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United States Environmental Protection Agency
Region 9 Laboratory

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

Date: **3/12/2020**

Subject: **Analytical Testing Results - Project R20S14**
WorkOrder **2002028**

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 OU3 FY2020 Vapor Intrusion 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 Audrey Johnson 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**	**WorkOrder: 2002028**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 03/12/20 07:57
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
F6-017-2ft-5d-wet	2002028-01	Radiello 130	02/24/20 11:16	02/27/20 09:35

GCMS-V:
Radiello samples 2002028-02 (F5-064-1ft-5d-wet) and 2002028-03 (F5-062-2ft-5d-wet) were received with liquid water in the sample tubes. Extraction was not possible and analysis was cancelled for these samples.

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**	**WorkOrder: 2002028**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 03/12/20 07:57
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 2002028-01									**Radiello 130 - Sampled: 02/24/20 11:16**
Sample ID: F6-017-2ft-5d-wet									
					Volatile Organic Compounds Collected on Passive Air Sampling Devices				
1,1-Dichloroethene		ND	U	0.20	ug/m³ Air	B20C007	03/03/20	03/03/20	Radiello D1
trans-1,2-Dichloroethene		ND	U	0.24	"	"	"	"	Radiello D1
1,1-Dichloroethane		ND	U	0.24	"	"	"	"	Radiello D1
cis-1,2-Dichloroethene		ND	U	0.24	"	"	"	"	Radiello D1
Chloroform		35		0.20	"	"	"	"	Radiello D1
Trichloroethene		6.1		0.22	"	"	"	"	Radiello D1
Tetrachloroethene		0.78		0.25	"	"	"	"	Radiello D1
Surrogate: Toluene-d8			101 %	*90-110%*		"	"	"	

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**WorkOrder: 2002028**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 03/12/20 07:57
Project: MEW OU3 FY2020 Vapor Intrusion 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 B20C007 - Passive Air Sampler										
Blank (B20C007-BLK1)				Prepared & Analyzed: 03/03/20						
1,1-Dichloroethene	ND	0.13	ug/m³ Air							U
trans-1,2-Dichloroethene	ND	0.16	ug/m³ Air							U
1,1-Dichloroethane	ND	0.16	ug/m³ Air							U
cis-1,2-Dichloroethene	ND	0.16	ug/m³ Air							U
Chloroform	ND	0.13	ug/m³ Air							U
Trichloroethene	ND	0.14	ug/m³ Air							U
Tetrachloroethene	ND	0.17	ug/m³ Air							U
Surrogate: Toluene-d8	*1010*		ug/m³ Air	*992*		*102*	*90-110*			
LCS (B20C007-BS1)				Prepared & Analyzed: 03/03/20						
1,1-Dichloroethene	8.57	0.13	ug/m³ Air	13.1		66	49-125			
trans-1,2-Dichloroethene	10.5	0.16	ug/m³ Air	16.0		66	47-131			
1,1-Dichloroethane	11.1	0.16	ug/m³ Air	15.7		71	53-126			
cis-1,2-Dichloroethene	11.4	0.16	ug/m³ Air	16.0		71	58-127			
Chloroform	9.75	0.13	ug/m³ Air	13.2		74	61-128			
Trichloroethene	12.5	0.14	ug/m³ Air	14.4		87	65-116			
Tetrachloroethene	17.4	0.17	ug/m³ Air	16.8		103	58-118			
Surrogate: Toluene-d8	*1030*		ug/m³ Air	*992*		*104*	*90-110*			
LCS Dup (B20C007-BSD1)				Prepared & Analyzed: 03/03/20						
1,1-Dichloroethene	9.24	0.13	ug/m³ Air	13.1		71	49-125	8	38	
trans-1,2-Dichloroethene	11.3	0.16	ug/m³ Air	16.0		71	47-131	7	14	
1,1-Dichloroethane	12.1	0.16	ug/m³ Air	15.7		77	53-126	8	31	
cis-1,2-Dichloroethene	12.3	0.16	ug/m³ Air	16.0		77	58-127	8	28	
Chloroform	10.5	0.13	ug/m³ Air	13.2		79	61-128	7	20	
Trichloroethene	12.5	0.14	ug/m³ Air	14.4		87	65-116	0.1	22	
Tetrachloroethene	16.4	0.17	ug/m³ Air	16.8		97	58-118	6	24	
Surrogate: Toluene-d8	*1020*		ug/m³ Air	*992*		*103*	*90-110*			

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**	**WorkOrder: 2002028**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 03/12/20 07:57
Project: MEW OU3 FY2020 Vapor Intrusion 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 S20C005 - B20C007										
Instrument Blank (S20C005-IBL1)				Prepared & Analyzed: 03/03/20						
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
Trichloroethene	ND	0.0	ug/L							U
Tetrachloroethene	ND	0.0	ug/L							U
Surrogate: Toluene-d8	*4850*		ug/L	*200000*		*2*	*90-110*			

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**	**WorkOrder: 2002028**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 03/12/20 07:57
Project: MEW OU3 FY2020 Vapor Intrusion 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.

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**	**WorkOrder: 2002028**
Project Number: R20S14	**75 Hawthorne Street**	**Reported:** 03/12/20 07:57
Project: MEW OU3 FY2020 Vapor Intrusion Investigation	**San Francisco CA, 94105**	

Sample receiving:
COC has 21 day TAT, TDF 13 day TAT. Logged in per COC TD 02/27/20

VOAs Passive: Samples , -02, and -03 were cancelled due to water presence inside the metal mesh. TD 03/05/20

WORK ORDER

Printed: 2/27/2020 11:02:28AM

2002028

EPA Region 9 Laboratory

Client: **California Site Cleanup Section 3**
Project: **MEW OU3 FY2020 Vapor Intrusion Investigation**
Project Number: **R20S14**

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
Envelope 1	Envelope	23	No	Yes	Yes	No	No	

Date Due:	03/19/20 17:00 (21 day TAT)	SDG:	20058B
Received By:	Tatyana Dadiomov	Date Received:	02/27/20 09:35
Logged In By:	Tatyana Dadiomov	Date Logged In:	02/27/20 10:43

Analysis	Hold Time Expires	Comments
2002028-01 F6-017-2ft-5d-wet [Radiello 130] Sampled 02/24/20 11:16 (GMT-08:00) Pacific Time (US &		**1848X**
VOCs, Passive Samplers	08/22/20	check COC for requested analytes
2002028-02 F5-064-1ft-5d-wet [Radiello 130] Sampled 02/24/20 11:40 (GMT-08:00) Pacific Time (US &		**1849X**
VOCs, Passive Samplers	08/22/20	check COC for requested analytes
2002028-03 F5-062-2ft-5d-wet [Radiello 130] Sampled 02/24/20 11:50 (GMT-08:00) Pacific Time (US &		**1850X**
VOCs, Passive Samplers	08/22/20	check COC for requested analytes

Reviewed By

Date

Bauer, Richard

From: Bauer, Richard
Sent: Wednesday, March 04, 2020 2:45 PM
To: Lee, Alana
Subject: FW: Cancel samples 2002028-02, 03

Hi Alana:

Radiello samples 2002028-02 (F5-064-1ft-5d-wet) and 2002028-03 (F5-062-2ft-5d-wet) have been cancelled because they were very wet and extraction was not possible. Work continues on 2002028-01. See below.

_____
Richard Bauer
US EPA Region 9 Laboratory
1337 South 46th Street, Building 201
Richmond, CA 94804
(510) 412-2312
_____

From: Hopeman, Bob <Hopeman.Bob@epa.gov>
Sent: Wednesday, March 04, 2020 1:25 PM
To: Bauer, Richard <Bauer.Richard@epa.gov>
Cc: Rajabi, Ziyad <Rajabi.Ziyad@epa.gov>; Dadiomov, Tatyana <Dadiomov.Tatyana@epa.gov>
Subject: Cancel samples 2002028-02, 03

Hi Rich,

Please cancel samples 2002028-02 and-03. These were Radiello tubes that were full of water and we were unable to extract them. The COC stated that they were wet.

Sample 2002028-01 also had a comment on the COC saying the diffuser was wet but no moisture was observed. I can't speak to the efficacy of the diffuser to adsorb compounds when wet, but there were no problems with extraction or analysis.

Thanks

Bob Hopeman
ICF/ESAT Region 9
510-412-2388

U.S. Environmental Protection Agency

CHAIN OF CUSTODY RECORD

EPA REGION 9
75 Hawthorne Street
San Francisco, California 94105

EPA R9 Case Number: R20S14 - MEW (M6) - OU3

Project Name: **MEW FY20 OU3 Sewer Pathway**

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

Laboratory: **EPA R9 Richmond Lab**

Samplers: *(Signature)* Alana Lee

COMMENTS: TCE, PCE, 1,1- DCA, cis- and trans-1,2-DCE,1,1-DCE, chloroform (tracer) - **21 day TAT**

Start Date End Date	Start End Time Time	Matrix	Comp	EPA ID Number	Unique ID	Number of Containers	RAD130 - Solvent Extraction	Temp (start-avg) - degree F	Temp (stop-avg) - degree F	TCE screen (ug/m3-if available)	
02/19/20 02/24/20	11:53 11:16	AIR	X	F6-017-2ft-5d-wet	1848X	1	1	50	60	<10	diffuser wet
02/19/20 02/24/20	12:38 11:40	AIR	X	F5-064-1ft-5d-wet	1849X	1	1	50	60	20-40	diffuser wet
02/19/20 02/24/20	12:47 11:50	AIR	X	F5-062-2ft-5d-wet	1850X	1	1	50	60	20-100	very wet

Alana Lee 2/24/2020

Relinquished by: *(Signature)* Alana Lee Date/Time 2/27/2020 8:30 via interoffice mail

Relinquished by: *(Signature)* Date/Time

Received for Laboratory by: *(Signature)* Date/Time 2-27-20 9:35

Temp 23°C

Seals Intact? (Y/N)

Conditions / Remarks

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

Note in WO memo any items outside acceptable limits.

Project No: R20514 **Work Order No(s):** 2002028 **Date:** 2/27/20 **by** TD

CUSTODY SEALS Are Intact? ☐ Yes ☐ No ☒ N/A-none

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

TEMPERATURE 23 °C

Within Acceptable Range? (If preservation is "store cool at 4°C," use 0-6°C for acceptable range.) ☐ Yes ☐ No ☒ Ambient OK

Measured by: ☒ IR thermometer ☐ Probe thermometer inserted in provided temp. blank

☐ Provided Temp Blank was not used because _____

Check if applies: ☐ No ice present ☐ Insufficient/Melted Ice ☐ Tissue Received Frozen

☐ Still cooling (sampled today & iced) ☐ Delivery Delay ☐ Previously Frozen

SAMPLE CONTAINERS Are Intact? ☒ Yes ☐ No

Check if applies and identify sample IDs in comments:

☐ Bottle/Jar/Vial broken ☐ Cap broken or loose ☐ Insufficient sample amount

☐ Other _____

CHAIN OF CUSTODY

COC forms are present? ☒ Yes ☐ No

COC forms are consistent with sample labels? ☒ Yes ☐ No ☐ N/A-no COC form

Check if applies: ☐ Missing "relinquished by" signature

TAT and analyses match TDF or scheduling? ☒ Yes ☐ No

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

Samples are received within hold times? ☒ Yes ☐ No ☐ N/A-no hold times

Check if applies: ☐ Expires soon; notify analyst ☐ Expired

All shipping and sample containers are accounted for? ☒ Yes ☐ No

PRESERVATION / FILTRATION

Samples were filtered in field? ☐ Yes ☐ No ☒ N/A

Filtration is correctly identified on samples? ☐ Yes ☐ No ☒ N/A

Check if applies: ☐ Analyst to filter

Check if applies: ☐ Notify analyst to check for methyl mercury analysis and low-level mercury analysis by 1631

Samples were preserved in field? ☐ Yes ☐ No ☒ N/A

Check if applies: ☐ Analyst to preserve ☐ Sample Receiving to preserve (see page 2)

Preservation is correctly identified on samples? ☐ Yes ☐ No ☒ N/A

Field-preserved samples (excluding VOA vials for VOC analyses) have correct pH? ☐ Yes ☐ No ☒ N/A

Check if verified:

☐ Sulfide: pH >9 NaOH/Zinc acetate

☐ Cyanide: pH >12 NaOH

☐ Metals: pH <2 HNO_3

☐ Ferrous Iron: pH <2 HCl

☐ TOC/DOC: pH <2 H_2SO_4/H_3PO_4 (not HCl)

☐ Ammonia / Nitrate/Nitrite / TKN / Phosphorus: pH <2 H2SO4

☐ Other: _____

FOLLOW-UP / COMMENTS / UNUSUAL CHARACTERISTICS OBSERVED (for example, sample is pink):

_____

_____

_____

_____

_____

_____

FORM #: Q016
REV #: 2
REV. DATE: 07/29/19

Exposure Time in Minutes

	Sample number	Retrieved Date (XX/XX/XXXX)	Retrieved Time	Deployed Date	Deployed Time	Minutes	Start temp C	End temp C	Avg temp K	Plate #
1	F6-017-2ft-5d-wet	02/24/20	11:16	02/19/20	11:53	7163	10.00	15.56	285.93	1848X
2	F5-064-1ft-5d-wet	02/24/20	11:40	02/19/20	12:38	7142	10.00	15.56	285.93	1849X
3	F5-062-2ft-5d-wet	02/24/20	11:50	02/19/20	12:47	7143	10.00	15.56	285.93	1850X

Table of Contents

BATCH

B20C007

Batch Date: 03/02/2020

Batch Matrix: Radiello 130

Batch Analyses:

VOCs, Passive Samplers

PREPARATION BENCH SHEET

B20C007

EPA Region 9 Laboratory

Project: R20S18
Project: R20S14

Printed: 3/6/2020 1:08:41PM

Matrix: Radiello 13 **Analysis: VOCs, Passive Sampler** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 2004020**

Lab Number	SampleName	Prepared	Initial (Tube)	Final (mL)	Source ID	Spike ID 1	ul Spike 1	ul Surrogate	Ext pH	Prepared by	Extraction Comments
2002028-01 A	F6-017-2ft-5d-wet	03/03/20 09:34	1	2				50		RH	check COC for requested analytes
2002028-02 A	F5-064-1ft-5d-wet	03/03/20 09:34	1	2				50		RH	check COC for requested analytes
2002028-03 A	F5-062-2ft-5d-wet	03/03/20 09:34	1	2				50		RH	check COC for requested analytes
2002029-01 A	RES23-OFC1-BZ-5d	03/03/20 09:34	1	2				50		RH	check COC for requested analytes
2002029-02 A	RES23-OUT-5d	03/03/20 09:34	1	2				50		RH	check COC for requested analytes
B20C007-BLK1	Blank	03/03/20 09:34	1	2				50		RH	
B20C007-BS1	LCS	03/03/20 09:34	1	2		1937061	5	50		RH	
B20C007-BSD1	LCS Dup	03/03/20 09:34	1	2		1937061	5	50		RH	
B20C007-MRL1	MRL Check	03/03/20 09:34	1	2		1940009	5	50		RH	

Batch Comments

Reagents

Reagent #	Description
1835089	passive air Radiello tubes
2004016	Carbon disulfide

Batch Approval: TD 03/04/20

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PREPARATION BENCH SHEET

B20C007

EPA Region 9 Laboratory

Project: R20S18
Project: R20S14

Printed: 3/6/2020 1:08:41PM

Matrix: Radiello 13 **Analysis: QC** **Prepared using: Volatiles - Passive Air Sampler** **Surrogate used: 2004020**

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

Batch Approval: TD 03/04/20

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Calibration

2001023

Calibration Date: 01/30/2020

Instrument: AG5975CV

Calibration Analyses:

VOCs, Passive Samplers

Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 013020.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Jan 30 12:20:44 2020
Response Via : Initial Calibration

Calibration Files
25 =01302003.D 10 =01302004.D 5 =01302005.D 1 =01302006.D .15 =01302007.D .05 =01302008.D

		Compound	25	10	5	1	.15	.05	Avg	%RSD
1)	I	2-Fluorotoluene	----------ISTD----------							
2)	T	1,1-Dichloroet...	0.261	0.258	0.247	0.244	0.272	0.243	0.254	4.45
3)	T	trans-1,2-Dich...	0.263	0.263	0.253	0.245	0.280	0.265	0.261	4.51
4)	T	1,1-Dichloroet...	0.321	0.327	0.317	0.311	0.355	0.327	0.326	4.65
5)	T	cis-1,2-Dichlo...	0.299	0.306	0.297	0.293	0.325	0.311	0.305	3.87
6)	T	Chloroform	0.338	0.342	0.329	0.326	0.354	0.344	0.339	3.03
7)	T	1,1,1-Trichlor...	0.323	0.329	0.320	0.315	0.346	0.343	0.329	3.81
8)	T	Carbon tetrach...	0.285	0.291	0.285	0.281	0.300	0.299	0.290	2.74
9)	T	Benzene	0.797	0.828	0.821	0.814	0.873		0.826	3.42
10)	T	1,2-Dichloroet...	0.260	0.275	0.268	0.269	0.285	0.279	0.273	3.16
11)	T	Trichloroethene	0.228	0.236	0.235	0.233	0.243	0.244	0.236	2.56
12)	S	Toluene-d8	0.811	0.843	0.856	0.855	0.870	0.897	0.855	3.32
13)	T	Toluene	0.908	0.965	0.999	1.022	1.045	1.092	1.005	6.39
14)	T	1,1,2-Trichlor...	0.215	0.218	0.221	0.221	0.233	0.253	0.227	6.20
15)	T	Tetrachloroethene	0.260	0.267	0.275	0.276	0.287	0.289	0.275	3.97
16)	T	Chlorobenzene	0.674	0.700	0.718	0.733	0.745	0.778	0.725	5.02
17)	T	1,1,1,2-Tetrac...	0.224	0.231	0.236	0.244	0.245	0.252	0.239	4.25
18)	T	Ethylbenzene	1.033	1.104	1.151	1.218	1.253	1.314	1.179	8.71
19)	T	m&p-Xylene	0.780	0.830	0.869	0.929	0.960	0.969	0.889	8.55
[illegible])	T	o-Xylene	0.853	0.891	0.917	0.979	1.013	1.069	0.954	8.48
[illegible])	T	1,1,2,2-Tetrac...	0.384	0.394	0.400	0.423	0.433	0.441	0.412	5.63
[illegible])	T	1,3,5-Trimethy...	0.912	0.969	0.989	1.083	1.104	1.118	1.029	8.17
[illegible])	T	1,2,4-Trimethy...	0.912	0.971	0.991	1.111	1.130	1.168	1.047	9.80
[illegible])	T	Naphthalene	1.506	1.625	1.650	2.003	2.048	2.004	1.806	13.19
[illegible])		2-Fluorotoluen...			0.616				0.616	0.00
[illegible])		1,1-Dichloroet...			0.178				0.178	0.00
[illegible])		trans-1,2-Dich...			0.189				0.189	0.00
[illegible])		1,1-Dichloroet...			0.261				0.261	0.00
[illegible])		cis-1,2-Dichlo...			0.205				0.205	0.00
[illegible])		Chloroform SCAN			0.227				0.227	0.00
[illegible])		1,1,1-Trichlor...			0.227				0.227	0.00
[illegible])		Carbon tetrach...			0.232				0.232	0.00
[illegible])		Benzene SCAN			0.602				0.602	0.00
[illegible])		1,2-Dichloroet...			0.176				0.176	0.00
[illegible])		Trichloroethen...			0.153				0.153	0.00
[illegible])		Toluene-d8 SCAN			0.574				0.574	0.00
[illegible])		Toluene SCAN			0.704				0.704	0.00
[illegible])		1,1,2-Trichlor...			0.157				0.157	0.00
[illegible])		Tetrachloroeth...			0.198				0.198	0.00
[illegible])		Chlorobenzene ...			0.444				0.444	0.00
[illegible])		1,1,1,2-Tetrac...			0.163				0.163	0.00
[illegible])		Ethylbenzene SCAN			0.780				0.780	0.00

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Response Factor Report AG5975C

Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 013020.M

43)	m&p-Xylene SCAN	1.108	1.108	0.00
44)	o-Xylene SCAN	0.590	0.590	0.00
45)	1,1,2,2-Tetrac...	0.289	0.289	0.00
46)	1,3,5-Trimethy...	0.604	0.604	0.00
47)	1,2,4-Trimethy...	0.642	0.642	0.00
48)	Naphthalene SCAN	0.973	0.973	0.00

(#) = Out of Range

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Method Path : C:\MSDCHEM\1\RAVIOLI METHODS\2020\
Method File : 013020.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Jan 30 12:20:44 2020
Response Via : Initial Calibration

Total Cpnds : 48

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	2-Fluorotoluene	-109	11.012	1.000	A	1	A	B
2	T	1,1-Dichloroethene	-61	3.112	0.283	A	1	A	B
3	T	trans-1,2-Dichloroethene	-61	4.310	0.391	A	1	A	B
4	T	1,1-Dichloroethane	-63	5.059	0.459	A	1	A	B
5	T	cis-1,2-Dichloroethene	-61	6.081	0.552	A	1	A	B
6	T	Chloroform	-83	6.664	0.605	A	1	A	B
7	T	1,1,1-Trichloroethane	-97	6.919	0.628	A	2	A	B
8	T	Carbon tetrachloride	-117	7.187	0.653	A	1	A	B
9	T	Benzene	-78	7.528	0.684	A	1	A	B
10	T	1,2-Dichloroethane	-62	7.564	0.687	A	1	A	B
11	T	Trichloroethene	-130	8.597	0.781	A	3	A	B
12	S	Toluene-d8	-98	10.519	0.955	A	1	A	B
13	T	Toluene	-91	10.613	0.964	A	1	A	B
14	T	1,1,2-Trichloroethane	-97	11.264	1.023	A	1	A	B
15	T	Tetrachloroethene	-166	11.474	1.042	A	1	A	B
16	T	Chlorobenzene	-112	12.805	1.163	A	1	A	B
17	T	1,1,1,2-Tetrachloroethane	-131	12.956	1.177	A	1	A	B
18	T	Ethylbenzene	-91	13.012	1.182	A	2	A	B
19	T	m&p-Xylene	-91	13.202	1.199	A	2	A	B
20	T	o-Xylene	-91	13.822	1.255	A	1	A	B
21	T	1,1,2,2-Tetrachloroethane	-83	14.914	1.354	A	1	A	B
22	T	1,3,5-Trimethylbenzene	-105	15.388	1.397	A	1	A	B
23	T	1,2,4-Trimethylbenzene	-105	15.934	1.447	A	1	A	B
24	T	Naphthalene	-128	17.929	1.628	A	1	A	B
25		2-Fluorotoluene SCAN	109	11.011	1.000	A	1	A	B
26		1,1-Dichloroethene SCAN	61	3.107	0.282	A	2	A	B
27		trans-1,2-Dichloroethene SCAN	61	4.308	0.391	A	2	A	B
28		1,1-Dichloroethane SCAN	63	5.065	0.460	A	2	A	B
29		cis-1,2-Dichloroethene SCAN	61	6.080	0.552	A	3	A	B
30		Chloroform SCAN	83	6.663	0.605	A	2	A	B
31		1,1,1-Trichloroethane SCAN	97	6.918	0.628	A	2	A	B
32		Carbon tetrachloride SCAN	117	7.198	0.654	A	3	A	B
33		Benzene SCAN	78	7.526	0.683	A	3	A	B
34		1,2-Dichloroethane SCAN	62	7.563	0.687	A	2	A	B
35		Trichloroethene SCAN	130	8.601	0.781	A	3	A	B
36		Toluene-d8 SCAN	98	10.518	0.955	A	1	A	B
37		Toluene SCAN	91	10.623	0.965	A	2	A	B
38		1,1,2-Trichloroethane SCAN	97	11.273	1.024	A	3	A	B
39		Tetrachloroethene SCAN	166	11.473	1.042	A	3	A	B
40		Chlorobenzene SCAN	112	12.812	1.163	A	3	A	B
41		1,1,1,2-Tetrachloroethane SCAN	131	12.947	1.176	A	3	A	B
42		Ethylbenzene SCAN	91	13.010	1.181	A	2	A	B
43		m&p-Xylene SCAN	91	13.209	1.200	A	3	A	B
44		o-Xylene SCAN	91	13.821	1.255	A	2	A	B
45		1,1,2,2-Tetrachloroethane SCAN	83	14.916	1.355	A	2	A	B
46		1,3,5-Trimethylbenzene SCAN	105	15.387	1.397	A	2	A	B
47		1,2,4-Trimethylbenzene SCAN	105	15.938	1.447	A	3	A	B
48		Naphthalene SCAN	128	17.927	1.628	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

013020.M Thu Jan 30 13:13:01 2020

CHEMSTATION AREA COUNT REPORT

AG5975C
S20A096-SCV1
2004028
1/30/2020
Thu Jan 30 12:20:44 2020
TD

#	Name	L1	L2	L3	L4	L5	L6
1)	2-Fluorotoluene	127251	101341	113612	145291	105279	102923
2)	1,1-Dichloroethene	165815	52296	28038	7101	858	250
3)	trans-1,2-Dichloroethene	167073	53231	28696	7131	884	273
4)	1,1-Dichloroethane	203989	66239	35966	9049	1120	337
5)	cis-1,2-Dichloroethene	190494	61964	33702	8519	1028	320
6)	Chloroform	214886	69358	37381	9466	1117	354
7)	1,1,1-Trichloroethane	205345	66752	36400	9161	1093	353
8)	Carbon tetrachloride	181205	58935	32345	8161	946	308
9)	Benzene	506912	167861	93222	23661	2756	871
10)	1,2-Dichloroethane	165689	55700	30490	7809	899	287
11)	Trichloroethene	144982	47798	26741	6772	767	251
12)	Toluene-d8	516193	170851	97268	24851	2748	923
13)	Toluene	577530	195489	113445	29702	3301	1124
14)	1,1,2-Trichloroethane	136948	44135	25068	6426	735	260
15)	Tetrachloroethene	165588	54122	31212	8007	905	297
16)	Chlorobenzene	428845	141857	81517	21313	2354	801
17)	1,1,1,2-Tetrachloroethane	142601	46852	26865	7091	775	259
18)	Ethylbenzene	657428	223830	130824	35406	3957	1352
19)	m&p-Xylene	991969	336405	197410	54008	6066	1994
20)	o-Xylene	543031	180598	104218	28449	3201	1100
21)	1,1,2,2-Tetrachloroethane	244014	79757	45500	12299	1367	454
22)	1,3,5-Trimethylbenzene	580560	196311	112408	31477	3487	1151
23)	1,2,4-Trimethylbenzene	580430	196813	112634	32275	3570	1202
24)	Naphthalene	957892	329413	187454	58197	6467	2063

CHEMSTATION CONCENTRATION REPORT

AG5975C
S20A096-SCV1
2004028
1/30/2020
Thu Jan 30 12:20:44 2020
TD

#	Name	L1	L2	L3	L4	L5	L6
1)	2-Fluorotoluene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00
2)	1,1-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
3)	trans-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
4)	1,1-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
5)	cis-1,2-Dichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
6)	Chloroform	25000.00	10000.00	5000.00	1000.00	150.00	50.00
7)	1,1,1-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
8)	Carbon tetrachloride	25000.00	10000.00	5000.00	1000.00	150.00	50.00
9)	Benzene	25000.00	10000.00	5000.00	1000.00	150.00	1.00
10)	1,2-Dichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
11)	Trichloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
12)	Toluene-d8	25000.00	10000.00	5000.00	1000.00	150.00	50.00
13)	Toluene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
14)	1,1,2-Trichloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
15)	Tetrachloroethene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
16)	Chlorobenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
17)	1,1,1,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
18)	Ethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
19)	m&p-Xylene	50000.00	20000.00	10000.00	2000.00	300.00	100.00
20)	o-Xylene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
21)	1,1,2,2-Tetrachloroethane	25000.00	10000.00	5000.00	1000.00	150.00	50.00
22)	1,3,5-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
23)	1,2,4-Trimethylbenzene	25000.00	10000.00	5000.00	1000.00	150.00	50.00
24)	Naphthalene	25000.00	10000.00	5000.00	1000.00	150.00	50.00

SCV REPORT

Instrument Name: AG5975C
Sample Name: S20A096-SCV1
Misc Info: 2004028
Date Acquired: 1/30/2020
QLast Update: Thu Jan 30 12:20:44 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	11.012	5000	5000.00	100%	70	130	pass
2)	1,1-Dichloroethene	3.112	5000	5310.01	106%	70	130	pass
3)	trans-1,2-Dichloroethene	4.310	5000	5207.16	104%	70	130	pass
4)	1,1-Dichloroethane	5.059	5000	5084.15	102%	70	130	pass
5)	cis-1,2-Dichloroethene	6.081	5000	5127.41	103%	70	130	pass
6)	Chloroform	6.664	5000	5121.54	102%	70	130	pass
7)	1,1,1-Trichloroethane	6.919	5000	5077.71	102%	70	130	pass
8)	Carbon tetrachloride	7.187	5000	5081.02	102%	70	130	pass
9)	Benzene	7.528	5000	5067.97	101%	70	130	pass
10)	1,2-Dichloroethane	7.564	5000	5122.62	102%	70	130	pass
11)	Trichloroethene	8.597	5000	5151.41	103%	70	130	pass
12)	Toluene-d8	10.519	5000	4996.52	100%	70	130	pass
13)	Toluene	10.613	5000	5069.44	101%	70	130	pass
14)	1,1,2-Trichloroethane	11.264	5000	5038.45	101%	70	130	pass
15)	Tetrachloroethene	11.474	5000	5151.97	103%	70	130	pass
16)	Chlorobenzene	12.805	5000	5118.97	102%	70	130	pass
17)	1,1,1,2-Tetrachloroethane	12.956	5000	5162.73	103%	70	130	pass
18)	Ethylbenzene	13.012	5000	5035.41	101%	70	130	pass
19)	m&p-Xylene	13.202	10000	10059.42	101%	70	130	pass
20)	o-Xylene	13.822	5000	5001.11	100%	70	130	pass
21)	1,1,2,2-Tetrachloroethane	14.914	5000	5068.29	101%	70	130	pass
22)	1,3,5-Trimethylbenzene	15.388	5000	5060.44	101%	70	130	pass
23)	1,2,4-Trimethylbenzene	15.934	5000	4903.95	98%	70	130	pass
24)	Naphthalene	17.929	5000	4790.71	96%	70	130	pass

SEQUENCE

S20A096

Sequence Date: 01/30/2020

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	ICAL	SEQUENCE #:	S20A096 01/30/20
BATCH #:		ANALYSIS:	VOA Passive 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?	✔			
	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.	Thu Jan 30 12:20:44 2020			
	Initial Calibration ID (LIMS number):	2001023			
	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 #:	ICAL	SEQUENCE #:	S20A096 01/30/20
BATCH #:		ANALYSIS:	VOA Passive 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?	☑			
SAMPLE DATA	Were samples prepared & analyzed within holding time?	☑			
	If samples need to be re-run, were RE(s) made in LIMS?	☑			
	Do any samples need to be re-digested or re-extracted?	☑			
	Were all data qualifiers appropriately applied?	☑			
	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:	TD 01/30/20
	REVIEWED BY:	Ziyad Rajabi (affiliate) Digitally signed by Ziyad Rajabi (affiliate) Date: 2020.02.04 12:01:17 -08'00' SIGN HERE

COMMENTS

Custom analyte list.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2020\013020\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	01302001.D	1	S20A096-IBL1		30 Jan 2020 8:10
2	01302002.D	1	S20A096-TUN1	BFB 1940006	30 Jan 2020 8:32
3	01302003.D	1	S20A096-CAL1	2004022 25 mg/L	30 Jan 2020 8:41
4	01302004.D	1	S20A096-CAL2	2004023 10 mg/L	30 Jan 2020 9:05
5	01302005.D	1	S20A096-CAL3	2004024 5 mg/L	30 Jan 2020 9:29
6	01302006.D	1	S20A096-CAL4	2004025 1 mg/L	30 Jan 2020 9:52
7	01302007.D	1	S20A096-CAL5	2004026 0.15 mg/L	30 Jan 2020 10:16
8	01302008.D	1	S20A096-CAL6	2004027 0.05 mg/L	30 Jan 2020 10:40
9	01302009.D	1	S20A096-SCV1	2004028	30 Jan 2020 11:03

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2020\013020\01302002.D
Tune Time : 30 Jan 2020 8:32

Daily Calibration File : C:\msdchem\1\Ravioli Data\2020\013020\01302005.D

File	Sample	Surrogate Recovery %	Internal Standard Responses
			113612
01302003.D			
	S20A096-CA	479*	127251
01302004.D			
	S20A096-CA	199*	101341
01302005.D			
	S20A096-CA	101	113612
01302006.D			
	S20A096-CA	20*	145291
01302007.D			
	S20A096-CA	3*	105279
01302008.D			
	S20A096-CA	1*	102923
01302009.D			
	S20A096-SC	100	149368

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

Created: Thu Jan 30 12:22:45 2020 AG5975C

Analysis Sequence

S20A096

Project:
Analysis:

Instrument: AG5975CV **Calibration ID:** 2001023 Printed: 01/30/2020 1:25 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S20A096-IBL1	Instrument Blank	1	1/30/20 8:10		2004020	TD	01302001.D	
S20A096-TUN1	BFB	2	1/30/20 8:32	1940006		TD	01302002.D	
S20A096-CAL1	Cal Standard	3	1/30/20 8:41	2004022		TD	01302003.D	
S20A096-CAL2	Cal Standard	4	1/30/20 9:05	2004023		TD	01302004.D	
S20A096-CAL3	Cal Standard	5	1/30/20 9:29	2004024		TD	01302005.D	
S20A096-CAL4	Cal Standard	6	1/30/20 9:52	2004025		TD	01302006.D	
S20A096-CAL5	Cal Standard	7	1/30/20 10:16	2004026		TD	01302007.D	
S20A096-CAL6	Cal Standard	8	1/30/20 10:40	2004027		TD	01302008.D	
S20A096-SCV1	Secondary Cal Check	9	1/30/20 11:03	2004028		TD	01302009.D	

Sequence Comments

Reagents

Reagent # **Description**

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SEQUENCE DATA

S20A096

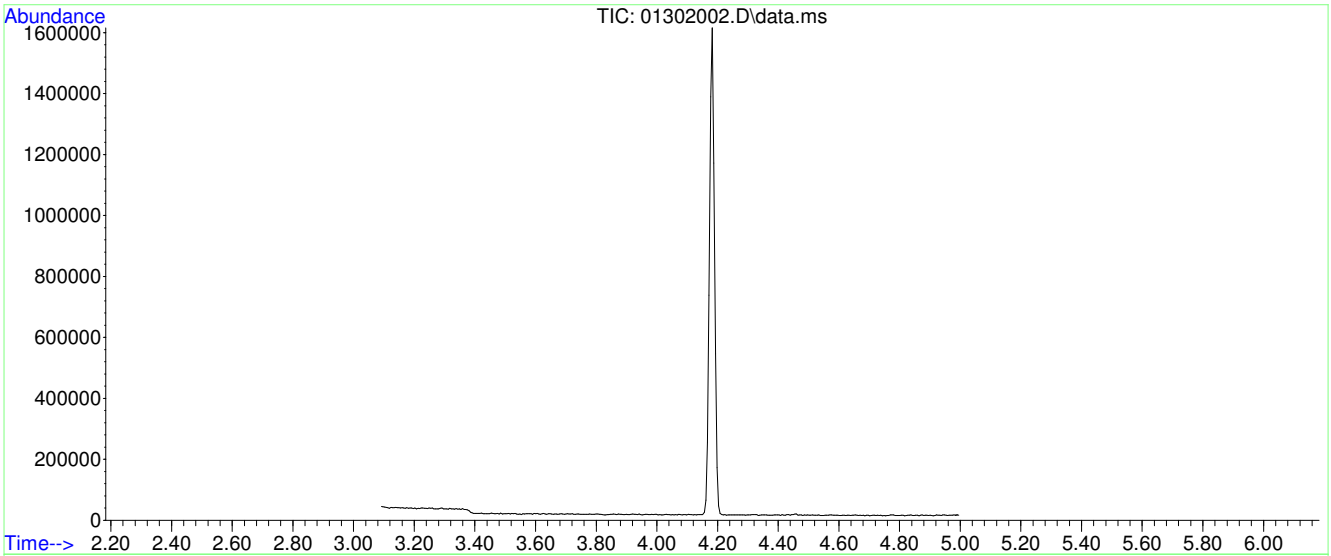
S20A096-TUN1

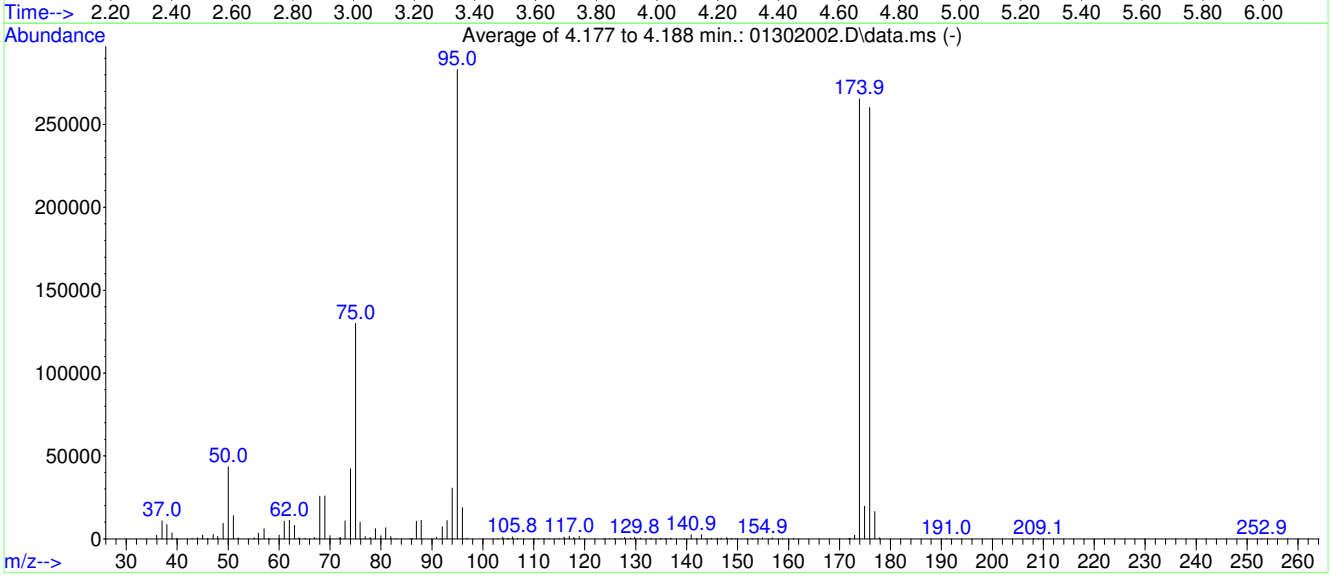
Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302002.D
Acq On : 30 Jan 2020 8:32
Operator : TD
Sample : S20A096-TUN1
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Jan 30 06:24:09 2020





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	43501	PASS
75	95	30	60	45.9	130037	PASS
95	95	100	100	100.0	283008	PASS
96	95	5	9	6.6	18733	PASS
173	174	0.00	2	0.9	2329	PASS
174	95	50	120	93.8	265429	PASS
175	174	5	9	7.4	19771	PASS
176	174	95	101	98.0	260181	PASS
177	176	5	9	6.3	16371	PASS

Average of 4.177 to 4.188 min.: 01302002.D\data.ms
S20A096-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	2062	49.00	9290	62.00	11185	74.00	42253
37.05	10817	50.00	43501	63.00	8135	75.00	130037
37.95	8560	51.00	13870	63.90	624	75.90	10056
39.00	3507	51.95	576	65.10	325	76.90	1294
39.95	168	55.10	584	67.00	787	77.85	887
42.95	130	55.95	3458	68.00	25693	78.90	6168
44.00	713	57.05	6024	69.00	25949	79.95	1986
45.00	2297	57.95	171	70.00	1907	80.90	6612
46.00	331	58.20	101	71.90	505	81.95	1430
47.05	2732	60.00	2321	72.05	826	82.90	58
47.95	1312	61.00	10676	72.95	10868	85.70	81

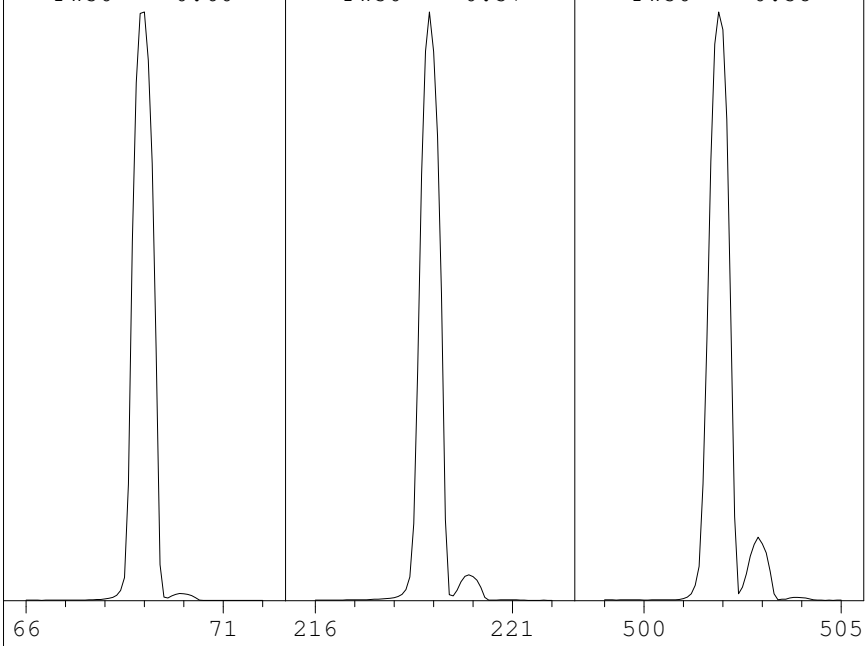
Average of 4.177 to 4.188 min.: 01302002.D\data.ms
S20A096-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.10	183	103.90	1001	116.95	1580	132.90	159
86.95	10641	104.90	248	117.85	893	133.10	52
87.90	11114	105.10	118	118.90	1297	134.80	270
90.90	1084	105.80	1137	123.75	113	135.00	176
92.00	7122	106.80	314	124.90	61	135.80	92
93.00	11006	110.10	53	125.85	147	136.80	199
94.00	30576	110.85	159	127.00	77	136.95	285
95.00	283008	112.00	59	127.85	900	139.50	133
96.00	18733	113.00	86	129.00	494	140.90	2535
96.90	514	114.95	313	129.80	1030	141.95	253
102.95	184	115.95	1032	130.90	431	142.90	2505

Average of 4.177 to 4.188 min.: 01302002.D\data.ms
S20A096-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.80	107	152.95	155	175.90	260181		
144.85	291	153.95	150	176.90	16371		
145.95	399	154.90	708	177.80	567		
146.75	304	156.80	610	191.00	53		
147.85	912	158.85	297	206.95	158		
148.70	104	160.95	380	208.10	51		
148.95	178	171.85	265	209.05	200		
149.65	133	172.10	232	252.90	102		
149.95	156	172.95	2329	254.10	59		
151.80	82	173.90	265429				
152.80	94	174.90	19771				

Mass	69.00	Mass	218.90	Mass	501.90
Ab	630547	Ab	452469	Ab	32730
Pw50	0.60	Pw50	0.57	Pw50	0.58

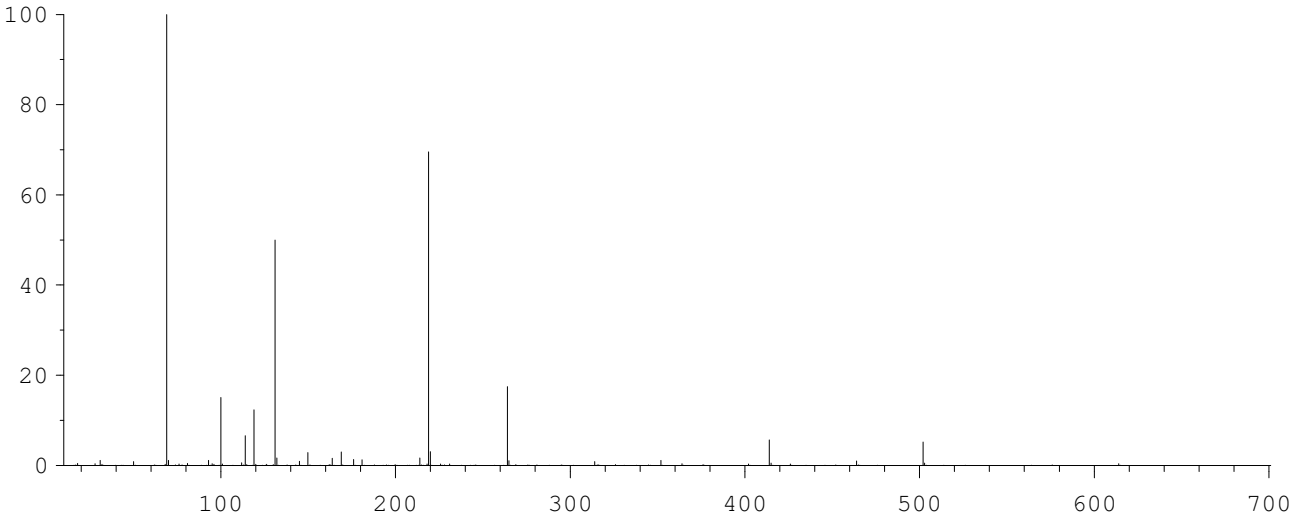


Ion Pol	Pos	MassGain	-1184
		MassOffs	-38
Emission	34.6	AmuGain	976
EIEnrgy	69.9	AmuOffs	122.06
Filament	1	Wid219	-0.008
		DC Pol	Pos
Repeller	29.12		
IonFcus	90.2	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

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
139 peaks Base: 69.00 Abundance: 616576



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	616576	100.00	70.00	6757	1.10
219.00	428736	69.53	220.00	18832	4.39
502.00	32032	5.20	503.00	3216	10.04

Air/Water Check: H20~0.44% N2~0.35% O2~0.22% CO2~0.03% N2/H2O~80.62%

Column(1) Flow: 0.9 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 35125
Repeller Maximum 35 volts using ion 219; Gain Factor 0.35

MassGain Values(Samples): -1171(3) -1163(2) -1146(1) -1126(0) -1039(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.1	122.1	122.1	122.1	122.1	122.1	122.1
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S20A096-CAL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302003.D
Acq On : 30 Jan 2020 8:41
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL1
Misc : 2004022 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 30 12:17:33 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

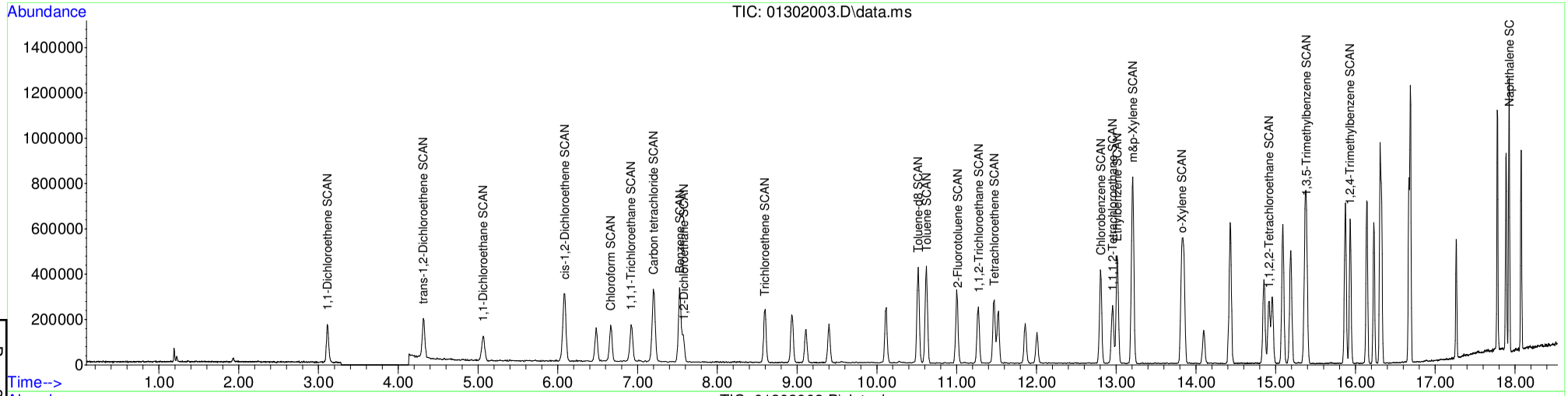
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	127251	5000.00 ug/L	0.01
System Monitoring Compounds					
12) Toluene-d8	10.519	98	516193	23949.52 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 478.99%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	165815	24197.67 ug/L	99
3] trans-1,2-Dichloroethene	4.316	61	167073	24784.33 ug/L	100
4] 1,1-Dichloroethane	5.066	63	203989	24377.94 ug/L	100
5] cis-1,2-Dichloroethene	6.088	61	190494	24594.20 ug/L	100
6] Chloroform	6.664	83	214886	24927.21 ug/L	100
7] 1,1,1-Trichloroethane	6.919	97	205345	24843.83 ug/L	100
8] Carbon tetrachloride	7.187	117	181205	24702.31 ug/L	98
9] Benzene	7.528	78	506912	23901.29 ug/L	100
10] 1,2-Dichloroethane	7.564	62	165689	24185.68 ug/L	98
11] Trichloroethene	8.597	130	144982	23870.73 ug/L	99
13] Toluene	10.613	91	577530	22579.12 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	136948	24091.66 ug/L	99
15] Tetrachloroethene	11.474	166	165588	22977.04 ug/L	99
16] Chlorobenzene	12.805	112	428845	23123.33 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.956	131	142601	22886.64 ug/L	99
18] Ethylbenzene	13.012	91	657428	21980.32 ug/L	99
19] m&p-Xylene	13.202	91	991969	43632.15 ug/L	99
20] o-Xylene	13.822	91	543031	22398.02 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	244014	22977.86 ug/L	100
22] 1,3,5-Trimethylbenzene	15.383	105	580560	22191.79 ug/L	99
23] 1,2,4-Trimethylbenzene	15.934	105	580430	21931.43 ug/L	100
24] Naphthalene	17.929	128	957892	21108.46 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	79031	4686.90 ug/L	93
26) 1,1-Dichloroethene SCAN	3.111	61	119108	24441.98 ug/L	92
27) trans-1,2-Dichloroethe...	4.315	61	119565	26668.89 ug/L	94
28) 1,1-Dichloroethane SCAN	5.065	63	140030	23730.71 ug/L	93
29) cis-1,2-Dichloroethene...	6.087	61	136723	25105.12 ug/L	94
30) Chloroform SCAN	6.663	83	157237	24103.58 ug/L	88
31) 1,1,1-Trichloroethane ...	6.918	97	136514	24431.37 ug/L	92
32) Carbon tetrachloride SCAN	7.198	117	117233	22010.96 ug/L	91
33) Benzene SCAN	7.526	78	351634	22741.70 ug/L	99
34) 1,2-Dichloroethane SCAN	7.575	62	110856	22654.79 ug/L	96
35) Trichloroethene SCAN	8.596	130	94551	23666.32 ug/L	95
36) Toluene-d8 SCAN	10.518	98	331747	23428.39 ug/L	100
37) Toluene SCAN	10.623	91	372549	21694.97 ug/L	95
38) 1,1,2-Trichloroethane ...	11.273	97	95317	23789.89 ug/L	94
39) Tetrachloroethene SCAN	11.473	166	106554	23630.78 ug/L	92
40) Chlorobenzene SCAN	12.804	112	262625	21947.40 ug/L	98
41) 1,1,1,2-Tetrachloroeth...	12.955	131	88495	20438.36 ug/L	92
42) Ethylbenzene SCAN	13.010	91	423311	21705.09 ug/L	98
43) m&p-Xylene SCAN	13.209	91	632565	22244.08 ug/L	99
44) o-Xylene SCAN	13.821	91	339489	22329.73 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.913	83	171212	23626.90 ug/L	96
46) 1,3,5-Trimethylbenzene...	15.387	105	351614	22131.68 ug/L	99
47) 1,2,4-Trimethylbenzene...	15.933	105	357551	22380.20 ug/L	98
48) Naphthalene SCAN	17.927	128	581149	23814.94 ug/L	95

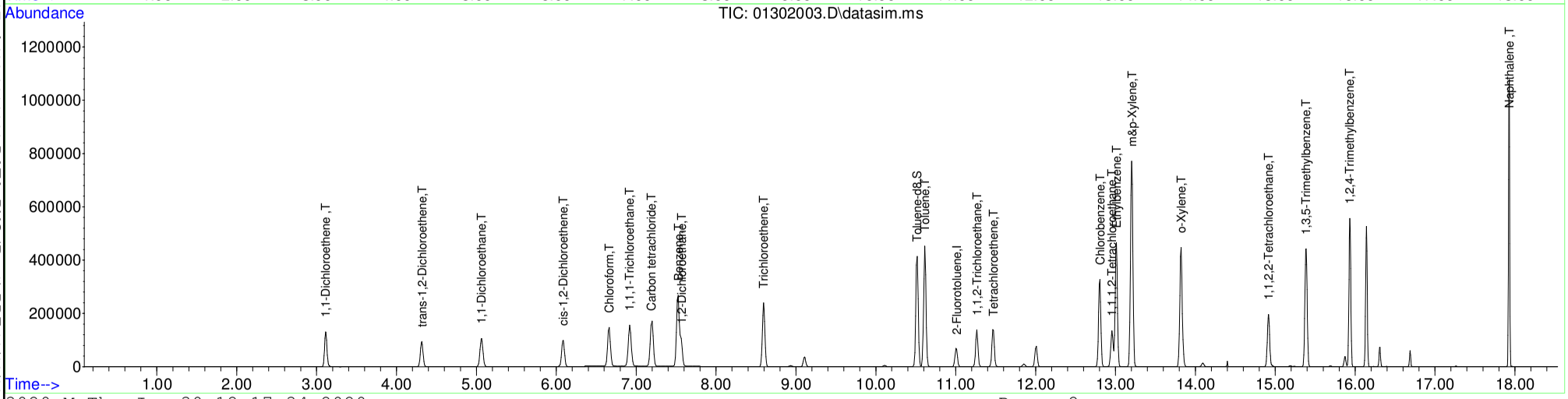
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302003.D
Acq On : 30 Jan 2020 8:41
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL1
Misc : 2004022 25 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 30 12:17:33 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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S20A096-CAL2

Quantitation Report (Not Reviewed)

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Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302004.D
Acq On : 30 Jan 2020 9:05
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL2
Misc : 2004023 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 30 12:17:37 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

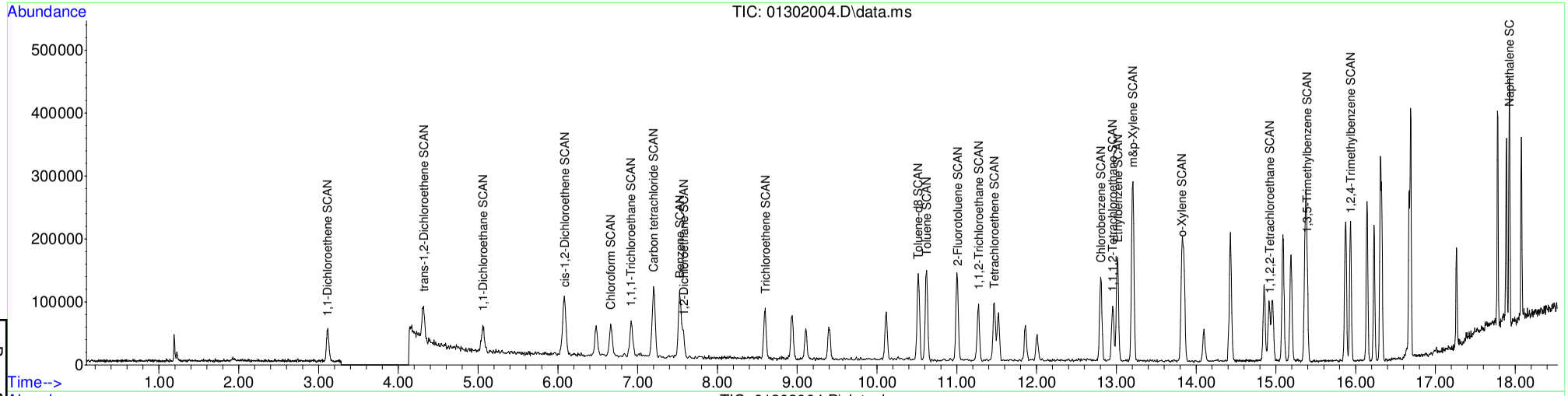
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	101341	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	170851	9953.56 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 199.07%#		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	52296	9582.84 ug/L	100
3] trans-1,2-Dichloroethene	4.310	61	53231	9915.43 ug/L	100
4] 1,1-Dichloroethane	5.059	63	66239	9939.85 ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	61964	10045.39 ug/L	100
6] Chloroform	6.652	83	69358	10102.71 ug/L	99
7] 1,1,1-Trichloroethane	6.919	97	66752	10140.86 ug/L	100
8] Carbon tetrachloride	7.187	117	58935	10088.27 ug/L	99
9] Benzene	7.515	78	167861	9938.36 ug/L	100
10] 1,2-Dichloroethane	7.564	62	55700	10209.30 ug/L	99
11] Trichloroethene	8.597	130	47798	9881.83 ug/L	99
13] Toluene	10.613	91	195489	9596.90 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	44135	9749.23 ug/L	99
15] Tetrachloroethene	11.474	166	54122	9430.07 ug/L	100
16] Chlorobenzene	12.805	112	141857	9604.54 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.956	131	46852	9441.99 ug/L	100
18] Ethylbenzene	13.012	91	223830	9396.80 ug/L	100
19] m&p-Xylene	13.202	91	336405	18580.06 ug/L	100
20] o-Xylene	13.822	91	180598	9353.49 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.914	83	79757	9430.61 ug/L	100
22] 1,3,5-Trimethylbenzene	15.383	105	196311	9422.49 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	196813	9337.85 ug/L	100
24] Naphthalene	17.929	128	329413	9115.00 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	64941	4835.97 ug/L	95
26) 1,1-Dichloroethene SCAN	3.111	61	36799	9482.16 ug/L	97
27) trans-1,2-Dichloroethe...	4.315	61	36066	10101.24 ug/L	97
28) 1,1-Dichloroethane SCAN	5.058	63	49305	10491.96 ug/L	95
29) cis-1,2-Dichloroethene...	6.087	61	44032	10152.32 ug/L	93
30) Chloroform SCAN	6.663	83	50383	9698.10 ug/L	83
31) 1,1,1-Trichloroethane ...	6.918	97	45039	10121.28 ug/L	86
32) Carbon tetrachloride SCAN	7.198	117	37600	8864.48 ug/L	90
33) Benzene SCAN	7.526	78	108452	8807.36 ug/L	99
34) 1,2-Dichloroethane SCAN	7.575	62	39559	10151.31 ug/L	94
35) Trichloroethene SCAN	8.601	130	31031	9752.96 ug/L	90
36) Toluene-d8 SCAN	10.518	98	109111	9675.65 ug/L	99
37) Toluene SCAN	10.623	91	135944	9940.58 ug/L	96
38) 1,1,2-Trichloroethane ...	11.273	97	32577	10209.61 ug/L	91
39) Tetrachloroethene SCAN	11.473	166	35118	9779.44 ug/L	92
40) Chlorobenzene SCAN	12.804	112	89929	9436.76 ug/L	96
41) 1,1,1,2-Tetrachloroeth...	12.955	131	32010	9283.02 ug/L	96
42) Ethylbenzene SCAN	13.018	91	142479	9173.37 ug/L	98
43) m&p-Xylene SCAN	13.209	91	216576	9563.03 ug/L	99
44) o-Xylene SCAN	13.821	91	118616	9796.64 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.920	83	55395	9598.85 ug/L	90
46) 1,3,5-Trimethylbenzene...	15.392	105	121821	9628.23 ug/L #	38
47) 1,2,4-Trimethylbenzene...	15.933	105	122728	9645.96 ug/L	97
48) Naphthalene SCAN	17.927	128	196229	10097.20 ug/L	94

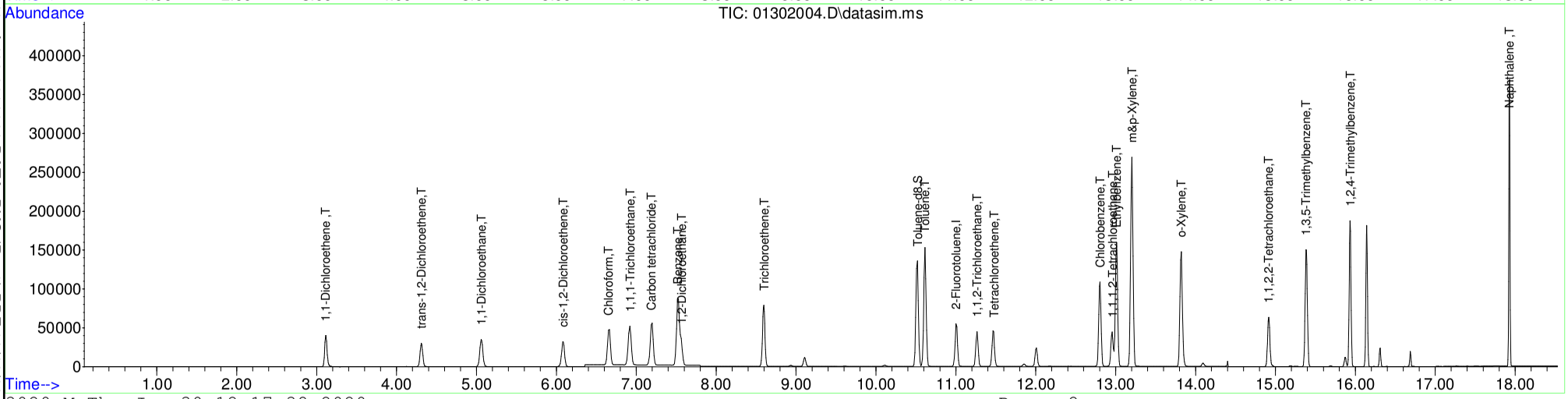
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302004.D
Acq On : 30 Jan 2020 9:05
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL2
Misc : 2004023 10 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 30 12:17:37 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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S20A096-CAL3

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302005.D
Acq On : 30 Jan 2020 9:29
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL3
Misc : 2004024 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 12:17:40 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

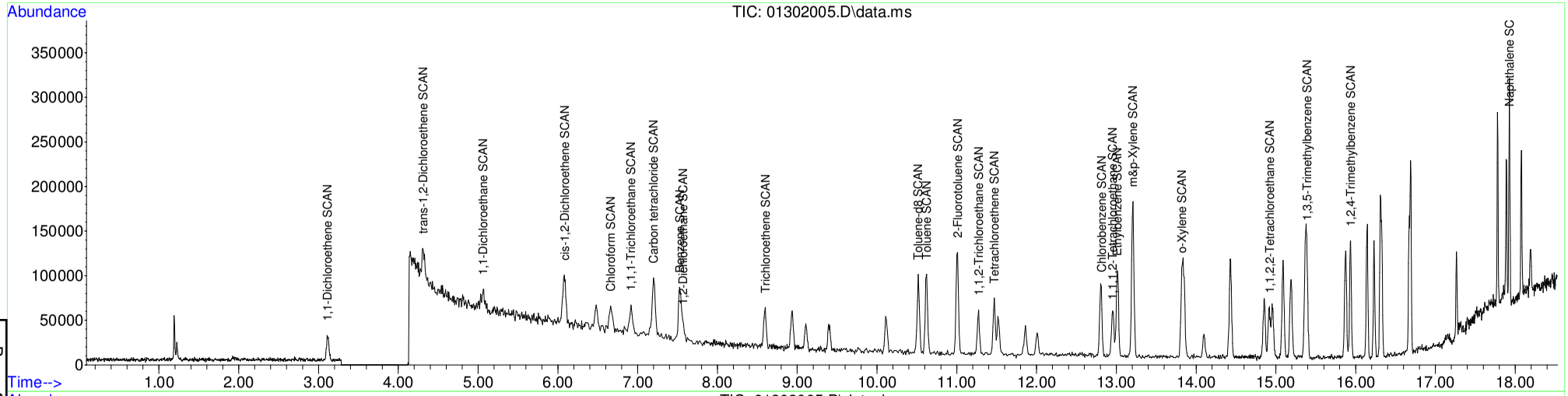
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	113612	5000.00 ug/L	0.01
System Monitoring Compounds					
12) Toluene-d8	10.519	98	97268	5054.66 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.09%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	28038	4582.83 ug/L	99
3] trans-1,2-Dichloroethene	4.310	61	28696	4767.92 ug/L	100
4] 1,1-Dichloroethane	5.059	63	35966	4814.15 ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	33702	4873.54 ug/L	100
6] Chloroform	6.664	83	37381	4856.84 ug/L	99
7] 1,1,1-Trichloroethane	6.919	97	36400	4932.57 ug/L	100
8] Carbon tetrachloride	7.187	117	32345	4938.69 ug/L	99
9] Benzene	7.528	78	93222	4923.16 ug/L	100
10] 1,2-Dichloroethane	7.564	62	30490	4984.93 ug/L	98
11] Trichloroethene	8.597	130	26741	4931.35 ug/L	99
13] Toluene	10.613	91	113445	4967.69 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	25068	4939.33 ug/L	99
15] Tetrachloroethene	11.474	166	31212	4850.92 ug/L	99
16] Chlorobenzene	12.805	112	81517	4923.06 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.956	131	26865	4829.29 ug/L	99
18] Ethylbenzene	13.012	91	130824	4899.03 ug/L	100
19] m&p-Xylene	13.202	91	197410	9725.56 ug/L	100
20] o-Xylene	13.822	91	104218	4814.65 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.914	83	45500	4798.92 ug/L	100
22] 1,3,5-Trimethylbenzene	15.388	105	112408	4812.60 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	112634	4766.76 ug/L	100
24] Naphthalene	17.929	128	187454	4626.70 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	70005	4650.02 ug/L	96
26) 1,1-Dichloroethene SCAN	3.107	61	20172	4636.41 ug/L	96
27) trans-1,2-Dichloroethe...	4.308	61	21521	5376.51 ug/L	99
28) 1,1-Dichloroethane SCAN	5.065	63	29653	5628.53 ug/L	90
29) cis-1,2-Dichloroethene...	6.080	61	23271	4786.00 ug/L	91
30) Chloroform SCAN	6.663	83	25762	4423.27 ug/L	72
31) 1,1,1-Trichloroethane ...	6.918	97	25827	5177.04 ug/L	93
32) Carbon tetrachloride SCAN	7.198	117	26387	5549.02 ug/L	98
33) Benzene SCAN	7.526	78	68353	4951.38 ug/L	99
34) 1,2-Dichloroethane SCAN	7.563	62	19973	4571.74 ug/L	89
35) Trichloroethene SCAN	8.601	130	17438	4888.76 ug/L	92
36) Toluene-d8 SCAN	10.518	98	65230	5159.65 ug/L	98
37) Toluene SCAN	10.623	91	79999	5217.92 ug/L	94
38) 1,1,2-Trichloroethane ...	11.273	97	17811	4979.06 ug/L	94
39) Tetrachloroethene SCAN	11.473	166	22449	5576.25 ug/L	89
40) Chlorobenzene SCAN	12.812	112	50403	4717.81 ug/L	98
41) 1,1,1,2-Tetrachloroeth...	12.947	131	18550	4798.53 ug/L	99
42) Ethylbenzene SCAN	13.010	91	88667	5092.15 ug/L	99
43) m&p-Xylene SCAN	13.209	91	125856	4957.01 ug/L	98
44) o-Xylene SCAN	13.821	91	66991	4935.27 ug/L	98
45) 1,1,2,2-Tetrachloroeth...	14.916	83	32861	5079.14 ug/L	93
46) 1,3,5-Trimethylbenzene...	15.387	105	68591	4835.62 ug/L	99
47) 1,2,4-Trimethylbenzene...	15.938	105	72923	5112.43 ug/L	98
48) Naphthalene SCAN	17.927	128	110518	5072.62 ug/L	94

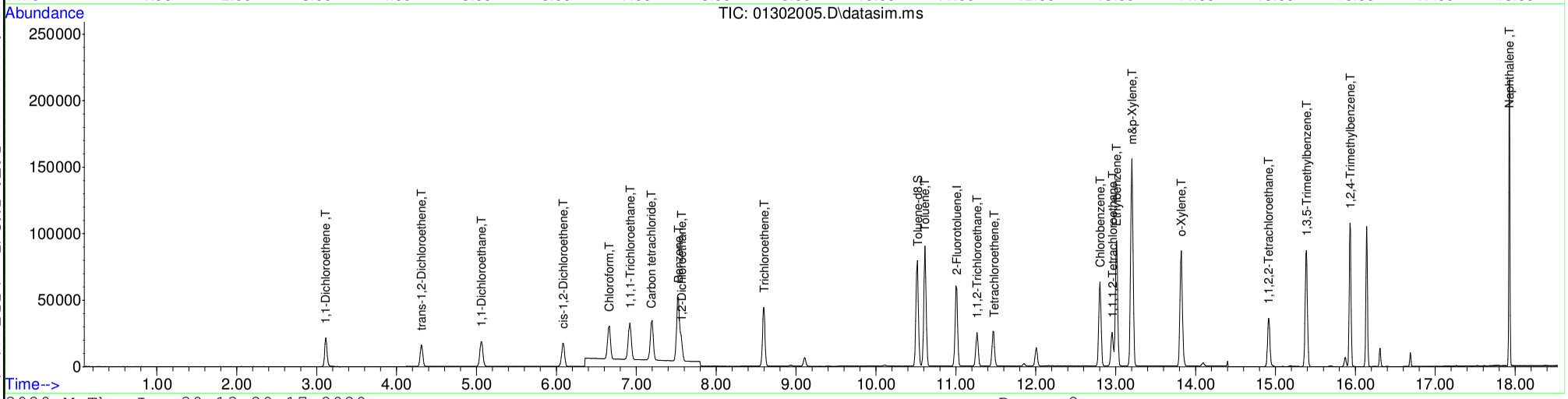
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302005.D
Acq On : 30 Jan 2020 9:29
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL3
Misc : 2004024 5 mg/L
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 12:17:40 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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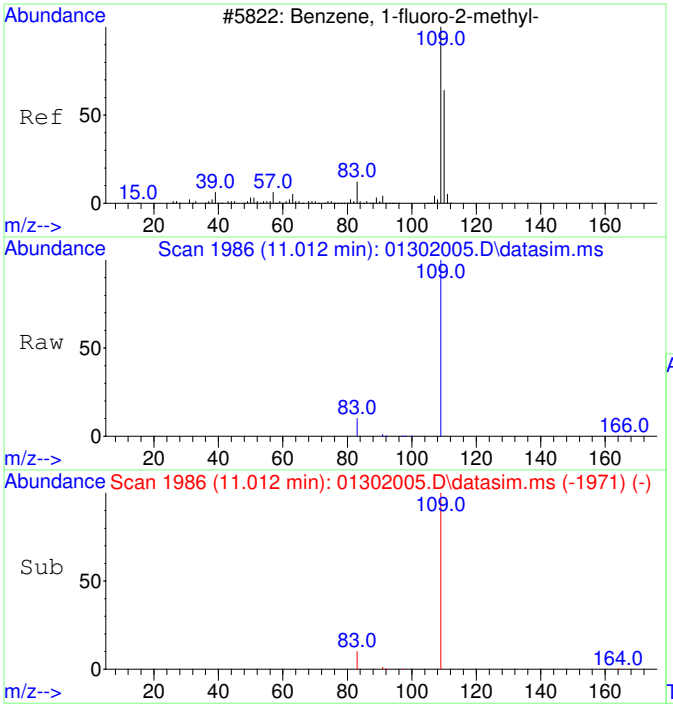
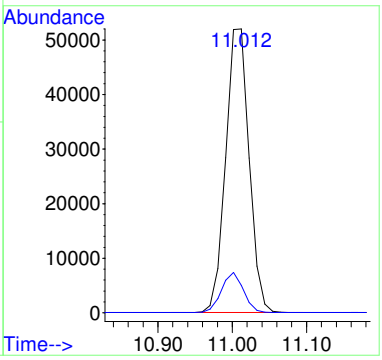
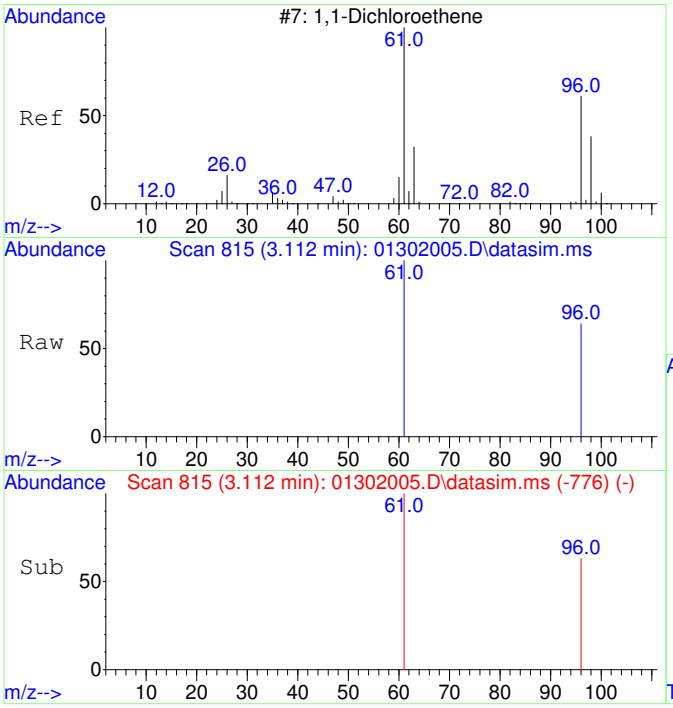


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.010 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:109 Resp: 113612

Ion	Ratio	Lower	Upper
109	100		
83	13.2	0.0	43.3

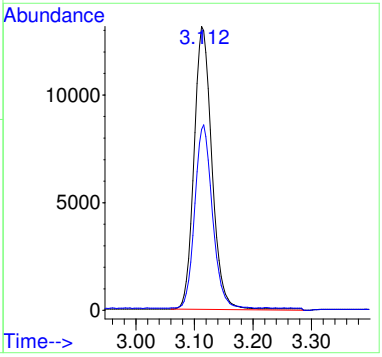


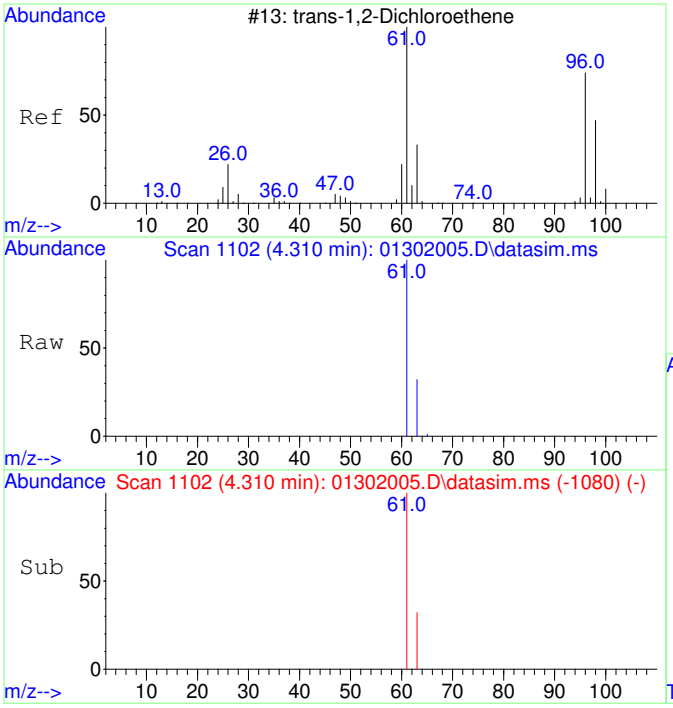


#2
1,1-Dichloroethene
Concen: 4582.83 ug/L
RT: 3.112 min Scan# 815
Delta R.T. -0.004 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 61 Resp: 28038

Ion	Ratio	Lower	Upper
61	100		
96	63.2	33.6	93.6

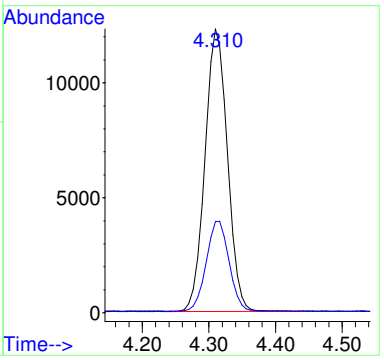


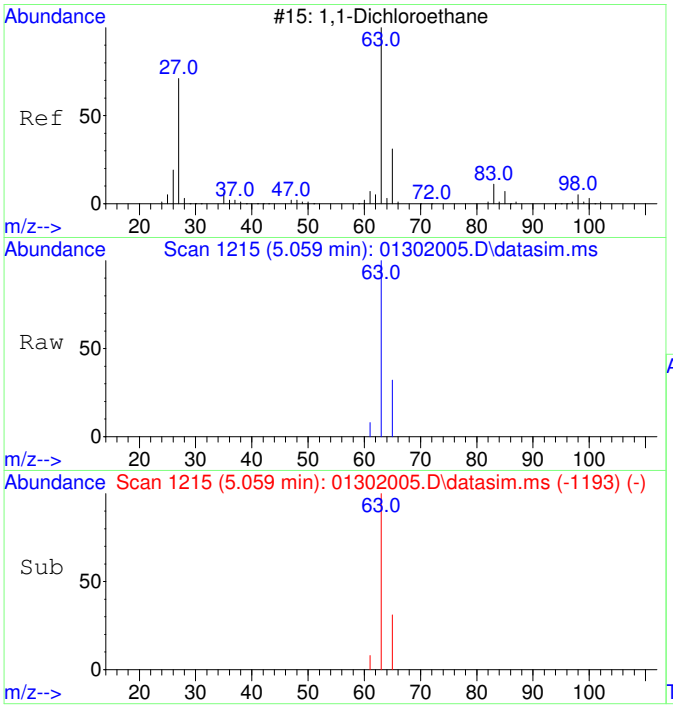


#3
trans-1,2-Dichloroethene
Concen: 4767.92 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.007 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 61 Resp: 28696

Ion	Ratio	Lower	Upper
61	100		
63	32.3	2.3	62.3

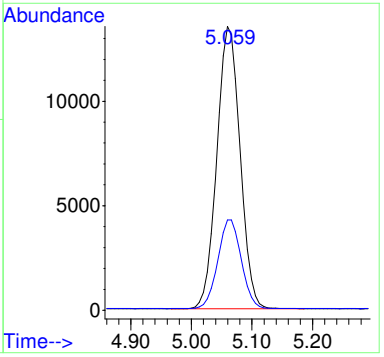


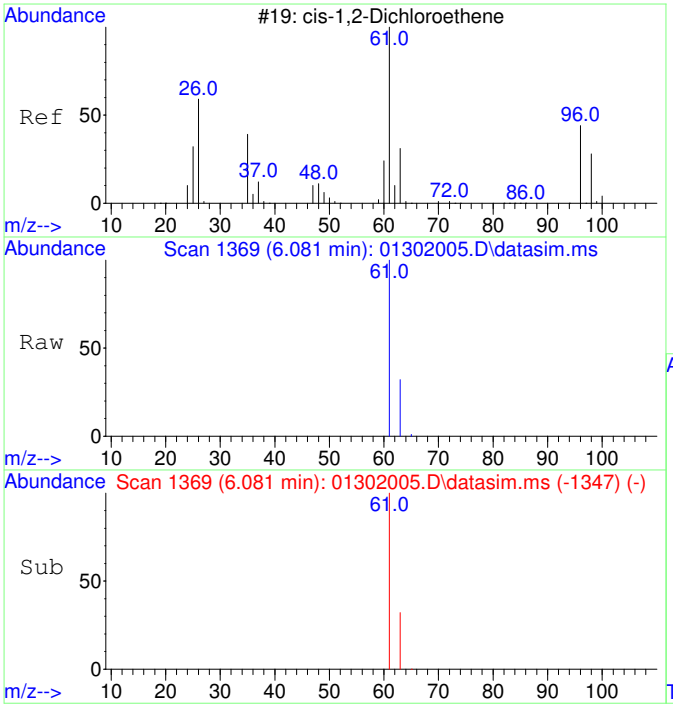


#4
1,1-Dichloroethane
Concen: 4814.15 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 63 Resp: 35966

Ion	Ratio	Lower	Upper
63	100		
65	31.7	1.7	61.7

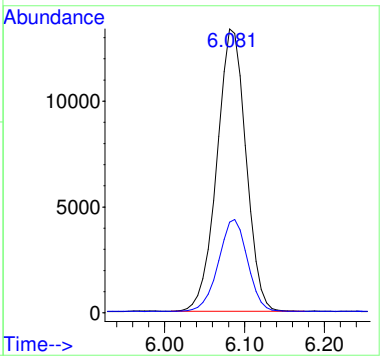


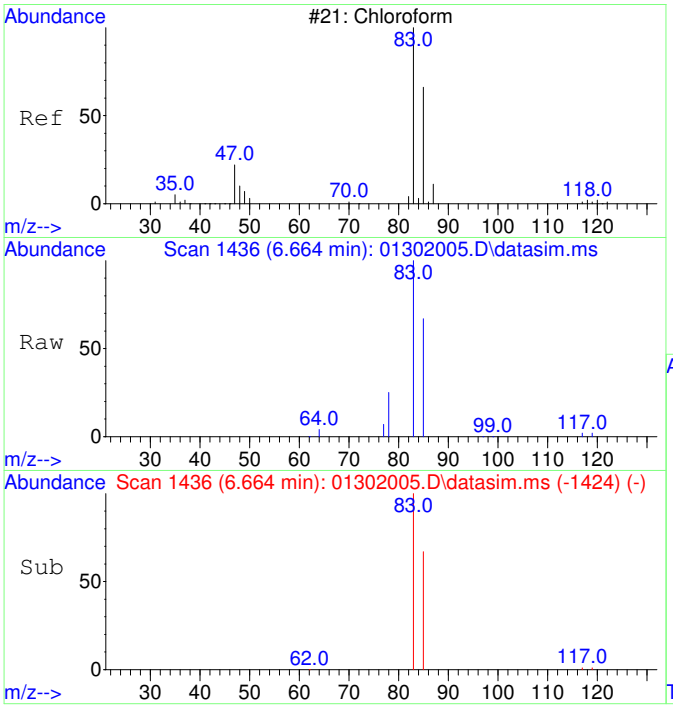


#5
cis-1,2-Dichloroethene
Concen: 4873.54 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.007 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 61 Resp: 33702

Ion	Ratio	Lower	Upper
61	100		
63	32.6	2.6	62.6

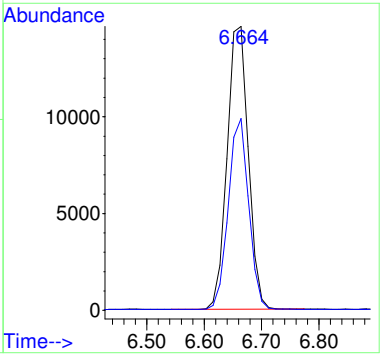


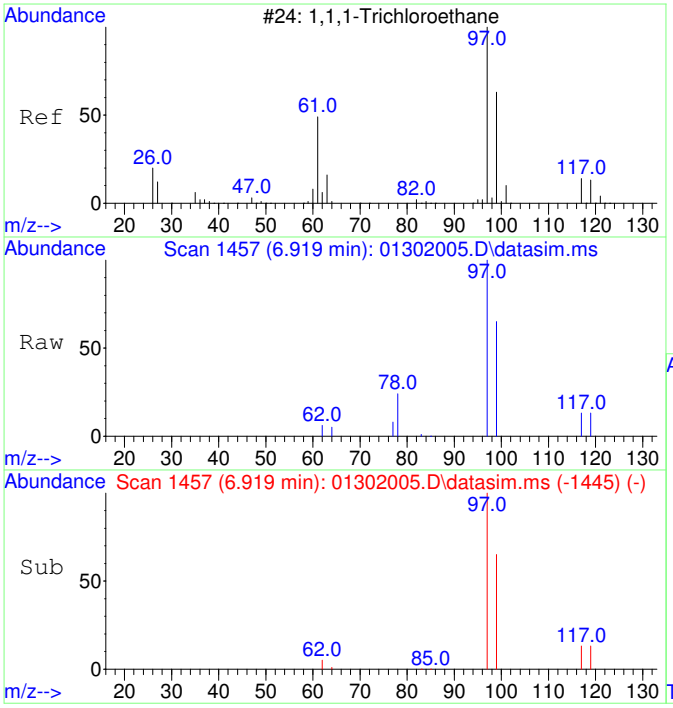


#6
Chloroform
Concen: 4856.84 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 83 Resp: 37381

Ion	Ratio	Lower	Upper
83	100		
85	64.7	35.2	95.2

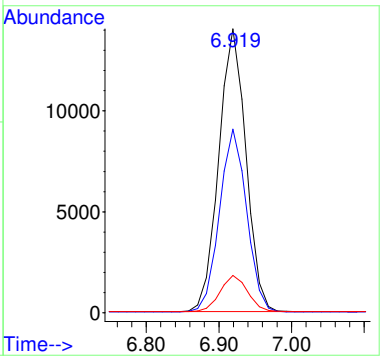


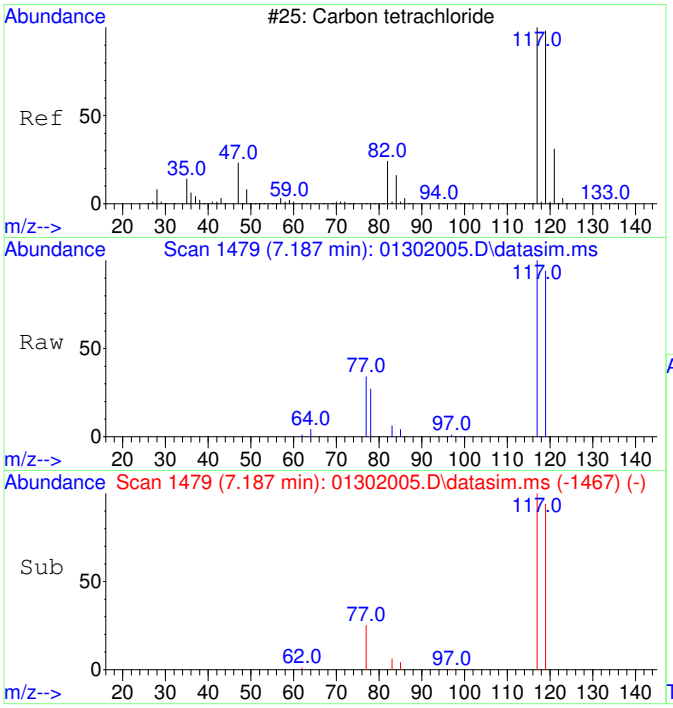


#7
1,1,1-Trichloroethane
Concen: 4932.57 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 97 Resp: 36400

Ion	Ratio	Lower	Upper
97	100		
99	64.4	34.6	94.6
117	12.8	0.0	42.9

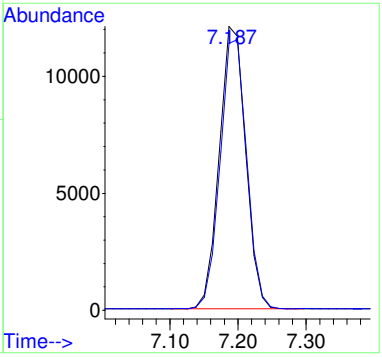


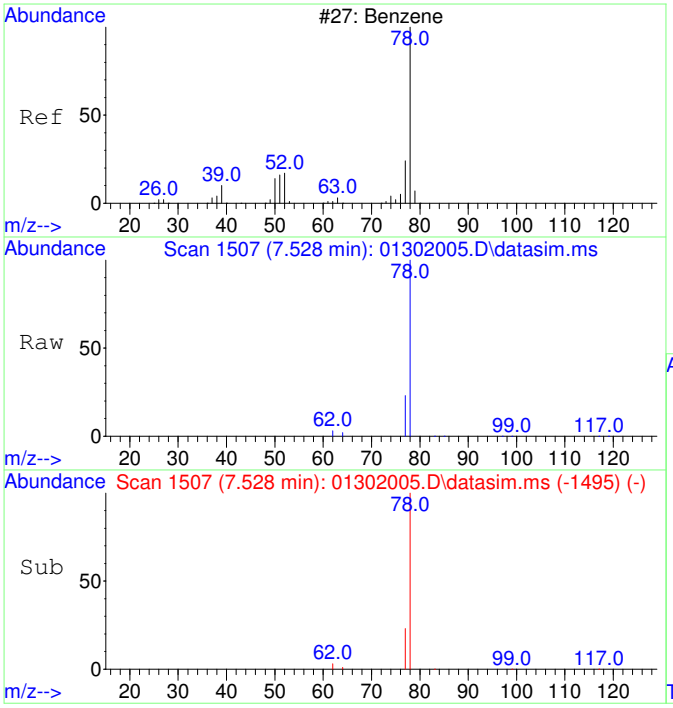


#8
Carbon tetrachloride
Concen: 4938.69 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:117 Resp: 32345

Ion	Ratio	Lower	Upper
117	100		
119	96.1	65.2	125.2

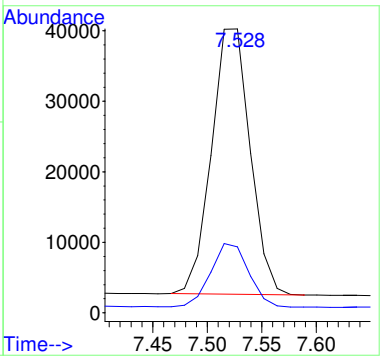


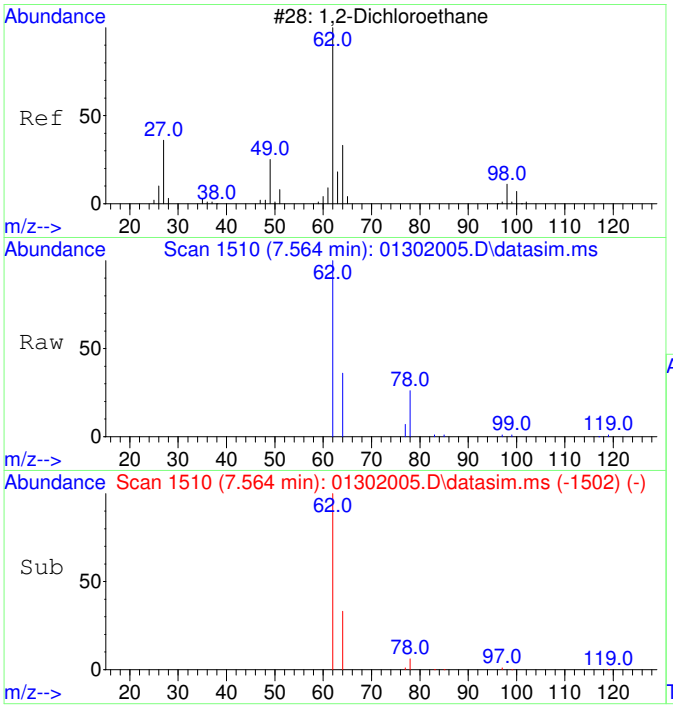


#9
Benzene
Concen: 4923.16 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 78 Resp: 93222

Ion	Ratio	Lower	Upper
78	100		
77	23.6	0.0	53.4

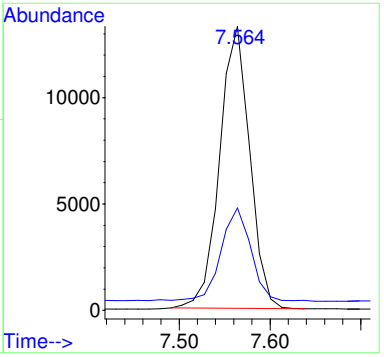


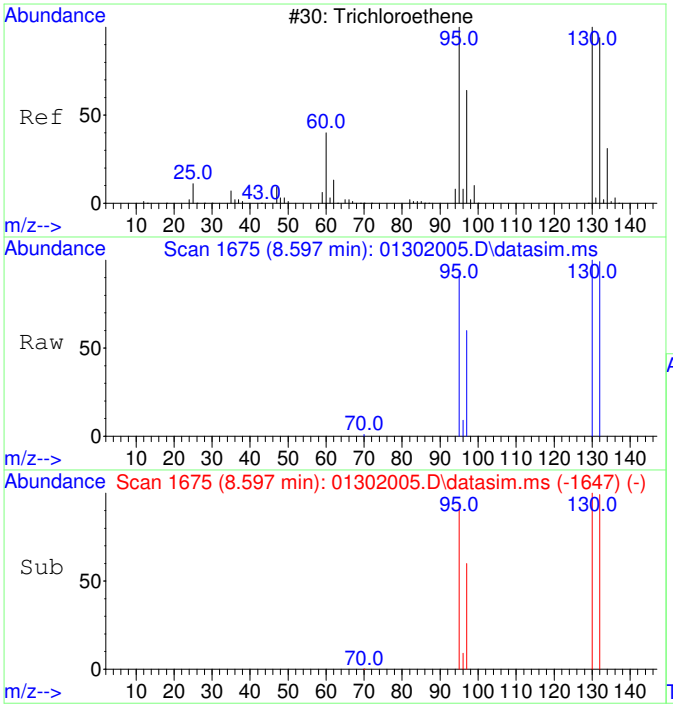


#10
1,2-Dichloroethane
Concen: 4984.93 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 62 Resp: 30490

Ion	Ratio	Lower	Upper
62	100		
64	32.4	3.4	63.4

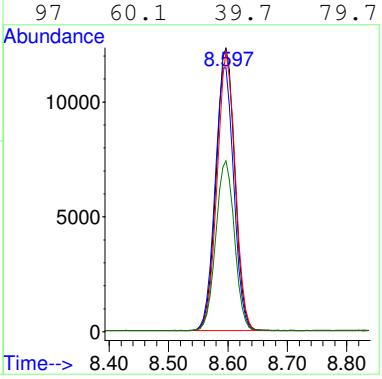


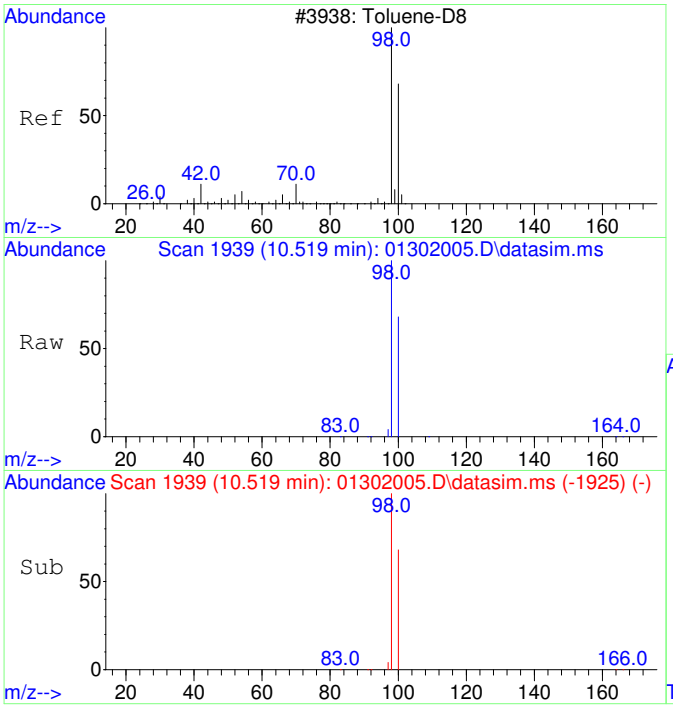


#11
Trichloroethene
Concen: 4931.35 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:130 Resp: 26741

Ion	Ratio	Lower	Upper
130	100		
95	93.8	63.0	123.0
132	95.9	75.5	115.5
97	60.1	39.7	79.7

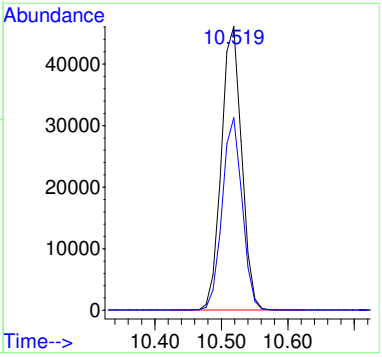


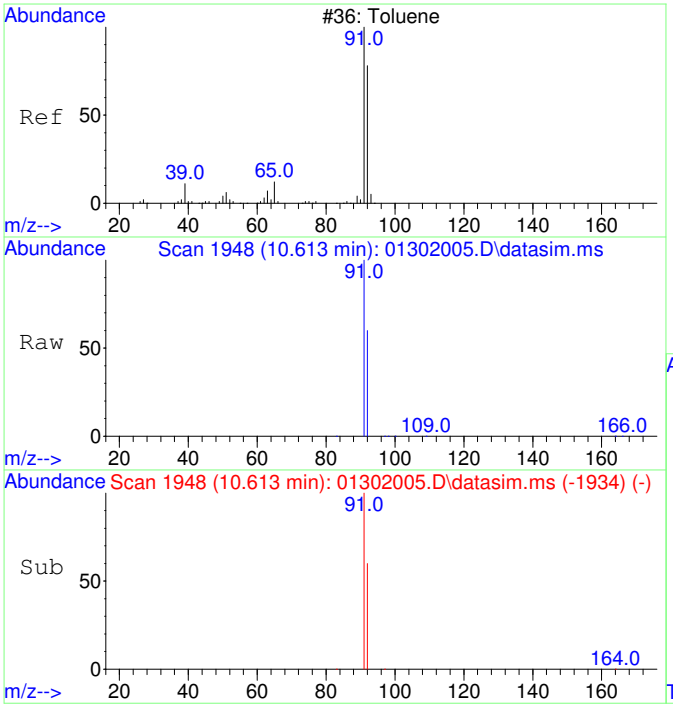


#12
Toluene-d8
Concen: 5054.66 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 98 Resp: 97268

Ion	Ratio	Lower	Upper
98	100		
100	66.5	37.0	97.0

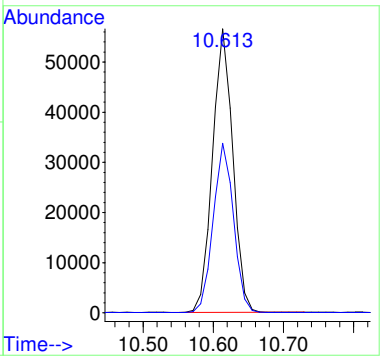


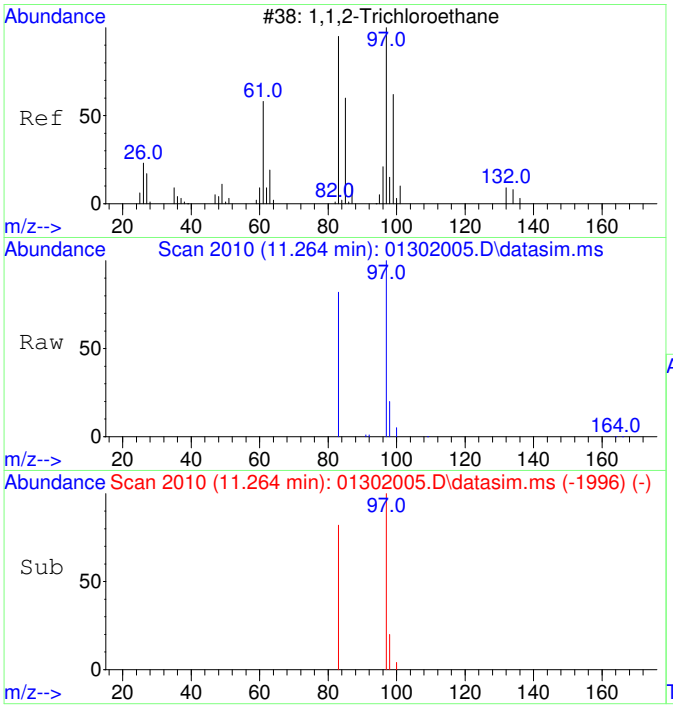


#13
Toluene
Concen: 4967.69 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 113445

Ion	Ratio	Lower	Upper
91	100		
92	59.7	29.6	89.6

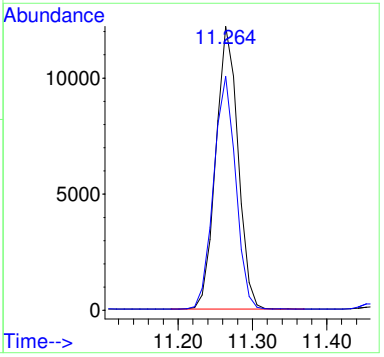


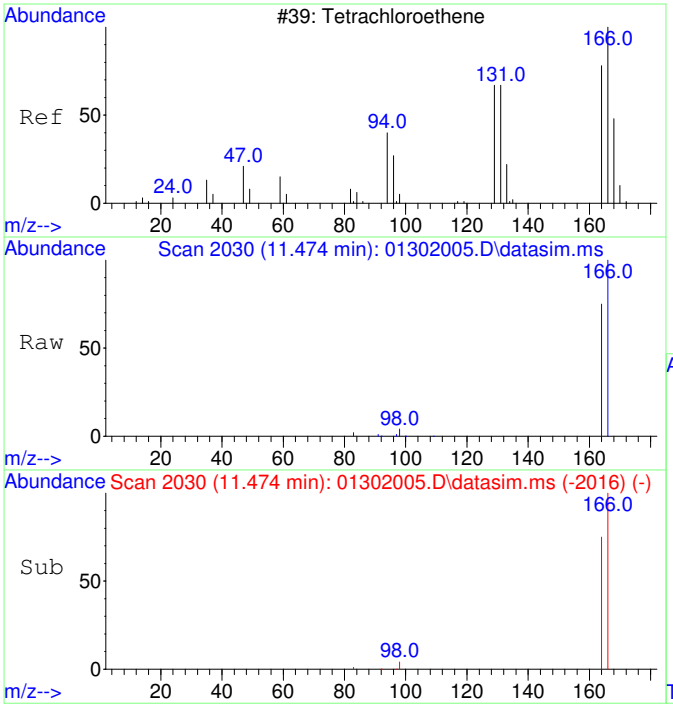


#14
1,1,2-Trichloroethane
Concen: 4939.33 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 97 Resp: 25068

Ion	Ratio	Lower	Upper
97	100		
83	81.9	51.2	111.2

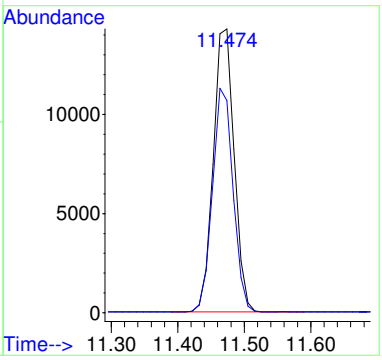


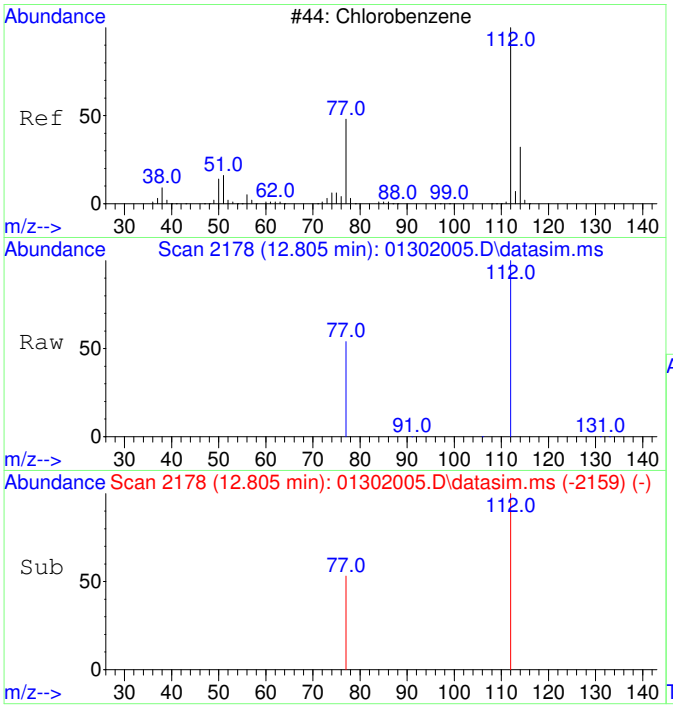


#15
Tetrachloroethene
Concen: 4850.92 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:166 Resp: 31212

Ion	Ratio	Lower	Upper
166	100		
164	77.9	48.6	108.6

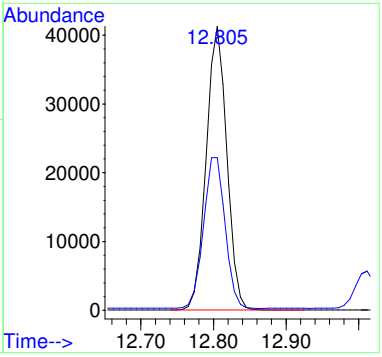


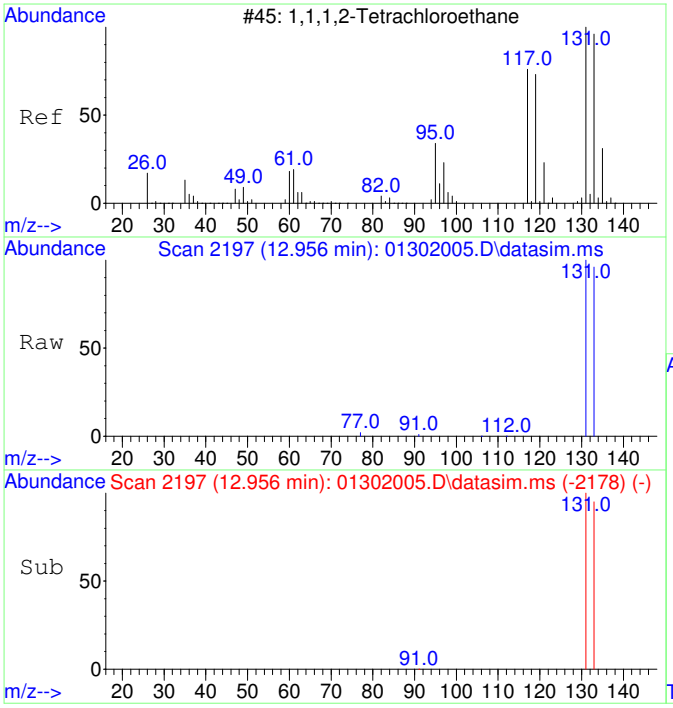


#16
Chlorobenzene
Concen: 4923.06 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:112 Resp: 81517

Ion	Ratio	Lower	Upper
112	100		
77	55.7	25.2	85.2

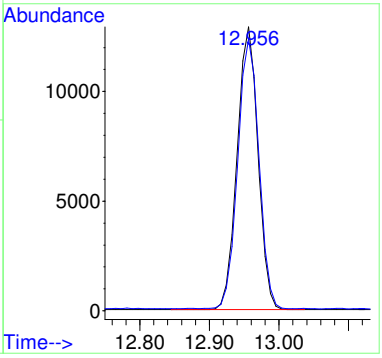


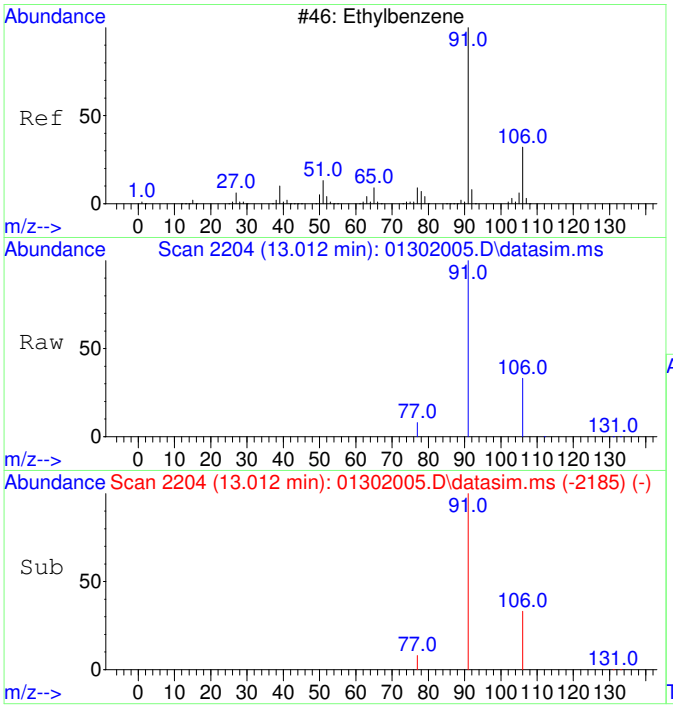


#17
1,1,1,2-Tetrachloroethane
Concen: 4829.29 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:131 Resp: 26865

Ion	Ratio	Lower	Upper
131	100		
133	96.5	65.5	125.5

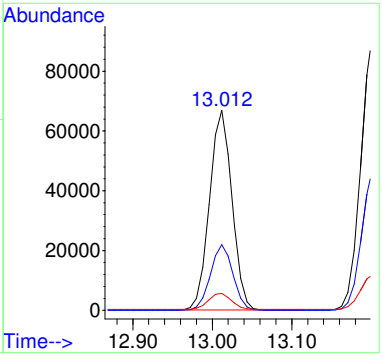


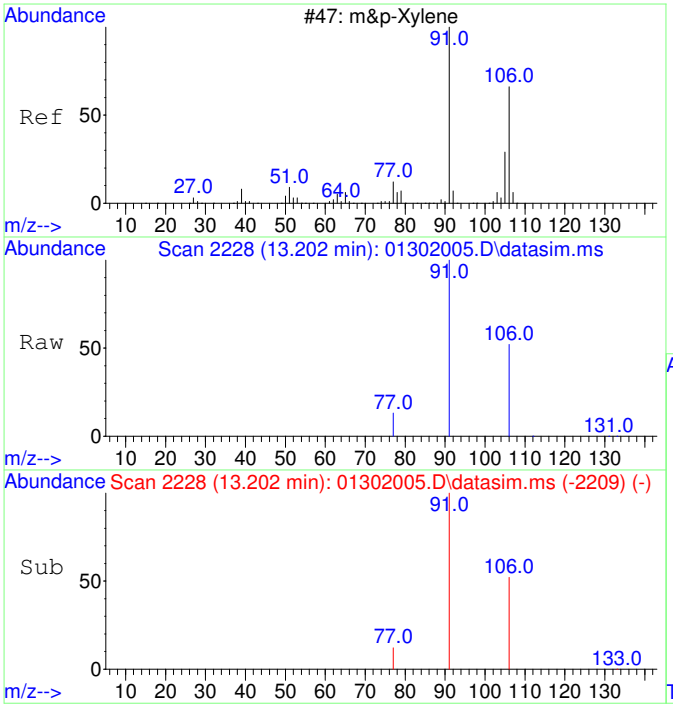


#18
Ethylbenzene
Concen: 4899.03 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 130824

Ion	Ratio	Lower	Upper
91	100		
106	32.7	2.7	62.7
77	8.3	0.0	38.3

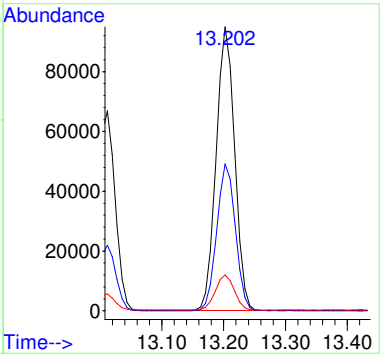


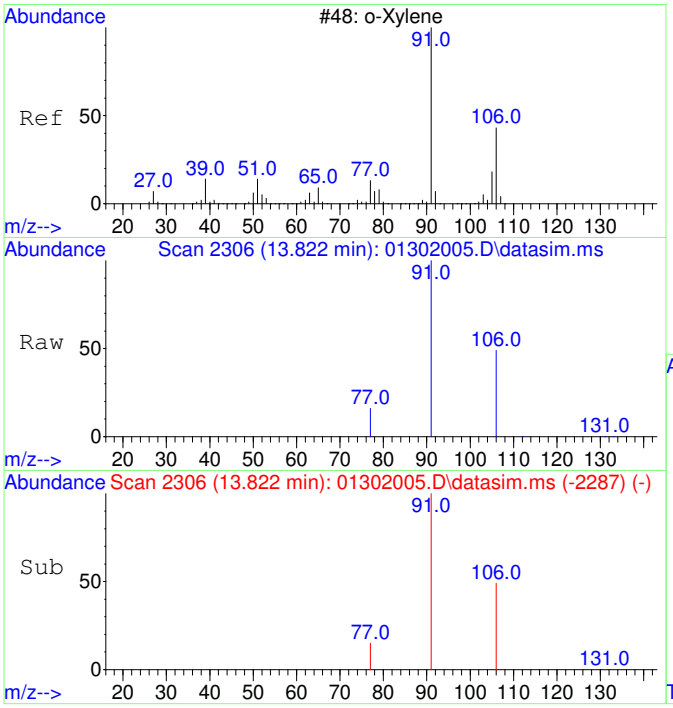


#19
m&p-Xylene
Concen: 9725.56 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 197410

Ion	Ratio	Lower	Upper
91	100		
106	51.8	21.6	81.6
77	12.6	0.0	42.5

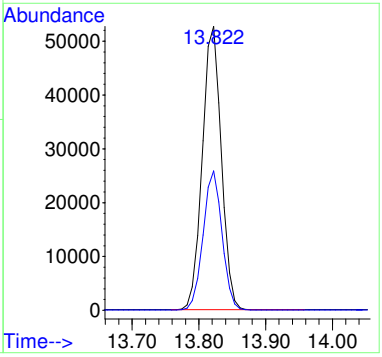


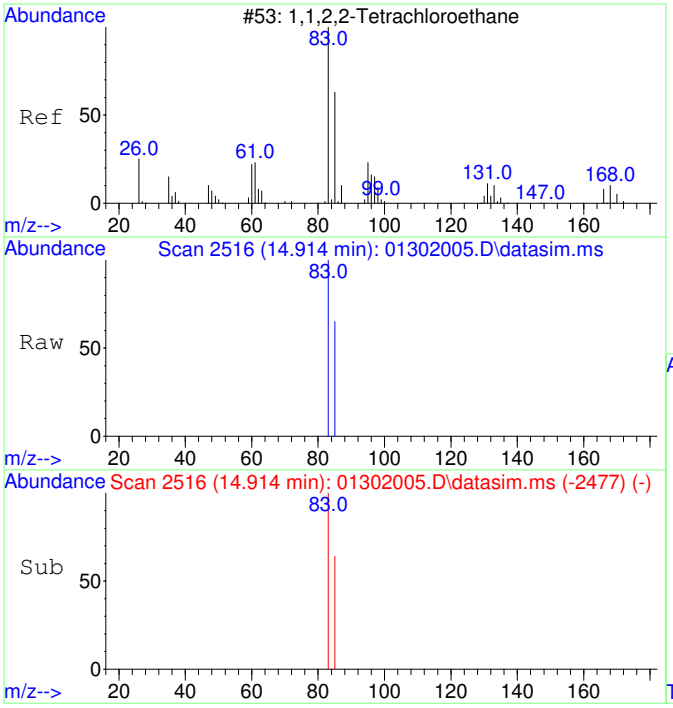


#20
o-Xylene
Concen: 4814.65 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 104218

Ion	Ratio	Lower	Upper
91	100		
106	48.8	18.6	78.6

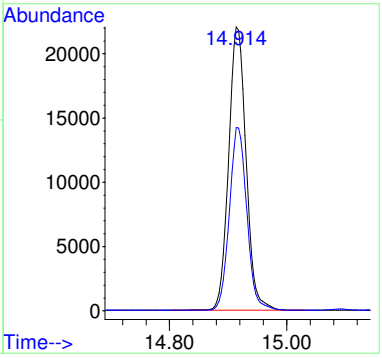


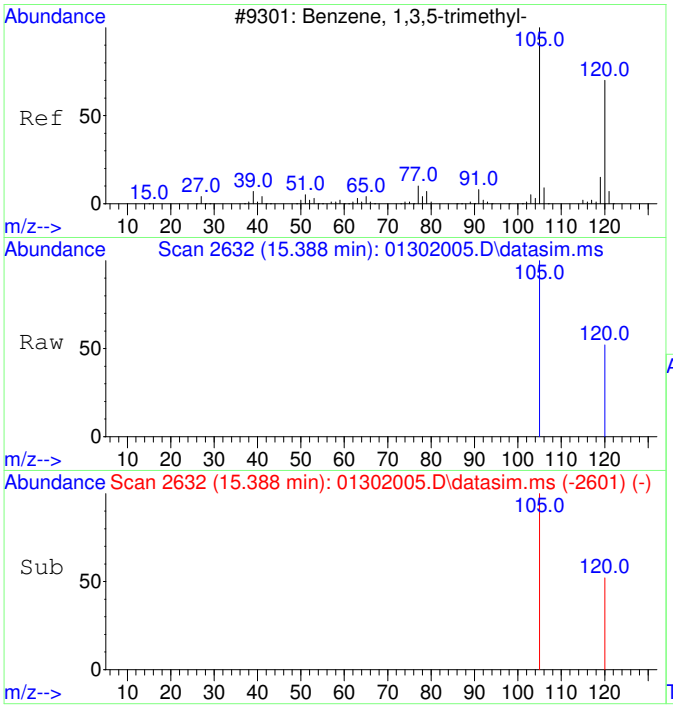


#21
1,1,2,2-Tetrachloroethane
Concen: 4798.92 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.004 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 83 Resp: 45500

Ion	Ratio	Lower	Upper
83	100		
85	64.4	34.7	94.7

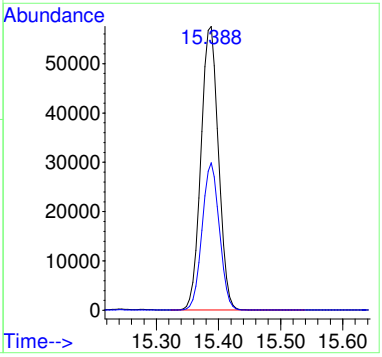


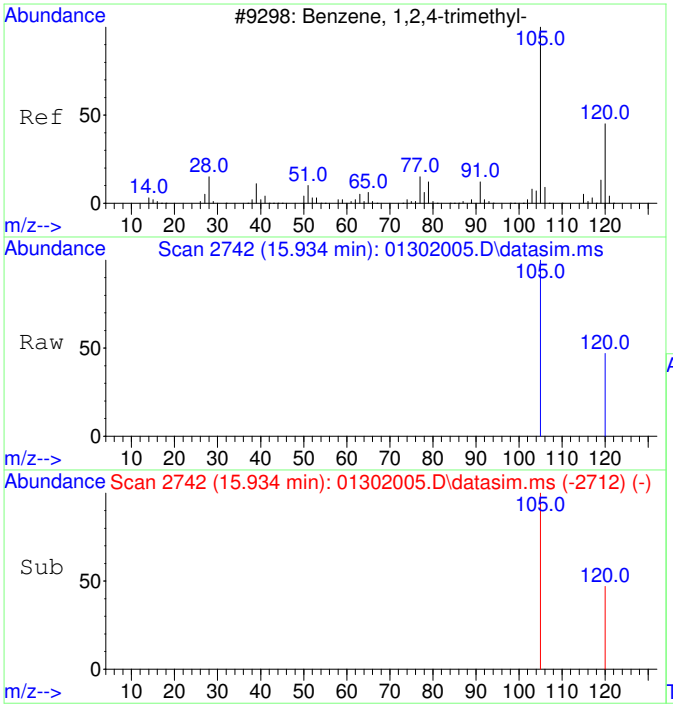


#22
1,3,5-Trimethylbenzene
Concen: 4812.60 ug/L
RT: 15.388 min Scan# 2632
Delta R.T. 0.005 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:105 Resp: 112408

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

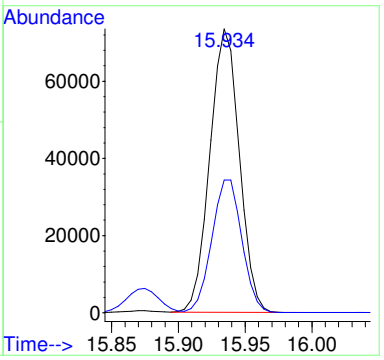


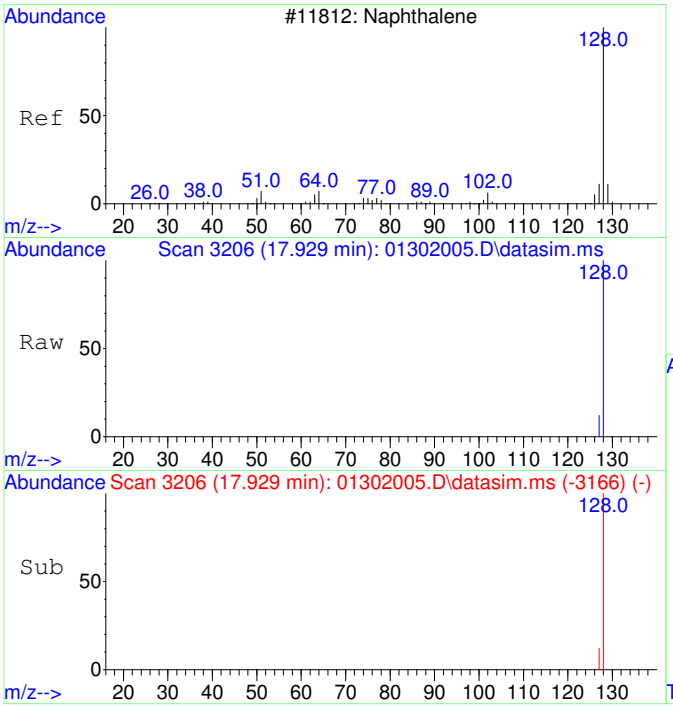


#23
1,2,4-Trimethylbenzene
Concen: 4766.76 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:105 Resp: 112634

Ion	Ratio	Lower	Upper
105	100		
120	47.1	17.2	77.2

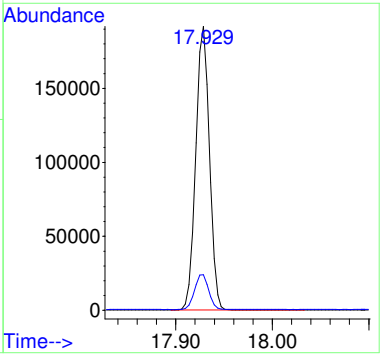


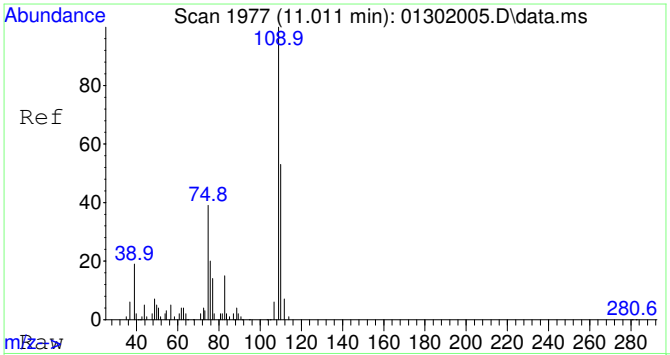


#24
Naphthalene
Concen: 4626.70 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:128 Resp: 187454

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.7

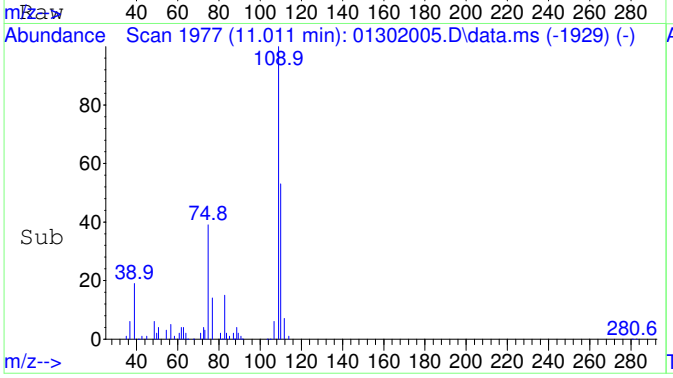


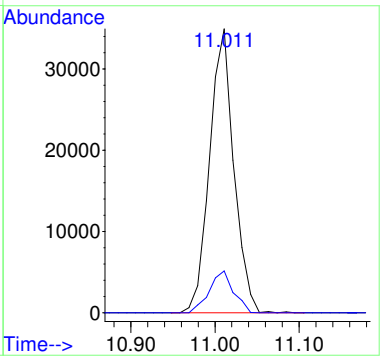


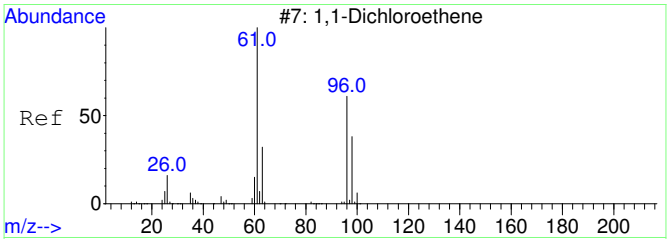
#25
2-Fluorotoluene SCAN
Concen: 4650.02 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

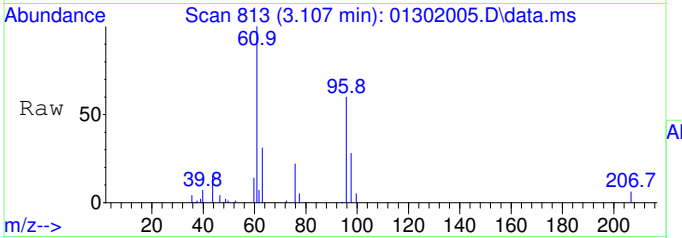
Tgt Ion:109 Resp: 70005

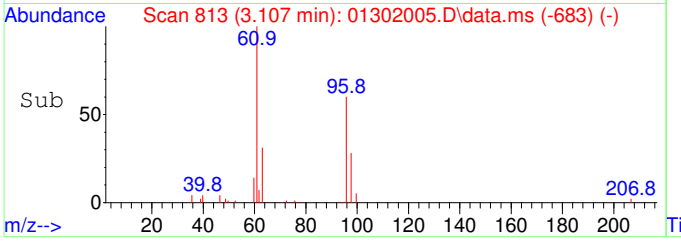
Ion	Ratio	Lower	Upper
109	100		
83	14.7	0.0	43.3







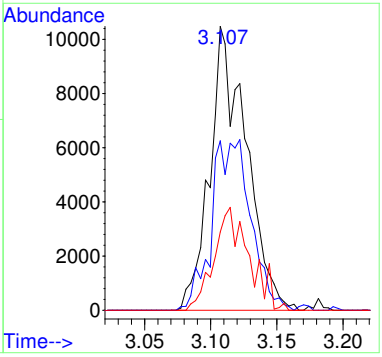


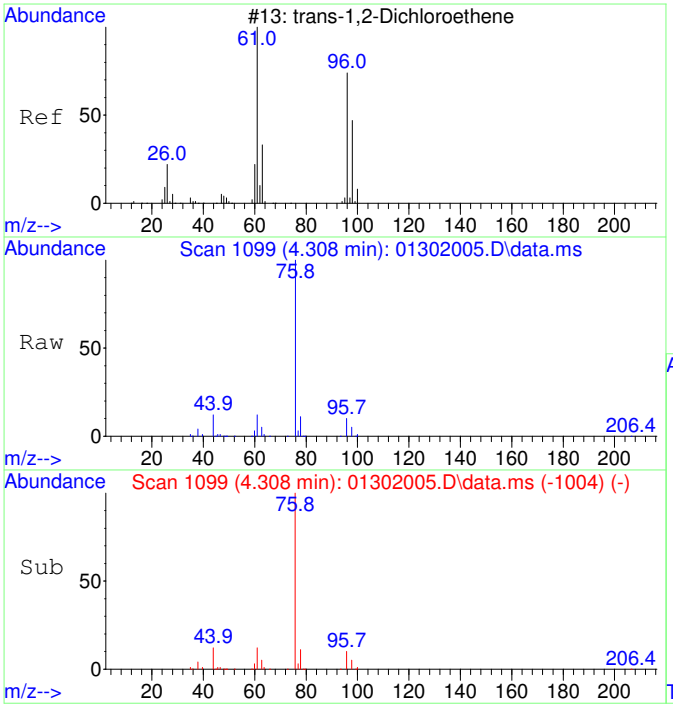


#26
1,1-Dichloroethene SCAN
Concen: 4636.41 ug/L
RT: 3.107 min Scan# 813
Delta R.T. -0.019 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 61 Resp: 20172

Ion	Ratio	Lower	Upper
61	100		
96	64.7	37.0	97.0
98	34.7	9.0	69.0

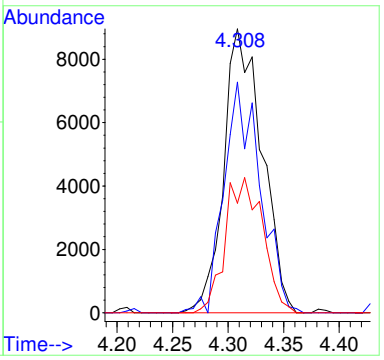


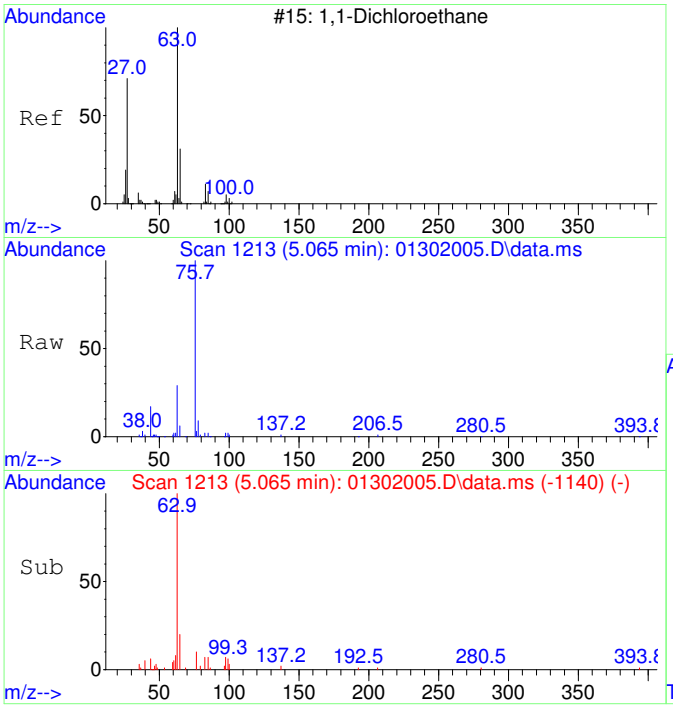


#27
trans-1,2-Dichloroethene SCAN
Concen: 5376.51 ug/L
RT: 4.308 min Scan# 1099
Delta R.T. -0.007 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 61 Resp: 21521

Ion	Ratio	Lower	Upper
61	100		
96	77.2	48.2	108.2
98	46.4	17.7	77.7

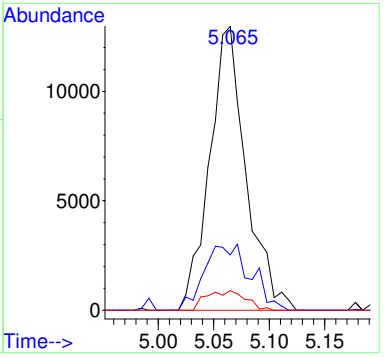


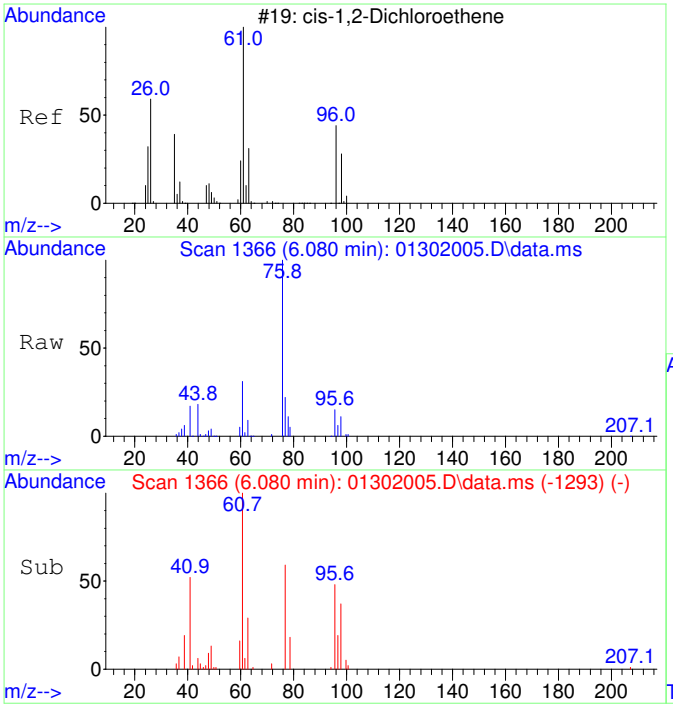


#28
1,1-Dichloroethane SCAN
Concen: 5628.53 ug/L
RT: 5.065 min Scan# 1213
Delta R.T. -0.013 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 63 Resp: 29653

Ion	Ratio	Lower	Upper
63	100		
65	29.3	5.7	65.7
83	7.5	0.0	41.0

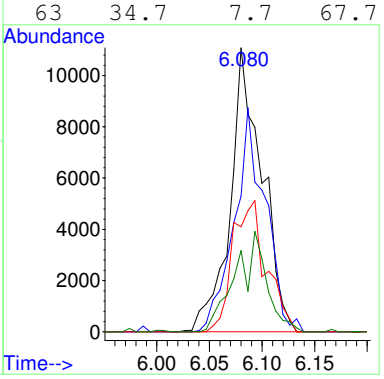


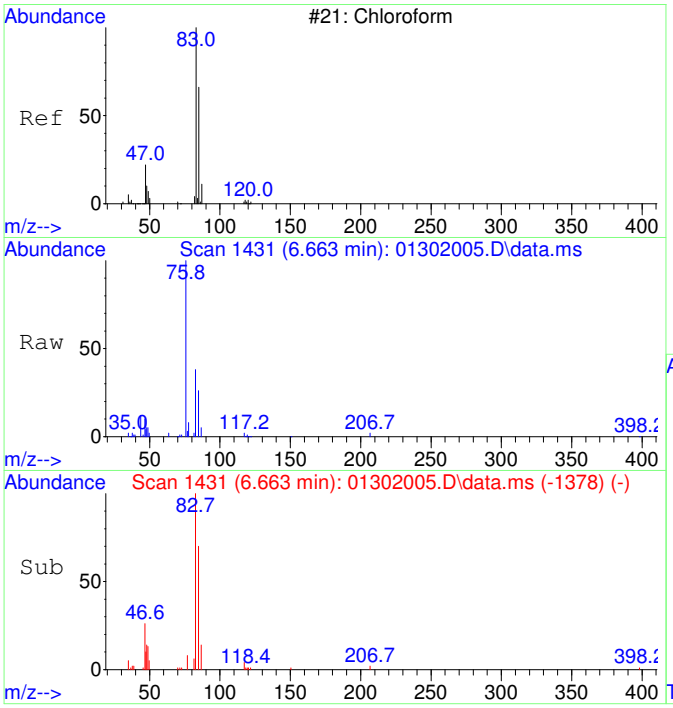


#29
cis-1,2-Dichloroethene SCAN
Concen: 4786.00 ug/L
RT: 6.080 min Scan# 1366
Delta R.T. -0.013 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 61 Resp: 23271

Ion	Ratio	Lower	Upper
61	100		
96	76.7	32.3	92.3
98	48.7	18.9	78.9
63	34.7	7.7	67.7

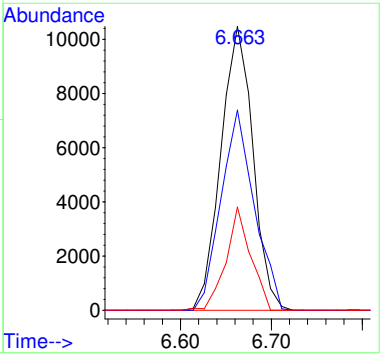


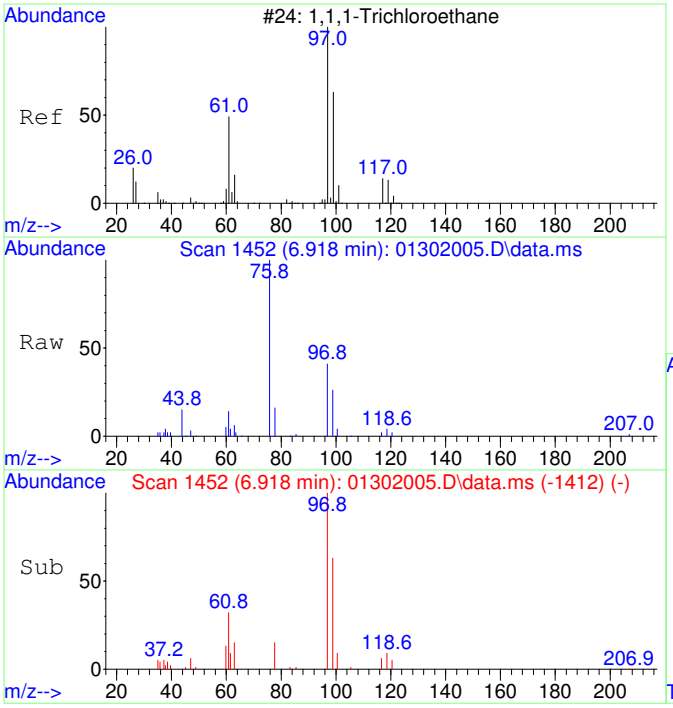


#30
Chloroform SCAN
Concen: 4423.27 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 83 Resp: 25762

Ion	Ratio	Lower	Upper
83	100		
85	73.1	20.9	80.9
47	28.1	0.0	50.1

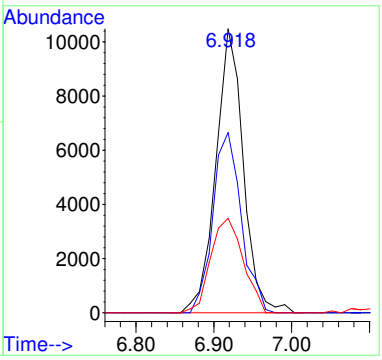


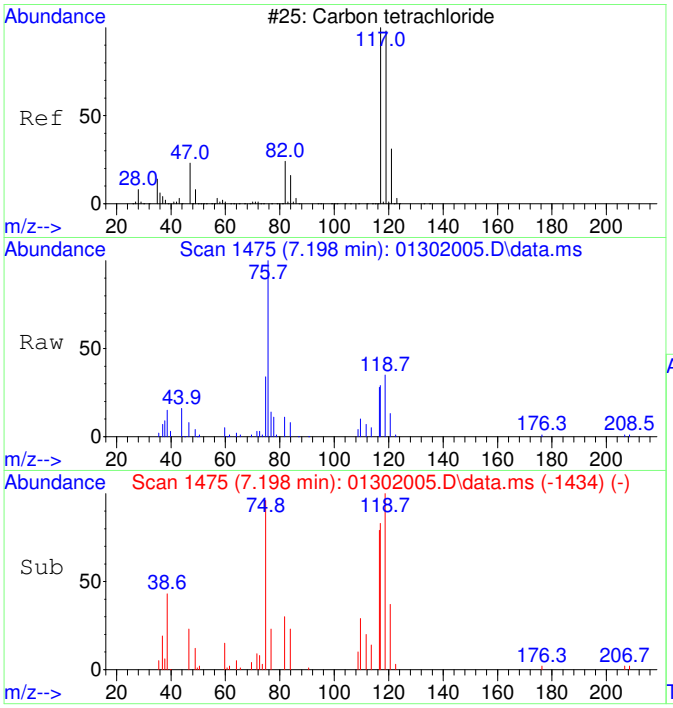


#31
1,1,1-Trichloroethane SCAN
Concen: 5177.04 ug/L
RT: 6.918 min Scan# 1452
Delta R.T. -0.012 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 97 Resp: 25827

Ion	Ratio	Lower	Upper
97	100		
99	65.8	28.2	88.2
61	39.5	11.1	71.1

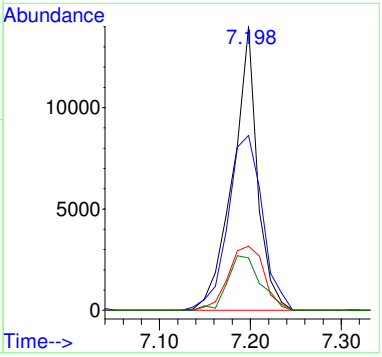


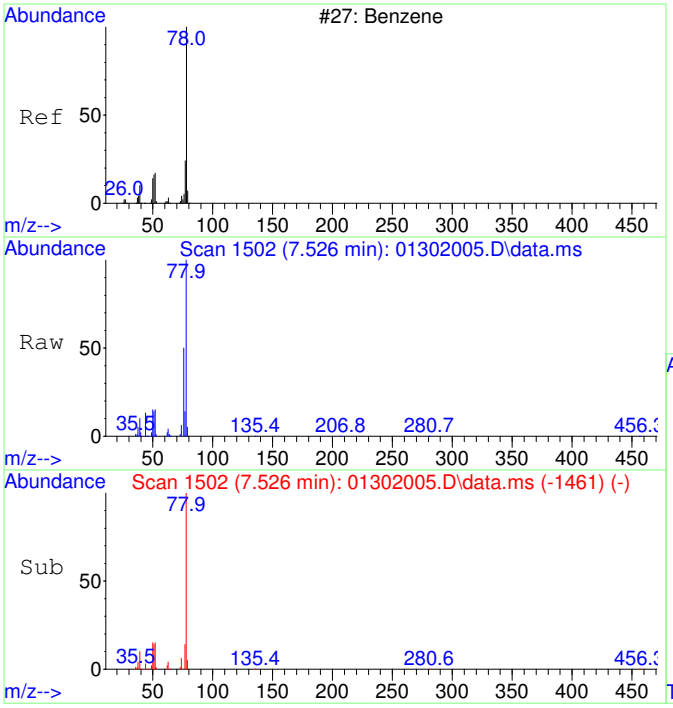


#32
Carbon tetrachloride SCAN
Concen: 5549.02 ug/L
RT: 7.198 min Scan# 1475
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:117 Resp: 26387

Ion	Ratio	Lower	Upper
117	100		
119	86.4	55.7	115.7
121	32.8	0.0	59.0
82	25.8	0.0	56.4

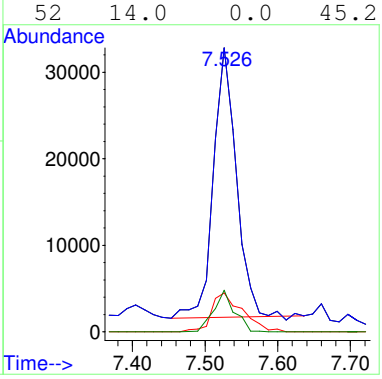


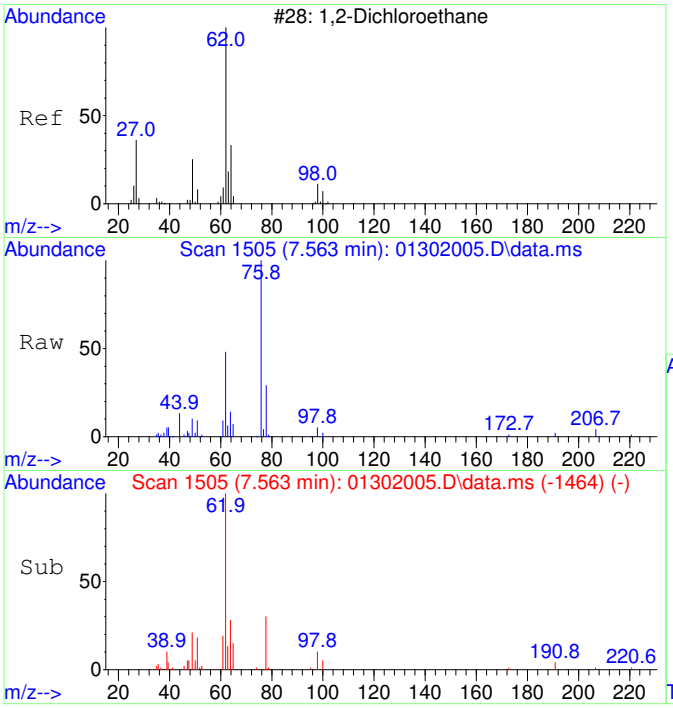


#33
Benzene SCAN
Concen: 4951.38 ug/L
RT: 7.526 min Scan# 1502
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 78 Resp: 68353

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	19.6	0.0	50.6
52	14.0	0.0	45.2

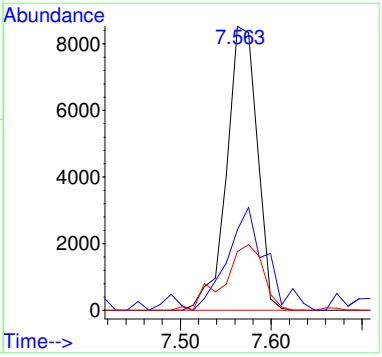


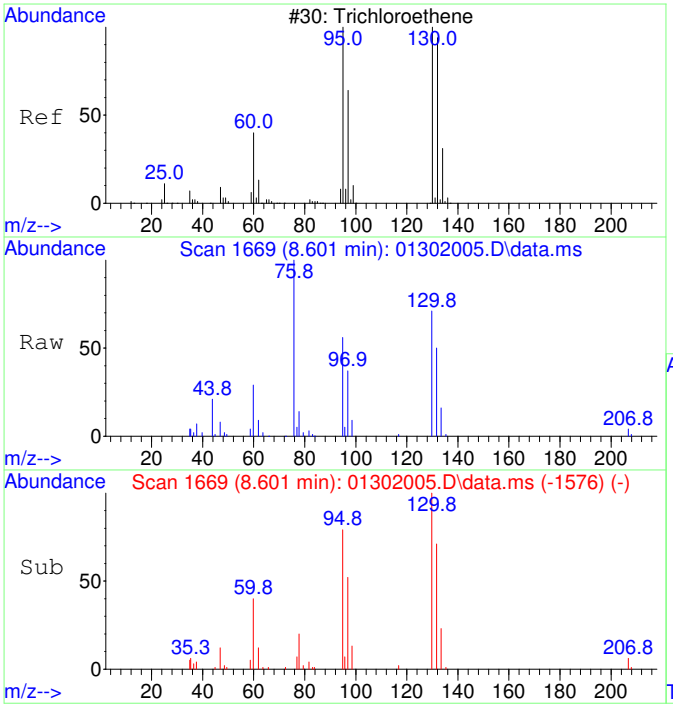


#34
1,2-Dichloroethane SCAN
Concen: 4571.74 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 62 Resp: 19973

Ion	Ratio	Lower	Upper
62	100		
64	45.5	9.1	69.1
49	29.9	6.2	66.2

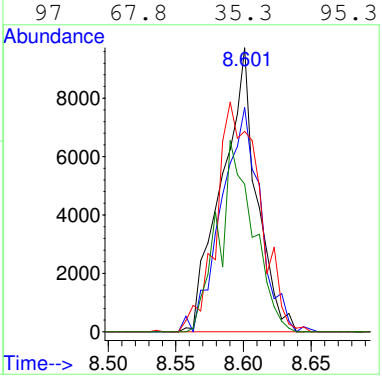


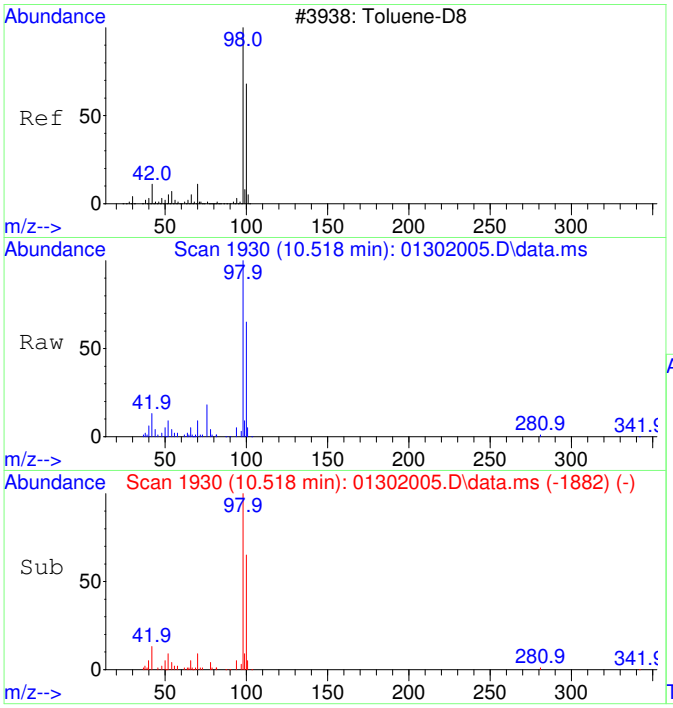


#35
Trichloroethene SCAN
Concen: 4888.76 ug/L
RT: 8.601 min Scan# 1669
Delta R.T. 0.005 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:130 Resp: 17438

Ion	Ratio	Lower	Upper
130	100		
95	88.2	69.4	129.4
132	99.1	77.2	137.2
97	67.8	35.3	95.3

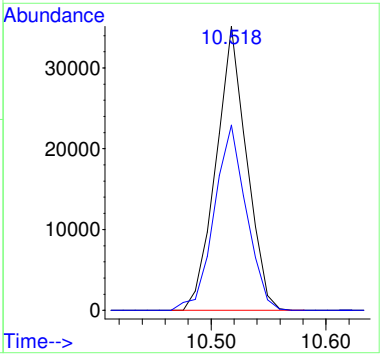


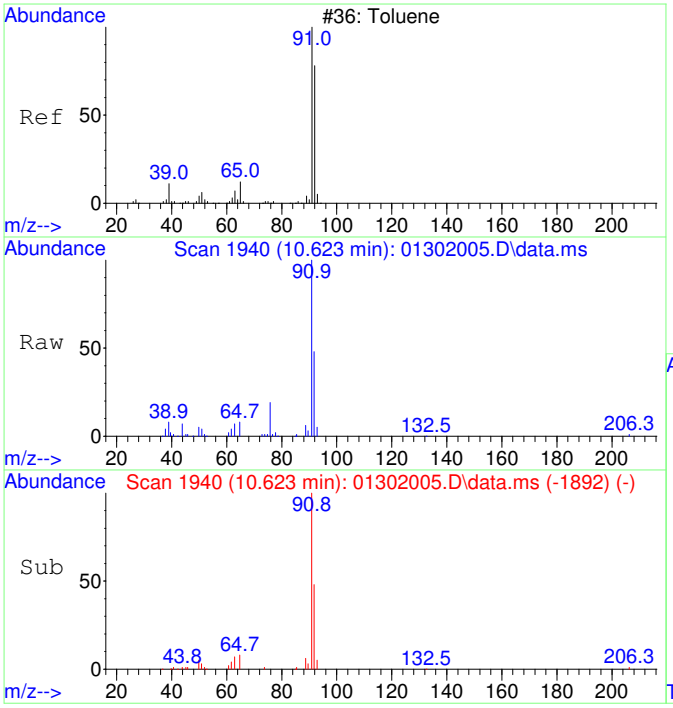


#36
Toluene-d8 SCAN
Concen: 5159.65 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 98 Resp: 65230

Ion	Ratio	Lower	Upper
98	100		
100	68.3	36.6	96.6

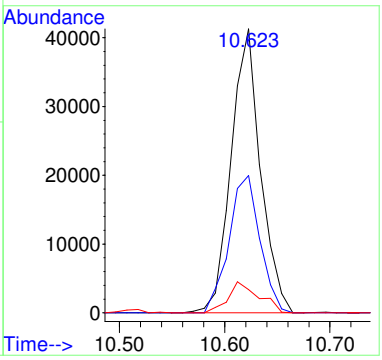


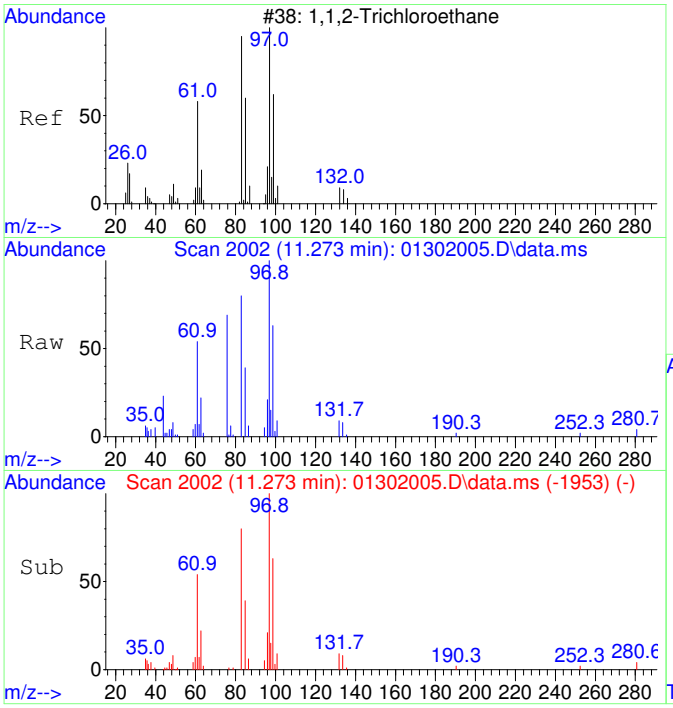


#37
Toluene SCAN
Concen: 5217.92 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 79999

Ion	Ratio	Lower	Upper
91	100		
92	51.2	26.1	86.1
65	11.4	0.0	42.0

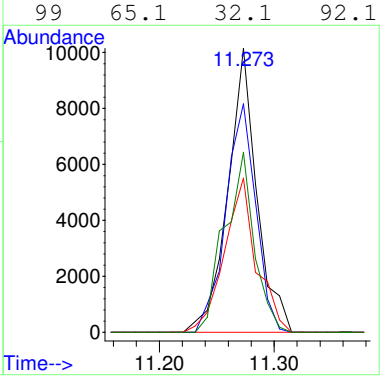


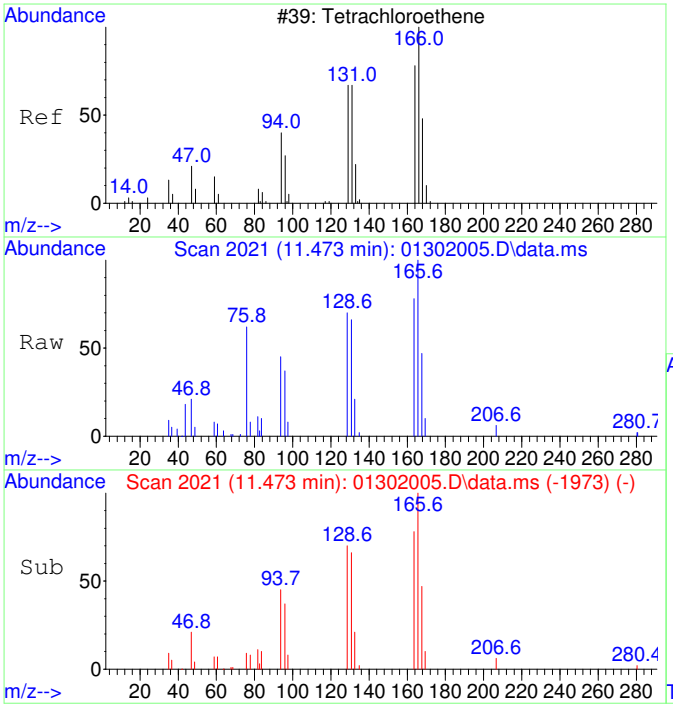


#38
1,1,2-Trichloroethane SCAN
Concen: 4979.06 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. 0.010 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 97 Resp: 17811

Ion	Ratio	Lower	Upper
97	100		
83	83.5	44.4	104.4
61	59.8	32.3	92.3
99	65.1	32.1	92.1

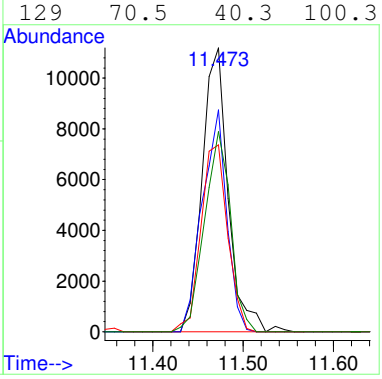


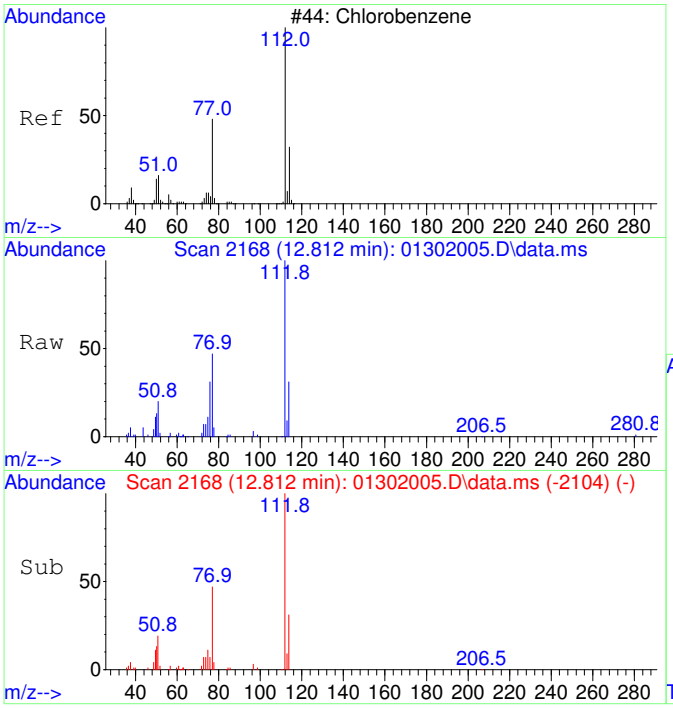


#39
Tetrachloroethene SCAN
Concen: 5576.25 ug/L
RT: 11.473 min Scan# 2021
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:166 Resp: 22449

Ion	Ratio	Lower	Upper
166	100		
164	73.5	62.9	122.9
131	67.6	45.9	105.9
129	70.5	40.3	100.3

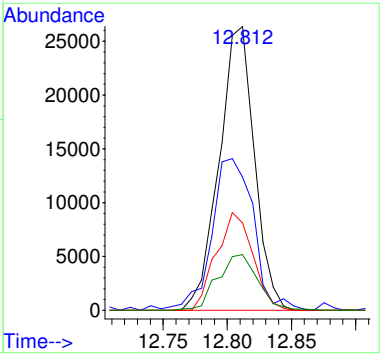


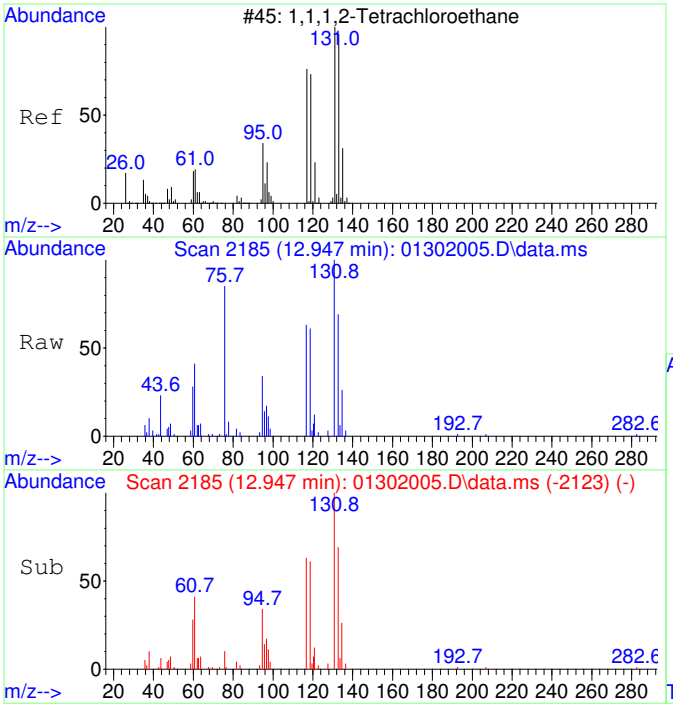


#40
Chlorobenzene SCAN
Concen: 4717.81 ug/L
RT: 12.812 min Scan# 2168
Delta R.T. 0.008 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:112 Resp: 50403

Ion	Ratio	Lower	Upper
112	100		
77	63.6	33.8	93.8
114	35.6	1.3	61.3
51	22.4	0.0	52.0

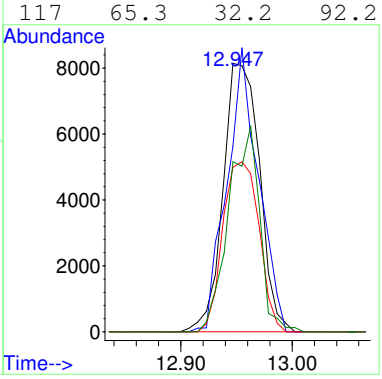


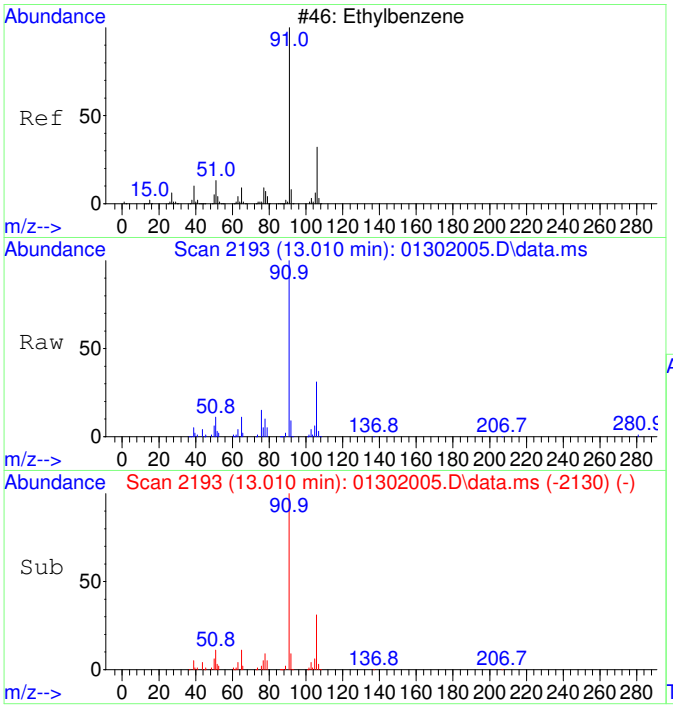


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 4798.53 ug/L
RT: 12.947 min Scan# 2185
Delta R.T. -0.008 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:131 Resp: 18550

Ion	Ratio	Lower	Upper
131	100		
133	91.4	60.9	120.9
119	63.0	32.7	92.7
117	65.3	32.2	92.2

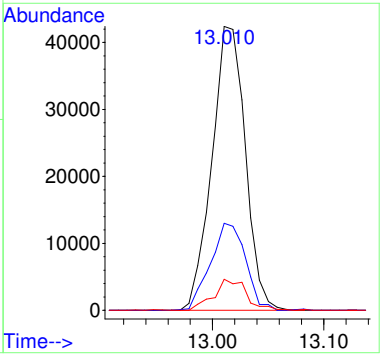


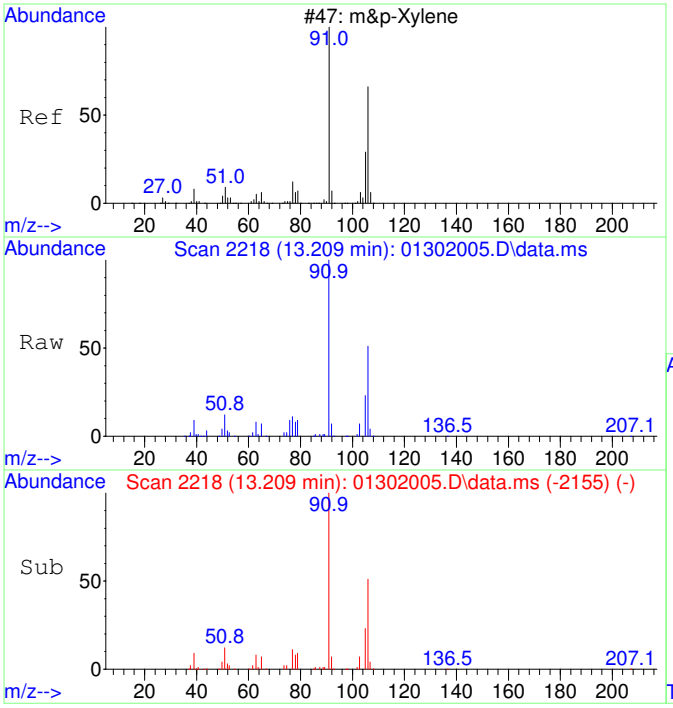


#42
Ethylbenzene SCAN
Concen: 5092.15 ug/L
RT: 13.010 min Scan# 2193
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 88667

Ion	Ratio	Lower	Upper
91	100		
106	32.2	1.4	61.4
51	10.6	0.0	40.4

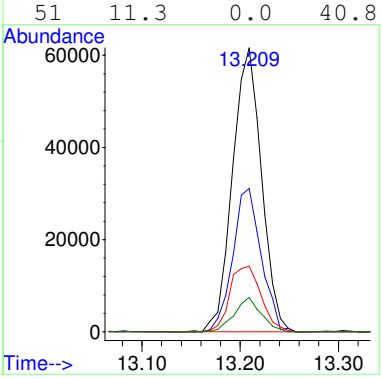


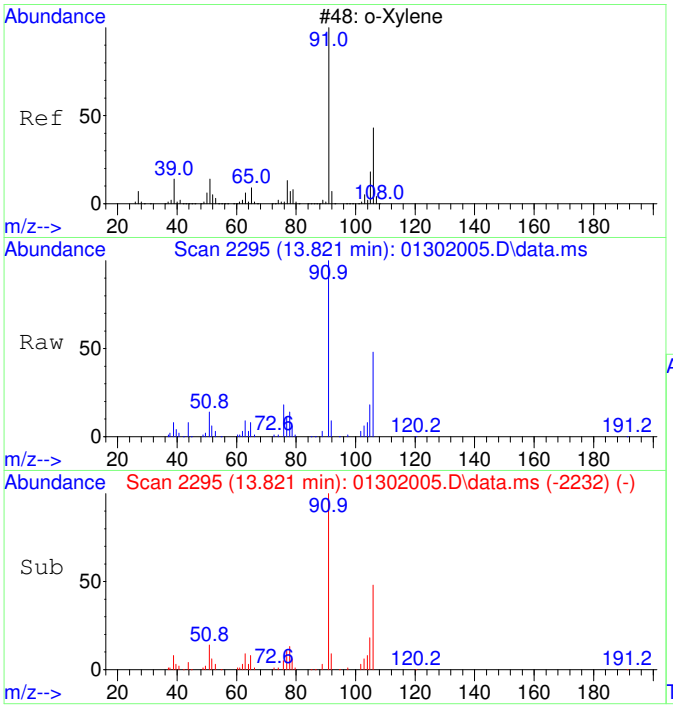


#43
m&p-Xylene SCAN
Concen: 4957.01 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 125856

Ion	Ratio	Lower	Upper
91	100		
106	49.7	20.4	80.4
105	25.1	0.0	52.6
51	11.3	0.0	40.8

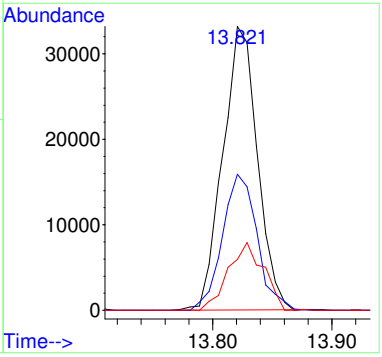


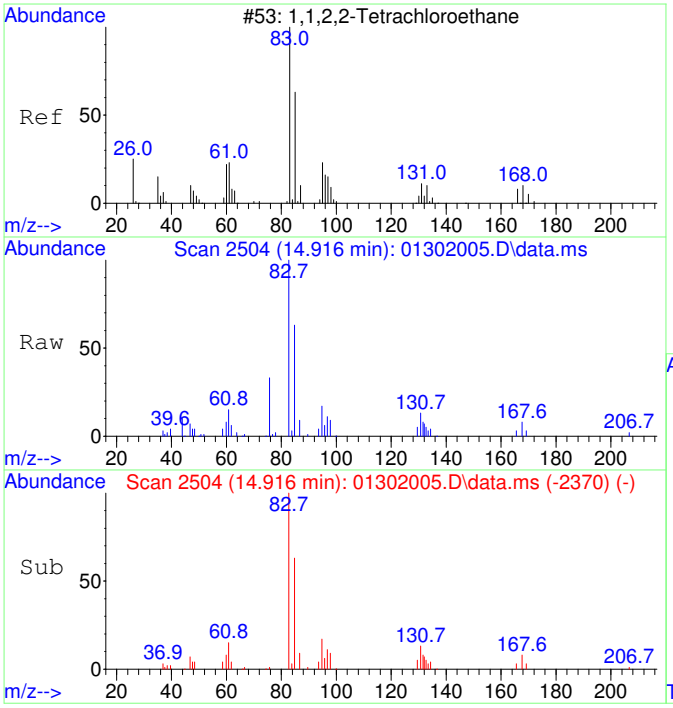


#44
o-Xylene SCAN
Concen: 4935.27 ug/L
RT: 13.821 min Scan# 2295
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 91 Resp: 66991

Ion	Ratio	Lower	Upper
91	100		
106	48.1	18.3	78.3
105	24.4	0.0	51.8

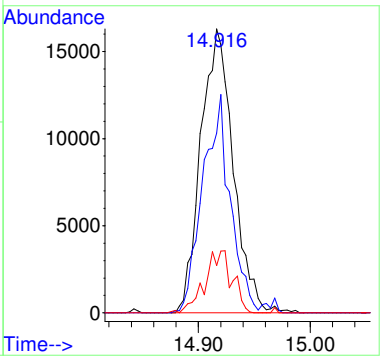


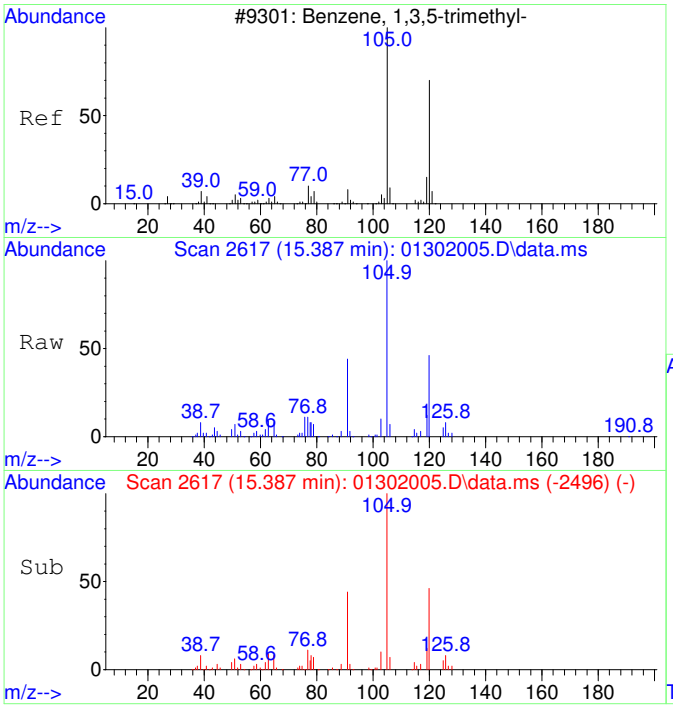


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 5079.14 ug/L
RT: 14.916 min Scan# 2504
Delta R.T. -0.004 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion: 83 Resp: 32861

Ion	Ratio	Lower	Upper
83	100		
85	63.8	37.5	97.5
95	18.4	0.0	36.2

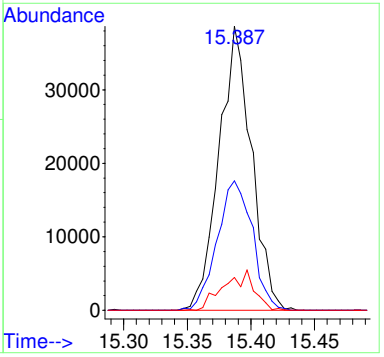


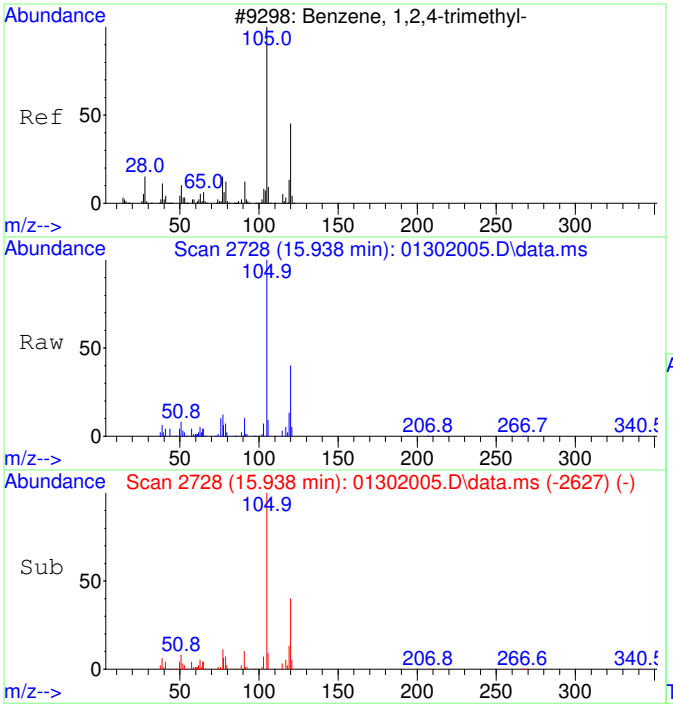


#46
1,3,5-Trimethylbenzene SCAN
Concen: 4835.62 ug/L
RT: 15.387 min Scan# 2617
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:105 Resp: 68591

Ion	Ratio	Lower	Upper
105	100		
120	49.4	19.8	79.8
119	13.4	0.0	44.5

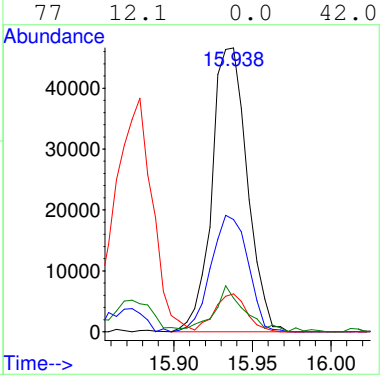


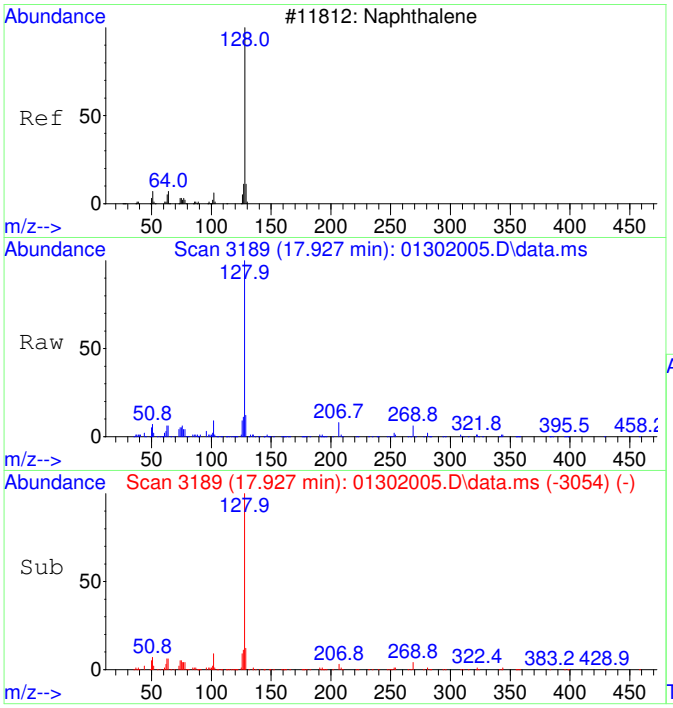


#47
1,2,4-Trimethylbenzene SCAN
Concen: 5112.43 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:105 Resp: 72923

Ion	Ratio	Lower	Upper
105	100		
120	42.9	14.1	74.1
119	11.4	0.0	42.4
77	12.1	0.0	42.0

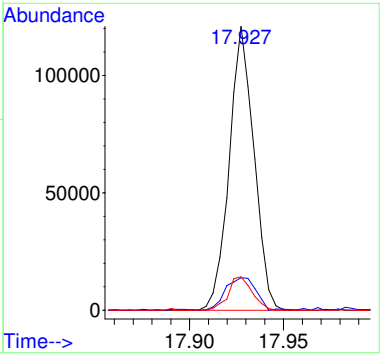




#48
Naphthalene SCAN
Concen: 5072.62 ug/L
RT: 17.927 min Scan# 3189
Delta R.T. -0.000 min
Lab File: 01302005.D
Acq: 30 Jan 2020 9:29

Tgt Ion:128 Resp: 110518

Ion	Ratio	Lower	Upper
128	100		
127	14.2	0.0	43.5
129	11.5	0.0	35.4



S20A096-CAL4

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302006.D
Acq On : 30 Jan 2020 9:52
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL4
Misc : 2004025 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 30 12:17:43 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

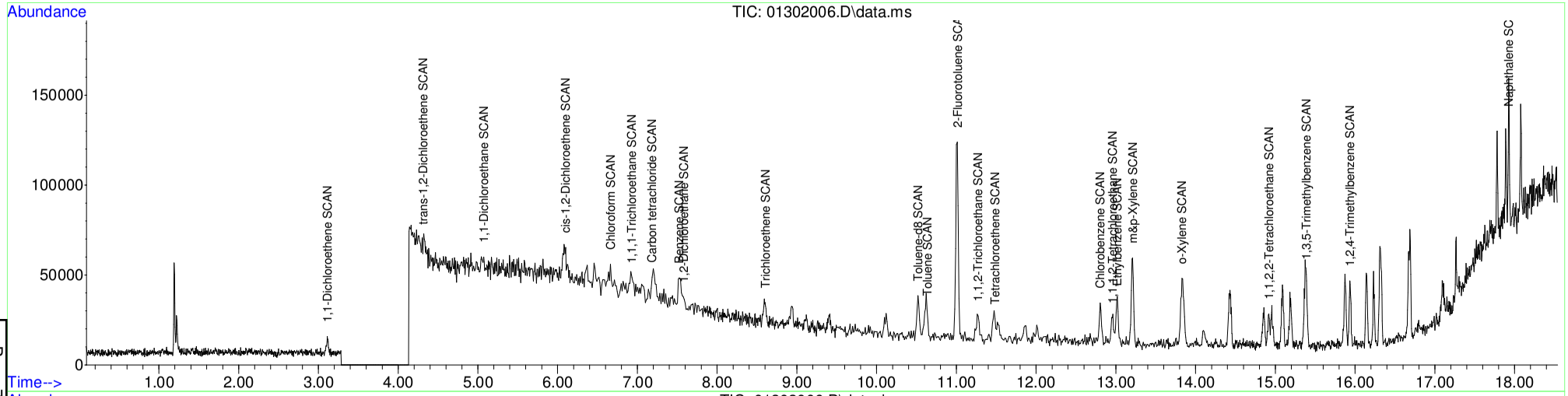
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	145291	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	24851	1009.84 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	20.20%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	7101	907.59 ug/L	97
3] trans-1,2-Dichloroethene	4.316	61	7131	926.50 ug/L	100
4] 1,1-Dichloroethane	5.066	63	9049	947.14 ug/L	100
5] cis-1,2-Dichloroethene	6.088	61	8519	963.30 ug/L	99
6] Chloroform	6.664	83	9466	961.73 ug/L	98
7] 1,1,1-Trichloroethane	6.920	97	9161	970.73 ug/L	99
8] Carbon tetrachloride	7.199	117	8161	974.39 ug/L	99
9] Benzene	7.528	78	23661	977.11 ug/L	95
10] 1,2-Dichloroethane	7.564	62	7809	998.35 ug/L	100
11] Trichloroethene	8.597	130	6772	976.54 ug/L	98
13] Toluene	10.614	91	29702	1017.05 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	6426	990.09 ug/L	99
15] Tetrachloroethene	11.474	166	8007	973.10 ug/L	100
16] Chlorobenzene	12.805	112	21313	1006.51 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.956	131	7091	996.76 ug/L	99
18] Ethylbenzene	13.012	91	35406	1036.78 ug/L	99
19] m&p-Xylene	13.203	91	54008	2080.60 ug/L	99
20] o-Xylene	13.822	91	28449	1027.72 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.914	83	12299	1014.35 ug/L	100
22] 1,3,5-Trimethylbenzene	15.388	105	31477	1053.81 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	32275	1068.08 ug/L	99
24] Naphthalene	17.929	128	58197	1123.22 ug/L	98
25) 2-Fluorotoluene SCAN	11.011	109	90894	4721.13 ug/L	100
26) 1,1-Dichloroethene SCAN	3.111	61	5256	944.66 ug/L	78
27) trans-1,2-Dichloroethe...	4.315	61	4660	910.35 ug/L #	78
28) 1,1-Dichloroethane SCAN	5.071	63	6564	974.27 ug/L	95
29) cis-1,2-Dichloroethene...	6.100	61	6503	1045.82 ug/L	90
30) Chloroform SCAN	6.663	83	7819	1049.79 ug/L	86
31) 1,1,1-Trichloroethane ...	6.930	97	6806	1066.81 ug/L	77
32) Carbon tetrachloride SCAN	7.186	117	4948	813.66 ug/L #	31
33) Benzene SCAN	7.526	78	16653	943.29 ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	6673	1194.39 ug/L	74
35) Trichloroethene SCAN	8.601	130	4425	970.06 ug/L #	82
36) Toluene-d8 SCAN	10.518	98	17493	1081.99 ug/L	95
37) Toluene SCAN	10.633	91	17938	914.90 ug/L #	31
38) 1,1,2-Trichloroethane ...	11.273	97	4558	996.37 ug/L #	72
39) Tetrachloroethene SCAN	11.483	166	6951	1350.14 ug/L #	59
40) Chlorobenzene SCAN	12.804	112	12969	949.24 ug/L #	68
41) 1,1,1,2-Tetrachloroeth...	12.955	131	5835	1180.30 ug/L	86
42) Ethylbenzene SCAN	13.011	91	23287	1045.77 ug/L	96
43) m&p-Xylene SCAN	13.209	91	33878	1043.40 ug/L	98
44) o-Xylene SCAN	13.829	91	20941	1206.36 ug/L	93
45) 1,1,2,2-Tetrachloroeth...	14.917	83	8507	1028.19 ug/L	86
46) 1,3,5-Trimethylbenzene...	15.387	105	20344	1121.52 ug/L	90
47) 1,2,4-Trimethylbenzene...	15.933	105	18324	1004.54 ug/L	93
48) Naphthalene SCAN	17.927	128	35670	1280.23 ug/L	91

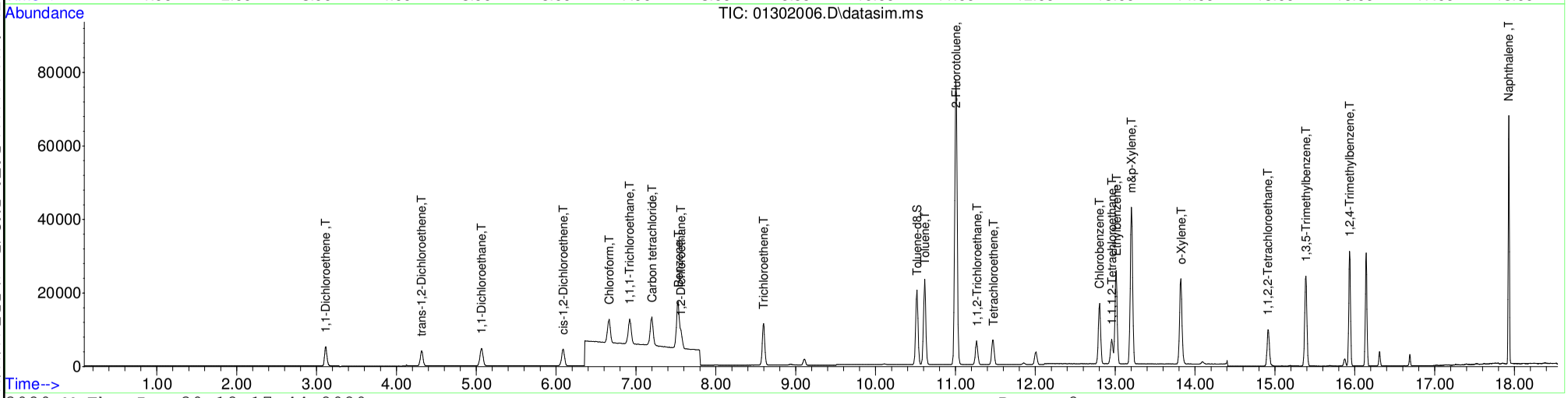
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302006.D
Acq On : 30 Jan 2020 9:52
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL4
Misc : 2004025 1 mg/L
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 30 12:17:43 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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S20A096-CAL5

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302007.D
Acq On : 30 Jan 2020 10:16
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL5
Misc : 2004026 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 30 12:17:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

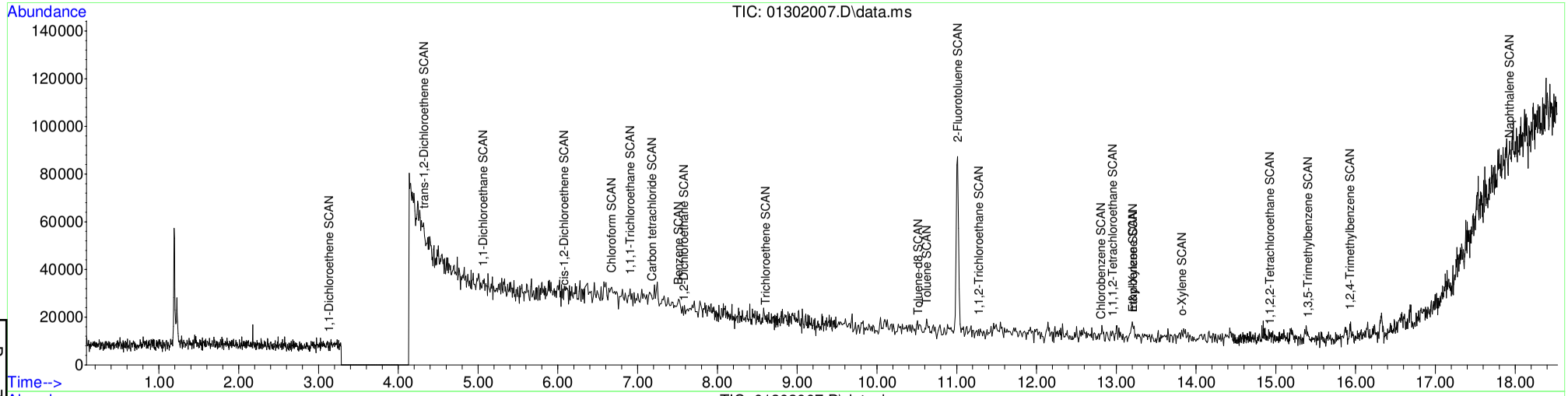
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	105279	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	2748	154.11 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	3.08%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	1218	214.84 ug/L	96
3] trans-1,2-Dichloroethene	4.310	61	884	158.50 ug/L	96
4] 1,1-Dichloroethane	5.059	63	1120	161.78 ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	1028	160.42 ug/L	98
6] Chloroform	6.664	83	1117	156.62 ug/L	96
7] 1,1,1-Trichloroethane	6.920	97	1093	159.84 ug/L	98
8] Carbon tetrachloride	7.187	117	946	155.88 ug/L	95
9] Benzene	7.516	78	2756	157.07 ug/L	83
10] 1,2-Dichloroethane	7.564	62	899	158.61 ug/L	77
11] Trichloroethene	8.597	130	767	152.64 ug/L	95
13] Toluene	10.614	91	3301	155.99 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	735	156.29 ug/L	97
15] Tetrachloroethene	11.474	166	905	151.79 ug/L	99
16] Chlorobenzene	12.805	112	2354	153.42 ug/L	91
17] 1,1,1,2-Tetrachloroethane	12.956	131	775	150.34 ug/L	84
18] Ethylbenzene	13.012	91	3957	159.91 ug/L	96
19] m&p-Xylene	13.203	91	6066	322.50 ug/L	98
20] o-Xylene	13.822	91	3201	159.58 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	1367	155.59 ug/L	98
22] 1,3,5-Trimethylbenzene	15.388	105	3487	161.11 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	3570	163.04 ug/L	99
24] Naphthalene	17.929	128	6467	172.25 ug/L	91
25) 2-Fluorotoluene SCAN	11.011	109	67306	4824.60 ug/L	99
26) 1,1-Dichloroethene SCAN	3.130	61	118	29.27 ug/L #	57
27) trans-1,2-Dichloroethe...	4.315	61	350	94.36 ug/L #	59
28) 1,1-Dichloroethane SCAN	5.058	63	1123	230.03 ug/L #	63
29) cis-1,2-Dichloroethene...	6.073	61	591	131.17 ug/L #	60
30) Chloroform SCAN	6.675	83	1446	267.93 ug/L #	60
31) 1,1,1-Trichloroethane ...	6.906	97	427	92.37 ug/L #	42
32) Carbon tetrachloride SCAN	7.174	117	1228	278.68 ug/L #	55
33) Benzene SCAN	7.514	78	3523	275.40 ug/L #	92
34) 1,2-Dichloroethane SCAN	7.575	62	225	55.58 ug/L #	1
35) Trichloroethene SCAN	8.596	130	415	125.55 ug/L #	60
36) Toluene-d8 SCAN	10.518	98	2501	213.49 ug/L	89
37) Toluene SCAN	10.623	91	3865	272.05 ug/L #	31
38) 1,1,2-Trichloroethane ...	11.273	97	589	177.69 ug/L #	35
40) Chlorobenzene SCAN	12.804	112	1731	174.85 ug/L #	46
41) 1,1,1,2-Tetrachloroeth...	12.955	131	516	144.04 ug/L #	40
42) Ethylbenzene SCAN	13.209	91	5214	323.14 ug/L	91
43) m&p-Xylene SCAN	13.209	91	5214	221.62 ug/L	83
44) o-Xylene SCAN	13.821	91	1965	156.22 ug/L	84
45) 1,1,2,2-Tetrachloroeth...	14.917	83	1342	223.84 ug/L	73
46) 1,3,5-Trimethylbenzene...	15.397	105	848	64.52 ug/L	89
47) 1,2,4-Trimethylbenzene...	15.928	105	2260	170.98 ug/L #	51
48) Naphthalene SCAN	17.924	128	3624	179.50 ug/L	95

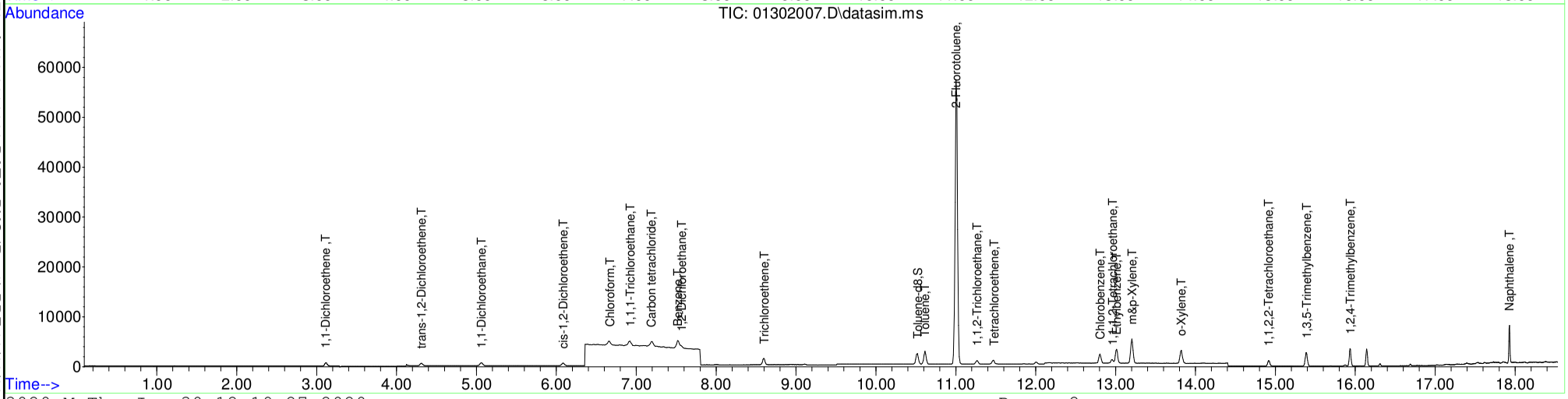
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302007.D
Acq On : 30 Jan 2020 10:16
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL5
Misc : 2004026 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 30 12:17:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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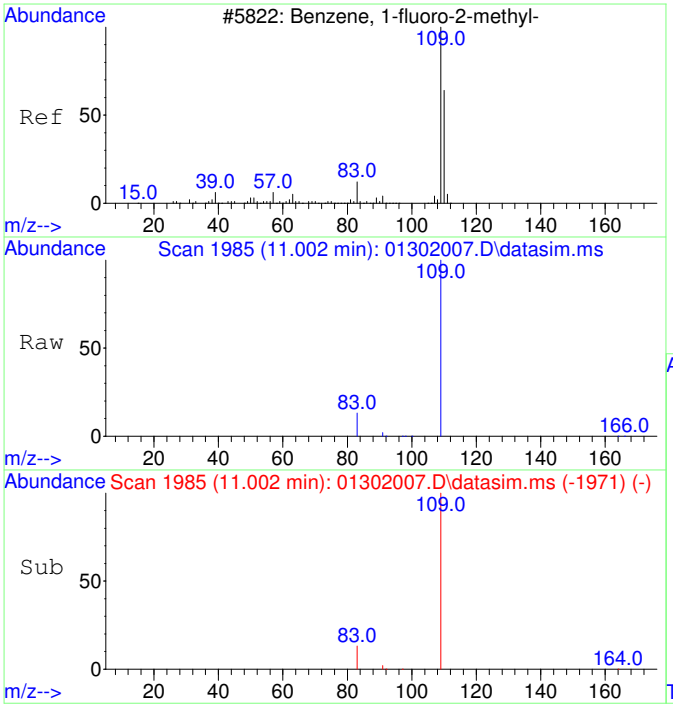
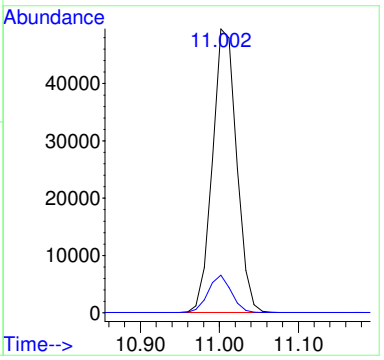
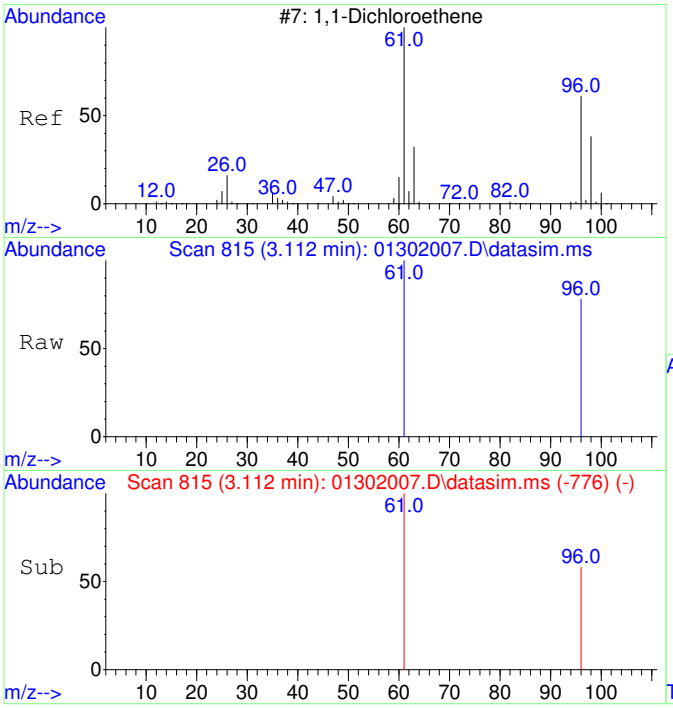


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:109 Resp: 105279

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

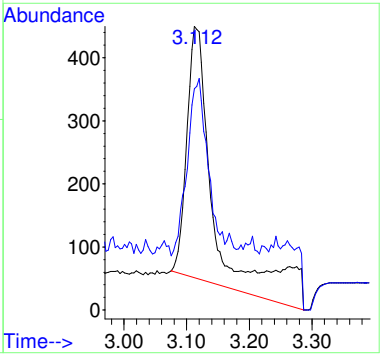




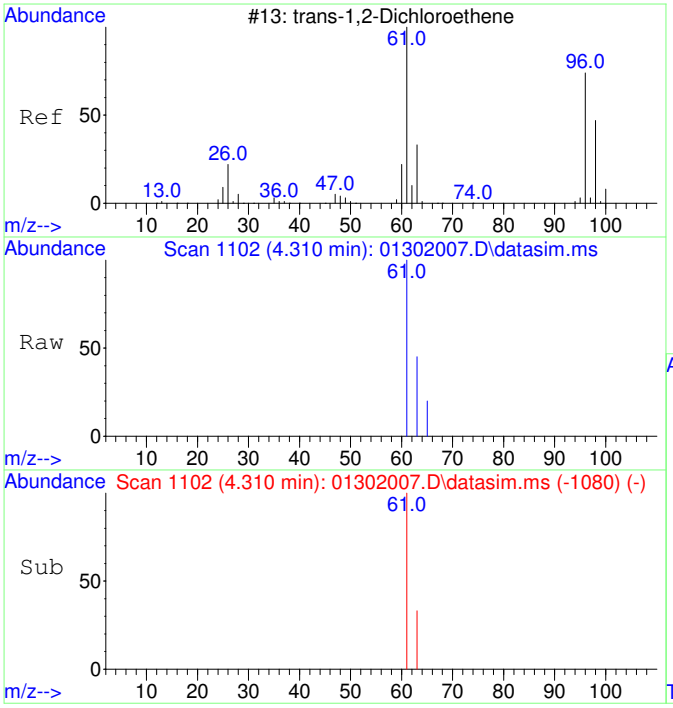
#2
1,1-Dichloroethene
Concen: 214.84 ug/L
RT: 3.112 min Scan# 815
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 1218

Ion	Ratio	Lower	Upper
61	100		
96	66.7	33.6	93.6



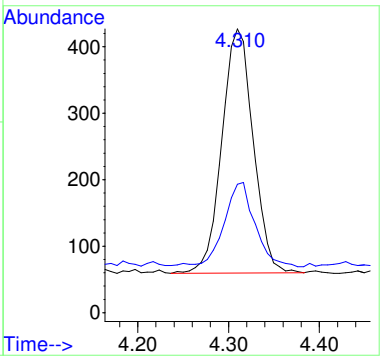
Before MI:
IMPROPER
BASELINE

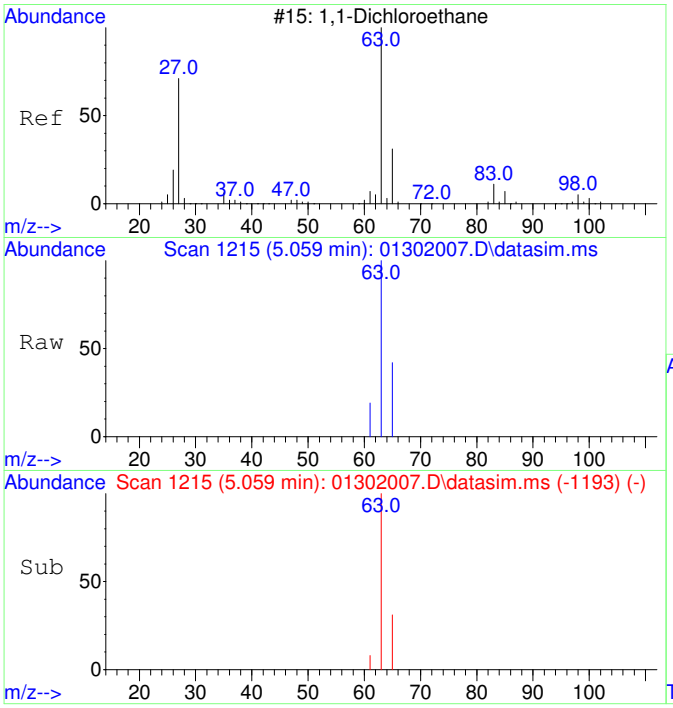


#3
trans-1,2-Dichloroethene
Concen: 158.50 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.007 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 884

Ion	Ratio	Lower	Upper
61	100		
63	34.3	2.3	62.3

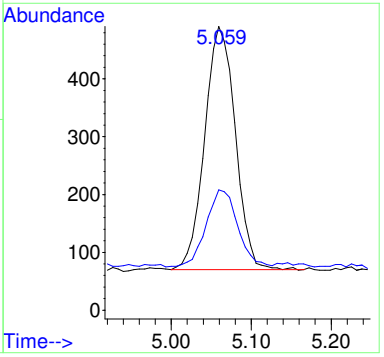


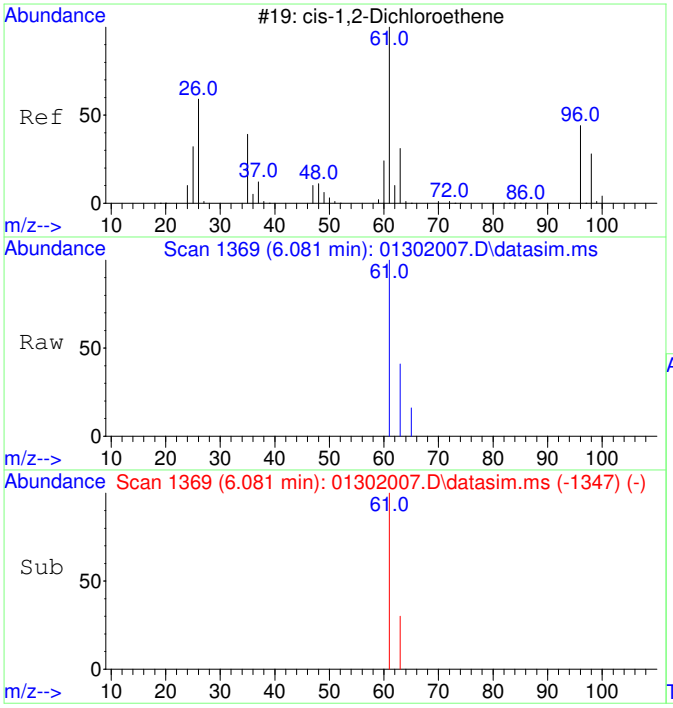


#4
1,1-Dichloroethane
Concen: 161.78 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 63 Resp: 1120

Ion	Ratio	Lower	Upper
63	100		
65	31.4	1.7	61.7

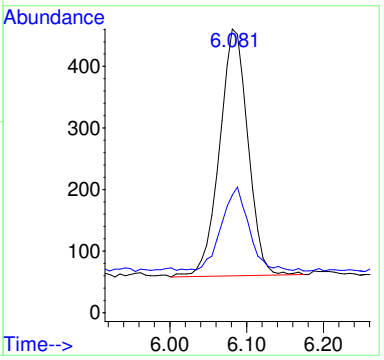


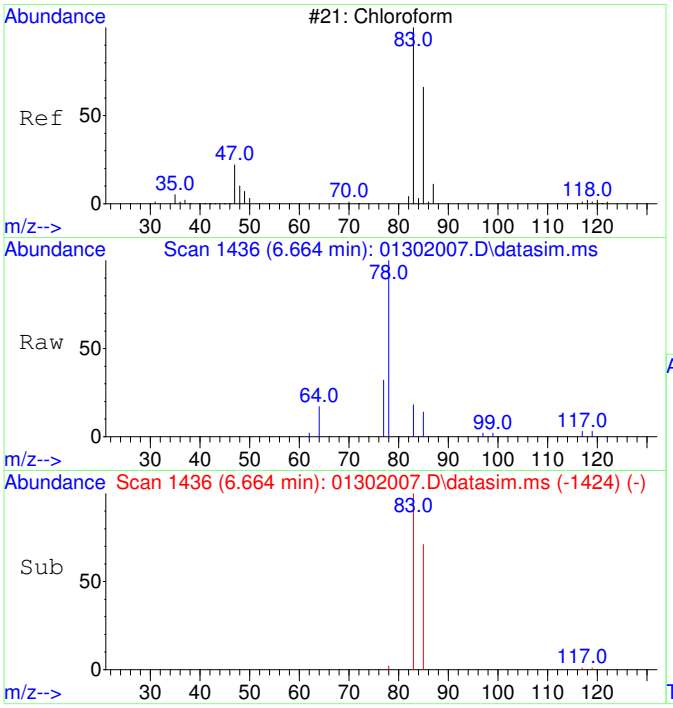


#5
cis-1,2-Dichloroethene
Concen: 160.42 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.007 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 1028

Ion	Ratio	Lower	Upper
61	100		
63	31.6	2.6	62.6

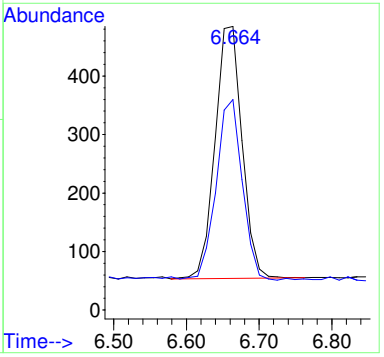


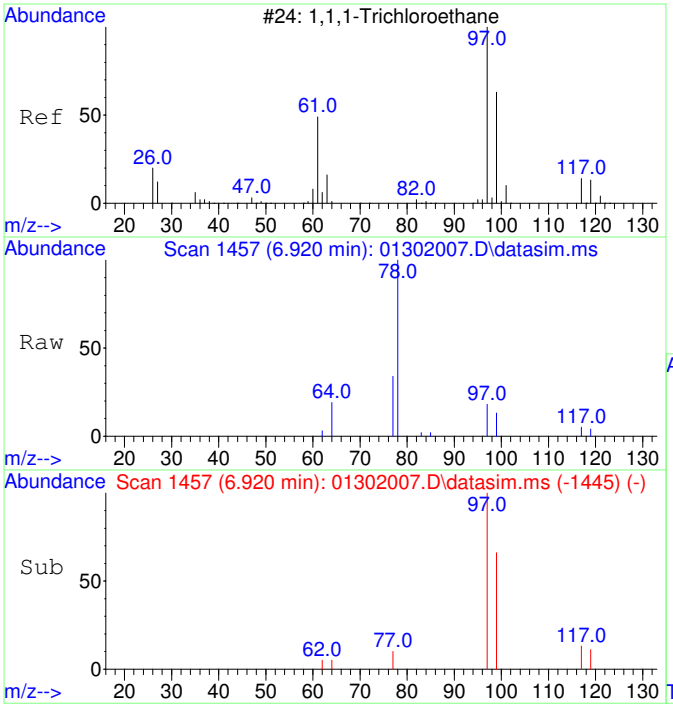


#6
Chloroform
Concen: 156.62 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1117

Ion	Ratio	Lower	Upper
83	100		
85	68.6	35.2	95.2

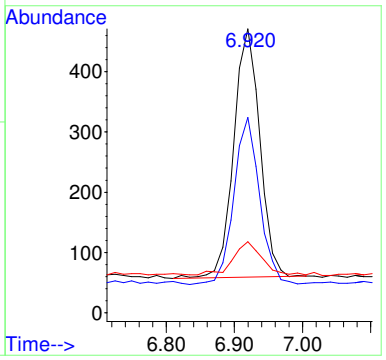


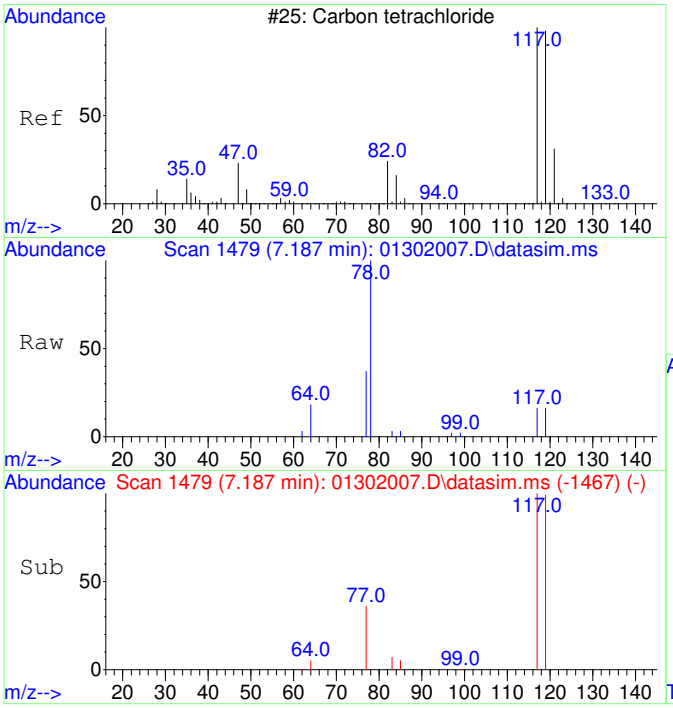


#7
1,1,1-Trichloroethane
Concen: 159.84 ug/L
RT: 6.920 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 1093

Ion	Ratio	Lower	Upper
97	100		
99	65.8	34.6	94.6
117	14.4	0.0	42.9

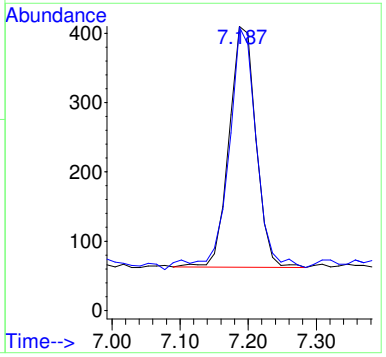


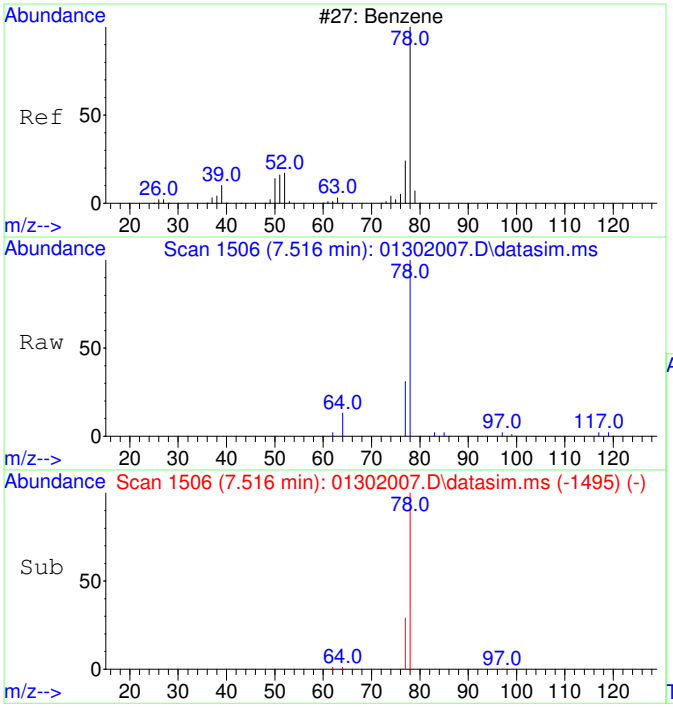


#8
Carbon tetrachloride
Concen: 155.88 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:117 Resp: 946

