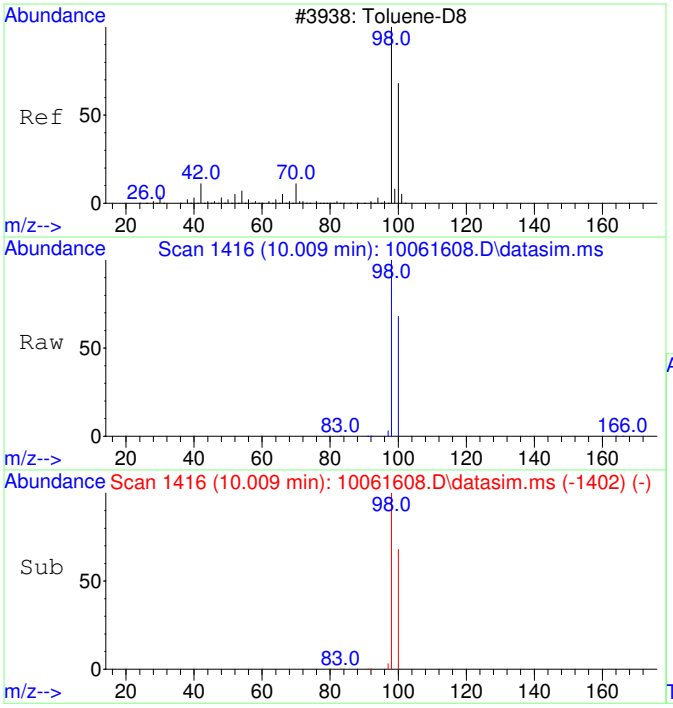


#18
Benzene SCAN
Concen: 58.20 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 78 Resp: 5884

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	59.3
51	13.4	0.0	49.2
52	5.3	0.0	45.5

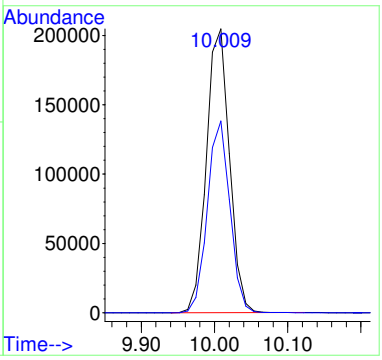


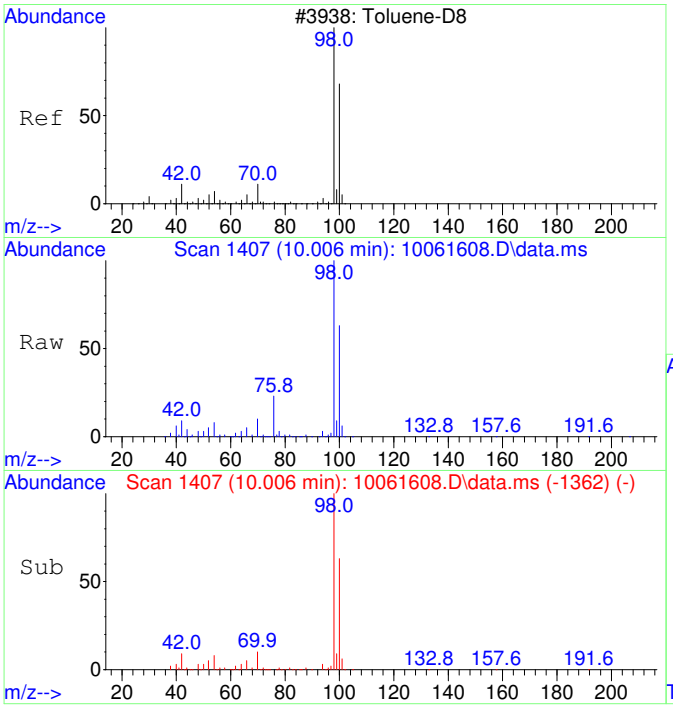


#23
Toluene-d8
Concen: 5156.06 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 98 Resp: 446771

Ion	Ratio	Lower	Upper
98	100		
100	65.5	35.3	95.3

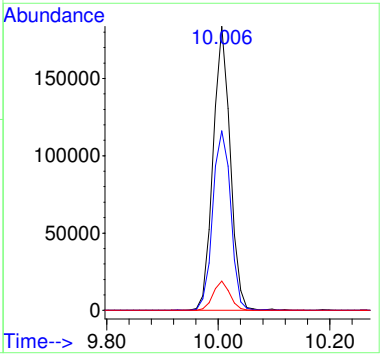


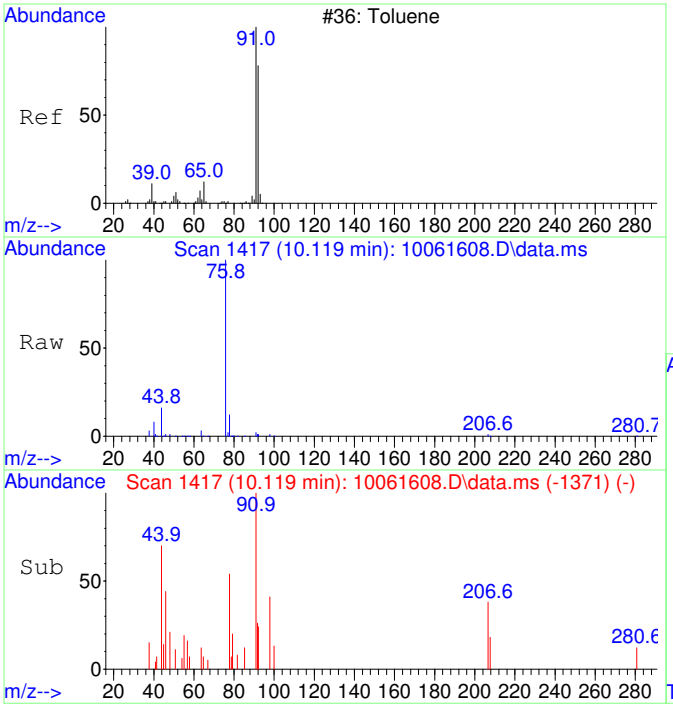


#24
Toluene-d8 SCAN
Concen: 5138.99 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 98 Resp: 391425

Ion	Ratio	Lower	Upper
98	100		
100	66.4	44.3	82.3
70	10.1	7.8	14.4

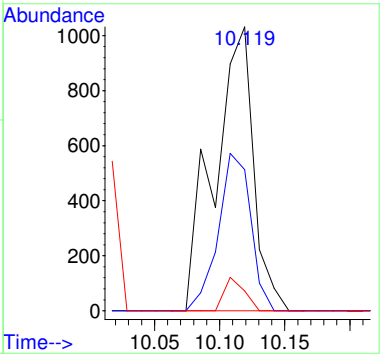




#26
Toluene SCAN
Concen: 24.91 ug/L
RT: 10.119 min Scan# 1417
Delta R.T. 0.022 min
Lab File: 10061608.D
Acq: 6 Oct 2016 14:31

Tgt Ion: 91 Resp: 2170

Ion	Ratio	Lower	Upper
91	100		
92	45.9	30.7	90.7
65	6.1	0.0	42.6



B16J024-BS1

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061609.D
Acq On : 6 Oct 2016 14:54
InstName : AG5975C
Operator : RH
Sample : B16J024-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 06 15:13:35 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

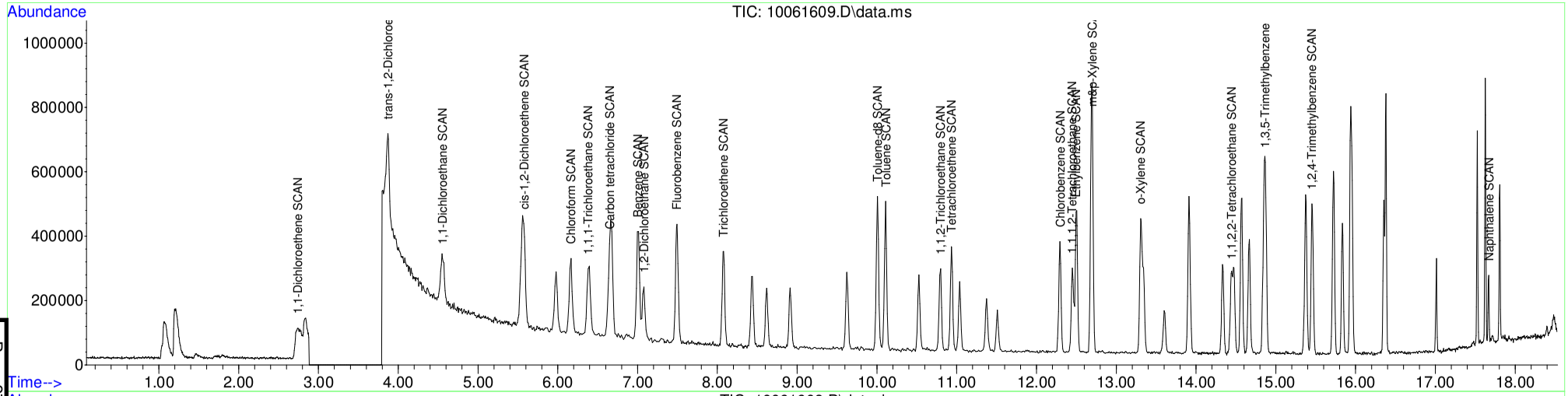
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.490	96	491225	5000.00 ug/L	0.01
System Monitoring Compounds					
23) Toluene-d8	10.009	98	435252	4989.50 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 99.79%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.494	96	433943	4973.54 ug/L	98
3] 1,1-Dichloroethene	2.743	61	234087	4418.78 ug/L	96
4) 1,1-Dichloroethene SCAN	2.741	61	212935	4576.22 ug/L	95
5] trans-1,2-Dichloroethene	3.873	61	217402	4482.70 ug/L	100
6) trans-1,2-Dichloroethe...	3.870	61	193321	4677.53 ug/L	94
7] 1,1-Dichloroethane	4.559	63	261332	4566.45 ug/L	100
8) 1,1-Dichloroethane SCAN	4.557	63	237714	4726.49 ug/L	95
9] cis-1,2-Dichloroethene	5.577	61	230736	4522.87 ug/L	100
10) cis-1,2-Dichloroethene...	5.574	61	208155	4577.41 ug/L	95
11] Chloroform	6.156	83	262912	4509.41 ug/L	100
12) Chloroform SCAN	6.167	83	236658	4718.77 ug/L	98
13] 1,1,1-Trichloroethane	6.384	97	232460	4584.86 ug/L	99
14) 1,1,1-Trichloroethane ...	6.381	97	210851	4764.15 ug/L	99
15] Carbon tetrachloride	6.652	117	194168	4421.04 ug/L	100
16) Carbon tetrachloride SCAN	6.650	117	186292	4816.65 ug/L	97
17] Benzene	7.001	78	482642	4261.76 ug/L	99
18) Benzene SCAN	6.999	78	438165	4305.35 ug/L	90
19] 1,2-Dichloroethane	7.068	62	186031	4496.63 ug/L	100
20) 1,2-Dichloroethane SCAN	7.079	62	167097	4307.08 ug/L	95
21] Trichloroethene	8.075	130	143183	4463.39 ug/L	99
22) Trichloroethene SCAN	8.079	95	115733	4504.80 ug/L	92
24) Toluene-d8 SCAN	10.006	98	384528	5014.65 ug/L	96
25] Toluene	10.099	91	450402	4197.18 ug/L	100
26) Toluene SCAN	10.108	91	382826	4364.99 ug/L	97
27] 1,1,2-Trichloroethane	10.790	97	107246	4230.67 ug/L	98
28) 1,1,2-Trichloroethane ...	10.799	97	99594	4815.10 ug/L	96
29] Tetrachloroethene	10.937	166	126954	4103.92 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	122066	4915.02 ug/L	99
31] Chlorobenzene	12.296	112	273481	3865.73 ug/L	98
32) Chlorobenzene SCAN	12.293	112	233774	3969.49 ug/L	96
33] 1,1,1,2-Tetrachloroethane	12.452	131	103101	4063.87 ug/L	99
34) 1,1,1,2-Tetrachloroeth...	12.450	131	93834	4497.99 ug/L	97
35] Ethylbenzene	12.498	91	479450	4198.80 ug/L	99
36) Ethylbenzene SCAN	12.496	91	413770	4448.51 ug/L	99
37] m&p-Xylene	12.691	91	732205	8182.89 ug/L	98
38) m&p-Xylene SCAN	12.698	91	633183	8611.10 ug/L	95
39] o-Xylene	13.307	91	348536	3777.94 ug/L	99
40) o-Xylene SCAN	13.305	91	302120	3927.28 ug/L	99
41] 1,1,2,2-Tetrachloroethane	14.442	83	148776	3733.91 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.440	83	135349	3926.56 ug/L	96
43] 1,3,5-Trimethylbenzene	14.872	105	393289	4140.46 ug/L	99
44) 1,3,5-Trimethylbenzene...	14.869	105	330225	4394.92 ug/L	100
45] 1,2,4-Trimethylbenzene	15.456	105	377002	3863.21 ug/L	98
46) 1,2,4-Trimethylbenzene...	15.454	105	326820	4144.73 ug/L	98
47] Naphthalene	17.666	128	124020	811.86 ug/L	100
48) Naphthalene SCAN	17.669	128	103812	872.44 ug/L	98

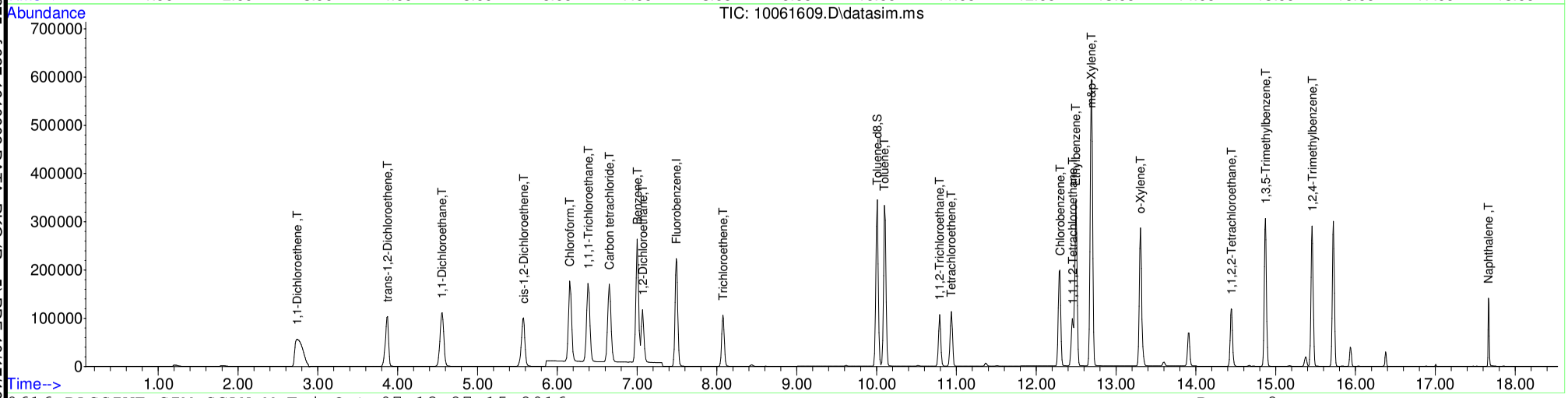
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061609.D
Acq On : 6 Oct 2016 14:54
InstName : AG5975C
Operator : RH
Sample : B16J024-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 06 15:13:35 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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B16J024-BSD1

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Data File : 10061610.D
Acq On : 6 Oct 2016 15:18
InstName : AG5975C
Operator : RH
Sample : B16J024-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 06 15:37:24 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

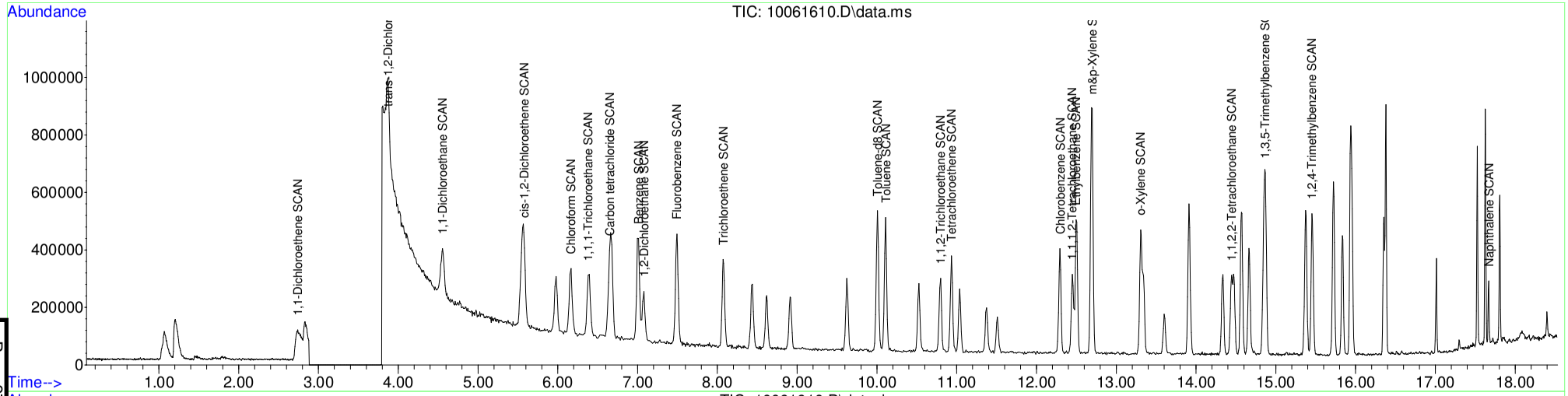
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.490	96	515496	5000.00 ug/L	0.01
System Monitoring Compounds					
23) Toluene-d8	10.009	98	459277	5017.03 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 100.34%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.494	96	449269	4906.75 ug/L	98
3] 1,1-Dichloroethene	2.743	61	234904	4225.43 ug/L	96
4) 1,1-Dichloroethene SCAN	2.741	61	216024	4424.02 ug/L #	80
5] trans-1,2-Dichloroethene	3.873	61	220207	4326.76 ug/L	100
6) trans-1,2-Dichloroethe...	3.870	61	208571	4808.91 ug/L	98
7] 1,1-Dichloroethane	4.559	63	264872	4410.39 ug/L	100
8) 1,1-Dichloroethane SCAN	4.557	63	240888	4564.09 ug/L	99
9] cis-1,2-Dichloroethene	5.577	61	234812	4386.06 ug/L	100
10) cis-1,2-Dichloroethene...	5.574	61	210990	4421.30 ug/L	96
11] Chloroform	6.156	83	268975	4396.19 ug/L	100
12) Chloroform SCAN	6.167	83	242736	4612.08 ug/L	97
13] 1,1,1-Trichloroethane	6.384	97	238008	4473.27 ug/L	100
14) 1,1,1-Trichloroethane ...	6.382	97	210902	4540.94 ug/L	96
15] Carbon tetrachloride	6.652	117	199617	4331.11 ug/L	100
16) Carbon tetrachloride SCAN	6.650	117	179634	4425.83 ug/L	98
17] Benzene	7.001	78	494263	4158.89 ug/L	99
18) Benzene SCAN	7.012	78	455395	4263.97 ug/L	91
19] 1,2-Dichloroethane	7.068	62	190712	4392.73 ug/L	100
20) 1,2-Dichloroethane SCAN	7.079	62	178123	4375.11 ug/L	95
21] Trichloroethene	8.075	130	147700	4387.42 ug/L	99
22) Trichloroethene SCAN	8.072	95	120097	4454.56 ug/L	94
24) Toluene-d8 SCAN	10.006	98	401857	4993.89 ug/L	97
25] Toluene	10.099	91	466882	4145.90 ug/L	100
26) Toluene SCAN	10.108	91	406024	4411.52 ug/L	99
27] 1,1,2-Trichloroethane	10.790	97	111008	4172.90 ug/L	99
28) 1,1,2-Trichloroethane ...	10.799	97	96254	4434.51 ug/L	96
29] Tetrachloroethene	10.937	166	131509	4051.01 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	121261	4652.72 ug/L	98
31] Chlorobenzene	12.296	112	284027	3825.77 ug/L	98
32) Chlorobenzene SCAN	12.293	112	247843	4010.24 ug/L	98
33] 1,1,1,2-Tetrachloroethane	12.452	131	107761	4047.56 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.450	131	97376	4448.00 ug/L	95
35] Ethylbenzene	12.498	91	500244	4174.64 ug/L	99
36) Ethylbenzene SCAN	12.496	91	434400	4450.42 ug/L	99
37] m&p-Xylene	12.691	91	761446	8109.01 ug/L	98
38) m&p-Xylene SCAN	12.698	91	663043	8592.63 ug/L	96
39] o-Xylene	13.308	91	363602	3755.68 ug/L	99
40) o-Xylene SCAN	13.305	91	315355	3906.31 ug/L	97
41] 1,1,2,2-Tetrachloroethane	14.442	83	154650	3698.58 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.445	83	140498	3884.03 ug/L	95
43] 1,3,5-Trimethylbenzene	14.872	105	408859	4101.72 ug/L	99
44) 1,3,5-Trimethylbenzene...	14.869	105	342589	4344.80 ug/L	99
45] 1,2,4-Trimethylbenzene	15.456	105	391557	3823.45 ug/L	99
46) 1,2,4-Trimethylbenzene...	15.454	105	335940	4059.80 ug/L	99
47] Naphthalene	17.666	128	124923	779.26 ug/L	99
48) Naphthalene SCAN	17.669	128	103473	828.64 ug/L	99

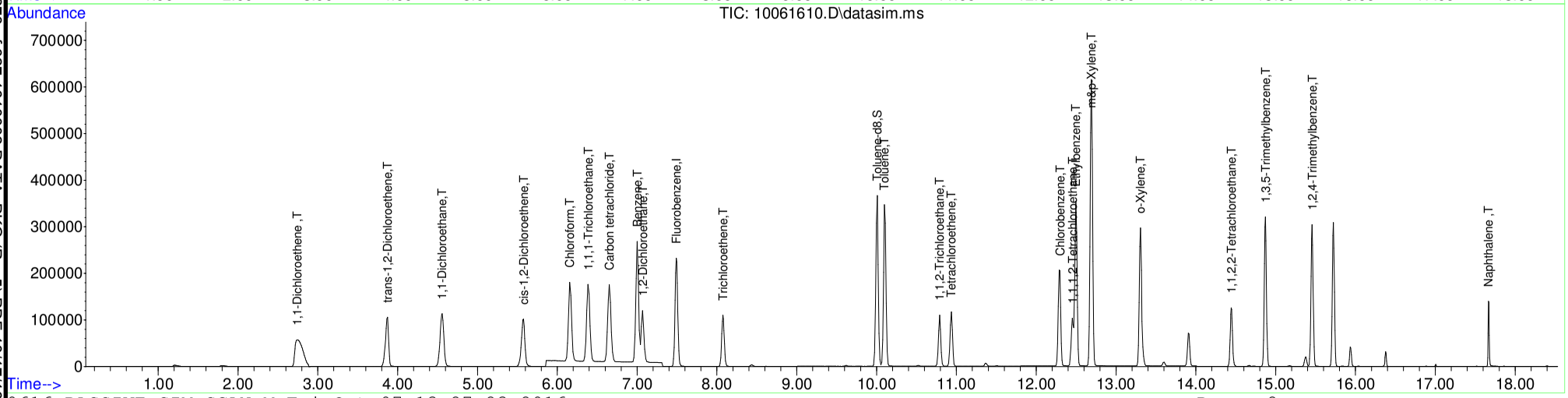
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061610.D
Acq On : 6 Oct 2016 15:18
InstName : AG5975C
Operator : RH
Sample : B16J024-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 06 15:37:24 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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1610002-01

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061611.D
Acq On : 6 Oct 2016 15:42
InstName : AG5975C
Operator : RH
Sample : 1610002-01
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 06 16:01:09 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

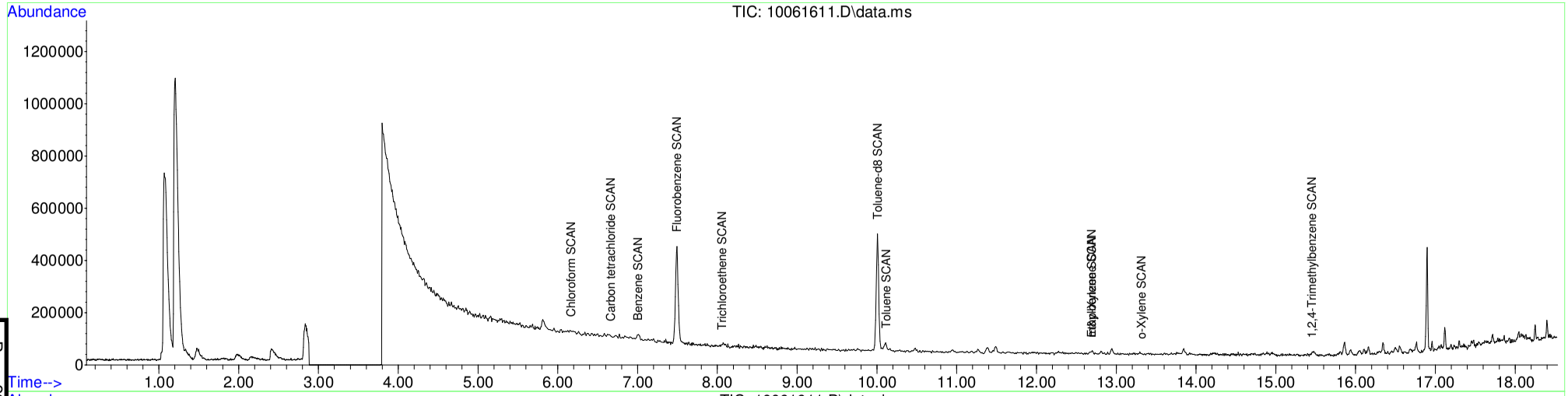
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.489	96	479634	5000.00 ug/L	0.01
System Monitoring Compounds					
23) Toluene-d8	10.009	98	422953	4965.69 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 99.31%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.493	96	421740	4950.49 ug/L	98
11] Chloroform	6.156	83	8928	156.83 ug/L	99
12) Chloroform SCAN	6.167	83	8857	180.87 ug/L	70
15] Carbon tetrachloride	6.652	117	5197	121.19 ug/L	100
16) Carbon tetrachloride SCAN	6.663	117	5670	150.14 ug/L #	24
17] Benzene	7.001	78	15111	136.66 ug/L	100
18) Benzene SCAN	6.998	78	25365	255.26 ug/L #	53
21] Trichloroethene	8.075	130	4174	133.26 ug/L	99
22) Trichloroethene SCAN	8.059	95	3834	152.84 ug/L	97
24) Toluene-d8 SCAN	10.006	98	363320	4852.58 ug/L	95
25] Toluene	10.099	91	28566	272.63 ug/L	100
26) Toluene SCAN	10.108	91	26752	312.40 ug/L	95
35] Ethylbenzene	12.498	91	3207	28.76 ug/L	99
36) Ethylbenzene SCAN	12.689	91	8166	89.92 ug/L	79
37] m&p-Xylene	12.691	91	7454	85.32 ug/L	98
38) m&p-Xylene SCAN	12.689	91	8166	113.74 ug/L	94
39] o-Xylene	13.307	91	2855	31.69 ug/L	99
40) o-Xylene SCAN	13.314	91	4088	54.42 ug/L	90
45] 1,2,4-Trimethylbenzene	15.456	105	6954	72.98 ug/L	80
46) 1,2,4-Trimethylbenzene...	15.454	105	8478	110.12 ug/L #	78

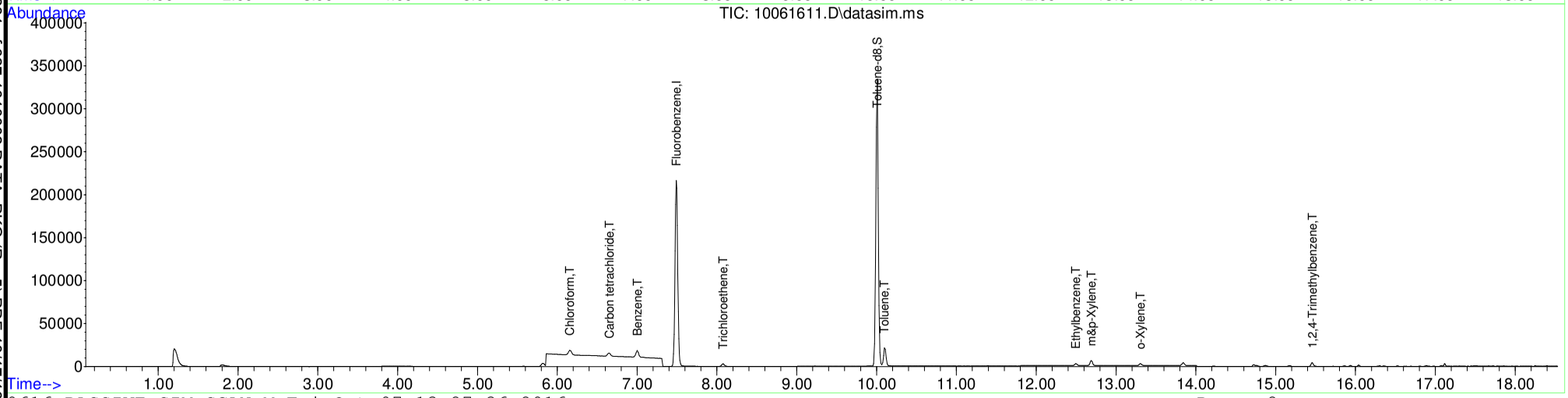
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061611.D
Acq On : 6 Oct 2016 15:42
InstName : AG5975C
Operator : RH
Sample : 1610002-01
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 06 16:01:09 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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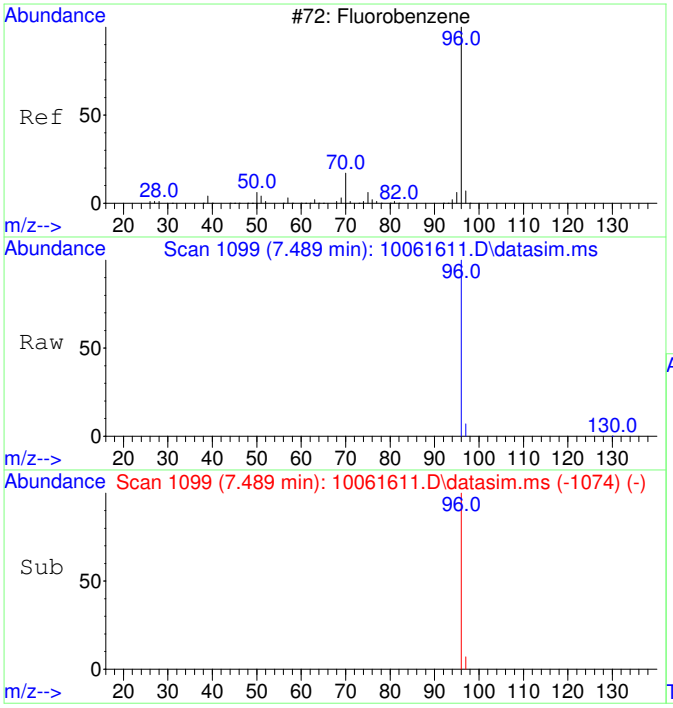
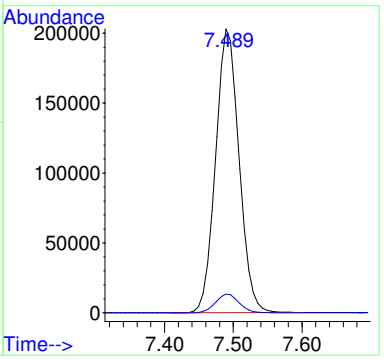
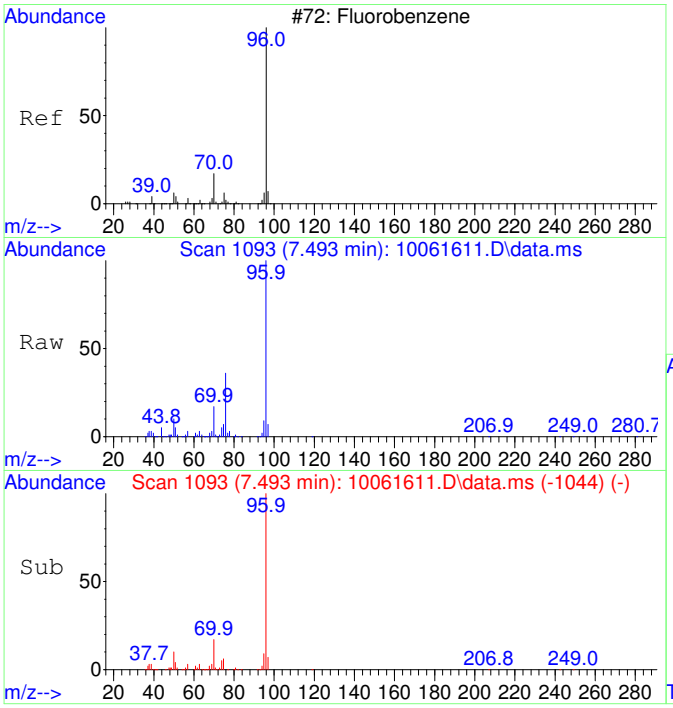


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.489 min Scan# 1099
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 96 Resp: 479634

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

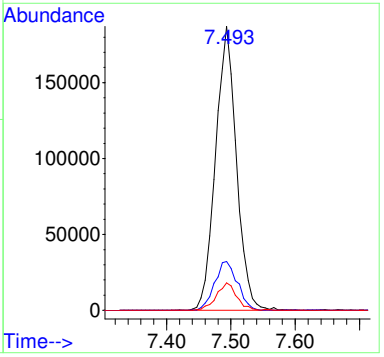


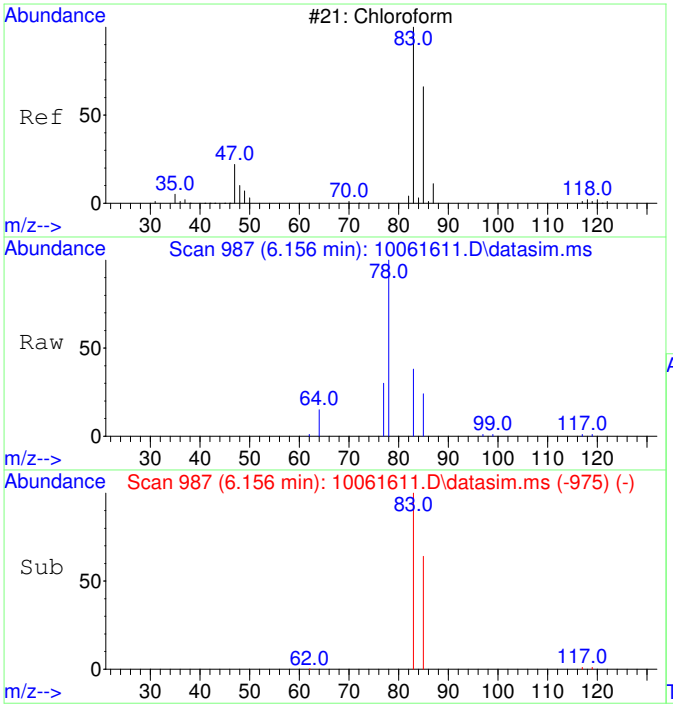


#2
Fluorobenzene SCAN
Concen: 4950.49 ug/L
RT: 7.493 min Scan# 1093
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 96 Resp: 421740

Ion	Ratio	Lower	Upper
96	100		
70	18.8	0.0	49.2
50	9.2	0.0	41.1

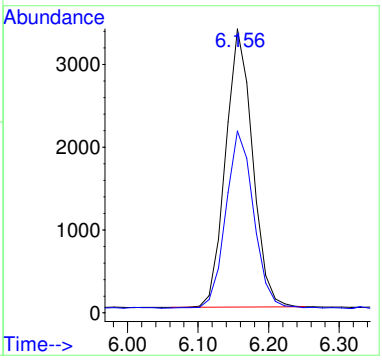


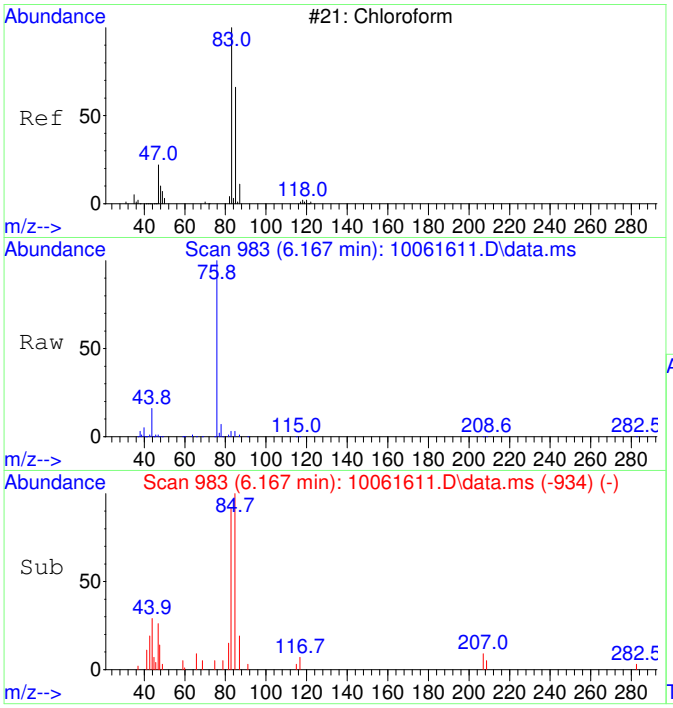


#11
Chloroform
Concen: 156.83 ug/L
RT: 6.156 min Scan# 987
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 83 Resp: 8928

Ion	Ratio	Lower	Upper
83	100		
85	65.0	34.4	94.4

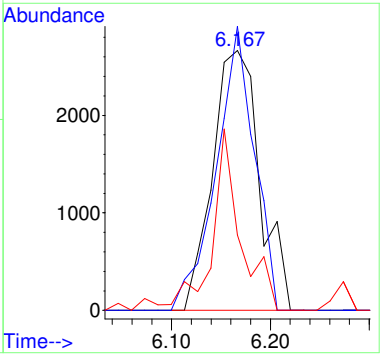


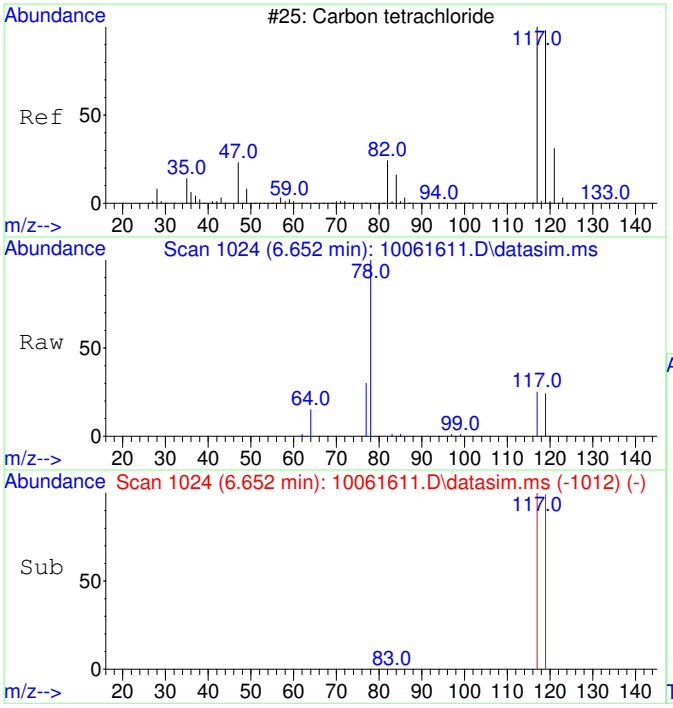


#12
Chloroform SCAN
Concen: 180.87 ug/L
RT: 6.167 min Scan# 983
Delta R.T. 0.027 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 83 Resp: 8857

Ion	Ratio	Lower	Upper
83	100		
85	88.2	37.6	97.6
47	43.3	0.0	53.4

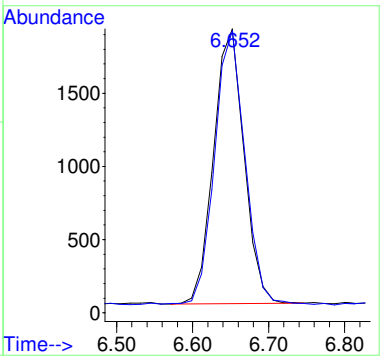


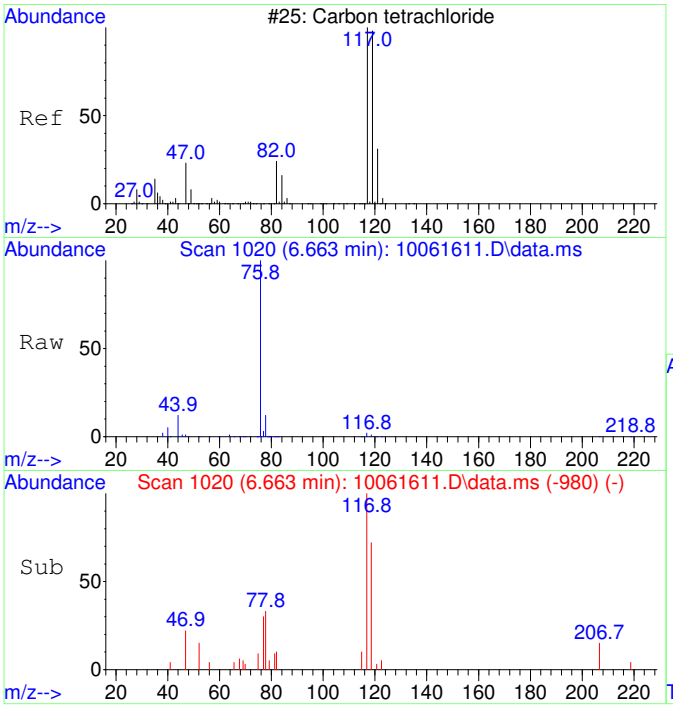


#15
Carbon tetrachloride
Concen: 121.19 ug/L
RT: 6.652 min Scan# 1024
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion:117 Resp: 5197

Ion	Ratio	Lower	Upper
117	100		
119	96.4	66.1	126.1

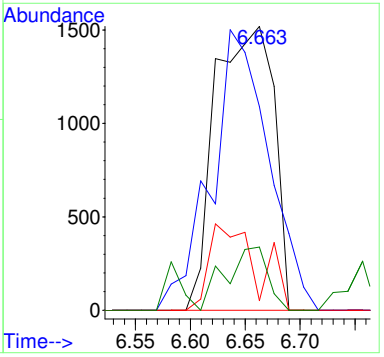


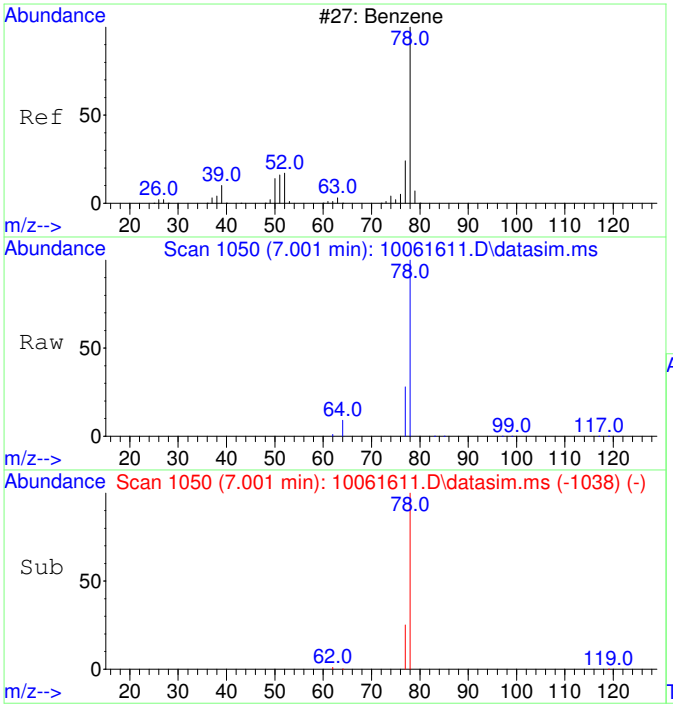


#16
Carbon tetrachloride SCAN
Concen: 150.14 ug/L
RT: 6.663 min Scan# 1020
Delta R.T. 0.040 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion:117 Resp: 5670

Ion	Ratio	Lower	Upper
117	100		
119	0.0	66.0	122.6#
121	0.0	22.1	41.1#
82	16.0	18.5	34.3#

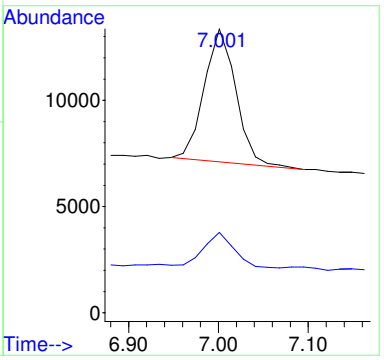


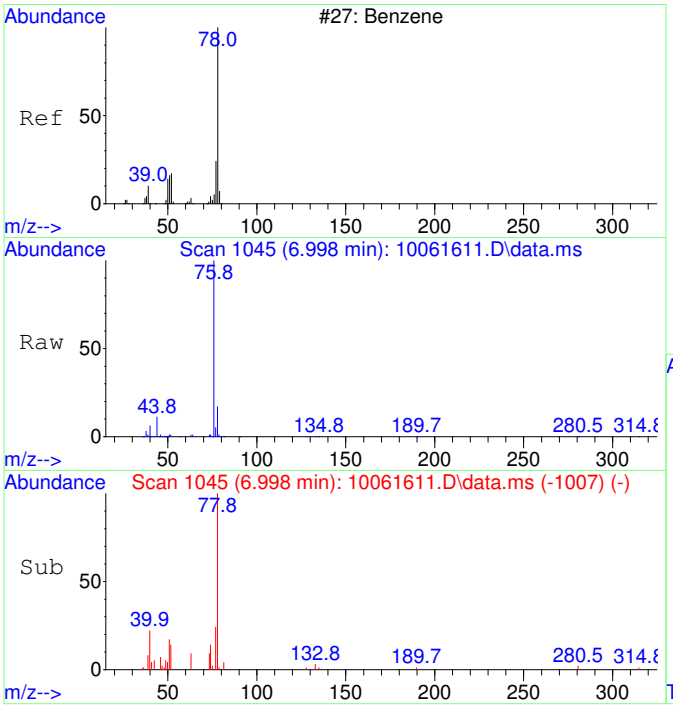


#17
Benzene
Concen: 136.66 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 78 Resp: 15111

Ion	Ratio	Lower	Upper
78	100		
77	23.2	0.0	53.4

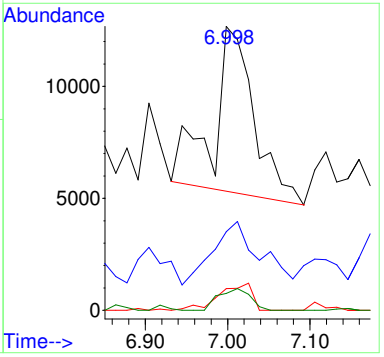


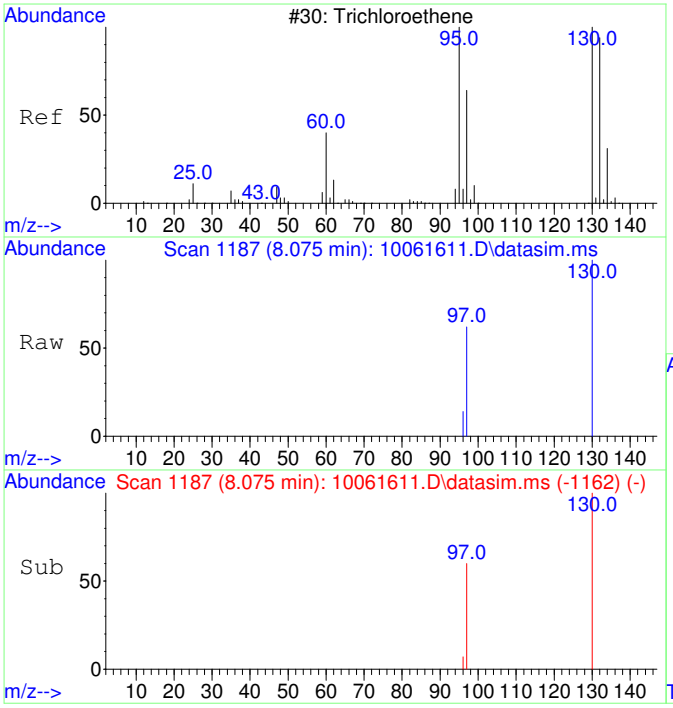


#18
Benzene SCAN
Concen: 255.26 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 78 Resp: 25365

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	59.3
51	0.0	0.0	49.2
52	0.0	0.0	45.5

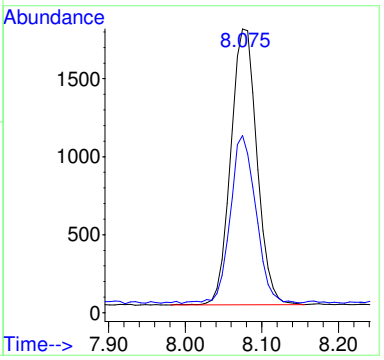


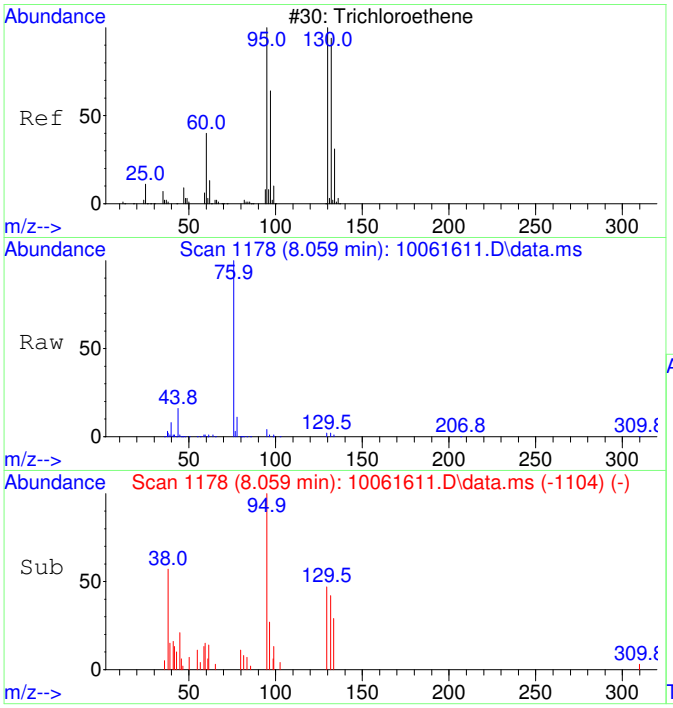


#21
Trichloroethene
Concen: 133.26 ug/L
RT: 8.075 min Scan# 1187
Delta R.T. 0.013 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion:130 Resp: 4174

Ion	Ratio	Lower	Upper
130	100		
97	59.3	29.9	89.9

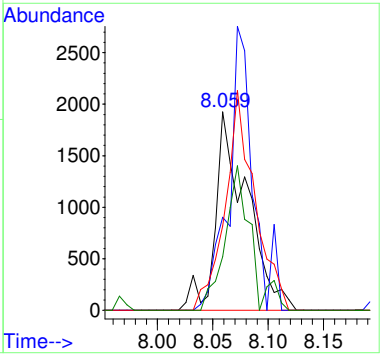


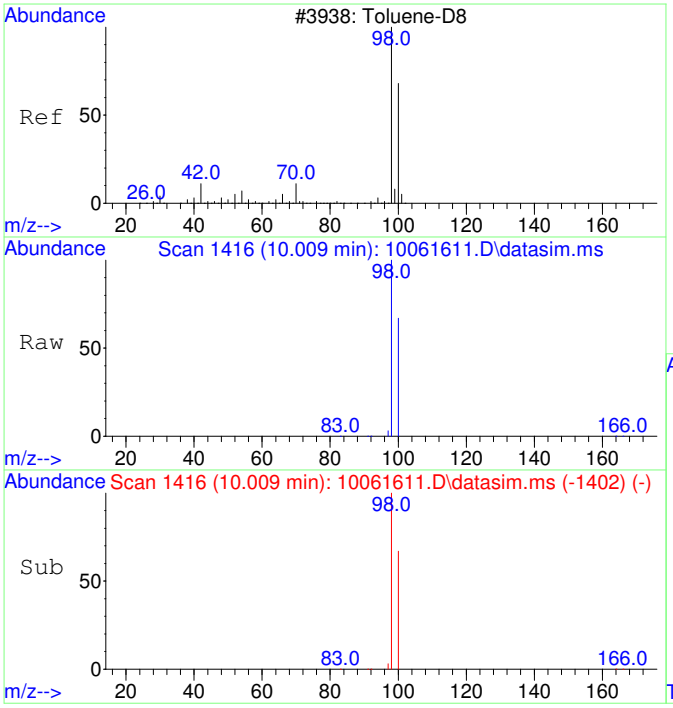


#22
Trichloroethene SCAN
Concen: 152.84 ug/L
RT: 8.059 min Scan# 1178
Delta R.T. -0.007 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 95 Resp: 3834

Ion	Ratio	Lower	Upper
95	100		
130	111.0	74.1	134.1
132	103.5	72.1	132.1
97	59.5	29.5	89.5

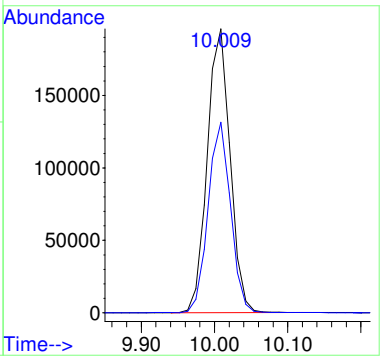


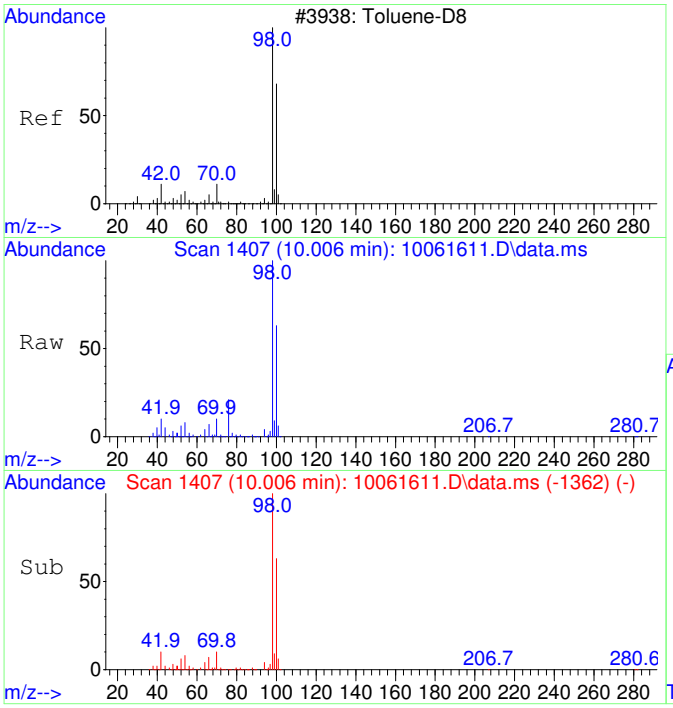


#23
Toluene-d8
Concen: 4965.69 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 98 Resp: 422953

Ion	Ratio	Lower	Upper
98	100		
100	65.4	35.3	95.3

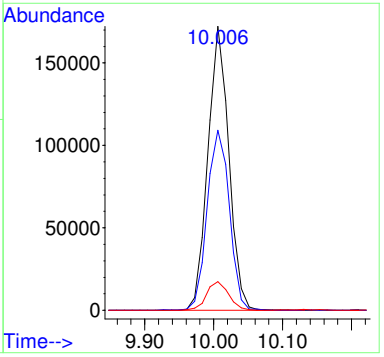


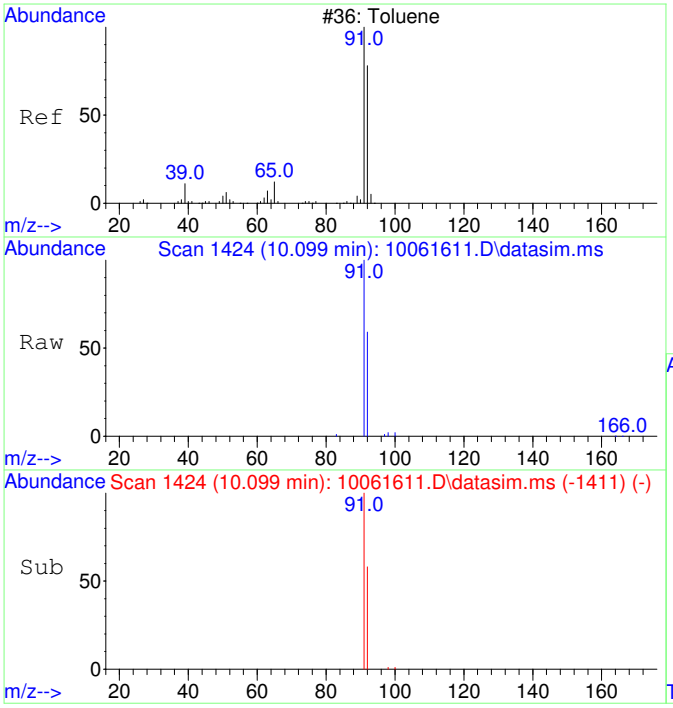


#24
Toluene-d8 SCAN
Concen: 4852.58 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 98 Resp: 363320

Ion	Ratio	Lower	Upper
98	100		
100	67.3	44.3	82.3
70	10.7	7.8	14.4

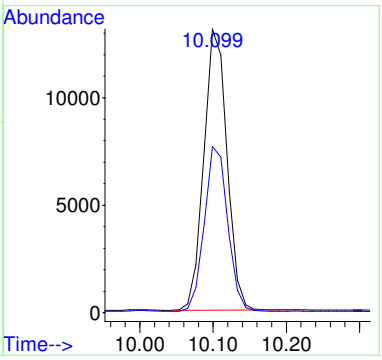


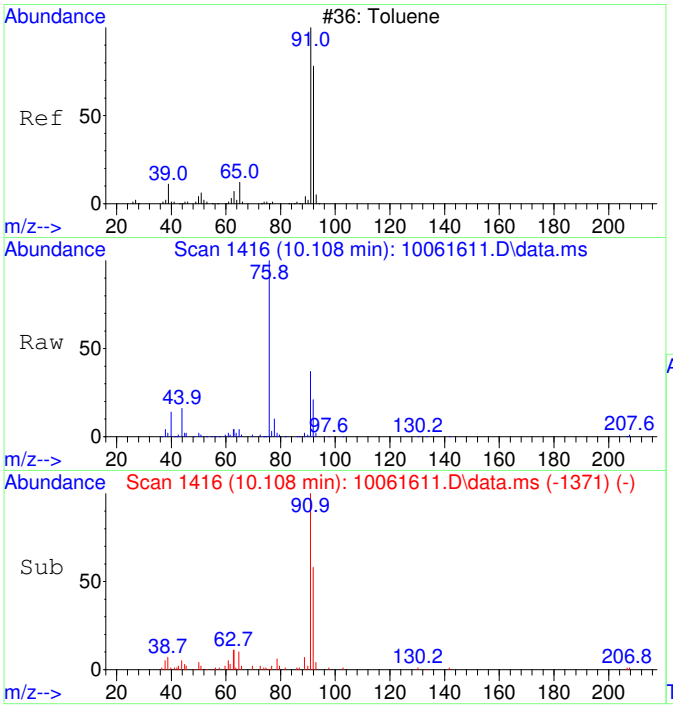


#25
Toluene
Concen: 272.63 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 28566

Ion	Ratio	Lower	Upper
91	100		
92	58.7	28.8	88.8

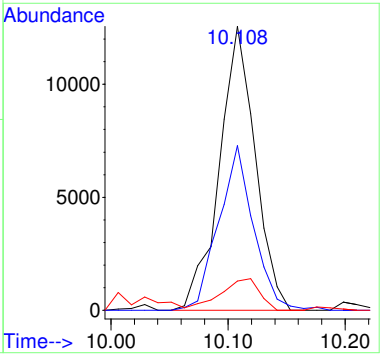


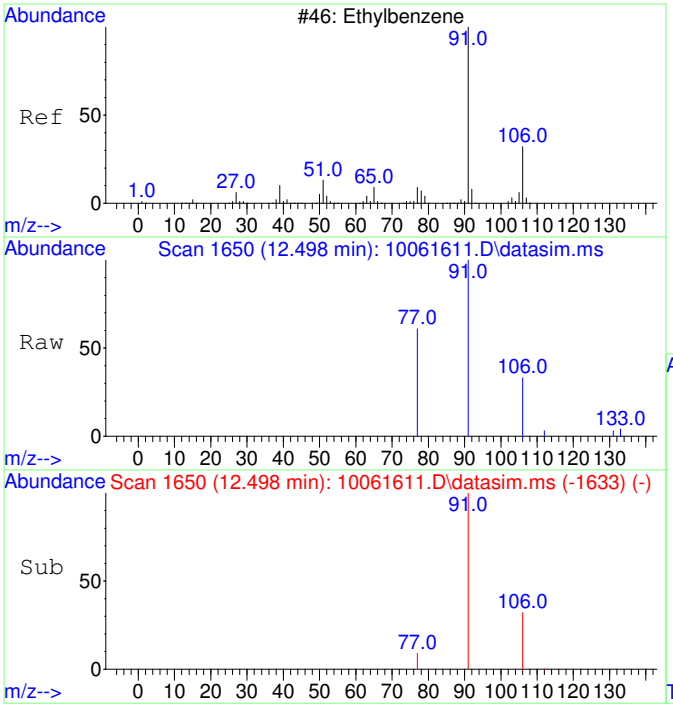


#26
Toluene SCAN
Concen: 312.40 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 26752

Ion	Ratio	Lower	Upper
91	100		
92	56.8	30.7	90.7
65	11.2	0.0	42.6

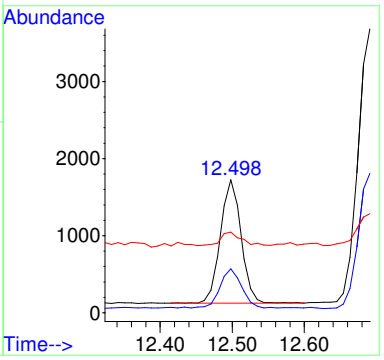


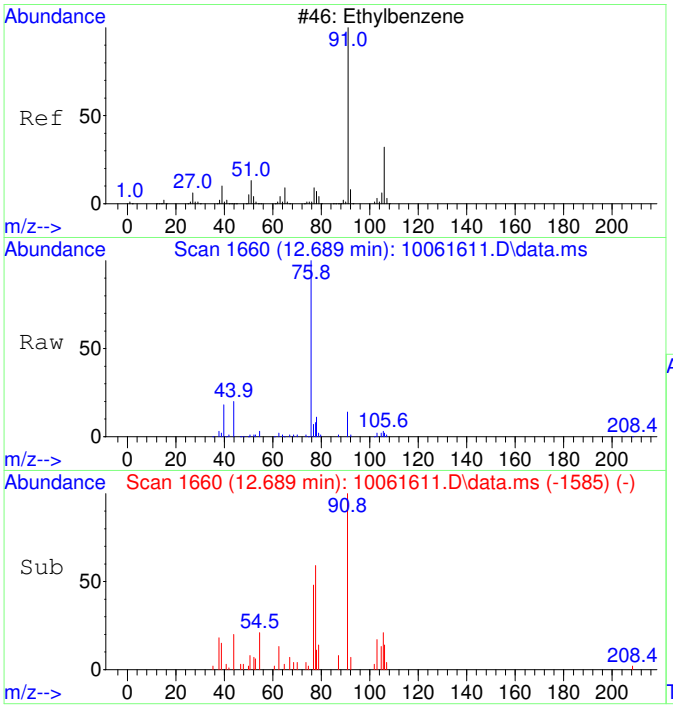


#35
Ethylbenzene
Concen: 28.76 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 3207

Ion	Ratio	Lower	Upper
91	100		
106	31.4	1.7	61.7
77	9.6	0.0	38.3

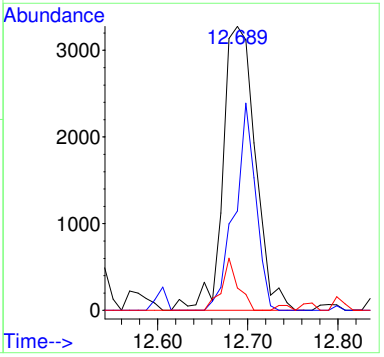


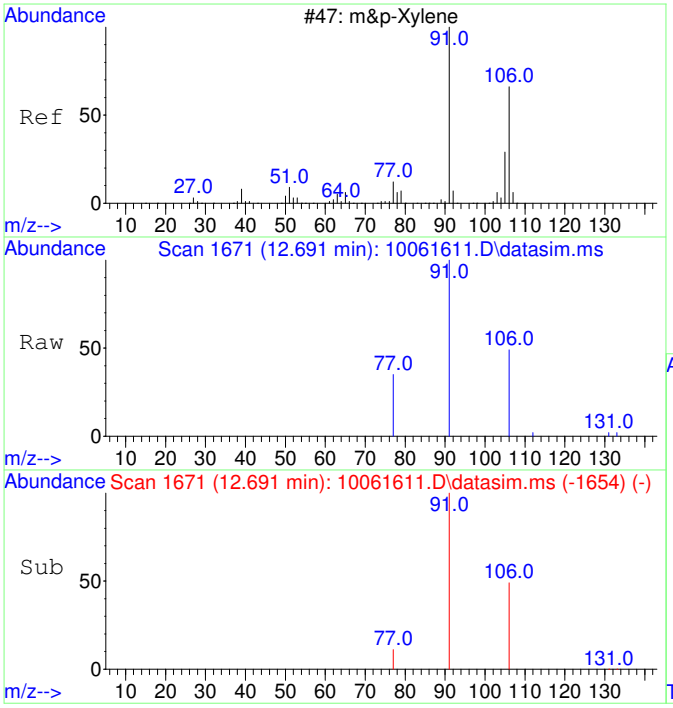


#36
Ethylbenzene SCAN
Concen: 89.92 ug/L
RT: 12.689 min Scan# 1660
Delta R.T. 0.193 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 8166

Ion	Ratio	Lower	Upper
91	100		
106	47.7	2.3	62.3
51	9.3	0.0	39.6

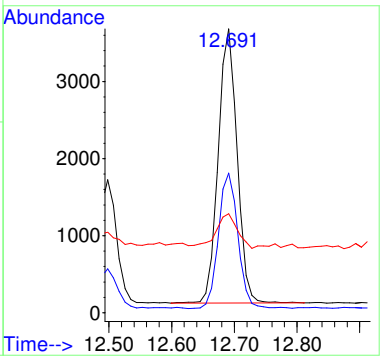


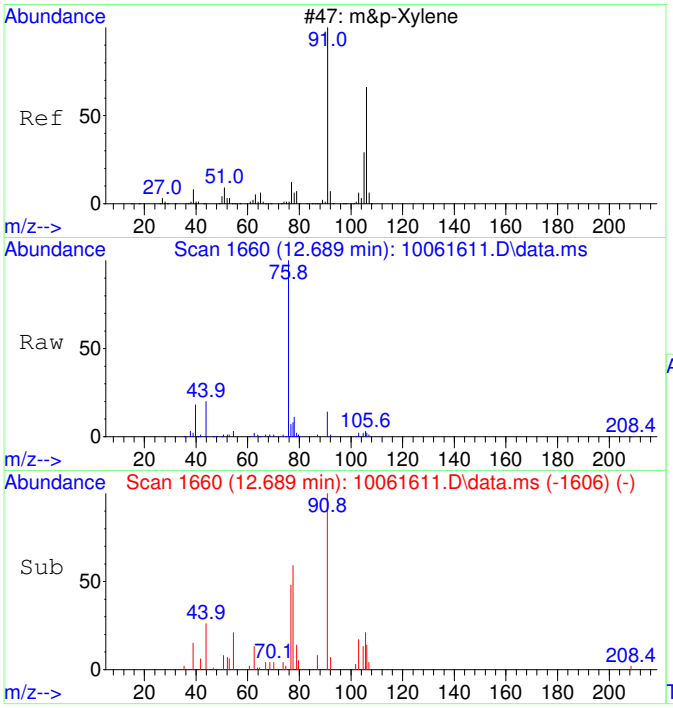


#37
m&p-Xylene
Concen: 85.32 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 7454

Ion	Ratio	Lower	Upper
91	100		
106	50.7	19.4	79.4
77	11.8	0.0	42.6

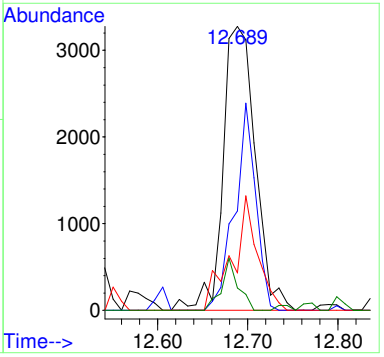


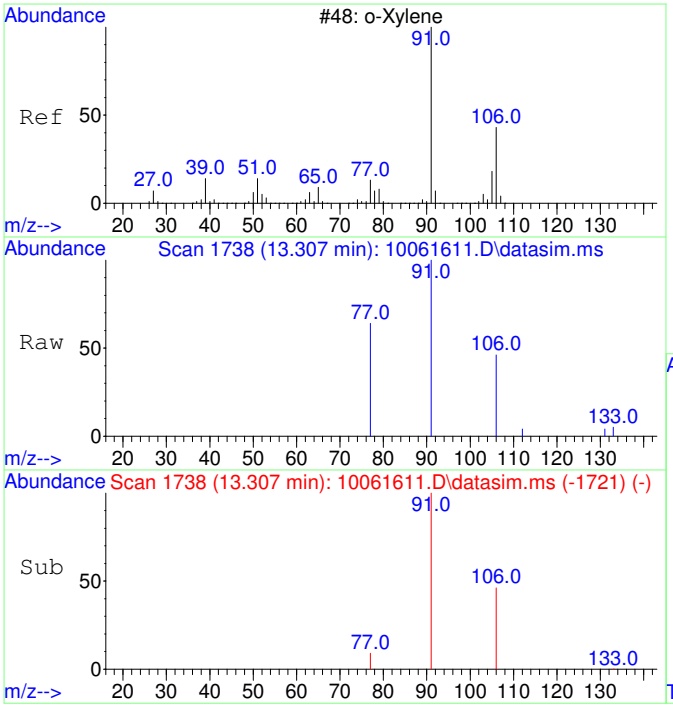


#38
m&p-Xylene SCAN
Concen: 113.74 ug/L
RT: 12.689 min Scan# 1660
Delta R.T. -0.000 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 8166

Ion	Ratio	Lower	Upper
91	100		
106	47.7	18.0	78.0
105	32.0	0.0	53.1
51	9.3	0.0	39.4

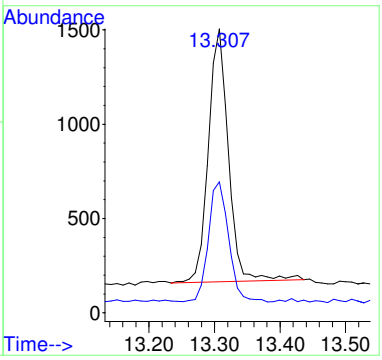


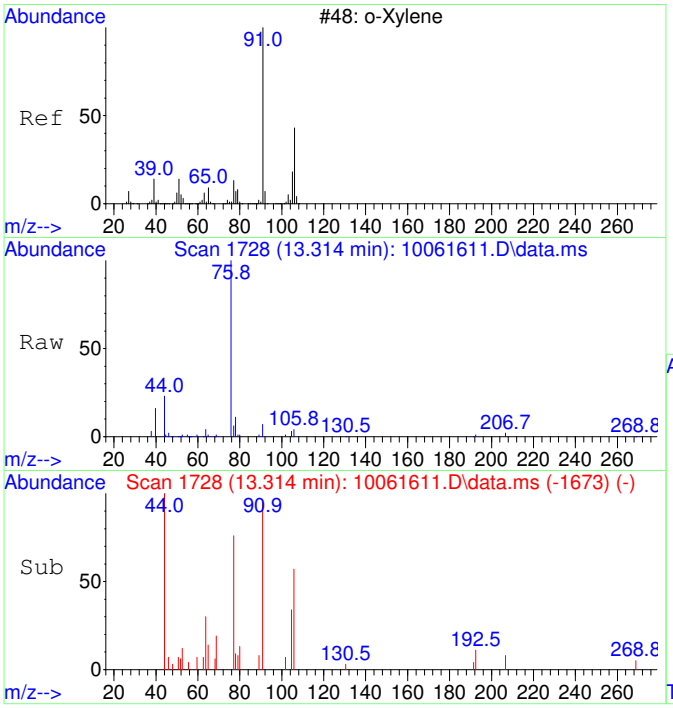


#39
o-Xylene
Concen: 31.69 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 2855

Ion	Ratio	Lower	Upper
91	100		
106	46.5	17.2	77.2

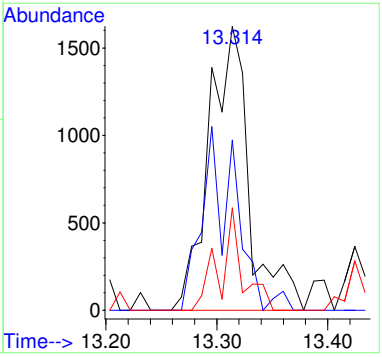


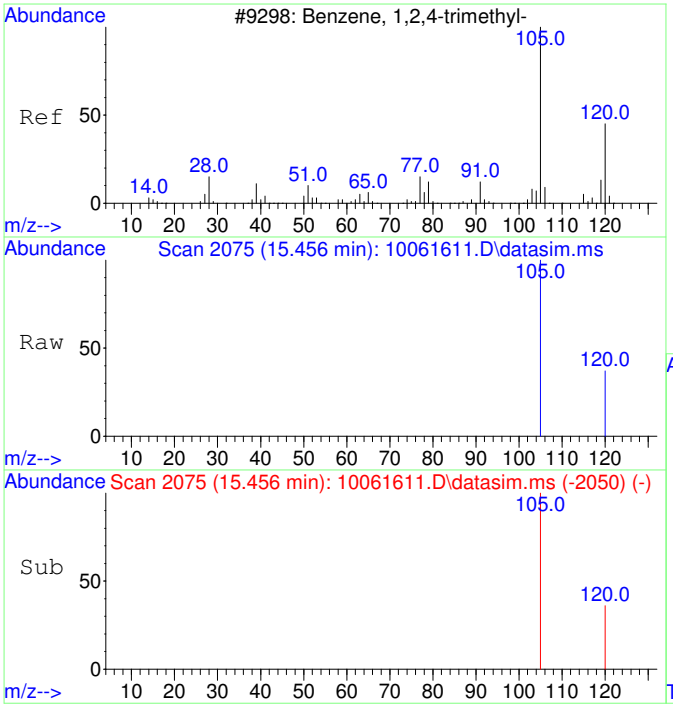


#40
o-Xylene SCAN
Concen: 54.42 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion: 91 Resp: 4088

Ion	Ratio	Lower	Upper
91	100		
106	53.1	18.0	78.0
105	20.0	0.0	56.8

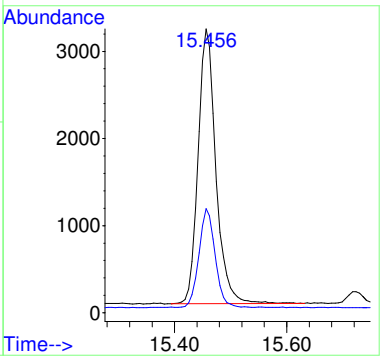


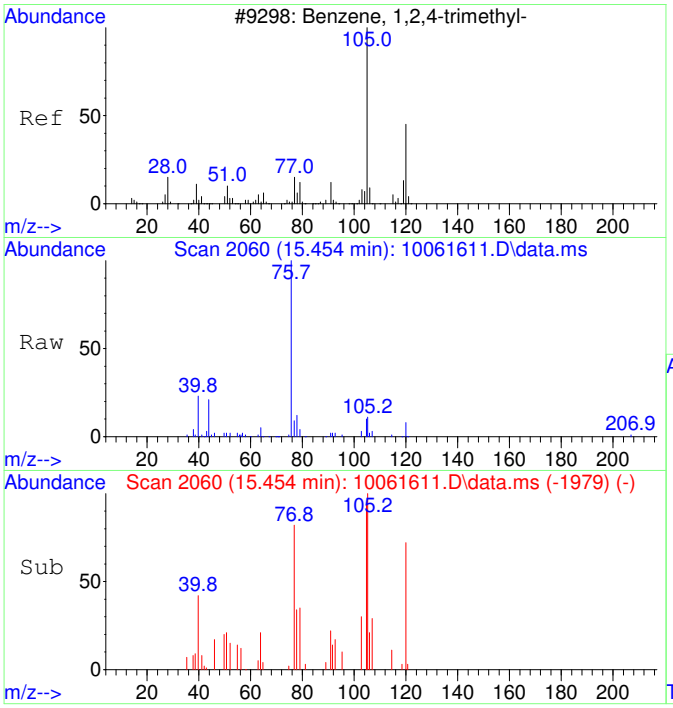


#45
1,2,4-Trimethylbenzene
Concen: 72.98 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion:105 Resp: 6954

Ion	Ratio	Lower	Upper
105	100		
120	32.7	15.7	75.7

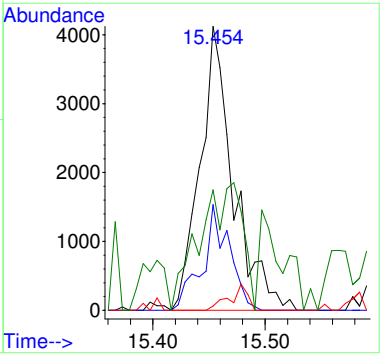




#46
1,2,4-Trimethylbenzene SCAN
Concen: 110.12 ug/L
RT: 15.454 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 10061611.D
Acq: 6 Oct 2016 15:42

Tgt Ion:105 Resp: 8478

Ion	Ratio	Lower	Upper
105	100		
120	30.3	17.2	77.2
119	0.0	0.0	41.3
77	14.2	0.0	43.1



1610002-02

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061612.D
Acq On : 6 Oct 2016 16:06
InstName : AG5975C
Operator : RH
Sample : 1610002-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 06 16:24:57 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

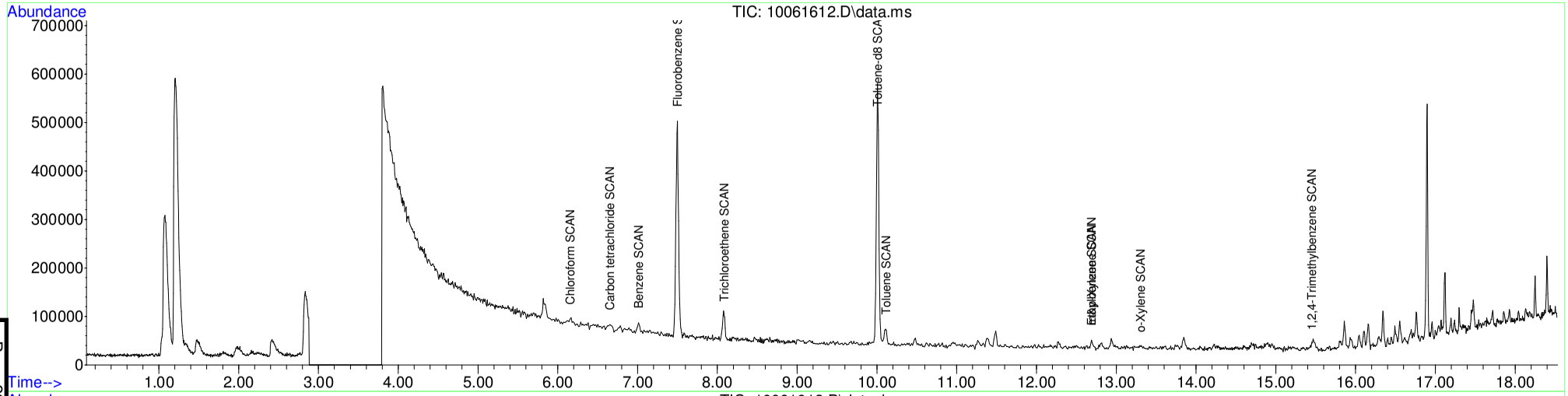
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.496	96	559672	5000.00 ug/L	0.02
System Monitoring Compounds					
23) Toluene-d8	10.009	98	509978	5131.15 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 102.62%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.500	96	499389	5023.64 ug/L	98
5] trans-1,2-Dichloroethene	3.881	61	1570	28.41 ug/L	76
11] Chloroform	6.169	83	9086	136.78 ug/L	99
12) Chloroform SCAN	6.153	83	9866	172.66 ug/L	93
15] Carbon tetrachloride	6.652	117	5061	101.14 ug/L	99
16) Carbon tetrachloride SCAN	6.650	117	5008	113.65 ug/L #	65
17] Benzene	7.001	78	16201	125.56 ug/L	97
18) Benzene SCAN	7.012	78	13716	118.29 ug/L	77
21] Trichloroethene	8.082	130	24201	662.15 ug/L	98
22) Trichloroethene SCAN	8.086	95	20734	708.35 ug/L	92
24) Toluene-d8 SCAN	10.006	98	437526	5007.99 ug/L	95
25] Toluene	10.099	91	30079	246.02 ug/L	99
26) Toluene SCAN	10.108	91	28608	286.30 ug/L	85
35] Ethylbenzene	12.498	91	3805	29.25 ug/L	96
36) Ethylbenzene SCAN	12.689	91	9496	89.61 ug/L	77
37] m&p-Xylene	12.691	91	9086	89.12 ug/L	100
38) m&p-Xylene SCAN	12.689	91	9496	113.35 ug/L	97
39] o-Xylene	13.308	91	3271	31.12 ug/L	99
40) o-Xylene SCAN	13.305	91	3491	39.83 ug/L	93
45] 1,2,4-Trimethylbenzene	15.456	105	8158	73.37 ug/L	83
46) 1,2,4-Trimethylbenzene...	15.448	105	8474	94.32 ug/L	76

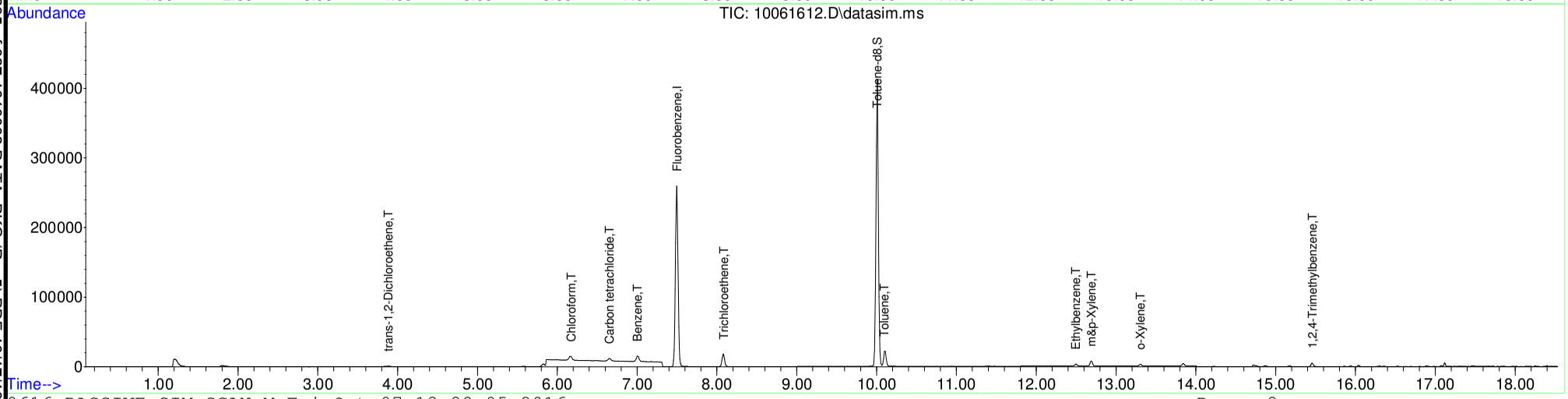
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061612.D
Acq On : 6 Oct 2016 16:06
InstName : AG5975C
Operator : RH
Sample : 1610002-02
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 06 16:24:57 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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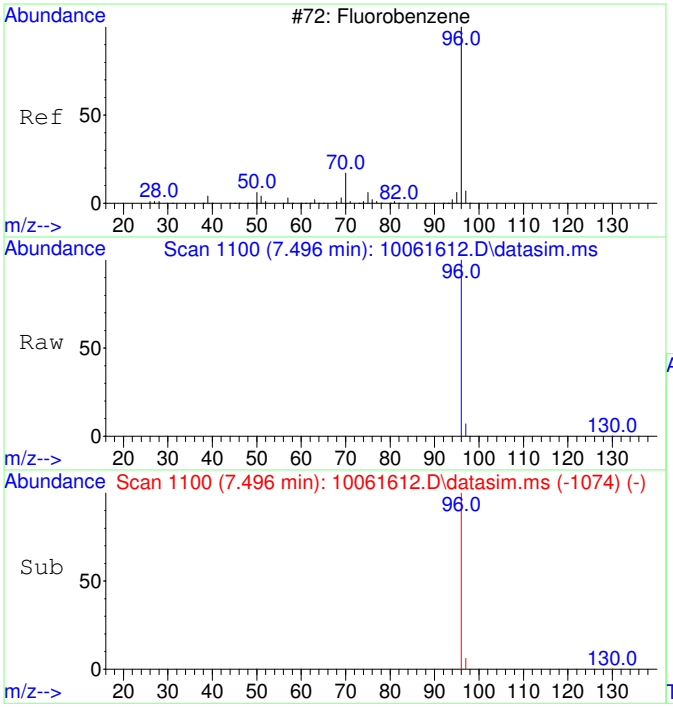
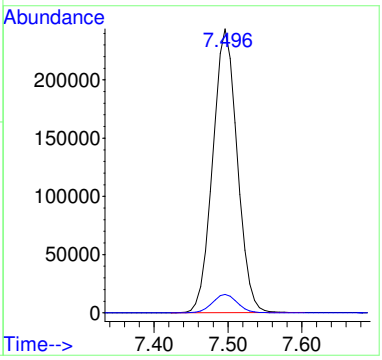
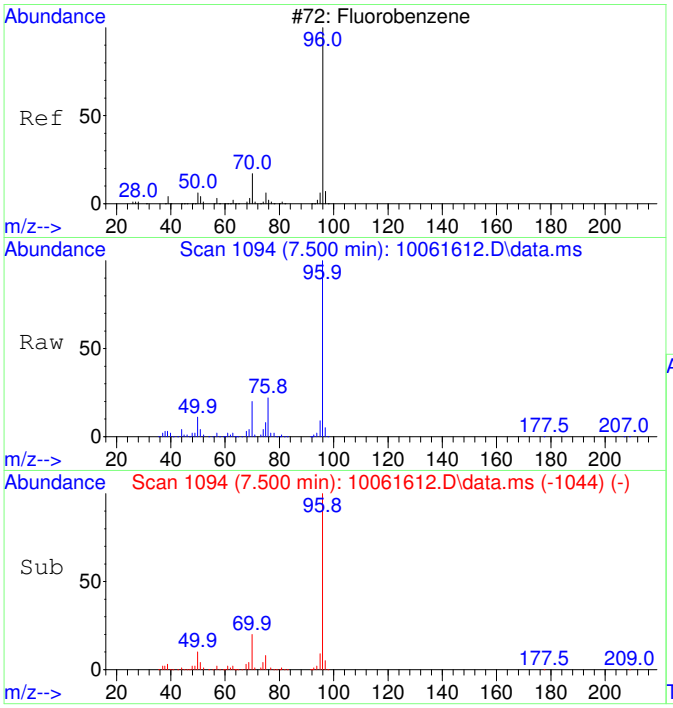


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.496 min Scan# 1100
Delta R.T. 0.020 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 96 Resp: 559672

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

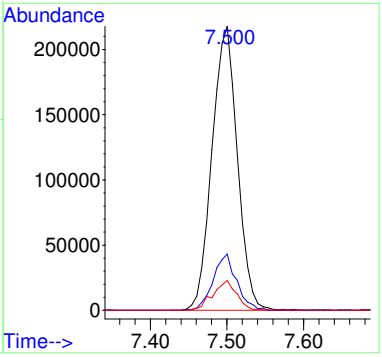


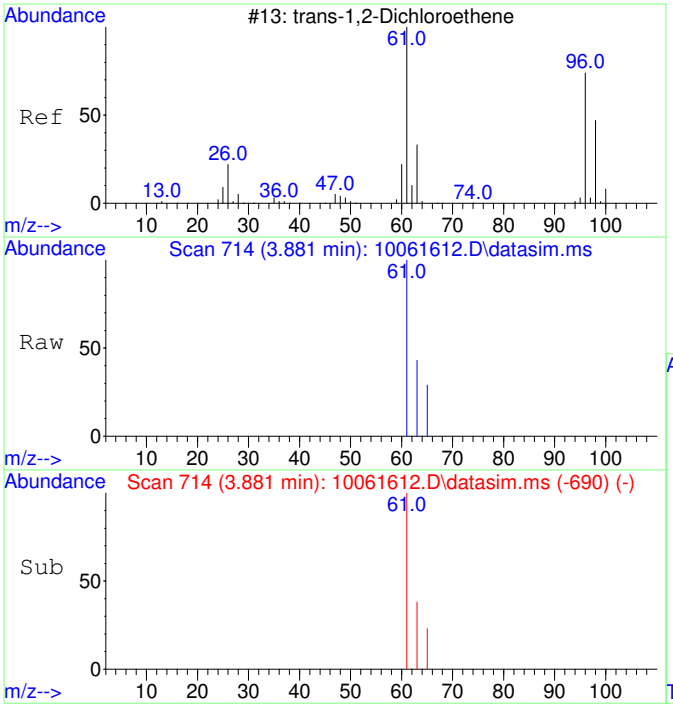


#2
Fluorobenzene SCAN
Concen: 5023.64 ug/L
RT: 7.500 min Scan# 1094
Delta R.T. 0.020 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 96 Resp: 499389

Ion	Ratio	Lower	Upper
96	100		
70	18.4	0.0	49.2
50	10.0	0.0	41.1

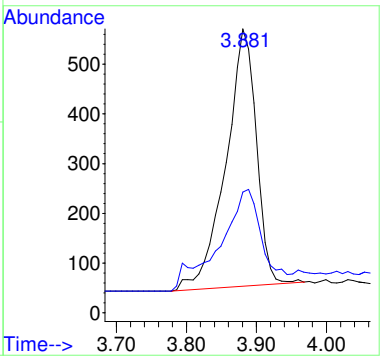


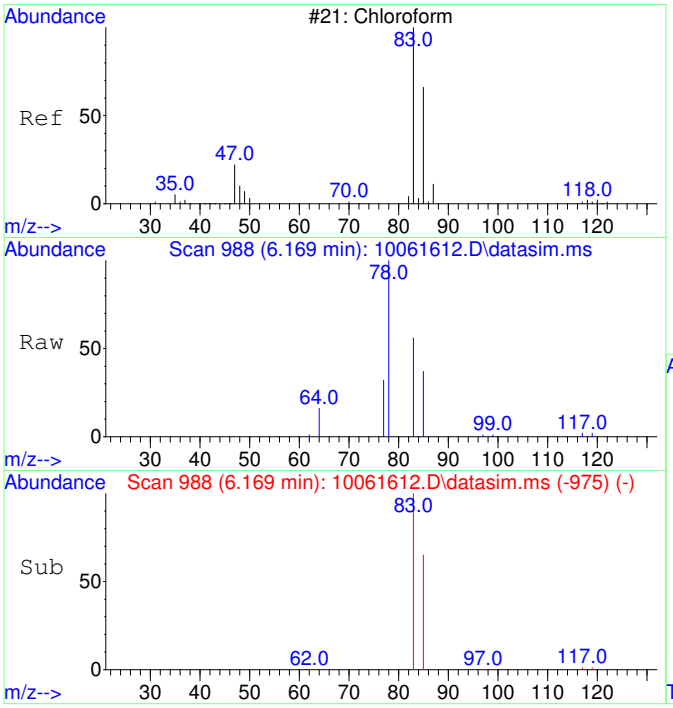


#5
trans-1,2-Dichloroethene
Concen: 28.41 ug/L
RT: 3.881 min Scan# 714
Delta R.T. 0.039 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 61 Resp: 1570

Ion	Ratio	Lower	Upper
61	100		
63	45.8	2.5	62.5

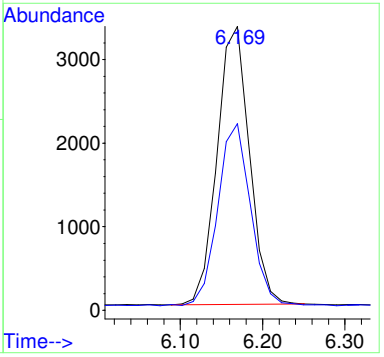


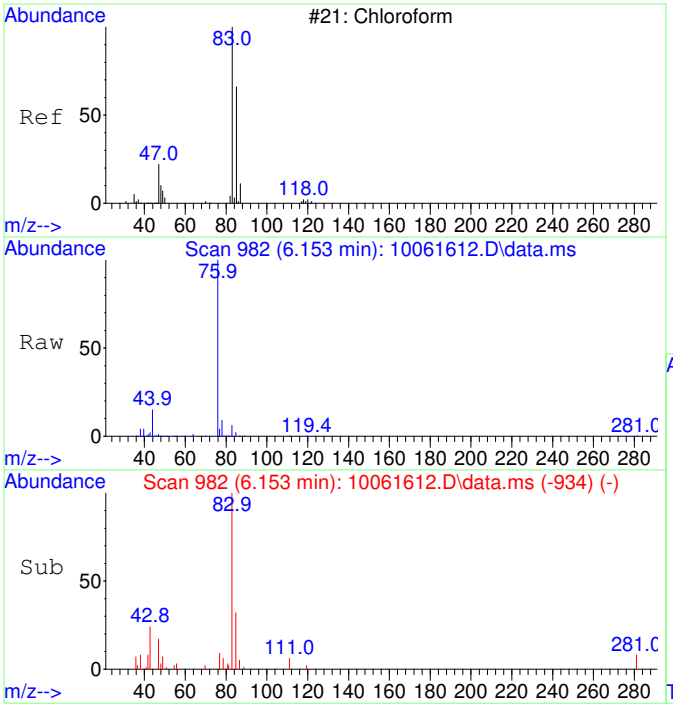


#11
Chloroform
Concen: 136.78 ug/L
RT: 6.169 min Scan# 988
Delta R.T. 0.027 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 83 Resp: 9086

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.4	94.4

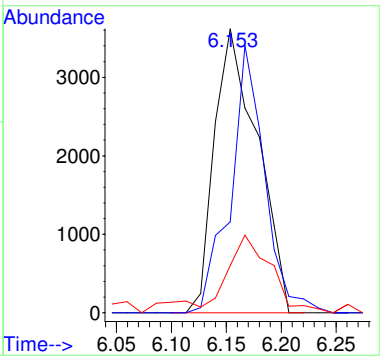


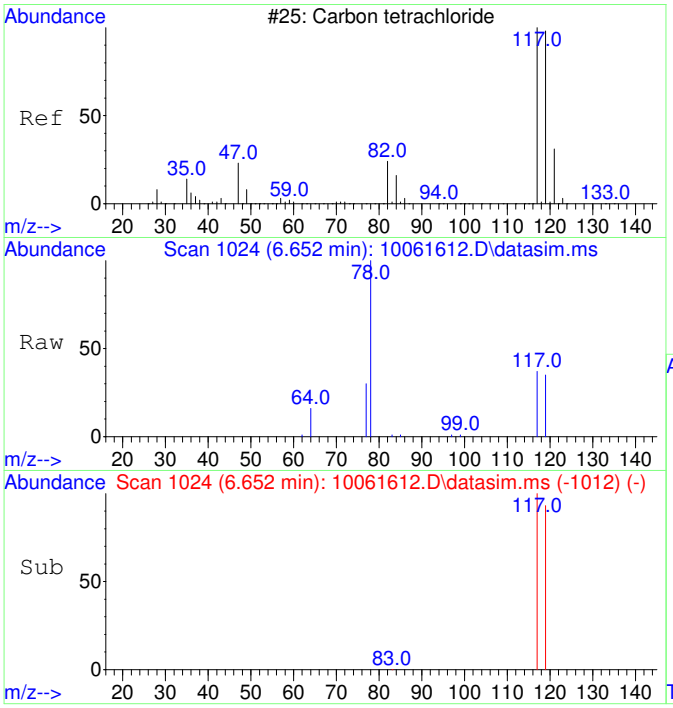


#12
Chloroform SCAN
Concen: 172.66 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 83 Resp: 9866

Ion	Ratio	Lower	Upper
83	100		
85	75.2	37.6	97.6
47	24.3	0.0	53.4

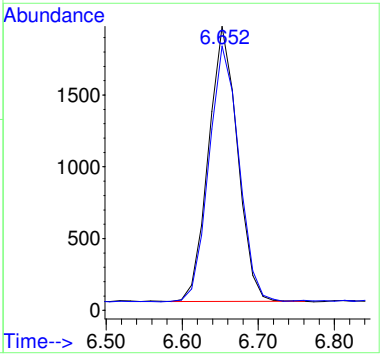


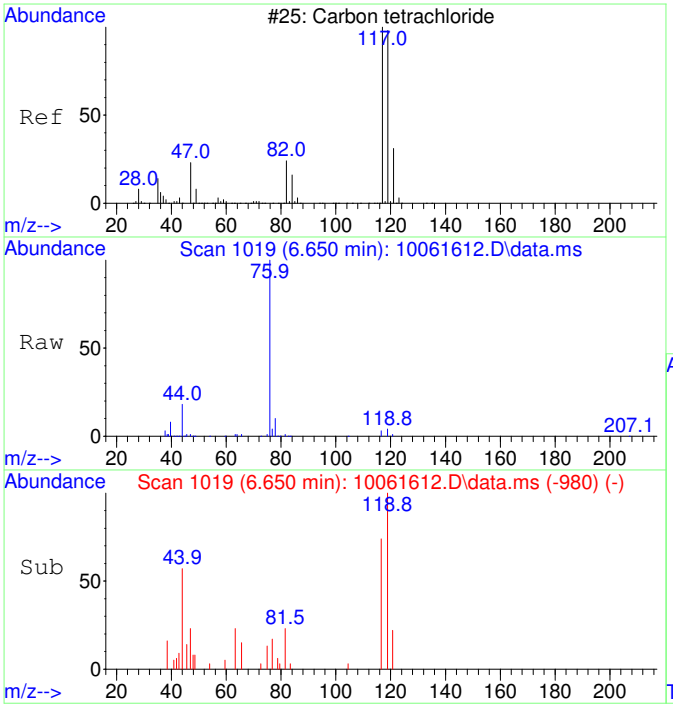


#15
Carbon tetrachloride
Concen: 101.14 ug/L
RT: 6.652 min Scan# 1024
Delta R.T. 0.013 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion:117 Resp: 5061

Ion	Ratio	Lower	Upper
117	100		
119	95.6	66.1	126.1

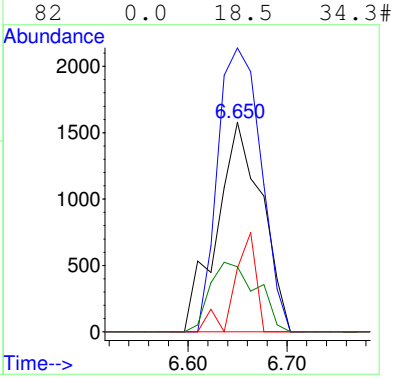


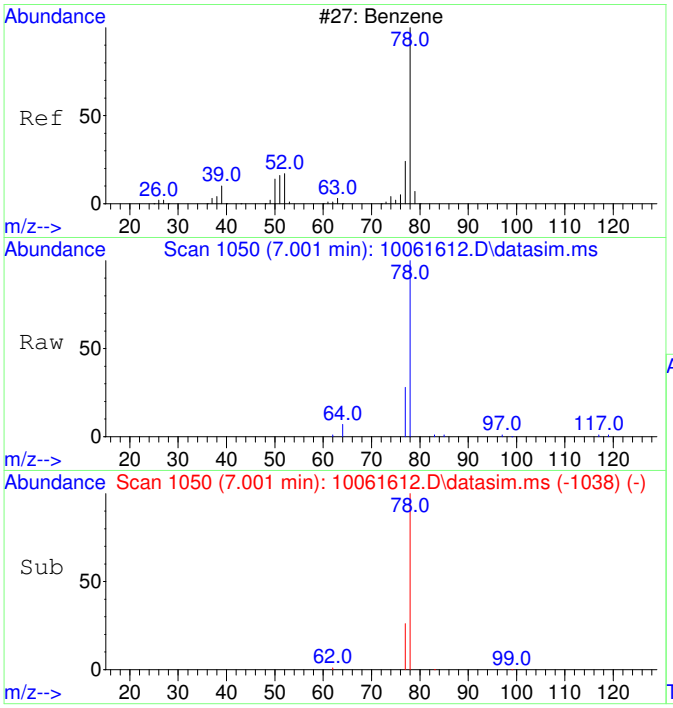


#16
Carbon tetrachloride SCAN
Concen: 113.65 ug/L
RT: 6.650 min Scan# 1019
Delta R.T. 0.027 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion:117 Resp: 5008

Ion	Ratio	Lower	Upper
117	100		
119	130.4	66.0	122.6#
121	22.5	22.1	41.1
82	0.0	18.5	34.3#

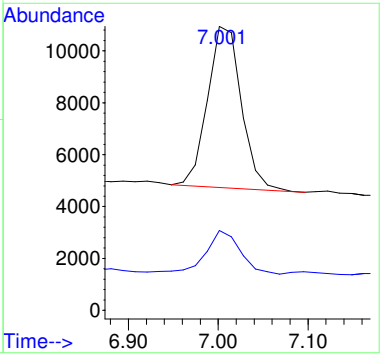


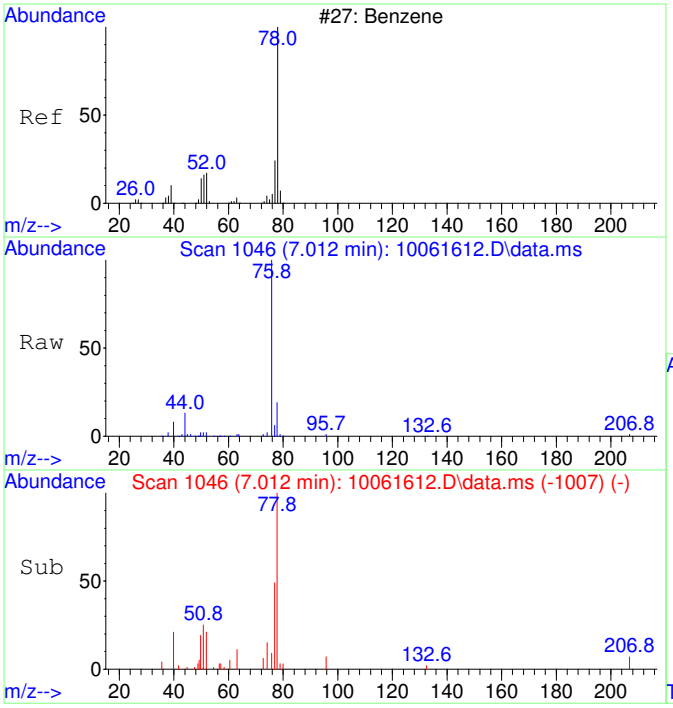


#17
Benzene
Concen: 125.56 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 78 Resp: 16201

Ion	Ratio	Lower	Upper
78	100		
77	24.6	0.0	53.4

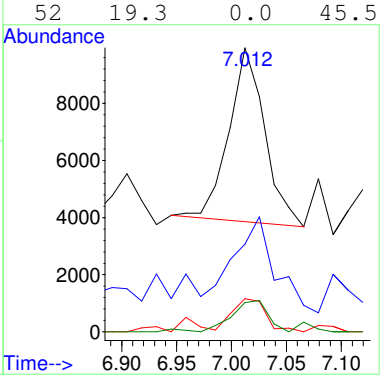


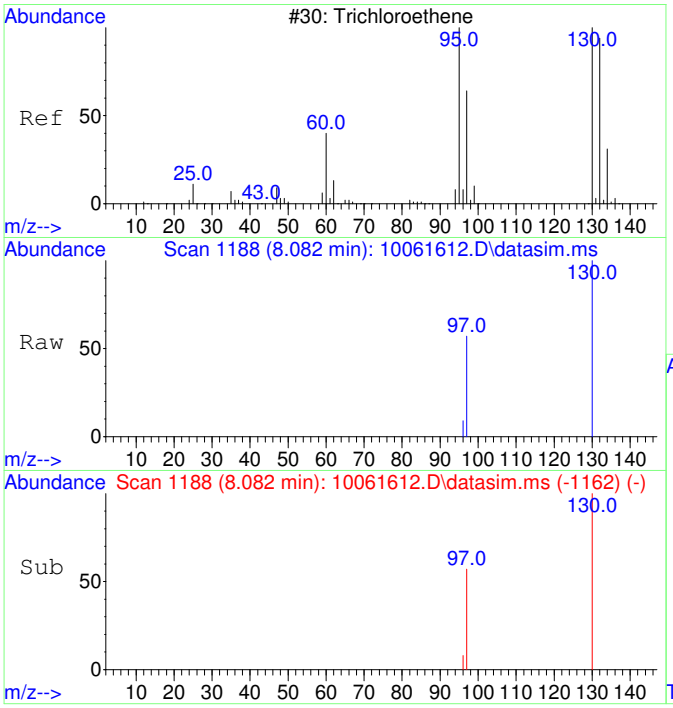


#18
Benzene SCAN
Concen: 118.29 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.027 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 78 Resp: 13716

Ion	Ratio	Lower	Upper
78	100		
77	52.6	0.0	59.3
51	17.2	0.0	49.2
52	19.3	0.0	45.5

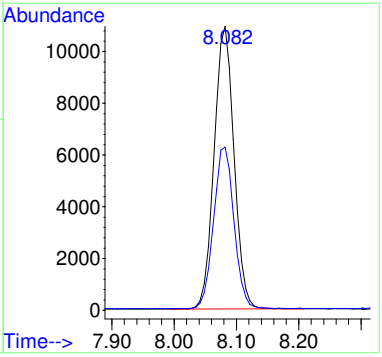


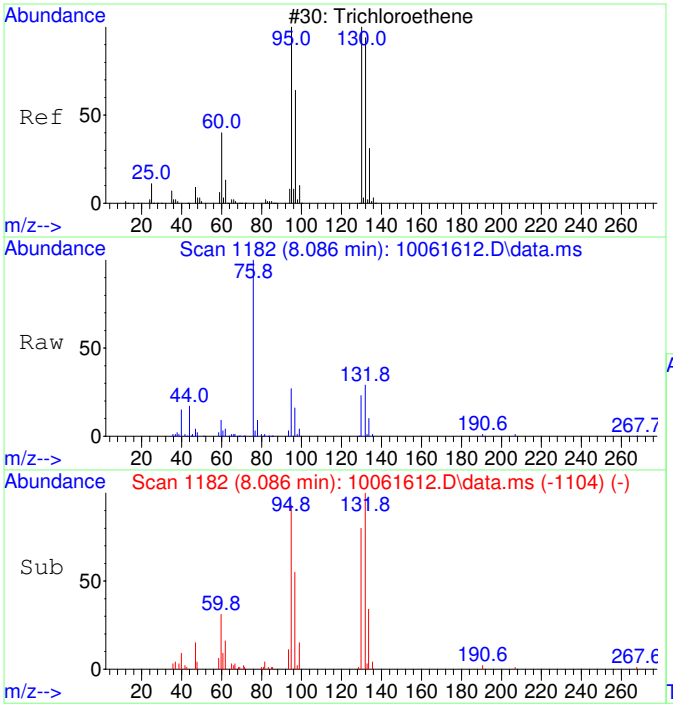


#21
Trichloroethene
Concen: 662.15 ug/L
RT: 8.082 min Scan# 1188
Delta R.T. 0.020 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion:130 Resp: 24201

Ion	Ratio	Lower	Upper
130	100		
97	58.3	29.9	89.9

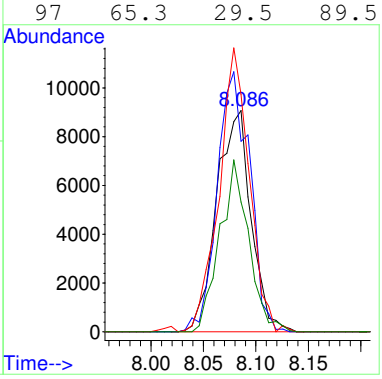


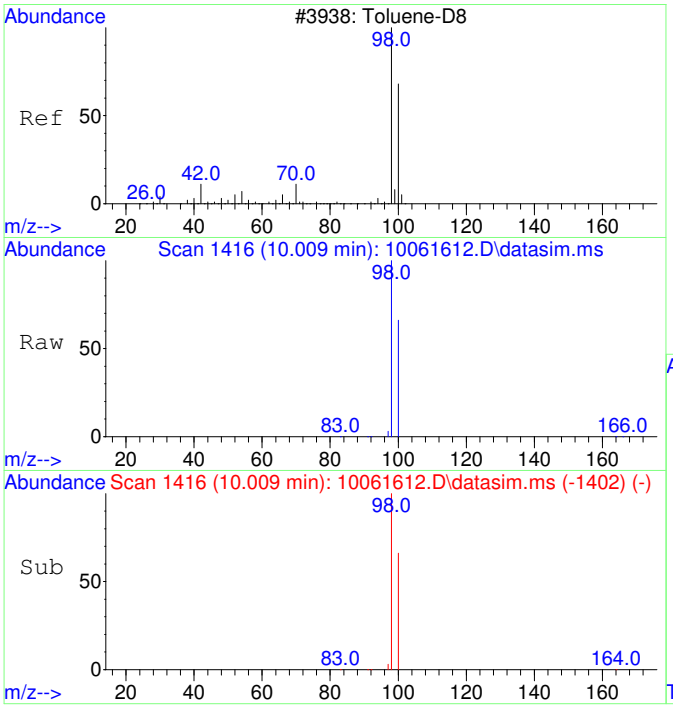


#22
Trichloroethene SCAN
Concen: 708.35 ug/L
RT: 8.086 min Scan# 1182
Delta R.T. 0.020 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 95 Resp: 20734

Ion	Ratio	Lower	Upper
95	100		
130	110.7	74.1	134.1
132	112.6	72.1	132.1
97	65.3	29.5	89.5

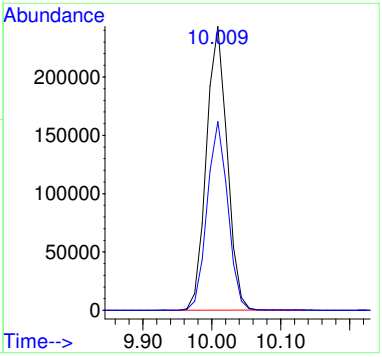


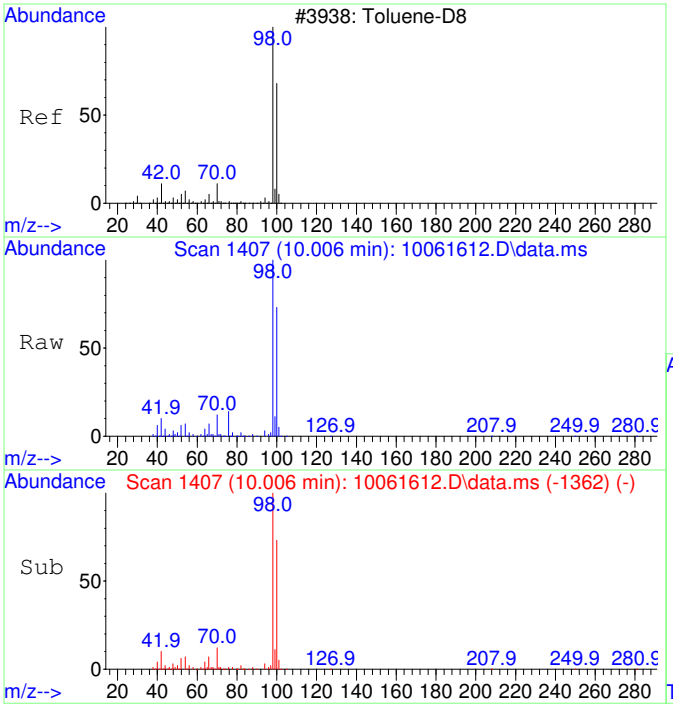


#23
Toluene-d8
Concen: 5131.15 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 98 Resp: 509978

Ion	Ratio	Lower	Upper
98	100		
100	65.4	35.3	95.3

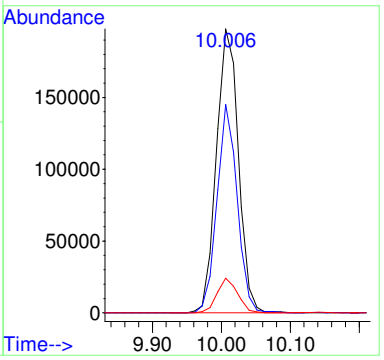


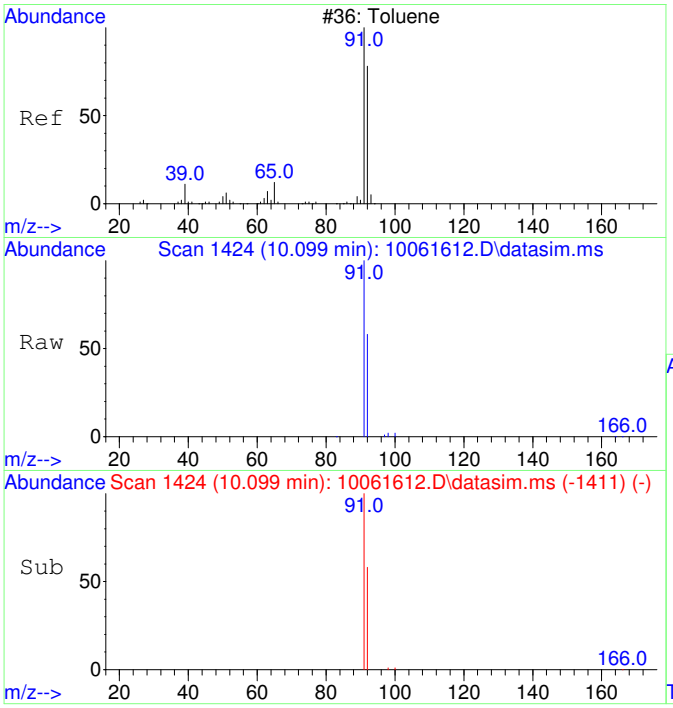


#24
Toluene-d8 SCAN
Concen: 5007.99 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 98 Resp: 437526

Ion	Ratio	Lower	Upper
98	100		
100	67.4	44.3	82.3
70	11.4	7.8	14.4

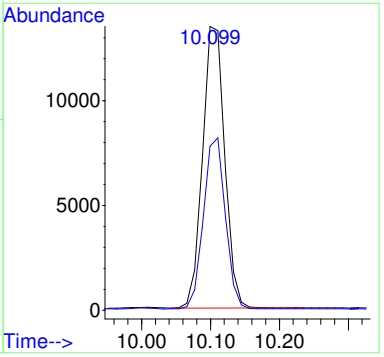


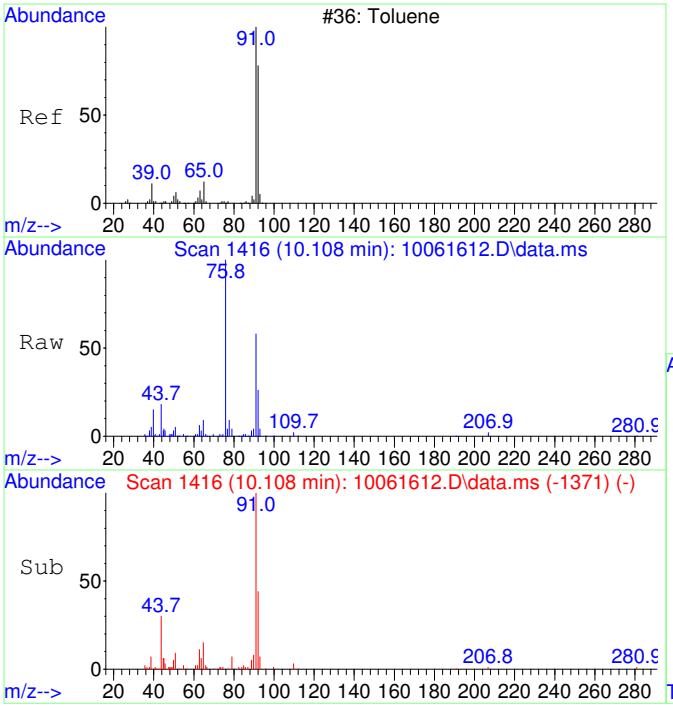


#25
Toluene
Concen: 246.02 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. 0.000 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 30079

Ion	Ratio	Lower	Upper
91	100		
92	59.6	28.8	88.8

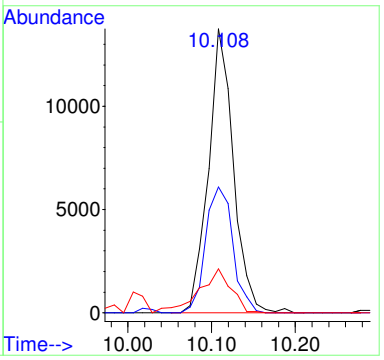


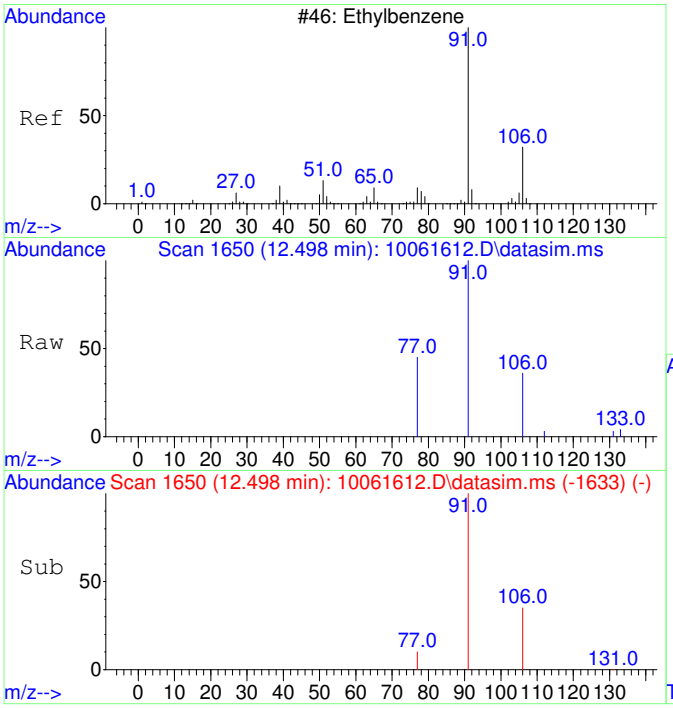


#26
Toluene SCAN
Concen: 286.30 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 28608

Ion	Ratio	Lower	Upper
91	100		
92	48.2	30.7	90.7
65	16.5	0.0	42.6

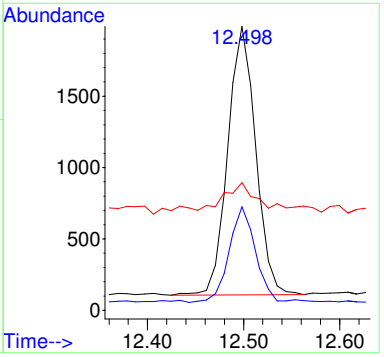


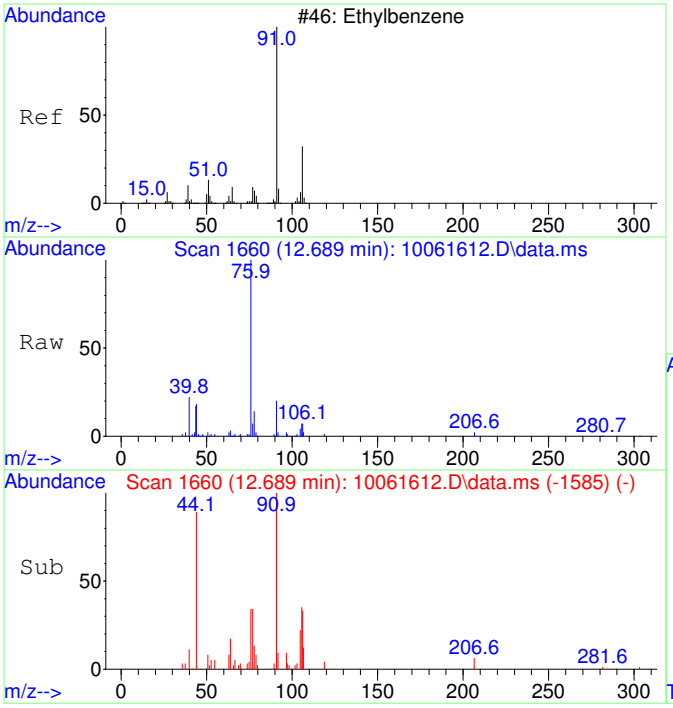


#35
Ethylbenzene
Concen: 29.25 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 3805

Ion	Ratio	Lower	Upper
91	100		
106	32.0	1.7	61.7
77	14.6	0.0	38.3

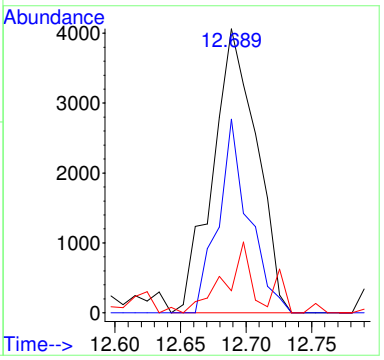


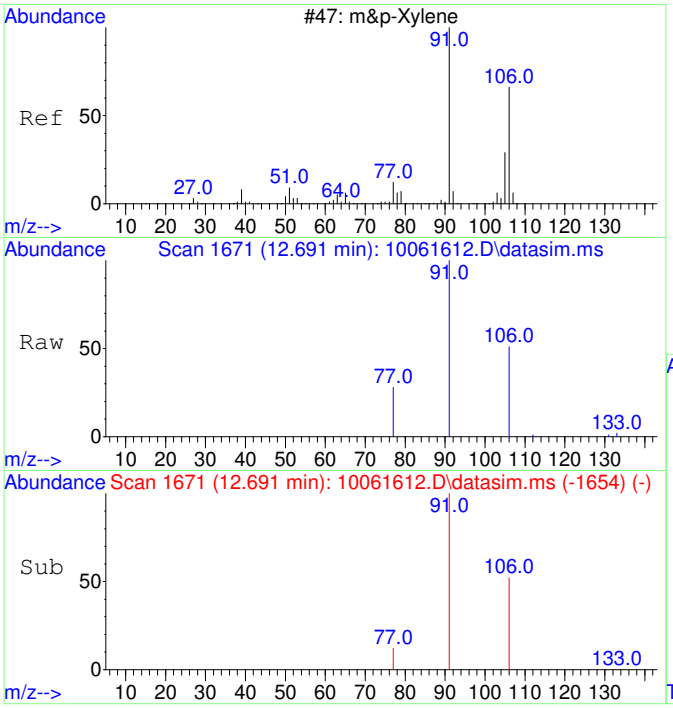


#36
Ethylbenzene SCAN
Concen: 89.61 ug/L
RT: 12.689 min Scan# 1660
Delta R.T. 0.193 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 9496

Ion	Ratio	Lower	Upper
91	100		
106	47.4	2.3	62.3
51	12.7	0.0	39.6

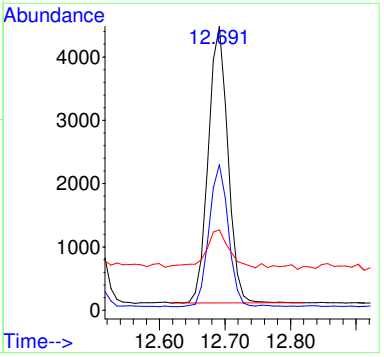


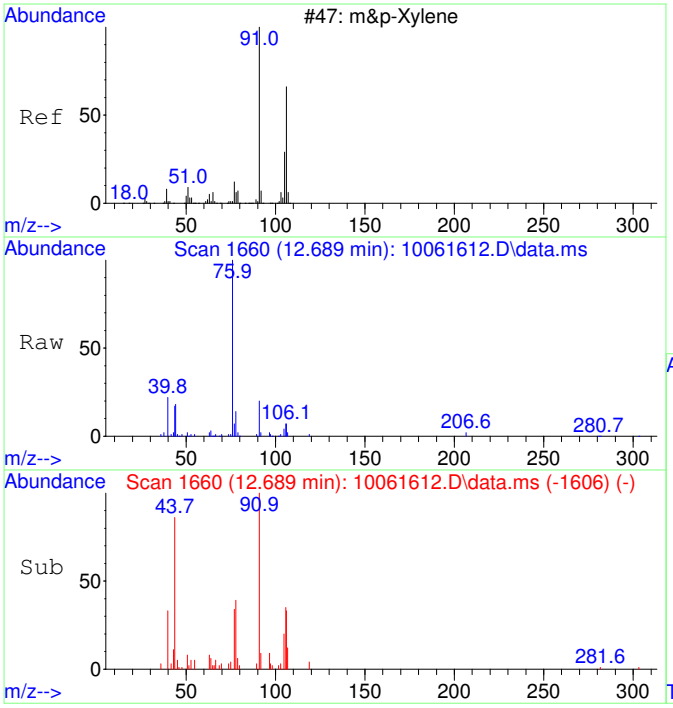


#37
m&p-Xylene
Concen: 89.12 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 9086

Ion	Ratio	Lower	Upper
91	100		
106	49.4	19.4	79.4
77	13.3	0.0	42.6

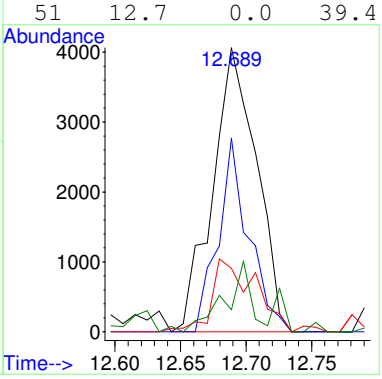


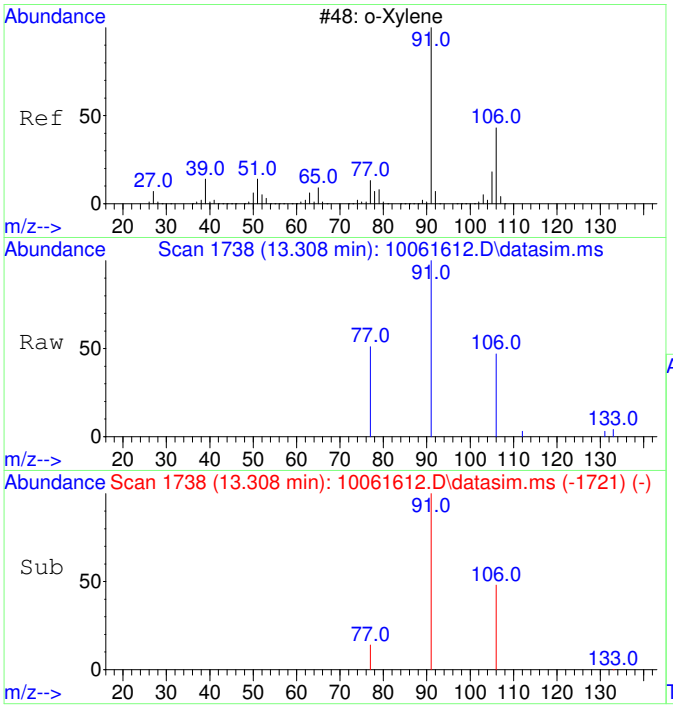


#38
m&p-Xylene SCAN
Concen: 113.35 ug/L
RT: 12.689 min Scan# 1660
Delta R.T. 0.000 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 9496

Ion	Ratio	Lower	Upper
91	100		
106	47.4	18.0	78.0
105	25.9	0.0	53.1
51	12.7	0.0	39.4

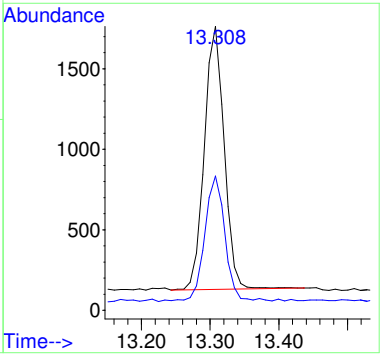


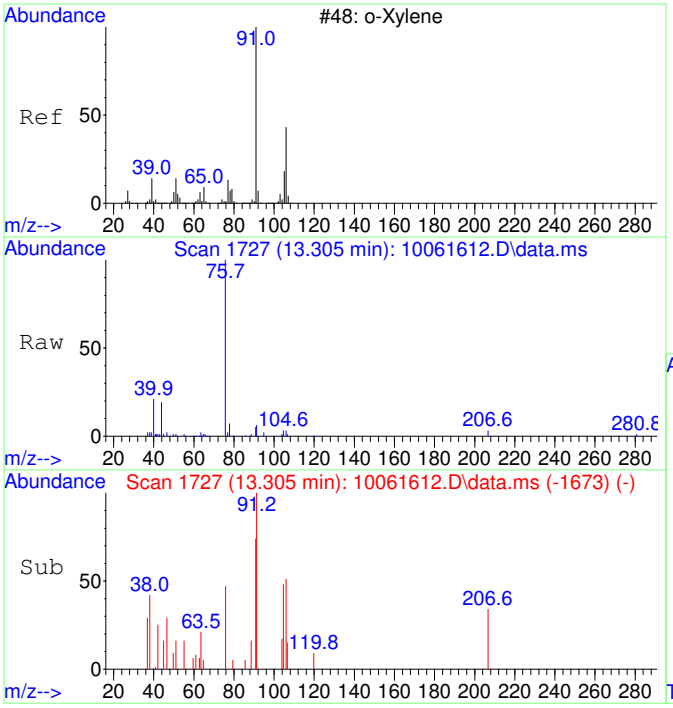


#39
o-Xylene
Concen: 31.12 ug/L
RT: 13.308 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 3271

Ion	Ratio	Lower	Upper
91	100		
106	46.2	17.2	77.2

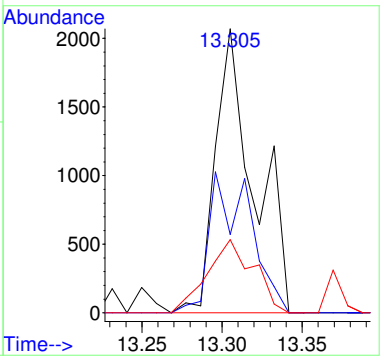


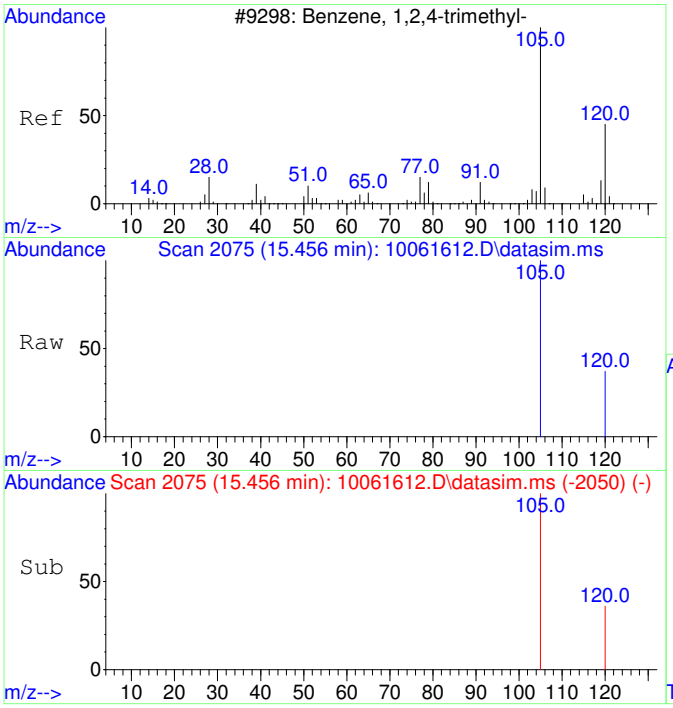


#40
o-Xylene SCAN
Concen: 39.83 ug/L
RT: 13.305 min Scan# 1727
Delta R.T. 0.000 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion: 91 Resp: 3491

Ion	Ratio	Lower	Upper
91	100		
106	52.0	18.0	78.0
105	31.0	0.0	56.8

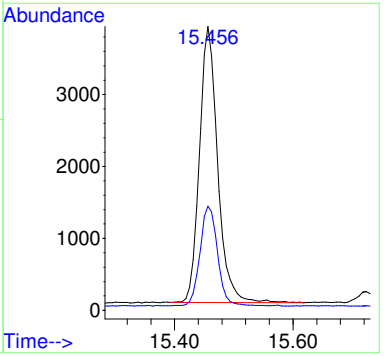


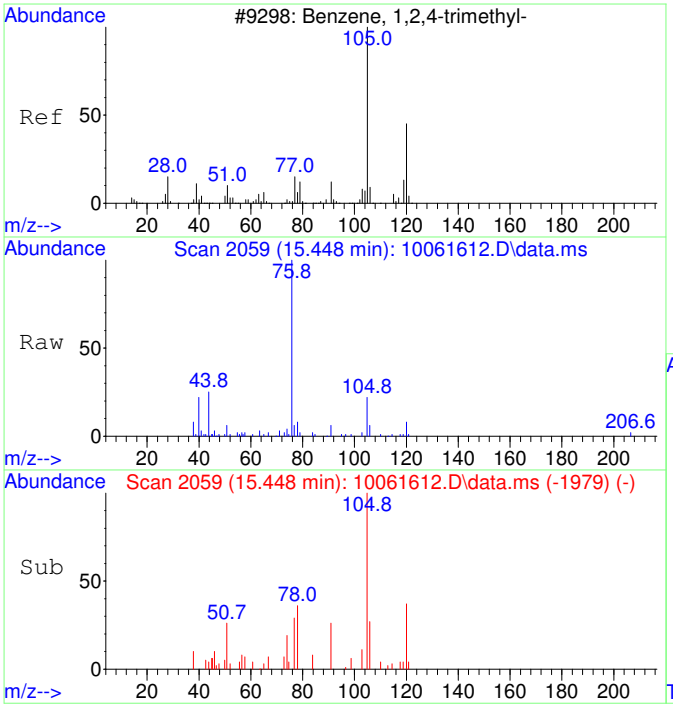


#45
1,2,4-Trimethylbenzene
Concen: 73.37 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion:105 Resp: 8158

Ion	Ratio	Lower	Upper
105	100		
120	34.6	15.7	75.7

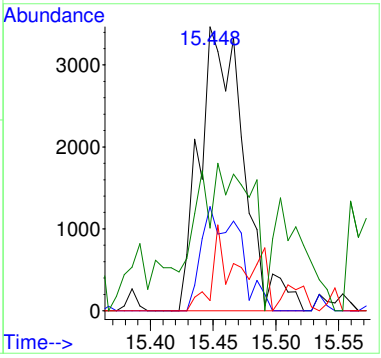




#46
1,2,4-Trimethylbenzene SCAN
Concen: 94.32 ug/L
RT: 15.448 min Scan# 2059
Delta R.T. 0.000 min
Lab File: 10061612.D
Acq: 6 Oct 2016 16:06

Tgt Ion:105 Resp: 8474

Ion	Ratio	Lower	Upper
105	100		
120	31.3	17.2	77.2
119	17.7	0.0	41.3
77	25.8	0.0	43.1



1610002-03

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061613.D
Acq On : 6 Oct 2016 16:30
InstName : AG5975C
Operator : RH
Sample : 1610002-03
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 06 16:48:52 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

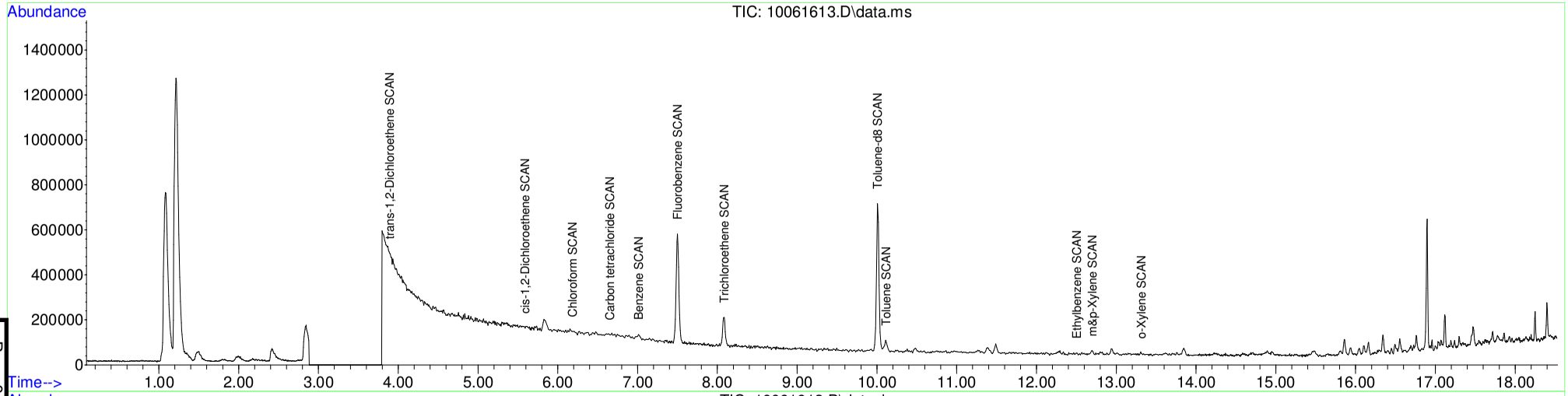
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.503	96	647161	5000.00 ug/L	0.03
System Monitoring Compounds					
23) Toluene-d8	10.009	98	633252	5510.12 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 110.20%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.500	96	554058	4820.10 ug/L	98
5] trans-1,2-Dichloroethene	3.896	61	4059	63.53 ug/L	97
6) trans-1,2-Dichloroethe...	3.894	61	4378	80.40 ug/L	80
9] cis-1,2-Dichloroethene	5.592	61	2576	38.33 ug/L	99
10) cis-1,2-Dichloroethene...	5.590	61	3374	56.32 ug/L #	70
11] Chloroform	6.169	83	10430	135.79 ug/L	98
12) Chloroform SCAN	6.180	83	9833	148.82 ug/L #	83
15] Carbon tetrachloride	6.652	117	6306	108.99 ug/L	99
16) Carbon tetrachloride SCAN	6.650	117	6814	133.73 ug/L #	19
17] Benzene	7.015	78	19765	132.47 ug/L	99
18) Benzene SCAN	7.012	78	29216	217.90 ug/L	85
21] Trichloroethene	8.082	130	61801	1462.30 ug/L	99
22) Trichloroethene SCAN	8.086	95	51225	1513.45 ug/L	95
24) Toluene-d8 SCAN	10.006	98	556320	5506.88 ug/L	98
25] Toluene	10.111	91	38584	272.92 ug/L	100
26) Toluene SCAN	10.108	91	37554	325.02 ug/L	98
35] Ethylbenzene	12.498	91	4237	28.16 ug/L	98
36) Ethylbenzene SCAN	12.505	91	5427	44.29 ug/L	94
37] m&p-Xylene	12.691	91	10033	85.11 ug/L	98
38) m&p-Xylene SCAN	12.698	91	10425	107.62 ug/L	94
39] o-Xylene	13.307	91	3676	30.24 ug/L	98
40) o-Xylene SCAN	13.314	91	4731	46.68 ug/L	86
45] 1,2,4-Trimethylbenzene	15.456	105	9682	75.31 ug/L	81

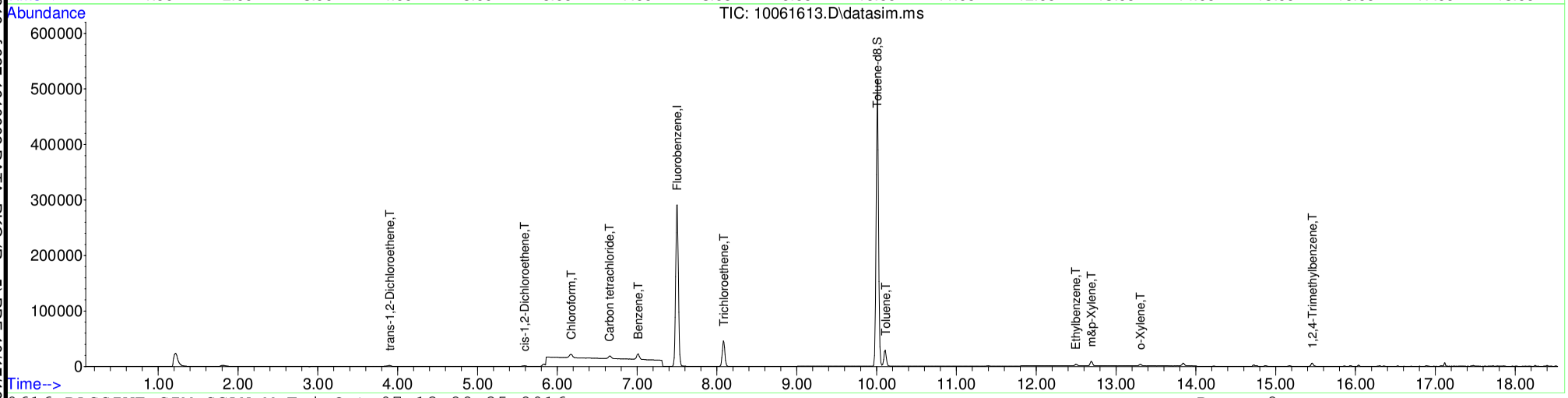
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061613.D
Acq On : 6 Oct 2016 16:30
InstName : AG5975C
Operator : RH
Sample : 1610002-03
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 06 16:48:52 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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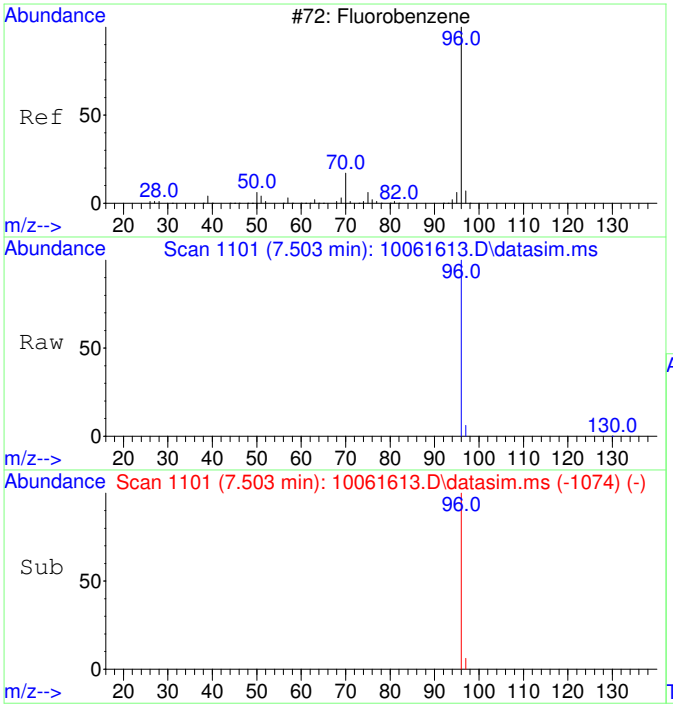
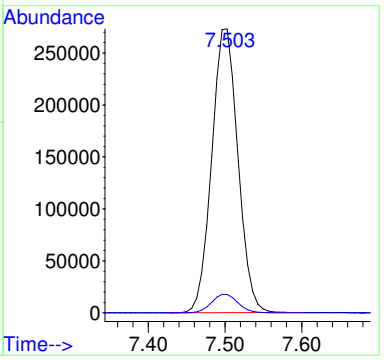
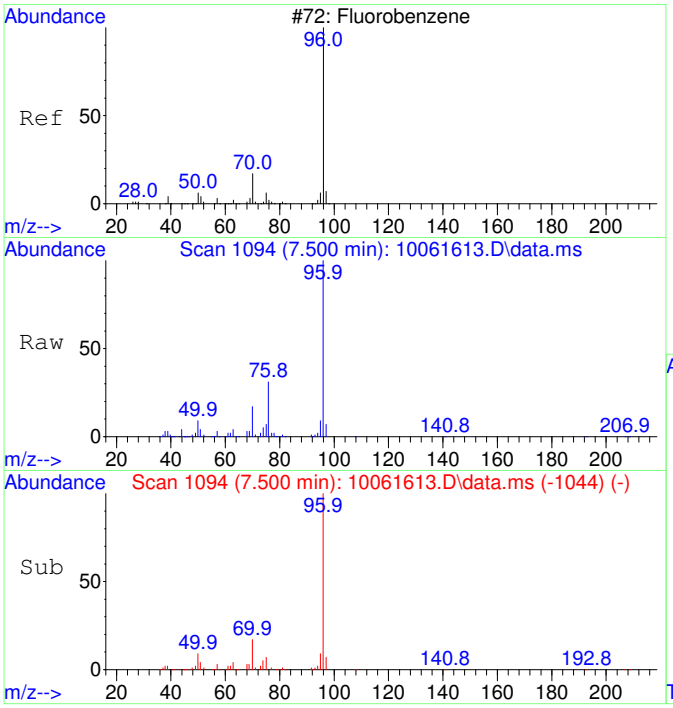


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.503 min Scan# 1101
Delta R.T. 0.027 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 96 Resp: 647161

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

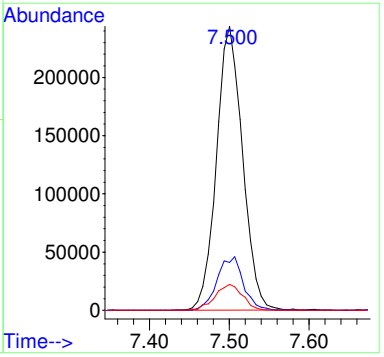


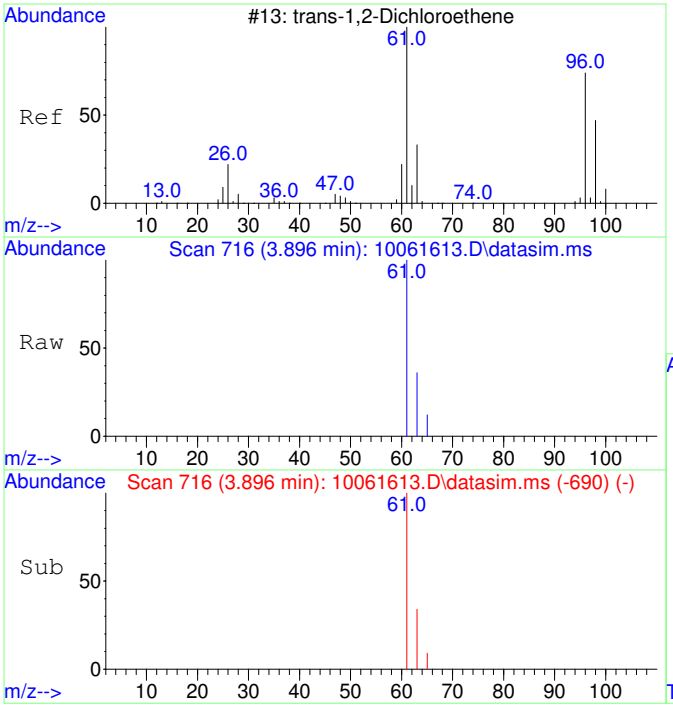


#2
Fluorobenzene SCAN
Concen: 4820.10 ug/L
RT: 7.500 min Scan# 1094
Delta R.T. 0.020 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 96 Resp: 554058

Ion	Ratio	Lower	Upper
96	100		
70	19.0	0.0	49.2
50	9.7	0.0	41.1

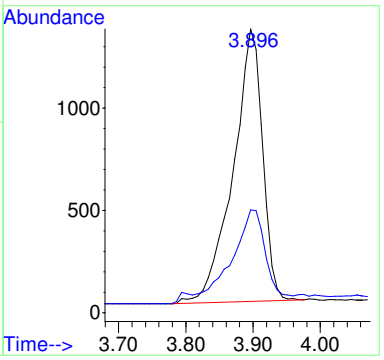


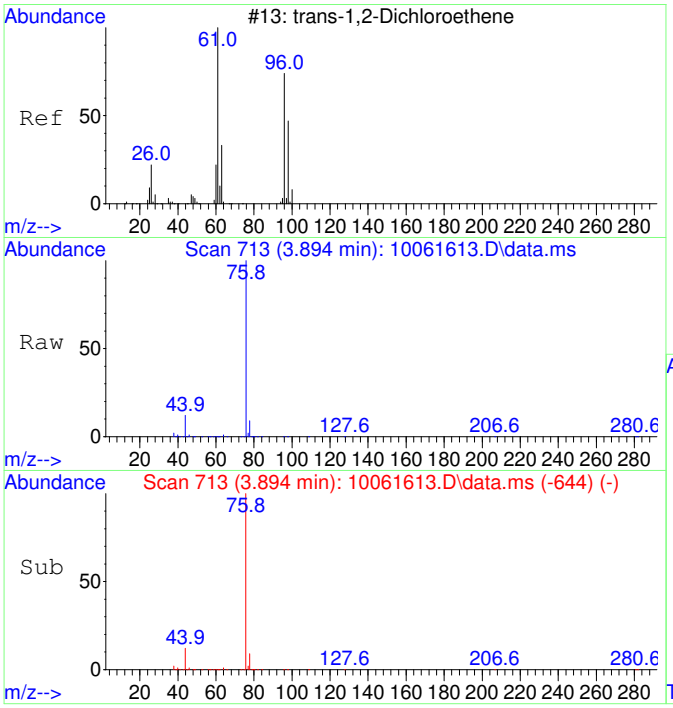


#5
trans-1,2-Dichloroethene
Concen: 63.53 ug/L
RT: 3.896 min Scan# 716
Delta R.T. 0.055 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 61 Resp: 4059

Ion	Ratio	Lower	Upper
61	100		
63	31.0	2.5	62.5

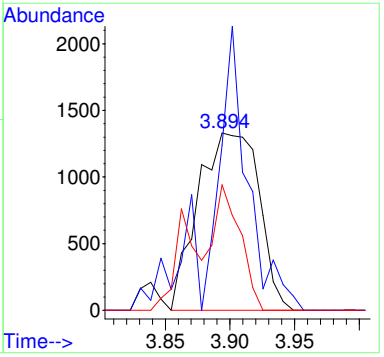


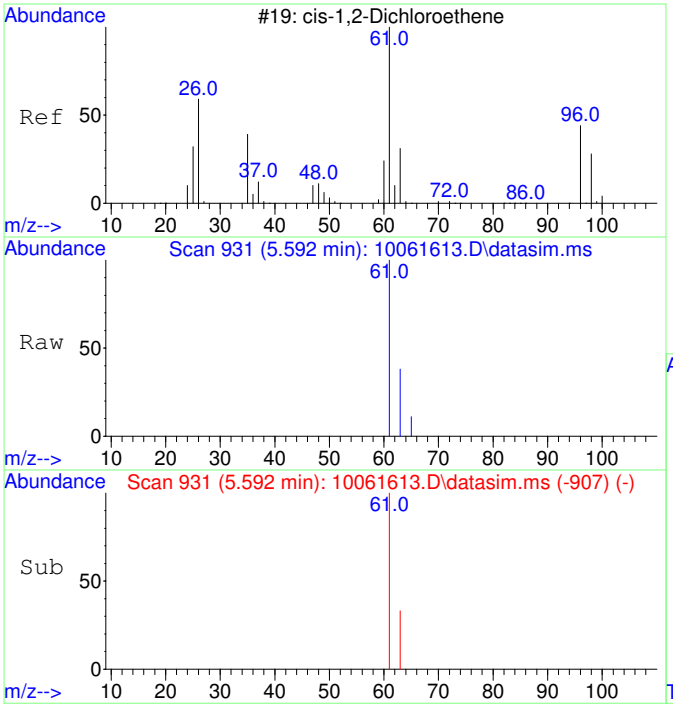


#6
trans-1,2-Dichloroethene SCAN
Concen: 80.40 ug/L
RT: 3.894 min Scan# 713
Delta R.T. 0.047 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 61 Resp: 4378

Ion	Ratio	Lower	Upper
61	100		
96	72.3	47.5	107.5
98	18.9	17.2	77.2

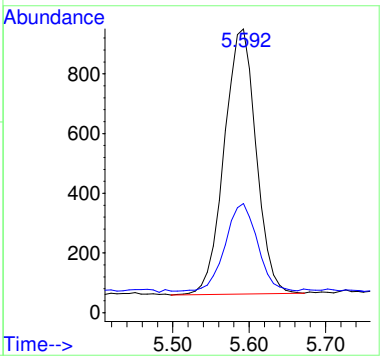


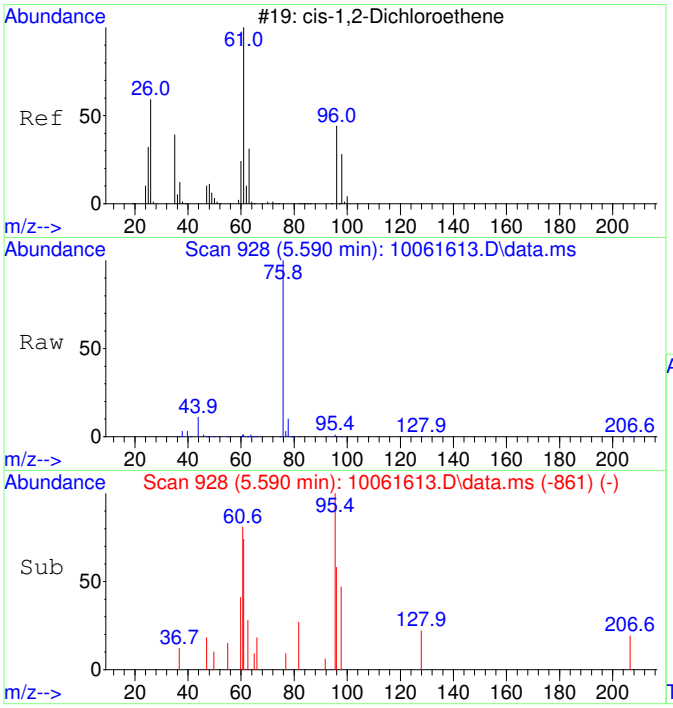


#9
cis-1,2-Dichloroethene
Concen: 38.33 ug/L
RT: 5.592 min Scan# 931
Delta R.T. 0.039 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 61 Resp: 2576

