SOP ERG-MOR-005
Air Toxics TO-15 Quality Control Review Checklist 2018-1

Sequence ID:	LIP SK 1810019	**Instrument:**	MS1	**Batch:**	—
Cal Curve (Method):	8100002	**Analyst:**	MAL	**Date Analyzed:**	10-11-18
10% Review Sample IDs:	8100002	**Reviewer:**	DRT	**Date:**	11/1/18
Optional Additional Review Sample IDs:		**Reviewer:**		**Date:**	

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	10-31-18	RMB 11/1/18	DRT 11/1/18		
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	10-31-18	RMB 11/1/18	DRT 11/1/18		
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	10-31-18	RMB 11/1/18	DRT 11/1/18		
Continuing calibration verification (CCV), approximately mid-point of the calibration curve – one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	—	NA	NA		
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	—	NA	NA		

Air Toxics TO-15 Quality Control Review Checklist 2018-1 (Continued)

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	—	NA	NA		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	NA	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	TO-DHD	RMB 11/1/18	DST 11/1/18		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	—	RMB 11/1/18	DST 11/1/18		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	TO-DHD	NA	NA		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	TO-DHD	RMB 11/1/18	DST 11/1/18		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 11/1/18	DST 11/1/18		ICV 1122-Tetra CF (CRF 16206 (4.77ppbv) 77587 (2.54ppbv) = 0.392
Qualifiers Check	Check to make sure LIMS data flags are correct	TO-DHD	NA	NA		

This review check sheet must be completed by primary data reviewer/TL/QA.

L18JK009
ethylene oxide
50 ppbv RF

$\frac{14639 \times 4.80}{49430 \times 5.10}$

Sequence Name: C:\msdchem\1\sequence\L18JK.s
Comment: ANALYZE 10/11/18,8100002 exp 1/9/19, L18JK
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L18JK\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info		
1)	Sample	1	L18JK001	BFB	BFB
2)	Sample	2	L18JK002	8090001	-CCV1
3)	Sample	3	L18JK003	8100002	FLUSH
4)	Sample	4	L18JK004	8100002	1810019-ICB1
5)	Sample	5	L18JK005	8100002	1810019-CAL1
6)	Sample	6	L18JK006	8100002	1810019-CAL2
7)	Sample	7	L18JK007	8100002	1810019-CAL3
8)	Sample	8	L18JK008	8100002	1810019-CAL4
9)	Sample	9	L18JK009	8100002	1810019-CAL5
10)	Sample	10	L18JK010	8100002	1810019-CAL6
11)	Sample	11	L18JK011	8100002	1810019-ICV1
12)	Sample	12	L18JK012	8100002	1810019-ICV1
13)	Sample	13	L18JK013	8100002	FLUSH
14)	Sample	100	OFF	FIDOFF	OFF

1/9-3/19

ED_002475_00000113-00003

Sample	1	BFB	BFB	L18JK001	80ML IS 7L07001	1
Sample	2	-CCV1	8090001	L18JK002	80ML IS 7L07001,8I21008	1
Sample	3	FLUSH	8100002	L18JK003	80ML IS 7L07001,	1
Sample	4	1810019-ICB1	8100002	L18JK004	80ML IS 7L07001,	1
Sample	5	1810019-CAL1	8100002	L18JK005	80ML IS 7L07001,8J11001	1
Sample	6	1810019-CAL2	8100002	L18JK006	80ML IS 7L07001,8J11002	1
Sample	7	1810019-CAL3	8100002	L18JK007	80ML IS 7L07001,8J11003	1
Sample	8	1810019-CAL4	8100002	L18JK008	80ML IS 7L07001,8J11004	1
Sample	9	1810019-CAL5	8100002	L18JK009	80ML IS 7L07001,8J11005	1
Sample	10	1810019-CAL6	8100002	L18JK010	80ML IS 7L07001,8J11006	1
Sample	11	1810019-ICV1	8100002	L18JK011	80ML IS 7L07001,8I21008	1
Sample	12	1810019-ICV1	8100002	L18JK012	80ML IS 7L07001,8I21008	1
Sample	13	FLUSH	8100002	L18JK013	80ML IS 7L07001,	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

10-2-17

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\L18JK.SEQ
Date: 10-12-2018
Time: 10:09:03
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto	Samp Pos	Cal Vol.	Std Vol.	Method	Time
BFB	1	1	0	0		C:\Smart\BFB.MPT	12:00
-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-ICB1	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-CAL1	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-CAL2	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-CAL3	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-CAL4	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-CAL5	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-CAL6	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-ICV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
1810019-ICV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250	0		C:\Smart\BFB.MPT	12:00

1103112

---------- Leak Check Report ----------

10/12/2018 9:57:00 AM
Leak Check for C:\Smart\L18JK.SEQ
Report File: C:\Smart\L18JK.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 20
Equilibration time(sec) 20
Maintanance time(sec) 60

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	2	---	---	1.2	1.3	0.10
1	3	---	---	1.2	1.2	0.00
1	4	---	---	1.2	1.2	0.00
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.2	1.3	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.1	1.2	0.10
2	8	---	---	1.1	1.2	0.10

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L18JK\L18JK001.D
Tune Time : 11 Oct 2018 12:10 pm

8100002	IS Avg Area	47959	116185	80110
	+40%	67142	162659	112154
	-40%	28775	69711	48066

File	Sample	Surrogate Recovery %		Internal Standard Responses
L18JK004.D				
	1810019-ICB1	47699	118709	80784
L18JK005.D				
	1810019-CAL1	46349	110834	78261
L18JK006.D				
	1810019-CAL2	45575	111372	75735
L18JK007.D				
	1810019-CAL3	48049	117986	79301
L18JK008.D				
	1810019-CAL4	46698	112031	78298
L18JK009.D				
	1810019-CAL5	49430	120951	82902
L18JK010.D				
	1810019-CAL6	51652	123937	86165
L18JK011.D				
	1810019-ICV1	46011	110625	77587

(fails) - fails 24hr time check * - fails criteria

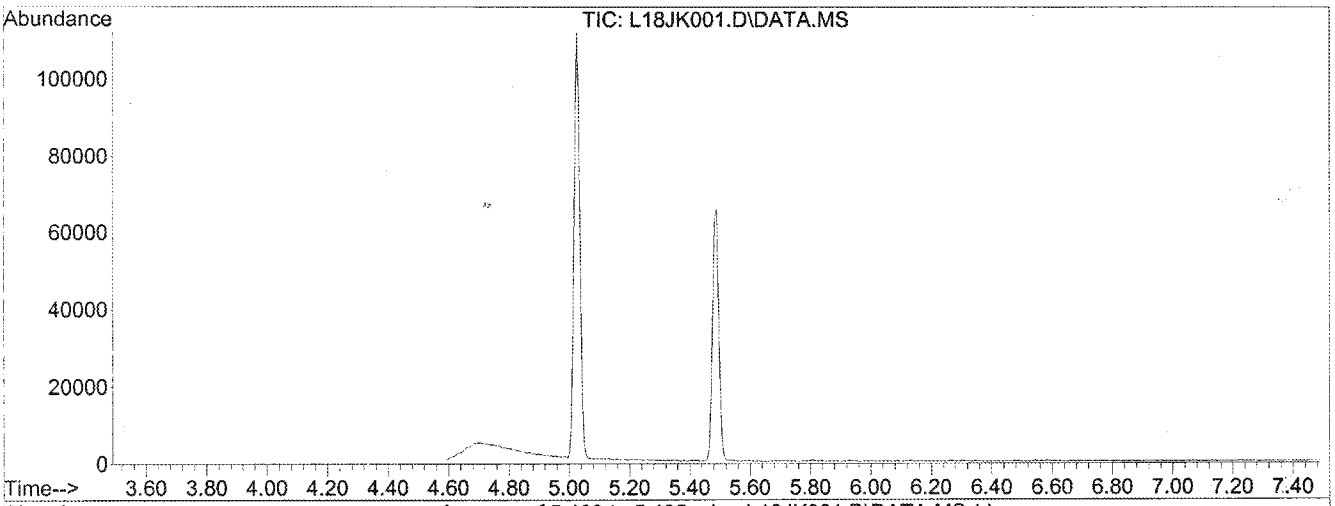
Created: Mon Oct 29 07:14:15 2018 MS1

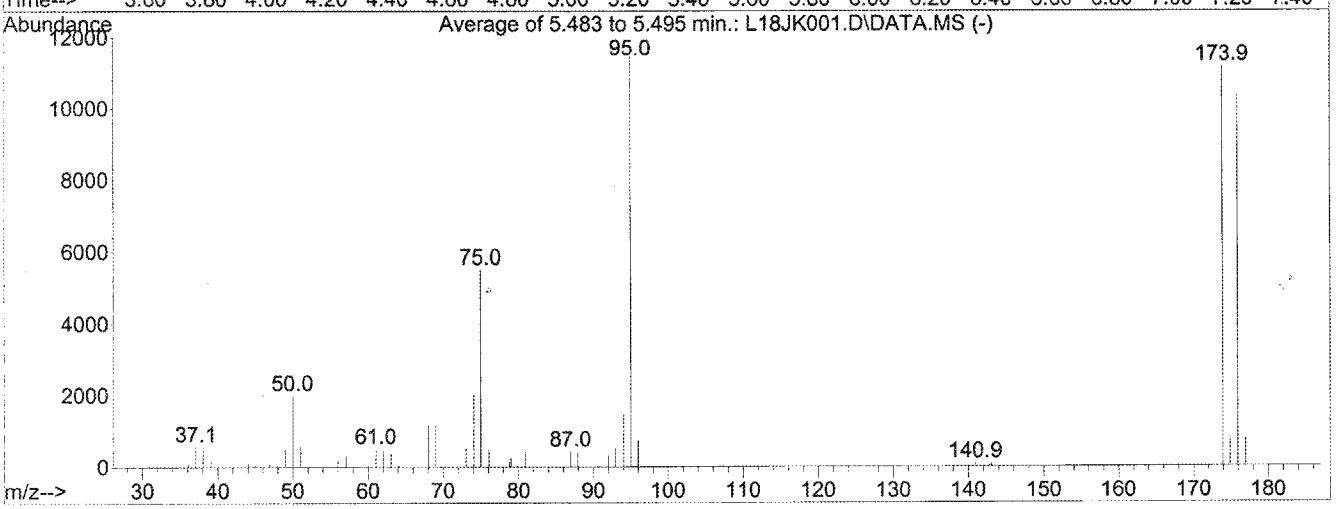
Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK001.D
Acq On : 11 Oct 2018 12:10 pm
Operator : MAH
Sample : BFB
Misc : 80ML IS 7L07001
ALS Vial : 1 Sample Multiplier: 1

✓ 10-31-18

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8100002.M
Title : TO-15 by Selective Ion Analysis
Last Update : Fri Oct 12 09:33:42 2018





AutoFind: Scans 147, 148, 149; Background Corrected with Scan 140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.4	1995	PASS
75	95	30	66	48.1	5511	PASS
95	95	100	100	100.0	11461	PASS
96	95	5	9	6.5	741	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.4	11168	PASS
175	174	4	9	7.2	807	PASS
176	174	93	101	93.3	10416	PASS
177	176	5	9	7.5	785	PASS

Response Factor Report MS1

Method Path : C:\msdchem\1\METHODS\
Method File : 8100002.M
Title : TO-15 by Selective Ion Analysis
Last Update : Fri Oct 12 09:33:42 2018
Response Via : Initial Calibration

10-31-18

Calibration Files
1 =L18JK005.D 2 =L18JK006.D 3 =L18JK007.D 4 =L18JK008.D
5 =L18JK009.D 6 =L18JK010.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	ISS	IS-Hexane-d14	----------ISTD----------							
2)	CT	Acetylene	0.492	0.482	0.463	0.485	0.465	0.448	0.472	3.47
3)	CT	Propylene	0.525	0.508	0.485	0.503	0.480	0.466	0.494	4.36
4)	CT	Dichlorodifluo...	2.338	2.324	2.227	2.313	2.207	2.116	2.254	3.85
5)	CT	Chloromethane	0.647	0.623	0.590	0.612	0.581	0.561	0.602	5.12
6)	CT	Dichlorotetraf...	2.042	2.036	1.947	2.039	1.953	1.863	1.980	3.64
7)	CT	Vinyl Chloride	0.648	0.658	0.630	0.664	0.638	0.623	0.643	2.50
8)	CT	1,3-Butadiene	0.434	0.438	0.424	0.457	0.449	0.449	0.442	2.66
9)	CT	Ethylene oxide	0.237	0.234	0.255	0.285	0.279	0.275	0.261	8.45
10)	CT	Bromomethane	0.648	0.641	0.617	0.648	0.621	0.598	0.629	3.21
11)	CT	Chloroethane	0.293	0.285	0.274	0.285	0.275	0.263	0.279	3.81
12)	CT	Acetonitrile	0.532	0.489	0.480	0.518	0.524	0.506	0.508	3.99
13)	CT	Acrolein	0.238	0.226	0.221	0.234	0.236	0.224	0.230	3.06
14)	CT	Trichlorofluor...	2.027	2.016	1.931	1.996	1.937	1.831	1.956	3.74
15)	CT	Acrylonitrile	0.385	0.363	0.372	0.393	0.409	0.392	0.386	4.27
16)	CT	1,1-Dichloroet...	0.902	0.877	0.862	0.890	0.881	0.830	0.874	2.90
17)	CT	Methylene Chlo...	0.654	0.627	0.614	0.642	0.629	0.597	0.627	3.17
18)	CT	Carbon Disulfide	1.762	1.775	1.720	1.818	1.756	1.680	1.752	2.70
19)	CT	Trichlorotrifl...	1.393	1.368	1.320	1.375	1.332	1.266	1.342	3.46
20)	CT	trans-1,2-Dich...	0.510	0.478	0.473	0.496	0.497	0.470	0.487	3.31
21)	CT	1,1-Dichloroet...	0.909	0.832	0.828	0.866	0.880	0.828	0.857	3.93
22)	CT	Methyl tert-Bu...	1.324	1.306	1.286	1.363	1.349	1.325	1.326	2.11
23)	CT	Chloroprene	0.648	0.604	0.597	0.651	0.688	0.663	0.642	5.43
24)	CT	cis-1,2-Dichlo...	0.707	0.627	0.624	0.683	0.688	0.643	0.662	5.31
25)	CT	Bromochloromet...	0.397	0.360	0.358	0.377	0.379	0.353	0.371	4.50
26)	CT	Chloroform	1.072	0.979	0.968	1.020	1.032	0.962	1.006	4.28
27)	CT	Ethyl tert-But...	1.355	1.320	1.317	1.401	1.420	1.385	1.366	3.13
28)	CT	1,2-Dichloroet...	0.675	0.607	0.608	0.638	0.658	0.614	0.633	4.51
29)	ISS	IS-1,4-Difluoroben...	----------ISTD----------							
30)	CT	1,1,1-Trichlor...	0.431	0.408	0.400	0.431	0.420	0.415	0.418	2.95
31)	CT	Benzene	0.639	0.564	0.560	0.610	0.620	0.592	0.598	5.25
32)	CT	Carbon Tetrach...	0.499	0.471	0.461	0.492	0.476	0.462	0.477	3.28
33)	CT	tert-Amyl Meth...	0.493	0.461	0.464	0.511	0.512	0.499	0.490	4.60
34)	CT	1,2-Dichloropr...	0.244	0.212	0.216	0.234	0.239	0.229	0.229	5.55
35)	CT	Ethyl Acrylate	0.294	0.260	0.257	0.297	0.316	0.321	0.291	9.34
36)	CT	Bromodichlorom...	0.475	0.416	0.415	0.451	0.455	0.430	0.440	5.44
37)	CT	Trichloroethylene	0.290	0.256	0.258	0.279	0.280	0.269	0.272	4.92
38)	CT	Methyl Methacr...	0.875	0.752	0.738	0.836	0.886	0.891	0.830	8.26
39)	CT	cis-1,3-Dichlo...	0.216	0.190	0.191	0.214	0.222	0.218	0.209	6.83
40)	CT	Methyl Isobuty...	0.514	0.445	0.427	0.486	0.509	0.508	0.481	7.71
41)	CT	trans-1,3-Dich...	0.158	0.139	0.139	0.157	0.164	0.168	0.154	8.09
42)	CT	1,1,2-Trichlor...	0.220	0.193	0.191	0.209	0.214	0.204	0.205	5.61
43)	ISS	IS-Chlorobenzene-d5	----------ISTD----------							
44)	CT	Toluene	0.907	0.815	0.833	0.888	0.947	0.910	0.883	5.64
45)	CT	Dibromochlorom...	2.209	2.008	2.016	2.142	2.248	2.158	2.130	4.64
46)	CT	1,2-Dibromoethane	0.395	0.349	0.350	0.371	0.388	0.374	0.371	5.08
47)	CT	n-Octane	0.541	0.489	0.499	0.556	0.605	0.610	0.550	9.31
48)	CT	Tetrachloroeth...	0.460	0.411	0.412	0.437	0.449	0.427	0.433	4.56
49)	CT	Chlorobenzene	0.615	0.546	0.544	0.587	0.614	0.588	0.582	5.38
50)	CT	Ethylbenzene	0.941	0.850	0.860	0.936	1.020	1.016	0.937	7.78
51)	CT	m,p-Xylene	0.790	0.716	0.722	0.811	0.896	0.894	0.805	9.81
52)	CT	Bromoform	0.439	0.389	0.381	0.421	0.440	0.432	0.417	6.17
53)	CT	Styrene	0.434	0.388	0.389	0.437	0.485	0.491	0.437	10.24
54)	CT	1,1,2,2-Tetrac...	0.579	0.525	0.513	0.553	0.580	0.557	0.551	5.03
55)	CT	o-Xylene	0.786	0.708	0.709	0.783	0.860	0.850	0.783	8.40
56)	CT	1,3,5-Trimethy...	0.826	0.734	0.728	0.802	0.891	0.904	0.814	9.20
57)	CT	1,2,4-Trimethy...	0.684	0.611	0.600	0.669	0.761	0.779	0.684	10.87
58)	CT	m-Dichlorobenzene	0.382	0.353	0.340	0.370	0.398	0.397	0.373	6.34
59)	CT	p-Dichlorobenzene	0.314	0.288	0.275	0.304	0.324	0.324	0.305	6.59
60)	CT	o-Dichlorobenzene	0.351	0.323	0.303	0.329	0.353	0.355	0.336	6.19
61)	CT	1,2,4-Trichlor...	0.179	0.172	0.144	0.150	0.150	0.150	0.157	9.02
62)	CT	Hexachloro-1,3...	0.463	0.430	0.363	0.363	0.349	0.334	0.384	13.29

DAT 11.1.18

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst:	Date: 10/3/18	Data File Name	L18JK004.D			
		Operator	MAH			
		Acq. Method File	8100002.M			
Reviewer:	Date: 10/11/18	Sample Name	1810019-ICB1			
		Misc Info	80ML IS 7L07001,			
#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	47699		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	57	0.012	Y		0.192
4)	Dichlorodifluoromethane	41	0.002	Y		0.082
5)	Chloromethane	0	0.000	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	0	0.000	Y		0.049
12)	Acrolein	59	0.026	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	577	0.033	Y	MAX	0.200
18)	Trichlorotrifluoroethane	0	0.000	Y		0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y		0.040
20)	1,1-Dichloroethane	0	0.000	Y		0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y		0.031
22)	Chloroprene	0	0.000	Y		0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y		0.056
24)	Bromochloromethane	0	0.000	Y		0.040
25)	Chloroform	0	0.000	Y		0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y		0.033
27)	1,2-Dichloroethane	0	0.000	Y		0.042
28)	IS-1,4-Difluorobenzene	118709		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	56	0.004	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	0	0.000	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	0	0.000	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	80784		NA		NA
43)	Toluene	65	0.004	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	76	0.005	Y		0.077
50)	m,p-Xylene	71	0.005	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	88	0.007	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	39	0.003	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

*All Blanks must be below 0.2 ppb or 3 times the MDL whichever value is lower

TO-15_BLANK_TEMPLATES_3-19-18
2018 BLANK
Y:\AIR TOX\TO-15 BLANK TEST\TO-15_BLANK_TEMPLATES_8-29-18.xlsx

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK004.D
Acq On : 11 Oct 2018 8:30 pm (#1); 11-Oct-18, 20:25:18 (#2)
Operator : MAH
Sample : 1810019-ICB1
Misc : 80ML IS 7L07001, (Sig #1); (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 12 09:37:45 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47699	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.166	114	118709	5.0200 ppbv	0.00
43) IS-Chlorobenzene-d5	30.129	117	80784	4.7700 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.839	41	57	0.0116 ppbv	94
4) Dichlorodifluoromethane	8.705	85	41	0.0018 ppbv #	49
5) Chloromethane	0.000	50	0	N.D.	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	14.725	56	59	0.0258 ppbv #	89
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.936	76	577	0.0331 ppbv	95
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.548	78	56	0.0040 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.115	91	65	0.0043 ppbv	89
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.927	91	76	0.0048 ppbv #	43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK004.D
Acq On : 11 Oct 2018 8:30 pm (#1); 11-Oct-18, 20:25:18 (#2)
Operator : MAH
Sample : 1810019-ICB1
Misc : 80ML IS 7L07001, (Sig #1); (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 12 09:37:45 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.289	91	71	0.0052 ppbv #	70
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.147	91	88	0.0066 ppbv	91
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.866	105	39	0.0034 ppbv #	32
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

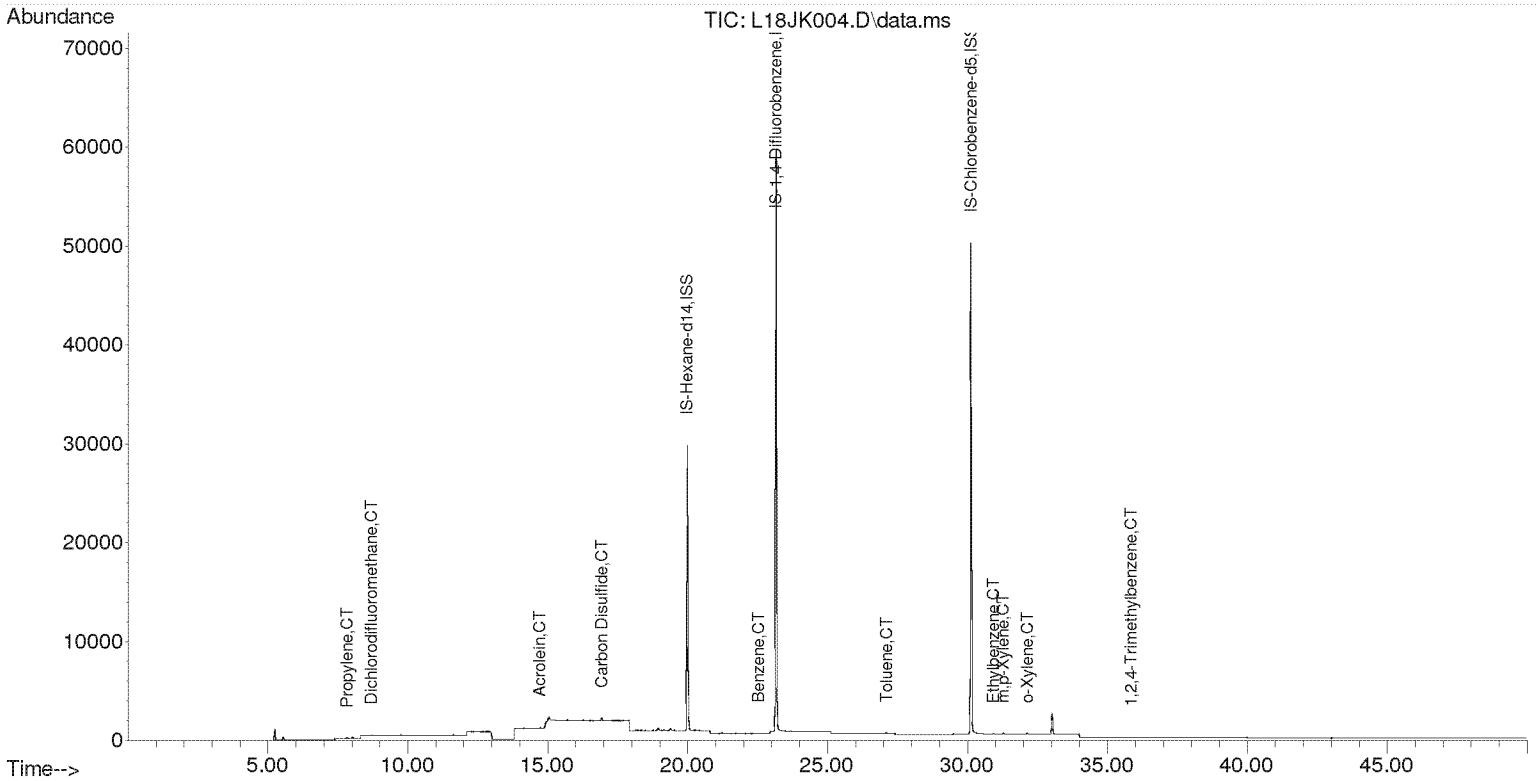
(#) = qualifier out of range (m) = manual integration (+) = signals summed

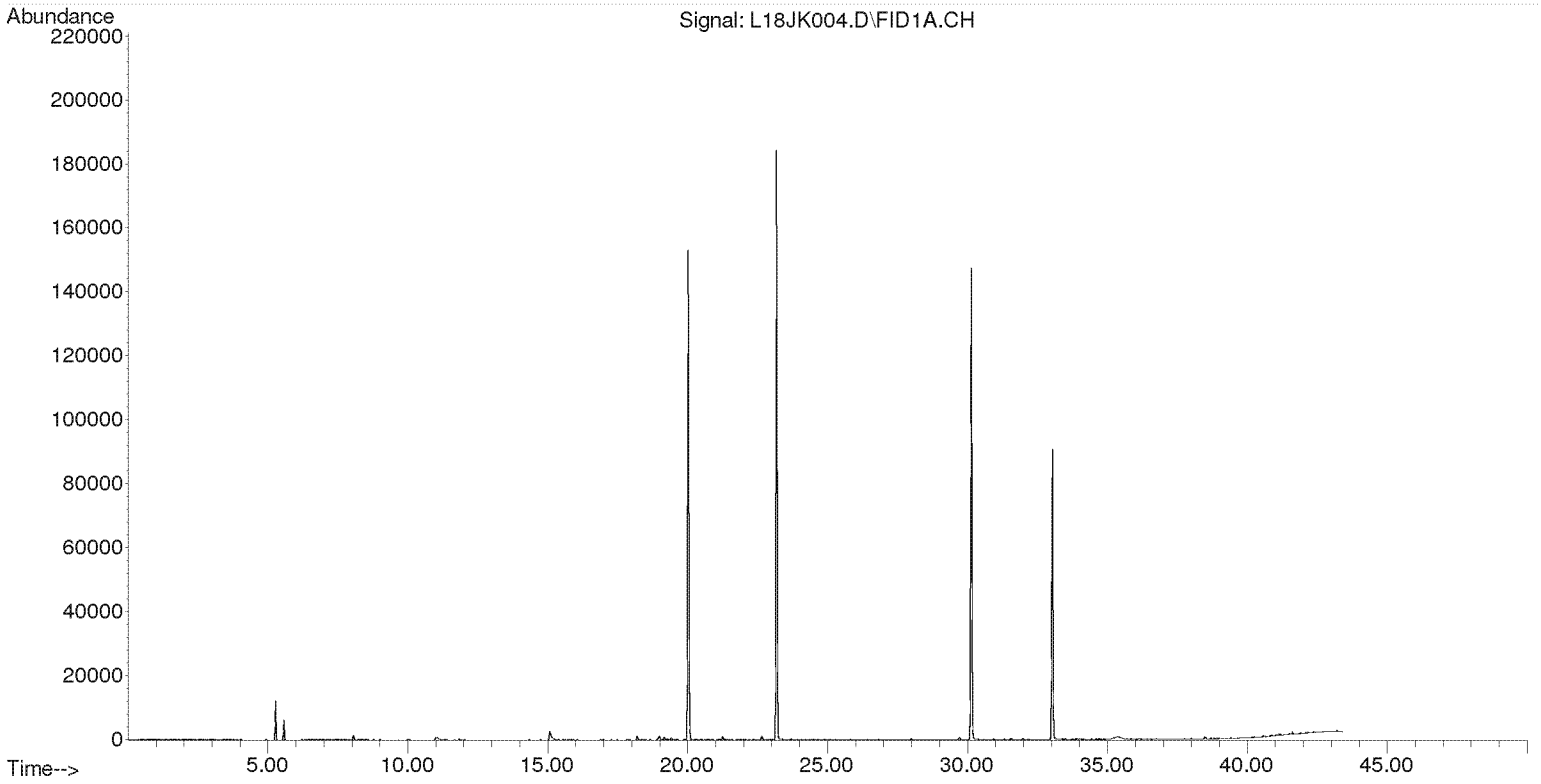
ED_002475_00000113-00012

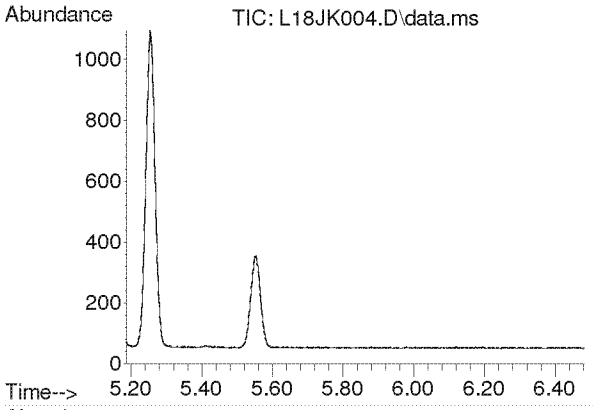
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK004.D
Acq On : 11 Oct 2018 8:30 pm (#1); 11 Oct 2018 8:25 pm (#2)
Operator : MAH
Sample : 1810019-ICB1
Misc : 80ML IS 7L07001, (Sig #1); (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 12 09:36:40 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration



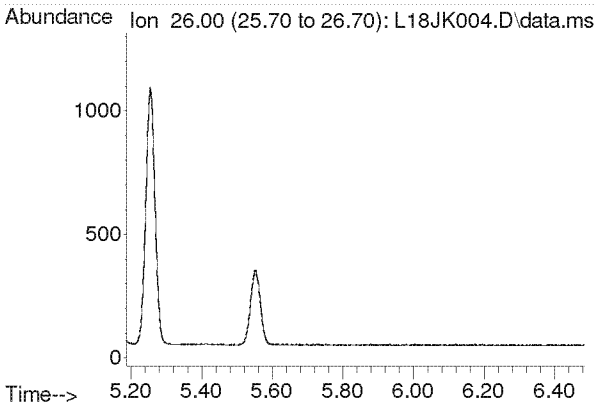


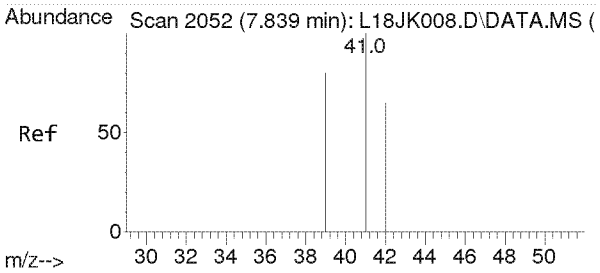


#2
Acetylene
Concen: N.D.
Expected RT: 5.41 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 26

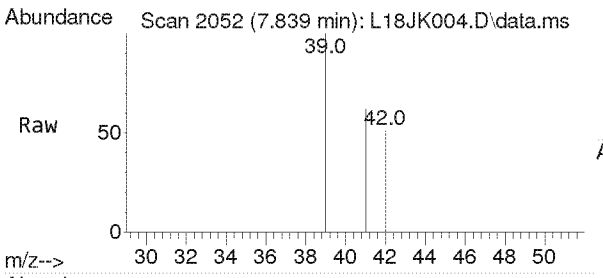


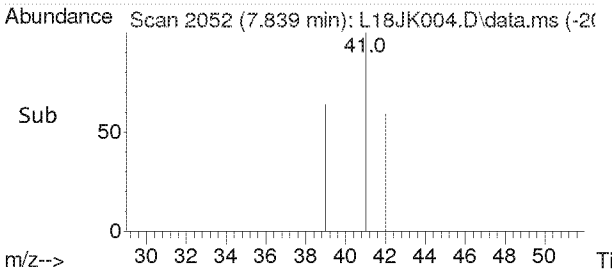


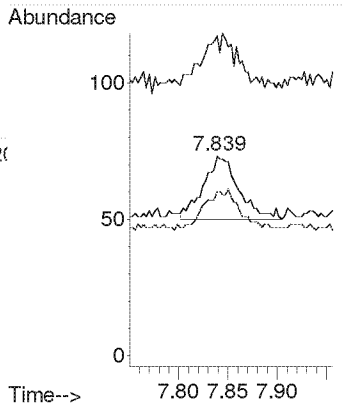
#3
Propylene
Concen: 0.012 ppbv
RT: 7.839 min Scan# 2052
Delta R.T. -0.000 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

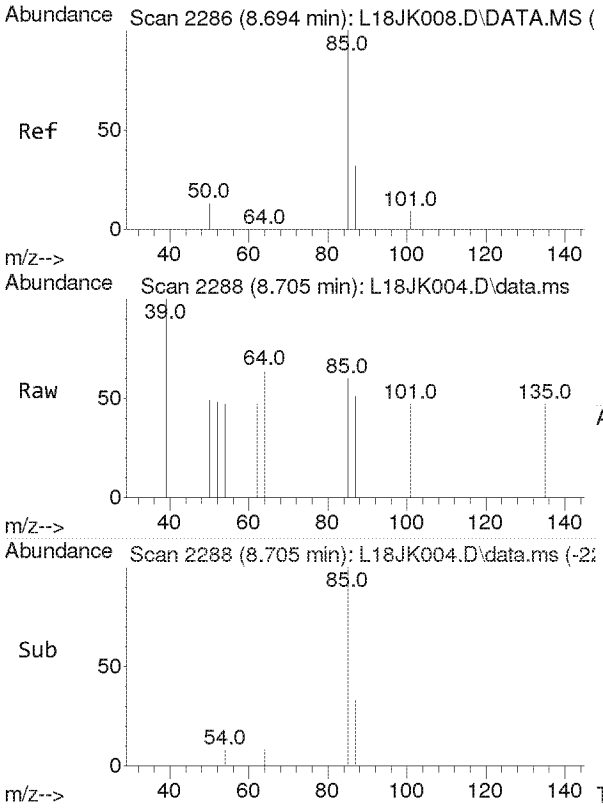
Tgt Ion: 41 Resp: 57

Ion	Ratio	Lower	Upper
41	100		
39	89.5	65.0	97.4
42	66.7	52.3	78.5





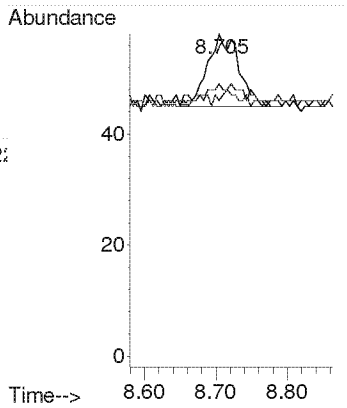


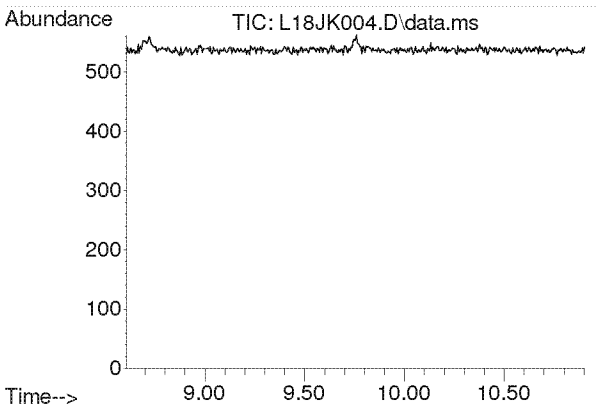


#4
Dichlorodifluoromethane
Concen: 0.002 ppbv
RT: 8.705 min Scan# 2288
Delta R.T. 0.011 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 85 Resp: 41

Ion	Ratio	Lower	Upper
85	100		
87	0.0	25.8	38.8#
101	0.0	7.2	10.8#



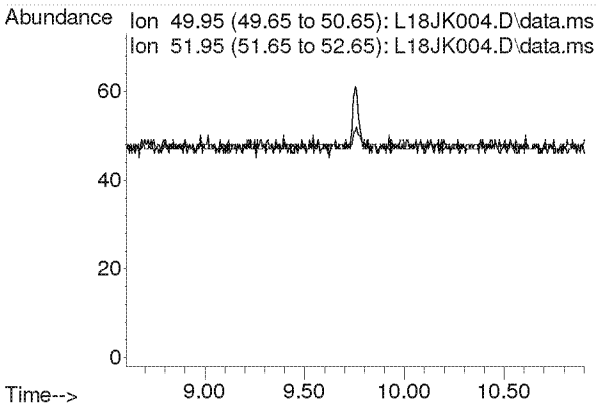


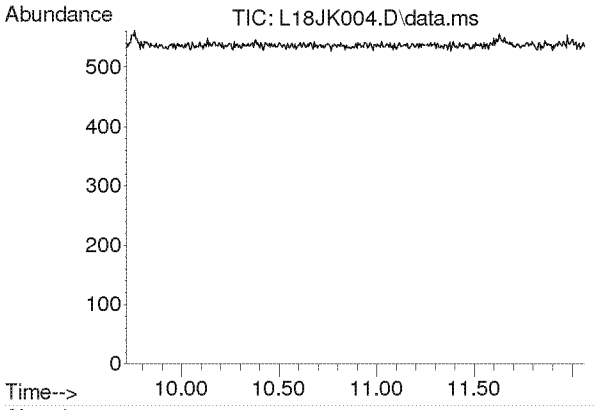
#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.2



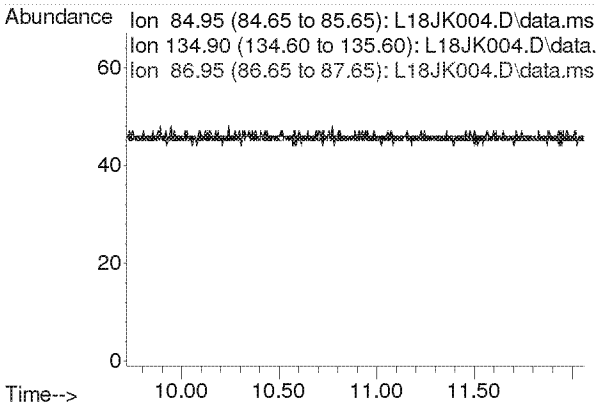


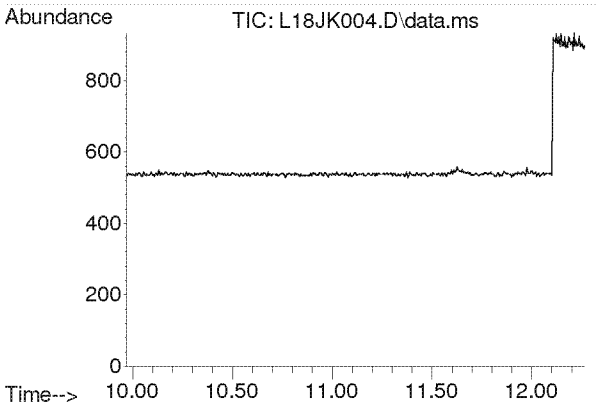
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.87 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.6
87	32.1



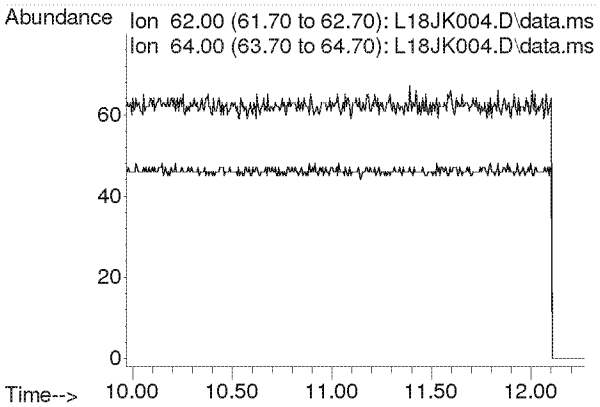


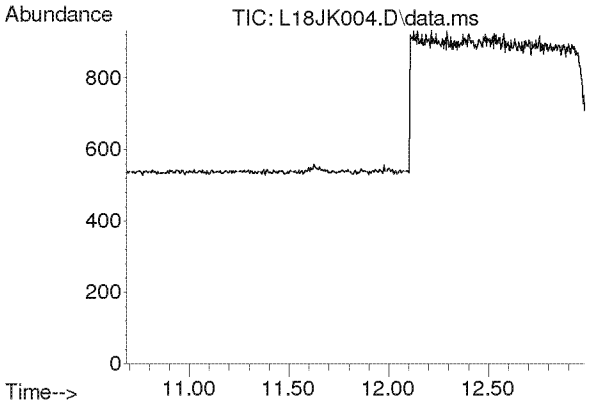
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.0



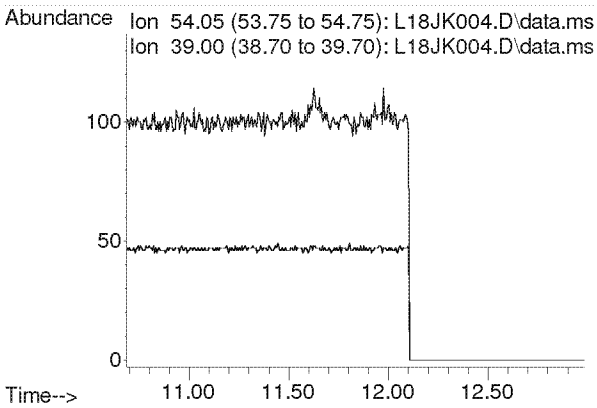


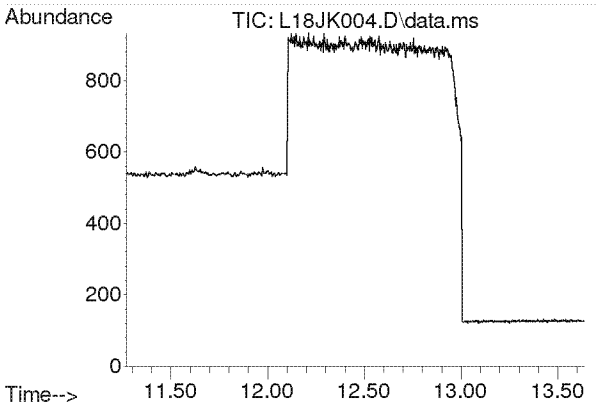
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.79 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	108.7



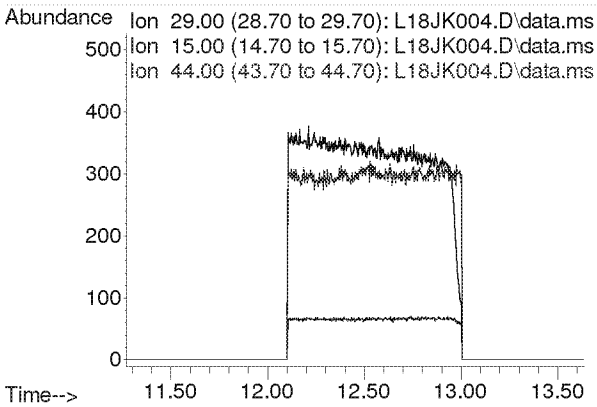


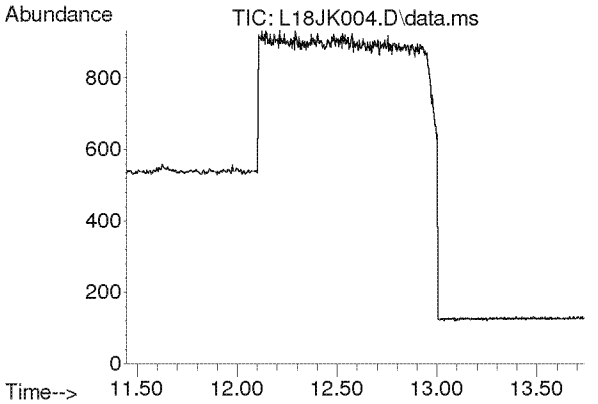
#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	25.1
44	78.2



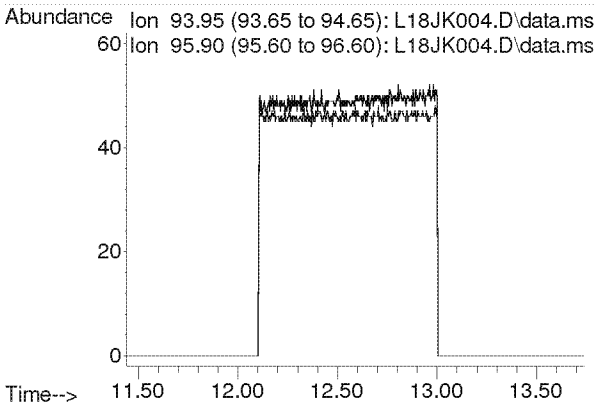


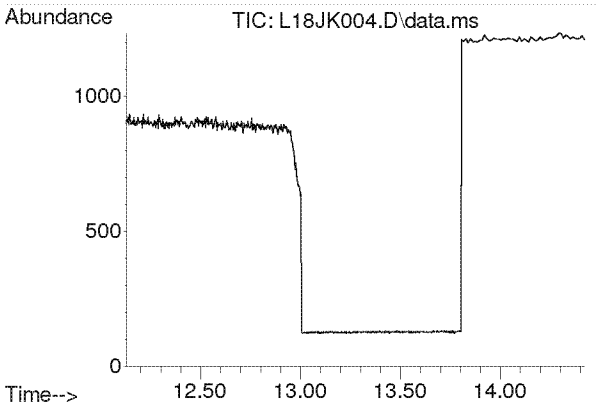
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



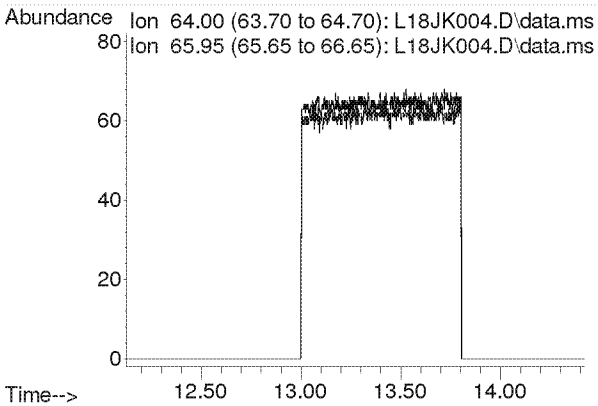


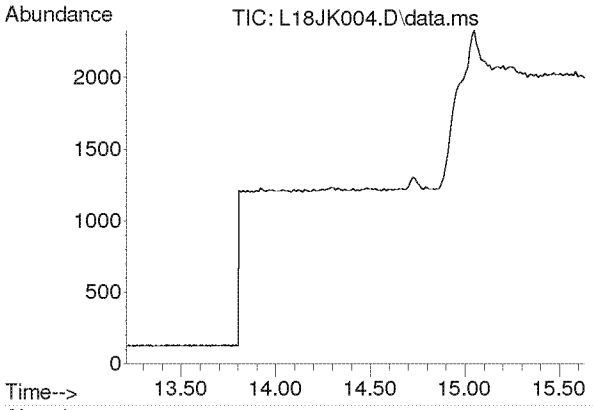
#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



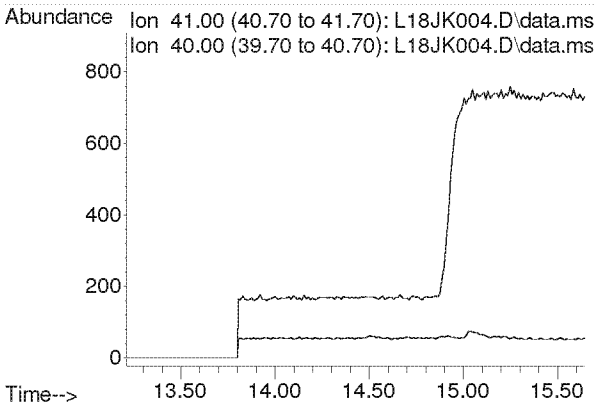


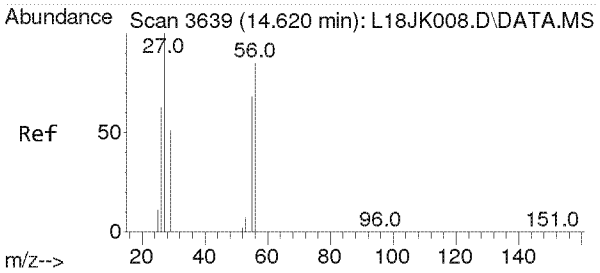
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.34 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.9

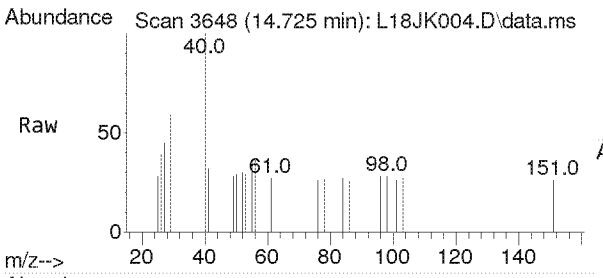


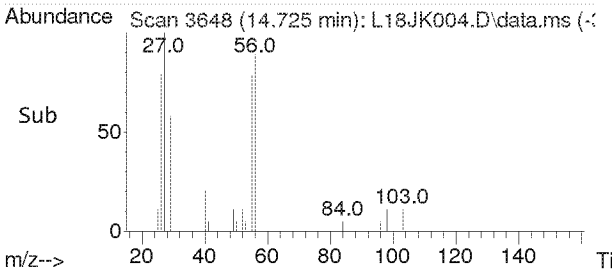


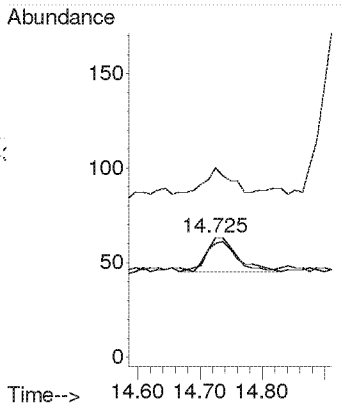
#13
Acrolein
Concen: 0.026 ppbv
RT: 14.725 min Scan# 3648
Delta R.T. 0.105 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

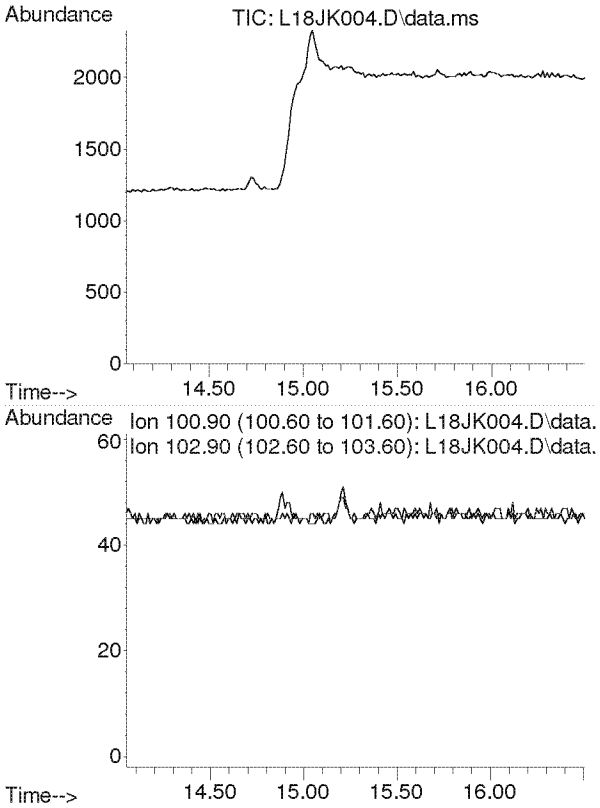
Tgt Ion: 56 Resp: 59

Ion	Ratio	Lower	Upper
56	100		
55	81.4	61.9	92.9
29	76.3	49.2	73.8#







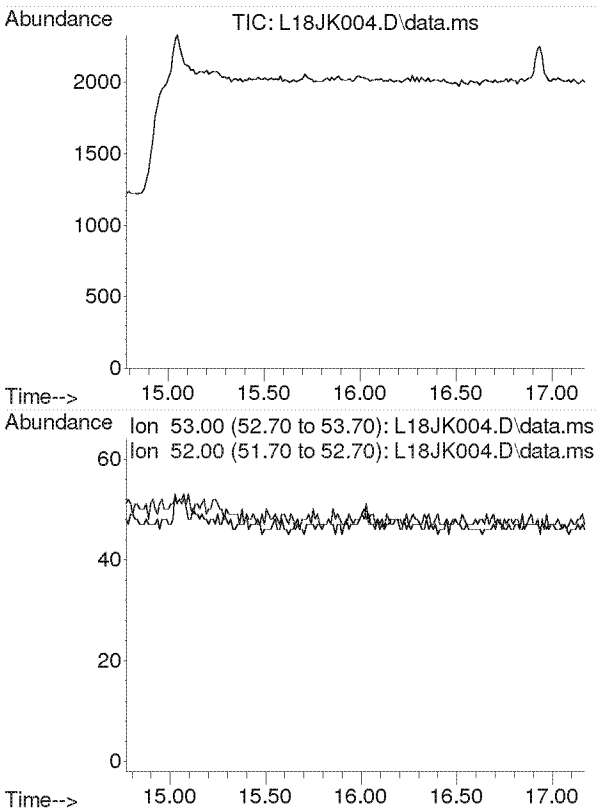


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.20 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.7

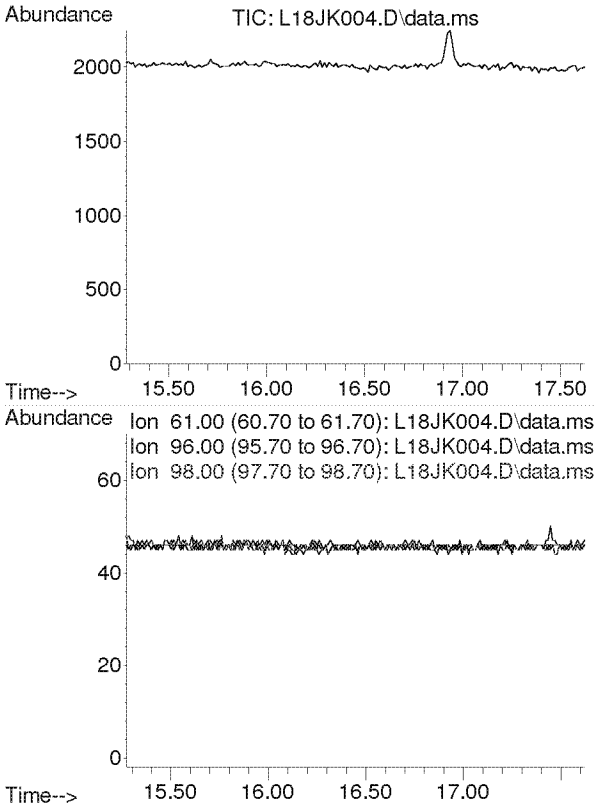


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.92 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	87.1

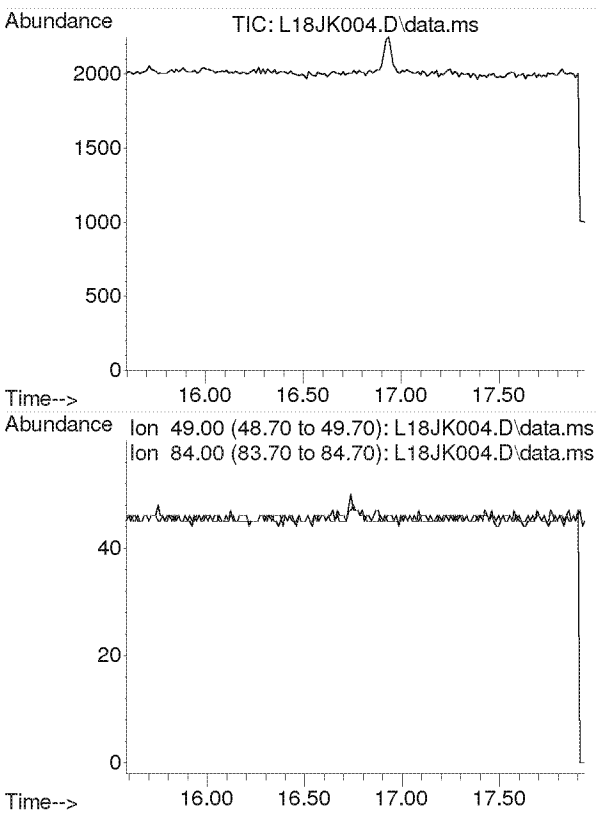


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	57.6
98	36.8

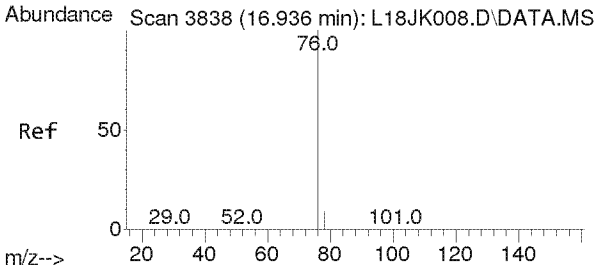


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 49

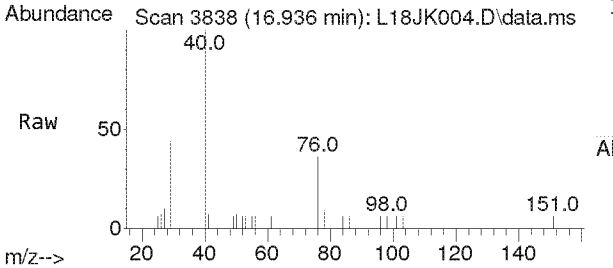
Sig	Exp Ratio
49	100
84	74.2

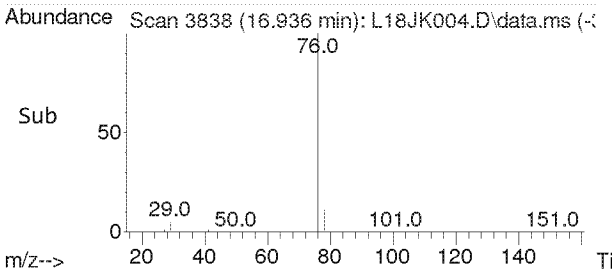


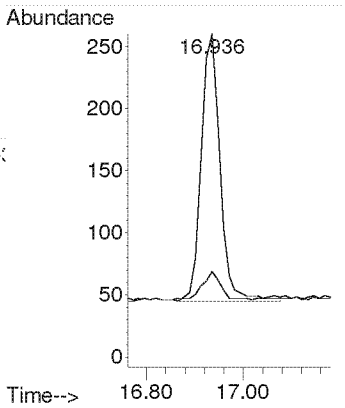
#18
Carbon Disulfide
Concen: 0.033 ppbv
RT: 16.936 min Scan# 3838
Delta R.T. -0.000 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

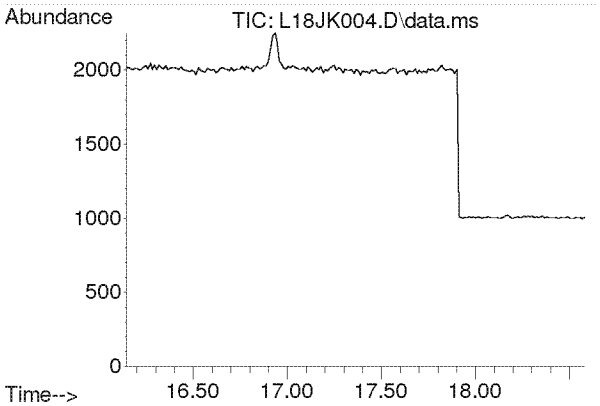
Tgt Ion: 76 Resp: 577

Ion	Ratio	Lower	Upper
76	100		
78	10.7	7.3	10.9







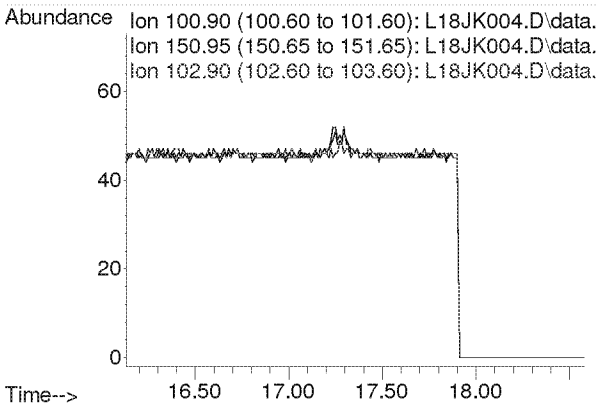


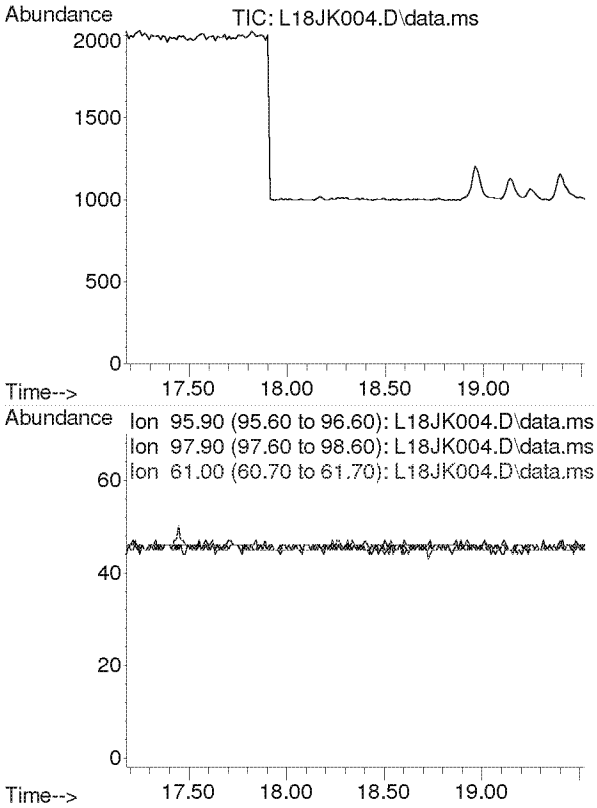
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.29 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	96.0
103	64.3



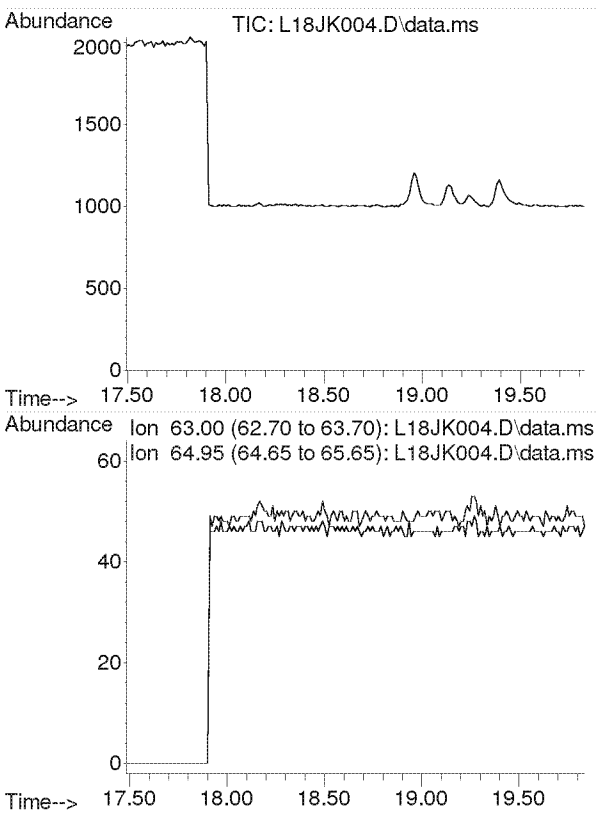


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.33 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.3

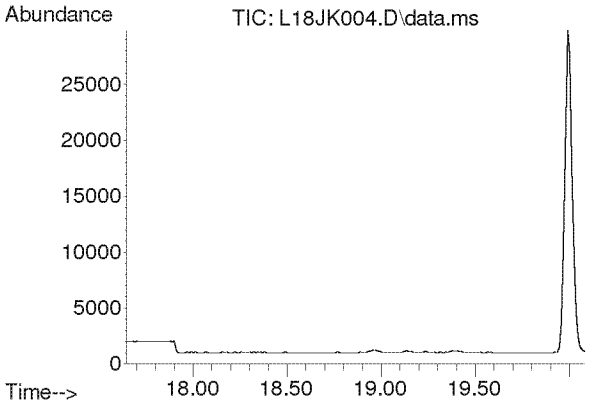


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.64 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	32.1

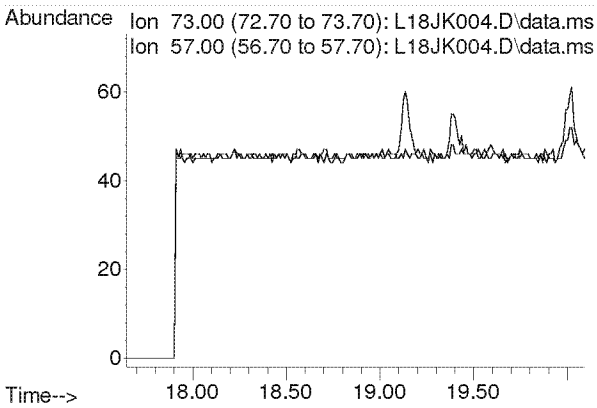


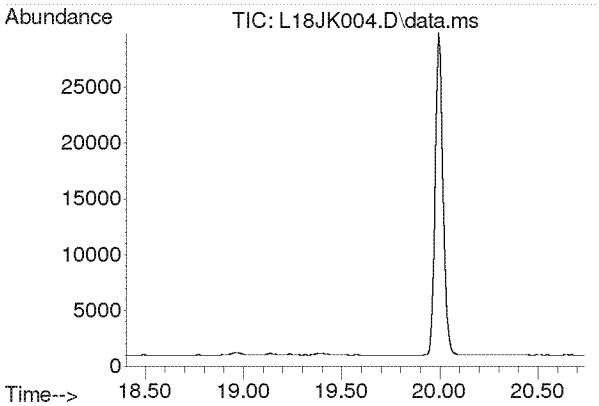
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.0



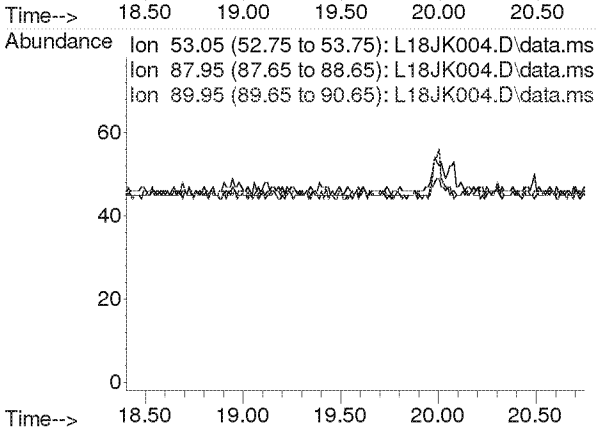


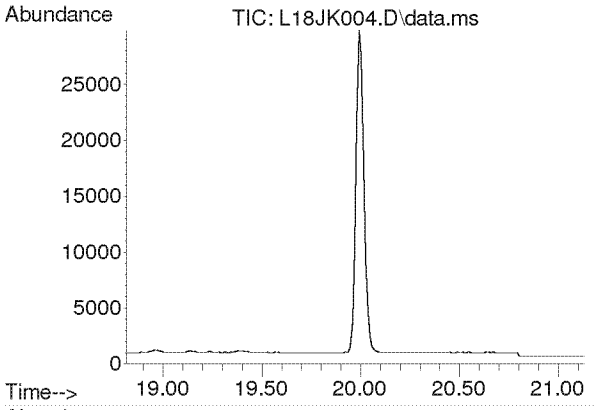
#23
Chloroprene
Concen: N.D.
Expected RT: 19.55 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.5
90	16.6



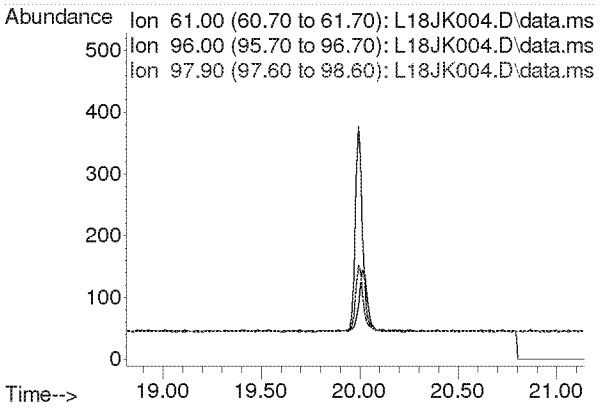


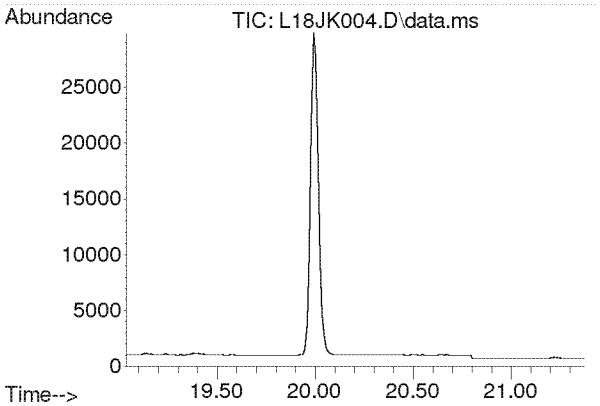
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.96 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.5
98	46.2



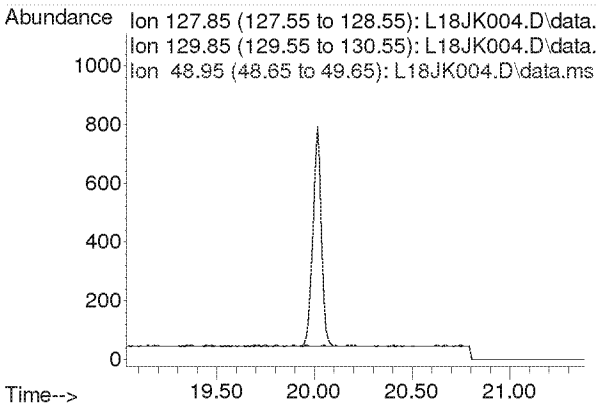


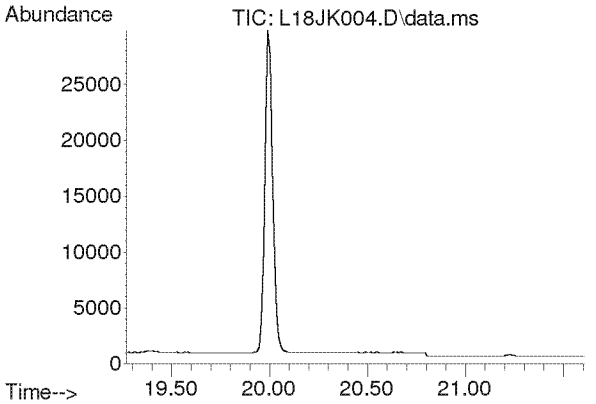
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.18 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	128.9
49	167.9



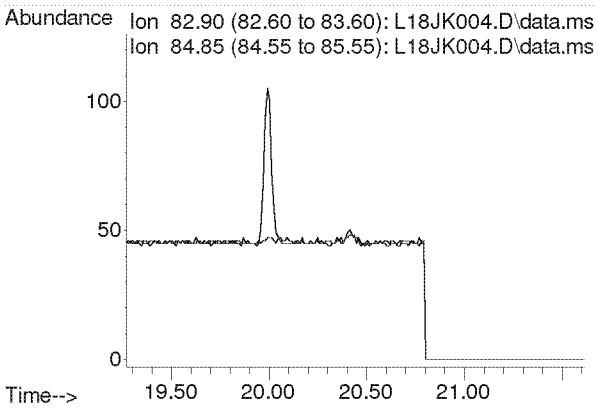


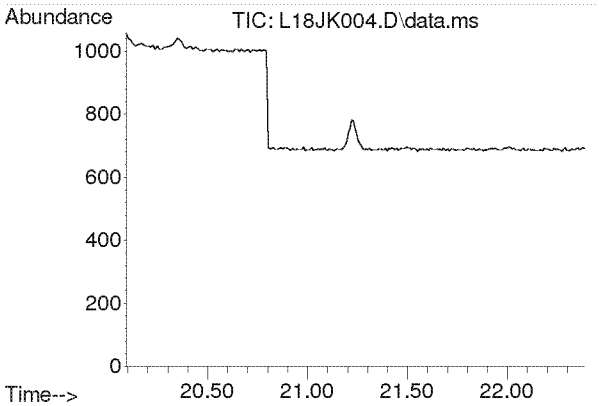
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



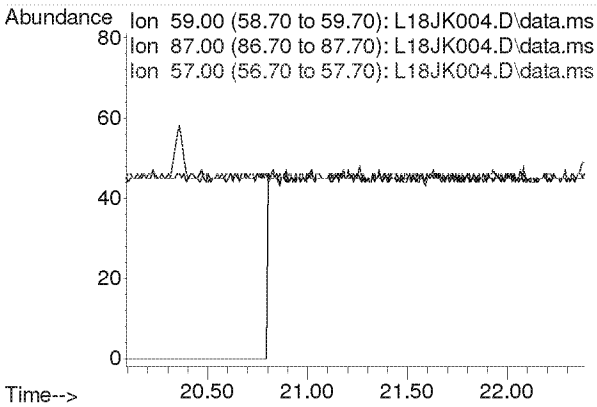


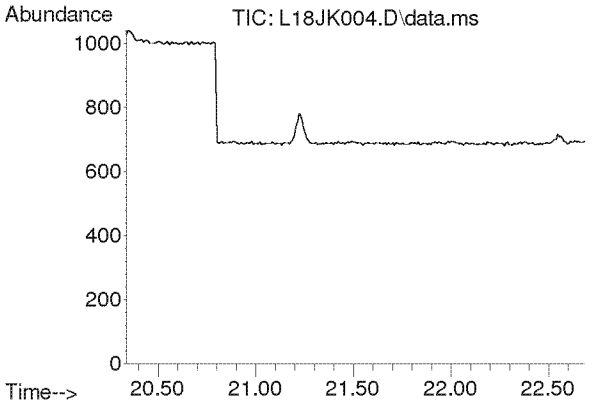
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.19 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	38.5
57	34.0



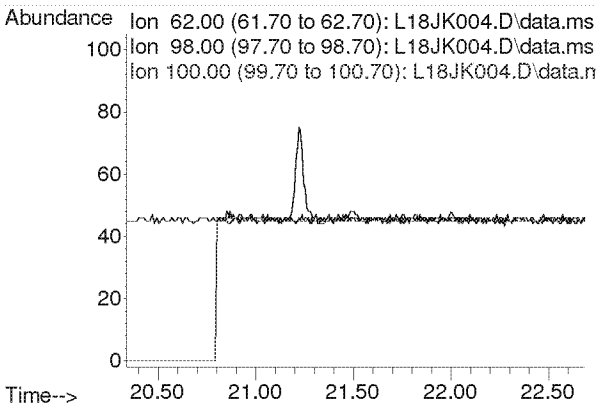


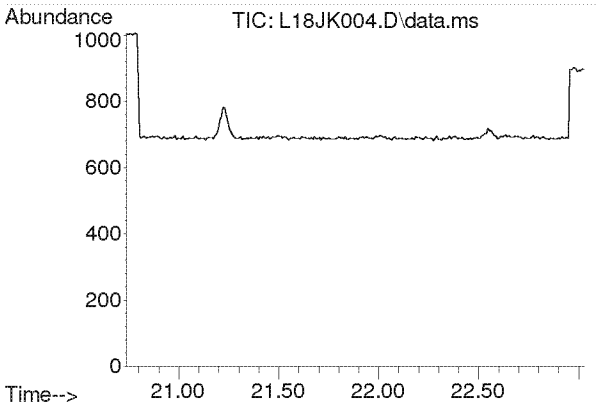
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.49 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.0
100	3.9



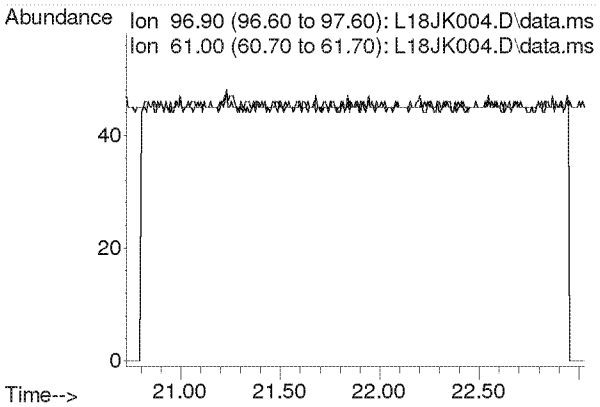


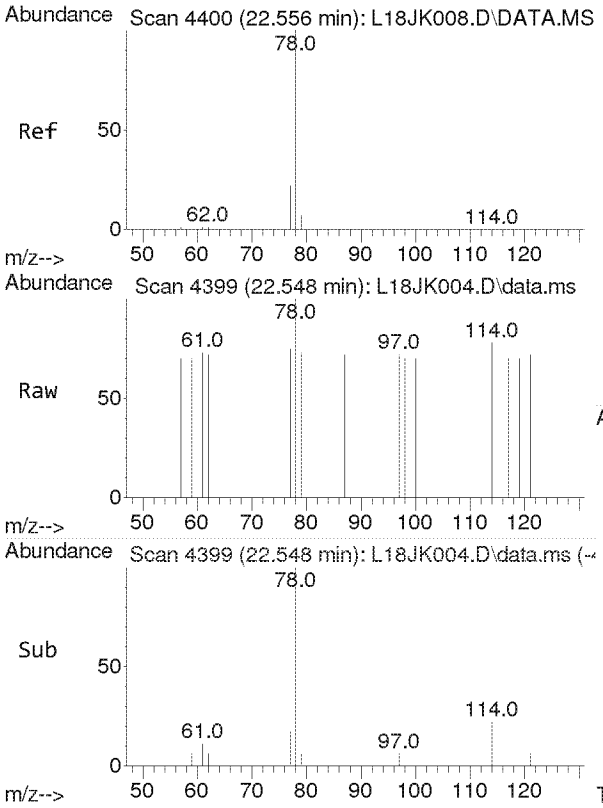
#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.88 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	59.6

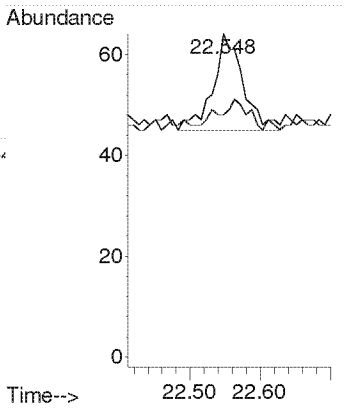


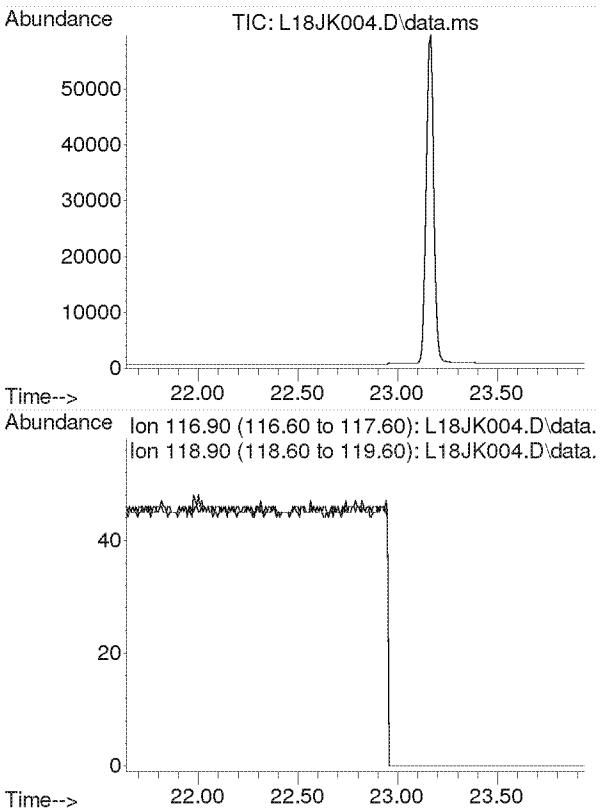


#31
Benzene
Concen: 0.004 ppbv
RT: 22.548 min Scan# 4399
Delta R.T. -0.008 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 78 Resp: 56

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.3	27.5#



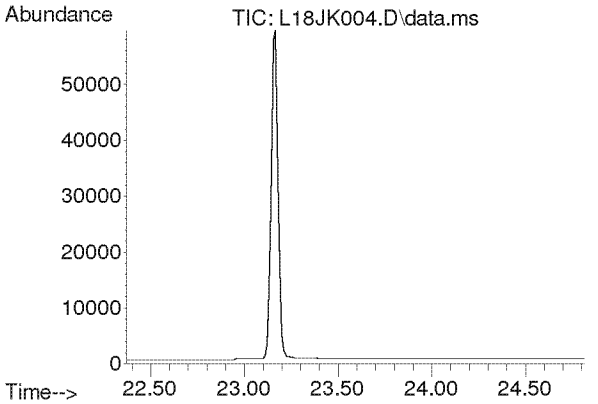


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.9

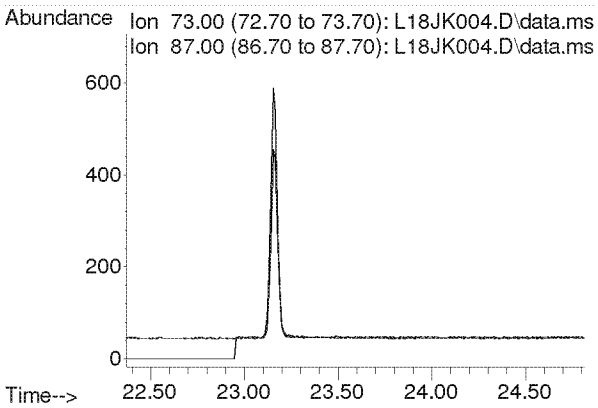


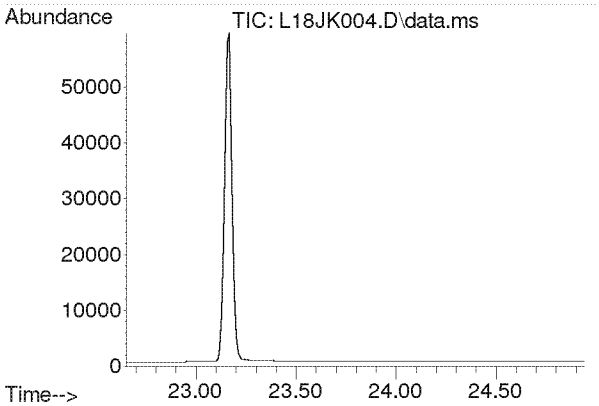
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



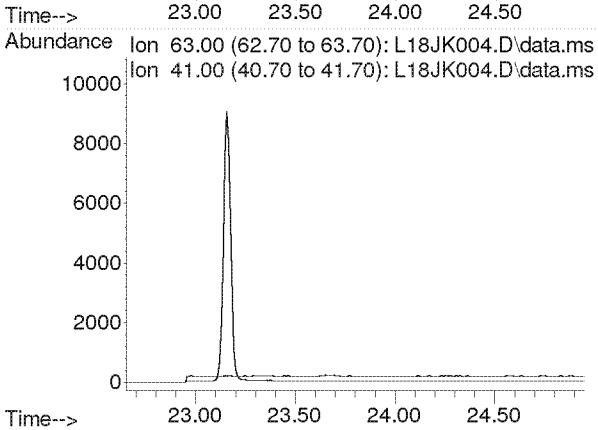


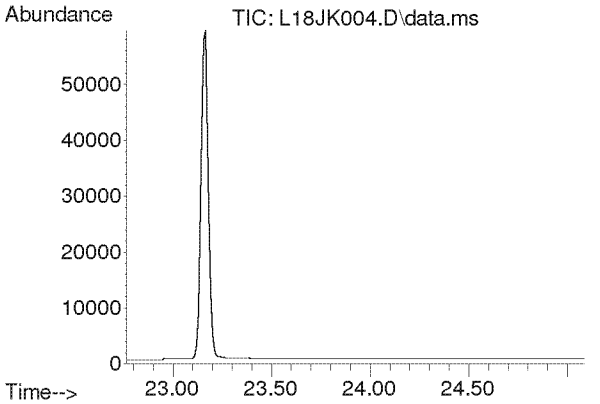
#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.80 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	222.1



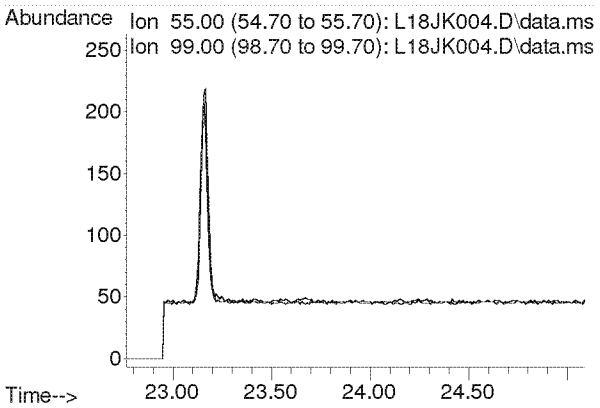


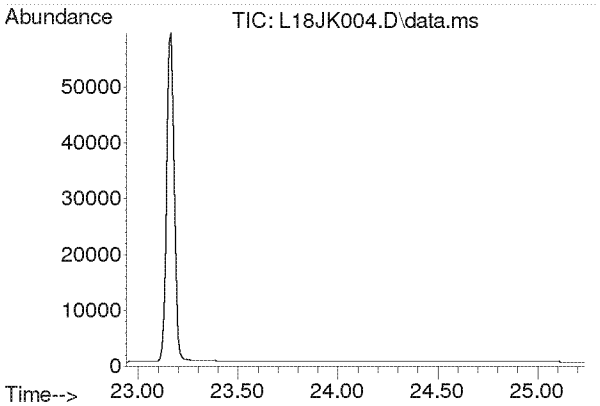
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



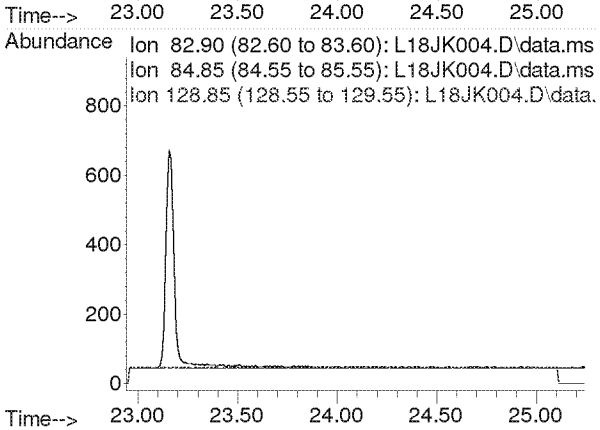


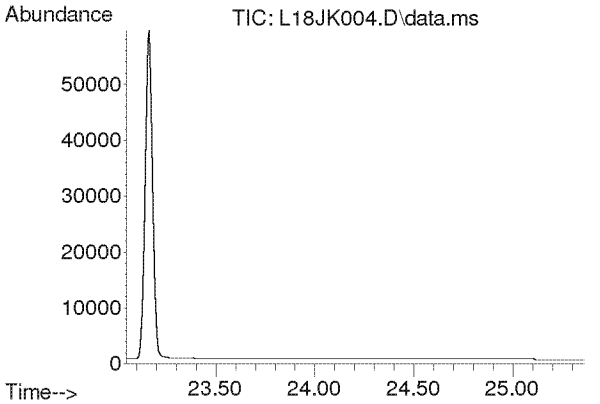
#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.09 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.9



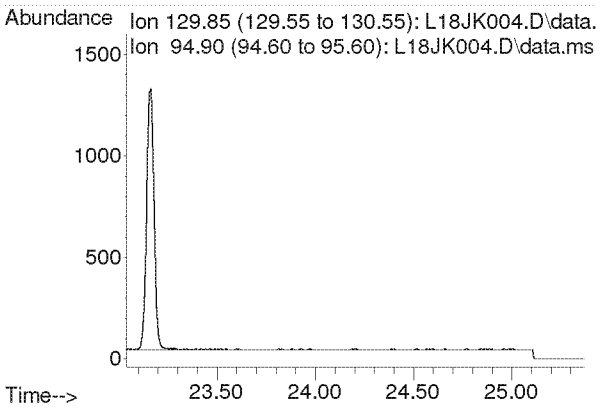


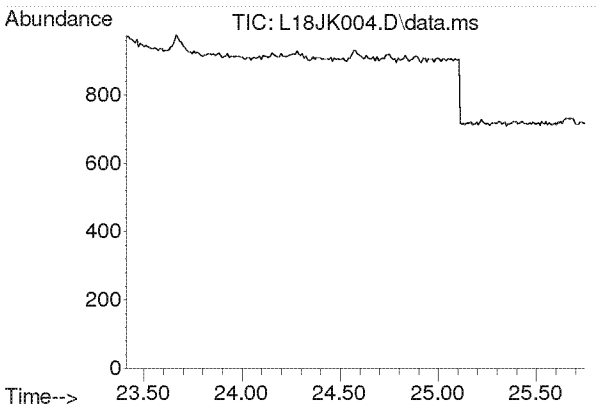
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.19 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.9



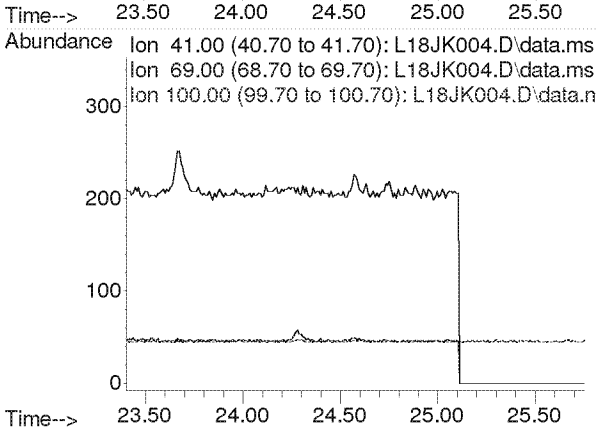


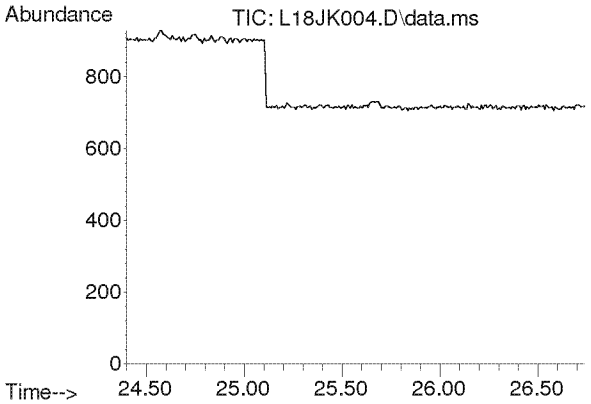
#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.0
100	5.1