Ion	Ratio	Lower	Upper
117	100		
119	100.4	65.2	125.2

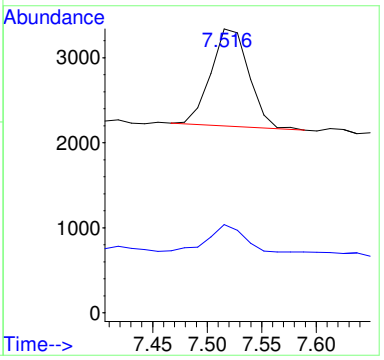


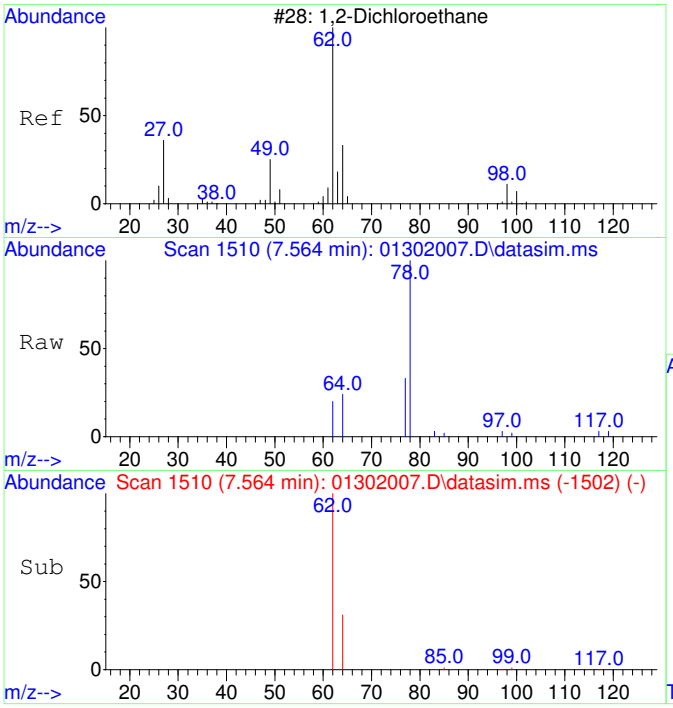


#9
Benzene
Concen: 157.07 ug/L
RT: 7.516 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 78 Resp: 2756

Ion	Ratio	Lower	Upper
78	100		
77	31.8	0.0	53.4

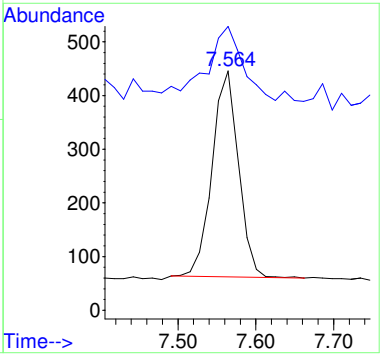


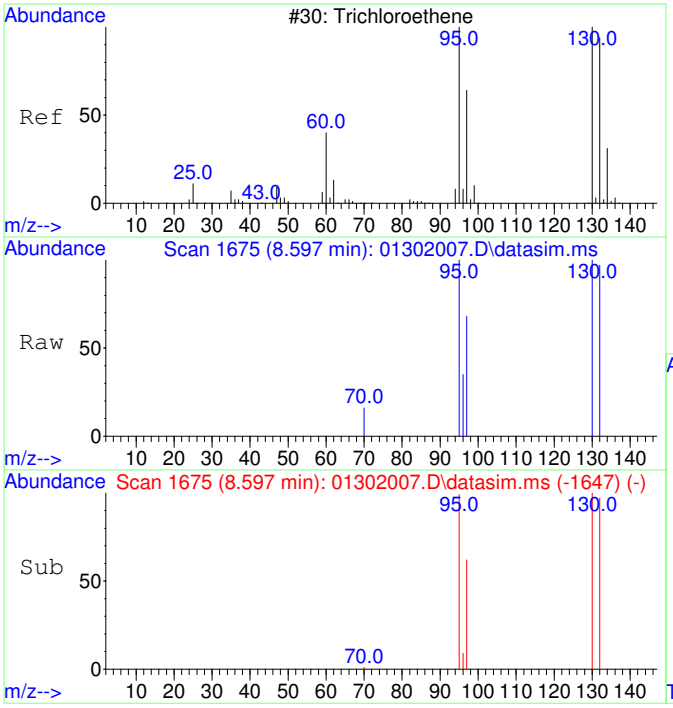


#10
1,2-Dichloroethane
Concen: 158.61 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 62 Resp: 899

Ion	Ratio	Lower	Upper
62	100		
64	46.3	3.4	63.4

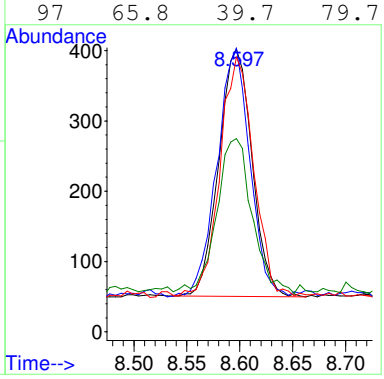


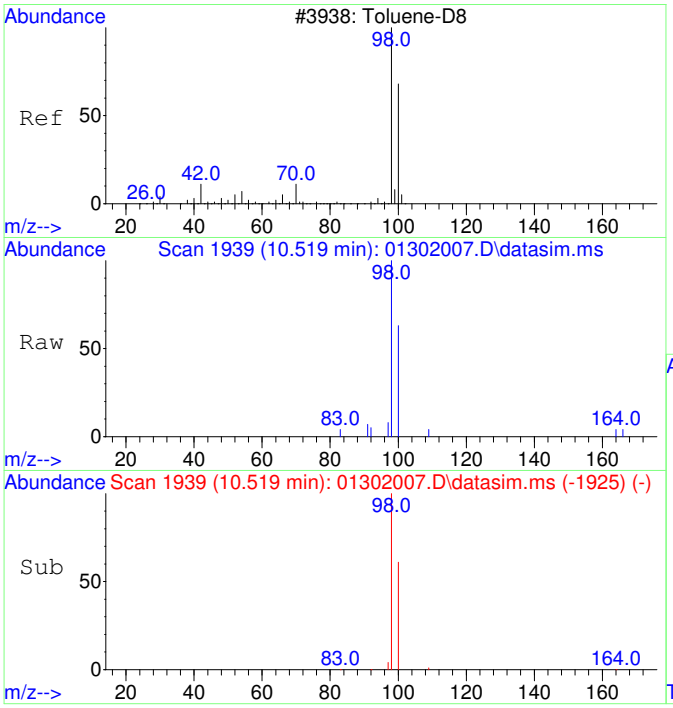


#11
Trichloroethene
Concen: 152.64 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:130 Resp: 767

Ion	Ratio	Lower	Upper
130	100		
95	99.1	63.0	123.0
132	96.2	75.5	115.5
97	65.8	39.7	79.7

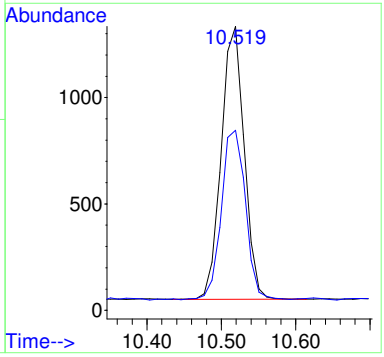


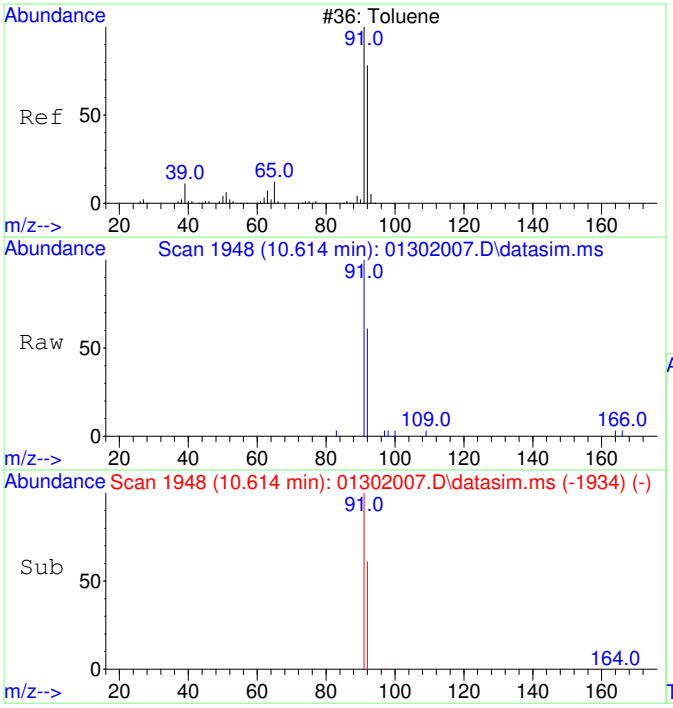


#12
Toluene-d8
Concen: 154.11 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 98 Resp: 2748

Ion	Ratio	Lower	Upper
98	100		
100	65.3	37.0	97.0

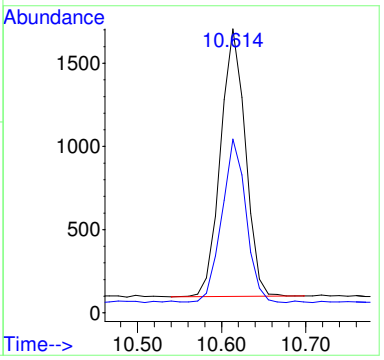


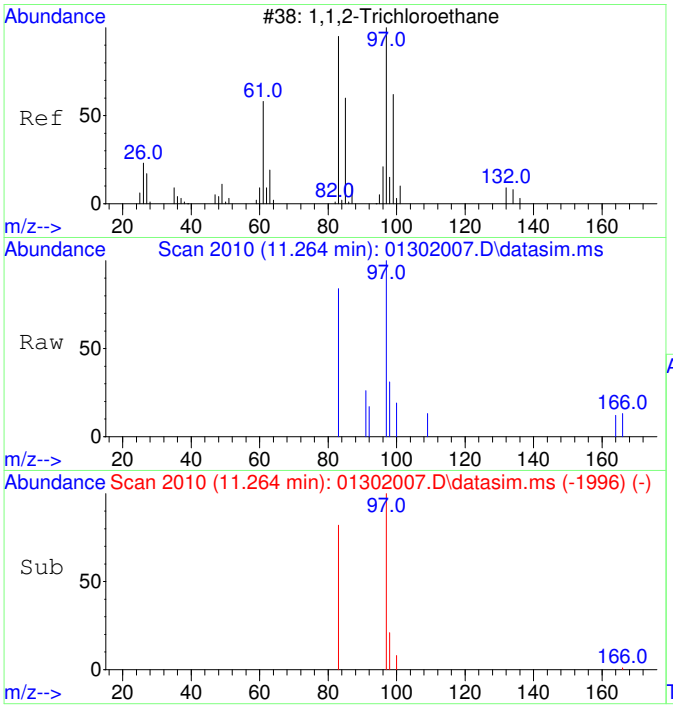


#13
Toluene
Concen: 155.99 ug/L
RT: 10.614 min Scan# 1948
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3301

Ion	Ratio	Lower	Upper
91	100		
92	59.1	29.6	89.6

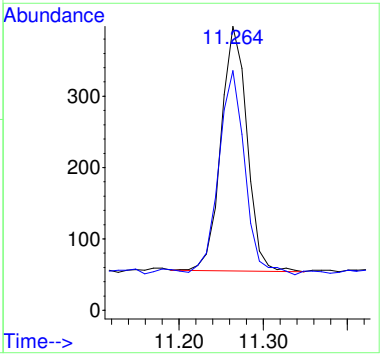


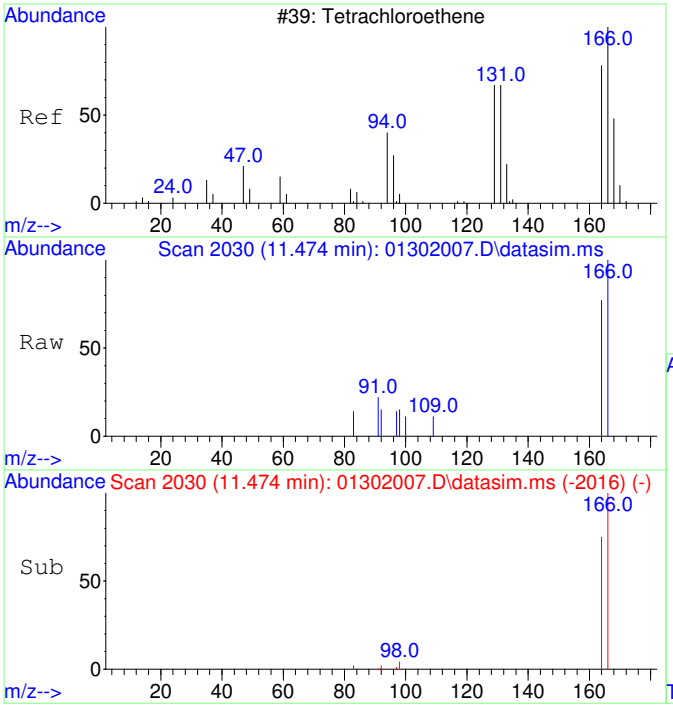


#14
1,1,2-Trichloroethane
Concen: 156.29 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 735

Ion	Ratio	Lower	Upper
97	100		
83	84.1	51.2	111.2

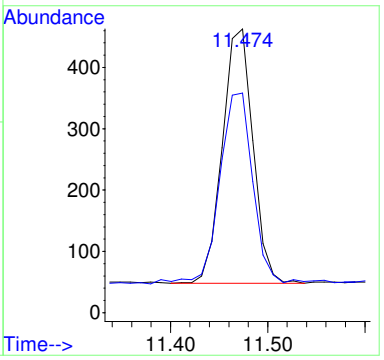


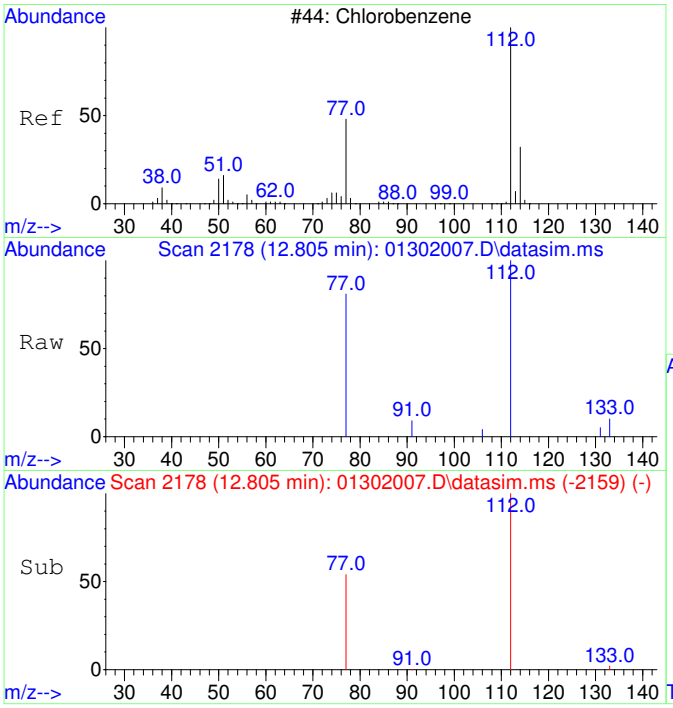


#15
Tetrachloroethene
Concen: 151.79 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:166 Resp: 905

Ion	Ratio	Lower	Upper
166	100		
164	79.7	48.6	108.6

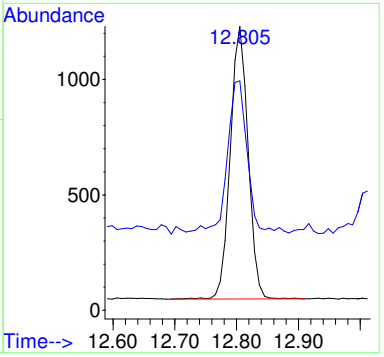


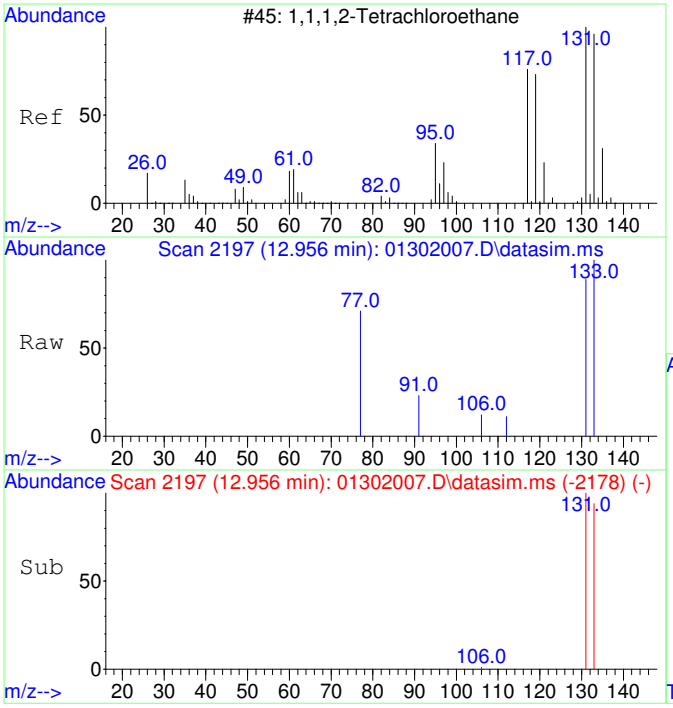


#16
Chlorobenzene
Concen: 153.42 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:112 Resp: 2354

Ion	Ratio	Lower	Upper
112	100		
77	61.4	25.2	85.2

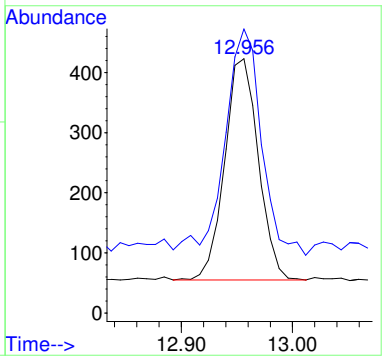


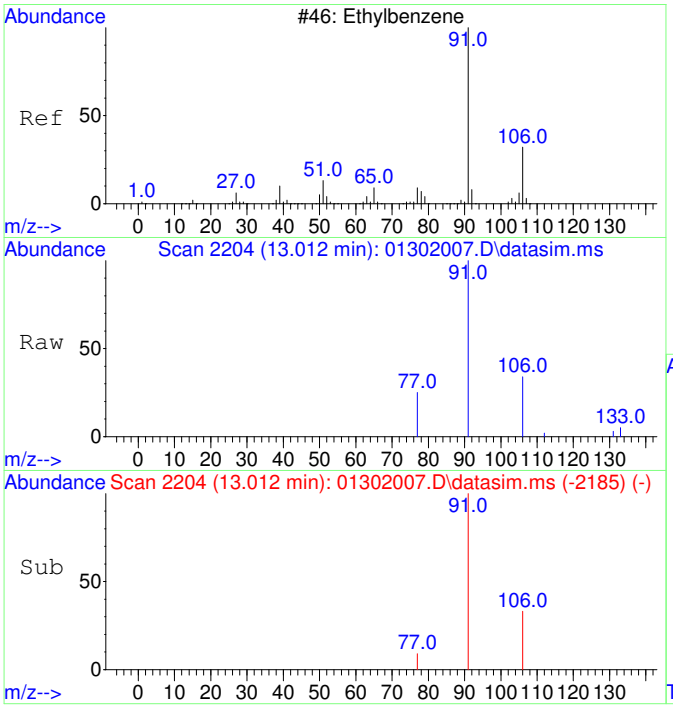


#17
1,1,1,2-Tetrachloroethane
Concen: 150.34 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:131 Resp: 775

Ion	Ratio	Lower	Upper
131	100		
133	111.0	65.5	125.5

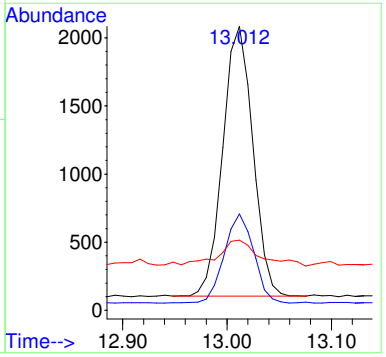


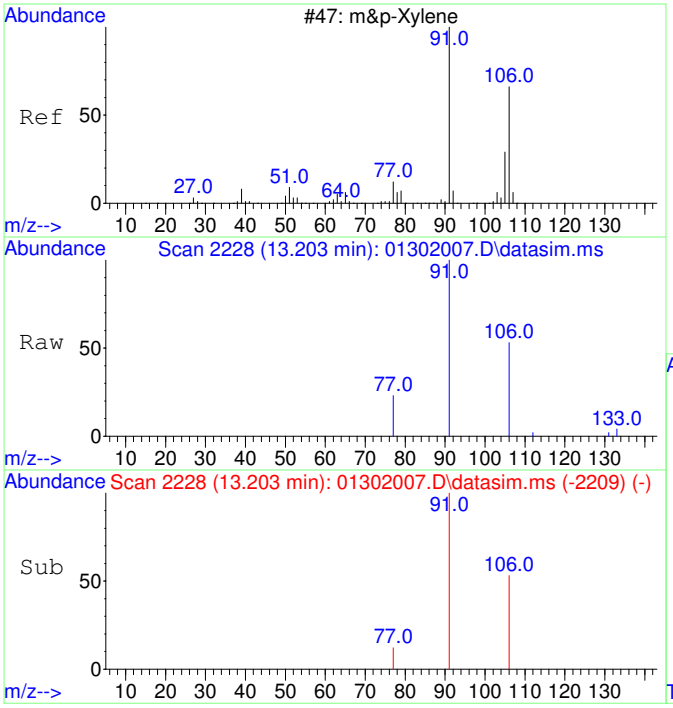


#18
Ethylbenzene
Concen: 159.91 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3957

Ion	Ratio	Lower	Upper
91	100		
106	32.0	2.7	62.7
77	13.5	0.0	38.3

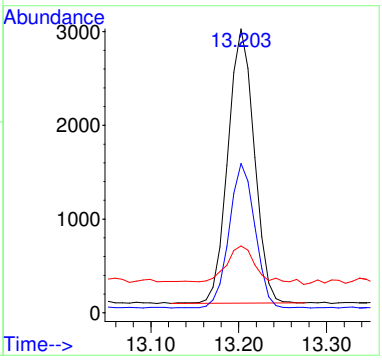


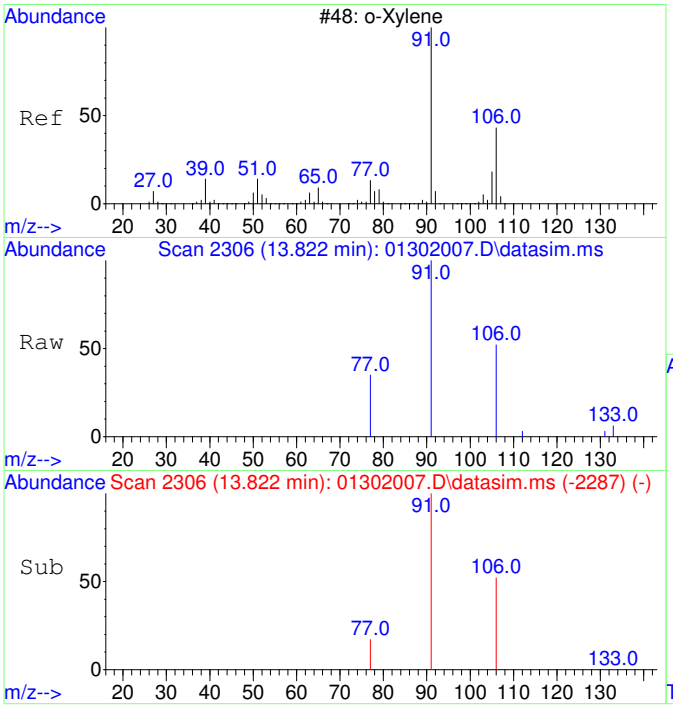


#19
m&p-Xylene
Concen: 322.50 ug/L
RT: 13.203 min Scan# 2228
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 6066

Ion	Ratio	Lower	Upper
91	100		
106	51.8	21.6	81.6
77	16.9	0.0	42.5

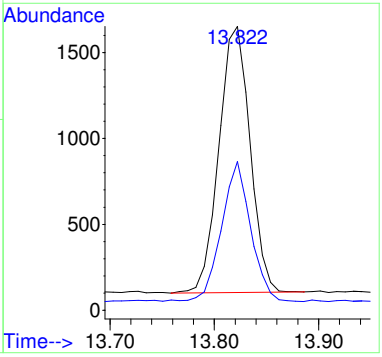


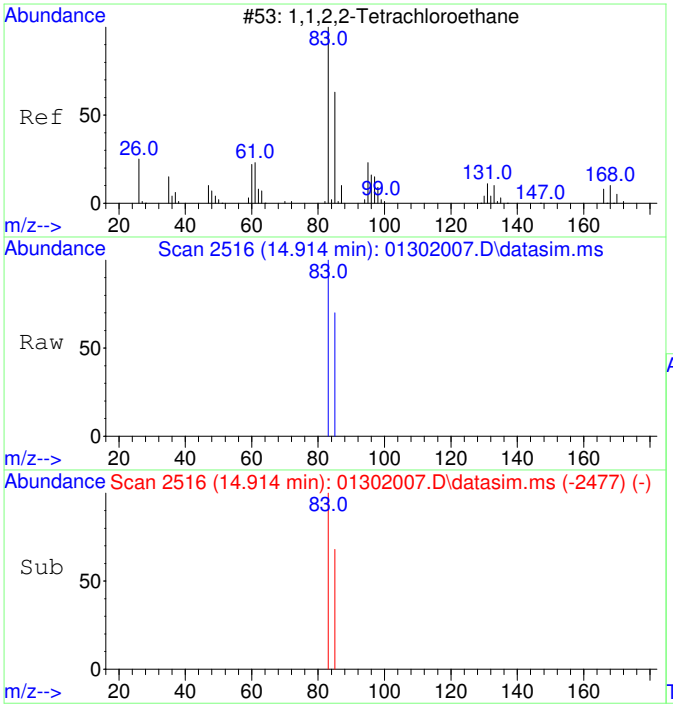


#20
o-Xylene
Concen: 159.58 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3201

Ion	Ratio	Lower	Upper
91	100		
106	49.1	18.6	78.6

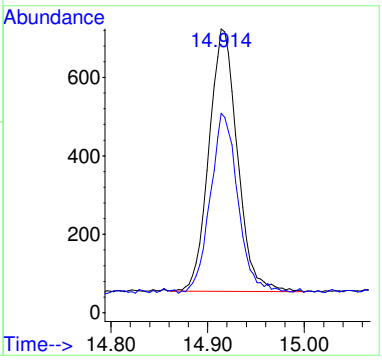


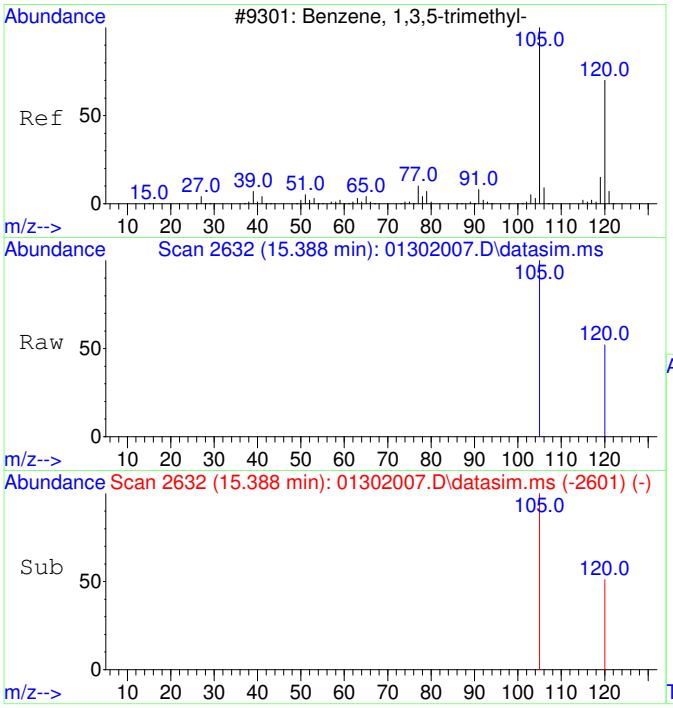


#21
1,1,2,2-Tetrachloroethane
Concen: 155.59 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1367

Ion	Ratio	Lower	Upper
83	100		
85	66.5	34.7	94.7

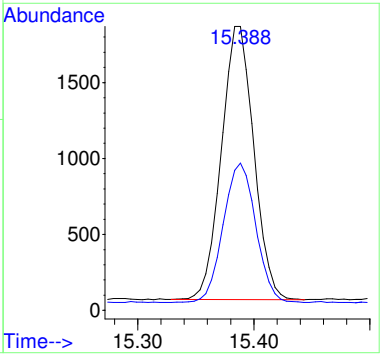


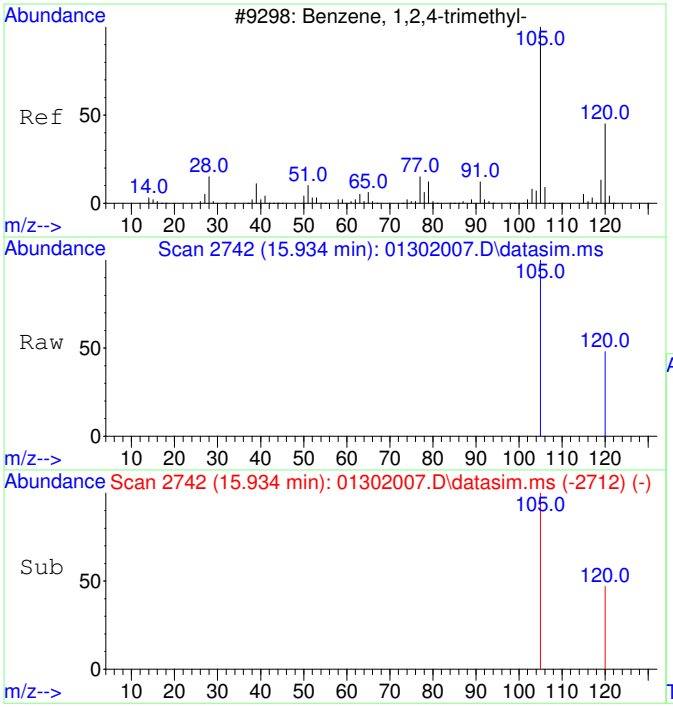


#22
1,3,5-Trimethylbenzene
Concen: 161.11 ug/L
RT: 15.388 min Scan# 2632
Delta R.T. 0.005 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 3487

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

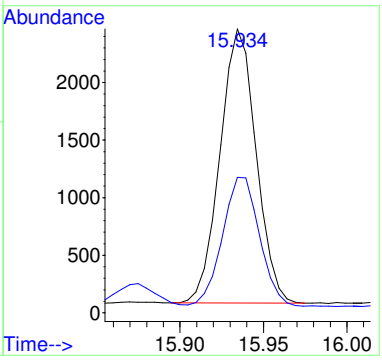


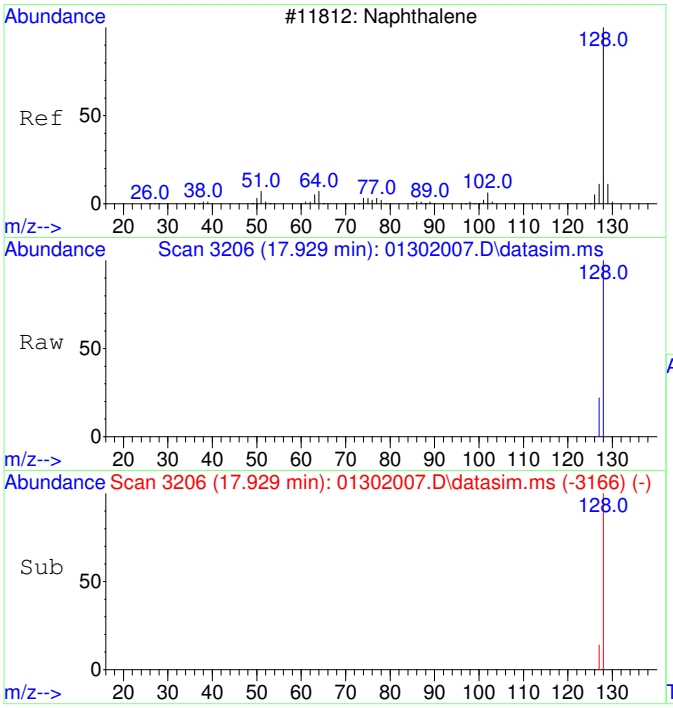


#23
1,2,4-Trimethylbenzene
Concen: 163.04 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 3570

Ion	Ratio	Lower	Upper
105	100		
120	47.7	17.2	77.2

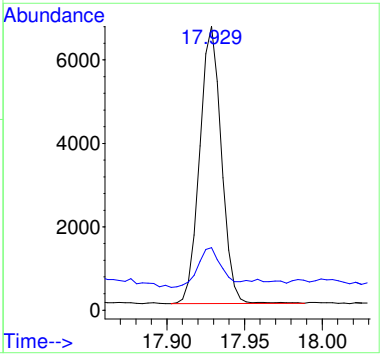


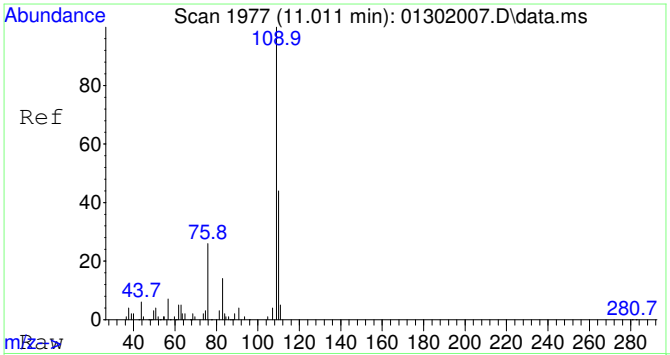


#24
Naphthalene
Concen: 172.25 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:128 Resp: 6467

Ion	Ratio	Lower	Upper
128	100		
127	16.4	0.0	42.7

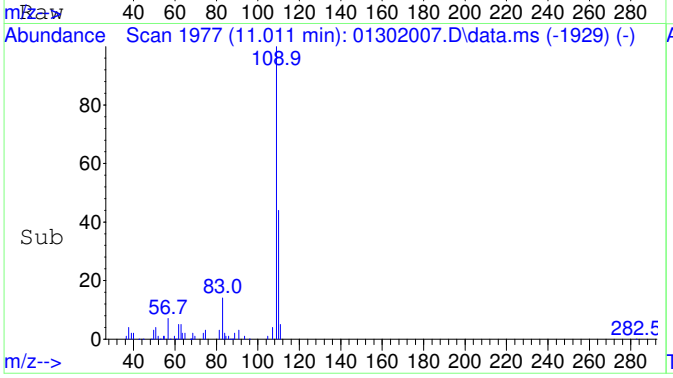


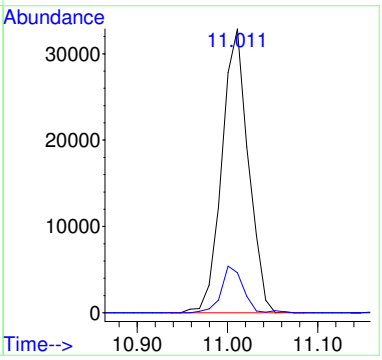


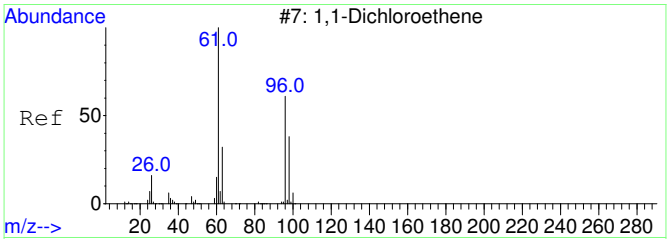
#25
2-Fluorotoluene SCAN
Concen: 4824.60 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:109 Resp: 67306

Ion	Ratio	Lower	Upper
109	100		
83	13.8	0.0	43.3



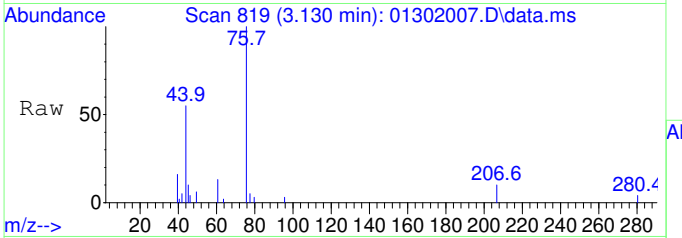


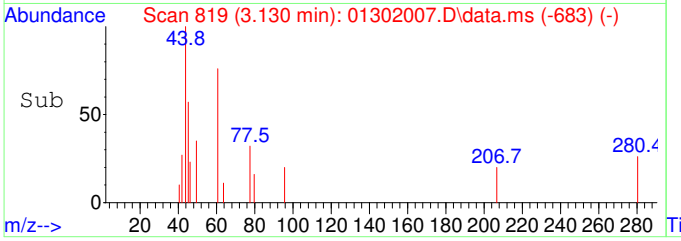


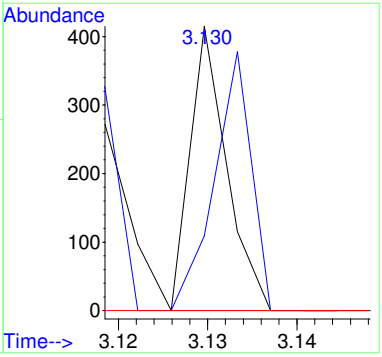
#26
1,1-Dichloroethene SCAN
Concen: 29.27 ug/L
RT: 3.130 min Scan# 819
Delta R.T. 0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

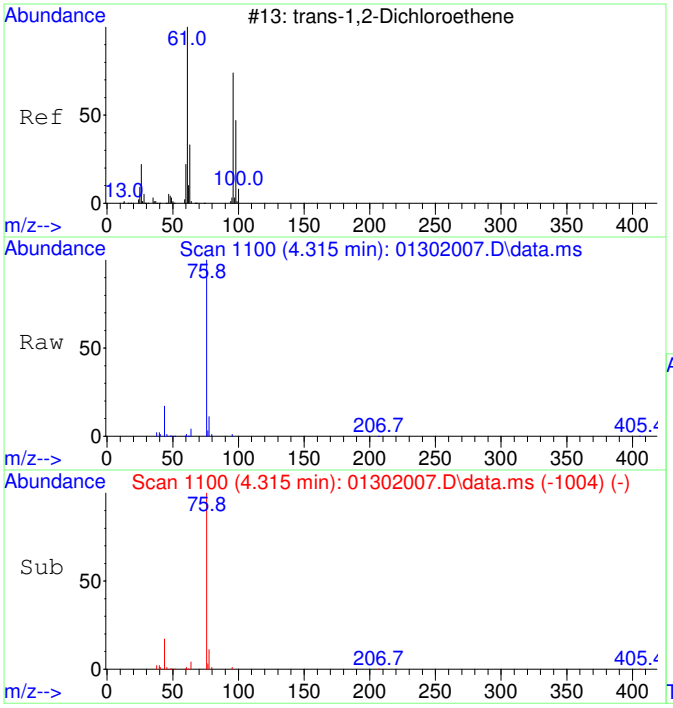
Tgt Ion: 61 Resp: 118

Ion	Ratio	Lower	Upper
61	100		
96	91.5	37.0	97.0
98	0.0	9.0	69.0#





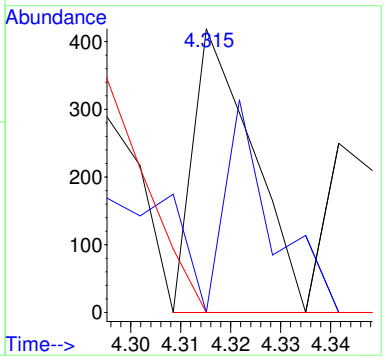


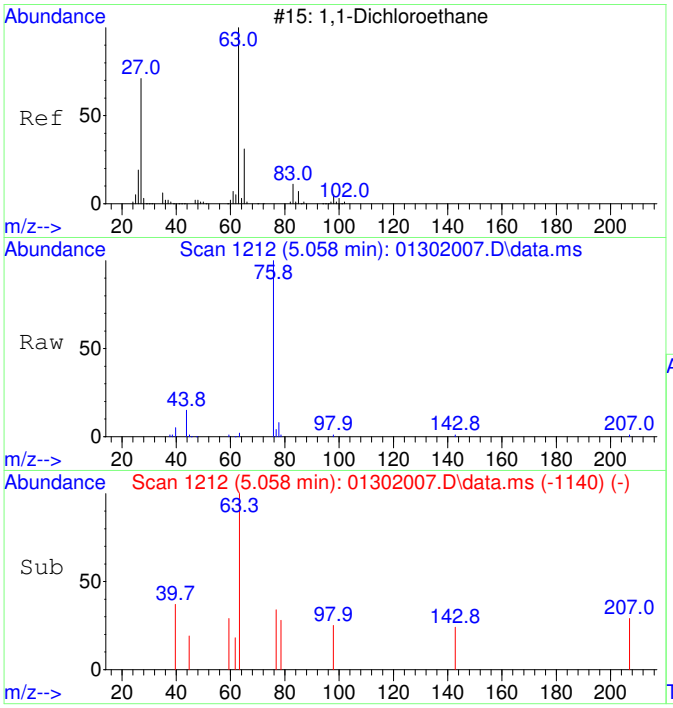


#27
trans-1,2-Dichloroethene SCAN
Concen: 94.36 ug/L
RT: 4.315 min Scan# 1100
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 350

Ion	Ratio	Lower	Upper
61	100		
96	58.3	48.2	108.2
98	0.0	17.7	77.7#

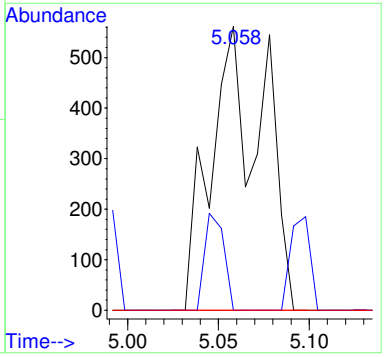


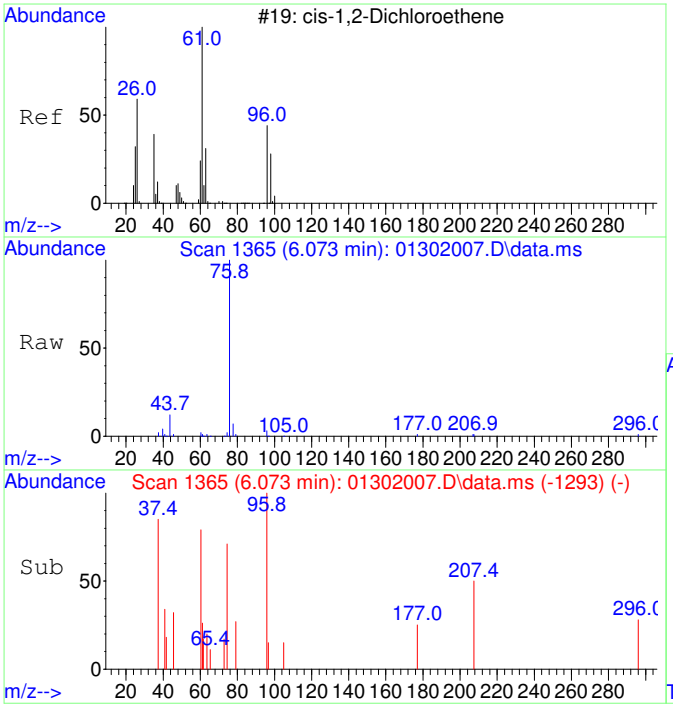


#28
1,1-Dichloroethane SCAN
Concen: 230.03 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.020 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 63 Resp: 1123

Ion	Ratio	Lower	Upper
63	100		
65	12.6	5.7	65.7
83	0.0	0.0	41.0

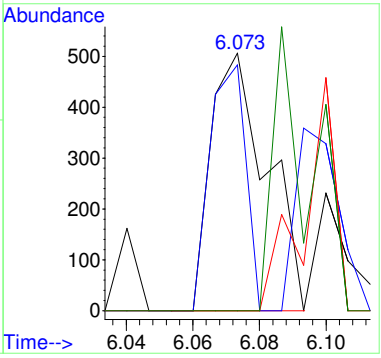


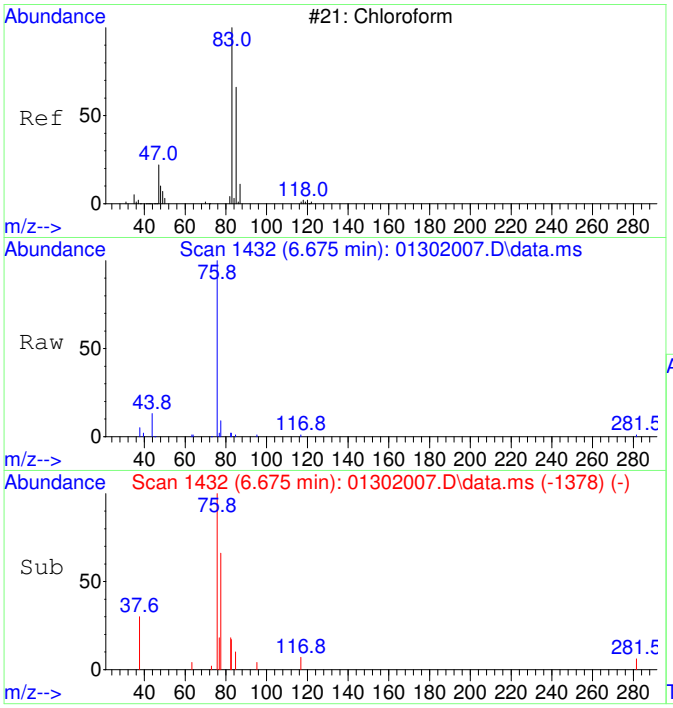


#29
cis-1,2-Dichloroethene SCAN
Concen: 131.17 ug/L
RT: 6.073 min Scan# 1365
Delta R.T. -0.020 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 591

Ion	Ratio	Lower	Upper
61	100		
96	61.3	32.3	92.3
98	0.0	18.9	78.9#
63	0.0	7.7	67.7#

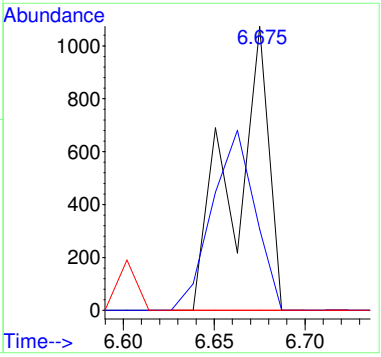


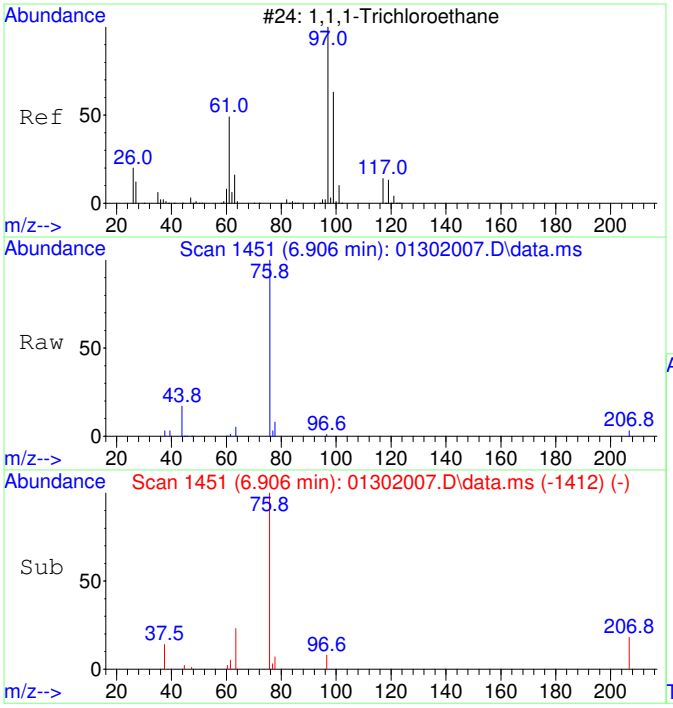


#30
Chloroform SCAN
Concen: 267.93 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1446

Ion	Ratio	Lower	Upper
83	100		
85	77.5	20.9	80.9
47	0.0	0.0	50.1

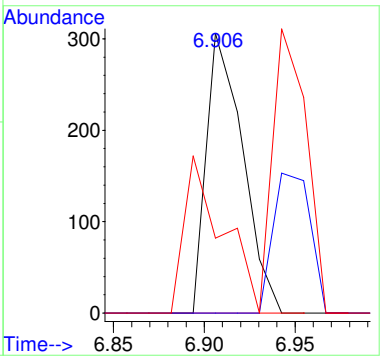


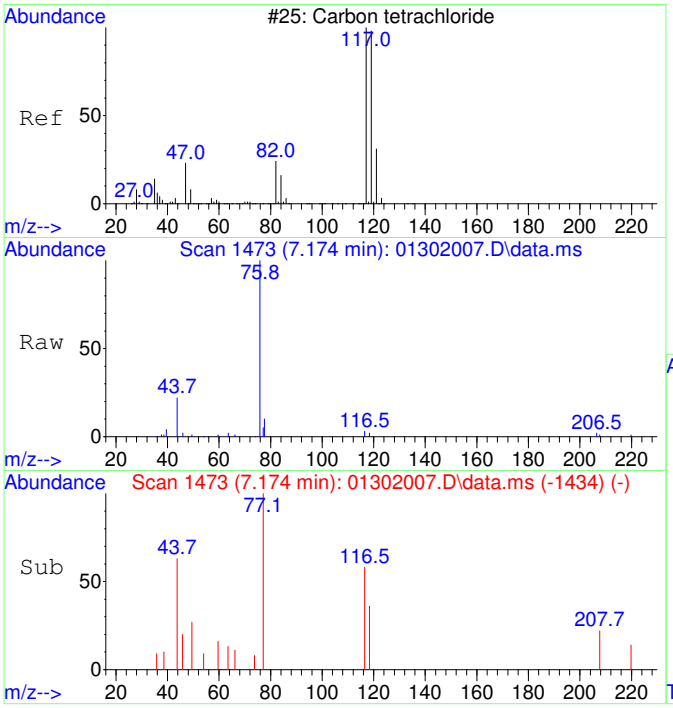


#31
1,1,1-Trichloroethane SCAN
Concen: 92.37 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.024 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 427

Ion	Ratio	Lower	Upper
97	100		
99	0.0	28.2	88.2#
61	59.3	11.1	71.1

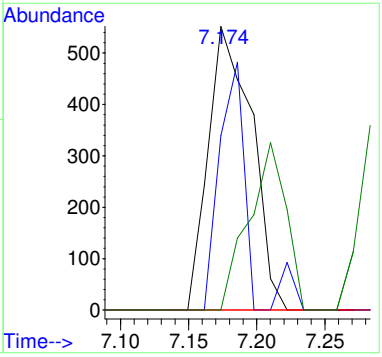


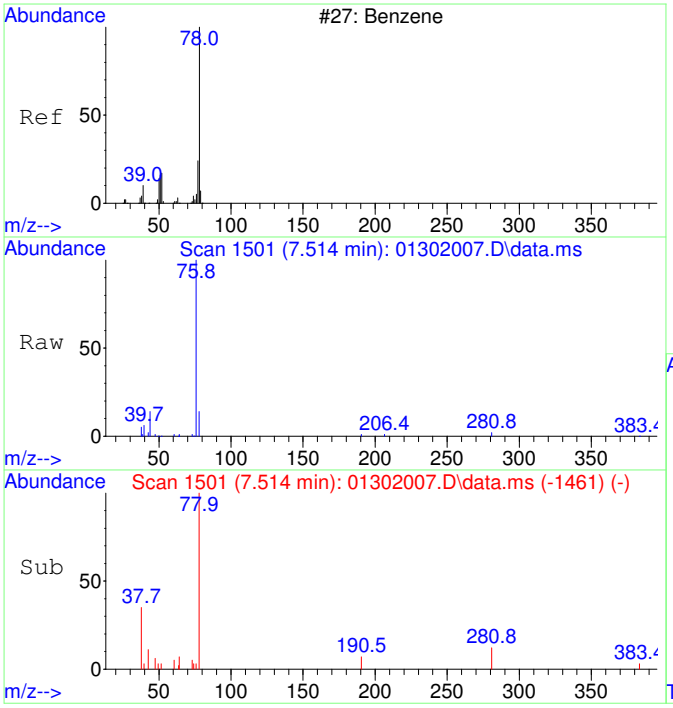


#32
Carbon tetrachloride SCAN
Concen: 278.68 ug/L
RT: 7.174 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:117 Resp: 1228

Ion	Ratio	Lower	Upper
117	100		
119	48.8	55.7	115.7#
121	0.0	0.0	59.0
82	0.0	0.0	56.4

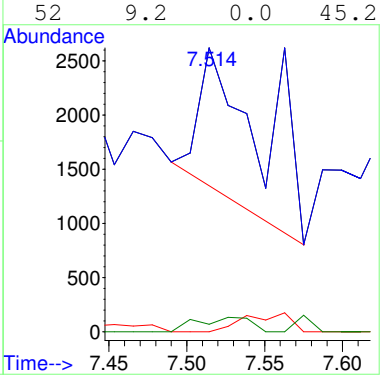


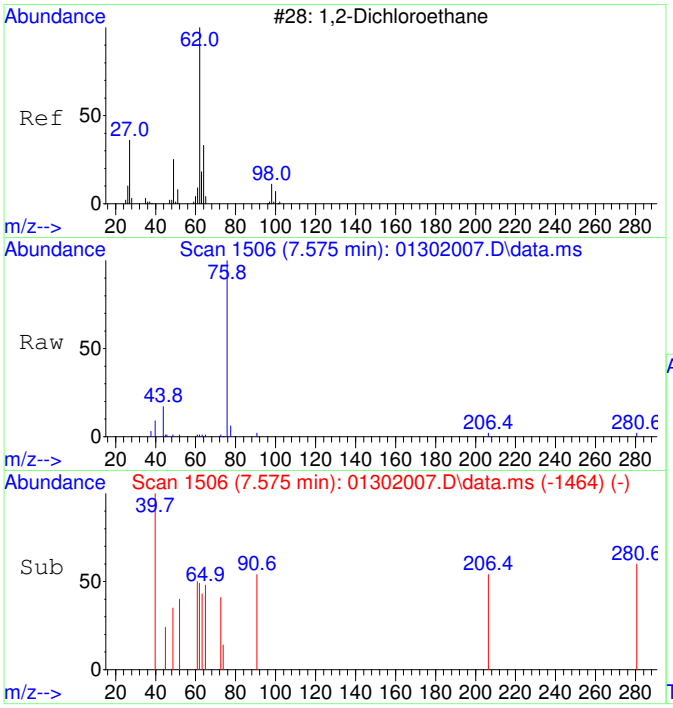


#33
Benzene SCAN
Concen: 275.40 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 78 Resp: 3523

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	50.6
52	9.2	0.0	45.2

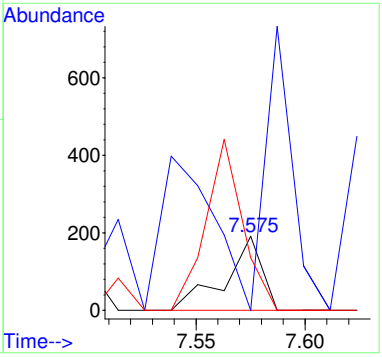


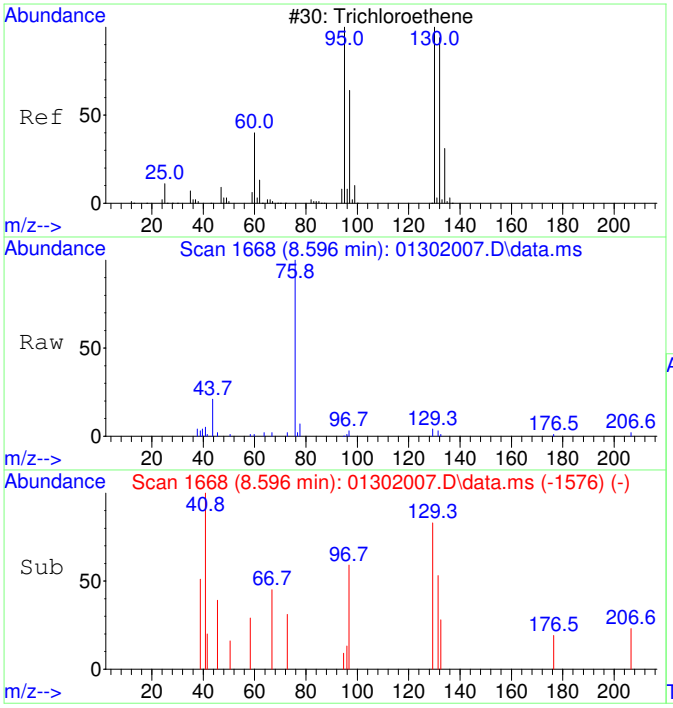


#34
1,2-Dichloroethane SCAN
Concen: 55.58 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 62 Resp: 225

Ion	Ratio	Lower	Upper
62	100		
64	274.7	9.1	69.1#
49	0.0	6.2	66.2#

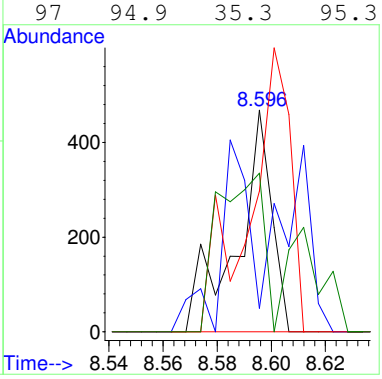


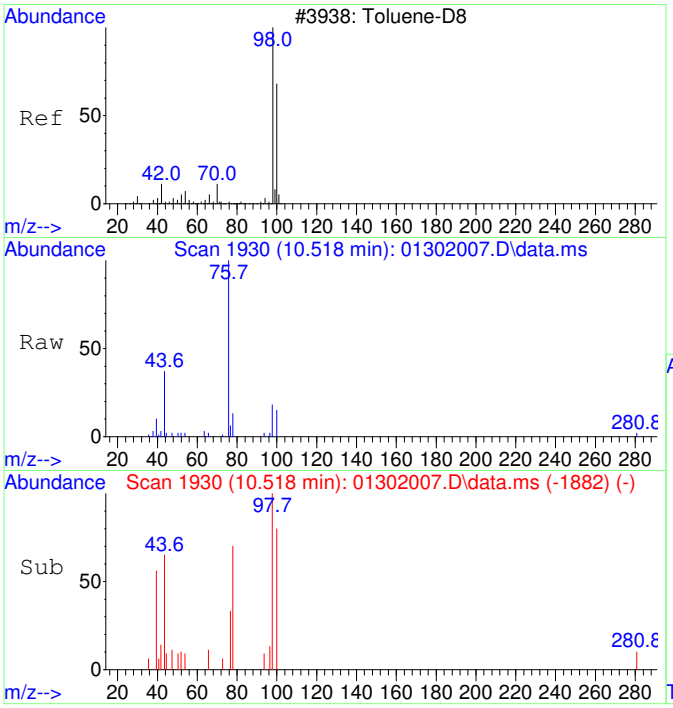


#35
Trichloroethene SCAN
Concen: 125.55 ug/L
RT: 8.596 min Scan# 1668
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:130 Resp: 415

Ion	Ratio	Lower	Upper
130	100		
95	61.4	69.4	129.4#
132	152.3	77.2	137.2#
97	94.9	35.3	95.3

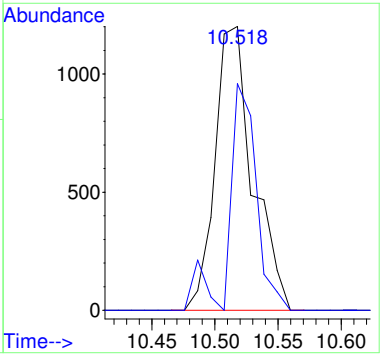


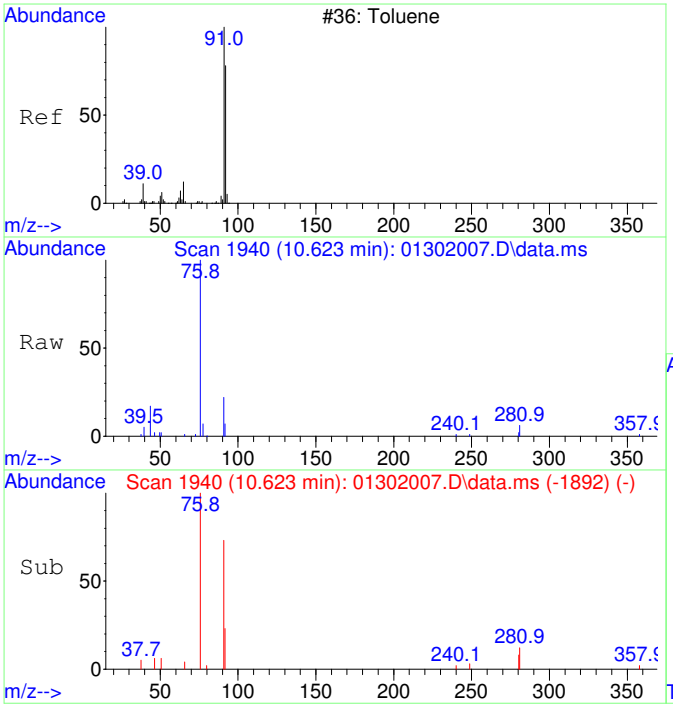


#36
Toluene-d8 SCAN
Concen: 213.49 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 98 Resp: 2501

Ion	Ratio	Lower	Upper
98	100		
100	57.5	36.6	96.6

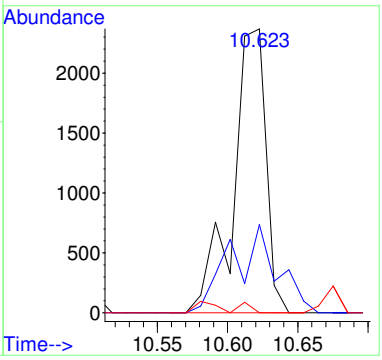


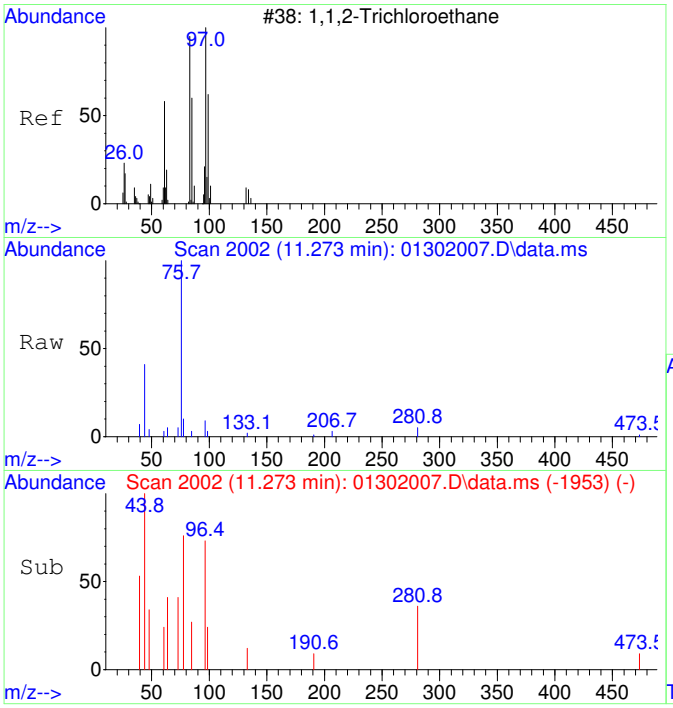


#37
Toluene SCAN
Concen: 272.05 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3865

Ion	Ratio	Lower	Upper
91	100		
92	0.0	26.1	86.1#
65	0.0	0.0	42.0

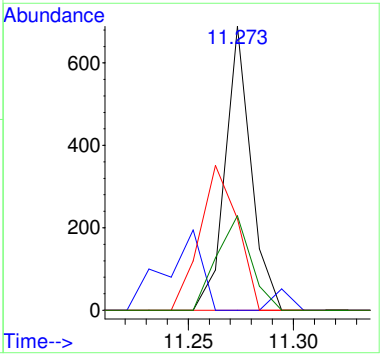


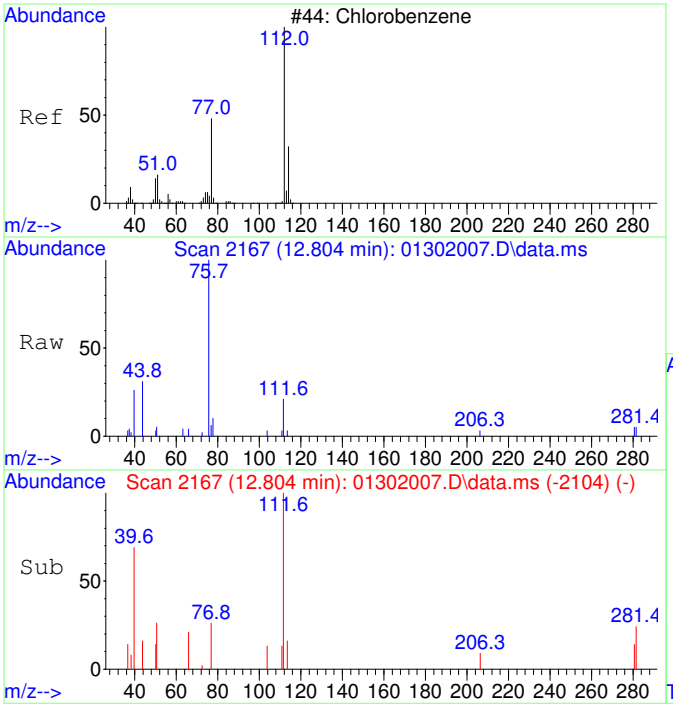


#38
1,1,2-Trichloroethane SCAN
Concen: 177.69 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. 0.011 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 589

Ion	Ratio	Lower	Upper
97	100		
83	0.0	44.4	104.4#
61	0.0	32.3	92.3#
99	44.3	32.1	92.1

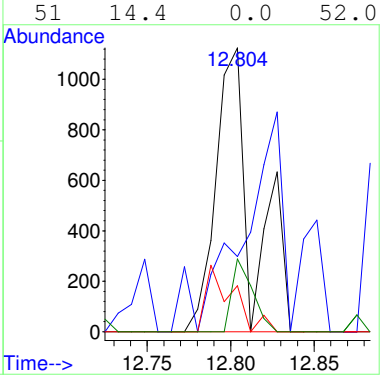


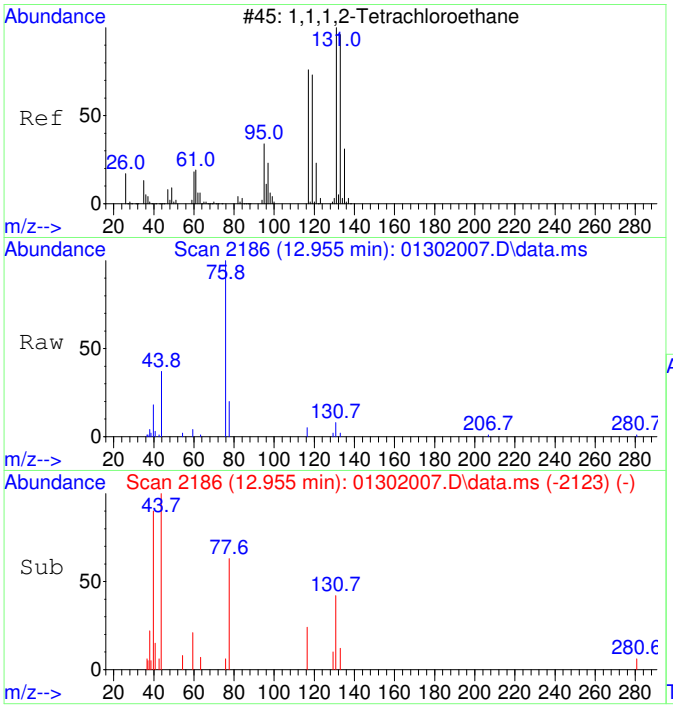


#40
Chlorobenzene SCAN
Concen: 174.85 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:112 Resp: 1731

Ion	Ratio	Lower	Upper
112	100		
77	0.0	33.8	93.8#
114	17.4	1.3	61.3
51	14.4	0.0	52.0

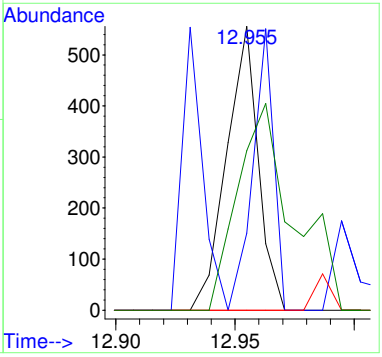


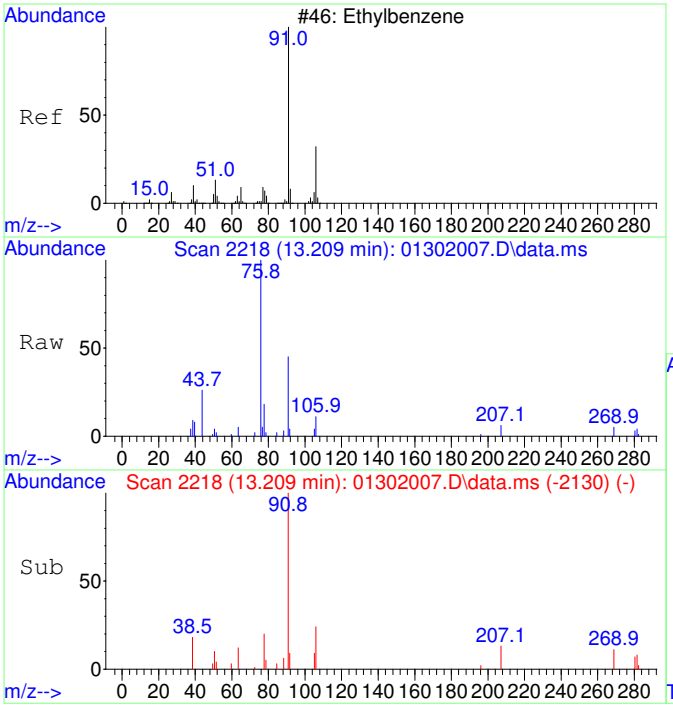


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 144.04 ug/L
RT: 12.955 min Scan# 2186
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:131 Resp: 516

Ion	Ratio	Lower	Upper
131	100		
133	64.9	60.9	120.9
119	0.0	32.7	92.7#
117	127.7	32.2	92.2#

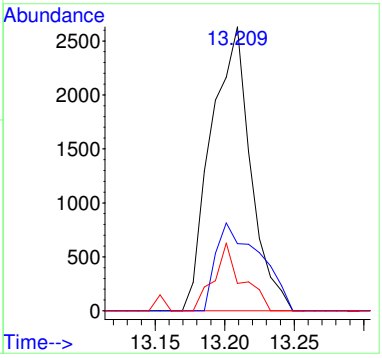


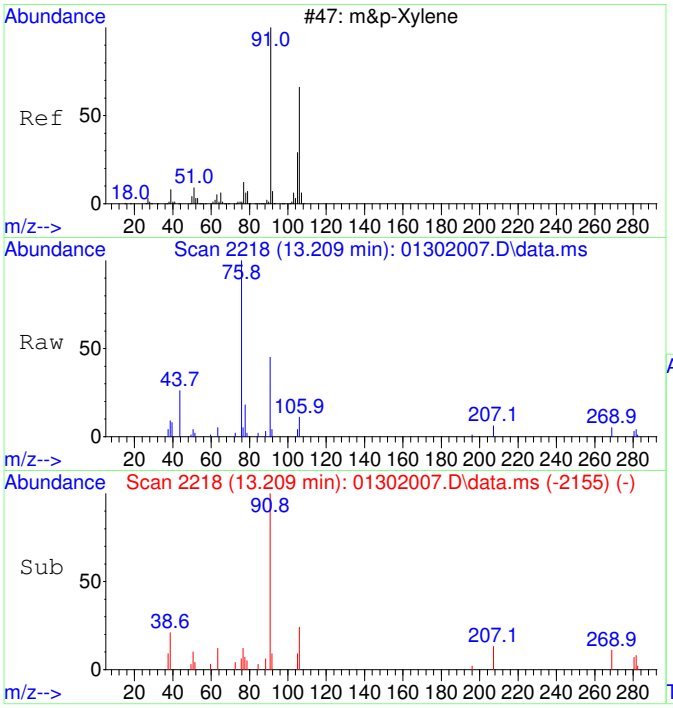


#42
Ethylbenzene SCAN
Concen: 323.14 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.199 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 5214

Ion	Ratio	Lower	Upper
91	100		
106	34.5	1.4	61.4
51	16.9	0.0	40.4

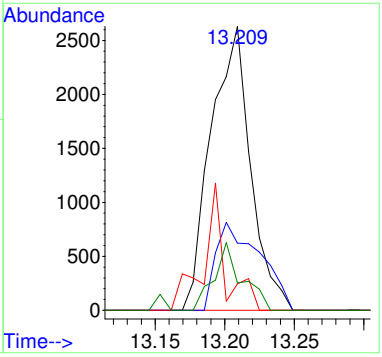


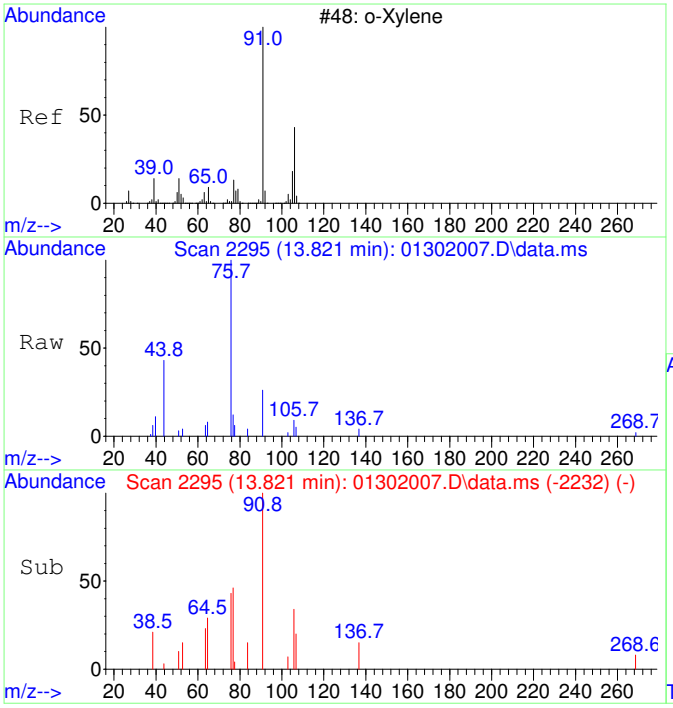


#43
m&p-Xylene SCAN
Concen: 221.62 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 5214

Ion	Ratio	Lower	Upper
91	100		
106	34.5	20.4	80.4
105	24.5	0.0	52.6
51	16.9	0.0	40.8

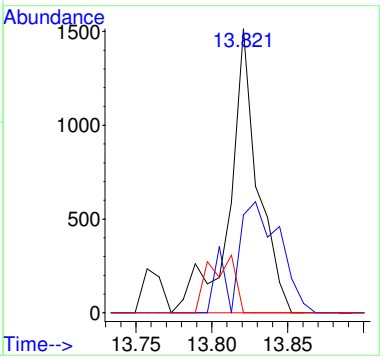


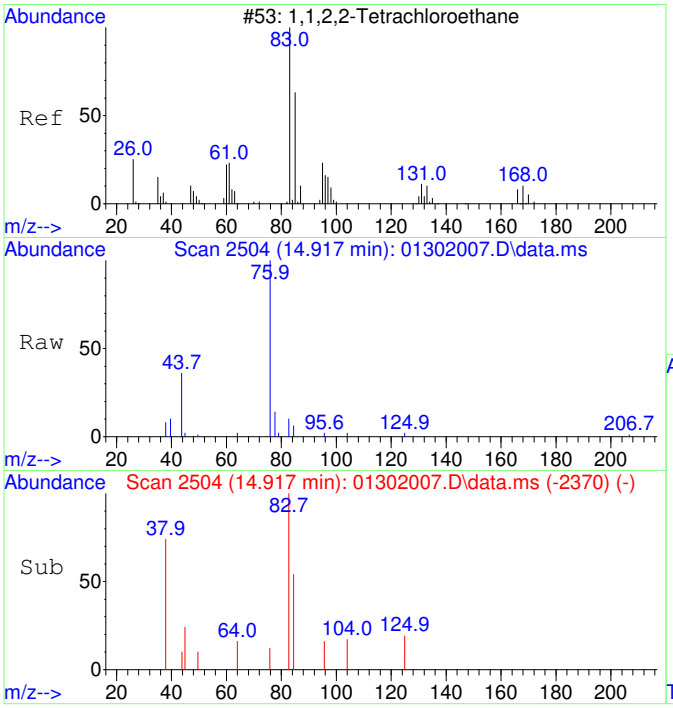


#44
o-Xylene SCAN
Concen: 156.22 ug/L
RT: 13.821 min Scan# 2295
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 1965

Ion	Ratio	Lower	Upper
91	100		
106	62.2	18.3	78.3
105	18.7	0.0	51.8

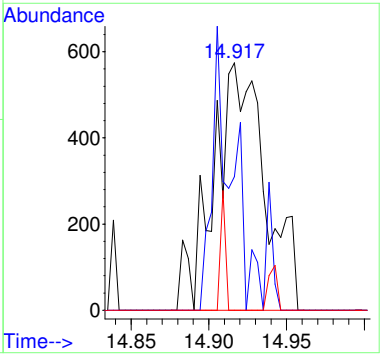


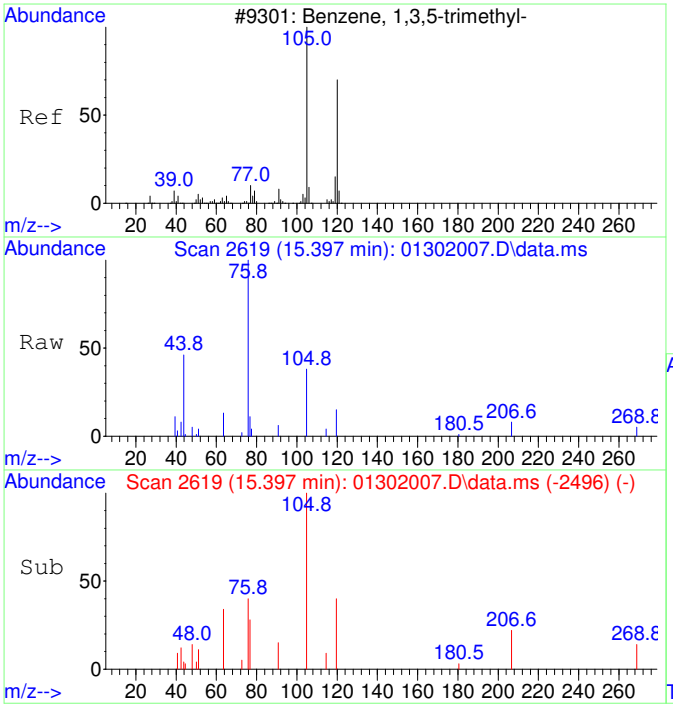


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 223.84 ug/L
RT: 14.917 min Scan# 2504
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1342

Ion	Ratio	Lower	Upper
83	100		
85	43.9	37.5	97.5
95	4.6	0.0	36.2

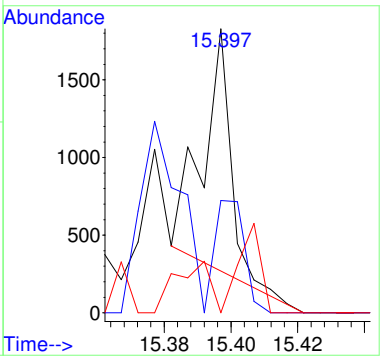


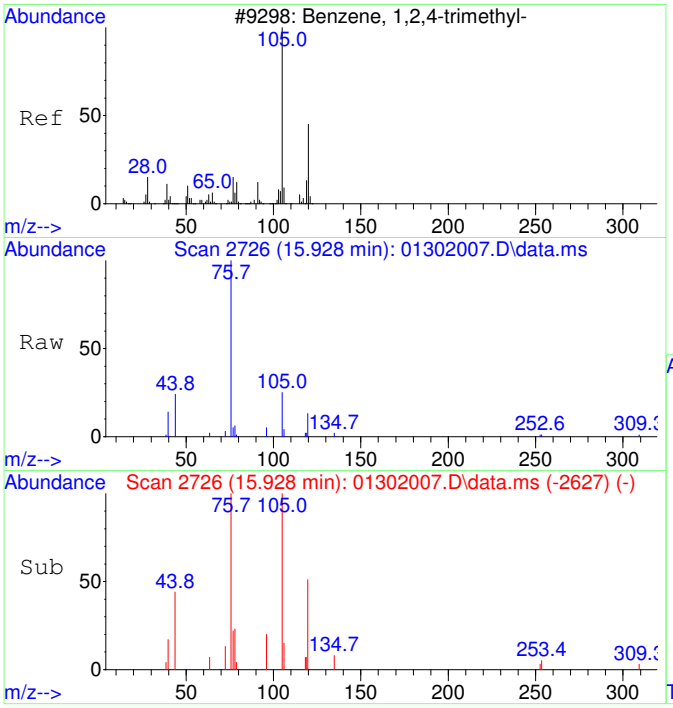


#46
1,3,5-Trimethylbenzene SCAN
Concen: 64.52 ug/L
RT: 15.397 min Scan# 2619
Delta R.T. 0.010 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 848

Ion	Ratio	Lower	Upper
105	100		
120	53.2	19.8	79.8
119	28.4	0.0	44.5

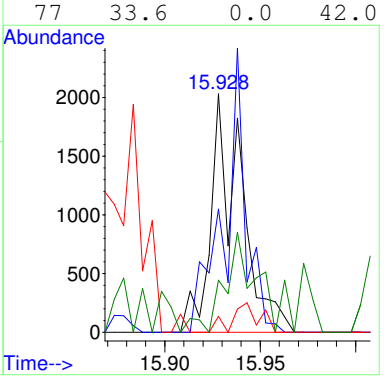


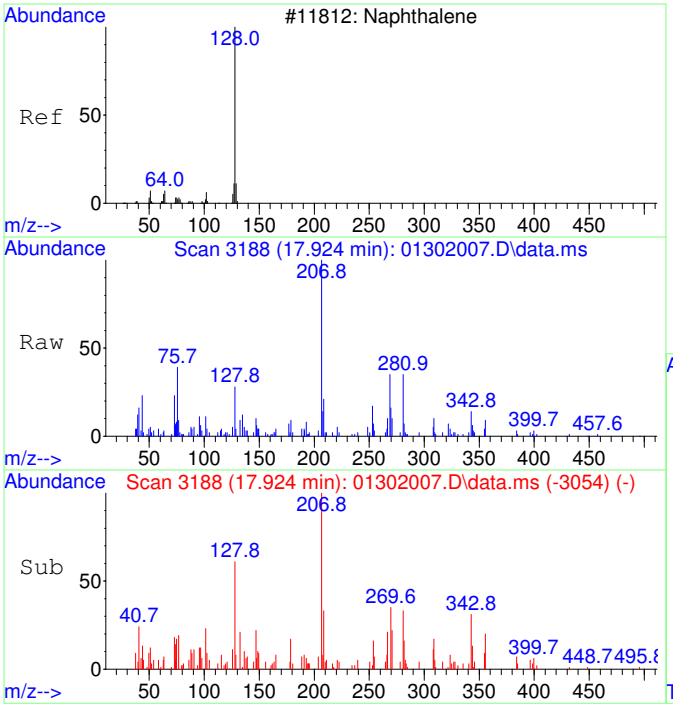


#47
1,2,4-Trimethylbenzene SCAN
Concen: 170.98 ug/L
RT: 15.928 min Scan# 2726
Delta R.T. -0.010 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 2260

Ion	Ratio	Lower	Upper
105	100		
120	83.0	14.1	74.1#
119	11.0	0.0	42.4
77	33.6	0.0	42.0

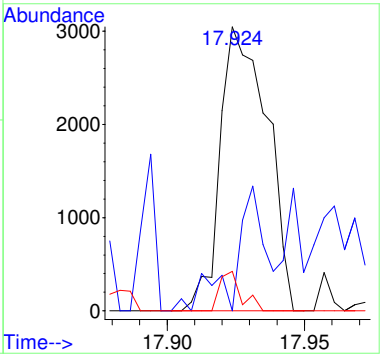




#48
Naphthalene SCAN
Concen: 179.50 ug/L
RT: 17.924 min Scan# 3188
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:128 Resp: 3624

Ion	Ratio	Lower	Upper
128	100		
127	16.0	0.0	43.5
129	6.3	0.0	35.4



Quantitation Report (QT Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302007.D
Acq On : 30 Jan 2020 10:16
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL5
Misc : 2004026 0.15 mg/L
ALS Vial : 7 Sample Multiplier: 1

M.I. Performed By:
TD at 1:14 pm, Jan 30, 2020

M.I. Approved By:
ZR at 11:59 am, Feb 04, 2020

Quant Time: Jan 30 12:17:46 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.002	109	105279	5000.00	ug/L	0.00
System Monitoring Compounds						
12) Toluene-d8	10.519	98	2748	154.11	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	3.08%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.112	61	858m	151.34	ug/L	
3] trans-1,2-Dichloroethene	4.310	61	884	158.50	ug/L	96
4] 1,1-Dichloroethane	5.059	63	1120	161.78	ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	1028	160.42	ug/L	98
6] Chloroform	6.664	83	1117	156.62	ug/L	96
7] 1,1,1-Trichloroethane	6.920	97	1093	159.84	ug/L	98
8] Carbon tetrachloride	7.187	117	946	155.88	ug/L	95
9] Benzene	7.516	78	2756	157.07	ug/L	83
10] 1,2-Dichloroethane	7.564	62	899	158.61	ug/L	77
11] Trichloroethene	8.597	130	767	152.64	ug/L	95
13] Toluene	10.614	91	3301	155.99	ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	735	156.29	ug/L	97
15] Tetrachloroethene	11.474	166	905	151.79	ug/L	99
16] Chlorobenzene	12.805	112	2354	153.42	ug/L	91
17] 1,1,1,2-Tetrachloroethane	12.956	131	775	150.34	ug/L	84
18] Ethylbenzene	13.012	91	3957	159.91	ug/L	96
19] m&p-Xylene	13.203	91	6066	322.50	ug/L	98
20] o-Xylene	13.822	91	3201	159.58	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	1367	155.59	ug/L	98
22] 1,3,5-Trimethylbenzene	15.388	105	3487	161.11	ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	3570	163.04	ug/L	99
24] Naphthalene	17.929	128	6467	172.25	ug/L	91
25) 2-Fluorotoluene SCAN	11.011	109	67306	4824.60	ug/L	99
26) 1,1-Dichloroethene SCAN	3.130	61	118	29.27	ug/L #	57
27) trans-1,2-Dichloroethe...	4.315	61	350	94.36	ug/L #	59
28) 1,1-Dichloroethane SCAN	5.058	63	1123	230.03	ug/L #	63
29) cis-1,2-Dichloroethene...	6.073	61	591	131.17	ug/L #	60
30) Chloroform SCAN	6.675	83	1446	267.93	ug/L #	60
31) 1,1,1-Trichloroethane ...	6.906	97	427	92.37	ug/L #	42
32) Carbon tetrachloride SCAN	7.174	117	1228	278.68	ug/L #	55
33) Benzene SCAN	7.514	78	3523	275.40	ug/L #	92
34) 1,2-Dichloroethane SCAN	7.575	62	225	55.58	ug/L #	1
35) Trichloroethene SCAN	8.596	130	415	125.55	ug/L #	60
36) Toluene-d8 SCAN	10.518	98	2501	213.49	ug/L	89
37) Toluene SCAN	10.623	91	3865	272.05	ug/L #	31
38) 1,1,2-Trichloroethane ...	11.273	97	589	177.69	ug/L #	35
40) Chlorobenzene SCAN	12.804	112	1731	174.85	ug/L #	46
41) 1,1,1,2-Tetrachloroeth...	12.955	131	516	144.04	ug/L #	40
42) Ethylbenzene SCAN	13.209	91	5214	323.14	ug/L	91
43) m&p-Xylene SCAN	13.209	91	5214	221.62	ug/L	83
44) o-Xylene SCAN	13.821	91	1965	156.22	ug/L	84
45) 1,1,2,2-Tetrachloroeth...	14.917	83	1342	223.84	ug/L	73
46) 1,3,5-Trimethylbenzene...	15.397	105	848	64.52	ug/L	89
47) 1,2,4-Trimethylbenzene...	15.928	105	2260	170.98	ug/L #	51
48) Naphthalene SCAN	17.924	128	3624	179.50	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302007.D
Acq On : 30 Jan 2020 10:16
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL5
Misc : 2004026 0.15 mg/L
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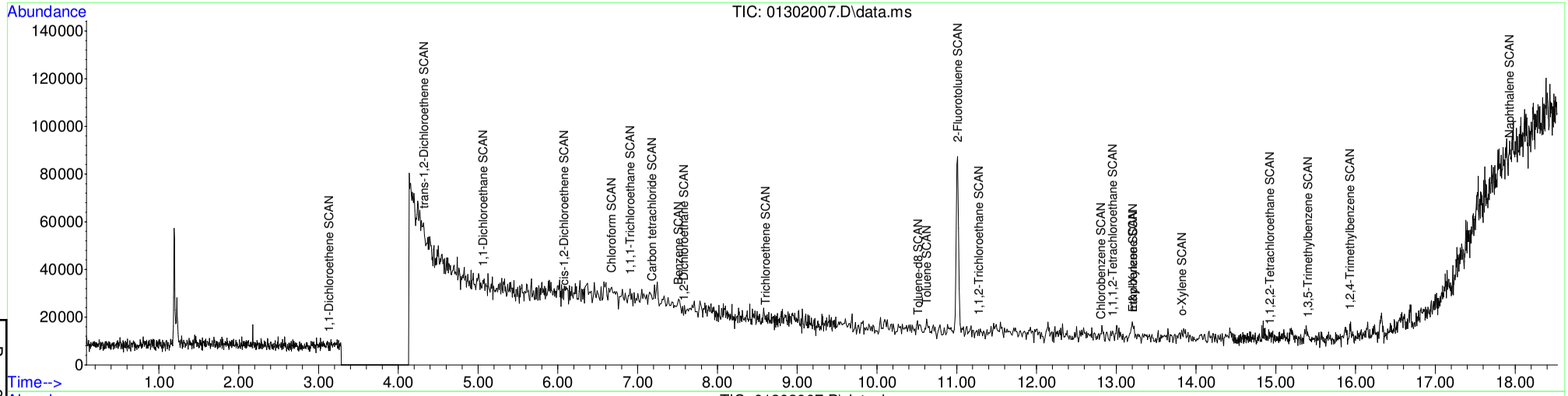
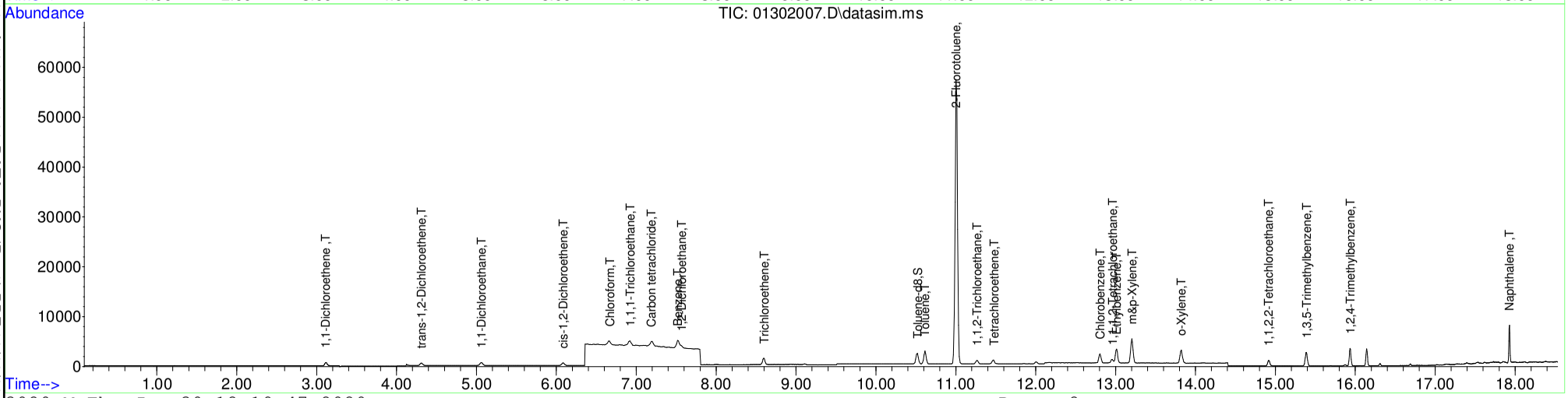
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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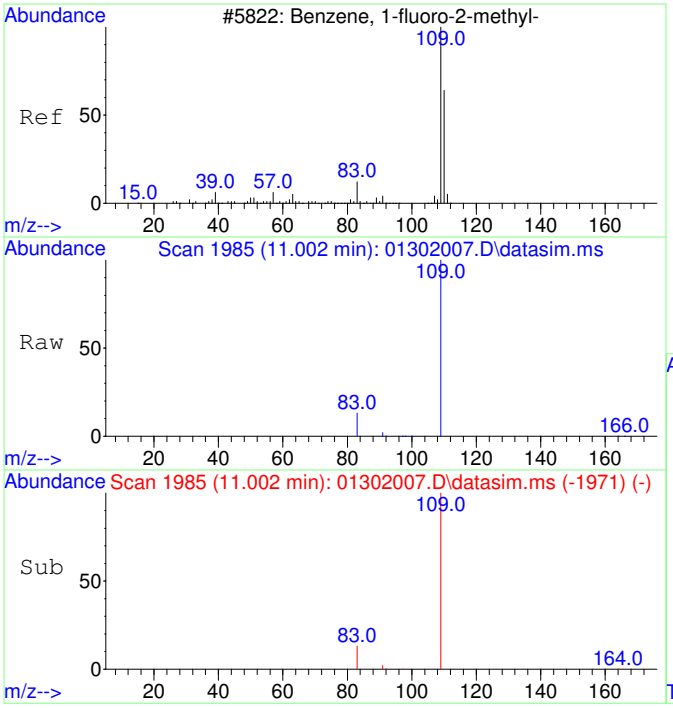
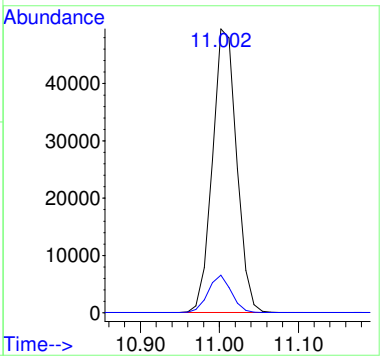
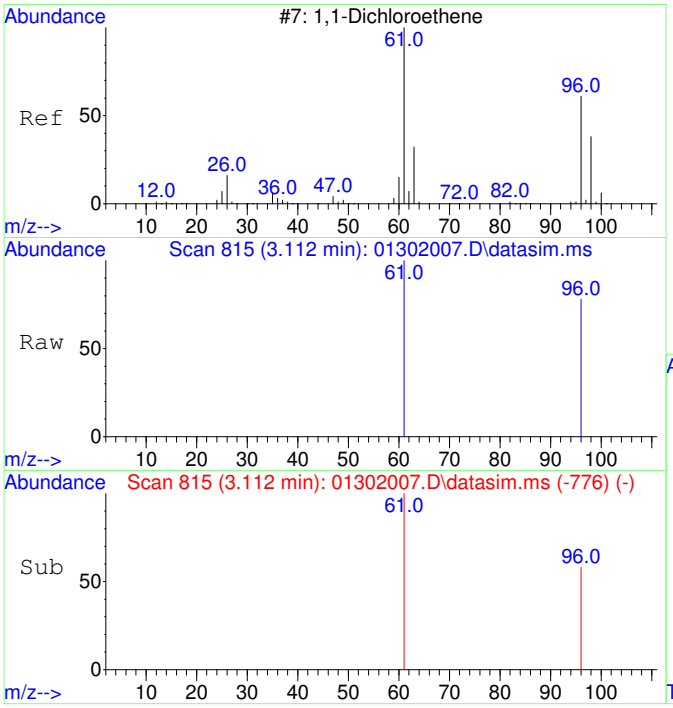


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:109 Resp: 105279

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.3

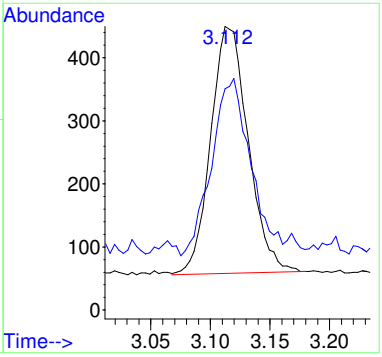


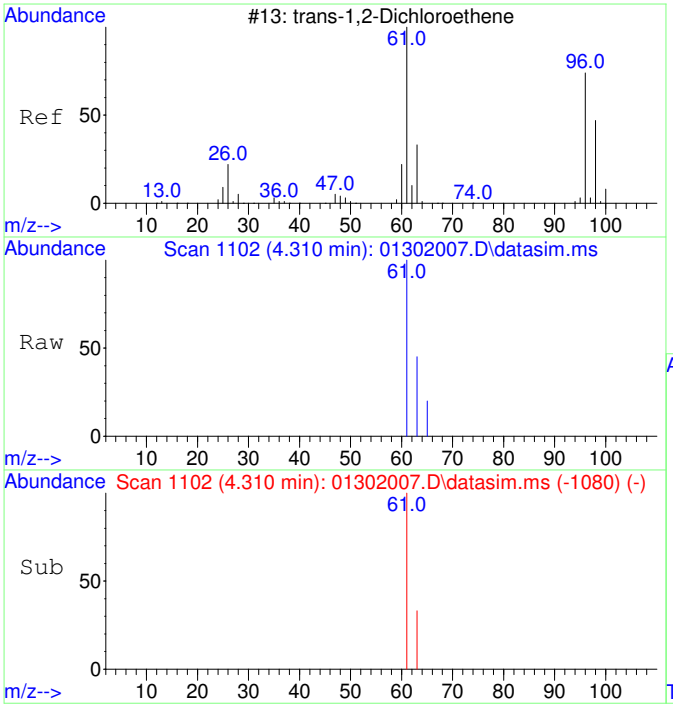


#2
1,1-Dichloroethene
Concen: 151.34 ug/L m
RT: 3.112 min Scan# 815
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 858

Ion	Ratio	Lower	Upper
61	100		
96	94.6	33.6	93.6#

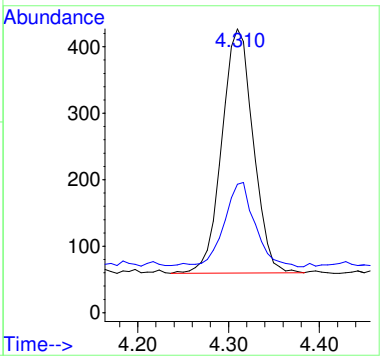


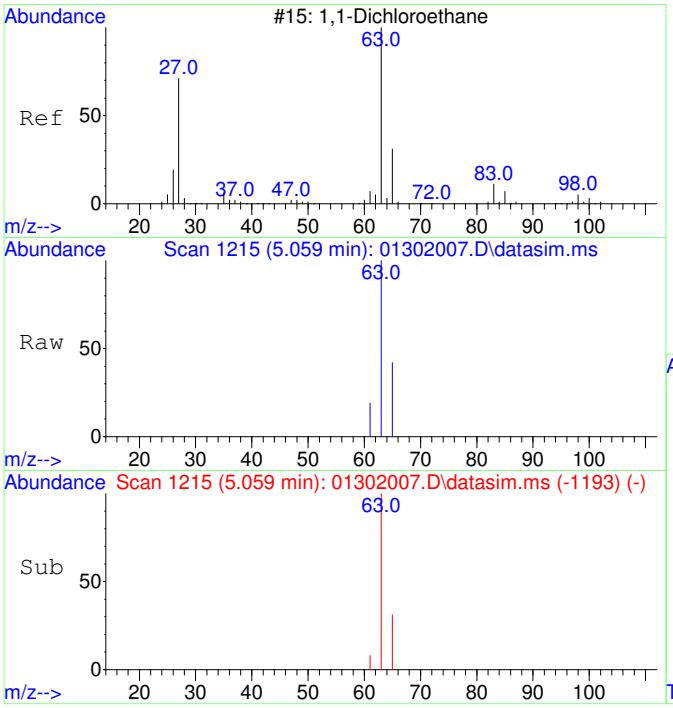


#3
trans-1,2-Dichloroethene
Concen: 158.50 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.007 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 884

Ion	Ratio	Lower	Upper
61	100		
63	34.3	2.3	62.3

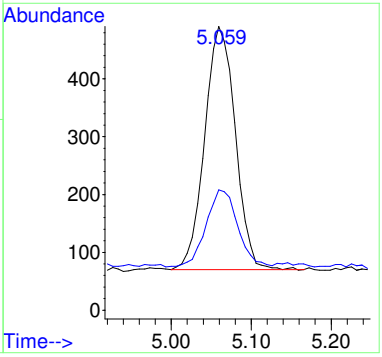


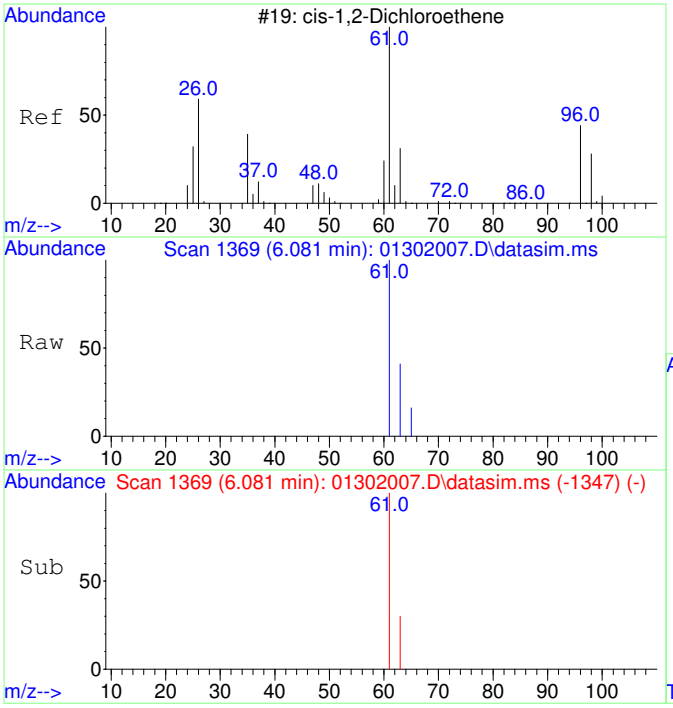


#4
1,1-Dichloroethane
Concen: 161.78 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 63 Resp: 1120

Ion	Ratio	Lower	Upper
63	100		
65	31.4	1.7	61.7

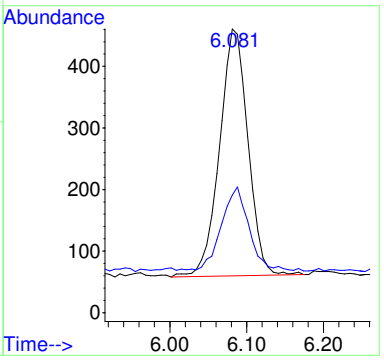


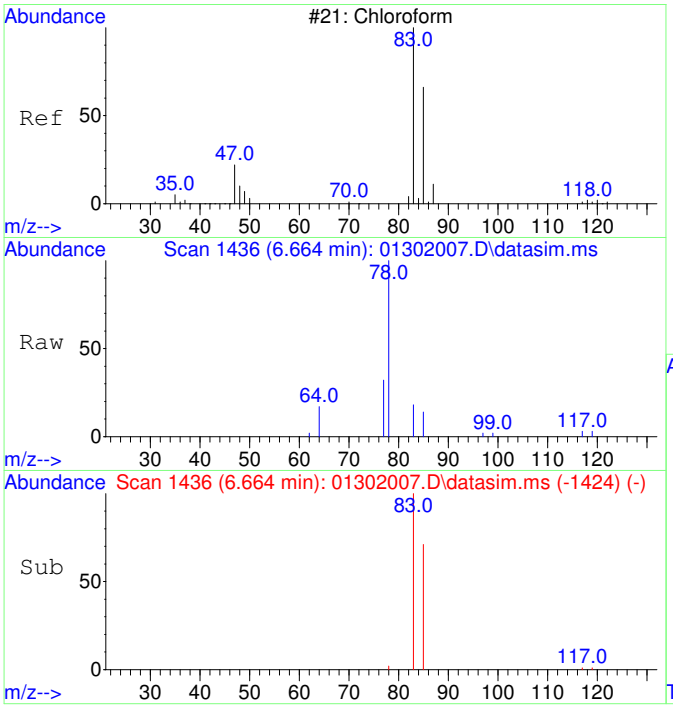


#5
cis-1,2-Dichloroethene
Concen: 160.42 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.007 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 1028

Ion	Ratio	Lower	Upper
61	100		
63	31.6	2.6	62.6

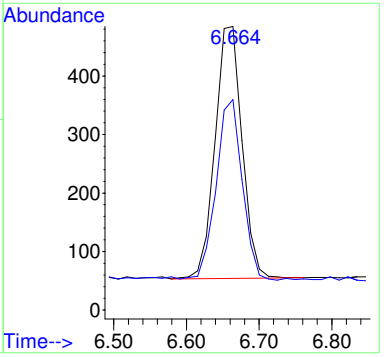


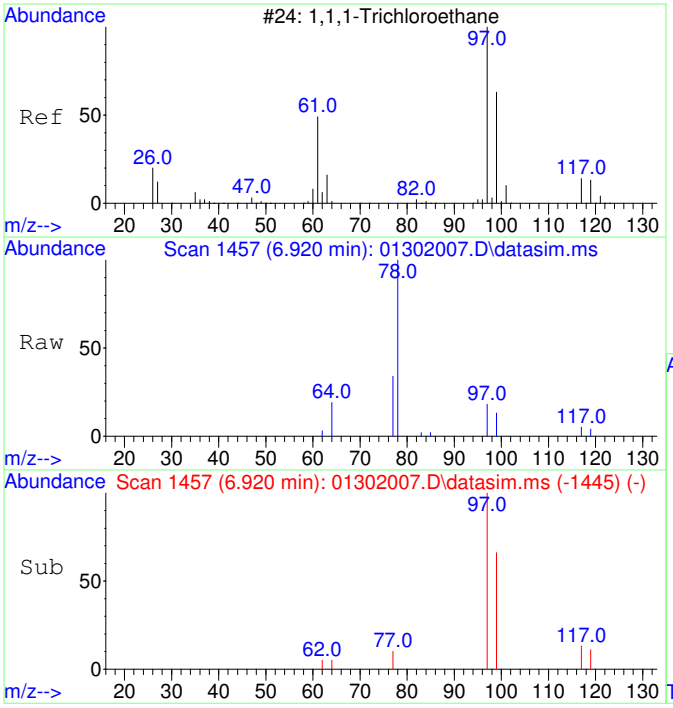


#6
Chloroform
Concen: 156.62 ug/L
RT: 6.664 min Scan# 1436
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1117

Ion	Ratio	Lower	Upper
83	100		
85	68.6	35.2	95.2

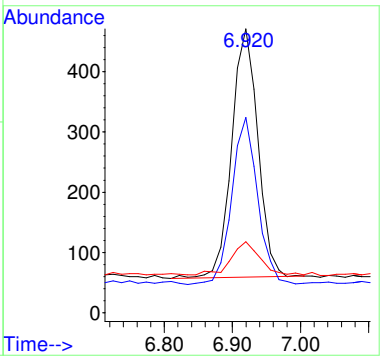


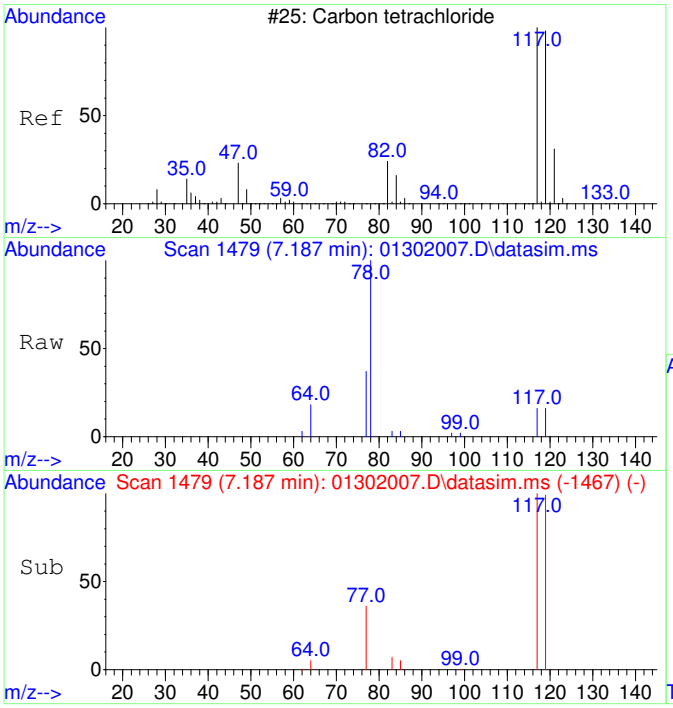


#7
1,1,1-Trichloroethane
Concen: 159.84 ug/L
RT: 6.920 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 1093

Ion	Ratio	Lower	Upper
97	100		
99	65.8	34.6	94.6
117	14.4	0.0	42.9

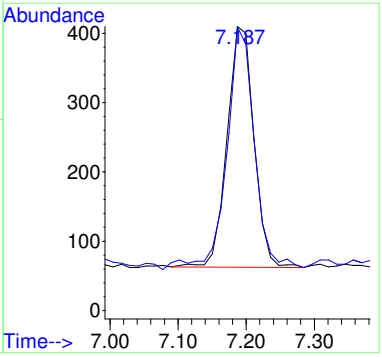


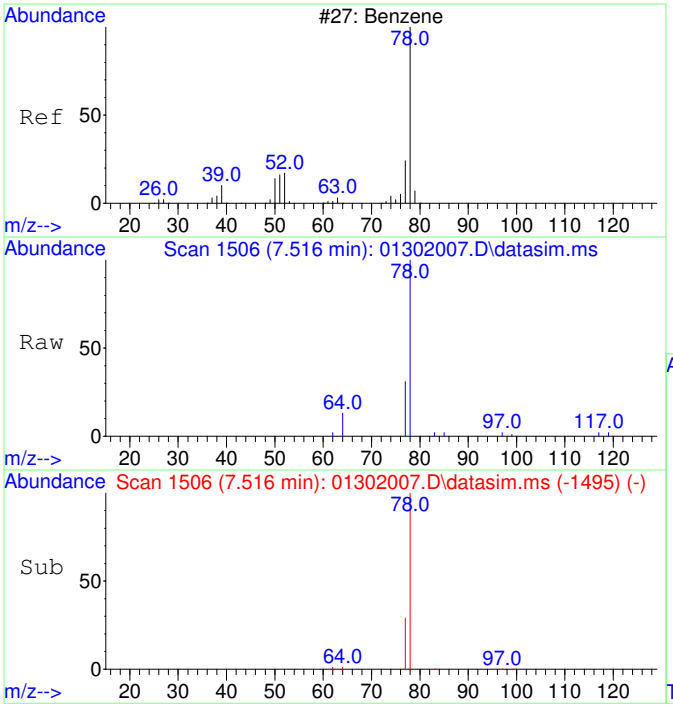


#8
Carbon tetrachloride
Concen: 155.88 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:117 Resp: 946

Ion	Ratio	Lower	Upper
117	100		
119	100.4	65.2	125.2

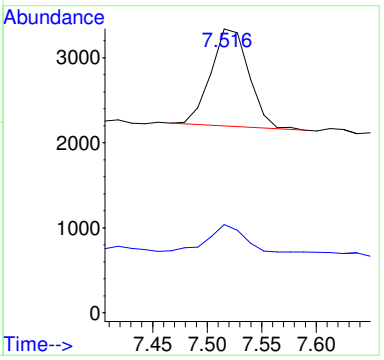


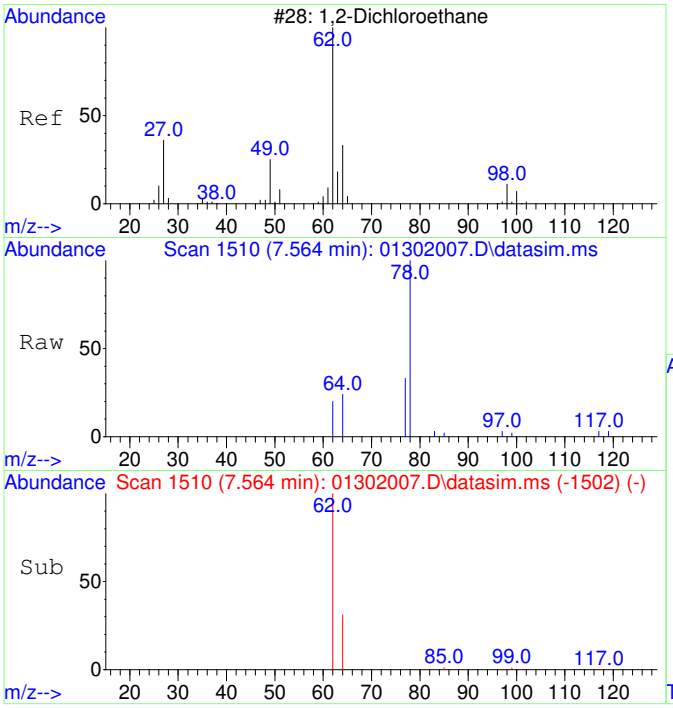


#9
Benzene
Concen: 157.07 ug/L
RT: 7.516 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 78 Resp: 2756

Ion	Ratio	Lower	Upper
78	100		
77	31.8	0.0	53.4

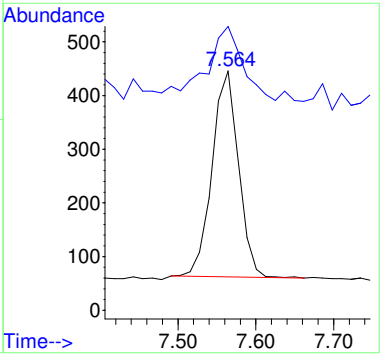


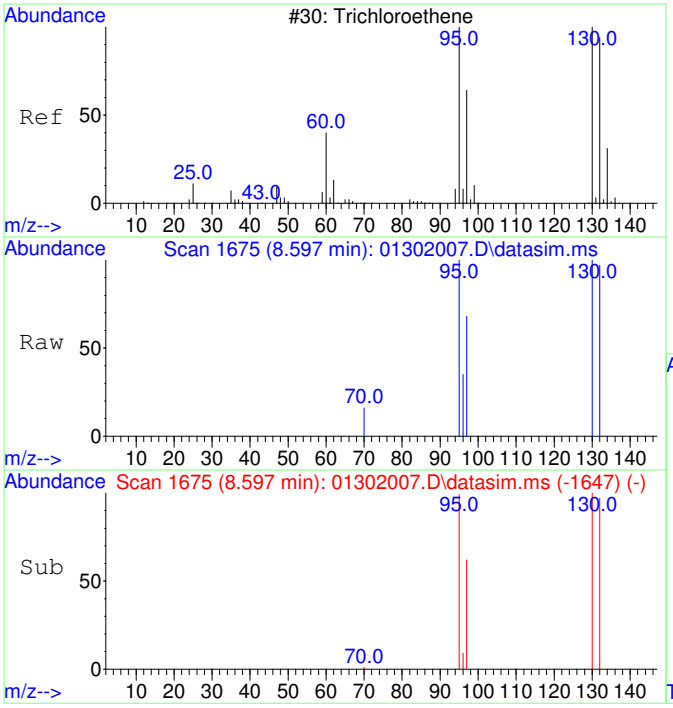


#10
1,2-Dichloroethane
Concen: 158.61 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 62 Resp: 899

Ion	Ratio	Lower	Upper
62	100		
64	46.3	3.4	63.4

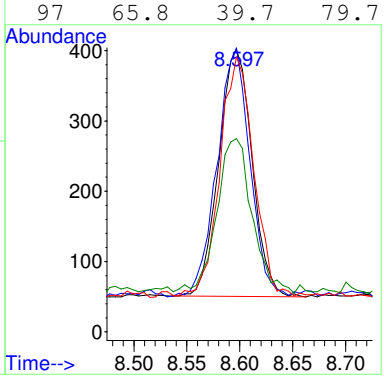


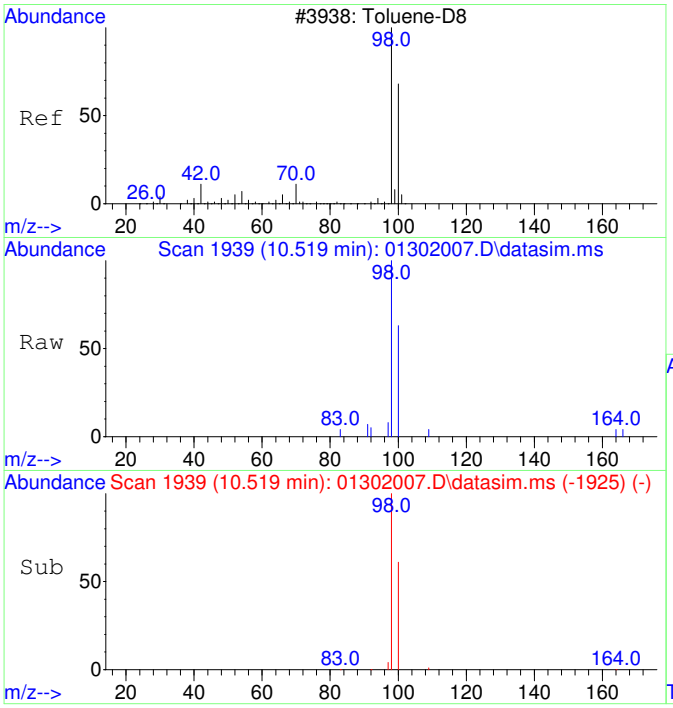


#11
Trichloroethene
Concen: 152.64 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:130 Resp: 767

Ion	Ratio	Lower	Upper
130	100		
95	99.1	63.0	123.0
132	96.2	75.5	115.5
97	65.8	39.7	79.7

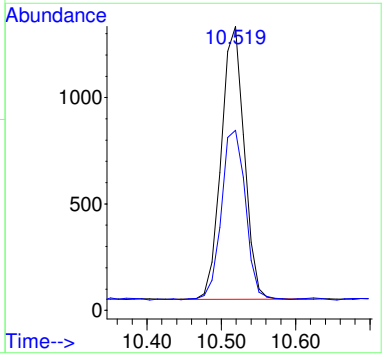


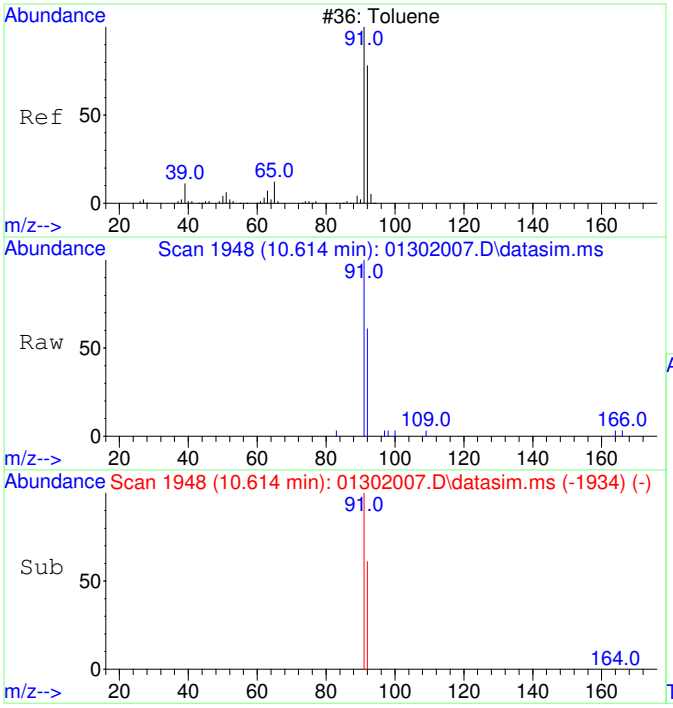


#12
Toluene-d8
Concen: 154.11 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 98 Resp: 2748

Ion	Ratio	Lower	Upper
98	100		
100	65.3	37.0	97.0

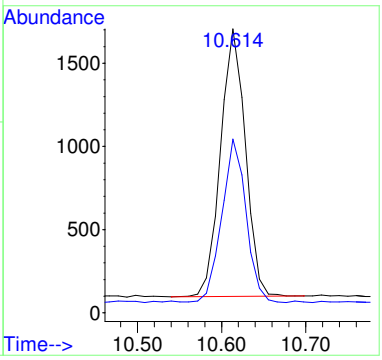


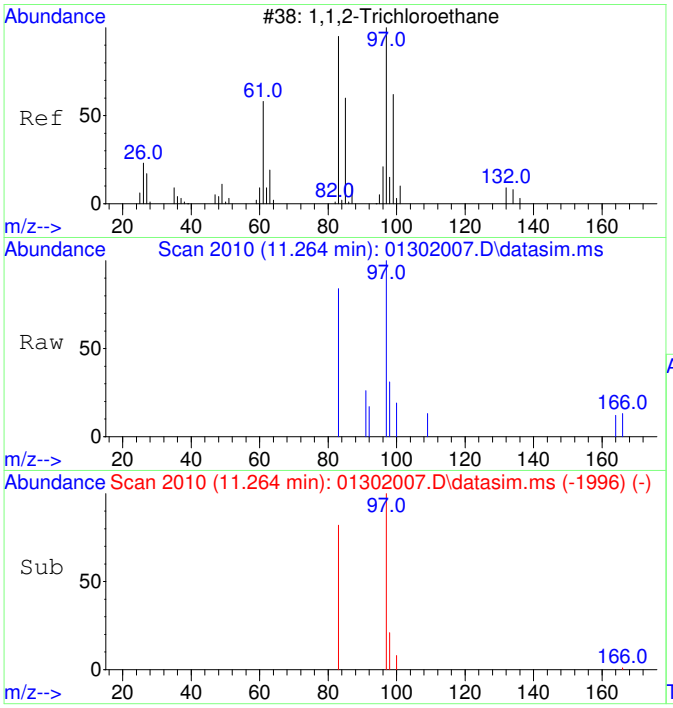


#13
Toluene
Concen: 155.99 ug/L
RT: 10.614 min Scan# 1948
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3301

Ion	Ratio	Lower	Upper
91	100		
92	59.1	29.6	89.6

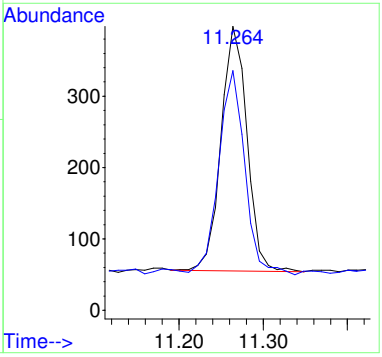


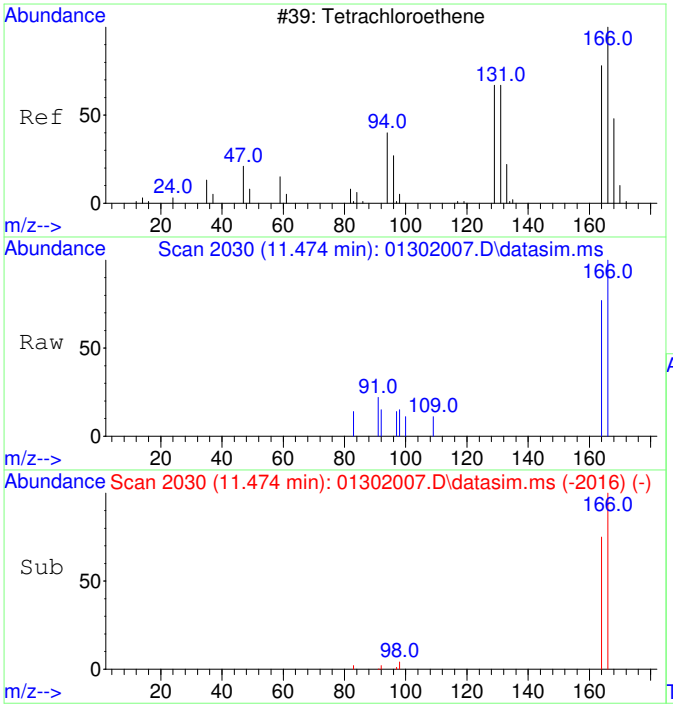


#14
1,1,2-Trichloroethane
Concen: 156.29 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 735

Ion	Ratio	Lower	Upper
97	100		
83	84.1	51.2	111.2

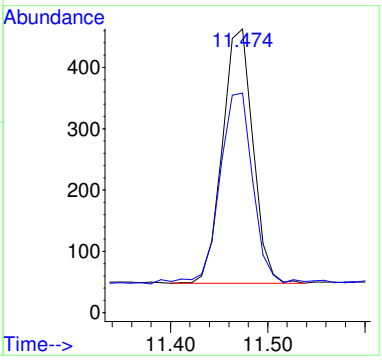


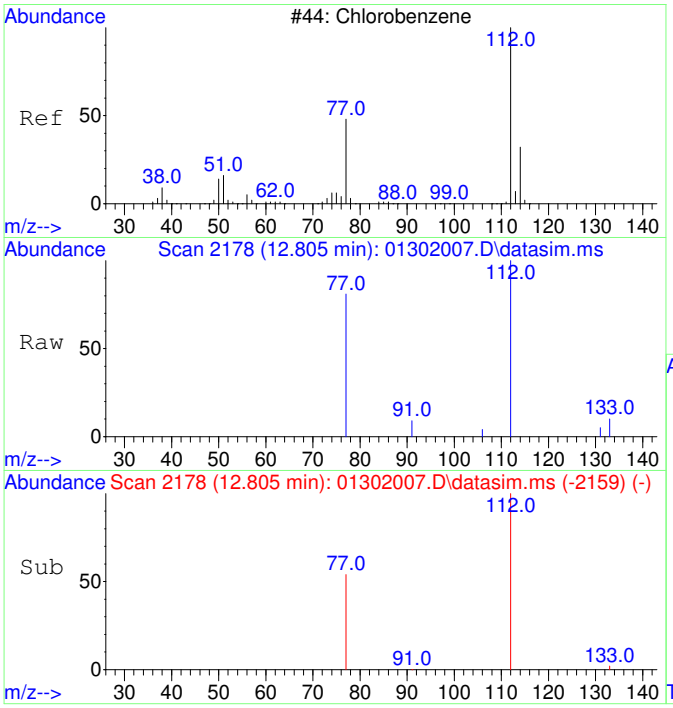


#15
Tetrachloroethene
Concen: 151.79 ug/L
RT: 11.474 min Scan# 2030
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:166 Resp: 905

Ion	Ratio	Lower	Upper
166	100		
164	79.7	48.6	108.6

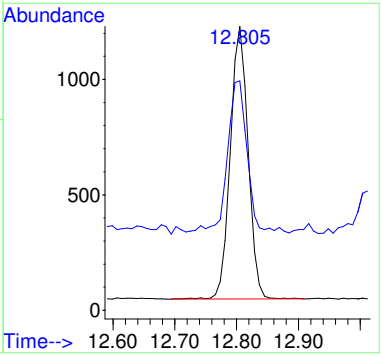


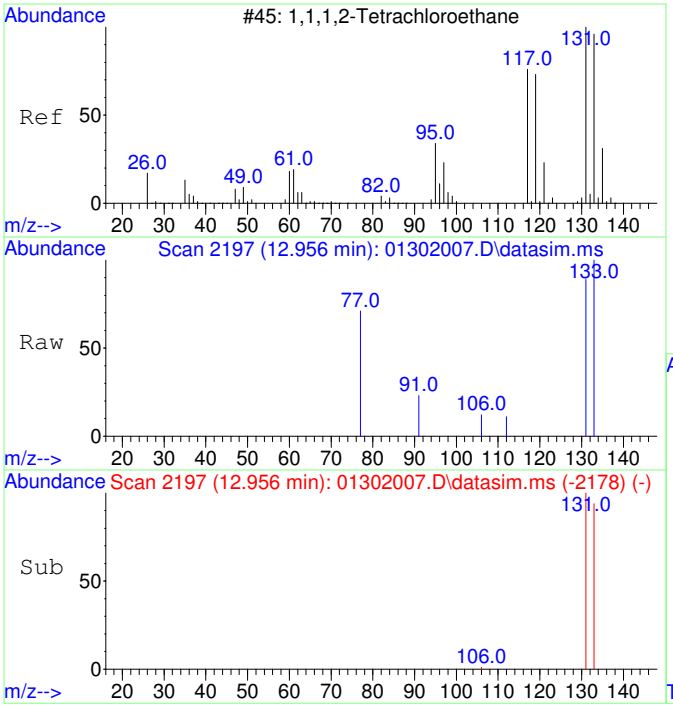


#16
Chlorobenzene
Concen: 153.42 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:112 Resp: 2354

Ion	Ratio	Lower	Upper
112	100		
77	61.4	25.2	85.2

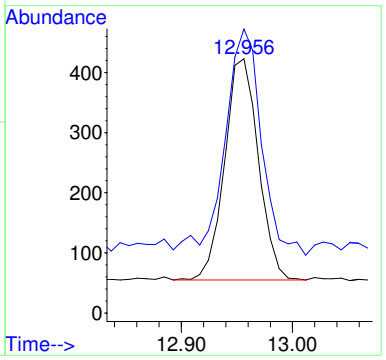


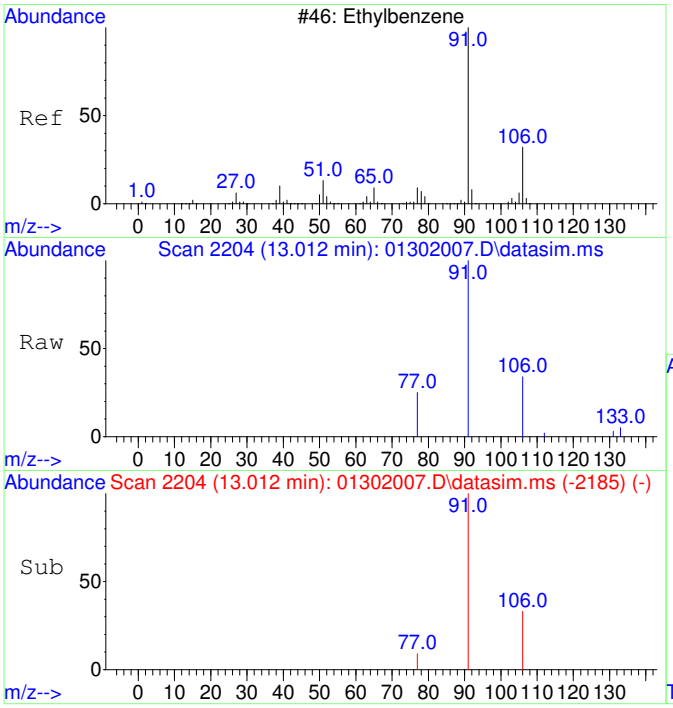


#17
1,1,1,2-Tetrachloroethane
Concen: 150.34 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:131 Resp: 775

Ion	Ratio	Lower	Upper
131	100		
133	111.0	65.5	125.5

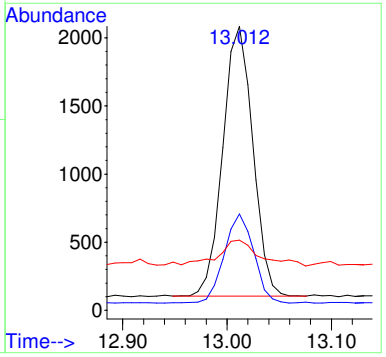


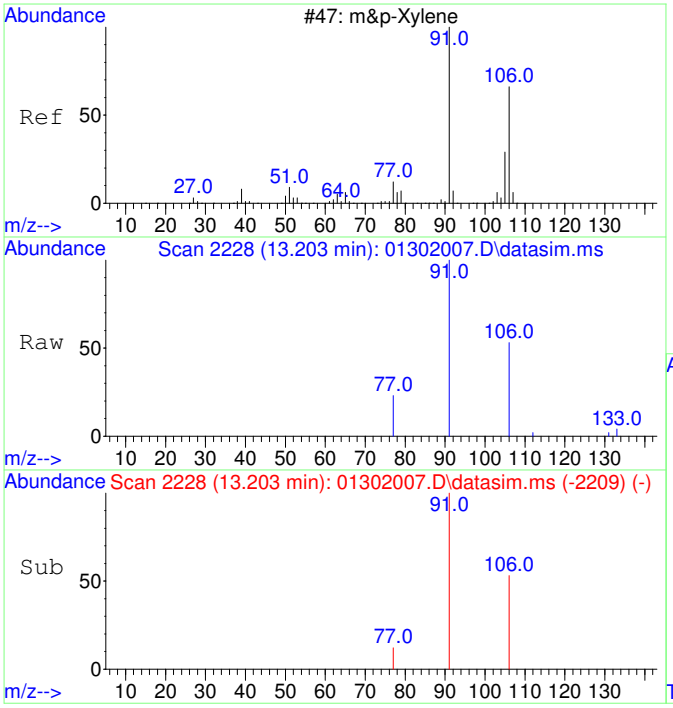


#18
Ethylbenzene
Concen: 159.91 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3957

Ion	Ratio	Lower	Upper
91	100		
106	32.0	2.7	62.7
77	13.5	0.0	38.3

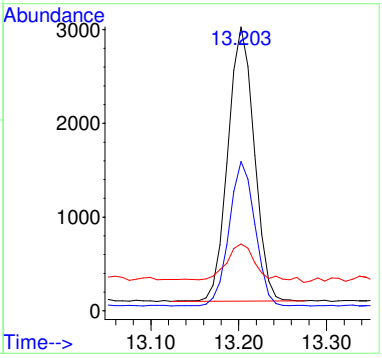


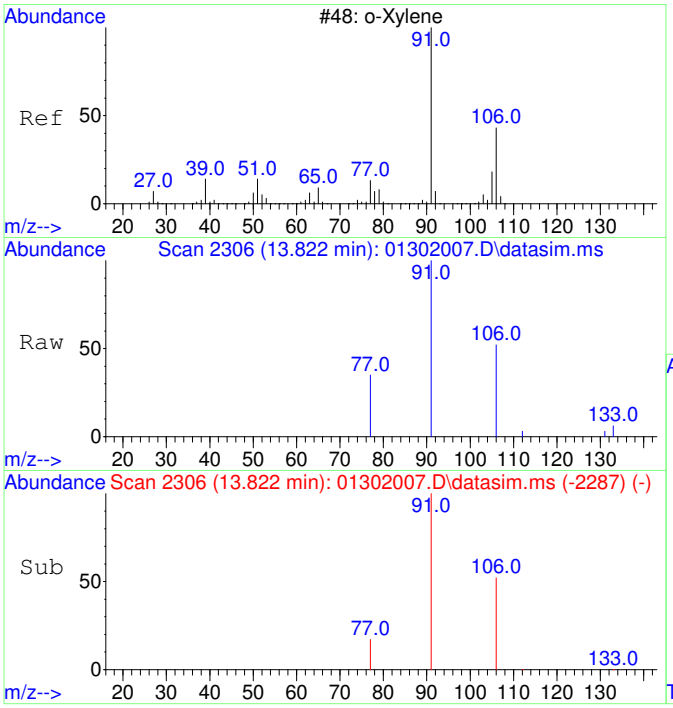


#19
m&p-Xylene
Concen: 322.50 ug/L
RT: 13.203 min Scan# 2228
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 6066

Ion	Ratio	Lower	Upper
91	100		
106	51.8	21.6	81.6
77	16.9	0.0	42.5

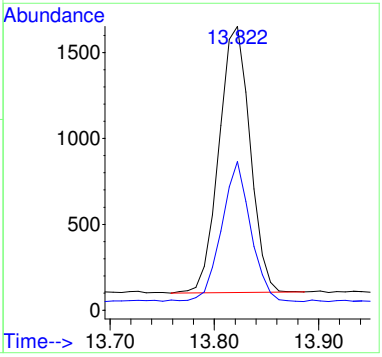


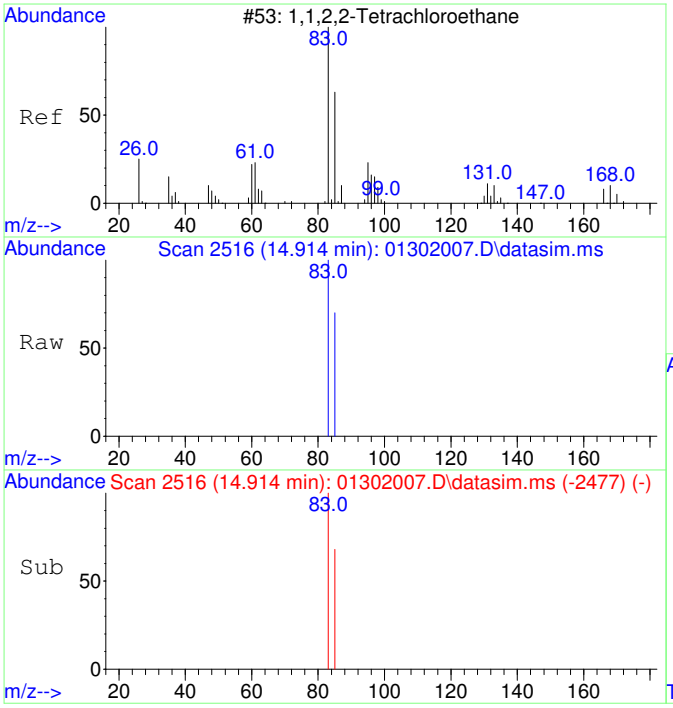


#20
o-Xylene
Concen: 159.58 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3201

Ion	Ratio	Lower	Upper
91	100		
106	49.1	18.6	78.6

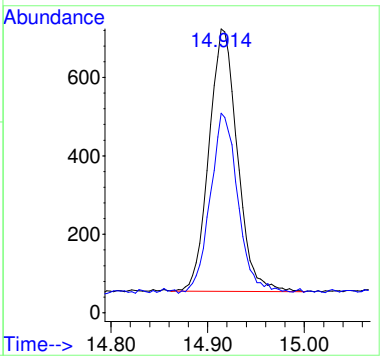


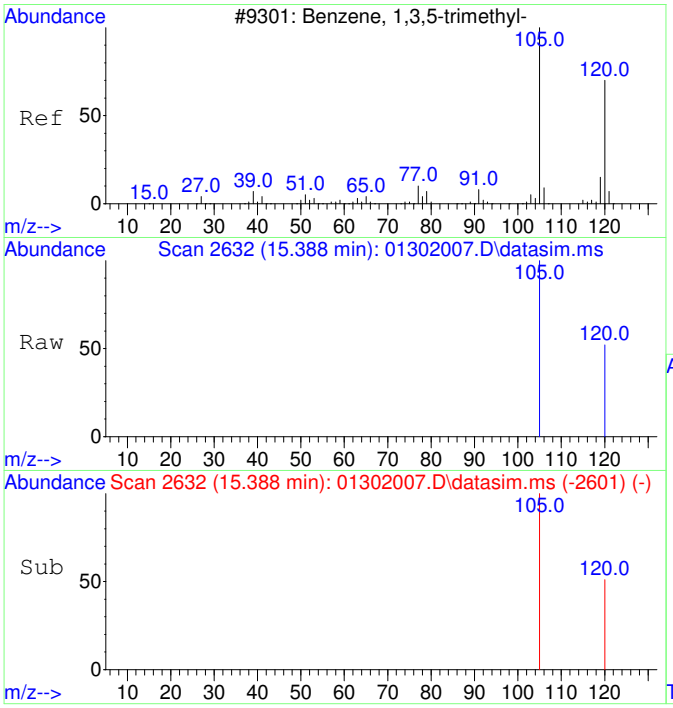


#21
1,1,2,2-Tetrachloroethane
Concen: 155.59 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1367

Ion	Ratio	Lower	Upper
83	100		
85	66.5	34.7	94.7

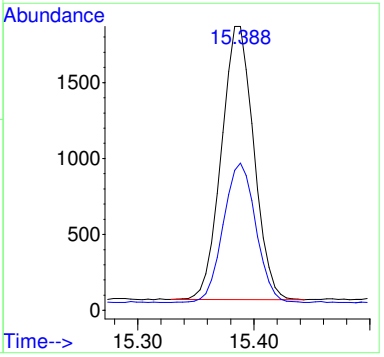


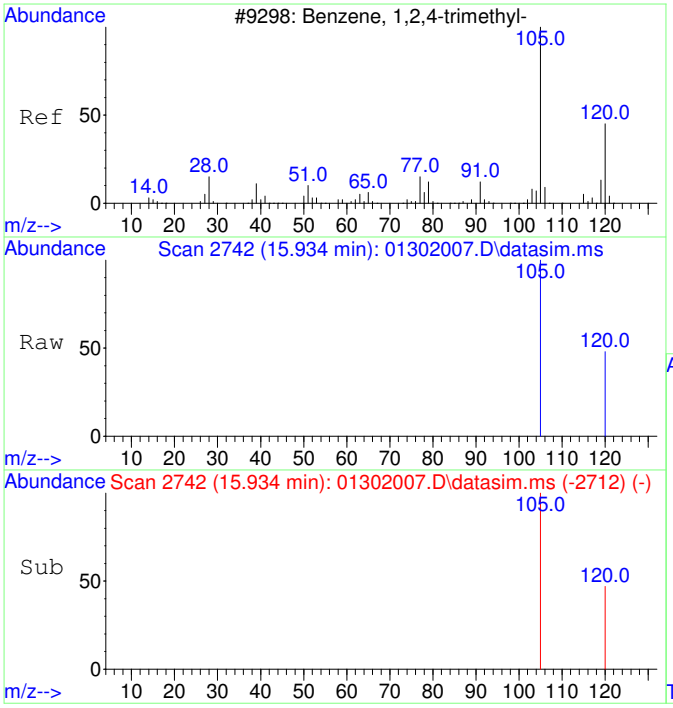


#22
1,3,5-Trimethylbenzene
Concen: 161.11 ug/L
RT: 15.388 min Scan# 2632
Delta R.T. 0.005 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 3487

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

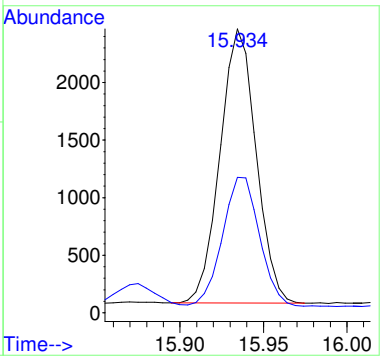


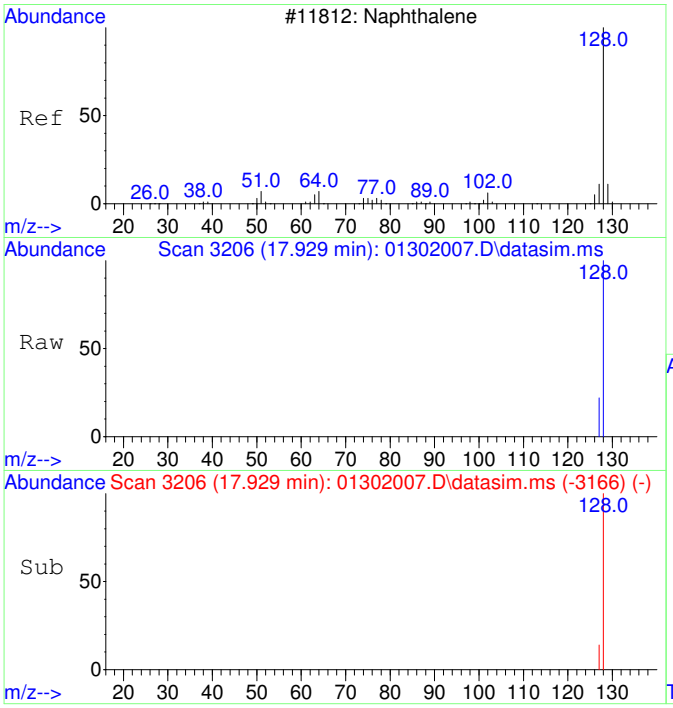


#23
1,2,4-Trimethylbenzene
Concen: 163.04 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 3570

Ion	Ratio	Lower	Upper
105	100		
120	47.7	17.2	77.2

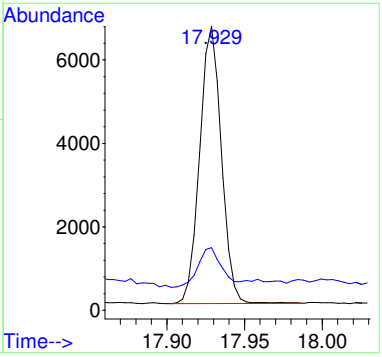


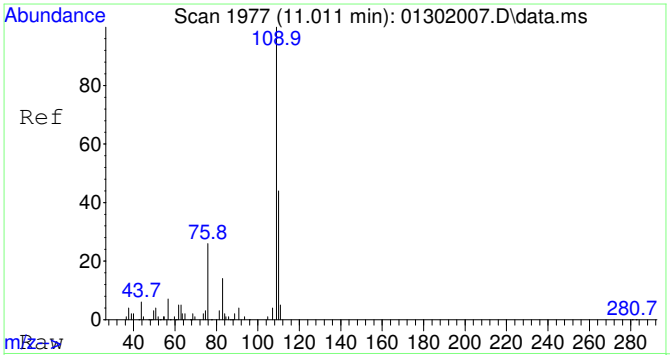


#24
Naphthalene
Concen: 172.25 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:128 Resp: 6467

Ion	Ratio	Lower	Upper
128	100		
127	16.4	0.0	42.7

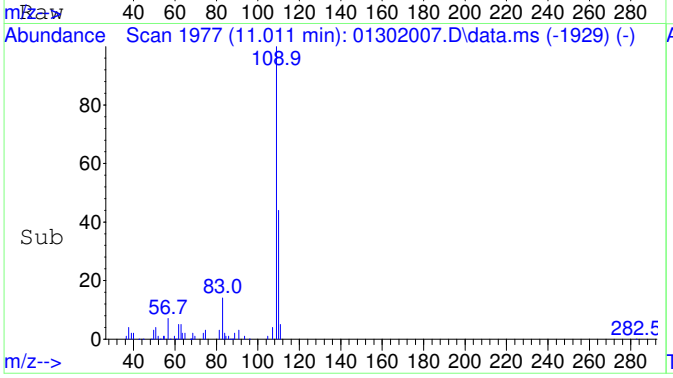


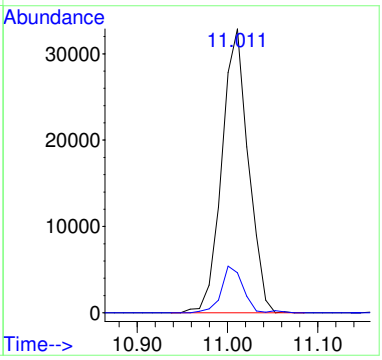


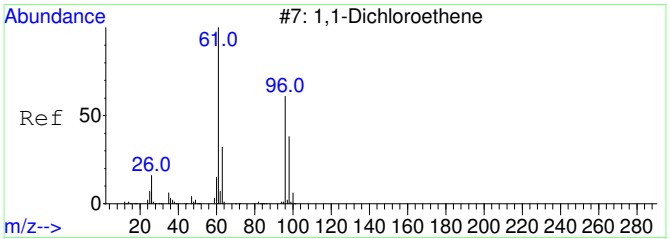
#25
2-Fluorotoluene SCAN
Concen: 4824.60 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:109 Resp: 67306

Ion	Ratio	Lower	Upper
109	100		
83	13.8	0.0	43.3



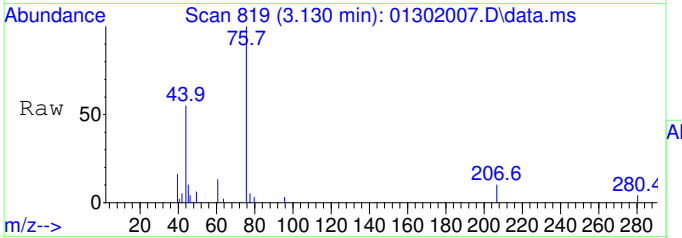


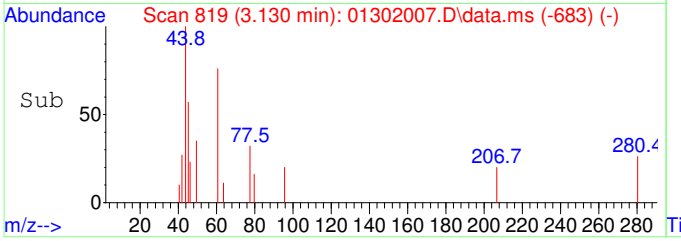


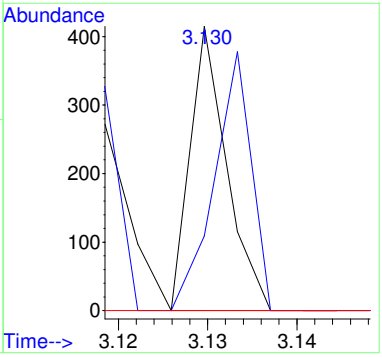
#26
1,1-Dichloroethene SCAN
Concen: 29.27 ug/L
RT: 3.130 min Scan# 819
Delta R.T. 0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

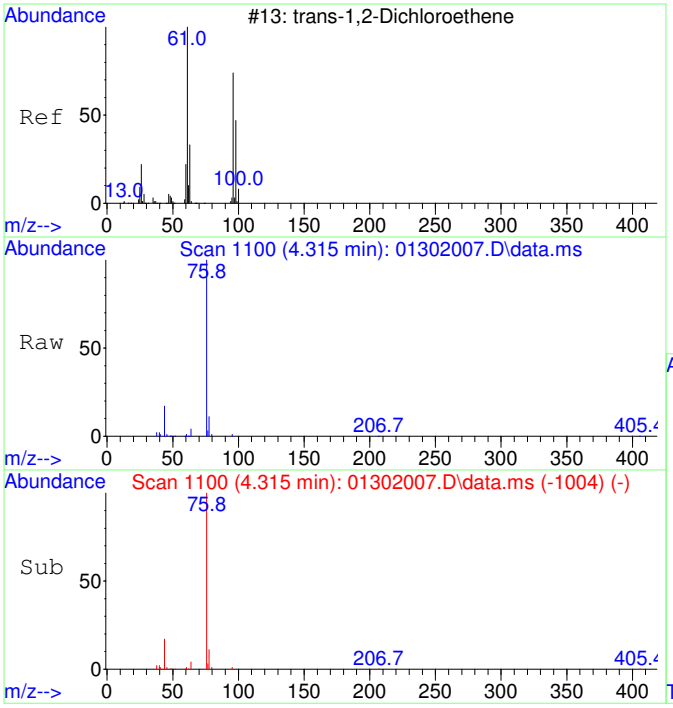
Tgt Ion: 61 Resp: 118

Ion	Ratio	Lower	Upper
61	100		
96	91.5	37.0	97.0
98	0.0	9.0	69.0#





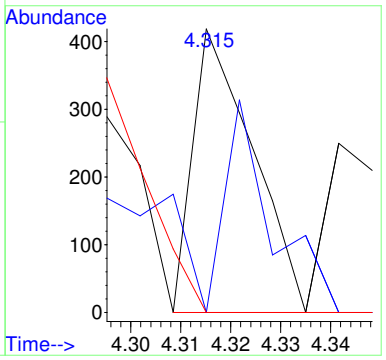


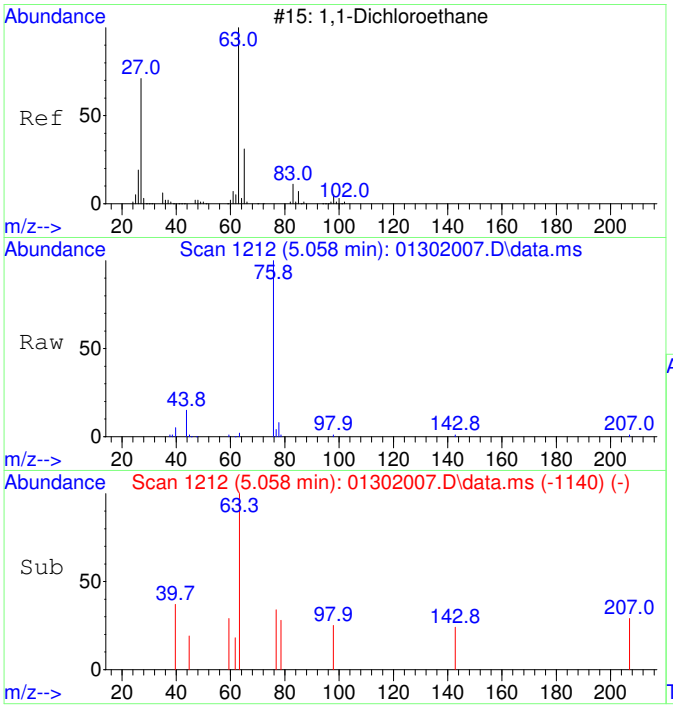


#27
trans-1,2-Dichloroethene SCAN
Concen: 94.36 ug/L
RT: 4.315 min Scan# 1100
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 350

Ion	Ratio	Lower	Upper
61	100		
96	58.3	48.2	108.2
98	0.0	17.7	77.7#

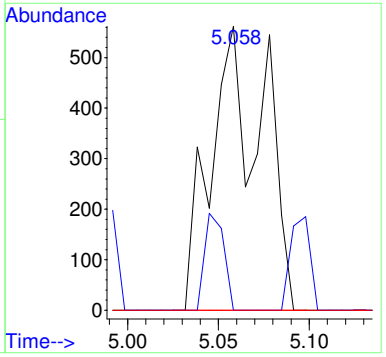


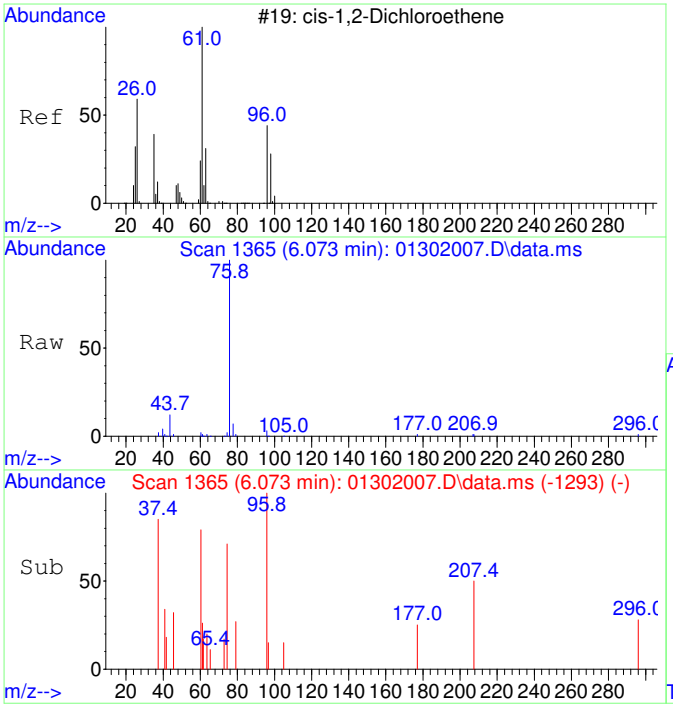


#28
1,1-Dichloroethane SCAN
Concen: 230.03 ug/L
RT: 5.058 min Scan# 1212
Delta R.T. -0.020 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 63 Resp: 1123

Ion	Ratio	Lower	Upper
63	100		
65	12.6	5.7	65.7
83	0.0	0.0	41.0

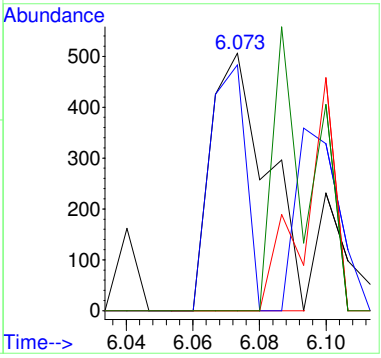


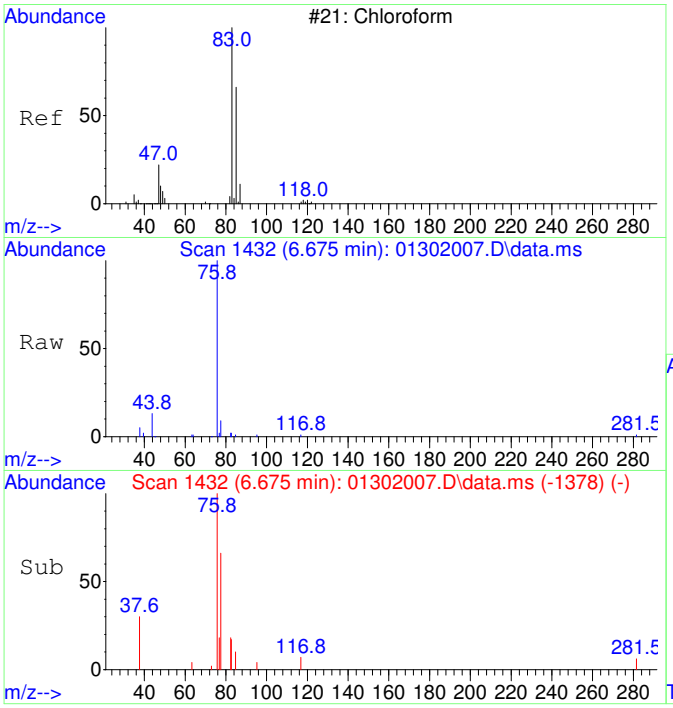


#29
cis-1,2-Dichloroethene SCAN
Concen: 131.17 ug/L
RT: 6.073 min Scan# 1365
Delta R.T. -0.020 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 61 Resp: 591

Ion	Ratio	Lower	Upper
61	100		
96	61.3	32.3	92.3
98	0.0	18.9	78.9#
63	0.0	7.7	67.7#

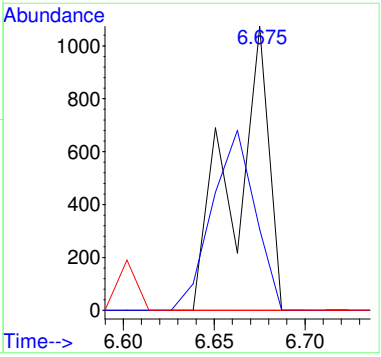


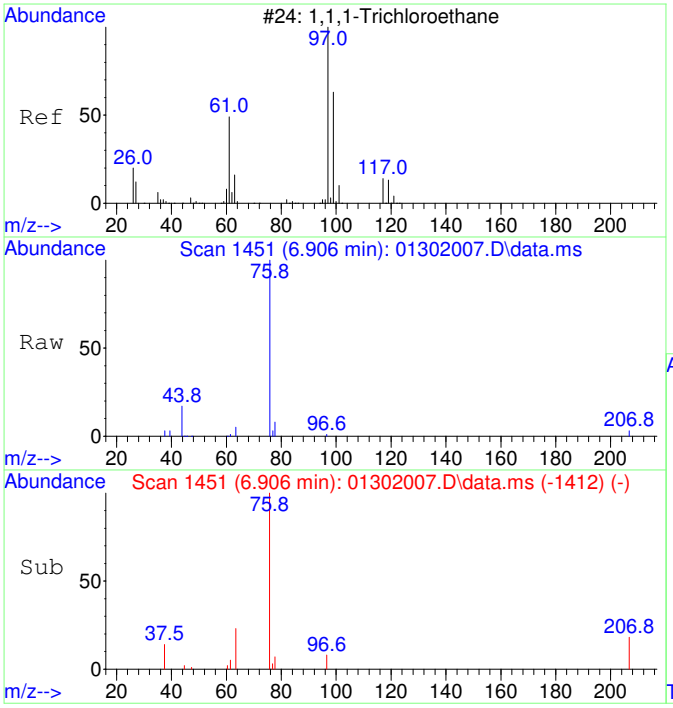


#30
Chloroform SCAN
Concen: 267.93 ug/L
RT: 6.675 min Scan# 1432
Delta R.T. 0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1446

Ion	Ratio	Lower	Upper
83	100		
85	77.5	20.9	80.9
47	0.0	0.0	50.1

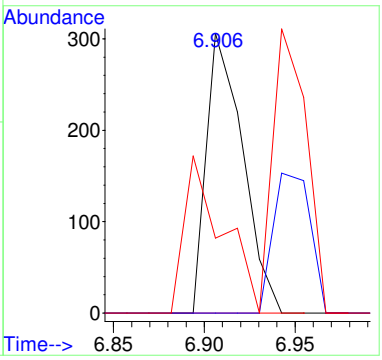


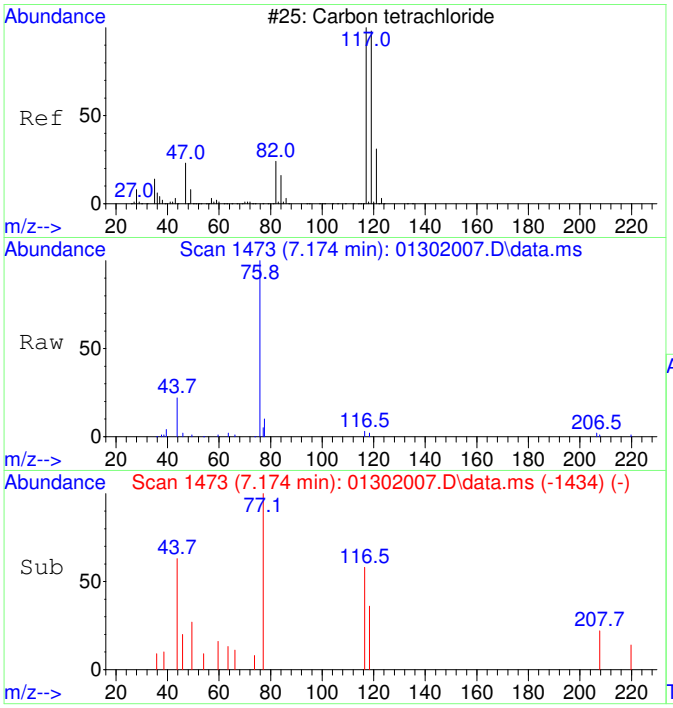


#31
1,1,1-Trichloroethane SCAN
Concen: 92.37 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.024 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 427

Ion	Ratio	Lower	Upper
97	100		
99	0.0	28.2	88.2#
61	59.3	11.1	71.1

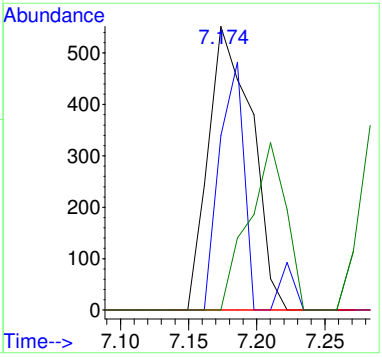


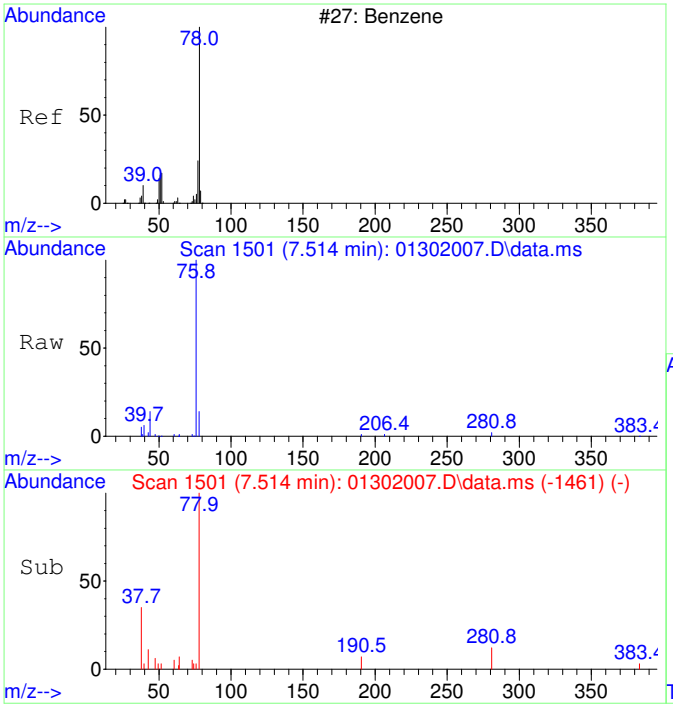


#32
Carbon tetrachloride SCAN
Concen: 278.68 ug/L
RT: 7.174 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:117 Resp: 1228

Ion	Ratio	Lower	Upper
117	100		
119	48.8	55.7	115.7#
121	0.0	0.0	59.0
82	0.0	0.0	56.4

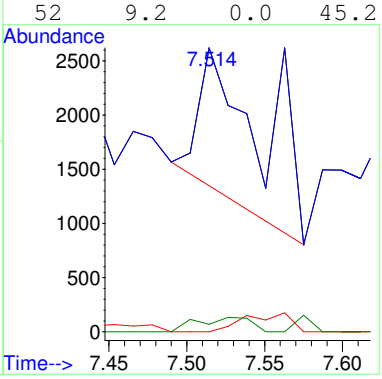


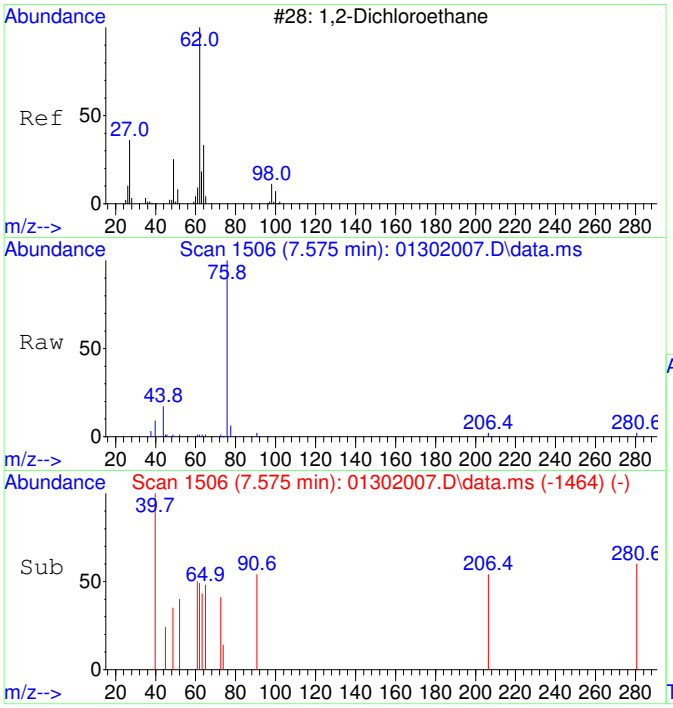


#33
Benzene SCAN
Concen: 275.40 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 78 Resp: 3523

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	50.6
52	9.2	0.0	45.2

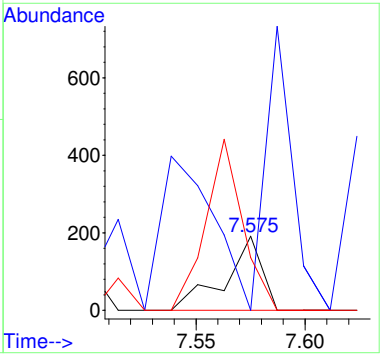


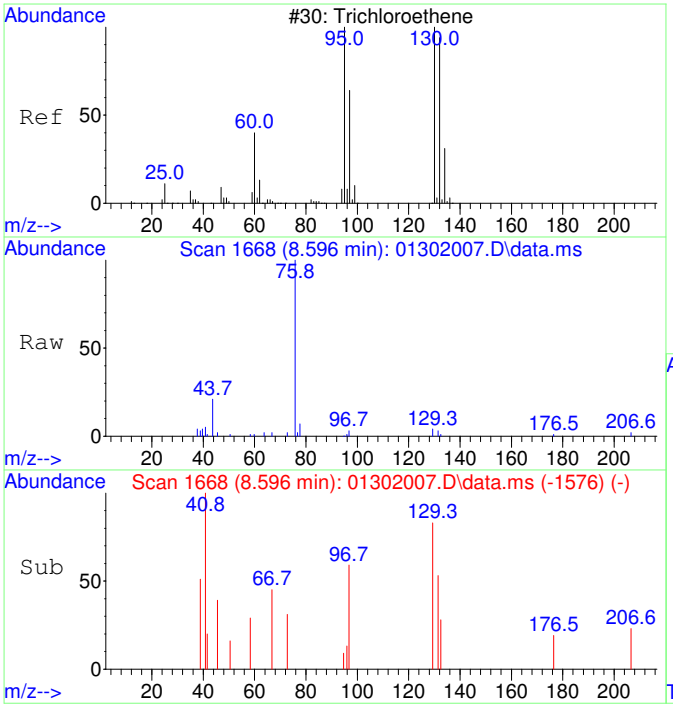


#34
1,2-Dichloroethane SCAN
Concen: 55.58 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.012 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 62 Resp: 225

Ion	Ratio	Lower	Upper
62	100		
64	274.7	9.1	69.1#
49	0.0	6.2	66.2#

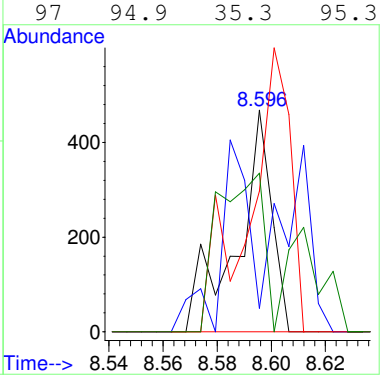


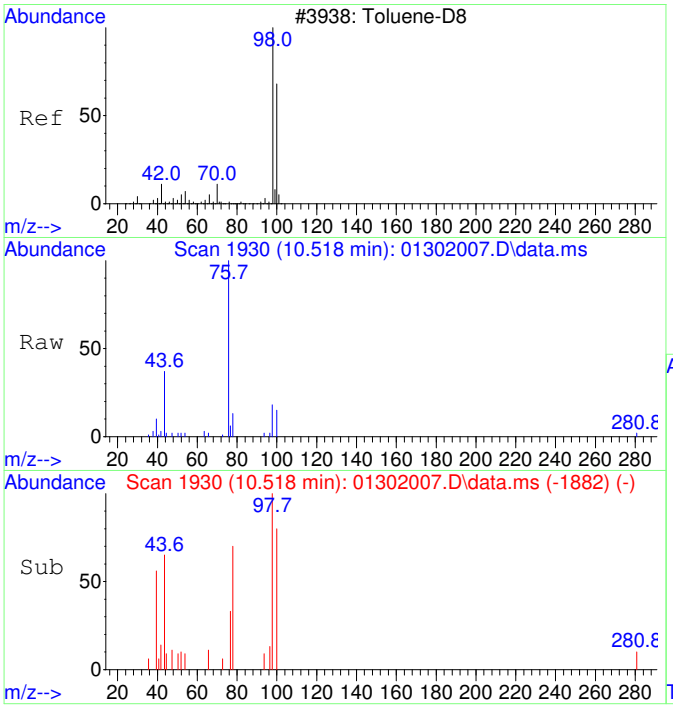


#35
Trichloroethene SCAN
Concen: 125.55 ug/L
RT: 8.596 min Scan# 1668
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:130 Resp: 415

Ion	Ratio	Lower	Upper
130	100		
95	61.4	69.4	129.4#
132	152.3	77.2	137.2#
97	94.9	35.3	95.3

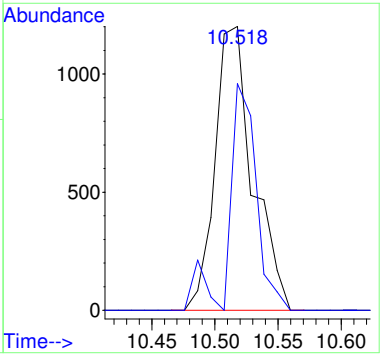


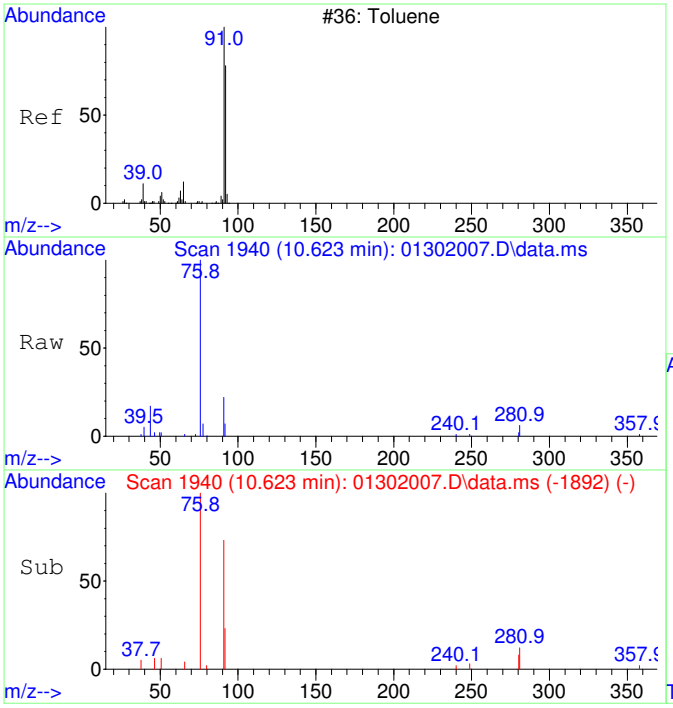


#36
Toluene-d8 SCAN
Concen: 213.49 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 98 Resp: 2501

Ion	Ratio	Lower	Upper
98	100		
100	57.5	36.6	96.6

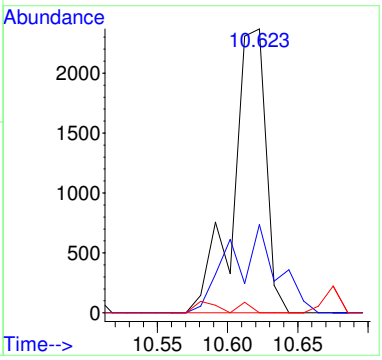


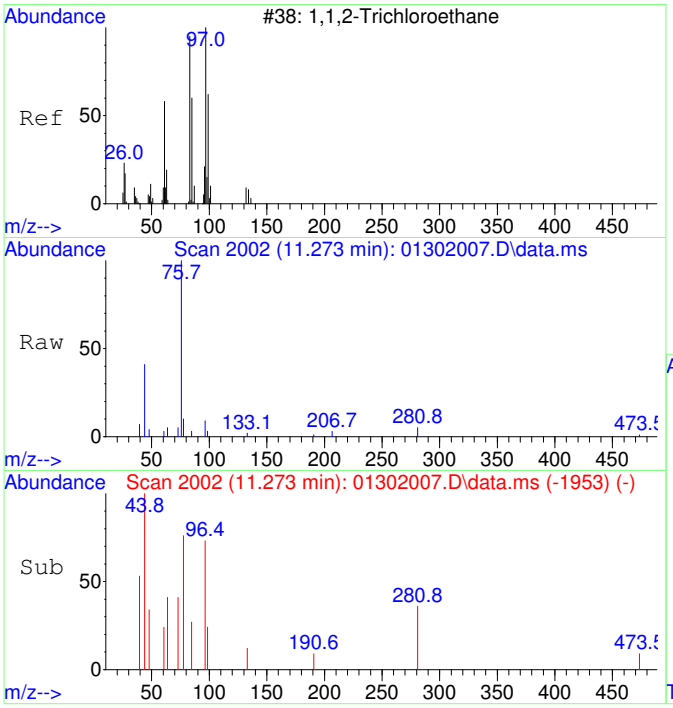


#37
Toluene SCAN
Concen: 272.05 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 3865

Ion	Ratio	Lower	Upper
91	100		
92	0.0	26.1	86.1#
65	0.0	0.0	42.0

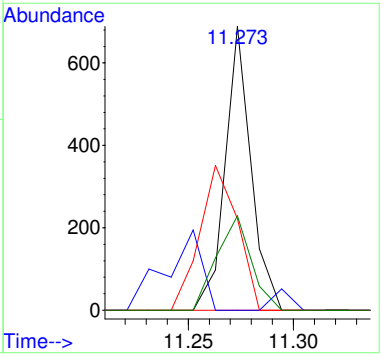


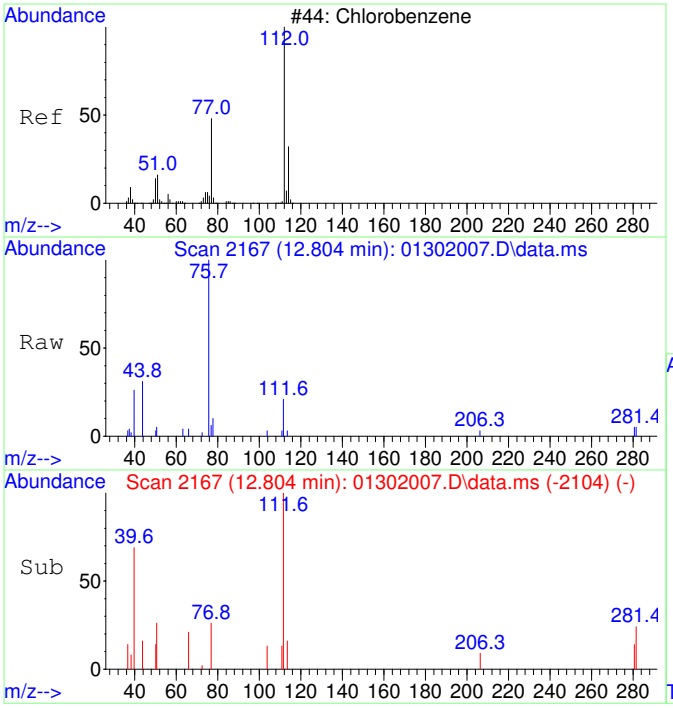


#38
1,1,2-Trichloroethane SCAN
Concen: 177.69 ug/L
RT: 11.273 min Scan# 2002
Delta R.T. 0.011 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 97 Resp: 589

Ion	Ratio	Lower	Upper
97	100		
83	0.0	44.4	104.4#
61	0.0	32.3	92.3#
99	44.3	32.1	92.1

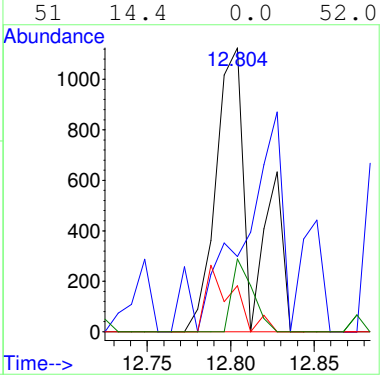


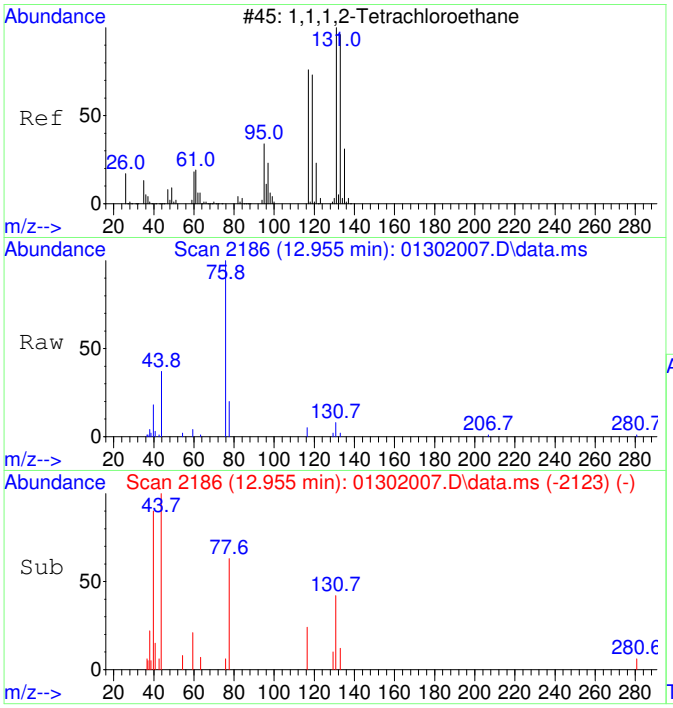


#40
Chlorobenzene SCAN
Concen: 174.85 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:112 Resp: 1731

Ion	Ratio	Lower	Upper
112	100		
77	0.0	33.8	93.8#
114	17.4	1.3	61.3
51	14.4	0.0	52.0

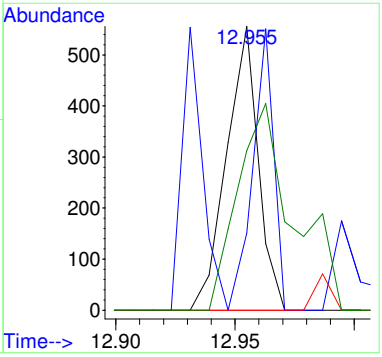


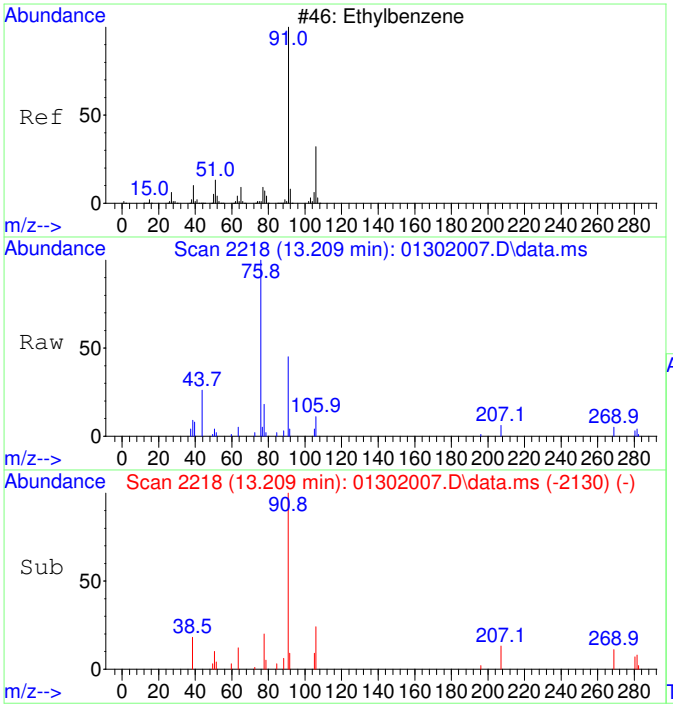


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 144.04 ug/L
RT: 12.955 min Scan# 2186
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:131 Resp: 516

Ion	Ratio	Lower	Upper
131	100		
133	64.9	60.9	120.9
119	0.0	32.7	92.7#
117	127.7	32.2	92.2#

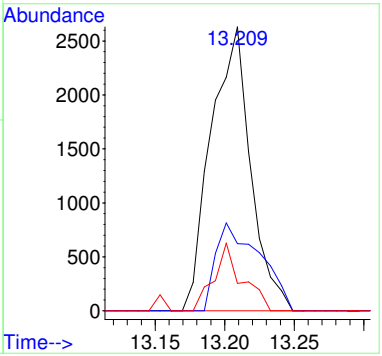


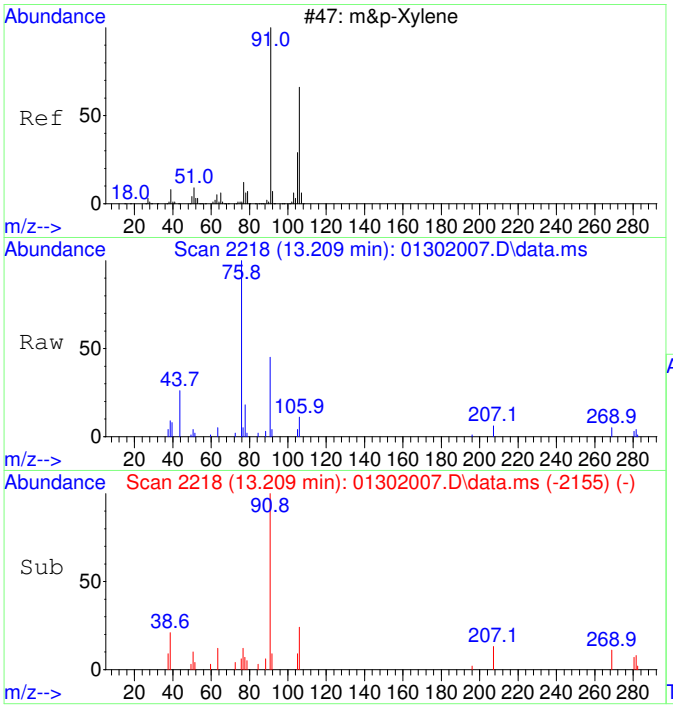


#42
Ethylbenzene SCAN
Concen: 323.14 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.199 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 5214

Ion	Ratio	Lower	Upper
91	100		
106	34.5	1.4	61.4
51	16.9	0.0	40.4

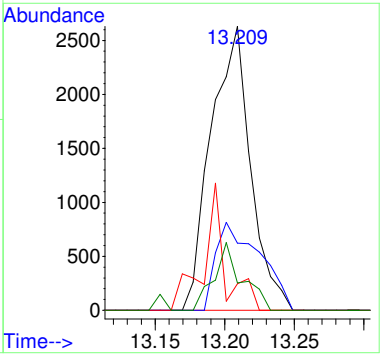


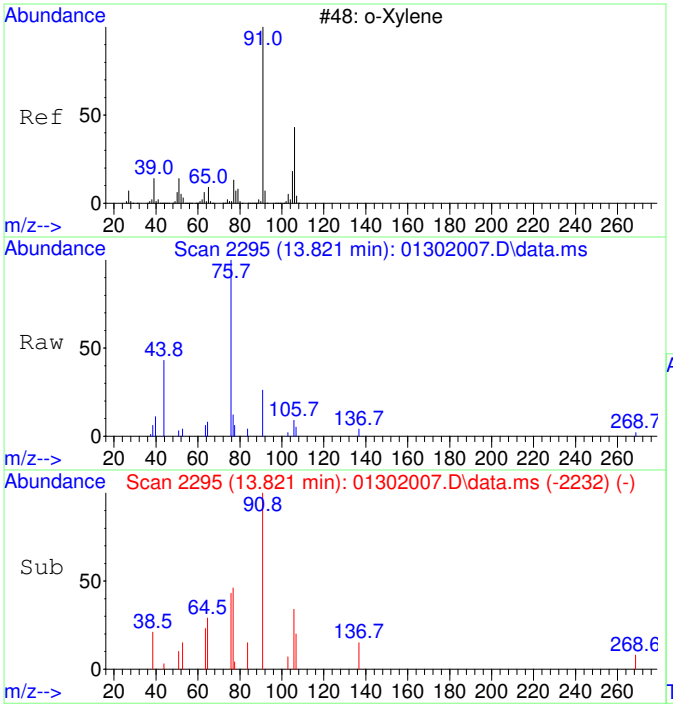


#43
m&p-Xylene SCAN
Concen: 221.62 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 5214

Ion	Ratio	Lower	Upper
91	100		
106	34.5	20.4	80.4
105	24.5	0.0	52.6
51	16.9	0.0	40.8

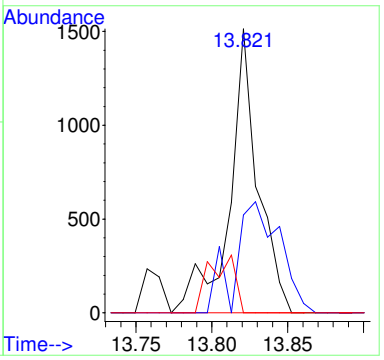


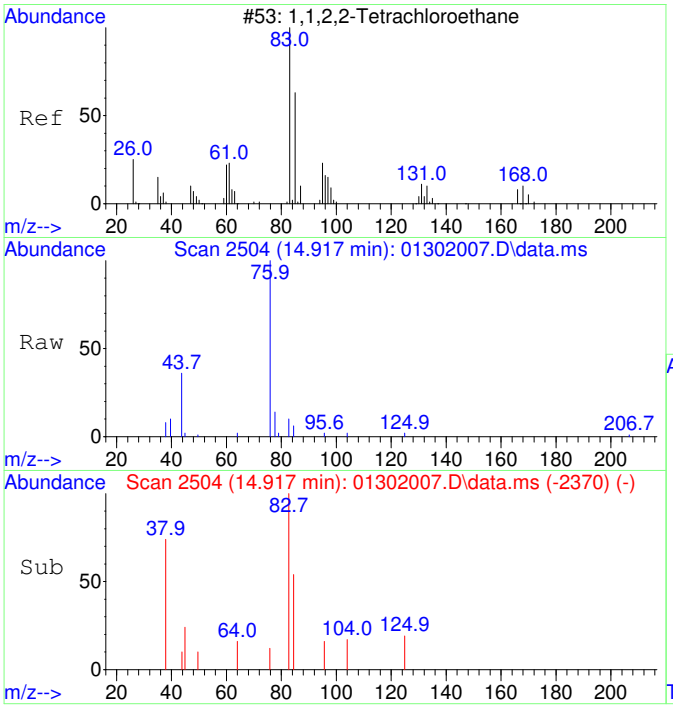


#44
o-Xylene SCAN
Concen: 156.22 ug/L
RT: 13.821 min Scan# 2295
Delta R.T. 0.000 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 91 Resp: 1965

Ion	Ratio	Lower	Upper
91	100		
106	62.2	18.3	78.3
105	18.7	0.0	51.8

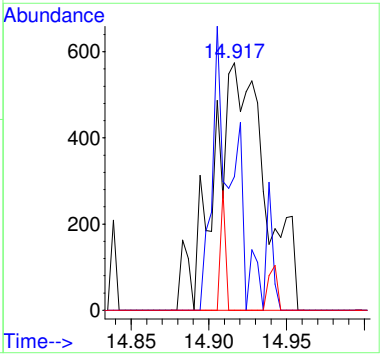


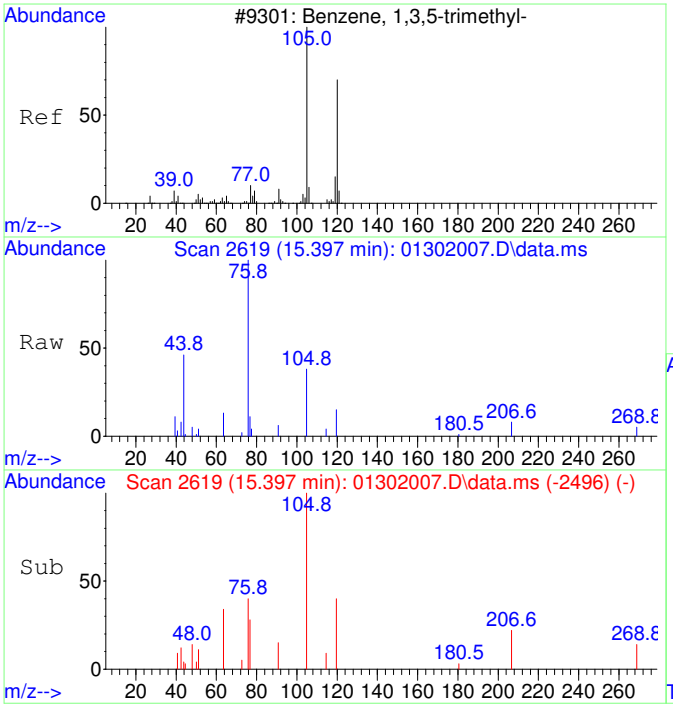


#45
1,1,2,2-Tetrachloroethane SCAN
Concen: 223.84 ug/L
RT: 14.917 min Scan# 2504
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion: 83 Resp: 1342

Ion	Ratio	Lower	Upper
83	100		
85	43.9	37.5	97.5
95	4.6	0.0	36.2

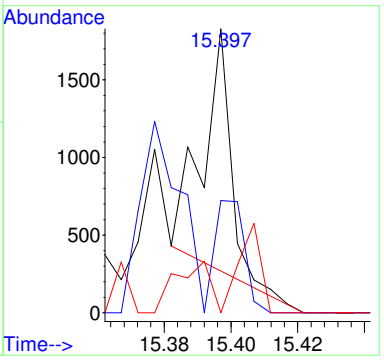


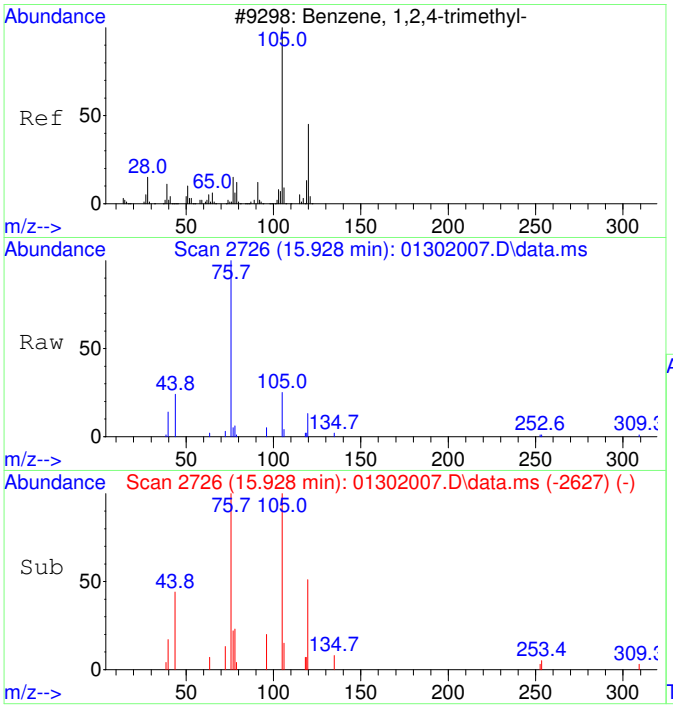


#46
1,3,5-Trimethylbenzene SCAN
Concen: 64.52 ug/L
RT: 15.397 min Scan# 2619
Delta R.T. 0.010 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 848

Ion	Ratio	Lower	Upper
105	100		
120	53.2	19.8	79.8
119	28.4	0.0	44.5

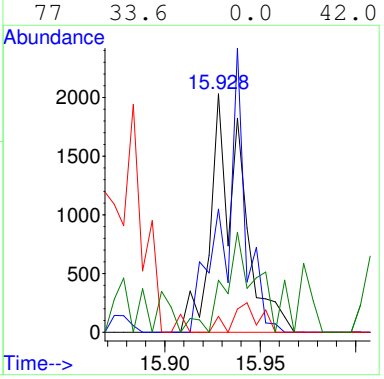


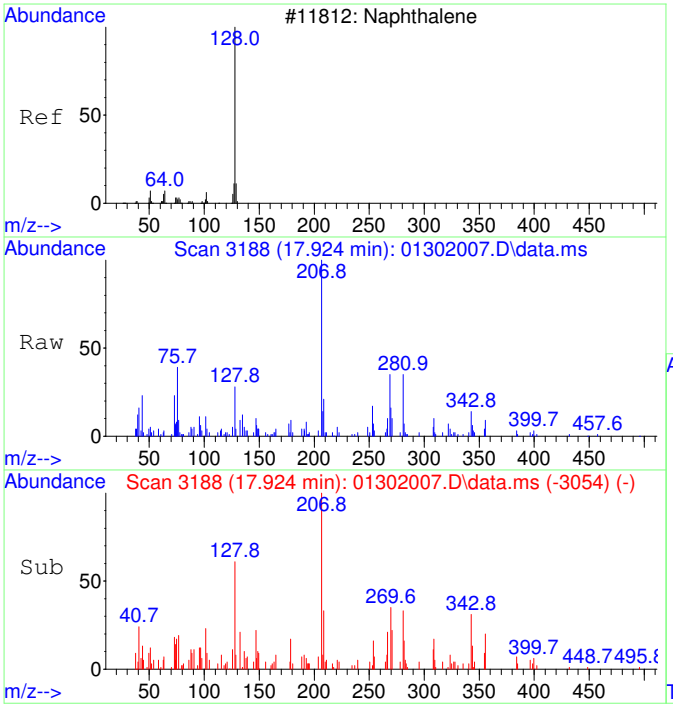


#47
1,2,4-Trimethylbenzene SCAN
Concen: 170.98 ug/L
RT: 15.928 min Scan# 2726
Delta R.T. -0.010 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:105 Resp: 2260

Ion	Ratio	Lower	Upper
105	100		
120	83.0	14.1	74.1#
119	11.0	0.0	42.4
77	33.6	0.0	42.0

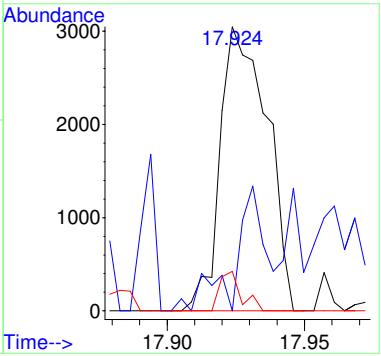




#48
Naphthalene SCAN
Concen: 179.50 ug/L
RT: 17.924 min Scan# 3188
Delta R.T. -0.004 min
Lab File: 01302007.D
Acq: 30 Jan 2020 10:16

Tgt Ion:128 Resp: 3624

Ion	Ratio	Lower	Upper
128	100		
127	16.0	0.0	43.5
129	6.3	0.0	35.4



S20A096-CAL6

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302008.D
Acq On : 30 Jan 2020 10:40
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL6
Misc : 2004027 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:17:49 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

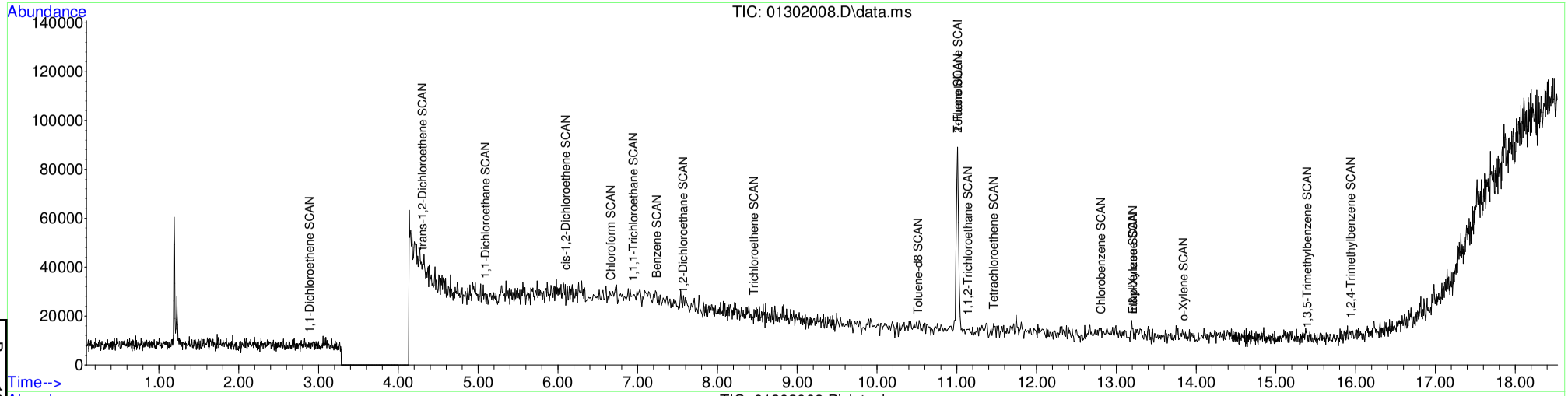
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	102923	5000.00	ug/L	0.01
System Monitoring Compounds						
12) Toluene-d8	10.519	98	923	52.95	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.06%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	569	102.66	ug/L	62
3] trans-1,2-Dichloroethene	4.310	61	273	50.07	ug/L	95
4] 1,1-Dichloroethane	5.059	63	337	49.79	ug/L	96
5] cis-1,2-Dichloroethene	6.081	61	320	51.08	ug/L	94
6] Chloroform	6.652	83	354	50.77	ug/L	93
7] 1,1,1-Trichloroethane	6.919	97	353	52.80	ug/L	98
8] Carbon tetrachloride	7.187	117	308	51.91	ug/L	83
9] Benzene	7.528	78	871	50.78	ug/L	71
10] 1,2-Dichloroethane	7.564	62	287	51.80	ug/L #	20
11] Trichloroethene	8.597	130	251	51.09	ug/L	90
13] Toluene	10.613	91	1124	54.33	ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	260	56.55	ug/L	96
15] Tetrachloroethene	11.463	166	297	50.95	ug/L	95
16] Chlorobenzene	12.805	112	801	53.40	ug/L	71
17] 1,1,1,2-Tetrachloroethane	12.956	131	259	51.39	ug/L	82
18] Ethylbenzene	13.012	91	1352	55.89	ug/L	93
19] m&p-Xylene	13.202	91	1994	108.44	ug/L	97
20] o-Xylene	13.822	91	1100	56.10	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	454	52.86	ug/L	97
22] 1,3,5-Trimethylbenzene	15.388	105	1151	54.40	ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	1202	56.15	ug/L	100
24] Naphthalene	17.929	128	2063	56.21	ug/L	54
25) 2-Fluorotoluene SCAN	11.011	109	63824	4679.73	ug/L	97
26) 1,1-Dichloroethene SCAN	2.881	61	98	24.86	ug/L #	24
27) trans-1,2-Dichloroethe...	4.302	61	113	31.16	ug/L #	40
28) 1,1-Dichloroethane SCAN	5.085	63	101	21.16	ug/L #	47
29) cis-1,2-Dichloroethene...	6.093	61	203	46.09	ug/L #	24
30) Chloroform SCAN	6.663	83	228	43.21	ug/L #	35
31) 1,1,1-Trichloroethane ...	6.942	97	207	45.80	ug/L #	30
33) Benzene SCAN	7.234	78	1795	143.53	ug/L	94
34) 1,2-Dichloroethane SCAN	7.563	62	268	67.71	ug/L #	37
35) Trichloroethene SCAN	8.459	130	92	28.47	ug/L #	3
36) Toluene-d8 SCAN	10.518	98	590	51.52	ug/L	91
37) Toluene SCAN	11.011	91	907	65.30	ug/L	68
38) 1,1,2-Trichloroethane ...	11.137	97	132	40.73	ug/L #	17
39) Tetrachloroethene SCAN	11.462	166	196	53.74	ug/L #	30
40) Chlorobenzene SCAN	12.804	112	372	38.44	ug/L #	7
42) Ethylbenzene SCAN	13.209	91	1032	65.42	ug/L	70
43) m&p-Xylene SCAN	13.209	91	1027	44.65	ug/L #	83
44) o-Xylene SCAN	13.844	91	400	32.53	ug/L #	37
46) 1,3,5-Trimethylbenzene...	15.392	105	312	24.28	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.938	105	589	45.58	ug/L	79

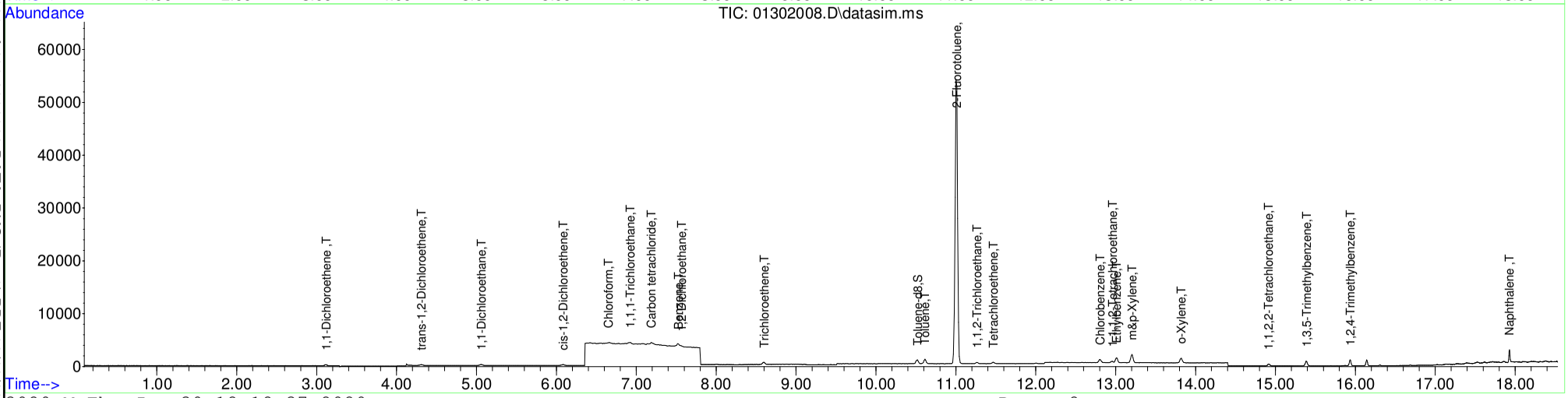
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302008.D
Acq On : 30 Jan 2020 10:40
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL6
Misc : 2004027 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:17:49 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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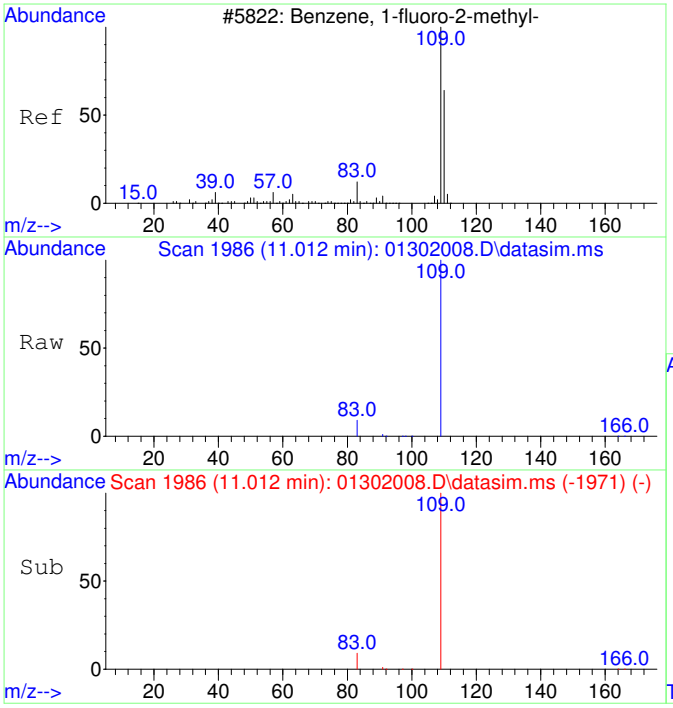
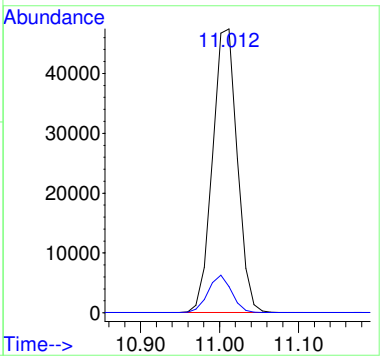
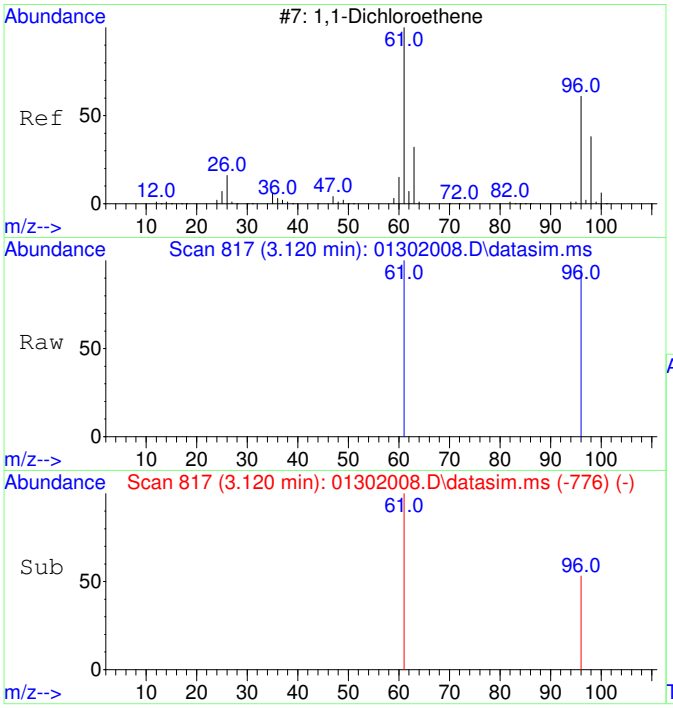


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.010 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:109 Resp: 102923

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

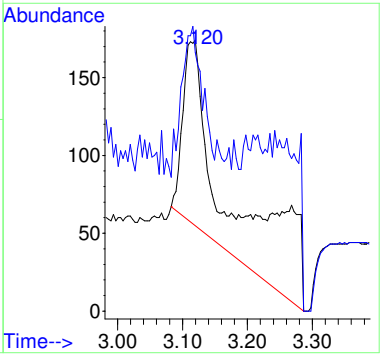




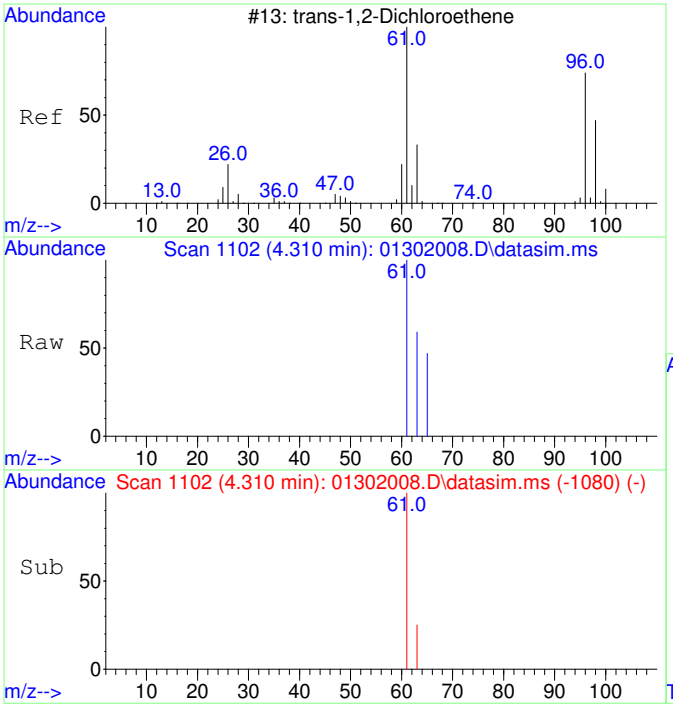
#2
1,1-Dichloroethene
Concen: 102.66 ug/L
RT: 3.120 min Scan# 817
Delta R.T. 0.004 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 569

Ion	Ratio	Lower	Upper
61	100		
96	33.9	33.6	93.6



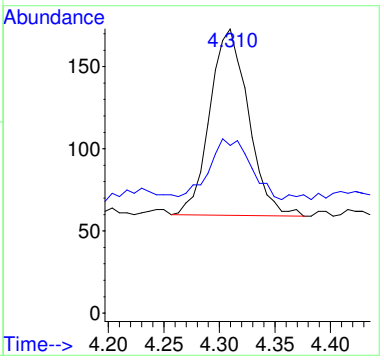
Before MI:
IMPROPER
BASELINE

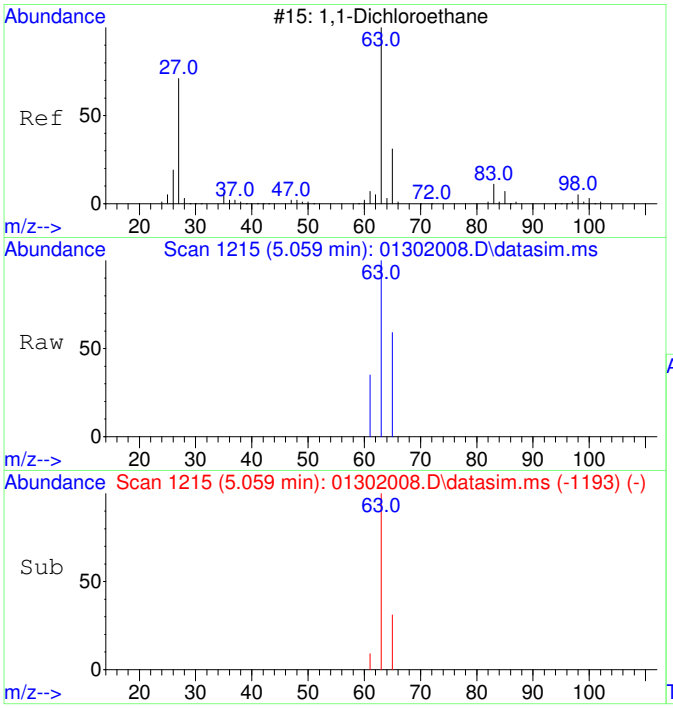


#3
trans-1,2-Dichloroethene
Concen: 50.07 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.007 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 273