Ion	Ratio	Lower	Upper
61	100		
63	32.9	2.4	62.4

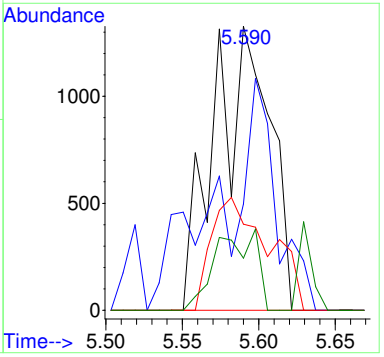


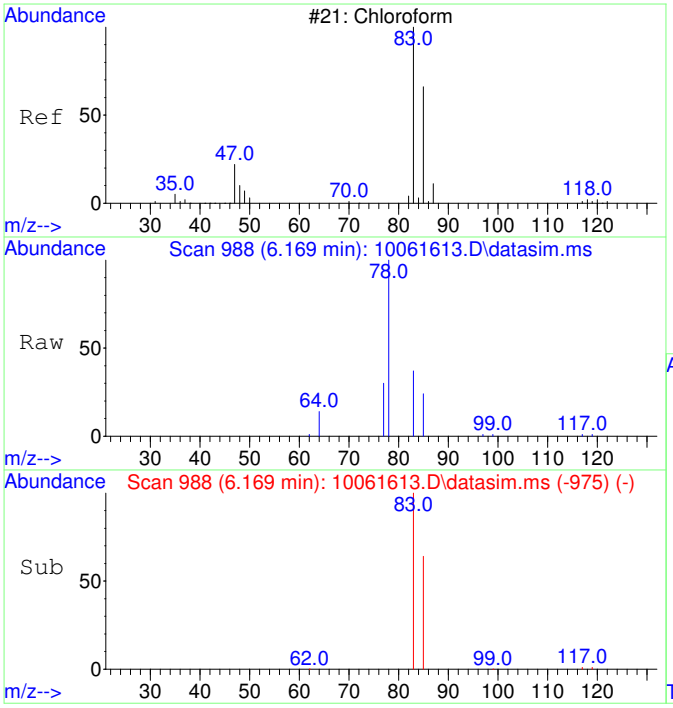


#10
cis-1,2-Dichloroethene SCAN
Concen: 56.32 ug/L
RT: 5.590 min Scan# 928
Delta R.T. 0.032 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 61 Resp: 3374

Ion	Ratio	Lower	Upper
61	100		
96	33.0	42.0	102.0#
98	41.0	17.5	77.5
63	20.7	3.4	63.4

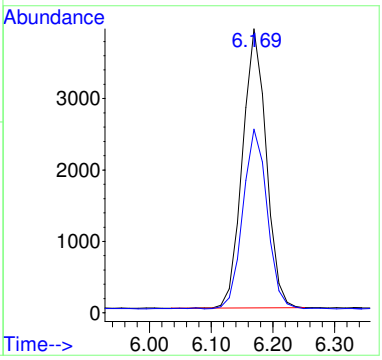


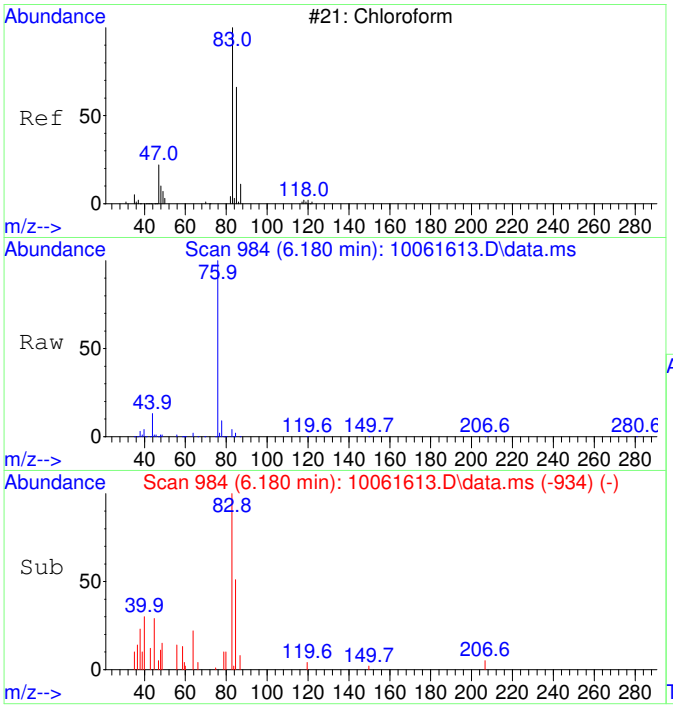


#11
Chloroform
Concen: 135.79 ug/L
RT: 6.169 min Scan# 988
Delta R.T. 0.027 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 83 Resp: 10430

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.4	94.4

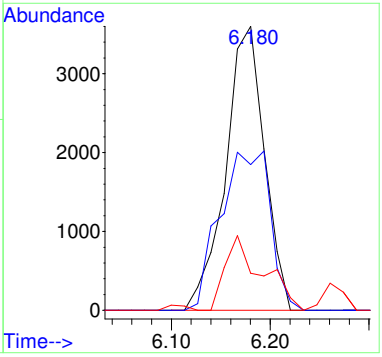


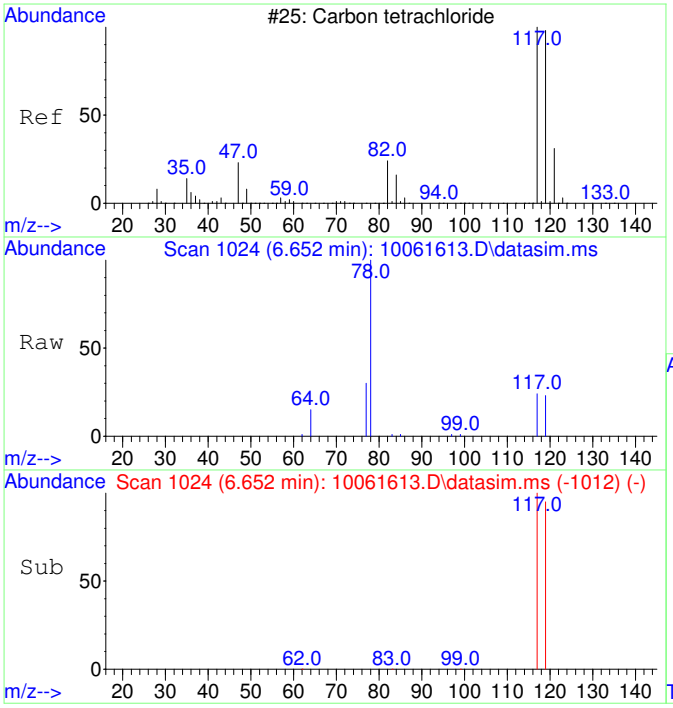


#12
Chloroform SCAN
Concen: 148.82 ug/L
RT: 6.180 min Scan# 984
Delta R.T. 0.040 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 83 Resp: 9833

Ion	Ratio	Lower	Upper
83	100		
85	72.9	37.6	97.6
47	0.0	0.0	53.4

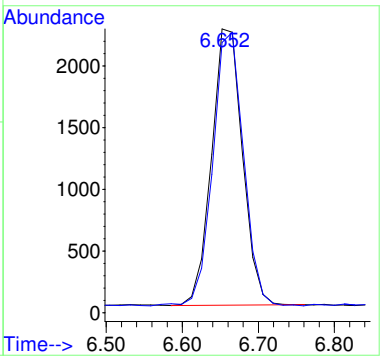


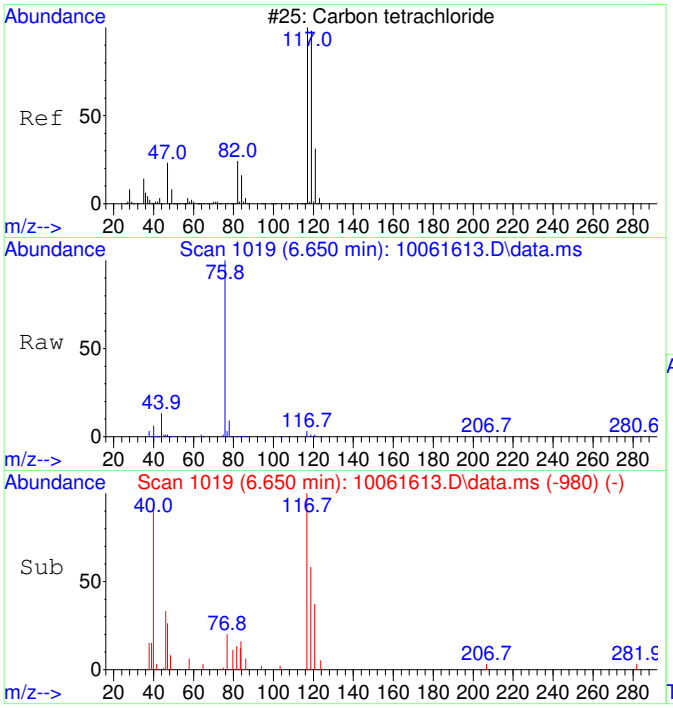


#15
Carbon tetrachloride
Concen: 108.99 ug/L
RT: 6.652 min Scan# 1024
Delta R.T. 0.013 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion:117 Resp: 6306

Ion	Ratio	Lower	Upper
117	100		
119	96.7	66.1	126.1

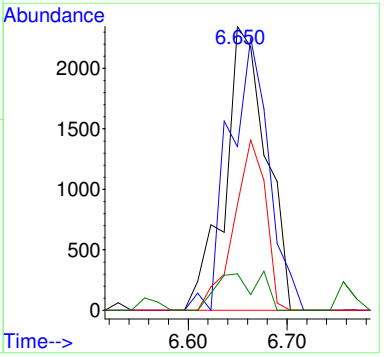


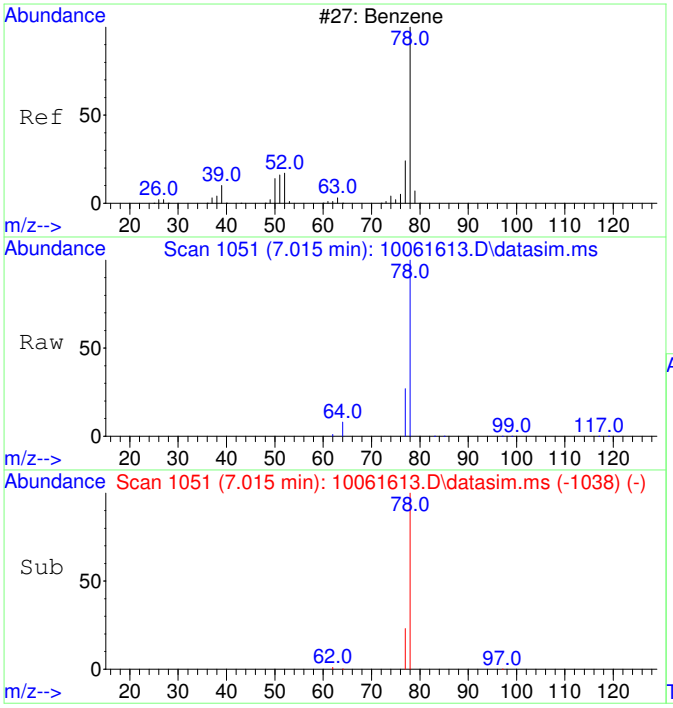


#16
Carbon tetrachloride SCAN
Concen: 133.73 ug/L
RT: 6.650 min Scan# 1019
Delta R.T. 0.027 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion:117 Resp: 6814

Ion	Ratio	Lower	Upper
117	100		
119	0.0	66.0	122.6#
121	0.0	22.1	41.1#
82	0.0	18.5	34.3#

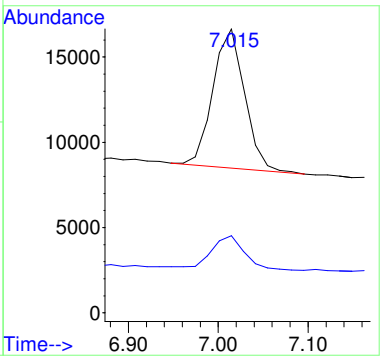


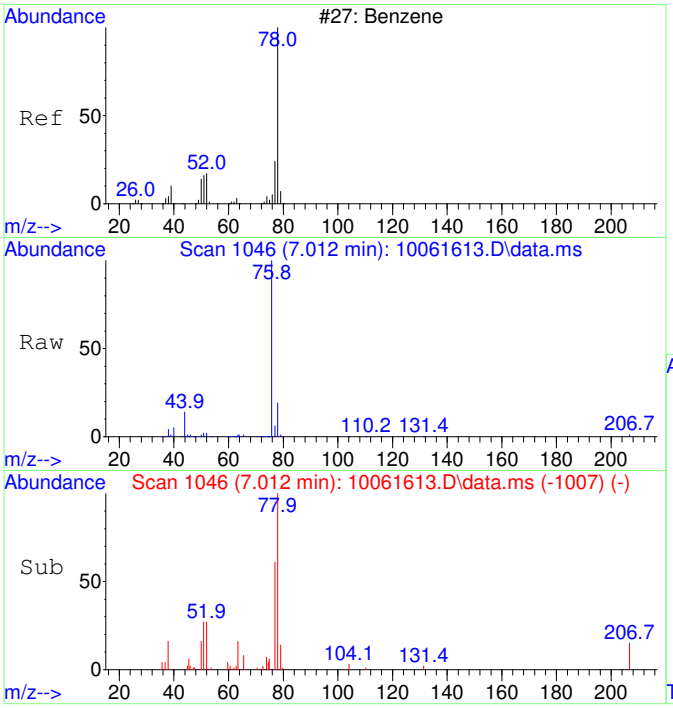


#17
Benzene
Concen: 132.47 ug/L
RT: 7.015 min Scan# 1051
Delta R.T. 0.027 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 78 Resp: 19765

Ion	Ratio	Lower	Upper
78	100		
77	22.7	0.0	53.4

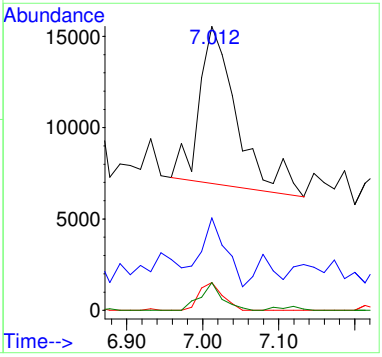


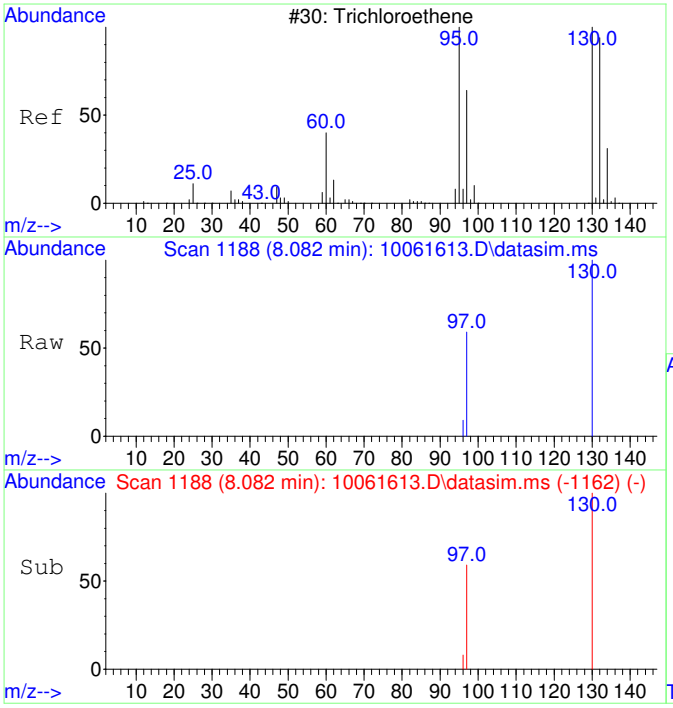


#18
Benzene SCAN
Concen: 217.90 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.027 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 78 Resp: 29216

Ion	Ratio	Lower	Upper
78	100		
77	21.0	0.0	59.3
51	11.2	0.0	49.2
52	10.4	0.0	45.5

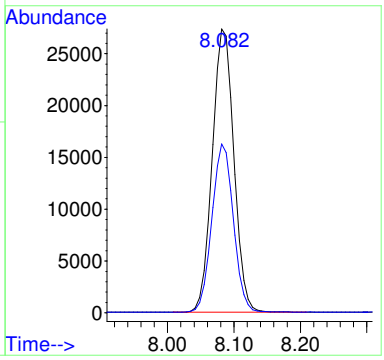


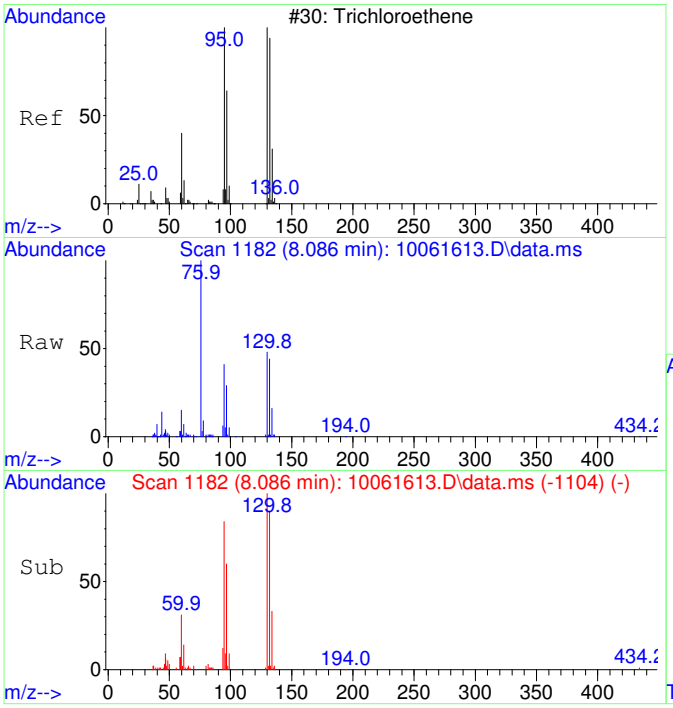


#21
Trichloroethene
Concen: 1462.30 ug/L
RT: 8.082 min Scan# 1188
Delta R.T. 0.020 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion:130 Resp: 61801

Ion	Ratio	Lower	Upper
130	100		
97	58.9	29.9	89.9

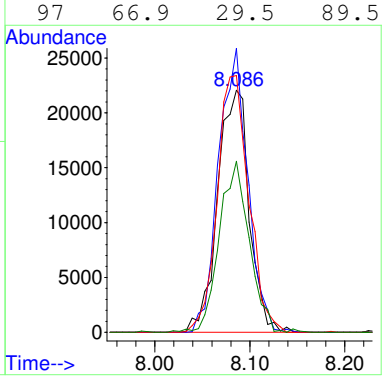


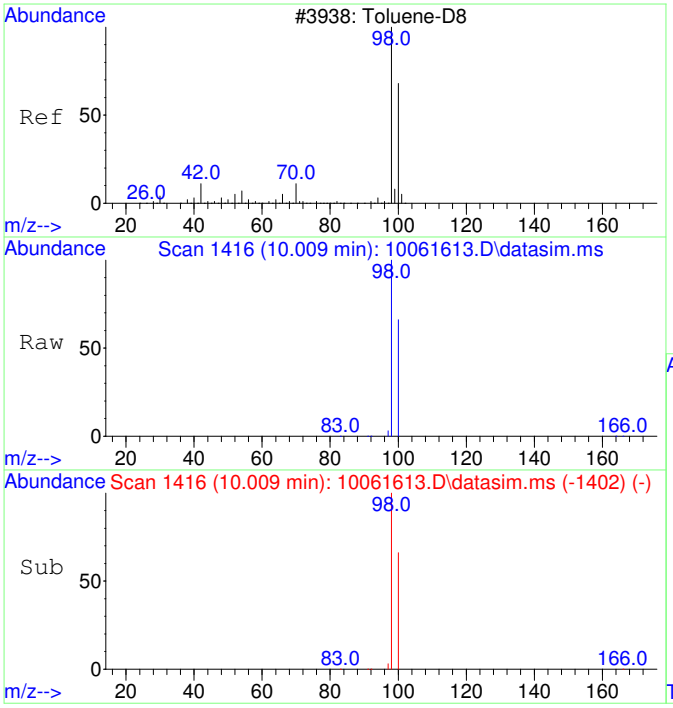


#22
Trichloroethene SCAN
Concen: 1513.45 ug/L
RT: 8.086 min Scan# 1182
Delta R.T. 0.020 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 95 Resp: 51225

Ion	Ratio	Lower	Upper
95	100		
130	108.3	74.1	134.1
132	105.4	72.1	132.1
97	66.9	29.5	89.5

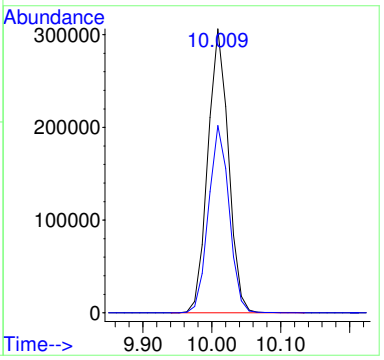


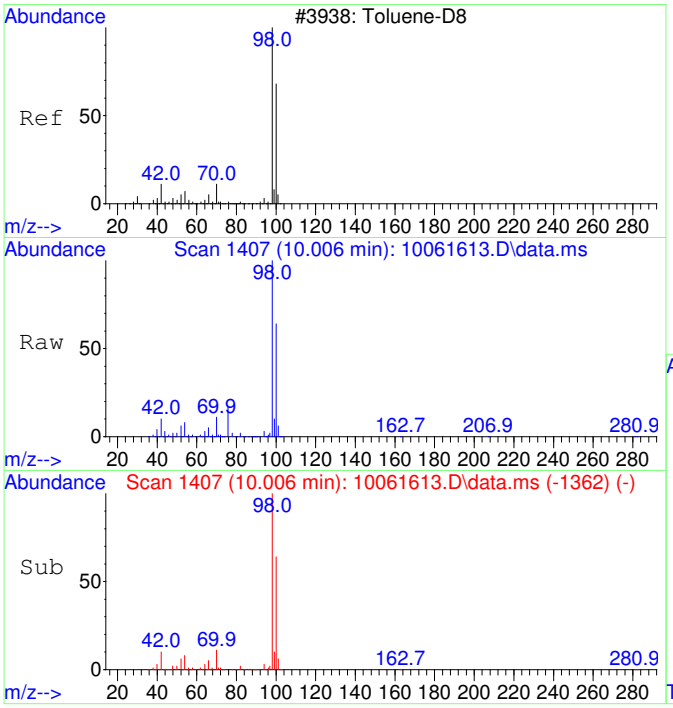


#23
Toluene-d8
Concen: 5510.12 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 98 Resp: 633252

Ion	Ratio	Lower	Upper
98	100		
100	65.6	35.3	95.3

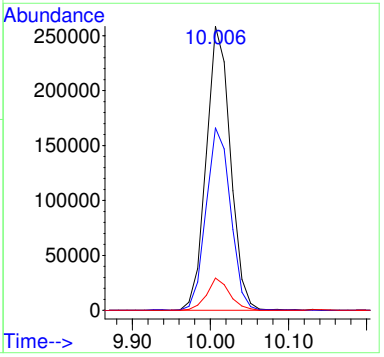


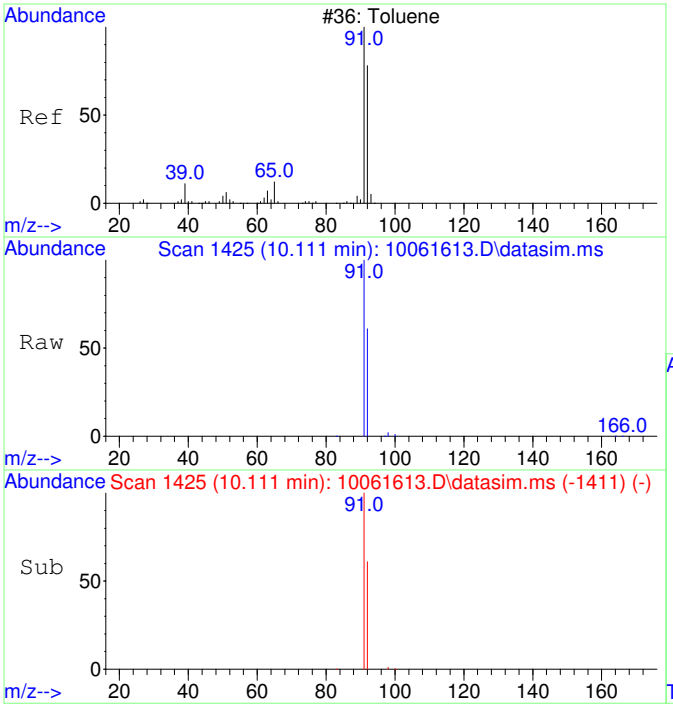


#24
Toluene-d8 SCAN
Concen: 5506.88 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 98 Resp: 556320

Ion	Ratio	Lower	Upper
98	100		
100	65.3	44.3	82.3
70	10.7	7.8	14.4

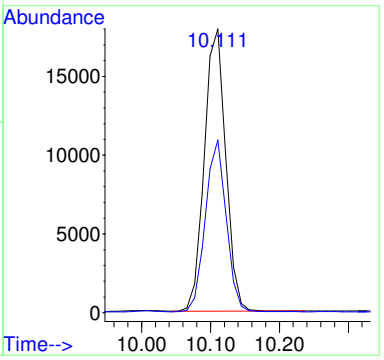


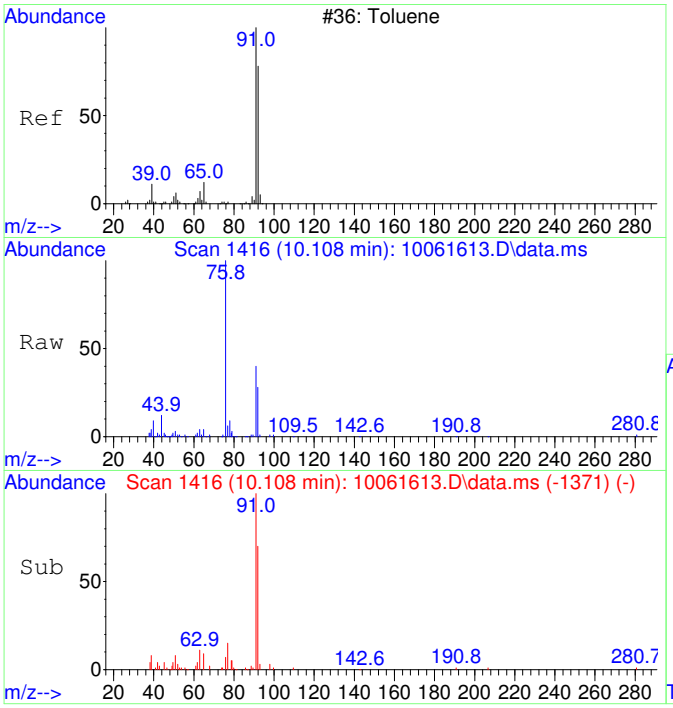


#25
Toluene
Concen: 272.92 ug/L
RT: 10.111 min Scan# 1425
Delta R.T. 0.011 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 38584

Ion	Ratio	Lower	Upper
91	100		
92	58.8	28.8	88.8

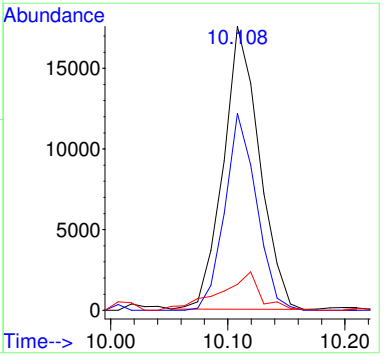


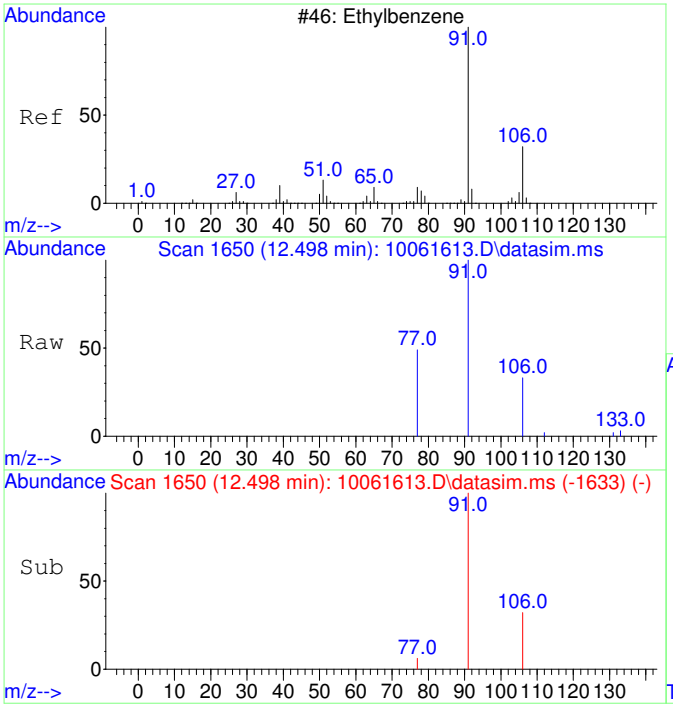


#26
Toluene SCAN
Concen: 325.02 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 37554

Ion	Ratio	Lower	Upper
91	100		
92	61.1	30.7	90.7
65	15.3	0.0	42.6

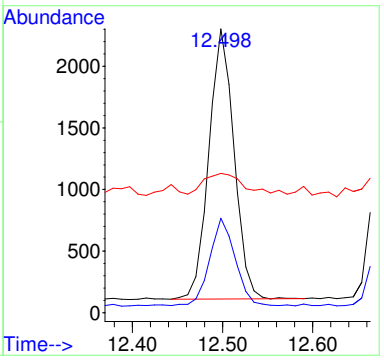


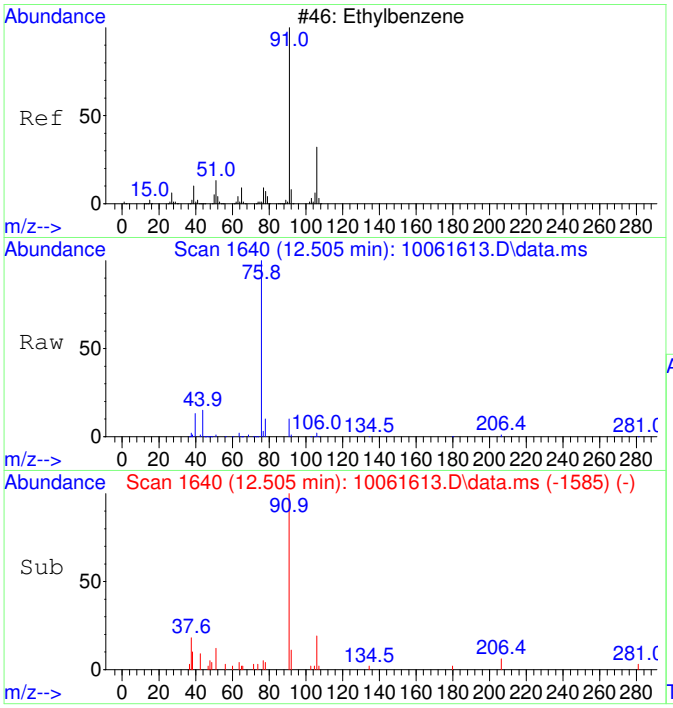


#35
Ethylbenzene
Concen: 28.16 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 4237

Ion	Ratio	Lower	Upper
91	100		
106	31.5	1.7	61.7
77	11.8	0.0	38.3

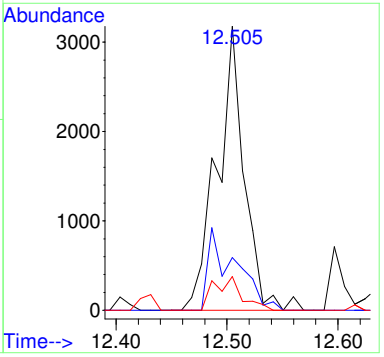


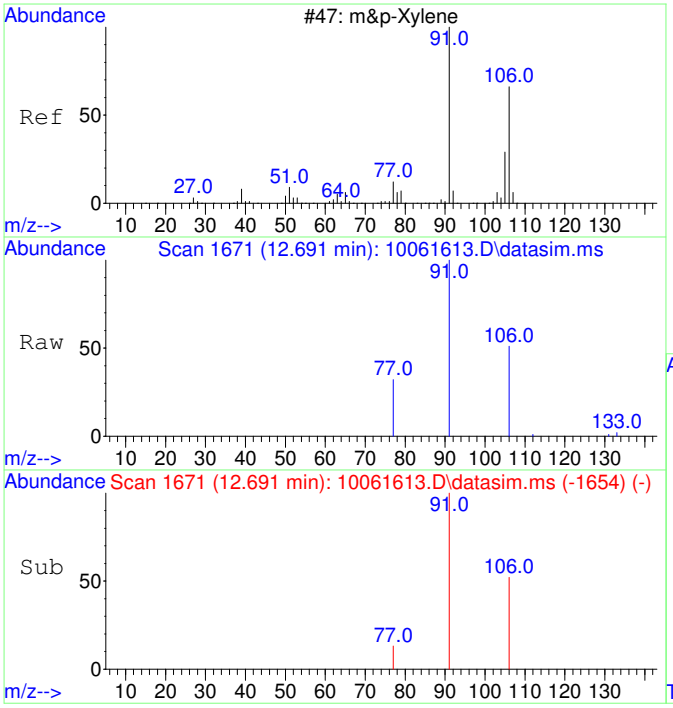


#36
Ethylbenzene SCAN
Concen: 44.29 ug/L
RT: 12.505 min Scan# 1640
Delta R.T. 0.009 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 5427

Ion	Ratio	Lower	Upper
91	100		
106	29.2	2.3	62.3
51	12.1	0.0	39.6

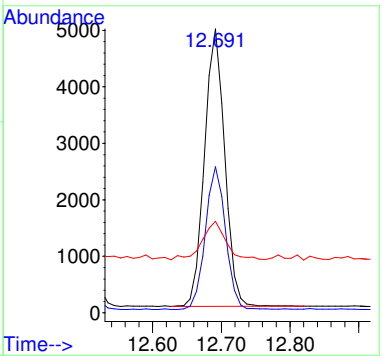


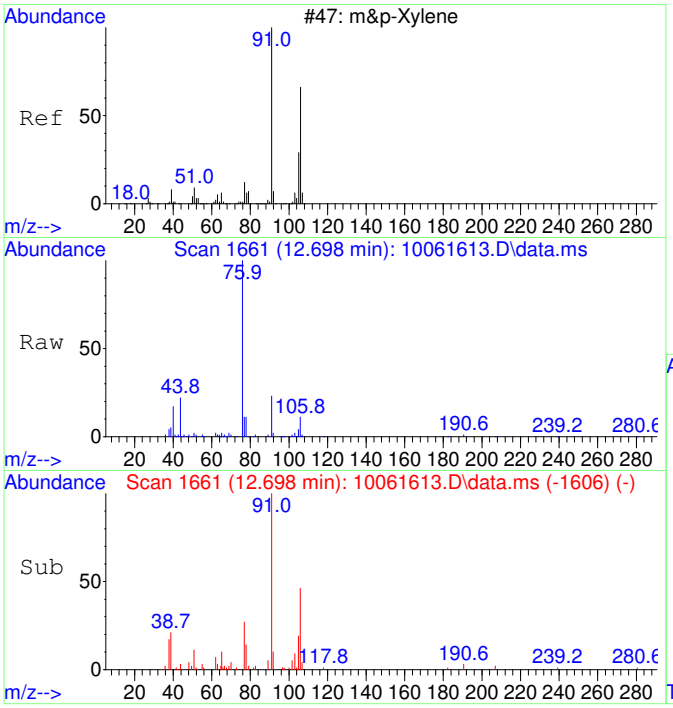


#37
m&p-Xylene
Concen: 85.11 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 10033

Ion	Ratio	Lower	Upper
91	100		
106	50.7	19.4	79.4
77	14.5	0.0	42.6

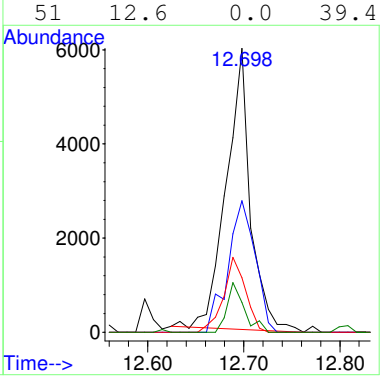


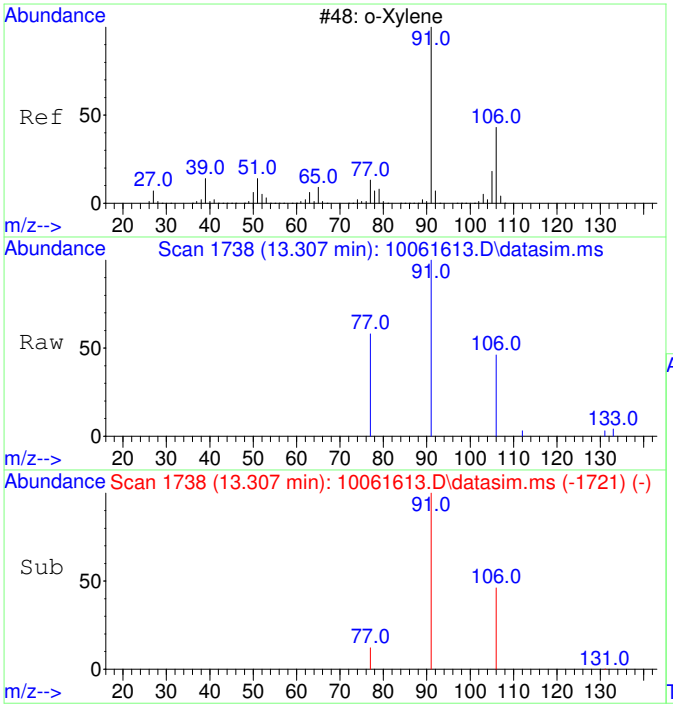


#38
m&p-Xylene SCAN
Concen: 107.62 ug/L
RT: 12.698 min Scan# 1661
Delta R.T. 0.009 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 10425

Ion	Ratio	Lower	Upper
91	100		
106	52.5	18.0	78.0
105	24.4	0.0	53.1
51	12.6	0.0	39.4

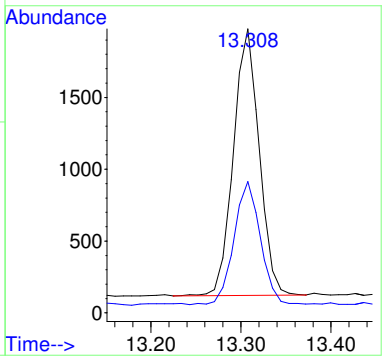


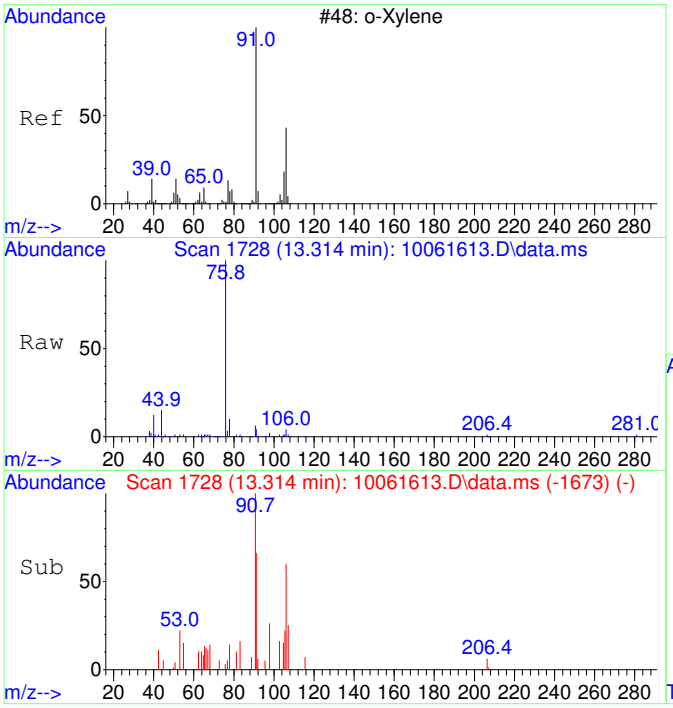


#39
o-Xylene
Concen: 30.24 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 3676

Ion	Ratio	Lower	Upper
91	100		
106	46.2	17.2	77.2

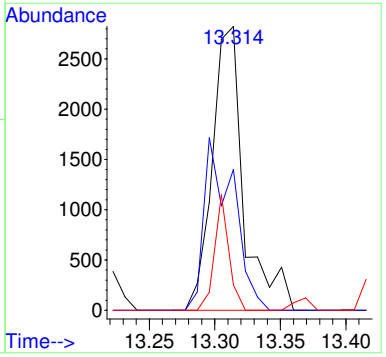


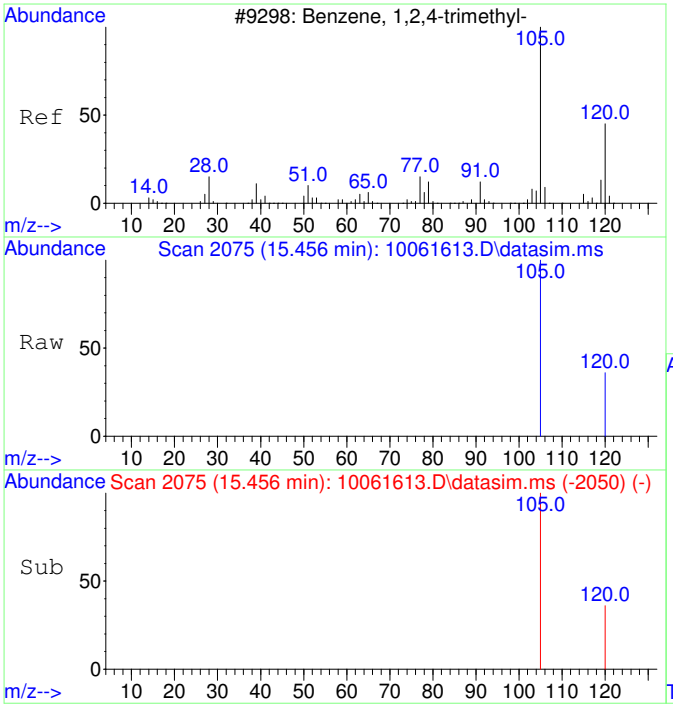


#40
o-Xylene SCAN
Concen: 46.68 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion: 91 Resp: 4731

Ion	Ratio	Lower	Upper
91	100		
106	56.7	18.0	78.0
105	18.5	0.0	56.8

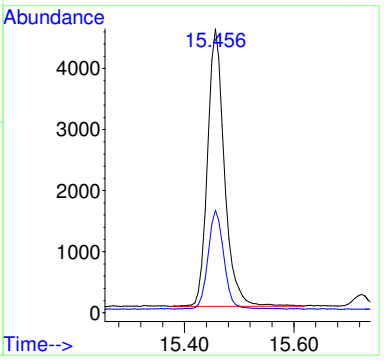




#45
1,2,4-Trimethylbenzene
Concen: 75.31 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061613.D
Acq: 6 Oct 2016 16:30

Tgt Ion:105 Resp: 9682

Ion	Ratio	Lower	Upper
105	100		
120	33.5	15.7	75.7



1610002-04

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061614.D
Acq On : 6 Oct 2016 16:54
InstName : AG5975C
Operator : RH
Sample : 1610002-04
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 06 17:12:40 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

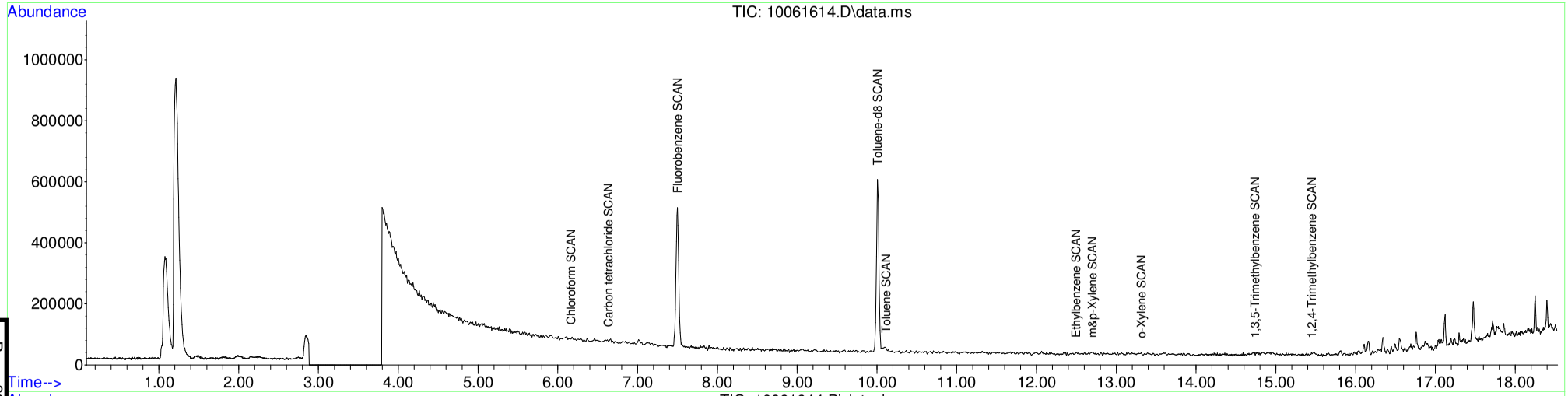
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.496	96	598709	5000.00	ug/L	0.02
System Monitoring Compounds						
23) Toluene-d8	10.009	98	526968	4956.39	ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 99.13%			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.500	96	537321	5052.79	ug/L	97
12) Chloroform SCAN	6.166	83	1722	28.17	ug/L #	81
15] Carbon tetrachloride	6.652	117	3227	60.29	ug/L	99
16) Carbon tetrachloride SCAN	6.636	117	3387	71.85	ug/L #	19
17] Benzene	7.014	78	14098	102.14	ug/L	100
24) Toluene-d8 SCAN	10.006	98	478745	5122.50	ug/L	98
25] Toluene	10.110	91	13880	106.12	ug/L	100
26) Toluene SCAN	10.108	91	13819	129.28	ug/L	97
36) Ethylbenzene SCAN	12.495	91	3421	30.18	ug/L	65
37] m&p-Xylene	12.691	91	6821	62.54	ug/L	96
38) m&p-Xylene SCAN	12.698	91	6711	74.88	ug/L	90
40) o-Xylene SCAN	13.314	91	3582	38.20	ug/L	81
44) 1,3,5-Trimethylbenzene...	14.732	105	2536	27.69	ug/L	93
45] 1,2,4-Trimethylbenzene	15.456	105	4813	40.47	ug/L	96
46) 1,2,4-Trimethylbenzene...	15.447	105	3640	37.88	ug/L	86

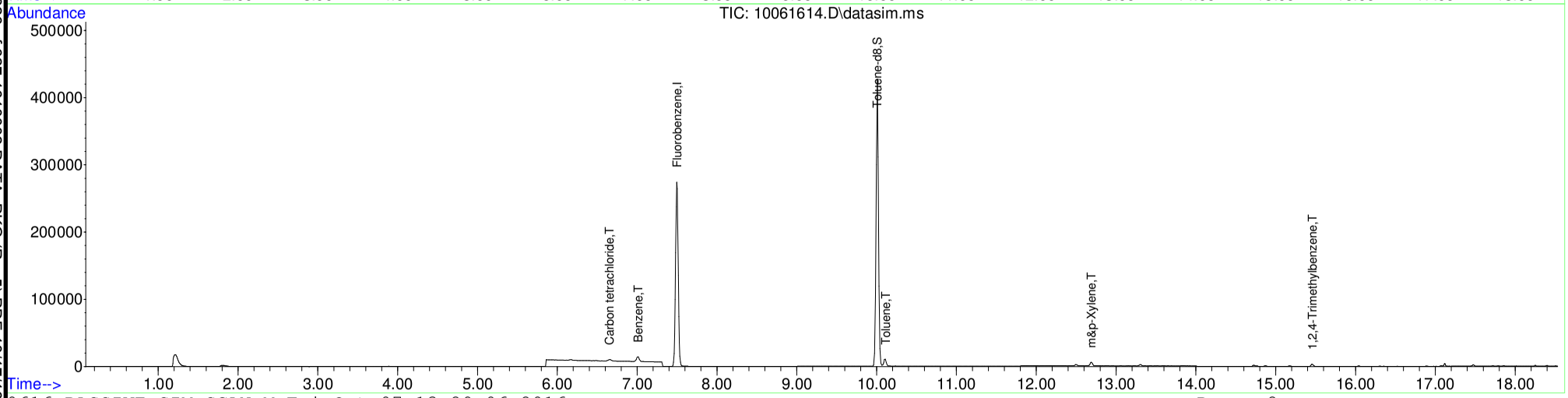
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061614.D
Acq On : 6 Oct 2016 16:54
InstName : AG5975C
Operator : RH
Sample : 1610002-04
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 06 17:12:40 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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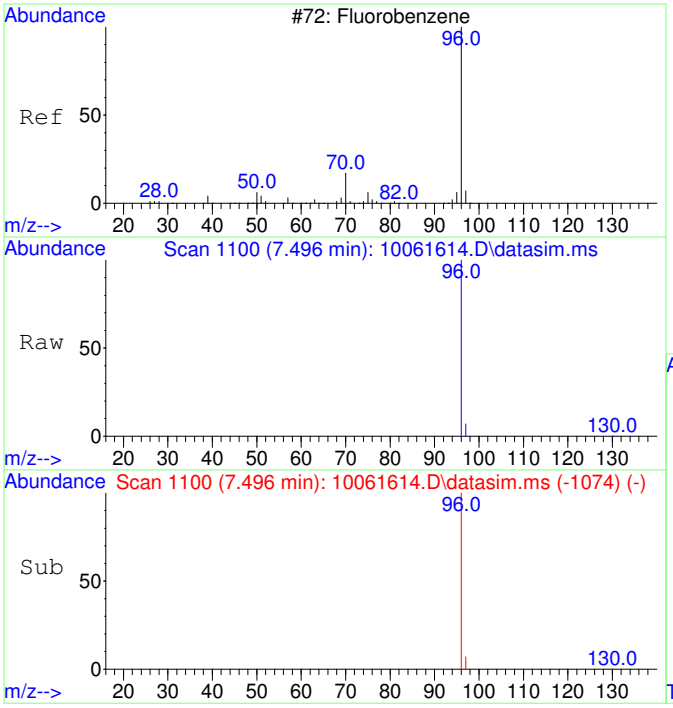
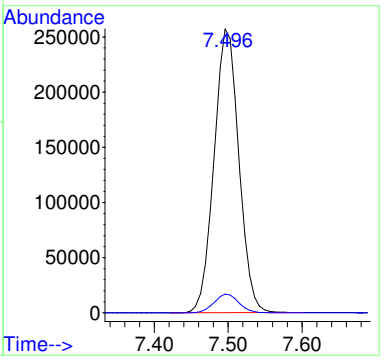
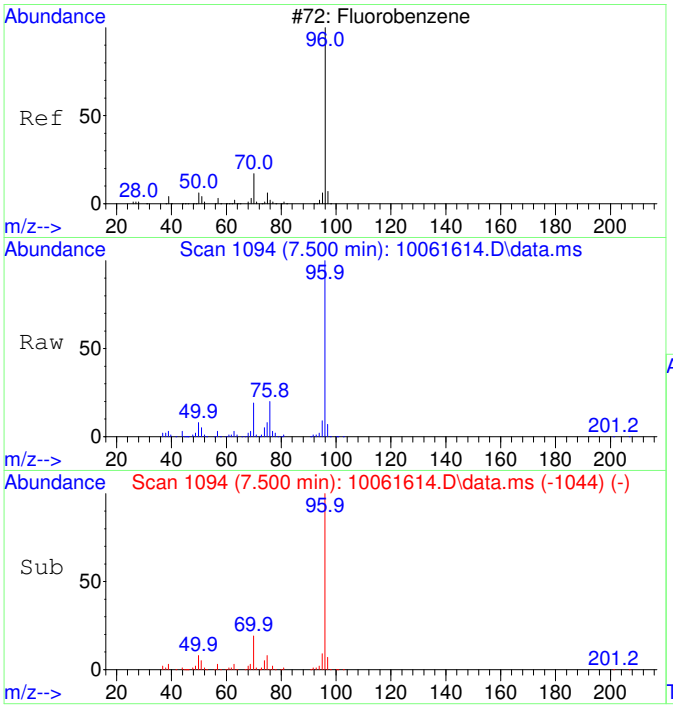


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.496 min Scan# 1100
Delta R.T. 0.020 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 96 Resp: 598709

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

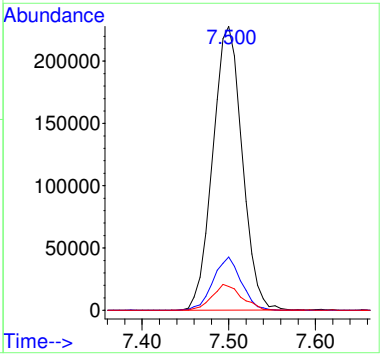


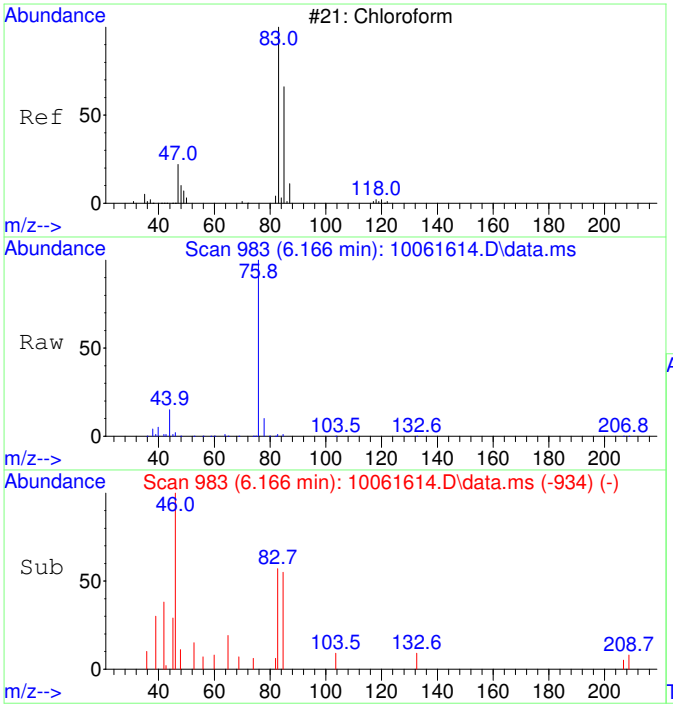


#2
Fluorobenzene SCAN
Concen: 5052.79 ug/L
RT: 7.500 min Scan# 1094
Delta R.T. 0.020 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 96 Resp: 537321

Ion	Ratio	Lower	Upper
96	100		
70	18.0	0.0	49.2
50	9.2	0.0	41.1

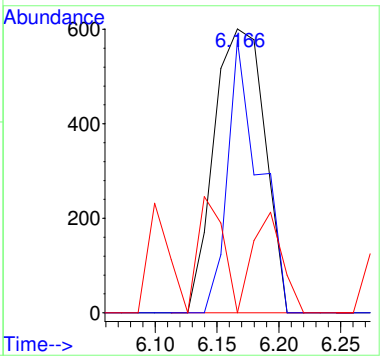


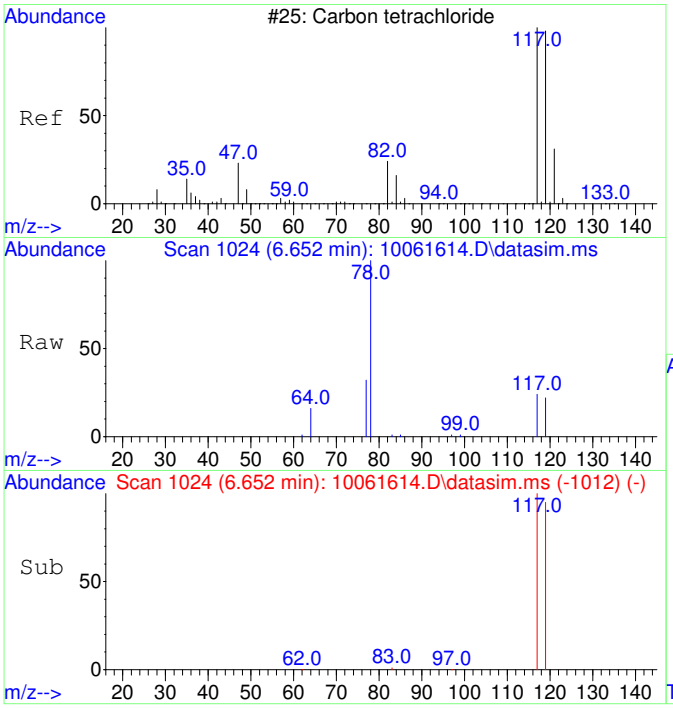


#12
Chloroform SCAN
Concen: 28.17 ug/L
RT: 6.166 min Scan# 983
Delta R.T. 0.027 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 83 Resp: 1722

Ion	Ratio	Lower	Upper
83	100		
85	60.2	37.6	97.6
47	0.0	0.0	53.4

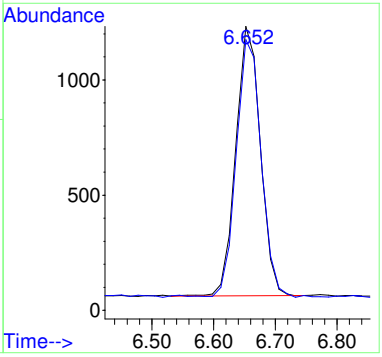


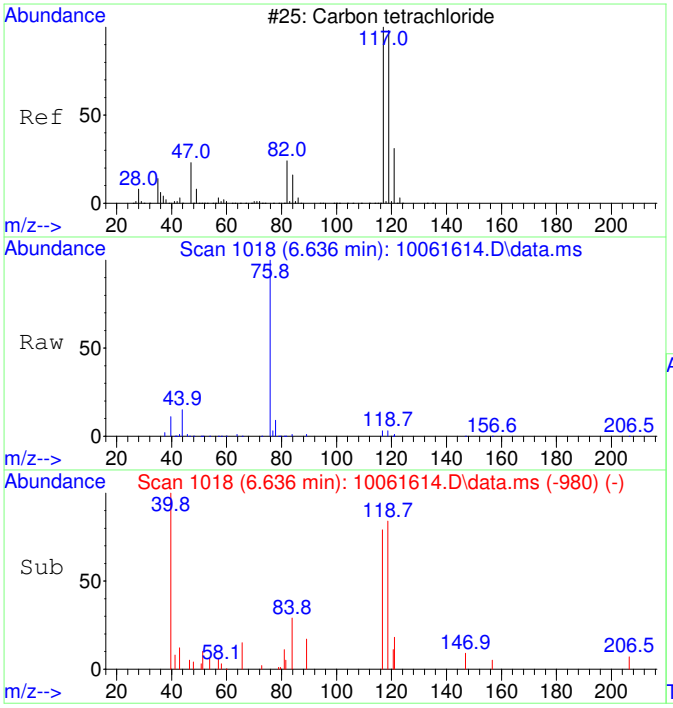


#15
Carbon tetrachloride
Concen: 60.29 ug/L
RT: 6.652 min Scan# 1024
Delta R.T. 0.013 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion:117 Resp: 3227

Ion	Ratio	Lower	Upper
117	100		
119	96.7	66.1	126.1

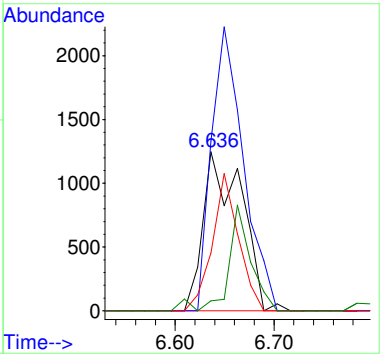


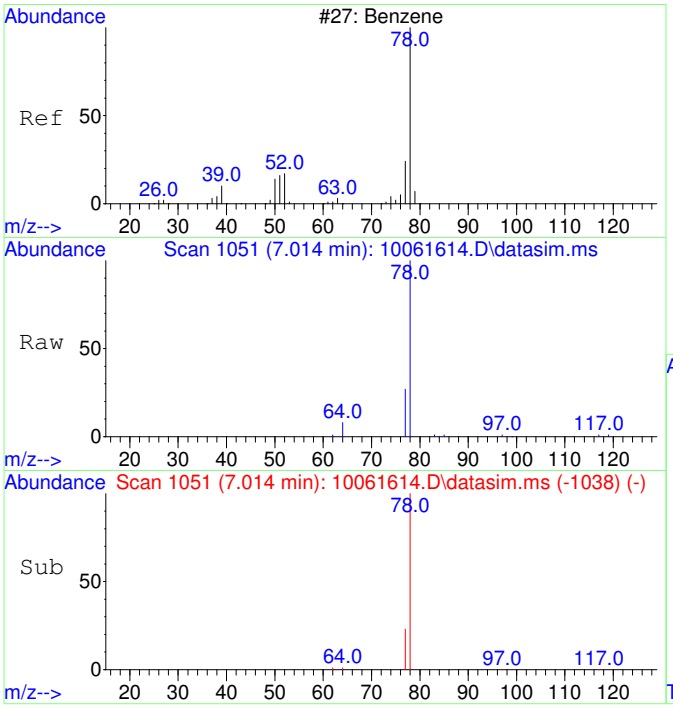


#16
Carbon tetrachloride SCAN
Concen: 71.85 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion:117 Resp: 3387

Ion	Ratio	Lower	Upper
117	100		
119	0.0	66.0	122.6#
121	0.0	22.1	41.1#
82	0.0	18.5	34.3#

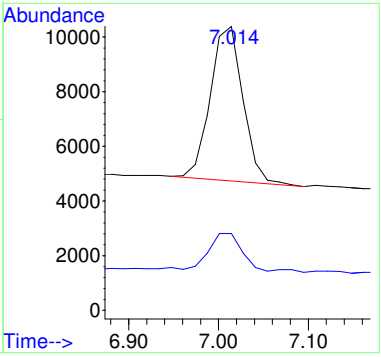


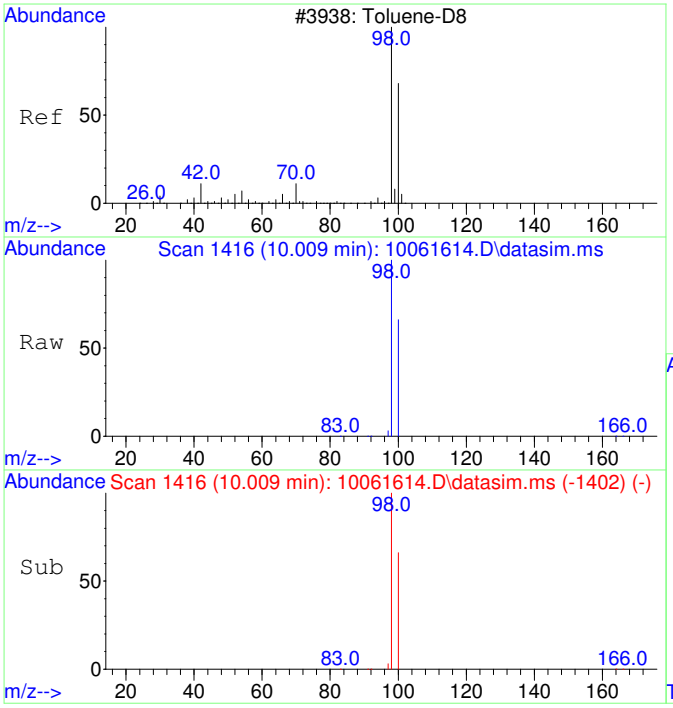


#17
Benzene
Concen: 102.14 ug/L
RT: 7.014 min Scan# 1051
Delta R.T. 0.027 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 78 Resp: 14098

Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	53.4

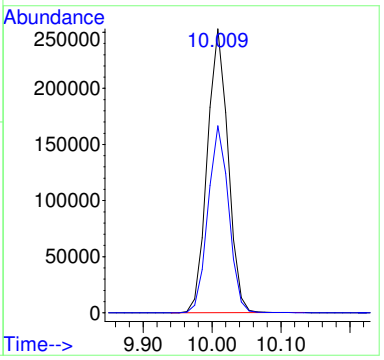


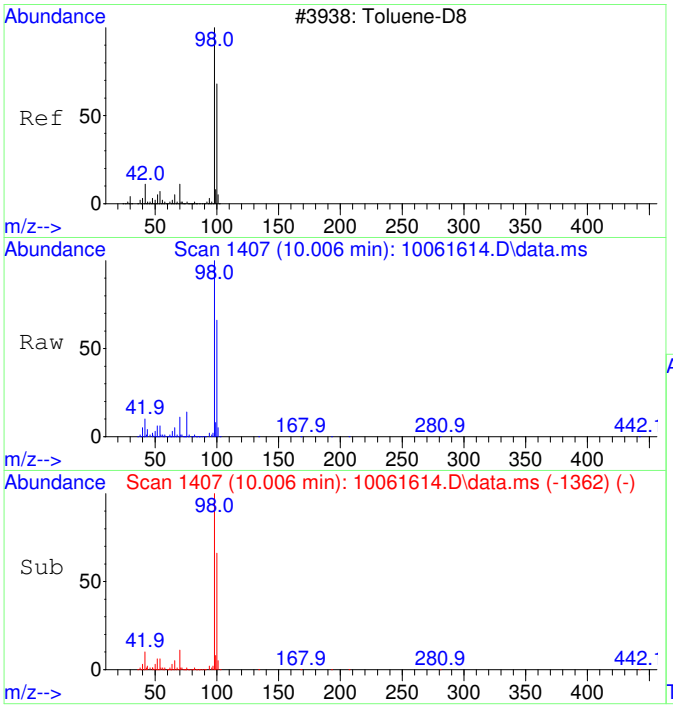


#23
Toluene-d8
Concen: 4956.39 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 98 Resp: 526968

Ion	Ratio	Lower	Upper
98	100		
100	65.3	35.3	95.3

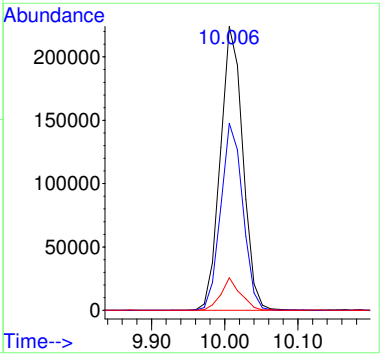


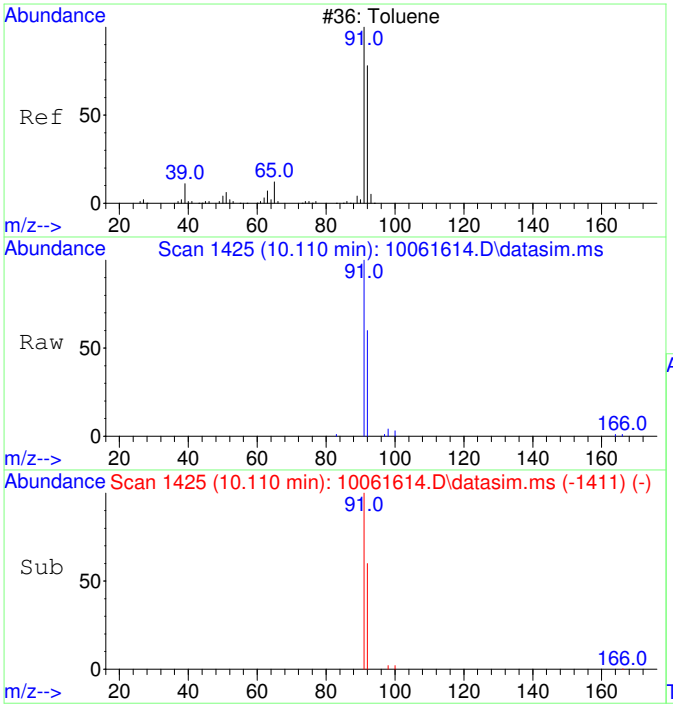


#24
Toluene-d8 SCAN
Concen: 5122.50 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 98 Resp: 478745

Ion	Ratio	Lower	Upper
98	100		
100	64.7	44.3	82.3
70	10.0	7.8	14.4

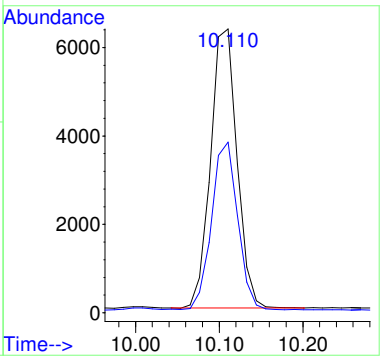


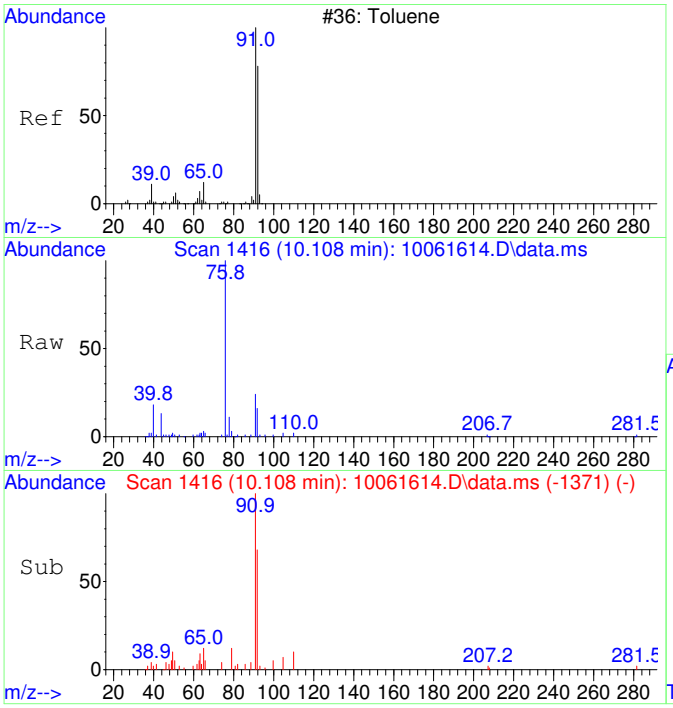


#25
Toluene
Concen: 106.12 ug/L
RT: 10.110 min Scan# 1425
Delta R.T. 0.011 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 91 Resp: 13880

Ion	Ratio	Lower	Upper
91	100		
92	59.0	28.8	88.8

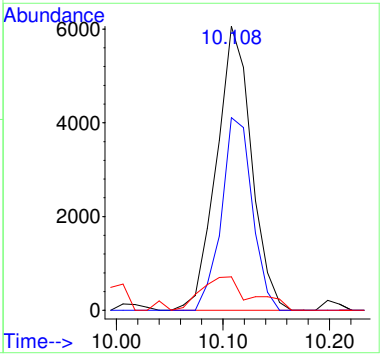


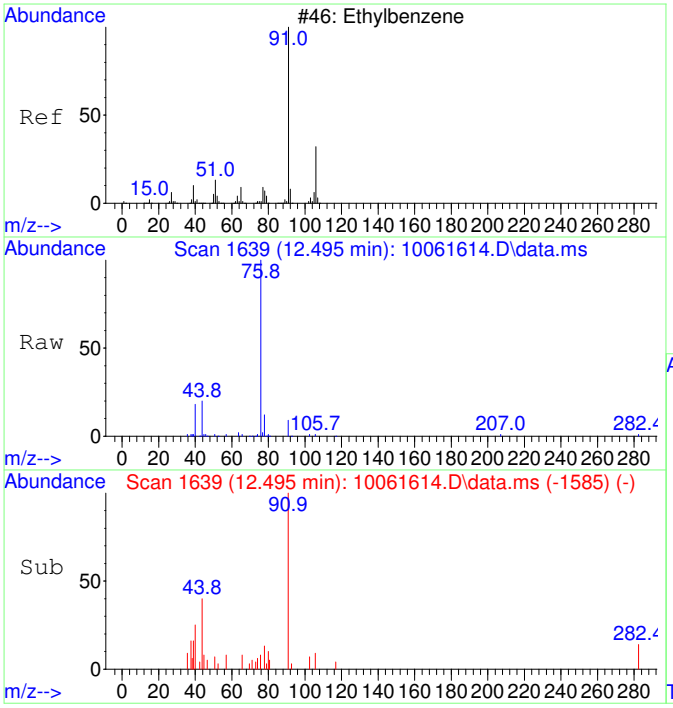


#26
Toluene SCAN
Concen: 129.28 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 91 Resp: 13819

Ion	Ratio	Lower	Upper
91	100		
92	59.9	30.7	90.7
65	16.7	0.0	42.6

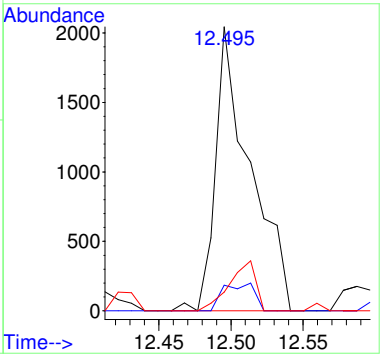


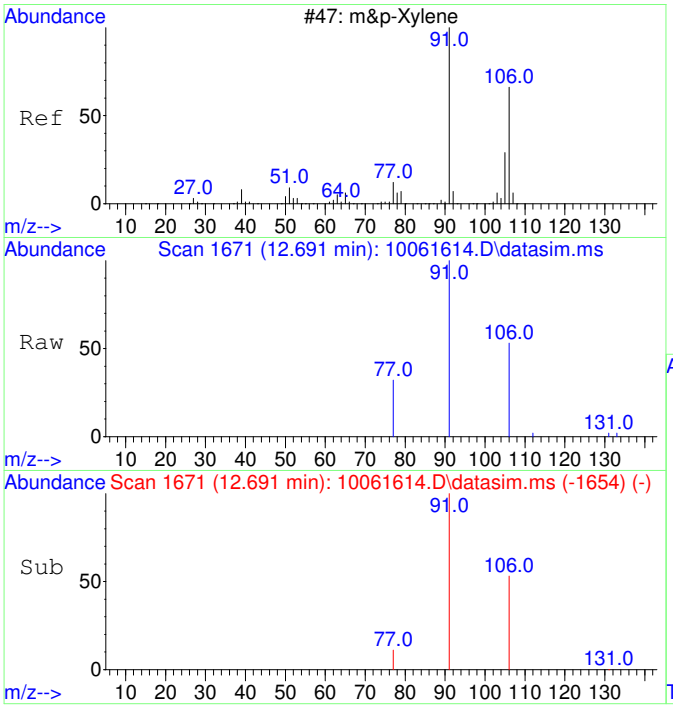


#36
Ethylbenzene SCAN
Concen: 30.18 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 91 Resp: 3421

Ion	Ratio	Lower	Upper
91	100		
106	8.8	2.3	62.3
51	13.3	0.0	39.6

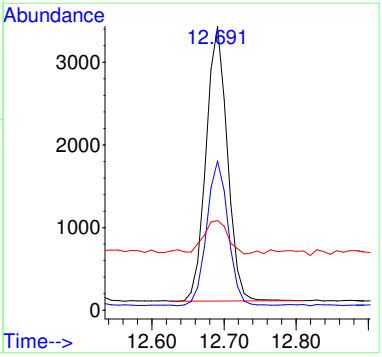


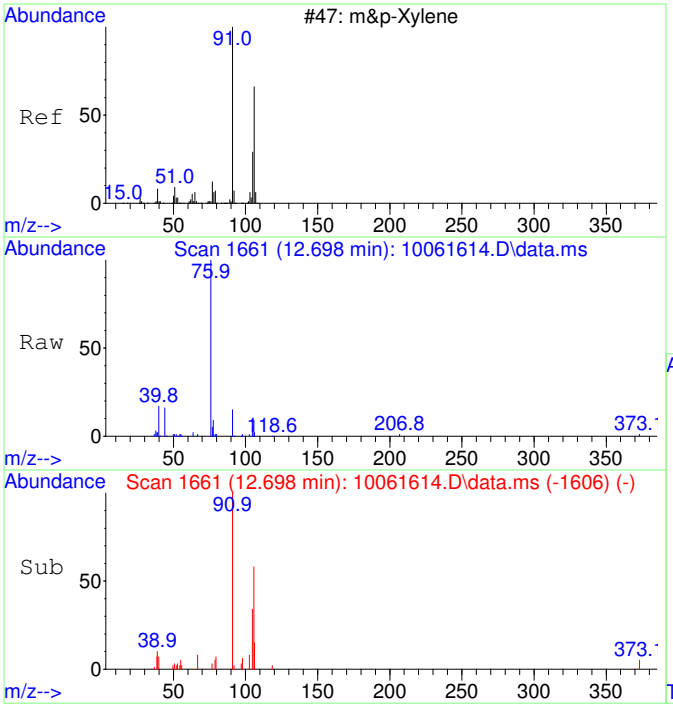


#37
m&p-Xylene
Concen: 62.54 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 91 Resp: 6821

Ion	Ratio	Lower	Upper
91	100		
106	52.9	19.4	79.4
77	12.8	0.0	42.6

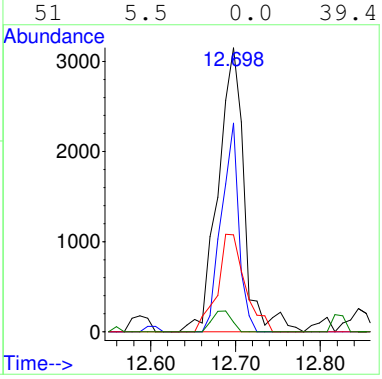


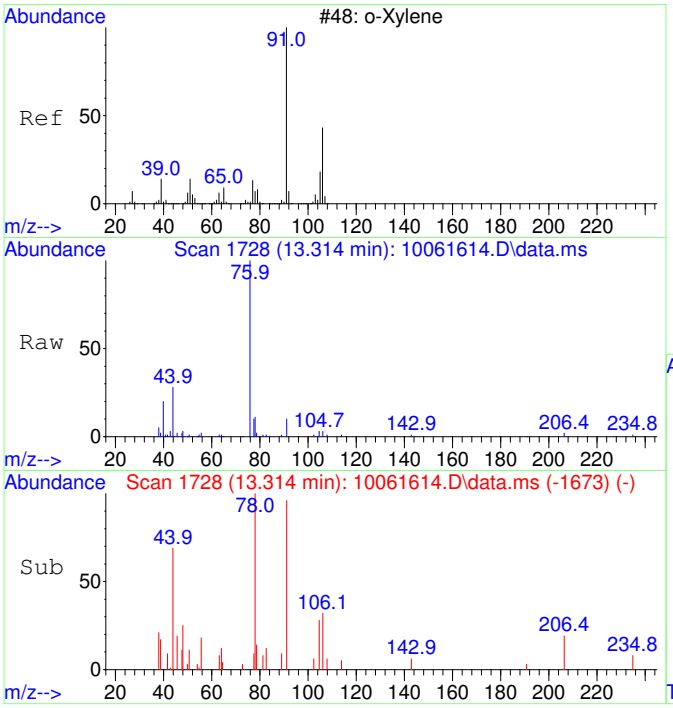


#38
m&p-Xylene SCAN
Concen: 74.88 ug/L
RT: 12.698 min Scan# 1661
Delta R.T. 0.009 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 91 Resp: 6711

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.0	78.0
105	36.3	0.0	53.1
51	5.5	0.0	39.4

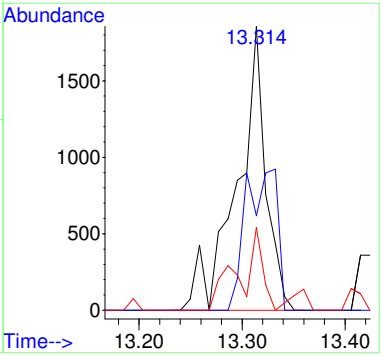


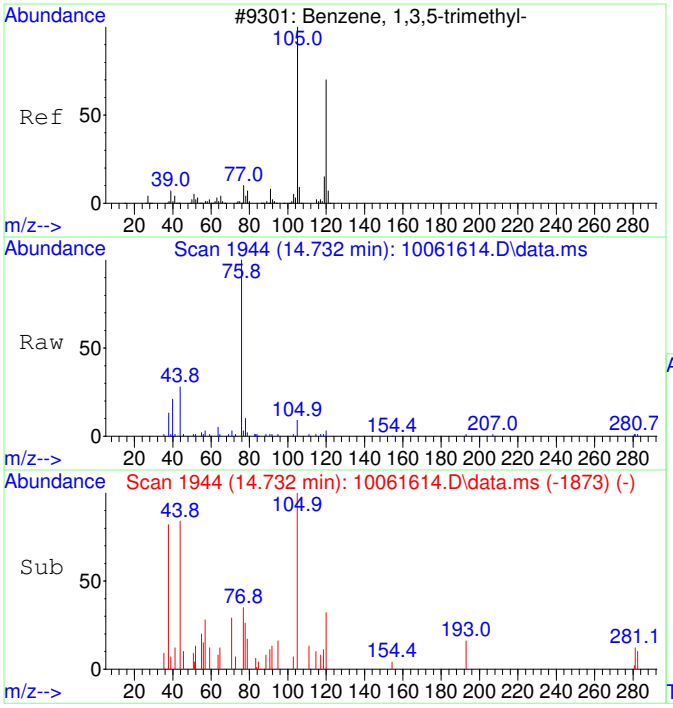


#40
o-Xylene SCAN
Concen: 38.20 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion: 91 Resp: 3582

Ion	Ratio	Lower	Upper
91	100		
106	54.6	18.0	78.0
105	8.8	0.0	56.8

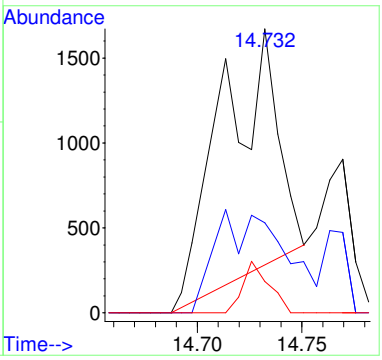


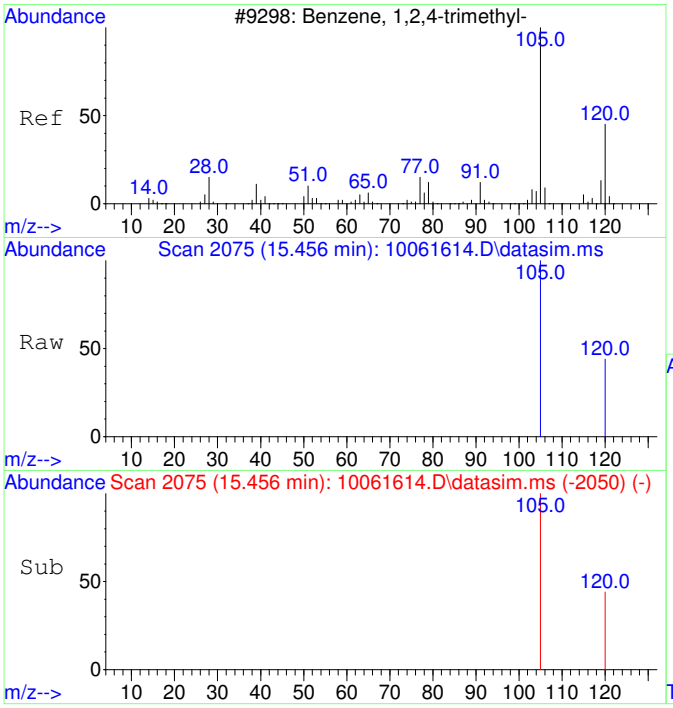


#44
1,3,5-Trimethylbenzene SCAN
Concen: 27.69 ug/L
RT: 14.732 min Scan# 1944
Delta R.T. -0.131 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion:105 Resp: 2536

Ion	Ratio	Lower	Upper
105	100		
120	46.1	22.1	82.1
119	12.7	0.0	42.9

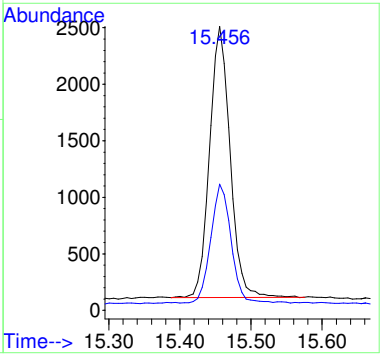


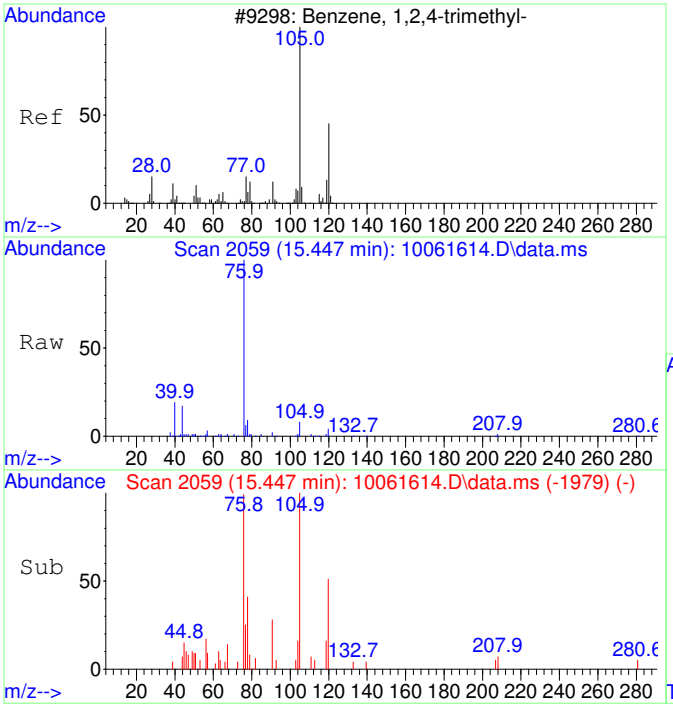


#45
1,2,4-Trimethylbenzene
Concen: 40.47 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion:105 Resp: 4813

Ion	Ratio	Lower	Upper
105	100		
120	43.2	15.7	75.7

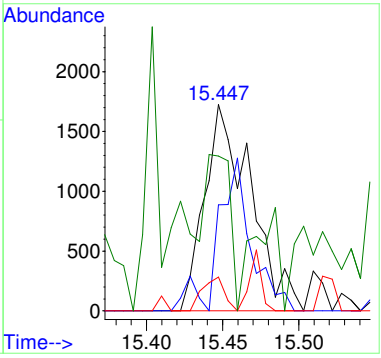




#46
1,2,4-Trimethylbenzene SCAN
Concen: 37.88 ug/L
RT: 15.447 min Scan# 2059
Delta R.T. -0.000 min
Lab File: 10061614.D
Acq: 6 Oct 2016 16:54

Tgt Ion:105 Resp: 3640

Ion	Ratio	Lower	Upper
105	100		
120	52.9	17.2	77.2
119	7.8	0.0	41.3
77	27.6	0.0	43.1



1610002-05

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061615.D
Acq On : 6 Oct 2016 17:17
InstName : AG5975C
Operator : RH
Sample : 1610002-05
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 06 17:36:31 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

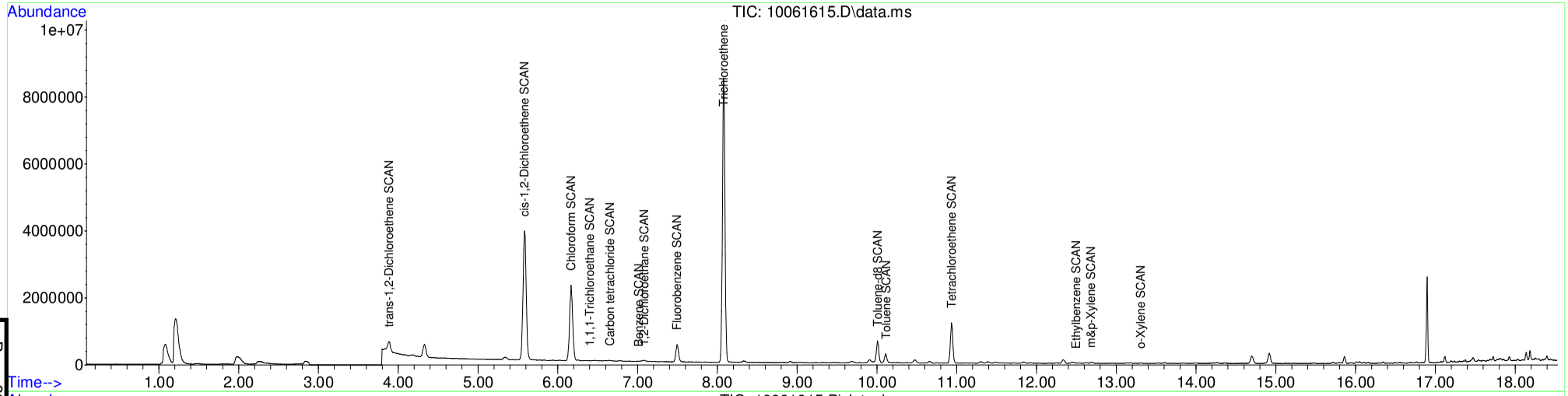
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	7.496	96	688064	5000.00 ug/L	0.02	
System Monitoring Compounds						
23) Toluene-d8	10.009	98	607346	4970.55 ug/L	0.01	
Spiked Amount 5000.000	Range 70 - 130		Recovery = 99.41%			
Target Compounds					Qvalue	
2) Fluorobenzene SCAN	7.494	96	589361	4822.43 ug/L	98	
3] 1,1-Dichloroethene	2.753	61	17671	238.14 ug/L	96	
5] trans-1,2-Dichloroethene	3.889	61	168379	2478.65 ug/L	100	
6) trans-1,2-Dichloroethe...	3.886	61	151672	2619.96 ug/L	98	
7] 1,1-Dichloroethane	4.567	63	2257	28.16 ug/L	95	
9] cis-1,2-Dichloroethene	5.585	61	3463531	48469.60 ug/L	100	OC
10) cis-1,2-Dichloroethene...	5.582	61	3116609	48929.06 ug/L	88	
11] Chloroform	6.169	83	2702321	33090.10 ug/L	99	OC
12) Chloroform SCAN	6.167	83	2481185	35319.82 ug/L	96	
13] 1,1,1-Trichloroethane	6.397	97	2077	29.25 ug/L	98	
14) 1,1,1-Trichloroethane ...	6.395	97	1909	30.79 ug/L #	54	
15] Carbon tetrachloride	6.652	117	14062	228.58 ug/L	99	
16) Carbon tetrachloride SCAN	6.650	117	14395	265.71 ug/L	95	
17] Benzene	7.001	78	8351	52.64 ug/L	81	
18) Benzene SCAN	7.012	78	17684	124.05 ug/L	79	
20) 1,2-Dichloroethane SCAN	7.079	62	2560	47.11 ug/L #	1	
21] Trichloroethene	8.082	130	4037397	89851.78 ug/L	98	OC
22) Trichloroethene SCAN	8.079	95	3320871	92282.95 ug/L	94	
24) Toluene-d8 SCAN	10.006	98	538977	5018.04 ug/L	95	
25] Toluene	10.099	91	277865	1848.60 ug/L	100	
26) Toluene SCAN	10.108	91	243012	1978.16 ug/L	98	
29] Tetrachloroethene	10.937	166	508097	11726.02 ug/L	100	
30) Tetrachloroethene SCAN	10.934	166	487084	14001.88 ug/L	98	
35] Ethylbenzene	12.498	91	4239	26.50 ug/L	98	
36) Ethylbenzene SCAN	12.496	91	4343	33.33 ug/L	79	
37] m&p-Xylene	12.691	91	15700	125.26 ug/L	98	
38) m&p-Xylene SCAN	12.680	91	16445	159.67 ug/L	90	
39] o-Xylene	13.307	91	6002	46.45 ug/L	99	
40) o-Xylene SCAN	13.305	91	8035	74.57 ug/L	92	

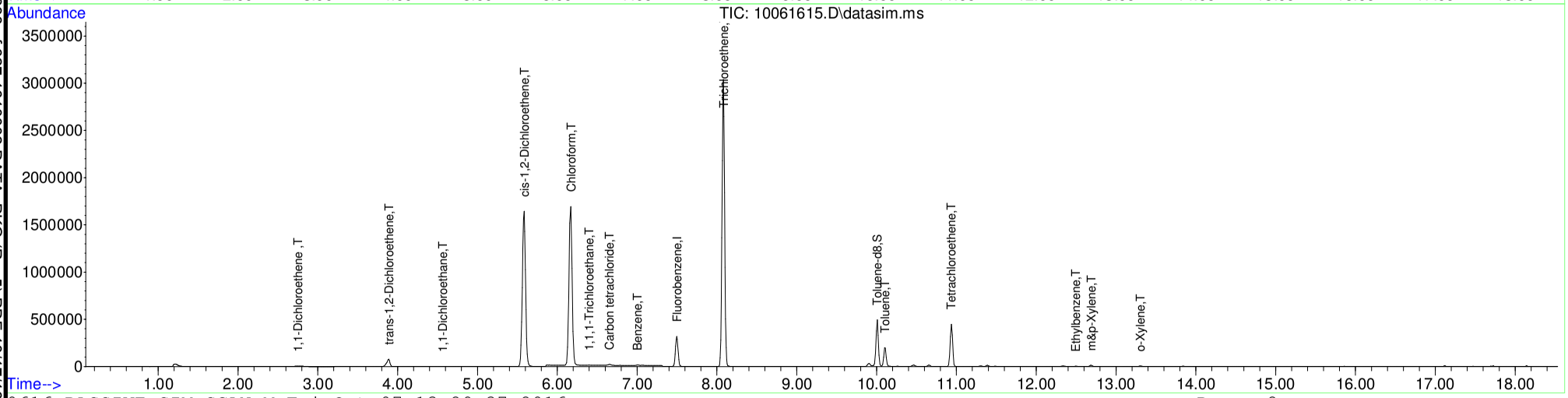
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061615.D
Acq On : 6 Oct 2016 17:17
InstName : AG5975C
Operator : RH
Sample : 1610002-05
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 06 17:36:31 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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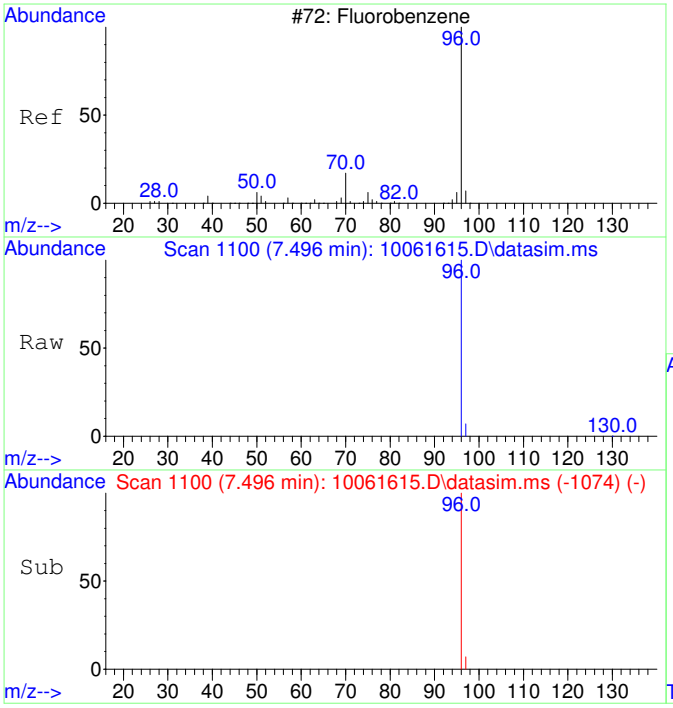
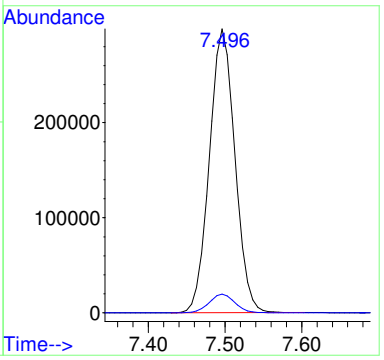
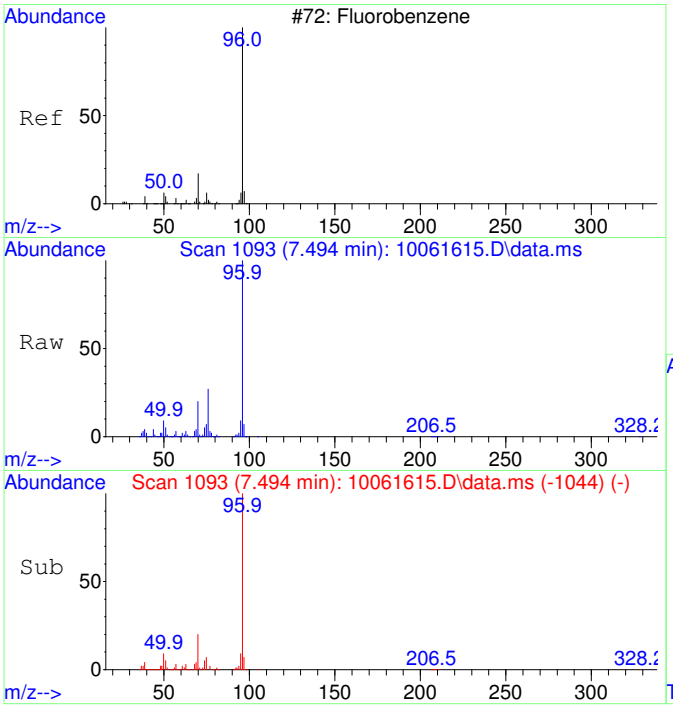


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.496 min Scan# 1100
Delta R.T. 0.020 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 96 Resp: 688064

Ion	Ratio	Lower	Upper
96	100		
97	6.6	0.0	36.6

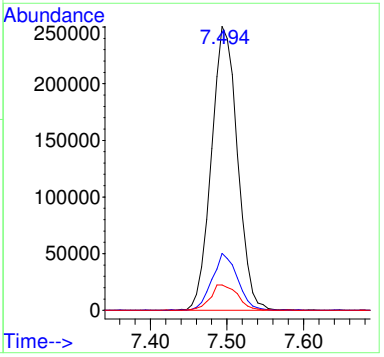


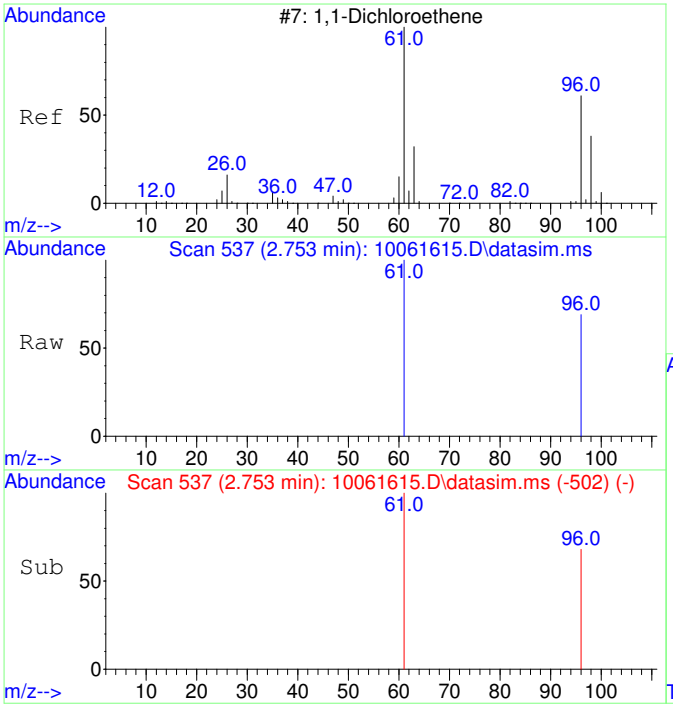


#2
Fluorobenzene SCAN
Concen: 4822.43 ug/L
RT: 7.494 min Scan# 1093
Delta R.T. 0.013 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 96 Resp: 589361

Ion	Ratio	Lower	Upper
96	100		
70	19.5	0.0	49.2
50	9.4	0.0	41.1

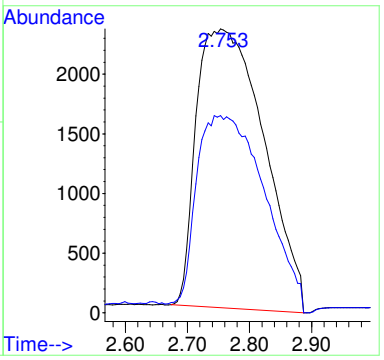


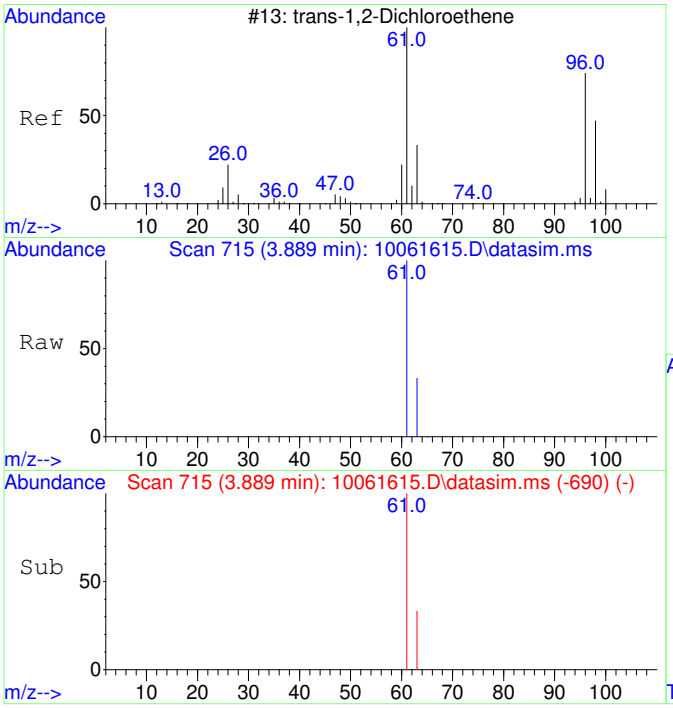


#3
1,1-Dichloroethene
Concen: 238.14 ug/L
RT: 2.753 min Scan# 537
Delta R.T. 0.025 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 61 Resp: 17671

Ion	Ratio	Lower	Upper
61	100		
96	68.2	34.9	94.9

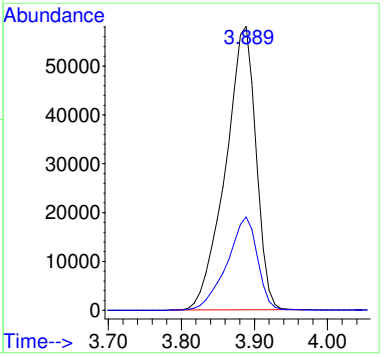


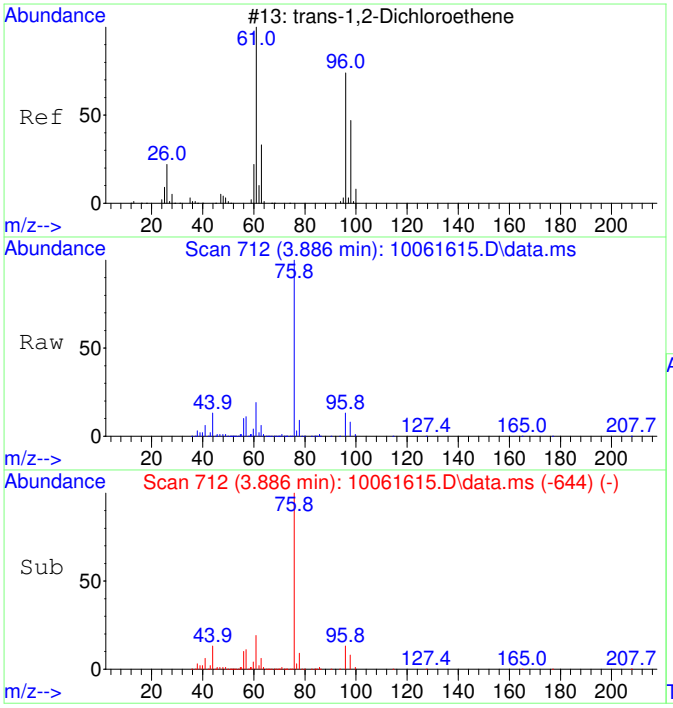


#5
trans-1,2-Dichloroethene
Concen: 2478.65 ug/L
RT: 3.889 min Scan# 715
Delta R.T. 0.047 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 61 Resp: 168379

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.5	62.5

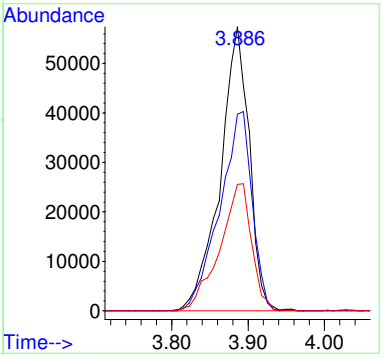


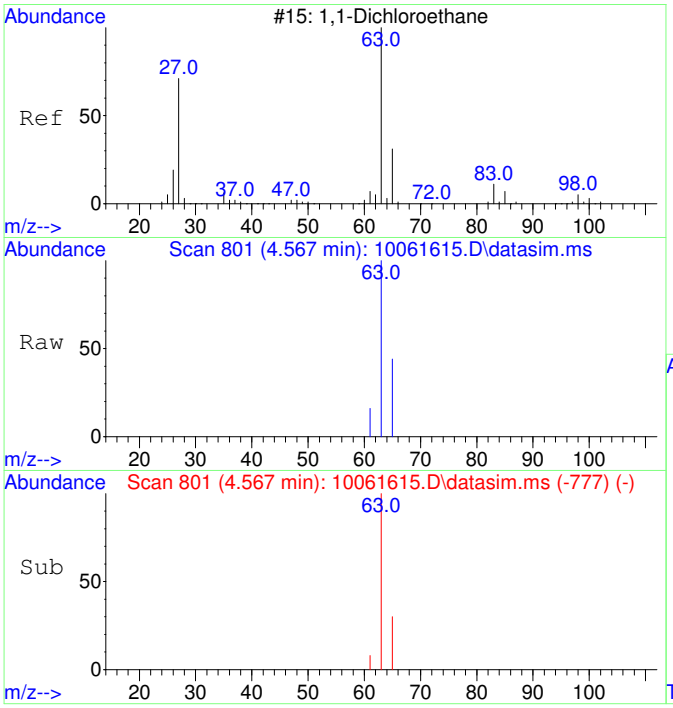


#6
trans-1,2-Dichloroethene SCAN
Concen: 2619.96 ug/L
RT: 3.886 min Scan# 712
Delta R.T. 0.039 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 61 Resp: 151672

Ion	Ratio	Lower	Upper
61	100		
96	78.6	47.5	107.5
98	49.1	17.2	77.2

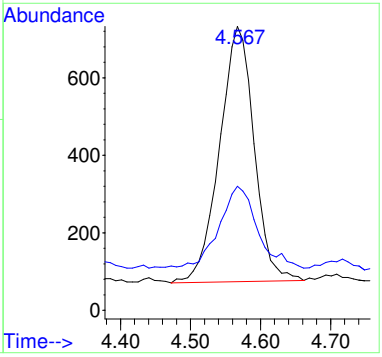


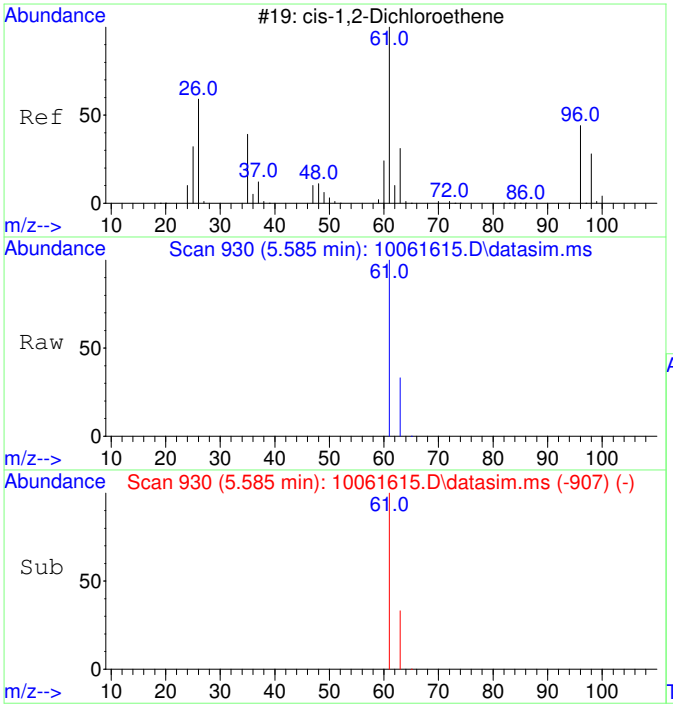


#7
1,1-Dichloroethane
Concen: 28.16 ug/L
RT: 4.567 min Scan# 801
Delta R.T. 0.039 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 63 Resp: 2257

Ion	Ratio	Lower	Upper
63	100		
65	34.8	1.8	61.8

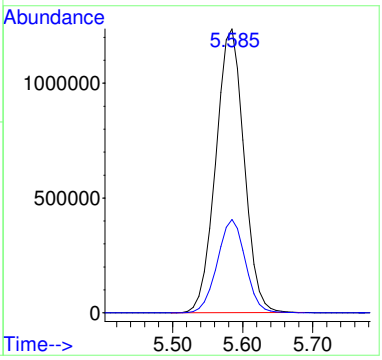


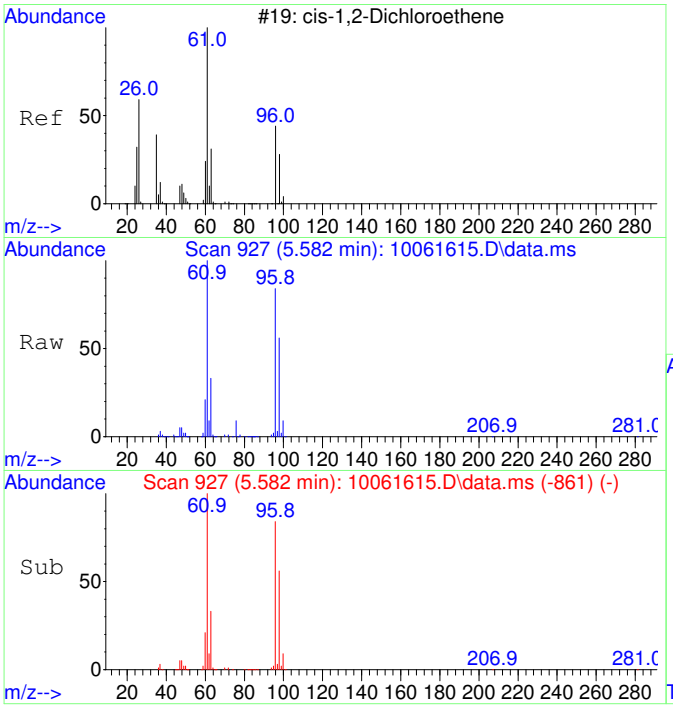


#9
cis-1,2-Dichloroethene
Concen: 48469.60 ug/L
RT: 5.585 min Scan# 930
Delta R.T. 0.032 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 61 Resp: 3463531

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.4	62.4

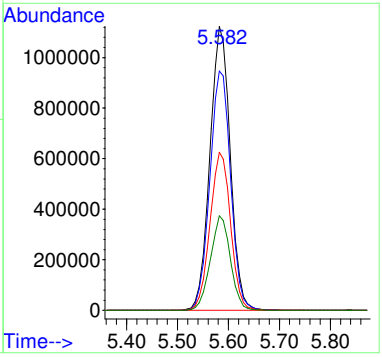


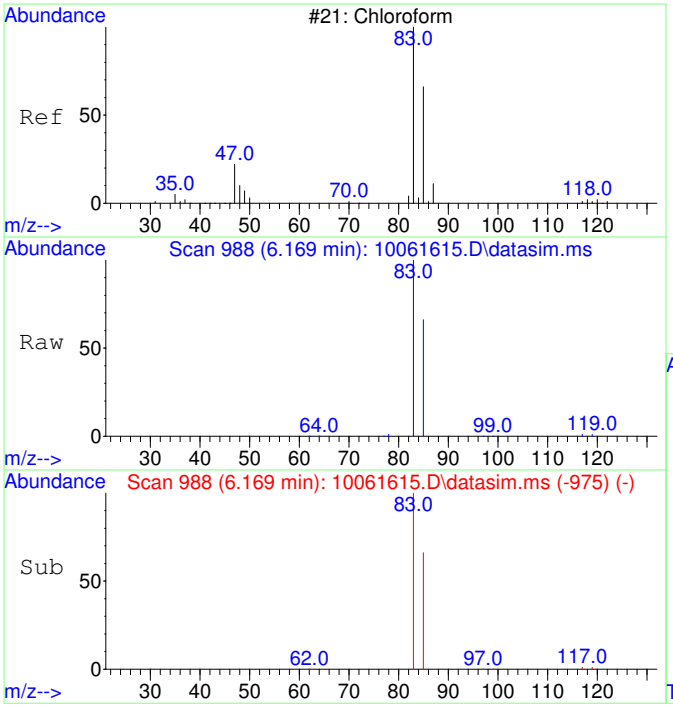


#10
cis-1,2-Dichloroethene SCAN
Concen: 48929.06 ug/L
RT: 5.582 min Scan# 927
Delta R.T. 0.024 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 61 Resp: 3116609

Ion	Ratio	Lower	Upper
61	100		
96	86.3	42.0	102.0
98	56.2	17.5	77.5
63	32.8	3.4	63.4

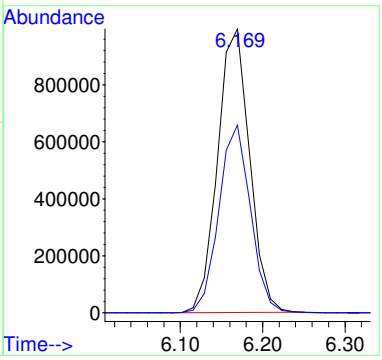


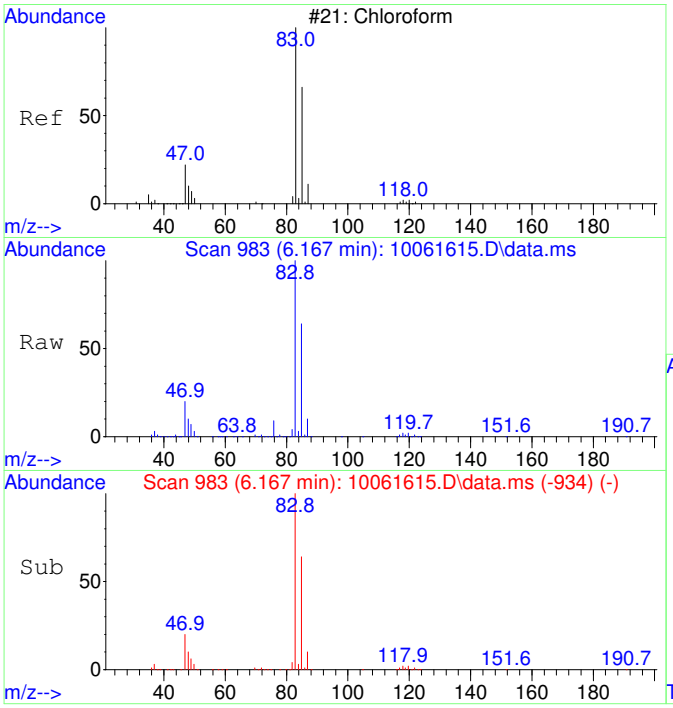


#11
Chloroform
Concen: 33090.10 ug/L
RT: 6.169 min Scan# 988
Delta R.T. 0.027 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 83 Resp: 2702321

Ion	Ratio	Lower	Upper
83	100		
85	64.8	34.4	94.4

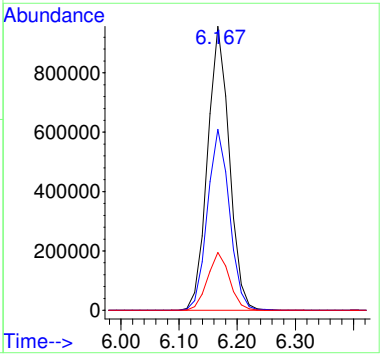


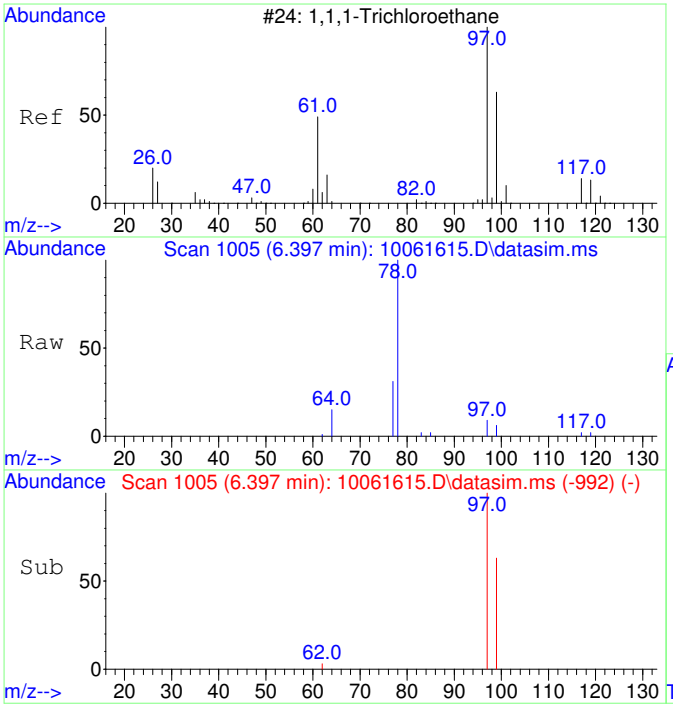


#12
Chloroform SCAN
Concen: 35319.82 ug/L
RT: 6.167 min Scan# 983
Delta R.T. 0.027 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 83 Resp: 2481185

Ion	Ratio	Lower	Upper
83	100		
85	64.7	37.6	97.6
47	20.5	0.0	53.4

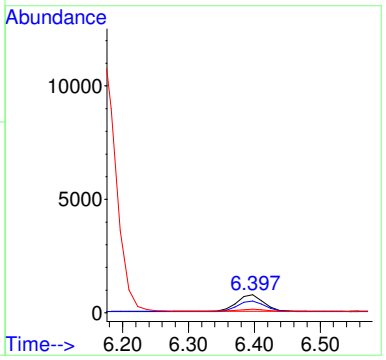


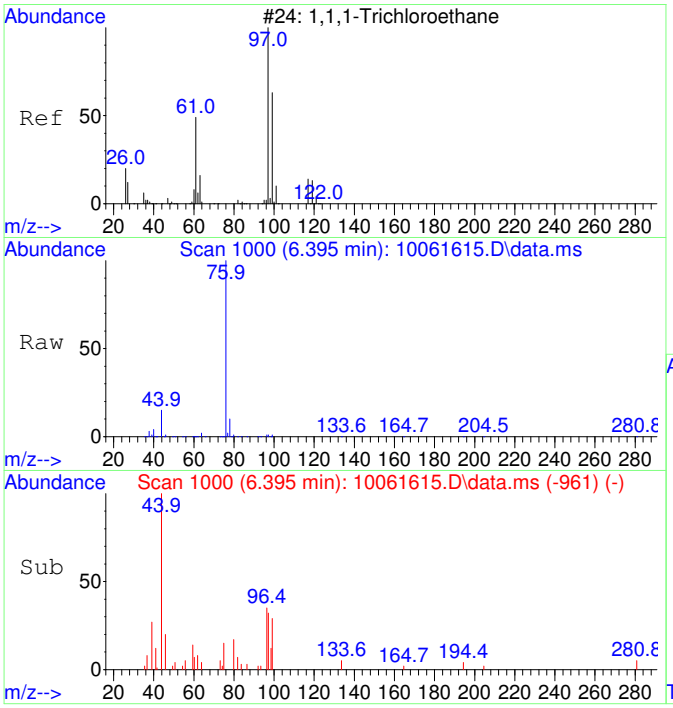


#13
1,1,1-Trichloroethane
Concen: 29.25 ug/L
RT: 6.397 min Scan# 1005
Delta R.T. 0.027 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 97 Resp: 2077

Ion	Ratio	Lower	Upper
97	100		
99	62.6	34.2	94.2
117	13.3	0.0	43.0

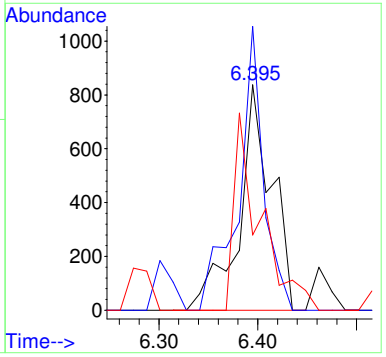


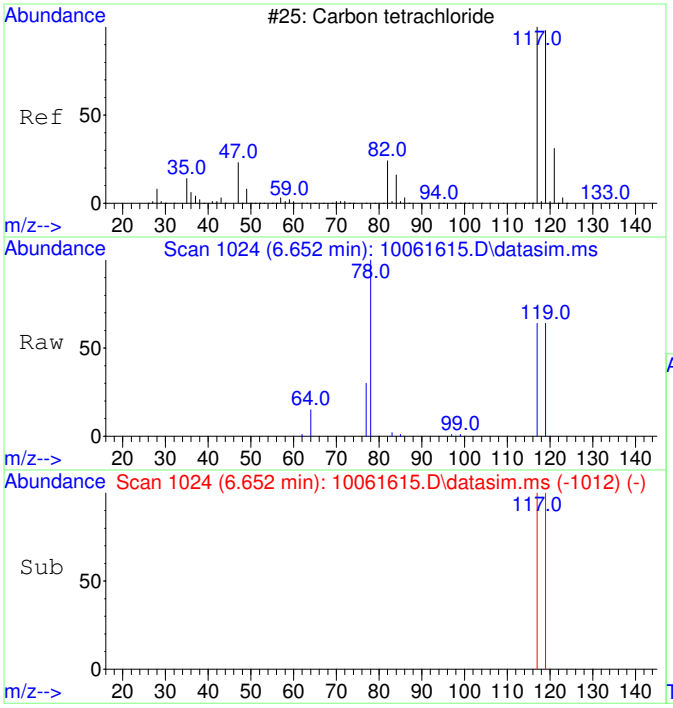


#14
1,1,1-Trichloroethane SCAN
Concen: 30.79 ug/L
RT: 6.395 min Scan# 1000
Delta R.T. 0.027 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 97 Resp: 1909

Ion	Ratio	Lower	Upper
97	100		
99	98.8	33.6	93.6#
61	70.4	10.7	70.7

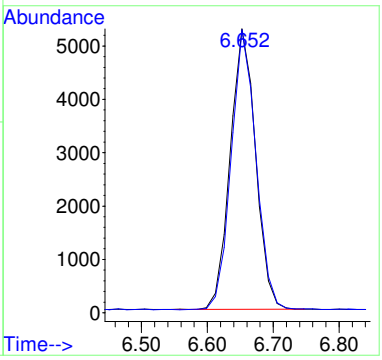


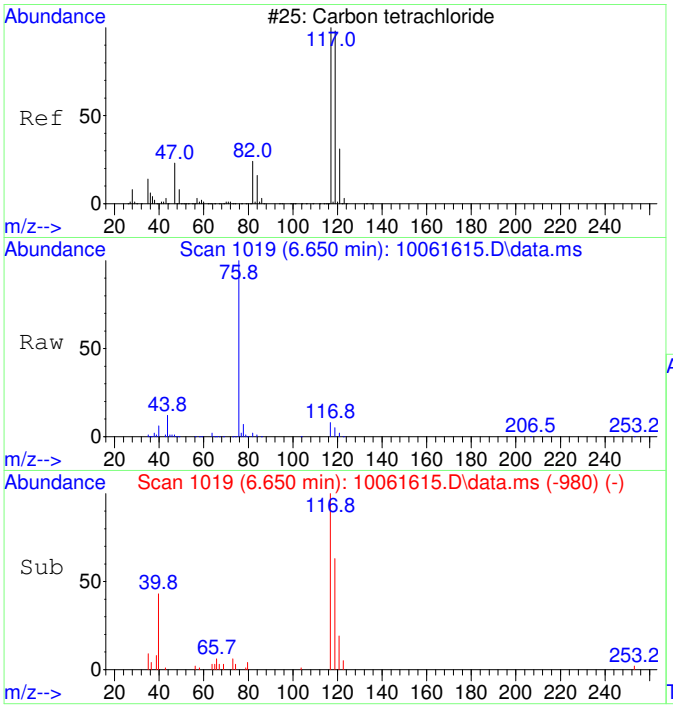


#15
Carbon tetrachloride
Concen: 228.58 ug/L
RT: 6.652 min Scan# 1024
Delta R.T. 0.013 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion:117 Resp: 14062

Ion	Ratio	Lower	Upper
117	100		
119	96.8	66.1	126.1

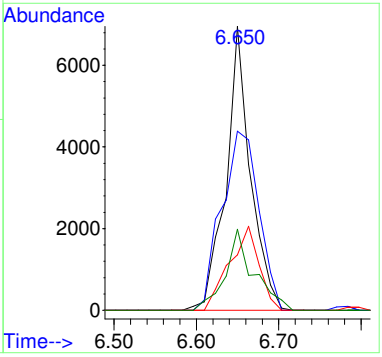


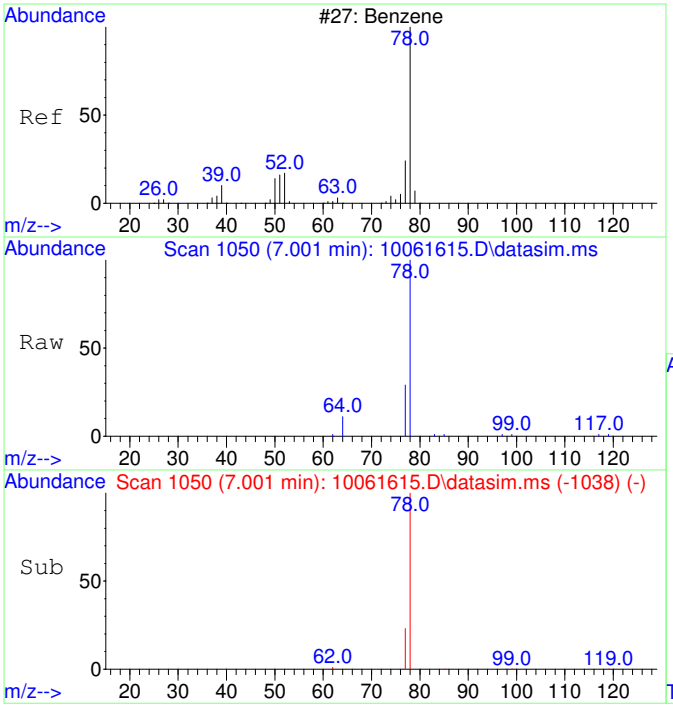


#16
Carbon tetrachloride SCAN
Concen: 265.71 ug/L
RT: 6.650 min Scan# 1019
Delta R.T. 0.027 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion:117 Resp: 14395

Ion	Ratio	Lower	Upper
117	100		
119	95.6	66.0	122.6
121	35.8	22.1	41.1
82	32.9	18.5	34.3

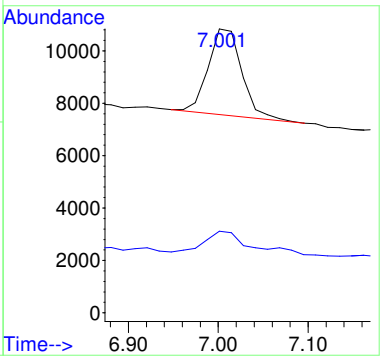


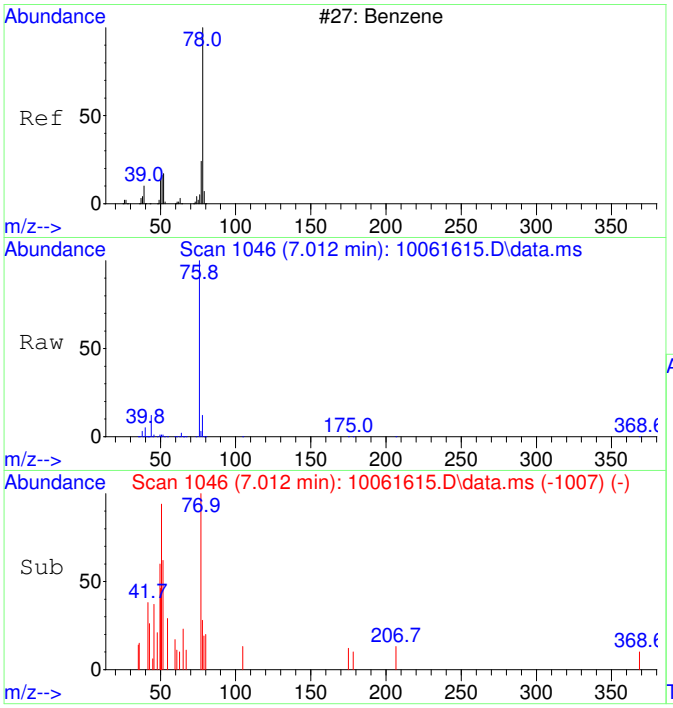


#17
Benzene
Concen: 52.64 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 78 Resp: 8351

Ion	Ratio	Lower	Upper
78	100		
77	32.8	0.0	53.4

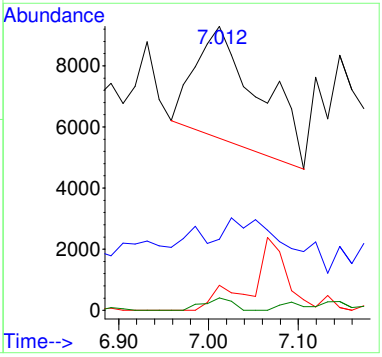


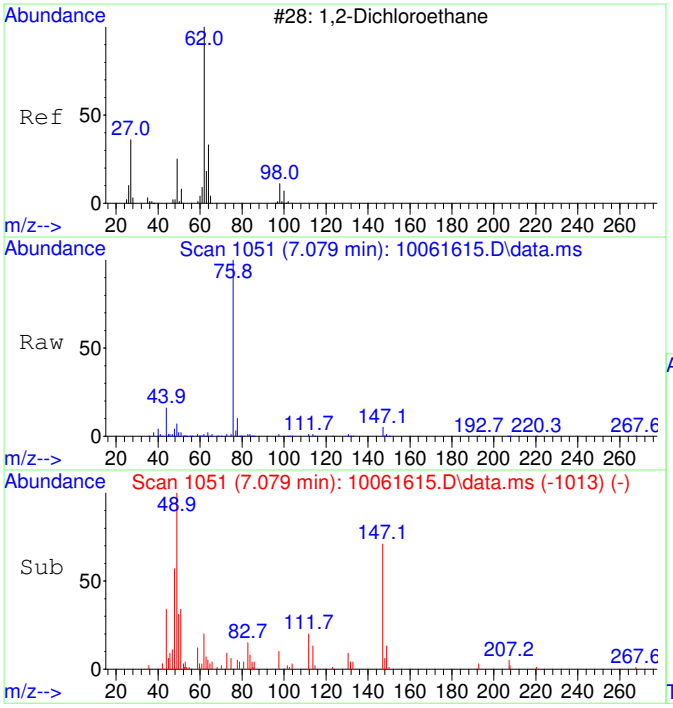


#18
Benzene SCAN
Concen: 124.05 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.027 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 78 Resp: 17684

Ion	Ratio	Lower	Upper
78	100		
77	22.9	0.0	59.3
51	5.1	0.0	49.2
52	5.1	0.0	45.5

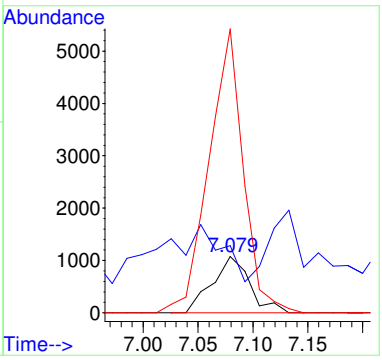


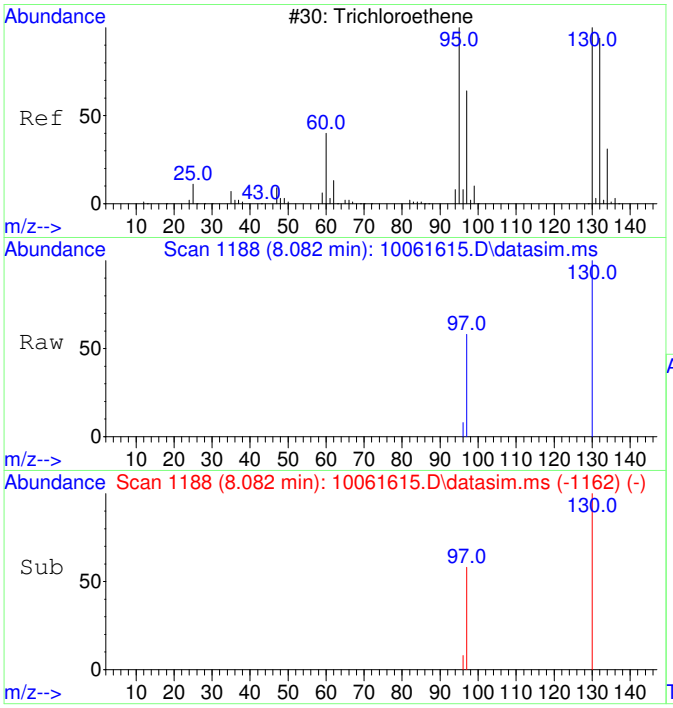


#20
1,2-Dichloroethane SCAN
Concen: 47.11 ug/L
RT: 7.079 min Scan# 1051
Delta R.T. 0.013 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 62 Resp: 2560

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	461.1	0.0	51.8#

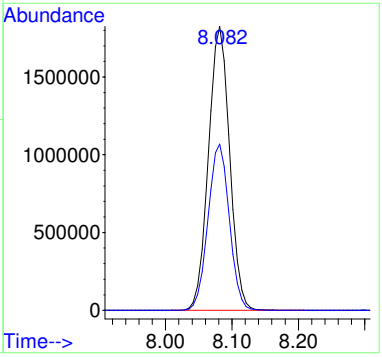


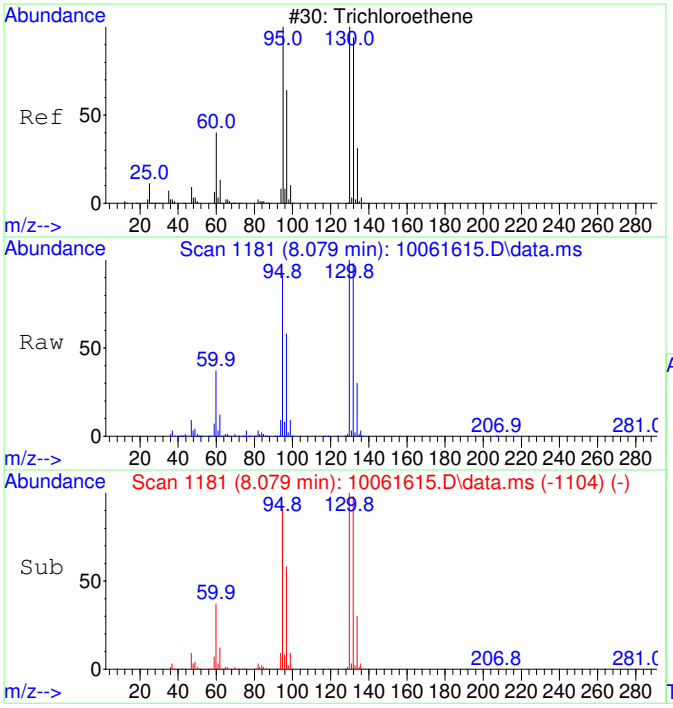


#21
Trichloroethene
Concen: 89851.78 ug/L
RT: 8.082 min Scan# 1188
Delta R.T. 0.020 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion:130 Resp: 4037397

Ion	Ratio	Lower	Upper
130	100		
97	58.7	29.9	89.9

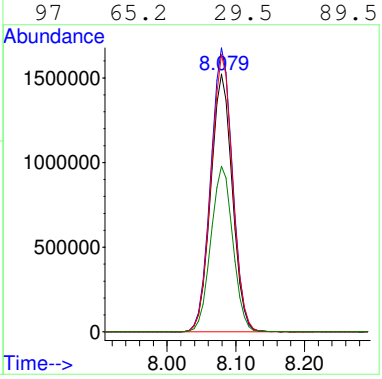


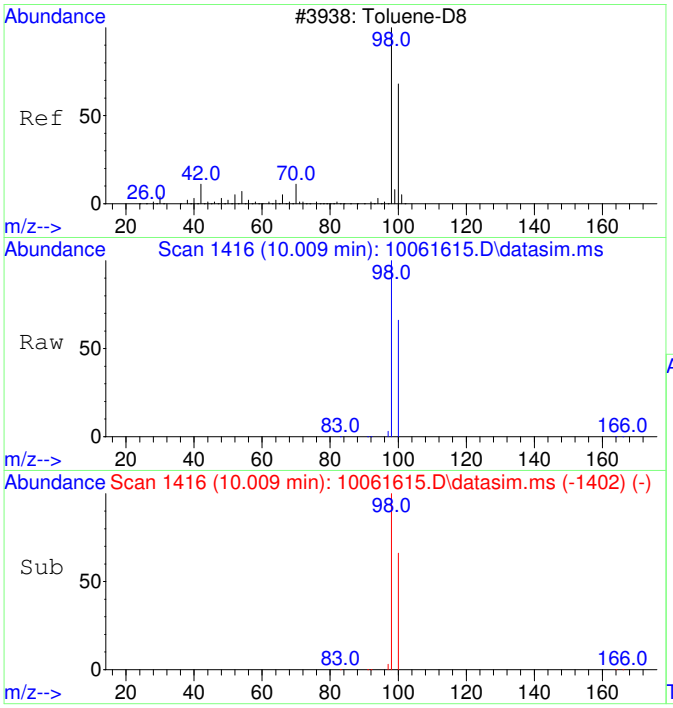


#22
Trichloroethene SCAN
Concen: 92282.95 ug/L
RT: 8.079 min Scan# 1181
Delta R.T. 0.013 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 95 Resp: 3320871

Ion	Ratio	Lower	Upper
95	100		
130	111.1	74.1	134.1
132	107.5	72.1	132.1
97	65.2	29.5	89.5

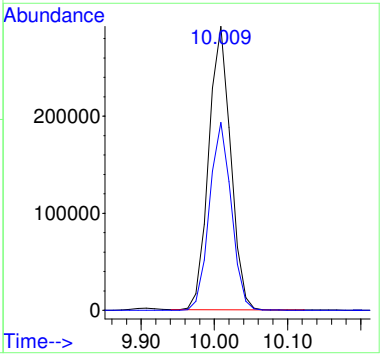


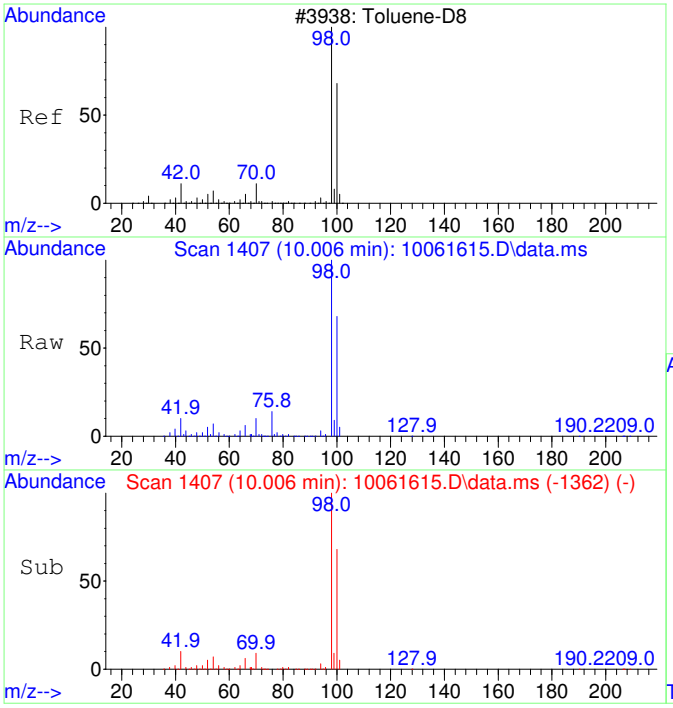


#23
Toluene-d8
Concen: 4970.55 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 98 Resp: 607346

Ion	Ratio	Lower	Upper
98	100		
100	65.7	35.3	95.3

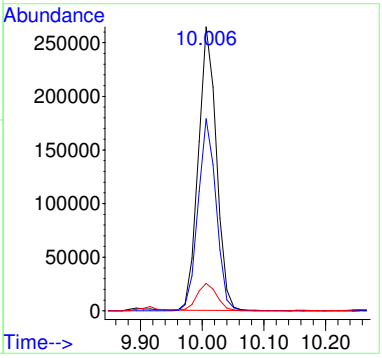


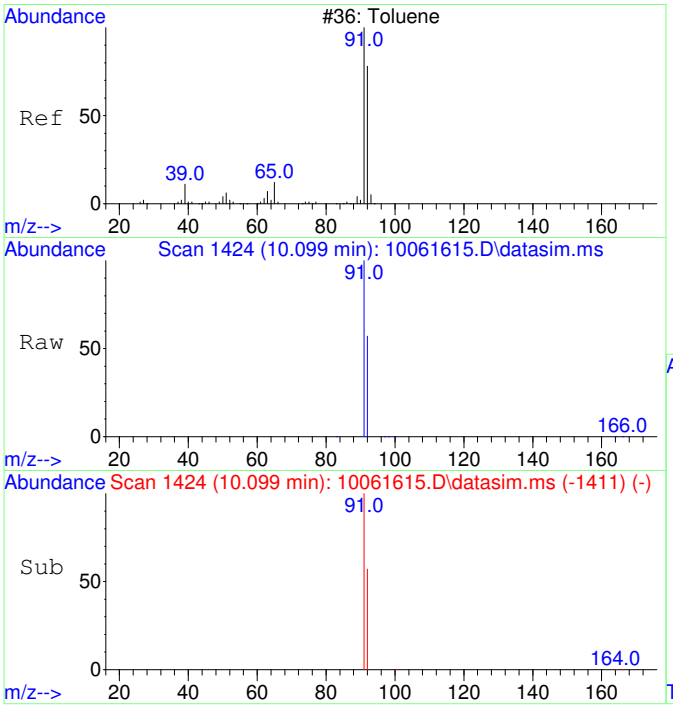


#24
Toluene-d8 SCAN
Concen: 5018.04 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 98 Resp: 538977

Ion	Ratio	Lower	Upper
98	100		
100	67.6	44.3	82.3
70	10.3	7.8	14.4

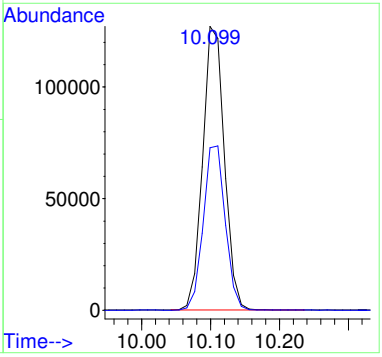


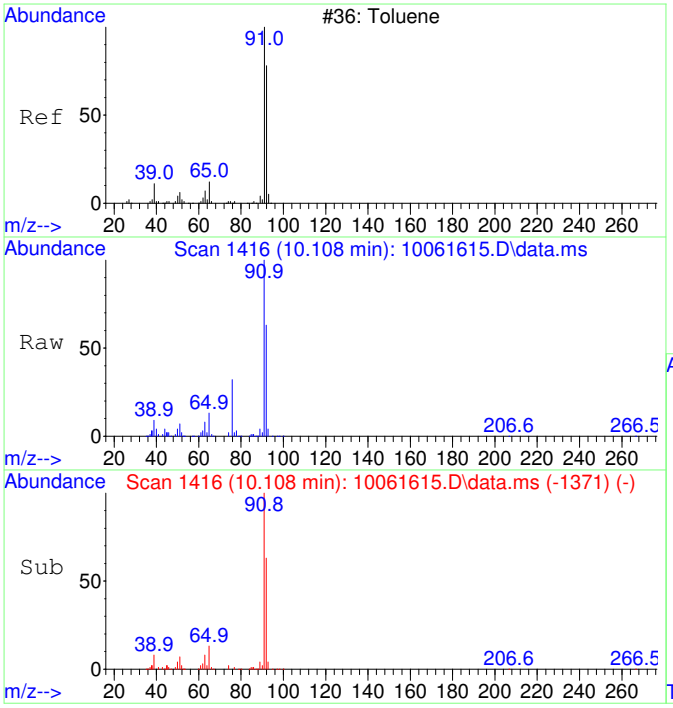


#25
Toluene
Concen: 1848.60 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. 0.000 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 277865

Ion	Ratio	Lower	Upper
91	100		
92	58.6	28.8	88.8

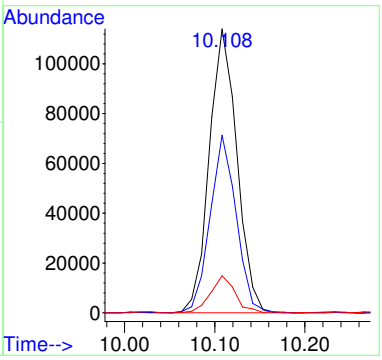


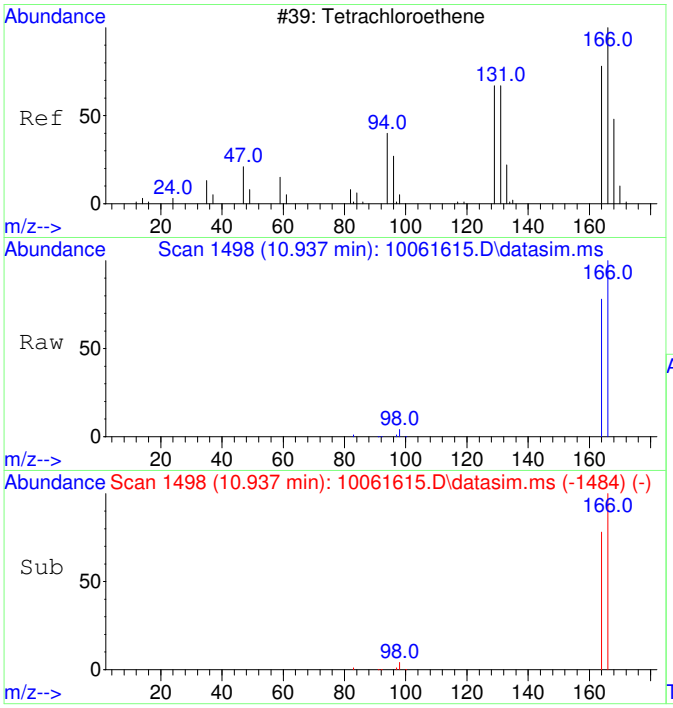


#26
Toluene SCAN
Concen: 1978.16 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 243012

Ion	Ratio	Lower	Upper
91	100		
92	59.0	30.7	90.7
65	11.9	0.0	42.6

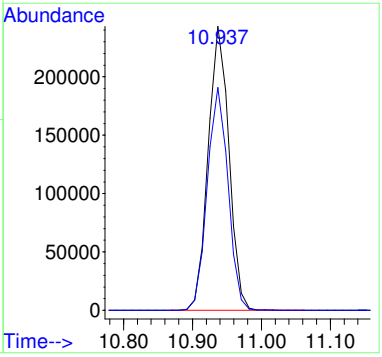


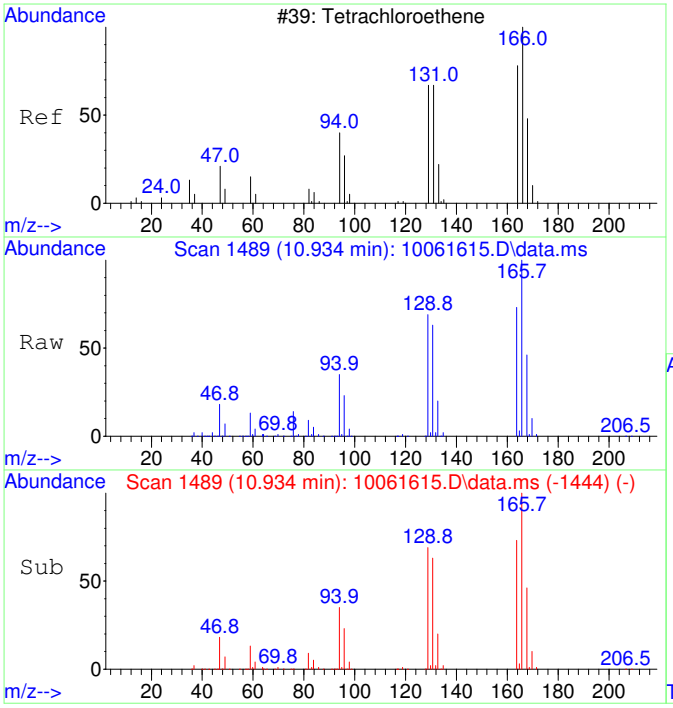


#29
Tetrachloroethene
Concen: 11726.02 ug/L
RT: 10.937 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion:166 Resp: 508097

Ion	Ratio	Lower	Upper
166	100		
164	78.1	47.7	107.7

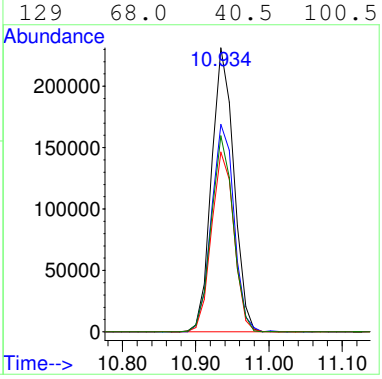


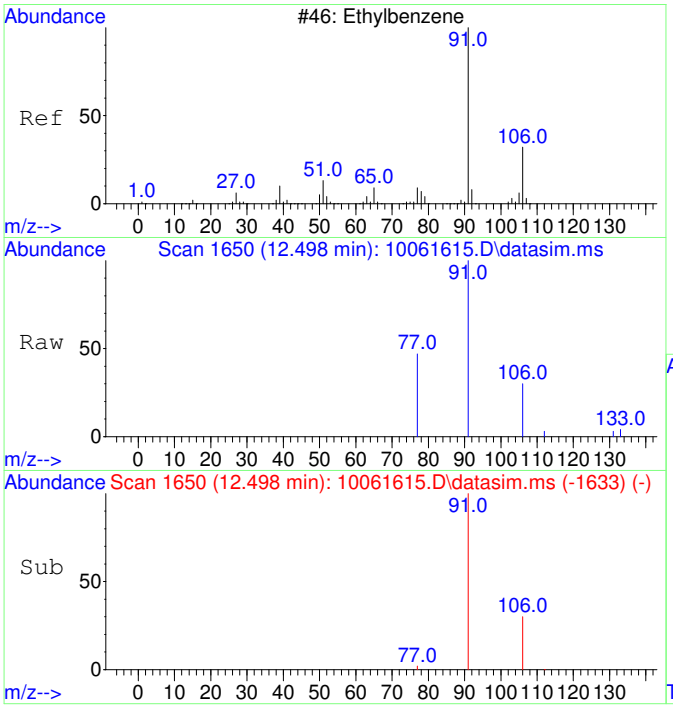


#30
Tetrachloroethene SCAN
Concen: 14001.88 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. 0.011 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion:166 Resp: 487084

Ion	Ratio	Lower	Upper
166	100		
164	74.5	44.9	104.9
131	63.4	36.1	96.1
129	68.0	40.5	100.5

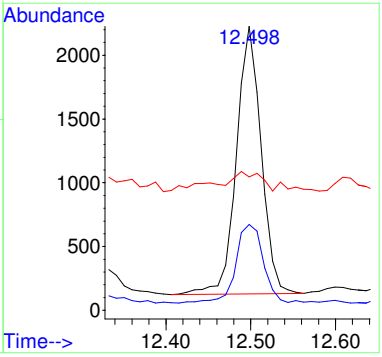


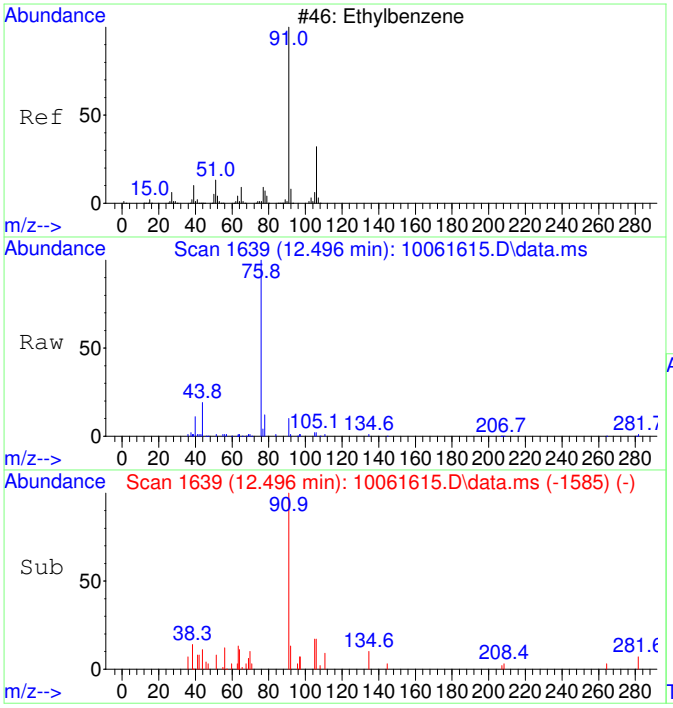


#35
Ethylbenzene
Concen: 26.50 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 4239

Ion	Ratio	Lower	Upper
91	100		
106	32.2	1.7	61.7
77	5.9	0.0	38.3

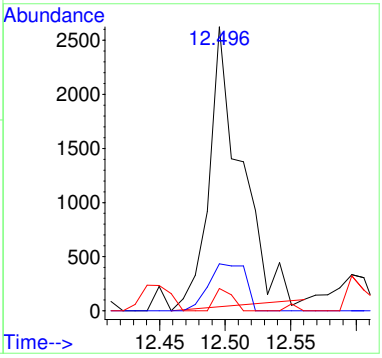


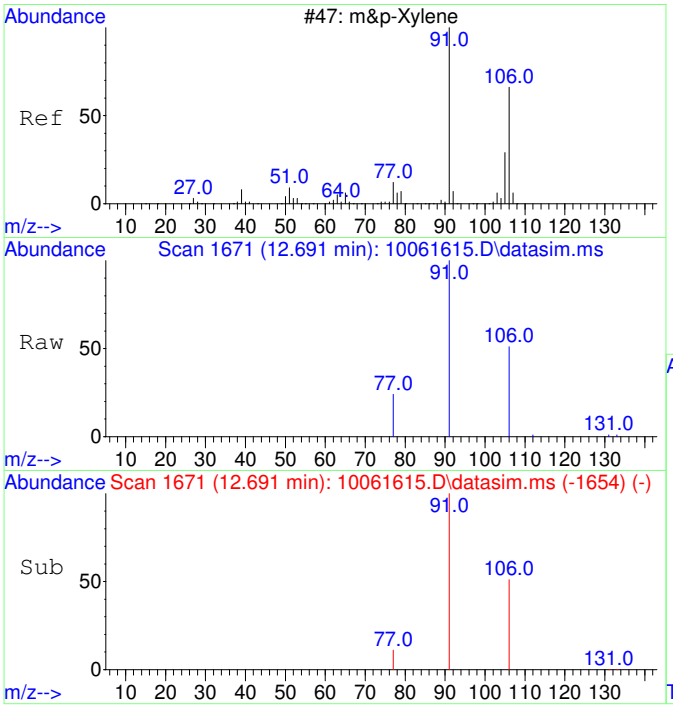


#36
Ethylbenzene SCAN
Concen: 33.33 ug/L
RT: 12.496 min Scan# 1639
Delta R.T. 0.000 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 4343