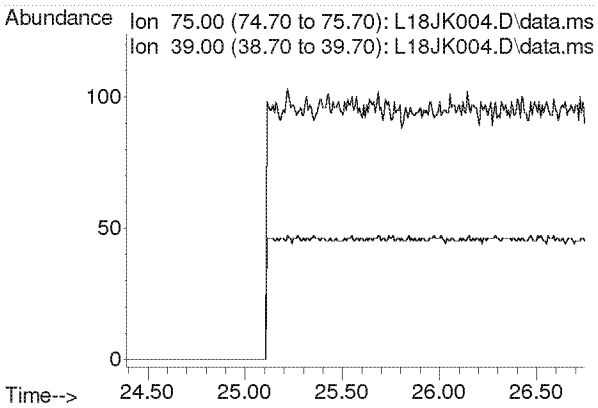


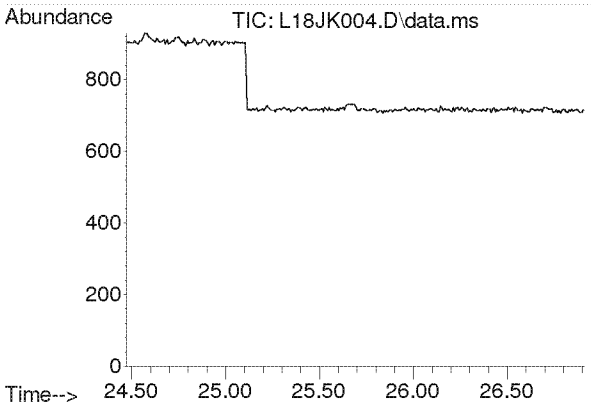
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.54 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.6



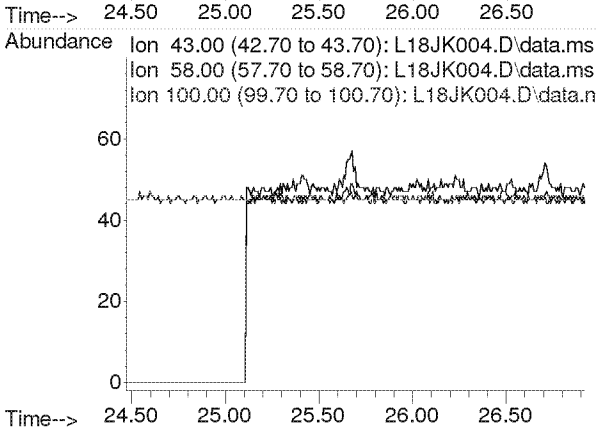


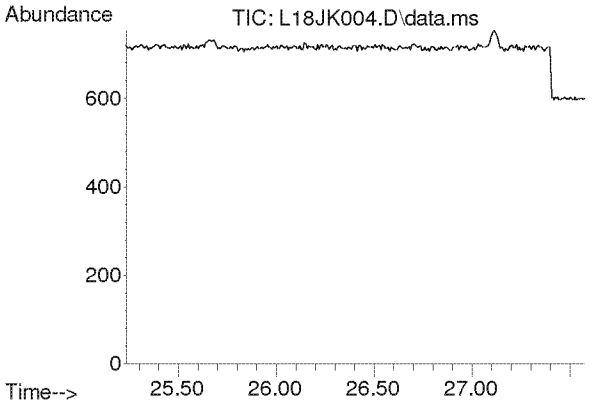
#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.62 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	33.3
100	8.0



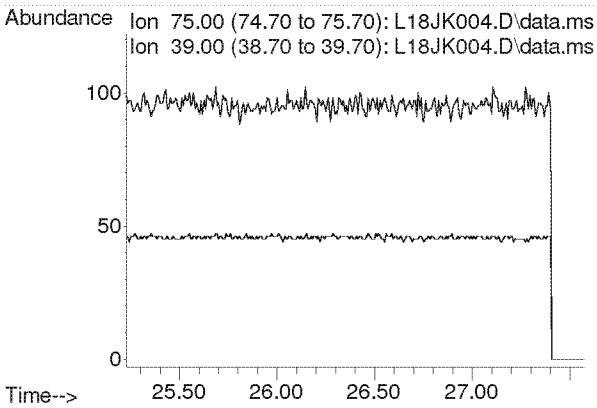


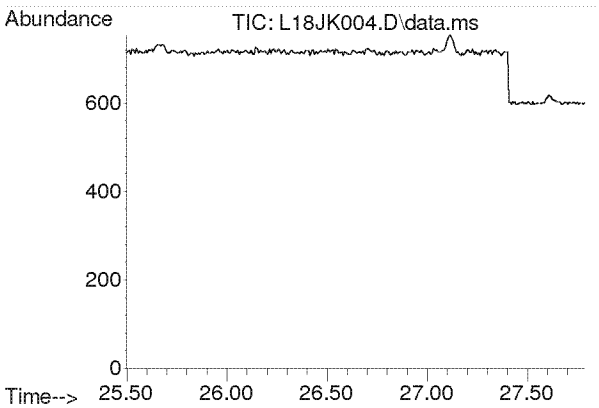
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.38 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	55.3



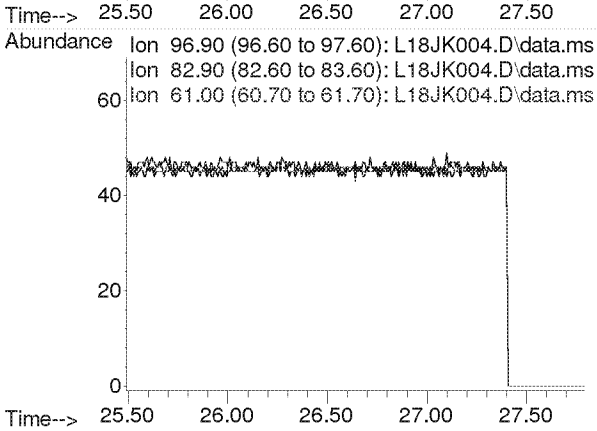


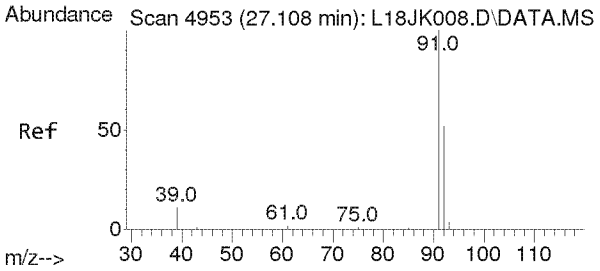
#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.64 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	95.3
61	64.6

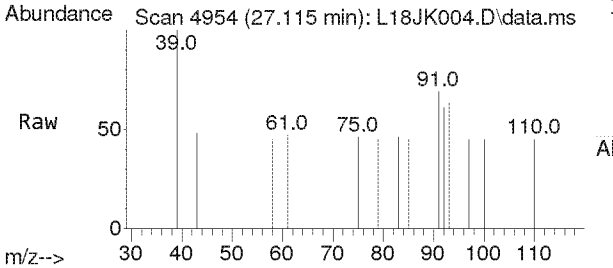


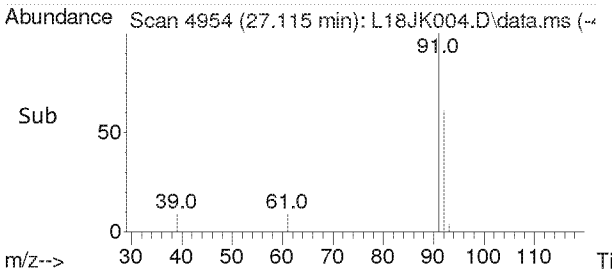


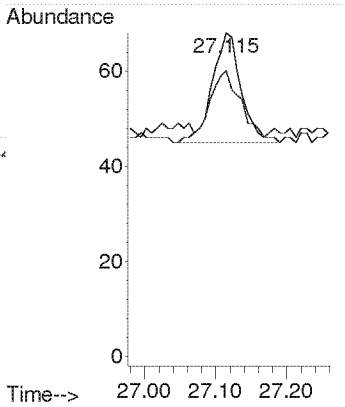
#44
Toluene
Concen: 0.004 ppbv
RT: 27.115 min Scan# 4954
Delta R.T. 0.007 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

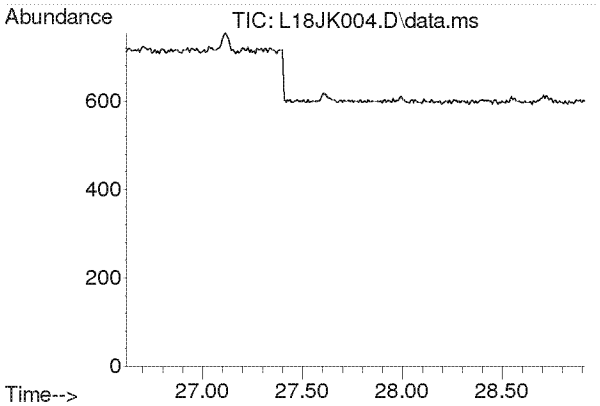
Tgt Ion: 91 Resp: 65

Ion	Ratio	Lower	Upper
91	100		
92	60.0	41.7	62.5







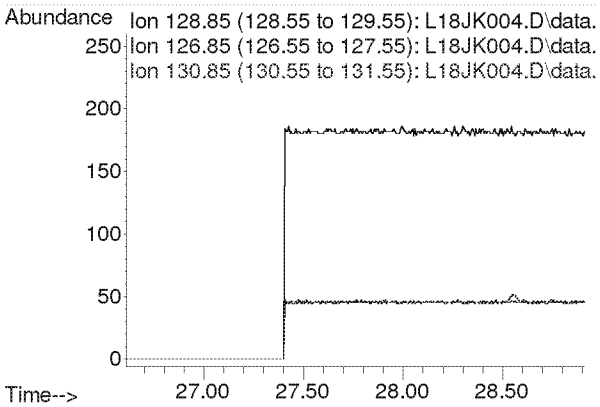


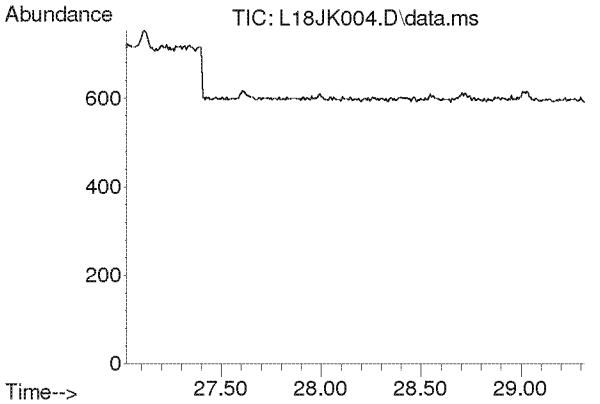
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.76 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



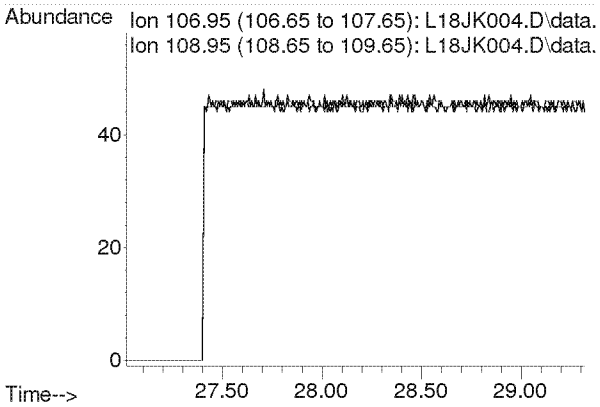


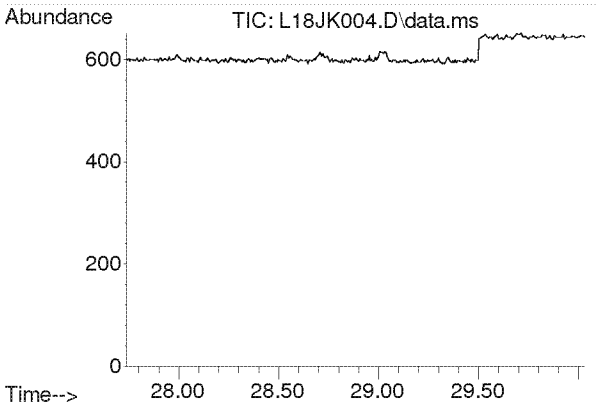
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.17 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	93.8



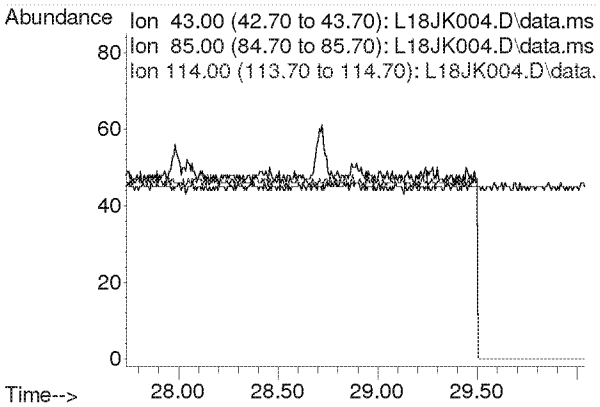


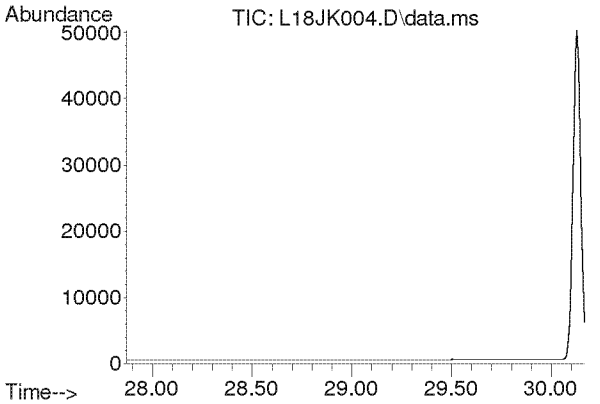
#47
n-Octane
Concen: N.D.
Expected RT: 28.89 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	37.8
114	2.4



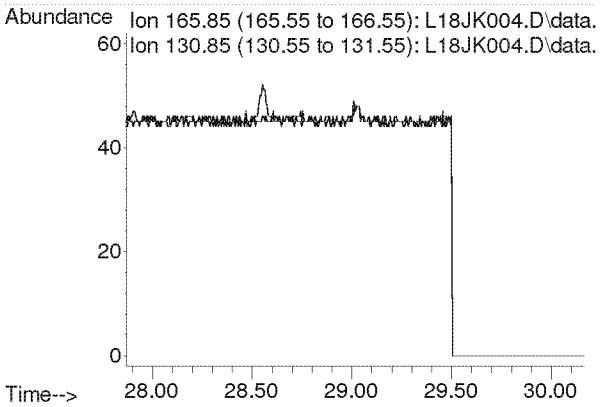


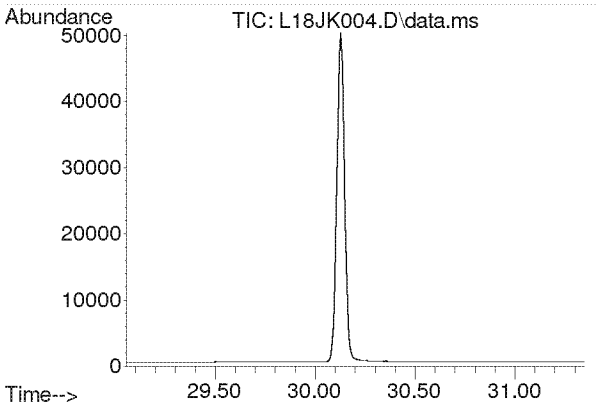
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.02 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.7



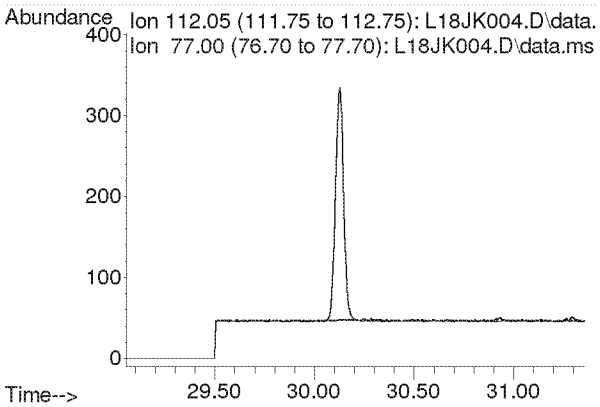


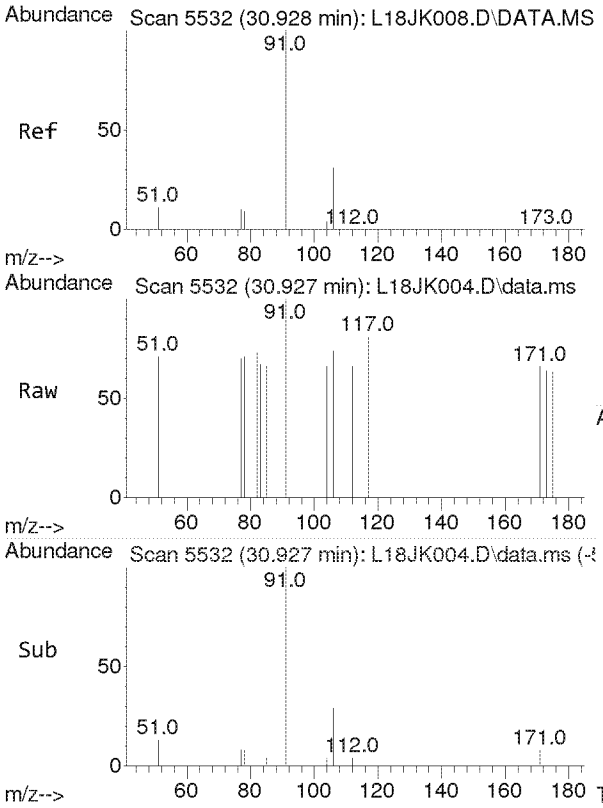
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.20 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.3

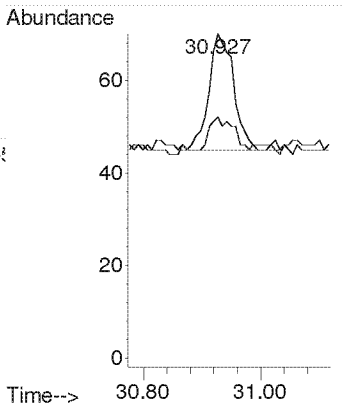


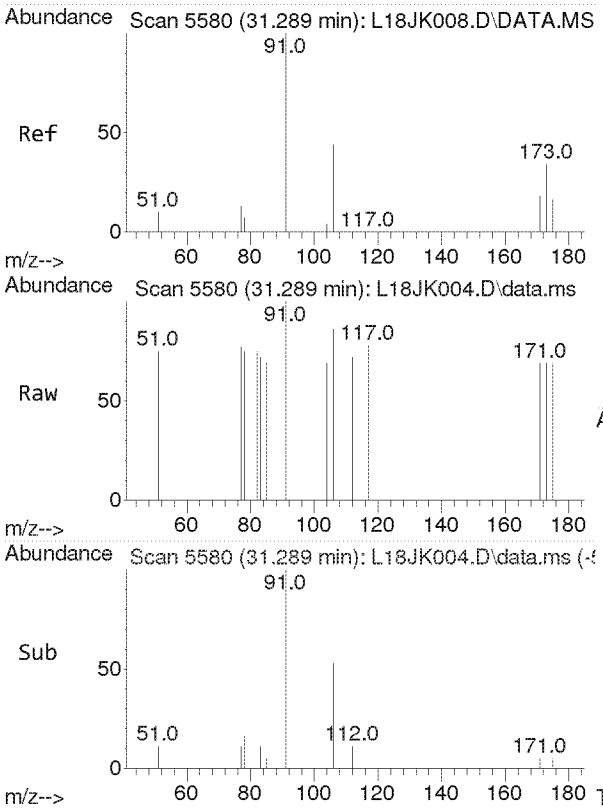


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.927 min Scan# 5532
Delta R.T. -0.000 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 91 Resp: 76

Ion	Ratio	Lower	Upper
91	100		
106	0.0	25.4	38.2#

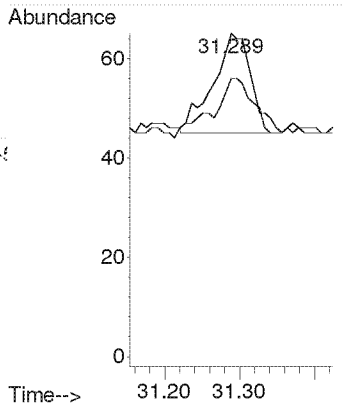


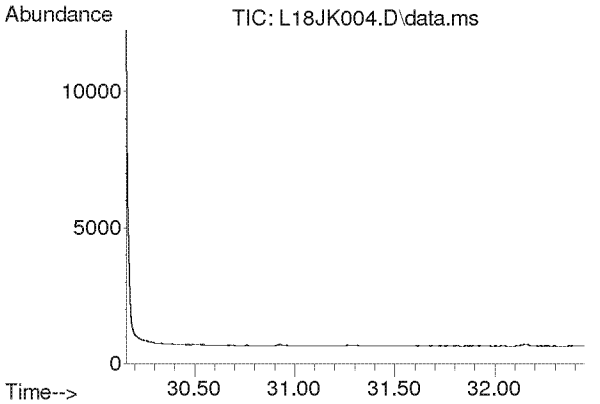


#51
m,p-Xylene
Concen: 0.005 ppbv
RT: 31.289 min Scan# 5580
Delta R.T. -0.000 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 91 Resp: 71

Ion	Ratio	Lower	Upper
91	100		
106	64.8	36.3	54.5#



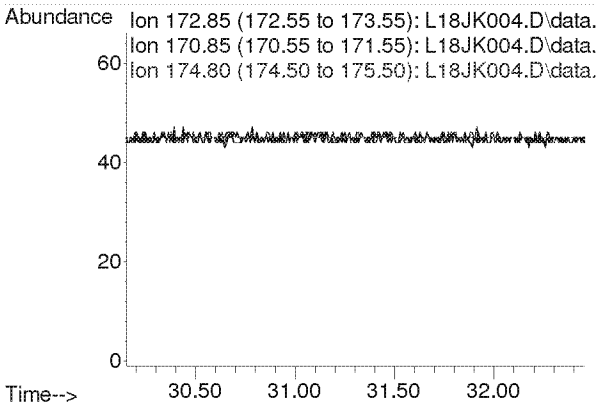


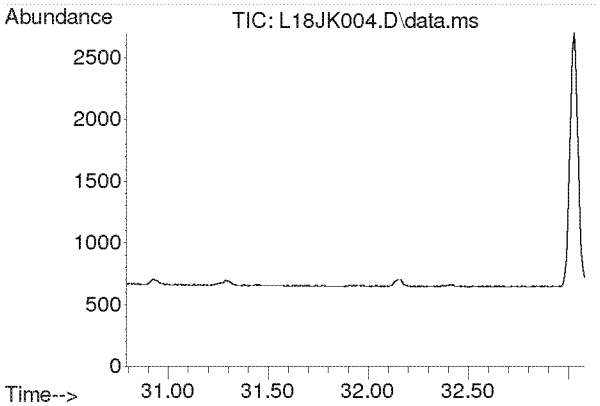
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	49.0



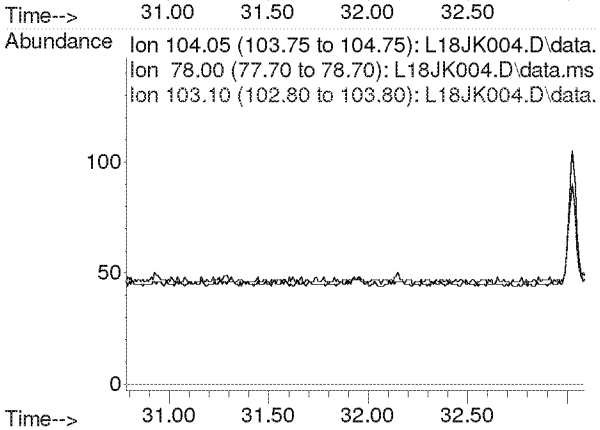


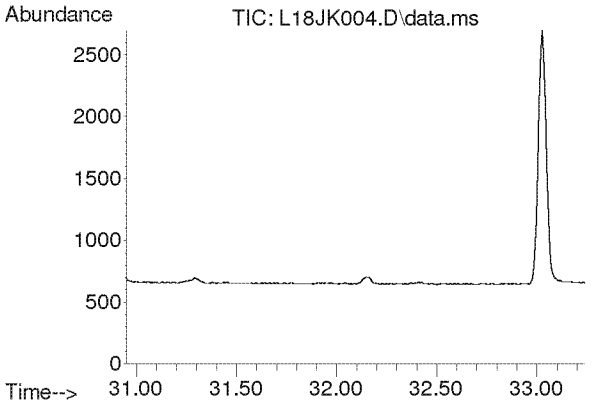
#53
Styrene
Concen: N.D.
Expected RT: 31.94 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.7
103	0.0



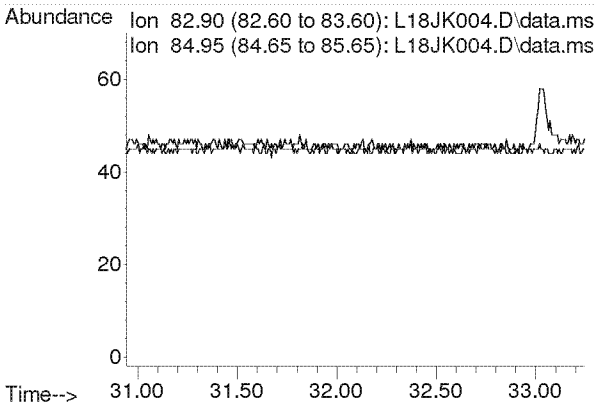


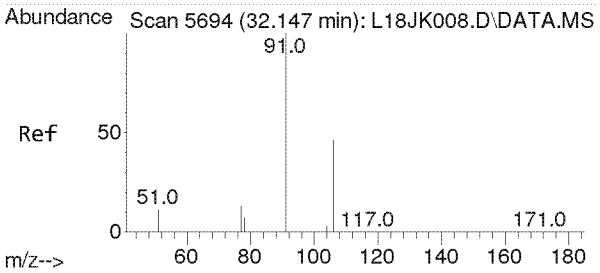
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.09 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.3

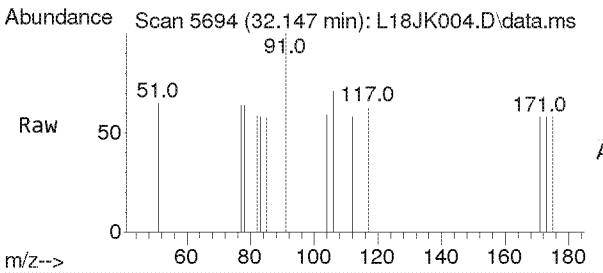


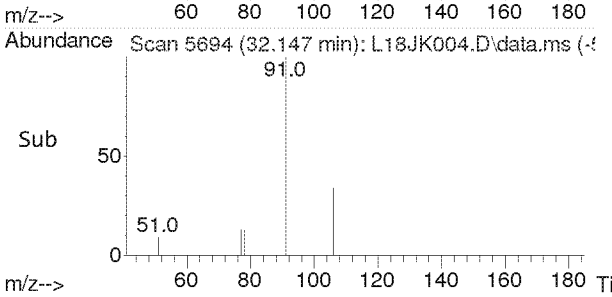


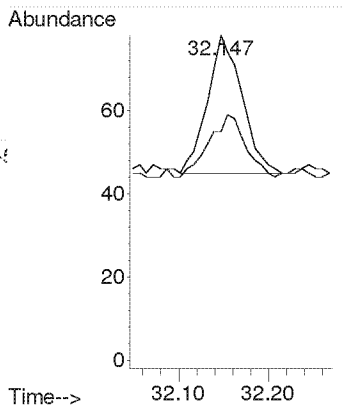
#55
o-Xylene
Concen: 0.007 ppbv
RT: 32.147 min Scan# 5694
Delta R.T. -0.000 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

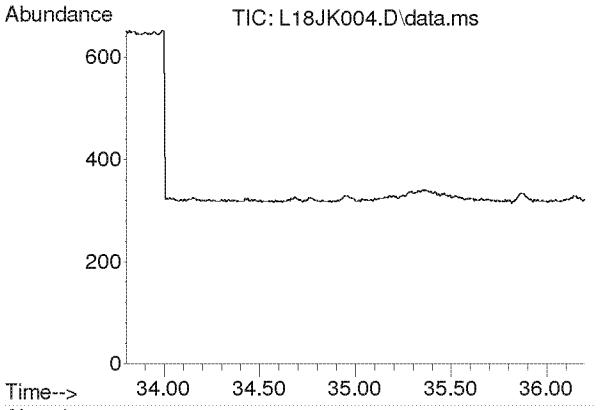
Tgt Ion: 91 Resp: 88

Ion	Ratio	Lower	Upper
91	100		
106	51.1	36.4	54.6







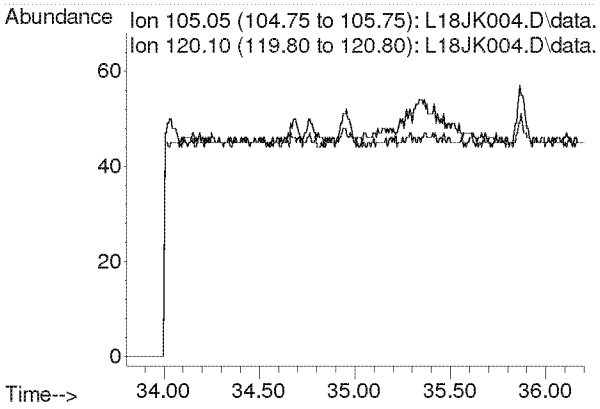


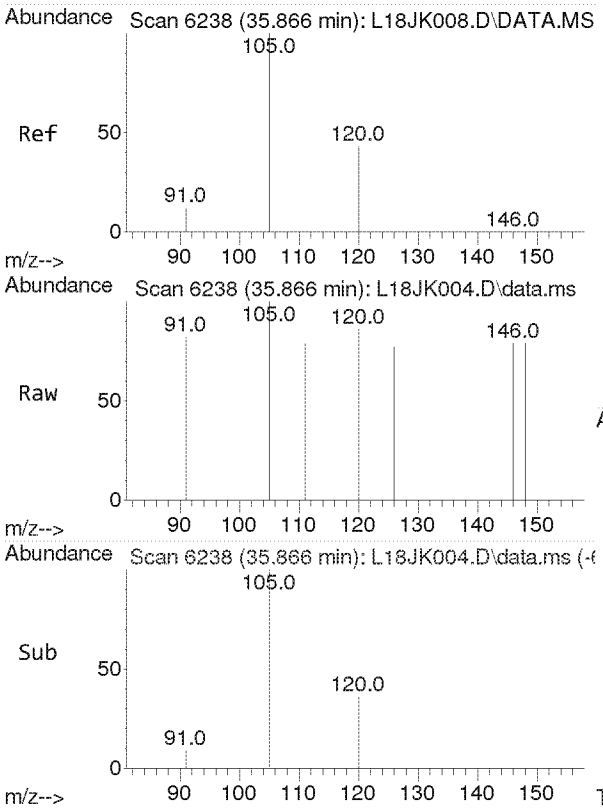
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.95 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.6

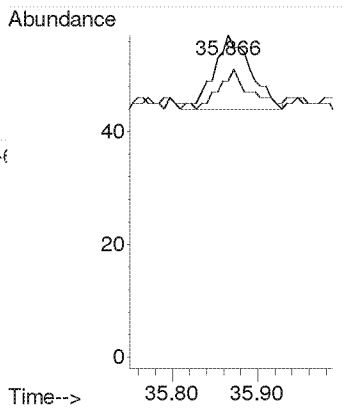


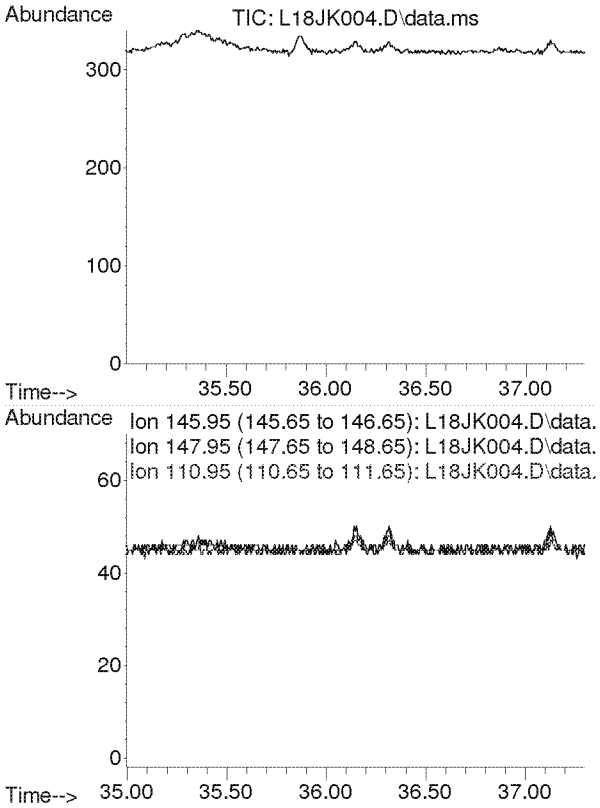


#57
1,2,4-Trimethylbenzene
Concen: 0.003 ppbv
RT: 35.866 min Scan# 6238
Delta R.T. -0.000 min
Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion:105 Resp: 39

Ion	Ratio	Lower	Upper
105	100		
120	0.0	34.7	52.1#



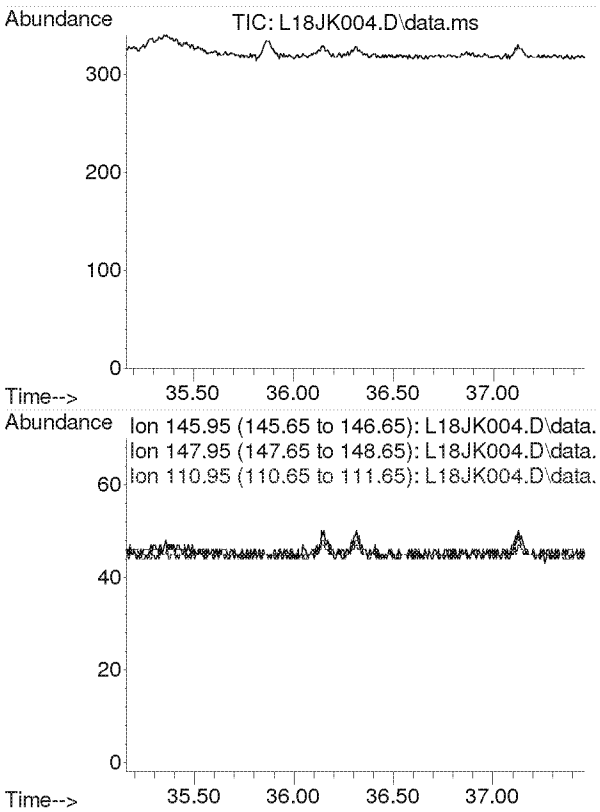


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.15 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	41.1

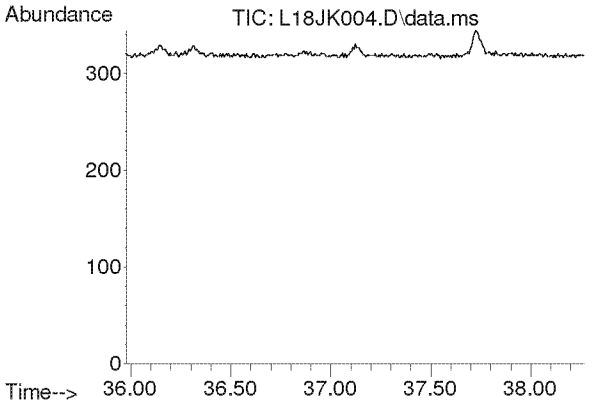


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.31 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.8

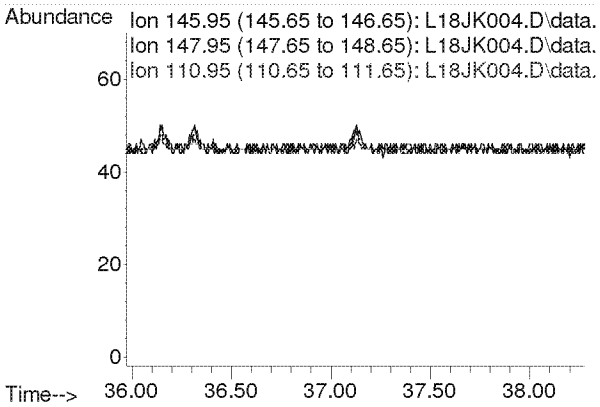


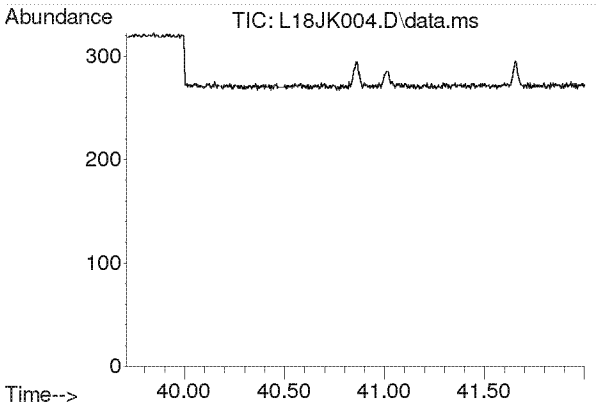
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.12 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	41.8



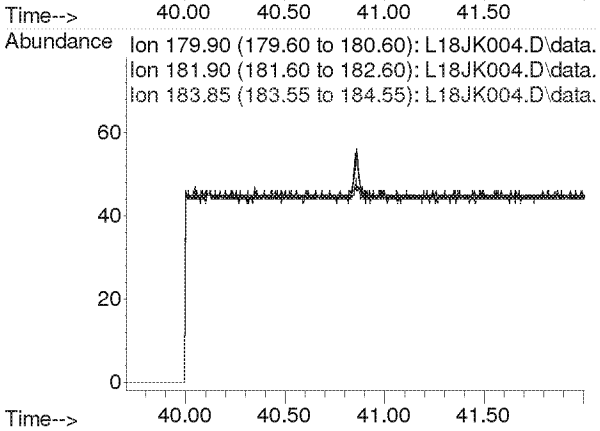


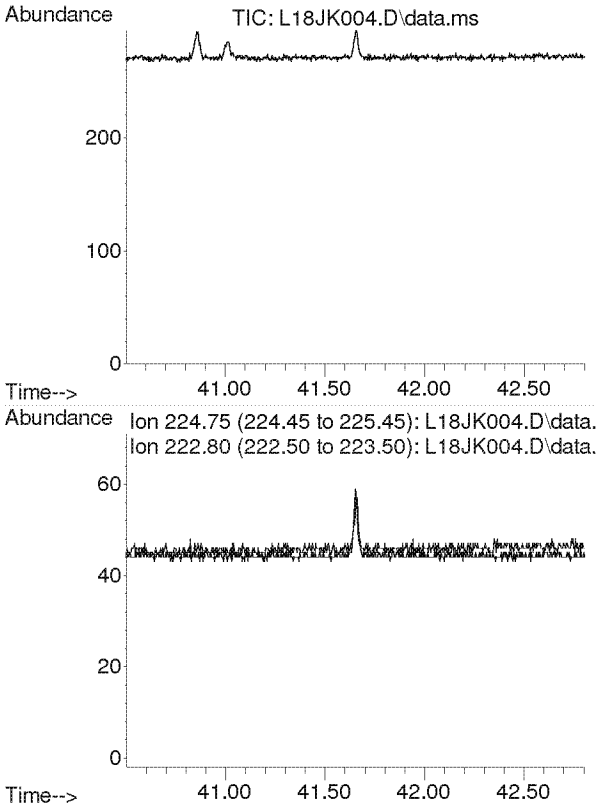
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.85 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.6
184	30.5





#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.65 min

Lab File: L18JK004.D
Acq: 11 Oct 2018 8:30 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.8

Analytical Standard Record
Eastern Research Group
8J11001

Description:	0.25 ppbv ICal	Expires:	11/10/18
Standard Type:	Calibration Stan	Prepared:	10/11/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	10/11/18 16:29 by MH

canister# 3238

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.000256	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.000252	ppmv
1,1,2-Trichloroethane	79-00-5	0.000254	ppmv
1,1-Dichloroethane	75-34-3	0.000258	ppmv
1,1-Dichloroethene	75-35-4	0.000272	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.000235	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.000242	ppmv
1,2-Dibromoethane	106-93-4	0.000258	ppmv
1,2-Dichloroethane	107-06-2	0.000258	ppmv
1,2-Dichloropropane	78-87-5	0.000252	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.000244	ppmv
1,3-Butadiene	106-99-0	0.000246	ppmv
Acetonitrile	75-05-8	0.00023	ppmv
Acetylene	74-86-2	0.000228	ppmv
Acrolein	107-02-8	0.000204	ppmv
Acrylonitrile	107-13-1	0.000238	ppmv
Benzene	71-43-2	0.000257	ppmv
Bromochloromethane	74-97-5	0.000254	ppmv
Bromodichloromethane	75-27-4	0.00024	ppmv
Bromoform	75-25-2	0.000242	ppmv
Bromomethane	74-83-9	0.000254	ppmv
Carbon Disulfide	75-15-0	0.000252	ppmv
Carbon Tetrachloride	56-23-5	0.00028	ppmv
Chlorobenzene	108-90-7	0.000257	ppmv
Chloroethane	75-00-3	0.00025	ppmv
Chloroform	67-66-3	0.000254	ppmv
Chloromethane	74-87-3	0.00025	ppmv
Chloroprene	126-99-8	0.00026	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.000256	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.000252	ppmv

Reviewed By 10-31-18 Date

Analytical Standard Record

Eastern Research Group

8J11001

Dibromochloromethane	124-48-1	0.000237	ppmv
Dichlorodifluoromethane	75-71-8	0.000245	ppmv
Dichloromethane	75-09-2	0.000271	ppmv
Dichlorotetrafluoroethane	76-14-2	0.000276	ppmv
Ethyl Acrylate	140-88-5	0.00025	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.000237	ppmv
Ethylbenzene	100-41-4	0.000254	ppmv
Ethylene oxide	75-21-8	0.000255	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.000238	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.000485	ppmv
m-Dichlorobenzene	541-73-1	0.000234	ppmv
Methyl Isobutyl Ketone	108-10-1	0.000234	ppmv
Methyl Methacrylate	80-62-6	0.00024	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.000242	ppmv
n-Octane	111-65-9	0.000258	ppmv
o-Dichlorobenzene	95-50-1	0.000239	ppmv
o-Xylene	95-47-6	0.000252	ppmv
p-Dichlorobenzene	106-46-7	0.000246	ppmv
Propylene	115-07-1	0.000243	ppmv
Styrene	100-42-5	0.000246	ppmv
tert-Amyl Methyl Ether	994-05-8	0.000242	ppmv
Tetrachloroethylene	127-18-4	0.000255	ppmv
Toluene	108-88-3	0.000258	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.000251	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.000254	ppmv
Trichloroethylene	79-01-6	0.00024	ppmv
Trichlorofluoromethane	75-69-4	0.000236	ppmv
Trichlorotrifluoroethane	76-13-1	0.000259	ppmv
Vinyl chloride	75-01-4	0.000258	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
7J25026	TO-15 Primary Stock Standard	10/17/17	** Vendor **	10/17/18	10/25/17 10:58 by MH	3
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	1.5

Reviewed By 10-31-18 Date

ED_002475_00000113-00045

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK005.D
Acq On : 11 Oct 2018 9:32 pm (#1); 11-Oct-18, 21:27:24 (#2)
Operator : MAH
Sample : 1810019-CAL1
Misc : 80ML IS 7L07001,8J11001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 12 09:28:11 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

TO-15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46349	4.8000	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.166	114	110834	5.0200	ppbv	0.00
43) IS-Chlorobenzene-d5	30.129	117	78261	4.7700	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.414	26	1083	0.2313	ppbv	100
3) Propylene	7.842	41	1231	0.2536	ppbv	98
4) Dichlorodifluoromethane	8.710	85	5532	0.2477	ppbv	100
5) Chloromethane	9.761	50	1561	0.2640	ppbv	98
6) Dichlorotetrafluoroethane	10.888	85	5441	0.2763	ppbv	100
7) Vinyl Chloride	11.123	62	1615	0.2519	ppbv	99
8) 1,3-Butadiene	11.796	54	1032	0.2340	ppbv	97
9) Ethylene oxide	12.478	29	583	0.2122	ppbv	97
10) Bromomethane	12.598	94	1589	0.2539	ppbv	99
11) Chloroethane	13.290	64	707	0.2565	ppbv	99
12) Acetonitrile	14.434	41	1182	0.2362	ppbv	100
13) Acrolein	14.690	56	469	0.2075	ppbv	96
14) Trichlorofluoromethane	15.202	101	4619	0.2397	ppbv	100
15) Acrylonitrile	15.958	53	885	0.2335	ppbv	96
16) 1,1-Dichloroethene	16.436	61	2370	0.2756	ppbv	99
17) Methylene Chloride	16.738	49	1711	0.2761	ppbv	99
18) Carbon Disulfide	16.936	76	4288	0.2442	ppbv	99
19) Trichlorotrifluoroethane	17.285	101	3484	0.2625	ppbv	100
20) trans-1,2-Dichloroethy...	18.336	96	1236	0.2580	ppbv	98
21) 1,1-Dichloroethane	18.636	63	2265	0.2709	ppbv	100
22) Methyl tert-Butyl Ether	18.825	73	3094	0.2351	ppbv	100
23) Chloroprene	19.548	53	1626	0.2588	ppbv	98
24) cis-1,2-Dichloroethylene	19.959	61	1748m	0.2651	ppbv	
25) Bromochloromethane	20.182	128	973	0.2671	ppbv	99
26) Chloroform	20.415	83	2628	0.2667	ppbv	99
27) Ethyl tert-Butyl Ether	21.198	59	3100	0.2291	ppbv	99
28) 1,2-Dichloroethane	21.495	62	1682	0.2732	ppbv	98
30) 1,1,1-Trichloroethane	21.881	97	2438	0.2561	ppbv	98
31) Benzene	22.556	78	3625	0.2692	ppbv	100
32) Carbon Tetrachloride	22.789	117	3082	0.2835	ppbv	99
33) tert-Amyl Methyl Ether	23.528	73	2632	0.2331	ppbv	98
34) 1,2-Dichloropropane	23.809	63	1359	0.2625	ppbv	100
35) Ethyl Acrylate	23.900	55	1623	0.2476	ppbv	99
36) Bromodichloromethane	24.099	83	2518	0.2529	ppbv	100
37) Trichloroethylene	24.190	130	1535	0.2490	ppbv	100
38) Methyl Methacrylate	24.562	41	4636	0.2512	ppbv	99
39) cis-1,3-Dichloropropene	25.543	75	1204	0.2547	ppbv	98
40) Methyl Isobutyl Ketone	25.634	43	2654	0.2473	ppbv	99
41) trans-1,3-Dichloropropene	26.386	75	886	0.2560	ppbv	95
42) 1,1,2-Trichloroethane	26.641	97	1233	0.2677	ppbv	99
44) Toluene	27.115	91	3838	0.2635	ppbv	99
45) Dibromochloromethane	27.762	129	8589	0.2444	ppbv	100
46) 1,2-Dibromoethane	28.175	107	1671	0.2742	ppbv	100
47) n-Octane	28.888	43	2291	0.2510	ppbv	98
48) Tetrachloroethylene	29.019	166	1925	0.2683	ppbv	100
49) Chlorobenzene	30.205	112	2595	0.2697	ppbv	99
50) Ethylbenzene	30.935	91	3923	0.2555	ppbv	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK005.D
Acq On : 11 Oct 2018 9:32 pm (#1); 11-Oct-18, 21:27:24 (#2)
Operator : MAH
Sample : 1810019-CAL1
Misc : 80ML IS 7L07001,8J11001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 12 09:28:11 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.289	91	6284	0.4721 ppbv	100
52) Bromoform	31.304	173	1744	0.2526 ppbv	100
53) Styrene	31.944	104	1751	0.2444 ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.102	83	2395	0.2641 ppbv	100
55) o-Xylene	32.147	91	3248	0.2527 ppbv	99
56) 1,3,5-Trimethylbenzene	34.952	105	3306	0.2514 ppbv	100
57) 1,2,4-Trimethylbenzene	35.872	105	2714	0.2474 ppbv	99
58) m-Dichlorobenzene	36.147	146	1466	0.2416 ppbv	100
59) p-Dichlorobenzene	36.316	146	1266	0.2538 ppbv	99
60) o-Dichlorobenzene	37.130	146	1378	0.2551 ppbv	99
61) 1,2,4-Trichlorobenzene	40.857	180	690	0.2813 ppbv	100
62) Hexachloro-1,3-butadiene	41.657	225	1808	0.3034 ppbv	100

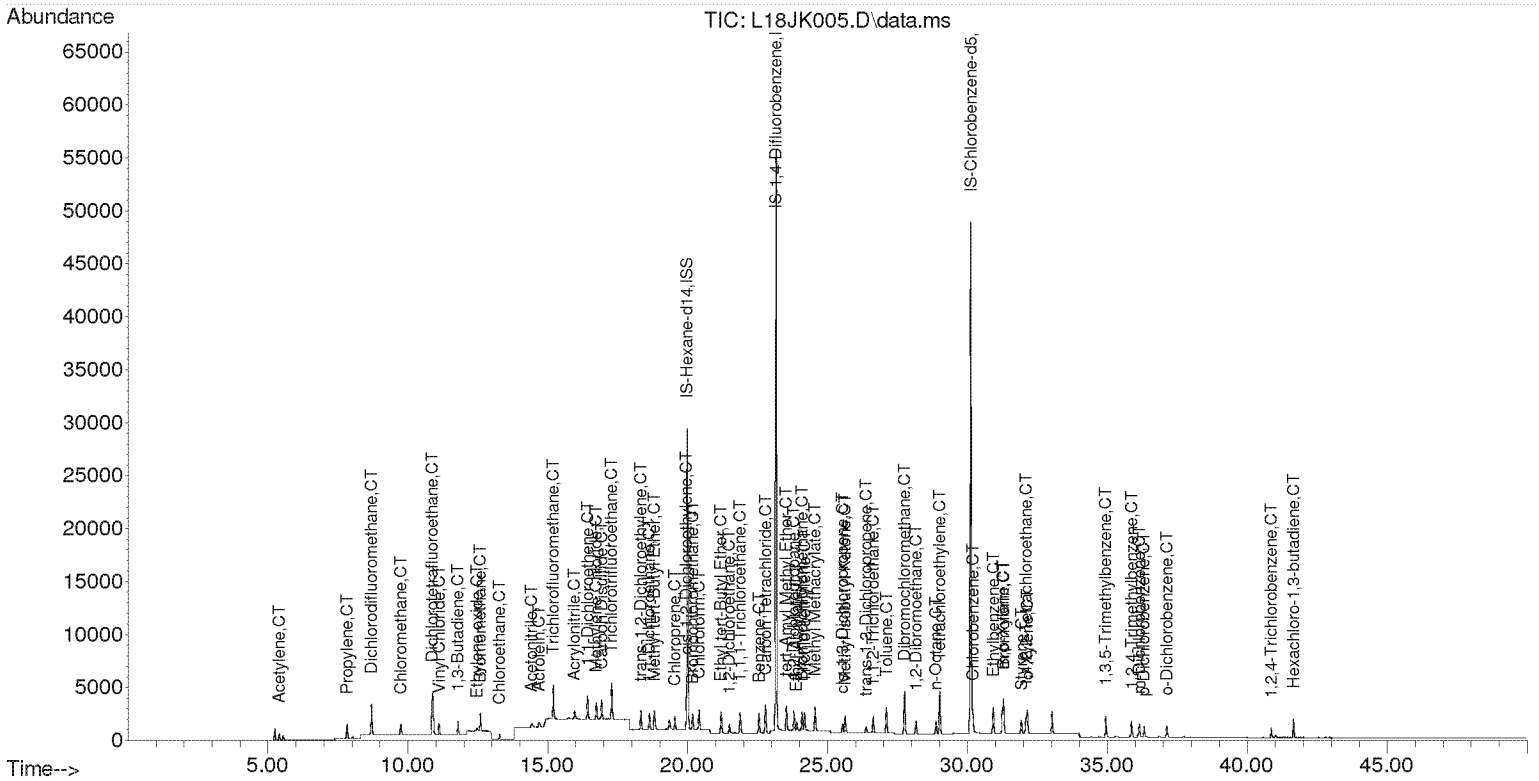
(#) = qualifier out of range (m) = manual integration (+) = signals summed

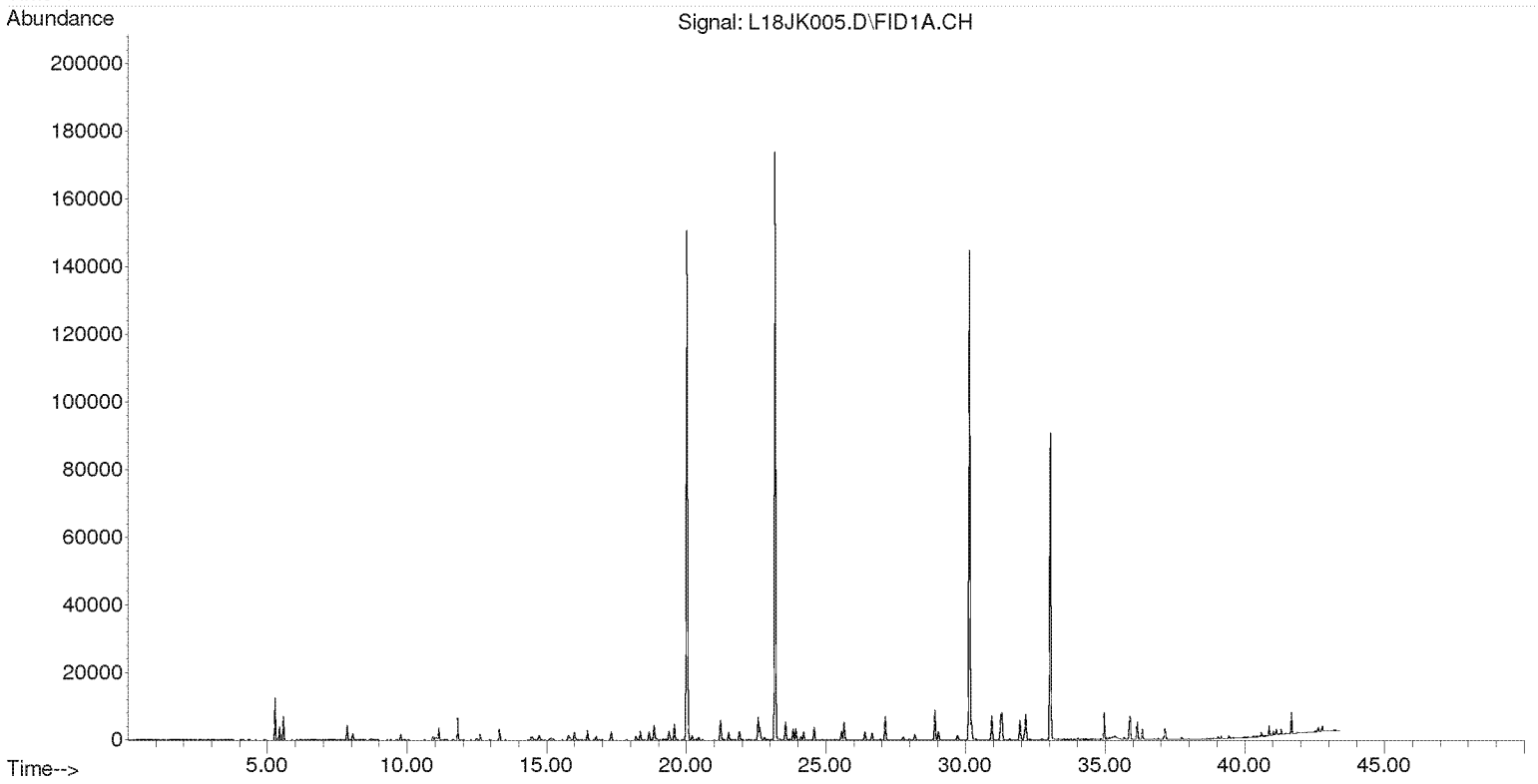
ED_002475_00000113-00047

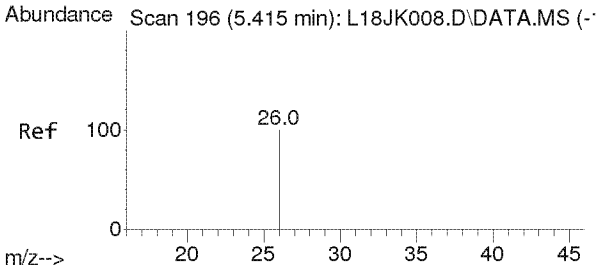
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK005.D
Acq On : 11 Oct 2018 9:32 pm (#1); 11 Oct 2018 9:27 pm (#2)
Operator : MAH
Sample : 1810019-CAL1
Misc : 80ML IS 7L07001,8J11001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 12 09:27:29 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

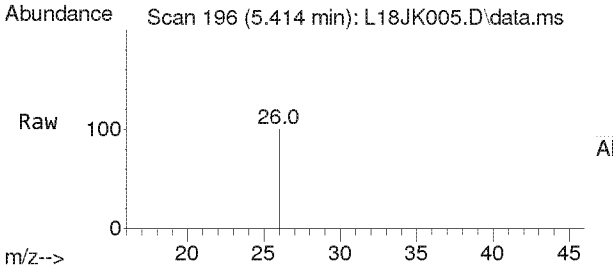


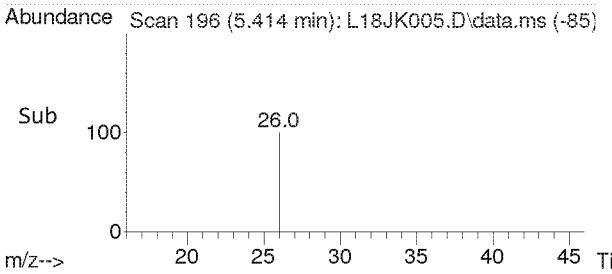


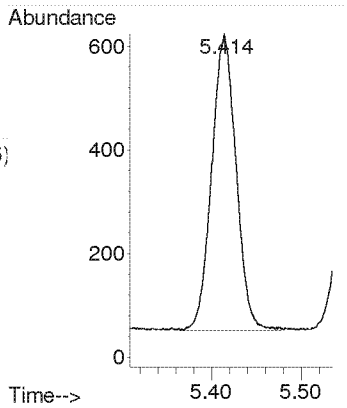


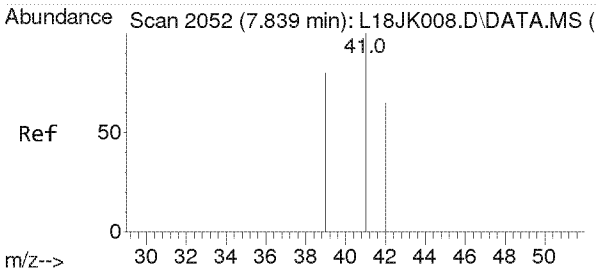
#2
Acetylene
Concen: 0.231 ppbv
RT: 5.414 min Scan# 196
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 26 Resp: 1083





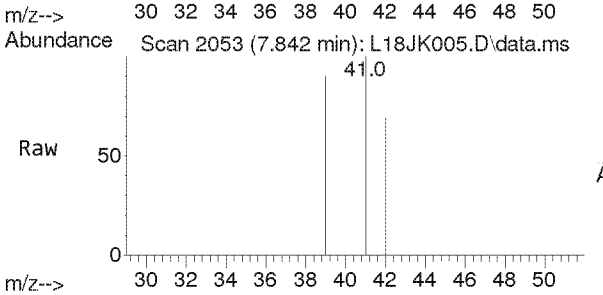


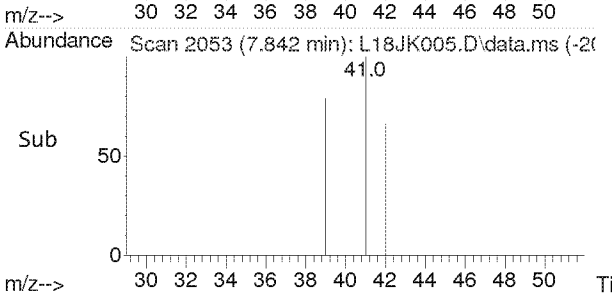


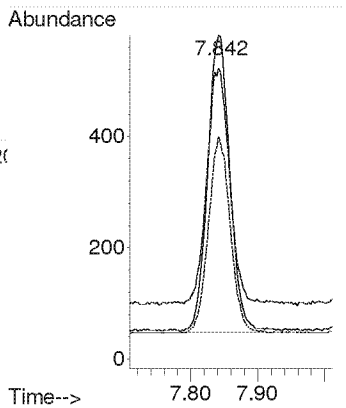
#3
Propylene
Concen: 0.254 ppbv
RT: 7.842 min Scan# 2053
Delta R.T. 0.003 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

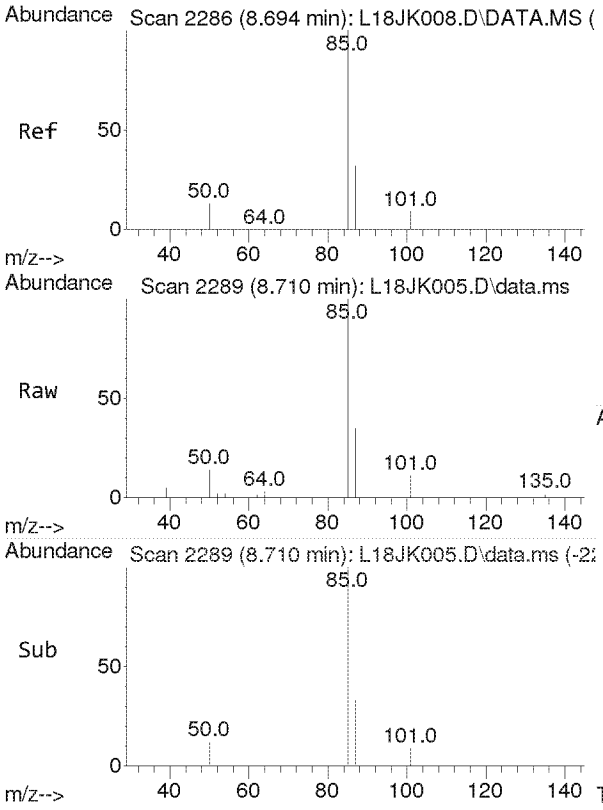
Tgt Ion: 41 Resp: 1231

Ion	Ratio	Lower	Upper
41	100		
39	82.9	65.0	97.4
42	64.6	52.3	78.5





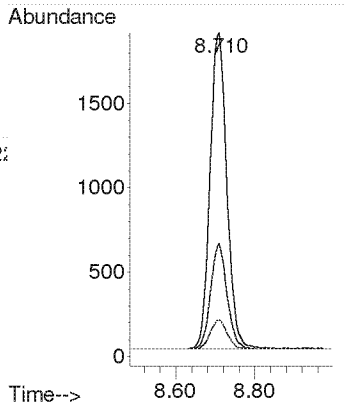


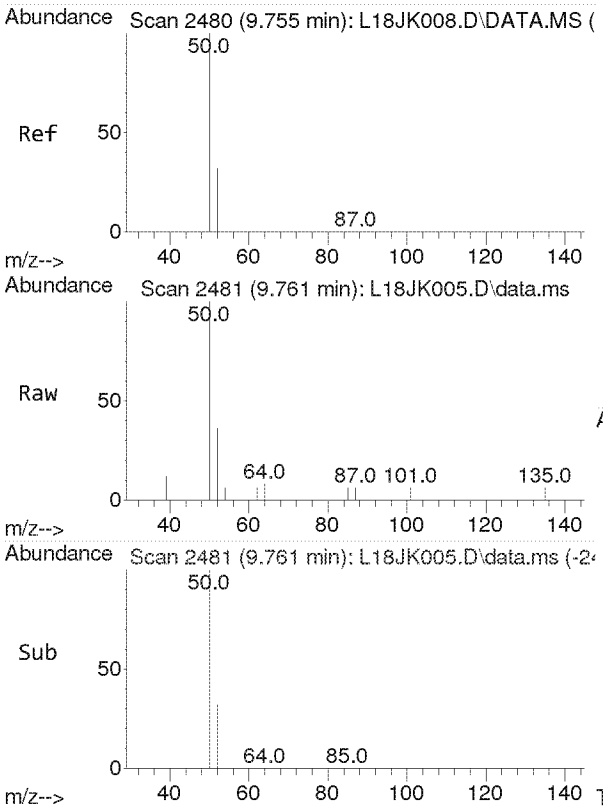


#4
Dichlorodifluoromethane
Concen: 0.248 ppbv
RT: 8.710 min Scan# 2289
Delta R.T. 0.016 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 85 Resp: 5532

Ion	Ratio	Lower	Upper
85	100		
87	32.3	25.8	38.8
101	9.2	7.2	10.8

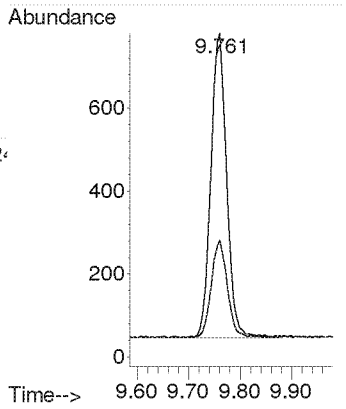


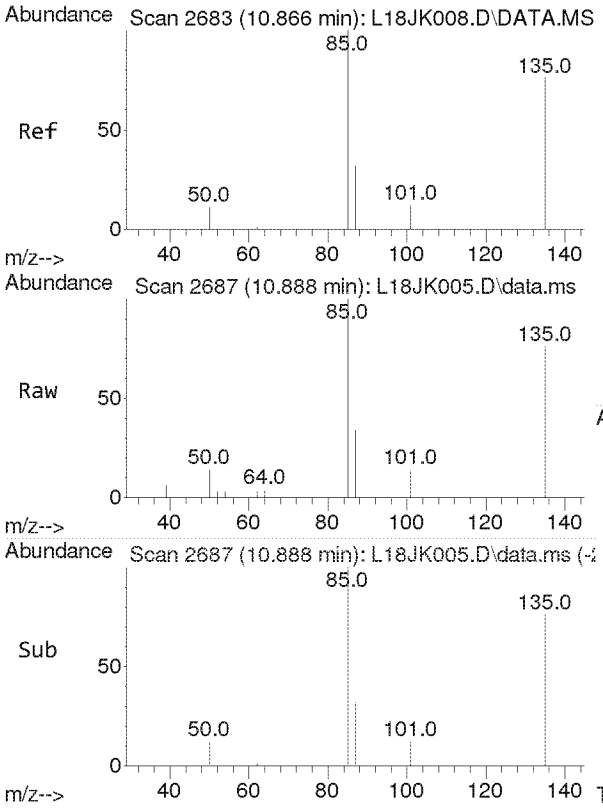


#5
Chloromethane
Concen: 0.264 ppbv
RT: 9.761 min Scan# 2481
Delta R.T. 0.005 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 50 Resp: 1561

Ion	Ratio	Lower	Upper
50	100		
52	33.1	25.8	38.6

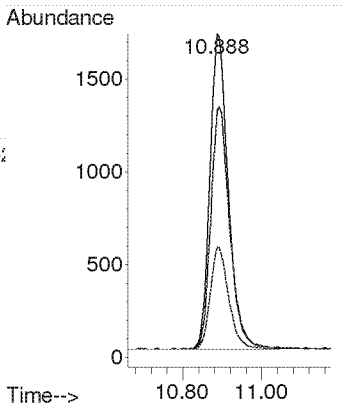


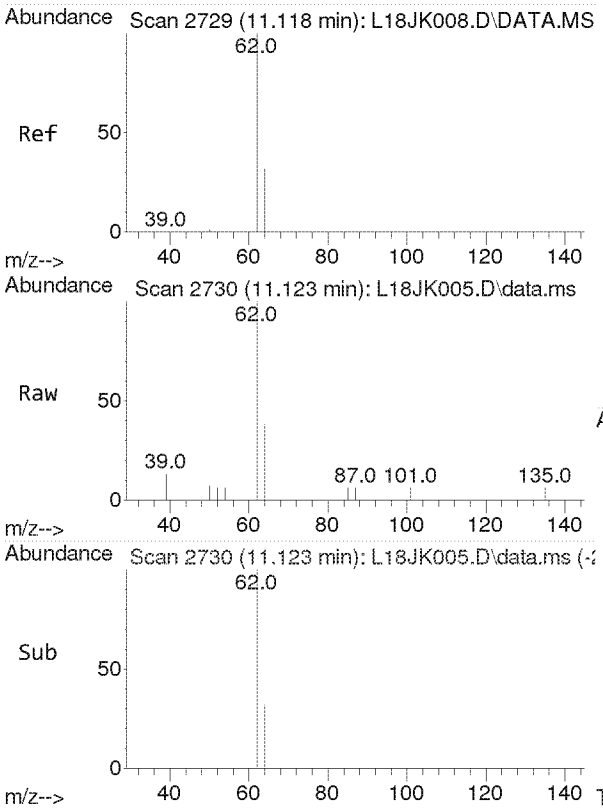


#6
Dichlorotetrafluoroethane
Concen: 0.276 ppbv
RT: 10.888 min Scan# 2687
Delta R.T. 0.022 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 85 Resp: 5441

Ion	Ratio	Lower	Upper
85	100		
135	79.8	63.7	95.5
87	32.5	25.7	38.5

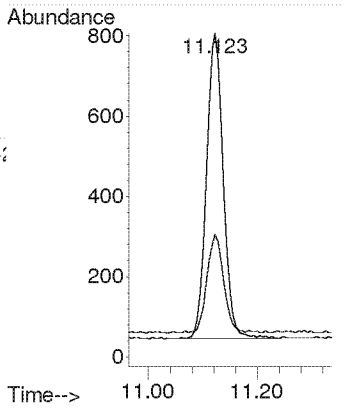


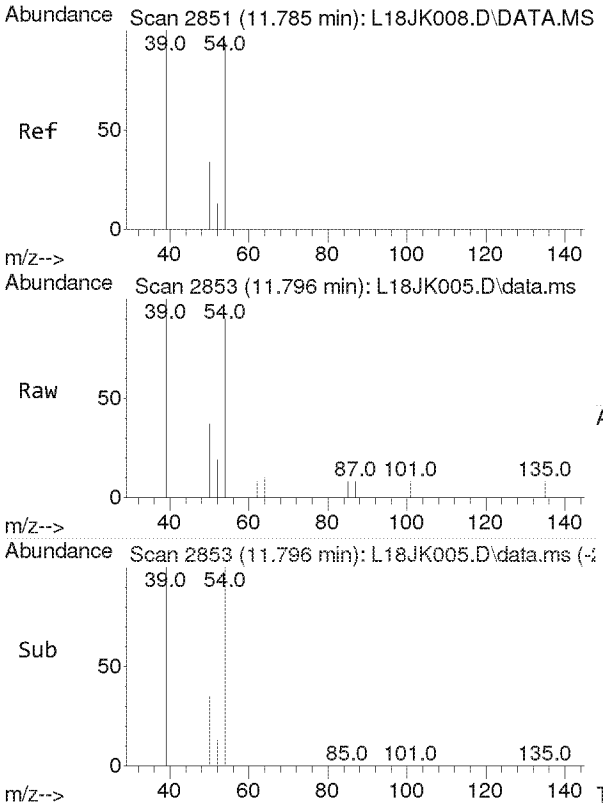


#7
Vinyl Chloride
Concen: 0.252 ppbv
RT: 11.123 min Scan# 2730
Delta R.T. 0.005 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 62 Resp: 1615

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.6	38.4

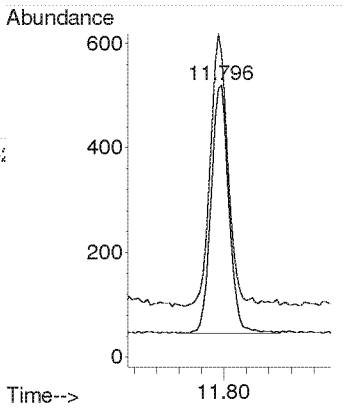


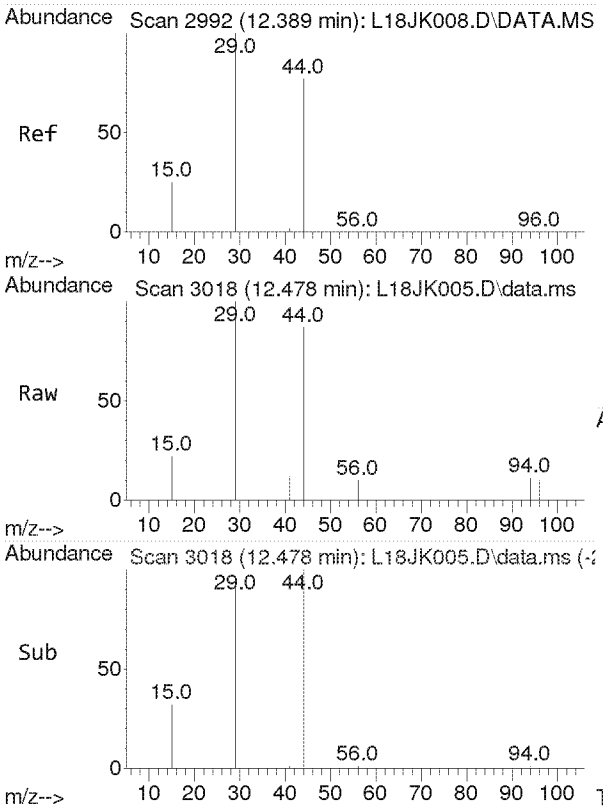


#8
1,3-Butadiene
Concen: 0.234 ppbv
RT: 11.796 min Scan# 2853
Delta R.T. 0.011 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 54 Resp: 1032

Ion	Ratio	Lower	Upper
54	100		
39	111.6	87.0	130.4

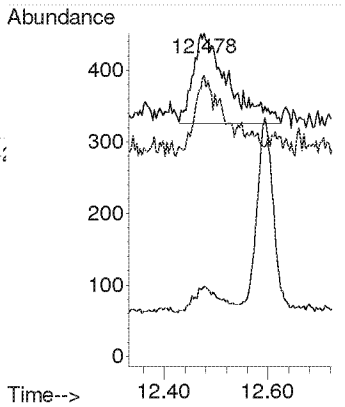


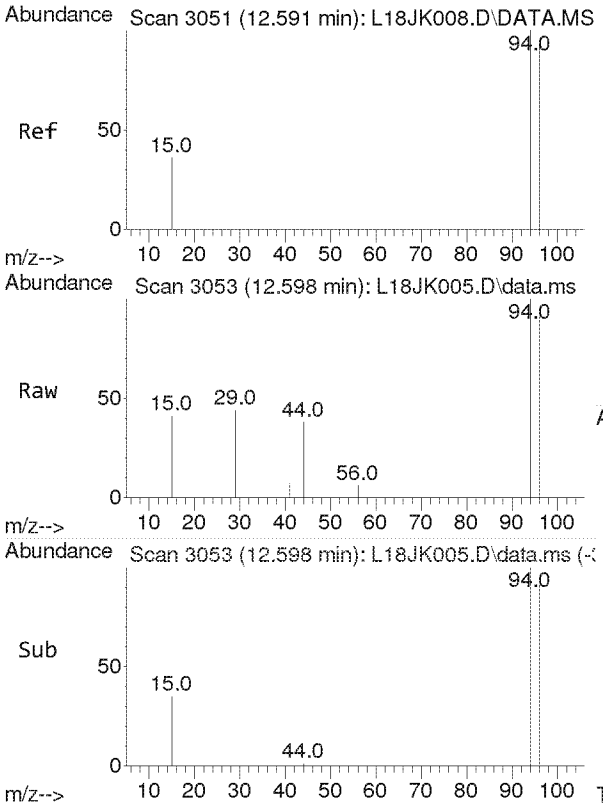


#9
Ethylene oxide
Concen: 0.212 ppbv
RT: 12.478 min Scan# 3018
Delta R.T. 0.089 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 29 Resp: 583

Ion	Ratio	Lower	Upper
29	100		
15	24.7	20.1	30.1
44	75.1	62.6	93.8

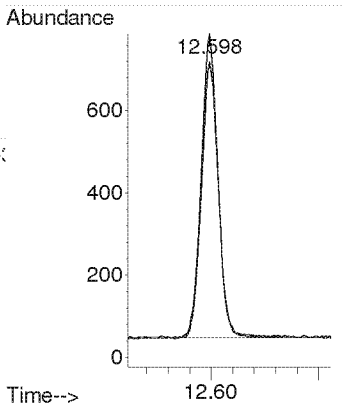


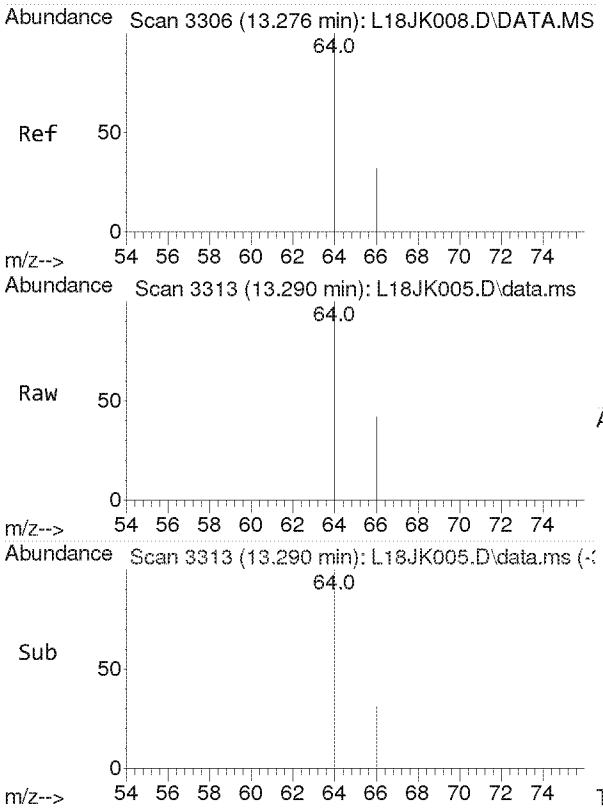


#10
Bromomethane
Concen: 0.254 ppbv
RT: 12.598 min Scan# 3053
Delta R.T. 0.007 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 94 Resp: 1589

Ion	Ratio	Lower	Upper
94	100		
96	93.4	75.5	113.3

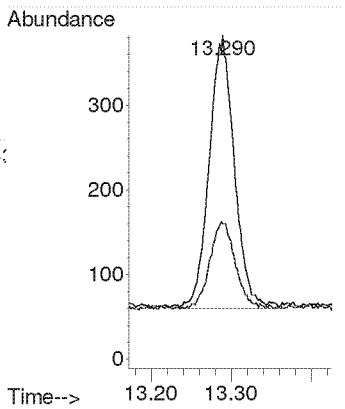


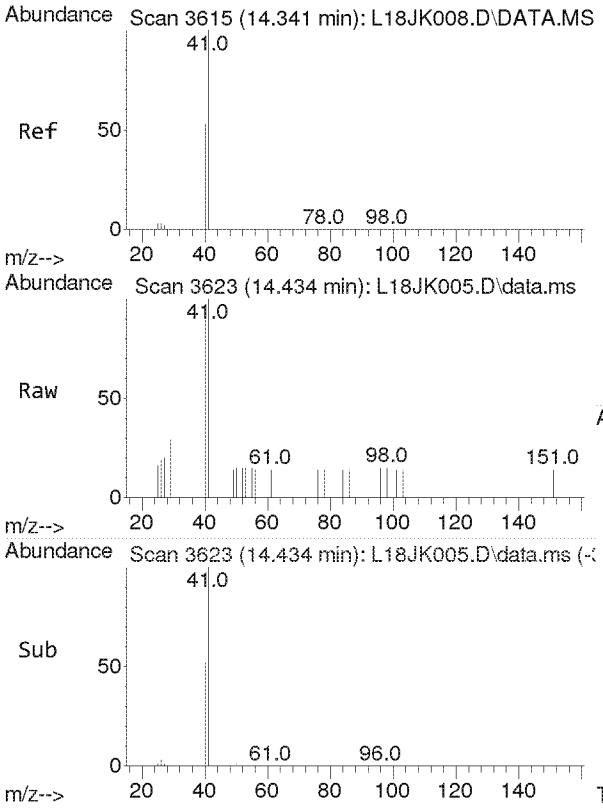


#11
Chloroethane
Concen: 0.256 ppbv
RT: 13.290 min Scan# 3313
Delta R.T. 0.014 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 64 Resp: 707

Ion	Ratio	Lower	Upper
64	100		
66	32.8	25.8	38.6

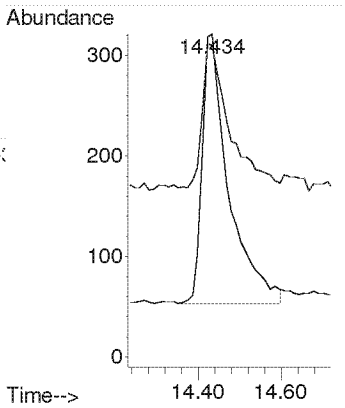


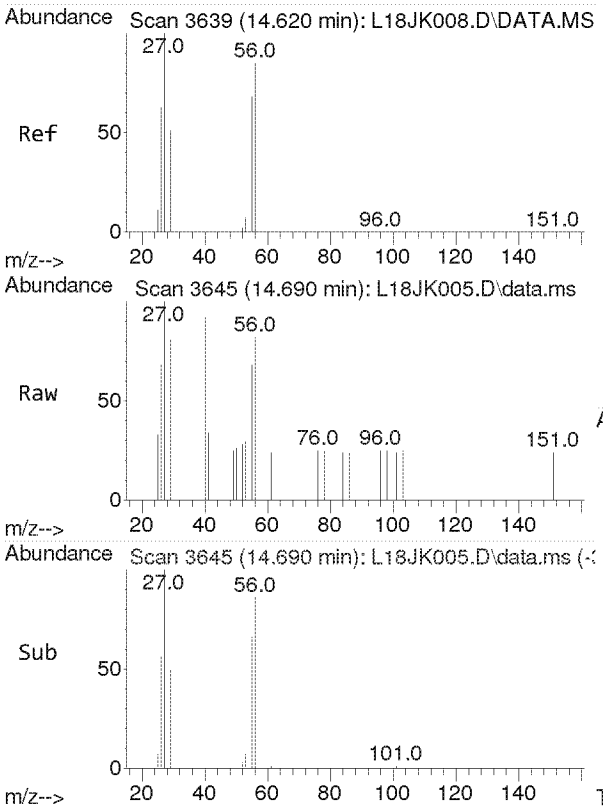


#12
Acetonitrile
Concen: 0.236 ppbv
RT: 14.434 min Scan# 3623
Delta R.T. 0.093 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 41 Resp: 1182

Ion	Ratio	Lower	Upper
41	100		
40	54.2	43.1	64.7

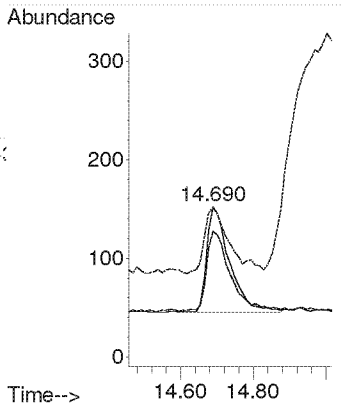


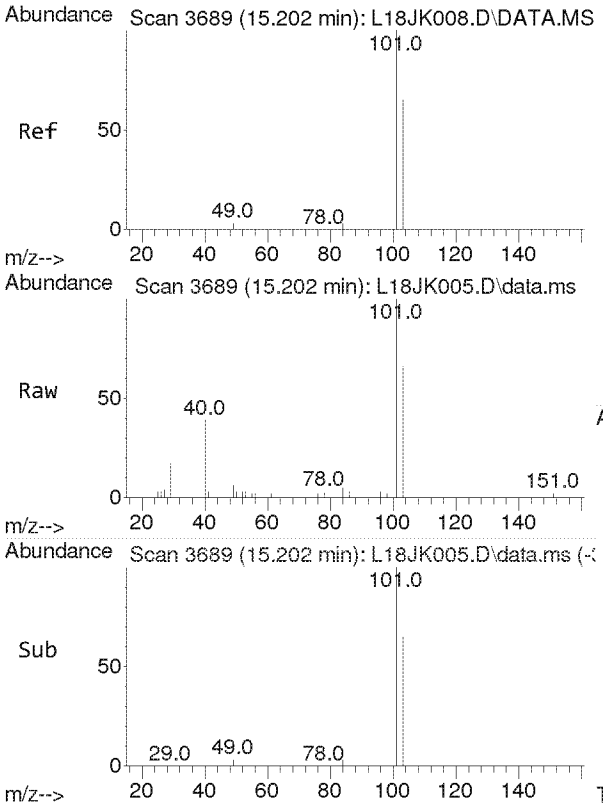


#13
Acrolein
Concen: 0.208 ppbv
RT: 14.690 min Scan# 3645
Delta R.T. 0.070 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 56 Resp: 469

Ion	Ratio	Lower	Upper
56	100		
55	77.2	61.9	92.9
29	68.9	49.2	73.8

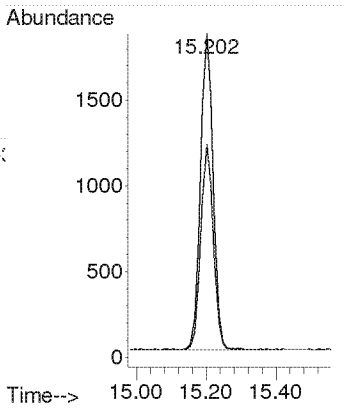


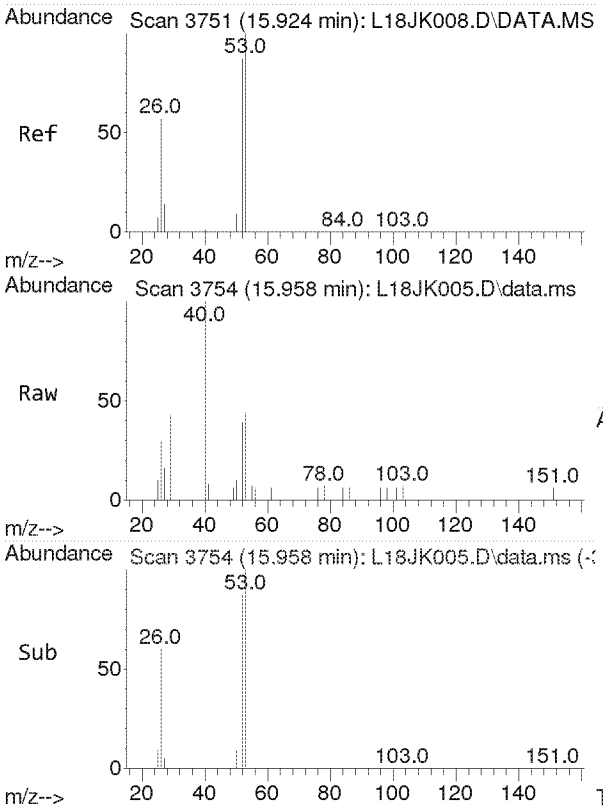


#14
Trichlorofluoromethane
Concen: 0.240 ppbv
RT: 15.202 min Scan# 3689
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:101 Resp: 4619

Ion	Ratio	Lower	Upper
101	100		
103	65.0	51.8	77.6

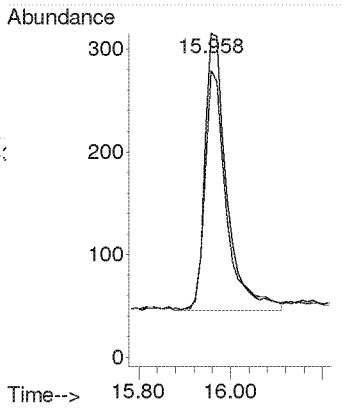


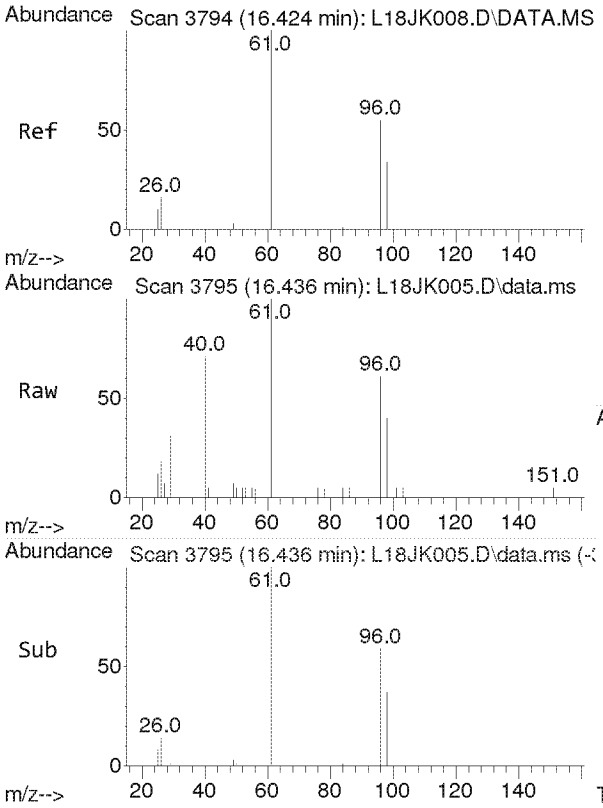


#15
Acrylonitrile
Concen: 0.233 ppbv
RT: 15.958 min Scan# 3754
Delta R.T. 0.035 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 53 Resp: 885

Ion	Ratio	Lower	Upper
53	100		
52	83.6	69.7	104.5

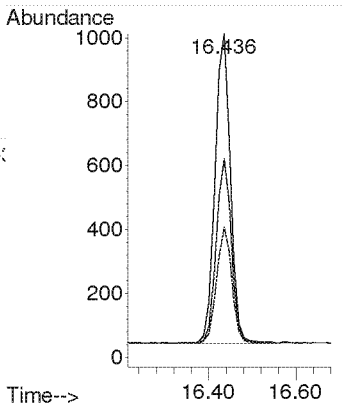


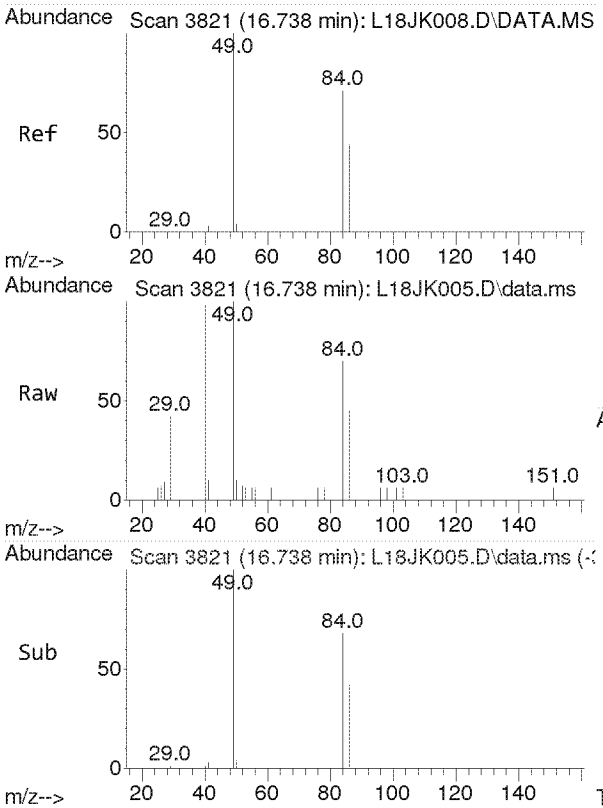


#16
1,1-Dichloroethene
Concen: 0.276 ppbv
RT: 16.436 min Scan# 3795
Delta R.T. 0.011 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 61 Resp: 2370