Ion	Ratio	Lower	Upper
61	100		
63	35.2	2.3	62.3

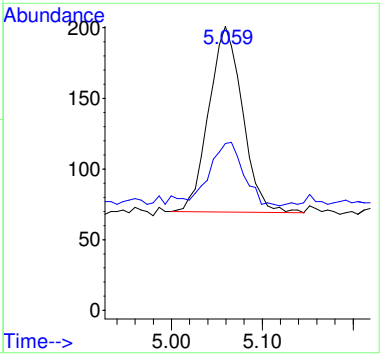


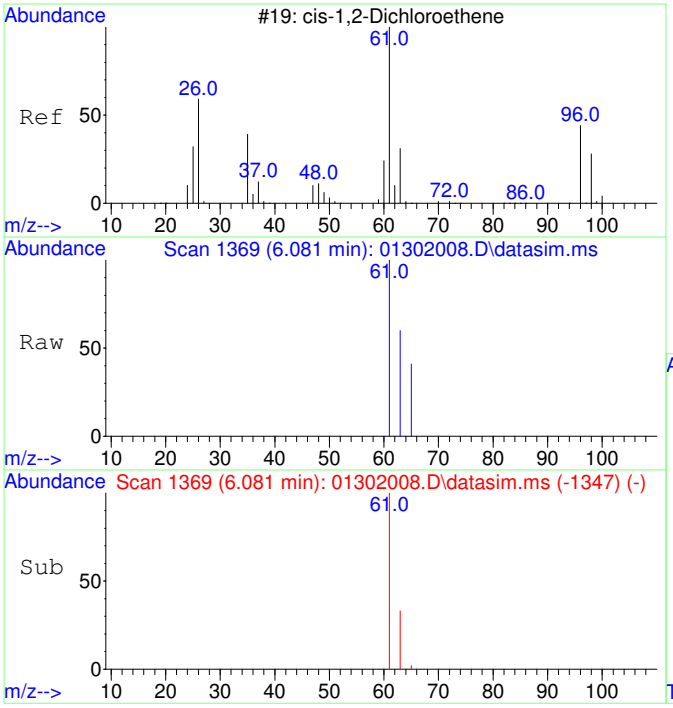


#4
1,1-Dichloroethane
Concen: 49.79 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 63 Resp: 337

Ion	Ratio	Lower	Upper
63	100		
65	34.1	1.7	61.7

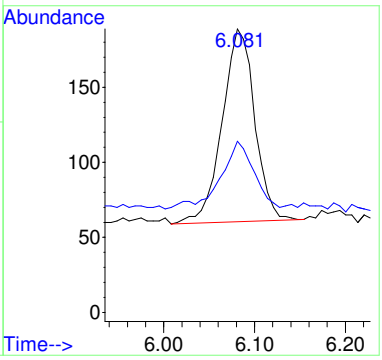


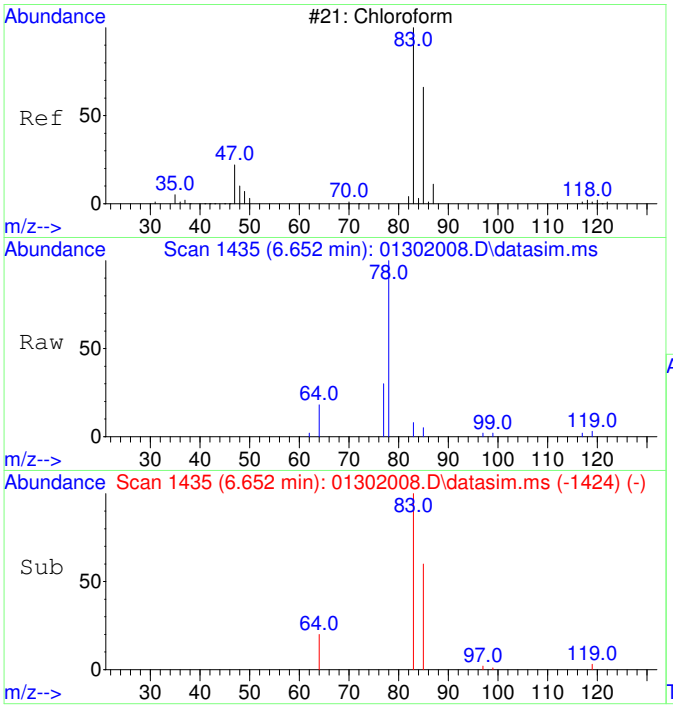


#5
cis-1,2-Dichloroethene
Concen: 51.08 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.007 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 320

Ion	Ratio	Lower	Upper
61	100		
63	36.3	2.6	62.6

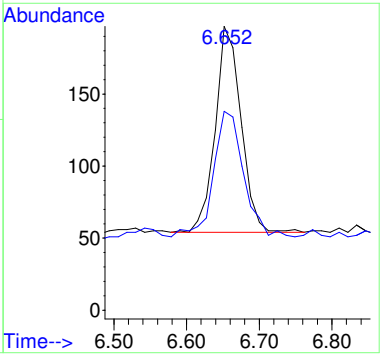


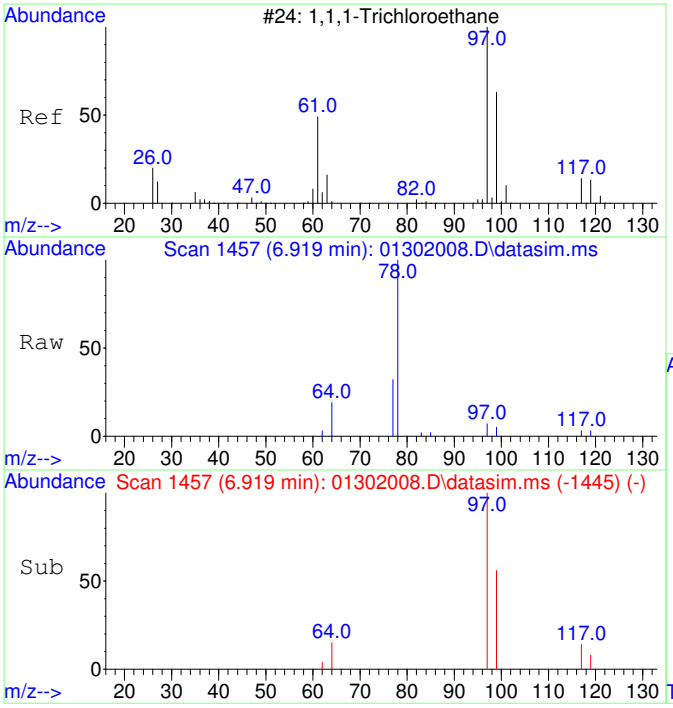


#6
Chloroform
Concen: 50.77 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 83 Resp: 354

Ion	Ratio	Lower	Upper
83	100		
85	70.6	35.2	95.2

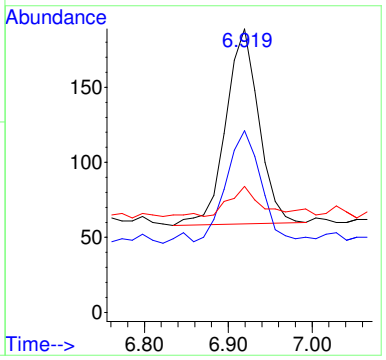


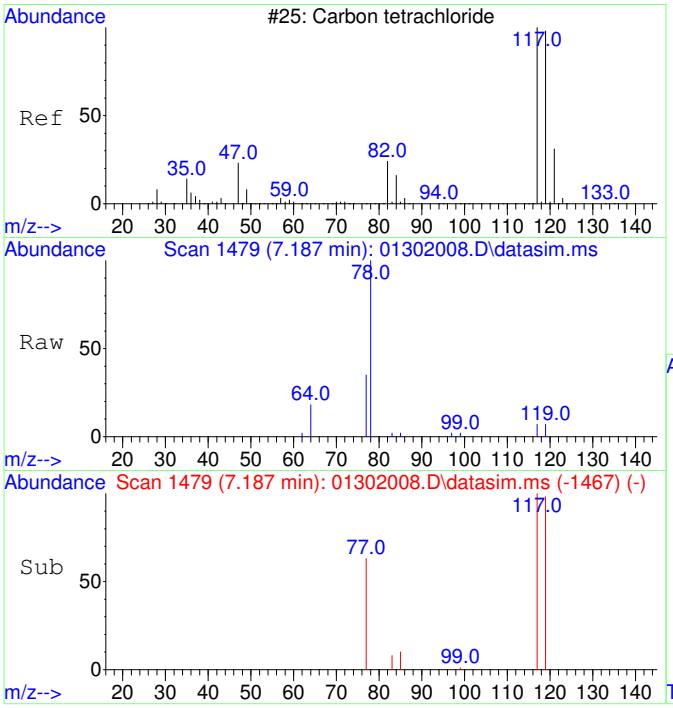


#7
1,1,1-Trichloroethane
Concen: 52.80 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 353

Ion	Ratio	Lower	Upper
97	100		
99	64.3	34.6	94.6
117	15.9	0.0	42.9

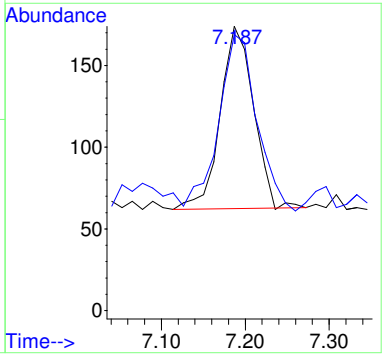


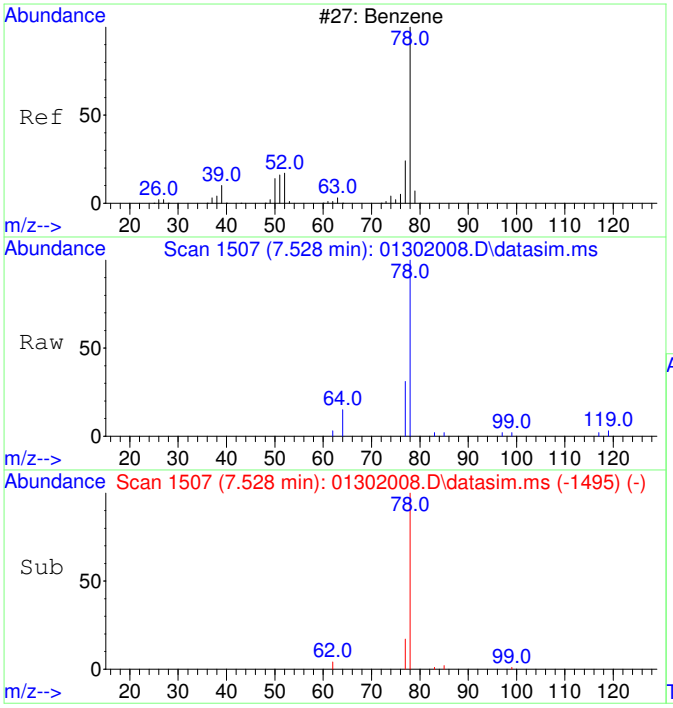


#8
Carbon tetrachloride
Concen: 51.91 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:117 Resp: 308

Ion	Ratio	Lower	Upper
117	100		
119	111.4	65.2	125.2

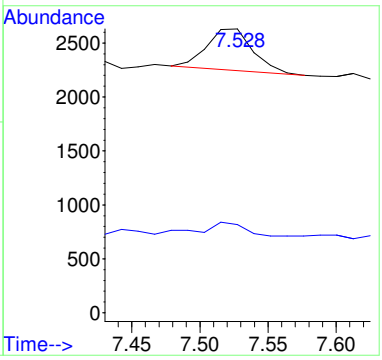


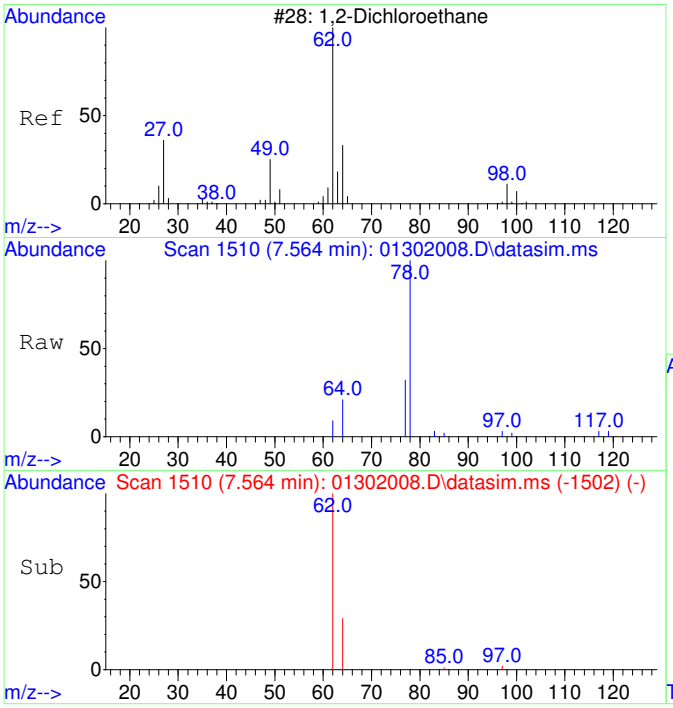


#9
Benzene
Concen: 50.78 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 78 Resp: 871

Ion	Ratio	Lower	Upper
78	100		
77	37.8	0.0	53.4

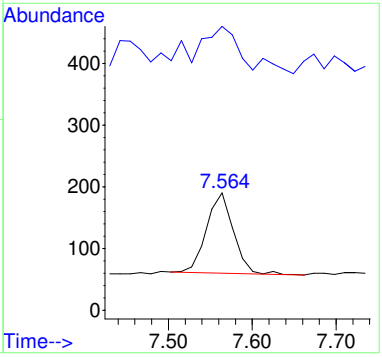


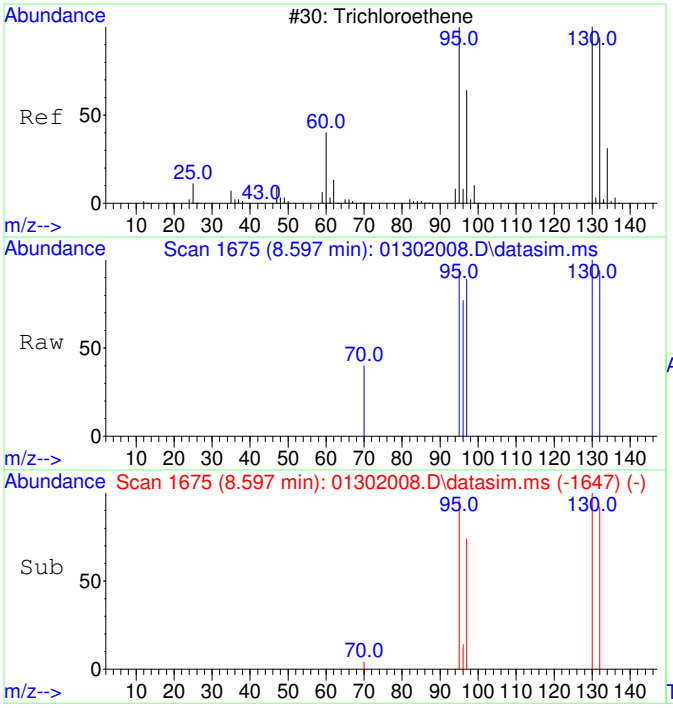


#10
1,2-Dichloroethane
Concen: 51.80 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 62 Resp: 287

Ion	Ratio	Lower	Upper
62	100		
64	79.1	3.4	63.4#

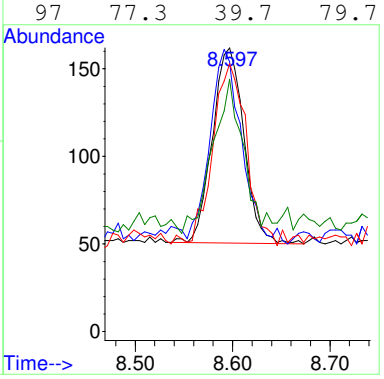


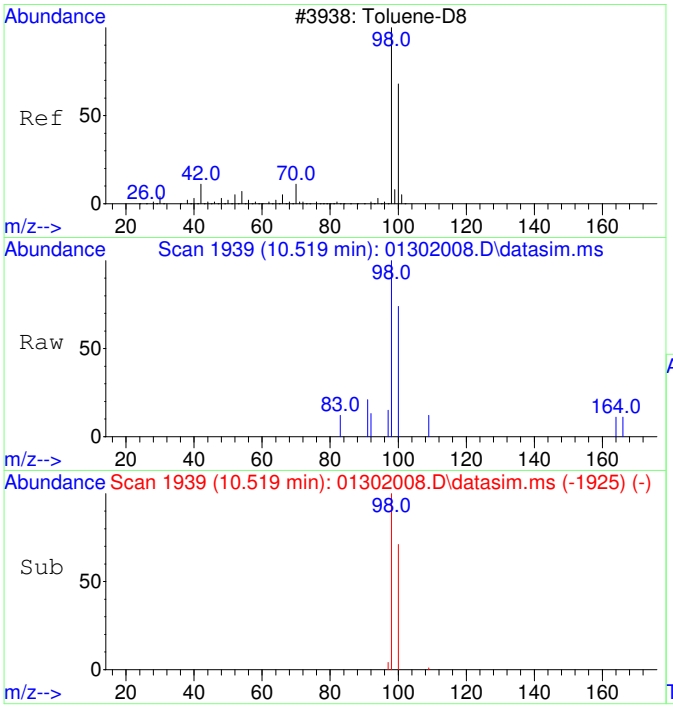


#11
Trichloroethene
Concen: 51.09 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:130 Resp: 251

Ion	Ratio	Lower	Upper
130	100		
95	101.2	63.0	123.0
132	98.8	75.5	115.5
97	77.3	39.7	79.7

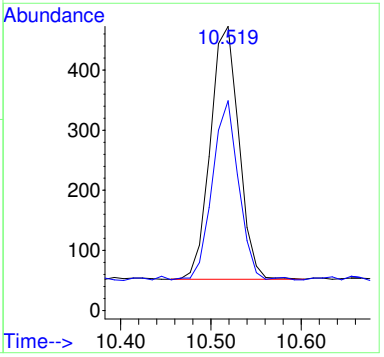


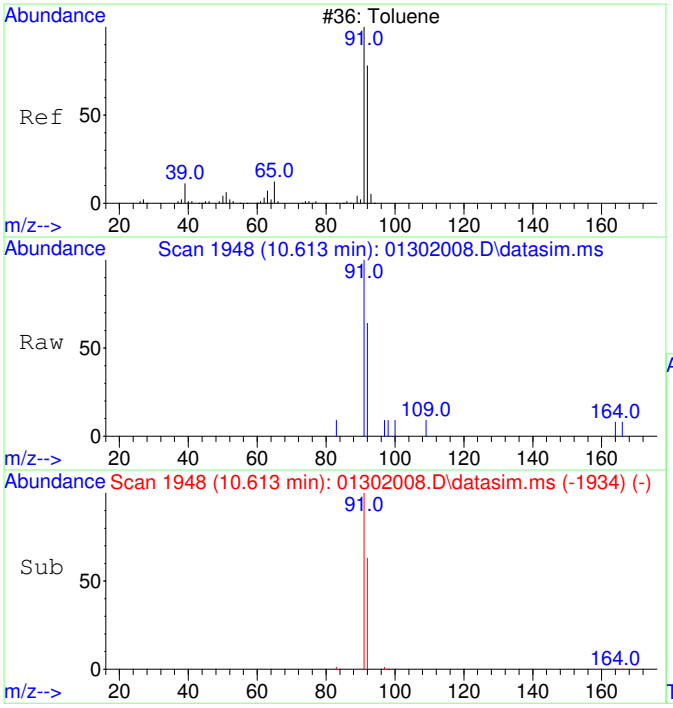


#12
Toluene-d8
Concen: 52.95 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 98 Resp: 923

Ion	Ratio	Lower	Upper
98	100		
100	65.7	37.0	97.0

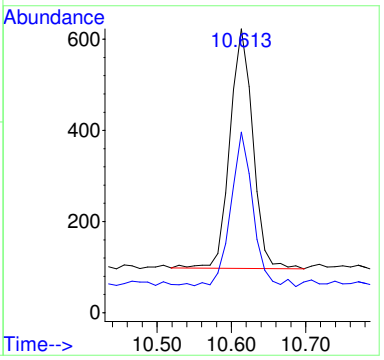


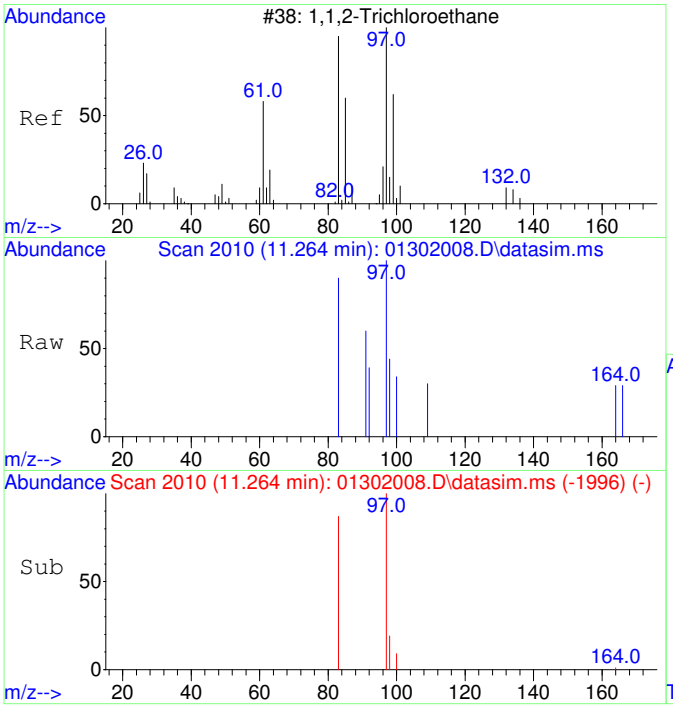


#13
Toluene
Concen: 54.33 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1124

Ion	Ratio	Lower	Upper
91	100		
92	59.6	29.6	89.6

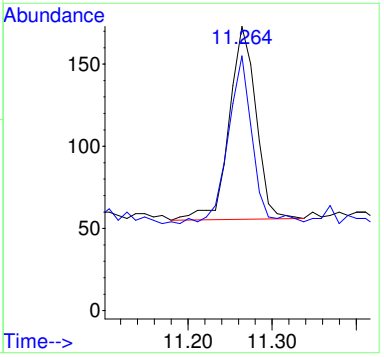


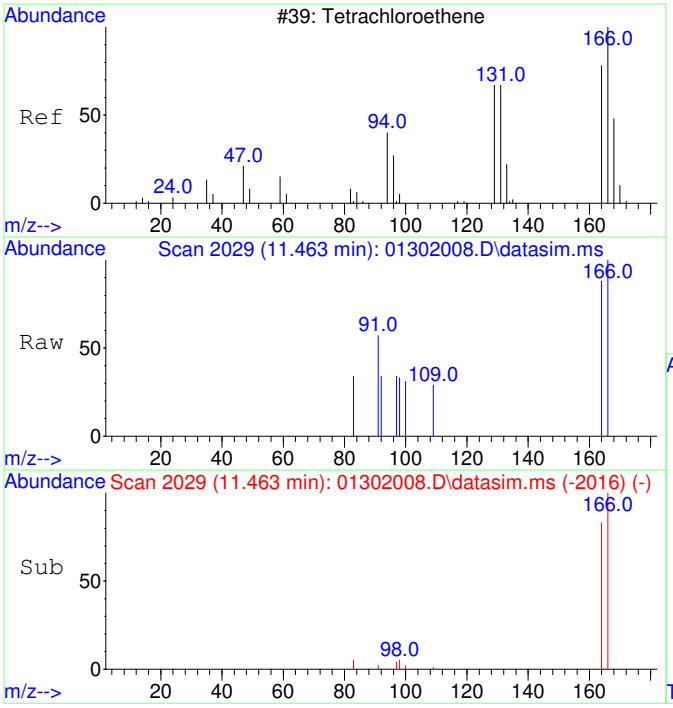


#14
1,1,2-Trichloroethane
Concen: 56.55 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 260

Ion	Ratio	Lower	Upper
97	100		
83	77.3	51.2	111.2

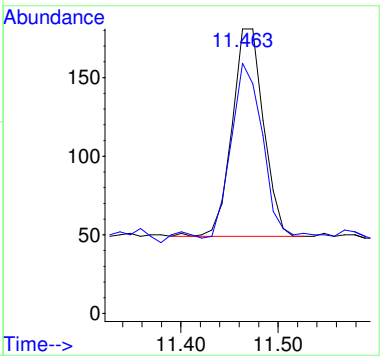


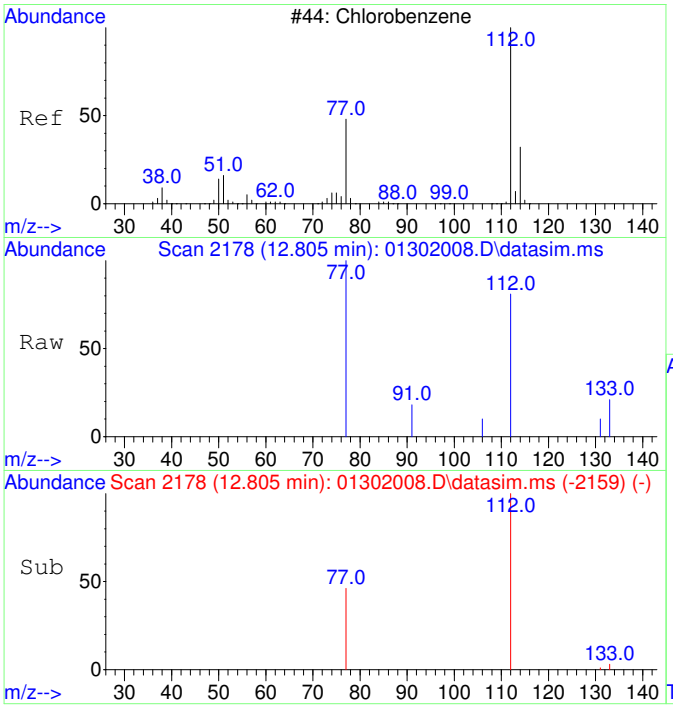


#15
Tetrachloroethene
Concen: 50.95 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:166 Resp: 297

Ion	Ratio	Lower	Upper
166	100		
164	83.2	48.6	108.6

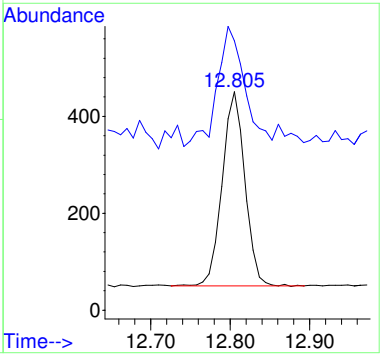


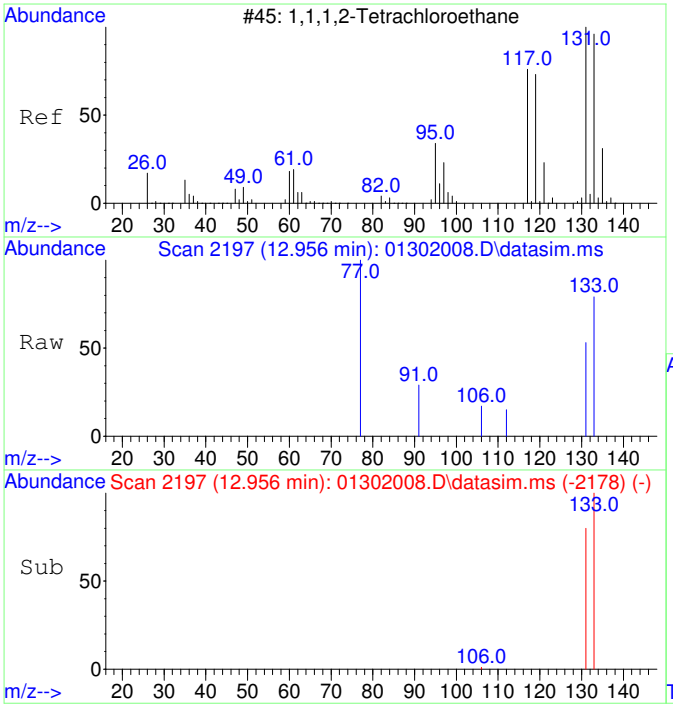


#16
Chlorobenzene
Concen: 53.40 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:112 Resp: 801

Ion	Ratio	Lower	Upper
112	100		
77	75.9	25.2	85.2

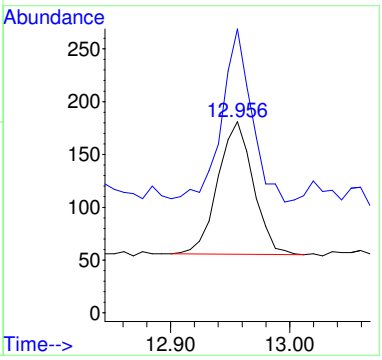


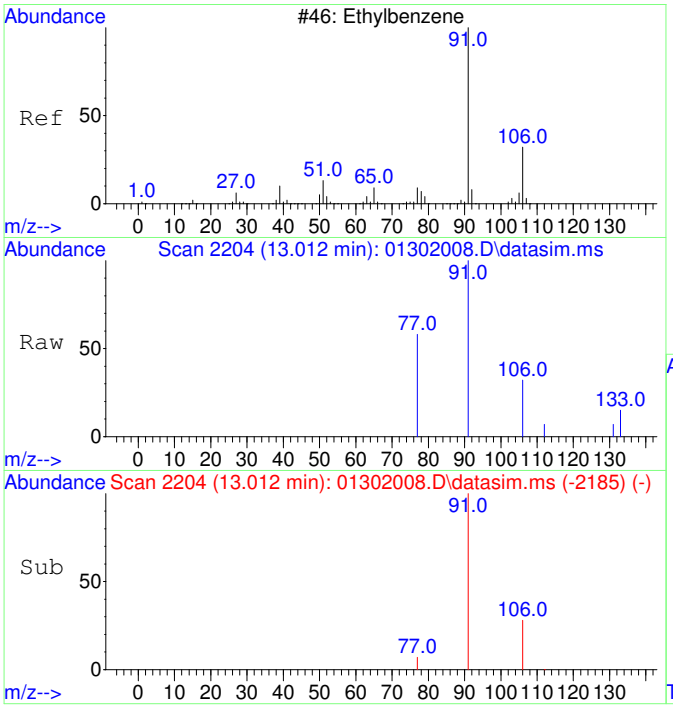


#17
1,1,1,2-Tetrachloroethane
Concen: 51.39 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:131 Resp: 259

Ion	Ratio	Lower	Upper
131	100		
133	113.5	65.5	125.5

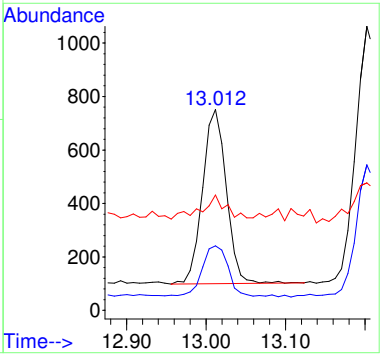


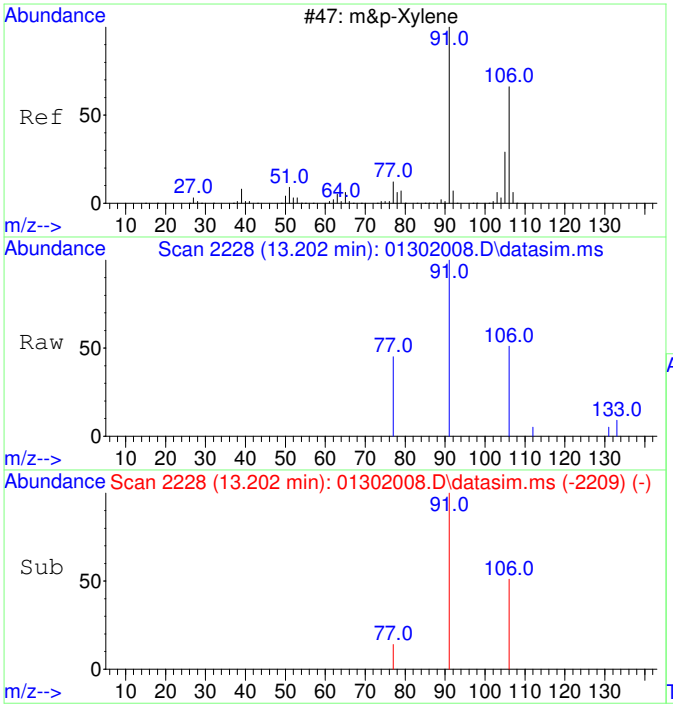


#18
Ethylbenzene
Concen: 55.89 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1352

Ion	Ratio	Lower	Upper
91	100		
106	30.7	2.7	62.7
77	16.1	0.0	38.3

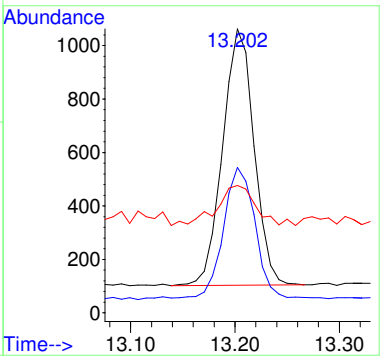


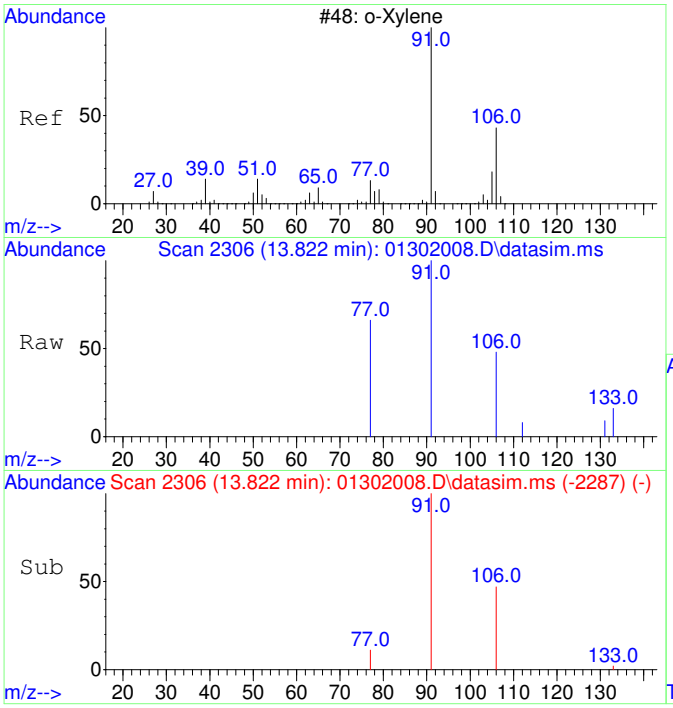


#19
m&p-Xylene
Concen: 108.44 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1994

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.6	81.6
77	18.9	0.0	42.5

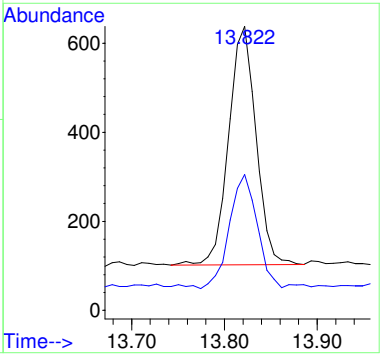


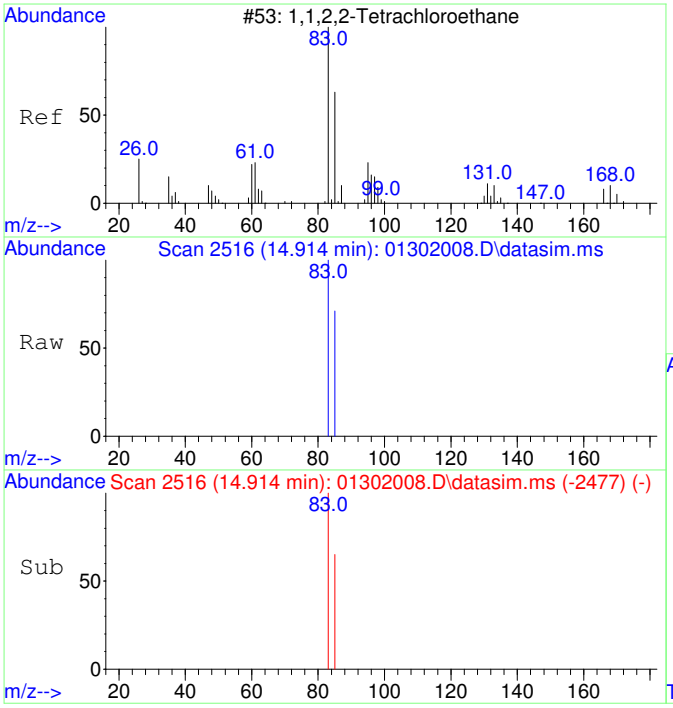


#20
o-Xylene
Concen: 56.10 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1100

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.6	78.6

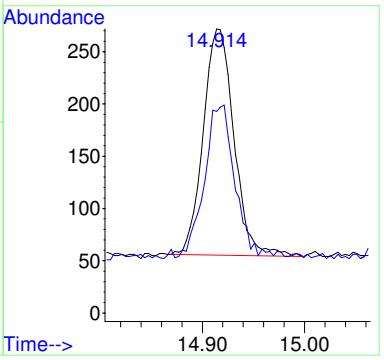


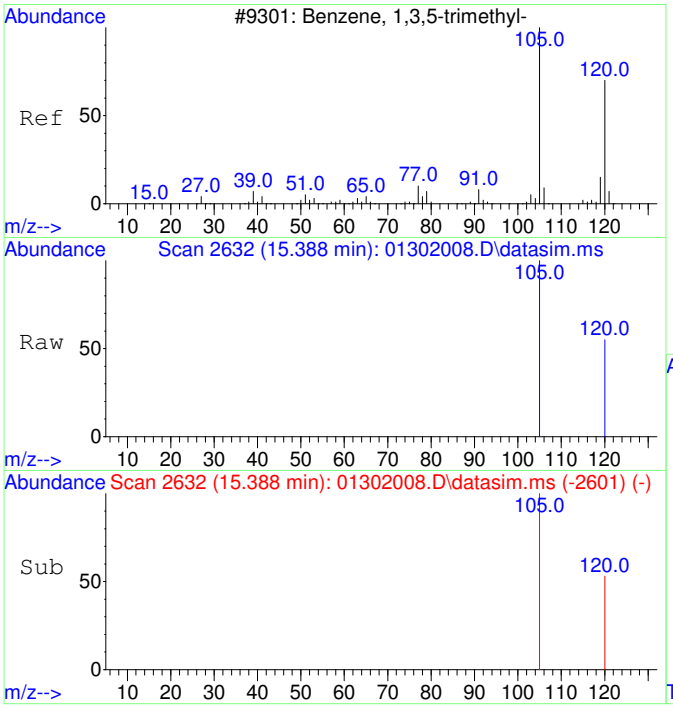


#21
1,1,2,2-Tetrachloroethane
Concen: 52.86 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.004 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 83 Resp: 454

Ion	Ratio	Lower	Upper
83	100		
85	66.7	34.7	94.7

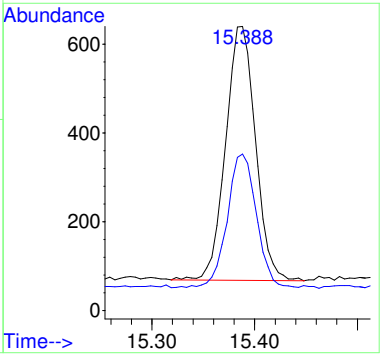


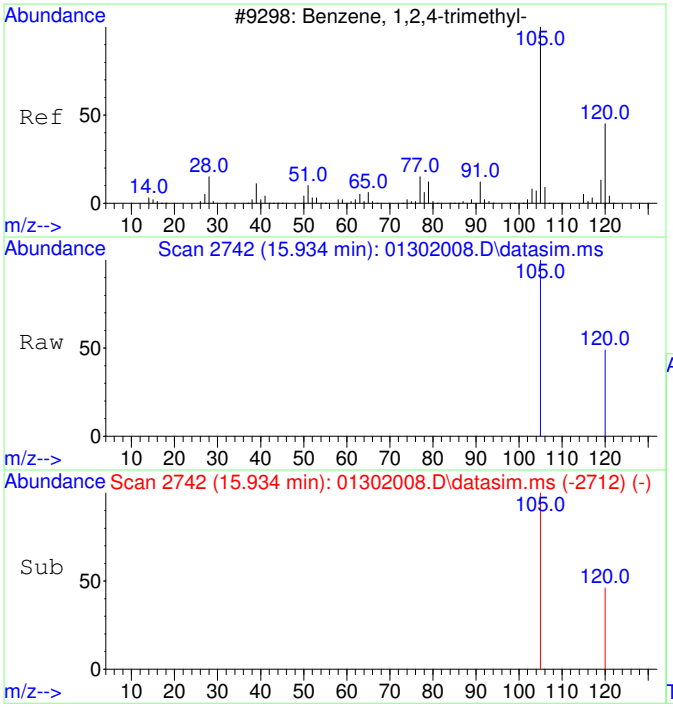


#22
1,3,5-Trimethylbenzene
Concen: 54.40 ug/L
RT: 15.388 min Scan# 2632
Delta R.T. 0.005 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 1151

Ion	Ratio	Lower	Upper
105	100		
120	50.9	21.1	81.1

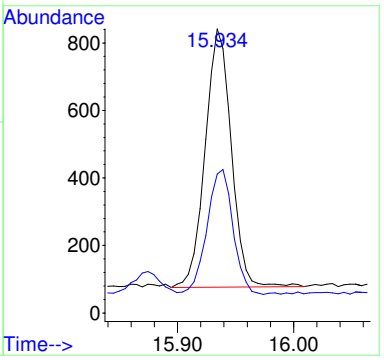


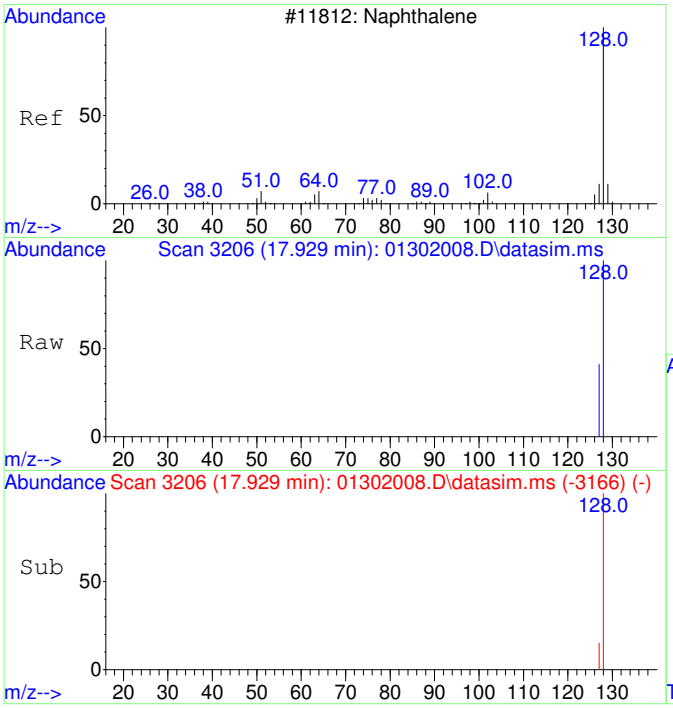


#23
1,2,4-Trimethylbenzene
Concen: 56.15 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 1202

Ion	Ratio	Lower	Upper
105	100		
120	47.2	17.2	77.2

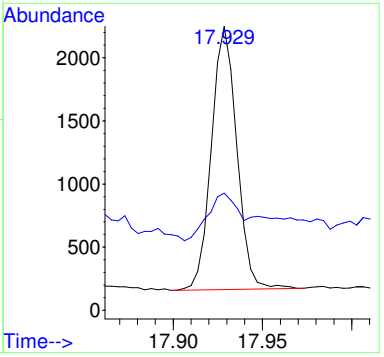


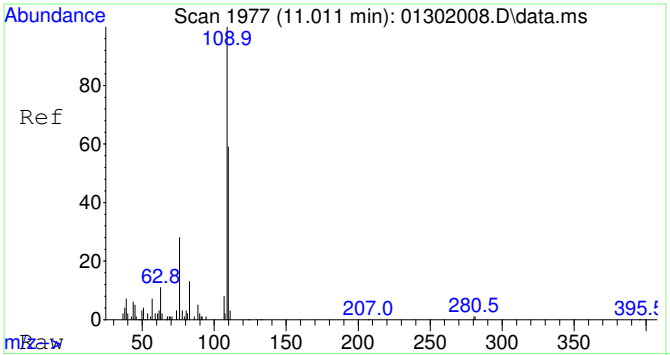


#24
Naphthalene
Concen: 56.21 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:128 Resp: 2063

Ion	Ratio	Lower	Upper
128	100		
127	30.8	0.0	42.7

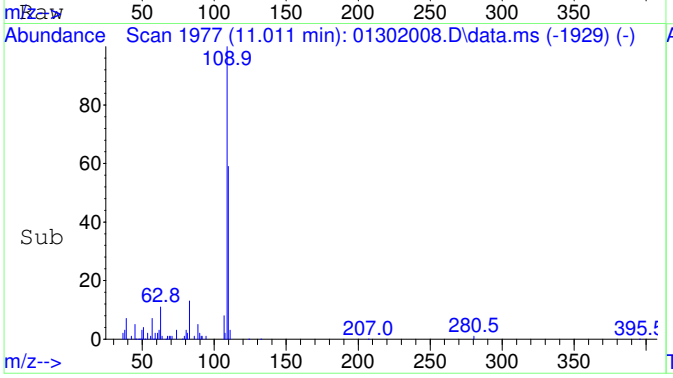


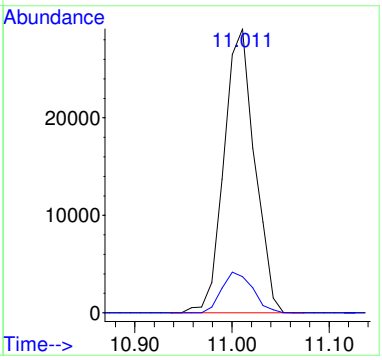


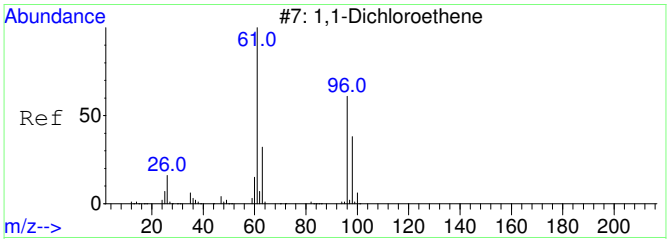
#25
2-Fluorotoluene SCAN
Concen: 4679.73 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:109 Resp: 63824

Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.3



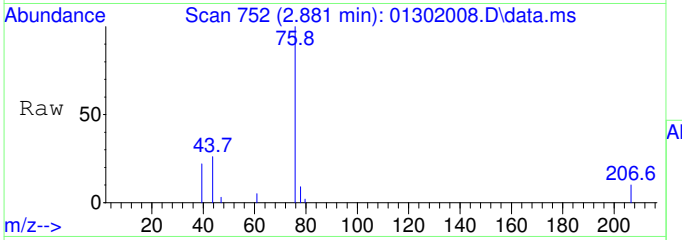


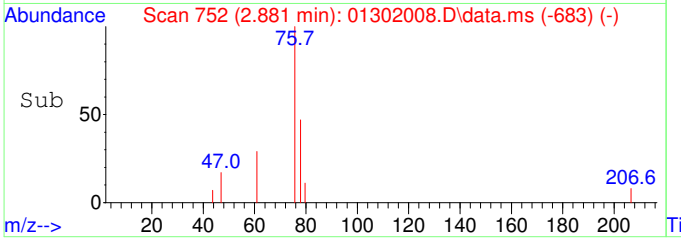


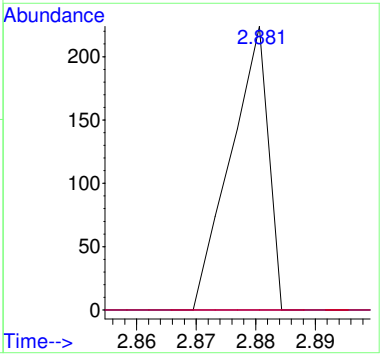
#26
1,1-Dichloroethene SCAN
Concen: 24.86 ug/L
RT: 2.881 min Scan# 752
Delta R.T. -0.245 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

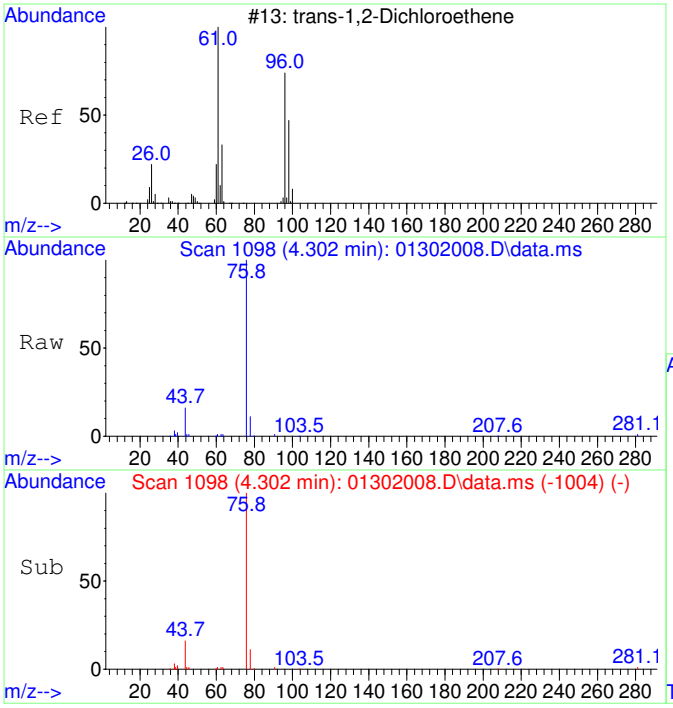
Tgt Ion: 61 Resp: 98

Ion	Ratio	Lower	Upper
61	100		
96	0.0	37.0	97.0#
98	0.0	9.0	69.0#





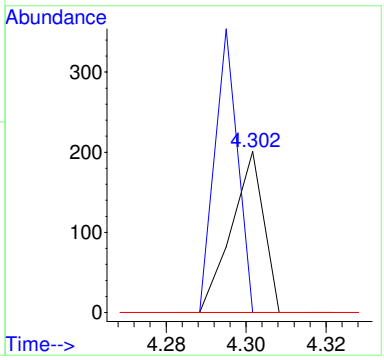


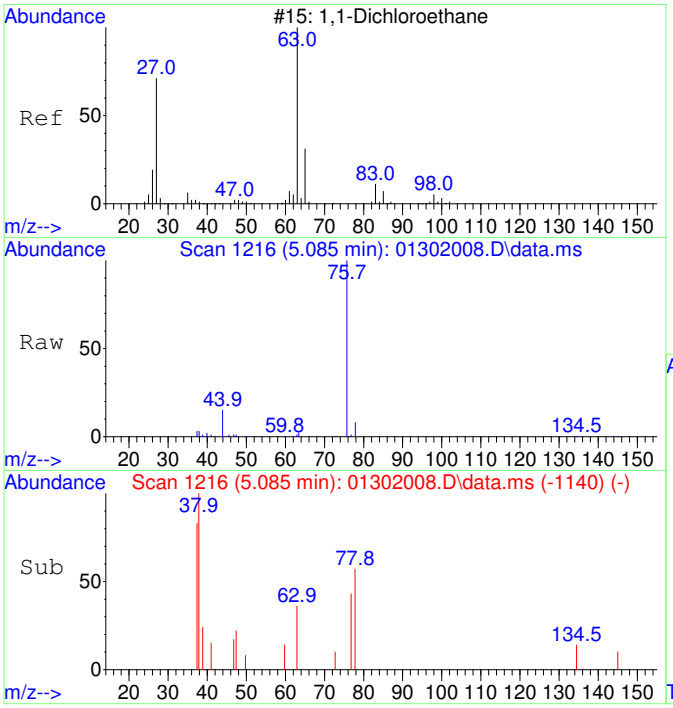


#27
trans-1,2-Dichloroethene SCAN
Concen: 31.16 ug/L
RT: 4.302 min Scan# 1098
Delta R.T. -0.013 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 113

Ion	Ratio	Lower	Upper
61	100		
96	124.8	48.2	108.2#
98	0.0	17.7	77.7#

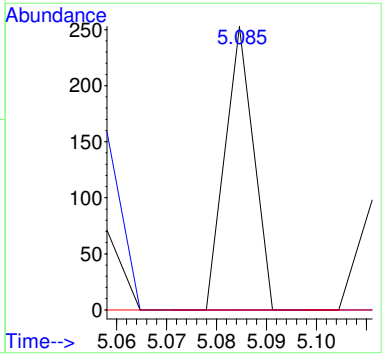


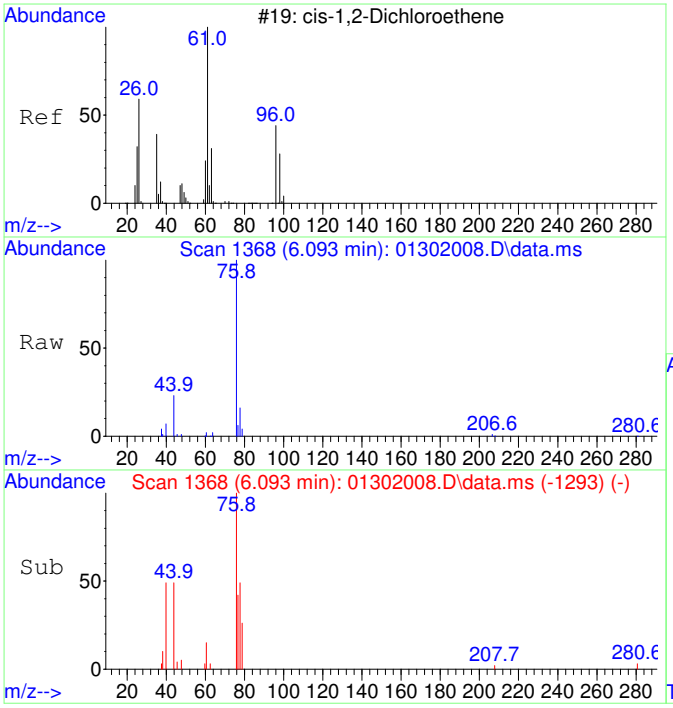


#28
1,1-Dichloroethane SCAN
Concen: 21.16 ug/L
RT: 5.085 min Scan# 1216
Delta R.T. 0.006 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 63 Resp: 101

Ion	Ratio	Lower	Upper
63	100		
65	0.0	5.7	65.7#
83	0.0	0.0	41.0

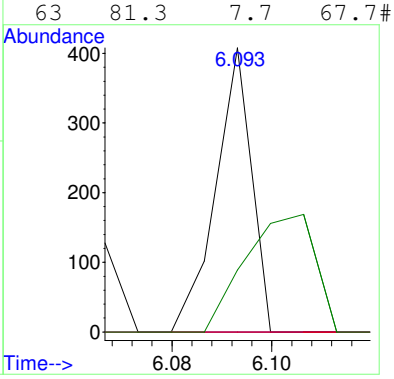


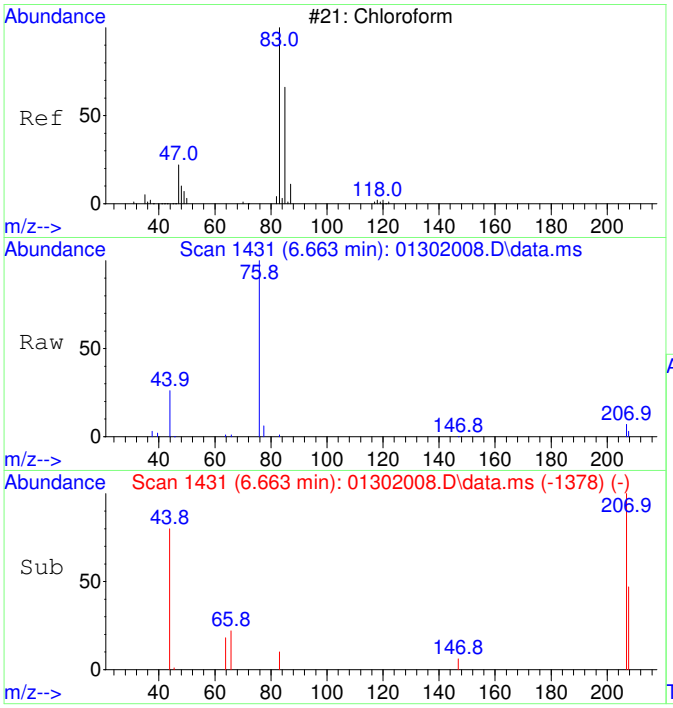


#29
cis-1,2-Dichloroethene SCAN
Concen: 46.09 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 203

Ion	Ratio	Lower	Upper
61	100		
96	0.0	32.3	92.3#
98	0.0	18.9	78.9#
63	81.3	7.7	67.7#

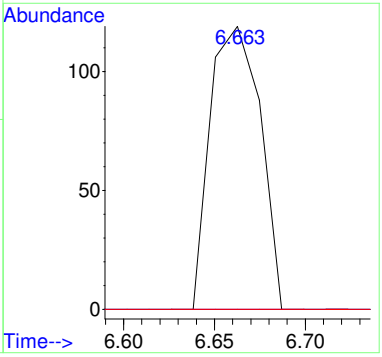


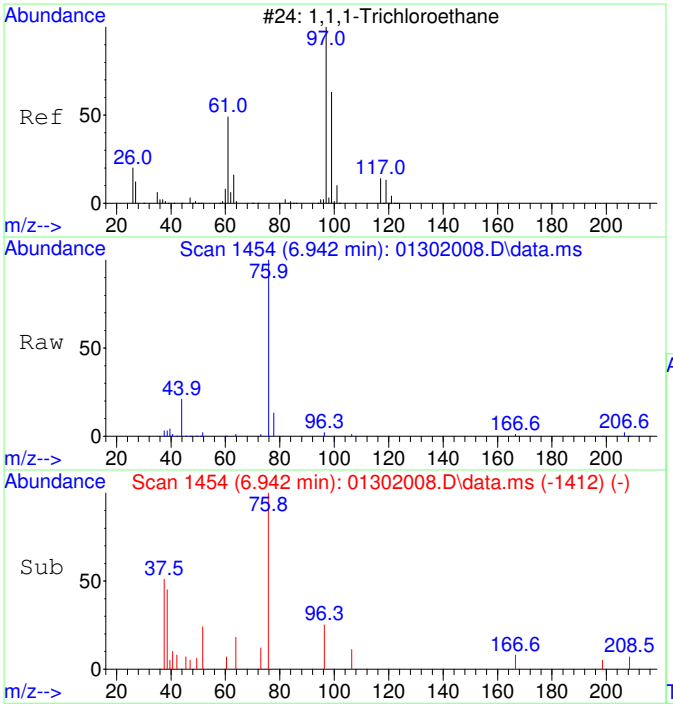


#30
Chloroform SCAN
Concen: 43.21 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 83 Resp: 228

Ion	Ratio	Lower	Upper
83	100		
85	0.0	20.9	80.9#
47	0.0	0.0	50.1

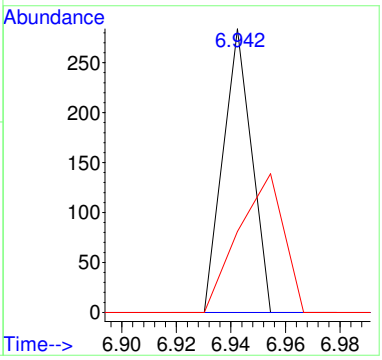


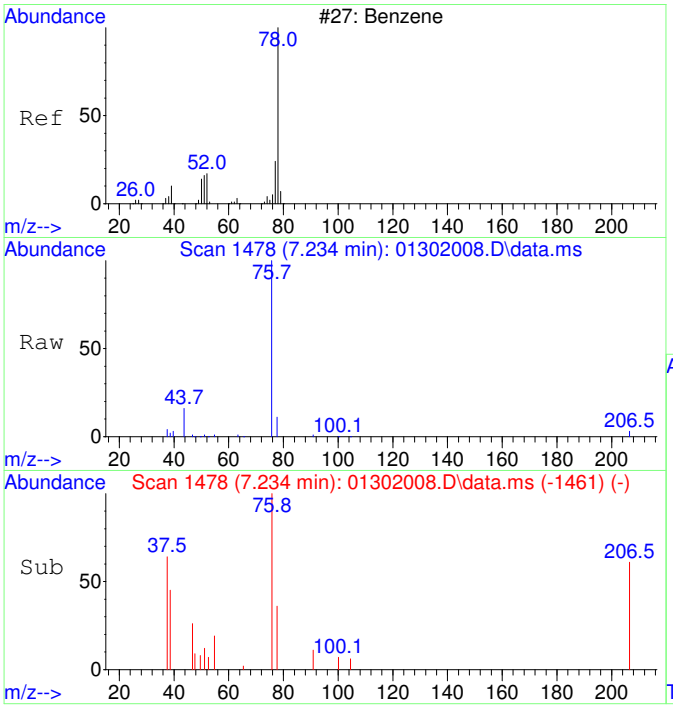


#31
1,1,1-Trichloroethane SCAN
Concen: 45.80 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.012 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 207

Ion	Ratio	Lower	Upper
97	100		
99	0.0	28.2	88.2#
61	77.8	11.1	71.1#

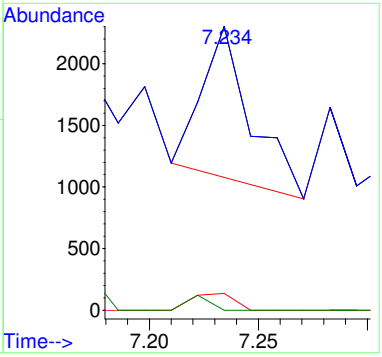


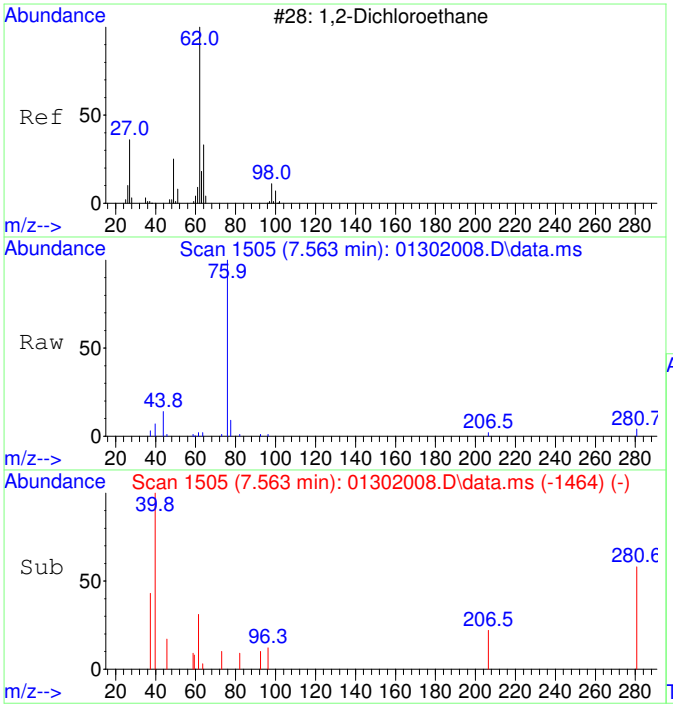


#33
Benzene SCAN
Concen: 143.53 ug/L
RT: 7.234 min Scan# 1478
Delta R.T. -0.292 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 78 Resp: 1795

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	10.5	0.0	50.6
52	5.0	0.0	45.2

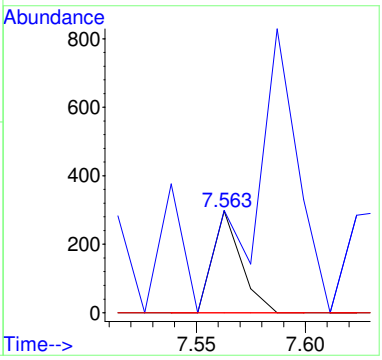


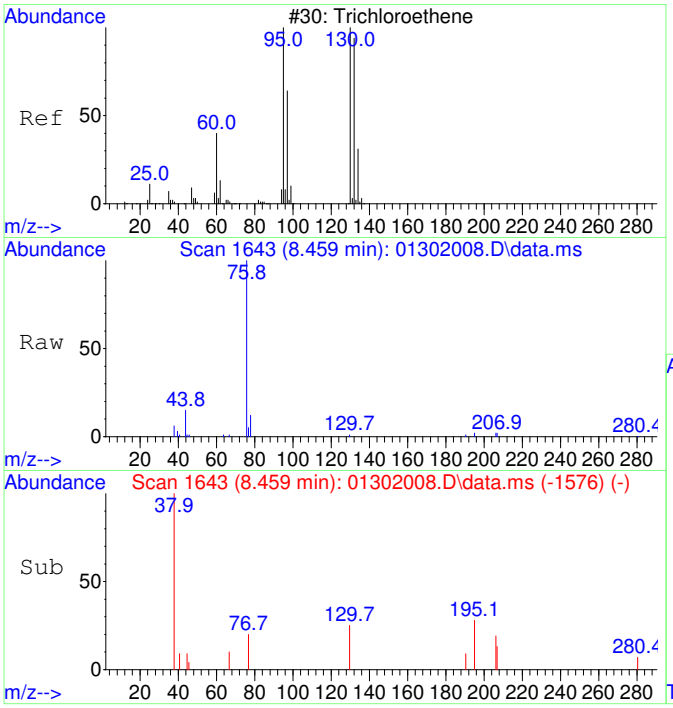


#34
1,2-Dichloroethane SCAN
Concen: 67.71 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 62 Resp: 268

Ion	Ratio	Lower	Upper
62	100		
64	0.0	9.1	69.1#
49	0.0	6.2	66.2#

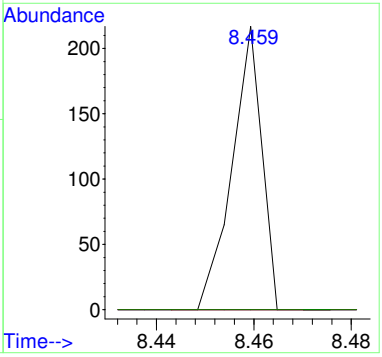


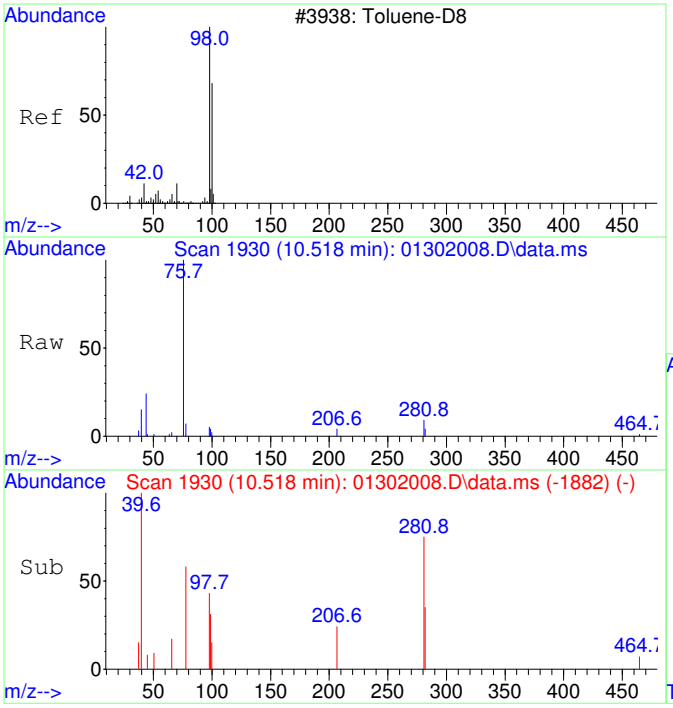


#35
Trichloroethene SCAN
Concen: 28.47 ug/L
RT: 8.459 min Scan# 1643
Delta R.T. -0.136 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:130 Resp: 92

Ion	Ratio	Lower	Upper
130	100		
95	0.0	69.4	129.4#
132	0.0	77.2	137.2#
97	0.0	35.3	95.3#

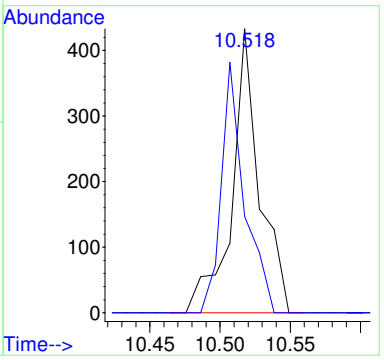


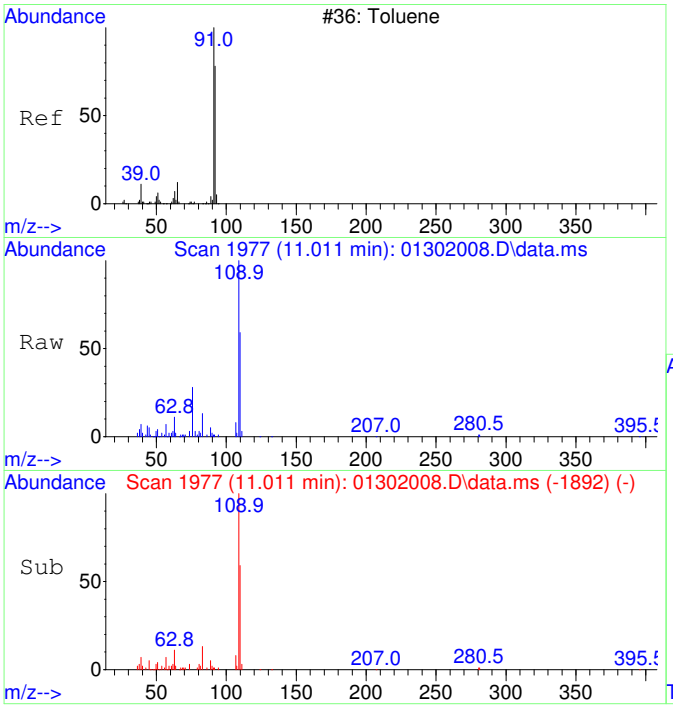


#36
Toluene-d8 SCAN
Concen: 51.52 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 98 Resp: 590

Ion	Ratio	Lower	Upper
98	100		
100	74.1	36.6	96.6

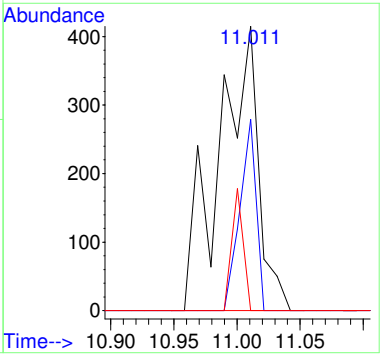


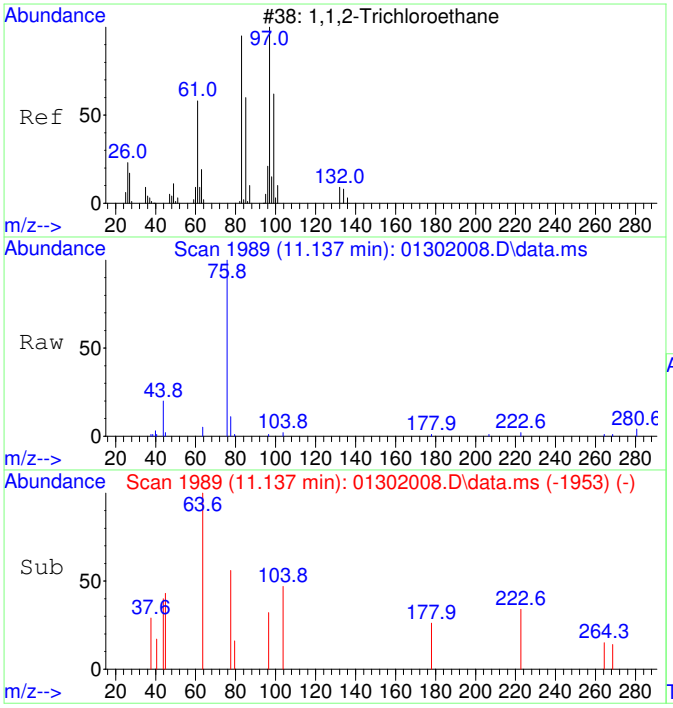


#37
Toluene SCAN
Concen: 65.30 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.388 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 907

Ion	Ratio	Lower	Upper
91	100		
92	27.7	26.1	86.1
65	12.3	0.0	42.0

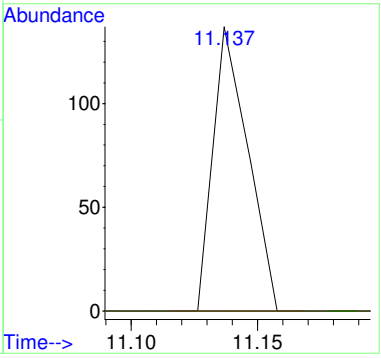


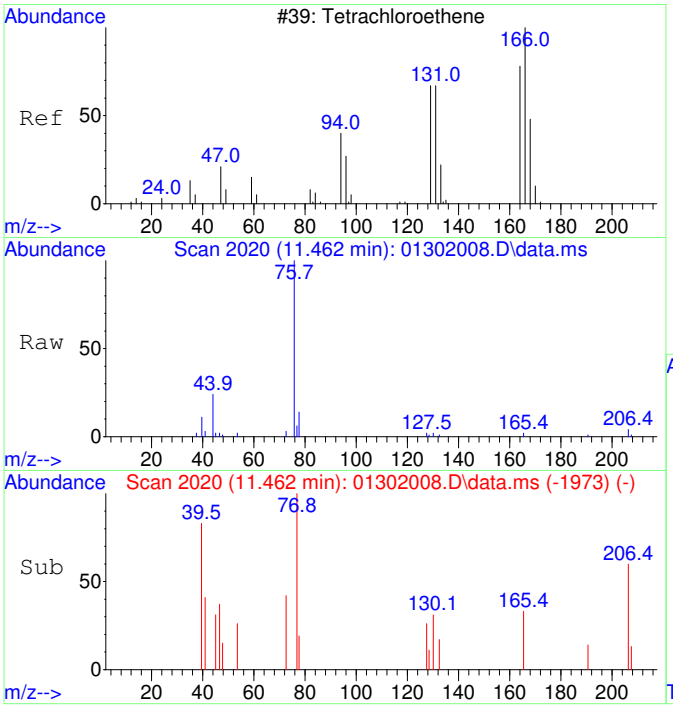


#38
1,1,2-Trichloroethane SCAN
Concen: 40.73 ug/L
RT: 11.137 min Scan# 1989
Delta R.T. -0.126 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 132

Ion	Ratio	Lower	Upper
97	100		
83	0.0	44.4	104.4#
61	0.0	32.3	92.3#
99	0.0	32.1	92.1#

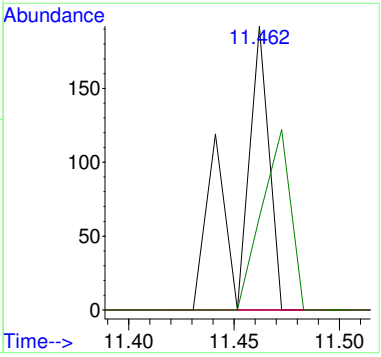


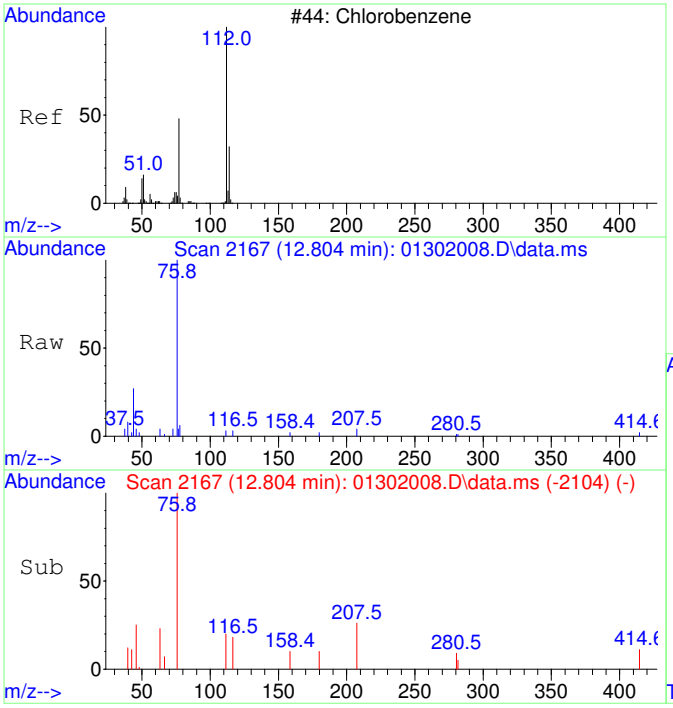


#39
Tetrachloroethene SCAN
Concen: 53.74 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.011 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:166 Resp: 196

Ion	Ratio	Lower	Upper
166	100		
164	0.0	62.9	122.9#
131	0.0	45.9	105.9#
129	59.2	40.3	100.3

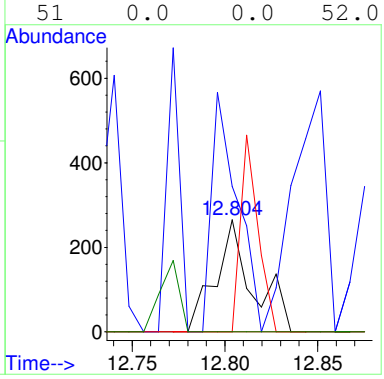


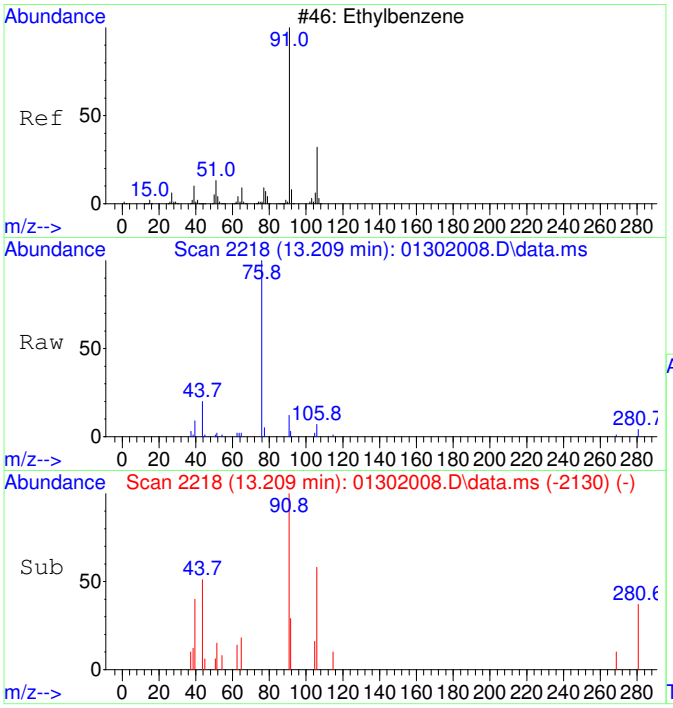


#40
Chlorobenzene SCAN
Concen: 38.44 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:112 Resp: 372

Ion	Ratio	Lower	Upper
112	100		
77	148.7	33.8	93.8#
114	82.8	1.3	61.3#
51	0.0	0.0	52.0

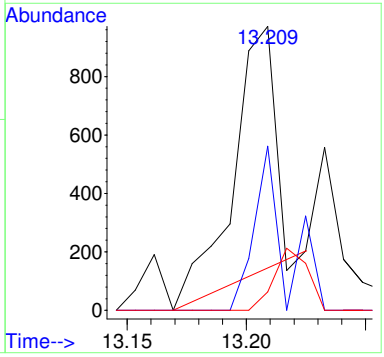


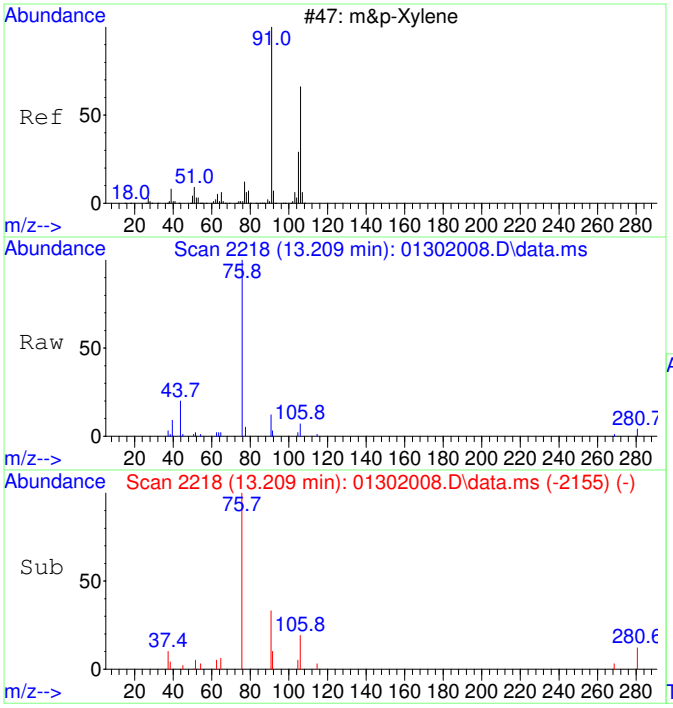


#42
Ethylbenzene SCAN
Concen: 65.42 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1032

Ion	Ratio	Lower	Upper
91	100		
106	49.0	1.4	61.4
51	20.2	0.0	40.4

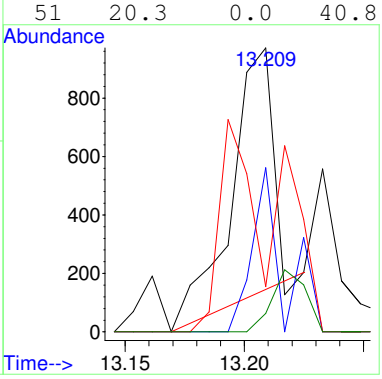


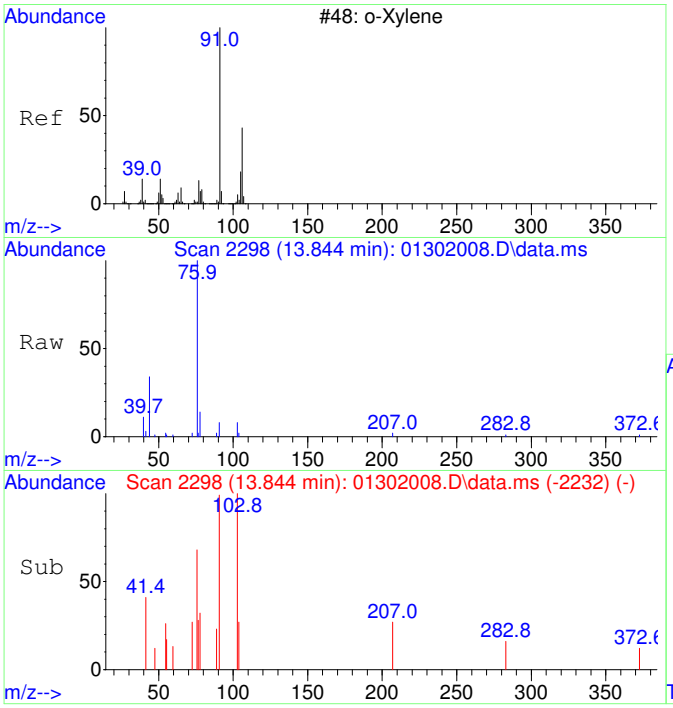


#43
m&p-Xylene SCAN
Concen: 44.65 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1027

Ion	Ratio	Lower	Upper
91	100		
106	49.3	20.4	80.4
105	0.0	0.0	52.6
51	20.3	0.0	40.8

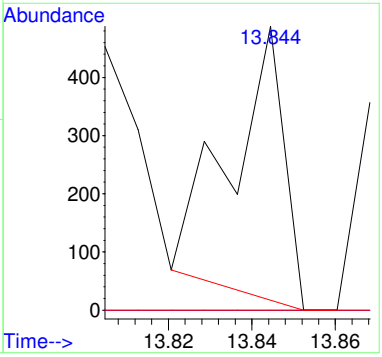


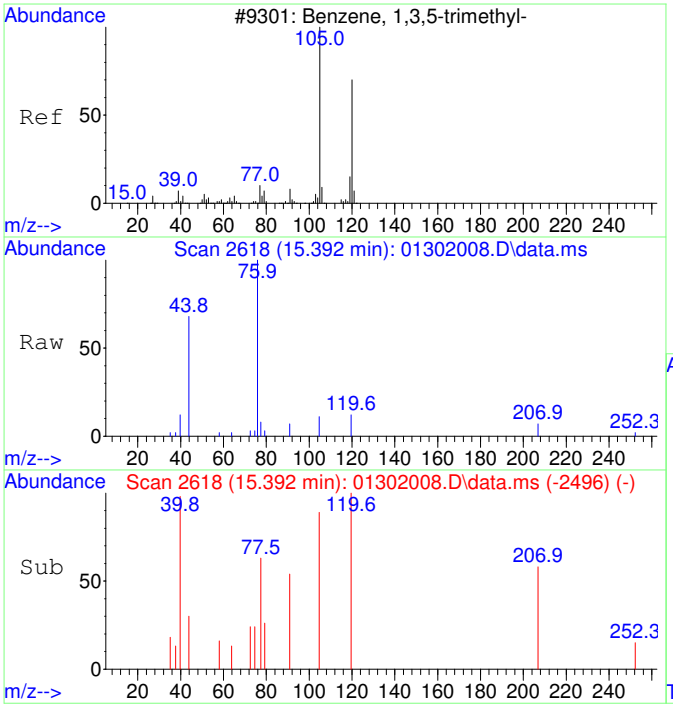


#44
o-Xylene SCAN
Concen: 32.53 ug/L
RT: 13.844 min Scan# 2298
Delta R.T. 0.024 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 400

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.3	78.3#
105	0.0	0.0	51.8

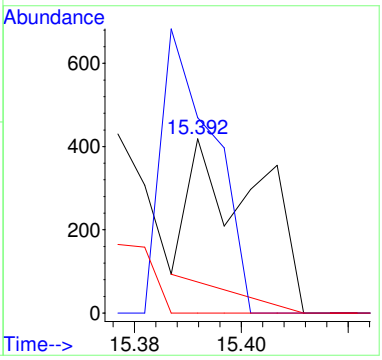


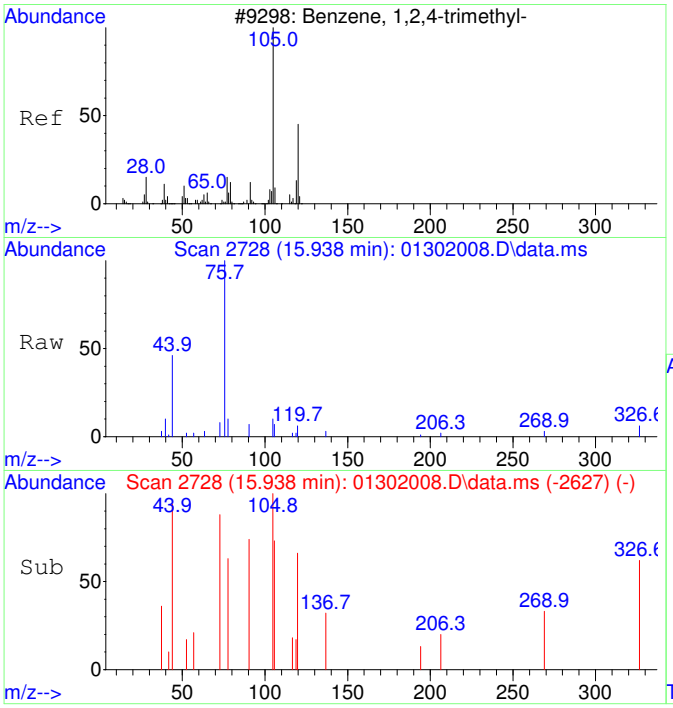


#46
1,3,5-Trimethylbenzene SCAN
Concen: 24.28 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. 0.005 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 312

Ion	Ratio	Lower	Upper
105	100		
120	147.8	19.8	79.8#
119	0.0	0.0	44.5

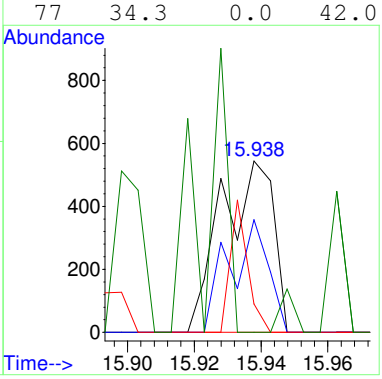




#47
1,2,4-Trimethylbenzene SCAN
Concen: 45.58 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 589

Ion	Ratio	Lower	Upper
105	100		
120	49.2	14.1	74.1
119	25.8	0.0	42.4
77	34.3	0.0	42.0



Quantitation Report (QT Reviewed)

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M.I. Performed By:
TD at 1:14 pm, Jan 30, 2020

M.I. Approved By:
ZR at 11:59 am, Feb 04, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302008.D
Acq On : 30 Jan 2020 10:40
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL6
Misc : 2004027 0.05 mg/L
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:17:49 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.012	109	102923	5000.00	ug/L	0.01
System Monitoring Compounds						
12) Toluene-d8	10.519	98	923	52.95	ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.06%#		
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.120	61	250m	45.11	ug/L	
3] trans-1,2-Dichloroethene	4.310	61	273	50.07	ug/L	95
4] 1,1-Dichloroethane	5.059	63	337	49.79	ug/L	96
5] cis-1,2-Dichloroethene	6.081	61	320	51.08	ug/L	94
6] Chloroform	6.652	83	354	50.77	ug/L	93
7] 1,1,1-Trichloroethane	6.919	97	353	52.80	ug/L	98
8] Carbon tetrachloride	7.187	117	308	51.91	ug/L	83
9] Benzene	7.528	78	871	50.78	ug/L	71
10] 1,2-Dichloroethane	7.564	62	287	51.80	ug/L #	20
11] Trichloroethene	8.597	130	251	51.09	ug/L	90
13] Toluene	10.613	91	1124	54.33	ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	260	56.55	ug/L	96
15] Tetrachloroethene	11.463	166	297	50.95	ug/L	95
16] Chlorobenzene	12.805	112	801	53.40	ug/L	71
17] 1,1,1,2-Tetrachloroethane	12.956	131	259	51.39	ug/L	82
18] Ethylbenzene	13.012	91	1352	55.89	ug/L	93
19] m&p-Xylene	13.202	91	1994	108.44	ug/L	97
20] o-Xylene	13.822	91	1100	56.10	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	454	52.86	ug/L	97
22] 1,3,5-Trimethylbenzene	15.388	105	1151	54.40	ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	1202	56.15	ug/L	100
24] Naphthalene	17.929	128	2063	56.21	ug/L	54
25) 2-Fluorotoluene SCAN	11.011	109	63824	4679.73	ug/L	97
26) 1,1-Dichloroethene SCAN	2.881	61	98	24.86	ug/L #	24
27) trans-1,2-Dichloroethe...	4.302	61	113	31.16	ug/L #	40
28) 1,1-Dichloroethane SCAN	5.085	63	101	21.16	ug/L #	47
29) cis-1,2-Dichloroethene...	6.093	61	203	46.09	ug/L #	24
30) Chloroform SCAN	6.663	83	228	43.21	ug/L #	35
31) 1,1,1-Trichloroethane ...	6.942	97	207	45.80	ug/L #	30
33) Benzene SCAN	7.234	78	1795	143.53	ug/L	94
34) 1,2-Dichloroethane SCAN	7.563	62	268	67.71	ug/L #	37
35) Trichloroethene SCAN	8.459	130	92	28.47	ug/L #	3
36) Toluene-d8 SCAN	10.518	98	590	51.52	ug/L	91
37) Toluene SCAN	11.011	91	907	65.30	ug/L	68
38) 1,1,2-Trichloroethane ...	11.137	97	132	40.73	ug/L #	17
39) Tetrachloroethene SCAN	11.462	166	196	53.74	ug/L #	30
40) Chlorobenzene SCAN	12.804	112	372	38.44	ug/L #	7
42) Ethylbenzene SCAN	13.209	91	1032	65.42	ug/L	70
43) m&p-Xylene SCAN	13.209	91	1027	44.65	ug/L #	83
44) o-Xylene SCAN	13.844	91	400	32.53	ug/L #	37
46) 1,3,5-Trimethylbenzene...	15.392	105	312	24.28	ug/L #	1
47) 1,2,4-Trimethylbenzene...	15.938	105	589	45.58	ug/L	79

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302008.D
Acq On : 30 Jan 2020 10:40
InstName : AG5975C
Operator : TD
Sample : S20A096-CAL6
Misc : 2004027 0.05 mg/L
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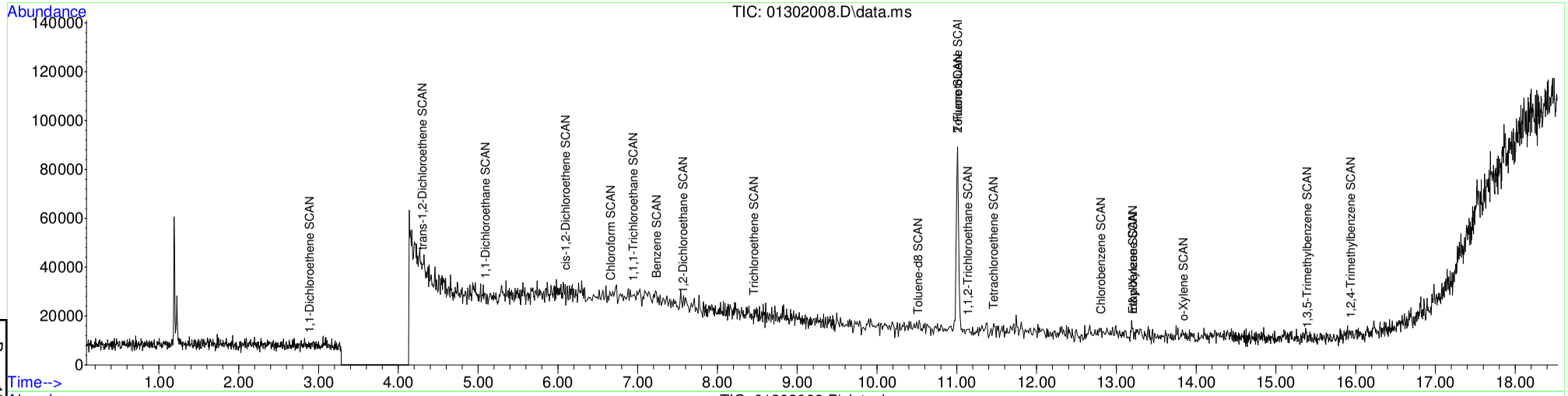
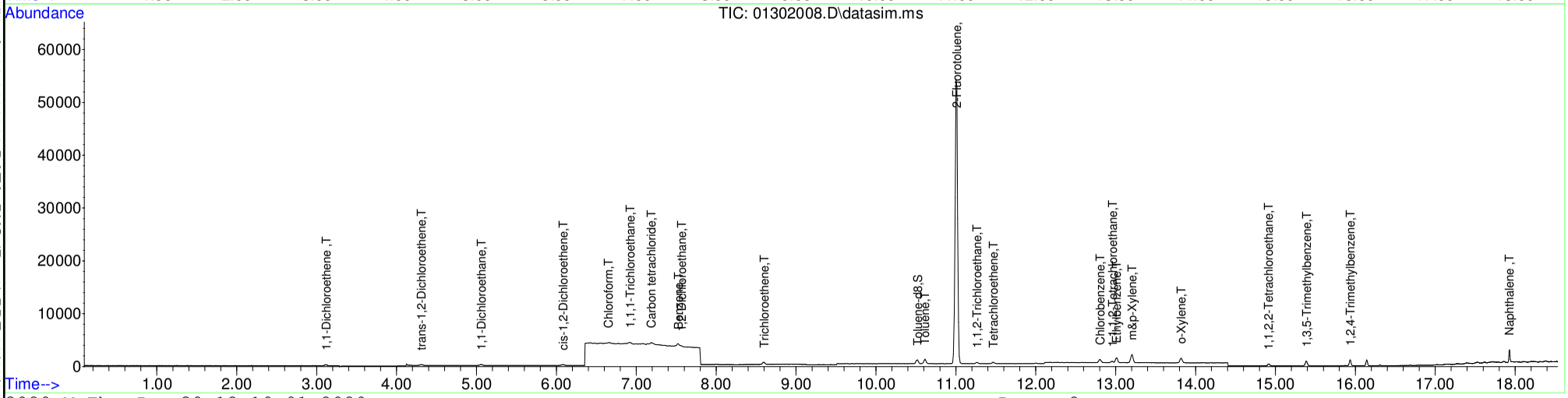
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 06:24:09 2020
Response via : Initial Calibration





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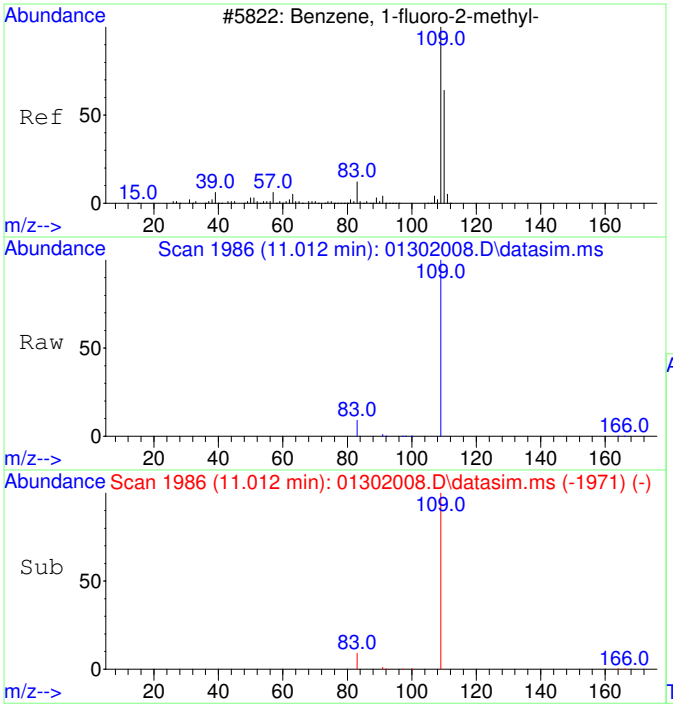
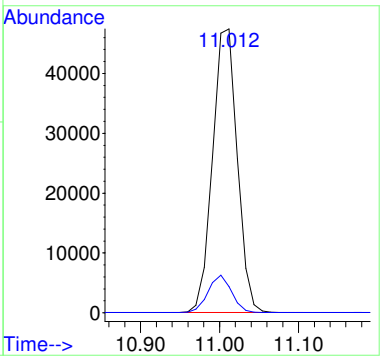
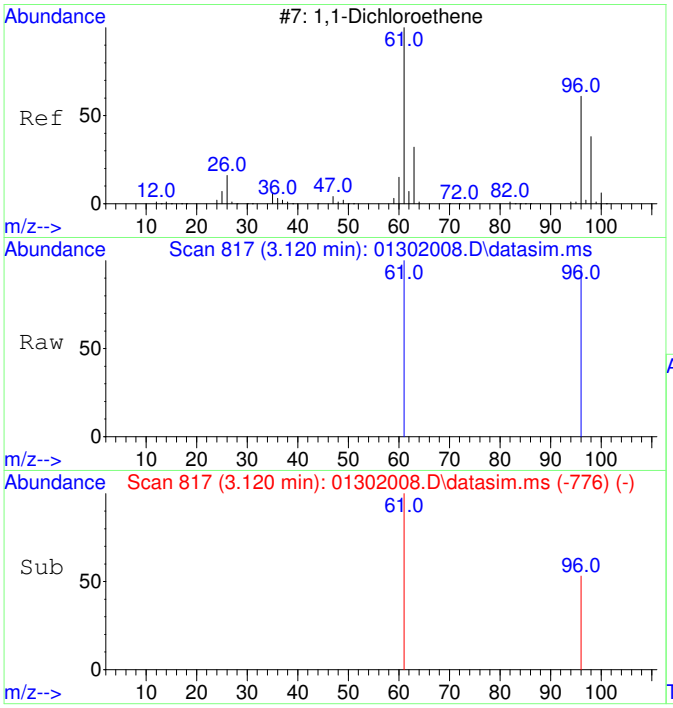


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.012 min Scan# 1986
Delta R.T. 0.010 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:109 Resp: 102923

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.3

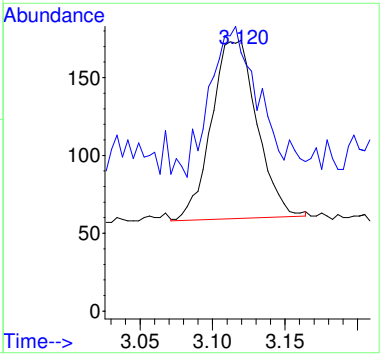


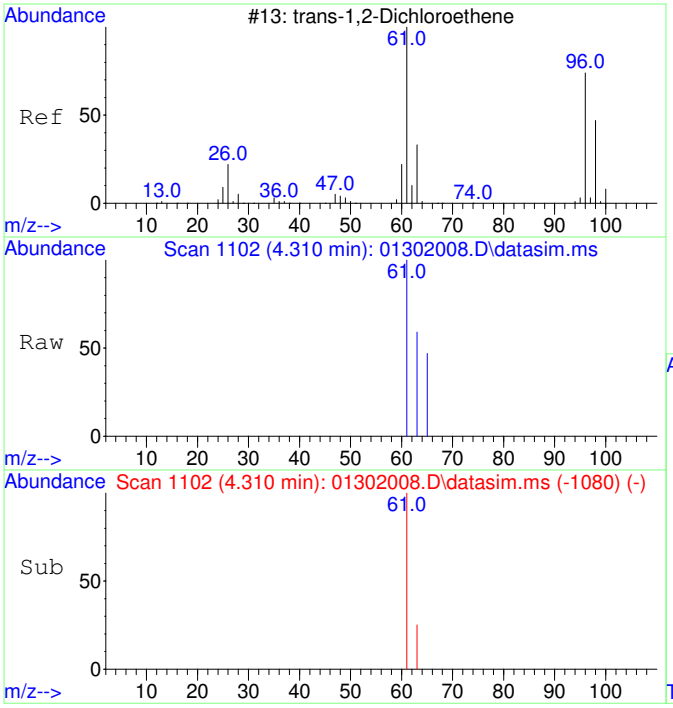


#2
1,1-Dichloroethene
Concen: 45.11 ug/L m
RT: 3.120 min Scan# 817
Delta R.T. 0.004 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 250

Ion	Ratio	Lower	Upper
61	100		
96	77.2	33.6	93.6

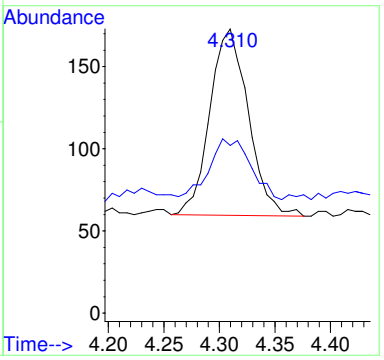


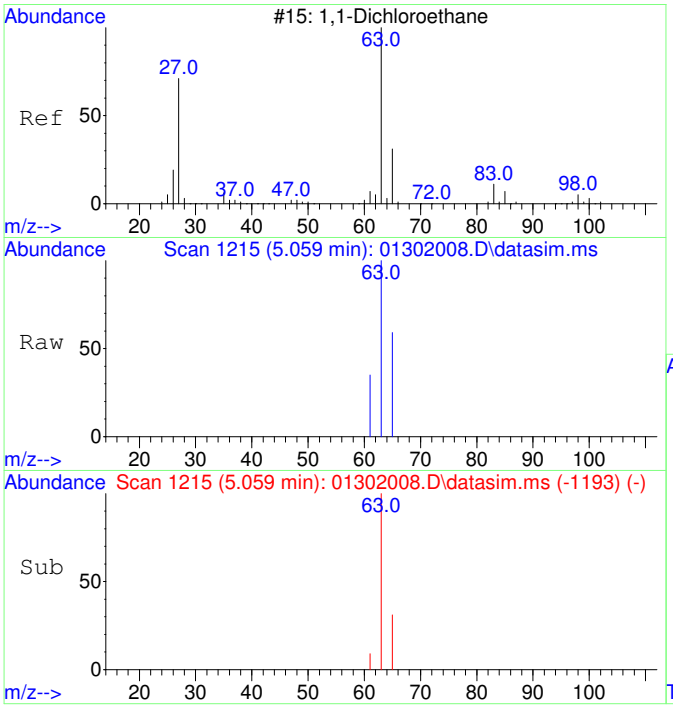


#3
trans-1,2-Dichloroethene
Concen: 50.07 ug/L
RT: 4.310 min Scan# 1102
Delta R.T. -0.007 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 273

Ion	Ratio	Lower	Upper
61	100		
63	35.2	2.3	62.3

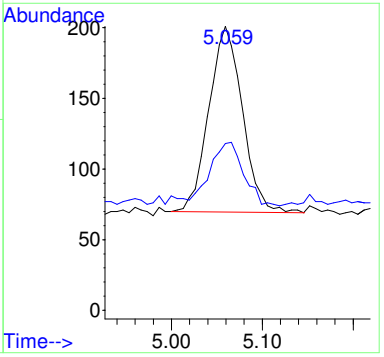


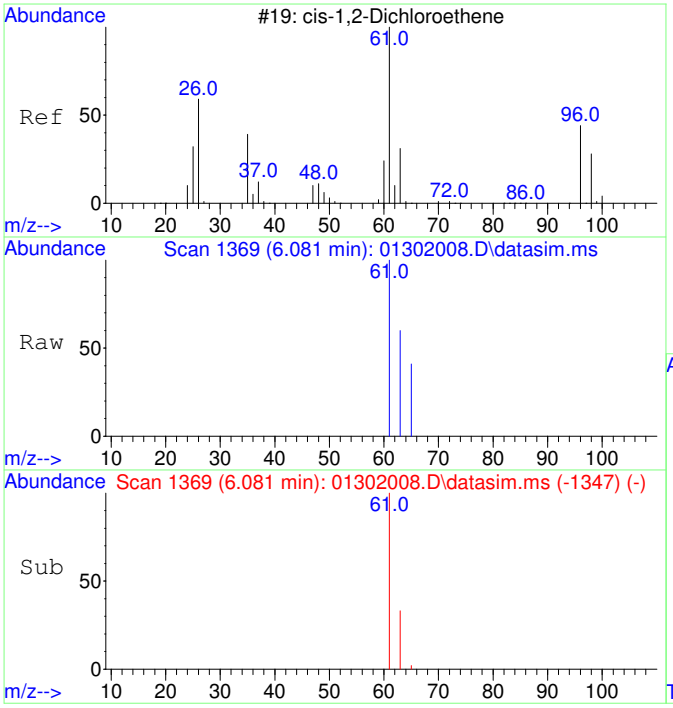


#4
1,1-Dichloroethane
Concen: 49.79 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. -0.007 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 63 Resp: 337

Ion	Ratio	Lower	Upper
63	100		
65	34.1	1.7	61.7

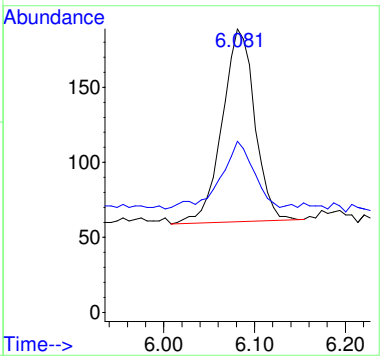


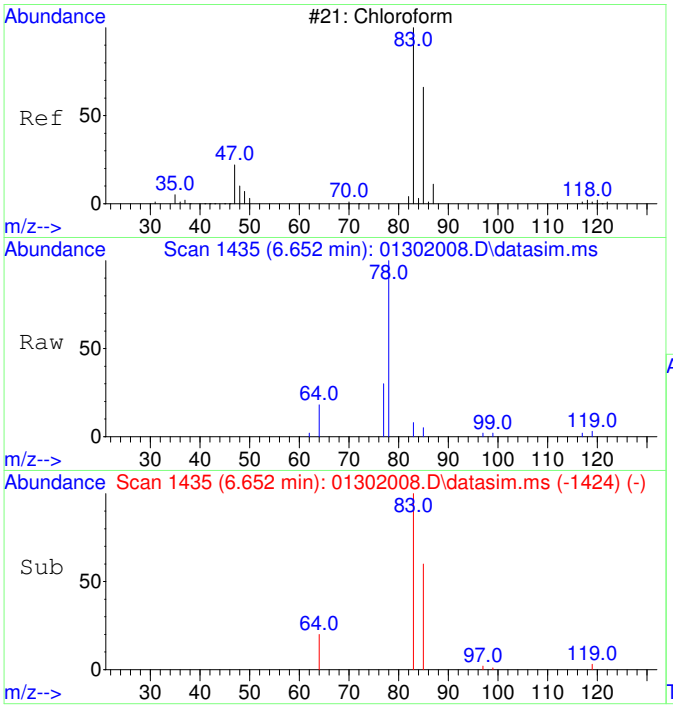


#5
cis-1,2-Dichloroethene
Concen: 51.08 ug/L
RT: 6.081 min Scan# 1369
Delta R.T. -0.007 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 320

Ion	Ratio	Lower	Upper
61	100		
63	36.3	2.6	62.6

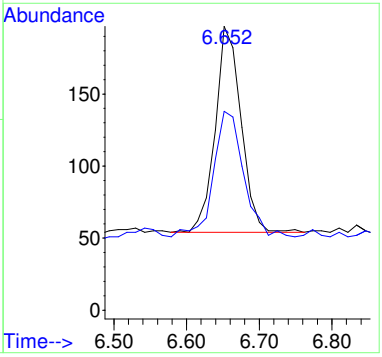


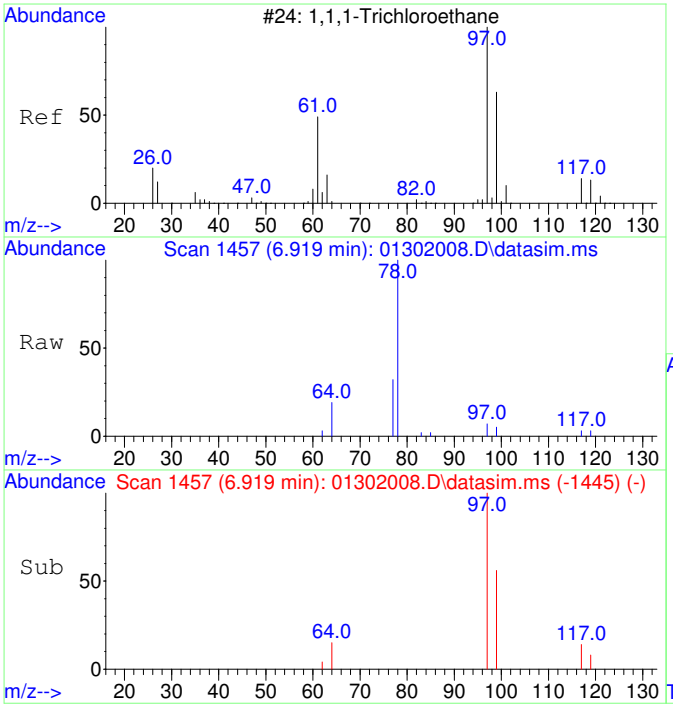


#6
Chloroform
Concen: 50.77 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 83 Resp: 354

Ion	Ratio	Lower	Upper
83	100		
85	70.6	35.2	95.2

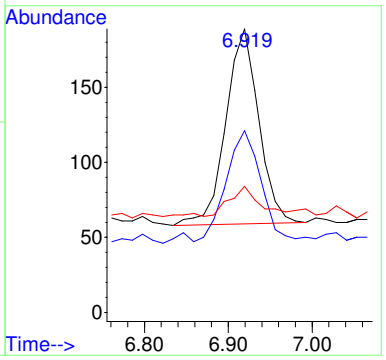


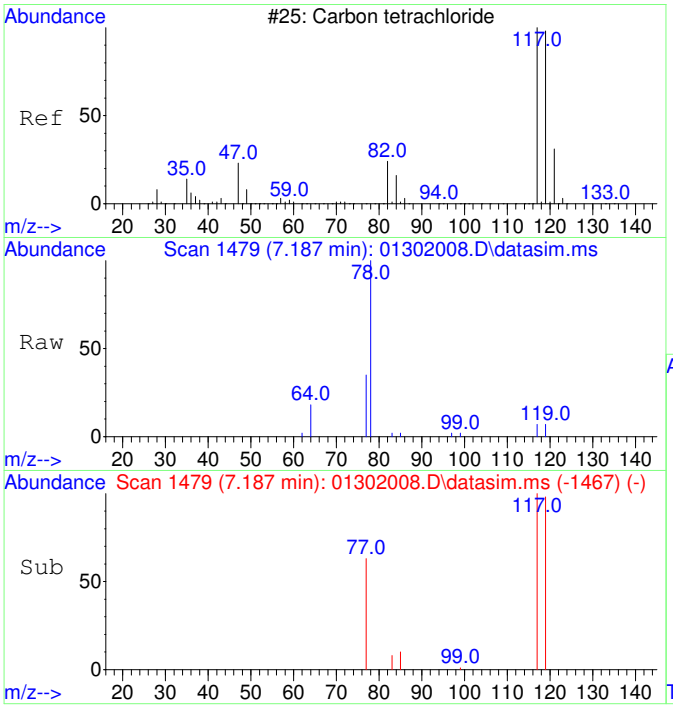


#7
1,1,1-Trichloroethane
Concen: 52.80 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 353

Ion	Ratio	Lower	Upper
97	100		
99	64.3	34.6	94.6
117	15.9	0.0	42.9

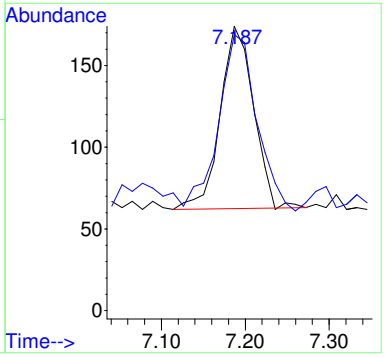


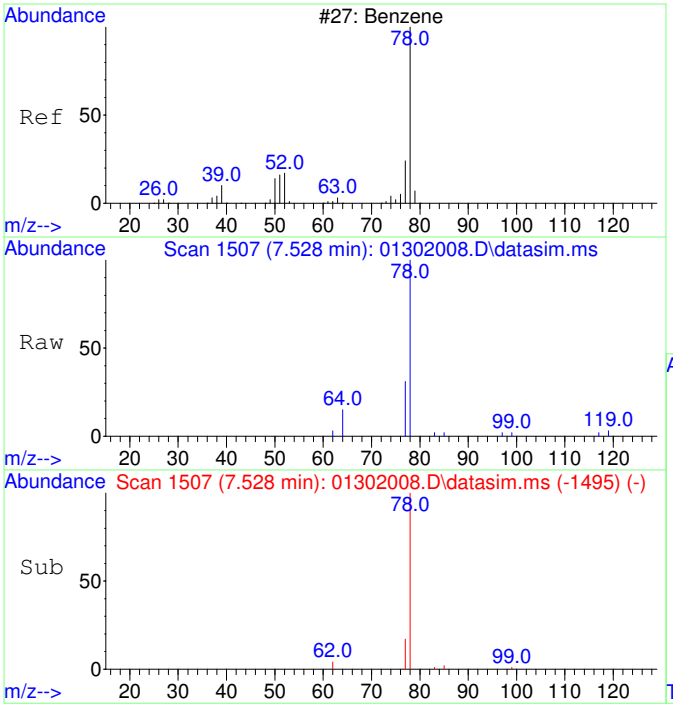


#8
Carbon tetrachloride
Concen: 51.91 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:117 Resp: 308

Ion	Ratio	Lower	Upper
117	100		
119	111.4	65.2	125.2

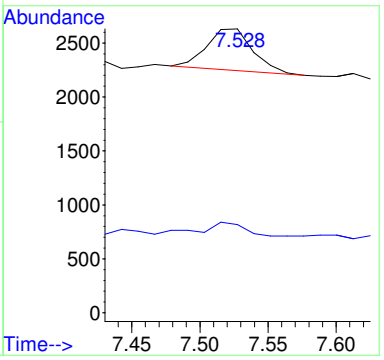


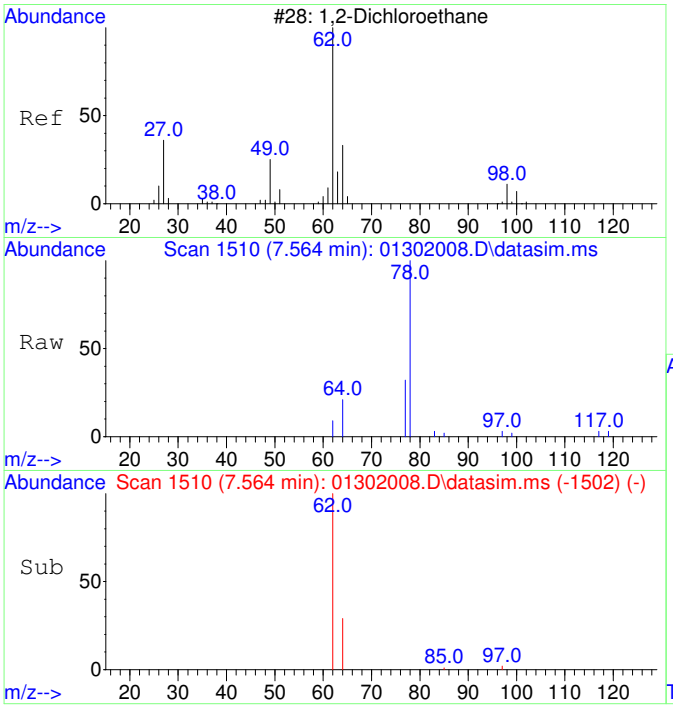


#9
Benzene
Concen: 50.78 ug/L
RT: 7.528 min Scan# 1507
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 78 Resp: 871

Ion	Ratio	Lower	Upper
78	100		
77	37.8	0.0	53.4

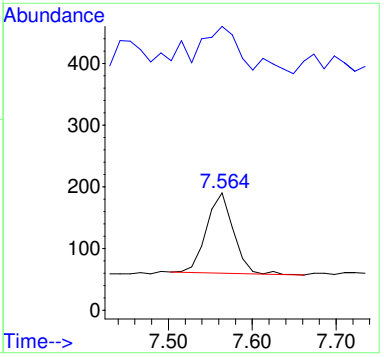


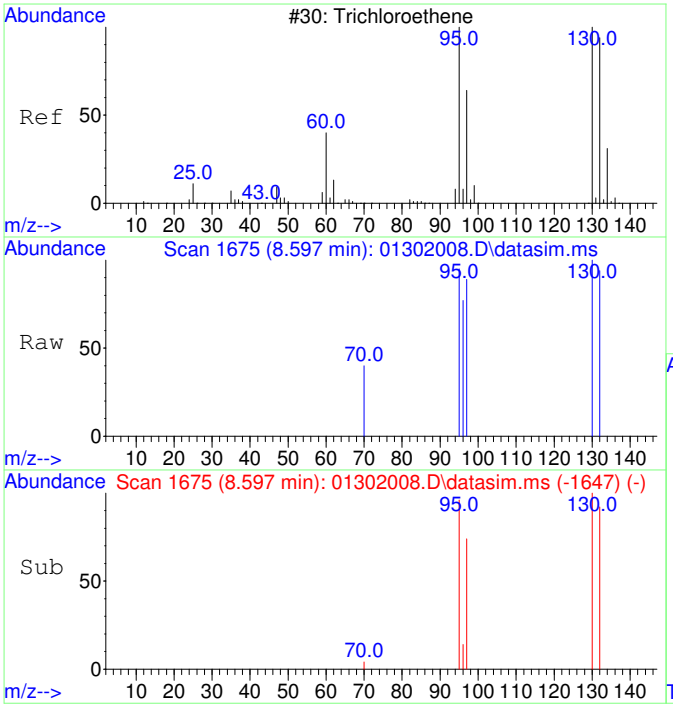


#10
1,2-Dichloroethane
Concen: 51.80 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 62 Resp: 287

Ion	Ratio	Lower	Upper
62	100		
64	79.1	3.4	63.4#

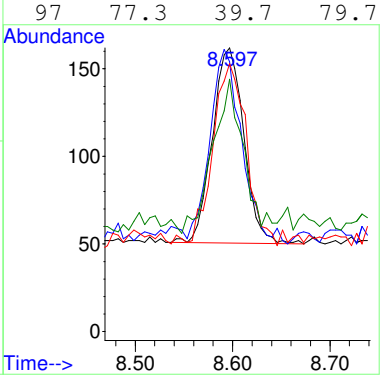


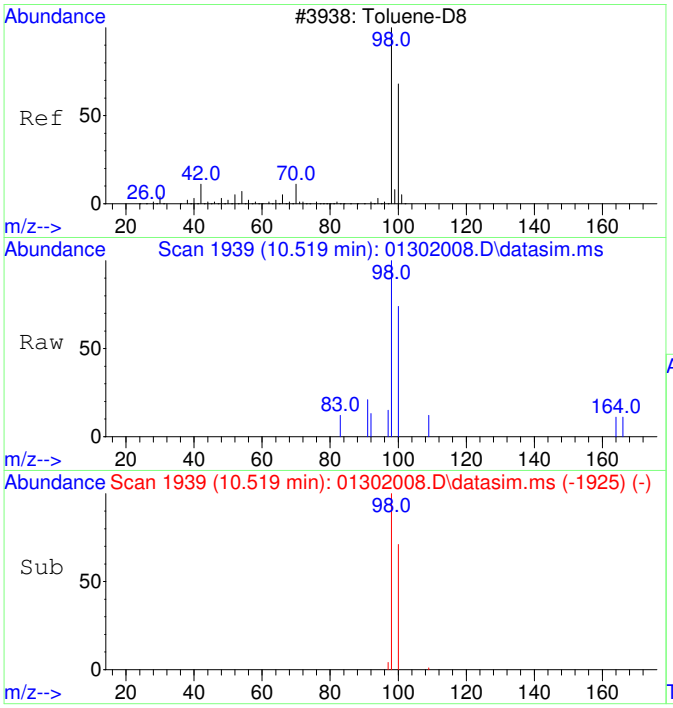


#11
Trichloroethene
Concen: 51.09 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:130 Resp: 251

Ion	Ratio	Lower	Upper
130	100		
95	101.2	63.0	123.0
132	98.8	75.5	115.5
97	77.3	39.7	79.7

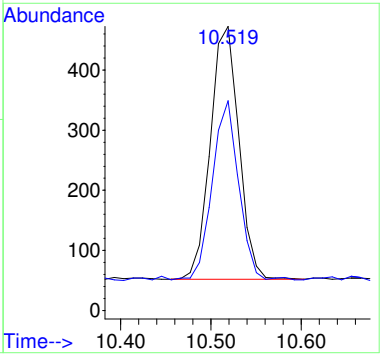


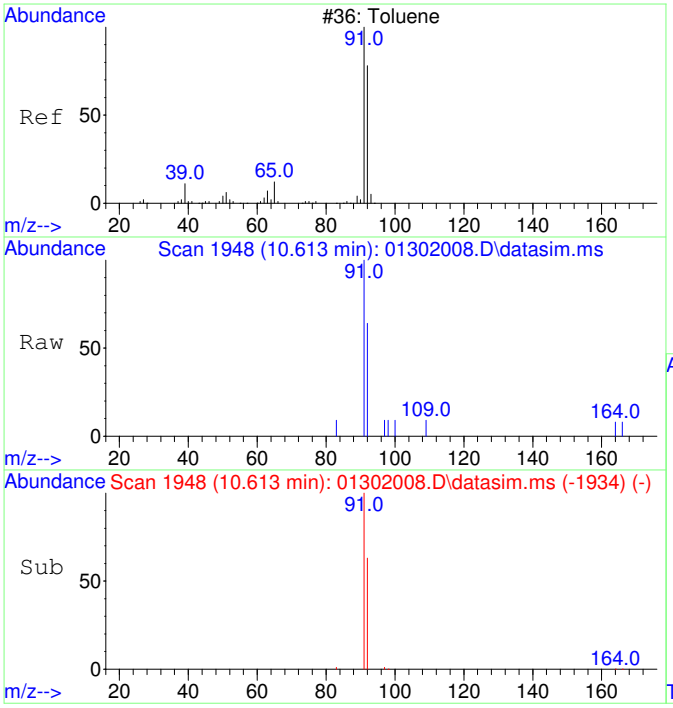


#12
Toluene-d8
Concen: 52.95 ug/L
RT: 10.519 min Scan# 1939
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 98 Resp: 923

Ion	Ratio	Lower	Upper
98	100		
100	65.7	37.0	97.0

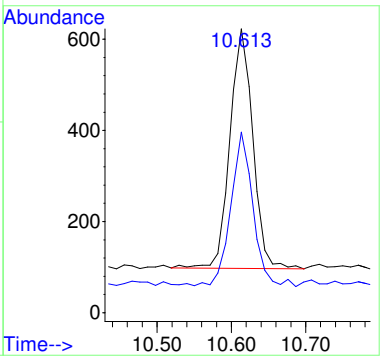


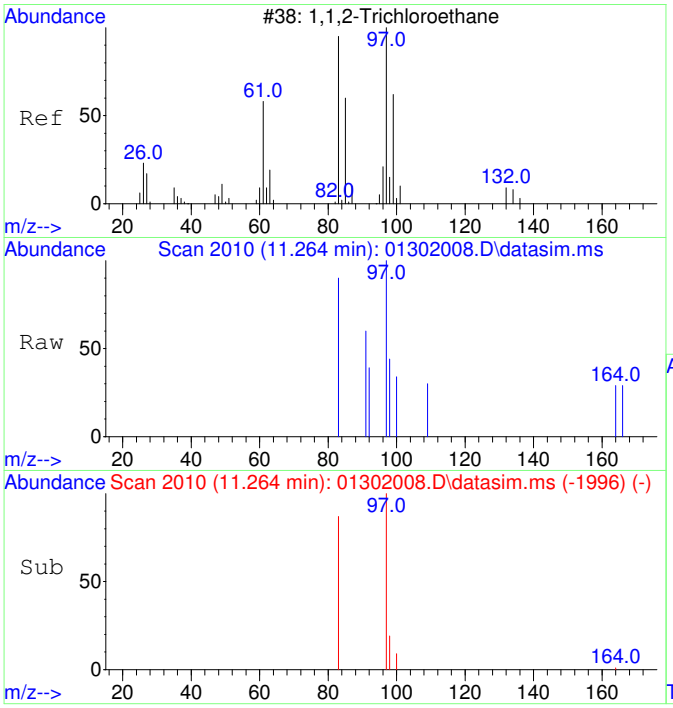


#13
Toluene
Concen: 54.33 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1124

Ion	Ratio	Lower	Upper
91	100		
92	59.6	29.6	89.6

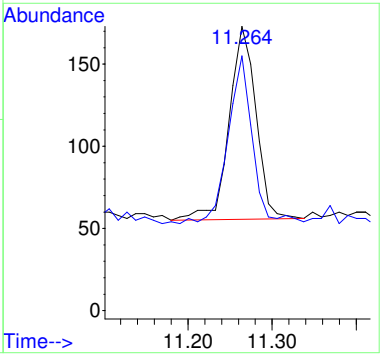


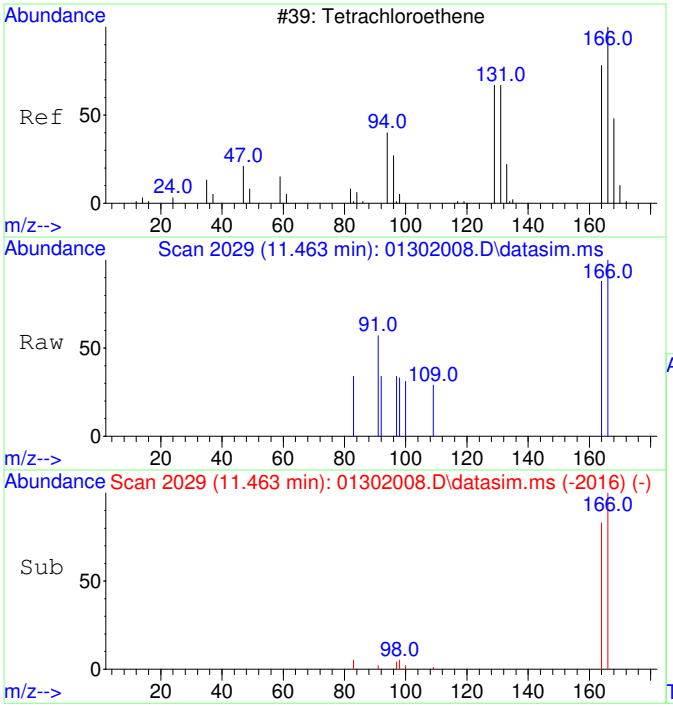


#14
1,1,2-Trichloroethane
Concen: 56.55 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 260

Ion	Ratio	Lower	Upper
97	100		
83	77.3	51.2	111.2

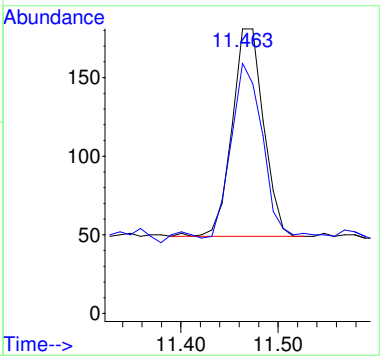


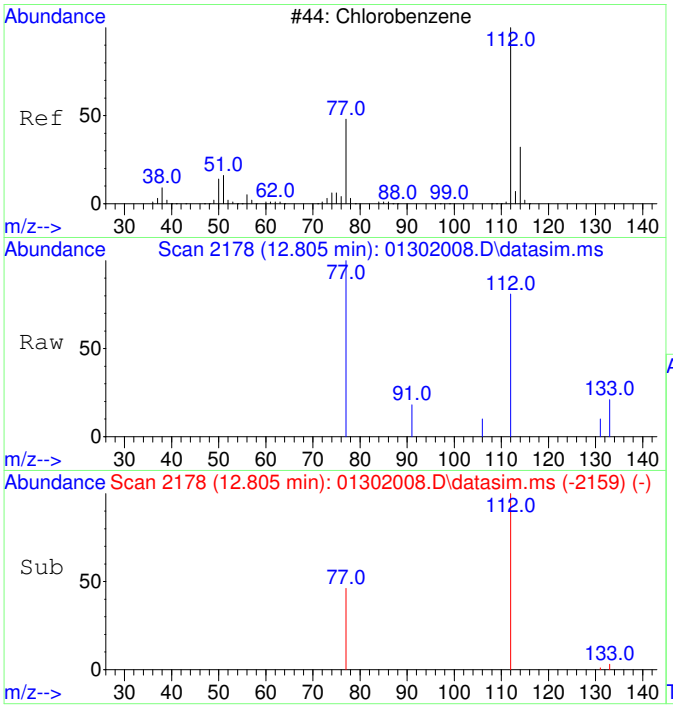


#15
Tetrachloroethene
Concen: 50.95 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:166 Resp: 297

Ion	Ratio	Lower	Upper
166	100		
164	83.2	48.6	108.6

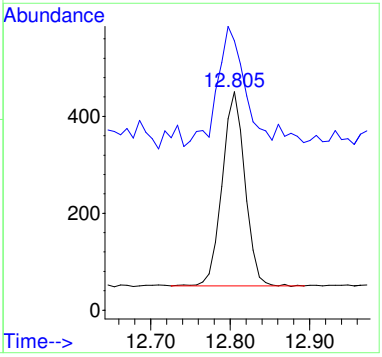


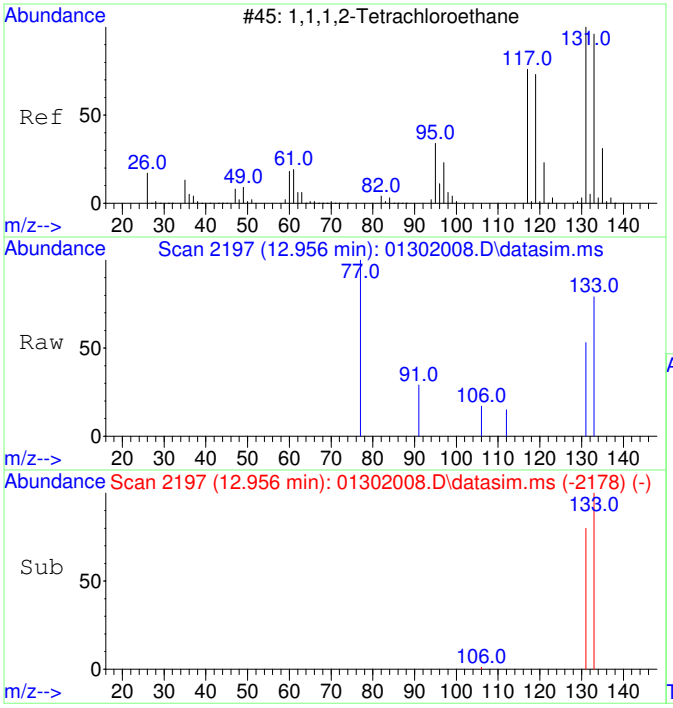


#16
Chlorobenzene
Concen: 53.40 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:112 Resp: 801

Ion	Ratio	Lower	Upper
112	100		
77	75.9	25.2	85.2

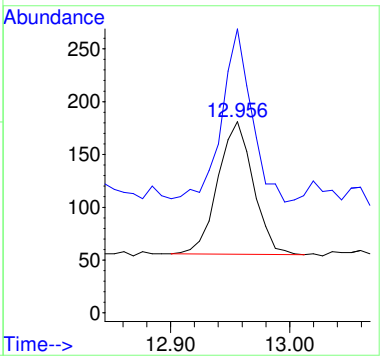


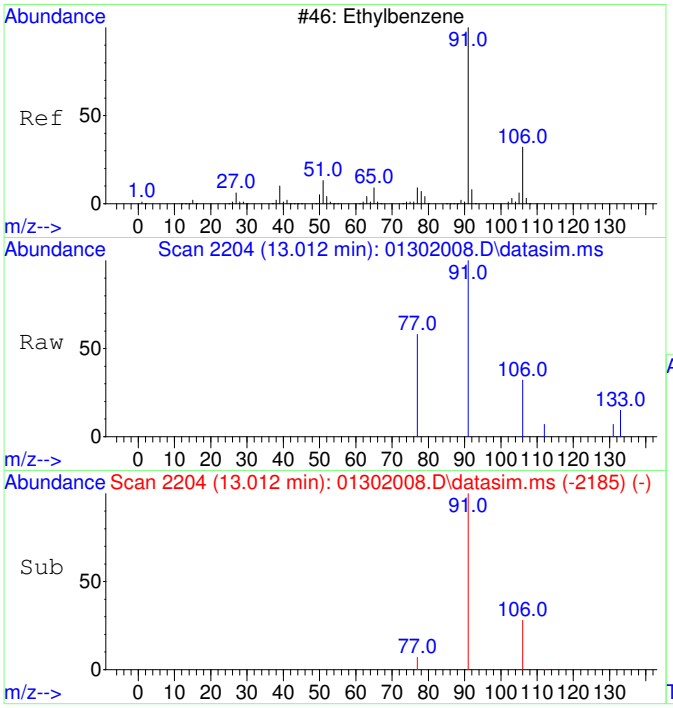


#17
1,1,1,2-Tetrachloroethane
Concen: 51.39 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:131 Resp: 259

Ion	Ratio	Lower	Upper
131	100		
133	113.5	65.5	125.5

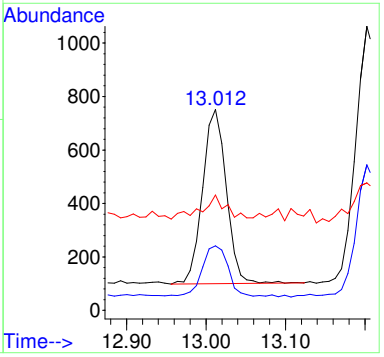


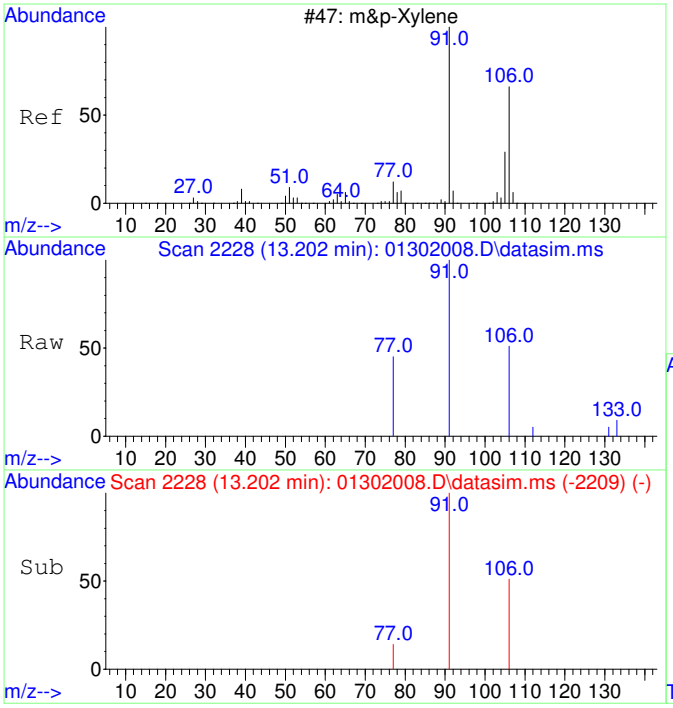


#18
Ethylbenzene
Concen: 55.89 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1352

Ion	Ratio	Lower	Upper
91	100		
106	30.7	2.7	62.7
77	16.1	0.0	38.3

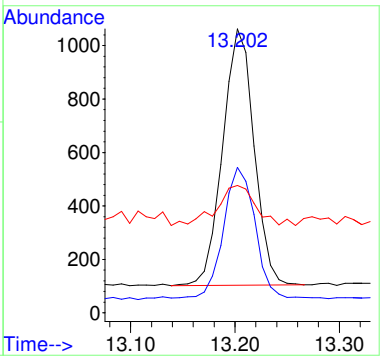


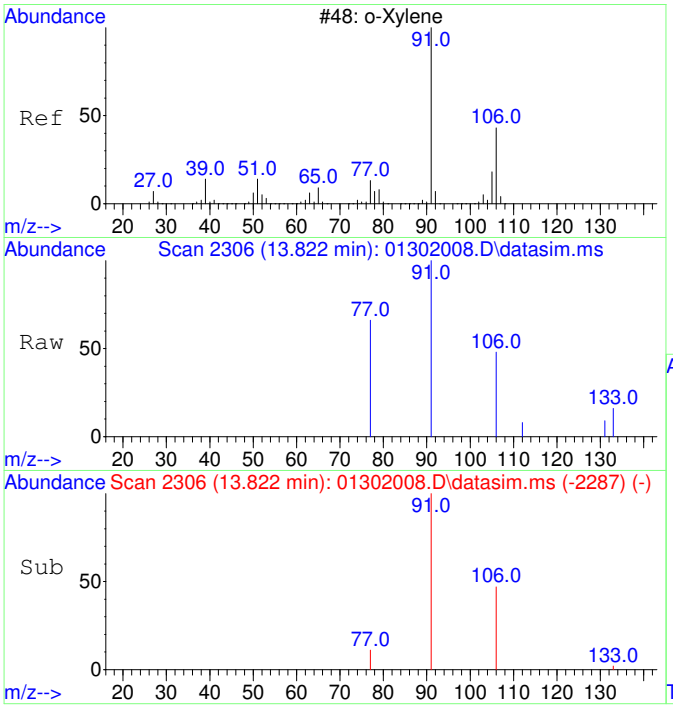


#19
m&p-Xylene
Concen: 108.44 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1994

Ion	Ratio	Lower	Upper
91	100		
106	51.5	21.6	81.6
77	18.9	0.0	42.5

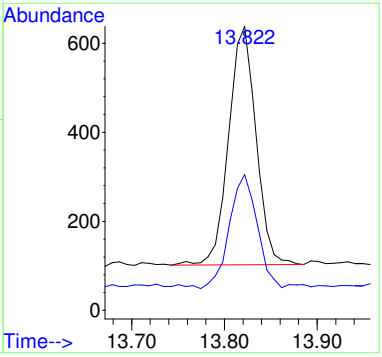


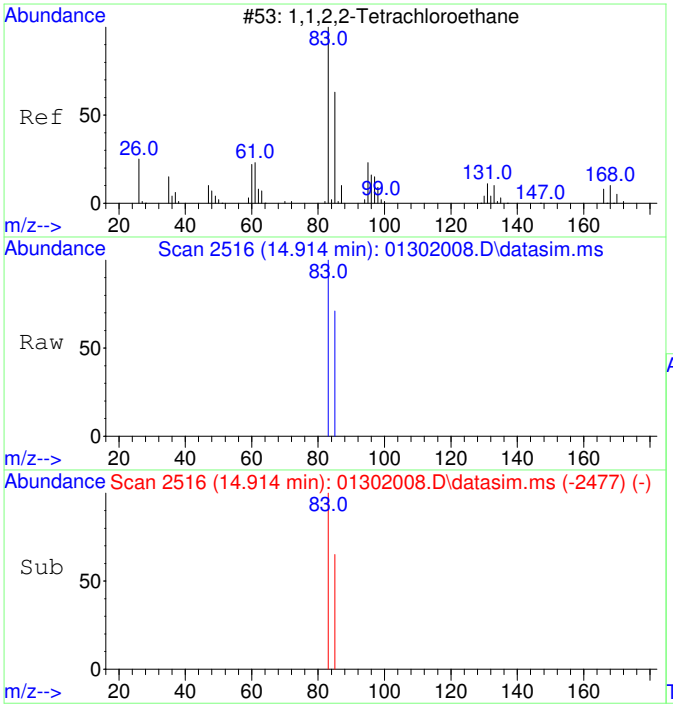


#20
o-Xylene
Concen: 56.10 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1100

Ion	Ratio	Lower	Upper
91	100		
106	49.3	18.6	78.6

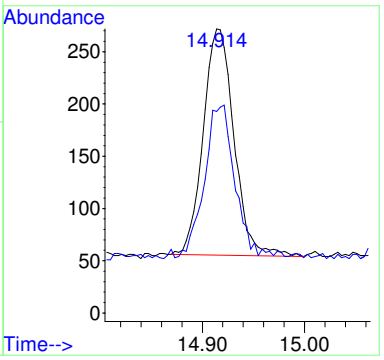


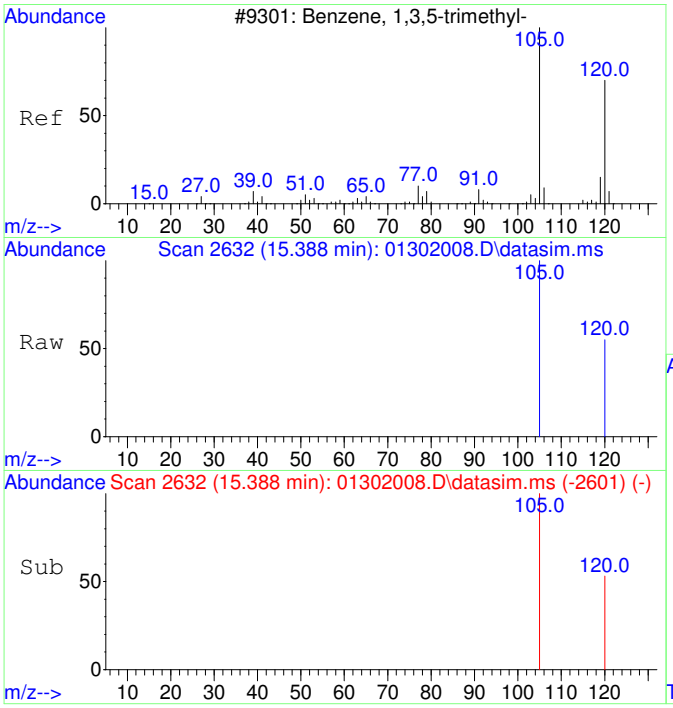


#21
1,1,2,2-Tetrachloroethane
Concen: 52.86 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.004 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 83 Resp: 454

Ion	Ratio	Lower	Upper
83	100		
85	66.7	34.7	94.7

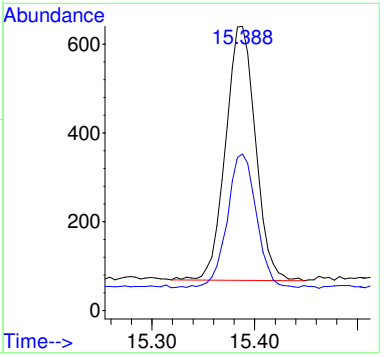


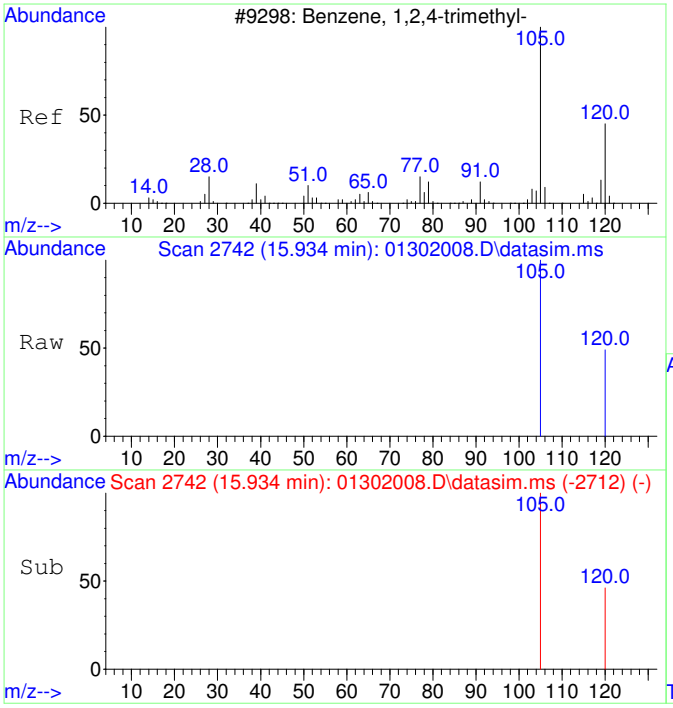


#22
1,3,5-Trimethylbenzene
Concen: 54.40 ug/L
RT: 15.388 min Scan# 2632
Delta R.T. 0.005 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 1151

Ion	Ratio	Lower	Upper
105	100		
120	50.9	21.1	81.1

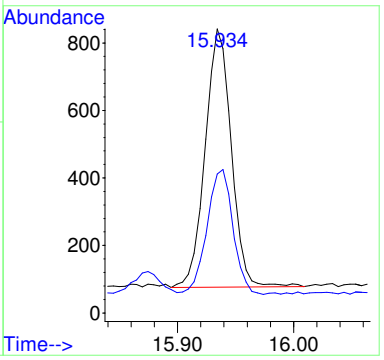


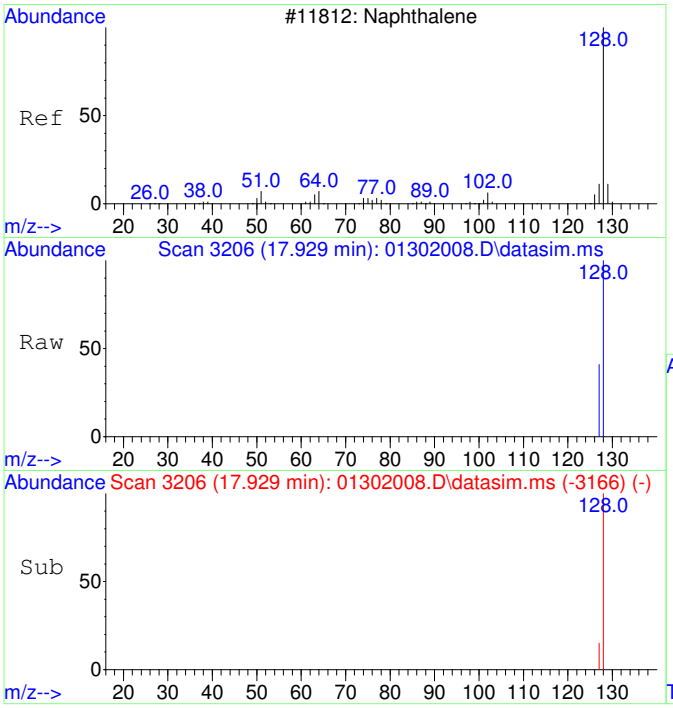


#23
1,2,4-Trimethylbenzene
Concen: 56.15 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 1202

Ion	Ratio	Lower	Upper
105	100		
120	47.2	17.2	77.2

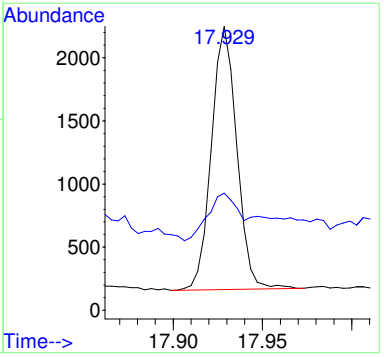


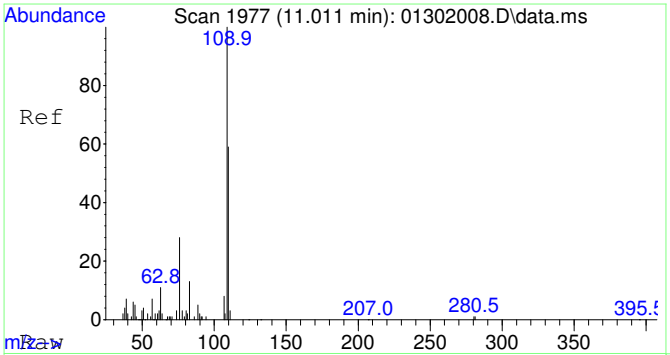


#24
Naphthalene
Concen: 56.21 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:128 Resp: 2063

Ion	Ratio	Lower	Upper
128	100		
127	30.8	0.0	42.7

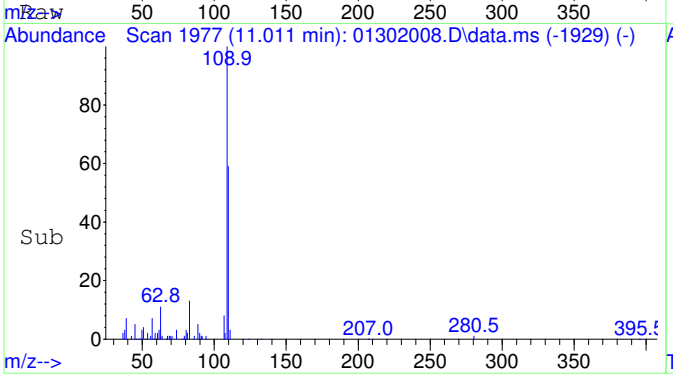


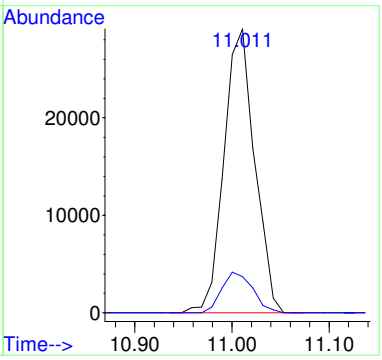


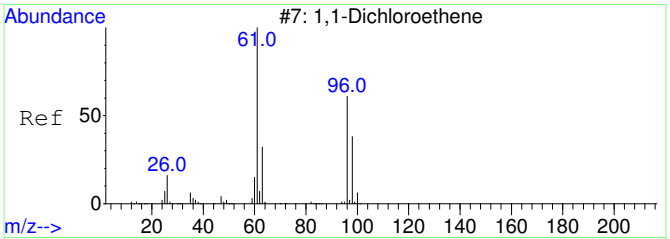
#25
2-Fluorotoluene SCAN
Concen: 4679.73 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:109 Resp: 63824

Ion	Ratio	Lower	Upper
109	100		
83	14.5	0.0	43.3



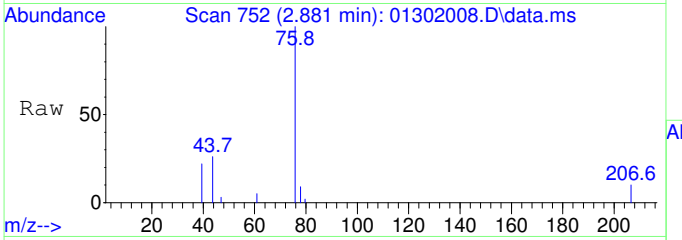


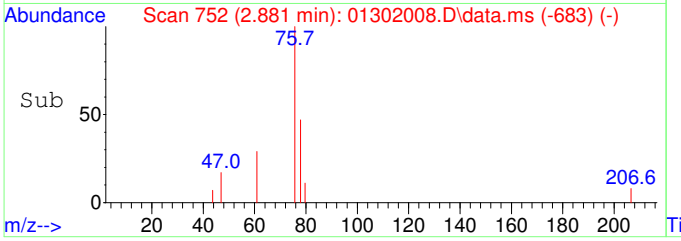


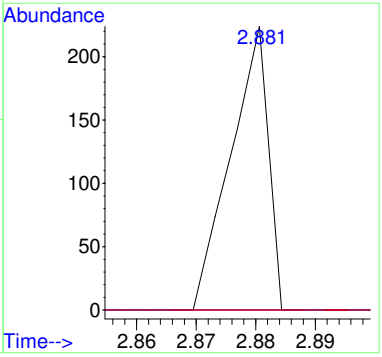
#26
1,1-Dichloroethene SCAN
Concen: 24.86 ug/L
RT: 2.881 min Scan# 752
Delta R.T. -0.245 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

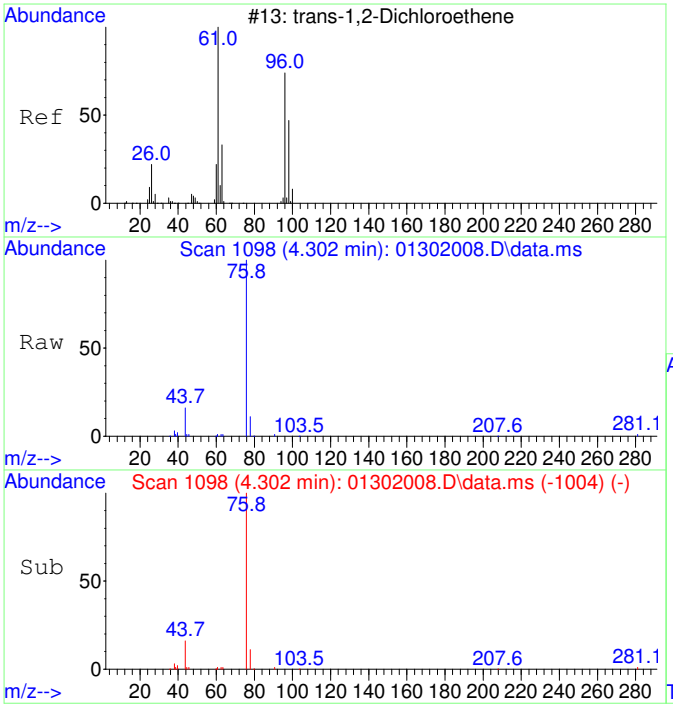
Tgt Ion: 61 Resp: 98

Ion	Ratio	Lower	Upper
61	100		
96	0.0	37.0	97.0#
98	0.0	9.0	69.0#





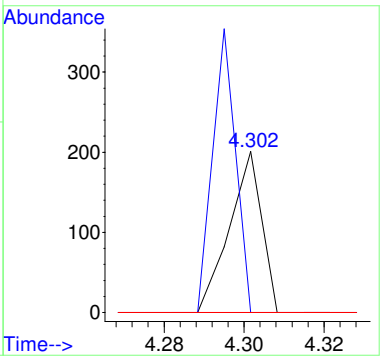


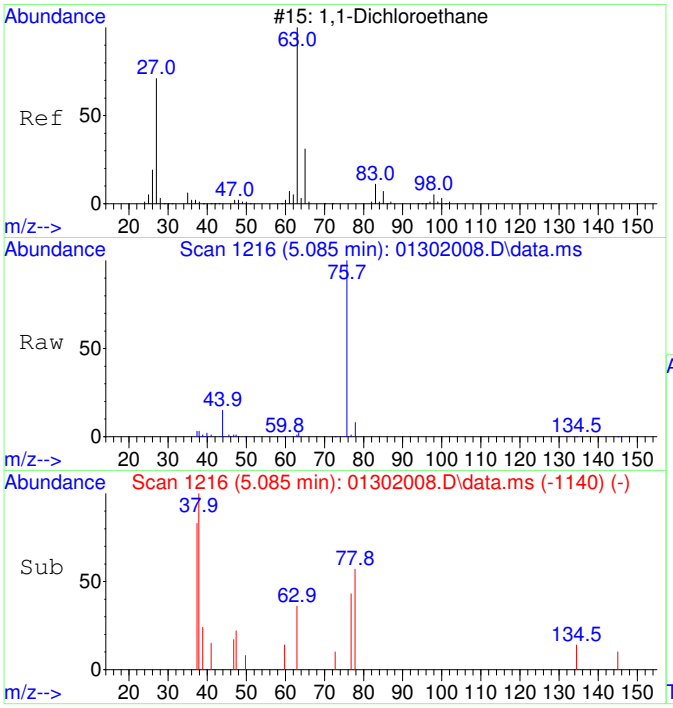


#27
trans-1,2-Dichloroethene SCAN
Concen: 31.16 ug/L
RT: 4.302 min Scan# 1098
Delta R.T. -0.013 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 113

Ion	Ratio	Lower	Upper
61	100		
96	124.8	48.2	108.2#
98	0.0	17.7	77.7#

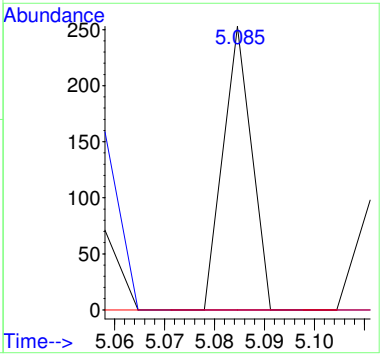


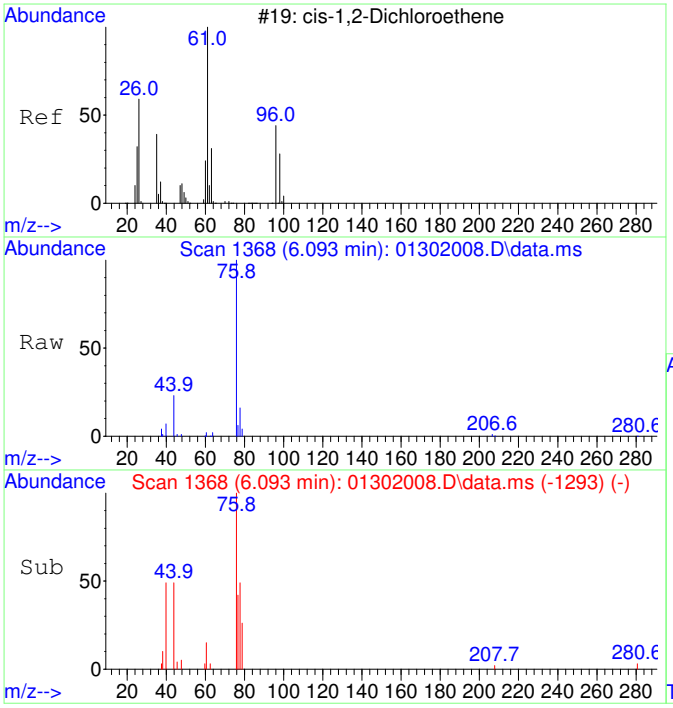


#28
1,1-Dichloroethane SCAN
Concen: 21.16 ug/L
RT: 5.085 min Scan# 1216
Delta R.T. 0.006 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 63 Resp: 101

Ion	Ratio	Lower	Upper
63	100		
65	0.0	5.7	65.7#
83	0.0	0.0	41.0

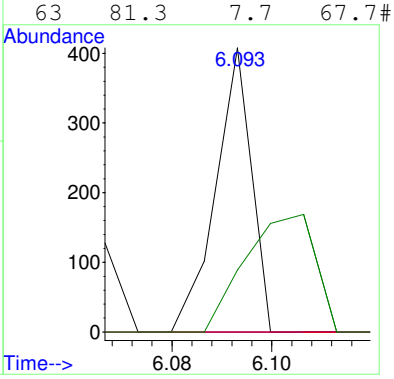


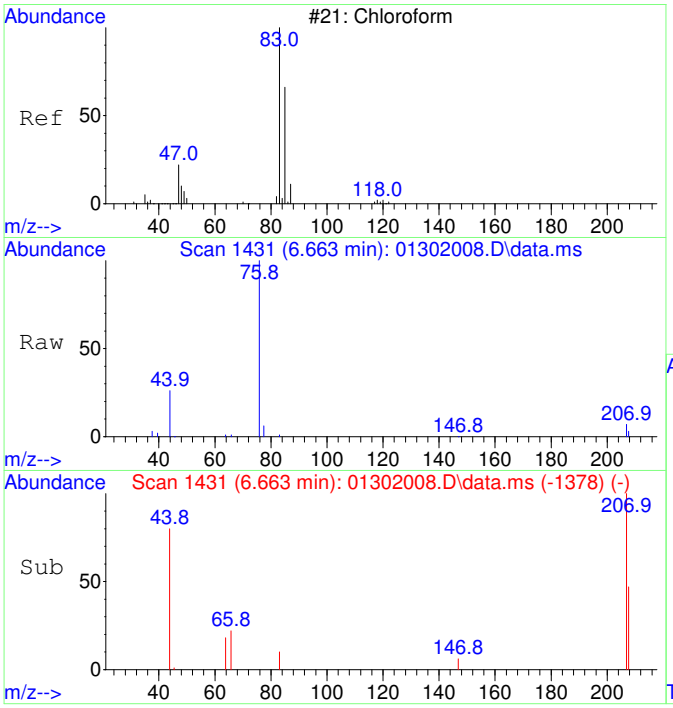


#29
cis-1,2-Dichloroethene SCAN
Concen: 46.09 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 61 Resp: 203

Ion	Ratio	Lower	Upper
61	100		
96	0.0	32.3	92.3#
98	0.0	18.9	78.9#
63	81.3	7.7	67.7#

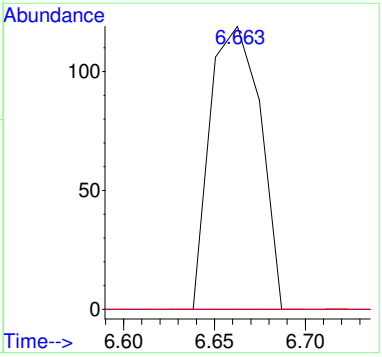


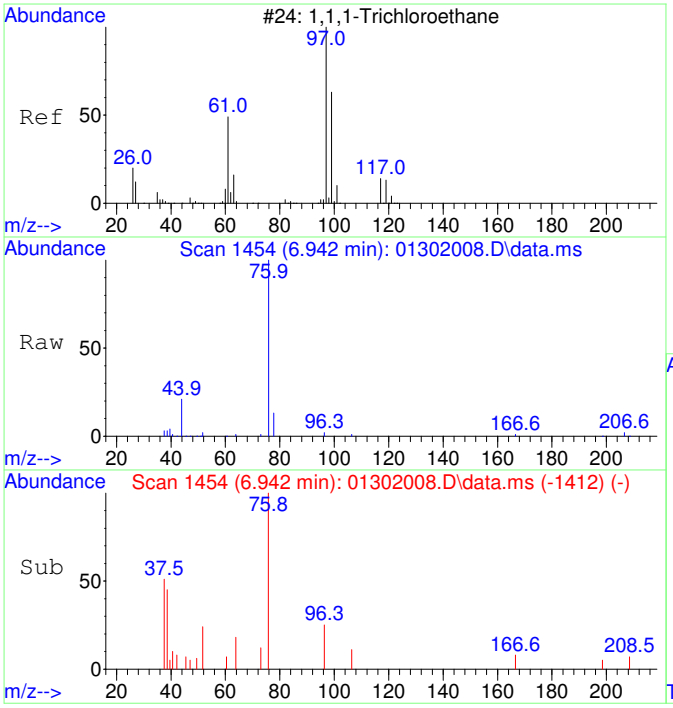


#30
Chloroform SCAN
Concen: 43.21 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 83 Resp: 228

Ion	Ratio	Lower	Upper
83	100		
85	0.0	20.9	80.9#
47	0.0	0.0	50.1

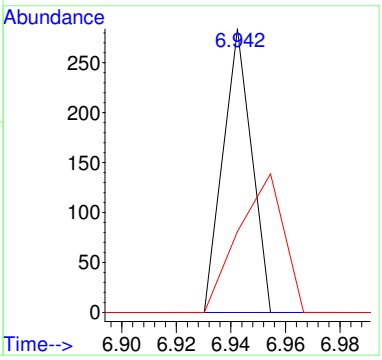


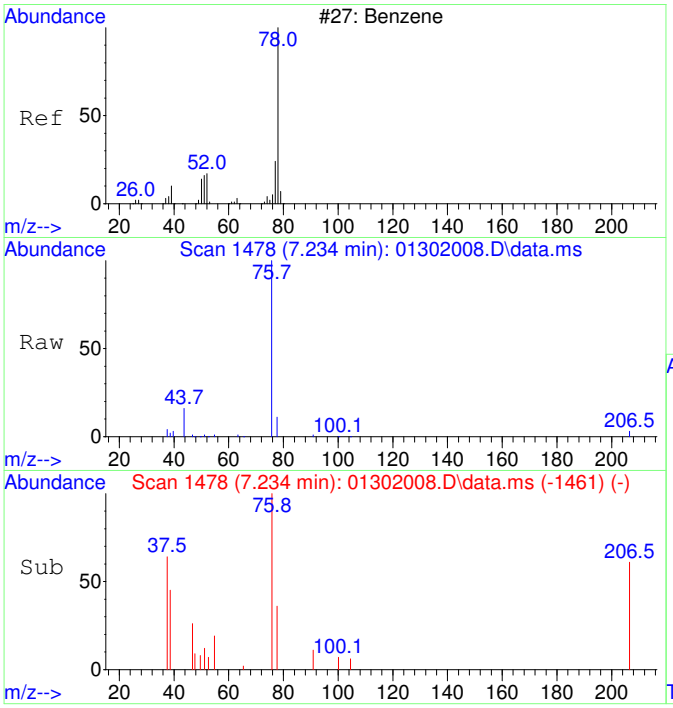


#31
1,1,1-Trichloroethane SCAN
Concen: 45.80 ug/L
RT: 6.942 min Scan# 1454
Delta R.T. 0.012 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 207

Ion	Ratio	Lower	Upper
97	100		
99	0.0	28.2	88.2#
61	77.8	11.1	71.1#

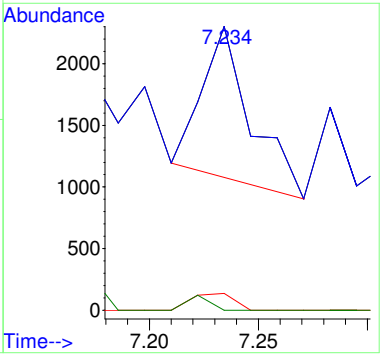


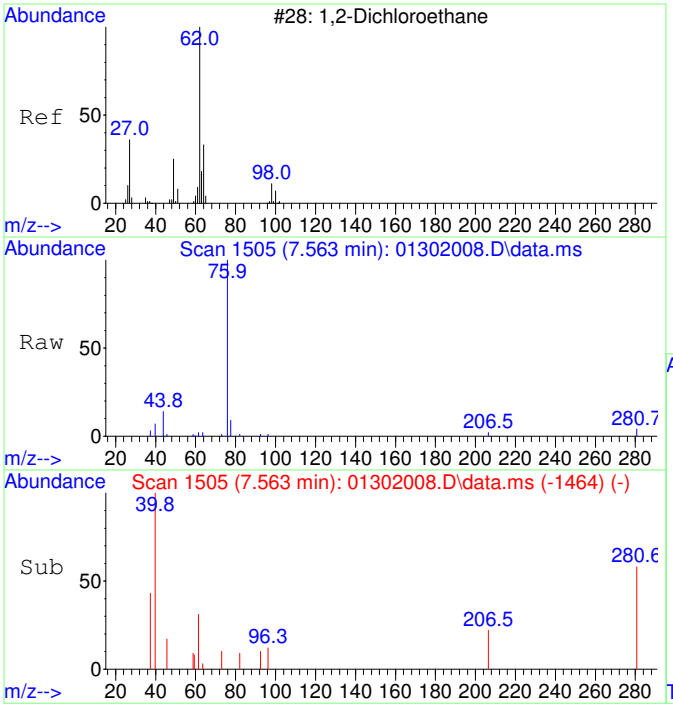


#33
Benzene SCAN
Concen: 143.53 ug/L
RT: 7.234 min Scan# 1478
Delta R.T. -0.292 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 78 Resp: 1795

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	10.5	0.0	50.6
52	5.0	0.0	45.2

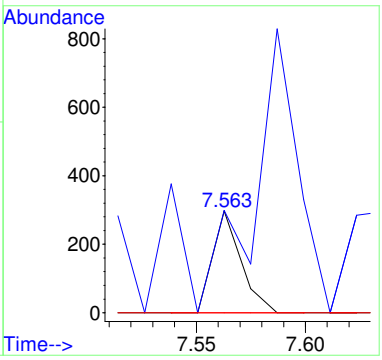


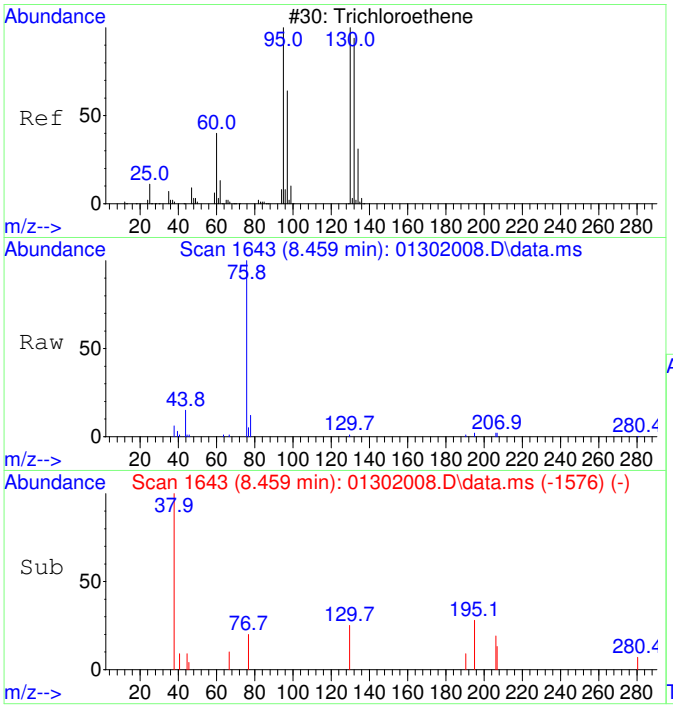


#34
1,2-Dichloroethane SCAN
Concen: 67.71 ug/L
RT: 7.563 min Scan# 1505
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 62 Resp: 268

Ion	Ratio	Lower	Upper
62	100		
64	0.0	9.1	69.1#
49	0.0	6.2	66.2#

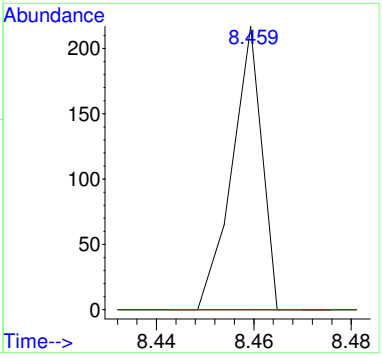


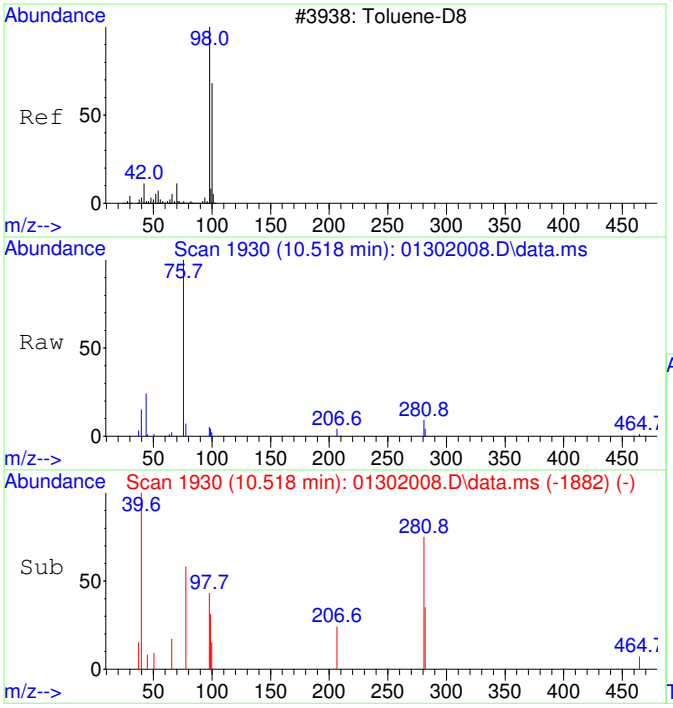


#35
Trichloroethene SCAN
Concen: 28.47 ug/L
RT: 8.459 min Scan# 1643
Delta R.T. -0.136 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:130 Resp: 92

Ion	Ratio	Lower	Upper
130	100		
95	0.0	69.4	129.4#
132	0.0	77.2	137.2#
97	0.0	35.3	95.3#

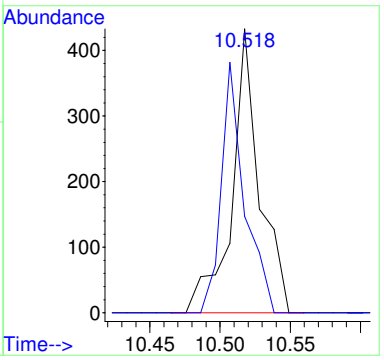


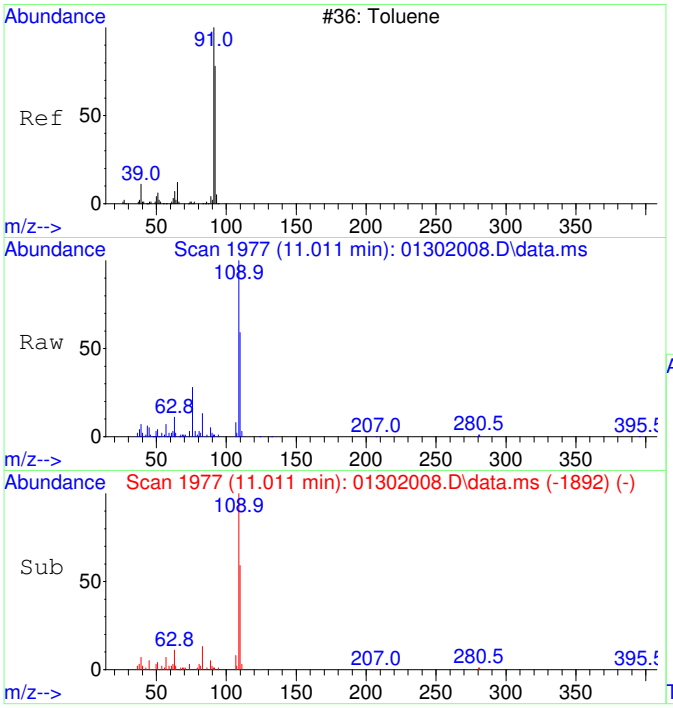


#36
Toluene-d8 SCAN
Concen: 51.52 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 98 Resp: 590

Ion	Ratio	Lower	Upper
98	100		
100	74.1	36.6	96.6

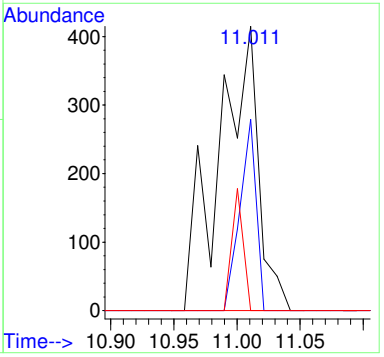


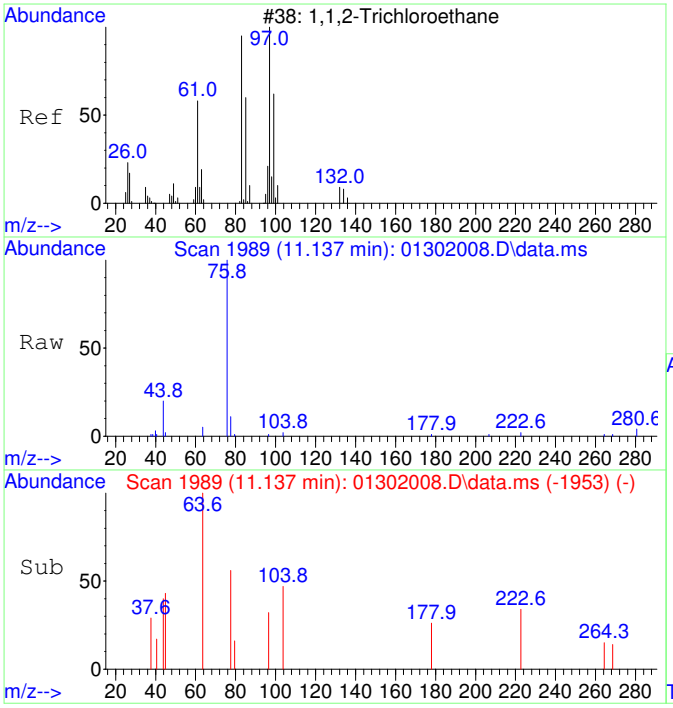


#37
Toluene SCAN
Concen: 65.30 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.388 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 907

Ion	Ratio	Lower	Upper
91	100		
92	27.7	26.1	86.1
65	12.3	0.0	42.0

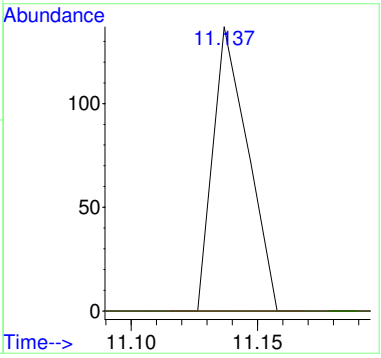


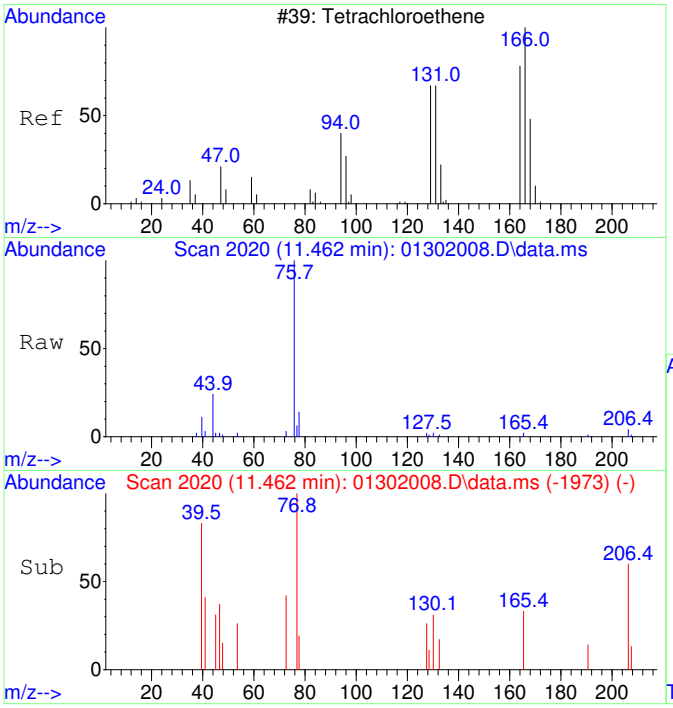


#38
1,1,2-Trichloroethane SCAN
Concen: 40.73 ug/L
RT: 11.137 min Scan# 1989
Delta R.T. -0.126 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 97 Resp: 132

Ion	Ratio	Lower	Upper
97	100		
83	0.0	44.4	104.4#
61	0.0	32.3	92.3#
99	0.0	32.1	92.1#

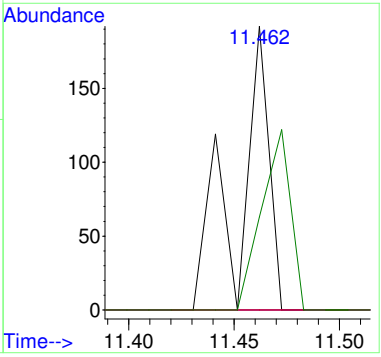


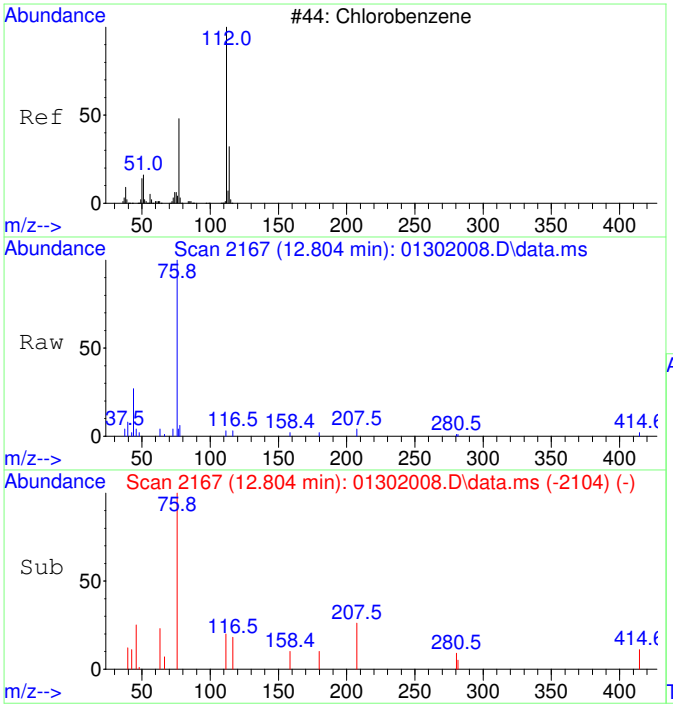


#39
Tetrachloroethene SCAN
Concen: 53.74 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.011 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:166 Resp: 196

Ion	Ratio	Lower	Upper
166	100		
164	0.0	62.9	122.9#
131	0.0	45.9	105.9#
129	59.2	40.3	100.3

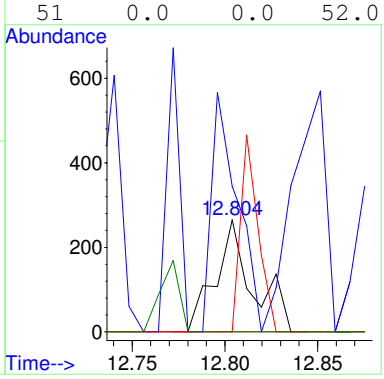


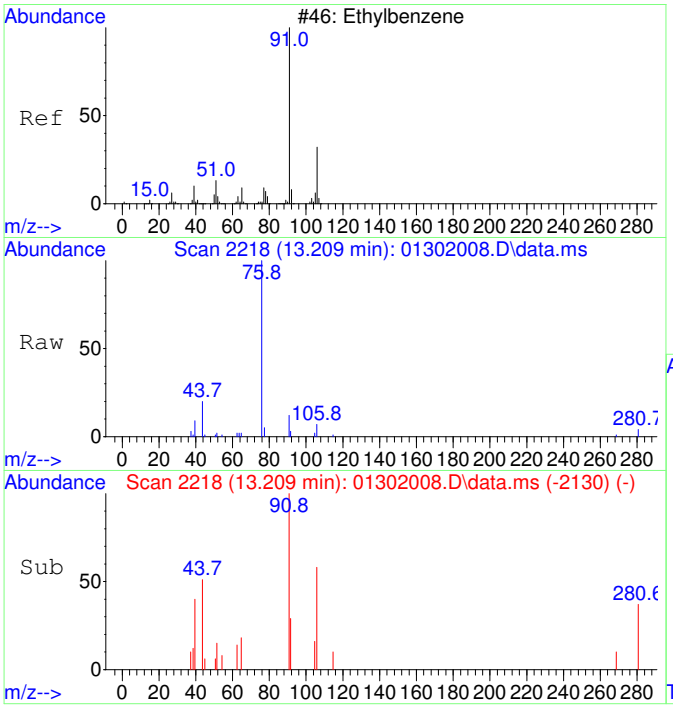


#40
Chlorobenzene SCAN
Concen: 38.44 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:112 Resp: 372

Ion	Ratio	Lower	Upper
112	100		
77	148.7	33.8	93.8#
114	82.8	1.3	61.3#
51	0.0	0.0	52.0

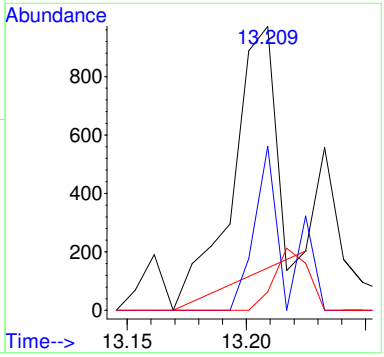


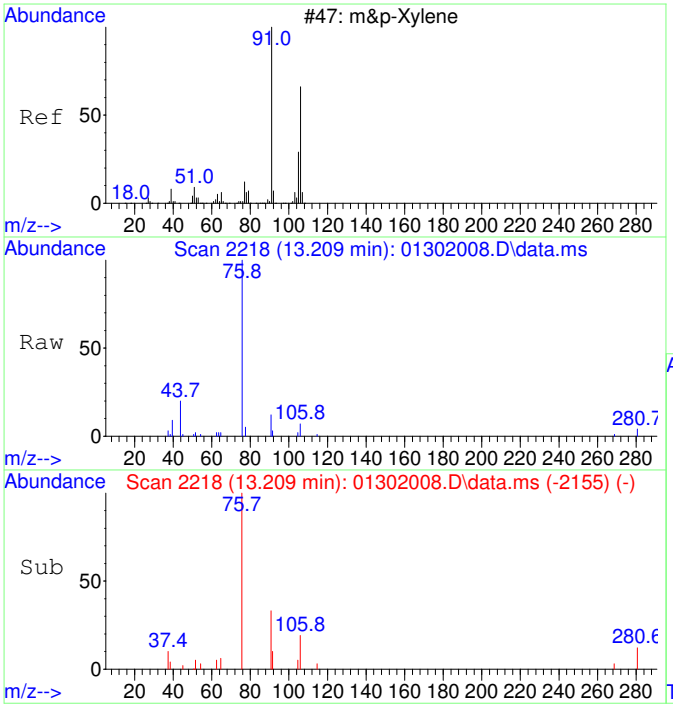


#42
Ethylbenzene SCAN
Concen: 65.42 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1032

Ion	Ratio	Lower	Upper
91	100		
106	49.0	1.4	61.4
51	20.2	0.0	40.4

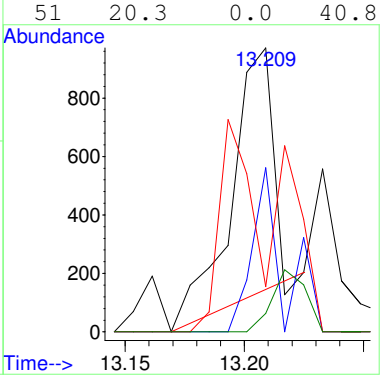


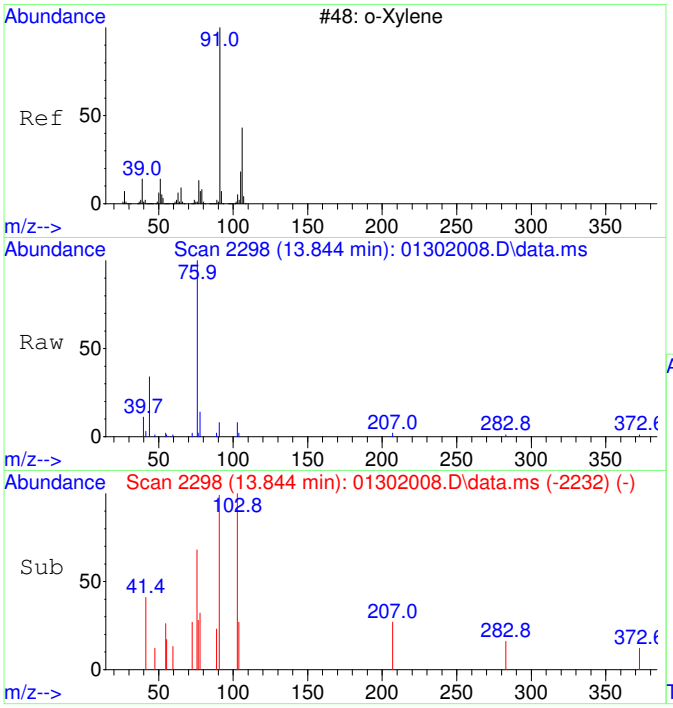


#43
m&p-Xylene SCAN
Concen: 44.65 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 1027

Ion	Ratio	Lower	Upper
91	100		
106	49.3	20.4	80.4
105	0.0	0.0	52.6
51	20.3	0.0	40.8

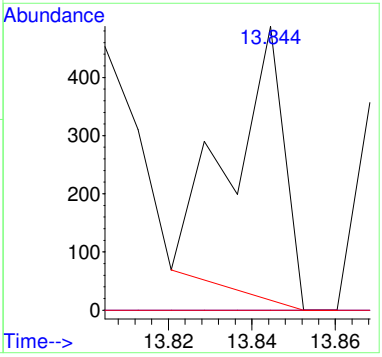


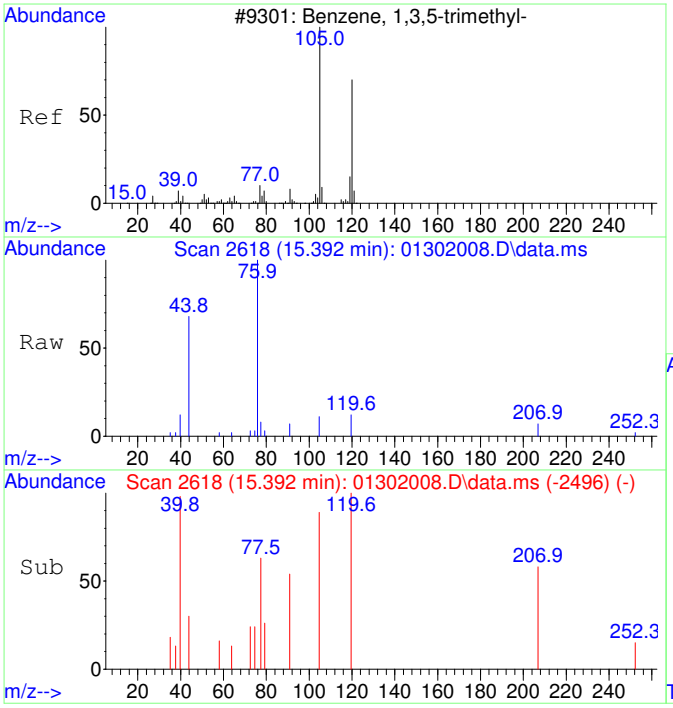


#44
o-Xylene SCAN
Concen: 32.53 ug/L
RT: 13.844 min Scan# 2298
Delta R.T. 0.024 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion: 91 Resp: 400

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.3	78.3#
105	0.0	0.0	51.8

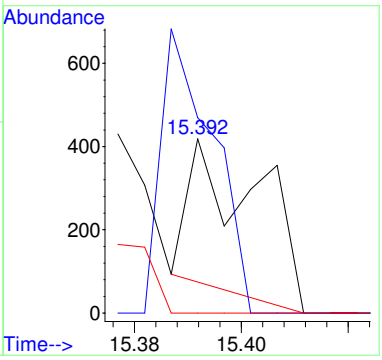


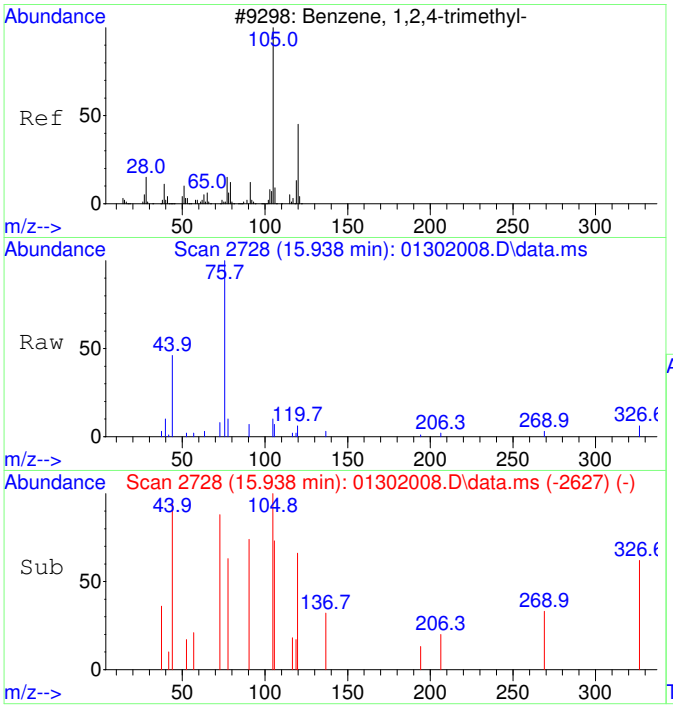


#46
1,3,5-Trimethylbenzene SCAN
Concen: 24.28 ug/L
RT: 15.392 min Scan# 2618
Delta R.T. 0.005 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 312

Ion	Ratio	Lower	Upper
105	100		
120	147.8	19.8	79.8#
119	0.0	0.0	44.5

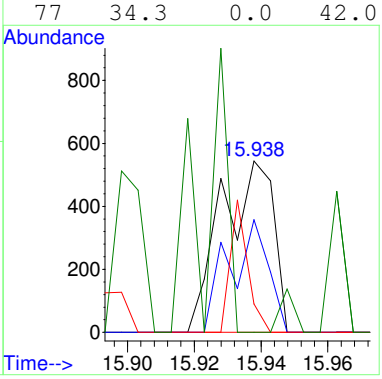




#47
1,2,4-Trimethylbenzene SCAN
Concen: 45.58 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. -0.000 min
Lab File: 01302008.D
Acq: 30 Jan 2020 10:40

Tgt Ion:105 Resp: 589

Ion	Ratio	Lower	Upper
105	100		
120	49.2	14.1	74.1
119	25.8	0.0	42.4
77	34.3	0.0	42.0



S20A096-SCV1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302009.D
Acq On : 30 Jan 2020 11:03
InstName : AG5975C
Operator : TD
Sample : S20A096-SCV1
Misc : 2004028
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:21:42 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

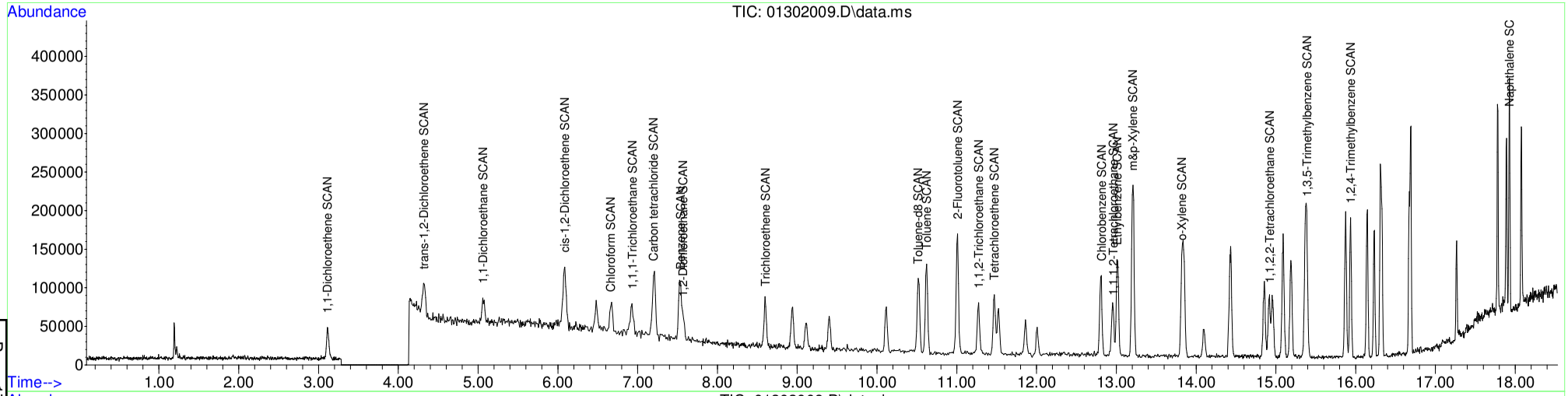
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	149368	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	127682	4996.52 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.93%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.116	61	40301	5310.01 ug/L	100
3] trans-1,2-Dichloroethene	4.316	61	40661	5207.16 ug/L	100
4] 1,1-Dichloroethane	5.066	63	49550	5084.15 ug/L	100
5] cis-1,2-Dichloroethene	6.088	61	46752	5127.41 ug/L	100
6] Chloroform	6.664	83	51824	5121.54 ug/L	100
7] 1,1,1-Trichloroethane	6.919	97	49976	5077.71 ug/L	99
8] Carbon tetrachloride	7.199	117	44016	5081.02 ug/L	100
9] Benzene	7.527	78	125125	5067.97 ug/L	100
10] 1,2-Dichloroethane	7.564	62	41722	5122.62 ug/L	100
11] Trichloroethene	8.597	130	36391	5151.41 ug/L	99
13] Toluene	10.613	91	152203	5069.44 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	34120	5038.45 ug/L	99
15] Tetrachloroethene	11.474	166	42393	5151.97 ug/L	100
16] Chlorobenzene	12.805	112	110829	5118.97 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.956	131	36830	5162.73 ug/L	99
18] Ethylbenzene	13.012	91	177353	5035.41 ug/L	100
19] m&p-Xylene	13.202	91	267280	10059.42 ug/L	100
20] o-Xylene	13.822	91	142507	5001.11 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.918	83	62448	5068.29 ug/L	100
22] 1,3,5-Trimethylbenzene	15.388	105	155609	5060.44 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	153423	4903.95 ug/L	100
24] Naphthalene	17.928	128	258455	4790.71 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	94676	5143.37 ug/L	99
26) 1,1-Dichloroethene SCAN	3.111	61	31531	5944.64 ug/L	93
27) trans-1,2-Dichloroethe...	4.321	61	30133	5324.96 ug/L	98
28) 1,1-Dichloroethane SCAN	5.058	63	38588	4949.03 ug/L	89
29) cis-1,2-Dichloroethene...	6.086	61	33993	5555.35 ug/L	93
30) Chloroform SCAN	6.662	83	35829	5289.22 ug/L	98
31) 1,1,1-Trichloroethane ...	6.930	97	36105	5316.55 ug/L	90
32) Carbon tetrachloride SCAN	7.198	117	28105	4050.70 ug/L	92
33) Benzene SCAN	7.538	78	86434	4809.10 ug/L	98
34) 1,2-Dichloroethane SCAN	7.563	62	28810	5485.76 ug/L	74
35) Trichloroethene SCAN	8.601	130	23921	5216.98 ug/L	94
36) Toluene-d8 SCAN	10.517	98	84245	4911.72 ug/L	94
37) Toluene SCAN	10.622	91	97945	4656.23 ug/L	85
38) 1,1,2-Trichloroethane ...	11.273	97	25296	5401.32 ug/L	96
39) Tetrachloroethene SCAN	11.472	166	26622	4510.04 ug/L	91
40) Chlorobenzene SCAN	12.812	112	68527	5170.61 ug/L	96
41) 1,1,1,2-Tetrachloroeth...	12.963	131	22846	4683.85 ug/L	91
42) Ethylbenzene SCAN	13.010	91	118215	5070.46 ug/L	98
43) m&p-Xylene SCAN	13.209	91	171758	5190.15 ug/L	97
44) o-Xylene SCAN	13.821	91	88300	5012.81 ug/L	94
45) 1,1,2,2-Tetrachloroeth...	14.916	83	46811	5417.56 ug/L	93
46) 1,3,5-Trimethylbenzene...	15.387	105	92945	5153.42 ug/L	99
47) 1,2,4-Trimethylbenzene...	15.938	105	95854	4998.99 ug/L	94
48) Naphthalene SCAN	17.927	128	147231	5066.44 ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302009.D
Acq On : 30 Jan 2020 11:03
InstName : AG5975C
Operator : TD
Sample : S20A096-SCV1
Misc : 2004028
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:21:42 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration



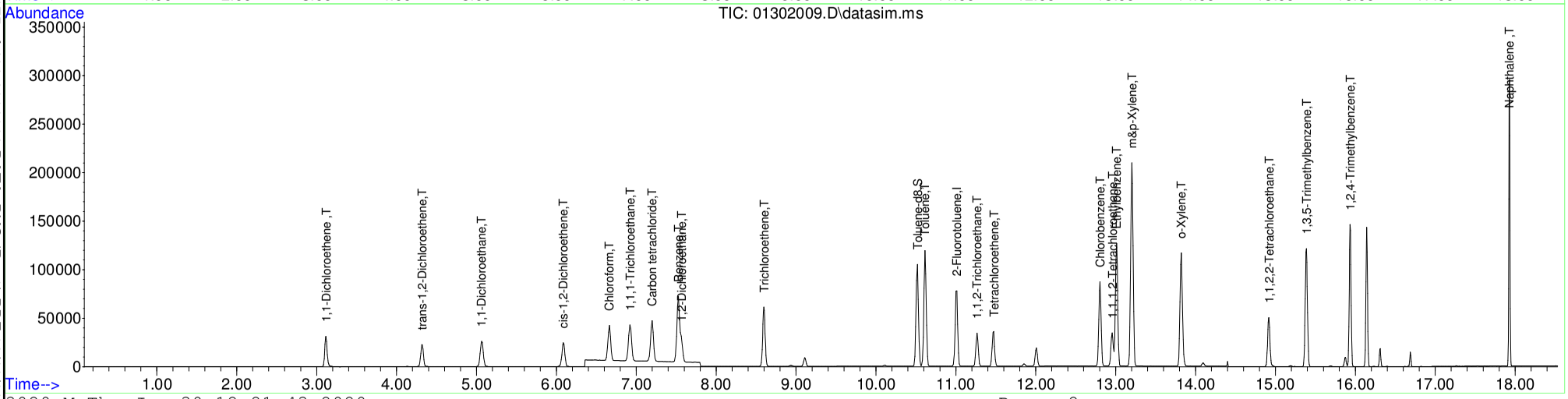


Table of Contents

SEQUENCE

S20C005

Sequence Date: 03/03/2020

Instrument: AG5975CV

Sequence Analyses:

VOCs, Passive Samplers

ANALYST / REVIEWER - DATA REVIEW CHECKLIST

BATCH #:	B20C007	SEQUENCE #:	S20C005 03/03/20
BATCH #:		ANALYSIS:	VOA Passive Air. R20S14; R20S18

	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.	Thu Jan 30 12:20:44 2020			
	Initial Calibration ID (LIMS number):	2001023			
	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 #:	B20C007	SEQUENCE #:	S20C005 03/03/20
BATCH #:		ANALYSIS:	VOA Passive Air. R20S14; R20S18

	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?	✔			
	Were all data qualifiers appropriately applied?	✔			
	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:	TD 03/06/20
	REVIEWED BY:	Ziyad Rajabi (affiliate) Digitally signed by Ziyad Rajabi (affiliate) Date: 2020.03.09 15:44:46 -07'00' SIGN HERE

COMMENTS

Custom analyte list.