Ion	Ratio	Lower	Upper
91	100		
106	19.6	2.3	62.3
51	4.5	0.0	39.6

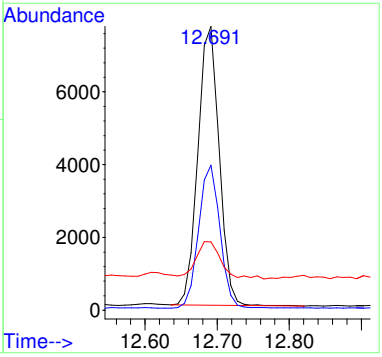


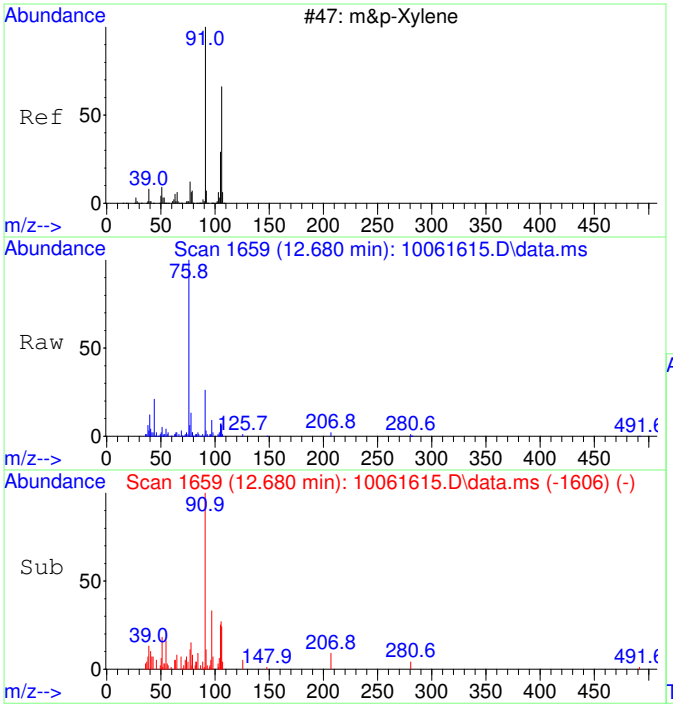


#37
m&p-Xylene
Concen: 125.26 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 15700

Ion	Ratio	Lower	Upper
91	100		
106	51.1	19.4	79.4
77	13.3	0.0	42.6

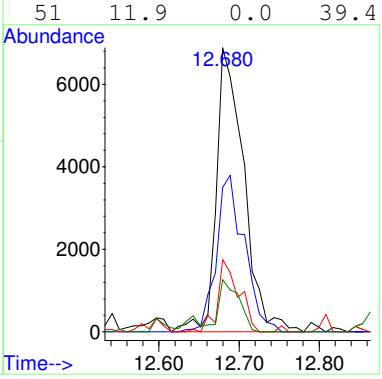


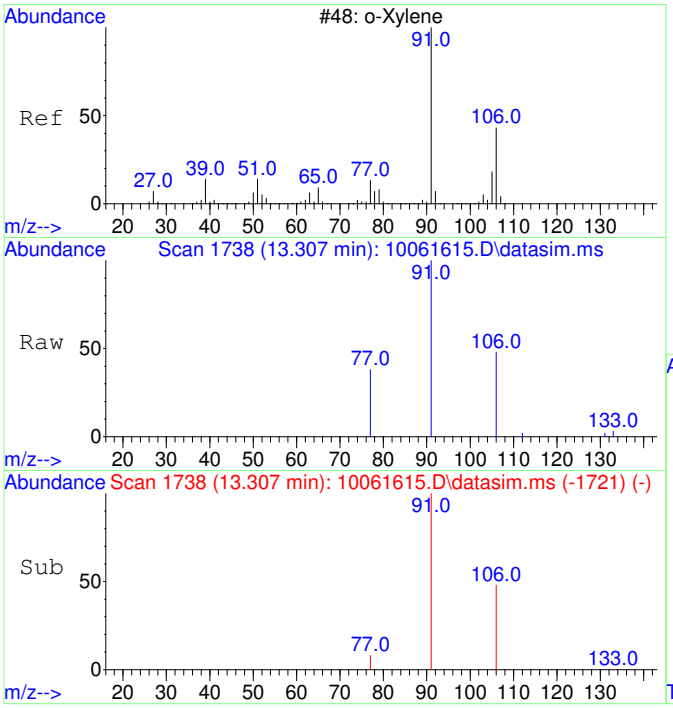


#38
m&p-Xylene SCAN
Concen: 159.67 ug/L
RT: 12.680 min Scan# 1659
Delta R.T. -0.009 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 16445

Ion	Ratio	Lower	Upper
91	100		
106	55.9	18.0	78.0
105	19.7	0.0	53.1
51	11.9	0.0	39.4

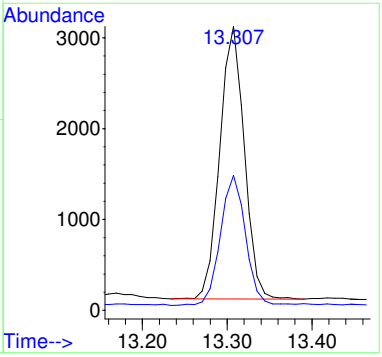


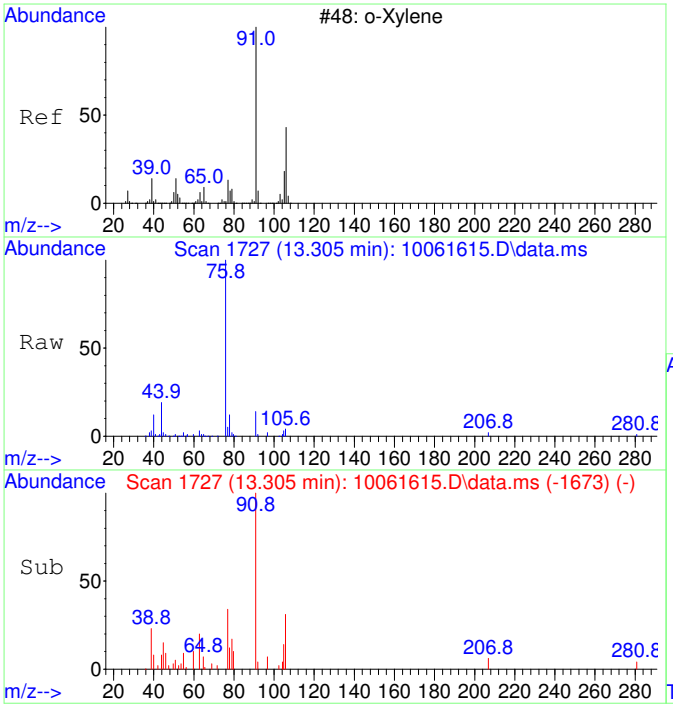


#39
o-Xylene
Concen: 46.45 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 6002

Ion	Ratio	Lower	Upper
91	100		
106	48.1	17.2	77.2

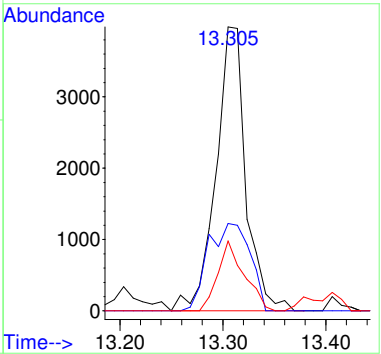




#40
o-Xylene SCAN
Concen: 74.57 ug/L
RT: 13.305 min Scan# 1727
Delta R.T. 0.000 min
Lab File: 10061615.D
Acq: 6 Oct 2016 17:17

Tgt Ion: 91 Resp: 8035

Ion	Ratio	Lower	Upper
91	100		
106	43.2	18.0	78.0
105	21.7	0.0	56.8



1610002-06

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061616.D
Acq On : 6 Oct 2016 17:41
InstName : AG5975C
Operator : RH
Sample : 1610002-06
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 06 18:00:24 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

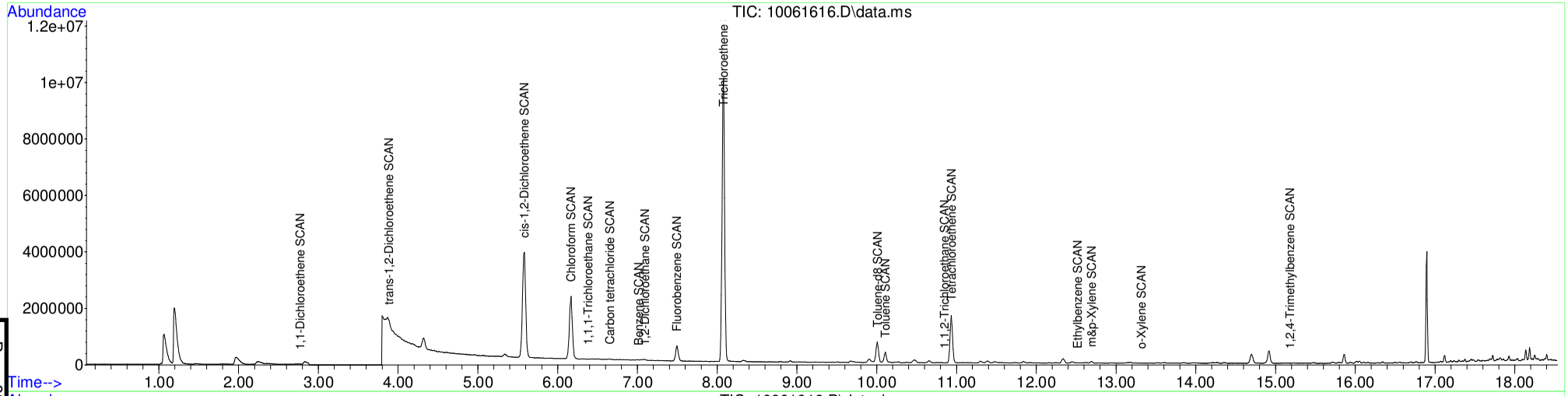
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.496	96	672810	5000.00 ug/L	0.02
System Monitoring Compounds					
23) Toluene-d8	10.009	98	699456	5854.17 ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 117.08%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.494	96	596132	4988.42 ug/L	98
3] 1,1-Dichloroethene	2.723	61	15522	213.92 ug/L	95
4) 1,1-Dichloroethene SCAN	2.771	61	3672	57.62 ug/L	76
5] trans-1,2-Dichloroethene	3.873	61	157716	2374.32 ug/L	100
6) trans-1,2-Dichloroethe...	3.878	61	138315	2443.40 ug/L	91
7] 1,1-Dichloroethane	4.559	63	2005	25.58 ug/L	93
9] cis-1,2-Dichloroethene	5.577	61	3318382	47491.20 ug/L	100 OC
10) cis-1,2-Dichloroethene...	5.582	61	2971160	47703.14 ug/L	87
11] Chloroform	6.156	83	2617129	32773.49 ug/L	99 OC
12) Chloroform SCAN	6.167	83	2394939	34865.04 ug/L	97
13] 1,1,1-Trichloroethane	6.384	97	2140	30.82 ug/L	99
14) 1,1,1-Trichloroethane ...	6.381	97	1894	31.24 ug/L #	63
15] Carbon tetrachloride	6.652	117	15466	257.11 ug/L	99
16) Carbon tetrachloride SCAN	6.650	117	15429	291.26 ug/L #	37
17] Benzene	7.001	78	9471	61.06 ug/L	93
18) Benzene SCAN	7.012	78	25539	183.22 ug/L	71
19] 1,2-Dichloroethane	7.068	62	1468	25.91 ug/L	91
20) 1,2-Dichloroethane SCAN	7.093	62	2216	41.70 ug/L #	47
21] Trichloroethene	8.082	130	4737643	107826.12 ug/L	98 OC
22) Trichloroethene SCAN	8.079	95	3915318	111268.68 ug/L	95
24) Toluene-d8 SCAN	10.006	98	610208	5810.03 ug/L	93
25] Toluene	10.099	91	371555	2527.95 ug/L	100
26) Toluene SCAN	10.108	91	335227	2790.67 ug/L	95
28) 1,1,2-Trichloroethane ...	10.844	97	1347	47.55 ug/L #	35
29] Tetrachloroethene	10.937	166	693756	16373.71 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	646001	18991.18 ug/L	98
35] Ethylbenzene	12.498	91	5798	37.07 ug/L	99
36) Ethylbenzene SCAN	12.514	91	7788	61.13 ug/L	97
37] m&p-Xylene	12.682	91	21767	177.61 ug/L	97
38) m&p-Xylene SCAN	12.689	91	21604	214.51 ug/L	90
39] o-Xylene	13.307	91	8350	66.08 ug/L	97
40) o-Xylene SCAN	13.314	91	9096	86.33 ug/L	90
45] 1,2,4-Trimethylbenzene	15.456	105	4491	33.60 ug/L	92
46) 1,2,4-Trimethylbenzene...	15.180	105	3309	30.64 ug/L	69

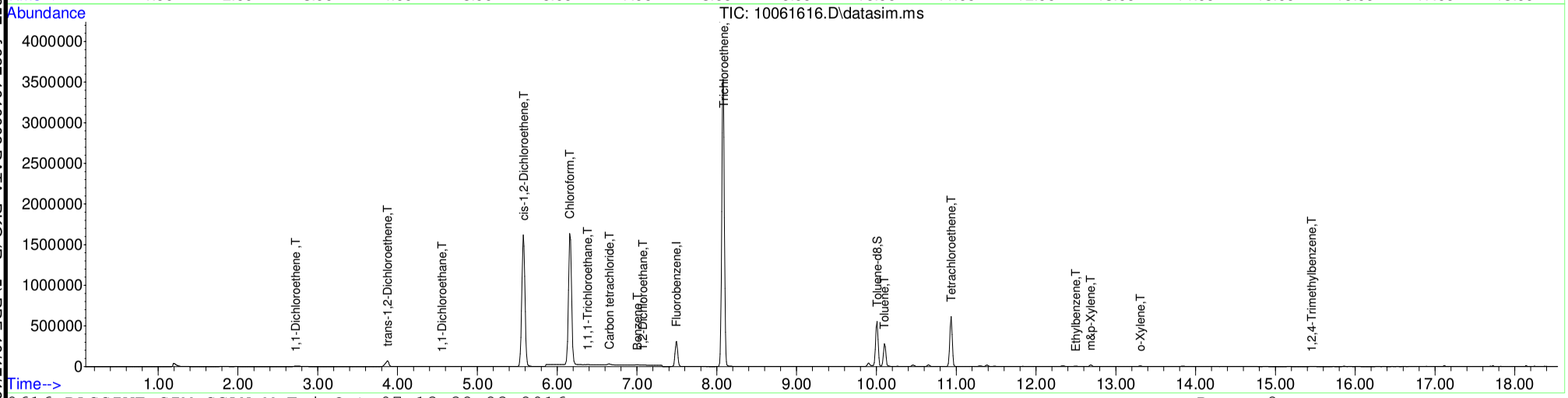
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061616.D
Acq On : 6 Oct 2016 17:41
InstName : AG5975C
Operator : RH
Sample : 1610002-06
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 06 18:00:24 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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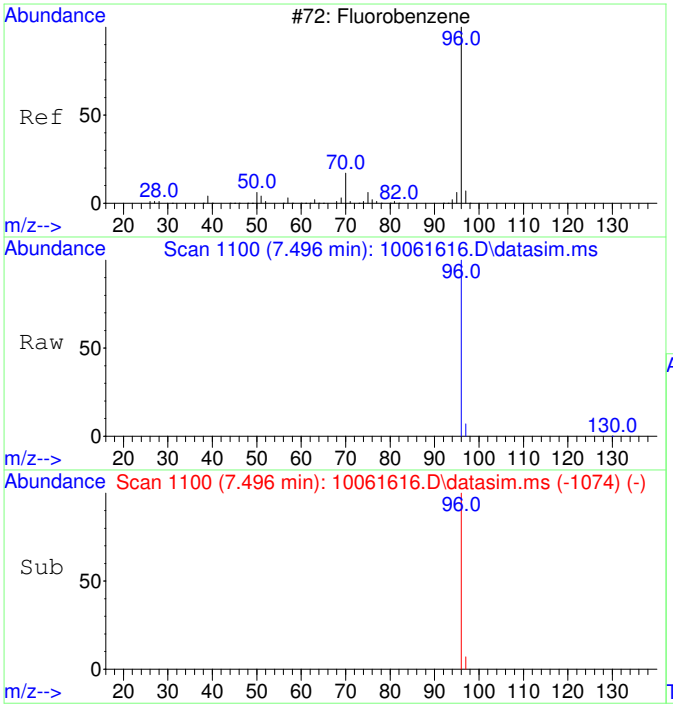
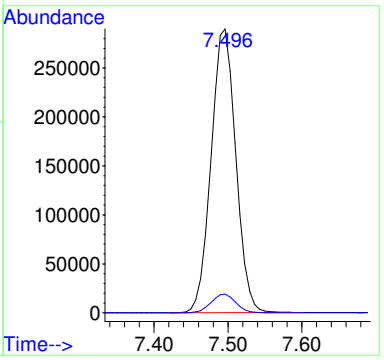
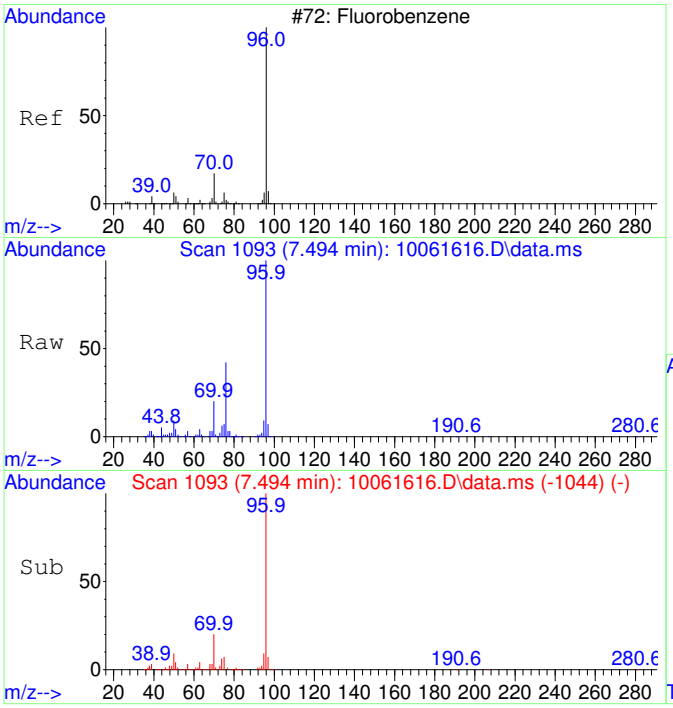


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.496 min Scan# 1100
Delta R.T. 0.020 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 96 Resp: 672810

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

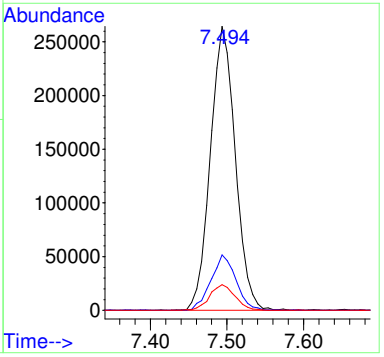


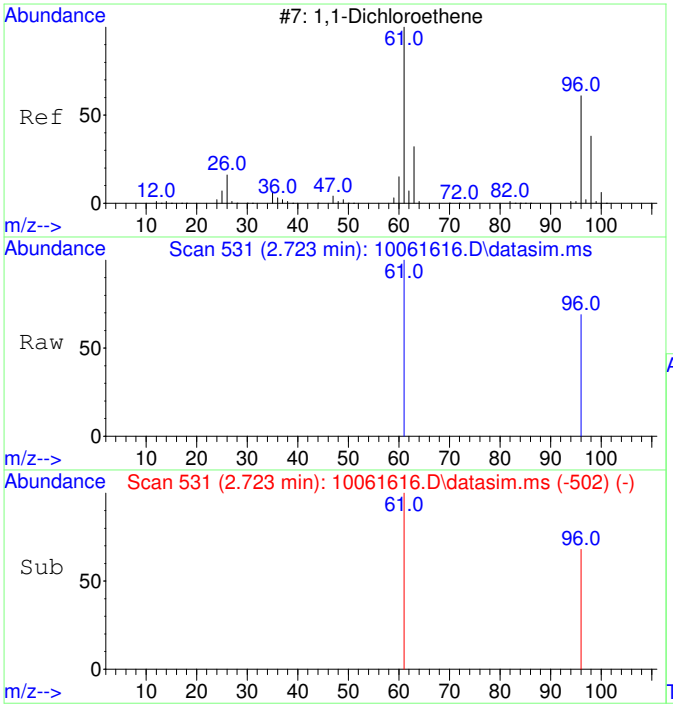


#2
Fluorobenzene SCAN
Concen: 4988.42 ug/L
RT: 7.494 min Scan# 1093
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 96 Resp: 596132

Ion	Ratio	Lower	Upper
96	100		
70	19.6	0.0	49.2
50	9.3	0.0	41.1

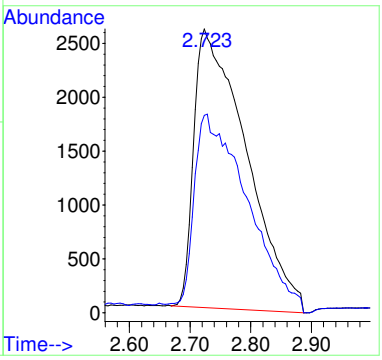


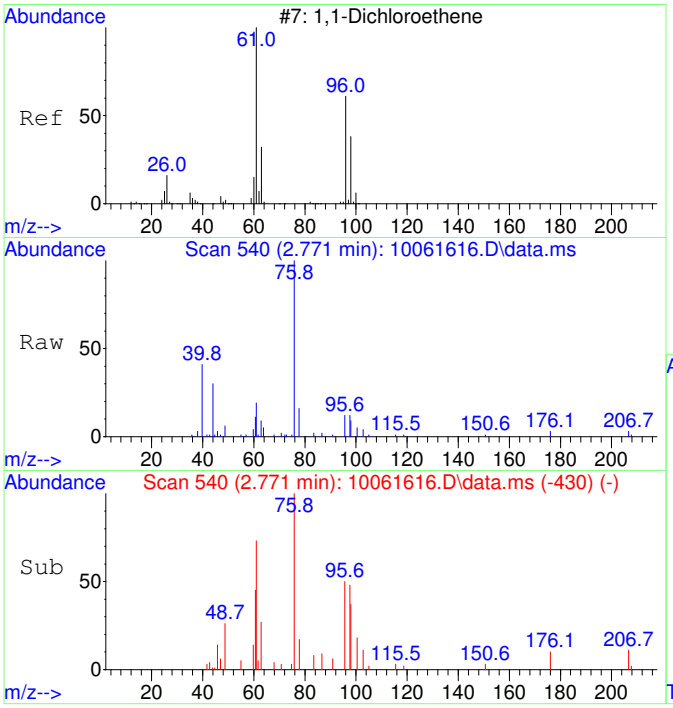


#3
1,1-Dichloroethene
Concen: 213.92 ug/L
RT: 2.723 min Scan# 531
Delta R.T. -0.005 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 61 Resp: 15522

Ion	Ratio	Lower	Upper
61	100		
96	68.8	34.9	94.9

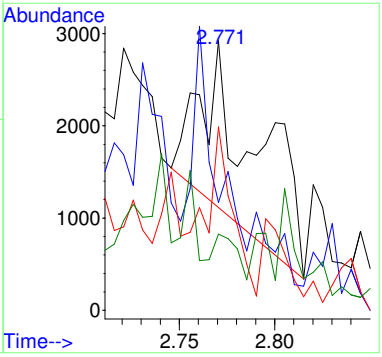


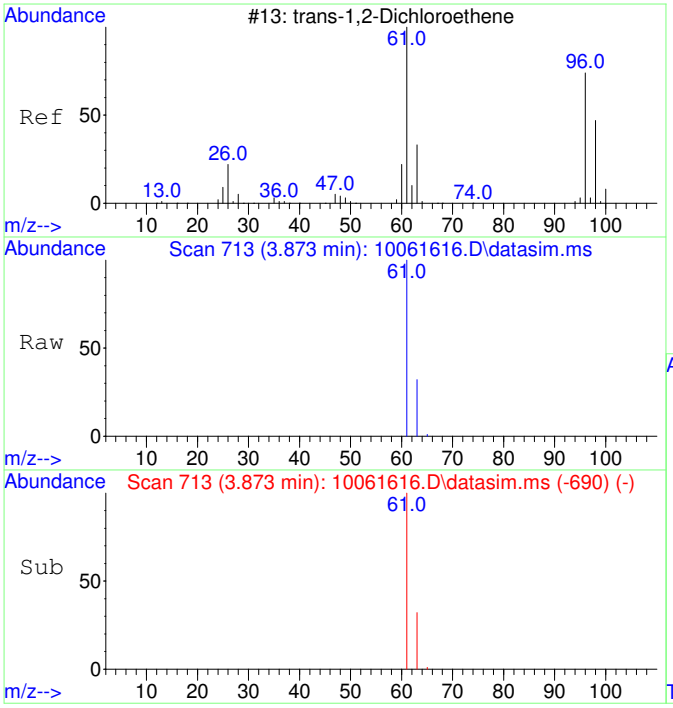


#4
1,1-Dichloroethene SCAN
Concen: 57.62 ug/L
RT: 2.771 min Scan# 540
Delta R.T. 0.045 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 61 Resp: 3672

Ion	Ratio	Lower	Upper
61	100		
96	51.7	30.2	90.2
98	26.3	12.2	72.2
63	6.8	3.7	63.7

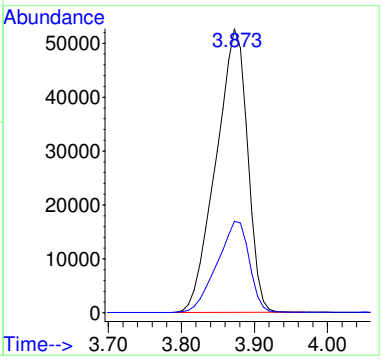


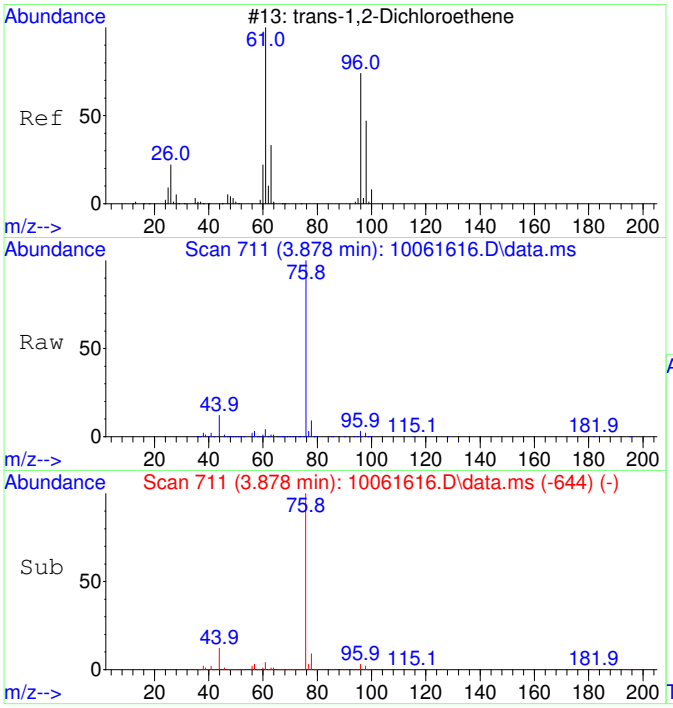


#5
trans-1,2-Dichloroethene
Concen: 2374.32 ug/L
RT: 3.873 min Scan# 713
Delta R.T. 0.032 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 61 Resp: 157716

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.5	62.5

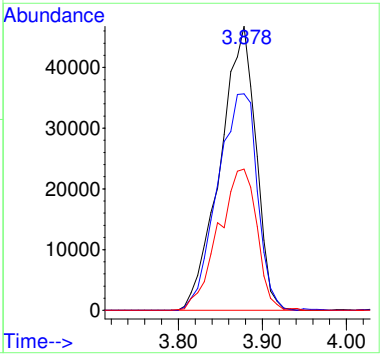


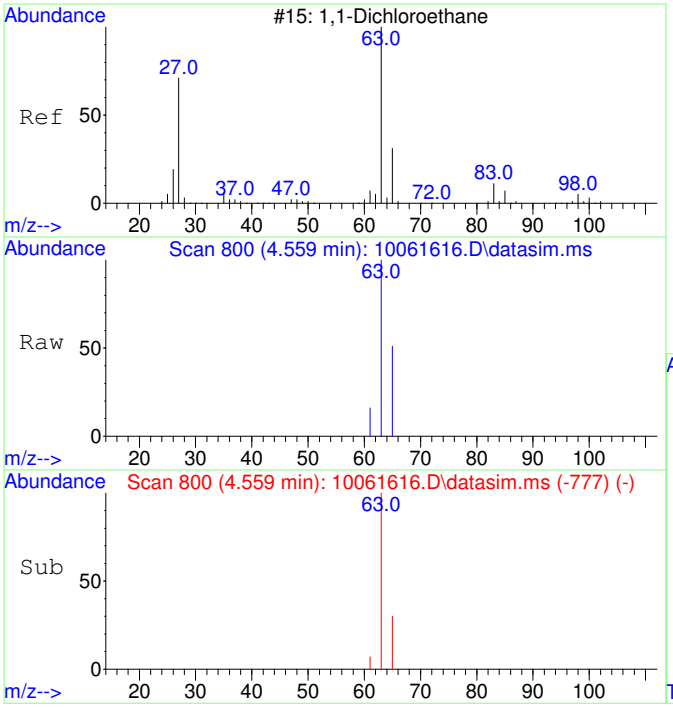


#6
trans-1,2-Dichloroethene SCAN
Concen: 2443.40 ug/L
RT: 3.878 min Scan# 711
Delta R.T. 0.032 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 61 Resp: 138315

Ion	Ratio	Lower	Upper
61	100		
96	84.8	47.5	107.5
98	53.5	17.2	77.2

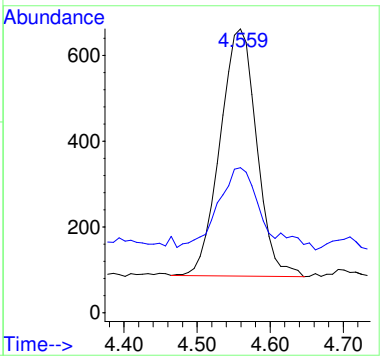


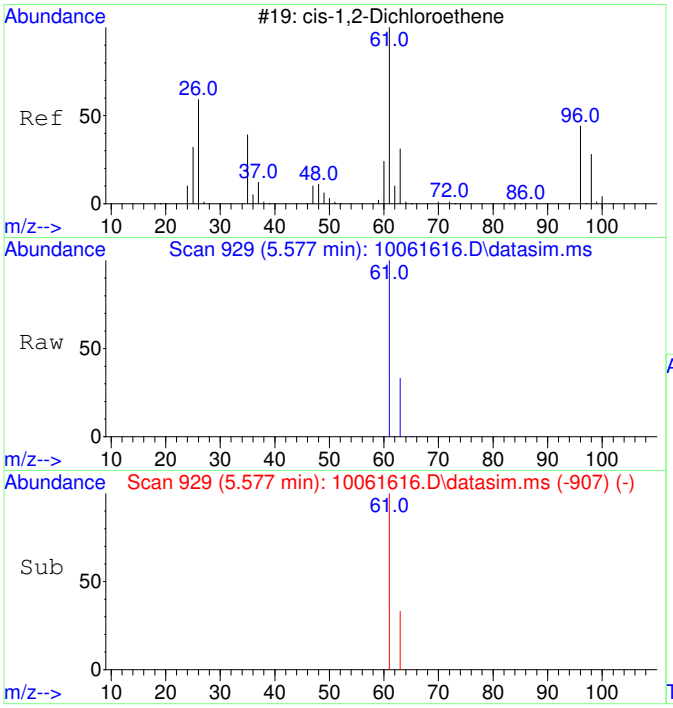


#7
1,1-Dichloroethane
Concen: 25.58 ug/L
RT: 4.559 min Scan# 800
Delta R.T. 0.032 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 63 Resp: 2005

Ion	Ratio	Lower	Upper
63	100		
65	35.5	1.8	61.8

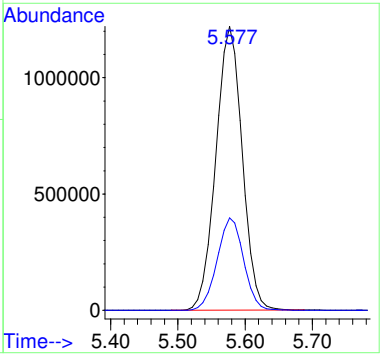


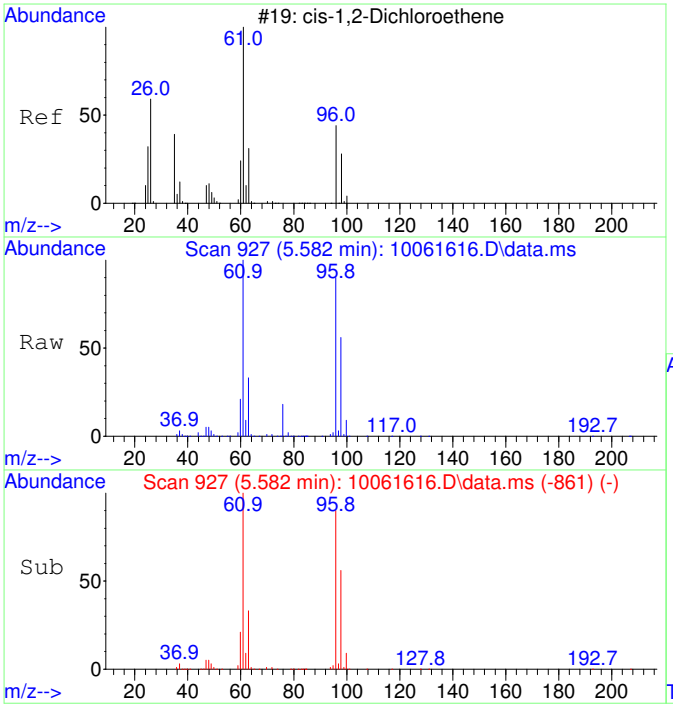


#9
cis-1,2-Dichloroethene
Concen: 47491.20 ug/L
RT: 5.577 min Scan# 929
Delta R.T. 0.024 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 61 Resp: 3318382

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.4	62.4

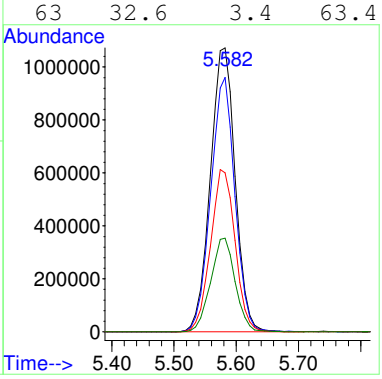


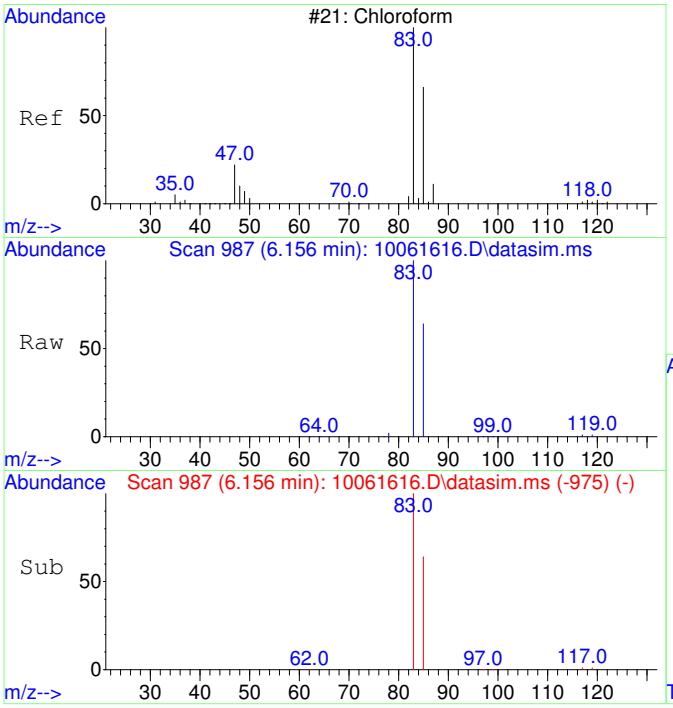


#10
cis-1,2-Dichloroethene SCAN
Concen: 47703.14 ug/L
RT: 5.582 min Scan# 927
Delta R.T. 0.024 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 61 Resp: 2971160

Ion	Ratio	Lower	Upper
61	100		
96	87.5	42.0	102.0
98	56.3	17.5	77.5
63	32.6	3.4	63.4

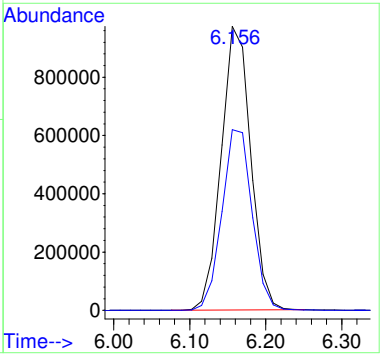


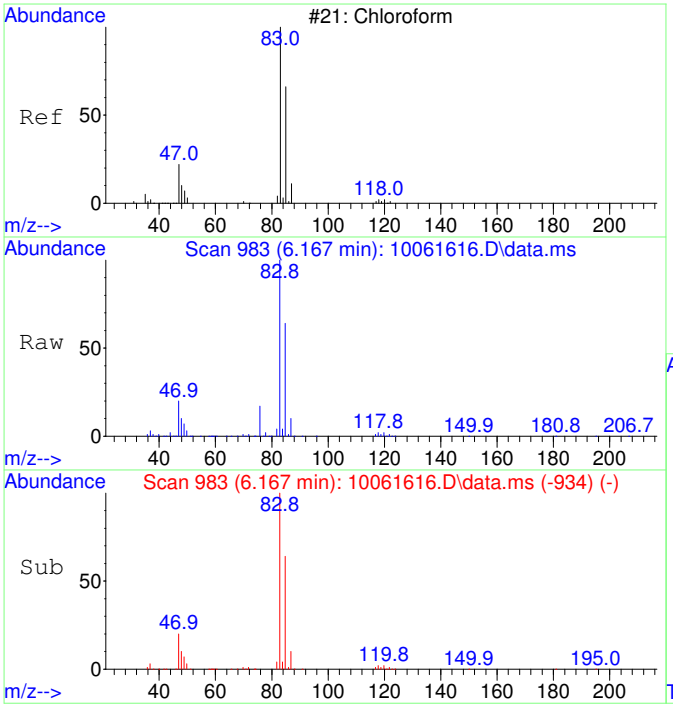


#11
Chloroform
Concen: 32773.49 ug/L
RT: 6.156 min Scan# 987
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 83 Resp: 2617129

Ion	Ratio	Lower	Upper
83	100		
85	64.9	34.4	94.4

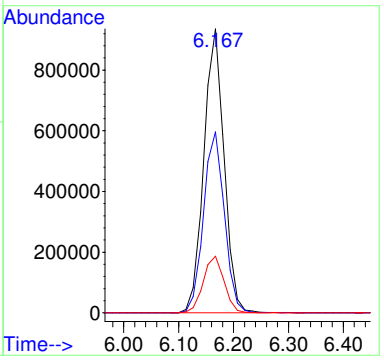


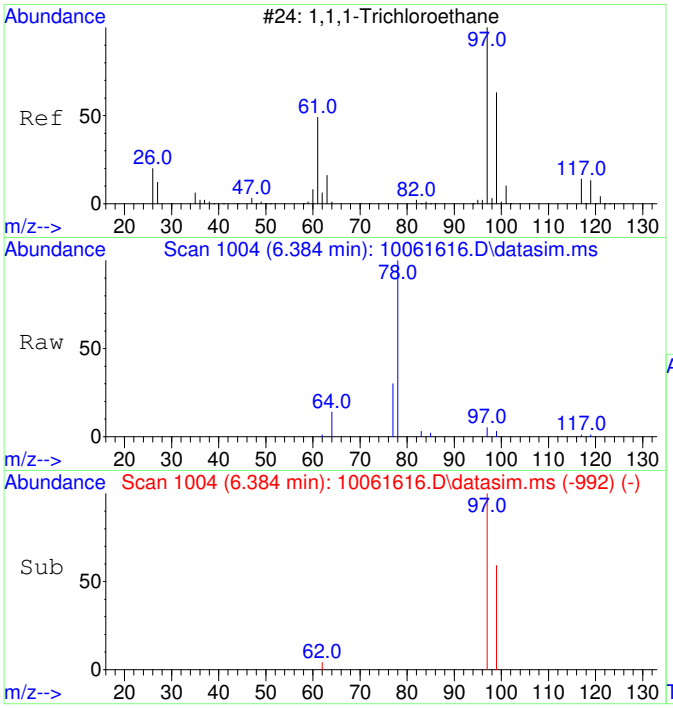


#12
Chloroform SCAN
Concen: 34865.04 ug/L
RT: 6.167 min Scan# 983
Delta R.T. 0.027 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 83 Resp: 2394939

Ion	Ratio	Lower	Upper
83	100		
85	65.6	37.6	97.6
47	20.6	0.0	53.4

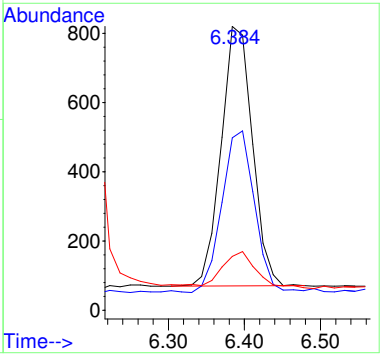


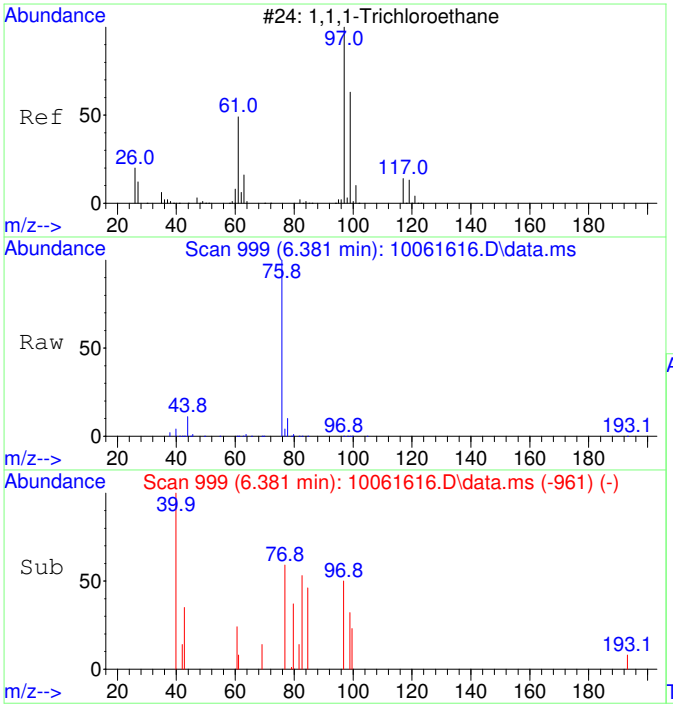


#13
1,1,1-Trichloroethane
Concen: 30.82 ug/L
RT: 6.384 min Scan# 1004
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 97 Resp: 2140

Ion	Ratio	Lower	Upper
97	100		
99	63.5	34.2	94.2
117	13.4	0.0	43.0

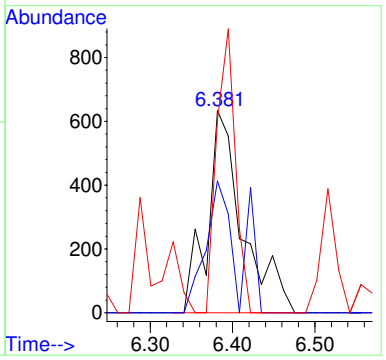


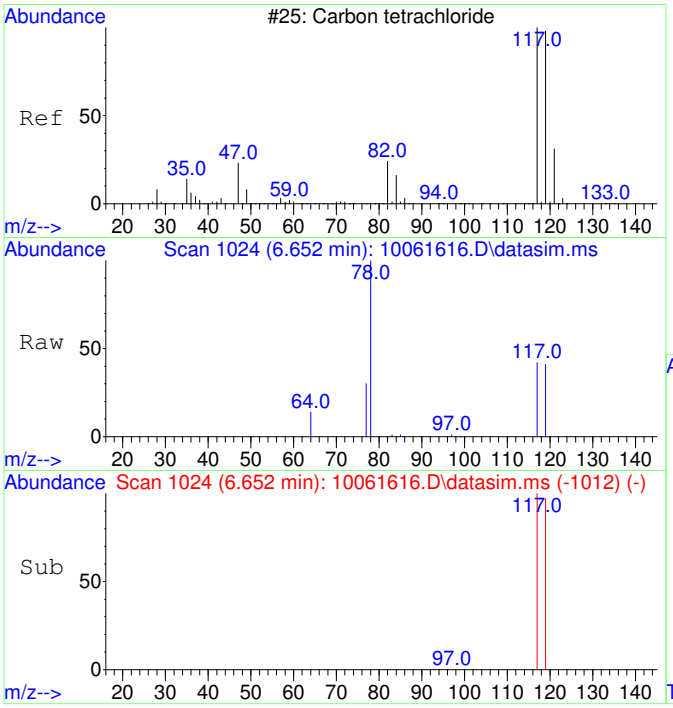


#14
1,1,1-Trichloroethane SCAN
Concen: 31.24 ug/L
RT: 6.381 min Scan# 999
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 97 Resp: 1894

Ion	Ratio	Lower	Upper
97	100		
99	43.8	33.6	93.6
61	74.6	10.7	70.7#

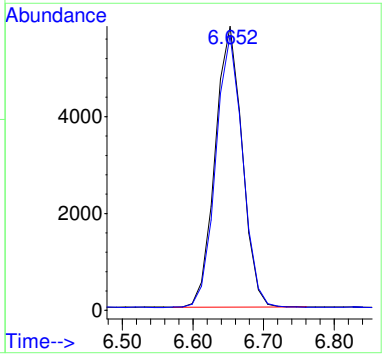


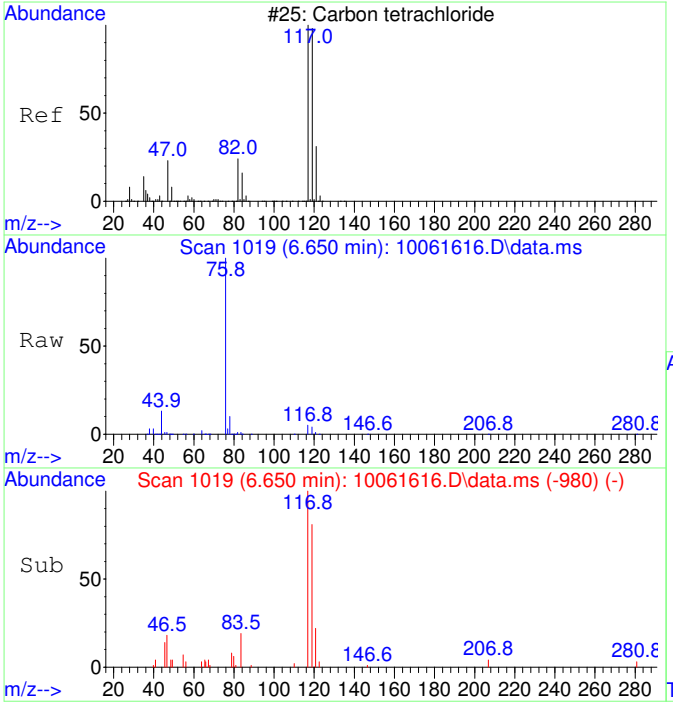


#15
Carbon tetrachloride
Concen: 257.11 ug/L
RT: 6.652 min Scan# 1024
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:117 Resp: 15466

Ion	Ratio	Lower	Upper
117	100		
119	95.0	66.1	126.1

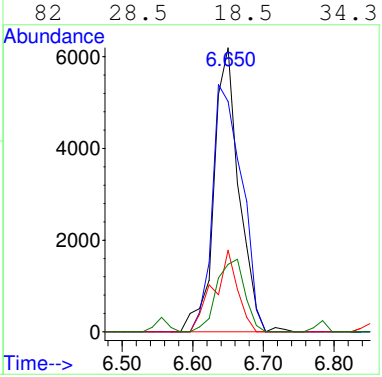


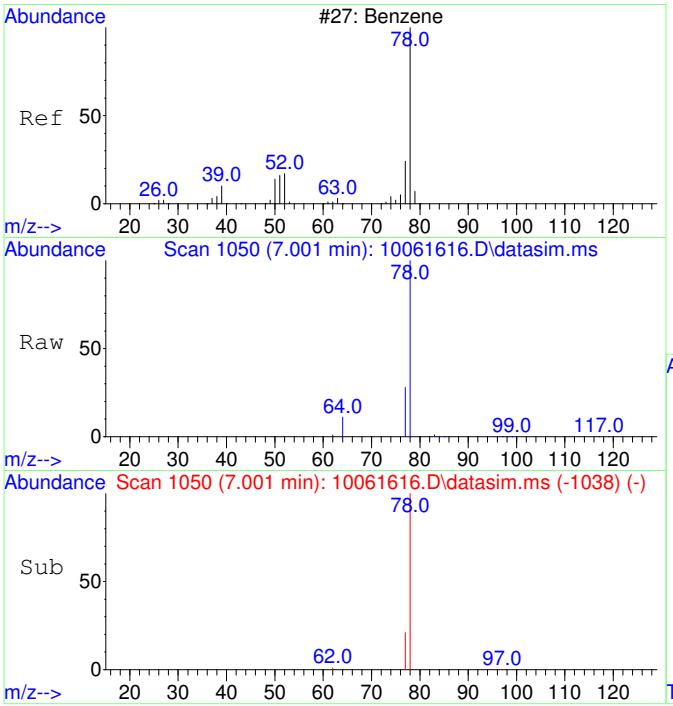


#16
Carbon tetrachloride SCAN
Concen: 291.26 ug/L
RT: 6.650 min Scan# 1019
Delta R.T. 0.027 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:117 Resp: 15429

Ion	Ratio	Lower	Upper
117	100		
119	0.0	66.0	122.6#
121	27.3	22.1	41.1
82	28.5	18.5	34.3

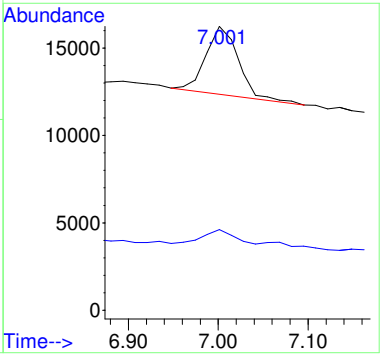


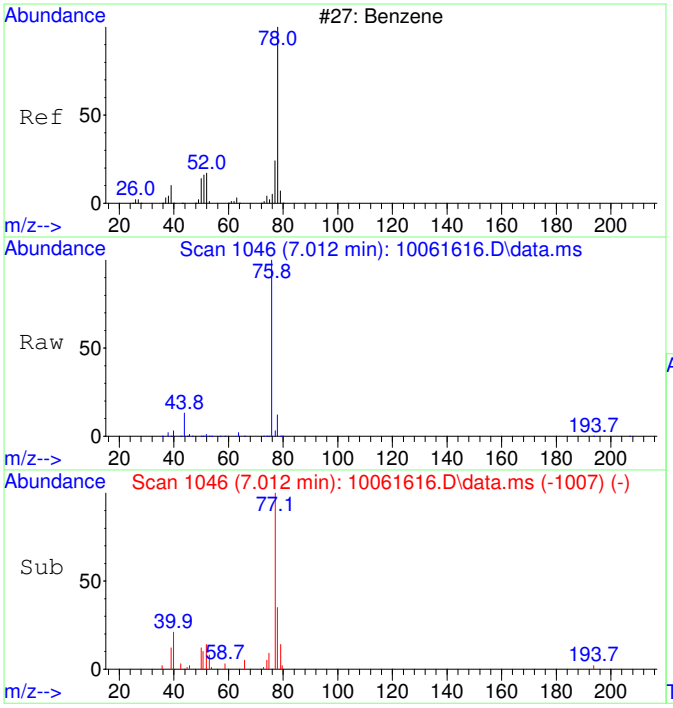


#17
Benzene
Concen: 61.06 ug/L
RT: 7.001 min Scan# 1050
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 78 Resp: 9471

Ion	Ratio	Lower	Upper
78	100		
77	26.9	0.0	53.4

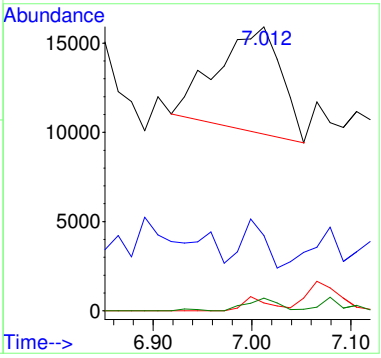


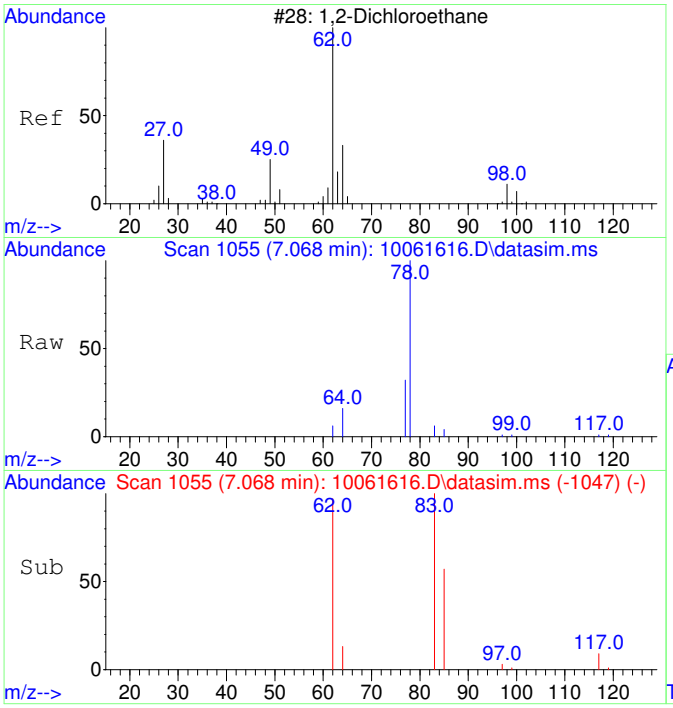


#18
Benzene SCAN
Concen: 183.22 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.027 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 78 Resp: 25539

Ion	Ratio	Lower	Upper
78	100		
77	13.5	0.0	59.3
51	4.4	0.0	49.2
52	5.5	0.0	45.5

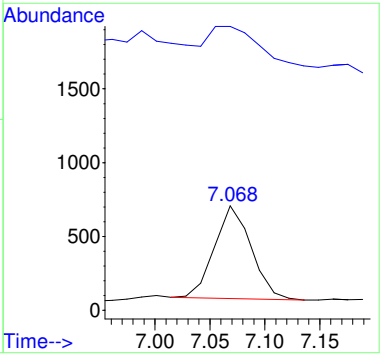


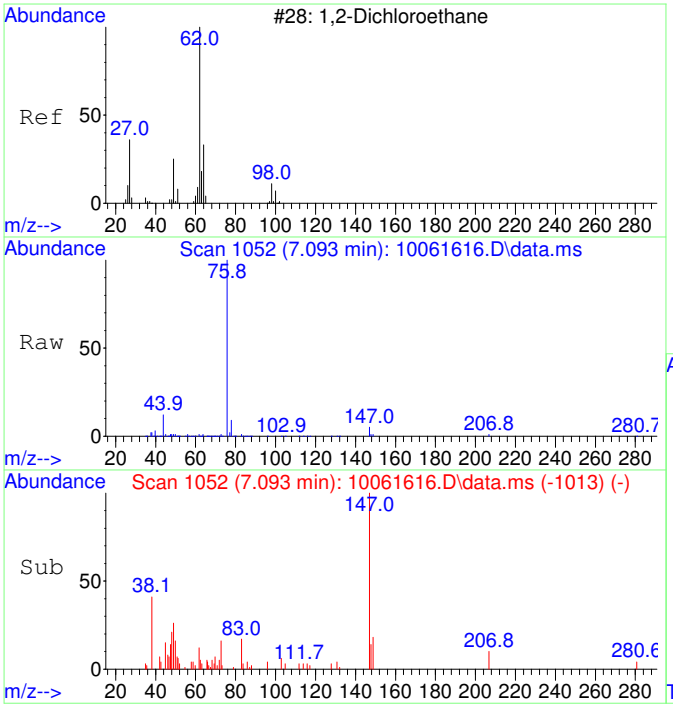


#19
1,2-Dichloroethane
Concen: 25.91 ug/L
RT: 7.068 min Scan# 1055
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 62 Resp: 1468

Ion	Ratio	Lower	Upper
62	100		
64	27.7	2.7	62.7

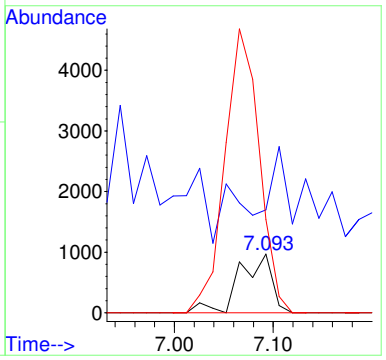


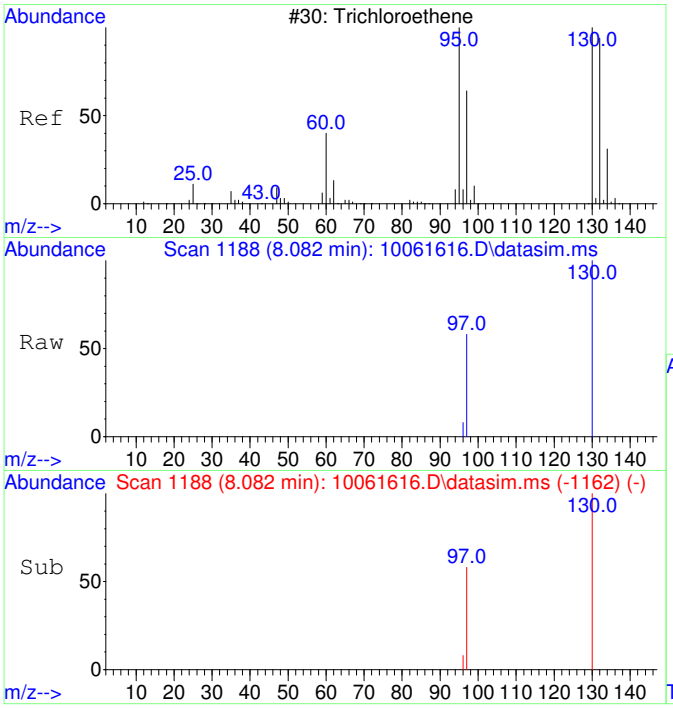


#20
1,2-Dichloroethane SCAN
Concen: 41.70 ug/L
RT: 7.093 min Scan# 1052
Delta R.T. 0.027 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 62 Resp: 2216

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	0.0	0.0	51.8

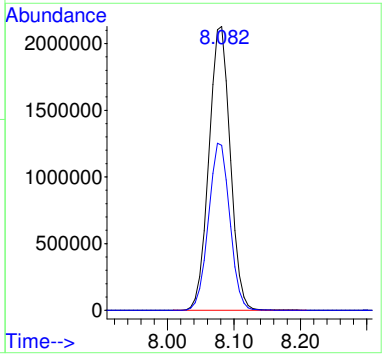


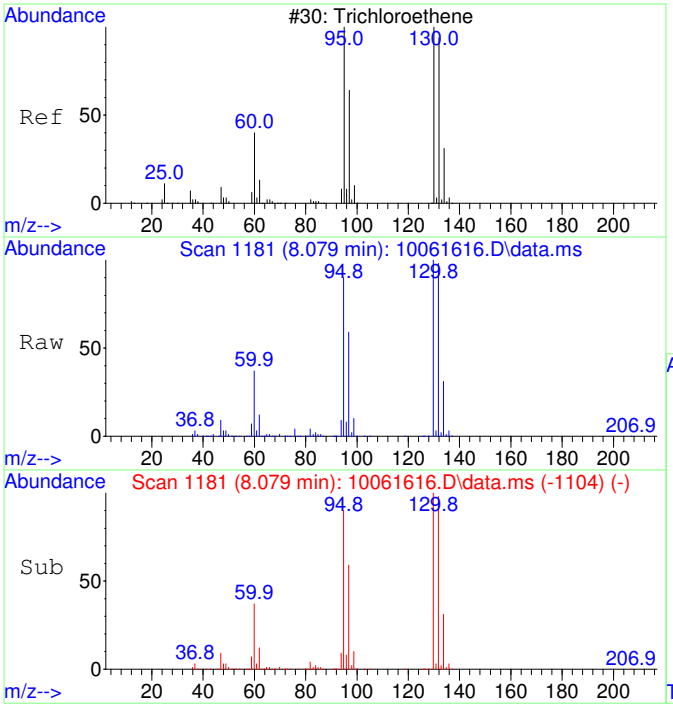


#21
Trichloroethene
Concen: 107826.12 ug/L
RT: 8.082 min Scan# 1188
Delta R.T. 0.020 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:130 Resp: 4737643

Ion	Ratio	Lower	Upper
130	100		
97	58.7	29.9	89.9

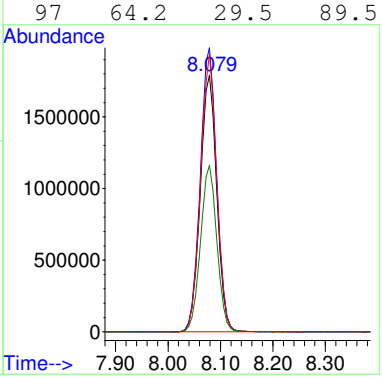


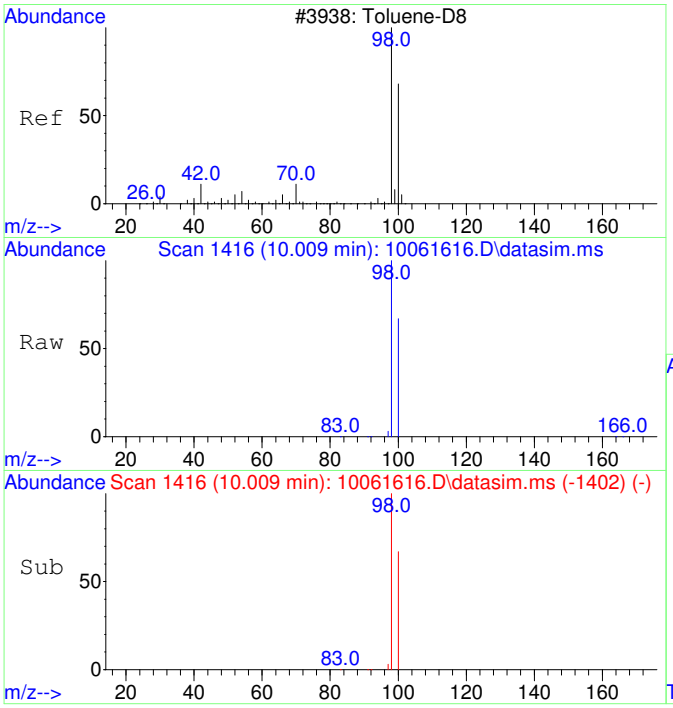


#22
Trichloroethene SCAN
Concen: 111268.68 ug/L
RT: 8.079 min Scan# 1181
Delta R.T. 0.013 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 95 Resp: 3915318

Ion	Ratio	Lower	Upper
95	100		
130	109.9	74.1	134.1
132	106.4	72.1	132.1
97	64.2	29.5	89.5

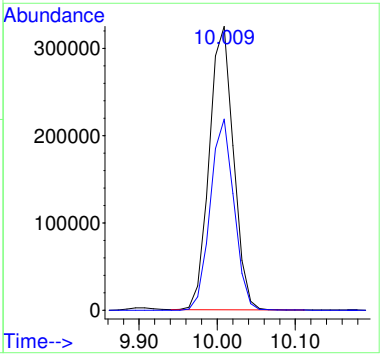


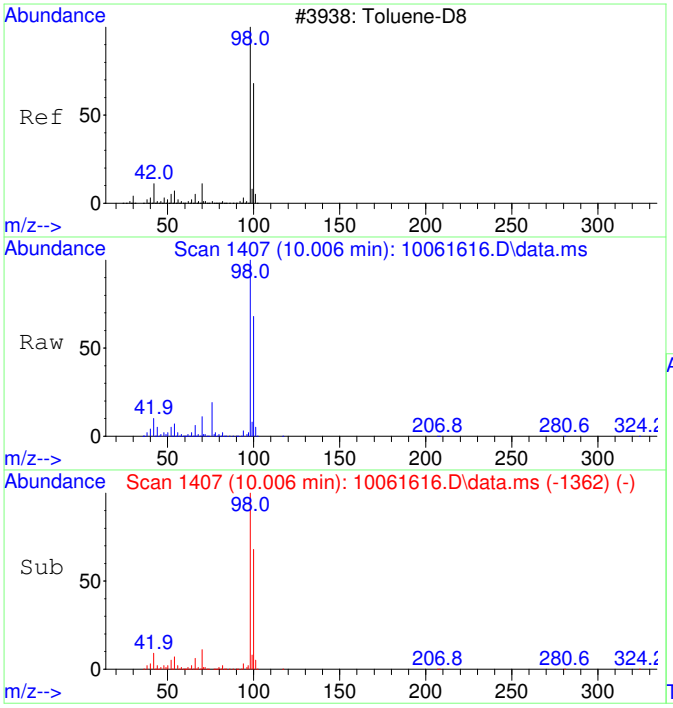


#23
Toluene-d8
Concen: 5854.17 ug/L
RT: 10.009 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 98 Resp: 699456

Ion	Ratio	Lower	Upper
98	100		
100	66.0	35.3	95.3

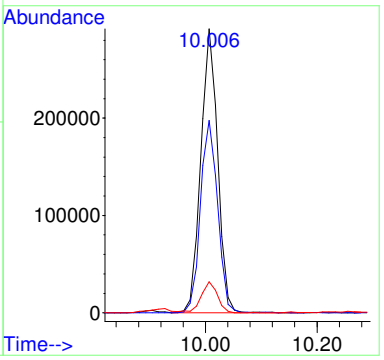


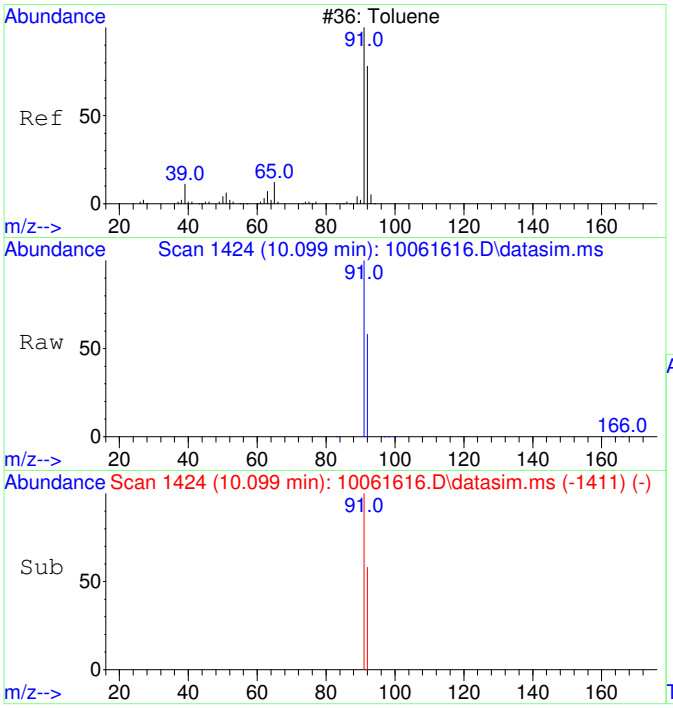


#24
Toluene-d8 SCAN
Concen: 5810.03 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 98 Resp: 610208

Ion	Ratio	Lower	Upper
98	100		
100	68.8	44.3	82.3
70	9.9	7.8	14.4

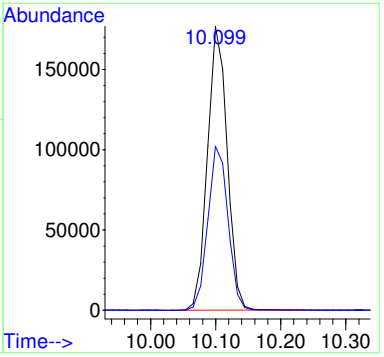


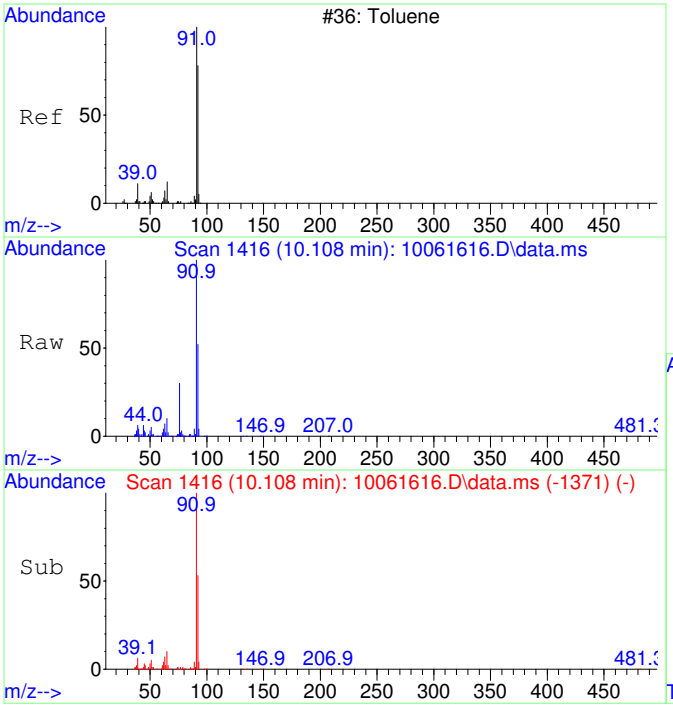


#25
Toluene
Concen: 2527.95 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. 0.000 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 371555

Ion	Ratio	Lower	Upper
91	100		
92	58.5	28.8	88.8

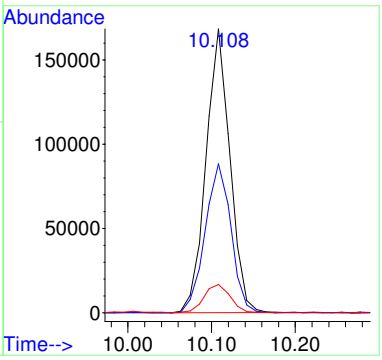


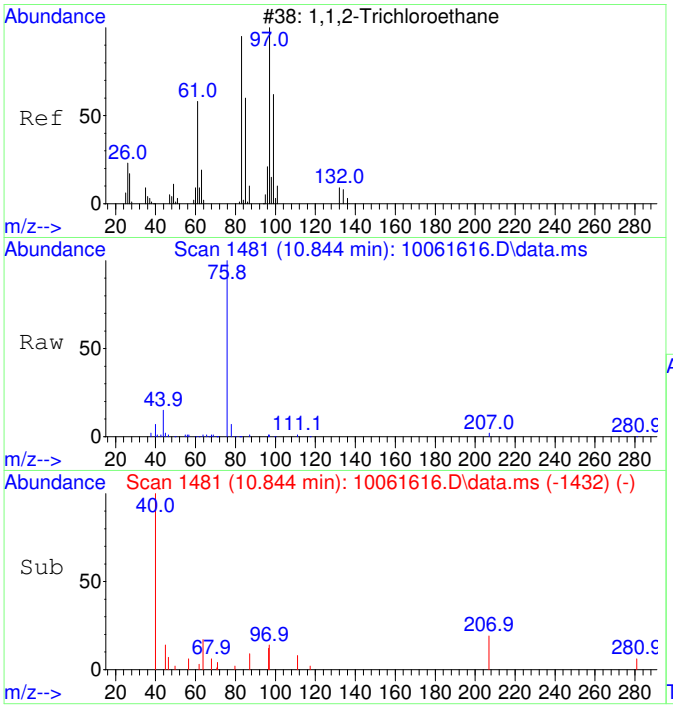


#26
Toluene SCAN
Concen: 2790.67 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 335227

Ion	Ratio	Lower	Upper
91	100		
92	56.9	30.7	90.7
65	11.1	0.0	42.6

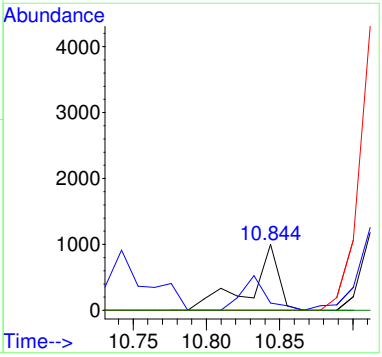


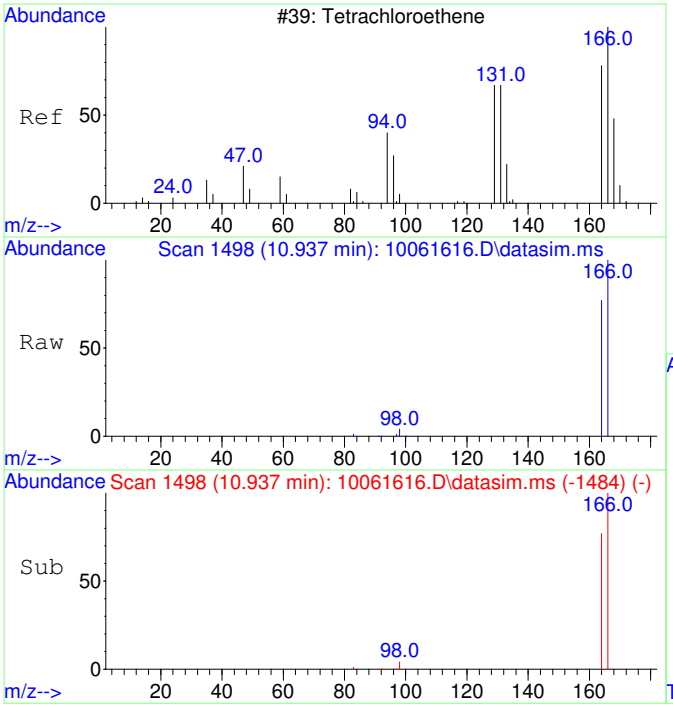


#28
1,1,2-Trichloroethane SCAN
Concen: 47.55 ug/L
RT: 10.844 min Scan# 1481
Delta R.T. 0.057 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 97 Resp: 1347

Ion	Ratio	Lower	Upper
97	100		
83	45.6	53.8	113.8#
61	0.0	31.3	91.3#
99	0.0	32.9	92.9#

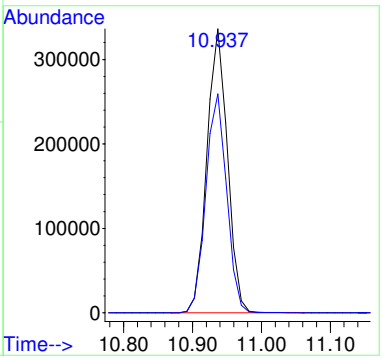


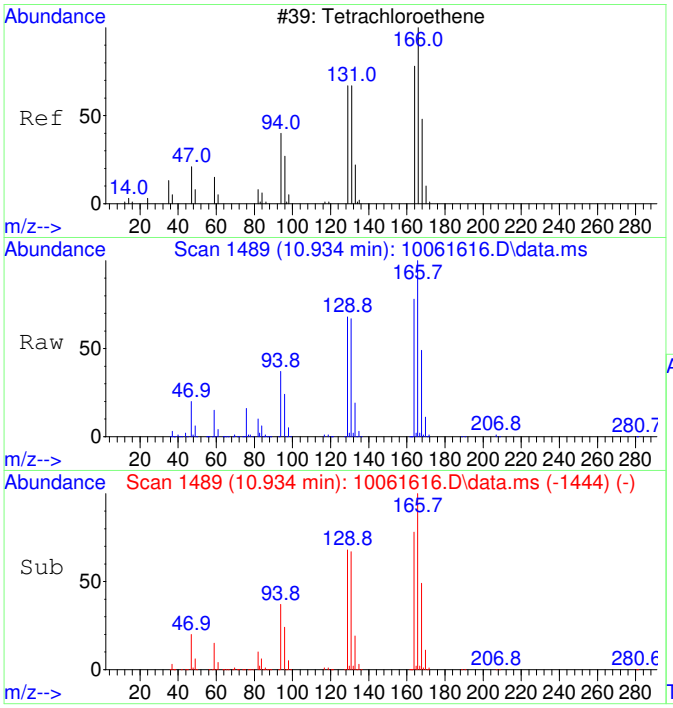


#29
Tetrachloroethene
Concen: 16373.71 ug/L
RT: 10.937 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:166 Resp: 693756

Ion	Ratio	Lower	Upper
166	100		
164	77.8	47.7	107.7

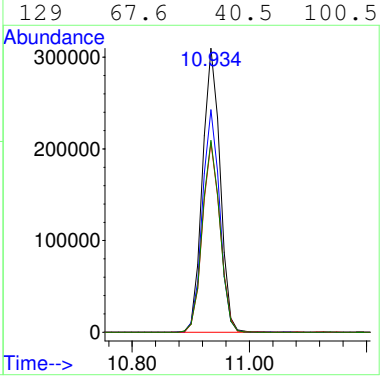


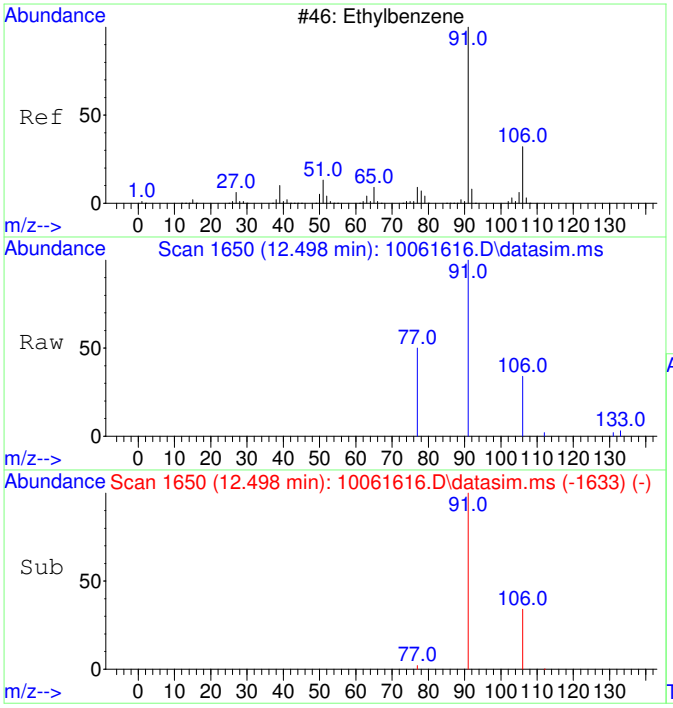


#30
Tetrachloroethene SCAN
Concen: 18991.18 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. 0.011 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:166 Resp: 646001

Ion	Ratio	Lower	Upper
166	100		
164	77.0	44.9	104.9
131	67.0	36.1	96.1
129	67.6	40.5	100.5

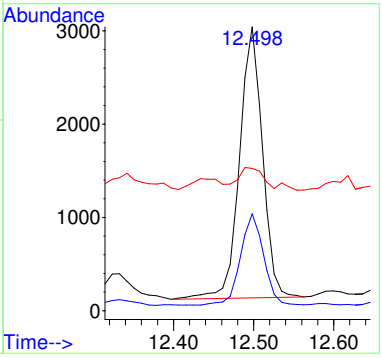


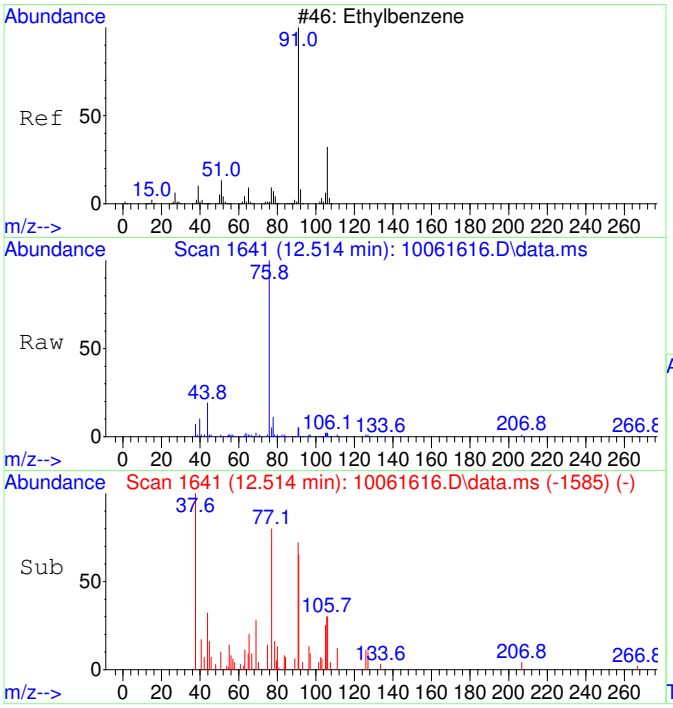


#35
Ethylbenzene
Concen: 37.07 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 5798

Ion	Ratio	Lower	Upper
91	100		
106	31.8	1.7	61.7
77	6.5	0.0	38.3

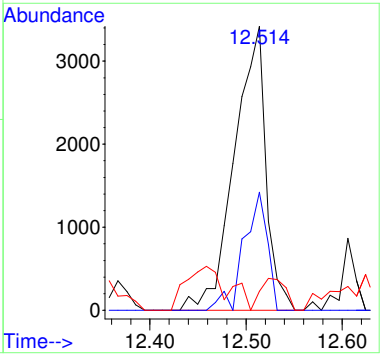


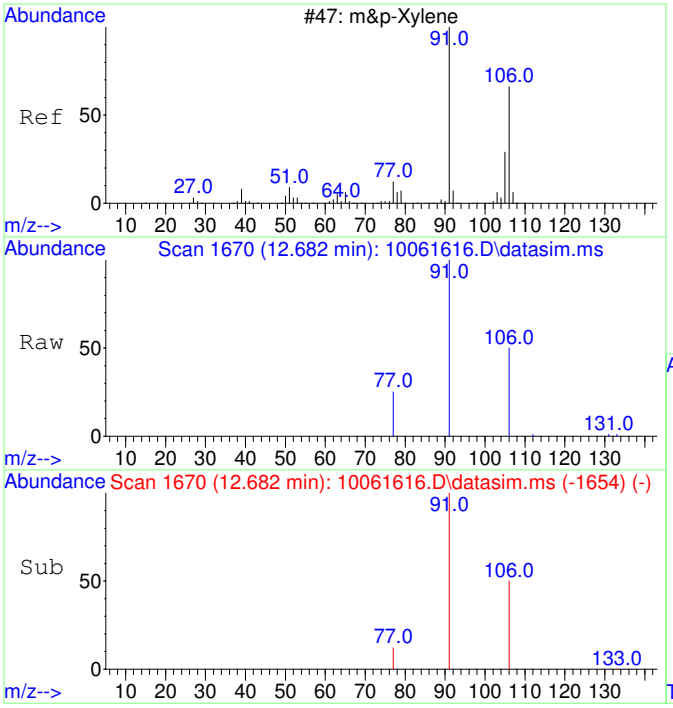


#36
Ethylbenzene SCAN
Concen: 61.13 ug/L
RT: 12.514 min Scan# 1641
Delta R.T. 0.018 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 7788

Ion	Ratio	Lower	Upper
91	100		
106	30.8	2.3	62.3
51	8.9	0.0	39.6

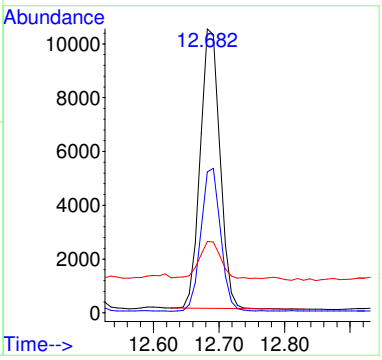


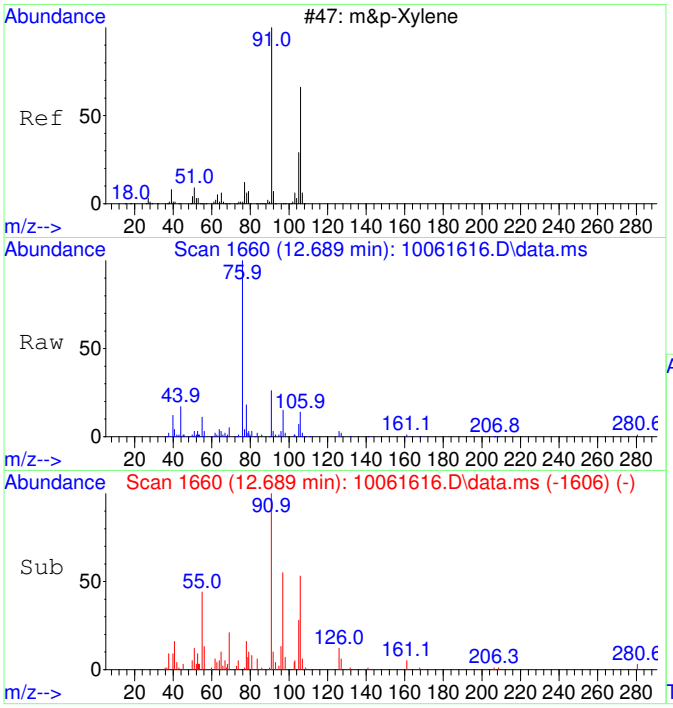


#37
m&p-Xylene
Concen: 177.61 ug/L
RT: 12.682 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 21767

Ion	Ratio	Lower	Upper
91	100		
106	50.9	19.4	79.4
77	14.6	0.0	42.6

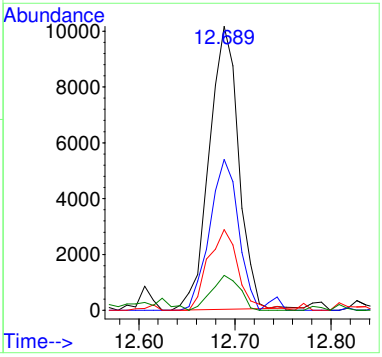


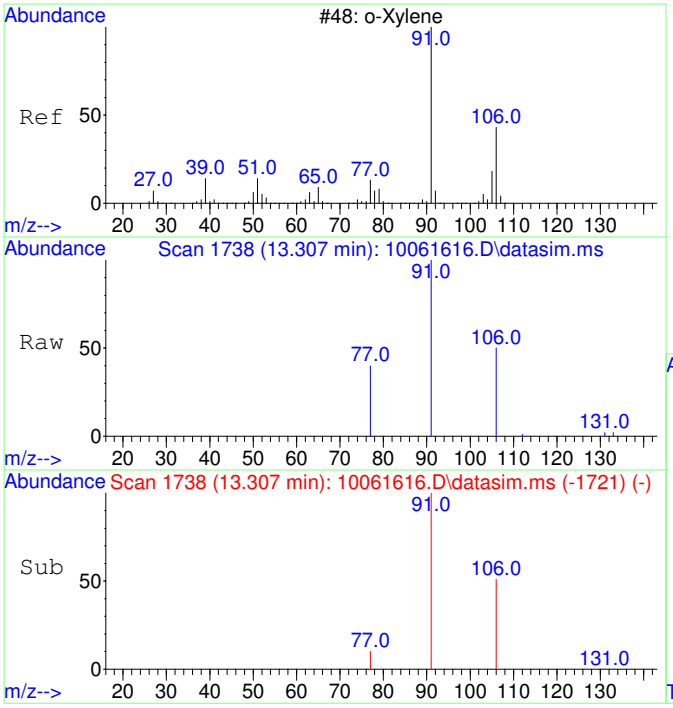


#38
m&p-Xylene SCAN
Concen: 214.51 ug/L
RT: 12.689 min Scan# 1660
Delta R.T. 0.000 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 21604

Ion	Ratio	Lower	Upper
91	100		
106	54.2	18.0	78.0
105	29.3	0.0	53.1
51	11.8	0.0	39.4

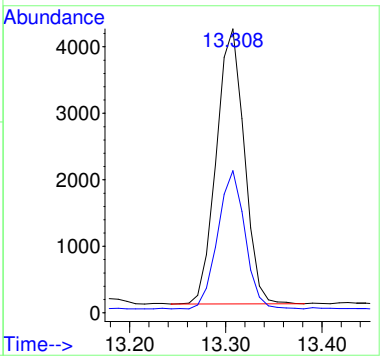


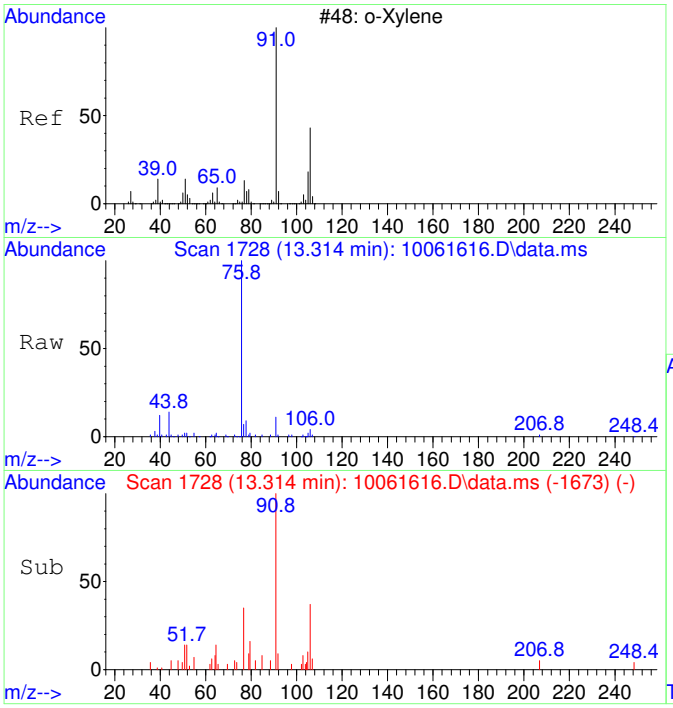


#39
o-Xylene
Concen: 66.08 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 8350

Ion	Ratio	Lower	Upper
91	100		
106	49.0	17.2	77.2

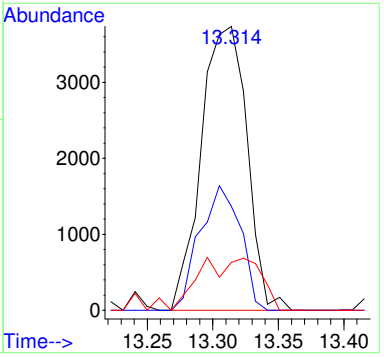


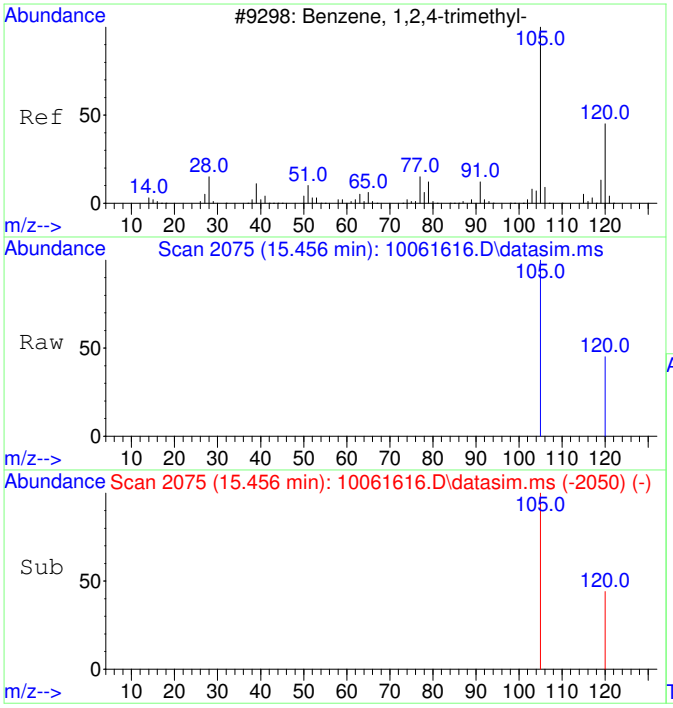


#40
o-Xylene SCAN
Concen: 86.33 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion: 91 Resp: 9096

Ion	Ratio	Lower	Upper
91	100		
106	39.0	18.0	78.0
105	24.2	0.0	56.8

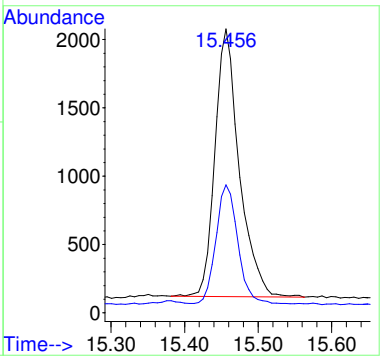


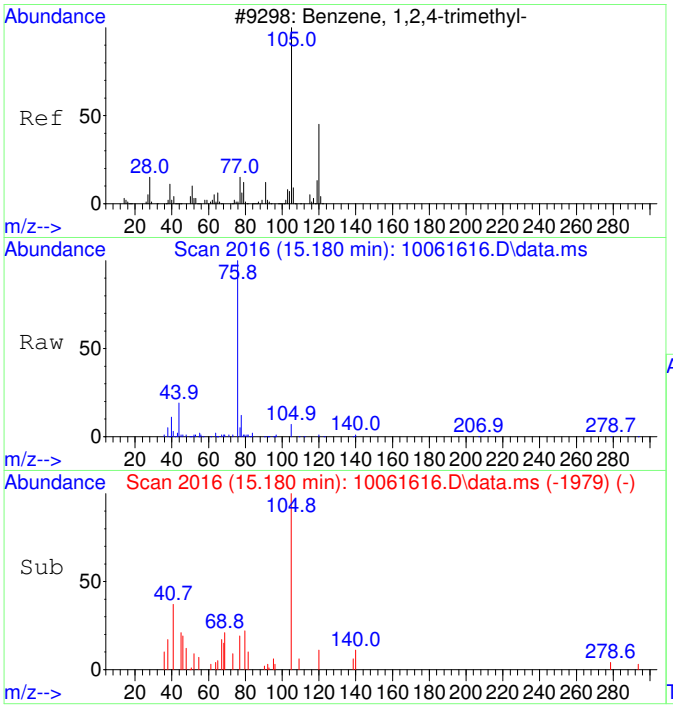


#45
1,2,4-Trimethylbenzene
Concen: 33.60 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:105 Resp: 4491

Ion	Ratio	Lower	Upper
105	100		
120	40.3	15.7	75.7

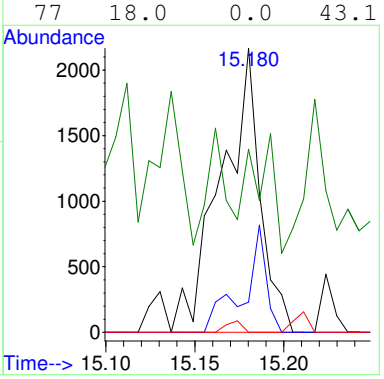




#46
1,2,4-Trimethylbenzene SCAN
Concen: 30.64 ug/L
RT: 15.180 min Scan# 2016
Delta R.T. -0.267 min
Lab File: 10061616.D
Acq: 6 Oct 2016 17:41

Tgt Ion:105 Resp: 3309

Ion	Ratio	Lower	Upper
105	100		
120	21.9	17.2	77.2
119	1.6	0.0	41.3
77	18.0	0.0	43.1



S16J024-IBL2

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061617.D
Acq On : 6 Oct 2016 18:05
InstName : AG5975C
Operator : RH
Sample : S16J024-IBL2
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 06 18:24:10 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration

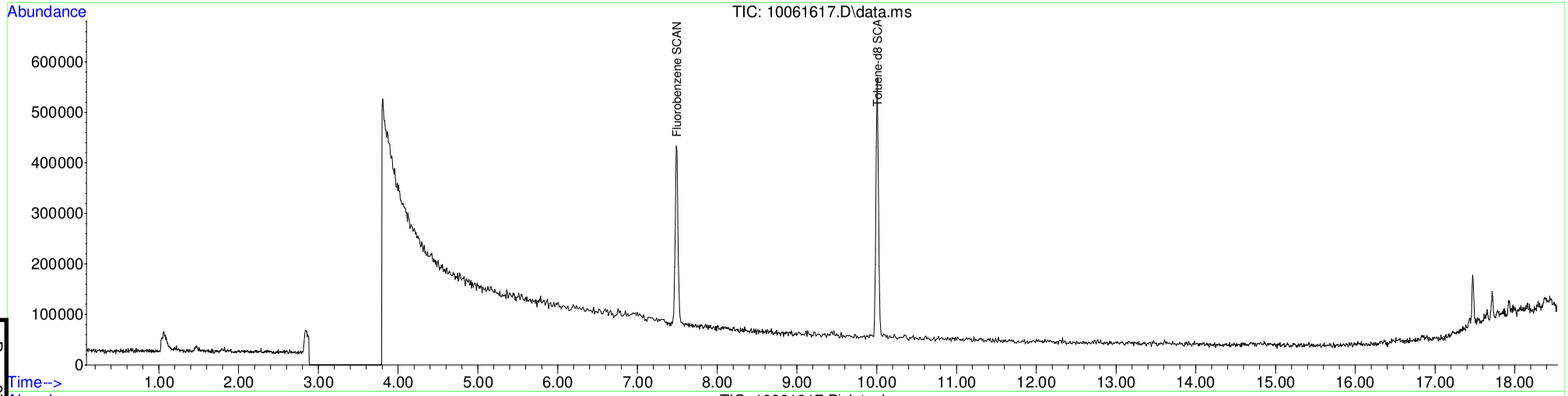
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.489	96	461051	5000.00	ug/L	0.01
System Monitoring Compounds						
23) Toluene-d8	10.009	98	475389	5806.27	ug/L	0.01
Spiked Amount 5000.000	Range 70 - 130		Recovery = 116.13%			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.494	96	412836	5041.29	ug/L	98
17] Benzene	7.001	78	4308	40.53	ug/L	98
24) Toluene-d8 SCAN	10.006	98	420198	5838.46	ug/L	98

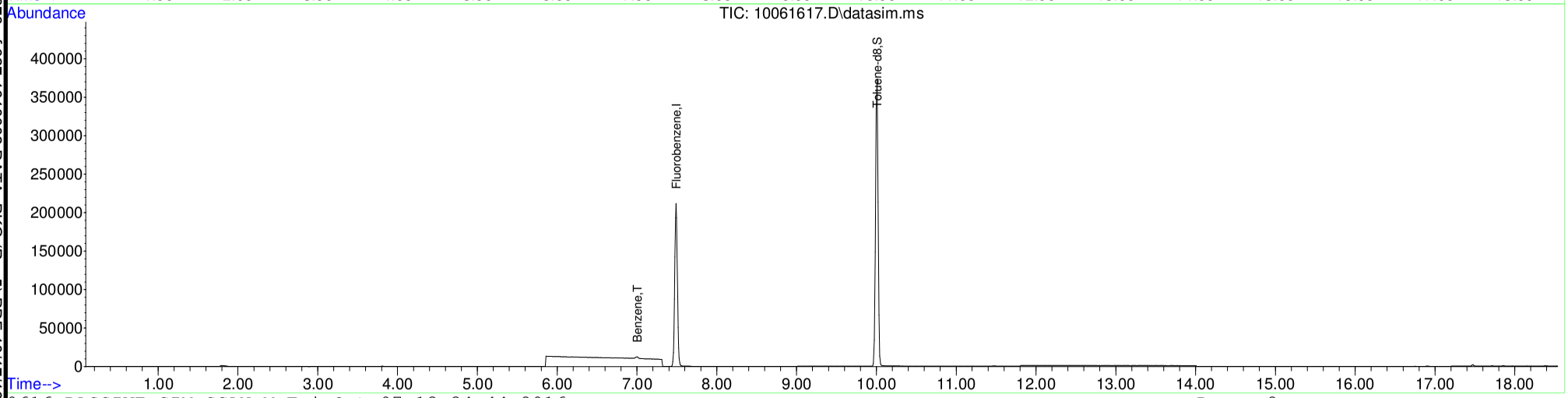
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\100616\
Data File : 10061617.D
Acq On : 6 Oct 2016 18:05
InstName : AG5975C
Operator : RH
Sample : S16J024-IBL2
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 06 18:24:10 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\100616_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Fri Sep 30 09:11:34 2016
Response via : Initial Calibration





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Calibration

1610006

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2016\
Method File : 101016_PASSIVE_SIM_SCAN.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Tue Oct 11 10:17:32 2016
Response Via : Initial Calibration

Calibration Files
25 =10101603.D 10 =10101604.D 5 =10101605.D 1 =10101606.D .15 =10101607.D .05 =10101608.D

		Compound	25	10	5	1	.15	.05	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------							
2)		Fluorobenzene ...			0.779				0.779	0.00
3)	T	1,1-Dichloroet...	0.596	0.695	0.517	0.579	0.712	0.503	0.600	14.64
4)		1,1-Dichloroet...			0.426				0.426	0.00
5)	T	trans-1,2-Dich...	0.479	0.567	0.460	0.496	0.607	0.480	0.515	11.40
6)		trans-1,2-Dich...			0.347				0.347	0.00
7)	T	1,1-Dichloroet...	0.641	0.737	0.594	0.637	0.750	0.594	0.659	10.43
8)		1,1-Dichloroet...			0.473				0.473	0.00
9)	T	cis-1,2-Dichlo...	0.598	0.690	0.570	0.599	0.699	0.541	0.616	10.44
10)		cis-1,2-Dichlo...			0.466				0.466	0.00
11)	T	Chloroform	0.574	0.656	0.563	0.577	0.659	0.604	0.605	6.98
12)		Chloroform SCAN			0.431				0.431	0.00
13)	T	1,1,1-Trichlor...	0.528	0.595	0.547	0.520	0.575	0.570	0.556	5.27
14)		1,1,1-Trichlor...			0.440				0.440	0.00
15)	T	Carbon tetrach...	0.457	0.511	0.484	0.442	0.471	0.514	0.480	6.04
16)		Carbon tetrach...			0.054				0.054	0.00
17)	T	Benzene	1.113	1.252	1.187	1.145	1.318		1.203	6.86
18)		Benzene SCAN			0.956				0.956	0.00
19)	T	1,2-Dichloroet...	0.521	0.591	0.523	0.518	0.565	0.525	0.541	5.57
)		1,2-Dichloroet...			0.461				0.461	0.00
)	T	Trichloroethene	0.297	0.337	0.328	0.297	0.319	0.355	0.322	7.07
)		Trichloroethen...			0.250				0.250	0.00
)	S	Toluene-d8	0.881	1.003	1.037	0.869	0.894	1.139	0.971	11.10
)		Toluene-d8 SCAN			0.830				0.830	0.00
)	T	Toluene	1.100	1.245	1.297	1.078	1.111	1.491	1.221	13.04
)		Toluene SCAN			1.042				1.042	0.00
)	T	1,1,2-Trichlor...	0.258	0.293	0.299	0.252	0.265	0.343	0.285	12.07
)		1,1,2-Trichlor...			0.240				0.240	0.00
)	T	Tetrachloroethene	0.293	0.334	0.357	0.292	0.305	0.437	0.336	16.49
)		Tetrachloroeth...			0.235				0.235	0.00
)	T	Chlorobenzene	0.705	0.809	0.866	0.693	0.692	1.044	0.801	17.30
)		Chlorobenzene ...			0.668				0.668	0.00
)	T	1,1,1,2-Tetrac...	0.249	0.283	0.298	0.234	0.237	0.340	0.273	15.22
)		1,1,1,2-Tetrac...			0.232				0.232	0.00
)	T	Ethylbenzene	1.224	1.390	1.502	1.166	1.162	1.676	1.353	15.37
)		Ethylbenzene SCAN			1.185				1.185	0.00
)	T	m&p-Xylene	0.974	1.099	1.187	0.909	0.903	1.328	1.066	15.93
)		m&p-Xylene SCAN			0.911				0.911	0.00
)	T	o-Xylene	0.993	1.128	1.221	0.937	0.919	1.391	1.098	16.84
)		o-Xylene SCAN			0.985				0.985	0.00
)	T	1,1,2,2-Tetrac...	0.438	0.502	0.539	0.413	0.409	0.611	0.485	16.51
)		1,1,2,2-Tetrac...			0.415				0.415	0.00

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2016\
Method File : 101016_PASSIVE_SIM_SCAN.M

43)	T	1,3,5-Trimethy...	1.007	1.137	1.228	0.888	0.879	1.298	1.073	16.40
44)		1,3,5-Trimethy...			0.925				0.925	0.00
45)	T	1,2,4-Trimethy...	1.043	1.174	1.263	0.903	0.878	1.333	1.099	17.12
46)		1,2,4-Trimethy...			0.949				0.949	0.00
47)	T	Naphthalene	1.549	1.752	1.778	1.304	1.275	1.940	1.599	16.93
48)		Naphthalene SCAN			1.290				1.290	0.00

(#) = Out of Range

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Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2016\
Method File : 101016_PASSIVE_SIM_SCAN.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Tue Oct 11 10:17:32 2016
Response Via : Initial Calibration

Total Cpnds : 48

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Fluorobenzene	-96	7.482	1.000	A	1	A	B
2		Fluorobenzene SCAN	96	7.493	1.001	A	2	A	B
3	T	1,1-Dichloroethene	-61	2.723	0.364	A	1	A	B
4		1,1-Dichloroethene SCAN	61	2.715	0.363	A	3	A	B
5	T	trans-1,2-Dichloroethene	-61	3.841	0.513	A	1	A	B
6		trans-1,2-Dichloroethene SCAN	61	3.854	0.515	A	2	A	B
7	T	1,1-Dichloroethane	-63	4.535	0.606	A	1	A	B
8		1,1-Dichloroethane SCAN	63	4.532	0.606	A	2	A	B
9	T	cis-1,2-Dichloroethene	-61	5.561	0.743	A	1	A	B
10		cis-1,2-Dichloroethene SCAN	61	5.566	0.744	A	3	A	B
11	T	Chloroform	-83	6.155	0.823	A	1	A	B
12		Chloroform SCAN	83	6.153	0.822	A	2	A	B
13	T	1,1,1-Trichloroethane	-97	6.384	0.853	A	2	A	B
14		1,1,1-Trichloroethane SCAN	97	6.381	0.853	A	2	A	B
15	T	Carbon tetrachloride	-117	6.638	0.887	A	1	A	B
16		Carbon tetrachloride SCAN	117	6.381	0.853	A	3	A	B
17	T	Benzene	-78	6.987	0.934	A	1	A	B
18		Benzene SCAN	78	6.998	0.935	A	3	A	B
19	T	1,2-Dichloroethane	-62	7.068	0.945	A	1	A	B
20		1,2-Dichloroethane SCAN	62	7.065	0.944	A	2	A	B
21	T	Trichloroethene	-130	8.068	1.078	A	1	A	B
22		Trichloroethene SCAN	95	8.072	1.079	A	3	A	B
23	S	Toluene-d8	-98	9.997	1.336	A	1	A	B
24		Toluene-d8 SCAN	98	10.006	1.337	A	2	A	B
25	T	Toluene	-91	10.099	1.350	A	1	A	B
26		Toluene SCAN	91	10.108	1.351	A	2	A	B
27	T	1,1,2-Trichloroethane	-97	10.789	1.442	A	1	A	B
28		1,1,2-Trichloroethane SCAN	97	10.787	1.442	A	3	A	B
29	T	Tetrachloroethene	-166	10.936	1.462	A	1	A	B
30		Tetrachloroethene SCAN	166	10.934	1.461	A	3	A	B
31	T	Chlorobenzene	-112	12.286	1.642	A	1	A	B
32		Chlorobenzene SCAN	112	12.293	1.643	A	3	A	B
33	T	1,1,1,2-Tetrachloroethane	-131	12.452	1.664	A	1	A	B
34		1,1,1,2-Tetrachloroethane SCAN	131	12.449	1.664	A	3	A	B
35	T	Ethylbenzene	-91	12.498	1.670	A	2	A	B
36		Ethylbenzene SCAN	91	12.495	1.670	A	2	A	B
37	T	m&p-Xylene	-91	12.691	1.696	A	2	A	B
38		m&p-Xylene SCAN	91	12.688	1.696	A	3	A	B
39	T	o-Xylene	-91	13.307	1.779	A	1	A	B
40		o-Xylene SCAN	91	13.305	1.778	A	2	A	B
41	T	1,1,2,2-Tetrachloroethane	-83	14.442	1.930	A	1	A	B
42		1,1,2,2-Tetrachloroethane SCAN	83	14.439	1.930	A	2	A	B
43	T	1,3,5-Trimethylbenzene	-105	14.871	1.988	A	1	A	B
44		1,3,5-Trimethylbenzene SCAN	105	14.869	1.987	A	2	A	B
45	T	1,2,4-Trimethylbenzene	-105	15.456	2.066	A	1	A	B
46		1,2,4-Trimethylbenzene SCAN	105	15.453	2.065	A	3	A	B
47	T	Naphthalene	-128	17.666	2.361	A	1	A	B
48		Naphthalene SCAN	128	17.668	2.361	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

101016_PASSIVE_SIM_SCAN.M Tue Oct 11 10:29:41 2016

CHEMSTATION CONCENTRATION REPORT

AG5975C
S16J050-SCV1
1635078 5 mg/L
10/10/2016
Tue Oct 11 10:17:32 2016
RH

#	Name	L1	L2	L3	L4	L5	L6
1)	Fluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00
2)	Fluorobenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
3)	1,1-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
4)	1,1-Dichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
5)	trans-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
6)	trans-1,2-Dichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
7)	1,1-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
8)	1,1-Dichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
9)	cis-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
10)	cis-1,2-Dichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
11)	Chloroform	25000.00	10000.00	5000.00	1000.00	150.00	50.00
12)	Chloroform SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
13)	1,1,1-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
14)	1,1,1-Trichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
15)	Carbon tetrachloride	25000.00	10000.00	5000.00	1000.00	150.00	50.00
16)	Carbon tetrachloride SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
17)	Benzene	25000.00	10000.00	5000.00	1000.00	150.00	1.00
18)	Benzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
19)	1,2-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
20)	1,2-Dichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
21)	Trichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
22)	Trichloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
23)	Toluene-d8	25000.00	10000.00	5000.00	1000.00	150.00	50.00
24)	Toluene-d8 SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
25)	Toluene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
26)	Toluene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
27)	1,1,2-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00

28)	1,1,2-Trichloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
29)	Tetrachloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
30)	Tetrachloroethene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
31)	Chlorobenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
32)	Chlorobenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
33)	1,1,1,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
34)	1,1,1,2-Tetrachloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
35)	Ethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
36)	Ethylbenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
37)	m&p-Xylene	50000.00	20000.00	10000.00	2000.00	300.00	100.00
38)	m&p-Xylene SCAN	1.00	1.00	10000.00	1.00	1.00	1.00
39)	o-Xylene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
40)	o-Xylene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
41)	1,1,2,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
42)	1,1,2,2-Tetrachloroethane SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
43)	1,3,5-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
44)	1,3,5-Trimethylbenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
45)	1,2,4-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
46)	1,2,4-Trimethylbenzene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00
47)	Naphthalene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
48)	Naphthalene SCAN	1.00	1.00	5000.00	1.00	1.00	1.00

CHEMSTATION AREA COUNT REPORT

AG5975C
S16J050-SCV1
1635078 5 mg/L
10/10/2016
Tue Oct 11 10:17:32 2016
RH

#	Name	L1	L2	L3	L4	L5	L6
1)	Fluorobenzene	649597	615258	778378	750776	625550	709578
2)	Fluorobenzene SCAN	496802	480393	606556	585679	479794	551132
3)	1,1-Dichloroethene	1934322	855408	402056	86913	13365	3566
4)	1,1-Dichloroethene SCAN	1521996	673467	331619	74400	3183	1869
5)	trans-1,2-Dichloroethene	1554552	697971	357797	74459	11397	3407
6)	trans-1,2-Dichloroethene SCAN	1191428	520486	270076	66806	10007	5140
7)	1,1-Dichloroethane	2080903	906675	462242	95624	14067	4214
8)	1,1-Dichloroethane SCAN	1601220	705079	367978	86750	15507	4418
9)	cis-1,2-Dichloroethene	1940996	849445	444018	89971	13114	3839
10)	cis-1,2-Dichloroethene SCAN	1527553	679303	362623	81486	6518	4098
11)	Chloroform	1865100	806821	438559	86570	12360	4283
12)	Chloroform SCAN	1501786	646463	335167	70900	598	3560
13)	1,1,1-Trichloroethane	1715304	732521	425900	78065	10800	4048
14)	1,1,1-Trichloroethane SCAN	1327098	522365	342773	67332	8474	3468
15)	Carbon tetrachloride	1482806	628375	376488	66345	8848	3648
16)	Carbon tetrachloride SCAN	1123147	499014	42400	46254	7173	3020
17)	Benzene	3615273	1540126	923632	171916	24726	12574
18)	Benzene SCAN	2876848	1277279	744219	157898	52325	41113
19)	1,2-Dichloroethane	1690724	727204	407303	77841	10594	3728
20)	1,2-Dichloroethane SCAN	1430763	616166	358833	69344	8830	1843
21)	Trichloroethene	965421	414438	255162	44597	5991	2520
22)	Trichloroethene SCAN	729751	325671	194883	38756	5812	1127
23)	Toluene-d8	2862486	1234340	807056	130412	16786	8083
24)	Toluene-d8 SCAN	2325005	989081	645883	107394	17895	6790
25)	Toluene	3573993	1532424	1009926	161844	20857	10583
26)	Toluene SCAN	2822920	1194458	810814	147697	24222	10233
27)	1,1,2-Trichloroethane	837067	360325	233014	37819	4964	2435
28)	1,1,2-Trichloroethane SCAN	619547	293674	187096	28978	5495	1071
29)	Tetrachloroethene	952414	410435	277845	43885	5725	3102
30)	Tetrachloroethene SCAN	671168	291756	183130	37598	6185	2947
31)	Chlorobenzene	2290376	994967	673817	104018	12978	7406
32)	Chlorobenzene SCAN	1661860	745682	520096	73200	12492	8007
33)	1,1,1,2-Tetrachloroethane	807809	347788	232040	35071	4444	2412
34)	1,1,1,2-Tetrachloroethane SCAN	582894	251735	180409	25111	3729	131
35)	Ethylbenzene	3975224	1710480	1169340	175131	21798	11895
36)	Ethylbenzene SCAN	3144766	1348361	922659	160268	20050	13057
37)	m&p-Xylene	6324641	2703576	1847481	272962	33874	18847
38)	m&p-Xylene SCAN	4777558	2082243	1417469	212344	29569	12042
39)	o-Xylene	3223979	1388189	950716	140766	17252	9873
40)	o-Xylene SCAN	2468110	1043205	767052	114236	20551	9200
41)	1,1,2,2-Tetrachloroethane	1421407	617189	419336	61999	7684	4333
42)	1,1,2,2-Tetrachloroethane SCAN	1121285	488264	322861	53253	7744	4941

43)	1,3,5-Trimethylbenzene	3272203	1399376	955807	133351	16497	9210
44)	1,3,5-Trimethylbenzene SCAN	2468139	1076666	719963	109324	13060	8350
45)	1,2,4-Trimethylbenzene	3386396	1444300	982816	135643	16486	9456
46)	1,2,4-Trimethylbenzene SCAN	2586086	1119955	738500	111195	16351	9092
47)	Naphthalene	5031752	2155617	1384164	195729	23920	13763
48)	Naphthalene SCAN	3691844	1611291	1004211	149899	18854	11658

SEQUENCE

S16J050

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B16J024	SEQUENCE #:	S16J050
BATCH #:		ANALYSIS:	VOA Passive indoor air

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
DOCUMENTATION	ANALYST: Bench sheet(s) attached? REVIEWER: Bench sheet(s) reviewed?	☐	Y	Y	
	ANALYST: Sequence log(s) attached? REVIEWER: Sequence log(s) reviewed?	☐	Y	Y	
	ANALYST: Every run has a PDF in LIMS? REVIEWER: Every PDF reviewed?	☐	Y	Y	
INITIAL CALIBRATION	Date of Initial Calibration used: If applicable, note date of "Last Update" in Comments.	Tue Oct 11 10:17:32 2016			
	Initial Calibration ID (LIMS number):	1610006			
	ICAL within QC criteria?	☐	Y	Y	
	SCV within QC criteria?	☐	Y	Y	
INSTRUMENT / QC CHECKS	Tune or degradation checks within QC criteria?	☐	Y	Y	
	CCV(s) within QC criteria?	☑			
	QLS(s) within QC criteria?	☑			
	CB(s) or storage blank(s) within QC criteria?	☑			
	Other instrument checks within QC criteria? Specify if applicable.	☑			
BATCH QCs	Method blanks < 1/2 QL?	☑			
	LCS(s) or SRM(s) within QC criteria?	☑			
	MSs/MSDs and/or DUPs within QC criteria?	☑			
	Other method-specific QCs within QC criteria? Specify if applicable.	☑			

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B16J024	SEQUENCE #:	S16J050
BATCH #:		ANALYSIS:	VOA Passive indoor air

	CHECKLIST ITEM	N/A	ANALYST Y/N	REVIEWER Y/N	IDENTIFY OUTLIERS / COMMENTS
IS / SS	Internal standards within QC criteria?	☐	Y	Y	
	Surrogates within QC criteria?	☐	Y	Y	
SAMPLE DATA	Were samples prepared & analyzed within holding time?	☐	Y	Y	
	If samples need to be re-run, were RE(s) made in LIMS?	☐	Y	Y	
	Do any samples need to be re-digested or re-extracted?	☐	N	N	
	Were all data qualifiers appropriately applied?	☐	Y	Y	
	Are problems, anomalies, discrepancies documented in LIMS? Specify if applicable.	✔			
MANUAL INT	Were manual integrations performed and documented? Specify if applicable.	☐	Y	Y	

APPROVALS	ANALYST INITIALS & DATE:	RH 10/12/16
	REVIEWED BY:	Ziyad Rajabi (affiliate) Digitally signed by Ziyad Rajabi (affiliate) Date: 2016.10.14 12:59:23 -07'00' SIGN HERE

COMMENTS

Injection Log

Operator: RH
Directory: C:\msdchem\1\Ravioli Data\2016\101016\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
2	10101602.D	1	S16J050-TUN1	BFB 1626027	10 Oct 2016 14:11
3	10101603.D	1	S16J050-CAL1	1635072 25 mg/L	10 Oct 2016 14:35
4	10101604.D	1	S16J050-CAL2	1635073 10 mg/L	10 Oct 2016 14:59
5	10101605.D	1	S16J050-CAL3	1635074 5 mg/L	10 Oct 2016 15:23
6	10101606.D	1	S16J050-CAL4	1635075 1 mg/L	10 Oct 2016 15:46
7	10101607.D	1	S16J050-CAL5	1635076 .15 mg/L	10 Oct 2016 16:10
8	10101608.D	1	S16J050-CAL6	1635077 .05 mg/L	10 Oct 2016 16:34
9	10101609.D	1	S16J050-SCV1	1635078 5 mg/L	10 Oct 2016 16:58
10	10101610.D	10	1610002-05RE1	20 UL - 180 UL	10 Oct 2016 17:22
11	10101611.D	10	1610002-06RE1	20 UL - 180 UL	10 Oct 2016 17:45
1	10101612.D	1	S16J044-IBL2		10 Oct 2016 18:09

GC/MS QA-QC Check Report

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Tune File : C:\msdchem\1\Ravioli Data\2016\101016\10101602.D
Tune Time : 10 Oct 2016 14:11

Daily Calibration File : C:\msdchem\1\Ravioli Data\2016\101016\10101605.D

File	Sample	Surrogate Recovery %	Internal Standard Responses
			778378
10101603.D	S16J050-CA	454*	649597
10101604.D	S16J050-CA	207*	615258
10101605.D	S16J050-CA	107	778378
10101606.D	S16J050-CA	18*	750776
10101607.D	S16J050-CA	3*	625550
10101608.D	S16J050-CA	1*	709578
10101609.D	S16J050-SC	111	594075
10101610.D	1610002-05	17*	766542
10101611.D	1610002-06	15*	793794
10101612.D	S16J044-IB	89	622147

(fails) - fails 12hr time check * - fails criteria

Created: Tue Oct 11 10:28:04 2016 AG5975C

Analysis Sequence

S16J050

Project: R17S02
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 1610006 Printed: 10/12/2016 1:57 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S16J050-TUN1	BFB	1	10/10/16 14:11	1626027		RH	10101602.D	
S16J050-CAL1	1610052	2	10/10/16 14:35	1635072		RH	10101603.D	
S16J050-CAL2	1610053	3	10/10/16 14:59	1635073		RH	10101604.D	
S16J050-CAL3	1610054	4	10/10/16 15:23	1635074		RH	10101605.D	
S16J050-CAL4	1610055	5	10/10/16 15:46	1635075		RH	10101606.D	
S16J050-CAL5	1610056	6	10/10/16 16:10	1635076		RH	10101607.D	
S16J050-CAL6	1610057	7	10/10/16 16:34	1635077		RH	10101608.D	
S16J050-SCV1	1610066	8	10/10/16 16:58	1635078		RH	10101609.D	
1610002-05RE1 A	F5-054-5ft-4d	9	10/10/16 17:22			RH	10101610.D	
1610002-06RE1 A	F5-054-10ft-4d	10	10/10/16 17:45			RH	10101611.D	
S16J050-IBL2	Instrument Blank	11	10/10/16 18:09		1608047	RH	10101612.D	

Sequence Comments

Reagents

Reagent # **Description**

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SEQUENCE DATA

S16J050

S16J050-TUN1

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```
Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101602.D
Acq On    : 10 Oct 2016  14:11
Operator  : RH
Sample    : S16J050-TUN1
Misc      : BFB   1626027
ALS Vial  : 2   Sample Multiplier: 1
InstName  : AG5975C

Integration File signal 1: Benzene.P
Integration File signal 2: rteint2.p

Method    : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Title     : Volatile Organic Analysis  -  Passive samplers
Last Update  : Mon Oct 10 17:14:43 2016
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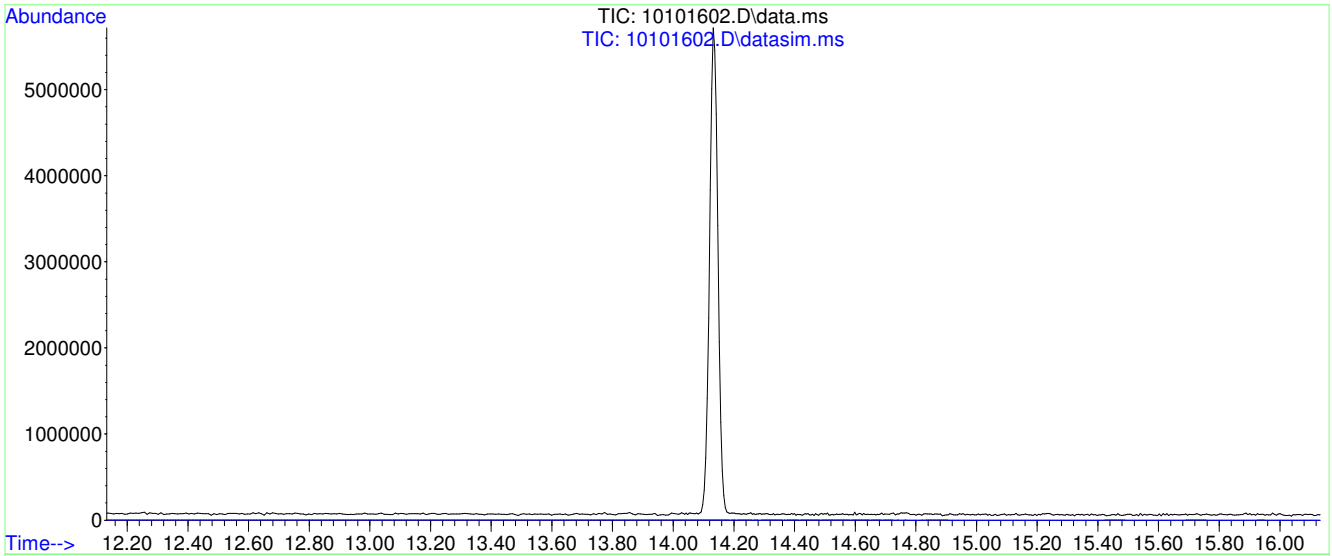
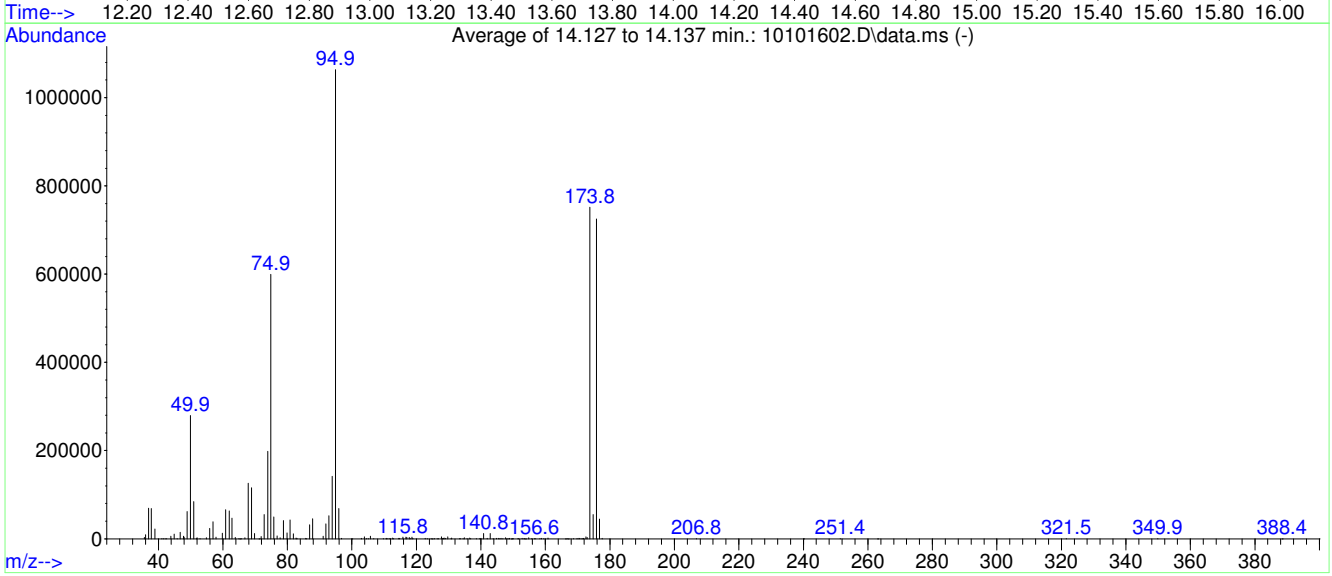
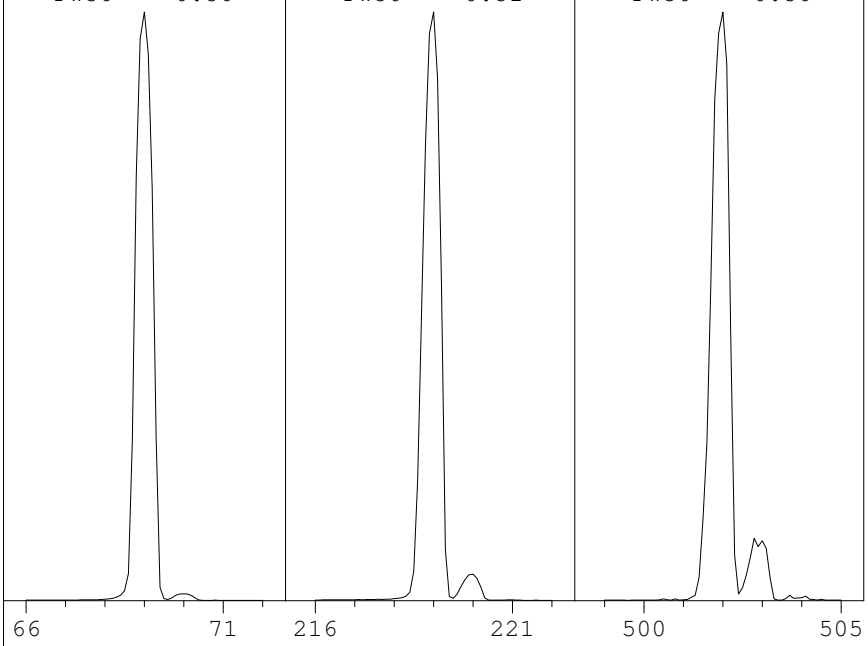




AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1814

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.3	279552	PASS
75	95	30	60	56.4	599168	PASS
95	95	100	100	100.0	1063232	PASS
96	95	5	9	6.5	68880	PASS
173	174	0.00	2	0.4	3353	PASS
174	95	50	120	70.7	751979	PASS
175	174	5	9	7.3	55104	PASS
176	174	95	101	96.4	724757	PASS
177	176	5	9	6.2	44712	PASS

Mass	69.00	Mass	219.00	Mass	502.00
Ab	437178	Ab	256428	Ab	9972
Pw50	0.50	Pw50	0.51	Pw50	0.50

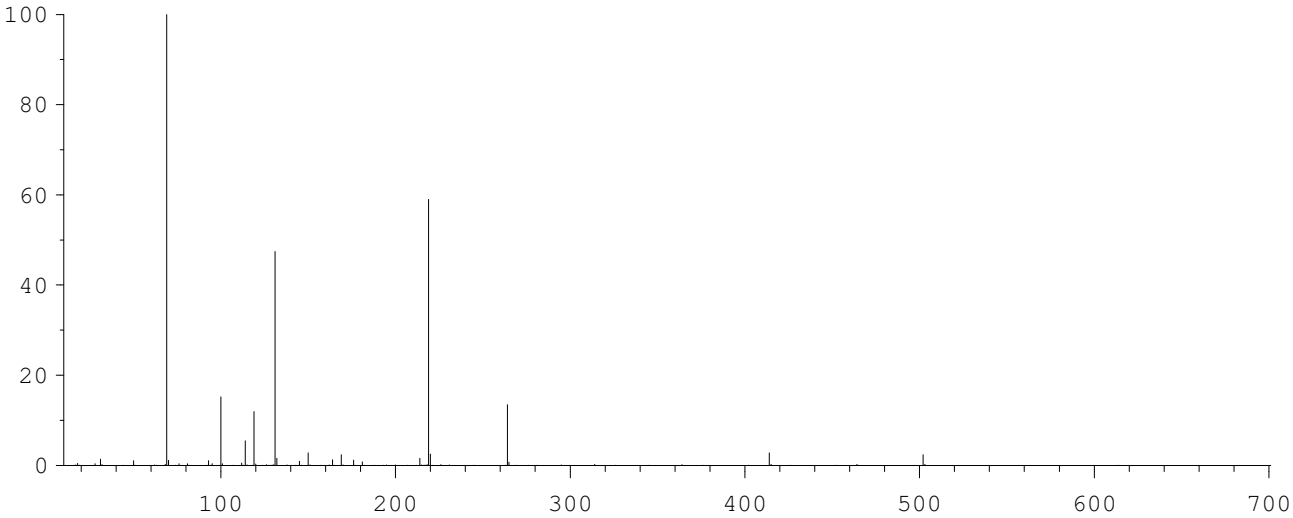


Ion Pol	Pos	MassGain	-1185
		MassOffs	-38
Emission	34.6	AmuGain	982
EIEnrgy	69.9	AmuOffs	129.25
Filament	1	Wid219	0.001
		DC Pol	Pos
Repeller	29.79		
IonFcus	70.2	HEDEnab	On
EntLens	0.0	EMVolts	1812
EntOffs	Var		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Turbo Speed	100
MS Quad	150	HiVac	0.00e00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
98 peaks Base: 69.00 Abundance: 408256



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	408256	100.00	70.00	4432	1.09
219.00	240896	59.01	220.00	10353	4.30
502.00	9754	2.39	503.10	883	9.05

Air/Water Check: H20~0.43% N2~0.37% O2~0.18% CO2~0.05% N2/H2O~85.20%

Column(1) Flow: 0.97 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 69; EM Gain 72722
Repeller Maximum 30 volts using ion 219; Gain Factor 0.73

MassGain Values(Samples): -1174(3) -1169(2) -1151(1) -1123(0) -1079(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	129.3	129.3	129.3	129.3	129.3	129.3	129.3
Entrance Lens Offset:	16.3	13.1	12.8	13.6	14.3	15.1	15.1
Target Abund(%):	1.0	100.0	45.0	55.0	2.4	2.0	
Actual Tune Abund(%):	1.0	100.0	47.4	59.0	2.8	2.4	

S16J050-CAL1

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101603.D
Acq On : 10 Oct 2016 14:35
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL1
Misc : 1635072 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 11 10:10:50 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

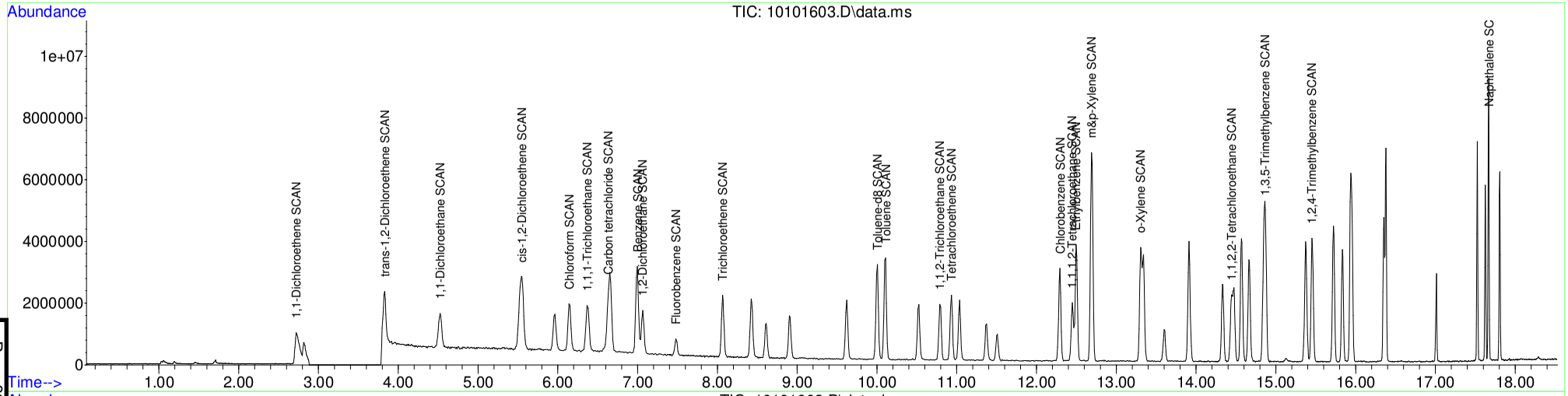
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.483	96	649597	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	2862486	22701.06 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 454.02%#		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	496802	4907.15 ug/L	92
3] 1,1-Dichloroethene	2.723	61	1934322	24077.87 ug/L	80
4) 1,1-Dichloroethene SCAN	2.721	61	1521996	27497.34 ug/L	86
5] trans-1,2-Dichloroethene	3.825	61	1554552	23242.74 ug/L	98
6) trans-1,2-Dichloroethe...	3.831	61	1191428	26430.07 ug/L	79
7] 1,1-Dichloroethane	4.527	63	2080903	24319.32 ug/L	97
8) 1,1-Dichloroethane SCAN	4.525	63	1601220	26070.28 ug/L	96
9] cis-1,2-Dichloroethene	5.553	61	1940996	24244.28 ug/L	98
10) cis-1,2-Dichloroethene...	5.550	61	1527553	25238.15 ug/L	82
11] Chloroform	6.142	83	1865100	23714.97 ug/L	100
12) Chloroform SCAN	6.140	83	1501786	26845.00 ug/L	91
13] 1,1,1-Trichloroethane	6.370	97	1715304	23742.96 ug/L	99
14) 1,1,1-Trichloroethane ...	6.368	97	1327098	23195.99 ug/L	90
15] Carbon tetrachloride	6.639	117	1482806	23791.68 ug/L	99
16) Carbon tetrachloride SCAN	6.636	117	1123147	158703.79 ug/L	97
17] Benzene	6.988	78	3615273	23136.05 ug/L	100
18) Benzene SCAN	6.998	78	2876848	23159.69 ug/L	92
19] 1,2-Dichloroethane	7.055	62	1690724	24076.33 ug/L	98
20) 1,2-Dichloroethane SCAN	7.066	62	1430763	23888.66 ug/L	94
21] Trichloroethene	8.068	130	965421	23062.65 ug/L	93
22) Trichloroethene SCAN	8.065	95	729751	22434.55 ug/L	91
24) Toluene-d8 SCAN	10.006	98	2325005	21566.84 ug/L	99
25] Toluene	10.099	91	3573993	22536.64 ug/L	99
26) Toluene SCAN	10.108	91	2822920	20859.02 ug/L	99
27] 1,1,2-Trichloroethane	10.790	97	837067	22614.28 ug/L	96
28) 1,1,2-Trichloroethane ...	10.787	97	619547	19839.30 ug/L	87
29] Tetrachloroethene	10.937	166	952414	21793.84 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	671168	21957.77 ug/L	94
31] Chlorobenzene	12.286	112	2290376	22002.49 ug/L	93
32) Chlorobenzene SCAN	12.293	112	1661860	19143.77 ug/L	85
33] 1,1,1,2-Tetrachloroethane	12.452	131	807809	22751.49 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.449	131	582894	19357.44 ug/L	99
35] Ethylbenzene	12.498	91	3975224	22607.81 ug/L	98
36) Ethylbenzene SCAN	12.495	91	3144766	20420.37 ug/L	94
37] m&p-Xylene	12.691	91	6324641	45649.97 ug/L	97
38) m&p-Xylene SCAN	12.688	91	4777558	40386.75 ug/L	97
39] o-Xylene	13.307	91	3223979	22592.47 ug/L	96
40) o-Xylene SCAN	13.305	91	2468110	19277.75 ug/L	94
41] 1,1,2,2-Tetrachloroethane	14.442	83	1421407	22550.95 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.444	83	1121285	20807.36 ug/L	100
43] 1,3,5-Trimethylbenzene	14.872	105	3272203	23473.84 ug/L	96
44) 1,3,5-Trimethylbenzene...	14.869	105	2468139	20538.84 ug/L	94
45] 1,2,4-Trimethylbenzene	15.456	105	3386396	23719.32 ug/L	96
46) 1,2,4-Trimethylbenzene...	15.454	105	2586086	20980.17 ug/L	95
47] Naphthalene	17.666	128	5031752	24213.73 ug/L	100
48) Naphthalene SCAN	17.668	128	3691844	22025.96 ug/L	98

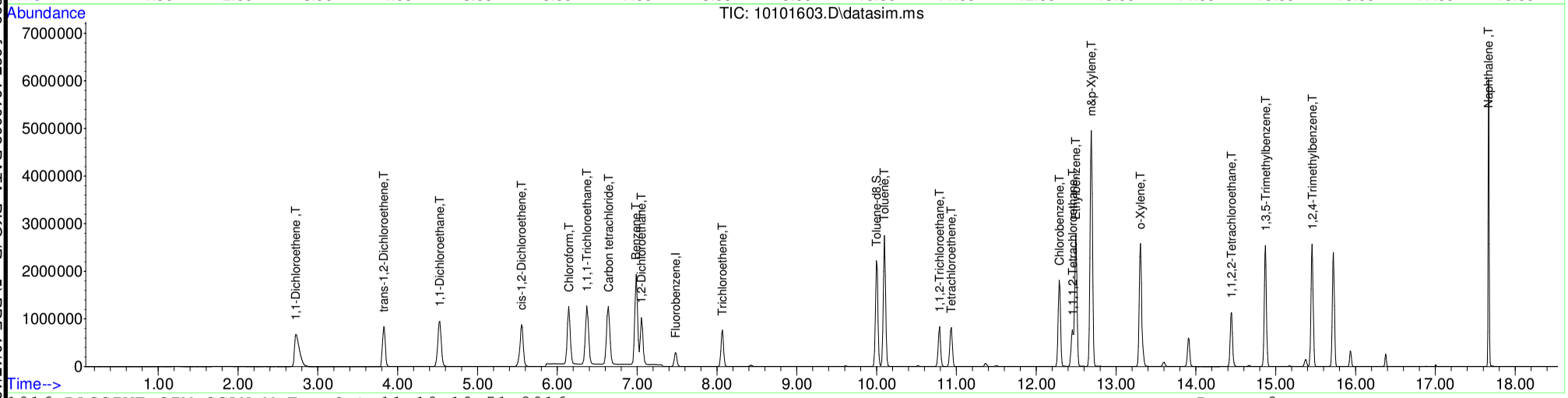
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101603.D
Acq On : 10 Oct 2016 14:35
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL1
Misc : 1635072 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 11 10:10:50 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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S16J050-CAL2

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101604.D
Acq On : 10 Oct 2016 14:59
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL2
Misc : 1635073 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 11 10:11:08 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

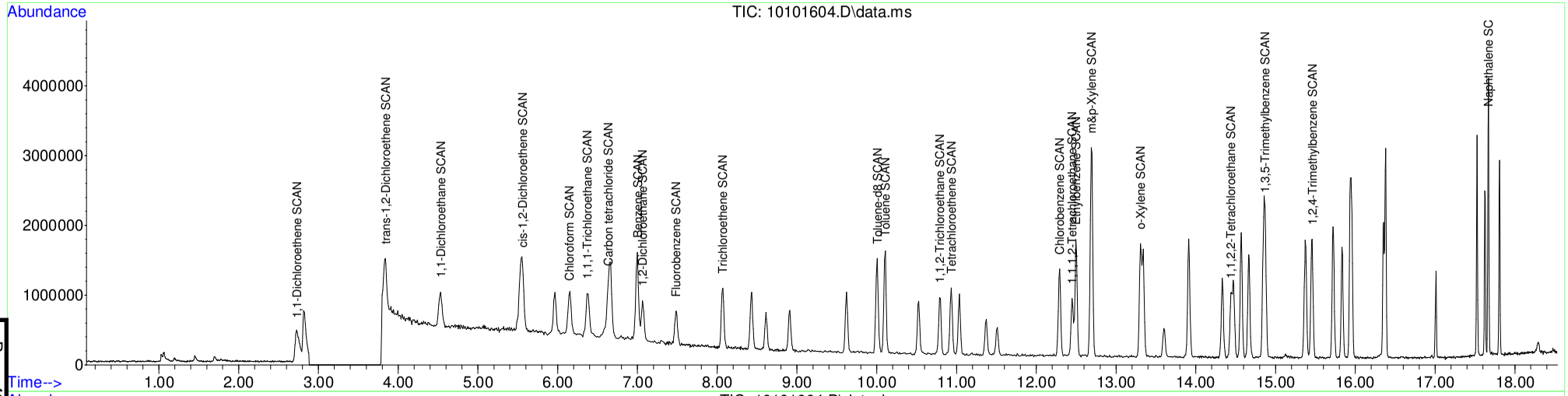
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.482	96	615258	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	1234340	10335.33 ug/L	0.00
Spiked Amount 5000.000 Range 70 - 130 Recovery = 206.71%#					
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	480393	5009.90 ug/L	91
3] 1,1-Dichloroethene	2.728	61	855408	11242.15 ug/L	81
4) 1,1-Dichloroethene SCAN	2.735	61	673467	12846.36 ug/L	88
5] trans-1,2-Dichloroethene	3.833	61	697971	11018.08 ug/L	98
6) trans-1,2-Dichloroethe...	3.838	61	520486	12190.64 ug/L	83
7] 1,1-Dichloroethane	4.527	63	906675	11187.63 ug/L	97
8) 1,1-Dichloroethane SCAN	4.532	63	705079	12120.46 ug/L	93
9] cis-1,2-Dichloroethene	5.561	61	849445	11202.29 ug/L	98
10) cis-1,2-Dichloroethene...	5.558	61	679303	11849.81 ug/L	81
11] Chloroform	6.142	83	806821	10831.39 ug/L	99
12) Chloroform SCAN	6.140	83	646463	12200.73 ug/L	93
13] 1,1,1-Trichloroethane	6.370	97	732521	10705.34 ug/L	99
14) 1,1,1-Trichloroethane ...	6.368	97	522365	9639.86 ug/L	85
15] Carbon tetrachloride	6.638	117	628375	10645.02 ug/L	99
16) Carbon tetrachloride SCAN	6.636	117	499014	74447.51 ug/L	98
17] Benzene	6.987	78	1540126	10406.17 ug/L	100
18) Benzene SCAN	6.998	78	1277279	10856.46 ug/L	92
19] 1,2-Dichloroethane	7.054	62	727204	10933.54 ug/L	98
20) 1,2-Dichloroethane SCAN	7.065	62	616166	10861.97 ug/L	96
21] Trichloroethene	8.068	130	414438	10452.95 ug/L	93
22) Trichloroethene SCAN	8.072	95	325671	10570.81 ug/L	90
24) Toluene-d8 SCAN	10.006	98	989081	9686.82 ug/L	98
25] Toluene	10.099	91	1532424	10202.37 ug/L	99
26) Toluene SCAN	10.108	91	1194458	9318.65 ug/L	96
27] 1,1,2-Trichloroethane	10.789	97	360325	10277.88 ug/L	96
28) 1,1,2-Trichloroethane ...	10.787	97	293674	9928.97 ug/L	92
29] Tetrachloroethene	10.936	166	410435	9916.06 ug/L	99
30) Tetrachloroethene SCAN	10.934	166	291756	10077.75 ug/L	96
31] Chlorobenzene	12.295	112	994967	10091.61 ug/L	93
32) Chlorobenzene SCAN	12.293	112	745682	9069.29 ug/L	88
33] 1,1,1,2-Tetrachloroethane	12.452	131	347788	10341.95 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.449	131	251735	8826.50 ug/L	95
35] Ethylbenzene	12.498	91	1710480	10270.74 ug/L	98
36) Ethylbenzene SCAN	12.495	91	1348361	9244.18 ug/L	94
37] m&p-Xylene	12.691	91	2703576	20602.98 ug/L	97
38) m&p-Xylene SCAN	12.688	91	2082243	18584.51 ug/L	97
39] o-Xylene	13.307	91	1388189	10270.86 ug/L	96
40) o-Xylene SCAN	13.305	91	1043205	8602.96 ug/L	99
41] 1,1,2,2-Tetrachloroethane	14.442	83	617189	10338.35 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.439	83	488264	9566.26 ug/L	100
43] 1,3,5-Trimethylbenzene	14.871	105	1399376	10599.00 ug/L	96
44) 1,3,5-Trimethylbenzene...	14.869	105	1076666	9459.63 ug/L	96
45] 1,2,4-Trimethylbenzene	15.456	105	1444300	10680.92 ug/L	96
46) 1,2,4-Trimethylbenzene...	15.460	105	1119955	9592.98 ug/L	96
47] Naphthalene	17.666	128	2155617	10952.19 ug/L	100
48) Naphthalene SCAN	17.668	128	1611291	10149.68 ug/L	98

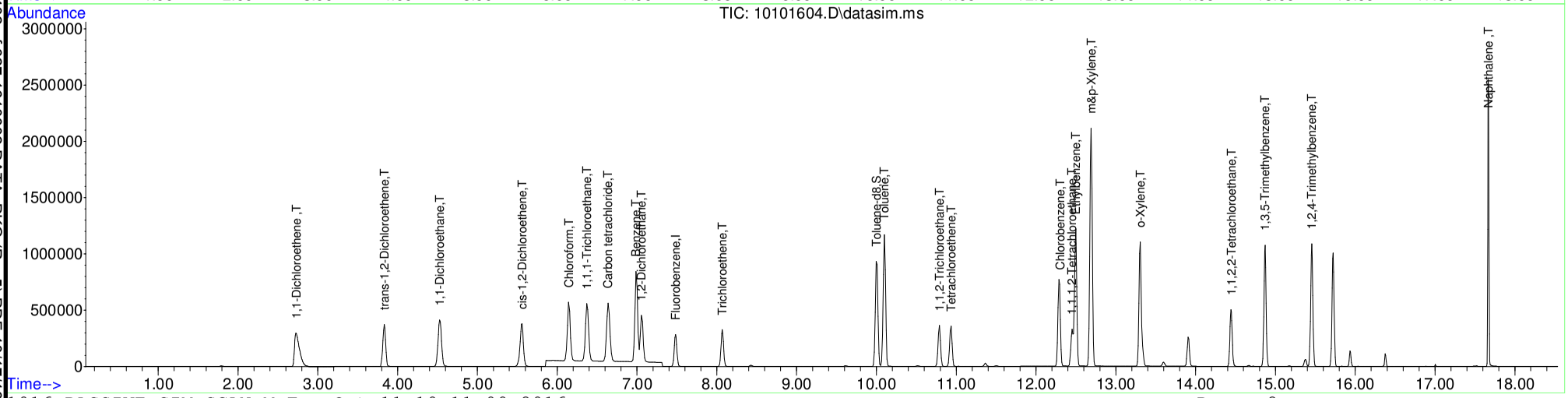
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101604.D
Acq On : 10 Oct 2016 14:59
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL2
Misc : 1635073 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 11 10:11:08 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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S16J050-CAL3

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101605.D
Acq On : 10 Oct 2016 15:23
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL3
Misc : 1635074 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 11 10:12:47 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

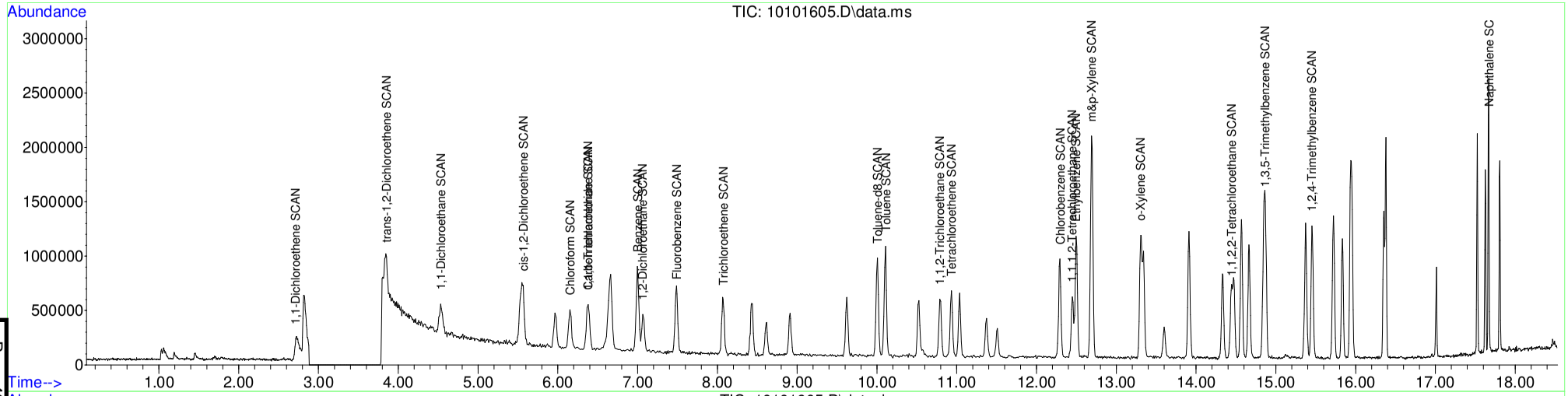
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.482	96	778378	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	807056	5341.46 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 106.83%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.493	96	606556	5000.00 ug/L	94
3] 1,1-Dichloroethene	2.723	61	402056	4176.66 ug/L	80
4) 1,1-Dichloroethene SCAN	2.715	61	331619	5000.00 ug/L #	30
5] trans-1,2-Dichloroethene	3.841	61	357797	4464.49 ug/L	98
6) trans-1,2-Dichloroethe...	3.854	61	270076	5000.00 ug/L	82
7] 1,1-Dichloroethane	4.535	63	462242	4508.40 ug/L	96
8) 1,1-Dichloroethane SCAN	4.532	63	367978	5000.00 ug/L	97
9] cis-1,2-Dichloroethene	5.561	61	444018	4628.48 ug/L	98
10) cis-1,2-Dichloroethene...	5.566	61	362623	5000.00 ug/L	83
11] Chloroform	6.155	83	438559	4653.74 ug/L	99
12) Chloroform SCAN	6.153	83	335167	5000.00 ug/L	93
13] 1,1,1-Trichloroethane	6.384	97	425900	4919.88 ug/L	99
14) 1,1,1-Trichloroethane ...	6.381	97	342773	5000.00 ug/L	92
15] Carbon tetrachloride	6.638	117	376488	5041.33 ug/L	100
16) Carbon tetrachloride SCAN	6.381	117	42400	5000.00 ug/L	80
17] Benzene	6.987	78	923632	4932.88 ug/L	100
18) Benzene SCAN	6.998	78	744219	5000.00 ug/L	92
19] 1,2-Dichloroethane	7.068	62	407303	4840.48 ug/L	99
20) 1,2-Dichloroethane SCAN	7.065	62	358833	5000.00 ug/L	97
21] Trichloroethene	8.068	130	255162	5087.00 ug/L	92
22) Trichloroethene SCAN	8.072	95	194883	5000.00 ug/L	93
24) Toluene-d8 SCAN	10.006	98	645883	5000.00 ug/L	98
25] Toluene	10.099	91	1009926	5314.70 ug/L	99
26) Toluene SCAN	10.108	91	810814	5000.00 ug/L	97
27] 1,1,2-Trichloroethane	10.789	97	233014	5253.61 ug/L	96
28) 1,1,2-Trichloroethane ...	10.787	97	187096	5000.00 ug/L	90
29] Tetrachloroethene	10.936	166	277845	5305.96 ug/L	100
30) Tetrachloroethene SCAN	10.934	166	183130	5000.00 ug/L	88
31] Chlorobenzene	12.286	112	673817	5402.07 ug/L	94
32) Chlorobenzene SCAN	12.293	112	520096	5000.00 ug/L	88
33] 1,1,1,2-Tetrachloroethane	12.452	131	232040	5454.03 ug/L	100
34) 1,1,1,2-Tetrachloroeth...	12.449	131	180409	5000.00 ug/L	94
35] Ethylbenzene	12.498	91	1169340	5549.98 ug/L	98
36) Ethylbenzene SCAN	12.495	91	922659	5000.00 ug/L	94
37] m&p-Xylene	12.691	91	1847481	11128.54 ug/L	97
38) m&p-Xylene SCAN	12.688	91	1417469	10000.00 ug/L	97
39] o-Xylene	13.307	91	950716	5560.01 ug/L	96
40) o-Xylene SCAN	13.305	91	767052	5000.00 ug/L	94
41] 1,1,2,2-Tetrachloroethane	14.442	83	419336	5552.16 ug/L	99
42) 1,1,2,2-Tetrachloroeth...	14.439	83	322861	5000.00 ug/L	98
43] 1,3,5-Trimethylbenzene	14.871	105	955807	5722.26 ug/L	96
44) 1,3,5-Trimethylbenzene...	14.869	105	719963	5000.00 ug/L	96
45] 1,2,4-Trimethylbenzene	15.456	105	982816	5745.00 ug/L	96
46) 1,2,4-Trimethylbenzene...	15.453	105	738500	5000.00 ug/L	95
47] Naphthalene	17.666	128	1384164	5558.83 ug/L	100
48) Naphthalene SCAN	17.668	128	1004211	5000.00 ug/L	100