Ion	Ratio	Lower	Upper
61	100		
96	58.8	46.1	69.1
98	37.3	29.4	44.2

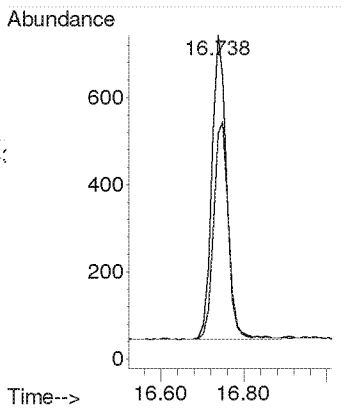


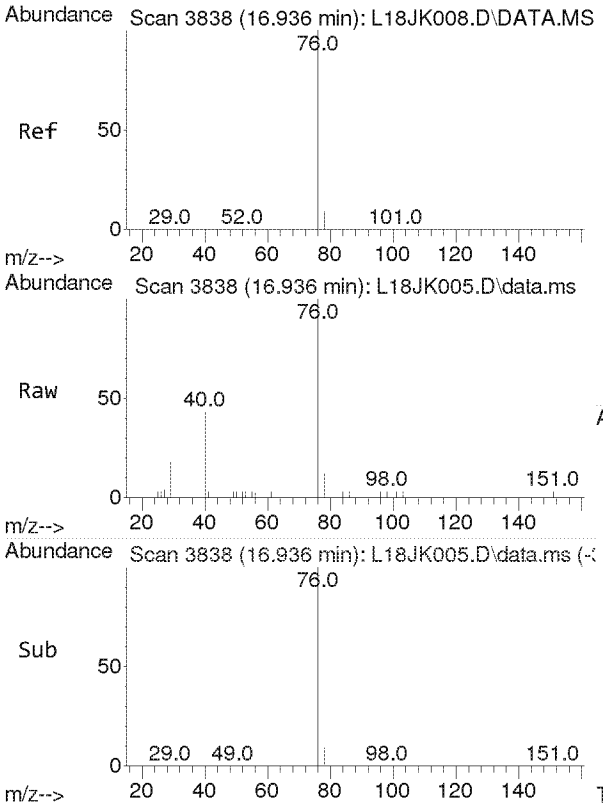


#17
Methylene Chloride
Concen: 0.276 ppbv
RT: 16.738 min Scan# 3821
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 49 Resp: 1711

Ion	Ratio	Lower	Upper
49	100		
84	73.4	51.9	96.5

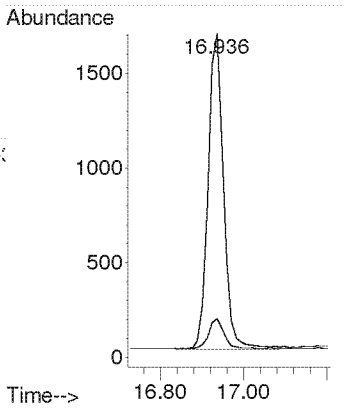


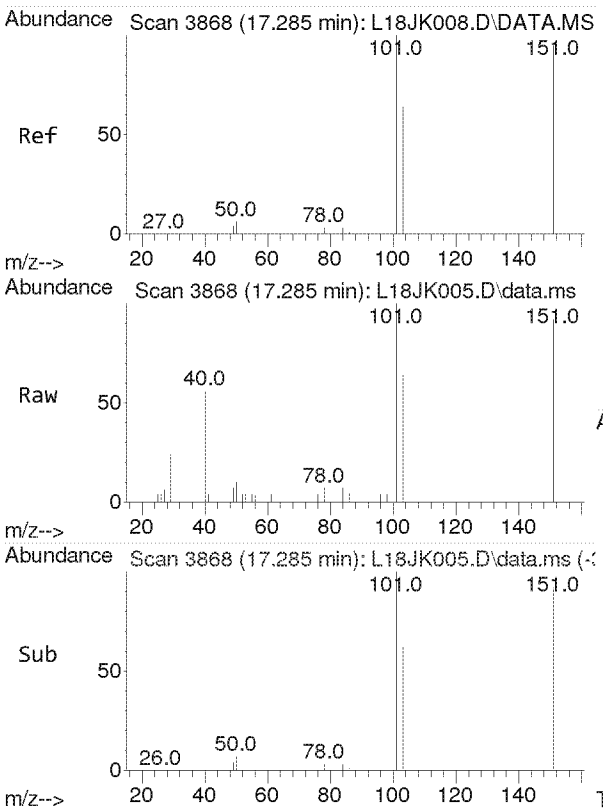


#18
Carbon Disulfide
Concen: 0.244 ppbv
RT: 16.936 min Scan# 3838
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 76 Resp: 4288

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.3	10.9

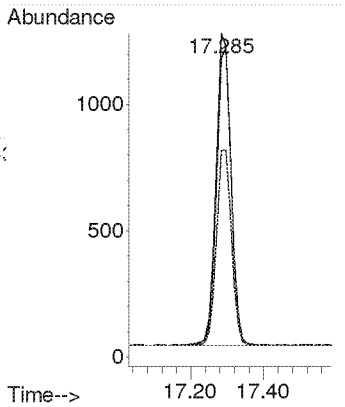


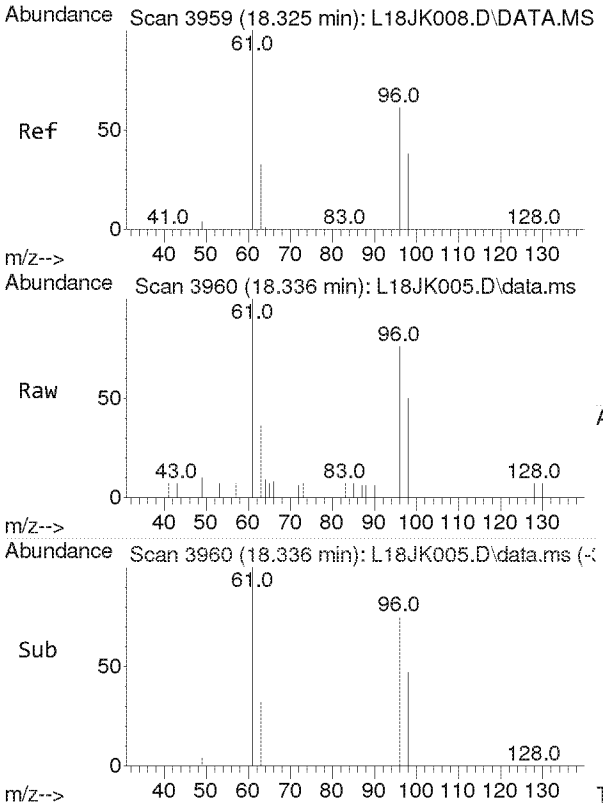


#19
Trichlorotrifluoroethane
Concen: 0.262 ppbv
RT: 17.285 min Scan# 3868
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:101 Resp: 3484

Ion	Ratio	Lower	Upper
101	100		
151	95.6	76.8	115.2
103	63.9	51.4	77.2

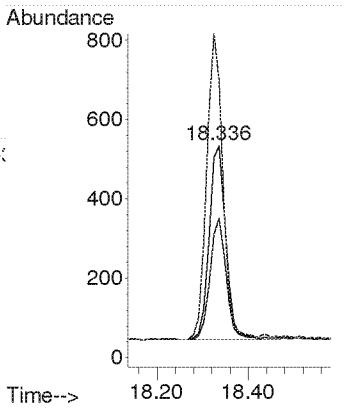


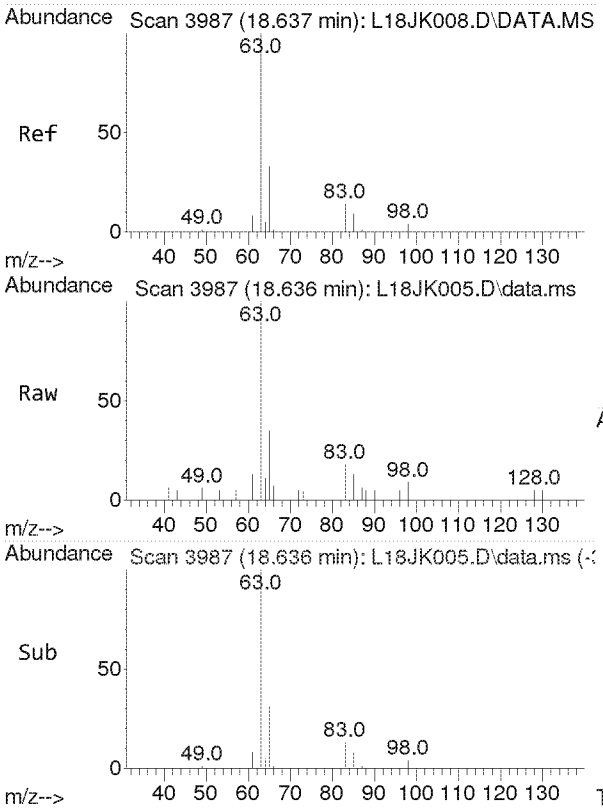


#20
trans-1,2-Dichloroethylene
Concen: 0.258 ppbv
RT: 18.336 min Scan# 3960
Delta R.T. 0.011 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 96 Resp: 1236

Ion	Ratio	Lower	Upper
96	100		
98	61.6	50.9	76.3
61	153.8	125.0	187.6

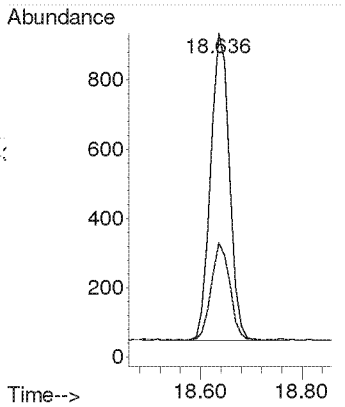


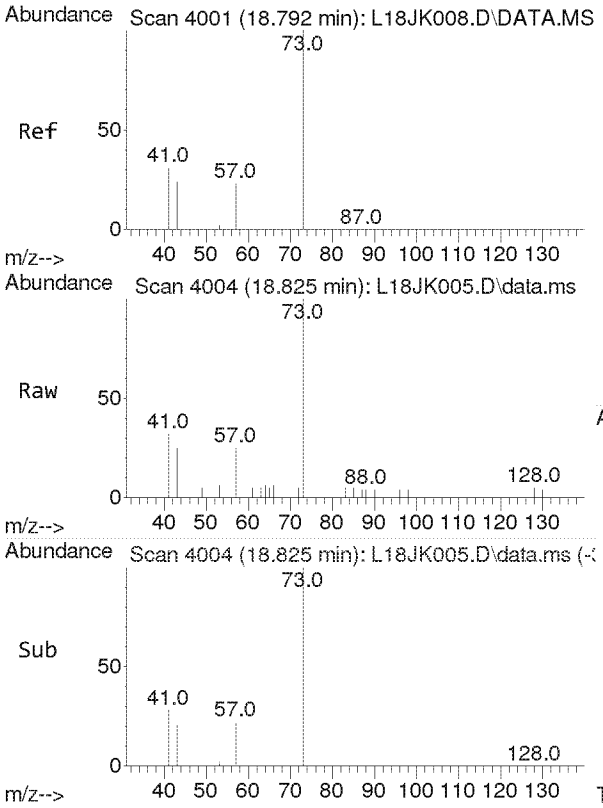


#21
1,1-Dichloroethane
Concen: 0.271 ppbv
RT: 18.636 min Scan# 3987
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 63 Resp: 2265

Ion	Ratio	Lower	Upper
63	100		
65	31.9	25.7	38.5

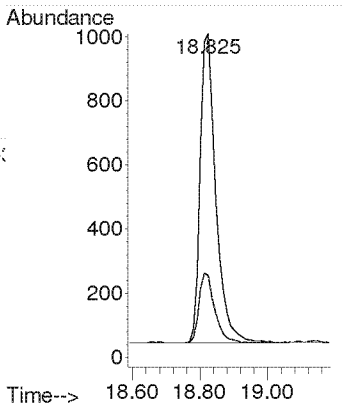


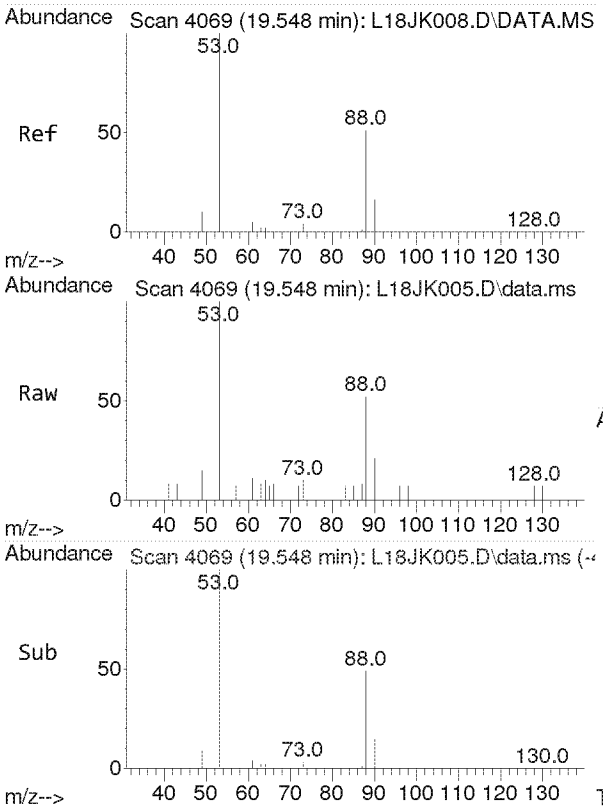


#22
Methyl tert-Butyl Ether
Concen: 0.235 ppbv
RT: 18.825 min Scan# 4004
Delta R.T. 0.033 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 73 Resp: 3094

Ion	Ratio	Lower	Upper
73	100		
57	22.8	18.4	27.6

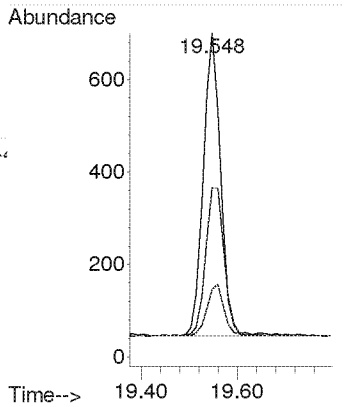


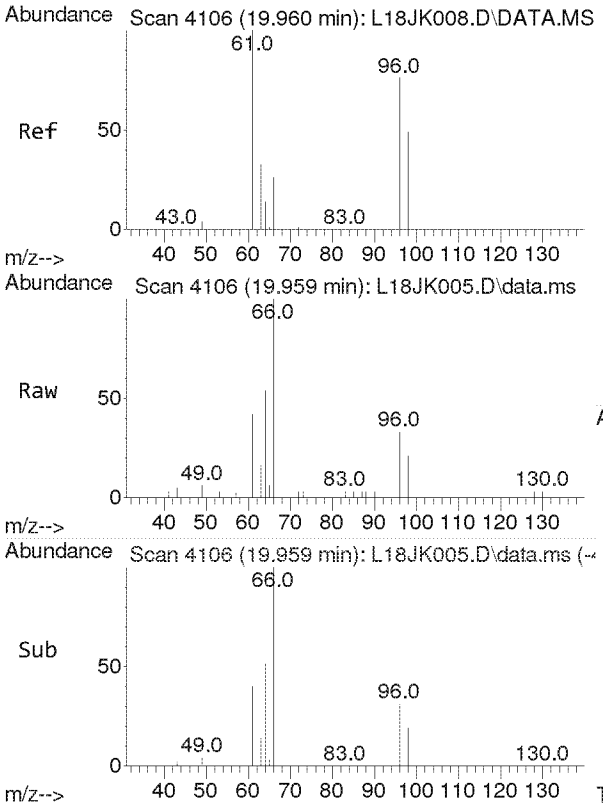


#23
Chloroprene
Concen: 0.259 ppbv
RT: 19.548 min Scan# 4069
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 53 Resp: 1626

Ion	Ratio	Lower	Upper
53	100		
88	53.1	41.2	61.8
90	16.7	13.3	19.9

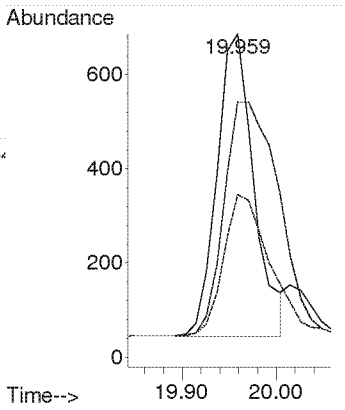


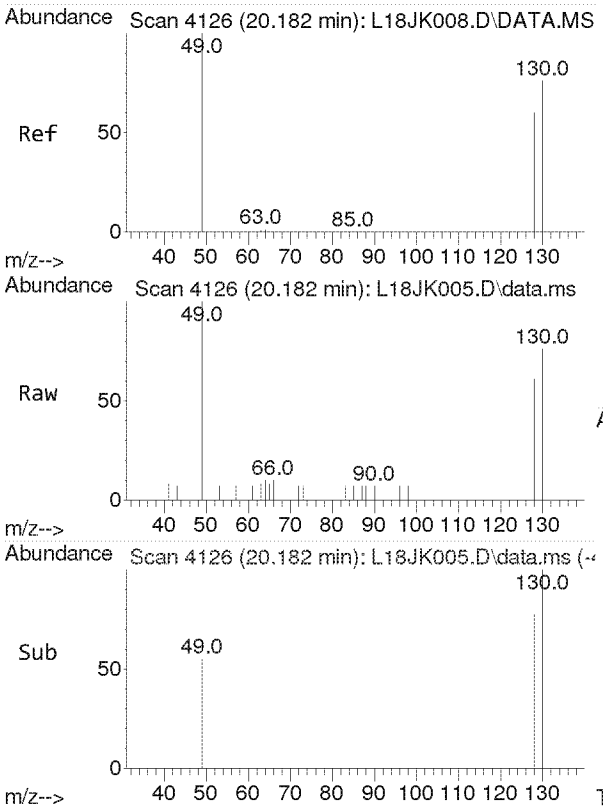


#24
cis-1,2-Dichloroethylene
Concen: 0.265 ppbv m
RT: 19.959 min Scan# 4106
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 61 Resp: 1748

Ion	Ratio	Lower	Upper
61	100		
96	115.3	58.8	88.2#
98	60.0	37.0	55.4#

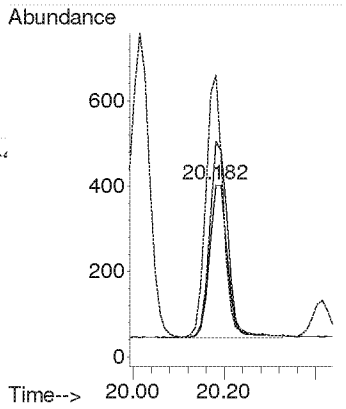


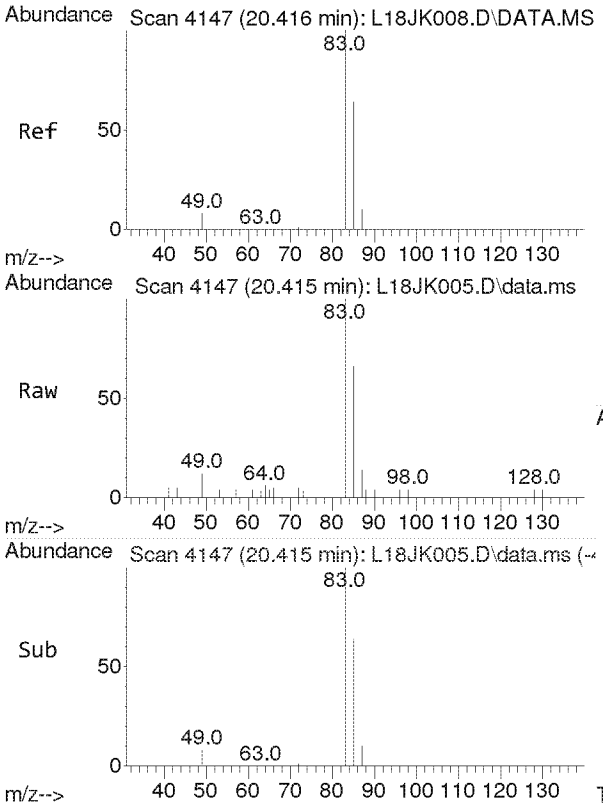


#25
Bromochloromethane
Concen: 0.267 ppbv
RT: 20.182 min Scan# 4126
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:128 Resp: 973

Ion	Ratio	Lower	Upper
128	100		
130	128.6	103.1	154.7
49	165.7	134.3	201.5

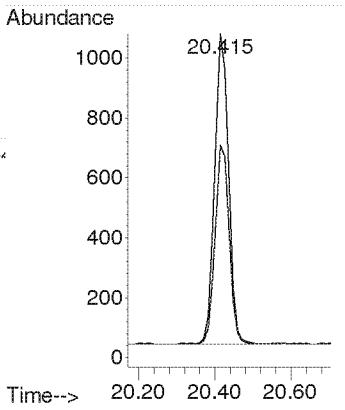


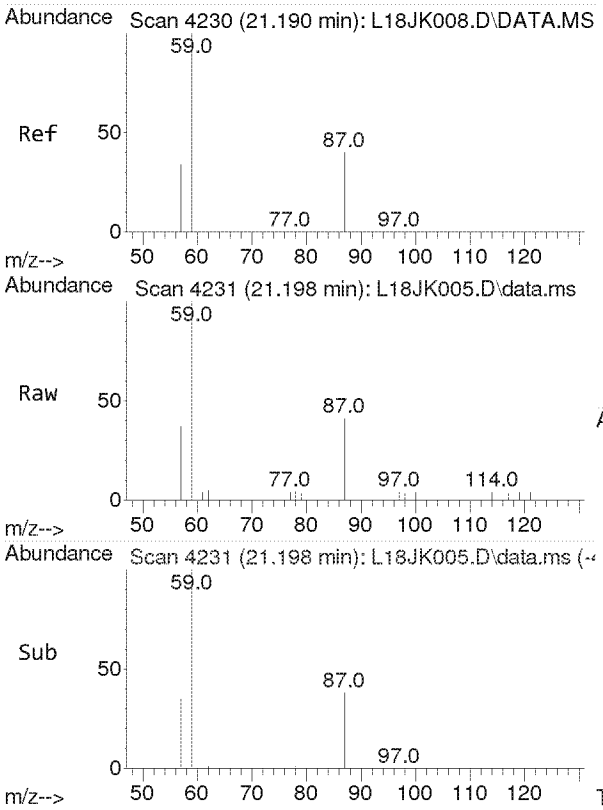


#26
Chloroform
Concen: 0.267 ppbv
RT: 20.415 min Scan# 4147
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 83 Resp: 2628

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.6	77.4

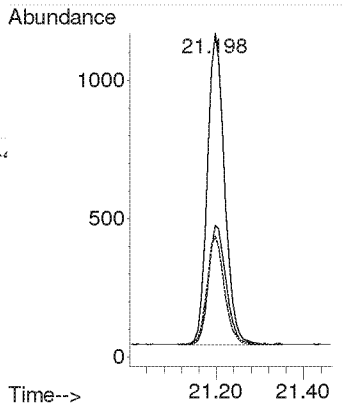


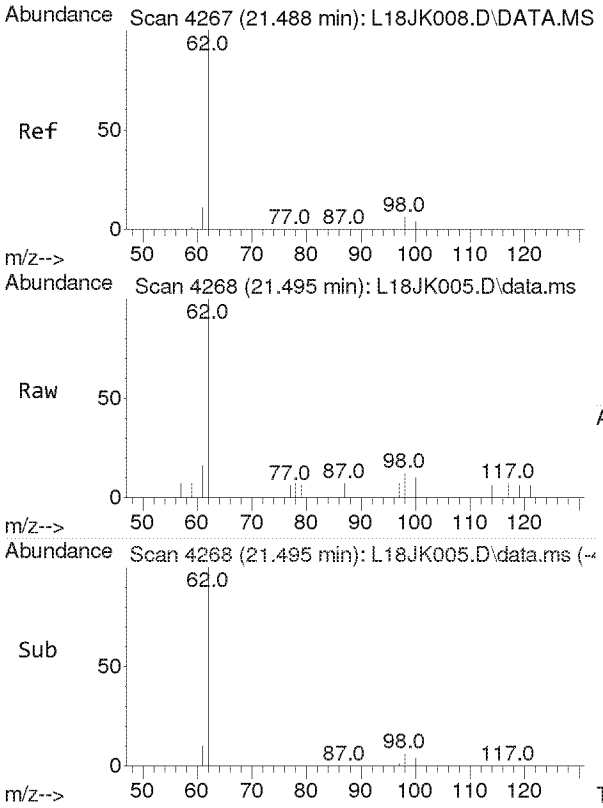


#27
Ethyl tert-Butyl Ether
Concen: 0.229 ppbv
RT: 21.198 min Scan# 4231
Delta R.T. 0.008 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 59 Resp: 3100

Ion	Ratio	Lower	Upper
59	100		
87	38.9	30.8	46.2
57	34.6	27.2	40.8

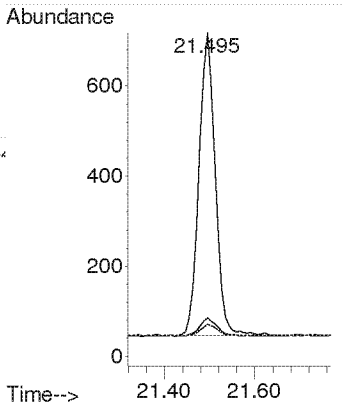


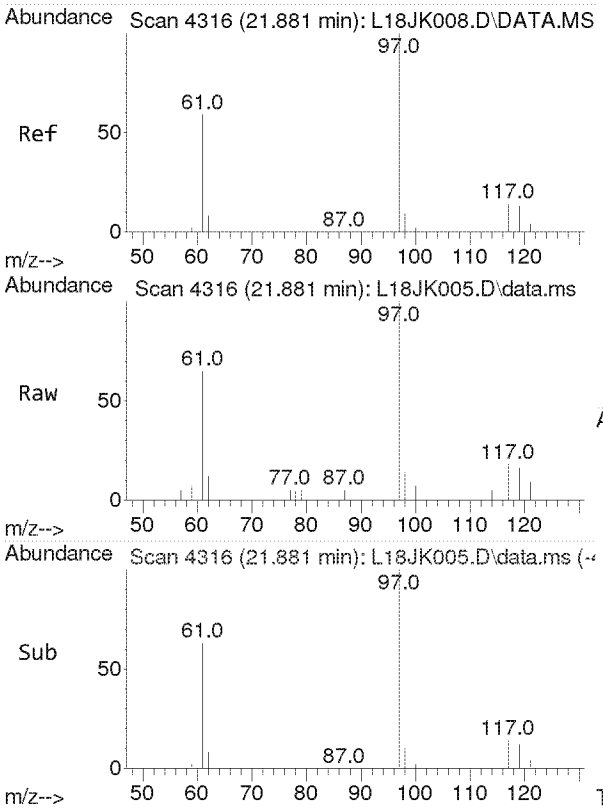


#28
1,2-Dichloroethane
Concen: 0.273 ppbv
RT: 21.495 min Scan# 4268
Delta R.T. 0.008 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 62 Resp: 1682

Ion	Ratio	Lower	Upper
62	100		
98	7.0	4.8	7.2
100	3.9	3.1	4.7

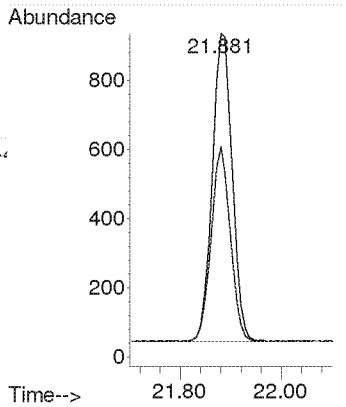


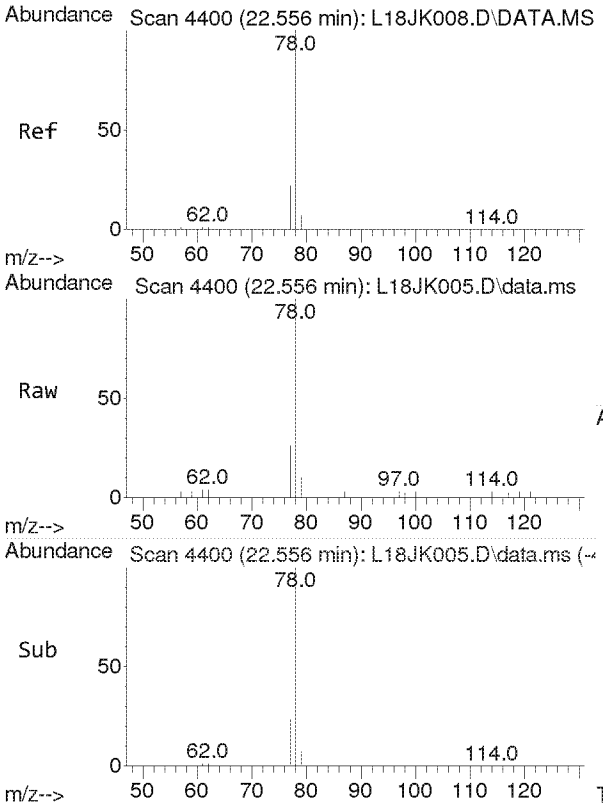


#30
1,1,1-Trichloroethane
Concen: 0.256 ppbv
RT: 21.881 min Scan# 4316
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 97 Resp: 2438

Ion	Ratio	Lower	Upper
97	100		
61	60.8	47.7	71.5

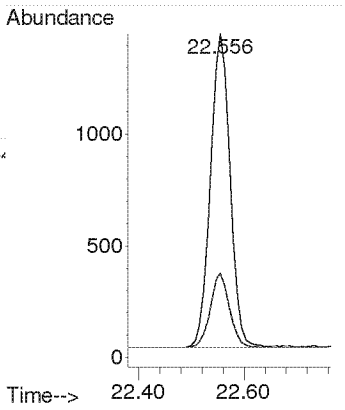


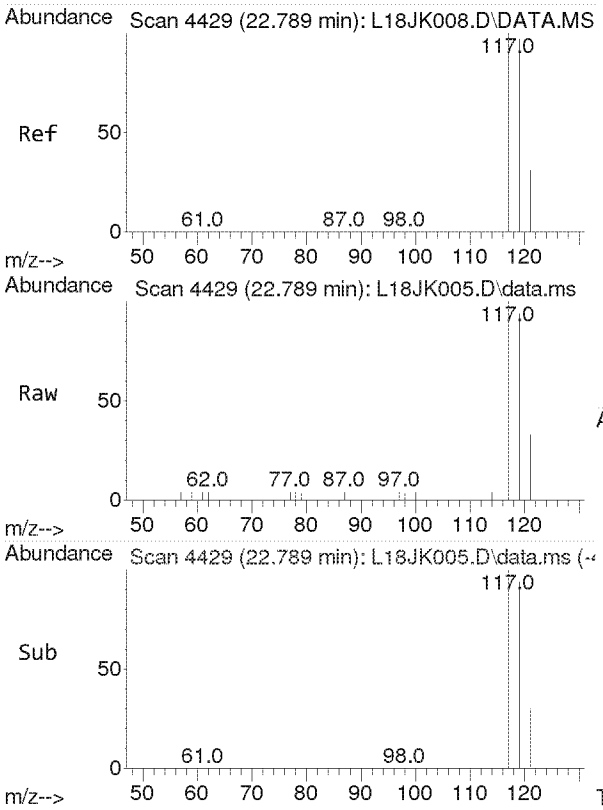


#31
Benzene
Concen: 0.269 ppbv
RT: 22.556 min Scan# 4400
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 78 Resp: 3625

Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.3	27.5

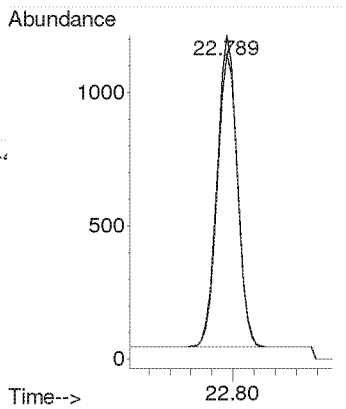


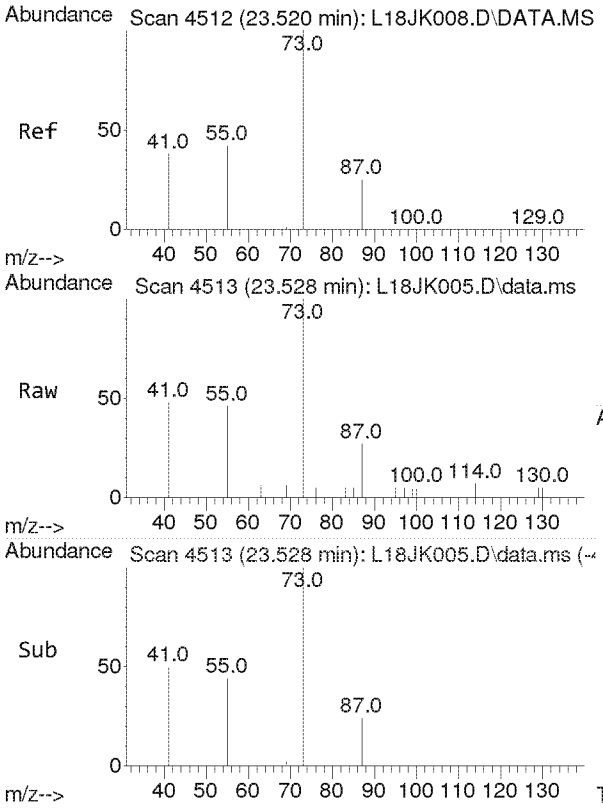


#32
Carbon Tetrachloride
Concen: 0.284 ppbv
RT: 22.789 min Scan# 4429
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:117 Resp: 3082

Ion	Ratio	Lower	Upper
117	100		
119	96.2	77.5	116.3

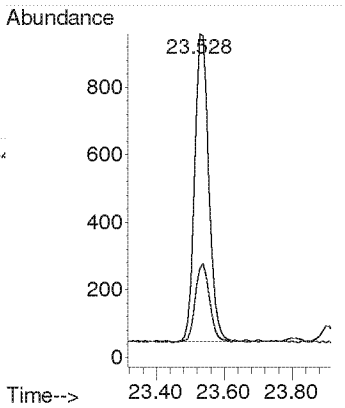


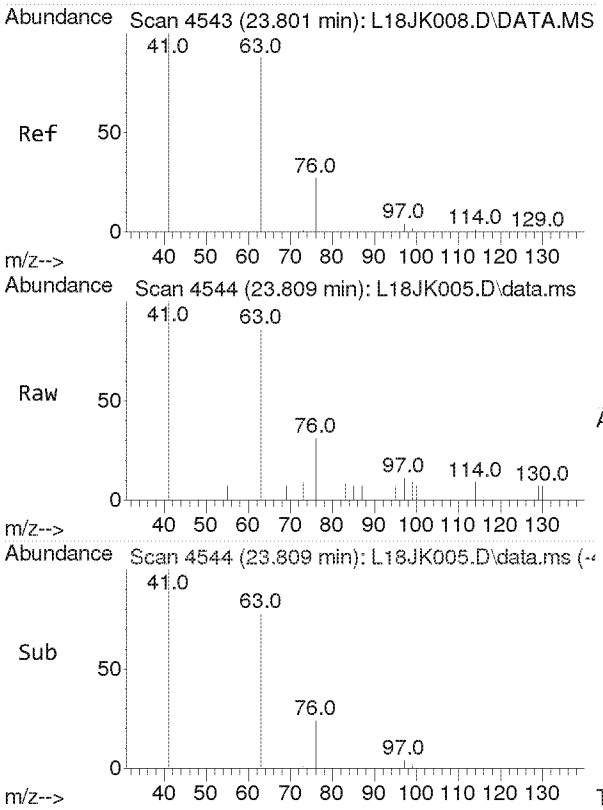


#33
tert-Amyl Methyl Ether
Concen: 0.233 ppbv
RT: 23.528 min Scan# 4513
Delta R.T. 0.009 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 73 Resp: 2632

Ion	Ratio	Lower	Upper
73	100		
87	26.1	20.1	30.1

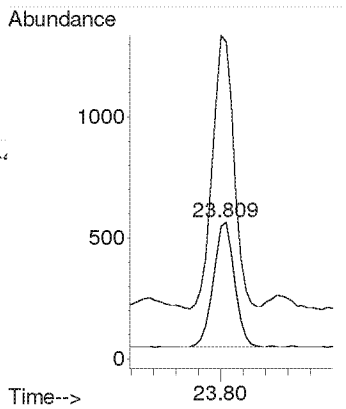


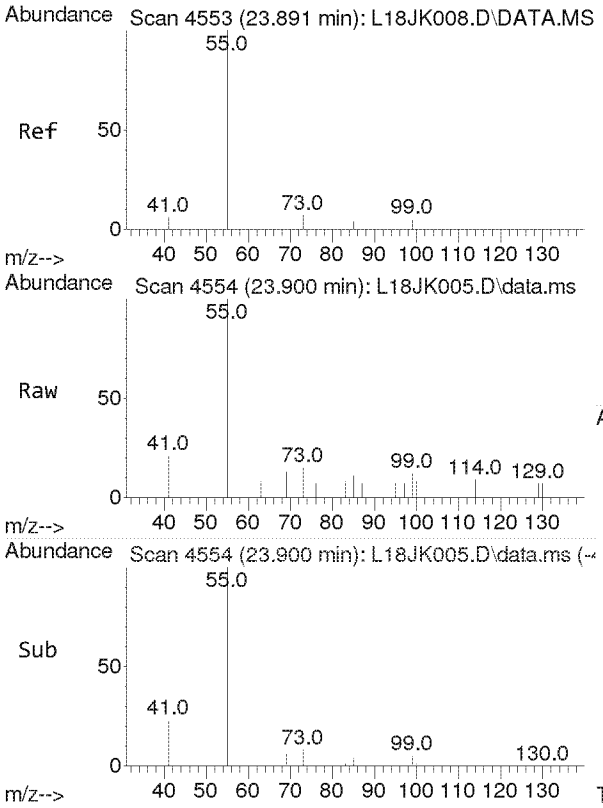


#34
1,2-Dichloropropane
Concen: 0.263 ppbv
RT: 23.809 min Scan# 4544
Delta R.T. 0.009 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 63 Resp: 1359

Ion	Ratio	Lower	Upper
63	100		
41	222.1	177.7	266.5

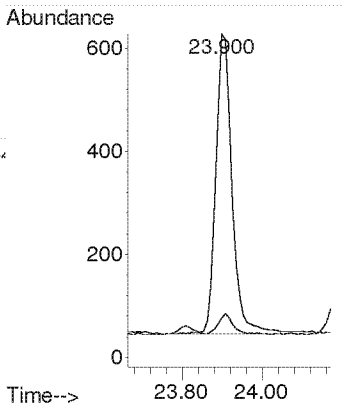


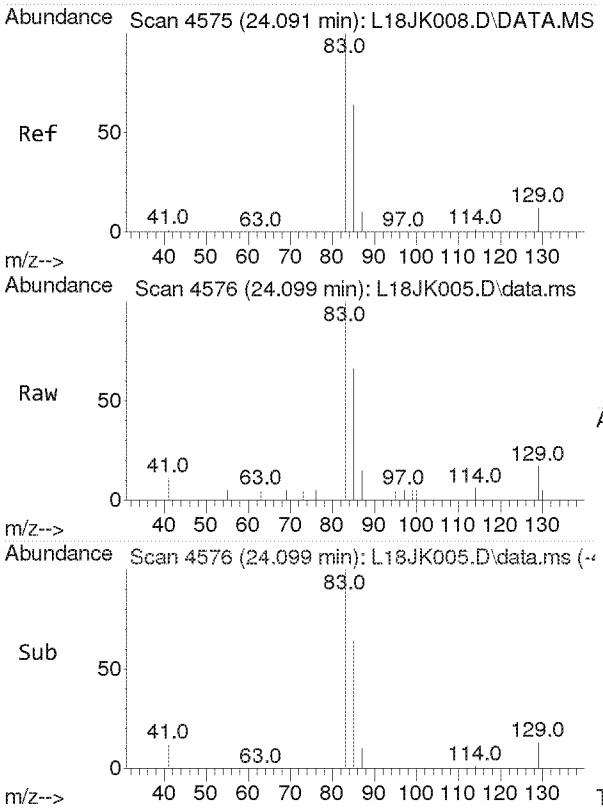


#35
Ethyl Acrylate
Concen: 0.248 ppbv
RT: 23.900 min Scan# 4554
Delta R.T. 0.009 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 55 Resp: 1623

Ion	Ratio	Lower	Upper
55	100		
99	5.9	5.0	7.6

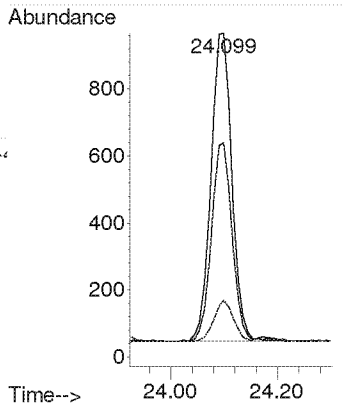


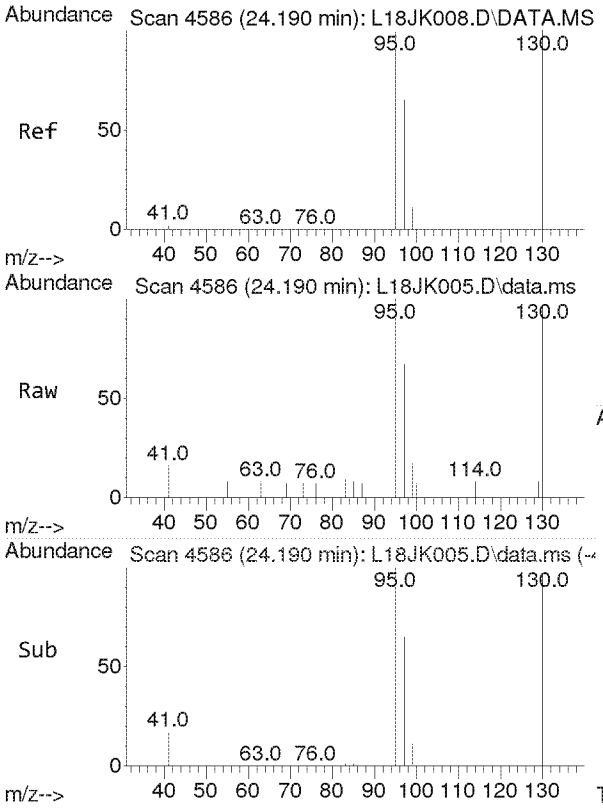


#36
Bromodichloromethane
Concen: 0.253 ppbv
RT: 24.099 min Scan# 4576
Delta R.T. 0.009 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 83 Resp: 2518

Ion	Ratio	Lower	Upper
83	100		
85	64.1	51.1	76.7
129	12.7	10.3	15.5

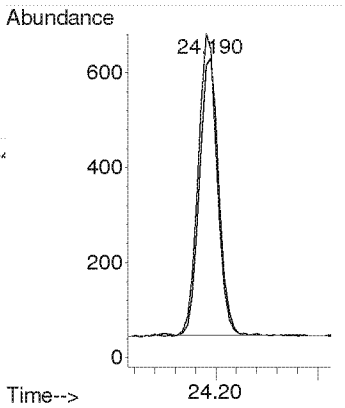


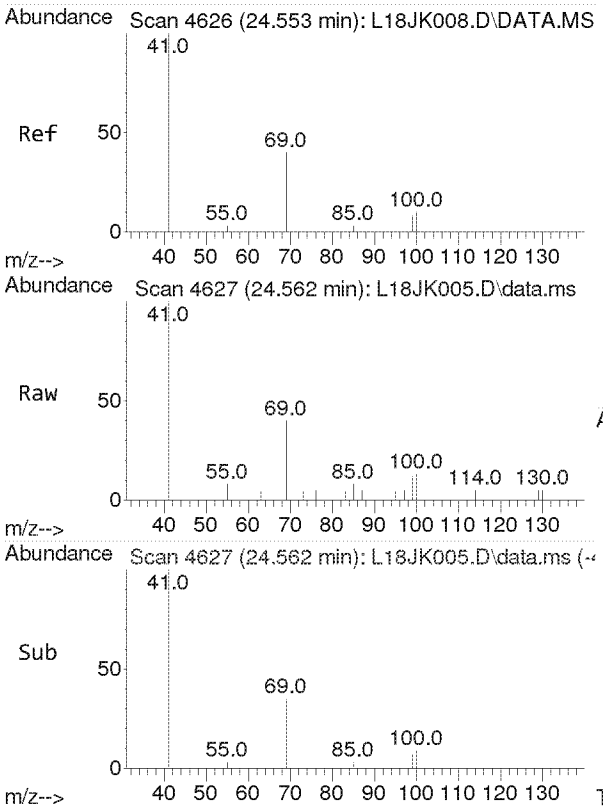


#37
Trichloroethylene
Concen: 0.249 ppbv
RT: 24.190 min Scan# 4586
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:130 Resp: 1535

Ion	Ratio	Lower	Upper
130	100		
95	107.4	85.5	128.3

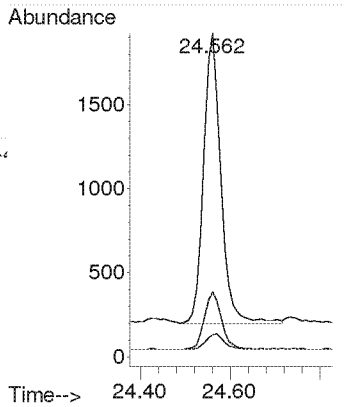


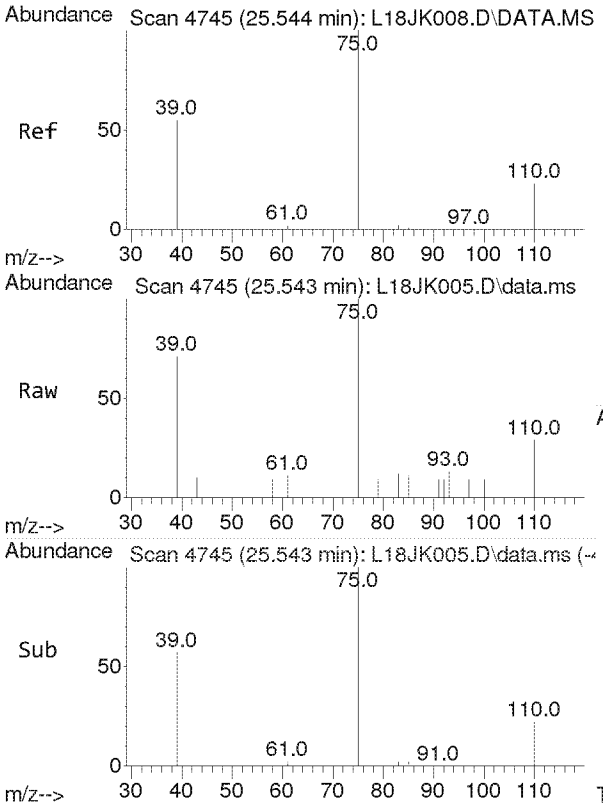


#38
Methyl Methacrylate
Concen: 0.251 ppbv
RT: 24.562 min Scan# 4627
Delta R.T. 0.009 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 41 Resp: 4636

Ion	Ratio	Lower	Upper
41	100		
69	19.5	16.0	24.0
100	5.4	4.1	6.1

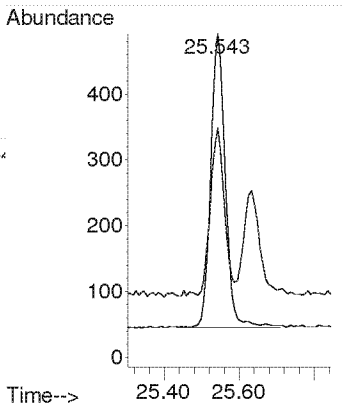


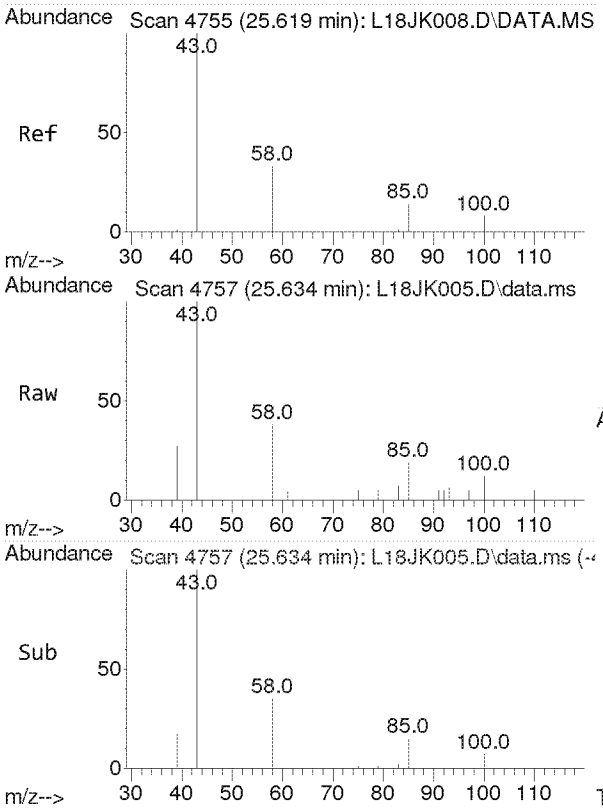


#39
cis-1,3-Dichloropropene
Concen: 0.255 ppbv
RT: 25.543 min Scan# 4745
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 75 Resp: 1204

Ion	Ratio	Lower	Upper
75	100		
39	54.2	44.5	66.7

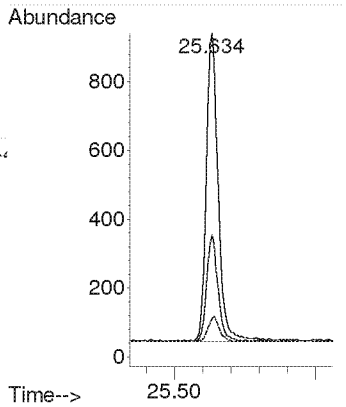


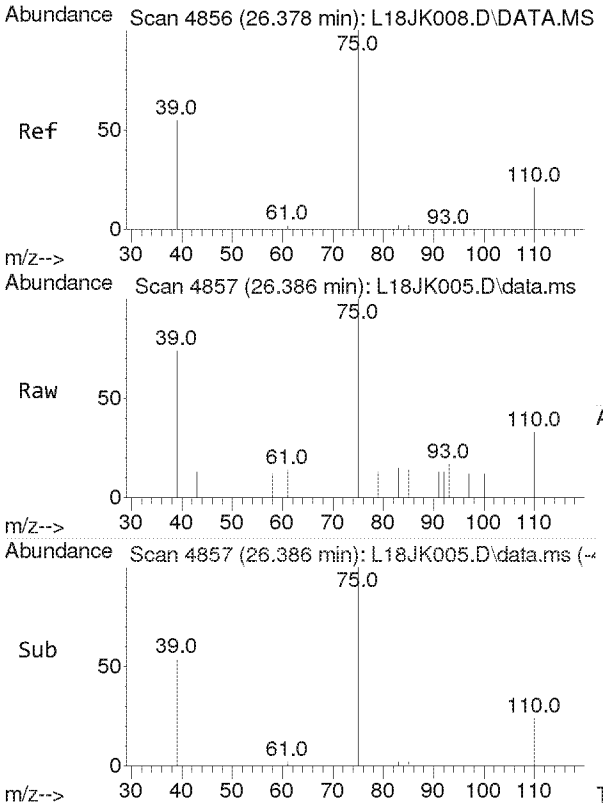


#40
Methyl Isobutyl Ketone
Concen: 0.247 ppbv
RT: 25.634 min Scan# 4757
Delta R.T. 0.015 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 43 Resp: 2654

Ion	Ratio	Lower	Upper
43	100		
58	32.7	26.6	40.0
100	8.3	6.4	9.6

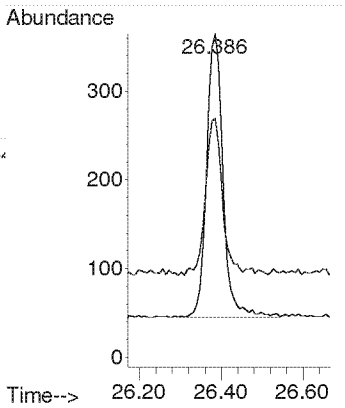


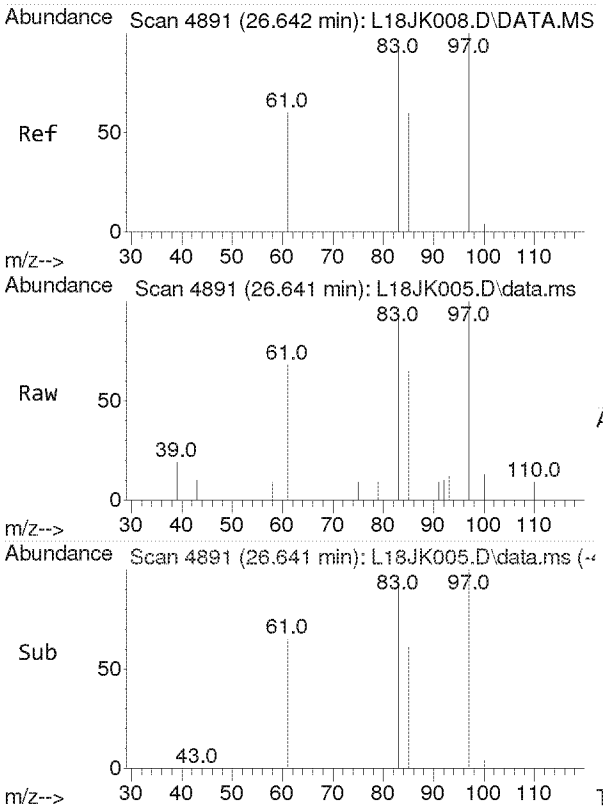


#41
trans-1,3-Dichloropropene
Concen: 0.256 ppbv
RT: 26.386 min Scan# 4857
Delta R.T. 0.007 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 75 Resp: 886

Ion	Ratio	Lower	Upper
75	100		
39	59.1	44.2	66.4

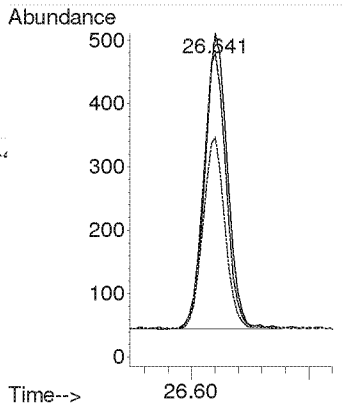


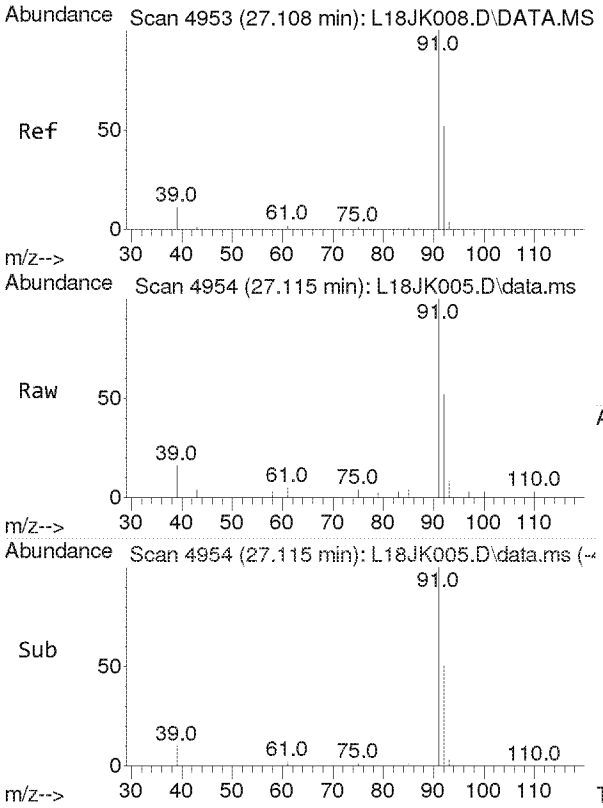


#42
1,1,2-Trichloroethane
Concen: 0.268 ppbv
RT: 26.641 min Scan# 4891
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 97 Resp: 1233

Ion	Ratio	Lower	Upper
97	100		
83	94.6	76.2	114.4
61	65.0	51.7	77.5

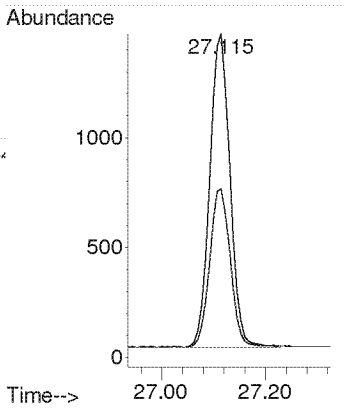


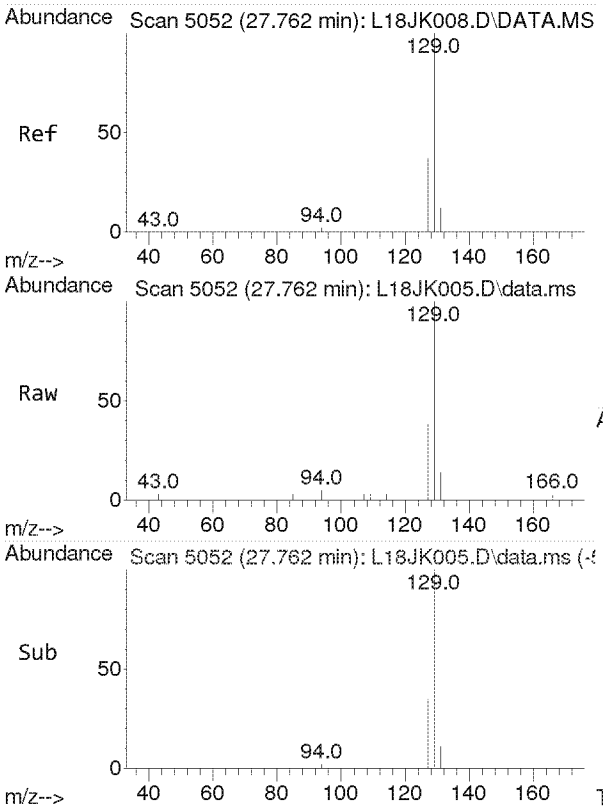


#44
Toluene
Concen: 0.264 ppbv
RT: 27.115 min Scan# 4954
Delta R.T. 0.007 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 91 Resp: 3838

Ion	Ratio	Lower	Upper
91	100		
92	51.1	41.7	62.5

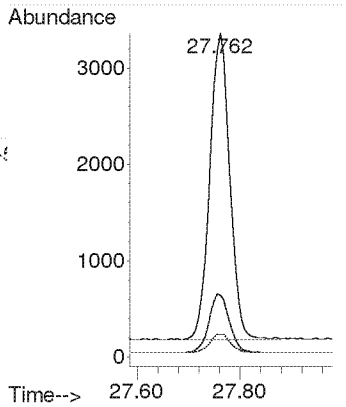


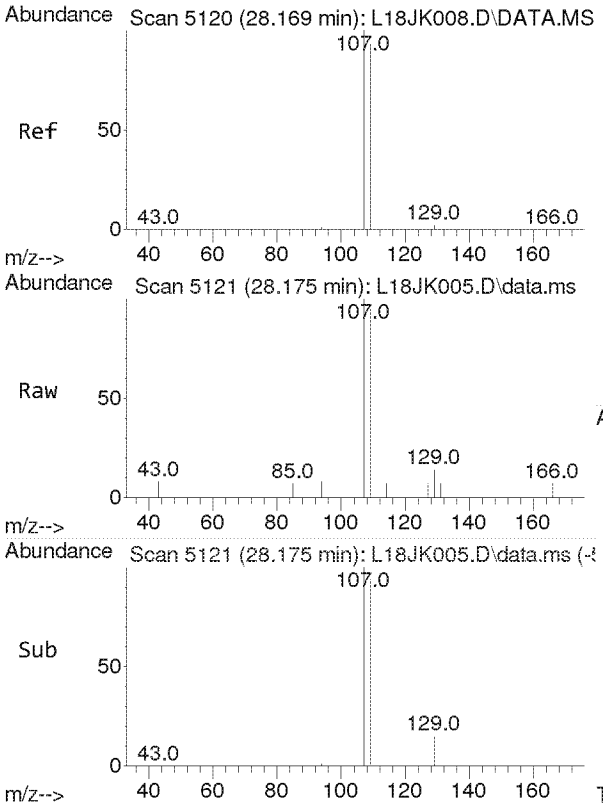


#45
Dibromochloromethane
Concen: 0.244 ppbv
RT: 27.762 min Scan# 5052
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:129 Resp: 8589

Ion	Ratio	Lower	Upper
129	100		
127	19.2	15.4	23.2
131	6.1	4.8	7.2

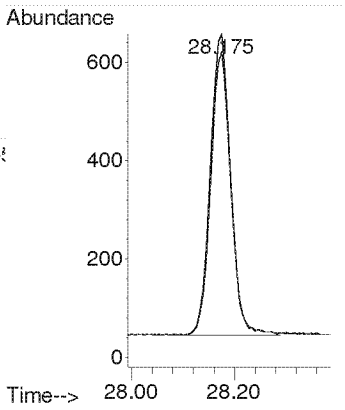


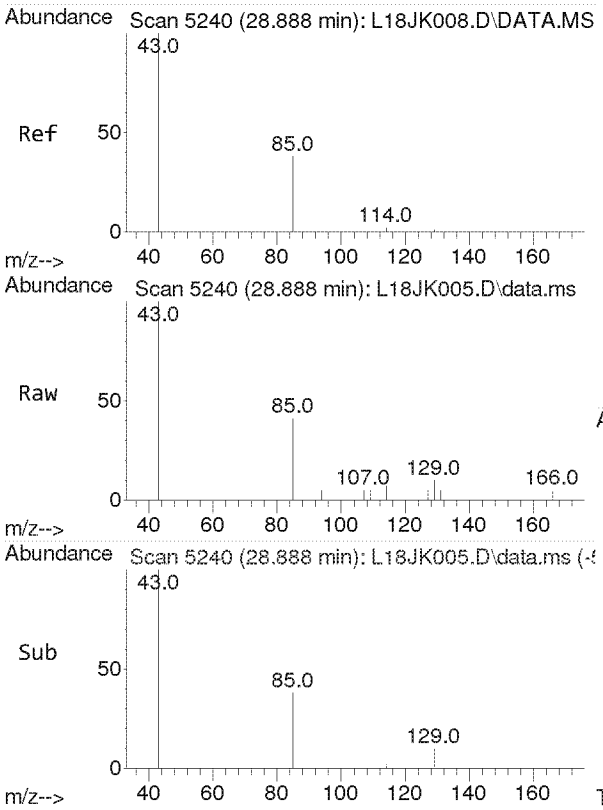


#46
1,2-Dibromoethane
Concen: 0.274 ppbv
RT: 28.175 min Scan# 5121
Delta R.T. 0.006 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:107 Resp: 1671

Ion	Ratio	Lower	Upper
107	100		
109	93.6	75.0	112.6

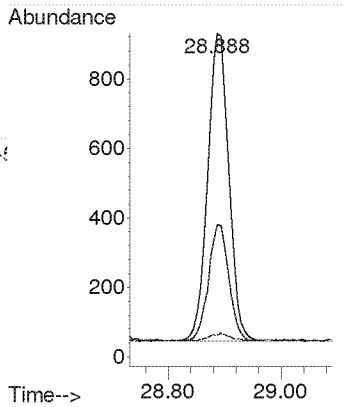


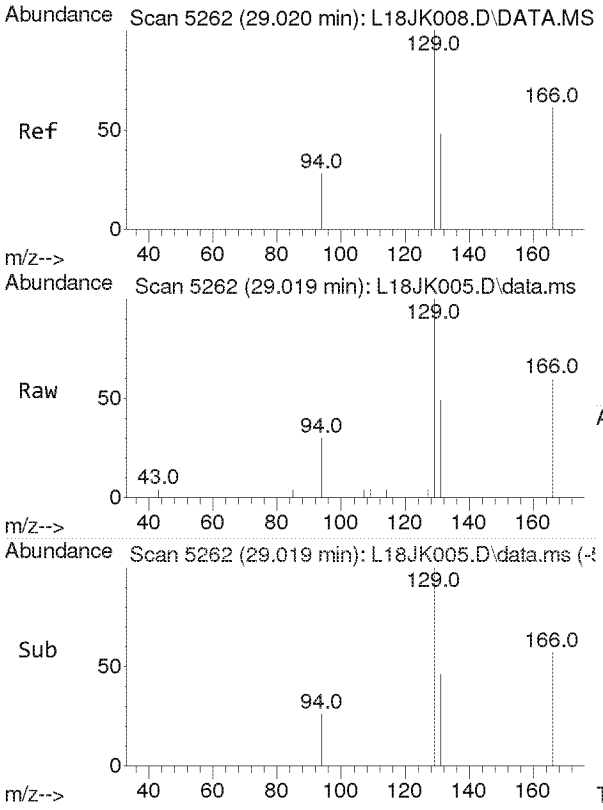


#47
n-Octane
Concen: 0.251 ppbv
RT: 28.888 min Scan# 5240
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 43 Resp: 2291

Ion	Ratio	Lower	Upper
43	100		
85	36.8	30.2	45.4
114	2.6	1.9	2.9

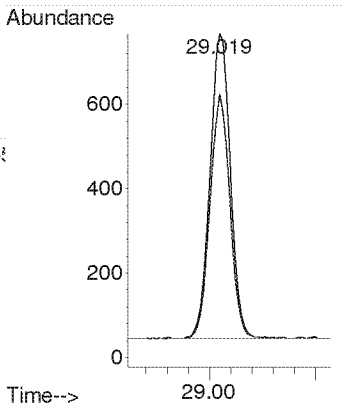


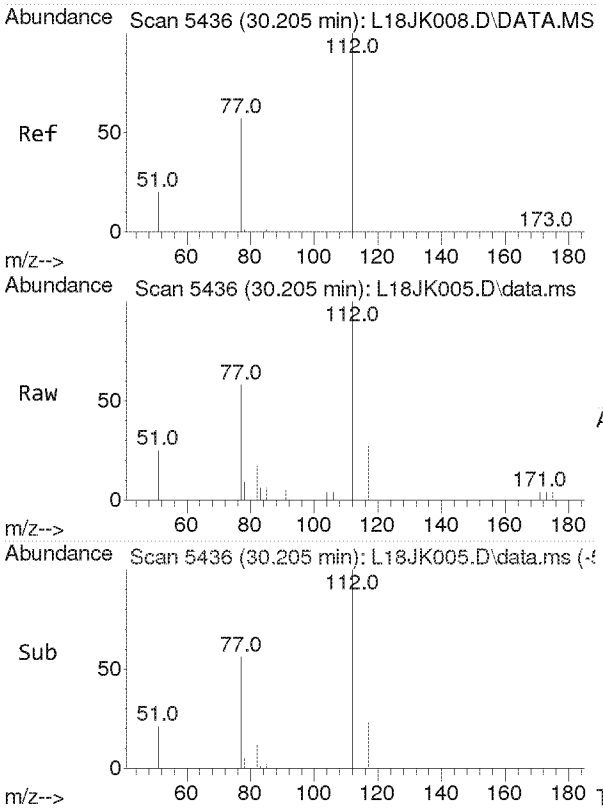


#48
Tetrachloroethylene
Concen: 0.268 ppbv
RT: 29.019 min Scan# 5262
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:166 Resp: 1925

Ion	Ratio	Lower	Upper
166	100		
131	78.9	63.0	94.4

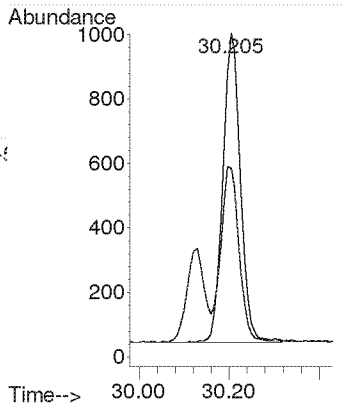


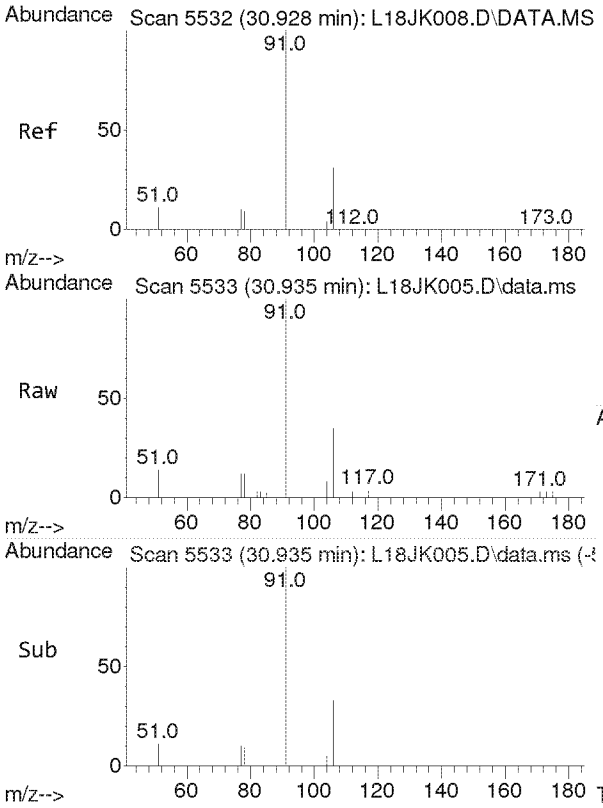


#49
Chlorobenzene
Concen: 0.270 ppbv
RT: 30.205 min Scan# 5436
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:112 Resp: 2595

Ion	Ratio	Lower	Upper
112	100		
77	58.2	47.4	71.2

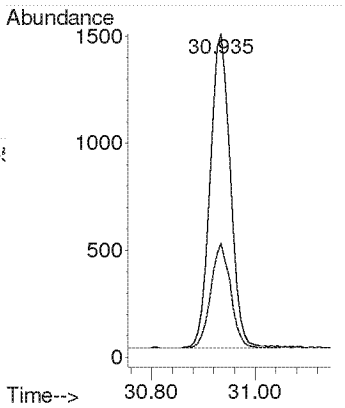


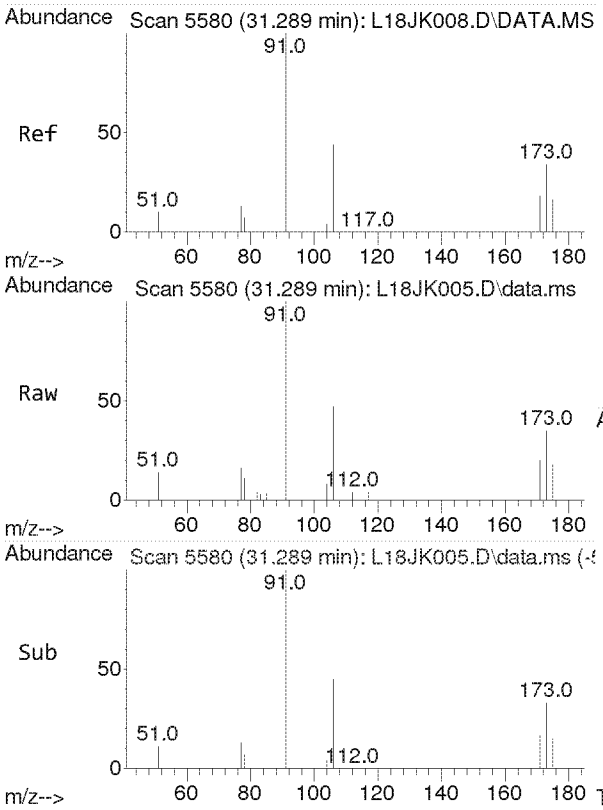


#50
Ethylbenzene
Concen: 0.256 ppbv
RT: 30.935 min Scan# 5533
Delta R.T. 0.007 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 91 Resp: 3923

Ion	Ratio	Lower	Upper
91	100		
106	32.8	25.4	38.2

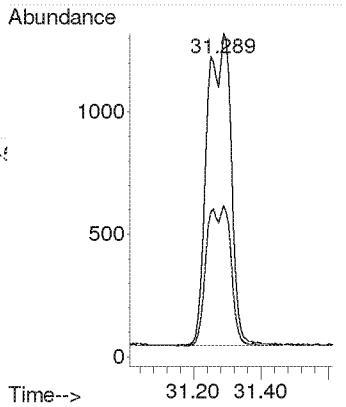


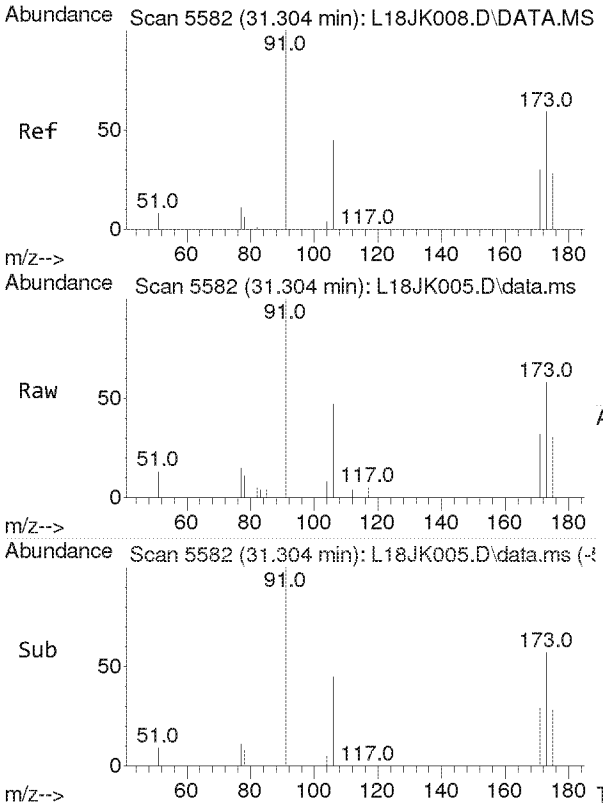


#51
m,p-Xylene
Concen: 0.472 ppbv
RT: 31.289 min Scan# 5580
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 91 Resp: 6284

Ion	Ratio	Lower	Upper
91	100		
106	45.5	36.3	54.5

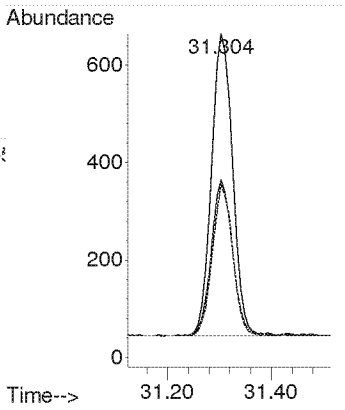


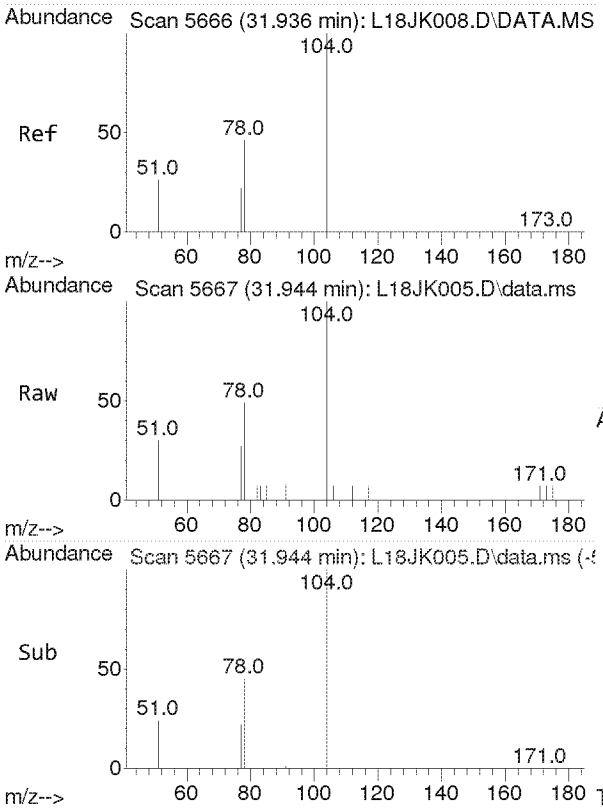


#52
Bromoform
Concen: 0.253 ppbv
RT: 31.304 min Scan# 5582
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:173 Resp: 1744

Ion	Ratio	Lower	Upper
173	100		
171	51.3	41.1	61.7
175	48.7	39.2	58.8

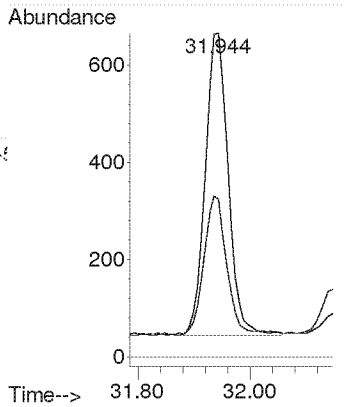


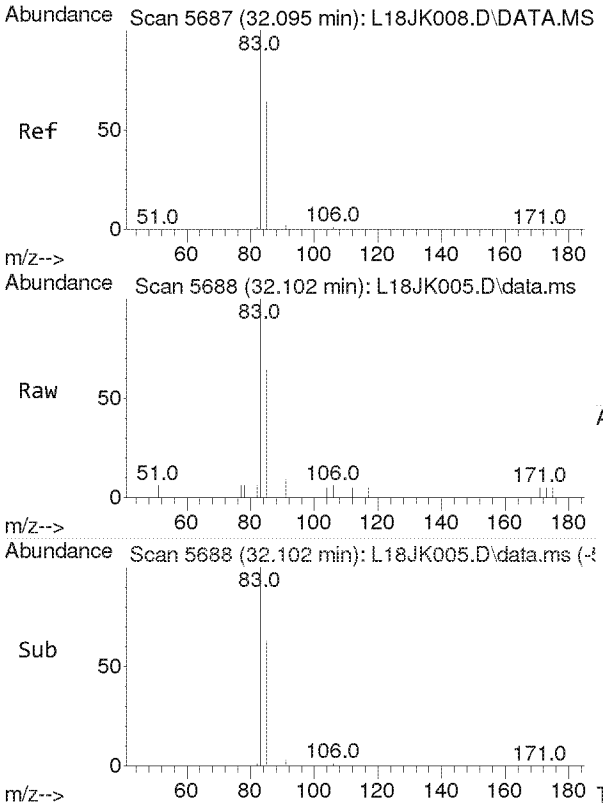


#53
Styrene
Concen: 0.244 ppbv
RT: 31.944 min Scan# 5667
Delta R.T. 0.007 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:104 Resp: 1751

Ion	Ratio	Lower	Upper
104	100		
78	44.8	36.6	54.8
103	0.0	0.0	0.0

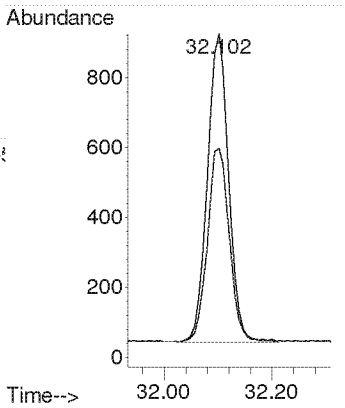


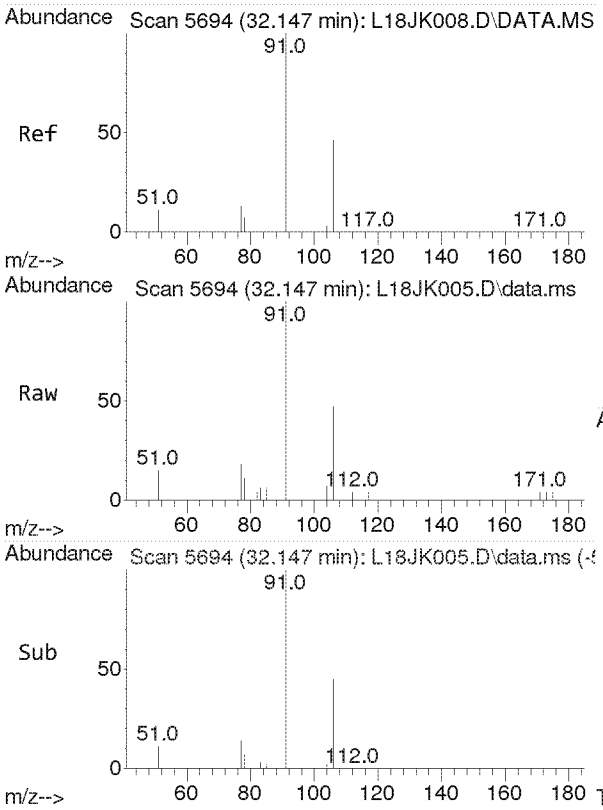


#54
1,1,2,2-Tetrachloroethane
Concen: 0.264 ppbv
RT: 32.102 min Scan# 5688
Delta R.T. 0.007 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 83 Resp: 2395

Ion	Ratio	Lower	Upper
83	100		
85	64.4	51.4	77.2

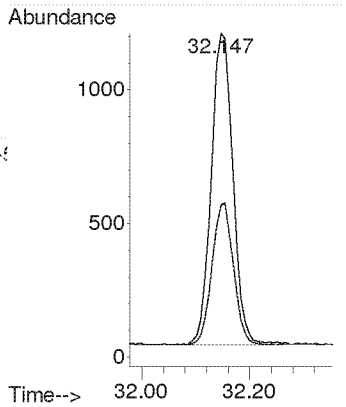


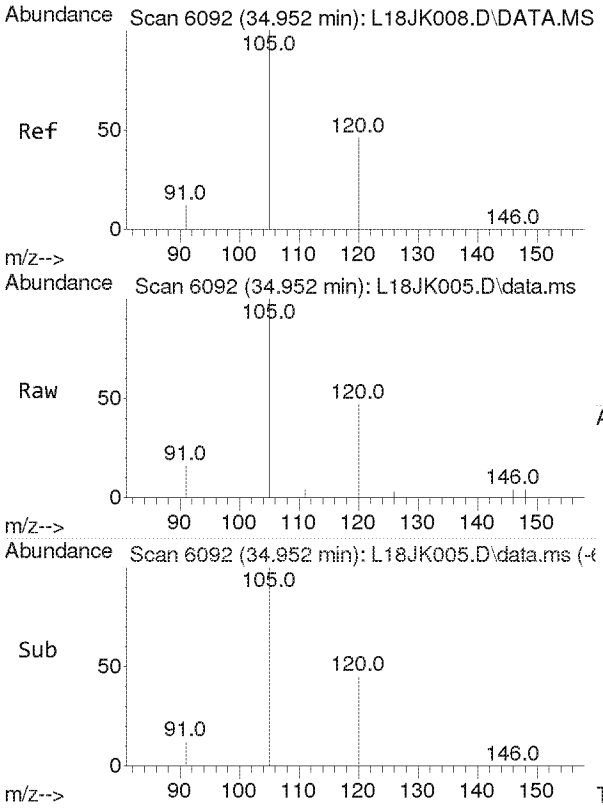


#55
o-Xylene
Concen: 0.253 ppbv
RT: 32.147 min Scan# 5694
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion: 91 Resp: 3248

Ion	Ratio	Lower	Upper
91	100		
106	45.1	36.4	54.6

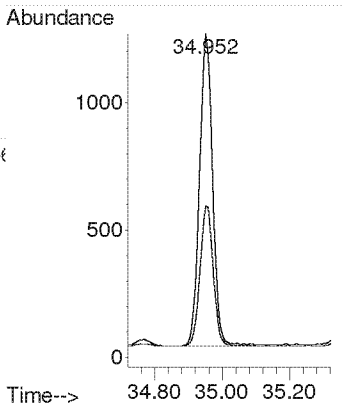


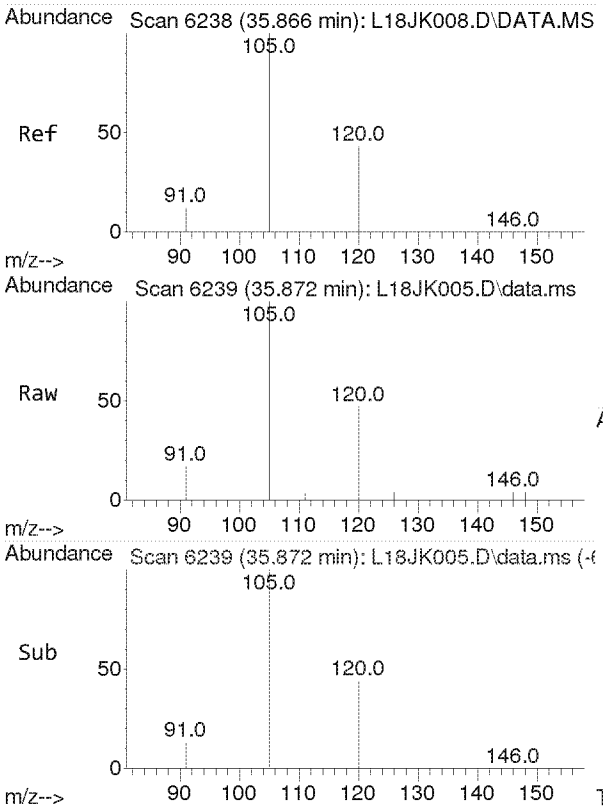


#56
1,3,5-Trimethylbenzene
Concen: 0.251 ppbv
RT: 34.952 min Scan# 6092
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:105 Resp: 3306

Ion	Ratio	Lower	Upper
105	100		
120	45.6	36.5	54.7

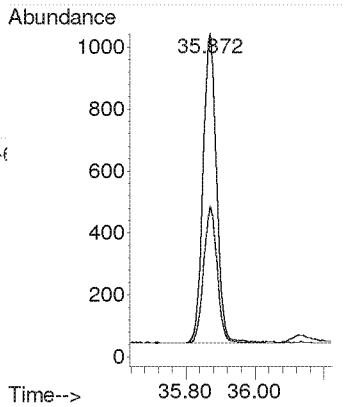


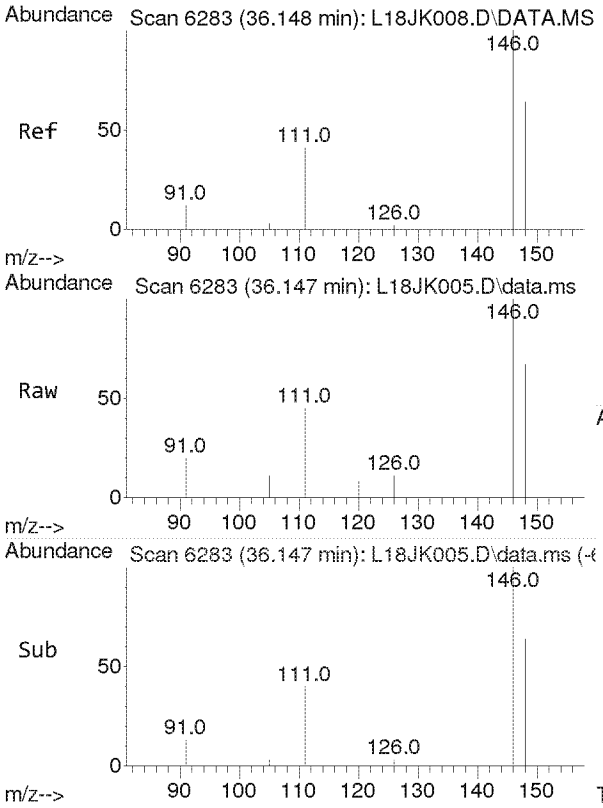


#57
1,2,4-Trimethylbenzene
Concen: 0.247 ppbv
RT: 35.872 min Scan# 6239
Delta R.T. 0.006 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:105 Resp: 2714

Ion	Ratio	Lower	Upper
105	100		
120	44.0	34.7	52.1

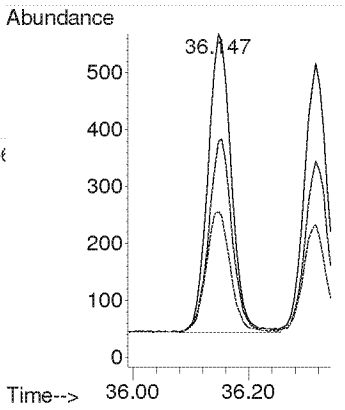


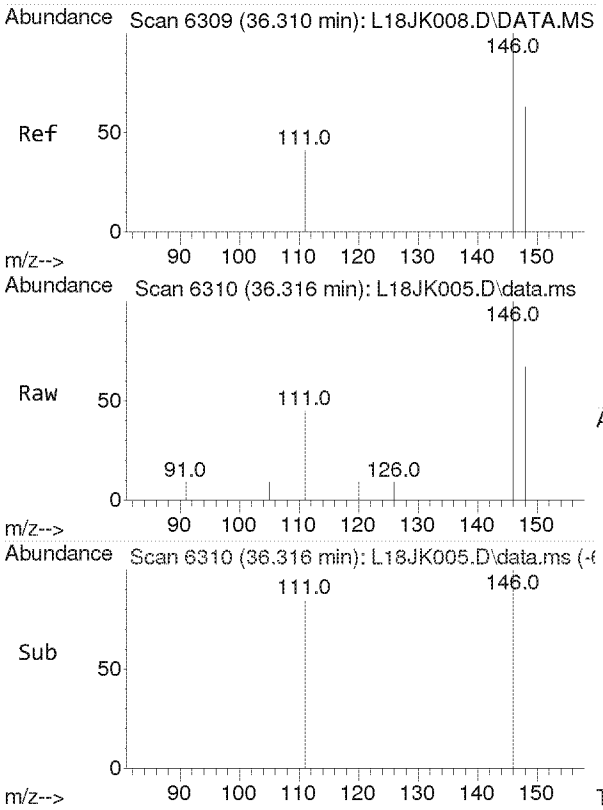


#58
m-Dichlorobenzene
Concen: 0.242 ppbv
RT: 36.147 min Scan# 6283
Delta R.T. -0.000 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:146 Resp: 1466

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.2	76.8
111	41.5	32.9	49.3

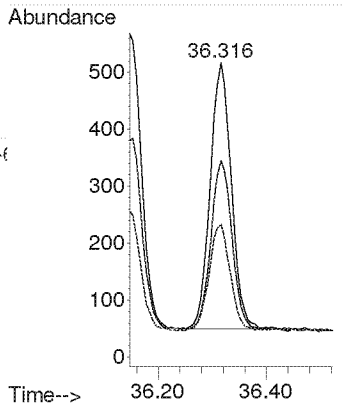


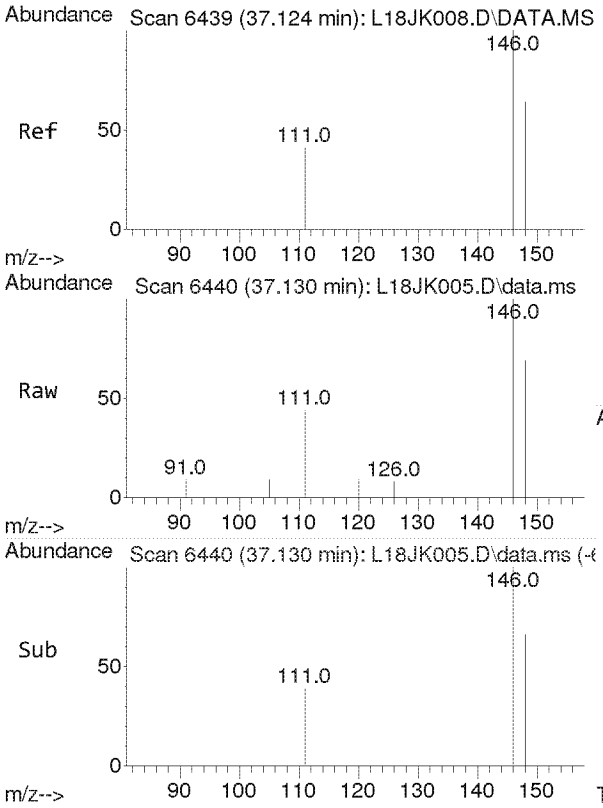


#59
p-Dichlorobenzene
Concen: 0.254 ppbv
RT: 36.316 min Scan# 6310
Delta R.T. 0.006 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:146 Resp: 1266