Injection Log

Operator: TD
Directory: C:\msdchem\1\Ravioli Data\2020\030320\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	03032001.D	1	S20C005-IBL1		3 Mar 2020 9:28
2	03032002.D	1	S20C005-TUN1	BFB 1940006	3 Mar 2020 9:50
3	03032003.D	1	S20C005-CCV1	2004024 5 mg/L	3 Mar 2020 9:59
4	03032004.D	1	S20C005-CRL1	2004027 0.5 mg/L	3 Mar 2020 10:23
5	03032005.D	1	B20C007-BLK1		3 Mar 2020 11:07
6	03032006.D	1	B20C007-BS1		3 Mar 2020 11:30
7	03032007.D	1	B20C007-BSD1		3 Mar 2020 11:54
8	03032008.D	1	B20C007-MRL1		3 Mar 2020 12:18
9	03032009.D	1	2002028-01		3 Mar 2020 12:41
10	03032010.D	1	2002029-01		3 Mar 2020 13:05
11	03032011.D	1	2002029-02		3 Mar 2020 13:29

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\Ravioli Data\2020\030320\03032002.D
Tune Time : 3 Mar 2020 9:50

Daily Calibration File : C:\msdchem\1\Ravioli Data\2020\030320\03032003.D

File	Sample	Surrogate Recovery %	Internal Standard Responses
			86799
03032003.D	S20C005-CC	100	86799
03032004.D	S20C005-CR	1*	75418
03032005.D	B20C007-BL	102	64225
03032006.D	B20C007-BS	104	94096
03032007.D	B20C007-BSD	103	81580
03032008.D	B20C007-MR	102	122847
03032009.D	2002028-01	101	80363
03032010.D	2002029-01	102	64604
03032011.D	2002029-02	101	93493

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

Created: Tue Mar 03 13:49:05 2020 AG5975C

Analysis Sequence

S20C005

Project: R20S18
R20S14
Analysis: VOCs, Passive Samplers

Instrument: AG5975CV **Calibration ID:** 2001023 Printed: 03/06/2020 12:57 pm

Lab Number	Sample Name	Order	Analyzed Date	STD ID	ISTD ID	Sequenced By	File ID	Comments
S20C005-IBL1	Instrument Blank	1	3/3/20 9:28		2004020	TD	03032001.D	
S20C005-TUN1	BFB	2	3/3/20 9:50	1940006		TD	03032002.D	
S20C005-CCV1	Calibration Check	3	3/3/20 9:59	2004024		TD	03032003.D	
S20C005-CRL1	Instrument RL Check	4	3/3/20 10:23	2004027		TD	03032004.D	
B20C007-BLK1	Blank	5	3/3/20 11:07			TD	03032005.D	
B20C007-BS1	LCS	6	3/3/20 11:30			TD	03032006.D	
B20C007-BSD1	LCS Dup	7	3/3/20 11:54			TD	03032007.D	
B20C007-MRL1	MRL Check	8	3/3/20 12:18			TD	03032008.D	
2002028-01 A	F6-017-2ft-5d-wet	9	3/3/20 12:41			TD	03032009.D	
2002029-01 A	RES23-OFC1-BZ-5d	10	3/3/20 13:05			TD	03032010.D	
2002029-02 A	RES23-OUT-5d	11	3/3/20 13:29			TD	03032011.D	

Sequence Comments

Reagents

Reagent # **Description**

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SEQUENCE DATA

S20C005

S20C005-IBL1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032001.D
Acq On : 3 Mar 2020 9:28
InstName : AG5975C
Operator : TD
Sample : S20C005-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 09:47:43 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

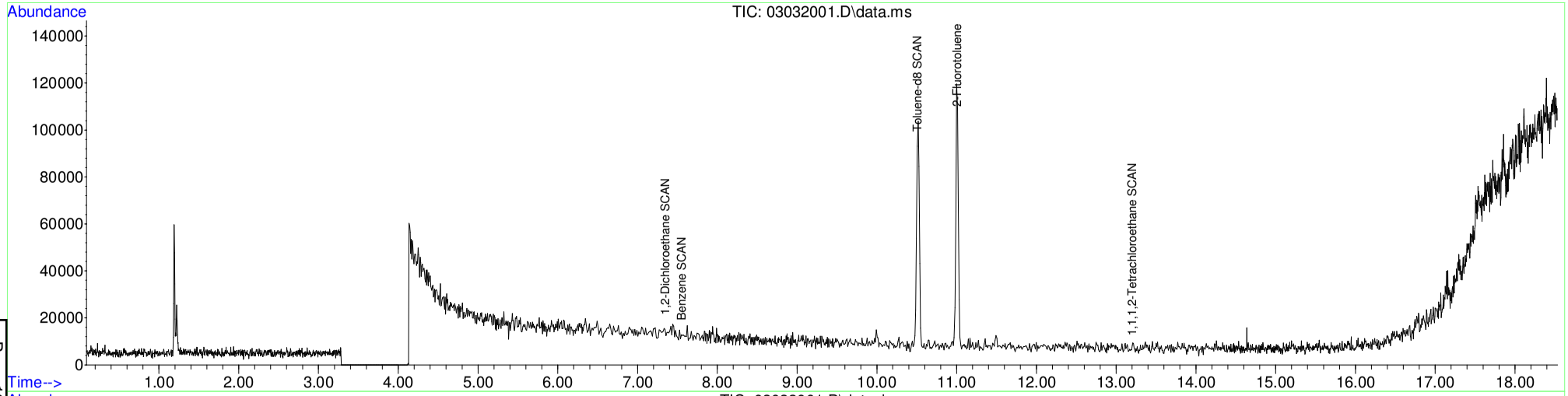
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.002	109	157582	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.508	98	130841	4853.25	ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 97.06%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	11.000	109	98140	5053.64	ug/L	97
33) Benzene SCAN	7.551	78	1114	58.75	ug/L #	83
34) 1,2-Dichloroethane SCAN	7.344	62	119	21.48	ug/L #	36
36) Toluene-d8 SCAN	10.507	98	85555	4728.09	ug/L	95
41) 1,1,1,2-Tetrachloroeth...	13.193	131	127	24.68	ug/L #	12

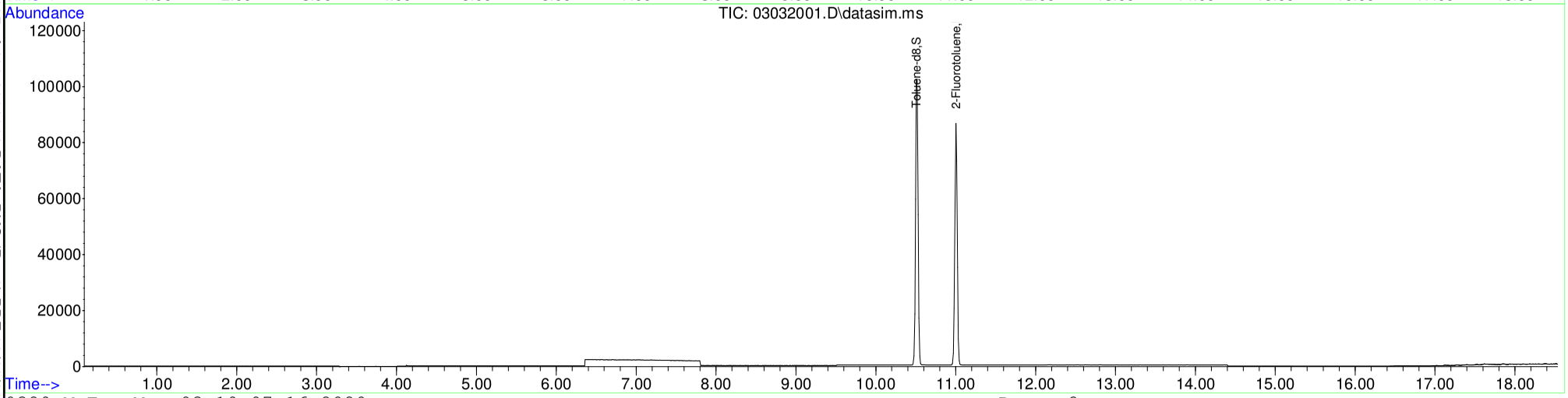
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032001.D
Acq On : 3 Mar 2020 9:28
InstName : AG5975C
Operator : TD
Sample : S20C005-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 09:47:43 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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S20C005-TUN1

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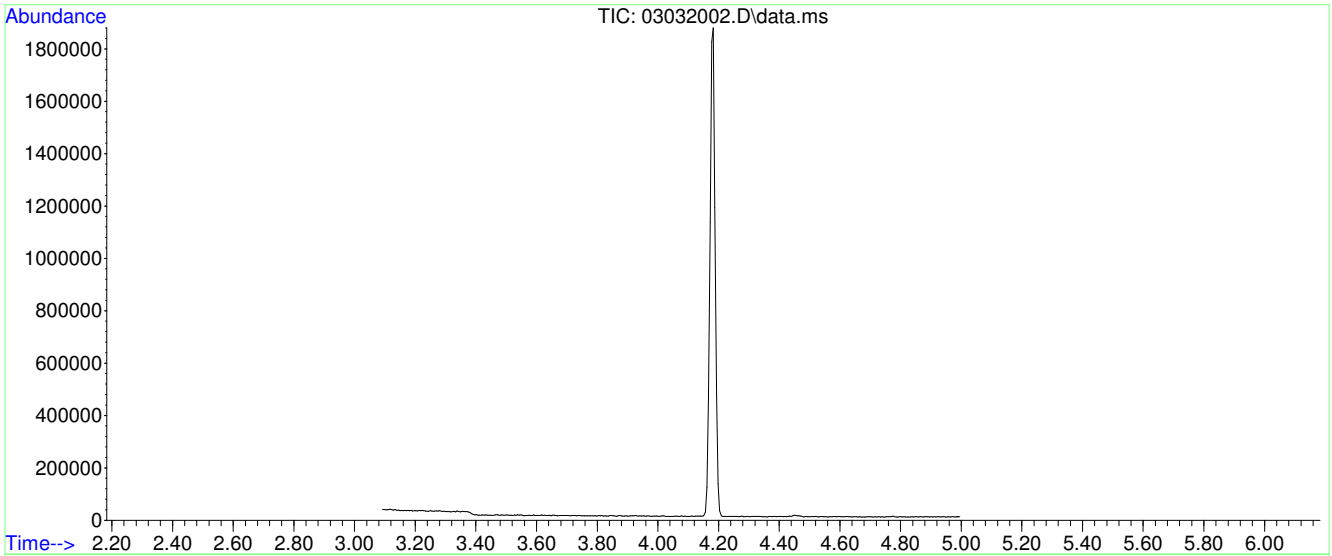
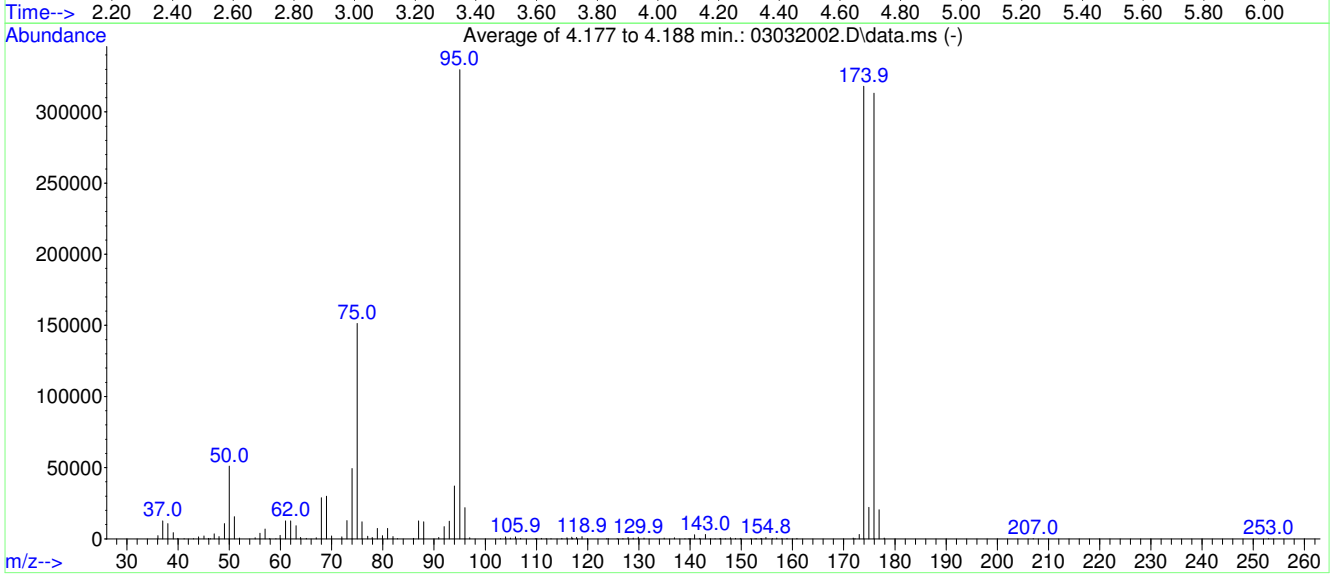
Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032002.D
Acq On : 3 Mar 2020 9:50
Operator : TD
Sample : S20C005-TUN1
Misc : BFB 1940006
ALS Vial : 2 Sample Multiplier: 1
InstName : AG5975C

Integration File: Ravioli.P

Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Title : Volatile Organic Analysis - Passive samplers
Last Update : Thu Jan 30 12:20:44 2020





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 200

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	51072	PASS
75	95	30	60	45.9	151395	PASS
95	95	100	100	100.0	329621	PASS
96	95	5	9	6.7	21961	PASS
173	174	0.00	2	1.0	3069	PASS
174	95	50	120	96.5	318101	PASS
175	174	5	9	6.9	22075	PASS
176	174	95	101	98.5	313173	PASS
177	176	5	9	6.5	20473	PASS

Average of 4.177 to 4.188 min.: 03032002.D\data.ms
S20C005-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	2151	47.05	3408	59.95	2478	73.00	12723
37.00	12677	48.00	1658	61.00	12518	74.00	49373
38.00	10761	49.05	10660	62.00	12518	75.00	151395
39.05	4306	50.00	51072	63.05	9141	75.95	11925
39.95	234	51.00	15459	63.95	946	77.05	1734
41.20	124	52.00	621	65.05	273	77.90	945
43.00	97	55.05	804	67.00	823	78.90	7330
44.00	1315	56.00	4013	68.00	28981	79.95	2300
45.05	2083	57.00	6892	69.00	29853	80.90	7395
45.95	259	57.90	212	70.00	2083	81.95	1632
46.30	136	59.10	61	72.00	1386	82.85	105

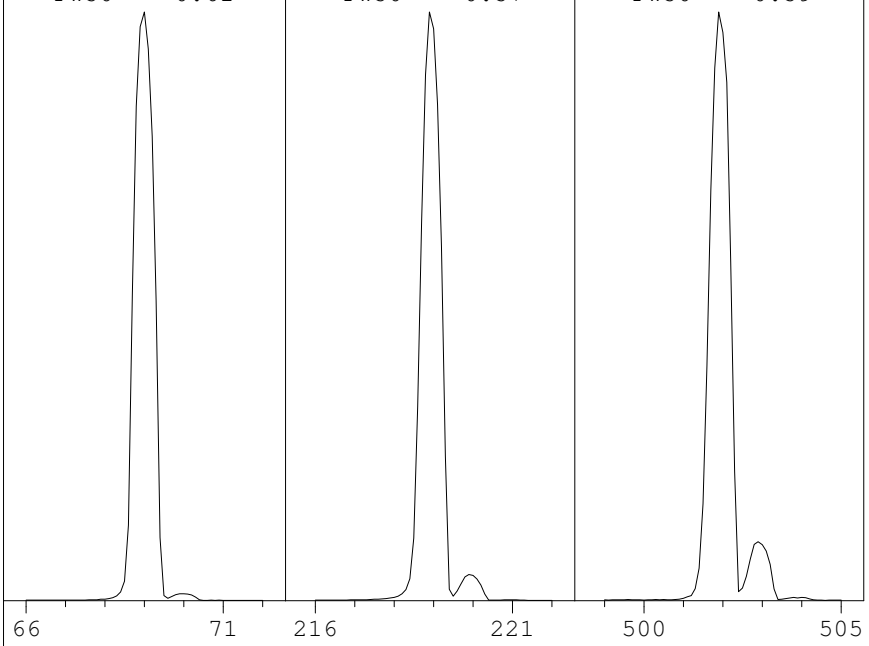
Average of 4.177 to 4.188 min.: 03032002.D\data.ms
S20C005-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	262	103.95	1301	116.90	1259	129.90	1159
87.00	12545	104.90	493	117.10	295	131.00	472
87.95	12040	105.90	1324	117.85	984	134.95	607
90.90	912	106.90	330	118.90	1665	136.95	656
92.00	8650	109.80	73	119.95	104	139.00	75
93.00	12321	110.10	66	123.70	78	139.75	166
94.00	37072	110.95	240	124.00	182	140.00	93
95.00	329621	111.90	150	125.80	78	140.90	2786
96.00	21961	112.85	145	126.90	159	141.85	380
96.95	846	114.95	350	127.90	999	143.00	3104
102.95	139	115.95	831	128.90	545	143.95	119

Average of 4.177 to 4.188 min.: 03032002.D\data.ms
S20C005-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.90	213	153.95	206	174.90	22075		
145.80	119	154.80	884	175.90	313173		
145.95	348	156.10	166	176.90	20473		
146.90	169	156.90	608	177.90	601		
147.90	729	157.90	119	207.00	200		
148.85	296	158.90	426	253.00	69		
149.80	351	160.85	324				
151.90	153	171.85	464				
152.70	103	172.20	168				
152.90	155	173.05	3069				
153.80	100	173.90	318101				

Mass	69.00	Mass	218.90	Mass	501.90
Ab	801308	Ab	558712	Ab	42040
Pw50	0.61	Pw50	0.57	Pw50	0.59

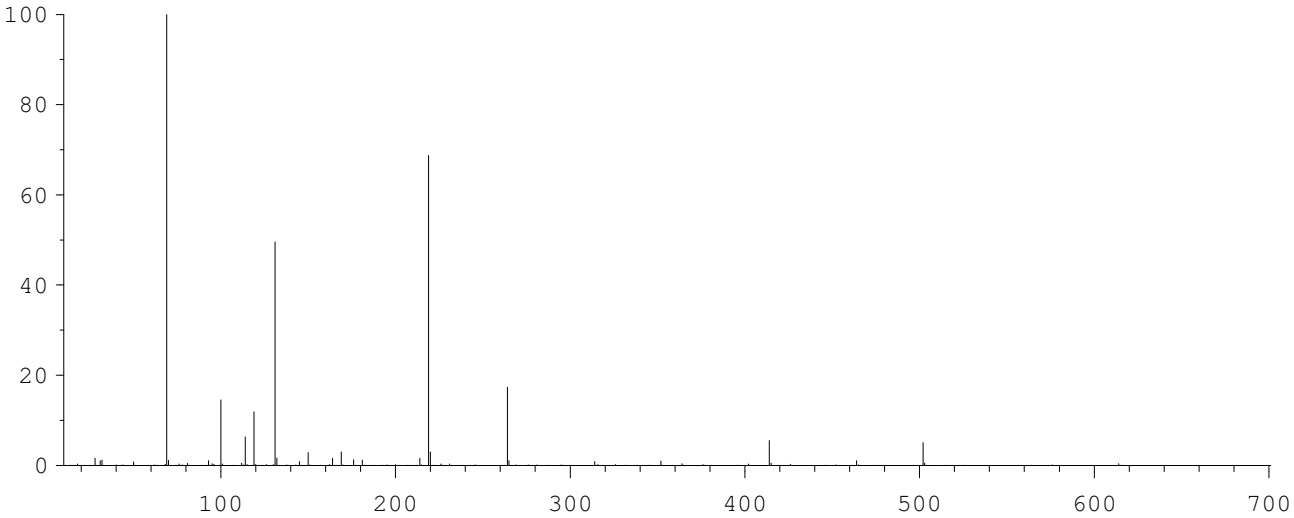


Ion Pol	Pos	MassGain	-1184
		MassOffs	-37
Emission	34.6	AmuGain	976
EIEnrgy	69.9	AmuOffs	122.06
Filament	1	Wid219	-0.008
		DC Pol	Pos
Repeller	29.12		
IonFcus	90.2	HEDEnab	On
EntLens	25.5	EMVolts	1306
EntOffs	20.83		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

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
159 peaks Base: 69.00 Abundance: 796096



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	796096	100.00	70.00	8736	1.10
219.00	547264	68.74	220.00	23864	4.36
502.00	40344	5.07	503.00	4109	10.18

Air/Water Check: H20~0.32% N2~1.55% O2~1.18% CO2~0.10% N2/H2O~479.43%

Column(1) Flow: 0.9 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 36446
Repeller Maximum 35 volts using ion 219; Gain Factor 0.36

MassGain Values(Samples): -1171(3) -1163(2) -1147(1) -1127(0) -1040(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	122.1	122.1	122.1	122.1	122.1	122.1	122.1
Entrance Lens Offset:	20.8	20.8	20.8	20.8	20.8	20.8	20.8

S20C005-CCV1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032003.D
Acq On : 3 Mar 2020 9:59
InstName : AG5975C
Operator : TD
Sample : S20C005-CCV1
Misc : 2004024 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 10:18:38 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
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	2-Fluorotoluene	1.000	1.000	0.0	76	-0.01
2	T	1,1-Dichloroethene	0.254	0.225	11.4	70	0.00
3	T	trans-1,2-Dichloroethene	0.261	0.228	12.6	69	0.00
4	T	1,1-Dichloroethane	0.326	0.288	11.7	70	0.00
5	T	cis-1,2-Dichloroethene	0.305	0.270	11.5	69	0.00
6	T	Chloroform	0.339	0.302	10.9	70	-0.01
7	T	1,1,1-Trichloroethane	0.329	0.297	9.7	71	-0.01
8	T	Carbon tetrachloride	0.290	0.267	7.9	72	0.00
9	T	Benzene	0.826	0.780	5.6	73	-0.01
10	T	1,2-Dichloroethane	0.273	0.251	8.1	71	-0.01
11	T	Trichloroethene	0.236	0.227	3.8	74	0.00
12	S	Toluene-d8	0.855	0.852	0.4	76	-0.01
13	T	Toluene	1.005	1.007	-0.2	77	0.00
14	T	1,1,2-Trichloroethane	0.227	0.221	2.6	76	0.00
15	T	Tetrachloroethene	0.275	0.284	-3.3	79	-0.01
16	T	Chlorobenzene	0.725	0.755	-4.1	80	0.00
17	T	1,1,1,2-Tetrachloroethane	0.239	0.247	-3.3	80	0.00
18	T	Ethylbenzene	1.179	1.219	-3.4	81	0.00
19	T	m&p-Xylene	0.889	0.923	-3.8	81	0.00
20	T	o-Xylene	0.954	0.984	-3.1	82	0.00
21	T	1,1,2,2-Tetrachloroethane	0.412	0.432	-4.9	82	0.00
22	T	1,3,5-Trimethylbenzene	1.029	1.085	-5.4	84	0.00
23	T	1,2,4-Trimethylbenzene	1.047	1.099	-5.0	85	0.00
24	T	Naphthalene	1.806	1.880	-4.1	87	0.00
25		2-Fluorotoluene SCAN	0.616	0.632	-2.6	78	0.00
26		1,1-Dichloroethene SCAN	0.178	0.167	6.2	72	0.00
27		trans-1,2-Dichloroethene SC	0.189	0.175	7.4	71	0.00
28		1,1-Dichloroethane SCAN	0.261	0.226	13.4	66	-0.01
29		cis-1,2-Dichloroethene SCAN	0.205	0.181	11.7	67	0.00
30		Chloroform SCAN	0.227	0.184	18.9	62	-0.01
31		1,1,1-Trichloroethane SCAN	0.227	0.241	-6.2	81	0.00
32		Carbon tetrachloride SCAN	0.232	0.210	9.5	69	-0.01
33		Benzene SCAN	0.602	0.647	-7.5	82	0.00
34		1,2-Dichloroethane SCAN	0.176	0.174	1.1	75	0.01
35		Trichloroethene SCAN	0.153	0.164	-7.2	82	-0.01
36		Toluene-d8 SCAN	0.574	0.548	4.5	73	0.00
37		Toluene SCAN	0.704	0.686	2.6	74	-0.01
38		1,1,2-Trichloroethane SCAN	0.157	0.158	-0.6	77	-0.01
39		Tetrachloroethene SCAN	0.198	0.169	14.6	65	-0.01
40		Chlorobenzene SCAN	0.444	0.452	-1.8	78	0.00
41		1,1,1,2-Tetrachloroethane S	0.163	0.163	0.0	76	0.00
42		Ethylbenzene SCAN	0.780	0.801	-2.7	78	0.00
43		m&p-Xylene SCAN	1.108	1.184	-6.9	82	0.00
44		o-Xylene SCAN	0.590	0.630	-6.8	82	0.00
45		1,1,2,2-Tetrachloroethane S	0.289	0.312	-8.0	82	0.00
46		1,3,5-Trimethylbenzene SCAN	0.604	0.675	-11.8	85	0.00
47		1,2,4-Trimethylbenzene SCAN	0.642	0.680	-5.9	81	0.00
48		Naphthalene SCAN	0.973	1.108	-13.9	87	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032003.D
Acq On : 3 Mar 2020 9:59
InstName : AG5975C
Operator : TD
Sample : S20C005-CCV1
Misc : 2004024 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 10:18:38 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

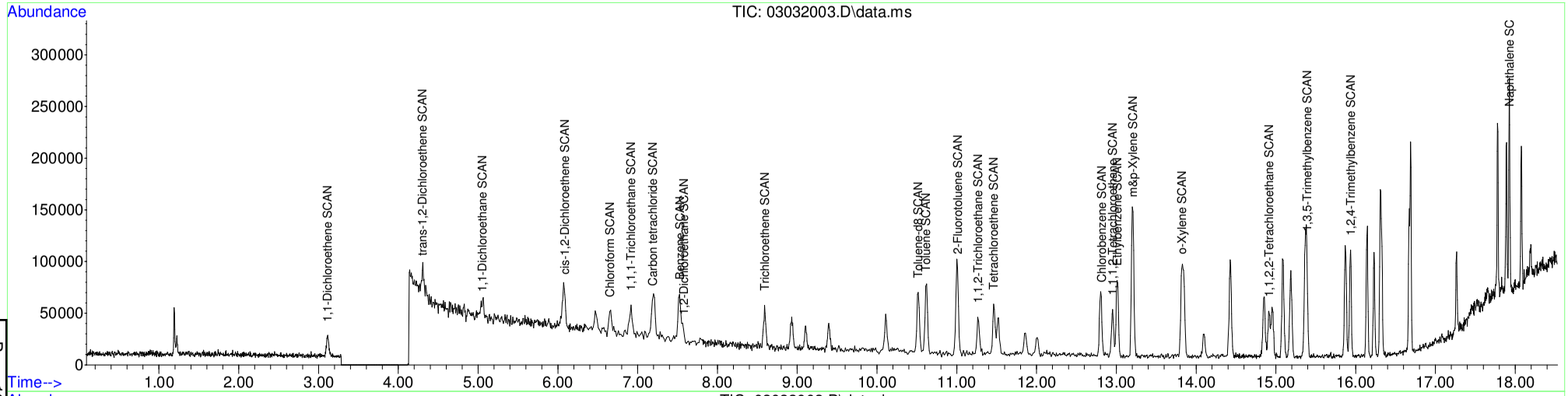
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	86799	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.508	98	73918	4977.73 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.55%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	19513	4424.32 ug/L	100
3] trans-1,2-Dichloroethene	4.303	61	19793	4361.92 ug/L	100
4] 1,1-Dichloroethane	5.053	63	25030	4419.55 ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	23402	4416.66 ug/L	100
6] Chloroform	6.652	83	26221	4459.25 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	25757	4503.44 ug/L	100
8] Carbon tetrachloride	7.187	117	23191	4606.83 ug/L	100
9] Benzene	7.515	78	67717	4719.88 ug/L	100
10] 1,2-Dichloroethane	7.552	62	21793	4604.55 ug/L	99
11] Trichloroethene	8.591	130	19741	4808.88 ug/L	100
13] Toluene	10.613	91	87367	5007.57 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	19174	4872.41 ug/L	99
15] Tetrachloroethene	11.463	166	24656	5156.38 ug/L	99
16] Chlorobenzene	12.805	112	65515	5207.30 ug/L	99
17] 1,1,1,2-Tetrachloroethane	12.956	131	21474	5180.05 ug/L	99
18] Ethylbenzene	13.012	91	105778	5168.15 ug/L	100
19] m&p-Xylene	13.202	91	160290	10381.39 ug/L	100
20] o-Xylene	13.814	91	85371	5155.65 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.914	83	37464	5232.39 ug/L	100
22] 1,3,5-Trimethylbenzene	15.383	105	94182	5270.66 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	95396	5247.21 ug/L	100
24] Naphthalene	17.928	128	163153	5204.19 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	54845	5127.29 ug/L	98
26) 1,1-Dichloroethene SCAN	3.111	61	14523	4711.80 ug/L	93
27) trans-1,2-Dichloroethe...	4.302	61	15173	4614.12 ug/L	98
28) 1,1-Dichloroethane SCAN	5.051	63	19654	4337.72 ug/L	87
29) cis-1,2-Dichloroethene...	6.080	61	15670	4406.90 ug/L	92
30) Chloroform SCAN	6.650	83	15962	4054.97 ug/L	94
31) 1,1,1-Trichloroethane ...	6.918	97	20894	5294.53 ug/L	94
32) Carbon tetrachloride SCAN	7.186	117	18249	4526.15 ug/L	87
33) Benzene SCAN	7.526	78	56172	5378.26 ug/L	99
34) 1,2-Dichloroethane SCAN	7.575	62	15061	4935.03 ug/L	93
35) Trichloroethene SCAN	8.590	130	14241	5344.70 ug/L	91
36) Toluene-d8 SCAN	10.517	98	47526	4768.30 ug/L	95
37) Toluene SCAN	10.612	91	59512	4868.55 ug/L	83
38) 1,1,2-Trichloroethane ...	11.263	97	13734	5046.48 ug/L	94
39) Tetrachloroethene SCAN	11.462	166	14626	4263.91 ug/L #	70
40) Chlorobenzene SCAN	12.812	112	39237	5094.70 ug/L	97
41) 1,1,1,2-Tetrachloroeth...	12.955	131	14181	5003.14 ug/L	97
42) Ethylbenzene SCAN	13.010	91	69497	5129.60 ug/L	97
43) m&p-Xylene SCAN	13.209	91	102795	5345.37 ug/L	94
44) o-Xylene SCAN	13.821	91	54710	5344.78 ug/L	92
45) 1,1,2,2-Tetrachloroeth...	14.909	83	27085	5394.21 ug/L	96
46) 1,3,5-Trimethylbenzene...	15.387	105	58582	5589.55 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.938	105	59040	5298.60 ug/L	95
48) Naphthalene SCAN	17.927	128	96199	5696.62 ug/L	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032003.D
Acq On : 3 Mar 2020 9:59
InstName : AG5975C
Operator : TD
Sample : S20C005-CCV1
Misc : 2004024 5 mg/L
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 10:18:38 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration



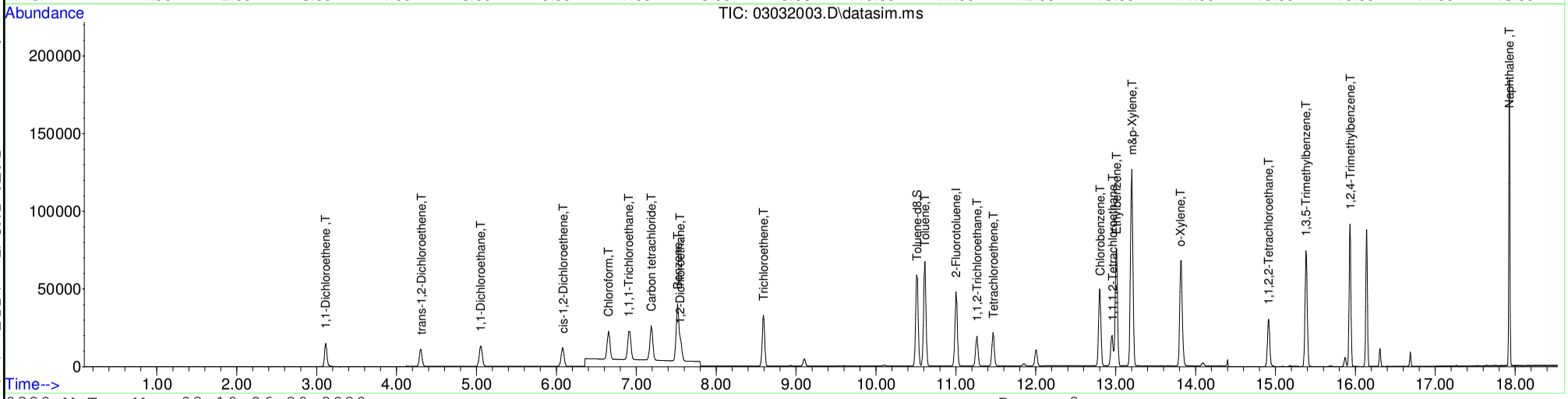


Table of Contents

S20C005-CRL1

QLS REPORT

Instrument Name: AG5975C
Sample Name: S20C005-CRL1
Misc Info: 2004027 0.5 mg/L
Date Acquired: 3/3/20 10:23
QLast Update: Thu Jan 30 12:20:44 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	11.012	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	3.112	50.0	48.02	96%	60	140	pass
3)	trans-1,2-Dichloroethene	4.310	50.0	48.19	96%	60	140	pass
4)	1,1-Dichloroethane	5.059	50.0	47.96	96%	60	140	pass
5)	cis-1,2-Dichloroethene	6.081	50.0	48.22	96%	60	140	pass
6)	Chloroform	6.664	50.0	48.34	97%	60	140	pass
7)	1,1,1-Trichloroethane	6.919	50.0	45.48	91%	60	140	pass
8)	Carbon tetrachloride	7.187	50.0	49.61	99%	60	140	pass
10)	1,2-Dichloroethane	7.564	50.0	48.15	96%	60	140	pass
11)	Trichloroethene	8.597	50.0	51.31	103%	60	140	pass
12)	Toluene-d8	10.519	50.0	50.84	102%	60	140	pass
13)	Toluene	10.613	50.0	54.36	109%	60	140	pass
14)	1,1,2-Trichloroethane	11.264	50.0	54.40	109%	60	140	pass
15)	Tetrachloroethene	11.474	50.0	52.95	106%	60	140	pass
16)	Chlorobenzene	12.805	50.0	55.62	111%	60	140	pass
17)	1,1,1,2-Tetrachloroethane	12.956	50.0	54.69	109%	60	140	pass
18)	Ethylbenzene	13.012	50.0	55.67	111%	60	140	pass
19)	m&p-Xylene	13.202	100.0	116.51	117%	60	140	pass
20)	o-Xylene	13.822	50.0	58.18	116%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.914	50.0	57.06	114%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.388	50.0	60.74	121%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.934	50.0	60.08	120%	60	140	pass
24)	Naphthalene	17.929	50.0	66.56	133%	60	140	pass

Quantitation Report (Not Reviewed)

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

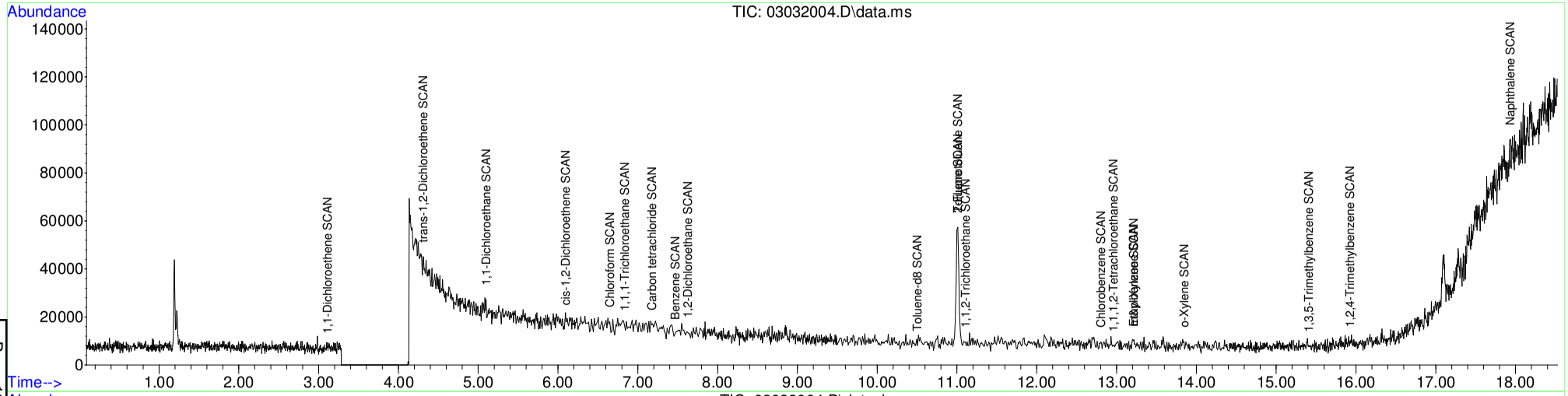
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	75418	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.508	98	656	50.84 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.02%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.116	61	524	136.74 ug/L	95
3] trans-1,2-Dichloroethene	4.303	61	190	48.19 ug/L	88
4] 1,1-Dichloroethane	5.053	63	236	47.96 ug/L	98
5] cis-1,2-Dichloroethene	6.074	61	222	48.22 ug/L	92
6] Chloroform	6.652	83	247	48.34 ug/L	90
7] 1,1,1-Trichloroethane	6.907	97	226	45.48 ug/L #	90
8] Carbon tetrachloride	7.187	117	217	49.61 ug/L #	65
9] Benzene	7.515	78	647	51.90 ug/L	51
10] 1,2-Dichloroethane	7.552	62	198	48.15 ug/L	57
11] Trichloroethene	8.591	130	183	51.31 ug/L	88
13] Toluene	10.613	91	824	54.36 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	186	54.40 ug/L	98
15] Tetrachloroethene	11.463	166	220	52.95 ug/L	77
16] Chlorobenzene	12.805	112	608	55.62 ug/L	75
17] 1,1,1,2-Tetrachloroethane	12.948	131	197	54.69 ug/L #	64
18] Ethylbenzene	13.012	91	990	55.67 ug/L	91
19] m&p-Xylene	13.202	91	1563	116.51 ug/L	96
20] o-Xylene	13.822	91	837	58.18 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	355	57.06 ug/L	93
22] 1,3,5-Trimethylbenzene	15.384	105	943	60.74 ug/L	99
23] 1,2,4-Trimethylbenzene	15.935	105	949	60.08 ug/L	99
24] Naphthalene	17.929	128	1813	66.56 ug/L	91
25) 2-Fluorotoluene SCAN	11.011	109	45584	4904.59 ug/L	98
26) 1,1-Dichloroethene SCAN	3.111	61	150	56.01 ug/L #	60
27) trans-1,2-Dichloroethe...	4.308	61	78	27.30 ug/L #	1
28) 1,1-Dichloroethane SCAN	5.098	63	105	26.67 ug/L #	1
29) cis-1,2-Dichloroethene...	6.086	61	117	37.87 ug/L #	23
30) Chloroform SCAN	6.650	83	118	34.50 ug/L #	22
31) 1,1,1-Trichloroethane ...	6.833	97	101	29.46 ug/L #	24
32) Carbon tetrachloride SCAN	7.173	117	90	25.69 ug/L #	22
33) Benzene SCAN	7.465	78	3264	359.68 ug/L #	90
34) 1,2-Dichloroethane SCAN	7.623	62	133	50.16 ug/L #	36
36) Toluene-d8 SCAN	10.507	98	181	20.90 ug/L #	16
37) Toluene SCAN	11.011	91	830	78.15 ug/L	65
38) 1,1,2-Trichloroethane ...	11.105	97	75	31.72 ug/L #	14
40) Chlorobenzene SCAN	12.804	112	285	42.59 ug/L #	37
41) 1,1,1,2-Tetrachloroeth...	12.963	131	313	127.09 ug/L #	43
42) Ethylbenzene SCAN	13.209	91	2126	180.60 ug/L	99
43) m&p-Xylene SCAN	13.209	91	2126	127.24 ug/L #	70
44) o-Xylene SCAN	13.844	91	767	86.24 ug/L #	36
46) 1,3,5-Trimethylbenzene...	15.403	105	605	66.44 ug/L #	41
47) 1,2,4-Trimethylbenzene...	15.924	105	234	24.17 ug/L #	41
48) Naphthalene SCAN	17.927	128	1632	111.23 ug/L #	56

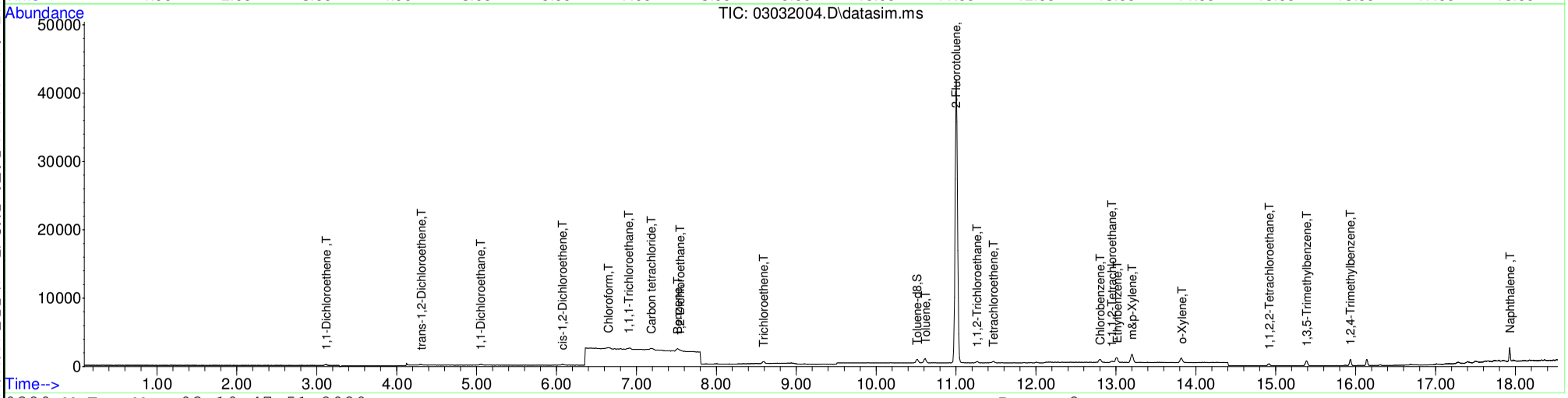
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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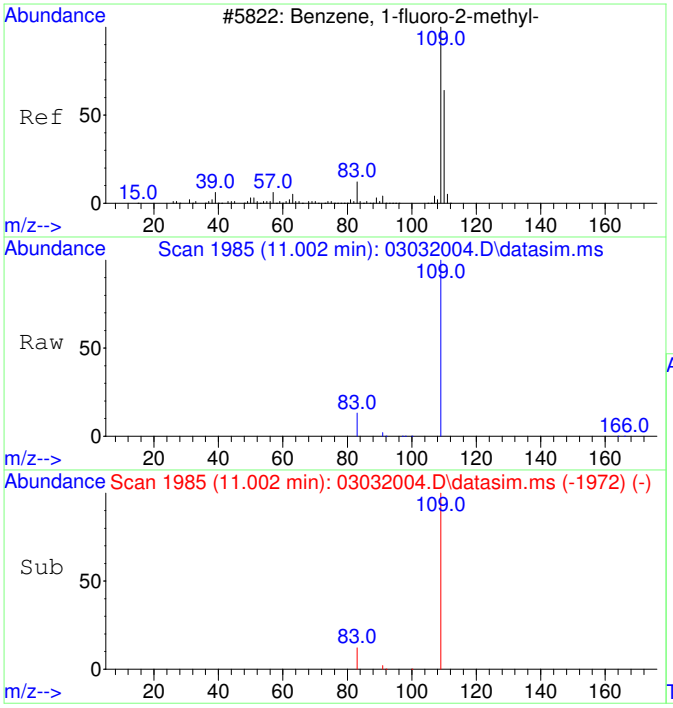
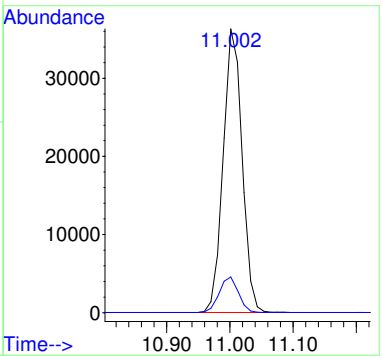
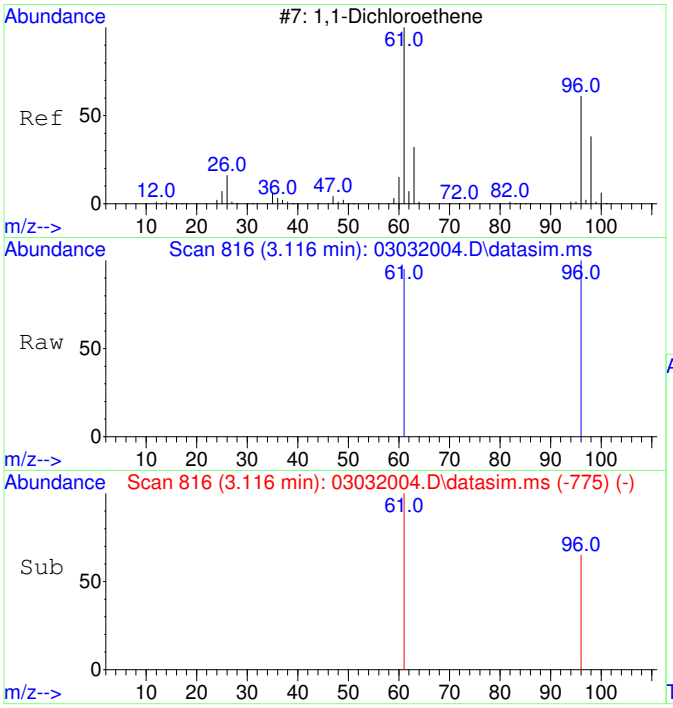


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 75418

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.2

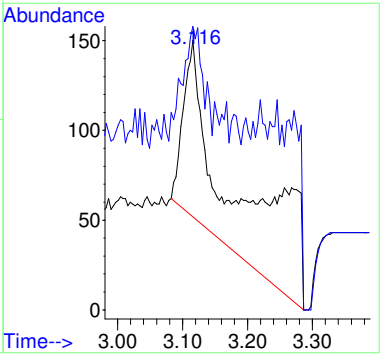




#2
1,1-Dichloroethene
Concen: 136.74 ug/L
RT: 3.116 min Scan# 816
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 524

Ion	Ratio	Lower	Upper
61	100		
96	59.5	33.2	93.2



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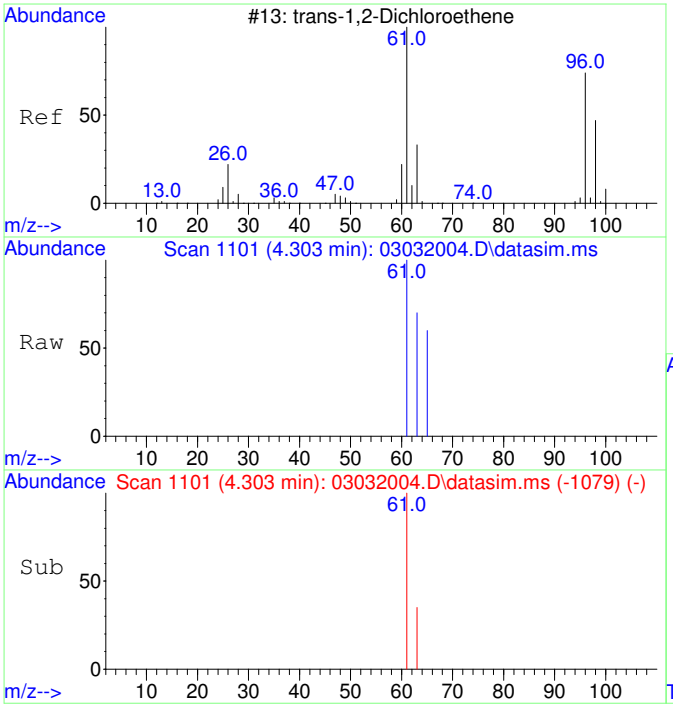
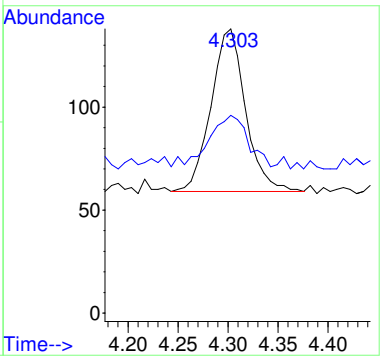
IMPROPER
BASELINE

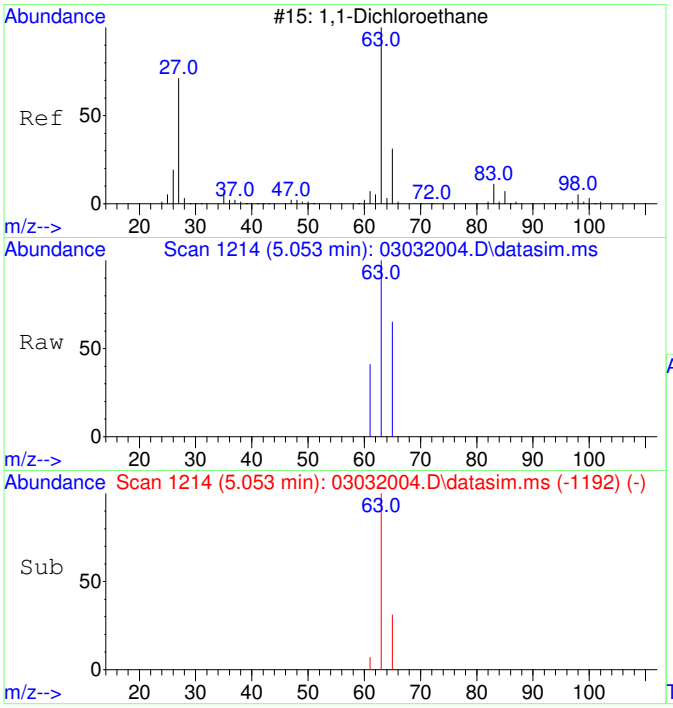


#3
trans-1,2-Dichloroethene
Concen: 48.19 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 190

Ion	Ratio	Lower	Upper
61	100		
63	38.9	2.3	62.3

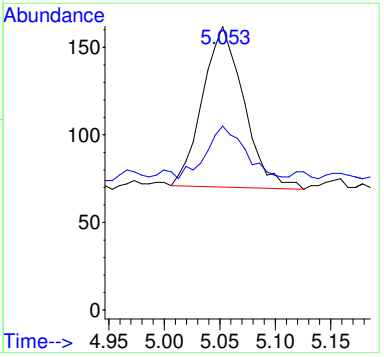


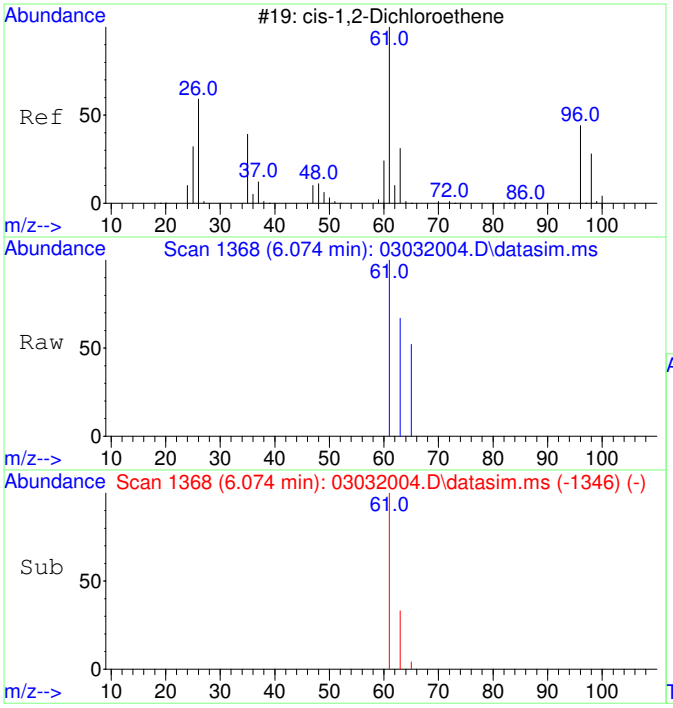


#4
1,1-Dichloroethane
Concen: 47.96 ug/L
RT: 5.053 min Scan# 1214
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 236

Ion	Ratio	Lower	Upper
63	100		
65	30.5	1.7	61.7

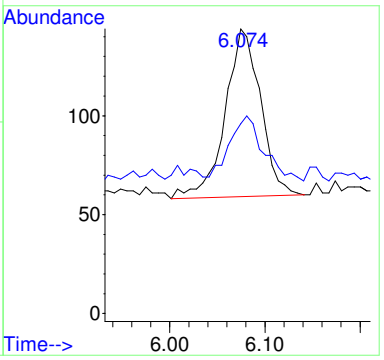


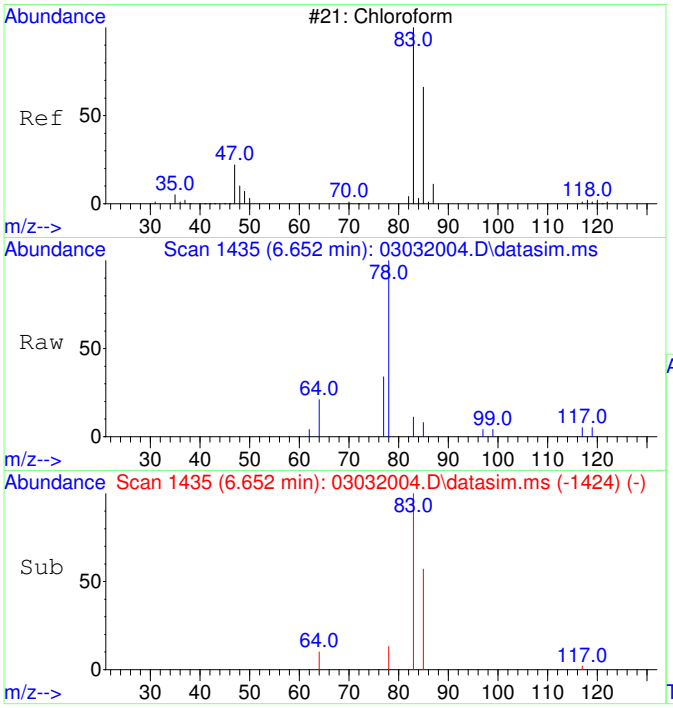


#5
cis-1,2-Dichloroethene
Concen: 48.22 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 222

Ion	Ratio	Lower	Upper
61	100		
63	36.9	2.6	62.6

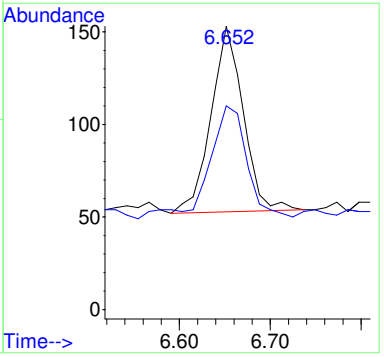


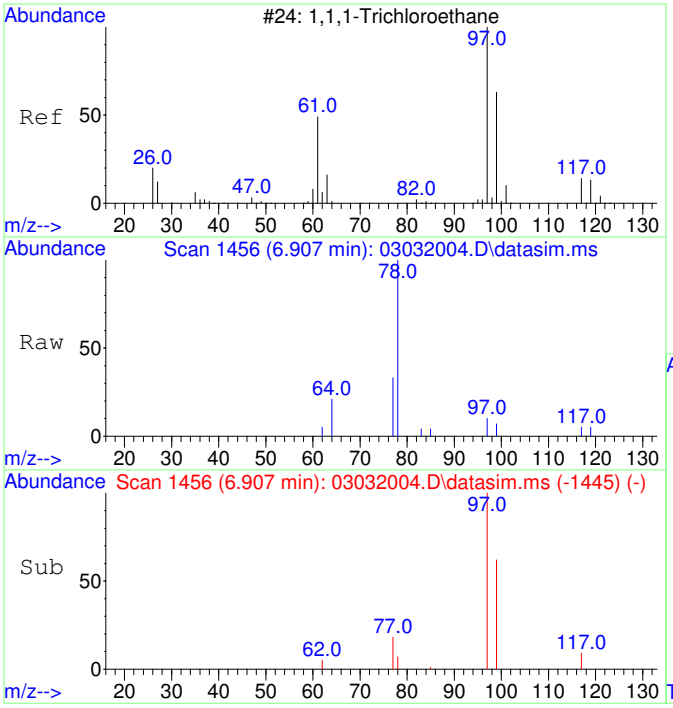


#6
Chloroform
Concen: 48.34 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 247

Ion	Ratio	Lower	Upper
83	100		
85	72.9	34.7	94.7

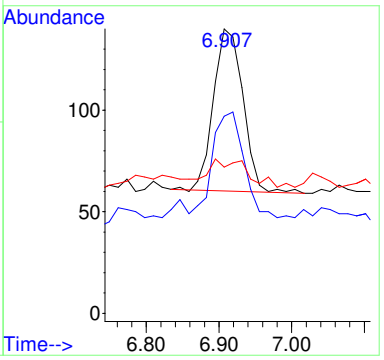


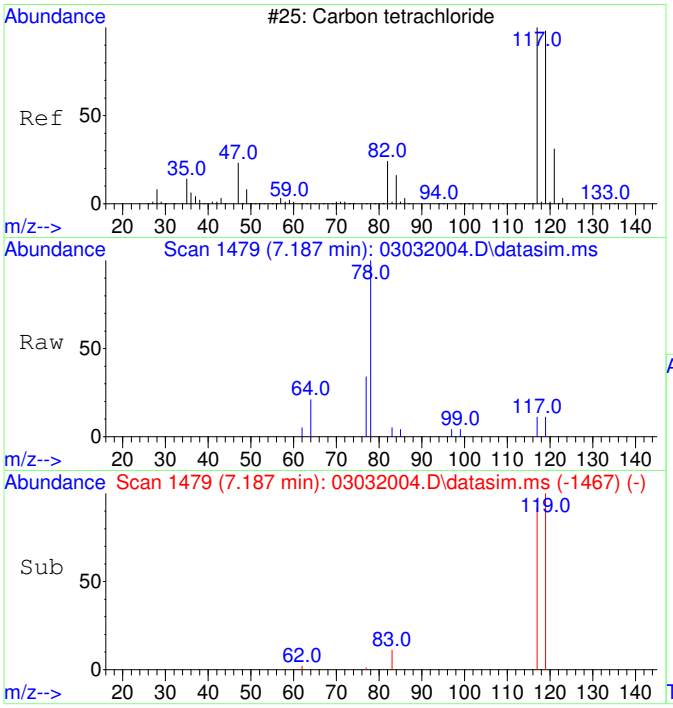


#7
1,1,1-Trichloroethane
Concen: 45.48 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 226

Ion	Ratio	Lower	Upper
97	100		
99	68.6	34.4	94.4
117	0.0	0.0	42.8

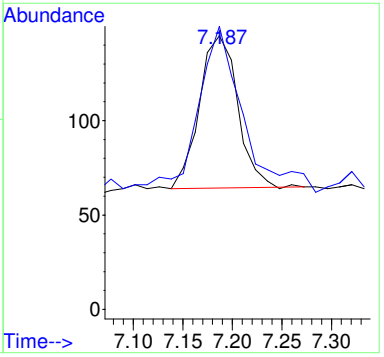


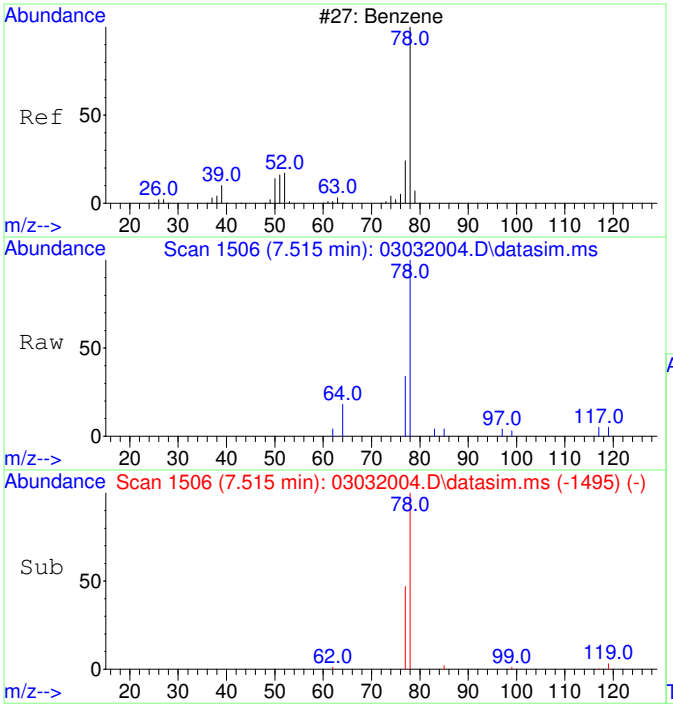


#8
Carbon tetrachloride
Concen: 49.61 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 217

Ion	Ratio	Lower	Upper
117	100		
119	130.0	66.1	126.1#

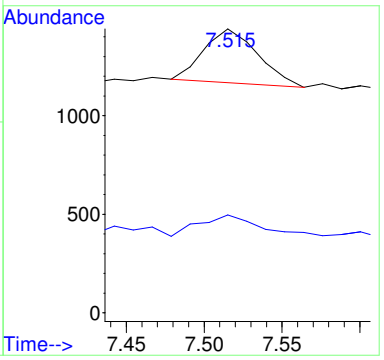


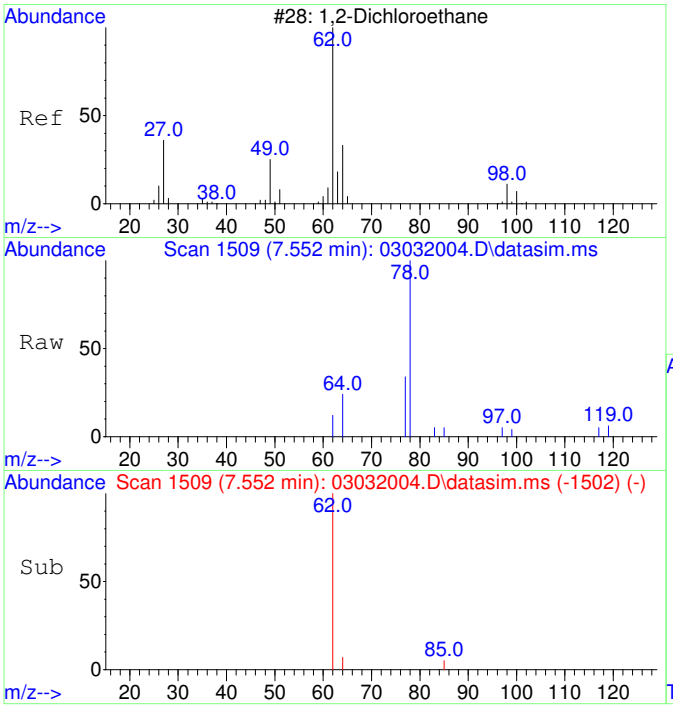


#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 647

Ion	Ratio	Lower	Upper
78	100		
77	47.4	0.0	53.6

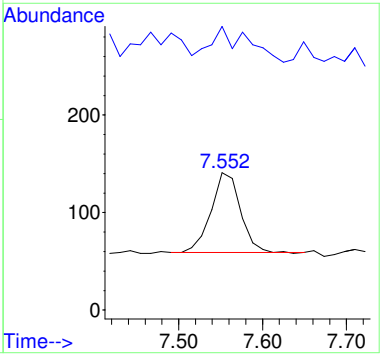


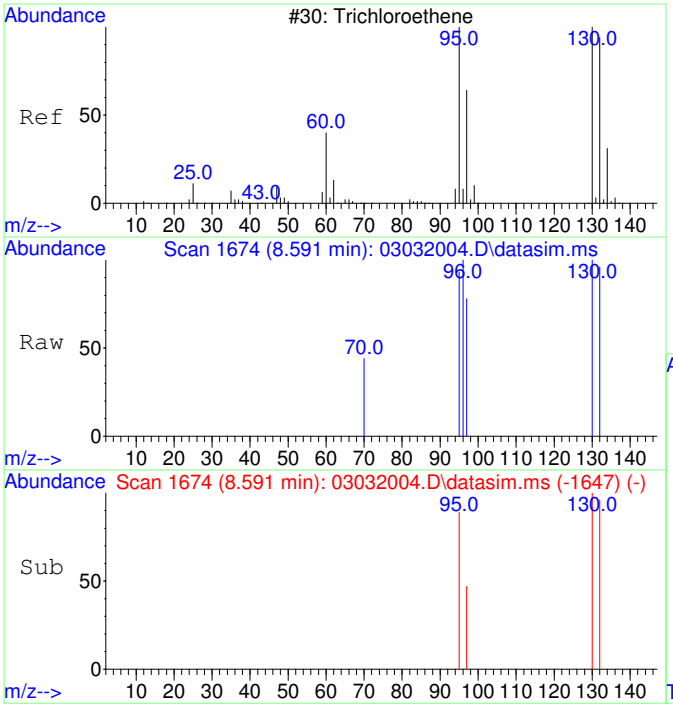


#10
1,2-Dichloroethane
Concen: 48.15 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 198

Ion	Ratio	Lower	Upper
62	100		
64	56.6	2.4	62.4

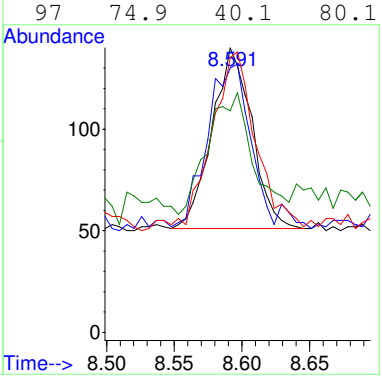


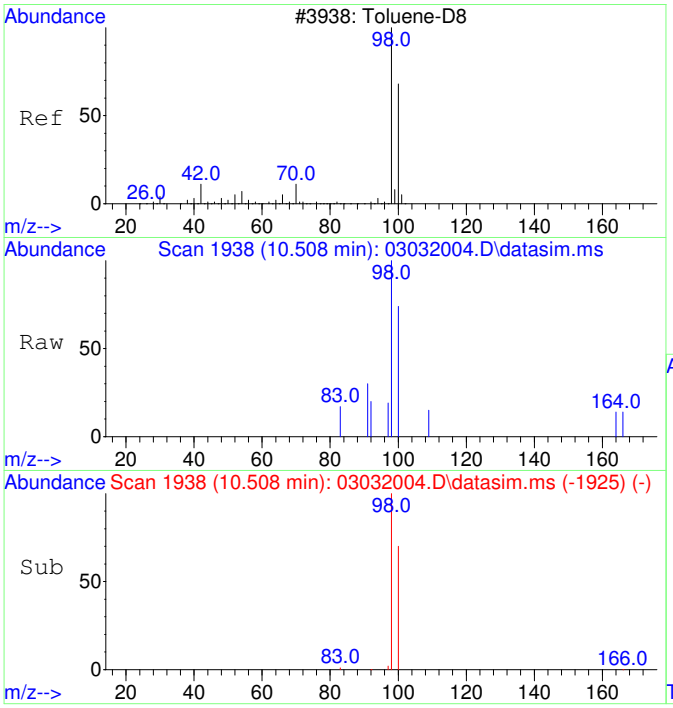


#11
Trichloroethene
Concen: 51.31 ug/L
RT: 8.591 min Scan# 1674
Delta R.T. -0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:130 Resp: 183

Ion	Ratio	Lower	Upper
130	100		
95	97.3	63.8	123.8
132	109.8	75.9	115.9
97	74.9	40.1	80.1

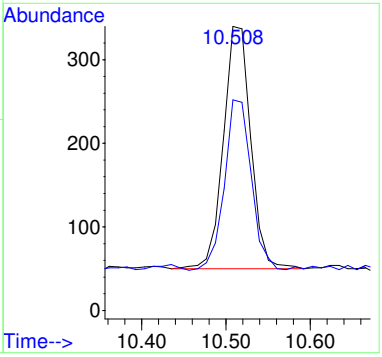


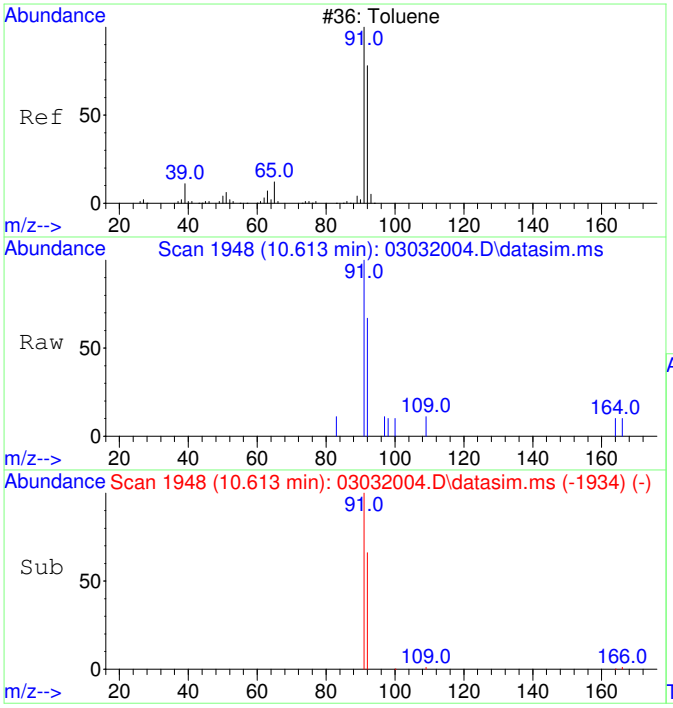


#12
Toluene-d8
Concen: 50.84 ug/L
RT: 10.508 min Scan# 1938
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 656

Ion	Ratio	Lower	Upper
98	100		
100	68.6	36.5	96.5

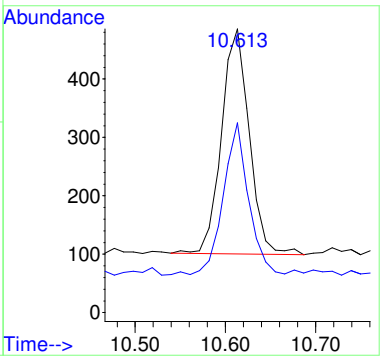


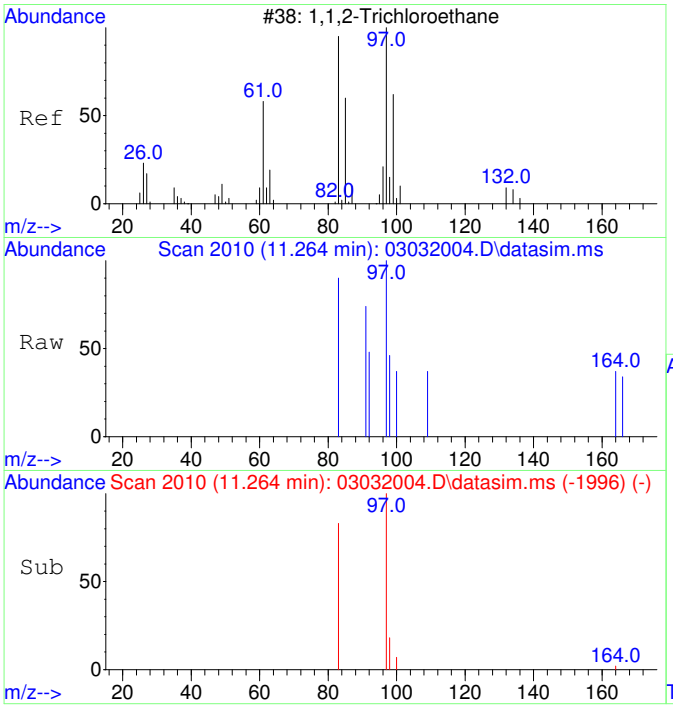


#13
Toluene
Concen: 54.36 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 824

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.7	89.7

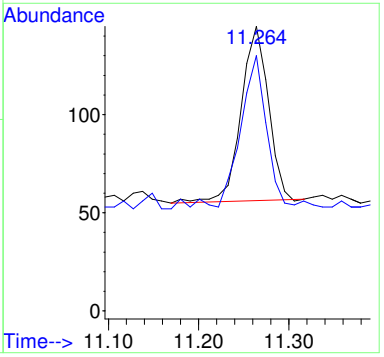


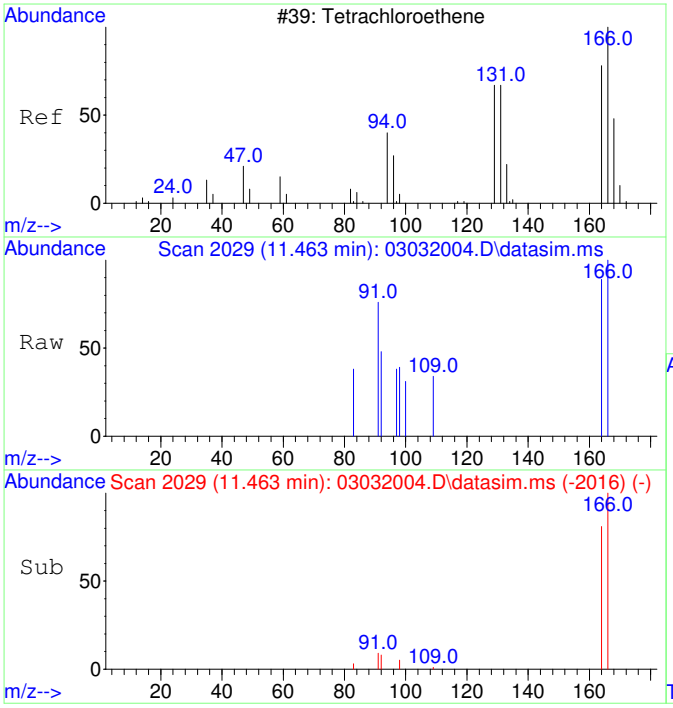


#14
1,1,2-Trichloroethane
Concen: 54.40 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 186

Ion	Ratio	Lower	Upper
97	100		
83	83.9	51.9	111.9

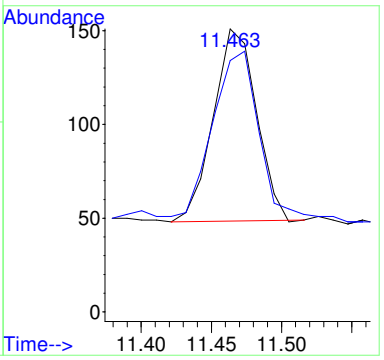


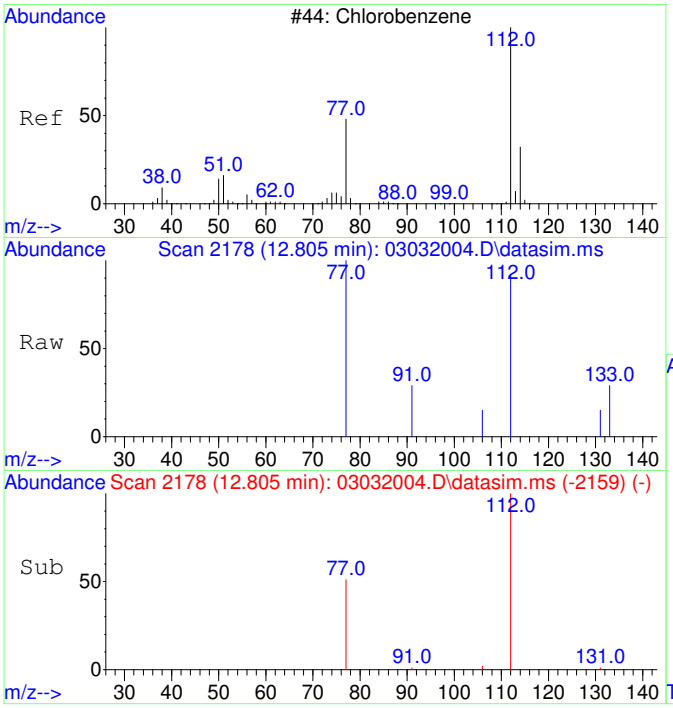


#15
Tetrachloroethene
Concen: 52.95 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:166 Resp: 220

Ion	Ratio	Lower	Upper
166	100		
164	97.7	47.9	107.9

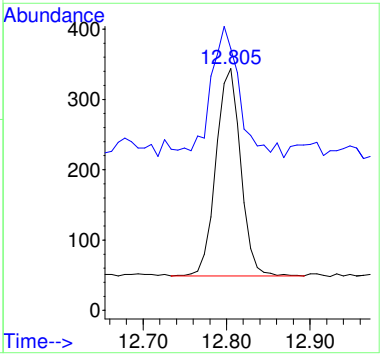


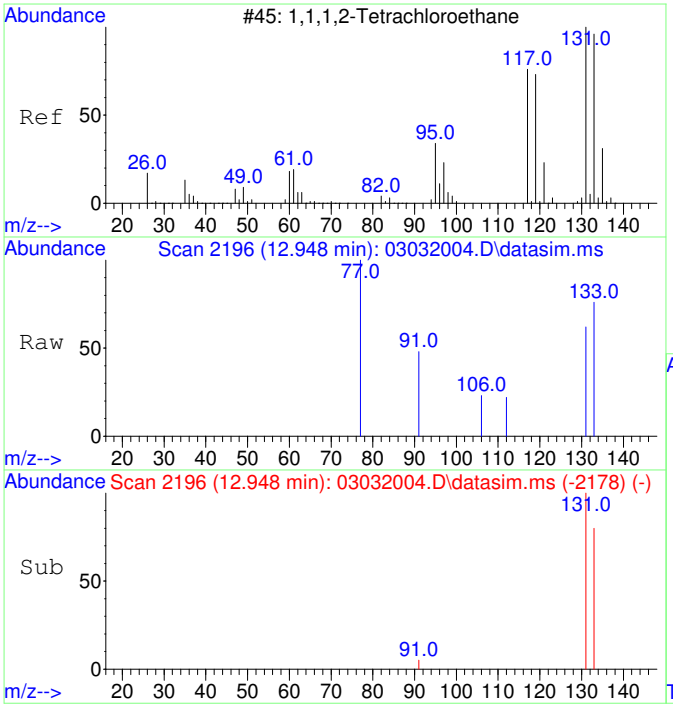


#16
Chlorobenzene
Concen: 55.62 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 608

Ion	Ratio	Lower	Upper
112	100		
77	74.2	25.7	85.7

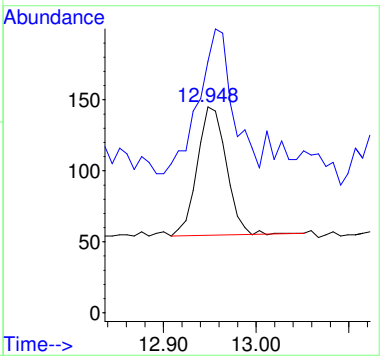


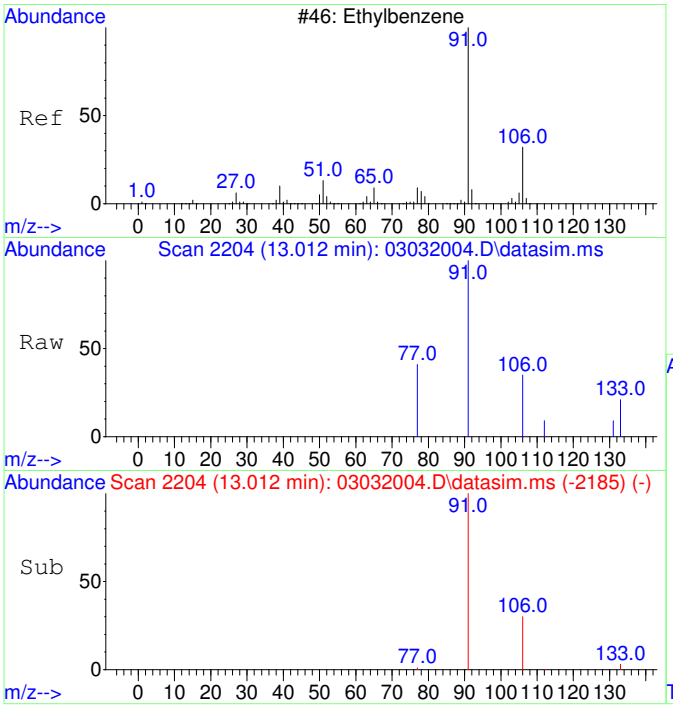


#17
1,1,1,2-Tetrachloroethane
Concen: 54.69 ug/L
RT: 12.948 min Scan# 2196
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 197

Ion	Ratio	Lower	Upper
131	100		
133	132.0	66.5	126.5#

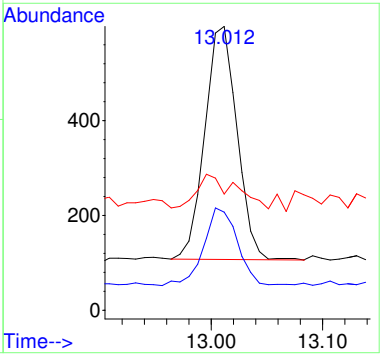


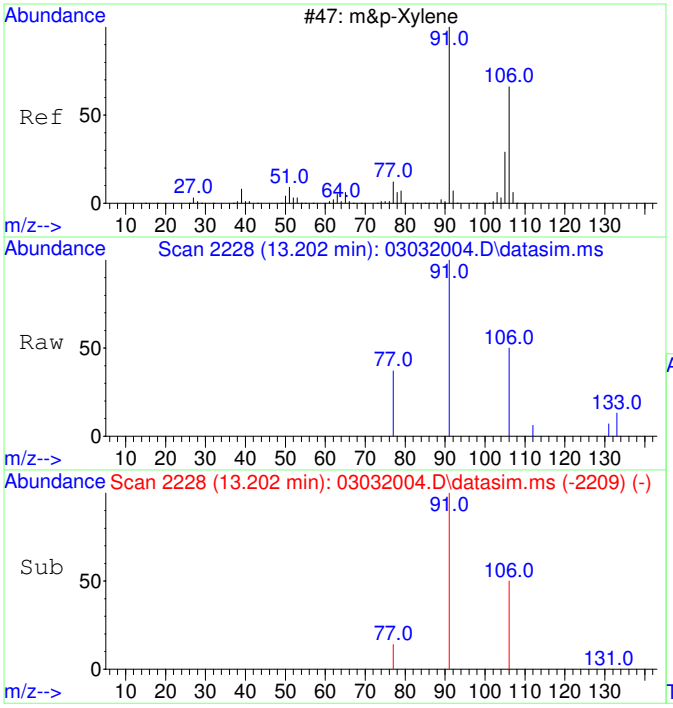


#18
Ethylbenzene
Concen: 55.67 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 990

Ion	Ratio	Lower	Upper
91	100		
106	34.9	2.7	62.7
77	17.7	0.0	38.3

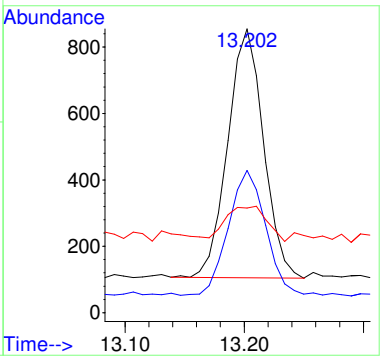


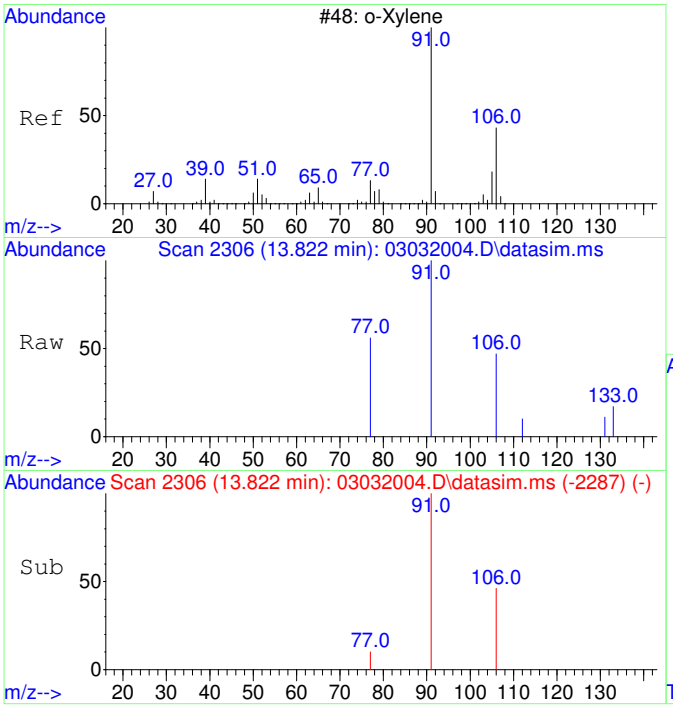


#19
m&p-Xylene
Concen: 116.51 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 1563

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.8	81.8
77	17.5	0.0	42.6

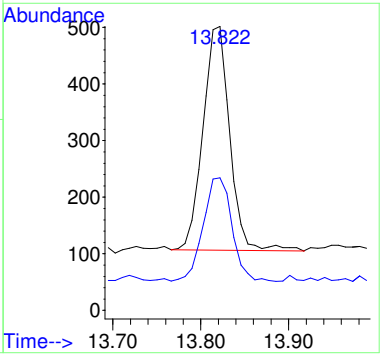


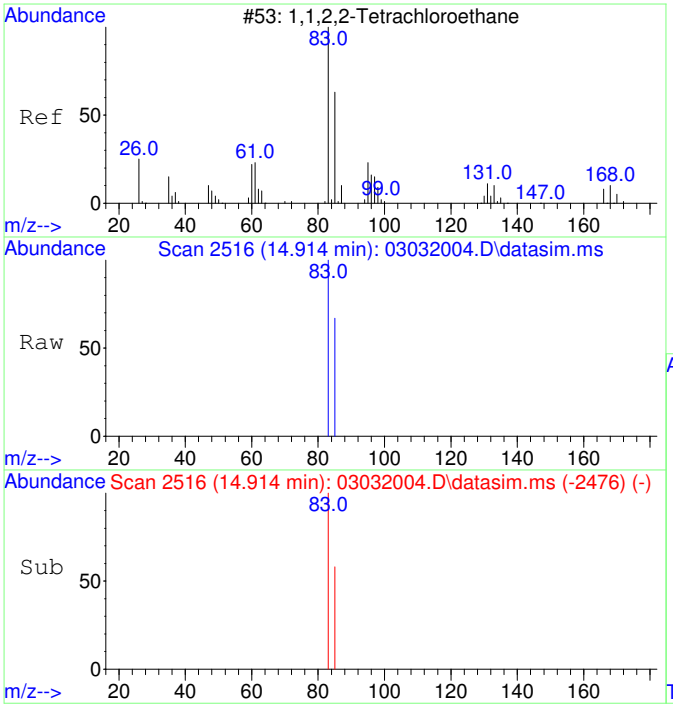


#20
o-Xylene
Concen: 58.18 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 837

Ion	Ratio	Lower	Upper
91	100		
106	49.5	18.8	78.8

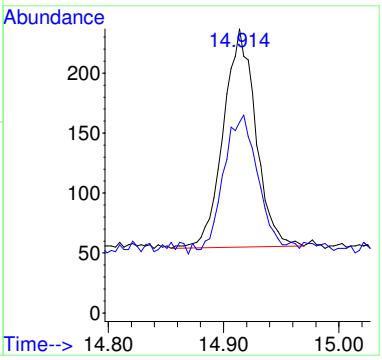


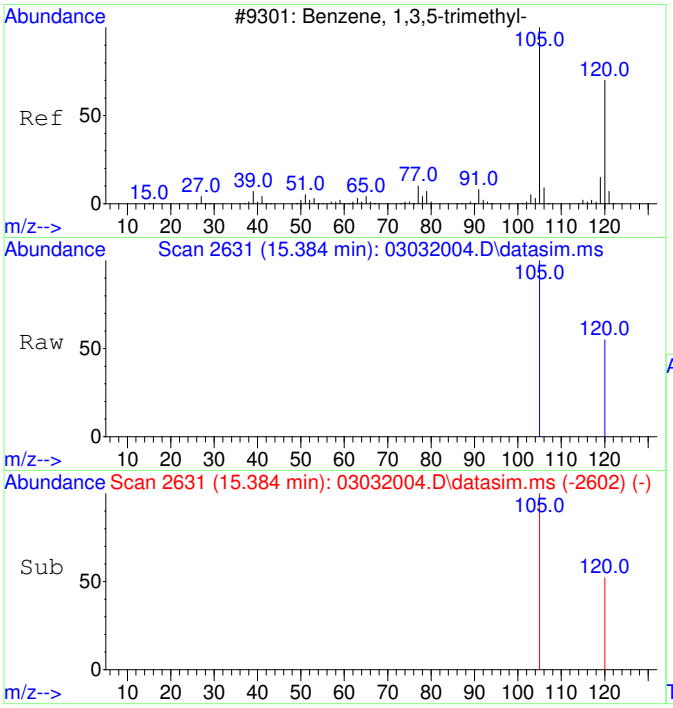


#21
1,1,2,2-Tetrachloroethane
Concen: 57.06 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 355

Ion	Ratio	Lower	Upper
83	100		
85	69.6	34.4	94.4

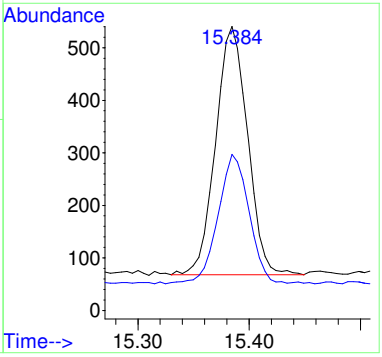


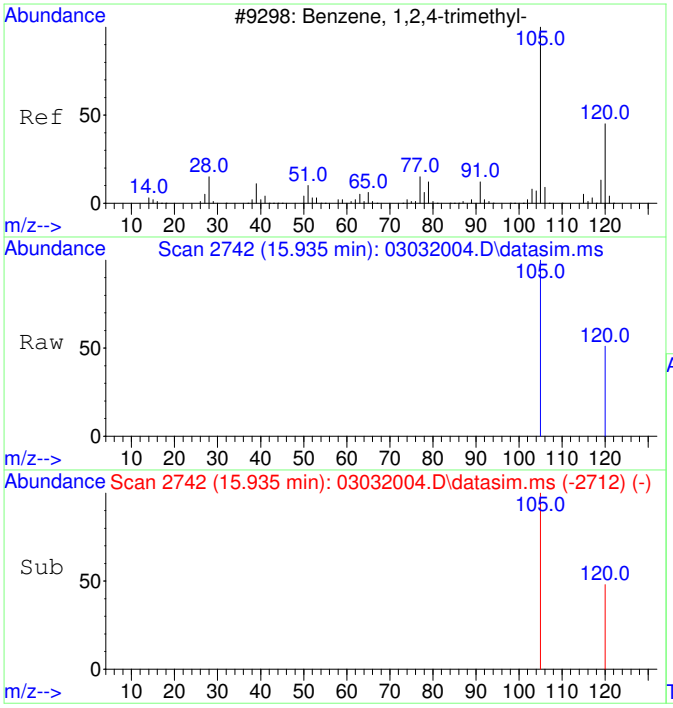


#22
1,3,5-Trimethylbenzene
Concen: 60.74 ug/L
RT: 15.384 min Scan# 2631
Delta R.T. -0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 943

Ion	Ratio	Lower	Upper
105	100		
120	50.7	21.1	81.1

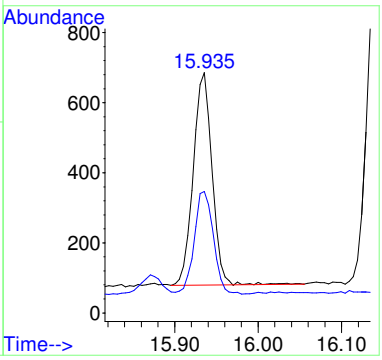


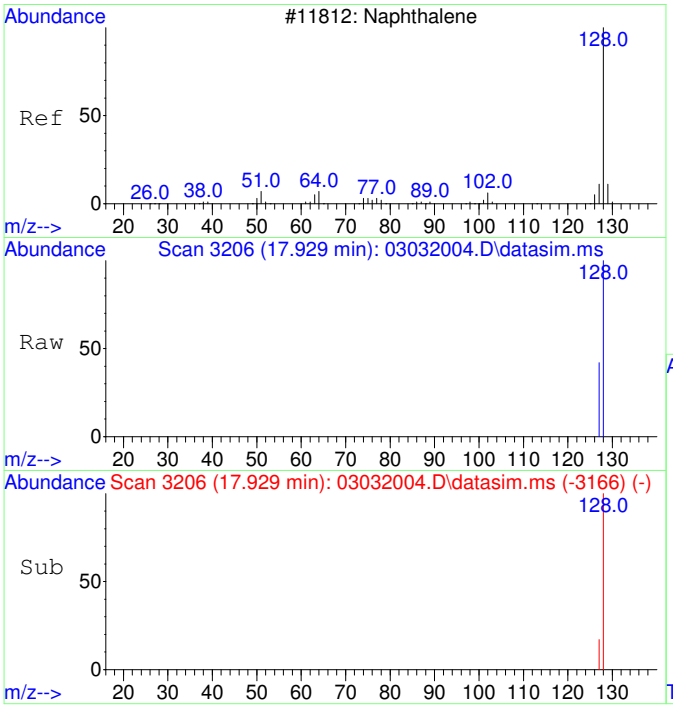


#23
1,2,4-Trimethylbenzene
Concen: 60.08 ug/L
RT: 15.935 min Scan# 2742
Delta R.T. 0.001 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 949

Ion	Ratio	Lower	Upper
105	100		
120	47.7	17.1	77.1

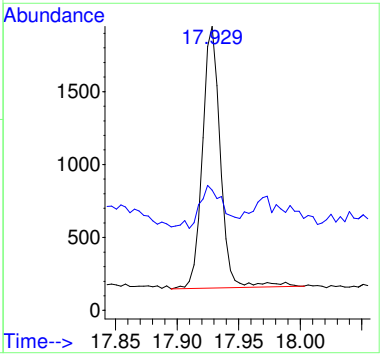


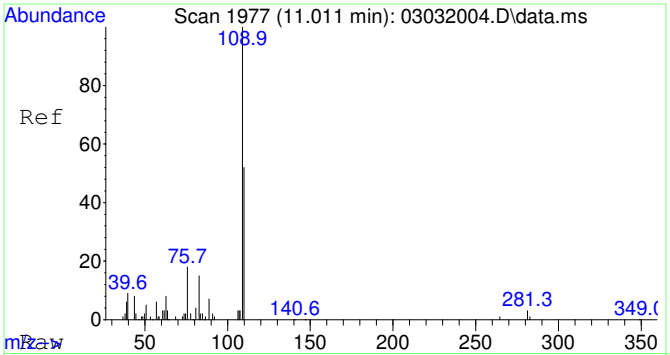


#24
Naphthalene
Concen: 66.56 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1813

Ion	Ratio	Lower	Upper
128	100		
127	16.3	0.0	42.6

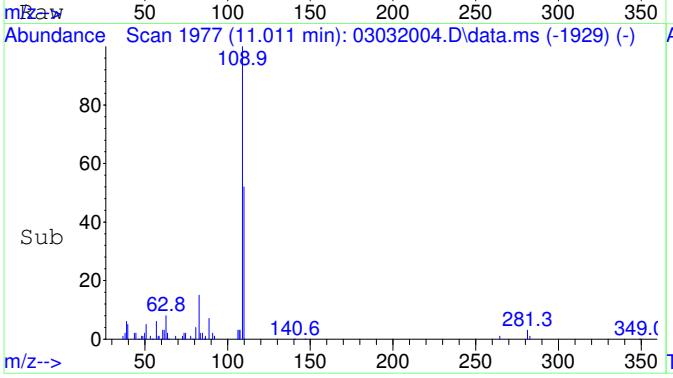


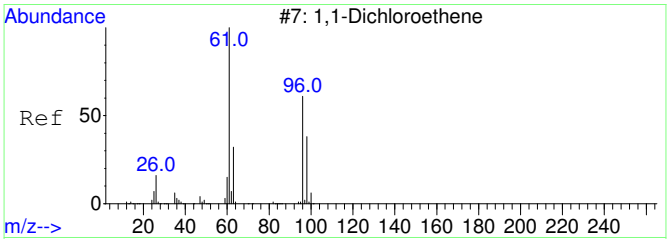


#25
2-Fluorotoluene SCAN
Concen: 4904.59 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 45584

Ion	Ratio	Lower	Upper
109	100		
83	15.6	0.0	44.7

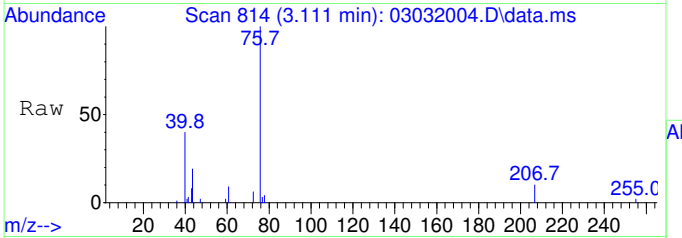


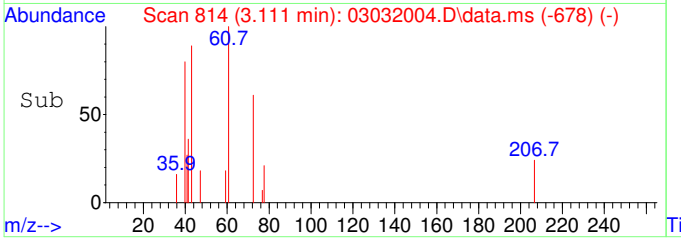


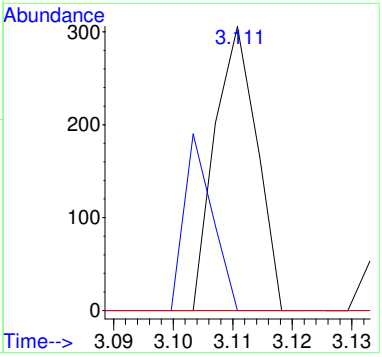
#26
1,1-Dichloroethene SCAN
Concen: 56.01 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

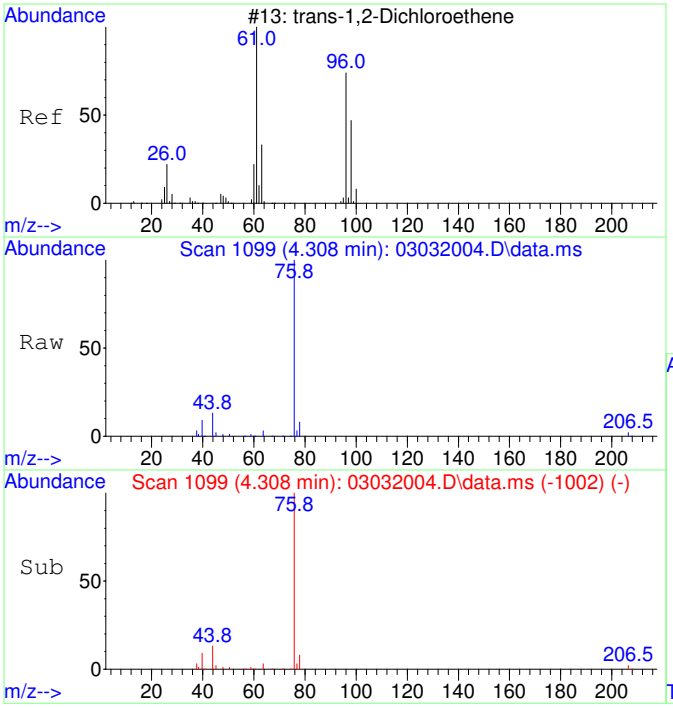
Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	42.0	34.7	94.7
98	0.0	4.7	64.7#





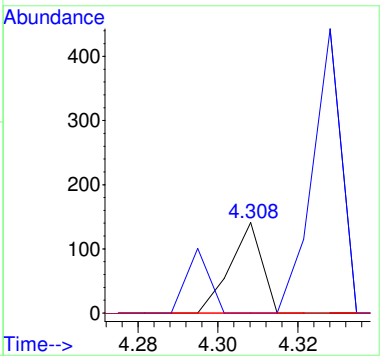


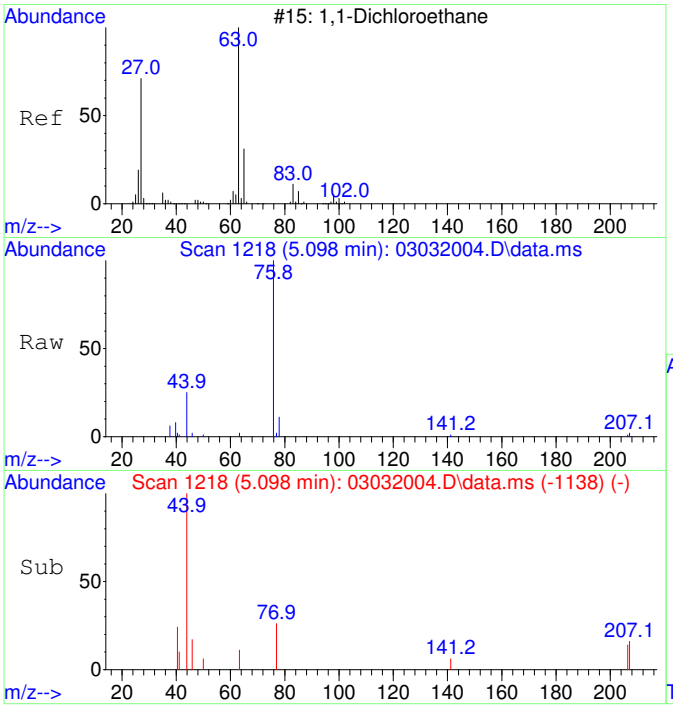


#27
trans-1,2-Dichloroethene SCAN
Concen: 27.30 ug/L
RT: 4.308 min Scan# 1099
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 78

Ion	Ratio	Lower	Upper
61	100		
96	284.6	47.2	107.2#
98	0.0	16.4	76.4#

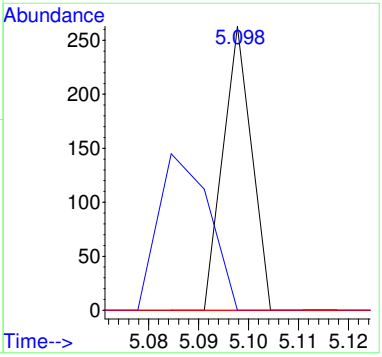


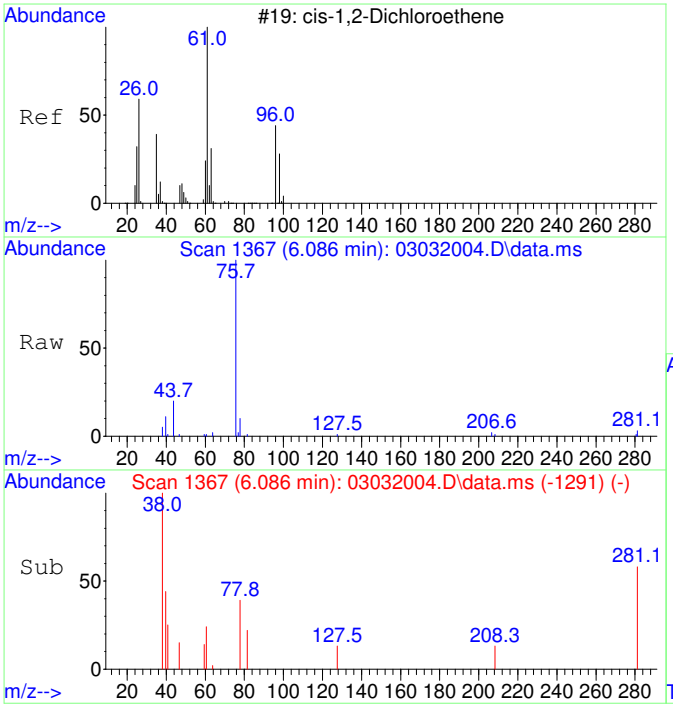


#28
1,1-Dichloroethane SCAN
Concen: 26.67 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.033 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 105

Ion	Ratio	Lower	Upper
63	100		
65	97.1	0.0	59.3#
83	0.0	0.0	37.5

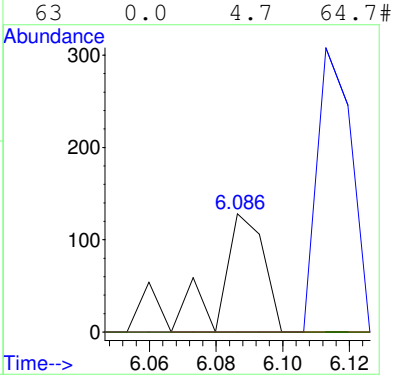


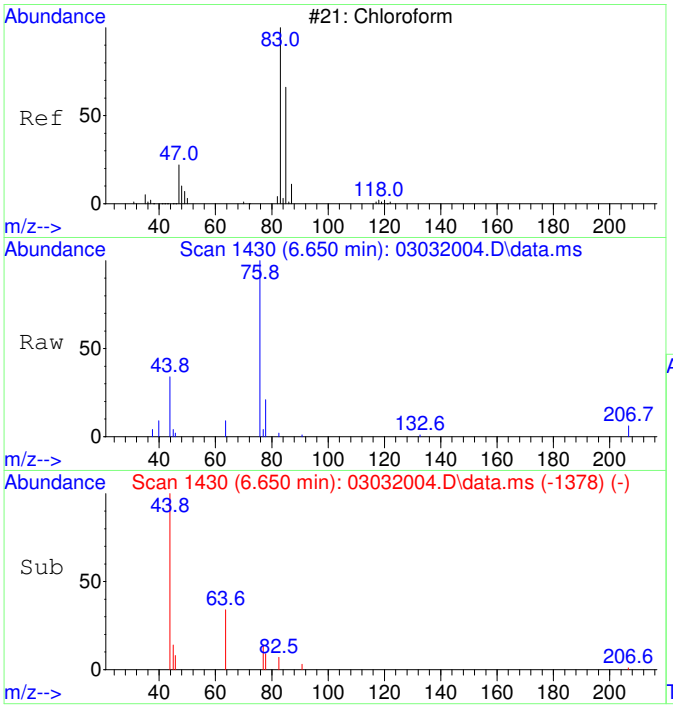


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.87 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. 0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 117

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	0.0	4.7	64.7#

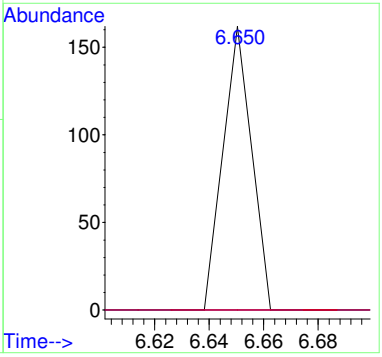


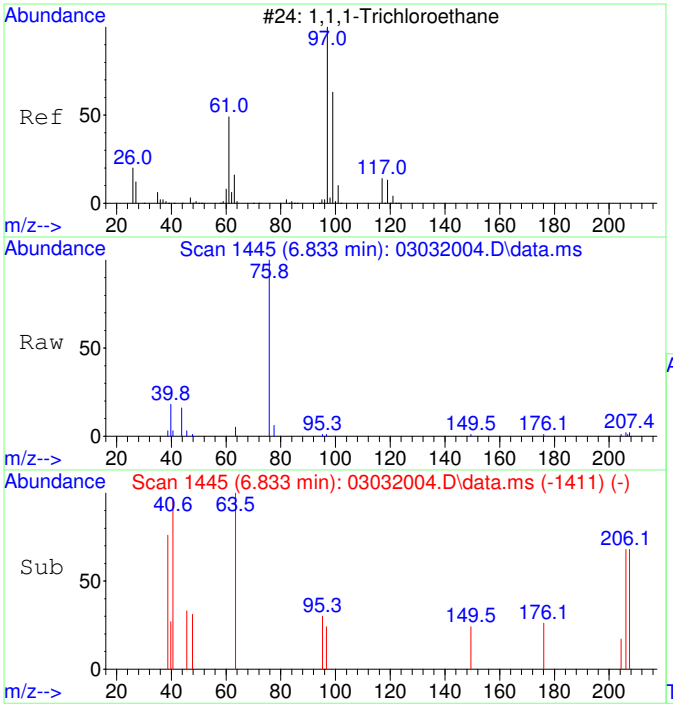


#30
Chloroform SCAN
Concen: 34.50 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 118

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	0.0	0.0	58.1

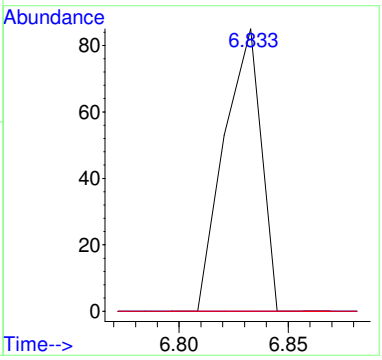


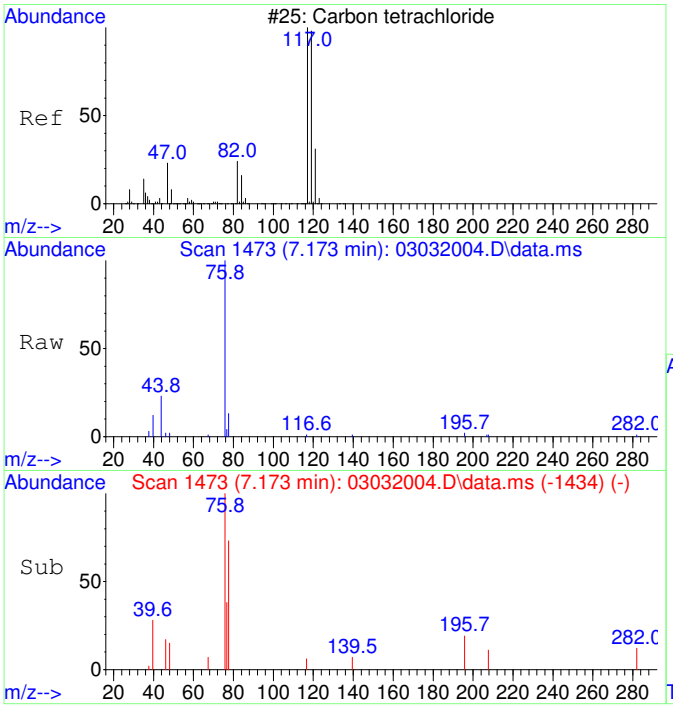


#31
1,1,1-Trichloroethane SCAN
Concen: 29.46 ug/L
RT: 6.833 min Scan# 1445
Delta R.T. -0.085 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 101

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

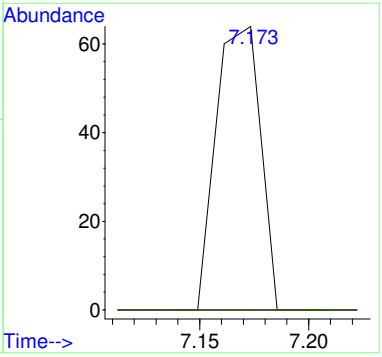


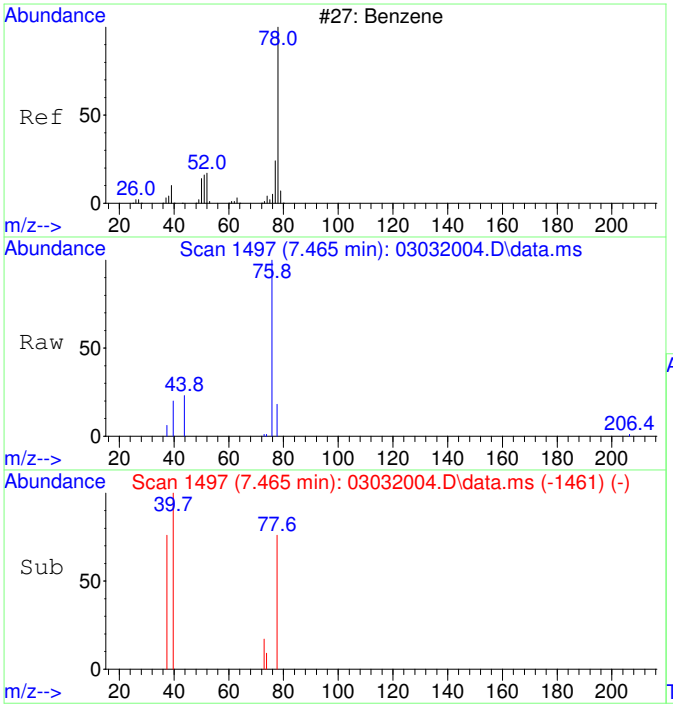


#32
Carbon tetrachloride SCAN
Concen: 25.69 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 90

Ion	Ratio	Lower	Upper
117	100		
119	0.0	56.4	116.4#
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

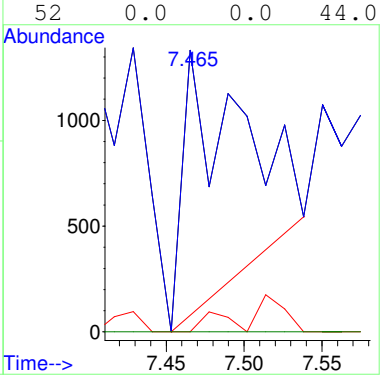


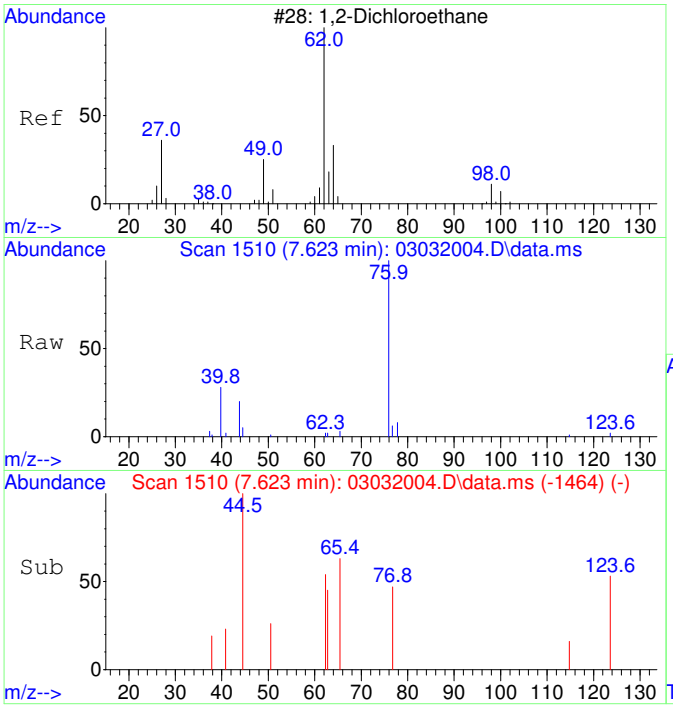


#33
Benzene SCAN
Concen: 359.68 ug/L
RT: 7.465 min Scan# 1497
Delta R.T. -0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 3264

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	0.0	0.0	44.0

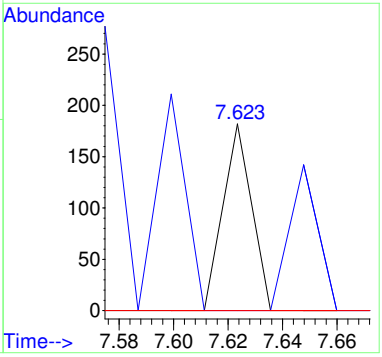


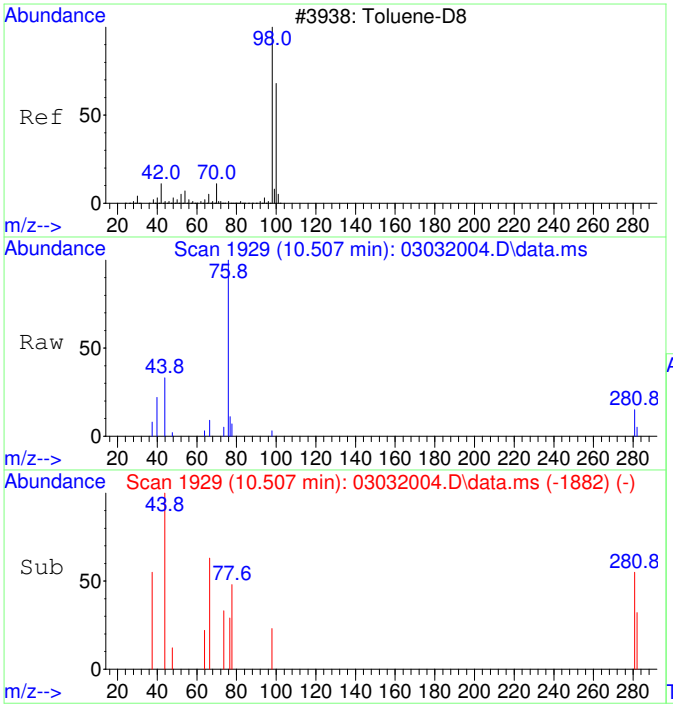


#34
1,2-Dichloroethane SCAN
Concen: 50.16 ug/L
RT: 7.623 min Scan# 1510
Delta R.T. 0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 133

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

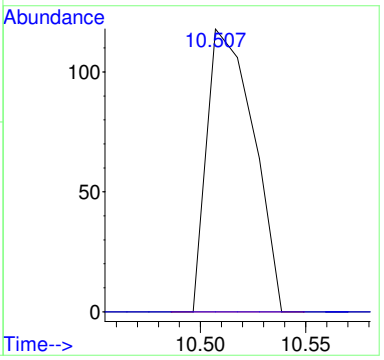


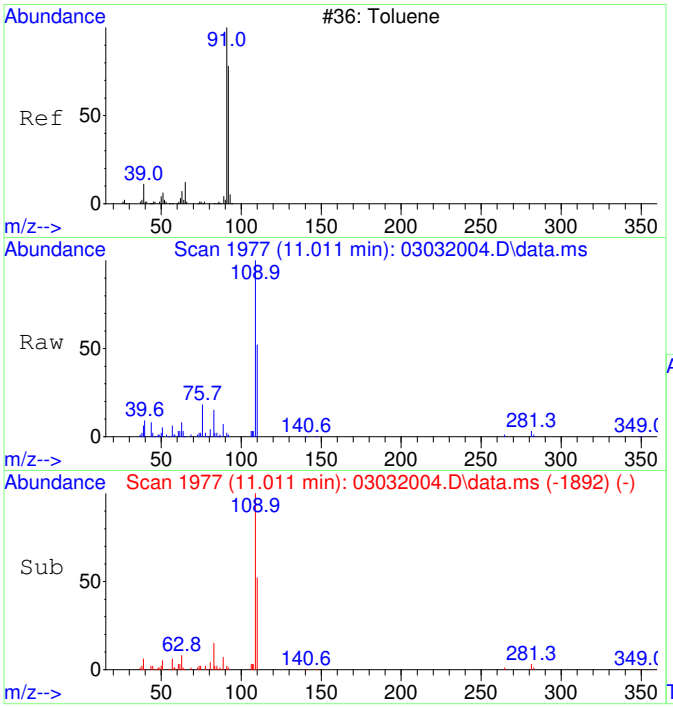


#36
Toluene-d8 SCAN
Concen: 20.90 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 181

Ion	Ratio	Lower	Upper
98	100		
100	0.0	38.3	98.3#

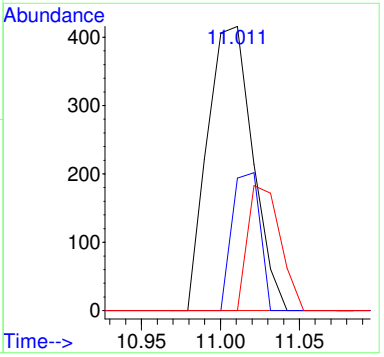


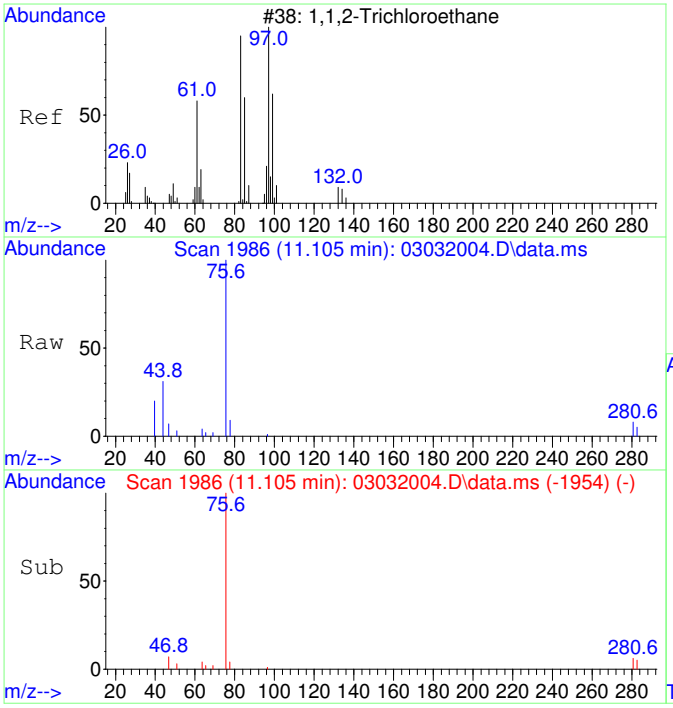


#37
Toluene SCAN
Concen: 78.15 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.388 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 830

Ion	Ratio	Lower	Upper
91	100		
92	30.0	21.2	81.2
65	31.7	0.0	41.4

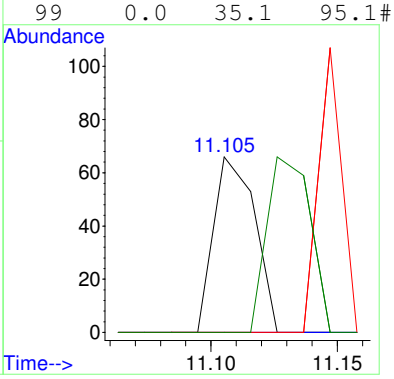


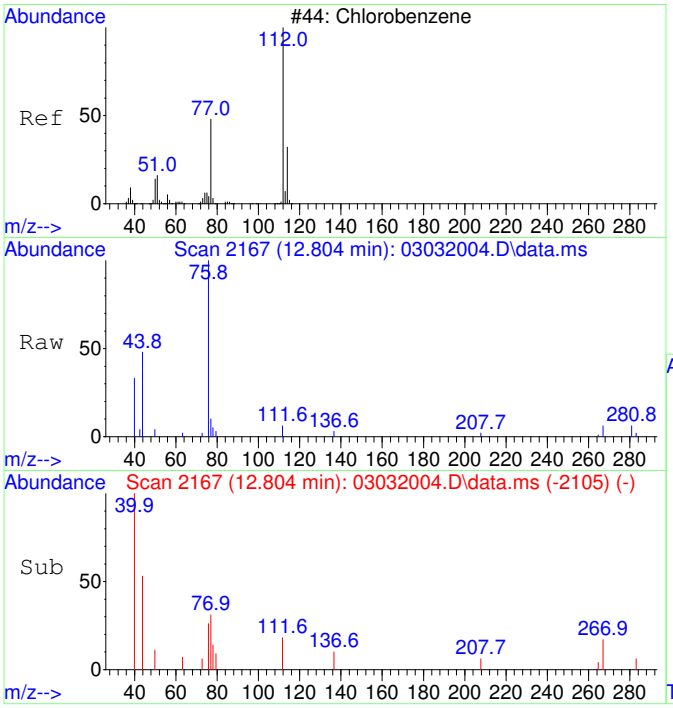


#38
1,1,2-Trichloroethane SCAN
Concen: 31.72 ug/L
RT: 11.105 min Scan# 1986
Delta R.T. -0.168 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 75

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.5	113.5#
61	0.0	29.8	89.8#
99	0.0	35.1	95.1#

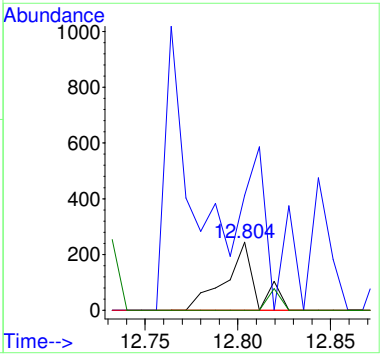


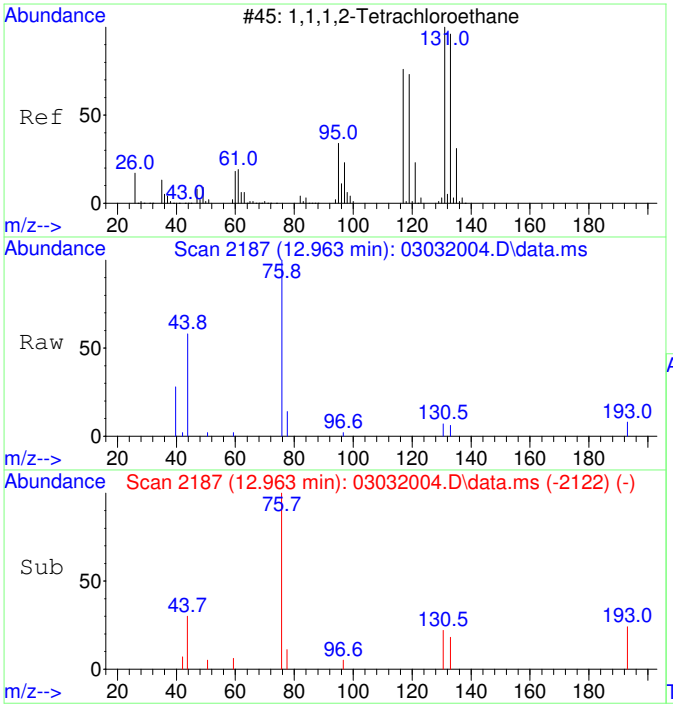


#40
Chlorobenzene SCAN
Concen: 42.59 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 285

Ion	Ratio	Lower	Upper
112	100		
77	118.6	33.6	93.6#
114	0.0	5.6	65.6#
51	0.0	0.0	52.4

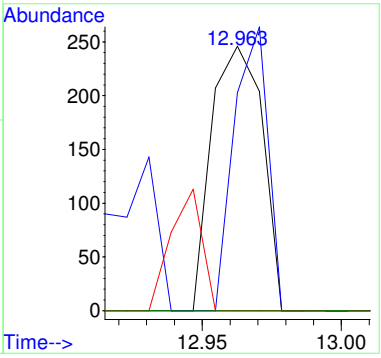


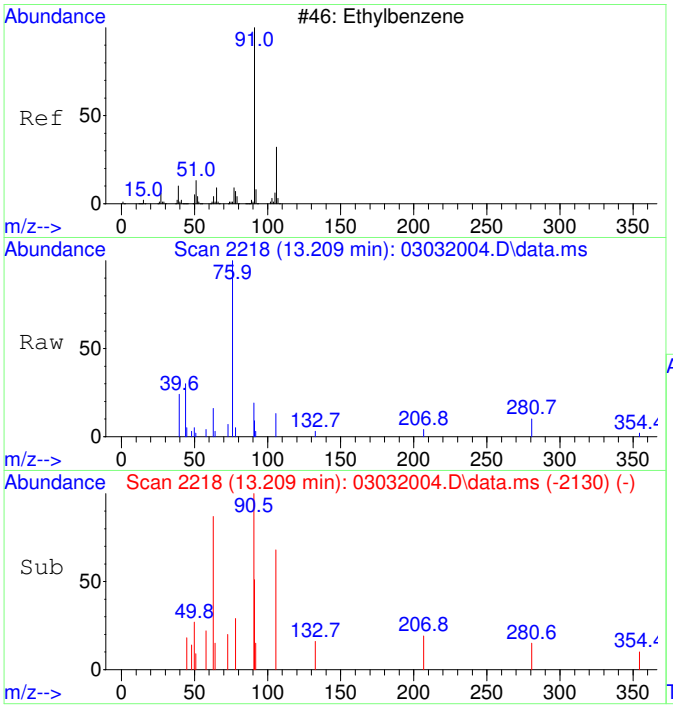


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 127.09 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	71.2	61.4	121.4
119	0.0	33.0	93.0#
117	0.0	35.3	95.3#

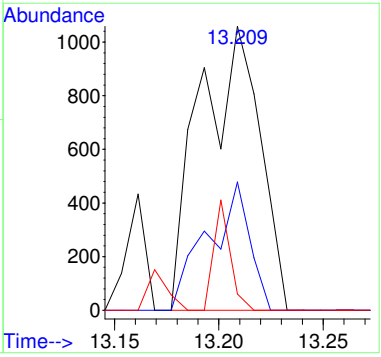


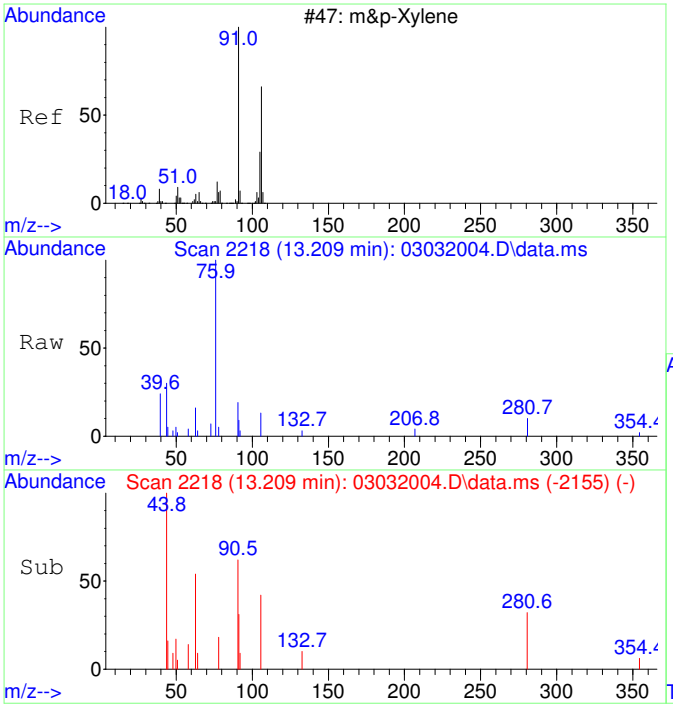


#42
Ethylbenzene SCAN
Concen: 180.60 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	2.2	62.2
51	10.6	0.0	40.6

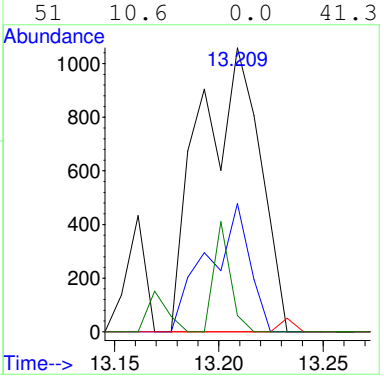


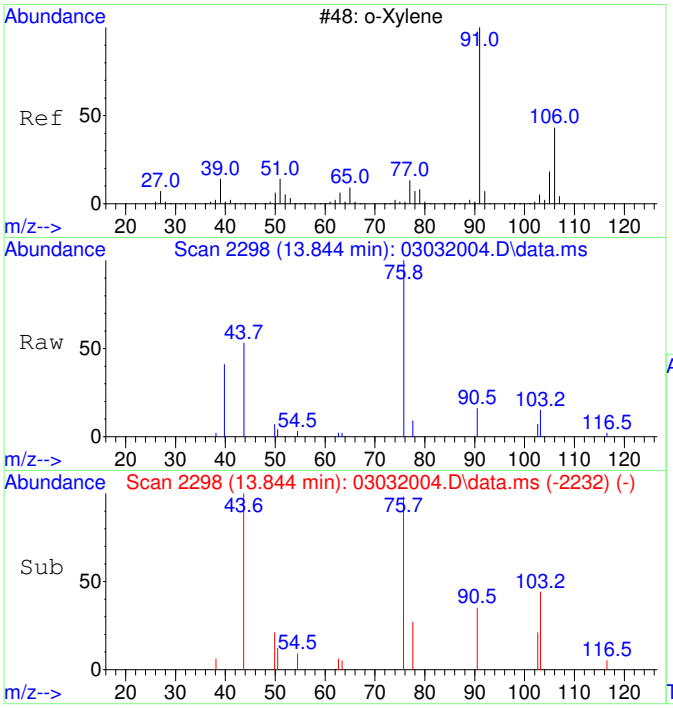


#43
m&p-Xylene SCAN
Concen: 127.24 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	19.7	79.7
105	0.0	0.0	55.1
51	10.6	0.0	41.3

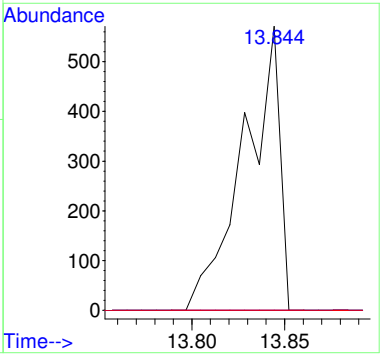


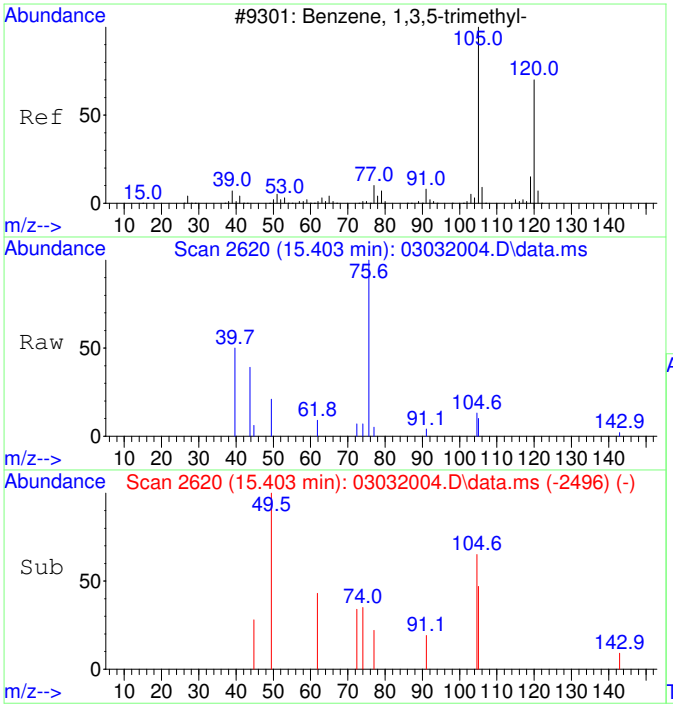


#44
o-Xylene SCAN
Concen: 86.24 ug/L
RT: 13.844 min Scan# 2298
Delta R.T. 0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 767

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.1	78.1#
105	0.0	0.0	54.4

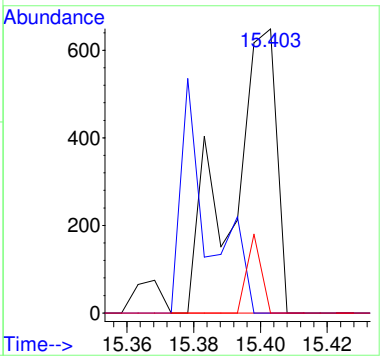


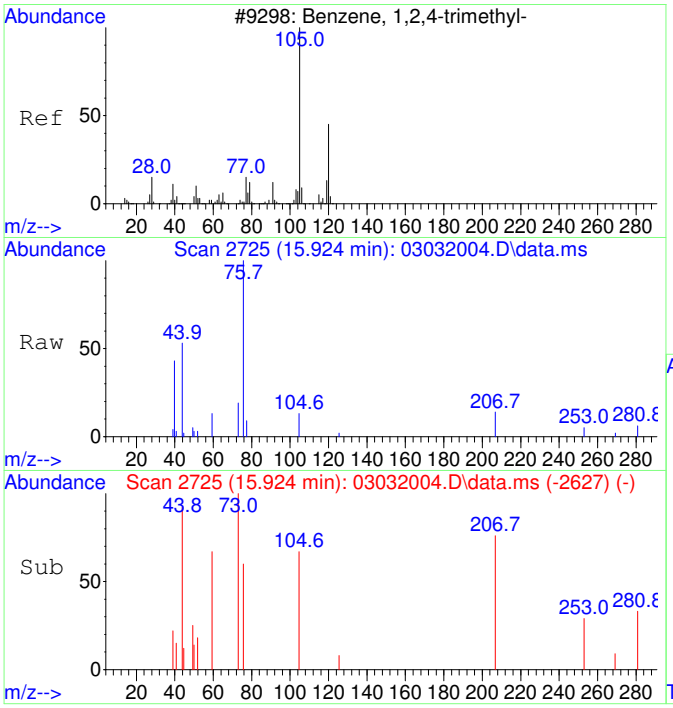


#46
1,3,5-Trimethylbenzene SCAN
Concen: 66.44 ug/L
RT: 15.403 min Scan# 2620
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 605

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	8.9	0.0	43.4

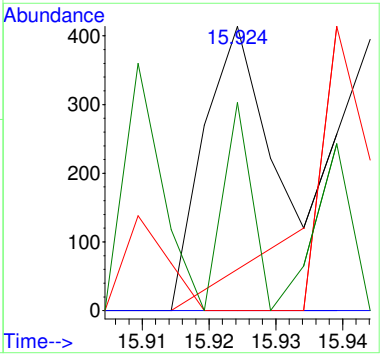


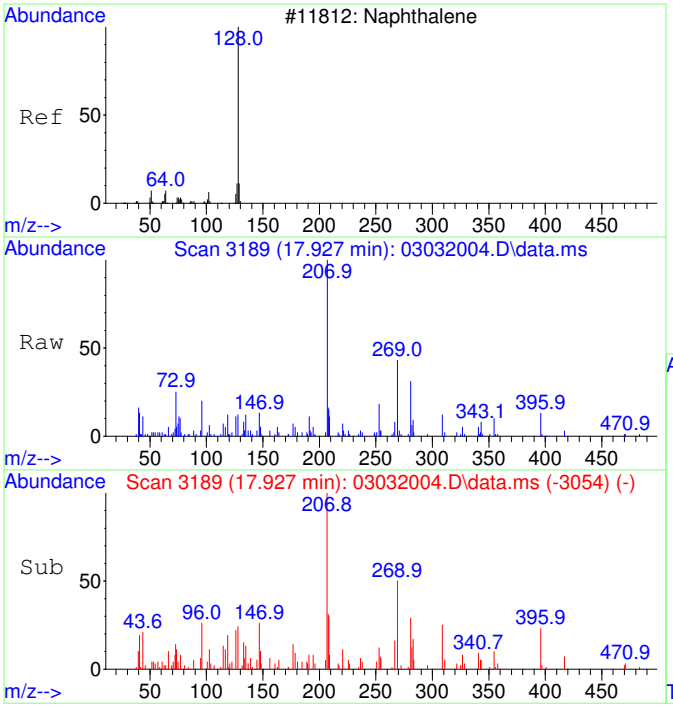


#47
1,2,4-Trimethylbenzene SCAN
Concen: 24.17 ug/L
RT: 15.924 min Scan# 2725
Delta R.T. -0.014 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 234

Ion	Ratio	Lower	Upper
105	100		
120	0.0	12.9	72.9#
119	0.0	0.0	41.4
77	34.6	0.0	42.1

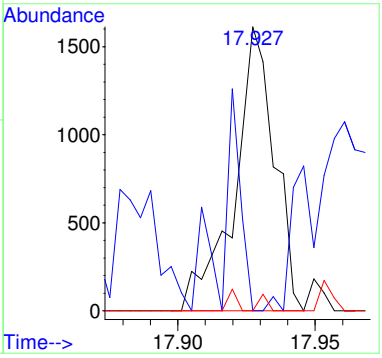




#48
Naphthalene SCAN
Concen: 111.23 ug/L
RT: 17.927 min Scan# 3189
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1632

Ion	Ratio	Lower	Upper
128	100		
127	36.6	0.0	44.2
129	0.0	0.0	41.5



Quantitation Report (QT Reviewed)

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M.I. Performed By:
TD at 10:50 am, Mar 03, 2020

M.I. Approved By:
ZR at 4:34 pm, Mar 10, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

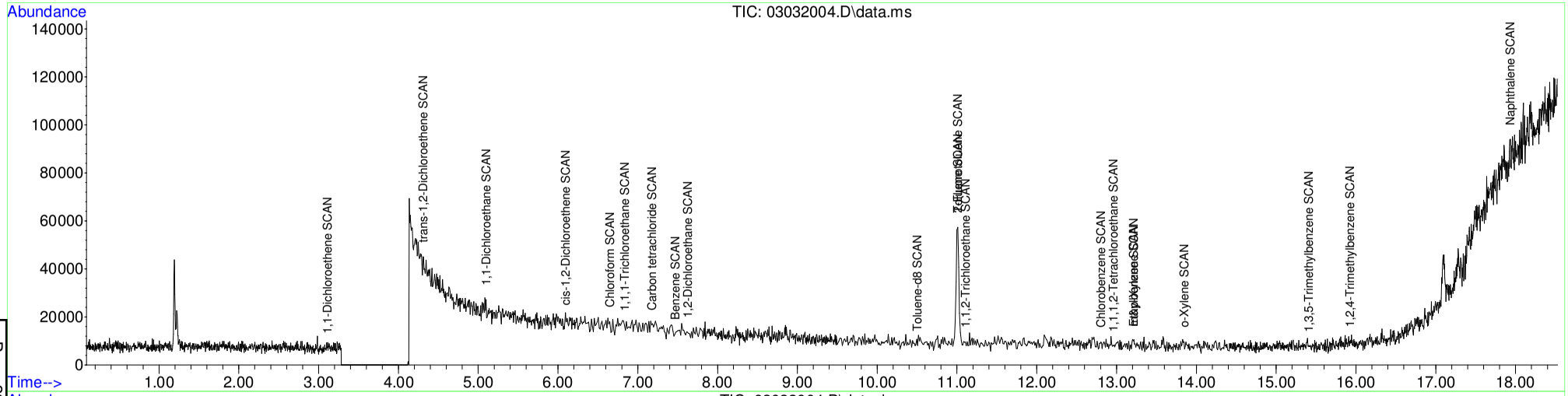
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.002	109	75418	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.508	98	656	50.84	ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.02%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.116	61	184m	48.02	ug/L	
3] trans-1,2-Dichloroethene	4.303	61	190	48.19	ug/L	88
4] 1,1-Dichloroethane	5.053	63	236	47.96	ug/L	98
5] cis-1,2-Dichloroethene	6.074	61	222	48.22	ug/L	92
6] Chloroform	6.652	83	247	48.34	ug/L	90
7] 1,1,1-Trichloroethane	6.907	97	226	45.48	ug/L #	90
8] Carbon tetrachloride	7.187	117	217	49.61	ug/L #	65
9] Benzene	7.515	78	647	51.90	ug/L	51
10] 1,2-Dichloroethane	7.552	62	198	48.15	ug/L	57
11] Trichloroethene	8.591	130	183	51.31	ug/L	88
13] Toluene	10.613	91	824	54.36	ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	186	54.40	ug/L	98
15] Tetrachloroethene	11.463	166	220	52.95	ug/L	77
16] Chlorobenzene	12.805	112	608	55.62	ug/L	75
17] 1,1,1,2-Tetrachloroethane	12.948	131	197	54.69	ug/L #	64
18] Ethylbenzene	13.012	91	990	55.67	ug/L	91
19] m&p-Xylene	13.202	91	1563	116.51	ug/L	96
20] o-Xylene	13.822	91	837	58.18	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	355	57.06	ug/L	93
22] 1,3,5-Trimethylbenzene	15.384	105	943	60.74	ug/L	99
23] 1,2,4-Trimethylbenzene	15.935	105	949	60.08	ug/L	99
24] Naphthalene	17.929	128	1813	66.56	ug/L	91
25) 2-Fluorotoluene SCAN	11.011	109	45584	4904.59	ug/L	98
26) 1,1-Dichloroethene SCAN	3.111	61	150	56.01	ug/L #	60
27) trans-1,2-Dichloroethe...	4.308	61	78	27.30	ug/L #	1
28) 1,1-Dichloroethane SCAN	5.098	63	105	26.67	ug/L #	1
29) cis-1,2-Dichloroethene...	6.086	61	117	37.87	ug/L #	23
30) Chloroform SCAN	6.650	83	118	34.50	ug/L #	22
31) 1,1,1-Trichloroethane ...	6.833	97	101	29.46	ug/L #	24
32) Carbon tetrachloride SCAN	7.173	117	90	25.69	ug/L #	22
33) Benzene SCAN	7.465	78	3264	359.68	ug/L #	90
34) 1,2-Dichloroethane SCAN	7.623	62	133	50.16	ug/L #	36
36) Toluene-d8 SCAN	10.507	98	181	20.90	ug/L #	16
37) Toluene SCAN	11.011	91	830	78.15	ug/L	65
38) 1,1,2-Trichloroethane ...	11.105	97	75	31.72	ug/L #	14
40) Chlorobenzene SCAN	12.804	112	285	42.59	ug/L #	37
41) 1,1,1,2-Tetrachloroeth...	12.963	131	313	127.09	ug/L #	43
42) Ethylbenzene SCAN	13.209	91	2126	180.60	ug/L	99
43) m&p-Xylene SCAN	13.209	91	2126	127.24	ug/L #	70
44) o-Xylene SCAN	13.844	91	767	86.24	ug/L #	36
46) 1,3,5-Trimethylbenzene...	15.403	105	605	66.44	ug/L #	41
47) 1,2,4-Trimethylbenzene...	15.924	105	234	24.17	ug/L #	41
48) Naphthalene SCAN	17.927	128	1632	111.23	ug/L #	56

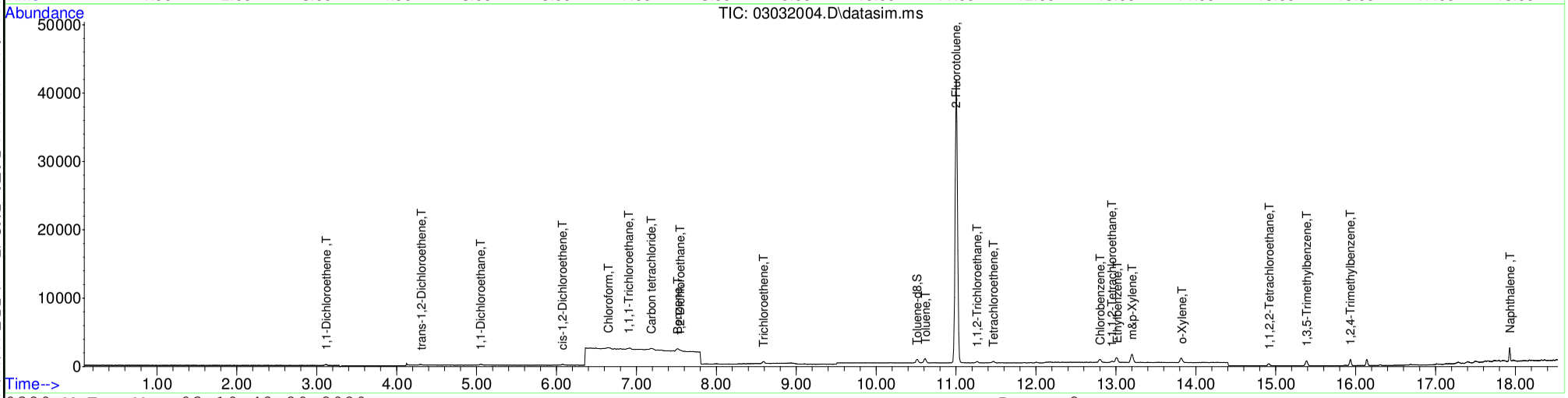
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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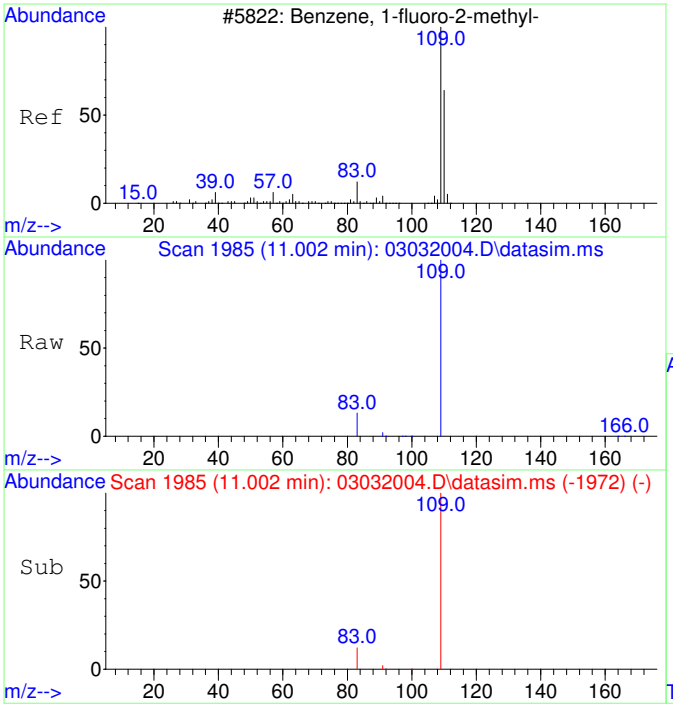
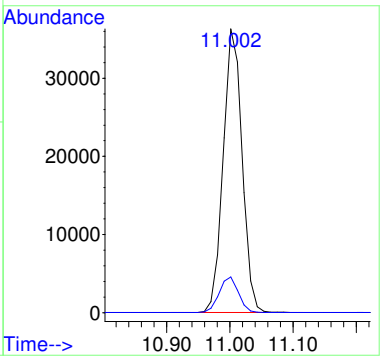
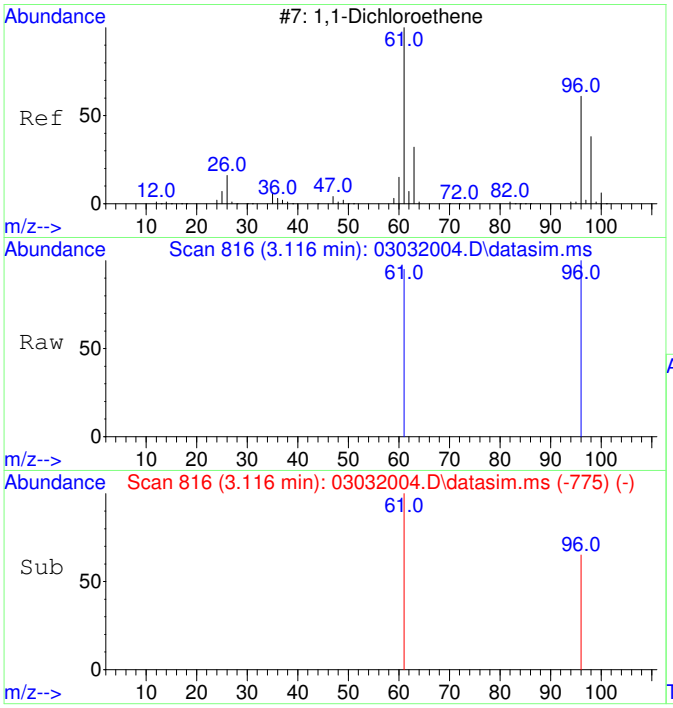


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 75418

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.2

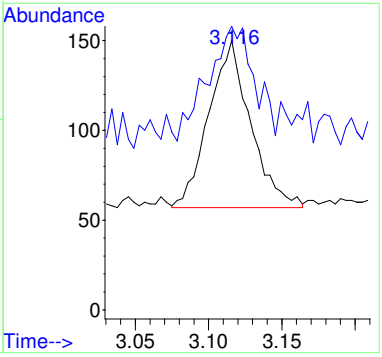


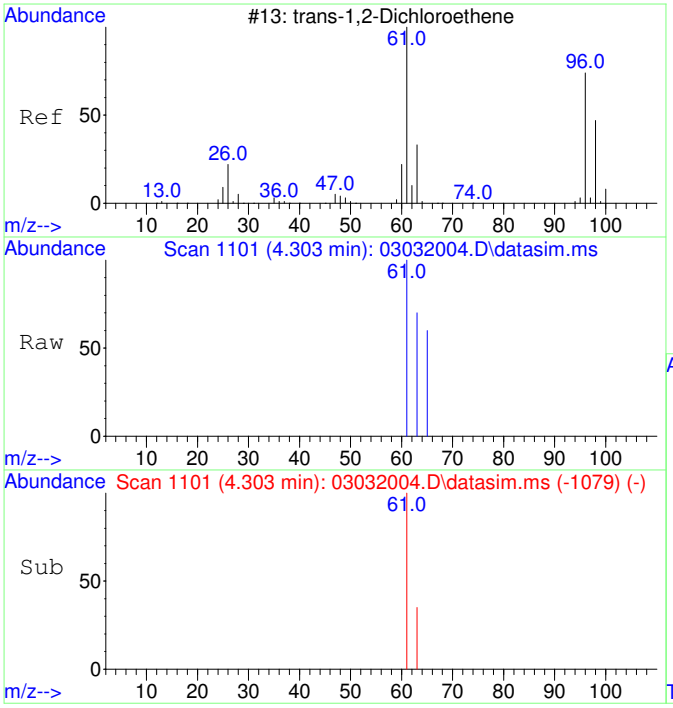


#2
1,1-Dichloroethene
Concen: 48.02 ug/L m
RT: 3.116 min Scan# 816
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 184

Ion	Ratio	Lower	Upper
61	100		
96	169.6	33.2	93.2#

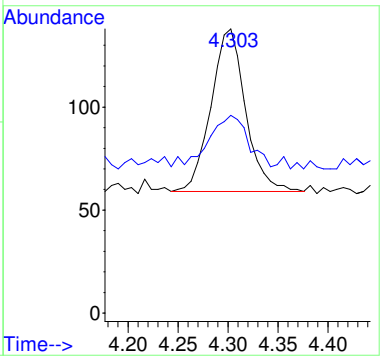


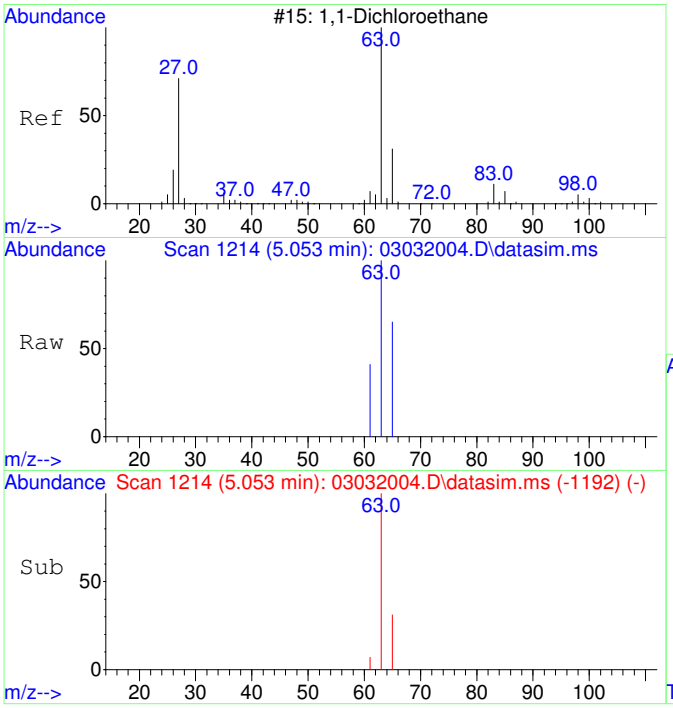


#3
trans-1,2-Dichloroethene
Concen: 48.19 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 190

Ion	Ratio	Lower	Upper
61	100		
63	38.9	2.3	62.3

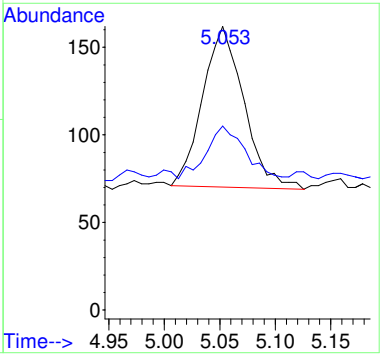


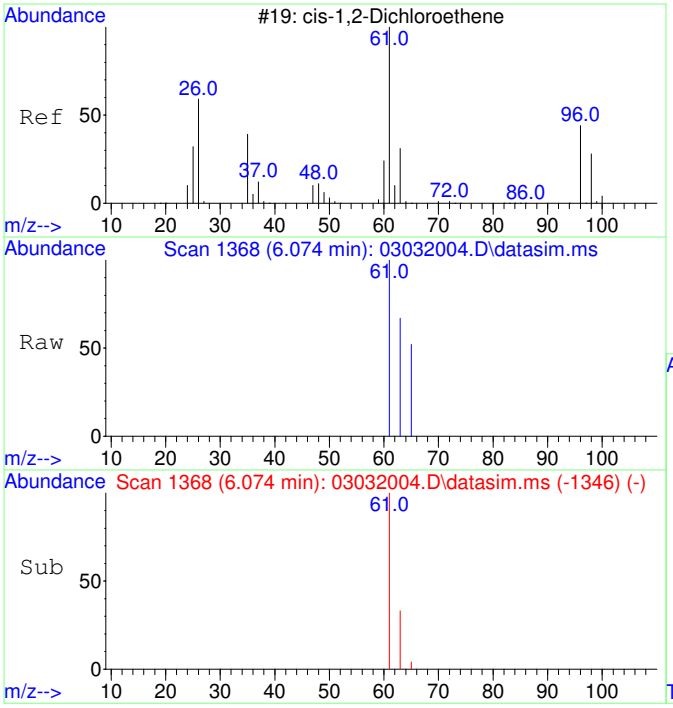


#4
1,1-Dichloroethane
Concen: 47.96 ug/L
RT: 5.053 min Scan# 1214
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 236

Ion	Ratio	Lower	Upper
63	100		
65	30.5	1.7	61.7

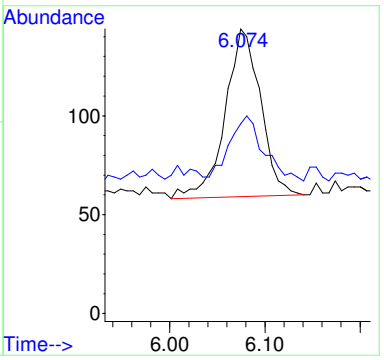


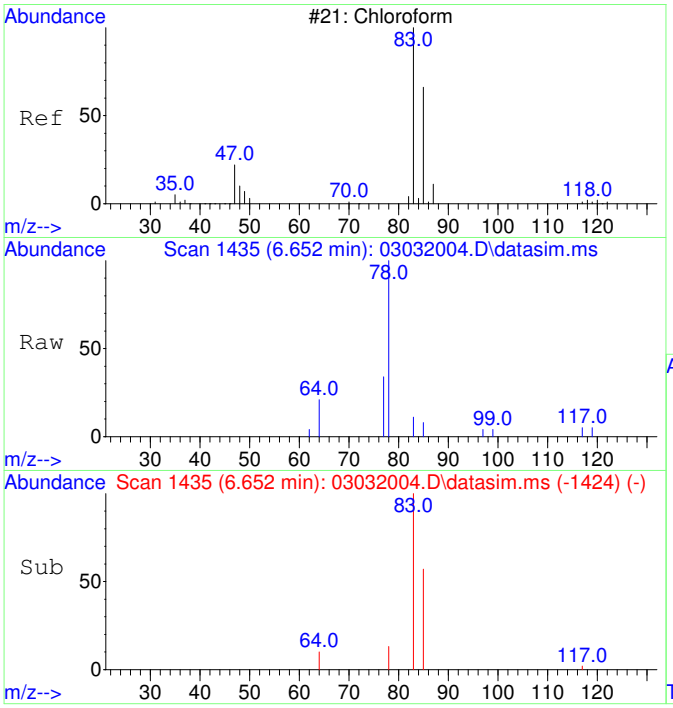


#5
cis-1,2-Dichloroethene
Concen: 48.22 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 222

Ion	Ratio	Lower	Upper
61	100		
63	36.9	2.6	62.6

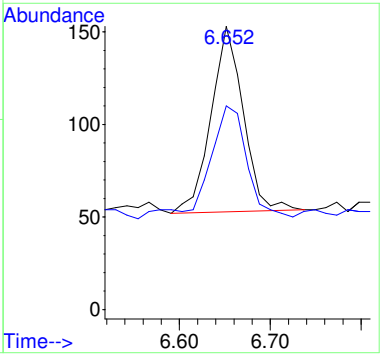


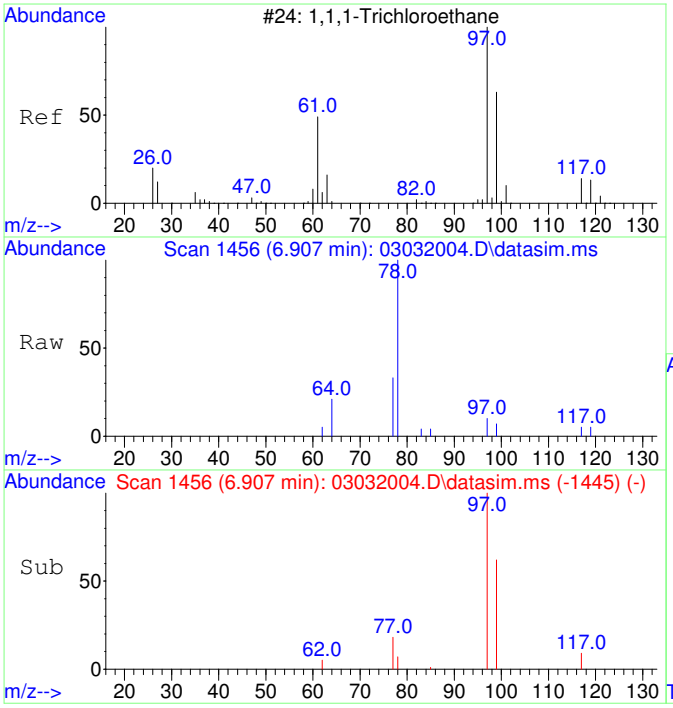


#6
Chloroform
Concen: 48.34 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 247

Ion	Ratio	Lower	Upper
83	100		
85	72.9	34.7	94.7

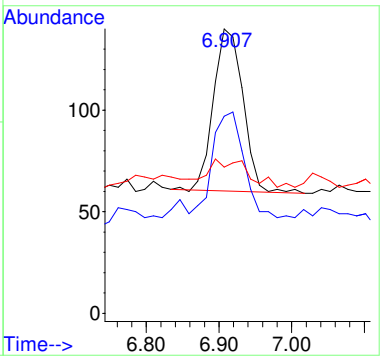


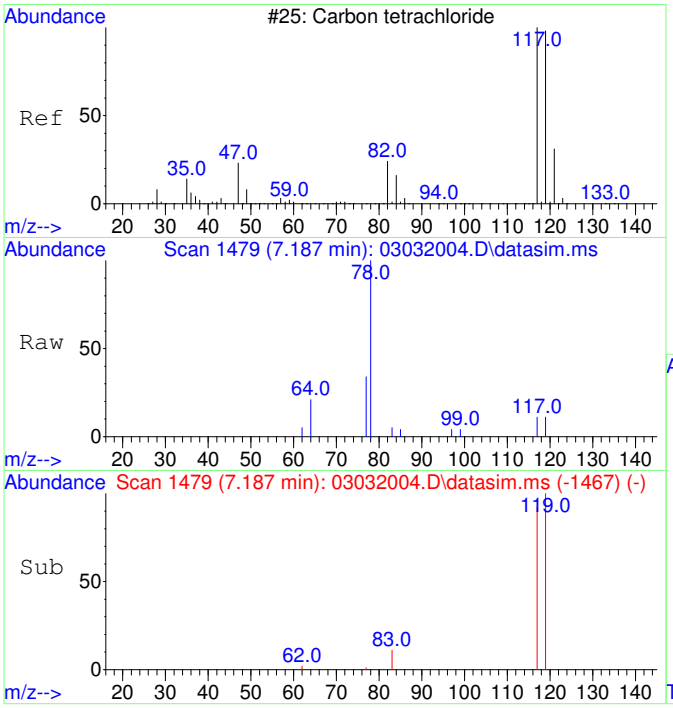


#7
1,1,1-Trichloroethane
Concen: 45.48 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 226

Ion	Ratio	Lower	Upper
97	100		
99	68.6	34.4	94.4
117	0.0	0.0	42.8

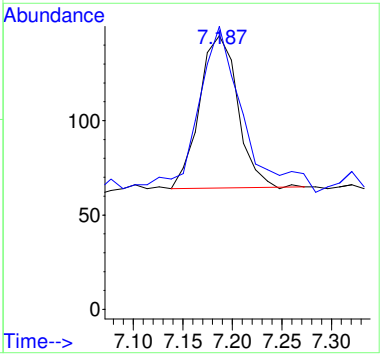


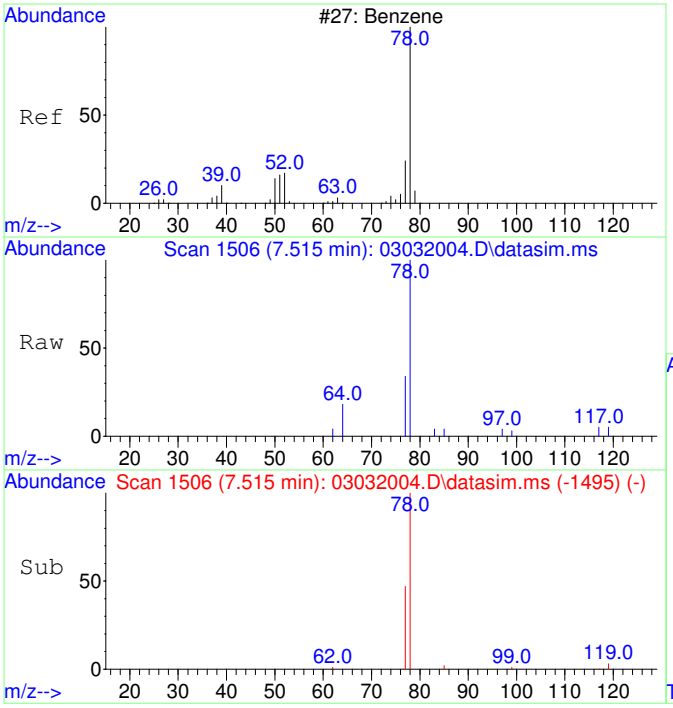


#8
Carbon tetrachloride
Concen: 49.61 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 217

Ion	Ratio	Lower	Upper
117	100		
119	130.0	66.1	126.1#

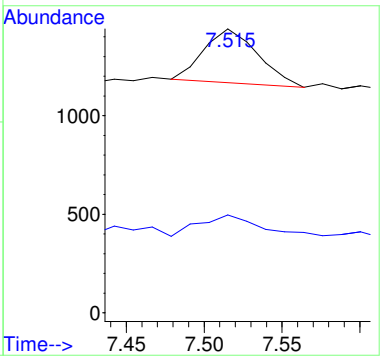


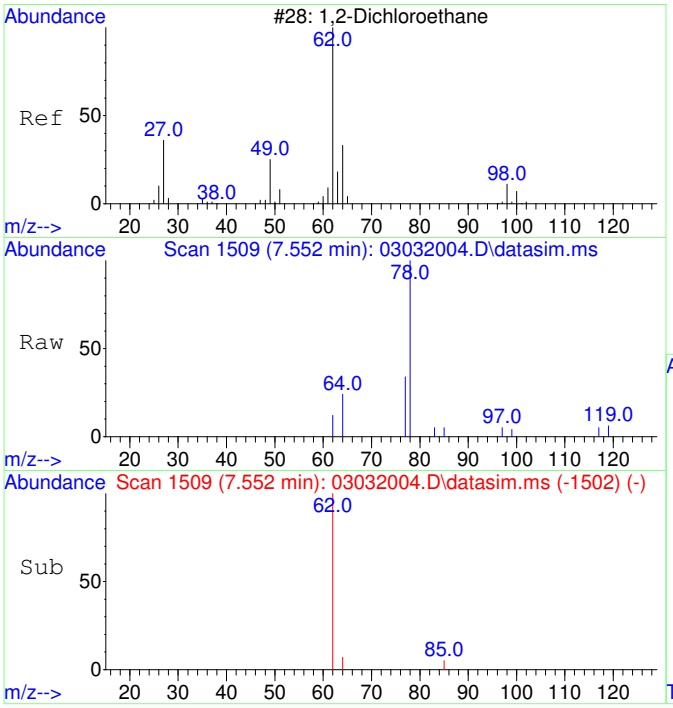


#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 647

Ion	Ratio	Lower	Upper
78	100		
77	47.4	0.0	53.6

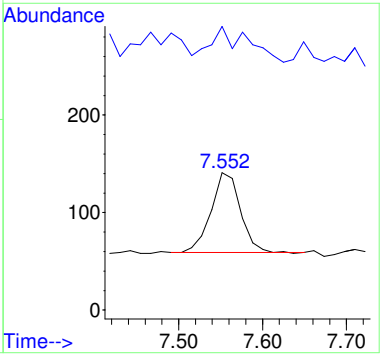


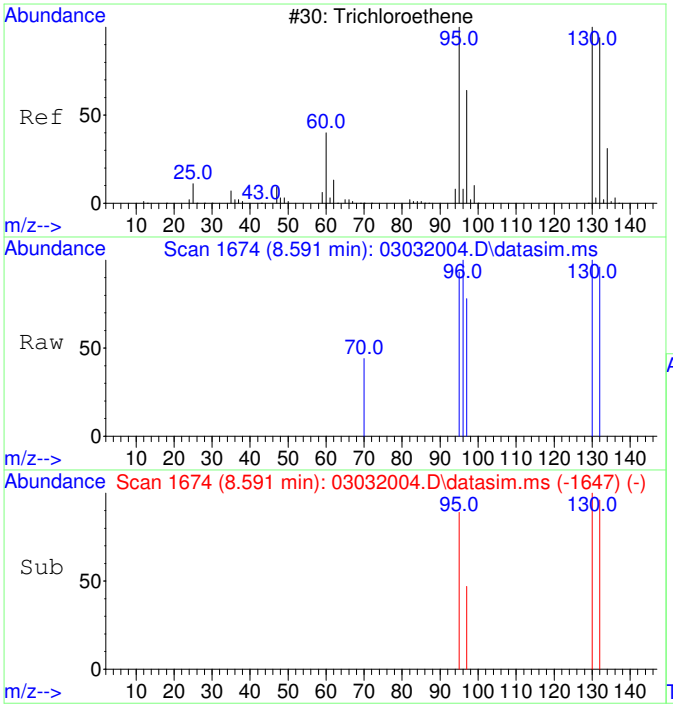


#10
1,2-Dichloroethane
Concen: 48.15 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 198

Ion	Ratio	Lower	Upper
62	100		
64	56.6	2.4	62.4

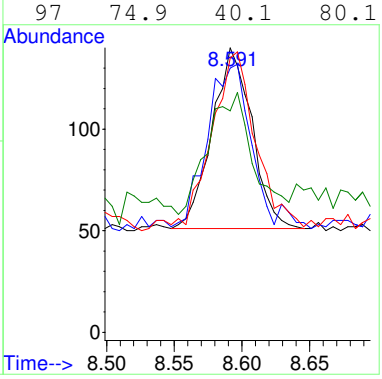


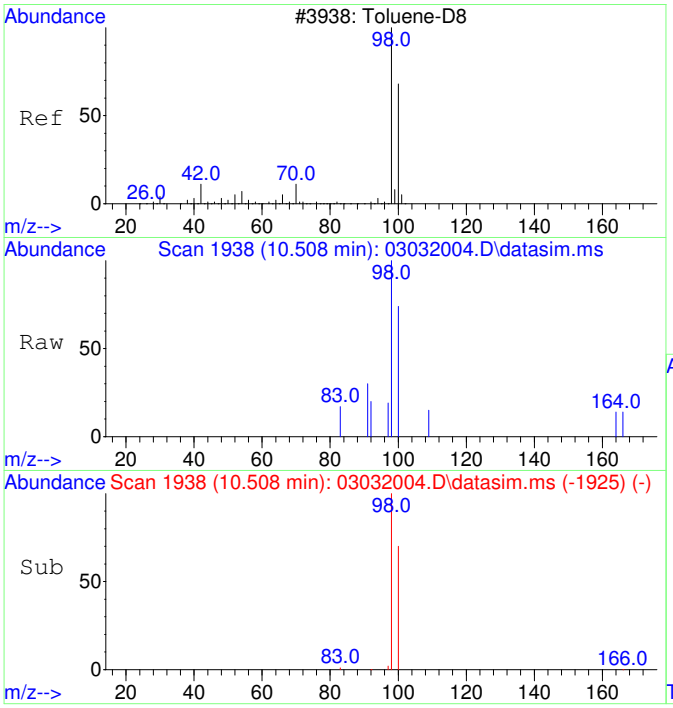


#11
Trichloroethene
Concen: 51.31 ug/L
RT: 8.591 min Scan# 1674
Delta R.T. -0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:130 Resp: 183

Ion	Ratio	Lower	Upper
130	100		
95	97.3	63.8	123.8
132	109.8	75.9	115.9
97	74.9	40.1	80.1

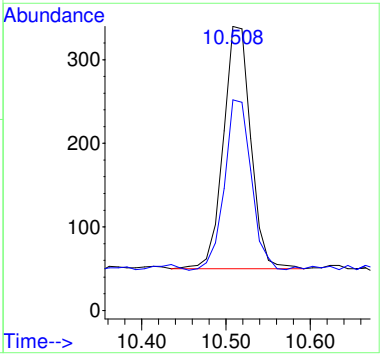


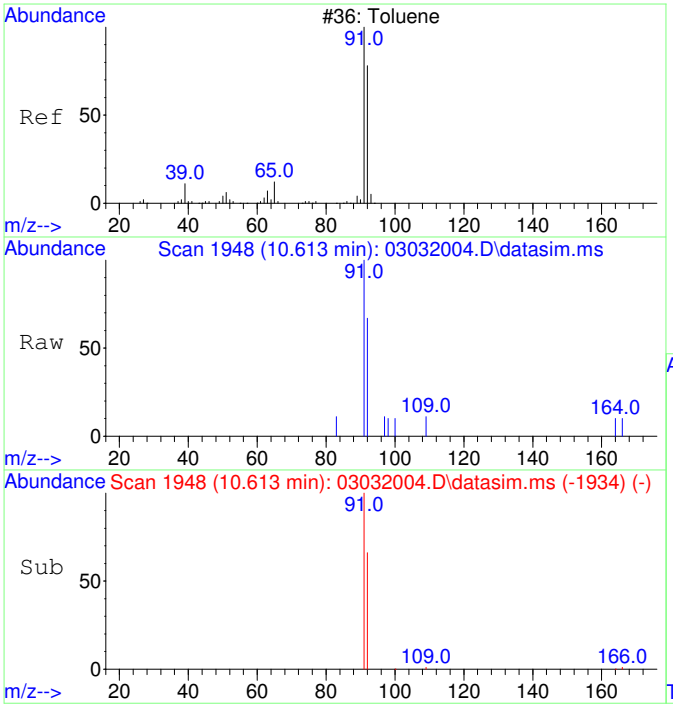


#12
Toluene-d8
Concen: 50.84 ug/L
RT: 10.508 min Scan# 1938
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 656

Ion	Ratio	Lower	Upper
98	100		
100	68.6	36.5	96.5

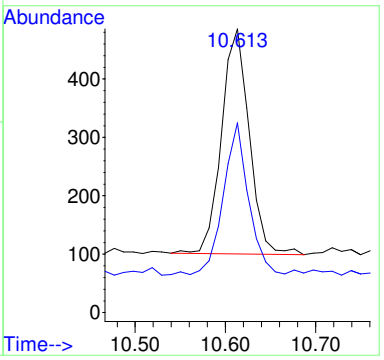


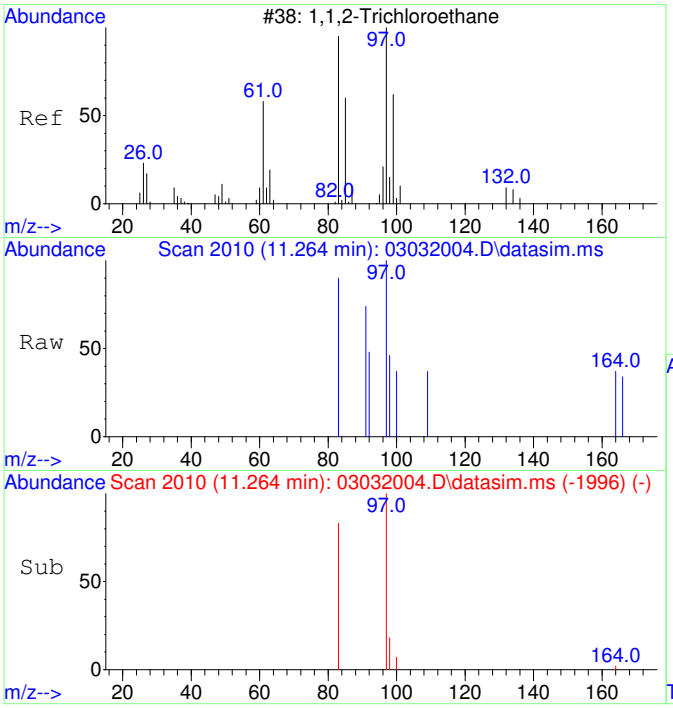


#13
Toluene
Concen: 54.36 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 824

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.7	89.7

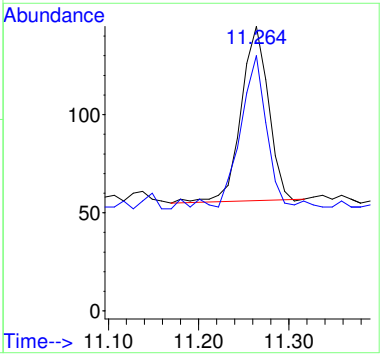


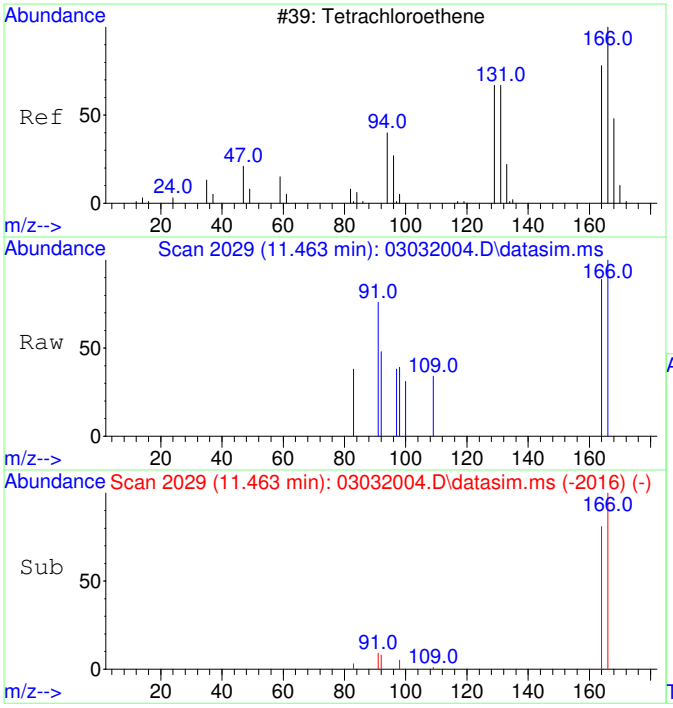


#14
1,1,2-Trichloroethane
Concen: 54.40 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 186

Ion	Ratio	Lower	Upper
97	100		
83	83.9	51.9	111.9

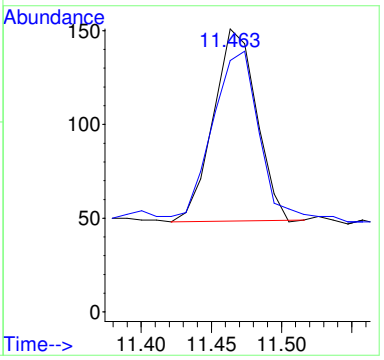


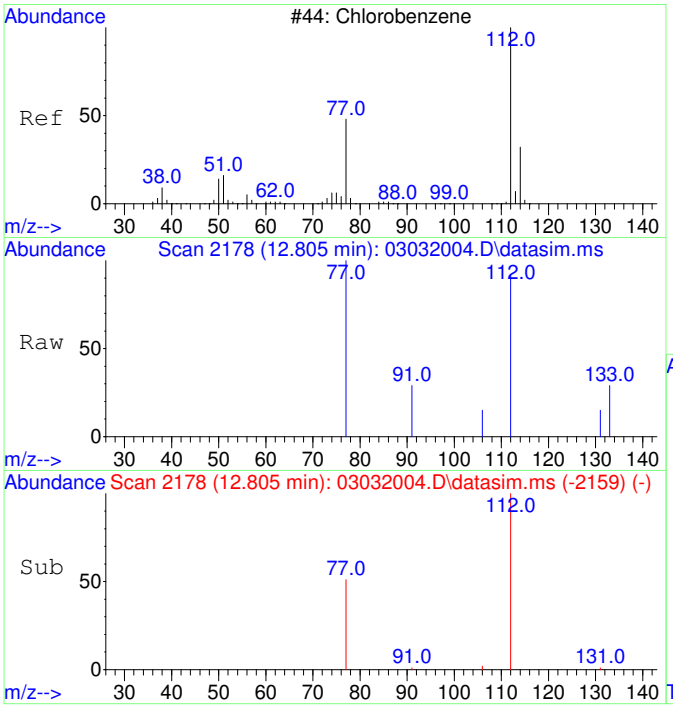


#15
Tetrachloroethene
Concen: 52.95 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:166 Resp: 220

Ion	Ratio	Lower	Upper
166	100		
164	97.7	47.9	107.9

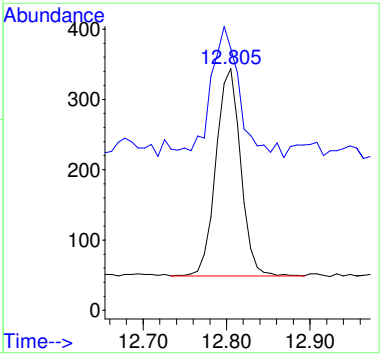


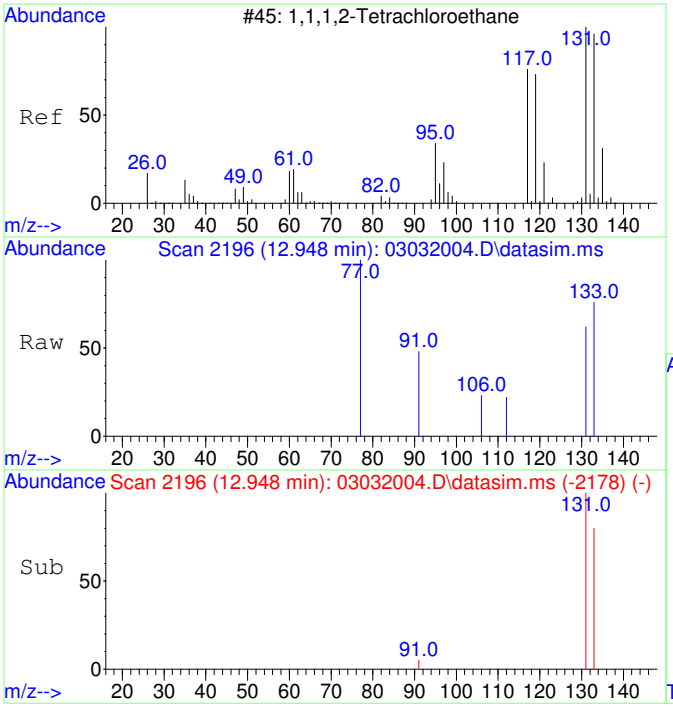


#16
Chlorobenzene
Concen: 55.62 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 608

Ion	Ratio	Lower	Upper
112	100		
77	74.2	25.7	85.7

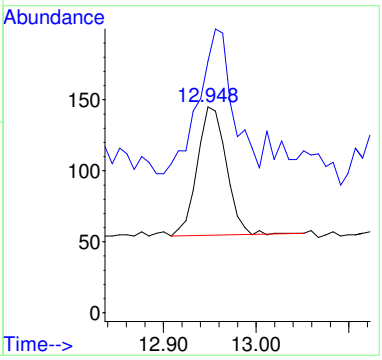


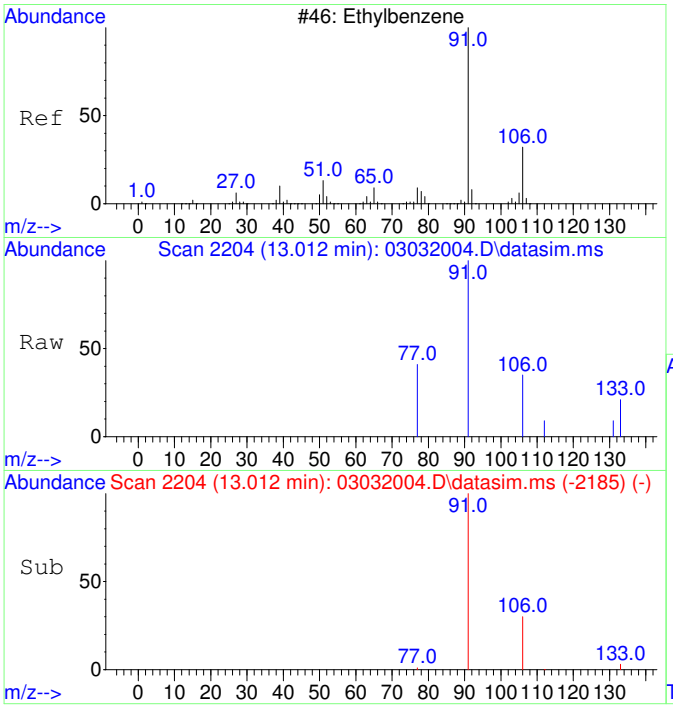


#17
1,1,1,2-Tetrachloroethane
Concen: 54.69 ug/L
RT: 12.948 min Scan# 2196
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 197

Ion	Ratio	Lower	Upper
131	100		
133	132.0	66.5	126.5#

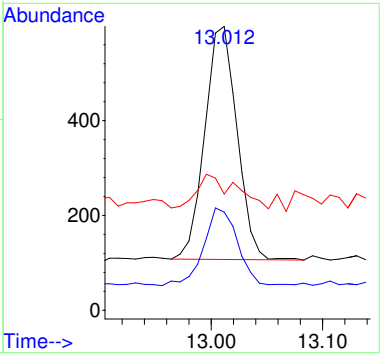


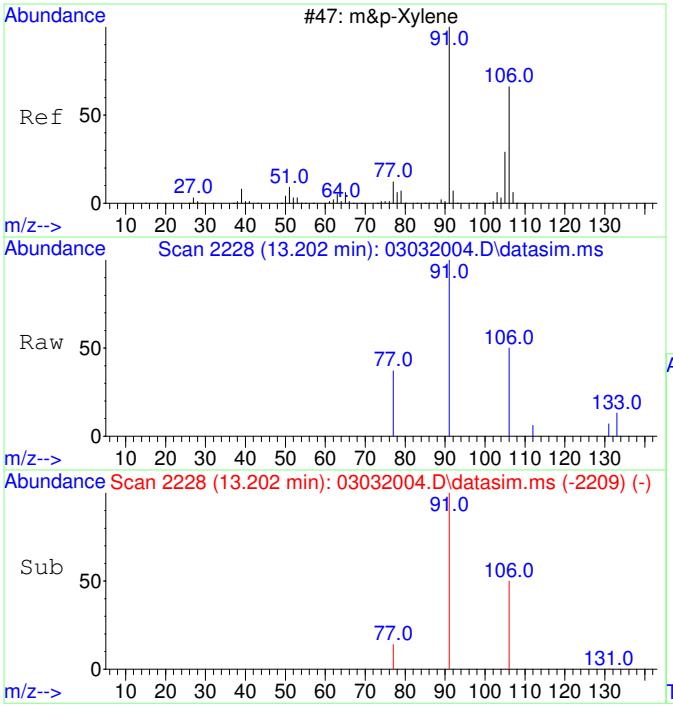


#18
Ethylbenzene
Concen: 55.67 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 990

Ion	Ratio	Lower	Upper
91	100		
106	34.9	2.7	62.7
77	17.7	0.0	38.3

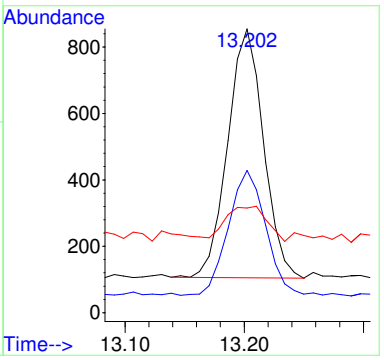


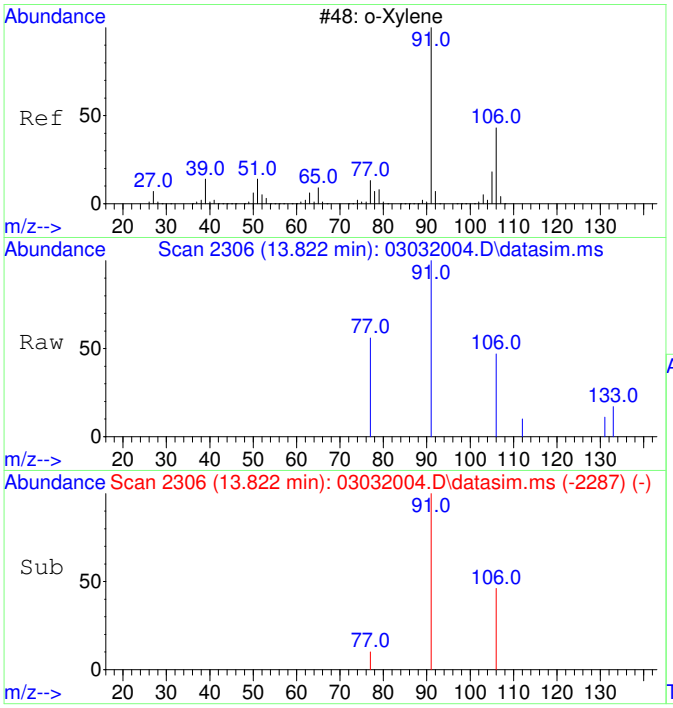


#19
m&p-Xylene
Concen: 116.51 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 1563

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.8	81.8
77	17.5	0.0	42.6

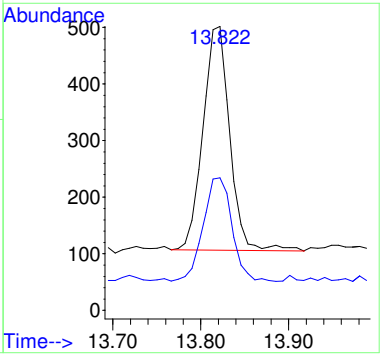


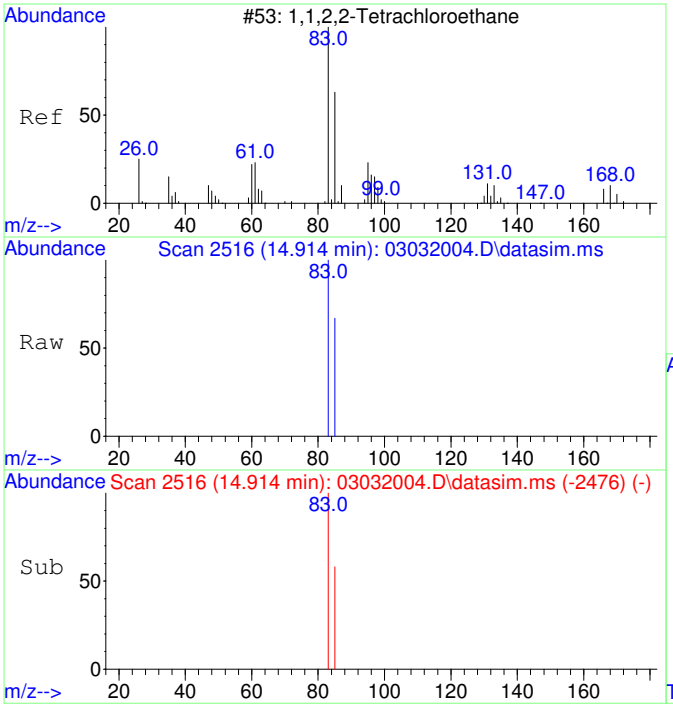


#20
o-Xylene
Concen: 58.18 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 837

Ion	Ratio	Lower	Upper
91	100		
106	49.5	18.8	78.8

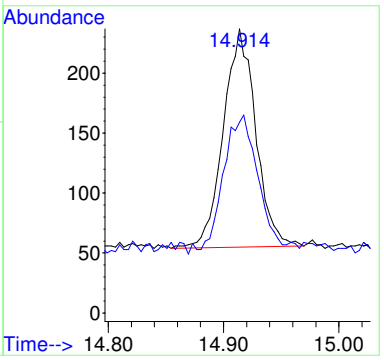


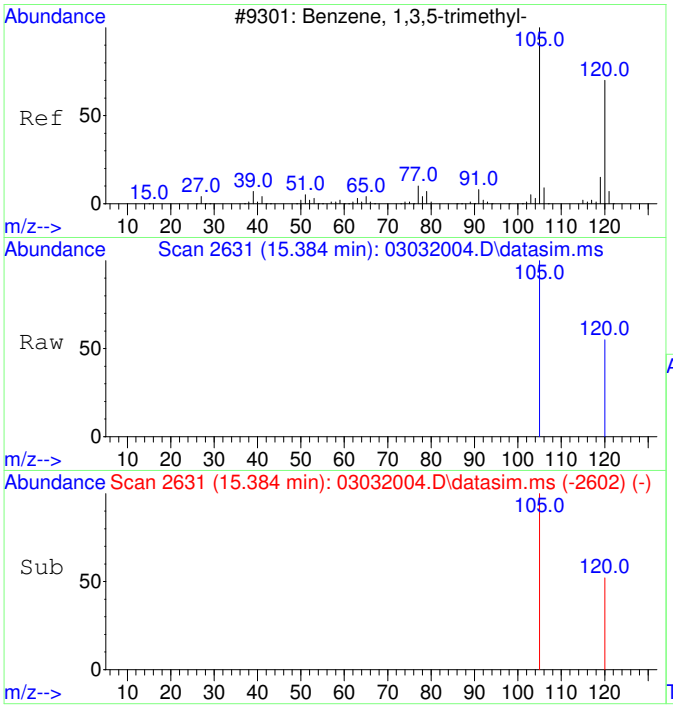


#21
1,1,2,2-Tetrachloroethane
Concen: 57.06 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 355

Ion	Ratio	Lower	Upper
83	100		
85	69.6	34.4	94.4

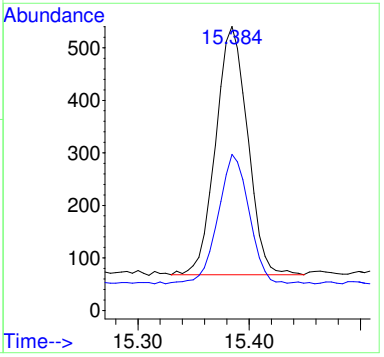


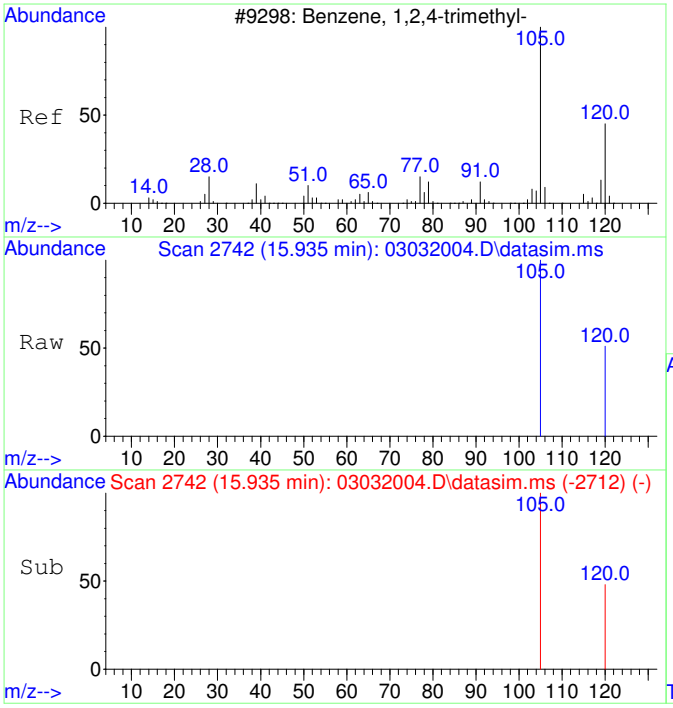


#22
1,3,5-Trimethylbenzene
Concen: 60.74 ug/L
RT: 15.384 min Scan# 2631
Delta R.T. -0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 943

Ion	Ratio	Lower	Upper
105	100		
120	50.7	21.1	81.1

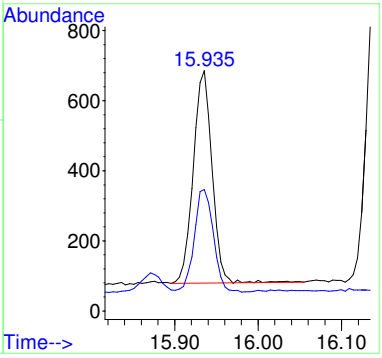


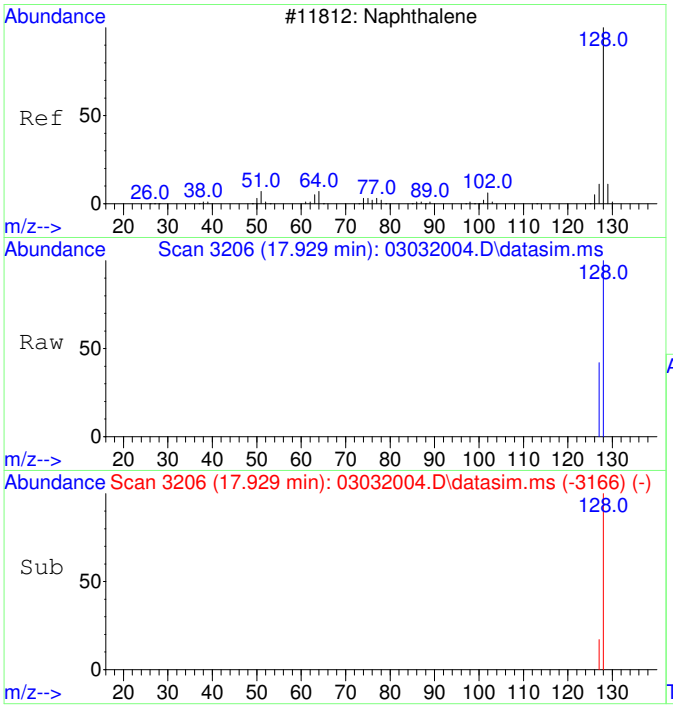


#23
1,2,4-Trimethylbenzene
Concen: 60.08 ug/L
RT: 15.935 min Scan# 2742
Delta R.T. 0.001 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 949

Ion	Ratio	Lower	Upper
105	100		
120	47.7	17.1	77.1

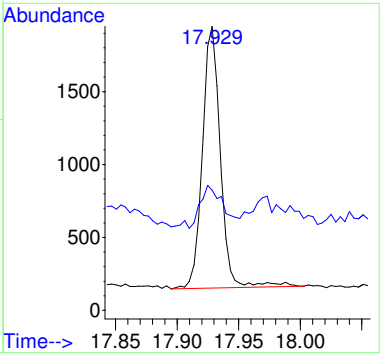


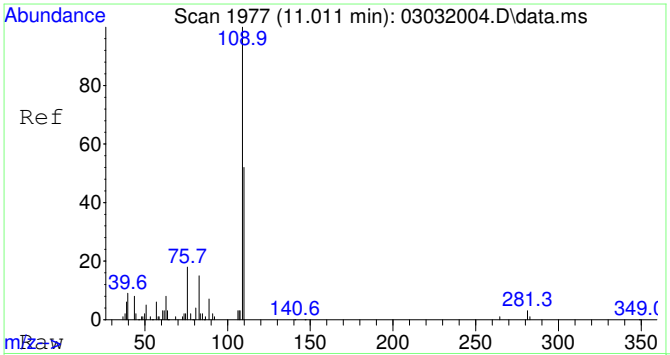


#24
Naphthalene
Concen: 66.56 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1813

Ion	Ratio	Lower	Upper
128	100		
127	16.3	0.0	42.6

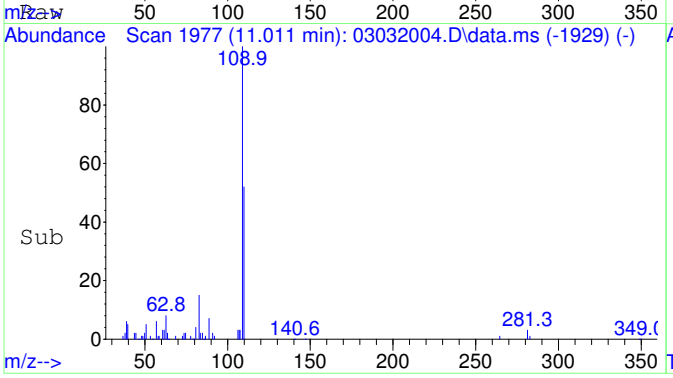


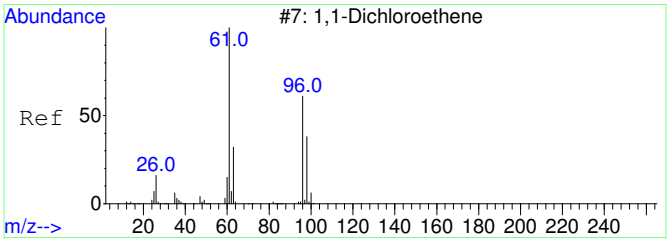


#25
2-Fluorotoluene SCAN
Concen: 4904.59 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 45584

Ion	Ratio	Lower	Upper
109	100		
83	15.6	0.0	44.7

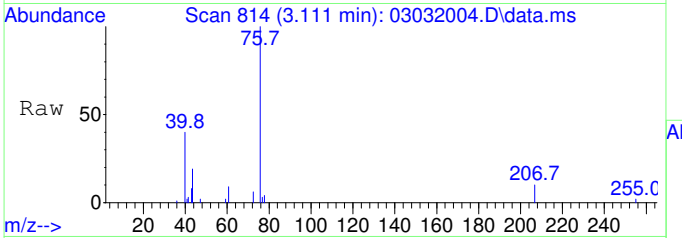


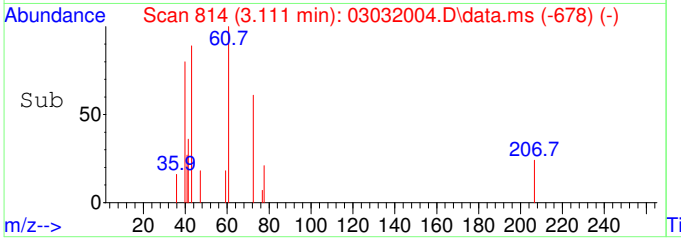


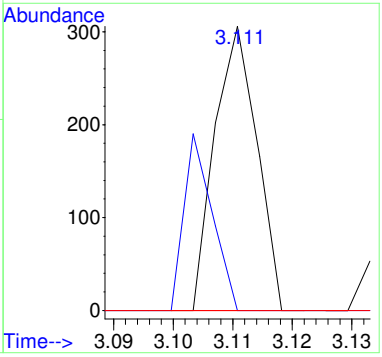
#26
1,1-Dichloroethene SCAN
Concen: 56.01 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

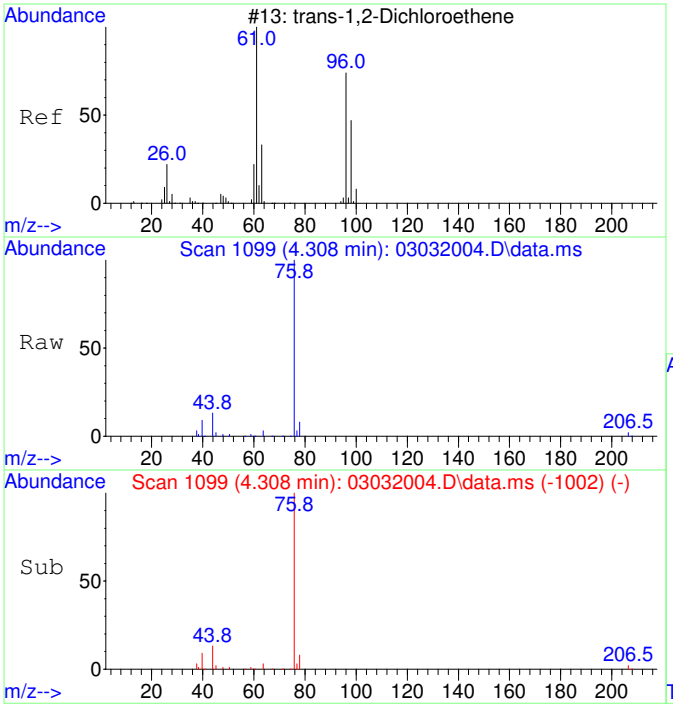
Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	42.0	34.7	94.7
98	0.0	4.7	64.7#





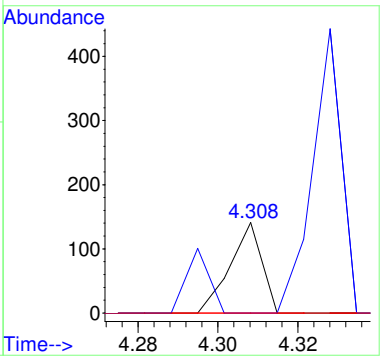


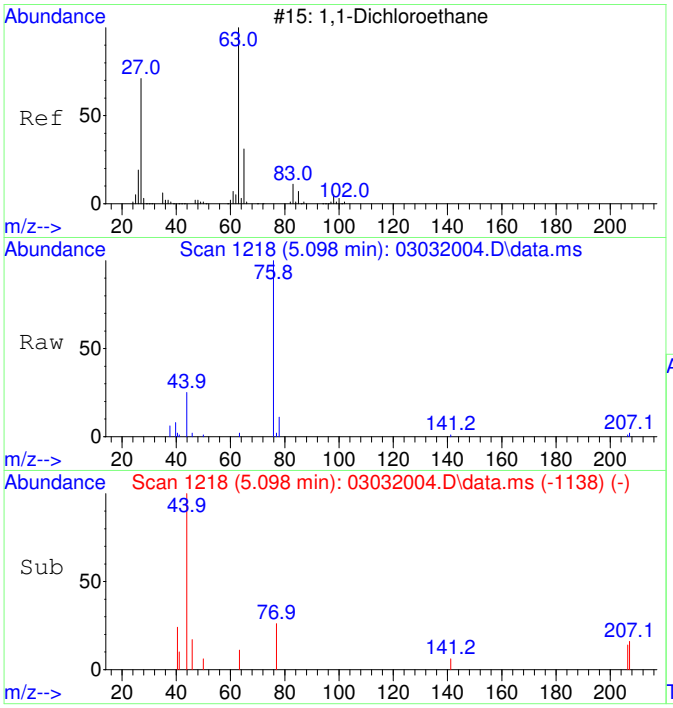


#27
trans-1,2-Dichloroethene SCAN
Concen: 27.30 ug/L
RT: 4.308 min Scan# 1099
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 78

Ion	Ratio	Lower	Upper
61	100		
96	284.6	47.2	107.2#
98	0.0	16.4	76.4#

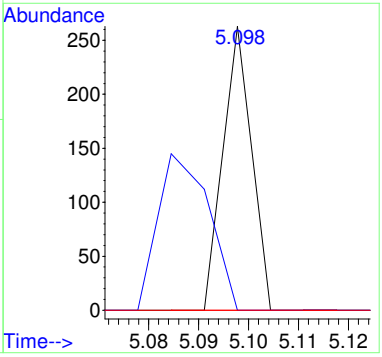


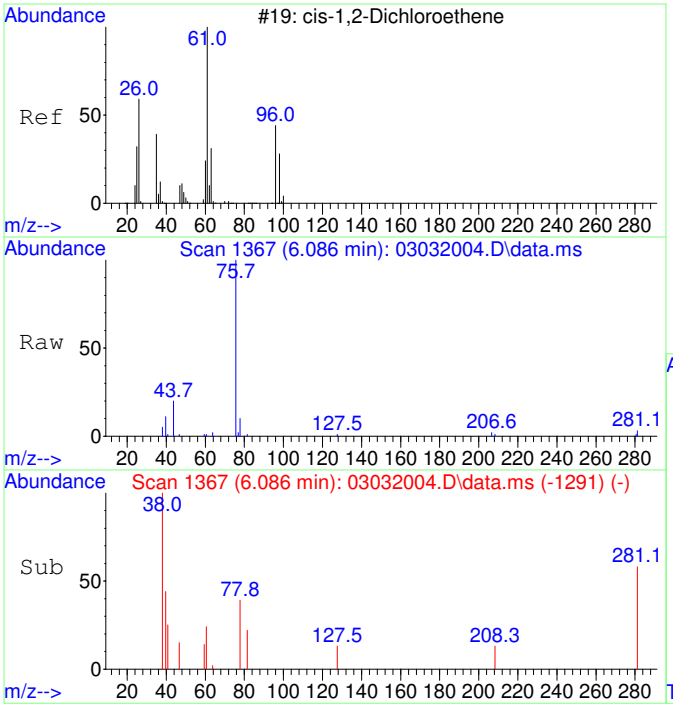


#28
1,1-Dichloroethane SCAN
Concen: 26.67 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.033 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 105

Ion	Ratio	Lower	Upper
63	100		
65	97.1	0.0	59.3#
83	0.0	0.0	37.5

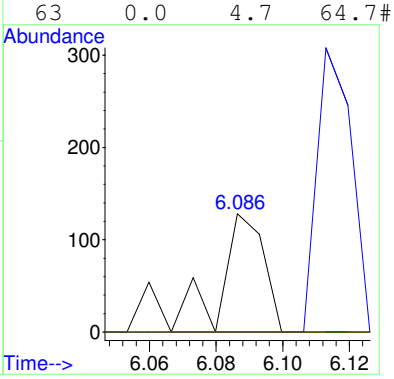


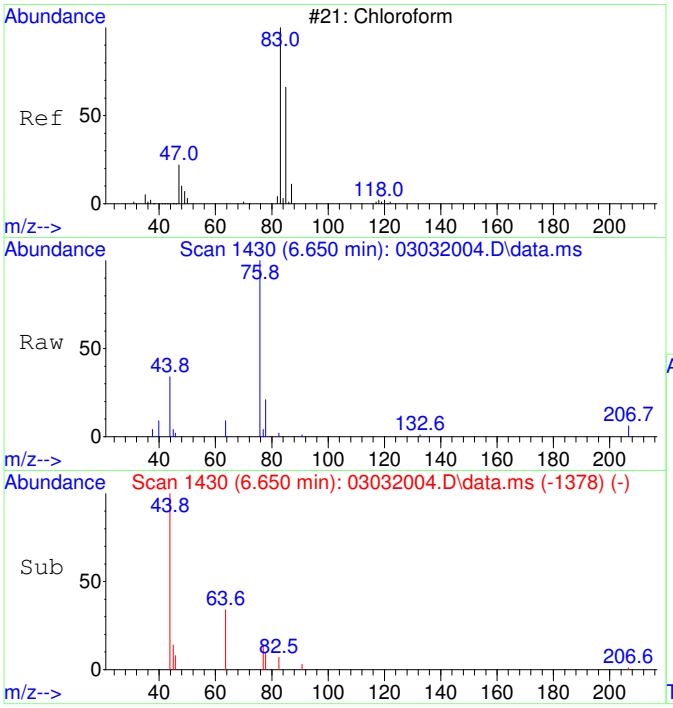


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.87 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. 0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 117

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	0.0	4.7	64.7#

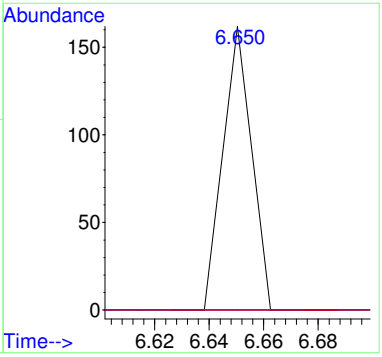


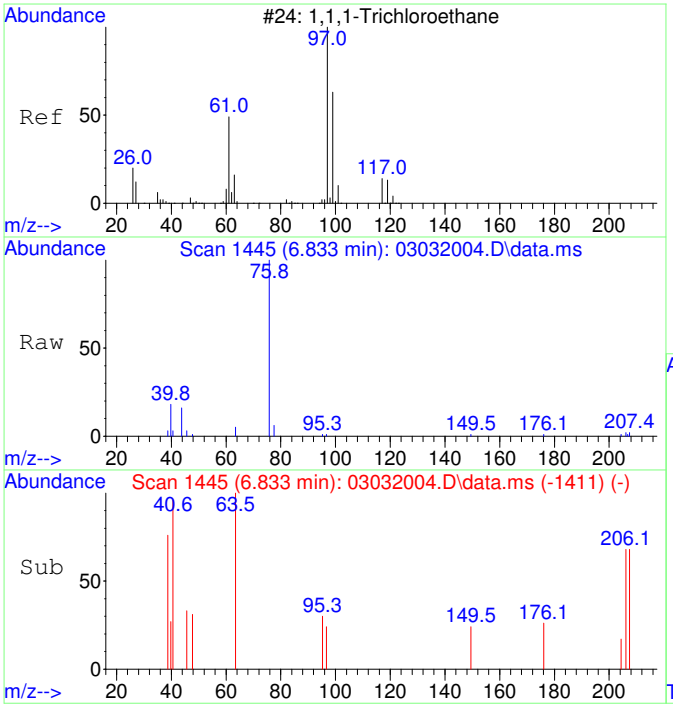


#30
Chloroform SCAN
Concen: 34.50 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 118

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	0.0	0.0	58.1

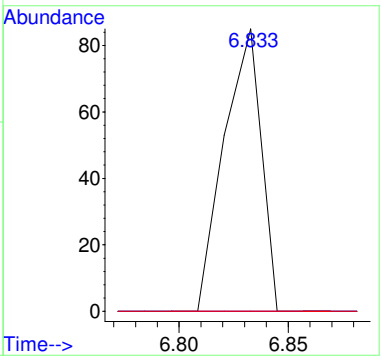


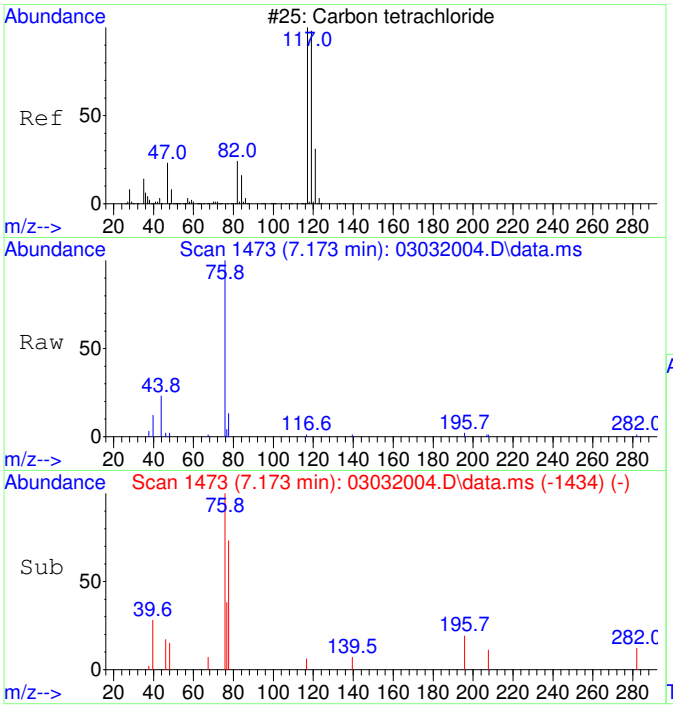


#31
1,1,1-Trichloroethane SCAN
Concen: 29.46 ug/L
RT: 6.833 min Scan# 1445
Delta R.T. -0.085 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 101

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

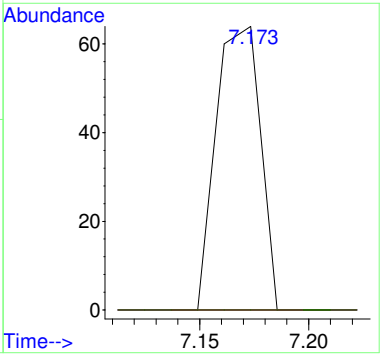


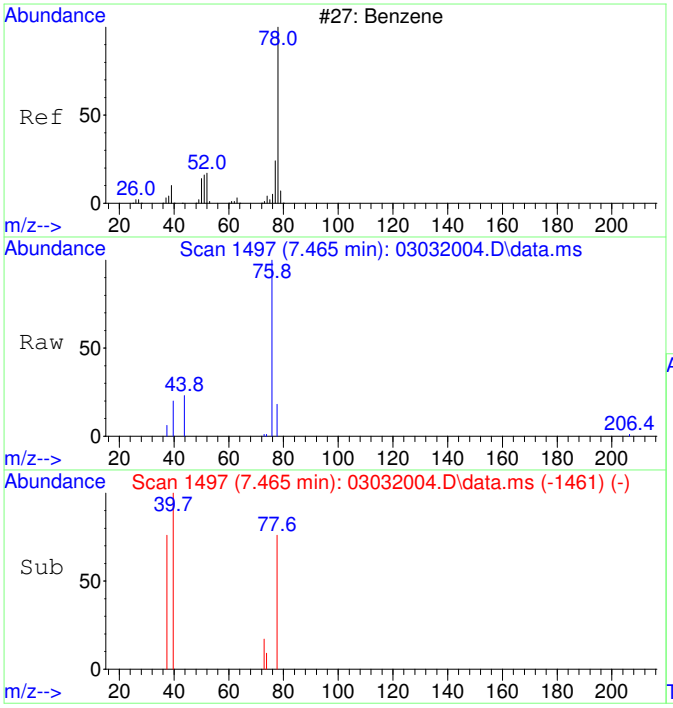


#32
Carbon tetrachloride SCAN
Concen: 25.69 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 90

Ion	Ratio	Lower	Upper
117	100		
119	0.0	56.4	116.4#
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

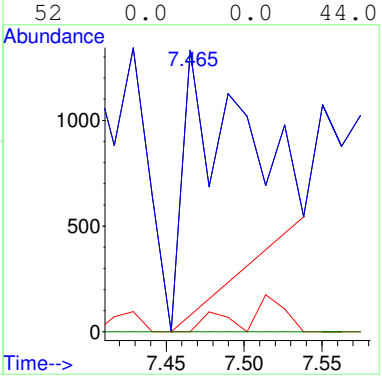


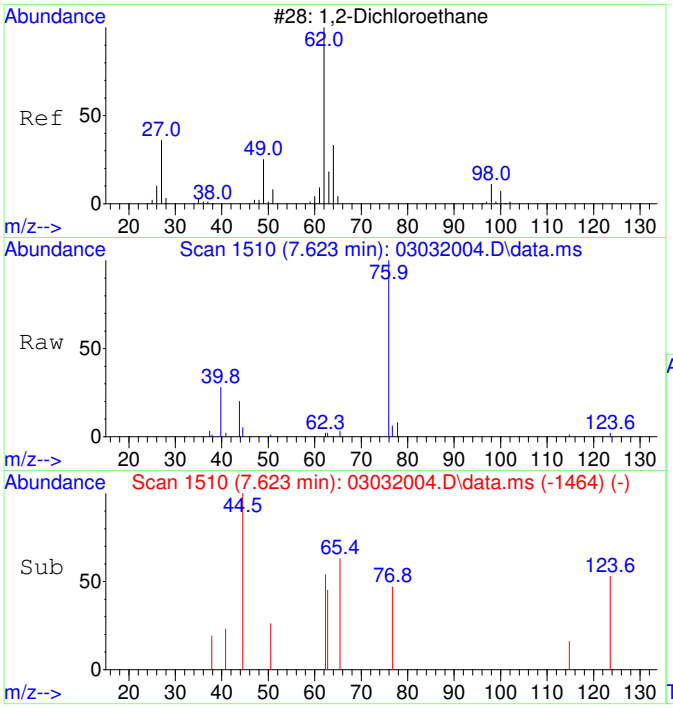


#33
Benzene SCAN
Concen: 359.68 ug/L
RT: 7.465 min Scan# 1497
Delta R.T. -0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 3264