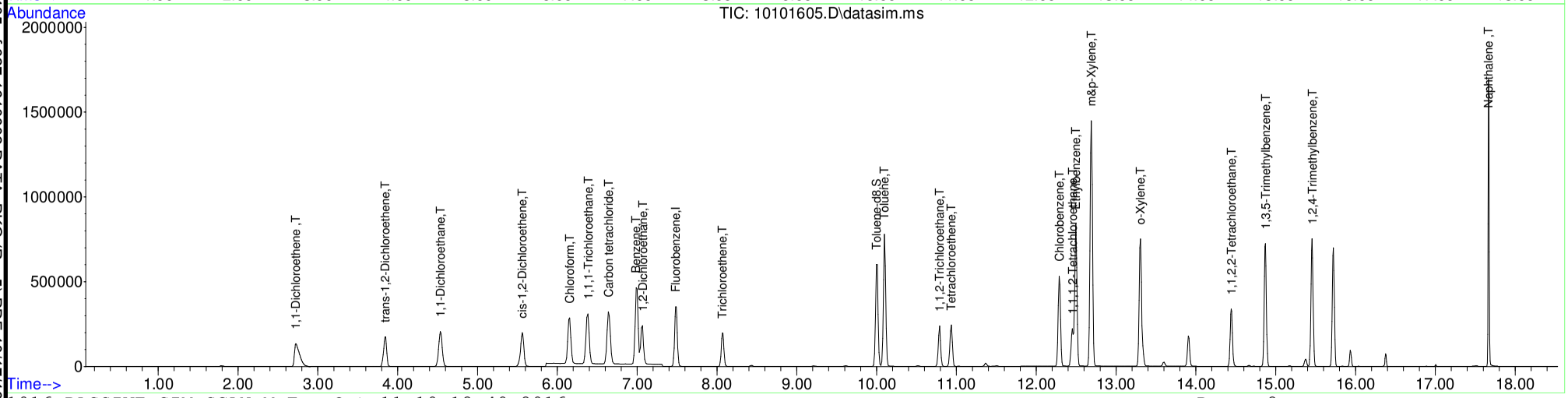
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101605.D
Acq On : 10 Oct 2016 15:23
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL3
Misc : 1635074 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 11 10:12:47 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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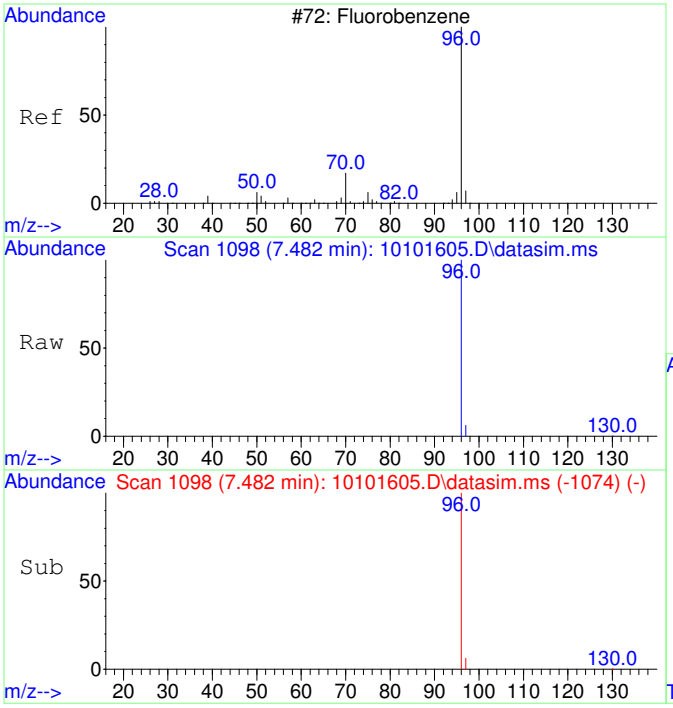
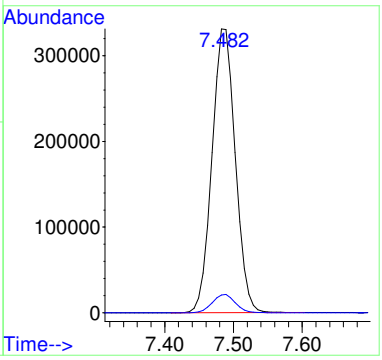
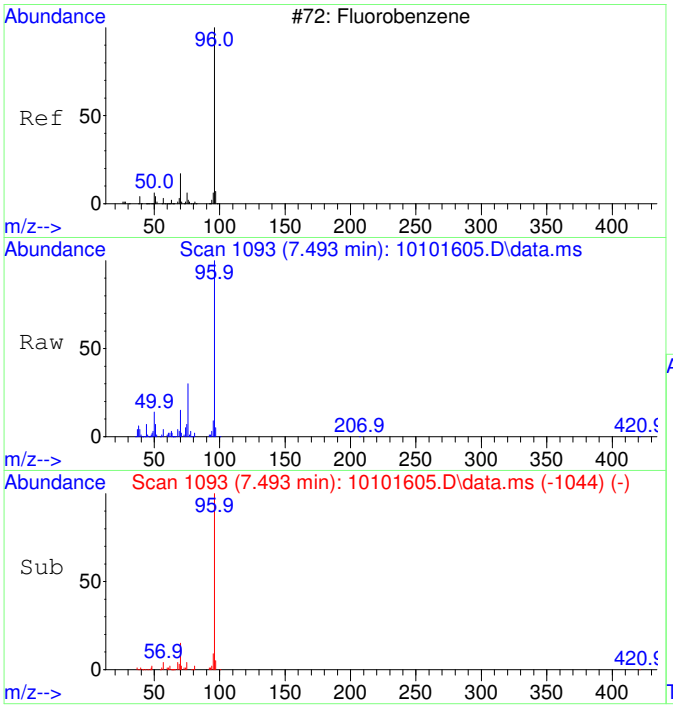


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 96 Resp: 778378

Ion	Ratio	Lower	Upper
96	100		
97	6.3	0.0	36.6

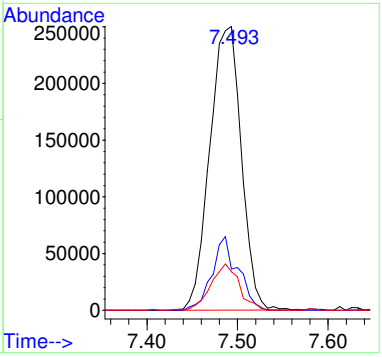


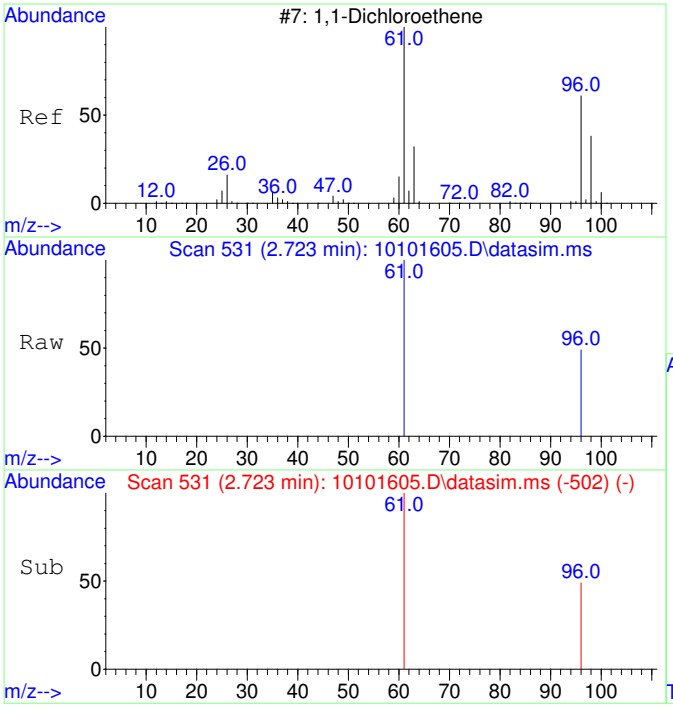


#2
Fluorobenzene SCAN
Concen: 5000.00 ug/L
RT: 7.493 min Scan# 1093
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 96 Resp: 606556

Ion	Ratio	Lower	Upper
96	100		
70	21.3	0.0	49.2
50	14.7	0.0	41.1

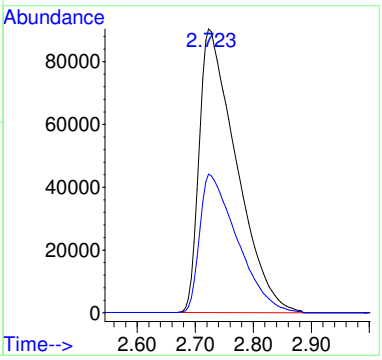


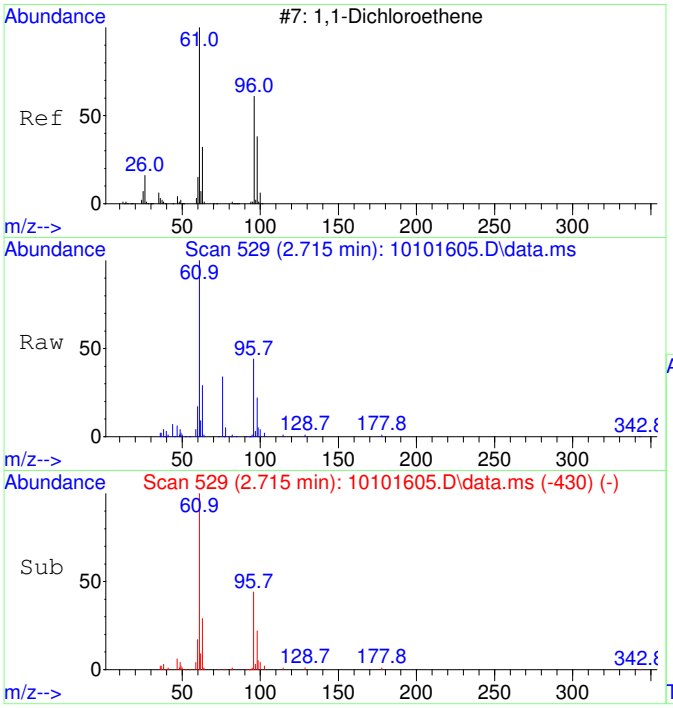


#3
1,1-Dichloroethene
Concen: 4176.66 ug/L
RT: 2.723 min Scan# 531
Delta R.T. -0.005 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 61 Resp: 402056

Ion	Ratio	Lower	Upper
61	100		
96	49.2	34.9	94.9

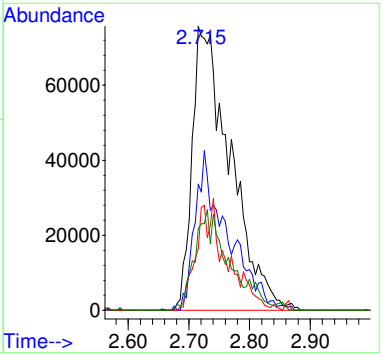


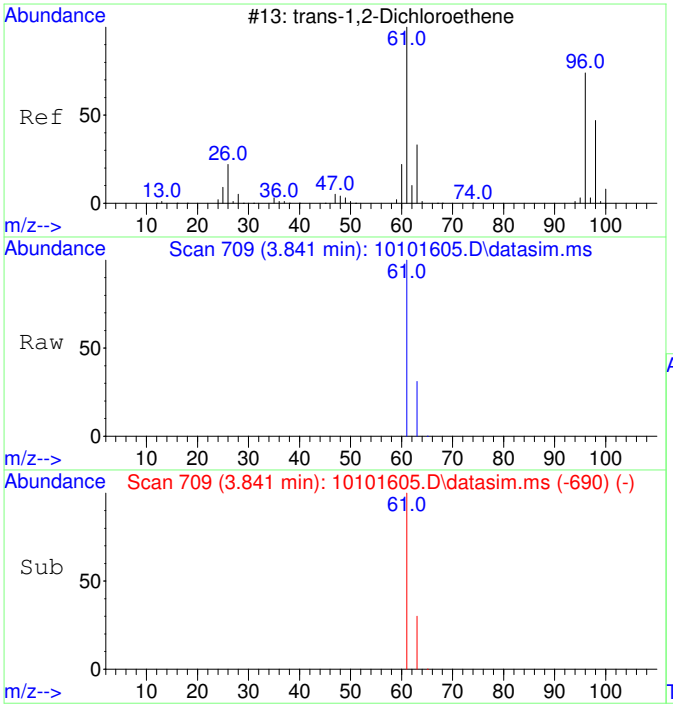


#4
1,1-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 2.715 min Scan# 529
Delta R.T. -0.010 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 61 Resp: 331619

Ion	Ratio	Lower	Upper
61	100		
96	0.0	30.2	90.2#
98	0.0	12.2	72.2#
63	0.0	3.7	63.7#

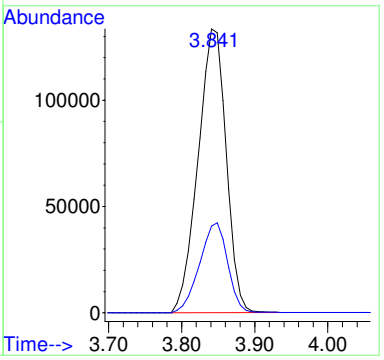


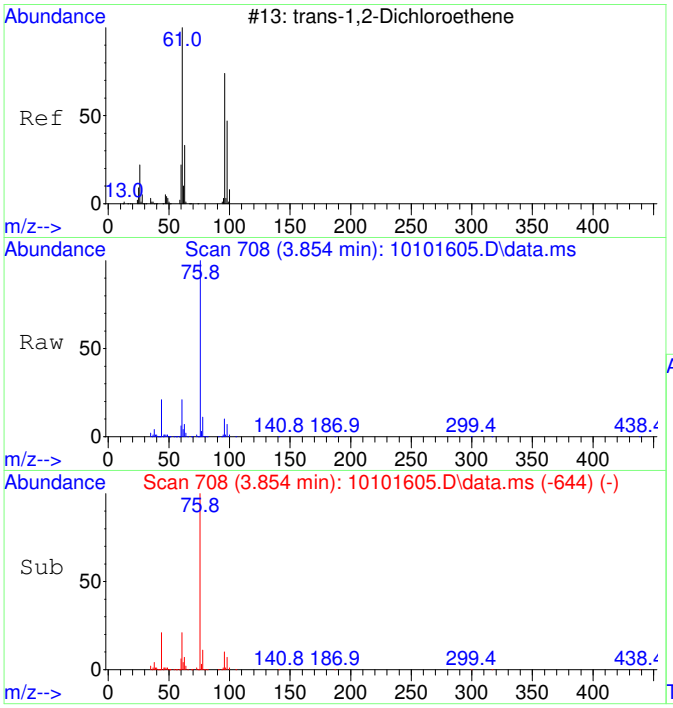


#5
trans-1,2-Dichloroethene
Concen: 4464.49 ug/L
RT: 3.841 min Scan# 709
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 61 Resp: 357797

Ion	Ratio	Lower	Upper
61	100		
63	31.4	2.5	62.5

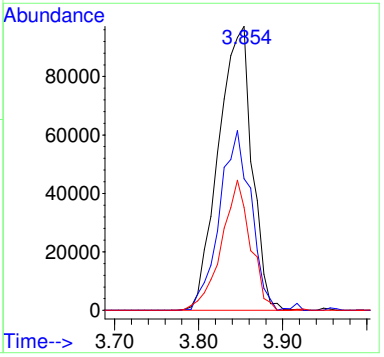


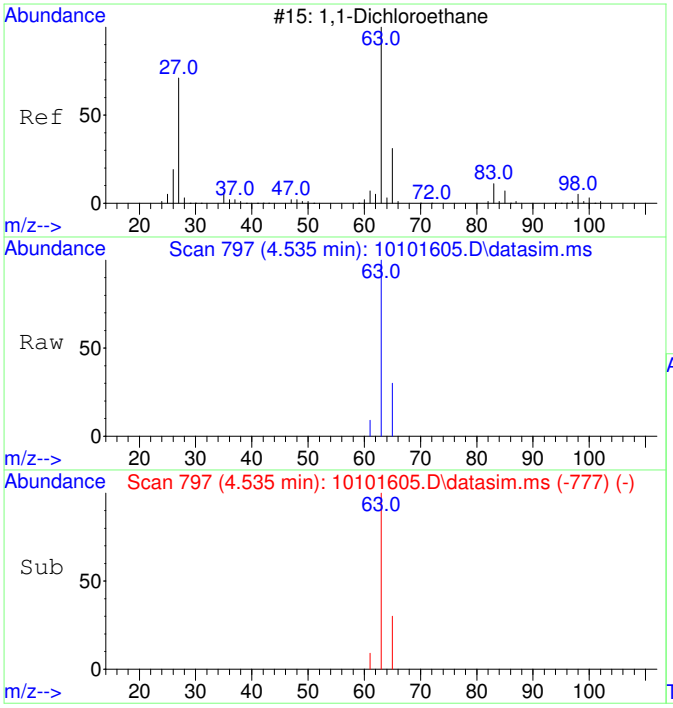


#6
trans-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 3.854 min Scan# 708
Delta R.T. 0.007 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 61 Resp: 270076

Ion	Ratio	Lower	Upper
61	100		
96	58.8	47.5	107.5
98	39.6	17.2	77.2

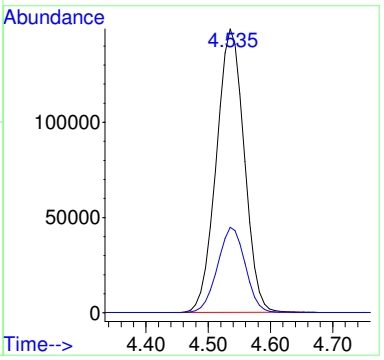


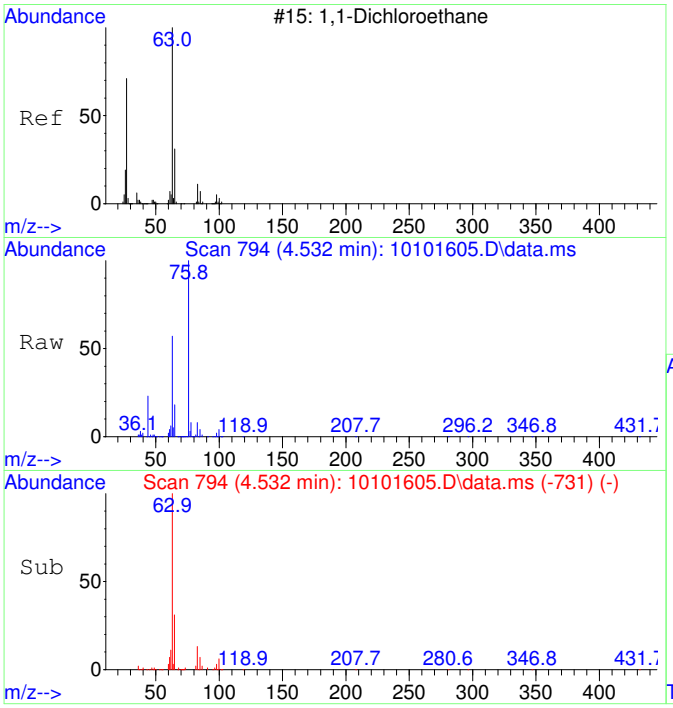


#7
1,1-Dichloroethane
Concen: 4508.40 ug/L
RT: 4.535 min Scan# 797
Delta R.T. 0.007 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 63 Resp: 462242

Ion	Ratio	Lower	Upper
63	100		
65	29.8	1.8	61.8

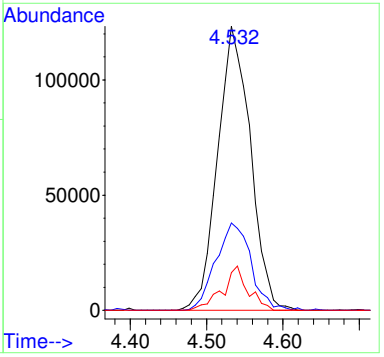


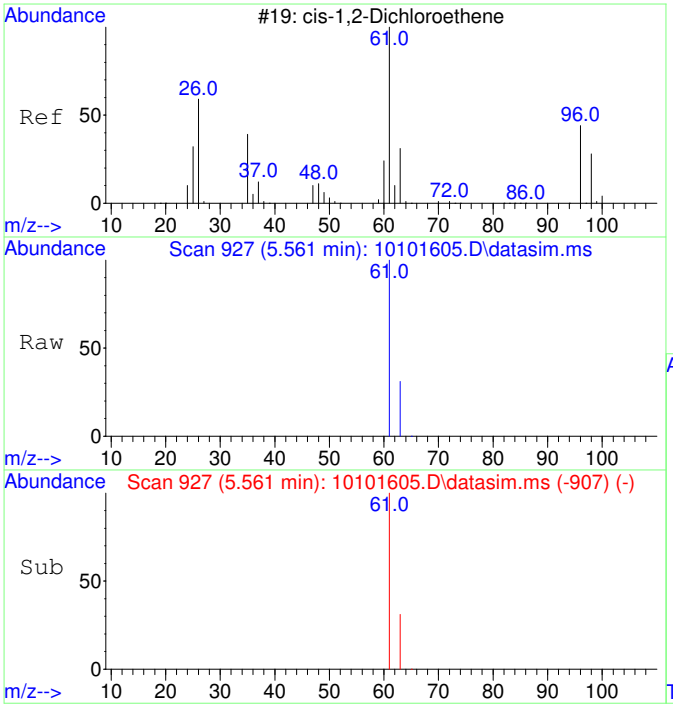


#8
1,1-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 4.532 min Scan# 794
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 63 Resp: 367978

Ion	Ratio	Lower	Upper
63	100		
65	33.0	3.9	63.9
83	12.1	0.0	45.1

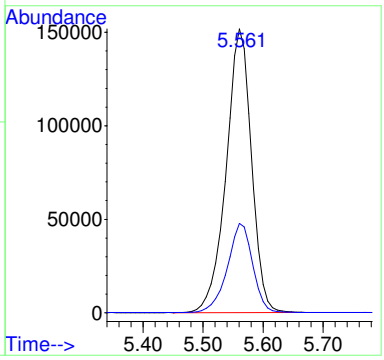


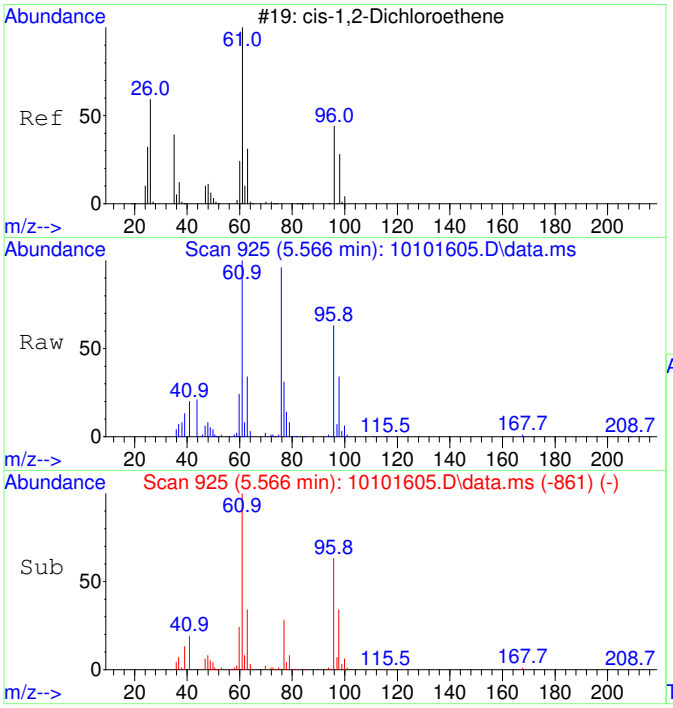


#9
cis-1,2-Dichloroethene
Concen: 4628.48 ug/L
RT: 5.561 min Scan# 927
Delta R.T. 0.007 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 61 Resp: 444018

Ion	Ratio	Lower	Upper
61	100		
63	31.4	2.4	62.4

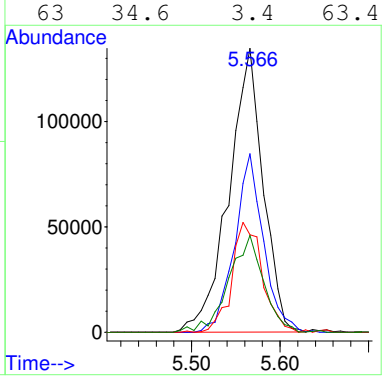


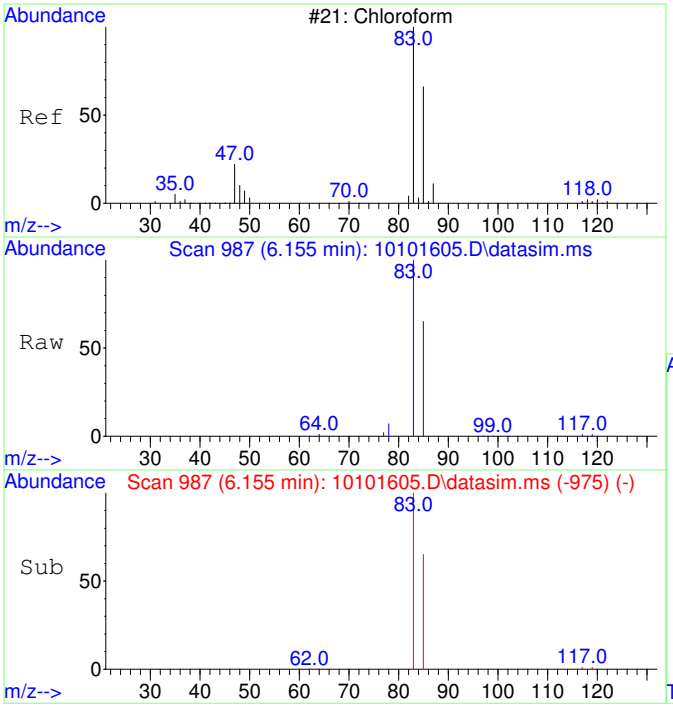


#10
cis-1,2-Dichloroethene SCAN
Concen: 5000.00 ug/L
RT: 5.566 min Scan# 925
Delta R.T. 0.007 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 61 Resp: 362623

Ion	Ratio	Lower	Upper
61	100		
96	53.1	42.0	102.0
98	34.7	17.5	77.5
63	34.6	3.4	63.4

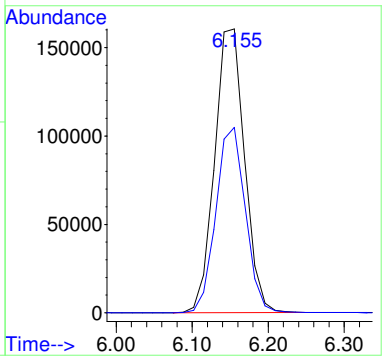


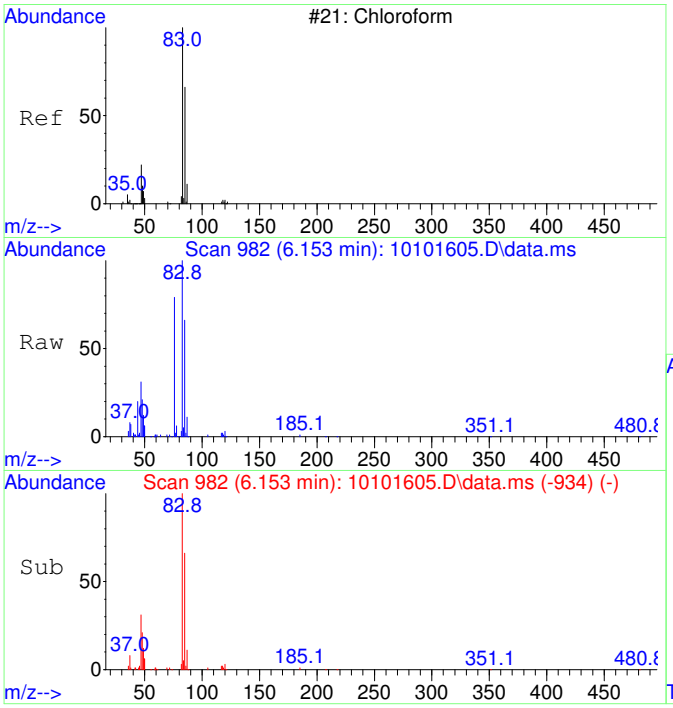


#11
Chloroform
Concen: 4653.74 ug/L
RT: 6.155 min Scan# 987
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 83 Resp: 438559

Ion	Ratio	Lower	Upper
83	100		
85	63.6	34.4	94.4

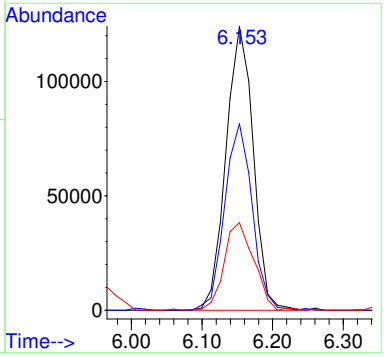


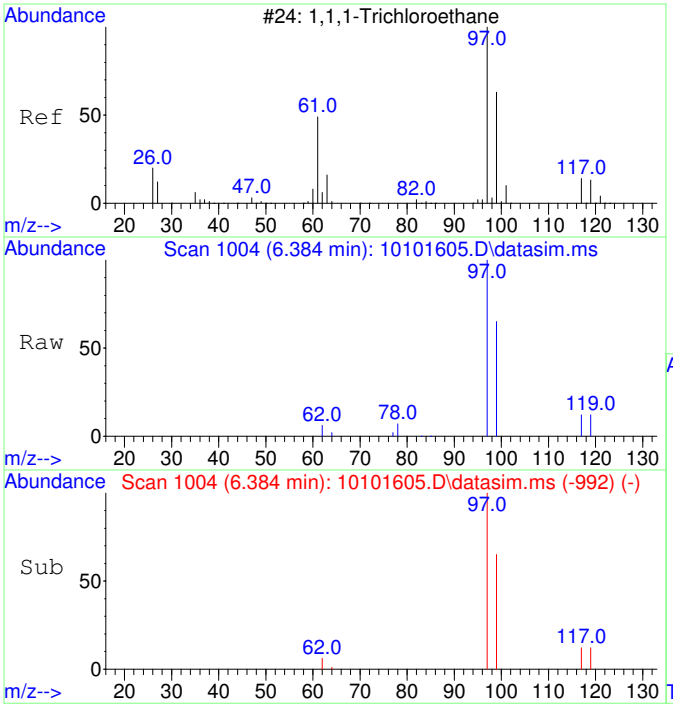


#12
Chloroform SCAN
Concen: 5000.00 ug/L
RT: 6.153 min Scan# 982
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 83 Resp: 335167

Ion	Ratio	Lower	Upper
83	100		
85	66.6	37.6	97.6
47	34.1	0.0	53.4

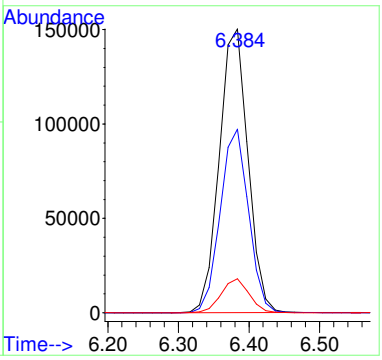


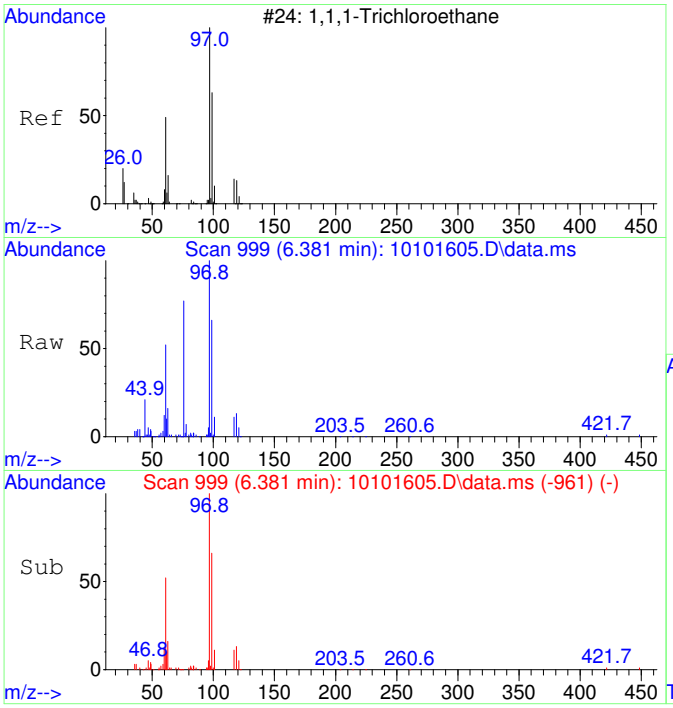


#13
1,1,1-Trichloroethane
Concen: 4919.88 ug/L
RT: 6.384 min Scan# 1004
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 97 Resp: 425900

Ion	Ratio	Lower	Upper
97	100		
99	63.5	34.2	94.2
117	11.5	0.0	43.0

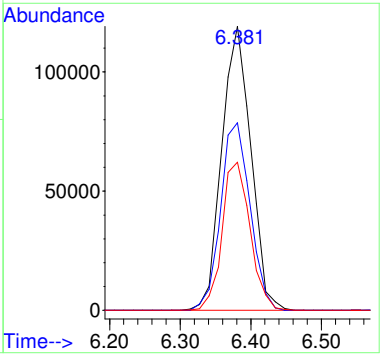


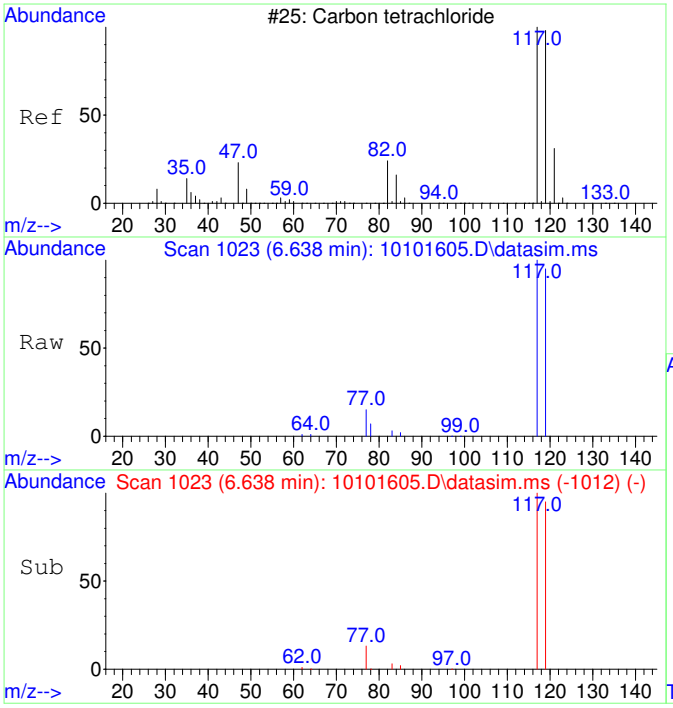


#14
1,1,1-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 6.381 min Scan# 999
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 97 Resp: 342773

Ion	Ratio	Lower	Upper
97	100		
99	66.9	33.6	93.6
61	50.2	10.7	70.7

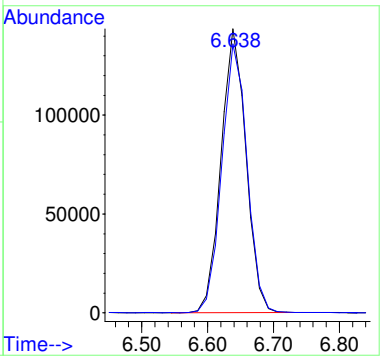


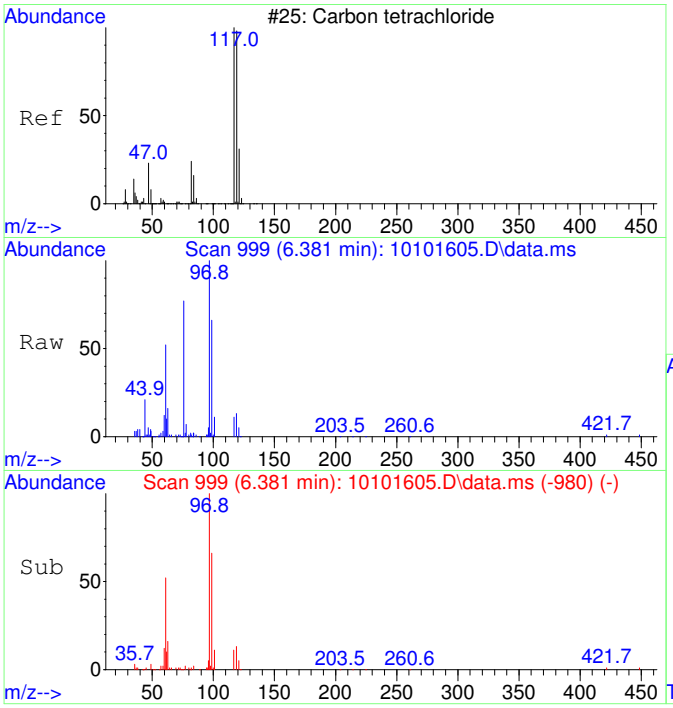


#15
Carbon tetrachloride
Concen: 5041.33 ug/L
RT: 6.638 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:117 Resp: 376488

Ion	Ratio	Lower	Upper
117	100		
119	95.7	66.1	126.1

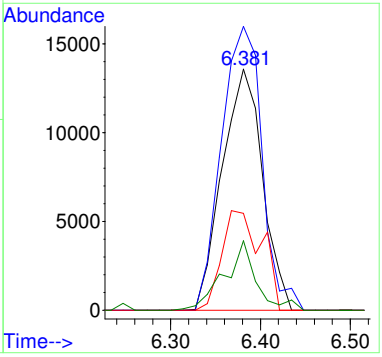


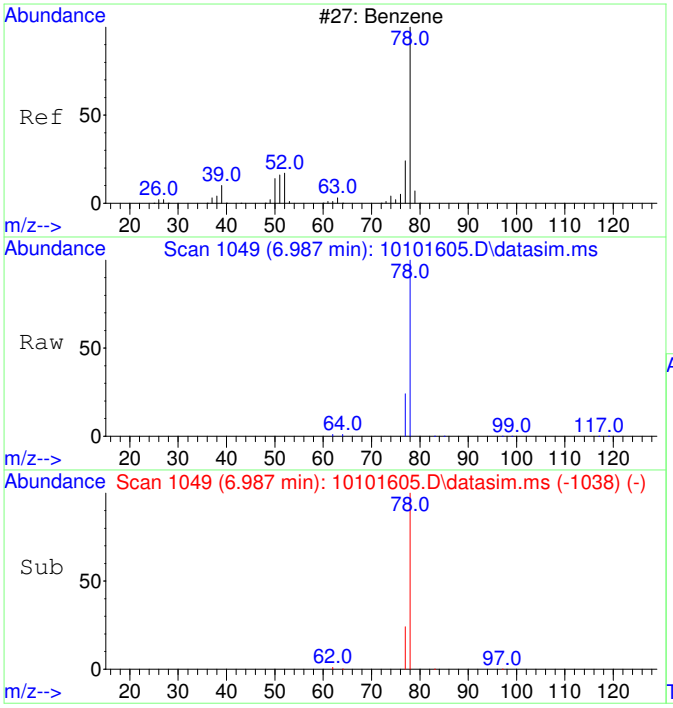


#16
Carbon tetrachloride SCAN
Concen: 5000.00 ug/L
RT: 6.381 min Scan# 999
Delta R.T. -0.242 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:117 Resp: 42400

Ion	Ratio	Lower	Upper
117	100		
119	118.7	66.0	122.6
121	41.0	22.1	41.1
82	23.0	18.5	34.3

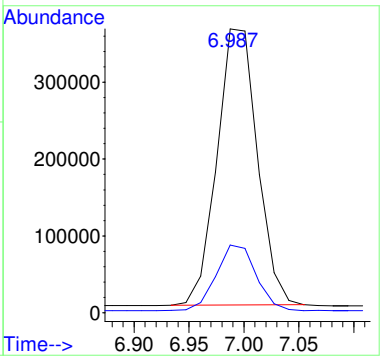


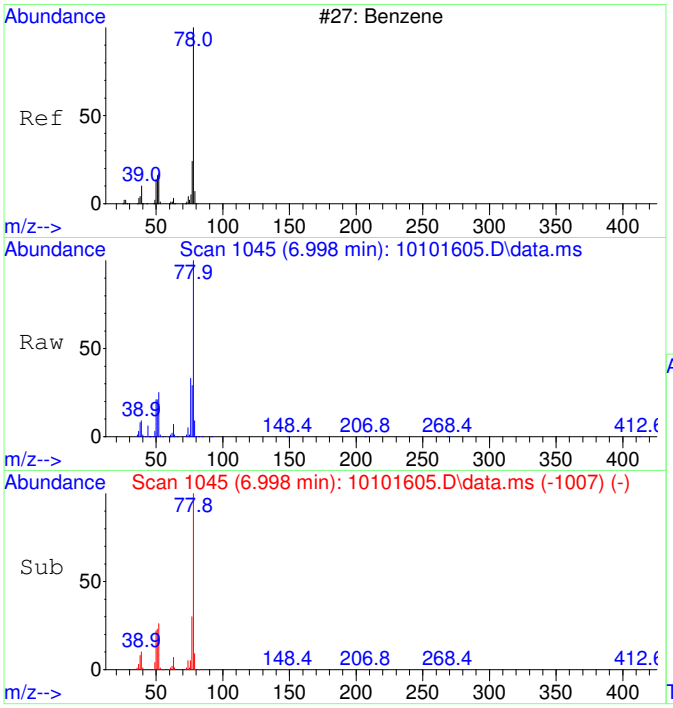


#17
Benzene
Concen: 4932.88 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 78 Resp: 923632

Ion	Ratio	Lower	Upper
78	100		
77	23.3	0.0	53.4

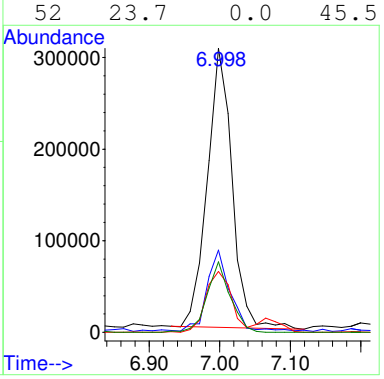


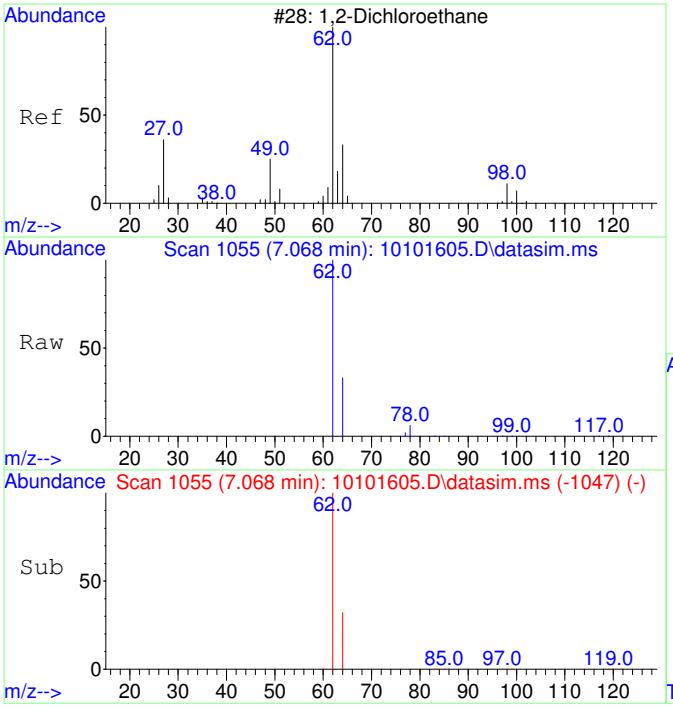


#18
Benzene SCAN
Concen: 5000.00 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 78 Resp: 744219

Ion	Ratio	Lower	Upper
78	100		
77	26.6	0.0	59.3
51	20.4	0.0	49.2
52	23.7	0.0	45.5

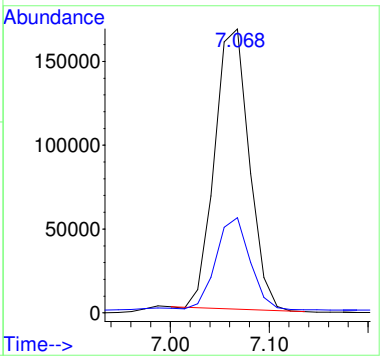


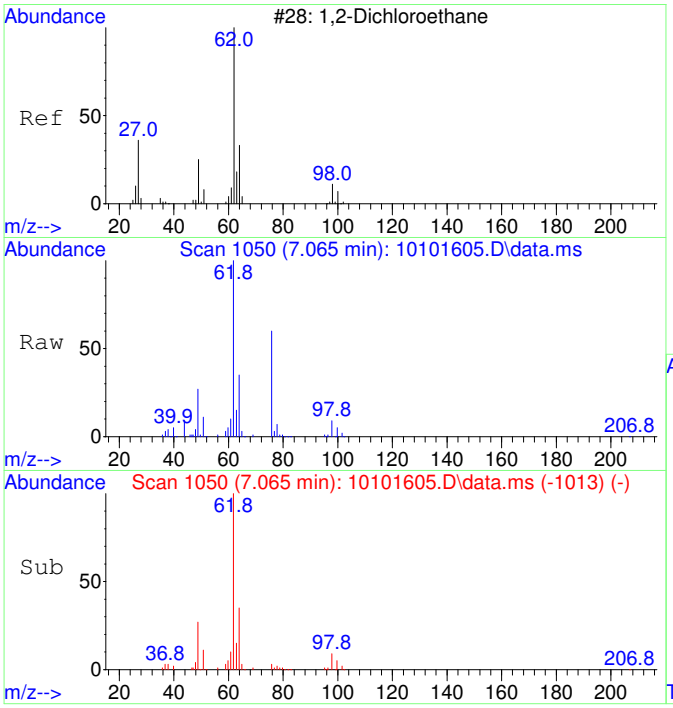


#19
1,2-Dichloroethane
Concen: 4840.48 ug/L
RT: 7.068 min Scan# 1055
Delta R.T. 0.013 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 62 Resp: 407303

Ion	Ratio	Lower	Upper
62	100		
64	31.9	2.7	62.7

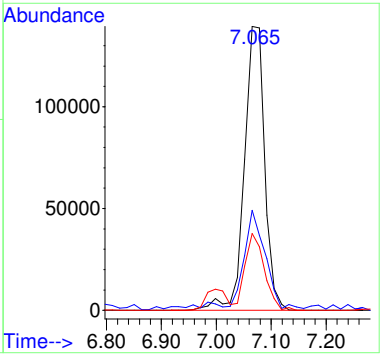


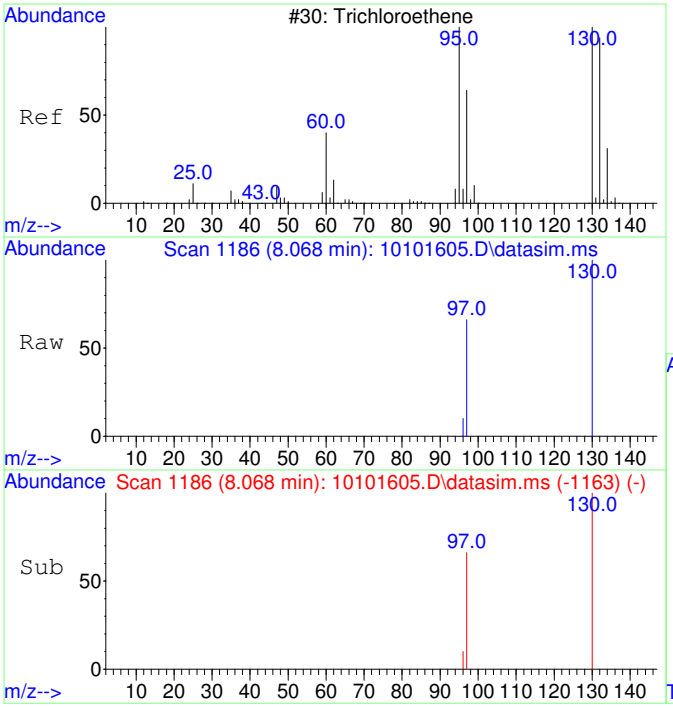


#20
1,2-Dichloroethane SCAN
Concen: 5000.00 ug/L
RT: 7.065 min Scan# 1050
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 62 Resp: 358833

Ion	Ratio	Lower	Upper
62	100		
64	33.9	1.9	61.9
49	23.3	0.0	51.8

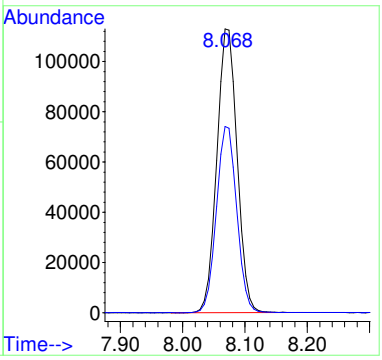


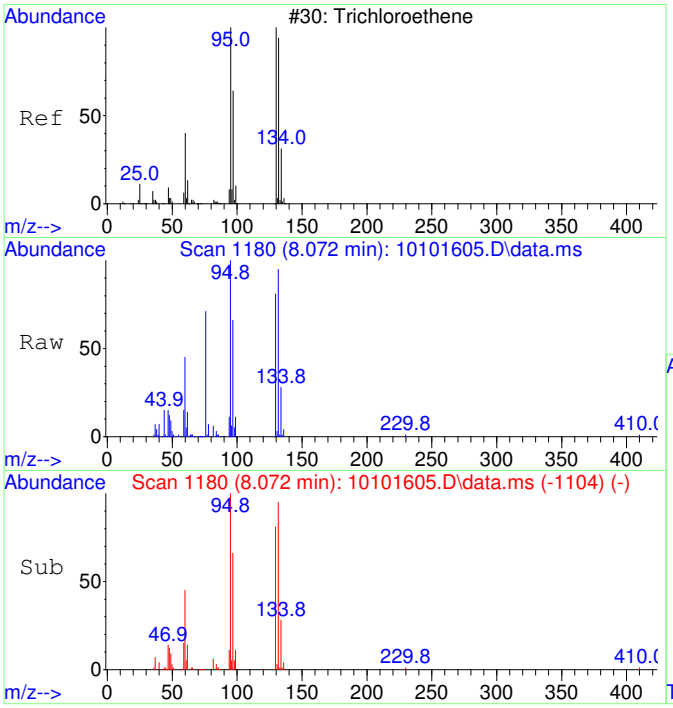


#21
Trichloroethene
Concen: 5087.00 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:130 Resp: 255162

Ion	Ratio	Lower	Upper
130	100		
97	65.6	29.9	89.9

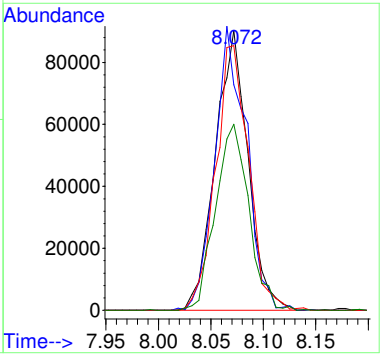


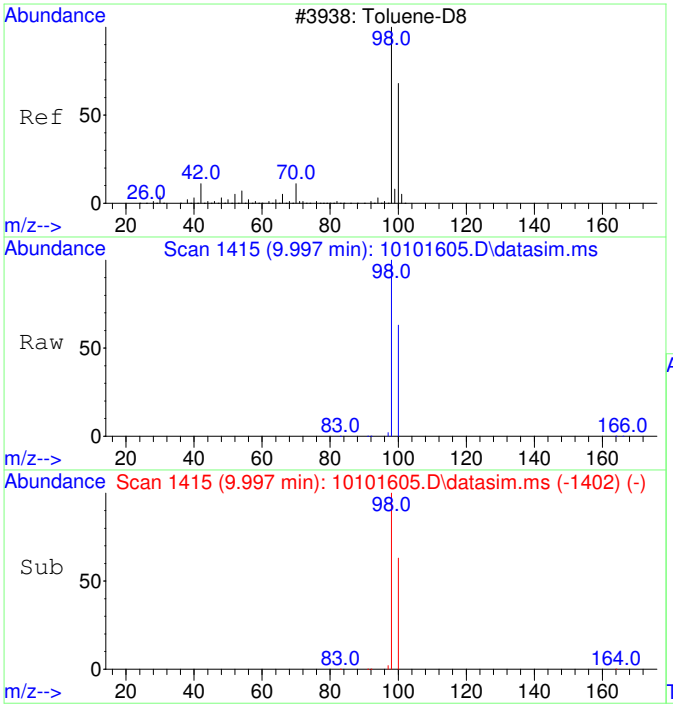


#22
Trichloroethene SCAN
Concen: 5000.00 ug/L
RT: 8.072 min Scan# 1180
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 95 Resp: 194883

Ion	Ratio	Lower	Upper
95	100		
130	98.2	74.1	134.1
132	96.1	72.1	132.1
97	68.0	29.5	89.5

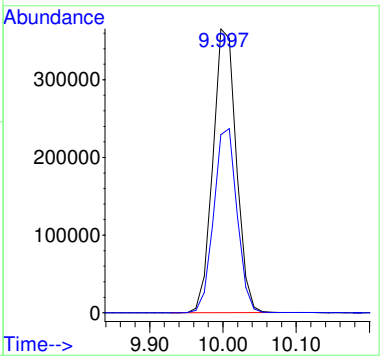


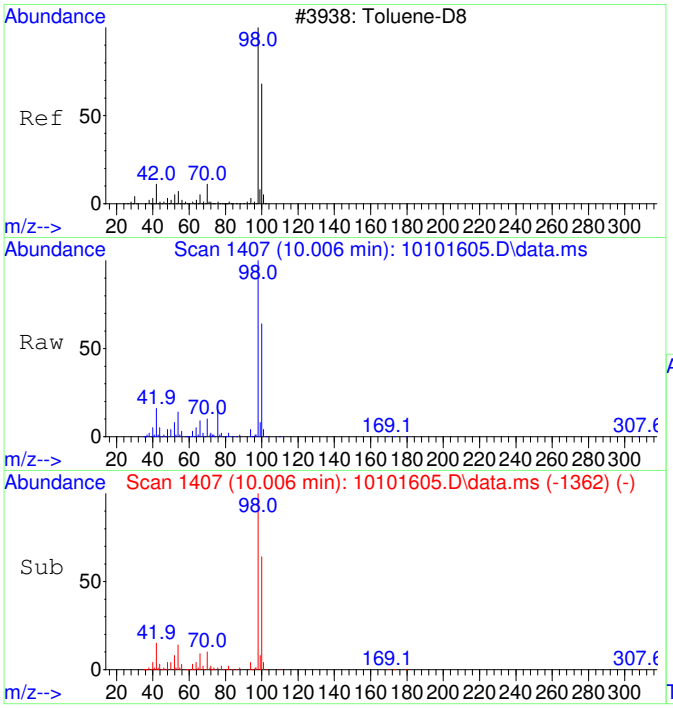


#23
Toluene-d8
Concen: 5341.46 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 98 Resp: 807056

Ion	Ratio	Lower	Upper
98	100		
100	64.5	35.3	95.3

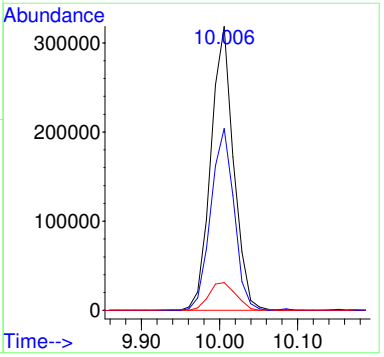


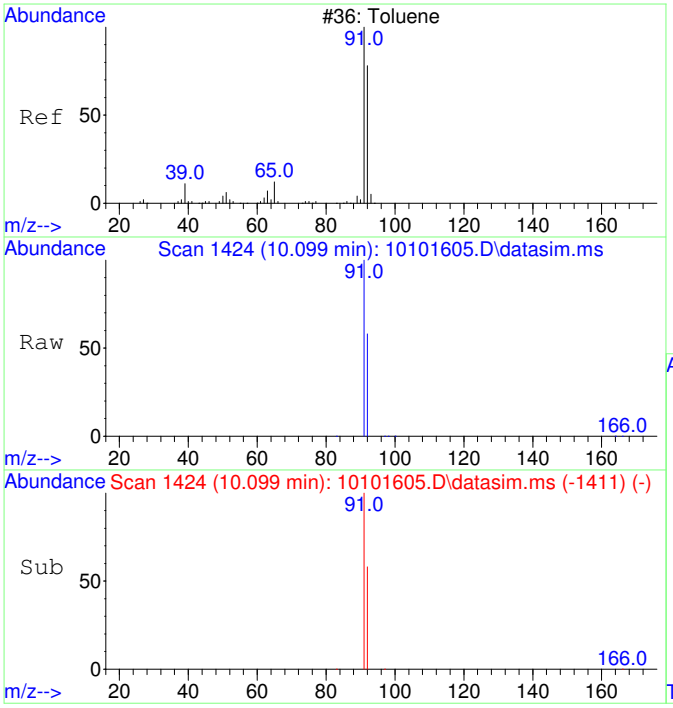


#24
Toluene-d8 SCAN
Concen: 5000.00 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 98 Resp: 645883

Ion	Ratio	Lower	Upper
98	100		
100	65.2	44.3	82.3
70	11.9	7.8	14.4

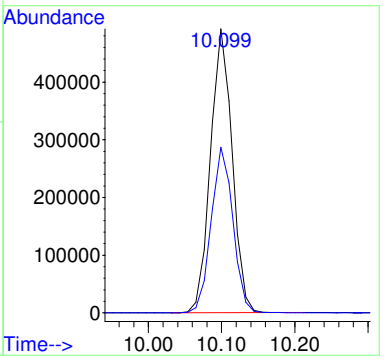


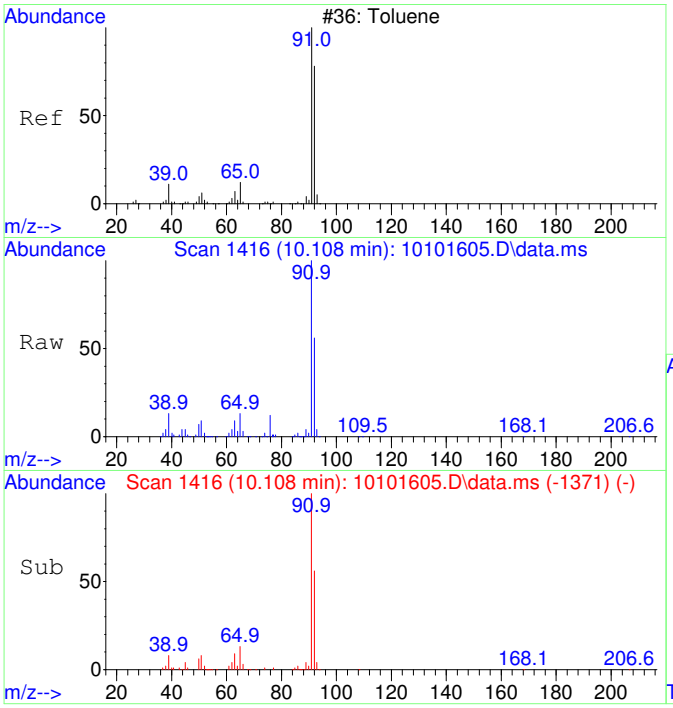


#25
Toluene
Concen: 5314.70 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 1009926

Ion	Ratio	Lower	Upper
91	100		
92	58.1	28.8	88.8

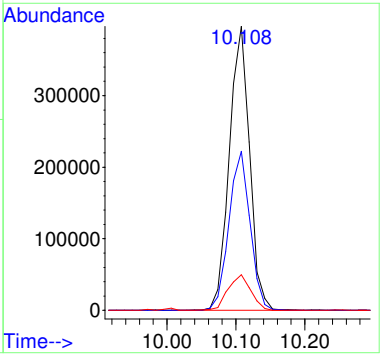


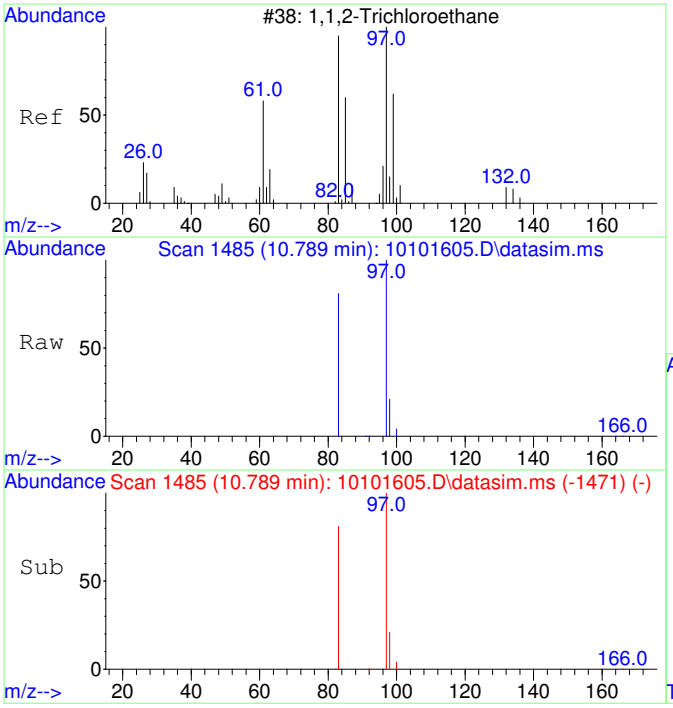


#26
Toluene SCAN
Concen: 5000.00 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 810814

Ion	Ratio	Lower	Upper
91	100		
92	58.2	30.7	90.7
65	14.1	0.0	42.6

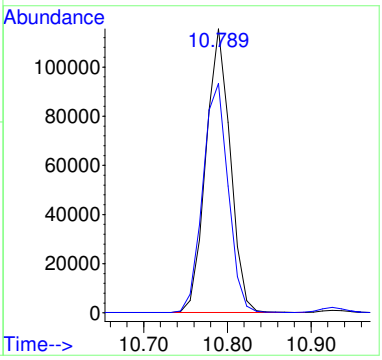


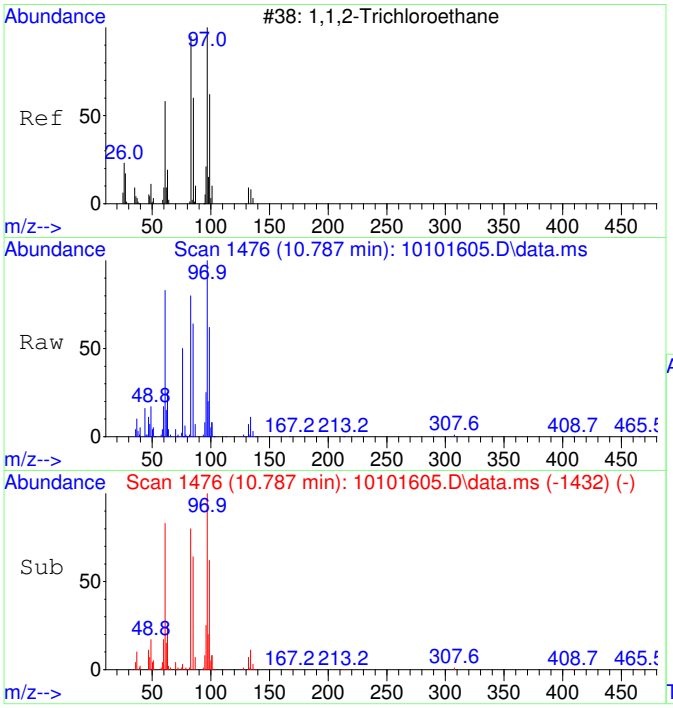


#27
1,1,2-Trichloroethane
Concen: 5253.61 ug/L
RT: 10.789 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 97 Resp: 233014

Ion	Ratio	Lower	Upper
97	100		
83	83.9	50.5	110.5

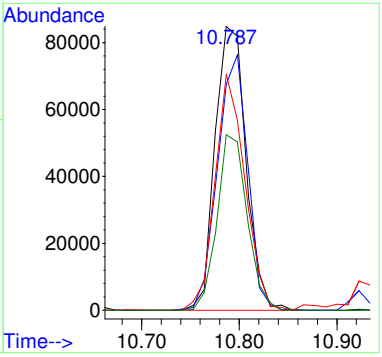


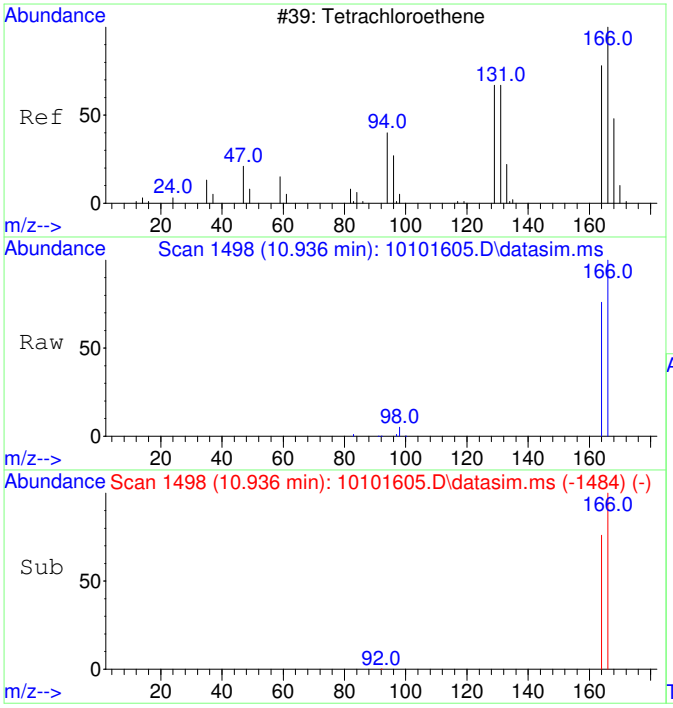


#28
1,1,2-Trichloroethane SCAN
Concen: 5000.00 ug/L
RT: 10.787 min Scan# 1476
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 97 Resp: 187096

Ion	Ratio	Lower	Upper
97	100		
83	87.9	53.8	113.8
61	80.3	31.3	91.3
99	60.4	32.9	92.9

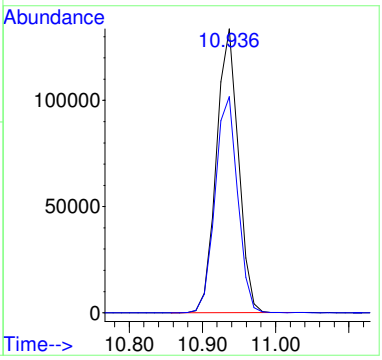


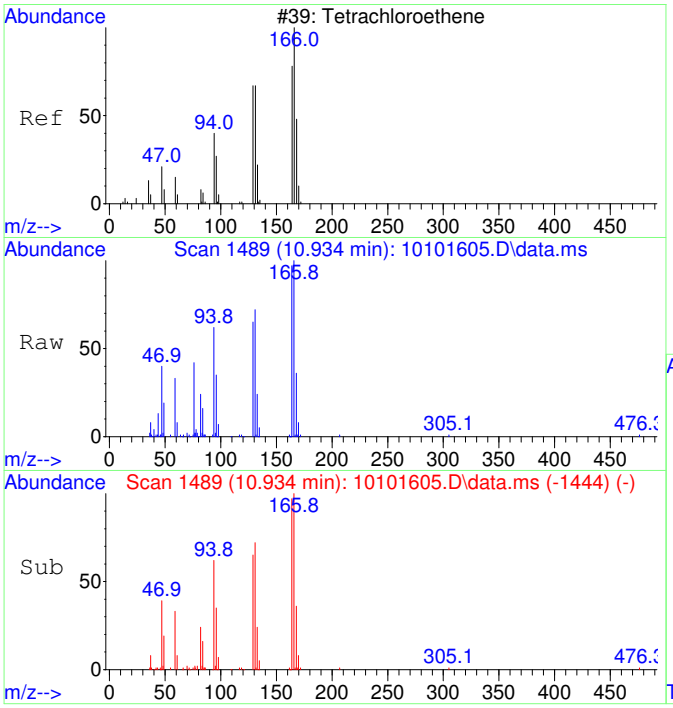


#29
Tetrachloroethene
Concen: 5305.96 ug/L
RT: 10.936 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:166 Resp: 277845

Ion	Ratio	Lower	Upper
166	100		
164	77.5	47.7	107.7

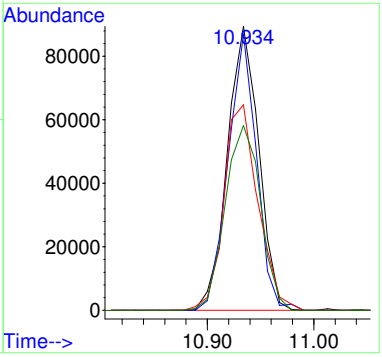


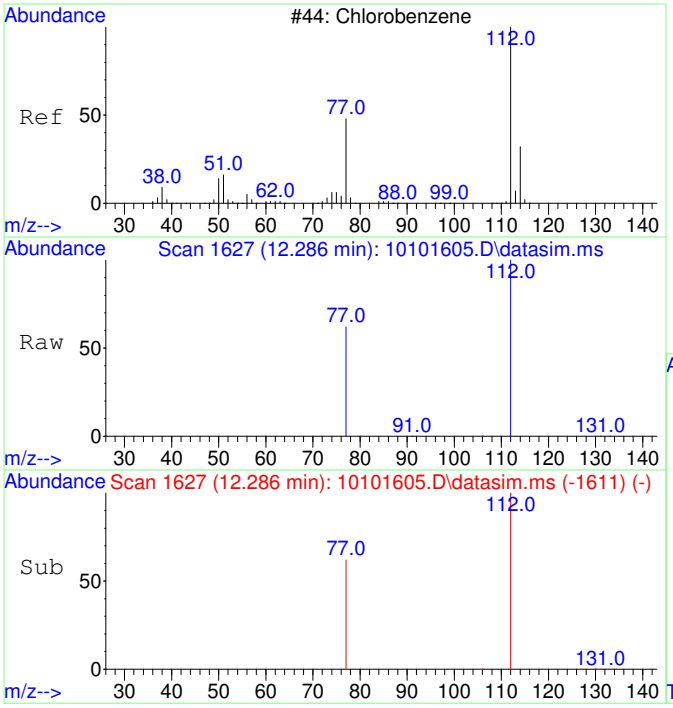


#30
Tetrachloroethene SCAN
Concen: 5000.00 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. 0.011 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:166 Resp: 183130

Ion	Ratio	Lower	Upper
166	100		
164	88.4	44.9	104.9
131	78.7	36.1	96.1
129	73.3	40.5	100.5

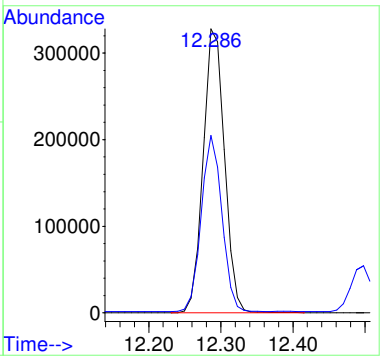


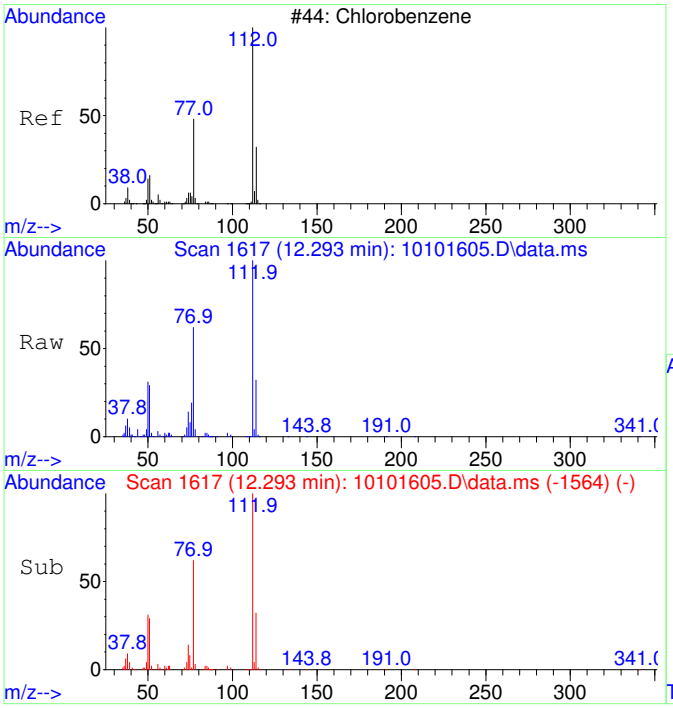


#31
Chlorobenzene
Concen: 5402.07 ug/L
RT: 12.286 min Scan# 1627
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:112 Resp: 673817

Ion	Ratio	Lower	Upper
112	100		
77	59.6	25.1	85.1

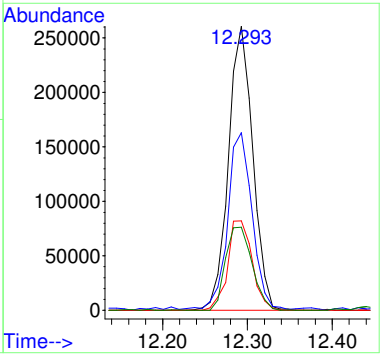


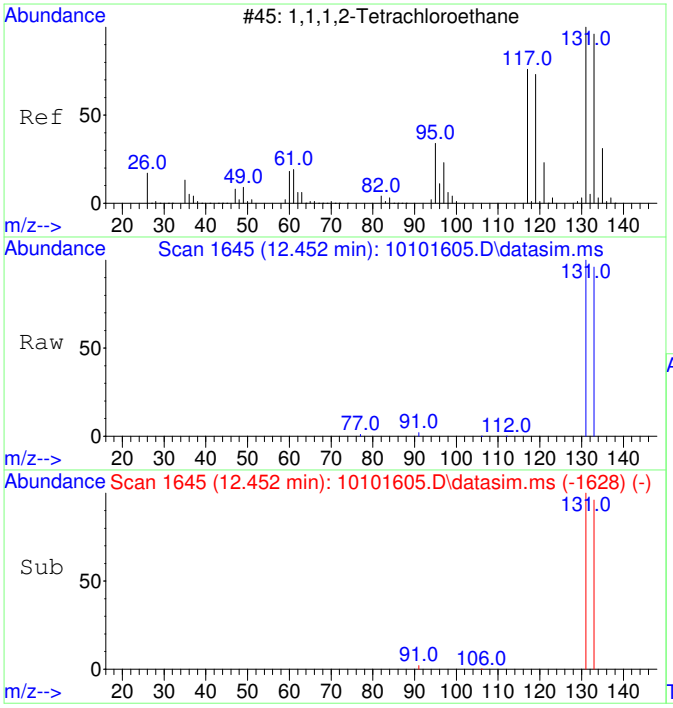


#32
Chlorobenzene SCAN
Concen: 5000.00 ug/L
RT: 12.293 min Scan# 1617
Delta R.T. 0.009 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:112 Resp: 520096

Ion	Ratio	Lower	Upper
112	100		
77	61.3	23.6	83.6
114	31.7	0.9	60.9
51	32.0	0.0	47.7

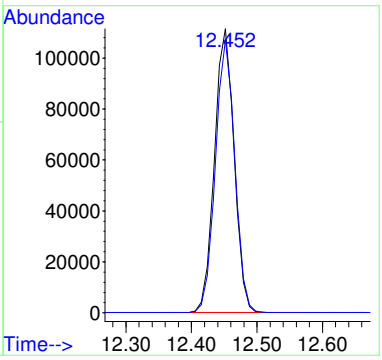


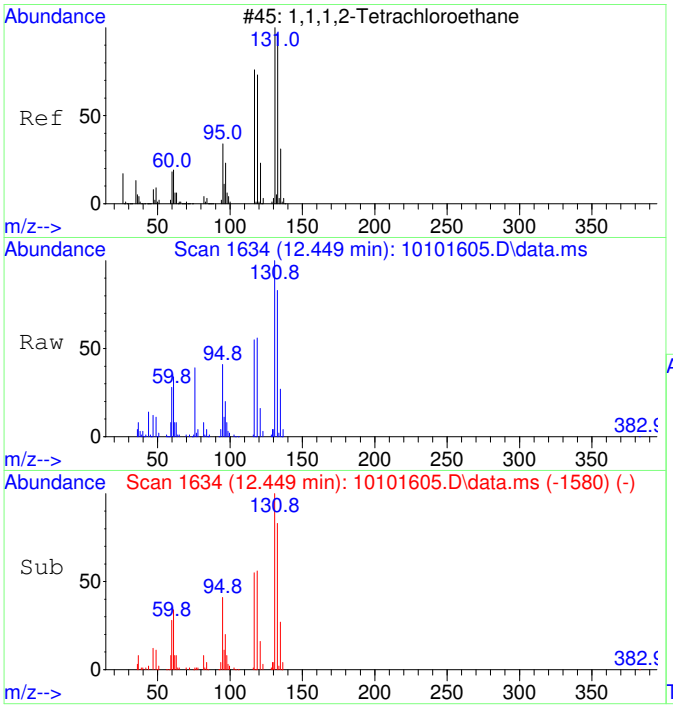


#33
1,1,1,2-Tetrachloroethane
Concen: 5454.03 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:131 Resp: 232040

Ion	Ratio	Lower	Upper
131	100		
133	94.7	64.8	124.8

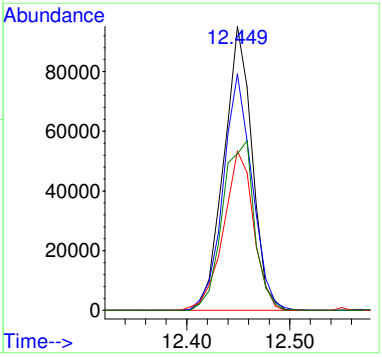


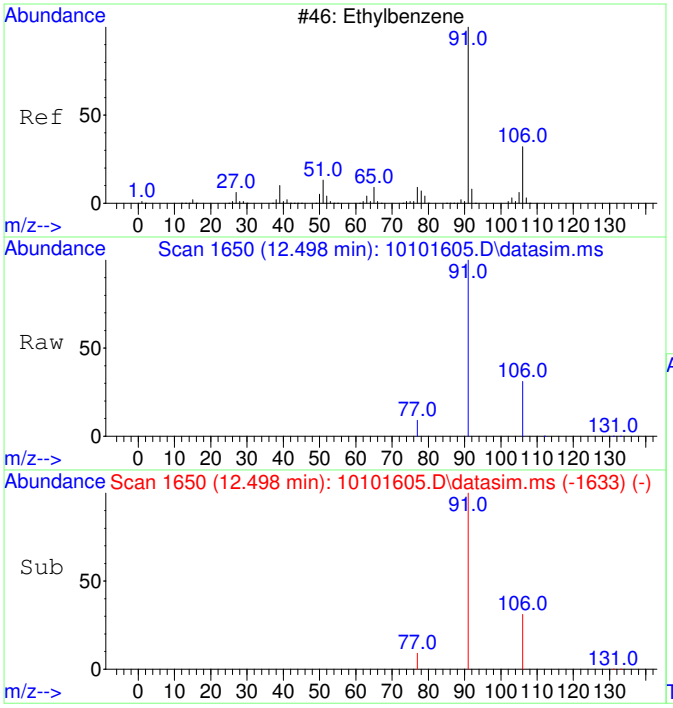


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 12.449 min Scan# 1634
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:131 Resp: 180409

Ion	Ratio	Lower	Upper
131	100		
133	86.0	64.7	124.7
119	60.1	34.9	94.9
117	67.8	36.2	96.2

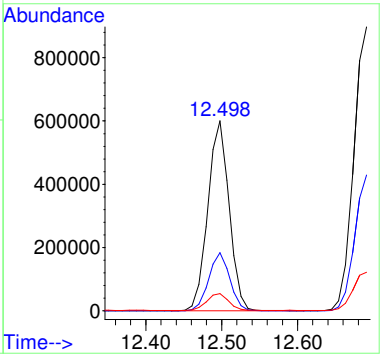


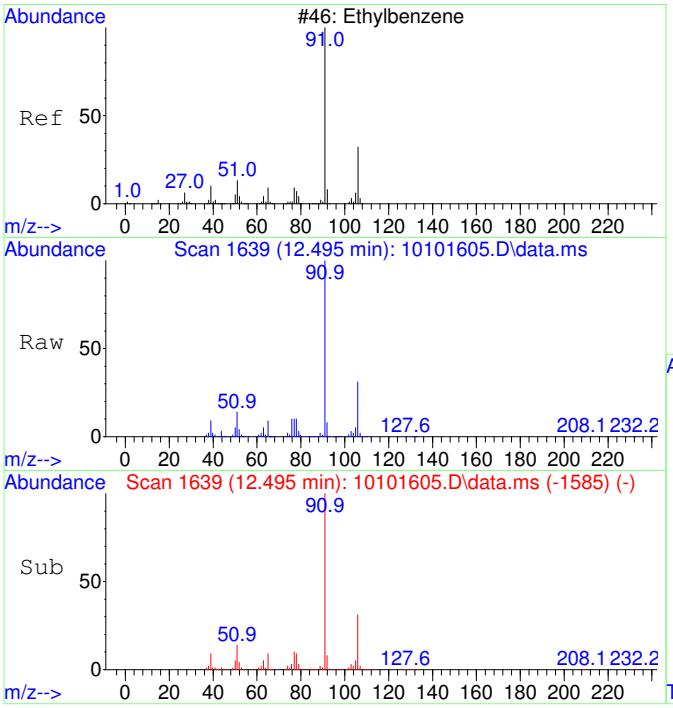


#35
Ethylbenzene
Concen: 5549.98 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 1169340

Ion	Ratio	Lower	Upper
91	100		
106	30.3	1.7	61.7
77	9.0	0.0	38.3

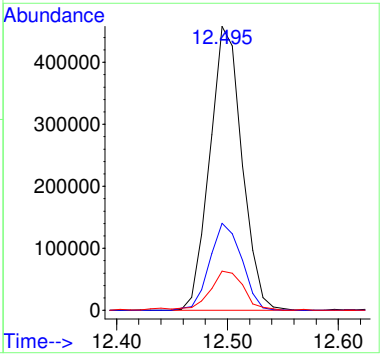


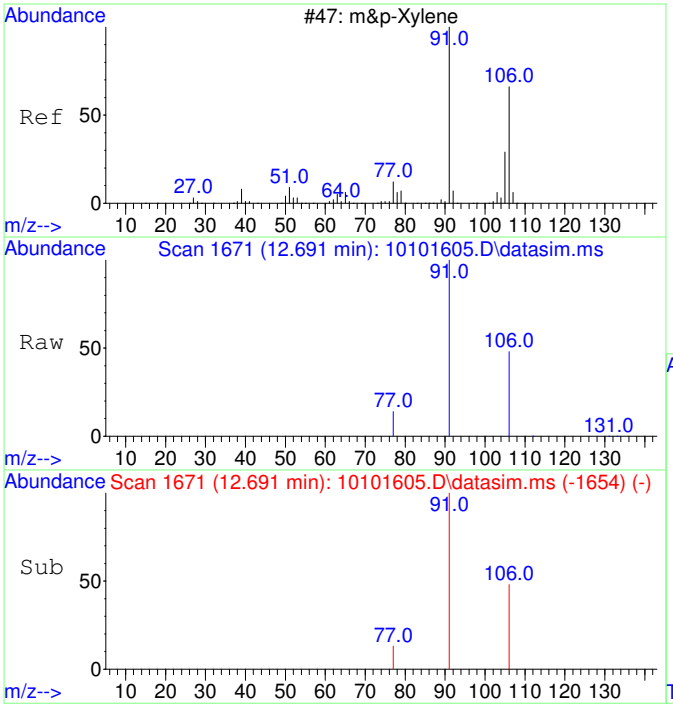


#36
Ethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 922659

Ion	Ratio	Lower	Upper
91	100		
106	30.7	2.3	62.3
51	15.0	0.0	39.6

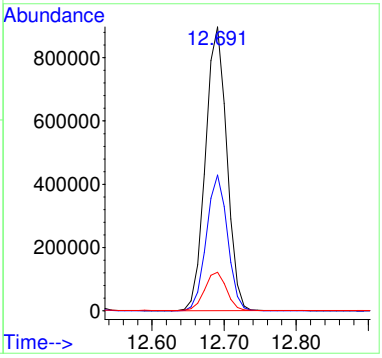


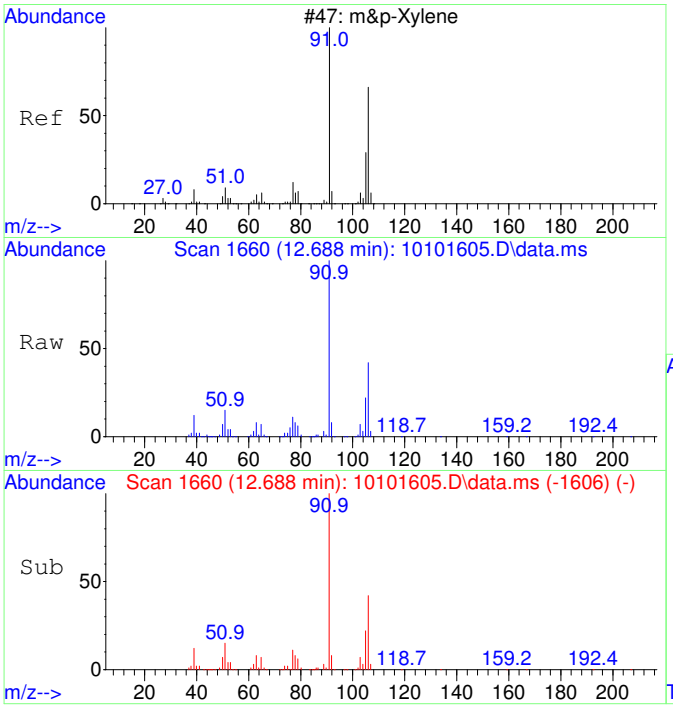


#37
m&p-Xylene
Concen: 11128.54 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 1847481

Ion	Ratio	Lower	Upper
91	100		
106	47.2	19.4	79.4
77	13.5	0.0	42.6

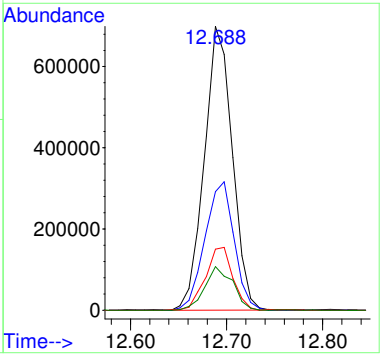


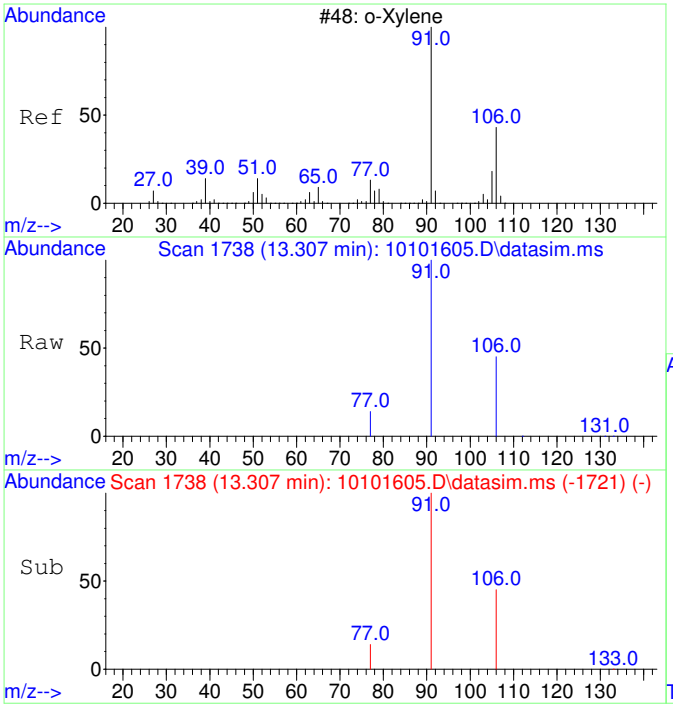


#38
m&p-Xylene SCAN
Concen: 10000.00 ug/L
RT: 12.688 min Scan# 1660
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 1417469

Ion	Ratio	Lower	Upper
91	100		
106	47.3	18.0	78.0
105	22.1	0.0	53.1
51	15.4	0.0	39.4

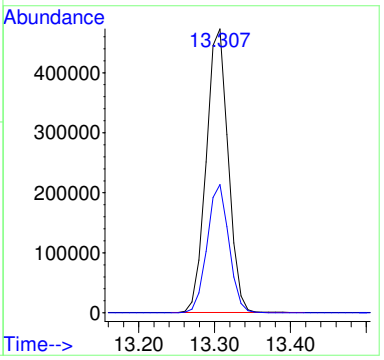


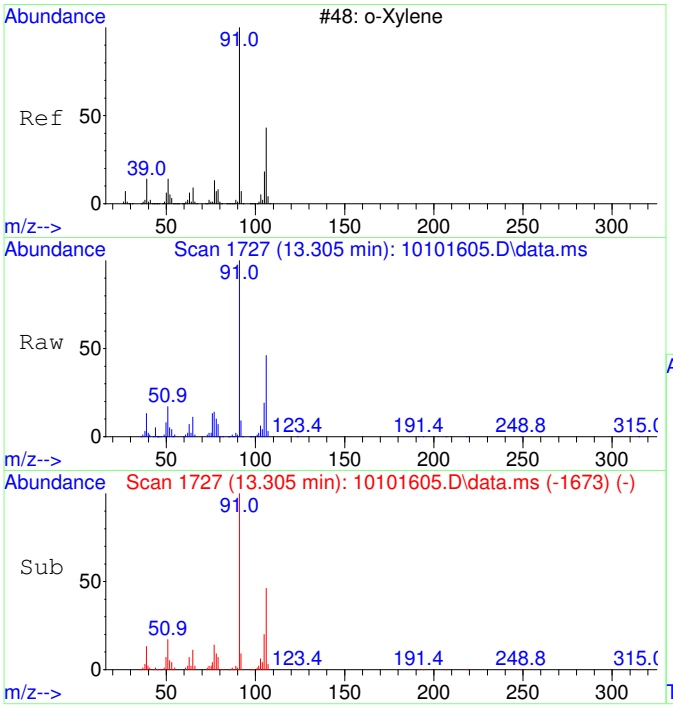


#39
o-Xylene
Concen: 5560.01 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 950716

Ion	Ratio	Lower	Upper
91	100		
106	44.6	17.2	77.2

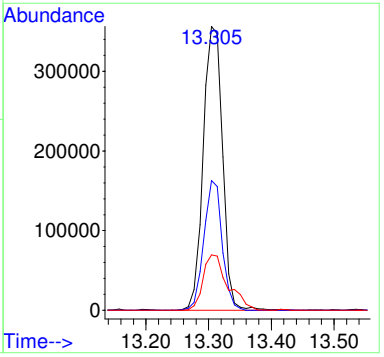


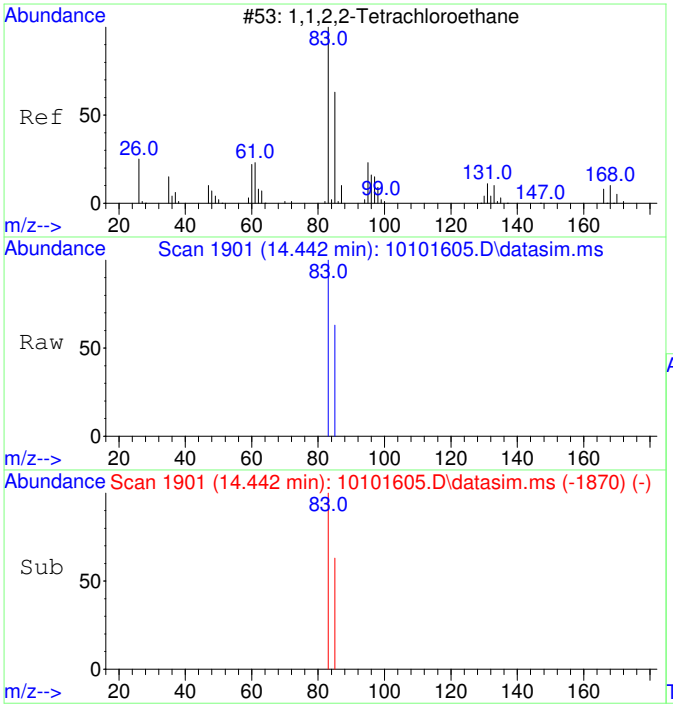


#40
o-Xylene SCAN
Concen: 5000.00 ug/L
RT: 13.305 min Scan# 1727
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 91 Resp: 767052

Ion	Ratio	Lower	Upper
91	100		
106	43.3	18.0	78.0
105	25.0	0.0	56.8

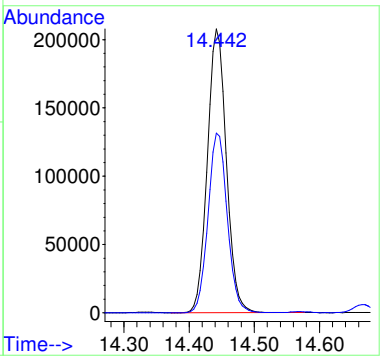


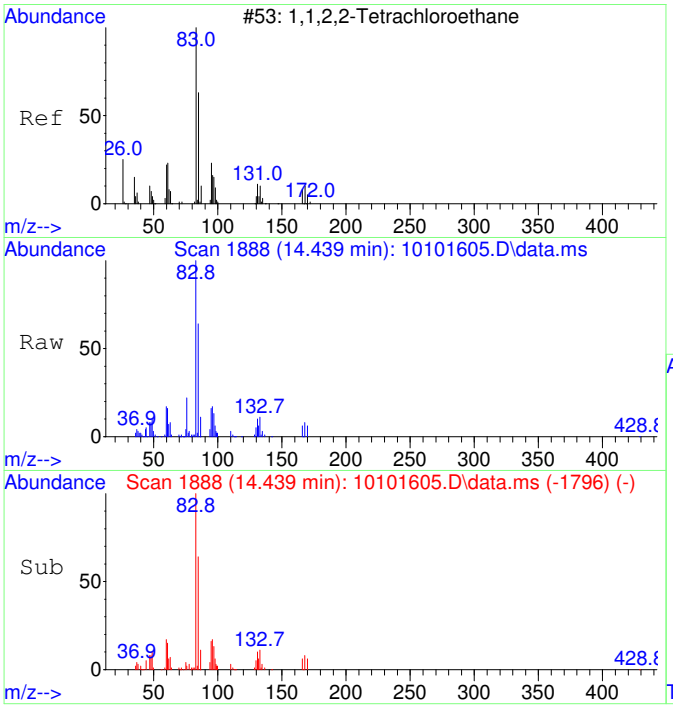


#41
1,1,2,2-Tetrachloroethane
Concen: 5552.16 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 83 Resp: 419336

Ion	Ratio	Lower	Upper
83	100		
85	63.9	34.4	94.4

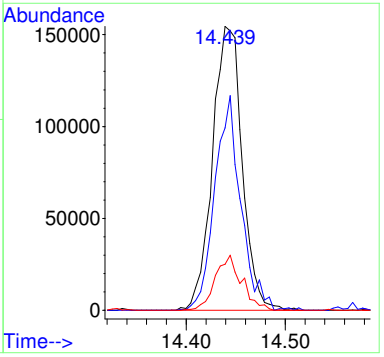


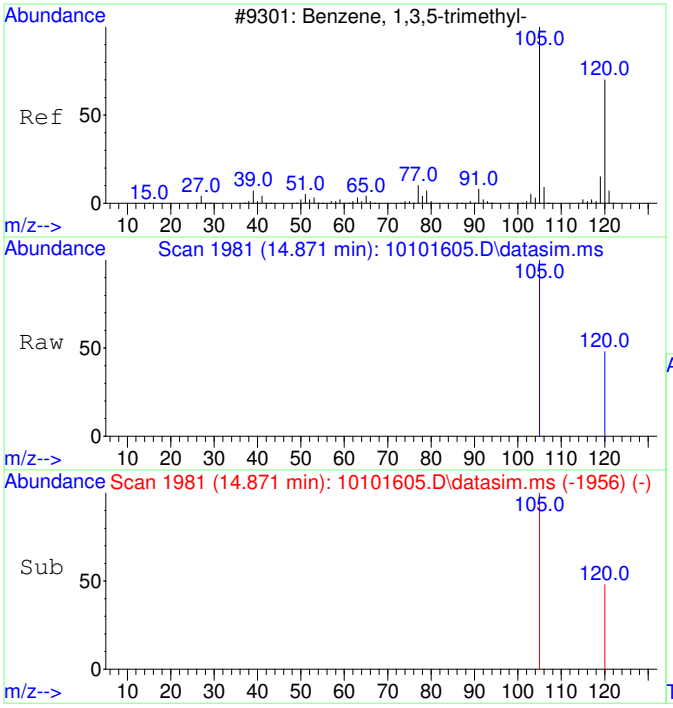


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 5000.00 ug/L
RT: 14.439 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion: 83 Resp: 322861

Ion	Ratio	Lower	Upper
83	100		
85	65.1	33.2	93.2
95	17.4	0.0	47.2

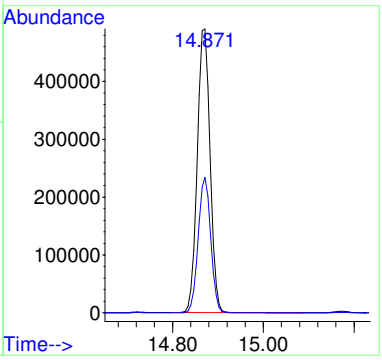


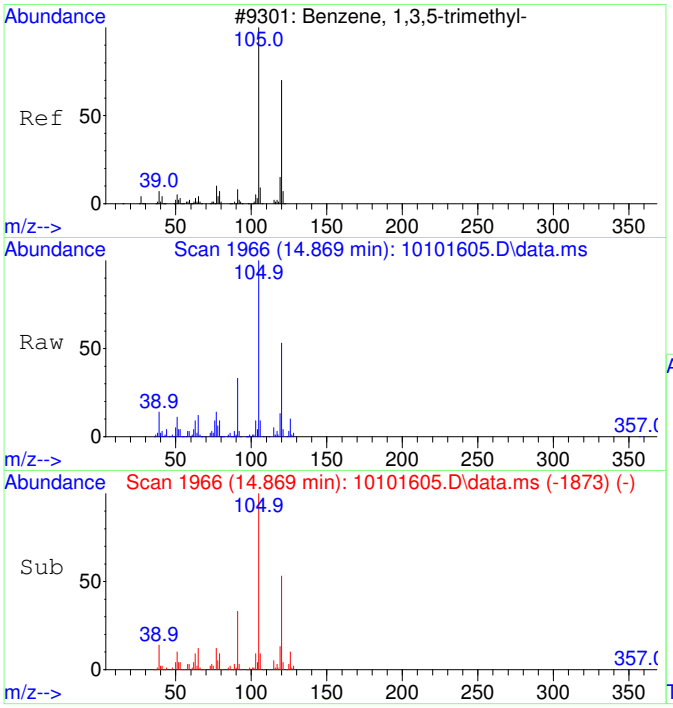


#43
1,3,5-Trimethylbenzene
Concen: 5722.26 ug/L
RT: 14.871 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:105 Resp: 955807

Ion	Ratio	Lower	Upper
105	100		
120	46.8	19.7	79.7

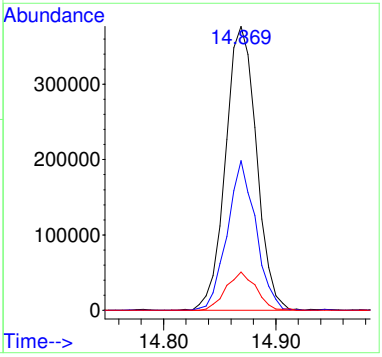


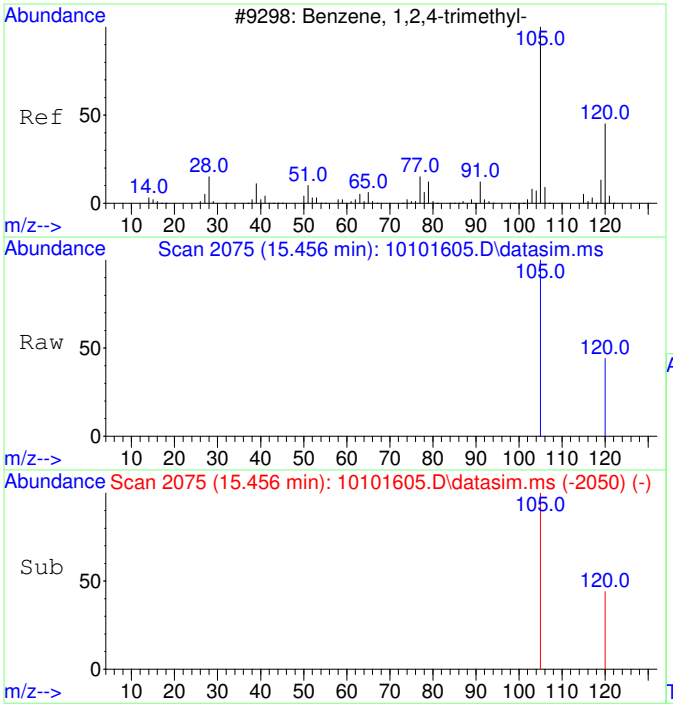


#44
1,3,5-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 14.869 min Scan# 1966
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:105 Resp: 719963

Ion	Ratio	Lower	Upper
105	100		
120	48.8	22.1	82.1
119	13.1	0.0	42.9

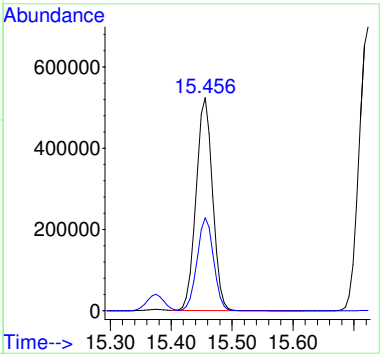


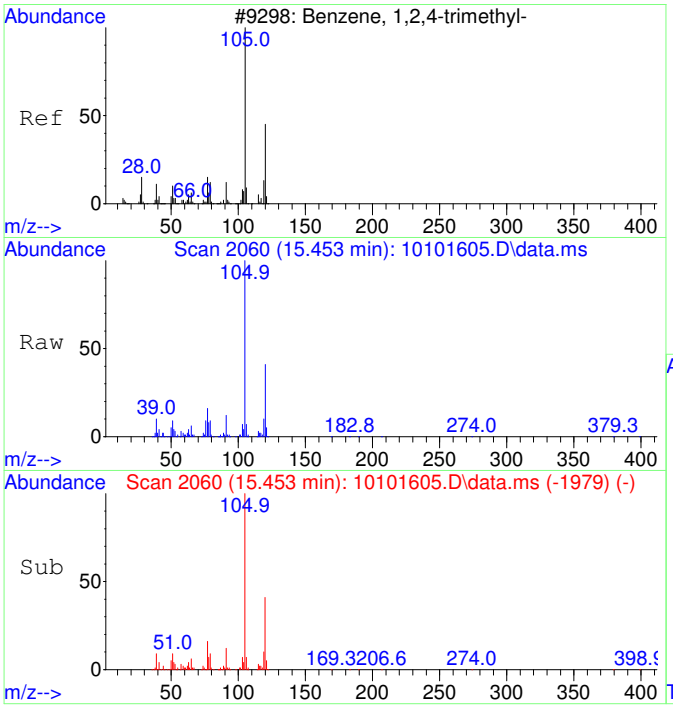


#45
1,2,4-Trimethylbenzene
Concen: 5745.00 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:105 Resp: 982816

Ion	Ratio	Lower	Upper
105	100		
120	43.3	15.7	75.7

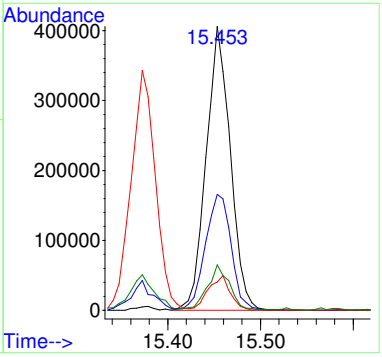


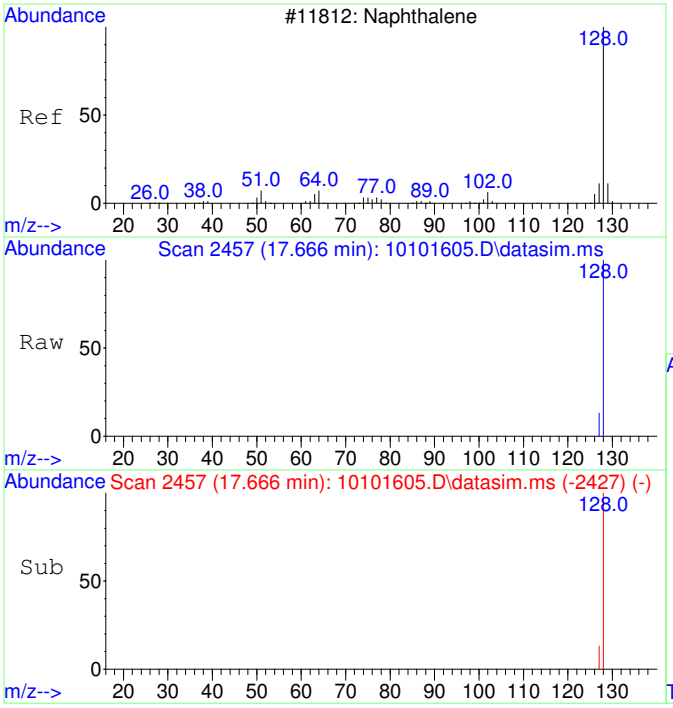


#46
1,2,4-Trimethylbenzene SCAN
Concen: 5000.00 ug/L
RT: 15.453 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:105 Resp: 738500

Ion	Ratio	Lower	Upper
105	100		
120	42.4	17.2	77.2
119	10.5	0.0	41.3
77	14.0	0.0	43.1

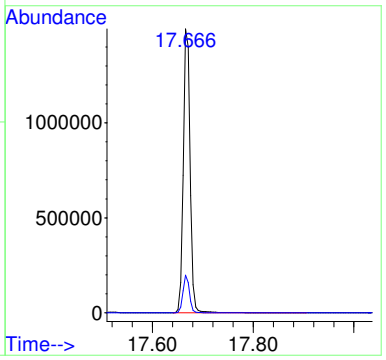


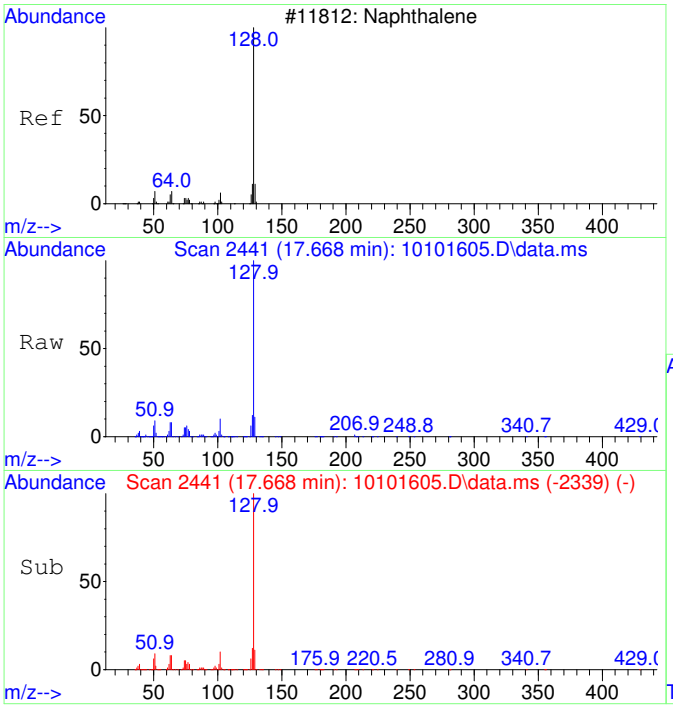


#47
Naphthalene
Concen: 5558.83 ug/L
RT: 17.666 min Scan# 2457
Delta R.T. -0.000 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:128 Resp: 1384164

Ion	Ratio	Lower	Upper
128	100		
127	12.7	0.0	42.6

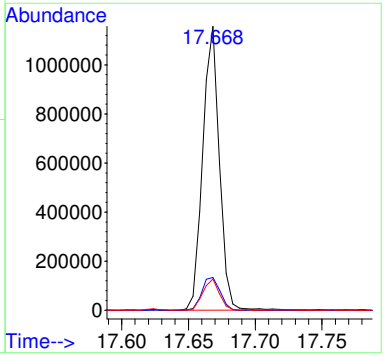




#48
Naphthalene SCAN
Concen: 5000.00 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10101605.D
Acq: 10 Oct 2016 15:23

Tgt Ion:128 Resp: 1004211

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	43.1
129	10.9	0.0	41.0



S16J050-CAL4

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101606.D
Acq On : 10 Oct 2016 15:46
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL4
Misc : 1635075 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 11 10:13:13 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

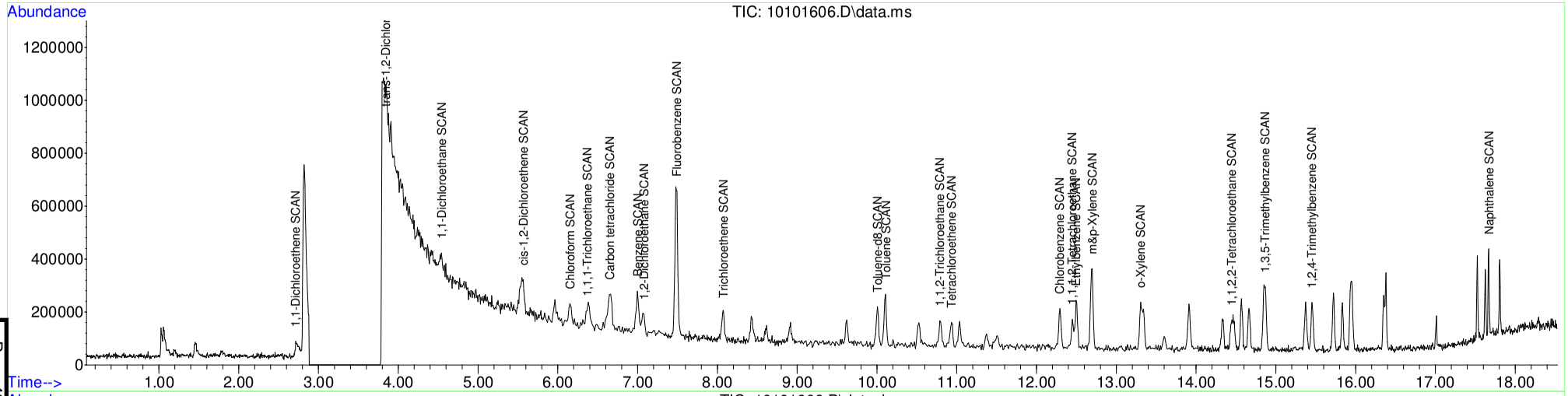
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.482	96	750776	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	130412	894.86	ug/L	0.00
Spiked Amount 5000.000 Range 70 - 130 Recovery = 17.90%#						
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.493	96	585679	5005.40	ug/L	94
3] 1,1-Dichloroethene	2.728	61	86913	936.07	ug/L	80
4) 1,1-Dichloroethene SCAN	2.716	61	74400	1163.01	ug/L	74
5] trans-1,2-Dichloroethene	3.841	61	74459	963.24	ug/L	99
6) trans-1,2-Dichloroethe...	3.846	61	66806	1282.27	ug/L	80
7] 1,1-Dichloroethane	4.535	63	95624	966.94	ug/L	96
8) 1,1-Dichloroethane SCAN	4.540	63	86750	1222.07	ug/L	95
9] cis-1,2-Dichloroethene	5.561	61	89971	972.35	ug/L	98
10) cis-1,2-Dichloroethene...	5.566	61	81486	1164.87	ug/L	81
11] Chloroform	6.142	83	86570	952.40	ug/L	99
12) Chloroform SCAN	6.153	83	70900	1096.57	ug/L	91
13] 1,1,1-Trichloroethane	6.370	97	78065	934.94	ug/L	99
14) 1,1,1-Trichloroethane ...	6.368	97	67332	1018.28	ug/L #	25
15] Carbon tetrachloride	6.639	117	66345	921.05	ug/L	100
16) Carbon tetrachloride SCAN	6.649	117	46254	5655.01	ug/L #	68
17] Benzene	6.987	78	171916	951.91	ug/L	98
18) Benzene SCAN	6.998	78	157898	1099.83	ug/L	97
19] 1,2-Dichloroethane	7.055	62	77841	959.09	ug/L	98
20) 1,2-Dichloroethane SCAN	7.079	62	69344	1001.77	ug/L	80
21] Trichloroethene	8.068	130	44597	921.79	ug/L	93
22) Trichloroethene SCAN	8.079	95	38756	1030.90	ug/L	83
24) Toluene-d8 SCAN	10.006	98	107394	861.94	ug/L	96
25] Toluene	10.099	91	161844	883.01	ug/L	99
26) Toluene SCAN	10.108	91	147697	944.28	ug/L	84
27] 1,1,2-Trichloroethane	10.789	97	37819	884.03	ug/L	96
28) 1,1,2-Trichloroethane ...	10.787	97	28978	802.89	ug/L #	66
29] Tetrachloroethene	10.937	166	43885	868.88	ug/L	99
30) Tetrachloroethene SCAN	10.934	166	37598	1064.28	ug/L	87
31] Chlorobenzene	12.295	112	104018	864.58	ug/L	94
32) Chlorobenzene SCAN	12.293	112	73200	729.59	ug/L	65
33] 1,1,1,2-Tetrachloroethane	12.452	131	35071	854.64	ug/L	99
34) 1,1,1,2-Tetrachloroeth...	12.449	131	25111	721.53	ug/L	82
35] Ethylbenzene	12.498	91	175131	861.77	ug/L	97
36) Ethylbenzene SCAN	12.495	91	160268	900.44	ug/L	88
37] m&p-Xylene	12.691	91	272962	1704.67	ug/L	96
38) m&p-Xylene SCAN	12.698	91	212344	1553.13	ug/L	95
39] o-Xylene	13.307	91	140766	853.50	ug/L	96
40) o-Xylene SCAN	13.305	91	114236	772.02	ug/L	93
41] 1,1,2,2-Tetrachloroethane	14.442	83	61999	851.07	ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.449	83	53253	855.02	ug/L	97
43] 1,3,5-Trimethylbenzene	14.871	105	133351	827.70	ug/L	95
44) 1,3,5-Trimethylbenzene...	14.869	105	109324	787.15	ug/L	94
45] 1,2,4-Trimethylbenzene	15.456	105	135643	822.04	ug/L	95
46) 1,2,4-Trimethylbenzene...	15.453	105	111195	780.52	ug/L	90
47] Naphthalene	17.666	128	195729	814.95	ug/L	100
48) Naphthalene SCAN	17.668	128	149899	773.79	ug/L	99

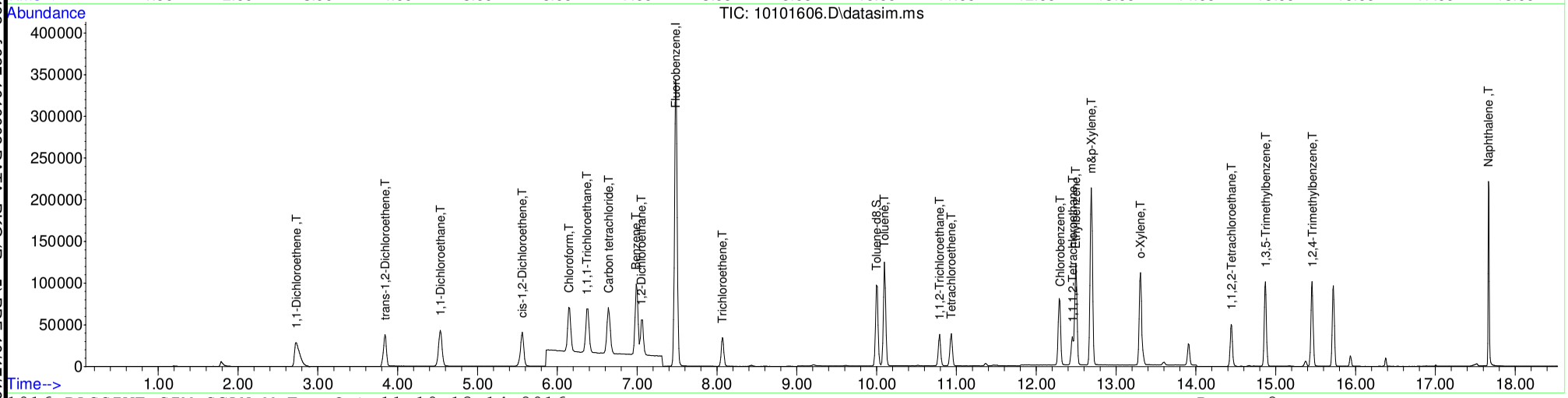
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101606.D
Acq On : 10 Oct 2016 15:46
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL4
Misc : 1635075 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 11 10:13:13 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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S16J050-CAL5

Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101607.D
Acq On : 10 Oct 2016 16:10
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
RH at 10:23 am, Oct 11, 2016

M.I. Approved By:
ZAR at 12:58 pm, Oct 14, 201

Quant Time: Oct 11 10:13:33 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

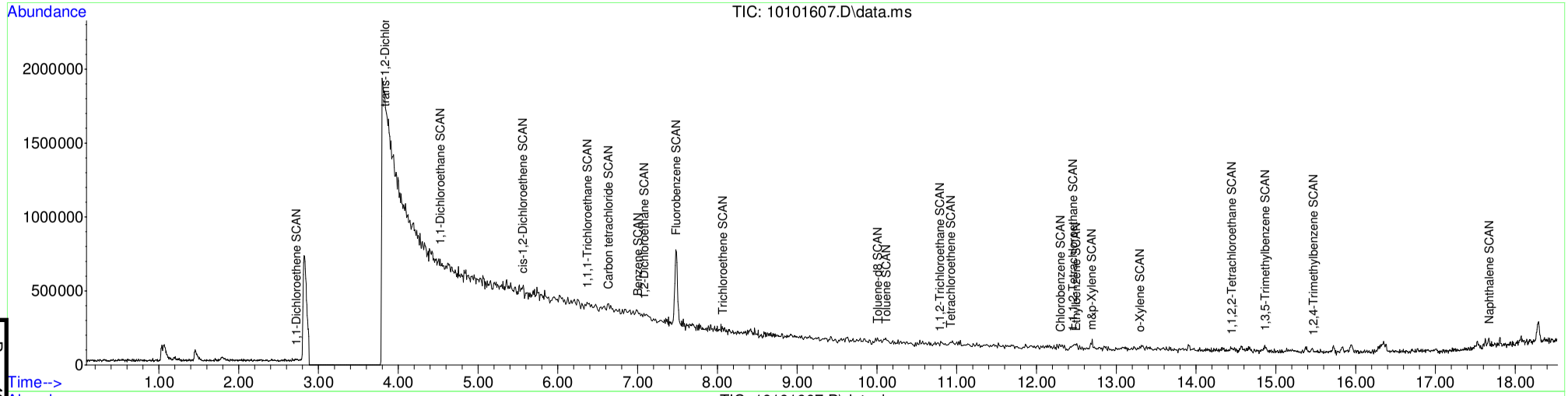
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.483	96	625550	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	16786	138.24	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 2.76%#			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.480	96	479794	4921.33	ug/L	92
3] 1,1-Dichloroethene	2.728	61	13365m	172.76	ug/L	
4) 1,1-Dichloroethene SCAN	2.720	61	3183	59.72	ug/L #	71
5] trans-1,2-Dichloroethene	3.841	61	11397	176.95	ug/L	91
6) trans-1,2-Dichloroethe...	3.830	61	10007	230.52	ug/L	93
7] 1,1-Dichloroethane	4.535	63	14067	170.72	ug/L	98
8) 1,1-Dichloroethane SCAN	4.525	63	15507	262.18	ug/L	92
9] cis-1,2-Dichloroethene	5.561	61	13114	170.10	ug/L	98
10) cis-1,2-Dichloroethene...	5.558	61	6518	111.83	ug/L	79
11] Chloroform	6.142	83	12360	163.20	ug/L	97
13] 1,1,1-Trichloroethane	6.370	97	10800	155.24	ug/L	98
14) 1,1,1-Trichloroethane ...	6.368	97	8474	153.81	ug/L #	45
15] Carbon tetrachloride	6.639	117	8848	147.42	ug/L	98
16) Carbon tetrachloride SCAN	6.636	117	7173	1052.53	ug/L #	59
17] Benzene	6.987	78	24726	164.32	ug/L	90
18) Benzene SCAN	6.998	78	52325	437.43	ug/L #	69
19] 1,2-Dichloroethane	7.055	62	10594	156.66	ug/L	88
20) 1,2-Dichloroethane SCAN	7.079	62	8830	153.10	ug/L #	27
21] Trichloroethene	8.068	130	5991	148.62	ug/L	93
22) Trichloroethene SCAN	8.065	95	5812	185.55	ug/L #	83
24) Toluene-d8 SCAN	10.006	98	17895	172.38	ug/L #	30
25] Toluene	10.099	91	20857	136.57	ug/L	99
26) Toluene SCAN	10.108	91	24222	185.86	ug/L #	82
27] 1,1,2-Trichloroethane	10.789	97	4964	139.26	ug/L	100
28) 1,1,2-Trichloroethane ...	10.787	97	5495	182.73	ug/L #	70
29] Tetrachloroethene	10.937	166	5725	136.04	ug/L	98
30) Tetrachloroethene SCAN	10.923	166	6185	210.13	ug/L #	63
31] Chlorobenzene	12.295	112	12978	129.47	ug/L	93
32) Chlorobenzene SCAN	12.302	112	12492	149.43	ug/L #	34
33] 1,1,1,2-Tetrachloroethane	12.452	131	4444	129.97	ug/L	96
34) 1,1,1,2-Tetrachloroeth...	12.458	131	3729	128.60	ug/L	74
35] Ethylbenzene	12.498	91	21798	128.73	ug/L	97
36) Ethylbenzene SCAN	12.495	91	20050	135.20	ug/L	89
37] m&p-Xylene	12.691	91	33874	253.89	ug/L	96
38) m&p-Xylene SCAN	12.688	91	29569	259.57	ug/L	88
39] o-Xylene	13.307	91	17252	125.54	ug/L	98
40) o-Xylene SCAN	13.295	91	20551	166.69	ug/L	84
41] 1,1,2,2-Tetrachloroethane	14.442	83	7684	126.59	ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.439	83	7744	149.23	ug/L	87
43] 1,3,5-Trimethylbenzene	14.871	105	16497	122.89	ug/L	96
44) 1,3,5-Trimethylbenzene...	14.863	105	13060	112.86	ug/L	96
45] 1,2,4-Trimethylbenzene	15.456	105	16486	119.91	ug/L	96
46) 1,2,4-Trimethylbenzene...	15.466	105	16351	137.75	ug/L #	47
47] Naphthalene	17.671	128	23920	119.53	ug/L	100
48) Naphthalene SCAN	17.668	128	18854	116.81	ug/L	91

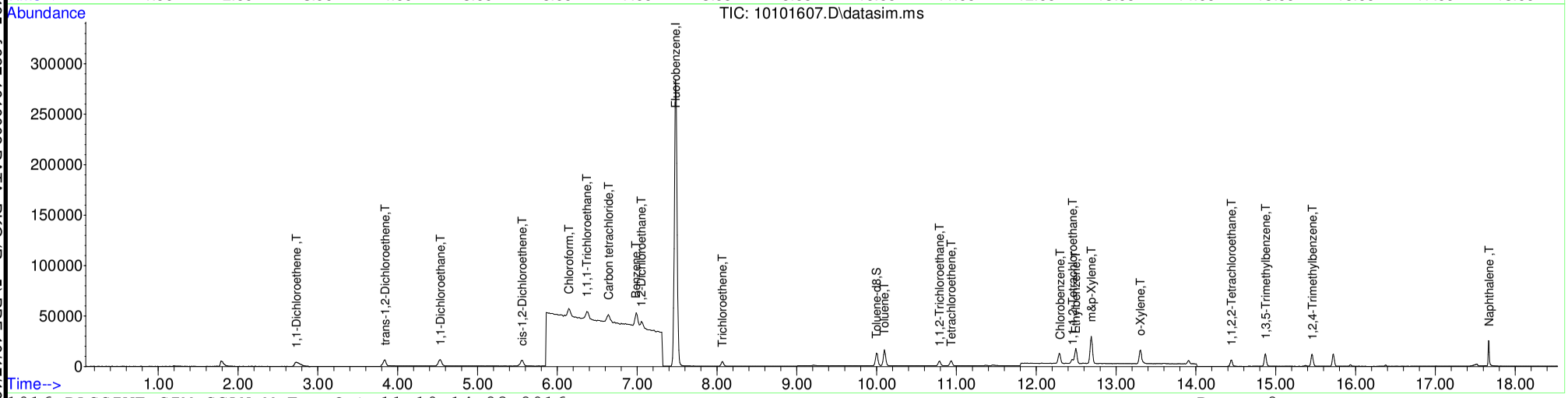
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101607.D
Acq On : 10 Oct 2016 16:10
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 10:13:33 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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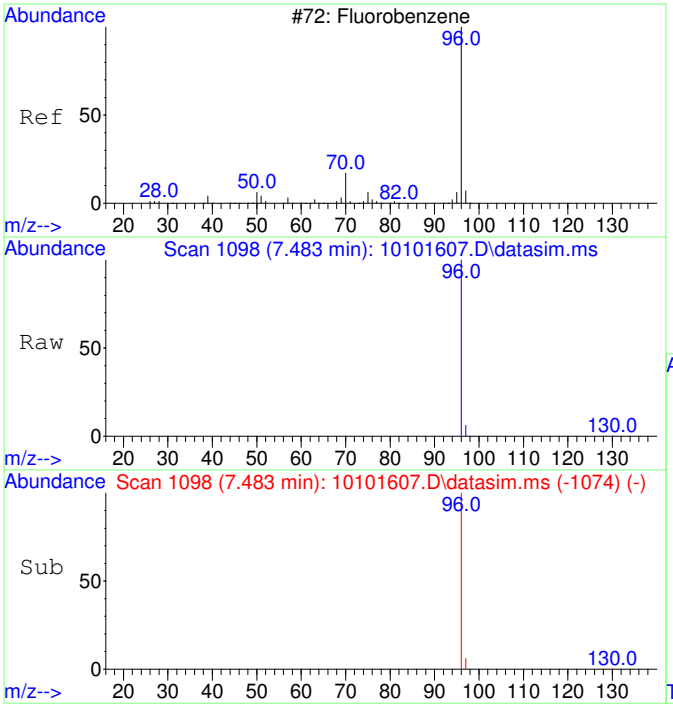
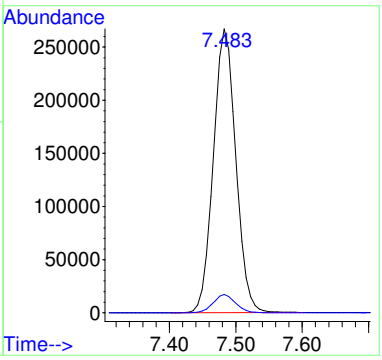
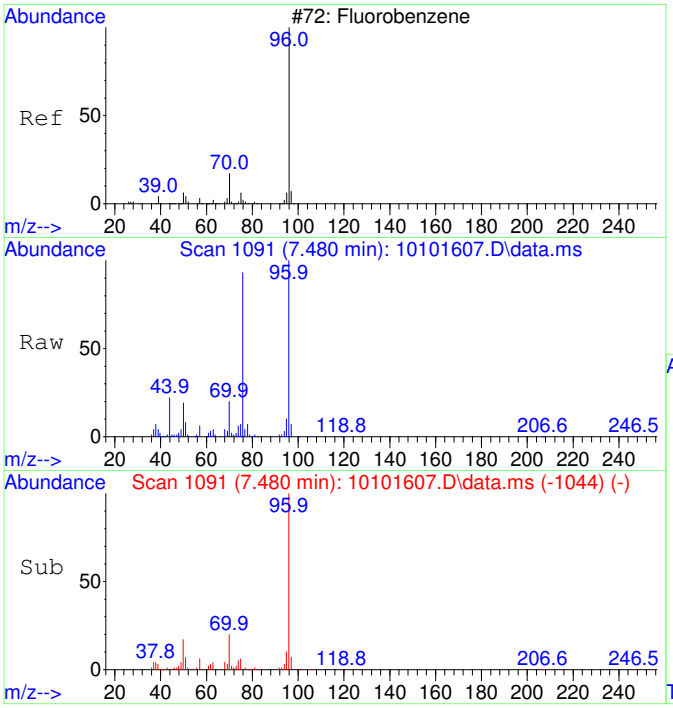


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.483 min Scan# 1098
Delta R.T. 0.007 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 96 Resp: 625550

Ion	Ratio	Lower	Upper
96	100		
97	6.3	0.0	36.6

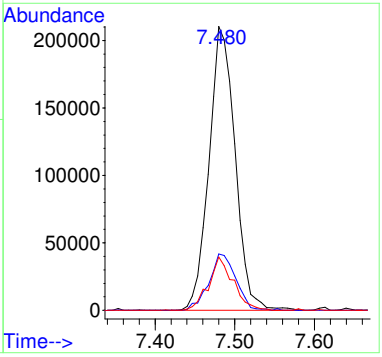


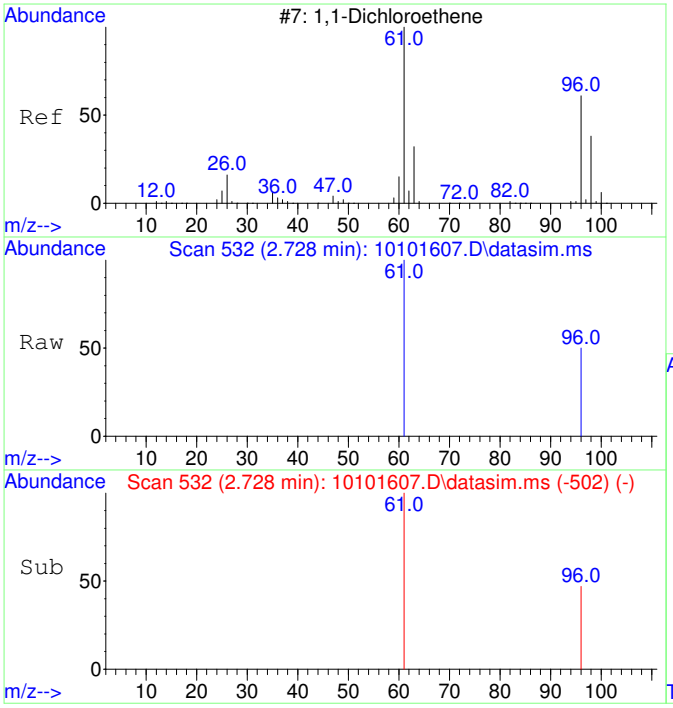


#2
Fluorobenzene SCAN
Concen: 4921.33 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 96 Resp: 479794

Ion	Ratio	Lower	Upper
96	100		
70	20.4	0.0	49.2
50	17.6	0.0	41.1

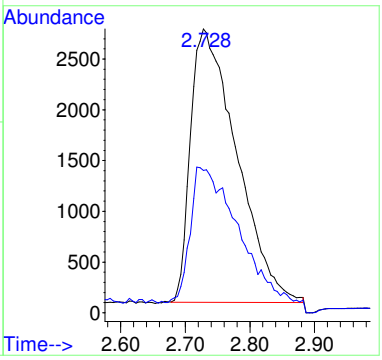


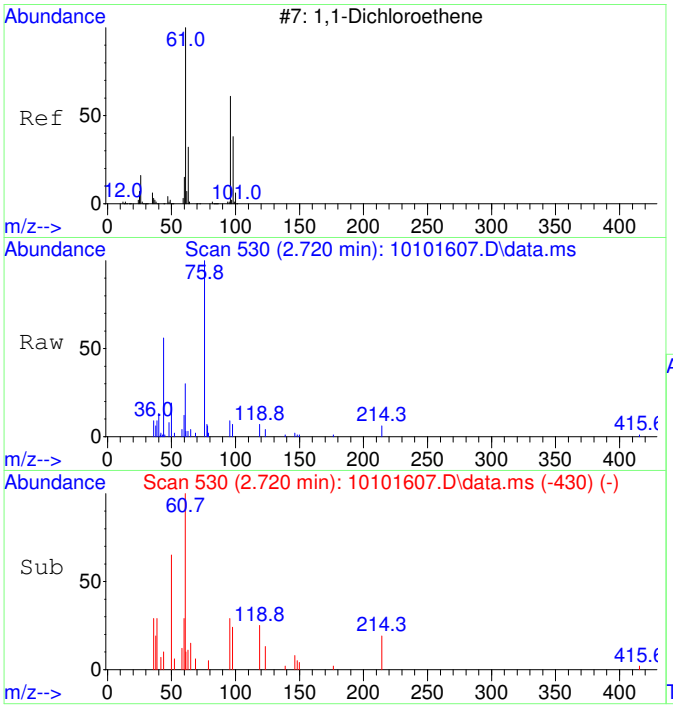


#3
1,1-Dichloroethene
Concen: 172.76 ug/L m
RT: 2.728 min Scan# 532
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 13365

Ion	Ratio	Lower	Upper
61	100		
96	53.4	34.9	94.9

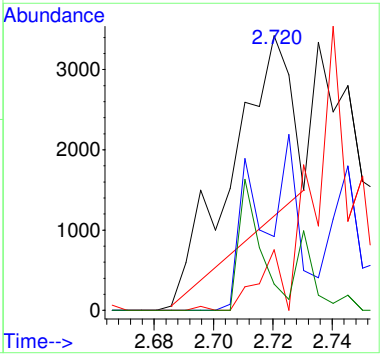


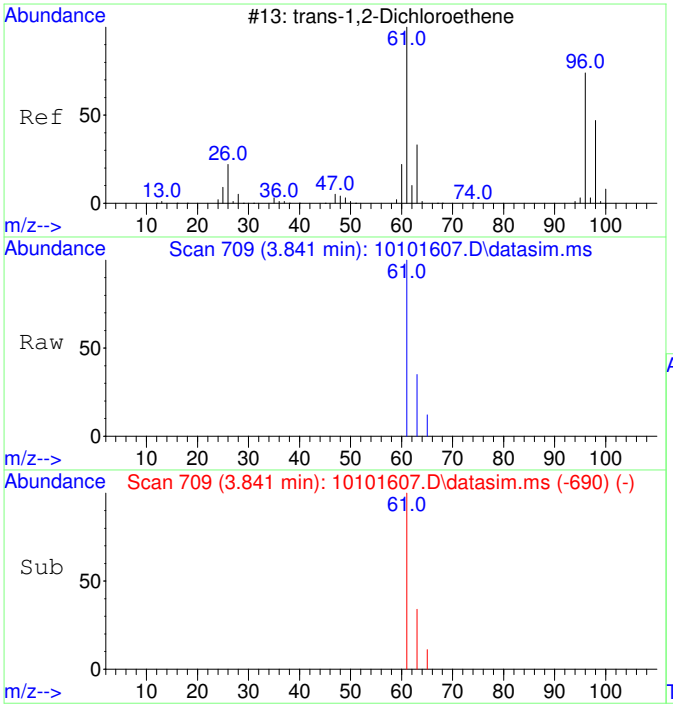


#4
1,1-Dichloroethene SCAN
Concen: 59.72 ug/L
RT: 2.720 min Scan# 530
Delta R.T. -0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 3183

Ion	Ratio	Lower	Upper
61	100		
96	52.1	30.2	90.2
98	0.0	12.2	72.2#
63	24.4	3.7	63.7

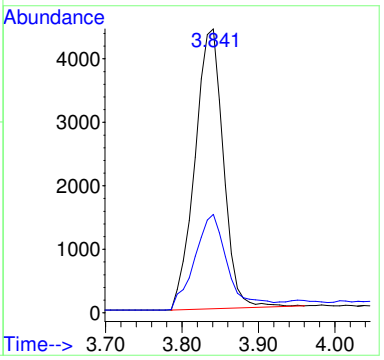


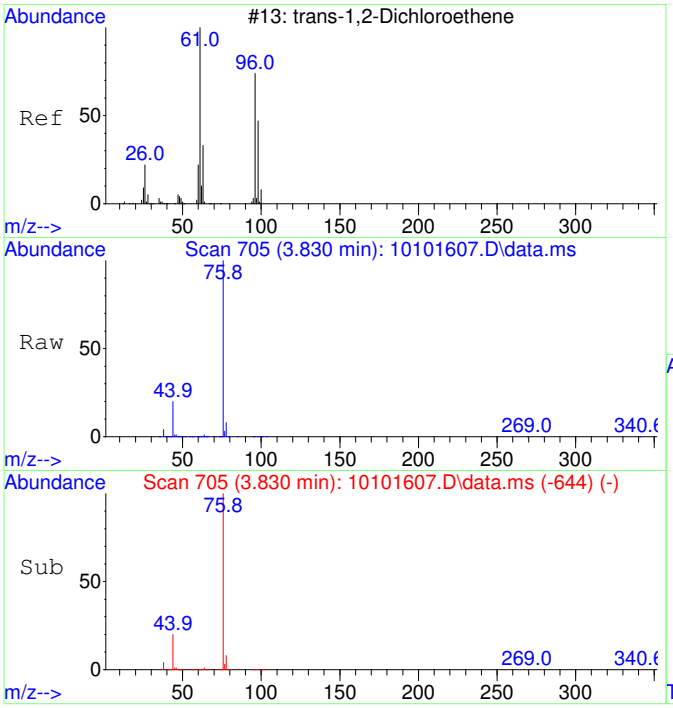


#5
trans-1,2-Dichloroethene
Concen: 176.95 ug/L
RT: 3.841 min Scan# 709
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 11397

Ion	Ratio	Lower	Upper
61	100		
63	37.3	2.5	62.5

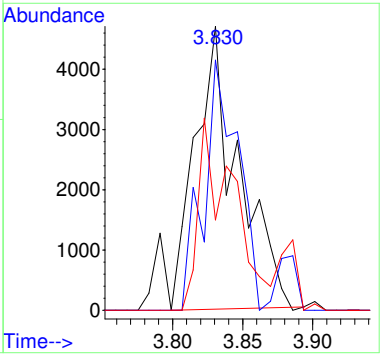


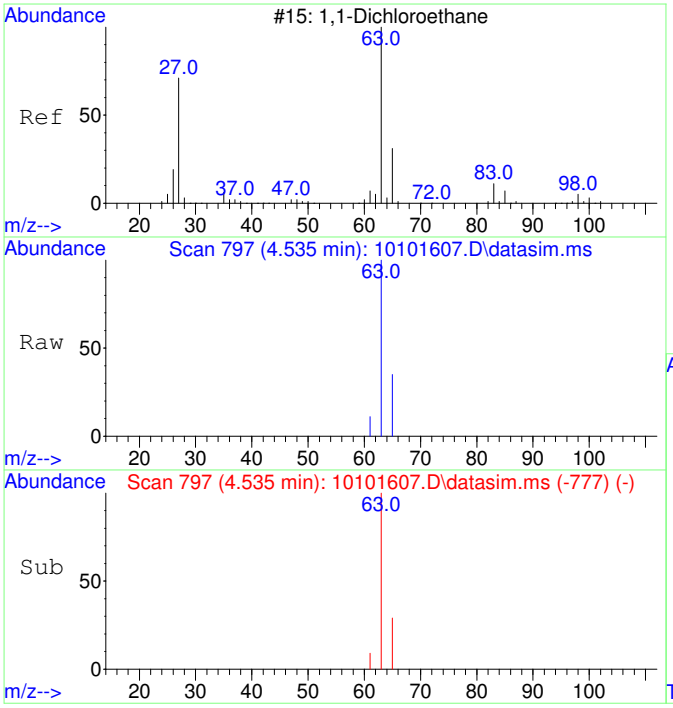


#6
trans-1,2-Dichloroethene SCAN
Concen: 230.52 ug/L
RT: 3.830 min Scan# 705
Delta R.T. -0.016 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 10007

Ion	Ratio	Lower	Upper
61	100		
96	68.5	47.5	107.5
98	47.6	17.2	77.2

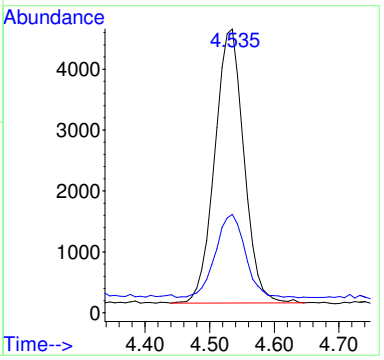


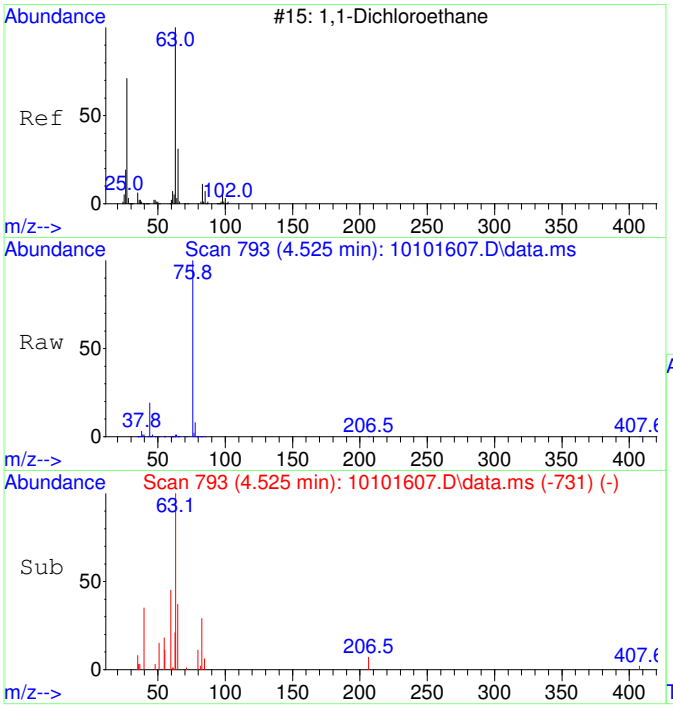


#7
1,1-Dichloroethane
Concen: 170.72 ug/L
RT: 4.535 min Scan# 797
Delta R.T. 0.008 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 63 Resp: 14067

Ion	Ratio	Lower	Upper
63	100		
65	30.7	1.8	61.8

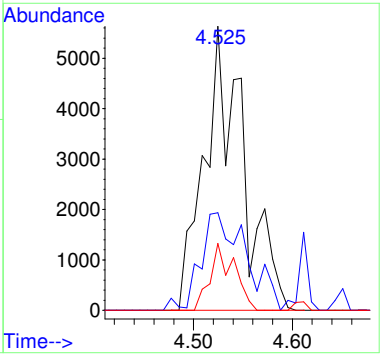


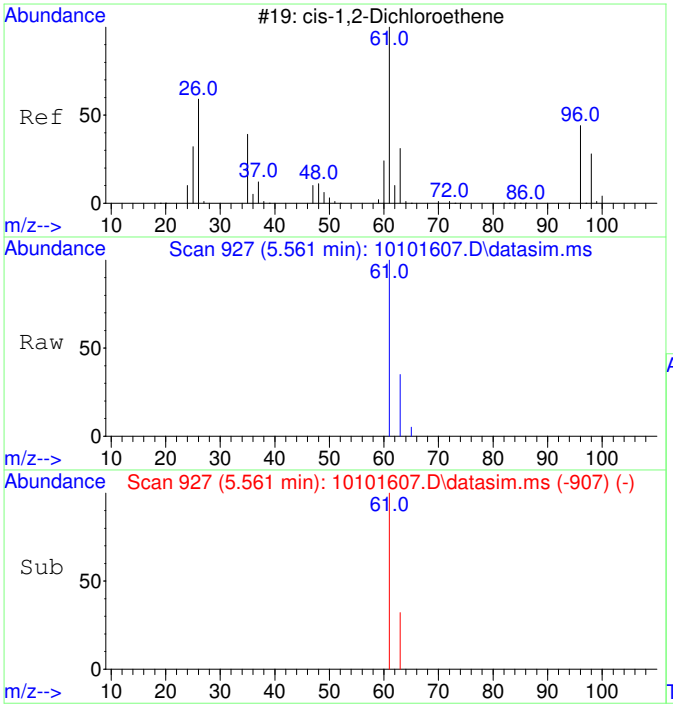


#8
1,1-Dichloroethane SCAN
Concen: 262.18 ug/L
RT: 4.525 min Scan# 793
Delta R.T. -0.008 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 63 Resp: 15507

Ion	Ratio	Lower	Upper
63	100		
65	39.8	3.9	63.9
83	14.5	0.0	45.1

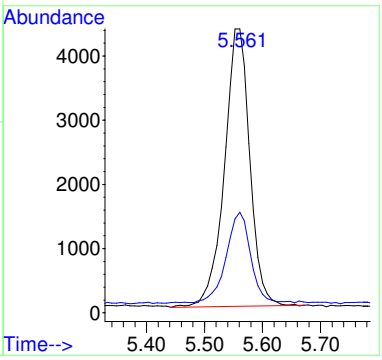


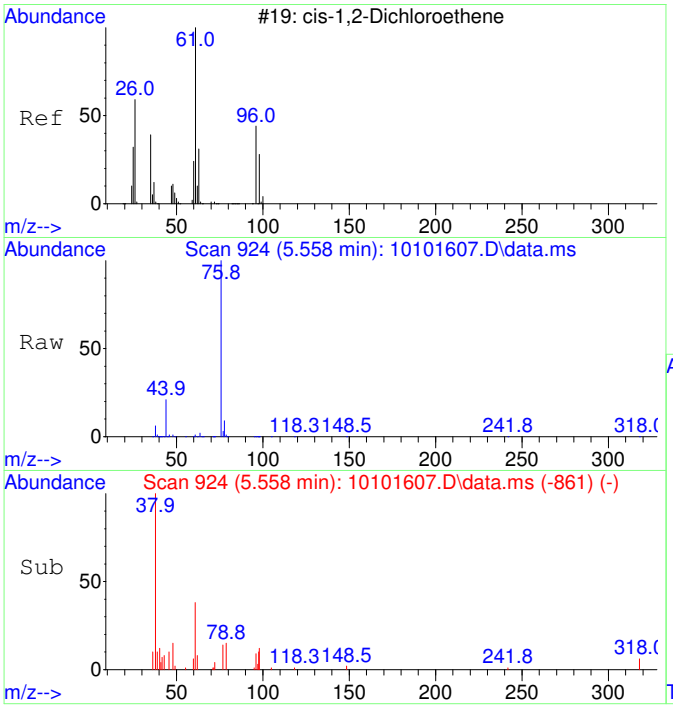


#9
cis-1,2-Dichloroethene
Concen: 170.10 ug/L
RT: 5.561 min Scan# 927
Delta R.T. 0.008 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 13114

Ion	Ratio	Lower	Upper
61	100		
63	31.2	2.4	62.4

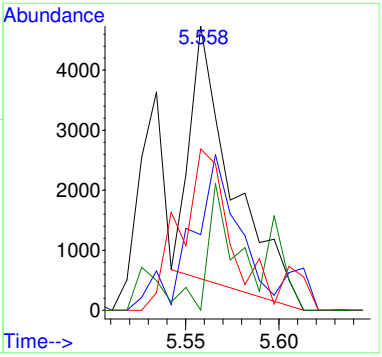


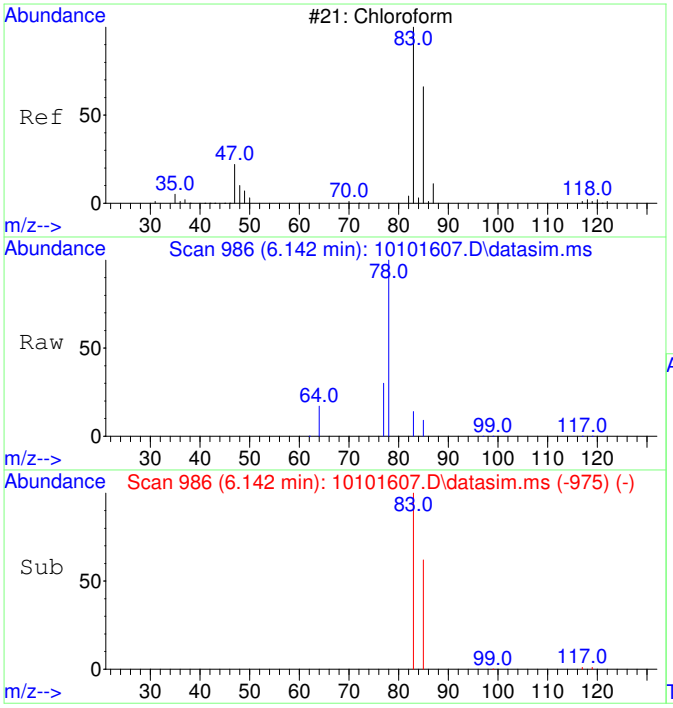


#10
cis-1,2-Dichloroethene SCAN
Concen: 111.83 ug/L
RT: 5.558 min Scan# 924
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 6518

Ion	Ratio	Lower	Upper
61	100		
96	61.9	42.0	102.0
98	73.7	17.5	77.5
63	25.7	3.4	63.4

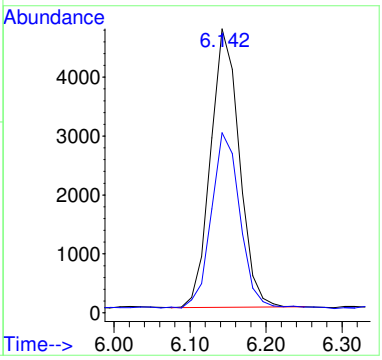


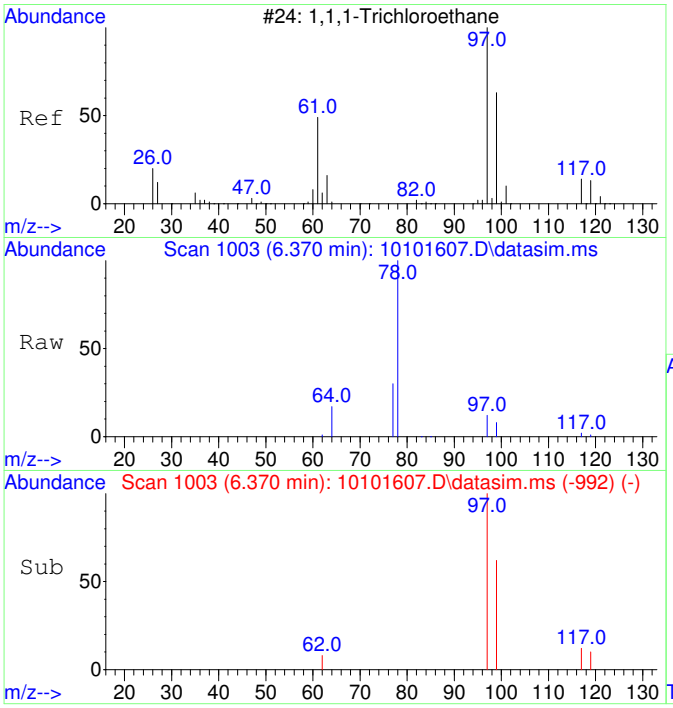


#11
Chloroform
Concen: 163.20 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 83 Resp: 12360

Ion	Ratio	Lower	Upper
83	100		
85	62.1	34.4	94.4

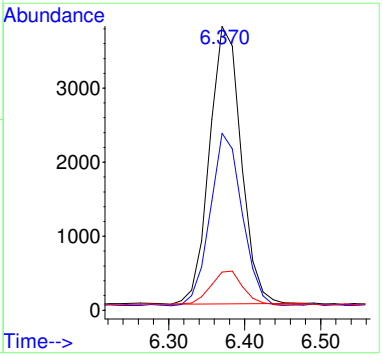


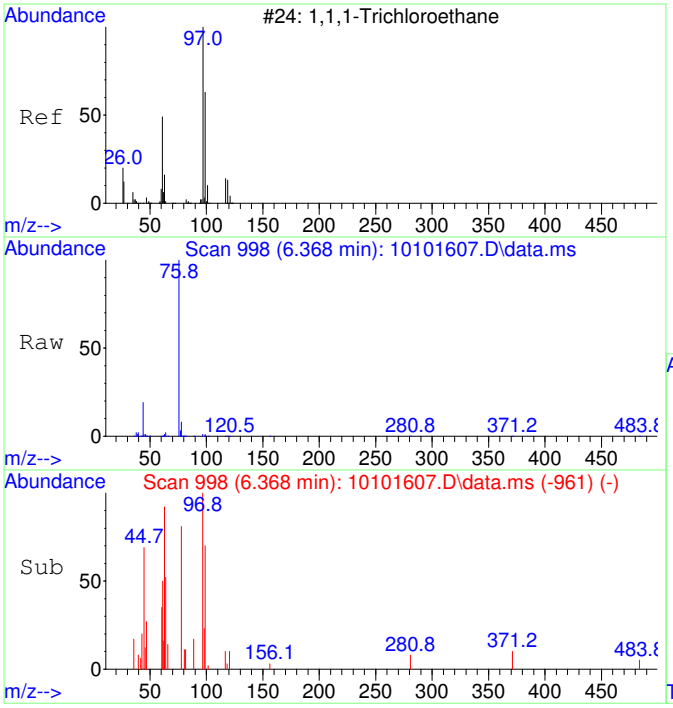


#13
1,1,1-Trichloroethane
Concen: 155.24 ug/L
RT: 6.370 min Scan# 1003
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 10800