Ion	Ratio	Lower	Upper
146	100		
148	63.3	51.2	76.8
111	40.4	31.8	47.8

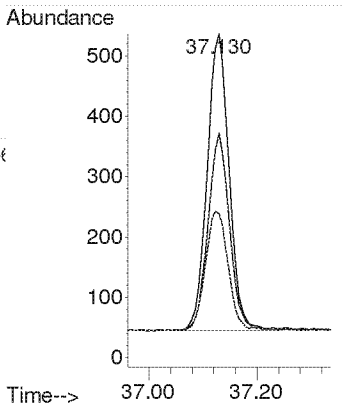


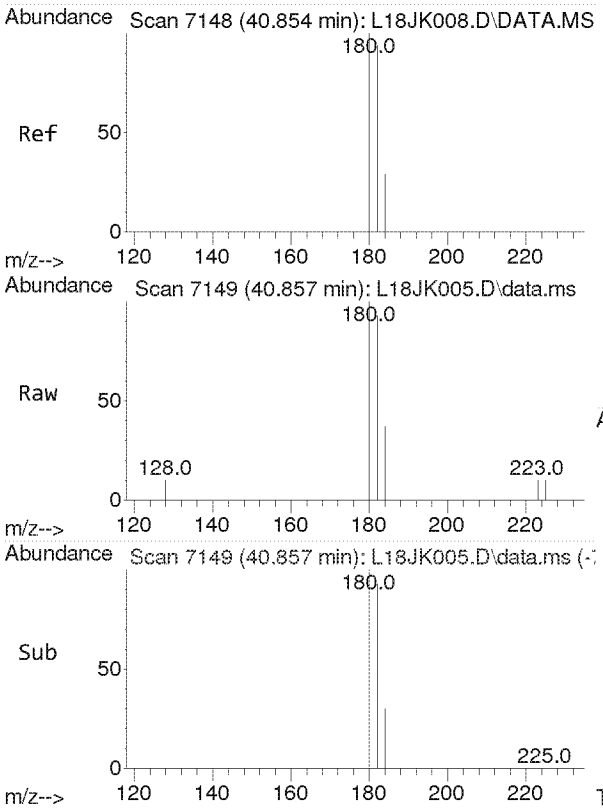


#60
o-Dichlorobenzene
Concen: 0.255 ppbv
RT: 37.130 min Scan# 6440
Delta R.T. 0.006 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:146 Resp: 1378

Ion	Ratio	Lower	Upper
146	100		
148	65.2	51.1	76.7
111	41.9	33.4	50.2

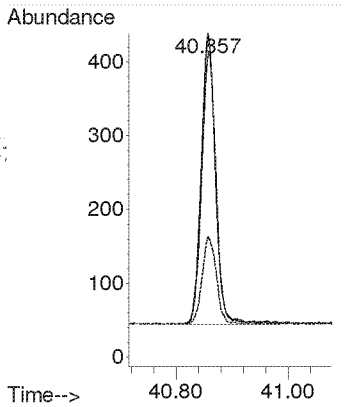


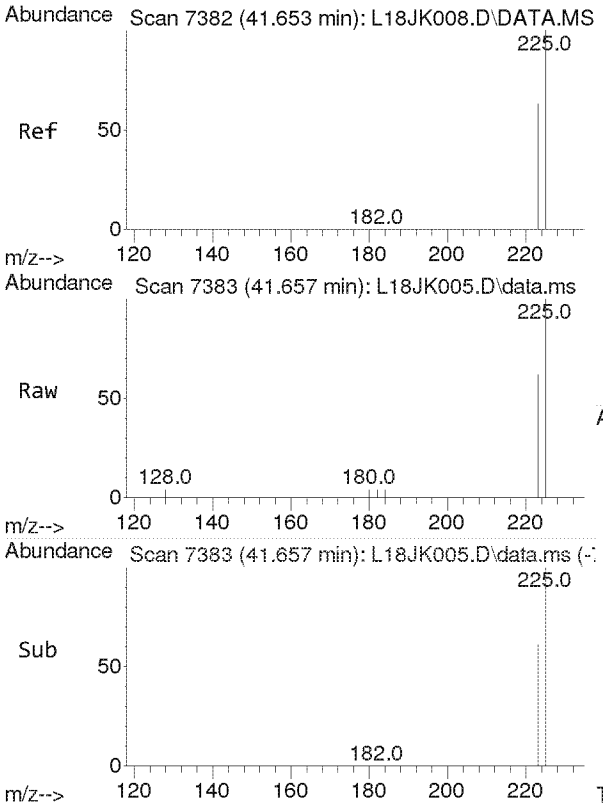


#61
1,2,4-Trichlorobenzene
Concen: 0.281 ppbv
RT: 40.857 min Scan# 7149
Delta R.T. 0.003 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:180 Resp: 690

Ion	Ratio	Lower	Upper
180	100		
182	96.1	76.5	114.7
184	30.4	24.4	36.6

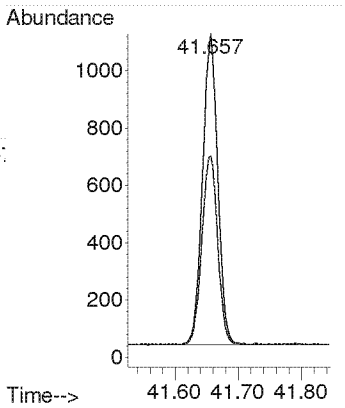




#62
Hexachloro-1,3-butadiene
Concen: 0.303 ppbv
RT: 41.657 min Scan# 7383
Delta R.T. 0.003 min
Lab File: L18JK005.D
Acq: 11 Oct 2018 9:32 pm

Tgt Ion:225 Resp: 1808

Ion	Ratio	Lower	Upper
225	100		
223	63.1	50.2	75.4



Analytical Standard Record

Eastern Research Group

8J11002

Description:	0.50 ppbv ICal	Expires:	11/10/18
Standard Type:	Calibration Stan	Prepared:	10/11/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	10/11/18 16:30 by MH

canister# 3238

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.000512	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.000503	ppmv
1,1,2-Trichloroethane	79-00-5	0.000508	ppmv
1,1-Dichloroethane	75-34-3	0.000516	ppmv
1,1-Dichloroethene	75-35-4	0.000544	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.00047	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.000484	ppmv
1,2-Dibromoethane	106-93-4	0.000515	ppmv
1,2-Dichloroethane	107-06-2	0.000515	ppmv
1,2-Dichloropropane	78-87-5	0.000505	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.000488	ppmv
1,3-Butadiene	106-99-0	0.000492	ppmv
Acetonitrile	75-05-8	0.000459	ppmv
Acetylene	74-86-2	0.000455	ppmv
Acrolein	107-02-8	0.000408	ppmv
Acrylonitrile	107-13-1	0.000475	ppmv
Benzene	71-43-2	0.000514	ppmv
Bromochloromethane	74-97-5	0.000509	ppmv
Bromodichloromethane	75-27-4	0.00048	ppmv
Bromoform	75-25-2	0.000485	ppmv
Bromomethane	74-83-9	0.000508	ppmv
Carbon Disulfide	75-15-0	0.000505	ppmv
Carbon Tetrachloride	56-23-5	0.000561	ppmv
Chlorobenzene	108-90-7	0.000514	ppmv
Chloroethane	75-00-3	0.0005	ppmv
Chloroform	67-66-3	0.000509	ppmv
Chloromethane	74-87-3	0.0005	ppmv
Chloroprene	126-99-8	0.00052	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.000513	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.000504	ppmv

Reviewed By _____ Date 10-31-18

Analytical Standard Record
Eastern Research Group
8J11002

Dibromochloromethane	124-48-1	0.000474	ppmv
Dichlorodifluoromethane	75-71-8	0.00049	ppmv
Dichloromethane	75-09-2	0.000542	ppmv
Dichlorotetrafluoroethane	76-14-2	0.000553	ppmv
Ethyl Acrylate	140-88-5	0.000501	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.000474	ppmv
Ethylbenzene	100-41-4	0.000507	ppmv
Ethylene oxide	75-21-8	0.00051	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.000476	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.00097	ppmv
m-Dichlorobenzene	541-73-1	0.000467	ppmv
Methyl Isobutyl Ketone	108-10-1	0.000467	ppmv
Methyl Methacrylate	80-62-6	0.00048	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.000484	ppmv
n-Octane	111-65-9	0.000515	ppmv
o-Dichlorobenzene	95-50-1	0.000478	ppmv
o-Xylene	95-47-6	0.000503	ppmv
p-Dichlorobenzene	106-46-7	0.000493	ppmv
Propylene	115-07-1	0.000486	ppmv
Styrene	100-42-5	0.000493	ppmv
tert-Amyl Methyl Ether	994-05-8	0.000485	ppmv
Tetrachloroethylene	127-18-4	0.00051	ppmv
Toluene	108-88-3	0.000515	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.000502	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.000507	ppmv
Trichloroethylene	79-01-6	0.00048	ppmv
Trichlorofluoromethane	75-69-4	0.000471	ppmv
Trichlorotrifluoroethane	76-13-1	0.000518	ppmv
Vinyl chloride	75-01-4	0.000515	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
7J25026	TO-15 Primary Stock Standard	10/17/17	** Vendor **	10/17/18	10/25/17 10:58 by MH	6
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	3

L 10-3-18

Reviewed By Date

ED_002475_00000113-00080

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK006.D
Acq On : 11 Oct 2018 10:34 pm (#1); 11-Oct-18, 22:29:34 (#2)
Operator : MAH
Sample : 1810019-CAL2
Misc : 80ML IS 7L07001,8J11002 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 12 09:29:01 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	45575	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.157	114	111372	5.0200 ppbv	0.00
43) IS-Chlorobenzene-d5	30.129	117	75735	4.7700 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.416	26	2081	0.4521 ppbv	100
3) Propylene	7.842	41	2346	0.4914 ppbv	99
4) Dichlorodifluoromethane	8.705	85	10810	0.4923 ppbv	100
5) Chloromethane	9.755	50	2956	0.5085 ppbv	99
6) Dichlorotetrafluoroethane	10.877	85	10688	0.5520 ppbv	100
7) Vinyl Chloride	11.118	62	3218	0.5105 ppbv	99
8) 1,3-Butadiene	11.790	54	2047	0.4720 ppbv	100
9) Ethylene oxide	12.447	29	1132	0.4189 ppbv	98
10) Bromomethane	12.594	94	3092	0.5025 ppbv	99
11) Chloroethane	13.284	64	1352	0.4988 ppbv	100
12) Acetonitrile	14.399	41	2131	0.4331 ppbv	89
13) Acrolein	14.667	56	876	0.3942 ppbv	95
14) Trichlorofluoromethane	15.202	101	9016	0.4758 ppbv	99
15) Acrylonitrile	15.947	53	1638	0.4395 ppbv	100
16) 1,1-Dichloroethene	16.424	61	4528	0.5356 ppbv	99
17) Methylene Chloride	16.738	49	3226	0.5294 ppbv	100
18) Carbon Disulfide	16.925	76	8509	0.4929 ppbv	100
19) Trichlorotrifluoroethane	17.285	101	6730	0.5157 ppbv	100
20) trans-1,2-Dichloroethy...	18.325	96	2279	0.4839 ppbv	99
21) 1,1-Dichloroethane	18.637	63	4074	0.4955 ppbv	100
22) Methyl tert-Butyl Ether	18.803	73	6002	0.4638 ppbv	100
23) Chloroprene	19.548	53	2983	0.4828 ppbv	100
24) cis-1,2-Dichloroethylene	19.949	61	3055m	0.4712 ppbv	
25) Bromochloromethane	20.182	128	1742	0.4863 ppbv	100
26) Chloroform	20.416	83	4733	0.4885 ppbv	99
27) Ethyl tert-Butyl Ether	21.190	59	5941	0.4466 ppbv	100
28) 1,2-Dichloroethane	21.496	62	2968	0.4903 ppbv	99
30) 1,1,1-Trichloroethane	21.881	97	4640	0.4851 ppbv	98
31) Benzene	22.556	78	6427	0.4749 ppbv	100
32) Carbon Tetrachloride	22.789	117	5859	0.5363 ppbv	100
33) tert-Amyl Methyl Ether	23.529	73	4964	0.4375 ppbv	100
34) 1,2-Dichloropropane	23.801	63	2376	0.4567 ppbv	99
35) Ethyl Acrylate	23.900	55	2890	0.4387 ppbv	99
36) Bromodichloromethane	24.091	83	4432	0.4431 ppbv	100
37) Trichloroethylene	24.181	130	2727	0.4403 ppbv	98
38) Methyl Methacrylate	24.553	41	8011	0.4320 ppbv	99
39) cis-1,3-Dichloropropene	25.544	75	2127	0.4477 ppbv	98
40) Methyl Isobutyl Ketone	25.626	43	4606	0.4271 ppbv	99
41) trans-1,3-Dichloropropene	26.378	75	1566	0.4502 ppbv	100
42) 1,1,2-Trichloroethane	26.642	97	2172	0.4692 ppbv	99
44) Toluene	27.108	91	6664	0.4729 ppbv	100
45) Dibromochloromethane	27.756	129	15110	0.4444 ppbv	100
46) 1,2-Dibromoethane	28.169	107	2857	0.4844 ppbv	99
47) n-Octane	28.888	43	3996	0.4524 ppbv	100
48) Tetrachloroethylene	29.019	166	3328	0.4794 ppbv	100
49) Chlorobenzene	30.205	112	4457	0.4786 ppbv	99
50) Ethylbenzene	30.927	91	6843	0.4606 ppbv	99

ED_002475_00000113-00081

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK006.D
Acq On : 11 Oct 2018 10:34 pm (#1); 11-Oct-18, 22:29:34 (#2)
Operator : MAH
Sample : 1810019-CAL2
Misc : 80ML IS 7L07001,8J11002 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 12 09:29:01 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	31.289	91	11028	0.8562	ppbv	100
52) Bromoform	31.304	173	2999	0.4488	ppbv	100
53) Styrene	31.936	104	3034	0.4376	ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.094	83	4192	0.4777	ppbv	100
55) o-Xylene	32.147	91	5658	0.4549	ppbv	99
56) 1,3,5-Trimethylbenzene	34.952	105	5684	0.4466	ppbv	100
57) 1,2,4-Trimethylbenzene	35.866	105	4698	0.4426	ppbv	100
58) m-Dichlorobenzene	36.147	146	2617	0.4457	ppbv	99
59) p-Dichlorobenzene	36.316	146	2252	0.4665	ppbv	99
60) o-Dichlorobenzene	37.130	146	2454	0.4694	ppbv	100
61) 1,2,4-Trichlorobenzene	40.857	180	1280	0.5392	ppbv	100
62) Hexachloro-1,3-butadiene	41.653	225	3253	0.5641	ppbv	100

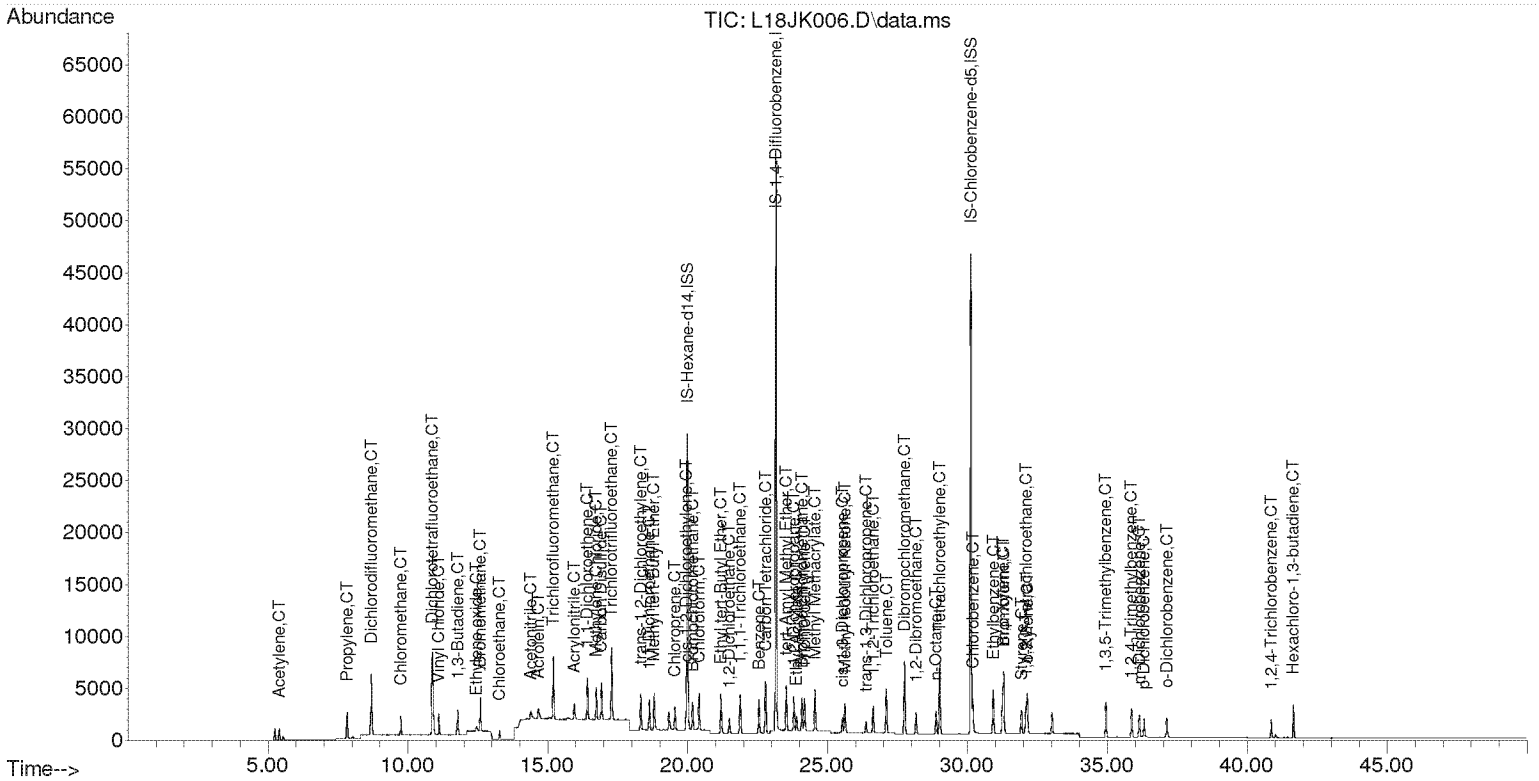
(#) = qualifier out of range (m) = manual integration (+) = signals summed

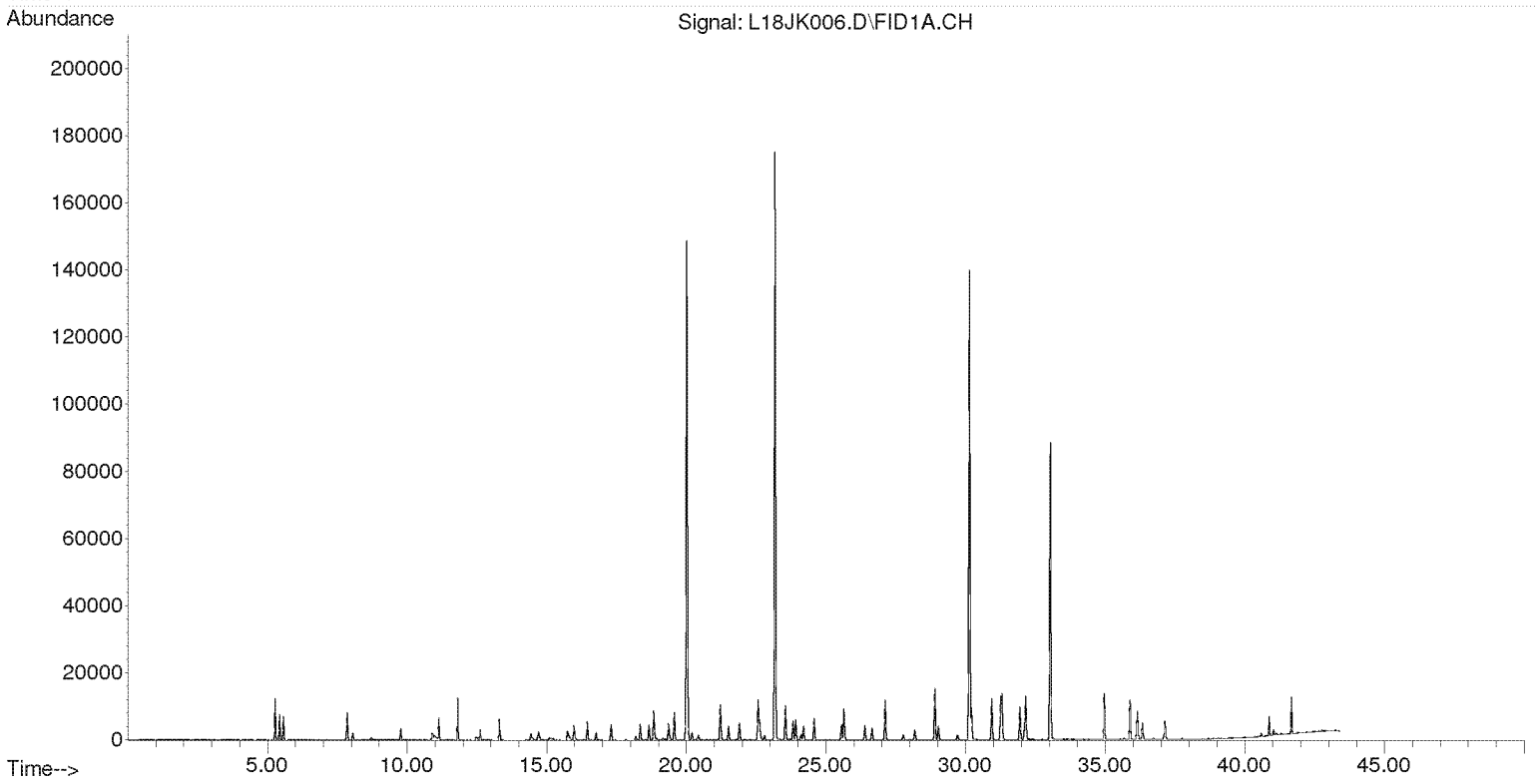
ED_002475_00000113-00082

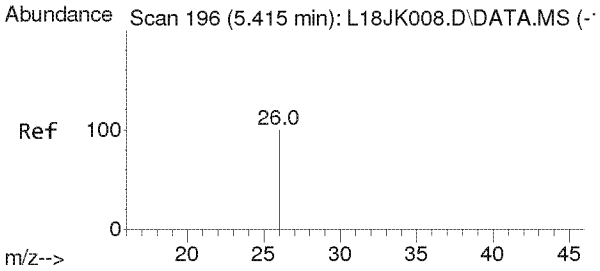
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK006.D
Acq On : 11 Oct 2018 10:34 pm (#1); 11 Oct 2018 10:29 pm (#2)
Operator : MAH
Sample : 1810019-CAL2
Misc : 80ML IS 7L07001,8J11002 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 12 09:28:23 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

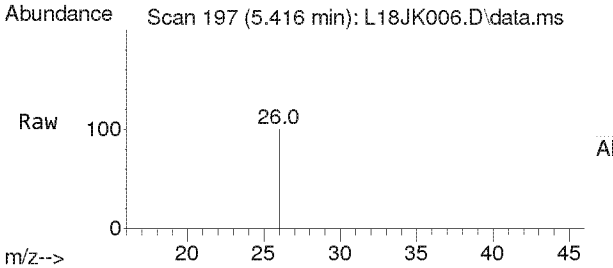


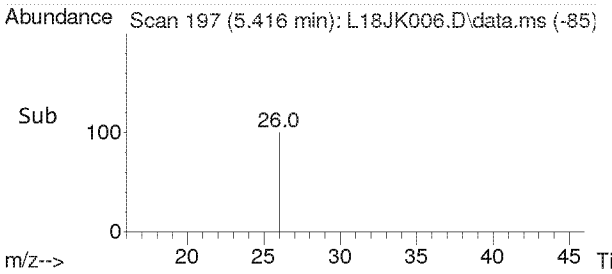


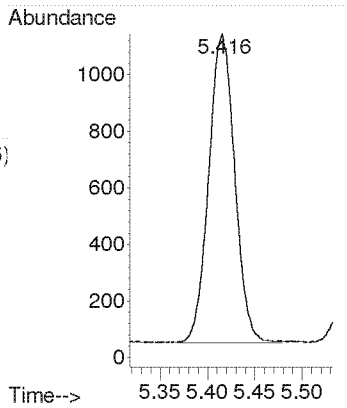


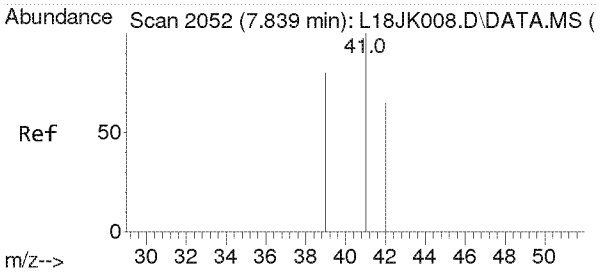
#2
Acetylene
Concen: 0.452 ppbv
RT: 5.416 min Scan# 197
Delta R.T. 0.001 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 26 Resp: 2081





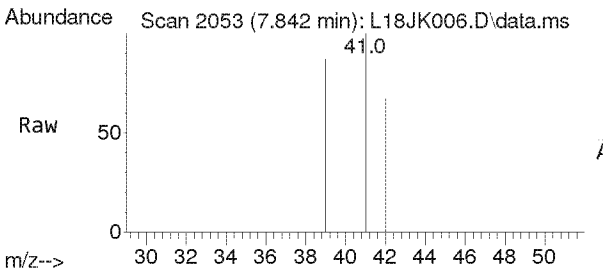


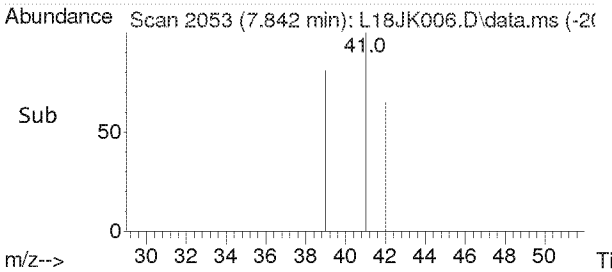


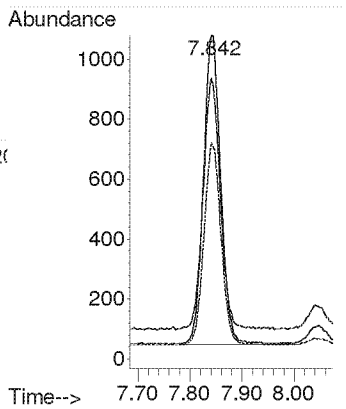
#3
Propylene
Concen: 0.491 ppbv
RT: 7.842 min Scan# 2053
Delta R.T. 0.003 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

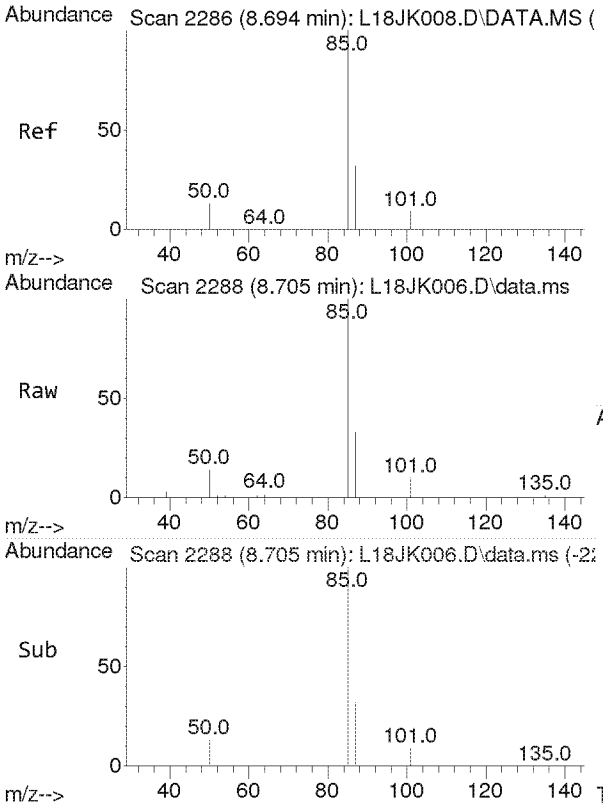
Tgt Ion: 41 Resp: 2346

Ion	Ratio	Lower	Upper
41	100		
39	82.8	65.0	97.4
42	65.2	52.3	78.5





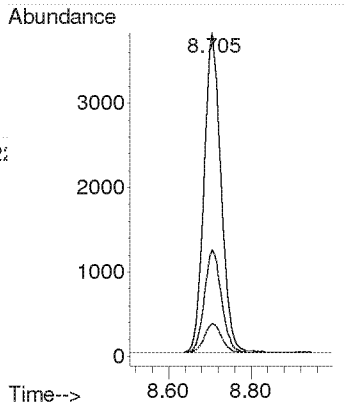


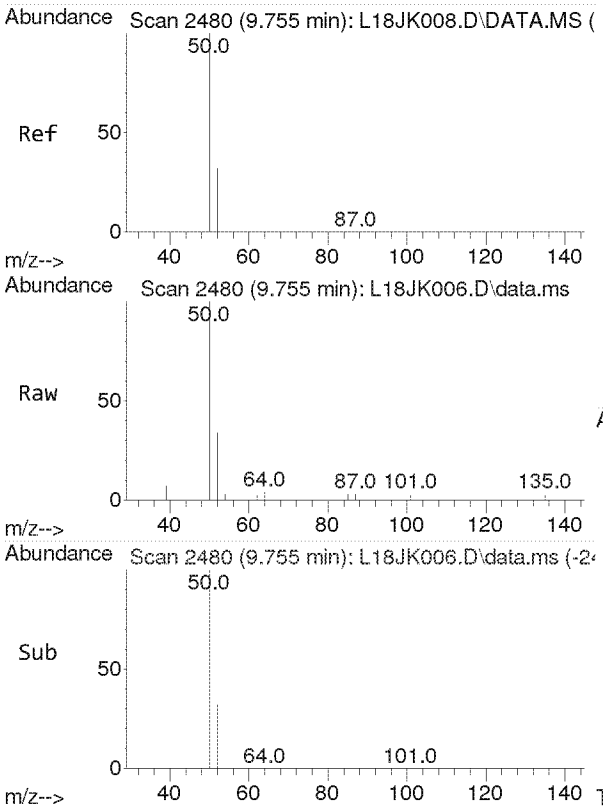


#4
Dichlorodifluoromethane
Concen: 0.492 ppbv
RT: 8.705 min Scan# 2288
Delta R.T. 0.011 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 85 Resp: 10810

Ion	Ratio	Lower	Upper
85	100		
87	32.4	25.8	38.8
101	9.2	7.2	10.8

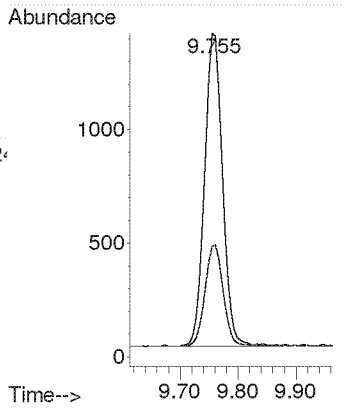


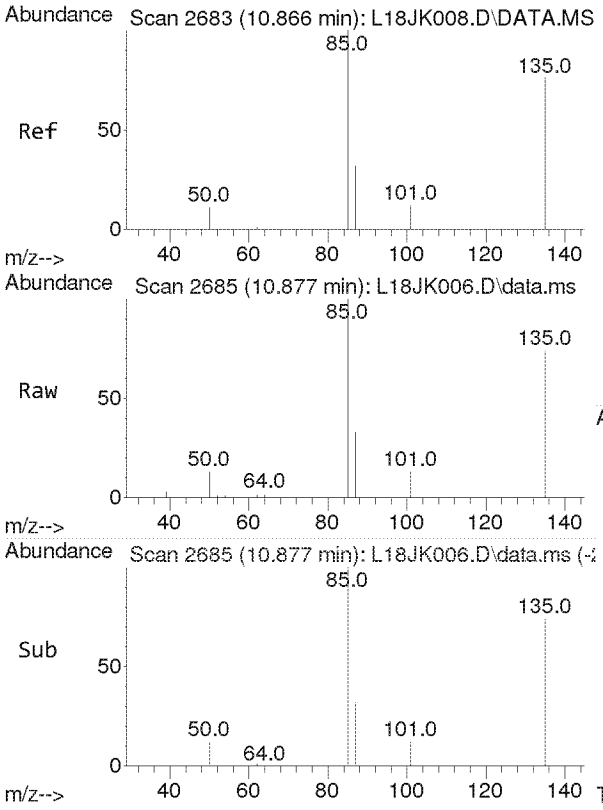


#5
Chloromethane
Concen: 0.509 ppbv
RT: 9.755 min Scan# 2480
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 50 Resp: 2956

Ion	Ratio	Lower	Upper
50	100		
52	32.8	25.8	38.6

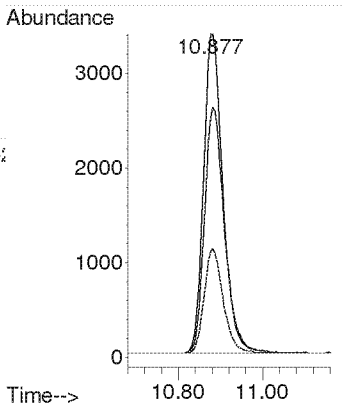


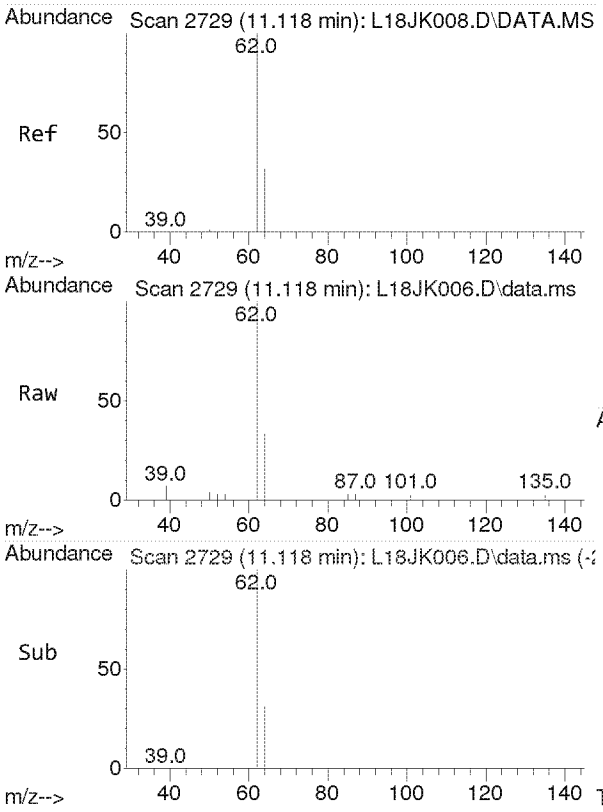


#6
Dichlorotetrafluoroethane
Concen: 0.552 ppbv
RT: 10.877 min Scan# 2685
Delta R.T. 0.011 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 85 Resp: 10688

Ion	Ratio	Lower	Upper
85	100		
135	80.1	63.7	95.5
87	32.3	25.7	38.5

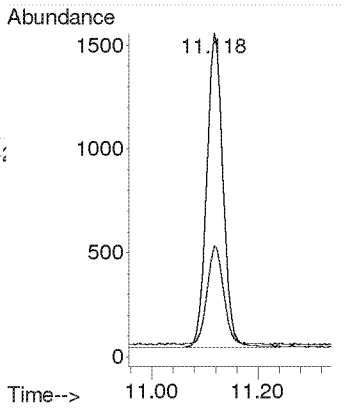


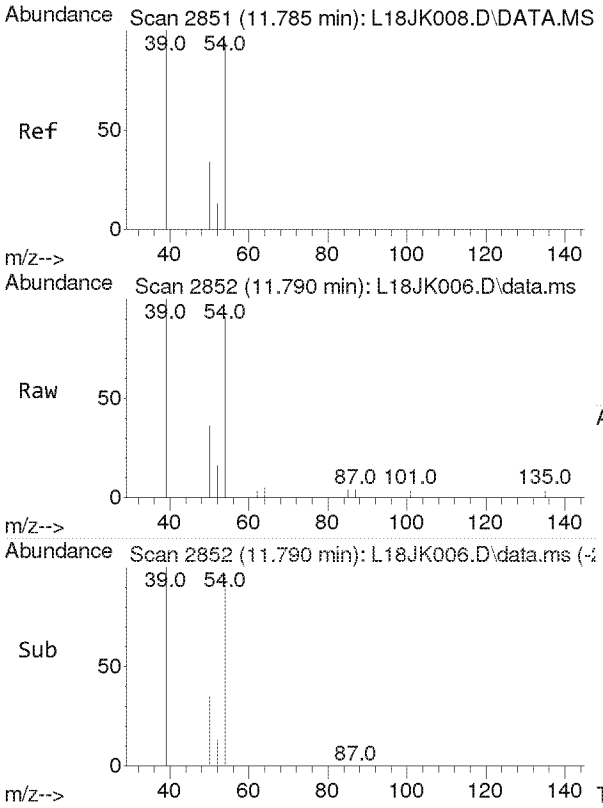


#7
Vinyl Chloride
Concen: 0.511 ppbv
RT: 11.118 min Scan# 2729
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 62 Resp: 3218

Ion	Ratio	Lower	Upper
62	100		
64	32.5	25.6	38.4

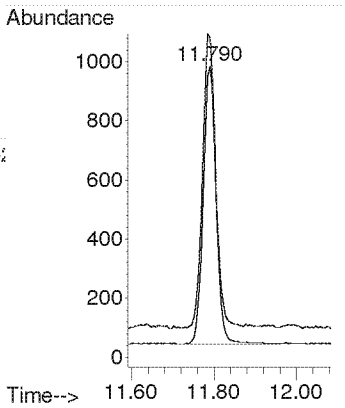


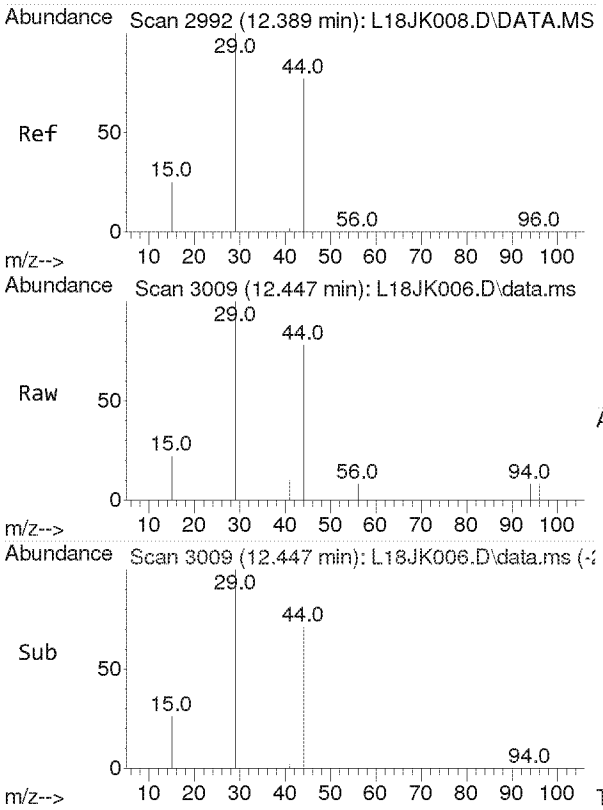


#8
1,3-Butadiene
Concen: 0.472 ppbv
RT: 11.790 min Scan# 2852
Delta R.T. 0.005 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 54 Resp: 2047

Ion	Ratio	Lower	Upper
54	100		
39	108.8	87.0	130.4

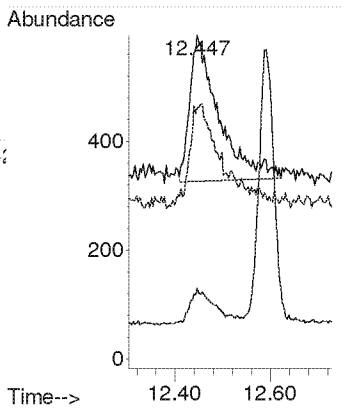


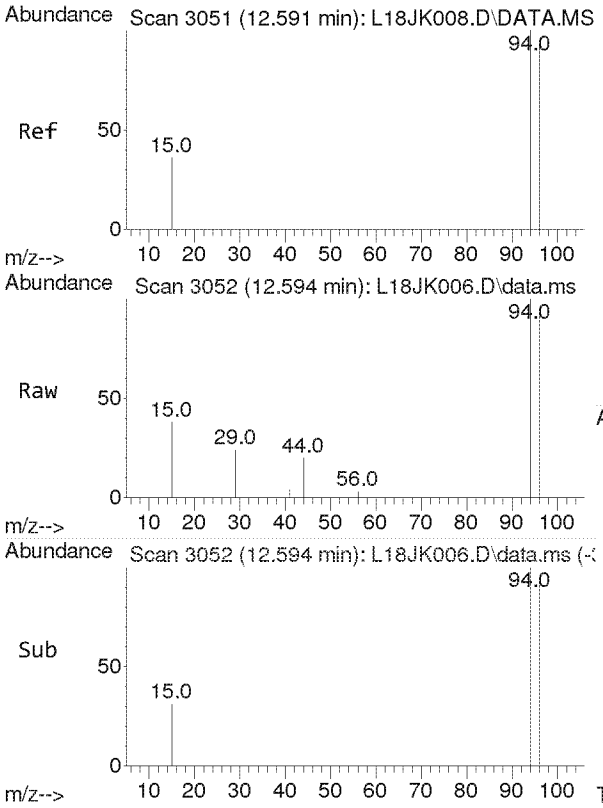


#9
Ethylene oxide
Concen: 0.419 ppbv
RT: 12.447 min Scan# 3009
Delta R.T. 0.058 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 29 Resp: 1132

Ion	Ratio	Lower	Upper
29	100		
15	21.5	20.1	30.1
44	78.4	62.6	93.8

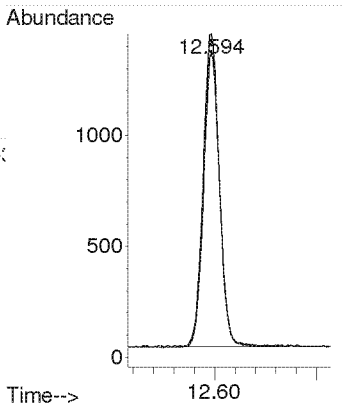


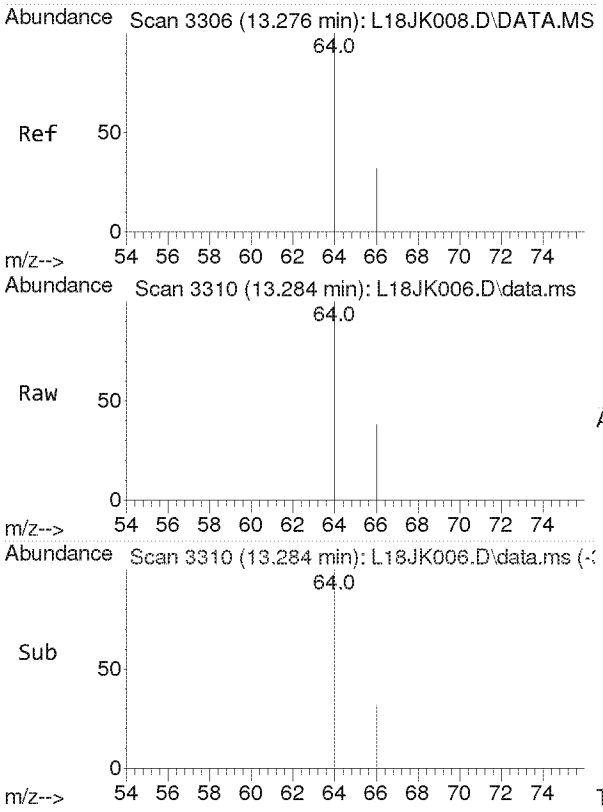


#10
Bromomethane
Concen: 0.503 ppbv
RT: 12.594 min Scan# 3052
Delta R.T. 0.003 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 94 Resp: 3092

Ion	Ratio	Lower	Upper
94	100		
96	93.7	75.5	113.3

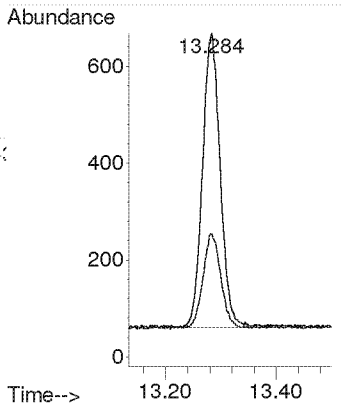


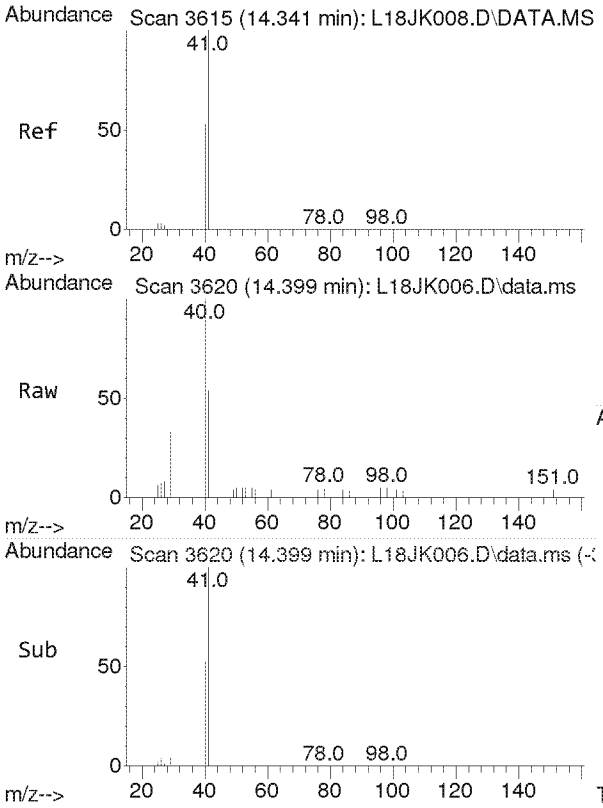


#11
Chloroethane
Concen: 0.499 ppbv
RT: 13.284 min Scan# 3310
Delta R.T. 0.008 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 64 Resp: 1352

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.8	38.6

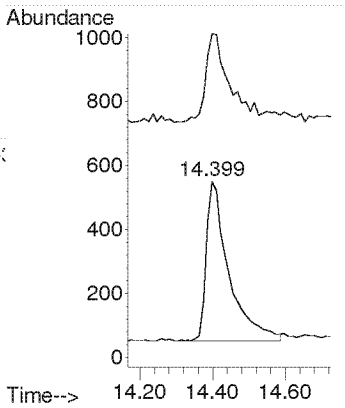


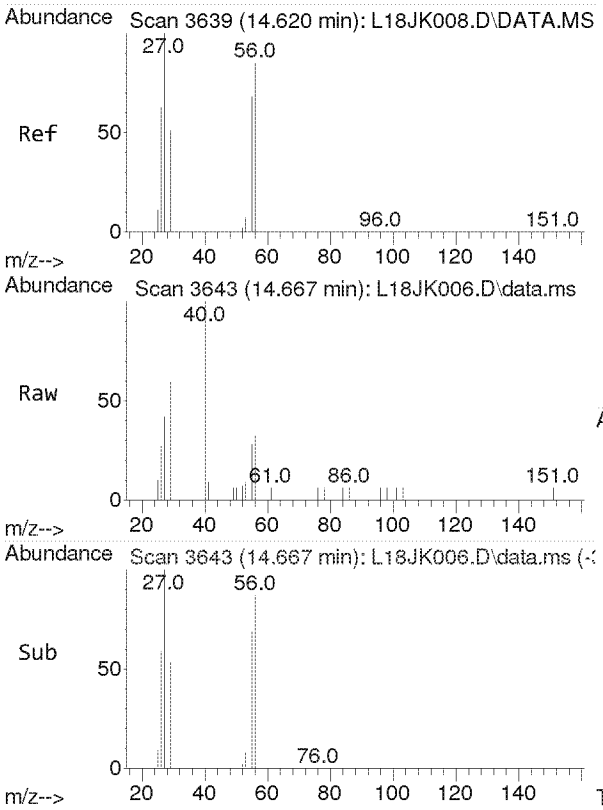


#12
Acetonitrile
Concen: 0.433 ppbv
RT: 14.399 min Scan# 3620
Delta R.T. 0.058 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 41 Resp: 2131

Ion	Ratio	Lower	Upper
41	100		
40	61.8	43.1	64.7

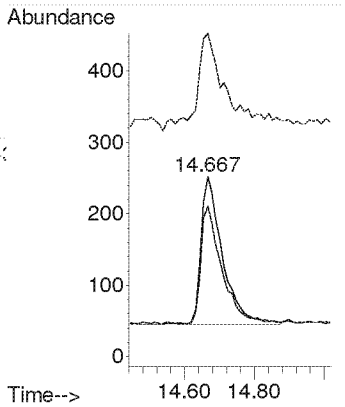


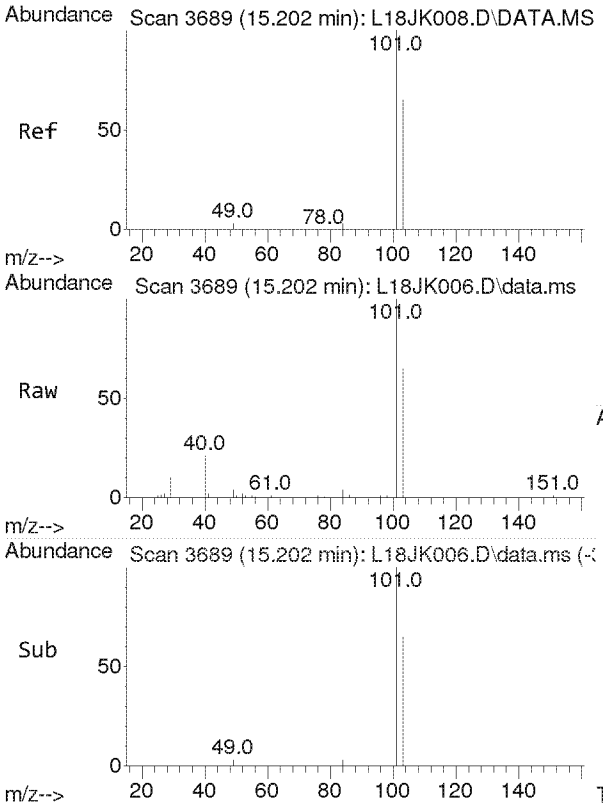


#13
Acrolein
Concen: 0.394 ppbv
RT: 14.667 min Scan# 3643
Delta R.T. 0.046 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 56 Resp: 876

Ion	Ratio	Lower	Upper
56	100		
55	77.5	61.9	92.9
29	70.0	49.2	73.8

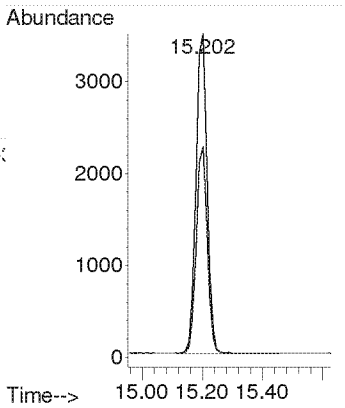


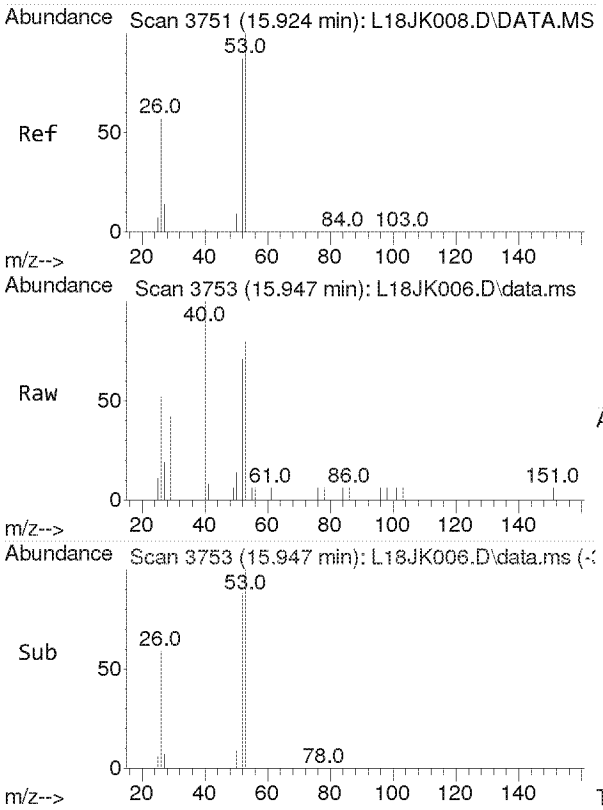


#14
Trichlorofluoromethane
Concen: 0.476 ppbv
RT: 15.202 min Scan# 3689
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:101 Resp: 9016

Ion	Ratio	Lower	Upper
101	100		
103	64.2	51.8	77.6

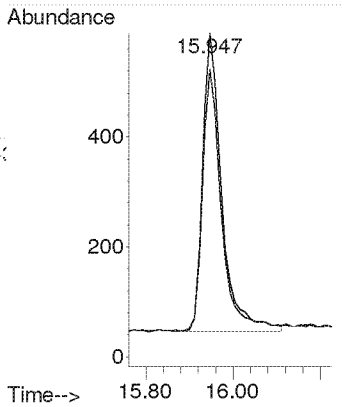


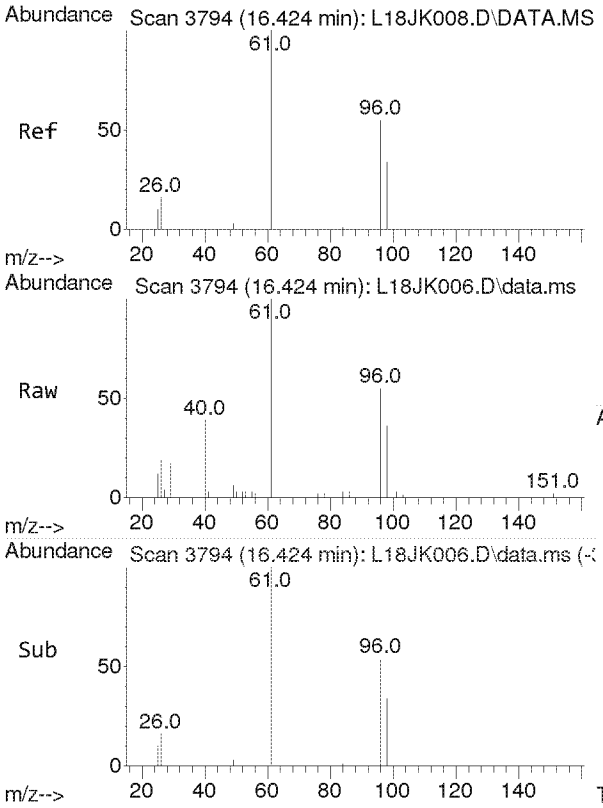


#15
Acrylonitrile
Concen: 0.439 ppbv
RT: 15.947 min Scan# 3753
Delta R.T. 0.023 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 53 Resp: 1638

Ion	Ratio	Lower	Upper
53	100		
52	87.1	69.7	104.5

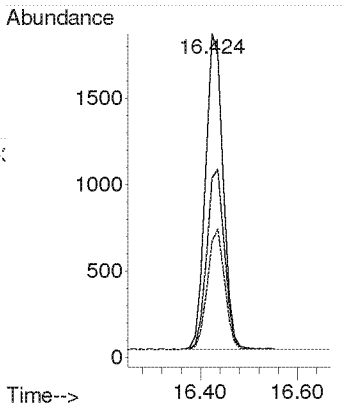


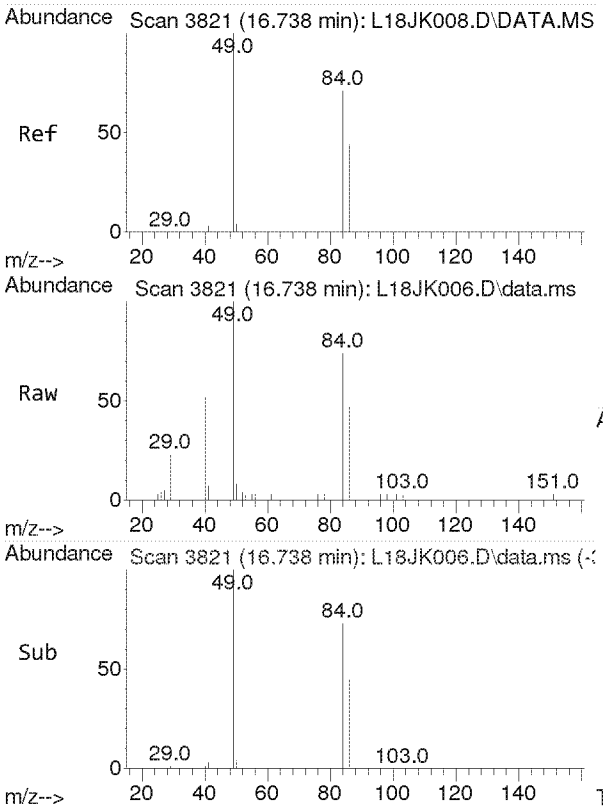


#16
1,1-Dichloroethene
Concen: 0.536 ppbv
RT: 16.424 min Scan# 3794
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 61 Resp: 4528

Ion	Ratio	Lower	Upper
61	100		
96	57.8	46.1	69.1
98	37.6	29.4	44.2

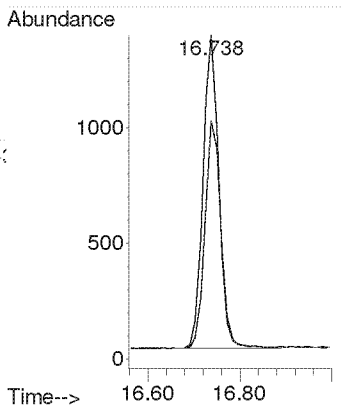


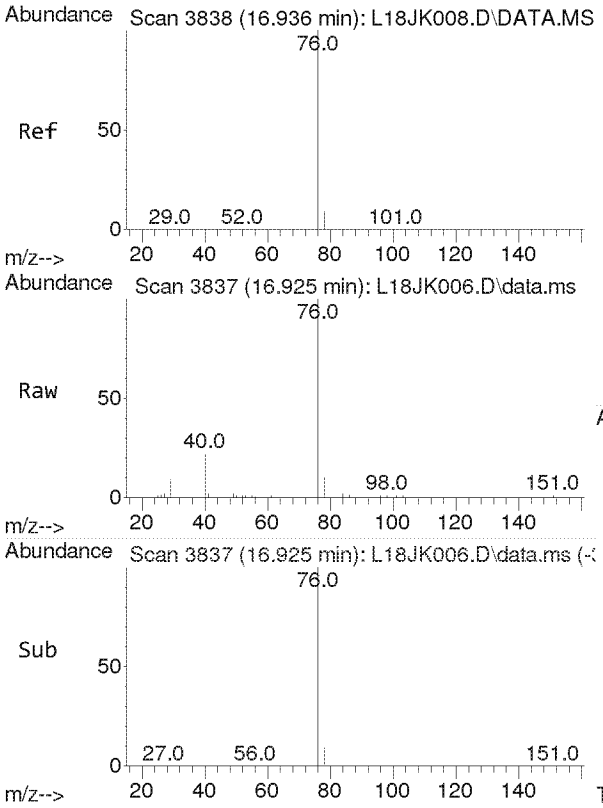


#17
Methylene Chloride
Concen: 0.529 ppbv
RT: 16.738 min Scan# 3821
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 49 Resp: 3226

Ion	Ratio	Lower	Upper
49	100		
84	73.8	51.9	96.5

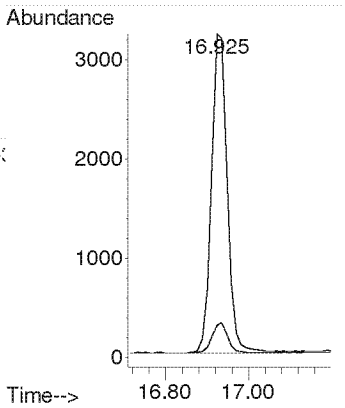


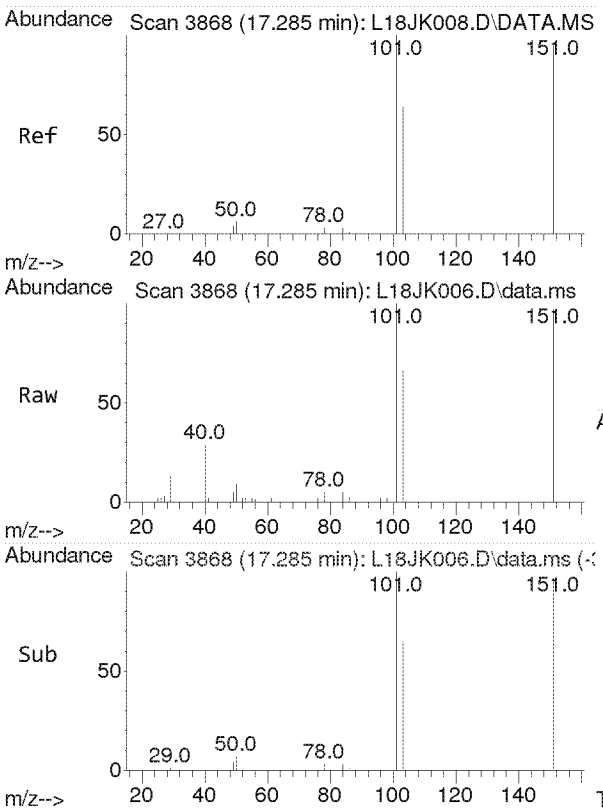


#18
Carbon Disulfide
Concen: 0.493 ppbv
RT: 16.925 min Scan# 3837
Delta R.T. -0.012 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 76 Resp: 8509

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.3	10.9

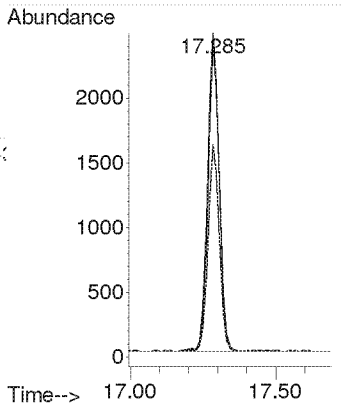


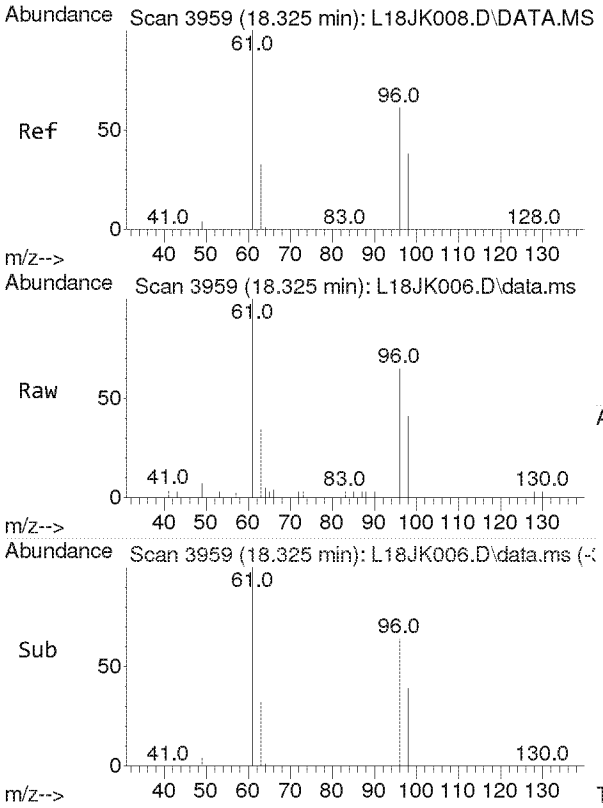


#19
Trichlorotrifluoroethane
Concen: 0.516 ppbv
RT: 17.285 min Scan# 3868
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:101 Resp: 6730

Ion	Ratio	Lower	Upper
101	100		
151	96.1	76.8	115.2
103	64.1	51.4	77.2

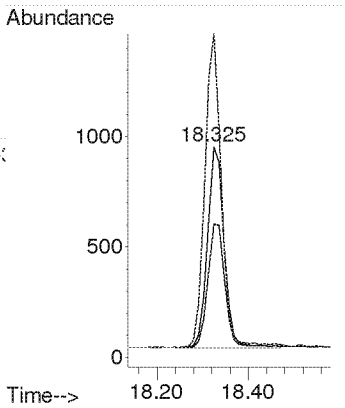


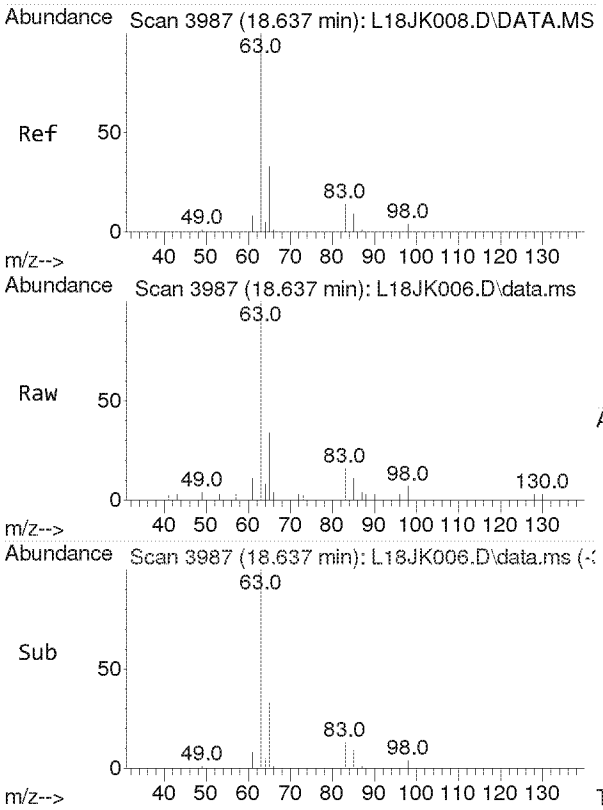


#20
trans-1,2-Dichloroethylene
Concen: 0.484 ppbv
RT: 18.325 min Scan# 3959
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 96 Resp: 2279

Ion	Ratio	Lower	Upper
96	100		
98	63.1	50.9	76.3
61	154.5	125.0	187.6

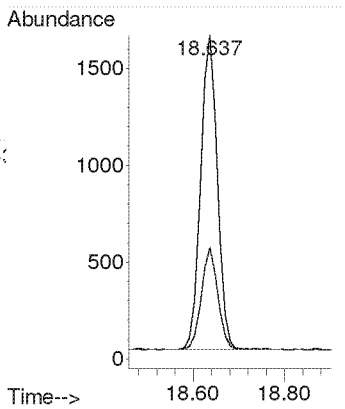


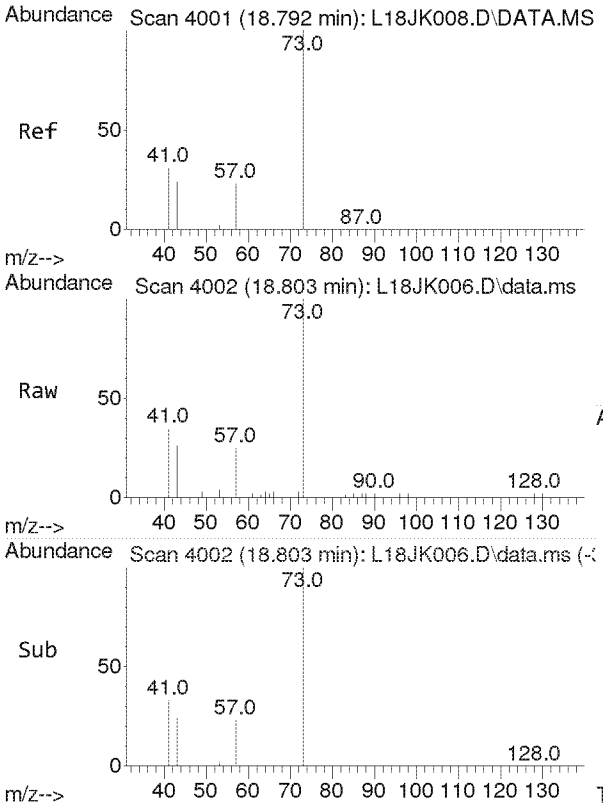


#21
1,1-Dichloroethane
Concen: 0.495 ppbv
RT: 18.637 min Scan# 3987
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 63 Resp: 4074

Ion	Ratio	Lower	Upper
63	100		
65	31.9	25.7	38.5

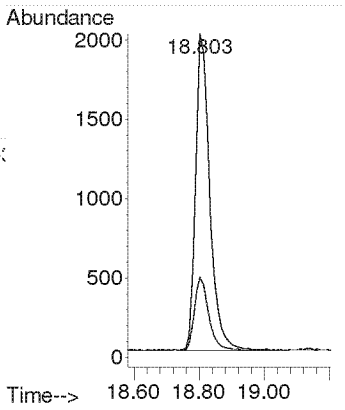


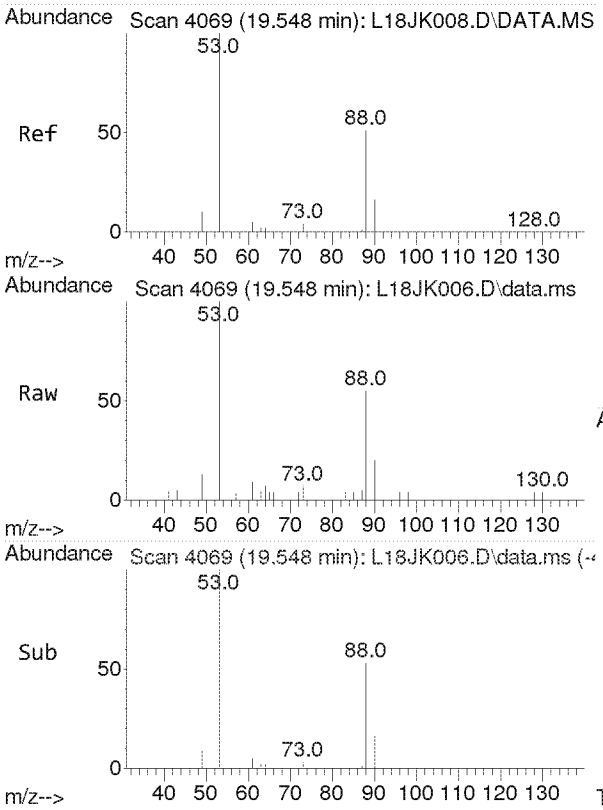


#22
Methyl tert-Butyl Ether
Concen: 0.464 ppbv
RT: 18.803 min Scan# 4002
Delta R.T. 0.011 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 73 Resp: 6002

Ion	Ratio	Lower	Upper
73	100		
57	22.9	18.4	27.6

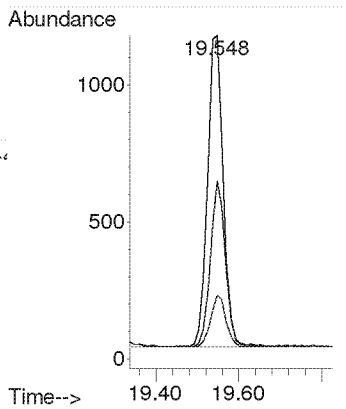


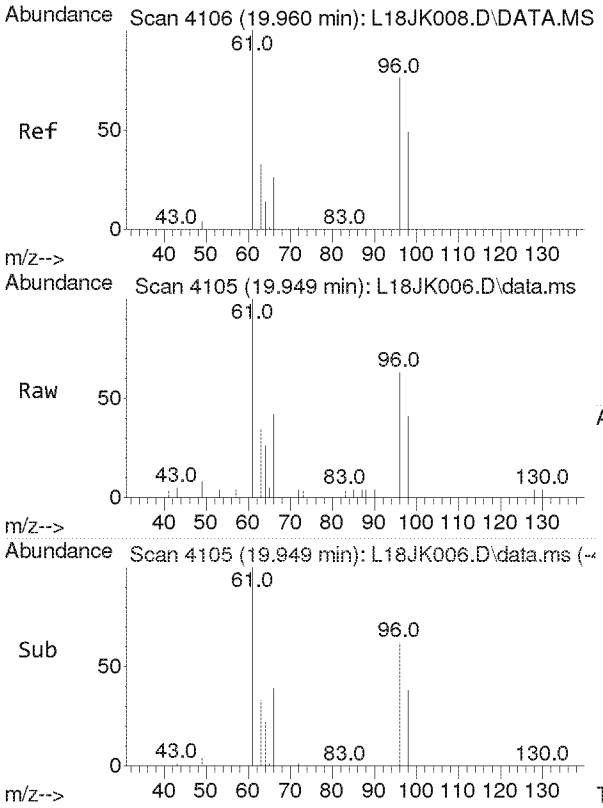


#23
Chloroprene
Concen: 0.483 ppbv
RT: 19.548 min Scan# 4069
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 53 Resp: 2983

Ion	Ratio	Lower	Upper
53	100		
88	51.2	41.2	61.8
90	16.4	13.3	19.9

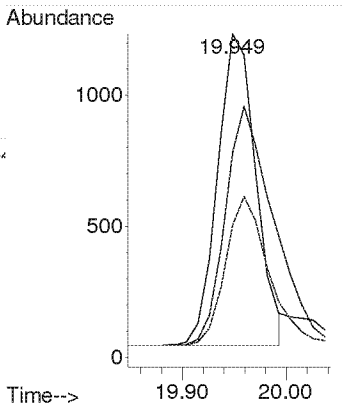


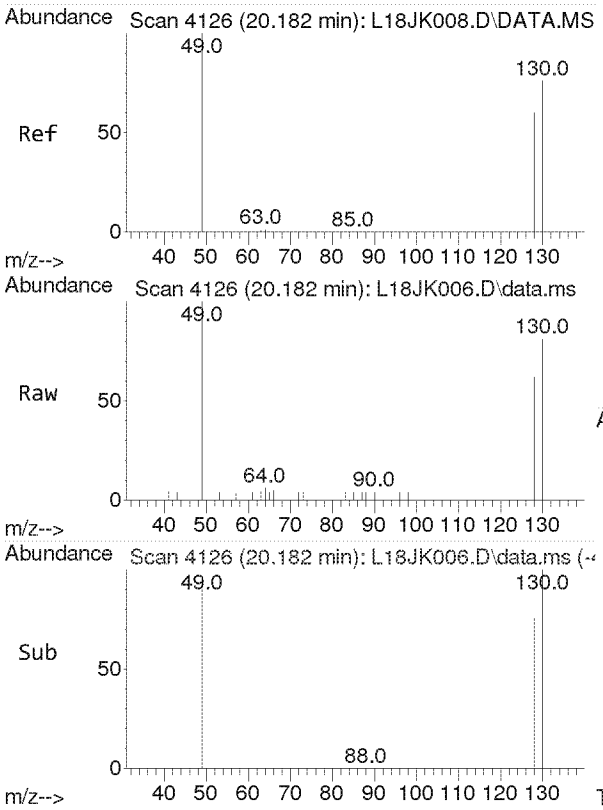


#24
cis-1,2-Dichloroethylene
Concen: 0.471 ppbv m
RT: 19.949 min Scan# 4105
Delta R.T. -0.011 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 61 Resp: 3055

Ion	Ratio	Lower	Upper
61	100		
96	97.9	58.8	88.2#
98	54.5	37.0	55.4

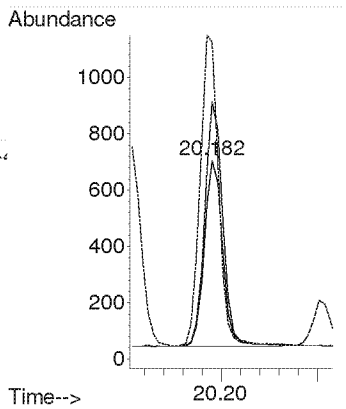


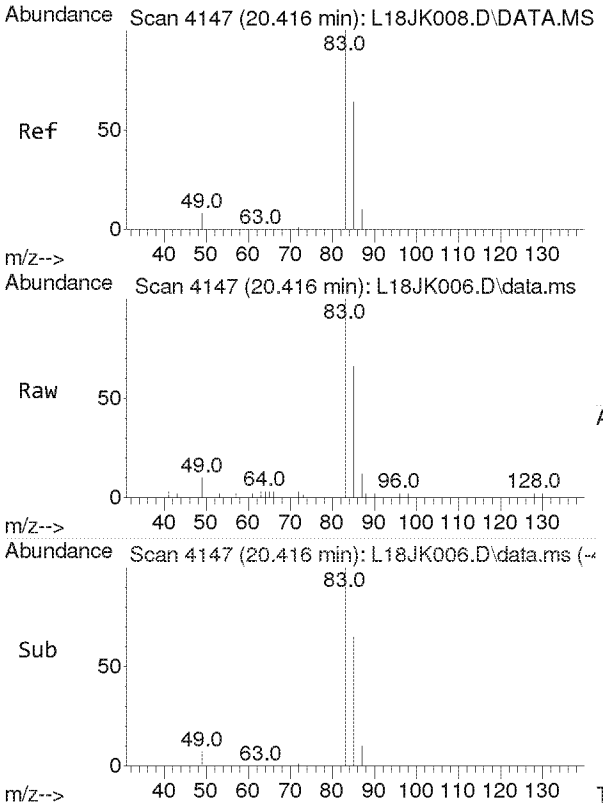


#25
Bromochloromethane
Concen: 0.486 ppbv
RT: 20.182 min Scan# 4126
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:128 Resp: 1742

Ion	Ratio	Lower	Upper
128	100		
130	129.5	103.1	154.7
49	168.3	134.3	201.5

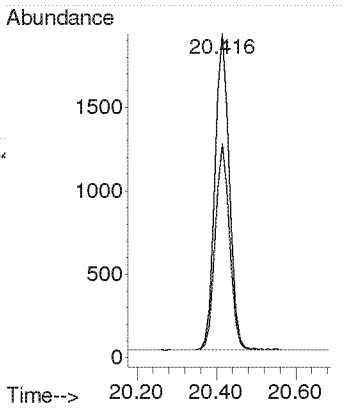


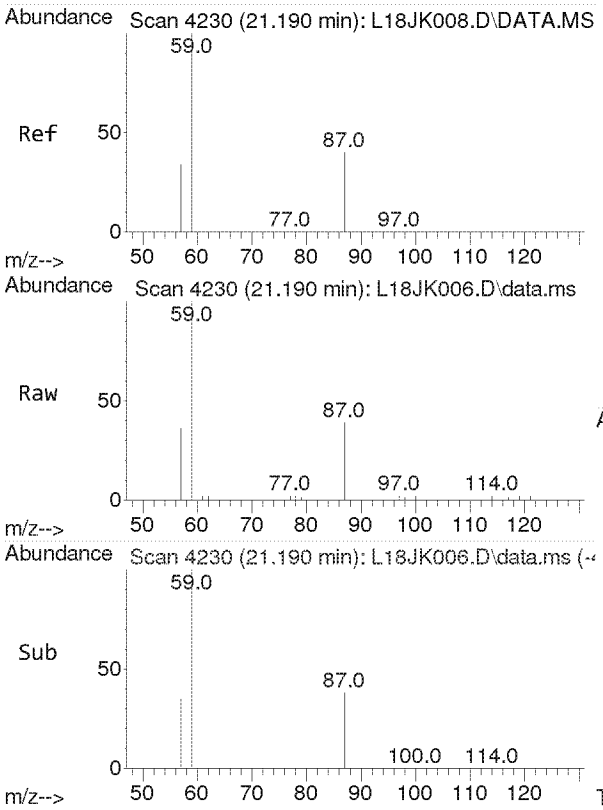


#26
Chloroform
Concen: 0.489 ppbv
RT: 20.416 min Scan# 4147
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 83 Resp: 4733

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.6	77.4

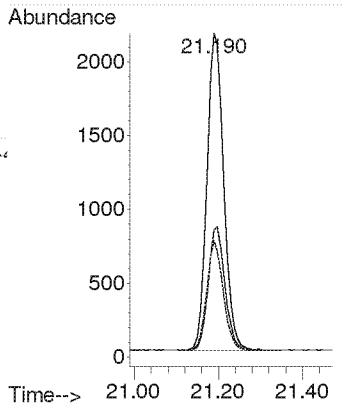


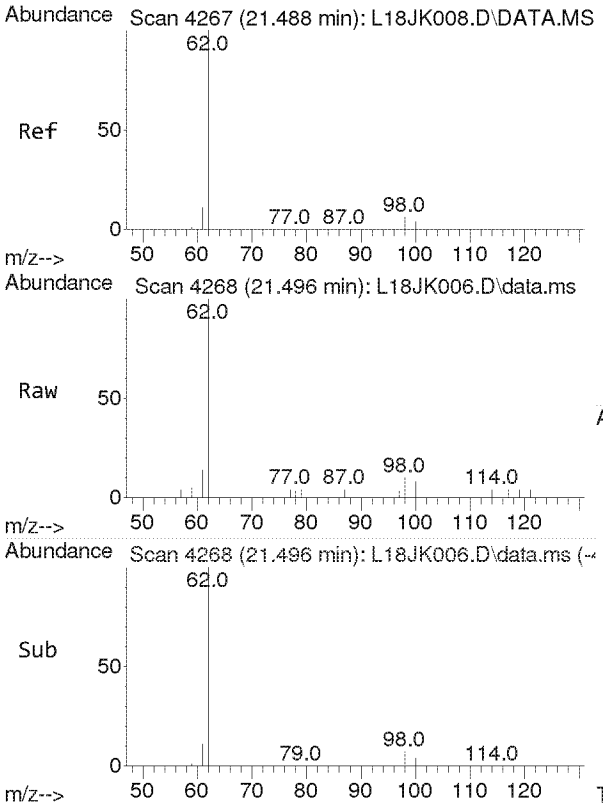


#27
Ethyl tert-Butyl Ether
Concen: 0.447 ppbv
RT: 21.190 min Scan# 4230
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 59 Resp: 5941

Ion	Ratio	Lower	Upper
59	100		
87	38.5	30.8	46.2
57	33.6	27.2	40.8

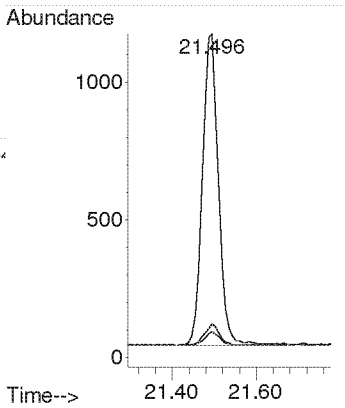


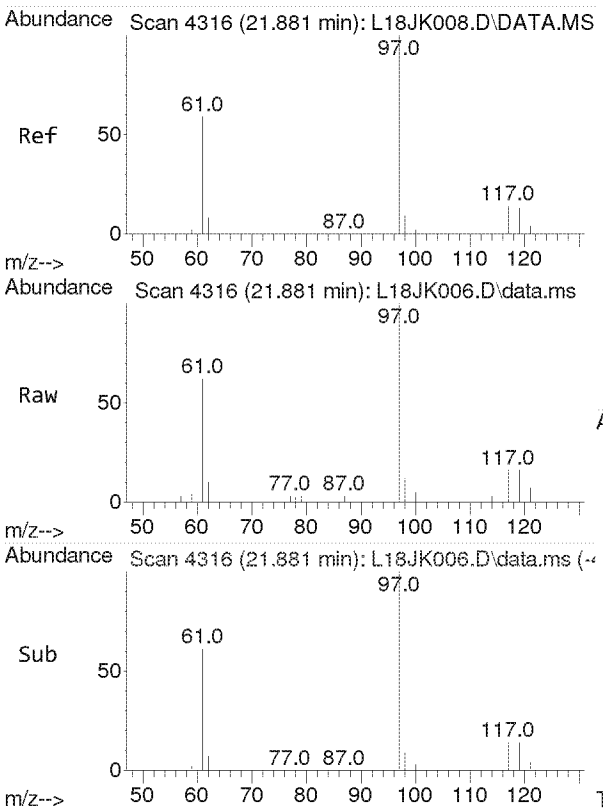


#28
1,2-Dichloroethane
Concen: 0.490 ppbv
RT: 21.496 min Scan# 4268
Delta R.T. 0.008 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 62 Resp: 2968

Ion	Ratio	Lower	Upper
62	100		
98	6.1	4.8	7.2
100	4.3	3.1	4.7

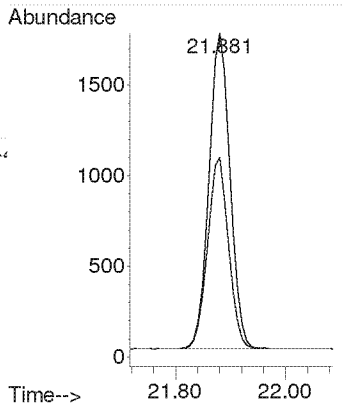


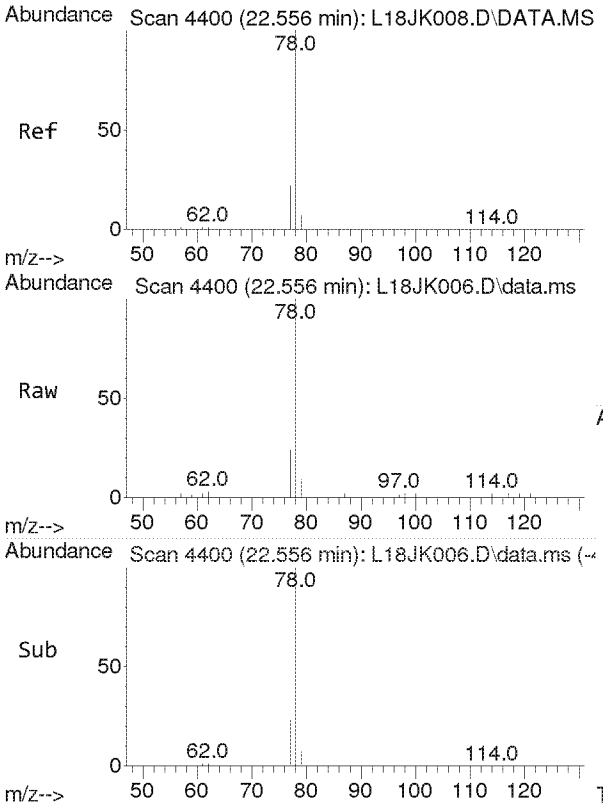


#30
1,1,1-Trichloroethane
Concen: 0.485 ppbv
RT: 21.881 min Scan# 4316
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 97 Resp: 4640

Ion	Ratio	Lower	Upper
97	100		
61	60.8	47.7	71.5

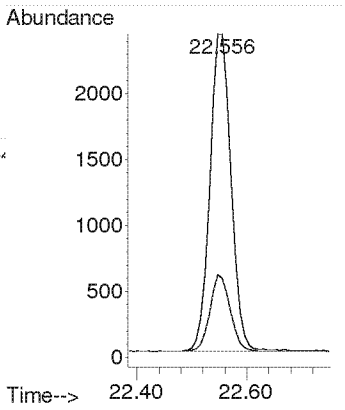


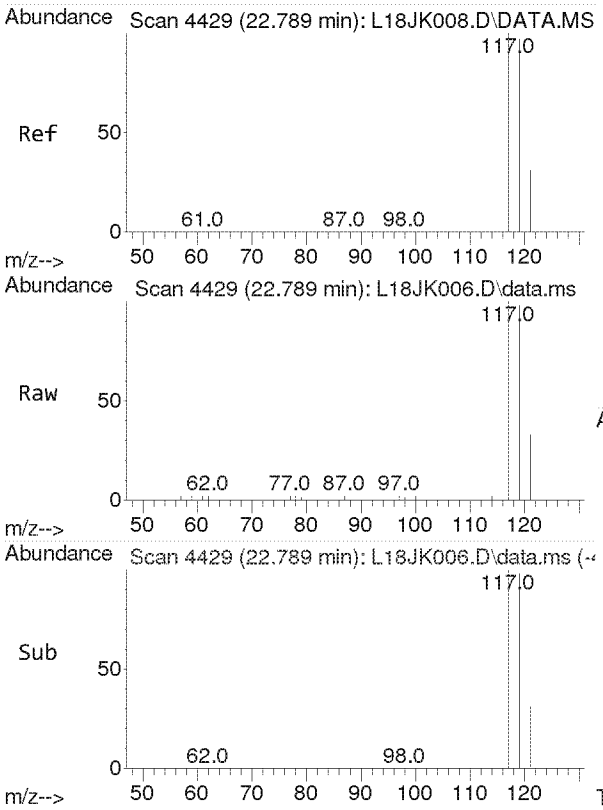


#31
Benzene
Concen: 0.475 ppbv
RT: 22.556 min Scan# 4400
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 78 Resp: 6427

Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.3	27.5

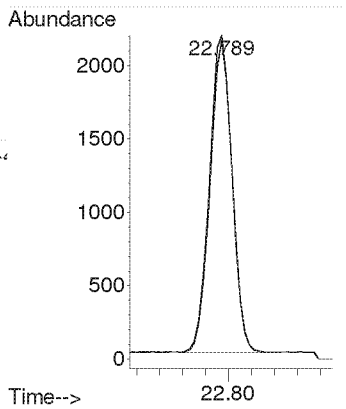


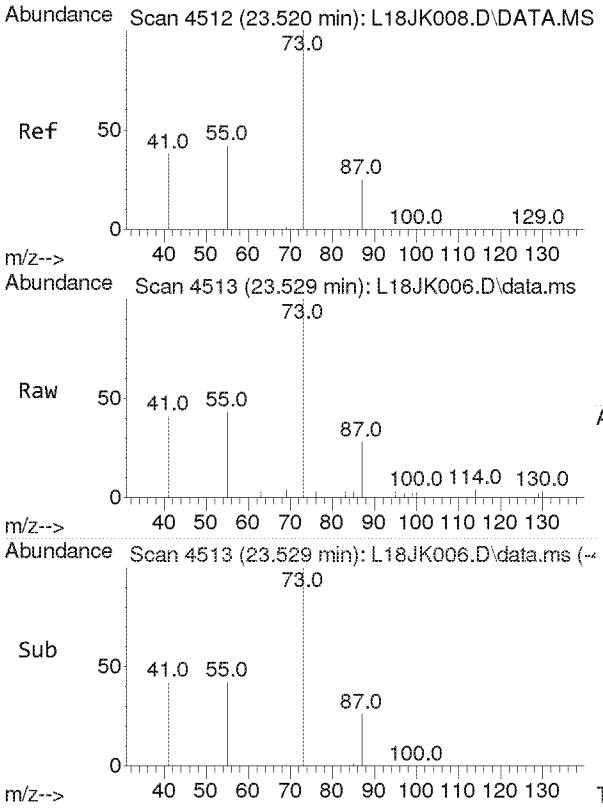


#32
Carbon Tetrachloride
Concen: 0.536 ppbv
RT: 22.789 min Scan# 4429
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:117 Resp: 5859

Ion	Ratio	Lower	Upper
117	100		
119	96.8	77.5	116.3

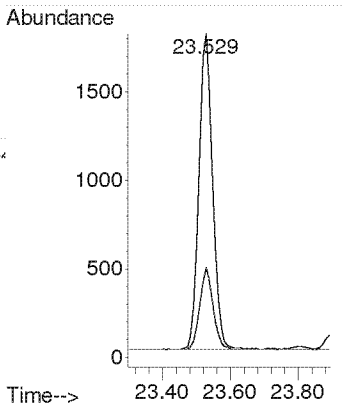


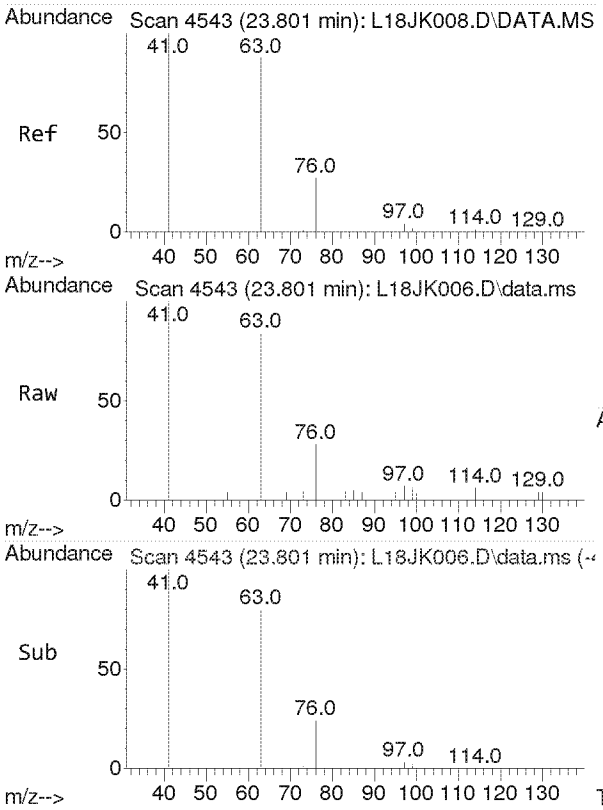


#33
tert-Amyl Methyl Ether
Concen: 0.437 ppbv
RT: 23.529 min Scan# 4513
Delta R.T. 0.009 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 73 Resp: 4964