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	0.0	0.0	44.0

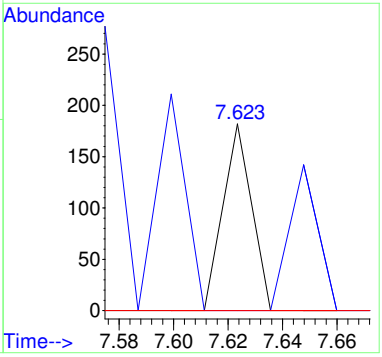


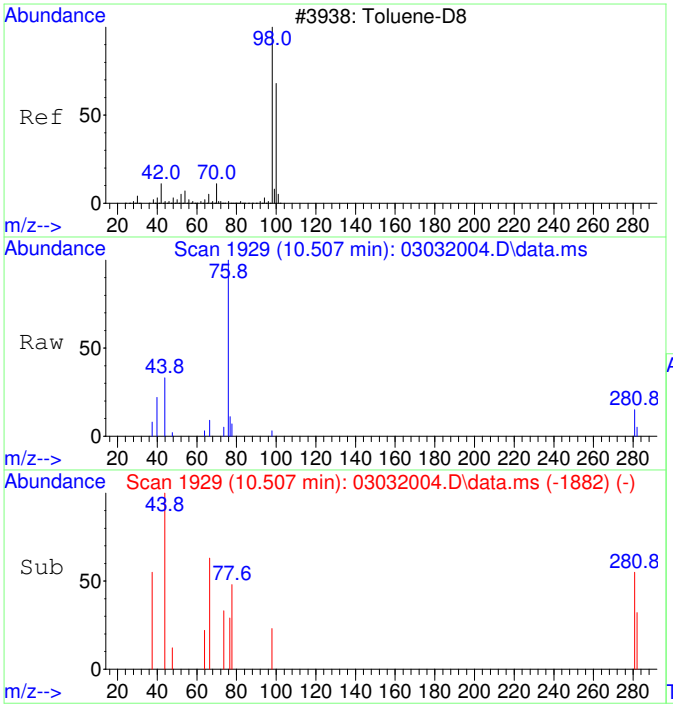


#34
1,2-Dichloroethane SCAN
Concen: 50.16 ug/L
RT: 7.623 min Scan# 1510
Delta R.T. 0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 133

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

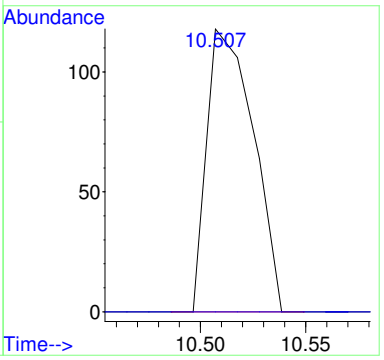


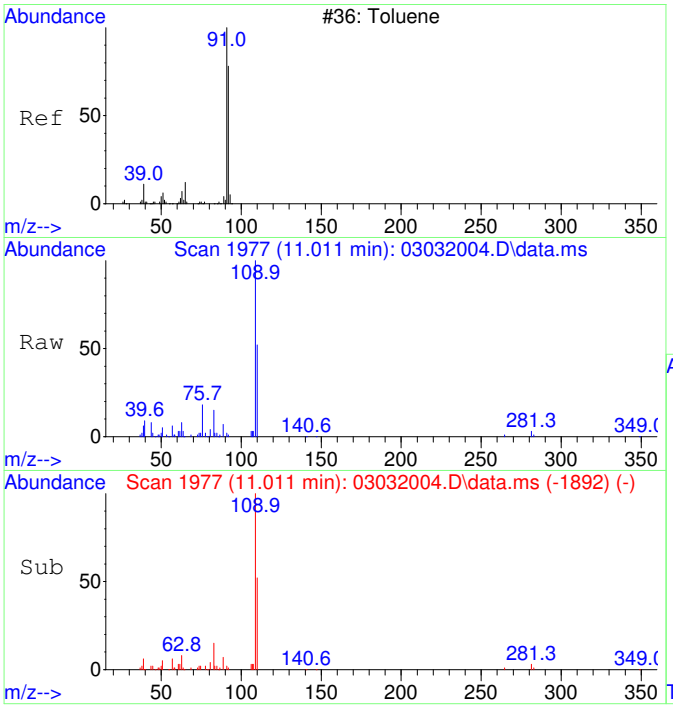


#36
Toluene-d8 SCAN
Concen: 20.90 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 181

Ion	Ratio	Lower	Upper
98	100		
100	0.0	38.3	98.3#

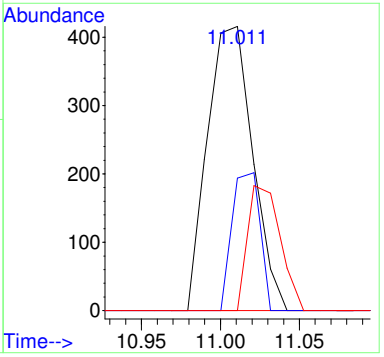


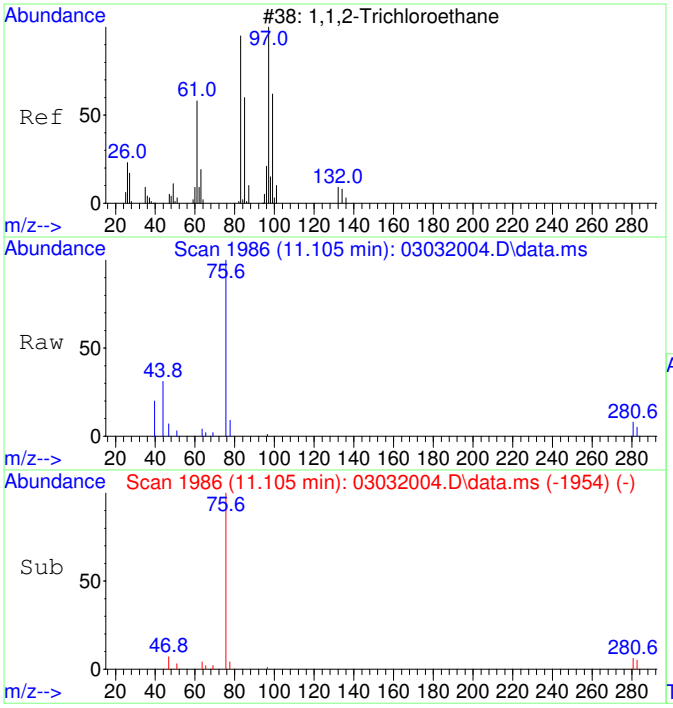


#37
Toluene SCAN
Concen: 78.15 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.388 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 830

Ion	Ratio	Lower	Upper
91	100		
92	30.0	21.2	81.2
65	31.7	0.0	41.4

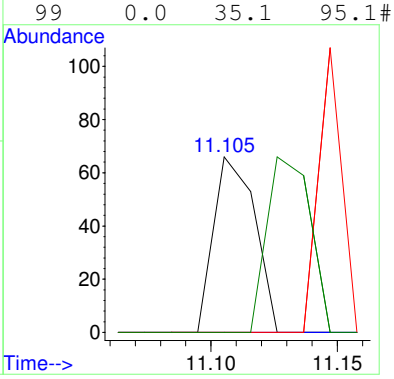


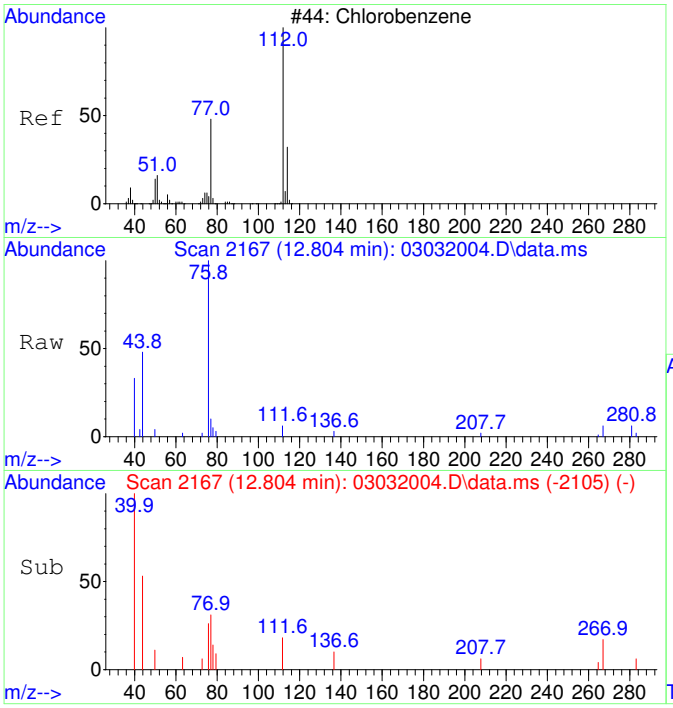


#38
1,1,2-Trichloroethane SCAN
Concen: 31.72 ug/L
RT: 11.105 min Scan# 1986
Delta R.T. -0.168 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 75

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.5	113.5#
61	0.0	29.8	89.8#
99	0.0	35.1	95.1#

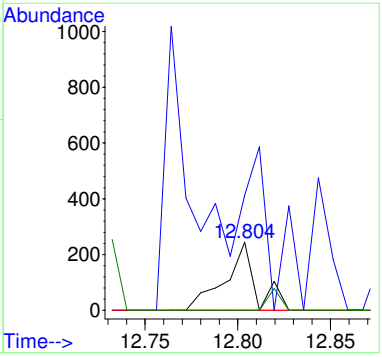


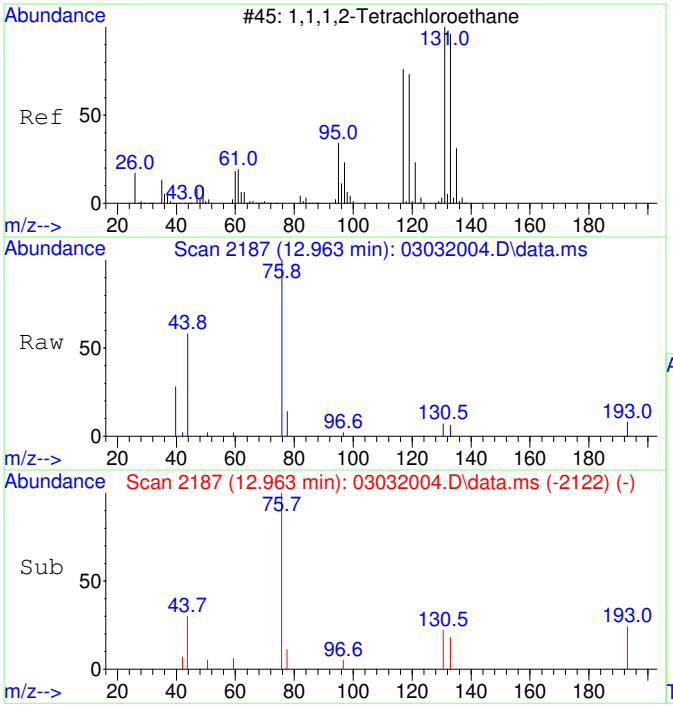


#40
Chlorobenzene SCAN
Concen: 42.59 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 285

Ion	Ratio	Lower	Upper
112	100		
77	118.6	33.6	93.6#
114	0.0	5.6	65.6#
51	0.0	0.0	52.4

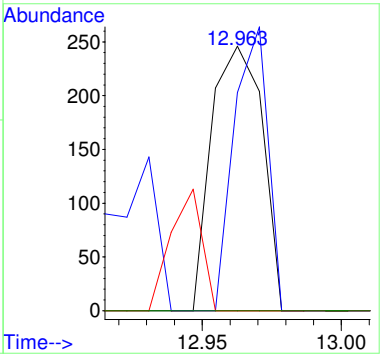


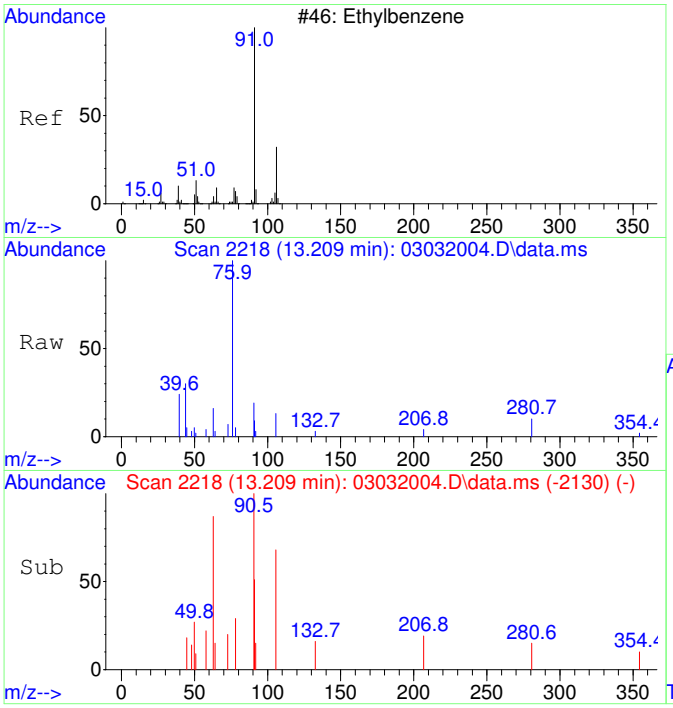


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 127.09 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	71.2	61.4	121.4
119	0.0	33.0	93.0#
117	0.0	35.3	95.3#

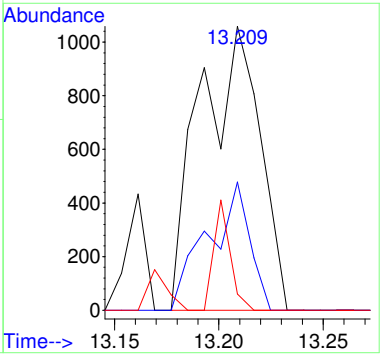


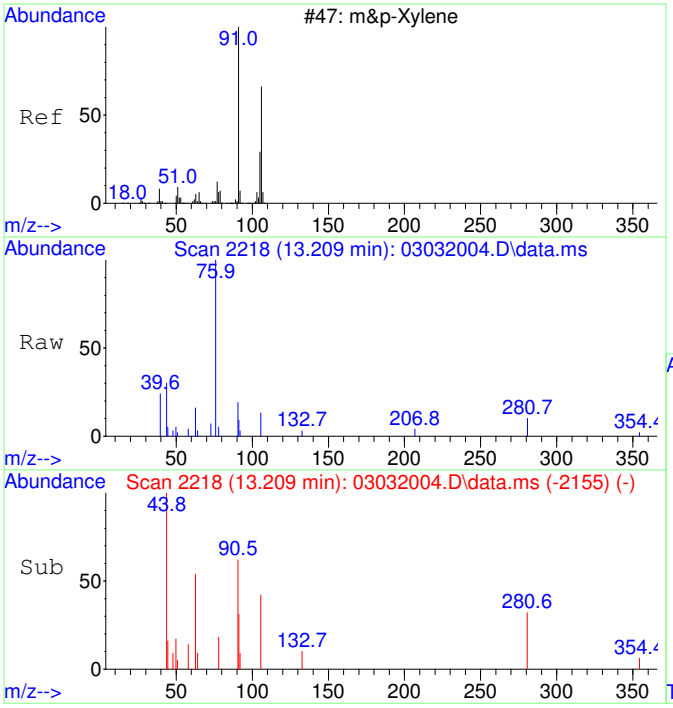


#42
Ethylbenzene SCAN
Concen: 180.60 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	2.2	62.2
51	10.6	0.0	40.6

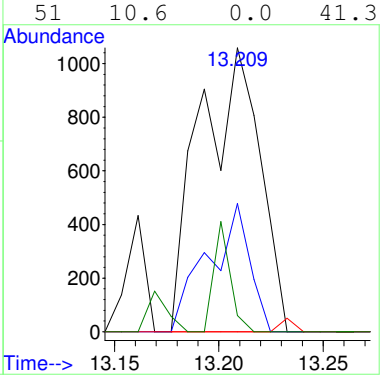


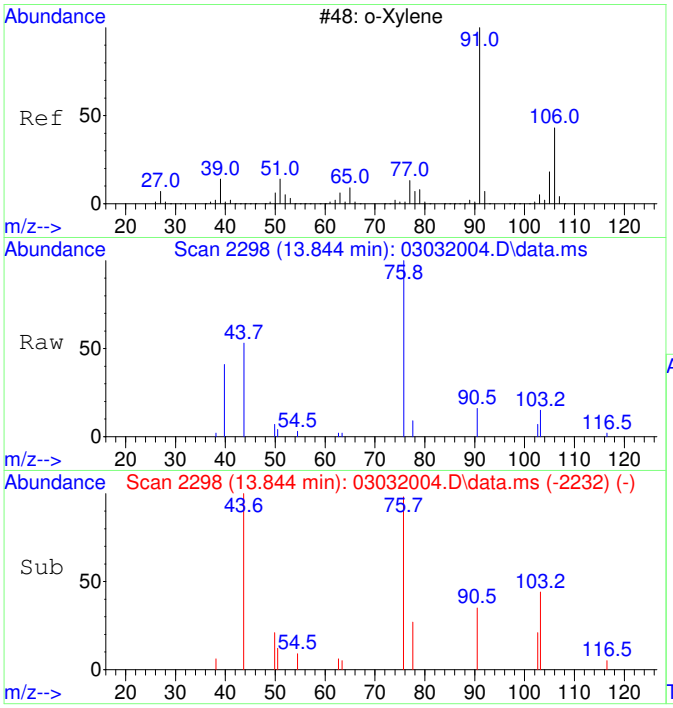


#43
m&p-Xylene SCAN
Concen: 127.24 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	19.7	79.7
105	0.0	0.0	55.1
51	10.6	0.0	41.3

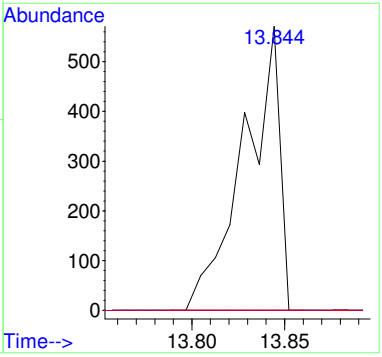


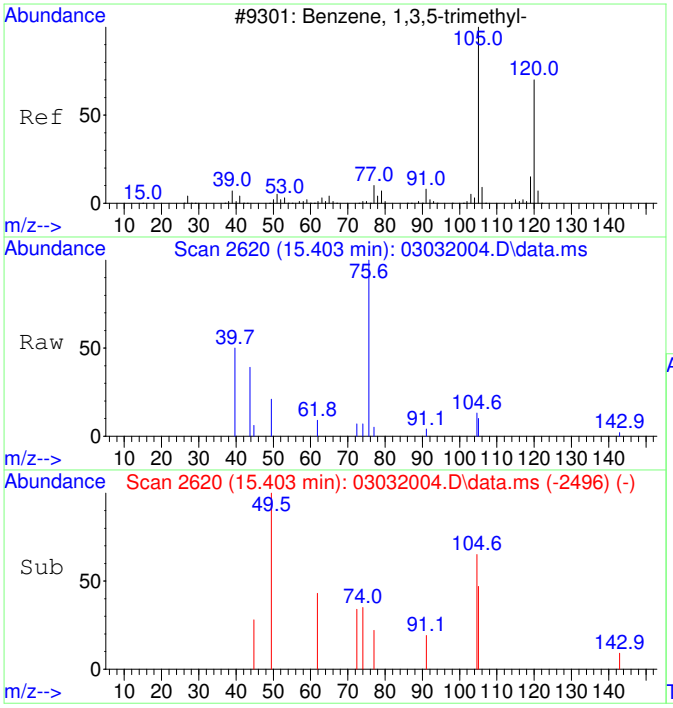


#44
o-Xylene SCAN
Concen: 86.24 ug/L
RT: 13.844 min Scan# 2298
Delta R.T. 0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 767

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.1	78.1#
105	0.0	0.0	54.4

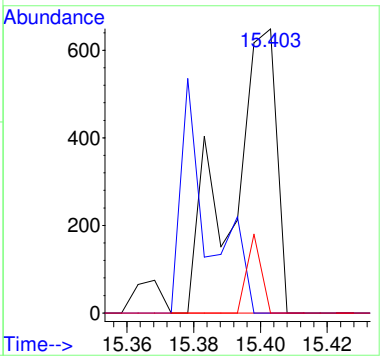


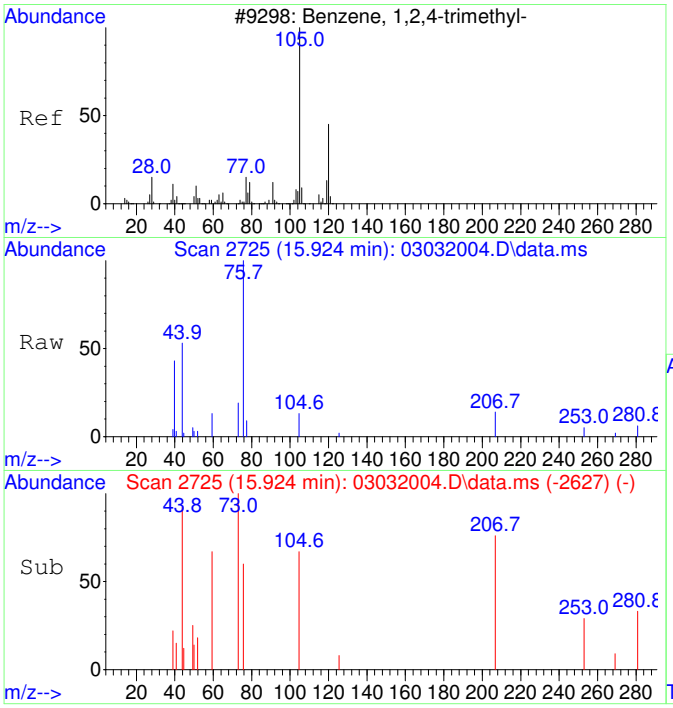


#46
1,3,5-Trimethylbenzene SCAN
Concen: 66.44 ug/L
RT: 15.403 min Scan# 2620
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 605

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	8.9	0.0	43.4

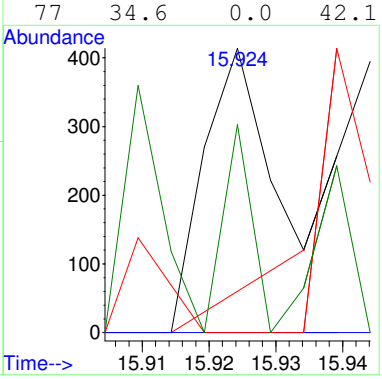


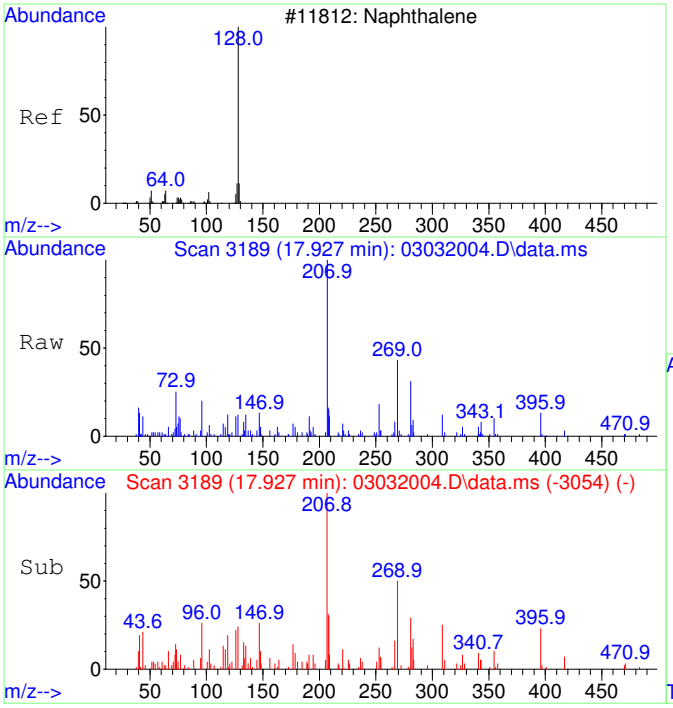


#47
1,2,4-Trimethylbenzene SCAN
Concen: 24.17 ug/L
RT: 15.924 min Scan# 2725
Delta R.T. -0.014 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 234

Ion	Ratio	Lower	Upper
105	100		
120	0.0	12.9	72.9#
119	0.0	0.0	41.4
77	34.6	0.0	42.1



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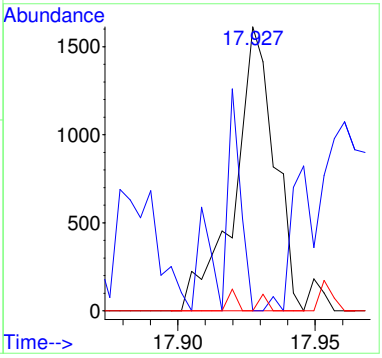
#48
Naphthalene SCAN
Concen:  111.23 ug/L
RT:  17.927 min  Scan# 3189
Delta R.T.  -0.000 min
Lab File:   03032004.D
Acq:  3 Mar 2020  10:23