Ion	Ratio	Lower	Upper
97	100		
99	62.7	34.2	94.2
117	12.2	0.0	43.0

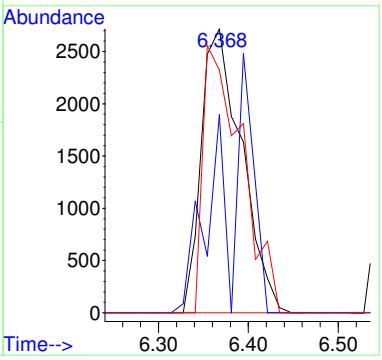


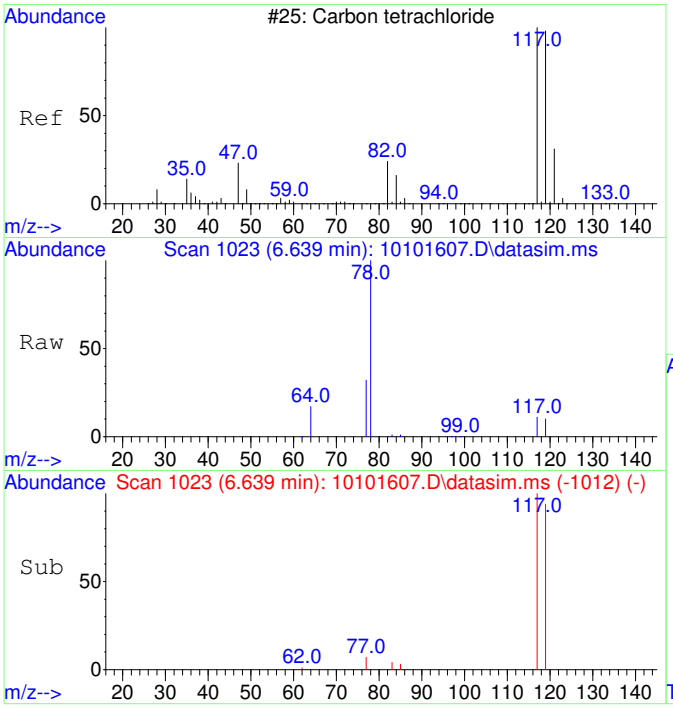


#14
1,1,1-Trichloroethane SCAN
Concen: 153.81 ug/L
RT: 6.368 min Scan# 998
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 8474

Ion	Ratio	Lower	Upper
97	100		
99	34.2	33.6	93.6
61	91.0	10.7	70.7#

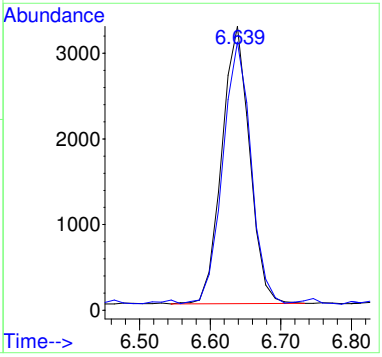


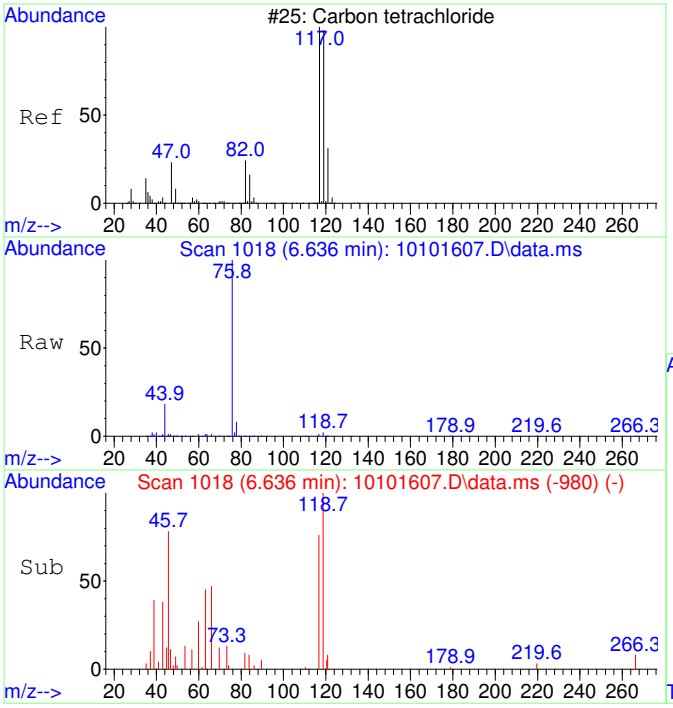


#15
Carbon tetrachloride
Concen: 147.42 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:117 Resp: 8848

Ion	Ratio	Lower	Upper
117	100		
119	94.2	66.1	126.1

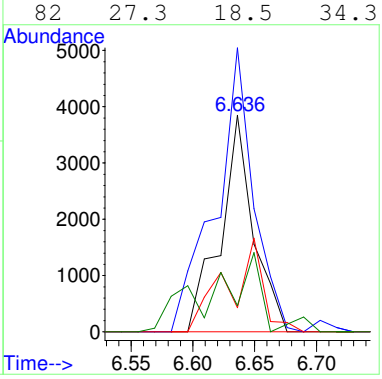


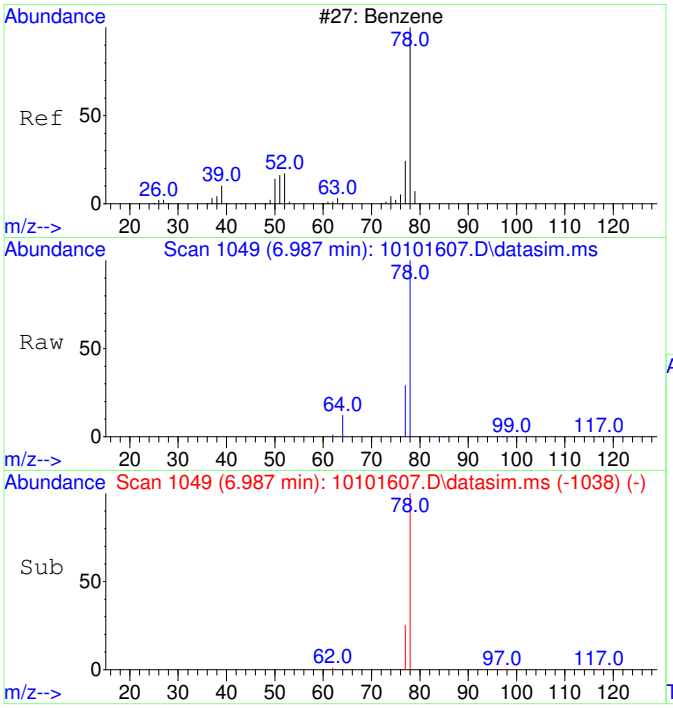


#16
Carbon tetrachloride SCAN
Concen: 1052.53 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:117 Resp: 7173

Ion	Ratio	Lower	Upper
117	100		
119	149.9	66.0	122.6#
121	46.1	22.1	41.1#
82	27.3	18.5	34.3

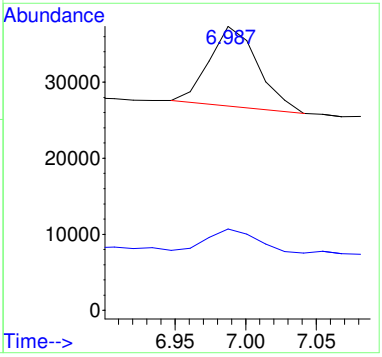


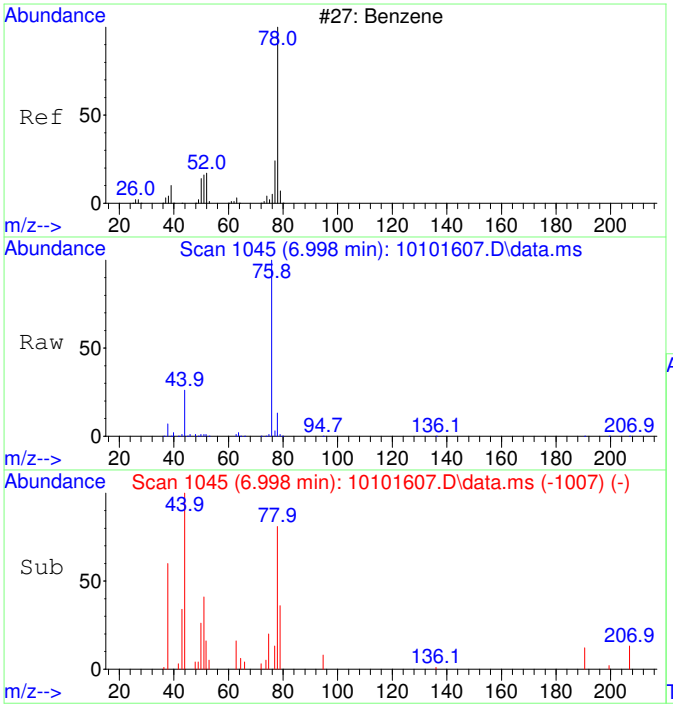


#17
Benzene
Concen: 164.32 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 78 Resp: 24726

Ion	Ratio	Lower	Upper
78	100		
77	28.3	0.0	53.4

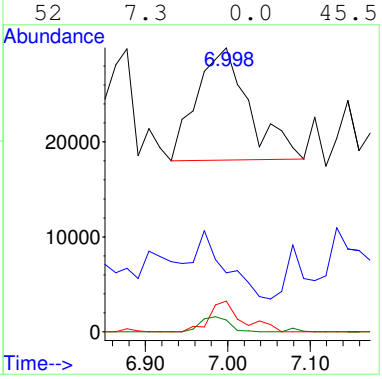


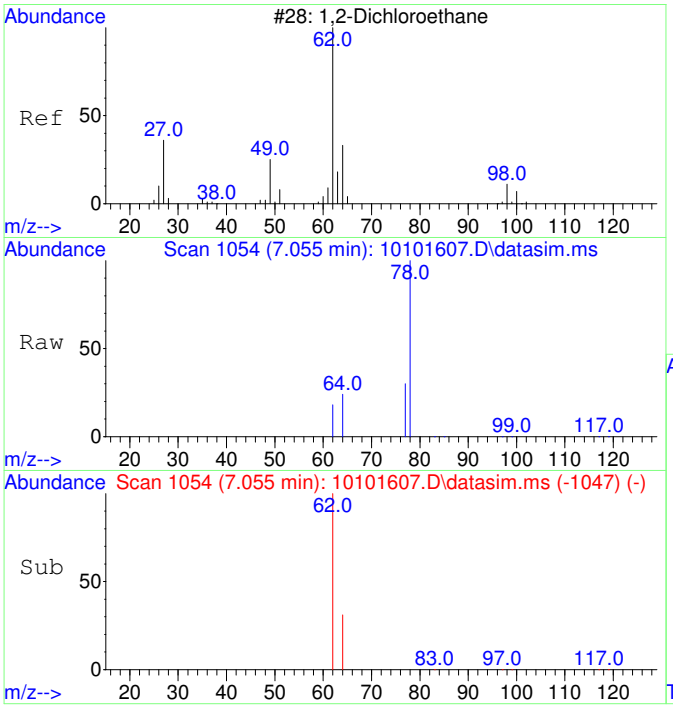


#18
Benzene SCAN
Concen: 437.43 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 78 Resp: 52325

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	59.3
51	17.1	0.0	49.2
52	7.3	0.0	45.5

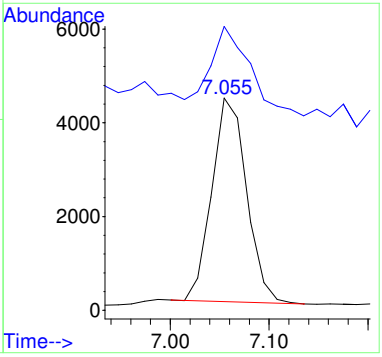


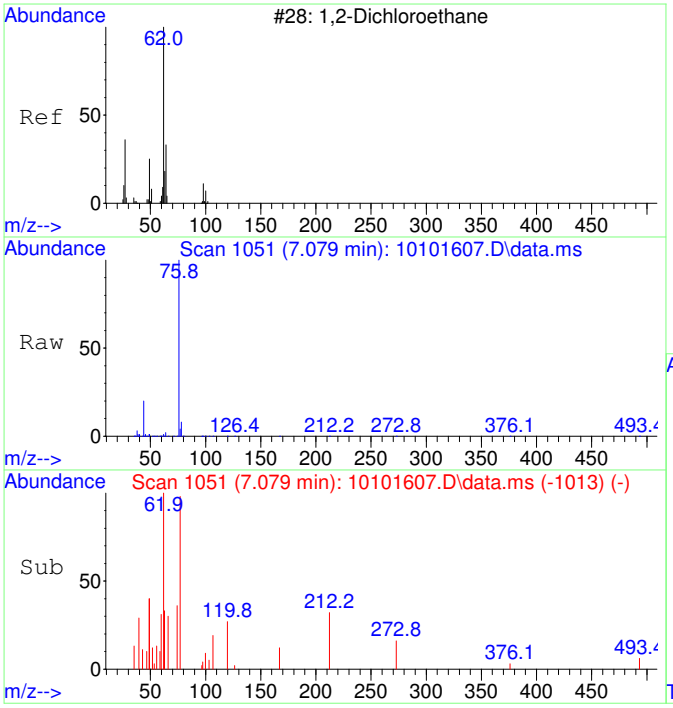


#19
1,2-Dichloroethane
Concen: 156.66 ug/L
RT: 7.055 min Scan# 1054
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 62 Resp: 10594

Ion	Ratio	Lower	Upper
62	100		
64	39.4	2.7	62.7

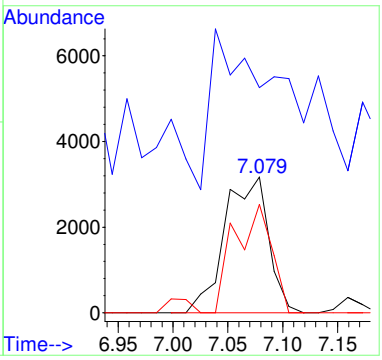


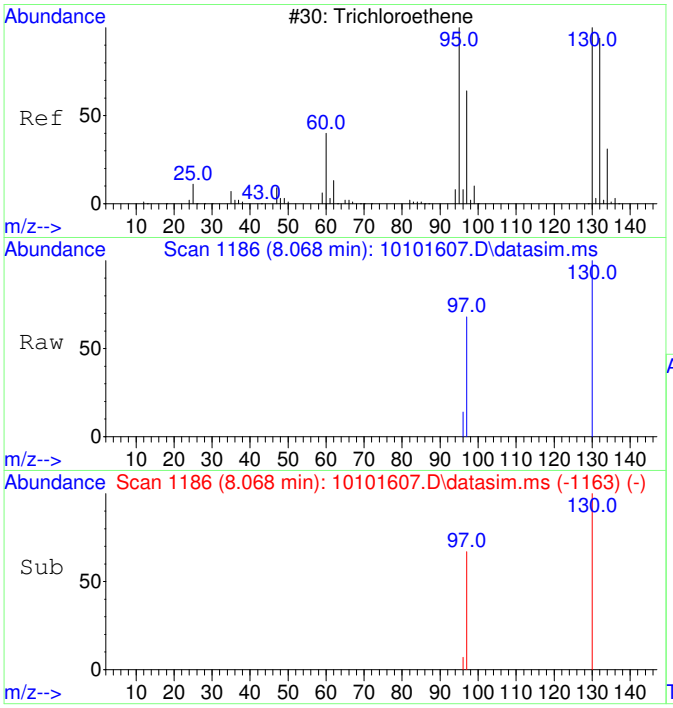


#20
1,2-Dichloroethane SCAN
Concen: 153.10 ug/L
RT: 7.079 min Scan# 1051
Delta R.T. 0.013 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 62 Resp: 8830

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	67.8	0.0	51.8#

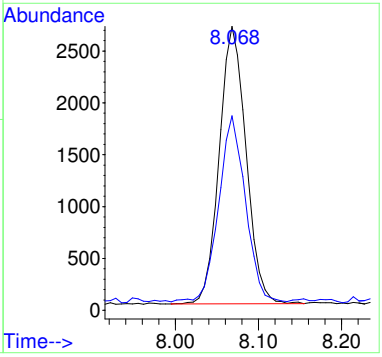


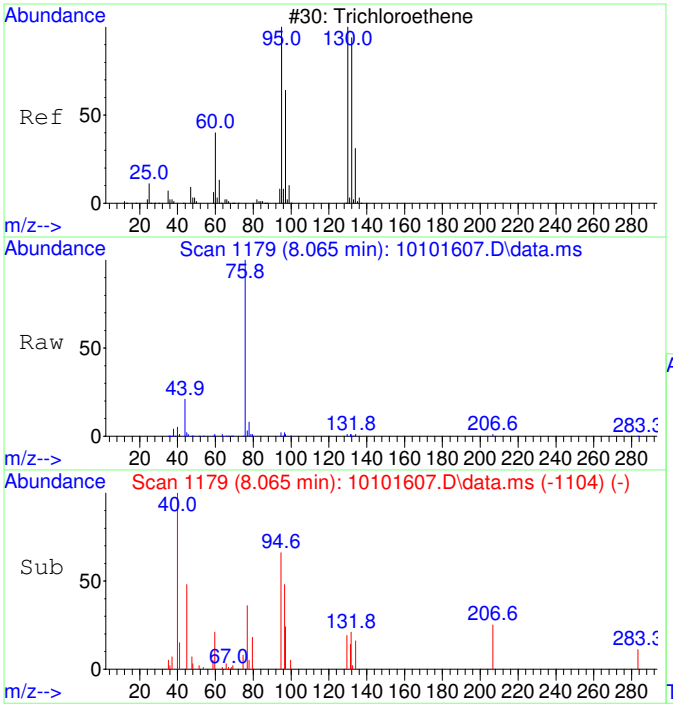


#21
Trichloroethene
Concen: 148.62 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:130 Resp: 5991

Ion	Ratio	Lower	Upper
130	100		
97	65.2	29.9	89.9

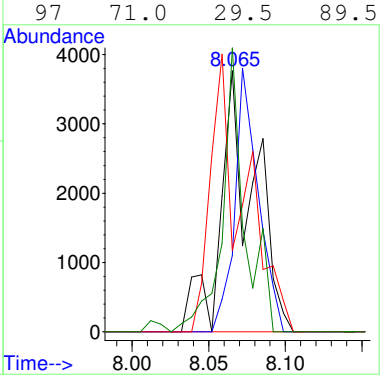


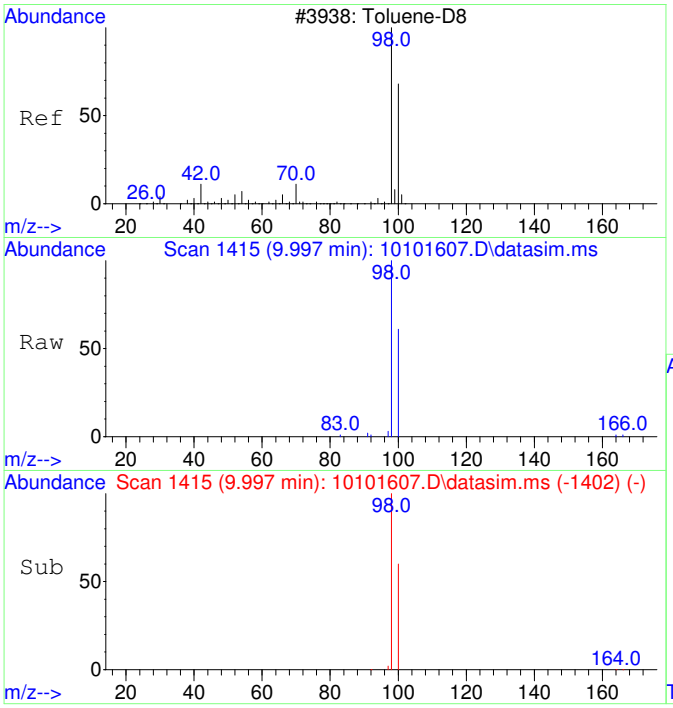


#22
Trichloroethene SCAN
Concen: 185.55 ug/L
RT: 8.065 min Scan# 1179
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 95 Resp: 5812

Ion	Ratio	Lower	Upper
95	100		
130	69.5	74.1	134.1#
132	104.1	72.1	132.1
97	71.0	29.5	89.5

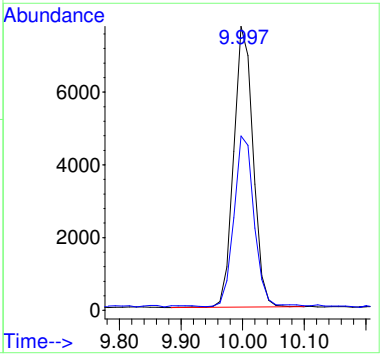


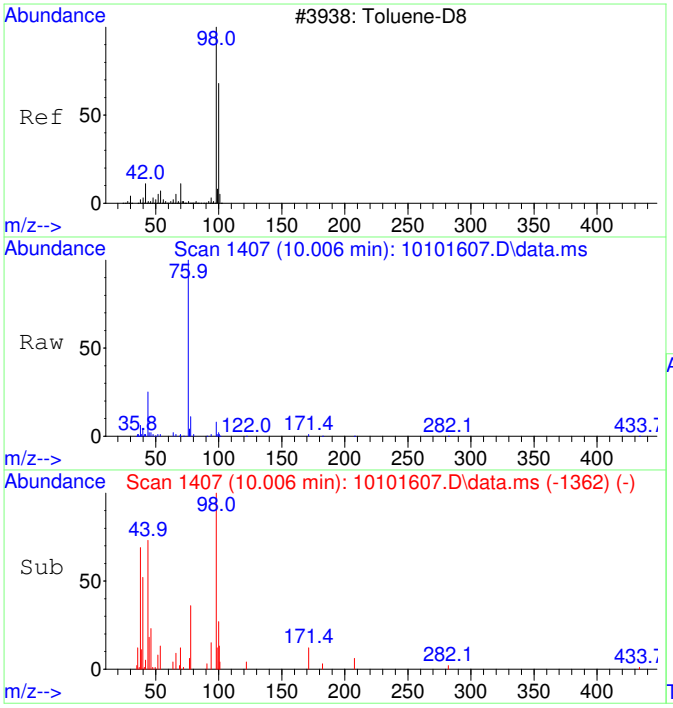


#23
Toluene-d8
Concen: 138.24 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 98 Resp: 16786

Ion	Ratio	Lower	Upper
98	100		
100	61.8	35.3	95.3

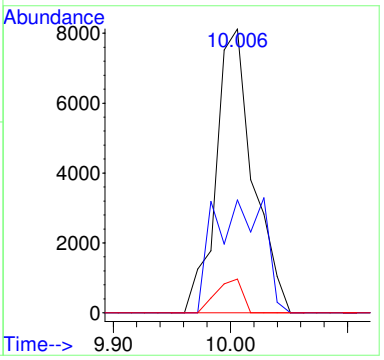


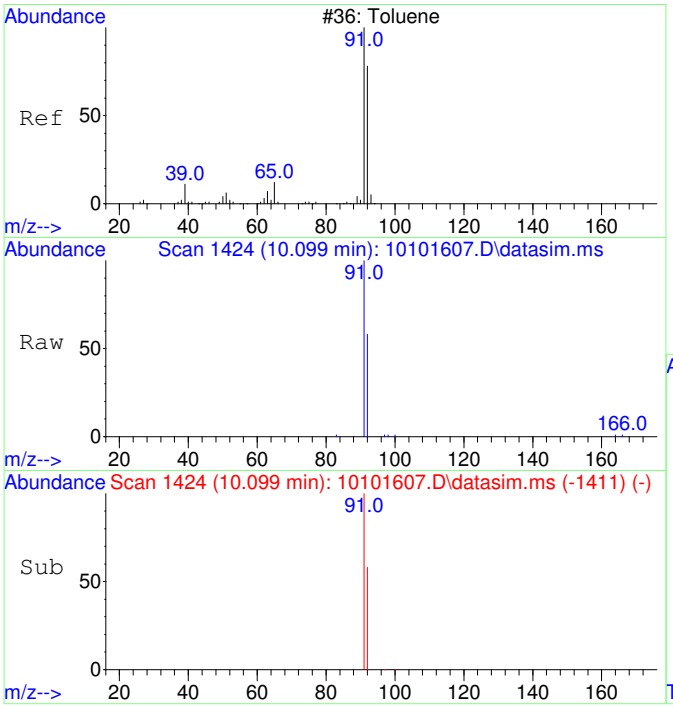


#24
Toluene-d8 SCAN
Concen: 172.38 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 98 Resp: 17895

Ion	Ratio	Lower	Upper
98	100		
100	0.0	44.3	82.3#
70	8.4	7.8	14.4

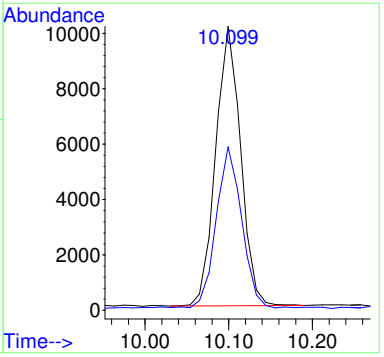


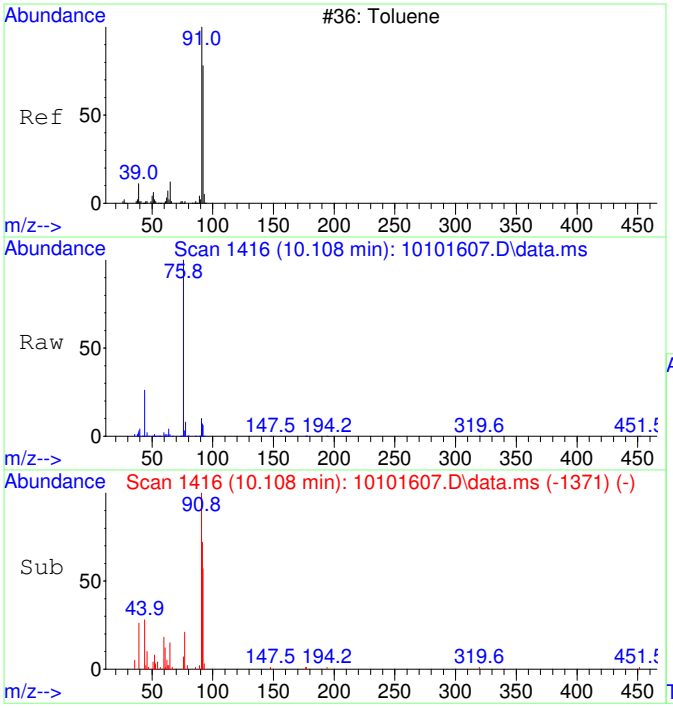


#25
Toluene
Concen: 136.57 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 20857

Ion	Ratio	Lower	Upper
91	100		
92	58.4	28.8	88.8

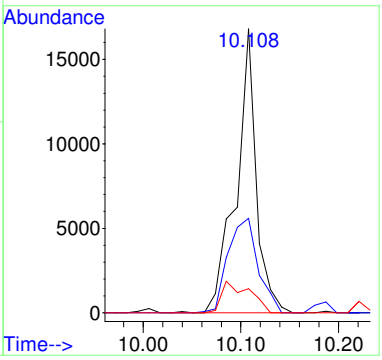


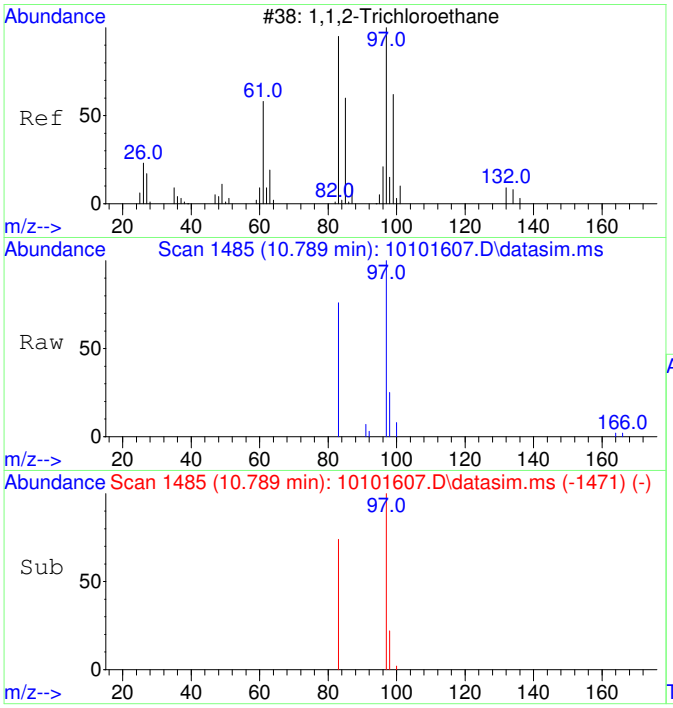


#26
Toluene SCAN
Concen: 185.86 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 24222

Ion	Ratio	Lower	Upper
91	100		
92	49.5	30.7	90.7
65	0.0	0.0	42.6

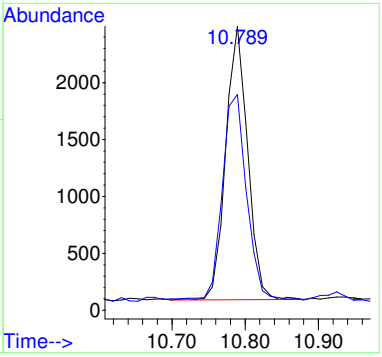


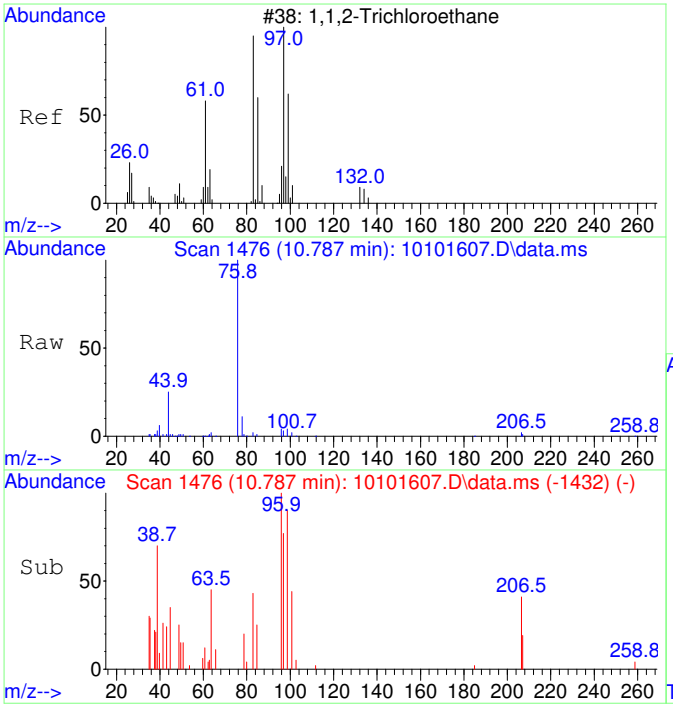


#27
1,1,2-Trichloroethane
Concen: 139.26 ug/L
RT: 10.789 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 4964

Ion	Ratio	Lower	Upper
97	100		
83	80.2	50.5	110.5

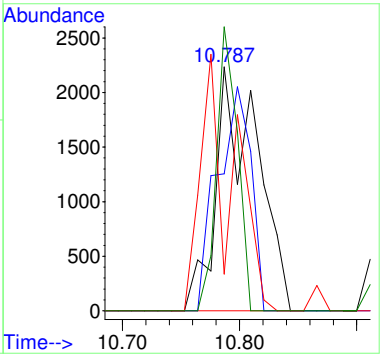


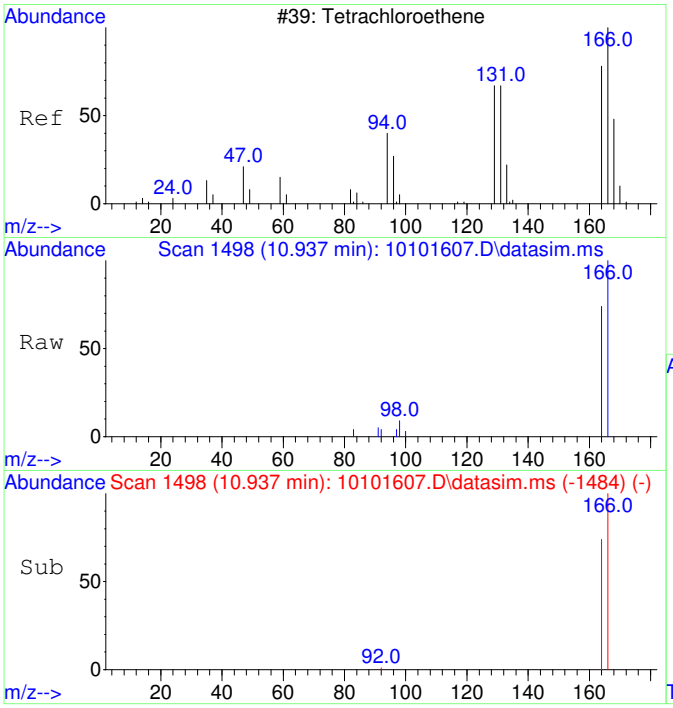


#28
1,1,2-Trichloroethane SCAN
Concen: 182.73 ug/L
RT: 10.787 min Scan# 1476
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 5495

Ion	Ratio	Lower	Upper
97	100		
83	74.3	53.8	113.8
61	0.0	31.3	91.3#
99	58.7	32.9	92.9

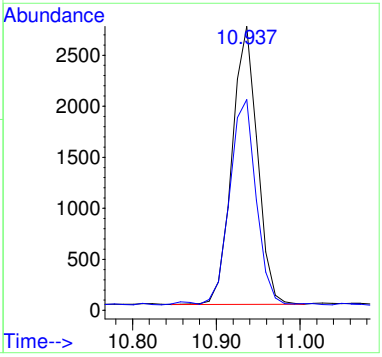


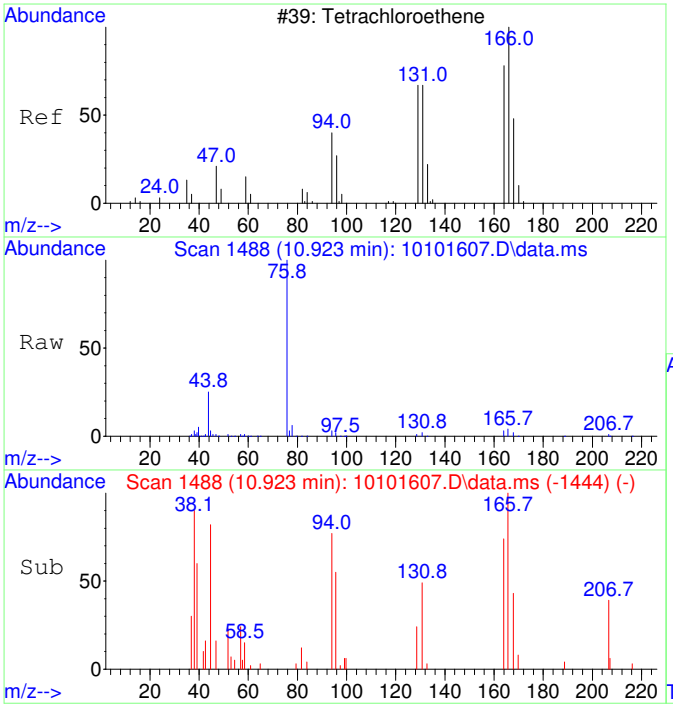


#29
Tetrachloroethene
Concen: 136.04 ug/L
RT: 10.937 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:166 Resp: 5725

Ion	Ratio	Lower	Upper
166	100		
164	76.3	47.7	107.7

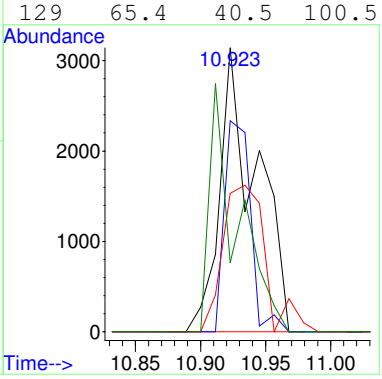


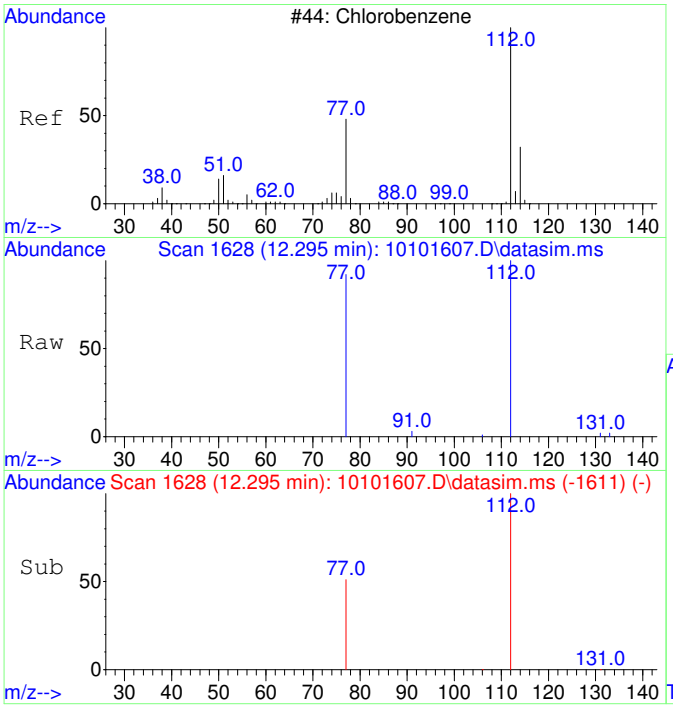


#30
Tetrachloroethene SCAN
Concen: 210.13 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:166 Resp: 6185

Ion	Ratio	Lower	Upper
166	100		
164	52.6	44.9	104.9
131	0.0	36.1	96.1#
129	65.4	40.5	100.5

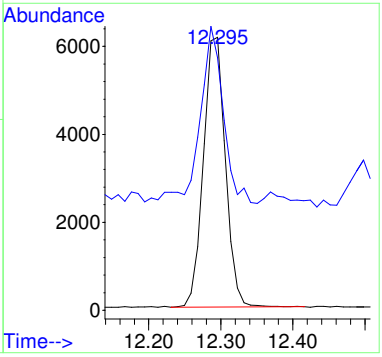


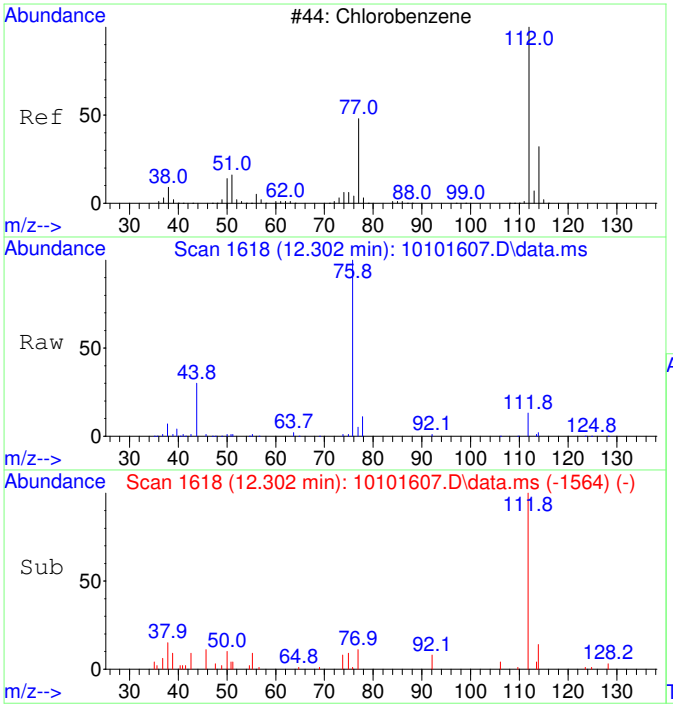


#31
Chlorobenzene
Concen: 129.47 ug/L
RT: 12.295 min Scan# 1628
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:112 Resp: 12978

Ion	Ratio	Lower	Upper
112	100		
77	60.3	25.1	85.1

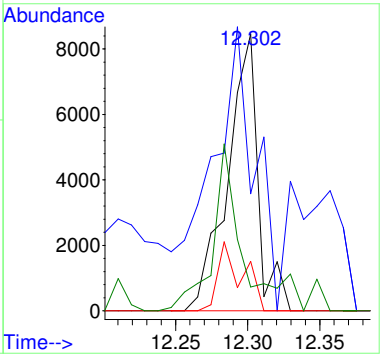


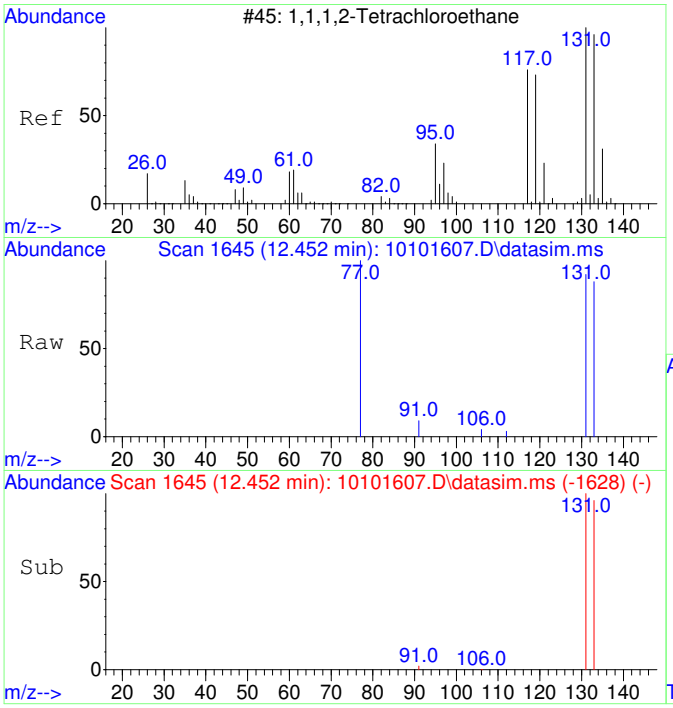


#32
Chlorobenzene SCAN
Concen: 149.43 ug/L
RT: 12.302 min Scan# 1618
Delta R.T. 0.018 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:112 Resp: 12492

Ion	Ratio	Lower	Upper
112	100		
77	111.7	23.6	83.6#
114	19.9	0.9	60.9
51	62.8	0.0	47.7#

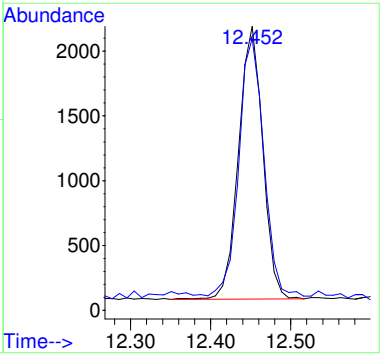


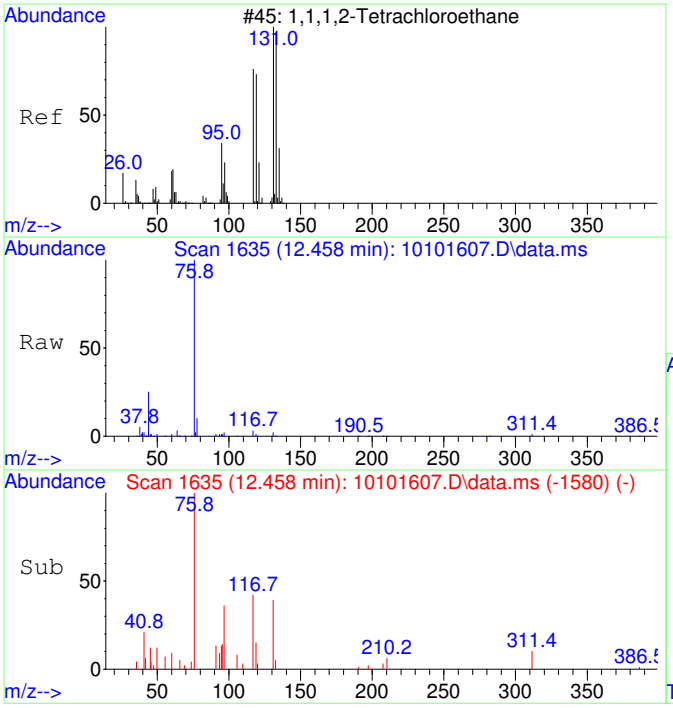


#33
1,1,1,2-Tetrachloroethane
Concen: 129.97 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:131 Resp: 4444

Ion	Ratio	Lower	Upper
131	100		
133	98.5	64.8	124.8

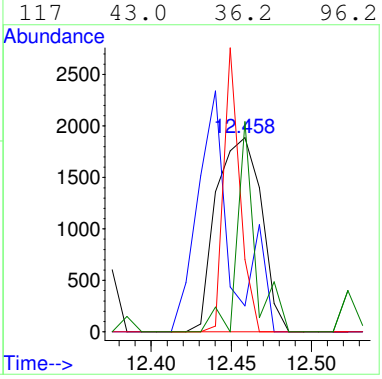


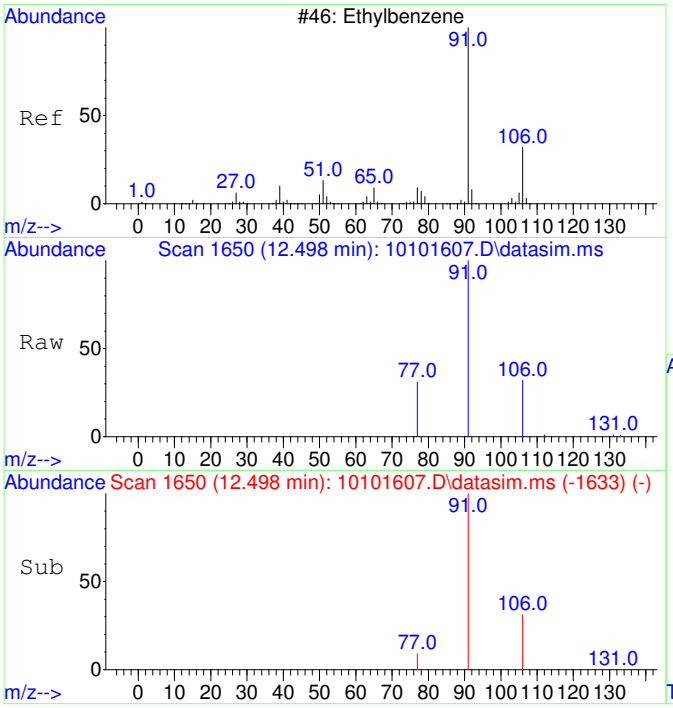


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 128.60 ug/L
RT: 12.458 min Scan# 1635
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:131 Resp: 3729

Ion	Ratio	Lower	Upper
131	100		
133	65.0	64.7	124.7
119	52.1	34.9	94.9
117	43.0	36.2	96.2

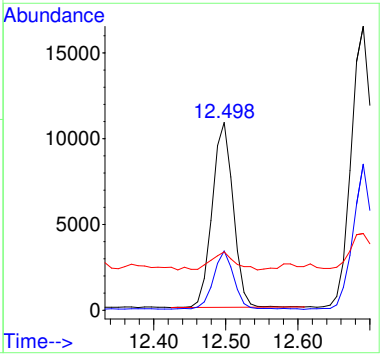


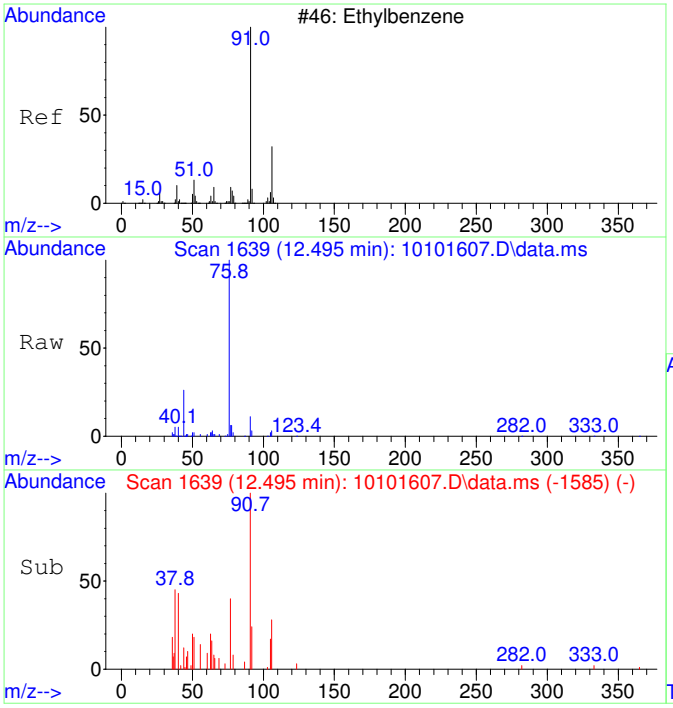


#35
Ethylbenzene
Concen: 128.73 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 21798

Ion	Ratio	Lower	Upper
91	100		
106	30.3	1.7	61.7
77	9.2	0.0	38.3

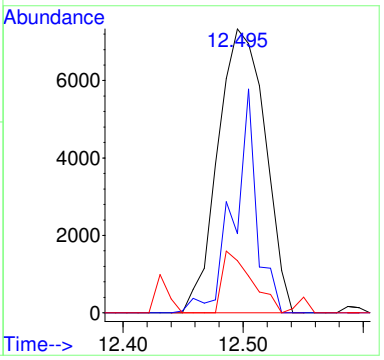


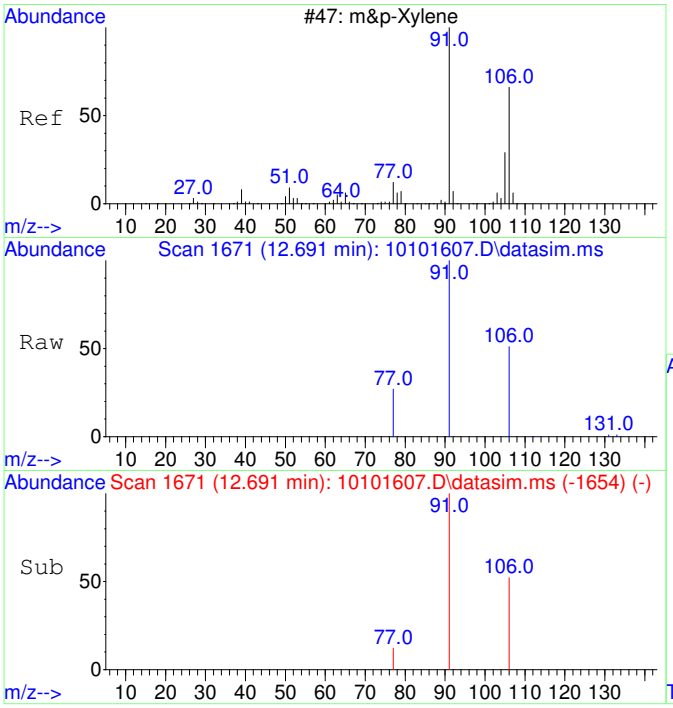


#36
Ethylbenzene SCAN
Concen: 135.20 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 20050

Ion	Ratio	Lower	Upper
91	100		
106	38.7	2.3	62.3
51	12.7	0.0	39.6

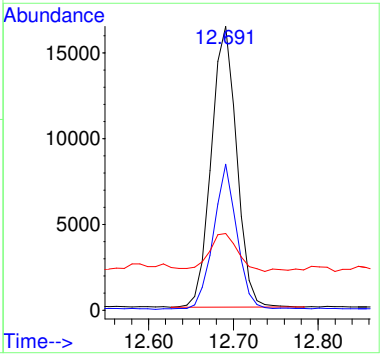


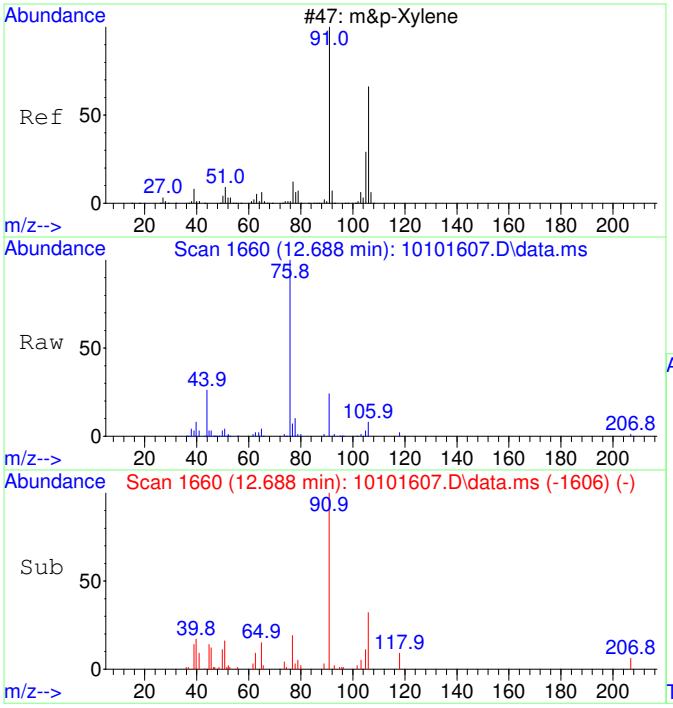


#37
m&p-Xylene
Concen: 253.89 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 33874

Ion	Ratio	Lower	Upper
91	100		
106	46.8	19.4	79.4
77	13.6	0.0	42.6

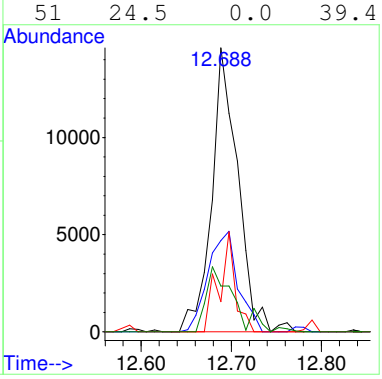


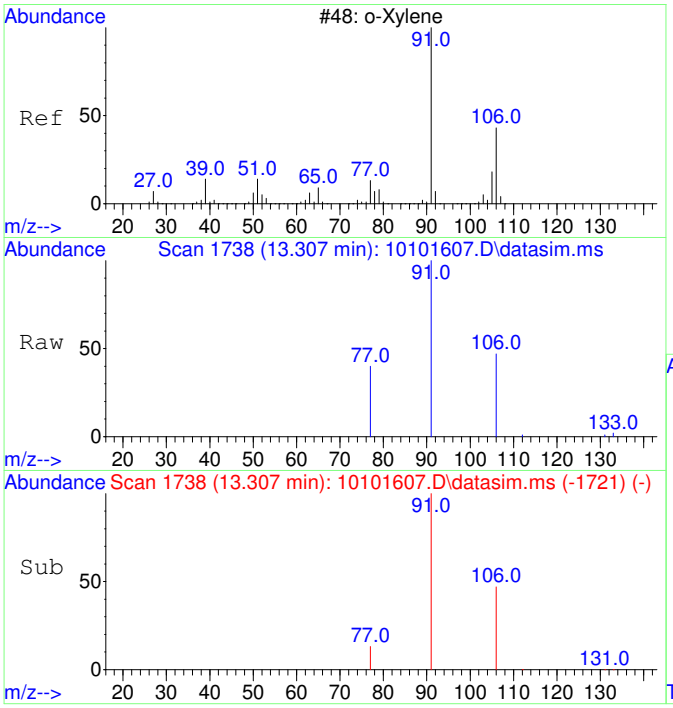


#38
m&p-Xylene SCAN
Concen: 259.57 ug/L
RT: 12.688 min Scan# 1660
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 29569

Ion	Ratio	Lower	Upper
91	100		
106	40.5	18.0	78.0
105	21.8	0.0	53.1
51	24.5	0.0	39.4

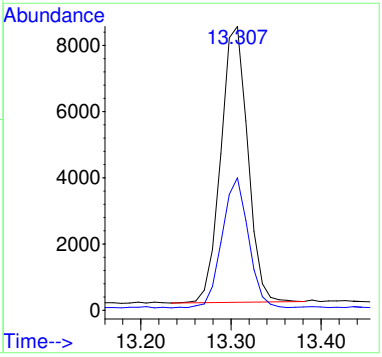


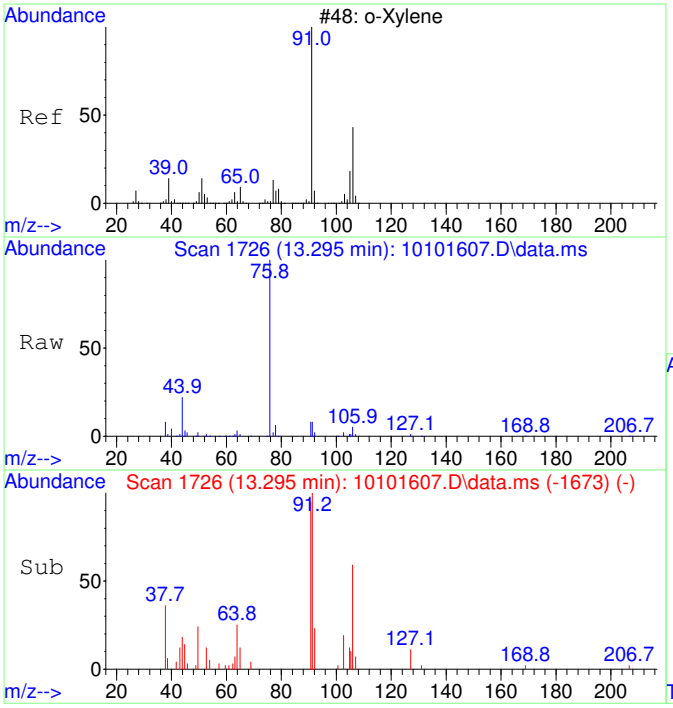


#39
o-Xylene
Concen: 125.54 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 17252

Ion	Ratio	Lower	Upper
91	100		
106	45.8	17.2	77.2

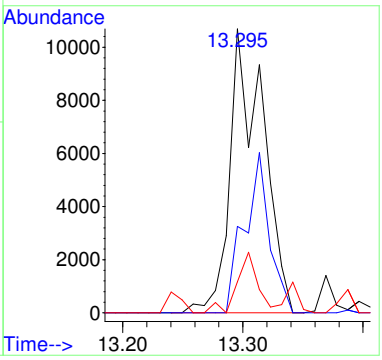


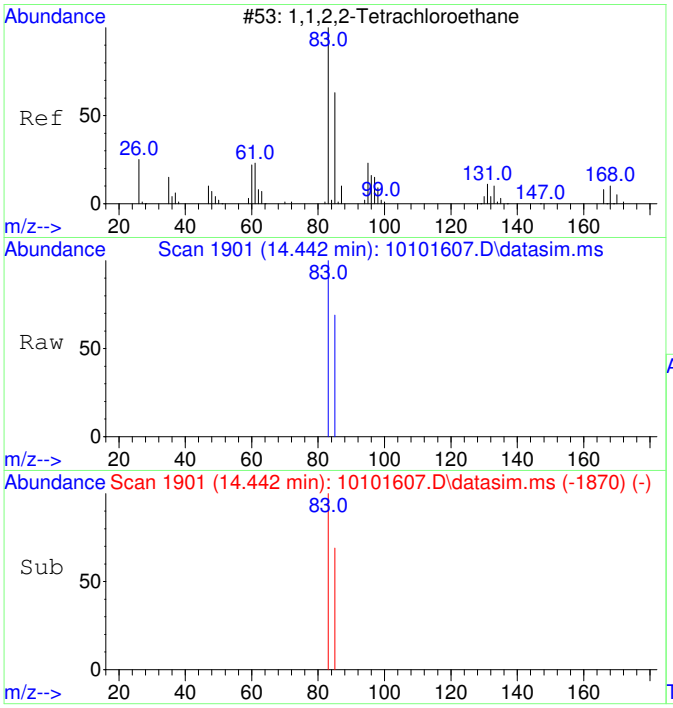


#40
o-Xylene SCAN
Concen: 166.69 ug/L
RT: 13.295 min Scan# 1726
Delta R.T. -0.010 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 20551

Ion	Ratio	Lower	Upper
91	100		
106	42.5	18.0	78.0
105	11.0	0.0	56.8

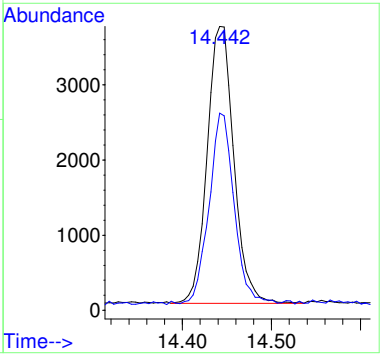


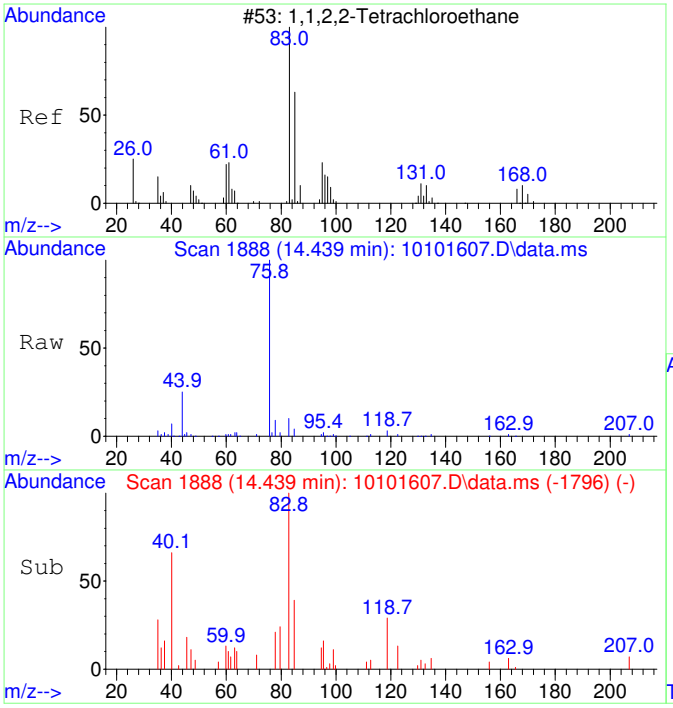


#41
1,1,2,2-Tetrachloroethane
Concen: 126.59 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 83 Resp: 7684

Ion	Ratio	Lower	Upper
83	100		
85	64.0	34.4	94.4

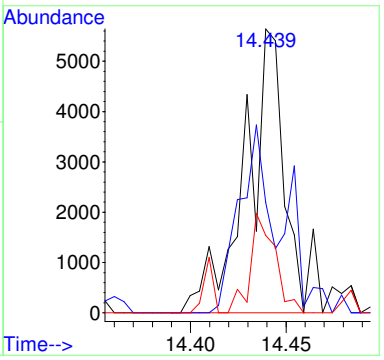


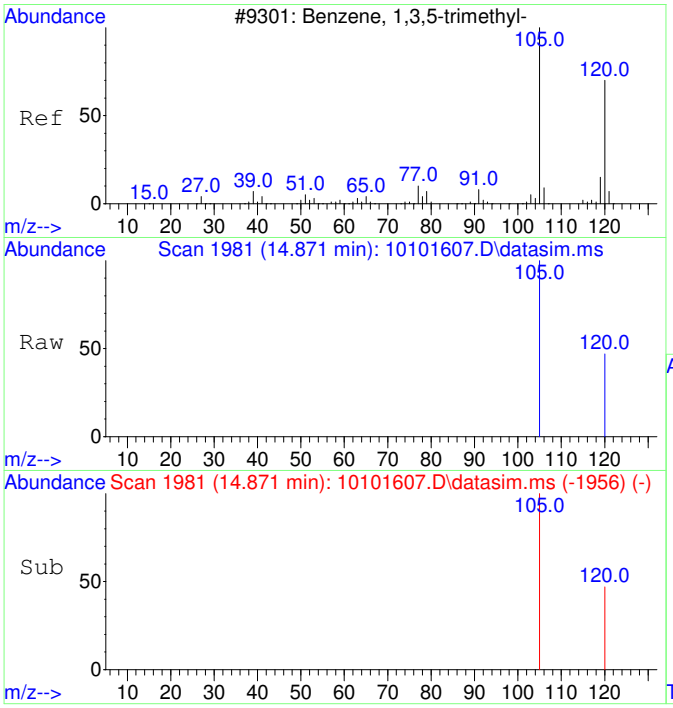


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 149.23 ug/L
RT: 14.439 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 83 Resp: 7744

Ion	Ratio	Lower	Upper
83	100		
85	73.2	33.2	93.2
95	23.0	0.0	47.2

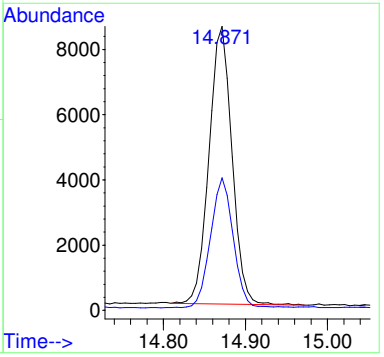


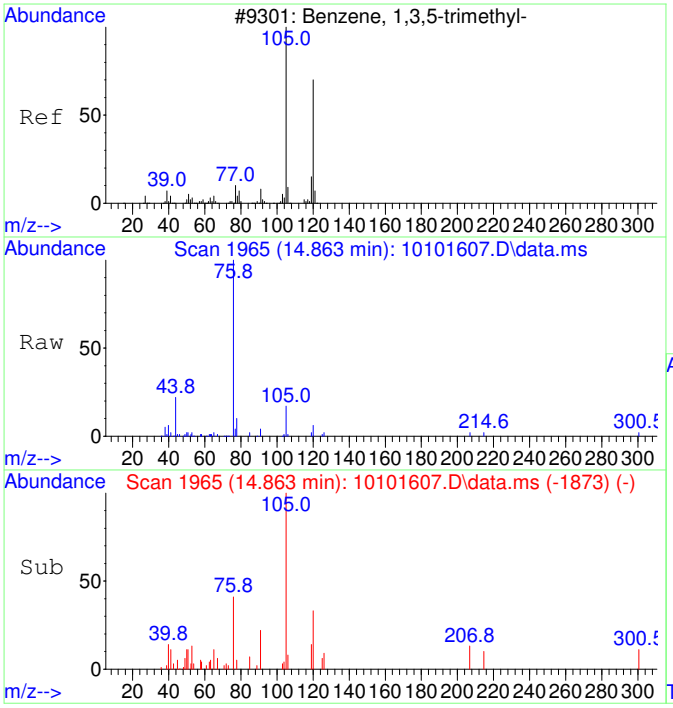


#43
1,3,5-Trimethylbenzene
Concen: 122.89 ug/L
RT: 14.871 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 16497

Ion	Ratio	Lower	Upper
105	100		
120	46.7	19.7	79.7

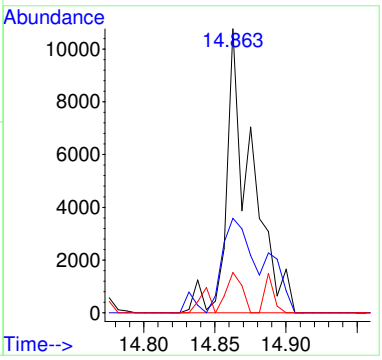


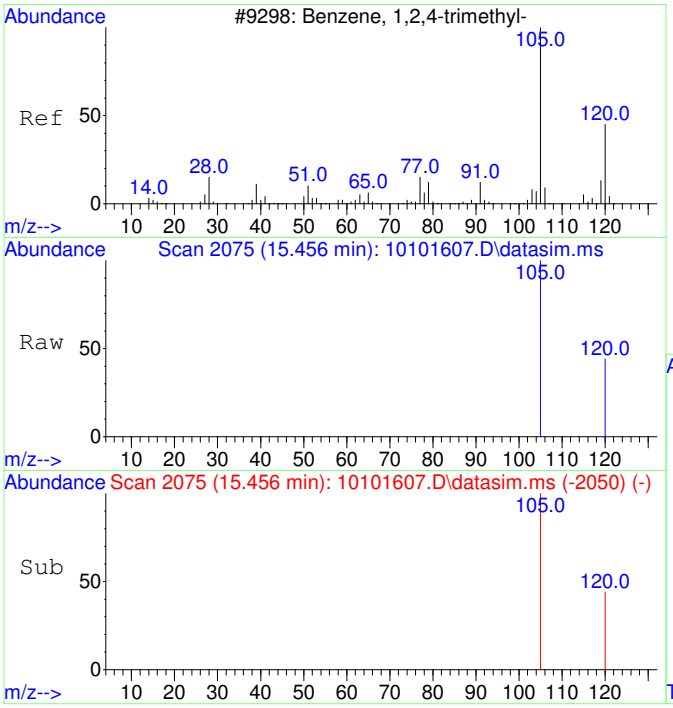


#44
1,3,5-Trimethylbenzene SCAN
Concen: 112.86 ug/L
RT: 14.863 min Scan# 1965
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 13060

Ion	Ratio	Lower	Upper
105	100		
120	53.8	22.1	82.1
119	9.2	0.0	42.9

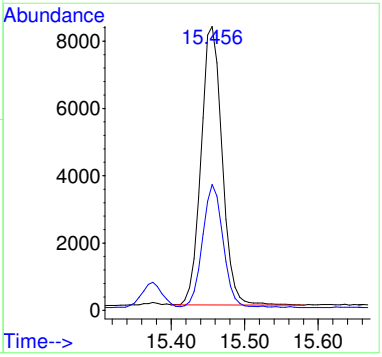


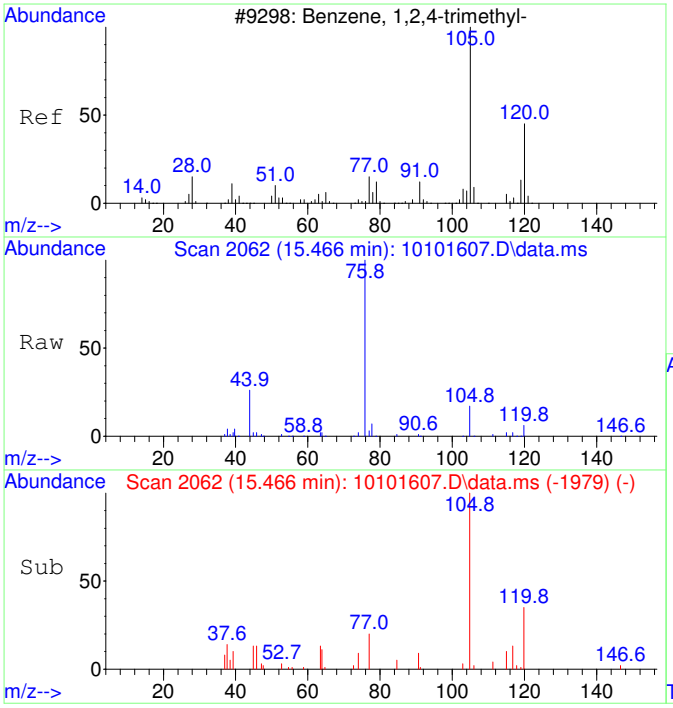


#45
1,2,4-Trimethylbenzene
Concen: 119.91 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 16486

Ion	Ratio	Lower	Upper
105	100		
120	42.9	15.7	75.7

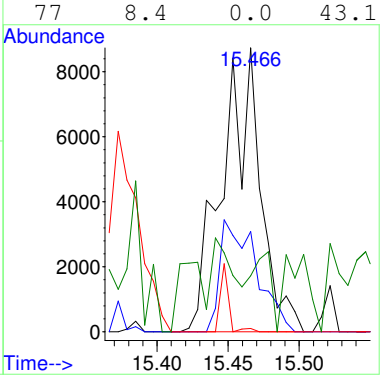


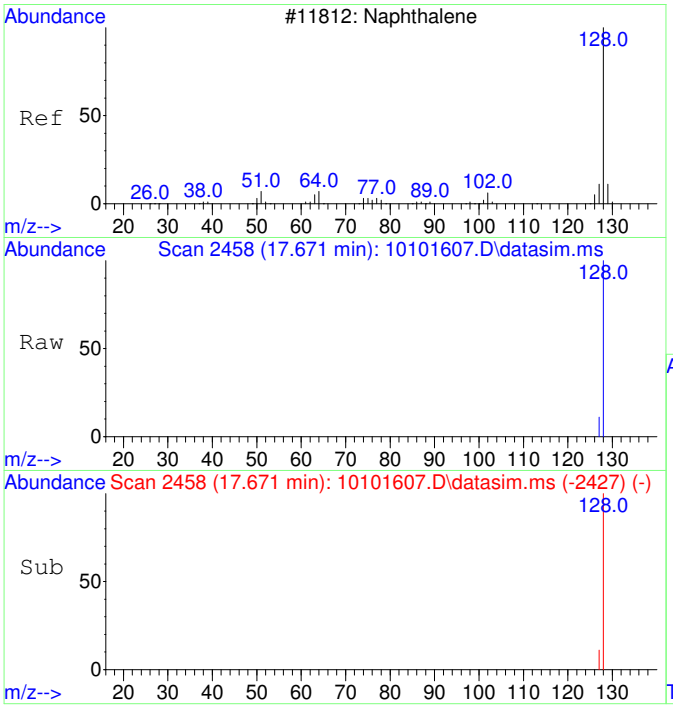


#46
1,2,4-Trimethylbenzene SCAN
Concen: 137.75 ug/L
RT: 15.466 min Scan# 2062
Delta R.T. 0.018 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 16351

Ion	Ratio	Lower	Upper
105	100		
120	0.0	17.2	77.2#
119	0.0	0.0	41.3
77	8.4	0.0	43.1

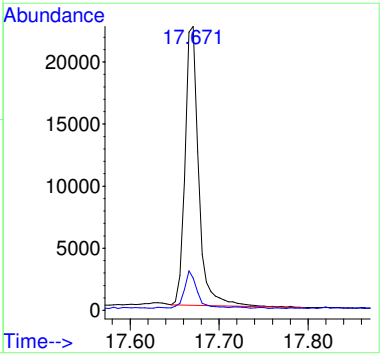


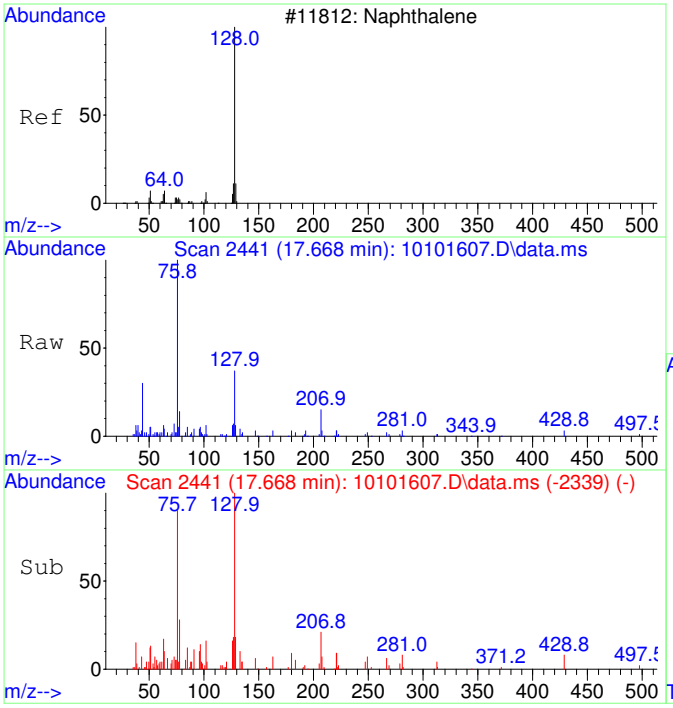


#47
Naphthalene
Concen: 119.53 ug/L
RT: 17.671 min Scan# 2458
Delta R.T. 0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:128 Resp: 23920

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.6

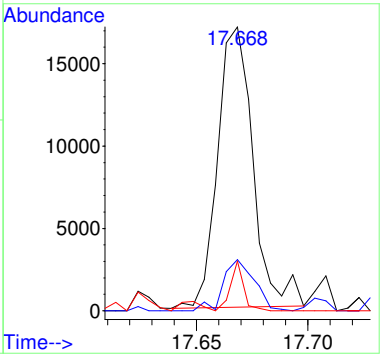




#48
Naphthalene SCAN
Concen: 116.81 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:128 Resp: 18854

Ion	Ratio	Lower	Upper
128	100		
127	16.0	0.0	43.1
129	6.5	0.0	41.0



Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101607.D
Acq On : 10 Oct 2016 16:10
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 10:13:33 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

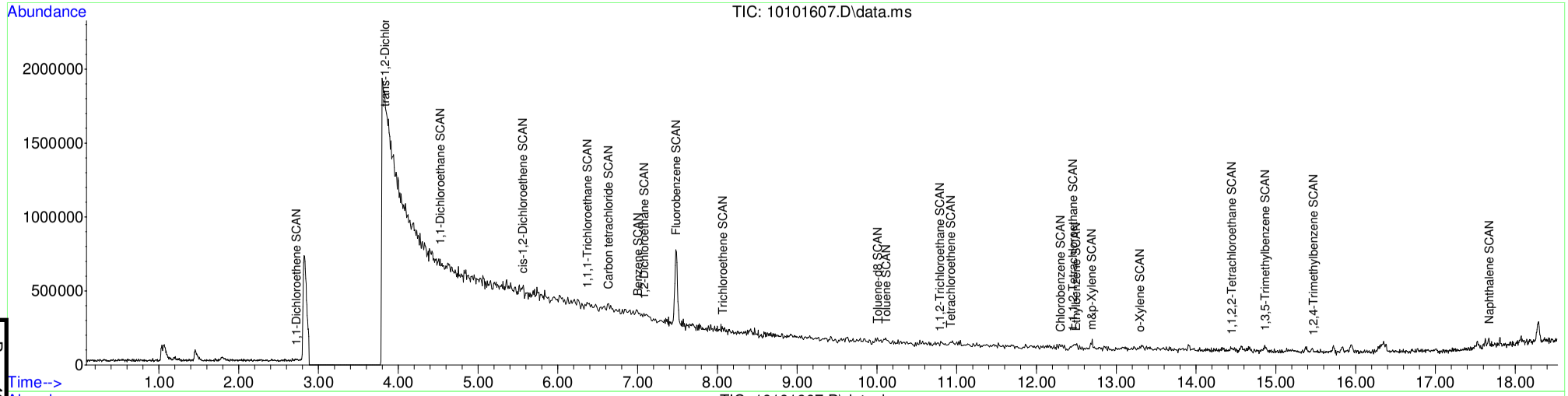
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.483	96	625550	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	16786	138.24	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 2.76%#			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.480	96	479794	4921.33	ug/L	92
3] 1,1-Dichloroethene	2.728	61	13949	180.31	ug/L	83
4) 1,1-Dichloroethene SCAN	2.720	61	3183	59.72	ug/L #	71
5] trans-1,2-Dichloroethene	3.841	61	11397	176.95	ug/L	91
6) trans-1,2-Dichloroethe...	3.830	61	10007	230.52	ug/L	93
7] 1,1-Dichloroethane	4.535	63	14067	170.72	ug/L	98
8) 1,1-Dichloroethane SCAN	4.525	63	15507	262.18	ug/L	92
9] cis-1,2-Dichloroethene	5.561	61	13114	170.10	ug/L	98
10) cis-1,2-Dichloroethene...	5.558	61	6518	111.83	ug/L	79
11] Chloroform	6.142	83	12360	163.20	ug/L	97
13] 1,1,1-Trichloroethane	6.370	97	10800	155.24	ug/L	98
14) 1,1,1-Trichloroethane ...	6.368	97	8474	153.81	ug/L #	45
15] Carbon tetrachloride	6.639	117	8848	147.42	ug/L	98
16) Carbon tetrachloride SCAN	6.636	117	7173	1052.53	ug/L #	59
17] Benzene	6.987	78	24726	164.32	ug/L	90
18) Benzene SCAN	6.998	78	52325	437.43	ug/L #	69
19] 1,2-Dichloroethane	7.055	62	10594	156.66	ug/L	88
20) 1,2-Dichloroethane SCAN	7.079	62	8830	153.10	ug/L #	27
21] Trichloroethene	8.068	130	5991	148.62	ug/L	93
22) Trichloroethene SCAN	8.065	95	5812	185.55	ug/L #	83
24) Toluene-d8 SCAN	10.006	98	17895	172.38	ug/L #	30
25] Toluene	10.099	91	20857	136.57	ug/L	99
26) Toluene SCAN	10.108	91	24222	185.86	ug/L #	82
27] 1,1,2-Trichloroethane	10.789	97	4964	139.26	ug/L	100
28) 1,1,2-Trichloroethane ...	10.787	97	5495	182.73	ug/L #	70
29] Tetrachloroethene	10.937	166	5725	136.04	ug/L	98
30) Tetrachloroethene SCAN	10.923	166	6185	210.13	ug/L #	63
31] Chlorobenzene	12.295	112	12978	129.47	ug/L	93
32) Chlorobenzene SCAN	12.302	112	12492	149.43	ug/L #	34
33] 1,1,1,2-Tetrachloroethane	12.452	131	4444	129.97	ug/L	96
34) 1,1,1,2-Tetrachloroeth...	12.458	131	3729	128.60	ug/L	74
35] Ethylbenzene	12.498	91	21798	128.73	ug/L	97
36) Ethylbenzene SCAN	12.495	91	20050	135.20	ug/L	89
37] m&p-Xylene	12.691	91	33874	253.89	ug/L	96
38) m&p-Xylene SCAN	12.688	91	29569	259.57	ug/L	88
39] o-Xylene	13.307	91	17252	125.54	ug/L	98
40) o-Xylene SCAN	13.295	91	20551	166.69	ug/L	84
41] 1,1,2,2-Tetrachloroethane	14.442	83	7684	126.59	ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.439	83	7744	149.23	ug/L	87
43] 1,3,5-Trimethylbenzene	14.871	105	16497	122.89	ug/L	96
44) 1,3,5-Trimethylbenzene...	14.863	105	13060	112.86	ug/L	96
45] 1,2,4-Trimethylbenzene	15.456	105	16486	119.91	ug/L	96
46) 1,2,4-Trimethylbenzene...	15.466	105	16351	137.75	ug/L #	47
47] Naphthalene	17.671	128	23920	119.53	ug/L	100
48) Naphthalene SCAN	17.668	128	18854	116.81	ug/L	91

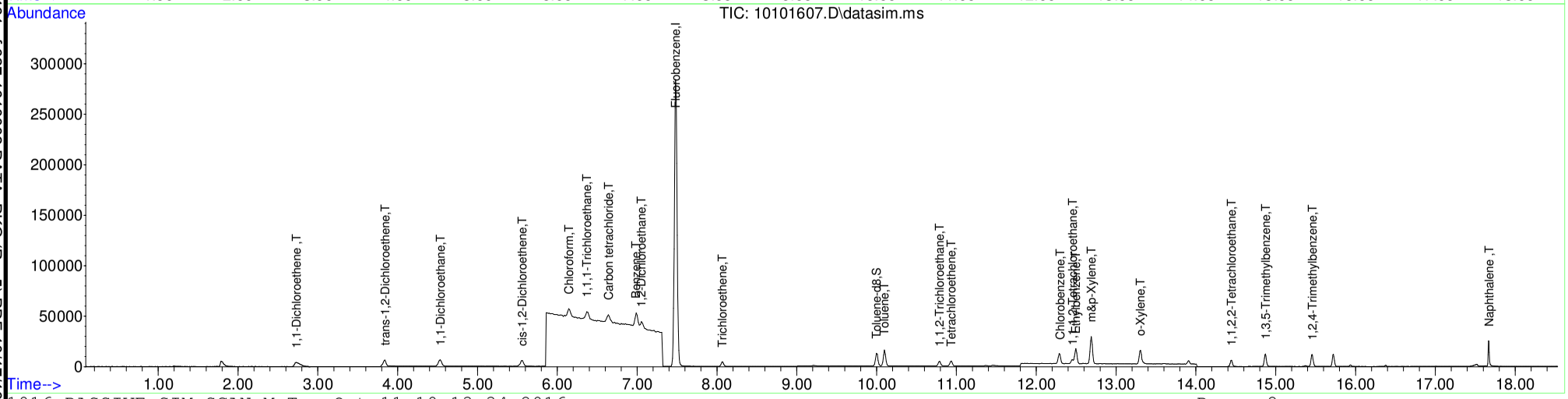
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101607.D
Acq On : 10 Oct 2016 16:10
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL5
Misc : 1635076 .15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 10:13:33 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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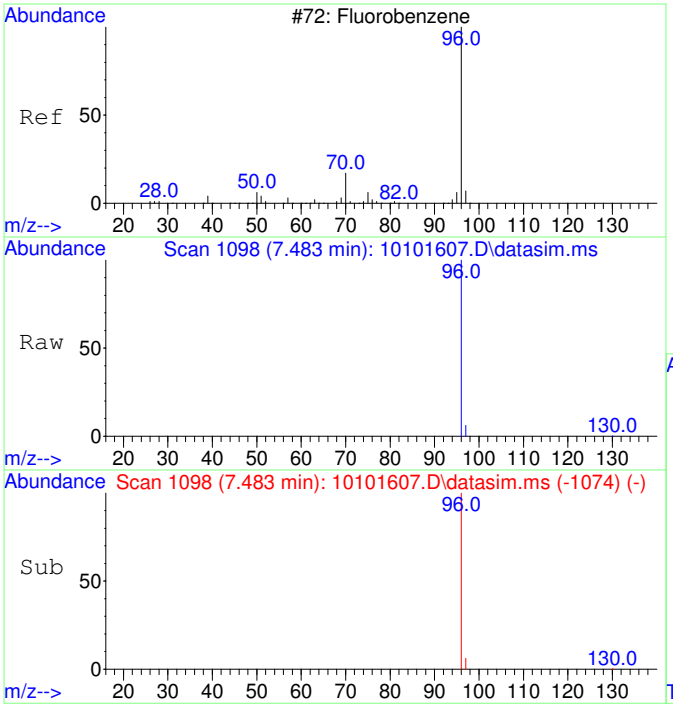
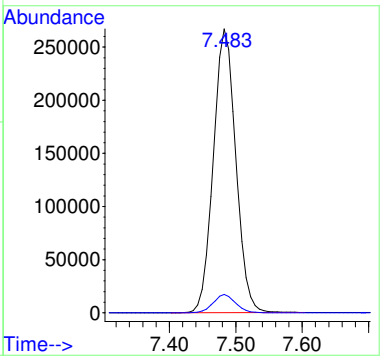
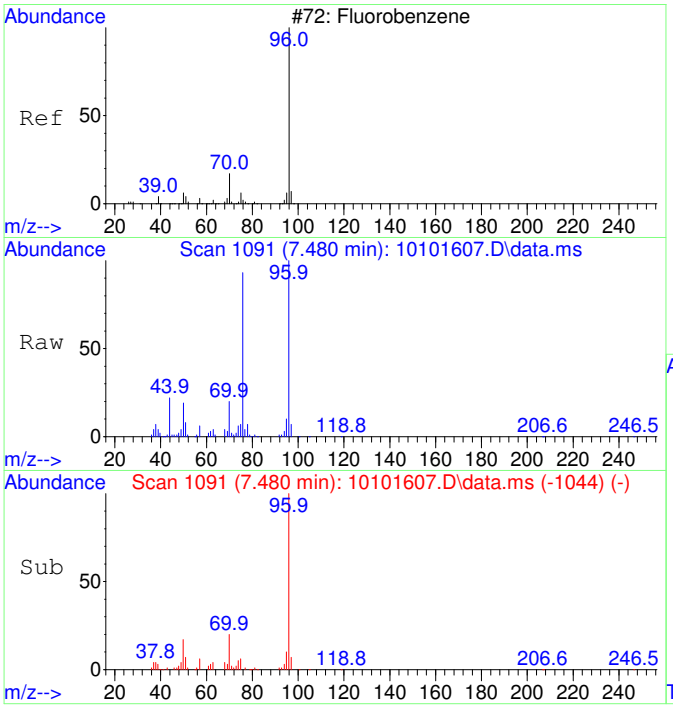


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.483 min Scan# 1098
Delta R.T. 0.007 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 96 Resp: 625550

Ion	Ratio	Lower	Upper
96	100		
97	6.3	0.0	36.6

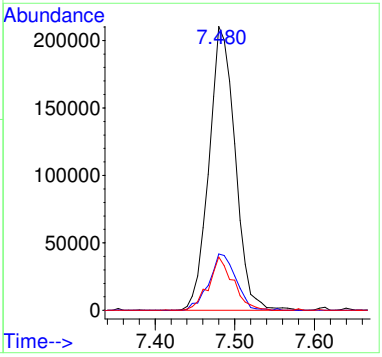


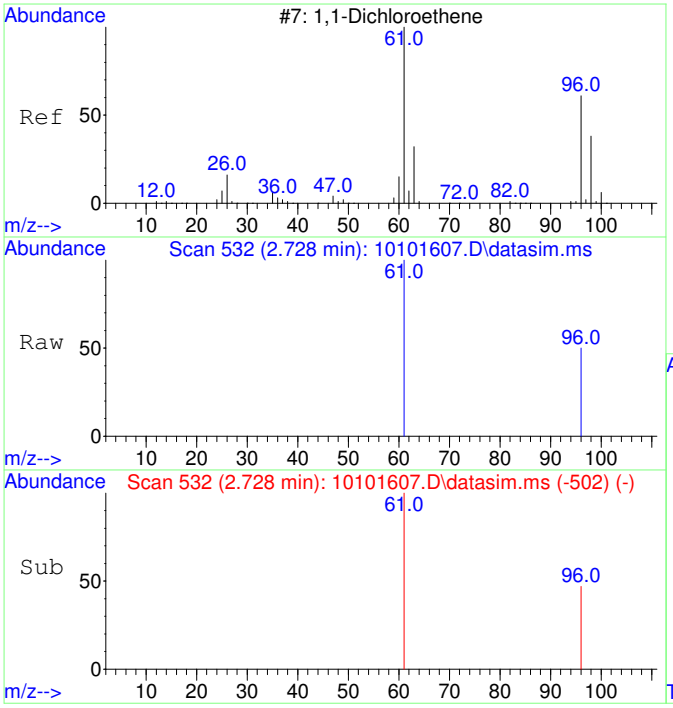


#2
Fluorobenzene SCAN
Concen: 4921.33 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 96 Resp: 479794

Ion	Ratio	Lower	Upper
96	100		
70	20.4	0.0	49.2
50	17.6	0.0	41.1

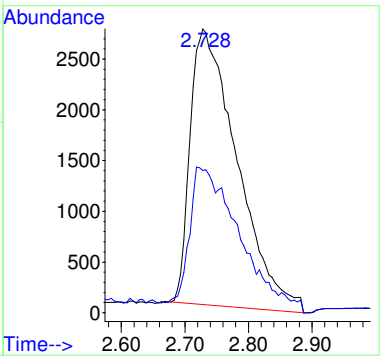




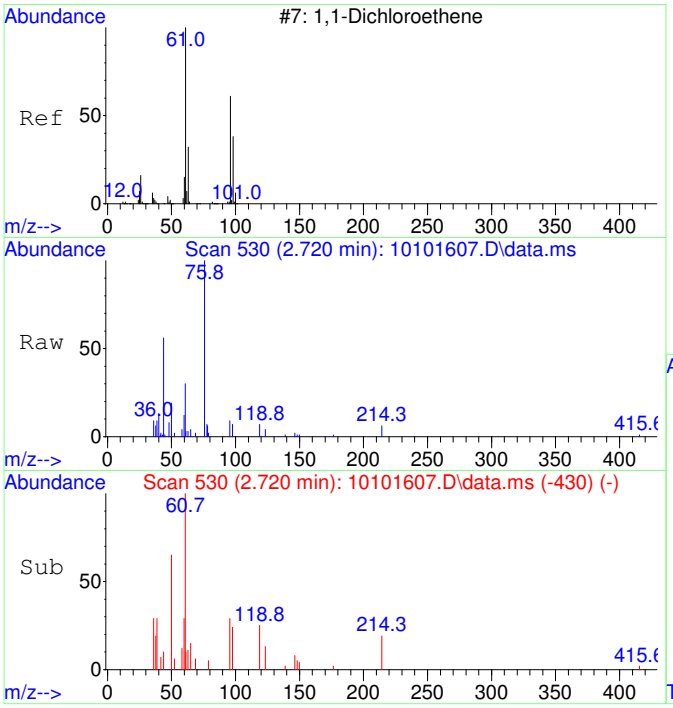
#3
1,1-Dichloroethene
Concen: 180.31 ug/L
RT: 2.728 min Scan# 532
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 13949

Ion	Ratio	Lower	Upper
61	100		
96	51.2	34.9	94.9



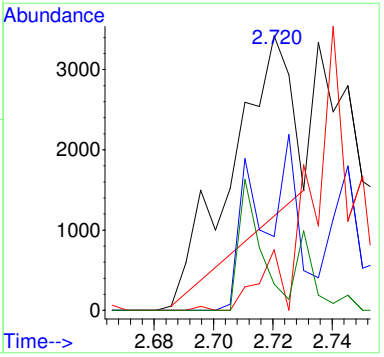
Before MI:
IMPROPER
BASELINE

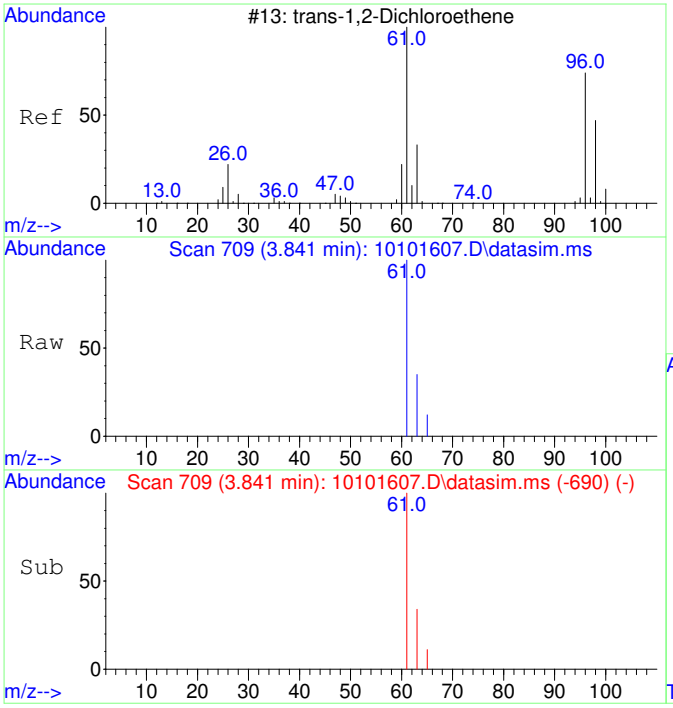


#4
1,1-Dichloroethene SCAN
Concen: 59.72 ug/L
RT: 2.720 min Scan# 530
Delta R.T. -0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 3183

Ion	Ratio	Lower	Upper
61	100		
96	52.1	30.2	90.2
98	0.0	12.2	72.2#
63	24.4	3.7	63.7

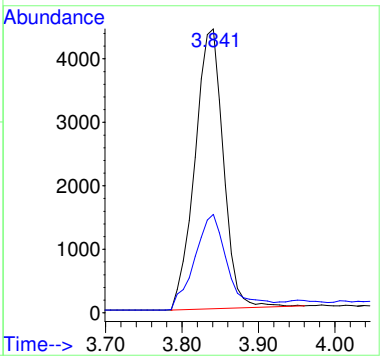


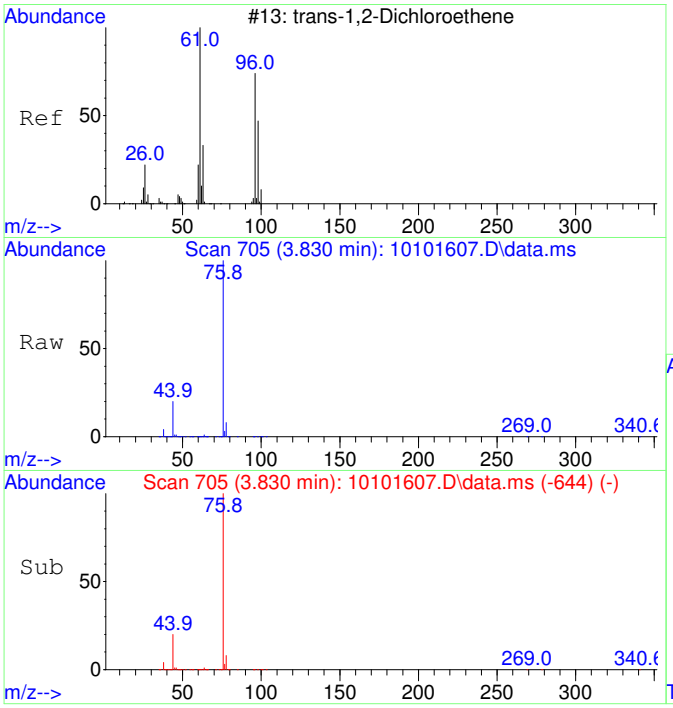


#5
trans-1,2-Dichloroethene
Concen: 176.95 ug/L
RT: 3.841 min Scan# 709
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 11397

Ion	Ratio	Lower	Upper
61	100		
63	37.3	2.5	62.5

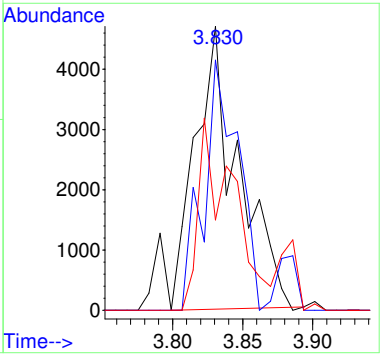


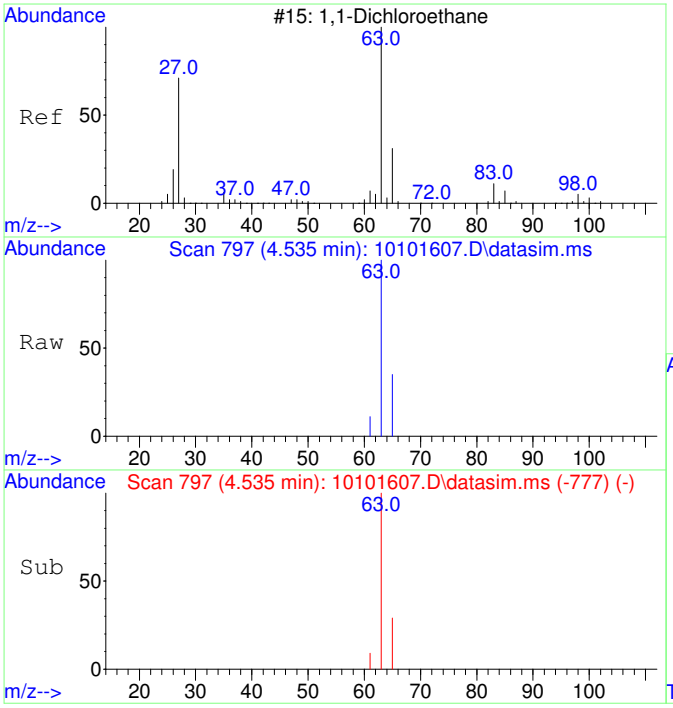


#6
trans-1,2-Dichloroethene SCAN
Concen: 230.52 ug/L
RT: 3.830 min Scan# 705
Delta R.T. -0.016 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 10007

Ion	Ratio	Lower	Upper
61	100		
96	68.5	47.5	107.5
98	47.6	17.2	77.2

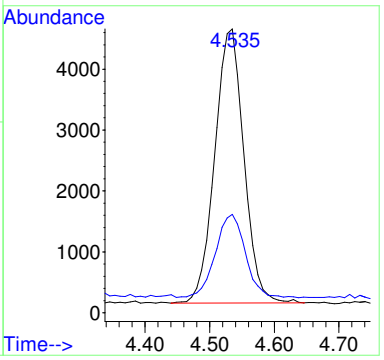


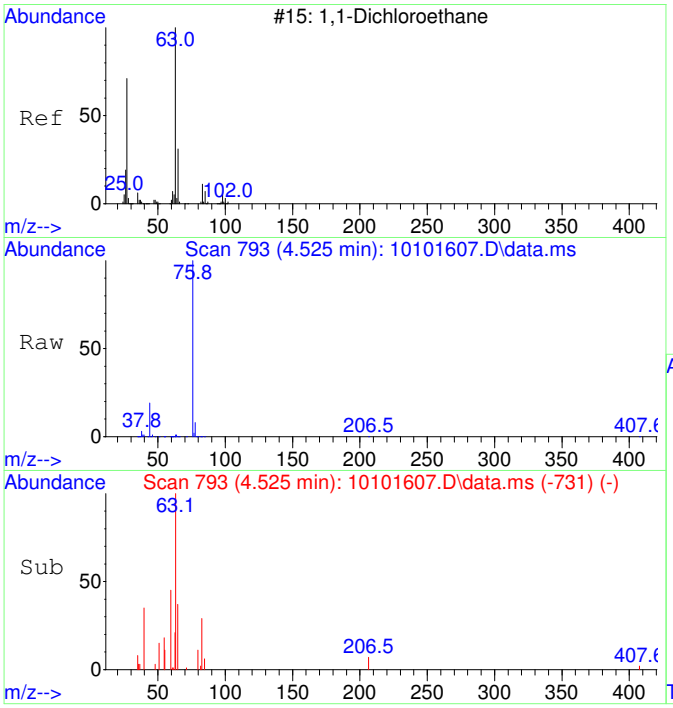


#7
1,1-Dichloroethane
Concen: 170.72 ug/L
RT: 4.535 min Scan# 797
Delta R.T. 0.008 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 63 Resp: 14067

Ion	Ratio	Lower	Upper
63	100		
65	30.7	1.8	61.8

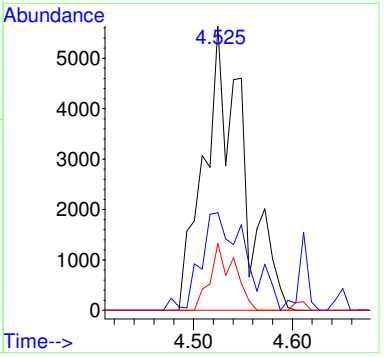


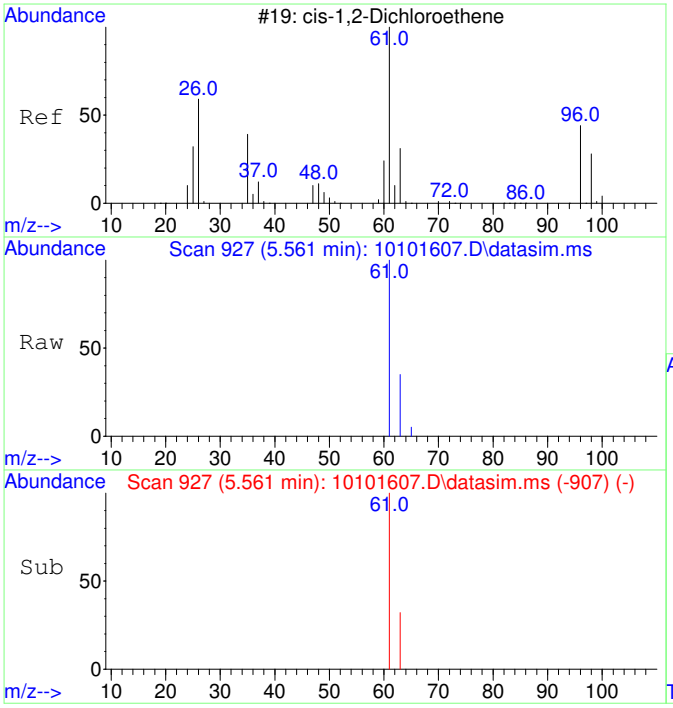


#8
1,1-Dichloroethane SCAN
Concen: 262.18 ug/L
RT: 4.525 min Scan# 793
Delta R.T. -0.008 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 63 Resp: 15507

Ion	Ratio	Lower	Upper
63	100		
65	39.8	3.9	63.9
83	14.5	0.0	45.1

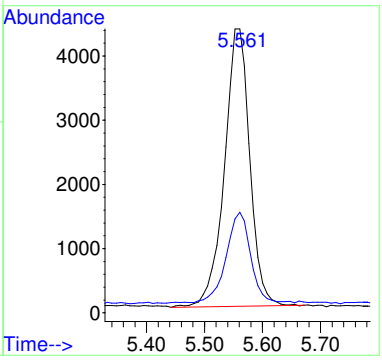


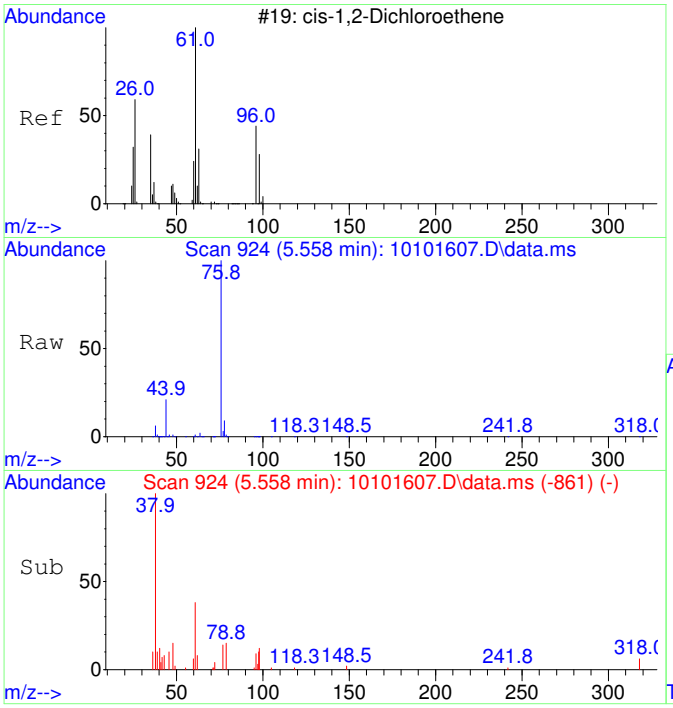


#9
cis-1,2-Dichloroethene
Concen: 170.10 ug/L
RT: 5.561 min Scan# 927
Delta R.T. 0.008 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 13114

Ion	Ratio	Lower	Upper
61	100		
63	31.2	2.4	62.4

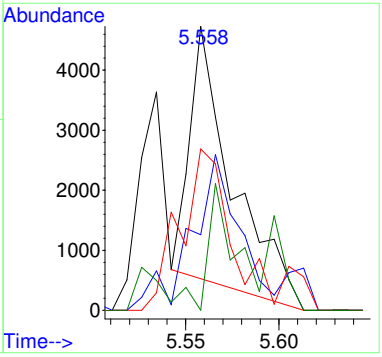


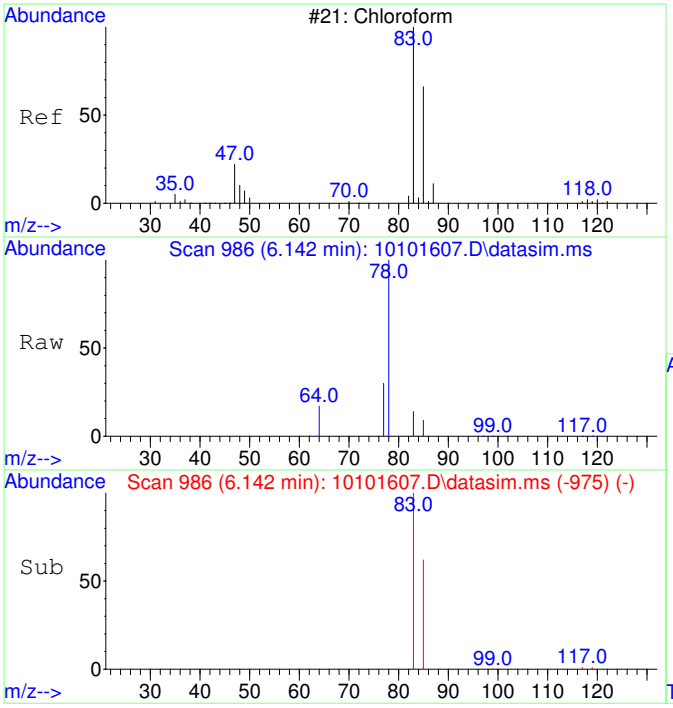


#10
cis-1,2-Dichloroethene SCAN
Concen: 111.83 ug/L
RT: 5.558 min Scan# 924
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 61 Resp: 6518

Ion	Ratio	Lower	Upper
61	100		
96	61.9	42.0	102.0
98	73.7	17.5	77.5
63	25.7	3.4	63.4

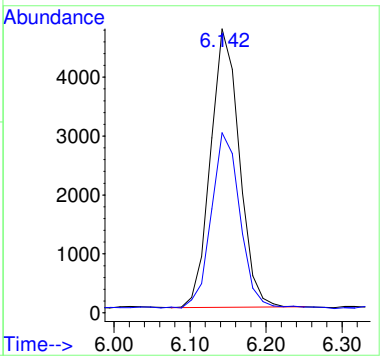


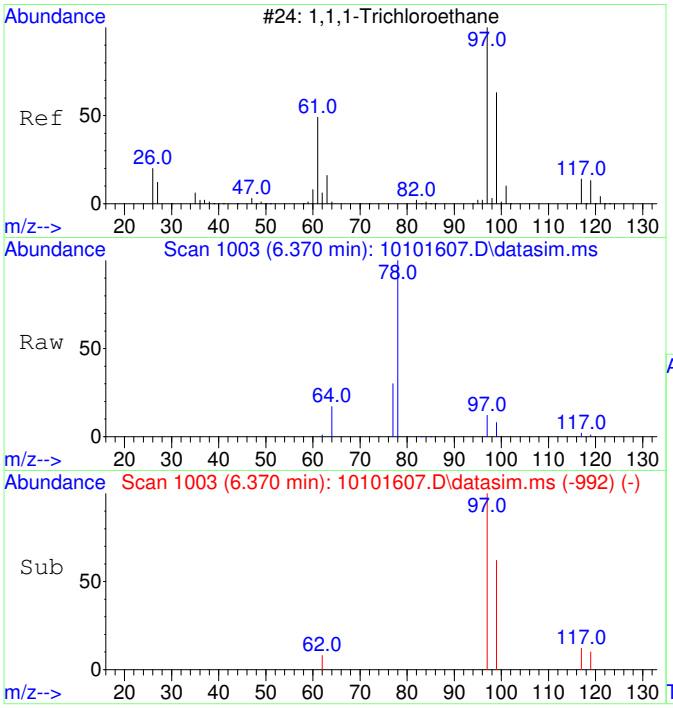


#11
Chloroform
Concen: 163.20 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 83 Resp: 12360

Ion	Ratio	Lower	Upper
83	100		
85	62.1	34.4	94.4

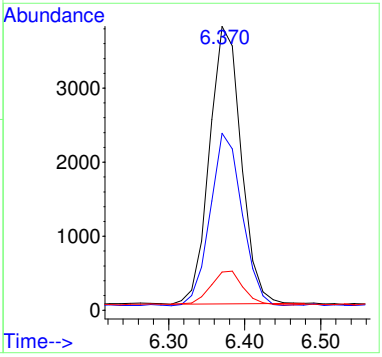


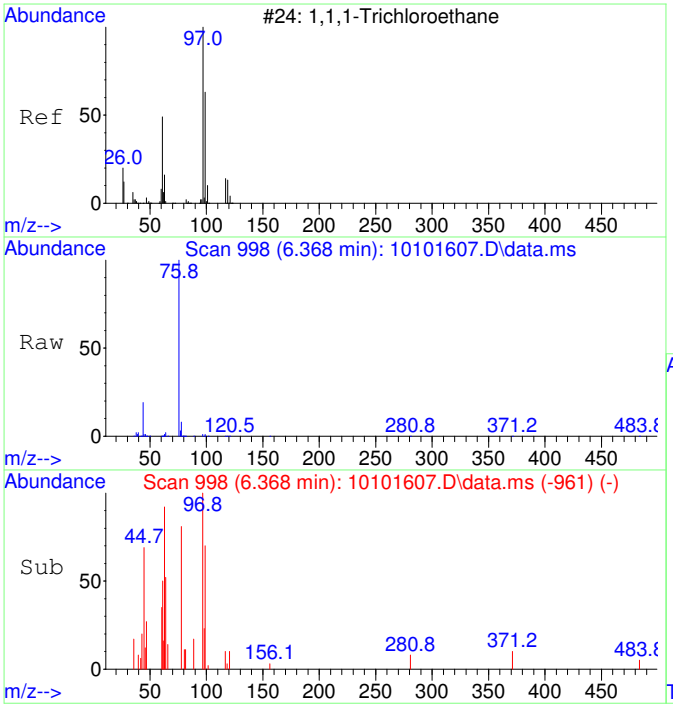


#13
1,1,1-Trichloroethane
Concen: 155.24 ug/L
RT: 6.370 min Scan# 1003
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 10800

Ion	Ratio	Lower	Upper
97	100		
99	62.7	34.2	94.2
117	12.2	0.0	43.0

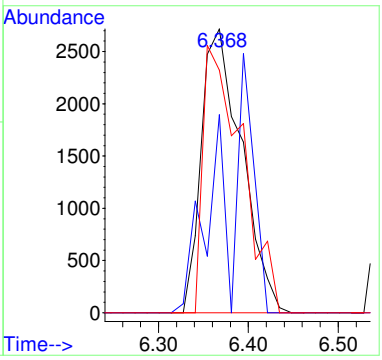


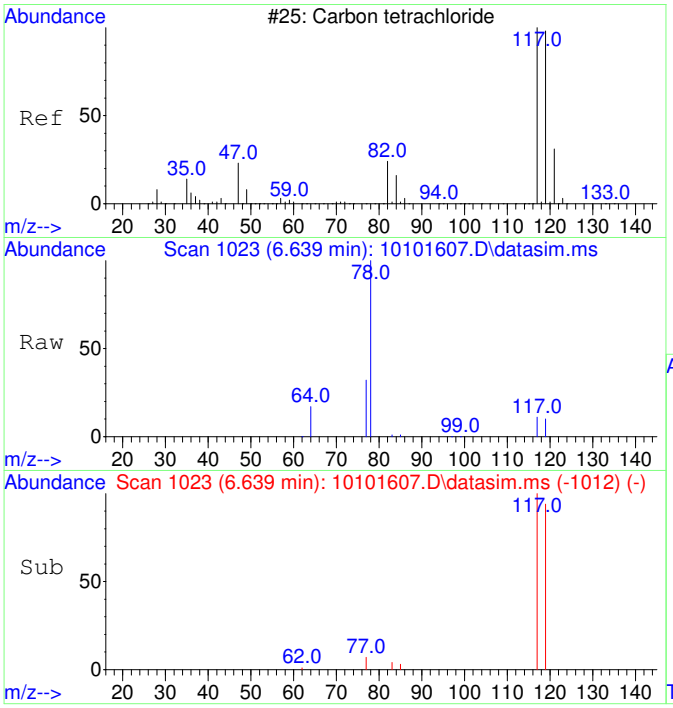


#14
1,1,1-Trichloroethane SCAN
Concen: 153.81 ug/L
RT: 6.368 min Scan# 998
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 8474

Ion	Ratio	Lower	Upper
97	100		
99	34.2	33.6	93.6
61	91.0	10.7	70.7#

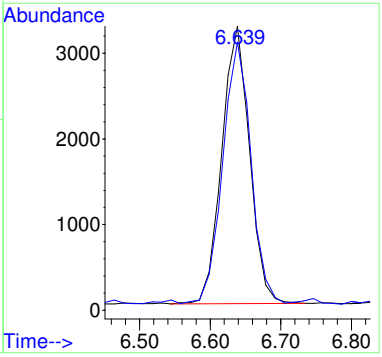


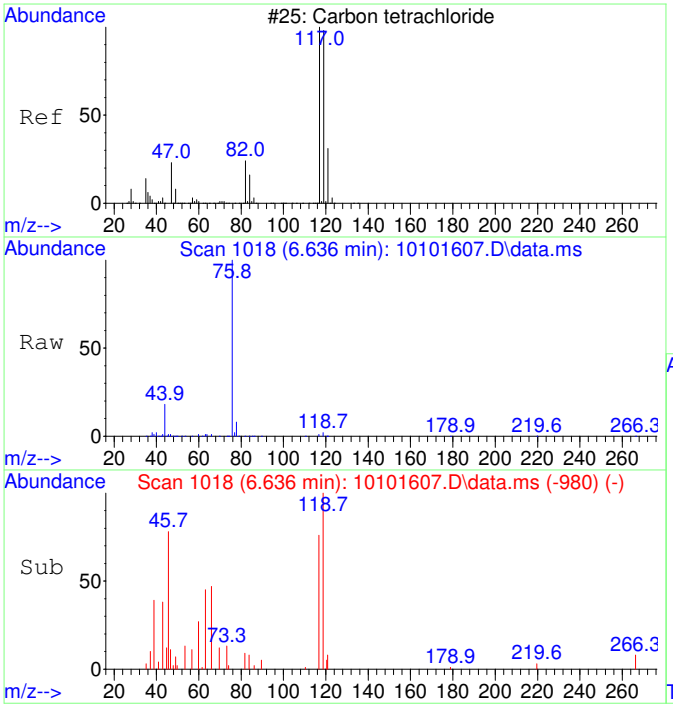


#15
Carbon tetrachloride
Concen: 147.42 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:117 Resp: 8848

Ion	Ratio	Lower	Upper
117	100		
119	94.2	66.1	126.1

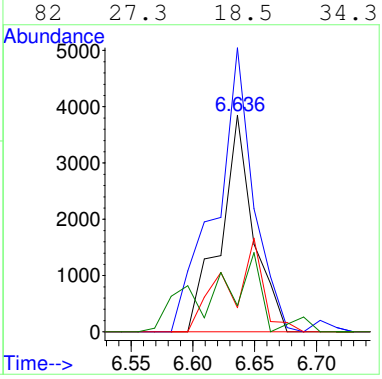


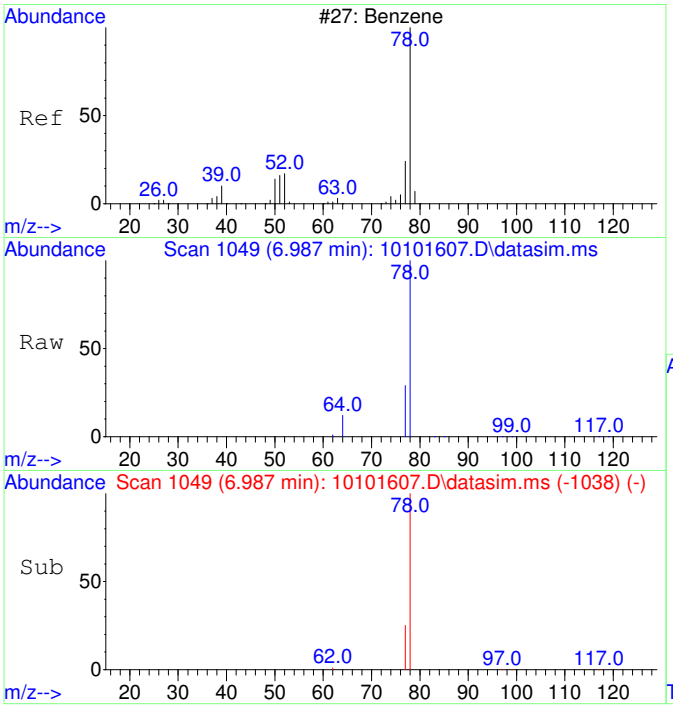


#16
Carbon tetrachloride SCAN
Concen: 1052.53 ug/L
RT: 6.636 min Scan# 1018
Delta R.T. 0.013 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:117 Resp: 7173

Ion	Ratio	Lower	Upper
117	100		
119	149.9	66.0	122.6#
121	46.1	22.1	41.1#
82	27.3	18.5	34.3

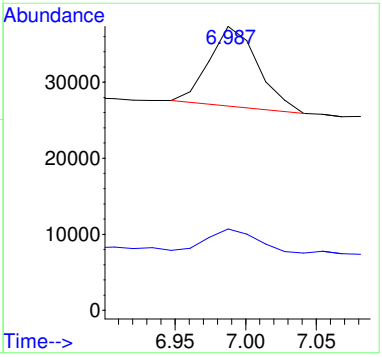


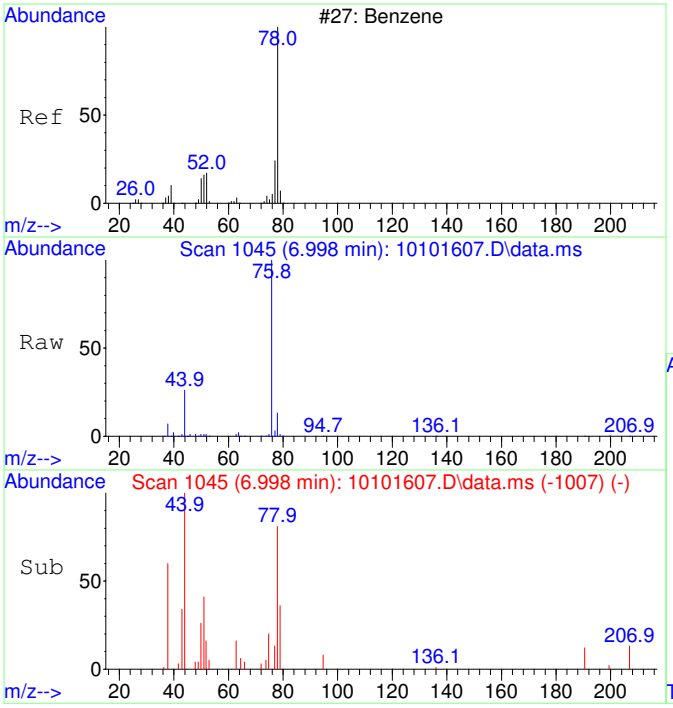


#17
Benzene
Concen: 164.32 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 78 Resp: 24726

Ion	Ratio	Lower	Upper
78	100		
77	28.3	0.0	53.4

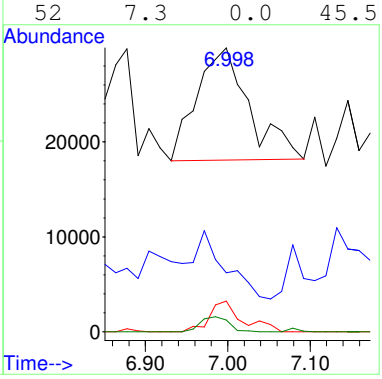


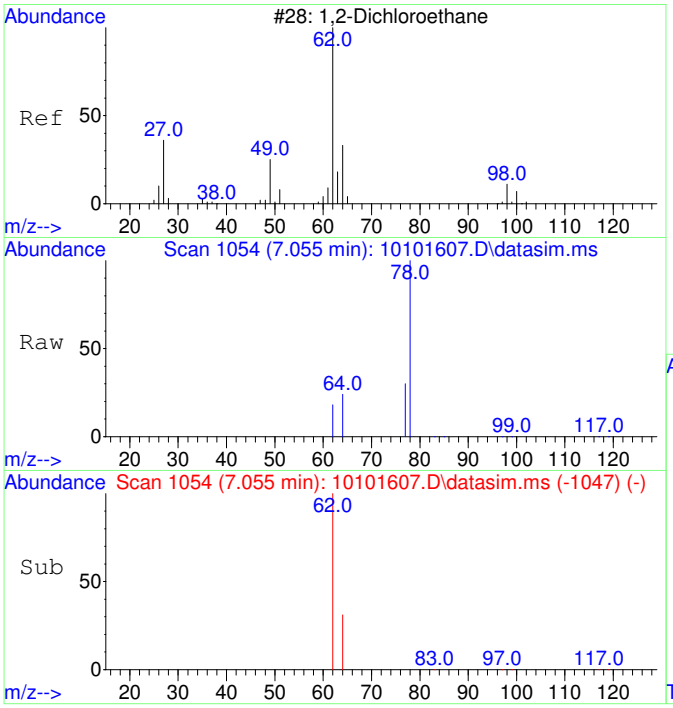


#18
Benzene SCAN
Concen: 437.43 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 78 Resp: 52325

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	59.3
51	17.1	0.0	49.2
52	7.3	0.0	45.5

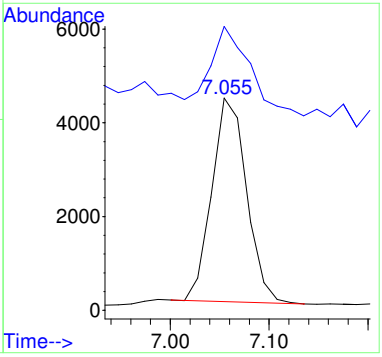


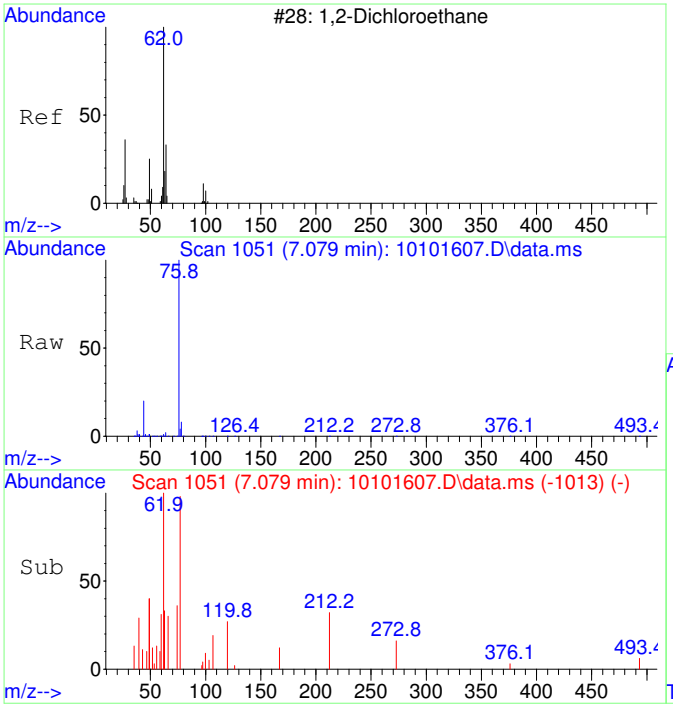


#19
1,2-Dichloroethane
Concen: 156.66 ug/L
RT: 7.055 min Scan# 1054
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 62 Resp: 10594

Ion	Ratio	Lower	Upper
62	100		
64	39.4	2.7	62.7

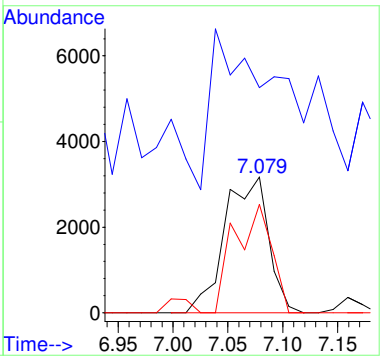


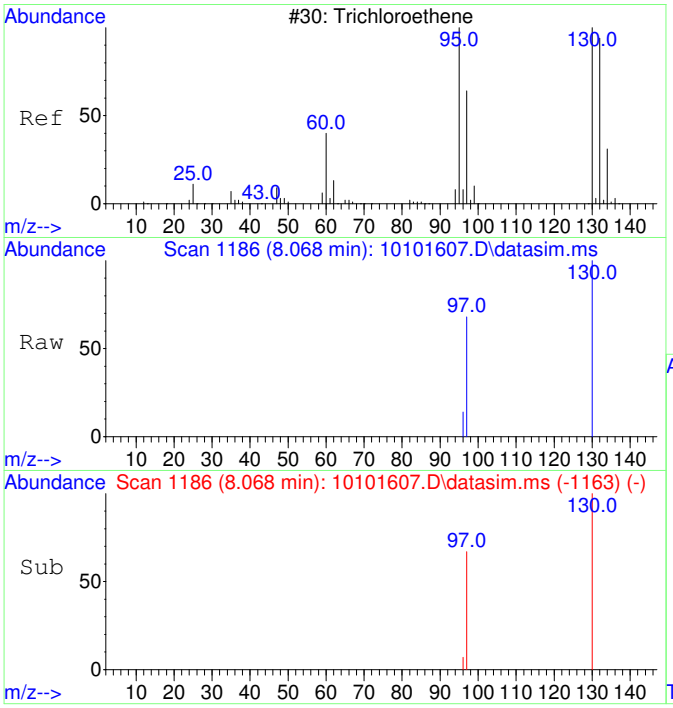


#20
1,2-Dichloroethane SCAN
Concen: 153.10 ug/L
RT: 7.079 min Scan# 1051
Delta R.T. 0.013 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 62 Resp: 8830

Ion	Ratio	Lower	Upper
62	100		
64	0.0	1.9	61.9#
49	67.8	0.0	51.8#

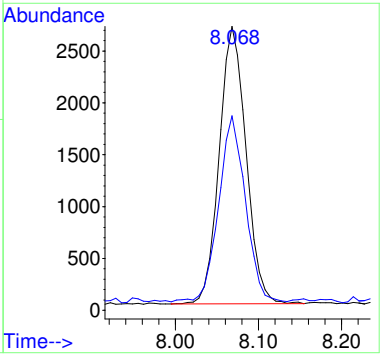


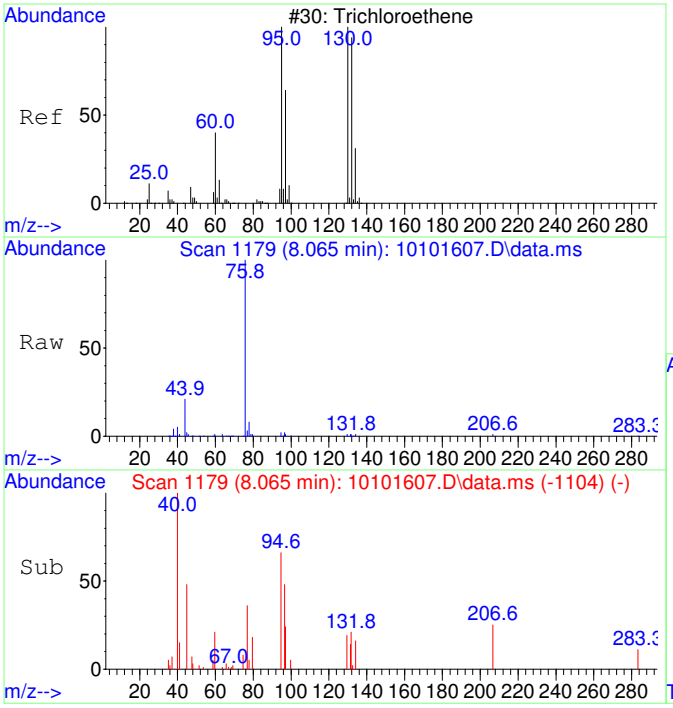


#21
Trichloroethene
Concen: 148.62 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:130 Resp: 5991

Ion	Ratio	Lower	Upper
130	100		
97	65.2	29.9	89.9

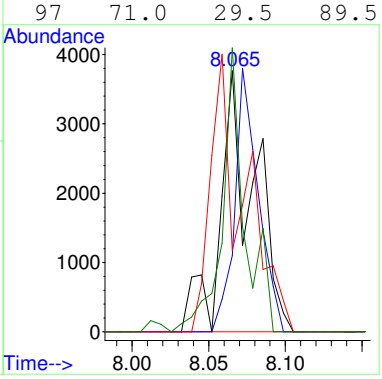


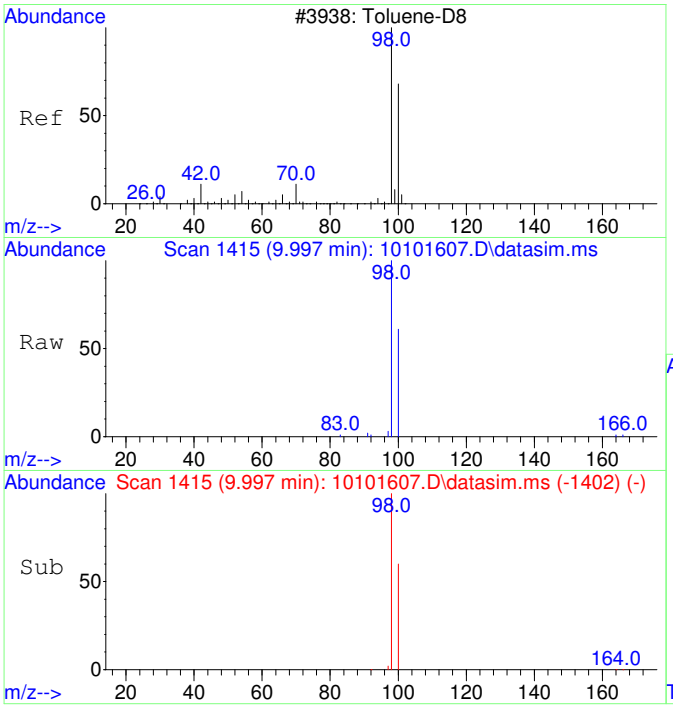


#22
Trichloroethene SCAN
Concen: 185.55 ug/L
RT: 8.065 min Scan# 1179
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 95 Resp: 5812

Ion	Ratio	Lower	Upper
95	100		
130	69.5	74.1	134.1#
132	104.1	72.1	132.1
97	71.0	29.5	89.5

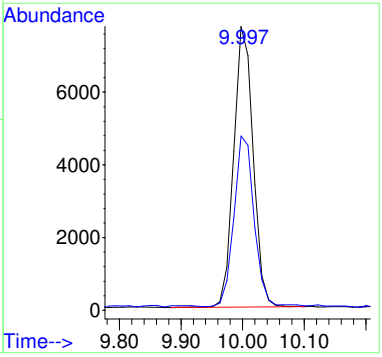


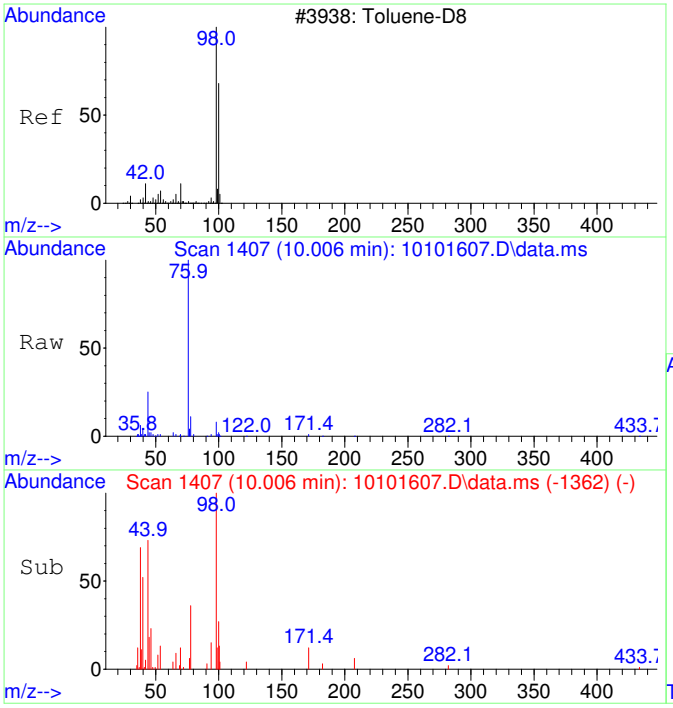


#23
Toluene-d8
Concen: 138.24 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 98 Resp: 16786

Ion	Ratio	Lower	Upper
98	100		
100	61.8	35.3	95.3

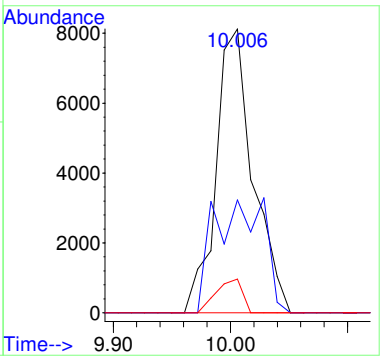


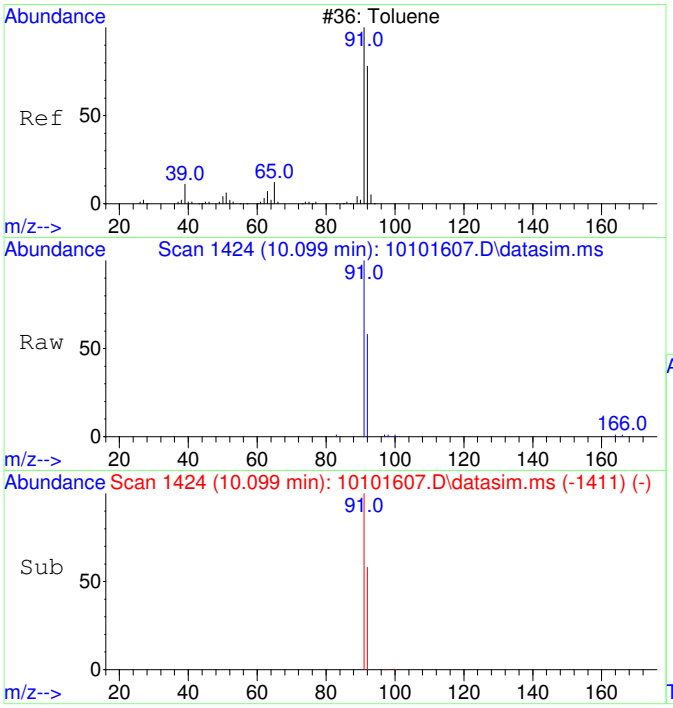


#24
Toluene-d8 SCAN
Concen: 172.38 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 98 Resp: 17895

Ion	Ratio	Lower	Upper
98	100		
100	0.0	44.3	82.3#
70	8.4	7.8	14.4

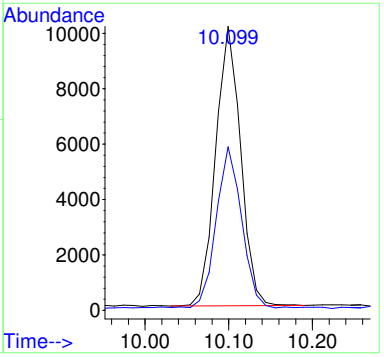


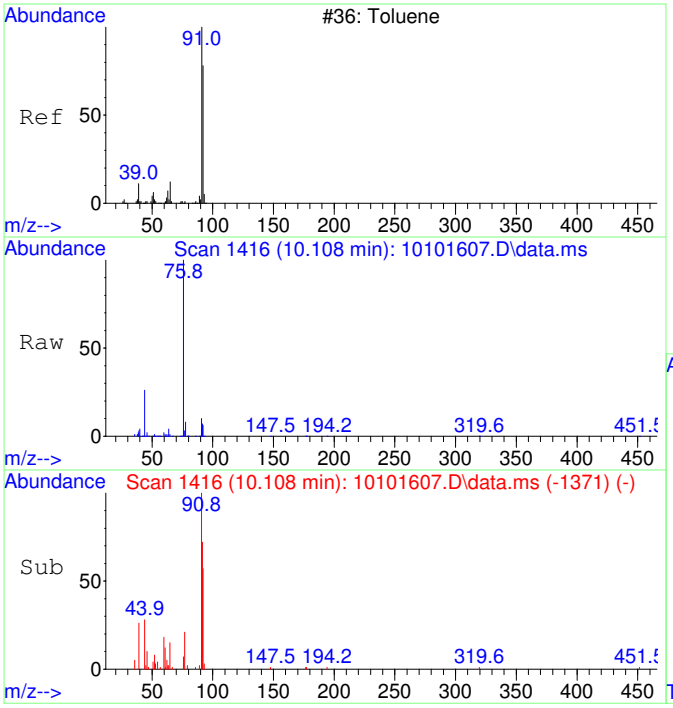


#25
Toluene
Concen: 136.57 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 20857

Ion	Ratio	Lower	Upper
91	100		
92	58.4	28.8	88.8

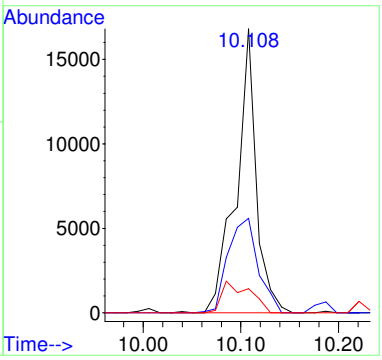


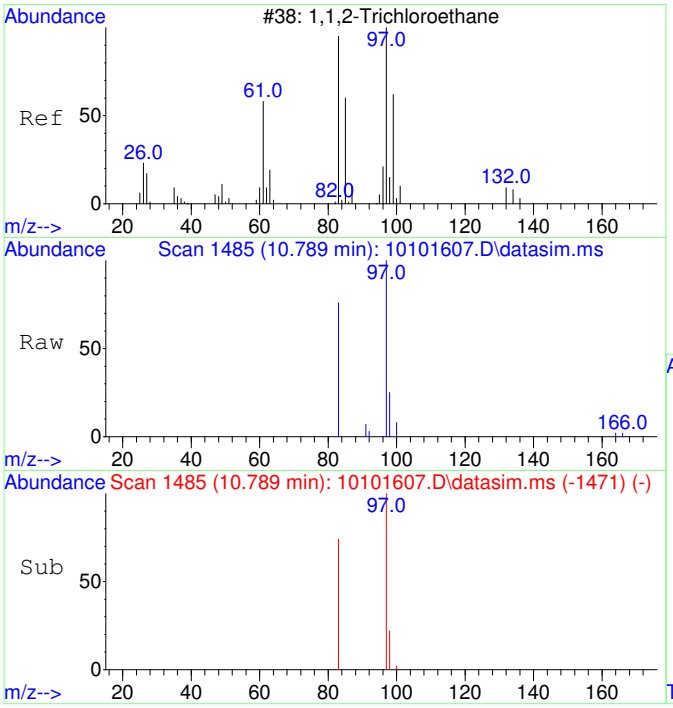


#26
Toluene SCAN
Concen: 185.86 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 24222

Ion	Ratio	Lower	Upper
91	100		
92	49.5	30.7	90.7
65	0.0	0.0	42.6

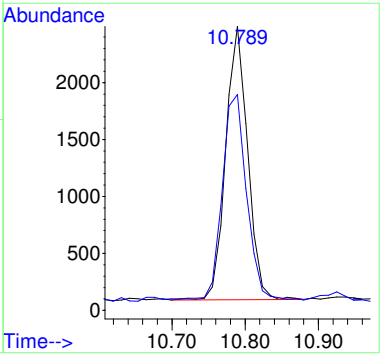


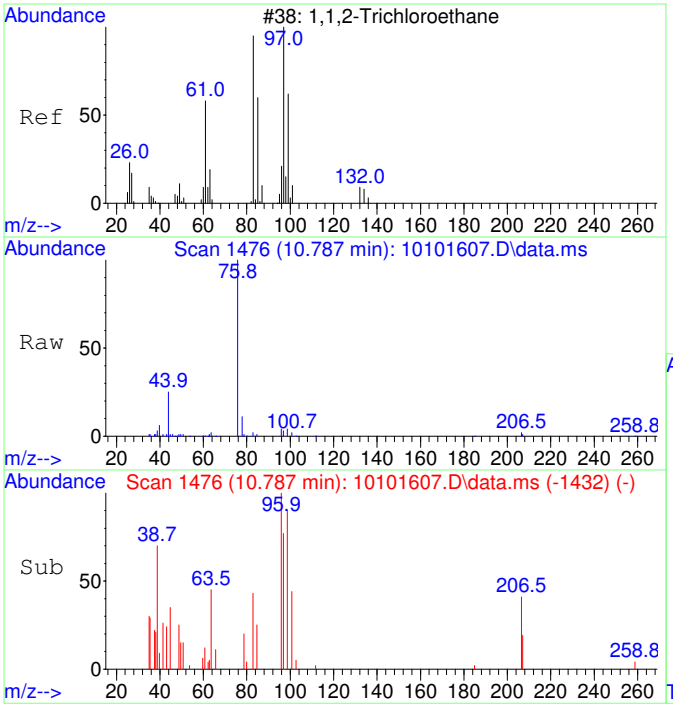


#27
1,1,2-Trichloroethane
Concen: 139.26 ug/L
RT: 10.789 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 4964

Ion	Ratio	Lower	Upper
97	100		
83	80.2	50.5	110.5

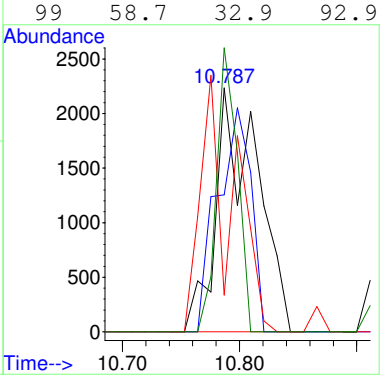


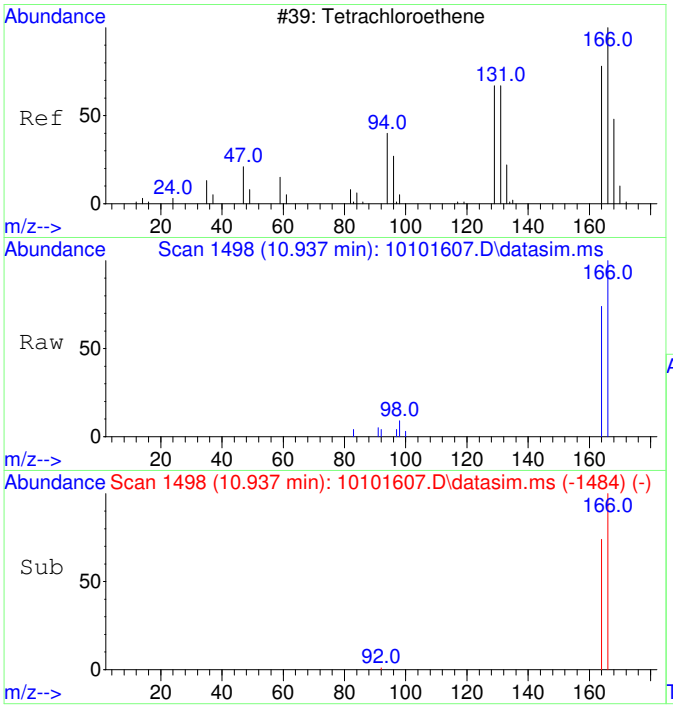


#28
1,1,2-Trichloroethane SCAN
Concen: 182.73 ug/L
RT: 10.787 min Scan# 1476
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 97 Resp: 5495

Ion	Ratio	Lower	Upper
97	100		
83	74.3	53.8	113.8
61	0.0	31.3	91.3#
99	58.7	32.9	92.9

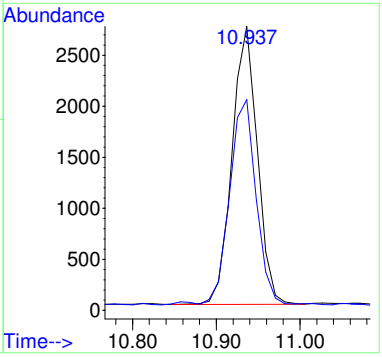


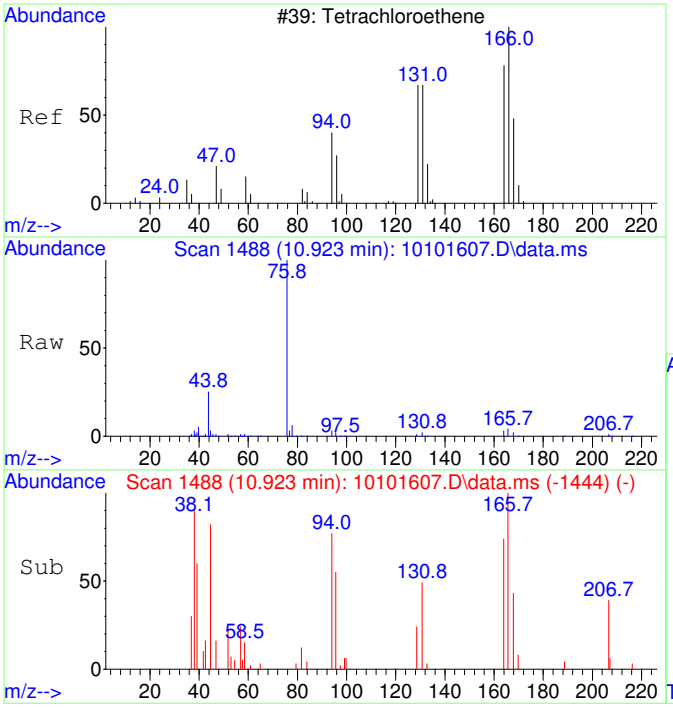


#29
Tetrachloroethene
Concen: 136.04 ug/L
RT: 10.937 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:166 Resp: 5725

Ion	Ratio	Lower	Upper
166	100		
164	76.3	47.7	107.7

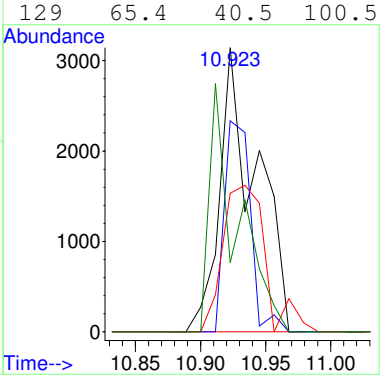


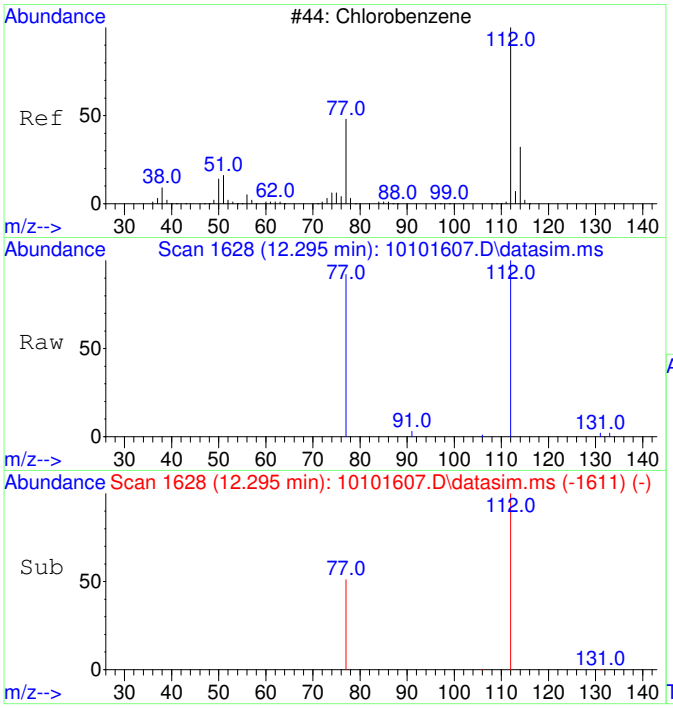


#30
Tetrachloroethene SCAN
Concen: 210.13 ug/L
RT: 10.923 min Scan# 1488
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:166 Resp: 6185

Ion	Ratio	Lower	Upper
166	100		
164	52.6	44.9	104.9
131	0.0	36.1	96.1#
129	65.4	40.5	100.5

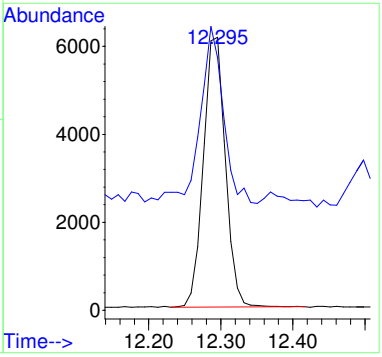


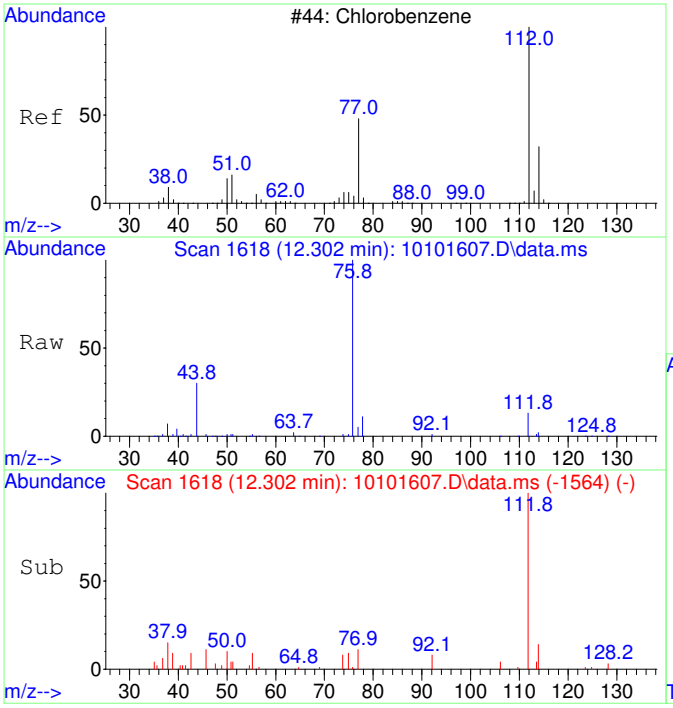


#31
Chlorobenzene
Concen: 129.47 ug/L
RT: 12.295 min Scan# 1628
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:112 Resp: 12978

Ion	Ratio	Lower	Upper
112	100		
77	60.3	25.1	85.1

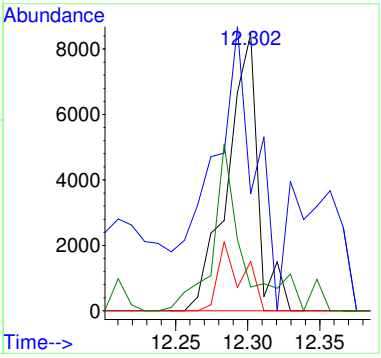


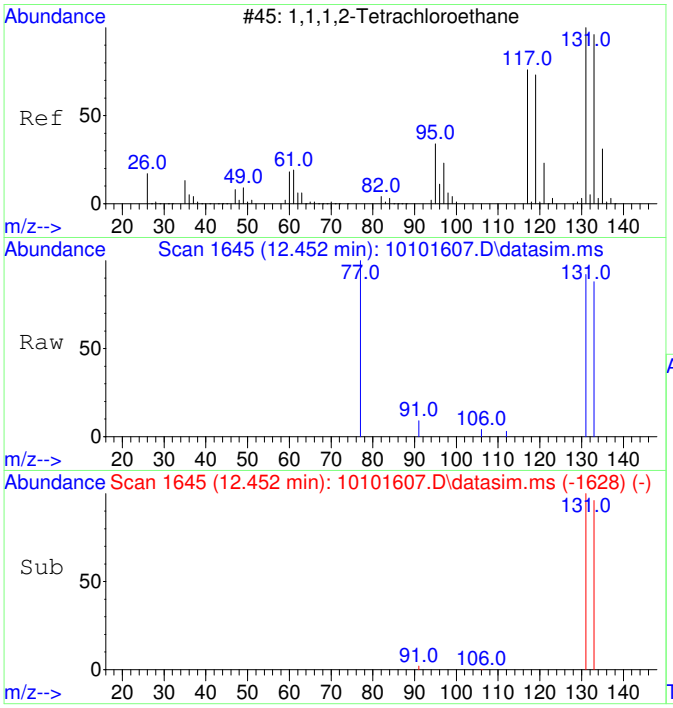


#32
Chlorobenzene SCAN
Concen: 149.43 ug/L
RT: 12.302 min Scan# 1618
Delta R.T. 0.018 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:112 Resp: 12492