Ion	Ratio	Lower	Upper
73	100		
87	25.3	20.1	30.1

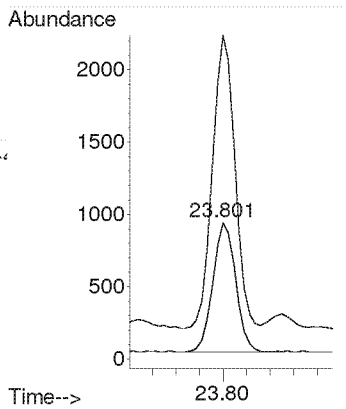


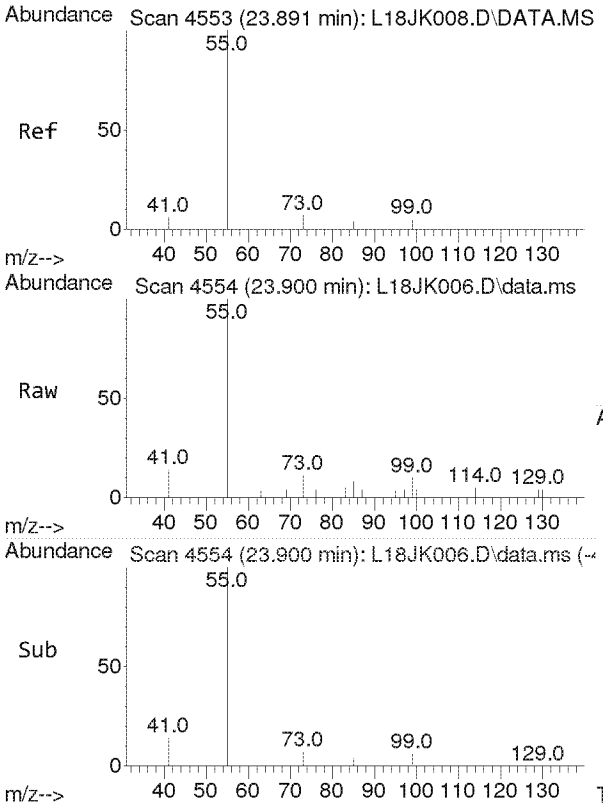


#34
1,2-Dichloropropane
Concen: 0.457 ppbv
RT: 23.801 min Scan# 4543
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 63 Resp: 2376

Ion	Ratio	Lower	Upper
63	100		
41	224.4	177.7	266.5

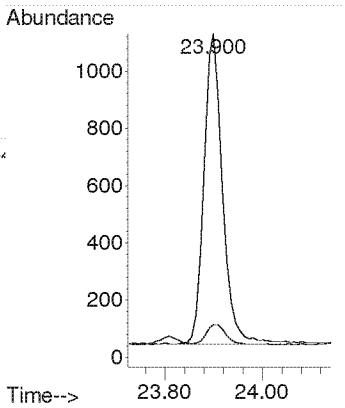


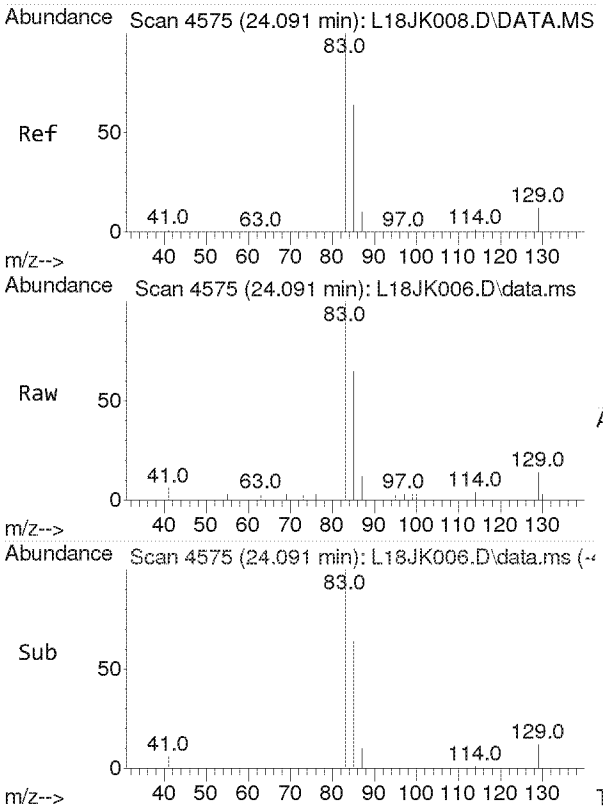


#35
Ethyl Acrylate
Concen: 0.439 ppbv
RT: 23.900 min Scan# 4554
Delta R.T. 0.009 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 55 Resp: 2890

Ion	Ratio	Lower	Upper
55	100		
99	6.7	5.0	7.6

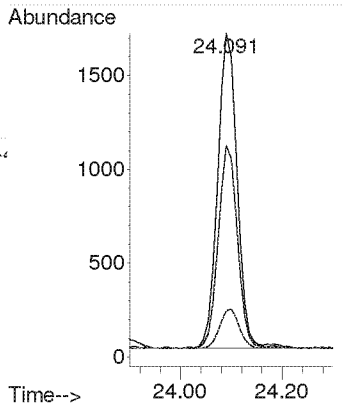


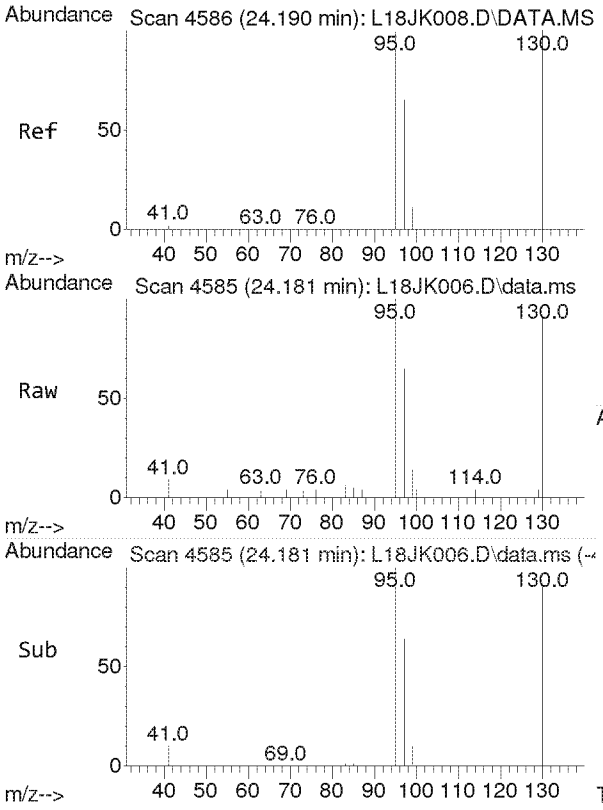


#36
Bromodichloromethane
Concen: 0.443 ppbv
RT: 24.091 min Scan# 4575
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 83 Resp: 4432

Ion	Ratio	Lower	Upper
83	100		
85	64.1	51.1	76.7
129	12.8	10.3	15.5

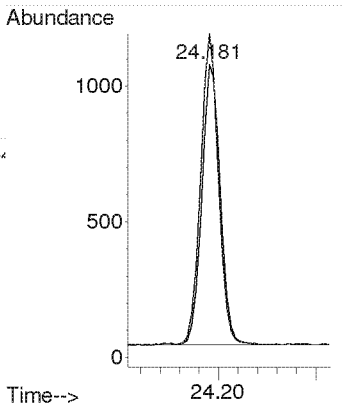


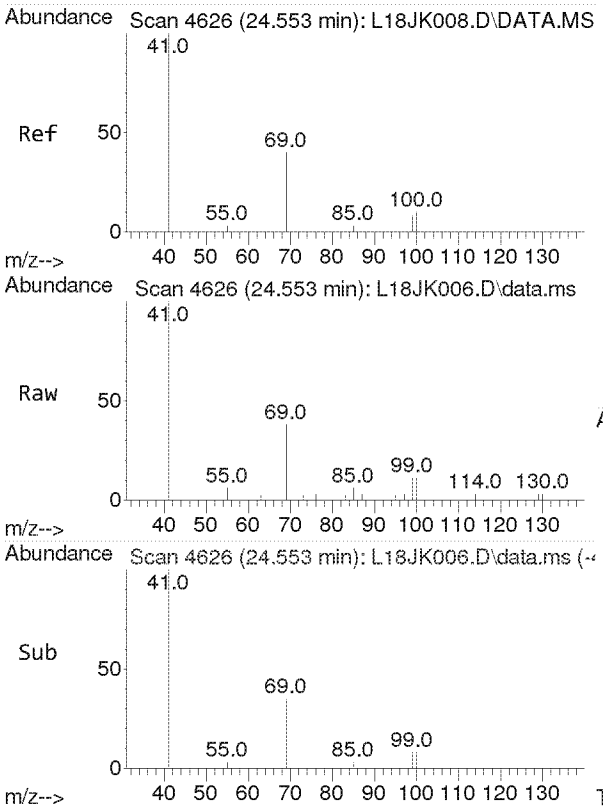


#37
Trichloroethylene
Concen: 0.440 ppbv
RT: 24.181 min Scan# 4585
Delta R.T. -0.009 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:130 Resp: 2727

Ion	Ratio	Lower	Upper
130	100		
95	108.5	85.5	128.3

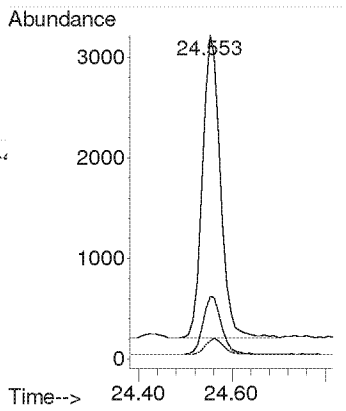


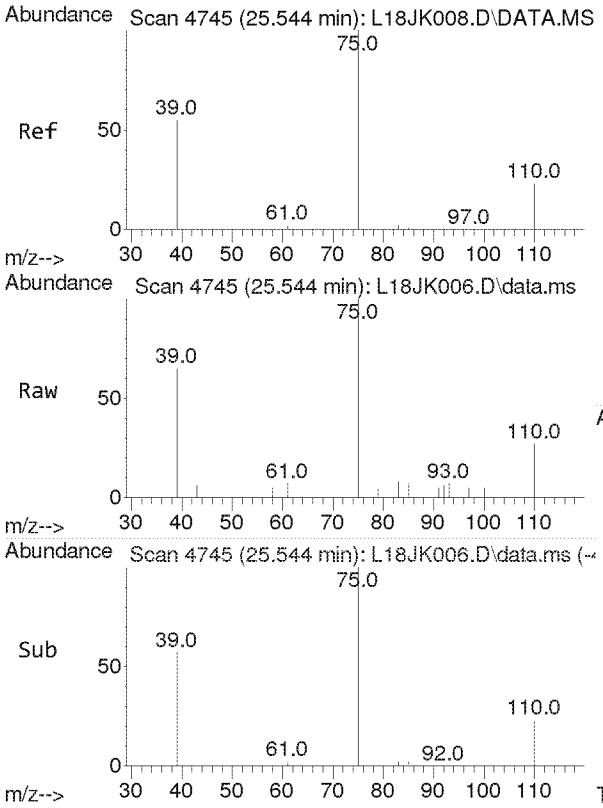


#38
Methyl Methacrylate
Concen: 0.432 ppbv
RT: 24.553 min Scan# 4626
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 41 Resp: 8011

Ion	Ratio	Lower	Upper
41	100		
69	19.4	16.0	24.0
100	5.2	4.1	6.1

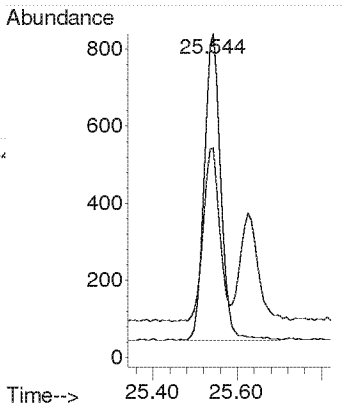


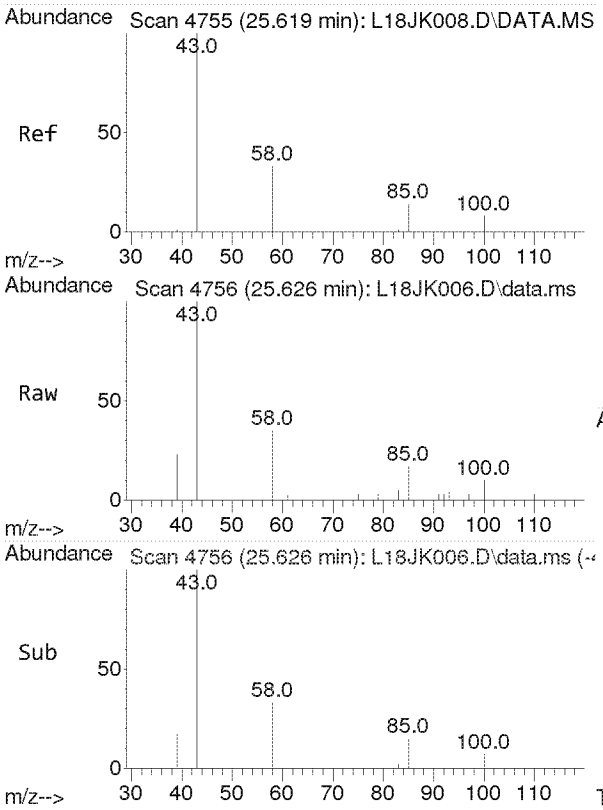


#39
cis-1,3-Dichloropropene
Concen: 0.448 ppbv
RT: 25.544 min Scan# 4745
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 75 Resp: 2127

Ion	Ratio	Lower	Upper
75	100		
39	57.0	44.5	66.7

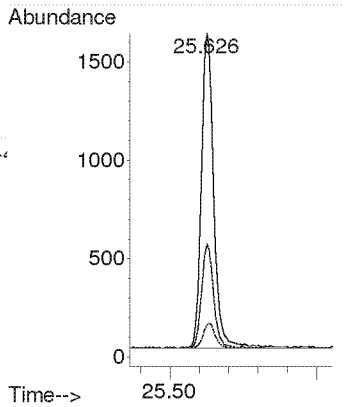


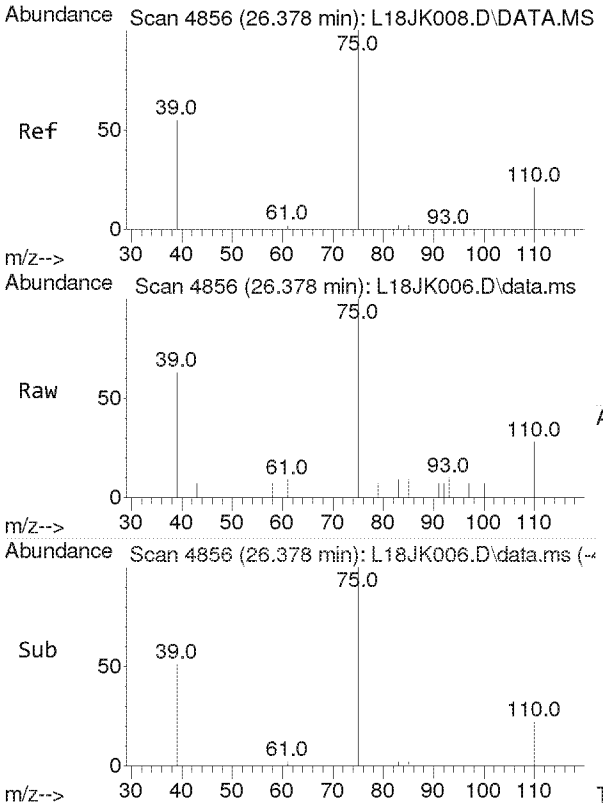


#40
Methyl Isobutyl Ketone
Concen: 0.427 ppbv
RT: 25.626 min Scan# 4756
Delta R.T. 0.007 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 43 Resp: 4606

Ion	Ratio	Lower	Upper
43	100		
58	32.7	26.6	40.0
100	8.1	6.4	9.6

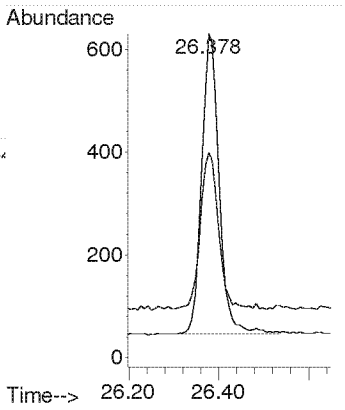


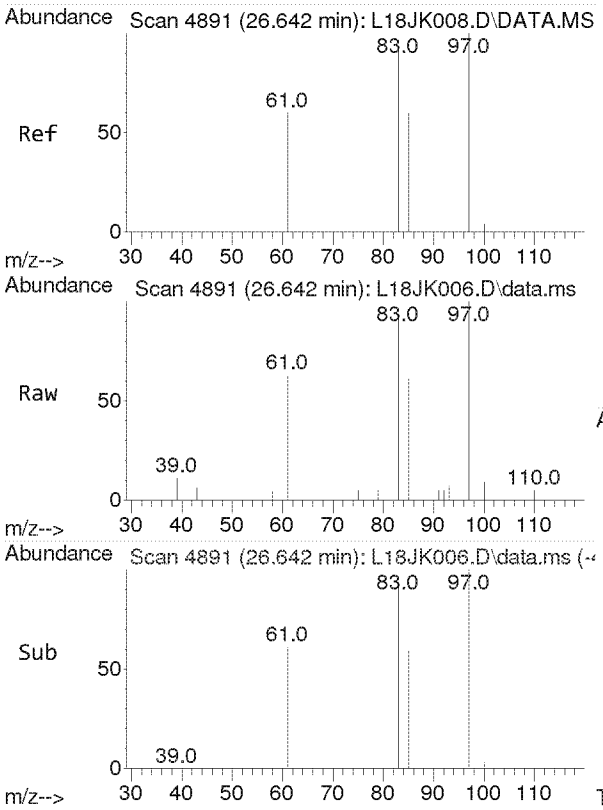


#41
trans-1,3-Dichloropropene
Concen: 0.450 ppbv
RT: 26.378 min Scan# 4856
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 75 Resp: 1566

Ion	Ratio	Lower	Upper
75	100		
39	55.2	44.2	66.4

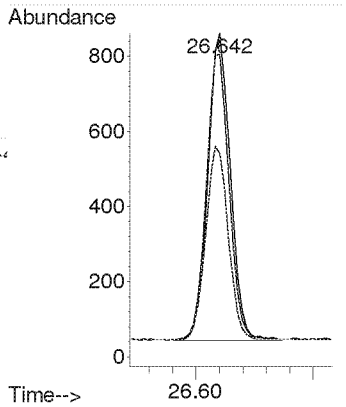


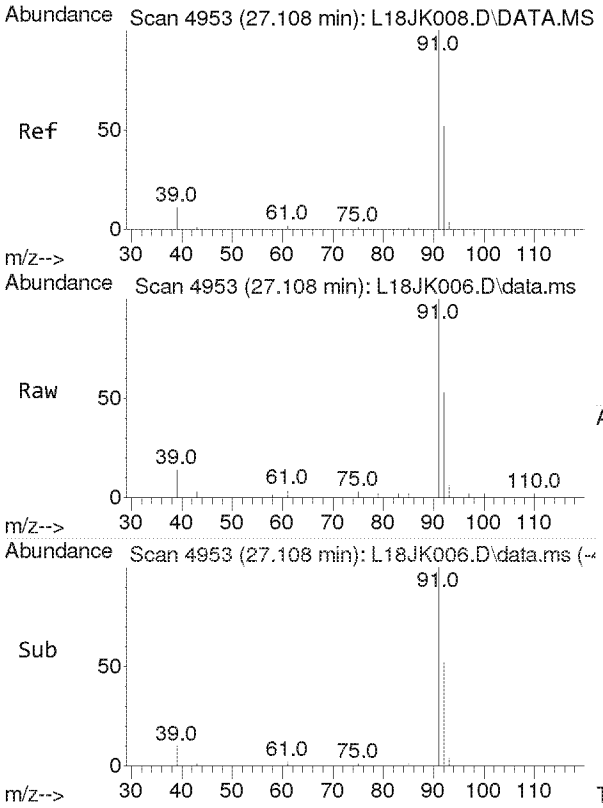


#42
1,1,2-Trichloroethane
Concen: 0.469 ppbv
RT: 26.642 min Scan# 4891
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 97 Resp: 2172

Ion	Ratio	Lower	Upper
97	100		
83	94.5	76.2	114.4
61	64.6	51.7	77.5

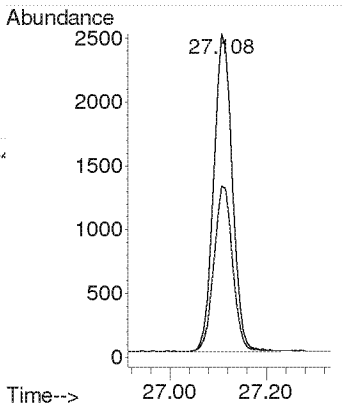


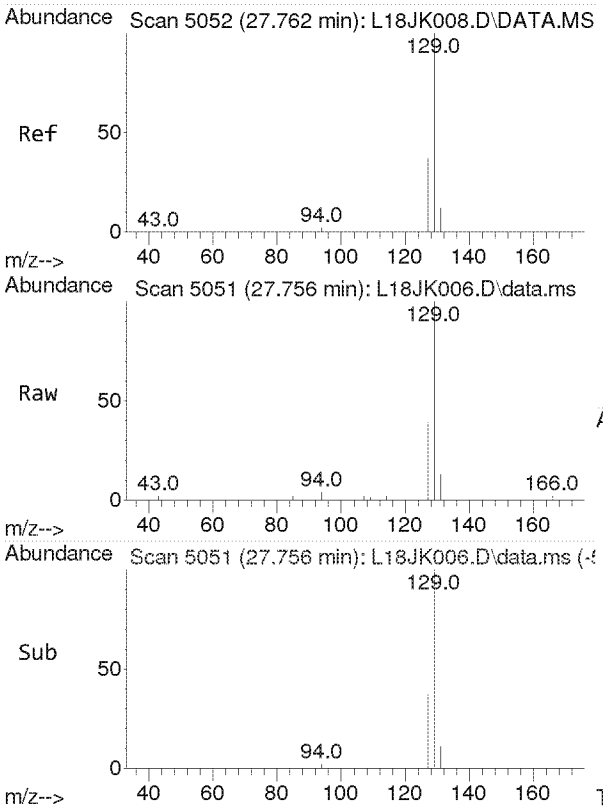


#44
Toluene
Concen: 0.473 ppbv
RT: 27.108 min Scan# 4953
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 91 Resp: 6664

Ion	Ratio	Lower	Upper
91	100		
92	52.1	41.7	62.5

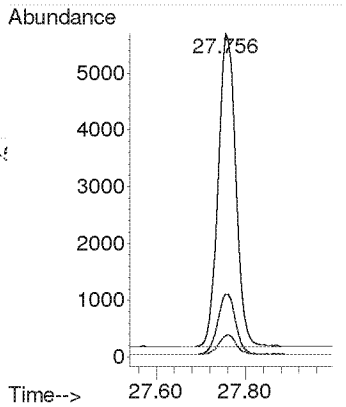


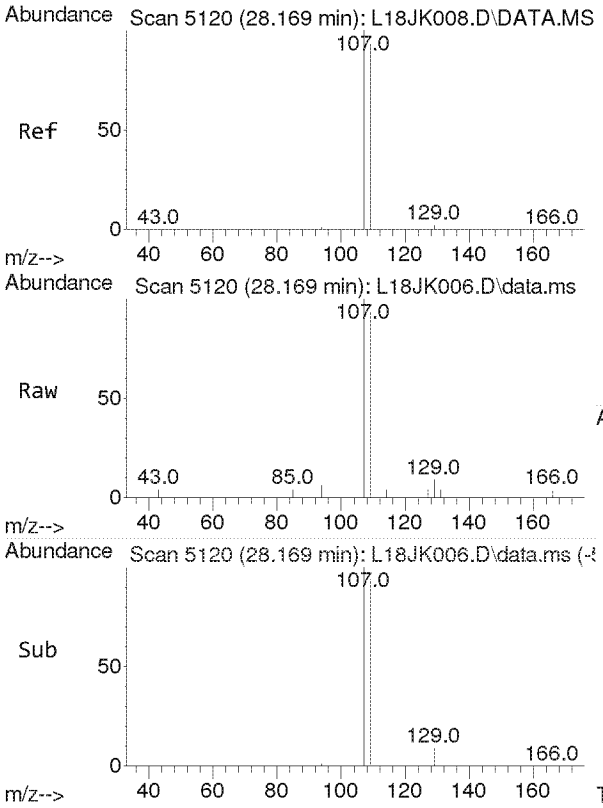


#45
Dibromochloromethane
Concen: 0.444 ppbv
RT: 27.756 min Scan# 5051
Delta R.T. -0.006 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:129 Resp: 15110

Ion	Ratio	Lower	Upper
129	100		
127	19.5	15.4	23.2
131	6.0	4.8	7.2

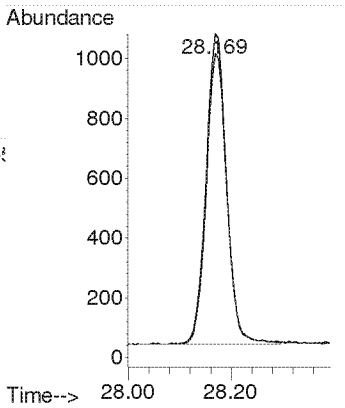


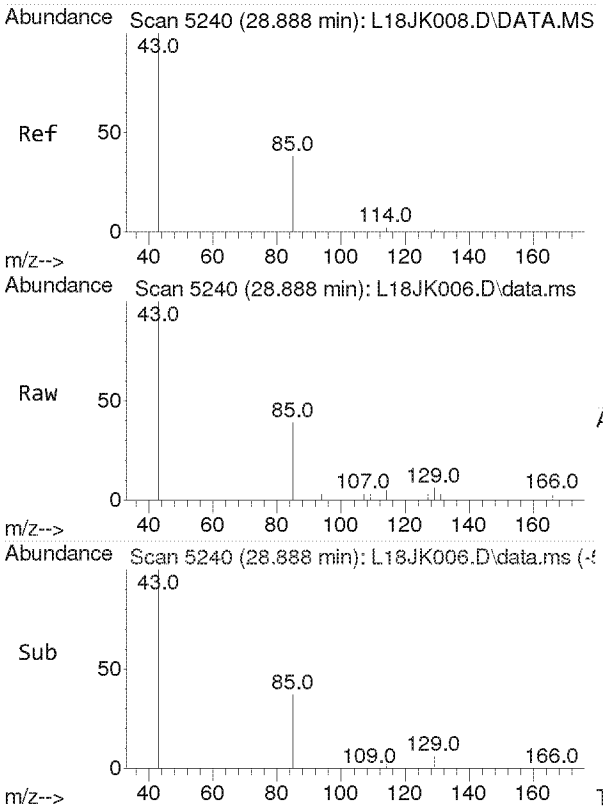


#46
1,2-Dibromoethane
Concen: 0.484 ppbv
RT: 28.169 min Scan# 5120
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:107 Resp: 2857

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.0	112.6

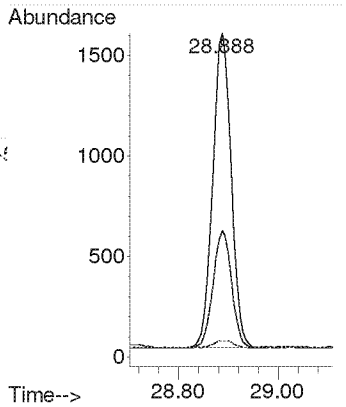


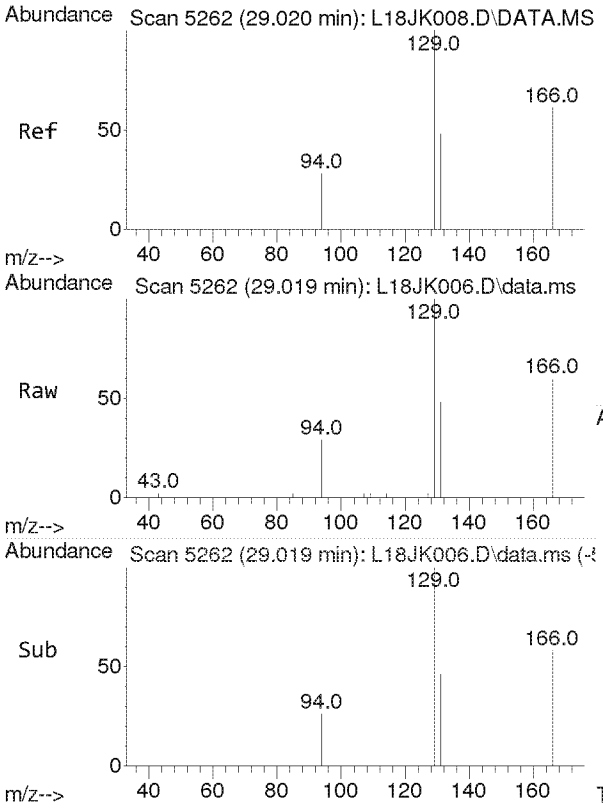


#47
n-Octane
Concen: 0.452 ppbv
RT: 28.888 min Scan# 5240
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 43 Resp: 3996

Ion	Ratio	Lower	Upper
43	100		
85	37.7	30.2	45.4
114	2.7	1.9	2.9

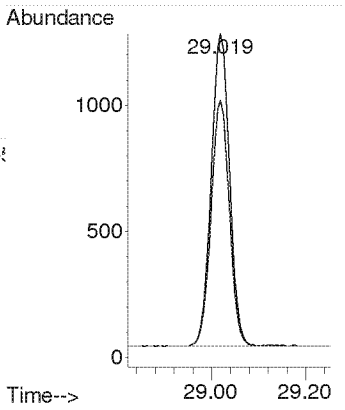


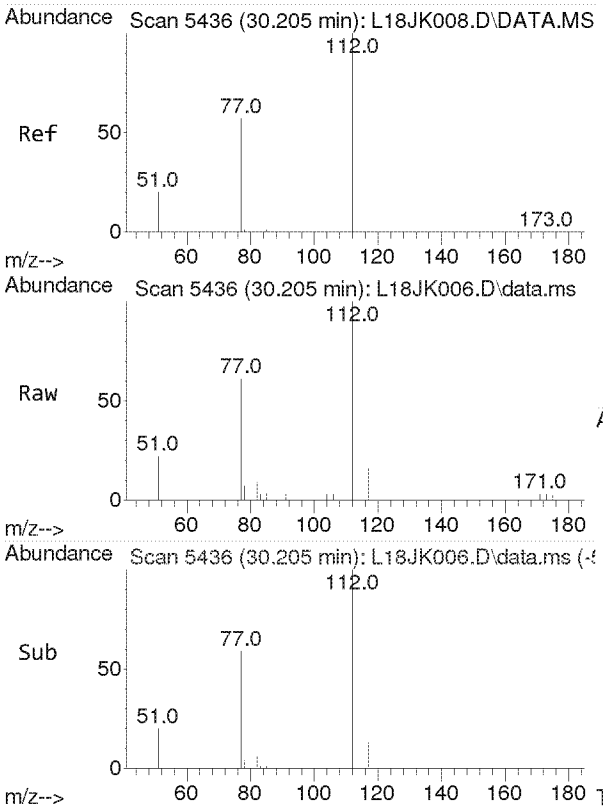


#48
Tetrachloroethylene
Concen: 0.479 ppbv
RT: 29.019 min Scan# 5262
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:166 Resp: 3328

Ion	Ratio	Lower	Upper
166	100		
131	79.1	63.0	94.4

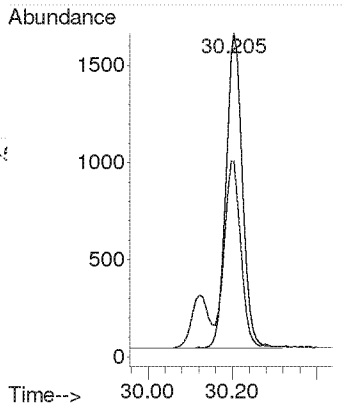


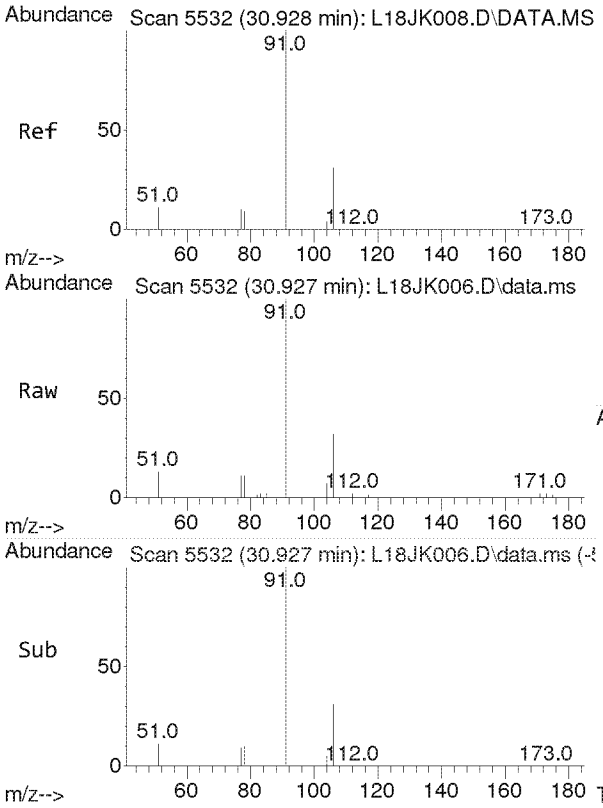


#49
Chlorobenzene
Concen: 0.479 ppbv
RT: 30.205 min Scan# 5436
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:112 Resp: 4457

Ion	Ratio	Lower	Upper
112	100		
77	58.7	47.4	71.2

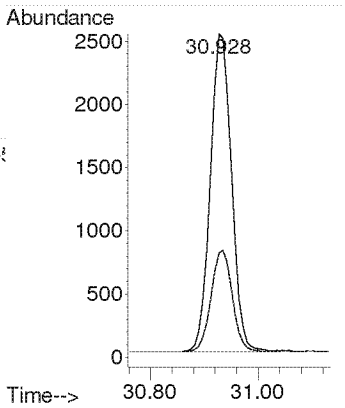


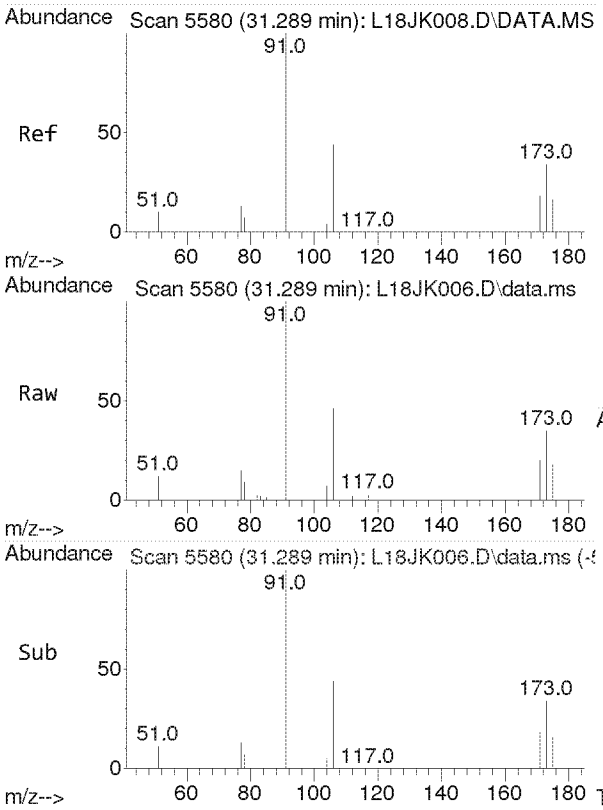


#50
Ethylbenzene
Concen: 0.461 ppbv
RT: 30.927 min Scan# 5532
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 91 Resp: 6843

Ion	Ratio	Lower	Upper
91	100		
106	32.1	25.4	38.2

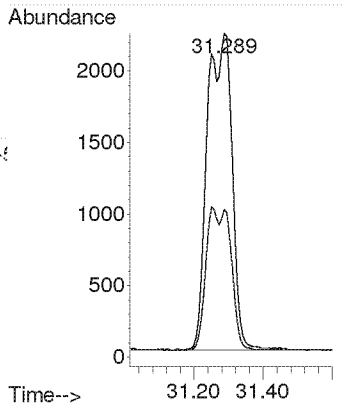


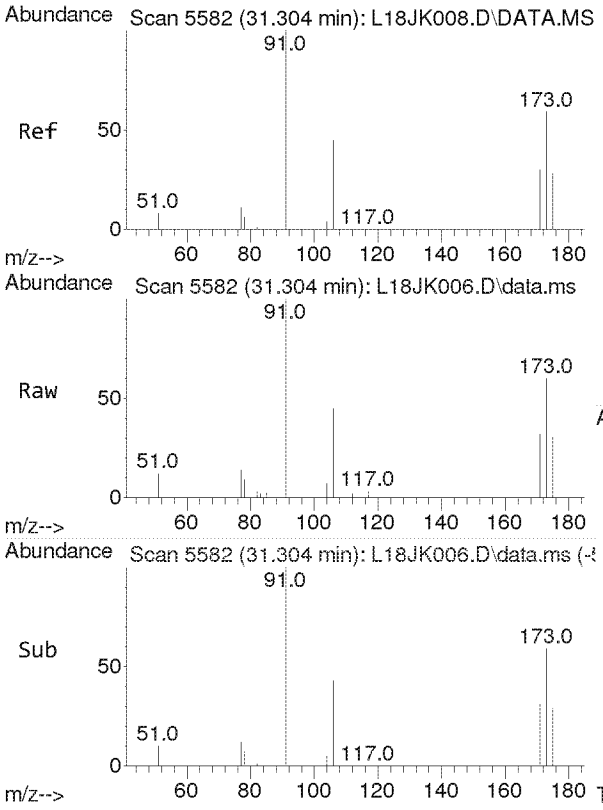


#51
m,p-Xylene
Concen: 0.856 ppbv
RT: 31.289 min Scan# 5580
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 91 Resp: 11028

Ion	Ratio	Lower	Upper
91	100		
106	45.2	36.3	54.5

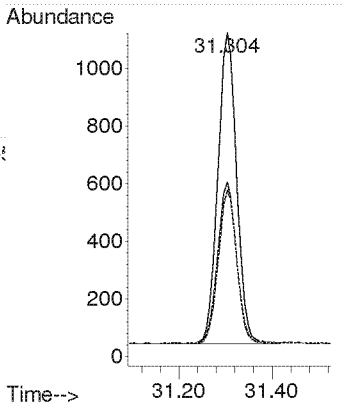


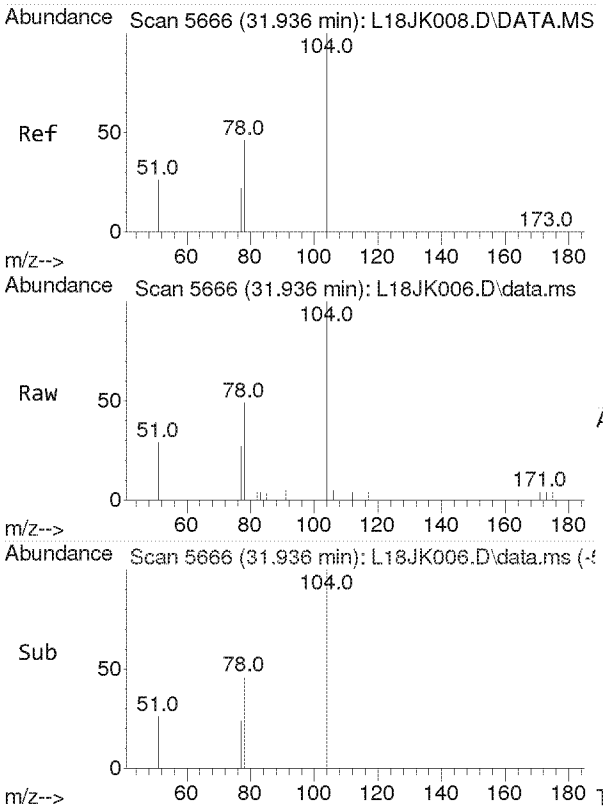


#52
Bromoform
Concen: 0.449 ppbv
RT: 31.304 min Scan# 5582
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:173 Resp: 2999

Ion	Ratio	Lower	Upper
173	100		
171	51.4	41.1	61.7
175	48.8	39.2	58.8

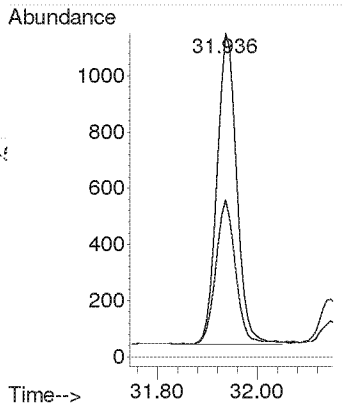


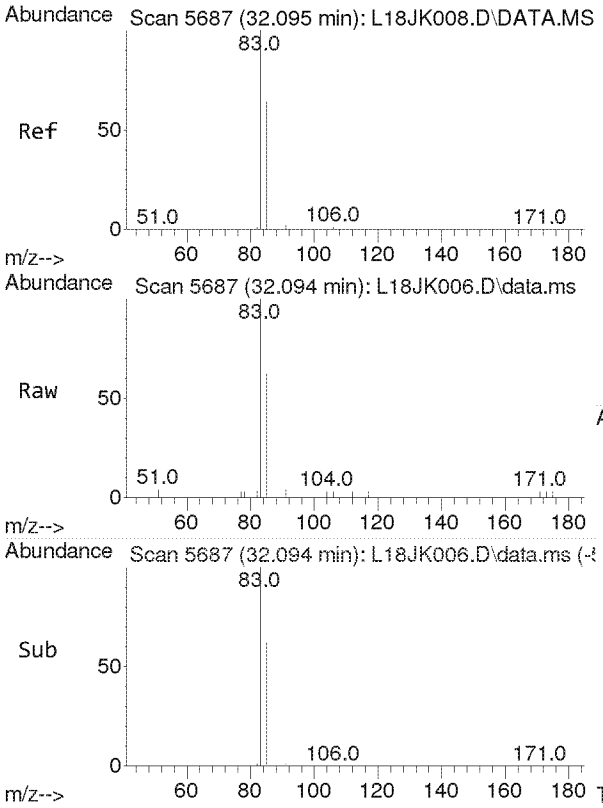


#53
Styrene
Concen: 0.438 ppbv
RT: 31.936 min Scan# 5666
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:104 Resp: 3034

Ion	Ratio	Lower	Upper
104	100		
78	45.6	36.6	54.8
103	0.0	0.0	0.0

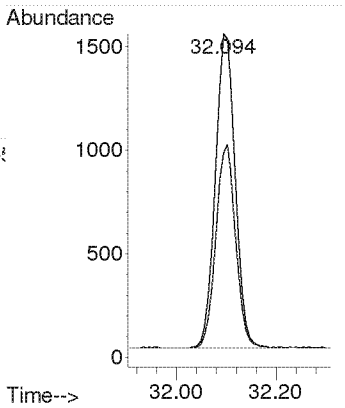


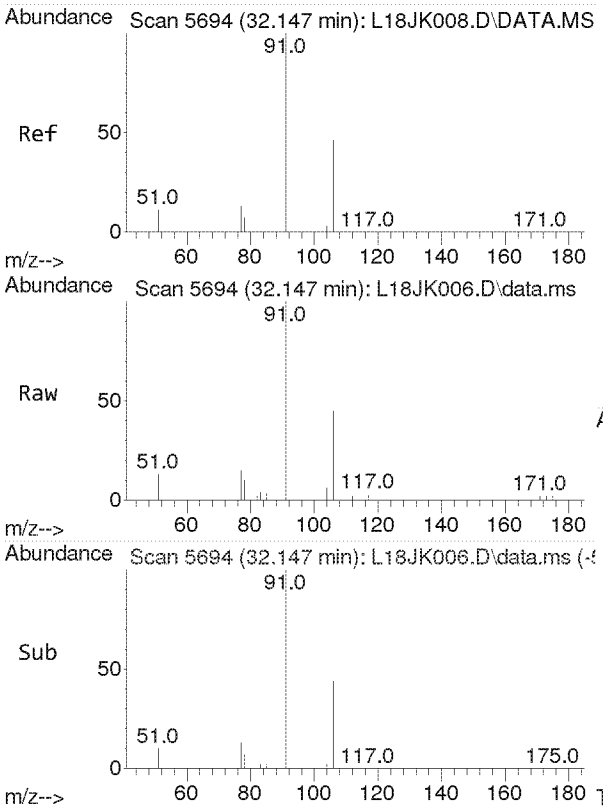


#54
1,1,2,2-Tetrachloroethane
Concen: 0.478 ppbv
RT: 32.094 min Scan# 5687
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 83 Resp: 4192

Ion	Ratio	Lower	Upper
83	100		
85	64.7	51.4	77.2

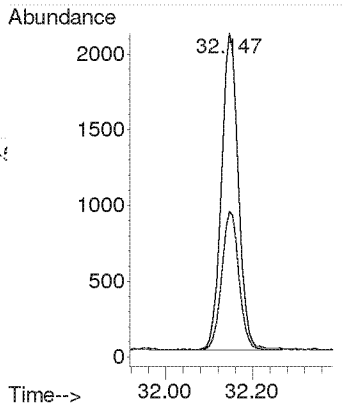


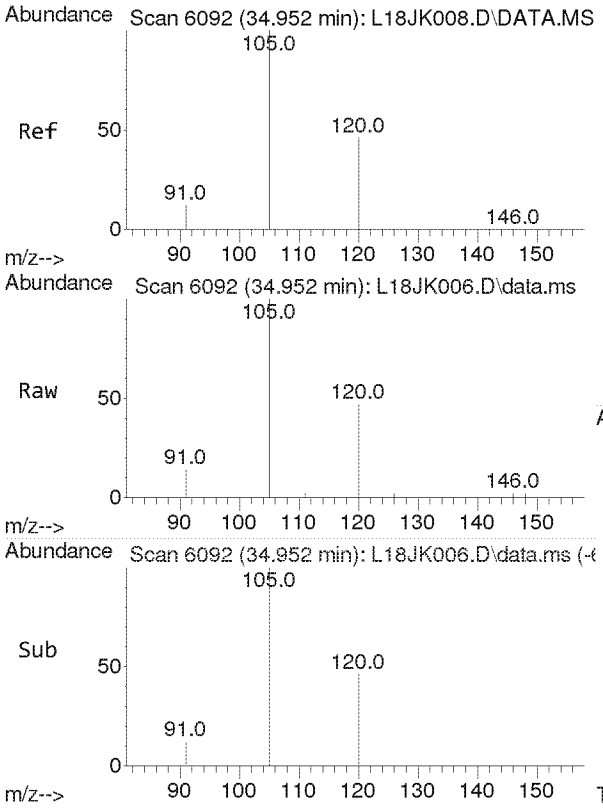


#55
o-Xylene
Concen: 0.455 ppbv
RT: 32.147 min Scan# 5694
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion: 91 Resp: 5658

Ion	Ratio	Lower	Upper
91	100		
106	44.7	36.4	54.6

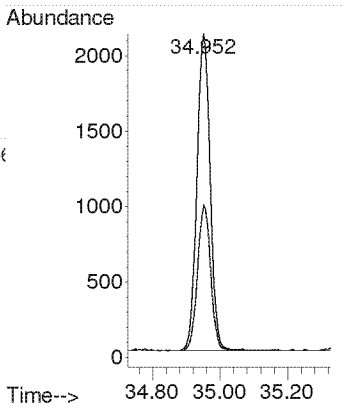


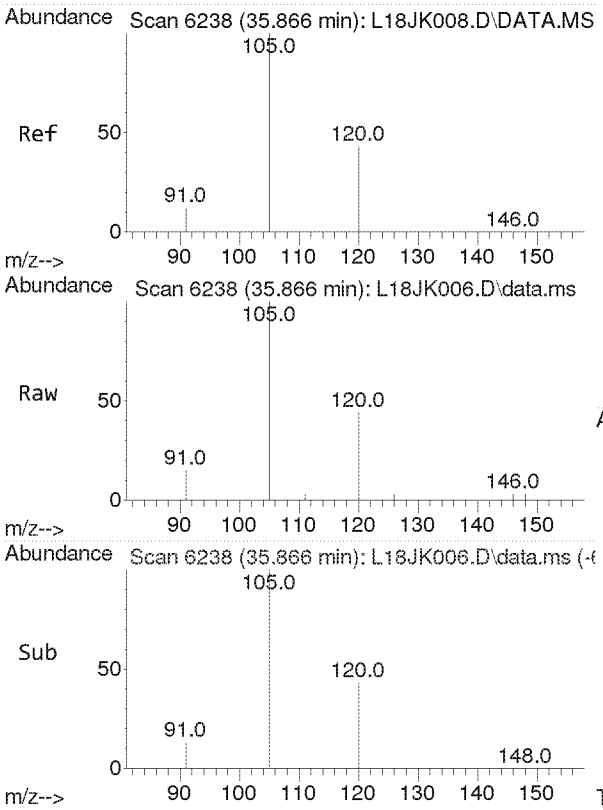


#56
1,3,5-Trimethylbenzene
Concen: 0.447 ppbv
RT: 34.952 min Scan# 6092
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:105 Resp: 5684

Ion	Ratio	Lower	Upper
105	100		
120	45.8	36.5	54.7

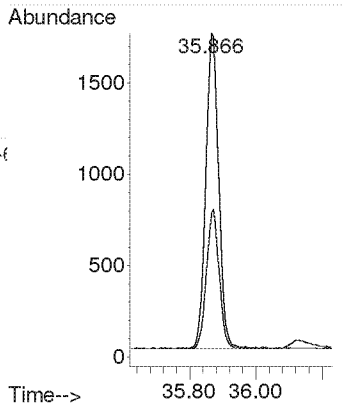


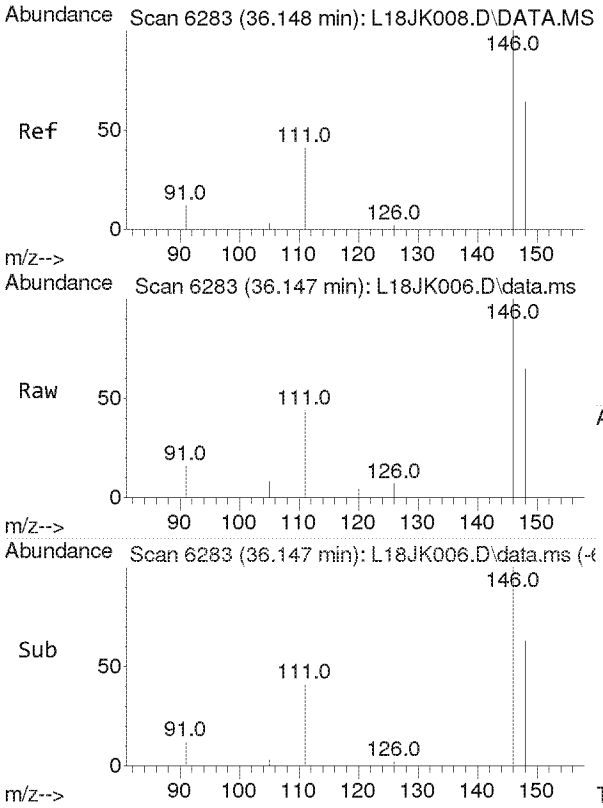


#57
1,2,4-Trimethylbenzene
Concen: 0.443 ppbv
RT: 35.866 min Scan# 6238
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:105 Resp: 4698

Ion	Ratio	Lower	Upper
105	100		
120	43.5	34.7	52.1

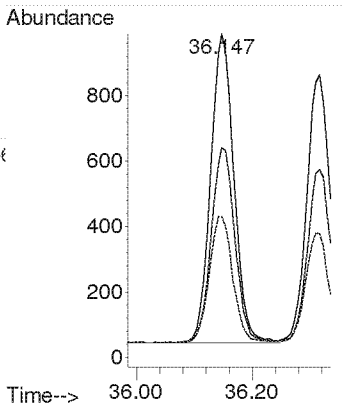


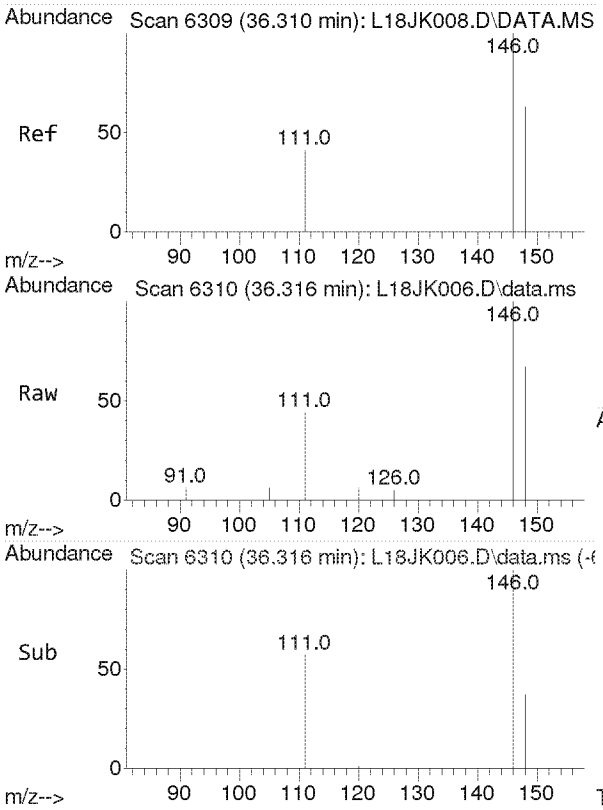


#58
m-Dichlorobenzene
Concen: 0.446 ppbv
RT: 36.147 min Scan# 6283
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:146 Resp: 2617

Ion	Ratio	Lower	Upper
146	100		
148	64.5	51.2	76.8
111	42.1	32.9	49.3

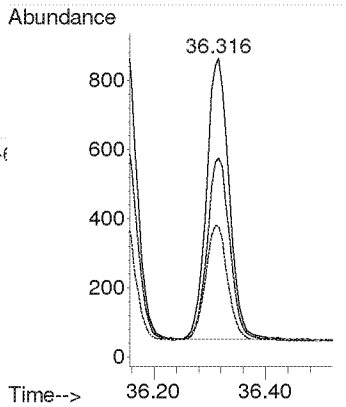


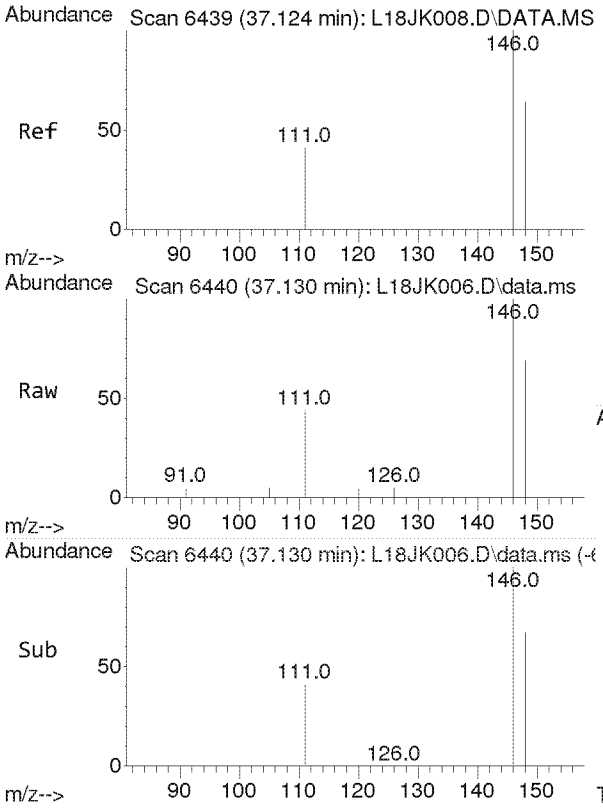


#59
p-Dichlorobenzene
Concen: 0.467 ppbv
RT: 36.316 min Scan# 6310
Delta R.T. 0.006 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:146 Resp: 2252

Ion	Ratio	Lower	Upper
146	100		
148	64.7	51.2	76.8
111	40.6	31.8	47.8

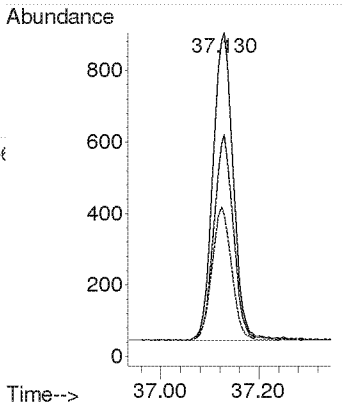


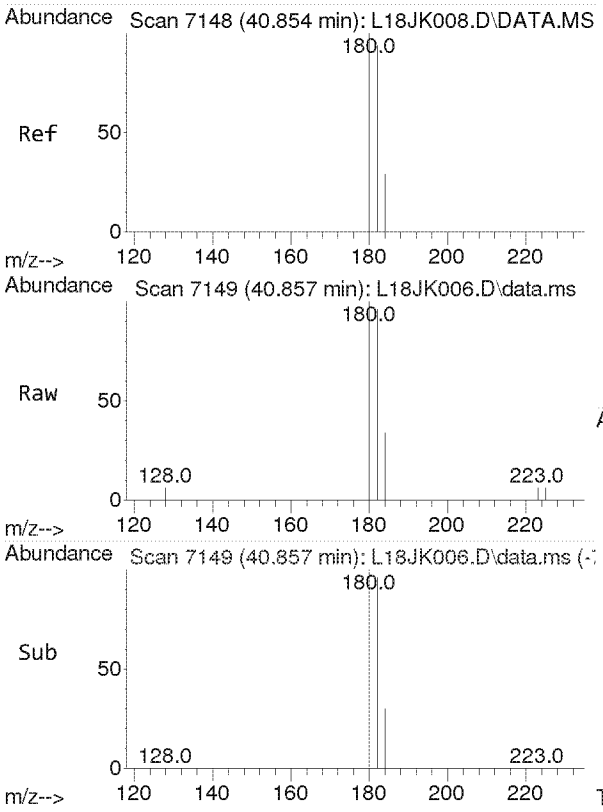


#60
o-Dichlorobenzene
Concen: 0.469 ppbv
RT: 37.130 min Scan# 6440
Delta R.T. 0.006 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:146 Resp: 2454

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.1	76.7
111	42.1	33.4	50.2

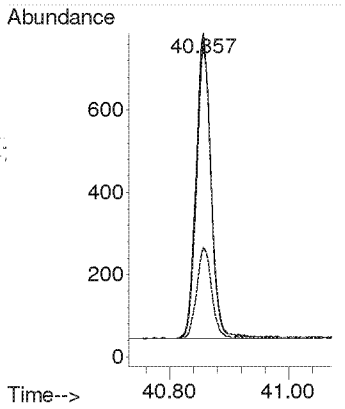


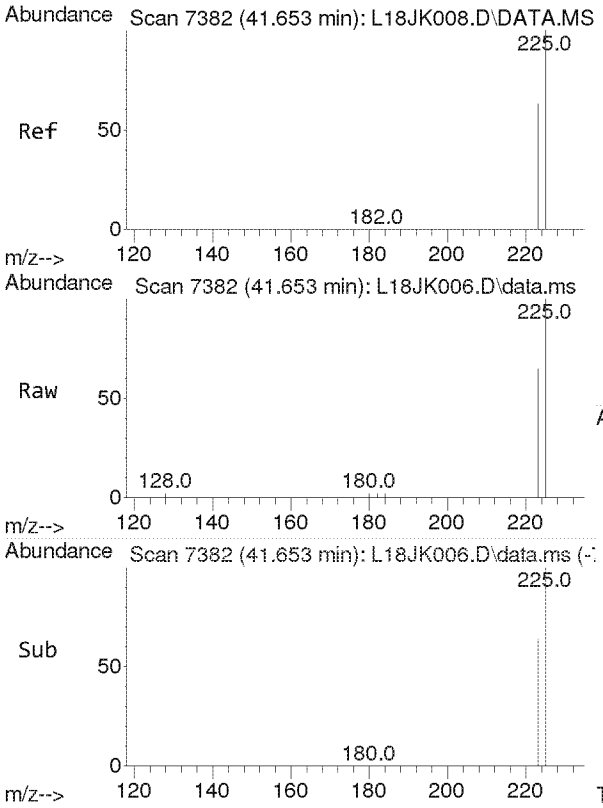


#61
1,2,4-Trichlorobenzene
Concen: 0.539 ppbv
RT: 40.857 min Scan# 7149
Delta R.T. 0.003 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:180 Resp: 1280

Ion	Ratio	Lower	Upper
180	100		
182	96.1	76.5	114.7
184	30.6	24.4	36.6

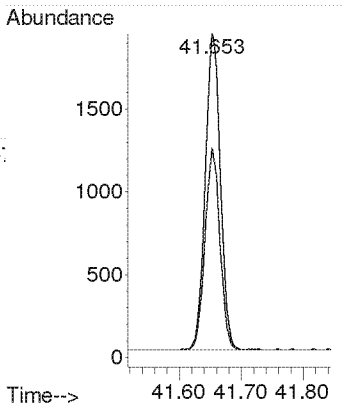




#62
Hexachloro-1,3-butadiene
Concen: 0.564 ppbv
RT: 41.653 min Scan# 7382
Delta R.T. -0.000 min
Lab File: L18JK006.D
Acq: 11 Oct 2018 10:34 pm

Tgt Ion:225 Resp: 3253

Ion	Ratio	Lower	Upper
225	100		
223	62.9	50.2	75.4



Analytical Standard Record

Eastern Research Group

8J11003

Description:	1.00 ppbv ICal	Expires:	11/10/18
Standard Type:	Calibration Stan	Prepared:	10/11/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	10/11/18 16:30 by MH

canister# 3238

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.00102	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.00101	ppmv
1,1,2-Trichloroethane	79-00-5	0.00102	ppmv
1,1-Dichloroethane	75-34-3	0.00103	ppmv
1,1-Dichloroethene	75-35-4	0.00109	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.00094	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.000968	ppmv
1,2-Dibromoethane	106-93-4	0.00103	ppmv
1,2-Dichloroethane	107-06-2	0.00103	ppmv
1,2-Dichloropropane	78-87-5	0.00101	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.000976	ppmv
1,3-Butadiene	106-99-0	0.000984	ppmv
Acetonitrile	75-05-8	0.000918	ppmv
Acetylene	74-86-2	0.00091	ppmv
Acrolein	107-02-8	0.000816	ppmv
Acrylonitrile	107-13-1	0.00095	ppmv
Benzene	71-43-2	0.00103	ppmv
Bromochloromethane	74-97-5	0.00102	ppmv
Bromodichloromethane	75-27-4	0.00096	ppmv
Bromoform	75-25-2	0.00097	ppmv
Bromomethane	74-83-9	0.00102	ppmv
Carbon Disulfide	75-15-0	0.00101	ppmv
Carbon Tetrachloride	56-23-5	0.00112	ppmv
Chlorobenzene	108-90-7	0.00103	ppmv
Chloroethane	75-00-3	0.001	ppmv
Chloroform	67-66-3	0.00102	ppmv
Chloromethane	74-87-3	0.001	ppmv
Chloroprene	126-99-8	0.00104	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.00103	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.00101	ppmv

Reviewed By 10-31-18
Date

Analytical Standard Record

Eastern Research Group

8J11003

Dibromochloromethane	124-48-1	0.000948	ppmv
Dichlorodifluoromethane	75-71-8	0.00098	ppmv
Dichloromethane	75-09-2	0.00108	ppmv
Dichlorotetrafluoroethane	76-14-2	0.00111	ppmv
Ethyl Acrylate	140-88-5	0.001	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.000948	ppmv
Ethylbenzene	100-41-4	0.00101	ppmv
Ethylene oxide	75-21-8	0.00102	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.000952	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.00194	ppmv
m-Dichlorobenzene	541-73-1	0.000934	ppmv
Methyl Isobutyl Ketone	108-10-1	0.000934	ppmv
Methyl Methacrylate	80-62-6	0.00096	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.000968	ppmv
n-Octane	111-65-9	0.00103	ppmv
o-Dichlorobenzene	95-50-1	0.000956	ppmv
o-Xylene	95-47-6	0.00101	ppmv
p-Dichlorobenzene	106-46-7	0.0009860001	ppmv
Propylene	115-07-1	0.000972	ppmv
Styrene	100-42-5	0.0009860001	ppmv
tert-Amyl Methyl Ether	994-05-8	0.00097	ppmv
Tetrachloroethylene	127-18-4	0.00102	ppmv
Toluene	108-88-3	0.00103	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.001	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.00101	ppmv
Trichloroethylene	79-01-6	0.00096	ppmv
Trichlorofluoromethane	75-69-4	0.000942	ppmv
Trichlorotrifluoroethane	76-13-1	0.00104	ppmv
Vinyl chloride	75-01-4	0.00103	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mis)
7J25026	TO-15 Primary Stock Standard	10/17/17	** Vendor **	10/17/18	10/25/17 10:58 by MH	12
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	6

Reviewed By _____ Date 10-31-18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK007.D
Acq On : 11 Oct 2018 11:36 pm (#1); 11-Oct-18, 23:31:45 (#2)
Operator : MAH
Sample : 1810019-CAL3
Misc : 80ML IS 7L07001,8J11003 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 12 09:29:30 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	48049	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.158	114	117986	5.0200 ppbv	0.00
43) IS-Chlorobenzene-d5	30.129	117	79301	4.7700 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.414	26	4219	0.8693 ppbv	100
3) Propylene	7.842	41	4715	0.9368 ppbv	99
4) Dichlorodifluoromethane	8.700	85	21846	0.9436 ppbv	100
5) Chloromethane	9.755	50	5910	0.9643 ppbv	100
6) Dichlorotetrafluoroethane	10.871	85	21634	1.0598 ppbv	100
7) Vinyl Chloride	11.118	62	6495	0.9773 ppbv	100
8) 1,3-Butadiene	11.785	54	4181	0.9144 ppbv	99
9) Ethylene oxide	12.420	29	2604	0.9141 ppbv	96
10) Bromomethane	12.591	94	6298	0.9708 ppbv	100
11) Chloroethane	13.278	64	2740	0.9589 ppbv	99
12) Acetonitrile	14.374	41	4415	0.8511 ppbv	100
13) Acrolein	14.641	56	1808	0.7717 ppbv	98
14) Trichlorofluoromethane	15.200	101	18204	0.9113 ppbv	100
15) Acrylonitrile	15.933	53	3533	0.8991 ppbv	100
16) 1,1-Dichloroethene	16.422	61	9404	1.0550 ppbv	99
17) Methylene Chloride	16.736	49	6642	1.0338 ppbv	100
18) Carbon Disulfide	16.922	76	17393	0.9556 ppbv	99
19) Trichlorotrifluoroethane	17.283	101	13741	0.9987 ppbv	100
20) trans-1,2-Dichloroethy...	18.323	96	4733	0.9532 ppbv	99
21) 1,1-Dichloroethane	18.634	63	8537	0.9848 ppbv	99
22) Methyl tert-Butyl Ether	18.801	73	12461	0.9134 ppbv	100
23) Chloroprene	19.546	53	6220	0.9548 ppbv	99
24) cis-1,2-Dichloroethylene	19.946	61	6430m	0.9407 ppbv	
25) Bromochloromethane	20.180	128	3653	0.9673 ppbv	99
26) Chloroform	20.413	83	9880	0.9672 ppbv	100
27) Ethyl tert-Butyl Ether	21.183	59	12498	0.8911 ppbv	100
28) 1,2-Dichloroethane	21.488	62	6266	0.9817 ppbv	99
30) 1,1,1-Trichloroethane	21.882	97	9600	0.9474 ppbv	99
31) Benzene	22.549	78	13568	0.9465 ppbv	100
32) Carbon Tetrachloride	22.782	117	12142	1.0492 ppbv	99
33) tert-Amyl Methyl Ether	23.520	73	10568	0.8791 ppbv	100
34) 1,2-Dichloropropane	23.802	63	5133	0.9314 ppbv	99
35) Ethyl Acrylate	23.892	55	6036	0.8649 ppbv	100
36) Bromodichloromethane	24.092	83	9366	0.8838 ppbv	100
37) Trichloroethylene	24.182	130	5812	0.8858 ppbv	100
38) Methyl Methacrylate	24.554	41	16646	0.8473 ppbv	100
39) cis-1,3-Dichloropropene	25.535	75	4525	0.8991 ppbv	100
40) Methyl Isobutyl Ketone	25.618	43	9368	0.8200 ppbv	100
41) trans-1,3-Dichloropropene	26.378	75	3288	0.8923 ppbv	99
42) 1,1,2-Trichloroethane	26.641	97	4578	0.9336 ppbv	100
44) Toluene	27.107	91	14272	0.9672 ppbv	100
45) Dibromochloromethane	27.755	129	31776	0.8925 ppbv	100
46) 1,2-Dibromoethane	28.169	107	5987	0.9695 ppbv	100
47) n-Octane	28.887	43	8538	0.9231 ppbv	99
48) Tetrachloroethylene	29.019	166	6990	0.9615 ppbv	100
49) Chlorobenzene	30.204	112	9320	0.9558 ppbv	100
50) Ethylbenzene	30.927	91	14437	0.9280 ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK007.D
Acq On : 11 Oct 2018 11:36 pm (#1); 11-Oct-18, 23:31:45 (#2)
Operator : MAH
Sample : 1810019-CAL3
Misc : 80ML IS 7L07001,8J11003 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 12 09:29:30 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

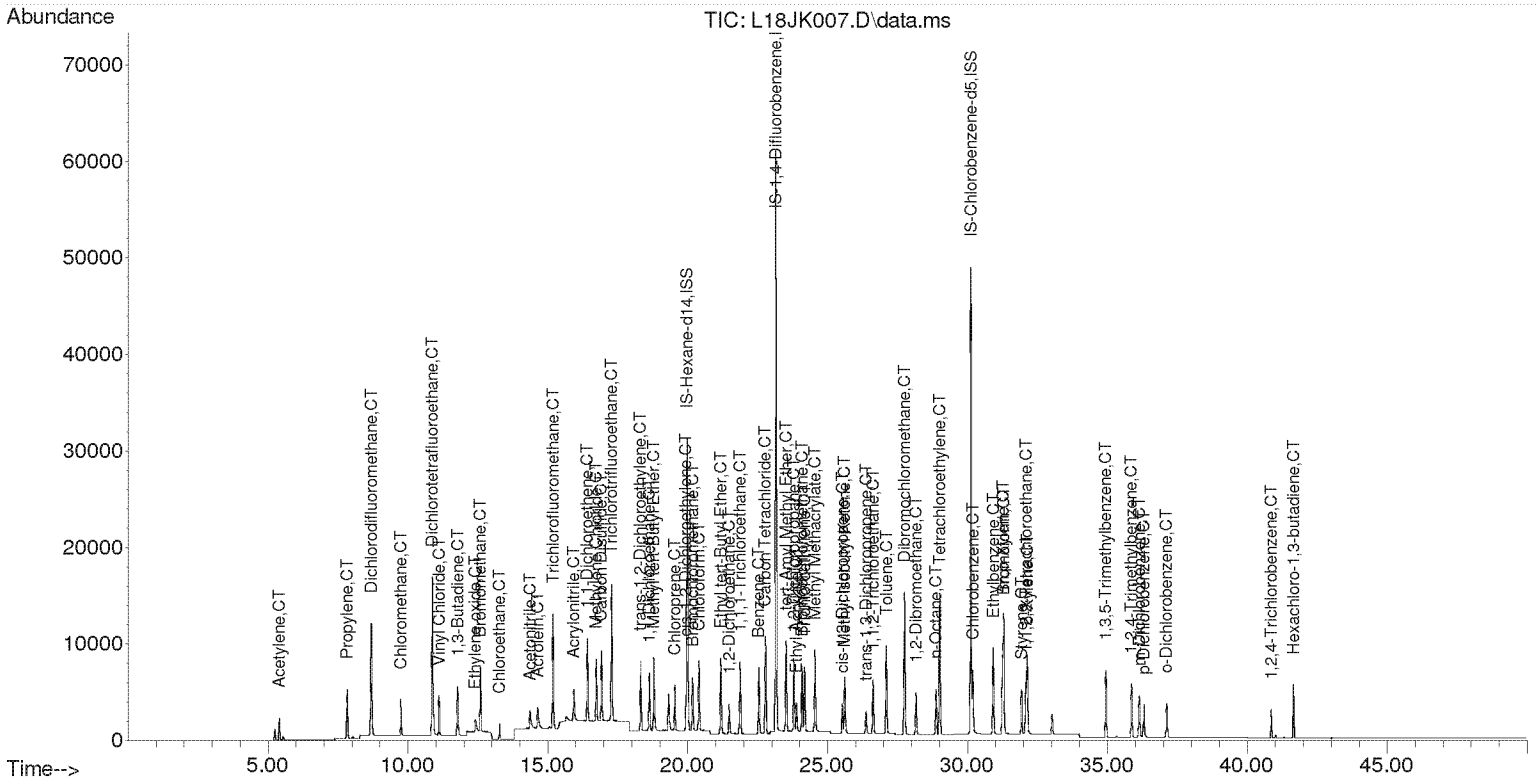
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	31.288	91	23300	1.7276	ppbv	100
52) Bromoform	31.303	173	6145	0.8783	ppbv	100
53) Styrene	31.936	104	6372	0.8776	ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.094	83	8611	0.9371	ppbv	100
55) o-Xylene	32.147	91	11900	0.9138	ppbv	100
56) 1,3,5-Trimethylbenzene	34.951	105	11820	0.8870	ppbv	100
57) 1,2,4-Trimethylbenzene	35.865	105	9659	0.8690	ppbv	100
58) m-Dichlorobenzene	36.147	146	5276	0.8581	ppbv	100
59) p-Dichlorobenzene	36.310	146	4503	0.8909	ppbv	99
60) o-Dichlorobenzene	37.123	146	4823	0.8810	ppbv	100
61) 1,2,4-Trichlorobenzene	40.856	180	2255	0.9073	ppbv	99
62) Hexachloro-1,3-butadiene	41.656	225	3743	0.9511	ppbv	100

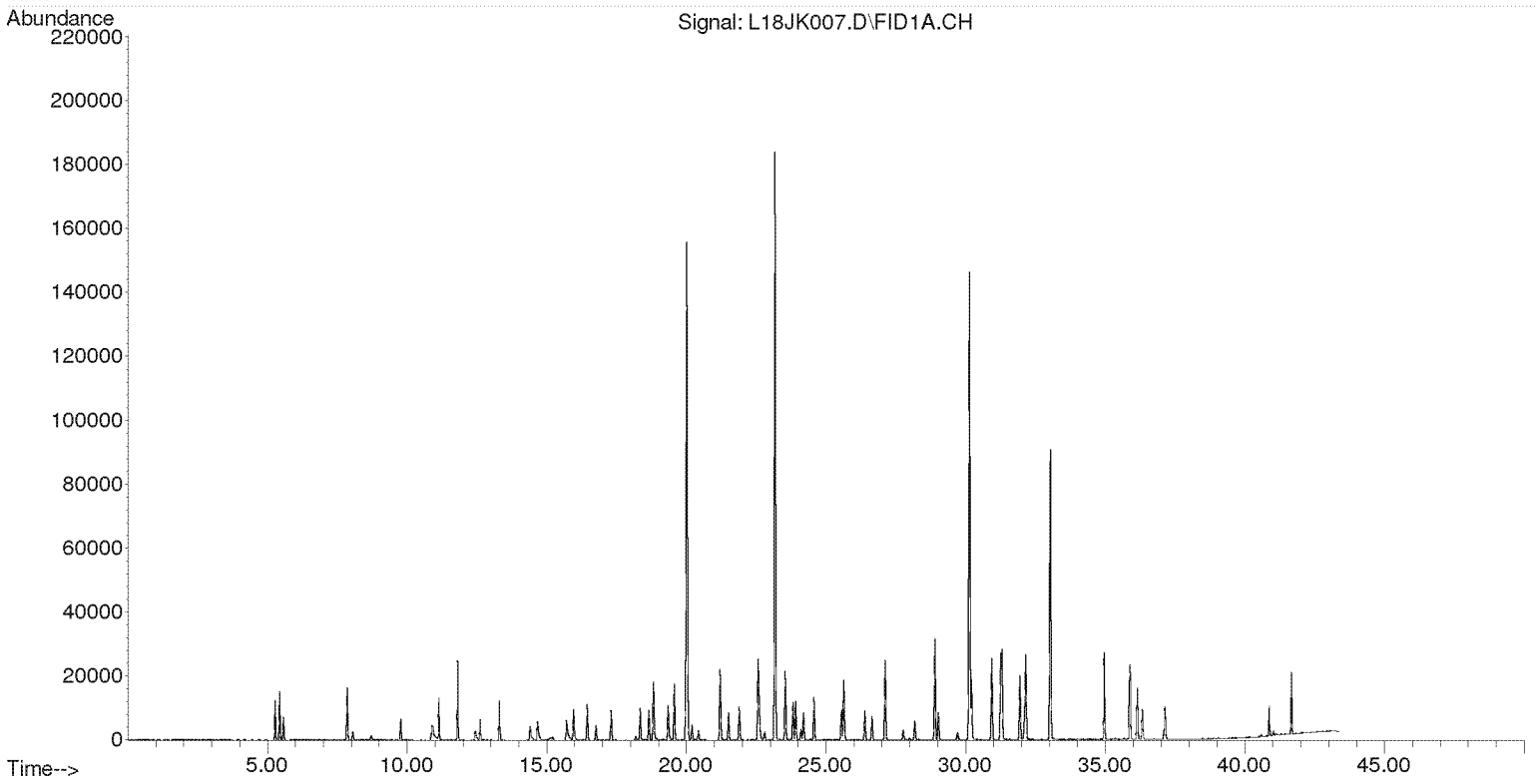
(#) = qualifier out of range (m) = manual integration (+) = signals summed

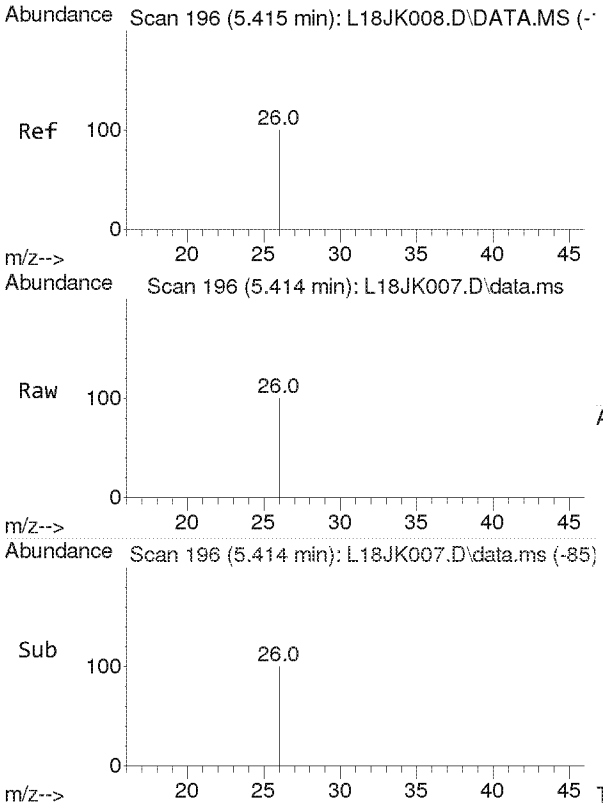
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK007.D
Acq On : 11 Oct 2018 11:36 pm (#1); 11 Oct 2018 11:31 pm (#2)
Operator : MAH
Sample : 1810019-CAL3
Misc : 80ML IS 7L07001,8J11003 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 12 09:29:20 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

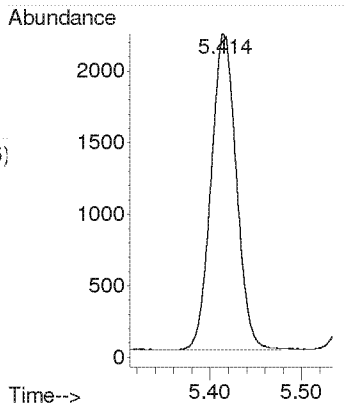


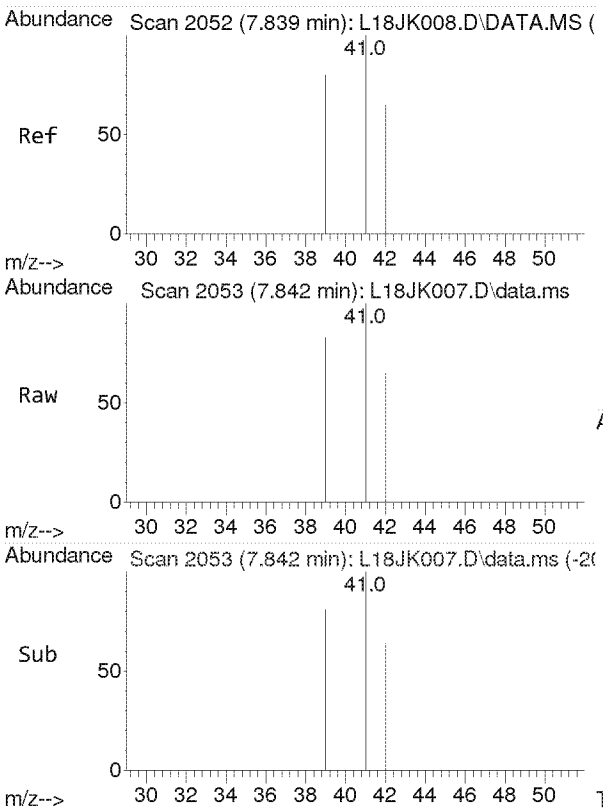




#2
Acetylene
Concen: 0.869 ppbv
RT: 5.414 min Scan# 196
Delta R.T. -0.000 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 26 Resp: 4219

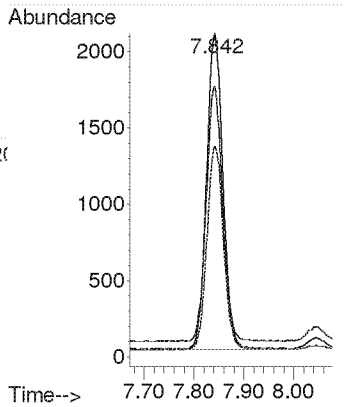


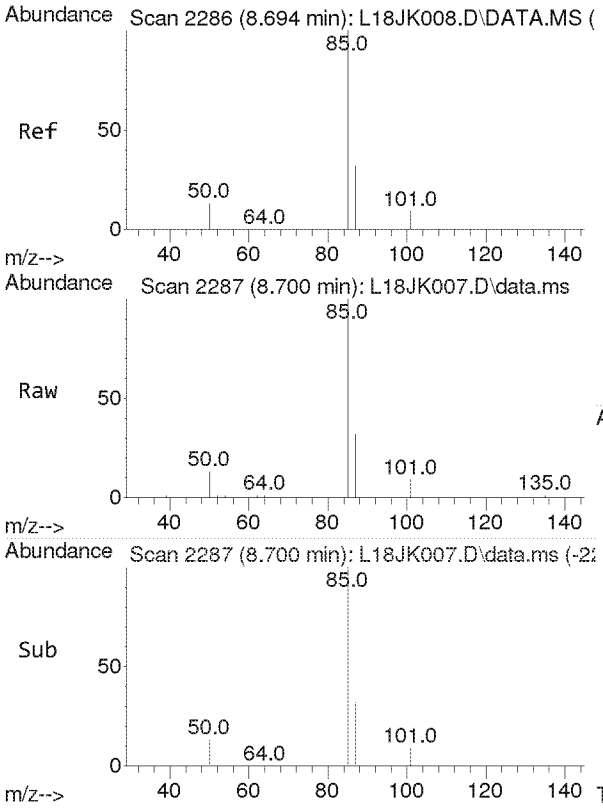


#3
Propylene
Concen: 0.937 ppbv
RT: 7.842 min Scan# 2053
Delta R.T. 0.003 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 41 Resp: 4715

Ion	Ratio	Lower	Upper
41	100		
39	80.4	65.0	97.4
42	64.8	52.3	78.5

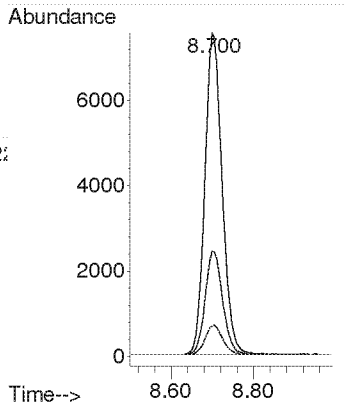


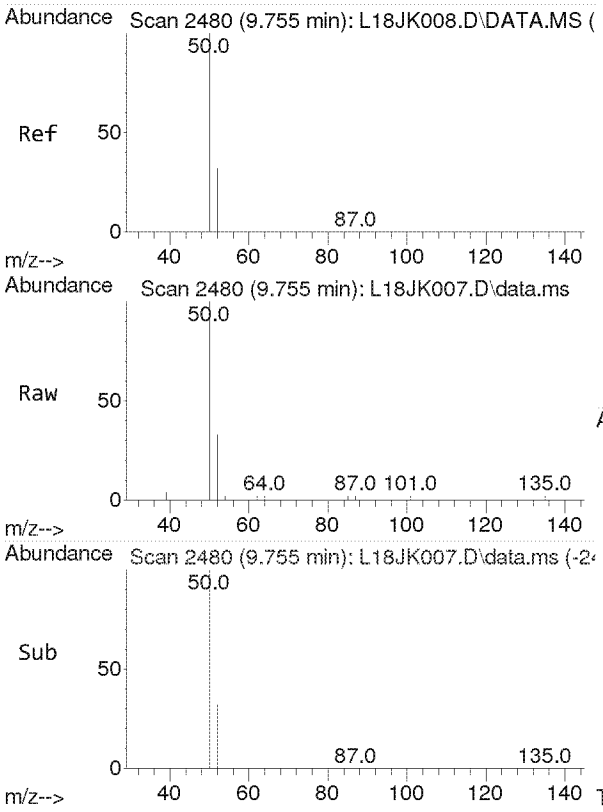


#4
Dichlorodifluoromethane
Concen: 0.944 ppbv
RT: 8.700 min Scan# 2287
Delta R.T. 0.005 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 85 Resp: 21846

Ion	Ratio	Lower	Upper
85	100		
87	32.5	25.8	38.8
101	9.1	7.2	10.8

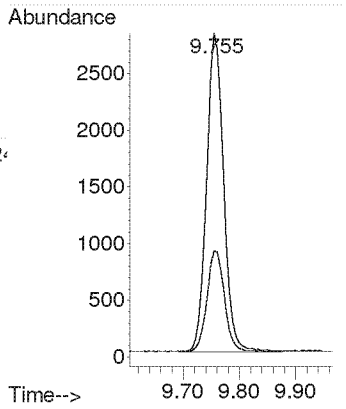


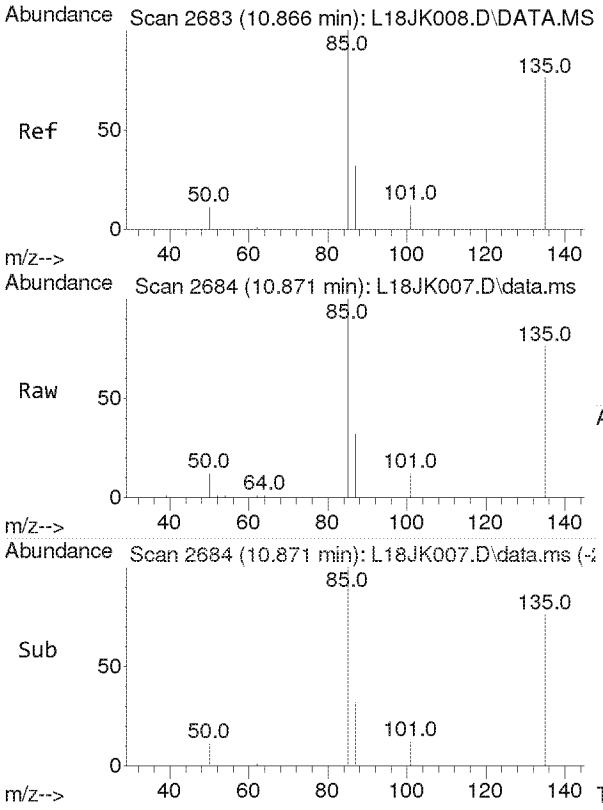


#5
Chloromethane
Concen: 0.964 ppbv
RT: 9.755 min Scan# 2480
Delta R.T. -0.000 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 50 Resp: 5910

Ion	Ratio	Lower	Upper
50	100		
52	32.4	25.8	38.6

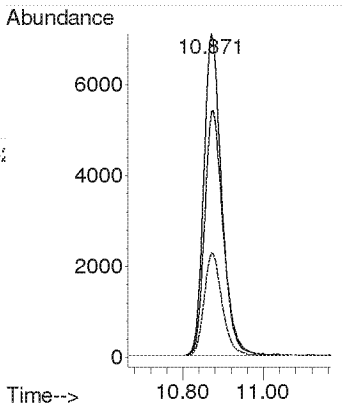


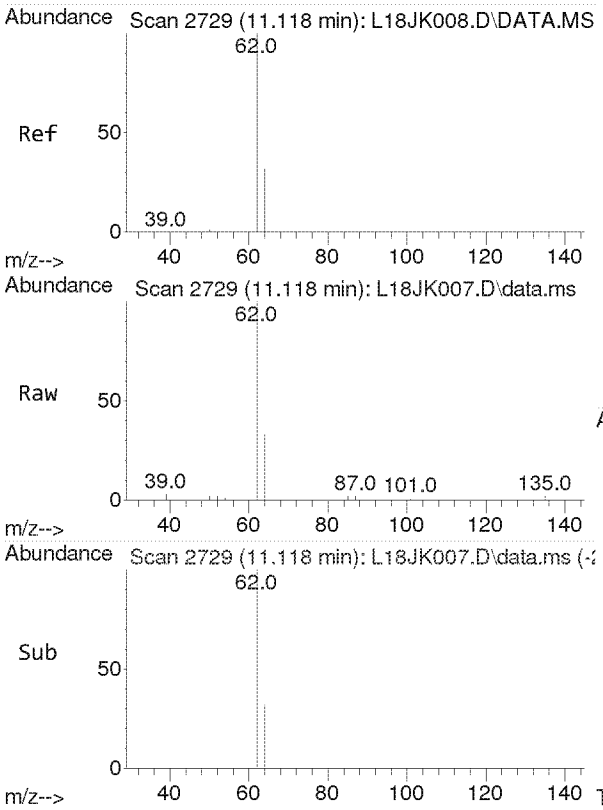


#6
Dichlorotetrafluoroethane
Concen: 1.060 ppbv
RT: 10.871 min Scan# 2684
Delta R.T. 0.005 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 85 Resp: 21634