Tgt Ion:128 Resp:    1632
Ion  Ratio  Lower  Upper
128  100
127   36.6    0.0   44.2
129    0.0    0.0   41.5
```



B20C007-BLK1

Quantitation Report (Not Reviewed)

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032005.D
Acq On : 3 Mar 2020 11:07
InstName : AG5975C
Operator : TD
Sample : B20C007-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 11:26:00 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

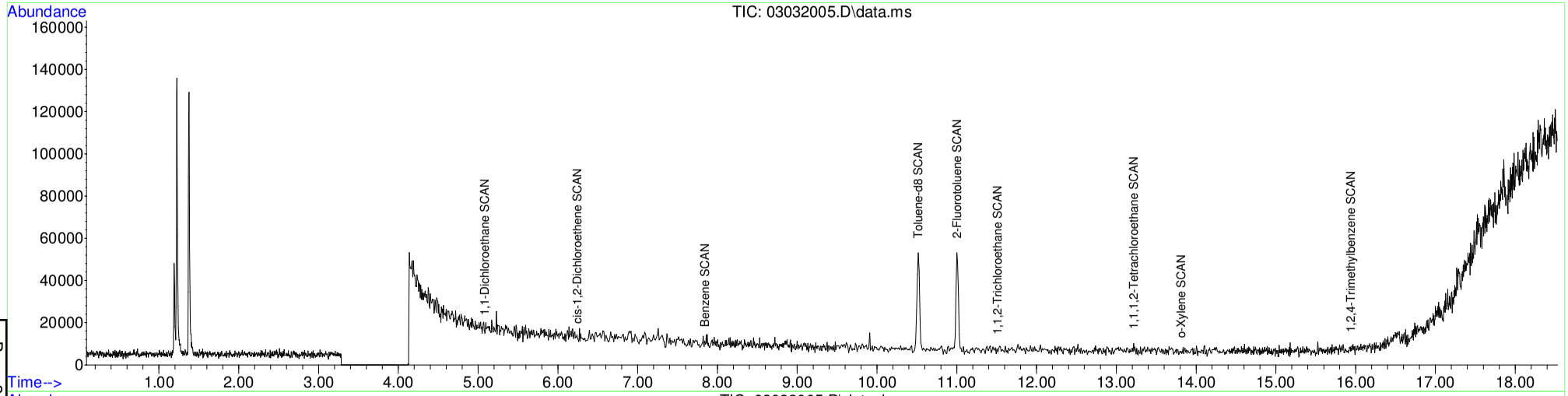
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.002	109	64225	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.508	98	55942	5091.31	ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.83%			
Target Compounds						Qvalue
25) 2-Fluorotoluene SCAN	11.000	109	43272	5467.24	ug/L	93
28) 1,1-Dichloroethane SCAN	5.078	63	174	51.90	ug/L #	31
29) cis-1,2-Dichloroethene...	6.246	61	59	22.42	ug/L #	23
33) Benzene SCAN	7.839	78	883	114.26	ug/L	96
36) Toluene-d8 SCAN	10.517	98	34792	4717.61	ug/L	90
38) 1,1,2-Trichloroethane ...	11.504	97	61	30.29	ug/L #	14
41) 1,1,1,2-Tetrachloroeth...	13.217	131	65	30.99	ug/L #	12
44) o-Xylene SCAN	13.805	91	203	26.80	ug/L #	36
47) 1,2,4-Trimethylbenzene...	15.933	105	225	27.29	ug/L #	44

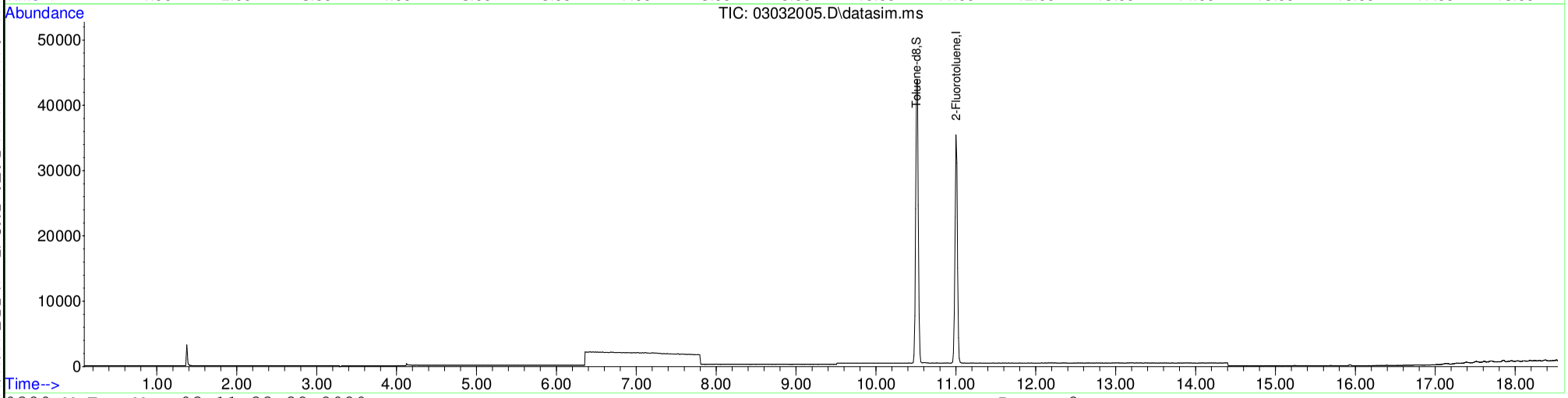
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032005.D
Acq On : 3 Mar 2020 11:07
InstName : AG5975C
Operator : TD
Sample : B20C007-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 11:26:00 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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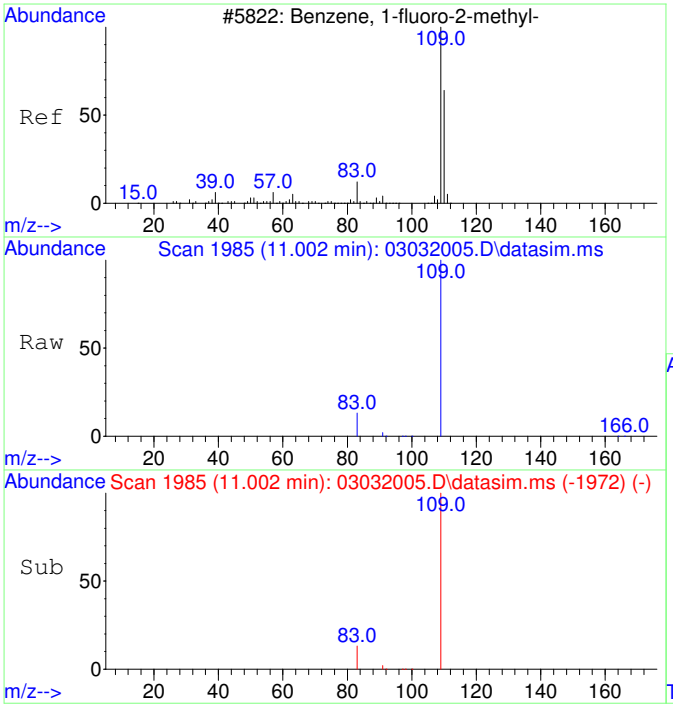
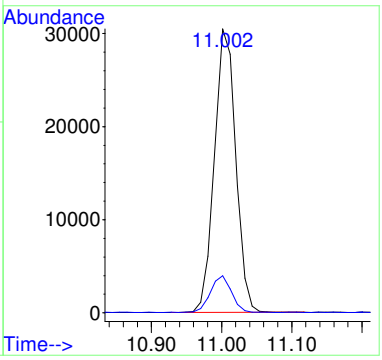
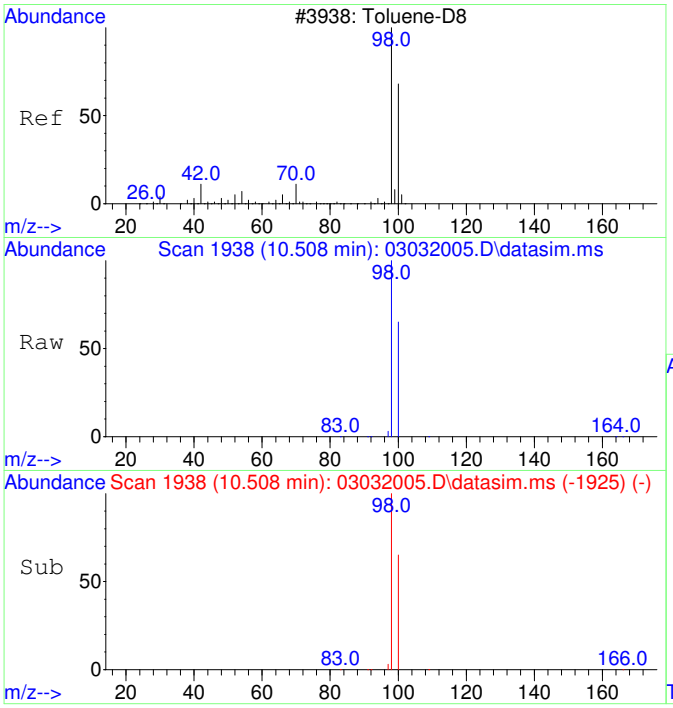


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion:109 Resp: 64225

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.2

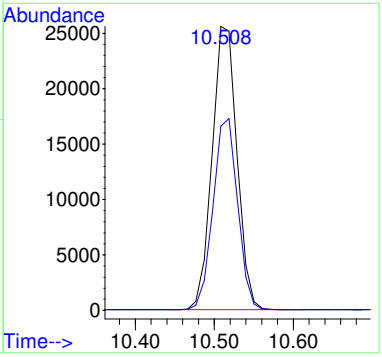


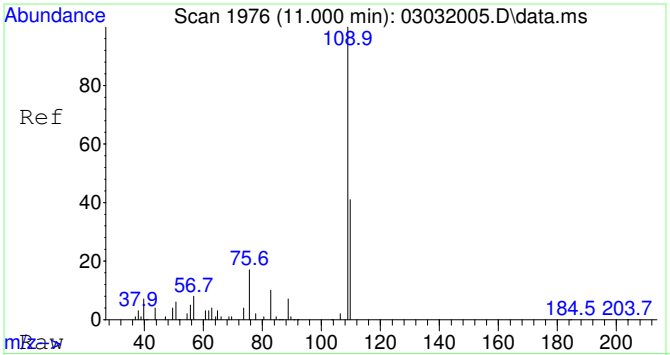


#12
Toluene-d8
Concen: 5091.31 ug/L
RT: 10.508 min Scan# 1938
Delta R.T. -0.011 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion: 98 Resp: 55942

Ion	Ratio	Lower	Upper
98	100		
100	66.6	36.5	96.5

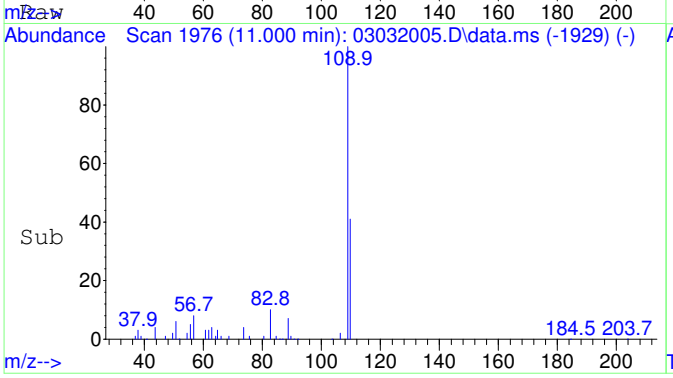


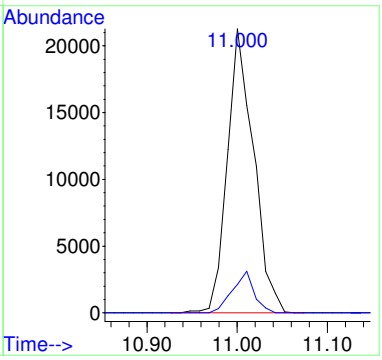


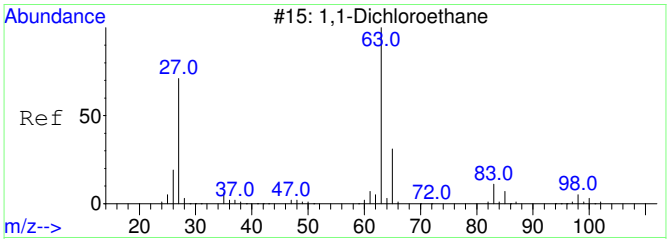
#25
2-Fluorotoluene SCAN
Concen: 5467.24 ug/L
RT: 11.000 min Scan# 1976
Delta R.T. -0.011 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion:109 Resp: 43272

Ion	Ratio	Lower	Upper
109	100		
83	12.0	0.0	44.7



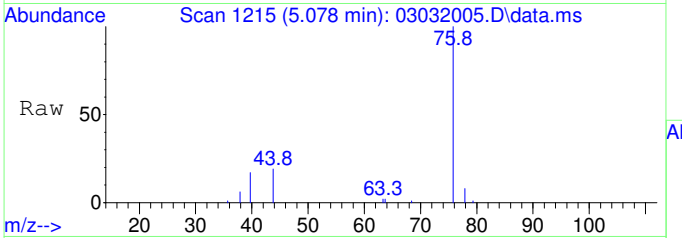


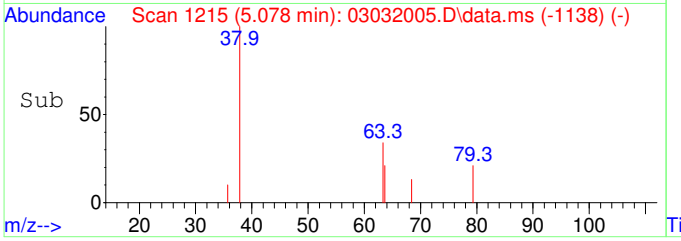


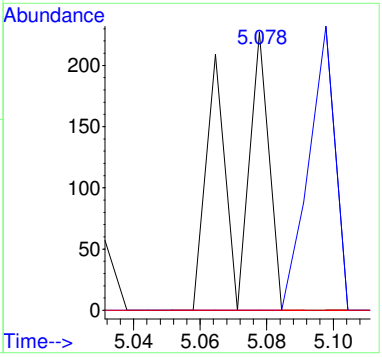
#28
1,1-Dichloroethane SCAN
Concen: 51.90 ug/L
RT: 5.078 min Scan# 1215
Delta R.T. 0.013 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

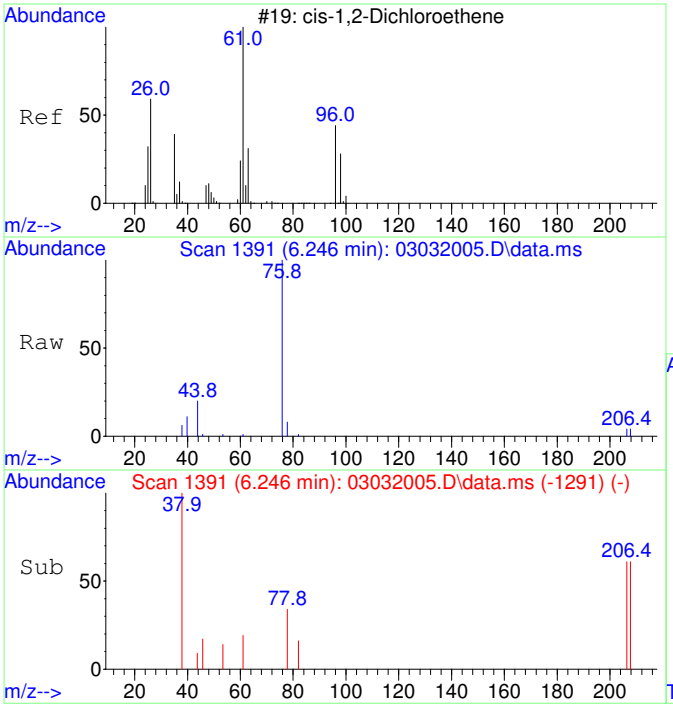
Tgt Ion: 63 Resp: 174

Ion	Ratio	Lower	Upper
63	100		
65	73.0	0.0	59.3#
83	0.0	0.0	37.5





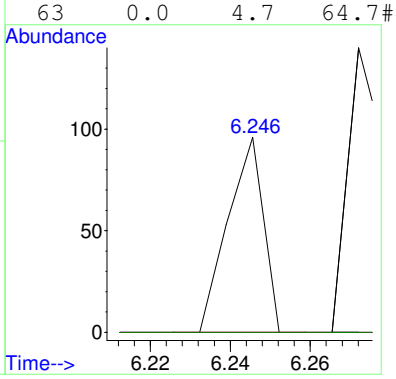


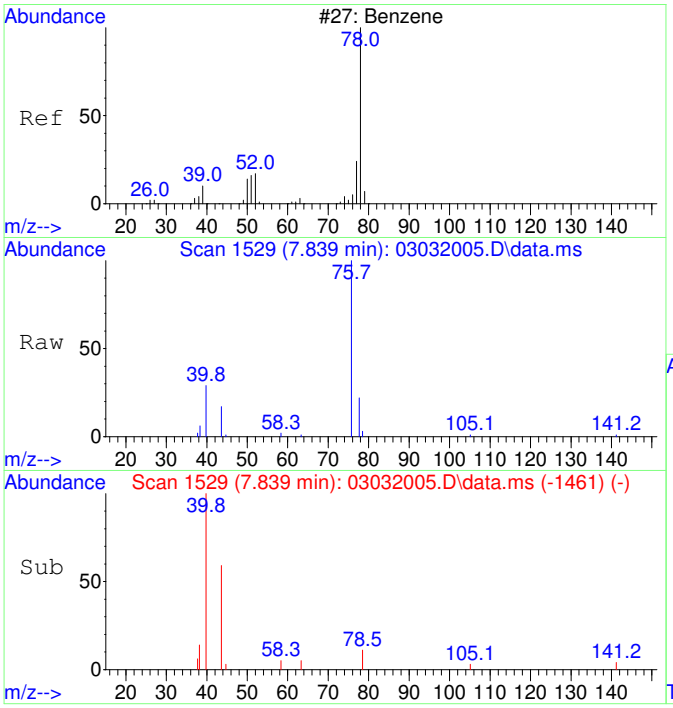


#29
cis-1,2-Dichloroethene SCAN
Concen: 22.42 ug/L
RT: 6.246 min Scan# 1391
Delta R.T. 0.166 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion: 61 Resp: 59

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	0.0	4.7	64.7#

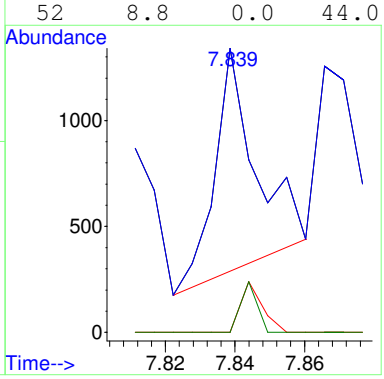


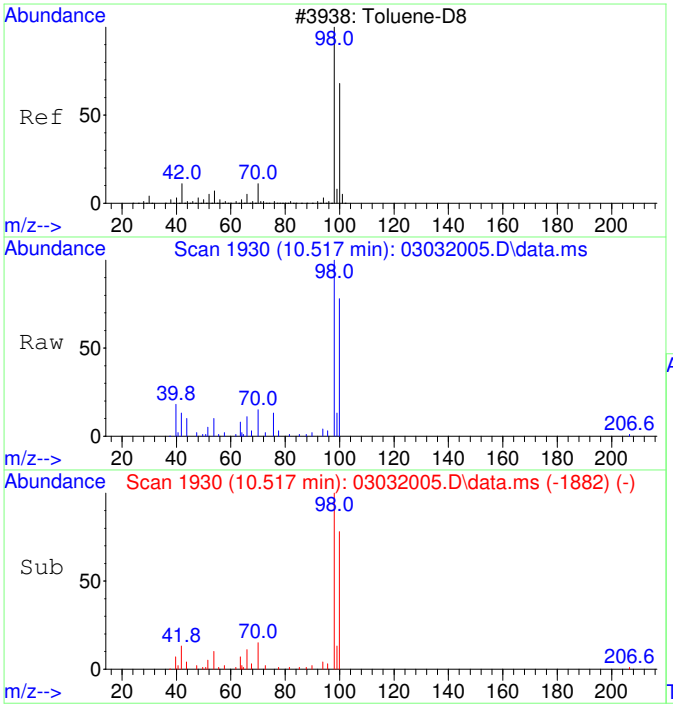


#33
Benzene SCAN
Concen: 114.26 ug/L
RT: 7.839 min Scan# 1529
Delta R.T. 0.312 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion: 78 Resp: 883

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	11.8	0.0	49.6
52	8.8	0.0	44.0

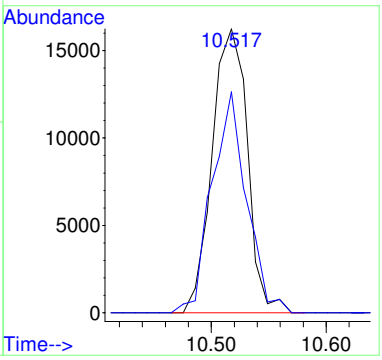


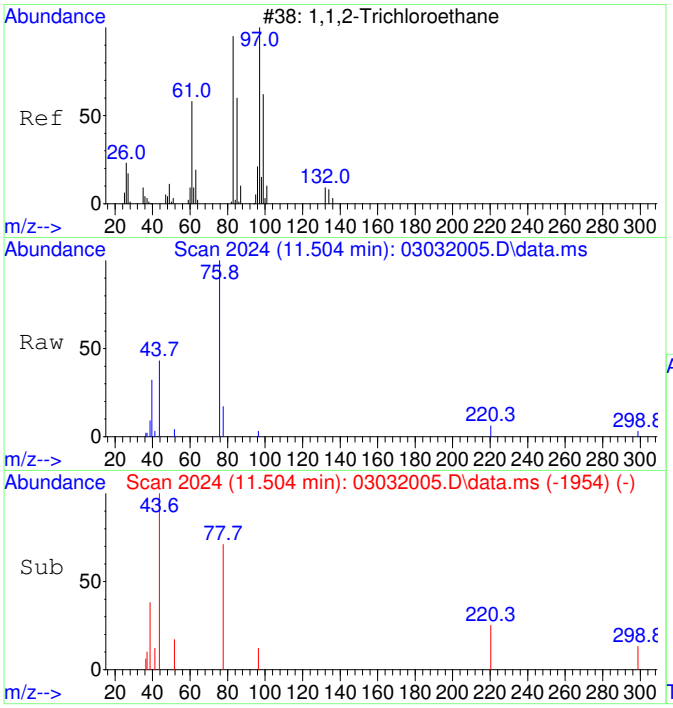


#36
Toluene-d8 SCAN
Concen: 4717.61 ug/L
RT: 10.517 min Scan# 1930
Delta R.T. -0.000 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion: 98 Resp: 34792

Ion	Ratio	Lower	Upper
98	100		
100	76.4	38.3	98.3

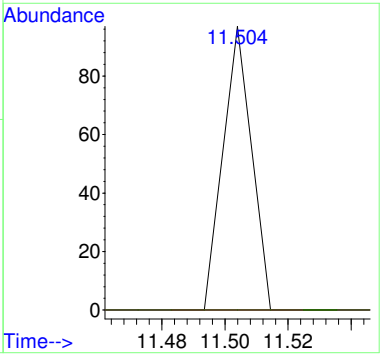


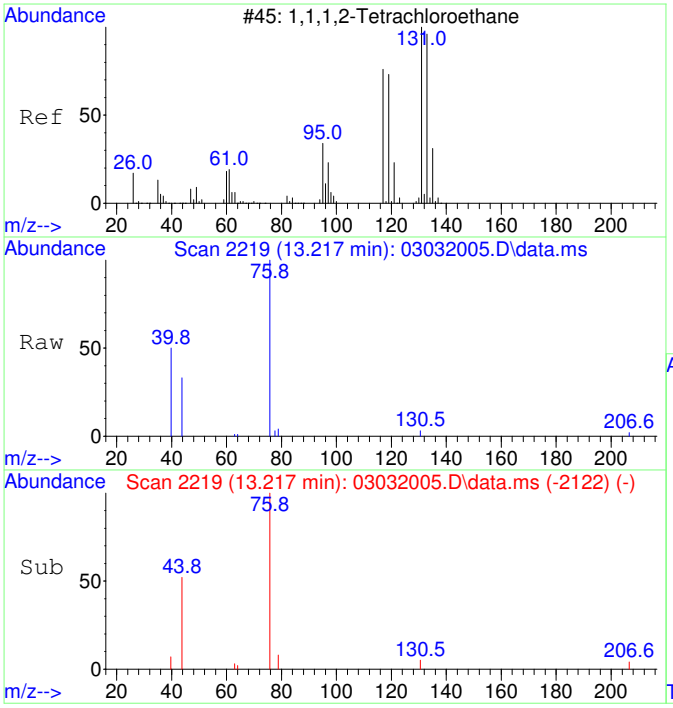


#38
1,1,2-Trichloroethane SCAN
Concen: 30.29 ug/L
RT: 11.504 min Scan# 2024
Delta R.T. 0.231 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion: 97 Resp: 61

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.5	113.5#
61	0.0	29.8	89.8#
99	0.0	35.1	95.1#

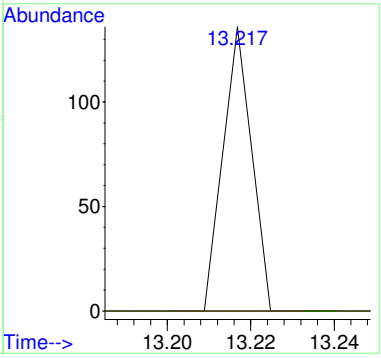


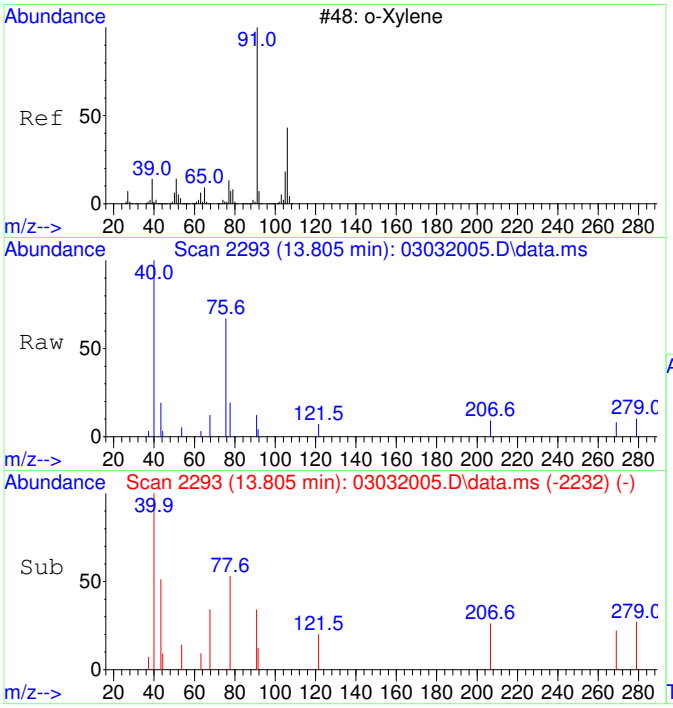


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 30.99 ug/L
RT: 13.217 min Scan# 2219
Delta R.T. 0.270 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion:131 Resp: 65

Ion	Ratio	Lower	Upper
131	100		
133	0.0	61.4	121.4#
119	0.0	33.0	93.0#
117	0.0	35.3	95.3#

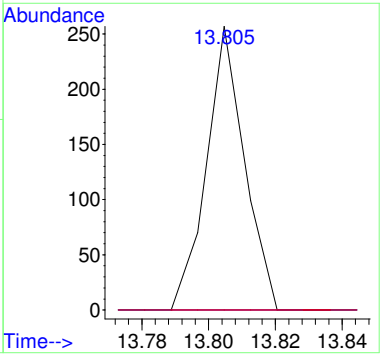


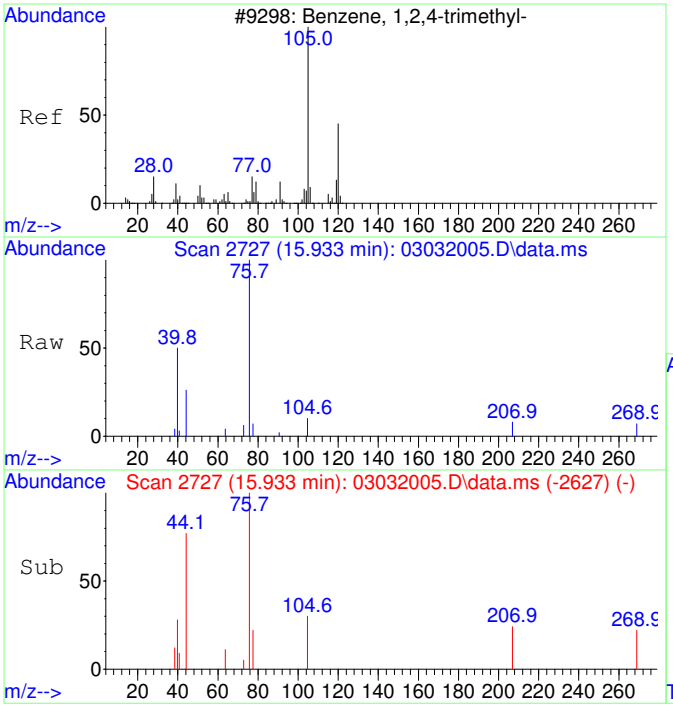


#44
o-Xylene SCAN
Concen: 26.80 ug/L
RT: 13.805 min Scan# 2293
Delta R.T. -0.016 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion: 91 Resp: 203

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.1	78.1#
105	0.0	0.0	54.4

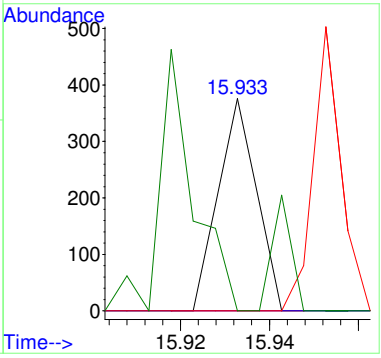




#47
1,2,4-Trimethylbenzene SCAN
Concen: 27.29 ug/L
RT: 15.933 min Scan# 2727
Delta R.T. -0.005 min
Lab File: 03032005.D
Acq: 3 Mar 2020 11:07

Tgt Ion:105 Resp: 225

Ion	Ratio	Lower	Upper
105	100		
120	0.0	12.9	72.9#
119	0.0	0.0	41.4
77	27.1	0.0	42.1



B20C007-BS1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032006.D
Acq On : 3 Mar 2020 11:30
InstName : AG5975C
Operator : TD
Sample : B20C007-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 03 11:49:40 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

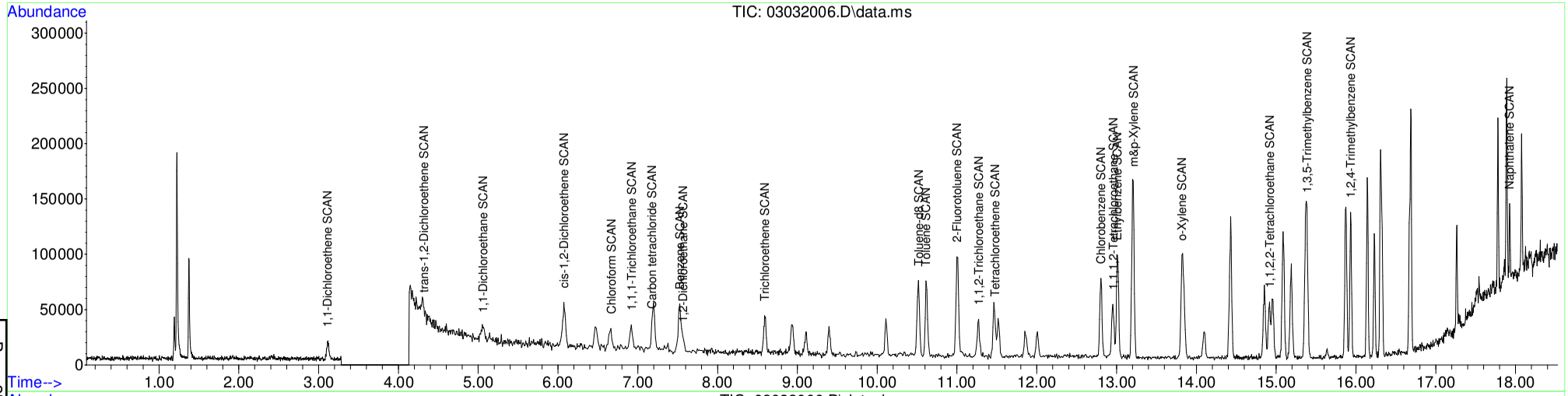
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	94096	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.508	98	83446	5183.58 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 103.67%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	15687	3281.00 ug/L	99
3] trans-1,2-Dichloroethene	4.303	61	16146	3282.27 ug/L	100
4] 1,1-Dichloroethane	5.053	63	21681	3531.35 ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	20375	3547.17 ug/L	100
6] Chloroform	6.652	83	23484	3684.07 ug/L	100
7] 1,1,1-Trichloroethane	6.919	97	24193	3901.96 ug/L	100
8] Carbon tetrachloride	7.187	117	22165	4061.57 ug/L	99
9] Benzene	7.515	78	62543	4021.20 ug/L	100
10] 1,2-Dichloroethane	7.552	62	19735	3846.37 ug/L	100
11] Trichloroethene	8.591	130	19367	4351.92 ug/L	100
13] Toluene	10.613	91	91224	4823.16 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	19564	4585.98 ug/L	99
15] Tetrachloroethene	11.463	166	26784	5167.03 ug/L	100
16] Chlorobenzene	12.805	112	67968	4983.34 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.956	131	24368	5422.31 ug/L	100
18] Ethylbenzene	13.012	91	123745	5577.13 ug/L	100
19] m&p-Xylene	13.202	91	182117	10880.36 ug/L	100
20] o-Xylene	13.814	91	92673	5162.62 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	39882	5138.15 ug/L	100
22] 1,3,5-Trimethylbenzene	15.383	105	113723	5870.68 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	108984	5529.74 ug/L	100
24] Naphthalene	17.929	128	51534	1516.34 ug/L	100
25) 2-Fluorotoluene SCAN	11.000	109	57744	4979.67 ug/L	95
26) 1,1-Dichloroethene SCAN	3.111	61	11252	3367.47 ug/L	87
27) trans-1,2-Dichloroethe...	4.315	61	12621	3540.42 ug/L	92
28) 1,1-Dichloroethane SCAN	5.065	63	16526	3364.51 ug/L	91
29) cis-1,2-Dichloroethene...	6.073	61	15762	4089.02 ug/L	89
30) Chloroform SCAN	6.663	83	17155	4020.08 ug/L	93
31) 1,1,1-Trichloroethane ...	6.918	97	17787	4157.69 ug/L	96
32) Carbon tetrachloride SCAN	7.174	117	14189	3246.27 ug/L	93
33) Benzene SCAN	7.526	78	48681	4299.57 ug/L	99
34) 1,2-Dichloroethane SCAN	7.563	62	16060	4854.29 ug/L	82
35) Trichloroethene SCAN	8.590	130	12280	4251.33 ug/L #	66
36) Toluene-d8 SCAN	10.518	98	56253	5206.21 ug/L	92
37) Toluene SCAN	10.612	91	60813	4589.18 ug/L	92
38) 1,1,2-Trichloroethane ...	11.273	97	10561	3579.64 ug/L #	77
39) Tetrachloroethene SCAN	11.473	166	14135	3801.21 ug/L	76
40) Chlorobenzene SCAN	12.804	112	45306	5426.53 ug/L	97
41) 1,1,1,2-Tetrachloroeth...	12.955	131	16217	5277.76 ug/L	89
42) Ethylbenzene SCAN	13.010	91	80623	5489.34 ug/L	96
43) m&p-Xylene SCAN	13.209	91	115623	5546.17 ug/L	97
44) o-Xylene SCAN	13.821	91	62894	5667.82 ug/L	98
45) 1,1,2,2-Tetrachloroeth...	14.916	83	26741	4912.70 ug/L	96
46) 1,3,5-Trimethylbenzene...	15.387	105	70960	6245.53 ug/L	96
47) 1,2,4-Trimethylbenzene...	15.933	105	66195	5480.04 ug/L	94
48) Naphthalene SCAN	17.927	128	28626	1563.69 ug/L	93

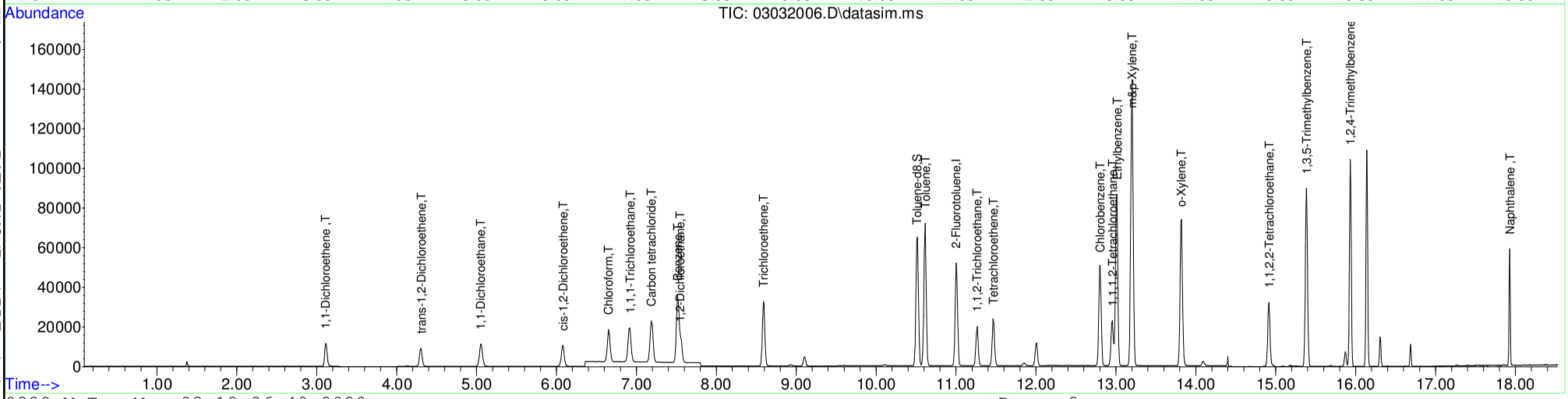
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032006.D
Acq On : 3 Mar 2020 11:30
InstName : AG5975C
Operator : TD
Sample : B20C007-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 03 11:49:40 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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B20C007-BSD1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032007.D
Acq On : 3 Mar 2020 11:54
InstName : AG5975C
Operator : TD
Sample : B20C007-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 12:13:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

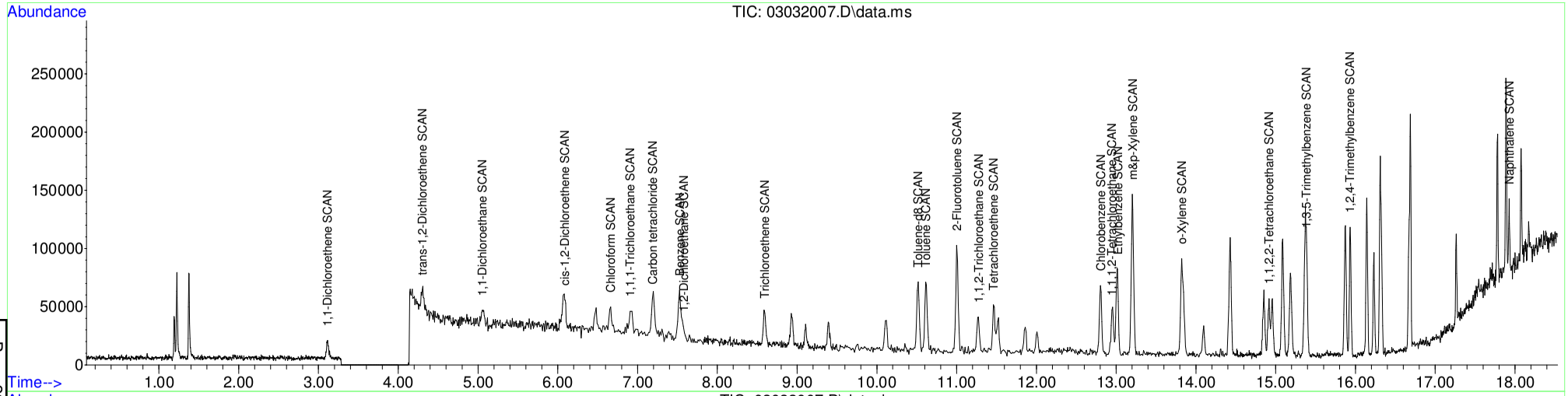
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	81580	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.508	98	71672	5135.25 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 102.71%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	14672	3539.50 ug/L	99
3] trans-1,2-Dichloroethene	4.303	61	15065	3532.37 ug/L	100
4] 1,1-Dichloroethane	5.053	63	20388	3830.22 ug/L	100
5] cis-1,2-Dichloroethene	6.081	61	19081	3831.53 ug/L	100
6] Chloroform	6.652	83	21884	3959.77 ug/L	100
7] 1,1,1-Trichloroethane	6.907	97	21414	3983.62 ug/L	99
8] Carbon tetrachloride	7.187	117	19389	4097.98 ug/L	100
9] Benzene	7.515	78	54814	4064.95 ug/L	100
10] 1,2-Dichloroethane	7.552	62	18003	4047.12 ug/L	97
11] Trichloroethene	8.591	130	16772	4347.01 ug/L	100
13] Toluene	10.613	91	76479	4663.94 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	16972	4588.76 ug/L	99
15] Tetrachloroethene	11.463	166	21856	4863.22 ug/L	99
16] Chlorobenzene	12.805	112	56243	4756.33 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.956	131	20259	5199.60 ug/L	99
18] Ethylbenzene	13.012	91	101402	5271.29 ug/L	100
19] m&p-Xylene	13.202	91	149271	10286.22 ug/L	100
20] o-Xylene	13.814	91	76098	4889.64 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.914	83	33313	4950.29 ug/L	100
22] 1,3,5-Trimethylbenzene	15.384	105	92541	5510.13 ug/L	100
23] 1,2,4-Trimethylbenzene	15.930	105	89264	5224.03 ug/L	100
24] Naphthalene	17.929	128	42947	1457.54 ug/L	100
25) 2-Fluorotoluene SCAN	11.000	109	54142	5385.37 ug/L	99
26) 1,1-Dichloroethene SCAN	3.111	61	9323	3218.23 ug/L	92
27) trans-1,2-Dichloroethe...	4.302	61	11199	3623.49 ug/L	94
28) 1,1-Dichloroethane SCAN	5.051	63	15481	3635.31 ug/L #	54
29) cis-1,2-Dichloroethene...	6.086	61	14659	4386.31 ug/L	92
30) Chloroform SCAN	6.662	83	16456	4447.90 ug/L	95
31) 1,1,1-Trichloroethane ...	6.906	97	15383	4147.42 ug/L	87
32) Carbon tetrachloride SCAN	7.186	117	10189	2688.76 ug/L	75
33) Benzene SCAN	7.526	78	44089	4491.41 ug/L	98
34) 1,2-Dichloroethane SCAN	7.575	62	11294	3937.45 ug/L	99
35) Trichloroethene SCAN	8.595	130	11829	4723.48 ug/L	94
36) Toluene-d8 SCAN	10.518	98	47849	5107.82 ug/L	99
37) Toluene SCAN	10.612	91	54468	4740.97 ug/L	90
38) 1,1,2-Trichloroethane ...	11.273	97	11089	4335.25 ug/L	83
39) Tetrachloroethene SCAN	11.462	166	13246	4108.64 ug/L	89
40) Chlorobenzene SCAN	12.804	112	36480	5039.75 ug/L	94
41) 1,1,1,2-Tetrachloroeth...	12.947	131	13696	5141.15 ug/L	90
42) Ethylbenzene SCAN	13.018	91	66289	5205.83 ug/L	99
43) m&p-Xylene SCAN	13.201	91	97290	5382.76 ug/L	97
44) o-Xylene SCAN	13.821	91	49712	5167.20 ug/L	96
45) 1,1,2,2-Tetrachloroeth...	14.916	83	23190	4913.95 ug/L	98
46) 1,3,5-Trimethylbenzene...	15.388	105	58681	5957.18 ug/L	98
47) 1,2,4-Trimethylbenzene...	15.934	105	56055	5352.55 ug/L	91
48) Naphthalene SCAN	17.927	128	26084	1643.43 ug/L	96

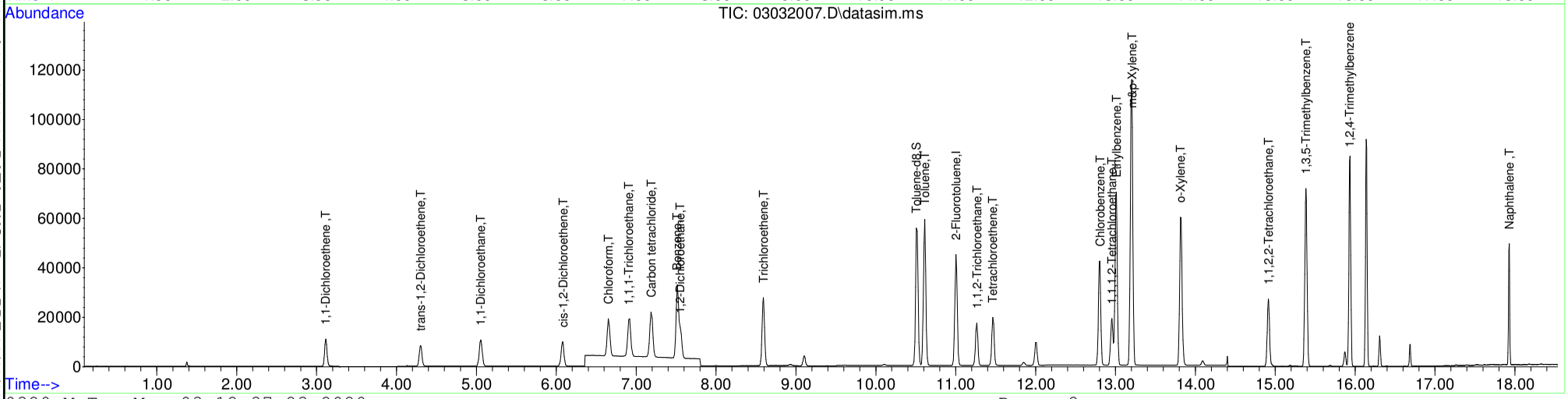
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032007.D
Acq On : 3 Mar 2020 11:54
InstName : AG5975C
Operator : TD
Sample : B20C007-BSD1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 12:13:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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B20C007-MRL1

Quantitation Report (Not Reviewed)

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Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

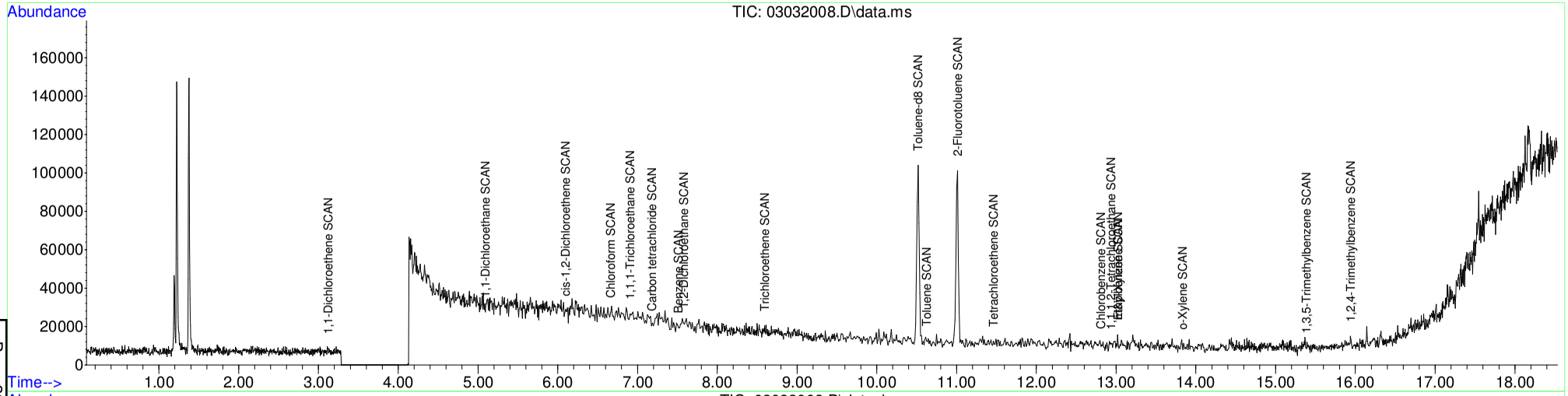
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	122847	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.509	98	107088	5095.32 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.91%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	631	101.09 ug/L	65
3] trans-1,2-Dichloroethene	4.303	61	329	51.23 ug/L	91
4] 1,1-Dichloroethane	5.059	63	435	54.27 ug/L	90
5] cis-1,2-Dichloroethene	6.075	61	415	55.34 ug/L	90
6] Chloroform	6.652	83	462	55.51 ug/L	99
7] 1,1,1-Trichloroethane	6.920	97	489	60.41 ug/L	88
8] Carbon tetrachloride	7.187	117	460	64.56 ug/L	99
9] Benzene	7.516	78	1364	67.17 ug/L	81
10] 1,2-Dichloroethane	7.564	62	430	64.19 ug/L	69
11] Trichloroethene	8.597	130	399	68.67 ug/L	92
13] Toluene	10.614	91	1925	77.96 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	386	69.31 ug/L	86
15] Tetrachloroethene	11.464	166	529	78.17 ug/L	96
16] Chlorobenzene	12.805	112	1310	73.57 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.956	131	477	81.30 ug/L	94
18] Ethylbenzene	13.012	91	2464	85.06 ug/L	96
19] m&p-Xylene	13.203	91	3736	170.96 ug/L	98
20] o-Xylene	13.814	91	1839	78.47 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.914	83	747	73.72 ug/L	98
22] 1,3,5-Trimethylbenzene	15.383	105	2167	85.69 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	2293	89.12 ug/L	97
25) 2-Fluorotoluene SCAN	11.011	109	79979	5282.95 ug/L	92
26) 1,1-Dichloroethene SCAN	3.115	61	94	21.55 ug/L #	1
28) 1,1-Dichloroethane SCAN	5.091	63	172	26.82 ug/L #	52
29) cis-1,2-Dichloroethene...	6.093	61	184	36.56 ug/L #	34
30) Chloroform SCAN	6.663	83	127	22.80 ug/L #	12
31) 1,1,1-Trichloroethane ...	6.906	97	653	116.91 ug/L #	24
32) Carbon tetrachloride SCAN	7.174	117	247	43.28 ug/L #	76
33) Benzene SCAN	7.514	78	6732	455.42 ug/L #	91
34) 1,2-Dichloroethane SCAN	7.575	62	539	124.79 ug/L #	36
35) Trichloroethene SCAN	8.596	130	96	25.46 ug/L #	1
36) Toluene-d8 SCAN	10.518	98	70682	5010.62 ug/L	99
37) Toluene SCAN	10.623	91	2186	126.36 ug/L #	71
39) Tetrachloroethene SCAN	11.462	166	311	64.06 ug/L #	14
40) Chlorobenzene SCAN	12.804	112	601	55.14 ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.939	131	313	78.02 ug/L #	31
42) Ethylbenzene SCAN	13.019	91	1898	98.98 ug/L	80
43) m&p-Xylene SCAN	13.019	91	1931	70.95 ug/L	64
44) o-Xylene SCAN	13.829	91	1426	98.43 ug/L #	38
46) 1,3,5-Trimethylbenzene...	15.377	105	766	51.64 ug/L #	39
47) 1,2,4-Trimethylbenzene...	15.938	105	1862	118.07 ug/L	85

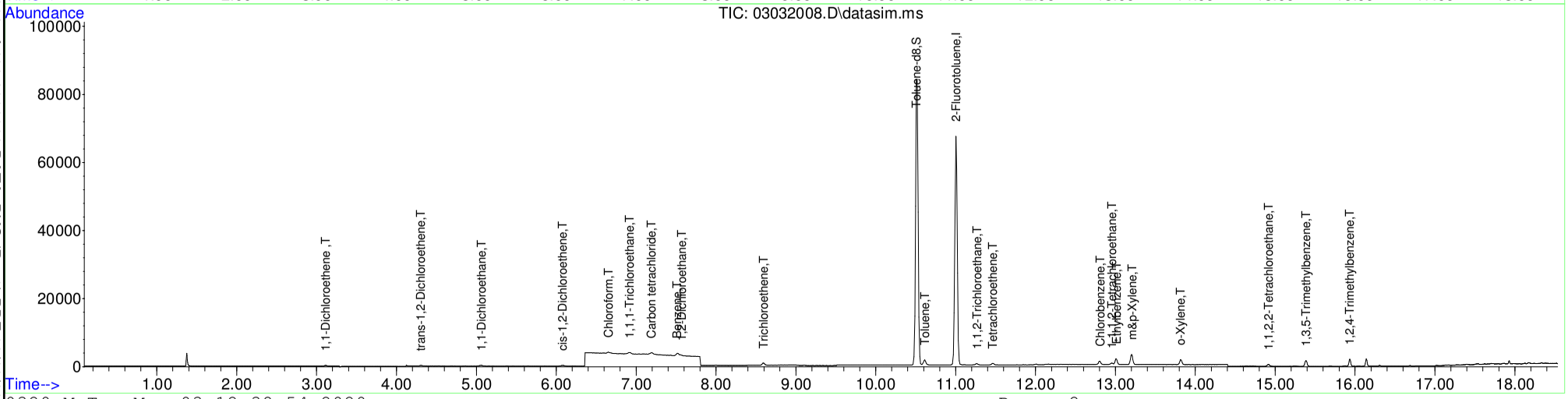
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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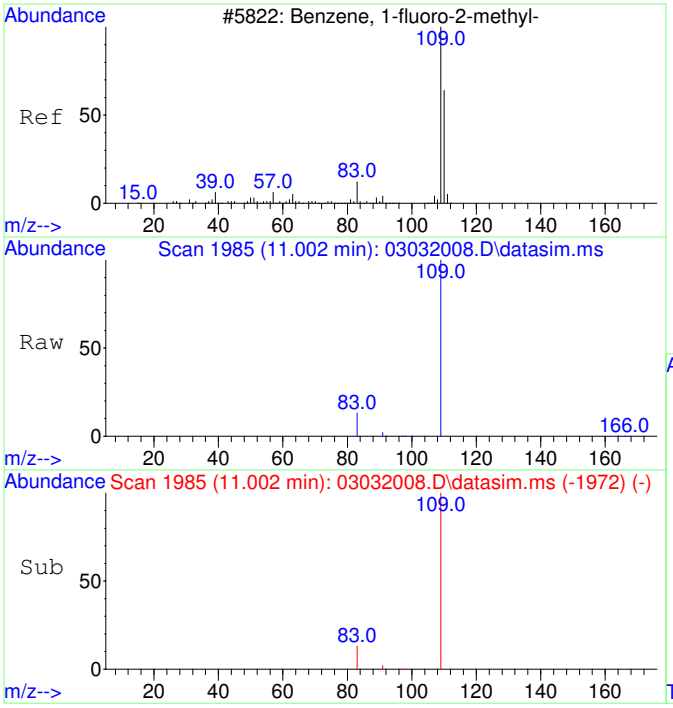
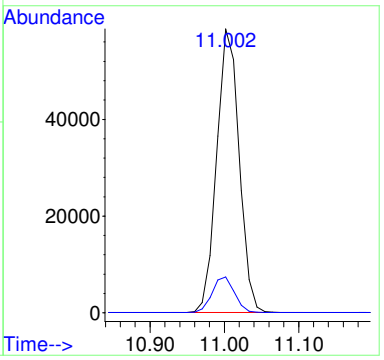
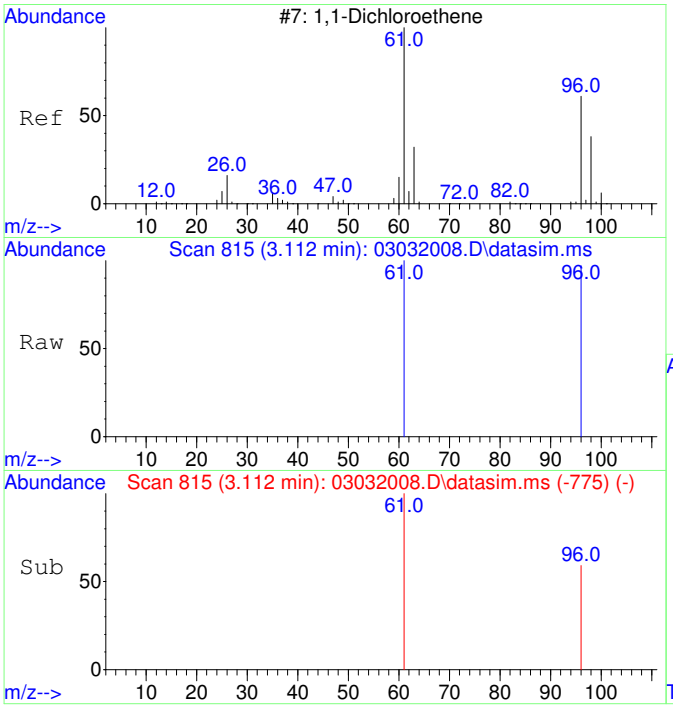


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 122847

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.2

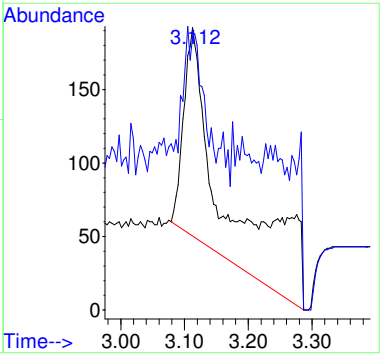




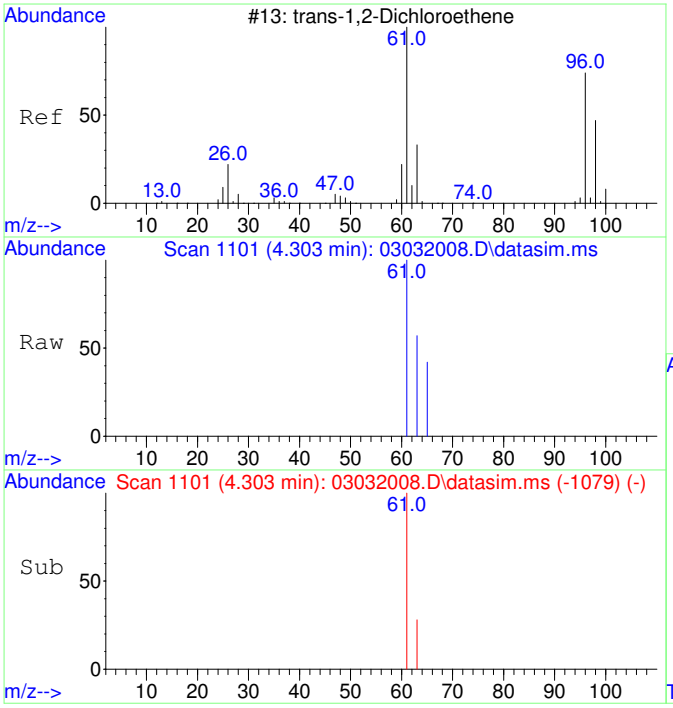
#2
1,1-Dichloroethene
Concen: 101.09 ug/L
RT: 3.112 min Scan# 815
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 631

Ion	Ratio	Lower	Upper
61	100		
96	36.3	33.2	93.2



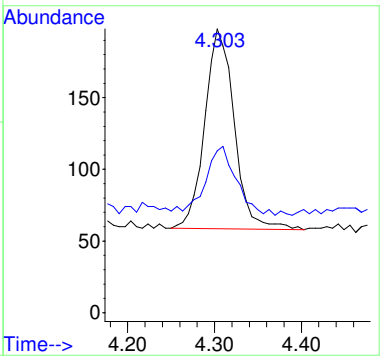
Before MI:
IMPROPER
BASELINE

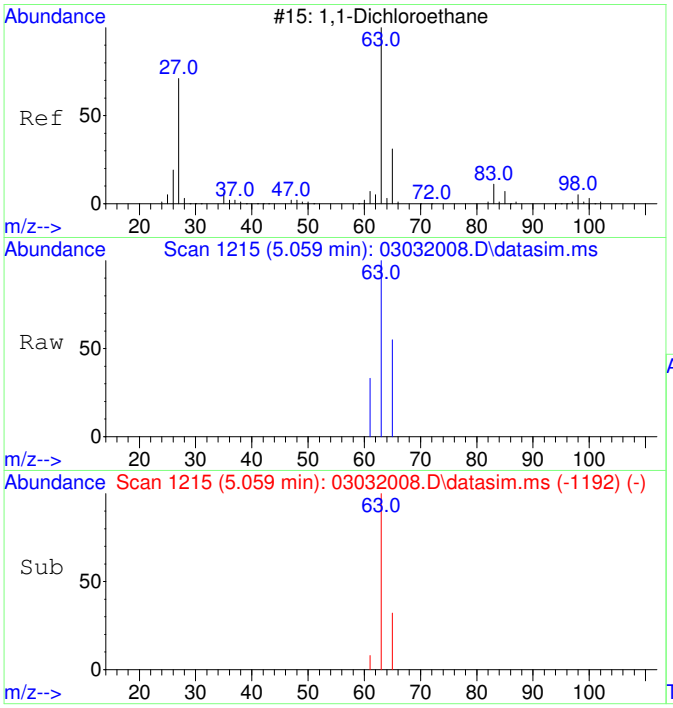


#3
trans-1,2-Dichloroethene
Concen: 51.23 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 329

Ion	Ratio	Lower	Upper
61	100		
63	37.1	2.3	62.3

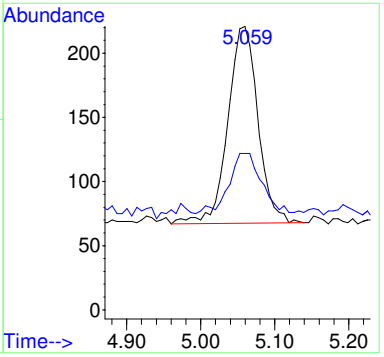


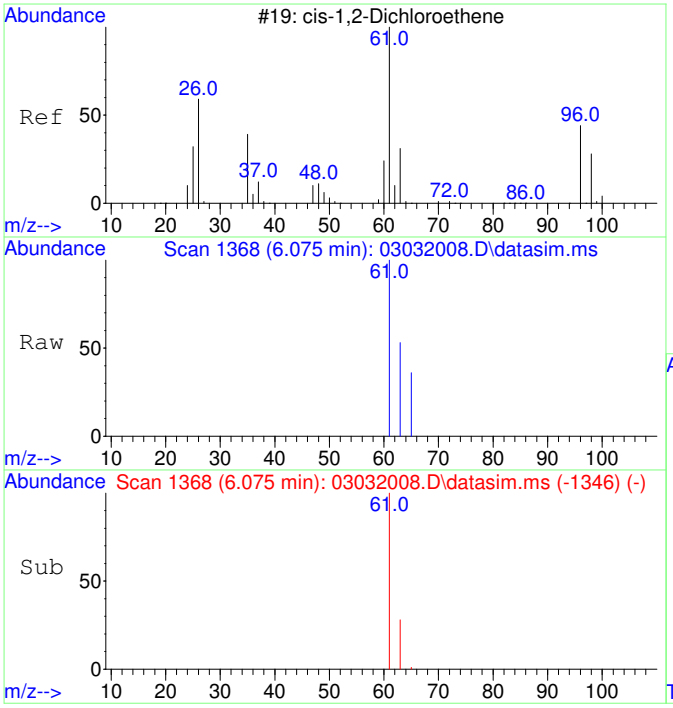


#4
1,1-Dichloroethane
Concen: 54.27 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 435

Ion	Ratio	Lower	Upper
63	100		
65	37.5	1.7	61.7

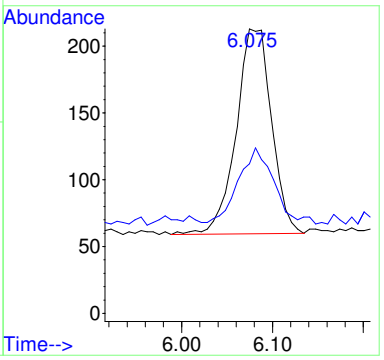


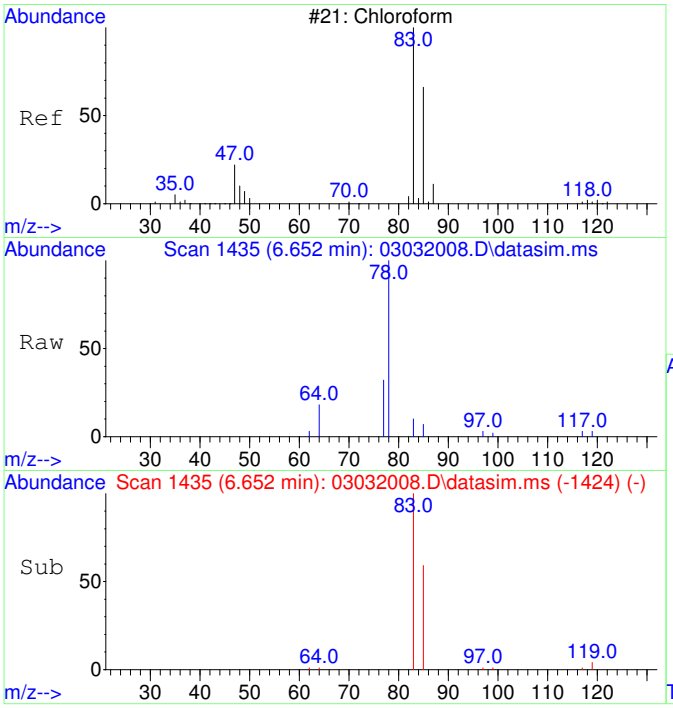


#5
cis-1,2-Dichloroethene
Concen: 55.34 ug/L
RT: 6.075 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 415

Ion	Ratio	Lower	Upper
61	100		
63	38.3	2.6	62.6

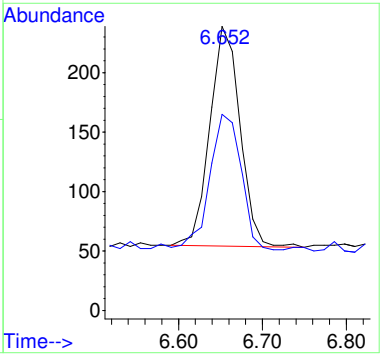


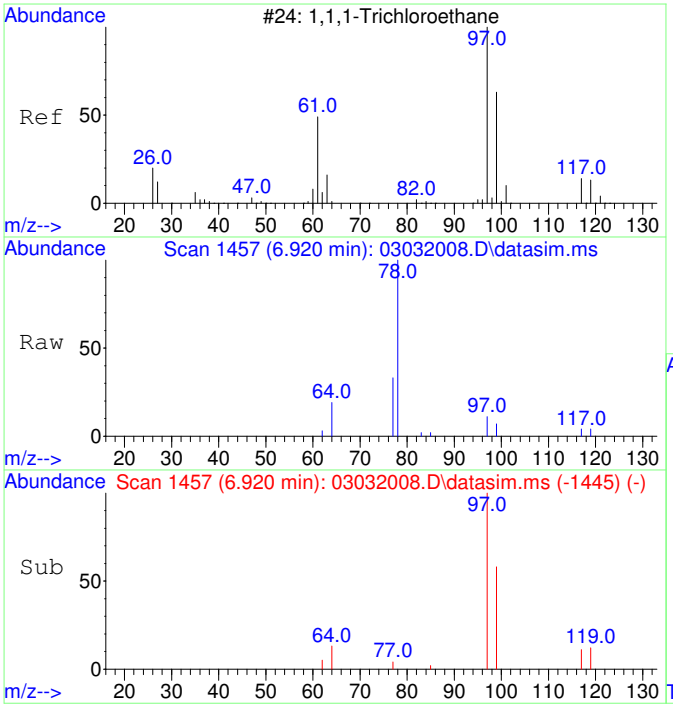


#6
Chloroform
Concen: 55.51 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 462

Ion	Ratio	Lower	Upper
83	100		
85	64.3	34.7	94.7

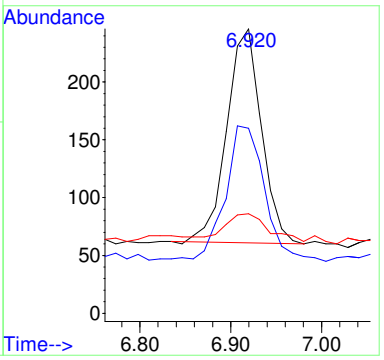


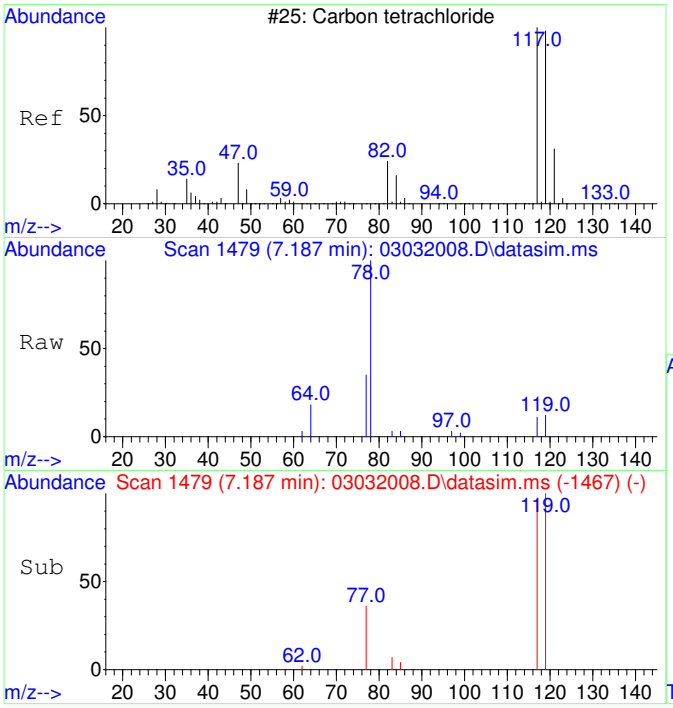


#7
1,1,1-Trichloroethane
Concen: 60.41 ug/L
RT: 6.920 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 489

Ion	Ratio	Lower	Upper
97	100		
99	72.2	34.4	94.4
117	20.7	0.0	42.8

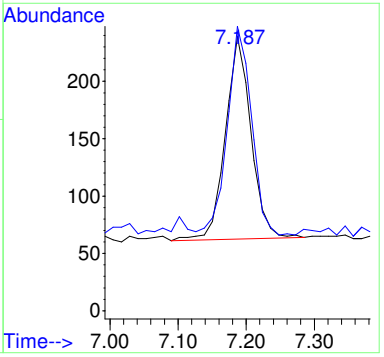


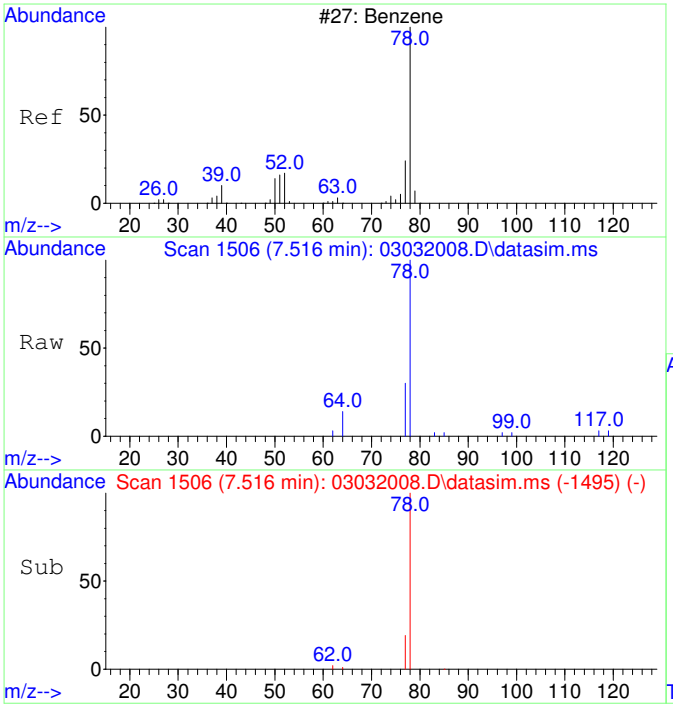


#8
Carbon tetrachloride
Concen: 64.56 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 460

Ion	Ratio	Lower	Upper
117	100		
119	97.2	66.1	126.1

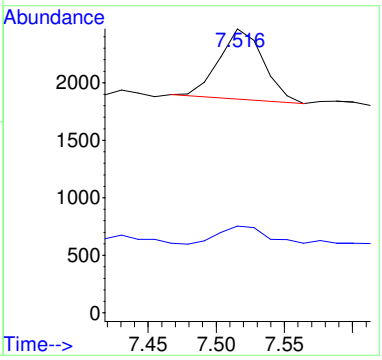


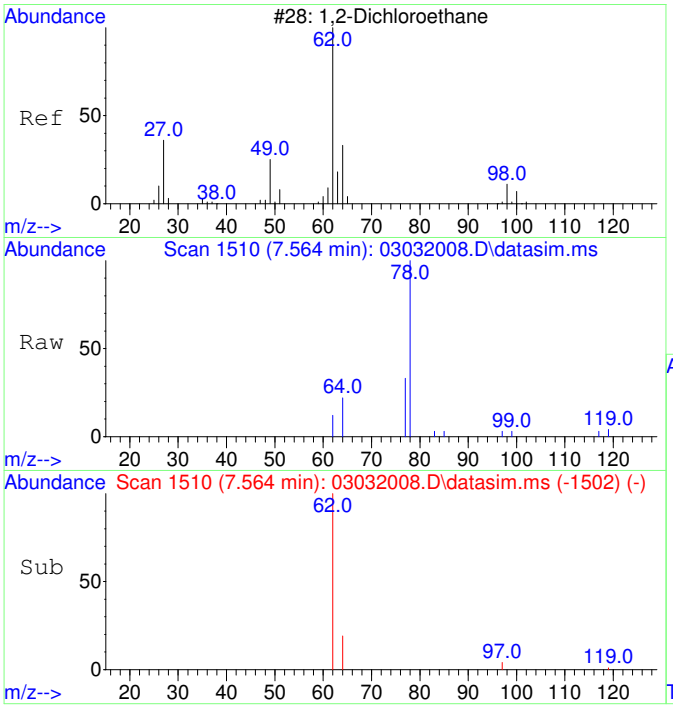


#9
Benzene
Concen: 67.17 ug/L
RT: 7.516 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 1364

Ion	Ratio	Lower	Upper
78	100		
77	33.1	0.0	53.6

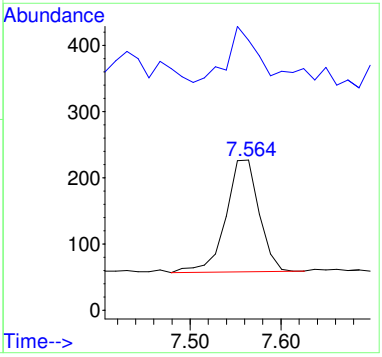


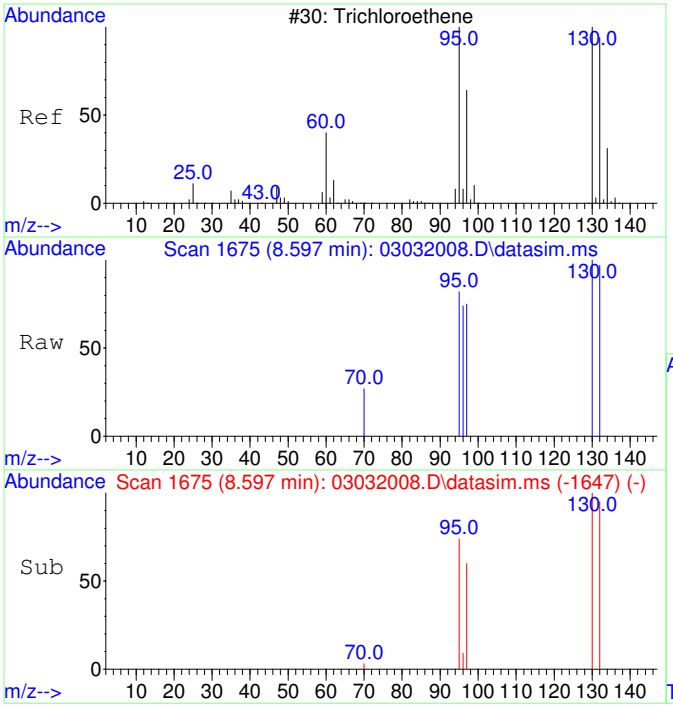


#10
1,2-Dichloroethane
Concen: 64.19 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 430

Ion	Ratio	Lower	Upper
62	100		
64	50.0	2.4	62.4

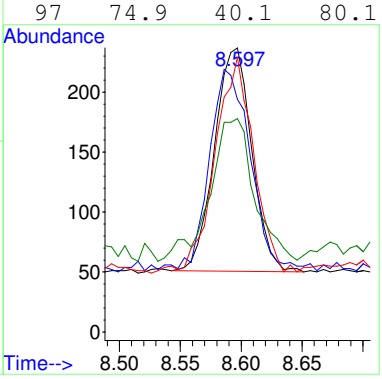


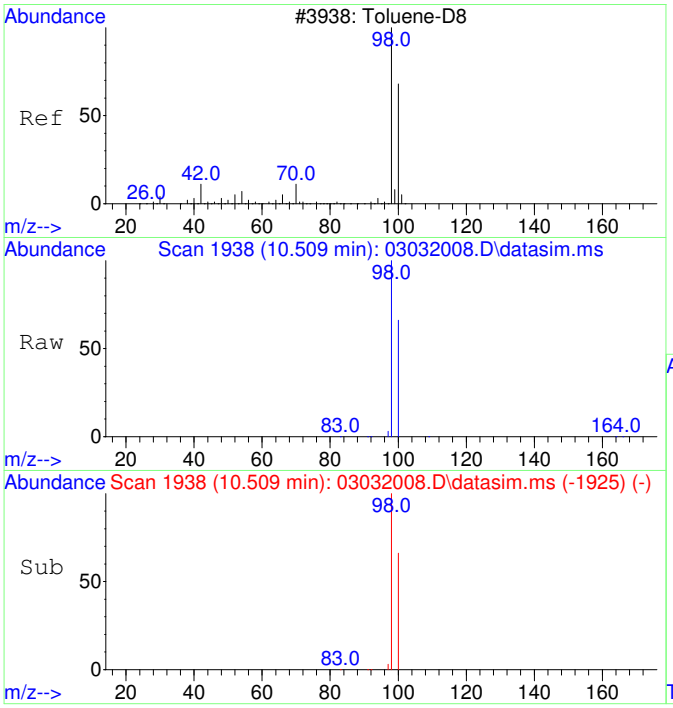


#11
Trichloroethene
Concen: 68.67 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 399

Ion	Ratio	Lower	Upper
130	100		
95	100.0	63.8	123.8
132	99.2	75.9	115.9
97	74.9	40.1	80.1

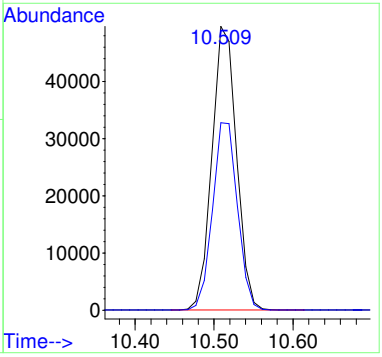


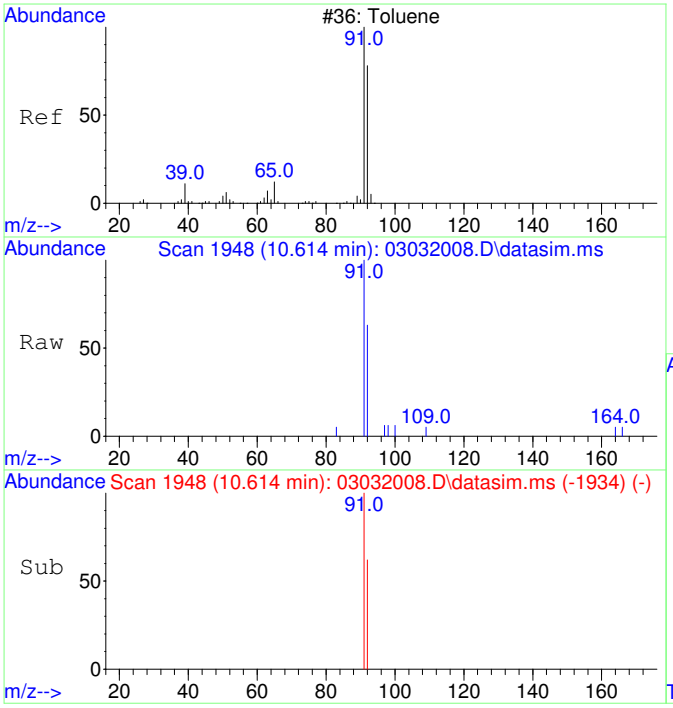


#12
Toluene-d8
Concen: 5095.32 ug/L
RT: 10.509 min Scan# 1938
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 107088

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.5	96.5

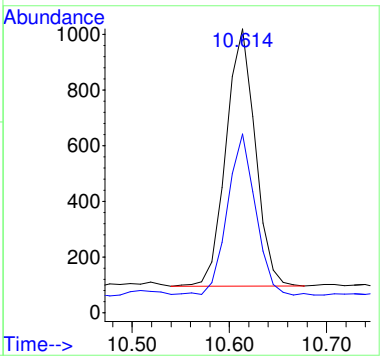


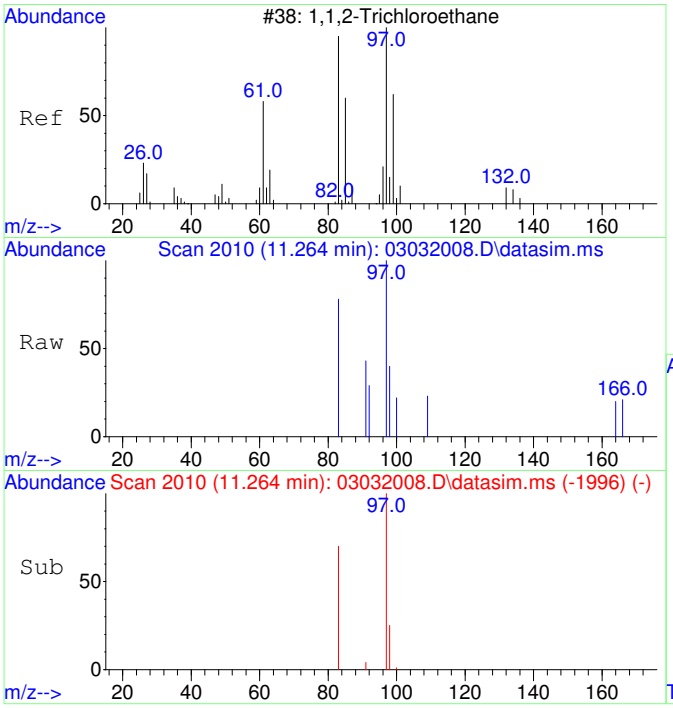


#13
Toluene
Concen: 77.96 ug/L
RT: 10.614 min Scan# 1948
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1925

Ion	Ratio	Lower	Upper
91	100		
92	59.1	29.7	89.7

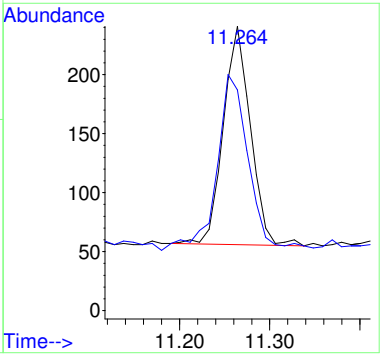


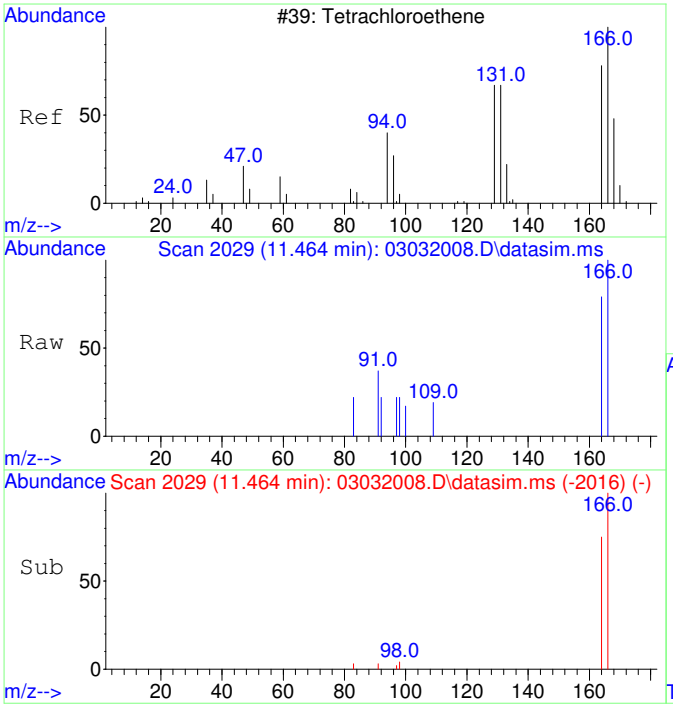


#14
1,1,2-Trichloroethane
Concen: 69.31 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 386

Ion	Ratio	Lower	Upper
97	100		
83	94.8	51.9	111.9

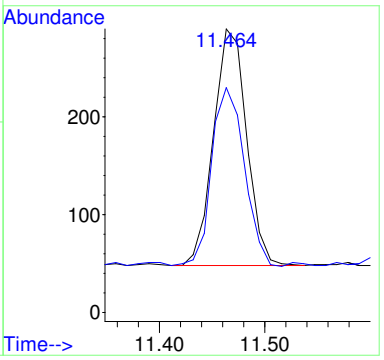


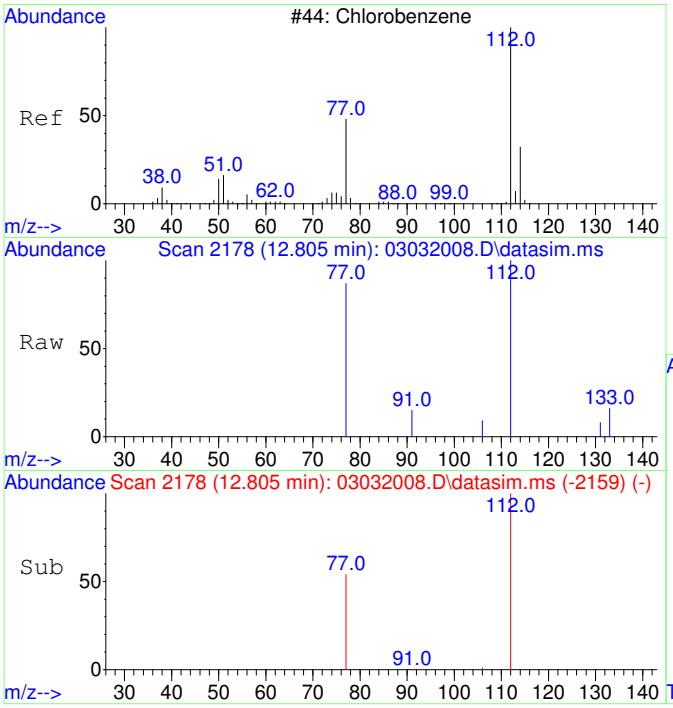


#15
Tetrachloroethene
Concen: 78.17 ug/L
RT: 11.464 min Scan# 2029
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 529

Ion	Ratio	Lower	Upper
166	100		
164	74.5	47.9	107.9

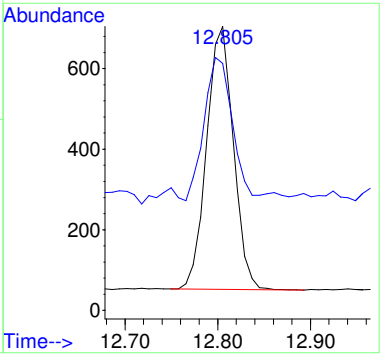


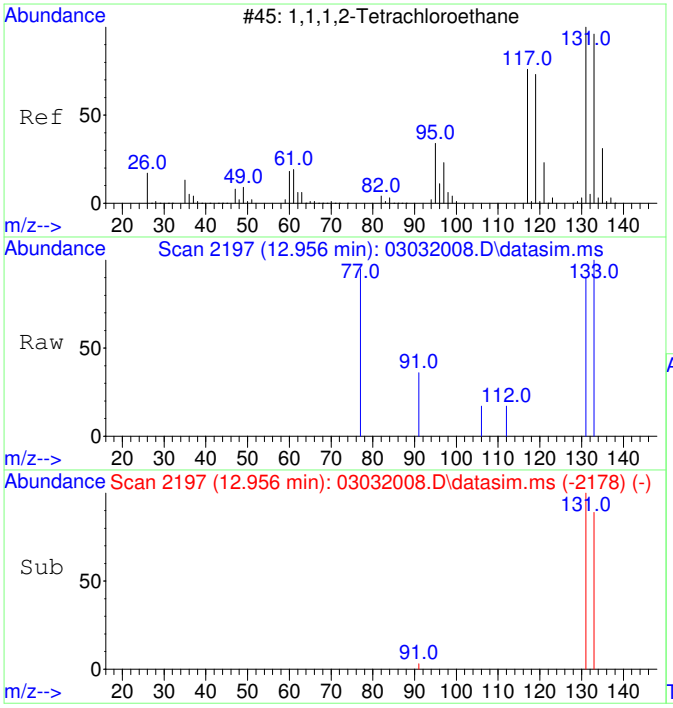


#16
Chlorobenzene
Concen: 73.57 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 1310

Ion	Ratio	Lower	Upper
112	100		
77	57.4	25.7	85.7

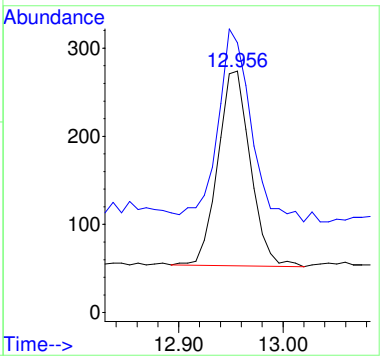


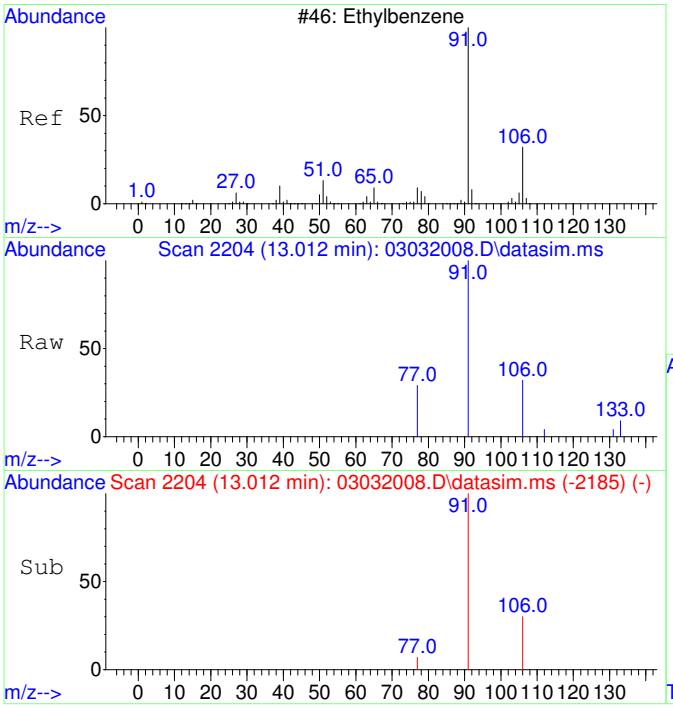


#17
1,1,1,2-Tetrachloroethane
Concen: 81.30 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 477

Ion	Ratio	Lower	Upper
131	100		
133	102.7	66.5	126.5

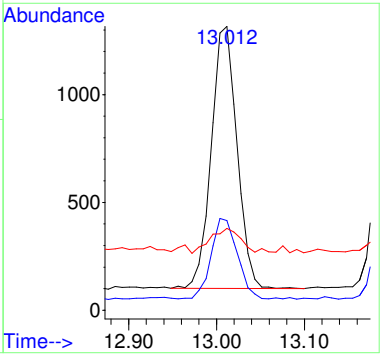


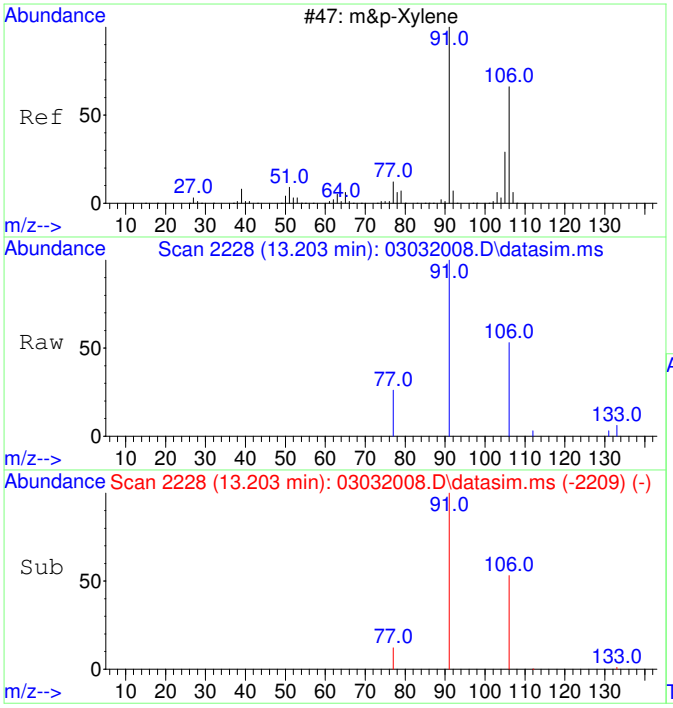


#18
Ethylbenzene
Concen: 85.06 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2464

Ion	Ratio	Lower	Upper
91	100		
106	31.2	2.7	62.7
77	11.6	0.0	38.3

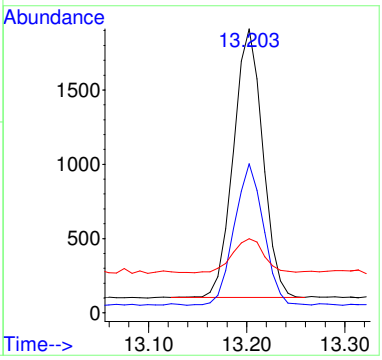


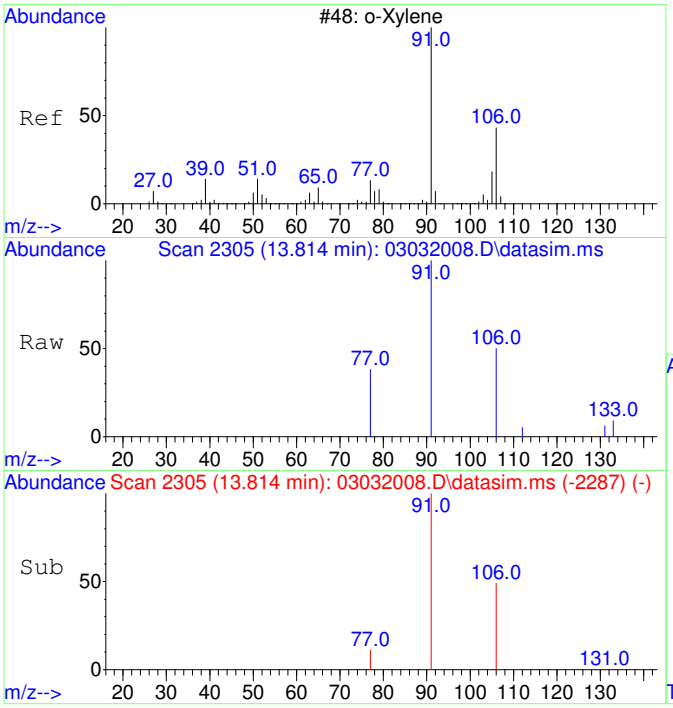


#19
m&p-Xylene
Concen: 170.96 ug/L
RT: 13.203 min Scan# 2228
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 3736

Ion	Ratio	Lower	Upper
91	100		
106	52.7	21.8	81.8
77	13.7	0.0	42.6

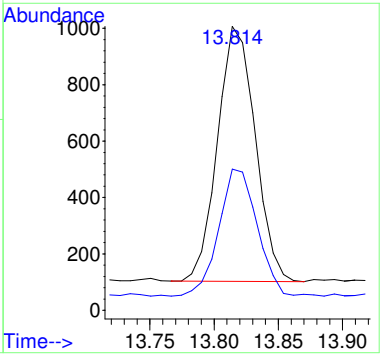


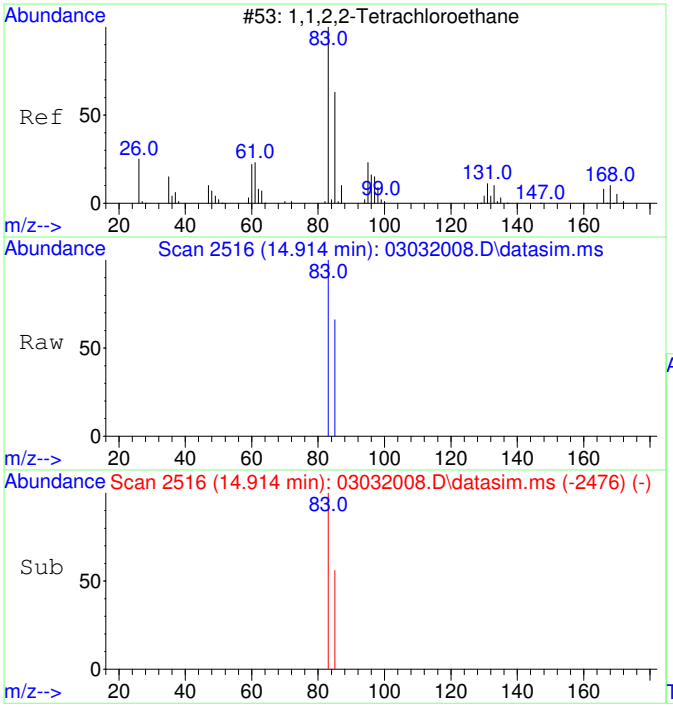


#20
o-Xylene
Concen: 78.47 ug/L
RT: 13.814 min Scan# 2305
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1839

Ion	Ratio	Lower	Upper
91	100		
106	50.8	18.8	78.8

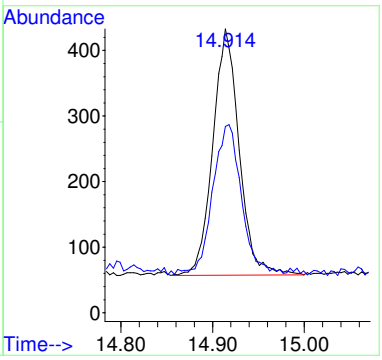


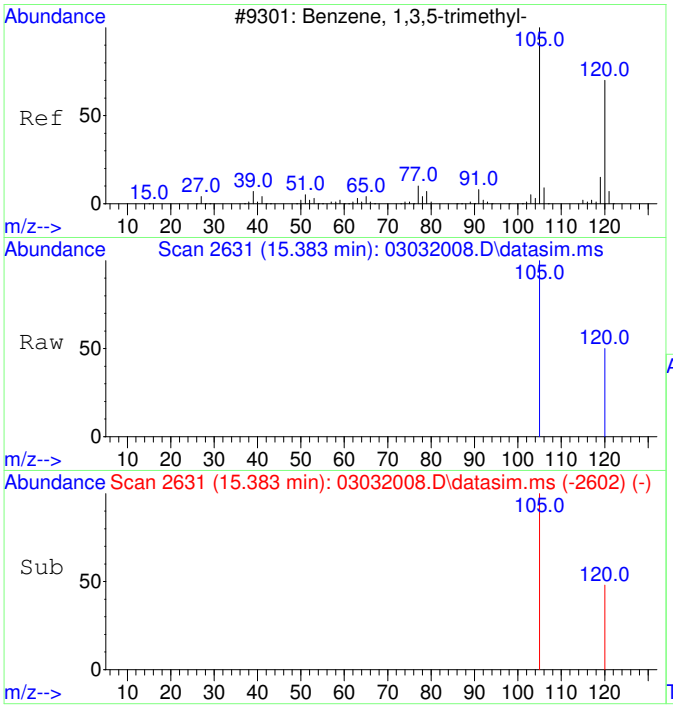


#21
1,1,2,2-Tetrachloroethane
Concen: 73.72 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 747

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.4	94.4

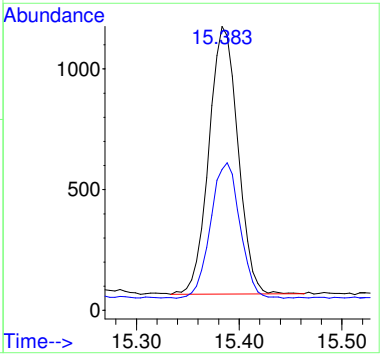


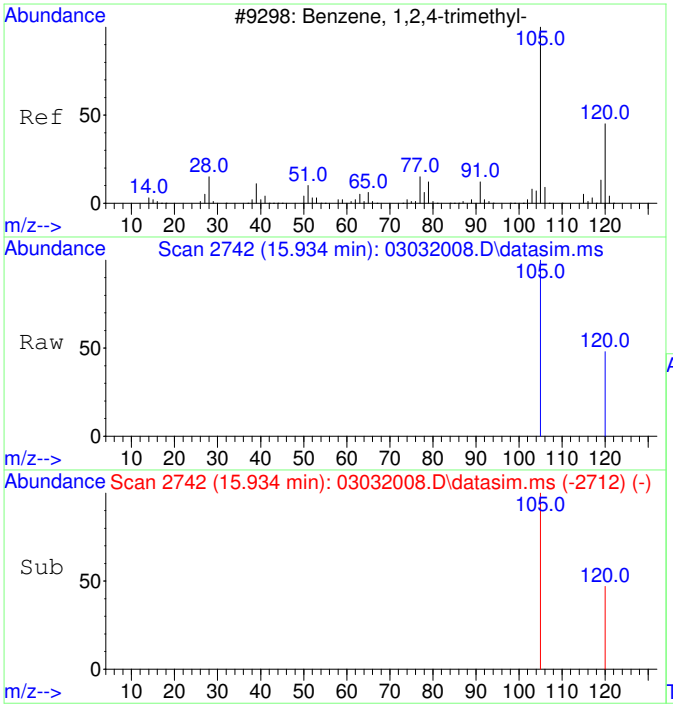


#22
1,3,5-Trimethylbenzene
Concen: 85.69 ug/L
RT: 15.383 min Scan# 2631
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2167

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

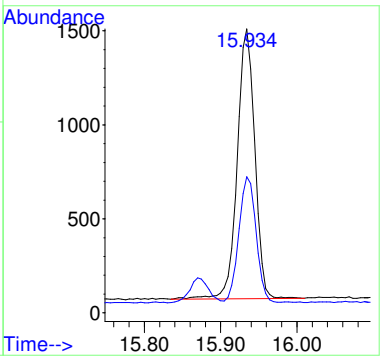


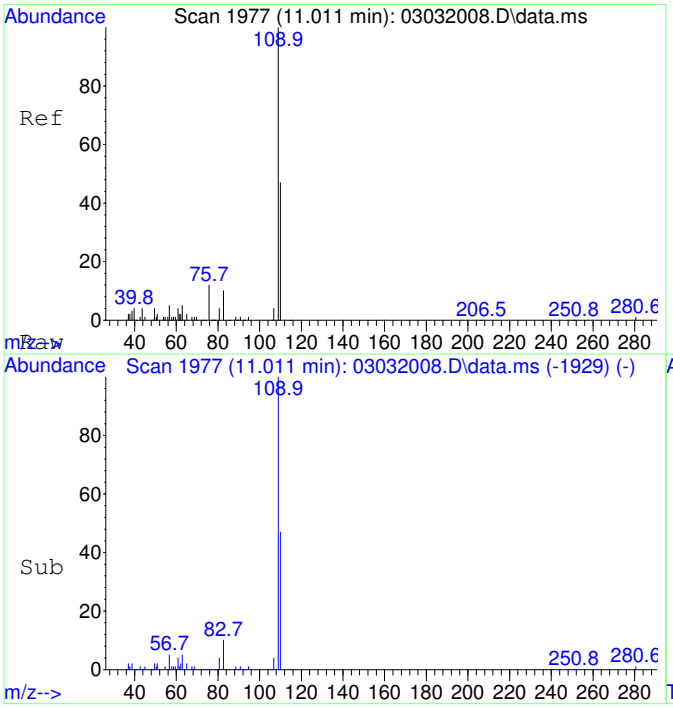


#23
1,2,4-Trimethylbenzene
Concen: 89.12 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2293

Ion	Ratio	Lower	Upper
105	100		
120	44.8	17.1	77.1

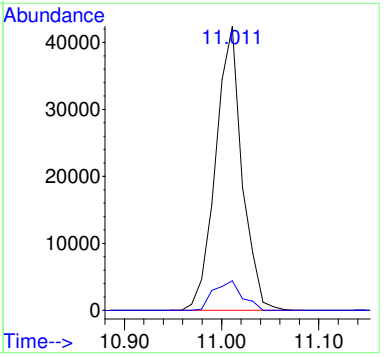


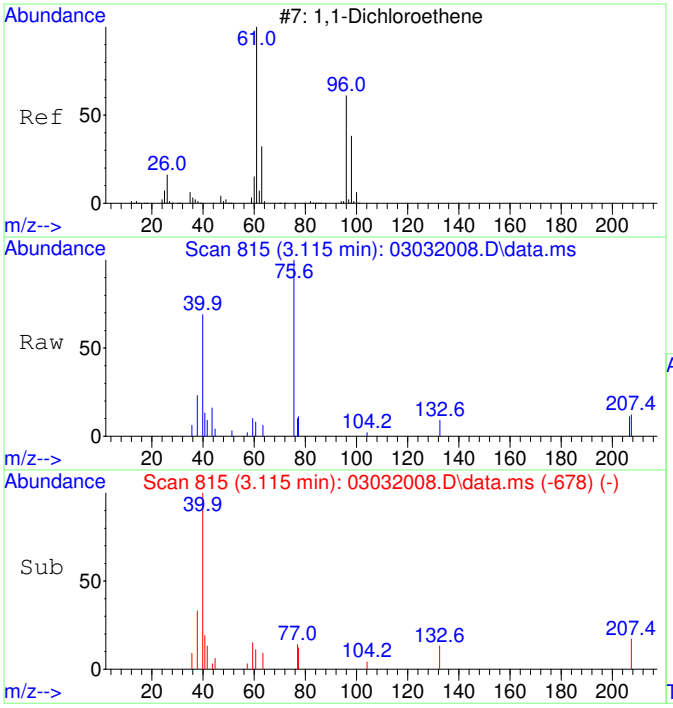


#25
2-Fluorotoluene SCAN
Concen: 5282.95 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 79979

Ion	Ratio	Lower	Upper
109	100		
83	11.2	0.0	44.7

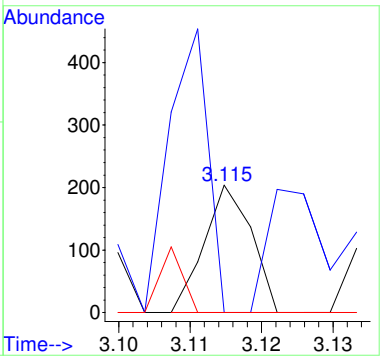


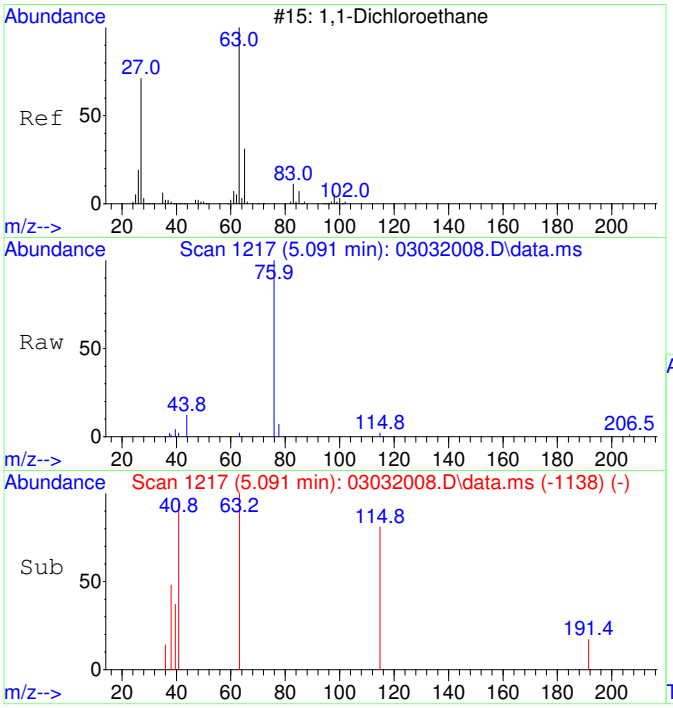


#26
1,1-Dichloroethene SCAN
Concen: 21.55 ug/L
RT: 3.115 min Scan# 815
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	184.0	34.7	94.7#
98	0.0	4.7	64.7#

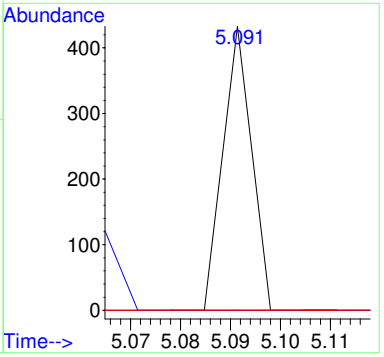


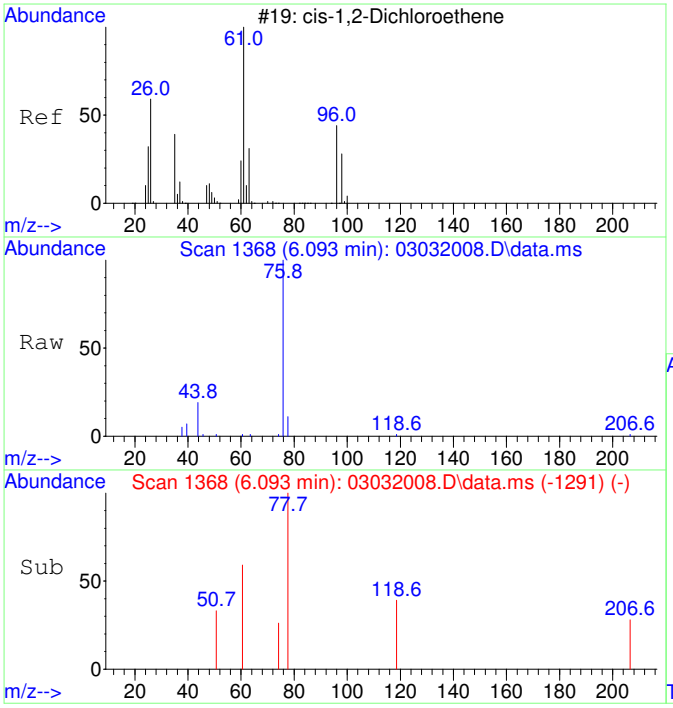


#28
1,1-Dichloroethane SCAN
Concen: 26.82 ug/L
RT: 5.091 min Scan# 1217
Delta R.T. 0.027 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 172

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.3
83	0.0	0.0	37.5

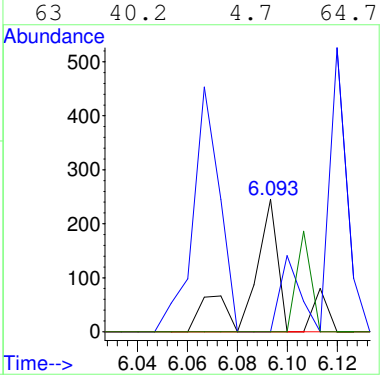


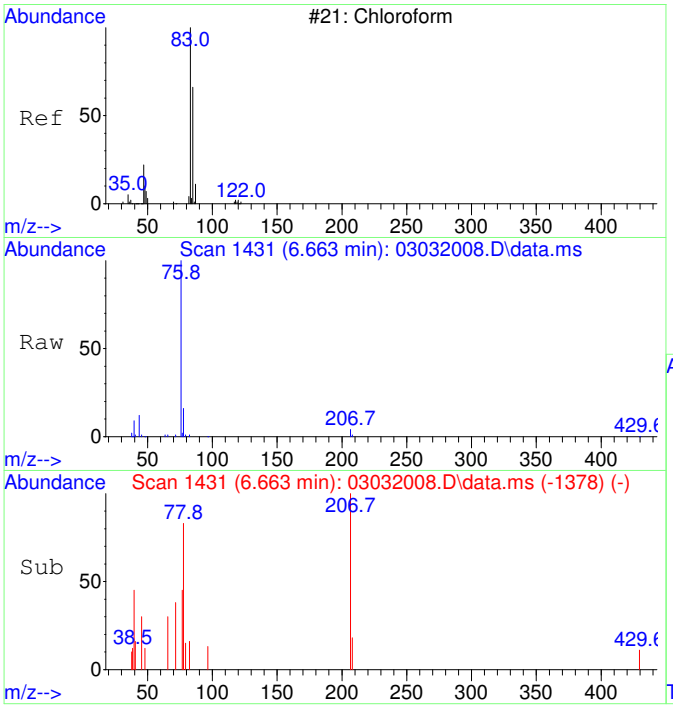


#29
cis-1,2-Dichloroethene SCAN
Concen: 36.56 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.013 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 184

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	40.2	4.7	64.7

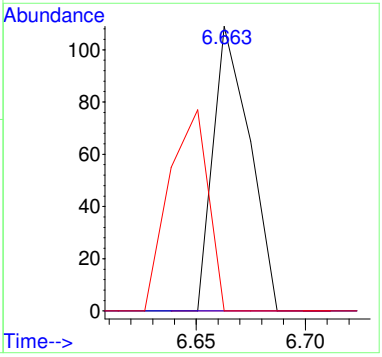


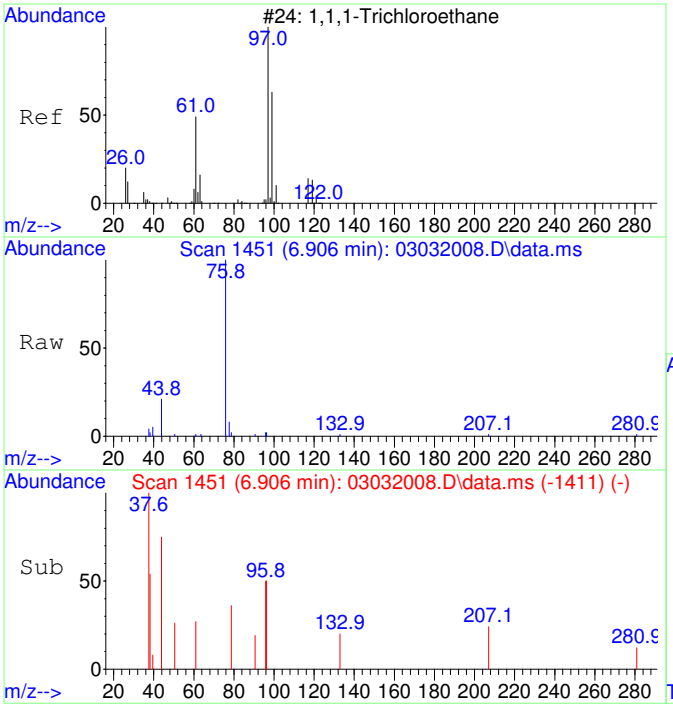


#30
Chloroform SCAN
Concen: 22.80 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 127

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	75.6	0.0	58.1#

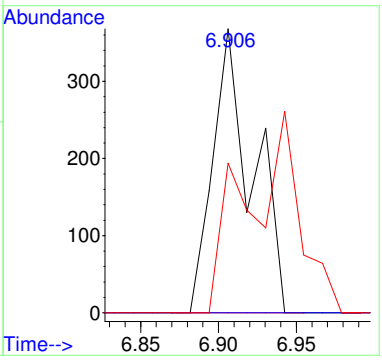


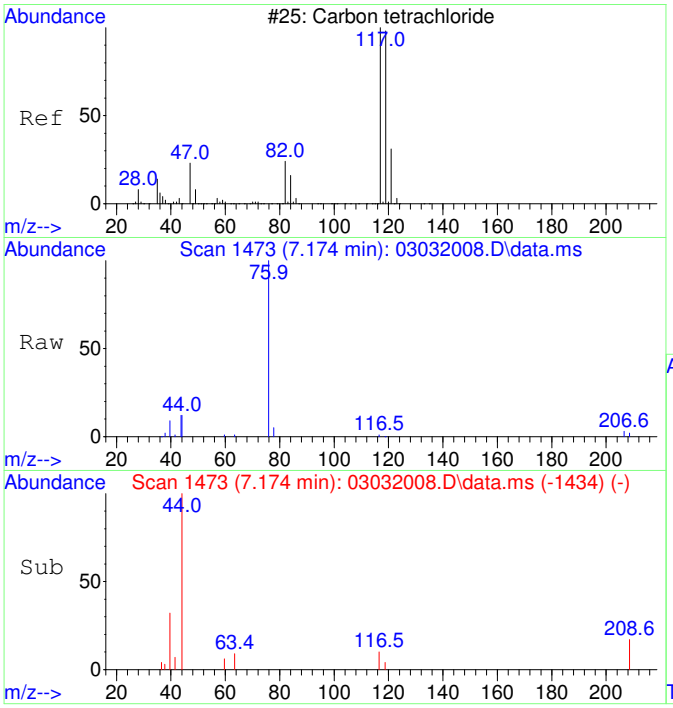


#31
1,1,1-Trichloroethane SCAN
Concen: 116.91 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 653

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

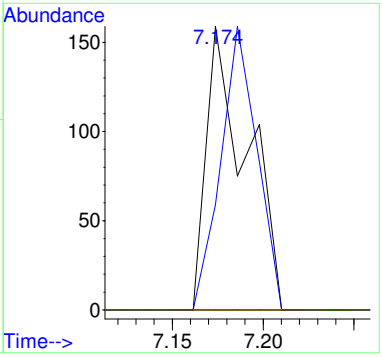


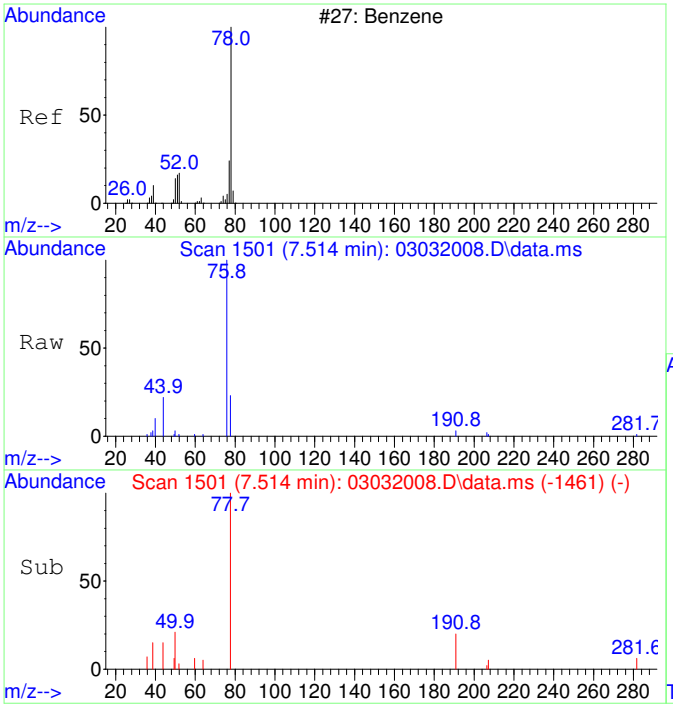


#32
Carbon tetrachloride SCAN
Concen: 43.28 ug/L
RT: 7.174 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 247

Ion	Ratio	Lower	Upper
117	100		
119	89.1	56.4	116.4
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

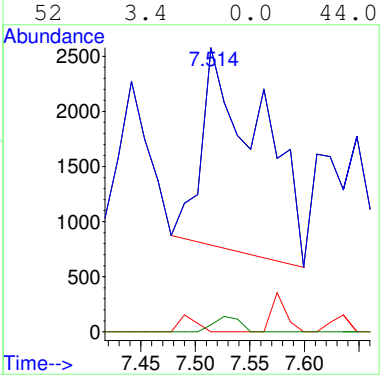


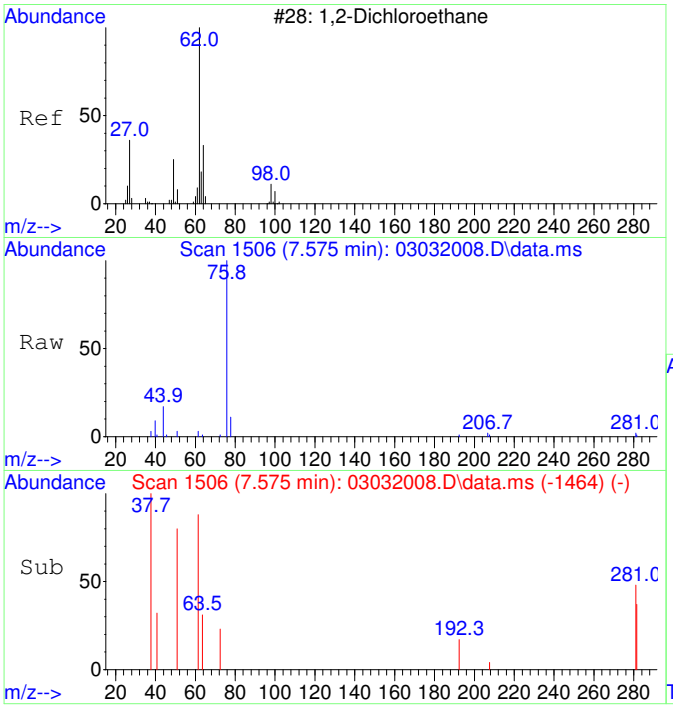


#33
Benzene SCAN
Concen: 455.42 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 6732

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	3.4	0.0	44.0

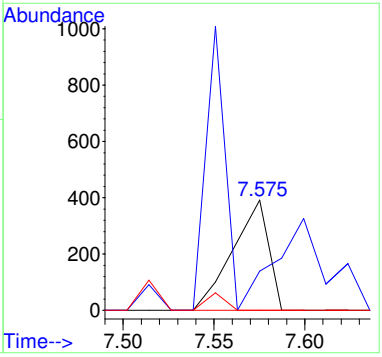


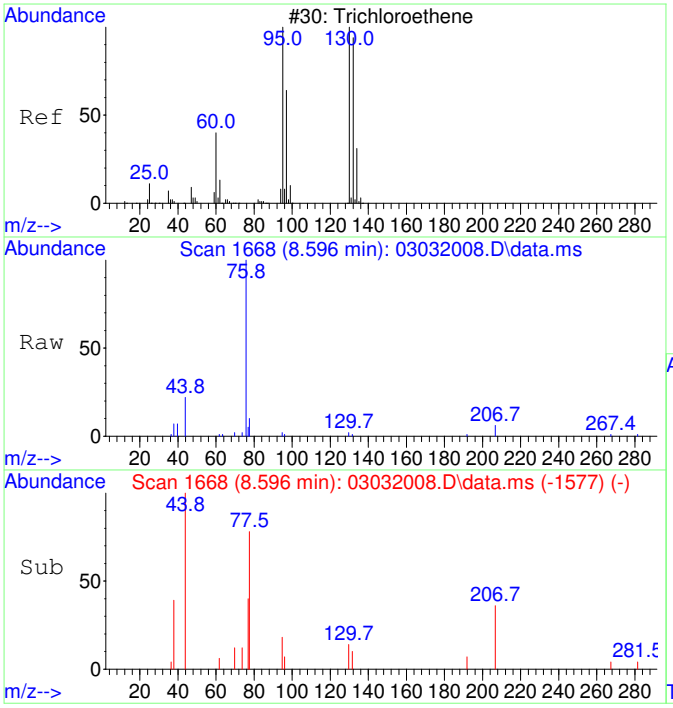


#34
1,2-Dichloroethane SCAN
Concen: 124.79 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 539

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

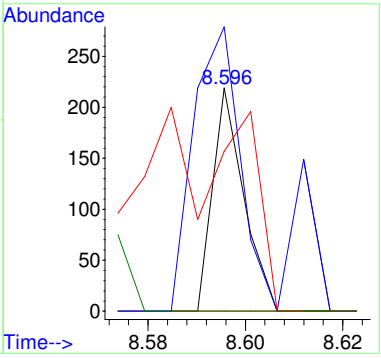


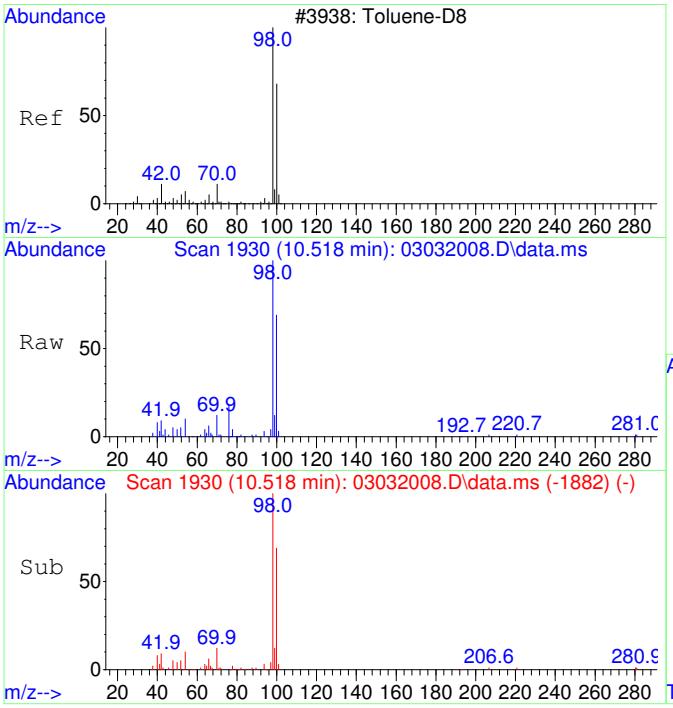


#35
Trichloroethene SCAN
Concen: 25.46 ug/L
RT: 8.596 min Scan# 1668
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 96

Ion	Ratio	Lower	Upper
130	100		
95	193.8	58.2	118.2#
132	296.9	69.1	129.1#
97	0.0	37.8	97.8#

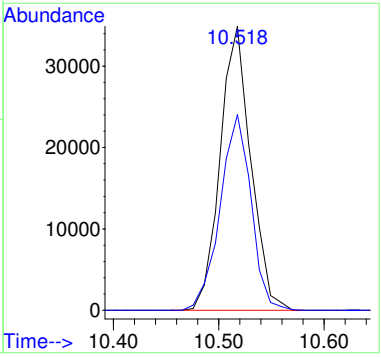


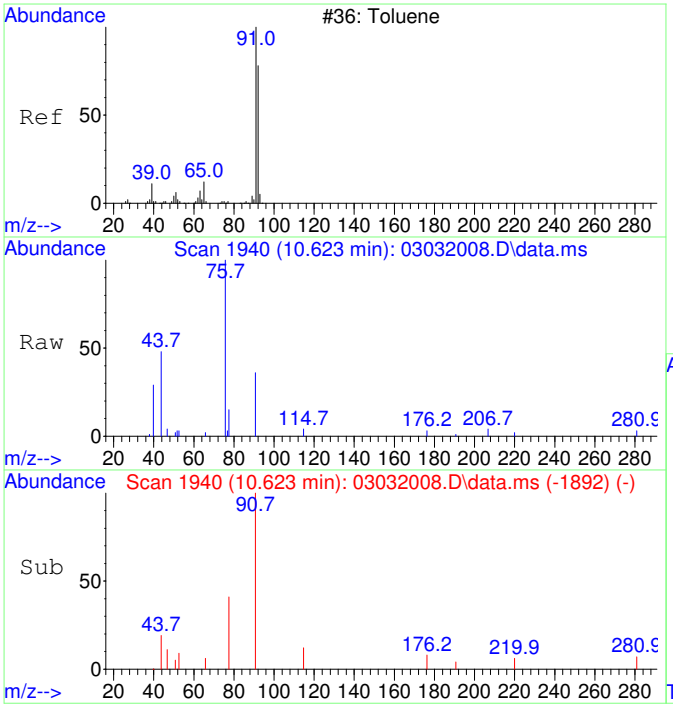


#36
Toluene-d8 SCAN
Concen: 5010.62 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 70682

Ion	Ratio	Lower	Upper
98	100		
100	69.3	38.3	98.3

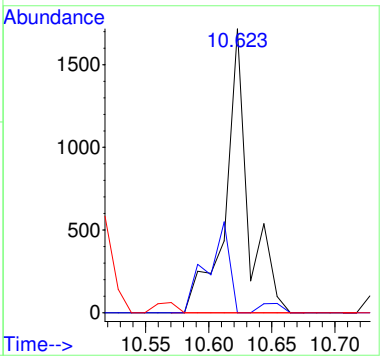


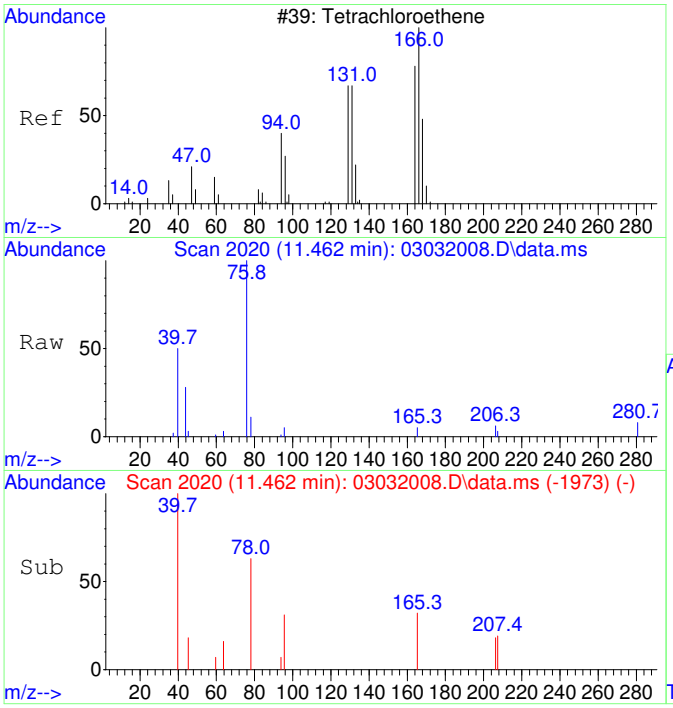


#37
Toluene SCAN
Concen: 126.36 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2186

Ion	Ratio	Lower	Upper
91	100		
92	30.8	21.2	81.2
65	0.0	0.0	41.4

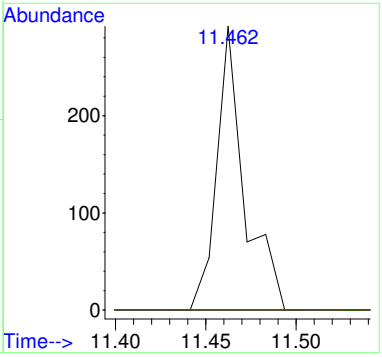


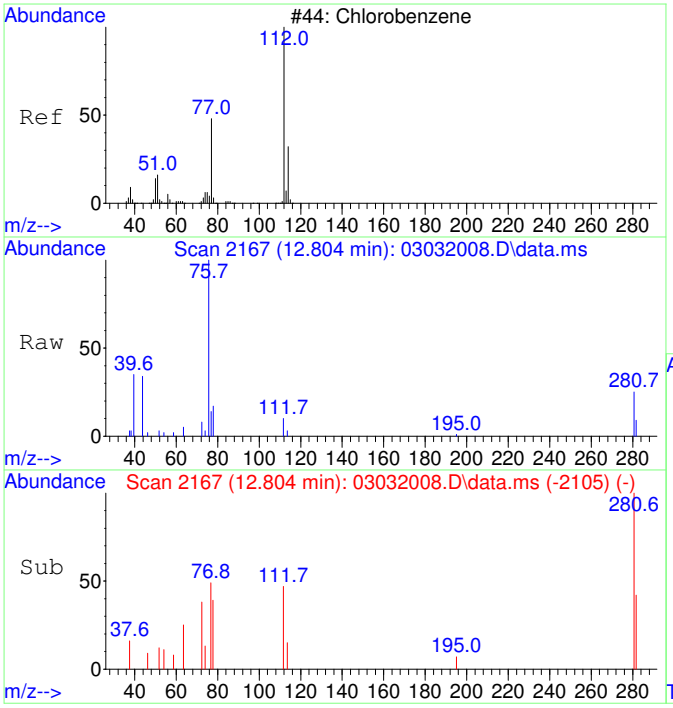


#39
Tetrachloroethene SCAN
Concen: 64.06 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 311

Ion	Ratio	Lower	Upper
166	100		
164	0.0	43.5	103.5#
131	0.0	37.6	97.6#
129	0.0	40.5	100.5#

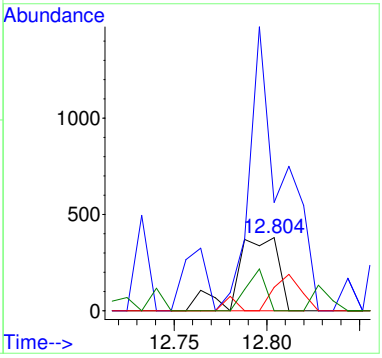


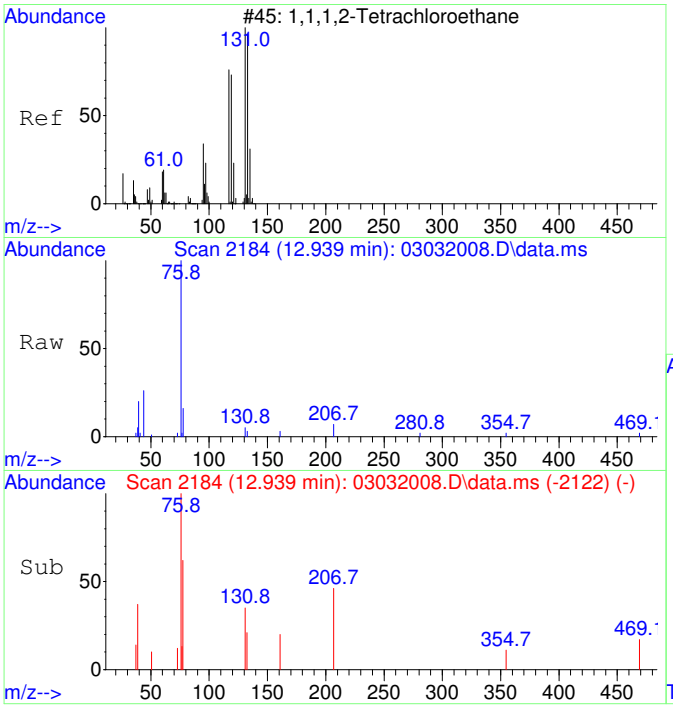


#40
Chlorobenzene SCAN
Concen: 55.14 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 601

Ion	Ratio	Lower	Upper
112	100		
77	301.5	33.6	93.6#
114	0.0	5.6	65.6#
51	26.1	0.0	52.4

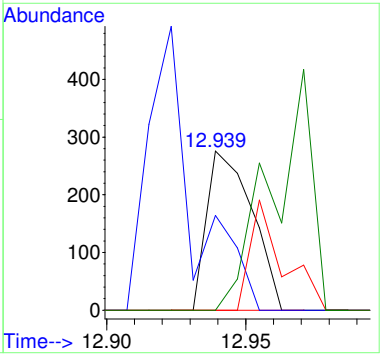


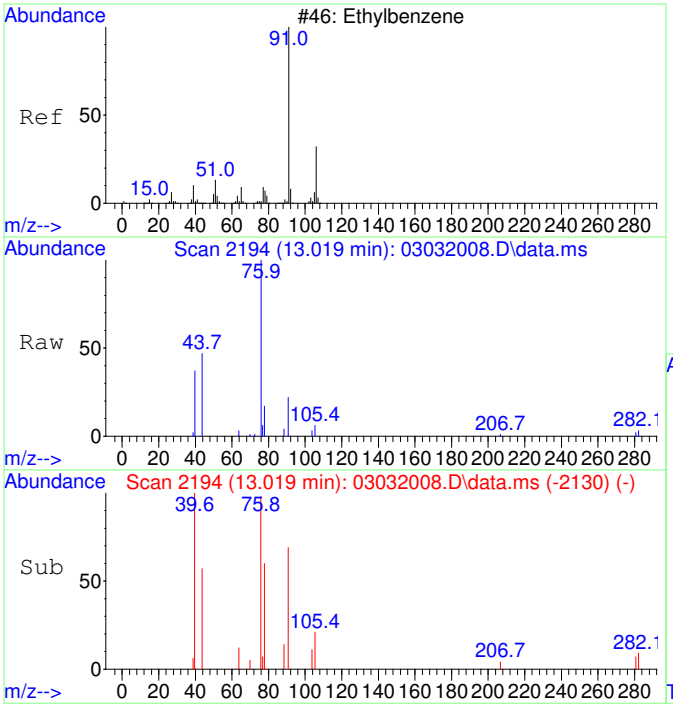


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 78.02 ug/L
RT: 12.939 min Scan# 2184
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	0.0	61.4	121.4#
119	49.8	33.0	93.0
117	0.0	35.3	95.3#

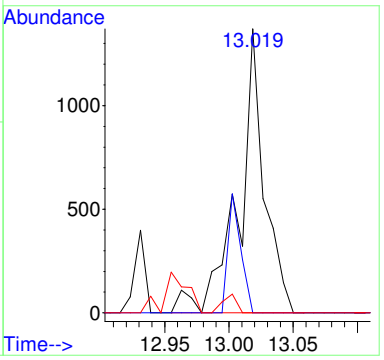


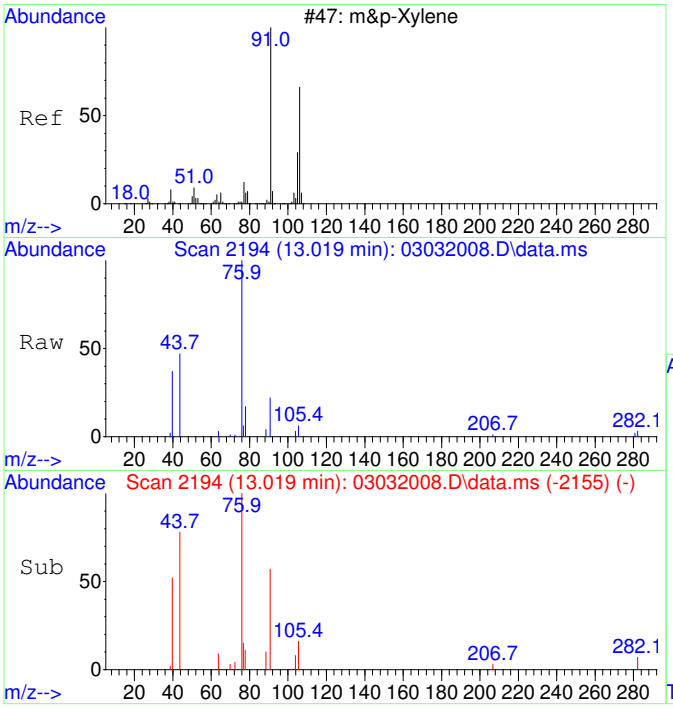


#42
Ethylbenzene SCAN
Concen: 98.98 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1898

Ion	Ratio	Lower	Upper
91	100		
106	20.9	2.2	62.2
51	3.6	0.0	40.6

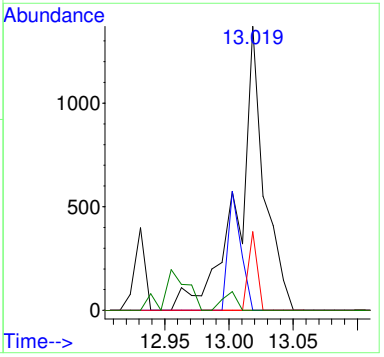


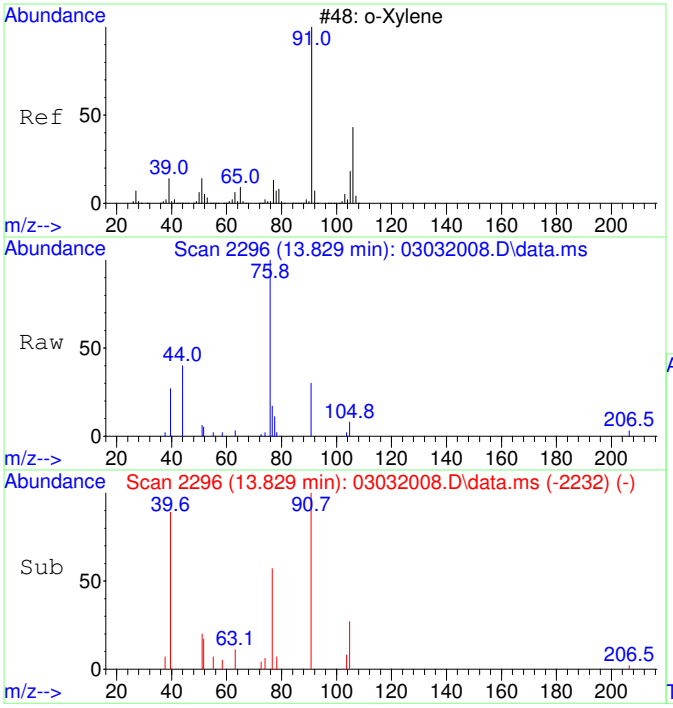


#43
m&p-Xylene SCAN
Concen: 70.95 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. -0.191 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1931

Ion	Ratio	Lower	Upper
91	100		
106	20.5	19.7	79.7
105	9.4	0.0	55.1
51	3.6	0.0	41.3

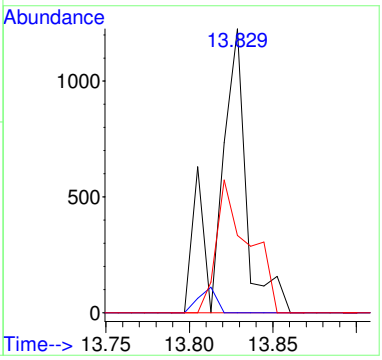


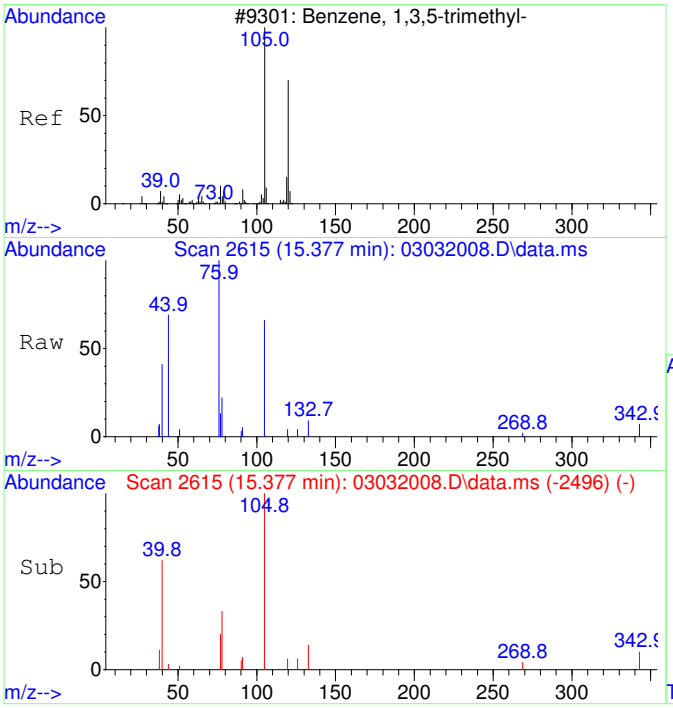


#44
o-Xylene SCAN
Concen: 98.43 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1426

Ion	Ratio	Lower	Upper
91	100		
106	5.8	18.1	78.1#
105	54.6	0.0	54.4#

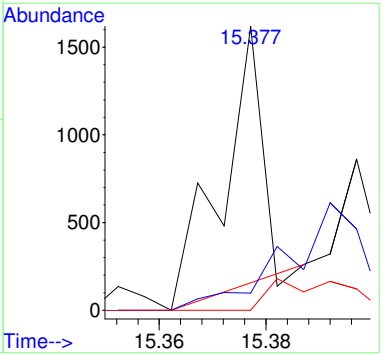


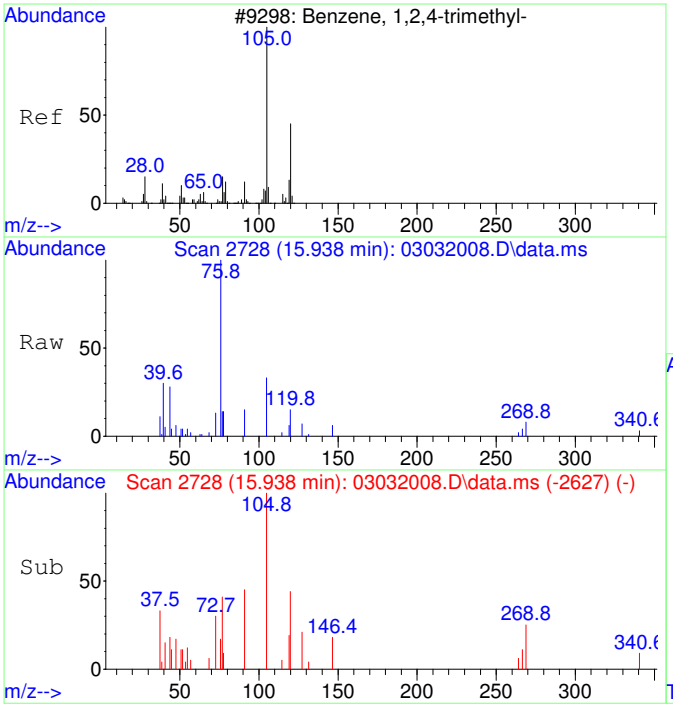


#46
1,3,5-Trimethylbenzene SCAN
Concen: 51.64 ug/L
RT: 15.377 min Scan# 2615
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 766

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	22.2	0.0	43.4

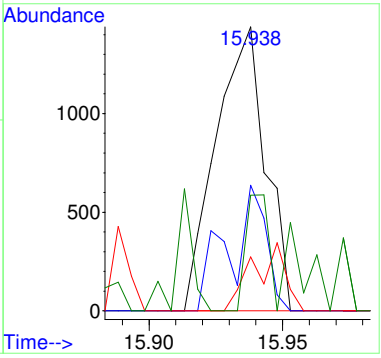




#47
1,2,4-Trimethylbenzene SCAN
Concen: 118.07 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 1862

Ion	Ratio	Lower	Upper
105	100		
120	33.2	12.9	72.9
119	15.6	0.0	41.4
77	18.8	0.0	42.1



Quantitation Report (QT Reviewed)

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M.I. Performed
TD at 12:39 pm, Mar 03, 2020

M.I. Approved By:
ZR at 3:42 pm, Mar 09, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

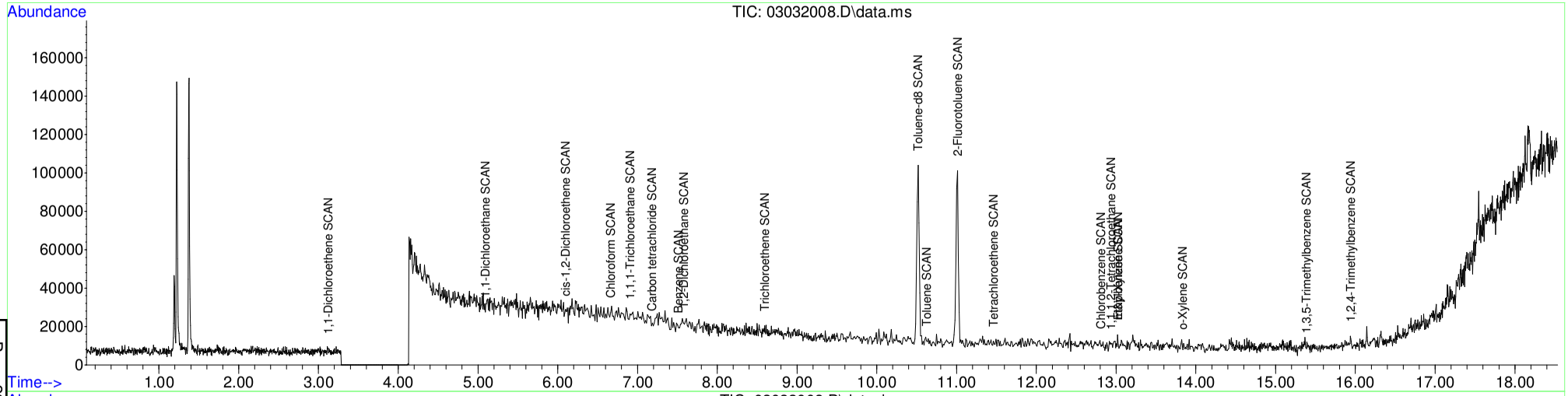
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	122847	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.509	98	107088	5095.32 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.91%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	278m	44.54 ug/L	
3] trans-1,2-Dichloroethene	4.303	61	329	51.23 ug/L	91
4] 1,1-Dichloroethane	5.059	63	435	54.27 ug/L	90
5] cis-1,2-Dichloroethene	6.075	61	415	55.34 ug/L	90
6] Chloroform	6.652	83	462	55.51 ug/L	99
7] 1,1,1-Trichloroethane	6.920	97	489	60.41 ug/L	88
8] Carbon tetrachloride	7.187	117	460	64.56 ug/L	99
9] Benzene	7.516	78	1364	67.17 ug/L	81
10] 1,2-Dichloroethane	7.564	62	430	64.19 ug/L	69
11] Trichloroethene	8.597	130	399	68.67 ug/L	92
13] Toluene	10.614	91	1925	77.96 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	386	69.31 ug/L	86
15] Tetrachloroethene	11.464	166	529	78.17 ug/L	96
16] Chlorobenzene	12.805	112	1310	73.57 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.956	131	477	81.30 ug/L	94
18] Ethylbenzene	13.012	91	2464	85.06 ug/L	96
19] m&p-Xylene	13.203	91	3736	170.96 ug/L	98
20] o-Xylene	13.814	91	1839	78.47 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.914	83	747	73.72 ug/L	98
22] 1,3,5-Trimethylbenzene	15.383	105	2167	85.69 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	2293	89.12 ug/L	97
25) 2-Fluorotoluene SCAN	11.011	109	79979	5282.95 ug/L	92
26) 1,1-Dichloroethene SCAN	3.115	61	94	21.55 ug/L #	1
28) 1,1-Dichloroethane SCAN	5.091	63	172	26.82 ug/L #	52
29) cis-1,2-Dichloroethene...	6.093	61	184	36.56 ug/L #	34
30) Chloroform SCAN	6.663	83	127	22.80 ug/L #	12
31) 1,1,1-Trichloroethane ...	6.906	97	653	116.91 ug/L #	24
32) Carbon tetrachloride SCAN	7.174	117	247	43.28 ug/L #	76
33) Benzene SCAN	7.514	78	6732	455.42 ug/L #	91
34) 1,2-Dichloroethane SCAN	7.575	62	539	124.79 ug/L #	36
35) Trichloroethene SCAN	8.596	130	96	25.46 ug/L #	1
36) Toluene-d8 SCAN	10.518	98	70682	5010.62 ug/L	99
37) Toluene SCAN	10.623	91	2186	126.36 ug/L #	71
39) Tetrachloroethene SCAN	11.462	166	311	64.06 ug/L #	14
40) Chlorobenzene SCAN	12.804	112	601	55.14 ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.939	131	313	78.02 ug/L #	31
42) Ethylbenzene SCAN	13.019	91	1898	98.98 ug/L	80
43) m&p-Xylene SCAN	13.019	91	1931	70.95 ug/L	64
44) o-Xylene SCAN	13.829	91	1426	98.43 ug/L #	38
46) 1,3,5-Trimethylbenzene...	15.377	105	766	51.64 ug/L #	39
47) 1,2,4-Trimethylbenzene...	15.938	105	1862	118.07 ug/L	85

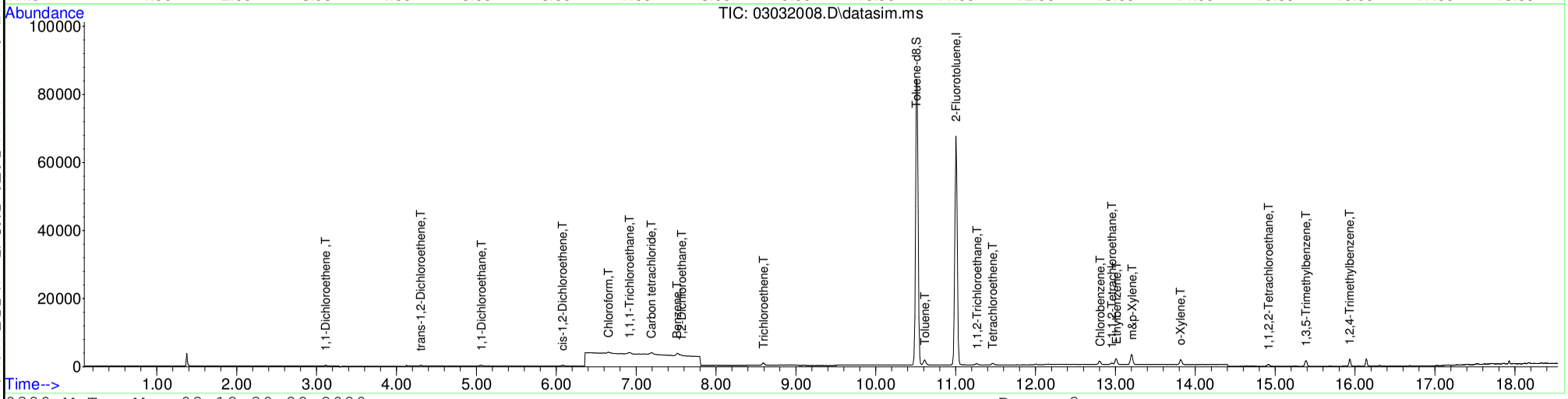
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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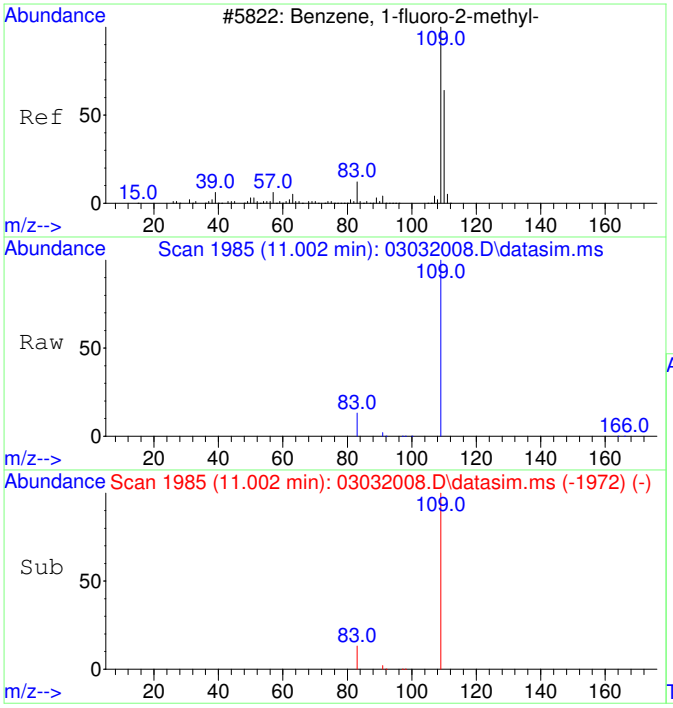
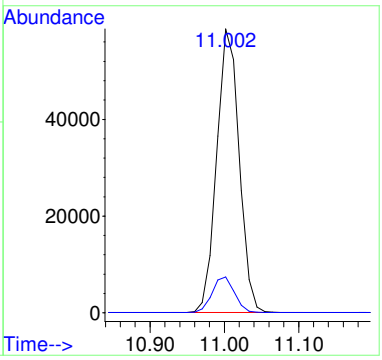
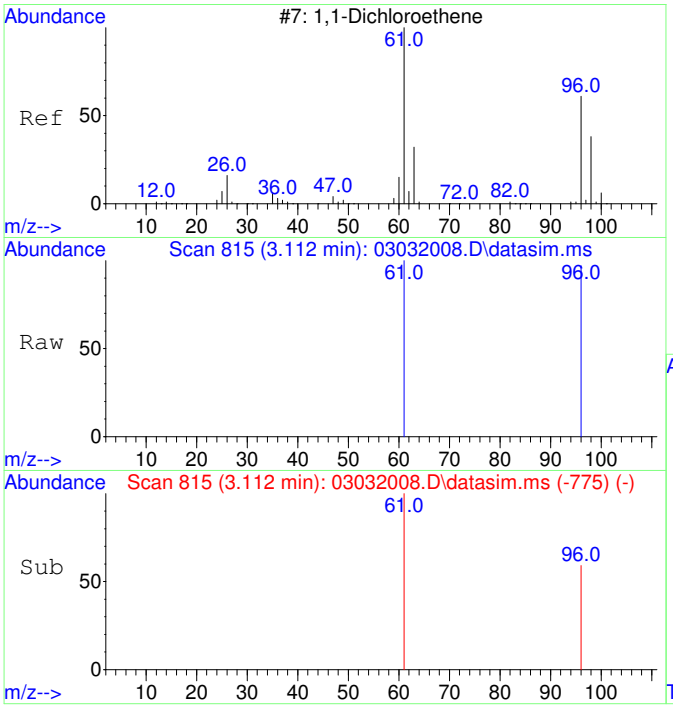


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 122847

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.2

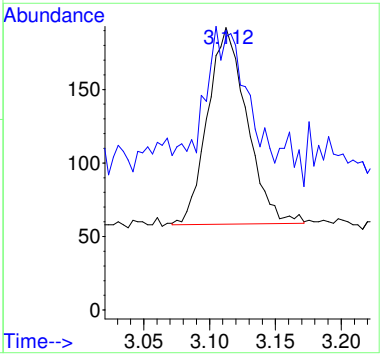


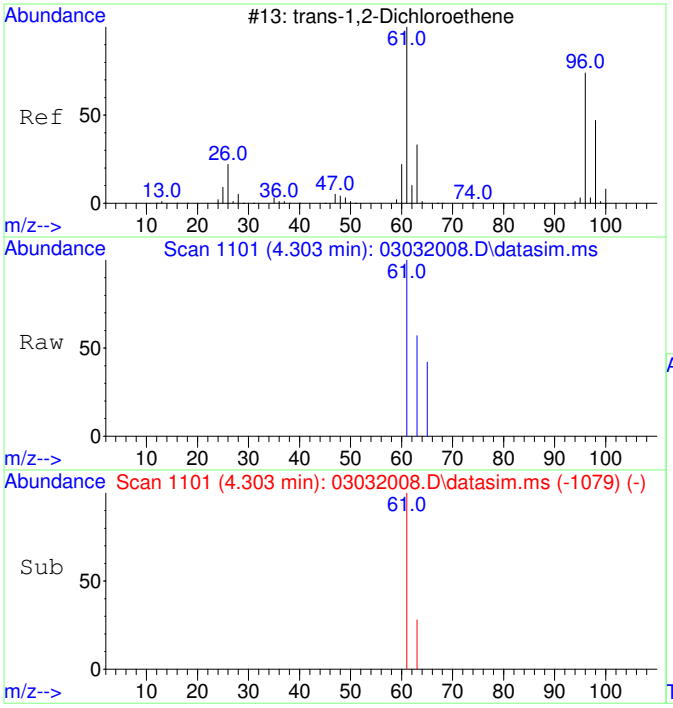


#2
1,1-Dichloroethene
Concen: 44.54 ug/L m
RT: 3.112 min Scan# 815
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 278

Ion	Ratio	Lower	Upper
61	100		
96	82.4	33.2	93.2

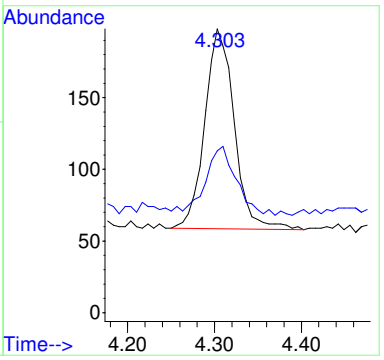


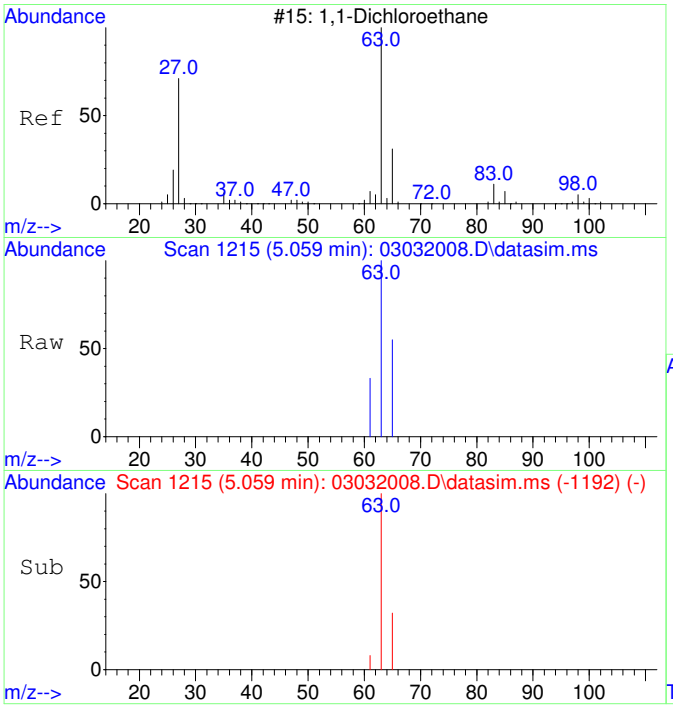


#3
trans-1,2-Dichloroethene
Concen: 51.23 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 329

Ion	Ratio	Lower	Upper
61	100		
63	37.1	2.3	62.3

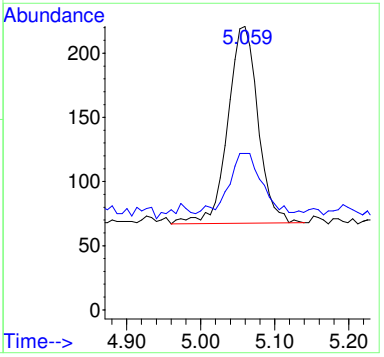


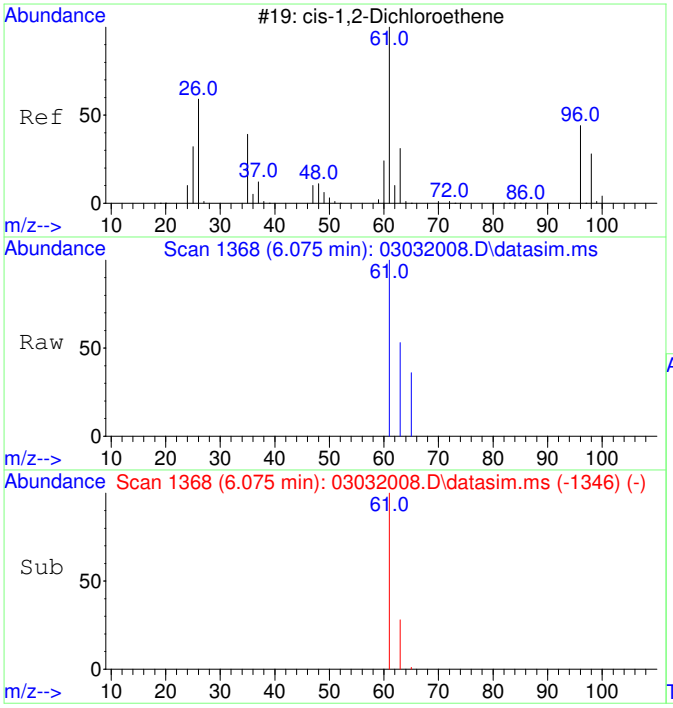


#4
1,1-Dichloroethane
Concen: 54.27 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 435

Ion	Ratio	Lower	Upper
63	100		
65	37.5	1.7	61.7

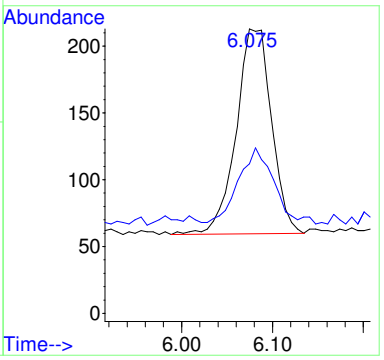


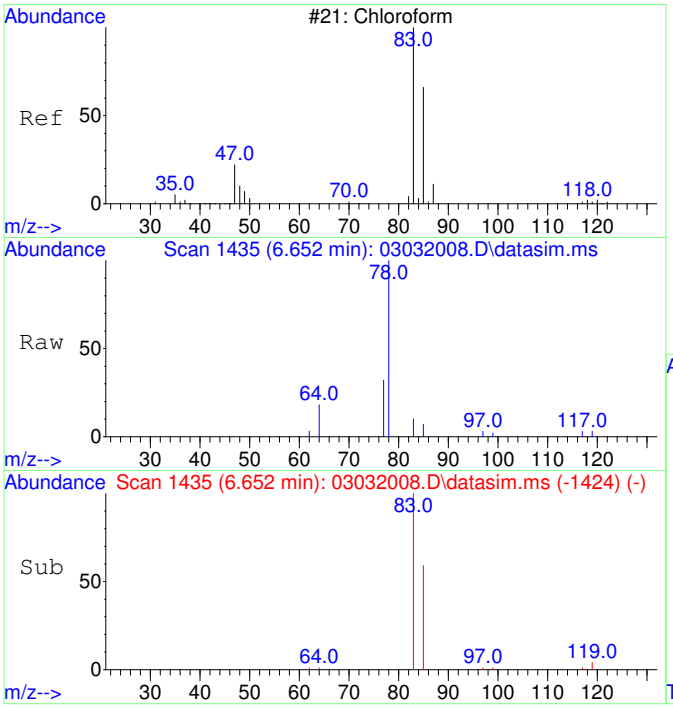


#5
cis-1,2-Dichloroethene
Concen: 55.34 ug/L
RT: 6.075 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 415

Ion	Ratio	Lower	Upper
61	100		
63	38.3	2.6	62.6

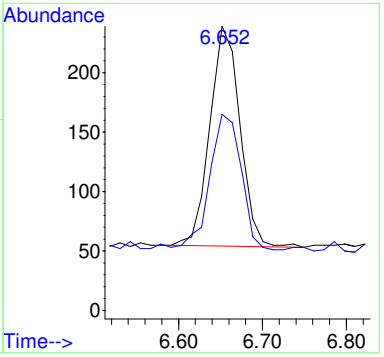


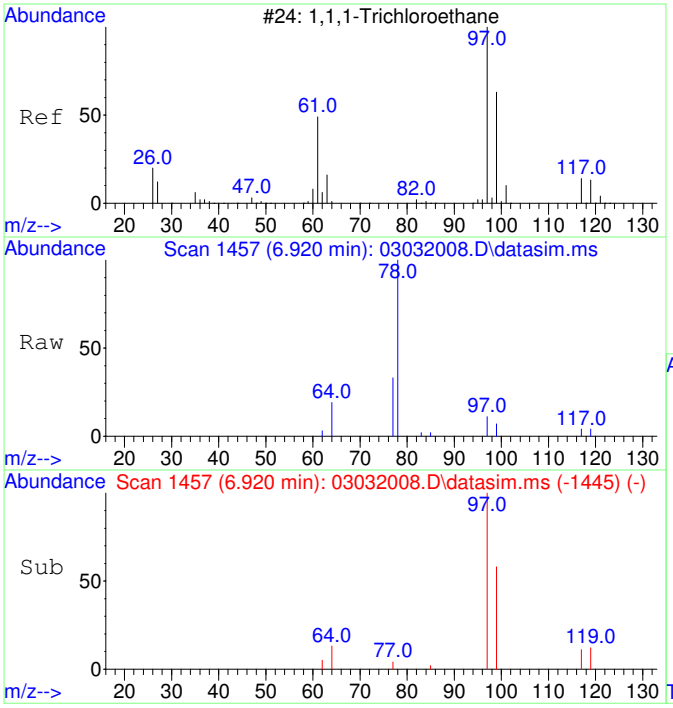


#6
Chloroform
Concen: 55.51 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 462

Ion	Ratio	Lower	Upper
83	100		
85	64.3	34.7	94.7

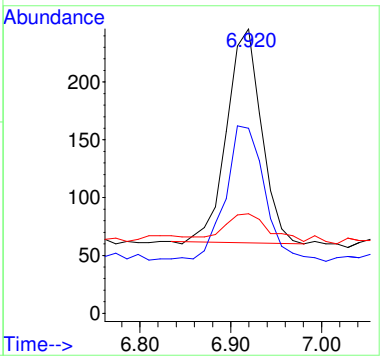


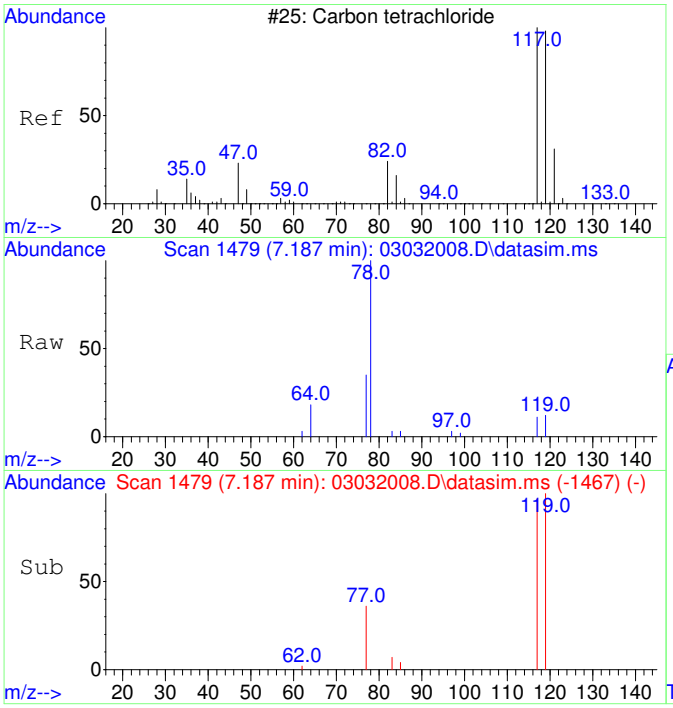


#7
1,1,1-Trichloroethane
Concen: 60.41 ug/L
RT: 6.920 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 489

Ion	Ratio	Lower	Upper
97	100		
99	72.2	34.4	94.4
117	20.7	0.0	42.8

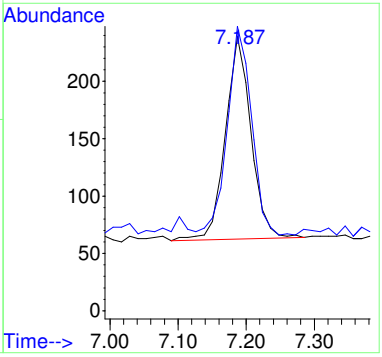


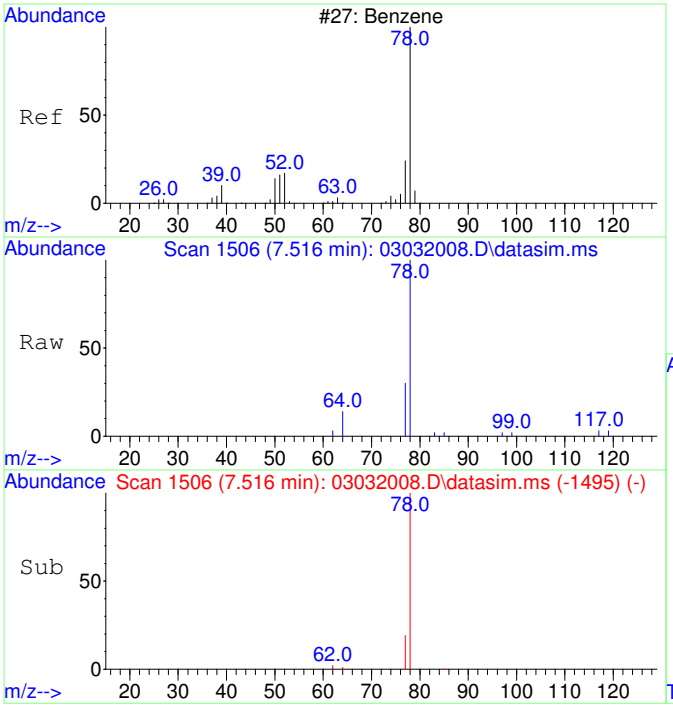


#8
Carbon tetrachloride
Concen: 64.56 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 460

Ion	Ratio	Lower	Upper
117	100		
119	97.2	66.1	126.1

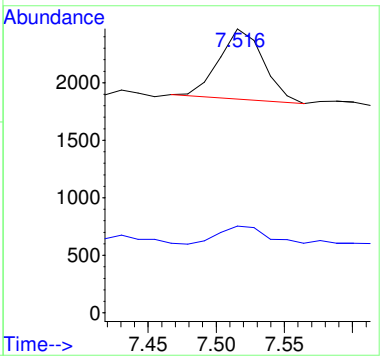


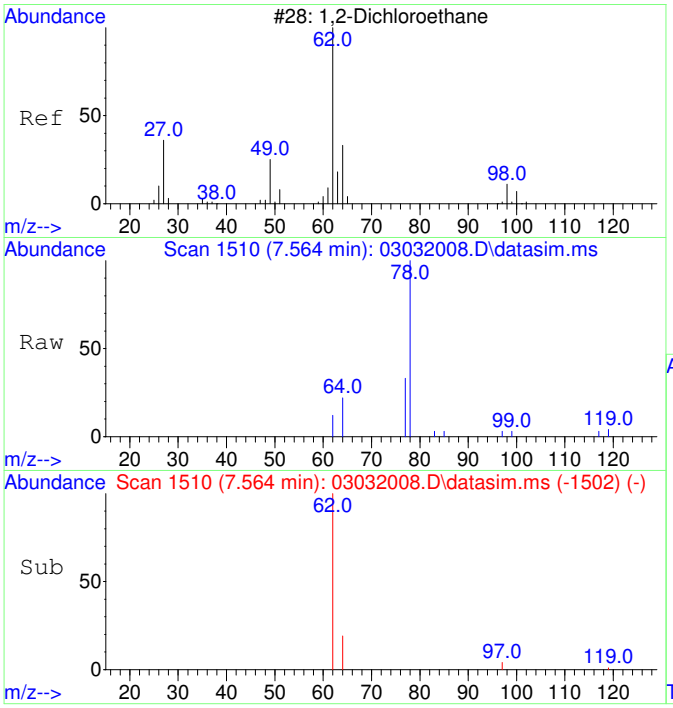


#9
Benzene
Concen: 67.17 ug/L
RT: 7.516 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 1364

Ion	Ratio	Lower	Upper
78	100		
77	33.1	0.0	53.6

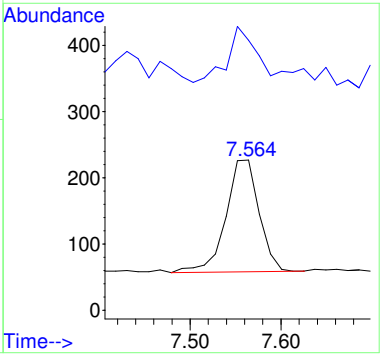


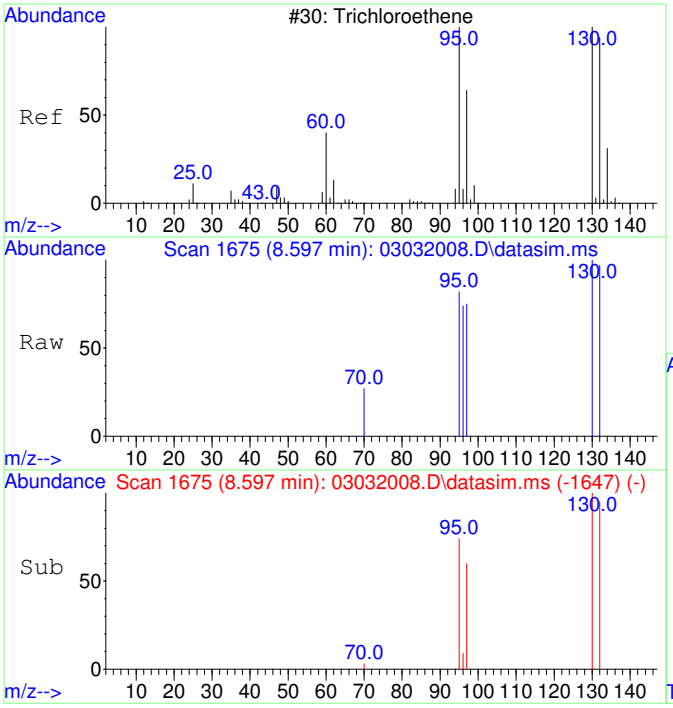


#10
1,2-Dichloroethane
Concen: 64.19 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 430

Ion	Ratio	Lower	Upper
62	100		
64	50.0	2.4	62.4

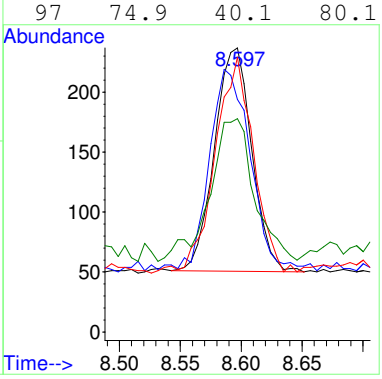


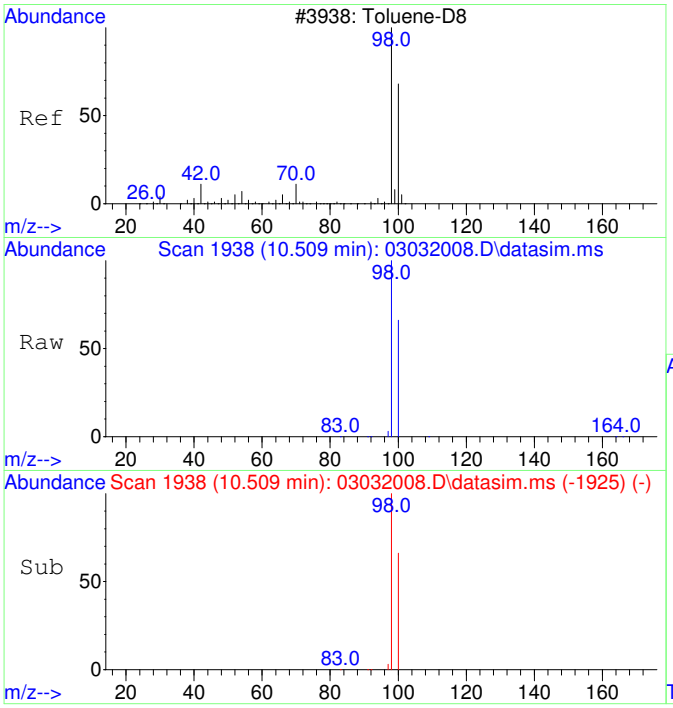


#11
Trichloroethene
Concen: 68.67 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 399

Ion	Ratio	Lower	Upper
130	100		
95	100.0	63.8	123.8
132	99.2	75.9	115.9
97	74.9	40.1	80.1

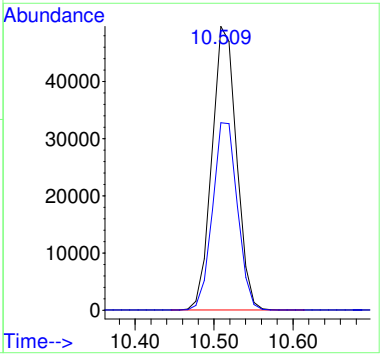


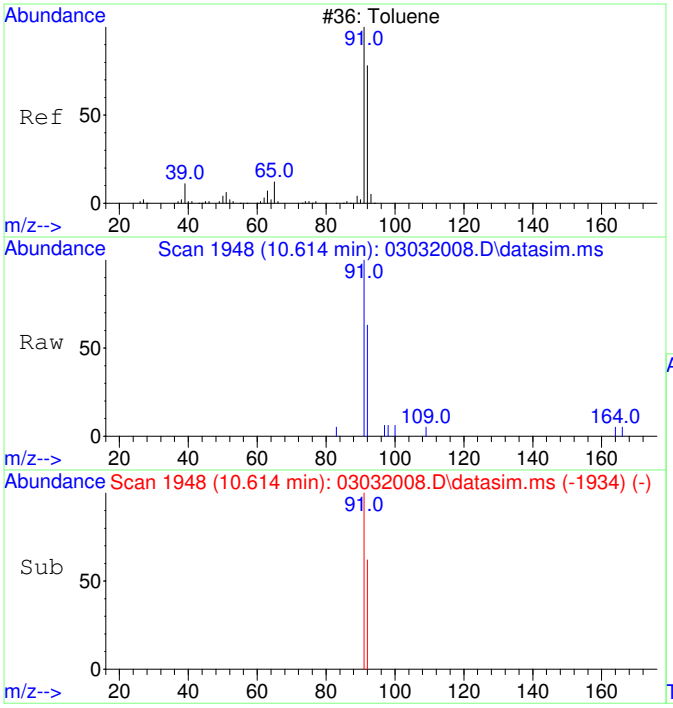


#12
Toluene-d8
Concen: 5095.32 ug/L
RT: 10.509 min Scan# 1938
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 107088

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.5	96.5

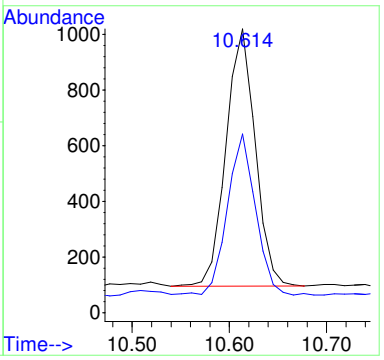


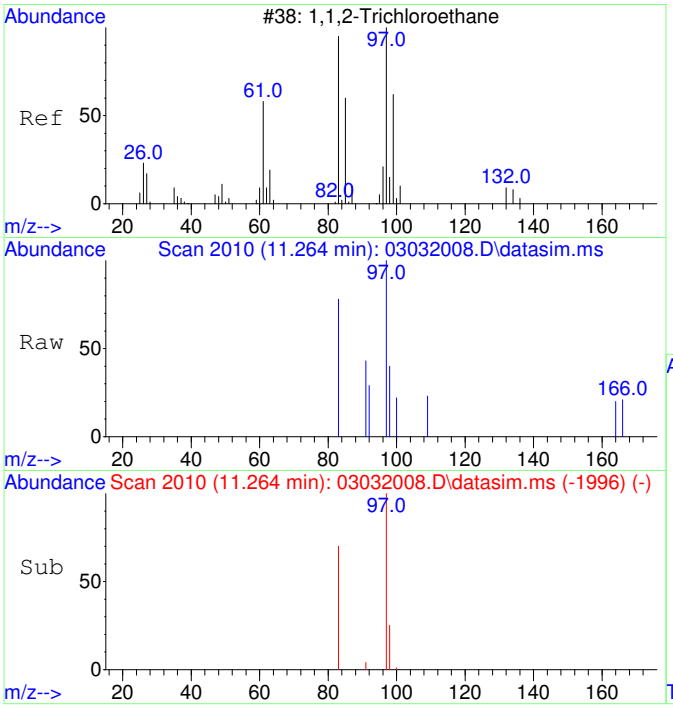


#13
Toluene
Concen: 77.96 ug/L
RT: 10.614 min Scan# 1948
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1925

Ion	Ratio	Lower	Upper
91	100		
92	59.1	29.7	89.7

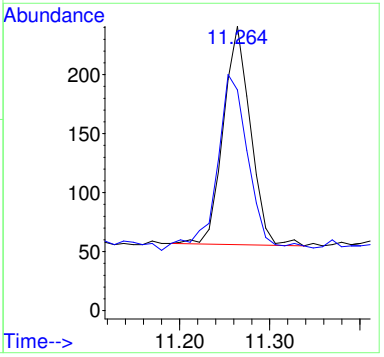


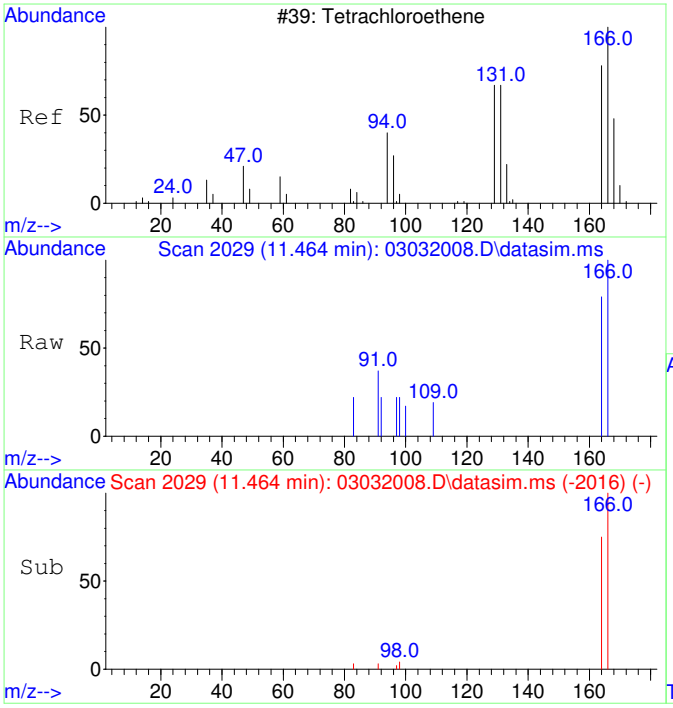


#14
1,1,2-Trichloroethane
Concen: 69.31 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 386

Ion	Ratio	Lower	Upper
97	100		
83	94.8	51.9	111.9

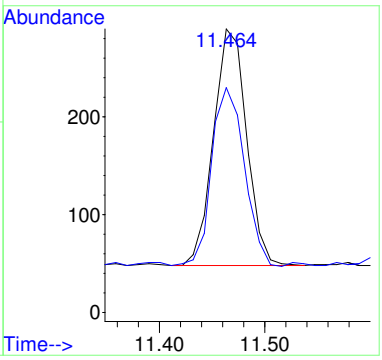


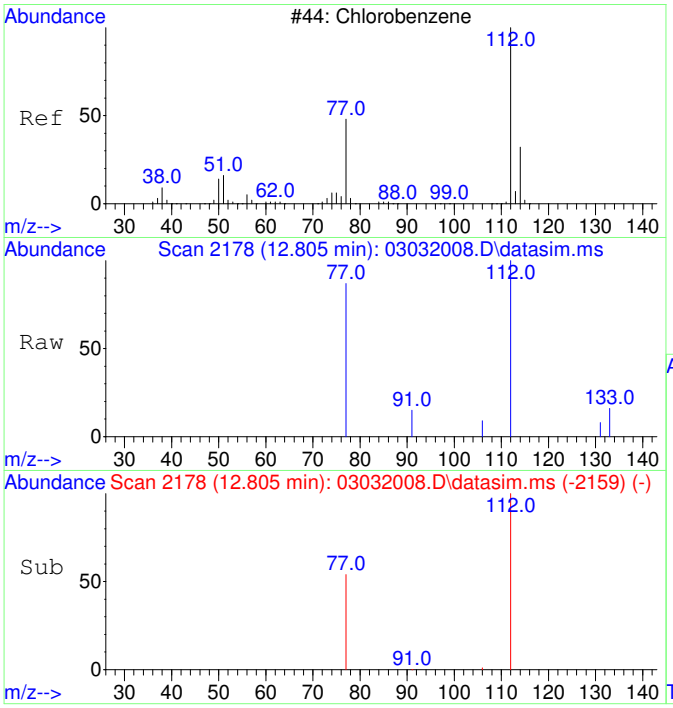


#15
Tetrachloroethene
Concen: 78.17 ug/L
RT: 11.464 min Scan# 2029
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 529

Ion	Ratio	Lower	Upper
166	100		
164	74.5	47.9	107.9

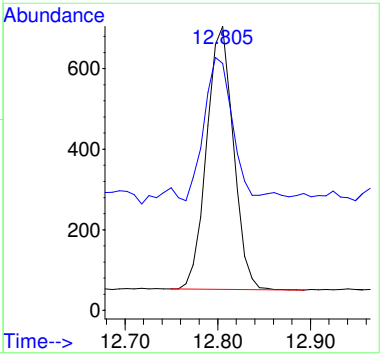


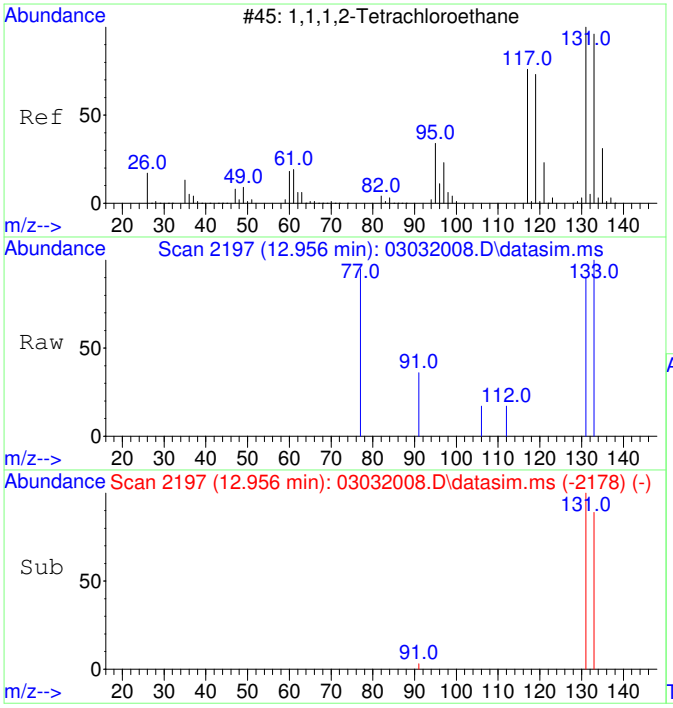


#16
Chlorobenzene
Concen: 73.57 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 1310

Ion	Ratio	Lower	Upper
112	100		
77	57.4	25.7	85.7

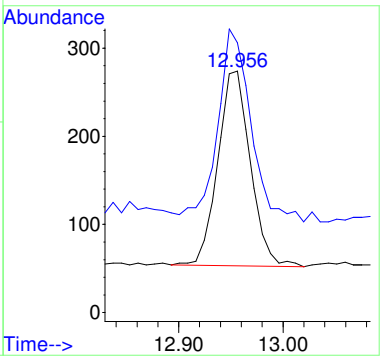


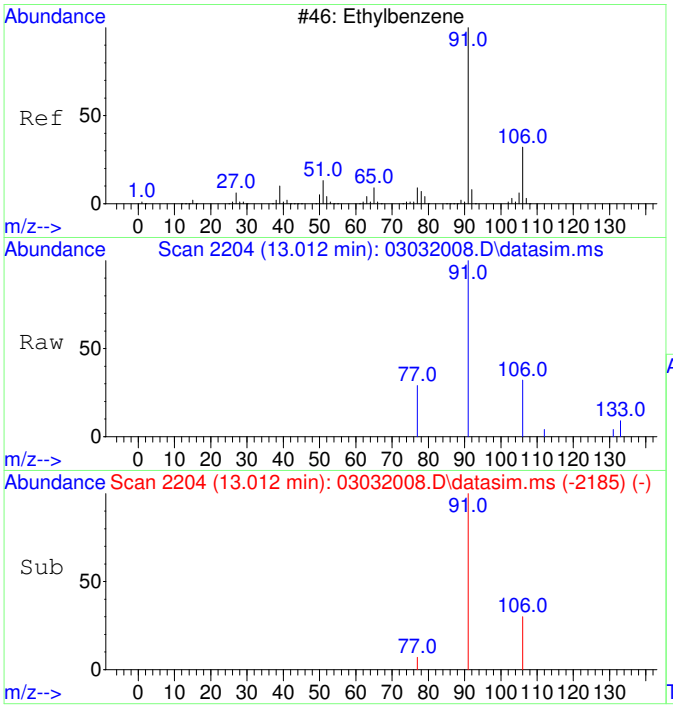


#17
1,1,1,2-Tetrachloroethane
Concen: 81.30 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 477

Ion	Ratio	Lower	Upper
131	100		
133	102.7	66.5	126.5

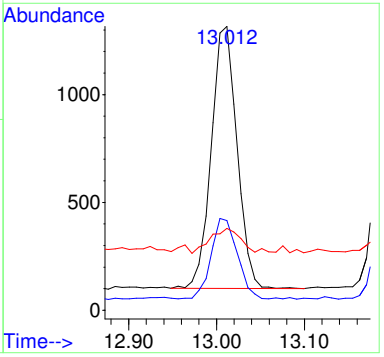


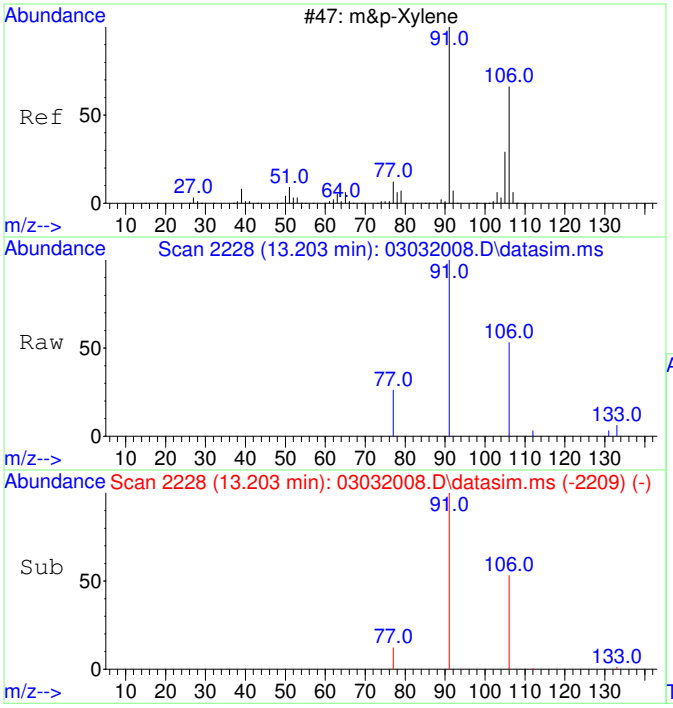


#18
Ethylbenzene
Concen: 85.06 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2464

Ion	Ratio	Lower	Upper
91	100		
106	31.2	2.7	62.7
77	11.6	0.0	38.3

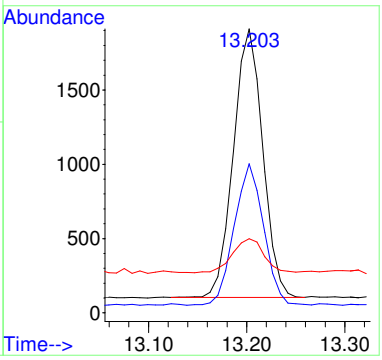


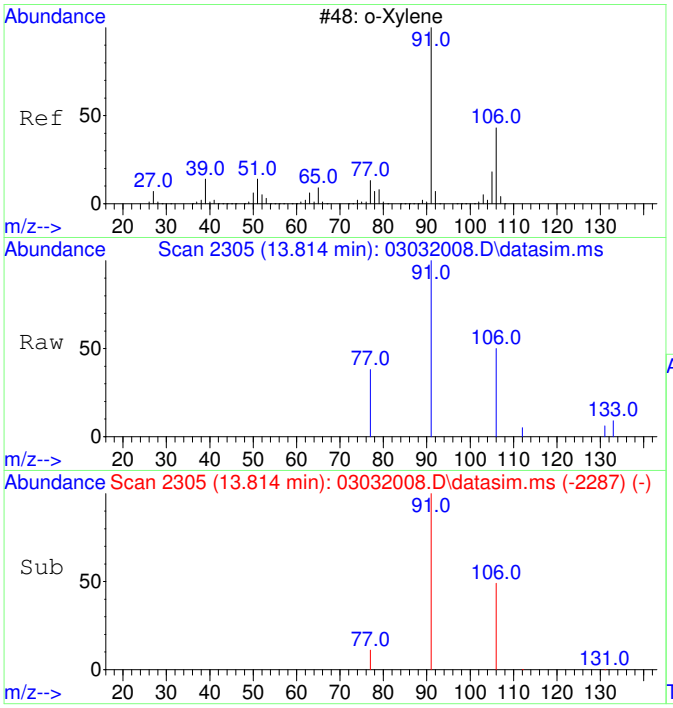


#19
m&p-Xylene
Concen: 170.96 ug/L
RT: 13.203 min Scan# 2228
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 3736

Ion	Ratio	Lower	Upper
91	100		
106	52.7	21.8	81.8
77	13.7	0.0	42.6

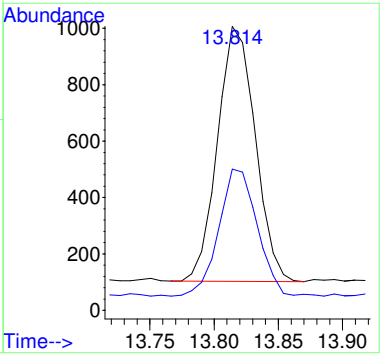


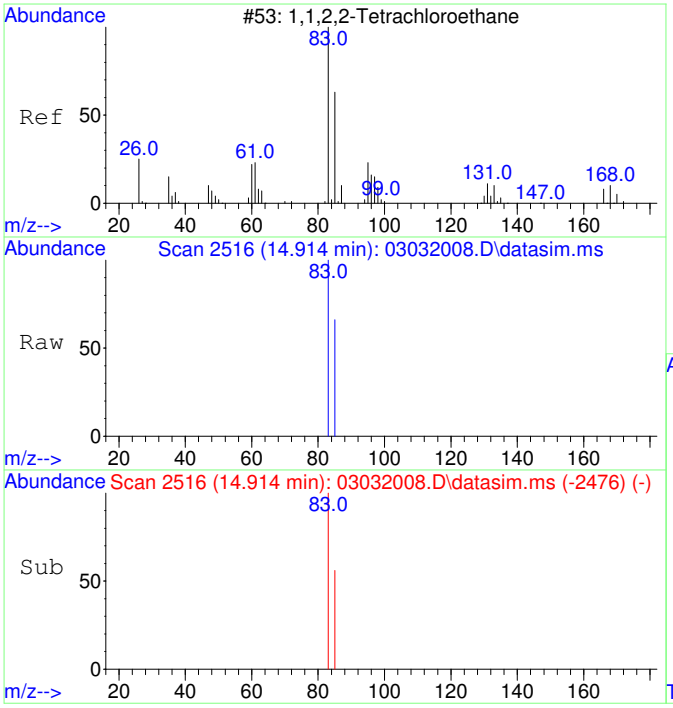


#20
o-Xylene
Concen: 78.47 ug/L
RT: 13.814 min Scan# 2305
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1839

Ion	Ratio	Lower	Upper
91	100		
106	50.8	18.8	78.8

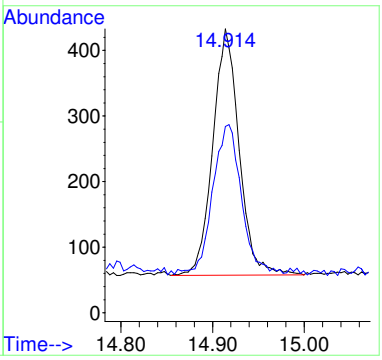


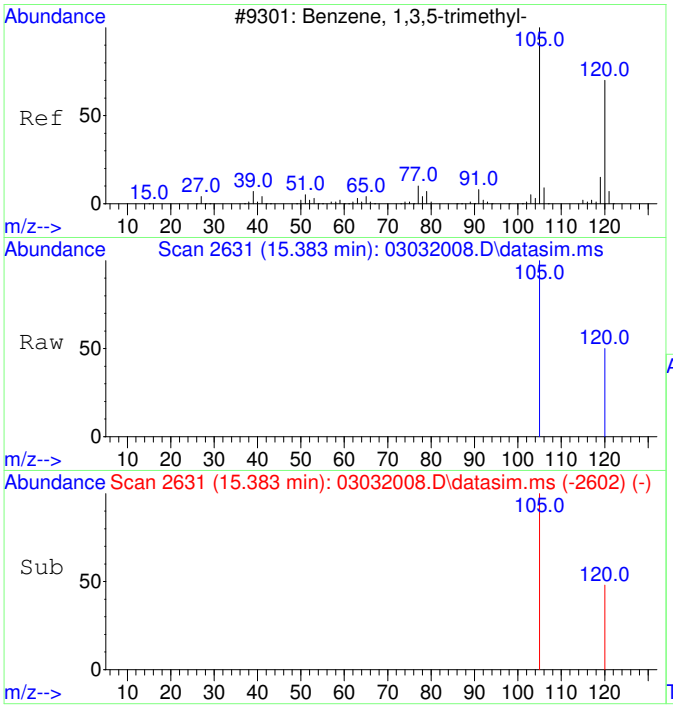


#21
1,1,2,2-Tetrachloroethane
Concen: 73.72 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 747

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.4	94.4

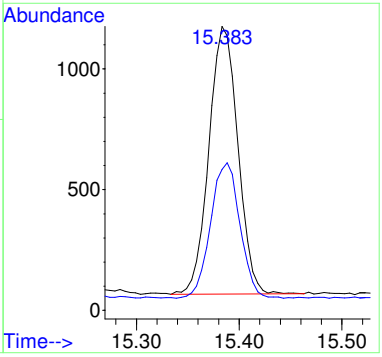


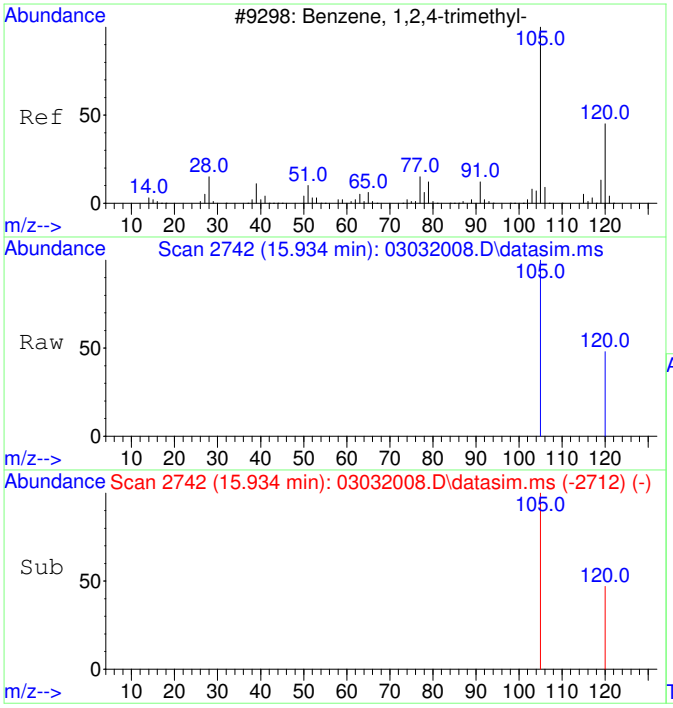


#22
1,3,5-Trimethylbenzene
Concen: 85.69 ug/L
RT: 15.383 min Scan# 2631
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2167

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

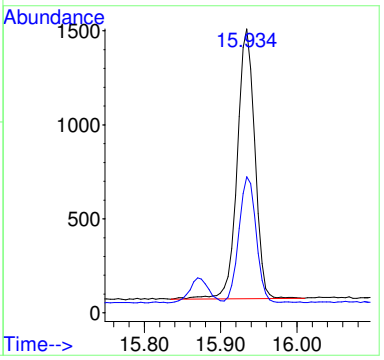


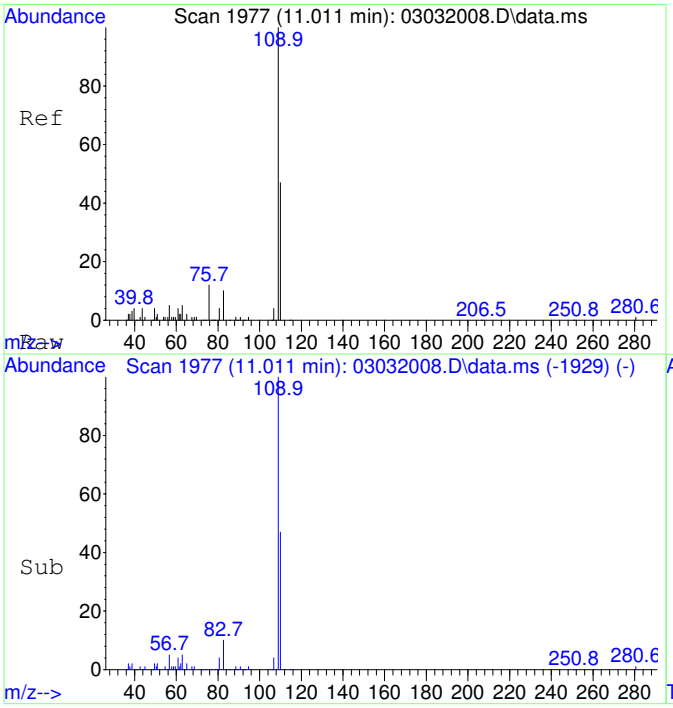


#23
1,2,4-Trimethylbenzene
Concen: 89.12 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2293

Ion	Ratio	Lower	Upper
105	100		
120	44.8	17.1	77.1

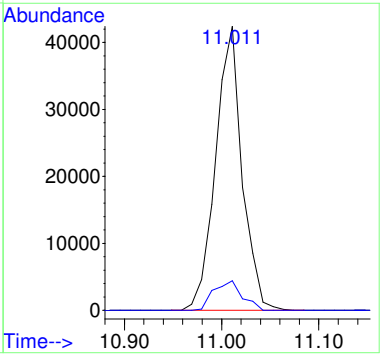


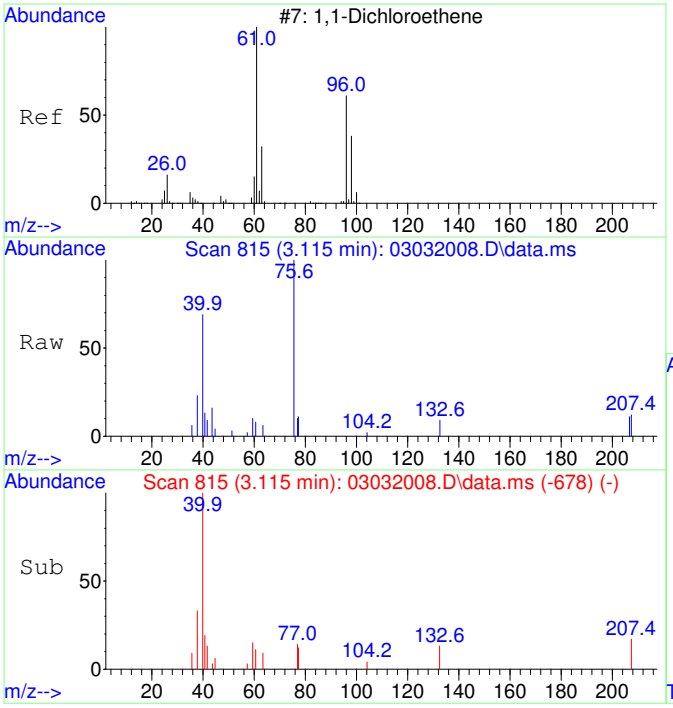


#25
2-Fluorotoluene SCAN
Concen: 5282.95 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 79979

Ion	Ratio	Lower	Upper
109	100		
83	11.2	0.0	44.7

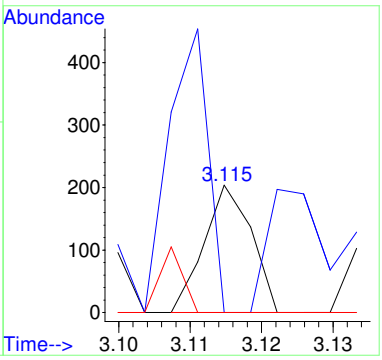


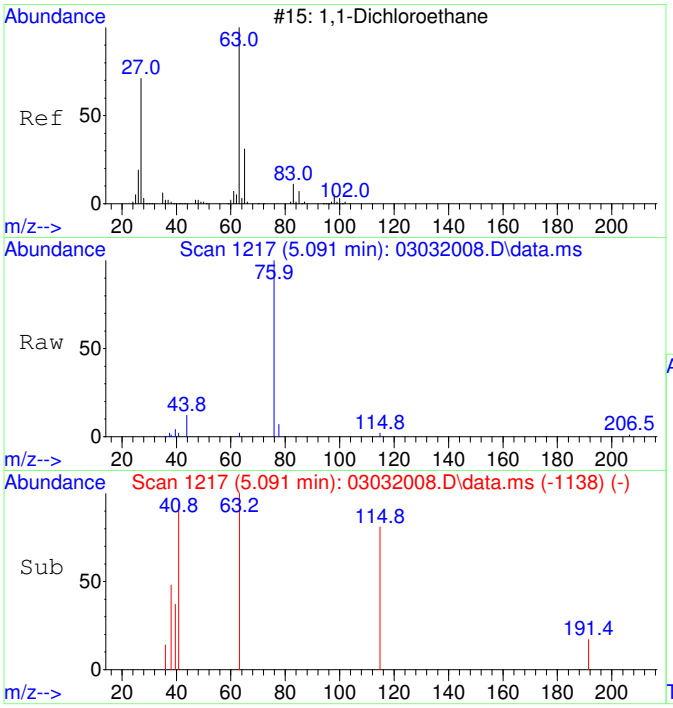


#26
1,1-Dichloroethene SCAN
Concen: 21.55 ug/L
RT: 3.115 min Scan# 815
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	184.0	34.7	94.7#
98	0.0	4.7	64.7#

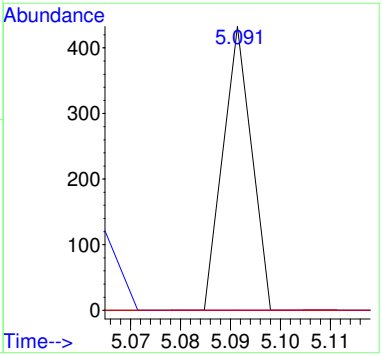


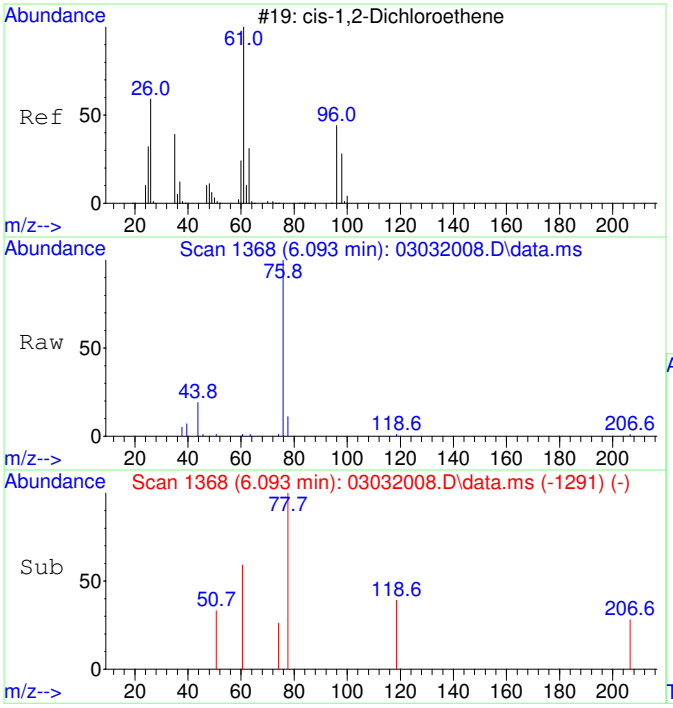


#28
1,1-Dichloroethane SCAN
Concen: 26.82 ug/L
RT: 5.091 min Scan# 1217
Delta R.T. 0.027 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 172

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.3
83	0.0	0.0	37.5

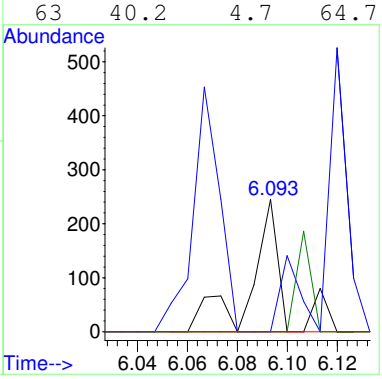


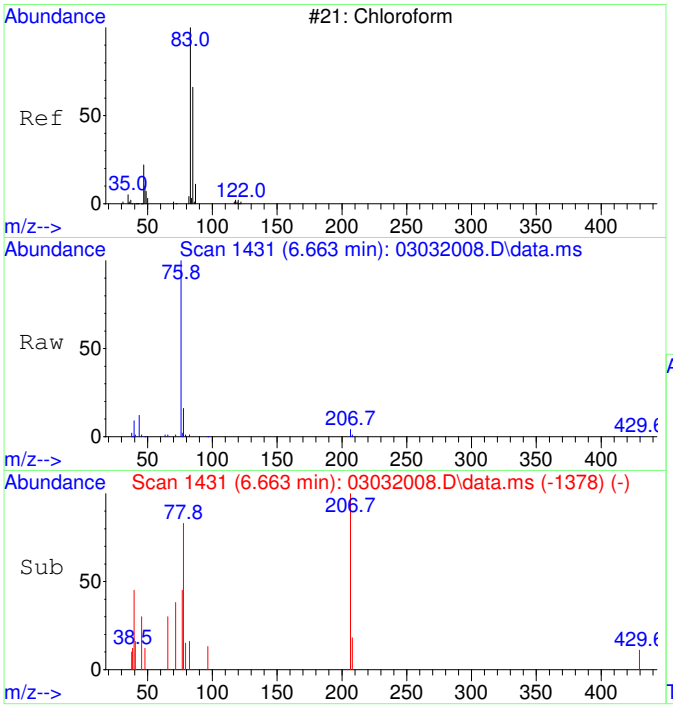


#29
cis-1,2-Dichloroethene SCAN
Concen: 36.56 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.013 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 184

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	40.2	4.7	64.7

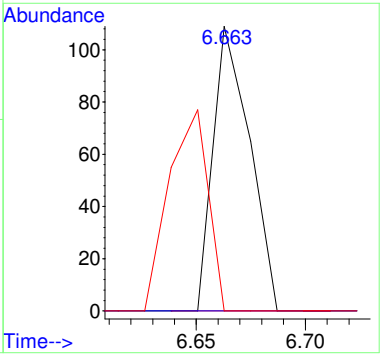


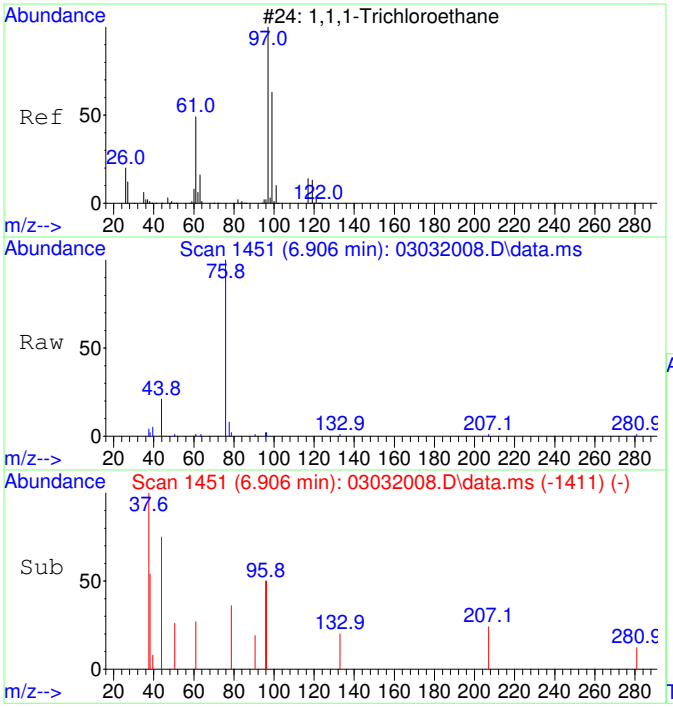


#30
Chloroform SCAN
Concen: 22.80 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 127

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	75.6	0.0	58.1#

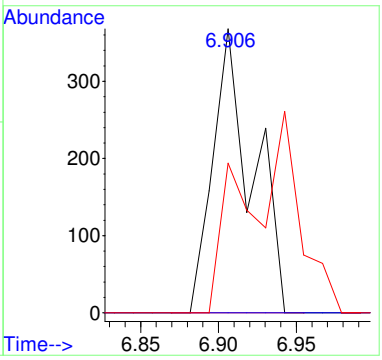


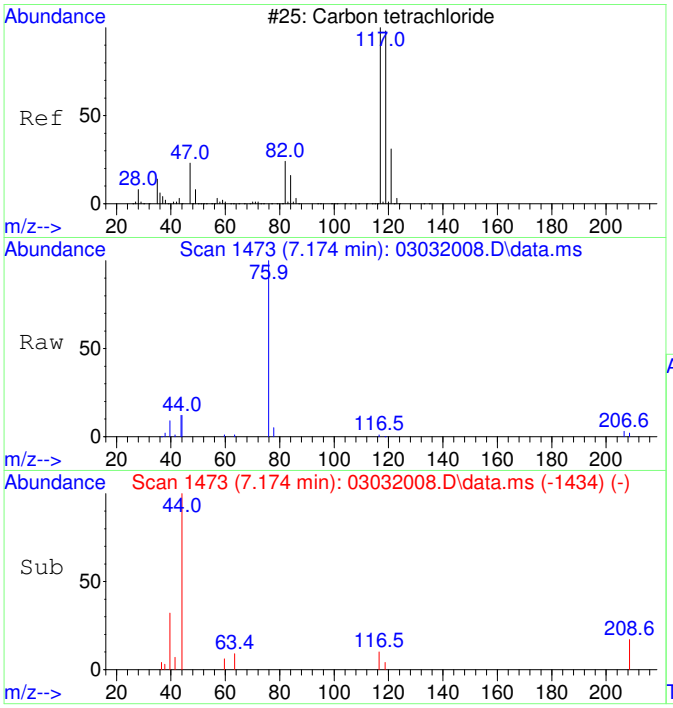


#31
1,1,1-Trichloroethane SCAN
Concen: 116.91 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 653

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

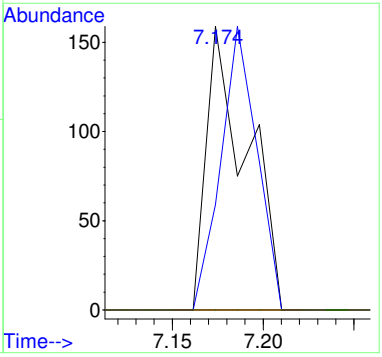


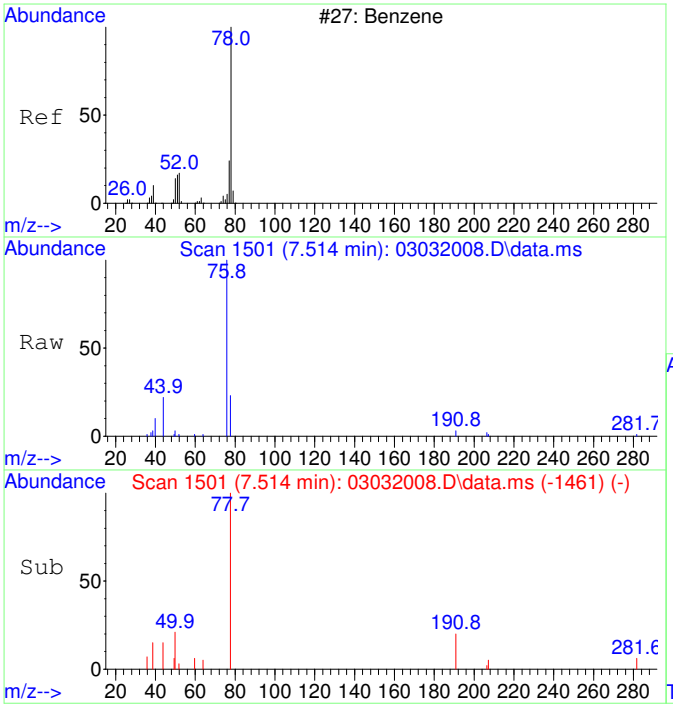


#32
Carbon tetrachloride SCAN
Concen: 43.28 ug/L
RT: 7.174 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 247

Ion	Ratio	Lower	Upper
117	100		
119	89.1	56.4	116.4
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

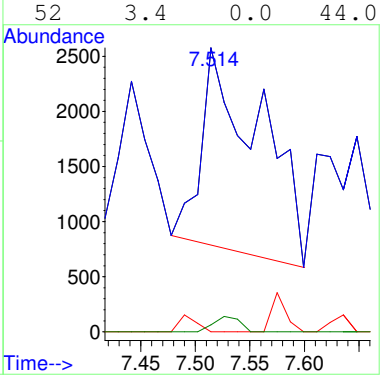


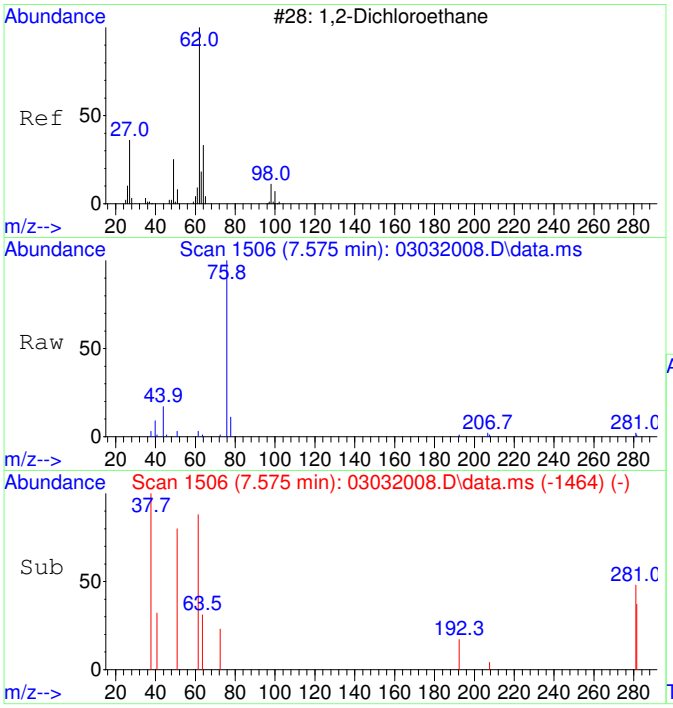


#33
Benzene SCAN
Concen: 455.42 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 6732

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	3.4	0.0	44.0

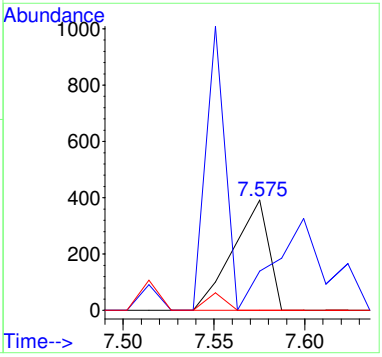


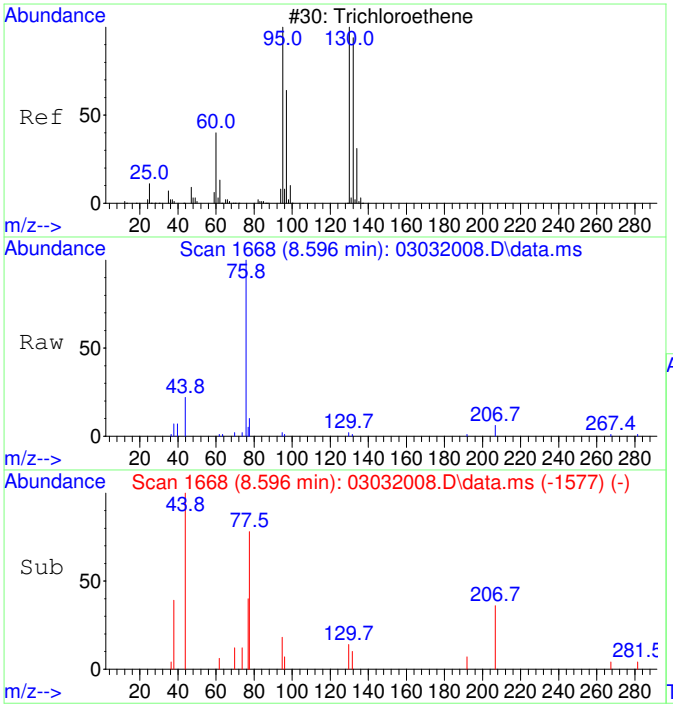


#34
1,2-Dichloroethane SCAN
Concen: 124.79 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 539

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

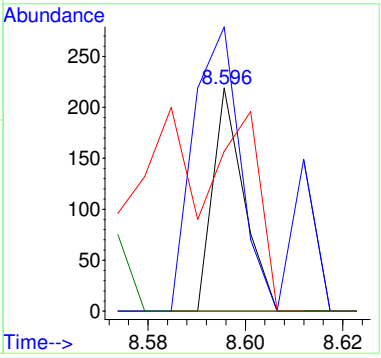


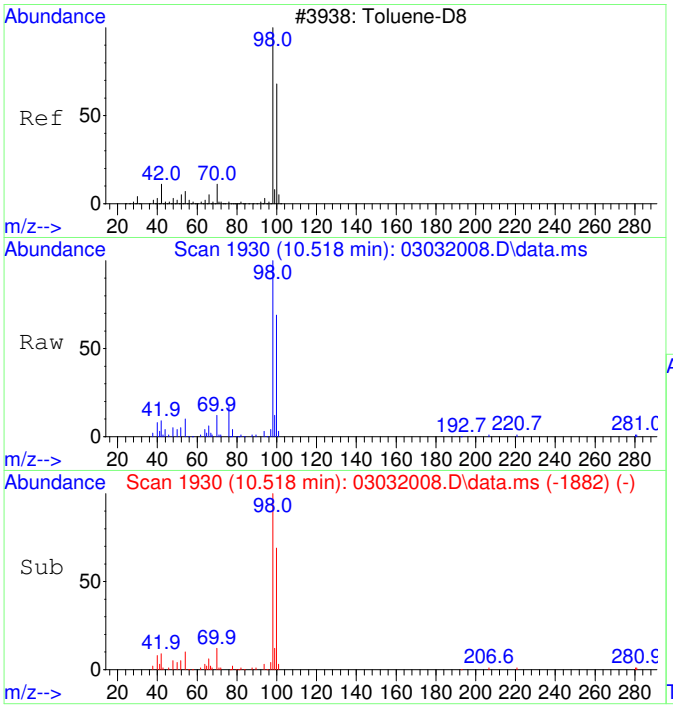


#35
Trichloroethene SCAN
Concen: 25.46 ug/L
RT: 8.596 min Scan# 1668
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 96

Ion	Ratio	Lower	Upper
130	100		
95	193.8	58.2	118.2#
132	296.9	69.1	129.1#
97	0.0	37.8	97.8#

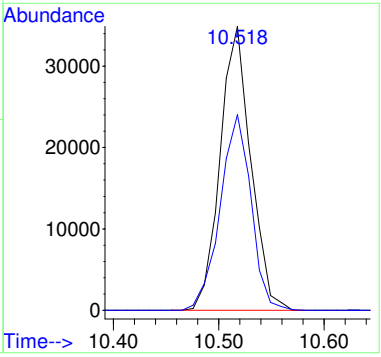


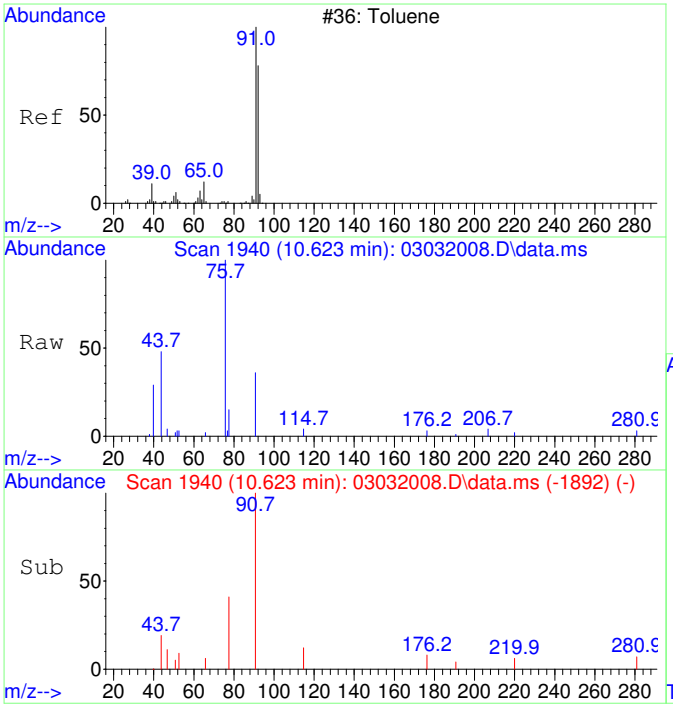


#36
Toluene-d8 SCAN
Concen: 5010.62 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 70682

Ion	Ratio	Lower	Upper
98	100		
100	69.3	38.3	98.3

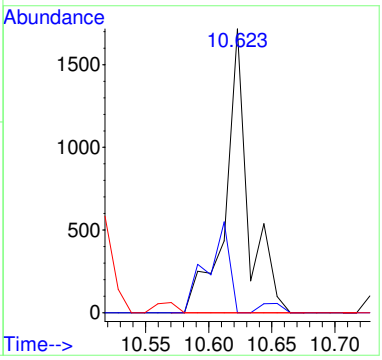


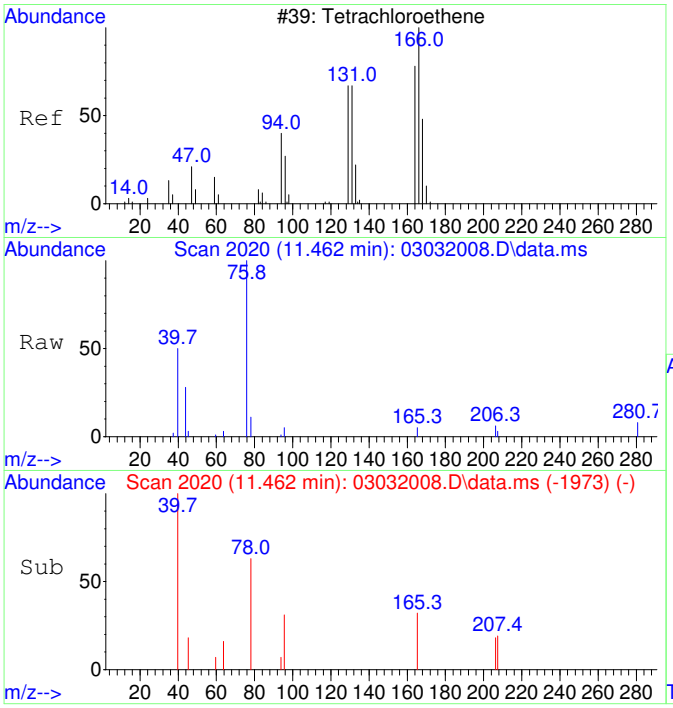


#37
Toluene SCAN
Concen: 126.36 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2186

Ion	Ratio	Lower	Upper
91	100		
92	30.8	21.2	81.2
65	0.0	0.0	41.4

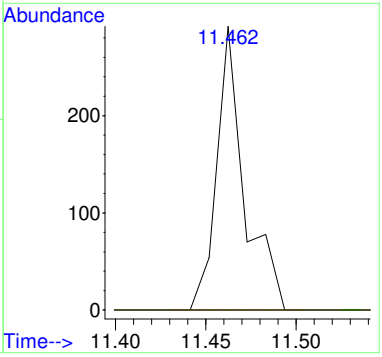


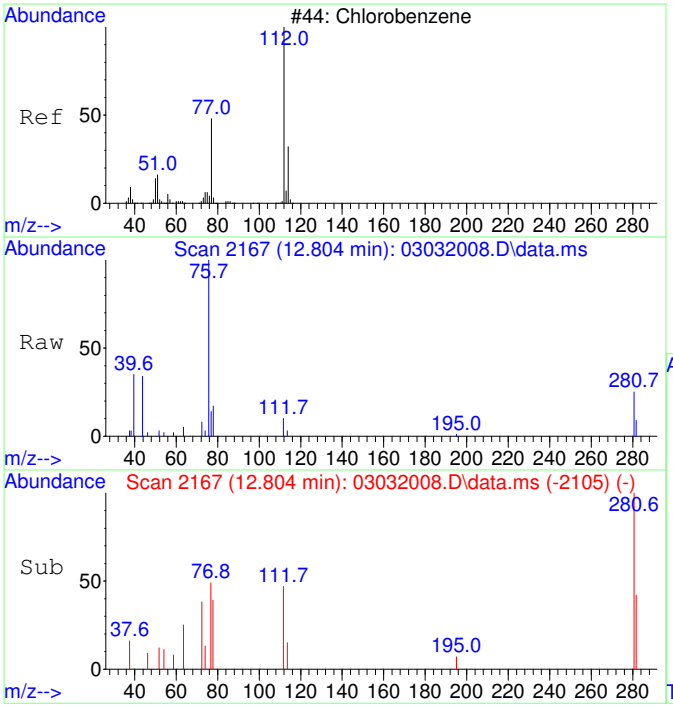


#39
Tetrachloroethene SCAN
Concen: 64.06 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 311

Ion	Ratio	Lower	Upper
166	100		
164	0.0	43.5	103.5#
131	0.0	37.6	97.6#
129	0.0	40.5	100.5#

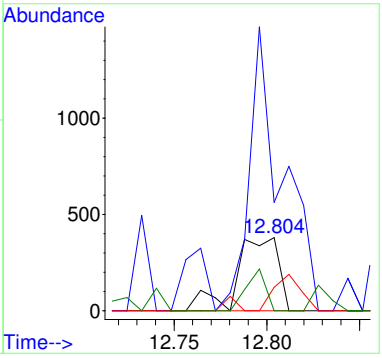


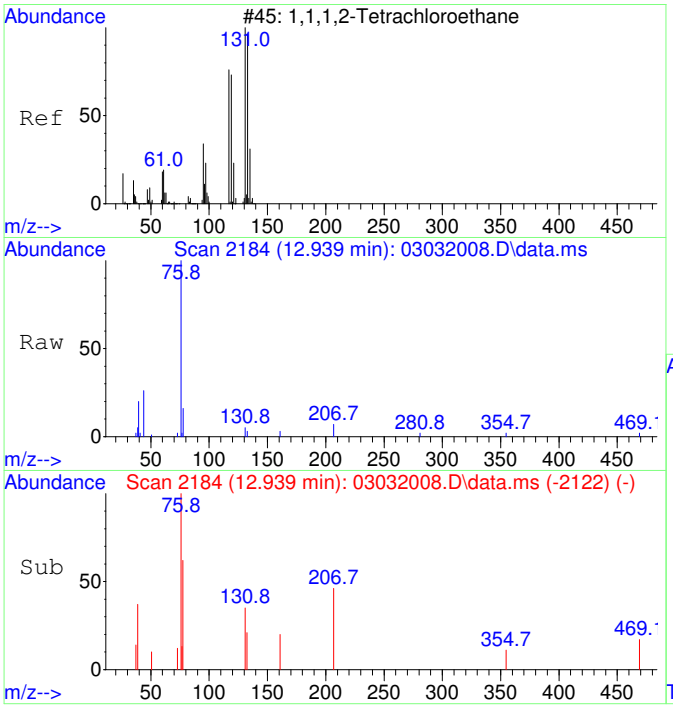


#40
Chlorobenzene SCAN
Concen: 55.14 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 601

Ion	Ratio	Lower	Upper
112	100		
77	301.5	33.6	93.6#
114	0.0	5.6	65.6#
51	26.1	0.0	52.4

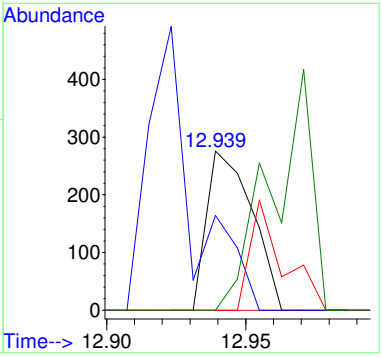


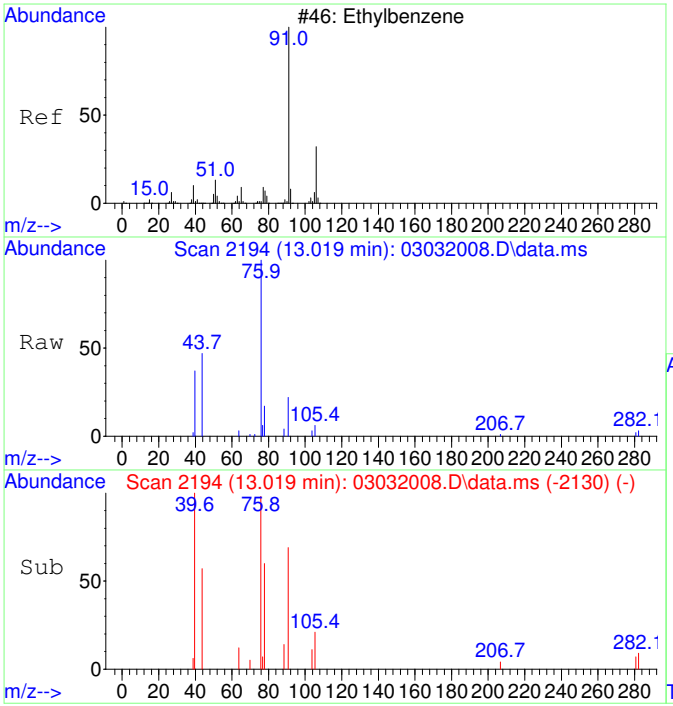


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 78.02 ug/L
RT: 12.939 min Scan# 2184
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	0.0	61.4	121.4#
119	49.8	33.0	93.0
117	0.0	35.3	95.3#

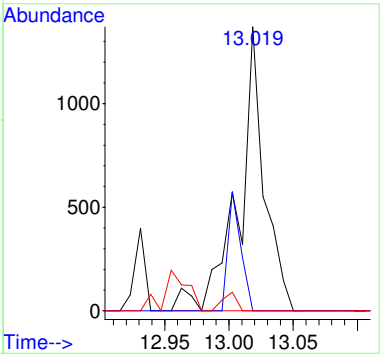


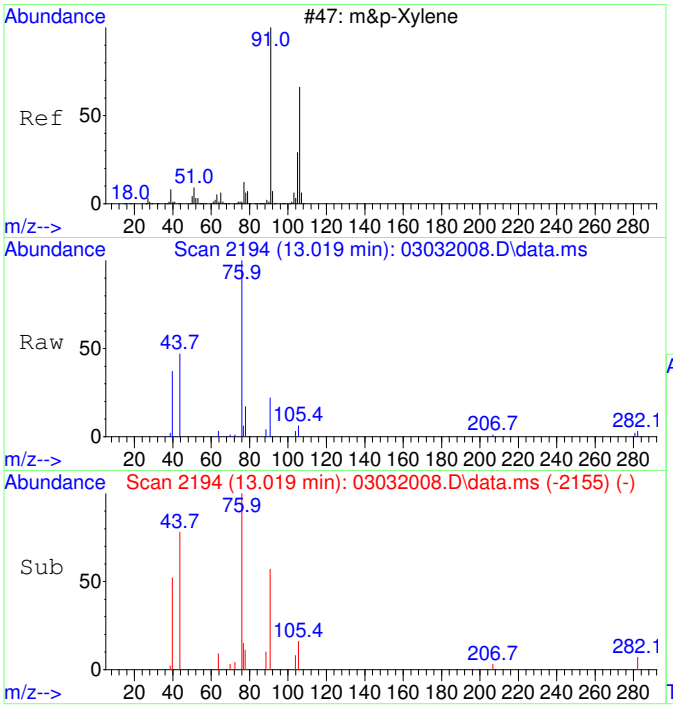


#42
Ethylbenzene SCAN
Concen: 98.98 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1898

Ion	Ratio	Lower	Upper
91	100		
106	20.9	2.2	62.2
51	3.6	0.0	40.6

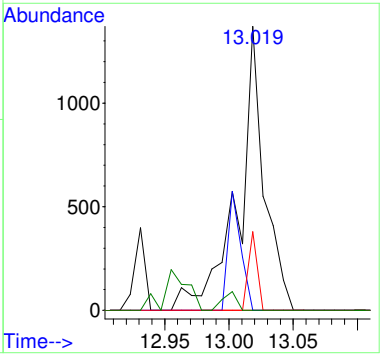


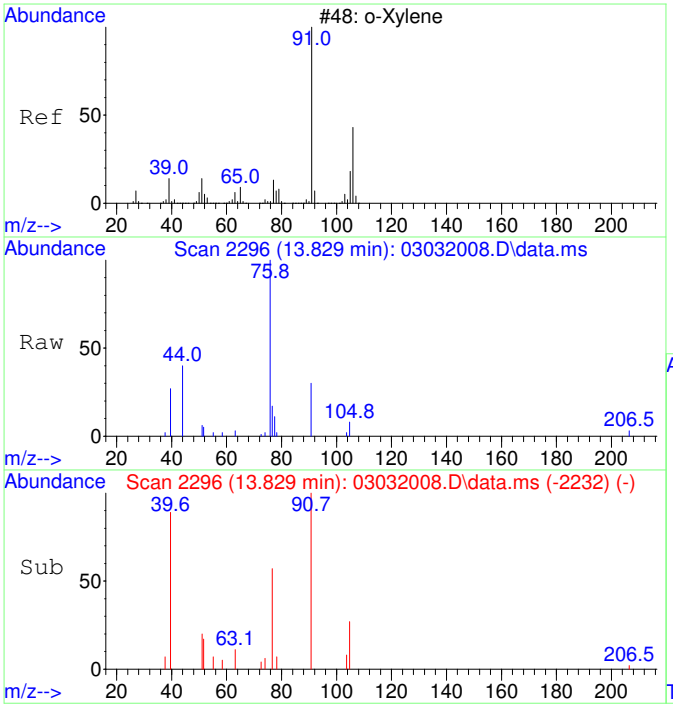


#43
m&p-Xylene SCAN
Concen: 70.95 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. -0.191 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1931

Ion	Ratio	Lower	Upper
91	100		
106	20.5	19.7	79.7
105	9.4	0.0	55.1
51	3.6	0.0	41.3

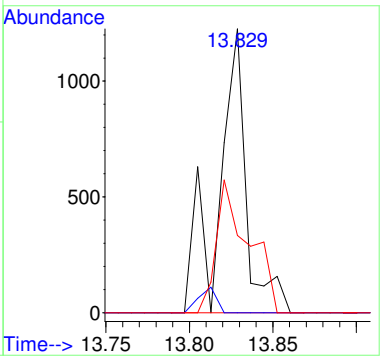


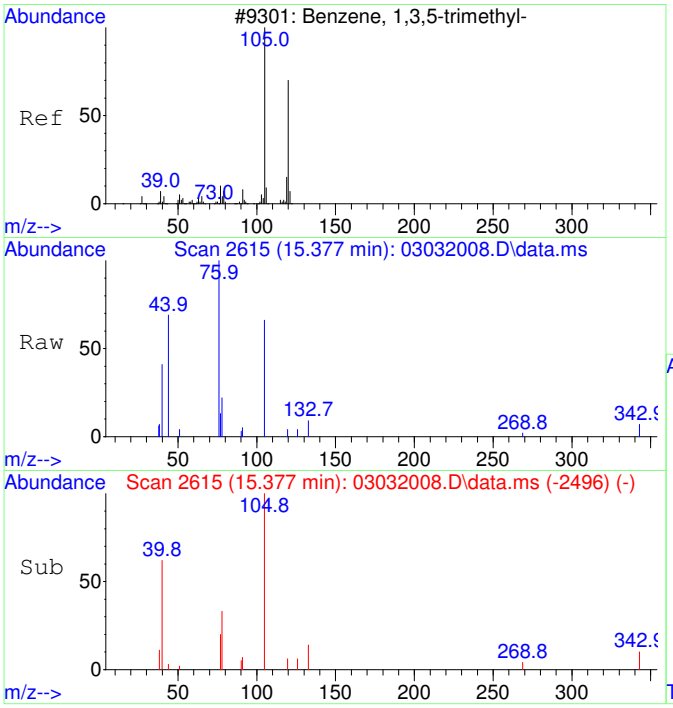


#44
o-Xylene SCAN
Concen: 98.43 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1426

Ion	Ratio	Lower	Upper
91	100		
106	5.8	18.1	78.1#
105	54.6	0.0	54.4#

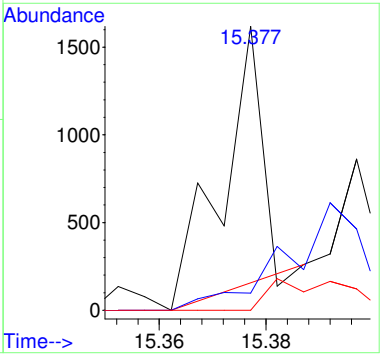


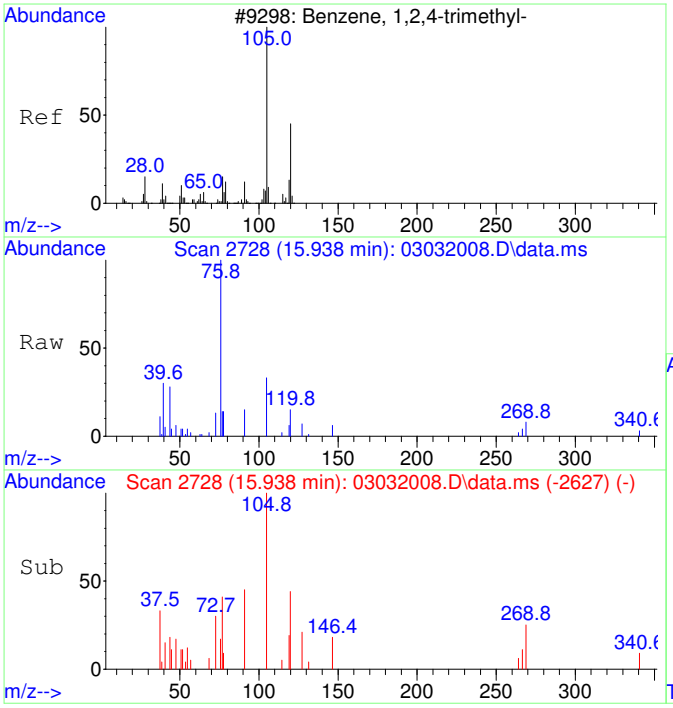


#46
1,3,5-Trimethylbenzene SCAN
Concen: 51.64 ug/L
RT: 15.377 min Scan# 2615
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 766

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	22.2	0.0	43.4

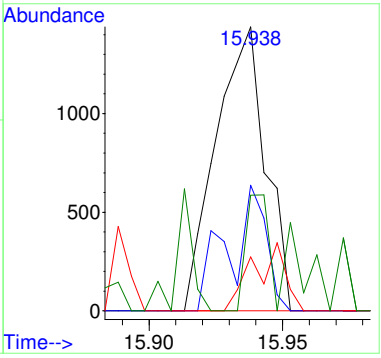




#47
1,2,4-Trimethylbenzene SCAN
Concen: 118.07 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 1862

Ion	Ratio	Lower	Upper
105	100		
120	33.2	12.9	72.9
119	15.6	0.0	41.4
77	18.8	0.0	42.1



2002028-01

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032009.D
Acq On : 3 Mar 2020 12:41
InstName : AG5975C
Operator : TD
Sample : 2002028-01 (Sig #1); 2001028-01 (Sig #2)
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 08:43:39 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

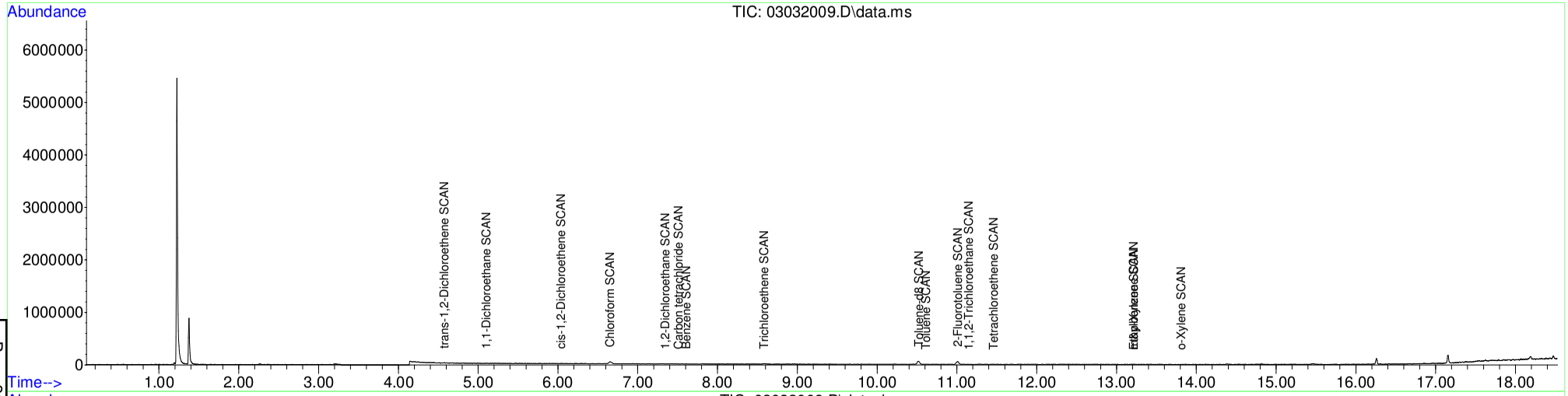
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.001	109	80363	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.508	98	69594	5061.87	ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.24%			
Target Compounds						Qvalue
5] cis-1,2-Dichloroethene	6.074	61	112	22.83	ug/L	82
6] Chloroform	6.652	83	48408	8891.77	ug/L	100
7] 1,1,1-Trichloroethane	6.919	97	123	23.23	ug/L	77
8] Carbon tetrachloride	7.187	117	401	86.04	ug/L	97
9] Benzene	7.515	78	649	48.86	ug/L #	19
11] Trichloroethene	8.591	130	5341	1405.26	ug/L	99
13] Toluene	10.613	91	4844	299.88	ug/L	99
14] 1,1,2-Trichloroethane	11.201	97	77	21.13	ug/L #	59
15] Tetrachloroethene	11.463	166	688	155.41	ug/L	99
18] Ethylbenzene	13.011	91	392	20.69	ug/L	90
19] m&p-Xylene	13.194	91	927	64.85	ug/L	95
20] o-Xylene	13.814	91	406	26.48	ug/L	91
23] 1,2,4-Trimethylbenzene	15.935	105	384	22.81	ug/L	84
25) 2-Fluorotoluene SCAN	11.011	109	53534	5405.54	ug/L	98
27) trans-1,2-Dichloroethe...	4.567	61	90	29.56	ug/L #	18
28) 1,1-Dichloroethane SCAN	5.098	63	185	44.10	ug/L #	52
29) cis-1,2-Dichloroethene...	6.040	61	192	58.32	ug/L #	23
30) Chloroform SCAN	6.650	83	36216	9937.08	ug/L	82
32) Carbon tetrachloride SCAN	7.502	117	90	24.11	ug/L #	22
33) Benzene SCAN	7.599	78	4191	433.41	ug/L	92
34) 1,2-Dichloroethane SCAN	7.344	62	175	61.93	ug/L #	1
35) Trichloroethene SCAN	8.584	130	3067	1243.24	ug/L #	41
36) Toluene-d8 SCAN	10.517	98	45298	4908.74	ug/L	98
37) Toluene SCAN	10.612	91	3560	314.56	ug/L #	56
38) 1,1,2-Trichloroethane ...	11.147	97	175	69.45	ug/L #	14
39) Tetrachloroethene SCAN	11.462	166	391	123.12	ug/L #	34
42) Ethylbenzene SCAN	13.209	91	1100	87.69	ug/L	84
43) m&p-Xylene SCAN	13.209	91	1066	59.87	ug/L #	61
44) o-Xylene SCAN	13.813	91	348	36.72	ug/L #	80

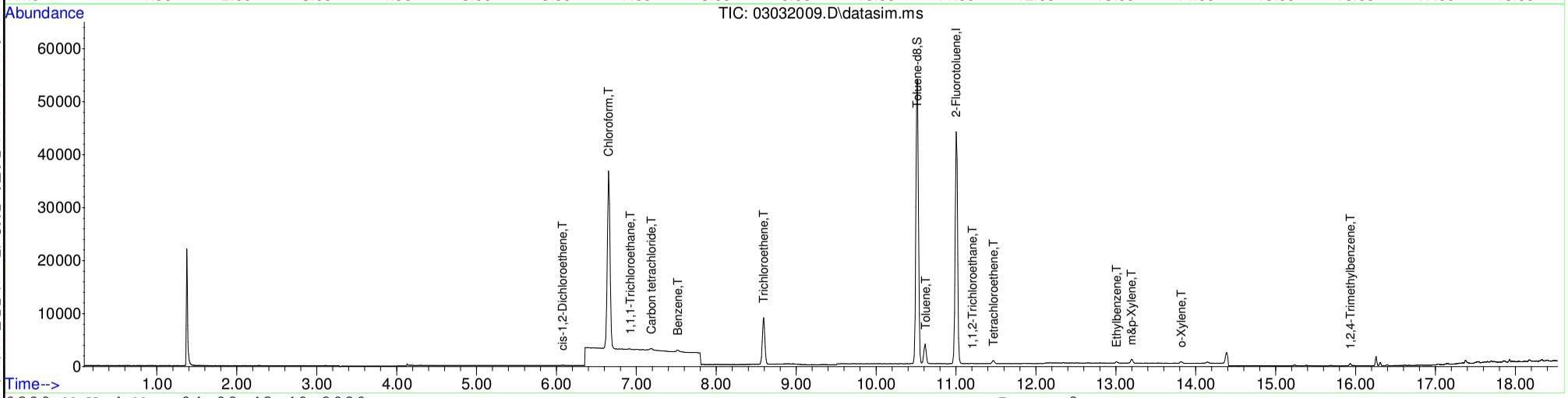
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032009.D
Acq On : 3 Mar 2020 12:41
InstName : AG5975C
Operator : TD
Sample : 2002028-01 (Sig #1); 2001028-01 (Sig #2)
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 08:43:39 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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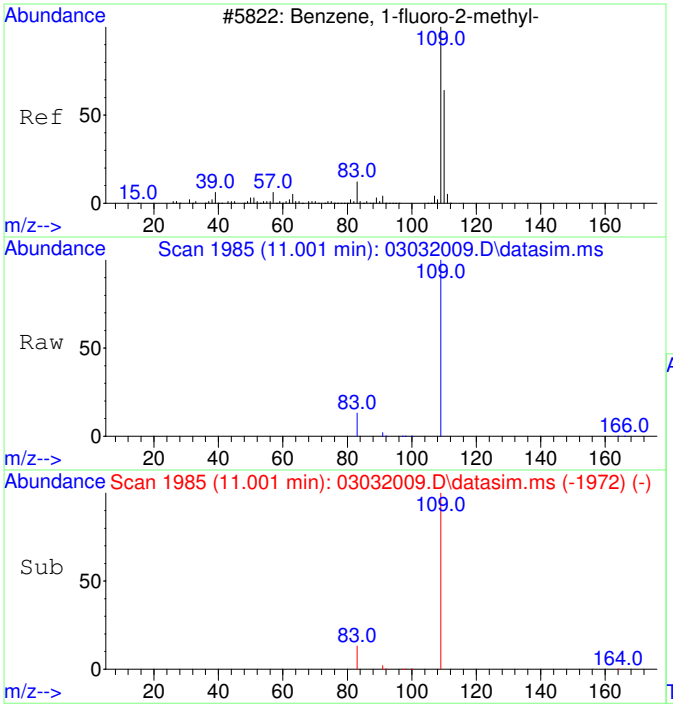
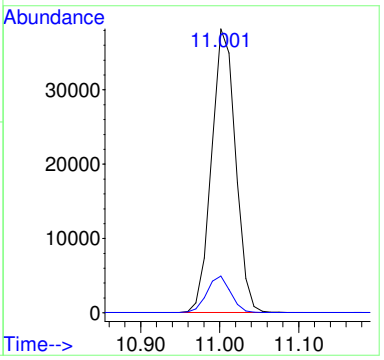
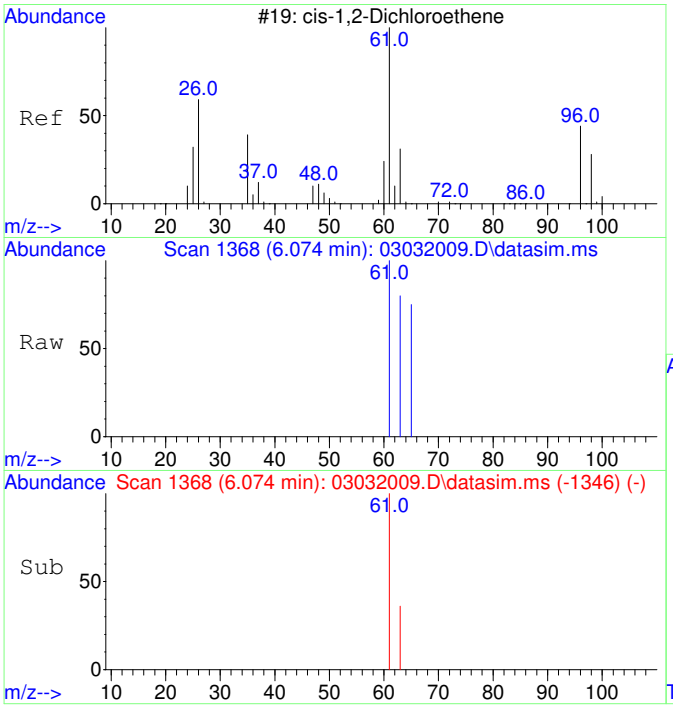


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.001 min Scan# 1985
Delta R.T. -0.011 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:109 Resp: 80363

Ion	Ratio	Lower	Upper
109	100		
83	12.6	0.0	43.2

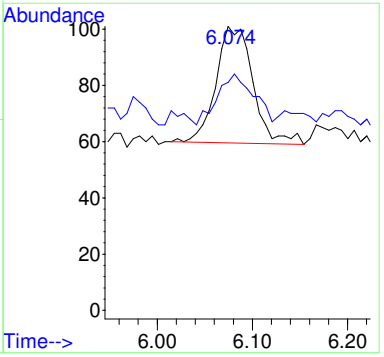


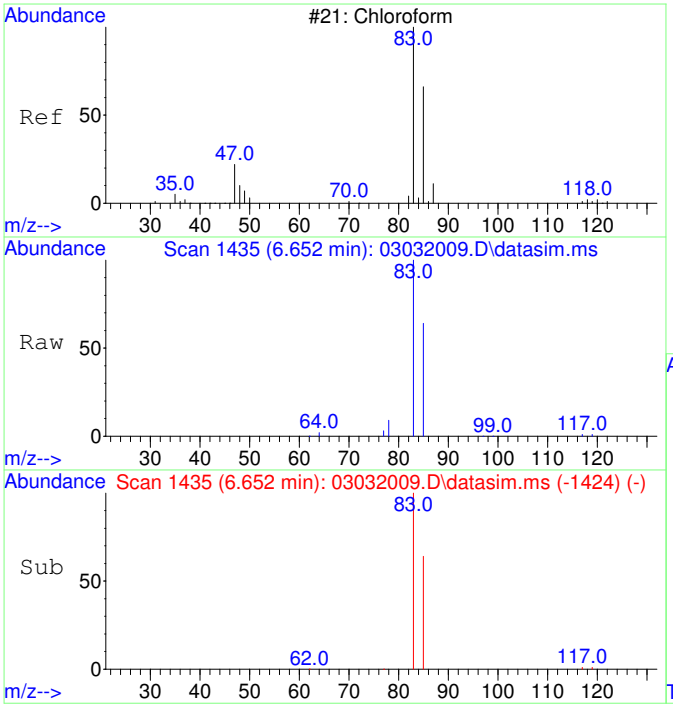


#5
cis-1,2-Dichloroethene
Concen: 22.83 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 61 Resp: 112

Ion	Ratio	Lower	Upper
61	100		
63	42.9	2.6	62.6

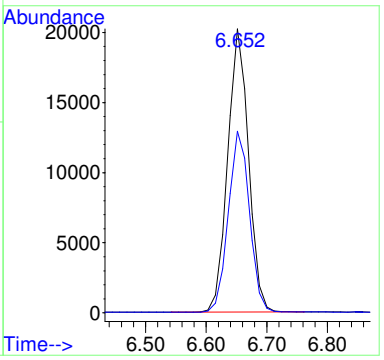


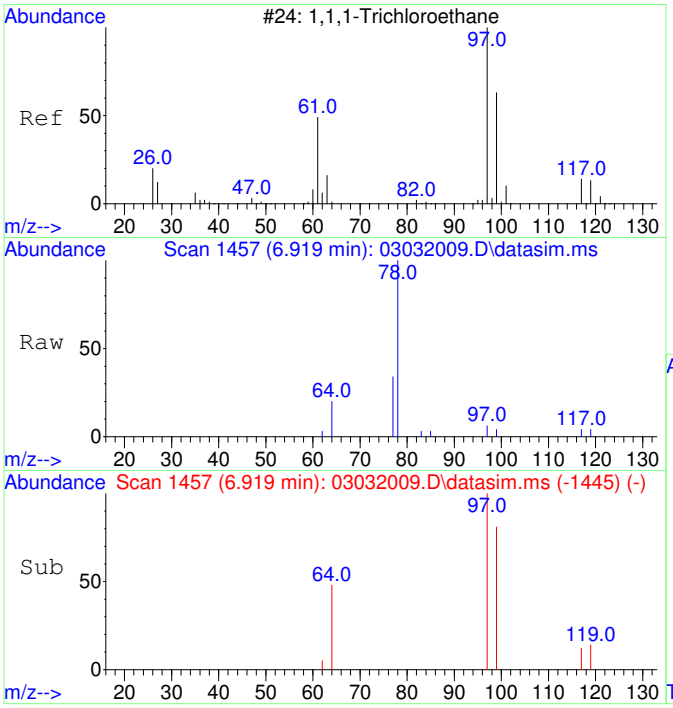


#6
Chloroform
Concen: 8891.77 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 83 Resp: 48408

Ion	Ratio	Lower	Upper
83	100		
85	64.9	34.7	94.7

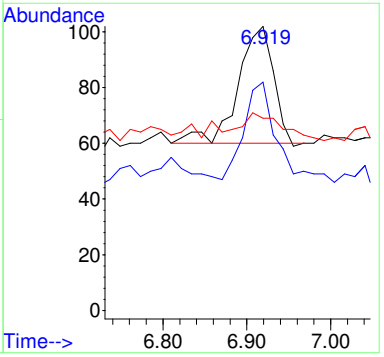


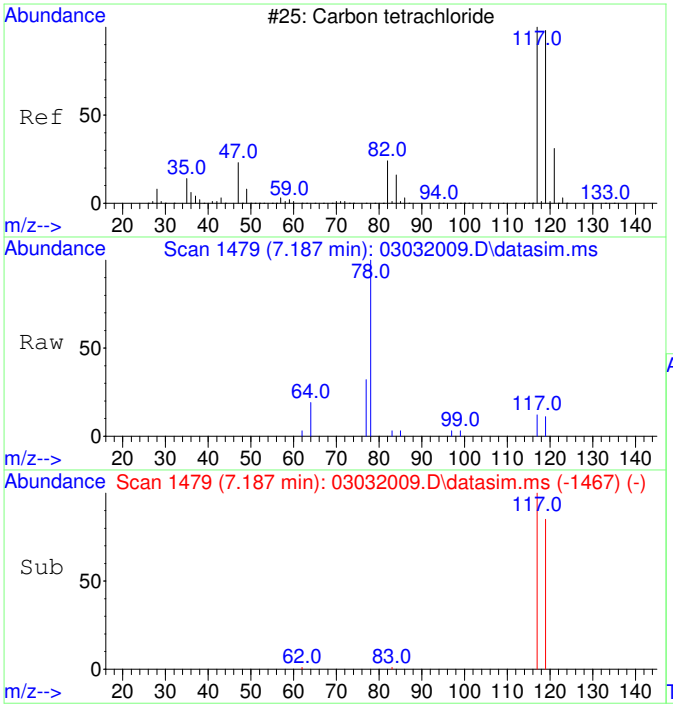


#7
1,1,1-Trichloroethane
Concen: 23.23 ug/L
RT: 6.919 min Scan# 1457
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 97 Resp: 123

Ion	Ratio	Lower	Upper
97	100		
99	80.5	34.4	94.4
117	27.6	0.0	42.8

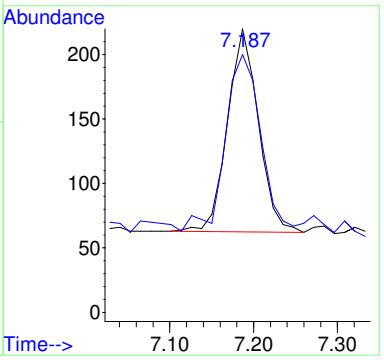


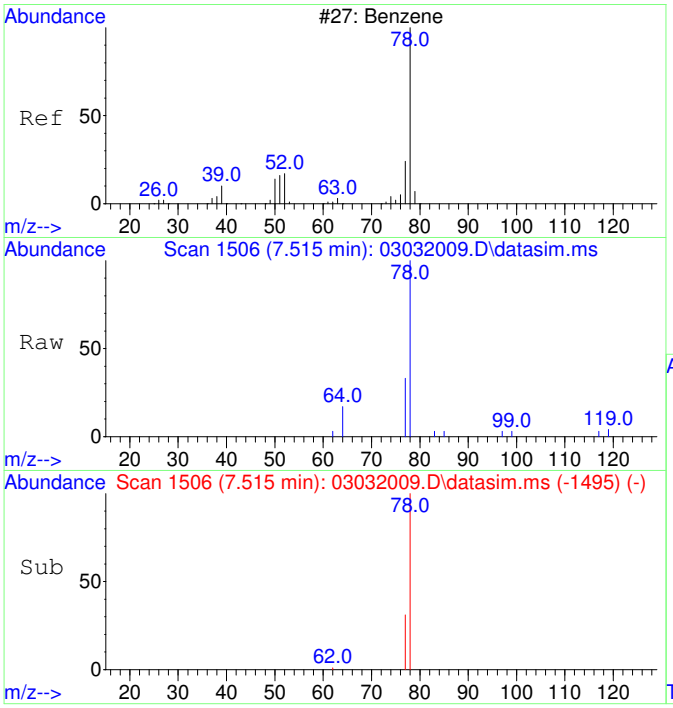


#8
Carbon tetrachloride
Concen: 86.04 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:117 Resp: 401

Ion	Ratio	Lower	Upper
117	100		
119	99.5	66.1	126.1

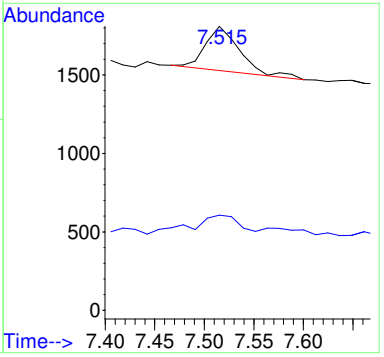


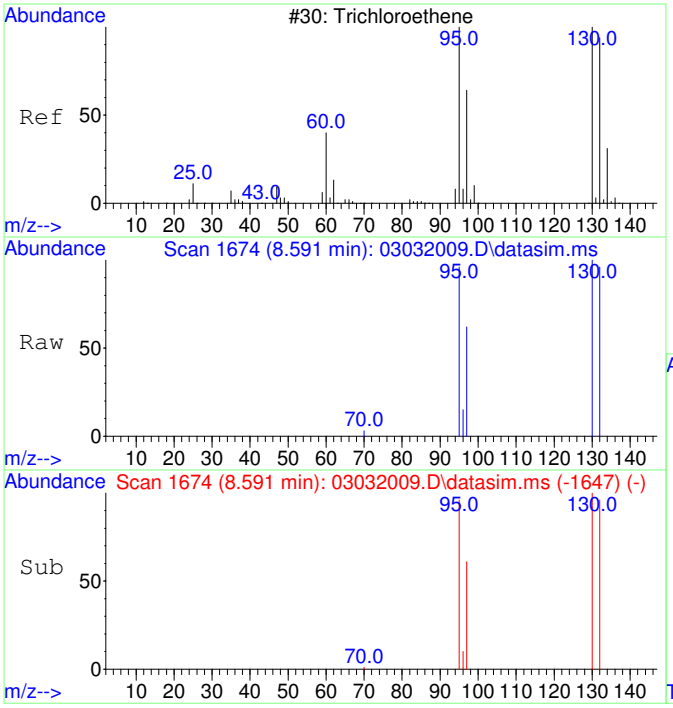


#9
Benzene
Concen: 48.86 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 78 Resp: 649

Ion	Ratio	Lower	Upper
78	100		
77	63.2	0.0	53.6#

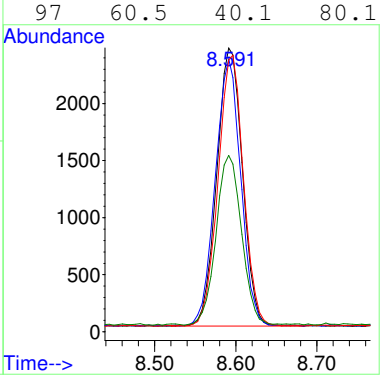


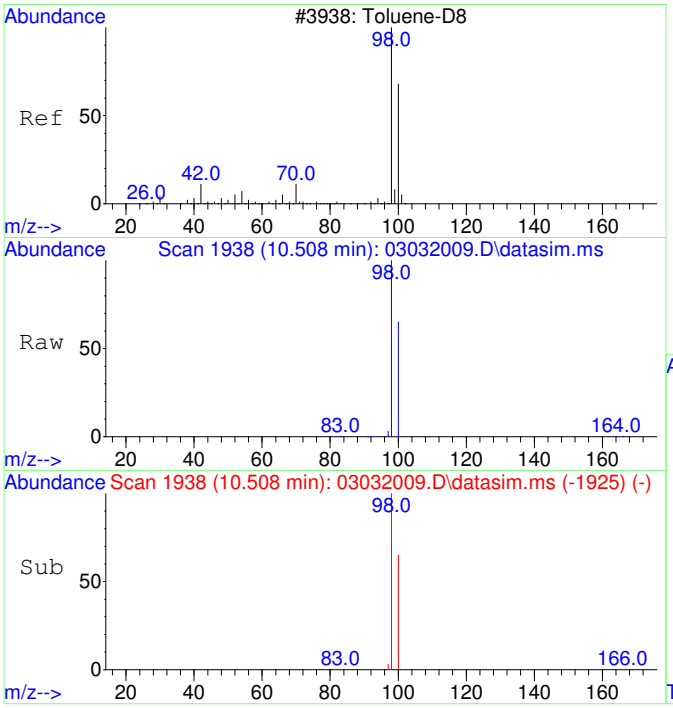


#11
Trichloroethene
Concen: 1405.26 ug/L
RT: 8.591 min Scan# 1674
Delta R.T. -0.006 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:130 Resp: 5341

Ion	Ratio	Lower	Upper
130	100		
95	94.9	63.8	123.8
132	96.3	75.9	115.9
97	60.5	40.1	80.1

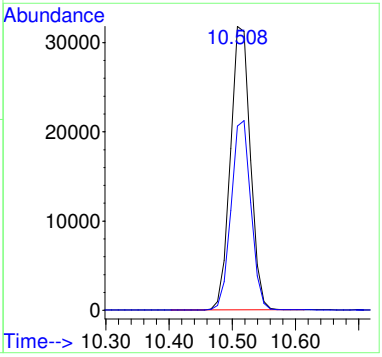


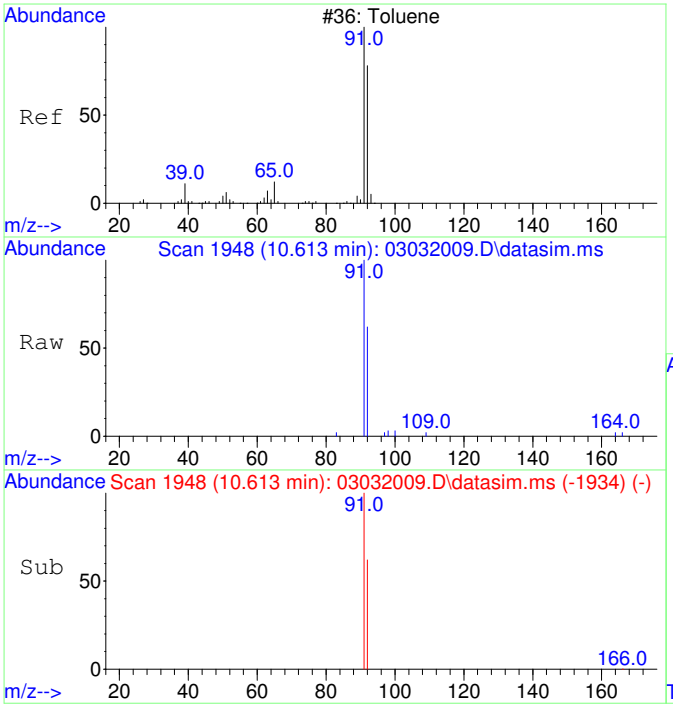


#12
Toluene-d8
Concen: 5061.87 ug/L
RT: 10.508 min Scan# 1938
Delta R.T. -0.011 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 98 Resp: 69594

Ion	Ratio	Lower	Upper
98	100		
100	66.3	36.5	96.5

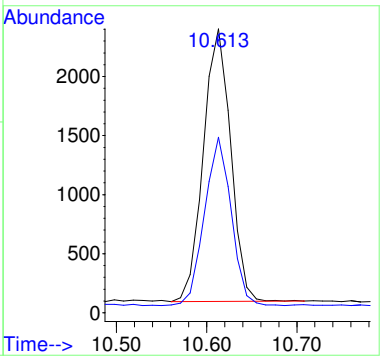


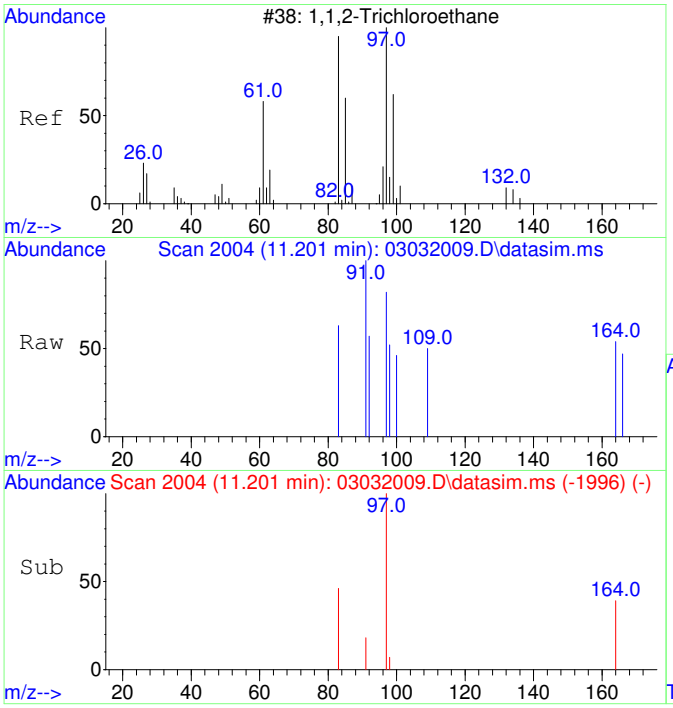


#13
Toluene
Concen: 299.88 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 4844

Ion	Ratio	Lower	Upper
91	100		
92	60.1	29.7	89.7

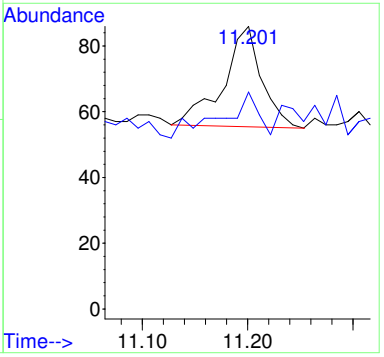


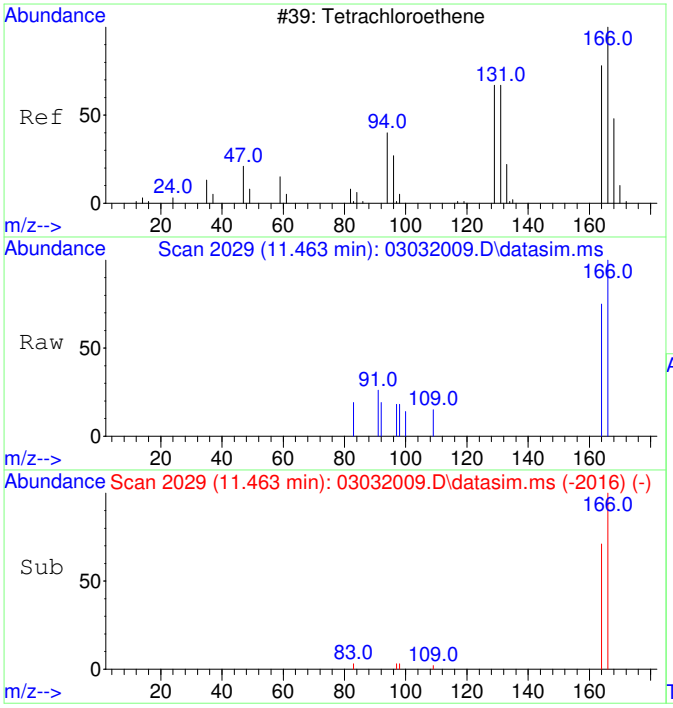


#14
1,1,2-Trichloroethane
Concen: 21.13 ug/L
RT: 11.201 min Scan# 2004
Delta R.T. -0.063 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 97 Resp: 77

Ion	Ratio	Lower	Upper
97	100		
83	45.5	51.9	111.9#

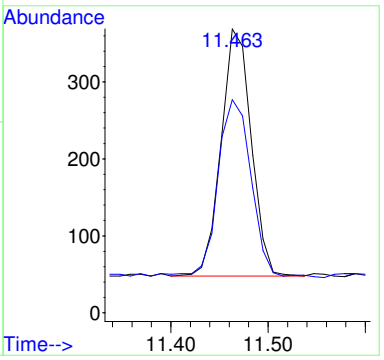


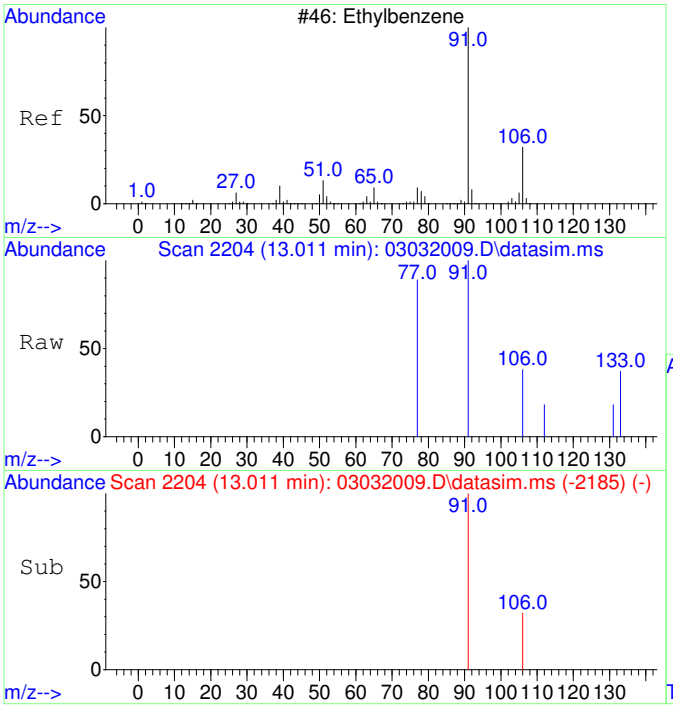


#15
Tetrachloroethene
Concen: 155.41 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:166 Resp: 688

Ion	Ratio	Lower	Upper
166	100		
164	79.1	47.9	107.9

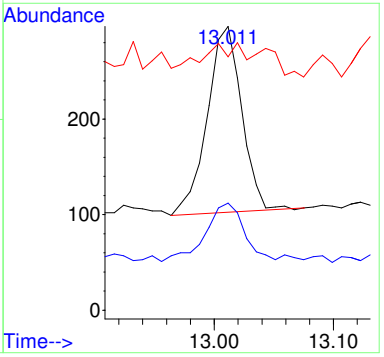


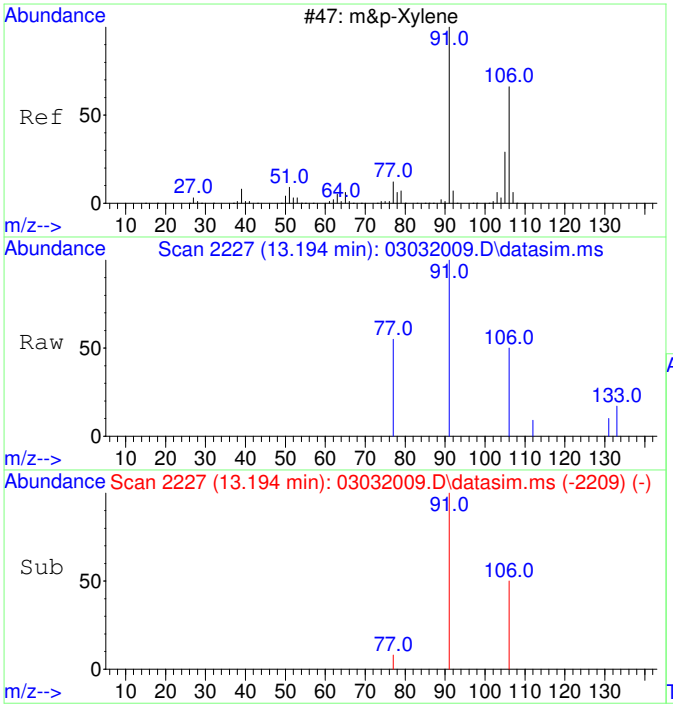


#18
Ethylbenzene
Concen: 20.69 ug/L
RT: 13.011 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 392

Ion	Ratio	Lower	Upper
91	100		
106	33.4	2.7	62.7
77	23.2	0.0	38.3

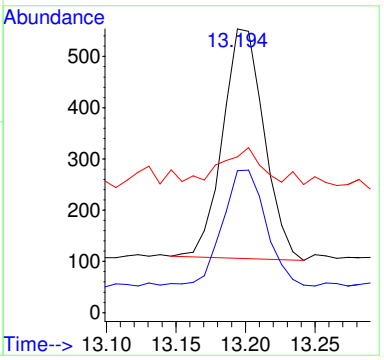


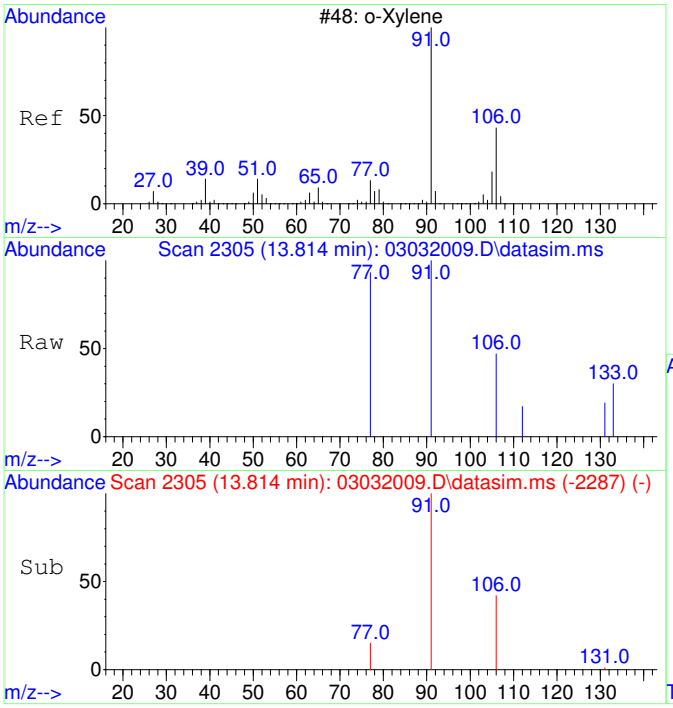


#19
m&p-Xylene
Concen: 64.85 ug/L
RT: 13.194 min Scan# 2227
Delta R.T. -0.008 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 927

Ion	Ratio	Lower	Upper
91	100		
106	53.5	21.8	81.8
77	18.8	0.0	42.6

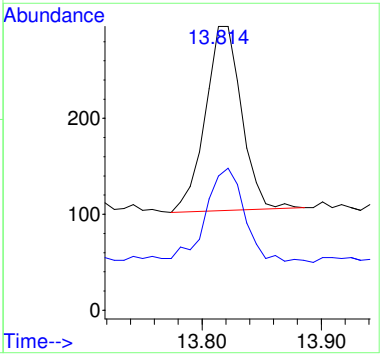


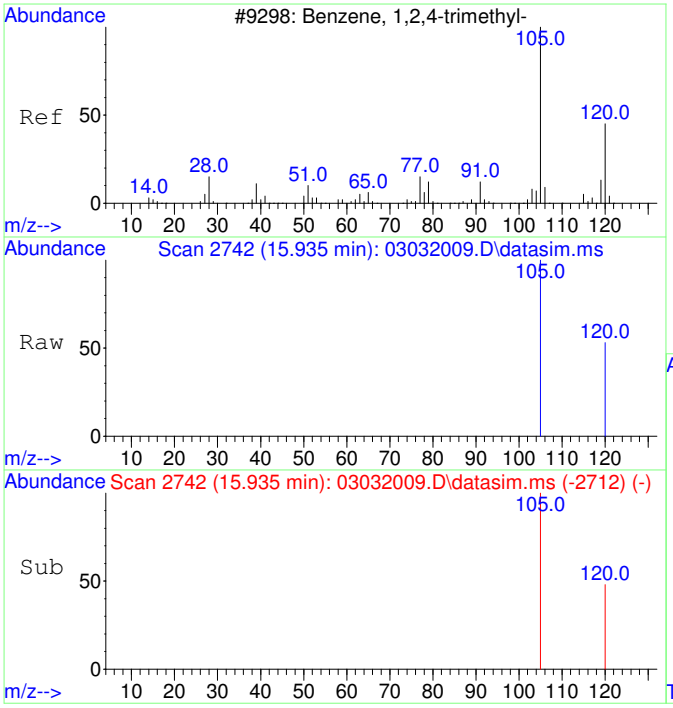


#20
o-Xylene
Concen: 26.48 ug/L
RT: 13.814 min Scan# 2305
Delta R.T. -0.008 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 406

Ion	Ratio	Lower	Upper
91	100		
106	55.2	18.8	78.8

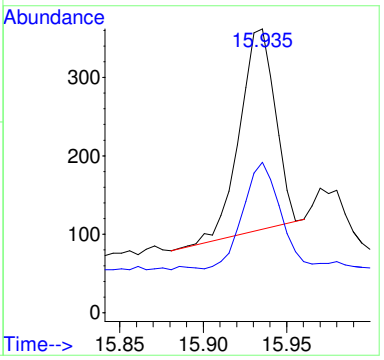


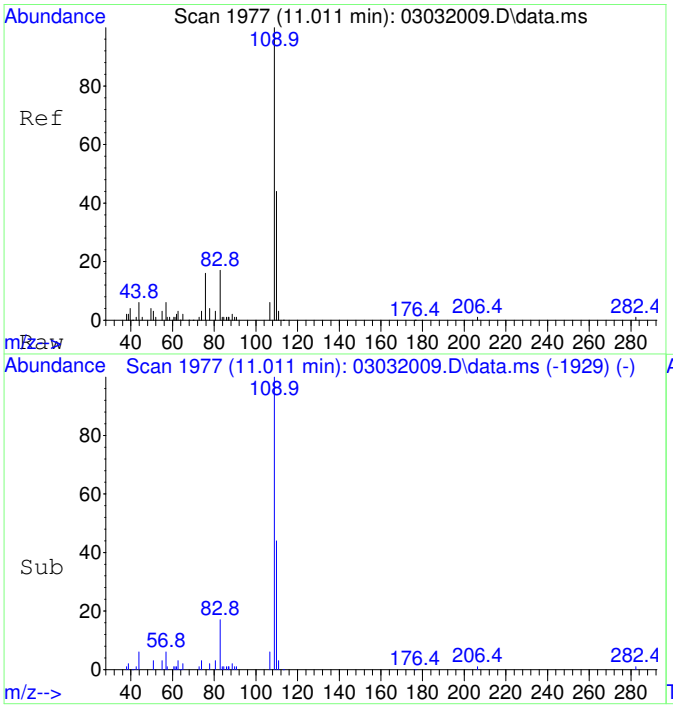


#23
1,2,4-Trimethylbenzene
Concen: 22.81 ug/L
RT: 15.935 min Scan# 2742
Delta R.T. 0.001 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:105 Resp: 384

Ion	Ratio	Lower	Upper
105	100		
120	57.6	17.1	77.1

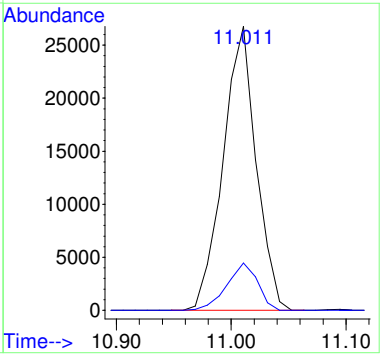


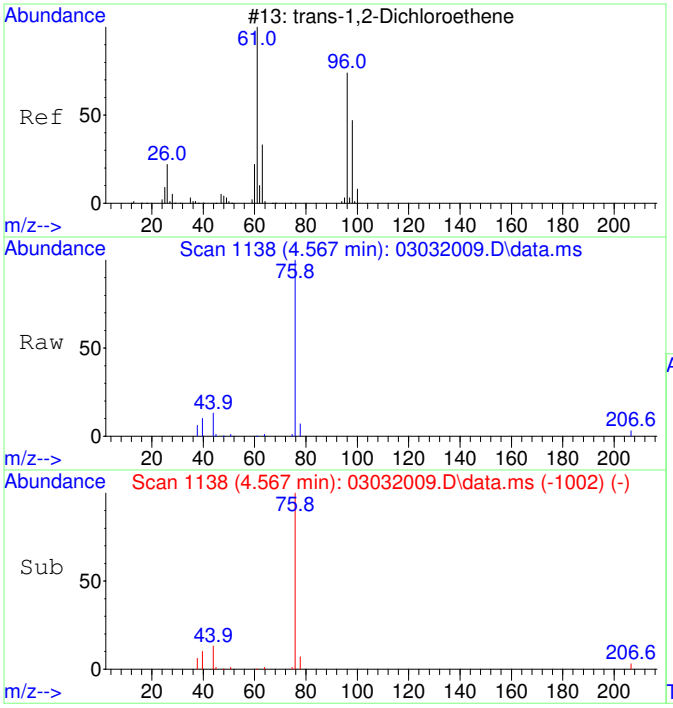


#25
2-Fluorotoluene SCAN
Concen: 5405.54 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:109 Resp: 53534

Ion	Ratio	Lower	Upper
109	100		
83	15.6	0.0	44.7

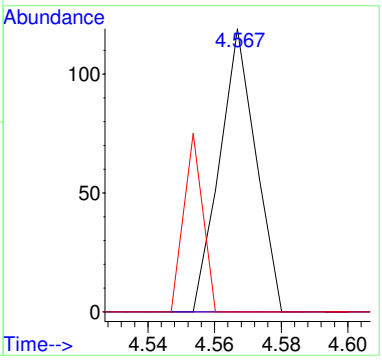


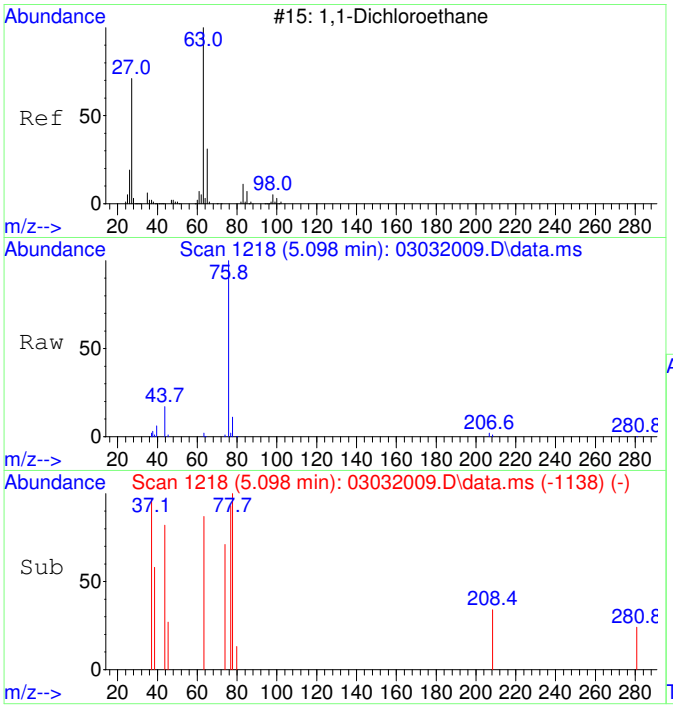


#27
trans-1,2-Dichloroethene SCAN
Concen: 29.56 ug/L
RT: 4.567 min Scan# 1138
Delta R.T. 0.259 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 61 Resp: 90

Ion	Ratio	Lower	Upper
61	100		
96	0.0	47.2	107.2#
98	0.0	16.4	76.4#

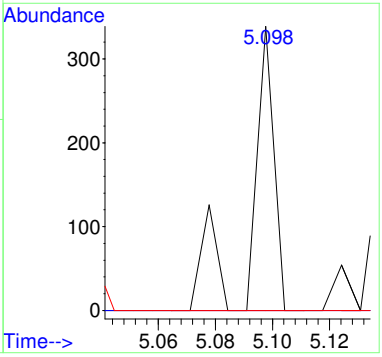


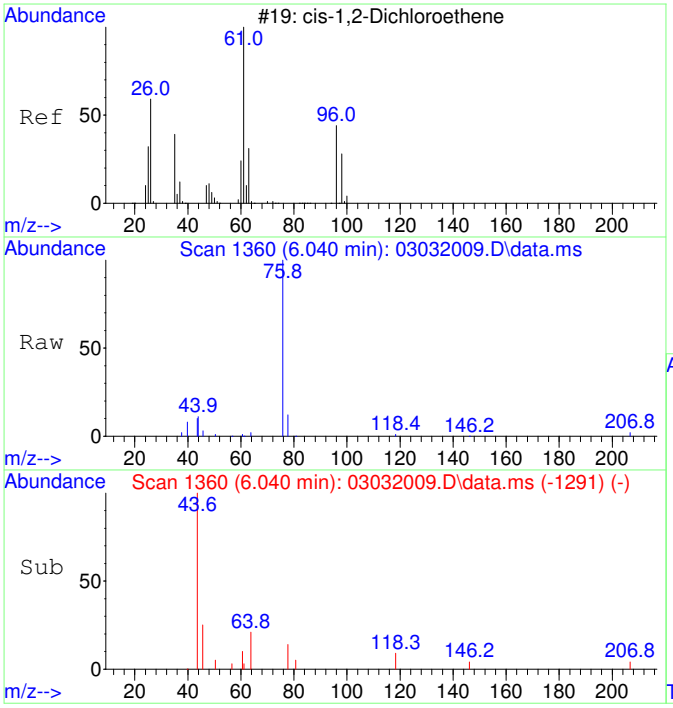


#28
1,1-Dichloroethane SCAN
Concen: 44.10 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.033 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 63 Resp: 185

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.3
83	0.0	0.0	37.5

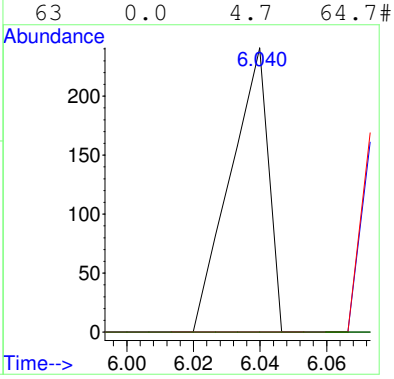


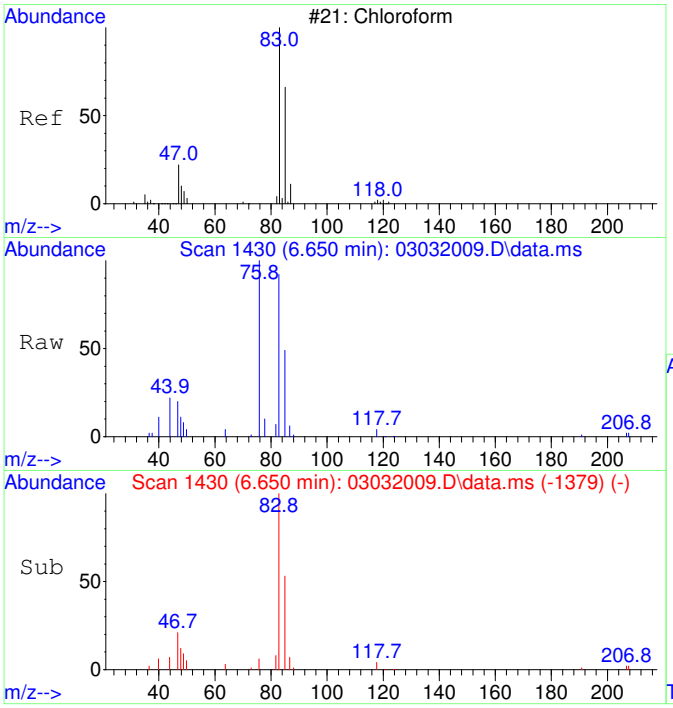


#29
cis-1,2-Dichloroethene SCAN
Concen: 58.32 ug/L
RT: 6.040 min Scan# 1360
Delta R.T. -0.040 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 61 Resp: 192

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	0.0	4.7	64.7#

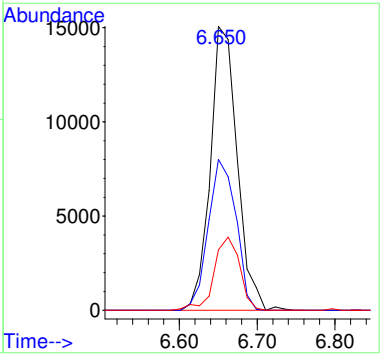


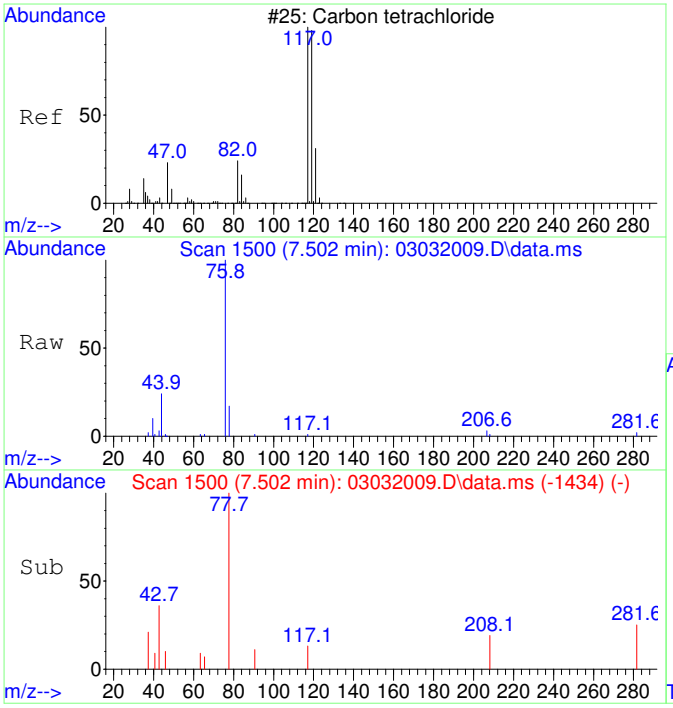


#30
Chloroform SCAN
Concen: 9937.08 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 83 Resp: 36216

Ion	Ratio	Lower	Upper
83	100		
85	54.8	43.1	103.1
47	24.6	0.0	58.1

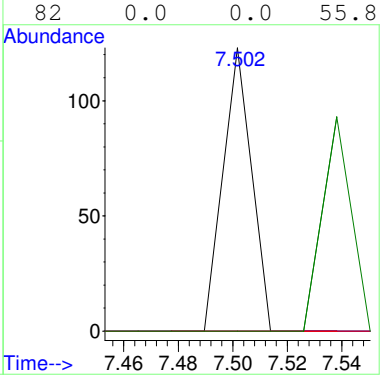


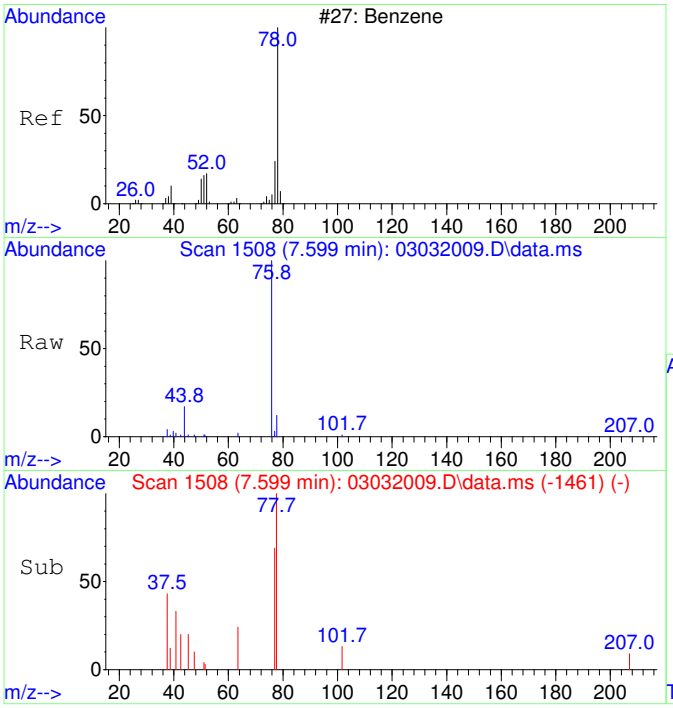


#32
Carbon tetrachloride SCAN
Concen: 24.11 ug/L
RT: 7.502 min Scan# 1500
Delta R.T. 0.304 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:117 Resp: 90

Ion	Ratio	Lower	Upper
117	100		
119	0.0	56.4	116.4#
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

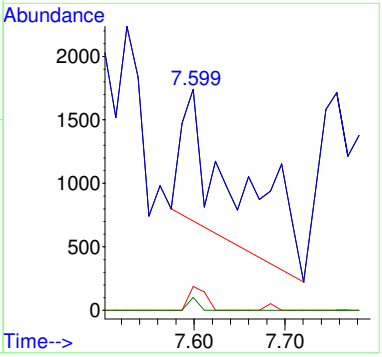


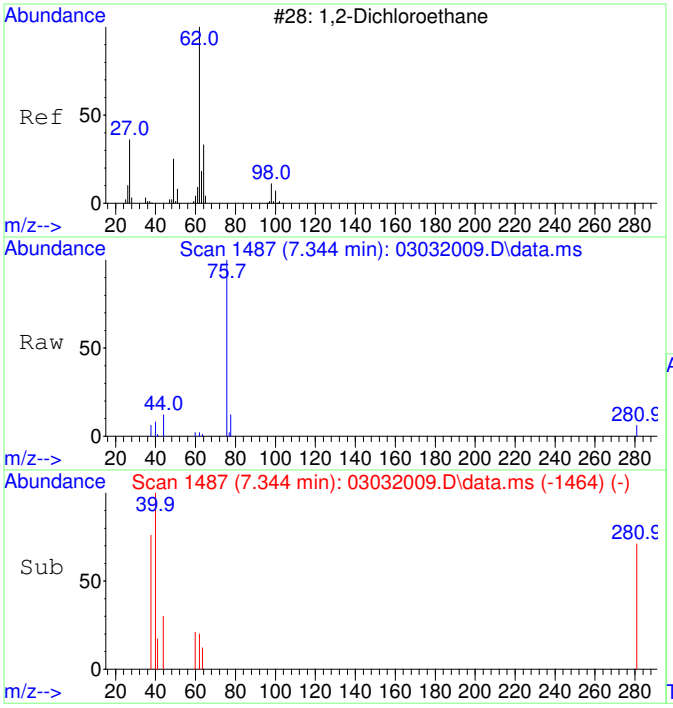


#33
Benzene SCAN
Concen: 433.41 ug/L
RT: 7.599 min Scan# 1508
Delta R.T. 0.073 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 78 Resp: 4191

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	5.8	0.0	49.6
52	1.8	0.0	44.0

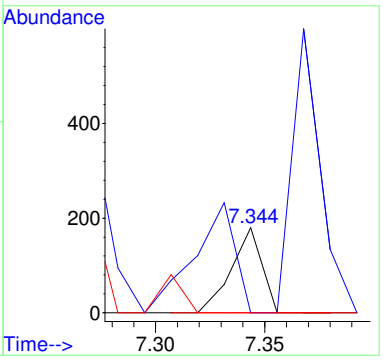


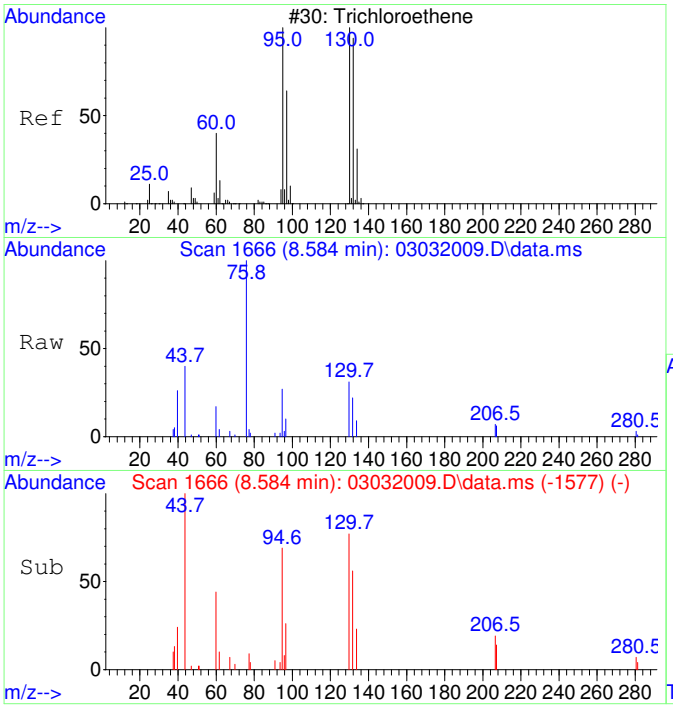


#34
1,2-Dichloroethane SCAN
Concen: 61.93 ug/L
RT: 7.344 min Scan# 1487
Delta R.T. -0.219 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 62 Resp: 175

Ion	Ratio	Lower	Upper
62	100		
64	176.6	15.5	75.5#
49	0.0	0.0	59.9

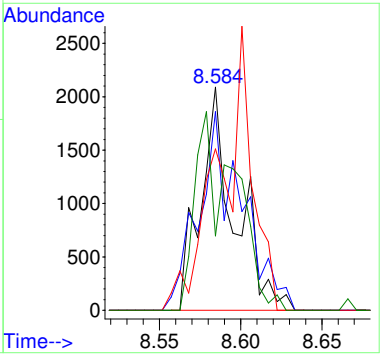


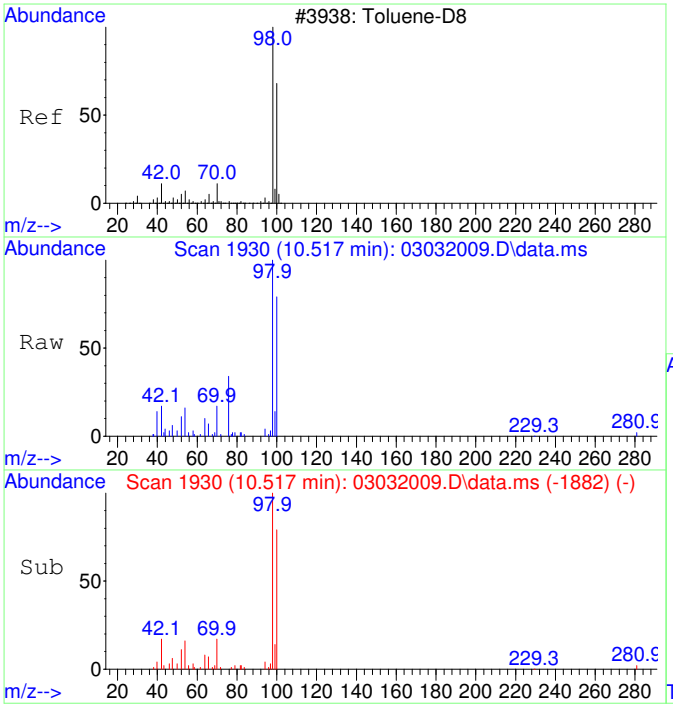


#35
Trichloroethene SCAN
Concen: 1243.24 ug/L
RT: 8.584 min Scan# 1666
Delta R.T. -0.017 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:130 Resp: 3067

Ion	Ratio	Lower	Upper
130	100		
95	111.8	58.2	118.2
132	0.0	69.1	129.1#
97	102.7	37.8	97.8#

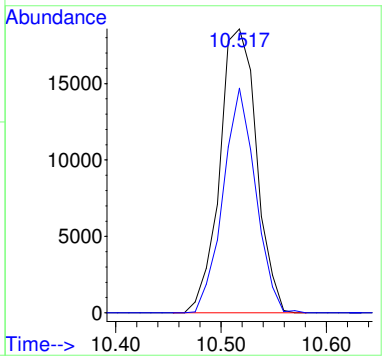


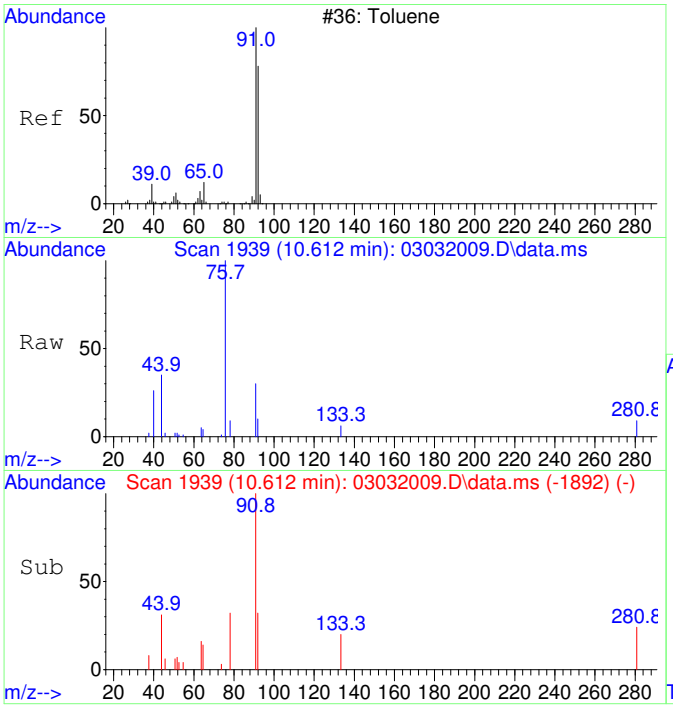


#36
Toluene-d8 SCAN
Concen: 4908.74 ug/L
RT: 10.517 min Scan# 1930
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 98 Resp: 45298

Ion	Ratio	Lower	Upper
98	100		
100	69.6	38.3	98.3

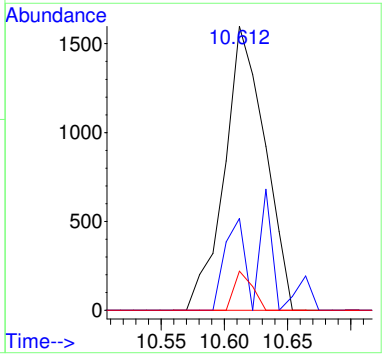


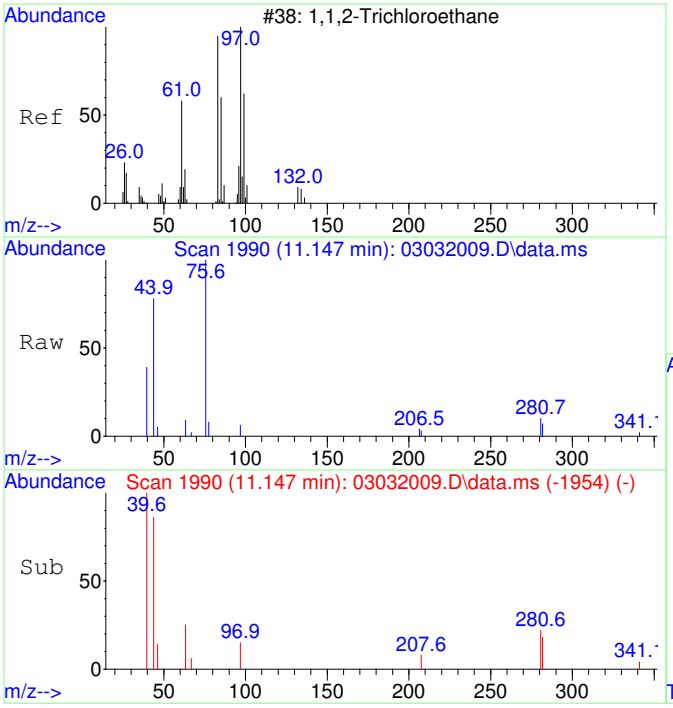


#37
Toluene SCAN
Concen: 314.56 ug/L
RT: 10.612 min Scan# 1939
Delta R.T. -0.011 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 3560

Ion	Ratio	Lower	Upper
91	100		
92	15.9	21.2	81.2#
65	6.3	0.0	41.4

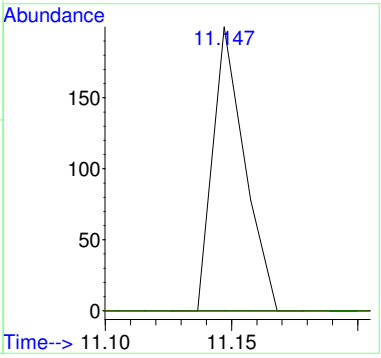


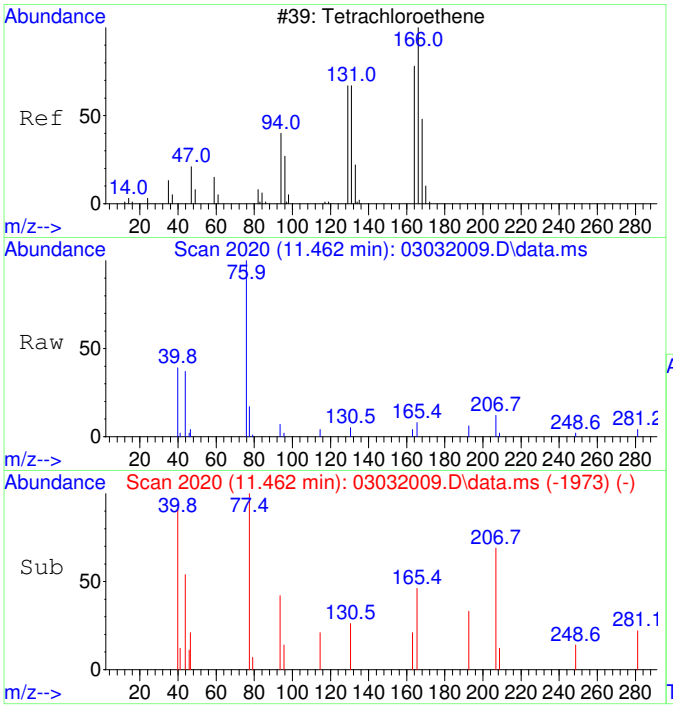


#38
1,1,2-Trichloroethane SCAN
Concen: 69.45 ug/L
RT: 11.147 min Scan# 1990
Delta R.T. -0.126 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 97 Resp: 175

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.5	113.5#
61	0.0	29.8	89.8#
99	0.0	35.1	95.1#

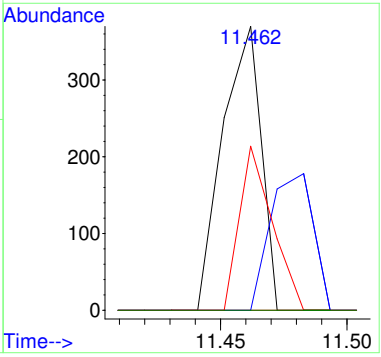


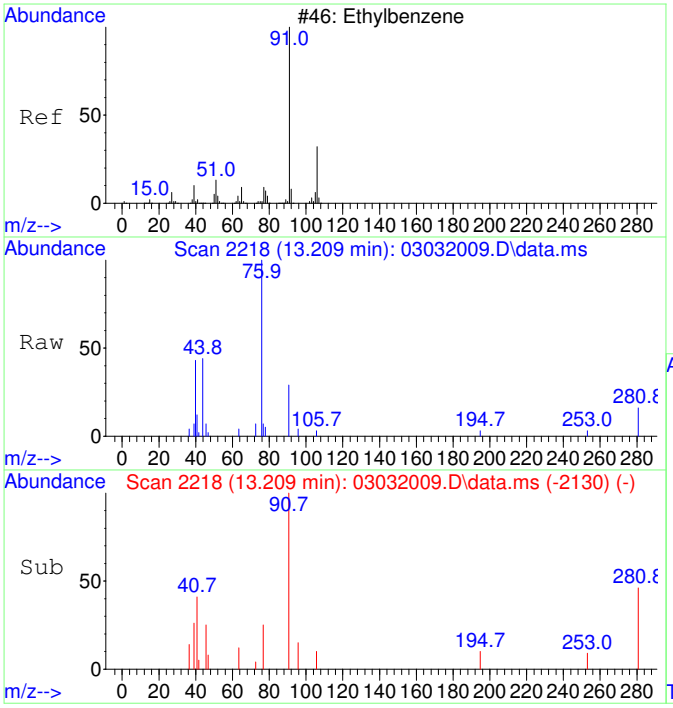


#39
Tetrachloroethene SCAN
Concen: 123.12 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.011 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion:166 Resp: 391

Ion	Ratio	Lower	Upper
166	100		
164	0.0	43.5	103.5#
131	49.4	37.6	97.6
129	0.0	40.5	100.5#

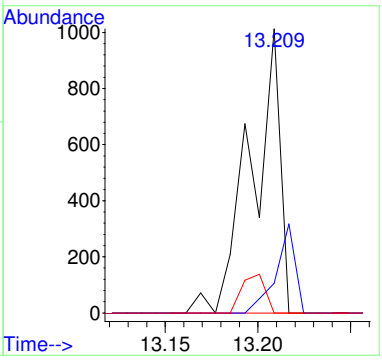


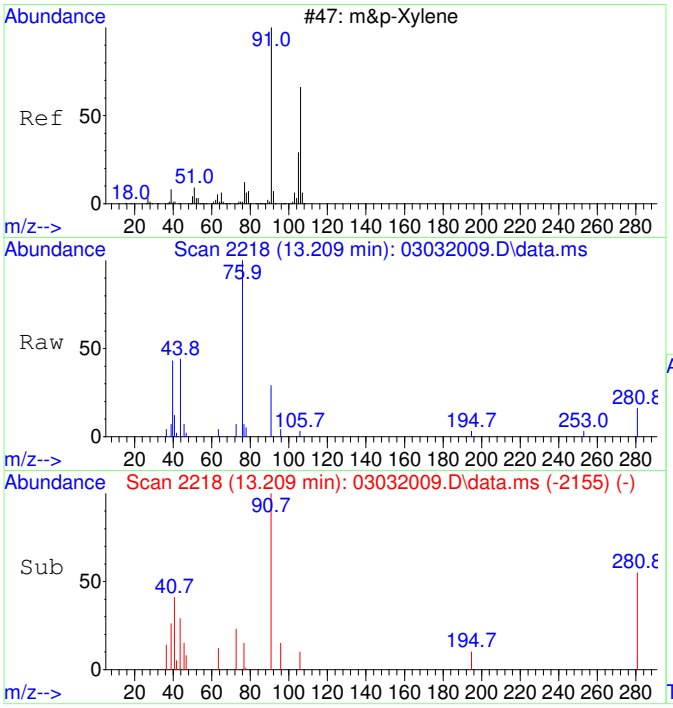


#42
Ethylbenzene SCAN
Concen: 87.69 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 1100

Ion	Ratio	Lower	Upper
91	100		
106	20.5	2.2	62.2
51	11.0	0.0	40.6

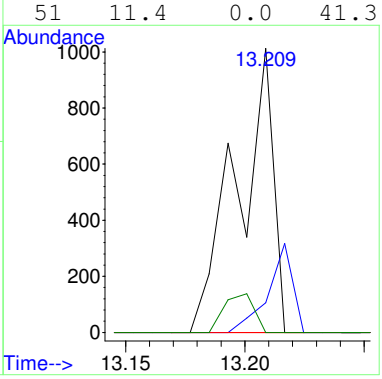


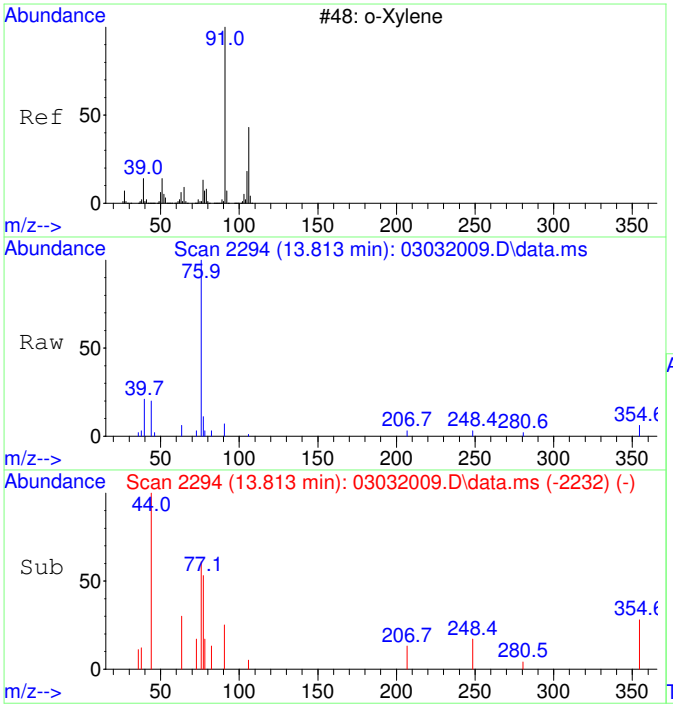


#43
m&p-Xylene SCAN
Concen: 59.87 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 1066

Ion	Ratio	Lower	Upper
91	100		
106	21.2	19.7	79.7
105	0.0	0.0	55.1
51	11.4	0.0	41.3

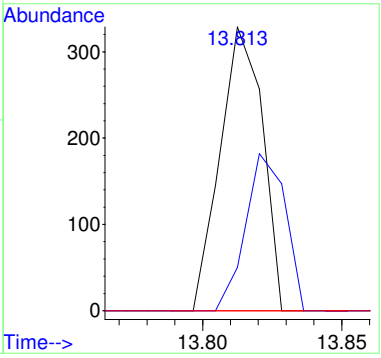




#44
o-Xylene SCAN
Concen: 36.72 ug/L
RT: 13.813 min Scan# 2294
Delta R.T. -0.008 min
Lab File: 03032009.D
Acq: 3 Mar 2020 12:41

Tgt Ion: 91 Resp: 348

Ion	Ratio	Lower	Upper
91	100		
106	52.0	18.1	78.1
105	0.0	0.0	54.4



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory

SDG: 20058B

Client: California Site Cleanup Section 3

Project: MEW OU3 FY2020 Vapor Intrusion Investigation

Instrument ID: AG5975CV

Calibration: 2001023

Sequence: S20C005

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B20C007-MRL1	1,1-Dichloroethene	0.131	0.116	89	ug/m³ Air	50 - 150
	trans-1,2-Dichloroethene	0.160	0.164	102	ug/m³ Air	50 - 150
	1,1-Dichloroethane	0.157	0.171	109	ug/m³ Air	50 - 150
	cis-1,2-Dichloroethene	0.160	0.177	111	ug/m³ Air	50 - 150
	Chloroform	0.132	0.147	111	ug/m³ Air	50 - 150
	Trichloroethene	0.144	0.197	137	ug/m³ Air	50 - 150
	Tetrachloroethene	**0.168**	**0.263**	**156**	**ug/m³ Air**	**50 - 150**
	Toluene-d8	992	1010	102	ug/m³ Air	90 - 110

Quantitation Report (Not Reviewed)

Table of Contents

Before Manual Integration

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

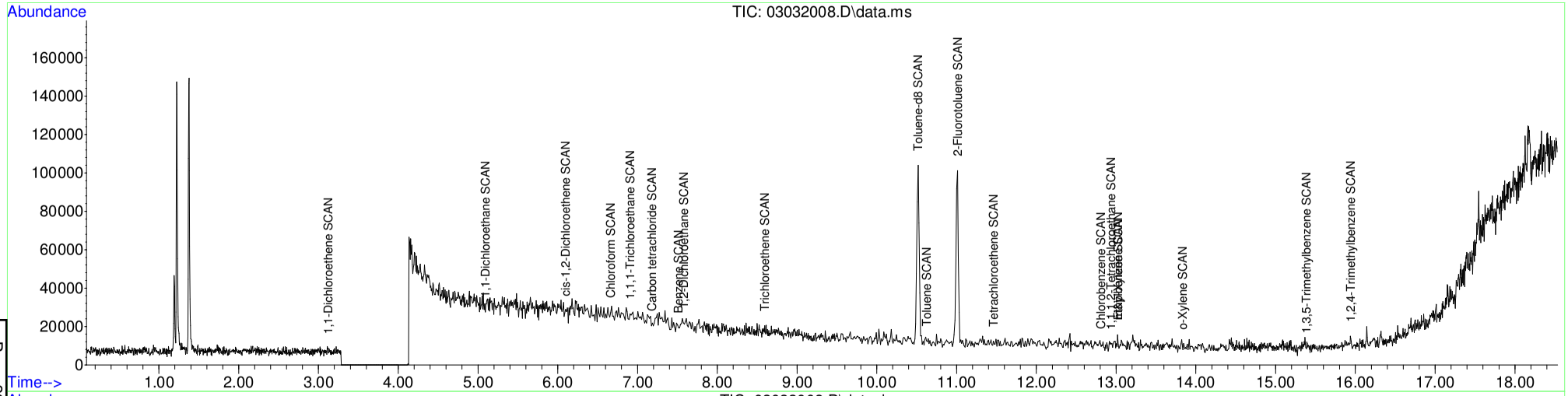
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	122847	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.509	98	107088	5095.32 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.91%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	631	101.09 ug/L	65
3] trans-1,2-Dichloroethene	4.303	61	329	51.23 ug/L	91
4] 1,1-Dichloroethane	5.059	63	435	54.27 ug/L	90
5] cis-1,2-Dichloroethene	6.075	61	415	55.34 ug/L	90
6] Chloroform	6.652	83	462	55.51 ug/L	99
7] 1,1,1-Trichloroethane	6.920	97	489	60.41 ug/L	88
8] Carbon tetrachloride	7.187	117	460	64.56 ug/L	99
9] Benzene	7.516	78	1364	67.17 ug/L	81
10] 1,2-Dichloroethane	7.564	62	430	64.19 ug/L	69
11] Trichloroethene	8.597	130	399	68.67 ug/L	92
13] Toluene	10.614	91	1925	77.96 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	386	69.31 ug/L	86
15] Tetrachloroethene	11.464	166	529	78.17 ug/L	96
16] Chlorobenzene	12.805	112	1310	73.57 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.956	131	477	81.30 ug/L	94
18] Ethylbenzene	13.012	91	2464	85.06 ug/L	96
19] m&p-Xylene	13.203	91	3736	170.96 ug/L	98
20] o-Xylene	13.814	91	1839	78.47 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.914	83	747	73.72 ug/L	98
22] 1,3,5-Trimethylbenzene	15.383	105	2167	85.69 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	2293	89.12 ug/L	97
25) 2-Fluorotoluene SCAN	11.011	109	79979	5282.95 ug/L	92
26) 1,1-Dichloroethene SCAN	3.115	61	94	21.55 ug/L #	1
28) 1,1-Dichloroethane SCAN	5.091	63	172	26.82 ug/L #	52
29) cis-1,2-Dichloroethene...	6.093	61	184	36.56 ug/L #	34
30) Chloroform SCAN	6.663	83	127	22.80 ug/L #	12
31) 1,1,1-Trichloroethane ...	6.906	97	653	116.91 ug/L #	24
32) Carbon tetrachloride SCAN	7.174	117	247	43.28 ug/L #	76
33) Benzene SCAN	7.514	78	6732	455.42 ug/L #	91
34) 1,2-Dichloroethane SCAN	7.575	62	539	124.79 ug/L #	36
35) Trichloroethene SCAN	8.596	130	96	25.46 ug/L #	1
36) Toluene-d8 SCAN	10.518	98	70682	5010.62 ug/L	99
37) Toluene SCAN	10.623	91	2186	126.36 ug/L #	71
39) Tetrachloroethene SCAN	11.462	166	311	64.06 ug/L #	14
40) Chlorobenzene SCAN	12.804	112	601	55.14 ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.939	131	313	78.02 ug/L #	31
42) Ethylbenzene SCAN	13.019	91	1898	98.98 ug/L	80
43) m&p-Xylene SCAN	13.019	91	1931	70.95 ug/L	64
44) o-Xylene SCAN	13.829	91	1426	98.43 ug/L #	38
46) 1,3,5-Trimethylbenzene...	15.377	105	766	51.64 ug/L #	39
47) 1,2,4-Trimethylbenzene...	15.938	105	1862	118.07 ug/L	85

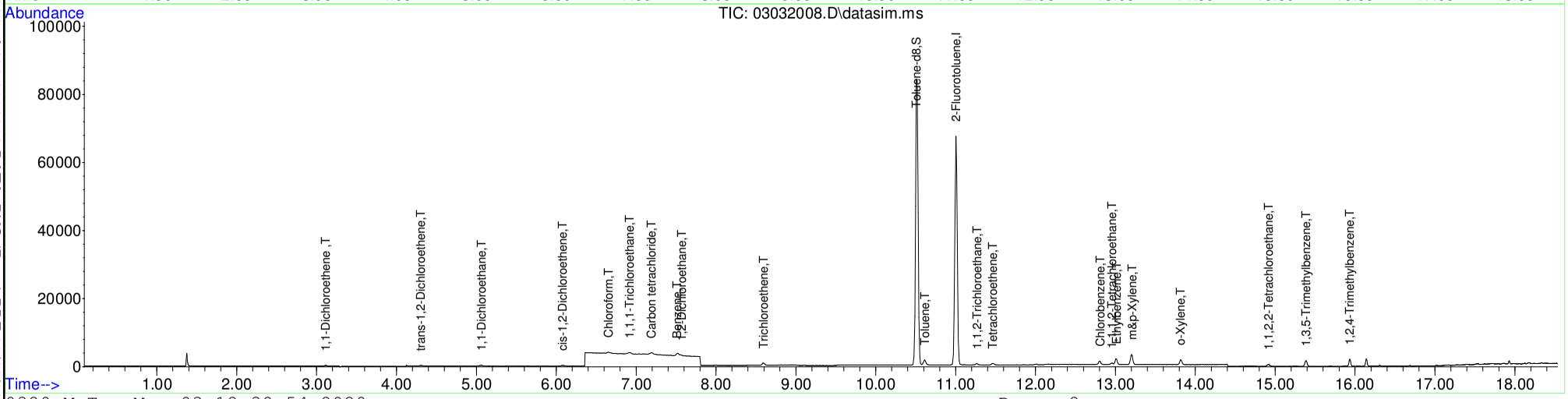
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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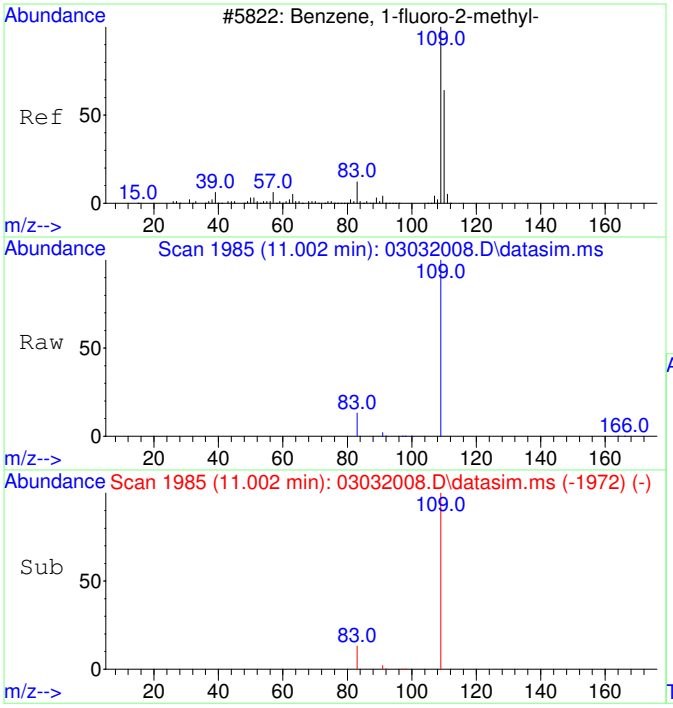
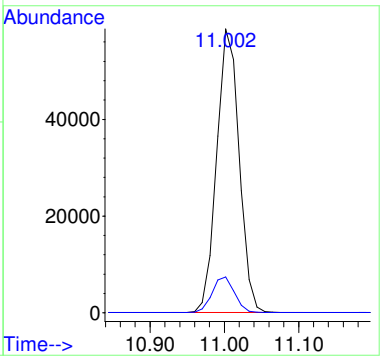
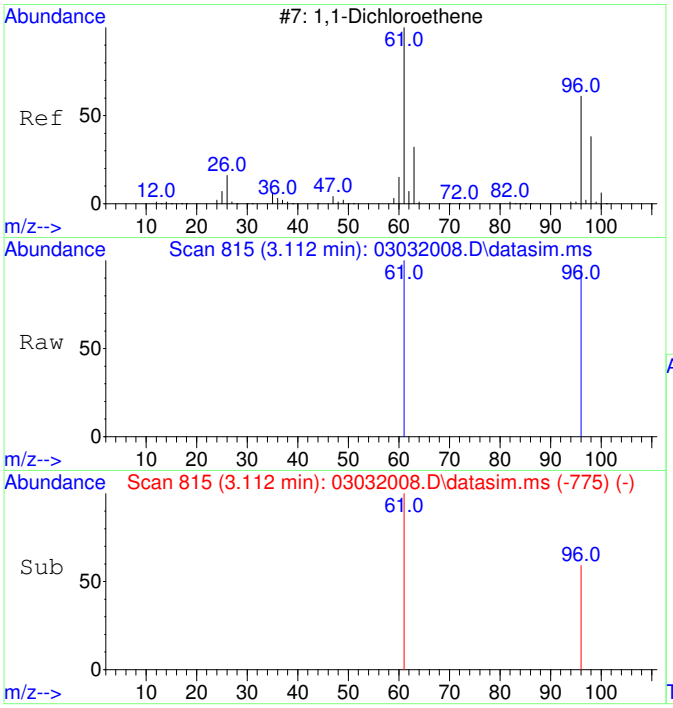


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 122847

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.2

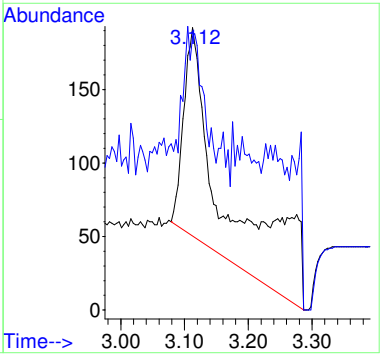




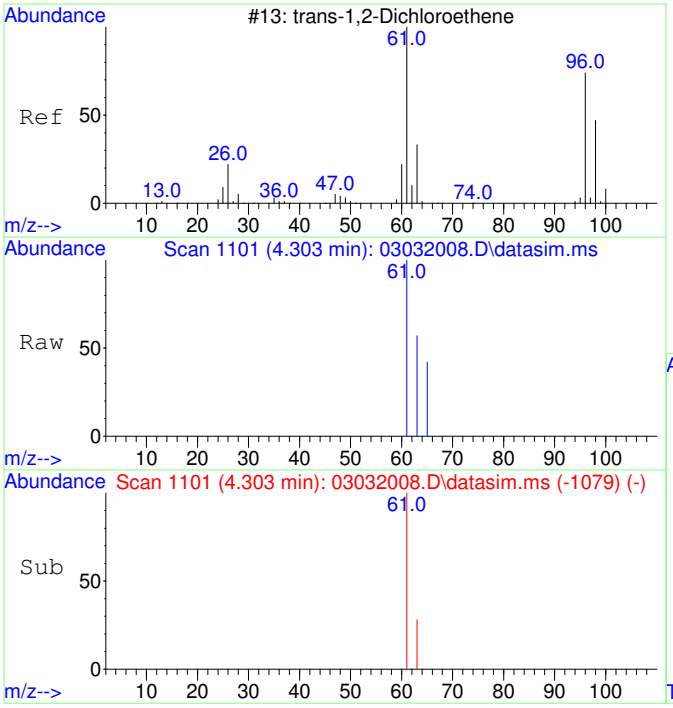
#2
1,1-Dichloroethene
Concen: 101.09 ug/L
RT: 3.112 min Scan# 815
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 631

Ion	Ratio	Lower	Upper
61	100		
96	36.3	33.2	93.2



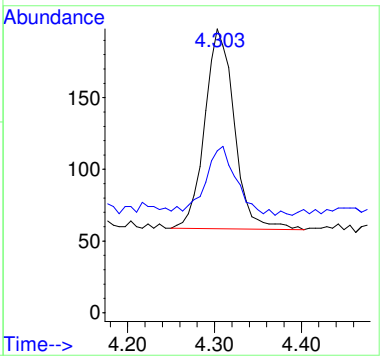
Before MI:
IMPROPER
BASELINE

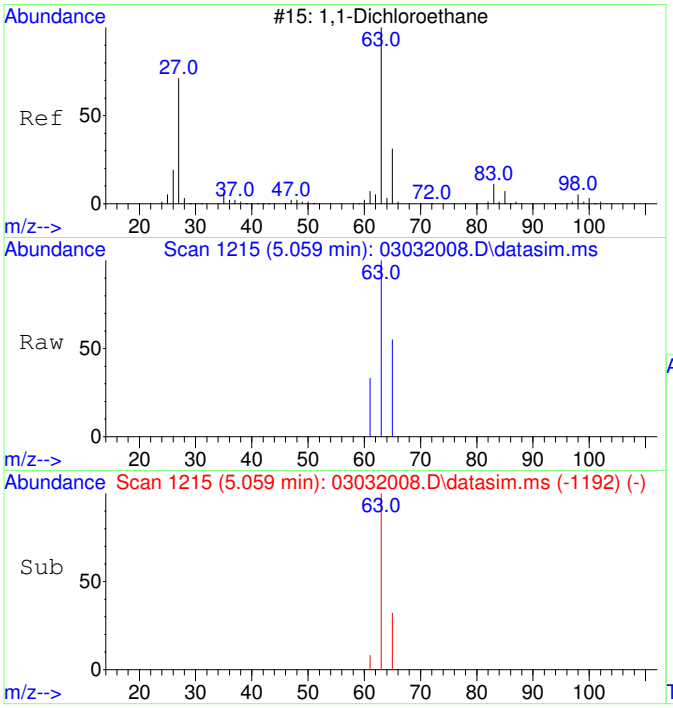


#3
trans-1,2-Dichloroethene
Concen: 51.23 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 329

Ion	Ratio	Lower	Upper
61	100		
63	37.1	2.3	62.3

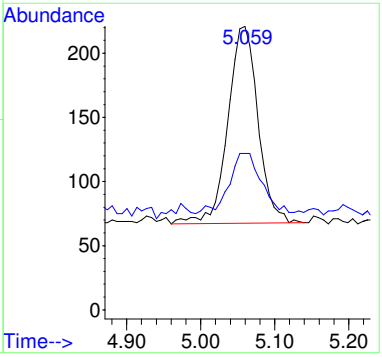


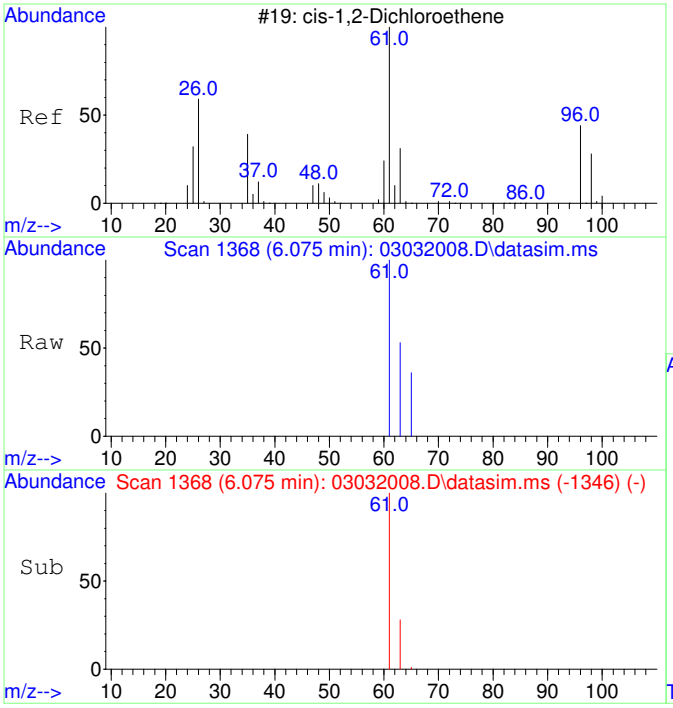


#4
1,1-Dichloroethane
Concen: 54.27 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 435

Ion	Ratio	Lower	Upper
63	100		
65	37.5	1.7	61.7

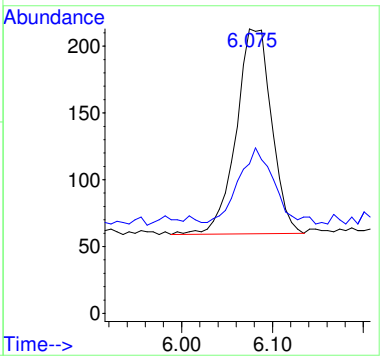


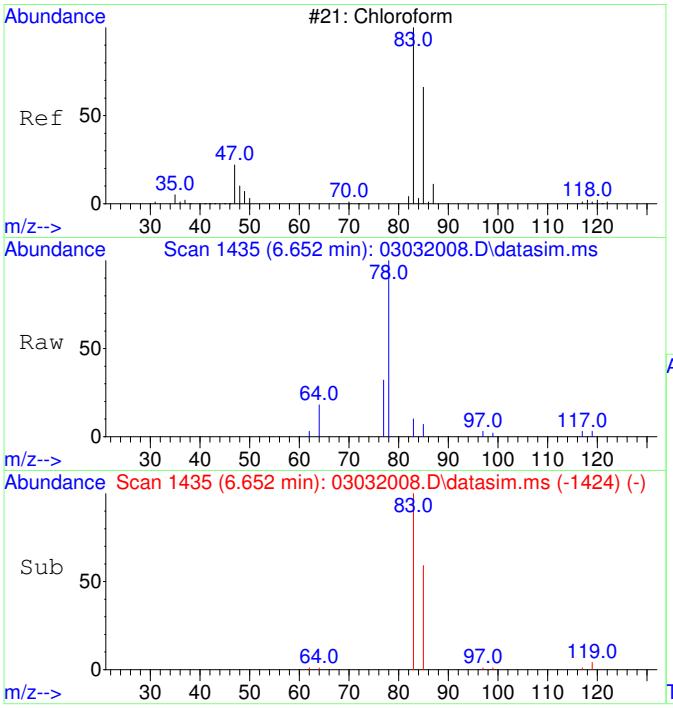


#5
cis-1,2-Dichloroethene
Concen: 55.34 ug/L
RT: 6.075 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 415

Ion	Ratio	Lower	Upper
61	100		
63	38.3	2.6	62.6

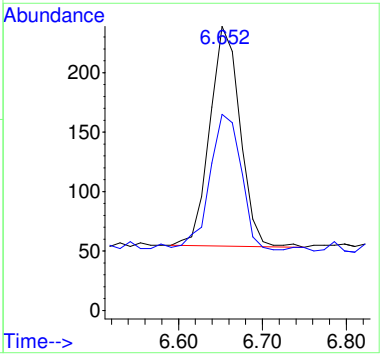


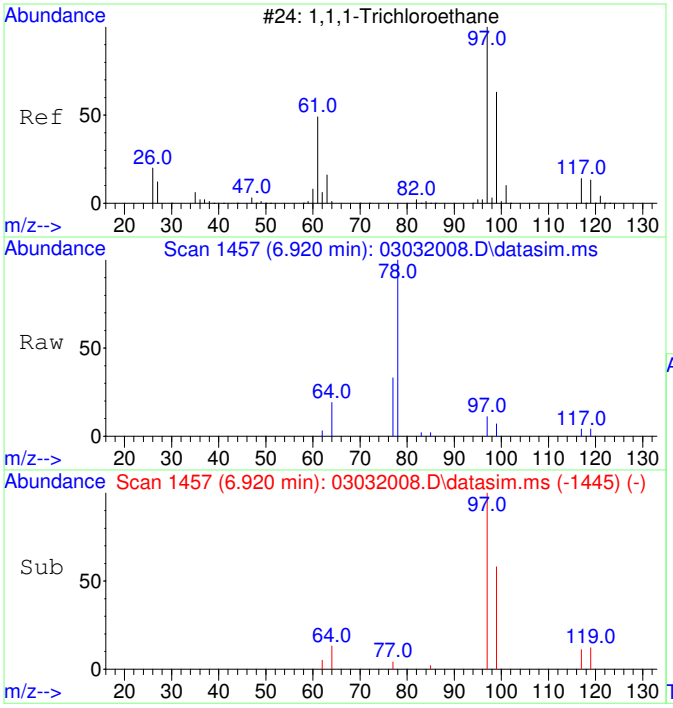


#6
Chloroform
Concen: 55.51 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 462

Ion	Ratio	Lower	Upper
83	100		
85	64.3	34.7	94.7

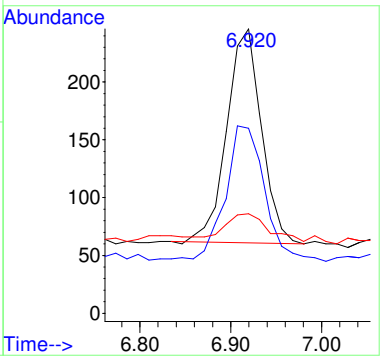


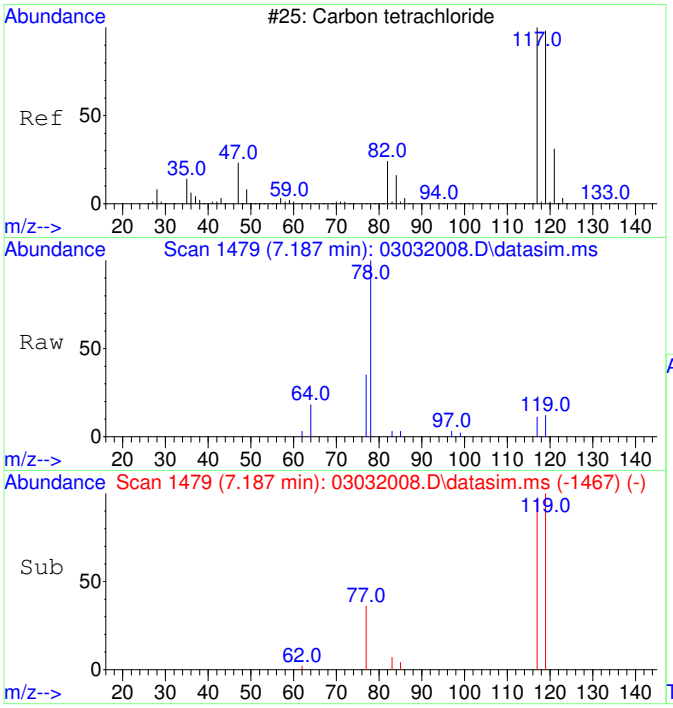


#7
1,1,1-Trichloroethane
Concen: 60.41 ug/L
RT: 6.920 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 489

Ion	Ratio	Lower	Upper
97	100		
99	72.2	34.4	94.4
117	20.7	0.0	42.8

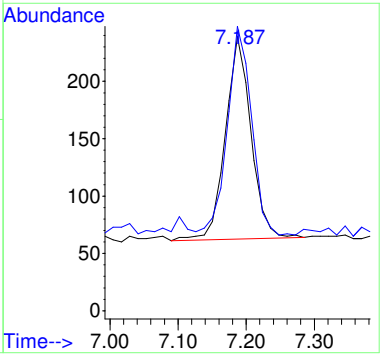


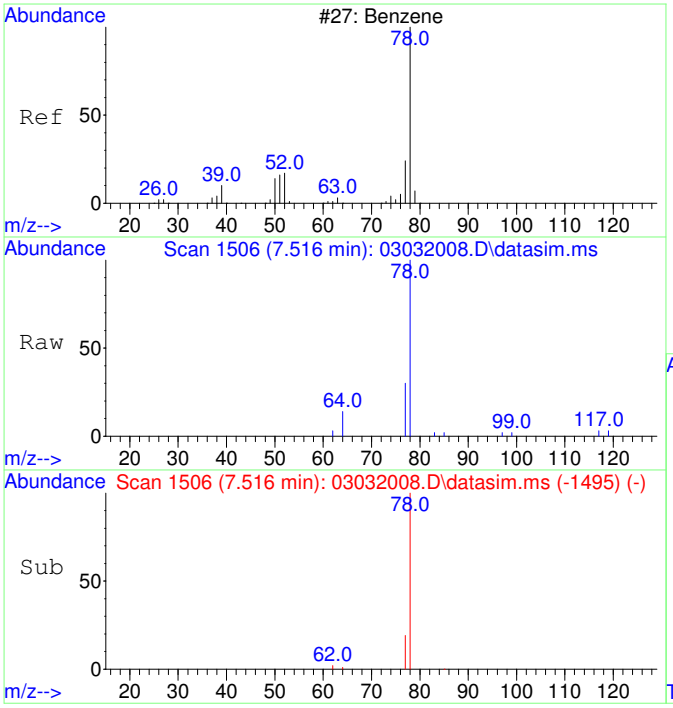


#8
Carbon tetrachloride
Concen: 64.56 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 460

Ion	Ratio	Lower	Upper
117	100		
119	97.2	66.1	126.1

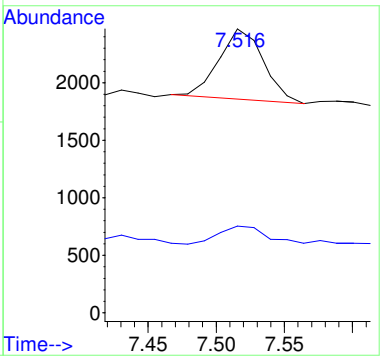


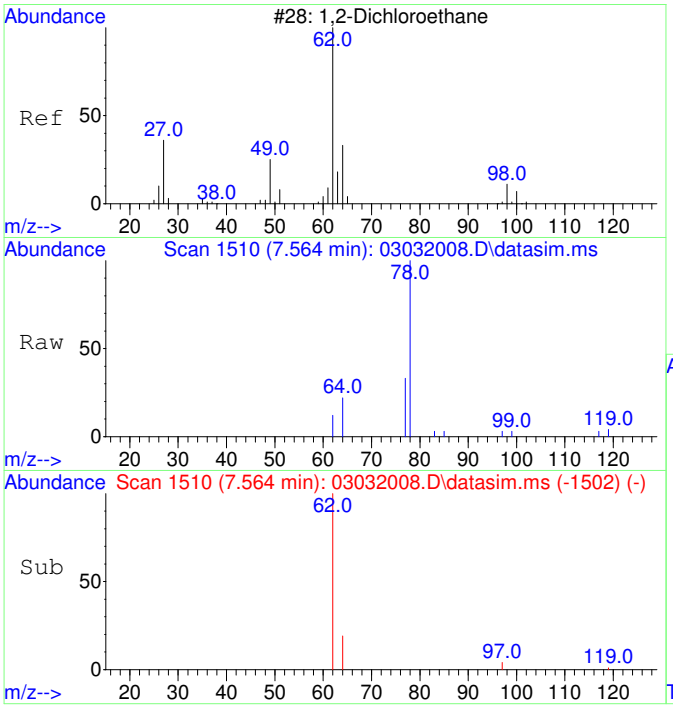


#9
Benzene
Concen: 67.17 ug/L
RT: 7.516 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 1364

Ion	Ratio	Lower	Upper
78	100		
77	33.1	0.0	53.6

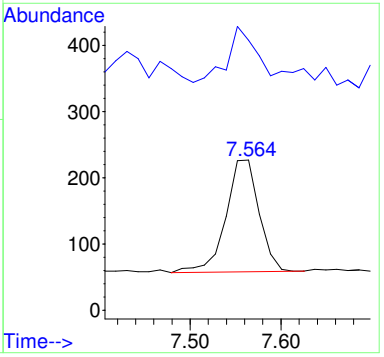


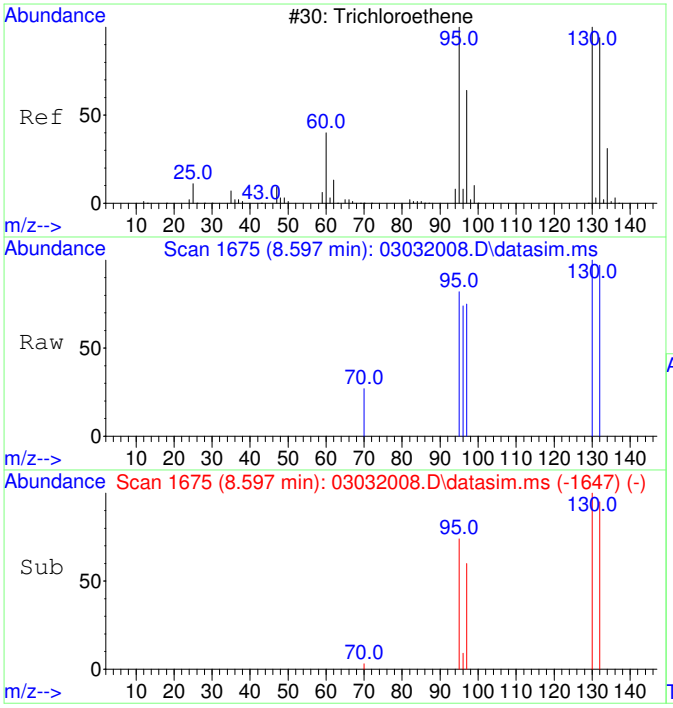


#10
1,2-Dichloroethane
Concen: 64.19 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 430

Ion	Ratio	Lower	Upper
62	100		
64	50.0	2.4	62.4

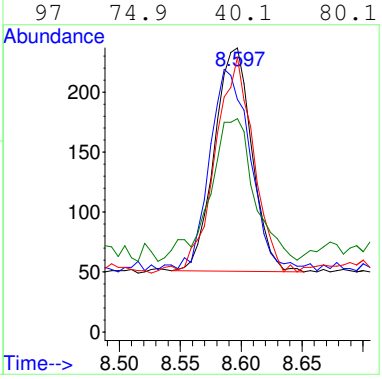


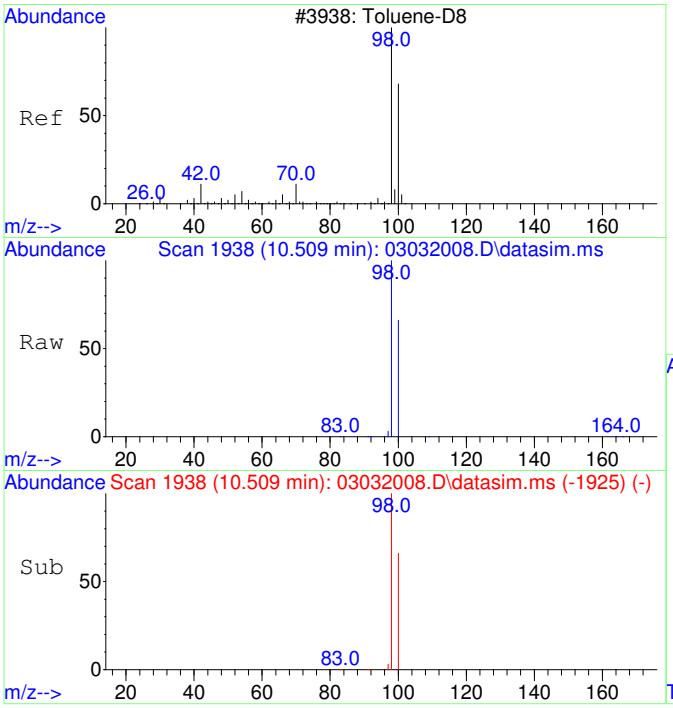


#11
Trichloroethene
Concen: 68.67 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 399

Ion	Ratio	Lower	Upper
130	100		
95	100.0	63.8	123.8
132	99.2	75.9	115.9
97	74.9	40.1	80.1

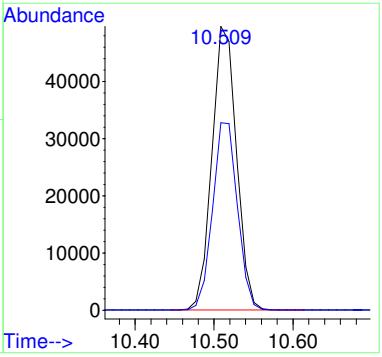


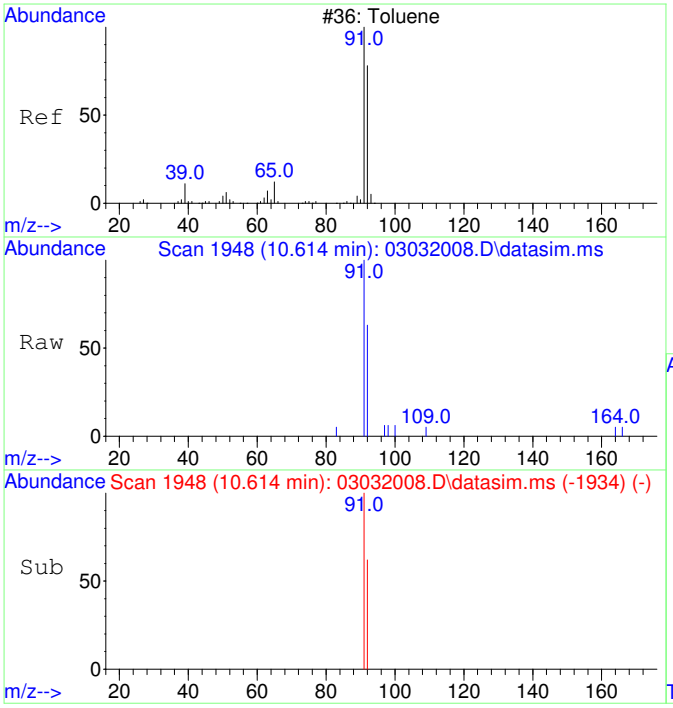


#12
Toluene-d8
Concen: 5095.32 ug/L
RT: 10.509 min Scan# 1938
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 107088