Ion	Ratio	Lower	Upper
112	100		
77	111.7	23.6	83.6#
114	19.9	0.9	60.9
51	62.8	0.0	47.7#

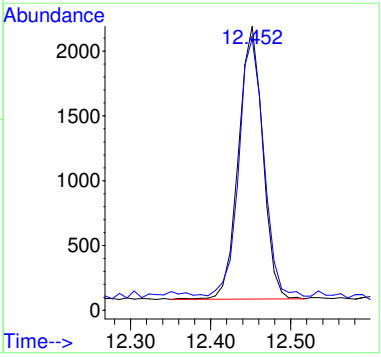


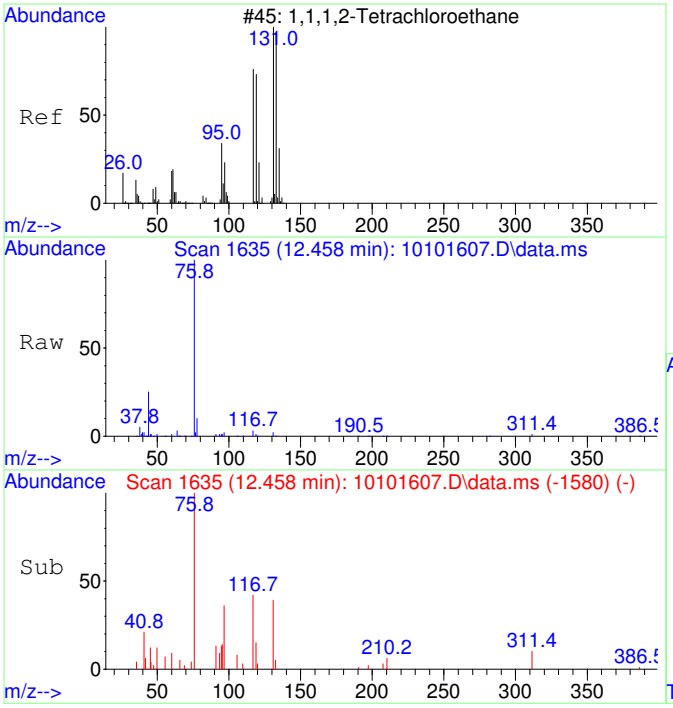


#33
1,1,1,2-Tetrachloroethane
Concen: 129.97 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:131 Resp: 4444

Ion	Ratio	Lower	Upper
131	100		
133	98.5	64.8	124.8

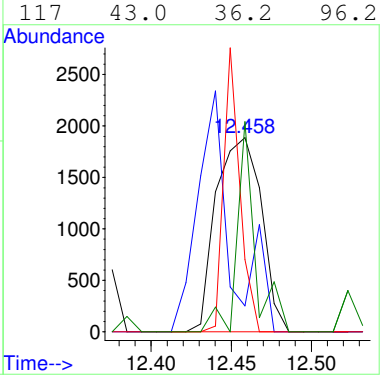


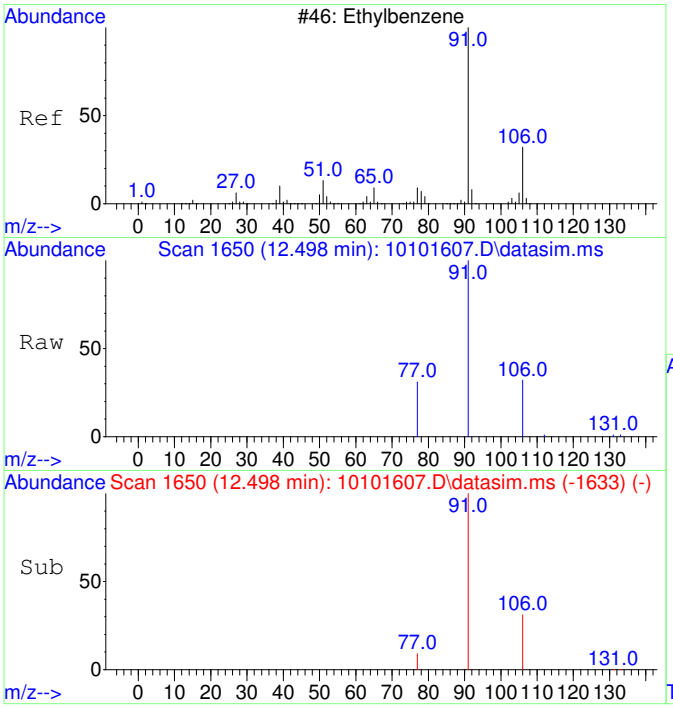


#34
1,1,1,2-Tetrachloroethane SCAN
Concen: 128.60 ug/L
RT: 12.458 min Scan# 1635
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:131 Resp: 3729

Ion	Ratio	Lower	Upper
131	100		
133	65.0	64.7	124.7
119	52.1	34.9	94.9
117	43.0	36.2	96.2

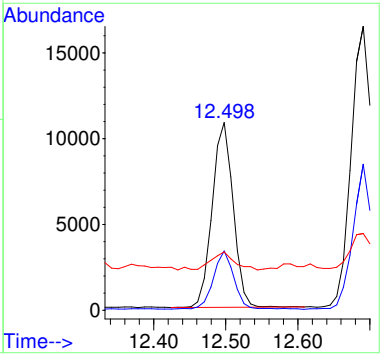


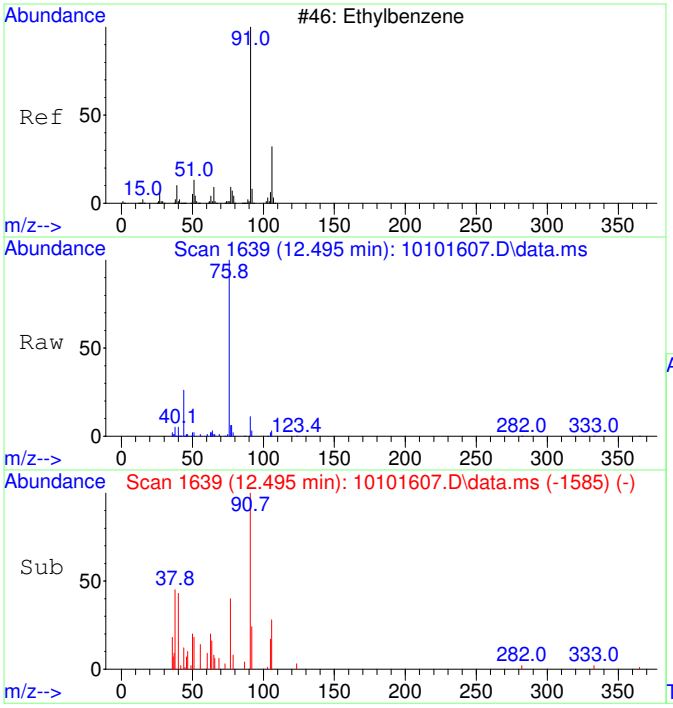


#35
Ethylbenzene
Concen: 128.73 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 21798

Ion	Ratio	Lower	Upper
91	100		
106	30.3	1.7	61.7
77	9.2	0.0	38.3

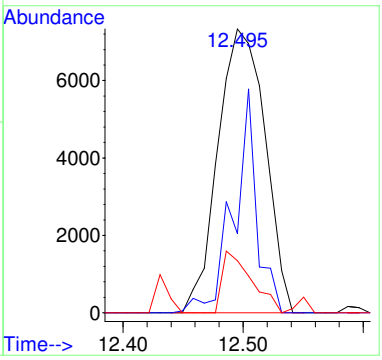


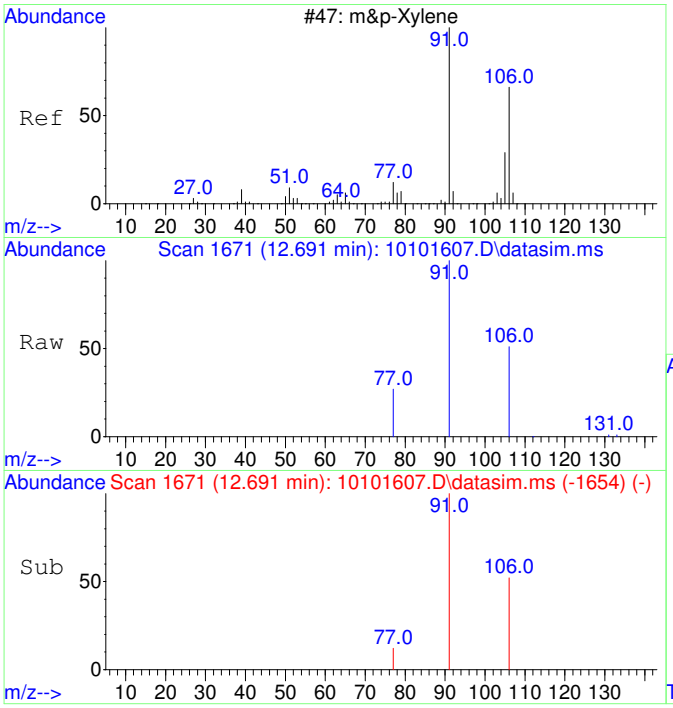


#36
Ethylbenzene SCAN
Concen: 135.20 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 20050

Ion	Ratio	Lower	Upper
91	100		
106	38.7	2.3	62.3
51	12.7	0.0	39.6

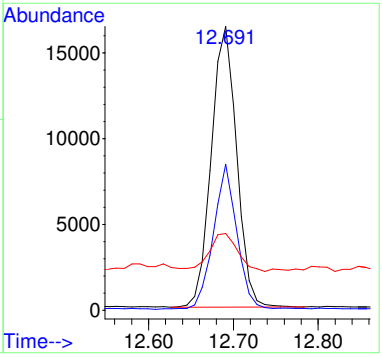


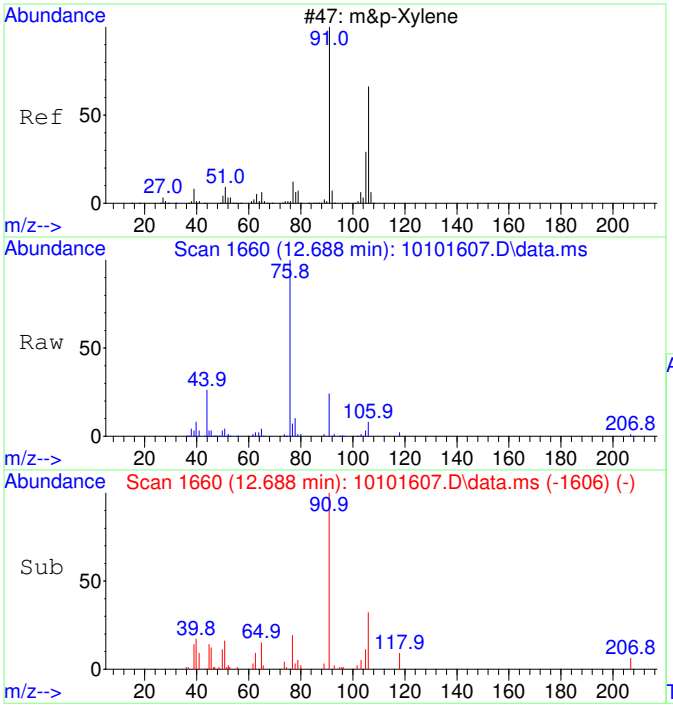


#37
m&p-Xylene
Concen: 253.89 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 33874

Ion	Ratio	Lower	Upper
91	100		
106	46.8	19.4	79.4
77	13.6	0.0	42.6

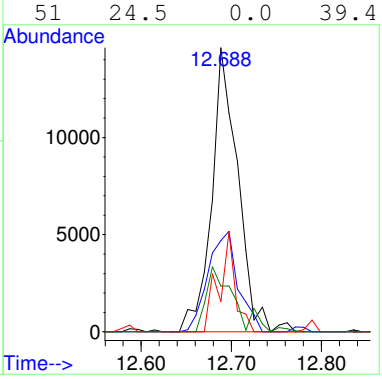


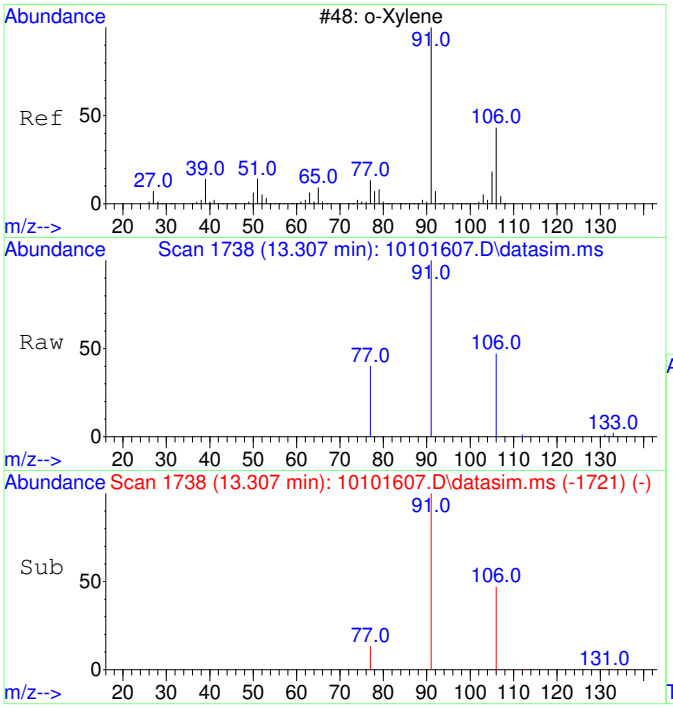


#38
m&p-Xylene SCAN
Concen: 259.57 ug/L
RT: 12.688 min Scan# 1660
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 29569

Ion	Ratio	Lower	Upper
91	100		
106	40.5	18.0	78.0
105	21.8	0.0	53.1
51	24.5	0.0	39.4

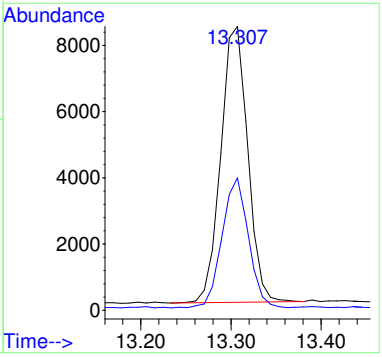


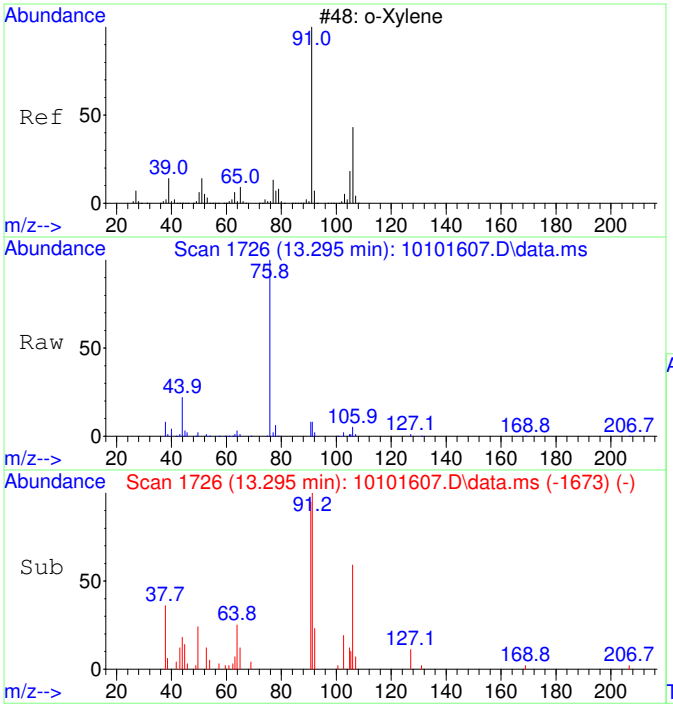


#39
o-Xylene
Concen: 125.54 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 17252

Ion	Ratio	Lower	Upper
91	100		
106	45.8	17.2	77.2

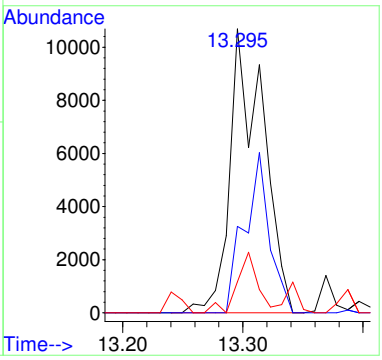


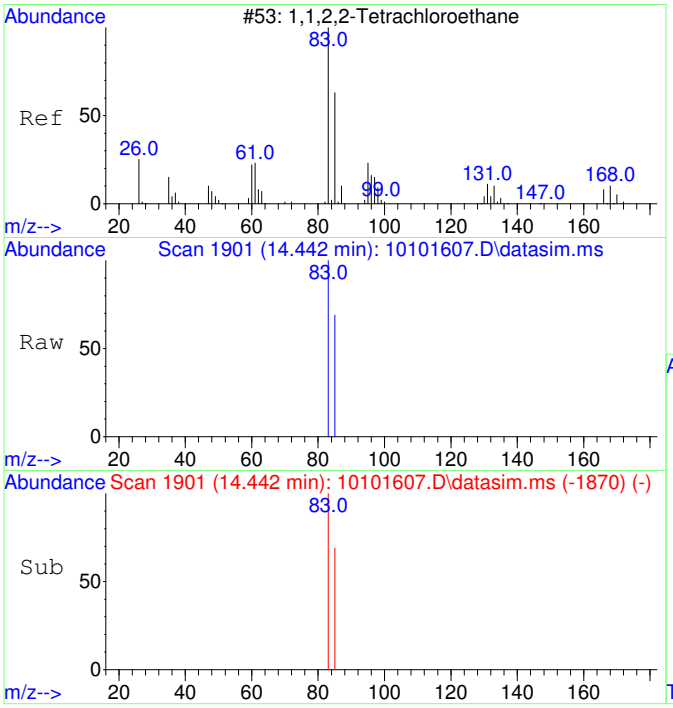


#40
o-Xylene SCAN
Concen: 166.69 ug/L
RT: 13.295 min Scan# 1726
Delta R.T. -0.010 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 91 Resp: 20551

Ion	Ratio	Lower	Upper
91	100		
106	42.5	18.0	78.0
105	11.0	0.0	56.8

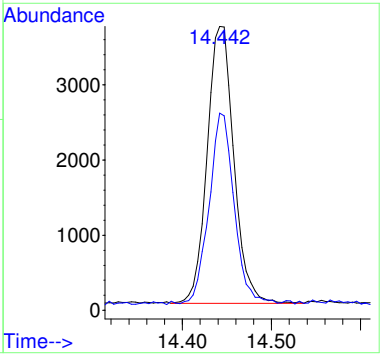


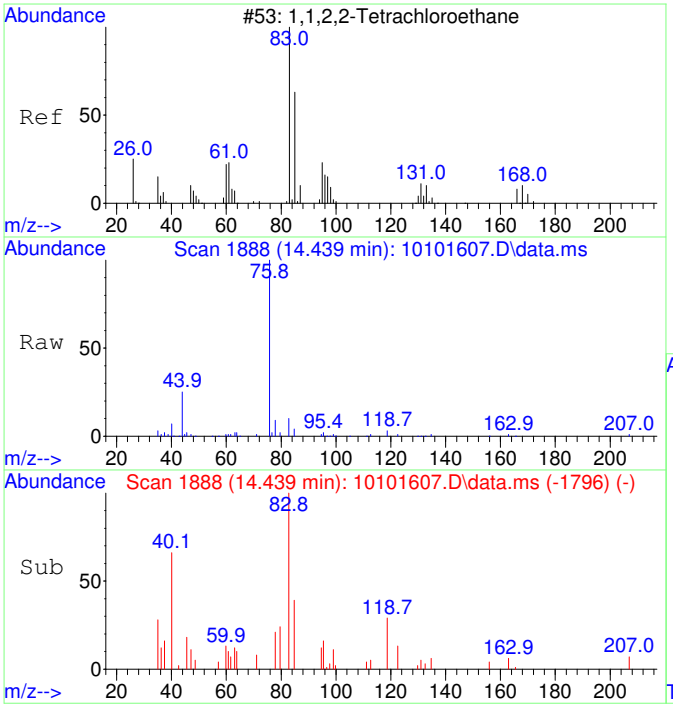


#41
1,1,2,2-Tetrachloroethane
Concen: 126.59 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 83 Resp: 7684

Ion	Ratio	Lower	Upper
83	100		
85	64.0	34.4	94.4

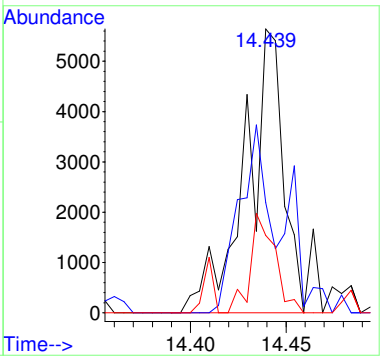


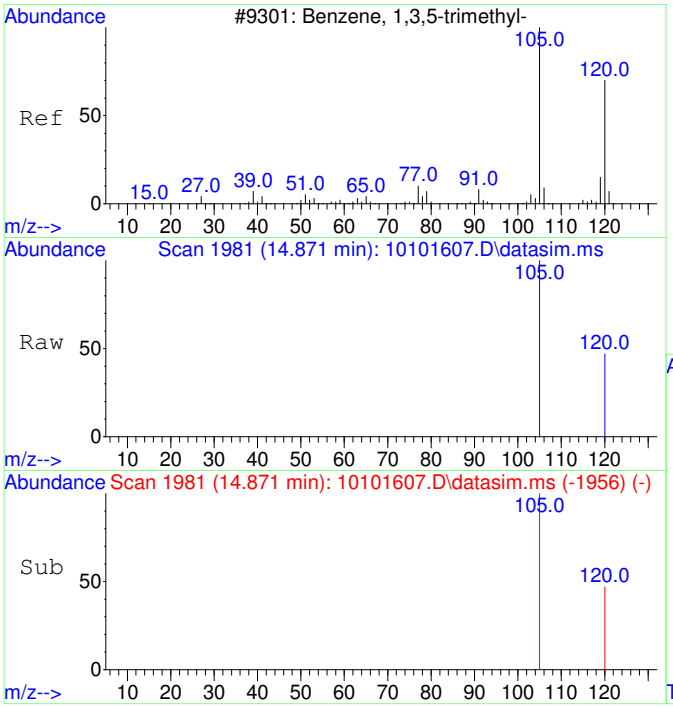


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 149.23 ug/L
RT: 14.439 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion: 83 Resp: 7744

Ion	Ratio	Lower	Upper
83	100		
85	73.2	33.2	93.2
95	23.0	0.0	47.2

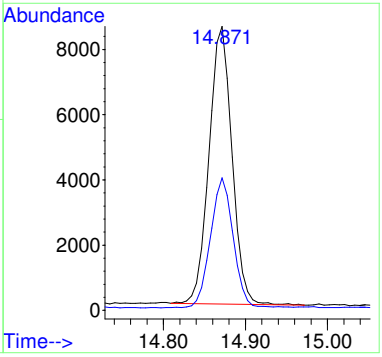


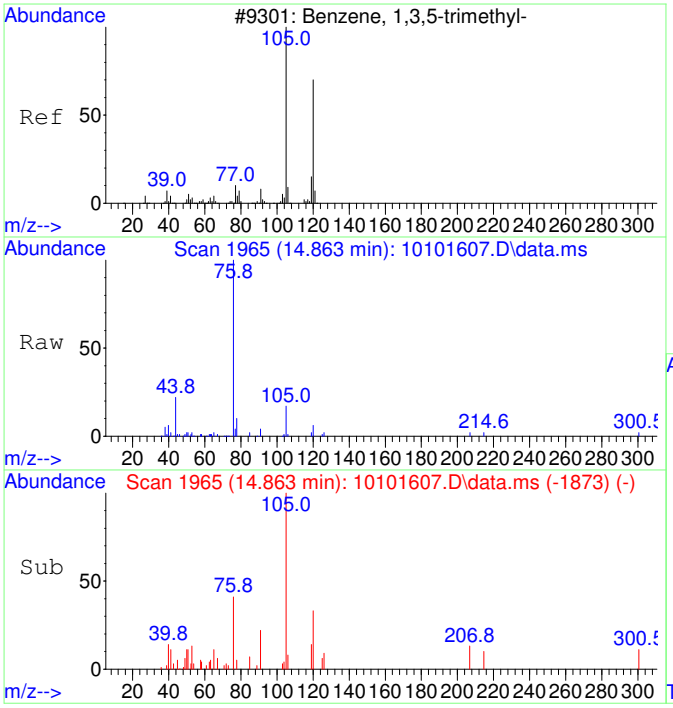


#43
1,3,5-Trimethylbenzene
Concen: 122.89 ug/L
RT: 14.871 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 16497

Ion	Ratio	Lower	Upper
105	100		
120	46.7	19.7	79.7

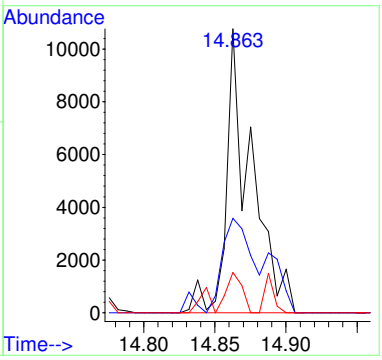


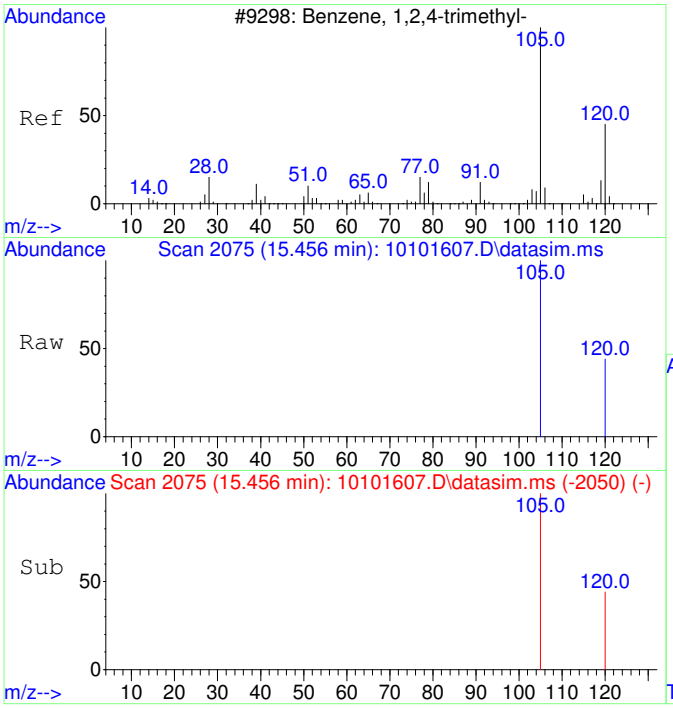


#44
1,3,5-Trimethylbenzene SCAN
Concen: 112.86 ug/L
RT: 14.863 min Scan# 1965
Delta R.T. -0.000 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 13060

Ion	Ratio	Lower	Upper
105	100		
120	53.8	22.1	82.1
119	9.2	0.0	42.9

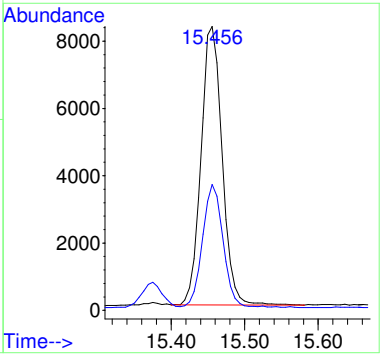


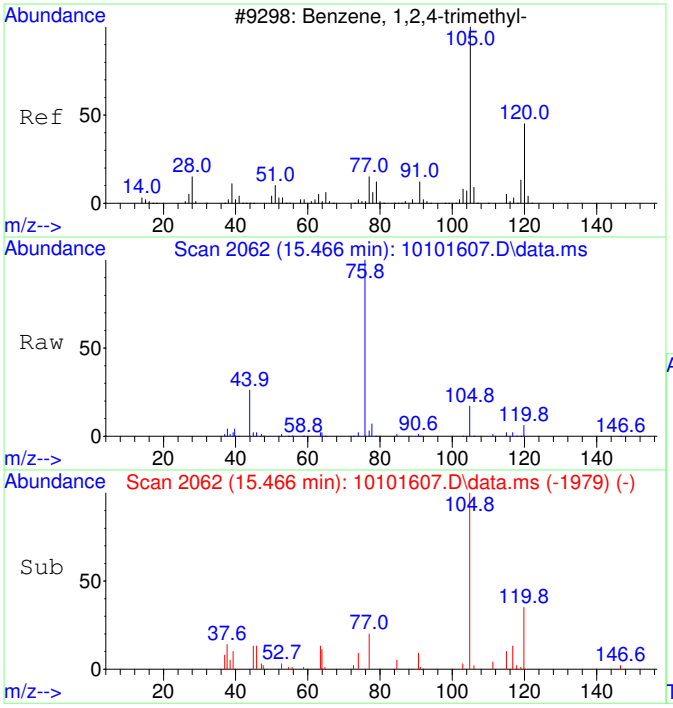


#45
1,2,4-Trimethylbenzene
Concen: 119.91 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 16486

Ion	Ratio	Lower	Upper
105	100		
120	42.9	15.7	75.7

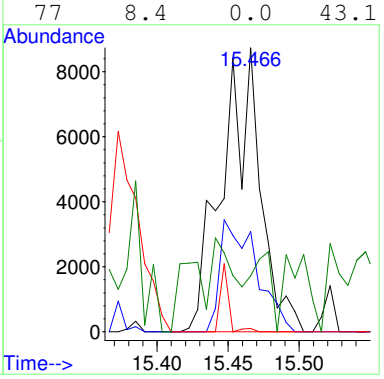


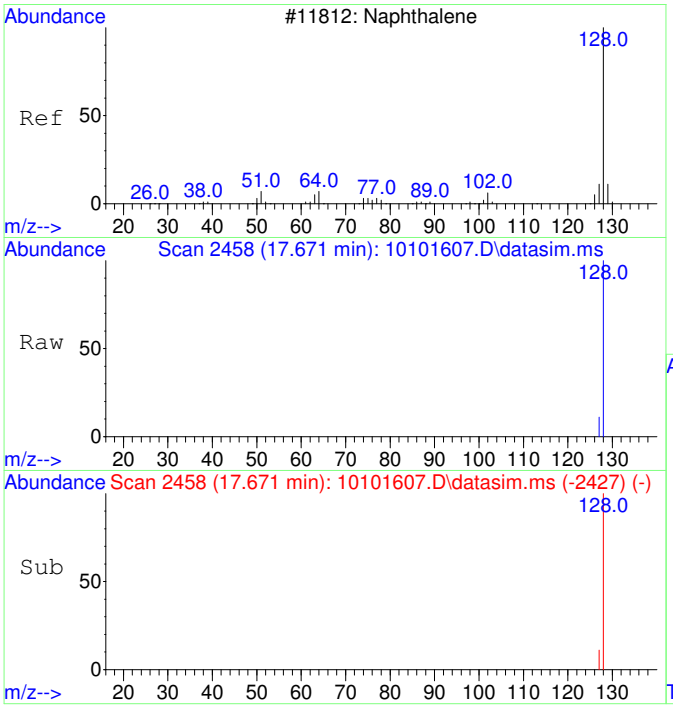


#46
1,2,4-Trimethylbenzene SCAN
Concen: 137.75 ug/L
RT: 15.466 min Scan# 2062
Delta R.T. 0.018 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:105 Resp: 16351

Ion	Ratio	Lower	Upper
105	100		
120	0.0	17.2	77.2#
119	0.0	0.0	41.3
77	8.4	0.0	43.1

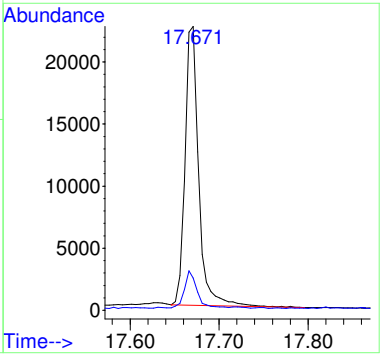


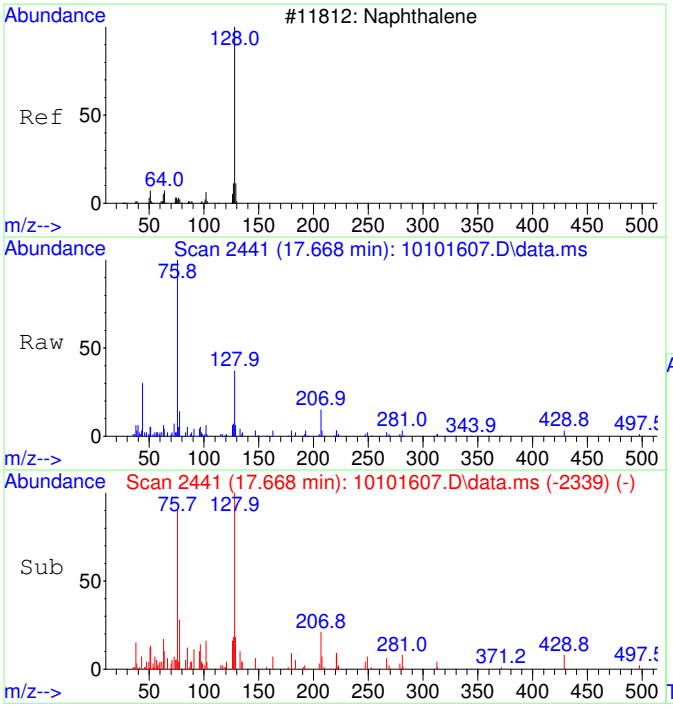


#47
Naphthalene
Concen: 119.53 ug/L
RT: 17.671 min Scan# 2458
Delta R.T. 0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:128 Resp: 23920

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.6

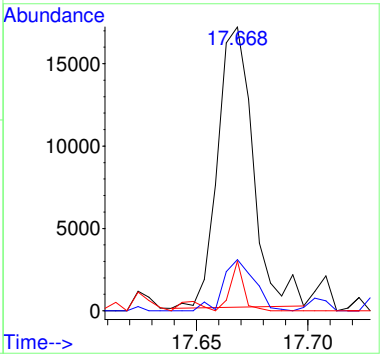




#48
Naphthalene SCAN
Concen: 116.81 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10101607.D
Acq: 10 Oct 2016 16:10

Tgt Ion:128 Resp: 18854

Ion	Ratio	Lower	Upper
128	100		
127	16.0	0.0	43.1
129	6.5	0.0	41.0



S16J050-CAL6

Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101608.D
Acq On : 10 Oct 2016 16:34
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

M.I. Performed By:
RH at 10:23 am, Oct 11, 2016

M.I. Approved By:
ZAR at 12:58 pm, Oct 14, 201

Quant Time: Oct 11 10:14:45 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

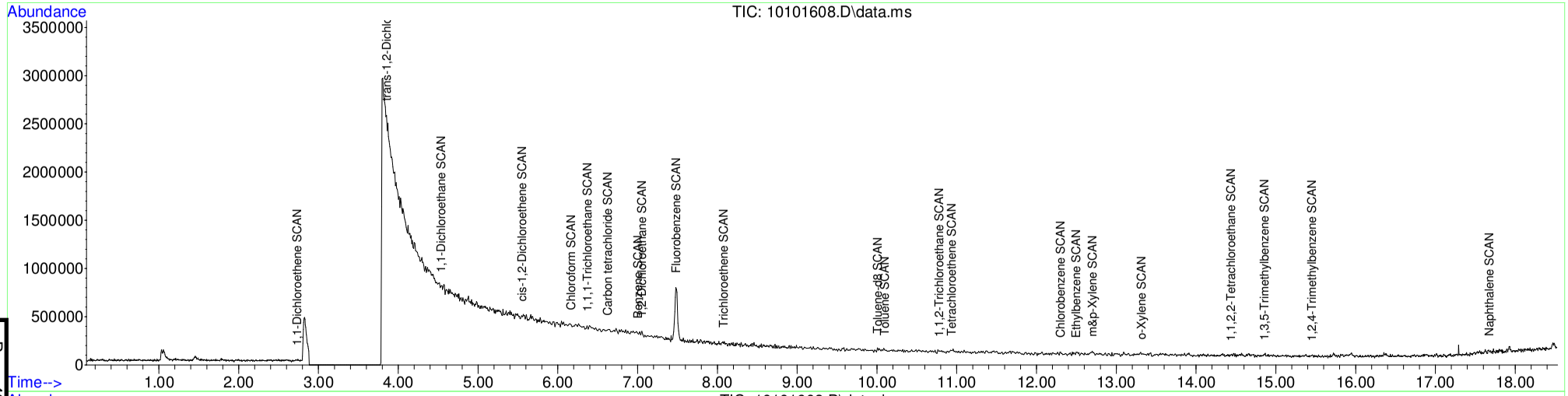
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.482	96	709578	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	8083	58.68	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery =	1.17%#		
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.480	96	551132	4983.62	ug/L	93
3] 1,1-Dichloroethene	2.723	61	3566m	40.64	ug/L	
4) 1,1-Dichloroethene SCAN	2.730	61	1869	30.91	ug/L #	50
5] trans-1,2-Dichloroethene	3.833	61	3407	46.63	ug/L	60
6) trans-1,2-Dichloroethe...	3.854	61	5140	104.38	ug/L #	18
7] 1,1-Dichloroethane	4.527	63	4214	45.09	ug/L	95
8) 1,1-Dichloroethane SCAN	4.532	63	4418	65.85	ug/L #	55
9] cis-1,2-Dichloroethene	5.553	61	3839	43.90	ug/L	100
10) cis-1,2-Dichloroethene...	5.550	61	4098	61.98	ug/L #	62
11] Chloroform	6.142	83	4283	49.86	ug/L	96
12) Chloroform SCAN	6.166	83	3560	58.26	ug/L #	1
13] 1,1,1-Trichloroethane	6.370	97	4048	51.30	ug/L	98
14) 1,1,1-Trichloroethane ...	6.368	97	3468	55.49	ug/L #	40
15] Carbon tetrachloride	6.639	117	3648	53.58	ug/L	96
16) Carbon tetrachloride SCAN	6.623	117	3020	390.66	ug/L #	52
17] Benzene	6.987	78	12574	73.67	ug/L	91
18) Benzene SCAN	6.998	78	41113	303.00	ug/L #	61
19] 1,2-Dichloroethane	7.054	62	3728	48.60	ug/L	51
20) 1,2-Dichloroethane SCAN	7.052	62	1843	28.17	ug/L #	1
21] Trichloroethene	8.068	130	2520	55.11	ug/L	88
22) Trichloroethene SCAN	8.072	95	1127	31.72	ug/L #	20
24) Toluene-d8 SCAN	10.006	98	6790	57.66	ug/L #	79
25] Toluene	10.099	91	10583	61.09	ug/L	99
26) Toluene SCAN	10.096	91	10233	69.22	ug/L	92
27] 1,1,2-Trichloroethane	10.789	97	2435	60.22	ug/L	90
28) 1,1,2-Trichloroethane ...	10.775	97	1071	31.40	ug/L #	29
29] Tetrachloroethene	10.936	166	3102	64.98	ug/L	94
30) Tetrachloroethene SCAN	10.934	166	2947	88.26	ug/L #	27
31] Chlorobenzene	12.295	112	7406	65.13	ug/L	82
32) Chlorobenzene SCAN	12.293	112	8007	84.44	ug/L #	55
33] 1,1,1,2-Tetrachloroethane	12.452	131	2412	62.19	ug/L	100
35] Ethylbenzene	12.498	91	11895	61.93	ug/L	93
36) Ethylbenzene SCAN	12.495	91	13057	77.62	ug/L	92
37] m&p-Xylene	12.691	91	18847	124.53	ug/L	93
38) m&p-Xylene SCAN	12.698	91	12042	93.19	ug/L #	69
39] o-Xylene	13.307	91	9873	63.34	ug/L	96
40) o-Xylene SCAN	13.314	91	9200	65.78	ug/L	90
41] 1,1,2,2-Tetrachloroethane	14.442	83	4333	62.93	ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.434	83	4941	83.94	ug/L	72
43] 1,3,5-Trimethylbenzene	14.871	105	9210	60.48	ug/L	95
44) 1,3,5-Trimethylbenzene...	14.856	105	8350	63.61	ug/L	66
45] 1,2,4-Trimethylbenzene	15.456	105	9456	60.63	ug/L	95
46) 1,2,4-Trimethylbenzene...	15.453	105	9092	67.53	ug/L	88
47] Naphthalene	17.671	128	13763	60.63	ug/L	99
48) Naphthalene SCAN	17.668	128	11658	63.67	ug/L	77

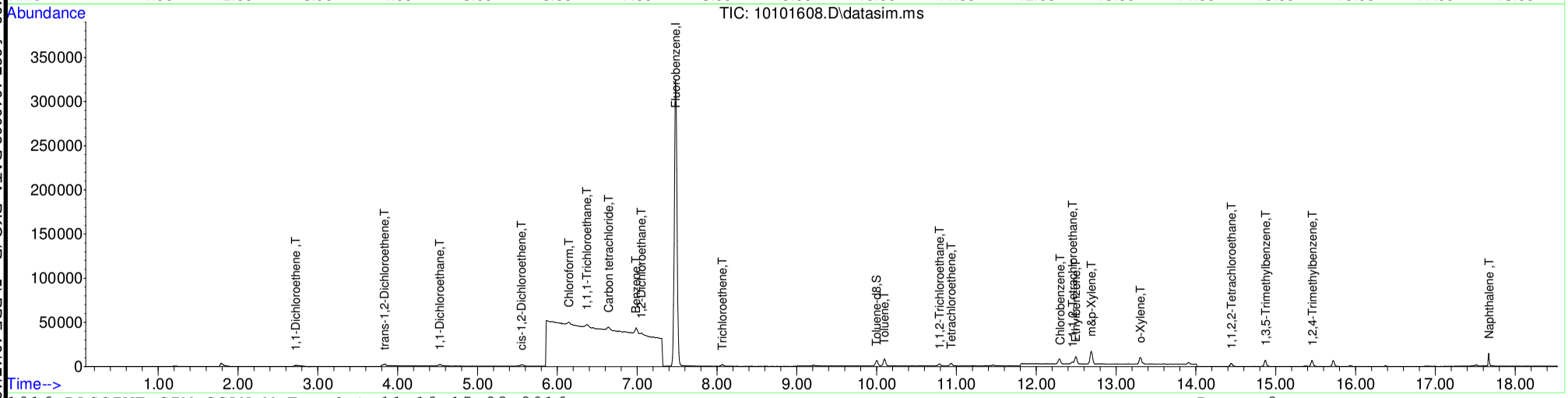
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101608.D
Acq On : 10 Oct 2016 16:34
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 11 10:14:45 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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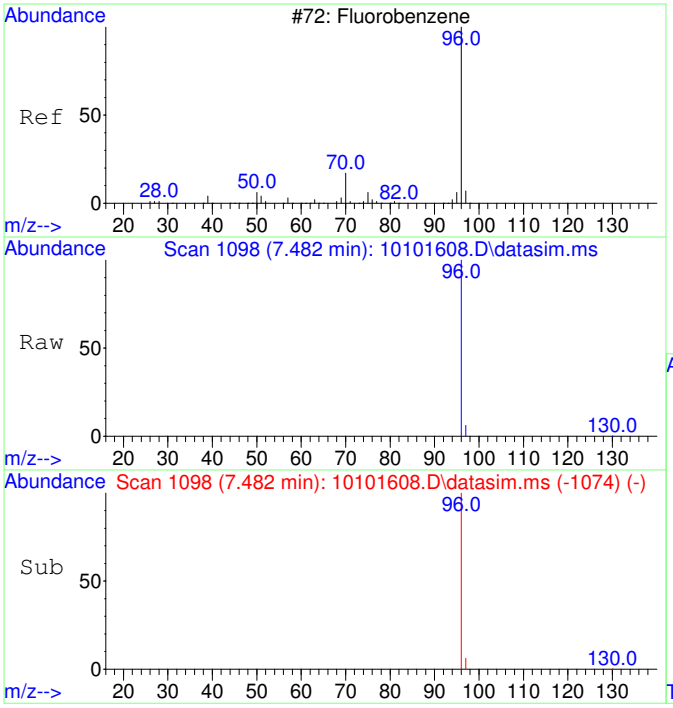
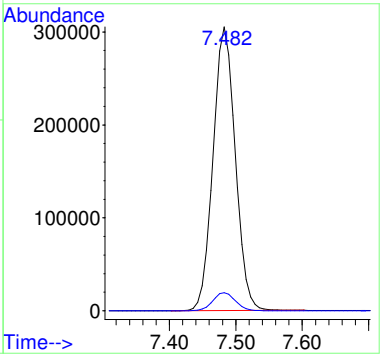
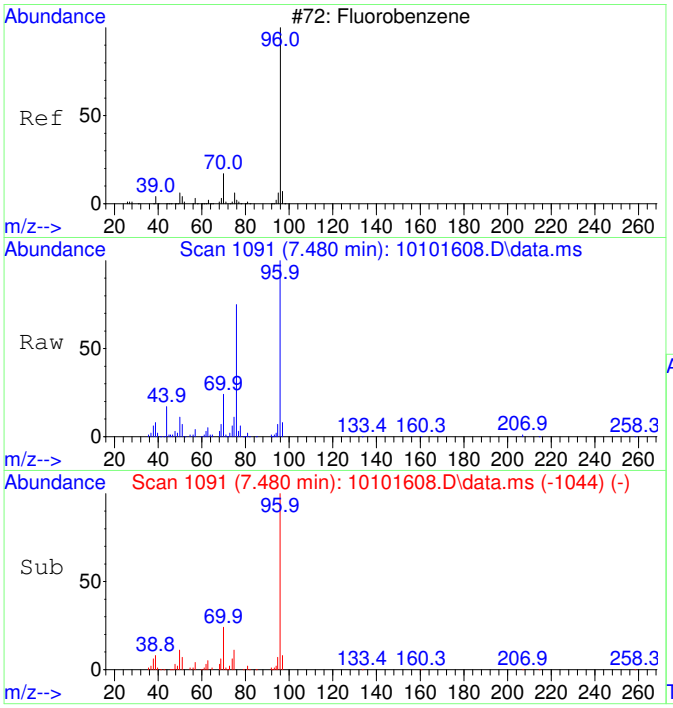


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 96 Resp: 709578

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

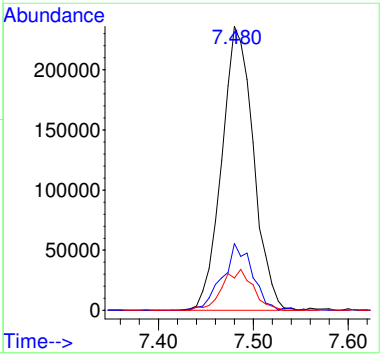


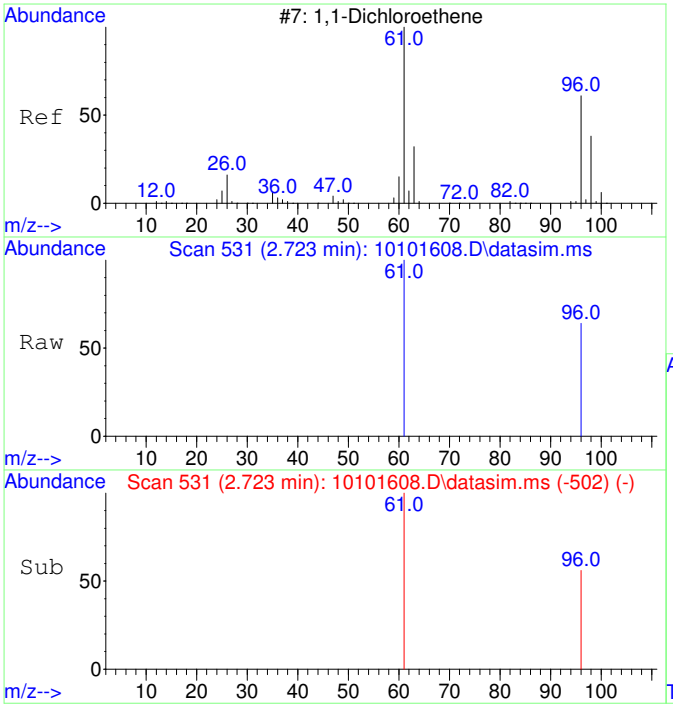


#2
Fluorobenzene SCAN
Concen: 4983.62 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 96 Resp: 551132

Ion	Ratio	Lower	Upper
96	100		
70	22.4	0.0	49.2
50	14.1	0.0	41.1

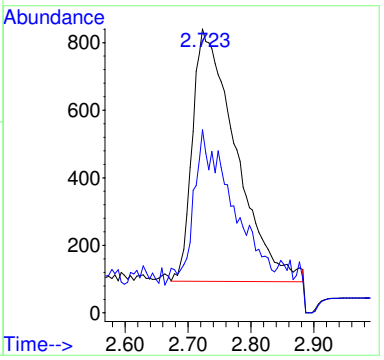


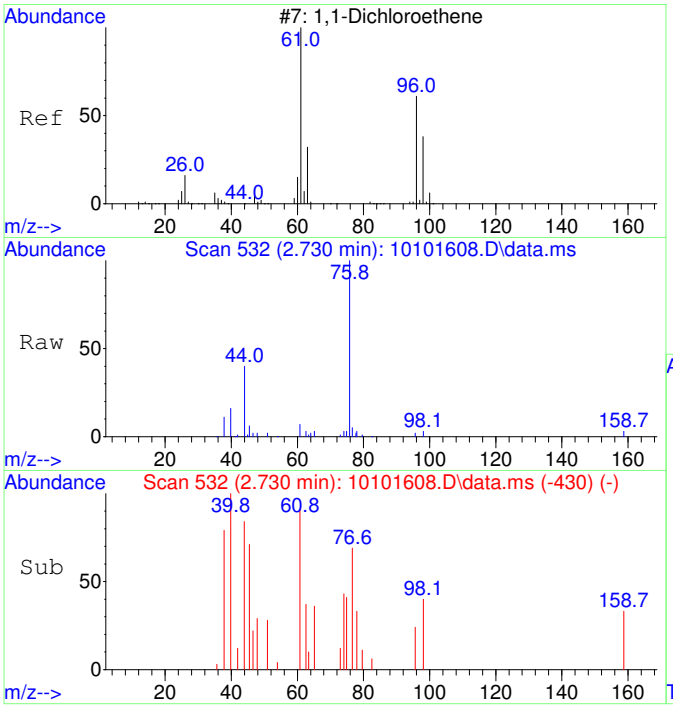


#3
1,1-Dichloroethene
Concen: 40.64 ug/L m
RT: 2.723 min Scan# 531
Delta R.T. -0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 3566

Ion	Ratio	Lower	Upper
61	100		
96	60.5	34.9	94.9

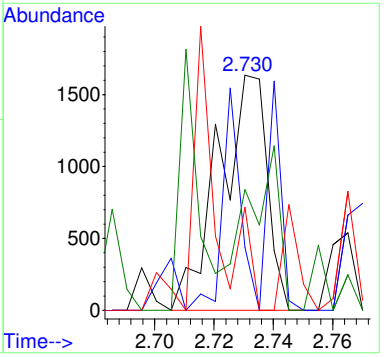


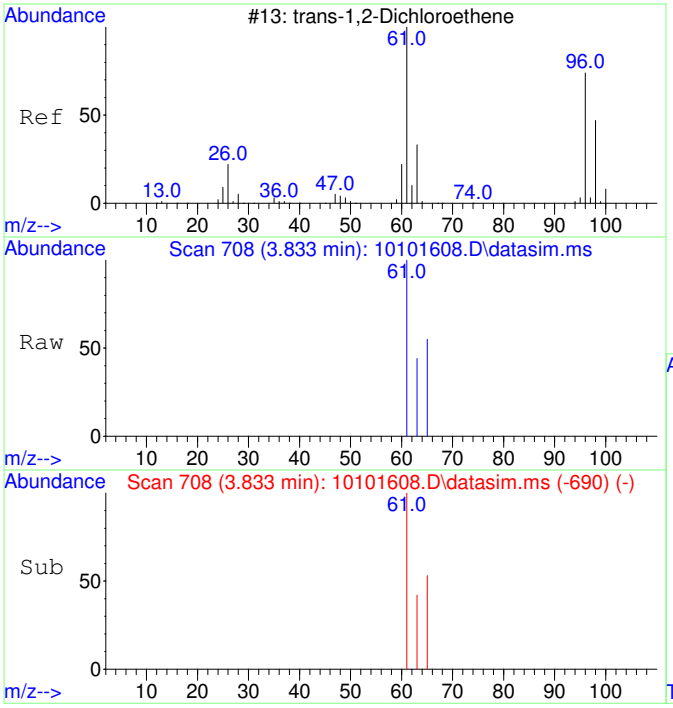


#4
1,1-Dichloroethene SCAN
Concen: 30.91 ug/L
RT: 2.730 min Scan# 532
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 1869

Ion	Ratio	Lower	Upper
61	100		
96	34.4	30.2	90.2
98	0.0	12.2	72.2#
63	0.0	3.7	63.7#

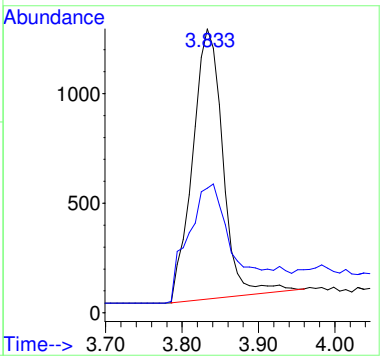


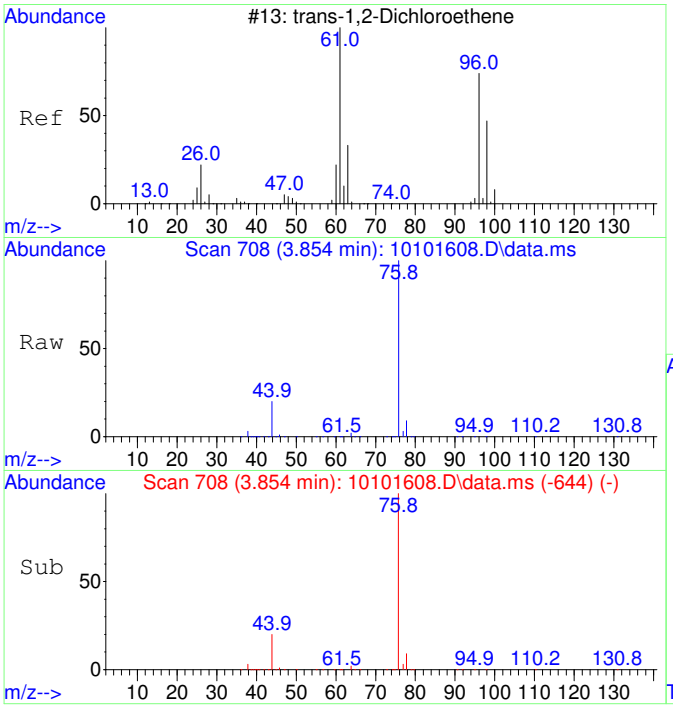


#5
trans-1,2-Dichloroethene
Concen: 46.63 ug/L
RT: 3.833 min Scan# 708
Delta R.T. -0.008 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 3407

Ion	Ratio	Lower	Upper
61	100		
63	54.8	2.5	62.5

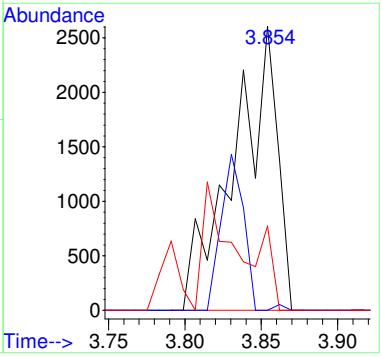


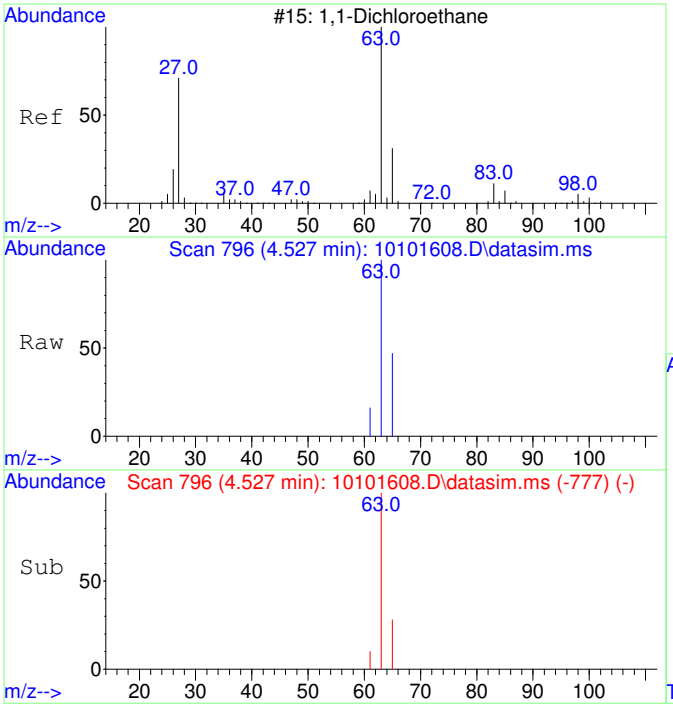


#6
trans-1,2-Dichloroethene SCAN
Concen: 104.38 ug/L
RT: 3.854 min Scan# 708
Delta R.T. 0.007 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 5140

Ion	Ratio	Lower	Upper
61	100		
96	0.0	47.5	107.5#
98	0.0	17.2	77.2#

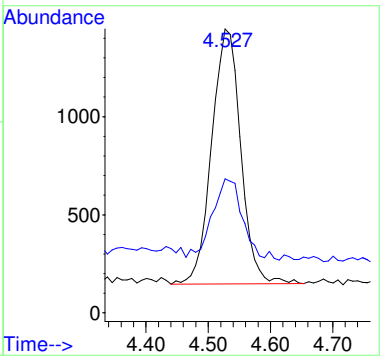


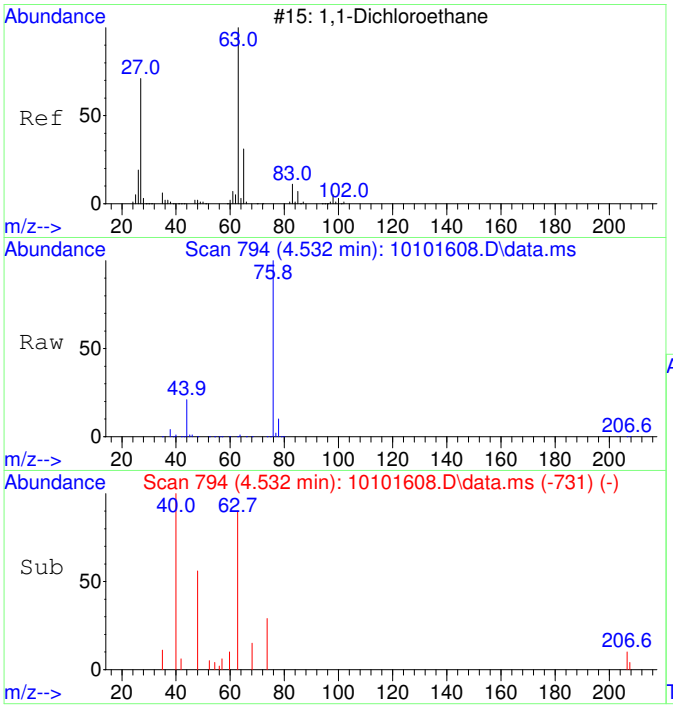


#7
1,1-Dichloroethane
Concen: 45.09 ug/L
RT: 4.527 min Scan# 796
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 63 Resp: 4214

Ion	Ratio	Lower	Upper
63	100		
65	28.9	1.8	61.8

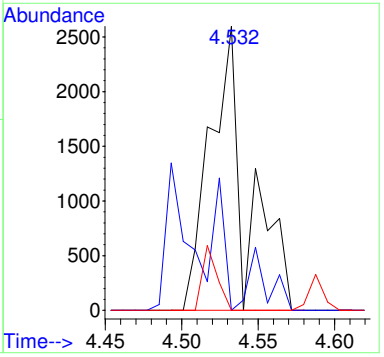


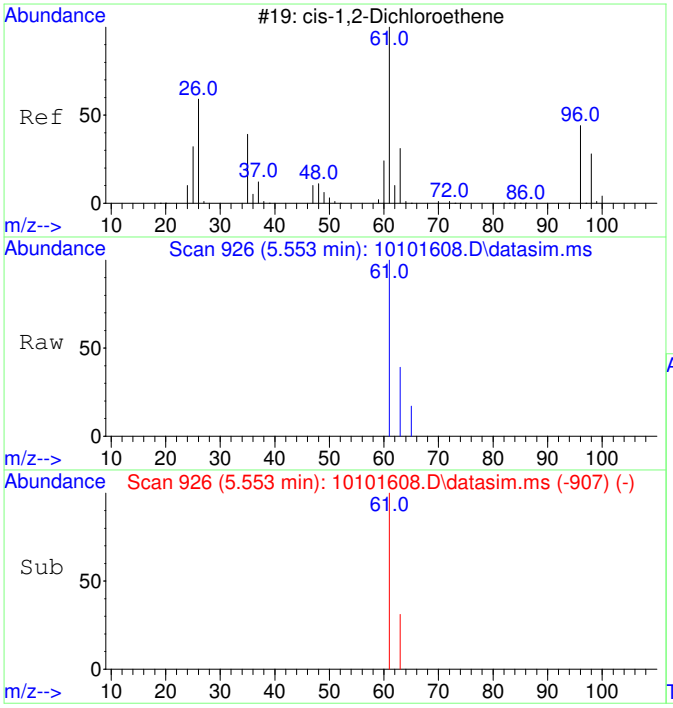


#8
1,1-Dichloroethane SCAN
Concen: 65.85 ug/L
RT: 4.532 min Scan# 794
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 63 Resp: 4418

Ion	Ratio	Lower	Upper
63	100		
65	0.0	3.9	63.9#
83	9.1	0.0	45.1

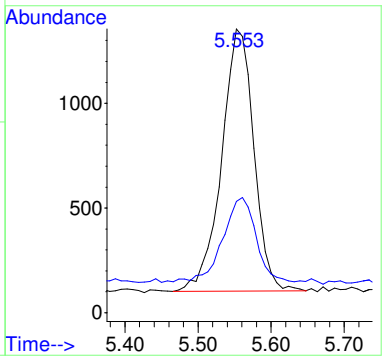


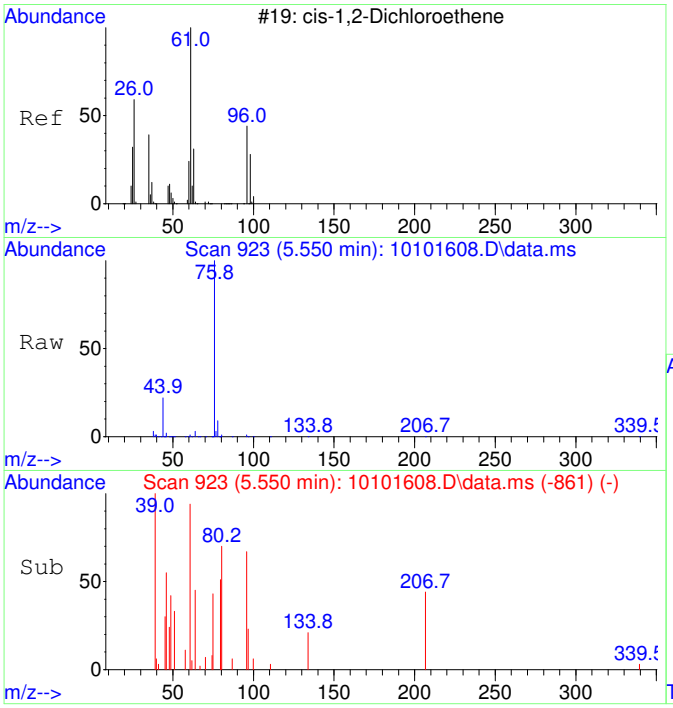


#9
cis-1,2-Dichloroethene
Concen: 43.90 ug/L
RT: 5.553 min Scan# 926
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 3839

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.4	62.4

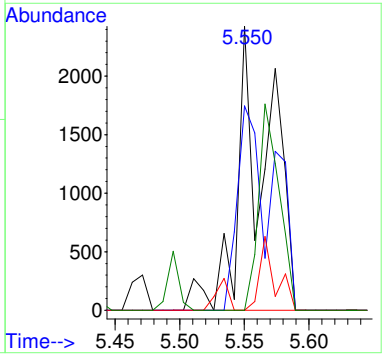


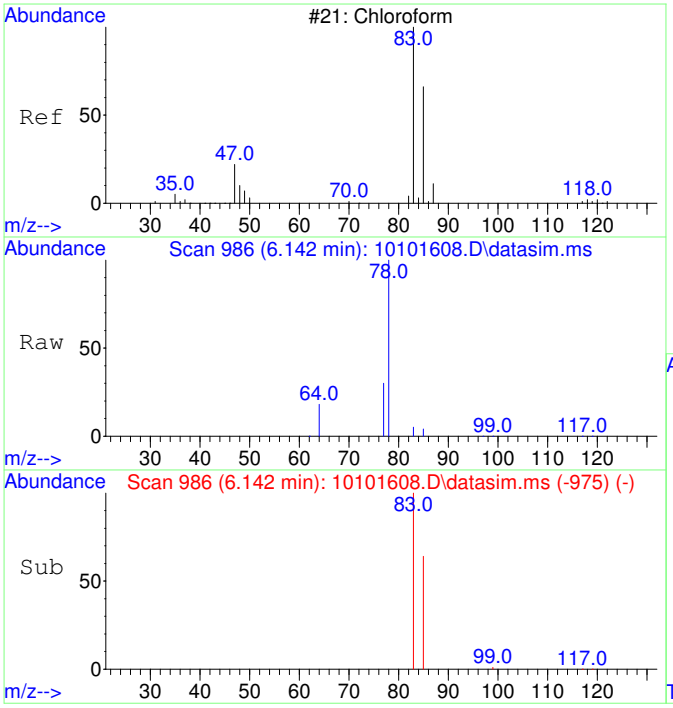


#10
cis-1,2-Dichloroethene SCAN
Concen: 61.98 ug/L
RT: 5.550 min Scan# 923
Delta R.T. -0.008 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 4098

Ion	Ratio	Lower	Upper
61	100		
96	80.9	42.0	102.0
98	4.5	17.5	77.5#
63	0.0	3.4	63.4#

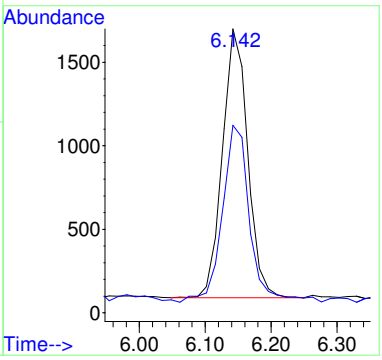


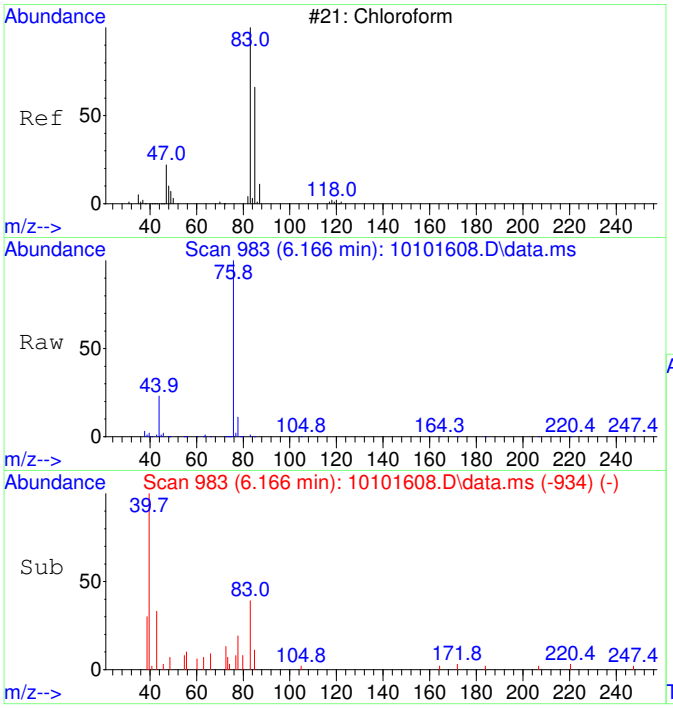


#11
Chloroform
Concen: 49.86 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 4283

Ion	Ratio	Lower	Upper
83	100		
85	67.6	34.4	94.4

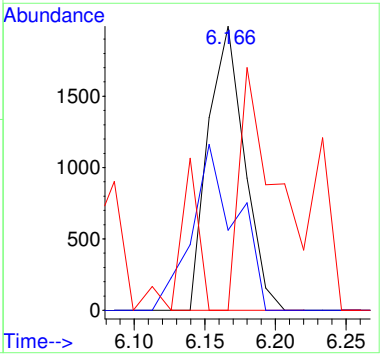


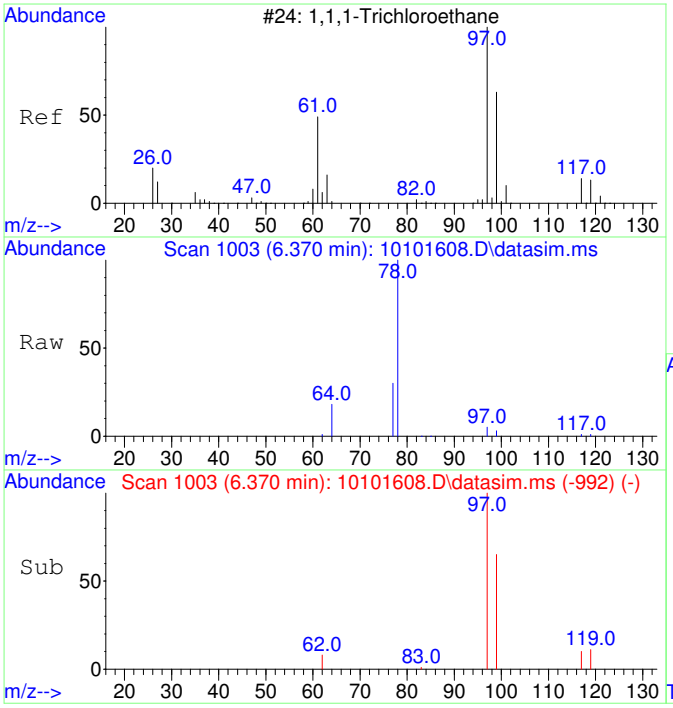


#12
Chloroform SCAN
Concen: 58.26 ug/L
RT: 6.166 min Scan# 983
Delta R.T. 0.026 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 3560

Ion	Ratio	Lower	Upper
83	100		
85	0.0	37.6	97.6#
47	115.3	0.0	53.4#

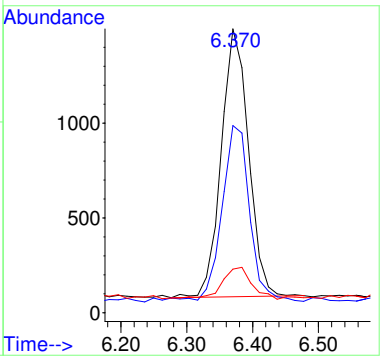


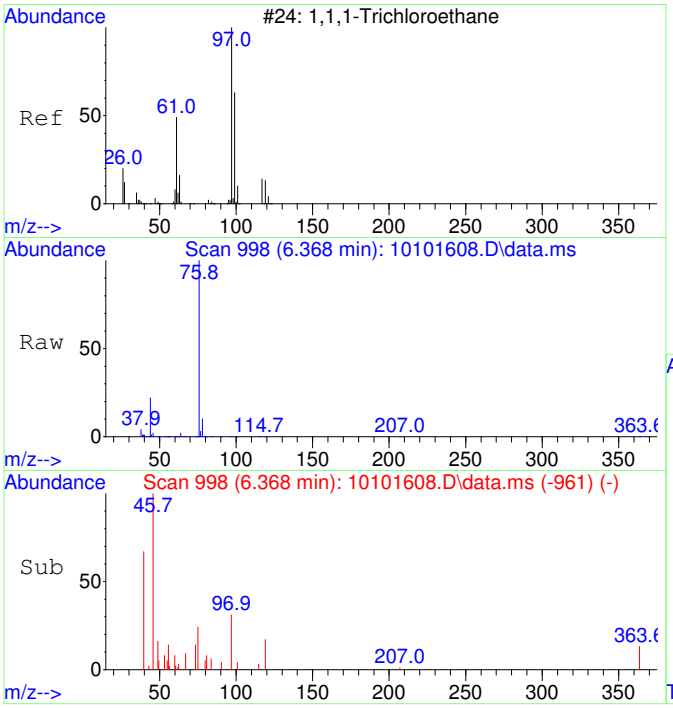


#13
1,1,1-Trichloroethane
Concen: 51.30 ug/L
RT: 6.370 min Scan# 1003
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 4048

Ion	Ratio	Lower	Upper
97	100		
99	65.1	34.2	94.2
117	11.0	0.0	43.0

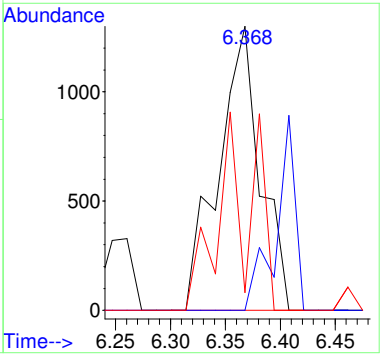


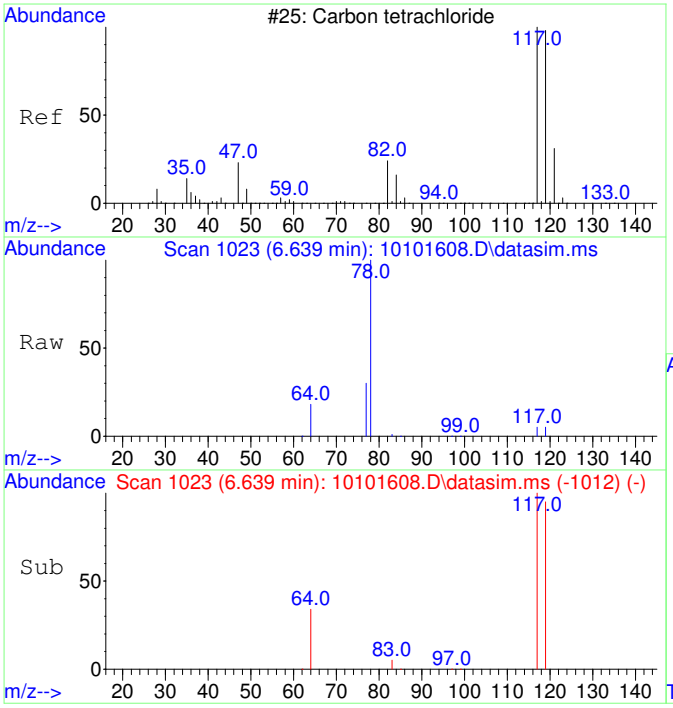


#14
1,1,1-Trichloroethane SCAN
Concen: 55.49 ug/L
RT: 6.368 min Scan# 998
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 3468

Ion	Ratio	Lower	Upper
97	100		
99	0.0	33.6	93.6#
61	56.5	10.7	70.7

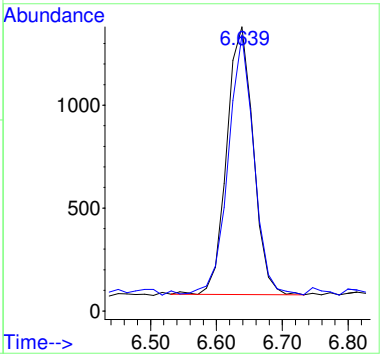


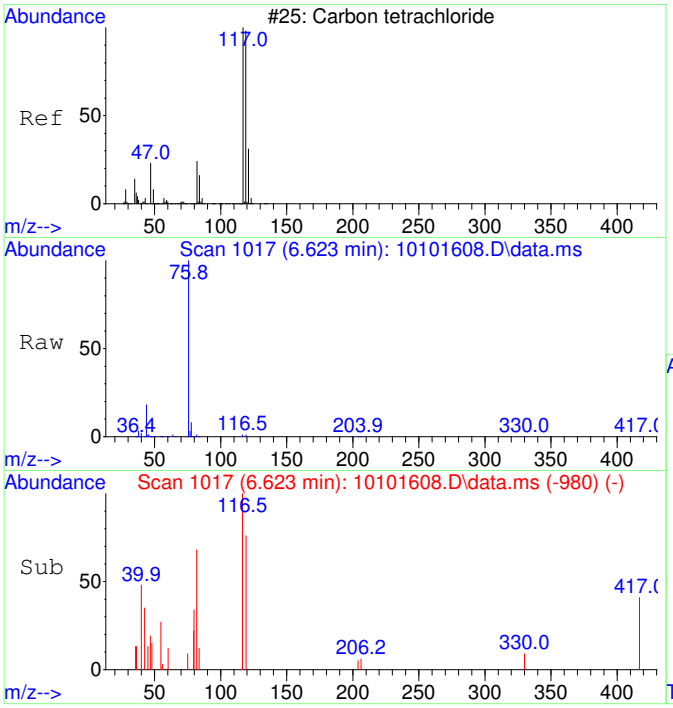


#15
Carbon tetrachloride
Concen: 53.58 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:117 Resp: 3648

Ion	Ratio	Lower	Upper
117	100		
119	92.4	66.1	126.1

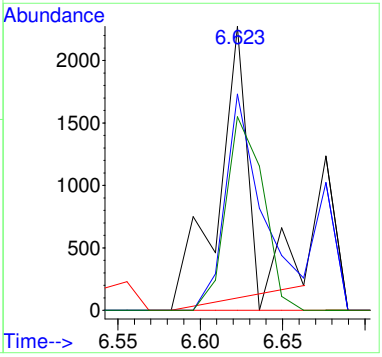


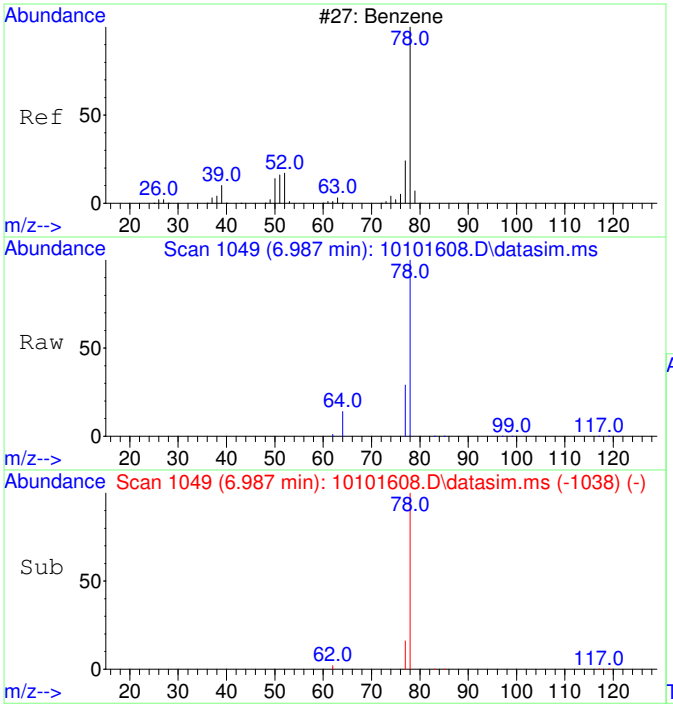


#16
Carbon tetrachloride SCAN
Concen: 390.66 ug/L
RT: 6.623 min Scan# 1017
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:117 Resp: 3020

Ion	Ratio	Lower	Upper
117	100		
119	121.7	66.0	122.6
121	0.0	22.1	41.1#
82	81.5	18.5	34.3#

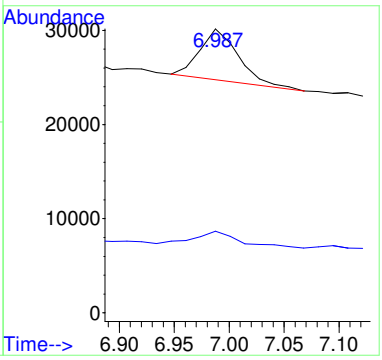


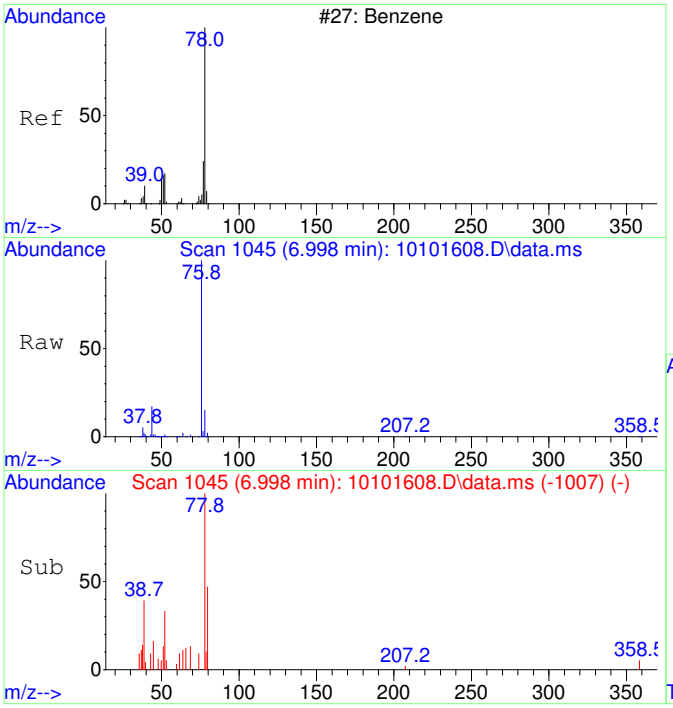


#17
Benzene
Concen: 73.67 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 78 Resp: 12574

Ion	Ratio	Lower	Upper
78	100		
77	19.2	0.0	53.4

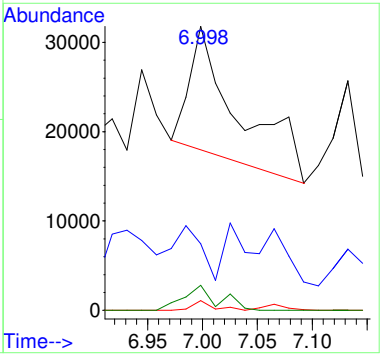


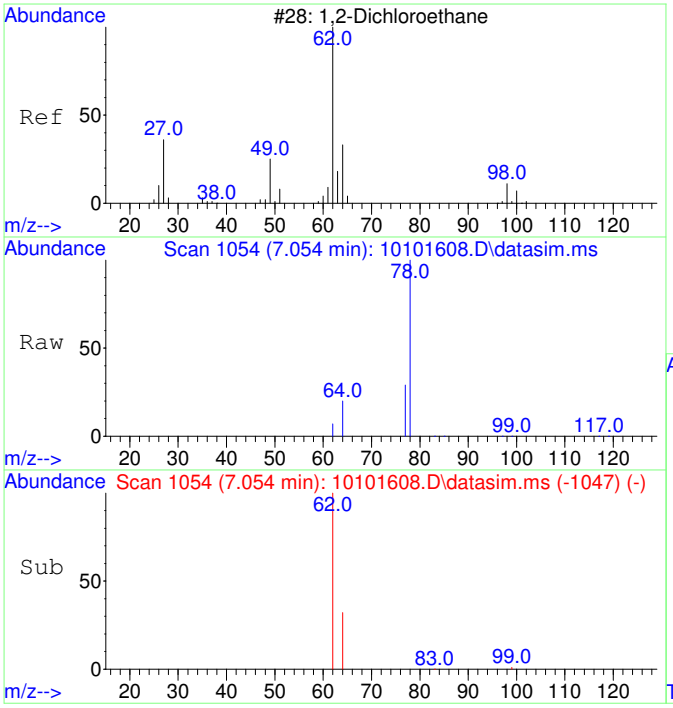


#18
Benzene SCAN
Concen: 303.00 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 78 Resp: 41113

Ion	Ratio	Lower	Upper
78	100		
77	62.5	0.0	59.3#
51	3.4	0.0	49.2
52	14.9	0.0	45.5

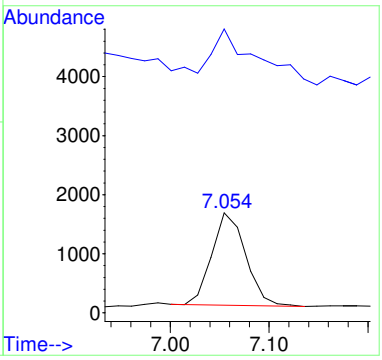


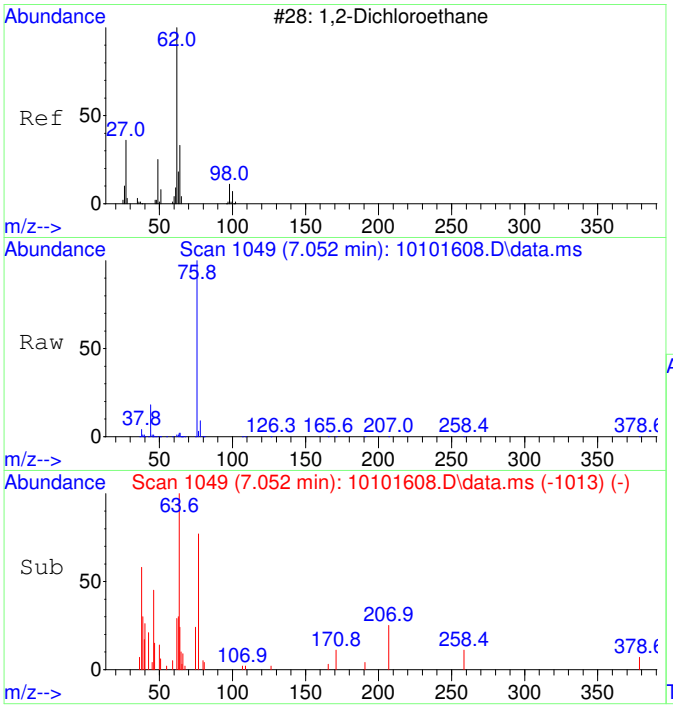


#19
1,2-Dichloroethane
Concen: 48.60 ug/L
RT: 7.054 min Scan# 1054
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 62 Resp: 3728

Ion	Ratio	Lower	Upper
62	100		
64	60.2	2.7	62.7

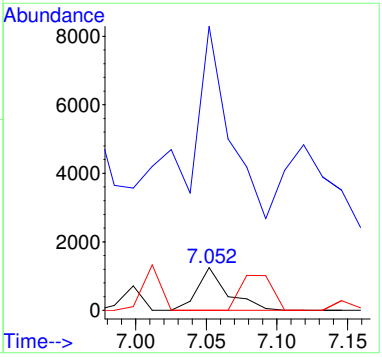


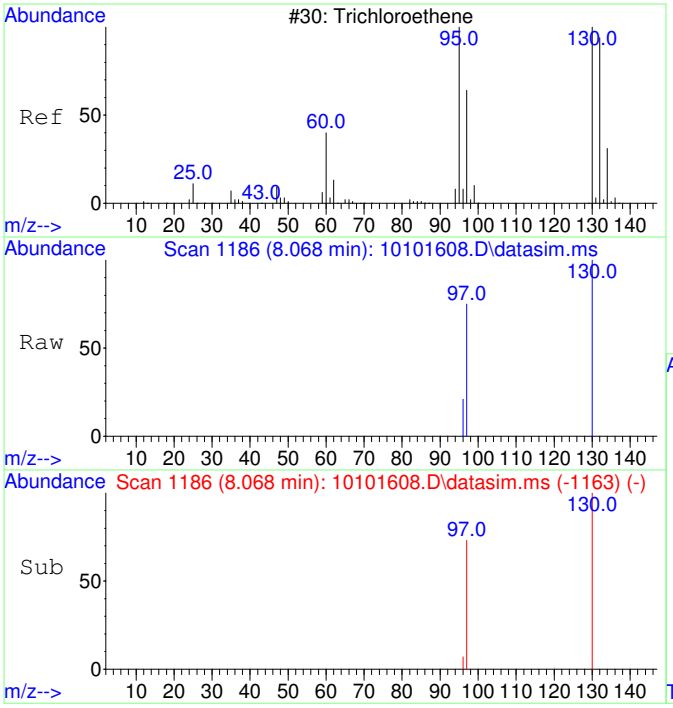


#20
1,2-Dichloroethane SCAN
Concen: 28.17 ug/L
RT: 7.052 min Scan# 1049
Delta R.T. -0.014 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 62 Resp: 1843

Ion	Ratio	Lower	Upper
62	100		
64	464.1	1.9	61.9#
49	0.0	0.0	51.8

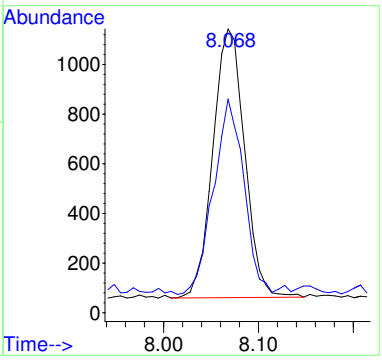


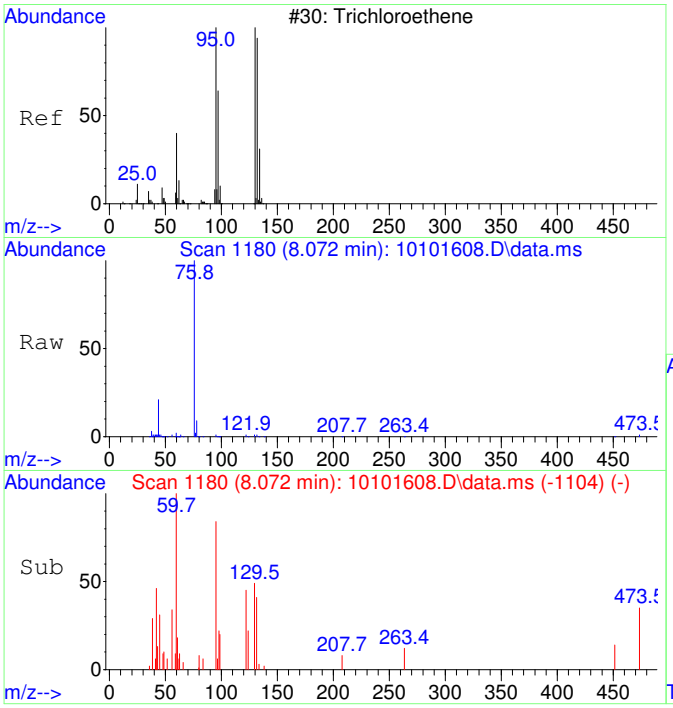


#21
Trichloroethene
Concen: 55.11 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:130 Resp: 2520

Ion	Ratio	Lower	Upper
130	100		
97	69.2	29.9	89.9

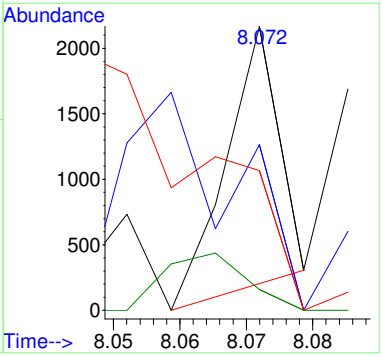


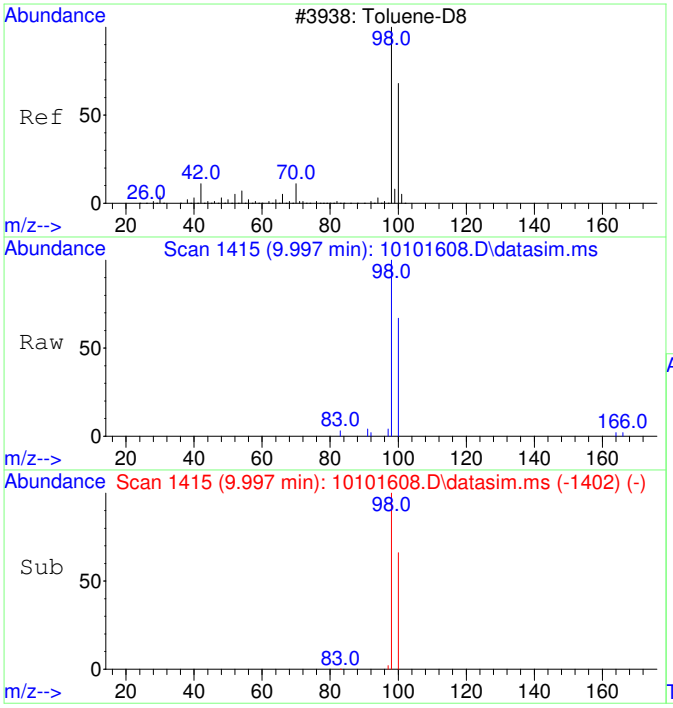


#22
Trichloroethene SCAN
Concen: 31.72 ug/L
RT: 8.072 min Scan# 1180
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 95 Resp: 1127

Ion	Ratio	Lower	Upper
95	100		
130	192.4	74.1	134.1#
132	0.0	72.1	132.1#
97	33.6	29.5	89.5

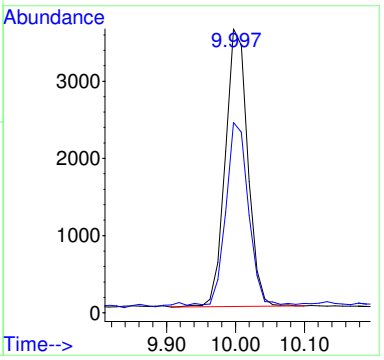


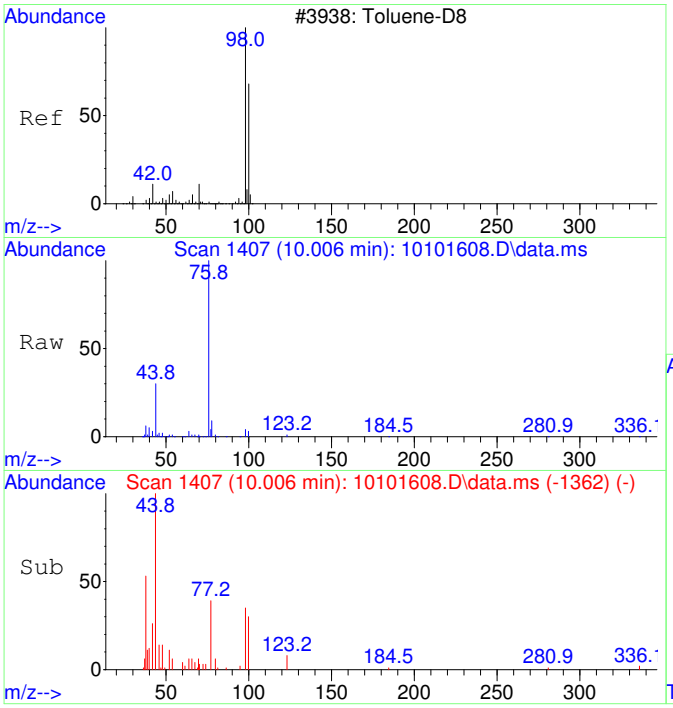


#23
Toluene-d8
Concen: 58.68 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 98 Resp: 8083

Ion	Ratio	Lower	Upper
98	100		
100	64.8	35.3	95.3

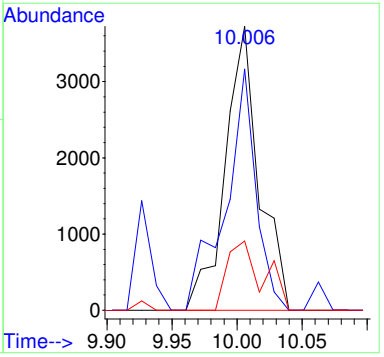


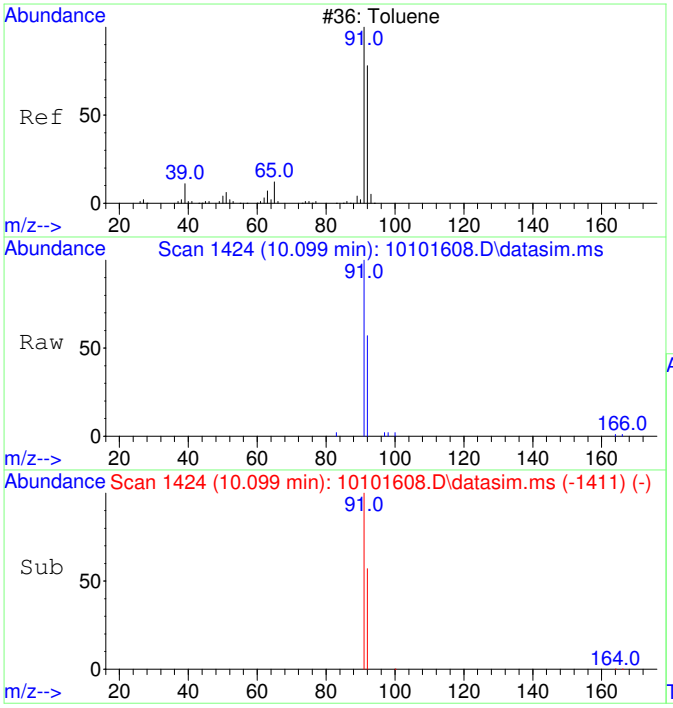


#24
Toluene-d8 SCAN
Concen: 57.66 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 98 Resp: 6790

Ion	Ratio	Lower	Upper
98	100		
100	77.0	44.3	82.3
70	25.6	7.8	14.4#

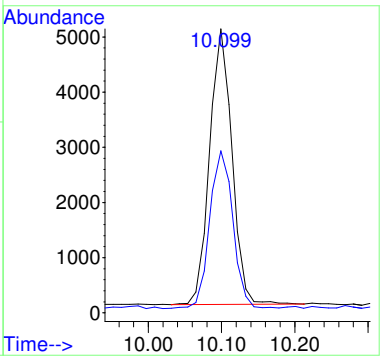


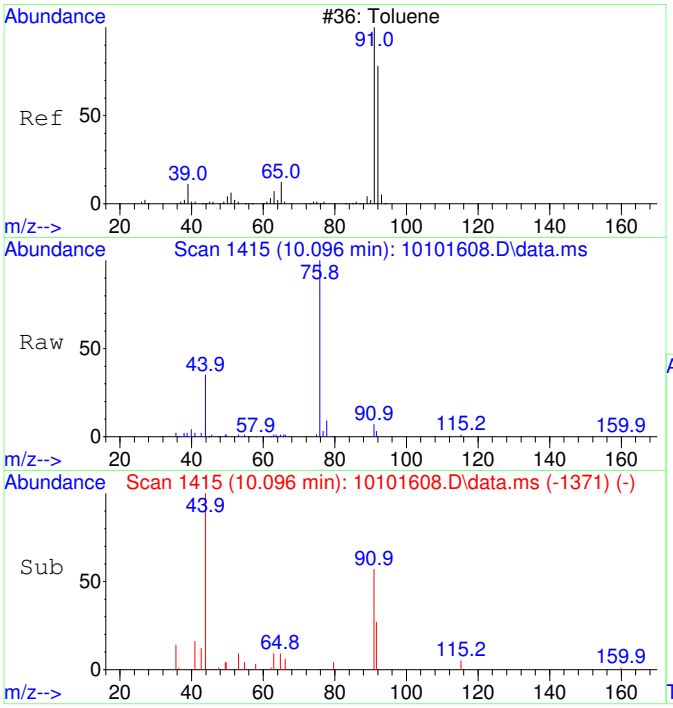


#25
Toluene
Concen: 61.09 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 10583

Ion	Ratio	Lower	Upper
91	100		
92	57.9	28.8	88.8

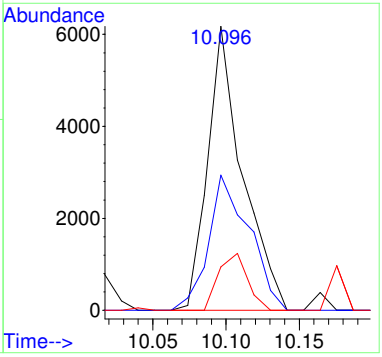


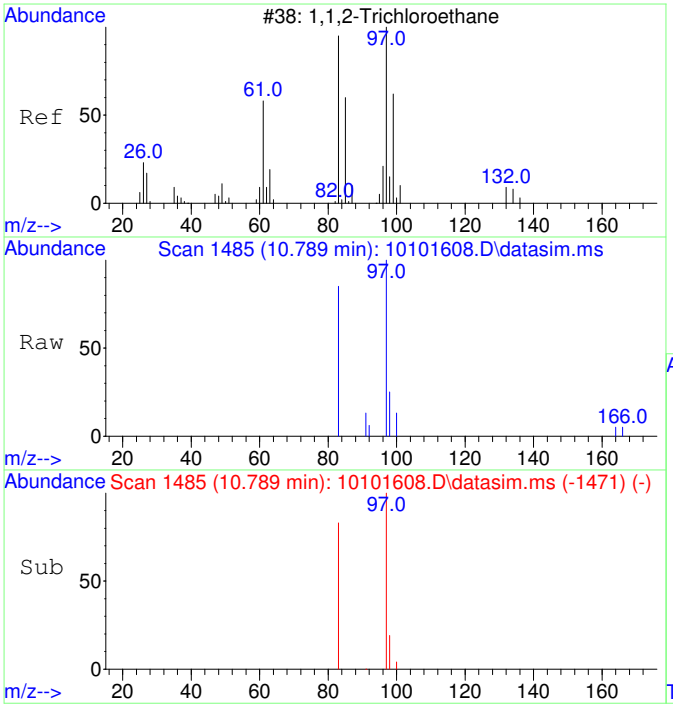


#26
Toluene SCAN
Concen: 69.22 ug/L
RT: 10.096 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 10233

Ion	Ratio	Lower	Upper
91	100		
92	55.4	30.7	90.7
65	16.7	0.0	42.6

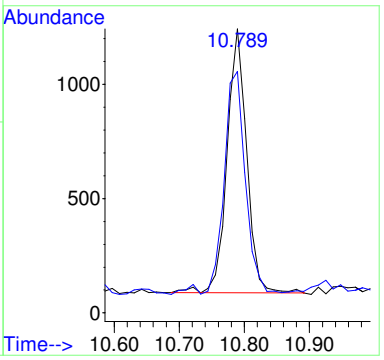


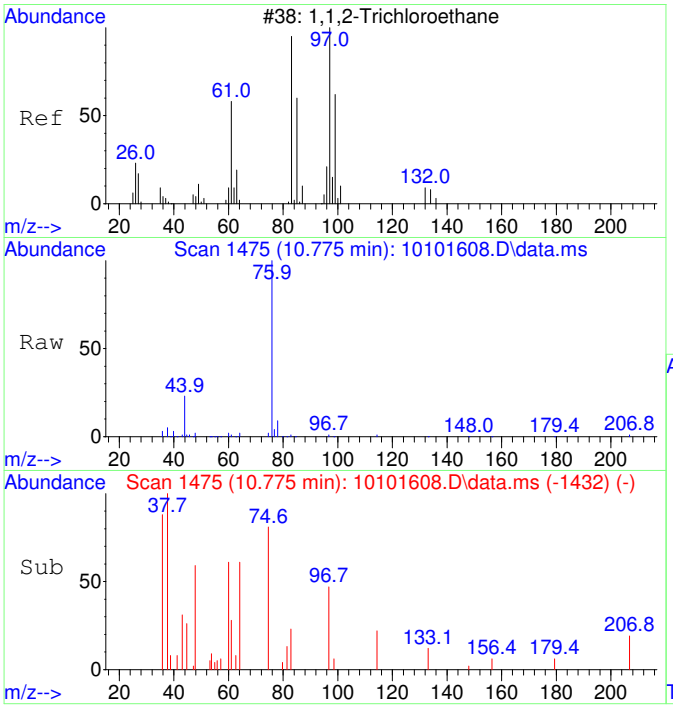


#27
1,1,2-Trichloroethane
Concen: 60.22 ug/L
RT: 10.789 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 2435

Ion	Ratio	Lower	Upper
97	100		
83	89.7	50.5	110.5

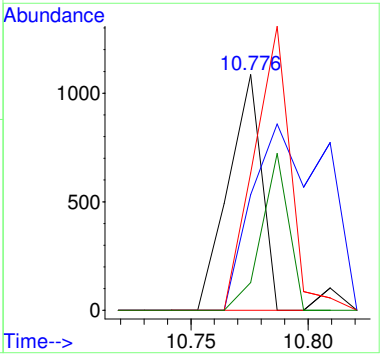


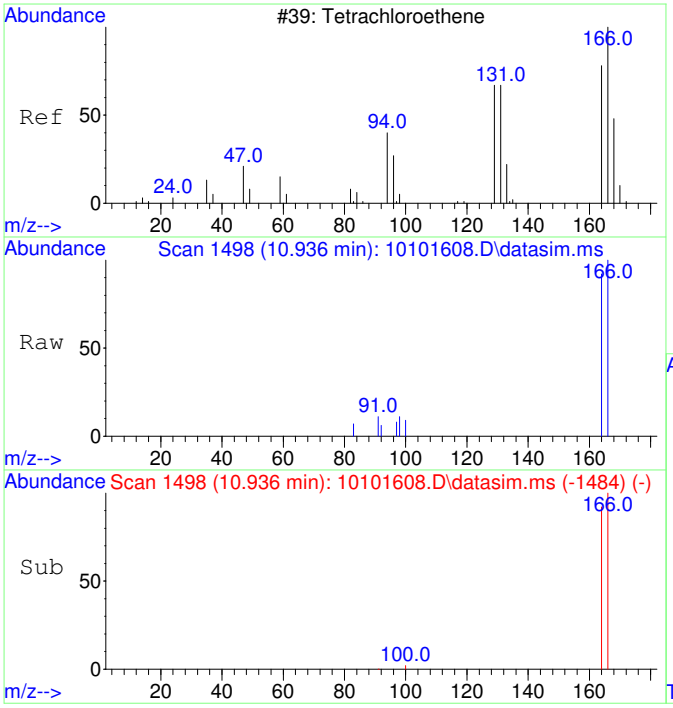


#28
1,1,2-Trichloroethane SCAN
Concen: 31.40 ug/L
RT: 10.775 min Scan# 1475
Delta R.T. -0.012 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 1071

Ion	Ratio	Lower	Upper
97	100		
83	173.1	53.8	113.8#
61	132.0	31.3	91.3#
99	53.9	32.9	92.9

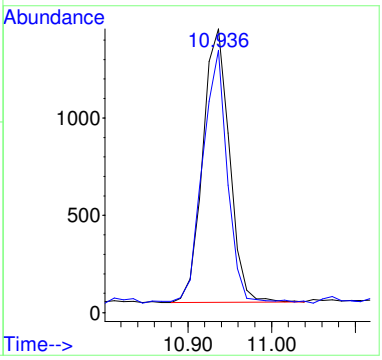


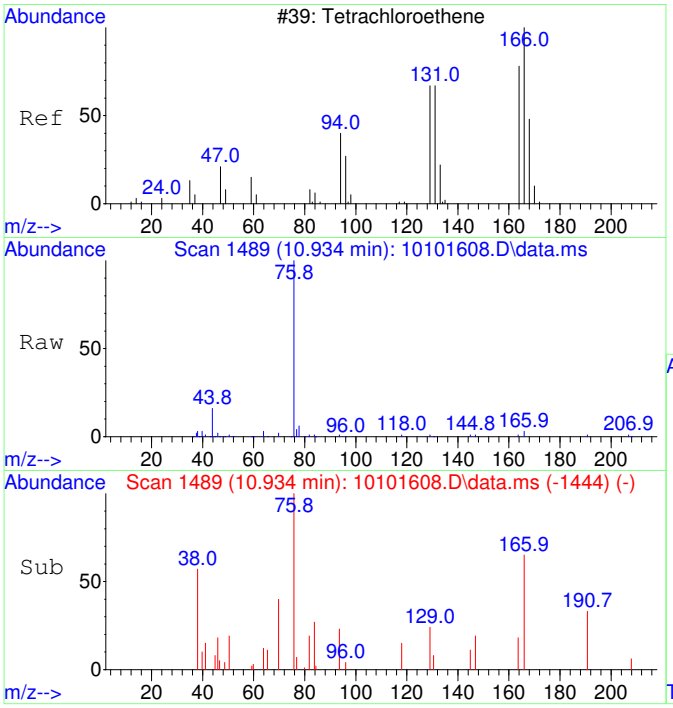


#29
Tetrachloroethene
Concen: 64.98 ug/L
RT: 10.936 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:166 Resp: 3102

Ion	Ratio	Lower	Upper
166	100		
164	83.3	47.7	107.7

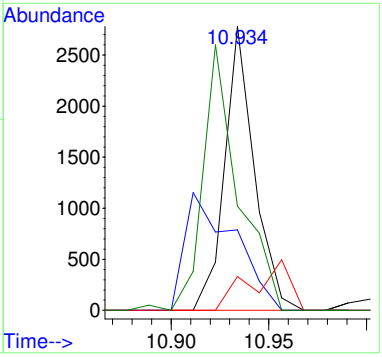


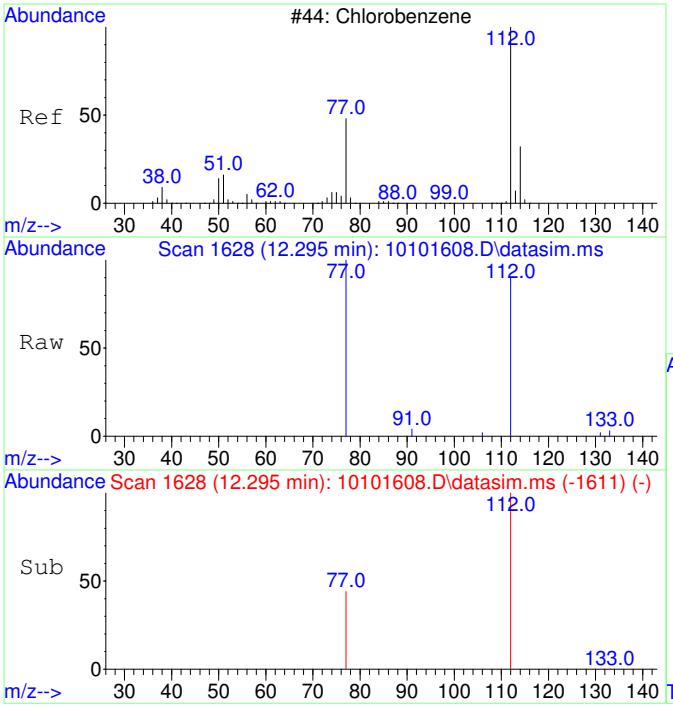


#30
Tetrachloroethene SCAN
Concen: 88.26 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:166 Resp: 2947

Ion	Ratio	Lower	Upper
166	100		
164	0.0	44.9	104.9#
131	0.0	36.1	96.1#
129	110.8	40.5	100.5#

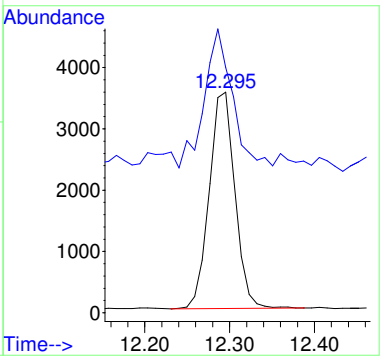


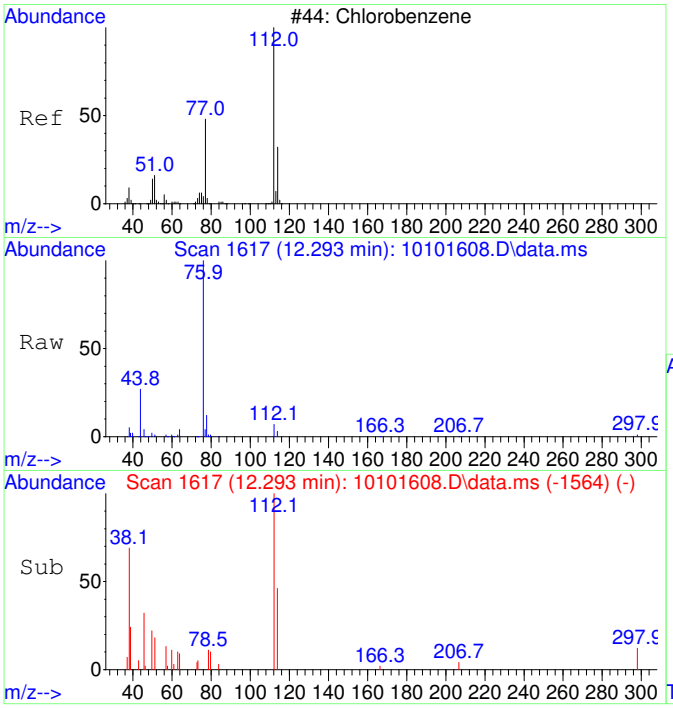


#31
Chlorobenzene
Concen: 65.13 ug/L
RT: 12.295 min Scan# 1628
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:112 Resp: 7406

Ion	Ratio	Lower	Upper
112	100		
77	68.4	25.1	85.1

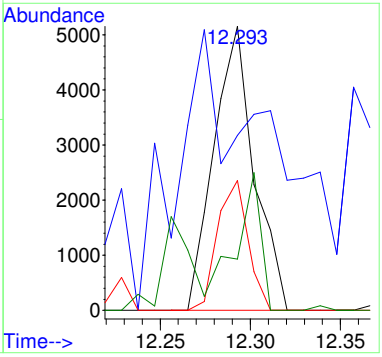


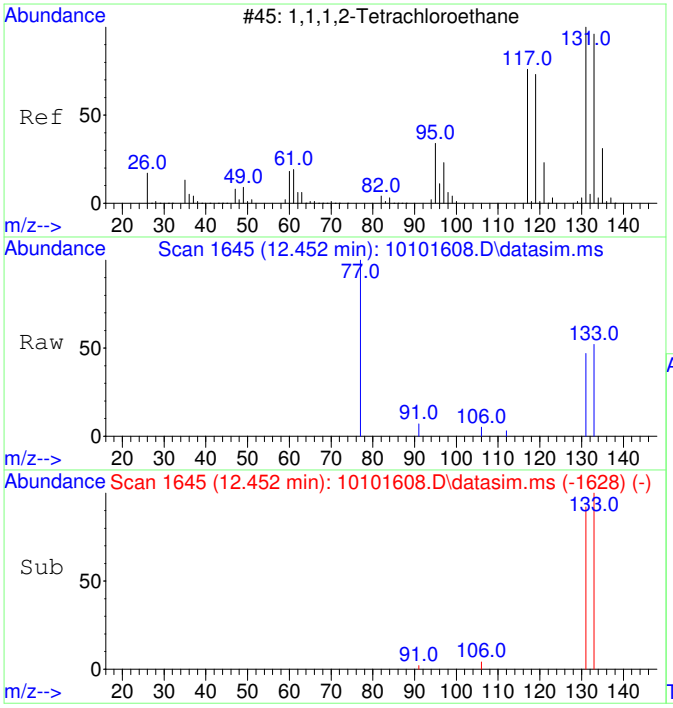


#32
Chlorobenzene SCAN
Concen: 84.44 ug/L
RT: 12.293 min Scan# 1617
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:112 Resp: 8007

Ion	Ratio	Lower	Upper
112	100		
77	0.0	23.6	83.6#
114	34.6	0.9	60.9
51	26.9	0.0	47.7

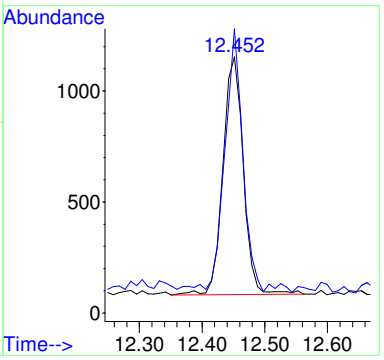


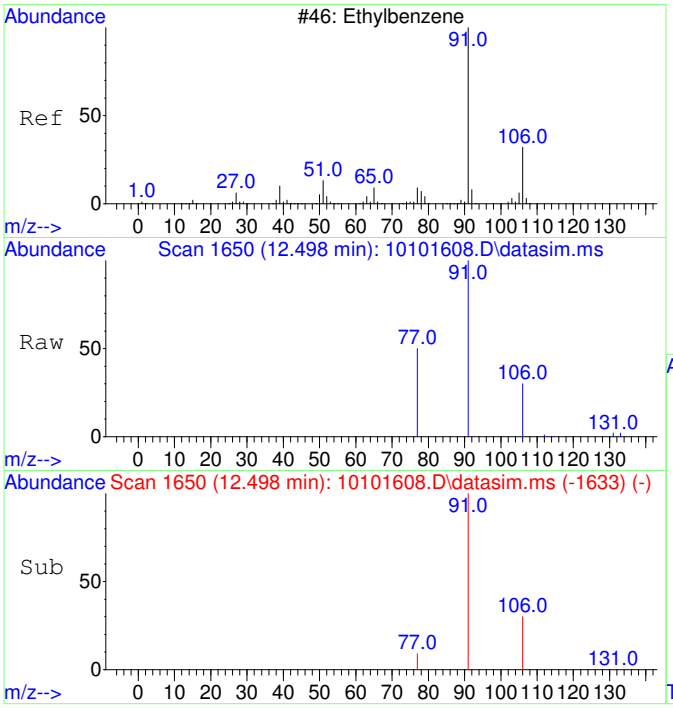


#33
1,1,1,2-Tetrachloroethane
Concen: 62.19 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:131 Resp: 2412

Ion	Ratio	Lower	Upper
131	100		
133	95.2	64.8	124.8

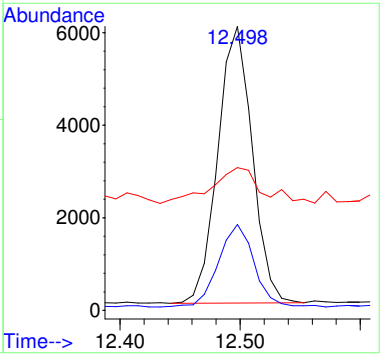


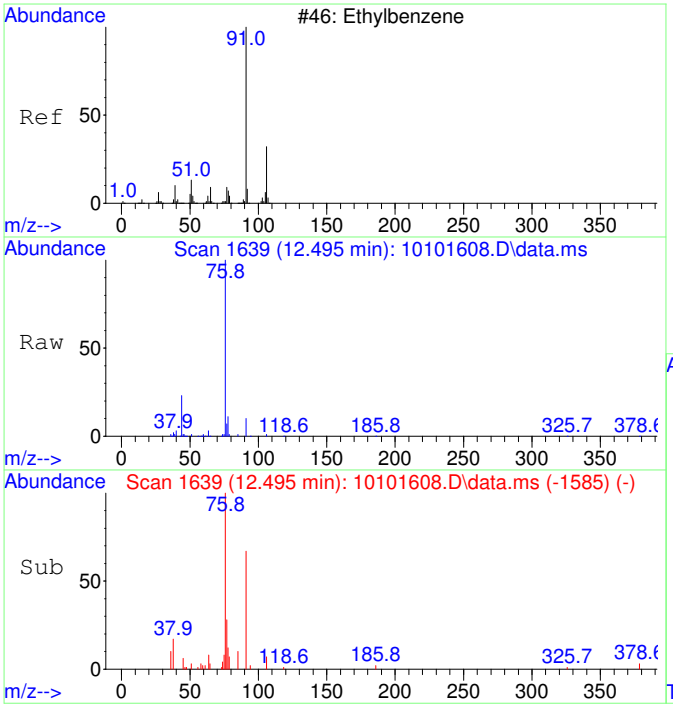


#35
Ethylbenzene
Concen: 61.93 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 11895

Ion	Ratio	Lower	Upper
91	100		
106	30.6	1.7	61.7
77	18.4	0.0	38.3

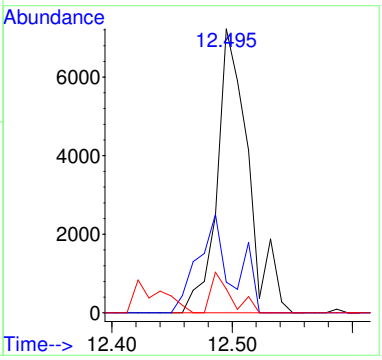


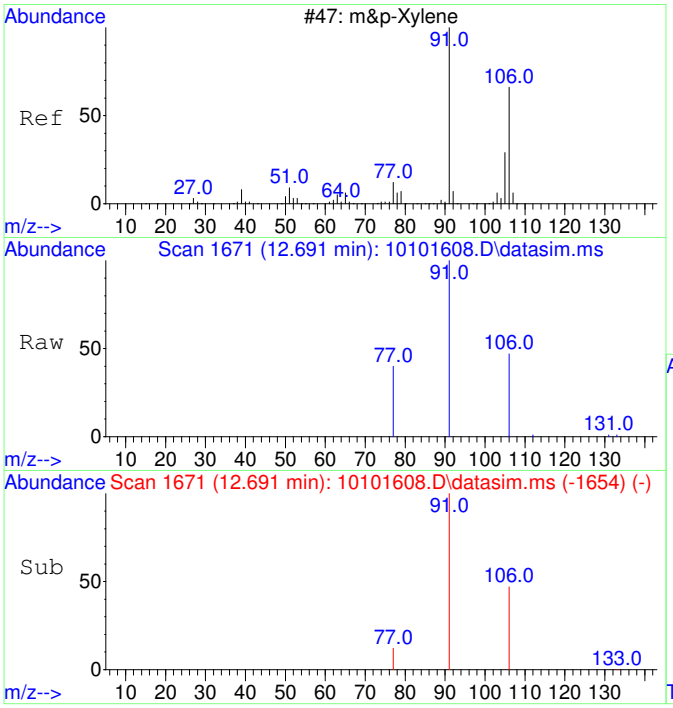


#36
Ethylbenzene SCAN
Concen: 77.62 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 13057

Ion	Ratio	Lower	Upper
91	100		
106	37.8	2.3	62.3
51	9.0	0.0	39.6

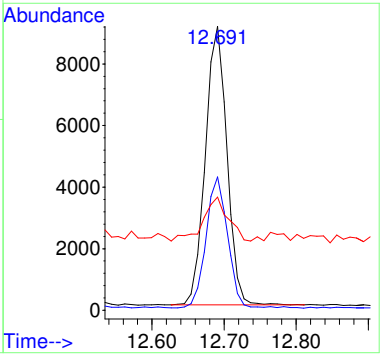


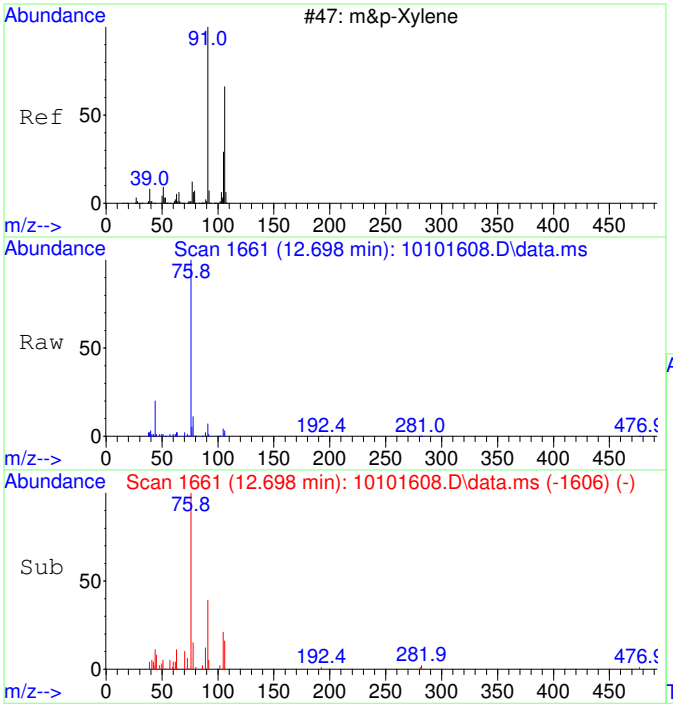


#37
m&p-Xylene
Concen: 124.53 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 18847

Ion	Ratio	Lower	Upper
91	100		
106	46.1	19.4	79.4
77	18.1	0.0	42.6

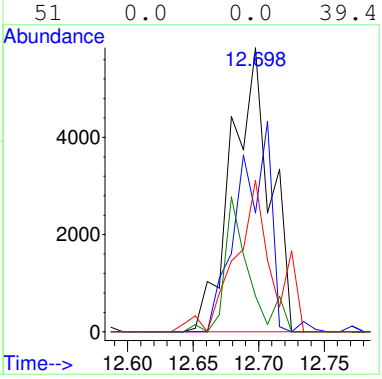


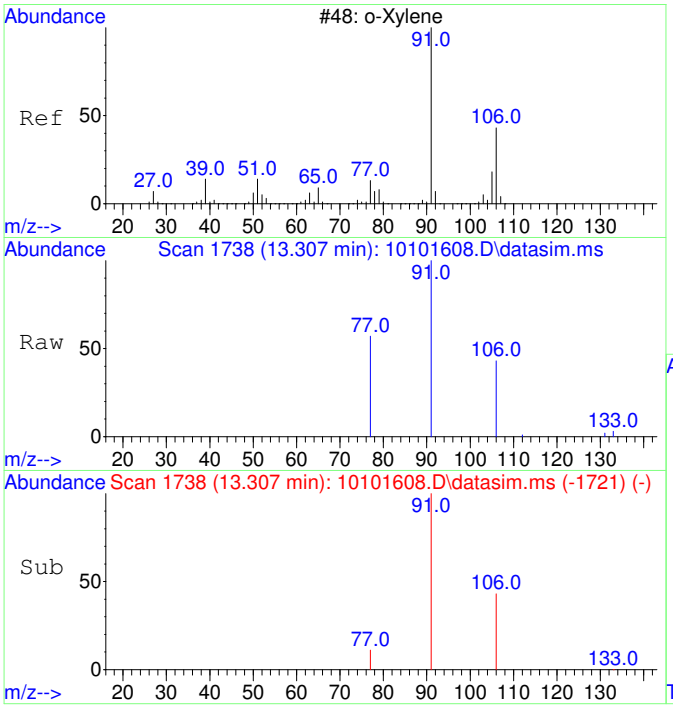


#38
m&p-Xylene SCAN
Concen: 93.19 ug/L
RT: 12.698 min Scan# 1661
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 12042

Ion	Ratio	Lower	Upper
91	100		
106	60.6	18.0	78.0
105	51.3	0.0	53.1
51	0.0	0.0	39.4

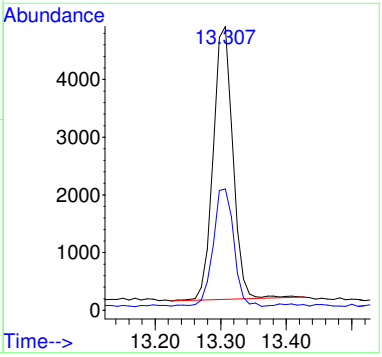


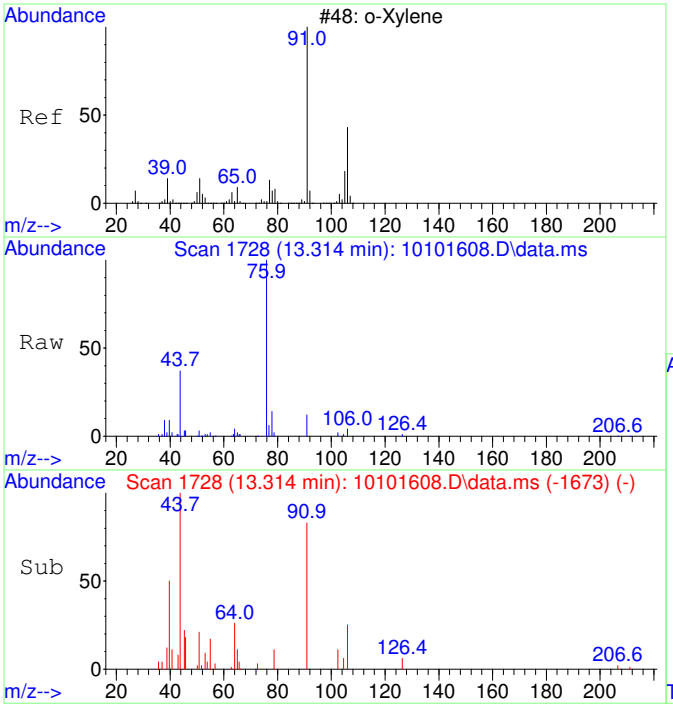


#39
o-Xylene
Concen: 63.34 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 9873

Ion	Ratio	Lower	Upper
91	100		
106	44.5	17.2	77.2

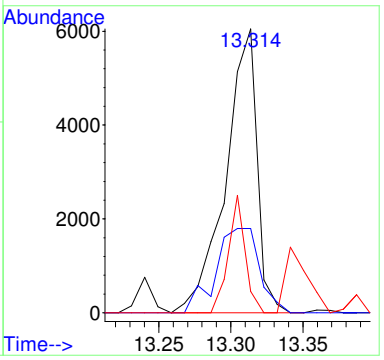


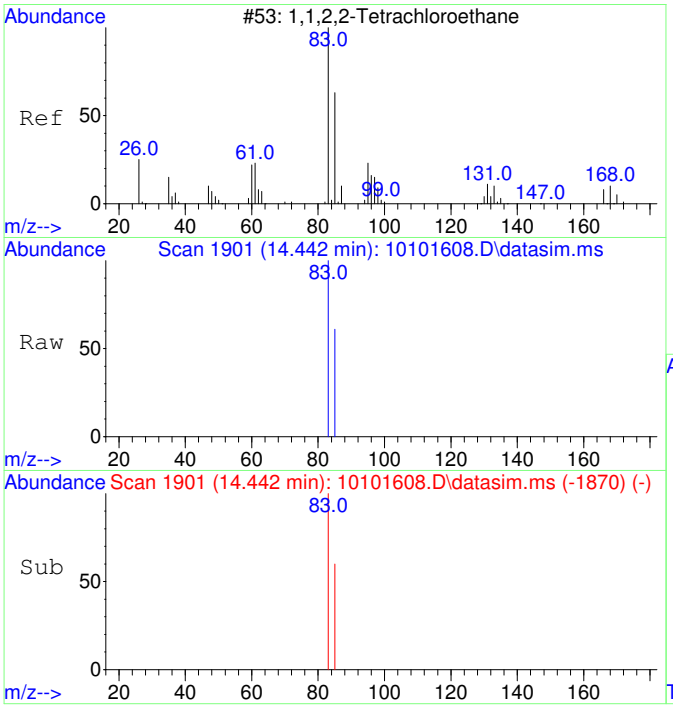


#40
o-Xylene SCAN
Concen: 65.78 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 9200

Ion	Ratio	Lower	Upper
91	100		
106	41.4	18.0	78.0
105	22.0	0.0	56.8

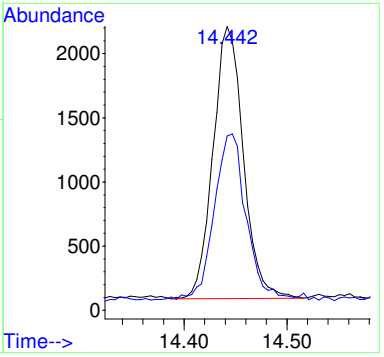


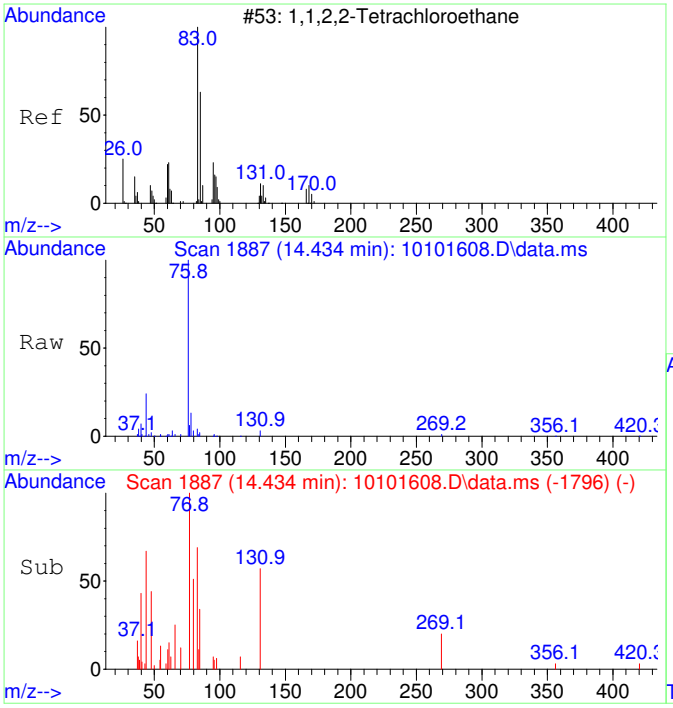


#41
1,1,2,2-Tetrachloroethane
Concen: 62.93 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 4333

Ion	Ratio	Lower	Upper
83	100		
85	64.6	34.4	94.4

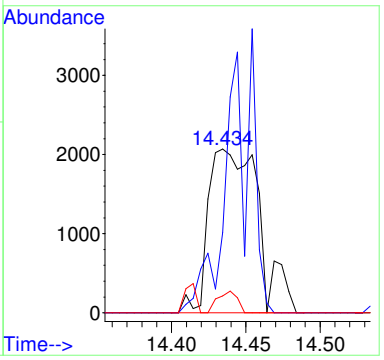


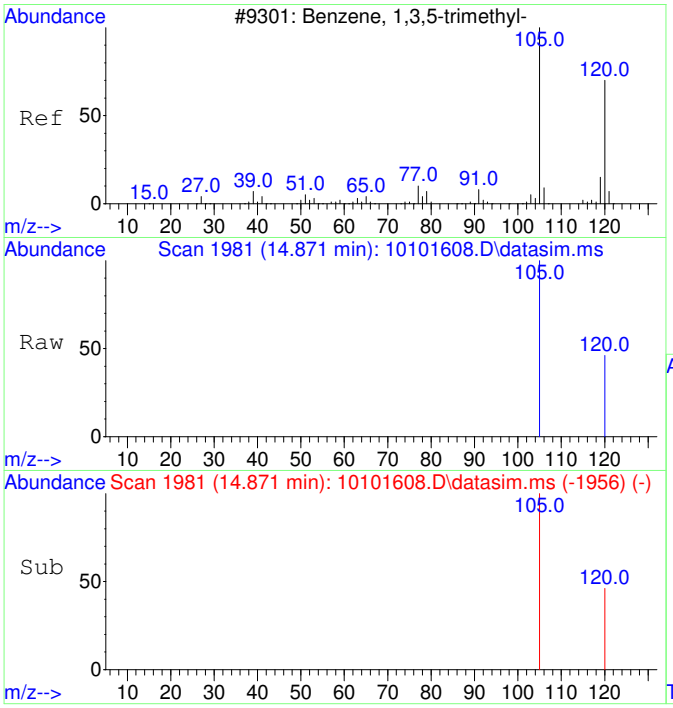


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 83.94 ug/L
RT: 14.434 min Scan# 1887
Delta R.T. -0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 4941

Ion	Ratio	Lower	Upper
83	100		
85	85.2	33.2	93.2
95	5.2	0.0	47.2

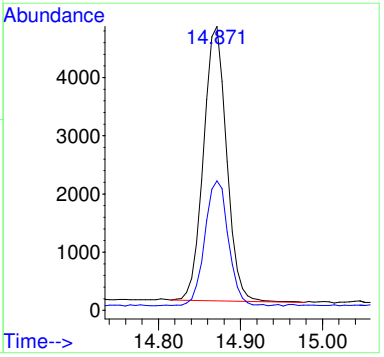


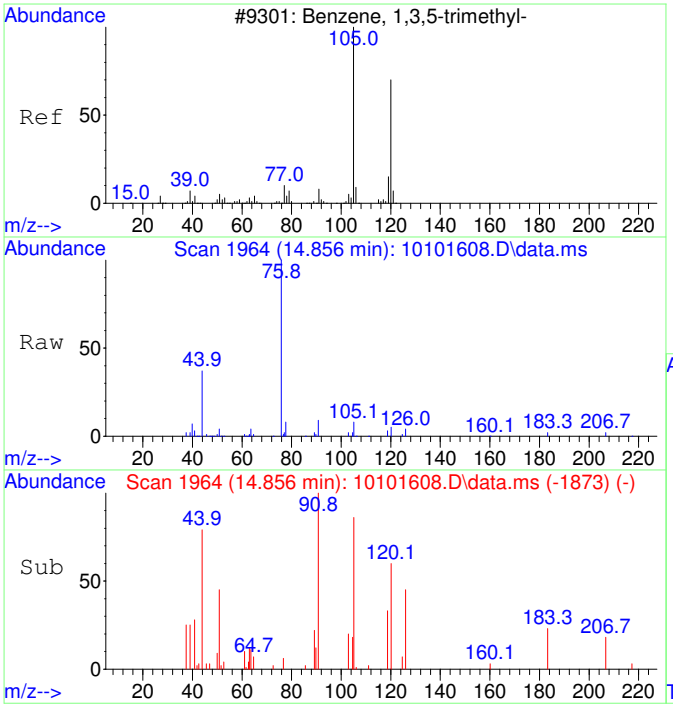


#43
1,3,5-Trimethylbenzene
Concen: 60.48 ug/L
RT: 14.871 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 9210

Ion	Ratio	Lower	Upper
105	100		
120	46.5	19.7	79.7

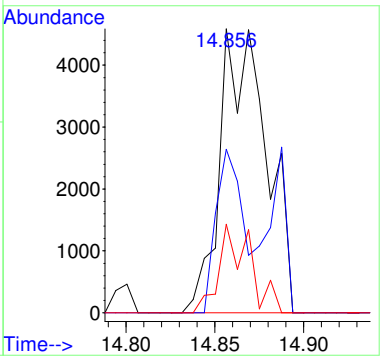


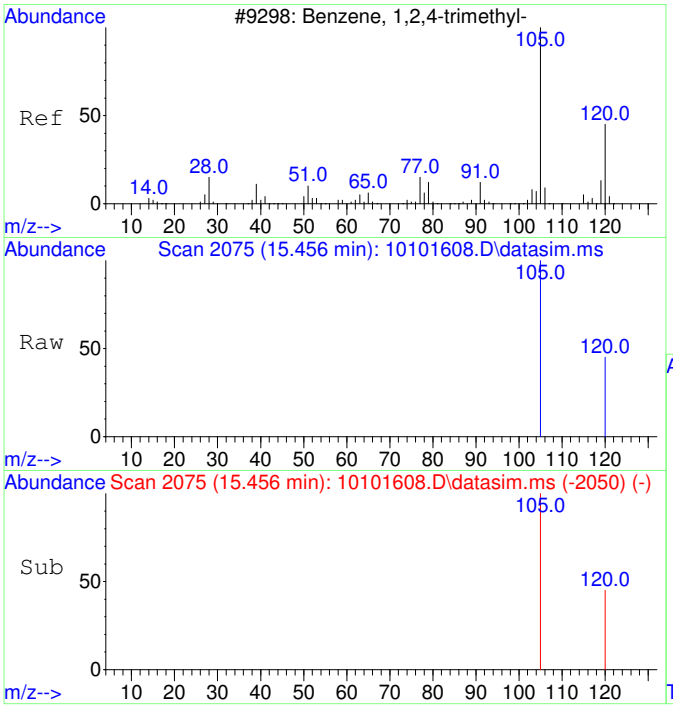


#44
1,3,5-Trimethylbenzene SCAN
Concen: 63.61 ug/L
RT: 14.856 min Scan# 1964
Delta R.T. -0.007 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 8350

Ion	Ratio	Lower	Upper
105	100		
120	25.4	22.1	82.1
119	20.8	0.0	42.9

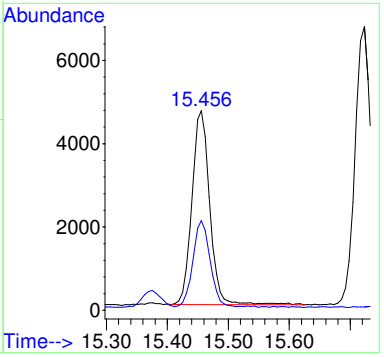


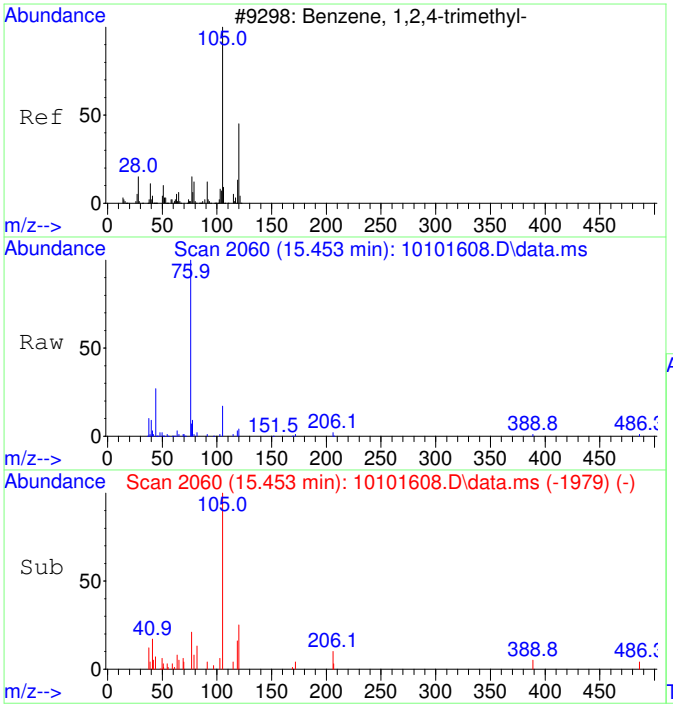


#45
1,2,4-Trimethylbenzene
Concen: 60.63 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 9456

Ion	Ratio	Lower	Upper
105	100		
120	42.4	15.7	75.7

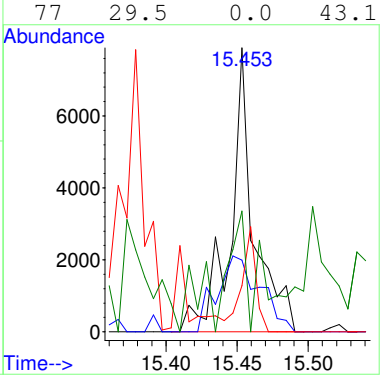


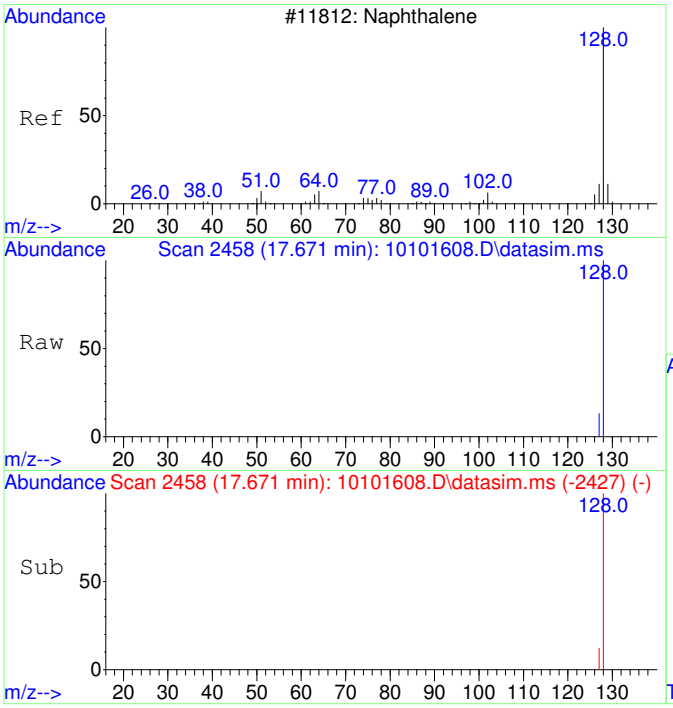


#46
1,2,4-Trimethylbenzene SCAN
Concen: 67.53 ug/L
RT: 15.453 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 9092

Ion	Ratio	Lower	Upper
105	100		
120	48.7	17.2	77.2
119	18.9	0.0	41.3
77	29.5	0.0	43.1

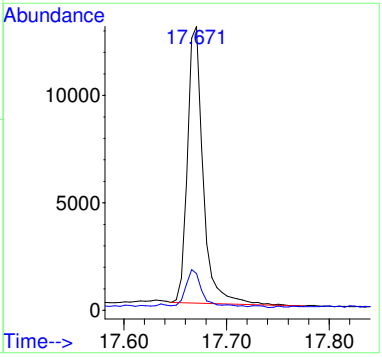


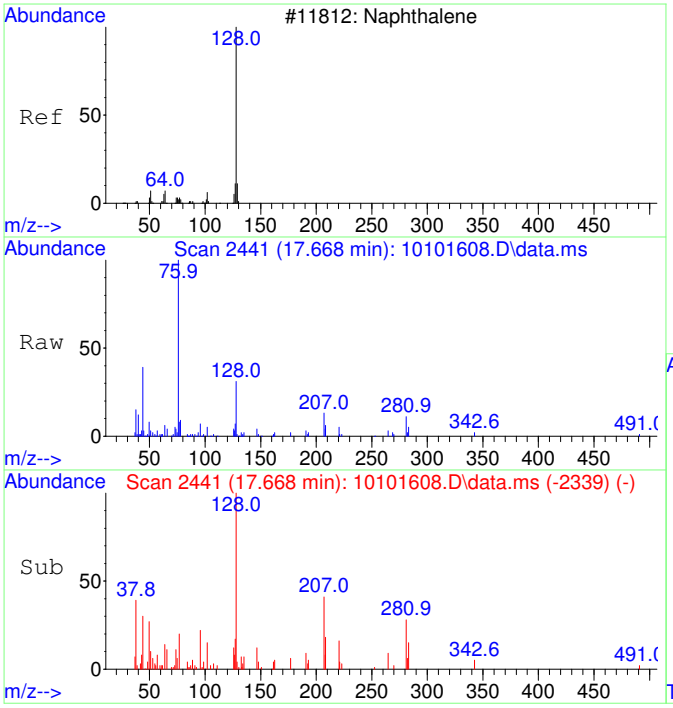


#47
Naphthalene
Concen: 60.63 ug/L
RT: 17.671 min Scan# 2458
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:128 Resp: 13763

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	42.6

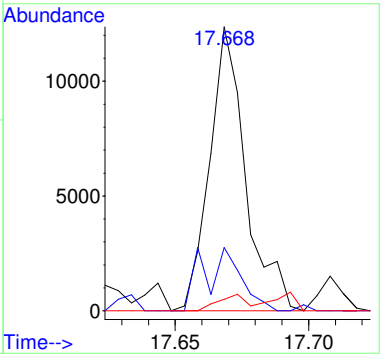




#48
Naphthalene SCAN
Concen: 63.67 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:128 Resp: 11658

Ion	Ratio	Lower	Upper
128	100		
127	23.3	0.0	43.1
129	3.4	0.0	41.0



Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101608.D
Acq On : 10 Oct 2016 16:34
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 11 10:14:45 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration

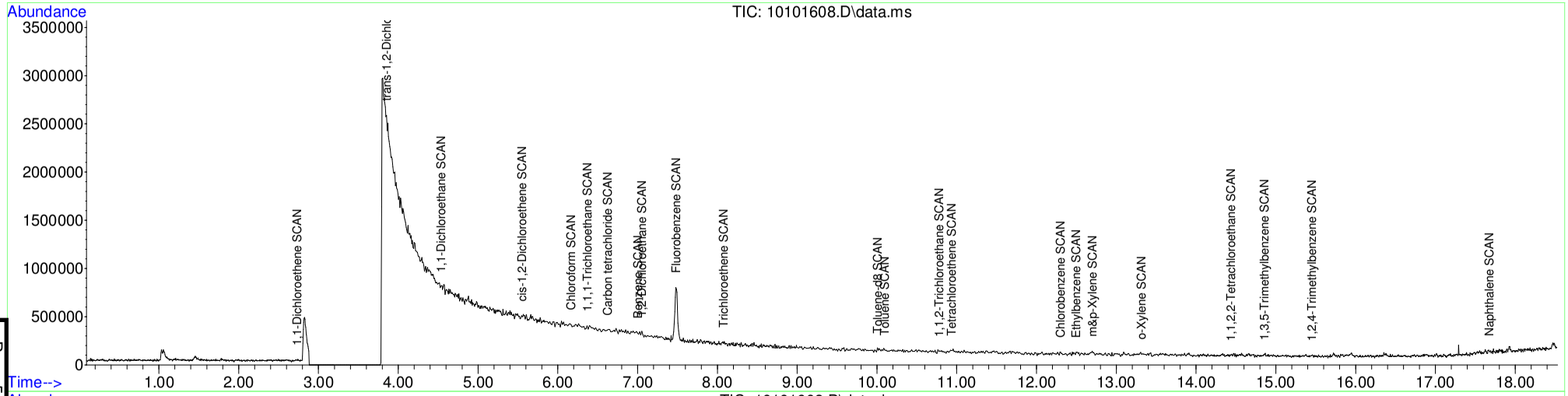
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.482	96	709578	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	8083	58.68	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery =	1.17%#		
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.480	96	551132	4983.62	ug/L	93
3] 1,1-Dichloroethene	2.723	61	4121	46.96	ug/L	84
4) 1,1-Dichloroethene SCAN	2.730	61	1869	30.91	ug/L #	50
5] trans-1,2-Dichloroethene	3.833	61	3407	46.63	ug/L	60
6) trans-1,2-Dichloroethe...	3.854	61	5140	104.38	ug/L #	18
7] 1,1-Dichloroethane	4.527	63	4214	45.09	ug/L	95
8) 1,1-Dichloroethane SCAN	4.532	63	4418	65.85	ug/L #	55
9] cis-1,2-Dichloroethene	5.553	61	3839	43.90	ug/L	100
10) cis-1,2-Dichloroethene...	5.550	61	4098	61.98	ug/L #	62
11] Chloroform	6.142	83	4283	49.86	ug/L	96
12) Chloroform SCAN	6.166	83	3560	58.26	ug/L #	1
13] 1,1,1-Trichloroethane	6.370	97	4048	51.30	ug/L	98
14) 1,1,1-Trichloroethane ...	6.368	97	3468	55.49	ug/L #	40
15] Carbon tetrachloride	6.639	117	3648	53.58	ug/L	96
16) Carbon tetrachloride SCAN	6.623	117	3020	390.66	ug/L #	52
17] Benzene	6.987	78	12574	73.67	ug/L	91
18) Benzene SCAN	6.998	78	41113	303.00	ug/L #	61
19] 1,2-Dichloroethane	7.054	62	3728	48.60	ug/L	51
20) 1,2-Dichloroethane SCAN	7.052	62	1843	28.17	ug/L #	1
21] Trichloroethene	8.068	130	2520	55.11	ug/L	88
22) Trichloroethene SCAN	8.072	95	1127	31.72	ug/L #	20
24) Toluene-d8 SCAN	10.006	98	6790	57.66	ug/L #	79
25] Toluene	10.099	91	10583	61.09	ug/L	99
26) Toluene SCAN	10.096	91	10233	69.22	ug/L	92
27] 1,1,2-Trichloroethane	10.789	97	2435	60.22	ug/L	90
28) 1,1,2-Trichloroethane ...	10.775	97	1071	31.40	ug/L #	29
29] Tetrachloroethene	10.936	166	3102	64.98	ug/L	94
30) Tetrachloroethene SCAN	10.934	166	2947	88.26	ug/L #	27
31] Chlorobenzene	12.295	112	7406	65.13	ug/L	82
32) Chlorobenzene SCAN	12.293	112	8007	84.44	ug/L #	55
33] 1,1,1,2-Tetrachloroethane	12.452	131	2412	62.19	ug/L	100
35] Ethylbenzene	12.498	91	11895	61.93	ug/L	93
36) Ethylbenzene SCAN	12.495	91	13057	77.62	ug/L	92
37] m&p-Xylene	12.691	91	18847	124.53	ug/L	93
38) m&p-Xylene SCAN	12.698	91	12042	93.19	ug/L #	69
39] o-Xylene	13.307	91	9873	63.34	ug/L	96
40) o-Xylene SCAN	13.314	91	9200	65.78	ug/L	90
41] 1,1,2,2-Tetrachloroethane	14.442	83	4333	62.93	ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.434	83	4941	83.94	ug/L	72
43] 1,3,5-Trimethylbenzene	14.871	105	9210	60.48	ug/L	95
44) 1,3,5-Trimethylbenzene...	14.856	105	8350	63.61	ug/L	66
45] 1,2,4-Trimethylbenzene	15.456	105	9456	60.63	ug/L	95
46) 1,2,4-Trimethylbenzene...	15.453	105	9092	67.53	ug/L	88
47] Naphthalene	17.671	128	13763	60.63	ug/L	99
48) Naphthalene SCAN	17.668	128	11658	63.67	ug/L	77

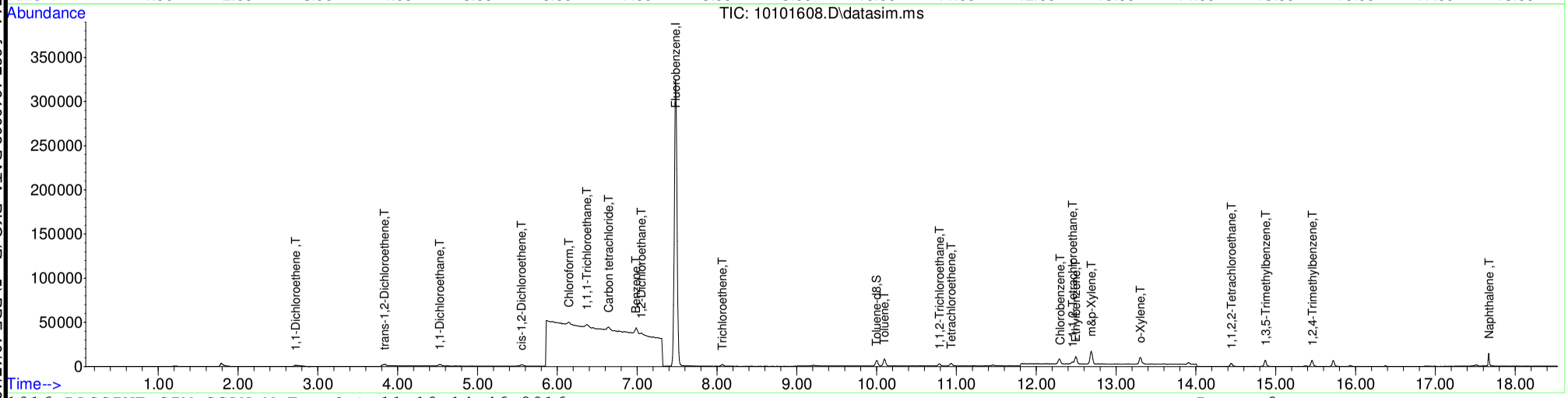
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101608.D
Acq On : 10 Oct 2016 16:34
InstName : AG5975C
Operator : RH
Sample : S16J050-CAL6
Misc : 1635077 .05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 11 10:14:45 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Mon Oct 10 17:14:43 2016
Response via : Initial Calibration