Ion	Ratio	Lower	Upper
85	100		
135	79.8	63.7	95.5
87	32.0	25.7	38.5

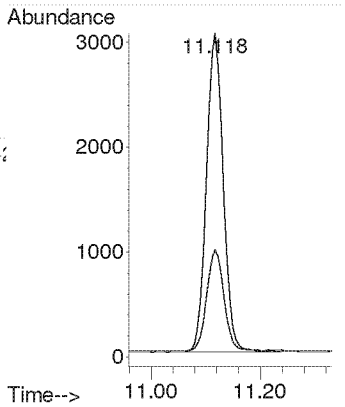


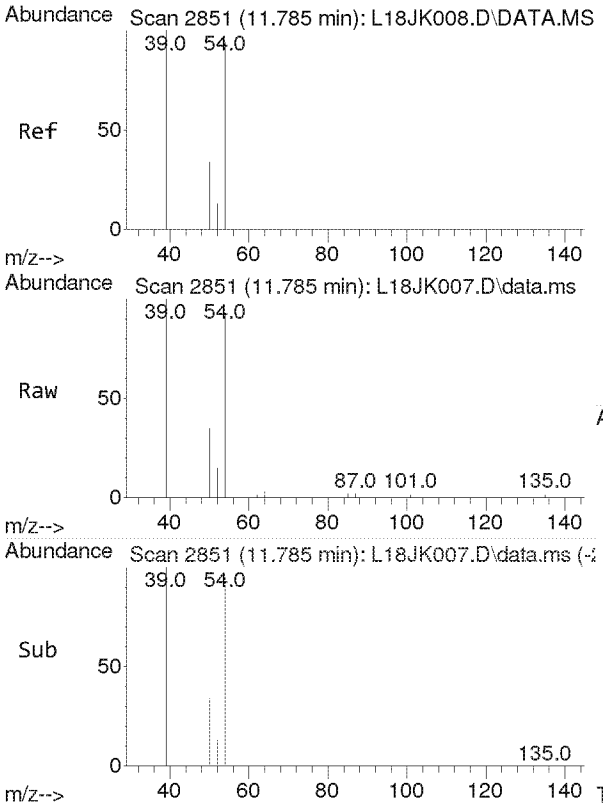


#7
Vinyl Chloride
Concen: 0.977 ppbv
RT: 11.118 min Scan# 2729
Delta R.T. -0.000 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 62 Resp: 6495

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.6	38.4

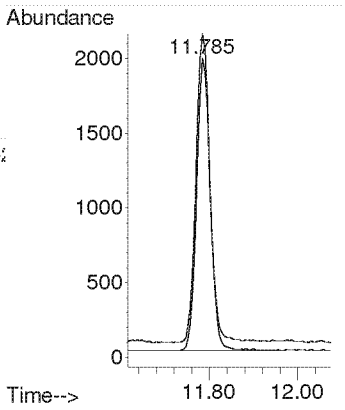


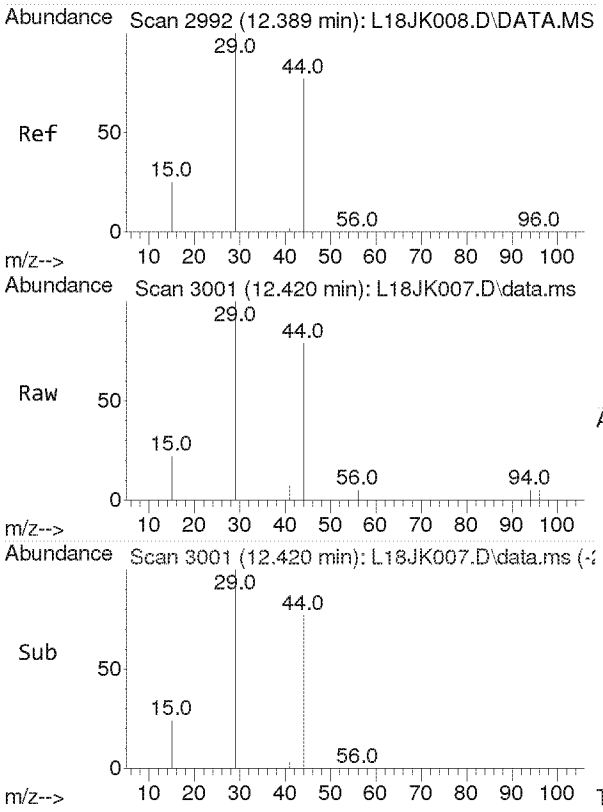


#8
1,3-Butadiene
Concen: 0.914 ppbv
RT: 11.785 min Scan# 2851
Delta R.T. -0.000 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 54 Resp: 4181

Ion	Ratio	Lower	Upper
54	100		
39	110.0	87.0	130.4

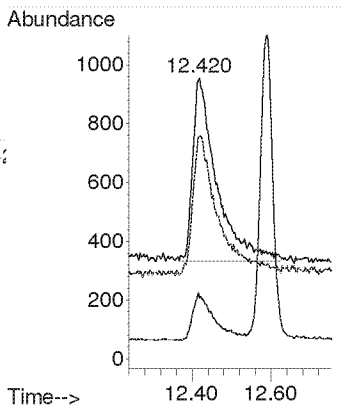


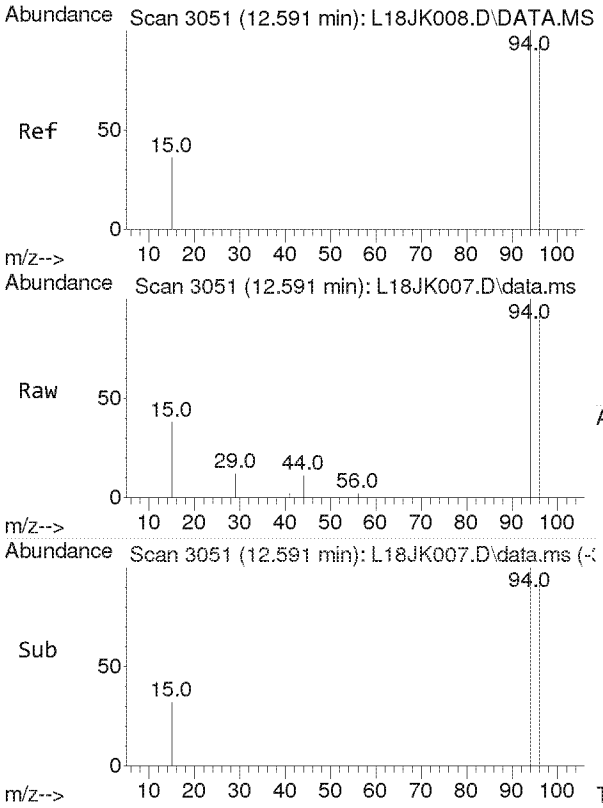


#9
Ethylene oxide
Concen: 0.914 ppbv
RT: 12.420 min Scan# 3001
Delta R.T. 0.031 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 29 Resp: 2604

Ion	Ratio	Lower	Upper
29	100		
15	23.8	20.1	30.1
44	81.6	62.6	93.8

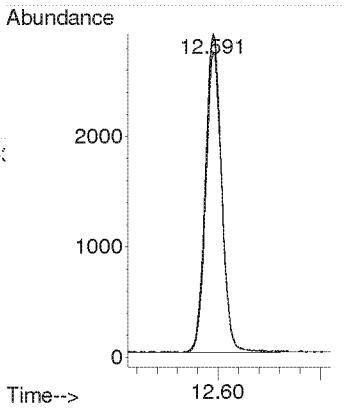


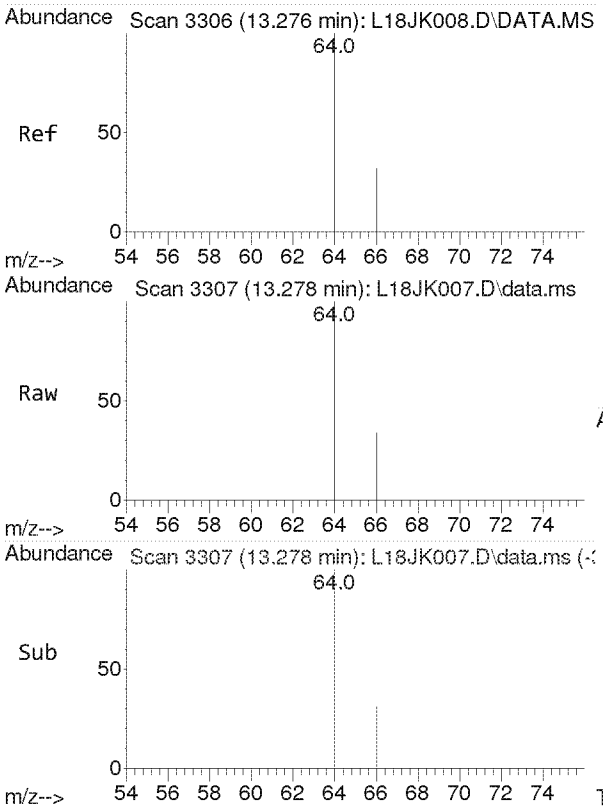


#10
Bromomethane
Concen: 0.971 ppbv
RT: 12.591 min Scan# 3051
Delta R.T. -0.000 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 94 Resp: 6298

Ion	Ratio	Lower	Upper
94	100		
96	94.1	75.5	113.3

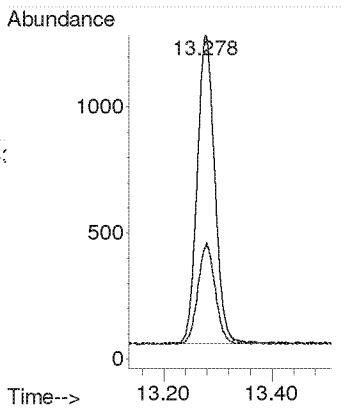


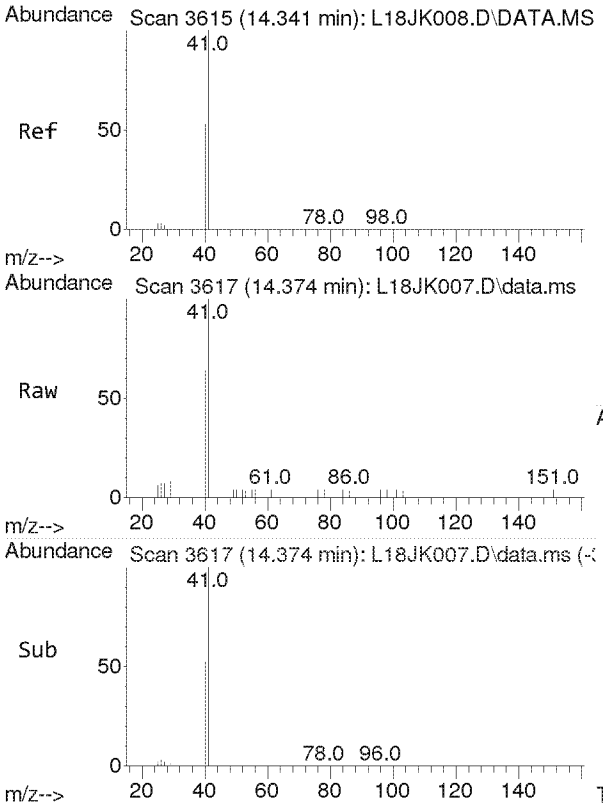


#11
Chloroethane
Concen: 0.959 ppbv
RT: 13.278 min Scan# 3307
Delta R.T. 0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 64 Resp: 2740

Ion	Ratio	Lower	Upper
64	100		
66	32.6	25.8	38.6

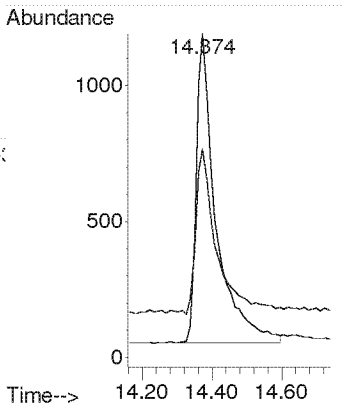


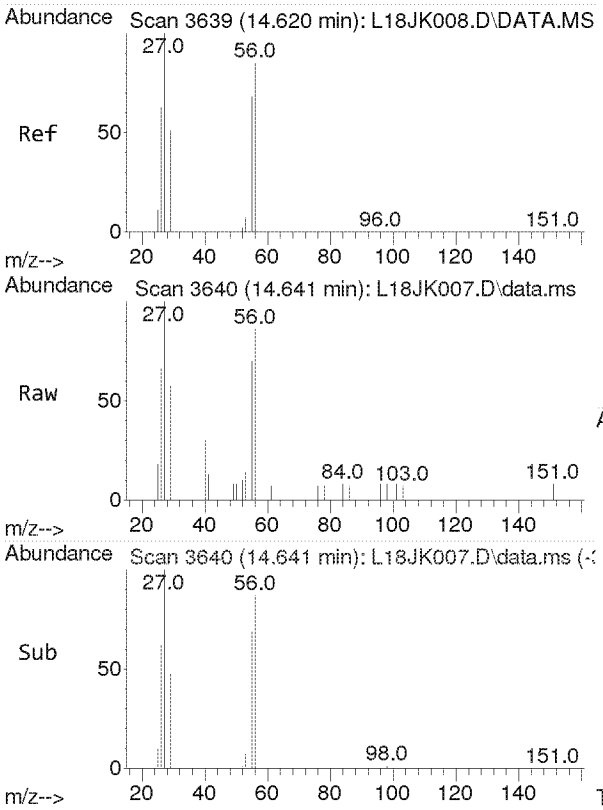


#12
Acetonitrile
Concen: 0.851 ppbv
RT: 14.374 min Scan# 3617
Delta R.T. 0.033 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 41 Resp: 4415

Ion	Ratio	Lower	Upper
41	100		
40	53.7	43.1	64.7

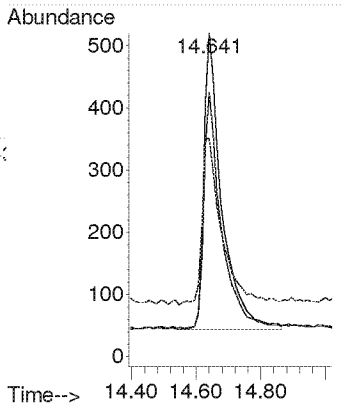


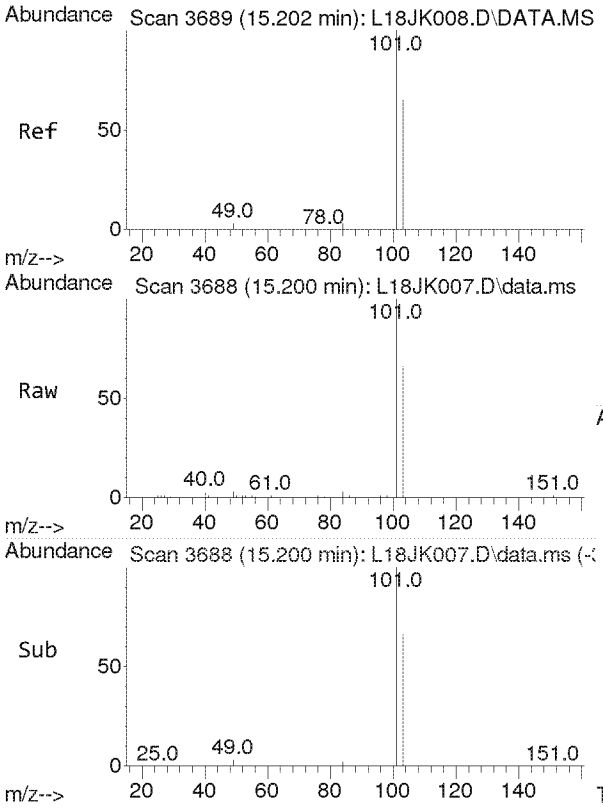


#13
Acrolein
Concen: 0.772 ppbv
RT: 14.641 min Scan# 3640
Delta R.T. 0.021 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 56 Resp: 1808

Ion	Ratio	Lower	Upper
56	100		
55	78.2	61.9	92.9
29	63.3	49.2	73.8

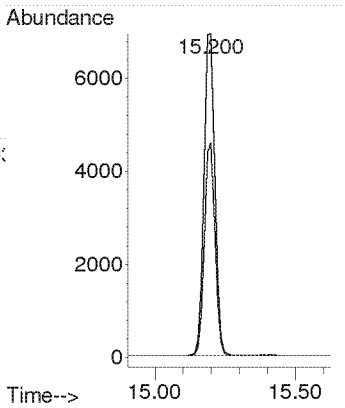


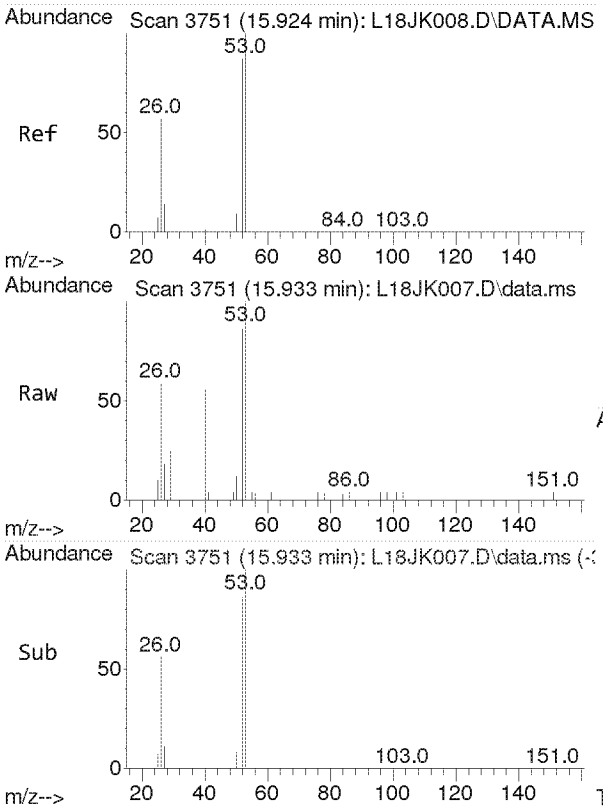


#14
Trichlorofluoromethane
Concen: 0.911 ppbv
RT: 15.200 min Scan# 3688
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:101 Resp: 18204

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.8	77.6

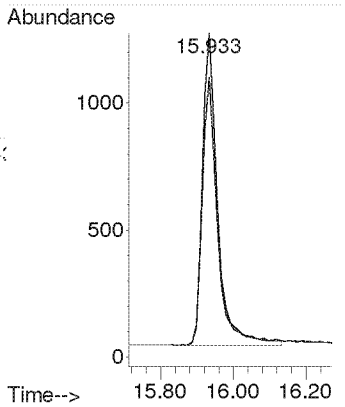


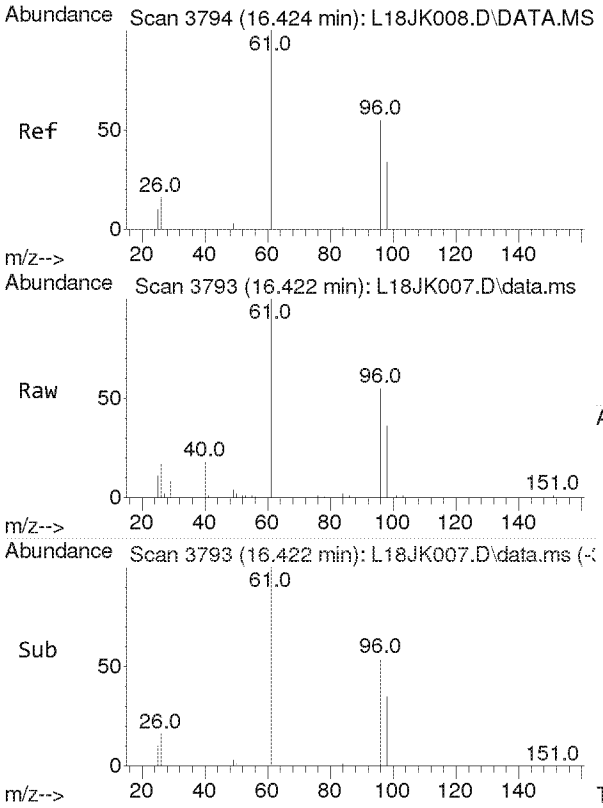


#15
Acrylonitrile
Concen: 0.899 ppbv
RT: 15.933 min Scan# 3751
Delta R.T. 0.009 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 53 Resp: 3533

Ion	Ratio	Lower	Upper
53	100		
52	86.6	69.7	104.5

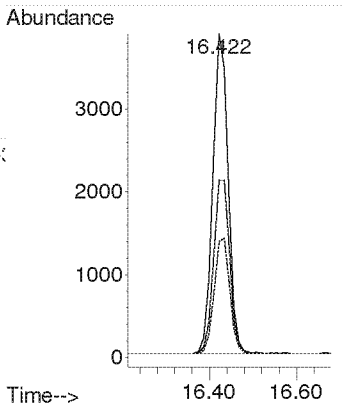


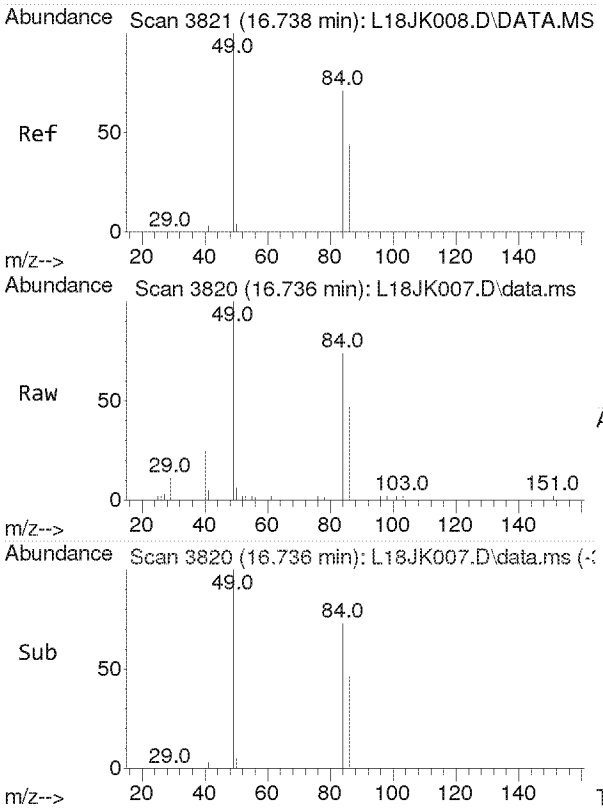


#16
1,1-Dichloroethene
Concen: 1.055 ppbv
RT: 16.422 min Scan# 3793
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 61 Resp: 9404

Ion	Ratio	Lower	Upper
61	100		
96	57.2	46.1	69.1
98	37.2	29.4	44.2

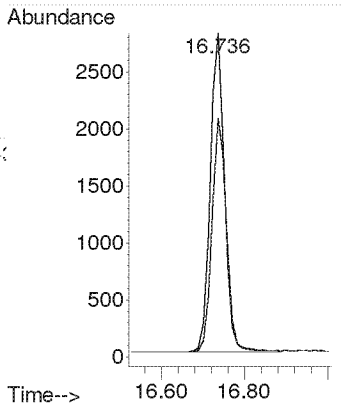


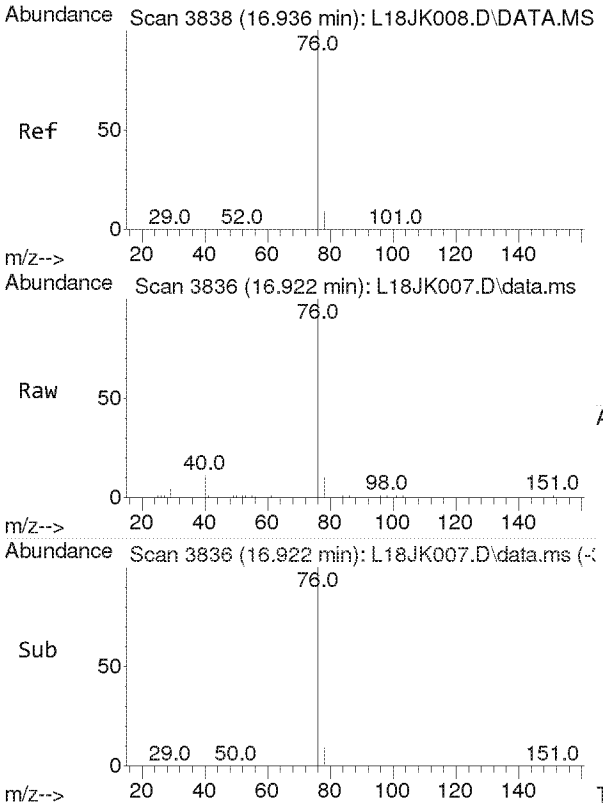


#17
Methylene Chloride
Concen: 1.034 ppbv
RT: 16.736 min Scan# 3820
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 49 Resp: 6642

Ion	Ratio	Lower	Upper
49	100		
84	74.5	51.9	96.5

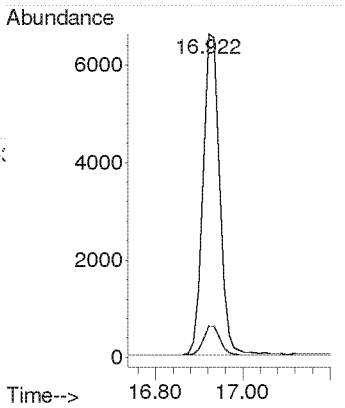


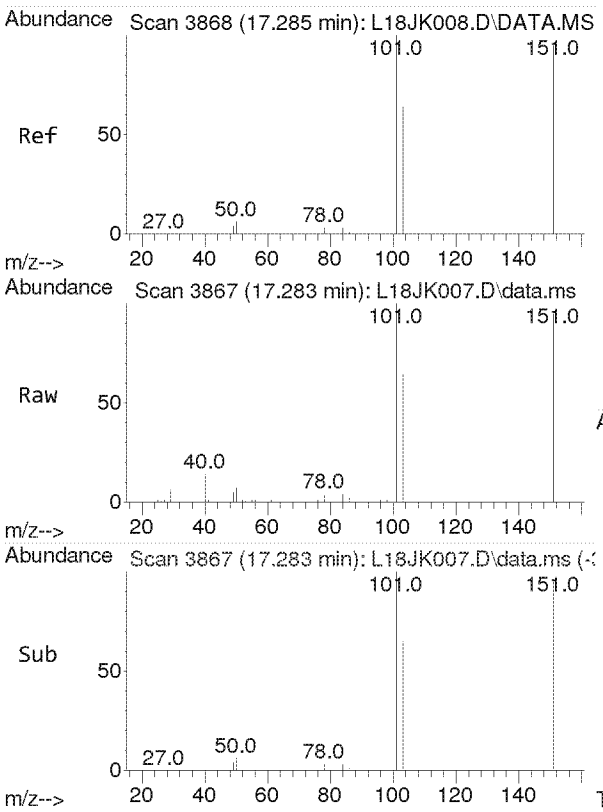


#18
Carbon Disulfide
Concen: 0.956 ppbv
RT: 16.922 min Scan# 3836
Delta R.T. -0.014 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 76 Resp: 17393

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.3	10.9

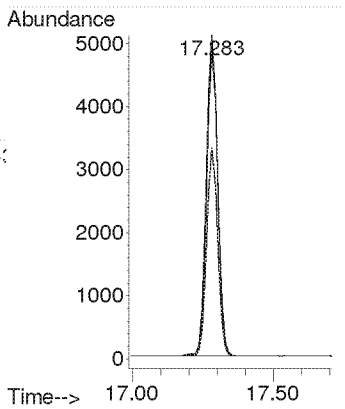


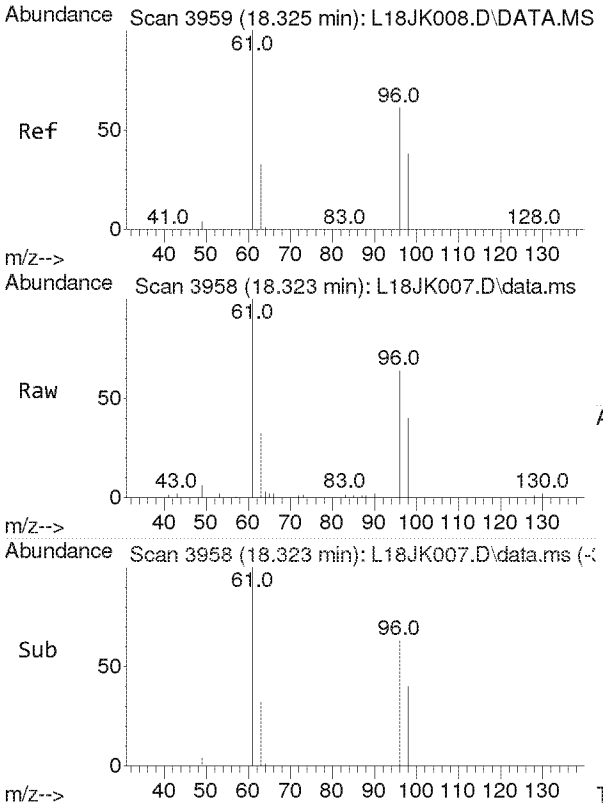


#19
Trichlorotrifluoroethane
Concen: 0.999 ppbv
RT: 17.283 min Scan# 3867
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:101 Resp: 13741

Ion	Ratio	Lower	Upper
101	100		
151	96.1	76.8	115.2
103	64.3	51.4	77.2

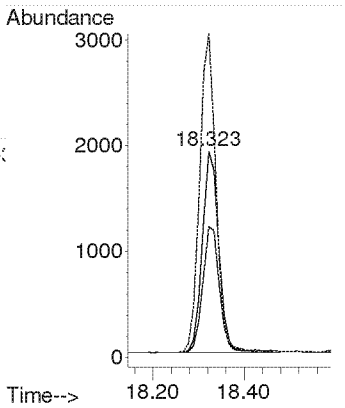


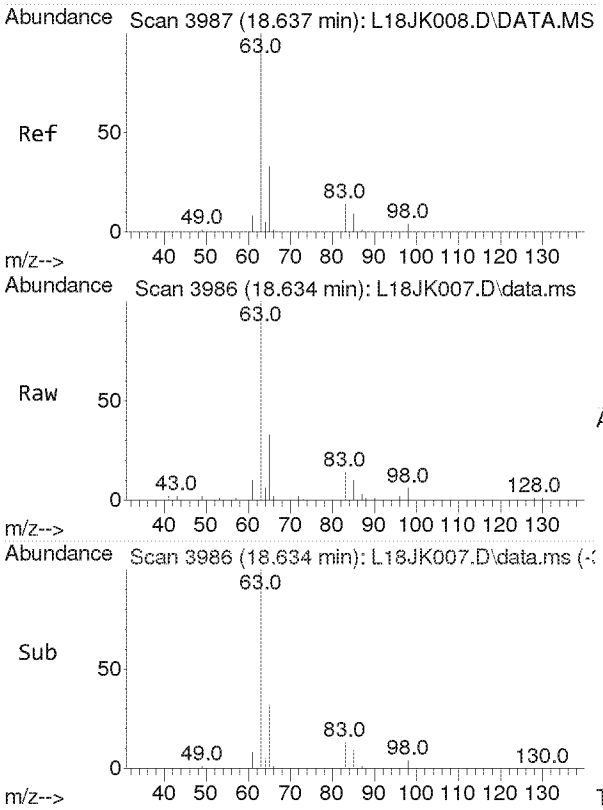


#20
trans-1,2-Dichloroethylene
Concen: 0.953 ppbv
RT: 18.323 min Scan# 3958
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 96 Resp: 4733

Ion	Ratio	Lower	Upper
96	100		
98	64.1	50.9	76.3
61	156.9	125.0	187.6

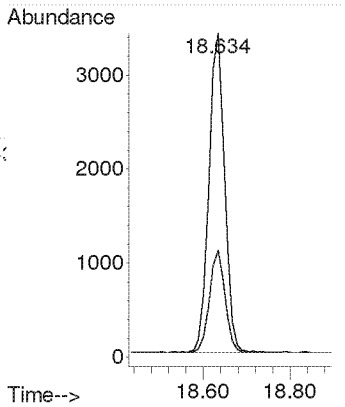


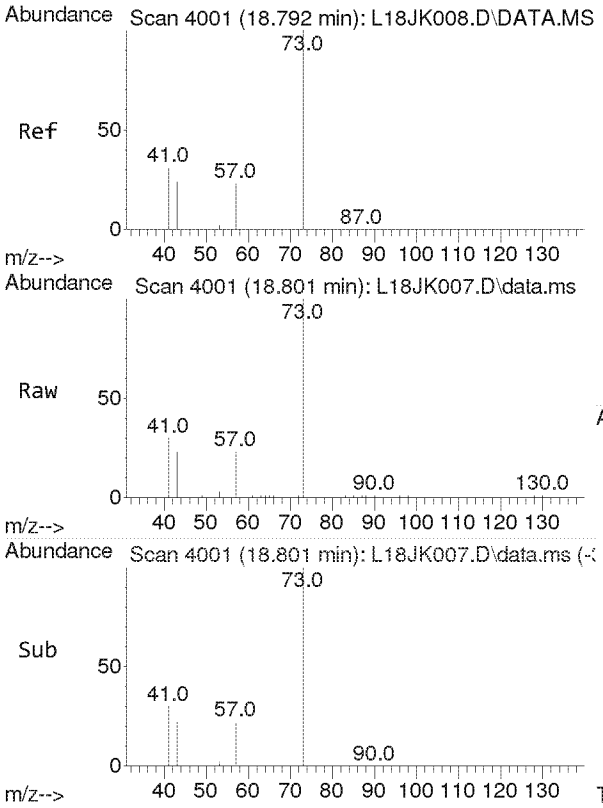


#21
1,1-Dichloroethane
Concen: 0.985 ppbv
RT: 18.634 min Scan# 3986
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 63 Resp: 8537

Ion	Ratio	Lower	Upper
63	100		
65	31.5	25.7	38.5

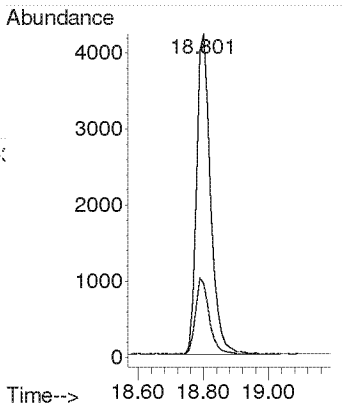


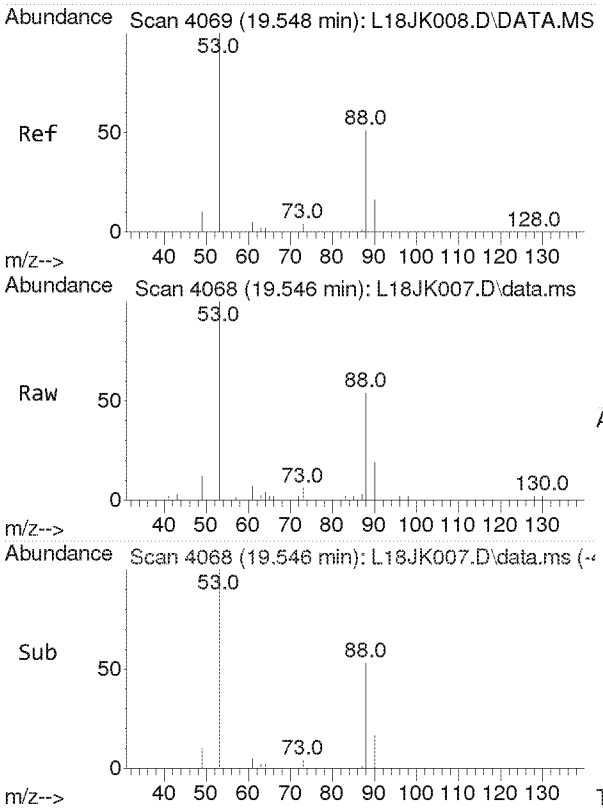


#22
Methyl tert-Butyl Ether
Concen: 0.913 ppbv
RT: 18.801 min Scan# 4001
Delta R.T. 0.009 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 73 Resp: 12461

Ion	Ratio	Lower	Upper
73	100		
57	23.0	18.4	27.6

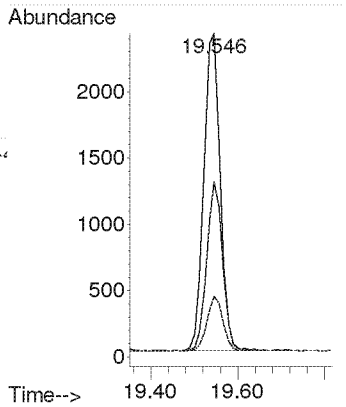


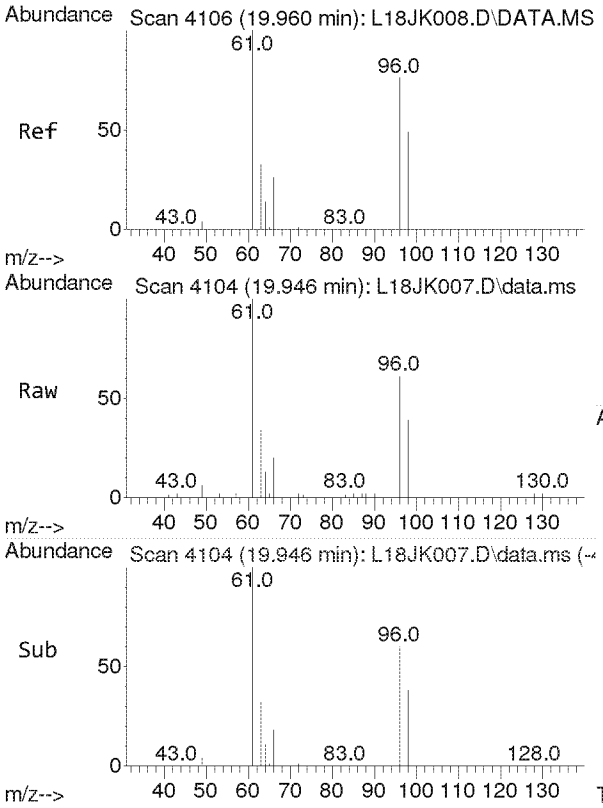


#23
Chloroprene
Concen: 0.955 ppbv
RT: 19.546 min Scan# 4068
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 53 Resp: 6220

Ion	Ratio	Lower	Upper
53	100		
88	51.8	41.2	61.8
90	16.8	13.3	19.9

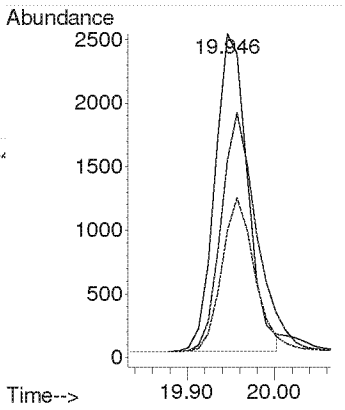


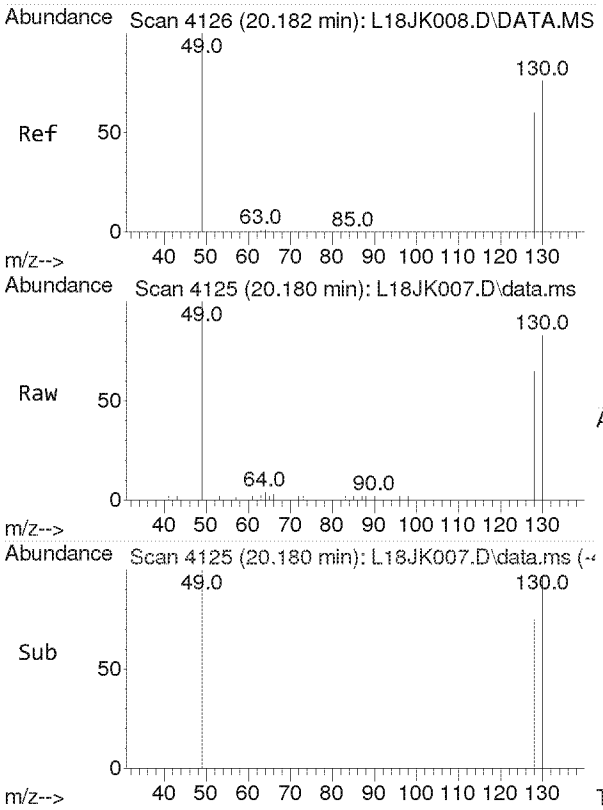


#24
cis-1,2-Dichloroethylene
Concen: 0.941 ppbv m
RT: 19.946 min Scan# 4104
Delta R.T. -0.013 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 61 Resp: 6430

Ion	Ratio	Lower	Upper
61	100		
96	83.1	58.8	88.2
98	50.0	37.0	55.4

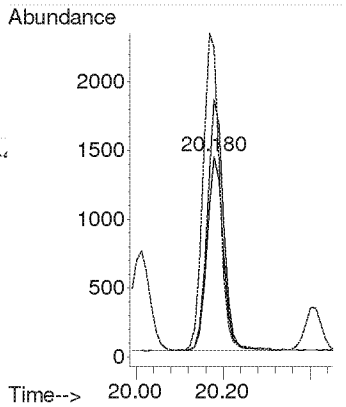


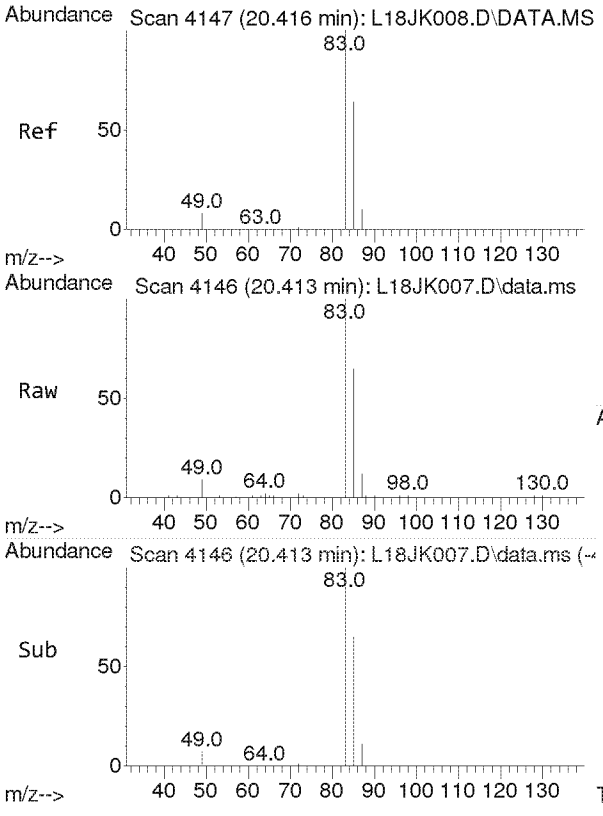


#25
Bromochloromethane
Concen: 0.967 ppbv
RT: 20.180 min Scan# 4125
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:128 Resp: 3653

Ion	Ratio	Lower	Upper
128	100		
130	129.5	103.1	154.7
49	166.6	134.3	201.5

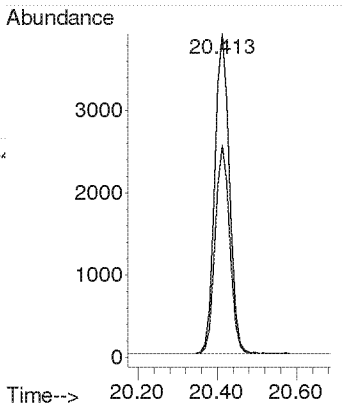


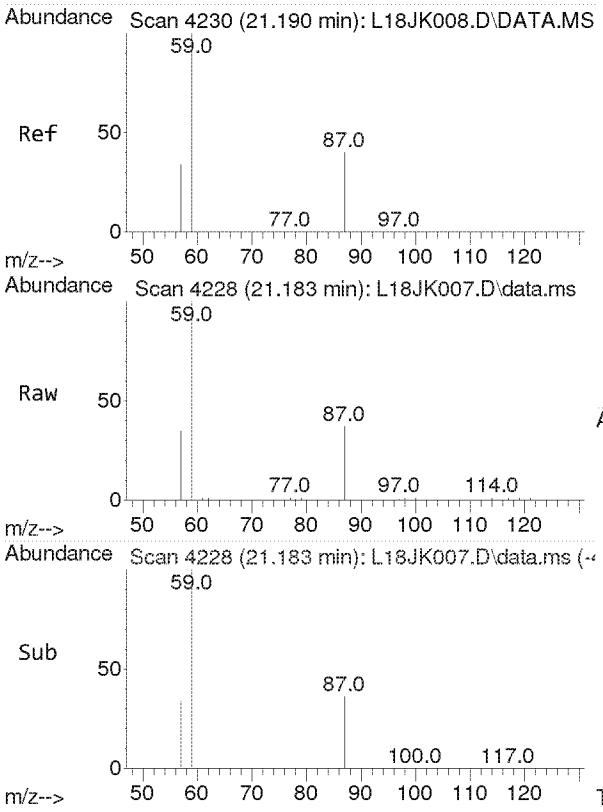


#26
Chloroform
Concen: 0.967 ppbv
RT: 20.413 min Scan# 4146
Delta R.T. -0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 83 Resp: 9880

Ion	Ratio	Lower	Upper
83	100		
85	64.7	51.6	77.4

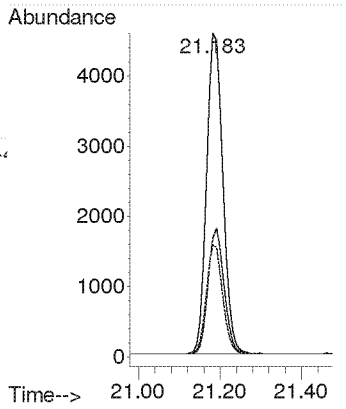


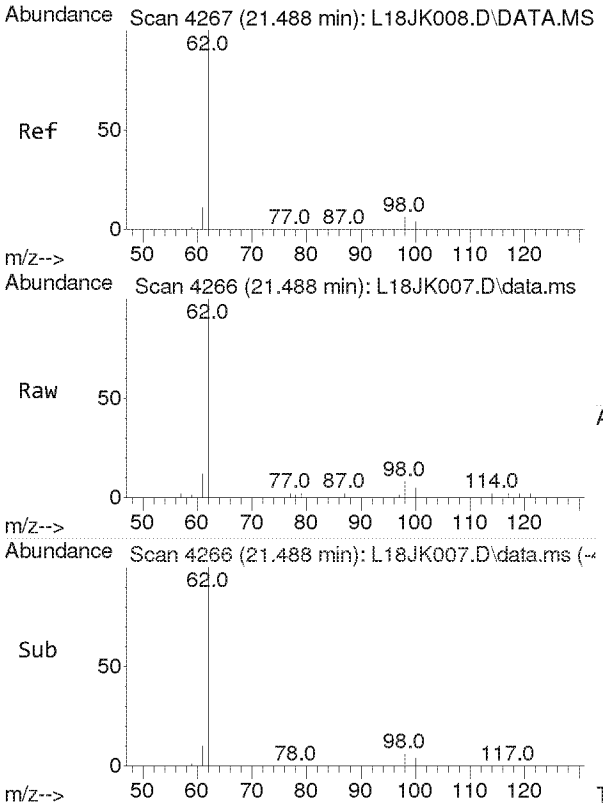


#27
Ethyl tert-Butyl Ether
Concen: 0.891 ppbv
RT: 21.183 min Scan# 4228
Delta R.T. -0.007 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 59 Resp: 12498

Ion	Ratio	Lower	Upper
59	100		
87	38.2	30.8	46.2
57	33.7	27.2	40.8

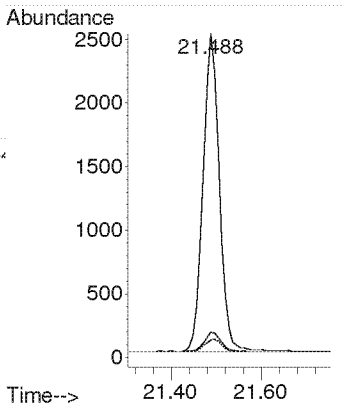


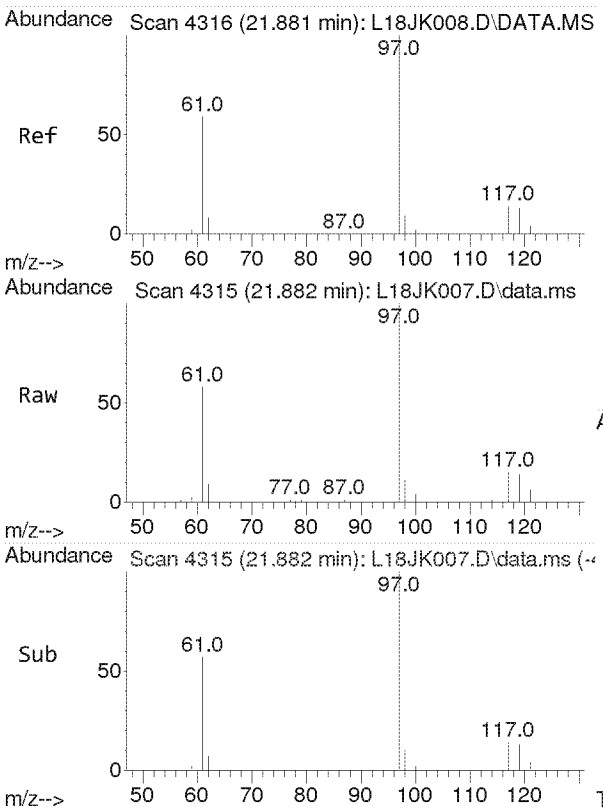


#28
1,2-Dichloroethane
Concen: 0.982 ppbv
RT: 21.488 min Scan# 4266
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 62 Resp: 6266

Ion	Ratio	Lower	Upper
62	100		
98	6.4	4.8	7.2
100	3.9	3.1	4.7

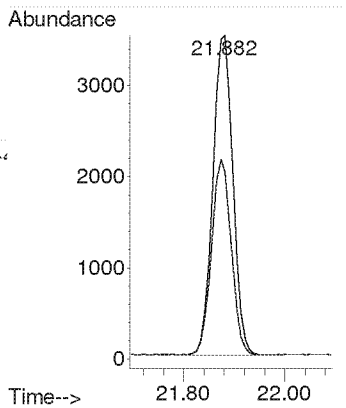


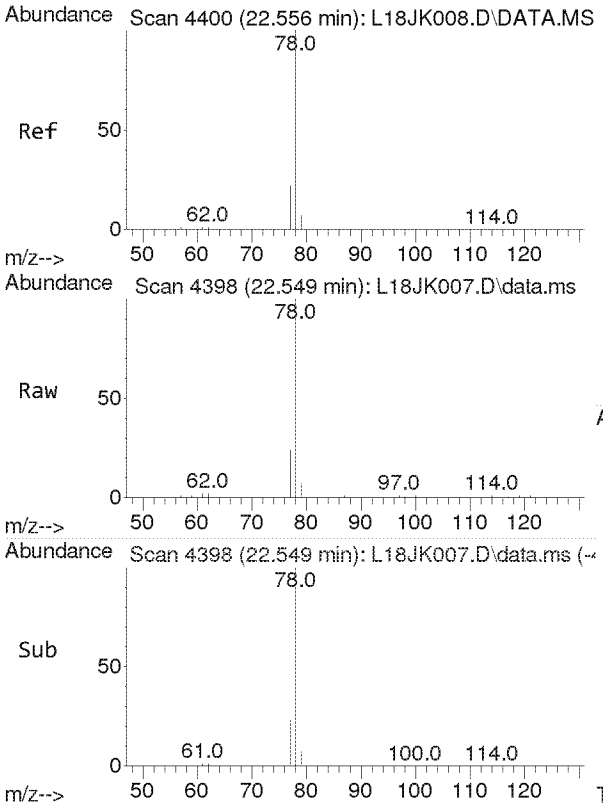


#30
1,1,1-Trichloroethane
Concen: 0.947 ppbv
RT: 21.882 min Scan# 4315
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 97 Resp: 9600

Ion	Ratio	Lower	Upper
97	100		
61	60.4	47.7	71.5

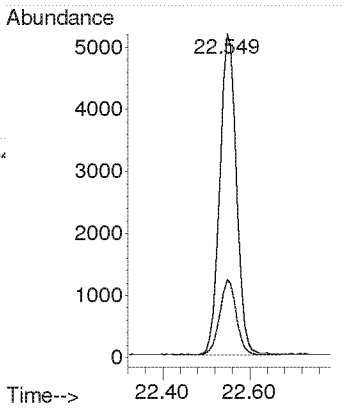


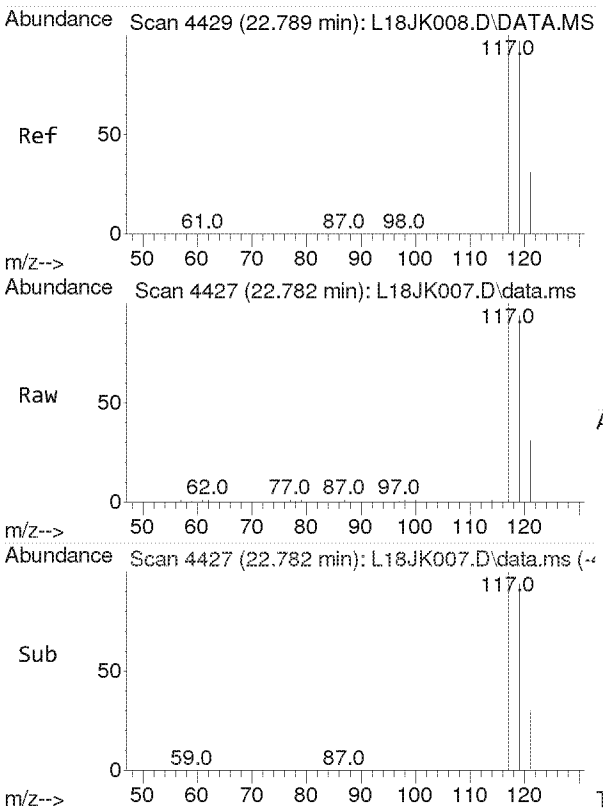


#31
Benzene
Concen: 0.946 ppbv
RT: 22.549 min Scan# 4398
Delta R.T. -0.007 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 78 Resp: 13568

Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.3	27.5

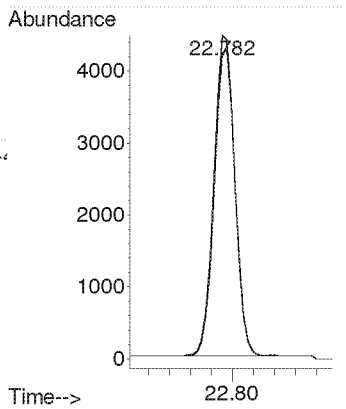


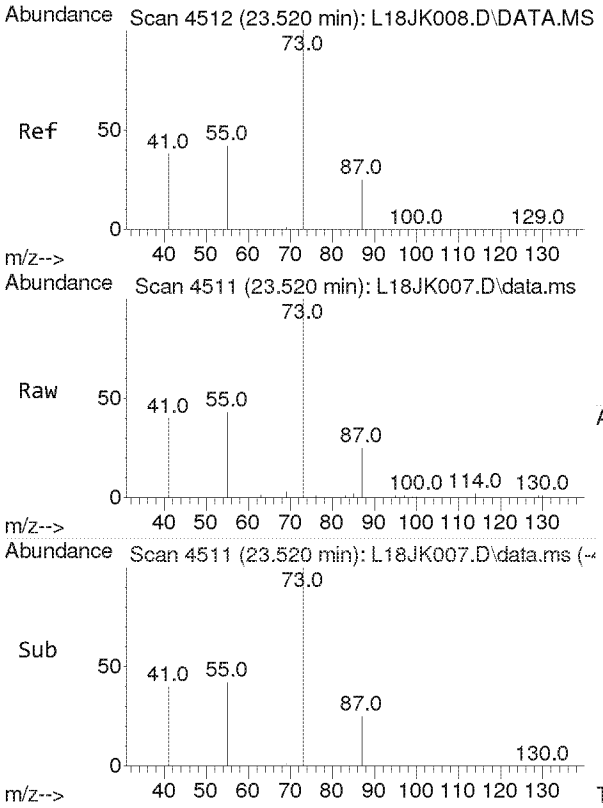


#32
Carbon Tetrachloride
Concen: 1.049 ppbv
RT: 22.782 min Scan# 4427
Delta R.T. -0.007 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:117 Resp: 12142

Ion	Ratio	Lower	Upper
117	100		
119	96.0	77.5	116.3

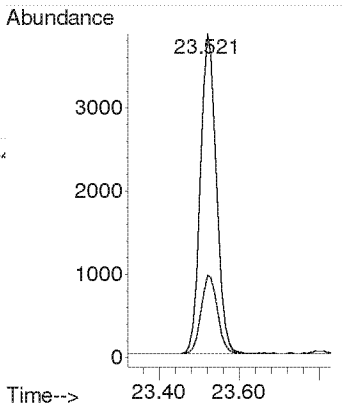


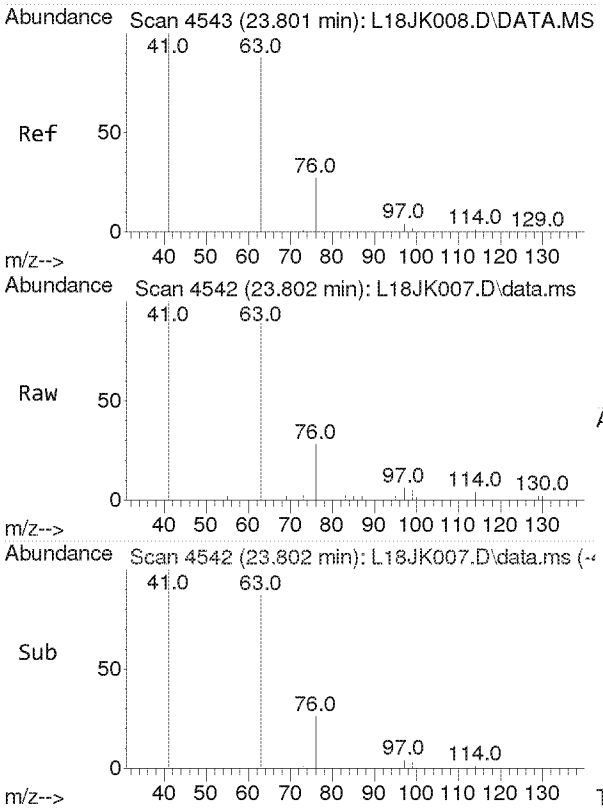


#33
tert-Amyl Methyl Ether
Concen: 0.879 ppbv
RT: 23.520 min Scan# 4511
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 73 Resp: 10568

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1

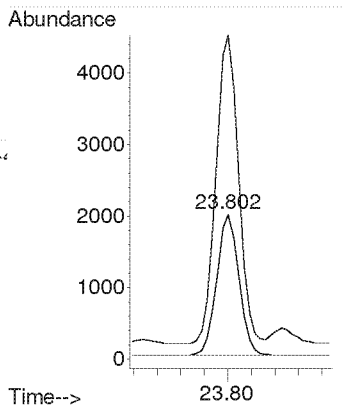


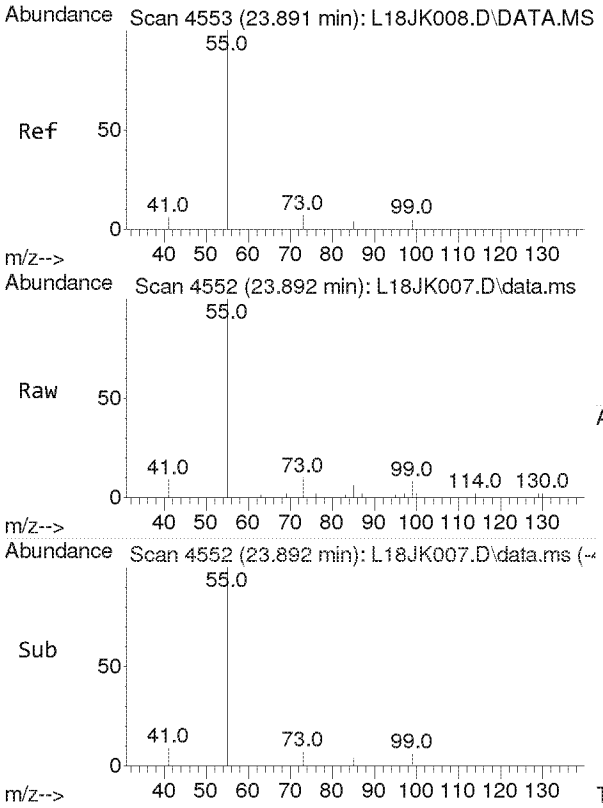


#34
1,2-Dichloropropane
Concen: 0.931 ppbv
RT: 23.802 min Scan# 4542
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 63 Resp: 5133

Ion	Ratio	Lower	Upper
63	100		
41	223.6	177.7	266.5

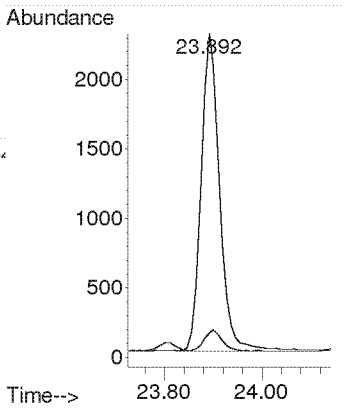


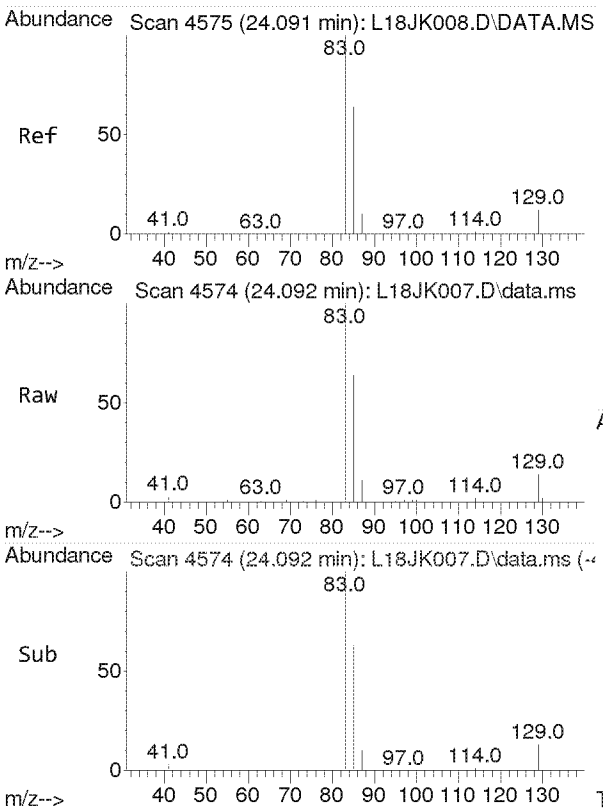


#35
Ethyl Acrylate
Concen: 0.865 ppbv
RT: 23.892 min Scan# 4552
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 55 Resp: 6036

Ion	Ratio	Lower	Upper
55	100		
99	6.2	5.0	7.6

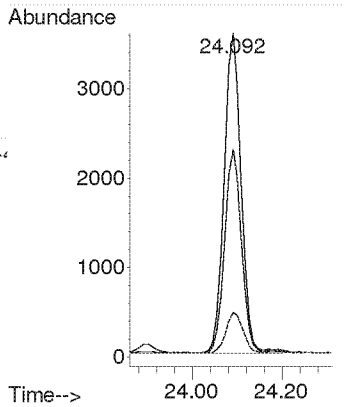


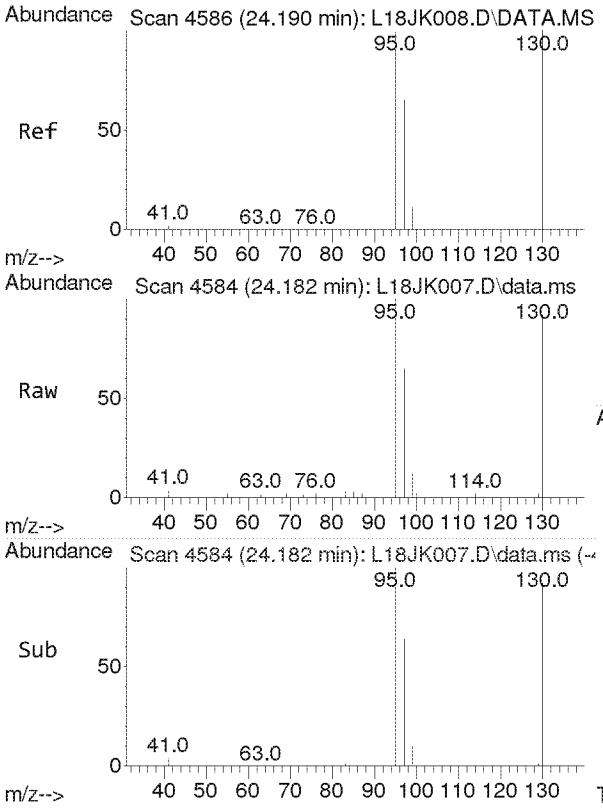


#36
Bromodichloromethane
Concen: 0.884 ppbv
RT: 24.092 min Scan# 4574
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 83 Resp: 9366

Ion	Ratio	Lower	Upper
83	100		
85	63.6	51.1	76.7
129	13.0	10.3	15.5

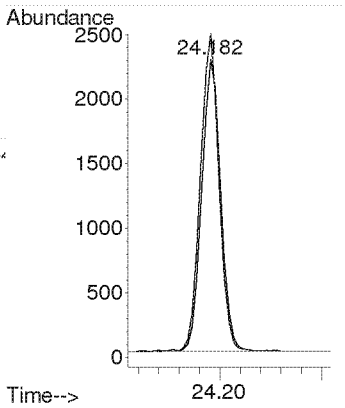


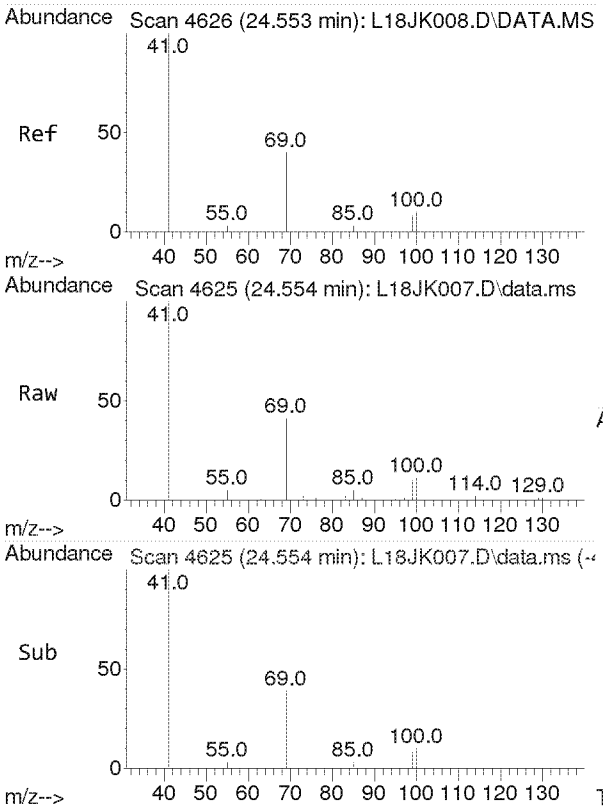


#37
Trichloroethylene
Concen: 0.886 ppbv
RT: 24.182 min Scan# 4584
Delta R.T. -0.008 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:130 Resp: 5812

Ion	Ratio	Lower	Upper
130	100		
95	107.1	85.5	128.3

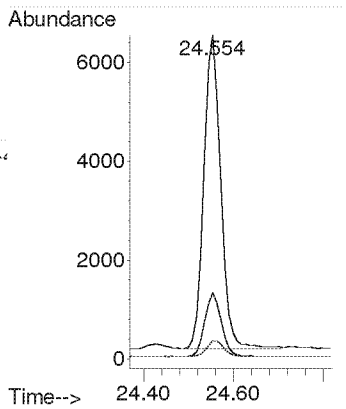


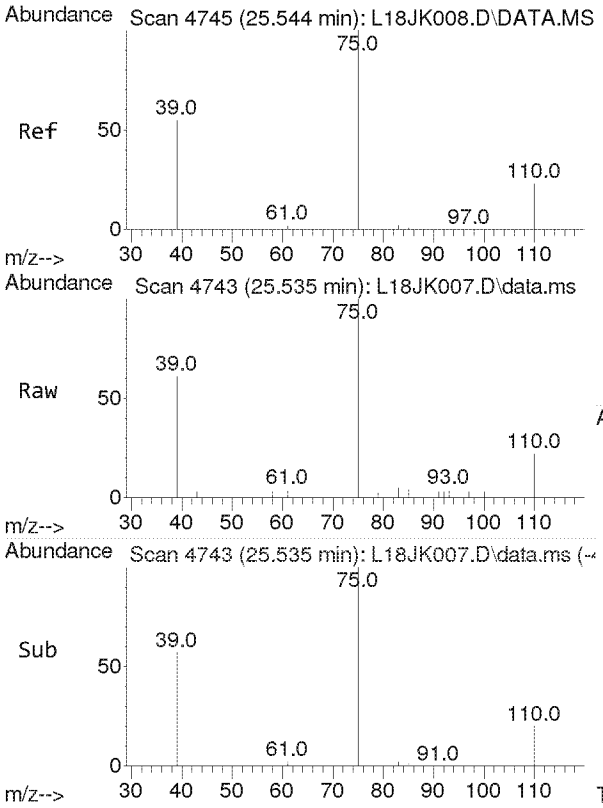


#38
Methyl Methacrylate
Concen: 0.847 ppbv
RT: 24.554 min Scan# 4625
Delta R.T. 0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 41 Resp: 16646

Ion	Ratio	Lower	Upper
41	100		
69	20.1	16.0	24.0
100	5.1	4.1	6.1

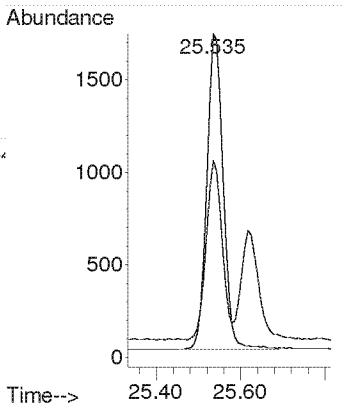


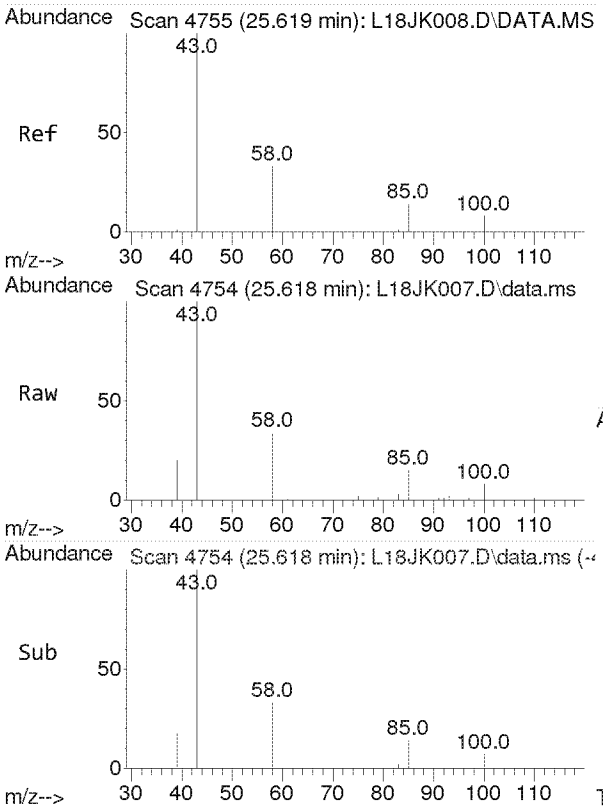


#39
cis-1,3-Dichloropropene
Concen: 0.899 ppbv
RT: 25.535 min Scan# 4743
Delta R.T. -0.008 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 75 Resp: 4525

Ion	Ratio	Lower	Upper
75	100		
39	55.6	44.5	66.7

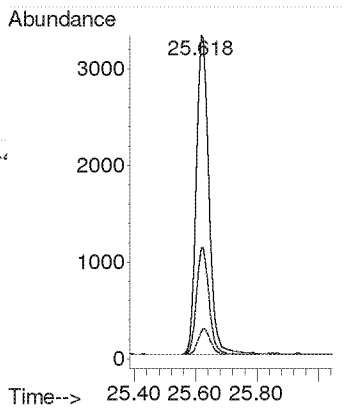


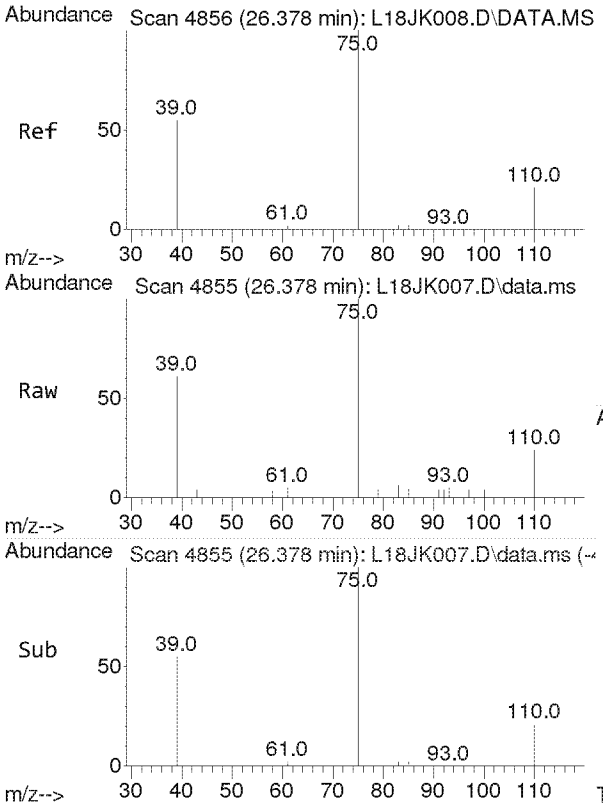


#40
Methyl Isobutyl Ketone
Concen: 0.820 ppbv
RT: 25.618 min Scan# 4754
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 43 Resp: 9368

Ion	Ratio	Lower	Upper
43	100		
58	33.2	26.6	40.0
100	8.0	6.4	9.6

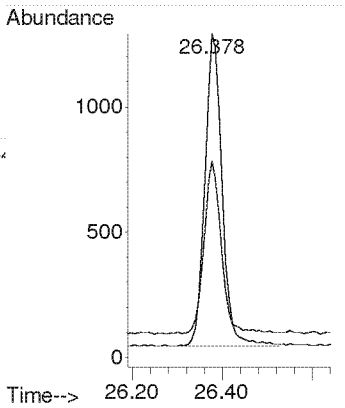


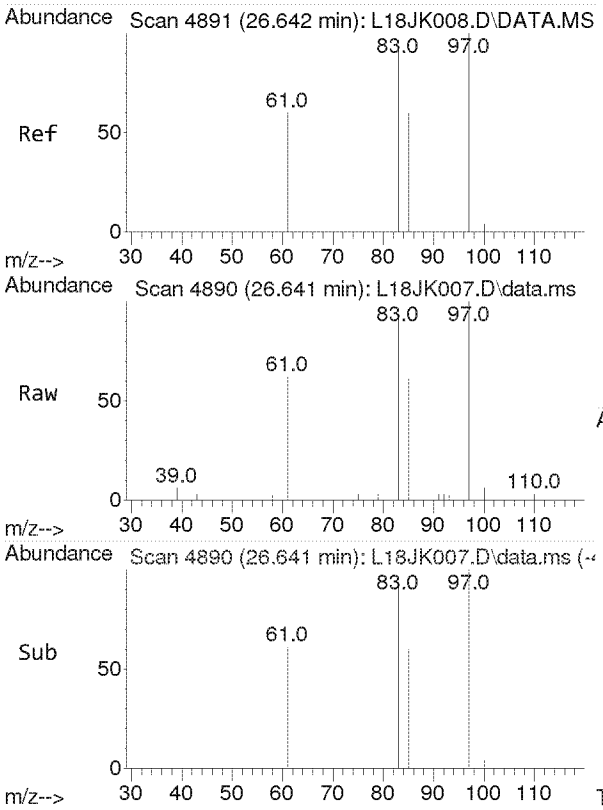


#41
trans-1,3-Dichloropropene
Concen: 0.892 ppbv
RT: 26.378 min Scan# 4855
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 75 Resp: 3288

Ion	Ratio	Lower	Upper
75	100		
39	56.2	44.2	66.4

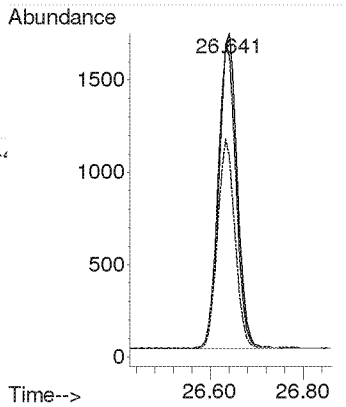


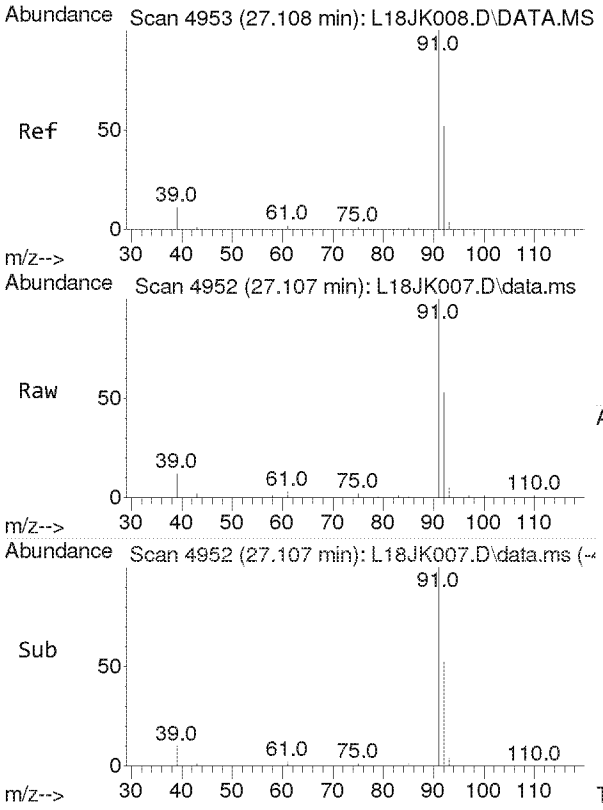


#42
1,1,2-Trichloroethane
Concen: 0.934 ppbv
RT: 26.641 min Scan# 4890
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 97 Resp: 4578

Ion	Ratio	Lower	Upper
97	100		
83	95.4	76.2	114.4
61	64.4	51.7	77.5

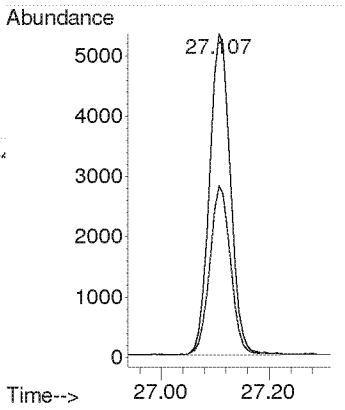


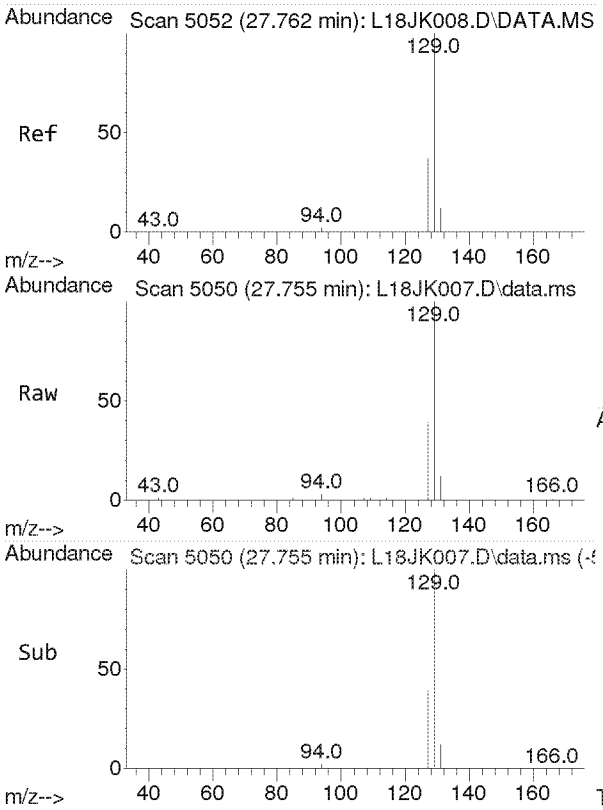


#44
Toluene
Concen: 0.967 ppbv
RT: 27.107 min Scan# 4952
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 91 Resp: 14272

Ion	Ratio	Lower	Upper
91	100		
92	52.2	41.7	62.5

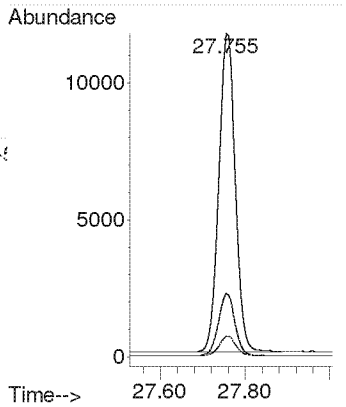


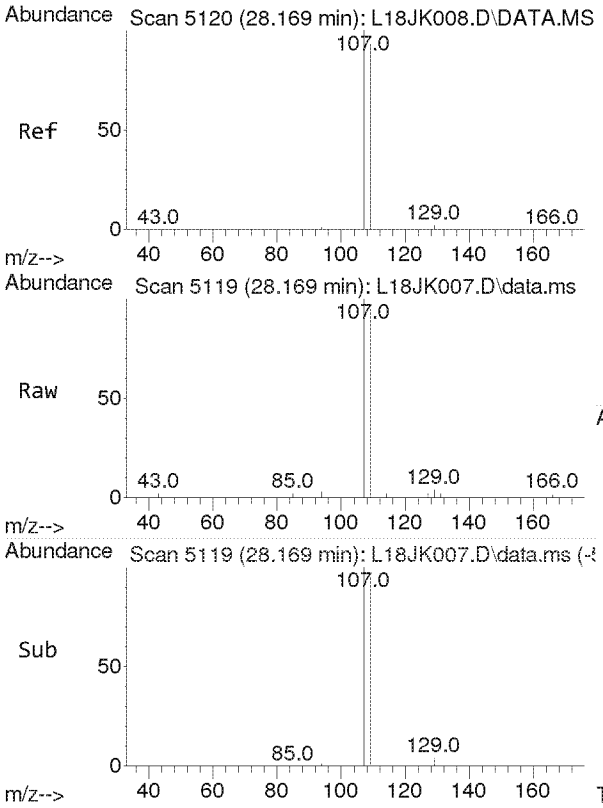


#45
Dibromochloromethane
Concen: 0.892 ppbv
RT: 27.755 min Scan# 5050
Delta R.T. -0.007 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:129 Resp: 31776

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2

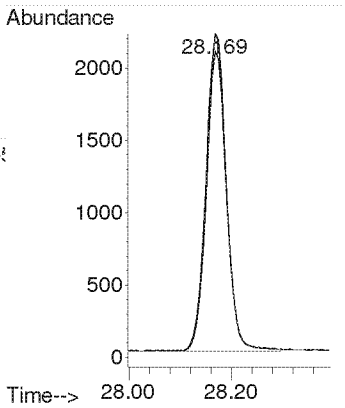


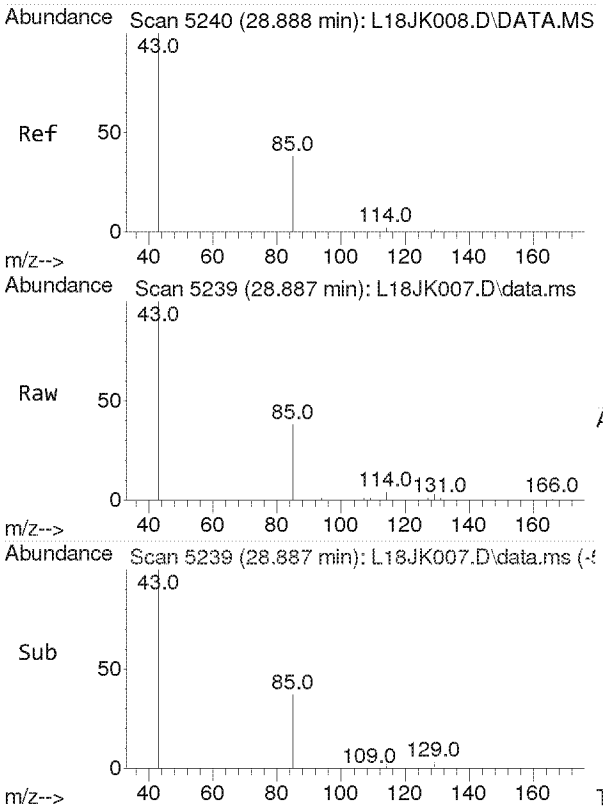


#46
1,2-Dibromoethane
Concen: 0.969 ppbv
RT: 28.169 min Scan# 5119
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:107 Resp: 5987

Ion	Ratio	Lower	Upper
107	100		
109	94.2	75.0	112.6

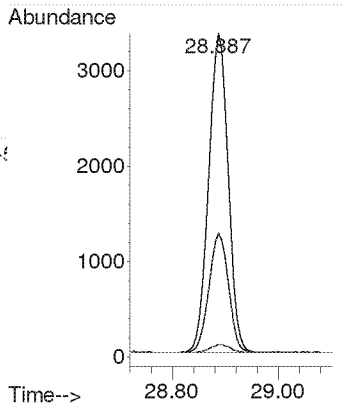


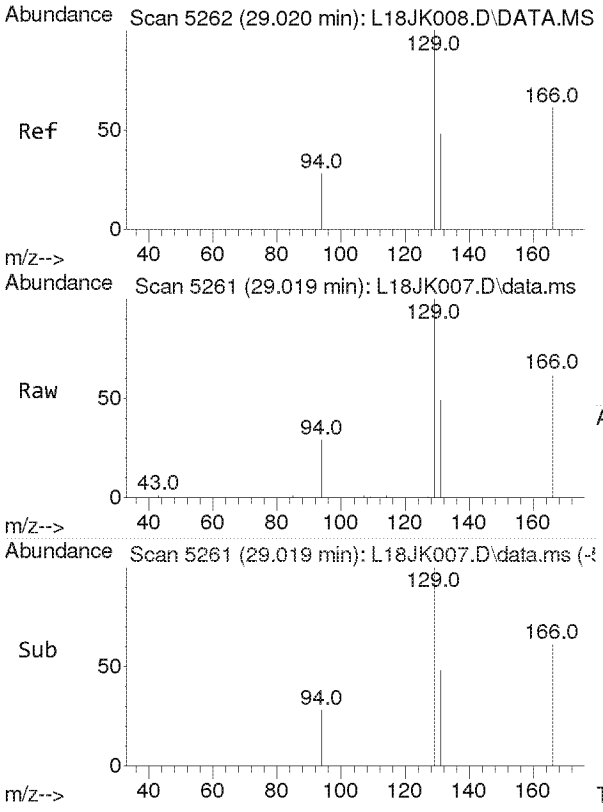


#47
n-Octane
Concen: 0.923 ppbv
RT: 28.887 min Scan# 5239
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 43 Resp: 8538

Ion	Ratio	Lower	Upper
43	100		
85	37.5	30.2	45.4
114	2.6	1.9	2.9

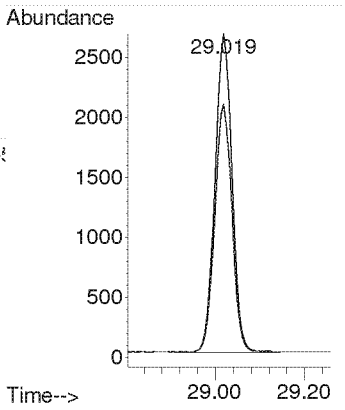


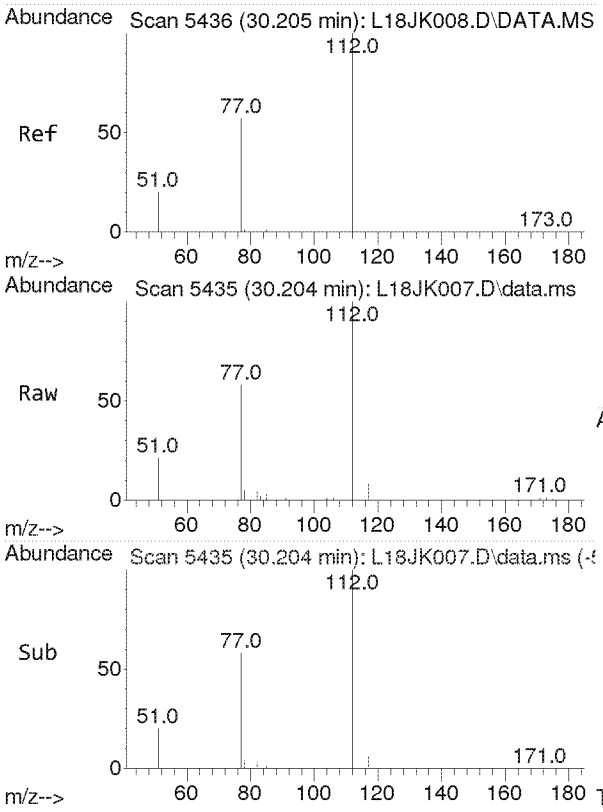


#48
Tetrachloroethylene
Concen: 0.962 ppbv
RT: 29.019 min Scan# 5261
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:166 Resp: 6990

Ion	Ratio	Lower	Upper
166	100		
131	79.0	63.0	94.4

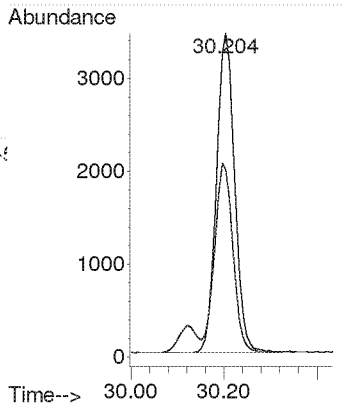


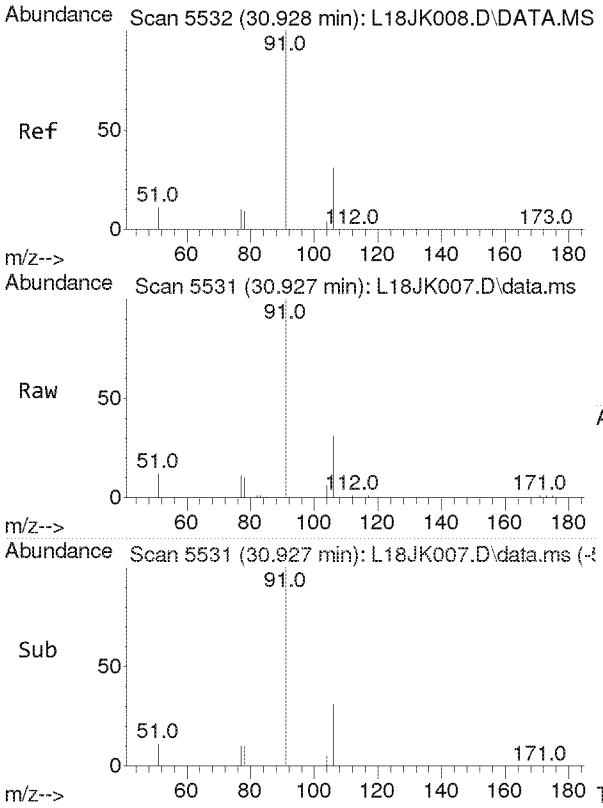


#49
Chlorobenzene
Concen: 0.956 ppbv
RT: 30.204 min Scan# 5435
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:112 Resp: 9320