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.5	96.5

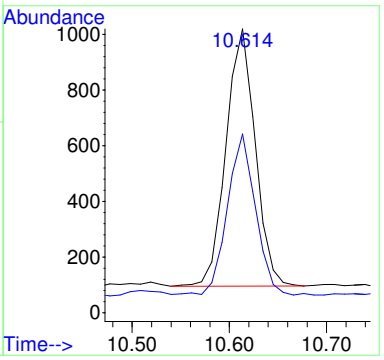


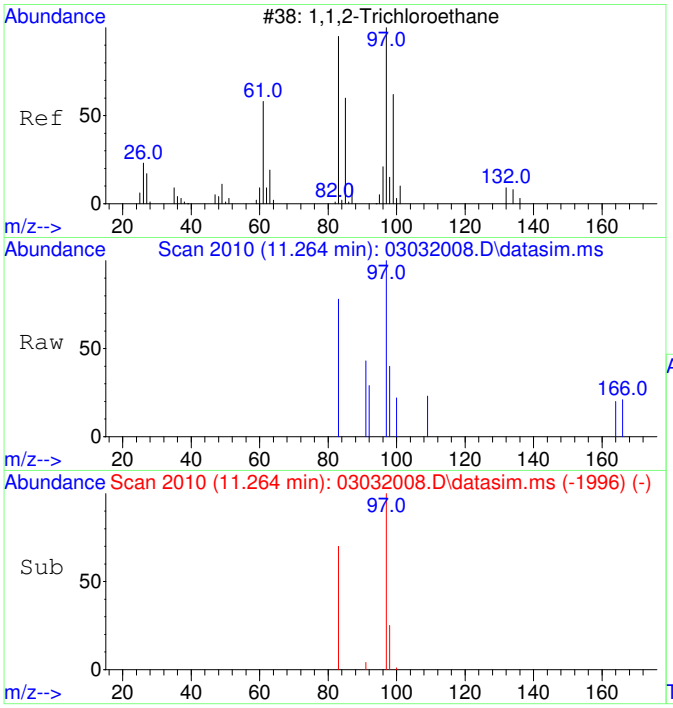


#13
Toluene
Concen: 77.96 ug/L
RT: 10.614 min Scan# 1948
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1925

Ion	Ratio	Lower	Upper
91	100		
92	59.1	29.7	89.7

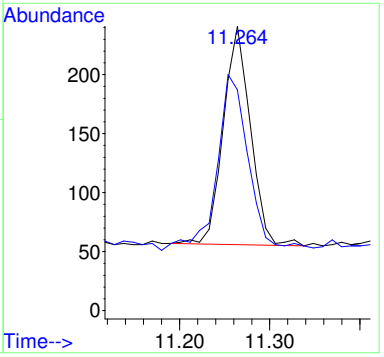


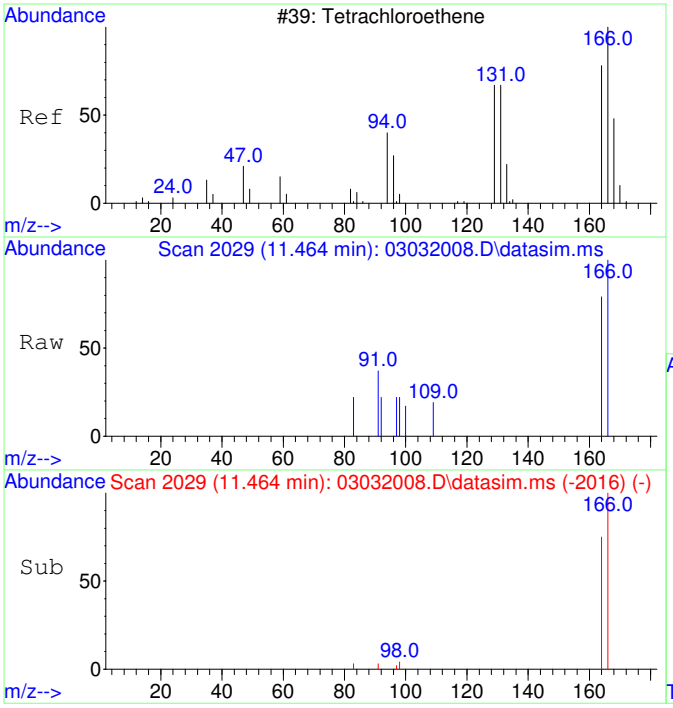


#14
1,1,2-Trichloroethane
Concen: 69.31 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 386

Ion	Ratio	Lower	Upper
97	100		
83	94.8	51.9	111.9

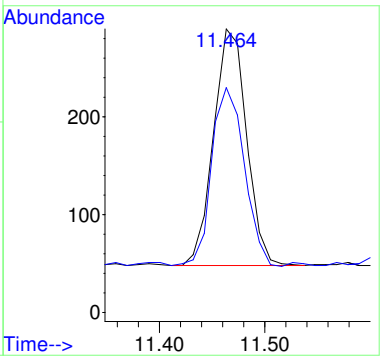


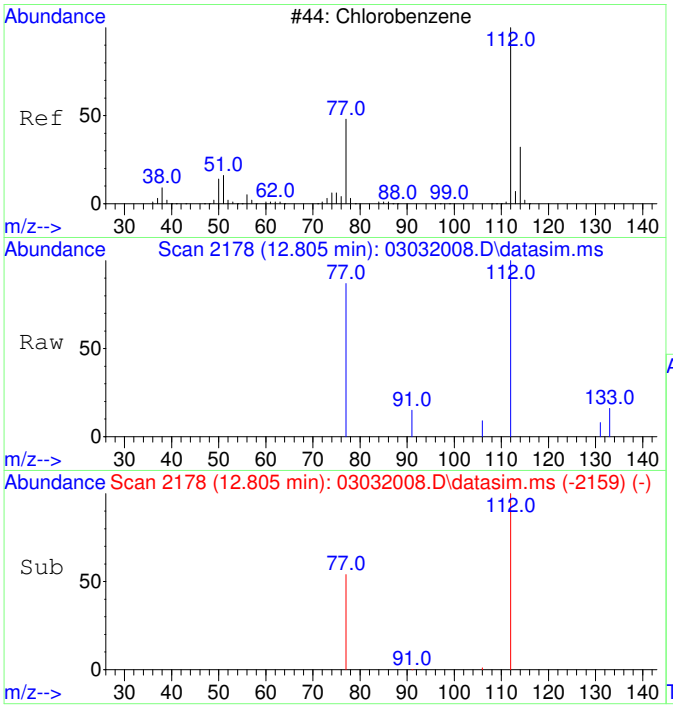


#15
Tetrachloroethene
Concen: 78.17 ug/L
RT: 11.464 min Scan# 2029
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 529

Ion	Ratio	Lower	Upper
166	100		
164	74.5	47.9	107.9

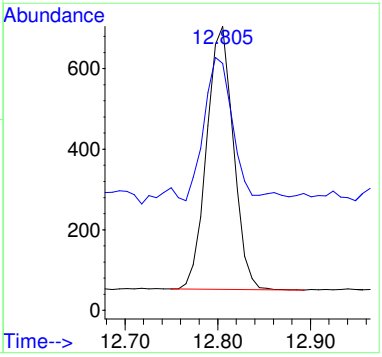


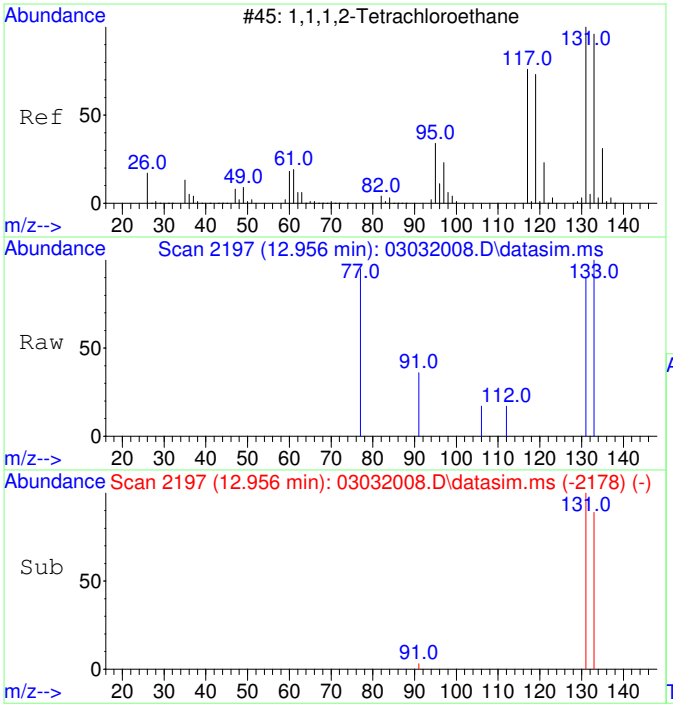


#16
Chlorobenzene
Concen: 73.57 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 1310

Ion	Ratio	Lower	Upper
112	100		
77	57.4	25.7	85.7

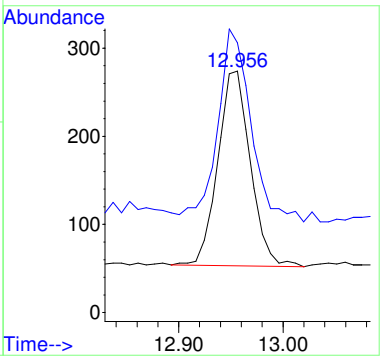


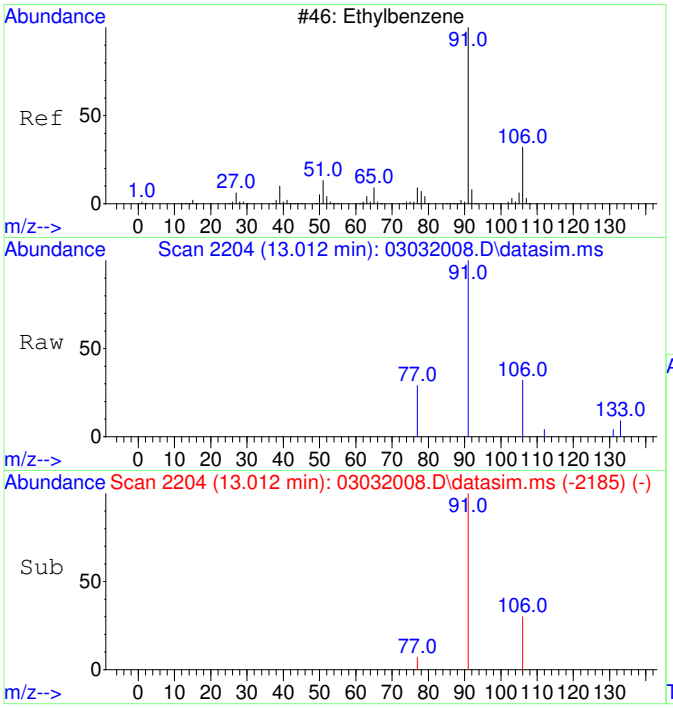


#17
1,1,1,2-Tetrachloroethane
Concen: 81.30 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 477

Ion	Ratio	Lower	Upper
131	100		
133	102.7	66.5	126.5

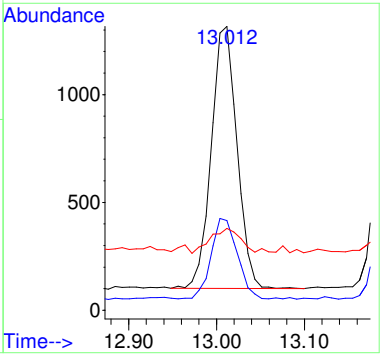


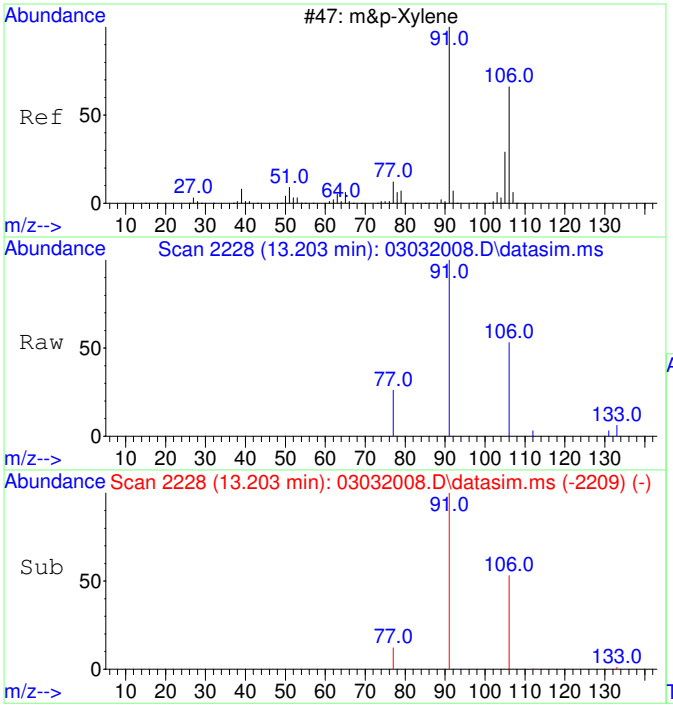


#18
Ethylbenzene
Concen: 85.06 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2464

Ion	Ratio	Lower	Upper
91	100		
106	31.2	2.7	62.7
77	11.6	0.0	38.3

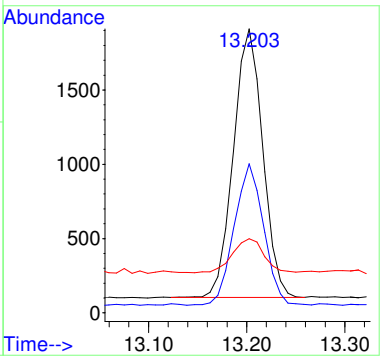


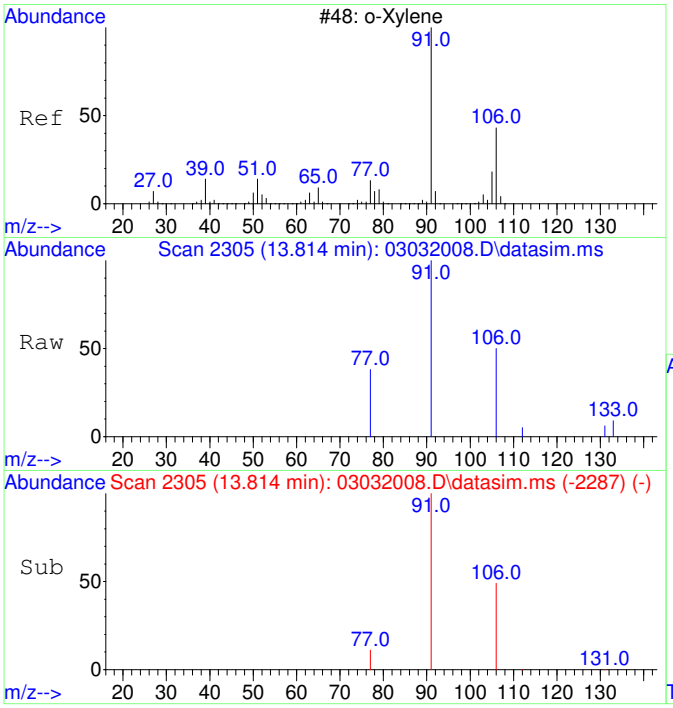


#19
m&p-Xylene
Concen: 170.96 ug/L
RT: 13.203 min Scan# 2228
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 3736

Ion	Ratio	Lower	Upper
91	100		
106	52.7	21.8	81.8
77	13.7	0.0	42.6

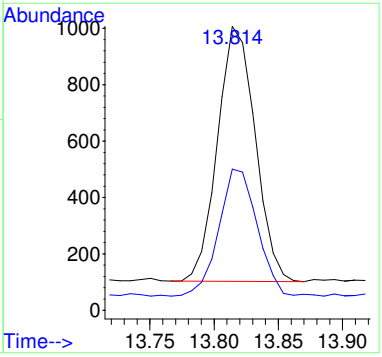


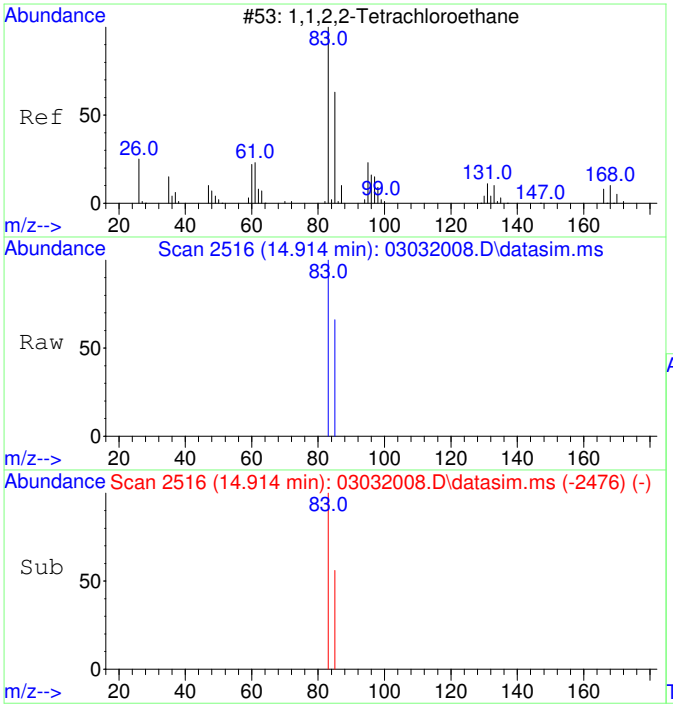


#20
o-Xylene
Concen: 78.47 ug/L
RT: 13.814 min Scan# 2305
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1839

Ion	Ratio	Lower	Upper
91	100		
106	50.8	18.8	78.8

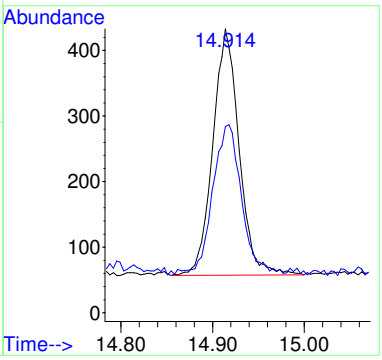


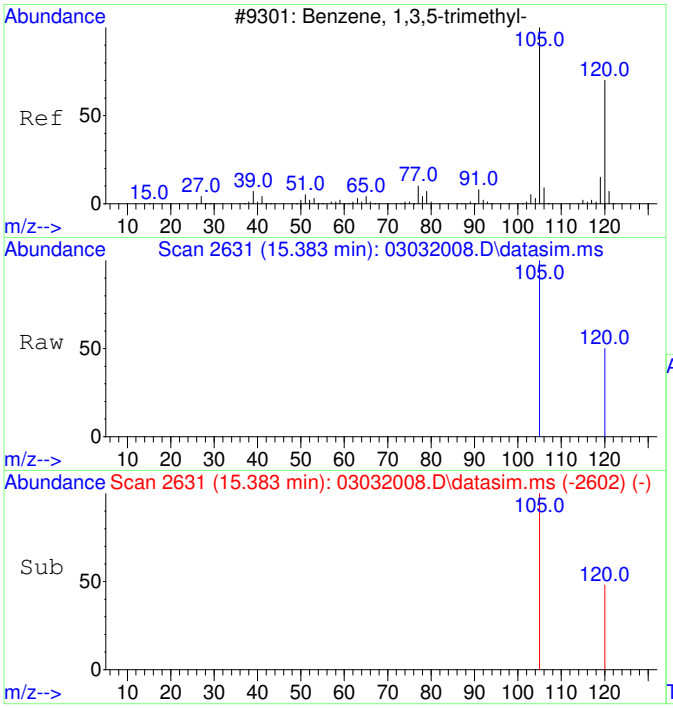


#21
1,1,2,2-Tetrachloroethane
Concen: 73.72 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 747

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.4	94.4

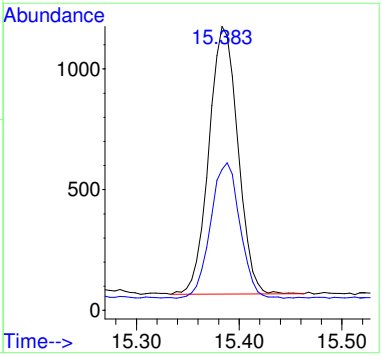


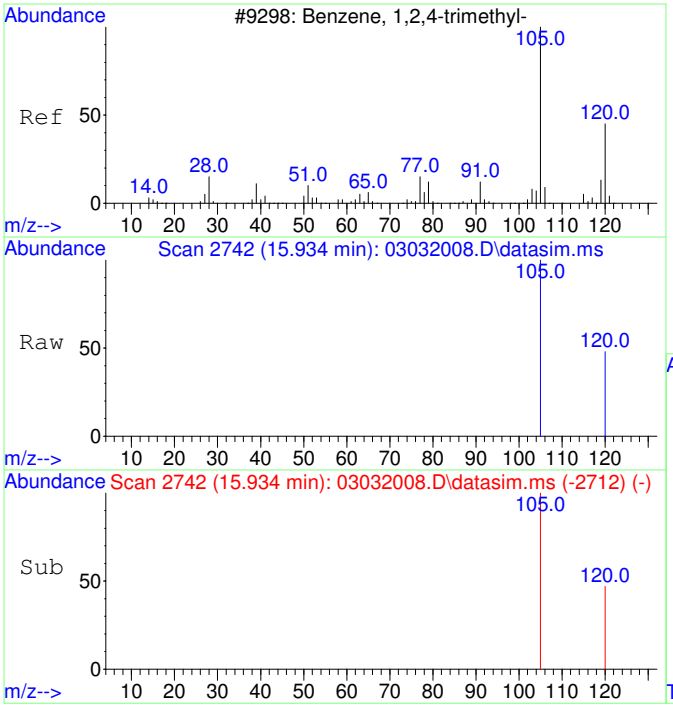


#22
1,3,5-Trimethylbenzene
Concen: 85.69 ug/L
RT: 15.383 min Scan# 2631
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2167

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

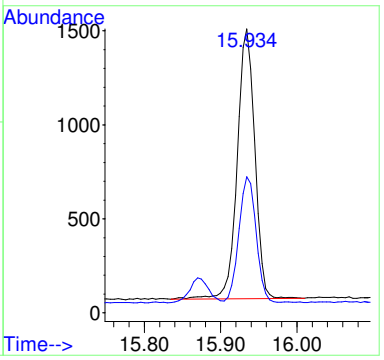


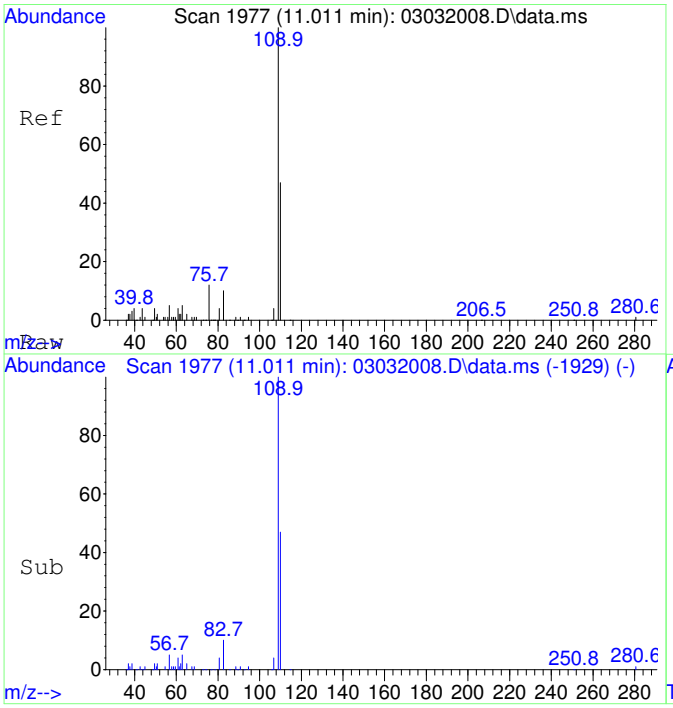


#23
1,2,4-Trimethylbenzene
Concen: 89.12 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2293

Ion	Ratio	Lower	Upper
105	100		
120	44.8	17.1	77.1

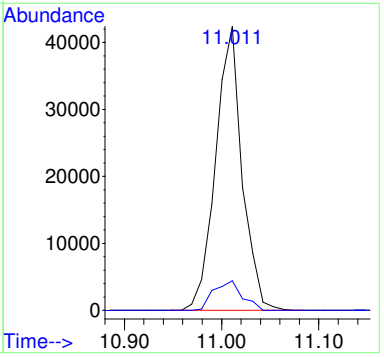


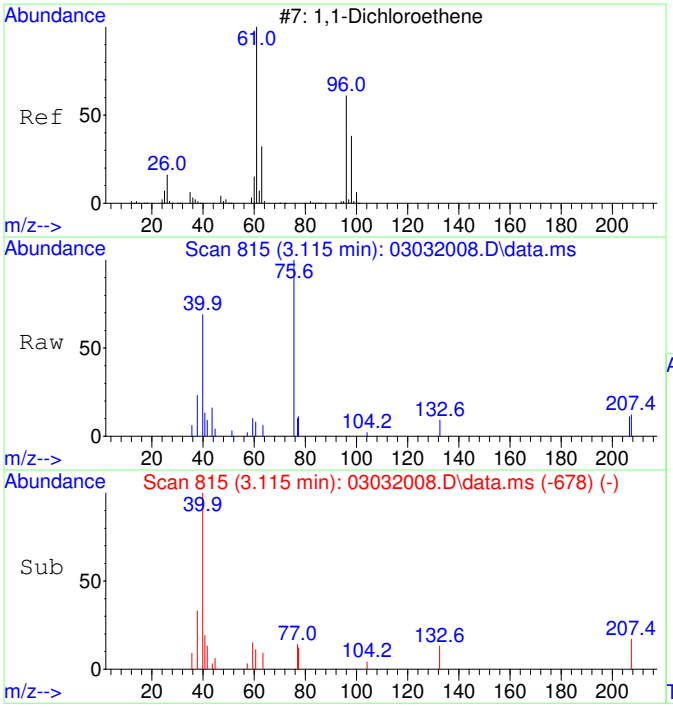


#25
2-Fluorotoluene SCAN
Concen: 5282.95 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 79979

Ion	Ratio	Lower	Upper
109	100		
83	11.2	0.0	44.7

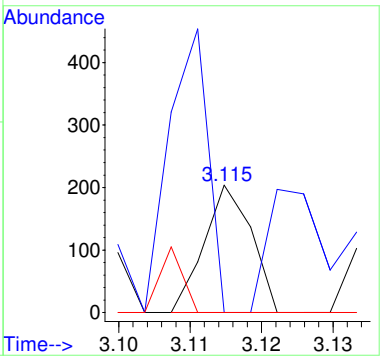


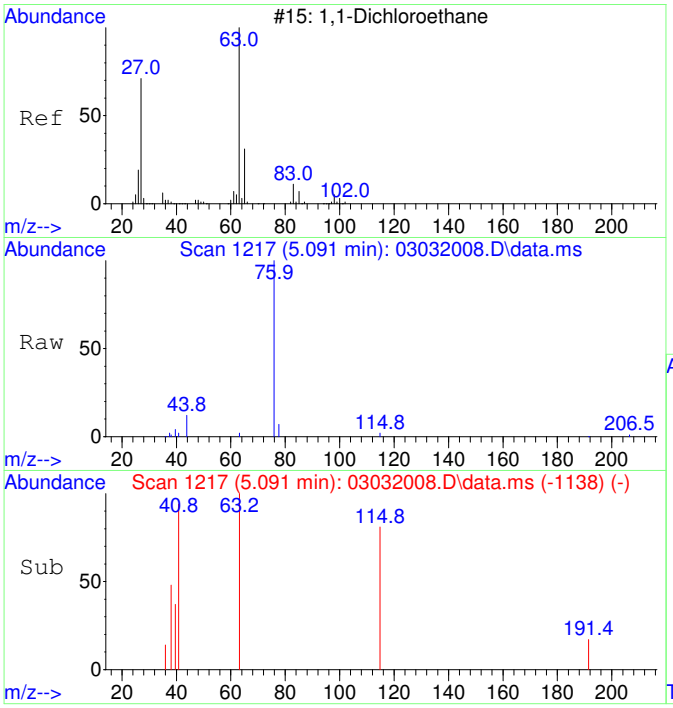


#26
1,1-Dichloroethene SCAN
Concen: 21.55 ug/L
RT: 3.115 min Scan# 815
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	184.0	34.7	94.7#
98	0.0	4.7	64.7#

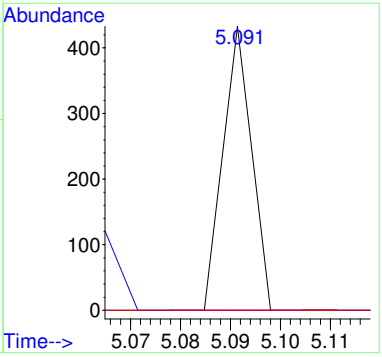


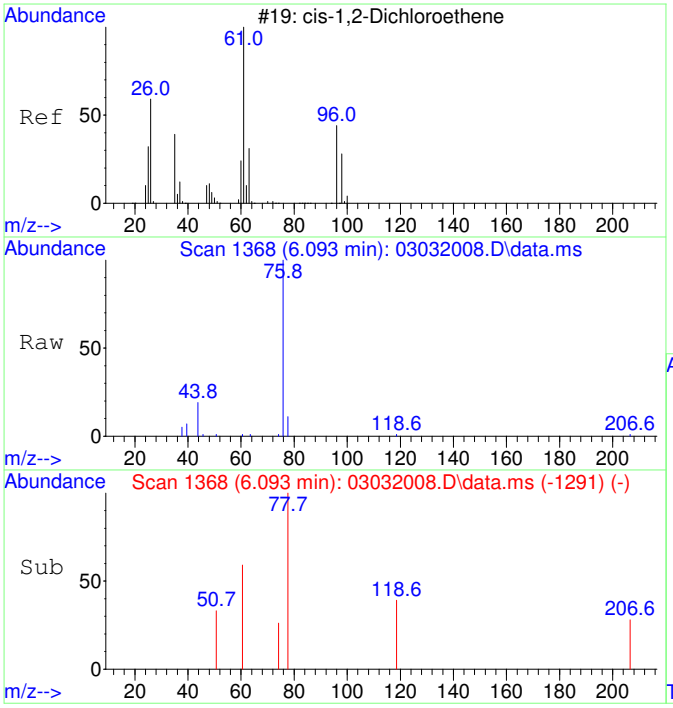


#28
1,1-Dichloroethane SCAN
Concen: 26.82 ug/L
RT: 5.091 min Scan# 1217
Delta R.T. 0.027 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 172

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.3
83	0.0	0.0	37.5

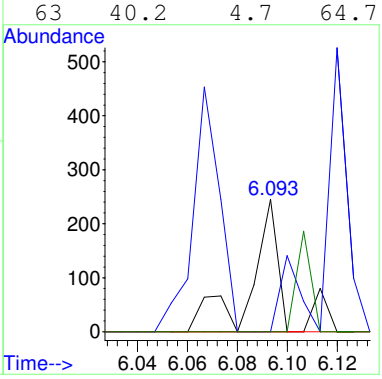


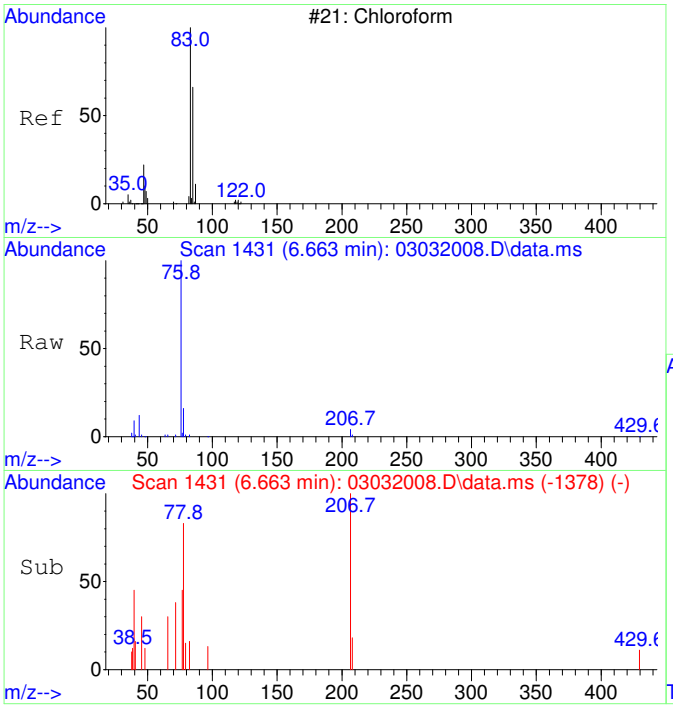


#29
cis-1,2-Dichloroethene SCAN
Concen: 36.56 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.013 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 184

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	40.2	4.7	64.7

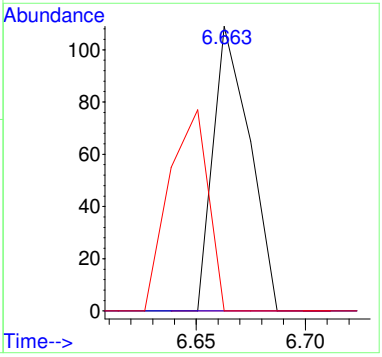


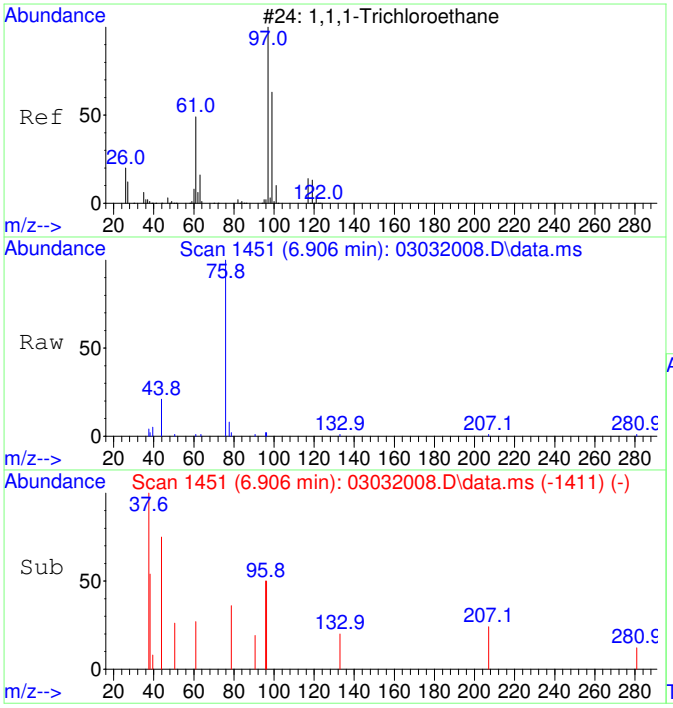


#30
Chloroform SCAN
Concen: 22.80 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 127

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	75.6	0.0	58.1#

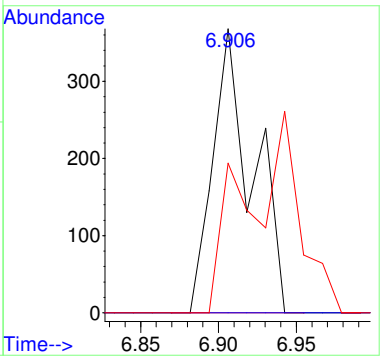


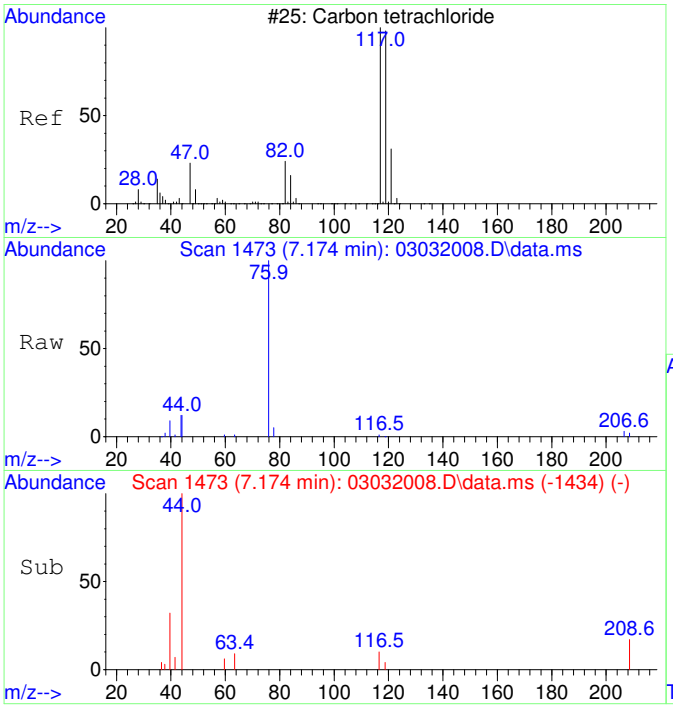


#31
1,1,1-Trichloroethane SCAN
Concen: 116.91 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 653

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

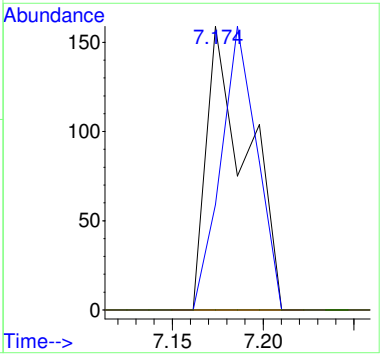


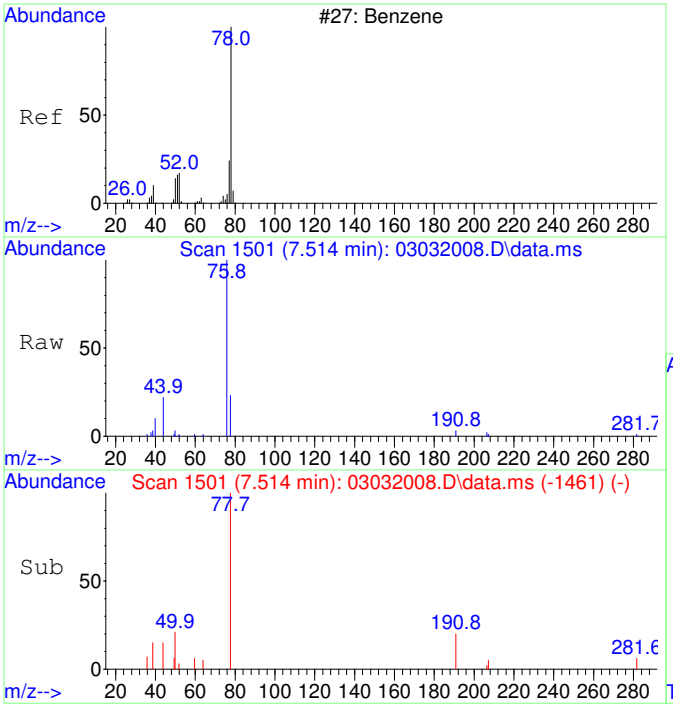


#32
Carbon tetrachloride SCAN
Concen: 43.28 ug/L
RT: 7.174 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 247

Ion	Ratio	Lower	Upper
117	100		
119	89.1	56.4	116.4
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

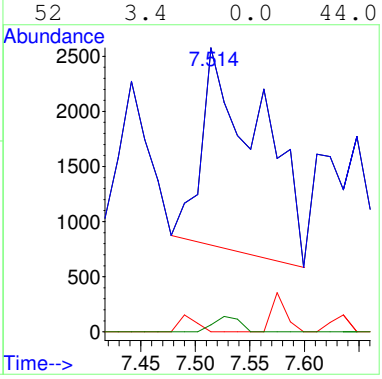


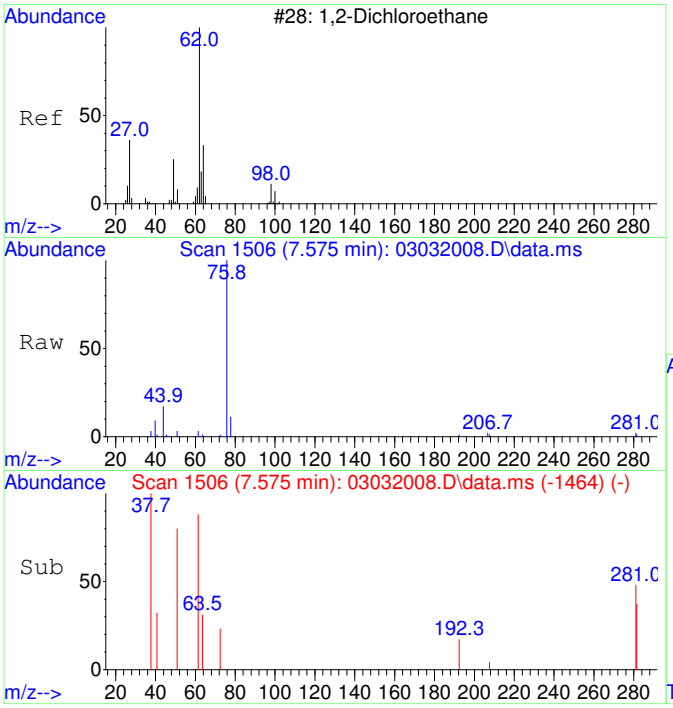


#33
Benzene SCAN
Concen: 455.42 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 6732

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	3.4	0.0	44.0

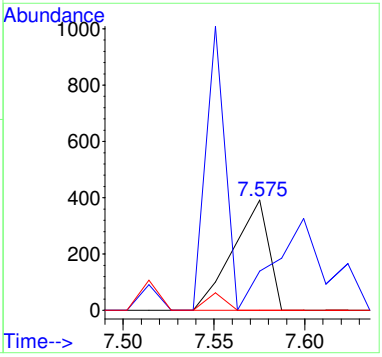


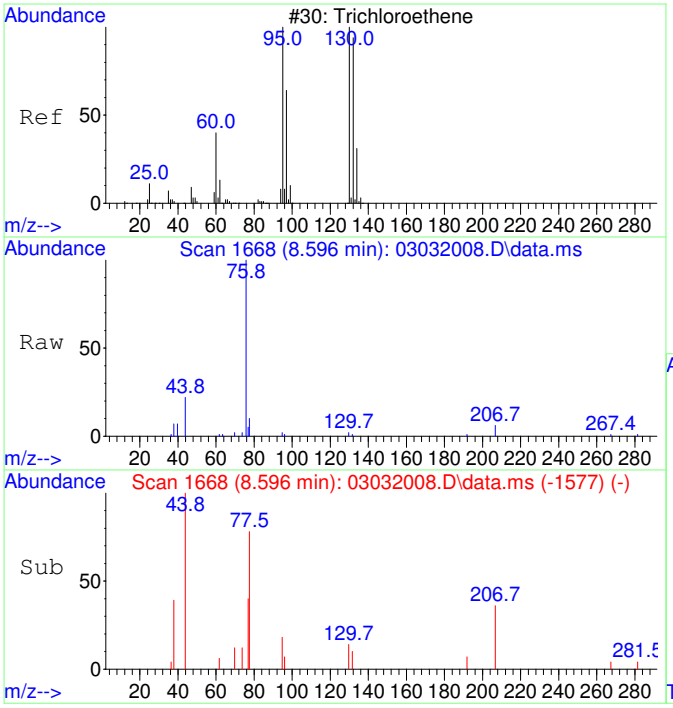


#34
1,2-Dichloroethane SCAN
Concen: 124.79 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 539

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

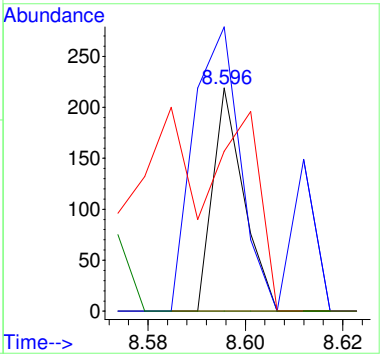


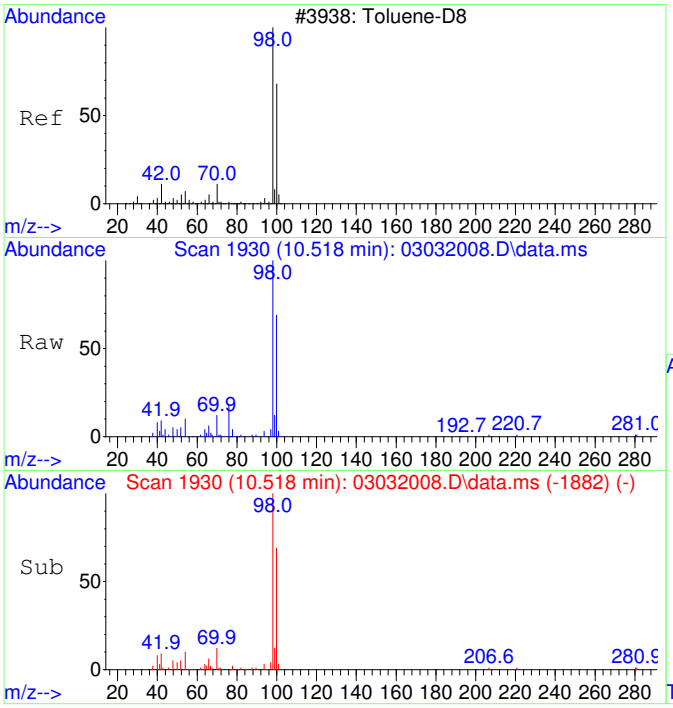


#35
Trichloroethene SCAN
Concen: 25.46 ug/L
RT: 8.596 min Scan# 1668
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 96

Ion	Ratio	Lower	Upper
130	100		
95	193.8	58.2	118.2#
132	296.9	69.1	129.1#
97	0.0	37.8	97.8#

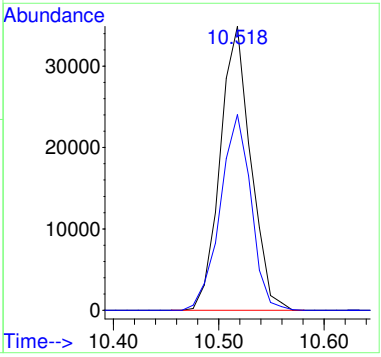


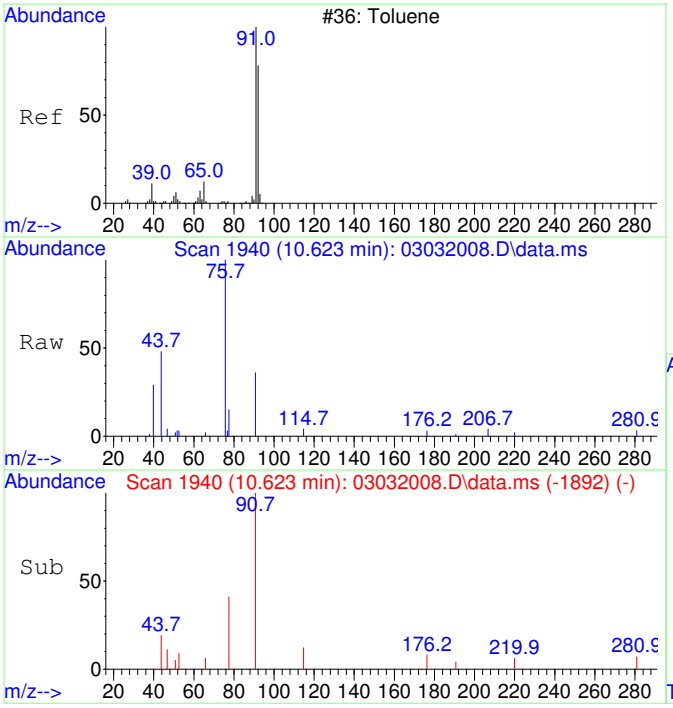


#36
Toluene-d8 SCAN
Concen: 5010.62 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 70682

Ion	Ratio	Lower	Upper
98	100		
100	69.3	38.3	98.3

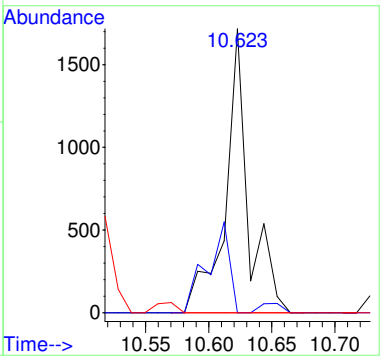


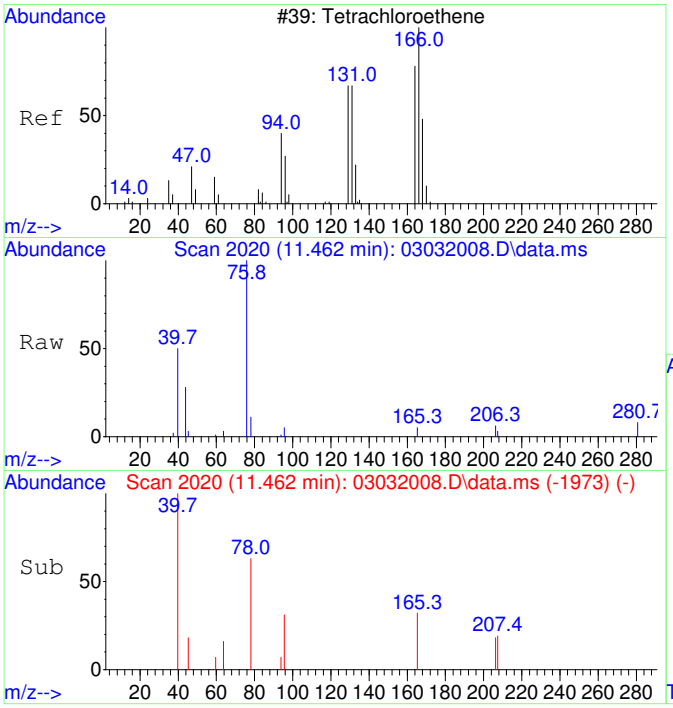


#37
Toluene SCAN
Concen: 126.36 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2186

Ion	Ratio	Lower	Upper
91	100		
92	30.8	21.2	81.2
65	0.0	0.0	41.4

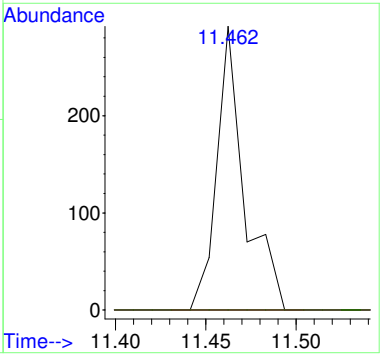


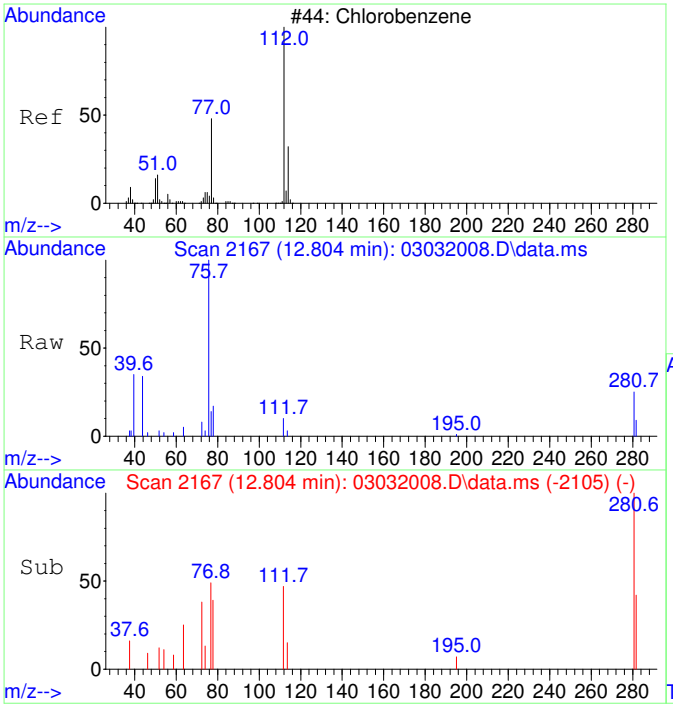


#39
Tetrachloroethene SCAN
Concen: 64.06 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 311

Ion	Ratio	Lower	Upper
166	100		
164	0.0	43.5	103.5#
131	0.0	37.6	97.6#
129	0.0	40.5	100.5#

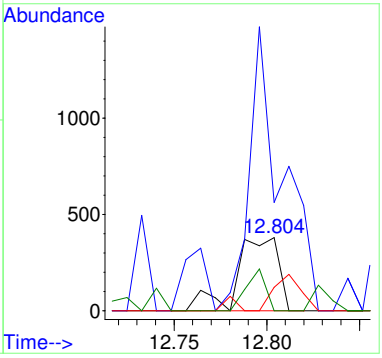


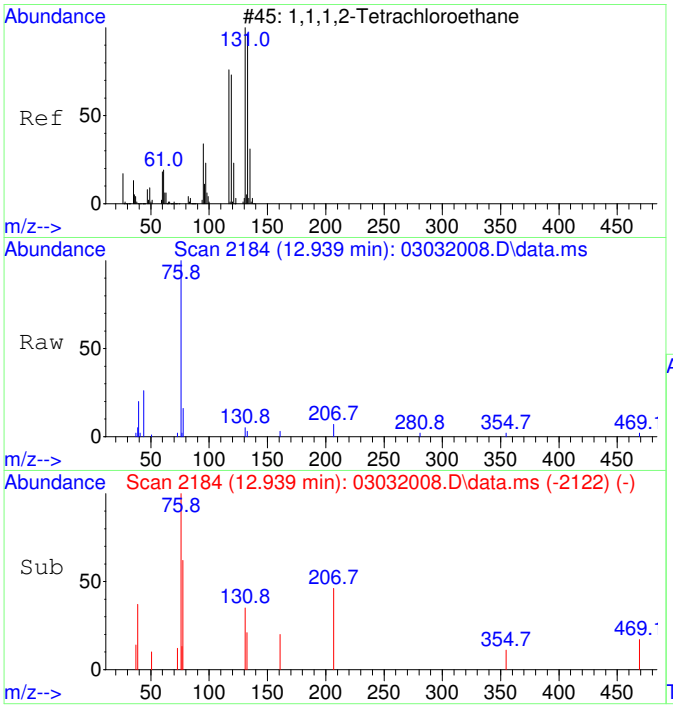


#40
Chlorobenzene SCAN
Concen: 55.14 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 601

Ion	Ratio	Lower	Upper
112	100		
77	301.5	33.6	93.6#
114	0.0	5.6	65.6#
51	26.1	0.0	52.4

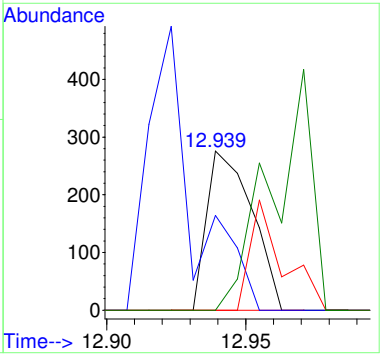


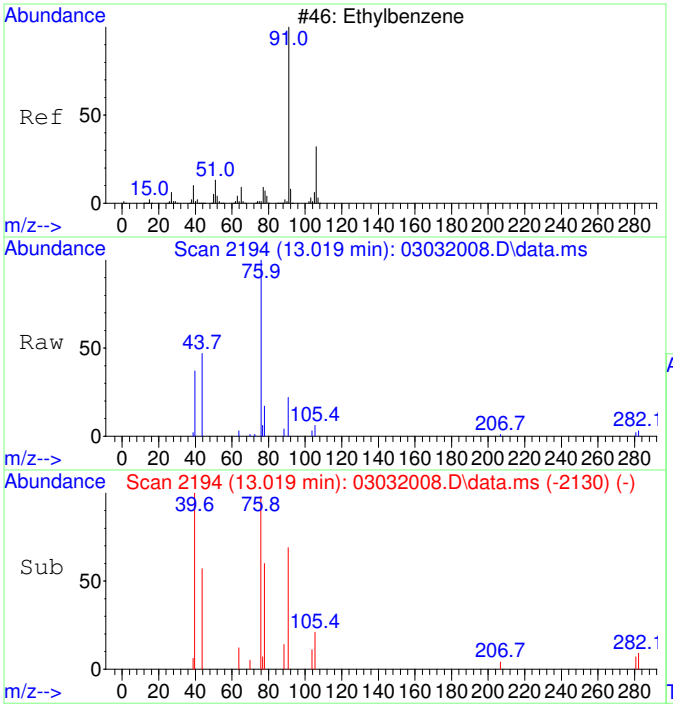


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 78.02 ug/L
RT: 12.939 min Scan# 2184
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	0.0	61.4	121.4#
119	49.8	33.0	93.0
117	0.0	35.3	95.3#

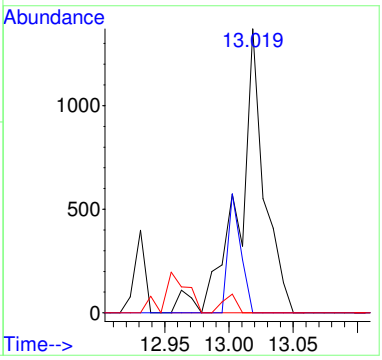


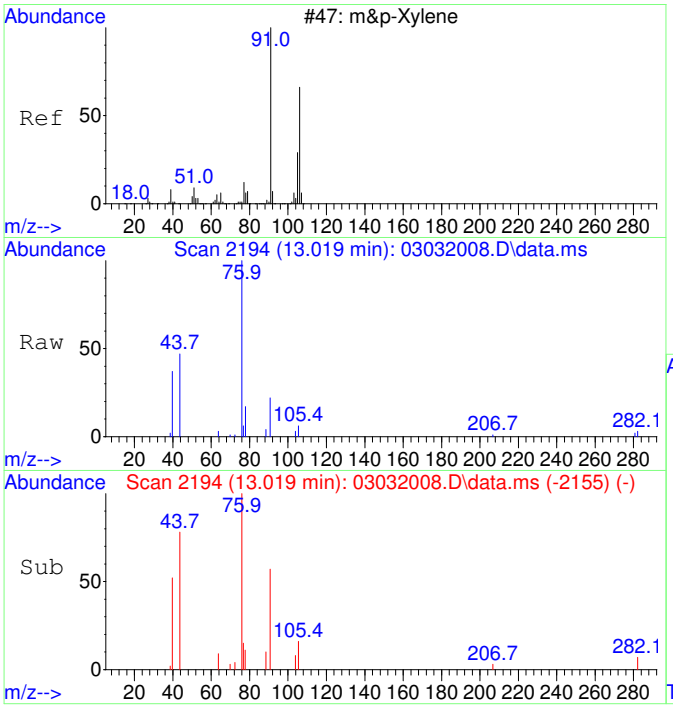


#42
Ethylbenzene SCAN
Concen: 98.98 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1898

Ion	Ratio	Lower	Upper
91	100		
106	20.9	2.2	62.2
51	3.6	0.0	40.6

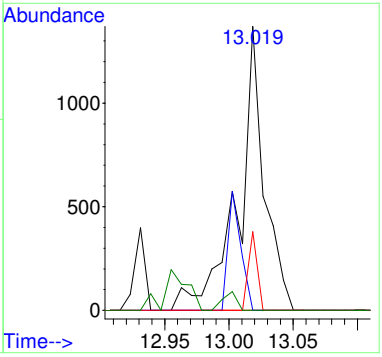


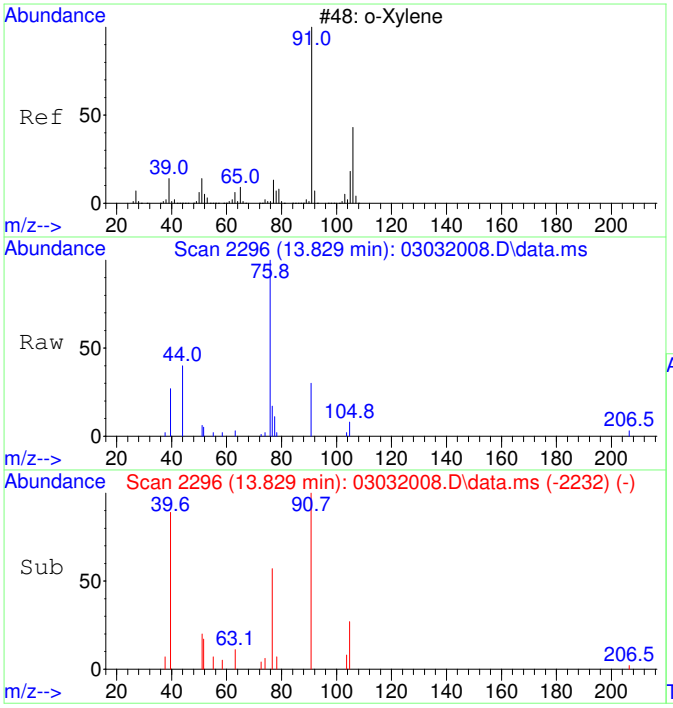


#43
m&p-Xylene SCAN
Concen: 70.95 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. -0.191 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1931

Ion	Ratio	Lower	Upper
91	100		
106	20.5	19.7	79.7
105	9.4	0.0	55.1
51	3.6	0.0	41.3

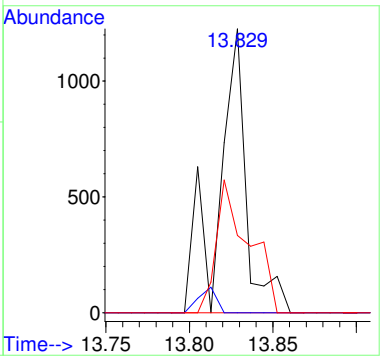


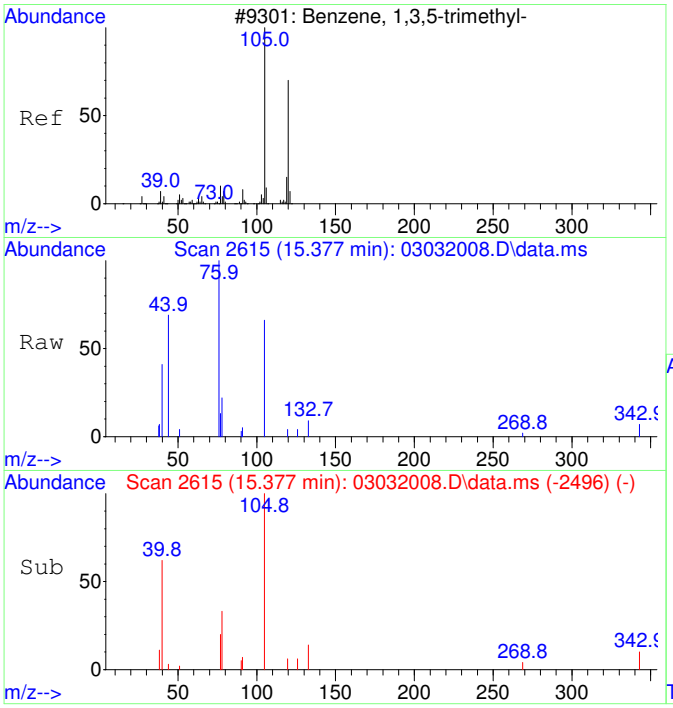


#44
o-Xylene SCAN
Concen: 98.43 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1426

Ion	Ratio	Lower	Upper
91	100		
106	5.8	18.1	78.1#
105	54.6	0.0	54.4#

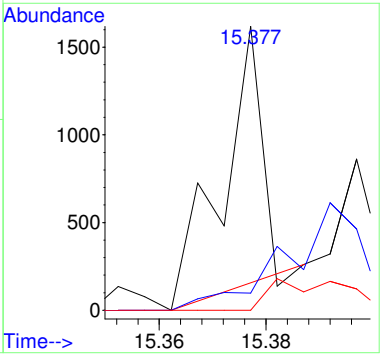


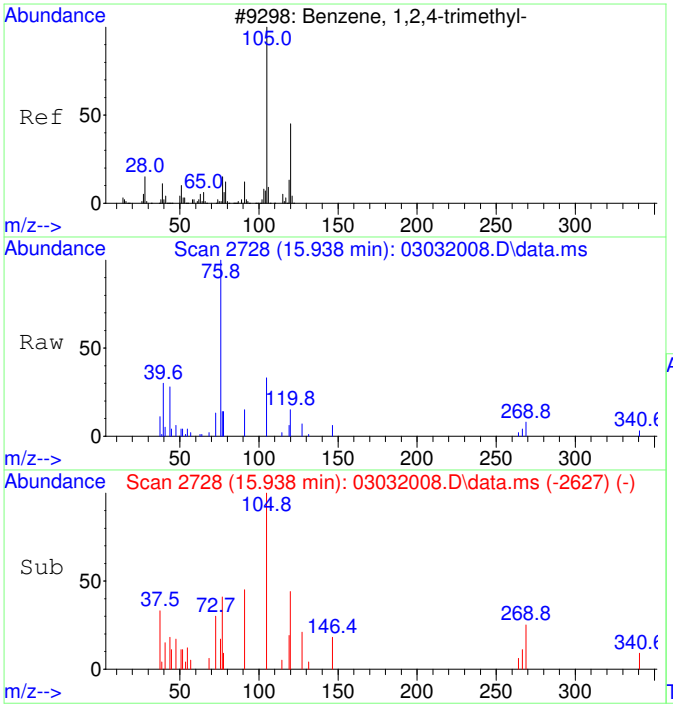


#46
1,3,5-Trimethylbenzene SCAN
Concen: 51.64 ug/L
RT: 15.377 min Scan# 2615
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 766

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	22.2	0.0	43.4

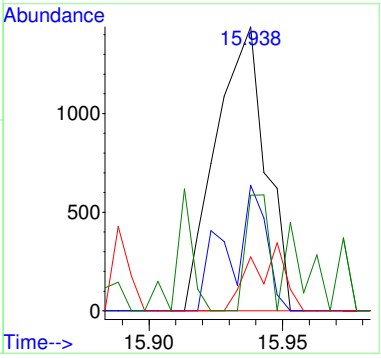




#47
1,2,4-Trimethylbenzene SCAN
Concen: 118.07 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 1862

Ion	Ratio	Lower	Upper
105	100		
120	33.2	12.9	72.9
119	15.6	0.0	41.4
77	18.8	0.0	42.1



Quantitation Report (QT Reviewed)

M.I. Performed

TD at 12:39 pm, Mar 03, 2020

M.I. Approved By:

ZR at 3:42 pm, Mar 09, 2020

Table of Contents

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

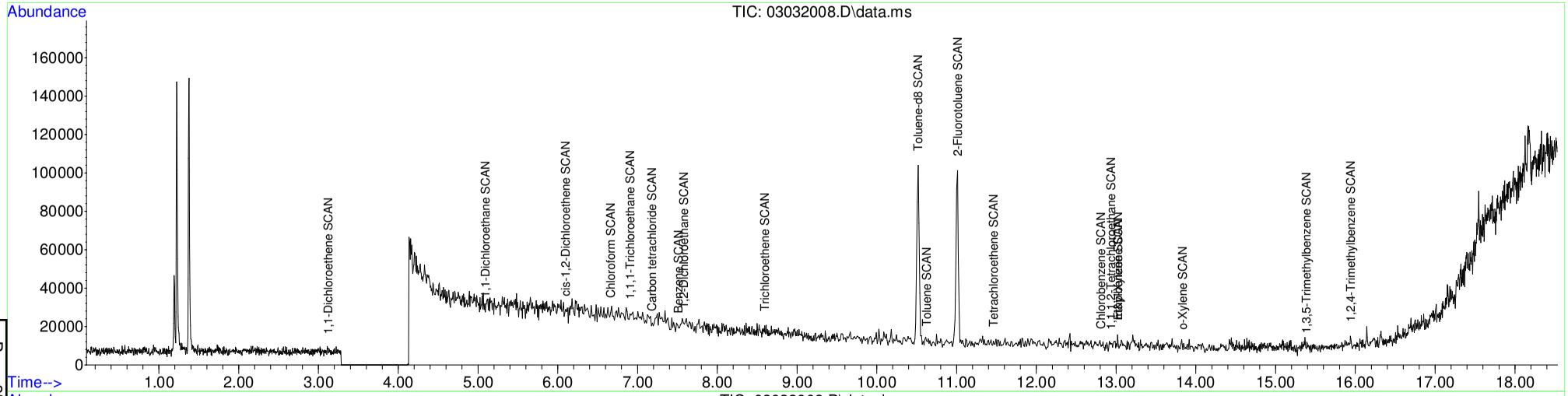
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	122847	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.509	98	107088	5095.32 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 101.91%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.112	61	278m	44.54 ug/L	
3] trans-1,2-Dichloroethene	4.303	61	329	51.23 ug/L	91
4] 1,1-Dichloroethane	5.059	63	435	54.27 ug/L	90
5] cis-1,2-Dichloroethene	6.075	61	415	55.34 ug/L	90
6] Chloroform	6.652	83	462	55.51 ug/L	99
7] 1,1,1-Trichloroethane	6.920	97	489	60.41 ug/L	88
8] Carbon tetrachloride	7.187	117	460	64.56 ug/L	99
9] Benzene	7.516	78	1364	67.17 ug/L	81
10] 1,2-Dichloroethane	7.564	62	430	64.19 ug/L	69
11] Trichloroethene	8.597	130	399	68.67 ug/L	92
13] Toluene	10.614	91	1925	77.96 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	386	69.31 ug/L	86
15] Tetrachloroethene	11.464	166	529	78.17 ug/L	96
16] Chlorobenzene	12.805	112	1310	73.57 ug/L	98
17] 1,1,1,2-Tetrachloroethane	12.956	131	477	81.30 ug/L	94
18] Ethylbenzene	13.012	91	2464	85.06 ug/L	96
19] m&p-Xylene	13.203	91	3736	170.96 ug/L	98
20] o-Xylene	13.814	91	1839	78.47 ug/L	97
21] 1,1,2,2-Tetrachloroethane	14.914	83	747	73.72 ug/L	98
22] 1,3,5-Trimethylbenzene	15.383	105	2167	85.69 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	2293	89.12 ug/L	97
25) 2-Fluorotoluene SCAN	11.011	109	79979	5282.95 ug/L	92
26) 1,1-Dichloroethene SCAN	3.115	61	94	21.55 ug/L #	1
28) 1,1-Dichloroethane SCAN	5.091	63	172	26.82 ug/L #	52
29) cis-1,2-Dichloroethene...	6.093	61	184	36.56 ug/L #	34
30) Chloroform SCAN	6.663	83	127	22.80 ug/L #	12
31) 1,1,1-Trichloroethane ...	6.906	97	653	116.91 ug/L #	24
32) Carbon tetrachloride SCAN	7.174	117	247	43.28 ug/L #	76
33) Benzene SCAN	7.514	78	6732	455.42 ug/L #	91
34) 1,2-Dichloroethane SCAN	7.575	62	539	124.79 ug/L #	36
35) Trichloroethene SCAN	8.596	130	96	25.46 ug/L #	1
36) Toluene-d8 SCAN	10.518	98	70682	5010.62 ug/L	99
37) Toluene SCAN	10.623	91	2186	126.36 ug/L #	71
39) Tetrachloroethene SCAN	11.462	166	311	64.06 ug/L #	14
40) Chlorobenzene SCAN	12.804	112	601	55.14 ug/L #	1
41) 1,1,1,2-Tetrachloroeth...	12.939	131	313	78.02 ug/L #	31
42) Ethylbenzene SCAN	13.019	91	1898	98.98 ug/L	80
43) m&p-Xylene SCAN	13.019	91	1931	70.95 ug/L	64
44) o-Xylene SCAN	13.829	91	1426	98.43 ug/L #	38
46) 1,3,5-Trimethylbenzene...	15.377	105	766	51.64 ug/L #	39
47) 1,2,4-Trimethylbenzene...	15.938	105	1862	118.07 ug/L	85

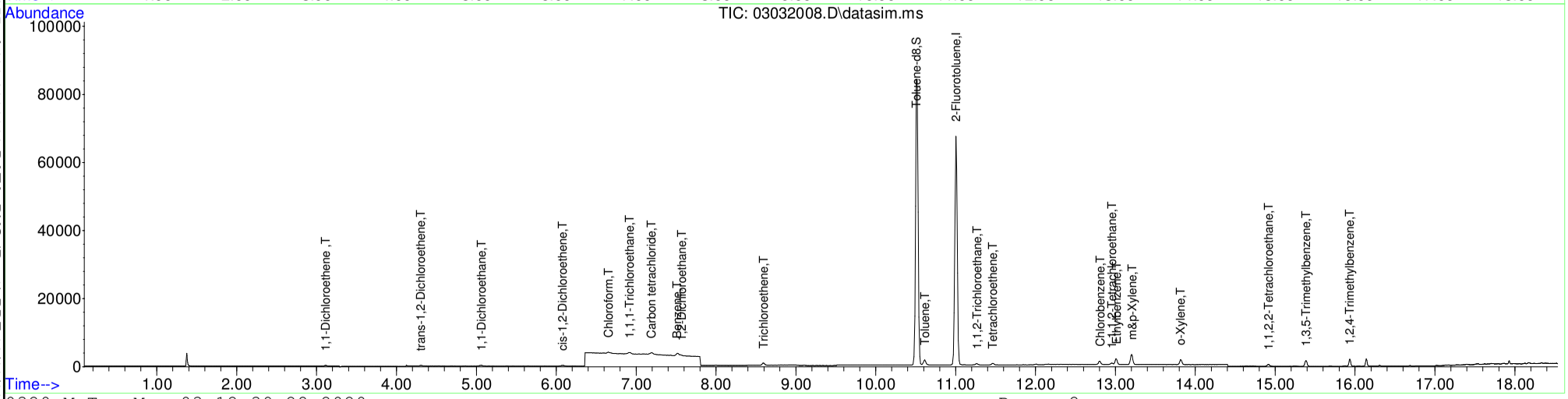
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032008.D
Acq On : 3 Mar 2020 12:18
InstName : AG5975C
Operator : TD
Sample : B20C007-MRL1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 12:36:56 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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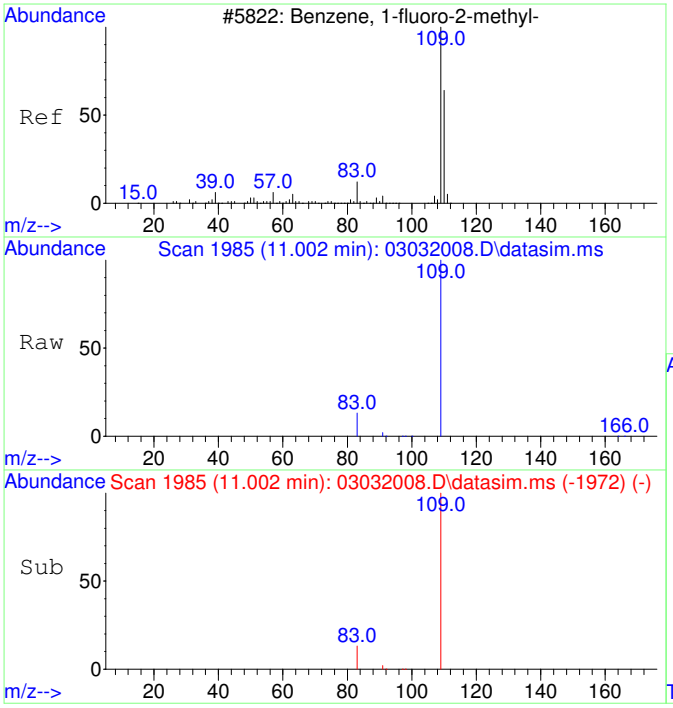
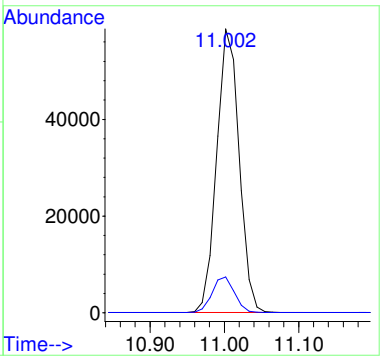
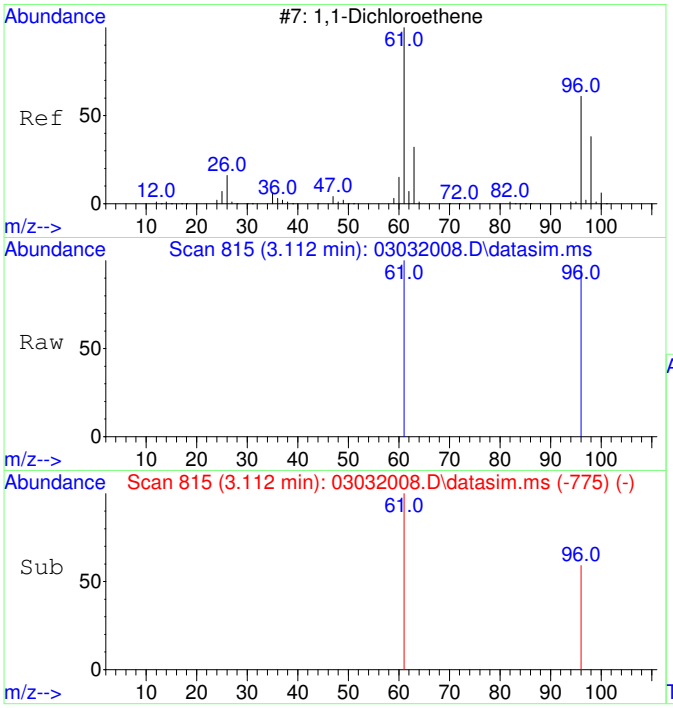


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 122847

Ion	Ratio	Lower	Upper
109	100		
83	12.5	0.0	43.2

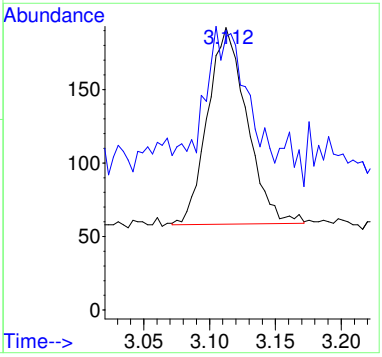


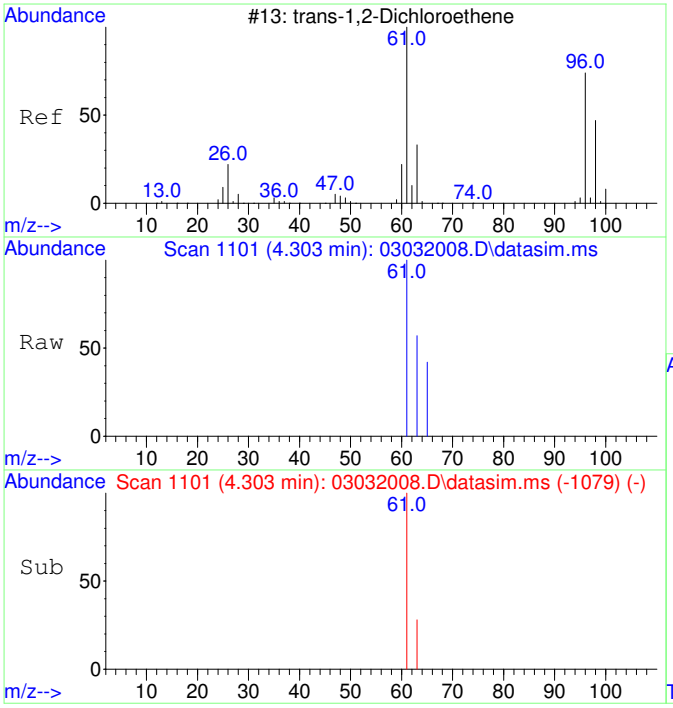


#2
1,1-Dichloroethene
Concen: 44.54 ug/L m
RT: 3.112 min Scan# 815
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 278

Ion	Ratio	Lower	Upper
61	100		
96	82.4	33.2	93.2

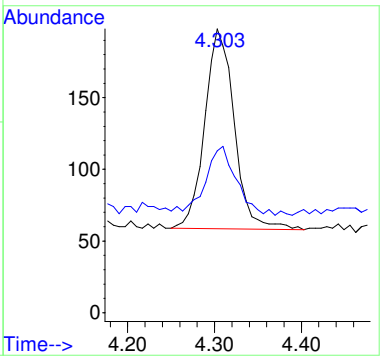


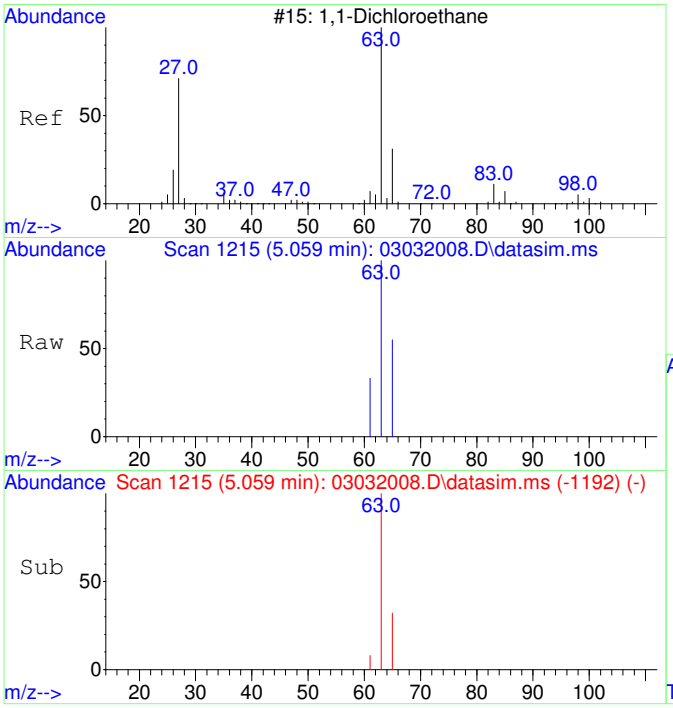


#3
trans-1,2-Dichloroethene
Concen: 51.23 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 329

Ion	Ratio	Lower	Upper
61	100		
63	37.1	2.3	62.3

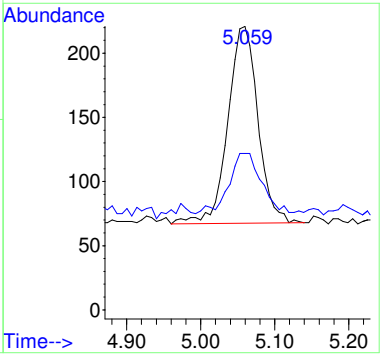


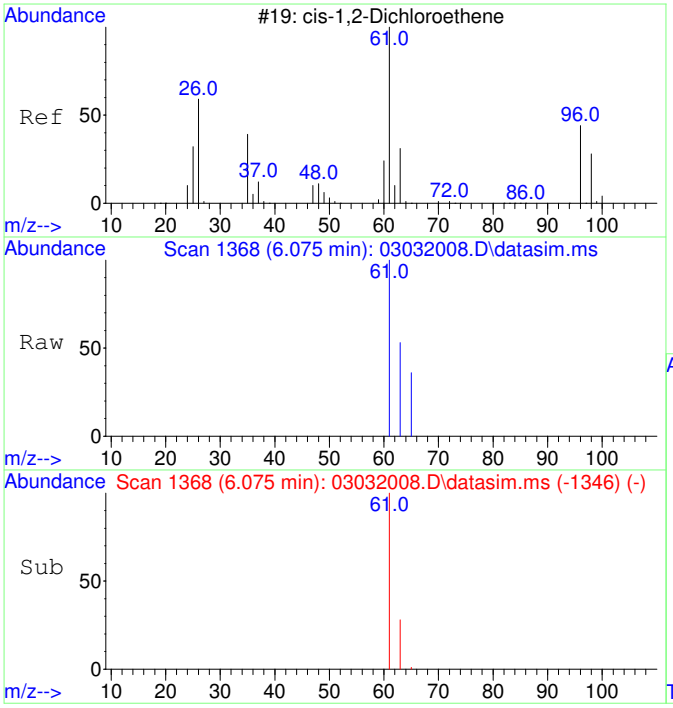


#4
1,1-Dichloroethane
Concen: 54.27 ug/L
RT: 5.059 min Scan# 1215
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 435

Ion	Ratio	Lower	Upper
63	100		
65	37.5	1.7	61.7

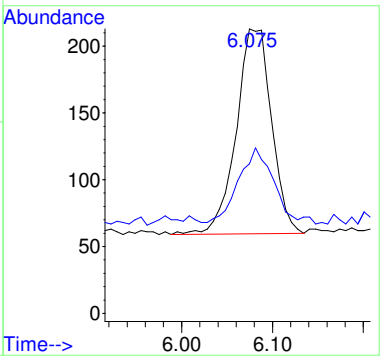


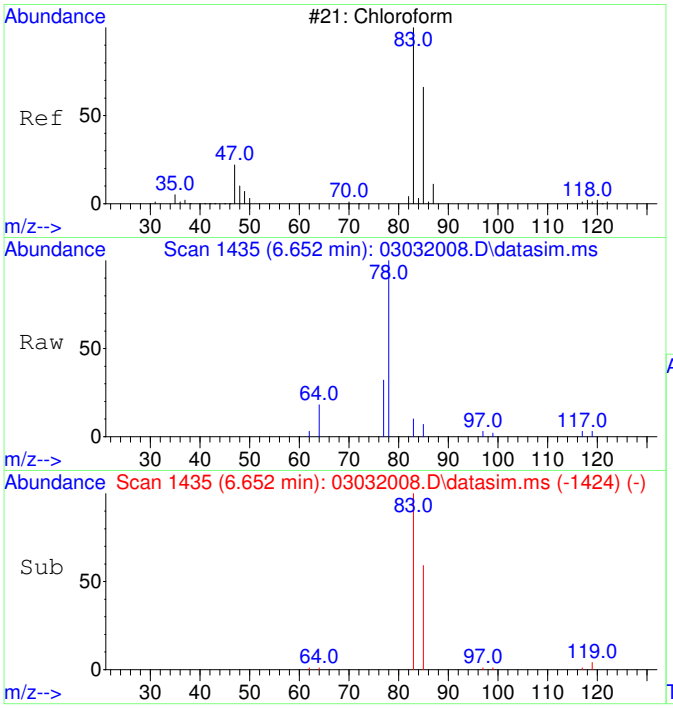


#5
cis-1,2-Dichloroethene
Concen: 55.34 ug/L
RT: 6.075 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 415

Ion	Ratio	Lower	Upper
61	100		
63	38.3	2.6	62.6

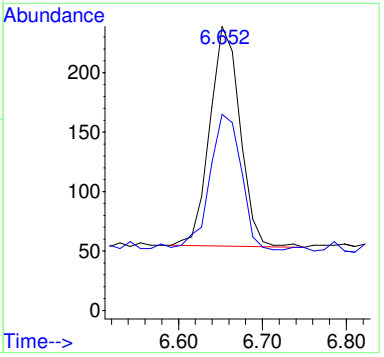


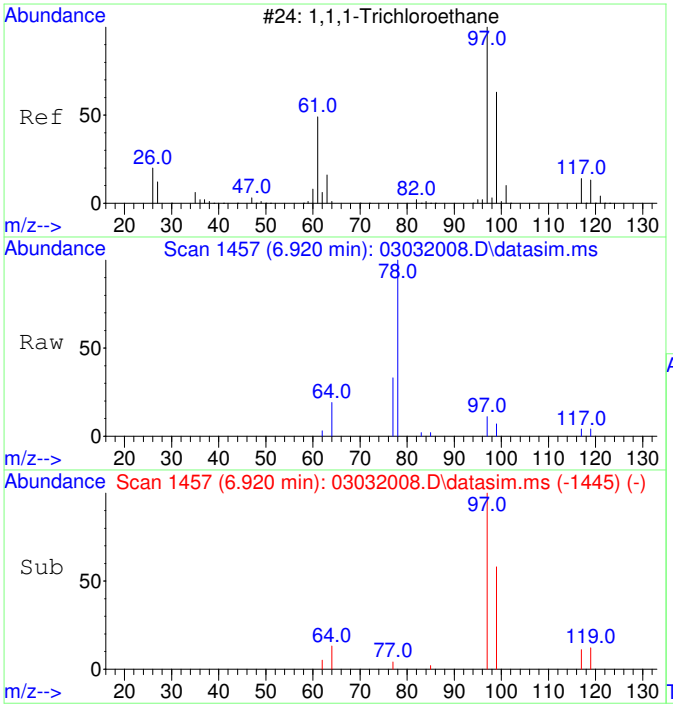


#6
Chloroform
Concen: 55.51 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 462

Ion	Ratio	Lower	Upper
83	100		
85	64.3	34.7	94.7

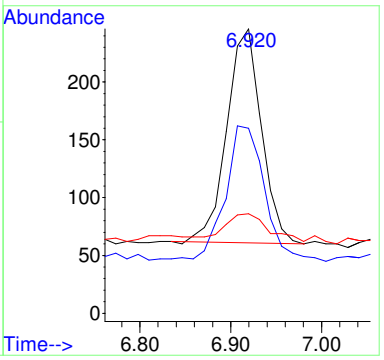


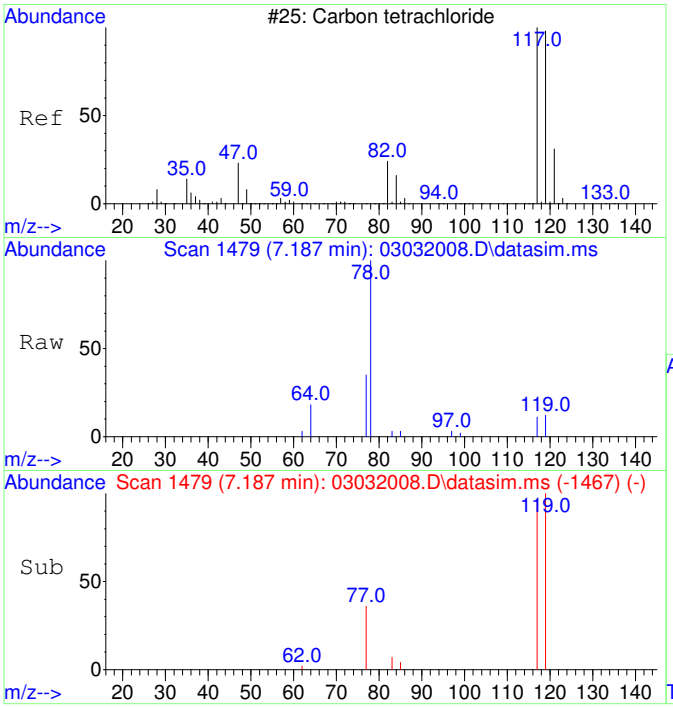


#7
1,1,1-Trichloroethane
Concen: 60.41 ug/L
RT: 6.920 min Scan# 1457
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 489

Ion	Ratio	Lower	Upper
97	100		
99	72.2	34.4	94.4
117	20.7	0.0	42.8

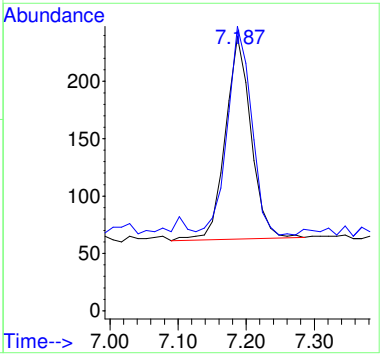


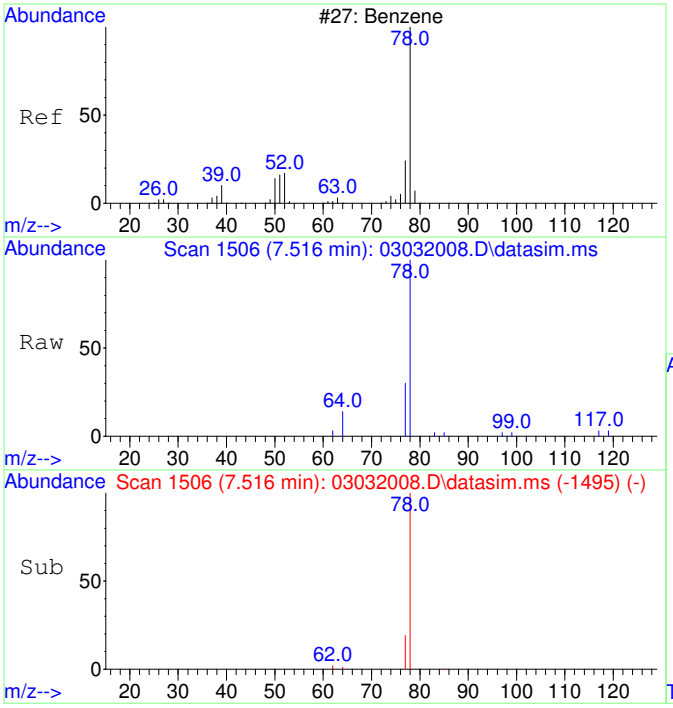


#8
Carbon tetrachloride
Concen: 64.56 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 460

Ion	Ratio	Lower	Upper
117	100		
119	97.2	66.1	126.1

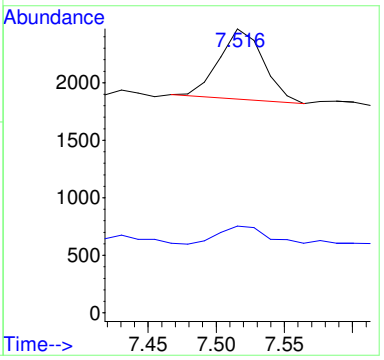


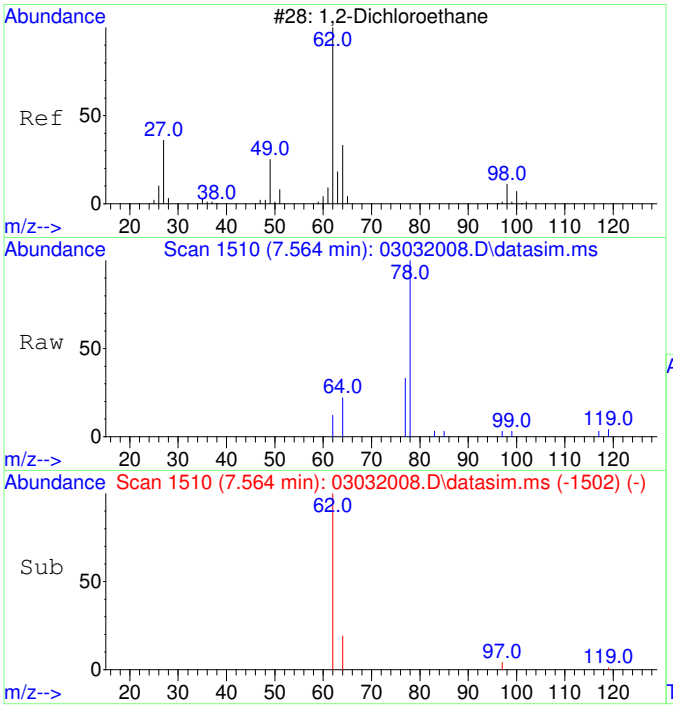


#9
Benzene
Concen: 67.17 ug/L
RT: 7.516 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 1364

Ion	Ratio	Lower	Upper
78	100		
77	33.1	0.0	53.6

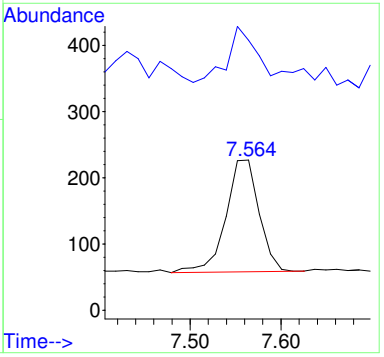


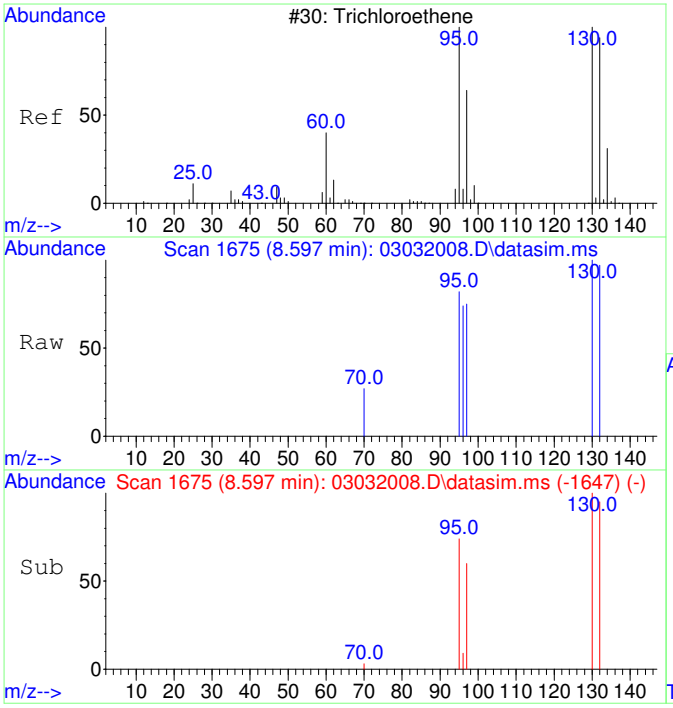


#10
1,2-Dichloroethane
Concen: 64.19 ug/L
RT: 7.564 min Scan# 1510
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 430

Ion	Ratio	Lower	Upper
62	100		
64	50.0	2.4	62.4

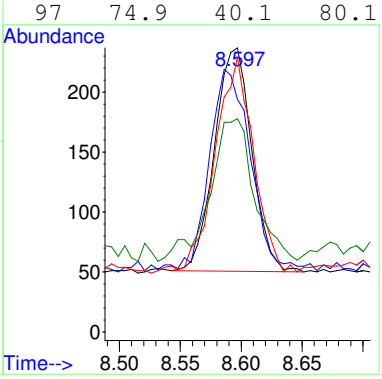


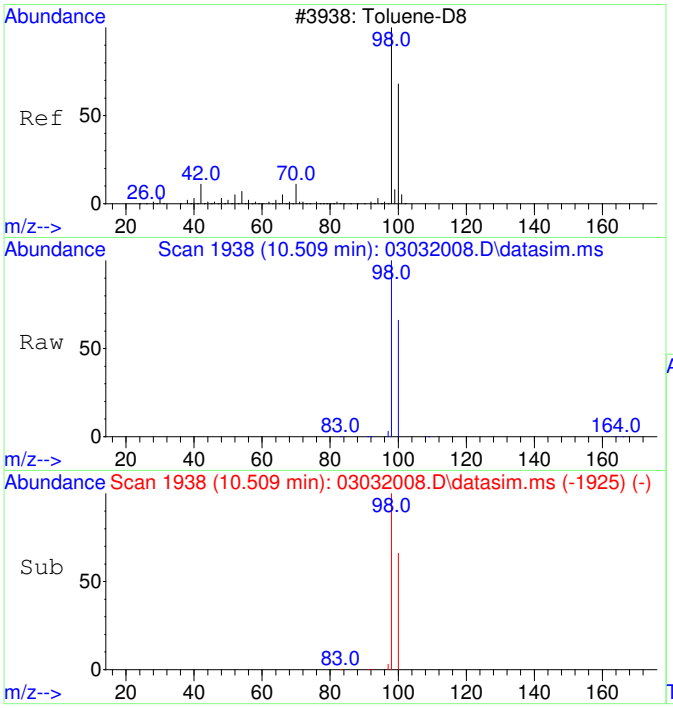


#11
Trichloroethene
Concen: 68.67 ug/L
RT: 8.597 min Scan# 1675
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 399

Ion	Ratio	Lower	Upper
130	100		
95	100.0	63.8	123.8
132	99.2	75.9	115.9
97	74.9	40.1	80.1

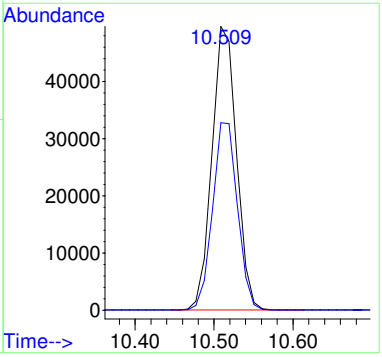


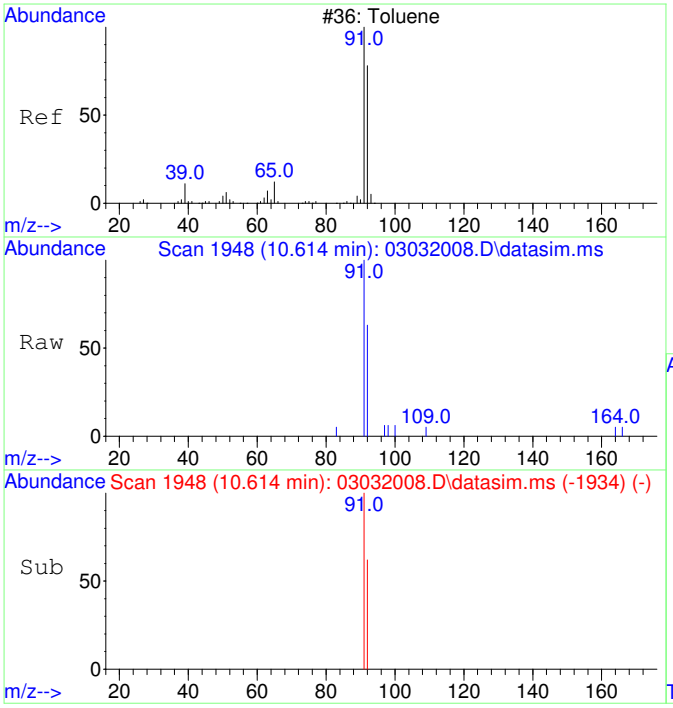


#12
Toluene-d8
Concen: 5095.32 ug/L
RT: 10.509 min Scan# 1938
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 107088

Ion	Ratio	Lower	Upper
98	100		
100	66.9	36.5	96.5

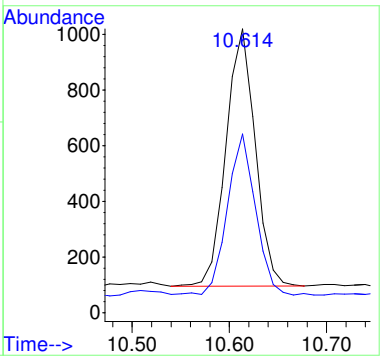


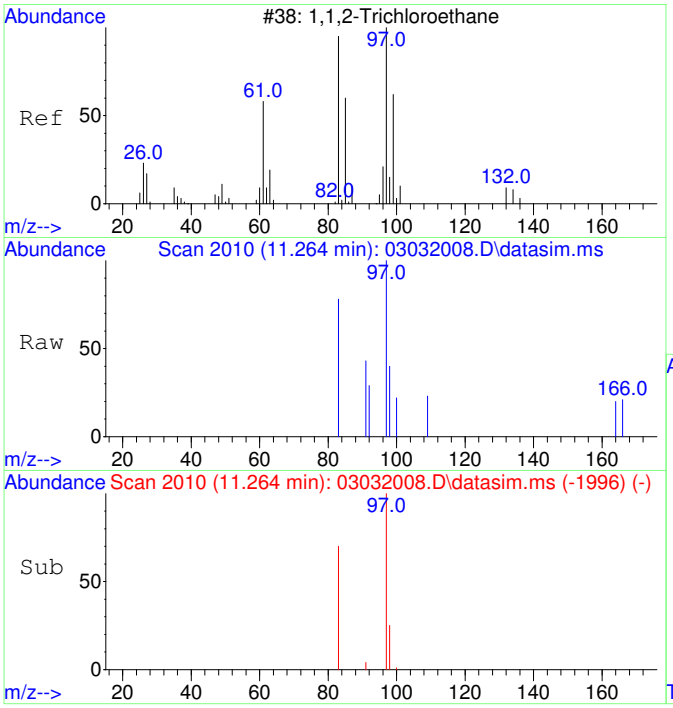


#13
Toluene
Concen: 77.96 ug/L
RT: 10.614 min Scan# 1948
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1925

Ion	Ratio	Lower	Upper
91	100		
92	59.1	29.7	89.7

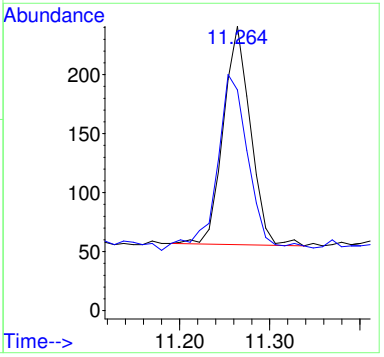


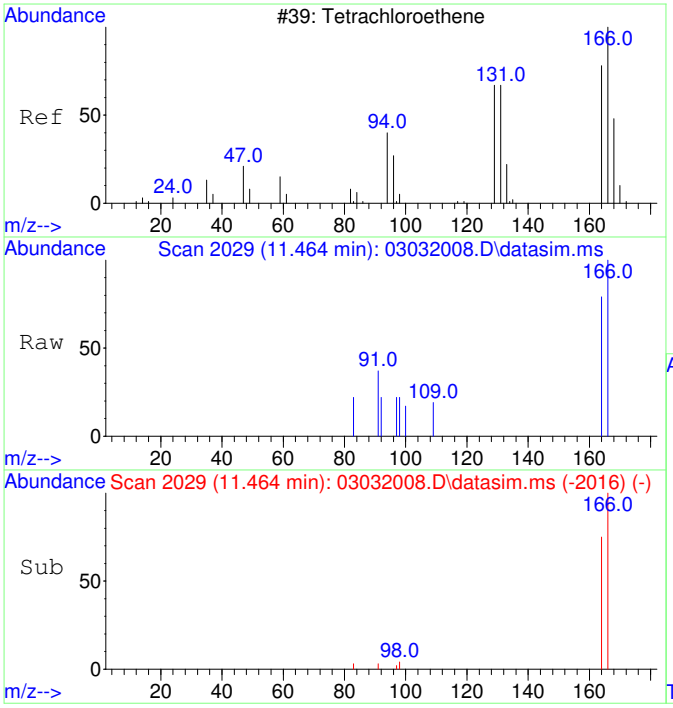


#14
1,1,2-Trichloroethane
Concen: 69.31 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 386

Ion	Ratio	Lower	Upper
97	100		
83	94.8	51.9	111.9

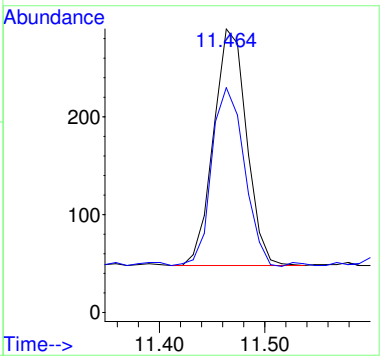


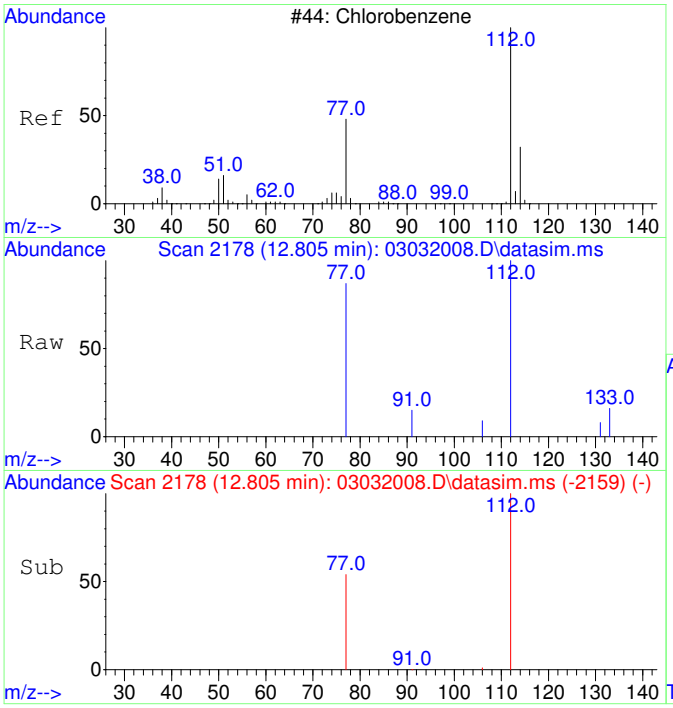


#15
Tetrachloroethene
Concen: 78.17 ug/L
RT: 11.464 min Scan# 2029
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 529

Ion	Ratio	Lower	Upper
166	100		
164	74.5	47.9	107.9

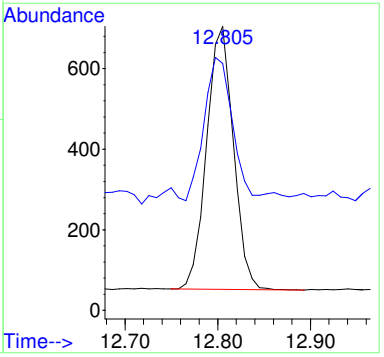


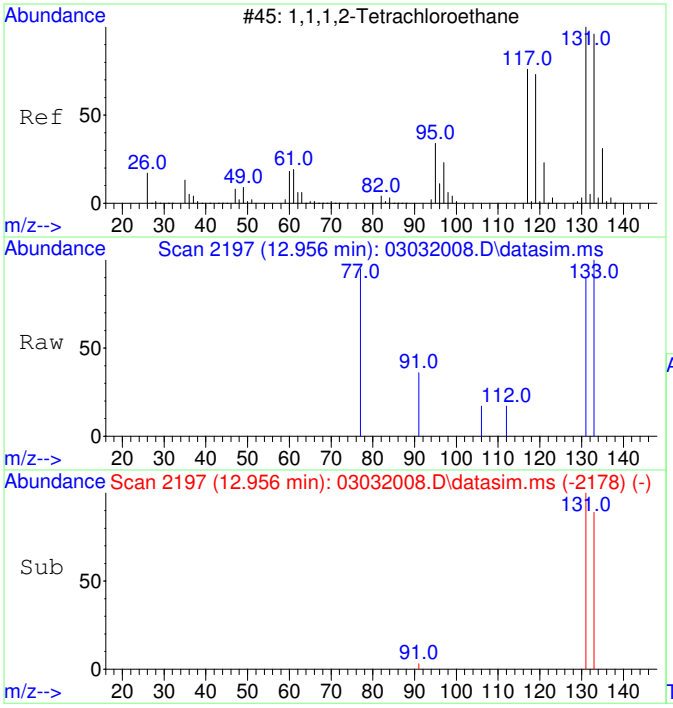


#16
Chlorobenzene
Concen: 73.57 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 1310

Ion	Ratio	Lower	Upper
112	100		
77	57.4	25.7	85.7

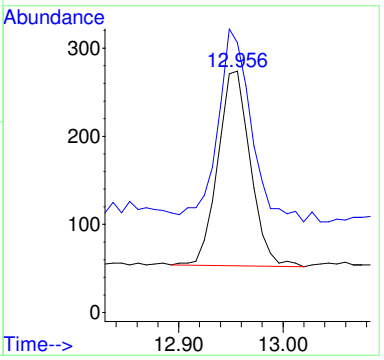


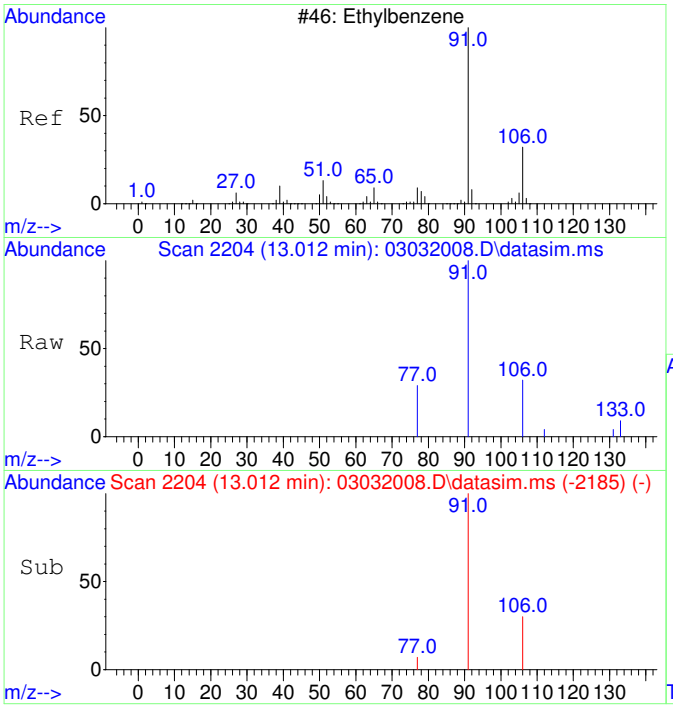


#17
1,1,1,2-Tetrachloroethane
Concen: 81.30 ug/L
RT: 12.956 min Scan# 2197
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 477

Ion	Ratio	Lower	Upper
131	100		
133	102.7	66.5	126.5

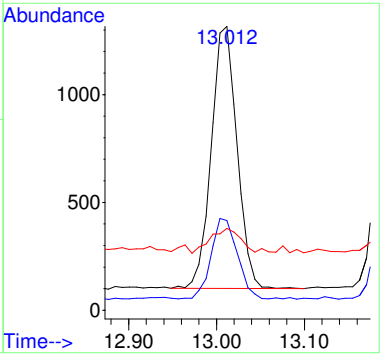


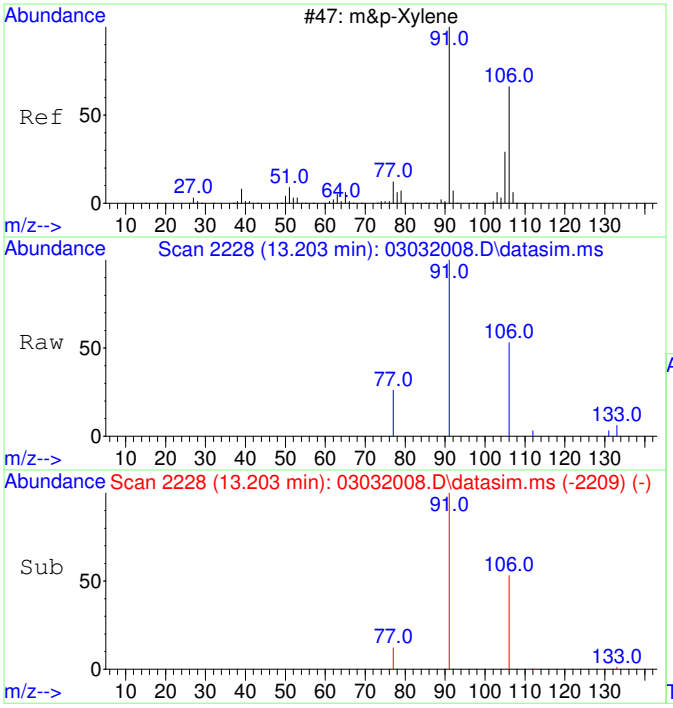


#18
Ethylbenzene
Concen: 85.06 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2464

Ion	Ratio	Lower	Upper
91	100		
106	31.2	2.7	62.7
77	11.6	0.0	38.3

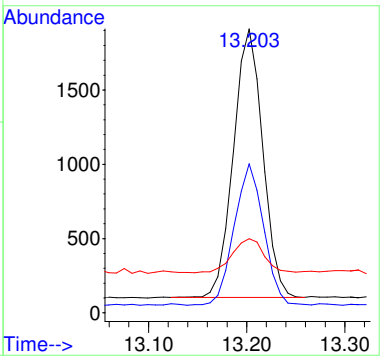


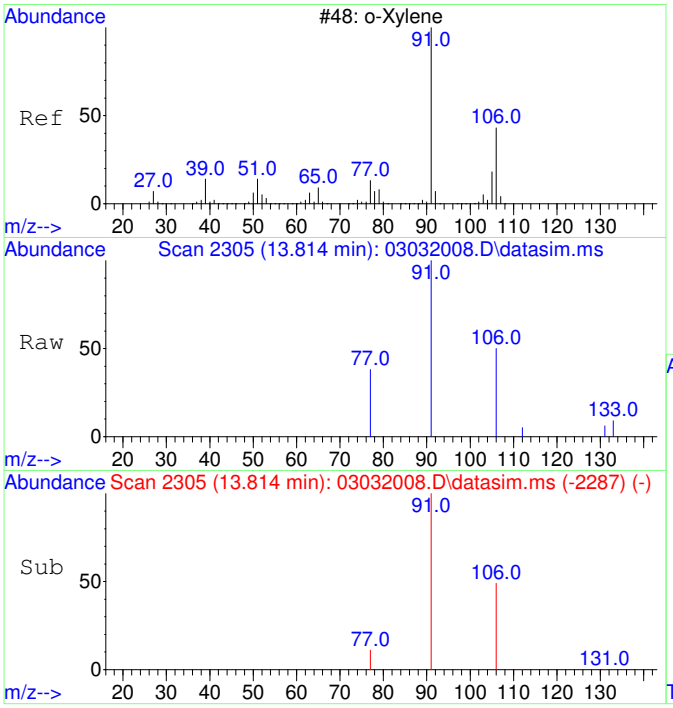


#19
m&p-Xylene
Concen: 170.96 ug/L
RT: 13.203 min Scan# 2228
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 3736

Ion	Ratio	Lower	Upper
91	100		
106	52.7	21.8	81.8
77	13.7	0.0	42.6

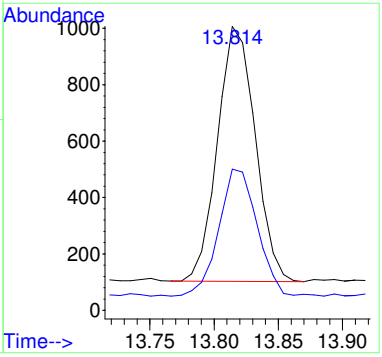


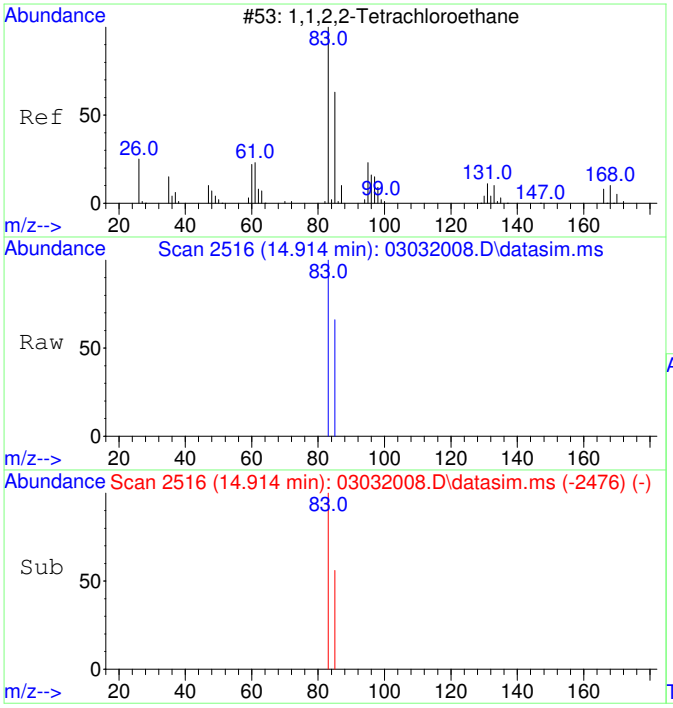


#20
o-Xylene
Concen: 78.47 ug/L
RT: 13.814 min Scan# 2305
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1839

Ion	Ratio	Lower	Upper
91	100		
106	50.8	18.8	78.8

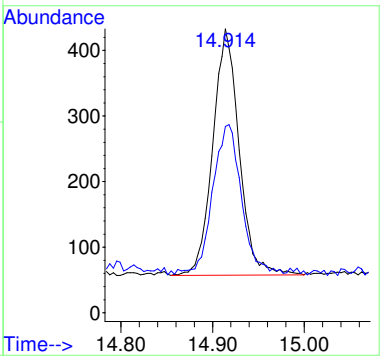


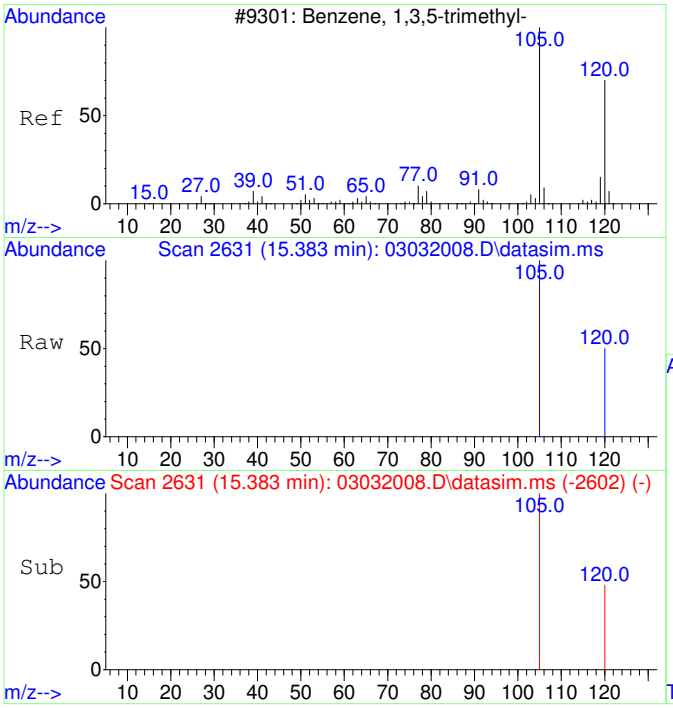


#21
1,1,2,2-Tetrachloroethane
Concen: 73.72 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 747

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.4	94.4

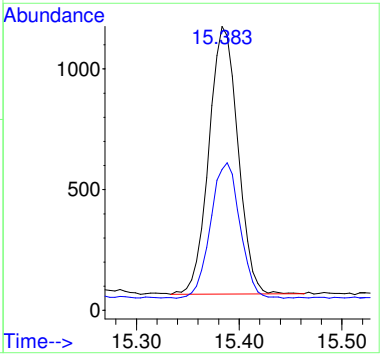


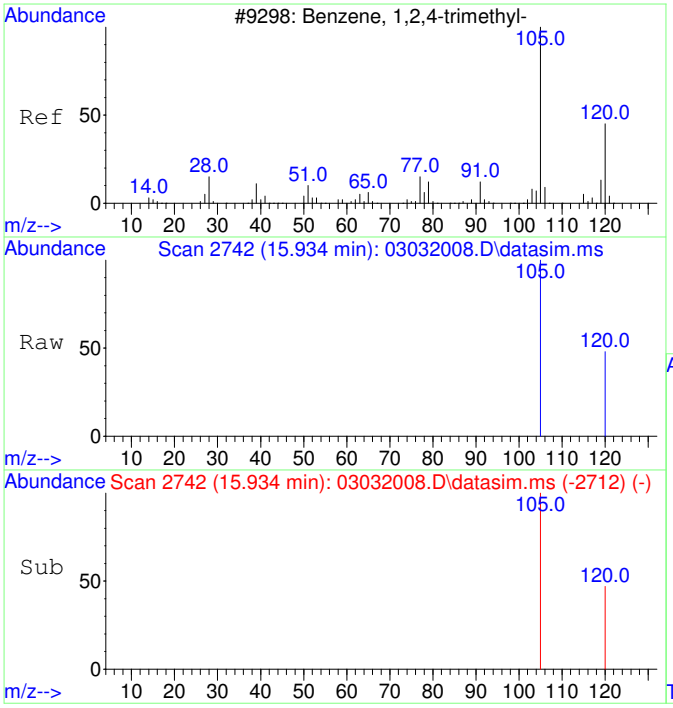


#22
1,3,5-Trimethylbenzene
Concen: 85.69 ug/L
RT: 15.383 min Scan# 2631
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2167

Ion	Ratio	Lower	Upper
105	100		
120	51.1	21.1	81.1

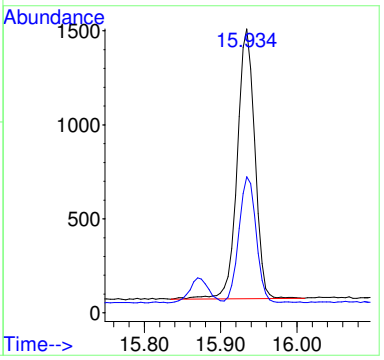


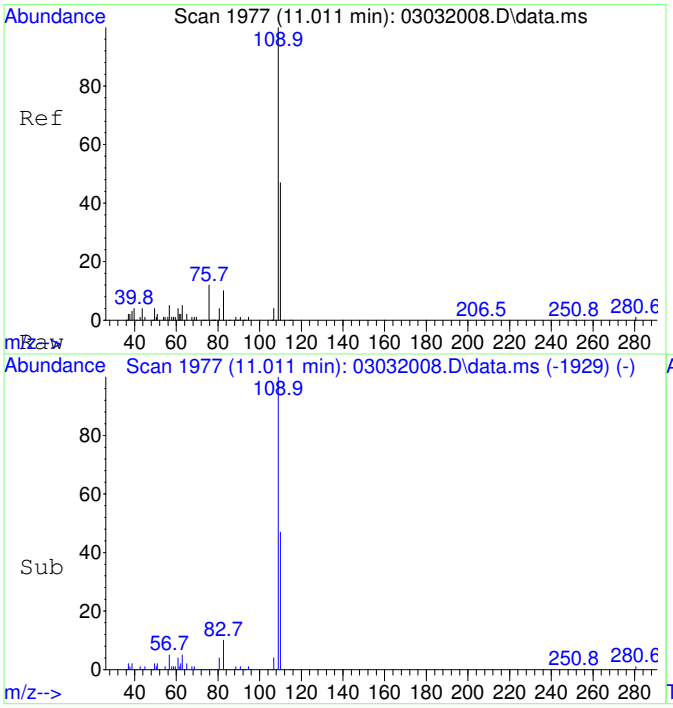


#23
1,2,4-Trimethylbenzene
Concen: 89.12 ug/L
RT: 15.934 min Scan# 2742
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 2293

Ion	Ratio	Lower	Upper
105	100		
120	44.8	17.1	77.1

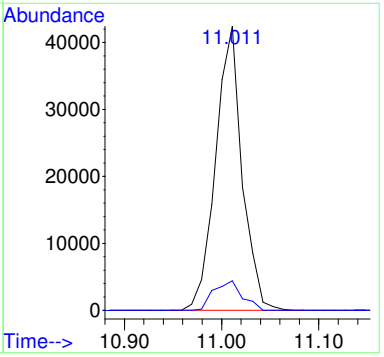


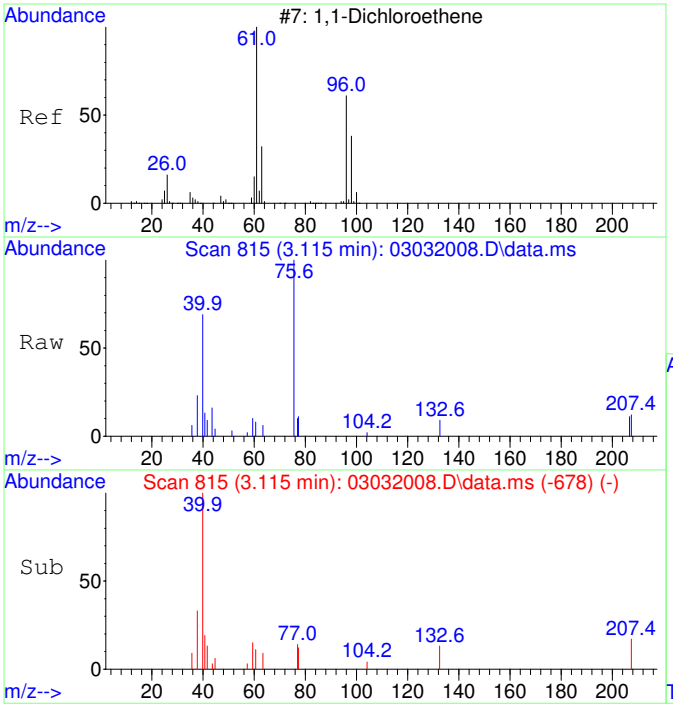


#25
2-Fluorotoluene SCAN
Concen: 5282.95 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:109 Resp: 79979

Ion	Ratio	Lower	Upper
109	100		
83	11.2	0.0	44.7

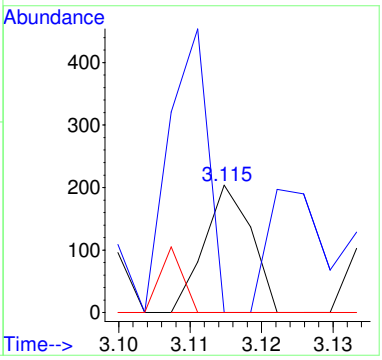


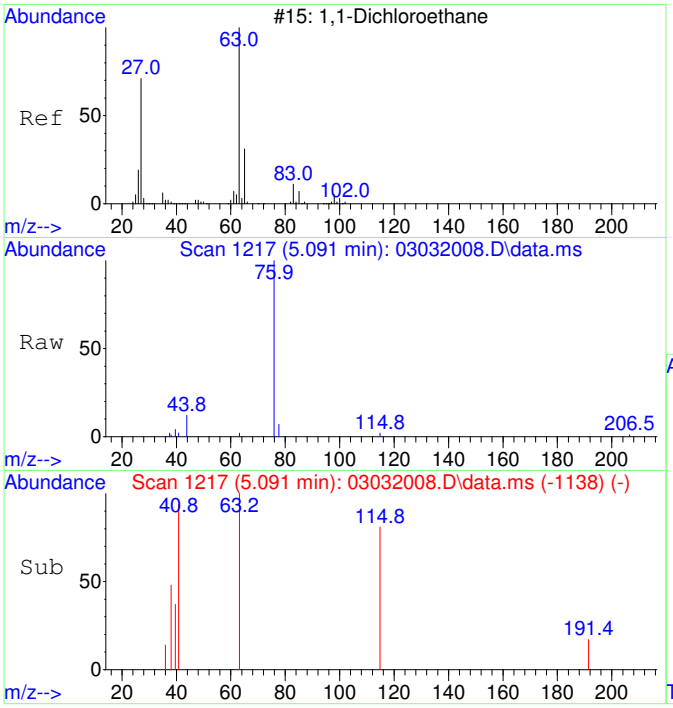


#26
1,1-Dichloroethene SCAN
Concen: 21.55 ug/L
RT: 3.115 min Scan# 815
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 94

Ion	Ratio	Lower	Upper
61	100		
96	184.0	34.7	94.7#
98	0.0	4.7	64.7#

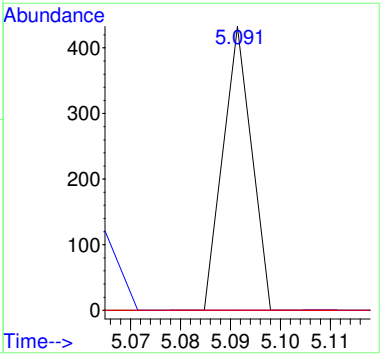


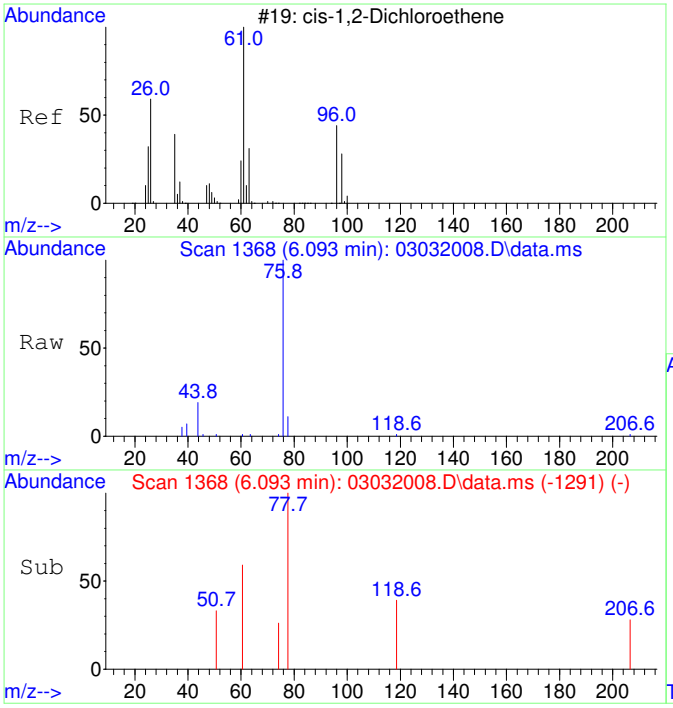


#28
1,1-Dichloroethane SCAN
Concen: 26.82 ug/L
RT: 5.091 min Scan# 1217
Delta R.T. 0.027 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 63 Resp: 172

Ion	Ratio	Lower	Upper
63	100		
65	0.0	0.0	59.3
83	0.0	0.0	37.5

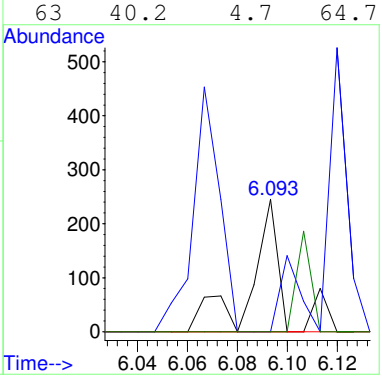


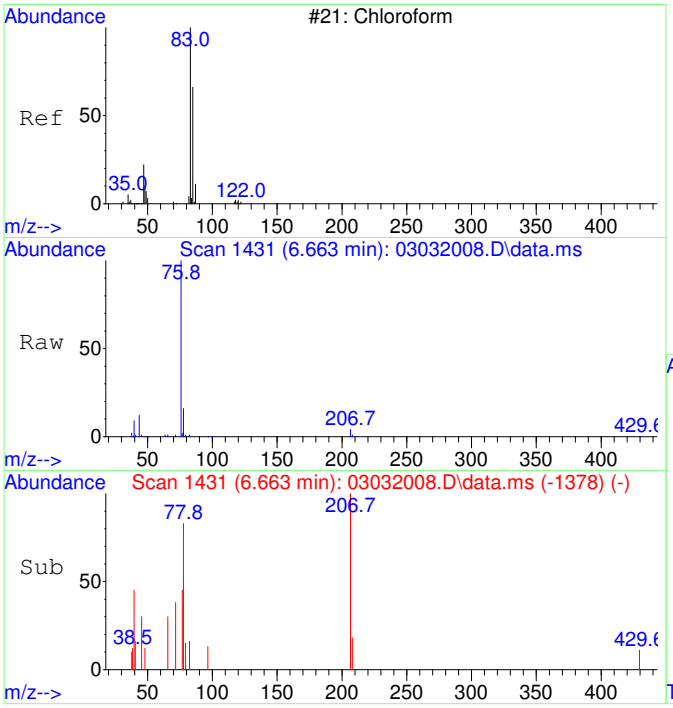


#29
cis-1,2-Dichloroethene SCAN
Concen: 36.56 ug/L
RT: 6.093 min Scan# 1368
Delta R.T. 0.013 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 61 Resp: 184

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	40.2	4.7	64.7

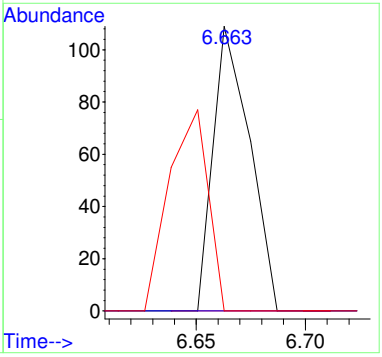


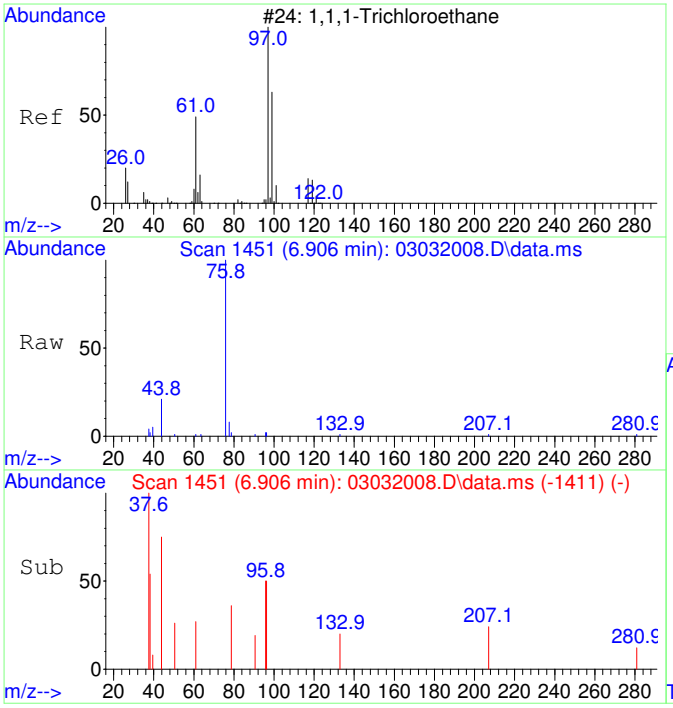


#30
Chloroform SCAN
Concen: 22.80 ug/L
RT: 6.663 min Scan# 1431
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 83 Resp: 127

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	75.6	0.0	58.1#

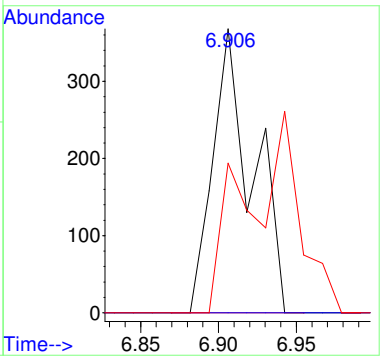


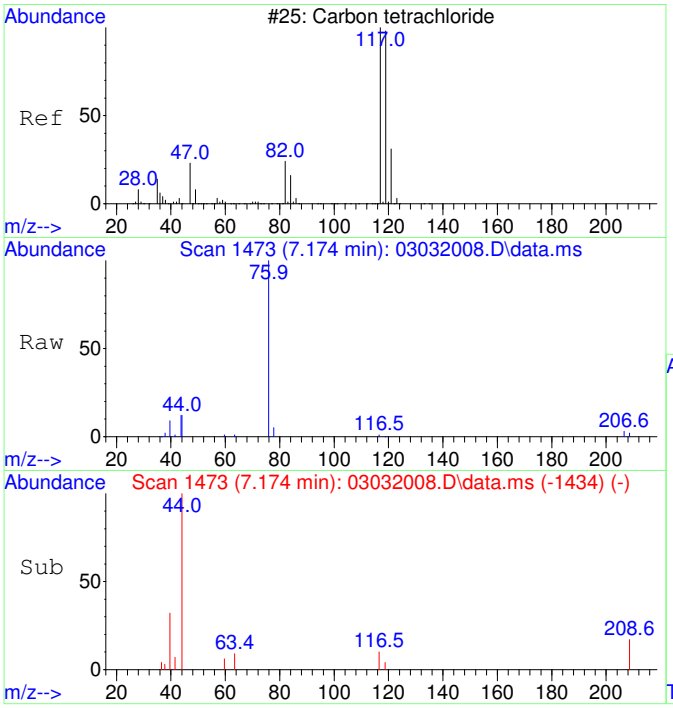


#31
1,1,1-Trichloroethane SCAN
Concen: 116.91 ug/L
RT: 6.906 min Scan# 1451
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 97 Resp: 653

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

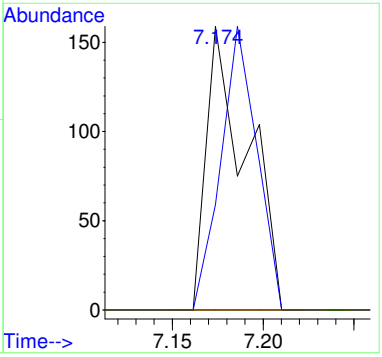


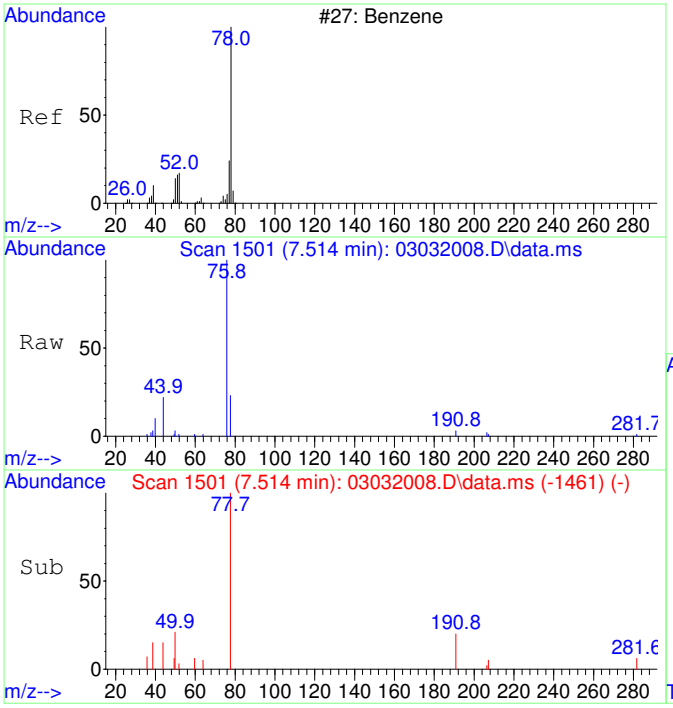


#32
Carbon tetrachloride SCAN
Concen: 43.28 ug/L
RT: 7.174 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:117 Resp: 247

Ion	Ratio	Lower	Upper
117	100		
119	89.1	56.4	116.4
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

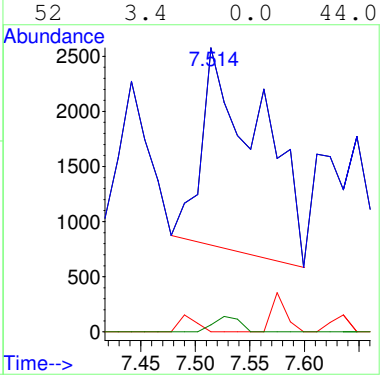


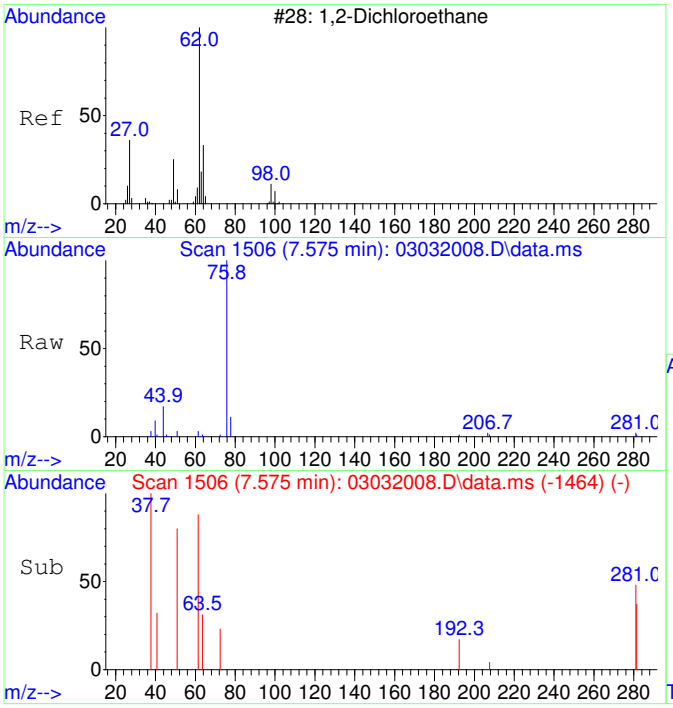


#33
Benzene SCAN
Concen: 455.42 ug/L
RT: 7.514 min Scan# 1501
Delta R.T. -0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 78 Resp: 6732

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	3.4	0.0	44.0

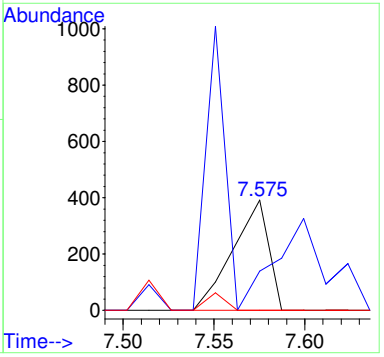


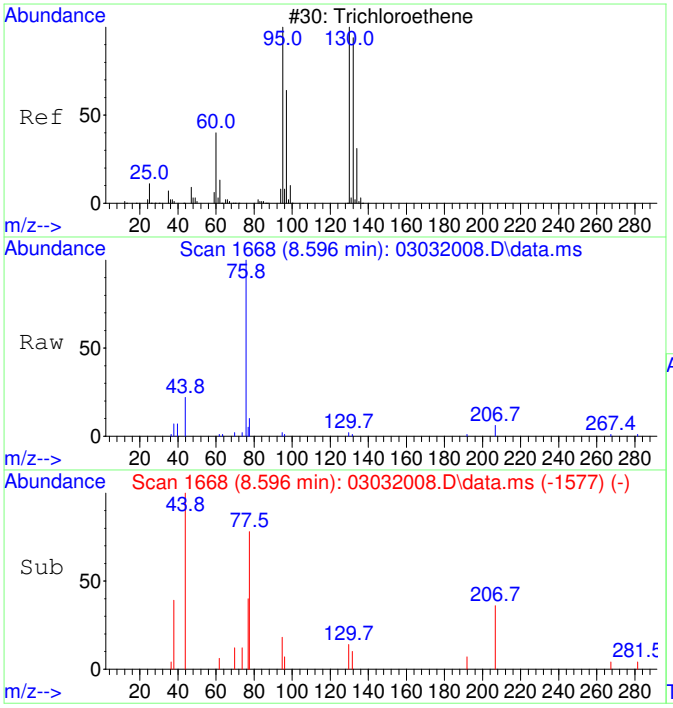


#34
1,2-Dichloroethane SCAN
Concen: 124.79 ug/L
RT: 7.575 min Scan# 1506
Delta R.T. 0.012 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 62 Resp: 539

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

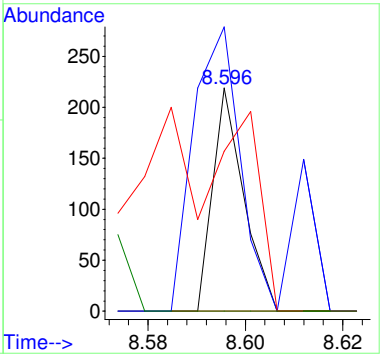


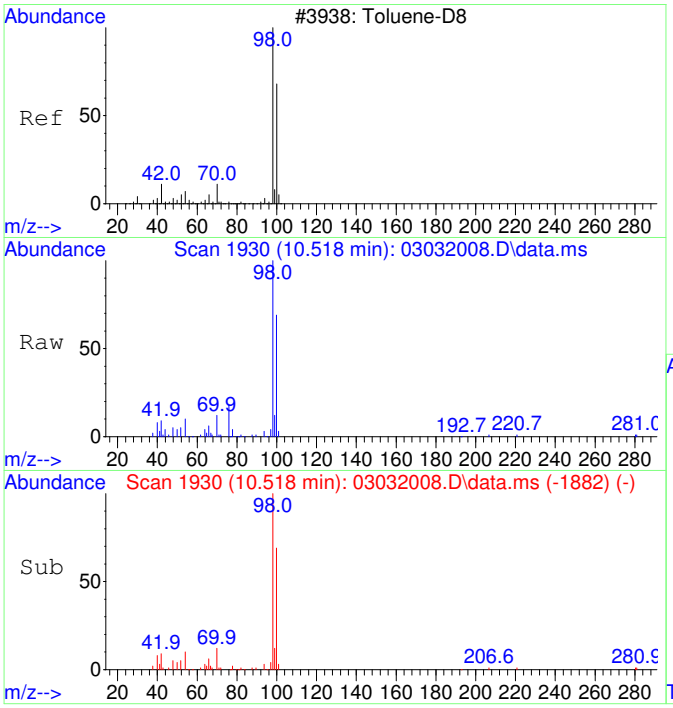


#35
Trichloroethene SCAN
Concen: 25.46 ug/L
RT: 8.596 min Scan# 1668
Delta R.T. -0.005 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:130 Resp: 96

Ion	Ratio	Lower	Upper
130	100		
95	193.8	58.2	118.2#
132	296.9	69.1	129.1#
97	0.0	37.8	97.8#

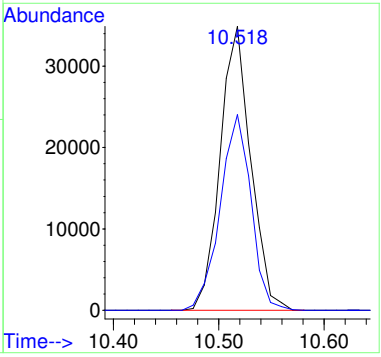


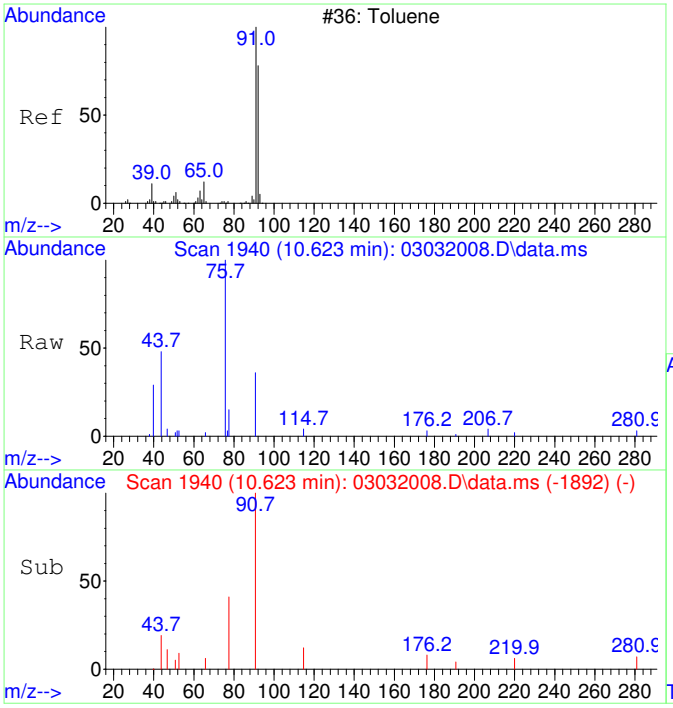


#36
Toluene-d8 SCAN
Concen: 5010.62 ug/L
RT: 10.518 min Scan# 1930
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 98 Resp: 70682

Ion	Ratio	Lower	Upper
98	100		
100	69.3	38.3	98.3

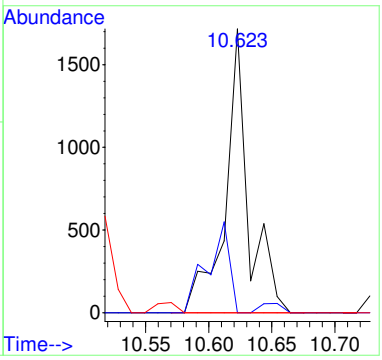


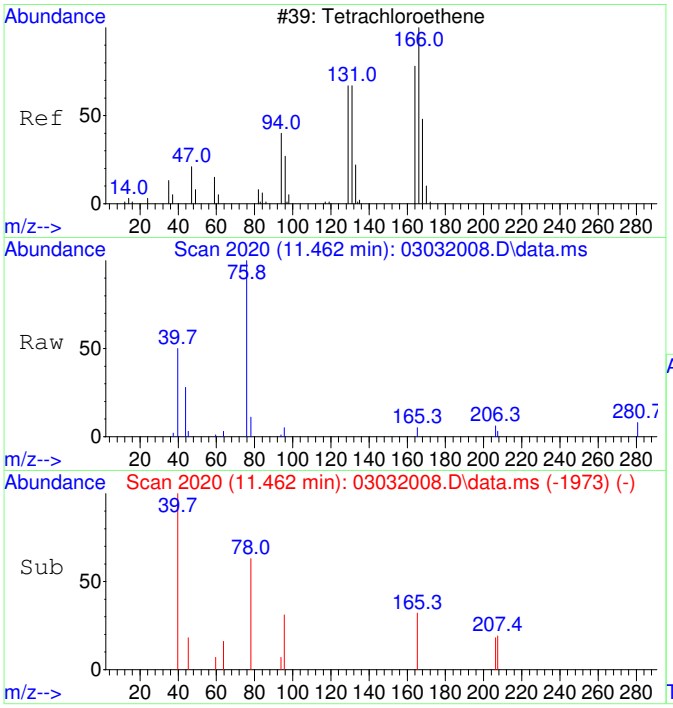


#37
Toluene SCAN
Concen: 126.36 ug/L
RT: 10.623 min Scan# 1940
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 2186

Ion	Ratio	Lower	Upper
91	100		
92	30.8	21.2	81.2
65	0.0	0.0	41.4

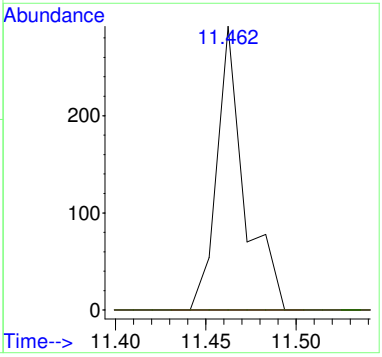


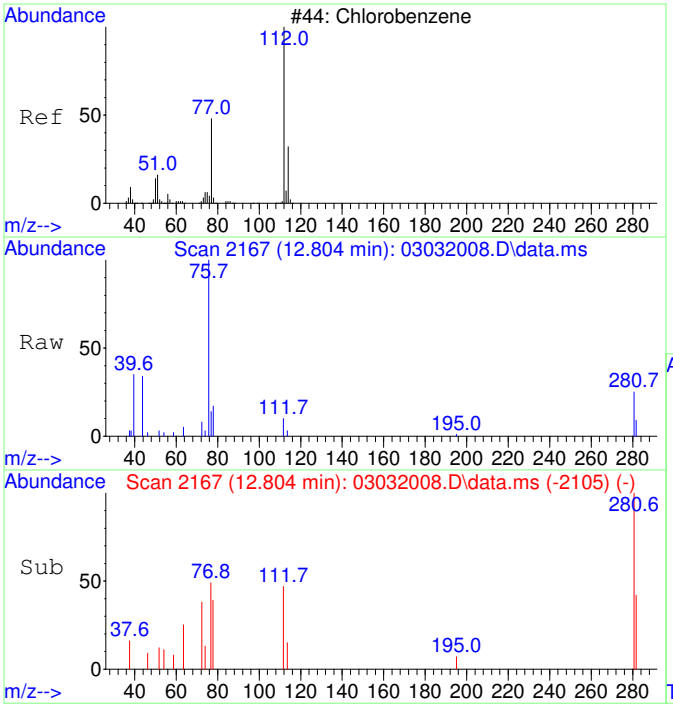


#39
Tetrachloroethene SCAN
Concen: 64.06 ug/L
RT: 11.462 min Scan# 2020
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:166 Resp: 311

Ion	Ratio	Lower	Upper
166	100		
164	0.0	43.5	103.5#
131	0.0	37.6	97.6#
129	0.0	40.5	100.5#

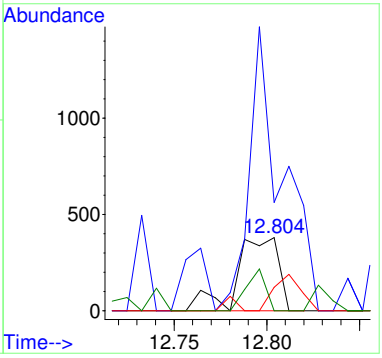


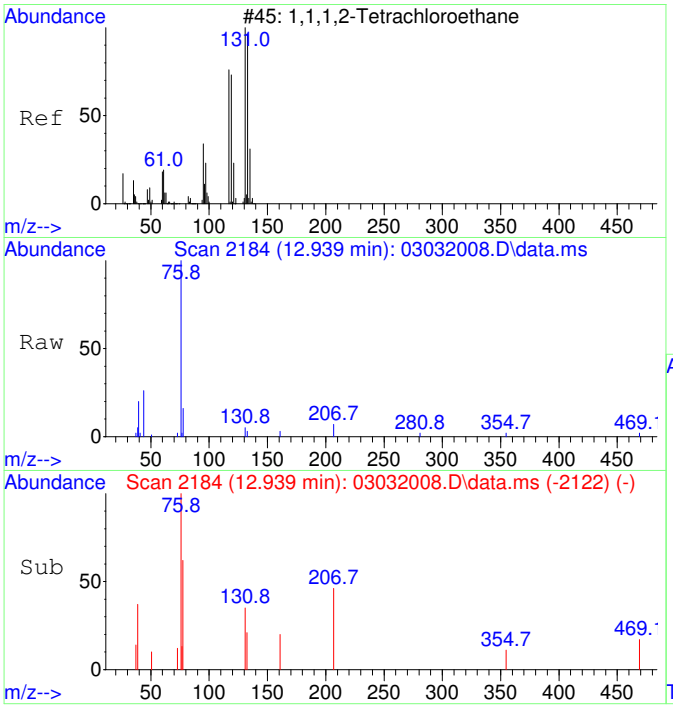


#40
Chlorobenzene SCAN
Concen: 55.14 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:112 Resp: 601

Ion	Ratio	Lower	Upper
112	100		
77	301.5	33.6	93.6#
114	0.0	5.6	65.6#
51	26.1	0.0	52.4

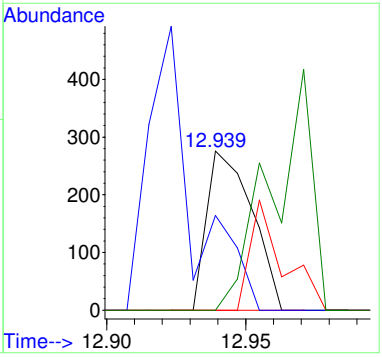


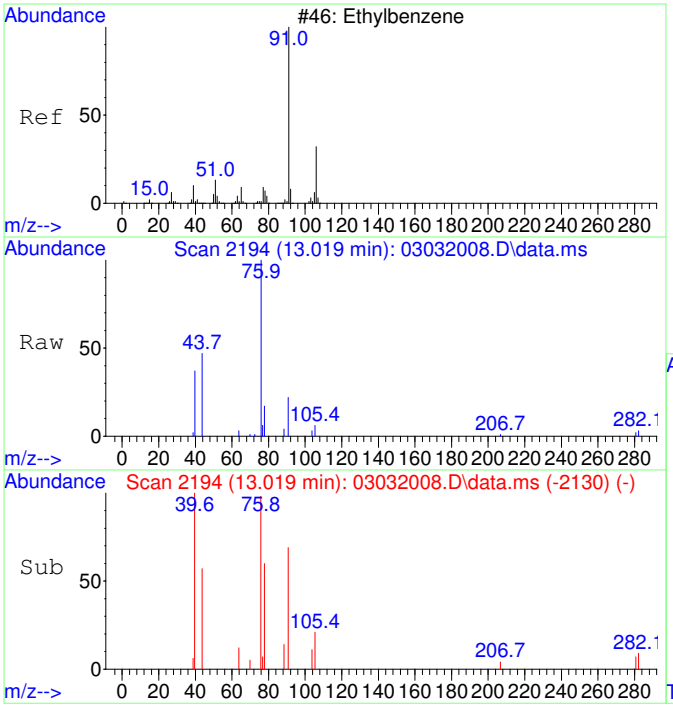


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 78.02 ug/L
RT: 12.939 min Scan# 2184
Delta R.T. -0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	0.0	61.4	121.4#
119	49.8	33.0	93.0
117	0.0	35.3	95.3#

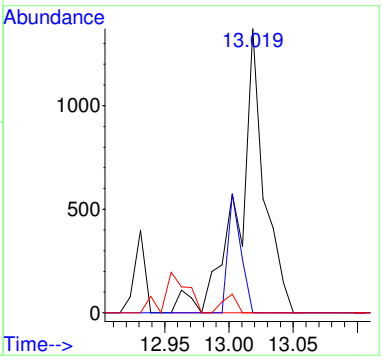


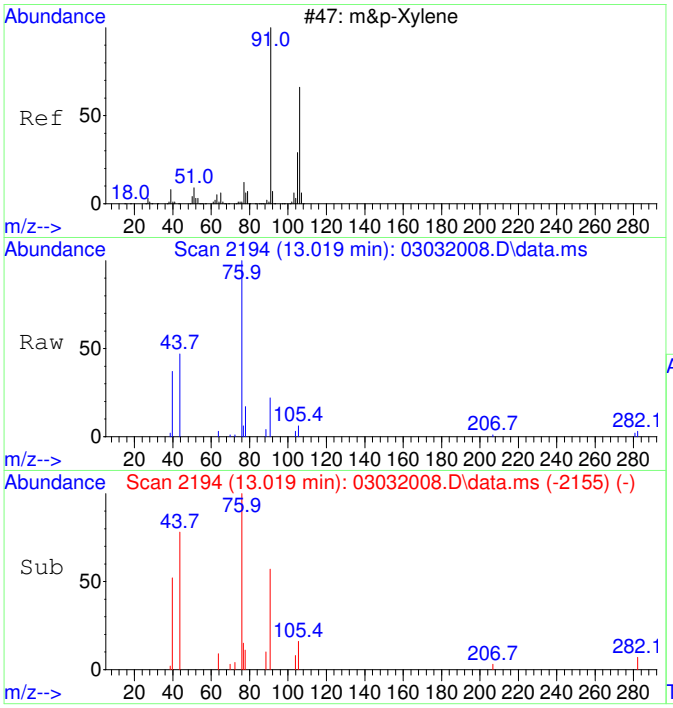


#42
Ethylbenzene SCAN
Concen: 98.98 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1898

Ion	Ratio	Lower	Upper
91	100		
106	20.9	2.2	62.2
51	3.6	0.0	40.6

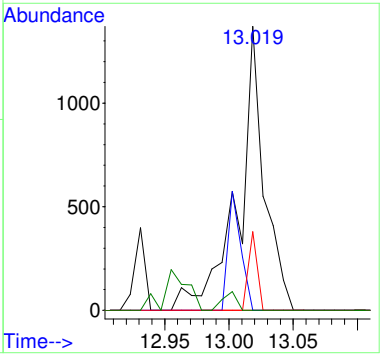


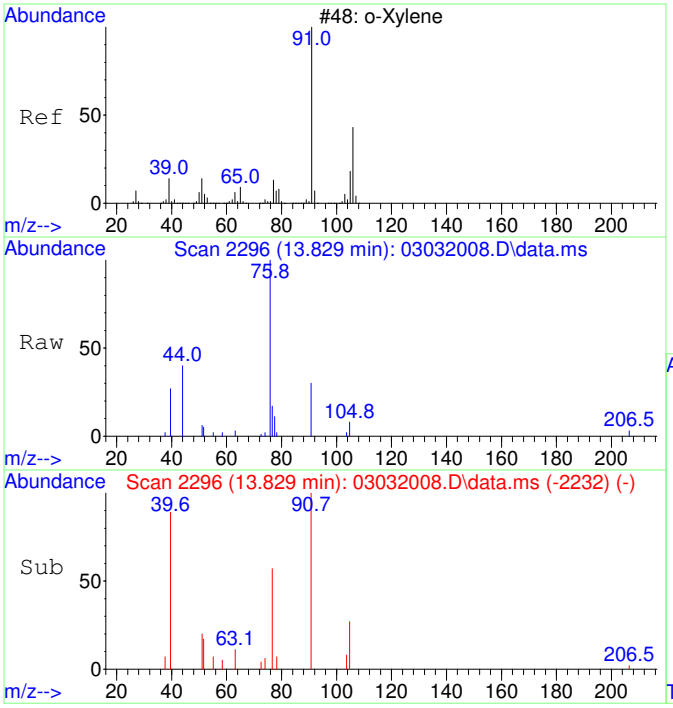


#43
m&p-Xylene SCAN
Concen: 70.95 ug/L
RT: 13.019 min Scan# 2194
Delta R.T. -0.191 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1931

Ion	Ratio	Lower	Upper
91	100		
106	20.5	19.7	79.7
105	9.4	0.0	55.1
51	3.6	0.0	41.3

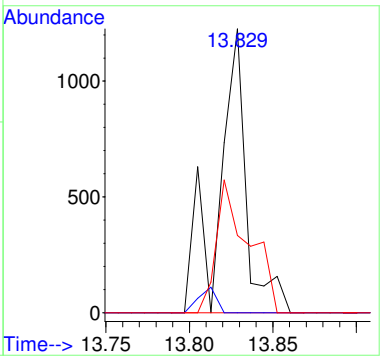


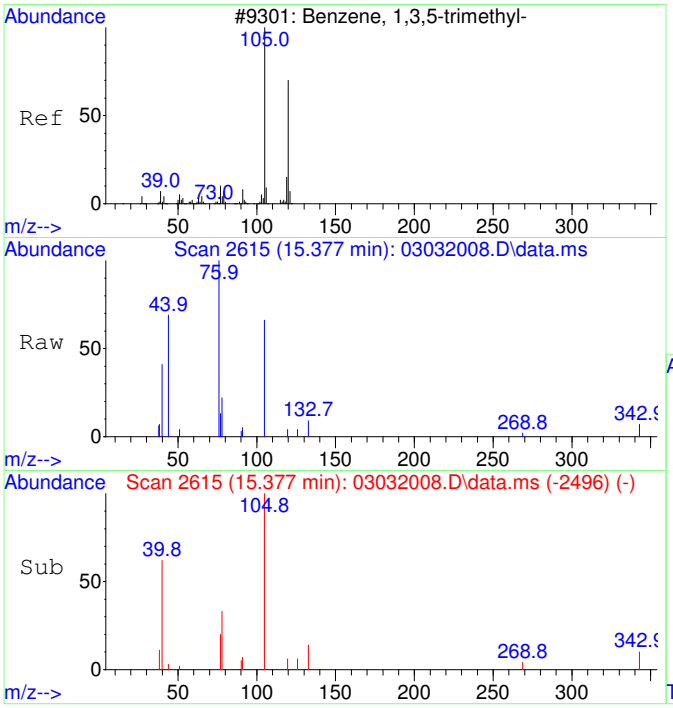


#44
o-Xylene SCAN
Concen: 98.43 ug/L
RT: 13.829 min Scan# 2296
Delta R.T. 0.008 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion: 91 Resp: 1426

Ion	Ratio	Lower	Upper
91	100		
106	5.8	18.1	78.1#
105	54.6	0.0	54.4#

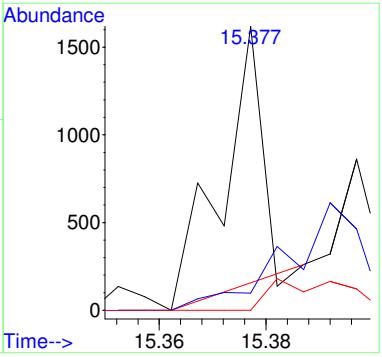


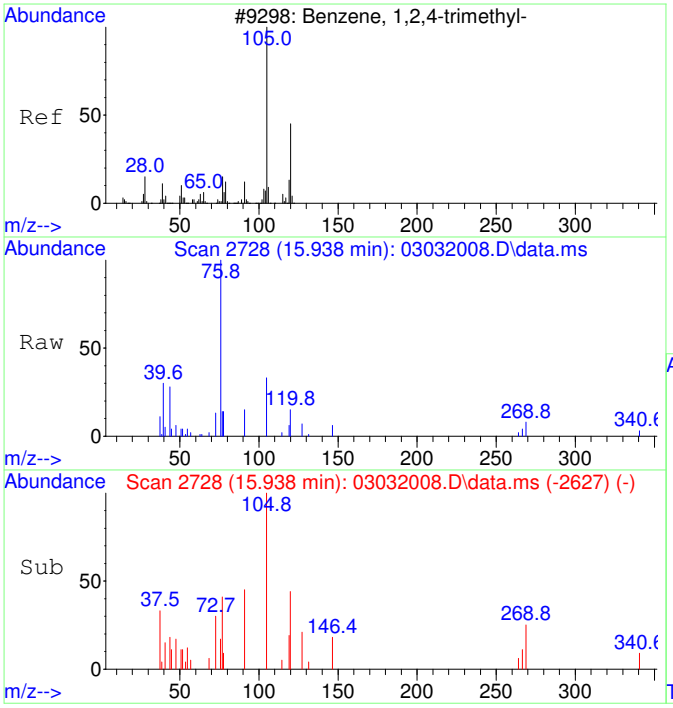


#46
1,3,5-Trimethylbenzene SCAN
Concen: 51.64 ug/L
RT: 15.377 min Scan# 2615
Delta R.T. -0.010 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 766

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	22.2	0.0	43.4

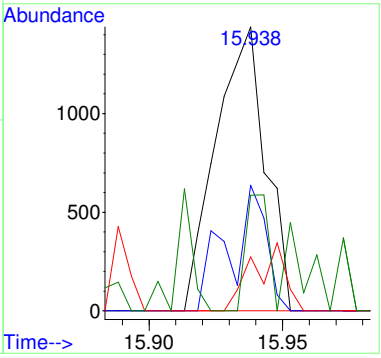




#47
1,2,4-Trimethylbenzene SCAN
Concen: 118.07 ug/L
RT: 15.938 min Scan# 2728
Delta R.T. 0.000 min
Lab File: 03032008.D
Acq: 3 Mar 2020 12:18

Tgt Ion:105 Resp: 1862

Ion	Ratio	Lower	Upper
105	100		
120	33.2	12.9	72.9
119	15.6	0.0	41.4
77	18.8	0.0	42.1



CRDL STANDARD

Radiello D1

Laboratory: EPA Region 9 Laboratory

SDG: 20058B

Client: California Site Cleanup Section 3

Project: MEW OU3 FY2020 Vapor Intrusion Investigation

Instrument ID: AG5975CV

Calibration: 2001023

Sequence: S20C005

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S20C005-CRL1	1,1-Dichloroethene	50.0	48.0	96	ug/L	60 - 140
	trans-1,2-Dichloroethene	50.0	48.2	96	ug/L	60 - 140
	1,1-Dichloroethane	50.0	48.0	96	ug/L	60 - 140
	cis-1,2-Dichloroethene	50.0	48.2	96	ug/L	60 - 140
	Chloroform	50.0	48.3	97	ug/L	60 - 140
	Trichloroethene	50.0	51.3	103	ug/L	60 - 140
	Tetrachloroethene	50.0	53.0	106	ug/L	60 - 140
	Toluene-d8	50.0	50.8	102	ug/L	60 - 140

QLS REPORT

Instrument Name: AG5975C
Sample Name: S20C005-CRL1
Misc Info: 2004027 0.5 mg/L
Date Acquired: 3/3/20 10:23
QLast Update: Thu Jan 30 12:20:44 2020
Operator: TD

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	2-Fluorotoluene	11.012	5000.0	5000.00	100%	60	140	pass
2)	1,1-Dichloroethene	3.112	50.0	48.02	96%	60	140	pass
3)	trans-1,2-Dichloroethene	4.310	50.0	48.19	96%	60	140	pass
4)	1,1-Dichloroethane	5.059	50.0	47.96	96%	60	140	pass
5)	cis-1,2-Dichloroethene	6.081	50.0	48.22	96%	60	140	pass
6)	Chloroform	6.664	50.0	48.34	97%	60	140	pass
7)	1,1,1-Trichloroethane	6.919	50.0	45.48	91%	60	140	pass
8)	Carbon tetrachloride	7.187	50.0	49.61	99%	60	140	pass
10)	1,2-Dichloroethane	7.564	50.0	48.15	96%	60	140	pass
11)	Trichloroethene	8.597	50.0	51.31	103%	60	140	pass
12)	Toluene-d8	10.519	50.0	50.84	102%	60	140	pass
13)	Toluene	10.613	50.0	54.36	109%	60	140	pass
14)	1,1,2-Trichloroethane	11.264	50.0	54.40	109%	60	140	pass
15)	Tetrachloroethene	11.474	50.0	52.95	106%	60	140	pass
16)	Chlorobenzene	12.805	50.0	55.62	111%	60	140	pass
17)	1,1,1,2-Tetrachloroethane	12.956	50.0	54.69	109%	60	140	pass
18)	Ethylbenzene	13.012	50.0	55.67	111%	60	140	pass
19)	m&p-Xylene	13.202	100.0	116.51	117%	60	140	pass
20)	o-Xylene	13.822	50.0	58.18	116%	60	140	pass
21)	1,1,2,2-Tetrachloroethane	14.914	50.0	57.06	114%	60	140	pass
22)	1,3,5-Trimethylbenzene	15.388	50.0	60.74	121%	60	140	pass
23)	1,2,4-Trimethylbenzene	15.934	50.0	60.08	120%	60	140	pass
24)	Naphthalene	17.929	50.0	66.56	133%	60	140	pass

Before Manual Integration

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

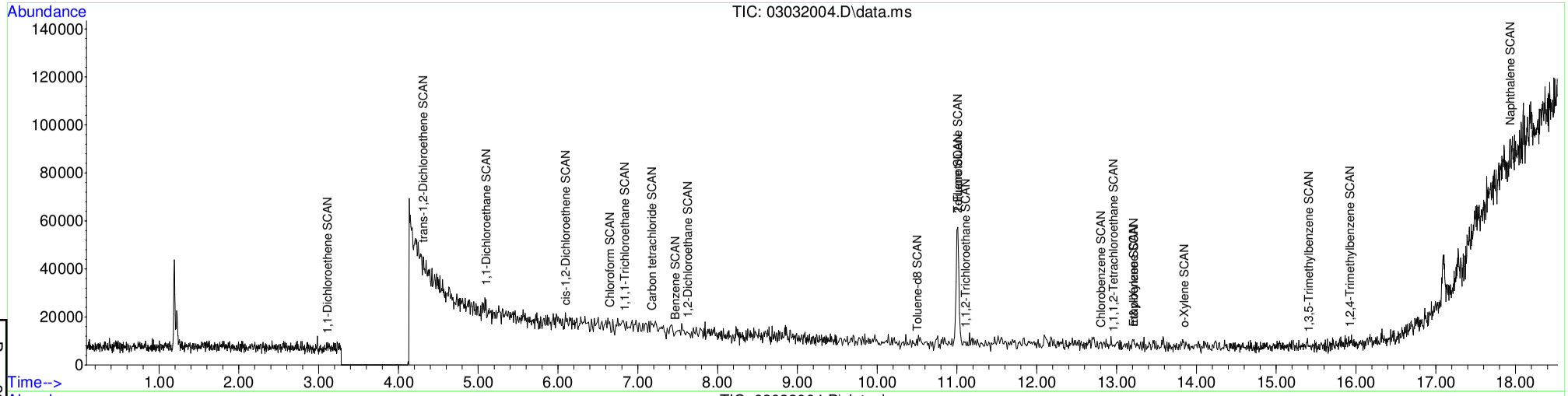
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.002	109	75418	5000.00 ug/L	-0.01
System Monitoring Compounds					
12) Toluene-d8	10.508	98	656	50.84 ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery =	1.02%#	
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.116	61	524	136.74 ug/L	95
3] trans-1,2-Dichloroethene	4.303	61	190	48.19 ug/L	88
4] 1,1-Dichloroethane	5.053	63	236	47.96 ug/L	98
5] cis-1,2-Dichloroethene	6.074	61	222	48.22 ug/L	92
6] Chloroform	6.652	83	247	48.34 ug/L	90
7] 1,1,1-Trichloroethane	6.907	97	226	45.48 ug/L #	90
8] Carbon tetrachloride	7.187	117	217	49.61 ug/L #	65
9] Benzene	7.515	78	647	51.90 ug/L	51
10] 1,2-Dichloroethane	7.552	62	198	48.15 ug/L	57
11] Trichloroethene	8.591	130	183	51.31 ug/L	88
13] Toluene	10.613	91	824	54.36 ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	186	54.40 ug/L	98
15] Tetrachloroethene	11.463	166	220	52.95 ug/L	77
16] Chlorobenzene	12.805	112	608	55.62 ug/L	75
17] 1,1,1,2-Tetrachloroethane	12.948	131	197	54.69 ug/L #	64
18] Ethylbenzene	13.012	91	990	55.67 ug/L	91
19] m&p-Xylene	13.202	91	1563	116.51 ug/L	96
20] o-Xylene	13.822	91	837	58.18 ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	355	57.06 ug/L	93
22] 1,3,5-Trimethylbenzene	15.384	105	943	60.74 ug/L	99
23] 1,2,4-Trimethylbenzene	15.935	105	949	60.08 ug/L	99
24] Naphthalene	17.929	128	1813	66.56 ug/L	91
25) 2-Fluorotoluene SCAN	11.011	109	45584	4904.59 ug/L	98
26) 1,1-Dichloroethene SCAN	3.111	61	150	56.01 ug/L #	60
27) trans-1,2-Dichloroethe...	4.308	61	78	27.30 ug/L #	1
28) 1,1-Dichloroethane SCAN	5.098	63	105	26.67 ug/L #	1
29) cis-1,2-Dichloroethene...	6.086	61	117	37.87 ug/L #	23
30) Chloroform SCAN	6.650	83	118	34.50 ug/L #	22
31) 1,1,1-Trichloroethane ...	6.833	97	101	29.46 ug/L #	24
32) Carbon tetrachloride SCAN	7.173	117	90	25.69 ug/L #	22
33) Benzene SCAN	7.465	78	3264	359.68 ug/L #	90
34) 1,2-Dichloroethane SCAN	7.623	62	133	50.16 ug/L #	36
36) Toluene-d8 SCAN	10.507	98	181	20.90 ug/L #	16
37) Toluene SCAN	11.011	91	830	78.15 ug/L	65
38) 1,1,2-Trichloroethane ...	11.105	97	75	31.72 ug/L #	14
40) Chlorobenzene SCAN	12.804	112	285	42.59 ug/L #	37
41) 1,1,1,2-Tetrachloroeth...	12.963	131	313	127.09 ug/L #	43
42) Ethylbenzene SCAN	13.209	91	2126	180.60 ug/L	99
43) m&p-Xylene SCAN	13.209	91	2126	127.24 ug/L #	70
44) o-Xylene SCAN	13.844	91	767	86.24 ug/L #	36
46) 1,3,5-Trimethylbenzene...	15.403	105	605	66.44 ug/L #	41
47) 1,2,4-Trimethylbenzene...	15.924	105	234	24.17 ug/L #	41
48) Naphthalene SCAN	17.927	128	1632	111.23 ug/L #	56

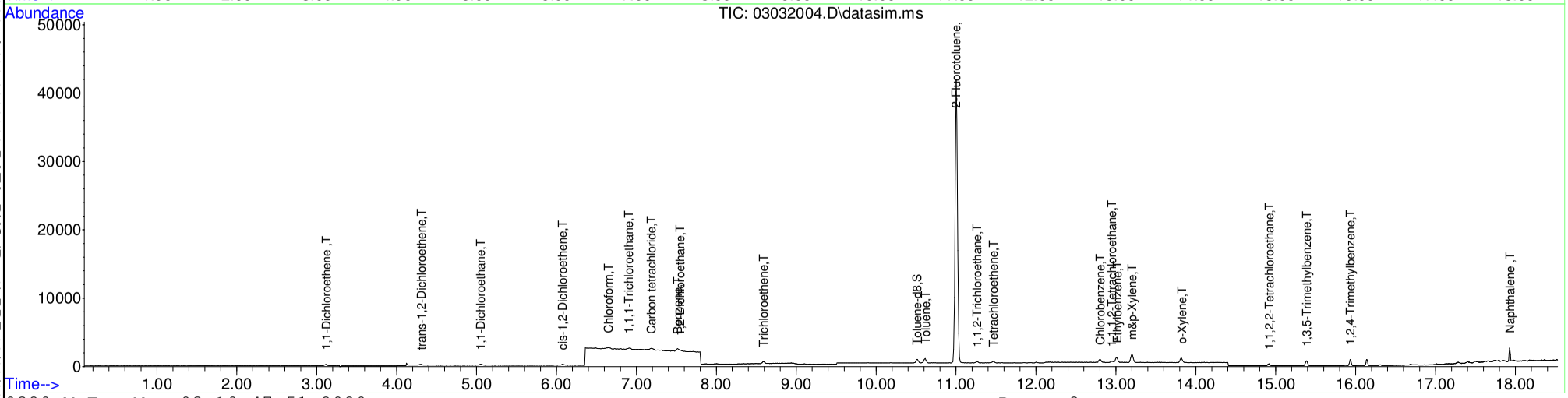
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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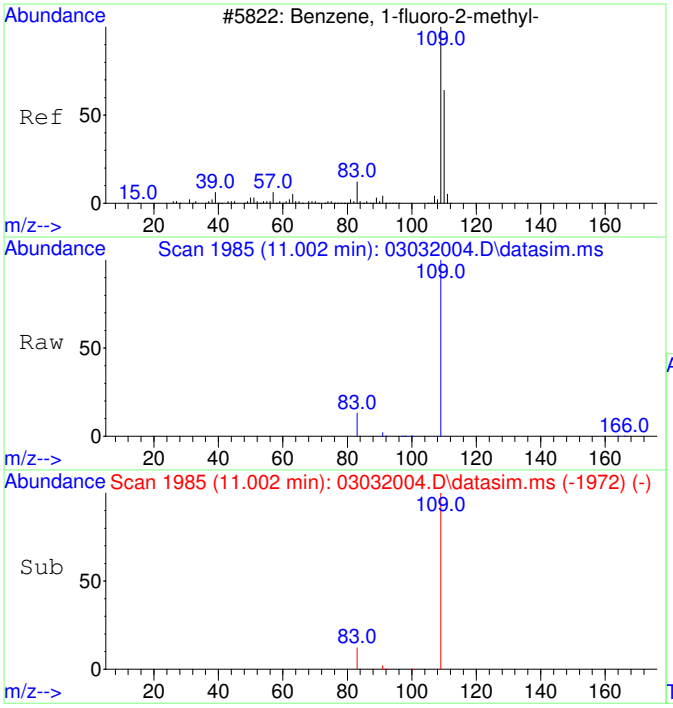
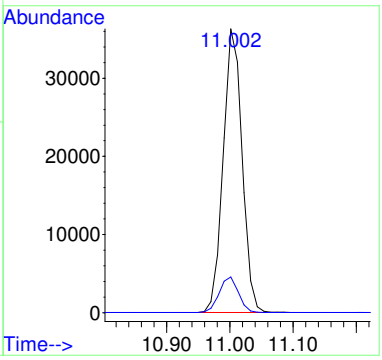
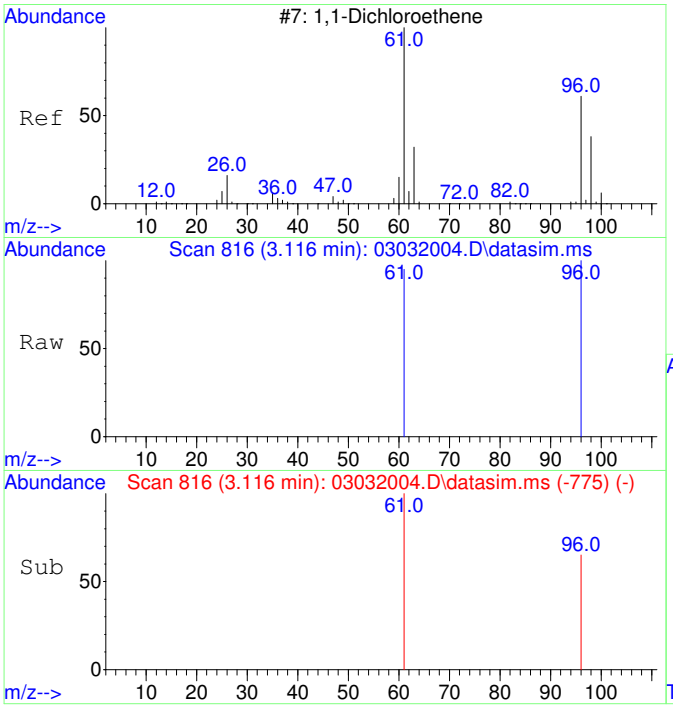


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 75418

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.2

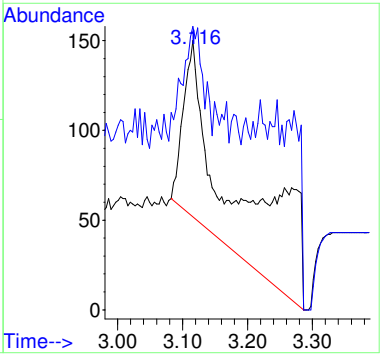




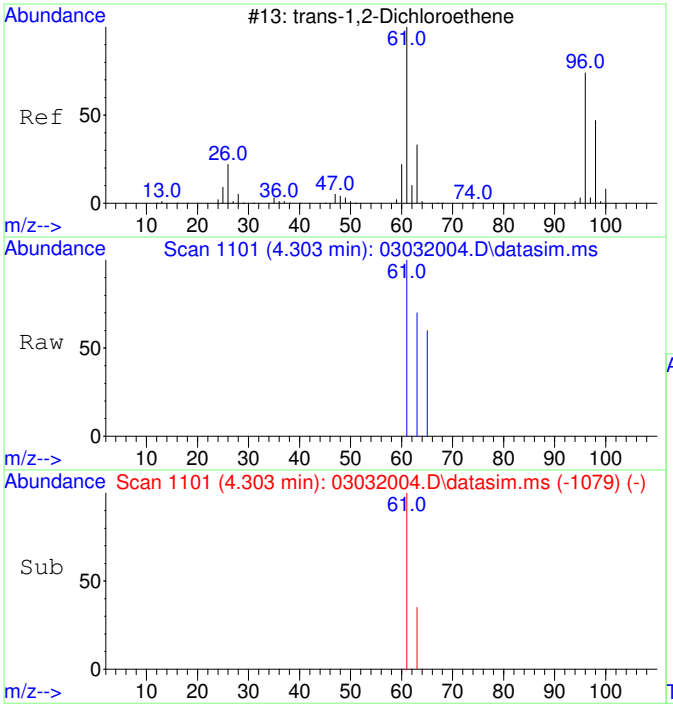
#2
1,1-Dichloroethene
Concen: 136.74 ug/L
RT: 3.116 min Scan# 816
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 524

Ion	Ratio	Lower	Upper
61	100		
96	59.5	33.2	93.2



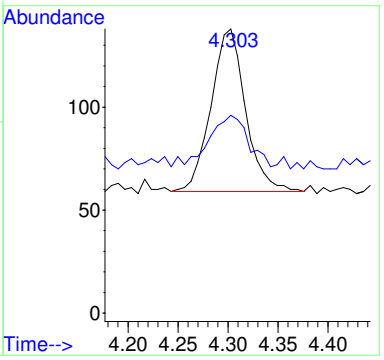
Before MI:
IMPROPER
BASELINE

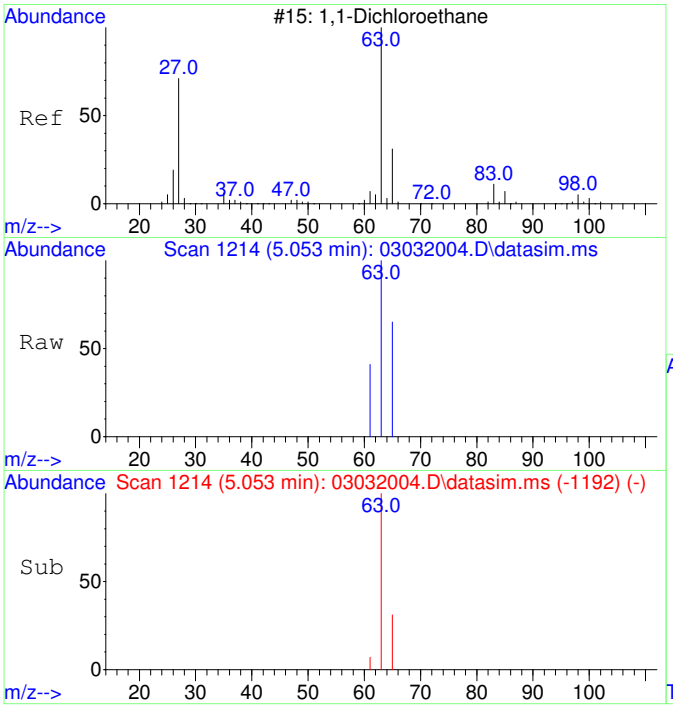


#3
trans-1,2-Dichloroethene
Concen: 48.19 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 190

Ion	Ratio	Lower	Upper
61	100		
63	38.9	2.3	62.3

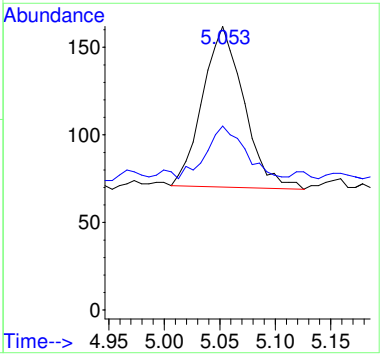


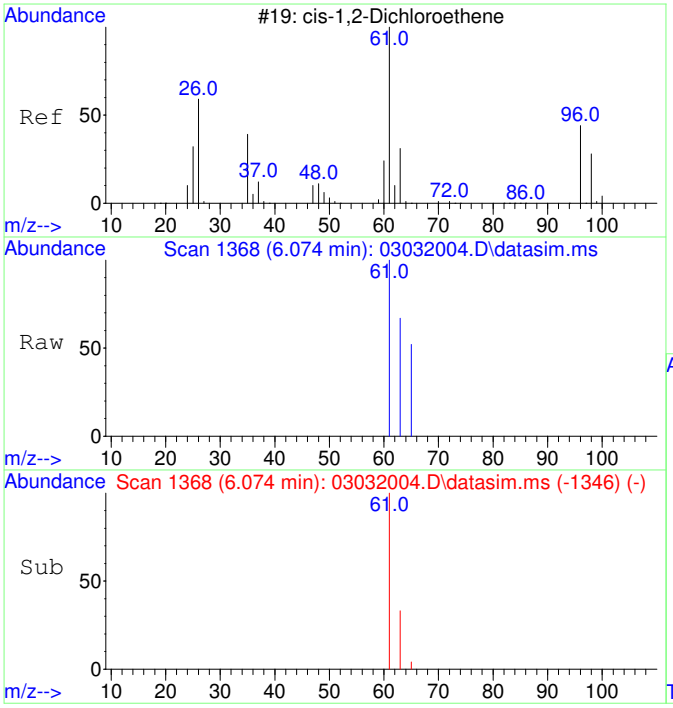


#4
1,1-Dichloroethane
Concen: 47.96 ug/L
RT: 5.053 min Scan# 1214
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 236

Ion	Ratio	Lower	Upper
63	100		
65	30.5	1.7	61.7

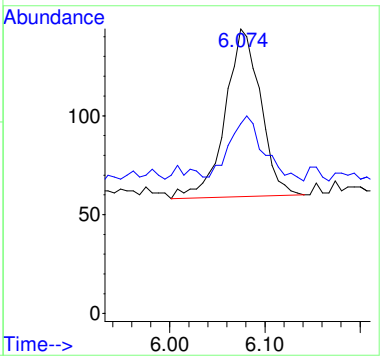


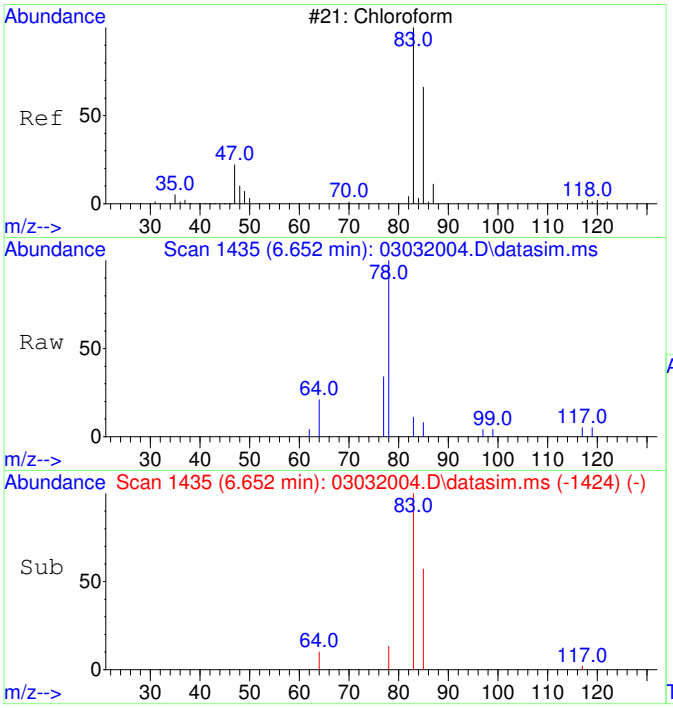


#5
cis-1,2-Dichloroethene
Concen: 48.22 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 222

Ion	Ratio	Lower	Upper
61	100		
63	36.9	2.6	62.6

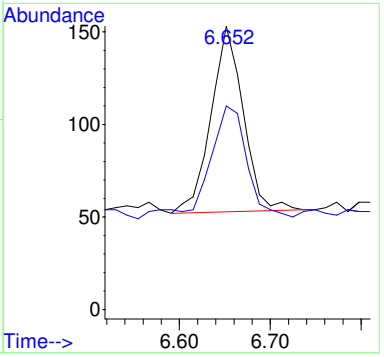


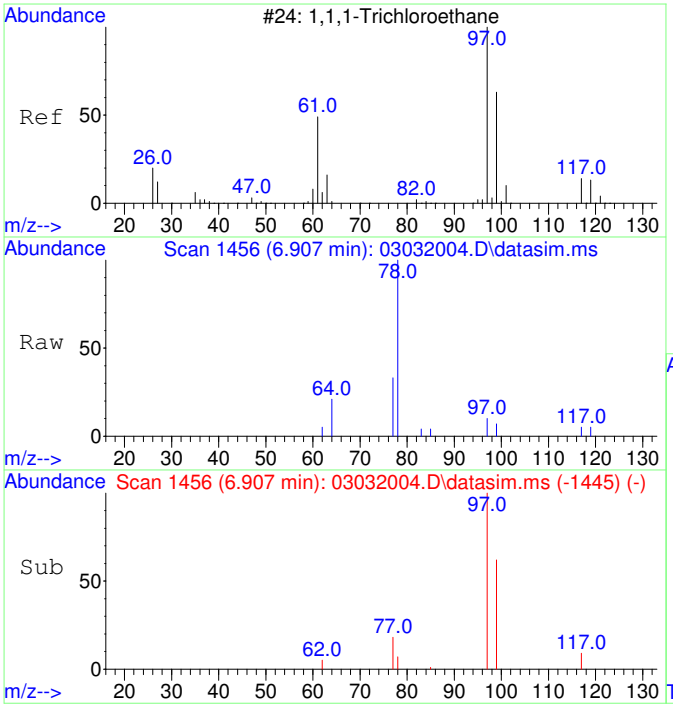


#6
Chloroform
Concen: 48.34 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 247

Ion	Ratio	Lower	Upper
83	100		
85	72.9	34.7	94.7

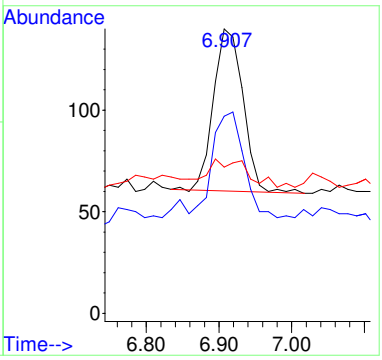


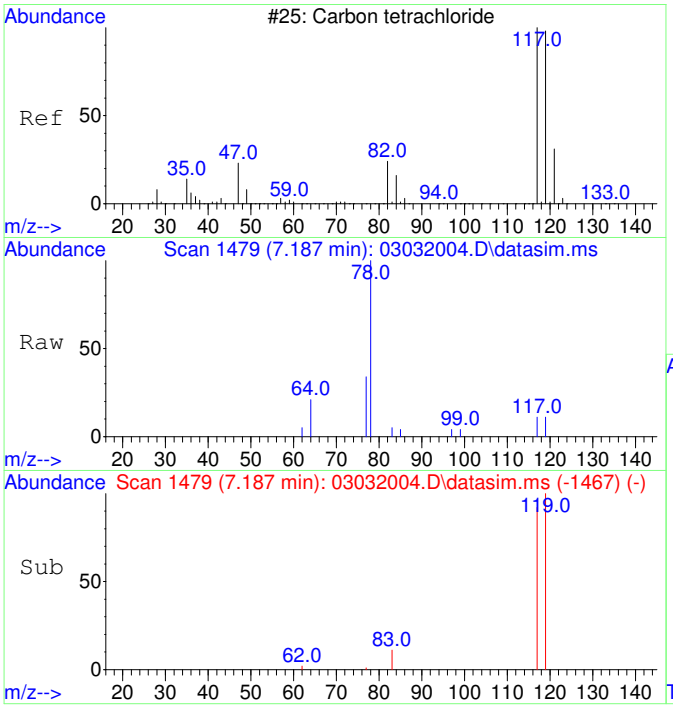


#7
1,1,1-Trichloroethane
Concen: 45.48 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 226

Ion	Ratio	Lower	Upper
97	100		
99	68.6	34.4	94.4
117	0.0	0.0	42.8

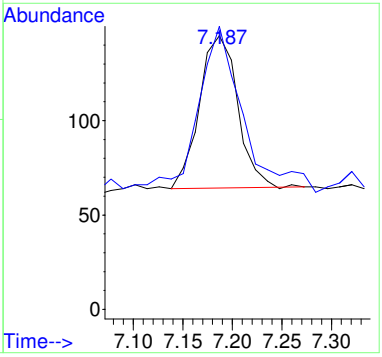


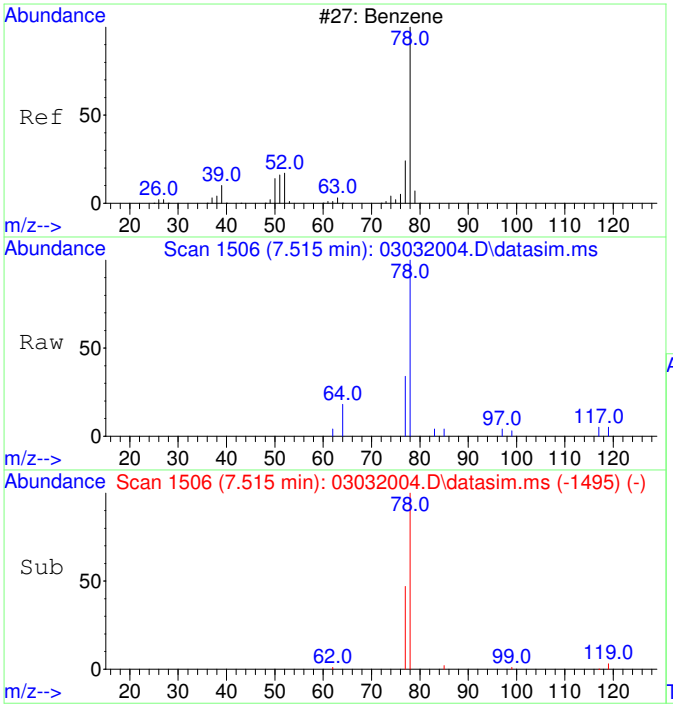


#8
Carbon tetrachloride
Concen: 49.61 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 217

Ion	Ratio	Lower	Upper
117	100		
119	130.0	66.1	126.1#

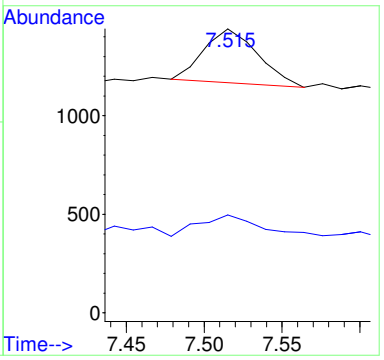


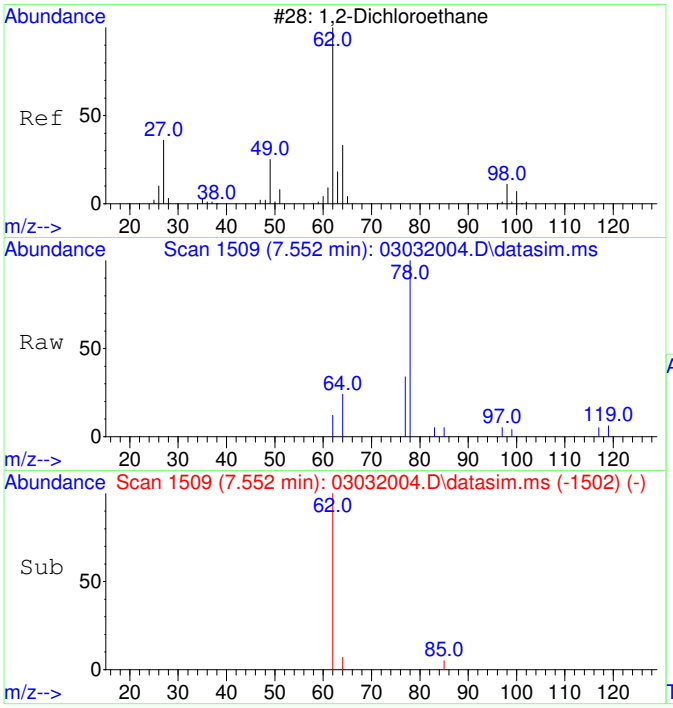


#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 647

Ion	Ratio	Lower	Upper
78	100		
77	47.4	0.0	53.6

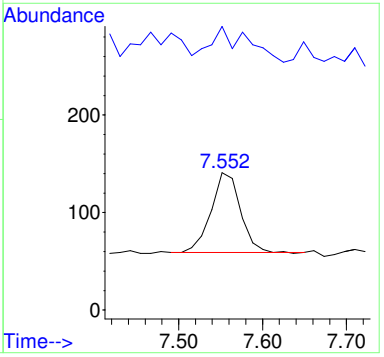


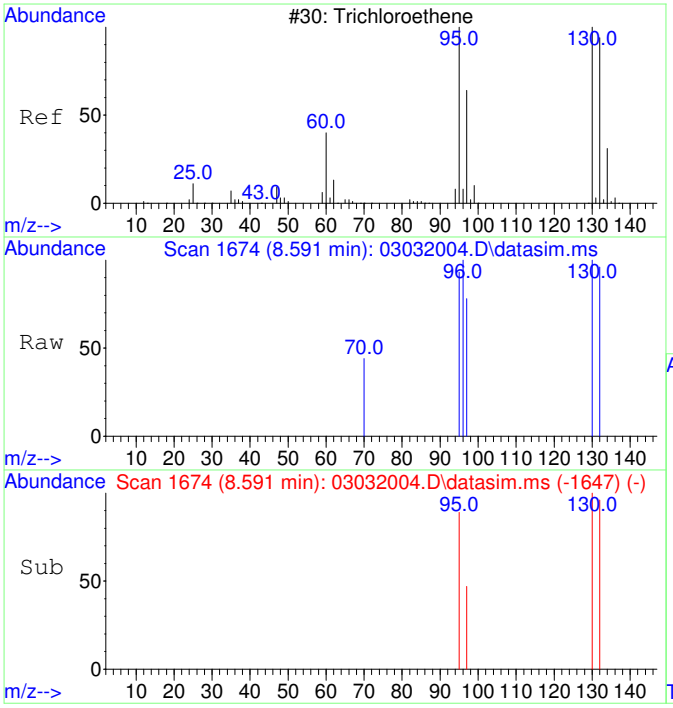


#10
1,2-Dichloroethane
Concen: 48.15 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 198

Ion	Ratio	Lower	Upper
62	100		
64	56.6	2.4	62.4

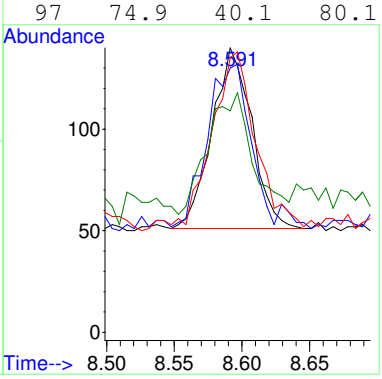


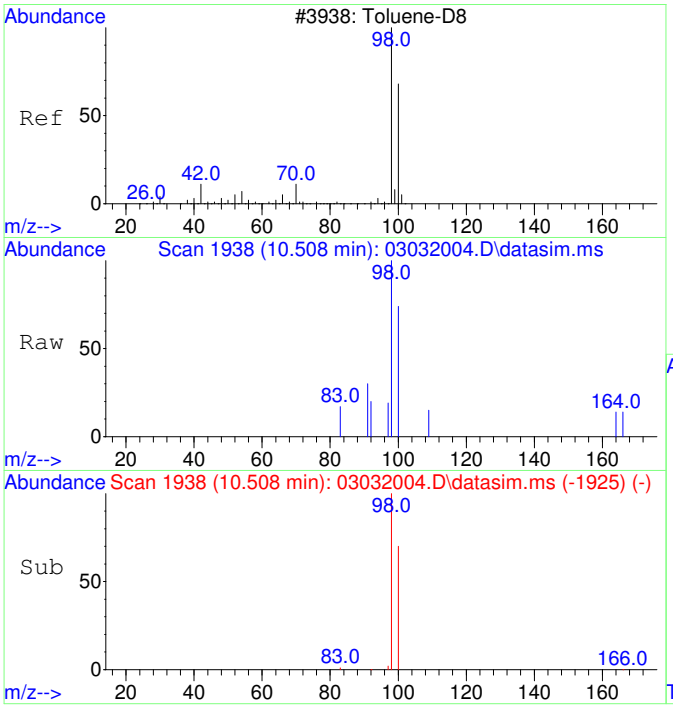


#11
Trichloroethene
Concen: 51.31 ug/L
RT: 8.591 min Scan# 1674
Delta R.T. -0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:130 Resp: 183

Ion	Ratio	Lower	Upper
130	100		
95	97.3	63.8	123.8
132	109.8	75.9	115.9
97	74.9	40.1	80.1

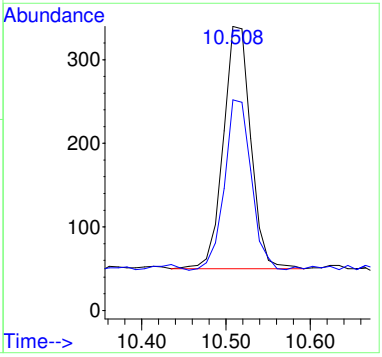


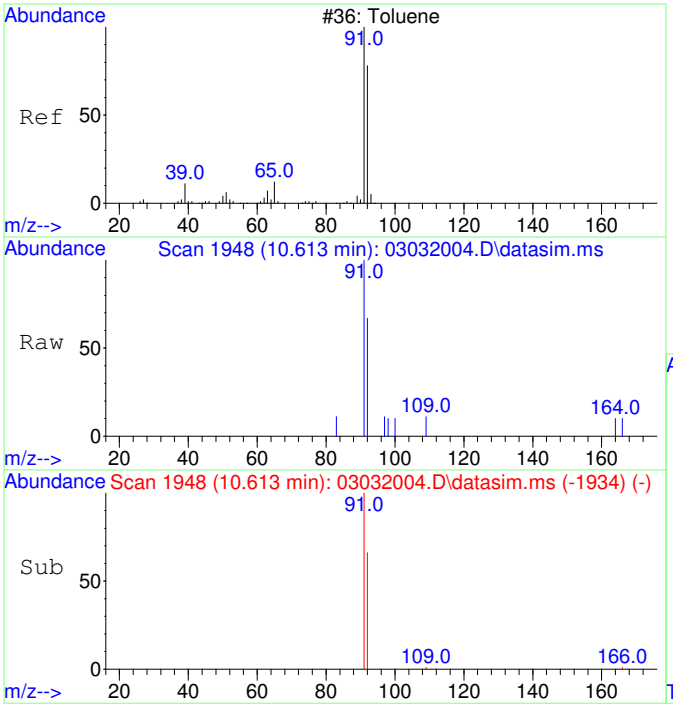


#12
Toluene-d8
Concen: 50.84 ug/L
RT: 10.508 min Scan# 1938
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 656

Ion	Ratio	Lower	Upper
98	100		
100	68.6	36.5	96.5

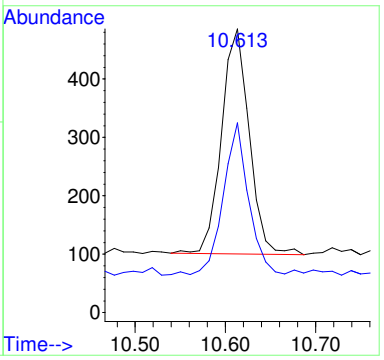


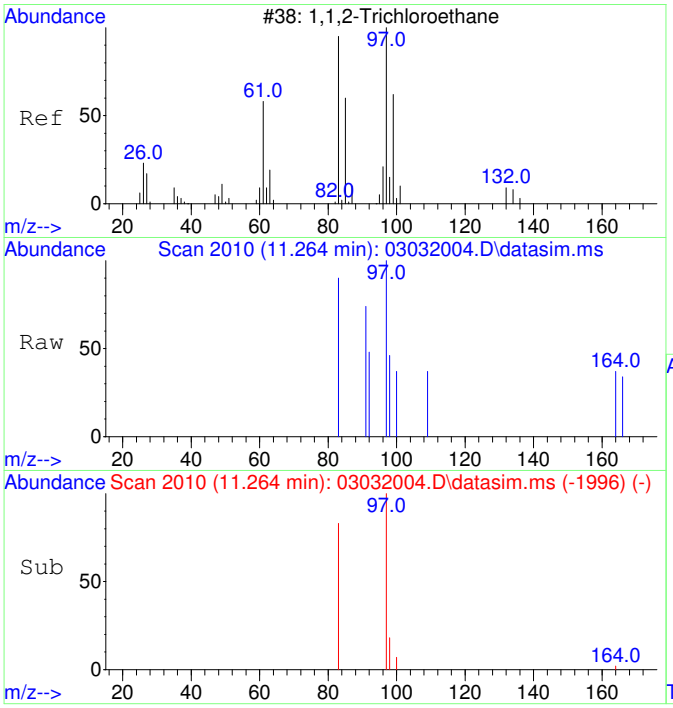


#13
Toluene
Concen: 54.36 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 824

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.7	89.7

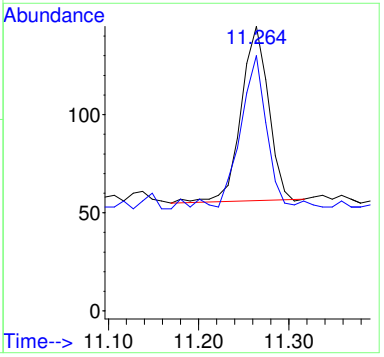


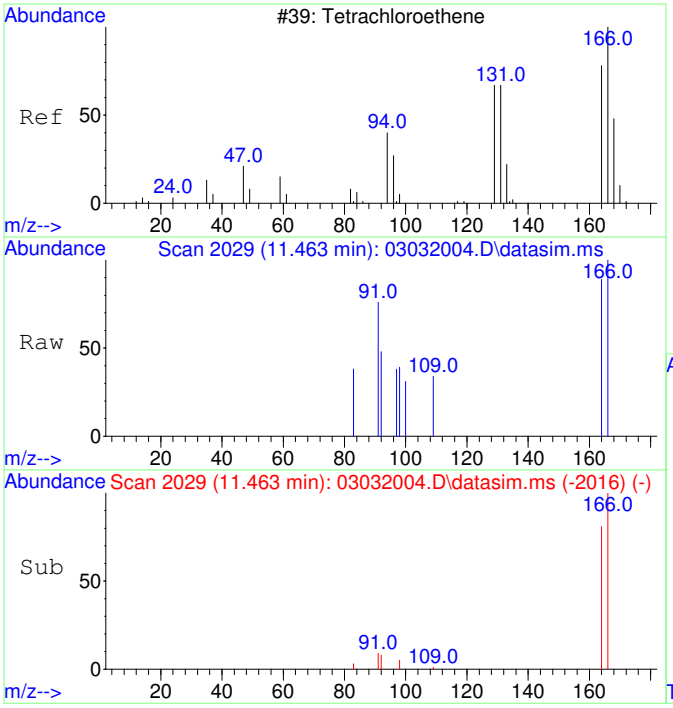


#14
1,1,2-Trichloroethane
Concen: 54.40 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 186

Ion	Ratio	Lower	Upper
97	100		
83	83.9	51.9	111.9

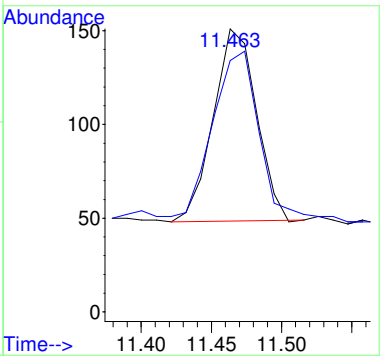


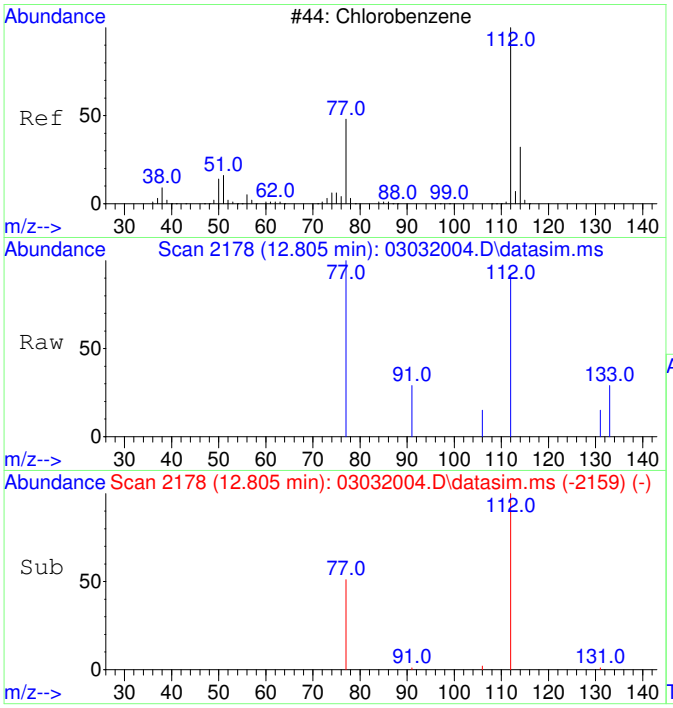


#15
Tetrachloroethene
Concen: 52.95 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:166 Resp: 220

Ion	Ratio	Lower	Upper
166	100		
164	97.7	47.9	107.9

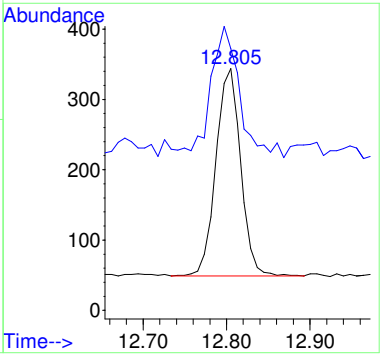


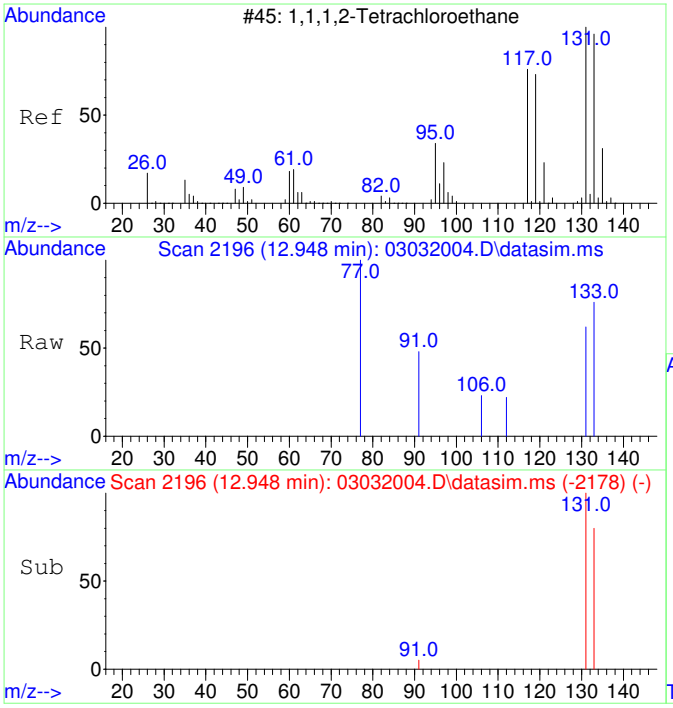


#16
Chlorobenzene
Concen: 55.62 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 608

Ion	Ratio	Lower	Upper
112	100		
77	74.2	25.7	85.7

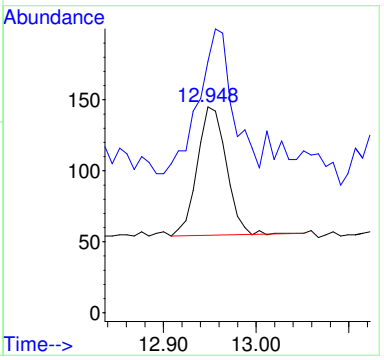


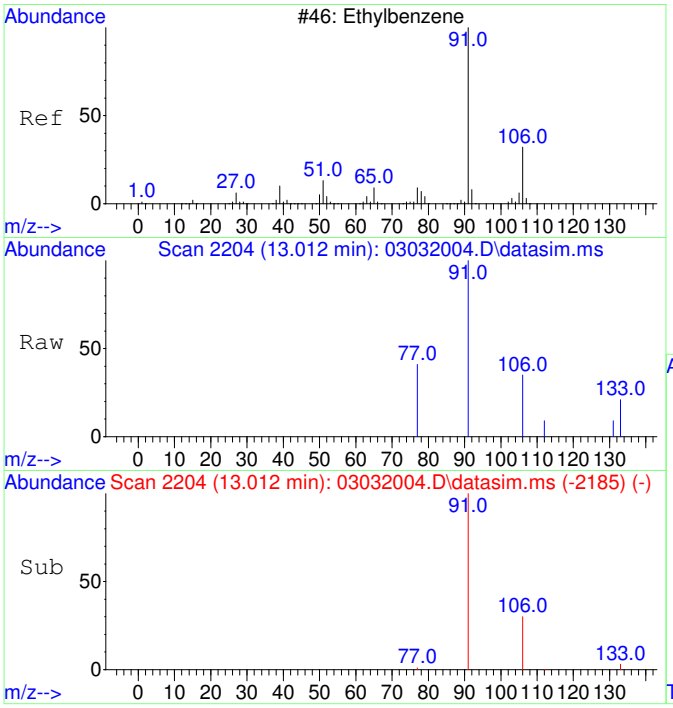


#17
1,1,1,2-Tetrachloroethane
Concen: 54.69 ug/L
RT: 12.948 min Scan# 2196
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 197

Ion	Ratio	Lower	Upper
131	100		
133	132.0	66.5	126.5#

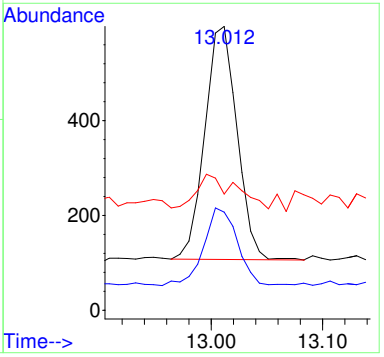


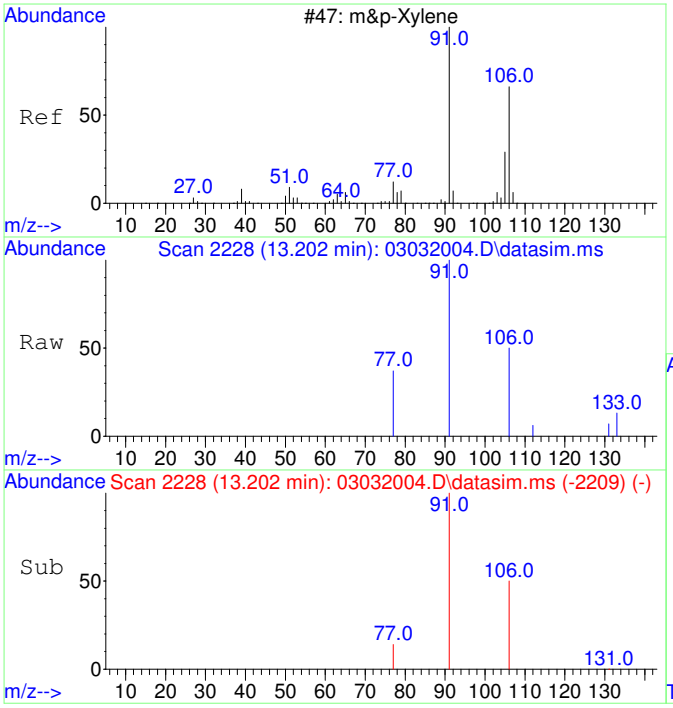


#18
Ethylbenzene
Concen: 55.67 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 990

Ion	Ratio	Lower	Upper
91	100		
106	34.9	2.7	62.7
77	17.7	0.0	38.3

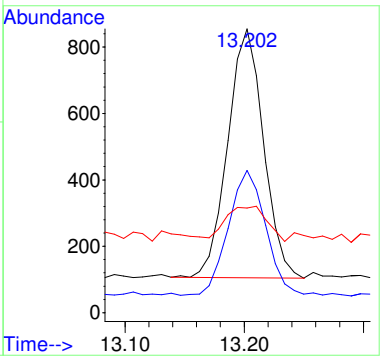


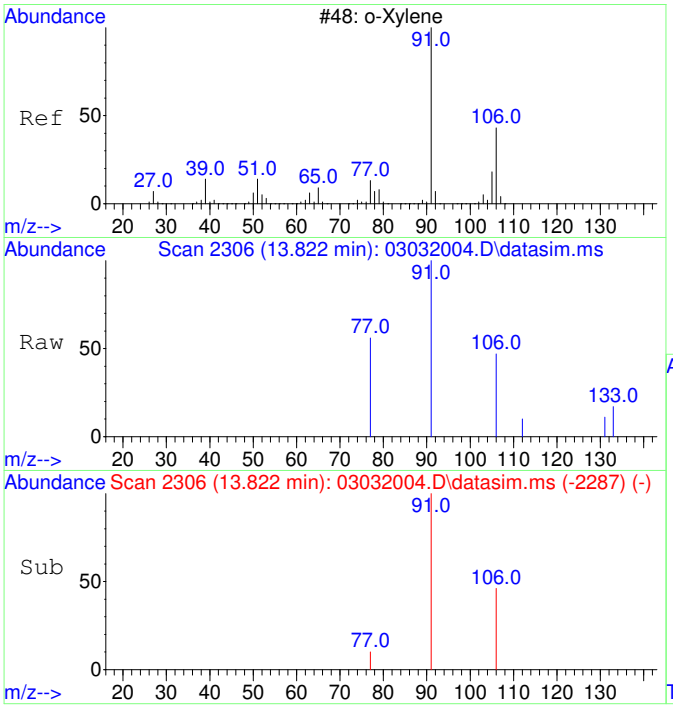


#19
m&p-Xylene
Concen: 116.51 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 1563

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.8	81.8
77	17.5	0.0	42.6

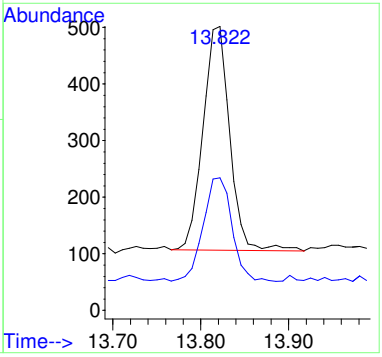


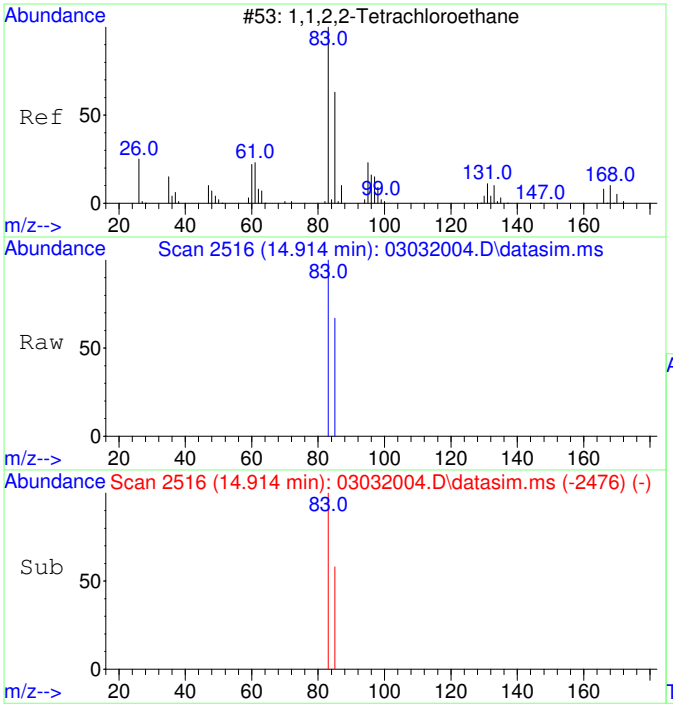


#20
o-Xylene
Concen: 58.18 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 837

Ion	Ratio	Lower	Upper
91	100		
106	49.5	18.8	78.8

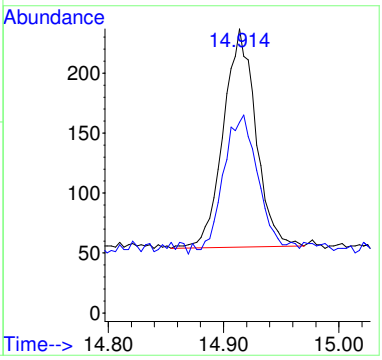


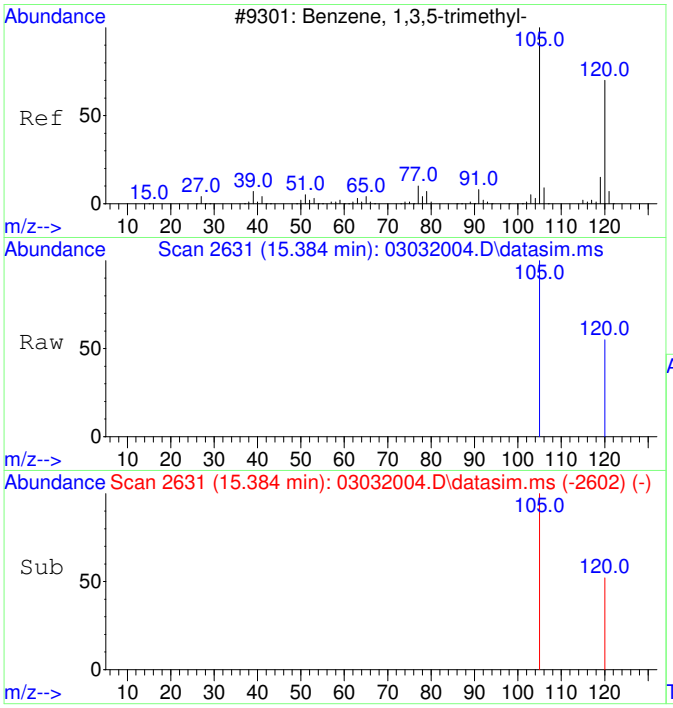


#21
1,1,2,2-Tetrachloroethane
Concen: 57.06 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 355

Ion	Ratio	Lower	Upper
83	100		
85	69.6	34.4	94.4

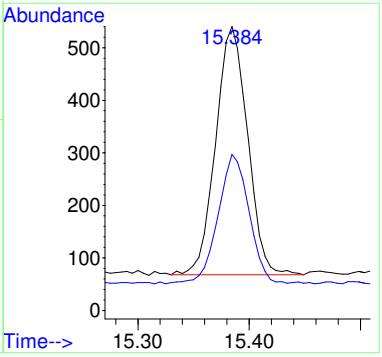


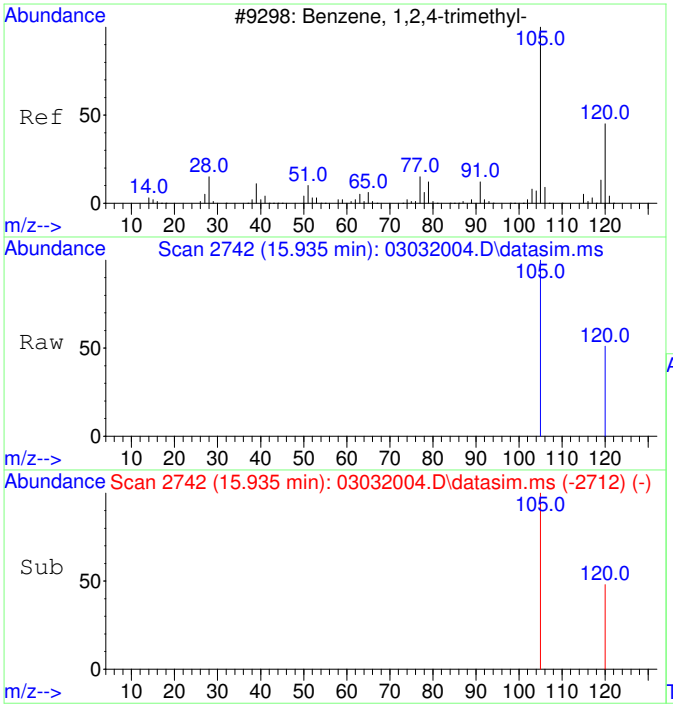


#22
1,3,5-Trimethylbenzene
Concen: 60.74 ug/L
RT: 15.384 min Scan# 2631
Delta R.T. -0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 943

Ion	Ratio	Lower	Upper
105	100		
120	50.7	21.1	81.1

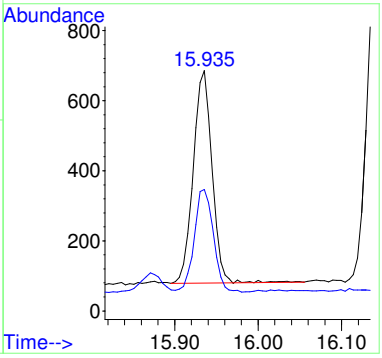


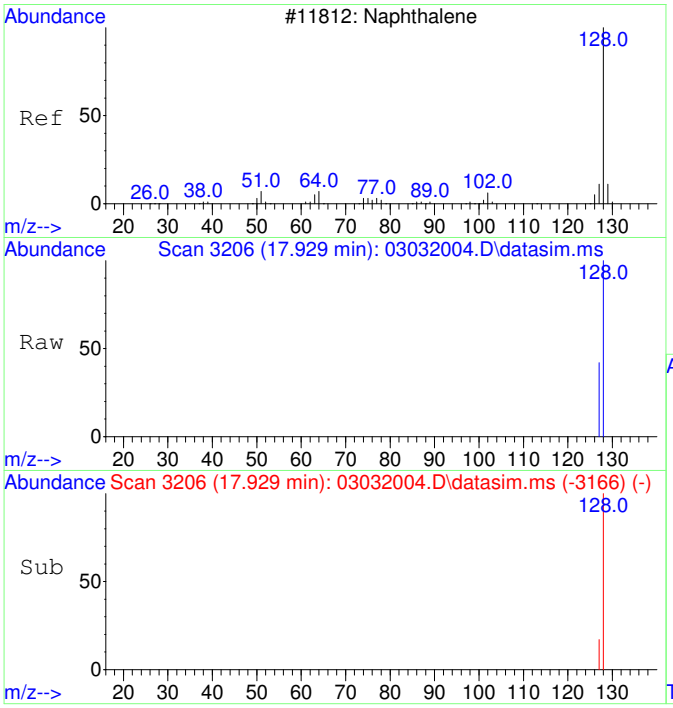


#23
1,2,4-Trimethylbenzene
Concen: 60.08 ug/L
RT: 15.935 min Scan# 2742
Delta R.T. 0.001 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 949

Ion	Ratio	Lower	Upper
105	100		
120	47.7	17.1	77.1

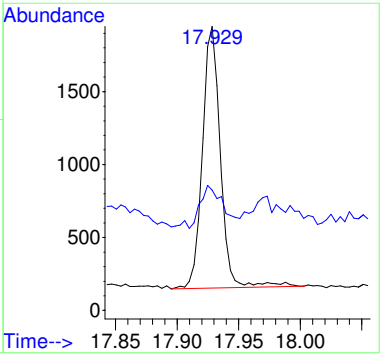


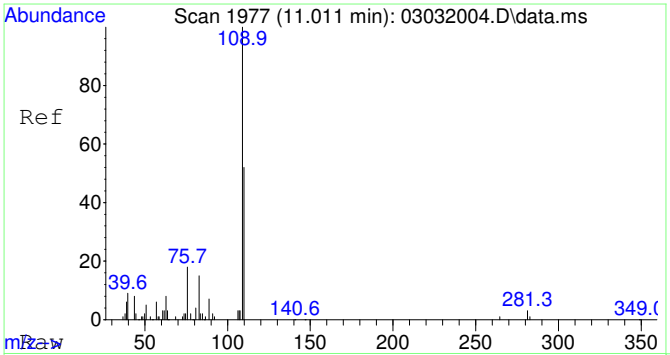


#24
Naphthalene
Concen: 66.56 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1813

Ion	Ratio	Lower	Upper
128	100		
127	16.3	0.0	42.6

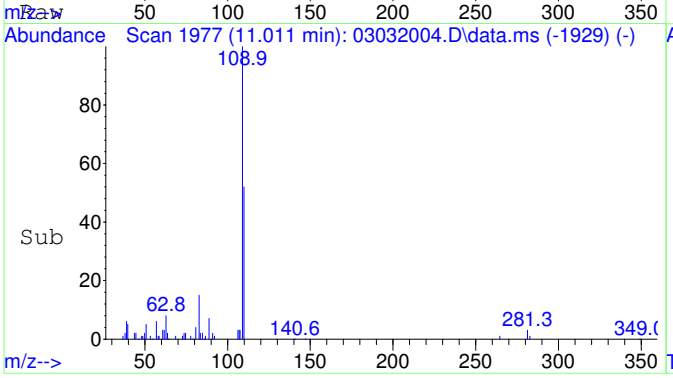


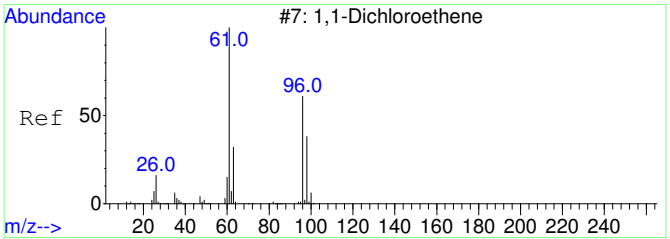


#25
2-Fluorotoluene SCAN
Concen: 4904.59 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 45584

Ion	Ratio	Lower	Upper
109	100		
83	15.6	0.0	44.7

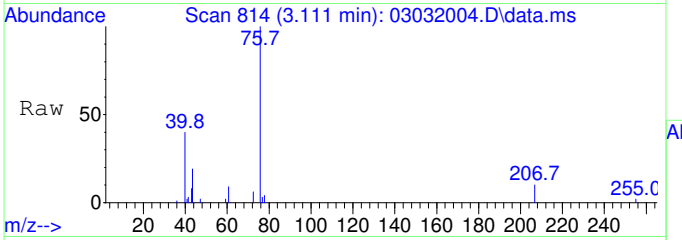


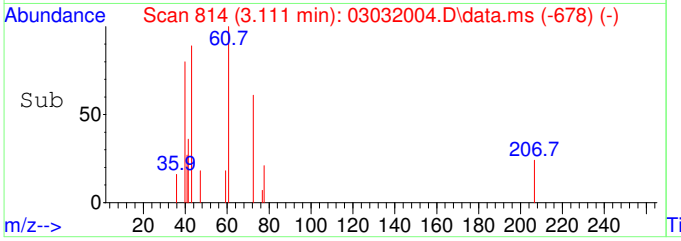


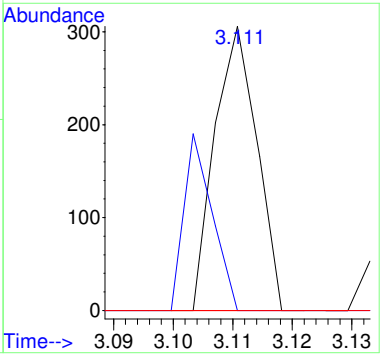
#26
1,1-Dichloroethene SCAN
Concen: 56.01 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

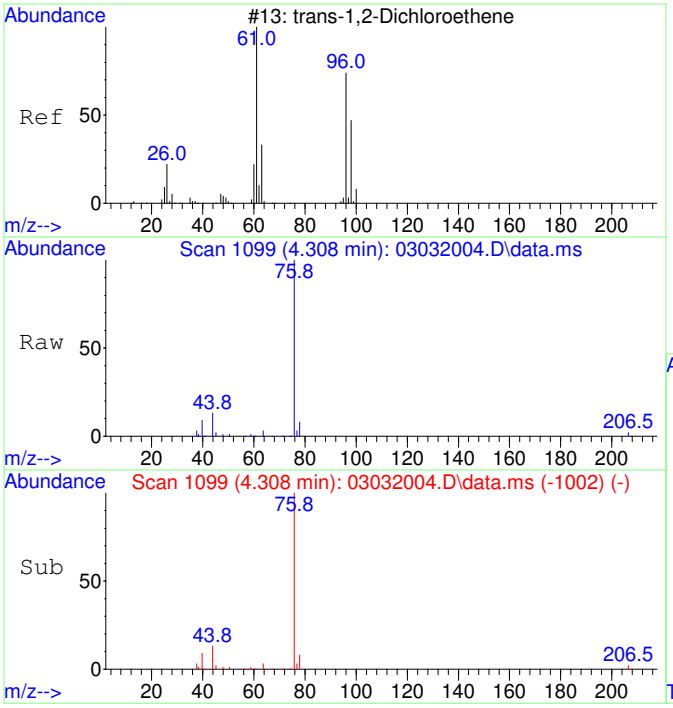
Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	42.0	34.7	94.7
98	0.0	4.7	64.7#





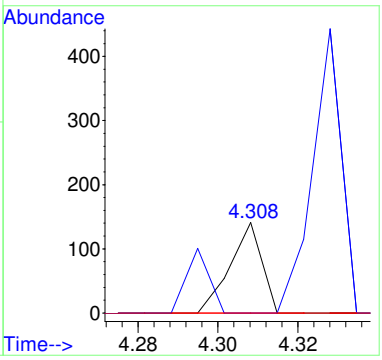


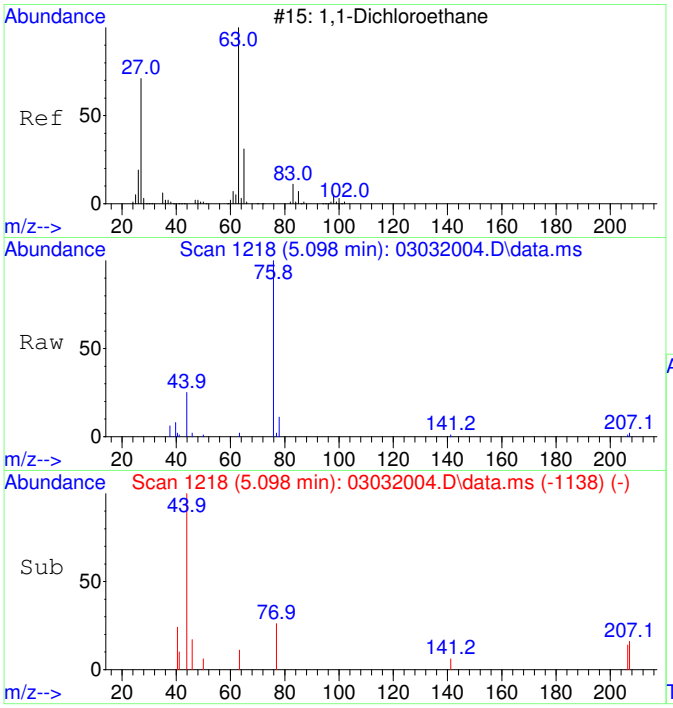


#27
trans-1,2-Dichloroethene SCAN
Concen: 27.30 ug/L
RT: 4.308 min Scan# 1099
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 78

Ion	Ratio	Lower	Upper
61	100		
96	284.6	47.2	107.2#
98	0.0	16.4	76.4#

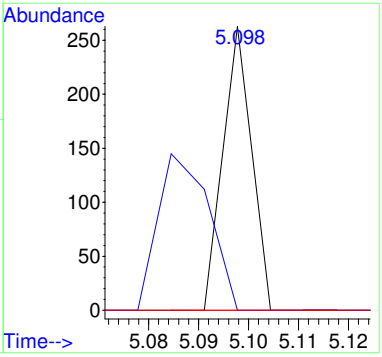


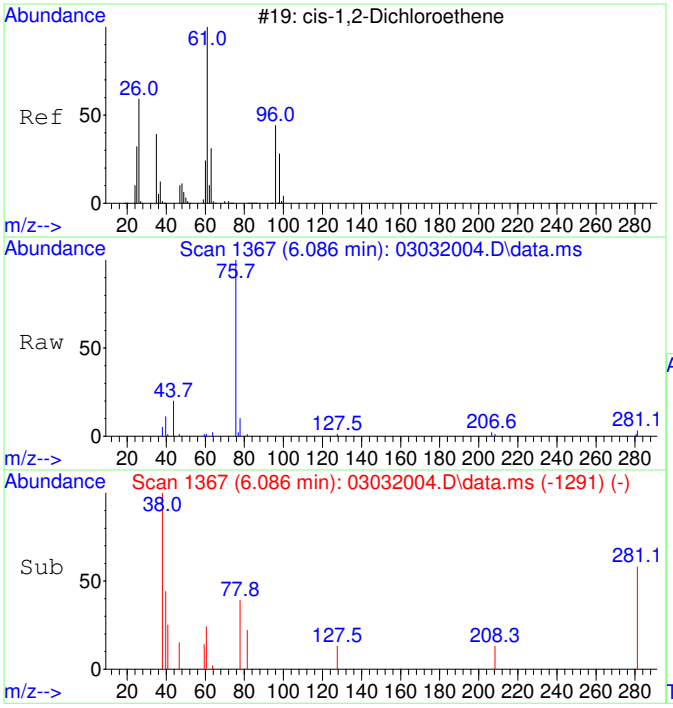


#28
1,1-Dichloroethane SCAN
Concen: 26.67 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.033 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 105

Ion	Ratio	Lower	Upper
63	100		
65	97.1	0.0	59.3#
83	0.0	0.0	37.5

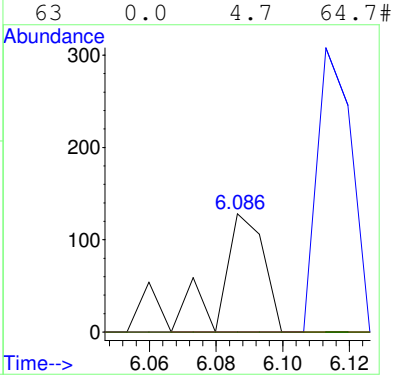


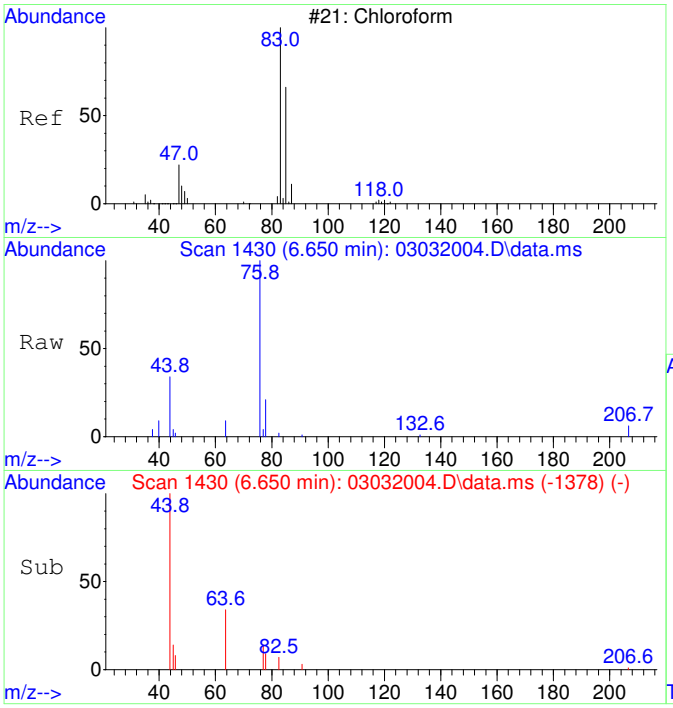


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.87 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. 0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 117

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	0.0	4.7	64.7#

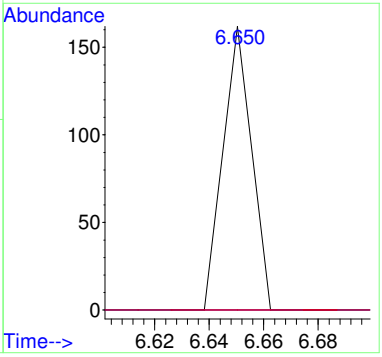


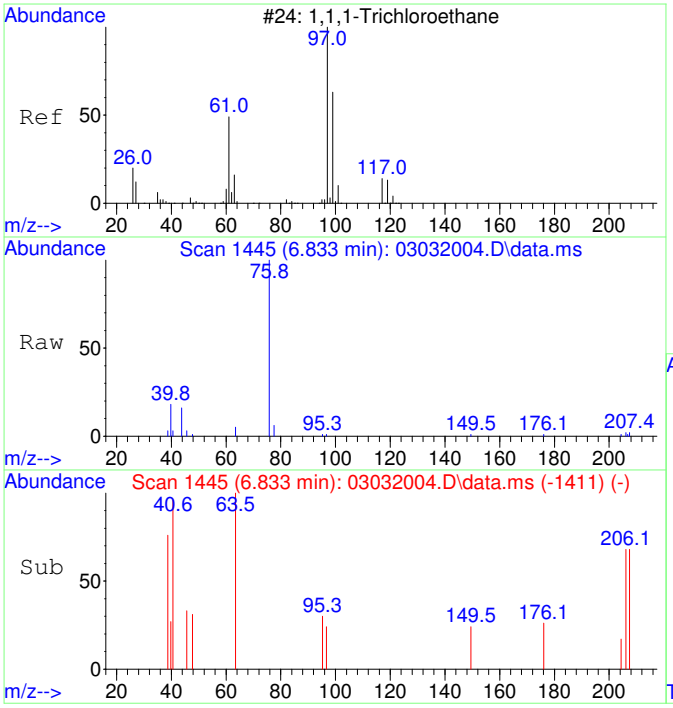


#30
Chloroform SCAN
Concen: 34.50 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 118

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	0.0	0.0	58.1

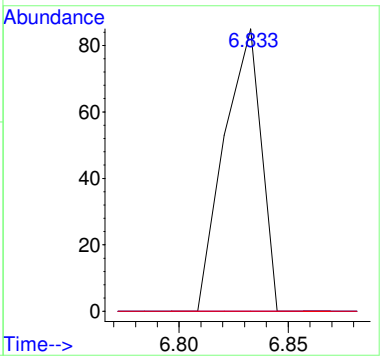


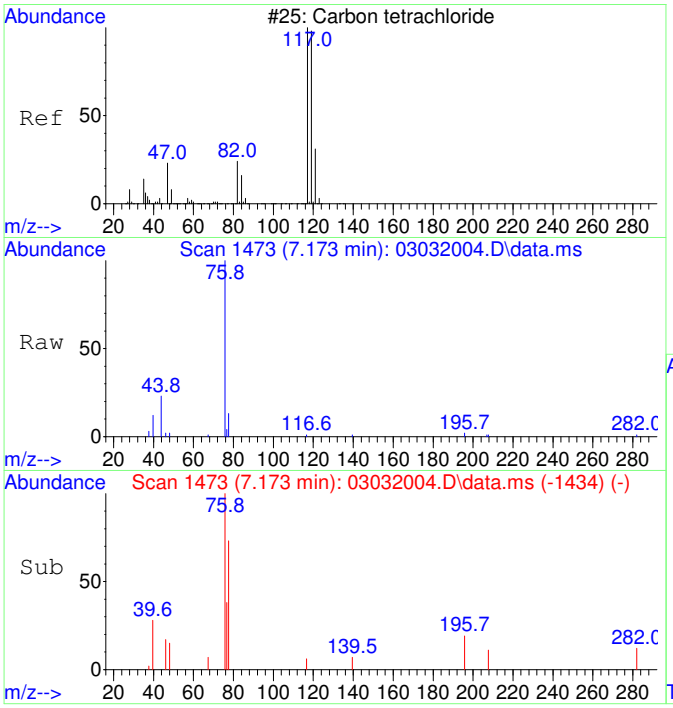


#31
1,1,1-Trichloroethane SCAN
Concen: 29.46 ug/L
RT: 6.833 min Scan# 1445
Delta R.T. -0.085 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 101

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

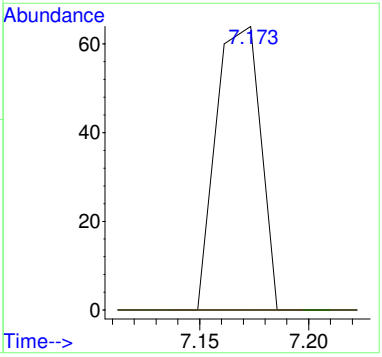


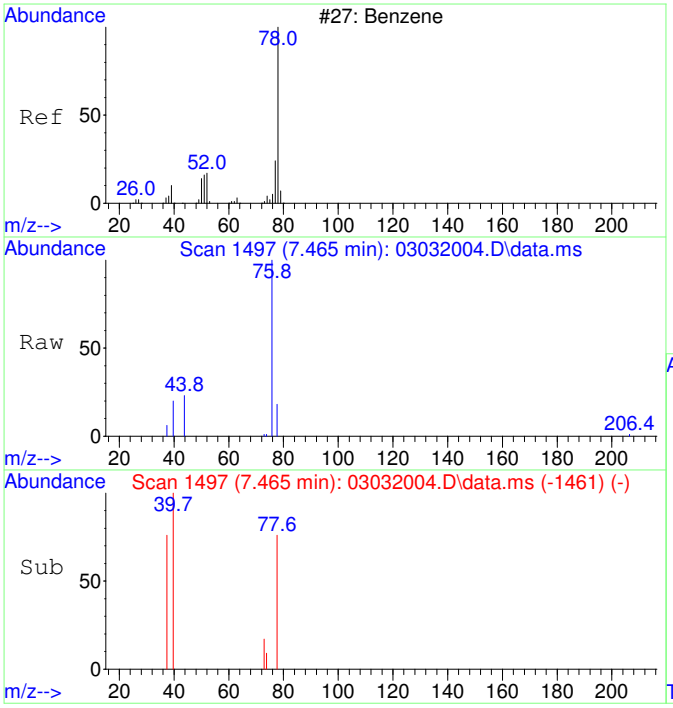


#32
Carbon tetrachloride SCAN
Concen: 25.69 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 90

Ion	Ratio	Lower	Upper
117	100		
119	0.0	56.4	116.4#
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

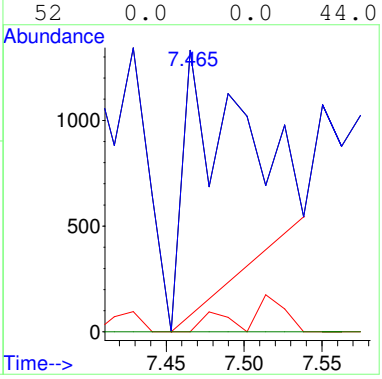


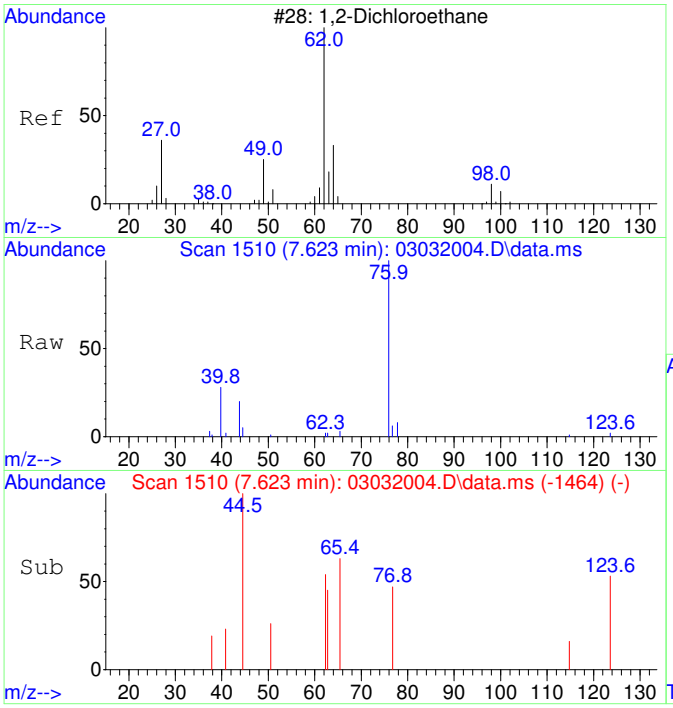


#33
Benzene SCAN
Concen: 359.68 ug/L
RT: 7.465 min Scan# 1497
Delta R.T. -0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 3264

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	0.0	0.0	44.0

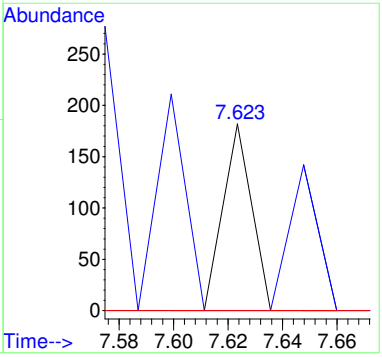


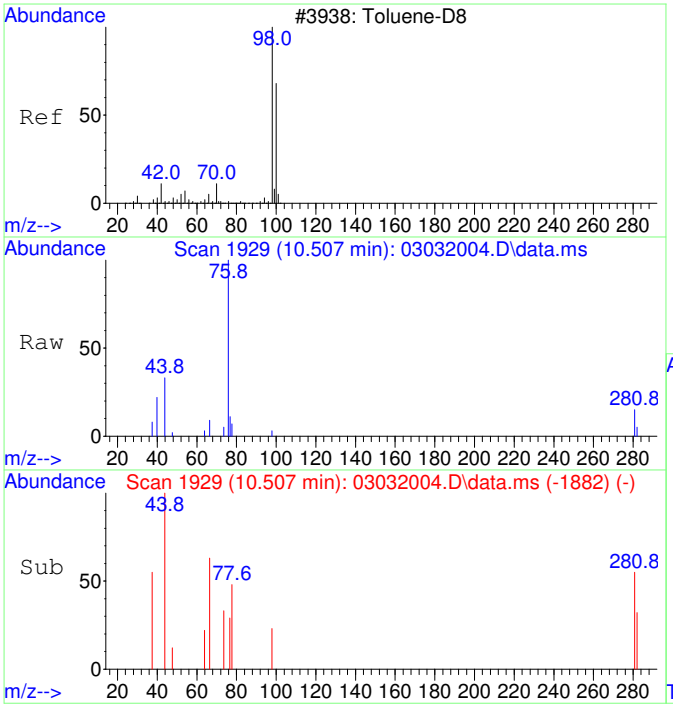


#34
1,2-Dichloroethane SCAN
Concen: 50.16 ug/L
RT: 7.623 min Scan# 1510
Delta R.T. 0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 133

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

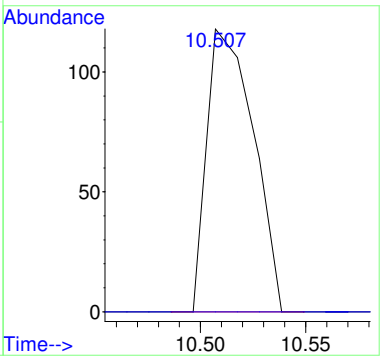


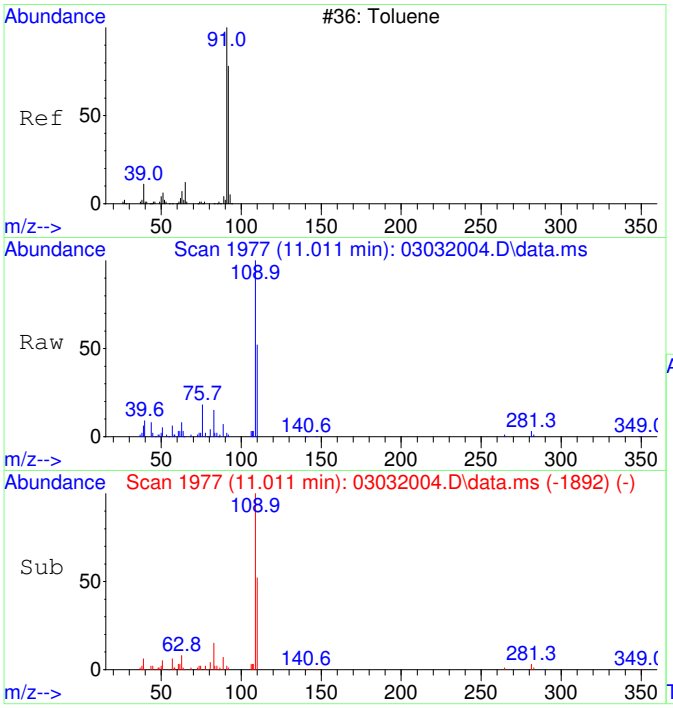


#36
Toluene-d8 SCAN
Concen: 20.90 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 181

Ion	Ratio	Lower	Upper
98	100		
100	0.0	38.3	98.3#

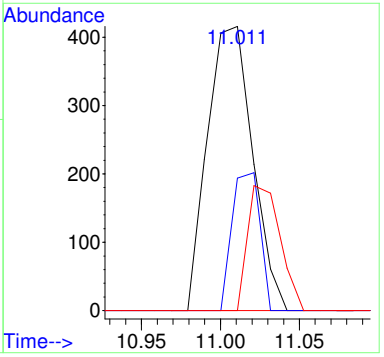


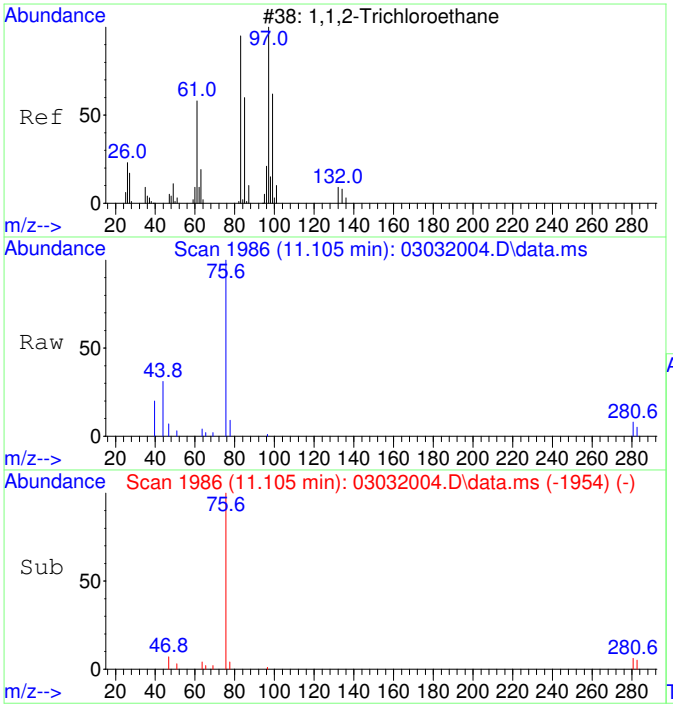


#37
Toluene SCAN
Concen: 78.15 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.388 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 830

Ion	Ratio	Lower	Upper
91	100		
92	30.0	21.2	81.2
65	31.7	0.0	41.4

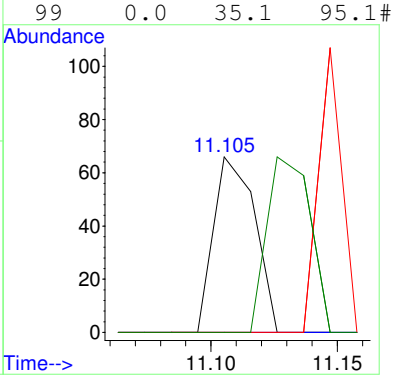


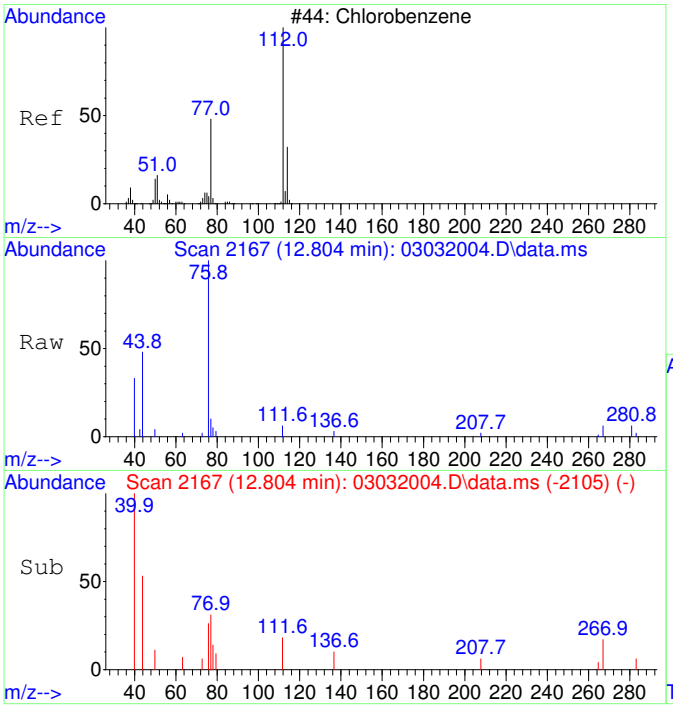


#38
1,1,2-Trichloroethane SCAN
Concen: 31.72 ug/L
RT: 11.105 min Scan# 1986
Delta R.T. -0.168 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 75

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.5	113.5#
61	0.0	29.8	89.8#
99	0.0	35.1	95.1#

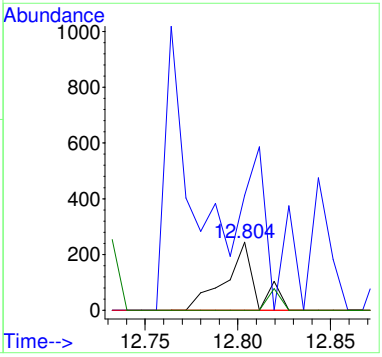


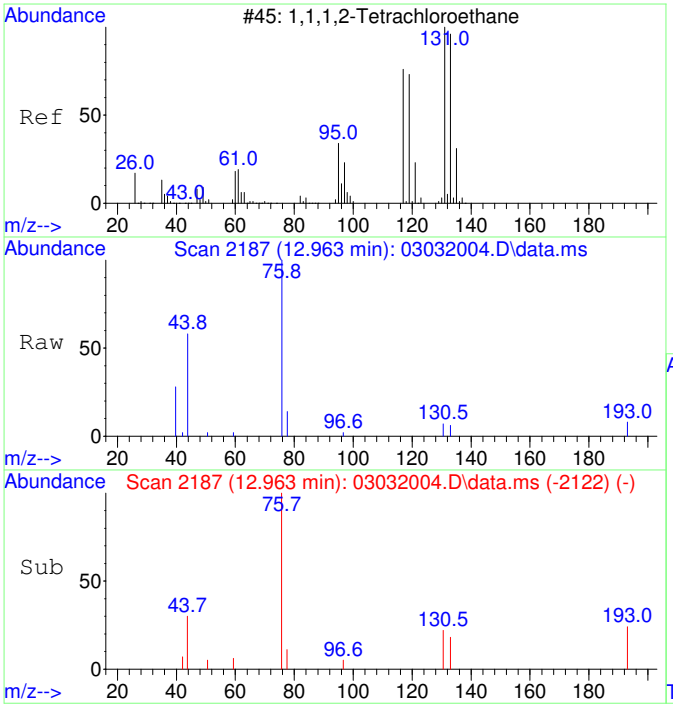


#40
Chlorobenzene SCAN
Concen: 42.59 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 285

Ion	Ratio	Lower	Upper
112	100		
77	118.6	33.6	93.6#
114	0.0	5.6	65.6#
51	0.0	0.0	52.4

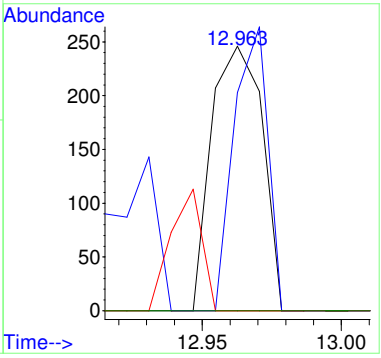


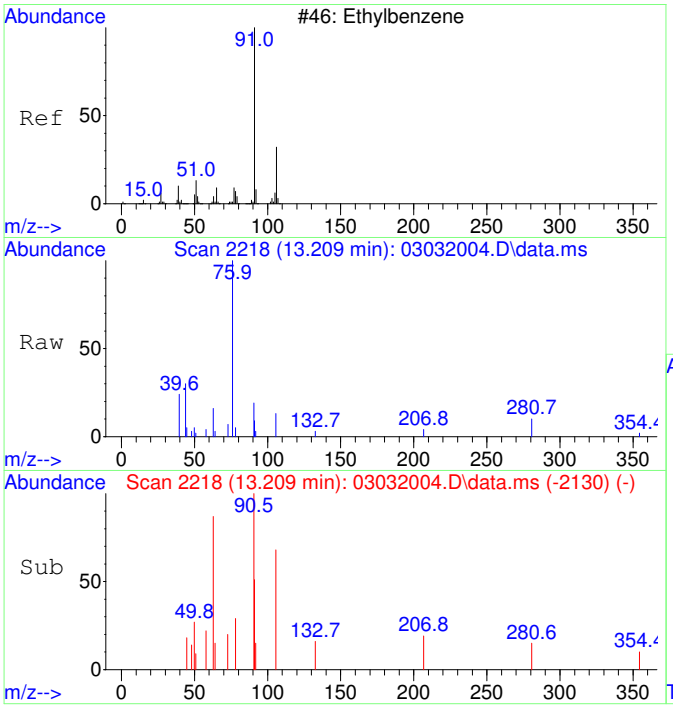


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 127.09 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	71.2	61.4	121.4
119	0.0	33.0	93.0#
117	0.0	35.3	95.3#

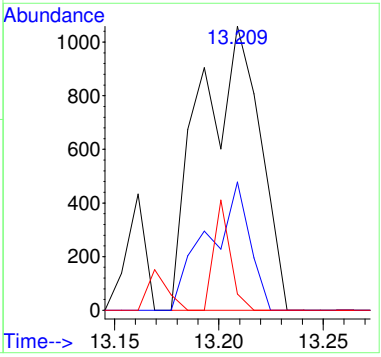


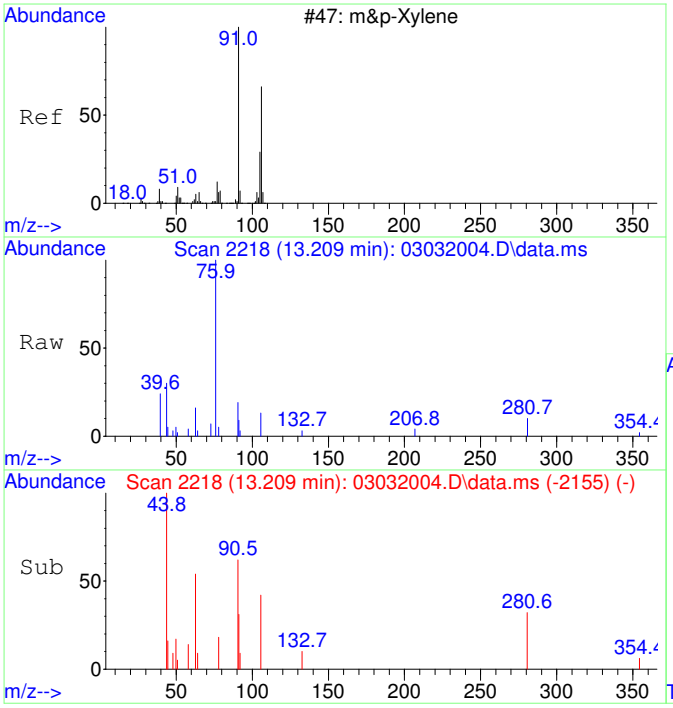


#42
Ethylbenzene SCAN
Concen: 180.60 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	2.2	62.2
51	10.6	0.0	40.6

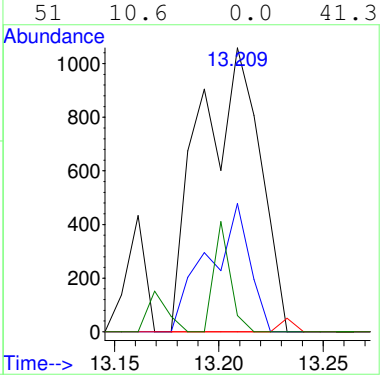


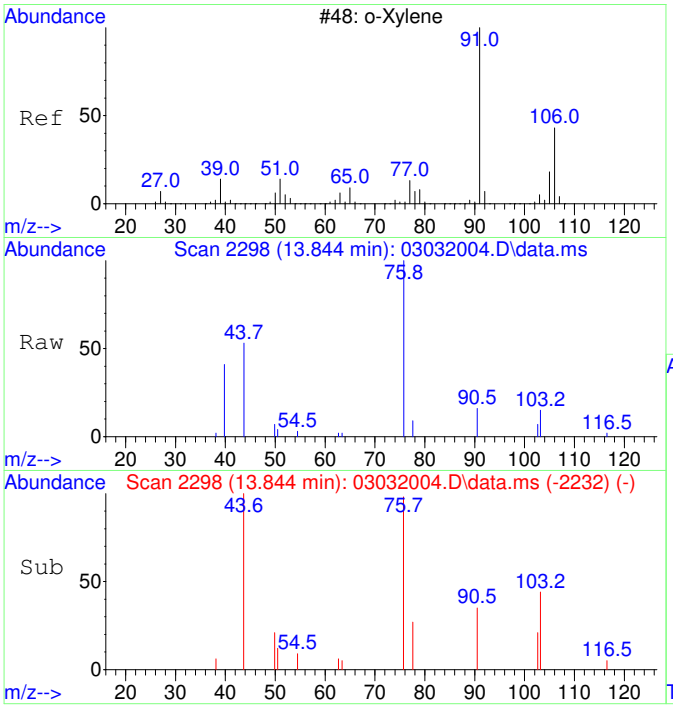


#43
m&p-Xylene SCAN
Concen: 127.24 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	19.7	79.7
105	0.0	0.0	55.1
51	10.6	0.0	41.3

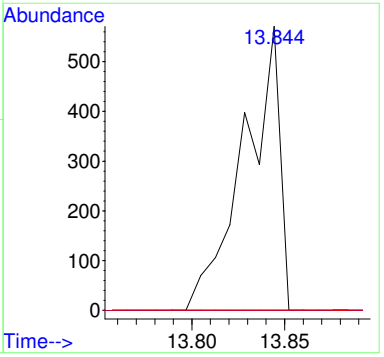


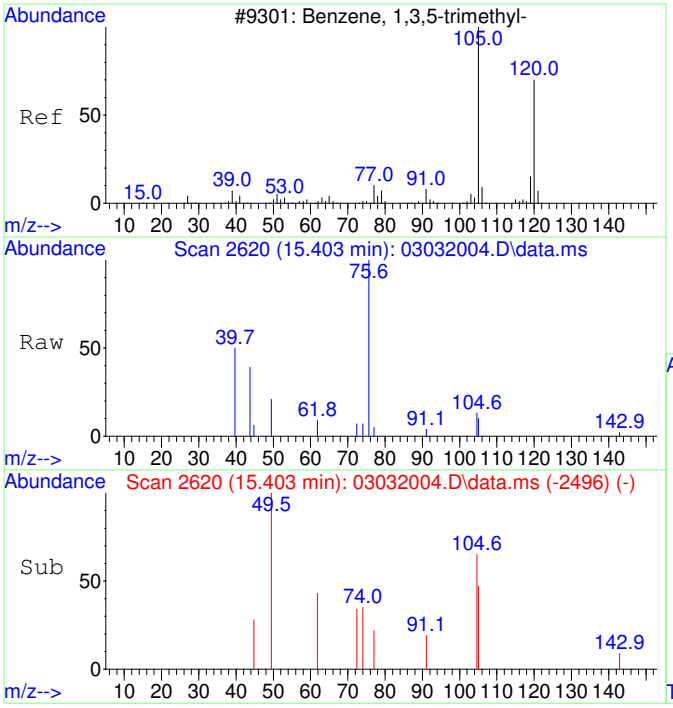


#44
o-Xylene SCAN
Concen: 86.24 ug/L
RT: 13.844 min Scan# 2298
Delta R.T. 0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 767

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.1	78.1#
105	0.0	0.0	54.4

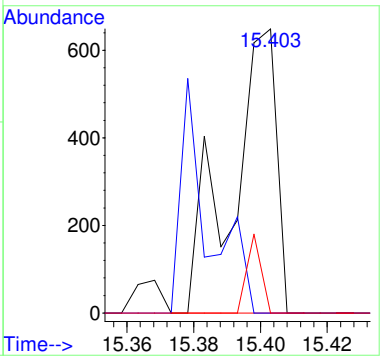


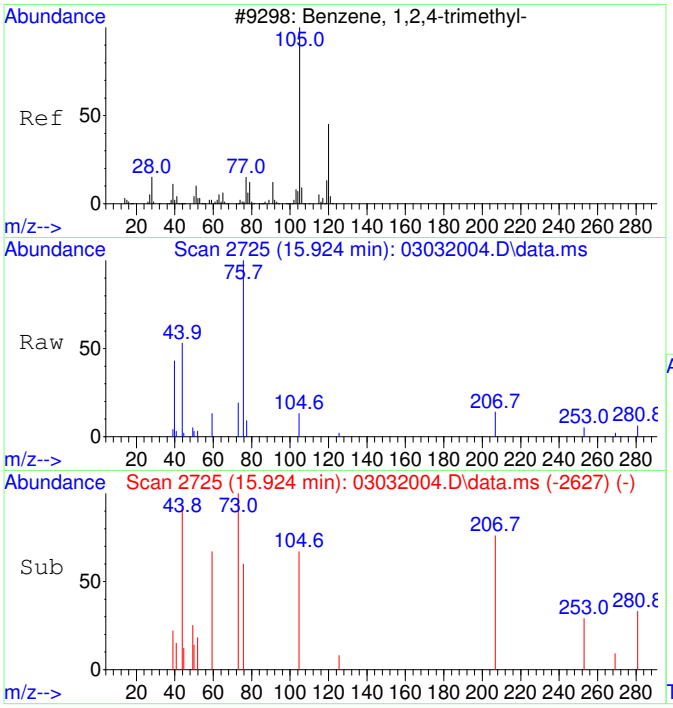


#46
1,3,5-Trimethylbenzene SCAN
Concen: 66.44 ug/L
RT: 15.403 min Scan# 2620
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 605

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	8.9	0.0	43.4

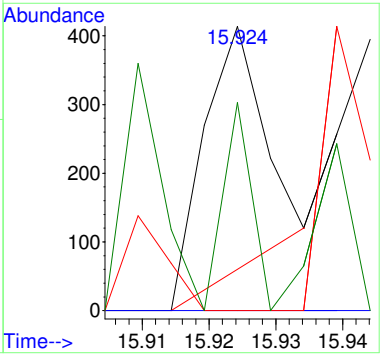


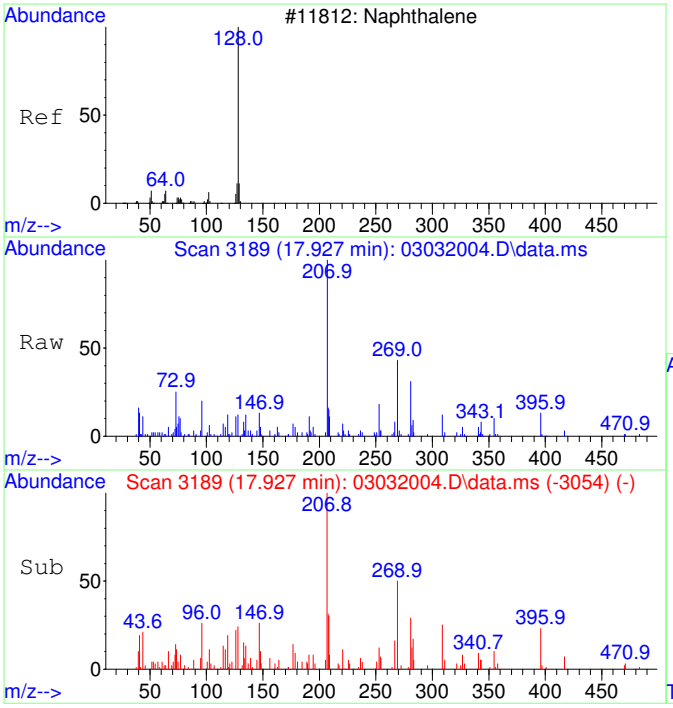


#47
1,2,4-Trimethylbenzene SCAN
Concen: 24.17 ug/L
RT: 15.924 min Scan# 2725
Delta R.T. -0.014 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 234

Ion	Ratio	Lower	Upper
105	100		
120	0.0	12.9	72.9#
119	0.0	0.0	41.4
77	34.6	0.0	42.1

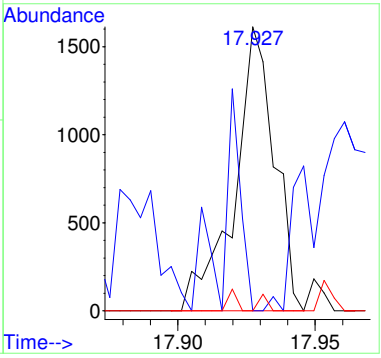




#48
Naphthalene SCAN
Concen: 111.23 ug/L
RT: 17.927 min Scan# 3189
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1632

Ion	Ratio	Lower	Upper
128	100		
127	36.6	0.0	44.2
129	0.0	0.0	41.5



Quantitation Report (QT Reviewed)

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M.I. Performed By:
TD at 10:50 am, Mar 03, 2020

M.I. Approved By:
ZR at 4:34 pm, Mar 10, 2020

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

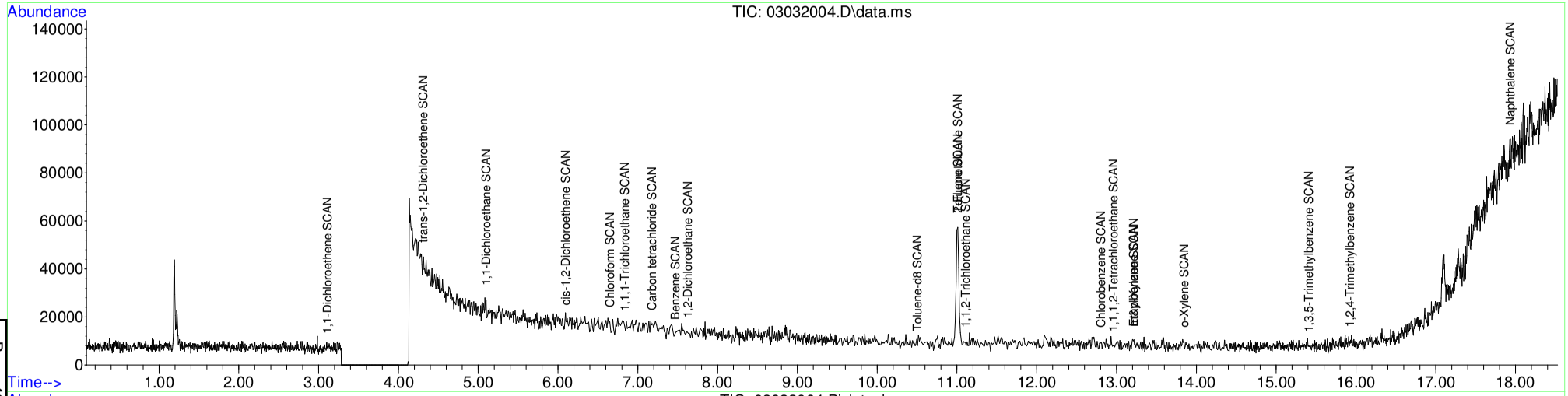
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 2-Fluorotoluene	11.002	109	75418	5000.00	ug/L	-0.01
System Monitoring Compounds						
12) Toluene-d8	10.508	98	656	50.84	ug/L	-0.01
Spiked Amount 5000.000	Range 90 - 110		Recovery = 1.02%#			
Target Compounds						Qvalue
2] 1,1-Dichloroethene	3.116	61	184m	48.02	ug/L	
3] trans-1,2-Dichloroethene	4.303	61	190	48.19	ug/L	88
4] 1,1-Dichloroethane	5.053	63	236	47.96	ug/L	98
5] cis-1,2-Dichloroethene	6.074	61	222	48.22	ug/L	92
6] Chloroform	6.652	83	247	48.34	ug/L	90
7] 1,1,1-Trichloroethane	6.907	97	226	45.48	ug/L #	90
8] Carbon tetrachloride	7.187	117	217	49.61	ug/L #	65
9] Benzene	7.515	78	647	51.90	ug/L	51
10] 1,2-Dichloroethane	7.552	62	198	48.15	ug/L	57
11] Trichloroethene	8.591	130	183	51.31	ug/L	88
13] Toluene	10.613	91	824	54.36	ug/L	99
14] 1,1,2-Trichloroethane	11.264	97	186	54.40	ug/L	98
15] Tetrachloroethene	11.463	166	220	52.95	ug/L	77
16] Chlorobenzene	12.805	112	608	55.62	ug/L	75
17] 1,1,1,2-Tetrachloroethane	12.948	131	197	54.69	ug/L #	64
18] Ethylbenzene	13.012	91	990	55.67	ug/L	91
19] m&p-Xylene	13.202	91	1563	116.51	ug/L	96
20] o-Xylene	13.822	91	837	58.18	ug/L	99
21] 1,1,2,2-Tetrachloroethane	14.914	83	355	57.06	ug/L	93
22] 1,3,5-Trimethylbenzene	15.384	105	943	60.74	ug/L	99
23] 1,2,4-Trimethylbenzene	15.935	105	949	60.08	ug/L	99
24] Naphthalene	17.929	128	1813	66.56	ug/L	91
25) 2-Fluorotoluene SCAN	11.011	109	45584	4904.59	ug/L	98
26) 1,1-Dichloroethene SCAN	3.111	61	150	56.01	ug/L #	60
27) trans-1,2-Dichloroethe...	4.308	61	78	27.30	ug/L #	1
28) 1,1-Dichloroethane SCAN	5.098	63	105	26.67	ug/L #	1
29) cis-1,2-Dichloroethene...	6.086	61	117	37.87	ug/L #	23
30) Chloroform SCAN	6.650	83	118	34.50	ug/L #	22
31) 1,1,1-Trichloroethane ...	6.833	97	101	29.46	ug/L #	24
32) Carbon tetrachloride SCAN	7.173	117	90	25.69	ug/L #	22
33) Benzene SCAN	7.465	78	3264	359.68	ug/L #	90
34) 1,2-Dichloroethane SCAN	7.623	62	133	50.16	ug/L #	36
36) Toluene-d8 SCAN	10.507	98	181	20.90	ug/L #	16
37) Toluene SCAN	11.011	91	830	78.15	ug/L	65
38) 1,1,2-Trichloroethane ...	11.105	97	75	31.72	ug/L #	14
40) Chlorobenzene SCAN	12.804	112	285	42.59	ug/L #	37
41) 1,1,1,2-Tetrachloroeth...	12.963	131	313	127.09	ug/L #	43
42) Ethylbenzene SCAN	13.209	91	2126	180.60	ug/L	99
43) m&p-Xylene SCAN	13.209	91	2126	127.24	ug/L #	70
44) o-Xylene SCAN	13.844	91	767	86.24	ug/L #	36
46) 1,3,5-Trimethylbenzene...	15.403	105	605	66.44	ug/L #	41
47) 1,2,4-Trimethylbenzene...	15.924	105	234	24.17	ug/L #	41
48) Naphthalene SCAN	17.927	128	1632	111.23	ug/L #	56

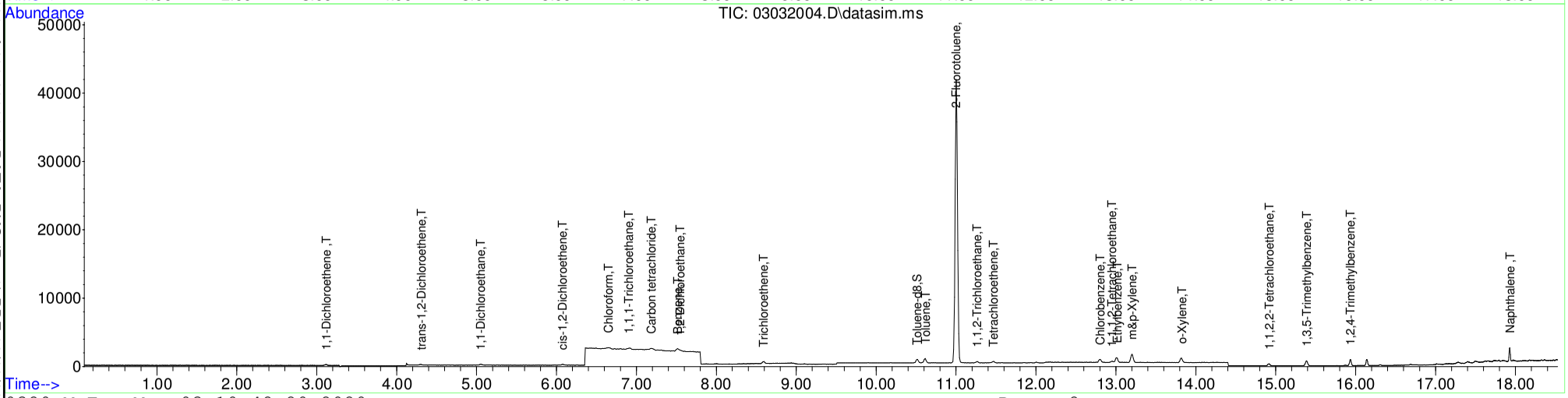
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\030320\
Data File : 03032004.D
Acq On : 3 Mar 2020 10:23
InstName : AG5975C
Operator : TD
Sample : S20C005-CRL1
Misc : 2004027 0.5 mg/L
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 10:42:19 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\030320.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration





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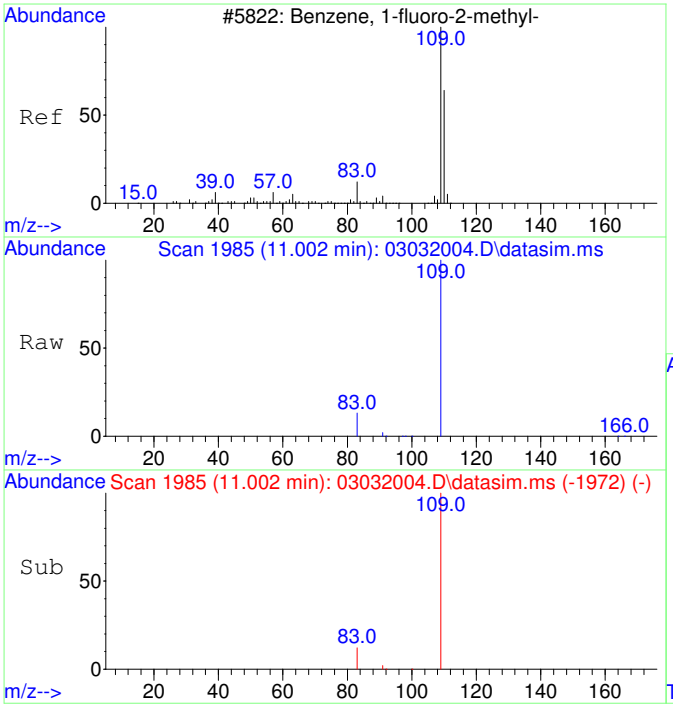
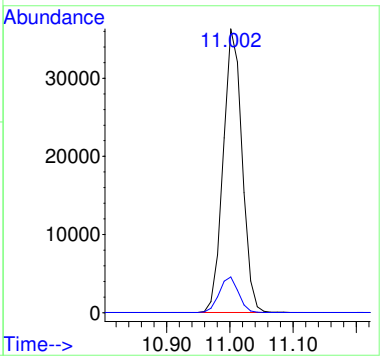
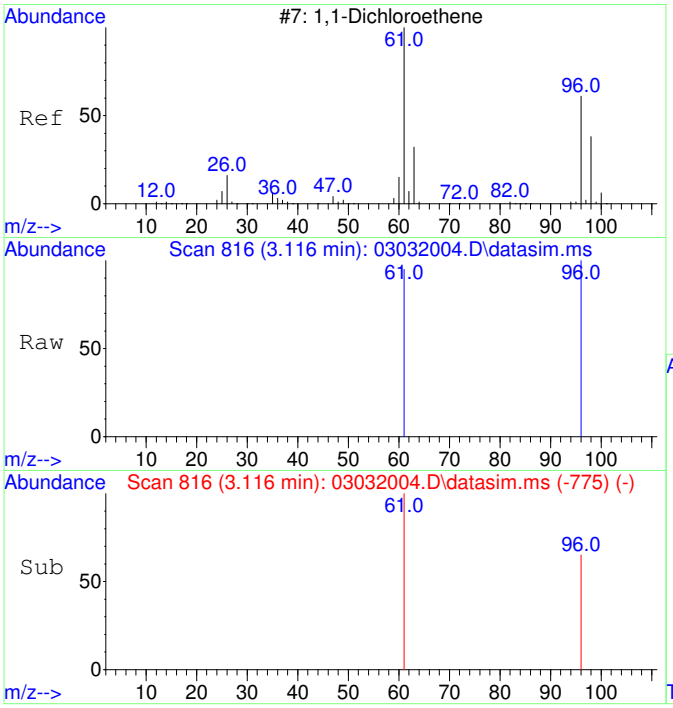


#1
2-Fluorotoluene
Concen: 5000.00 ug/L
RT: 11.002 min Scan# 1985
Delta R.T. -0.010 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 75418

Ion	Ratio	Lower	Upper
109	100		
83	12.7	0.0	43.2

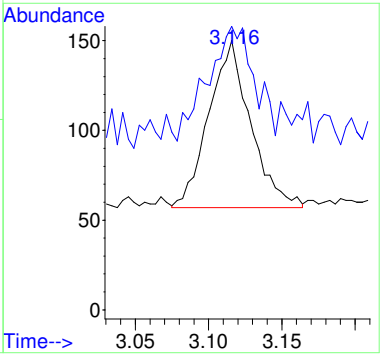


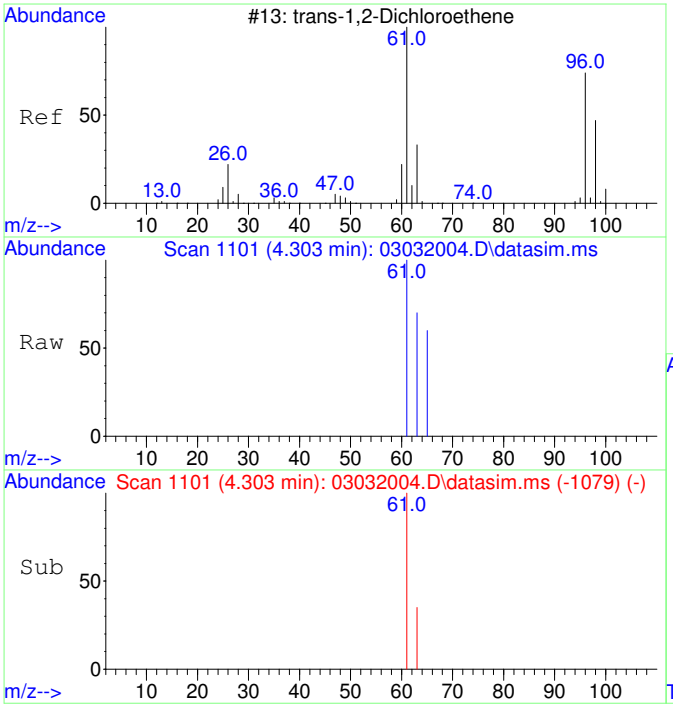


#2
1,1-Dichloroethene
Concen: 48.02 ug/L m
RT: 3.116 min Scan# 816
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 184

Ion	Ratio	Lower	Upper
61	100		
96	169.6	33.2	93.2#

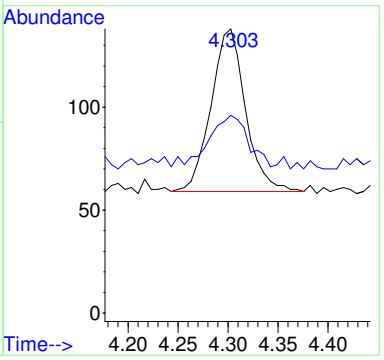


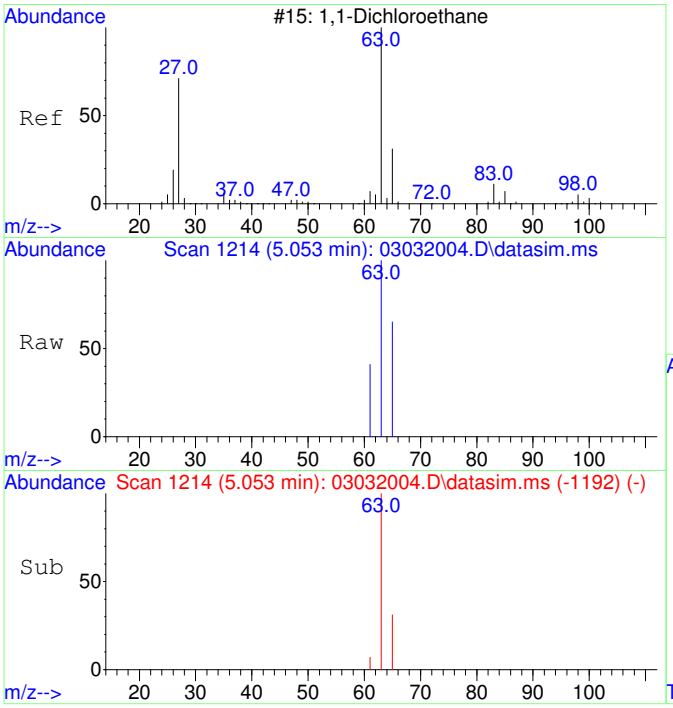


#3
trans-1,2-Dichloroethene
Concen: 48.19 ug/L
RT: 4.303 min Scan# 1101
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 190

Ion	Ratio	Lower	Upper
61	100		
63	38.9	2.3	62.3

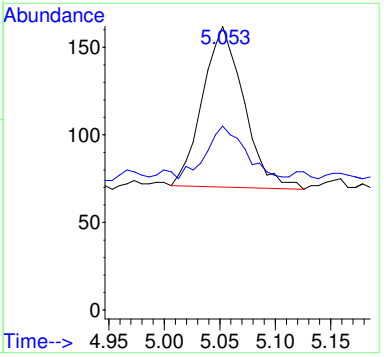


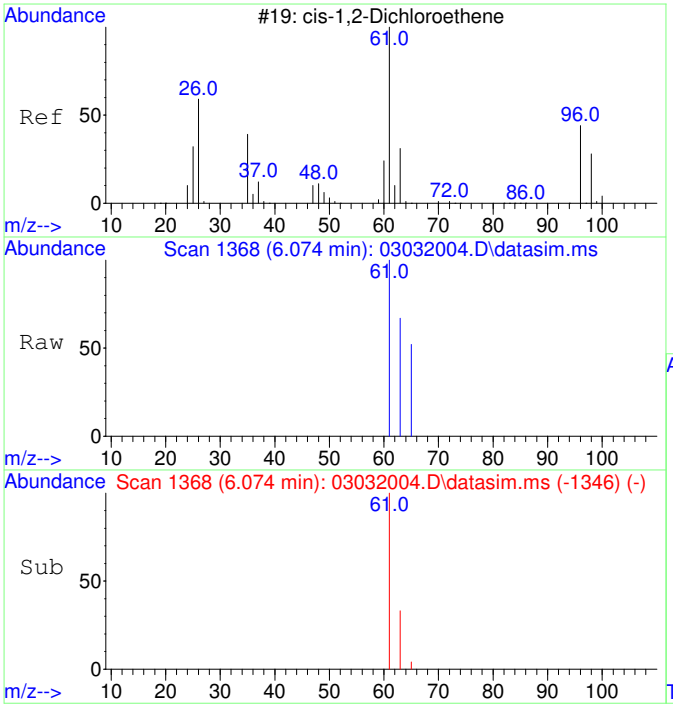


#4
1,1-Dichloroethane
Concen: 47.96 ug/L
RT: 5.053 min Scan# 1214
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 236

Ion	Ratio	Lower	Upper
63	100		
65	30.5	1.7	61.7

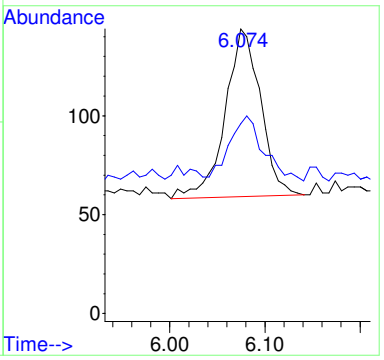


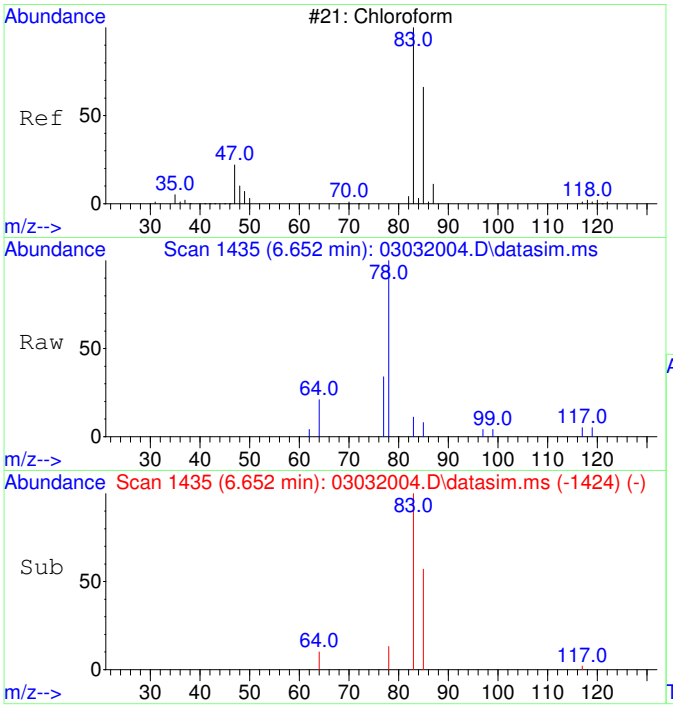


#5
cis-1,2-Dichloroethene
Concen: 48.22 ug/L
RT: 6.074 min Scan# 1368
Delta R.T. -0.007 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 222

Ion	Ratio	Lower	Upper
61	100		
63	36.9	2.6	62.6

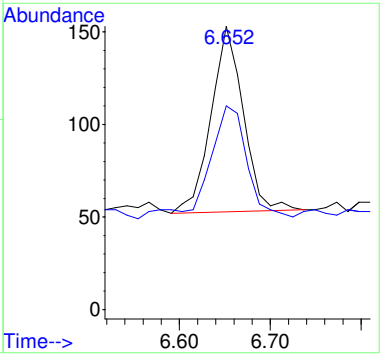


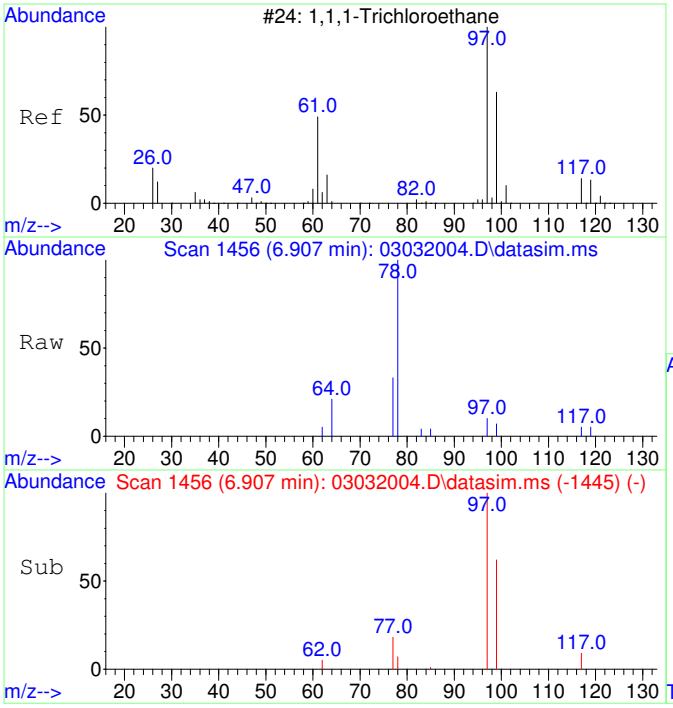


#6
Chloroform
Concen: 48.34 ug/L
RT: 6.652 min Scan# 1435
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 247

Ion	Ratio	Lower	Upper
83	100		
85	72.9	34.7	94.7

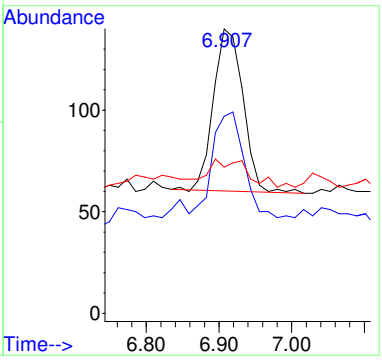


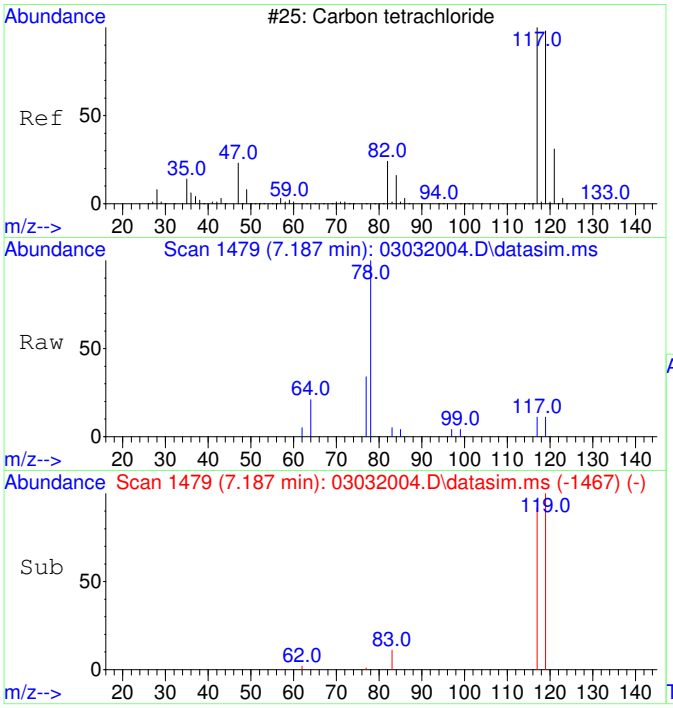


#7
1,1,1-Trichloroethane
Concen: 45.48 ug/L
RT: 6.907 min Scan# 1456
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 226

Ion	Ratio	Lower	Upper
97	100		
99	68.6	34.4	94.4
117	0.0	0.0	42.8

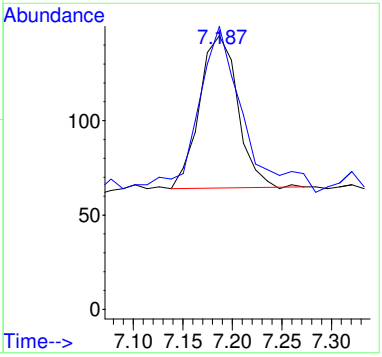


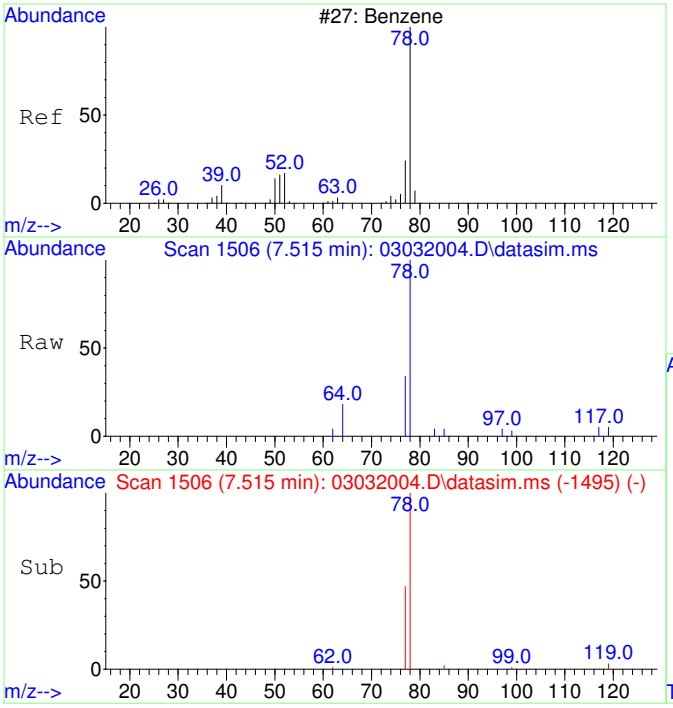


#8
Carbon tetrachloride
Concen: 49.61 ug/L
RT: 7.187 min Scan# 1479
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 217

Ion	Ratio	Lower	Upper
117	100		
119	130.0	66.1	126.1#

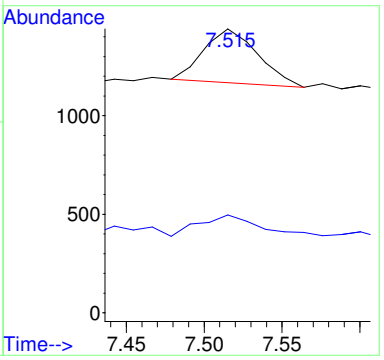


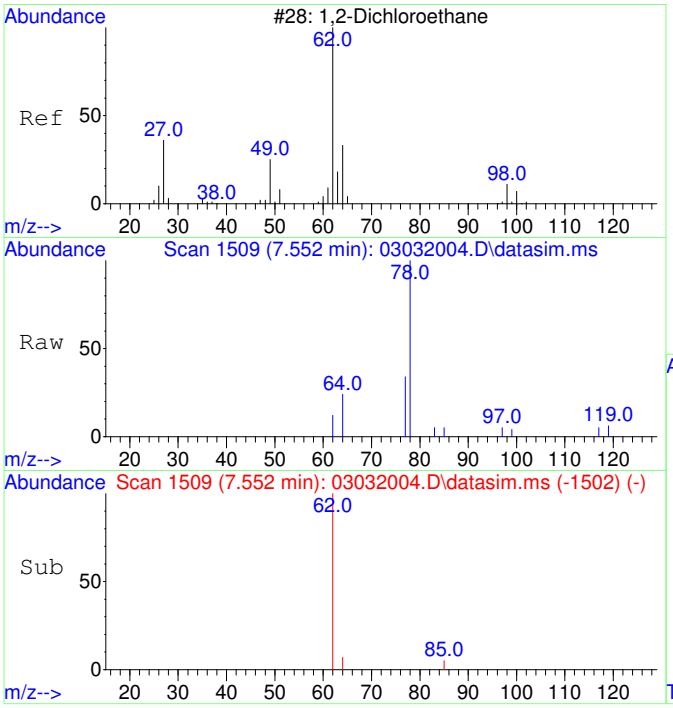


#9
Benzene
Concen: 51.90 ug/L
RT: 7.515 min Scan# 1506
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 647

Ion	Ratio	Lower	Upper
78	100		
77	47.4	0.0	53.6

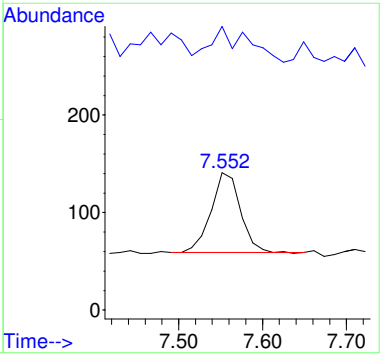


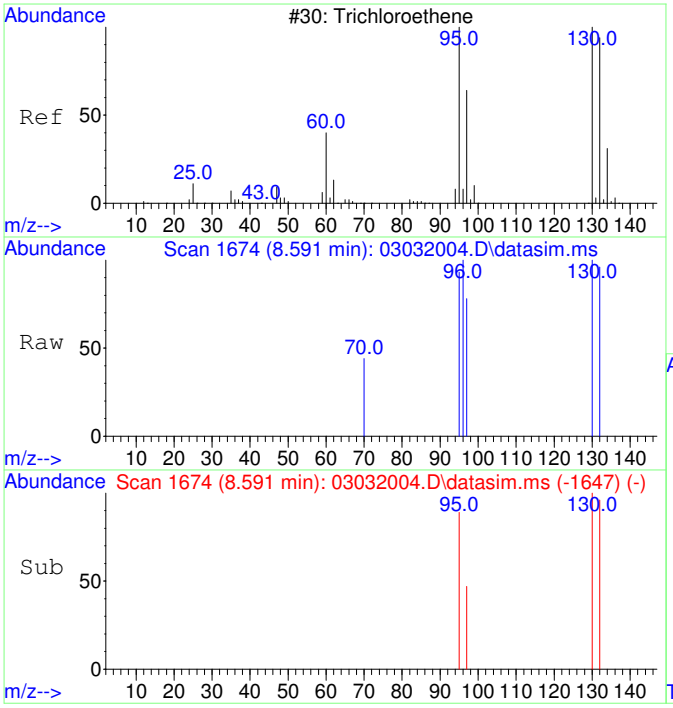


#10
1,2-Dichloroethane
Concen: 48.15 ug/L
RT: 7.552 min Scan# 1509
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 198

Ion	Ratio	Lower	Upper
62	100		
64	56.6	2.4	62.4

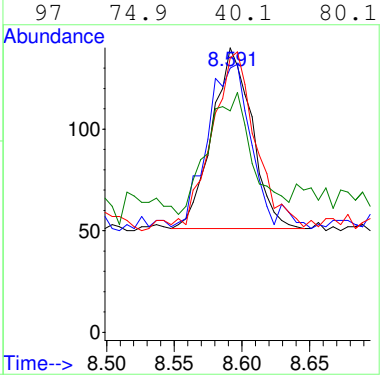


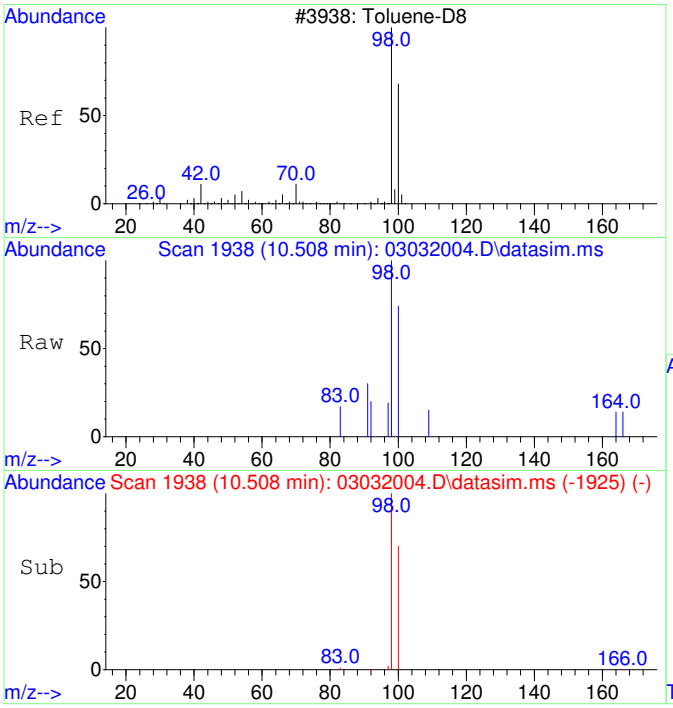


#11
Trichloroethene
Concen: 51.31 ug/L
RT: 8.591 min Scan# 1674
Delta R.T. -0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:130 Resp: 183

Ion	Ratio	Lower	Upper
130	100		
95	97.3	63.8	123.8
132	109.8	75.9	115.9
97	74.9	40.1	80.1

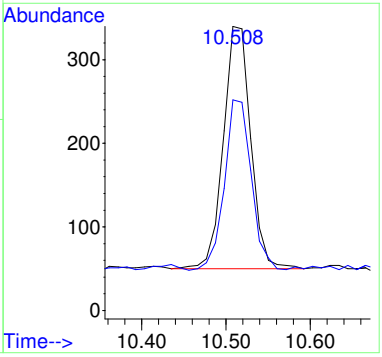


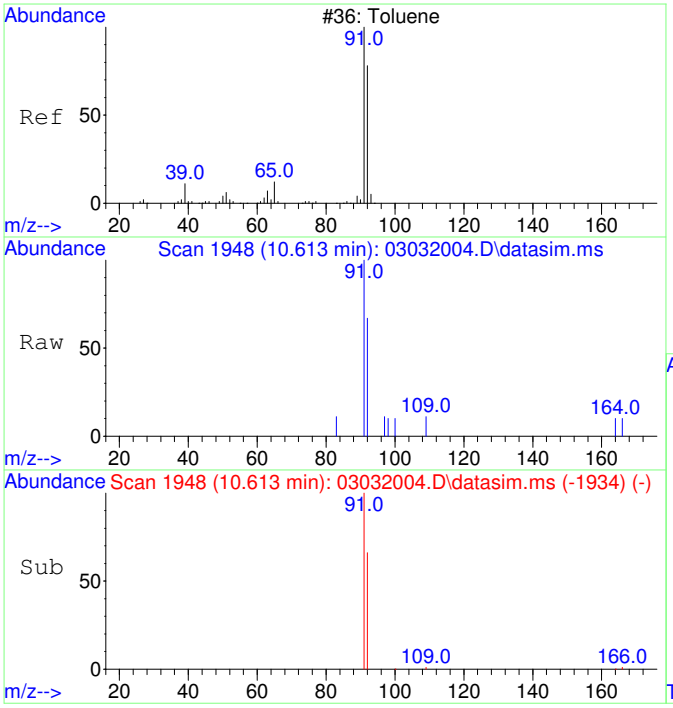


#12
Toluene-d8
Concen: 50.84 ug/L
RT: 10.508 min Scan# 1938
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 656

Ion	Ratio	Lower	Upper
98	100		
100	68.6	36.5	96.5

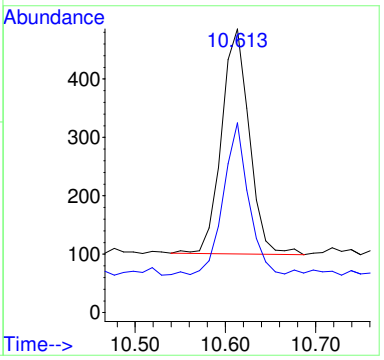


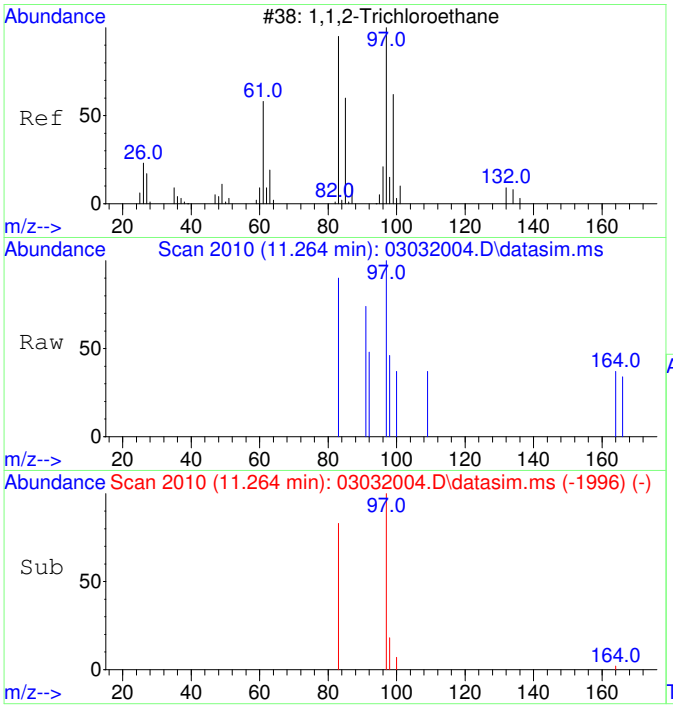


#13
Toluene
Concen: 54.36 ug/L
RT: 10.613 min Scan# 1948
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 824

Ion	Ratio	Lower	Upper
91	100		
92	60.7	29.7	89.7

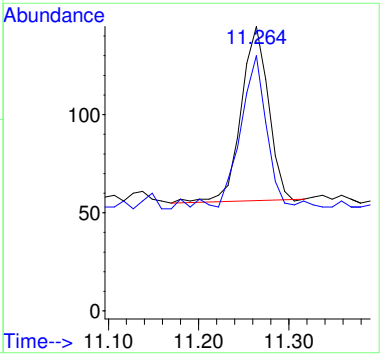


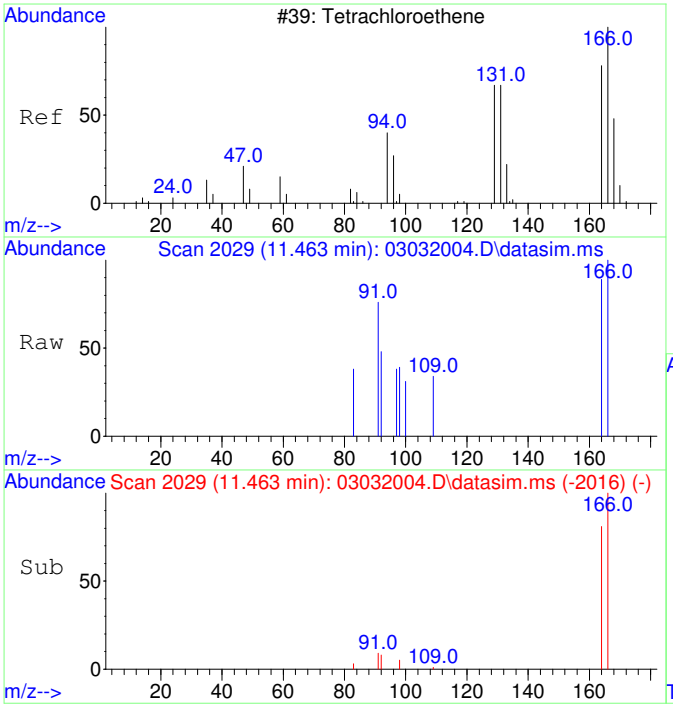


#14
1,1,2-Trichloroethane
Concen: 54.40 ug/L
RT: 11.264 min Scan# 2010
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 186

Ion	Ratio	Lower	Upper
97	100		
83	83.9	51.9	111.9

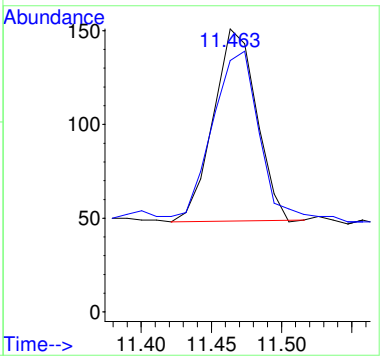


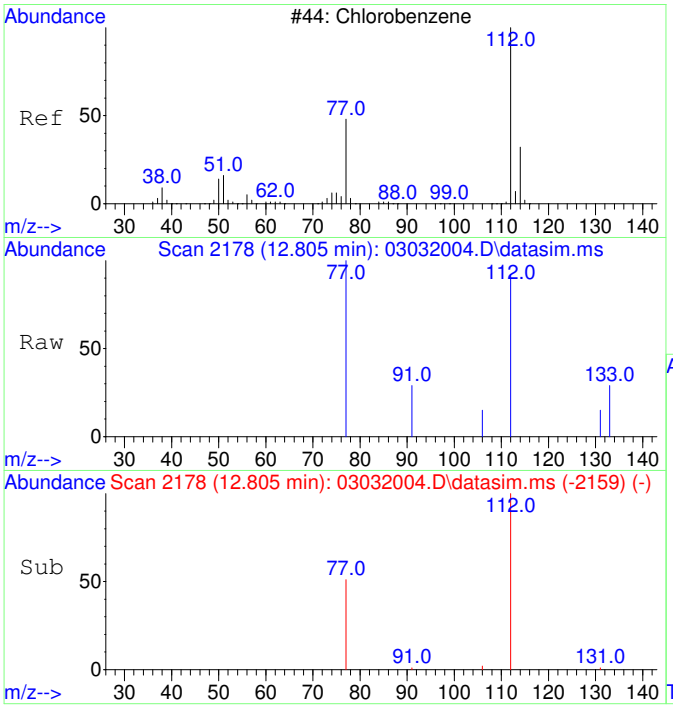


#15
Tetrachloroethene
Concen: 52.95 ug/L
RT: 11.463 min Scan# 2029
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:166 Resp: 220

Ion	Ratio	Lower	Upper
166	100		
164	97.7	47.9	107.9

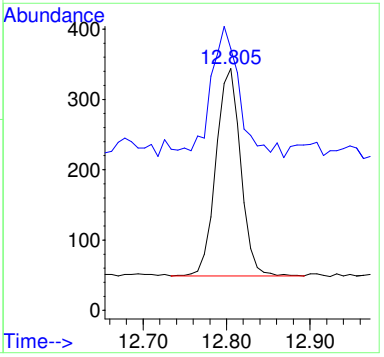


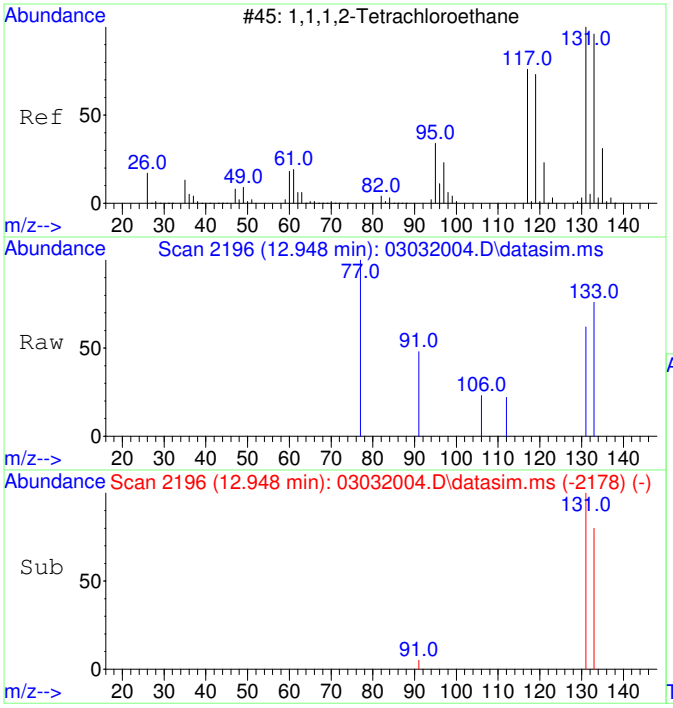


#16
Chlorobenzene
Concen: 55.62 ug/L
RT: 12.805 min Scan# 2178
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 608

Ion	Ratio	Lower	Upper
112	100		
77	74.2	25.7	85.7

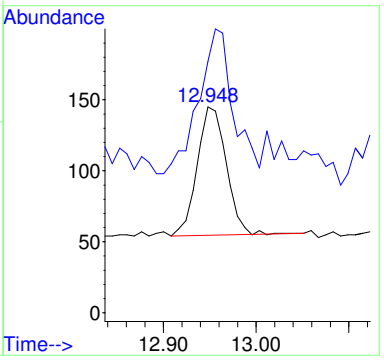


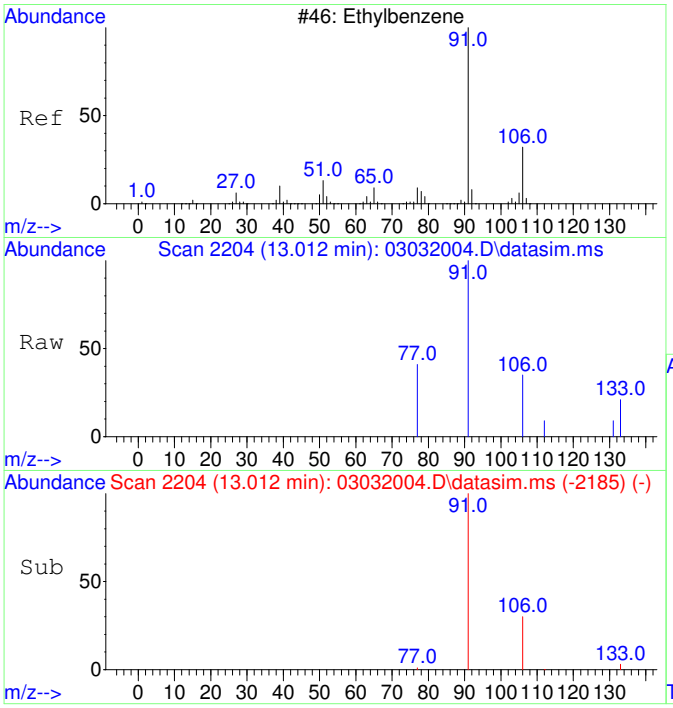


#17
1,1,1,2-Tetrachloroethane
Concen: 54.69 ug/L
RT: 12.948 min Scan# 2196
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 197

Ion	Ratio	Lower	Upper
131	100		
133	132.0	66.5	126.5#

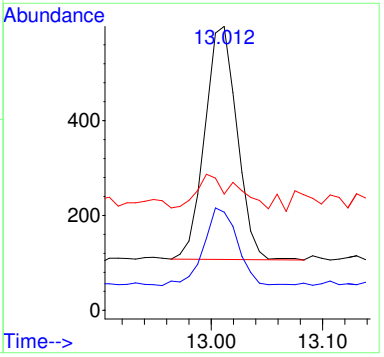


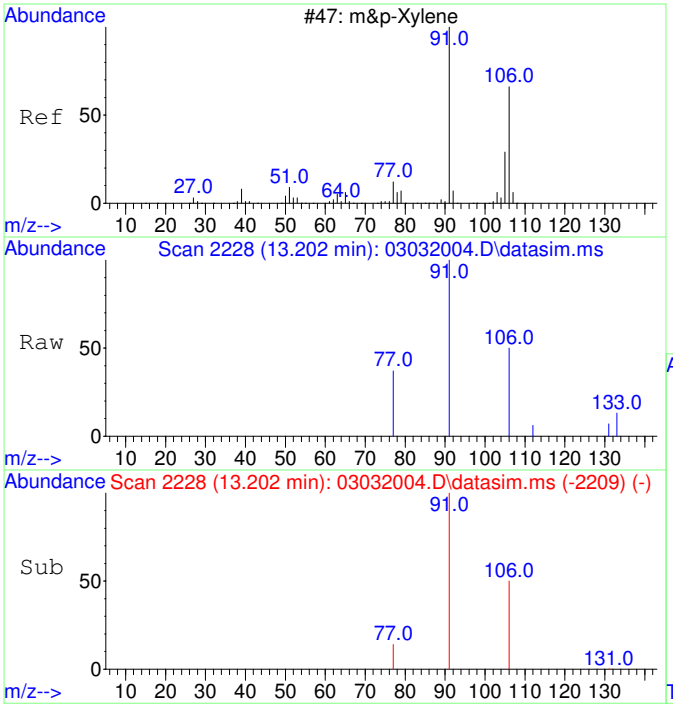


#18
Ethylbenzene
Concen: 55.67 ug/L
RT: 13.012 min Scan# 2204
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 990

Ion	Ratio	Lower	Upper
91	100		
106	34.9	2.7	62.7
77	17.7	0.0	38.3

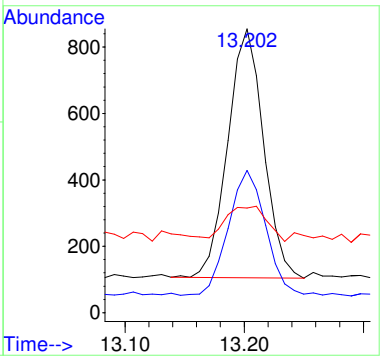


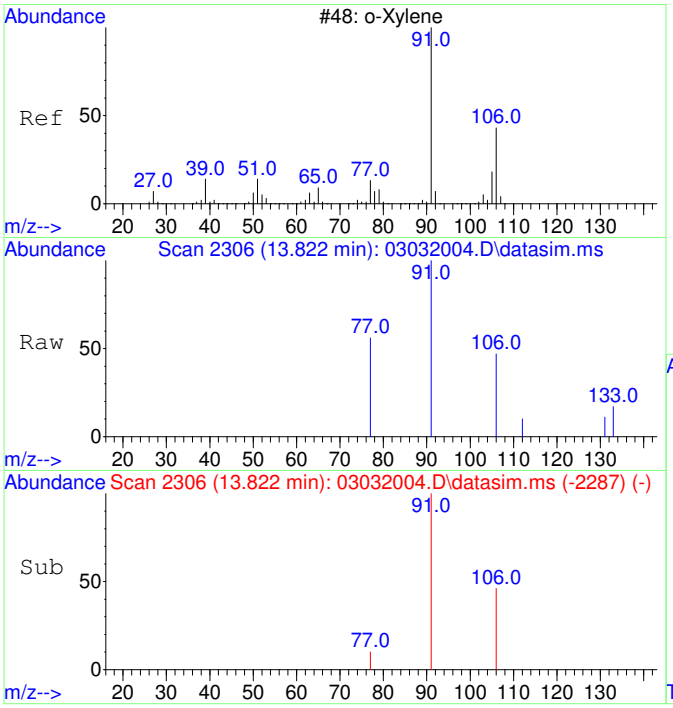


#19
m&p-Xylene
Concen: 116.51 ug/L
RT: 13.202 min Scan# 2228
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 1563

Ion	Ratio	Lower	Upper
91	100		
106	53.0	21.8	81.8
77	17.5	0.0	42.6

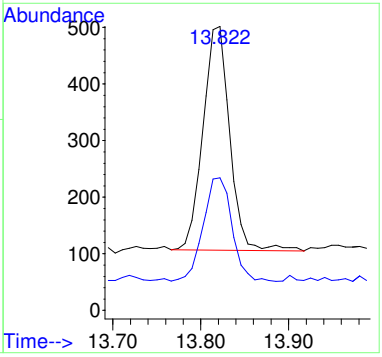


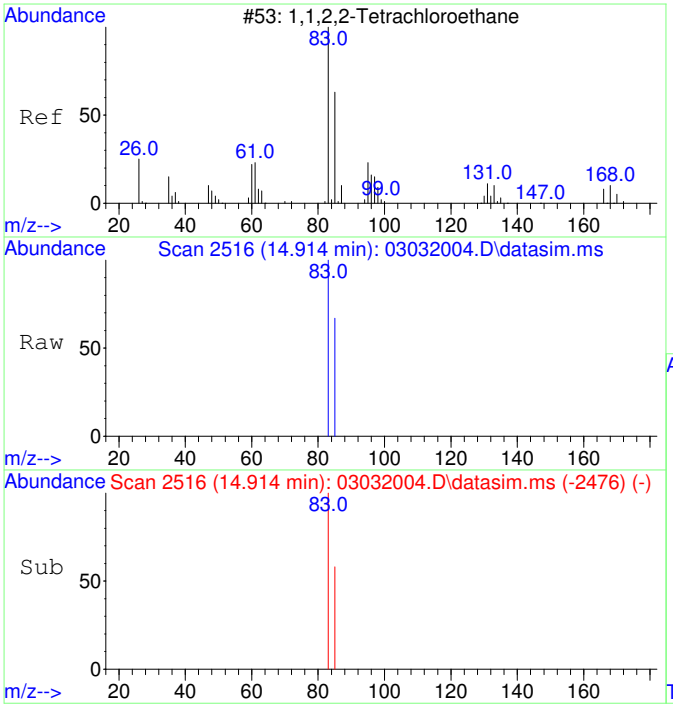


#20
o-Xylene
Concen: 58.18 ug/L
RT: 13.822 min Scan# 2306
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 837

Ion	Ratio	Lower	Upper
91	100		
106	49.5	18.8	78.8

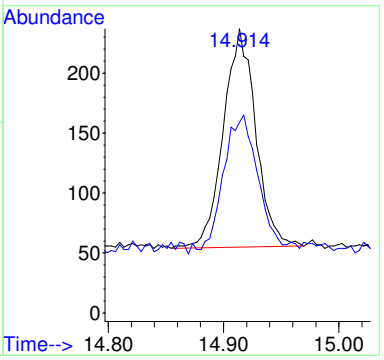


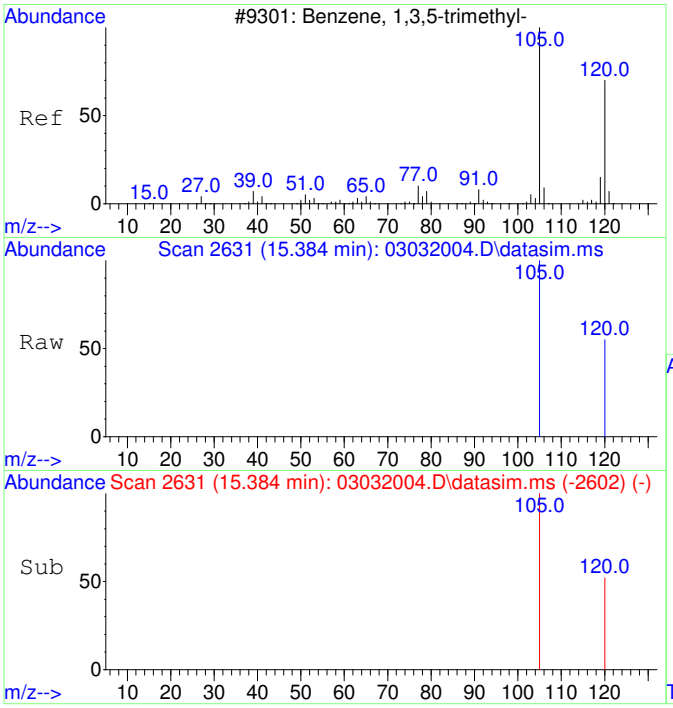


#21
1,1,2,2-Tetrachloroethane
Concen: 57.06 ug/L
RT: 14.914 min Scan# 2516
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 355

Ion	Ratio	Lower	Upper
83	100		
85	69.6	34.4	94.4

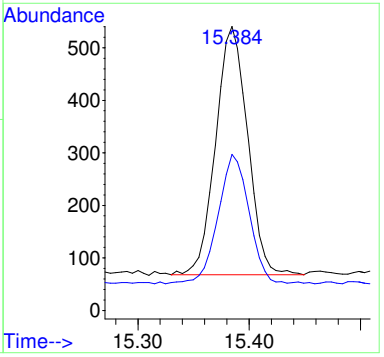


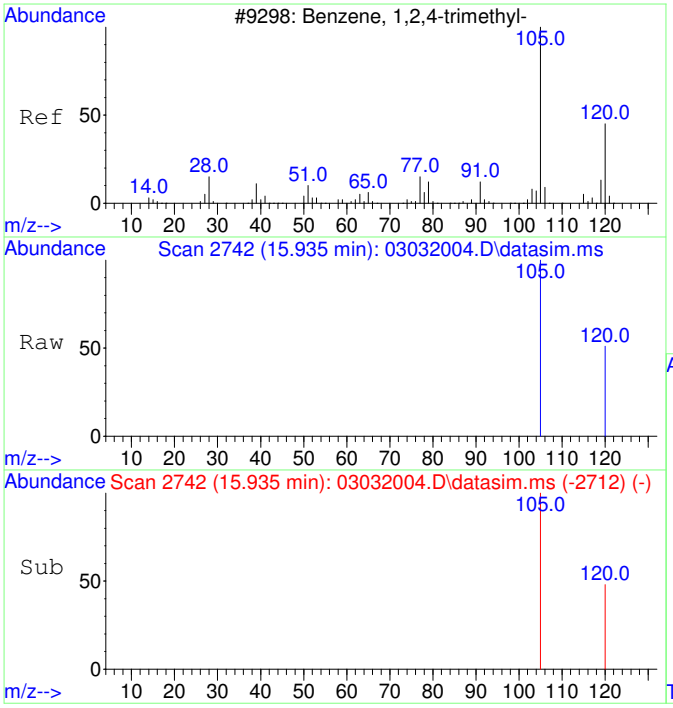


#22
1,3,5-Trimethylbenzene
Concen: 60.74 ug/L
RT: 15.384 min Scan# 2631
Delta R.T. -0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 943

Ion	Ratio	Lower	Upper
105	100		
120	50.7	21.1	81.1

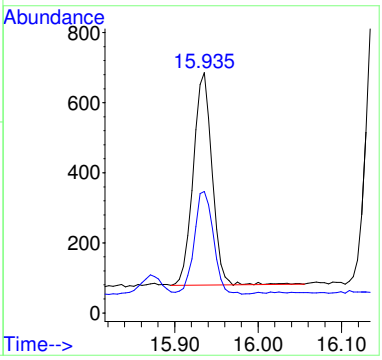


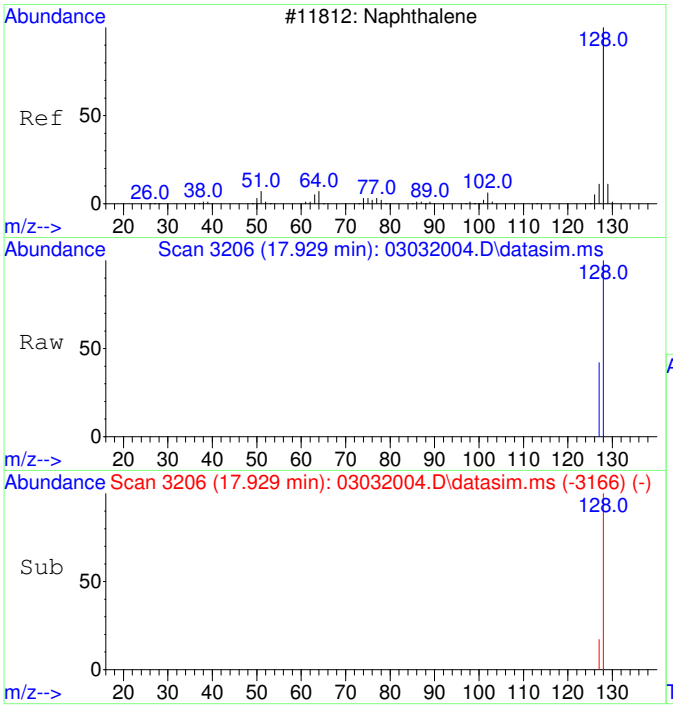


#23
1,2,4-Trimethylbenzene
Concen: 60.08 ug/L
RT: 15.935 min Scan# 2742
Delta R.T. 0.001 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 949

Ion	Ratio	Lower	Upper
105	100		
120	47.7	17.1	77.1

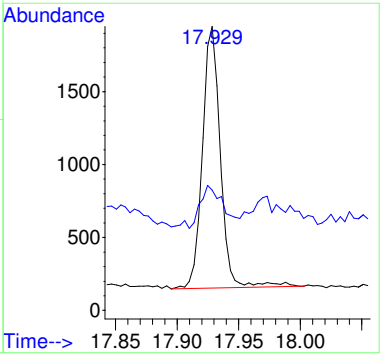


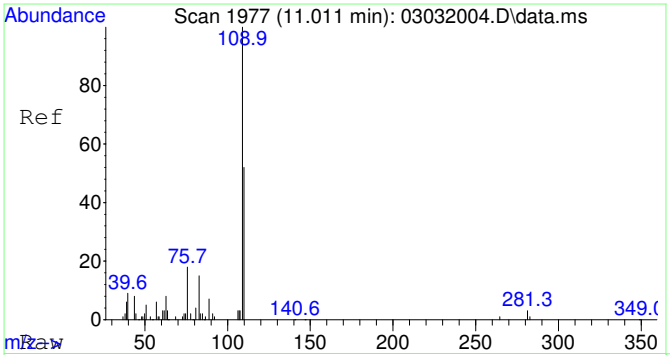


#24
Naphthalene
Concen: 66.56 ug/L
RT: 17.929 min Scan# 3206
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1813

Ion	Ratio	Lower	Upper
128	100		
127	16.3	0.0	42.6

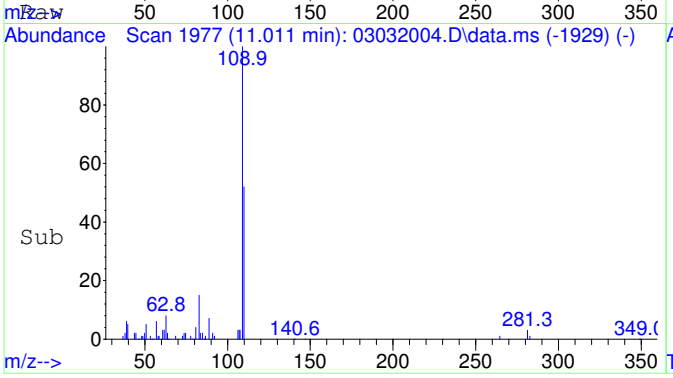


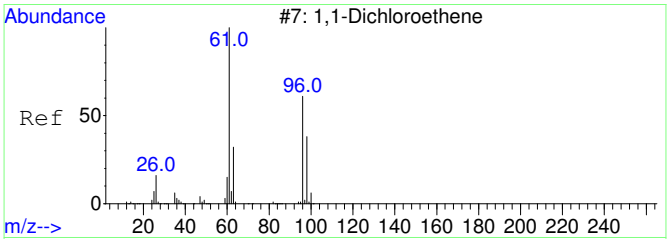


#25
2-Fluorotoluene SCAN
Concen: 4904.59 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:109 Resp: 45584

Ion	Ratio	Lower	Upper
109	100		
83	15.6	0.0	44.7

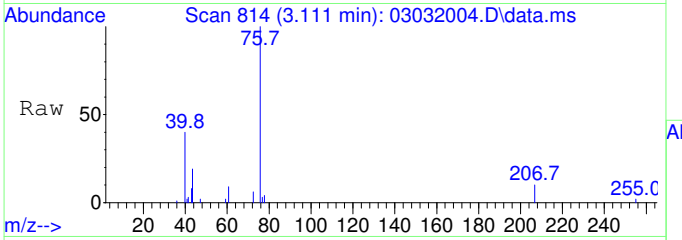


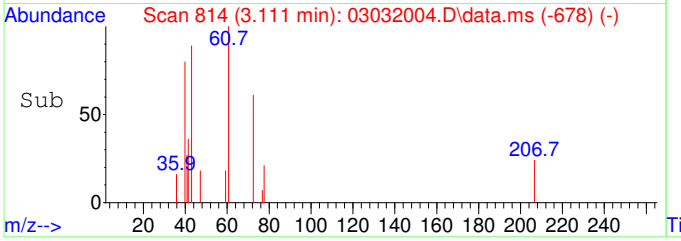


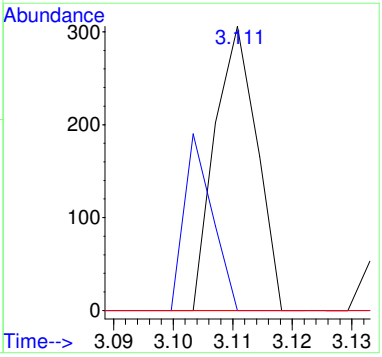
#26
1,1-Dichloroethene SCAN
Concen: 56.01 ug/L
RT: 3.111 min Scan# 814
Delta R.T. 0.004 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

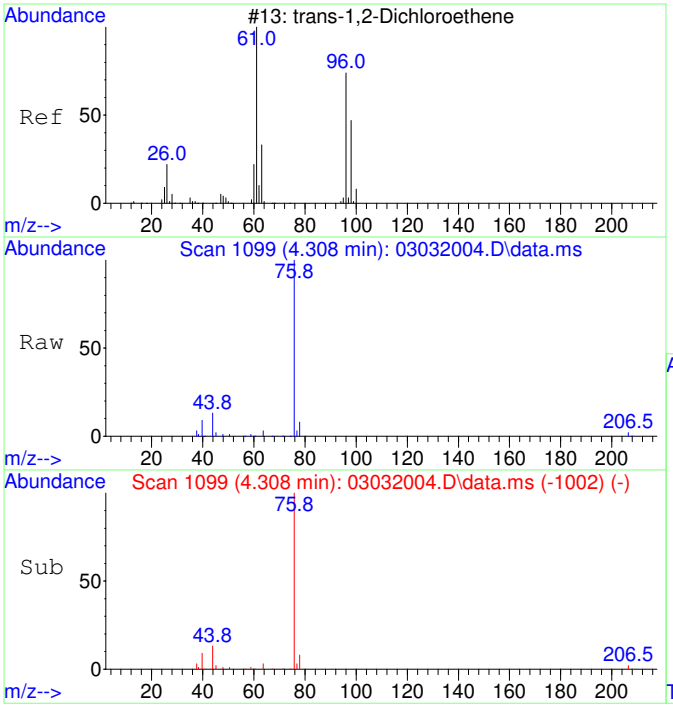
Tgt Ion: 61 Resp: 150

Ion	Ratio	Lower	Upper
61	100		
96	42.0	34.7	94.7
98	0.0	4.7	64.7#





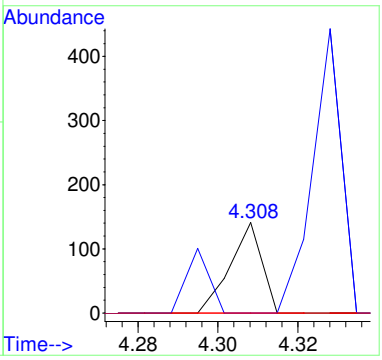


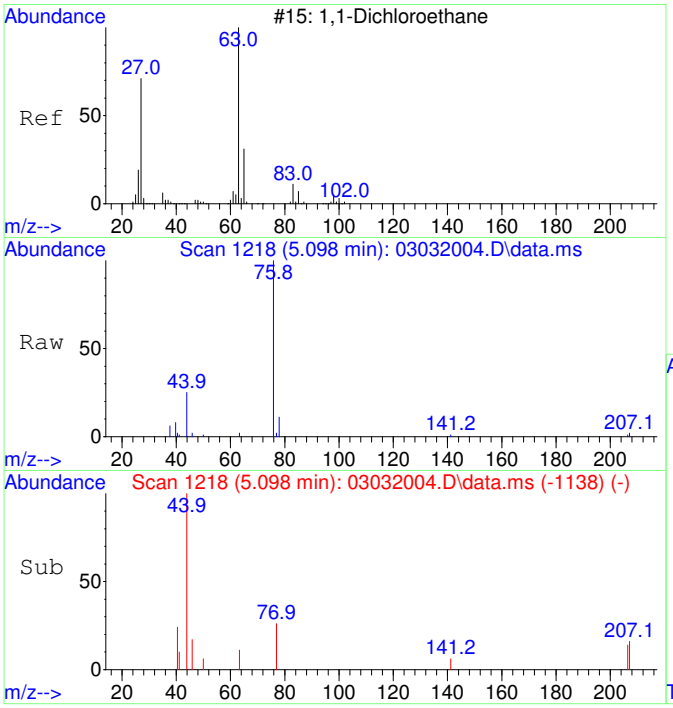


#27
trans-1,2-Dichloroethene SCAN
Concen: 27.30 ug/L
RT: 4.308 min Scan# 1099
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 78

Ion	Ratio	Lower	Upper
61	100		
96	284.6	47.2	107.2#
98	0.0	16.4	76.4#

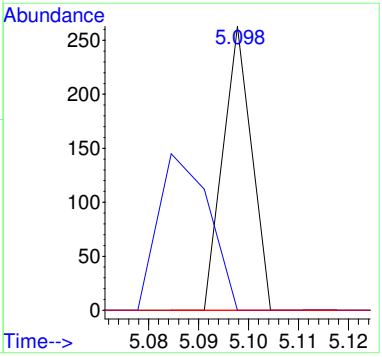


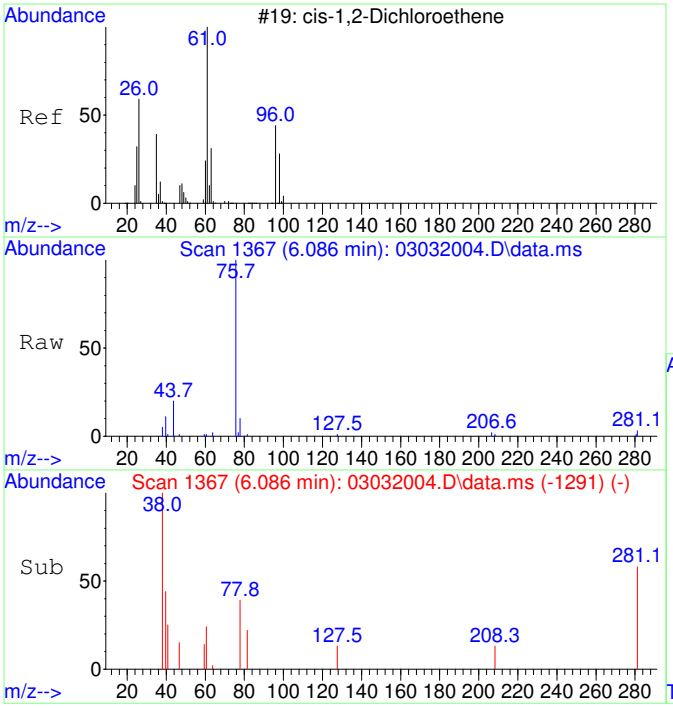


#28
1,1-Dichloroethane SCAN
Concen: 26.67 ug/L
RT: 5.098 min Scan# 1218
Delta R.T. 0.033 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 63 Resp: 105

Ion	Ratio	Lower	Upper
63	100		
65	97.1	0.0	59.3#
83	0.0	0.0	37.5

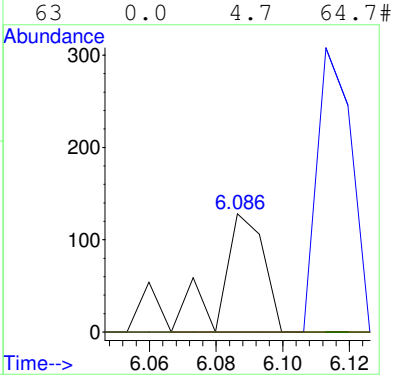


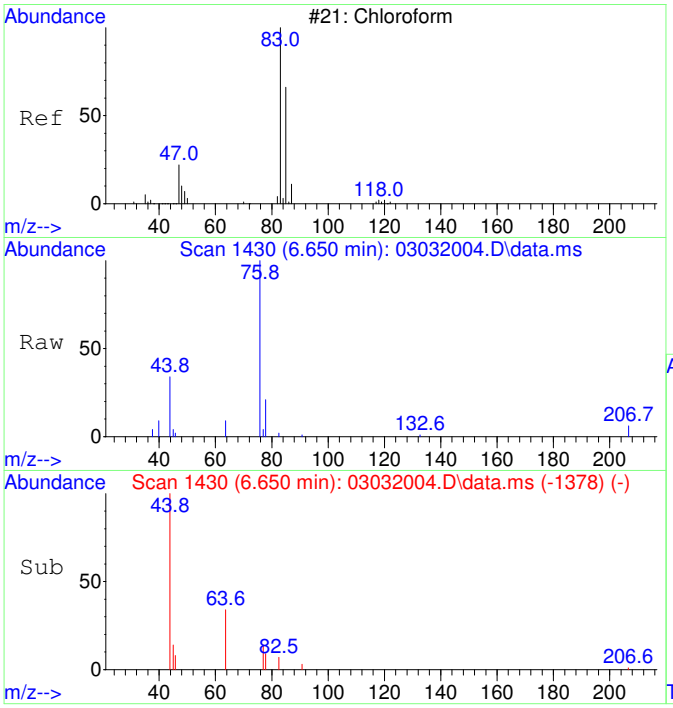


#29
cis-1,2-Dichloroethene SCAN
Concen: 37.87 ug/L
RT: 6.086 min Scan# 1367
Delta R.T. 0.006 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 61 Resp: 117

Ion	Ratio	Lower	Upper
61	100		
96	0.0	46.7	106.7#
98	0.0	18.7	78.7#
63	0.0	4.7	64.7#

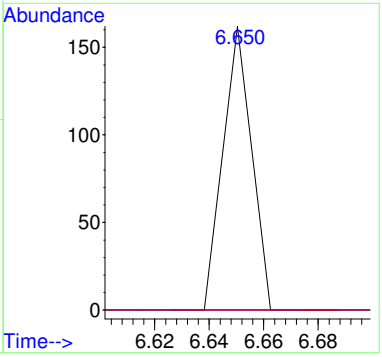


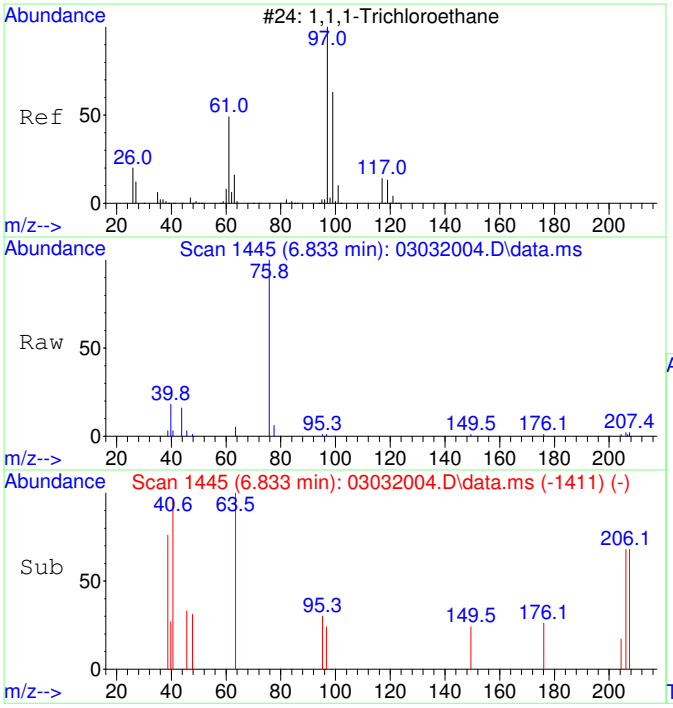


#30
Chloroform SCAN
Concen: 34.50 ug/L
RT: 6.650 min Scan# 1430
Delta R.T. -0.012 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 83 Resp: 118

Ion	Ratio	Lower	Upper
83	100		
85	0.0	43.1	103.1#
47	0.0	0.0	58.1

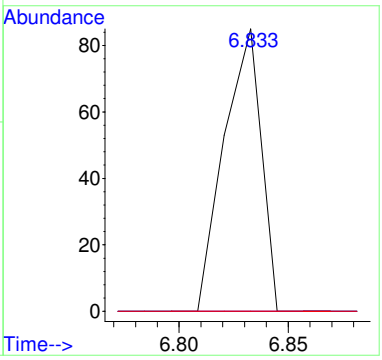


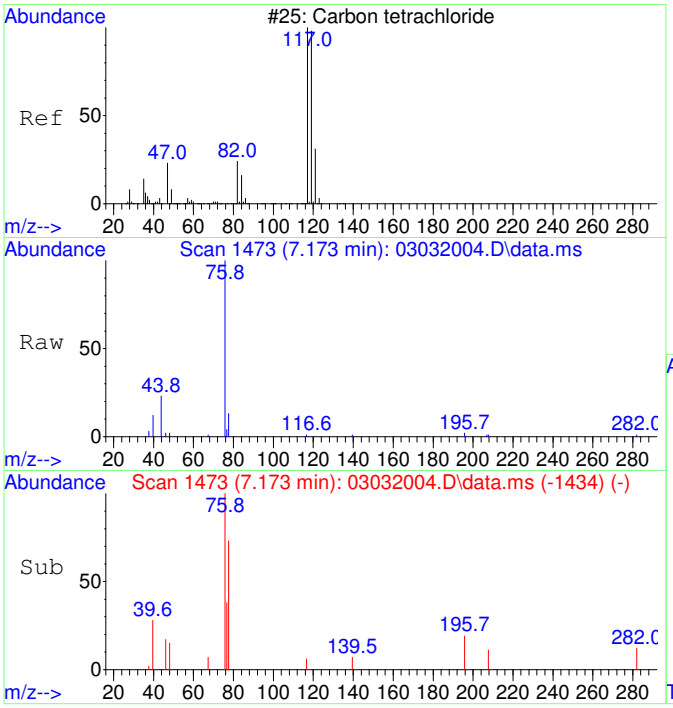


#31
1,1,1-Trichloroethane SCAN
Concen: 29.46 ug/L
RT: 6.833 min Scan# 1445
Delta R.T. -0.085 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 101

Ion	Ratio	Lower	Upper
97	100		
99	0.0	35.8	95.8#
61	0.0	9.5	69.5#

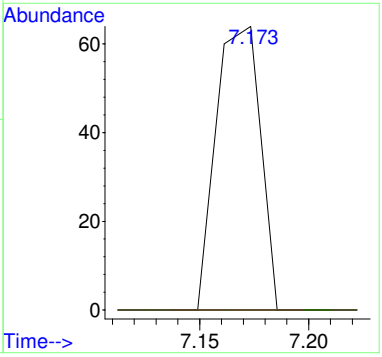


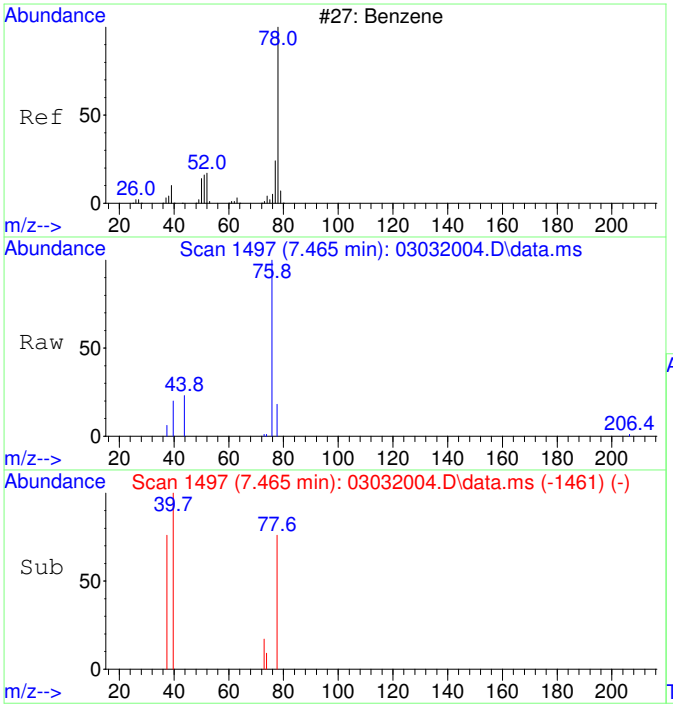


#32
Carbon tetrachloride SCAN
Concen: 25.69 ug/L
RT: 7.173 min Scan# 1473
Delta R.T. -0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:117 Resp: 90

Ion	Ratio	Lower	Upper
117	100		
119	0.0	56.4	116.4#
121	0.0	2.8	62.8#
82	0.0	0.0	55.8

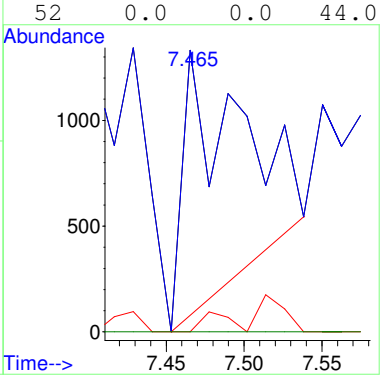


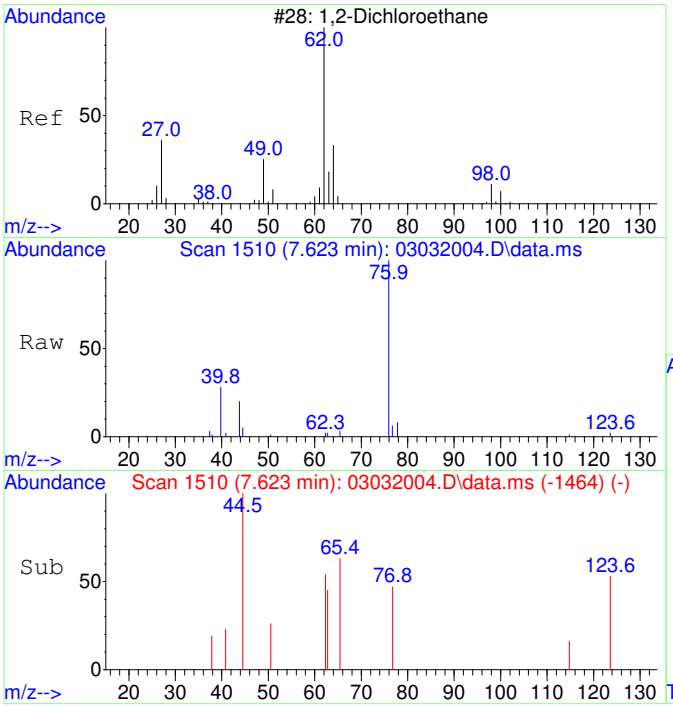


#33
Benzene SCAN
Concen: 359.68 ug/L
RT: 7.465 min Scan# 1497
Delta R.T. -0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 78 Resp: 3264

Ion	Ratio	Lower	Upper
78	100		
78	100.0	70.0	130.0
51	0.0	0.0	49.6
52	0.0	0.0	44.0

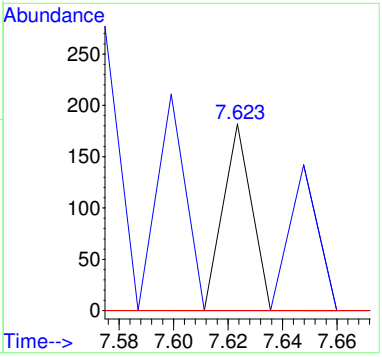


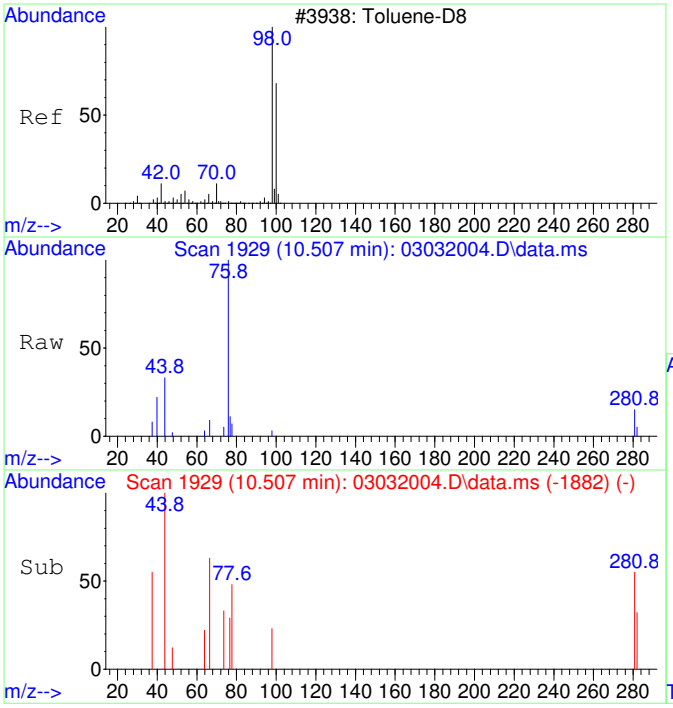


#34
1,2-Dichloroethane SCAN
Concen: 50.16 ug/L
RT: 7.623 min Scan# 1510
Delta R.T. 0.061 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 62 Resp: 133

Ion	Ratio	Lower	Upper
62	100		
64	0.0	15.5	75.5#
49	0.0	0.0	59.9

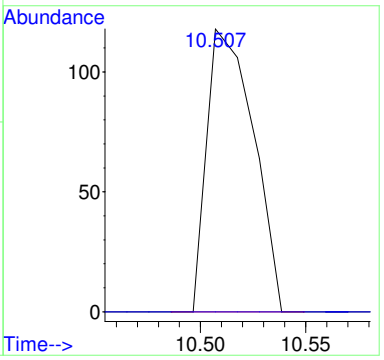


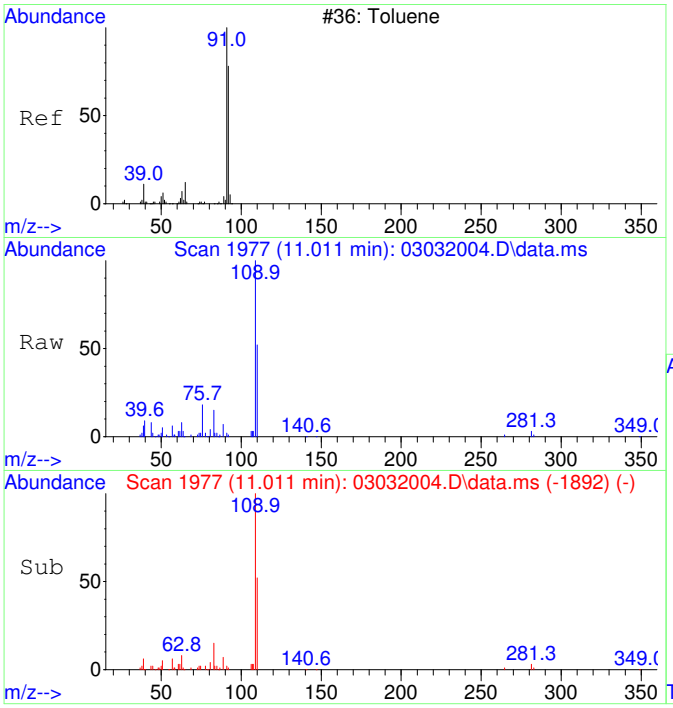


#36
Toluene-d8 SCAN
Concen: 20.90 ug/L
RT: 10.507 min Scan# 1929
Delta R.T. -0.011 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 98 Resp: 181

Ion	Ratio	Lower	Upper
98	100		
100	0.0	38.3	98.3#

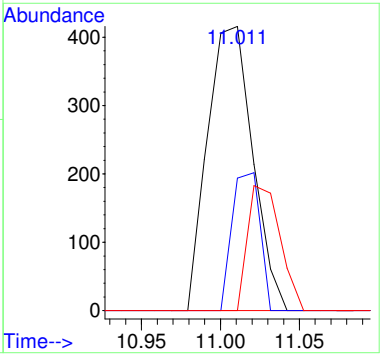


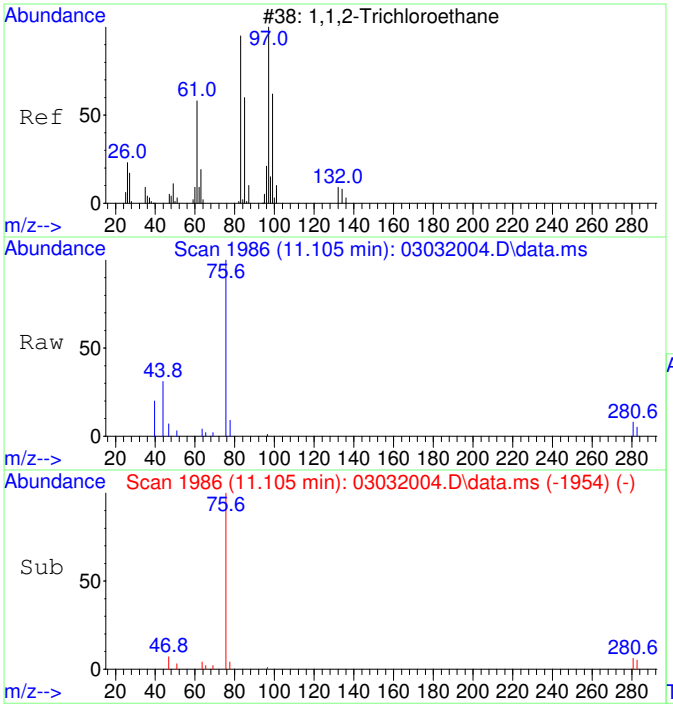


#37
Toluene SCAN
Concen: 78.15 ug/L
RT: 11.011 min Scan# 1977
Delta R.T. 0.388 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 830

Ion	Ratio	Lower	Upper
91	100		
92	30.0	21.2	81.2
65	31.7	0.0	41.4

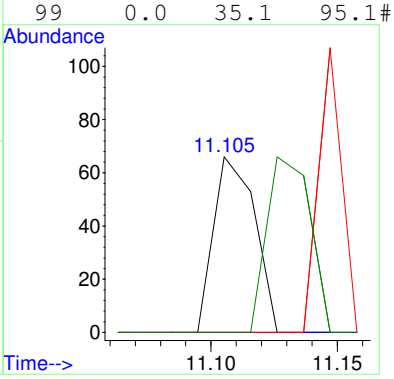


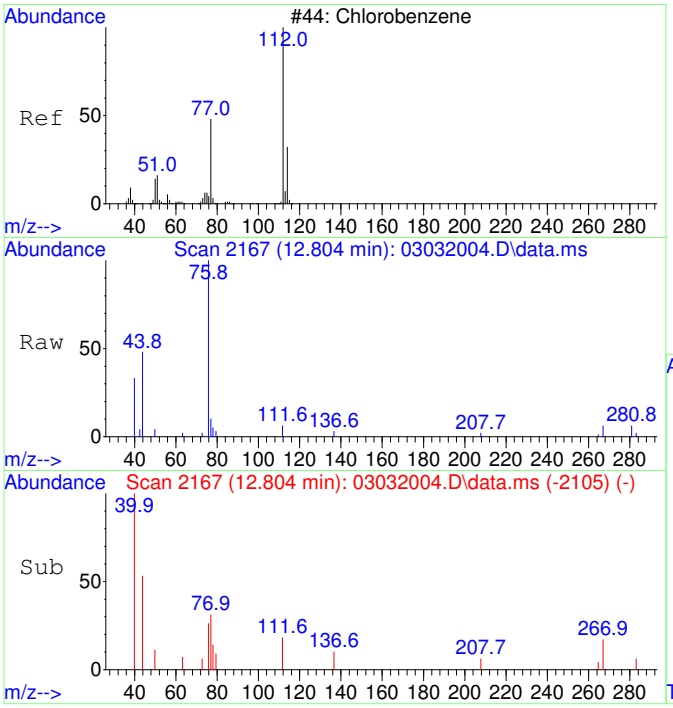


#38
1,1,2-Trichloroethane SCAN
Concen: 31.72 ug/L
RT: 11.105 min Scan# 1986
Delta R.T. -0.168 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 97 Resp: 75

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.5	113.5#
61	0.0	29.8	89.8#
99	0.0	35.1	95.1#

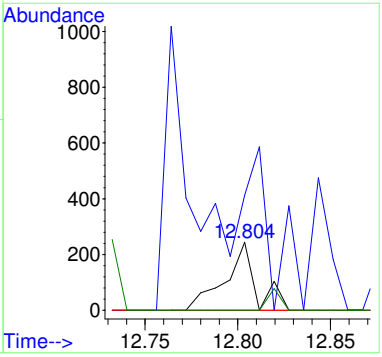


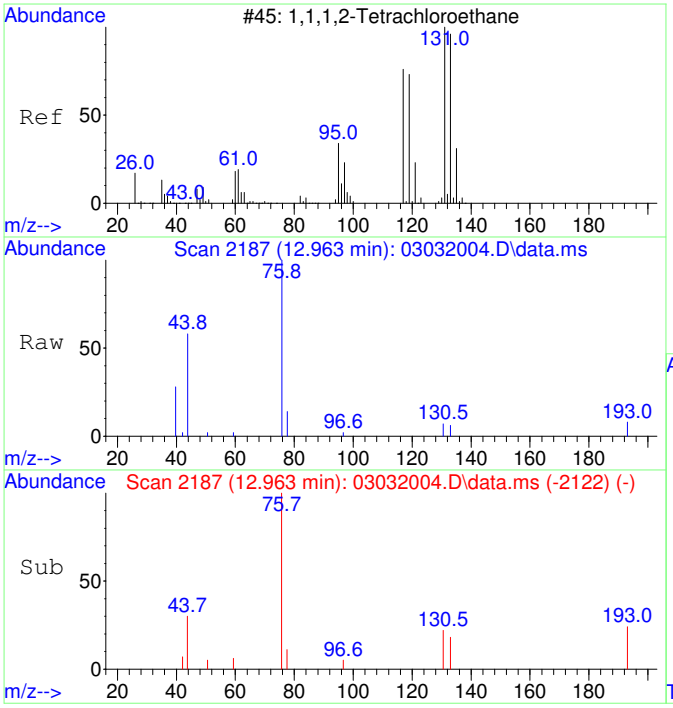


#40
Chlorobenzene SCAN
Concen: 42.59 ug/L
RT: 12.804 min Scan# 2167
Delta R.T. -0.008 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:112 Resp: 285

Ion	Ratio	Lower	Upper
112	100		
77	118.6	33.6	93.6#
114	0.0	5.6	65.6#
51	0.0	0.0	52.4

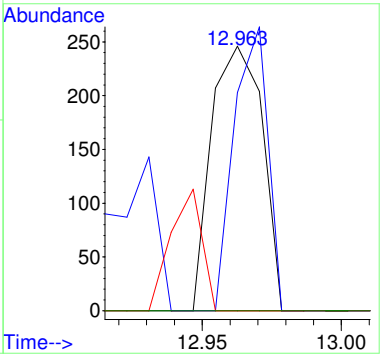


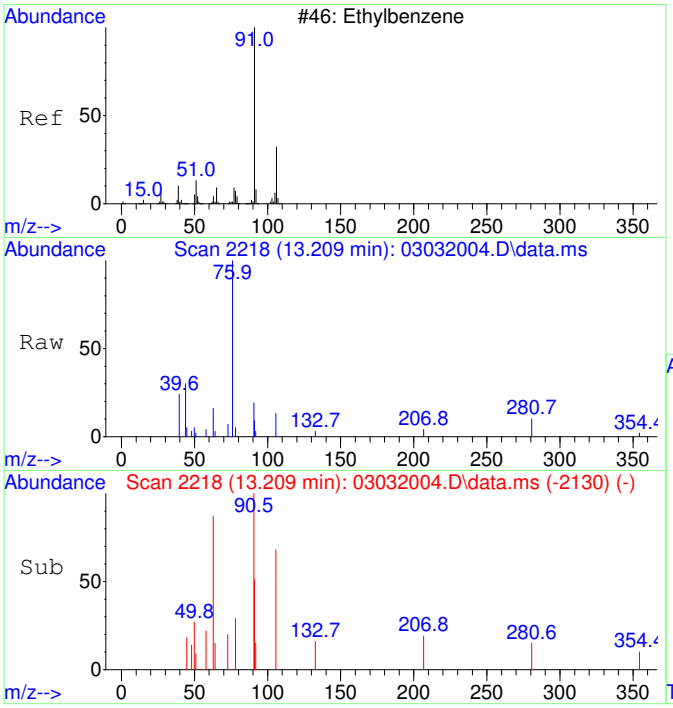


#41
1,1,1,2-Tetrachloroethane SCAN
Concen: 127.09 ug/L
RT: 12.963 min Scan# 2187
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:131 Resp: 313

Ion	Ratio	Lower	Upper
131	100		
133	71.2	61.4	121.4
119	0.0	33.0	93.0#
117	0.0	35.3	95.3#

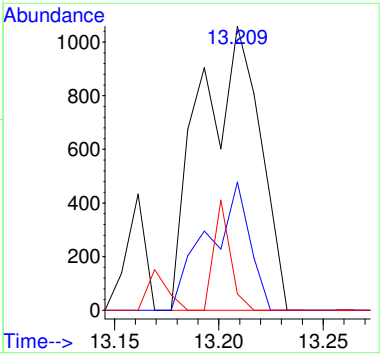


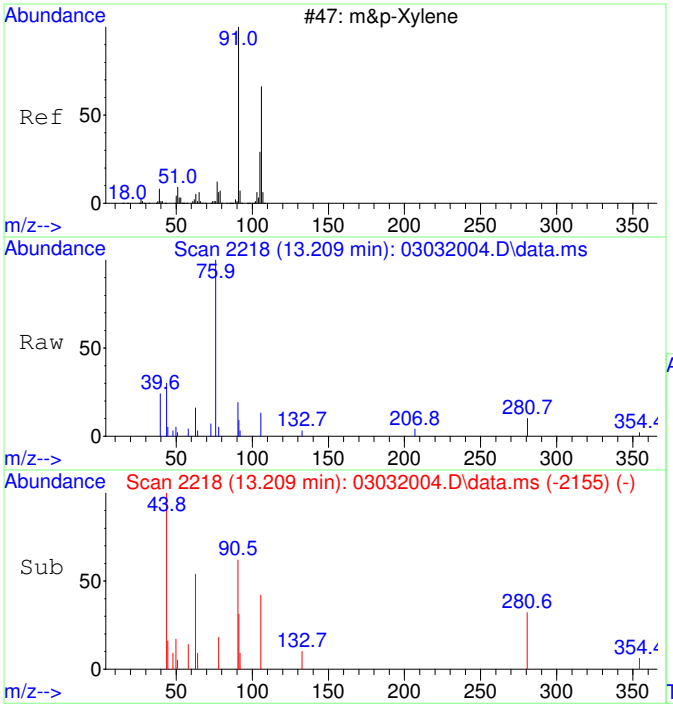


#42
Ethylbenzene SCAN
Concen: 180.60 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. 0.198 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	2.2	62.2
51	10.6	0.0	40.6

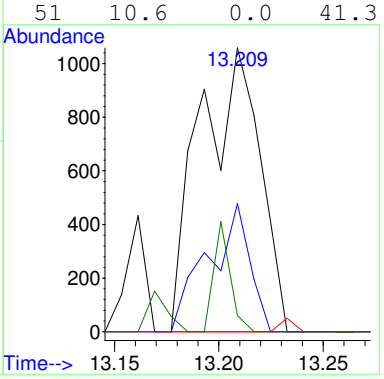


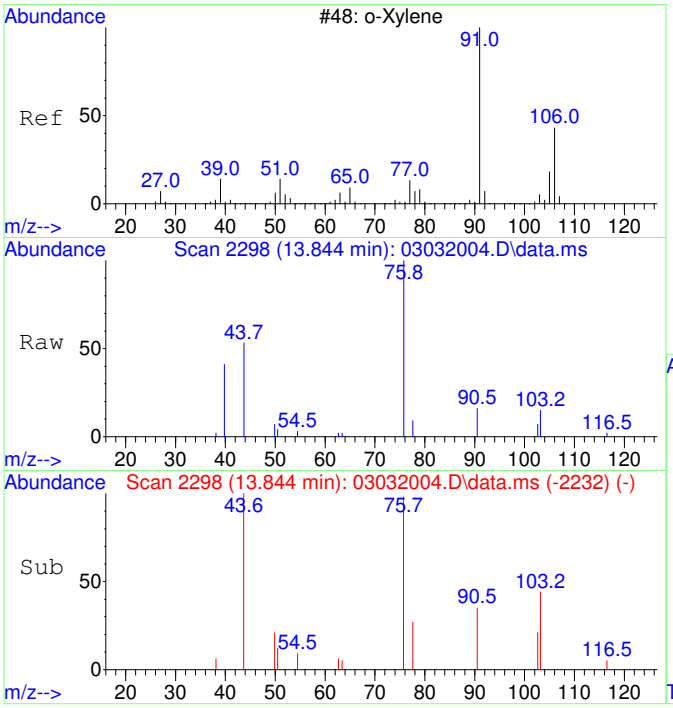


#43
m&p-Xylene SCAN
Concen: 127.24 ug/L
RT: 13.209 min Scan# 2218
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 2126

Ion	Ratio	Lower	Upper
91	100		
106	31.4	19.7	79.7
105	0.0	0.0	55.1
51	10.6	0.0	41.3

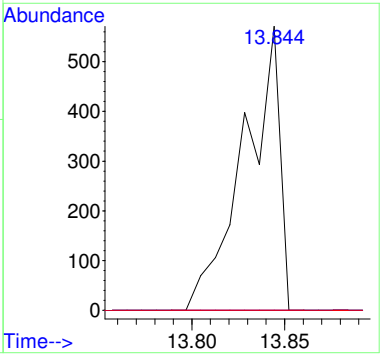


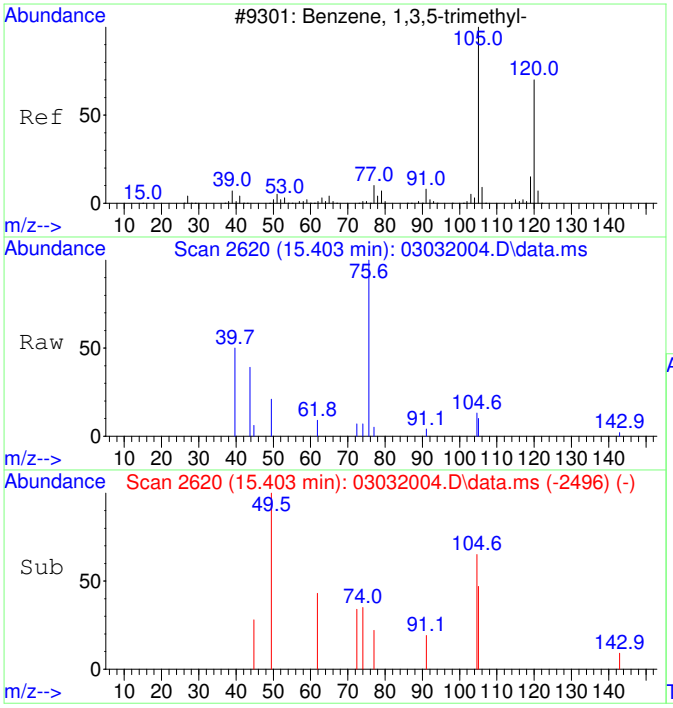


#44
o-Xylene SCAN
Concen: 86.24 ug/L
RT: 13.844 min Scan# 2298
Delta R.T. 0.024 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion: 91 Resp: 767

Ion	Ratio	Lower	Upper
91	100		
106	0.0	18.1	78.1#
105	0.0	0.0	54.4

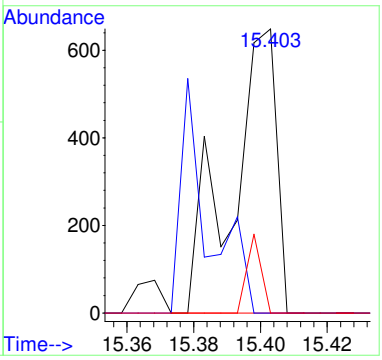


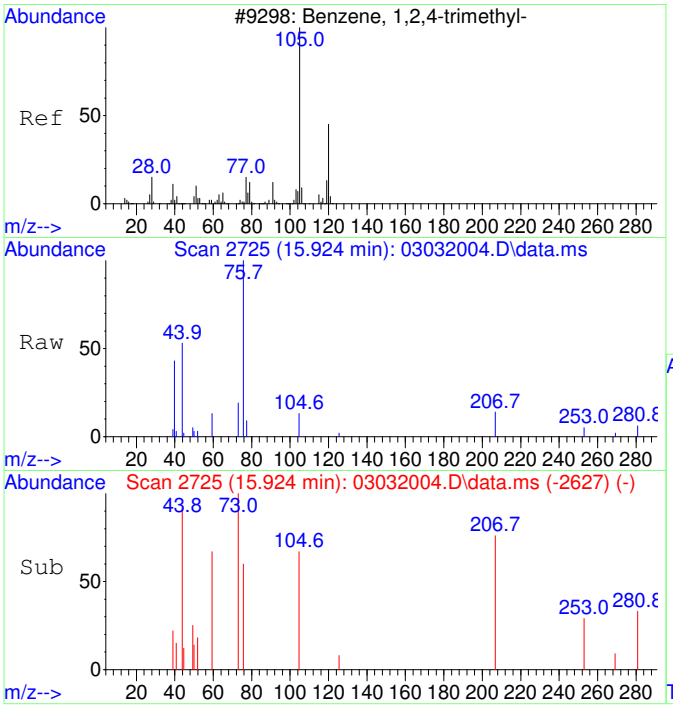


#46
1,3,5-Trimethylbenzene SCAN
Concen: 66.44 ug/L
RT: 15.403 min Scan# 2620
Delta R.T. 0.016 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 605

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.4	79.4#
119	8.9	0.0	43.4

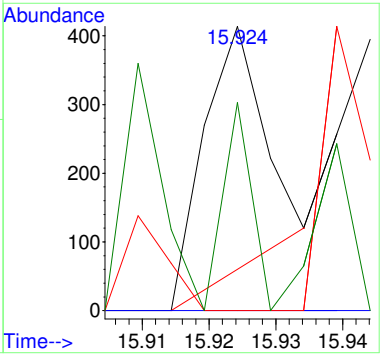


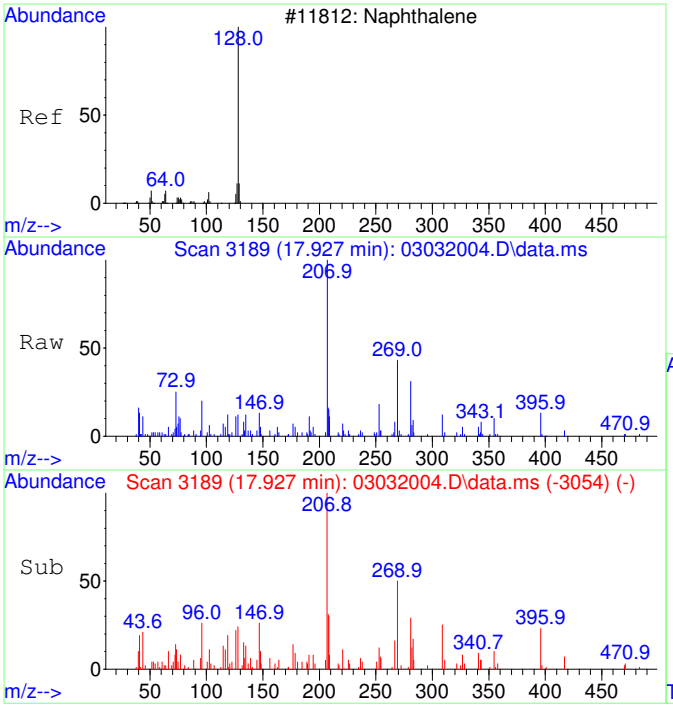


#47
1,2,4-Trimethylbenzene SCAN
Concen: 24.17 ug/L
RT: 15.924 min Scan# 2725
Delta R.T. -0.014 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:105 Resp: 234

Ion	Ratio	Lower	Upper
105	100		
120	0.0	12.9	72.9#
119	0.0	0.0	41.4
77	34.6	0.0	42.1

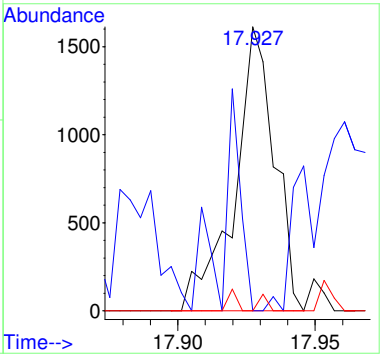




#48
Naphthalene SCAN
Concen: 111.23 ug/L
RT: 17.927 min Scan# 3189
Delta R.T. -0.000 min
Lab File: 03032004.D
Acq: 3 Mar 2020 10:23

Tgt Ion:128 Resp: 1632

Ion	Ratio	Lower	Upper
128	100		
127	36.6	0.0	44.2
129	0.0	0.0	41.5



SECOND SOURCE CALIBRATION CHECK

Radiello D1

Laboratory:	EPA Region 9 Laboratory	SDG:	20058B
Client:	California Site Cleanup Section 3	Project:	MEW OU3 FY2020 Vapor Intrusion Investigation
Instrument ID:	AG5975CV	Calibration:	2001023
Lab File ID:	01302009.D	Calibration Date:	01/30/20 13:19
Sequence:	S20A096	Injection Date:	01/30/20
Lab Sample ID:	S20A096-SCV1	Injection Time:	11:03

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	SCV	ICAL	SCV	MIN (#)	SCV	LIMIT (#)
1,1-Dichloroethene	L	5000	5310	0.2540582	0.2698101		6.2	30
trans-1,2-Dichloroethene	L	5000	5210	0.2613904	0.2722203		4.1	30
1,1-Dichloroethane	L	5000	5080	0.3262403	0.331731		1.7	30
cis-1,2-Dichloroethene	L	5000	5130	0.3052212	0.3129988		2.5	30
Chloroform	L	5000	5120	0.3387217	0.3469552		2.4	30
1,1,1-Trichloroethane	L	5000	5080	0.3294626	0.334583		1.6	30
Carbon tetrachloride	L	5000	5080	0.2899828	0.2946816		1.6	30
1,2-Dichloroethane	L	5000	5120	0.2726372	0.2793235		2.5	30
Trichloroethene	L	5000	5150	0.2364724	0.2436332		3.0	30
Toluene	L	5000	5070	1.005023	1.01898		1.4	30
1,1,2-Trichloroethane	L	5000	5040	0.2266858	0.2284291		0.8	30
Tetrachloroethene	L	5000	5150	0.2754439	0.2838158		3.0	30
Chlorobenzene	L	5000	5120	0.7247415	0.7419862		2.4	30
1,1,1,2-Tetrachloroethane	L	5000	5160	0.2388	0.2465722		3.3	30
Ethylbenzene	L	5000	5040	1.179005	1.187356		0.7	30
m&p-Xylene	L	10000	10100	0.8894183	0.894703		0.6	30
o-Xylene	L	5000	5000	0.9538548	0.9540665		0.02	30
1,1,2,2-Tetrachloroethane	L	5000	5070	0.4124481	0.4180815		1.4	30
1,3,5-Trimethylbenzene	L	5000	5060	1.029339	1.041783		1.2	30