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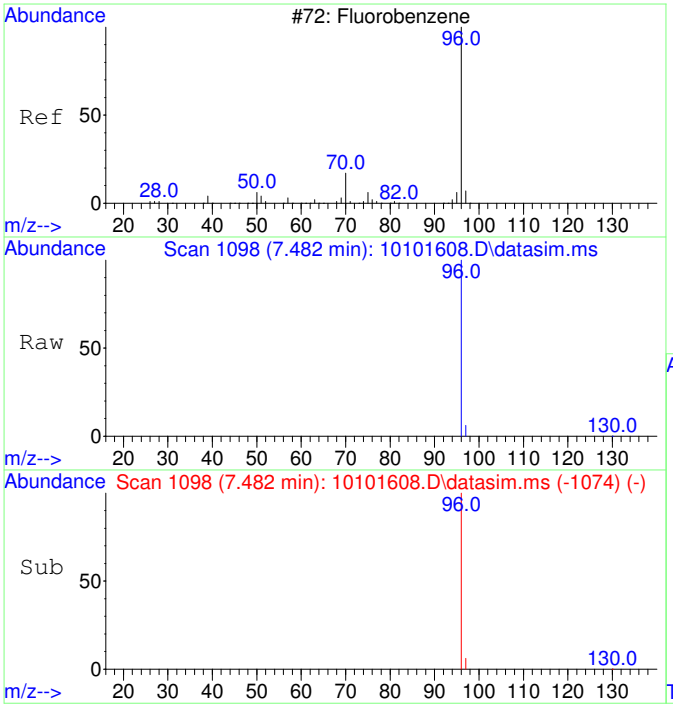
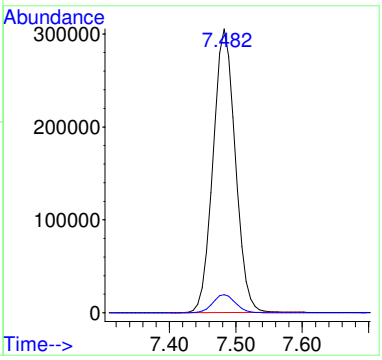
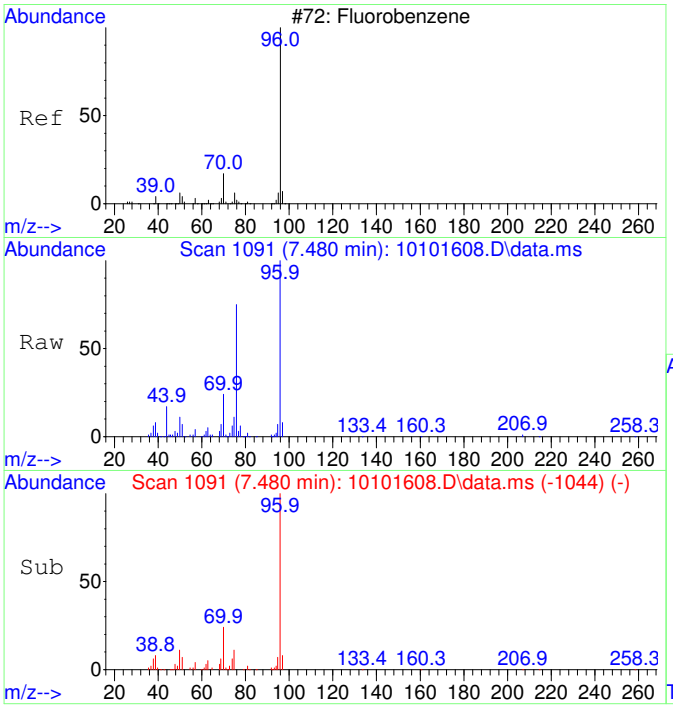


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 96 Resp: 709578

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.6

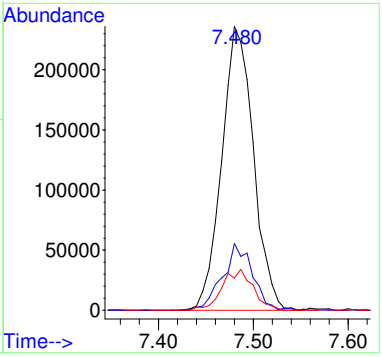


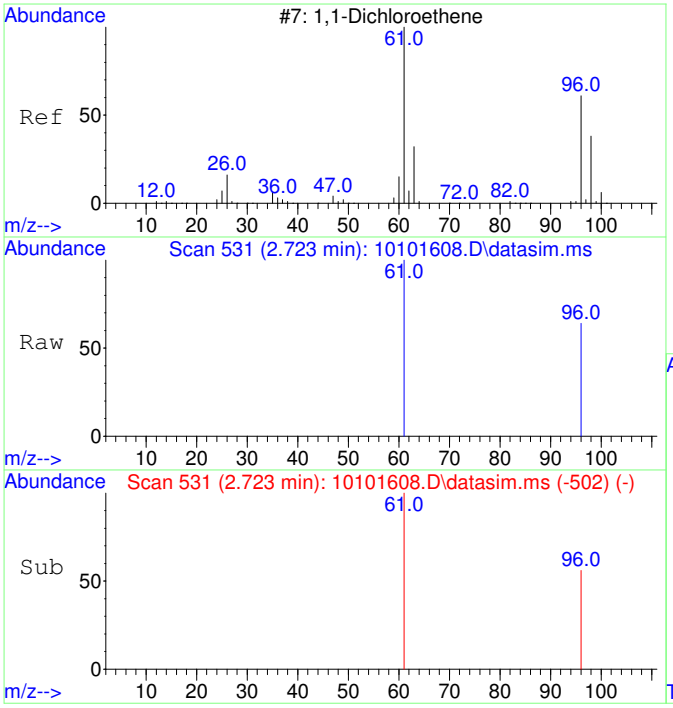


#2
Fluorobenzene SCAN
Concen: 4983.62 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 96 Resp: 551132

Ion	Ratio	Lower	Upper
96	100		
70	22.4	0.0	49.2
50	14.1	0.0	41.1

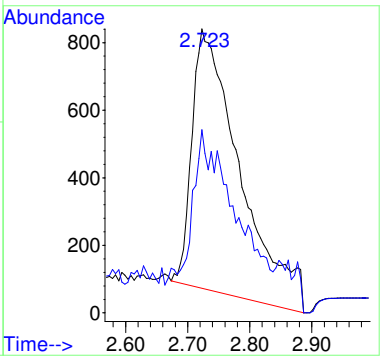




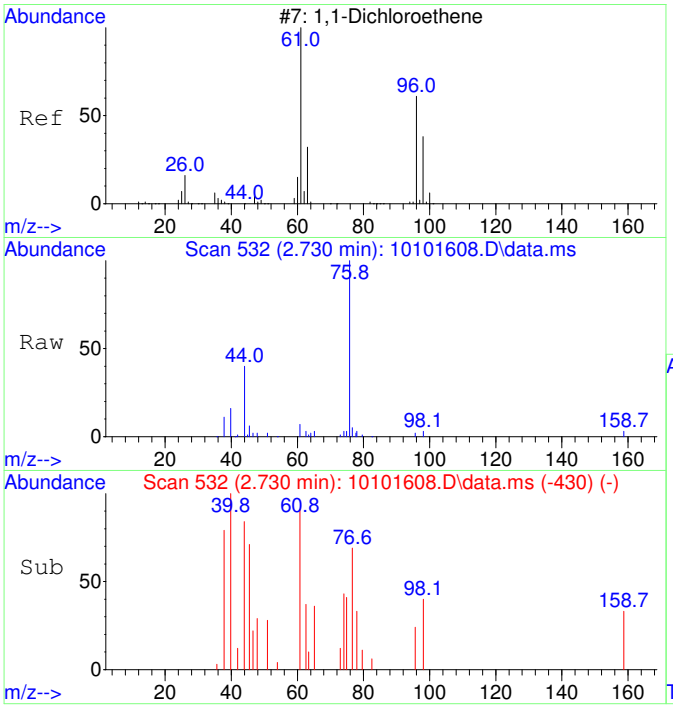
#3
1,1-Dichloroethene
Concen: 46.96 ug/L
RT: 2.723 min Scan# 531
Delta R.T. -0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 4121

Ion	Ratio	Lower	Upper
61	100		
96	52.3	34.9	94.9



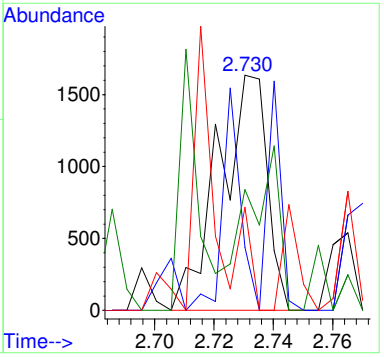
Before MI:
IMPROPER
BASELINE

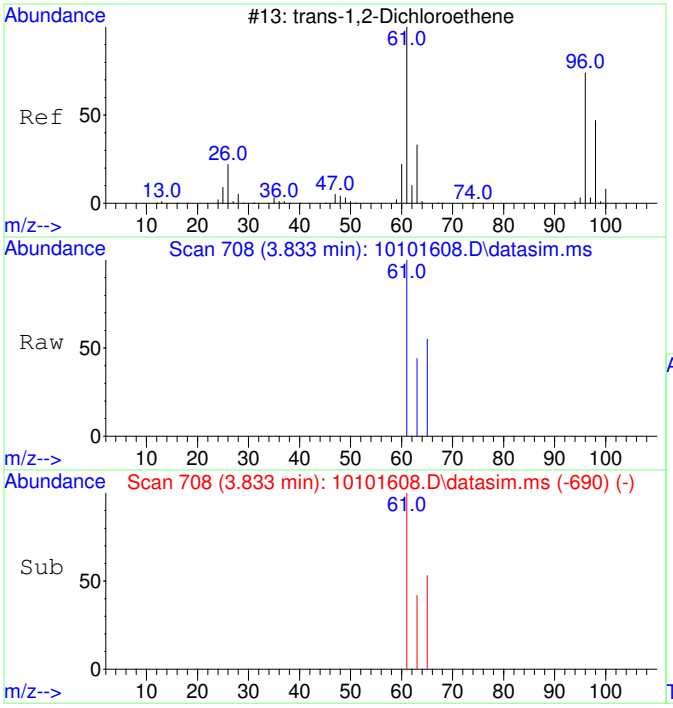


#4
1,1-Dichloroethene SCAN
Concen: 30.91 ug/L
RT: 2.730 min Scan# 532
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 1869

Ion	Ratio	Lower	Upper
61	100		
96	34.4	30.2	90.2
98	0.0	12.2	72.2#
63	0.0	3.7	63.7#

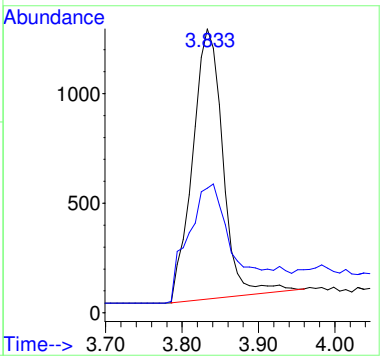


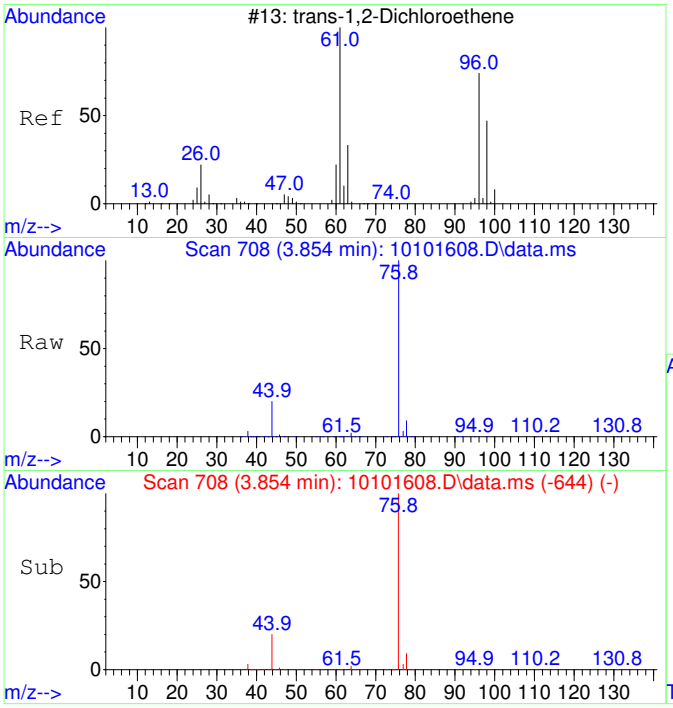


#5
trans-1,2-Dichloroethene
Concen: 46.63 ug/L
RT: 3.833 min Scan# 708
Delta R.T. -0.008 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 3407

Ion	Ratio	Lower	Upper
61	100		
63	54.8	2.5	62.5

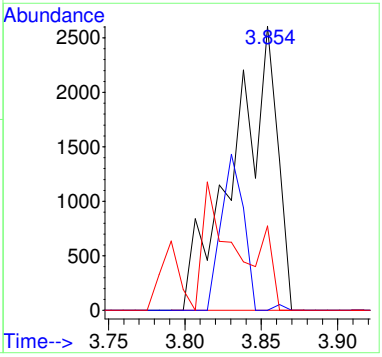


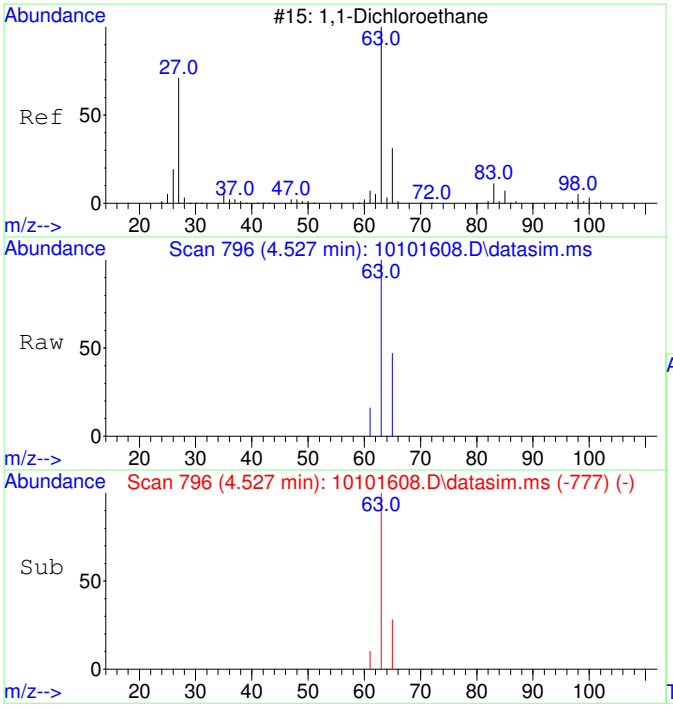


#6
trans-1,2-Dichloroethene SCAN
Concen: 104.38 ug/L
RT: 3.854 min Scan# 708
Delta R.T. 0.007 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 5140

Ion	Ratio	Lower	Upper
61	100		
96	0.0	47.5	107.5#
98	0.0	17.2	77.2#

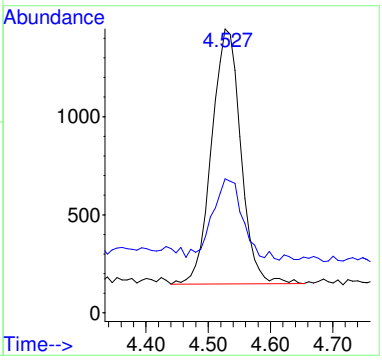


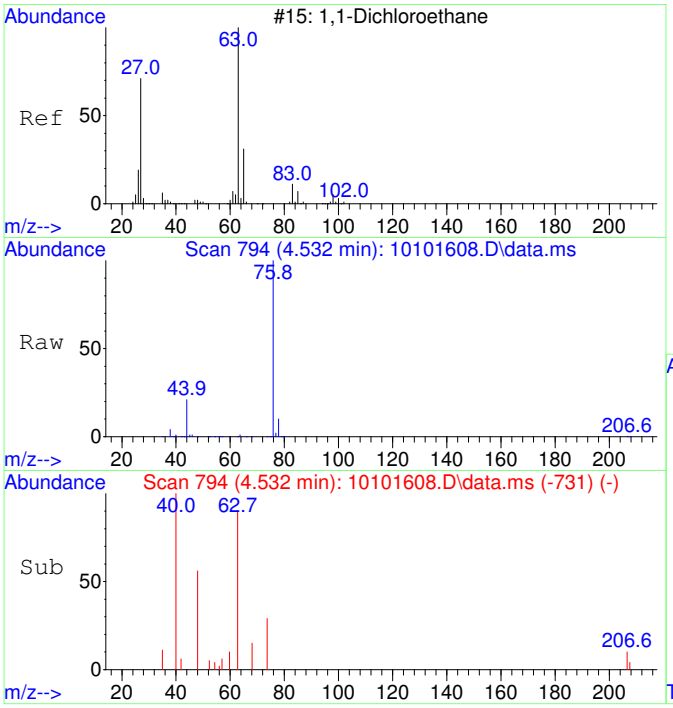


#7
1,1-Dichloroethane
Concen: 45.09 ug/L
RT: 4.527 min Scan# 796
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 63 Resp: 4214

Ion	Ratio	Lower	Upper
63	100		
65	28.9	1.8	61.8

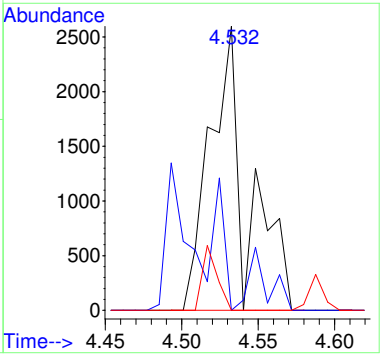


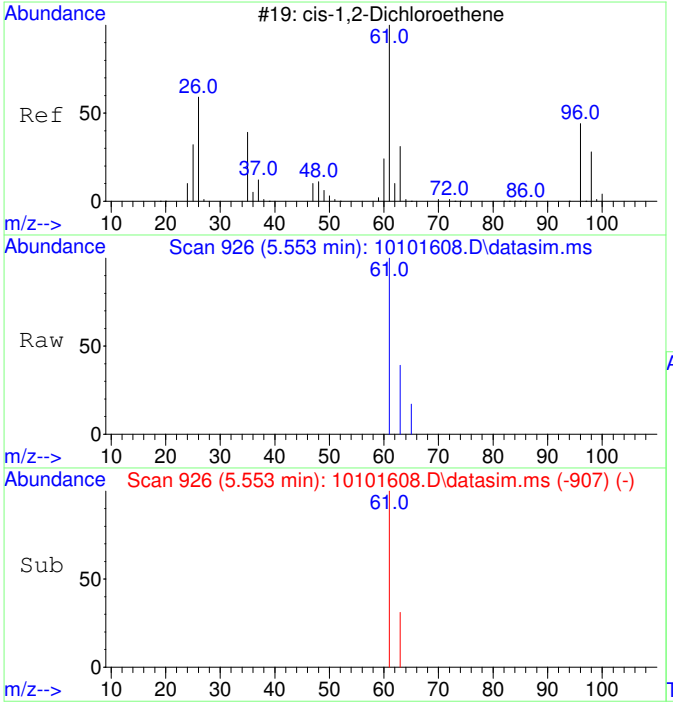


#8
1,1-Dichloroethane SCAN
Concen: 65.85 ug/L
RT: 4.532 min Scan# 794
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 63 Resp: 4418

Ion	Ratio	Lower	Upper
63	100		
65	0.0	3.9	63.9#
83	9.1	0.0	45.1

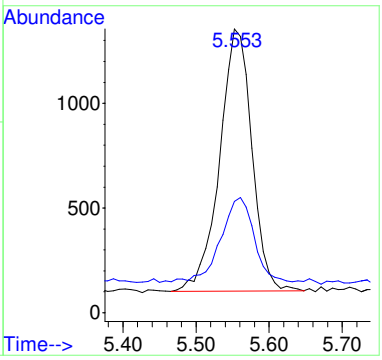


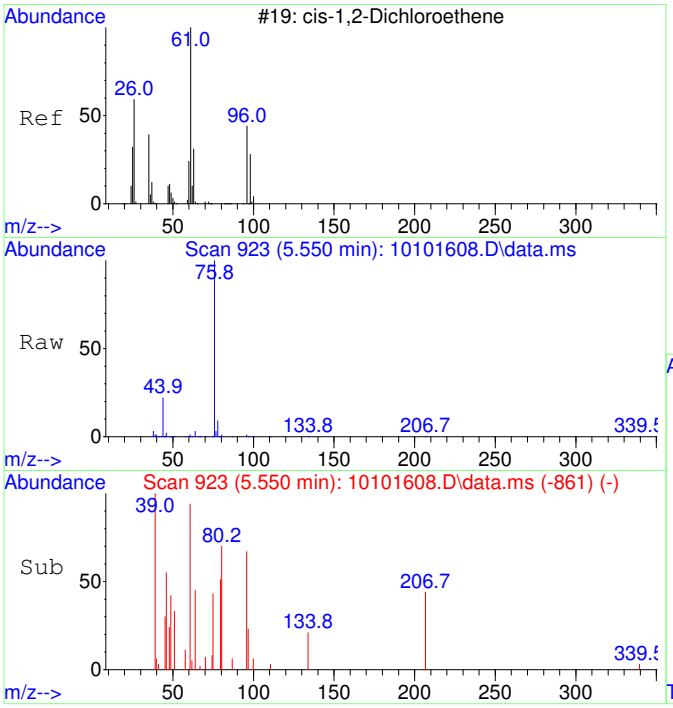


#9
cis-1,2-Dichloroethene
Concen: 43.90 ug/L
RT: 5.553 min Scan# 926
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 3839

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.4	62.4

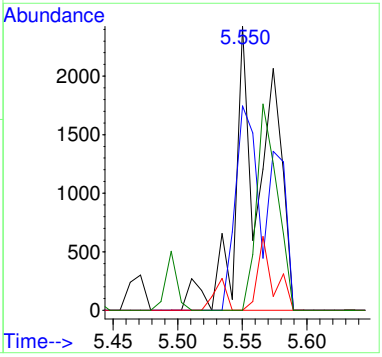


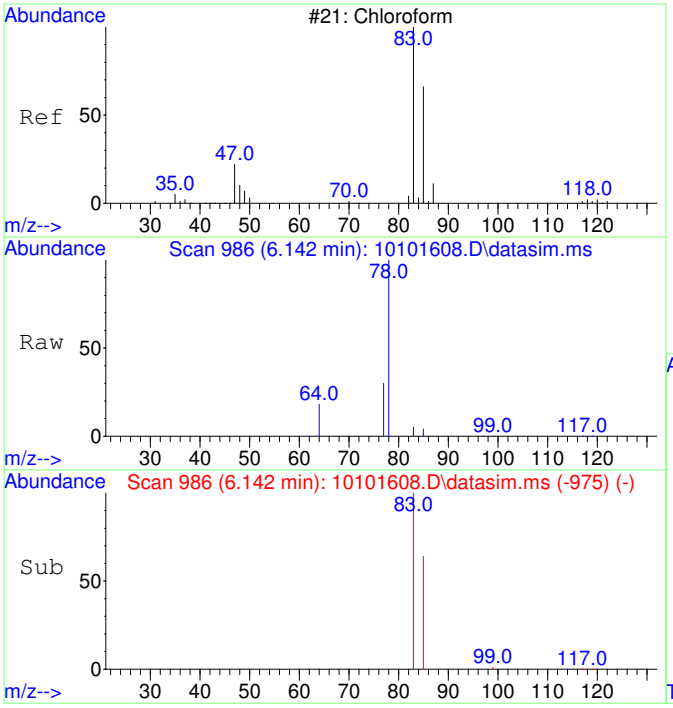


#10
cis-1,2-Dichloroethene SCAN
Concen: 61.98 ug/L
RT: 5.550 min Scan# 923
Delta R.T. -0.008 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 61 Resp: 4098

Ion	Ratio	Lower	Upper
61	100		
96	80.9	42.0	102.0
98	4.5	17.5	77.5#
63	0.0	3.4	63.4#

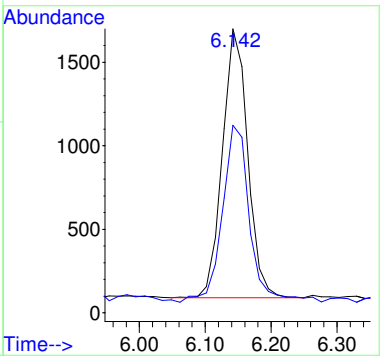


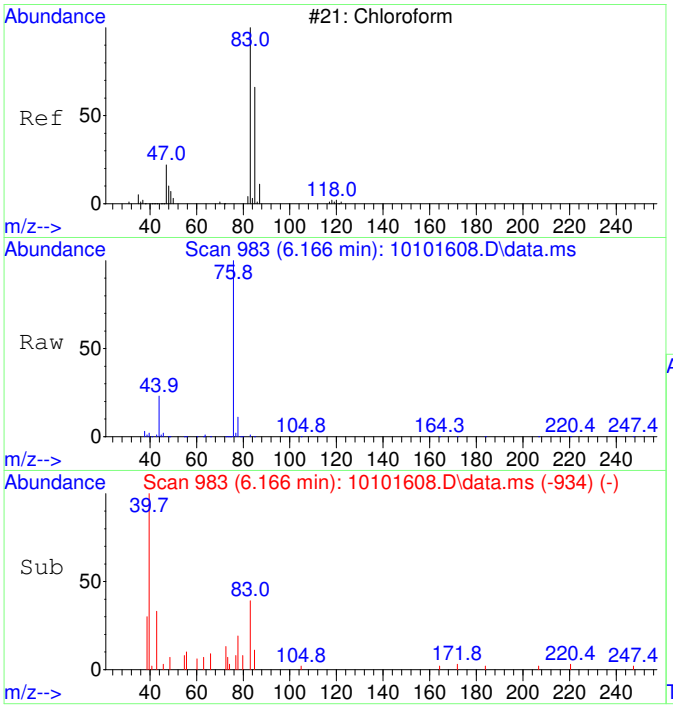


#11
Chloroform
Concen: 49.86 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 4283

Ion	Ratio	Lower	Upper
83	100		
85	67.6	34.4	94.4

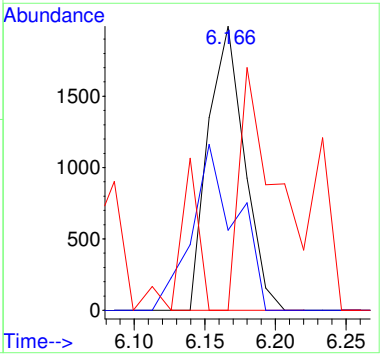


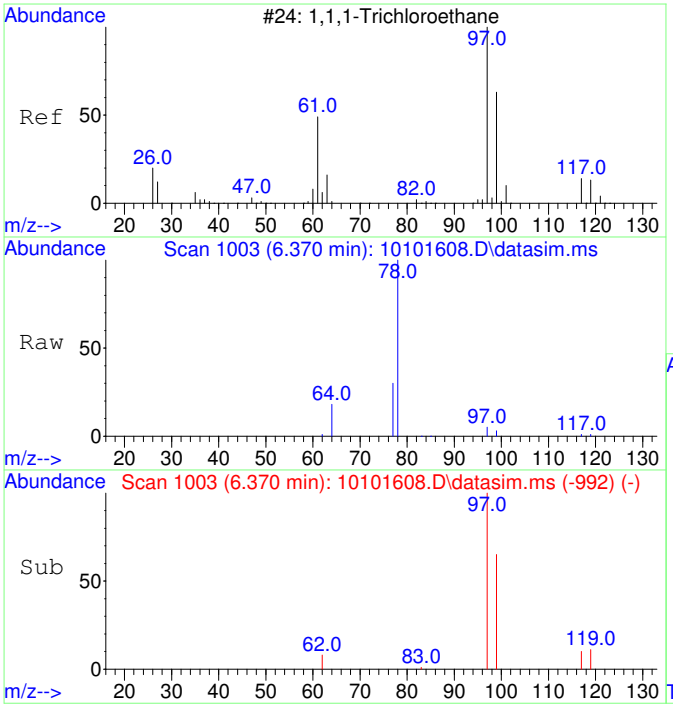


#12
Chloroform SCAN
Concen: 58.26 ug/L
RT: 6.166 min Scan# 983
Delta R.T. 0.026 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 3560

Ion	Ratio	Lower	Upper
83	100		
85	0.0	37.6	97.6#
47	115.3	0.0	53.4#

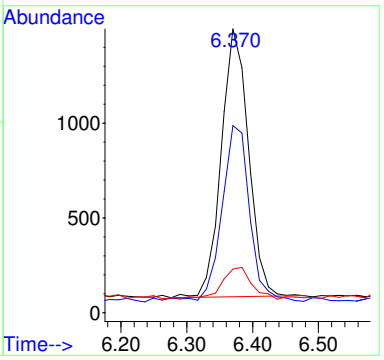


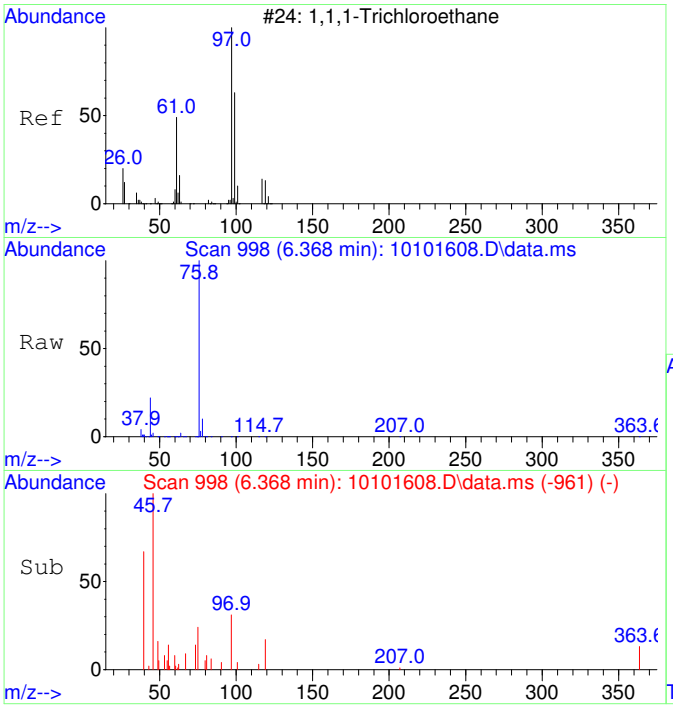


#13
1,1,1-Trichloroethane
Concen: 51.30 ug/L
RT: 6.370 min Scan# 1003
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 4048

Ion	Ratio	Lower	Upper
97	100		
99	65.1	34.2	94.2
117	11.0	0.0	43.0

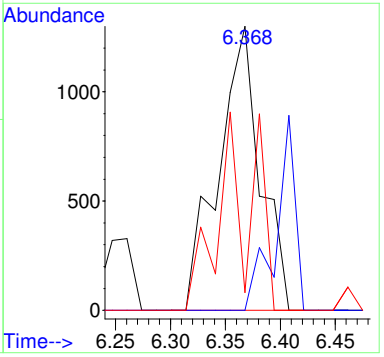


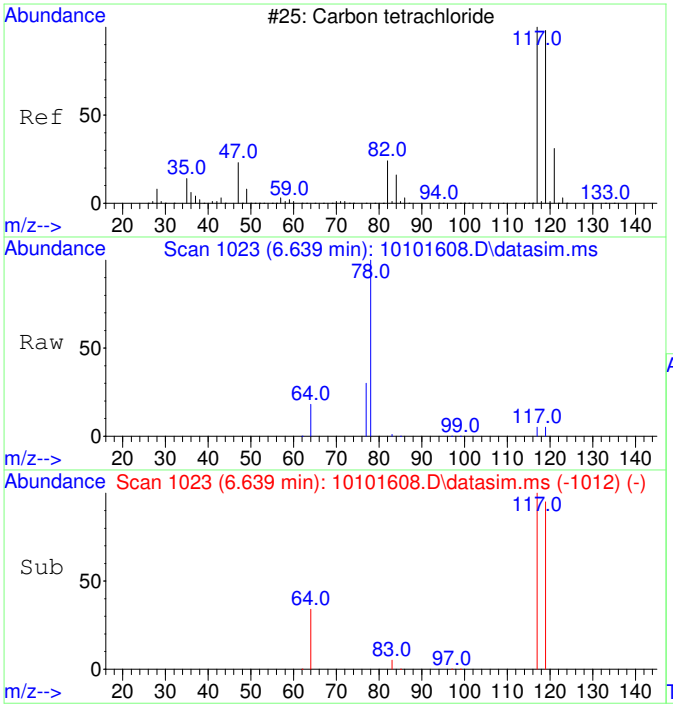


#14
1,1,1-Trichloroethane SCAN
Concen: 55.49 ug/L
RT: 6.368 min Scan# 998
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 3468

Ion	Ratio	Lower	Upper
97	100		
99	0.0	33.6	93.6#
61	56.5	10.7	70.7

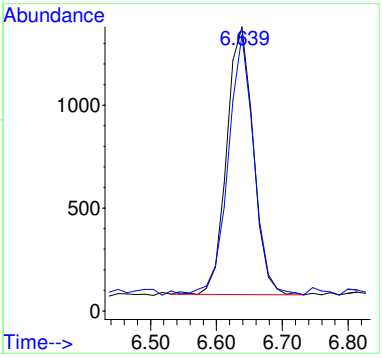


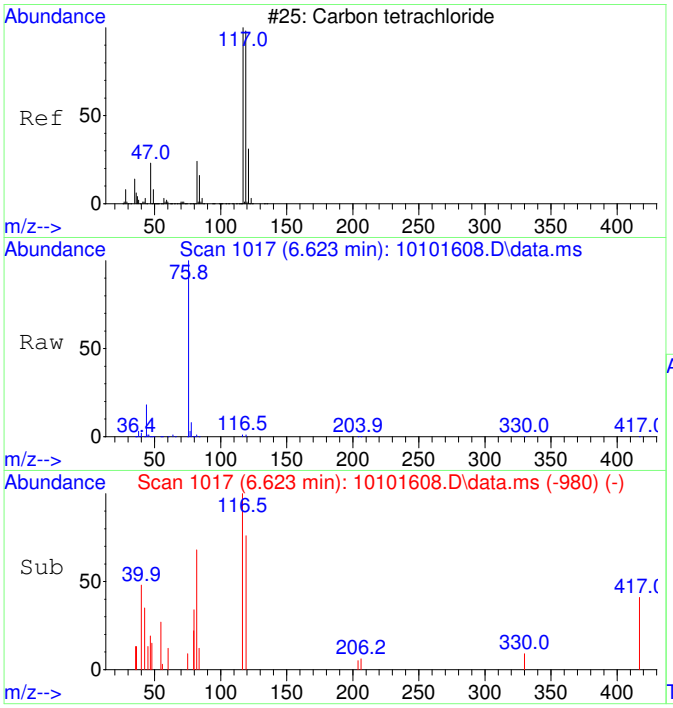


#15
Carbon tetrachloride
Concen: 53.58 ug/L
RT: 6.639 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:117 Resp: 3648

Ion	Ratio	Lower	Upper
117	100		
119	92.4	66.1	126.1

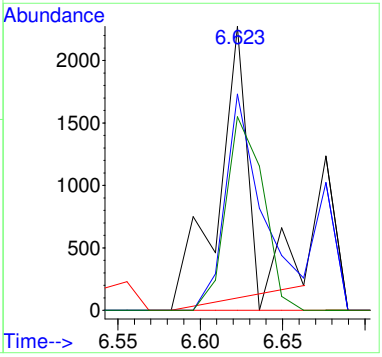


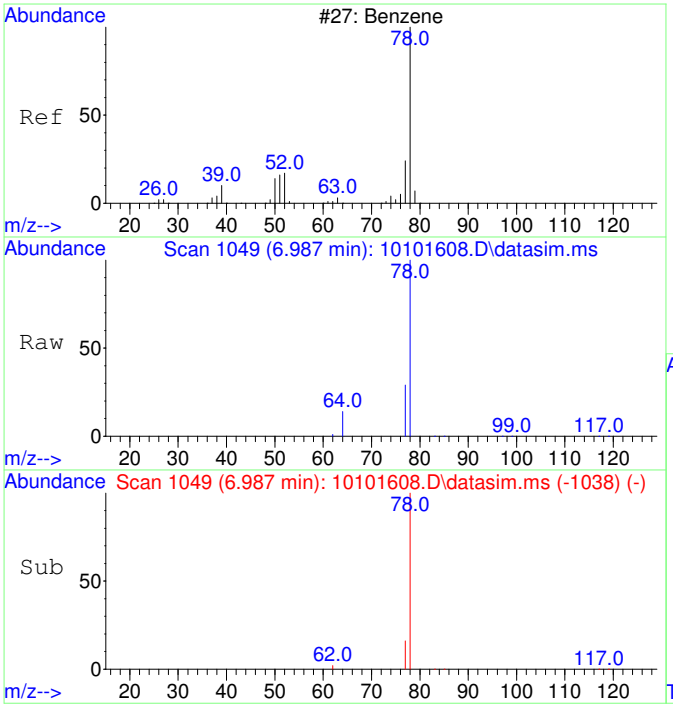


#16
Carbon tetrachloride SCAN
Concen: 390.66 ug/L
RT: 6.623 min Scan# 1017
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:117 Resp: 3020

Ion	Ratio	Lower	Upper
117	100		
119	121.7	66.0	122.6
121	0.0	22.1	41.1#
82	81.5	18.5	34.3#

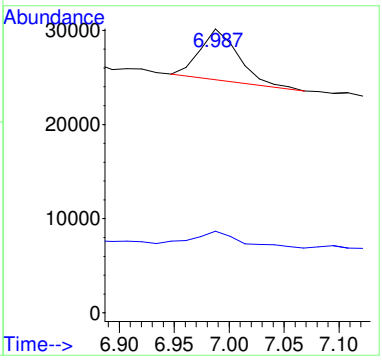


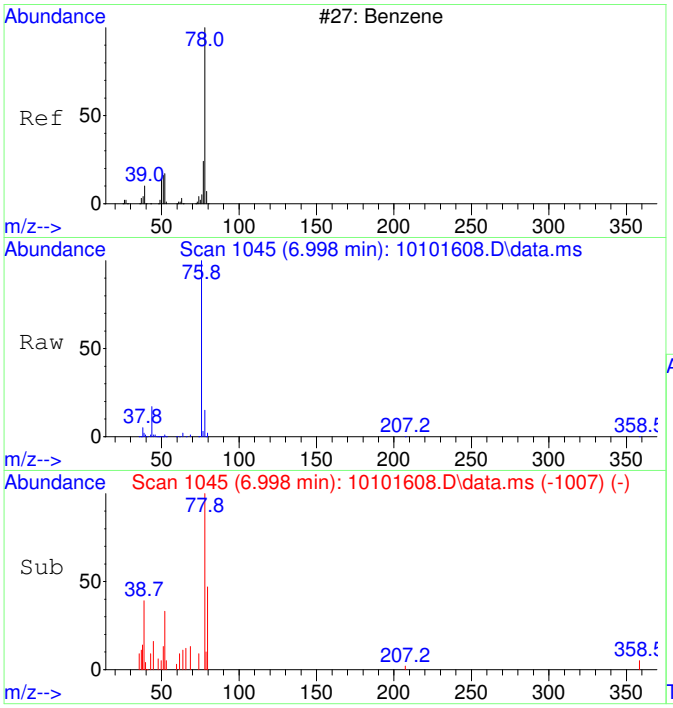


#17
Benzene
Concen: 73.67 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 78 Resp: 12574

Ion	Ratio	Lower	Upper
78	100		
77	19.2	0.0	53.4

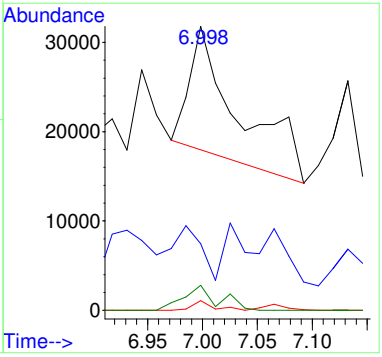


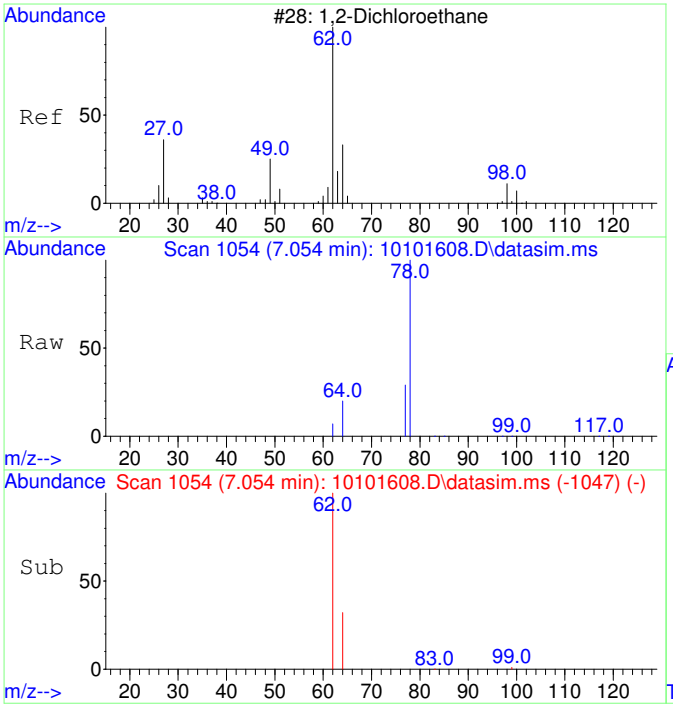


#18
Benzene SCAN
Concen: 303.00 ug/L
RT: 6.998 min Scan# 1045
Delta R.T. 0.013 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 78 Resp: 41113

Ion	Ratio	Lower	Upper
78	100		
77	62.5	0.0	59.3#
51	3.4	0.0	49.2
52	14.9	0.0	45.5

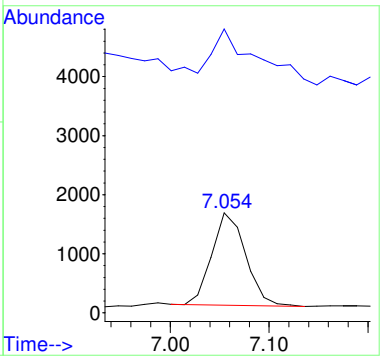


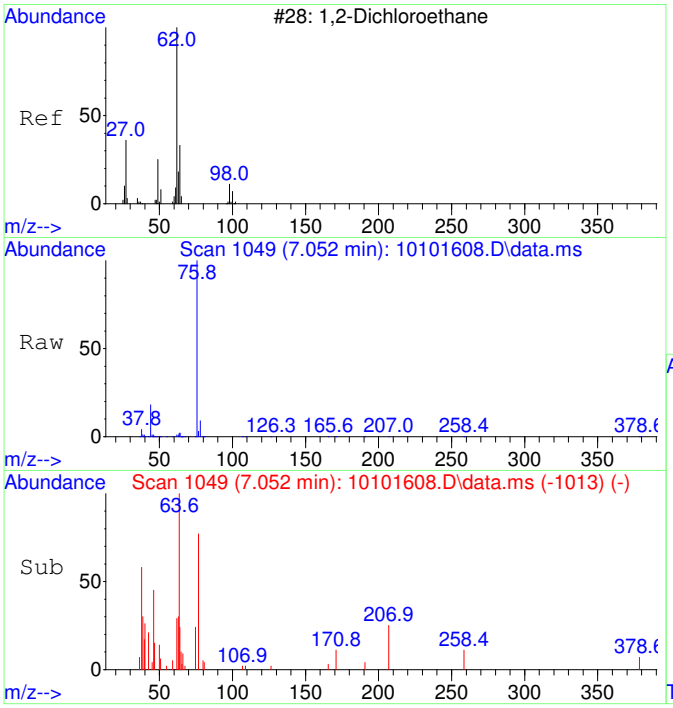


#19
1,2-Dichloroethane
Concen: 48.60 ug/L
RT: 7.054 min Scan# 1054
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 62 Resp: 3728

Ion	Ratio	Lower	Upper
62	100		
64	60.2	2.7	62.7

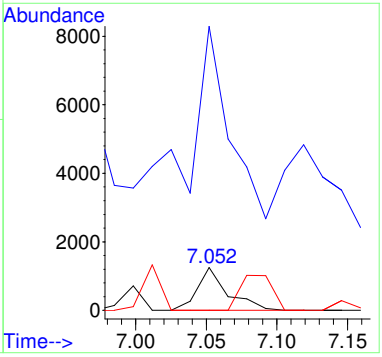


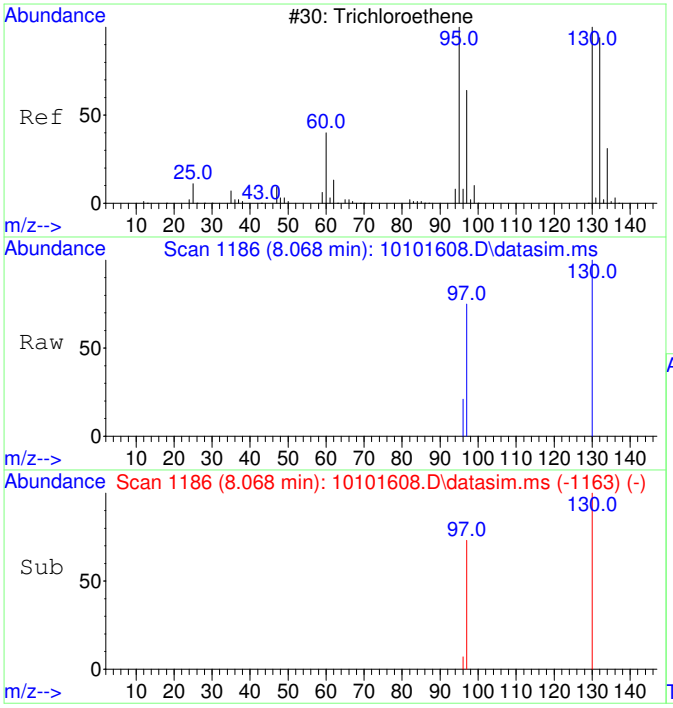


#20
1,2-Dichloroethane SCAN
Concen: 28.17 ug/L
RT: 7.052 min Scan# 1049
Delta R.T. -0.014 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 62 Resp: 1843

Ion	Ratio	Lower	Upper
62	100		
64	464.1	1.9	61.9#
49	0.0	0.0	51.8

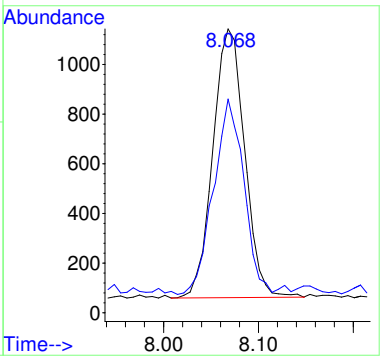


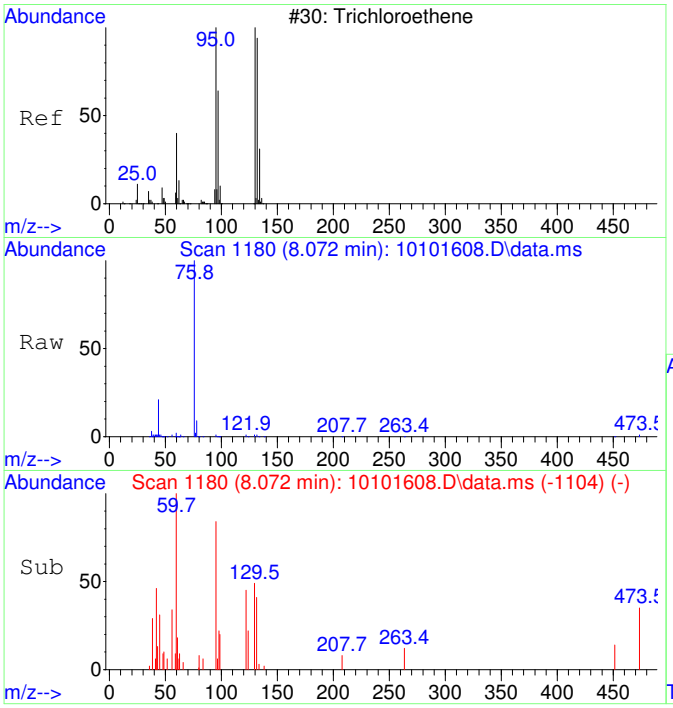


#21
Trichloroethene
Concen: 55.11 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:130 Resp: 2520

Ion	Ratio	Lower	Upper
130	100		
97	69.2	29.9	89.9

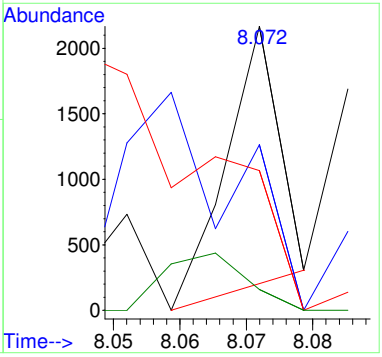


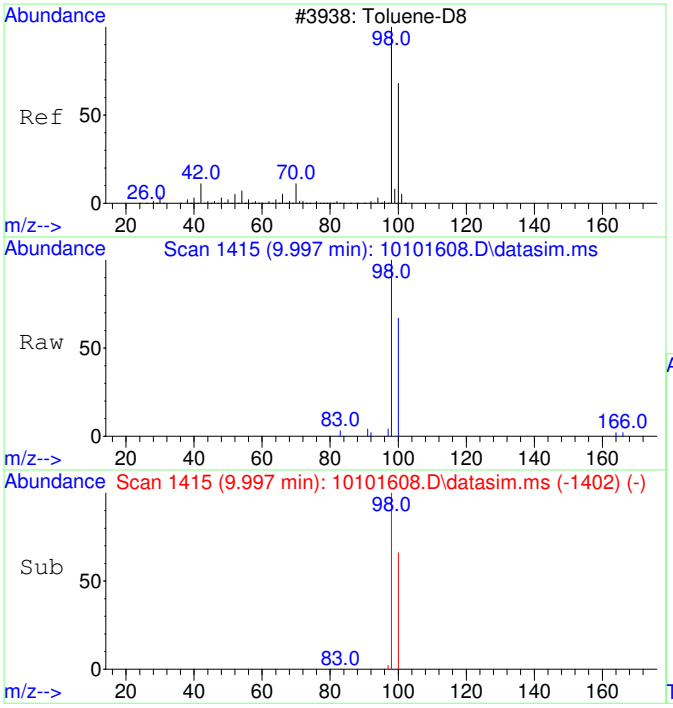


#22
Trichloroethene SCAN
Concen: 31.72 ug/L
RT: 8.072 min Scan# 1180
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 95 Resp: 1127

Ion	Ratio	Lower	Upper
95	100		
130	192.4	74.1	134.1#
132	0.0	72.1	132.1#
97	33.6	29.5	89.5

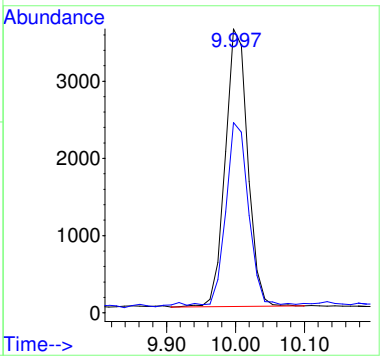


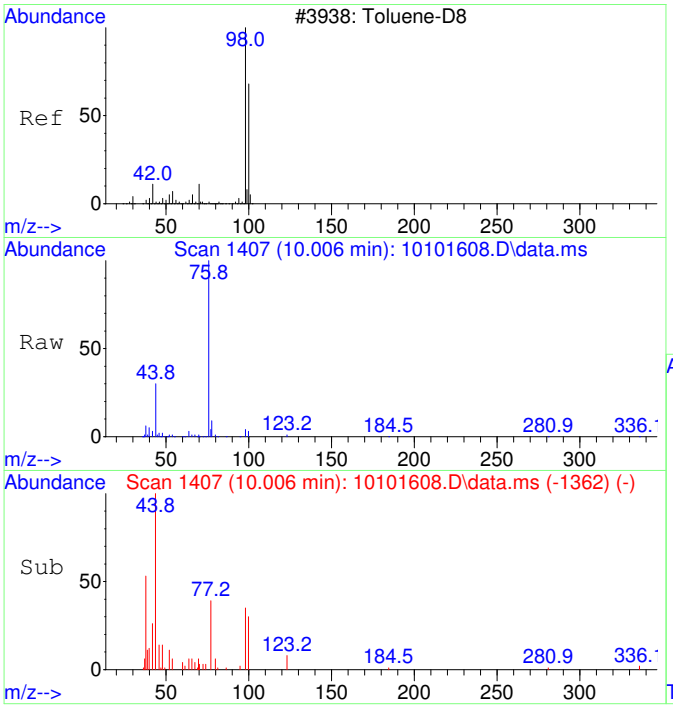


#23
Toluene-d8
Concen: 58.68 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 98 Resp: 8083

Ion	Ratio	Lower	Upper
98	100		
100	64.8	35.3	95.3

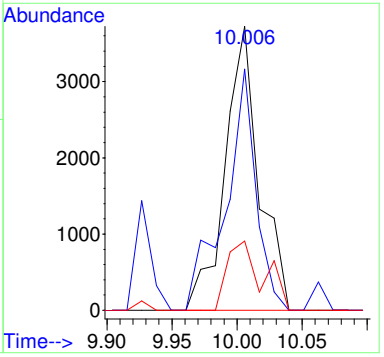


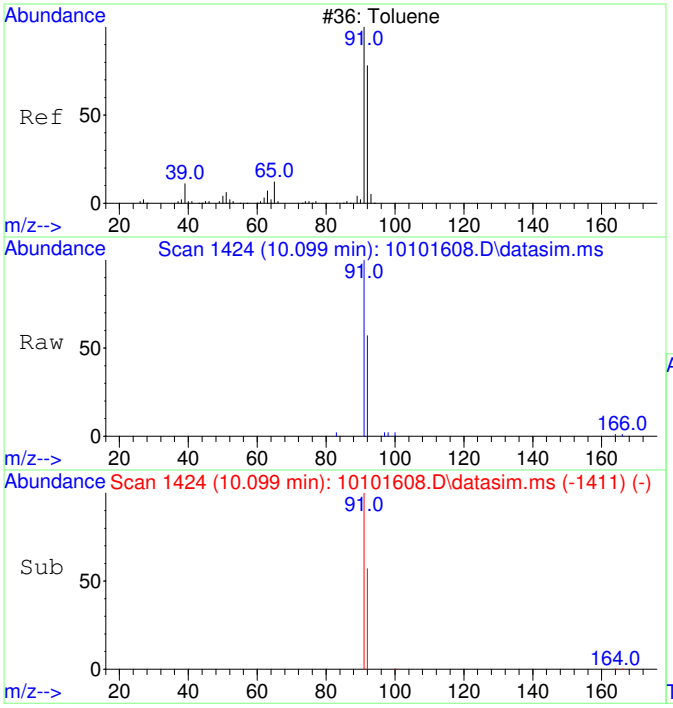


#24
Toluene-d8 SCAN
Concen: 57.66 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 98 Resp: 6790

Ion	Ratio	Lower	Upper
98	100		
100	77.0	44.3	82.3
70	25.6	7.8	14.4#

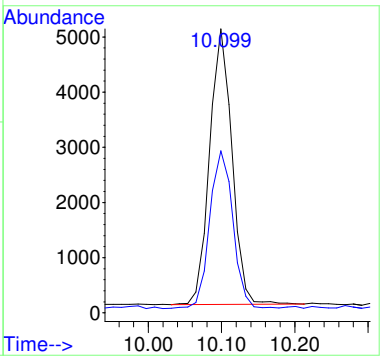


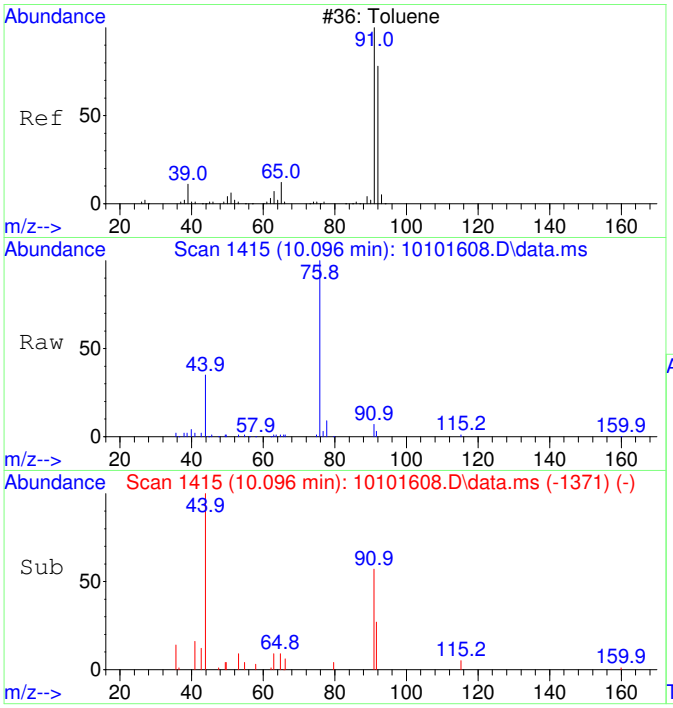


#25
Toluene
Concen: 61.09 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 10583

Ion	Ratio	Lower	Upper
91	100		
92	57.9	28.8	88.8

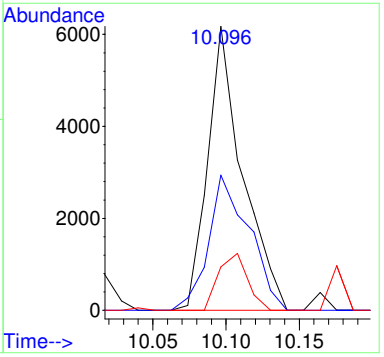


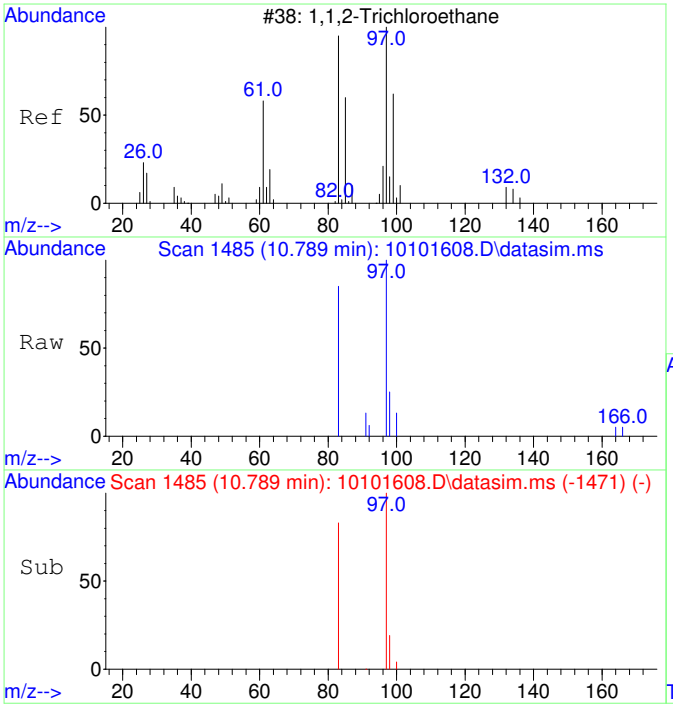


#26
Toluene SCAN
Concen: 69.22 ug/L
RT: 10.096 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 10233

Ion	Ratio	Lower	Upper
91	100		
92	55.4	30.7	90.7
65	16.7	0.0	42.6

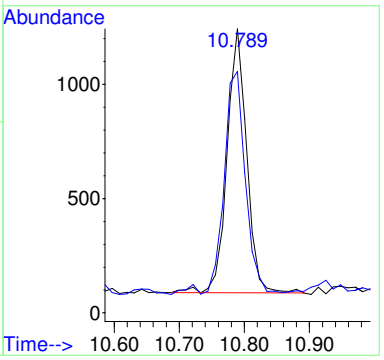


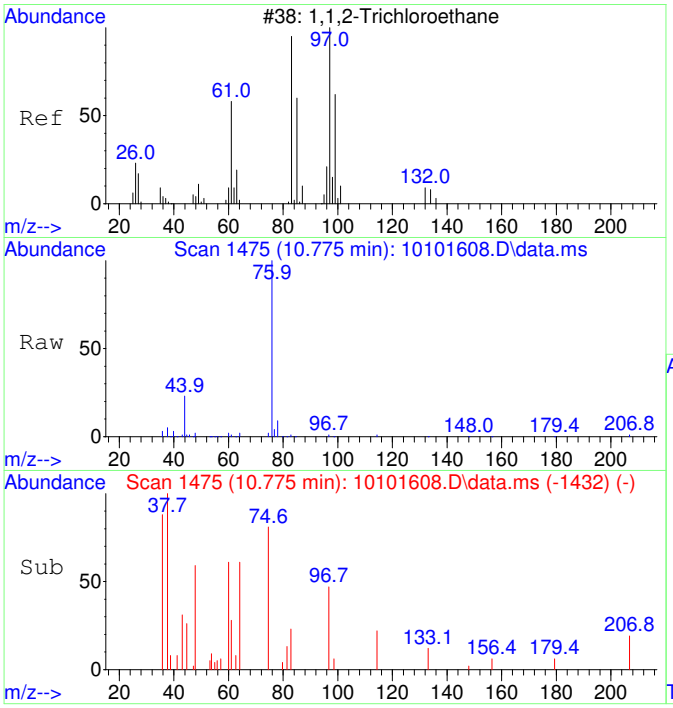


#27
1,1,2-Trichloroethane
Concen: 60.22 ug/L
RT: 10.789 min Scan# 1485
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 2435

Ion	Ratio	Lower	Upper
97	100		
83	89.7	50.5	110.5

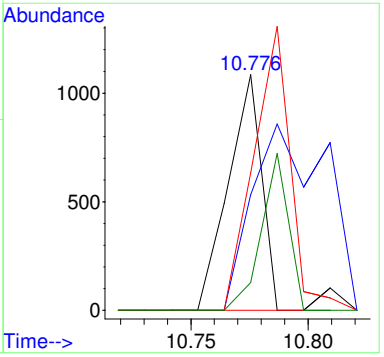


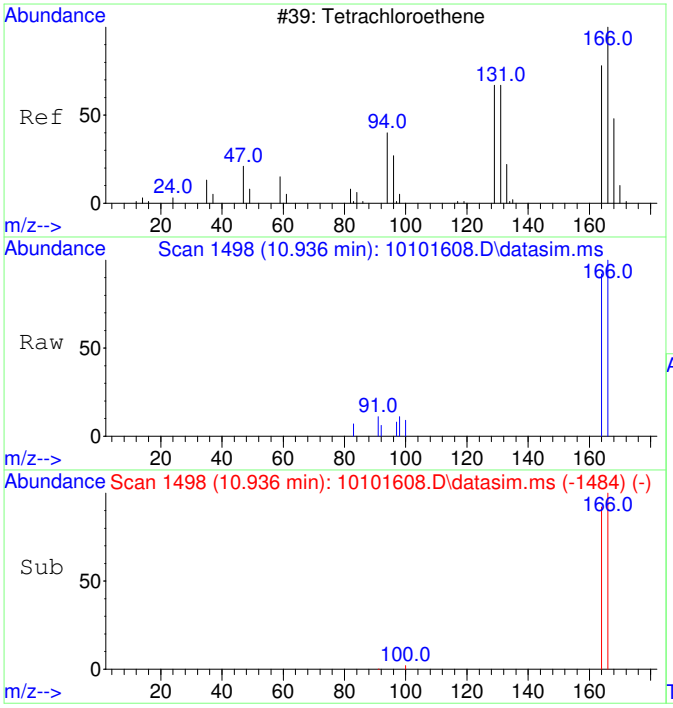


#28
1,1,2-Trichloroethane SCAN
Concen: 31.40 ug/L
RT: 10.775 min Scan# 1475
Delta R.T. -0.012 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 97 Resp: 1071

Ion	Ratio	Lower	Upper
97	100		
83	173.1	53.8	113.8#
61	132.0	31.3	91.3#
99	53.9	32.9	92.9

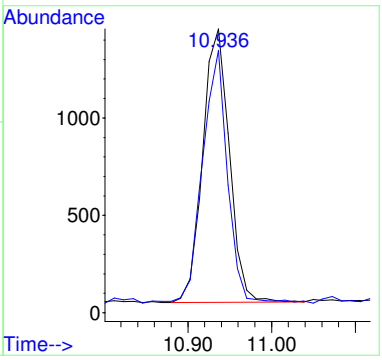


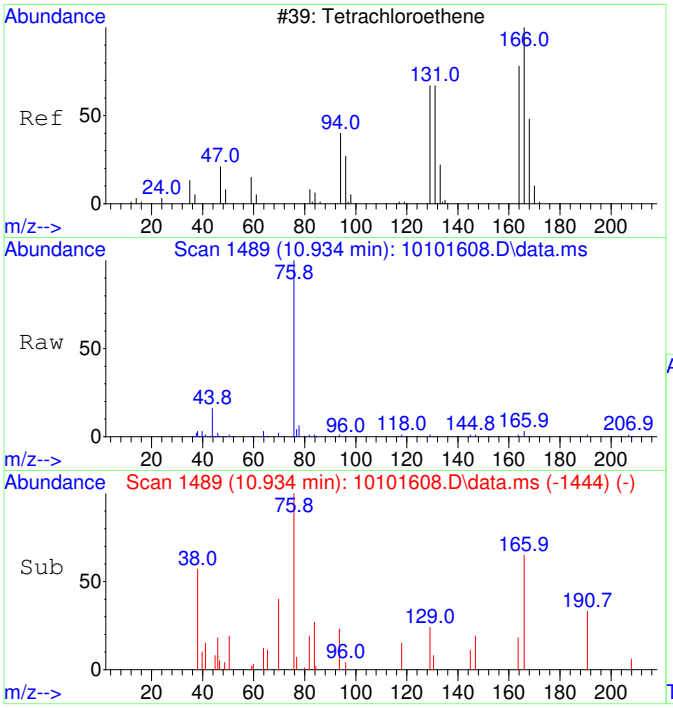


#29
Tetrachloroethene
Concen: 64.98 ug/L
RT: 10.936 min Scan# 1498
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:166 Resp: 3102

Ion	Ratio	Lower	Upper
166	100		
164	83.3	47.7	107.7

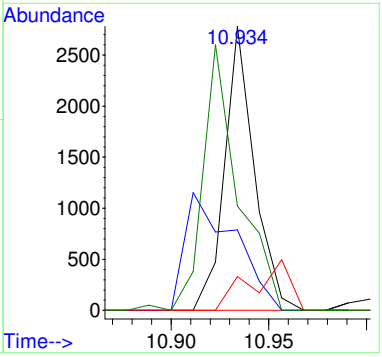


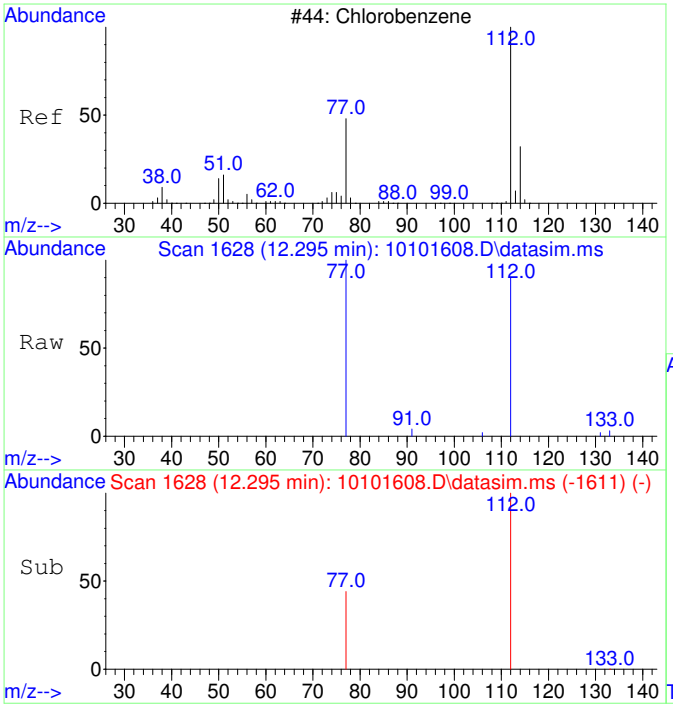


#30
Tetrachloroethene SCAN
Concen: 88.26 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. 0.011 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:166 Resp: 2947

Ion	Ratio	Lower	Upper
166	100		
164	0.0	44.9	104.9#
131	0.0	36.1	96.1#
129	110.8	40.5	100.5#

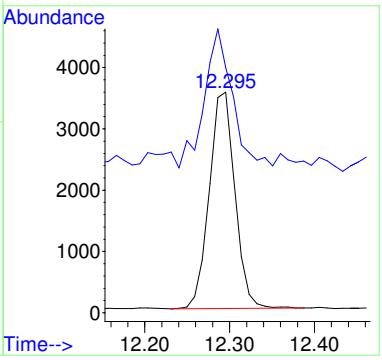


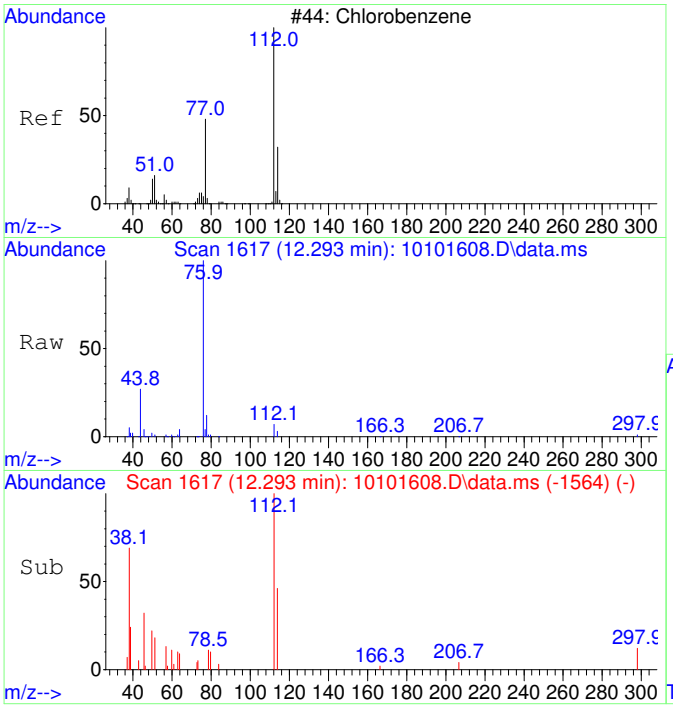


#31
Chlorobenzene
Concen: 65.13 ug/L
RT: 12.295 min Scan# 1628
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:112 Resp: 7406

Ion	Ratio	Lower	Upper
112	100		
77	68.4	25.1	85.1

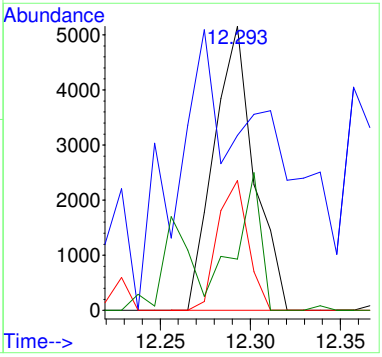


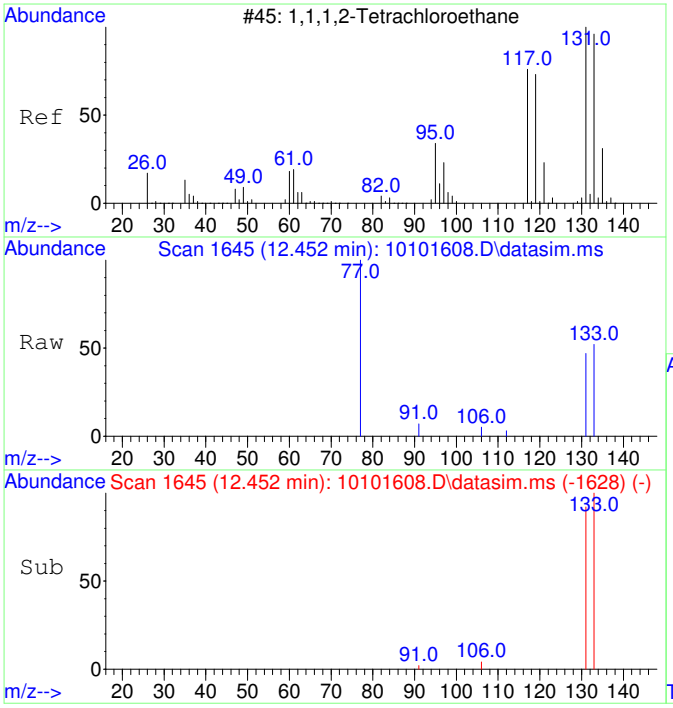


#32
Chlorobenzene SCAN
Concen: 84.44 ug/L
RT: 12.293 min Scan# 1617
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:112 Resp: 8007

Ion	Ratio	Lower	Upper
112	100		
77	0.0	23.6	83.6#
114	34.6	0.9	60.9
51	26.9	0.0	47.7

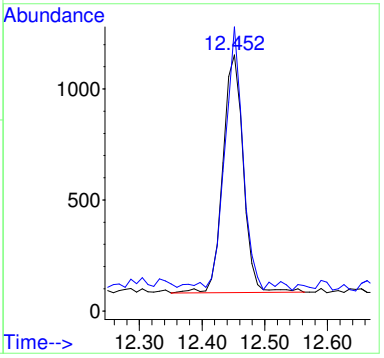


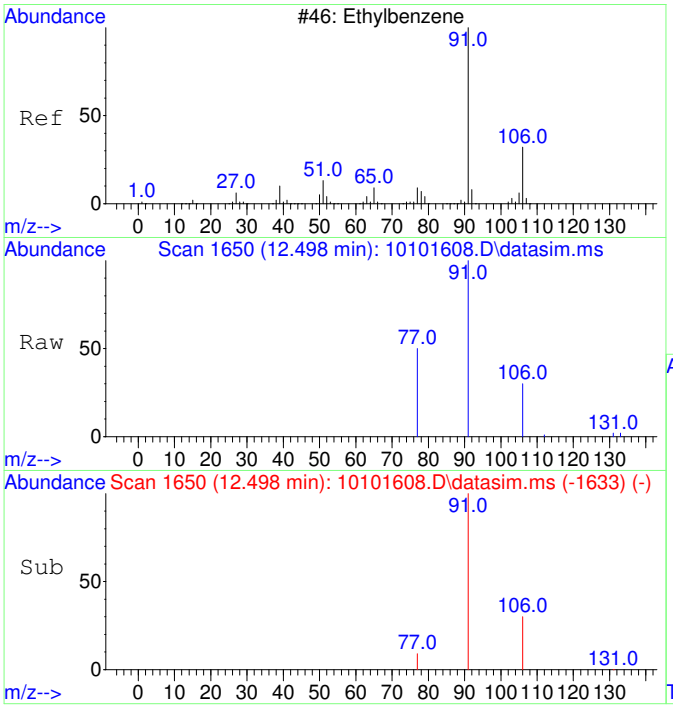


#33
1,1,1,2-Tetrachloroethane
Concen: 62.19 ug/L
RT: 12.452 min Scan# 1645
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:131 Resp: 2412

Ion	Ratio	Lower	Upper
131	100		
133	95.2	64.8	124.8

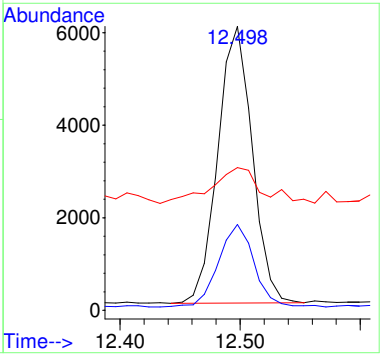


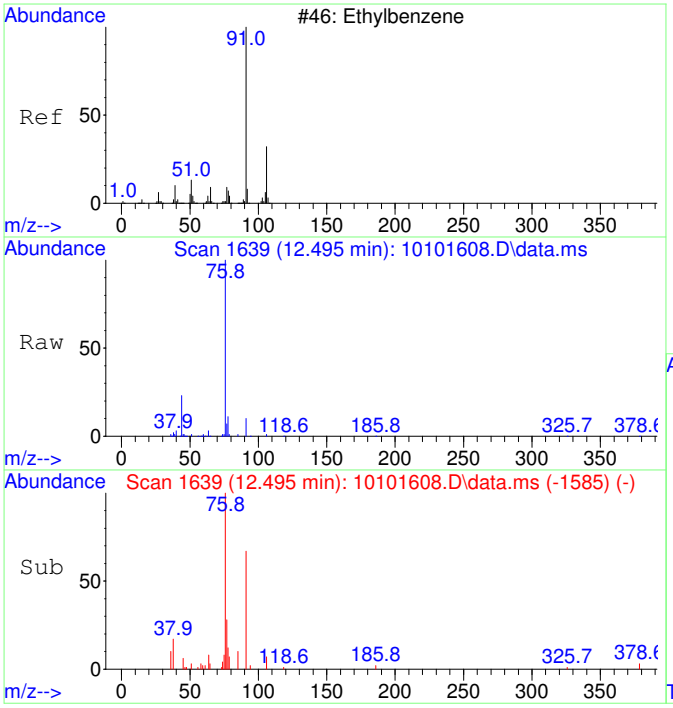


#35
Ethylbenzene
Concen: 61.93 ug/L
RT: 12.498 min Scan# 1650
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 11895

Ion	Ratio	Lower	Upper
91	100		
106	30.6	1.7	61.7
77	18.4	0.0	38.3

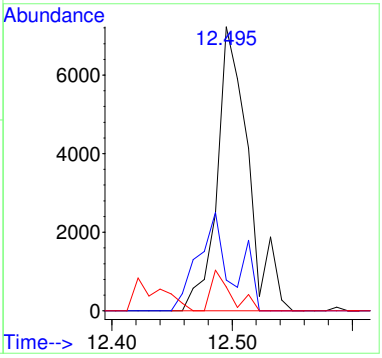


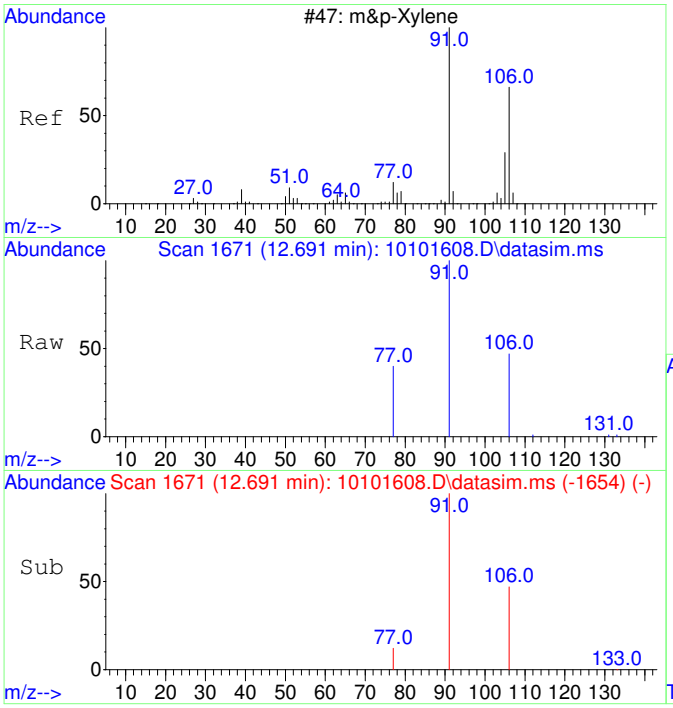


#36
Ethylbenzene SCAN
Concen: 77.62 ug/L
RT: 12.495 min Scan# 1639
Delta R.T. -0.000 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 13057

Ion	Ratio	Lower	Upper
91	100		
106	37.8	2.3	62.3
51	9.0	0.0	39.6

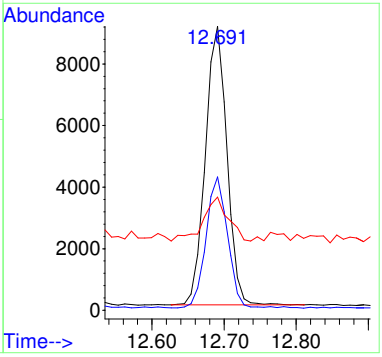


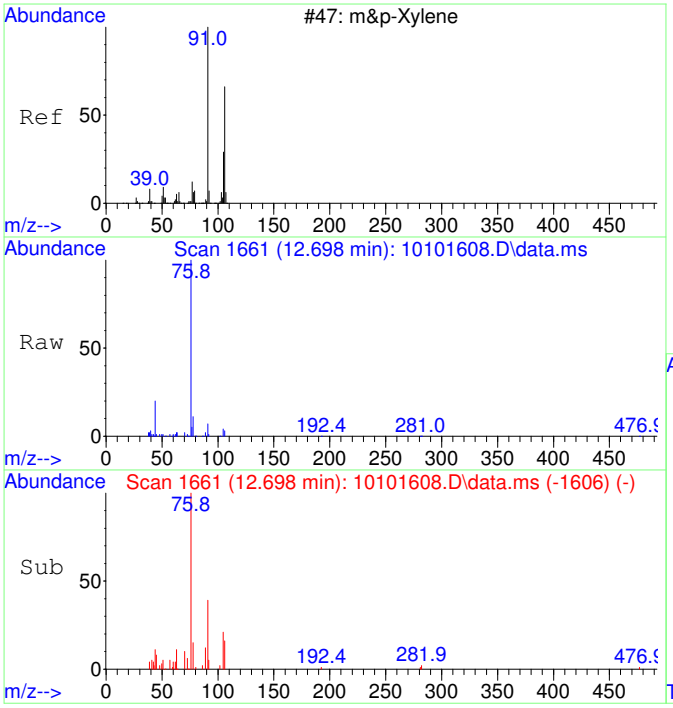


#37
m&p-Xylene
Concen: 124.53 ug/L
RT: 12.691 min Scan# 1671
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 18847

Ion	Ratio	Lower	Upper
91	100		
106	46.1	19.4	79.4
77	18.1	0.0	42.6

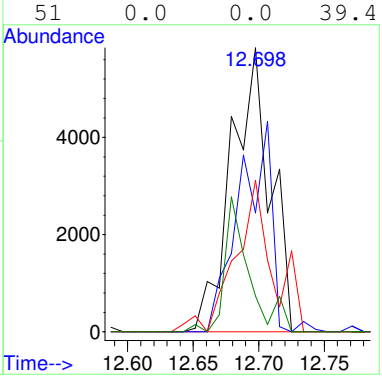


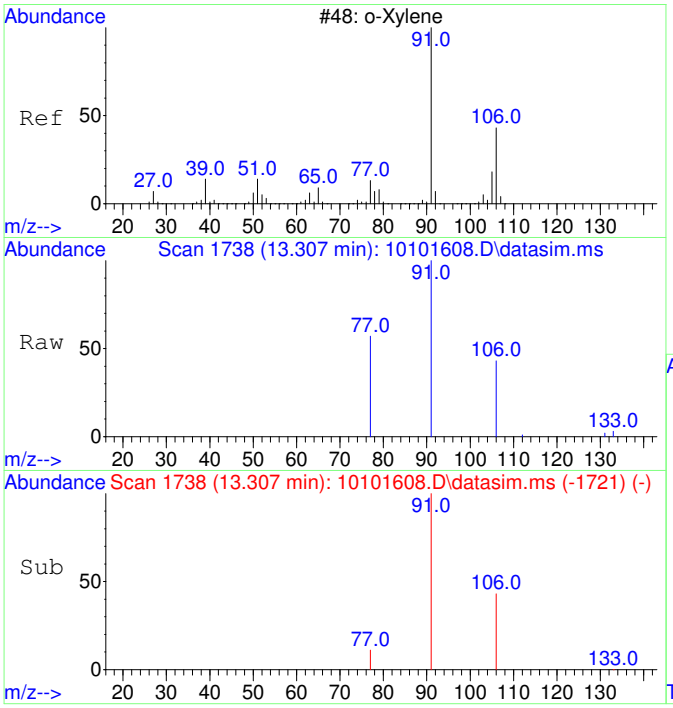


#38
m&p-Xylene SCAN
Concen: 93.19 ug/L
RT: 12.698 min Scan# 1661
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 12042

Ion	Ratio	Lower	Upper
91	100		
106	60.6	18.0	78.0
105	51.3	0.0	53.1
51	0.0	0.0	39.4

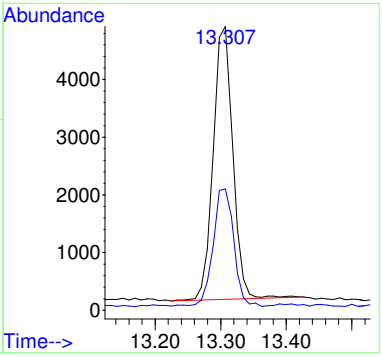


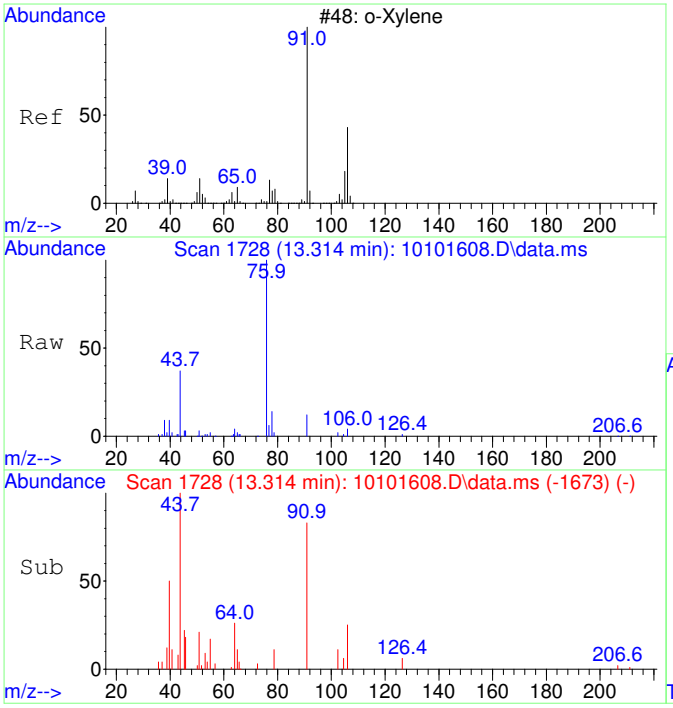


#39
o-Xylene
Concen: 63.34 ug/L
RT: 13.307 min Scan# 1738
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 9873

Ion	Ratio	Lower	Upper
91	100		
106	44.5	17.2	77.2

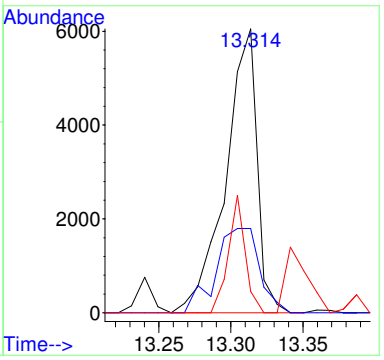


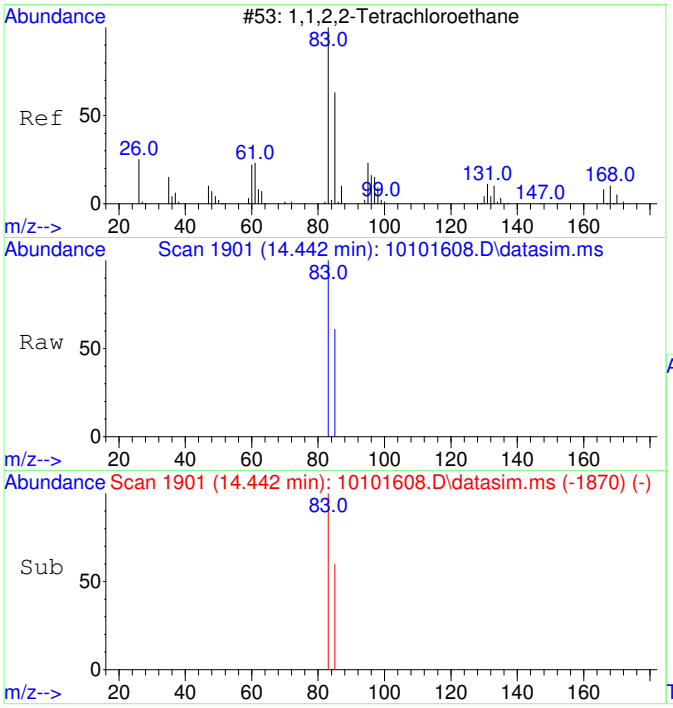


#40
o-Xylene SCAN
Concen: 65.78 ug/L
RT: 13.314 min Scan# 1728
Delta R.T. 0.009 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 91 Resp: 9200

Ion	Ratio	Lower	Upper
91	100		
106	41.4	18.0	78.0
105	22.0	0.0	56.8

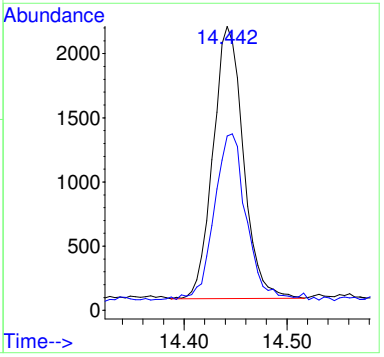


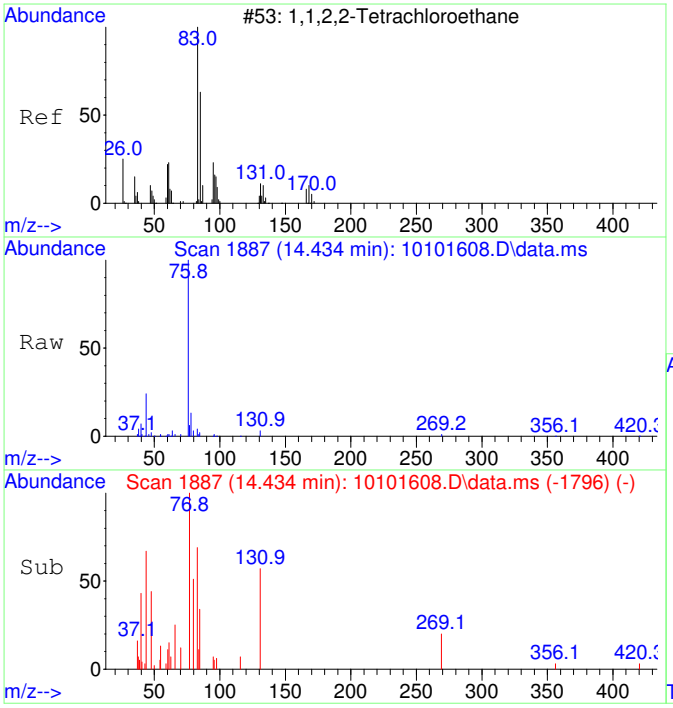


#41
1,1,2,2-Tetrachloroethane
Concen: 62.93 ug/L
RT: 14.442 min Scan# 1901
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 4333

Ion	Ratio	Lower	Upper
83	100		
85	64.6	34.4	94.4

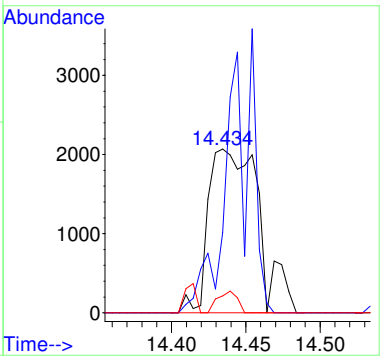


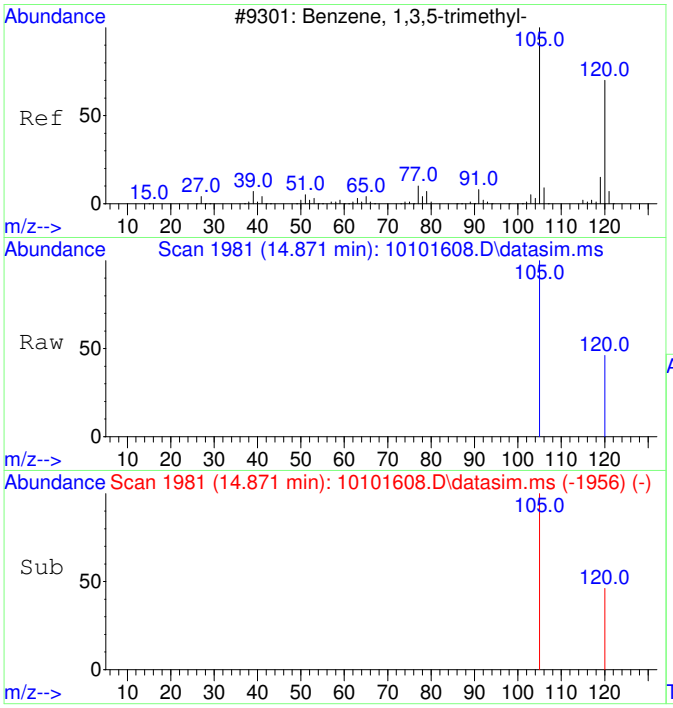


#42
1,1,2,2-Tetrachloroethane SCAN
Concen: 83.94 ug/L
RT: 14.434 min Scan# 1887
Delta R.T. -0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion: 83 Resp: 4941

Ion	Ratio	Lower	Upper
83	100		
85	85.2	33.2	93.2
95	5.2	0.0	47.2

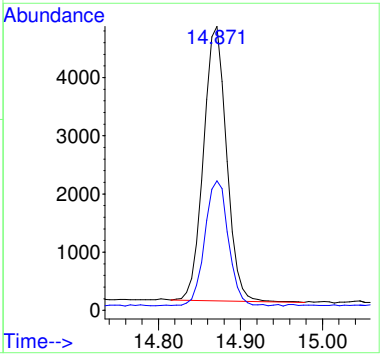


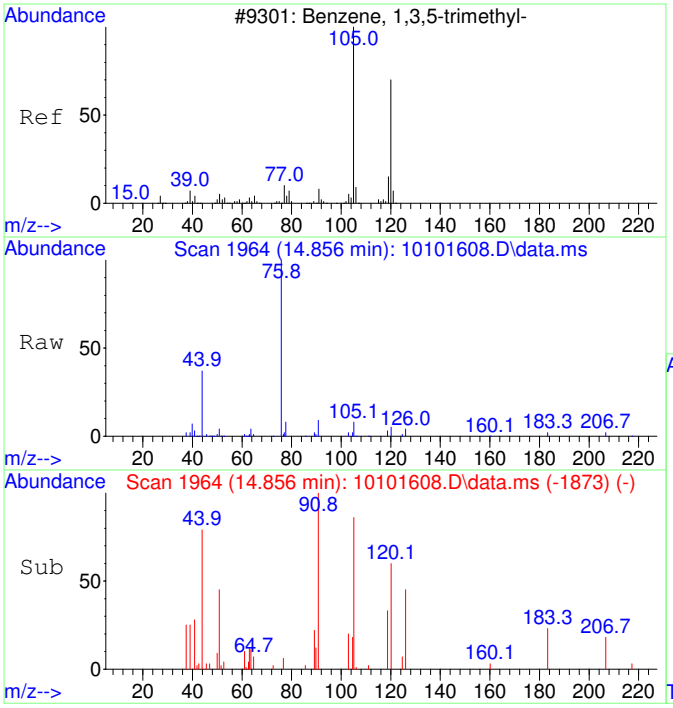


#43
1,3,5-Trimethylbenzene
Concen: 60.48 ug/L
RT: 14.871 min Scan# 1981
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 9210

Ion	Ratio	Lower	Upper
105	100		
120	46.5	19.7	79.7

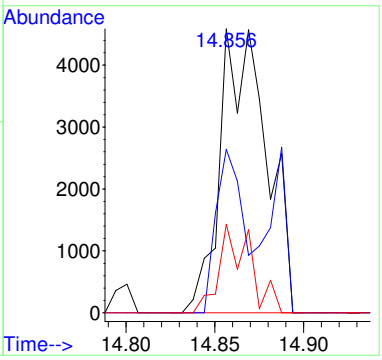


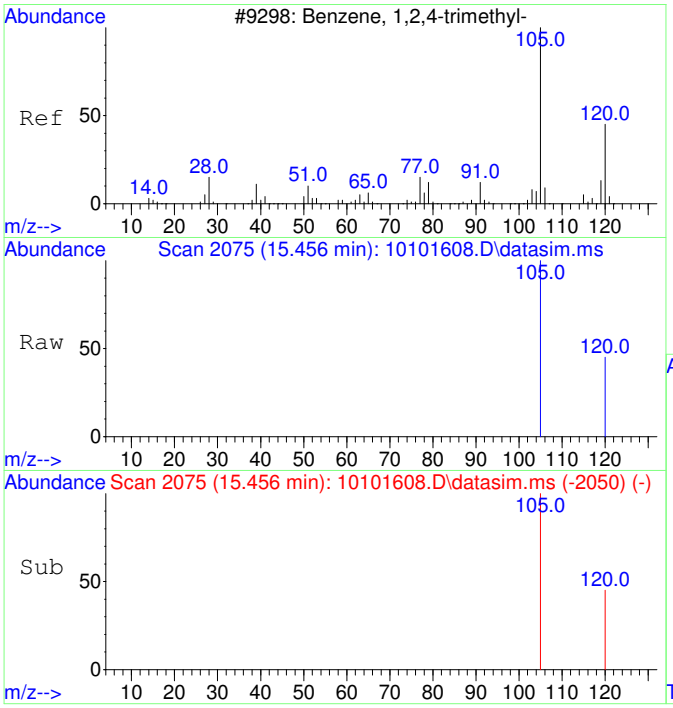


#44
1,3,5-Trimethylbenzene SCAN
Concen: 63.61 ug/L
RT: 14.856 min Scan# 1964
Delta R.T. -0.007 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 8350

Ion	Ratio	Lower	Upper
105	100		
120	25.4	22.1	82.1
119	20.8	0.0	42.9

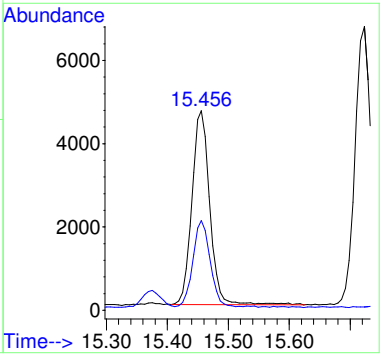


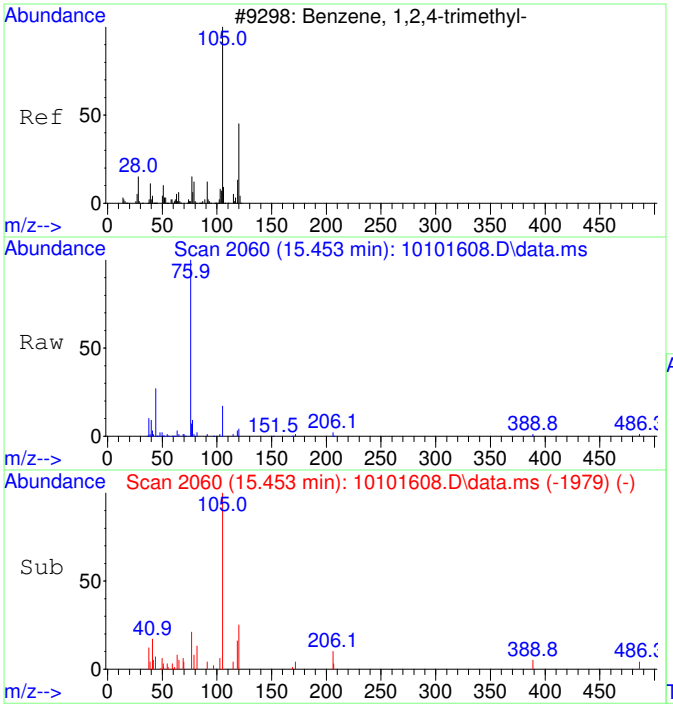


#45
1,2,4-Trimethylbenzene
Concen: 60.63 ug/L
RT: 15.456 min Scan# 2075
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 9456

Ion	Ratio	Lower	Upper
105	100		
120	42.4	15.7	75.7

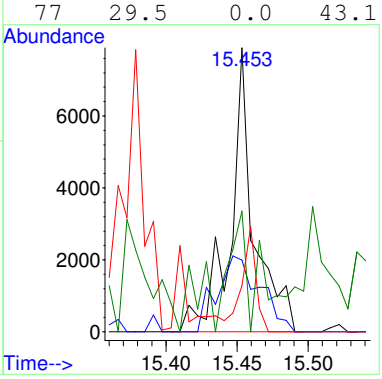


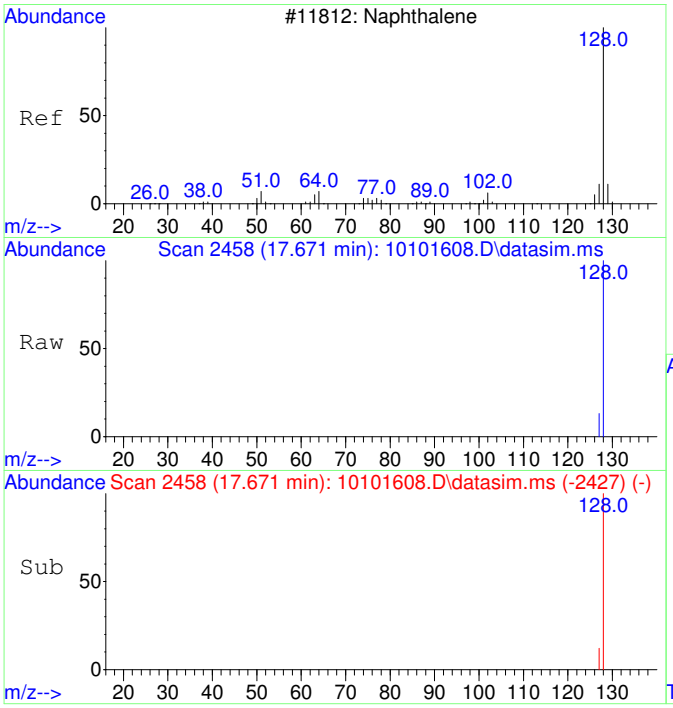


#46
1,2,4-Trimethylbenzene SCAN
Concen: 67.53 ug/L
RT: 15.453 min Scan# 2060
Delta R.T. 0.006 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:105 Resp: 9092

Ion	Ratio	Lower	Upper
105	100		
120	48.7	17.2	77.2
119	18.9	0.0	41.3
77	29.5	0.0	43.1

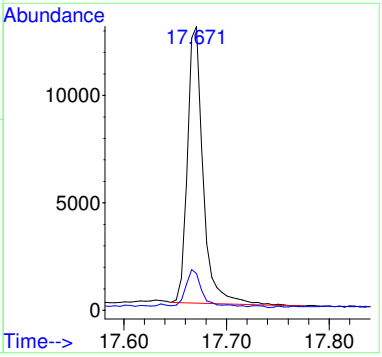


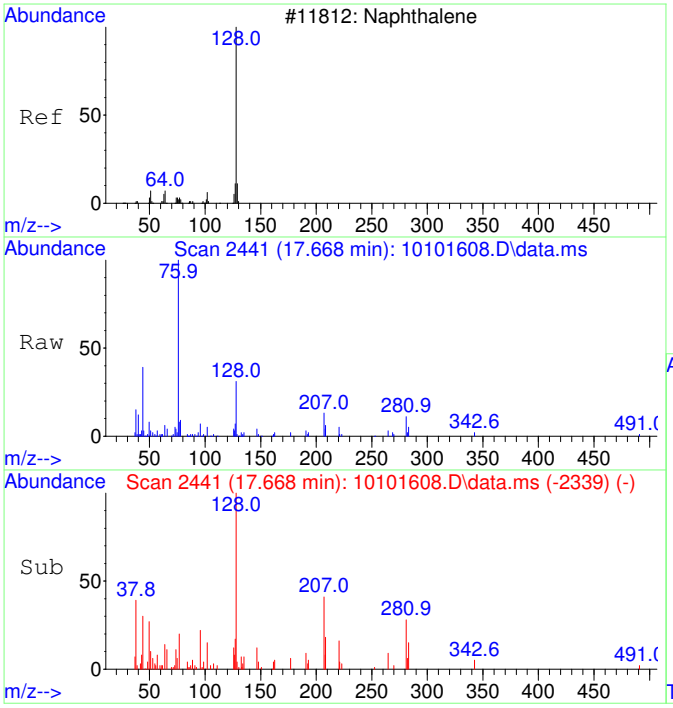


#47
Naphthalene
Concen: 60.63 ug/L
RT: 17.671 min Scan# 2458
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:128 Resp: 13763

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	42.6

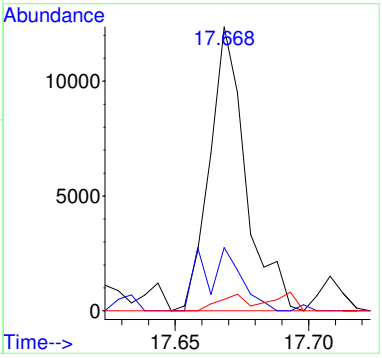




#48
Naphthalene SCAN
Concen: 63.67 ug/L
RT: 17.668 min Scan# 2441
Delta R.T. 0.005 min
Lab File: 10101608.D
Acq: 10 Oct 2016 16:34

Tgt Ion:128 Resp: 11658

Ion	Ratio	Lower	Upper
128	100		
127	23.3	0.0	43.1
129	3.4	0.0	41.0



S16J050-SCV1

SCV REPORT

Instrument Name: AG5975C
Sample Name: S16J050-SCV1
Misc Info: 1635078 5 mg/L
Date Acquired: 10/10/2016
QLast Update: Tue Oct 11 10:17:32 2016
Operator: RH

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	Fluorobenzene	7.482	5000	5000.00	100%	70	130	pass
3)	1,1-Dichloroethene	2.723	5000	4195.89	84%	70	130	pass
5)	trans-1,2-Dichloroethene	3.841	5000	4238.64	85%	70	130	pass
7)	1,1-Dichloroethane	4.535	5000	4498.29	90%	70	130	pass
9)	cis-1,2-Dichloroethene	5.561	5000	4577.55	92%	70	130	pass
11)	Chloroform	6.155	5000	4636.93	93%	70	130	pass
13)	1,1,1-Trichloroethane	6.384	5000	5246.17	105%	70	130	pass
15)	Carbon tetrachloride	6.638	5000	5301.26	106%	70	130	pass
17)	Benzene	6.987	5000	5231.37	105%	70	130	pass
19)	1,2-Dichloroethane	7.068	5000	4916.10	98%	70	130	pass
21)	Trichloroethene	8.068	5000	5250.07	105%	70	130	pass
23)	Toluene-d8	9.997	5000	5526.71	111%	70	130	pass
25)	Toluene	10.099	5000	5555.30	111%	70	130	pass
27)	1,1,2-Trichloroethane	10.789	5000	5488.42	110%	70	130	pass
29)	Tetrachloroethene	10.936	5000	5413.99	108%	70	130	pass
31)	Chlorobenzene	12.286	5000	5537.29	111%	70	130	pass
33)	1,1,1,2-Tetrachloroethane	12.452	5000	5661.69	113%	70	130	pass
35)	Ethylbenzene	12.498	5000	5597.70	112%	70	130	pass
37)	m&p-Xylene	12.691	10000	11317.25	113%	70	130	pass
39)	o-Xylene	13.307	5000	5559.10	111%	70	130	pass
41)	1,1,2,2-Tetrachloroethane	14.442	5000	5641.51	113%	70	130	pass
43)	1,3,5-Trimethylbenzene	14.871	5000	5774.21	115%	70	130	pass
45)	1,2,4-Trimethylbenzene	15.456	5000	5577.80	112%	70	130	pass
47)	Naphthalene	17.666	5000	5749.08	115%	70	130	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101609.D
Acq On : 10 Oct 2016 16:58
InstName : AG5975C
Operator : RH
Sample : S16J050-SCV1
Misc : 1635078 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 11 10:18:39 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration

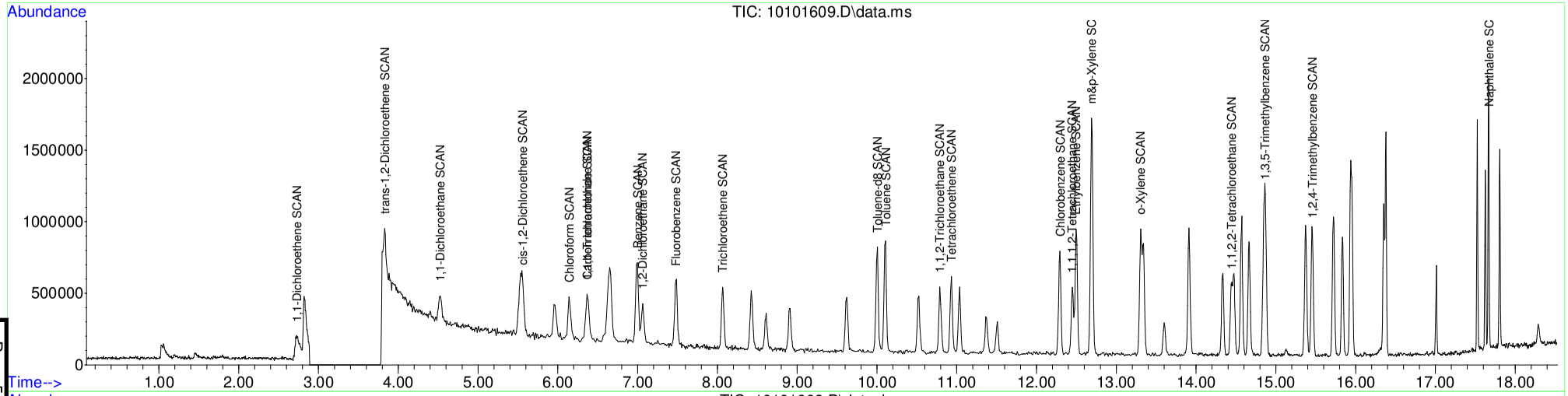
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	7.482	96	594075	5000.00 ug/L	0.00
System Monitoring Compounds					
23) Toluene-d8	9.997	98	637325	5526.71 ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 110.53%		
Target Compounds					Qvalue
2) Fluorobenzene SCAN	7.480	96	459761	4965.70 ug/L	96
3] 1,1-Dichloroethene	2.728	61	299186	4195.89 ug/L	100
4) 1,1-Dichloroethene SCAN	2.735	61	249691	4932.68 ug/L #	100
5] trans-1,2-Dichloroethene	3.825	61	259264	4238.64 ug/L	100
6) trans-1,2-Dichloroethe...	3.830	61	195264	4736.48 ug/L	95
7] 1,1-Dichloroethane	4.527	63	352002	4498.29 ug/L	100
8) 1,1-Dichloroethane SCAN	4.524	63	277030	4932.01 ug/L	99
9] cis-1,2-Dichloroethene	5.552	61	335155	4577.55 ug/L	100
10) cis-1,2-Dichloroethene...	5.558	61	276542	4996.03 ug/L	93
11] Chloroform	6.142	83	333509	4636.93 ug/L	99
12) Chloroform SCAN	6.139	83	268787	5253.71 ug/L	96
13] 1,1,1-Trichloroethane	6.370	97	346614	5246.17 ug/L	100
14) 1,1,1-Trichloroethane ...	6.367	97	277863	5310.60 ug/L	91
15] Carbon tetrachloride	6.638	117	302159	5301.26 ug/L	100
16) Carbon tetrachloride SCAN	6.367	117	35511	5486.76 ug/L #	73
17] Benzene	6.987	78	747592	5231.37 ug/L	100
18) Benzene SCAN	6.998	78	626049	5510.95 ug/L	92
19] 1,2-Dichloroethane	7.054	62	315719	4916.10 ug/L	99
20) 1,2-Dichloroethane SCAN	7.065	62	261469	4773.61 ug/L	98
21] Trichloroethene	8.068	130	200988	5250.07 ug/L	99
22) Trichloroethene SCAN	8.065	95	159855	5373.68 ug/L	95
24) Toluene-d8 SCAN	10.006	98	529363	5369.32 ug/L	99
25] Toluene	10.099	91	805692	5555.30 ug/L	99
26) Toluene SCAN	10.107	91	640251	5173.07 ug/L	97
27] 1,1,2-Trichloroethane	10.789	97	185790	5488.42 ug/L	100
28) 1,1,2-Trichloroethane ...	10.786	97	148060	5184.33 ug/L	93
29] Tetrachloroethene	10.936	166	216375	5413.99 ug/L	99
30) Tetrachloroethene SCAN	10.934	166	154668	5532.99 ug/L	91
31] Chlorobenzene	12.286	112	527144	5537.29 ug/L	100
32) Chlorobenzene SCAN	12.293	112	393081	4951.28 ug/L	93
33] 1,1,1,2-Tetrachloroethane	12.451	131	183841	5661.69 ug/L	99
34) 1,1,1,2-Tetrachloroeth...	12.449	131	144203	5236.43 ug/L	94
35] Ethylbenzene	12.497	91	900140	5597.70 ug/L	100
36) Ethylbenzene SCAN	12.495	91	718350	5100.52 ug/L	98
37] m&p-Xylene	12.691	91	1433948	11317.25 ug/L	100
38) m&p-Xylene SCAN	12.688	91	1117766	10332.05 ug/L	98
39] o-Xylene	13.307	91	725488	5559.10 ug/L	100
40) o-Xylene SCAN	13.304	91	557985	4765.59 ug/L	94
41] 1,1,2,2-Tetrachloroethane	14.442	83	325197	5641.51 ug/L	100
42) 1,1,2,2-Tetrachloroeth...	14.439	83	261847	5313.14 ug/L	97
43] 1,3,5-Trimethylbenzene	14.871	105	736115	5774.21 ug/L	100
44) 1,3,5-Trimethylbenzene...	14.869	105	566449	5154.30 ug/L	96
45] 1,2,4-Trimethylbenzene	15.456	105	728276	5577.80 ug/L	100
46) 1,2,4-Trimethylbenzene...	15.459	105	563475	4998.54 ug/L	96
47] Naphthalene	17.666	128	1092579	5749.08 ug/L	100
48) Naphthalene SCAN	17.668	128	766464	5000.18 ug/L	98

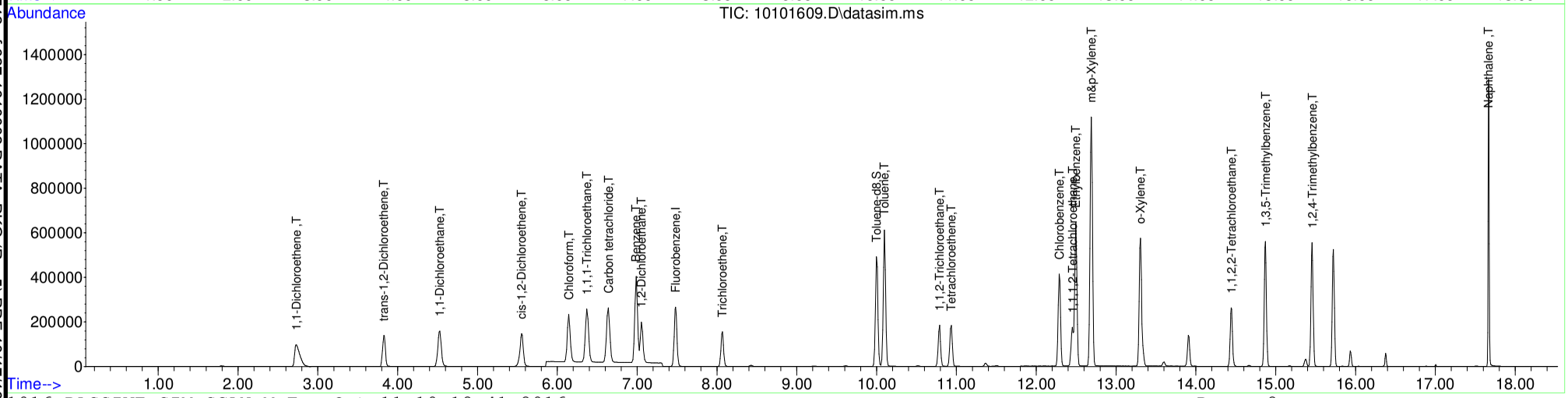
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101609.D
Acq On : 10 Oct 2016 16:58
InstName : AG5975C
Operator : RH
Sample : S16J050-SCV1
Misc : 1635078 5 mg/L
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 11 10:18:39 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration





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1610002-05RE1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101610.D
Acq On : 10 Oct 2016 17:22
InstName : AG5975C
Operator : RH
Sample : 1610002-05RE1
Misc : 20 UL - 180 UL
ALS Vial : 10 Sample Multiplier: 10

Quant Time: Oct 11 10:24:50 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration

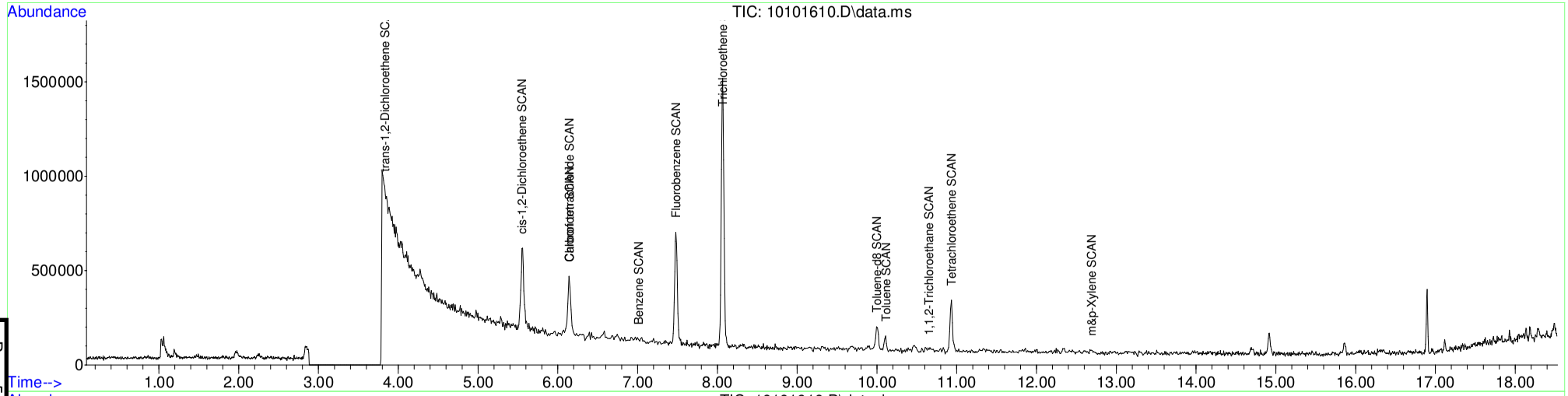
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) Fluorobenzene	7.482	96	766542	5000.00 ug/L	0.00	
System Monitoring Compounds						
23) Toluene-d8	9.997	98	125234	841.65 ug/L	0.00	
Spiked Amount 5000.000 Range 70 - 130 Recovery = 16.83%#						
Target Compounds					Qvalue	
2) Fluorobenzene SCAN	7.480	96	575537	4817.56 ug/L	97	
5] trans-1,2-Dichloroethene	3.825	61	16434	208.23 ug/L	93	
6) trans-1,2-Dichloroethe...	3.830	61	15804	297.10 ug/L	96	
9] cis-1,2-Dichloroethene	5.553	61	440651	4664.31 ug/L	100	REPORT
10) cis-1,2-Dichloroethene...	5.550	61	351108	4915.98 ug/L	91	
11] Chloroform	6.142	83	347135	3740.48 ug/L	99	REPORT
12) Chloroform SCAN	6.140	83	289175	4380.50 ug/L	93	
15] Carbon tetrachloride	6.625	117	2491	33.87 ug/L	97	
16) Carbon tetrachloride SCAN	6.140	117	4672	559.45 ug/L #	9	
17] Benzene	6.987	78	7652	41.50 ug/L	53	
18) Benzene SCAN	7.012	78	11703	79.84 ug/L #	64	
21] Trichloroethene	8.068	130	690180	13972.14 ug/L	99	REPORT
22) Trichloroethene SCAN	8.065	95	549493	14315.71 ug/L	93	
24) Toluene-d8 SCAN	9.995	98	99419	781.52 ug/L #	91	
25] Toluene	10.099	91	61147	326.75 ug/L	99	
26) Toluene SCAN	10.108	91	58124	363.96 ug/L	96	
28) 1,1,2-Trichloroethane ...	10.651	97	5973	162.09 ug/L #	19	
29] Tetrachloroethene	10.936	166	113743	2205.67 ug/L	100	
30) Tetrachloroethene SCAN	10.934	166	79541	2205.24 ug/L	93	
38) m&p-Xylene SCAN	12.688	91	3936	28.20 ug/L #	87	

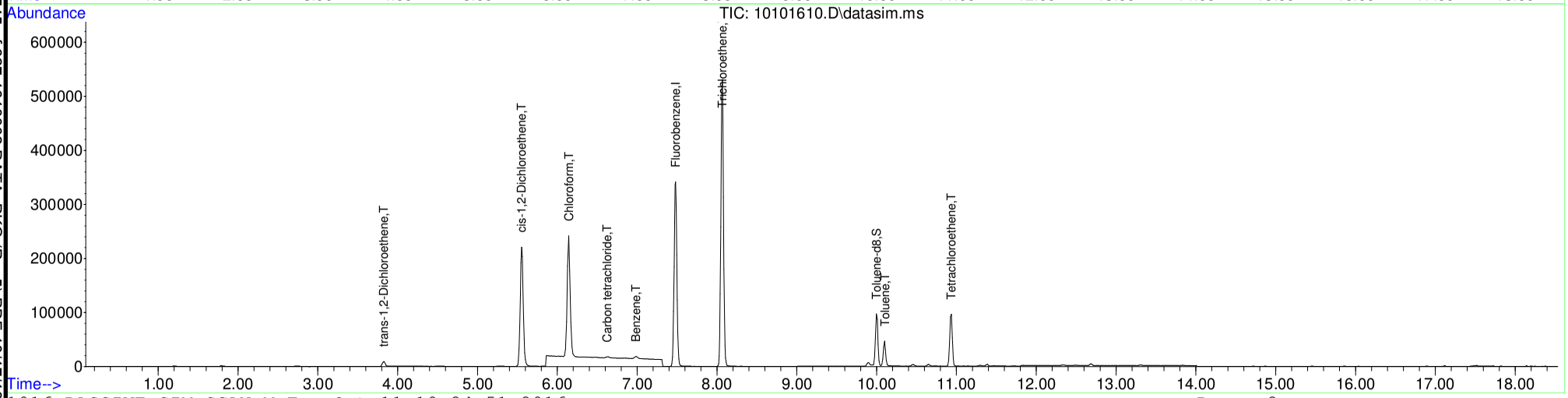
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101610.D
Acq On : 10 Oct 2016 17:22
InstName : AG5975C
Operator : RH
Sample : 1610002-05RE1
Misc : 20 UL - 180 UL
ALS Vial : 10 Sample Multiplier: 10

Quant Time: Oct 11 10:24:50 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration





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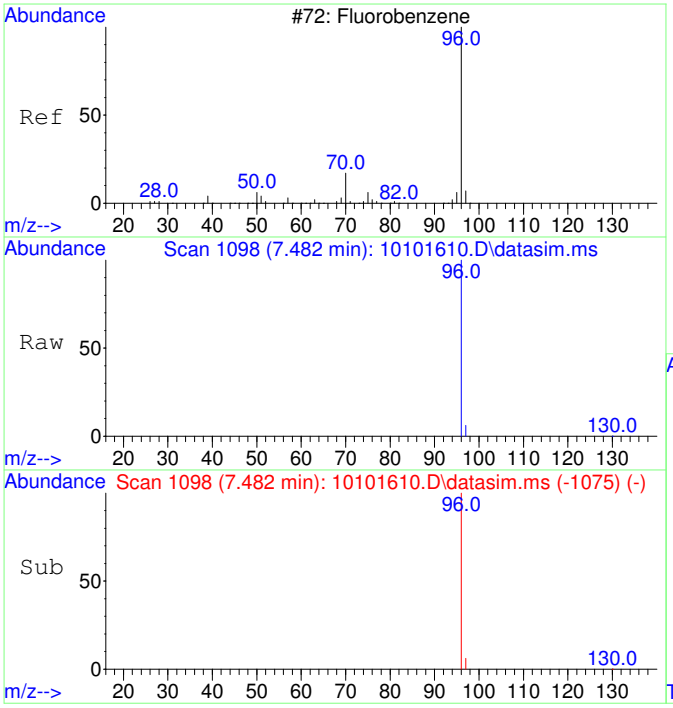
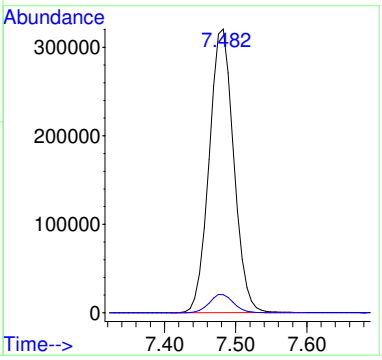
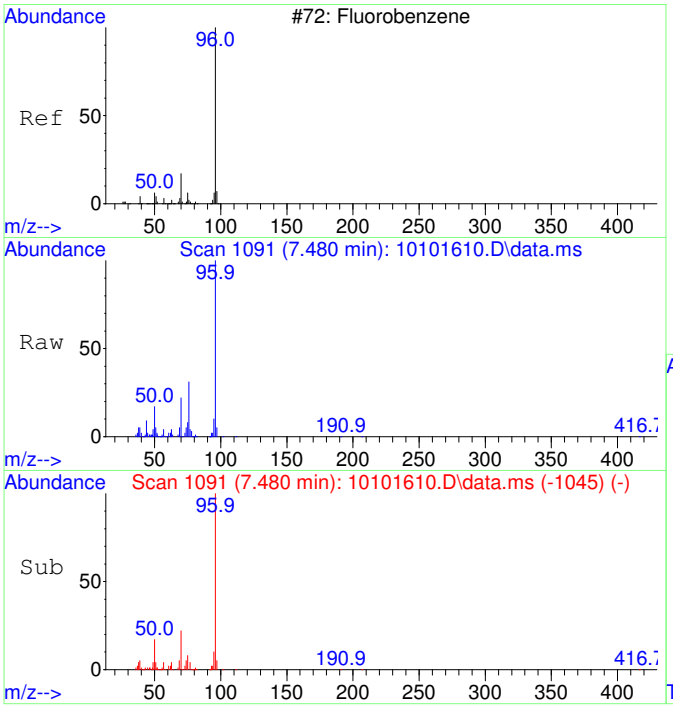


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 96 Resp: 766542

Ion	Ratio	Lower	Upper
96	100		
97	6.5	0.0	36.3

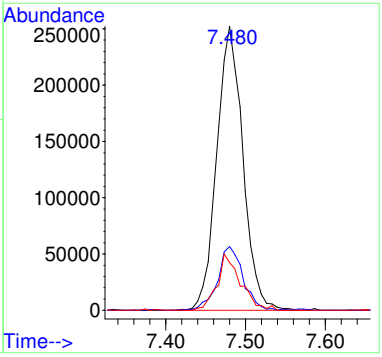


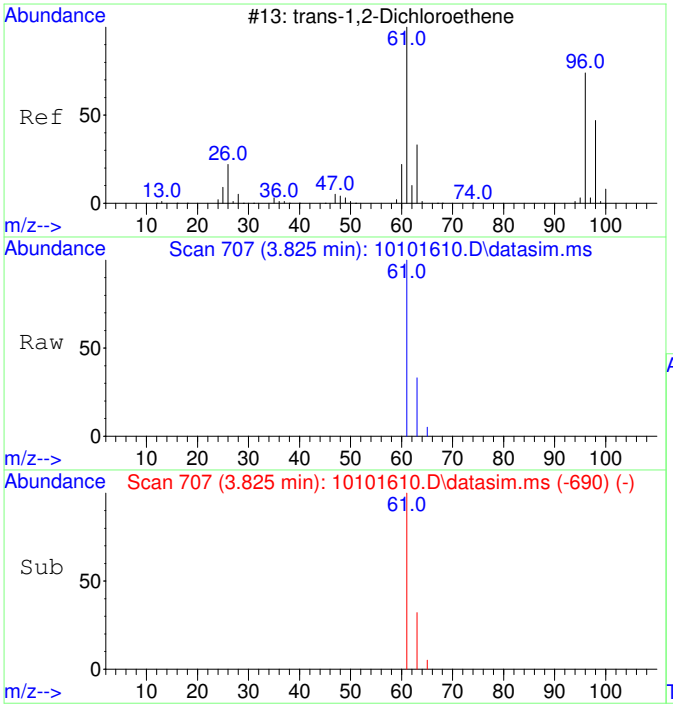


#2
Fluorobenzene SCAN
Concen: 4817.56 ug/L
RT: 7.480 min Scan# 1091
Delta R.T. -0.013 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 96 Resp: 575537

Ion	Ratio	Lower	Upper
96	100		
70	21.7	0.0	51.3
50	17.7	0.0	44.7

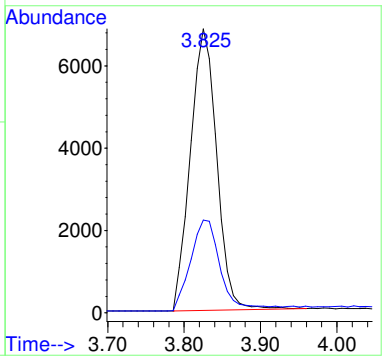


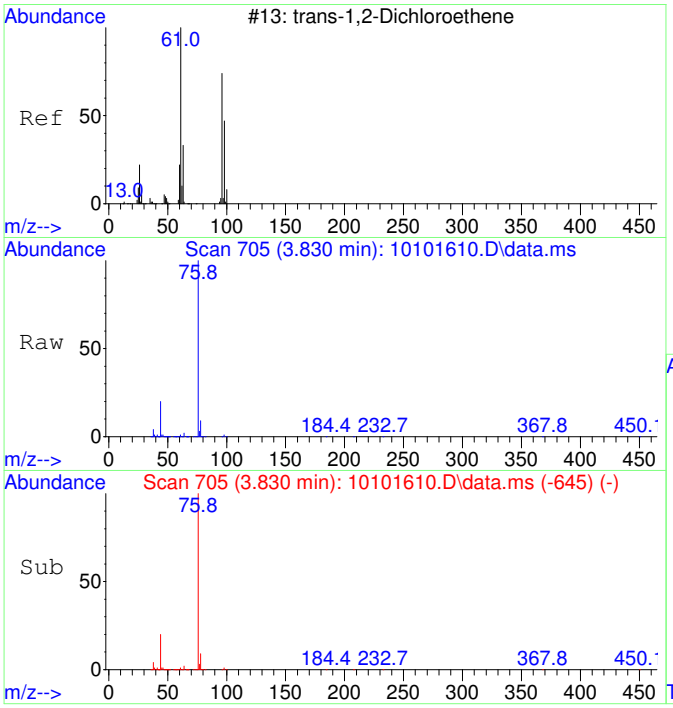


#5
trans-1,2-Dichloroethene
Concen: 208.23 ug/L
RT: 3.825 min Scan# 707
Delta R.T. -0.016 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 61 Resp: 16434

Ion	Ratio	Lower	Upper
61	100		
63	35.1	1.4	61.4

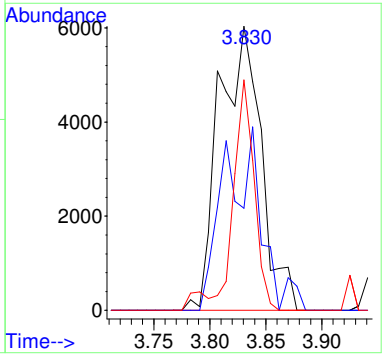


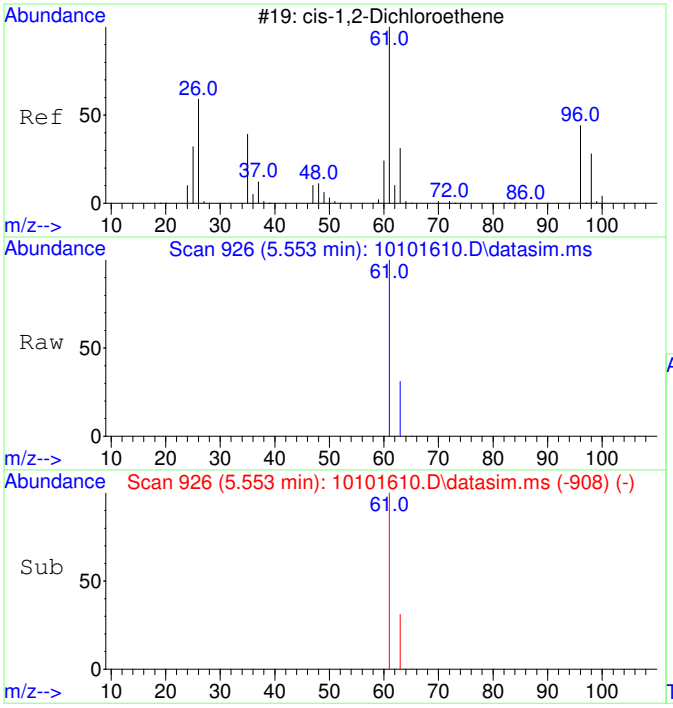


#6
trans-1,2-Dichloroethene SCAN
Concen: 297.10 ug/L
RT: 3.830 min Scan# 705
Delta R.T. -0.024 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 61 Resp: 15804

Ion	Ratio	Lower	Upper
61	100		
96	57.0	28.8	88.8
98	35.9	9.6	69.6

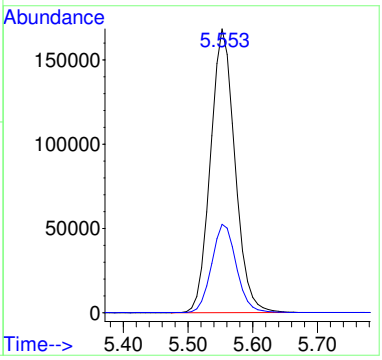


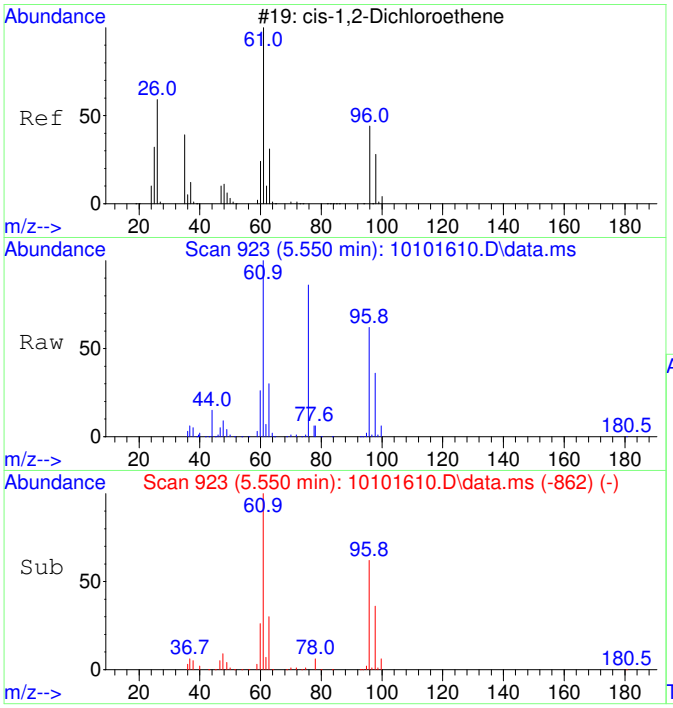


#9
cis-1,2-Dichloroethene
Concen: 4664.31 ug/L
RT: 5.553 min Scan# 926
Delta R.T. -0.008 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 61 Resp: 440651

Ion	Ratio	Lower	Upper
61	100		
63	31.4	1.4	61.4

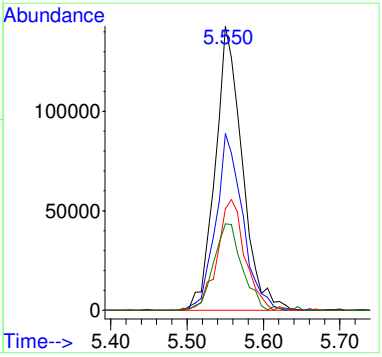


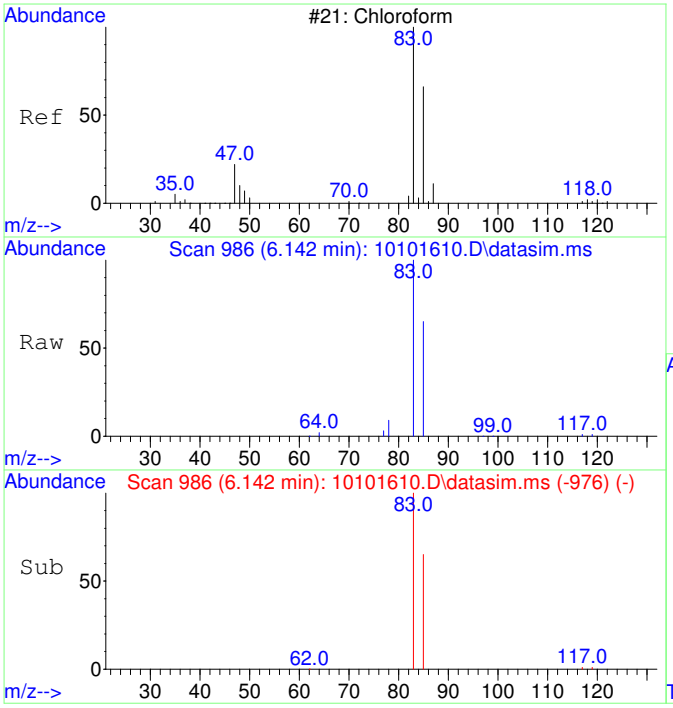


#10
cis-1,2-Dichloroethene SCAN
Concen: 4915.98 ug/L
RT: 5.550 min Scan# 923
Delta R.T. -0.016 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 61 Resp: 351108

Ion	Ratio	Lower	Upper
61	100		
96	61.8	23.1	83.1
98	39.6	4.7	64.7
63	31.7	4.6	64.6

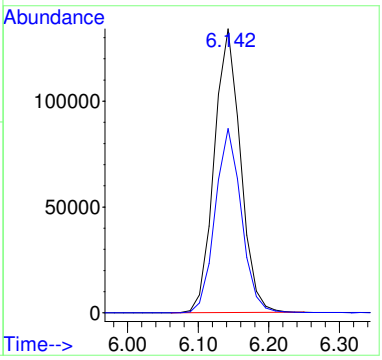


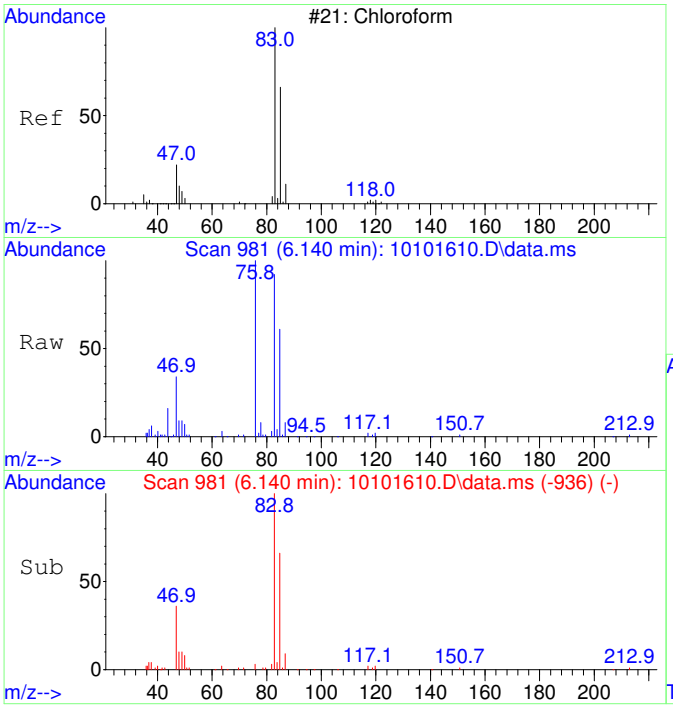


#11
Chloroform
Concen: 3740.48 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.013 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 83 Resp: 347135

Ion	Ratio	Lower	Upper
83	100		
85	64.5	33.6	93.6

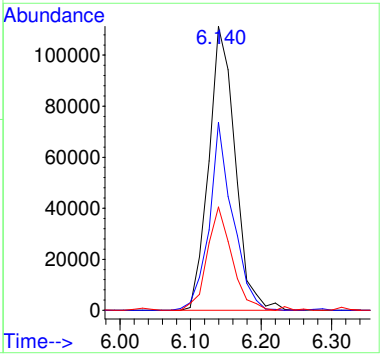


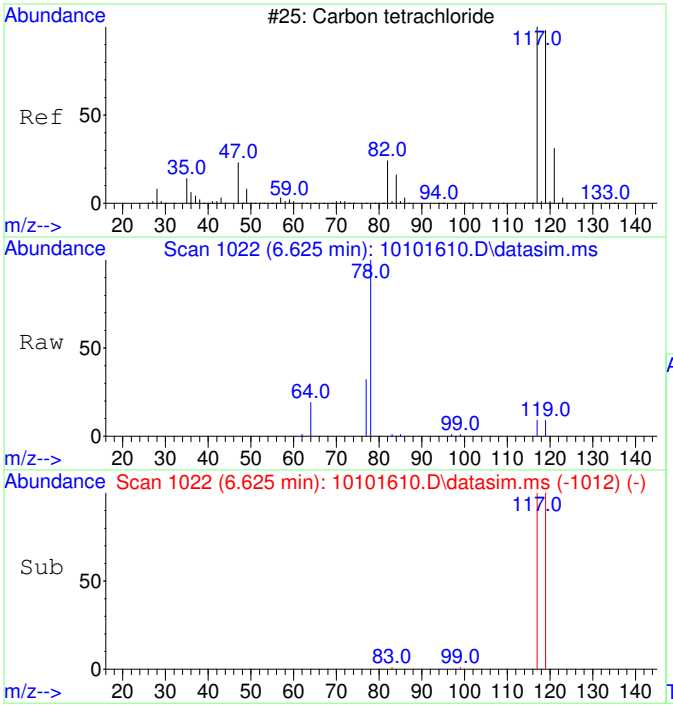


#12
Chloroform SCAN
Concen: 4380.50 ug/L
RT: 6.140 min Scan# 981
Delta R.T. -0.013 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 83 Resp: 289175

Ion	Ratio	Lower	Upper
83	100		
85	58.8	36.6	96.6
47	34.2	4.1	64.1

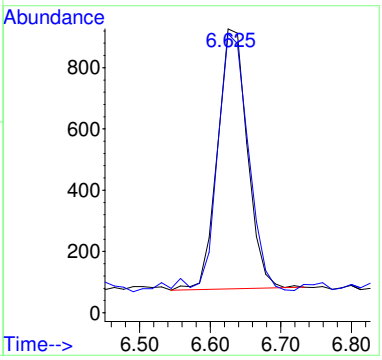


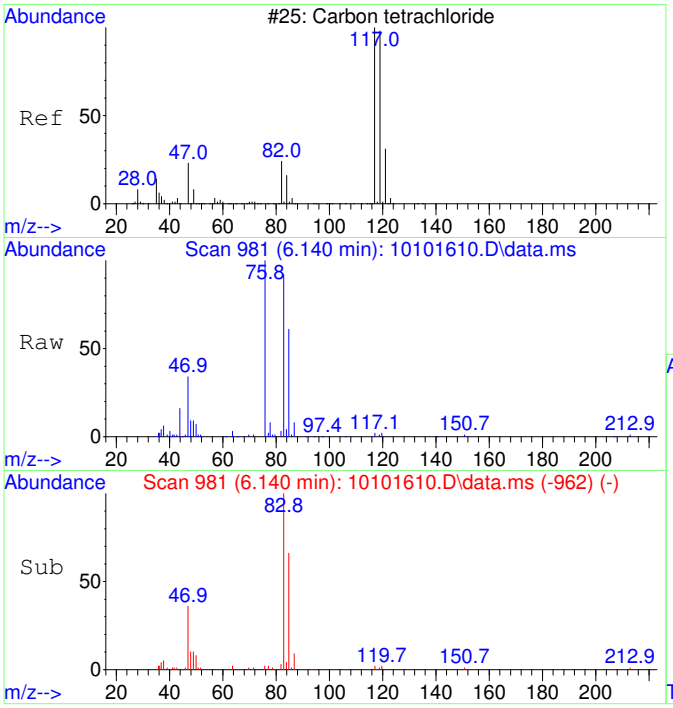


#15
Carbon tetrachloride
Concen: 33.87 ug/L
RT: 6.625 min Scan# 1022
Delta R.T. -0.013 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion:117 Resp: 2491

Ion	Ratio	Lower	Upper
117	100		
119	98.5	65.7	125.7

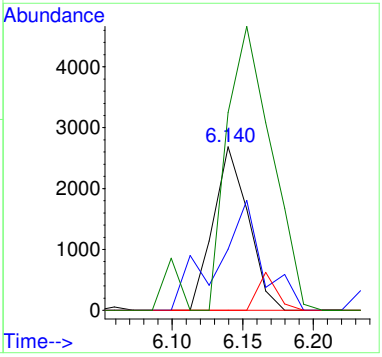


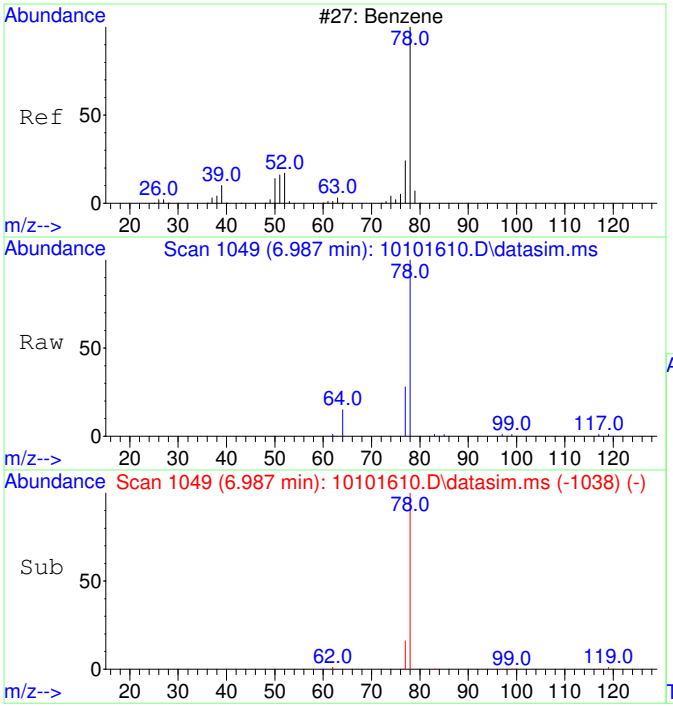


#16
Carbon tetrachloride SCAN
Concen: 559.45 ug/L
RT: 6.140 min Scan# 981
Delta R.T. -0.242 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion:117 Resp: 4672

Ion	Ratio	Lower	Upper
117	100		
119	0.0	83.1	154.3#
121	0.0	28.7	53.3#
82	0.0	16.1	29.9#

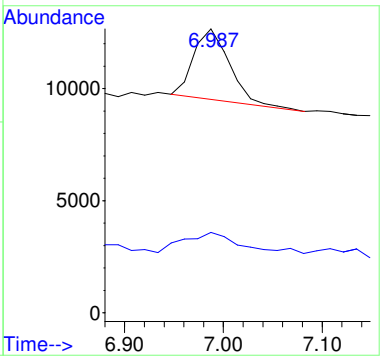


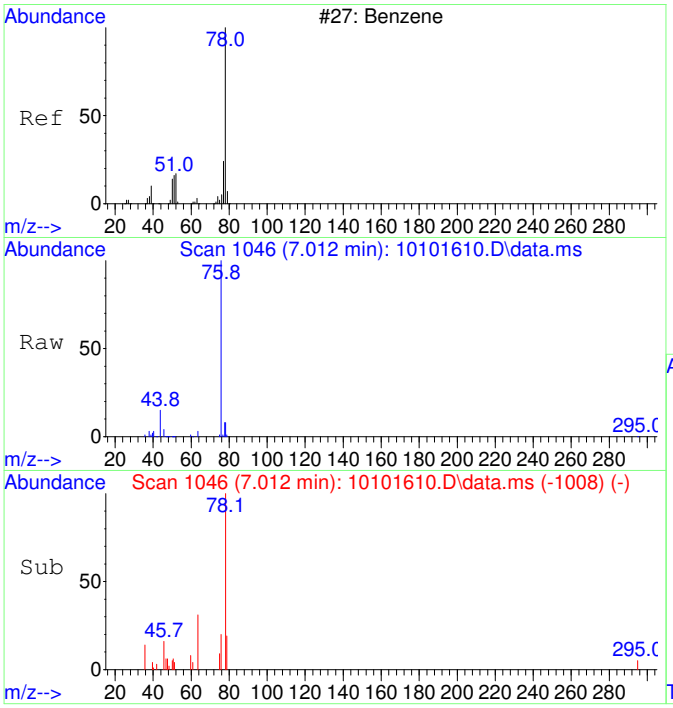


#17
Benzene
Concen: 41.50 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 78 Resp: 7652

Ion	Ratio	Lower	Upper
78	100		
77	46.4	0.0	53.3

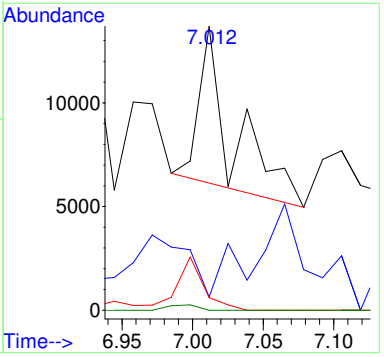


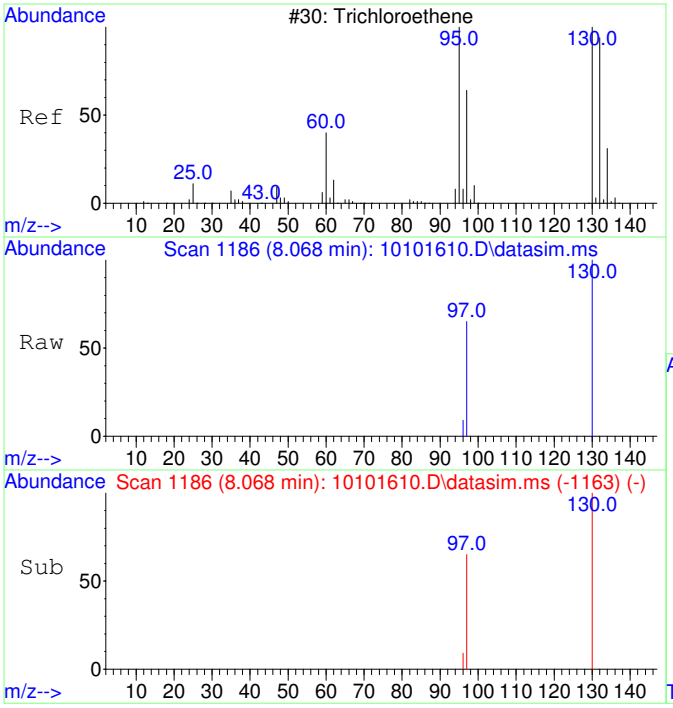


#18
Benzene SCAN
Concen: 79.84 ug/L
RT: 7.012 min Scan# 1046
Delta R.T. 0.013 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 78 Resp: 11703

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	56.6
51	25.0	0.0	50.4
52	3.4	0.0	53.7

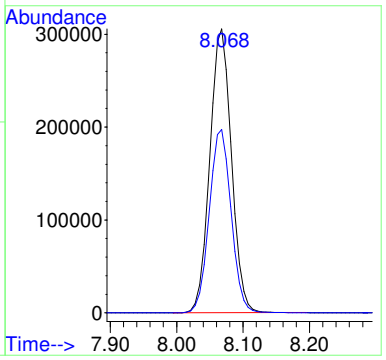


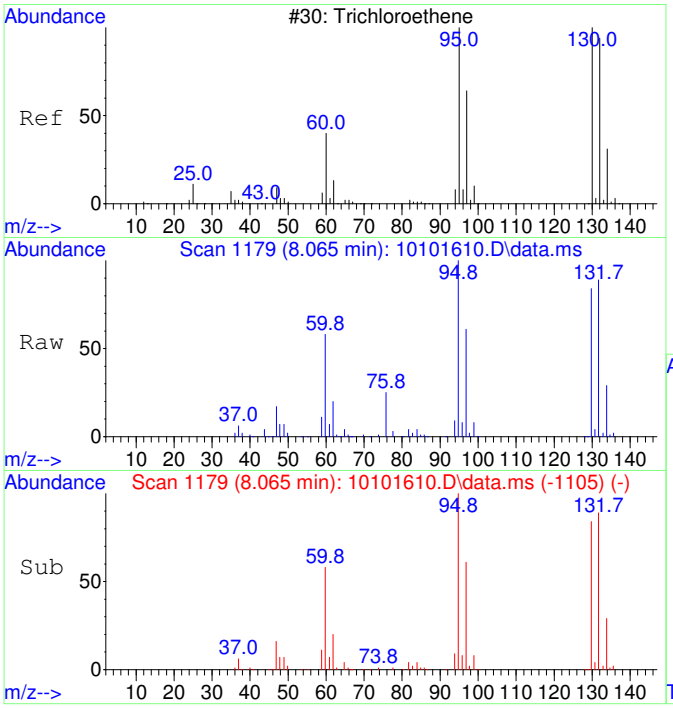


#21
Trichloroethene
Concen: 13972.14 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion:130 Resp: 690180

Ion	Ratio	Lower	Upper
130	100		
97	65.1	35.6	95.6

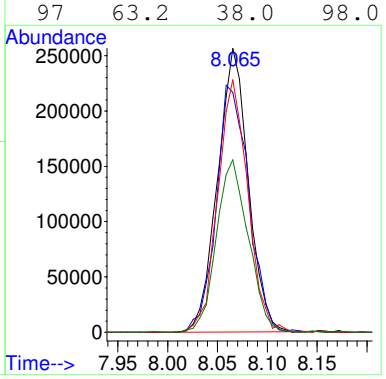


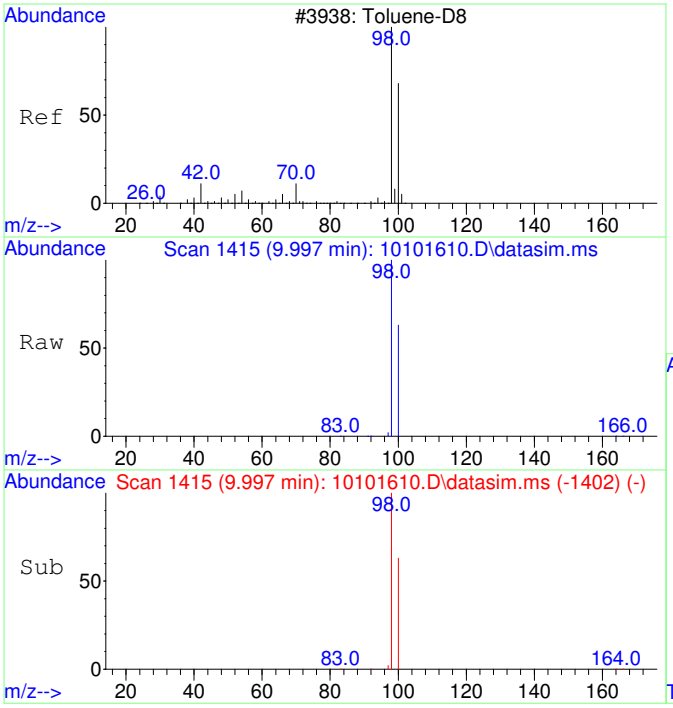


#22
Trichloroethene SCAN
Concen: 14315.71 ug/L
RT: 8.065 min Scan# 1179
Delta R.T. -0.007 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 95 Resp: 549493