Ion	Ratio	Lower	Upper
112	100		
77	59.2	47.4	71.2

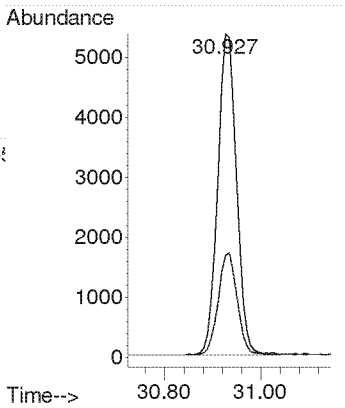


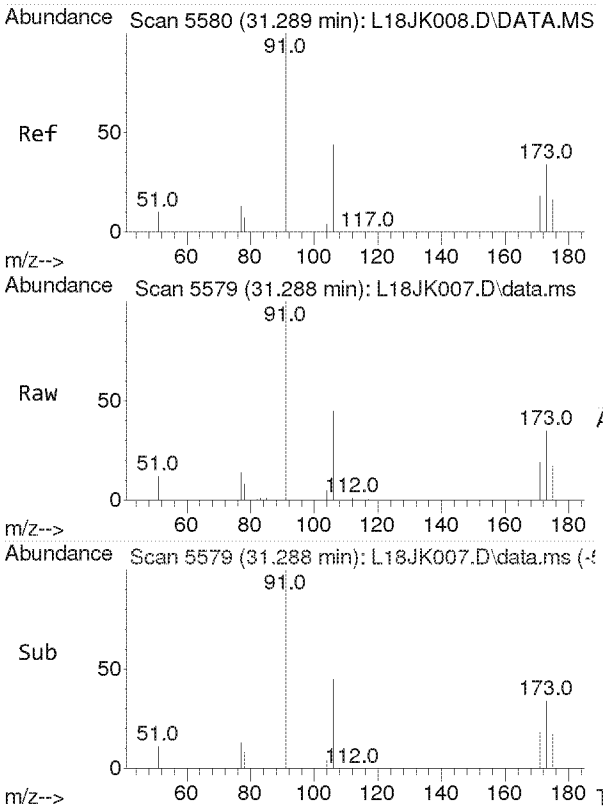


#50
Ethylbenzene
Concen: 0.928 ppbv
RT: 30.927 min Scan# 5531
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 91 Resp: 14437

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.4	38.2

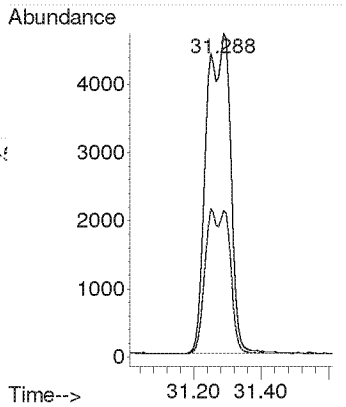


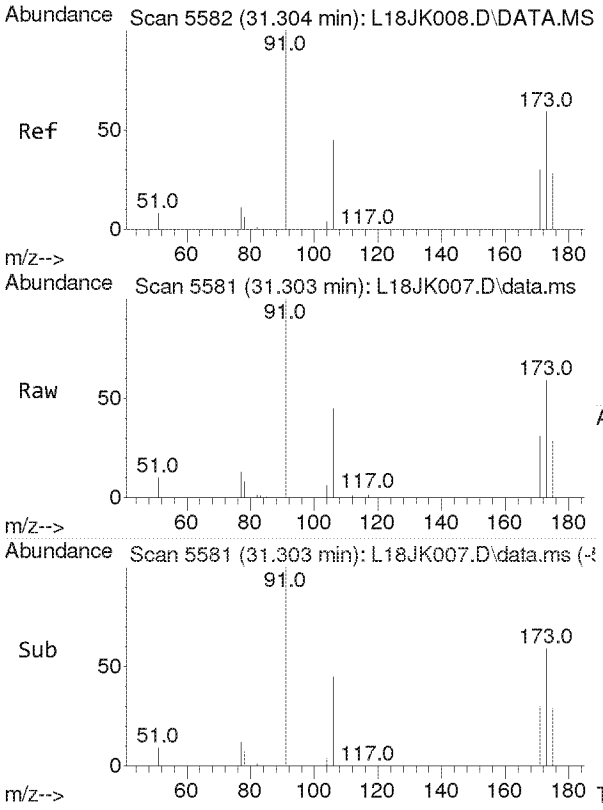


#51
m,p-Xylene
Concen: 1.728 ppbv
RT: 31.288 min Scan# 5579
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 91 Resp: 23300

Ion	Ratio	Lower	Upper
91	100		
106	45.6	36.3	54.5

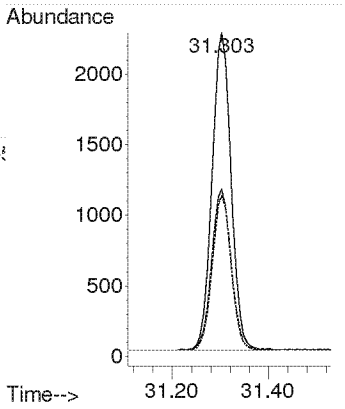


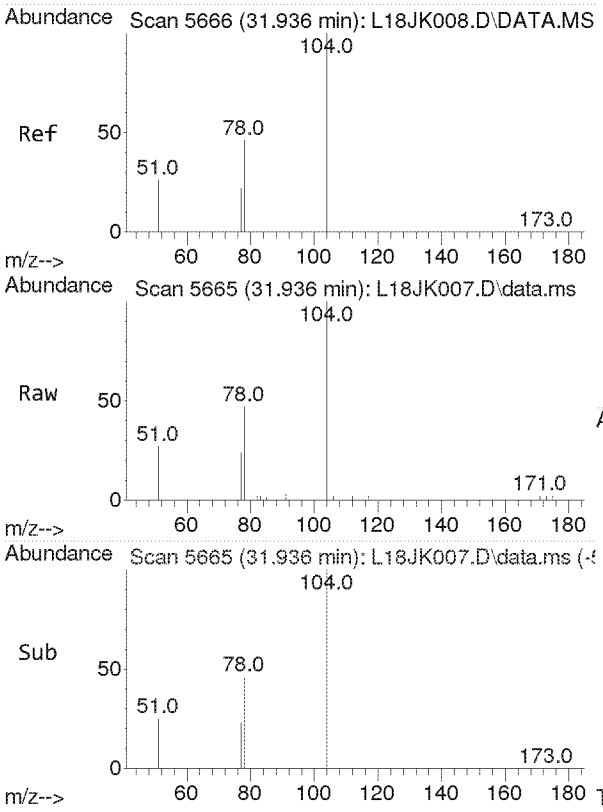


#52
Bromoform
Concen: 0.878 ppbv
RT: 31.303 min Scan# 5581
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:173 Resp: 6145

Ion	Ratio	Lower	Upper
173	100		
171	51.0	41.1	61.7
175	49.1	39.2	58.8

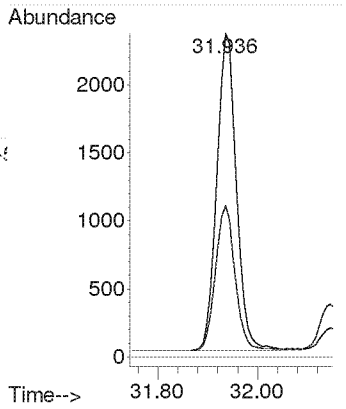


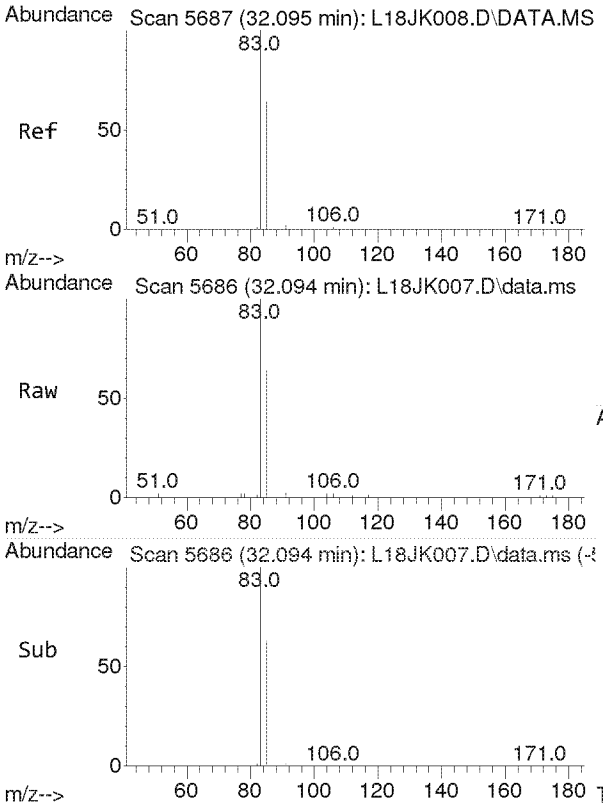


#53
Styrene
Concen: 0.878 ppbv
RT: 31.936 min Scan# 5665
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:104 Resp: 6372

Ion	Ratio	Lower	Upper
104	100		
78	45.9	36.6	54.8
103	0.0	0.0	0.0

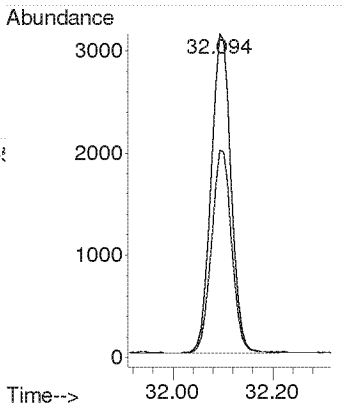


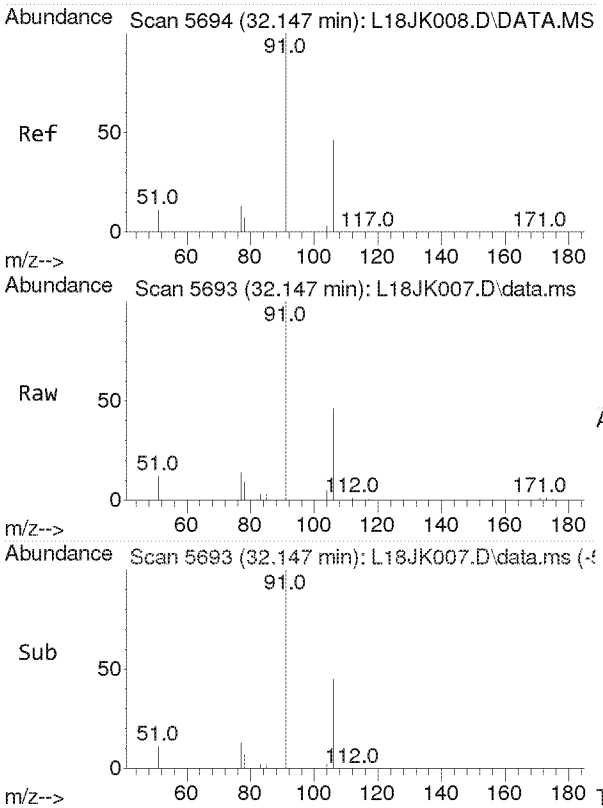


#54
1,1,2,2-Tetrachloroethane
Concen: 0.937 ppbv
RT: 32.094 min Scan# 5686
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 83 Resp: 8611

Ion	Ratio	Lower	Upper
83	100		
85	64.0	51.4	77.2

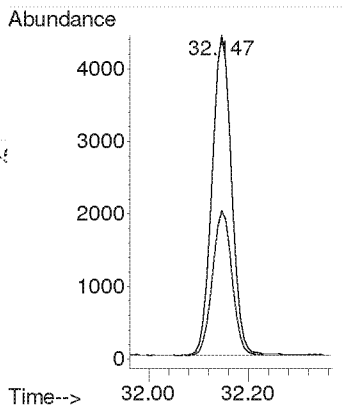


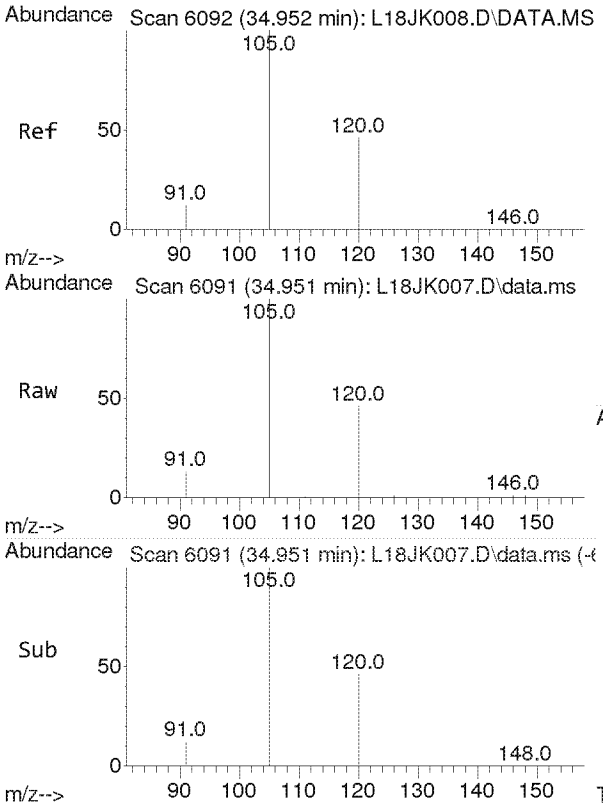


#55
o-Xylene
Concen: 0.914 ppbv
RT: 32.147 min Scan# 5693
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion: 91 Resp: 11900

Ion	Ratio	Lower	Upper
91	100		
106	45.4	36.4	54.6

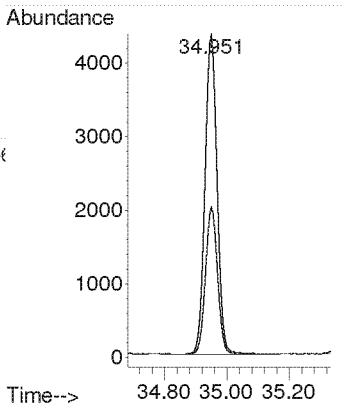


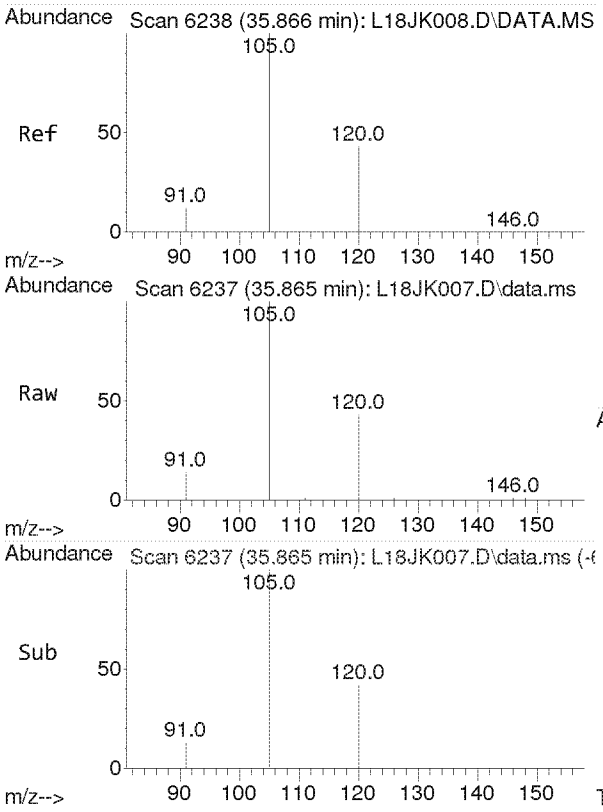


#56
1,3,5-Trimethylbenzene
Concen: 0.887 ppbv
RT: 34.951 min Scan# 6091
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:105 Resp: 11820

Ion	Ratio	Lower	Upper
105	100		
120	45.9	36.5	54.7

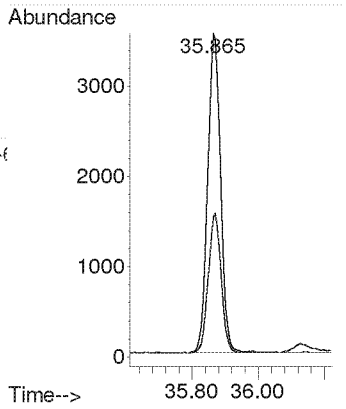


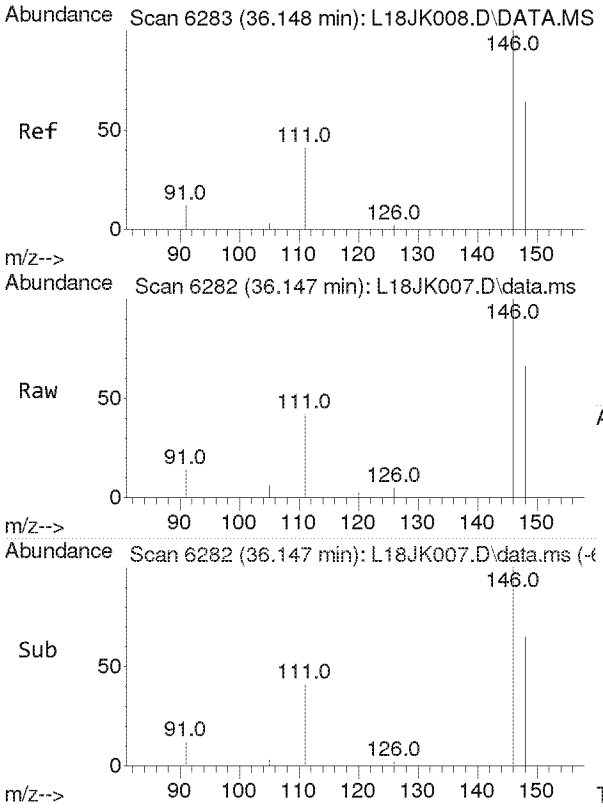


#57
1,2,4-Trimethylbenzene
Concen: 0.869 ppbv
RT: 35.865 min Scan# 6237
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:105 Resp: 9659

Ion	Ratio	Lower	Upper
105	100		
120	43.5	34.7	52.1

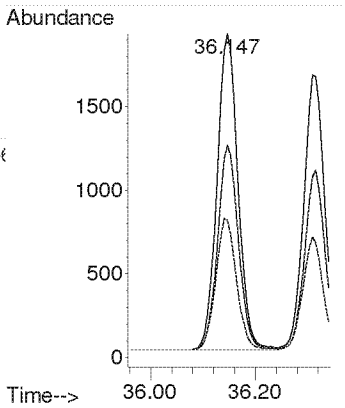


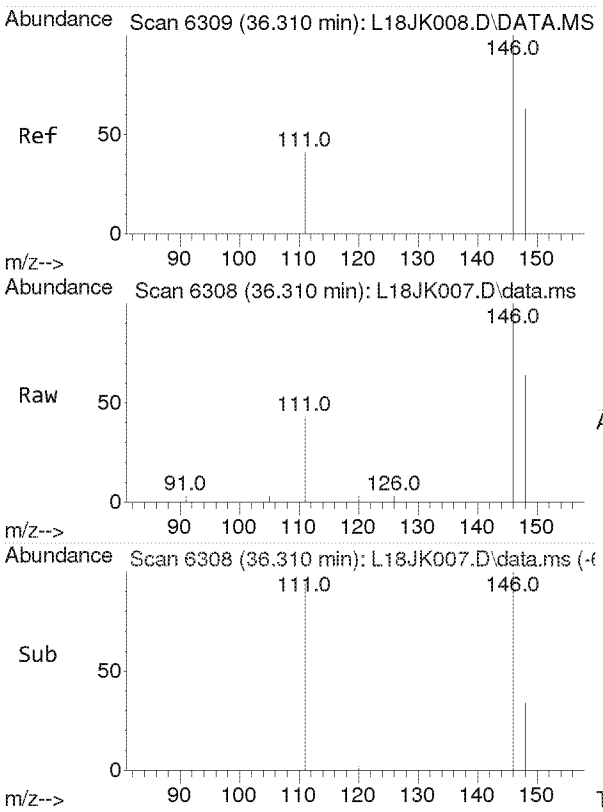


#58
m-Dichlorobenzene
Concen: 0.858 ppbv
RT: 36.147 min Scan# 6282
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:146 Resp: 5276

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	41.3	32.9	49.3

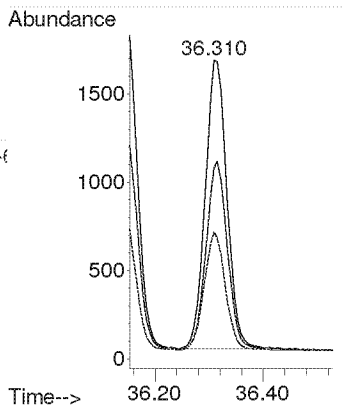


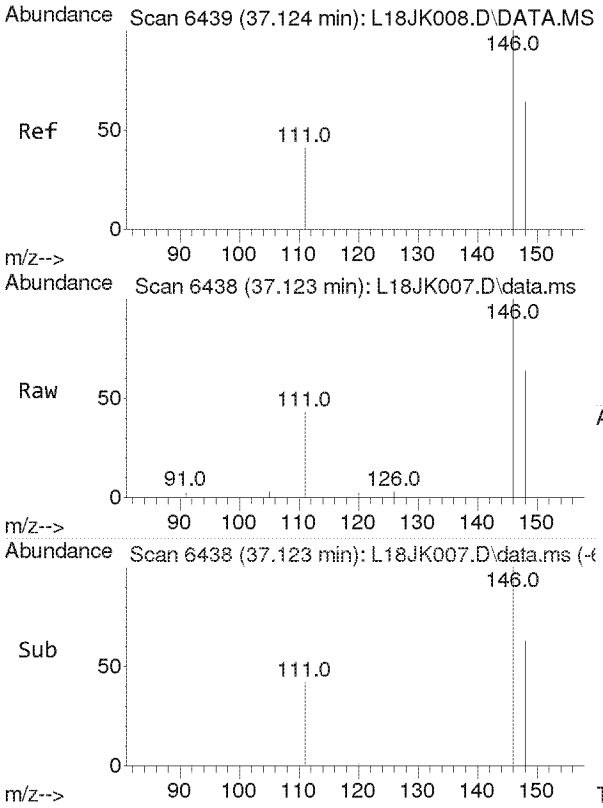


#59
p-Dichlorobenzene
Concen: 0.891 ppbv
RT: 36.310 min Scan# 6308
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:146 Resp: 4503

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.2	76.8
111	40.3	31.8	47.8

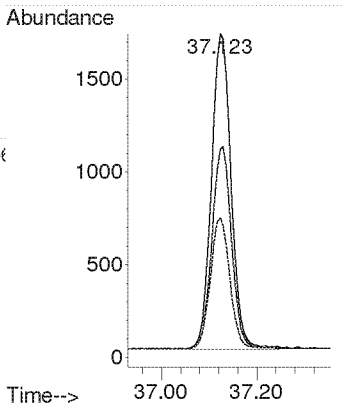


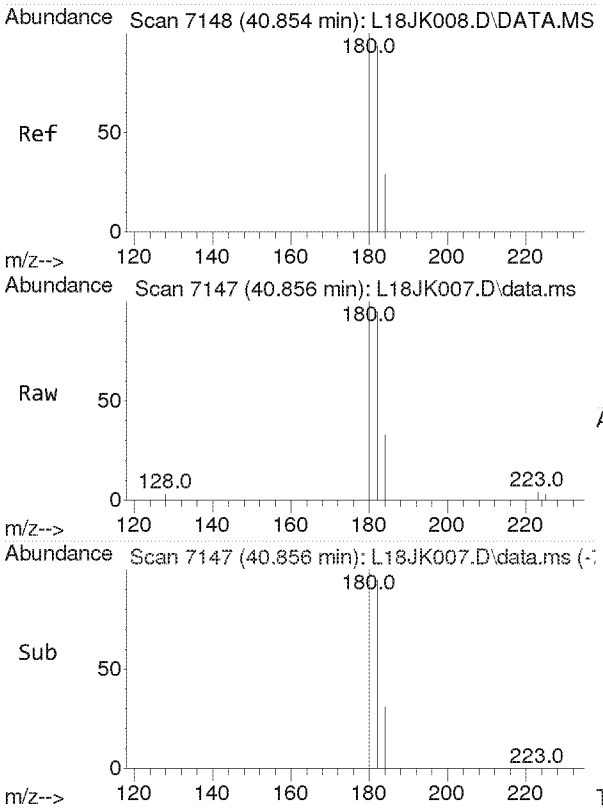


#60
o-Dichlorobenzene
Concen: 0.881 ppbv
RT: 37.123 min Scan# 6438
Delta R.T. -0.001 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:146 Resp: 4823

Ion	Ratio	Lower	Upper
146	100		
148	64.4	51.1	76.7
111	41.8	33.4	50.2

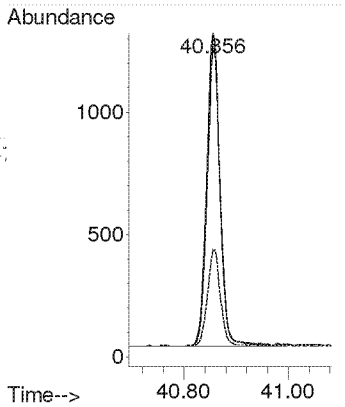


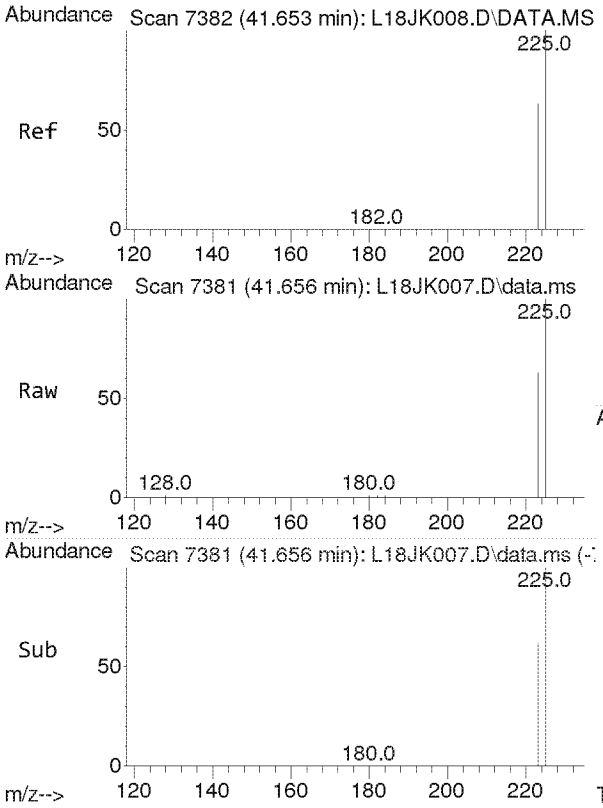


#61
1,2,4-Trichlorobenzene
Concen: 0.907 ppbv
RT: 40.856 min Scan# 7147
Delta R.T. 0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:180 Resp: 2255

Ion	Ratio	Lower	Upper
180	100		
182	94.6	76.5	114.7
184	29.9	24.4	36.6

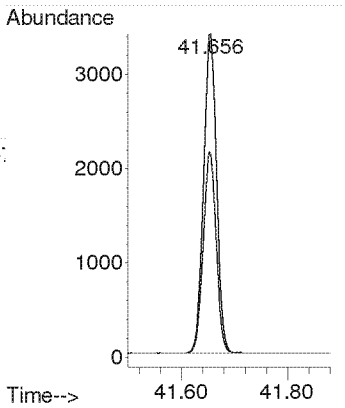




#62
Hexachloro-1,3-butadiene
Concen: 0.951 ppbv
RT: 41.656 min Scan# 7381
Delta R.T. 0.002 min
Lab File: L18JK007.D
Acq: 11 Oct 2018 11:36 pm

Tgt Ion:225 Resp: 5743

Ion	Ratio	Lower	Upper
225	100		
223	62.9	50.2	75.4



Analytical Standard Record

Eastern Research Group

8J11004

Description:	2.50 ppbv ICal	Expires:	11/10/18
Standard Type:	Calibration Stan	Prepared:	10/11/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	10/11/18 16:30 by MH

canister# 3238

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.00256	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.00252	ppmv
1,1,2-Trichloroethane	79-00-5	0.00254	ppmv
1,1-Dichloroethane	75-34-3	0.00258	ppmv
1,1-Dichloroethene	75-35-4	0.00272	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.00235	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.00242	ppmv
1,2-Dibromoethane	106-93-4	0.00258	ppmv
1,2-Dichloroethane	107-06-2	0.00258	ppmv
1,2-Dichloropropane	78-87-5	0.00252	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.00244	ppmv
1,3-Butadiene	106-99-0	0.00246	ppmv
Acetonitrile	75-05-8	0.0023	ppmv
Acetylene	74-86-2	0.00228	ppmv
Acrolein	107-02-8	0.00204	ppmv
Acrylonitrile	107-13-1	0.00238	ppmv
Benzene	71-43-2	0.00257	ppmv
Bromochloromethane	74-97-5	0.00254	ppmv
Bromodichloromethane	75-27-4	0.0024	ppmv
Bromoform	75-25-2	0.00242	ppmv
Bromomethane	74-83-9	0.00254	ppmv
Carbon Disulfide	75-15-0	0.00252	ppmv
Carbon Tetrachloride	56-23-5	0.0028	ppmv
Chlorobenzene	108-90-7	0.00257	ppmv
Chloroethane	75-00-3	0.0025	ppmv
Chloroform	67-66-3	0.00254	ppmv
Chloromethane	74-87-3	0.0025	ppmv
Chloroprene	126-99-8	0.0026	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.00256	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.00252	ppmv

Reviewed By 10-31-18 Date

Analytical Standard Record

Eastern Research Group

8J11004

Dibromochloromethane	124-48-1	0.00237	ppmv
Dichlorodifluoromethane	75-71-8	0.00245	ppmv
Dichloromethane	75-09-2	0.00271	ppmv
Dichlorotetrafluoroethane	76-14-2	0.00276	ppmv
Ethyl Acrylate	140-88-5	0.0025	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.00237	ppmv
Ethylbenzene	100-41-4	0.00254	ppmv
Ethylene oxide	75-21-8	0.00255	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.00238	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.00485	ppmv
m-Dichlorobenzene	541-73-1	0.00234	ppmv
Methyl Isobutyl Ketone	108-10-1	0.00234	ppmv
Methyl Methacrylate	80-62-6	0.0024	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.00242	ppmv
n-Octane	111-65-9	0.00258	ppmv
o-Dichlorobenzene	95-50-1	0.00239	ppmv
o-Xylene	95-47-6	0.00252	ppmv
p-Dichlorobenzene	106-46-7	0.00246	ppmv
Propylene	115-07-1	0.00243	ppmv
Styrene	100-42-5	0.00246	ppmv
tert-Amyl Methyl Ether	994-05-8	0.00242	ppmv
Tetrachloroethylene	127-18-4	0.00255	ppmv
Toluene	108-88-3	0.00258	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.00251	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.00254	ppmv
Trichloroethylene	79-01-6	0.0024	ppmv
Trichlorofluoromethane	75-69-4	0.00236	ppmv
Trichlorotrifluoroethane	76-13-1	0.00259	ppmv
Vinyl chloride	75-01-4	0.00258	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
7J25026	TO-15 Primary Stock Standard	10/17/17	** Vendor **	10/17/18	10/25/17 10:58 by MH	30
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	15

Reviewed By 10-31-17 Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK008.D
Acq On : 12 Oct 2018 12:39 am
Operator : MAH
Sample : 1810019-CAL4
Misc : 80ML IS 7L07001,8J11004
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 12 09:26:31 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:22:35 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46698	4.8000	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.166	114	112031	5.0200	ppbv	0.00
43) IS-Chlorobenzene-d5	30.129	117	78298	4.7700	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.415	26	10754	2.2787	ppbv	100
3) Propylene	7.839	41	11886	2.4298	ppbv	100
4) Dichlorodifluoromethane	8.694	85	55128	2.4493	ppbv	100
5) Chloromethane	9.755	50	14891	2.4978	ppbv	100
6) Dichlorotetrafluoroethane	10.866	85	54754	2.7601	ppbv	100
7) Vinyl Chloride	11.118	62	16664	2.5782	ppbv	100
8) 1,3-Butadiene	11.785	54	10932	2.4607	ppbv	100
9) Ethylene oxide	12.389	29	7060	3.2629	ppbv #	87
10) Bromomethane	12.591	94	16014	2.5393	ppbv	100
11) Chloroethane	13.276	64	6943	2.5009	ppbv	100
12) Acetonitrile	14.341	41	11595	2.2998	ppbv	100
13) Acrolein	14.620	56	4645	2.0398	ppbv	100
14) Trichlorofluoromethane	15.202	101	45819	2.3599	ppbv	100
15) Acrylonitrile	15.924	53	9089	2.3858	ppbv	100
16) 1,1-Dichloroethene	16.424	61	23563	2.7198	ppbv	100
17) Methylene Chloride	16.738	49	16922	2.7074	ppbv	100
18) Carbon Disulfide	16.936	76	44576	2.5198	ppbv	100
19) Trichlorotrifluoroethane	17.285	101	34635	2.5898	ppbv	100
20) trans-1,2-Dichloroethy...	18.325	96	12113	2.5158	ppbv	100
21) 1,1-Dichloroethane	18.637	63	21737	2.5798	ppbv	100
22) Methyl tert-Butyl Ether	18.792	73	32088	2.4198	ppbv	100
23) Chloroprene	19.548	53	16461	2.6021	ppbv	100
24) cis-1,2-Dichloroethylene	19.960	61	17006	2.5617	ppbv	100
25) Bromochloromethane	20.182	128	9323	2.5398	ppbv	100
26) Chloroform	20.416	83	25216	2.5404	ppbv	100
27) Ethyl tert-Butyl Ether	21.190	59	32304	2.3698	ppbv	100
28) 1,2-Dichloroethane	21.488	62	16004	2.5822	ppbv	100
30) 1,1,1-Trichloroethane	21.881	97	24630	2.5584	ppbv	100
31) Benzene	22.556	78	34983	2.5675	ppbv	100
32) Carbon Tetrachloride	22.789	117	30768	2.7981	ppbv	100
33) tert-Amyl Methyl Ether	23.520	73	27623	2.4185	ppbv	100
34) 1,2-Dichloropropane	23.801	63	13187	2.5185	ppbv	100
35) Ethyl Acrylate	23.891	55	16566	2.4968	ppbv	100
36) Bromodichloromethane	24.091	83	24149	2.3985	ppbv	100
37) Trichloroethylene	24.190	130	14953	2.4003	ppbv	100
38) Methyl Methacrylate	24.553	41	44773	2.3949	ppbv	100
39) cis-1,3-Dichloropropene	25.544	75	12043	2.5185	ppbv	100
40) Methyl Isobutyl Ketone	25.619	43	25385	2.3386	ppbv	100
41) trans-1,3-Dichloropropene	26.378	75	8887	2.5353	ppbv	100
42) 1,1,2-Trichloroethane	26.642	97	11827	2.5376	ppbv	100
44) Toluene	27.108	91	37590	2.5800	ppbv	100
45) Dibromochloromethane	27.762	129	83314	2.3700	ppbv	100
46) 1,2-Dibromoethane	28.169	107	15731	2.5800	ppbv	100
47) n-Octane	28.888	43	23561	2.5800	ppbv	100
48) Tetrachloroethylene	29.020	166	18303	2.5494	ppbv	100
49) Chlorobenzene	30.205	112	24744	2.5700	ppbv	100
50) Ethylbenzene	30.928	91	39015	2.5400	ppbv	100

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Misc : 80ML IS 7L07001,8J11004
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 12 09:26:31 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:22:35 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	31.289	91	64586	4.8500	ppbv	100
52) Bromoform	31.304	173	16718	2.4200	ppbv	100
53) Styrene	31.936	104	17635	2.4576	ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.095	83	22864	2.5200	ppbv	100
55) o-Xylene	32.147	91	32401	2.5183	ppbv	100
56) 1,3,5-Trimethylbenzene	34.952	105	32102	2.4400	ppbv	100
57) 1,2,4-Trimethylbenzene	35.866	105	26557	2.4200	ppbv	100
58) m-Dichlorobenzene	36.148	146	14206	2.3400	ppbv	100
59) p-Dichlorobenzene	36.310	146	12277	2.4600	ppbv	100
60) o-Dichlorobenzene	37.124	146	12918	2.3889	ppbv	100
61) 1,2,4-Trichlorobenzene	40.854	180	5767	2.3492	ppbv	100
62) Hexachloro-1,3-butadiene	41.653	225	14190	2.3800	ppbv	100

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

ED_002475_00000113-00152

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK008.D
Acq On : 12 Oct 2018 12:39 am
Operator : MAH
Sample : 1810019-CAL4
Misc : 80ML IS 7L07001,8J11004
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 12 09:26:31 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
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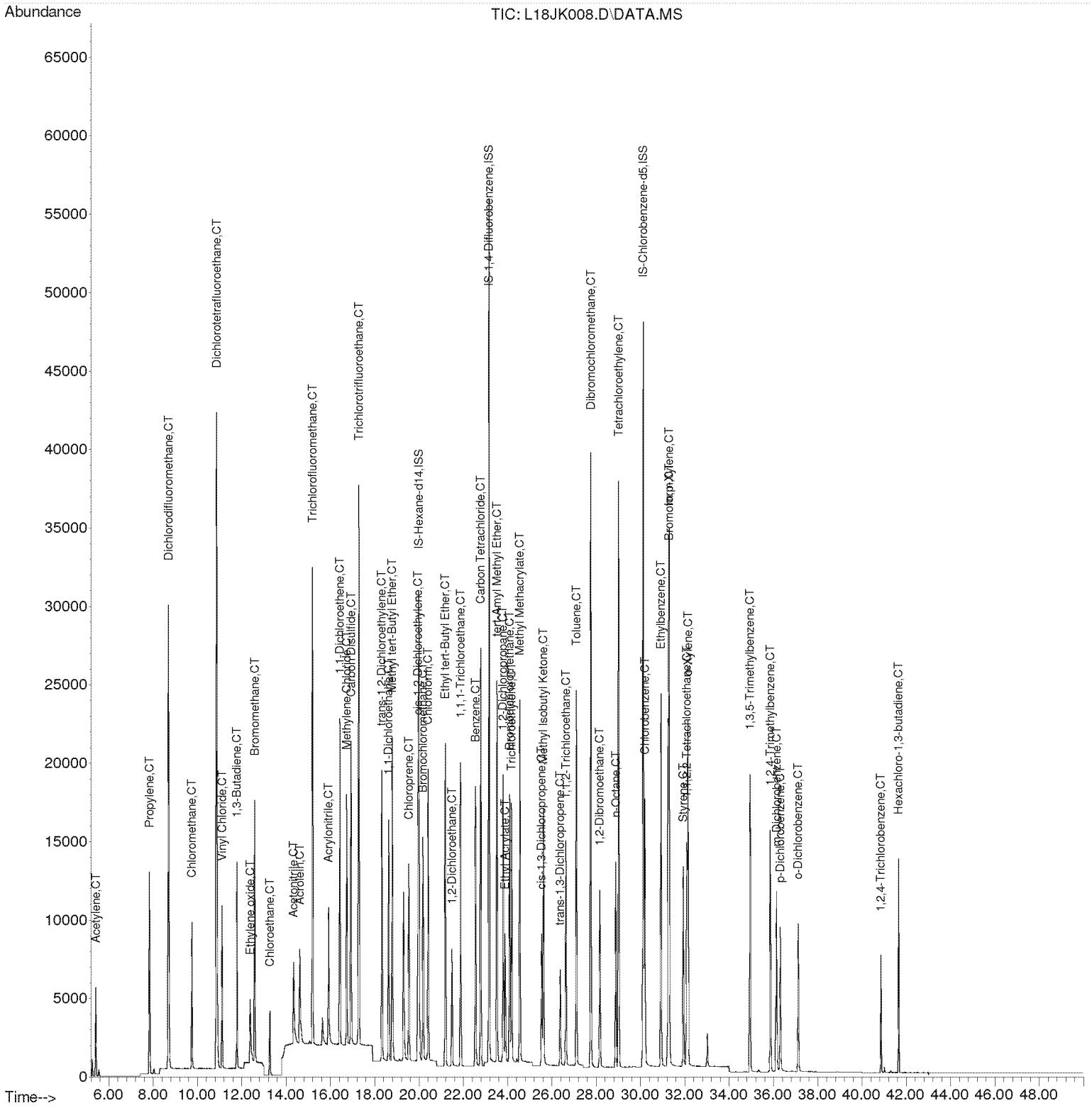
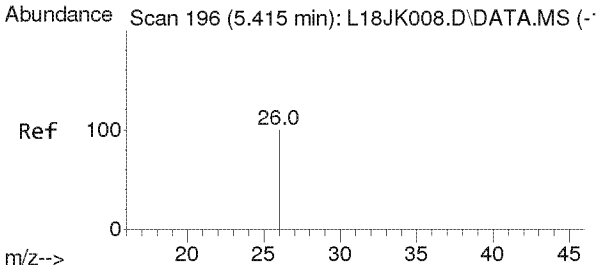
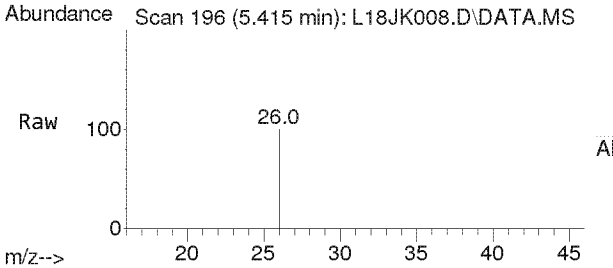
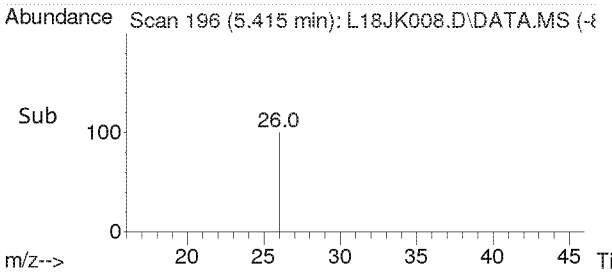


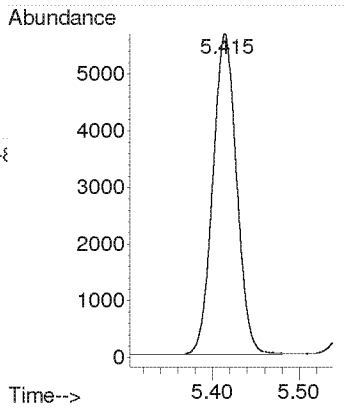


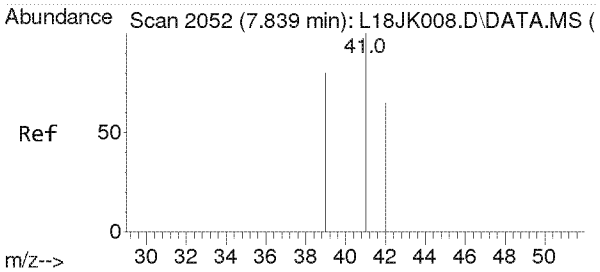
#2
Acetylene
Concen: 2.279 ppbv
RT: 5.415 min Scan# 196
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 26 Resp: 10754





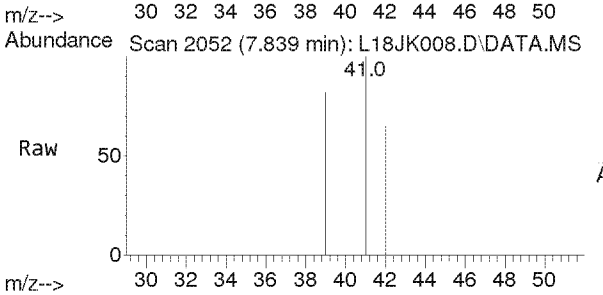


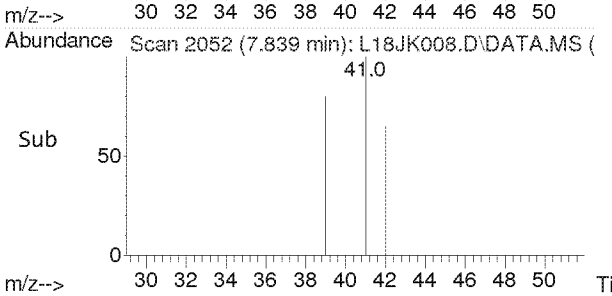


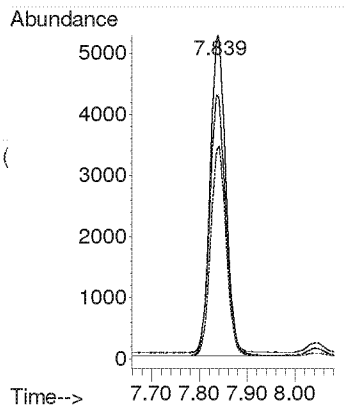
#3
Propylene
Concen: 2.430 ppbv
RT: 7.839 min Scan# 2052
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

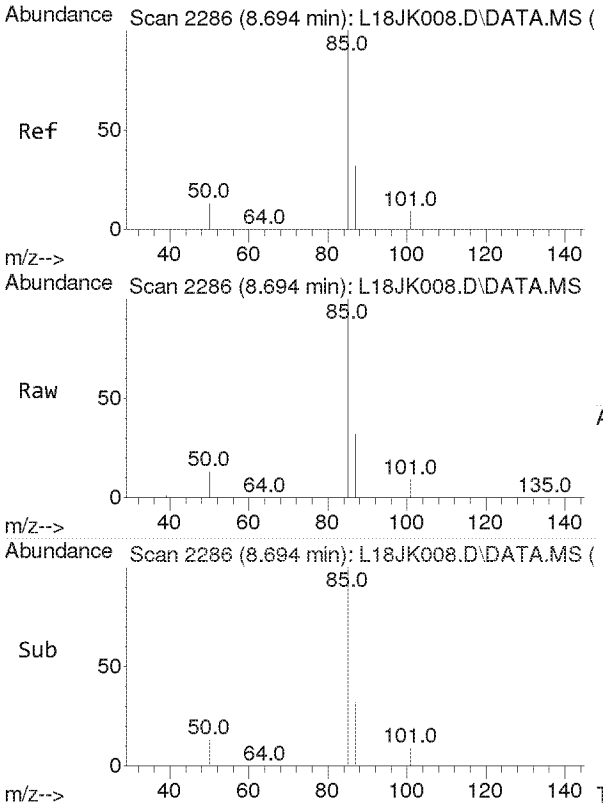
Tgt Ion: 41 Resp: 11886

Ion	Ratio	Lower	Upper
41	100		
39	81.2	65.0	97.4
42	65.4	52.3	78.5





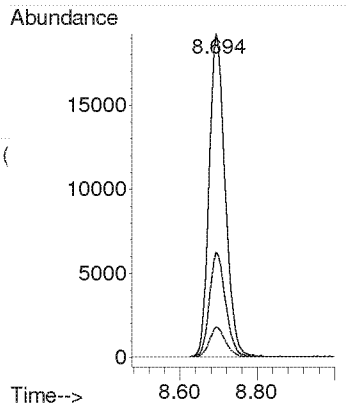


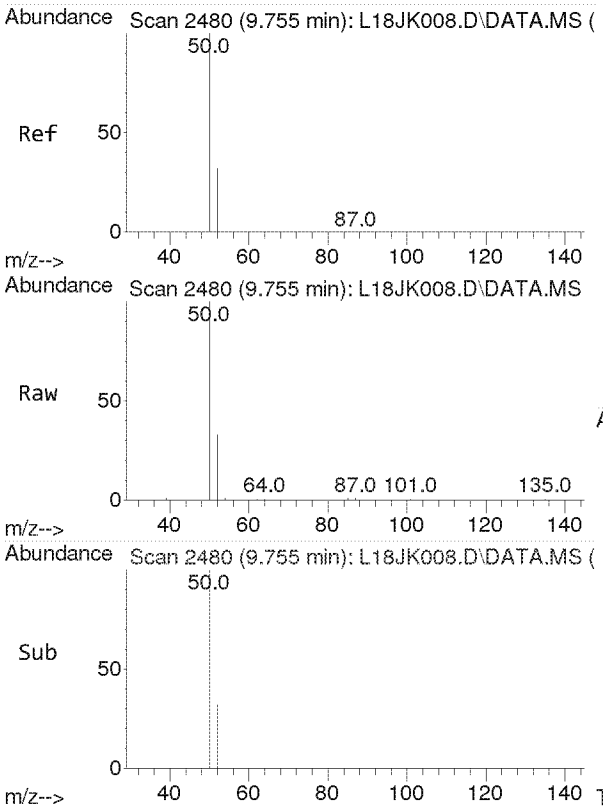


#4
Dichlorodifluoromethane
Concen: 2.449 ppbv
RT: 8.694 min Scan# 2286
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 85 Resp: 55128

Ion	Ratio	Lower	Upper
85	100		
87	32.3	25.8	38.8
101	9.0	7.2	10.8

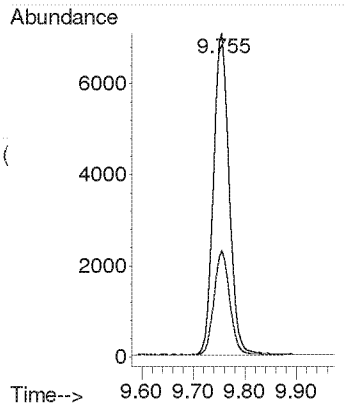


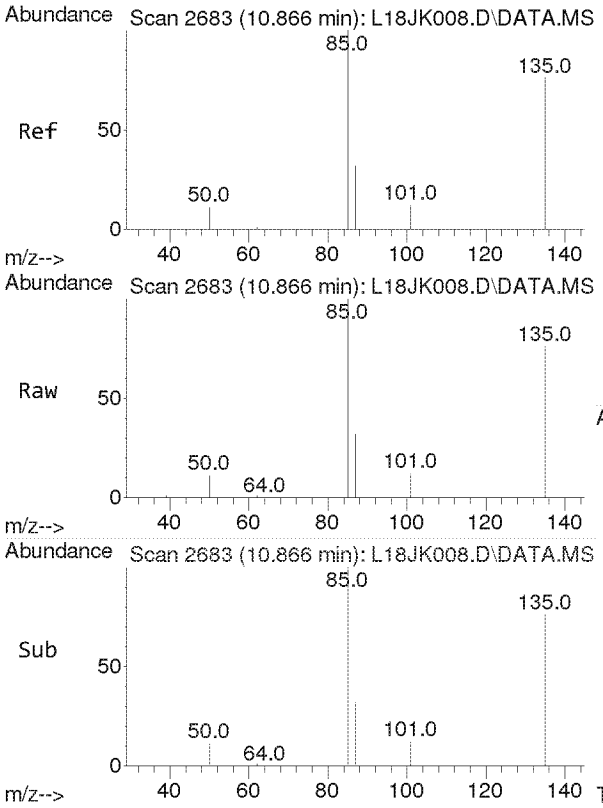


#5
Chloromethane
Concen: 2.498 ppbv
RT: 9.755 min Scan# 2480
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 50 Resp: 14891

Ion	Ratio	Lower	Upper
50	100		
52	32.2	25.8	38.6

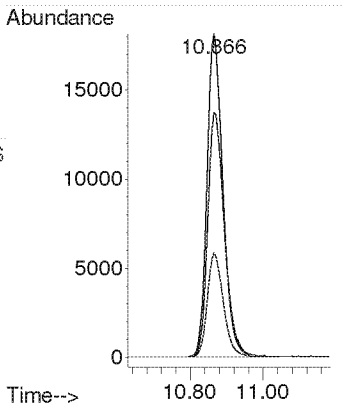


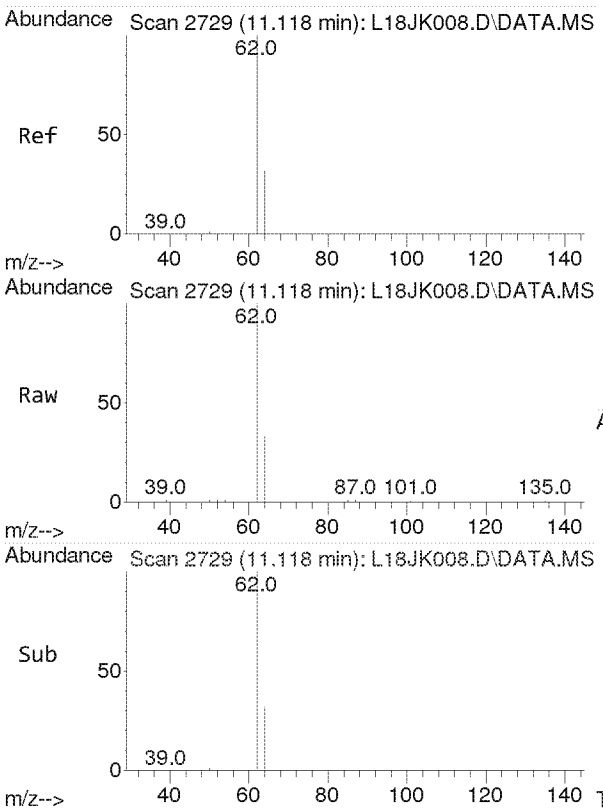


#6
Dichlorotetrafluoroethane
Concen: 2.760 ppbv
RT: 10.866 min Scan# 2683
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 85 Resp: 54754

Ion	Ratio	Lower	Upper
85	100		
135	79.6	63.7	95.5
87	32.1	25.7	38.5

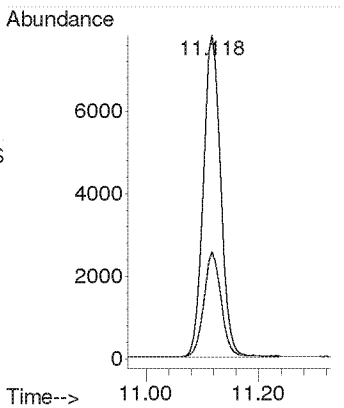


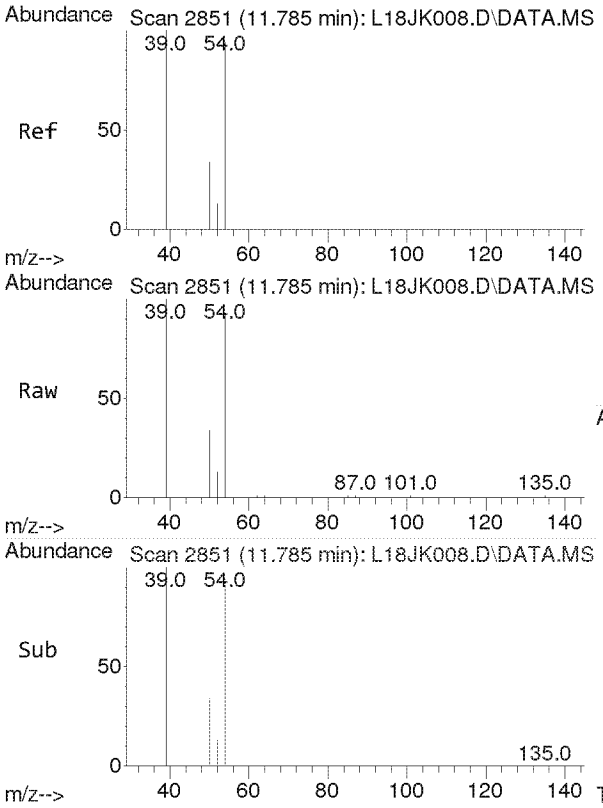


#7
Vinyl Chloride
Concen: 2.578 ppbv
RT: 11.118 min Scan# 2729
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 62 Resp: 16664

Ion	Ratio	Lower	Upper
62	100		
64	32.0	25.6	38.4

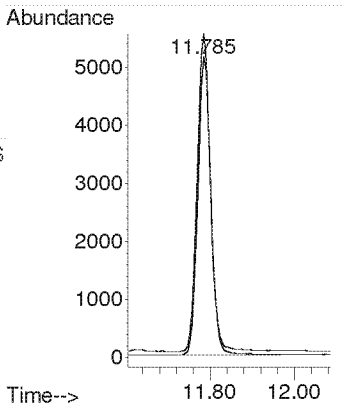


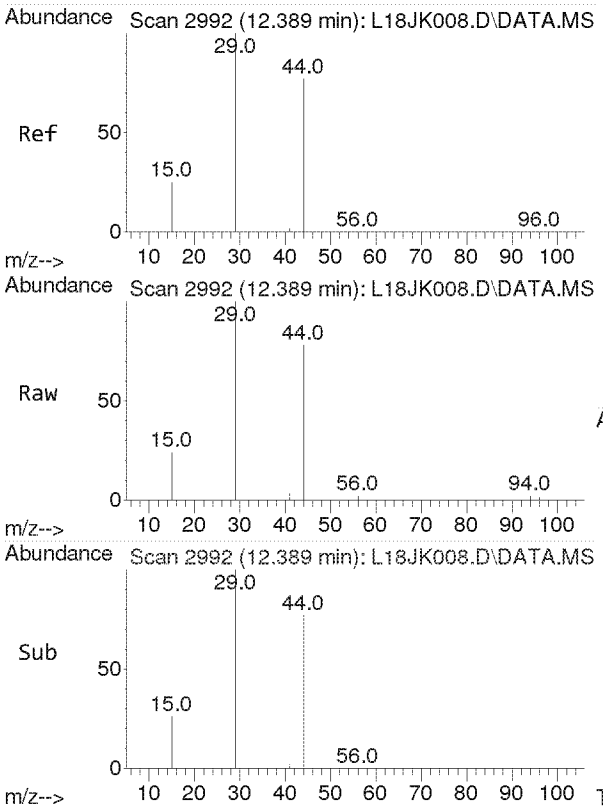


#8
1,3-Butadiene
Concen: 2.461 ppbv
RT: 11.785 min Scan# 2851
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 54 Resp: 10932

Ion	Ratio	Lower	Upper
54	100		
39	108.7	87.0	130.4

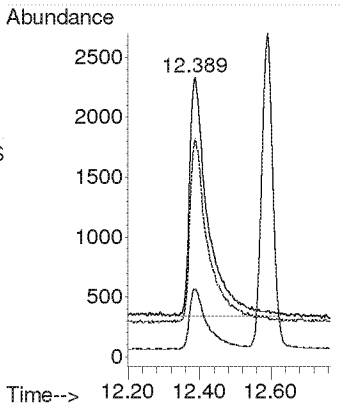


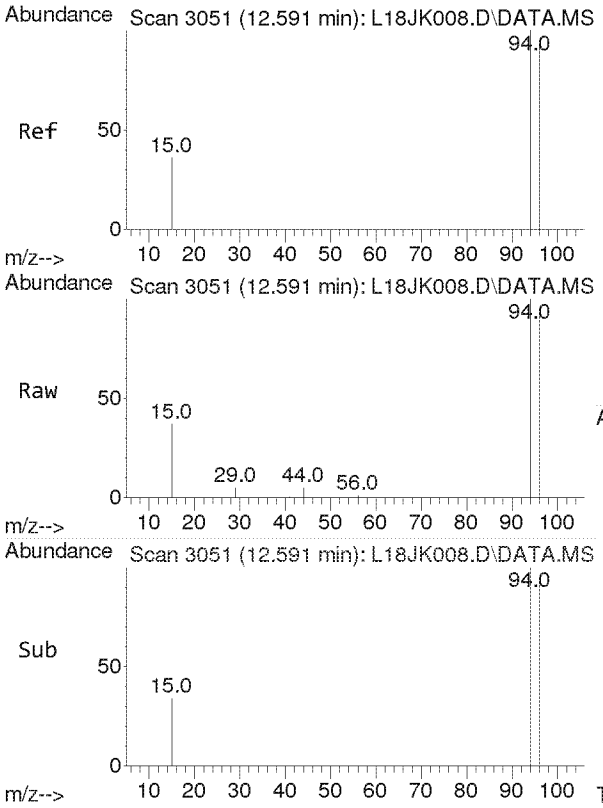


#9
Ethylene oxide
Concen: 3.263 ppbv
RT: 12.389 min Scan# 2992
Delta R.T. -0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 29 Resp: 7060

Ion	Ratio	Lower	Upper
29	100		
15	25.1	25.7	38.5#
44	78.2	0.0	0.0#

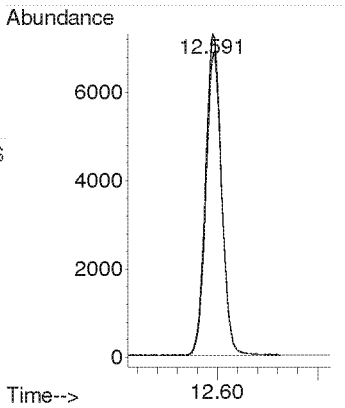


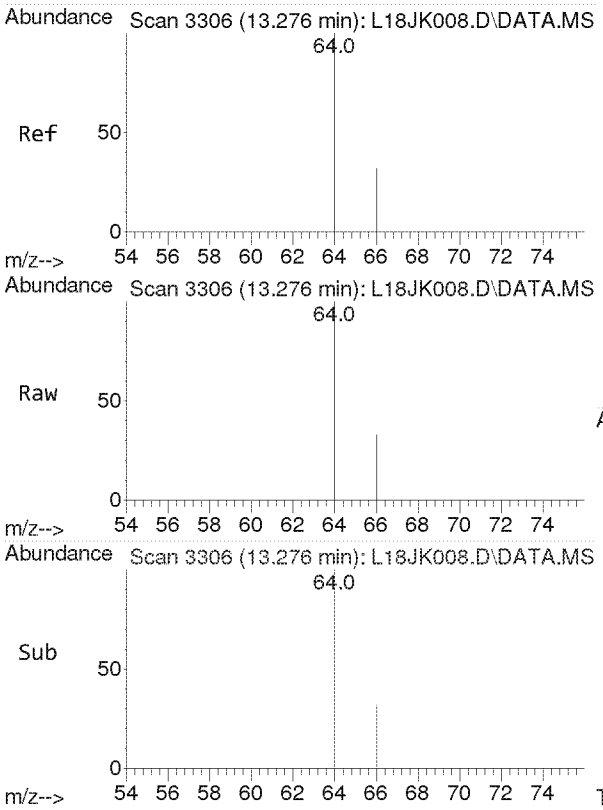


#10
Bromomethane
Concen: 2.539 ppbv
RT: 12.591 min Scan# 3051
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 94 Resp: 16014

Ion	Ratio	Lower	Upper
94	100		
96	94.4	75.5	113.3

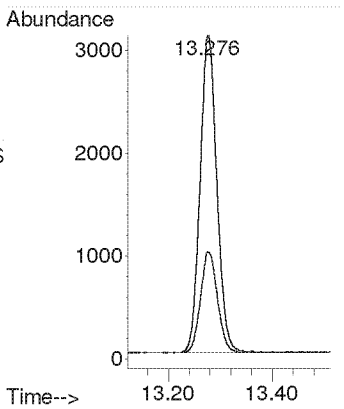


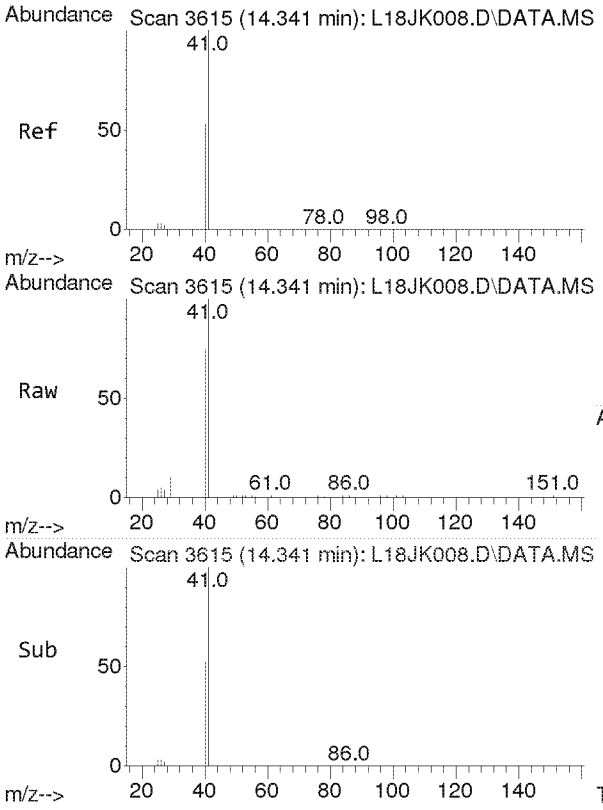


#11
Chloroethane
Concen: 2.501 ppbv
RT: 13.276 min Scan# 3306
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 64 Resp: 6943

Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.8	38.6

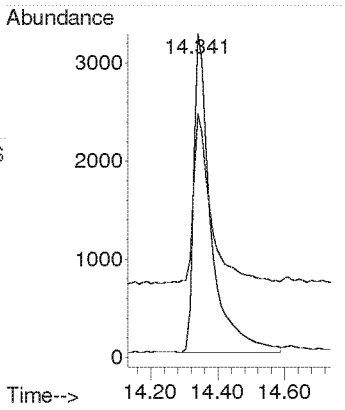


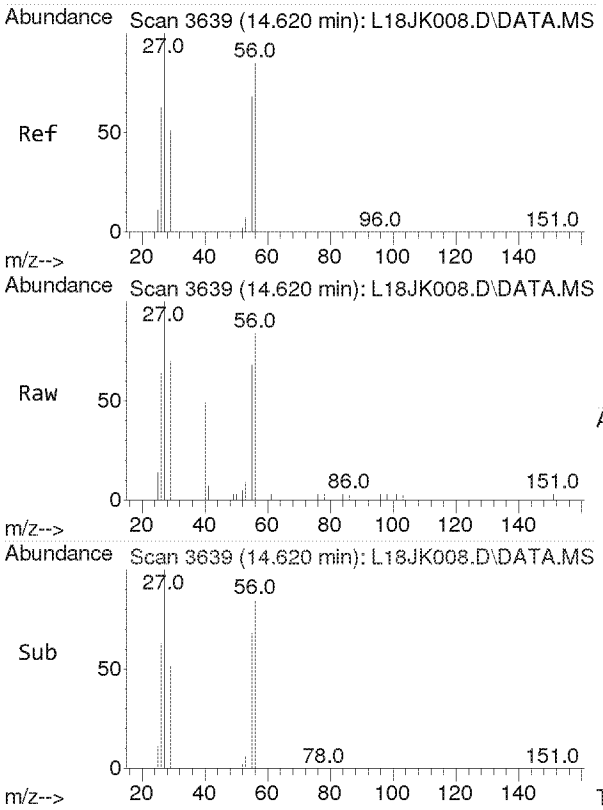


#12
Acetonitrile
Concen: 2.300 ppbv
RT: 14.341 min Scan# 3615
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 41 Resp: 11595

Ion	Ratio	Lower	Upper
41	100		
40	53.9	43.1	64.7

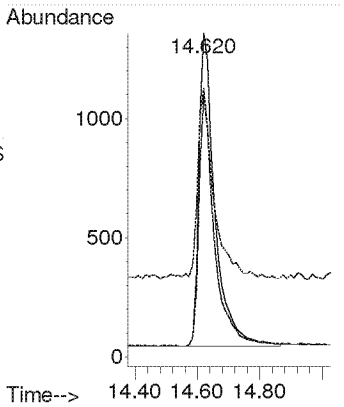


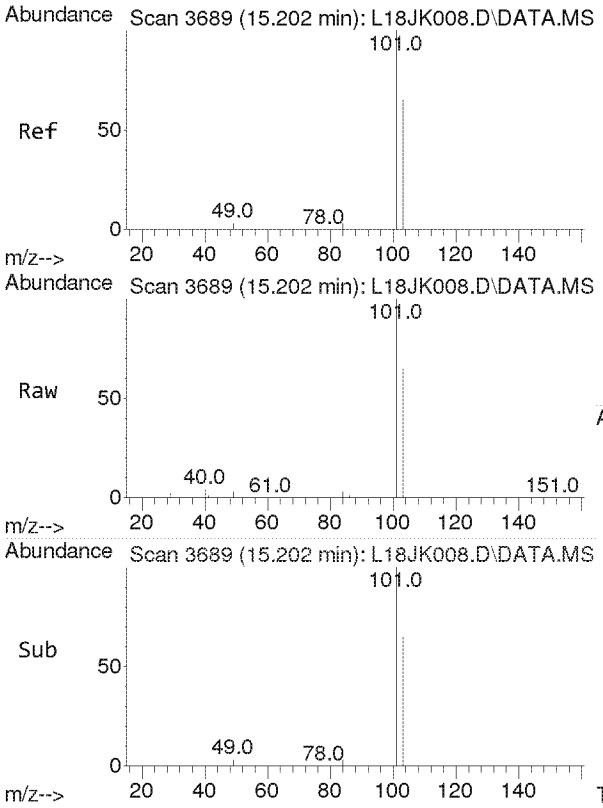


#13
Acrolein
Concen: 2.040 ppbv
RT: 14.620 min Scan# 3639
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 56 Resp: 4645

Ion	Ratio	Lower	Upper
56	100		
55	77.4	61.8	92.8
29	61.5	49.1	73.7

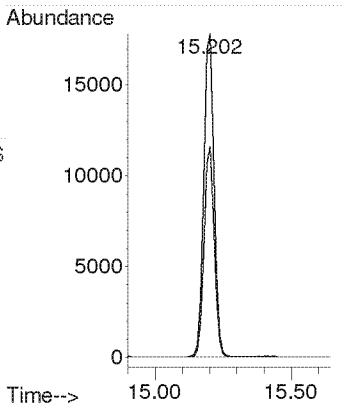


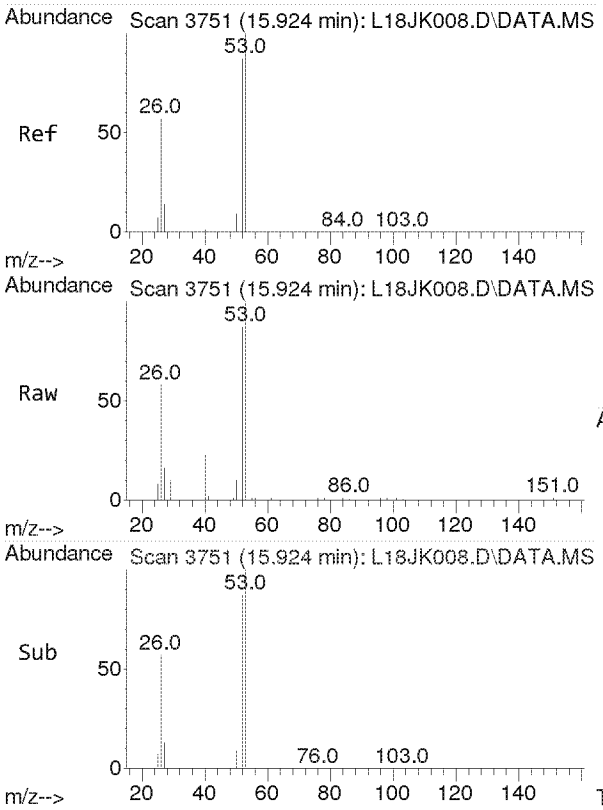


#14
Trichlorofluoromethane
Concen: 2.360 ppbv
RT: 15.202 min Scan# 3689
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:101 Resp: 45819

Ion	Ratio	Lower	Upper
101	100		
103	64.7	51.8	77.6

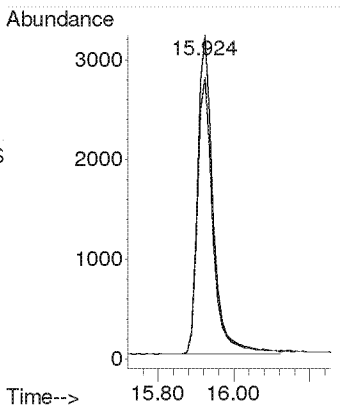


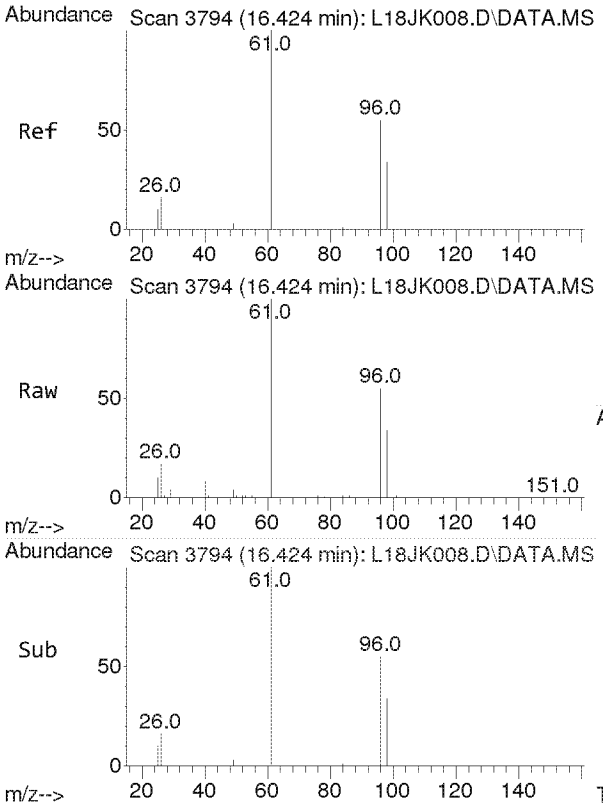


#15
Acrylonitrile
Concen: 2.386 ppbv
RT: 15.924 min Scan# 3751
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 53 Resp: 9089

Ion	Ratio	Lower	Upper
53	100		
52	87.1	69.5	104.3

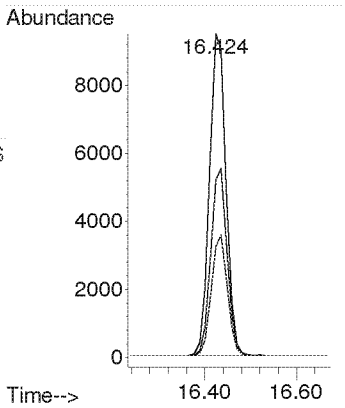


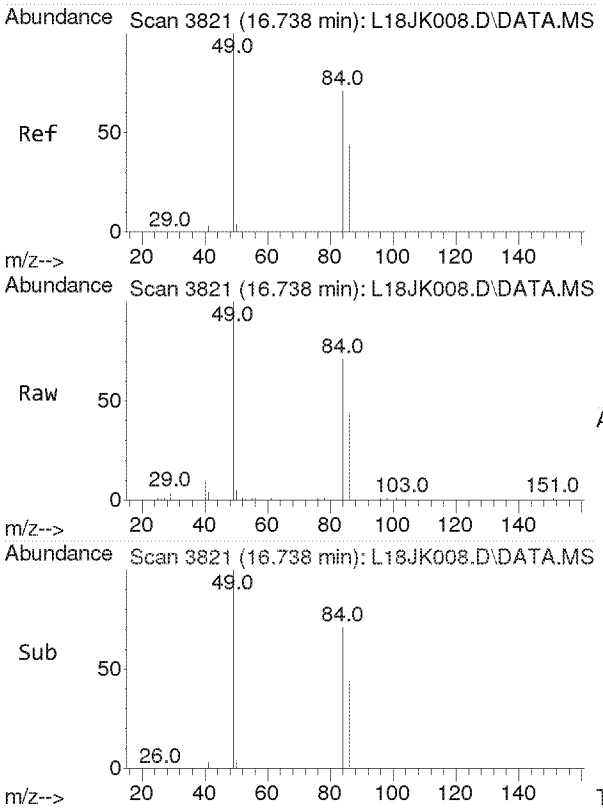


#16
1,1-Dichloroethene
Concen: 2.720 ppbv
RT: 16.424 min Scan# 3794
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 61 Resp: 23563

Ion	Ratio	Lower	Upper
61	100		
96	57.6	46.1	69.1
98	36.8	29.4	44.2

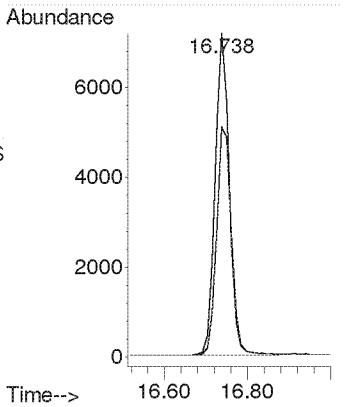


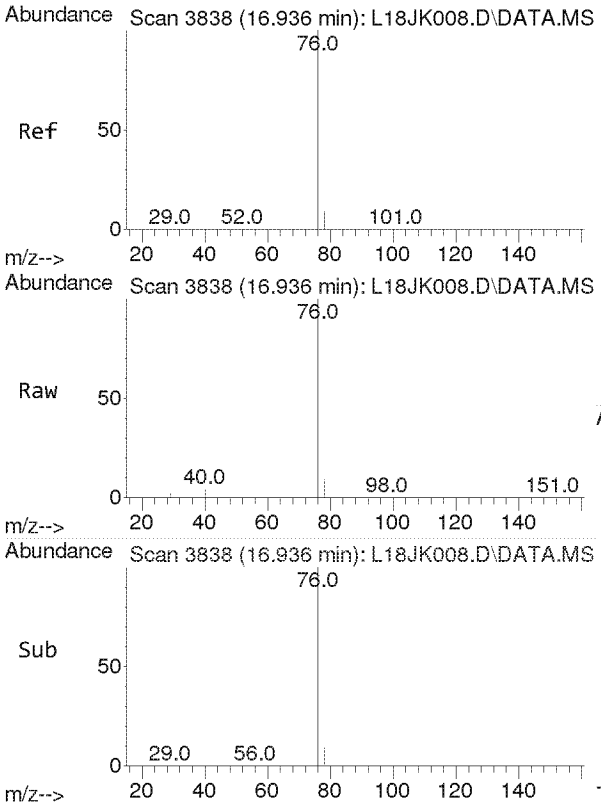


#17
Methylene Chloride
Concen: 2.707 ppbv
RT: 16.738 min Scan# 3821
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 49 Resp: 16922

Ion	Ratio	Lower	Upper
49	100		
84	74.2	51.9	96.5

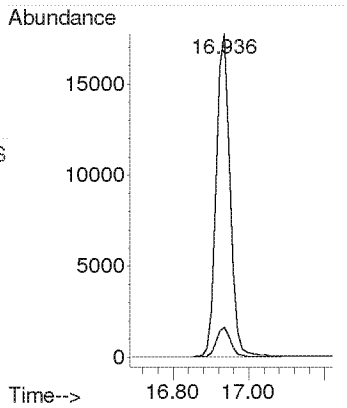


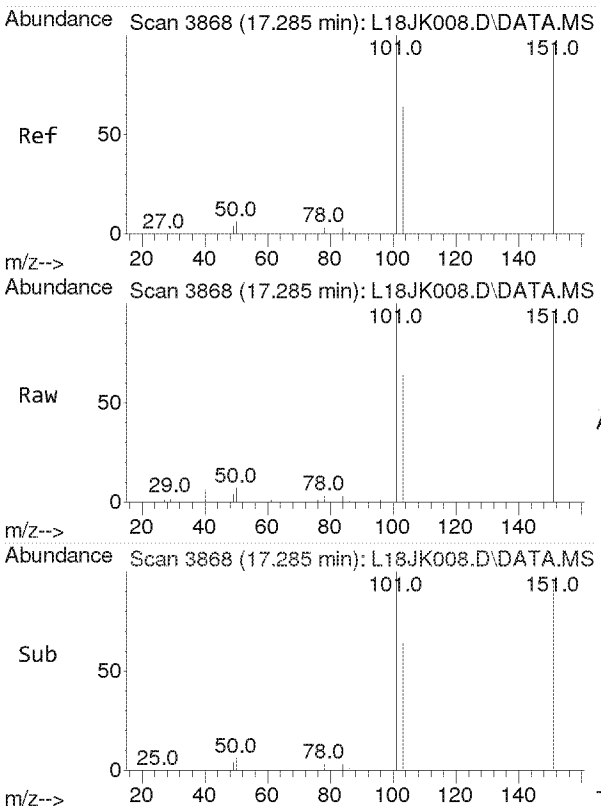


#18
Carbon Disulfide
Concen: 2.520 ppbv
RT: 16.936 min Scan# 3838
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 76 Resp: 44576

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.3	10.9

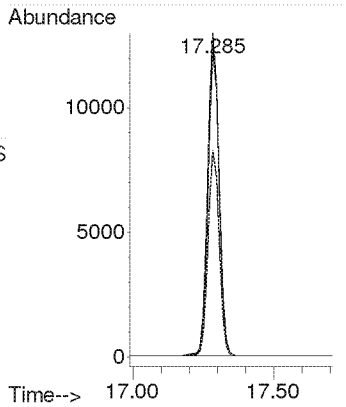


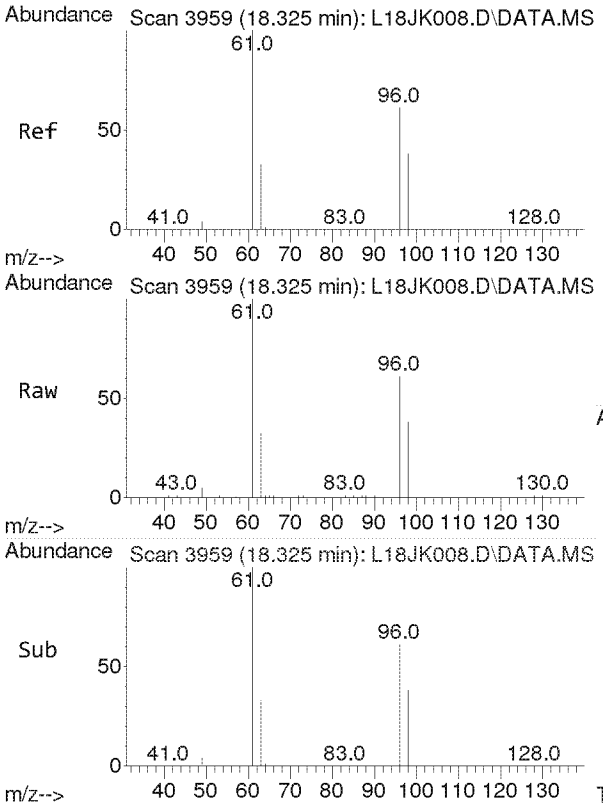


#19
Trichlorotrifluoroethane
Concen: 2.590 ppbv
RT: 17.285 min Scan# 3868
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:101 Resp: 34635

Ion	Ratio	Lower	Upper
101	100		
151	96.0	76.8	115.2
103	64.3	51.4	77.2

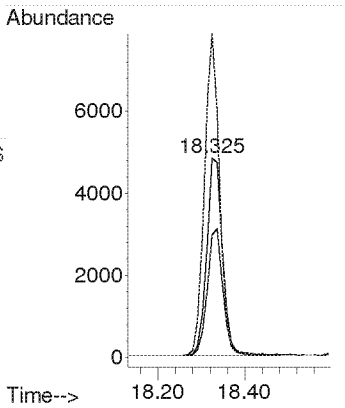


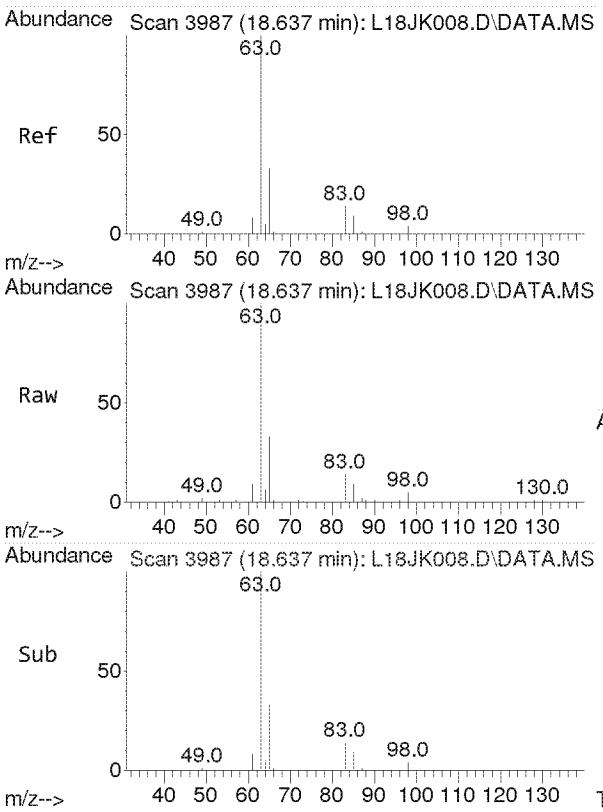


#20
trans-1,2-Dichloroethylene
Concen: 2.516 ppbv
RT: 18.325 min Scan# 3959
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 96 Resp: 12113

Ion	Ratio	Lower	Upper
96	100		
98	63.6	51.0	76.4
61	156.3	125.2	187.8

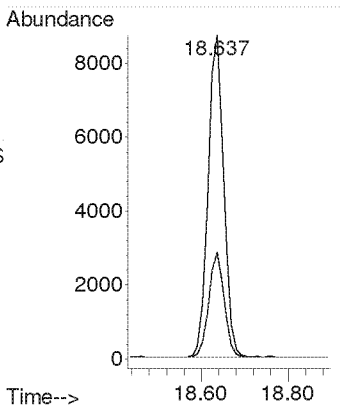


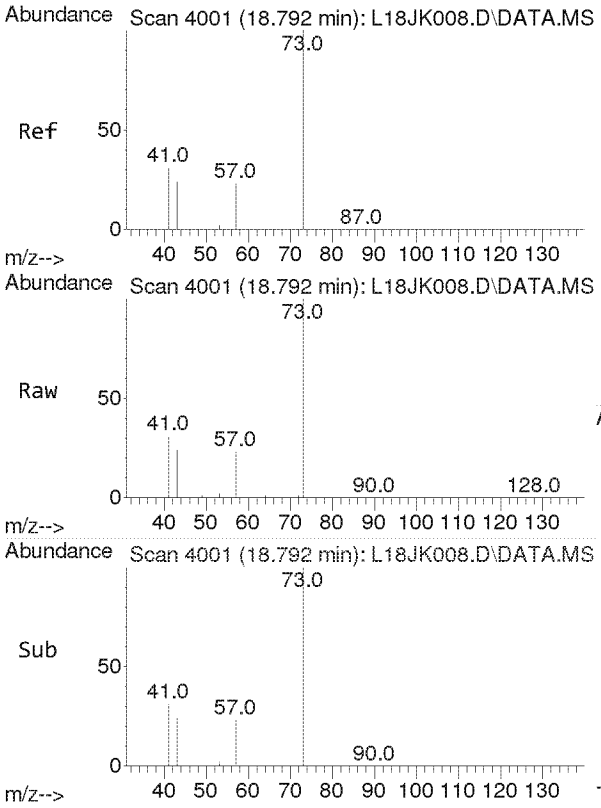


#21
1,1-Dichloroethane
Concen: 2.580 ppbv
RT: 18.637 min Scan# 3987
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 63 Resp: 21737

Ion	Ratio	Lower	Upper
63	100		
65	32.1	25.7	38.5

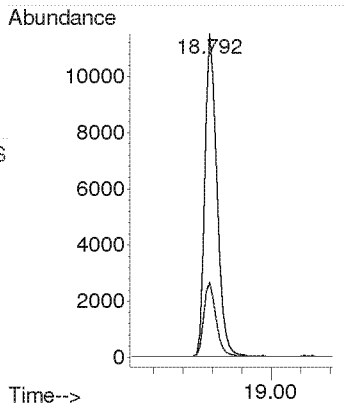


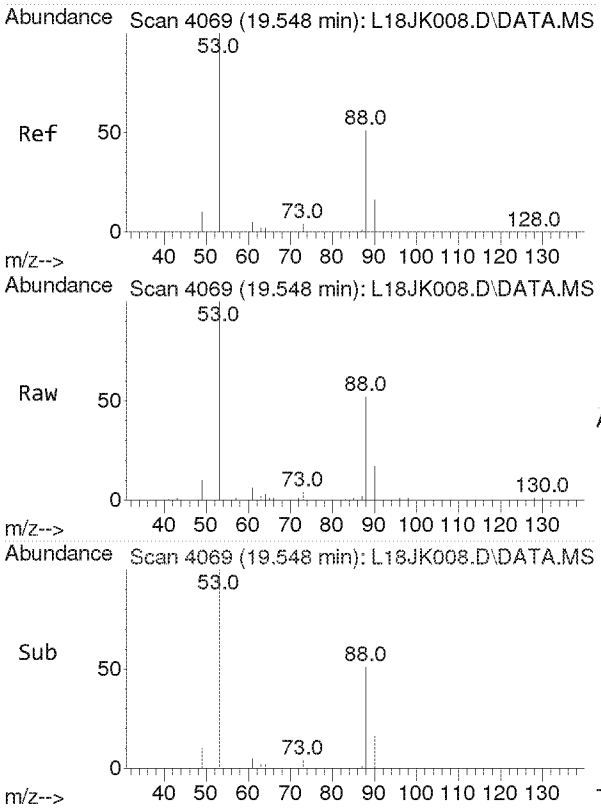


#22
Methyl tert-Butyl Ether
Concen: 2.420 ppbv
RT: 18.792 min Scan# 4001
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 73 Resp: 32088

Ion	Ratio	Lower	Upper
73	100		
57	23.0	18.4	27.6

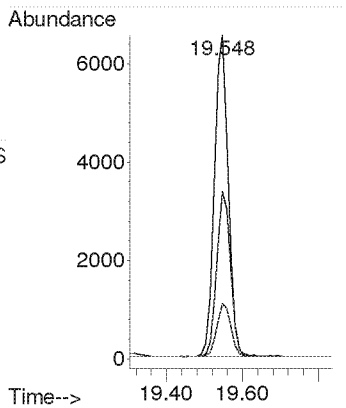


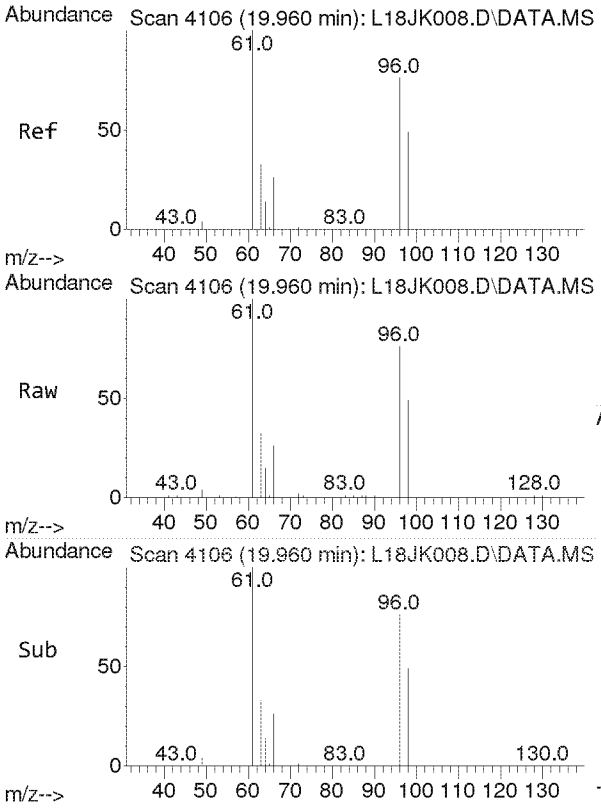


#23
Chloroprene
Concen: 2.602 ppbv
RT: 19.548 min Scan# 4069
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 53 Resp: 16461