1,2,4-Trimethylbenzene	L	5000	4900	1.047265	1.027148		-1.9	30
Toluene-d8	L	5000	5000	0.8554104	0.854815		-0.07	30

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302009.D
Acq On : 30 Jan 2020 11:03
InstName : AG5975C
Operator : TD
Sample : S20A096-SCV1
Misc : 2004028
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:21:42 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration

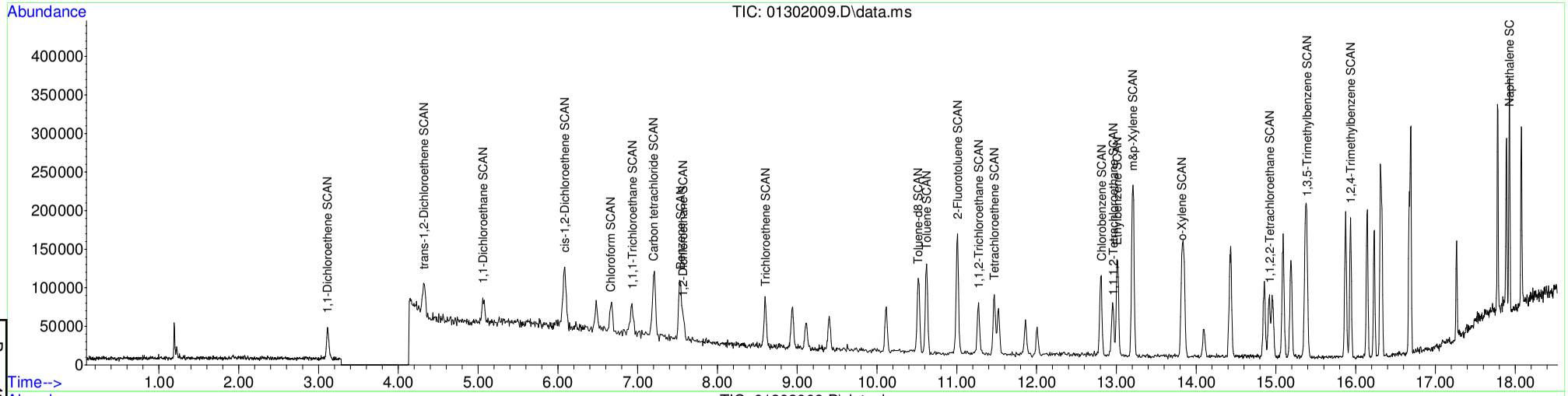
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 2-Fluorotoluene	11.012	109	149368	5000.00 ug/L	0.00
System Monitoring Compounds					
12) Toluene-d8	10.519	98	127682	4996.52 ug/L	0.00
Spiked Amount 5000.000	Range 90 - 110		Recovery = 99.93%		
Target Compounds					Qvalue
2] 1,1-Dichloroethene	3.116	61	40301	5310.01 ug/L	100
3] trans-1,2-Dichloroethene	4.316	61	40661	5207.16 ug/L	100
4] 1,1-Dichloroethane	5.066	63	49550	5084.15 ug/L	100
5] cis-1,2-Dichloroethene	6.088	61	46752	5127.41 ug/L	100
6] Chloroform	6.664	83	51824	5121.54 ug/L	100
7] 1,1,1-Trichloroethane	6.919	97	49976	5077.71 ug/L	99
8] Carbon tetrachloride	7.199	117	44016	5081.02 ug/L	100
9] Benzene	7.527	78	125125	5067.97 ug/L	100
10] 1,2-Dichloroethane	7.564	62	41722	5122.62 ug/L	100
11] Trichloroethene	8.597	130	36391	5151.41 ug/L	99
13] Toluene	10.613	91	152203	5069.44 ug/L	100
14] 1,1,2-Trichloroethane	11.264	97	34120	5038.45 ug/L	99
15] Tetrachloroethene	11.474	166	42393	5151.97 ug/L	100
16] Chlorobenzene	12.805	112	110829	5118.97 ug/L	100
17] 1,1,1,2-Tetrachloroethane	12.956	131	36830	5162.73 ug/L	99
18] Ethylbenzene	13.012	91	177353	5035.41 ug/L	100
19] m&p-Xylene	13.202	91	267280	10059.42 ug/L	100
20] o-Xylene	13.822	91	142507	5001.11 ug/L	100
21] 1,1,2,2-Tetrachloroethane	14.918	83	62448	5068.29 ug/L	100
22] 1,3,5-Trimethylbenzene	15.388	105	155609	5060.44 ug/L	100
23] 1,2,4-Trimethylbenzene	15.934	105	153423	4903.95 ug/L	100
24] Naphthalene	17.928	128	258455	4790.71 ug/L	100
25) 2-Fluorotoluene SCAN	11.011	109	94676	5143.37 ug/L	99
26) 1,1-Dichloroethene SCAN	3.111	61	31531	5944.64 ug/L	93
27) trans-1,2-Dichloroethe...	4.321	61	30133	5324.96 ug/L	98
28) 1,1-Dichloroethane SCAN	5.058	63	38588	4949.03 ug/L	89
29) cis-1,2-Dichloroethene...	6.086	61	33993	5555.35 ug/L	93
30) Chloroform SCAN	6.662	83	35829	5289.22 ug/L	98
31) 1,1,1-Trichloroethane ...	6.930	97	36105	5316.55 ug/L	90
32) Carbon tetrachloride SCAN	7.198	117	28105	4050.70 ug/L	92
33) Benzene SCAN	7.538	78	86434	4809.10 ug/L	98
34) 1,2-Dichloroethane SCAN	7.563	62	28810	5485.76 ug/L	74
35) Trichloroethene SCAN	8.601	130	23921	5216.98 ug/L	94
36) Toluene-d8 SCAN	10.517	98	84245	4911.72 ug/L	94
37) Toluene SCAN	10.622	91	97945	4656.23 ug/L	85
38) 1,1,2-Trichloroethane ...	11.273	97	25296	5401.32 ug/L	96
39) Tetrachloroethene SCAN	11.472	166	26622	4510.04 ug/L	91
40) Chlorobenzene SCAN	12.812	112	68527	5170.61 ug/L	96
41) 1,1,1,2-Tetrachloroeth...	12.963	131	22846	4683.85 ug/L	91
42) Ethylbenzene SCAN	13.010	91	118215	5070.46 ug/L	98
43) m&p-Xylene SCAN	13.209	91	171758	5190.15 ug/L	97
44) o-Xylene SCAN	13.821	91	88300	5012.81 ug/L	94
45) 1,1,2,2-Tetrachloroeth...	14.916	83	46811	5417.56 ug/L	93
46) 1,3,5-Trimethylbenzene...	15.387	105	92945	5153.42 ug/L	99
47) 1,2,4-Trimethylbenzene...	15.938	105	95854	4998.99 ug/L	94
48) Naphthalene SCAN	17.927	128	147231	5066.44 ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\Ravioli Data\2020\013020\
Data File : 01302009.D
Acq On : 30 Jan 2020 11:03
InstName : AG5975C
Operator : TD
Sample : S20A096-SCV1
Misc : 2004028
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:21:42 2020
Quant Method : C:\MSDCHEM\1\RAVIOLI METHODS\2020\013020.M
Quant Title : Volatile Organic Analysis - Passive samplers
QLast Update : Thu Jan 30 12:20:44 2020
Response via : Initial Calibration



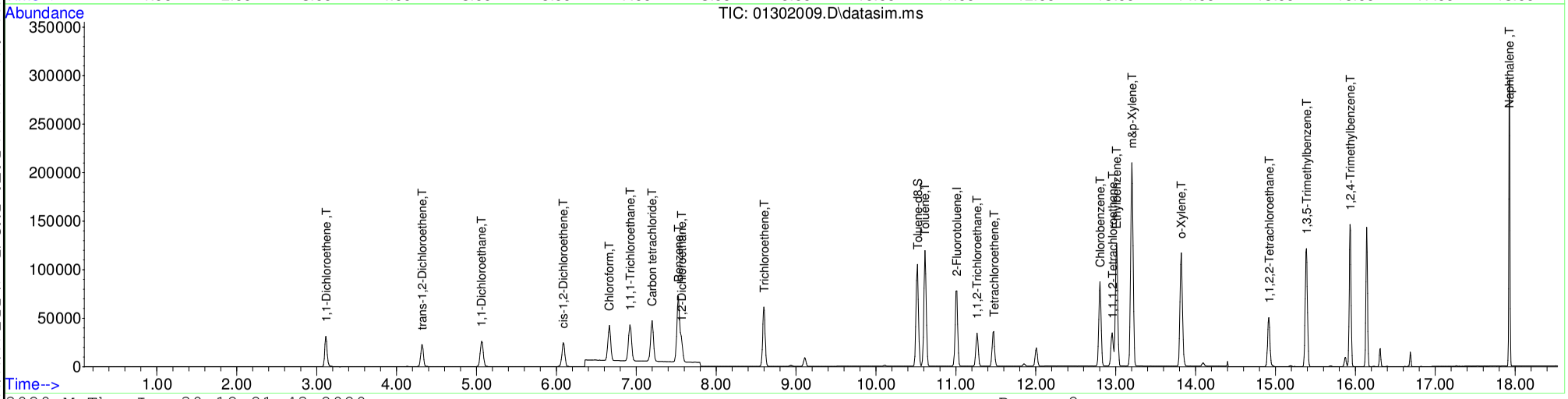


Table of Contents

Analytical Standard Record

EPA Region 9 Laboratory

1639096

Description:	2-Fluorotlouene	**Expires:**	12/31/29
Standard Type:	Other Solution	**Prepared:**	09/22/16
Solvent:	na	**Prepared By:**	** Vendor **
Final Volume (mls):	100	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/22/16 11:46 by RH
Vendor:		**Lot Numbe**	STBF8552V

Aldrich; Cat # F15323-100G, bar code #AU008468

Analyte	CAS Number	Concentration (ppm)
2-Fluorotoluene	95-52-3	1000000

SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:	2-FLUOROTOLUENE
	>= 99 %
Product Number:	F15323
Batch Number:	STBF8552V
Brand:	Aldrich
CAS Number:	95-52-3
Formula:	$CH_3C_6H_4F$
Formula Weight:	110.13
Quality Release Date:	14 SEP 2015

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS TO VERY FAINT YELLOW	VERY FAINT YELLOW
APPEARANCE (FORM)	LIQUID	LIQUID
COLOR (IN APHA)	≤ 50 APHA	40 APHA
PURITY (GC AREA %)	≥ 99.0 %	99.9 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

Dr. Claudia Geitner
Manager Quality Control
Steinheim, Germany

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Analytical Standard Record

EPA Region 9 Laboratory

1740051

Description:	VOA BFB tuning mix, stock STD.	**Expires:**	11/30/22
Standard Type:	Other Solution	**Prepared:**	10/03/17
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/03/17 14:36 by YNB
Vendor:	Restek	**Lot Numbe**	A0129653

RESTEK Cat No. 30003, LOT # A0129653, Bar code #AU009454

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	5000

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
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.:** A0129653

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 : November 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KOV) **Purity** 99%	5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
			+/- 280.4856	µg/mL	Unstressed
			+/- 287.0473	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

A4009453	1740050
54	51
55	52
56	53
57	54

Analytical Standard Record

EPA Region 9 Laboratory

1843072

Description:	VOA 502/524 VOC Mix, Stock	**Expires:**	09/30/20
Standard Type:	Other Solution	**Prepared:**	10/24/18
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1.15	**Department:**	Volatiles
Vials:	1	**Last Edit:**	10/24/18 12:15 by YNB
Vendor:	Sigma Aldrich	**Lot Numbe**	LRAC0242

Sigma-Aldrich (Supelco), Cat # 502111, Lot# LRAC0242, bar code AU010585

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

1843072

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

502/524 VOLATILE ORGANICS CALIBRATION

Certified Reference Material

Product ID 502111
Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

Analyte	*Units*	*Certified Value* [1,4]	*Analytical Value*	*Raw Material Purity,%*	*Raw Material lot*	*Elution order*	*CAS*
1,1-DICHLOROETHYLENE	µg/ml	2000 ± 170	2120	99.9998	LC08188	1	75-35-4
DICHLOROMETHANE	µg/ml	2000 ± 140	2040	99.99	SHBK1353	2	75-09-2
TRANS-1,2-DICHLOROETHYLENE	µg/ml	2000 ± 140	2040	99.7	MKBH9850V	3	156-60-5
1,1-DICHLOROETHANE	µg/ml	2001 ± 130	1980	99.9	LB68167	4	75-34-3
2,2-DICHLOROPROPANE	µg/ml	2000 ± 135	2010	98.4	BCBR0622V	5	594-20-7
CIS-1,2-DICHLOROETHYLENE	µg/ml	2001 ± 130	2010	99.9	LB73428	6	156-59-2
CHLOROFORM	µg/ml	2000 ± 120	2000	99.94	MKBV7632V	7	67-66-3
BROMOCHLOROMETHANE	µg/ml	2001 ± 110	1990	98.9	LB39040	8	74-97-5
1,1,1-TRICHLOROETHANE	µg/ml	2000 ± 140	2020	97.2	LC06533	9	71-55-6
1,1-DICHLOROPROPYLENE	µg/ml	2001 ± 125	1990	99.5	7738900	10	563-58-6
CARBON TETRACHLORIDE	µg/ml	2000 ± 140	1990	99.97	02041MB	11	56-23-5
1,2-DICHLOROETHANE	µg/ml	2001 ± 110	2010	99.9	LB74294	12	107-06-02
BENZENE	µg/ml	2000 ± 120	1970	99.99	SHBJ5344	13	71-43-2
TRICHLOROETHYLENE	µg/ml	2001 ± 110	2010	98.6	LB86674	14	79-01-6
1,2-DICHLOROPROPANE	µg/ml	2001 ± 120	1980	99.9	LC14320	15	78-87-5
BROMODICHLOROMETHANE	µg/ml	2001 ± 120	1980	97.9	MKCF8470	16	75-27-4
DIBROMOMETHANE	µg/ml	2001 ± 110	2030	98.8	LB81118	17	74-95-3
TRANS 1,3-DICHLOROPROPENE	µg/ml	2002 ± 120	1970	99	ZDMSLEK	18	10061-02-06
TOLUENE	µg/ml	2000 ± 110	2010	99.98	MKCF0747	19	108-88-3
CIS 1,3-DICHLOROPROPENE	µg/ml	2001 ± 120	1990	99.3	MKBZ5000V	20	10061-01-5
1,1,2-TRICHLOROETHANE	µg/ml	2000 ± 110	2010	99.9	LB87978	21	79-00-5
1,3-DICHLOROPROPANE	µg/ml	2000 ± 110	1990	99.9	LC10811	22	142-28-9
TETRACHLOROETHYLENE	µg/ml	2000 ± 110	2010	99.9	LB67182	23	127-18-4
DIBROMOCHLOROMETHANE	µg/ml	2000 ± 120	2020	96.5	LB89245	24	124-48-1

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rctechgroup@sial.com www.sigma-aldrich.com

Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

1,2-DIBROMOETHANE	µg/ml	2003 ± 110	2020	99.1	LB42792	25	106-93-4
CHLOROBENZENE	µg/ml	2000 ± 94	1990	99.9	LB93949	26	108-90-7
1,1,1,2-TETRACHLOROETHANE	µg/ml	2000 ± 110	1980	99.9	LC14810	27	630-20-6
ETHYLBENZENE	µg/ml	2000 ± 110	1980	99.87	SHBK2389	28	100-41-4
M-XYLENE	µg/ml	2002 ± 110	2000	99.8	LB87531	29	108-38-3
P-XYLENE	µg/ml	2000 ± 110	2000	99.9	LB73203	29	106-42-3
O-XYLENE	µg/ml	2000 ± 110	2000	99.5	LB92424	30	95-47-6
STYRENE	µg/ml	2000 ± 98	1990	99.9	LC17632	31	100-42-5
CUMENE	µg/ml	2000 ± 99	2010	99.9	LB89580	32	98-82-8
BROMOFORM	µg/ml	2001 ± 120	2050	96.1	67996PJ	33	75-25-2
1,1,2,2-TETRACHLOROETHANE	µg/ml	2000 ± 100	1990	99.9	LB51327	34	79-34-5
1,2,3-TRICHLOROPROPANE	µg/ml	2001 ± 99	2020	99	BCBH8722V	35	96-18-4
N-PROPYLBENZENE	µg/ml	2000 ± 100	1990	99.9	T2HFC	36	103-65-1
BROMOBENZENE	µg/ml	2001 ± 98	1980	99.5	LB99843	37	108-86-1
1,2,4-TRIMETHYLBENZENE	µg/ml	2000 ± 100	2020	98.9	LB97224	38	95-63-6
2-CHLOROTOLUENE	µg/ml	2001 ± 98	2010	99.9	LC01464	39	95-49-8
4-CHLOROTOLUENE	µg/ml	2001 ± 92	2000	99.9	LC02742	40	106-43-4
TERT-BUTYLBENZENE	µg/ml	2000 ± 93	2000	99.9	LB40373	41	98-06-6
1,3,5-TRIMETHYLBENZENE	µg/ml	2000 ± 94	1980	99.3	LB82157	42	108-67-8
SEC-BUTYLBENZENE	µg/ml	2000 ± 93	1990	99.4	LB77150	43	135-98-8
P-ISOPROPYLTOLUENE	µg/ml	2000 ± 88	1960	98.7	LB40003	44	99-87-6
1,4-DICHLOROBENZENE	µg/ml	2000 ± 88	2000	99.9	LB90630	45	106-46-7
1,3-DICHLOROBENZENE	µg/ml	2001 ± 94	2010	99.9	LC17654	46	541-73-1
N-BUTYLBENZENE	µg/ml	2000 ± 91	2010	99.9	LB81630	47	104-51-8
1,2-DICHLOROBENZENE	µg/ml	2001 ± 82	2010	99.4	LB58923	48	95-50-1
1,2-DIBROMO-3-CHLOROPROPANE	µg/ml	2000 ± 89	2060	96.8	LB06608	49	96-12-8
1,2,3-TRICHLOROBENZENE	µg/ml	2000 ± 73	2010	99.9	LC20450	50	87-61-6
HEXACHLOROBUTADIENE	µg/ml	2000 ± 81	2060	97.4	MKCD4346	51	87-68-3

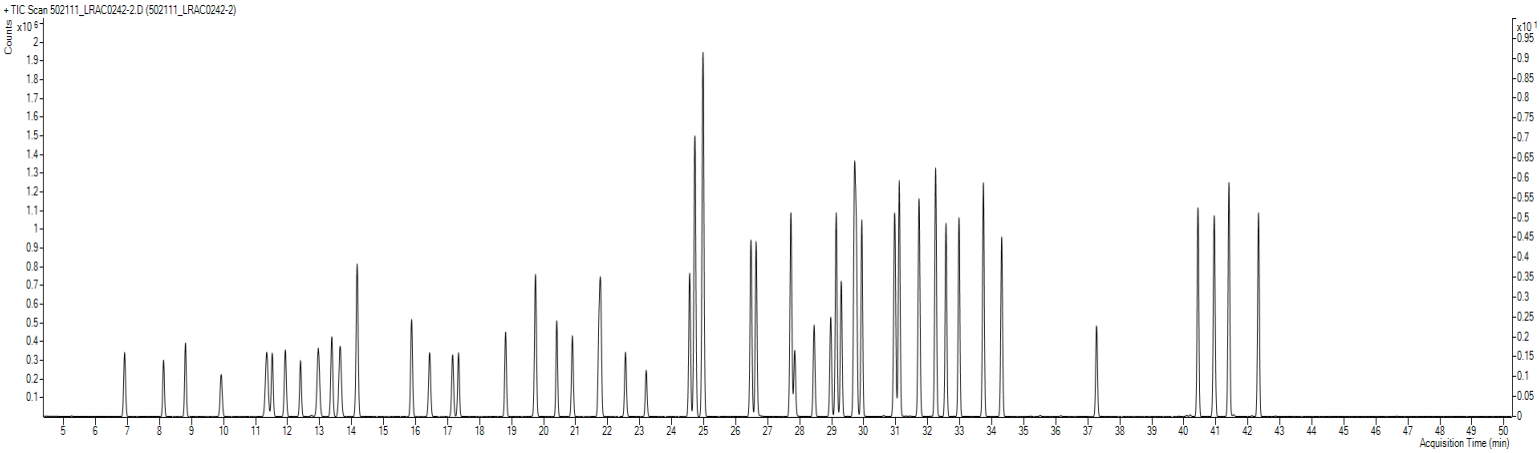
Certificate of Analysis

502/524 VOLATILE ORGANICS CALIBRATION

Certified Reference Material

Product ID 502111
Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

NAPHTHALENE	µg/ml	2000 ± 81	1990	99.9	16412TN	52	91-20-3
1,2,4-TRICHLOROBENZENE	µg/ml	2001 ± 67	2020	99.4	LB48083	53	120-82-1



Additional Information:

Analytical Method Parameters:

Column: VOCOL, 60 m x 0.25 mm x 1.5 µm df
35°C (4 min) to 200°C (5 min) at 4°C/min
Detector: MSD, 200°C
Injection Volume: 1 µL

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rtctechgroup@sial.com www.sigma-aldrich.com

Lot **LRAC0242**
Expiration Date September 2020
MFG Date September 2018
Storage Conditions Freeze
Solvent/Matrix METHANOL

1 Certified value - based on the gravimetric preparation and analytically verified by RTC with associated uncertainties from the preparation and analytical procedures.

4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Traceability: The standard was manufactured under an ISO/IEC 17025:2005 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2005 (ANAB Cert AT-1467) and ISO GUIDE 34:2009 (ANAB Cert AR-1470).

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

Robert O'Brien - QC Supervisor

Mark Pooler - QA Supervisor

Certification Date October 04, 2018
Version -1042018

Analytical Standard Record

EPA Region 9 Laboratory

1920044

Description:	Toluene-d8	Expires:	05/15/29
Standard Type:	Calibration Standa	Prepared:	05/15/19
Solvent:	na	Prepared By:	** Vendor **
Final Volume (mls):	0.1	Department:	Volatiles
Vials:	1	Last Edit:	05/15/19 13:00 by TD

Supelco; POS # 18C-262, bar code #AU0010912

Experation date changed, neat standard, per ZAR

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	1000000	ppm

Reviewed By Date

CERTIFICATE OF ANALYSIS

FROM VENDOR

IS NOT AVAILABLE.

Analytical Standard Record

EPA Region 9 Laboratory

1937059

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	03/31/21
Standard Type:	Other Solution	**Prepared:**	09/10/19
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/10/19 13:17 by YNB
Vendor:	Restek	**Lot Numbe**	A0146957

RESTEK, catalog # 30431, Barcode AU011275

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

1937059

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

Certificate of Analysis

ISO 17034 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. : 30431 **Lot No.:** A0146957

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 : March 31, 2021 **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	2,008.6 µg/mL	+/- 12.7358	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBG8609V)		+/- 90.6111	µg/mL	Unstressed
	Purity 99%		+/- 100.5146	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	2,007.1 µg/mL	+/- 12.7263	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBK5095)		+/- 90.5435	µg/mL	Unstressed
	Purity 99%		+/- 100.4395	µg/mL	Stressed
3	trans-1,2-Dichloroethene	2,005.2 µg/mL	+/- 12.7140	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/- 90.4563	µg/mL	Unstressed
	Purity 99%		+/- 100.3427	µg/mL	Stressed
4	1,1-Dichloroethane	2,003.1 µg/mL	+/- 12.7009	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 462600)		+/- 90.3630	µg/mL	Unstressed
	Purity 99%		+/- 100.2393	µg/mL	Stressed
5	2,2-Dichloropropane	2,000.3 µg/mL	+/- 12.6830	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot BCBT5124)		+/- 90.2358	µg/mL	Unstressed
	Purity 99%		+/- 100.0982	µg/mL	Stressed
6	cis-1,2-Dichloroethene	2,002.5 µg/mL	+/- 12.6972	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKBX5945V)		+/- 90.3369	µg/mL	Unstressed
	Purity 99%		+/- 100.2103	µg/mL	Stressed
7	chloroform	2,004.8 µg/mL	+/- 12.7115	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBJ9076)		+/- 90.4382	µg/mL	Unstressed
	Purity 99%		+/- 100.3227	µg/mL	Stressed

8	Bromochloromethane			2,000.7	µg/mL	+/-	12.6854	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00008541)			+/-	90.2525	µg/mL	Unstressed
	Purity	98%				+/-	100.1167	µg/mL	Stressed
9	1,1,1-trichloroethane			2,000.9	µg/mL	+/-	12.6872	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot 190123CG)			+/-	90.2652	µg/mL	Unstressed
	Purity	98%				+/-	100.1308	µg/mL	Stressed
10	1,1-Dichloropropene			2,004.3	µg/mL	+/-	12.7084	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot 190122JLM)			+/-	90.4163	µg/mL	Unstressed
	Purity	99%				+/-	100.2984	µg/mL	Stressed
11	carbon tetrachloride			2,004.5	µg/mL	+/-	12.7100	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBJ2110)			+/-	90.4277	µg/mL	Unstressed
	Purity	99%				+/-	100.3110	µg/mL	Stressed
12	1,2-Dichloroethane			2,007.5	µg/mL	+/-	12.7290	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot SHBJ6510)			+/-	90.5630	µg/mL	Unstressed
	Purity	99%				+/-	100.4612	µg/mL	Stressed
13	Benzene			2,004.2	µg/mL	+/-	12.7079	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBJ5344)			+/-	90.4126	µg/mL	Unstressed
	Purity	99%				+/-	100.2944	µg/mL	Stressed
14	Trichloroethene			2,003.4	µg/mL	+/-	12.7030	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBH1955V)			+/-	90.3781	µg/mL	Unstressed
	Purity	99%				+/-	100.2560	µg/mL	Stressed
15	1,2-Dichloropropane			2,007.7	µg/mL	+/-	12.7299	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot BCBR0882V)			+/-	90.5690	µg/mL	Unstressed
	Purity	99%				+/-	100.4678	µg/mL	Stressed
16	bromodichloromethane			2,016.1	µg/mL	+/-	12.7833	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKCF8470)			+/-	90.9495	µg/mL	Unstressed
	Purity	99%				+/-	100.8899	µg/mL	Stressed
17	Dibromomethane			2,002.3	µg/mL	+/-	12.6960	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10201030)			+/-	90.3278	µg/mL	Unstressed
	Purity	99%				+/-	100.2003	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,005.6	µg/mL	+/-	12.7170	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 25076)			+/-	90.4773	µg/mL	Unstressed
	Purity	99%				+/-	100.3661	µg/mL	Stressed
19	Toluene			2,000.7	µg/mL	+/-	12.6856	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBJ5659)			+/-	90.2539	µg/mL	Unstressed
	Purity	99%				+/-	100.1182	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,004.3	µg/mL	+/-	12.7083	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C797620)			+/-	90.4155	µg/mL	Unstressed
	Purity	98%				+/-	100.2975	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,007.0	µg/mL	+/-	12.7254	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.5375	µg/mL	Unstressed
	Purity	99%				+/-	100.4328	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.5	µg/mL	+/-	12.6909	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)			+/-	90.2918	µg/mL	Unstressed
	Purity	99%				+/-	100.1603	µg/mL	Stressed
23	Tetrachloroethene			2,005.1	µg/mL	+/-	12.7136	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBH9691)			+/-	90.4533	µg/mL	Unstressed
	Purity	99%				+/-	100.3394	µg/mL	Stressed

24	dibromochloromethane			2,003.7	µg/mL	+/-	12.7046	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKCC0877)				+/-	90.3890	µg/mL	Unstressed
	Purity 98%					+/-	100.2681	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,000.7	µg/mL	+/-	12.6858	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBP2268V)				+/-	90.2557	µg/mL	Unstressed
	Purity 99%					+/-	100.1202	µg/mL	Stressed
26	Chlorobenzene			2,005.3	µg/mL	+/-	12.7147	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBH4459V)				+/-	90.4608	µg/mL	Unstressed
	Purity 99%					+/-	100.3477	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,001.7	µg/mL	+/-	12.6919	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)				+/-	90.2990	µg/mL	Unstressed
	Purity 99%					+/-	100.1683	µg/mL	Stressed
28	Ethylbenzene			2,001.6	µg/mL	+/-	12.6917	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBJ4278)				+/-	90.2972	µg/mL	Unstressed
	Purity 99%					+/-	100.1663	µg/mL	Stressed
29	m-Xylene			2,003.4	µg/mL	+/-	12.7031	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBJ2338)				+/-	90.3784	µg/mL	Unstressed
	Purity 99%					+/-	100.2563	µg/mL	Stressed
30	p-Xylene			2,001.8	µg/mL	+/-	12.6927	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBJ7329)				+/-	90.3044	µg/mL	Unstressed
	Purity 99%					+/-	100.1743	µg/mL	Stressed
31	o-Xylene			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBH7231)				+/-	90.4289	µg/mL	Unstressed
	Purity 99%					+/-	100.3124	µg/mL	Stressed
32	Styrene			2,001.4	µg/mL	+/-	12.6899	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKCC9766)				+/-	90.2845	µg/mL	Unstressed
	Purity 99%					+/-	100.1522	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,001.3	µg/mL	+/-	12.6894	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot P15E008)				+/-	90.2809	µg/mL	Unstressed
	Purity 99%					+/-	100.1482	µg/mL	Stressed
34	bromoform			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBJ4835)				+/-	90.4292	µg/mL	Unstressed
	Purity 99%					+/-	100.3127	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,005.5	µg/mL	+/-	12.7161	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)				+/-	90.4713	µg/mL	Unstressed
	Purity 99%					+/-	100.3594	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,002.0	µg/mL	+/-	12.6942	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)				+/-	90.3152	µg/mL	Unstressed
	Purity 99%					+/-	100.1863	µg/mL	Stressed
37	n-Propylbenzene			2,001.2	µg/mL	+/-	12.6891	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot WXBC3346V)				+/-	90.2791	µg/mL	Unstressed
	Purity 99%					+/-	100.1462	µg/mL	Stressed
38	Bromobenzene			2,003.2	µg/mL	+/-	12.7016	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot WXBC5147V)				+/-	90.3675	µg/mL	Unstressed
	Purity 99%					+/-	100.2443	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,001.4	µg/mL	+/-	12.6904	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBS7648V)				+/-	90.2881	µg/mL	Unstressed
	Purity 99%					+/-	100.1562	µg/mL	Stressed

40	2-Chlorotoluene		2,003.5	µg/mL	+/-	12.7033	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/-	90.3802	µg/mL	Unstressed
	Purity 99%				+/-	100.2583	µg/mL	Stressed
41	4-Chlorotoluene		2,002.8	µg/mL	+/-	12.6990	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	90.3495	µg/mL	Unstressed
	Purity 99%				+/-	100.2243	µg/mL	Stressed
42	tert-Butylbenzene		2,002.2	µg/mL	+/-	12.6950	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	90.3206	µg/mL	Unstressed
	Purity 99%				+/-	100.1923	µg/mL	Stressed
43	1,2,4-Trimethylbenzene		2,001.6	µg/mL	+/-	12.6911	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	90.2932	µg/mL	Unstressed
	Purity 98%				+/-	100.1619	µg/mL	Stressed
44	sec-Butylbenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)		2,000.4	µg/mL	+/-	12.6835	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKCB7536)			+/-	90.2394	µg/mL	Unstressed
	Purity 99%				+/-	100.1022	µg/mL	Stressed
46	1,3-Dichlorobenzene		2,008.3	µg/mL	+/-	12.7339	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/-	90.5976	µg/mL	Unstressed
	Purity 99%				+/-	100.4995	µg/mL	Stressed
47	1,4-Dichlorobenzene		2,000.4	µg/mL	+/-	12.6836	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	90.2397	µg/mL	Unstressed
	Purity 99%				+/-	100.1025	µg/mL	Stressed
48	n-Butylbenzene		2,000.3	µg/mL	+/-	12.6833	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09804AE)			+/-	90.2376	µg/mL	Unstressed
	Purity 99%				+/-	100.1002	µg/mL	Stressed
49	1,2-Dichlorobenzene		2,005.0	µg/mL	+/-	12.7128	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/-	90.4472	µg/mL	Unstressed
	Purity 99%				+/-	100.3327	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		2,000.1	µg/mL	+/-	12.6820	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/-	90.2286	µg/mL	Unstressed
	Purity 99%				+/-	100.0902	µg/mL	Stressed
51	1,2,4-Trichlorobenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBJ9215)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
52	Hexachlorobutadiene		2,004.0	µg/mL	+/-	12.7064	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	90.4018	µg/mL	Unstressed
	Purity 99%				+/-	100.2824	µg/mL	Stressed
53	Naphthalene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBZ8680V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	µg/mL	Stressed
54	1,2,3-Trichlorobenzene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	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)

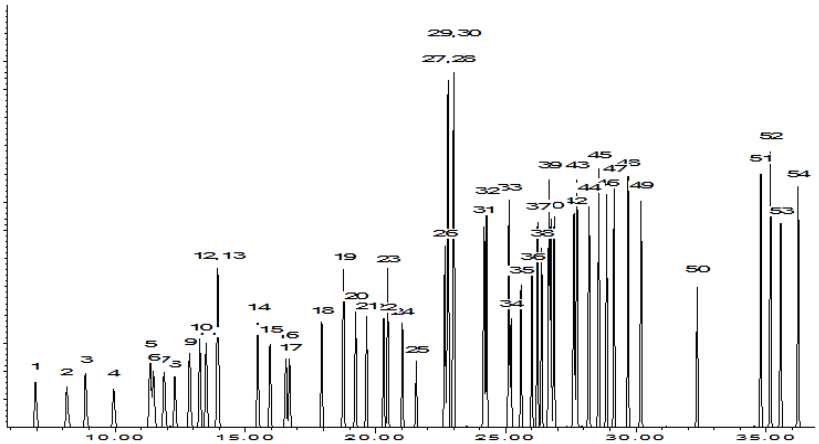
Carrier Gas:
helium-constant pressure 30 psi

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.

Date Mixed: 12-Mar-2019 **Balance:** 1126342624

Fang-Yun Lo - QC Analyst

Date Passed: 20-Mar-2019

Manufactured under Restek's ISO 9001:2015
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 17034 and Guide 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:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- 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

1937061

Description:	VOA 502.2 CAL 2000 MEGA MIX, Stock	**Expires:**	03/31/21
Standard Type:	Other Solution	**Prepared:**	09/10/19
Solvent:	MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Volatiles
Vials:	1	**Last Edit:**	09/10/19 13:18 by YNB
Vendor:	Restek	**Lot Numbe**	A0146957

RESTEK, catalog # 30431, Barcode AU011277

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

1937061

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

Certificate of Analysis

ISO 17034 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. : 30431 **Lot No.:** A0146957

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 : March 31, 2021 **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	1,1-dichloroethene	2,008.6 µg/mL	+/- 12.7358	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBG8609V)		+/- 90.6111	µg/mL	Unstressed
	Purity 99%		+/- 100.5146	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	2,007.1 µg/mL	+/- 12.7263	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBK5095)		+/- 90.5435	µg/mL	Unstressed
	Purity 99%		+/- 100.4395	µg/mL	Stressed
3	trans-1,2-Dichloroethene	2,005.2 µg/mL	+/- 12.7140	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/- 90.4563	µg/mL	Unstressed
	Purity 99%		+/- 100.3427	µg/mL	Stressed
4	1,1-Dichloroethane	2,003.1 µg/mL	+/- 12.7009	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 462600)		+/- 90.3630	µg/mL	Unstressed
	Purity 99%		+/- 100.2393	µg/mL	Stressed
5	2,2-Dichloropropane	2,000.3 µg/mL	+/- 12.6830	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot BCBT5124)		+/- 90.2358	µg/mL	Unstressed
	Purity 99%		+/- 100.0982	µg/mL	Stressed
6	cis-1,2-Dichloroethene	2,002.5 µg/mL	+/- 12.6972	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKBX5945V)		+/- 90.3369	µg/mL	Unstressed
	Purity 99%		+/- 100.2103	µg/mL	Stressed
7	chloroform	2,004.8 µg/mL	+/- 12.7115	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBJ9076)		+/- 90.4382	µg/mL	Unstressed
	Purity 99%		+/- 100.3227	µg/mL	Stressed

8	Bromochloromethane			2,000.7	µg/mL	+/-	12.6854	µg/mL	Gravimetric
	CAS #	74-97-5	(Lot 00008541)			+/-	90.2525	µg/mL	Unstressed
	Purity	98%				+/-	100.1167	µg/mL	Stressed
9	1,1,1-trichloroethane			2,000.9	µg/mL	+/-	12.6872	µg/mL	Gravimetric
	CAS #	71-55-6	(Lot 190123CG)			+/-	90.2652	µg/mL	Unstressed
	Purity	98%				+/-	100.1308	µg/mL	Stressed
10	1,1-Dichloropropene			2,004.3	µg/mL	+/-	12.7084	µg/mL	Gravimetric
	CAS #	563-58-6	(Lot 190122JLM)			+/-	90.4163	µg/mL	Unstressed
	Purity	99%				+/-	100.2984	µg/mL	Stressed
11	carbon tetrachloride			2,004.5	µg/mL	+/-	12.7100	µg/mL	Gravimetric
	CAS #	56-23-5	(Lot SHBJ2110)			+/-	90.4277	µg/mL	Unstressed
	Purity	99%				+/-	100.3110	µg/mL	Stressed
12	1,2-Dichloroethane			2,007.5	µg/mL	+/-	12.7290	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot SHBJ6510)			+/-	90.5630	µg/mL	Unstressed
	Purity	99%				+/-	100.4612	µg/mL	Stressed
13	Benzene			2,004.2	µg/mL	+/-	12.7079	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBJ5344)			+/-	90.4126	µg/mL	Unstressed
	Purity	99%				+/-	100.2944	µg/mL	Stressed
14	Trichloroethene			2,003.4	µg/mL	+/-	12.7030	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBH1955V)			+/-	90.3781	µg/mL	Unstressed
	Purity	99%				+/-	100.2560	µg/mL	Stressed
15	1,2-Dichloropropane			2,007.7	µg/mL	+/-	12.7299	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot BCBR0882V)			+/-	90.5690	µg/mL	Unstressed
	Purity	99%				+/-	100.4678	µg/mL	Stressed
16	bromodichloromethane			2,016.1	µg/mL	+/-	12.7833	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKCF8470)			+/-	90.9495	µg/mL	Unstressed
	Purity	99%				+/-	100.8899	µg/mL	Stressed
17	Dibromomethane			2,002.3	µg/mL	+/-	12.6960	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10201030)			+/-	90.3278	µg/mL	Unstressed
	Purity	99%				+/-	100.2003	µg/mL	Stressed
18	cis-1,3-Dichloropropene			2,005.6	µg/mL	+/-	12.7170	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 25076)			+/-	90.4773	µg/mL	Unstressed
	Purity	99%				+/-	100.3661	µg/mL	Stressed
19	Toluene			2,000.7	µg/mL	+/-	12.6856	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot SHBJ5659)			+/-	90.2539	µg/mL	Unstressed
	Purity	99%				+/-	100.1182	µg/mL	Stressed
20	trans-1,3-Dichloropropene			2,004.3	µg/mL	+/-	12.7083	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C797620)			+/-	90.4155	µg/mL	Unstressed
	Purity	98%				+/-	100.2975	µg/mL	Stressed
21	1,1,2-Trichloroethane			2,007.0	µg/mL	+/-	12.7254	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)			+/-	90.5375	µg/mL	Unstressed
	Purity	99%				+/-	100.4328	µg/mL	Stressed
22	1,3-Dichloropropane			2,001.5	µg/mL	+/-	12.6909	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)			+/-	90.2918	µg/mL	Unstressed
	Purity	99%				+/-	100.1603	µg/mL	Stressed
23	Tetrachloroethene			2,005.1	µg/mL	+/-	12.7136	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBH9691)			+/-	90.4533	µg/mL	Unstressed
	Purity	99%				+/-	100.3394	µg/mL	Stressed

24	dibromochloromethane			2,003.7	µg/mL	+/-	12.7046	µg/mL	Gravimetric
	CAS #	124-48-1	(Lot MKCC0877)			+/-	90.3890	µg/mL	Unstressed
	Purity	98%				+/-	100.2681	µg/mL	Stressed
25	1,2-Dibromoethane (EDB)			2,000.7	µg/mL	+/-	12.6858	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBP2268V)			+/-	90.2557	µg/mL	Unstressed
	Purity	99%				+/-	100.1202	µg/mL	Stressed
26	Chlorobenzene			2,005.3	µg/mL	+/-	12.7147	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBH4459V)			+/-	90.4608	µg/mL	Unstressed
	Purity	99%				+/-	100.3477	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane			2,001.7	µg/mL	+/-	12.6919	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)			+/-	90.2990	µg/mL	Unstressed
	Purity	99%				+/-	100.1683	µg/mL	Stressed
28	Ethylbenzene			2,001.6	µg/mL	+/-	12.6917	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBJ4278)			+/-	90.2972	µg/mL	Unstressed
	Purity	99%				+/-	100.1663	µg/mL	Stressed
29	m-Xylene			2,003.4	µg/mL	+/-	12.7031	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBJ2338)			+/-	90.3784	µg/mL	Unstressed
	Purity	99%				+/-	100.2563	µg/mL	Stressed
30	p-Xylene			2,001.8	µg/mL	+/-	12.6927	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBJ7329)			+/-	90.3044	µg/mL	Unstressed
	Purity	99%				+/-	100.1743	µg/mL	Stressed
31	o-Xylene			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBH7231)			+/-	90.4289	µg/mL	Unstressed
	Purity	99%				+/-	100.3124	µg/mL	Stressed
32	Styrene			2,001.4	µg/mL	+/-	12.6899	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKCC9766)			+/-	90.2845	µg/mL	Unstressed
	Purity	99%				+/-	100.1522	µg/mL	Stressed
33	Isopropylbenzene (cumene)			2,001.3	µg/mL	+/-	12.6894	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot P15E008)			+/-	90.2809	µg/mL	Unstressed
	Purity	99%				+/-	100.1482	µg/mL	Stressed
34	bromoform			2,004.6	µg/mL	+/-	12.7102	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBJ4835)			+/-	90.4292	µg/mL	Unstressed
	Purity	99%				+/-	100.3127	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane			2,005.5	µg/mL	+/-	12.7161	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)			+/-	90.4713	µg/mL	Unstressed
	Purity	99%				+/-	100.3594	µg/mL	Stressed
36	1,2,3-Trichloropropane			2,002.0	µg/mL	+/-	12.6942	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)			+/-	90.3152	µg/mL	Unstressed
	Purity	99%				+/-	100.1863	µg/mL	Stressed
37	n-Propylbenzene			2,001.2	µg/mL	+/-	12.6891	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot WXBC3346V)			+/-	90.2791	µg/mL	Unstressed
	Purity	99%				+/-	100.1462	µg/mL	Stressed
38	Bromobenzene			2,003.2	µg/mL	+/-	12.7016	µg/mL	Gravimetric
	CAS #	108-86-1	(Lot WXBC5147V)			+/-	90.3675	µg/mL	Unstressed
	Purity	99%				+/-	100.2443	µg/mL	Stressed
39	1,3,5-Trimethylbenzene			2,001.4	µg/mL	+/-	12.6904	µg/mL	Gravimetric
	CAS #	108-67-8	(Lot BCBS7648V)			+/-	90.2881	µg/mL	Unstressed
	Purity	99%				+/-	100.1562	µg/mL	Stressed

40	2-Chlorotoluene		2,003.5	µg/mL	+/-	12.7033	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/-	90.3802	µg/mL	Unstressed
	Purity 99%				+/-	100.2583	µg/mL	Stressed
41	4-Chlorotoluene		2,002.8	µg/mL	+/-	12.6990	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	90.3495	µg/mL	Unstressed
	Purity 99%				+/-	100.2243	µg/mL	Stressed
42	tert-Butylbenzene		2,002.2	µg/mL	+/-	12.6950	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	90.3206	µg/mL	Unstressed
	Purity 99%				+/-	100.1923	µg/mL	Stressed
43	1,2,4-Trimethylbenzene		2,001.6	µg/mL	+/-	12.6911	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	90.2932	µg/mL	Unstressed
	Purity 98%				+/-	100.1619	µg/mL	Stressed
44	sec-Butylbenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)		2,000.4	µg/mL	+/-	12.6835	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKCB7536)			+/-	90.2394	µg/mL	Unstressed
	Purity 99%				+/-	100.1022	µg/mL	Stressed
46	1,3-Dichlorobenzene		2,008.3	µg/mL	+/-	12.7339	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/-	90.5976	µg/mL	Unstressed
	Purity 99%				+/-	100.4995	µg/mL	Stressed
47	1,4-Dichlorobenzene		2,000.4	µg/mL	+/-	12.6836	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	90.2397	µg/mL	Unstressed
	Purity 99%				+/-	100.1025	µg/mL	Stressed
48	n-Butylbenzene		2,000.3	µg/mL	+/-	12.6833	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09804AE)			+/-	90.2376	µg/mL	Unstressed
	Purity 99%				+/-	100.1002	µg/mL	Stressed
49	1,2-Dichlorobenzene		2,005.0	µg/mL	+/-	12.7128	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/-	90.4472	µg/mL	Unstressed
	Purity 99%				+/-	100.3327	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		2,000.1	µg/mL	+/-	12.6820	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/-	90.2286	µg/mL	Unstressed
	Purity 99%				+/-	100.0902	µg/mL	Stressed
51	1,2,4-Trichlorobenzene		2,002.0	µg/mL	+/-	12.6939	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBJ9215)			+/-	90.3134	µg/mL	Unstressed
	Purity 99%				+/-	100.1843	µg/mL	Stressed
52	Hexachlorobutadiene		2,004.0	µg/mL	+/-	12.7064	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	90.4018	µg/mL	Unstressed
	Purity 99%				+/-	100.2824	µg/mL	Stressed
53	Naphthalene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBZ8680V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	µg/mL	Stressed
54	1,2,3-Trichlorobenzene		2,003.9	µg/mL	+/-	12.7061	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)			+/-	90.4000	µg/mL	Unstressed
	Purity 99%				+/-	100.2804	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)

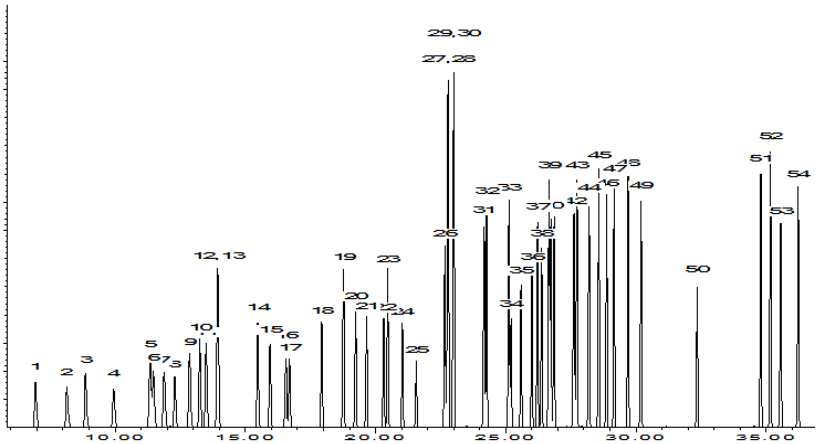
Carrier Gas:
helium-constant pressure 30 psi

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.

Date Mixed: 12-Mar-2019 **Balance:** 1126342624

Fang-Yun Lo - QC Analyst

Date Passed: 20-Mar-2019

Manufactured under Restek's ISO 9001:2015
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 17034 and Guide 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:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- 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

1940006

Description:	passive air WORKING BFB 50 mg/L	Expires:	03/30/20
Standard Type:	MS Tune Solution	Prepared:	09/30/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	5	Department:	Volatiles
Vials:	1	Last Edit:	09/30/19 11:24 by TD

Analyte	CAS Number	Concentration	Units
4-Bromofluorobenzene	460-00-4	50	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1740051	VOA BFB tuning mix, stock STD.	10/03/17	** Vendor **	03/30/20	09/30/19 11:24 by TD	0.05

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1940009

Description:	Passive indoor air MRL Spike	Expires:	03/30/20
Standard Type:	Analyte Spike	Prepared:	09/30/19
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	09/30/19 13:34 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	20	ug/mL
Bromobenzene	108-86-1	20	ug/mL
Benzene	71-43-2	20	ug/mL
4-Chlorotoluene	106-43-4	20	ug/mL
2-Chlorotoluene	95-49-8	20	ug/mL
2,2-Dichloropropane	594-20-7	20	ug/mL
1,4-Dichlorobenzene	106-46-7	20	ug/mL
1,3-Dichloropropane	142-28-9	20	ug/mL
1,3-Dichlorobenzene	541-73-1	20	ug/mL
1,3,5-Trimethylbenzene	108-67-8	20	ug/mL
1,2-Dichloropropane	78-87-5	20	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	20	ug/mL
1,2-Dichlorobenzene	95-50-1	20	ug/mL
Bromoform	75-25-2	20	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	20	ug/mL
1,2,4-Trimethylbenzene	95-63-6	20	ug/mL
1,2,4-Trichlorobenzene	120-82-1	20	ug/mL
1,2,3-Trichloropropane	96-18-4	20	ug/mL
1,2,3-Trichlorobenzene	87-61-6	20	ug/mL
1,1-Dichloropropene	563-58-6	20	ug/mL
1,1-Dichloroethene	75-35-4	20	ug/mL
1,1-Dichloroethane	75-34-3	20	ug/mL
1,1,2-Trichloroethane	79-00-5	20	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	20	ug/mL
1,1,1-Trichloroethane	71-55-6	20	ug/mL
1,2-Dichloroethane	107-06-2	20	ug/mL
Hexachlorobutadiene	87-68-3	20	ug/mL
trans-1,3-Dichloropropene	10061-02-6	20	ug/mL
trans-1,2-Dichloroethene	156-60-5	20	ug/mL
Toluene	108-88-3	20	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1940009

Tetrachloroethene	127-18-4	20	ug/mL
tert-Butylbenzene	98-06-6	20	ug/mL
Styrene	100-42-5	20	ug/mL
sec-Butylbenzene	135-98-8	20	ug/mL
Propylbenzene	103-65-1	20	ug/mL
p-Isopropyltoluene	99-87-6	20	ug/mL
o-Xylene	95-47-6	20	ug/mL
Naphthalene	91-20-3	20	ug/mL
Bromochloromethane	74-97-5	20	ug/mL
Isopropylbenzene	98-82-8	20	ug/mL
Bromodichloromethane	75-27-4	20	ug/mL
Ethylbenzene	100-41-4	20	ug/mL
Dichloromethane	75-09-2	20	ug/mL
Dibromomethane	74-95-3	20	ug/mL
cis-1,3-Dichloropropene	10061-01-5	20	ug/mL
cis-1,2-Dichloroethene	156-59-2	20	ug/mL
Chloroform	67-66-3	20	ug/mL
Chlorodibromomethane	124-48-1	20	ug/mL
Chlorobenzene	108-90-7	20	ug/mL
Carbon tetrachloride	56-23-5	20	ug/mL
Butylbenzene	104-51-8	20	ug/mL
Trichloroethene	79-01-6	20	ug/mL
m&p-Xylene	179601-23-1	40	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1937059	VOA 502.2 CAL 2000 MEGA MIX, St	09/10/19	** Vendor **	03/30/20	09/30/19 11:31 by TD	0.02

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004018

Description:	Passive indoor air Surrogate Stock	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 09:38 by TD

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	10000	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1920044	Toluene-d8	05/15/19	** Vendor **	07/21/20	01/21/20 09:34 by TD	0.02

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004019

Description:	Passive indoor air Internal Standard Stock	Expires:	07/21/20
Standard Type:	Internal Standard	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	2	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 09:38 by TD

Analyte	CAS Number	Concentration	Units
2-Fluorotoluene	95-52-3	10000	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1639096	2-Fluorotoluene	09/22/16	** Vendor **	12/31/29	09/22/17 11:57 by TD	0.02

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004020

Description:	Passive air Surrogate/I.S. Working solution	Expires:	07/21/20
Standard Type:	Surrogate Spike	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	25	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 09:39 by TD

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	200	ug/mL
2-Fluorotoluene	95-52-3	200	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004018	Passive indoor air Surrogate Stock	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.5
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.5

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004021

Description:	Passive indoor air stock std 50	Expires:	07/21/20
Standard Type:	Analyte Spike	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	20	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	50	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	50	ug/mL
Bromobenzene	108-86-1	50	ug/mL
Benzene	71-43-2	50	ug/mL
4-Chlorotoluene	106-43-4	50	ug/mL
2-Chlorotoluene	95-49-8	50	ug/mL
2,2-Dichloropropane	594-20-7	50	ug/mL
1,4-Dichlorobenzene	106-46-7	50	ug/mL
1,3-Dichloropropane	142-28-9	50	ug/mL
1,3-Dichlorobenzene	541-73-1	50	ug/mL
1,3,5-Trimethylbenzene	108-67-8	50	ug/mL
1,2-Dichloropropane	78-87-5	50	ug/mL
Bromodichloromethane	75-27-4	50	ug/mL
1,2-Dichlorobenzene	95-50-1	50	ug/mL
Bromoform	75-25-2	50	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	50	ug/mL
1,2,4-Trimethylbenzene	95-63-6	50	ug/mL
1,2,4-Trichlorobenzene	120-82-1	50	ug/mL
1,2,3-Trichloropropane	96-18-4	50	ug/mL
1,2,3-Trichlorobenzene	87-61-6	50	ug/mL
1,1-Dichloropropene	563-58-6	50	ug/mL
1,1-Dichloroethene	75-35-4	50	ug/mL
1,1-Dichloroethane	75-34-3	50	ug/mL
1,1,2-Trichloroethane	79-00-5	50	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	50	ug/mL
1,1,1-Trichloroethane	71-55-6	50	ug/mL
1,2-Dichloroethane	107-06-2	50	ug/mL
Isopropylbenzene	98-82-8	50	ug/mL
trans-1,3-Dichloropropene	10061-02-6	50	ug/mL
trans-1,2-Dichloroethene	156-60-5	50	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004021

Toluene-d8	2037-26-5	50	ug/mL
Toluene	108-88-3	50	ug/mL
Tetrachloroethene	127-18-4	50	ug/mL
tert-Butylbenzene	98-06-6	50	ug/mL
Styrene	100-42-5	50	ug/mL
sec-Butylbenzene	135-98-8	50	ug/mL
Propylbenzene	103-65-1	50	ug/mL
p-Isopropyltoluene	99-87-6	50	ug/mL
o-Xylene	95-47-6	50	ug/mL
Bromochloromethane	74-97-5	50	ug/mL
m&p-Xylene	179601-23-1	100	ug/mL
Trichloroethene	79-01-6	50	ug/mL
Hexachlorobutadiene	87-68-3	50	ug/mL
Ethylbenzene	100-41-4	50	ug/mL
Dichloromethane	75-09-2	50	ug/mL
Dibromomethane	74-95-3	50	ug/mL
cis-1,3-Dichloropropene	10061-01-5	50	ug/mL
cis-1,2-Dichloroethene	156-59-2	50	ug/mL
Chloroform	67-66-3	50	ug/mL
Chlorodibromomethane	124-48-1	50	ug/mL
Chlorobenzene	108-90-7	50	ug/mL
Carbon tetrachloride	56-23-5	50	ug/mL
Butylbenzene	104-51-8	50	ug/mL
Naphthalene	91-20-3	50	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004018	Passive indoor air Surrogate Stock	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.1
1937061	VOA 502.2 CAL 2000 MEGA MIX, St	09/10/19	** Vendor **	07/21/20	01/21/20 10:04 by TD	0.5

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004022

Description:	Passive indoor air 25	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	25	ug/mL
Bromobenzene	108-86-1	25	ug/mL
Benzene	71-43-2	25	ug/mL
4-Chlorotoluene	106-43-4	25	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	25	ug/mL
2,2-Dichloropropane	594-20-7	25	ug/mL
1,4-Dichlorobenzene	106-46-7	25	ug/mL
1,3-Dichloropropane	142-28-9	25	ug/mL
1,3-Dichlorobenzene	541-73-1	25	ug/mL
1,3,5-Trimethylbenzene	108-67-8	25	ug/mL
1,2-Dichloropropane	78-87-5	25	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	25	ug/mL
1,2-Dichlorobenzene	95-50-1	25	ug/mL
Bromoform	75-25-2	25	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	25	ug/mL
1,2,4-Trimethylbenzene	95-63-6	25	ug/mL
1,2,4-Trichlorobenzene	120-82-1	25	ug/mL
1,2,3-Trichloropropane	96-18-4	25	ug/mL
1,2,3-Trichlorobenzene	87-61-6	25	ug/mL
1,1-Dichloropropene	563-58-6	25	ug/mL
1,1-Dichloroethene	75-35-4	25	ug/mL
1,1-Dichloroethane	75-34-3	25	ug/mL
1,1,2-Trichloroethane	79-00-5	25	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	25	ug/mL
1,1,1-Trichloroethane	71-55-6	25	ug/mL
1,2-Dichloroethane	107-06-2	25	ug/mL
Isopropylbenzene	98-82-8	25	ug/mL
trans-1,3-Dichloropropene	10061-02-6	25	ug/mL
trans-1,2-Dichloroethene	156-60-5	25	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004022

Toluene-d8	2037-26-5	25	ug/mL
Toluene	108-88-3	25	ug/mL
Tetrachloroethene	127-18-4	25	ug/mL
tert-Butylbenzene	98-06-6	25	ug/mL
Styrene	100-42-5	25	ug/mL
sec-Butylbenzene	135-98-8	25	ug/mL
Propylbenzene	103-65-1	25	ug/mL
p-Isopropyltoluene	99-87-6	25	ug/mL
o-Xylene	95-47-6	25	ug/mL
Bromochloromethane	74-97-5	25	ug/mL
m&p-Xylene	179601-23-1	50	ug/mL
Bromodichloromethane	75-27-4	25	ug/mL
Hexachlorobutadiene	87-68-3	25	ug/mL
Ethylbenzene	100-41-4	25	ug/mL
Dichloromethane	75-09-2	25	ug/mL
Dibromomethane	74-95-3	25	ug/mL
cis-1,3-Dichloropropene	10061-01-5	25	ug/mL
cis-1,2-Dichloroethene	156-59-2	25	ug/mL
Chloroform	67-66-3	25	ug/mL
Chlorodibromomethane	124-48-1	25	ug/mL
Chlorobenzene	108-90-7	25	ug/mL
Carbon tetrachloride	56-23-5	25	ug/mL
Butylbenzene	104-51-8	25	ug/mL
Trichloroethene	79-01-6	25	ug/mL
Naphthalene	91-20-3	25	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004021	Passive indoor air stock std 50	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 10:10 by TD	5
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.005

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004023

Description:	Passive indoor air 10	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	10	ug/mL
Bromobenzene	108-86-1	10	ug/mL
Benzene	71-43-2	10	ug/mL
4-Chlorotoluene	106-43-4	10	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	10	ug/mL
2,2-Dichloropropane	594-20-7	10	ug/mL
1,4-Dichlorobenzene	106-46-7	10	ug/mL
1,3-Dichloropropane	142-28-9	10	ug/mL
1,3-Dichlorobenzene	541-73-1	10	ug/mL
1,3,5-Trimethylbenzene	108-67-8	10	ug/mL
1,2-Dichloropropane	78-87-5	10	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	10	ug/mL
1,2-Dichlorobenzene	95-50-1	10	ug/mL
Bromoform	75-25-2	10	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	10	ug/mL
1,2,4-Trimethylbenzene	95-63-6	10	ug/mL
1,2,4-Trichlorobenzene	120-82-1	10	ug/mL
1,2,3-Trichloropropane	96-18-4	10	ug/mL
1,2,3-Trichlorobenzene	87-61-6	10	ug/mL
1,1-Dichloropropene	563-58-6	10	ug/mL
1,1-Dichloroethene	75-35-4	10	ug/mL
1,1-Dichloroethane	75-34-3	10	ug/mL
1,1,2-Trichloroethane	79-00-5	10	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	10	ug/mL
1,1,1-Trichloroethane	71-55-6	10	ug/mL
1,2-Dichloroethane	107-06-2	10	ug/mL
Isopropylbenzene	98-82-8	10	ug/mL
trans-1,3-Dichloropropene	10061-02-6	10	ug/mL
trans-1,2-Dichloroethene	156-60-5	10	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004023

Toluene-d8	2037-26-5	10	ug/mL
Toluene	108-88-3	10	ug/mL
Tetrachloroethene	127-18-4	10	ug/mL
tert-Butylbenzene	98-06-6	10	ug/mL
Styrene	100-42-5	10	ug/mL
sec-Butylbenzene	135-98-8	10	ug/mL
Propylbenzene	103-65-1	10	ug/mL
p-Isopropyltoluene	99-87-6	10	ug/mL
o-Xylene	95-47-6	10	ug/mL
Bromochloromethane	74-97-5	10	ug/mL
m&p-Xylene	179601-23-1	20	ug/mL
Bromodichloromethane	75-27-4	10	ug/mL
Hexachlorobutadiene	87-68-3	10	ug/mL
Ethylbenzene	100-41-4	10	ug/mL
Dichloromethane	75-09-2	10	ug/mL
Dibromomethane	74-95-3	10	ug/mL
cis-1,3-Dichloropropene	10061-01-5	10	ug/mL
cis-1,2-Dichloroethene	156-59-2	10	ug/mL
Chloroform	67-66-3	10	ug/mL
Chlorodibromomethane	124-48-1	10	ug/mL
Chlorobenzene	108-90-7	10	ug/mL
Carbon tetrachloride	56-23-5	10	ug/mL
Butylbenzene	104-51-8	10	ug/mL
Trichloroethene	79-01-6	10	ug/mL
Naphthalene	91-20-3	10	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004021	Passive indoor air stock std 50	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 10:10 by TD	2
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.005

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004024

Description:	Passive indoor air 5	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	5	ug/mL
Bromobenzene	108-86-1	5	ug/mL
Benzene	71-43-2	5	ug/mL
4-Chlorotoluene	106-43-4	5	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	5	ug/mL
2,2-Dichloropropane	594-20-7	5	ug/mL
1,4-Dichlorobenzene	106-46-7	5	ug/mL
1,3-Dichloropropane	142-28-9	5	ug/mL
1,3-Dichlorobenzene	541-73-1	5	ug/mL
1,3,5-Trimethylbenzene	108-67-8	5	ug/mL
1,2-Dichloropropane	78-87-5	5	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/mL
1,2-Dichlorobenzene	95-50-1	5	ug/mL
Bromoform	75-25-2	5	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	5	ug/mL
1,2,4-Trimethylbenzene	95-63-6	5	ug/mL
1,2,4-Trichlorobenzene	120-82-1	5	ug/mL
1,2,3-Trichloropropane	96-18-4	5	ug/mL
1,2,3-Trichlorobenzene	87-61-6	5	ug/mL
1,1-Dichloropropene	563-58-6	5	ug/mL
1,1-Dichloroethene	75-35-4	5	ug/mL
1,1-Dichloroethane	75-34-3	5	ug/mL
1,1,2-Trichloroethane	79-00-5	5	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/mL
1,1,1-Trichloroethane	71-55-6	5	ug/mL
1,2-Dichloroethane	107-06-2	5	ug/mL
Isopropylbenzene	98-82-8	5	ug/mL
trans-1,3-Dichloropropene	10061-02-6	5	ug/mL
trans-1,2-Dichloroethene	156-60-5	5	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004024

Toluene-d8	2037-26-5	5	ug/mL
Toluene	108-88-3	5	ug/mL
Tetrachloroethene	127-18-4	5	ug/mL
tert-Butylbenzene	98-06-6	5	ug/mL
Styrene	100-42-5	5	ug/mL
sec-Butylbenzene	135-98-8	5	ug/mL
Propylbenzene	103-65-1	5	ug/mL
p-Isopropyltoluene	99-87-6	5	ug/mL
o-Xylene	95-47-6	5	ug/mL
Bromochloromethane	74-97-5	5	ug/mL
m&p-Xylene	179601-23-1	10	ug/mL
Bromodichloromethane	75-27-4	5	ug/mL
Hexachlorobutadiene	87-68-3	5	ug/mL
Ethylbenzene	100-41-4	5	ug/mL
Dichloromethane	75-09-2	5	ug/mL
Dibromomethane	74-95-3	5	ug/mL
cis-1,3-Dichloropropene	10061-01-5	5	ug/mL
cis-1,2-Dichloroethene	156-59-2	5	ug/mL
Chloroform	67-66-3	5	ug/mL
Chlorodibromomethane	124-48-1	5	ug/mL
Chlorobenzene	108-90-7	5	ug/mL
Carbon tetrachloride	56-23-5	5	ug/mL
Butylbenzene	104-51-8	5	ug/mL
Trichloroethene	79-01-6	5	ug/mL
Naphthalene	91-20-3	5	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004021	Passive indoor air stock std 50	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 10:10 by TD	1
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.005

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004025

Description:	Passive indoor air 1	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	1	ug/mL
Bromobenzene	108-86-1	1	ug/mL
Benzene	71-43-2	1	ug/mL
4-Chlorotoluene	106-43-4	1	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	1	ug/mL
2,2-Dichloropropane	594-20-7	1	ug/mL
1,4-Dichlorobenzene	106-46-7	1	ug/mL
1,3-Dichloropropane	142-28-9	1	ug/mL
1,3-Dichlorobenzene	541-73-1	1	ug/mL
1,3,5-Trimethylbenzene	108-67-8	1	ug/mL
1,2-Dichloropropane	78-87-5	1	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	1	ug/mL
1,2-Dichlorobenzene	95-50-1	1	ug/mL
Bromoform	75-25-2	1	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	1	ug/mL
1,2,4-Trimethylbenzene	95-63-6	1	ug/mL
1,2,4-Trichlorobenzene	120-82-1	1	ug/mL
1,2,3-Trichloropropane	96-18-4	1	ug/mL
1,2,3-Trichlorobenzene	87-61-6	1	ug/mL
1,1-Dichloropropene	563-58-6	1	ug/mL
1,1-Dichloroethene	75-35-4	1	ug/mL
1,1-Dichloroethane	75-34-3	1	ug/mL
1,1,2-Trichloroethane	79-00-5	1	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	1	ug/mL
1,1,1-Trichloroethane	71-55-6	1	ug/mL
1,2-Dichloroethane	107-06-2	1	ug/mL
Isopropylbenzene	98-82-8	1	ug/mL
trans-1,3-Dichloropropene	10061-02-6	1	ug/mL
trans-1,2-Dichloroethene	156-60-5	1	ug/mL

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004025

Toluene-d8	2037-26-5	1	ug/mL
Toluene	108-88-3	1	ug/mL
Tetrachloroethene	127-18-4	1	ug/mL
tert-Butylbenzene	98-06-6	1	ug/mL
Styrene	100-42-5	1	ug/mL
sec-Butylbenzene	135-98-8	1	ug/mL
Propylbenzene	103-65-1	1	ug/mL
p-Isopropyltoluene	99-87-6	1	ug/mL
o-Xylene	95-47-6	1	ug/mL
Bromochloromethane	74-97-5	1	ug/mL
m&p-Xylene	179601-23-1	2	ug/mL
Bromodichloromethane	75-27-4	1	ug/mL
Hexachlorobutadiene	87-68-3	1	ug/mL
Ethylbenzene	100-41-4	1	ug/mL
Dichloromethane	75-09-2	1	ug/mL
Dibromomethane	74-95-3	1	ug/mL
cis-1,3-Dichloropropene	10061-01-5	1	ug/mL
cis-1,2-Dichloroethene	156-59-2	1	ug/mL
Chloroform	67-66-3	1	ug/mL
Chlorodibromomethane	124-48-1	1	ug/mL
Chlorobenzene	108-90-7	1	ug/mL
Carbon tetrachloride	56-23-5	1	ug/mL
Butylbenzene	104-51-8	1	ug/mL
Trichloroethene	79-01-6	1	ug/mL
Naphthalene	91-20-3	1	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004021	Passive indoor air stock std 50	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 10:10 by TD	0.2
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.005

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004026

Description:	Passive indoor air 0.15	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	0.15	ug/mL
Bromobenzene	108-86-1	0.15	ug/mL
Benzene	71-43-2	0.15	ug/mL
4-Chlorotoluene	106-43-4	0.15	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	0.15	ug/mL
2,2-Dichloropropane	594-20-7	0.15	ug/mL
1,4-Dichlorobenzene	106-46-7	0.15	ug/mL
1,3-Dichloropropane	142-28-9	0.15	ug/mL
1,3-Dichlorobenzene	541-73-1	0.15	ug/mL
1,3,5-Trimethylbenzene	108-67-8	0.15	ug/mL
1,2-Dichloropropane	78-87-5	0.15	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	0.15	ug/mL
1,2-Dichlorobenzene	95-50-1	0.15	ug/mL
Bromoform	75-25-2	0.15	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	0.15	ug/mL
1,2,4-Trimethylbenzene	95-63-6	0.15	ug/mL
1,2,4-Trichlorobenzene	120-82-1	0.15	ug/mL
1,2,3-Trichloropropane	96-18-4	0.15	ug/mL
1,2,3-Trichlorobenzene	87-61-6	0.15	ug/mL
1,1-Dichloropropene	563-58-6	0.15	ug/mL
1,1-Dichloroethene	75-35-4	0.15	ug/mL
1,1-Dichloroethane	75-34-3	0.15	ug/mL
1,1,2-Trichloroethane	79-00-5	0.15	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	0.15	ug/mL
1,1,1-Trichloroethane	71-55-6	0.15	ug/mL
1,2-Dichloroethane	107-06-2	0.15	ug/mL
Isopropylbenzene	98-82-8	0.15	ug/mL
trans-1,3-Dichloropropene	10061-02-6	0.15	ug/mL
trans-1,2-Dichloroethene	156-60-5	0.15	ug/mL

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Analytical Standard Record

EPA Region 9 Laboratory

2004026

Toluene-d8	2037-26-5	0.15	ug/mL
Toluene	108-88-3	0.15	ug/mL
Tetrachloroethene	127-18-4	0.15	ug/mL
tert-Butylbenzene	98-06-6	0.15	ug/mL
Styrene	100-42-5	0.15	ug/mL
sec-Butylbenzene	135-98-8	0.15	ug/mL
Propylbenzene	103-65-1	0.15	ug/mL
p-Isopropyltoluene	99-87-6	0.15	ug/mL
o-Xylene	95-47-6	0.15	ug/mL
Bromochloromethane	74-97-5	0.15	ug/mL
m&p-Xylene	179601-23-1	0.3	ug/mL
Bromodichloromethane	75-27-4	0.15	ug/mL
Hexachlorobutadiene	87-68-3	0.15	ug/mL
Ethylbenzene	100-41-4	0.15	ug/mL
Dichloromethane	75-09-2	0.15	ug/mL
Dibromomethane	74-95-3	0.15	ug/mL
cis-1,3-Dichloropropene	10061-01-5	0.15	ug/mL
cis-1,2-Dichloroethene	156-59-2	0.15	ug/mL
Chloroform	67-66-3	0.15	ug/mL
Chlorodibromomethane	124-48-1	0.15	ug/mL
Chlorobenzene	108-90-7	0.15	ug/mL
Carbon tetrachloride	56-23-5	0.15	ug/mL
Butylbenzene	104-51-8	0.15	ug/mL
Trichloroethene	79-01-6	0.15	ug/mL
Naphthalene	91-20-3	0.15	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004021	Passive indoor air stock std 50	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 10:10 by TD	0.03
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.005

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004027

Description:	Passive indoor air 0.05	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 10:10 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	0.05	ug/mL
Bromobenzene	108-86-1	0.05	ug/mL
Benzene	71-43-2	0.05	ug/mL
4-Chlorotoluene	106-43-4	0.05	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	0.05	ug/mL
2,2-Dichloropropane	594-20-7	0.05	ug/mL
1,4-Dichlorobenzene	106-46-7	0.05	ug/mL
1,3-Dichloropropane	142-28-9	0.05	ug/mL
1,3-Dichlorobenzene	541-73-1	0.05	ug/mL
1,3,5-Trimethylbenzene	108-67-8	0.05	ug/mL
1,2-Dichloropropane	78-87-5	0.05	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	0.05	ug/mL
1,2-Dichlorobenzene	95-50-1	0.05	ug/mL
Bromoform	75-25-2	0.05	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	0.05	ug/mL
1,2,4-Trimethylbenzene	95-63-6	0.05	ug/mL
1,2,4-Trichlorobenzene	120-82-1	0.05	ug/mL
1,2,3-Trichloropropane	96-18-4	0.05	ug/mL
1,2,3-Trichlorobenzene	87-61-6	0.05	ug/mL
1,1-Dichloropropene	563-58-6	0.05	ug/mL
1,1-Dichloroethene	75-35-4	0.05	ug/mL
1,1-Dichloroethane	75-34-3	0.05	ug/mL
1,1,2-Trichloroethane	79-00-5	0.05	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	0.05	ug/mL
1,1,1-Trichloroethane	71-55-6	0.05	ug/mL
1,2-Dichloroethane	107-06-2	0.05	ug/mL
Isopropylbenzene	98-82-8	0.05	ug/mL
trans-1,3-Dichloropropene	10061-02-6	0.05	ug/mL
trans-1,2-Dichloroethene	156-60-5	0.05	ug/mL

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Analytical Standard Record

EPA Region 9 Laboratory

2004027

Toluene-d8	2037-26-5	0.05	ug/mL
Toluene	108-88-3	0.05	ug/mL
Tetrachloroethene	127-18-4	0.05	ug/mL
tert-Butylbenzene	98-06-6	0.05	ug/mL
Styrene	100-42-5	0.05	ug/mL
sec-Butylbenzene	135-98-8	0.05	ug/mL
Propylbenzene	103-65-1	0.05	ug/mL
p-Isopropyltoluene	99-87-6	0.05	ug/mL
o-Xylene	95-47-6	0.05	ug/mL
Bromochloromethane	74-97-5	0.05	ug/mL
m&p-Xylene	179601-23-1	0.1	ug/mL
Bromodichloromethane	75-27-4	0.05	ug/mL
Hexachlorobutadiene	87-68-3	0.05	ug/mL
Ethylbenzene	100-41-4	0.05	ug/mL
Dichloromethane	75-09-2	0.05	ug/mL
Dibromomethane	74-95-3	0.05	ug/mL
cis-1,3-Dichloropropene	10061-01-5	0.05	ug/mL
cis-1,2-Dichloroethene	156-59-2	0.05	ug/mL
Chloroform	67-66-3	0.05	ug/mL
Chlorodibromomethane	124-48-1	0.05	ug/mL
Chlorobenzene	108-90-7	0.05	ug/mL
Carbon tetrachloride	56-23-5	0.05	ug/mL
Butylbenzene	104-51-8	0.05	ug/mL
Trichloroethene	79-01-6	0.05	ug/mL
Naphthalene	91-20-3	0.05	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004021	Passive indoor air stock std 50	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 10:10 by TD	0.01
2004019	Passive indoor air Internal Standard Sto	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:38 by TD	0.005

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

2004028

Description:	Passive indoor air SCV	Expires:	07/21/20
Standard Type:	Calibration Standa	Prepared:	01/21/20
Solvent:	CS2	Prepared By:	Tatyana Dadiomov
Final Volume (mls):	10	Department:	Volatiles
Vials:	1	Last Edit:	01/21/20 09:47 by TD

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	5	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/mL
Benzene	71-43-2	5	ug/mL
4-Chlorotoluene	106-43-4	5	ug/mL
2-Fluorotoluene	95-52-3	5	ug/mL
2-Chlorotoluene	95-49-8	5	ug/mL
2,2-Dichloropropane	594-20-7	5	ug/mL
1,4-Dichlorobenzene	106-46-7	5	ug/mL
1,3-Dichloropropane	142-28-9	5	ug/mL
1,3-Dichlorobenzene	541-73-1	5	ug/mL
1,3,5-Trimethylbenzene	108-67-8	5	ug/mL
1,2-Dichloropropane	78-87-5	5	ug/mL
Bromochloromethane	74-97-5	5	ug/mL
1,2-Dichlorobenzene	95-50-1	5	ug/mL
Bromodichloromethane	75-27-4	5	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	5	ug/mL
1,2,4-Trimethylbenzene	95-63-6	5	ug/mL
1,2,4-Trichlorobenzene	120-82-1	5	ug/mL
1,2,3-Trimethylbenzene	526-73-8	5	ug/mL
1,2,3-Trichloropropane	96-18-4	5	ug/mL
1,2,3-Trichlorobenzene	87-61-6	5	ug/mL
1,1-Dichloropropene	563-58-6	5	ug/mL
1,1-Dichloroethene	75-35-4	5	ug/mL
1,1-Dichloroethane	75-34-3	5	ug/mL
1,1,2-Trichloroethane	79-00-5	5	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/mL
1,1,1-Trichloroethane	71-55-6	5	ug/mL
1,2-Dichloroethane	107-06-2	5	ug/mL
Isopropylbenzene	98-82-8	5	ug/mL
trans-1,3-Dichloropropene	10061-02-6	5	ug/mL

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2004028

trans-1,2-Dichloroethene	156-60-5	5	ug/mL
Toluene-d8	2037-26-5	5	ug/mL
Toluene	108-88-3	5	ug/mL
Tetrachloroethene	127-18-4	5	ug/mL
tert-Butylbenzene	98-06-6	5	ug/mL
Styrene	100-42-5	5	ug/mL
sec-Butylbenzene	135-98-8	5	ug/mL
Propylbenzene	103-65-1	5	ug/mL
p-Isopropyltoluene	99-87-6	5	ug/mL
o-Xylene	95-47-6	5	ug/mL
Bromobenzene	108-86-1	5	ug/mL
m&p-Xylene	179601-23-1	10	ug/mL
Trichloroethene	79-01-6	5	ug/mL
Hexachlorobutadiene	87-68-3	5	ug/mL
Ethylbenzene	100-41-4	5	ug/mL
Dichloromethane	75-09-2	5	ug/mL
Dibromomethane	74-95-3	5	ug/mL
cis-1,3-Dichloropropene	10061-01-5	5	ug/mL
cis-1,2-Dichloroethene	156-59-2	5	ug/mL
Chloroform	67-66-3	5	ug/mL
Chlorodibromomethane	124-48-1	5	ug/mL
Chlorobenzene	108-90-7	5	ug/mL
Carbon tetrachloride	56-23-5	5	ug/mL
Butylbenzene	104-51-8	5	ug/mL
Bromoform	75-25-2	5	ug/mL
Naphthalene	91-20-3	5	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2004020	Passive air Surrogate/I.S. Working solu	01/21/20	Tatyana Dadiomov	07/21/20	01/21/20 09:39 by TD	0.25
1843072	VOA 502/524 VOC Mix, Stock	10/24/18	** Vendor **	07/21/20	01/21/20 09:34 by TD	0.025

Reviewed By Date