Ion	Ratio	Lower	Upper
95	100		
130	92.5	68.2	128.2
132	87.1	66.1	126.1
97	63.2	38.0	98.0

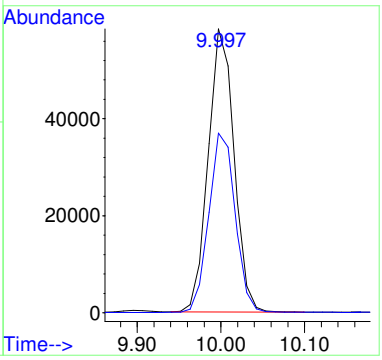


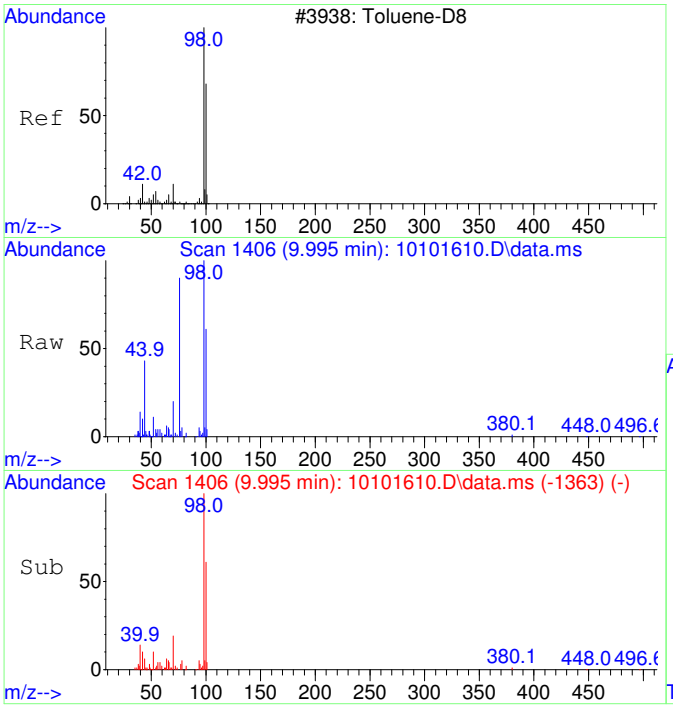


#23
Toluene-d8
Concen: 841.65 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 98 Resp: 125234

Ion	Ratio	Lower	Upper
98	100		
100	64.0	34.5	94.5

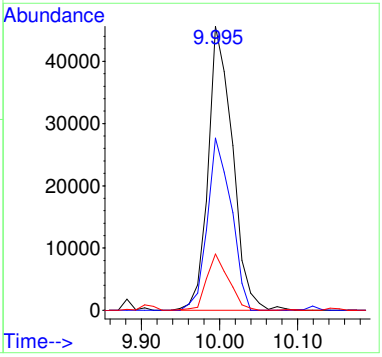


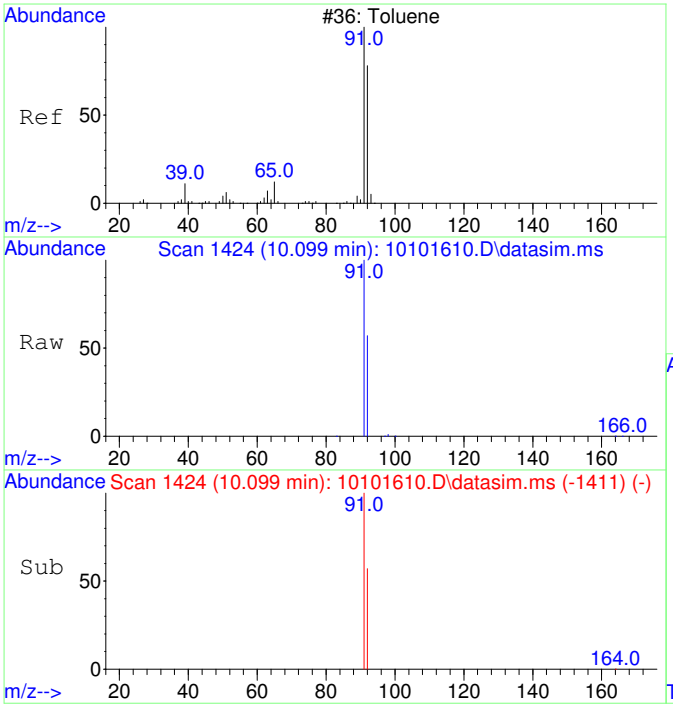


#24
Toluene-d8 SCAN
Concen: 781.52 ug/L
RT: 9.995 min Scan# 1406
Delta R.T. -0.011 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 98 Resp: 99419

Ion	Ratio	Lower	Upper
98	100		
100	59.2	45.6	84.8
70	17.9	8.3	15.5#

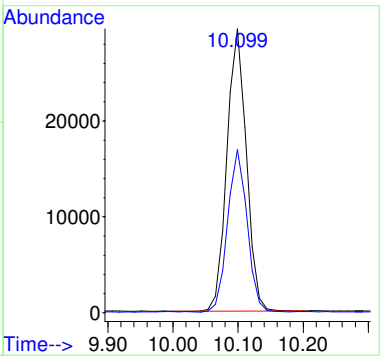


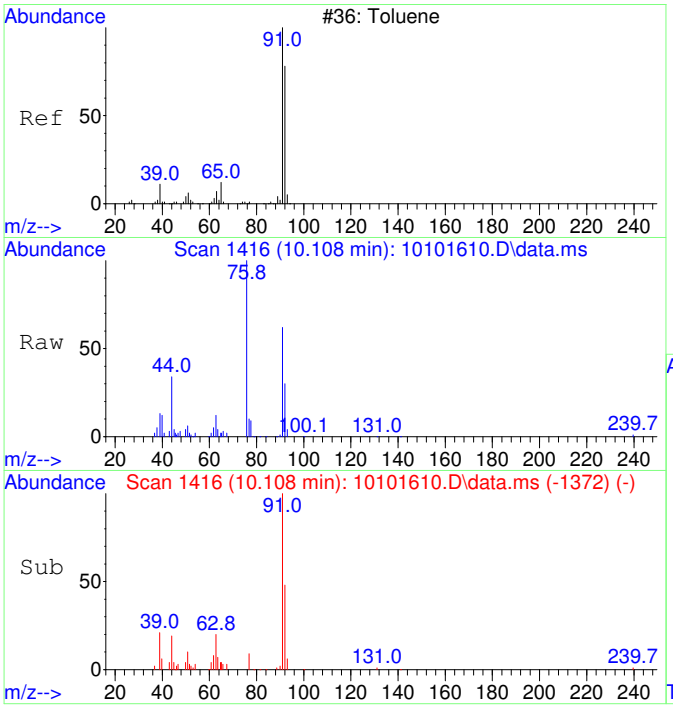


#25
Toluene
Concen: 326.75 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 91 Resp: 61147

Ion	Ratio	Lower	Upper
91	100		
92	57.2	28.1	88.1

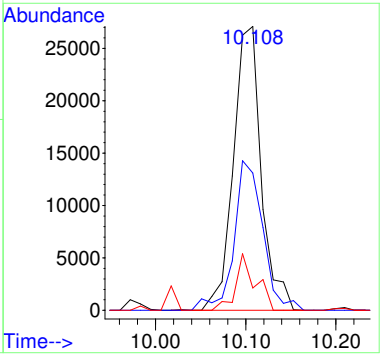


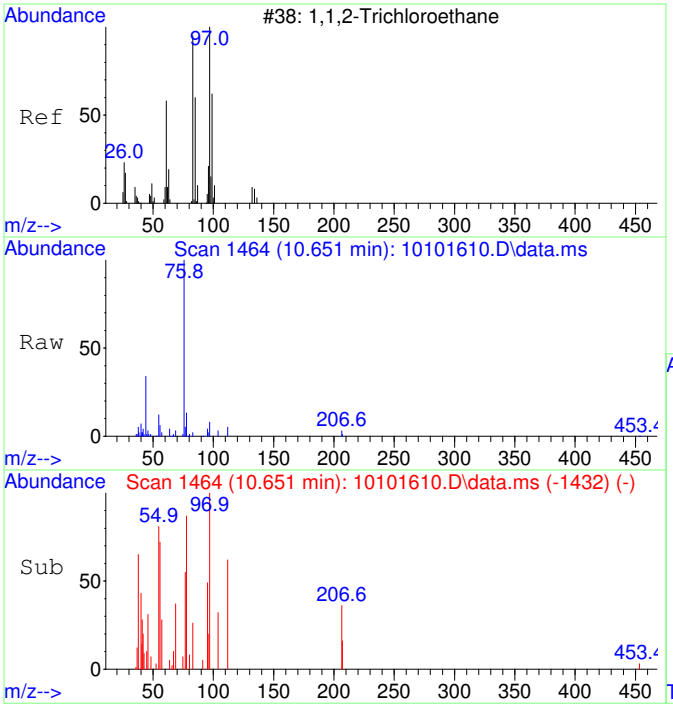


#26
Toluene SCAN
Concen: 363.96 ug/L
RT: 10.108 min Scan# 1416
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 91 Resp: 58124

Ion	Ratio	Lower	Upper
91	100		
92	54.4	28.2	88.2
65	14.1	0.0	44.1

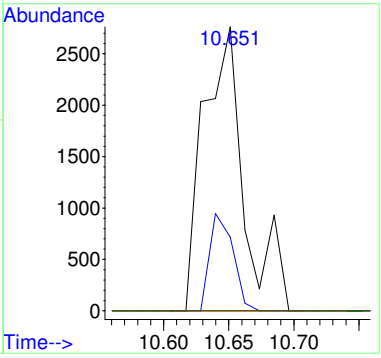


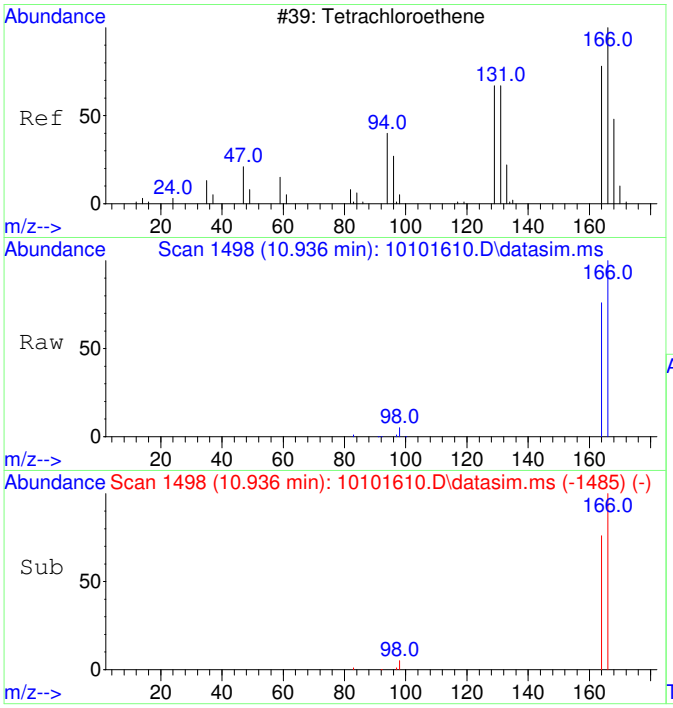


#28
1,1,2-Trichloroethane SCAN
Concen: 162.09 ug/L
RT: 10.651 min Scan# 1464
Delta R.T. -0.136 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 97 Resp: 5973

Ion	Ratio	Lower	Upper
97	100		
83	19.8	57.9	117.9#
61	0.0	50.3	110.3#
99	0.0	30.4	90.4#

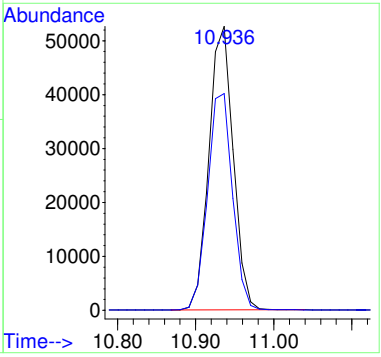


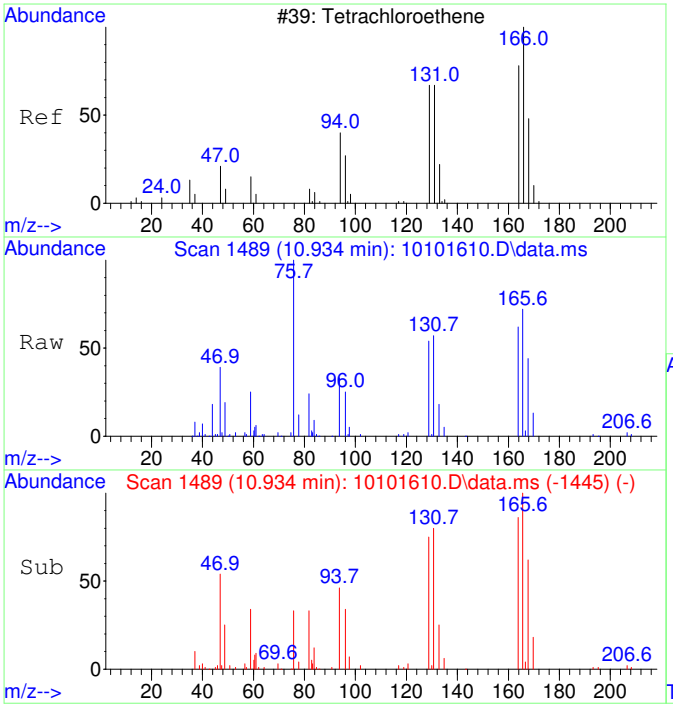


#29
Tetrachloroethene
Concen: 2205.67 ug/L
RT: 10.936 min Scan# 1498
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion:166 Resp: 113743

Ion	Ratio	Lower	Upper
166	100		
164	77.9	47.5	107.5

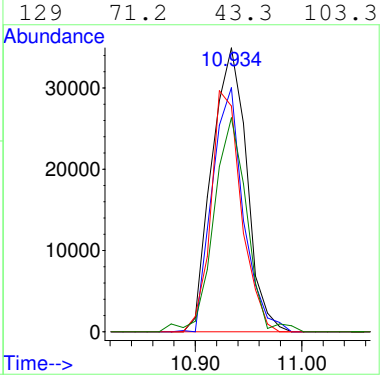


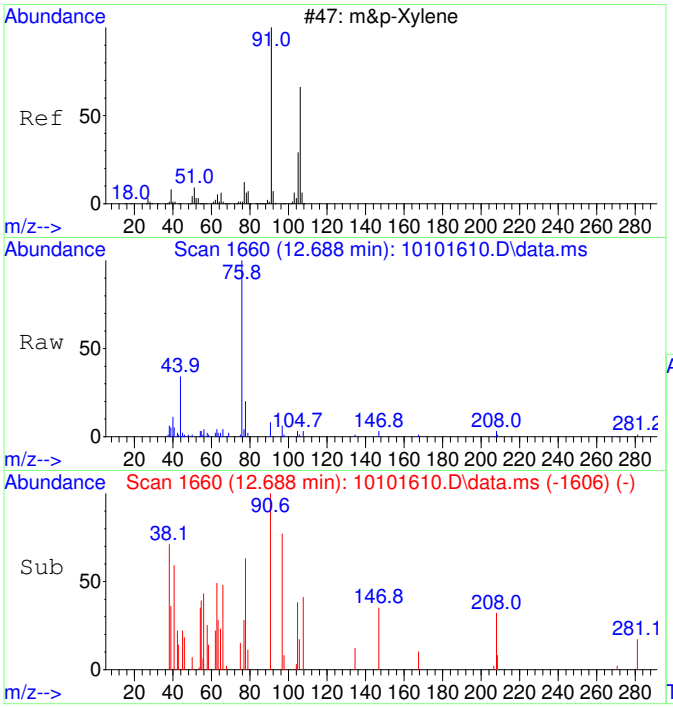


#30
Tetrachloroethene SCAN
Concen: 2205.24 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion:166 Resp: 79541

Ion	Ratio	Lower	Upper
166	100		
164	77.4	58.4	118.4
131	74.2	48.7	108.7
129	71.2	43.3	103.3

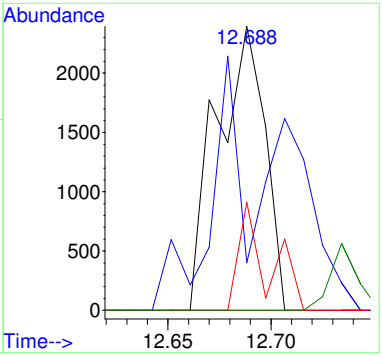




#38
m&p-Xylene SCAN
Concen: 28.20 ug/L
RT: 12.688 min Scan# 1660
Delta R.T. 0.000 min
Lab File: 10101610.D
Acq: 10 Oct 2016 17:22

Tgt Ion: 91 Resp: 3936

Ion	Ratio	Lower	Upper
91	100		
106	40.4	17.3	77.3
105	22.7	0.0	52.1
51	0.0	0.0	45.4



1610002-06RE1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101611.D
Acq On : 10 Oct 2016 17:45
InstName : AG5975C
Operator : RH
Sample : 1610002-06RE1
Misc : 20 UL - 180 UL
ALS Vial : 11 Sample Multiplier: 10

Quant Time: Oct 11 10:25:26 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration

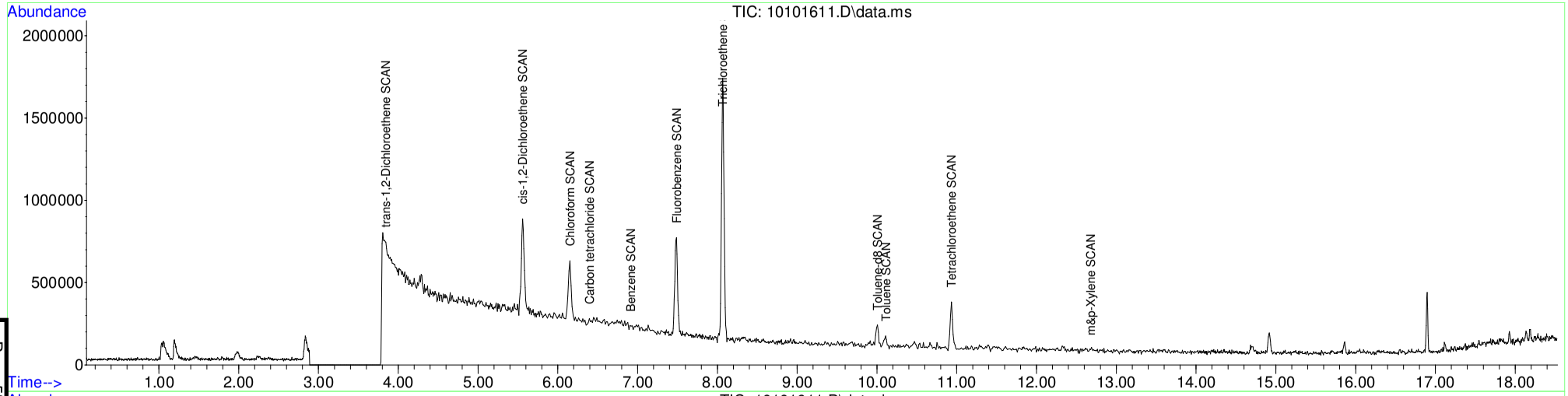
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.482	96	793794	5000.00	ug/L	0.00	
System Monitoring Compounds							
23) Toluene-d8	9.997	98	113623	737.40	ug/L	0.00	
Spiked Amount 5000.000 Range 70 - 130 Recovery = 14.75%#							
Target Compounds						Qvalue	
2) Fluorobenzene SCAN	7.486	96	603183	4875.63	ug/L	99	
3] 1,1-Dichloroethene	2.733	61	3027	31.77	ug/L	93	
5] trans-1,2-Dichloroethene	3.833	61	22781	278.73	ug/L	95	
6) trans-1,2-Dichloroethe...	3.838	61	25274	458.82	ug/L	74	
9] cis-1,2-Dichloroethene	5.560	61	570230	5828.69	ug/L	100	REPORT
10) cis-1,2-Dichloroethene...	5.558	61	473805	6406.15	ug/L	94	
11] Chloroform	6.142	83	408260	4248.09	ug/L	99	REPORT
12) Chloroform SCAN	6.153	83	336514	4922.60	ug/L	94	
15] Carbon tetrachloride	6.638	117	2699	35.44	ug/L	100	
16) Carbon tetrachloride SCAN	6.394	117	285	32.96	ug/L #	9	
17] Benzene	6.987	78	8588	44.98	ug/L	94	
18) Benzene SCAN	6.917	78	32476	213.95	ug/L #	52	
21] Trichloroethene	8.068	130	746849	14600.29	ug/L	99	REPORT
22) Trichloroethene SCAN	8.065	95	587299	14775.36	ug/L	97	
24) Toluene-d8 SCAN	10.006	98	106676	809.78	ug/L	89	
25] Toluene	10.099	91	64332	331.97	ug/L	99	
26) Toluene SCAN	10.107	91	50265	303.95	ug/L	91	
29] Tetrachloroethene	10.936	166	118815	2224.93	ug/L	100	
30) Tetrachloroethene SCAN	10.934	166	79376	2125.12	ug/L	93	
38) m&p-Xylene SCAN	12.679	91	6690	46.28	ug/L #	68	

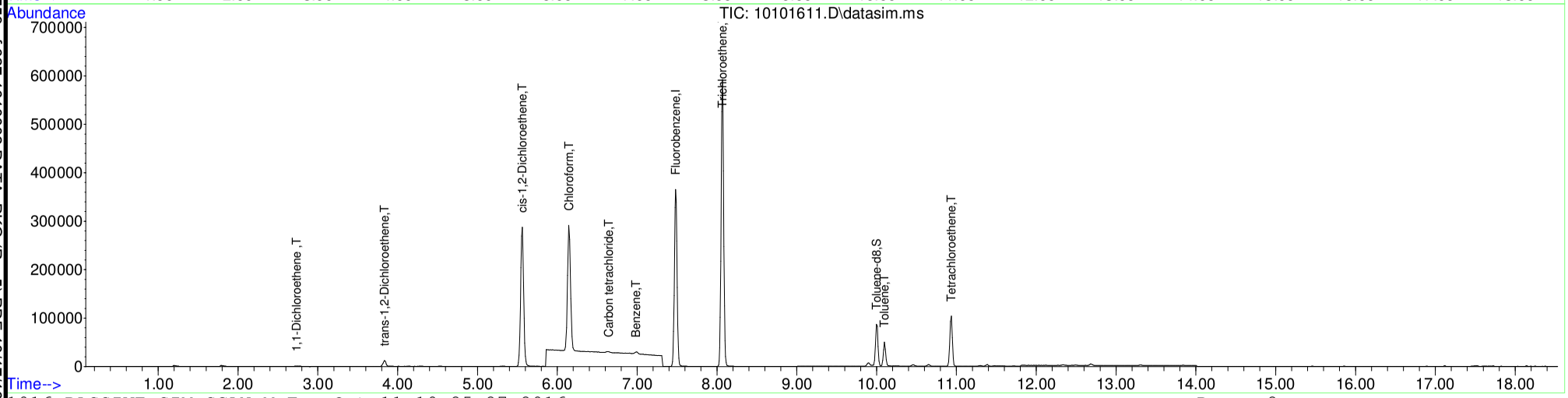
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101611.D
Acq On : 10 Oct 2016 17:45
InstName : AG5975C
Operator : RH
Sample : 1610002-06RE1
Misc : 20 UL - 180 UL
ALS Vial : 11 Sample Multiplier: 10

Quant Time: Oct 11 10:25:26 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration





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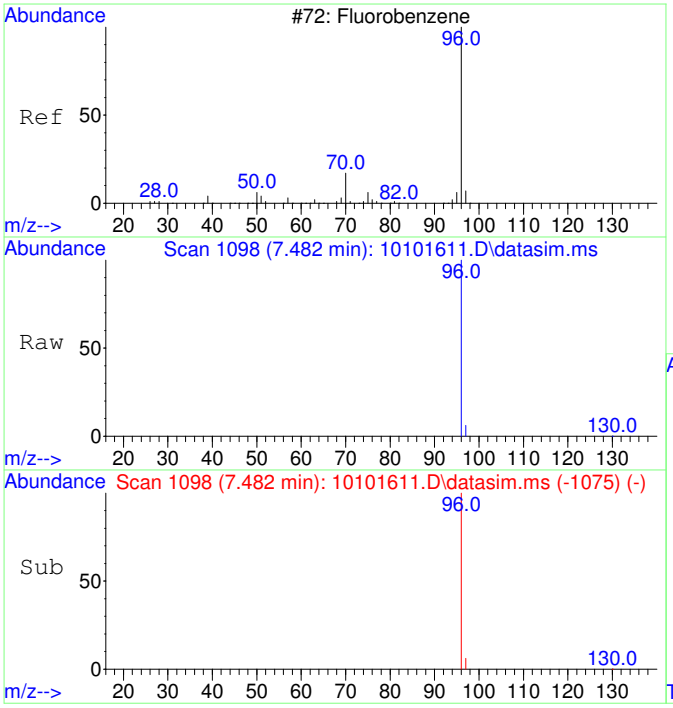
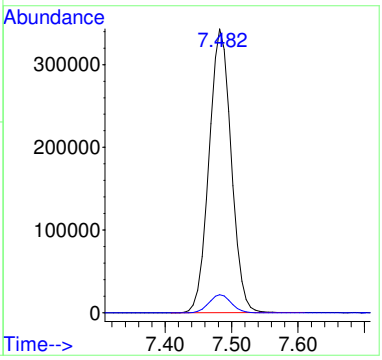
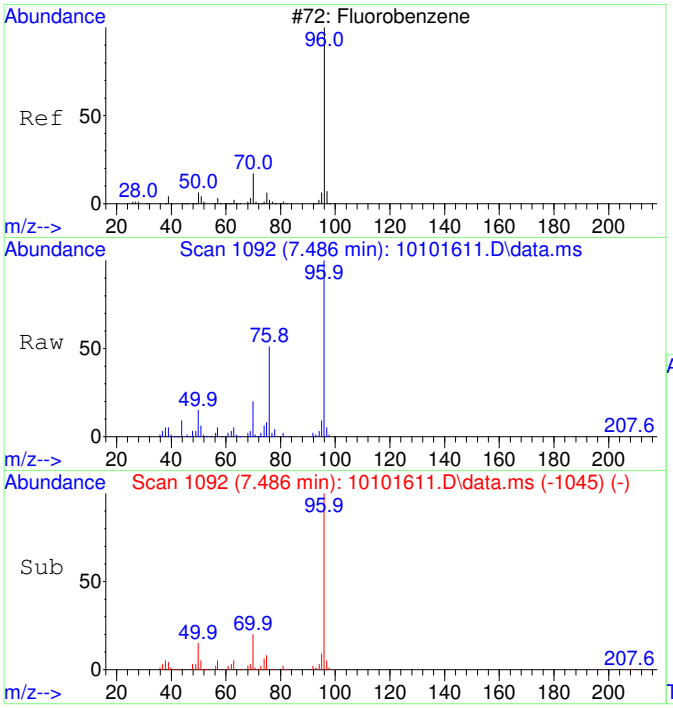


#1
Fluorobenzene
Concen: 5000.00 ug/L
RT: 7.482 min Scan# 1098
Delta R.T. 0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 96 Resp: 793794

Ion	Ratio	Lower	Upper
96	100		
97	6.4	0.0	36.3

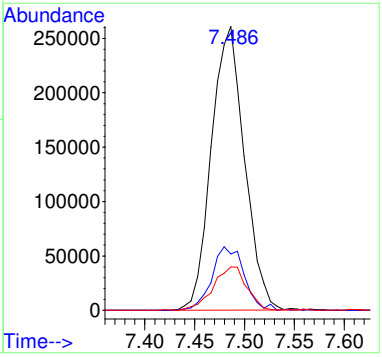


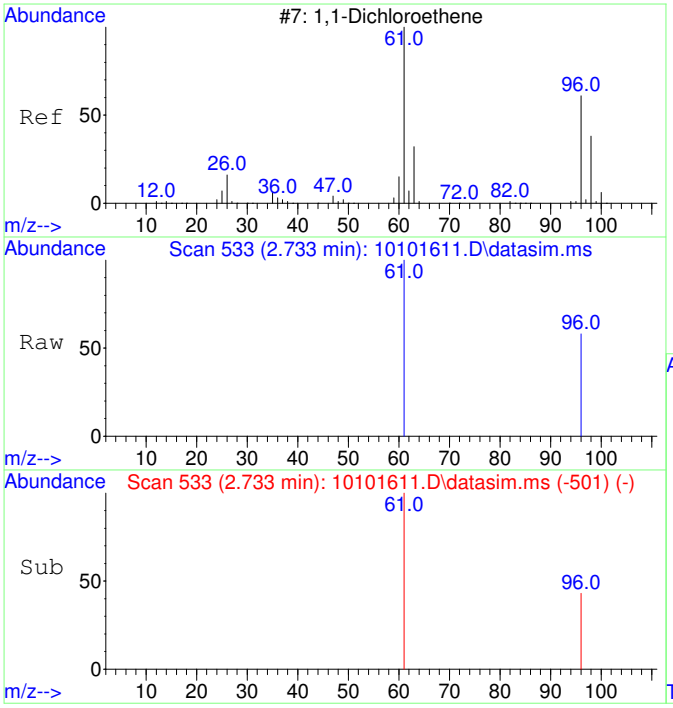


#2
Fluorobenzene SCAN
Concen: 4875.63 ug/L
RT: 7.486 min Scan# 1092
Delta R.T. -0.007 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 96 Resp: 603183

Ion	Ratio	Lower	Upper
96	100		
70	22.0	0.0	51.3
50	15.3	0.0	44.7

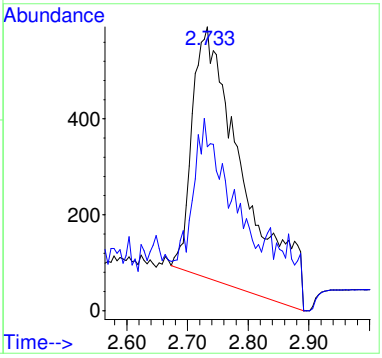


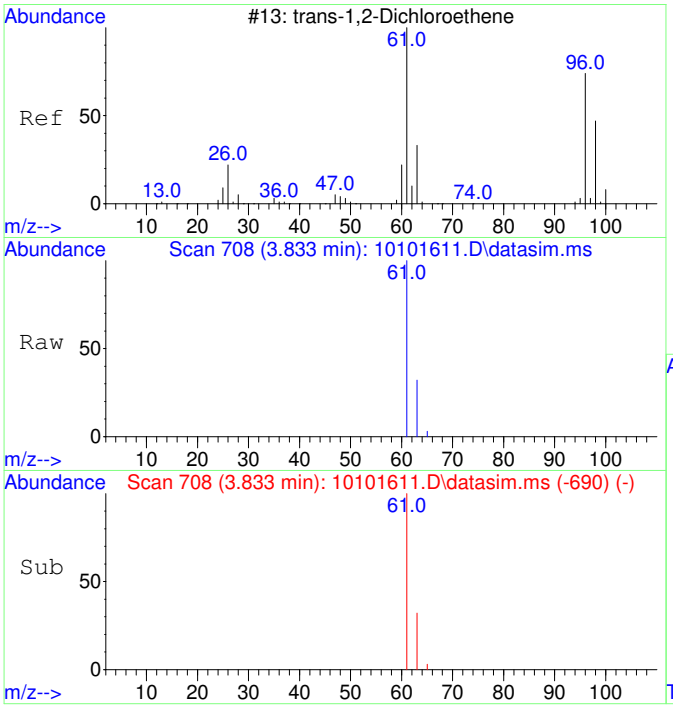


#3
1,1-Dichloroethene
Concen: 31.77 ug/L
RT: 2.733 min Scan# 533
Delta R.T. 0.010 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 61 Resp: 3027

Ion	Ratio	Lower	Upper
61	100		
96	53.8	19.2	79.2

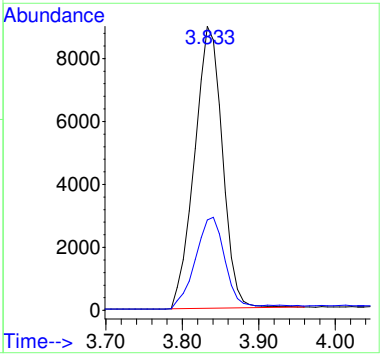


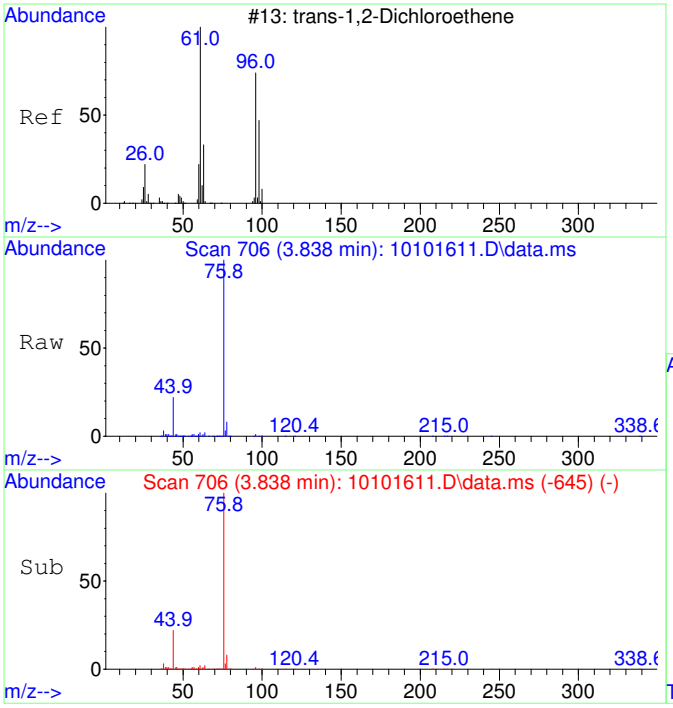


#5
trans-1,2-Dichloroethene
Concen: 278.73 ug/L
RT: 3.833 min Scan# 708
Delta R.T. -0.008 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 61 Resp: 22781

Ion	Ratio	Lower	Upper
61	100		
63	34.2	1.4	61.4

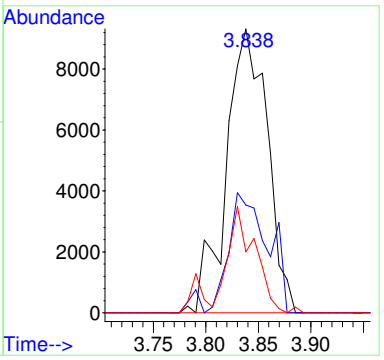


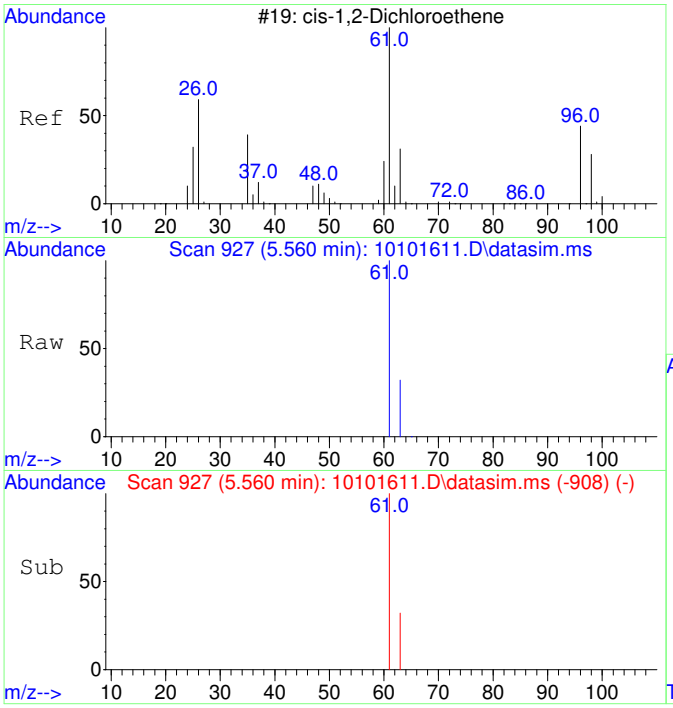


#6
trans-1,2-Dichloroethene SCAN
Concen: 458.82 ug/L
RT: 3.838 min Scan# 706
Delta R.T. -0.016 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 61 Resp: 25274

Ion	Ratio	Lower	Upper
61	100		
96	40.0	28.8	88.8
98	22.7	9.6	69.6

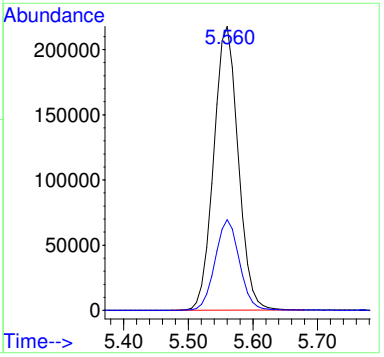


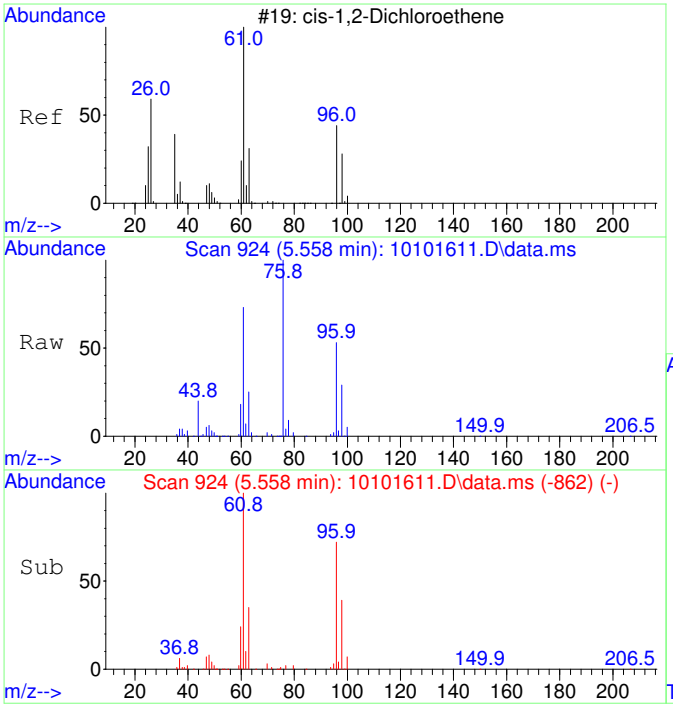


#9
cis-1,2-Dichloroethene
Concen: 5828.69 ug/L
RT: 5.560 min Scan# 927
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 61 Resp: 570230

Ion	Ratio	Lower	Upper
61	100		
63	31.5	1.4	61.4

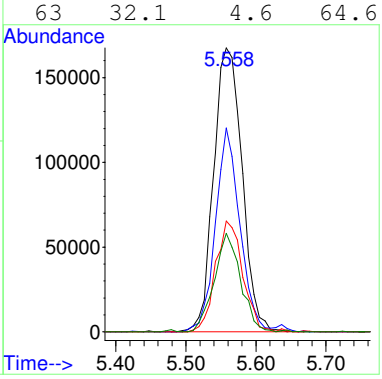


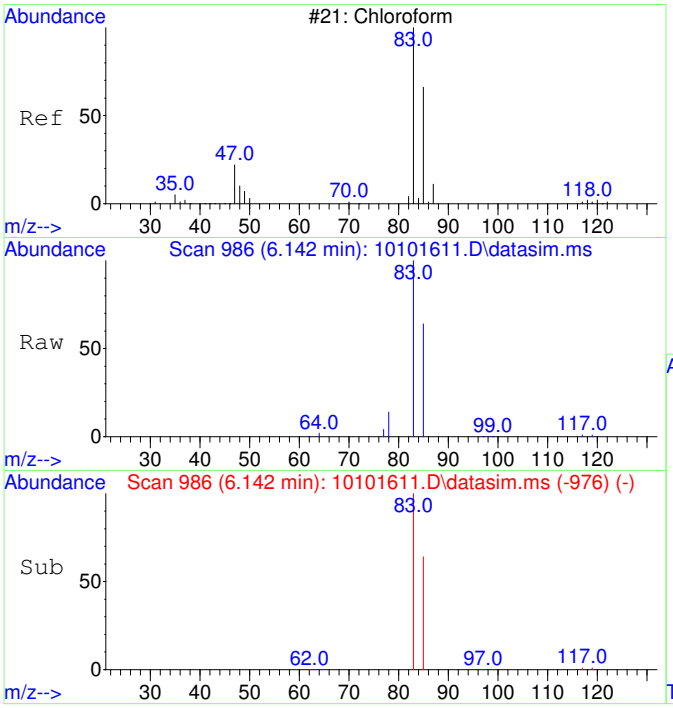


#10
cis-1,2-Dichloroethene SCAN
Concen: 6406.15 ug/L
RT: 5.558 min Scan# 924
Delta R.T. -0.008 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 61 Resp: 473805

Ion	Ratio	Lower	Upper
61	100		
96	59.7	23.1	83.1
98	37.1	4.7	64.7
63	32.1	4.6	64.6

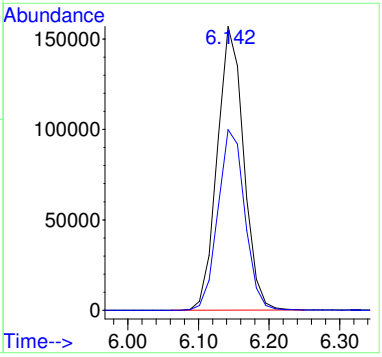


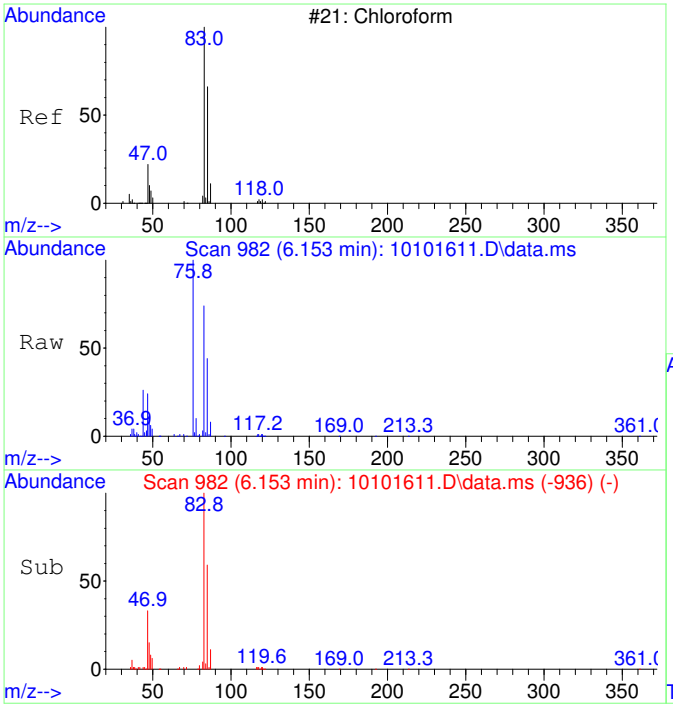


#11
Chloroform
Concen: 4248.09 ug/L
RT: 6.142 min Scan# 986
Delta R.T. -0.014 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 83 Resp: 408260

Ion	Ratio	Lower	Upper
83	100		
85	64.2	33.6	93.6

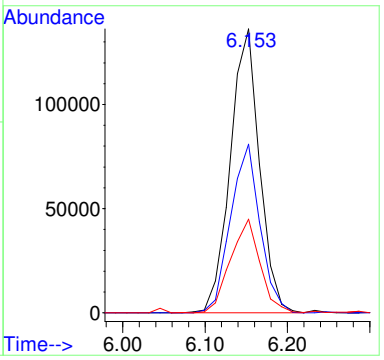


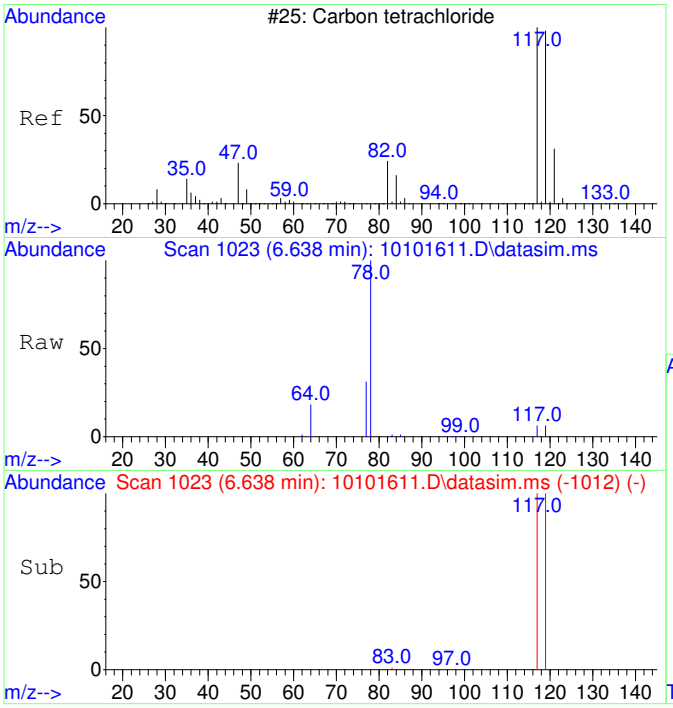


#12
Chloroform SCAN
Concen: 4922.60 ug/L
RT: 6.153 min Scan# 982
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 83 Resp: 336514

Ion	Ratio	Lower	Upper
83	100		
85	59.8	36.6	96.6
47	33.3	4.1	64.1

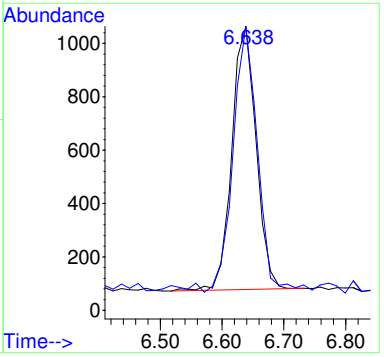


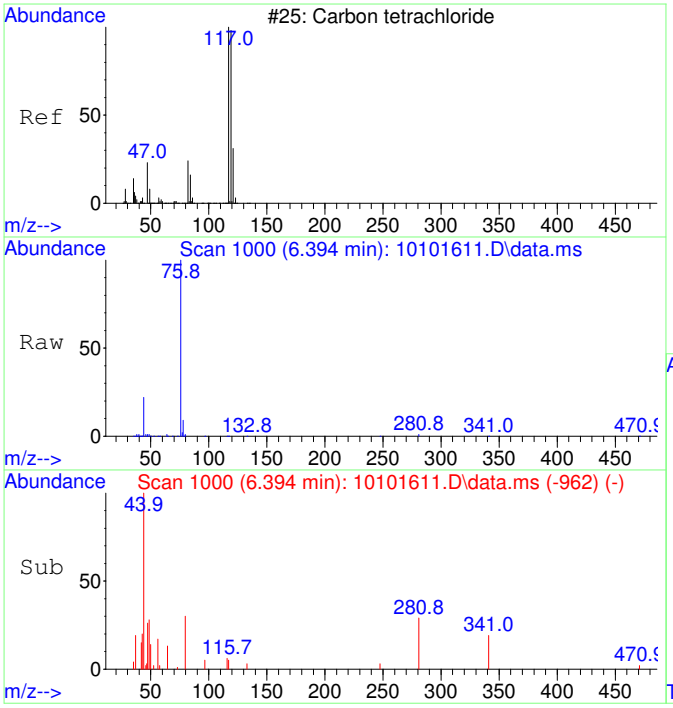


#15
Carbon tetrachloride
Concen: 35.44 ug/L
RT: 6.638 min Scan# 1023
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion:117 Resp: 2699

Ion	Ratio	Lower	Upper
117	100		
119	95.8	65.7	125.7

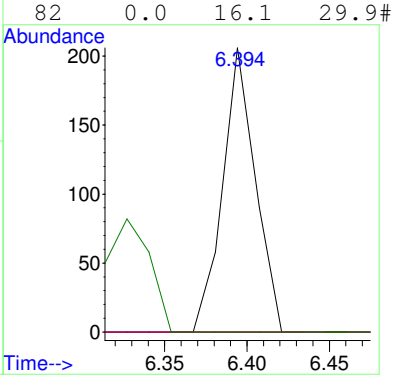


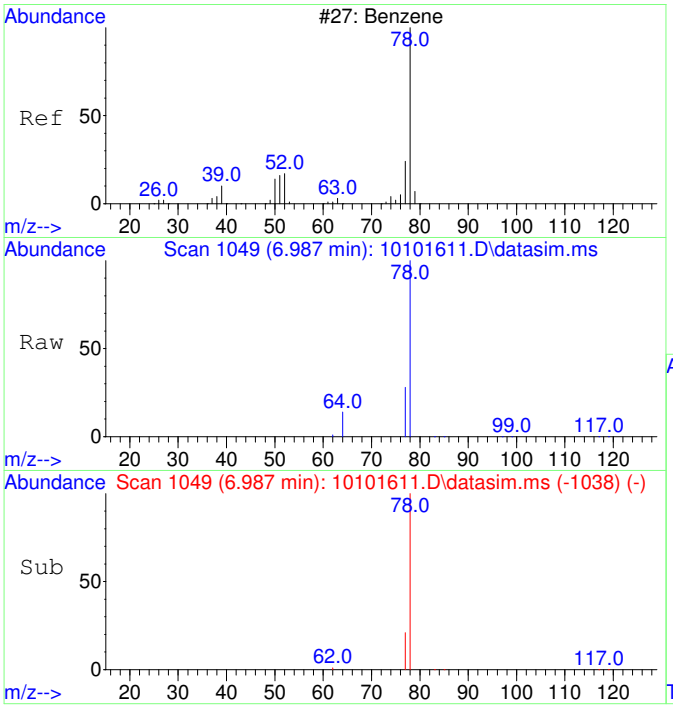


#16
Carbon tetrachloride SCAN
Concen: 32.96 ug/L
RT: 6.394 min Scan# 1000
Delta R.T. 0.013 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion:117 Resp: 285

Ion	Ratio	Lower	Upper
117	100		
119	0.0	83.1	154.3#
121	0.0	28.7	53.3#
82	0.0	16.1	29.9#

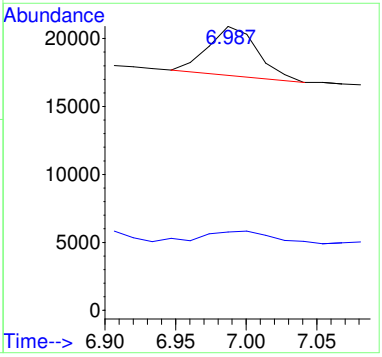


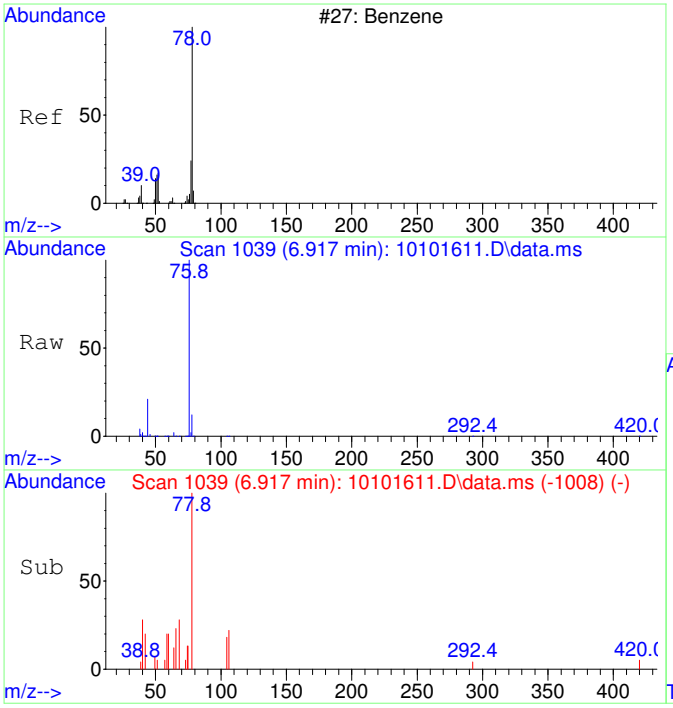


#17
Benzene
Concen: 44.98 ug/L
RT: 6.987 min Scan# 1049
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 78 Resp: 8588

Ion	Ratio	Lower	Upper
78	100		
77	26.2	0.0	53.3

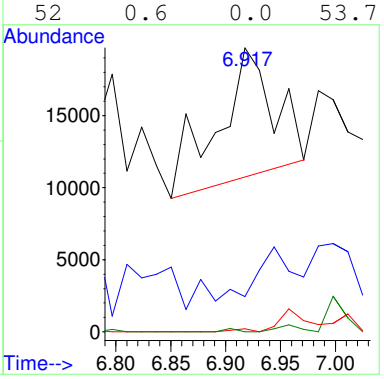


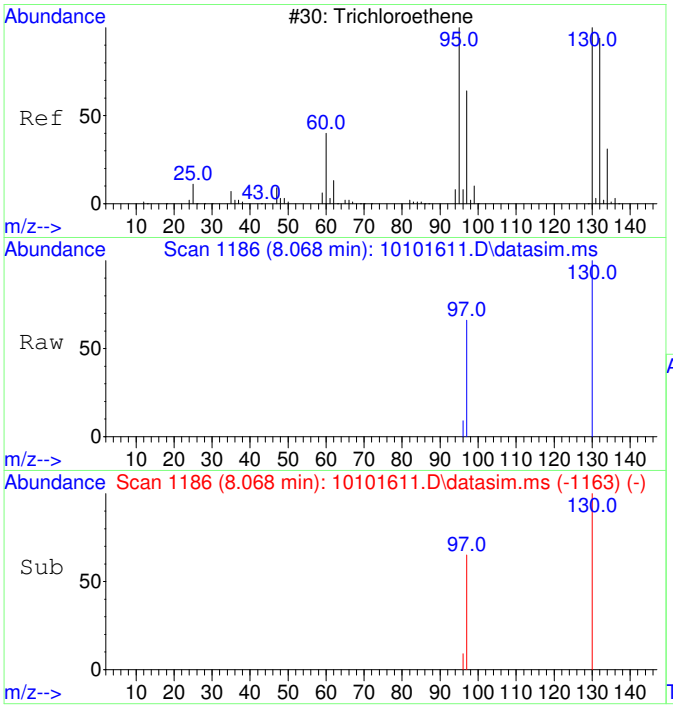


#18
Benzene SCAN
Concen: 213.95 ug/L
RT: 6.917 min Scan# 1039
Delta R.T. -0.081 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 78 Resp: 32476

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	56.6
51	0.0	0.0	50.4
52	0.6	0.0	53.7

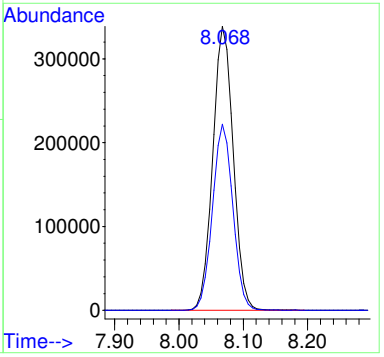


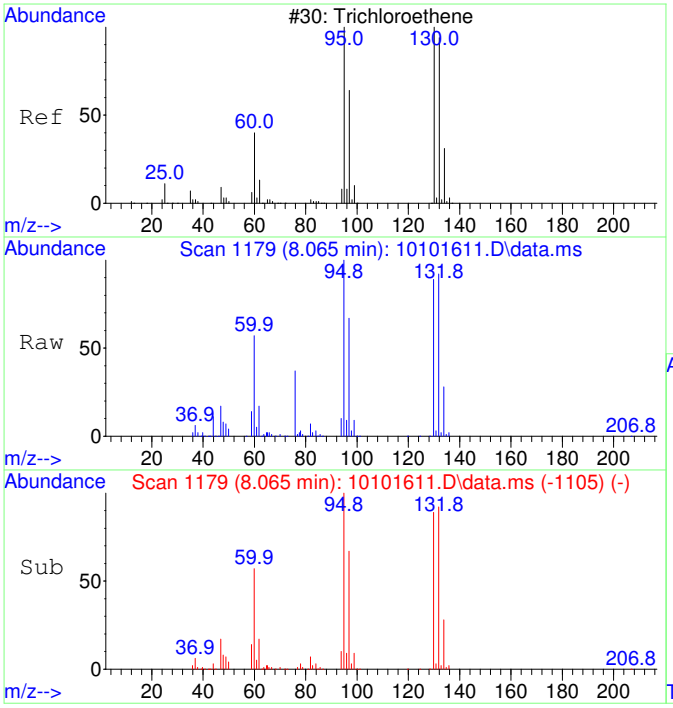


#21
Trichloroethene
Concen: 14600.29 ug/L
RT: 8.068 min Scan# 1186
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion:130 Resp: 746849

Ion	Ratio	Lower	Upper
130	100		
97	65.1	35.6	95.6

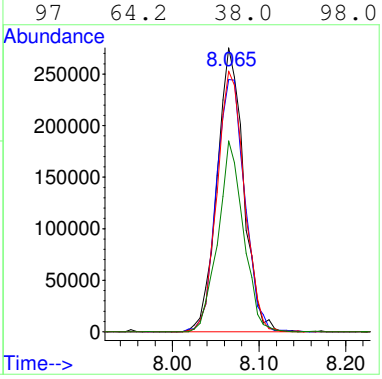


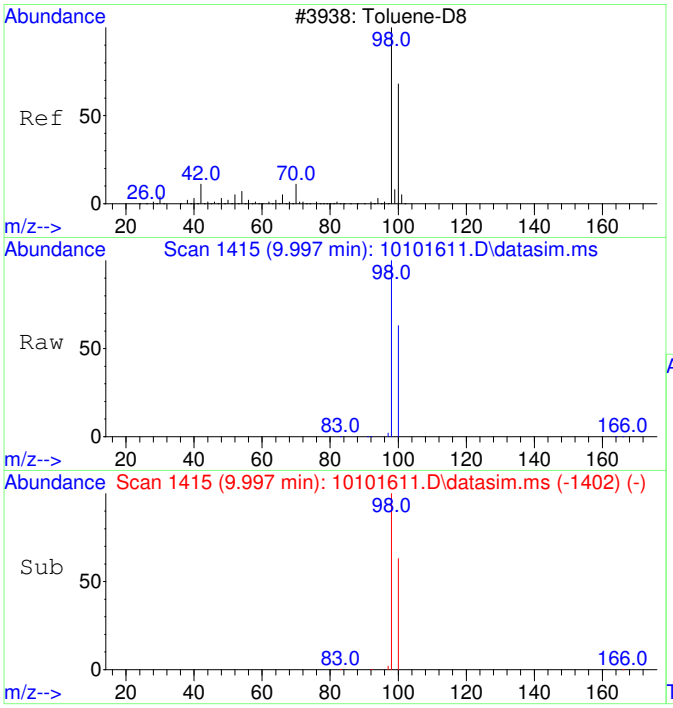


#22
Trichloroethene SCAN
Concen: 14775.36 ug/L
RT: 8.065 min Scan# 1179
Delta R.T. -0.007 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 95 Resp: 587299

Ion	Ratio	Lower	Upper
95	100		
130	94.8	68.2	128.2
132	94.0	66.1	126.1
97	64.2	38.0	98.0

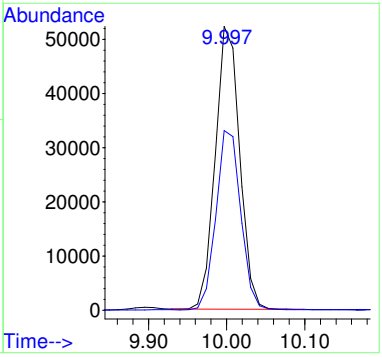


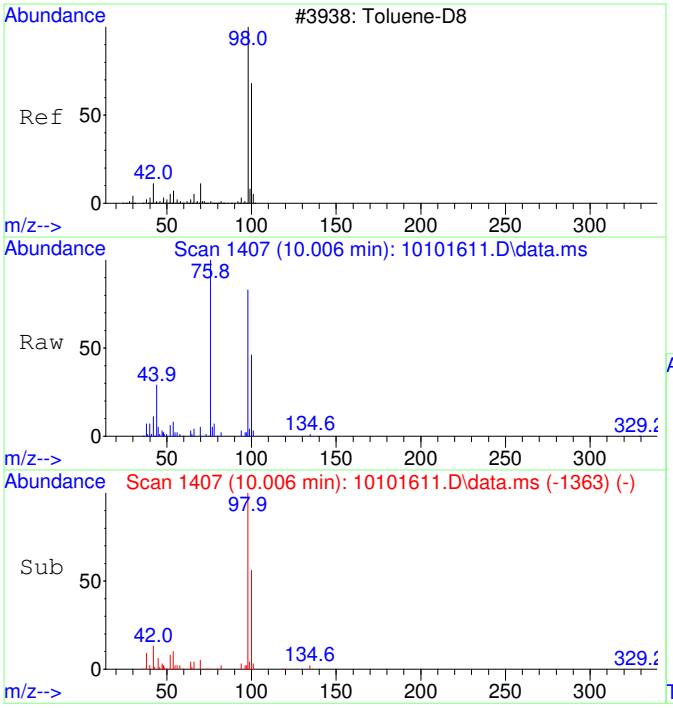


#23
Toluene-d8
Concen: 737.40 ug/L
RT: 9.997 min Scan# 1415
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 98 Resp: 113623

Ion	Ratio	Lower	Upper
98	100		
100	63.7	34.5	94.5

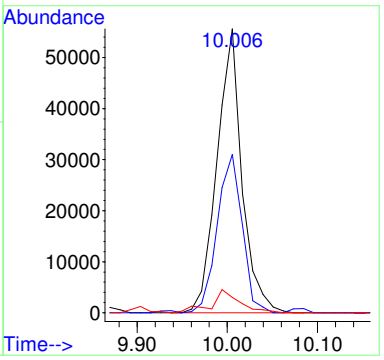


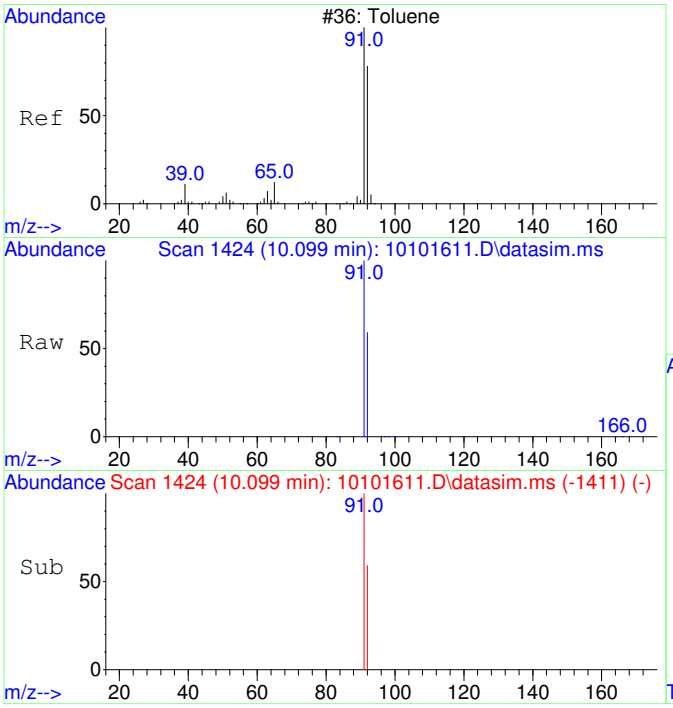


#24
Toluene-d8 SCAN
Concen: 809.78 ug/L
RT: 10.006 min Scan# 1407
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 98 Resp: 106676

Ion	Ratio	Lower	Upper
98	100		
100	56.3	45.6	84.8
70	9.2	8.3	15.5

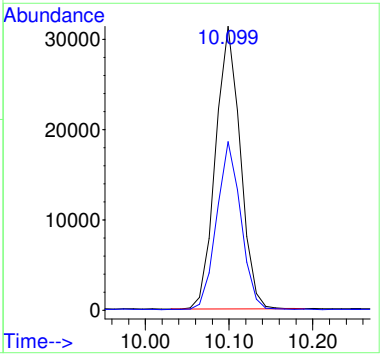


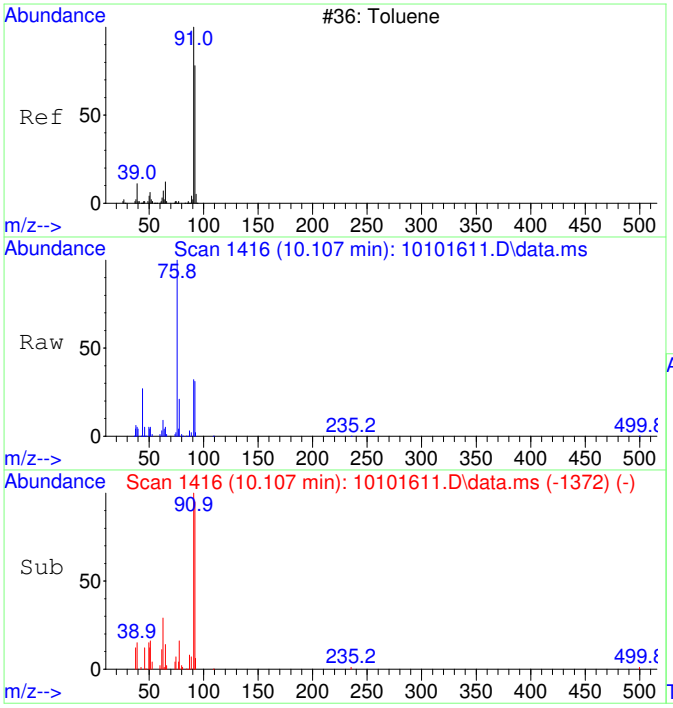


#25
Toluene
Concen: 331.97 ug/L
RT: 10.099 min Scan# 1424
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 91 Resp: 64332

Ion	Ratio	Lower	Upper
91	100		
92	57.4	28.1	88.1

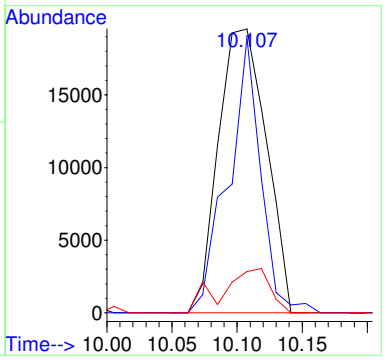


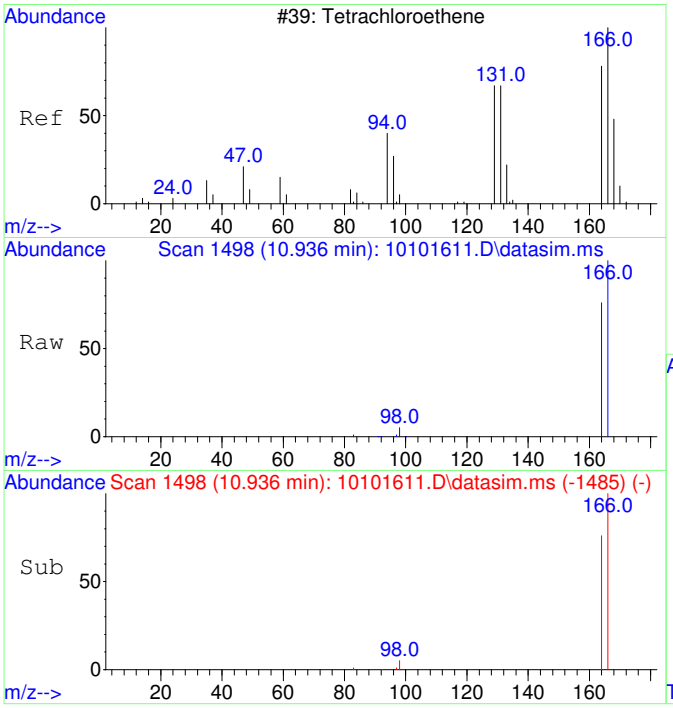


#26
Toluene SCAN
Concen: 303.95 ug/L
RT: 10.107 min Scan# 1416
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 91 Resp: 50265

Ion	Ratio	Lower	Upper
91	100		
92	66.0	28.2	88.2
65	15.7	0.0	44.1

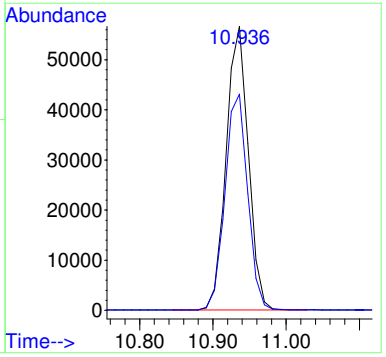


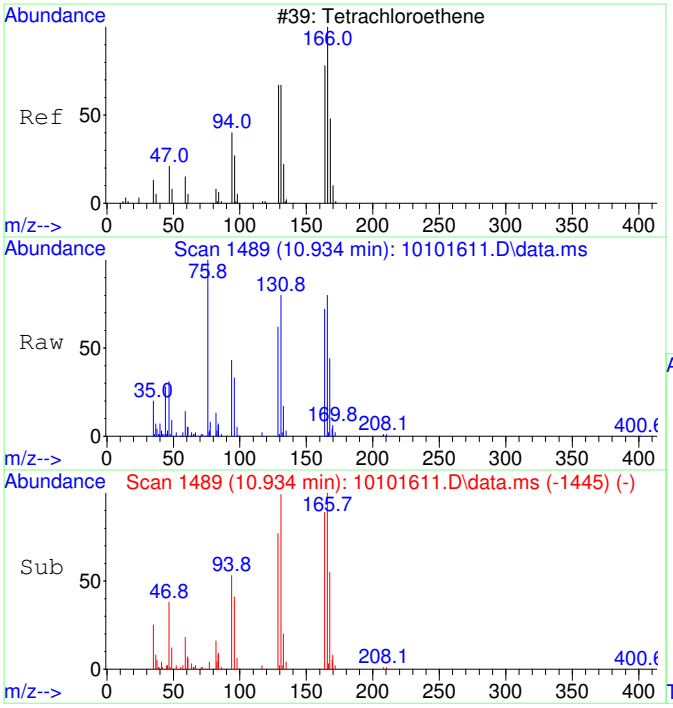


#29
Tetrachloroethene
Concen: 2224.93 ug/L
RT: 10.936 min Scan# 1498
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion:166 Resp: 118815

Ion	Ratio	Lower	Upper
166	100		
164	77.4	47.5	107.5

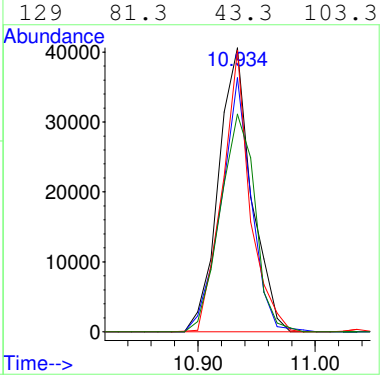


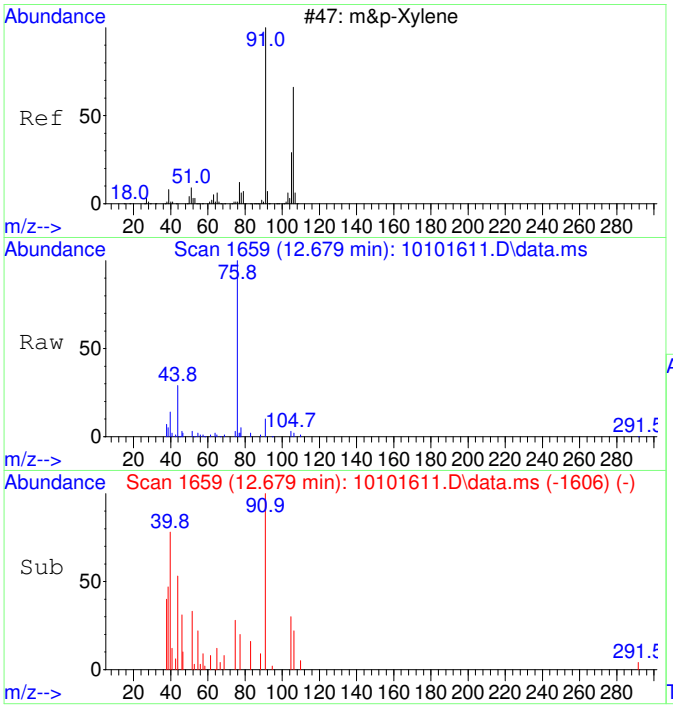


#30
Tetrachloroethene SCAN
Concen: 2125.12 ug/L
RT: 10.934 min Scan# 1489
Delta R.T. -0.000 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion:166 Resp: 79376

Ion	Ratio	Lower	Upper
166	100		
164	82.1	58.4	118.4
131	83.6	48.7	108.7
129	81.3	43.3	103.3

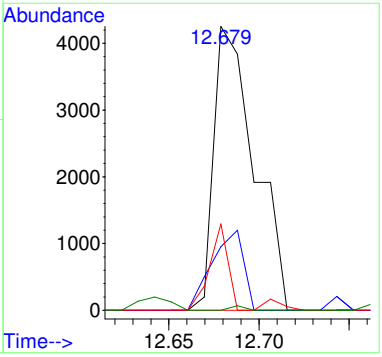




#38
m&p-Xylene SCAN
Concen: 46.28 ug/L
RT: 12.679 min Scan# 1659
Delta R.T. -0.009 min
Lab File: 10101611.D
Acq: 10 Oct 2016 17:45

Tgt Ion: 91 Resp: 6690

Ion	Ratio	Lower	Upper
91	100		
106	21.9	17.3	77.3
105	13.7	0.0	52.1
51	0.0	0.0	45.4



S16J050-IBL2

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101612.D
Acq On : 10 Oct 2016 18:09
InstName : AG5975C
Operator : RH
Sample : S16J050-IBL2
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 11 10:28:20 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration

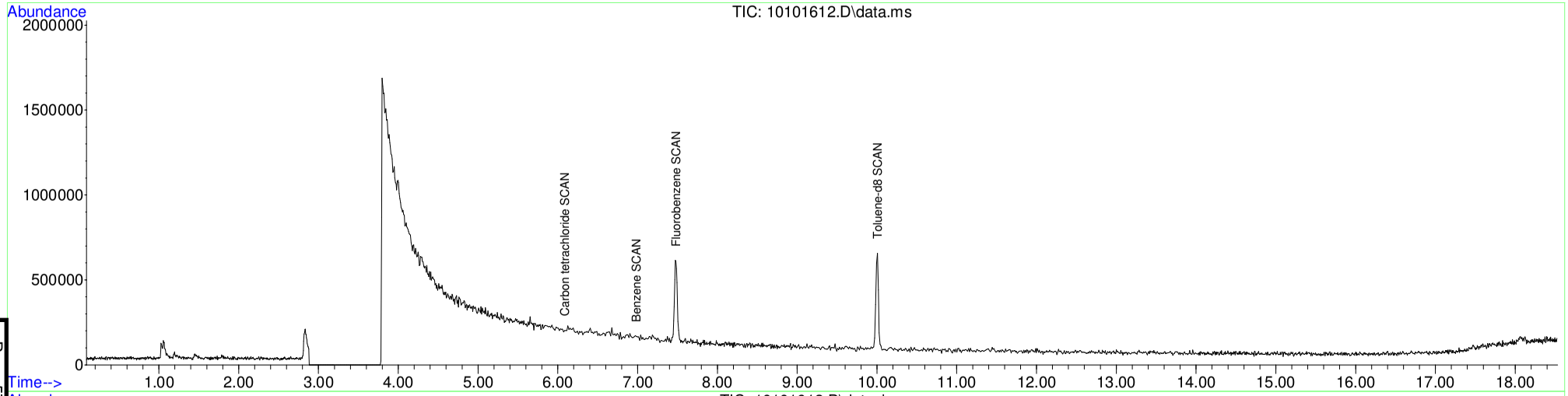
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.476	96	622147	5000.00	ug/L	0.00
System Monitoring Compounds						
23) Toluene-d8	9.997	98	535596	4434.97	ug/L	0.00
Spiked Amount 5000.000	Range 70 - 130		Recovery = 88.70%			
Target Compounds						Qvalue
2) Fluorobenzene SCAN	7.480	96	474476	4893.40	ug/L	98
16) Carbon tetrachloride SCAN	6.086	117	212	31.28	ug/L #	9
17] Benzene	6.987	78	5956	39.80	ug/L	46
18) Benzene SCAN	6.985	78	20841	175.18	ug/L #	75
24) Toluene-d8 SCAN	10.006	98	435147	4214.54	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2016\101016\
Data File : 10101612.D
Acq On : 10 Oct 2016 18:09
InstName : AG5975C
Operator : RH
Sample : S16J044-IBL2
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 11 10:28:20 2016
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2016\101016_PASSIVE_SIM_SCAN.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Tue Oct 11 10:17:32 2016
Response via : Initial Calibration



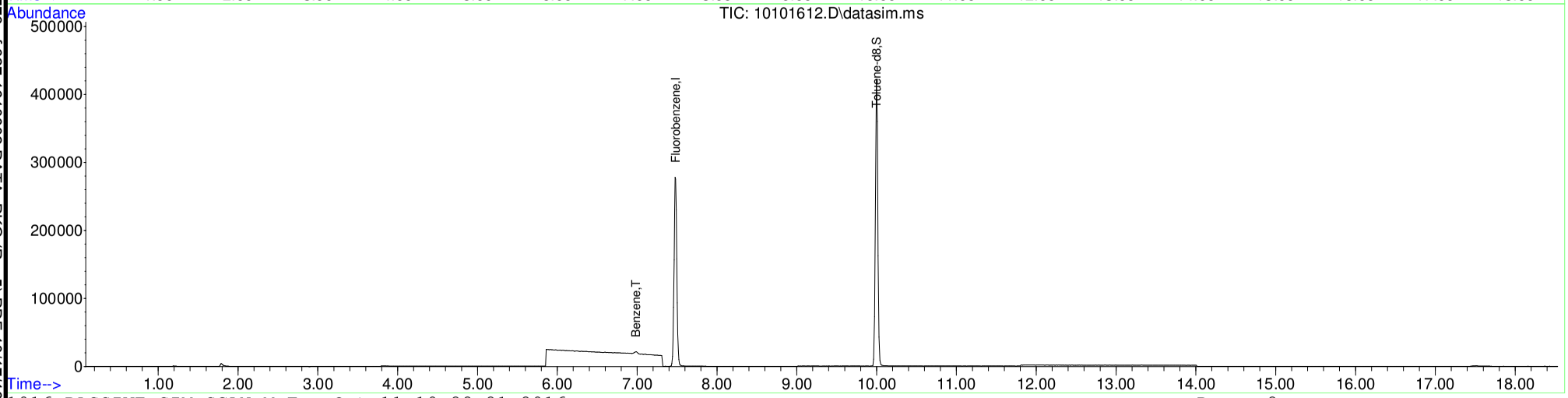


Table of Contents

Analytical Standard Record

EPA Region 9 Laboratory

1513151

Description:	VOA BFB tuning mix, stock STD.	**Expires:**	01/31/20
Standard Type:	Other Solution	**Prepared:**	03/27/15
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	03/27/15 14:58 by YNB
Vendor:	Restek	**Lot Numbe**	A0106759

RESTEK Cat No. 30003, LOT # AO106759, Bar code #AU007032, man.exp. 01/31/20

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	5000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 30003 **Lot No.:** A0106759

Description : VOA Tuning Compound Mix

VOA Tuning Compound Mix 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1-Bromo-4-fluorobenzene (BFB)	5,014.0 µg/mL	+/- 29.4250 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 56.6814 µg/mL	Unstressed
	Purity 99%		+/- 65.1841 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

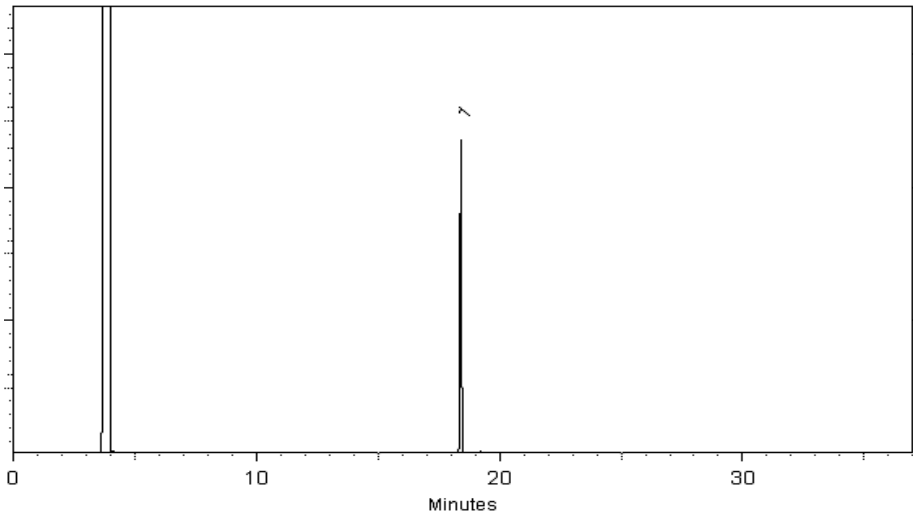
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Lane Kibe - Mix Technician

Date Mixed: 22-Oct-2014 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 24-Oct-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1608047

Description:	Passive indoor air Internal Standard	**Expires:**	11/30/20
Standard Type:	Other Solution	**Prepared:**	02/16/16
Solvent:	MEOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/16/16 15:43 by JDM
Vendor:	Restek	**Lot Numb**	A0115254

Restek part number 30030
Bar code AU007996

Analyte	CAS Number	Concentration (ppm)
Fluorobenzene	462-06-6	2000

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 30030 **Lot No.:** A0115254

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Fluorobenzene	2,000.4 µg/mL	+/-	11.7395	µg/mL	Gravimetric
	CAS # 462-06-6 (Lot BCBK8171V)		+/-	112.1718	µg/mL	Unstressed
	Purity 99%		+/-	114.7959	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

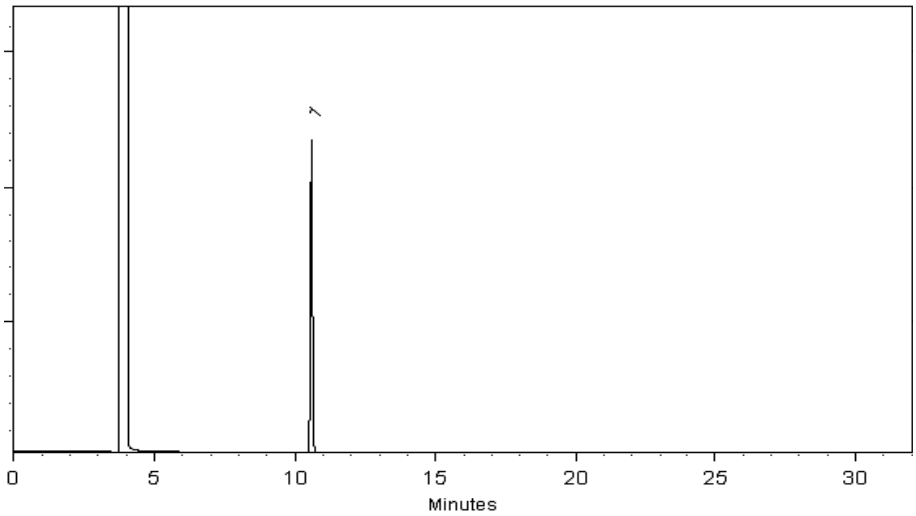
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Brandon Cook - Mix Technician

Date Mixed: 09-Nov-2015 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst

Date Passed: 11-Nov-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1608052

Description:	Passive indoor air Surrogate	**Expires:**	11/30/20
Standard Type:	Surrogate Spike	**Prepared:**	02/16/16
Solvent:	MEOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	02/16/16 15:56 by JDM
Vendor:	Restek	**Lot Numb**	A0115472

Restek part number 30224
Bar code AU008006

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	2000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 30224 **Lot No.:** A0115472

Description : Toluene-d8 Standard

Toluene-d8 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2020 **Storage:** 0°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Toluene-d8	2,002.0 µg/mL	+/-	11.8913	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-26282)		+/-	112.2765	µg/mL	Unstressed
	Purity 99%		+/-	114.9024	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

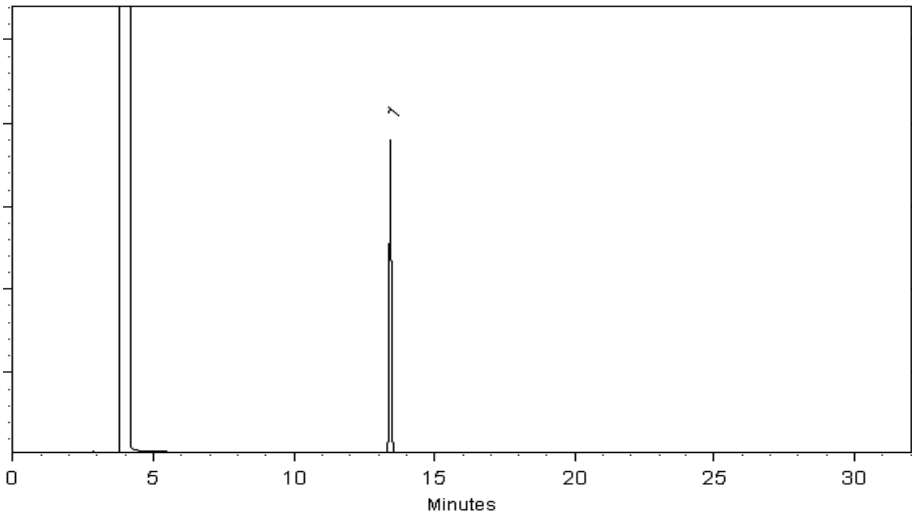
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Brandon Cook - Mix Technician

Date Mixed: 17-Nov-2015 **Balance:** 1125113331

Jodi E. Breon - QA Analyst

Date Passed: 19-Nov-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1618014

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	12/31/17
Standard Type:	Other Solution	**Prepared:**	04/25/16
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	04/25/16 09:36 by YNB
Vendor:	Restek	**Lot Numbe**	A0115992

RESTEK, catalog # 30431, Barcode AU008077

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	2000
Bromobenzene	108-86-1	2000
Benzene	71-43-2	2000
4-Chlorotoluene	106-43-4	2000
2-Chlorotoluene	95-49-8	2000
2,2-Dichloropropane	594-20-7	2000
1,4-Dichlorobenzene	106-46-7	2000
1,3-Dichloropropane	142-28-9	2000
1,3-Dichlorobenzene	541-73-1	2000
1,3,5-Trimethylbenzene	108-67-8	2000
1,2-Dichloropropane	78-87-5	2000
1,1,1,2-Tetrachloroethane	630-20-6	2000
1,2-Dichlorobenzene	95-50-1	2000
Bromoform	75-25-2	2000
1,2-Dibromo-3-chloropropane	96-12-8	2000
1,2,4-Trimethylbenzene	95-63-6	2000
1,2,4-Trichlorobenzene	120-82-1	2000
1,2,3-Trichloropropane	96-18-4	2000
1,2,3-Trichlorobenzene	87-61-6	2000
1,1-Dichloropropene	563-58-6	2000
1,1-Dichloroethene	75-35-4	2000
1,1-Dichloroethane	75-34-3	2000
1,1,2-Trichloroethane	79-00-5	2000
1,1,2,2-Tetrachloroethane	79-34-5	2000
1,1,1-Trichloroethane	71-55-6	2000
1,2-Dichloroethane	107-06-2	2000
Hexachlorobutadiene	87-68-3	2000
trans-1,3-Dichloropropene	10061-02-6	2000
trans-1,2-Dichloroethene	156-60-5	2000
Toluene	108-88-3	2000

Analytical Standard Record

EPA Region 9 Laboratory

1618014

Tetrachloroethene	127-18-4	2000
tert-Butylbenzene	98-06-6	2000
Styrene	100-42-5	2000
sec-Butylbenzene	135-98-8	2000
Propylbenzene	103-65-1	2000
p-Isopropyltoluene	99-87-6	2000
o-Xylene	95-47-6	2000
Naphthalene	91-20-3	2000
Bromochloromethane	74-97-5	2000
Isopropylbenzene	98-82-8	2000
Bromodichloromethane	75-27-4	2000
Ethylbenzene	100-41-4	2000
Dichloromethane	75-09-2	2000
Dibromomethane	74-95-3	2000
cis-1,3-Dichloropropene	10061-01-5	2000
cis-1,2-Dichloroethene	156-59-2	2000
Chloroform	67-66-3	2000
Chlorodibromomethane	124-48-1	2000
Chlorobenzene	108-90-7	2000
Carbon tetrachloride	56-23-5	2000
Butylbenzene	104-51-8	2000
Trichloroethene	79-01-6	2000
m&p-Xylene	179601-23-1	4000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 30431 **Lot No.:** A0115992

Description : 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1-dichloroethene		2,002.3 µg/mL	+/- 15.3746	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot SHBD6170V)		+/- 90.7413	µg/mL	Unstressed
	Purity 99%			+/- 100.5728	µg/mL	Stressed
2	Methylene chloride (dichloromethane)		2,001.1 µg/mL	+/- 15.3655	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBF9870V)		+/- 90.6879	µg/mL	Unstressed
	Purity 99%			+/- 100.5136	µg/mL	Stressed
3	trans-1,2-Dichloroethene		2,000.4 µg/mL	+/- 15.3603	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)		+/- 90.6570	µg/mL	Unstressed
	Purity 99%			+/- 100.4794	µg/mL	Stressed
4	1,1-Dichloroethane		2,000.6 µg/mL	+/- 15.3620	µg/mL	Gravimetric
	CAS # 75-34-3	(Lot 00008621)		+/- 90.6670	µg/mL	Unstressed
	Purity 99%			+/- 100.4904	µg/mL	Stressed
5	2,2-Dichloropropane		2,007.4 µg/mL	+/- 15.4144	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBH9246V)		+/- 90.9738	µg/mL	Unstressed
	Purity 98%			+/- 100.8304	µg/mL	Stressed
6	cis-1,2-Dichloroethene		2,009.7 µg/mL	+/- 15.4322	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBQ2835V)		+/- 91.0788	µg/mL	Unstressed
	Purity 99%			+/- 100.9469	µg/mL	Stressed
7	chloroform		2,001.0 µg/mL	+/- 15.3648	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBD7581V)		+/- 90.6835	µg/mL	Unstressed
	Purity 98%			+/- 100.5087	µg/mL	Stressed

8	Bromochloromethane			2,002.7	µg/mL	+/-	15.3779	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00004559)			+/-	90.7582	µg/mL	Unstressed
	Purity	99%				+/-	100.5915	µg/mL	Stressed
9	1,1,1-trichloroethane			2,001.9	µg/mL	+/-	15.3715	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot B14QT1124)			+/-	90.7232	µg/mL	Unstressed
	Purity	99%				+/-	100.5527	µg/mL	Stressed
10	1,1-Dichloropropene			2,000.2	µg/mL	+/-	15.3587	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot PR09161302)			+/-	90.6451	µg/mL	Unstressed
	Purity	98%				+/-	100.4662	µg/mL	Stressed
11	carbon tetrachloride			2,004.2	µg/mL	+/-	15.3893	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBC1410V)			+/-	90.8283	µg/mL	Unstressed
	Purity	99%				+/-	100.6693	µg/mL	Stressed
12	1,2-Dichloroethane			2,001.3	µg/mL	+/-	15.3674	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot SHBC6595V)			+/-	90.6987	µg/mL	Unstressed
	Purity	99%				+/-	100.5256	µg/mL	Stressed
13	Benzene			2,000.2	µg/mL	+/-	15.3593	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBF0424V)			+/-	90.6483	µg/mL	Unstressed
	Purity	99%				+/-	100.4697	µg/mL	Stressed
14	Trichloroethene			2,011.8	µg/mL	+/-	15.4480	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBF0943V)			+/-	91.1746	µg/mL	Unstressed
	Purity	99%				+/-	101.0530	µg/mL	Stressed
15	1,2-Dichloropropane			2,003.5	µg/mL	+/-	15.3837	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot 01113D0V)			+/-	90.7948	µg/mL	Unstressed
	Purity	99%				+/-	100.6321	µg/mL	Stressed
16	bromodichloromethane			2,000.5	µg/mL	+/-	15.3609	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot 150916JLM)			+/-	90.6607	µg/mL	Unstressed
	Purity	99%				+/-	100.4834	µg/mL	Stressed
17	Dibromomethane			2,001.1	µg/mL	+/-	15.3658	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10169264)			+/-	90.6868	µg/mL	Unstressed
	Purity	99%				+/-	100.5124	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,005.0	µg/mL	+/-	15.3958	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 22119)			+/-	90.8664	µg/mL	Unstressed
	Purity	99%				+/-	100.7115	µg/mL	Stressed
19	Toluene			2,001.2	µg/mL	+/-	15.3668	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBF7904V)			+/-	90.6925	µg/mL	Unstressed
	Purity	99%				+/-	100.5186	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,002.8	µg/mL	+/-	15.3787	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C579534)			+/-	90.7658	µg/mL	Unstressed
	Purity	99%				+/-	100.5999	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,005.0	µg/mL	+/-	15.3953	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.8637	µg/mL	Unstressed
	Purity	99%				+/-	100.7084	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.0	µg/mL	+/-	15.3654	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)			+/-	90.6845	µg/mL	Unstressed
	Purity	99%				+/-	100.5099	µg/mL	Stressed
23	Tetrachloroethene			2,004.5	µg/mL	+/-	15.3916	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBD9374V)			+/-	90.8419	µg/mL	Unstressed
	Purity	99%				+/-	100.6843	µg/mL	Stressed

24	dibromochloromethane		2,000.7	µg/mL	+/-	15.3621	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot 150915JLM)			+/-	90.6675	µg/mL	Unstressed
	Purity 98%				+/-	100.4910	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)		2,000.9	µg/mL	+/-	15.3645	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	90.6789	µg/mL	Unstressed
	Purity 99%				+/-	100.5036	µg/mL	Stressed
26	Chlorobenzene		2,001.3	µg/mL	+/-	15.3669	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)			+/-	90.6960	µg/mL	Unstressed
	Purity 99%				+/-	100.5226	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane		2,001.8	µg/mL	+/-	15.3714	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBF2316V)			+/-	90.7197	µg/mL	Unstressed
	Purity 99%				+/-	100.5488	µg/mL	Stressed
28	Ethylbenzene		2,002.0	µg/mL	+/-	15.3725	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBD6720V)			+/-	90.7265	µg/mL	Unstressed
	Purity 99%				+/-	100.5563	µg/mL	Stressed
29	m-Xylene		2,000.5	µg/mL	+/-	15.3616	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF1720V)			+/-	90.6619	µg/mL	Unstressed
	Purity 99%				+/-	100.4847	µg/mL	Stressed
30	p-Xylene		2,000.5	µg/mL	+/-	15.3614	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	90.6607	µg/mL	Unstressed
	Purity 99%				+/-	100.4835	µg/mL	Stressed
31	o-Xylene		2,000.3	µg/mL	+/-	15.3599	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBC8668V)			+/-	90.6518	µg/mL	Unstressed
	Purity 98%				+/-	100.4736	µg/mL	Stressed
32	Styrene		2,000.3	µg/mL	+/-	15.3597	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot 10182421)			+/-	90.6505	µg/mL	Unstressed
	Purity 99%				+/-	100.4722	µg/mL	Stressed
33	Isopropylbenzene (cumene)		2,000.1	µg/mL	+/-	15.3585	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10169400)			+/-	90.6437	µg/mL	Unstressed
	Purity 99%				+/-	100.4647	µg/mL	Stressed
34	bromoform		2,000.8	µg/mL	+/-	15.3634	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	90.6752	µg/mL	Unstressed
	Purity 99%				+/-	100.4995	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane		2,001.9	µg/mL	+/-	15.3717	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	90.7241	µg/mL	Unstressed
	Purity 99%				+/-	100.5537	µg/mL	Stressed
36	1,2,3-Trichloropropane		2,000.8	µg/mL	+/-	15.3637	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 1428739V)			+/-	90.6743	µg/mL	Unstressed
	Purity 99%				+/-	100.4986	µg/mL	Stressed
37	n-Propylbenzene		2,000.3	µg/mL	+/-	15.3599	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBQ8049V)			+/-	90.6517	µg/mL	Unstressed
	Purity 99%				+/-	100.4734	µg/mL	Stressed
38	Bromobenzene		2,001.3	µg/mL	+/-	15.3673	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot MKBD4032V)			+/-	90.6959	µg/mL	Unstressed
	Purity 99%				+/-	100.5224	µg/mL	Stressed
39	1,3,5-Trimethylbenzene		2,000.6	µg/mL	+/-	15.3624	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBJ3305V)			+/-	90.6664	µg/mL	Unstressed
	Purity 99%				+/-	100.4898	µg/mL	Stressed

40	2-Chlorotoluene		2,000.9	µg/mL	+/-	15.3641	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBH8892V)			+/-	90.6766	µg/mL	Unstressed
	Purity 99%				+/-	100.5011	µg/mL	Stressed
41	4-Chlorotoluene		2,000.5	µg/mL	+/-	15.3616	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBB7205V)			+/-	90.6619	µg/mL	Unstressed
	Purity 99%				+/-	100.4847	µg/mL	Stressed
42	1,2,4-Trimethylbenzene		2,000.4	µg/mL	+/-	15.3608	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	90.6573	µg/mL	Unstressed
	Purity 98%				+/-	100.4797	µg/mL	Stressed
43	sec-Butylbenzene		2,000.1	µg/mL	+/-	15.3585	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBK3151V)			+/-	90.6437	µg/mL	Unstressed
	Purity 99%				+/-	100.4647	µg/mL	Stressed
44	p-Isopropyltoluene (p-Cymene)		2,000.7	µg/mL	+/-	15.3627	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKBK4439V)			+/-	90.6687	µg/mL	Unstressed
	Purity 99%				+/-	100.4923	µg/mL	Stressed
45	1,3-Dichlorobenzene		2,002.7	µg/mL	+/-	15.3777	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	90.7595	µg/mL	Unstressed
	Purity 99%				+/-	100.5929	µg/mL	Stressed
46	1,4-Dichlorobenzene		2,002.6	µg/mL	+/-	15.3767	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	90.7540	µg/mL	Unstressed
	Purity 99%				+/-	100.5869	µg/mL	Stressed
47	n-Butylbenzene		2,000.3	µg/mL	+/-	15.3600	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09418JJV)			+/-	90.6528	µg/mL	Unstressed
	Purity 99%				+/-	100.4747	µg/mL	Stressed
48	tert-Butylbenzene		2,001.1	µg/mL	+/-	15.3658	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot S52237V)			+/-	90.6868	µg/mL	Unstressed
	Purity 99%				+/-	100.5124	µg/mL	Stressed
49	1,2-Dichlorobenzene		2,002.9	µg/mL	+/-	15.3794	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	90.7694	µg/mL	Unstressed
	Purity 99%				+/-	100.6040	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		2,000.8	µg/mL	+/-	15.3639	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot 150618JLM)			+/-	90.6755	µg/mL	Unstressed
	Purity 99%				+/-	100.4998	µg/mL	Stressed
51	1,2,4-Trichlorobenzene		2,000.4	µg/mL	+/-	15.3603	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	90.6540	µg/mL	Unstressed
	Purity 98%				+/-	100.4760	µg/mL	Stressed
52	Hexachlorobutadiene		1,999.9	µg/mL	+/-	15.3569	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	90.6340	µg/mL	Unstressed
	Purity 98%				+/-	100.4539	µg/mL	Stressed
53	Naphthalene		2,000.3	µg/mL	+/-	15.3599	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	90.6517	µg/mL	Unstressed
	Purity 99%				+/-	100.4734	µg/mL	Stressed
54	1,2,3-Trichlorobenzene		2,000.0	µg/mL	+/-	15.3577	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)			+/-	90.6392	µg/mL	Unstressed
	Purity 99%				+/-	100.4596	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.#10916)

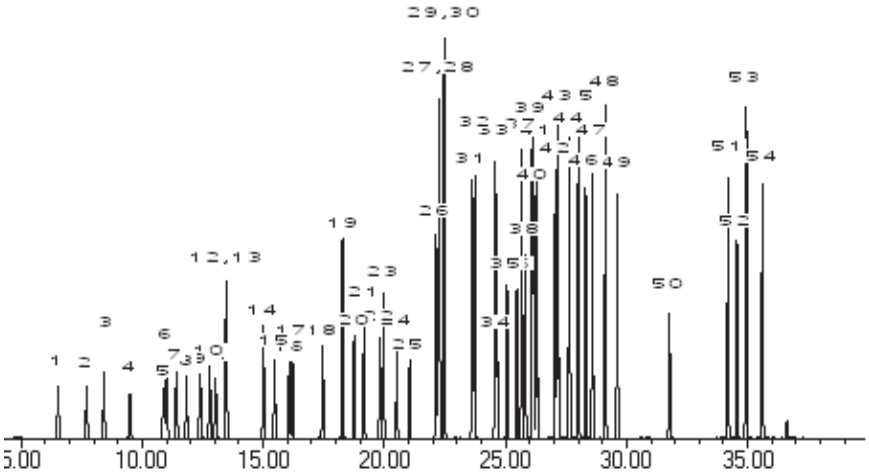
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°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.

Cheryl Graham - Mix Technician

Date Mixed: 15-Dec-2015 **Balance:** 1125113331

Amanda Miller - QC Analyst

Date Passed: 18-Dec-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1618016

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	12/31/17
Standard Type:	Other Solution	**Prepared:**	04/25/16
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	04/25/16 09:36 by YNB
Vendor:	Restek	**Lot Numbe**	A0115992

RESTEK, catalog # 30431, Barcode AU008079

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	2000
Bromobenzene	108-86-1	2000
Benzene	71-43-2	2000
4-Chlorotoluene	106-43-4	2000
2-Chlorotoluene	95-49-8	2000
2,2-Dichloropropane	594-20-7	2000
1,4-Dichlorobenzene	106-46-7	2000
1,3-Dichloropropane	142-28-9	2000
1,3-Dichlorobenzene	541-73-1	2000
1,3,5-Trimethylbenzene	108-67-8	2000
1,2-Dichloropropane	78-87-5	2000
1,1,1,2-Tetrachloroethane	630-20-6	2000
1,2-Dichlorobenzene	95-50-1	2000
Bromoform	75-25-2	2000
1,2-Dibromo-3-chloropropane	96-12-8	2000
1,2,4-Trimethylbenzene	95-63-6	2000
1,2,4-Trichlorobenzene	120-82-1	2000
1,2,3-Trichloropropane	96-18-4	2000
1,2,3-Trichlorobenzene	87-61-6	2000
1,1-Dichloropropene	563-58-6	2000
1,1-Dichloroethene	75-35-4	2000
1,1-Dichloroethane	75-34-3	2000
1,1,2-Trichloroethane	79-00-5	2000
1,1,2,2-Tetrachloroethane	79-34-5	2000
1,1,1-Trichloroethane	71-55-6	2000
1,2-Dichloroethane	107-06-2	2000
Hexachlorobutadiene	87-68-3	2000
trans-1,3-Dichloropropene	10061-02-6	2000
trans-1,2-Dichloroethene	156-60-5	2000
Toluene	108-88-3	2000

Analytical Standard Record

EPA Region 9 Laboratory

1618016

Tetrachloroethene	127-18-4	2000
tert-Butylbenzene	98-06-6	2000
Styrene	100-42-5	2000
sec-Butylbenzene	135-98-8	2000
Propylbenzene	103-65-1	2000
p-Isopropyltoluene	99-87-6	2000
o-Xylene	95-47-6	2000
Naphthalene	91-20-3	2000
Bromochloromethane	74-97-5	2000
Isopropylbenzene	98-82-8	2000
Bromodichloromethane	75-27-4	2000
Ethylbenzene	100-41-4	2000
Dichloromethane	75-09-2	2000
Dibromomethane	74-95-3	2000
cis-1,3-Dichloropropene	10061-01-5	2000
cis-1,2-Dichloroethene	156-59-2	2000
Chloroform	67-66-3	2000
Chlorodibromomethane	124-48-1	2000
Chlorobenzene	108-90-7	2000
Carbon tetrachloride	56-23-5	2000
Butylbenzene	104-51-8	2000
Trichloroethene	79-01-6	2000
m&p-Xylene	179601-23-1	4000

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 30431 **Lot No.:** A0115992

Description : 502.2 CAL2000 Mega-Mix

502.2 CAL2000 Mega-Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2017 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,1-dichloroethene	2,002.3 µg/mL	+/- 15.3746	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBD6170V)		+/- 90.7413	µg/mL	Unstressed
	Purity 99%		+/- 100.5728	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	2,001.1 µg/mL	+/- 15.3655	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBF9870V)		+/- 90.6879	µg/mL	Unstressed
	Purity 99%		+/- 100.5136	µg/mL	Stressed
3	trans-1,2-Dichloroethene	2,000.4 µg/mL	+/- 15.3603	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/- 90.6570	µg/mL	Unstressed
	Purity 99%		+/- 100.4794	µg/mL	Stressed
4	1,1-Dichloroethane	2,000.6 µg/mL	+/- 15.3620	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 00008621)		+/- 90.6670	µg/mL	Unstressed
	Purity 99%		+/- 100.4904	µg/mL	Stressed
5	2,2-Dichloropropane	2,007.4 µg/mL	+/- 15.4144	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot BCBH9246V)		+/- 90.9738	µg/mL	Unstressed
	Purity 98%		+/- 100.8304	µg/mL	Stressed
6	cis-1,2-Dichloroethene	2,009.7 µg/mL	+/- 15.4322	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKBQ2835V)		+/- 91.0788	µg/mL	Unstressed
	Purity 99%		+/- 100.9469	µg/mL	Stressed
7	chloroform	2,001.0 µg/mL	+/- 15.3648	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBD7581V)		+/- 90.6835	µg/mL	Unstressed
	Purity 98%		+/- 100.5087	µg/mL	Stressed

8	Bromochloromethane			2,002.7	µg/mL	+/-	15.3779	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)				+/-	90.7582	µg/mL	Unstressed
	Purity 99%					+/-	100.5915	µg/mL	Stressed
9	1,1,1-trichloroethane			2,001.9	µg/mL	+/-	15.3715	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B14QT1124)				+/-	90.7232	µg/mL	Unstressed
	Purity 99%					+/-	100.5527	µg/mL	Stressed
10	1,1-Dichloropropene			2,000.2	µg/mL	+/-	15.3587	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot PR09161302)				+/-	90.6451	µg/mL	Unstressed
	Purity 98%					+/-	100.4662	µg/mL	Stressed
11	carbon tetrachloride			2,004.2	µg/mL	+/-	15.3893	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBC1410V)				+/-	90.8283	µg/mL	Unstressed
	Purity 99%					+/-	100.6693	µg/mL	Stressed
12	1,2-Dichloroethane			2,001.3	µg/mL	+/-	15.3674	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot SHBC6595V)				+/-	90.6987	µg/mL	Unstressed
	Purity 99%					+/-	100.5256	µg/mL	Stressed
13	Benzene			2,000.2	µg/mL	+/-	15.3593	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBF0424V)				+/-	90.6483	µg/mL	Unstressed
	Purity 99%					+/-	100.4697	µg/mL	Stressed
14	Trichloroethene			2,011.8	µg/mL	+/-	15.4480	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBF0943V)				+/-	91.1746	µg/mL	Unstressed
	Purity 99%					+/-	101.0530	µg/mL	Stressed
15	1,2-Dichloropropane			2,003.5	µg/mL	+/-	15.3837	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot 01113D0V)				+/-	90.7948	µg/mL	Unstressed
	Purity 99%					+/-	100.6321	µg/mL	Stressed
16	bromodichloromethane			2,000.5	µg/mL	+/-	15.3609	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot 150916JLM)				+/-	90.6607	µg/mL	Unstressed
	Purity 99%					+/-	100.4834	µg/mL	Stressed
17	Dibromomethane			2,001.1	µg/mL	+/-	15.3658	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10169264)				+/-	90.6868	µg/mL	Unstressed
	Purity 99%					+/-	100.5124	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,005.0	µg/mL	+/-	15.3958	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 22119)				+/-	90.8664	µg/mL	Unstressed
	Purity 99%					+/-	100.7115	µg/mL	Stressed
19	Toluene			2,001.2	µg/mL	+/-	15.3668	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBF7904V)				+/-	90.6925	µg/mL	Unstressed
	Purity 99%					+/-	100.5186	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,002.8	µg/mL	+/-	15.3787	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot C579534)				+/-	90.7658	µg/mL	Unstressed
	Purity 99%					+/-	100.5999	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,005.0	µg/mL	+/-	15.3953	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)				+/-	90.8637	µg/mL	Unstressed
	Purity 99%					+/-	100.7084	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.0	µg/mL	+/-	15.3654	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBG2162V)				+/-	90.6845	µg/mL	Unstressed
	Purity 99%					+/-	100.5099	µg/mL	Stressed
23	Tetrachloroethene			2,004.5	µg/mL	+/-	15.3916	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBD9374V)				+/-	90.8419	µg/mL	Unstressed
	Purity 99%					+/-	100.6843	µg/mL	Stressed

24	dibromochloromethane			2,000.7	µg/mL	+/-	15.3621	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot 150915JLM)				+/-	90.6675	µg/mL	Unstressed
	Purity 98%					+/-	100.4910	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,000.9	µg/mL	+/-	15.3645	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)				+/-	90.6789	µg/mL	Unstressed
	Purity 99%					+/-	100.5036	µg/mL	Stressed
26	Chlorobenzene			2,001.3	µg/mL	+/-	15.3669	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)				+/-	90.6960	µg/mL	Unstressed
	Purity 99%					+/-	100.5226	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,001.8	µg/mL	+/-	15.3714	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBF2316V)				+/-	90.7197	µg/mL	Unstressed
	Purity 99%					+/-	100.5488	µg/mL	Stressed
28	Ethylbenzene			2,002.0	µg/mL	+/-	15.3725	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBD6720V)				+/-	90.7265	µg/mL	Unstressed
	Purity 99%					+/-	100.5563	µg/mL	Stressed
29	m-Xylene			2,000.5	µg/mL	+/-	15.3616	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF1720V)				+/-	90.6619	µg/mL	Unstressed
	Purity 99%					+/-	100.4847	µg/mL	Stressed
30	p-Xylene			2,000.5	µg/mL	+/-	15.3614	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)				+/-	90.6607	µg/mL	Unstressed
	Purity 99%					+/-	100.4835	µg/mL	Stressed
31	o-Xylene			2,000.3	µg/mL	+/-	15.3599	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBC8668V)				+/-	90.6518	µg/mL	Unstressed
	Purity 98%					+/-	100.4736	µg/mL	Stressed
32	Styrene			2,000.3	µg/mL	+/-	15.3597	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot 10182421)				+/-	90.6505	µg/mL	Unstressed
	Purity 99%					+/-	100.4722	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,000.1	µg/mL	+/-	15.3585	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10169400)				+/-	90.6437	µg/mL	Unstressed
	Purity 99%					+/-	100.4647	µg/mL	Stressed
34	bromoform			2,000.8	µg/mL	+/-	15.3634	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)				+/-	90.6752	µg/mL	Unstressed
	Purity 99%					+/-	100.4995	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,001.9	µg/mL	+/-	15.3717	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)				+/-	90.7241	µg/mL	Unstressed
	Purity 99%					+/-	100.5537	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,000.8	µg/mL	+/-	15.3637	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 1428739V)				+/-	90.6743	µg/mL	Unstressed
	Purity 99%					+/-	100.4986	µg/mL	Stressed
37	n-Propylbenzene			2,000.3	µg/mL	+/-	15.3599	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBQ8049V)				+/-	90.6517	µg/mL	Unstressed
	Purity 99%					+/-	100.4734	µg/mL	Stressed
38	Bromobenzene			2,001.3	µg/mL	+/-	15.3673	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot MKBD4032V)				+/-	90.6959	µg/mL	Unstressed
	Purity 99%					+/-	100.5224	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,000.6	µg/mL	+/-	15.3624	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBJ3305V)				+/-	90.6664	µg/mL	Unstressed
	Purity 99%					+/-	100.4898	µg/mL	Stressed

40	2-Chlorotoluene			2,000.9	µg/mL	+/-	15.3641	µg/mL	Gravimetric
	CAS #	95-49-8	(Lot MKBH8892V)			+/-	90.6766	µg/mL	Unstressed
	Purity	99%				+/-	100.5011	µg/mL	Stressed
41	4-Chlorotoluene			2,000.5	µg/mL	+/-	15.3616	µg/mL	Gravimetric
	CAS #	106-43-4	(Lot MKBB7205V)			+/-	90.6619	µg/mL	Unstressed
	Purity	99%				+/-	100.4847	µg/mL	Stressed
42	1,2,4-Trimethylbenzene			2,000.4	µg/mL	+/-	15.3608	µg/mL	Gravimetric
	CAS #	95-63-6	(Lot MKBJ6229V)			+/-	90.6573	µg/mL	Unstressed
	Purity	98%				+/-	100.4797	µg/mL	Stressed
43	sec-Butylbenzene			2,000.1	µg/mL	+/-	15.3585	µg/mL	Gravimetric
	CAS #	135-98-8	(Lot MKBK3151V)			+/-	90.6437	µg/mL	Unstressed
	Purity	99%				+/-	100.4647	µg/mL	Stressed
44	p-Isopropyltoluene (p-Cymene)			2,000.7	µg/mL	+/-	15.3627	µg/mL	Gravimetric
	CAS #	99-87-6	(Lot MKBK4439V)			+/-	90.6687	µg/mL	Unstressed
	Purity	99%				+/-	100.4923	µg/mL	Stressed
45	1,3-Dichlorobenzene			2,002.7	µg/mL	+/-	15.3777	µg/mL	Gravimetric
	CAS #	541-73-1	(Lot BCBC1891V)			+/-	90.7595	µg/mL	Unstressed
	Purity	99%				+/-	100.5929	µg/mL	Stressed
46	1,4-Dichlorobenzene			2,002.6	µg/mL	+/-	15.3767	µg/mL	Gravimetric
	CAS #	106-46-7	(Lot MKBS1350V)			+/-	90.7540	µg/mL	Unstressed
	Purity	99%				+/-	100.5869	µg/mL	Stressed
47	n-Butylbenzene			2,000.3	µg/mL	+/-	15.3600	µg/mL	Gravimetric
	CAS #	104-51-8	(Lot 09418JJV)			+/-	90.6528	µg/mL	Unstressed
	Purity	99%				+/-	100.4747	µg/mL	Stressed
48	tert-Butylbenzene			2,001.1	µg/mL	+/-	15.3658	µg/mL	Gravimetric
	CAS #	98-06-6	(Lot S52237V)			+/-	90.6868	µg/mL	Unstressed
	Purity	99%				+/-	100.5124	µg/mL	Stressed
49	1,2-Dichlorobenzene			2,002.9	µg/mL	+/-	15.3794	µg/mL	Gravimetric
	CAS #	95-50-1	(Lot SHBD7331V)			+/-	90.7694	µg/mL	Unstressed
	Purity	99%				+/-	100.6040	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane			2,000.8	µg/mL	+/-	15.3639	µg/mL	Gravimetric
	CAS #	96-12-8	(Lot 150618JLM)			+/-	90.6755	µg/mL	Unstressed
	Purity	99%				+/-	100.4998	µg/mL	Stressed
51	1,2,4-Trichlorobenzene			2,000.4	µg/mL	+/-	15.3603	µg/mL	Gravimetric
	CAS #	120-82-1	(Lot SHBC5541V)			+/-	90.6540	µg/mL	Unstressed
	Purity	98%				+/-	100.4760	µg/mL	Stressed
52	Hexachlorobutadiene			1,999.9	µg/mL	+/-	15.3569	µg/mL	Gravimetric
	CAS #	87-68-3	(Lot J31X013)			+/-	90.6340	µg/mL	Unstressed
	Purity	98%				+/-	100.4539	µg/mL	Stressed
53	Naphthalene			2,000.3	µg/mL	+/-	15.3599	µg/mL	Gravimetric
	CAS #	91-20-3	(Lot MKBH4351V)			+/-	90.6517	µg/mL	Unstressed
	Purity	99%				+/-	100.4734	µg/mL	Stressed
54	1,2,3-Trichlorobenzene			2,000.0	µg/mL	+/-	15.3577	µg/mL	Gravimetric
	CAS #	87-61-6	(Lot 12912PFV)			+/-	90.6392	µg/mL	Unstressed
	Purity	99%				+/-	100.4596	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.#10916)

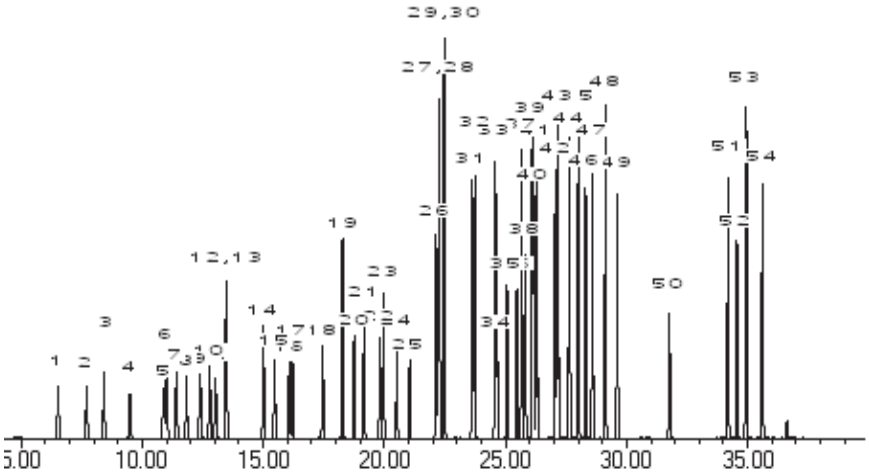
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°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.

Cheryl Graham - Mix Technician

Date Mixed: 15-Dec-2015 **Balance:** 1125113331

Amanda Miller - QC Analyst

Date Passed: 18-Dec-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Standard Record

EPA Region 9 Laboratory

1620055

Description:	Passive indoor air Internal Standard (10 X)	**Expires:**	11/09/16
Standard Type:	Other Solution	**Prepared:**	05/09/16
Solvent:	MEOH	**Prepared By:**	Bob Hopeman
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	05/09/16 11:39 by RH
Vendor:	O2SI	**Lot Numbe**	277767

Part number 020132-12
Bar code AU008130

Analyte	CAS Number	Concentration (ppm)
Fluorobenzene	462-06-6	20000

o2si smart solutions®

Quality System Audited & Registered by NSF-ISR to ISO 9001:2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

ACCREDITED

ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: _____

Certificate of Analysis

Rev 0 **Page 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
020132-12	277767	≤ -10 Degrees C	P/T Methanol	29-Apr-2018	Fluorobenzene Solution, 20,000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
fluorobenzene	462-06-6	99.9	132.7.1P	19990 +/- 45.8	mg/L

Certified By: Amanda Ross

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined on a mass/mass basis.

Scanned by CamScanner

Analytical Standard Record

EPA Region 9 Laboratory

1620056

Description:	Passive indoor air Surrogate (10 X)	**Expires:**	11/09/16
Standard Type:	Surrogate Spike	**Prepared:**	05/09/16
Solvent:	MEOH	**Prepared By:**	Bob Hopeman
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	05/09/16 11:38 by RH
Vendor:	O2SI	**Lot Numbe**	277766

Part number 020137-20
Bar code AU008129

Analyte	CAS Number	Concentration (ppm)
Toluene-d8	2037-26-5	20000

o2si smart solutions®

Quality System Audited & Registered by NSF-ISR to ISO 9001 2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

ACCREDITED

ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: _____

Certificate of Analysis

Rev 0 **Page 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
020137-20	277766	≤-10 Degrees C	P/T Methanol	4-May-2019	Toluene-d8 Solution 20,000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
toluene-d_8	2037-26-5	99.9	137.1.9P	19920 +/- 203.39	mg/L

Certified By: Amanda Ross

Amanda Ross
Manufacture Date 29-Apr-2016

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

Scanned by CamScanner

Analytical Standard Record

EPA Region 9 Laboratory

1622037

Description:	VOA 502/524 VOC Mix, Stock	**Expires:**	05/31/17
Standard Type:	Other Solution	**Prepared:**	05/24/16
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1.15	**Department:**	Volatiles
Vials:	1	**Last Edit:**	05/24/16 11:46 by YNB
Vendor:	Supelco	**Lot Numbe**	Lot# LC14518V

Supelco, Cat # 502111, Lot# LC14518V, bar code AU008159

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromo-3-chloropropane	96-12-8	2000
1,1,1,2-Tetrachloroethane	630-20-6	2000
Benzene	71-43-2	2000
4-Chlorotoluene	106-43-4	2000
2-Chlorotoluene	95-49-8	2000
2,2-Dichloropropane	594-20-7	2000
1,4-Dichlorobenzene	106-46-7	2000
1,3-Dichloropropane	142-28-9	2000
1,3-Dichlorobenzene	541-73-1	2000
1,3,5-Trimethylbenzene	108-67-8	2000
1,2-Dichloropropane	78-87-5	2000
1,2-Dichloroethane	107-06-2	2000
Bromochloromethane	74-97-5	2000
1,2-Dibromoethane (EDB)	106-93-4	2000
Bromodichloromethane	75-27-4	2000
1,2,4-Trimethylbenzene	95-63-6	2000
1,2,4-Trichlorobenzene	120-82-1	2000
1,2,3-Trimethylbenzene	526-73-8	2000
1,2,3-Trichloropropane	96-18-4	2000
1,2,3-Trichlorobenzene	87-61-6	2000
1,1-Dichloropropene	563-58-6	2000
1,1-Dichloroethene	75-35-4	2000
1,1-Dichloroethane	75-34-3	2000
1,1,2-Trichloroethane	79-00-5	2000
1,1,2,2-Tetrachloroethane	79-34-5	2000
1,1,1-Trichloroethane	71-55-6	2000
1,2-Dichlorobenzene	95-50-1	2000
Hexachlorobutadiene	87-68-3	2000
trans-1,3-Dichloropropene	10061-02-6	2000
trans-1,2-Dichloroethene	156-60-5	2000

Analytical Standard Record

EPA Region 9 Laboratory

1622037

Toluene	108-88-3	2000
Tetrachloroethene	127-18-4	2000
tert-Butylbenzene	98-06-6	2000
Styrene	100-42-5	2000
sec-Butylbenzene	135-98-8	2000
Propylbenzene	103-65-1	2000
p-Isopropyltoluene	99-87-6	2000
o-Xylene	95-47-6	2000
Naphthalene	91-20-3	2000
Bromobenzene	108-86-1	2000
Isopropylbenzene	98-82-8	2000
Trichloroethene	79-01-6	2000
Ethylbenzene	100-41-4	2000
Dichloromethane	75-09-2	2000
Dibromomethane	74-95-3	2000
cis-1,3-Dichloropropene	10061-01-5	2000
cis-1,2-Dichloroethene	156-59-2	2000
Chloroform	67-66-3	2000
Chlorodibromomethane	124-48-1	2000
Chlorobenzene	108-90-7	2000
Carbon tetrachloride	56-23-5	2000
Butylbenzene	104-51-8	2000
Bromoform	75-25-2	2000
m&p-Xylene	179601-23-1	4000

Certificate of Analysis

DESCRIPTION: 502/524 Volatile Organics Calibration Mix

CATALOG NO.: 502111 MFG DATE: May-2015
LOT NO.: LC14518V EXPIRATION DATE: May-2017

SOLVENT: METHANOL

ANALYTE (1)	CAS NUMBER	PERCENT PURITY(2)	WEIGHT(3) CONCENTRATION	ANALYTICAL(4) CONCENTRATION	STD DEV	SUPELCO LOT NO
BENZENE	71-43-2	99.9	2000	1961	+/- 123.1	LC03683
BROMOBENZENE	108-86-1	99.9	2001	2079	+/- 17.2	LB99843
BROMOCHLOROMETHANE	74-97-5	99.3	2000	1979	+/- 100.0	LB39040
BROMODICHLOROMETHANE	75-27-4	98.3	2000	2006	+/- 54.9	LC08591
BROMOFORM	75-25-2	99.9	2000	2036	+/- 61.4	LB99100
CARBON TETRACHLORIDE	56-23-5	99.9	2000	1956	+/- 133.1	LA55583
CHLOROBENZENE	108-90-7	99.9	2000	2061	+/- 41.0	LB93949
CHLOROFORM	67-66-3	99.9	2000	1967	+/- 112.7	LB97804
CIS 1,3-DICHLOROPROPENE (Z)	10061-01-5	99.5	2000	2011	+/- 22.0	LB96292
CIS-1,2-DICHLOROETHYLENE	156-59-2	99.3	2000	1956	+/- 50.6	LB73428
CUMENE	98-82-8	99.9	2000	2073	+/- 26.5	LB89580
DIBROMOCHLOROMETHANE	124-48-1	95.2	2000	2120	+/- 9.3	LB89245
DIBROMOMETHANE	74-95-3	98.9	2000	2056	+/- 51.0	LB81118
ETHYLBENZENE	100-41-4	99.9	2000	2069	+/- 18.8	LB69556
HEXACHLOROBUTADIENE	87-68-3	99.9	2000	2077	+/- 129.1	LB75566
M-XYLENE (5)	108-38-3	99.9	2000	*****		LB87531
METHYLENE CHLORIDE	75-09-2	99.9	2000	1992	+/- 107.7	LC06280
N-BUTYLBENZENE	104-51-8	99.9	2000	2061	+/- 71.0	LB81630
N-PROPYLBENZENE	103-65-1	99.9	2000	2080	+/- 23.7	LB69017

(1) Listed in alphabetical order.
(2) Determined by capillary GC-FID, unless otherwise noted.
(3) NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, based upon balance and Class A volumetric glassware tolerances. Weights are corrected for analytes less than 98% pure.
(4) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections.
(5) These products coelute and are not quantified in the final mix.

AU008159	1622037
60	38
61	39

Duane Funk

Duane Funk
Quality Manager

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Certificate of Analysis

DESCRIPTION: 502/524 Volatile Organics Calibration Mix

CATALOG NO.: 502111 MFG DATE: May-2015
LOT NO.: LC14518V EXPIRATION DATE: May-2017

SOLVENT: METHANOL

ANALYTE (1)	CAS NUMBER	PERCENT PURITY(2)	WEIGHT(3)	ANALYTICAL(4) CONCENTRATION		STD DEV	SUPELCO LOT NO
NAPHTHALENE	91-20-3	99.9	2000	2084	+/-	92.8	LB83148
O-XYLENE	95-47-6	99.5	2000	2086	+/-	40.1	LB92424
P-ISOPROPYLTOLUENE	99-87-6	99.2	2001	2080	+/-	40.5	LB40003
P-XYLENE (5)	106-42-3	99.9	2000	*****			LB73203
SEC-BUTYLBENZENE	135-98-8	99.8	2000	2066	+/-	32.9	LB77150
STYRENE	100-42-5	99.9	2000	2054	+/-	21.8	LC02684
TERT-BUTYLBENZENE	98-06-6	99.8	2000	2046	+/-	19.3	LB40373
TETRACHLOROETHENE	127-18-4	99.9	2000	2018	+/-	94.7	LB67182
TOLUENE	108-88-3	99.9	2000	2032	+/-	77.5	LC09354
TRANS 1,3-DICHLOROPROPENE (E)	10061-02-6	99.3	2000	2050	+/-	94.7	LC11733
TRANS-1,2-DICHLOROETHYLENE	156-60-5	99.6	2000	1944	+/-	131.7	LB82639
TRICHLOROETHYLENE	79-01-6	98.4	2000	2009	+/-	127.1	LB56674
1,1-DICHLOROETHANE	75-34-3	99.1	2000	1932	+/-	107.6	LB68167
1,1-DICHLOROETHYLENE	75-35-4	99.9	2000	2051	+/-	123.2	LC08188
1,1-DICHLOROPROPENE	563-58-6	99.9	2000	1976	+/-	97.0	LC11148
1,1,1-TRICHLOROETHANE	71-55-6	97.2	2000	2016	+/-	118.9	LC06533
1,1,1,2-TETRACHLOROETHANE	630-20-6	99.3	2000	2061	+/-	35.8	LB94313
1,1,2-TRICHLOROETHANE	79-00-5	99.9	2000	2014	+/-	21.7	LB87978
1,1,2,2-TETRACHLOROETHANE	79-34-5	99.9	2000	2070	+/-	13.1	LB51327

(1) Listed in alphabetical order.
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(4) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections.
(5) These products coelute and are not quantified in the final mix.

Duane Funk

Duane Funk
Quality Manager

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Certificate of Analysis

DESCRIPTION: 502/524 Volatile Organics Calibration Mix

CATALOG NO.: 502111 MFG DATE: May-2015
LOT NO.: LC14518V EXPIRATION DATE: May-2017

SOLVENT: METHANOL

ANALYTE (1)	CAS NUMBER	PERCENT PURITY(2)	WEIGHT(3) CONCENTRATION	ANALYTICAL(4) CONCENTRATION	STD DEV	SUPELCO LOT NO
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	98.1	2001	2042	+/- 58.8	LB06608
1,2-DIBROMOETHANE	106-93-4	99.9	2000	2000	+/- 67.3	LB42792
1,2-DICHLOROBENZENE	95-50-1	99.5	2000	2074	+/- 53.7	LB58923
1,2-DICHLOROETHANE	107-06-2	99.9	2000	1945	+/- 69.2	LB74294
1,2-DICHLOROPROPANE	78-87-5	99.9	2000	2045	+/- 125.0	LB08115
1,2,3-TRICHLOROBENZENE	87-61-6	99.9	2000	2020	+/- 129.2	LA50762
1,2,3-TRICHLOROPROPANE	96-18-4	99.9	2000	2088	+/- 44.2	LB82841
1,2,4-TRICHLOROBENZENE	120-82-1	98.8	2000	2059	+/- 104.0	LB48083
1,2,4-TRIMETHYLBENZENE	95-63-6	98.9	2000	2029	+/- 13.3	LB97224
1,3-DICHLOROBENZENE	541-73-1	99.9	2000	2079	+/- 53.3	LB68066
1,3-DICHLOROPROPANE	142-28-9	99.9	2000	2053	+/- 46.8	LC10811
1,3,5-TRIMETHYLBENZENE	108-67-8	99.3	2000	2086	+/- 13.9	LB82157
1,4-DICHLOROBENZENE	106-46-7	99.9	2000	2037	+/- 27.7	LB90630
2-CHLOROTOLUENE	95-49-8	99.9	2000	2066	+/- 19.3	LC01464
2,2-DICHLOROPROPANE	594-20-7	99.9	2000	1985	+/- 95.7	LC11610
4-CHLOROTOLUENE	106-43-4	99.9	2000	2032	+/- 35.6	LC02742

(1) Listed in alphabetical order.
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(4) Determined by chromatographic analysis against an independently prepared reference lot. Mean of replicate injections.
(5) These products coelute and are not quantified in the final mix.

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Analytical Standard Record

EPA Region 9 Laboratory

1626027

Description:	passive air WORKING BFB 20 mg/L	**Expires:**	12/22/16
Standard Type:	Other Solution	**Prepared:**	06/22/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	06/22/16 09:59 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610049

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1513151	VOA BFB tuning mix, stock STD.	03/27/15	** Vendor **	01/31/20	03/27/15 14:58 by YNB	0.02

Analytical Standard Record

EPA Region 9 Laboratory

1635071

Description:	Passive indoor air stock std 50	**Expires:**	02/25/17
Standard Type:	Analyte Spike	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	10	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:00 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	50
1,1,1,2-Tetrachloroethane	630-20-6	50
Bromobenzene	108-86-1	50
Benzene	71-43-2	50
4-Chlorotoluene	106-43-4	50
2-Chlorotoluene	95-49-8	50
2,2-Dichloropropane	594-20-7	50
1,4-Dichlorobenzene	106-46-7	50
1,3-Dichloropropane	142-28-9	50
1,3-Dichlorobenzene	541-73-1	50
1,3,5-Trimethylbenzene	108-67-8	50
1,2-Dichloropropane	78-87-5	50
Bromodichloromethane	75-27-4	50
1,2-Dichlorobenzene	95-50-1	50
Bromoform	75-25-2	50
1,2-Dibromo-3-chloropropane	96-12-8	50
1,2,4-Trimethylbenzene	95-63-6	50
1,2,4-Trichlorobenzene	120-82-1	50
1,2,3-Trichloropropane	96-18-4	50
1,2,3-Trichlorobenzene	87-61-6	50
1,1-Dichloropropene	563-58-6	50
1,1-Dichloroethene	75-35-4	50
1,1-Dichloroethane	75-34-3	50
1,1,2-Trichloroethane	79-00-5	50
1,1,2,2-Tetrachloroethane	79-34-5	50
1,1,1-Trichloroethane	71-55-6	50
1,2-Dichloroethane	107-06-2	50
Isopropylbenzene	98-82-8	50
trans-1,3-Dichloropropene	10061-02-6	50
trans-1,2-Dichloroethene	156-60-5	50

Analytical Standard Record

EPA Region 9 Laboratory

1635071

Toluene-d8	2037-26-5	50
Toluene	108-88-3	50
Tetrachloroethene	127-18-4	50
tert-Butylbenzene	98-06-6	50
Styrene	100-42-5	50
sec-Butylbenzene	135-98-8	50
Propylbenzene	103-65-1	50
p-Isopropyltoluene	99-87-6	50
o-Xylene	95-47-6	50
Bromochloromethane	74-97-5	50
m&p-Xylene	179601-23-1	100
Trichloroethene	79-01-6	50
Hexachlorobutadiene	87-68-3	50
Ethylbenzene	100-41-4	50
Dichloromethane	75-09-2	50
Dibromomethane	74-95-3	50
cis-1,3-Dichloropropene	10061-01-5	50
cis-1,2-Dichloroethene	156-59-2	50
Chloroform	67-66-3	50
Chlorodibromomethane	124-48-1	50
Chlorobenzene	108-90-7	50
Carbon tetrachloride	56-23-5	50
Butylbenzene	104-51-8	50
Naphthalene	91-20-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1608052	Passive indoor air Surrogate	02/16/16	** Vendor **	11/30/20	02/16/16 15:56 by JDM	0.25
1618016	VOA 502.2 CAL 2000 MEGA MIX, St	04/25/16	** Vendor **	12/31/17	04/25/16 09:36 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

1635072

Description:	Passive indoor air 25	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:09 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	25
Bromochloromethane	74-97-5	25
Bromobenzene	108-86-1	25
Benzene	71-43-2	25
4-Chlorotoluene	106-43-4	25
2-Chlorotoluene	95-49-8	25
2,2-Dichloropropane	594-20-7	25
1,4-Dichlorobenzene	106-46-7	25
1,3-Dichloropropane	142-28-9	25
1,3-Dichlorobenzene	541-73-1	25
1,3,5-Trimethylbenzene	108-67-8	25
1,2-Dichloropropane	78-87-5	25
1,1,1,2-Tetrachloroethane	630-20-6	25
1,2-Dichlorobenzene	95-50-1	25
Butylbenzene	104-51-8	25
1,2-Dibromo-3-chloropropane	96-12-8	25
1,2,4-Trimethylbenzene	95-63-6	25
1,2,4-Trichlorobenzene	120-82-1	25
1,2,3-Trichloropropane	96-18-4	25
1,2,3-Trichlorobenzene	87-61-6	25
1,1-Dichloropropene	563-58-6	25
1,1-Dichloroethene	75-35-4	25
1,1-Dichloroethane	75-34-3	25
1,1,2-Trichloroethane	79-00-5	25
1,1,2,2-Tetrachloroethane	79-34-5	25
1,1,1-Trichloroethane	71-55-6	25
1,2-Dichloroethane	107-06-2	25
Isopropylbenzene	98-82-8	25
trans-1,3-Dichloropropene	10061-02-6	25
trans-1,2-Dichloroethene	156-60-5	25

Analytical Standard Record

EPA Region 9 Laboratory

1635072

Toluene-d8	2037-26-5	25
Toluene	108-88-3	25
Tetrachloroethene	127-18-4	25
tert-Butylbenzene	98-06-6	25
Styrene	100-42-5	25
sec-Butylbenzene	135-98-8	25
Propylbenzene	103-65-1	25
p-Isopropyltoluene	99-87-6	25
o-Xylene	95-47-6	25
Bromodichloromethane	75-27-4	25
m&p-Xylene	179601-23-1	50
Bromoform	75-25-2	25
Hexachlorobutadiene	87-68-3	25
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	25
Dichloromethane	75-09-2	25
Dibromomethane	74-95-3	25
cis-1,3-Dichloropropene	10061-01-5	25
cis-1,2-Dichloroethene	156-59-2	25
Chloroform	67-66-3	25
Chlorodibromomethane	124-48-1	25
Chlorobenzene	108-90-7	25
Carbon tetrachloride	56-23-5	25
Trichloroethene	79-01-6	25
Naphthalene	91-20-3	25

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1635071	Passive indoor air stock std 50	08/25/16	Bob Hopeman	02/25/17	08/24/16 14:00 by RH	2.5
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125

Analytical Standard Record

EPA Region 9 Laboratory

1635073

Description:	Passive indoor air 10	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:10 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	10
Bromochloromethane	74-97-5	10
Bromobenzene	108-86-1	10
Benzene	71-43-2	10
4-Chlorotoluene	106-43-4	10
2-Chlorotoluene	95-49-8	10
2,2-Dichloropropane	594-20-7	10
1,4-Dichlorobenzene	106-46-7	10
1,3-Dichloropropane	142-28-9	10
1,3-Dichlorobenzene	541-73-1	10
1,3,5-Trimethylbenzene	108-67-8	10
1,2-Dichloropropane	78-87-5	10
1,1,1,2-Tetrachloroethane	630-20-6	10
1,2-Dichlorobenzene	95-50-1	10
Butylbenzene	104-51-8	10
1,2-Dibromo-3-chloropropane	96-12-8	10
1,2,4-Trimethylbenzene	95-63-6	10
1,2,4-Trichlorobenzene	120-82-1	10
1,2,3-Trichloropropane	96-18-4	10
1,2,3-Trichlorobenzene	87-61-6	10
1,1-Dichloropropene	563-58-6	10
1,1-Dichloroethene	75-35-4	10
1,1-Dichloroethane	75-34-3	10
1,1,2-Trichloroethane	79-00-5	10
1,1,2,2-Tetrachloroethane	79-34-5	10
1,1,1-Trichloroethane	71-55-6	10
1,2-Dichloroethane	107-06-2	10
Isopropylbenzene	98-82-8	10
trans-1,3-Dichloropropene	10061-02-6	10
trans-1,2-Dichloroethene	156-60-5	10

Analytical Standard Record

EPA Region 9 Laboratory

1635073

Toluene-d8	2037-26-5	10
Toluene	108-88-3	10
Tetrachloroethene	127-18-4	10
tert-Butylbenzene	98-06-6	10
Styrene	100-42-5	10
sec-Butylbenzene	135-98-8	10
Propylbenzene	103-65-1	10
p-Isopropyltoluene	99-87-6	10
o-Xylene	95-47-6	10
Bromodichloromethane	75-27-4	10
m&p-Xylene	179601-23-1	20
Bromoform	75-25-2	10
Hexachlorobutadiene	87-68-3	10
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	10
Dichloromethane	75-09-2	10
Dibromomethane	74-95-3	10
cis-1,3-Dichloropropene	10061-01-5	10
cis-1,2-Dichloroethene	156-59-2	10
Chloroform	67-66-3	10
Chlorodibromomethane	124-48-1	10
Chlorobenzene	108-90-7	10
Carbon tetrachloride	56-23-5	10
Trichloroethene	79-01-6	10
Naphthalene	91-20-3	10

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125
1635071	Passive indoor air stock std 50	08/25/16	Bob Hopeman	02/25/17	08/24/16 14:00 by RH	1

Analytical Standard Record

EPA Region 9 Laboratory

1635074

Description:	Passive indoor air 5	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:10 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	5
Bromochloromethane	74-97-5	5
Bromobenzene	108-86-1	5
Benzene	71-43-2	5
4-Chlorotoluene	106-43-4	5
2-Chlorotoluene	95-49-8	5
2,2-Dichloropropane	594-20-7	5
1,4-Dichlorobenzene	106-46-7	5
1,3-Dichloropropane	142-28-9	5
1,3-Dichlorobenzene	541-73-1	5
1,3,5-Trimethylbenzene	108-67-8	5
1,2-Dichloropropane	78-87-5	5
1,1,1,2-Tetrachloroethane	630-20-6	5
1,2-Dichlorobenzene	95-50-1	5
Butylbenzene	104-51-8	5
1,2-Dibromo-3-chloropropane	96-12-8	5
1,2,4-Trimethylbenzene	95-63-6	5
1,2,4-Trichlorobenzene	120-82-1	5
1,2,3-Trichloropropane	96-18-4	5
1,2,3-Trichlorobenzene	87-61-6	5
1,1-Dichloropropene	563-58-6	5
1,1-Dichloroethene	75-35-4	5
1,1-Dichloroethane	75-34-3	5
1,1,2-Trichloroethane	79-00-5	5
1,1,2,2-Tetrachloroethane	79-34-5	5
1,1,1-Trichloroethane	71-55-6	5
1,2-Dichloroethane	107-06-2	5
Isopropylbenzene	98-82-8	5
trans-1,3-Dichloropropene	10061-02-6	5
trans-1,2-Dichloroethene	156-60-5	5

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Toluene-d8	2037-26-5	5
Toluene	108-88-3	5
Tetrachloroethene	127-18-4	5
tert-Butylbenzene	98-06-6	5
Styrene	100-42-5	5
sec-Butylbenzene	135-98-8	5
Propylbenzene	103-65-1	5
p-Isopropyltoluene	99-87-6	5
o-Xylene	95-47-6	5
Bromodichloromethane	75-27-4	5
m&p-Xylene	179601-23-1	10
Bromoform	75-25-2	5
Hexachlorobutadiene	87-68-3	5
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	5
Dichloromethane	75-09-2	5
Dibromomethane	74-95-3	5
cis-1,3-Dichloropropene	10061-01-5	5
cis-1,2-Dichloroethene	156-59-2	5
Chloroform	67-66-3	5
Chlorodibromomethane	124-48-1	5
Chlorobenzene	108-90-7	5
Carbon tetrachloride	56-23-5	5
Trichloroethene	79-01-6	5
Naphthalene	91-20-3	5

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125
1635071	Passive indoor air stock std 50	08/25/16	Bob Hopeman	02/25/17	08/24/16 14:00 by RH	0.5

Analytical Standard Record

EPA Region 9 Laboratory

1635075

Description:	Passive indoor air 1	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:11 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	1
Bromochloromethane	74-97-5	1
Bromobenzene	108-86-1	1
Benzene	71-43-2	1
4-Chlorotoluene	106-43-4	1
2-Chlorotoluene	95-49-8	1
2,2-Dichloropropane	594-20-7	1
1,4-Dichlorobenzene	106-46-7	1
1,3-Dichloropropane	142-28-9	1
1,3-Dichlorobenzene	541-73-1	1
1,3,5-Trimethylbenzene	108-67-8	1
1,2-Dichloropropane	78-87-5	1
1,1,1,2-Tetrachloroethane	630-20-6	1
1,2-Dichlorobenzene	95-50-1	1
Butylbenzene	104-51-8	1
1,2-Dibromo-3-chloropropane	96-12-8	1
1,2,4-Trimethylbenzene	95-63-6	1
1,2,4-Trichlorobenzene	120-82-1	1
1,2,3-Trichloropropane	96-18-4	1
1,2,3-Trichlorobenzene	87-61-6	1
1,1-Dichloropropene	563-58-6	1
1,1-Dichloroethene	75-35-4	1
1,1-Dichloroethane	75-34-3	1
1,1,2-Trichloroethane	79-00-5	1
1,1,2,2-Tetrachloroethane	79-34-5	1
1,1,1-Trichloroethane	71-55-6	1
1,2-Dichloroethane	107-06-2	1
Isopropylbenzene	98-82-8	1
trans-1,3-Dichloropropene	10061-02-6	1
trans-1,2-Dichloroethene	156-60-5	1

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Toluene-d8	2037-26-5	1
Toluene	108-88-3	1
Tetrachloroethene	127-18-4	1
tert-Butylbenzene	98-06-6	1
Styrene	100-42-5	1
sec-Butylbenzene	135-98-8	1
Propylbenzene	103-65-1	1
p-Isopropyltoluene	99-87-6	1
o-Xylene	95-47-6	1
Bromodichloromethane	75-27-4	1
m&p-Xylene	179601-23-1	2
Bromoform	75-25-2	1
Hexachlorobutadiene	87-68-3	1
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	1
Dichloromethane	75-09-2	1
Dibromomethane	74-95-3	1
cis-1,3-Dichloropropene	10061-01-5	1
cis-1,2-Dichloroethene	156-59-2	1
Chloroform	67-66-3	1
Chlorodibromomethane	124-48-1	1
Chlorobenzene	108-90-7	1
Carbon tetrachloride	56-23-5	1
Trichloroethene	79-01-6	1
Naphthalene	91-20-3	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125
1635071	Passive indoor air stock std 50	08/25/16	Bob Hopeman	02/25/17	08/24/16 14:00 by RH	0.1

Analytical Standard Record

EPA Region 9 Laboratory

1635076

Description:	Passive indoor air 0.15	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:11 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	0.15
Bromochloromethane	74-97-5	0.15
Bromobenzene	108-86-1	0.15
Benzene	71-43-2	0.15
4-Chlorotoluene	106-43-4	0.15
2-Chlorotoluene	95-49-8	0.15
2,2-Dichloropropane	594-20-7	0.15
1,4-Dichlorobenzene	106-46-7	0.15
1,3-Dichloropropane	142-28-9	0.15
1,3-Dichlorobenzene	541-73-1	0.15
1,3,5-Trimethylbenzene	108-67-8	0.15
1,2-Dichloropropane	78-87-5	0.15
1,1,1,2-Tetrachloroethane	630-20-6	0.15
1,2-Dichlorobenzene	95-50-1	0.15
Butylbenzene	104-51-8	0.15
1,2-Dibromo-3-chloropropane	96-12-8	0.15
1,2,4-Trimethylbenzene	95-63-6	0.15
1,2,4-Trichlorobenzene	120-82-1	0.15
1,2,3-Trichloropropane	96-18-4	0.15
1,2,3-Trichlorobenzene	87-61-6	0.15
1,1-Dichloropropene	563-58-6	0.15
1,1-Dichloroethene	75-35-4	0.15
1,1-Dichloroethane	75-34-3	0.15
1,1,2-Trichloroethane	79-00-5	0.15
1,1,2,2-Tetrachloroethane	79-34-5	0.15
1,1,1-Trichloroethane	71-55-6	0.15
1,2-Dichloroethane	107-06-2	0.15
Isopropylbenzene	98-82-8	0.15
trans-1,3-Dichloropropene	10061-02-6	0.15
trans-1,2-Dichloroethene	156-60-5	0.15

Analytical Standard Record

EPA Region 9 Laboratory

1635076

Toluene-d8	2037-26-5	0.15
Toluene	108-88-3	0.15
Tetrachloroethene	127-18-4	0.15
tert-Butylbenzene	98-06-6	0.15
Styrene	100-42-5	0.15
sec-Butylbenzene	135-98-8	0.15
Propylbenzene	103-65-1	0.15
p-Isopropyltoluene	99-87-6	0.15
o-Xylene	95-47-6	0.15
Bromodichloromethane	75-27-4	0.15
m&p-Xylene	179601-23-1	0.3
Bromoform	75-25-2	0.15
Hexachlorobutadiene	87-68-3	0.15
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	0.15
Dichloromethane	75-09-2	0.15
Dibromomethane	74-95-3	0.15
cis-1,3-Dichloropropene	10061-01-5	0.15
cis-1,2-Dichloroethene	156-59-2	0.15
Chloroform	67-66-3	0.15
Chlorodibromomethane	124-48-1	0.15
Chlorobenzene	108-90-7	0.15
Carbon tetrachloride	56-23-5	0.15
Trichloroethene	79-01-6	0.15
Naphthalene	91-20-3	0.15

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125
1635071	Passive indoor air stock std 50	08/25/16	Bob Hopeman	02/25/17	08/24/16 14:00 by RH	0.015

Analytical Standard Record

EPA Region 9 Laboratory

1635077

Description:	Passive indoor air 0.05	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 14:12 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	0.05
Bromochloromethane	74-97-5	0.05
Bromobenzene	108-86-1	0.05
Benzene	71-43-2	0.05
4-Chlorotoluene	106-43-4	0.05
2-Chlorotoluene	95-49-8	0.05
2,2-Dichloropropane	594-20-7	0.05
1,4-Dichlorobenzene	106-46-7	0.05
1,3-Dichloropropane	142-28-9	0.05
1,3-Dichlorobenzene	541-73-1	0.05
1,3,5-Trimethylbenzene	108-67-8	0.05
1,2-Dichloropropane	78-87-5	0.05
1,1,1,2-Tetrachloroethane	630-20-6	0.05
1,2-Dichlorobenzene	95-50-1	0.05
Butylbenzene	104-51-8	0.05
1,2-Dibromo-3-chloropropane	96-12-8	0.05
1,2,4-Trimethylbenzene	95-63-6	0.05
1,2,4-Trichlorobenzene	120-82-1	0.05
1,2,3-Trichloropropane	96-18-4	0.05
1,2,3-Trichlorobenzene	87-61-6	0.05
1,1-Dichloropropene	563-58-6	0.05
1,1-Dichloroethene	75-35-4	0.05
1,1-Dichloroethane	75-34-3	0.05
1,1,2-Trichloroethane	79-00-5	0.05
1,1,2,2-Tetrachloroethane	79-34-5	0.05
1,1,1-Trichloroethane	71-55-6	0.05
1,2-Dichloroethane	107-06-2	0.05
Isopropylbenzene	98-82-8	0.05
trans-1,3-Dichloropropene	10061-02-6	0.05
trans-1,2-Dichloroethene	156-60-5	0.05

Analytical Standard Record

EPA Region 9 Laboratory

1635077

Toluene-d8	2037-26-5	0.05
Toluene	108-88-3	0.05
Tetrachloroethene	127-18-4	0.05
tert-Butylbenzene	98-06-6	0.05
Styrene	100-42-5	0.05
sec-Butylbenzene	135-98-8	0.05
Propylbenzene	103-65-1	0.05
p-Isopropyltoluene	99-87-6	0.05
o-Xylene	95-47-6	0.05
Bromodichloromethane	75-27-4	0.05
m&p-Xylene	179601-23-1	0.1
Bromoform	75-25-2	0.05
Hexachlorobutadiene	87-68-3	0.05
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	0.05
Dichloromethane	75-09-2	0.05
Dibromomethane	74-95-3	0.05
cis-1,3-Dichloropropene	10061-01-5	0.05
cis-1,2-Dichloroethene	156-59-2	0.05
Chloroform	67-66-3	0.05
Chlorodibromomethane	124-48-1	0.05
Chlorobenzene	108-90-7	0.05
Carbon tetrachloride	56-23-5	0.05
Trichloroethene	79-01-6	0.05
Naphthalene	91-20-3	0.05

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125
1635071	Passive indoor air stock std 50	08/25/16	Bob Hopeman	02/25/17	08/24/16 14:00 by RH	0.005

Analytical Standard Record

EPA Region 9 Laboratory

1635078

Description:	Passive indoor air SCV	**Expires:**	02/25/17
Standard Type:	Other Solution	**Prepared:**	08/25/16
Solvent:	CS2	**Prepared By:**	Bob Hopeman
Final Volume (mls):	5	**Department:**	Volatiles
Vials:	1	**Last Edit:**	08/24/16 15:46 by RH
Vendor:	*Prepared*	**Lot Numbe**	1610050

Analyte	CAS Number	Concentration (ppm)
1,2-Dibromoethane (EDB)	106-93-4	5
1,1,1,2-Tetrachloroethane	630-20-6	5
Bromobenzene	108-86-1	5
Benzene	71-43-2	5
4-Chlorotoluene	106-43-4	5
2-Chlorotoluene	95-49-8	5
2,2-Dichloropropane	594-20-7	5
1,4-Dichlorobenzene	106-46-7	5
1,3-Dichloropropane	142-28-9	5
1,3-Dichlorobenzene	541-73-1	5
1,3,5-Trimethylbenzene	108-67-8	5
1,2-Dichloropropane	78-87-5	5
Bromodichloromethane	75-27-4	5
1,2-Dichlorobenzene	95-50-1	5
Bromoform	75-25-2	5
1,2-Dibromo-3-chloropropane	96-12-8	5
1,2,4-Trimethylbenzene	95-63-6	5
1,2,4-Trichlorobenzene	120-82-1	5
1,2,3-Trimethylbenzene	526-73-8	5
1,2,3-Trichloropropane	96-18-4	5
1,2,3-Trichlorobenzene	87-61-6	5
1,1-Dichloropropene	563-58-6	5
1,1-Dichloroethene	75-35-4	5
1,1-Dichloroethane	75-34-3	5
1,1,2-Trichloroethane	79-00-5	5
1,1,2,2-Tetrachloroethane	79-34-5	5
1,1,1-Trichloroethane	71-55-6	5
1,2-Dichloroethane	107-06-2	5
Isopropylbenzene	98-82-8	5
trans-1,3-Dichloropropene	10061-02-6	5

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trans-1,2-Dichloroethene	156-60-5	5
Toluene-d8	2037-26-5	5
Toluene	108-88-3	5
Tetrachloroethene	127-18-4	5
tert-Butylbenzene	98-06-6	5
Styrene	100-42-5	5
sec-Butylbenzene	135-98-8	5
Propylbenzene	103-65-1	5
p-Isopropyltoluene	99-87-6	5
o-Xylene	95-47-6	5
Bromochloromethane	74-97-5	5
m&p-Xylene	179601-23-1	10
Trichloroethene	79-01-6	5
Hexachlorobutadiene	87-68-3	5
Fluorobenzene	462-06-6	5
Ethylbenzene	100-41-4	5
Dichloromethane	75-09-2	5
Dibromomethane	74-95-3	5
cis-1,3-Dichloropropene	10061-01-5	5
cis-1,2-Dichloroethene	156-59-2	5
Chloroform	67-66-3	5
Chlorodibromomethane	124-48-1	5
Chlorobenzene	108-90-7	5
Carbon tetrachloride	56-23-5	5
Butylbenzene	104-51-8	5
Naphthalene	91-20-3	5

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1622037	VOA 502/524 VOC Mix, Stock	05/24/16	** Vendor **	05/31/17	05/24/16 11:46 by YNB	0.0125
1608047	Passive indoor air Internal Standard	02/16/16	** Vendor **	11/30/20	02/16/16 15:43 by JDM	0.0125
1608052	Passive indoor air Surrogate	02/16/16	** Vendor **	11/30/20	02/16/16 15:56 by JDM	0.0125