Ion	Ratio	Lower	Upper
53	100		
88	51.5	41.2	61.8
90	16.6	13.3	19.9

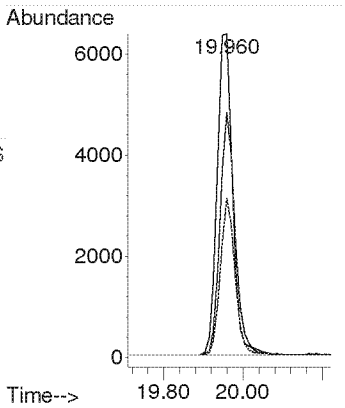


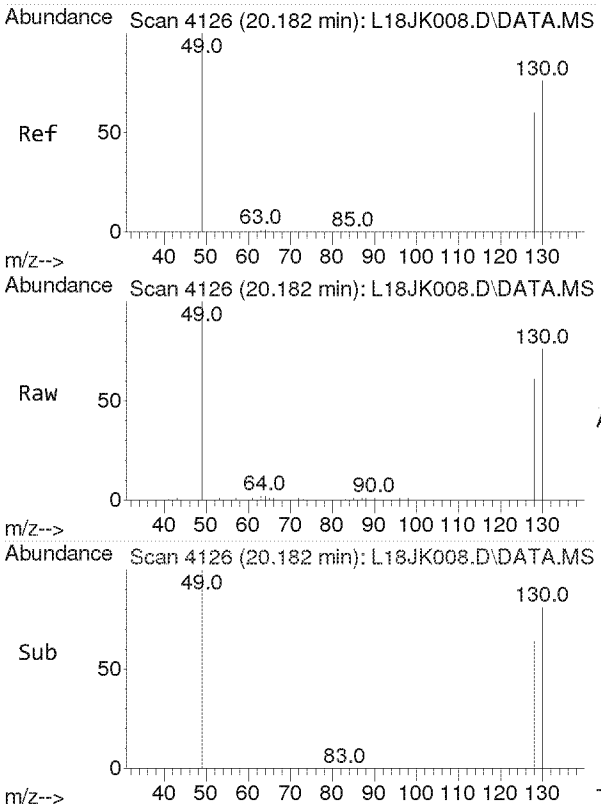


#24
cis-1,2-Dichloroethylene
Concen: 2.562 ppbv
RT: 19.960 min Scan# 4106
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 61 Resp: 17006

Ion	Ratio	Lower	Upper
61	100		
96	73.5	58.7	88.1
98	46.2	37.0	55.4

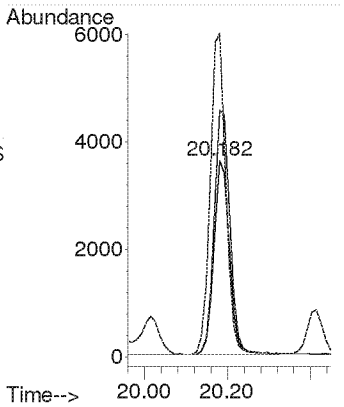


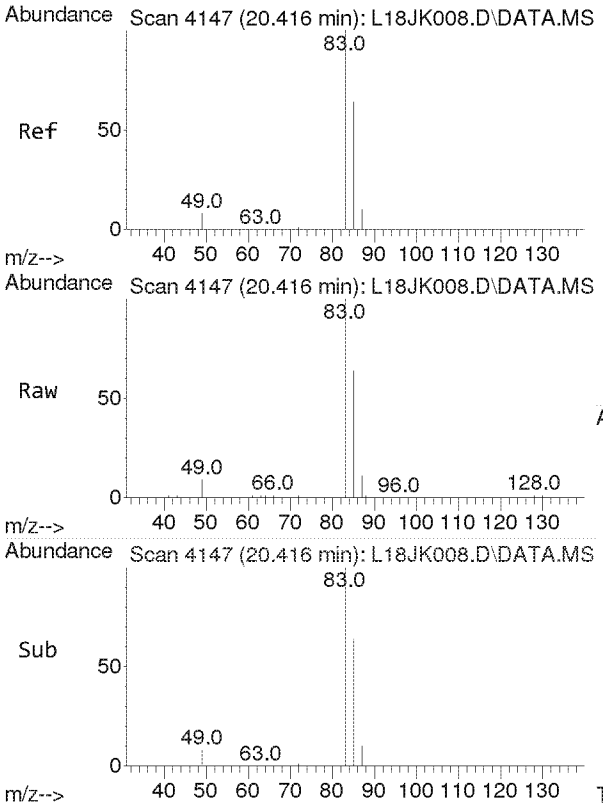


#25
Bromochloromethane
Concen: 2.540 ppbv
RT: 20.182 min Scan# 4126
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:128 Resp: 9323

Ion	Ratio	Lower	Upper
128	100		
130	128.9	103.0	154.6
49	167.9	134.3	201.5

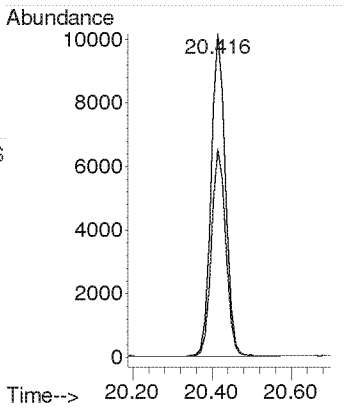


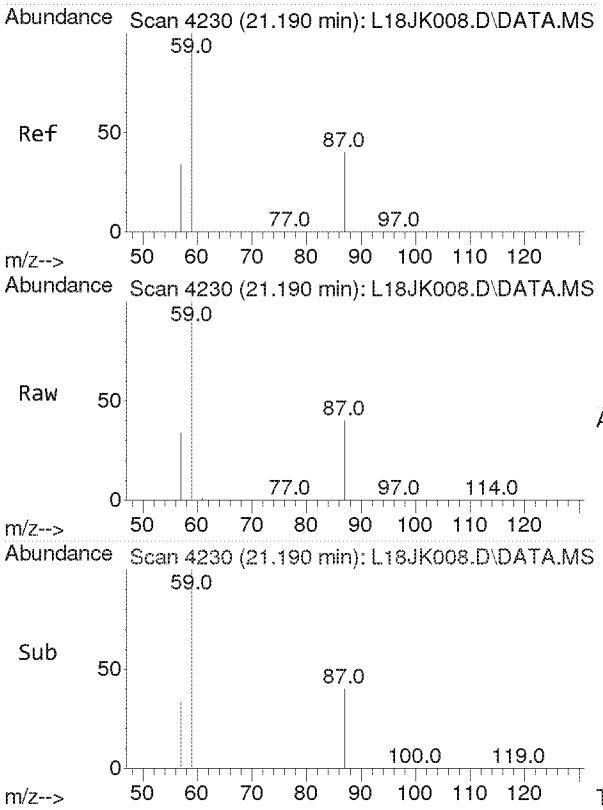


#26
Chloroform
Concen: 2.540 ppbv
RT: 20.416 min Scan# 4147
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 83 Resp: 25216

Ion	Ratio	Lower	Upper
83	100		
85	64.5	51.6	77.4

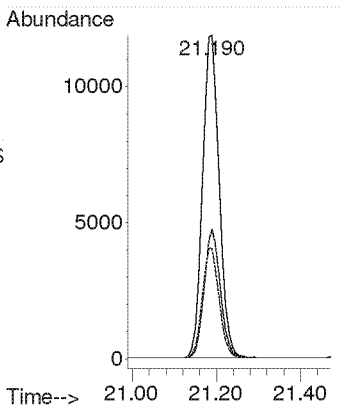


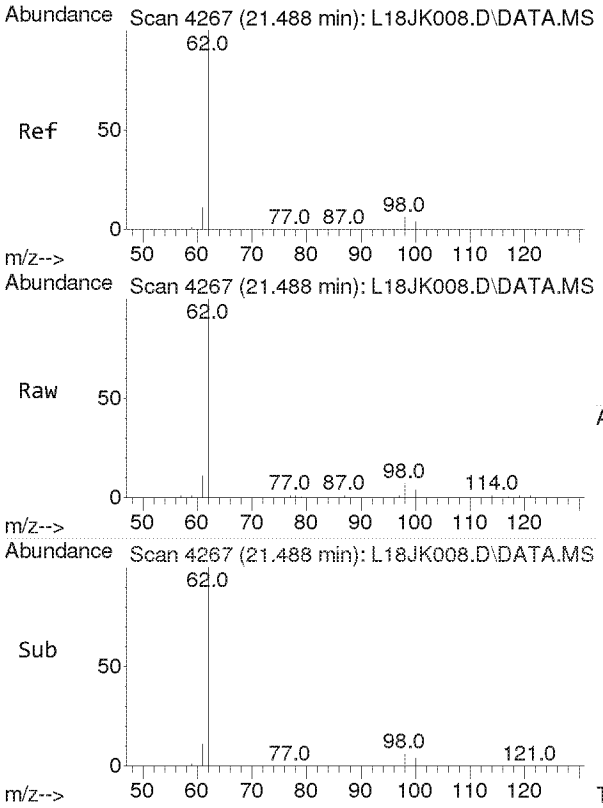


#27
Ethyl tert-Butyl Ether
Concen: 2.370 ppbv
RT: 21.190 min Scan# 4230
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 59 Resp: 32304

Ion	Ratio	Lower	Upper
59	100		
87	38.5	30.9	46.3
57	34.0	27.3	40.9

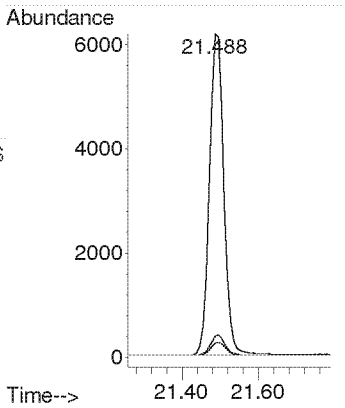


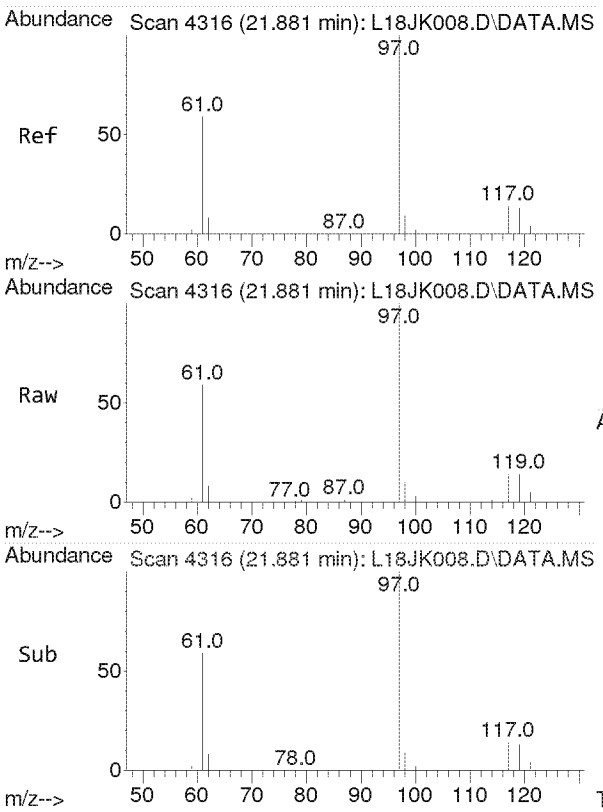


#28
1,2-Dichloroethane
Concen: 2.582 ppbv
RT: 21.488 min Scan# 4267
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 62 Resp: 16004

Ion	Ratio	Lower	Upper
62	100		
98	6.0	4.8	7.2
100	3.9	3.1	4.7

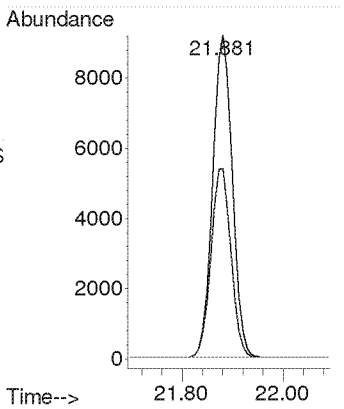


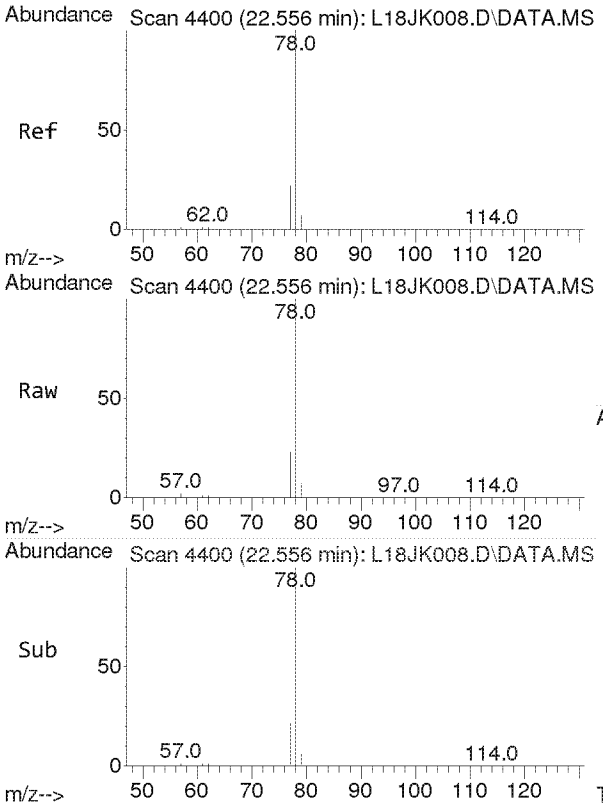


#30
1,1,1-Trichloroethane
Concen: 2.558 ppbv
RT: 21.881 min Scan# 4316
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 97 Resp: 24630

Ion	Ratio	Lower	Upper
97	100		
61	59.6	47.7	71.5

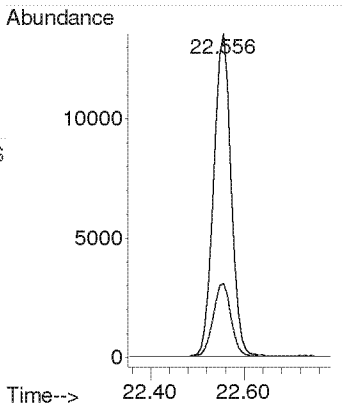


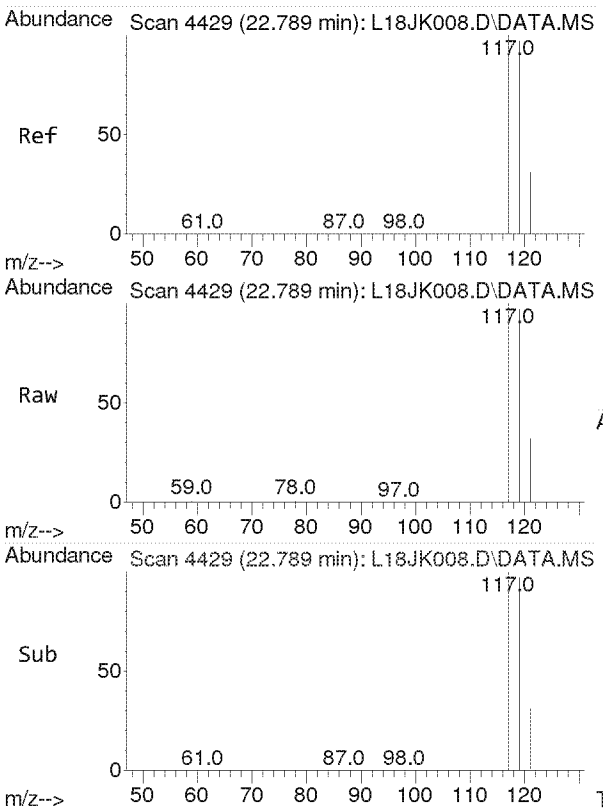


#31
Benzene
Concen: 2.567 ppbv
RT: 22.556 min Scan# 4400
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 78 Resp: 34983

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

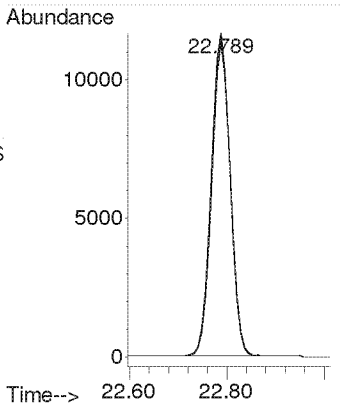


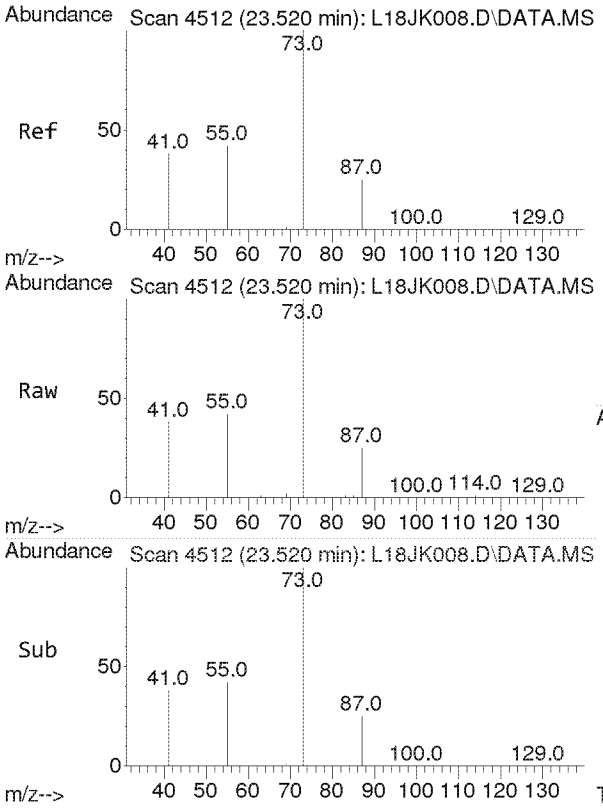


#32
Carbon Tetrachloride
Concen: 2.798 ppbv
RT: 22.789 min Scan# 4429
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:117 Resp: 30768

Ion	Ratio	Lower	Upper
117	100		
119	96.9	77.5	116.3

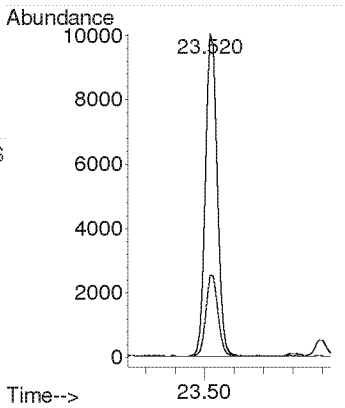


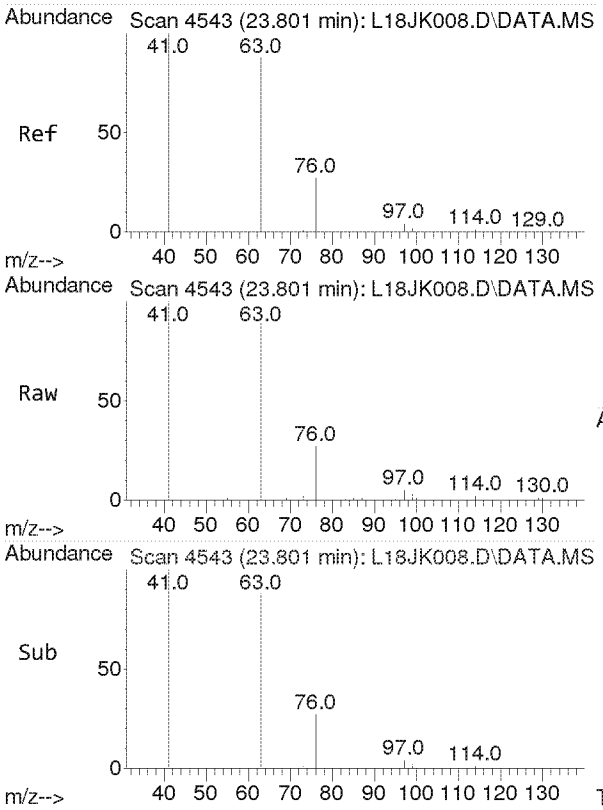


#33
tert-Amyl Methyl Ether
Concen: 2.419 ppbv
RT: 23.520 min Scan# 4512
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 73 Resp: 27623

Ion	Ratio	Lower	Upper
73	100		
87	25.1	20.1	30.1

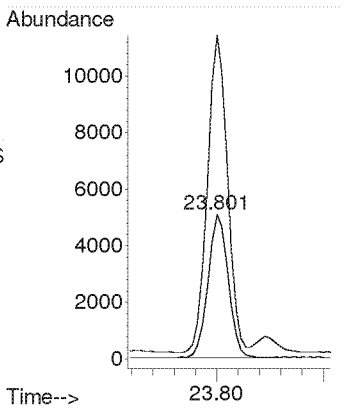


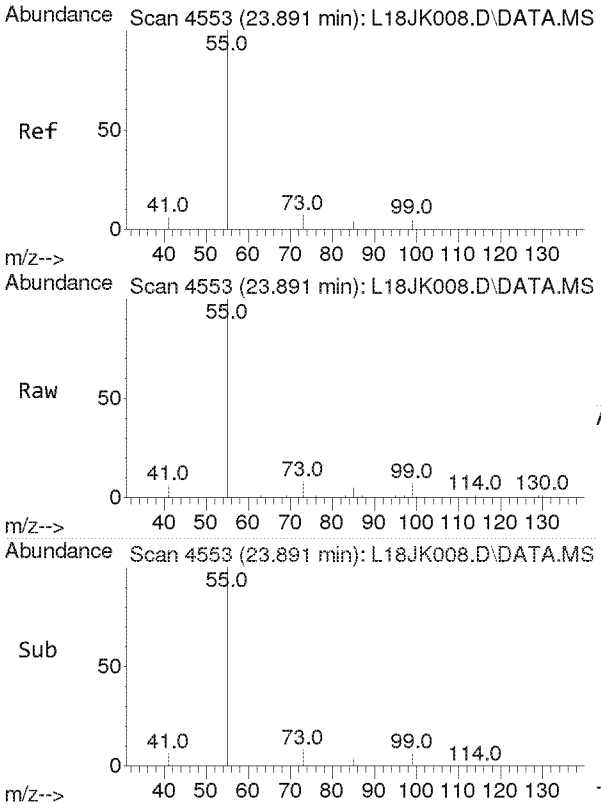


#34
1,2-Dichloropropane
Concen: 2.518 ppbv
RT: 23.801 min Scan# 4543
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 63 Resp: 13187

Ion	Ratio	Lower	Upper
63	100		
41	222.1	177.7	266.5

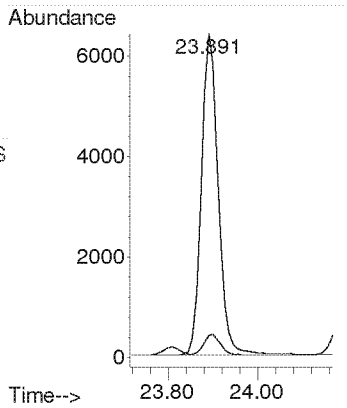


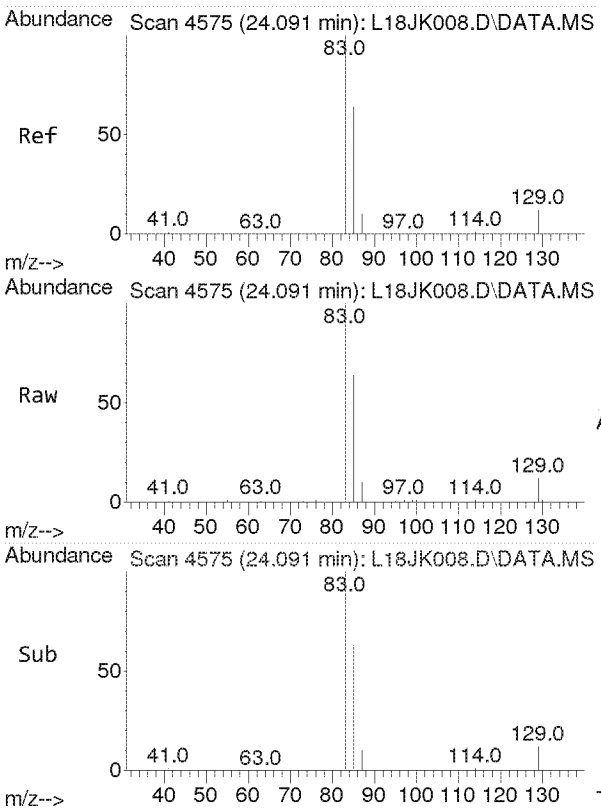


#35
Ethyl Acrylate
Concen: 2.497 ppbv
RT: 23.891 min Scan# 4553
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 55 Resp: 16566

Ion	Ratio	Lower	Upper
55	100		
99	6.3	5.0	7.6

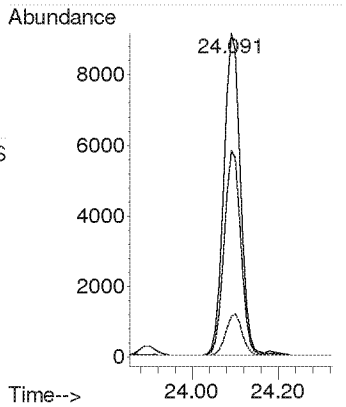


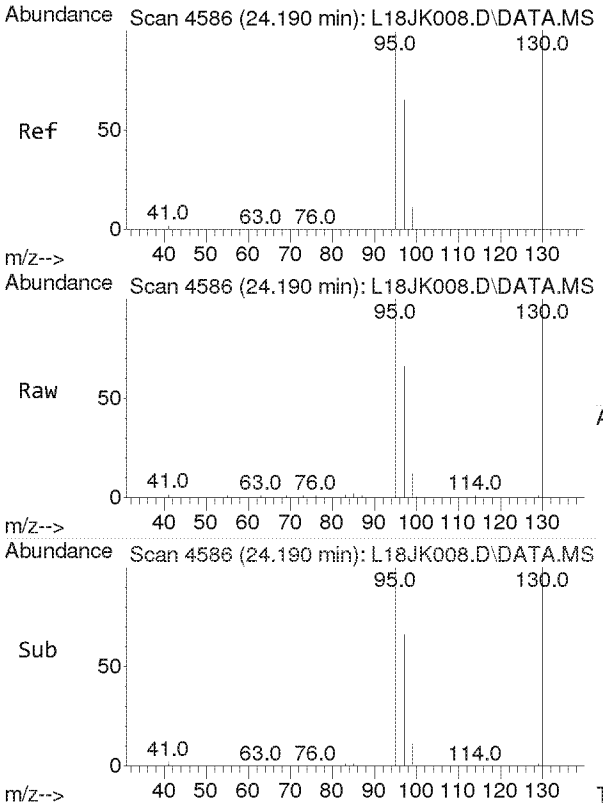


#36
Bromodichloromethane
Concen: 2.399 ppbv
RT: 24.091 min Scan# 4575
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 83 Resp: 24149

Ion	Ratio	Lower	Upper
83	100		
85	63.9	51.1	76.7
129	12.9	10.3	15.5

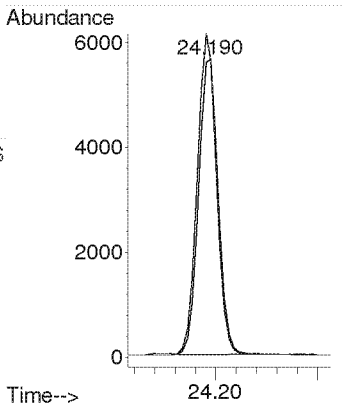


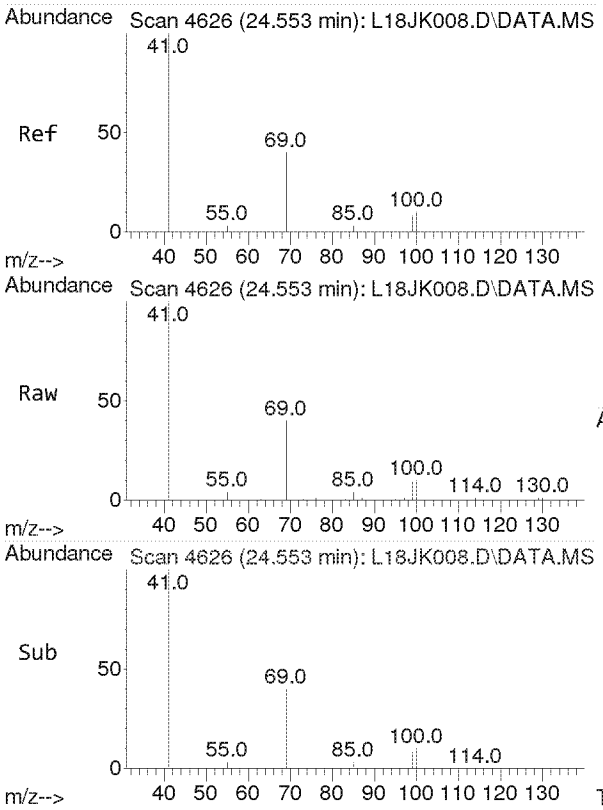


#37
Trichloroethylene
Concen: 2.400 ppbv
RT: 24.190 min Scan# 4586
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:130 Resp: 14953

Ion	Ratio	Lower	Upper
130	100		
95	106.9	85.6	128.4

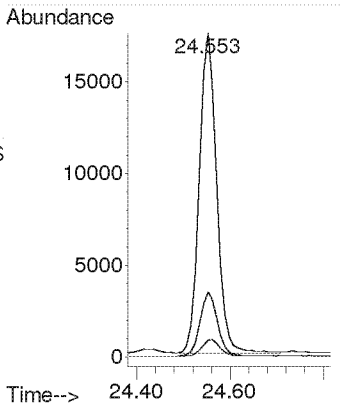


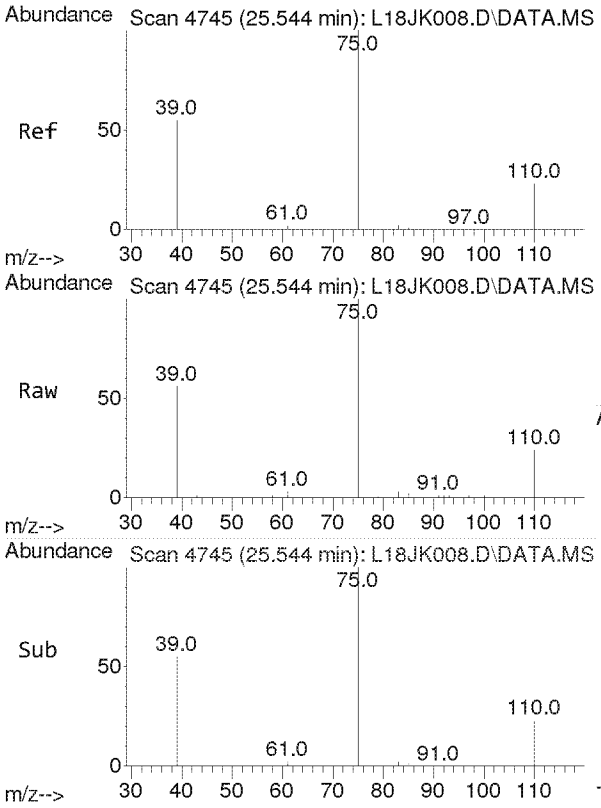


#38
Methyl Methacrylate
Concen: 2.395 ppbv
RT: 24.553 min Scan# 4626
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 41 Resp: 44773

Ion	Ratio	Lower	Upper
41	100		
69	20.0	15.9	23.9
100	5.1	4.1	6.1

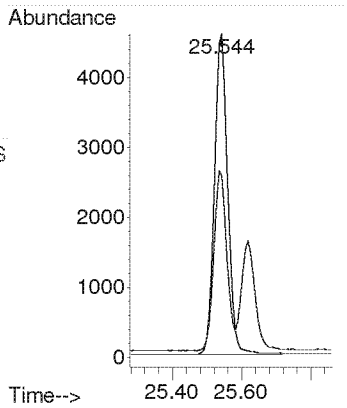


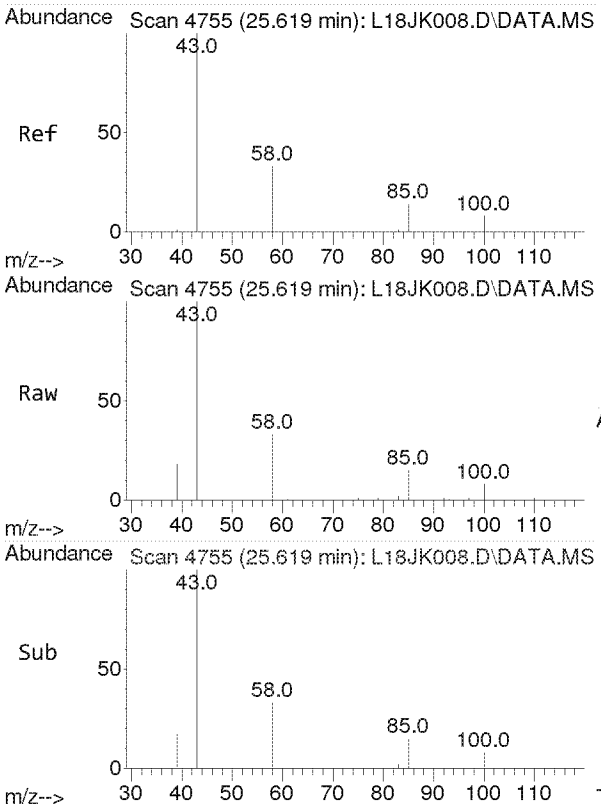


#39
cis-1,3-Dichloropropene
Concen: 2.518 ppbv
RT: 25.544 min Scan# 4745
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 75 Resp: 12043

Ion	Ratio	Lower	Upper
75	100		
39	55.6	44.5	66.7

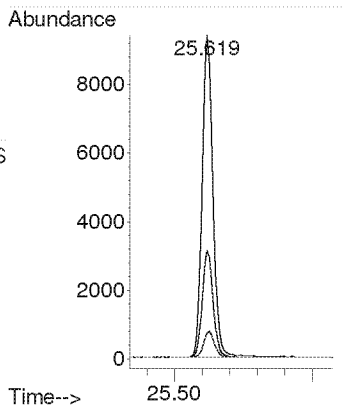


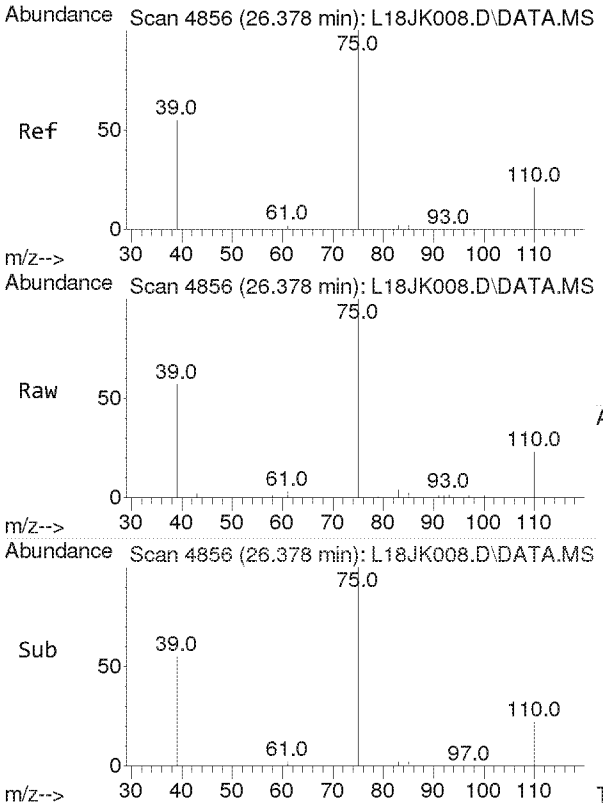


#40
Methyl Isobutyl Ketone
Concen: 2.339 ppbv
RT: 25.619 min Scan# 4755
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 43 Resp: 25385

Ion	Ratio	Lower	Upper
43	100		
58	33.3	26.7	40.1
100	8.0	6.4	9.6

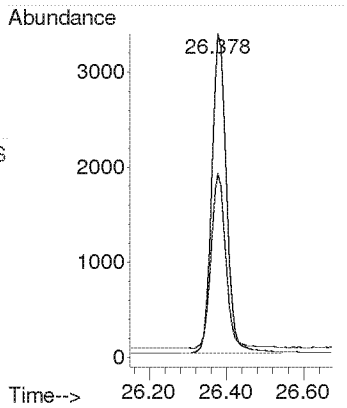


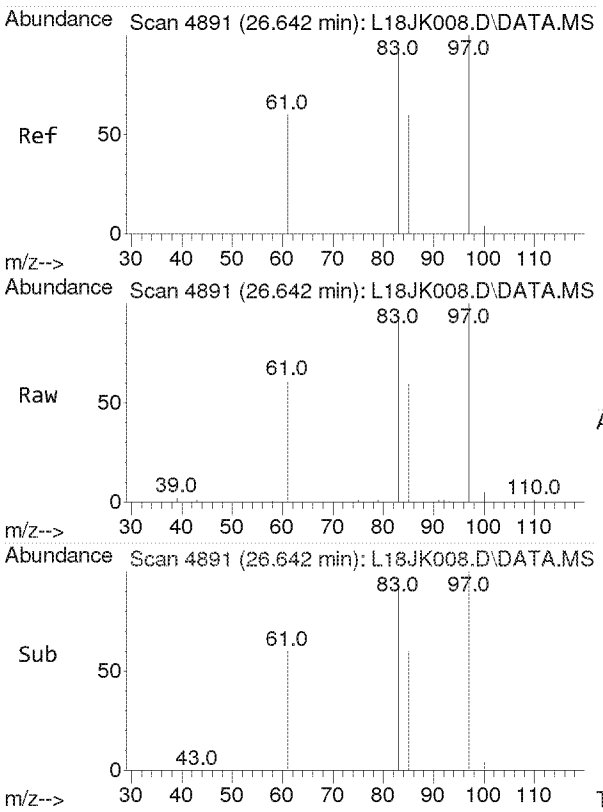


#41
trans-1,3-Dichloropropene
Concen: 2.535 ppbv
RT: 26.378 min Scan# 4856
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 75 Resp: 8887

Ion	Ratio	Lower	Upper
75	100		
39	55.3	44.2	66.4

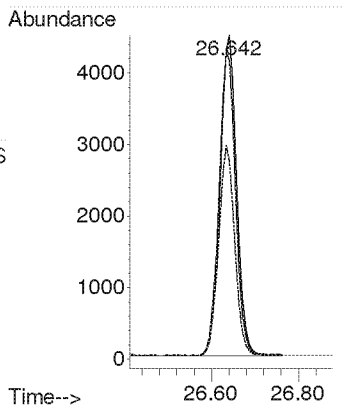


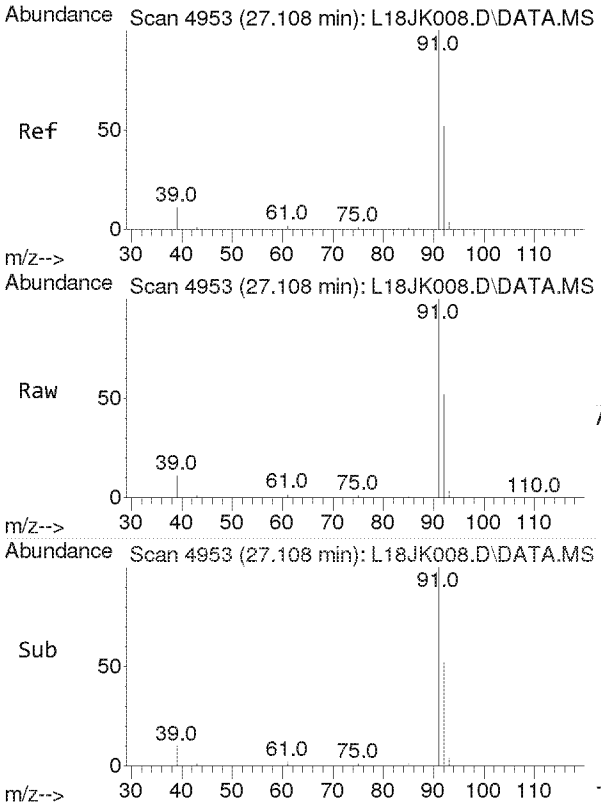


#42
1,1,2-Trichloroethane
Concen: 2.538 ppbv
RT: 26.642 min Scan# 4891
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 97 Resp: 11827

Ion	Ratio	Lower	Upper
97	100		
83	95.3	76.2	114.4
61	64.6	51.7	77.5

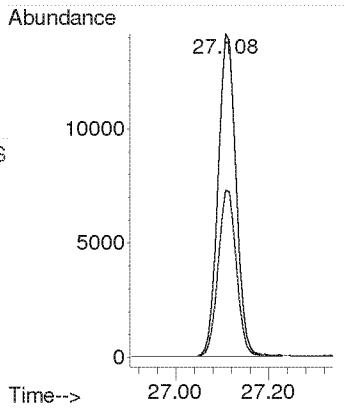


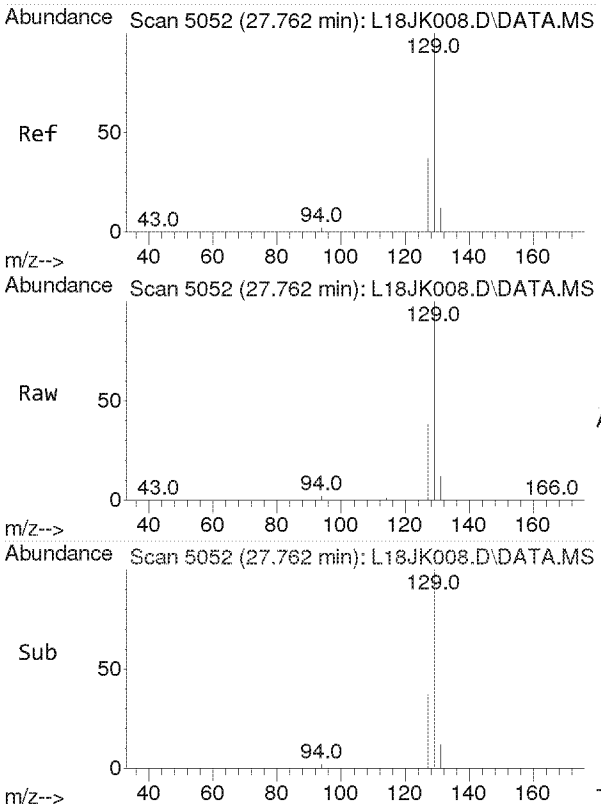


#44
Toluene
Concen: 2.580 ppbv
RT: 27.108 min Scan# 4953
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 91 Resp: 37590

Ion	Ratio	Lower	Upper
91	100		
92	52.1	41.7	62.5

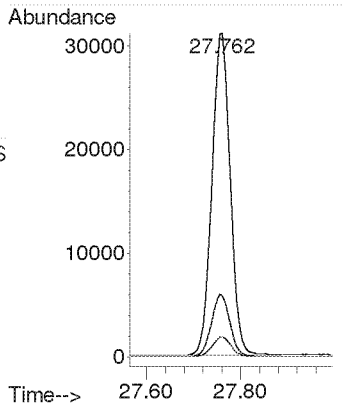


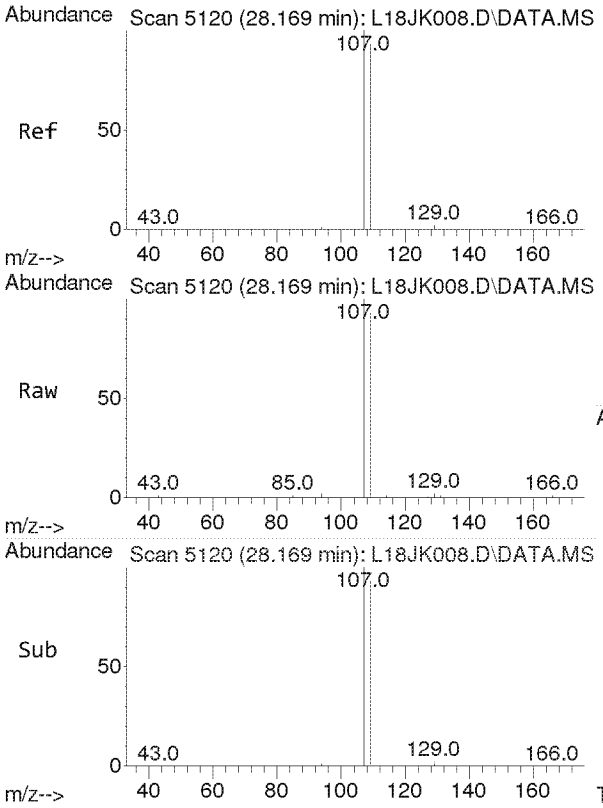


#45
Dibromochloromethane
Concen: 2.370 ppbv
RT: 27.762 min Scan# 5052
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:129 Resp: 83314

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2

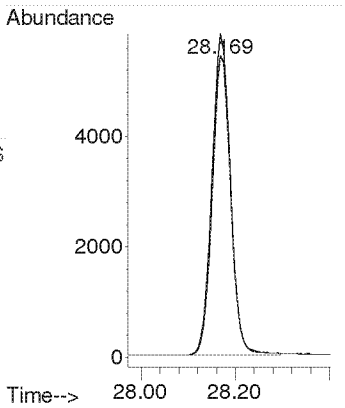


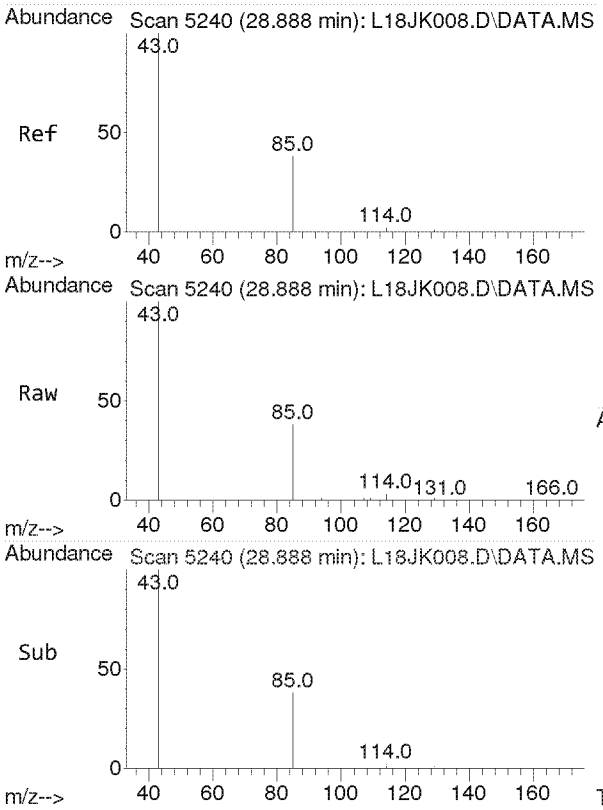


#46
1,2-Dibromoethane
Concen: 2.580 ppbv
RT: 28.169 min Scan# 5120
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:107 Resp: 15731

Ion	Ratio	Lower	Upper
107	100		
109	93.8	75.0	112.6

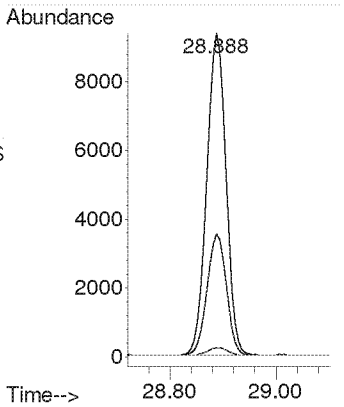


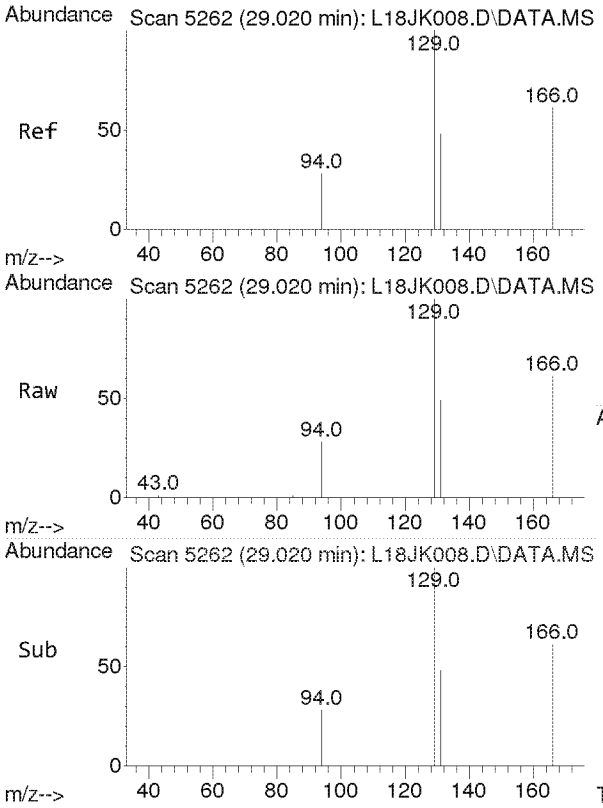


#47
n-Octane
Concen: 2.580 ppbv
RT: 28.888 min Scan# 5240
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 43 Resp: 23561

Ion	Ratio	Lower	Upper
43	100		
85	37.8	30.2	45.4
114	2.4	1.9	2.9

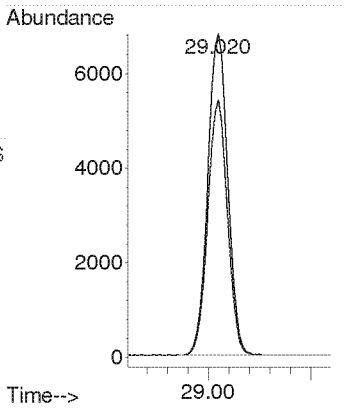


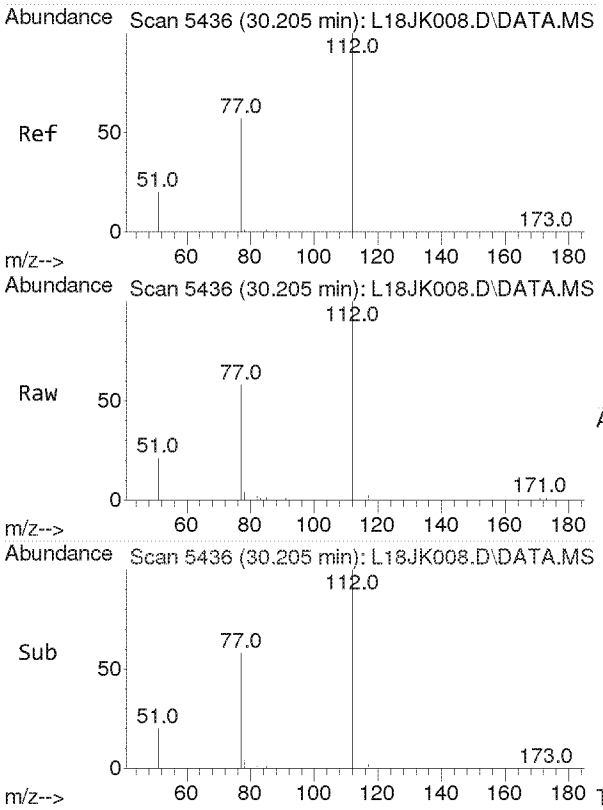


#48
Tetrachloroethylene
Concen: 2.549 ppbv
RT: 29.020 min Scan# 5262
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:166 Resp: 18303

Ion	Ratio	Lower	Upper
166	100		
131	78.7	63.0	94.4

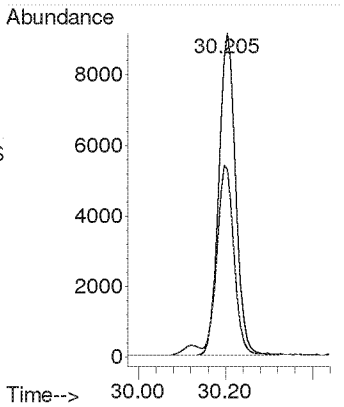


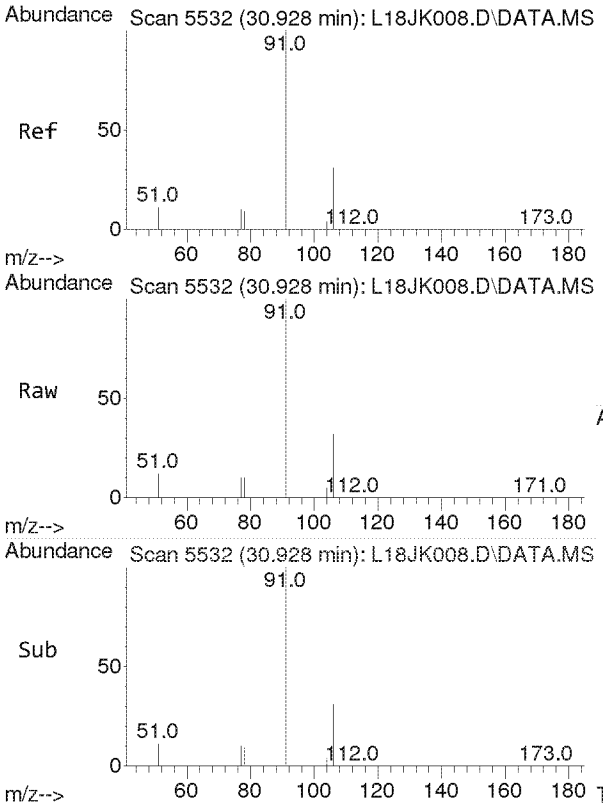


#49
Chlorobenzene
Concen: 2.570 ppbv
RT: 30.205 min Scan# 5436
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:112 Resp: 24744

Ion	Ratio	Lower	Upper
112	100		
77	59.3	47.4	71.2

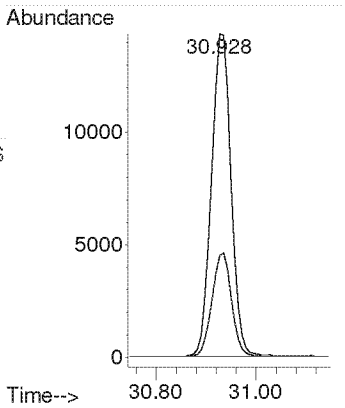


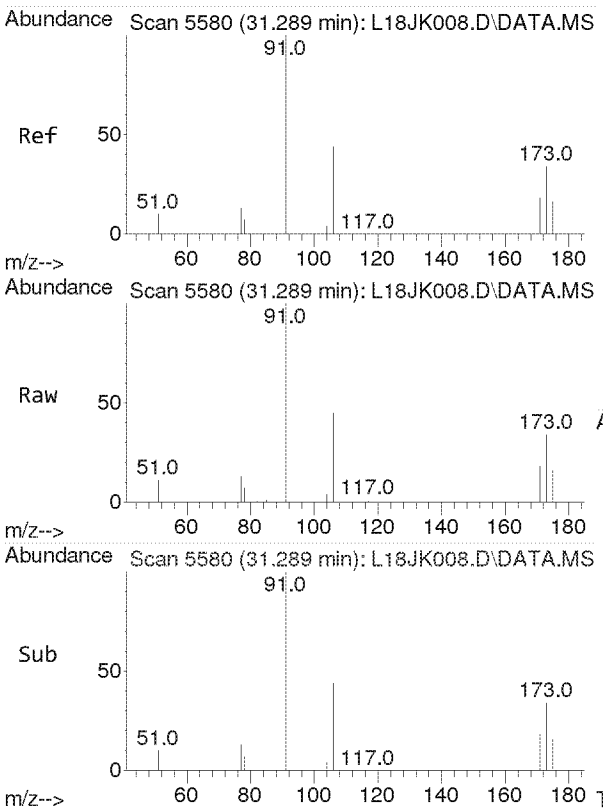


#50
Ethylbenzene
Concen: 2.540 ppbv
RT: 30.928 min Scan# 5532
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 91 Resp: 39015

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.4	38.2

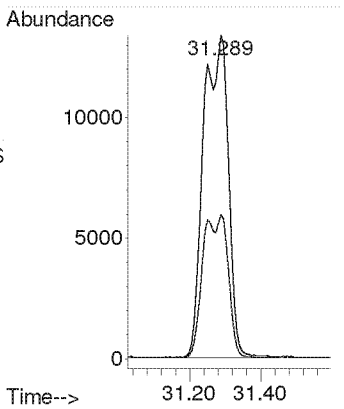


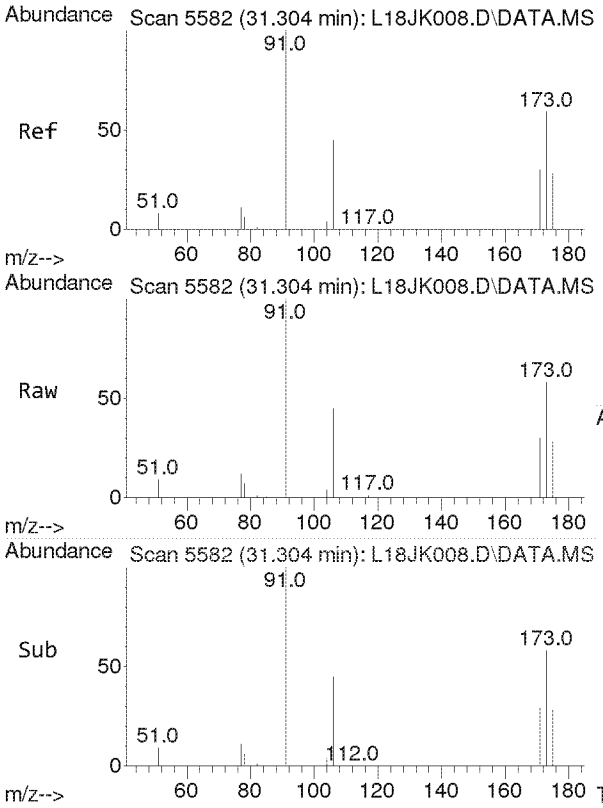


#51
m,p-Xylene
Concen: 4.850 ppbv
RT: 31.289 min Scan# 5580
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 91 Resp: 64586

Ion	Ratio	Lower	Upper
91	100		
106	45.4	36.3	54.5

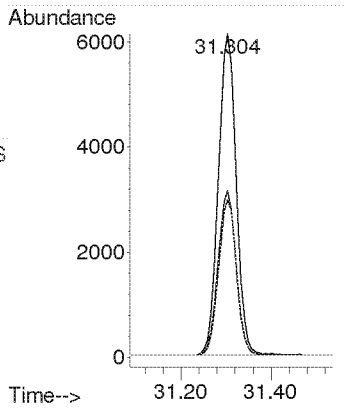


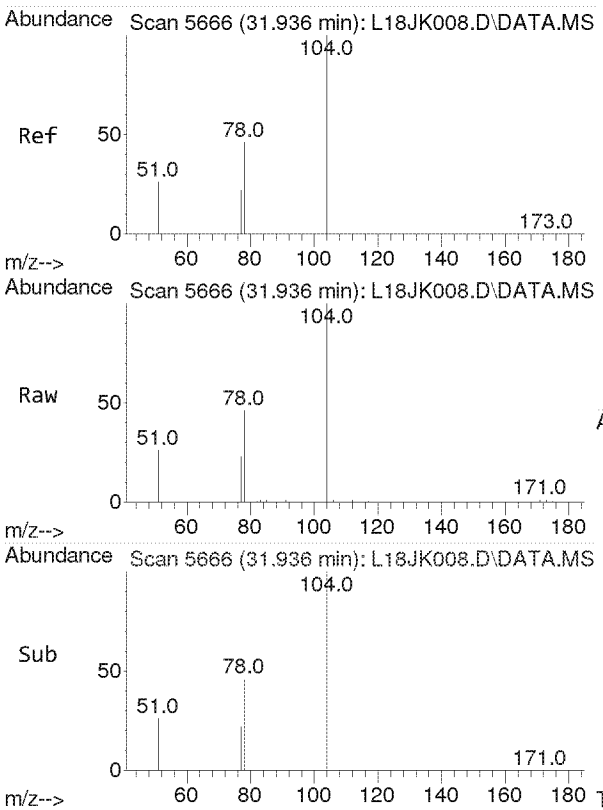


#52
Bromoform
Concen: 2.420 ppbv
RT: 31.304 min Scan# 5582
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:173 Resp: 16718

Ion	Ratio	Lower	Upper
173	100		
171	51.4	41.1	61.7
175	49.0	39.2	58.8

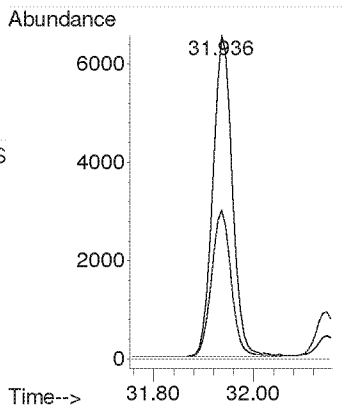


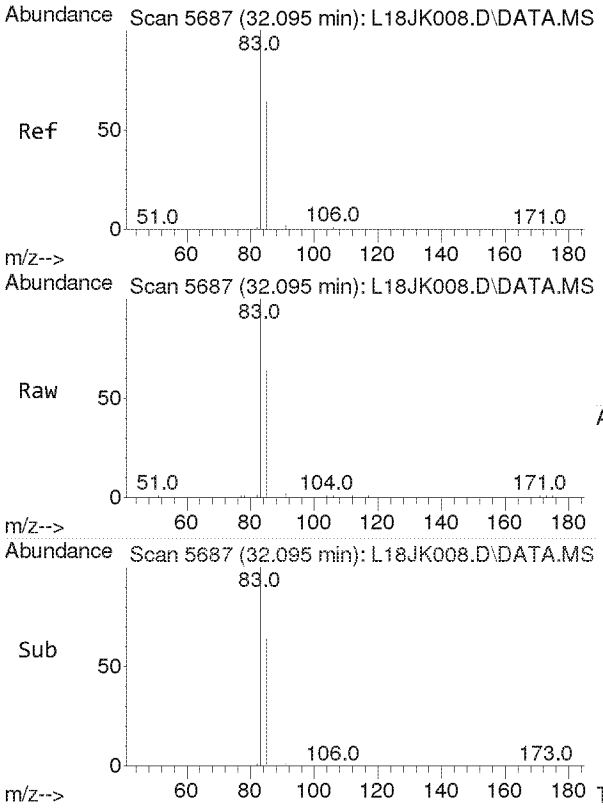


#53
Styrene
Concen: 2.458 ppbv
RT: 31.936 min Scan# 5666
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:104 Resp: 17635

Ion	Ratio	Lower	Upper
104	100		
78	45.7	36.6	54.8
103	0.0	0.0	0.0

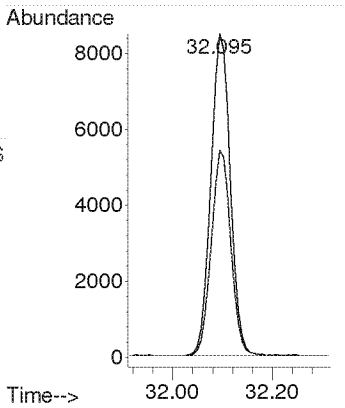


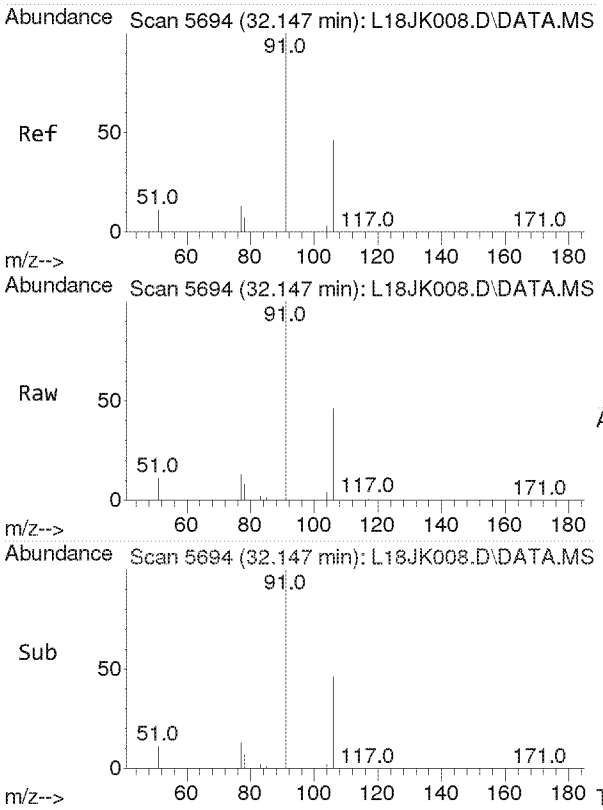


#54
1,1,2,2-Tetrachloroethane
Concen: 2.520 ppbv
RT: 32.095 min Scan# 5687
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 83 Resp: 22864

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.4	77.2

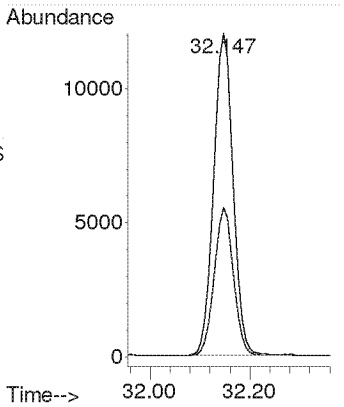


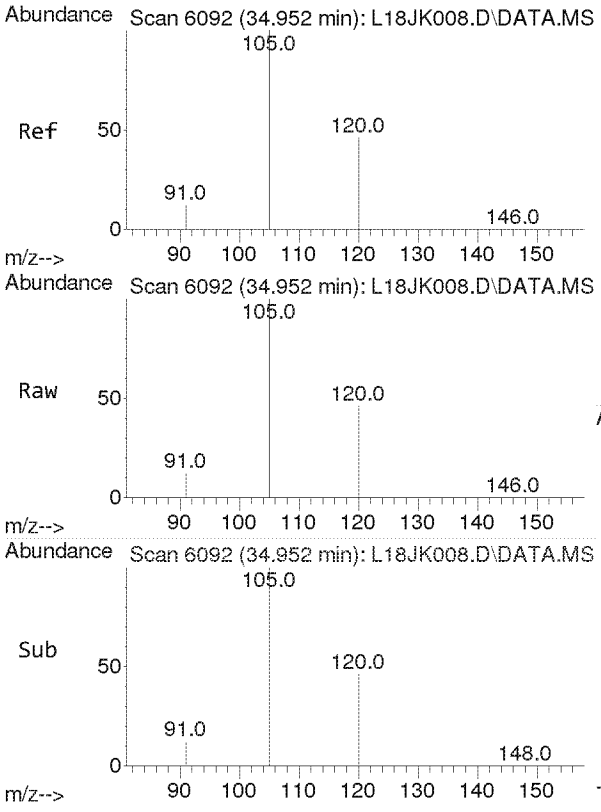


#55
o-Xylene
Concen: 2.518 ppbv
RT: 32.147 min Scan# 5694
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion: 91 Resp: 32401

Ion	Ratio	Lower	Upper
91	100		
106	45.5	36.4	54.6

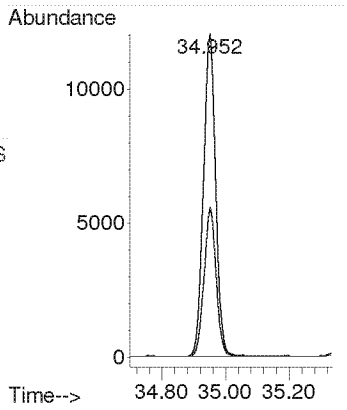


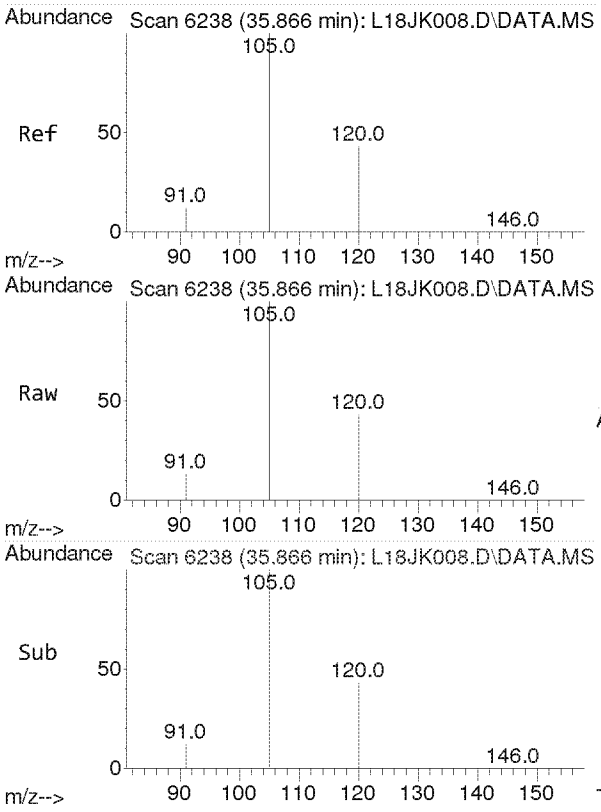


#56
1,3,5-Trimethylbenzene
Concen: 2.440 ppbv
RT: 34.952 min Scan# 6092
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:105 Resp: 32102

Ion	Ratio	Lower	Upper
105	100		
120	45.6	36.5	54.7

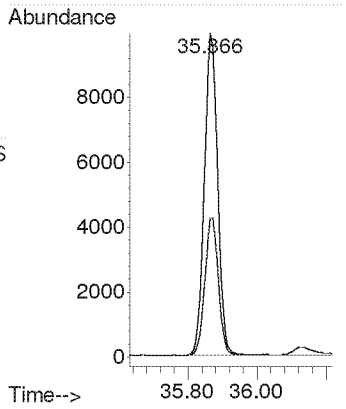


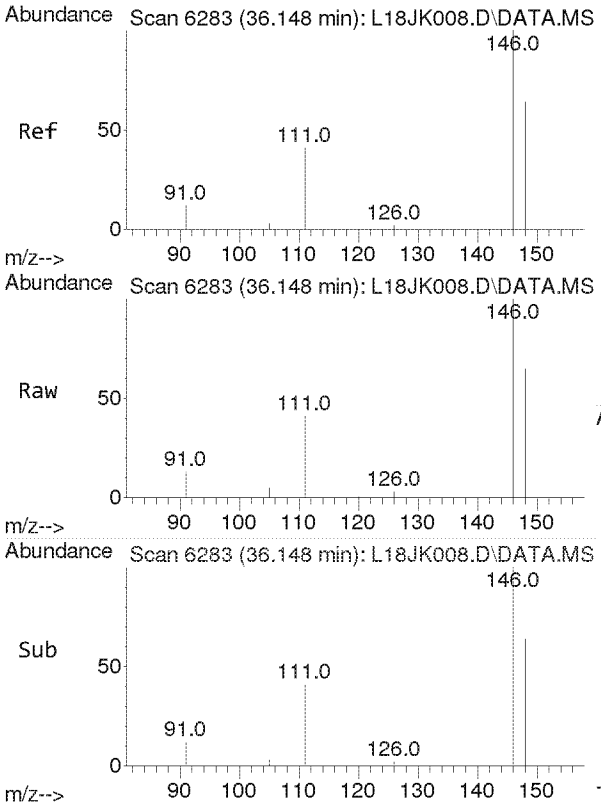


#57
1,2,4-Trimethylbenzene
Concen: 2.420 ppbv
RT: 35.866 min Scan# 6238
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:105 Resp: 26557

Ion	Ratio	Lower	Upper
105	100		
120	43.4	34.7	52.1

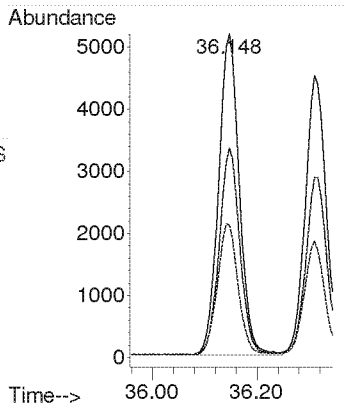


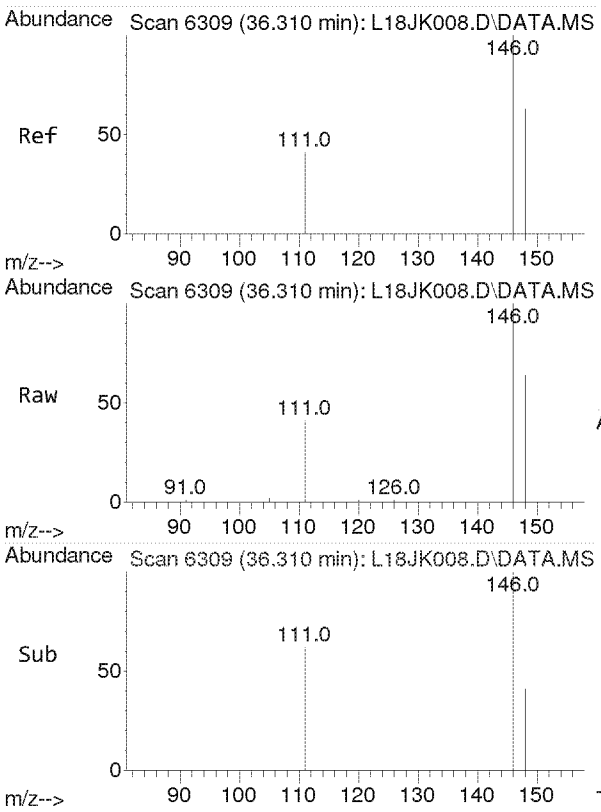


#58
m-Dichlorobenzene
Concen: 2.340 ppbv
RT: 36.148 min Scan# 6283
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:146 Resp: 14206

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	41.1	32.9	49.3

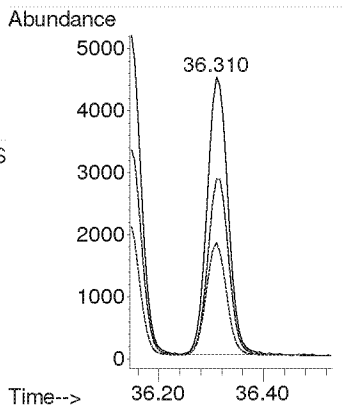


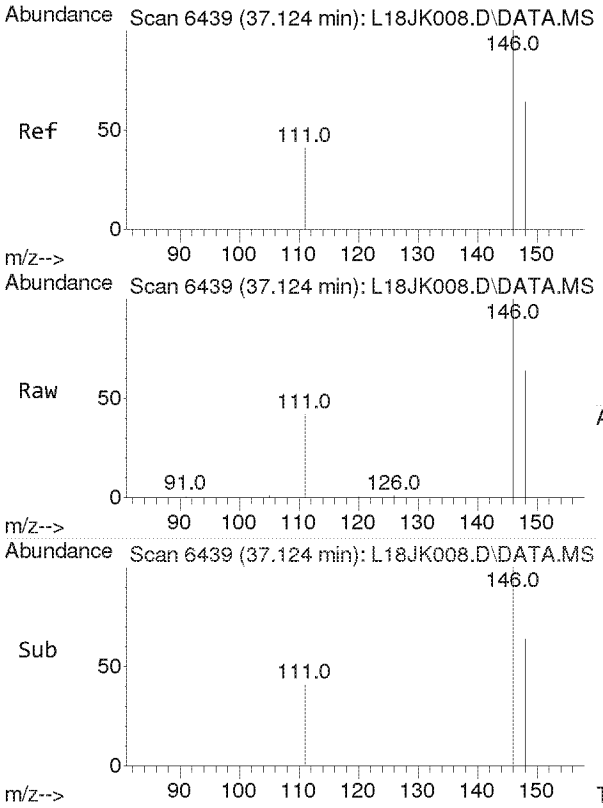


#59
p-Dichlorobenzene
Concen: 2.460 ppbv
RT: 36.310 min Scan# 6309
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:146 Resp: 12277

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	39.8	31.8	47.8

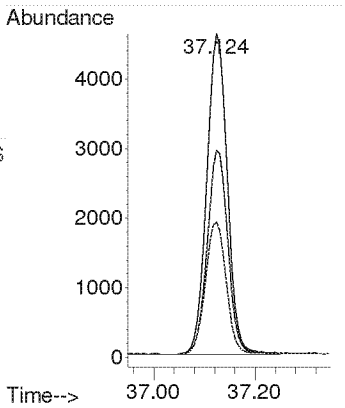


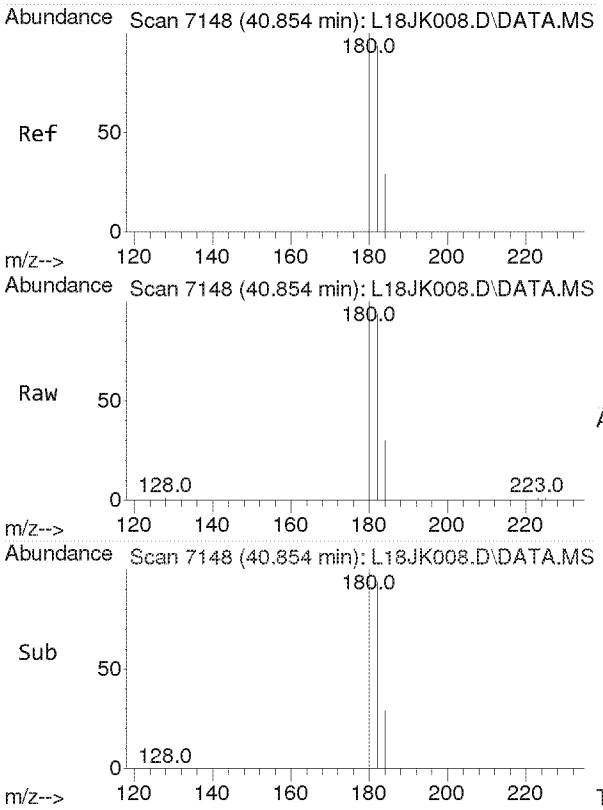


#60
o-Dichlorobenzene
Concen: 2.389 ppbv
RT: 37.124 min Scan# 6439
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:146 Resp: 12918

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.1	76.7
111	41.8	33.5	50.3

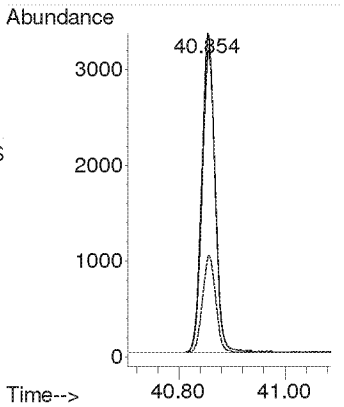


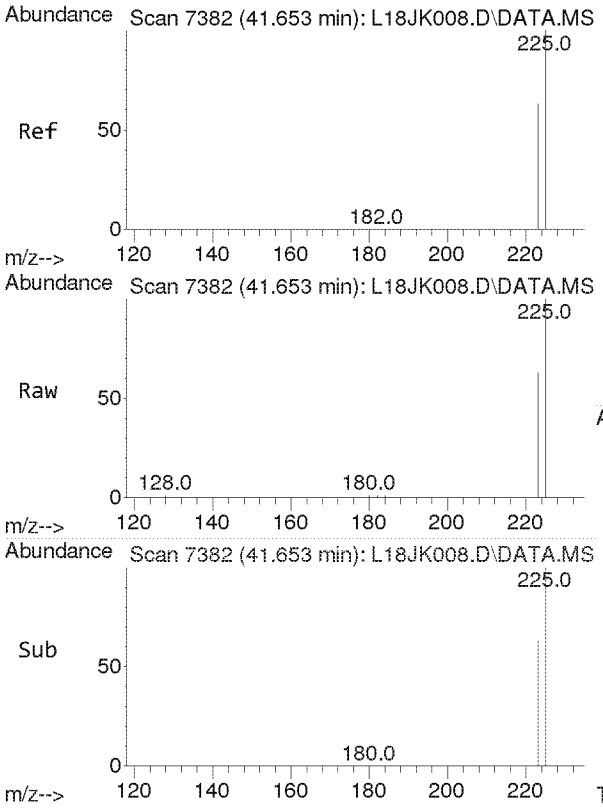


#61
1,2,4-Trichlorobenzene
Concen: 2.349 ppbv
RT: 40.854 min Scan# 7148
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:180 Resp: 5767

Ion	Ratio	Lower	Upper
180	100		
182	95.6	76.4	114.6
184	30.5	24.4	36.6

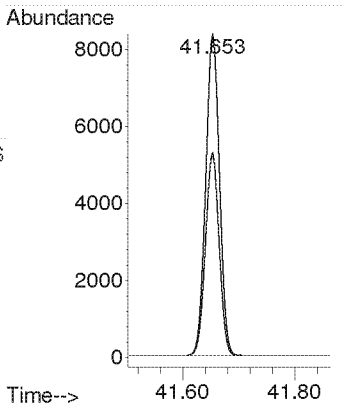




#62
Hexachloro-1,3-butadiene
Concen: 2.380 ppbv
RT: 41.653 min Scan# 7382
Delta R.T. 0.000 min
Lab File: L18JK008.D
Acq: 12 Oct 2018 12:39 am

Tgt Ion:225 Resp: 14190

Ion	Ratio	Lower	Upper
225	100		
223	62.8	50.2	75.4



Analytical Standard Record

Eastern Research Group

8J11005

Description:	5.0 ppbv ICal	Expires:	11/10/18
Standard Type:	Calibration Stan	Prepared:	10/11/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	10/11/18 16:30 by MH

canister# 3238

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.00512	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.00503	ppmv
1,1,2-Trichloroethane	79-00-5	0.00508	ppmv
1,1-Dichloroethane	75-34-3	0.00516	ppmv
1,1-Dichloroethene	75-35-4	0.00544	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.0047	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.00484	ppmv
1,2-Dibromoethane	106-93-4	0.00515	ppmv
1,2-Dichloroethane	107-06-2	0.00515	ppmv
1,2-Dichloropropane	78-87-5	0.00505	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.00488	ppmv
1,3-Butadiene	106-99-0	0.00492	ppmv
Acetonitrile	75-05-8	0.00459	ppmv
Acetylene	74-86-2	0.00455	ppmv
Acrolein	107-02-8	0.00408	ppmv
Acrylonitrile	107-13-1	0.00475	ppmv
Benzene	71-43-2	0.00514	ppmv
Bromochloromethane	74-97-5	0.00509	ppmv
Bromodichloromethane	75-27-4	0.0048	ppmv
Bromoform	75-25-2	0.00485	ppmv
Bromomethane	74-83-9	0.00508	ppmv
Carbon Disulfide	75-15-0	0.00505	ppmv
Carbon Tetrachloride	56-23-5	0.00561	ppmv
Chlorobenzene	108-90-7	0.00514	ppmv
Chloroethane	75-00-3	0.005	ppmv
Chloroform	67-66-3	0.00509	ppmv
Chloromethane	74-87-3	0.005	ppmv
Chloroprene	126-99-8	0.0052	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.00513	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.00504	ppmv

Reviewed By — Date: 10-31-18

Analytical Standard Record

Eastern Research Group

8J11005

Dibromochloromethane	124-48-1	0.00474	ppmv
Dichlorodifluoromethane	75-71-8	0.0049	ppmv
Dichloromethane	75-09-2	0.00542	ppmv
Dichlorotetrafluoroethane	76-14-2	0.00553	ppmv
Ethyl Acrylate	140-88-5	0.00501	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.00474	ppmv
Ethylbenzene	100-41-4	0.00507	ppmv
Ethylene oxide	75-21-8	0.0051	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.00476	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.0097	ppmv
m-Dichlorobenzene	541-73-1	0.00467	ppmv
Methyl Isobutyl Ketone	108-10-1	0.00467	ppmv
Methyl Methacrylate	80-62-6	0.0048	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.00484	ppmv
n-Octane	111-65-9	0.00515	ppmv
o-Dichlorobenzene	95-50-1	0.00478	ppmv
o-Xylene	95-47-6	0.00503	ppmv
p-Dichlorobenzene	106-46-7	0.00493	ppmv
Propylene	115-07-1	0.00486	ppmv
Styrene	100-42-5	0.00493	ppmv
tert-Amyl Methyl Ether	994-05-8	0.00485	ppmv
Tetrachloroethylene	127-18-4	0.0051	ppmv
Toluene	108-88-3	0.00515	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.00502	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.00507	ppmv
Trichloroethylene	79-01-6	0.0048	ppmv
Trichlorofluoromethane	75-69-4	0.00471	ppmv
Trichlorotrifluoroethane	76-13-1	0.00518	ppmv
Vinyl chloride	75-01-4	0.00515	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
7J25026	TO-15 Primary Stock Standard	10/17/17	** Vendor **	10/17/18	10/25/17 10:58 by MH	60
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	30

Reviewed By 10-3-18 Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK009.D
Acq On : 12 Oct 2018 1:41 am (#1); 12-Oct-18, 01:36:16 (#2)
Operator : MAH
Sample : 1810019-CAL5
Misc : 80ML IS 7L07001,8J11005 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 12 09:30:18 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	49430	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.157	114	120951	5.0200 ppbv	0.00
43) IS-Chlorobenzene-d5	30.122	117	82902	4.7700 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.412	26	21774	4.3612 ppbv	100
3) Propylene	7.836	41	24021	4.6395 ppbv	100
4) Dichlorodifluoromethane	8.689	85	111344	4.6749 ppbv	100
5) Chloromethane	9.750	50	29917	4.7451 ppbv	100
6) Dichlorotetrafluoroethane	10.860	85	111202	5.2956 ppbv	100
7) Vinyl Chloride	11.112	62	33829	4.9481 ppbv	100
8) 1,3-Butadiene	11.779	54	22758	4.8381 ppbv	100
9) Ethylene oxide	12.368	29	14639	4.9952 ppbv	100
10) Bromomethane	12.587	94	32490	4.8685 ppbv	100
11) Chloroethane	13.270	64	14137	4.8090 ppbv	100
12) Acetonitrile	14.318	41	24750	4.6381 ppbv	98
13) Acrolein	14.597	56	9914	4.1134 ppbv #	76
14) Trichlorofluoromethane	15.190	101	93938	4.5710 ppbv	100
15) Acrylonitrile	15.912	53	20027	4.9543 ppbv	100
16) 1,1-Dichloroethene	16.424	61	49350	5.3819 ppbv	100
17) Methylene Chloride	16.738	49	35115	5.3127 ppbv	100
18) Carbon Disulfide	16.924	76	91316	4.8770 ppbv	100
19) Trichlorotrifluoroethane	17.285	101	71071	5.0209 ppbv	100
20) trans-1,2-Dichloroethy...	18.325	96	25712	5.0334 ppbv	99
21) 1,1-Dichloroethane	18.625	63	46760	5.2433 ppbv	99
22) Methyl tert-Butyl Ether	18.781	73	67250	4.7915 ppbv	100
23) Chloroprene	19.537	53	36828	5.4954 ppbv	100
24) cis-1,2-Dichloroethylene	19.948	61	36348	5.1692 ppbv	99
25) Bromochloromethane	20.182	128	19890	5.1194 ppbv	100
26) Chloroform	20.415	83	54105	5.1488 ppbv	100
27) Ethyl tert-Butyl Ether	21.182	59	69330	4.8053 ppbv	100
28) 1,2-Dichloroethane	21.487	62	34897	5.3148 ppbv	100
30) 1,1,1-Trichloroethane	21.873	97	51817	4.9886 ppbv	99
31) Benzene	22.548	78	76812	5.2268 ppbv	100
32) Carbon Tetrachloride	22.781	117	64310	5.4208 ppbv	99
33) tert-Amyl Methyl Ether	23.519	73	59784	4.8513 ppbv	100
34) 1,2-Dichloropropane	23.800	63	29055	5.1429 ppbv	99
35) Ethyl Acrylate	23.891	55	38094	5.3249 ppbv	100
36) Bromodichloromethane	24.090	83	52650	4.8466 ppbv	100
37) Trichloroethylene	24.181	130	32370	4.8123 ppbv	100
38) Methyl Methacrylate	24.544	41	102446	5.0865 ppbv	100
39) cis-1,3-Dichloropropene	25.536	75	26926	5.2187 ppbv	99
40) Methyl Isobutyl Ketone	25.611	43	57319	4.8940 ppbv	99
41) trans-1,3-Dichloropropene	26.378	75	20077	5.3150 ppbv	99
42) 1,1,2-Trichloroethane	26.634	97	26179	5.2076 ppbv	99
44) Toluene	27.108	91	84723	5.4920 ppbv	100
45) Dibromochloromethane	27.756	129	185169	4.9749 ppbv	100
46) 1,2-Dibromoethane	28.169	107	34710	5.3765 ppbv	99
47) n-Octane	28.888	43	54171	5.6025 ppbv	100
48) Tetrachloroethylene	29.013	166	39754	5.2310 ppbv	100
49) Chlorobenzene	30.205	112	54864	5.3819 ppbv	100
50) Ethylbenzene	30.927	91	89853	5.5248 ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK009.D
Acq On : 12 Oct 2018 1:41 am (#1); 12-Oct-18, 01:36:16 (#2)
Operator : MAH
Sample : 1810019-CAL5
Misc : 80ML IS 7L07001,8J11005 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 12 09:30:18 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

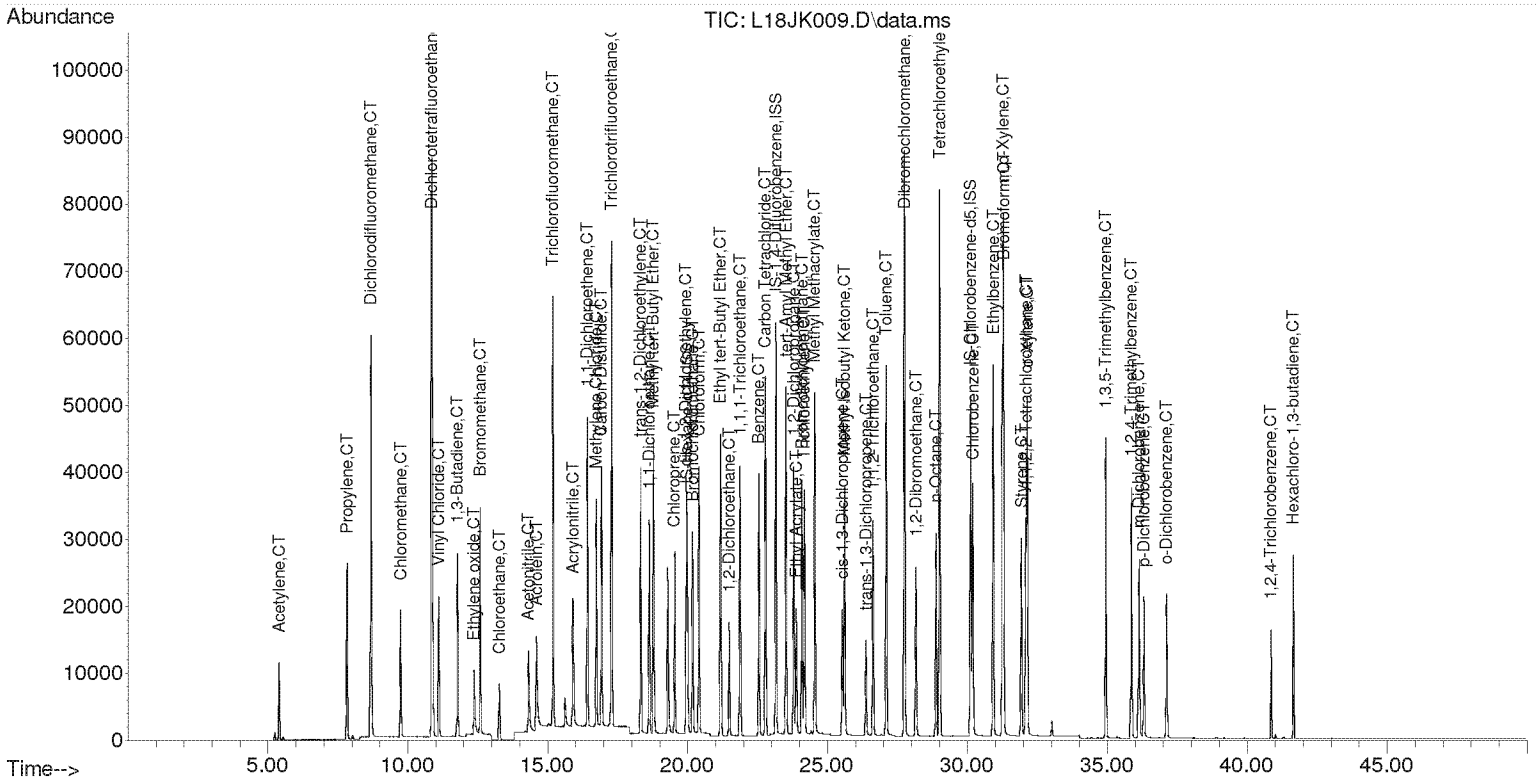
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	31.289	91	151050	10.7130	ppbv	100
52) Bromoform	31.304	173	37050	5.0653	ppbv	100
53) Styrene	31.936	104	41551	5.4743	ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.094	83	50746	5.2825	ppbv	100
55) o-Xylene	32.147	91	75224	5.5257	ppbv	100
56) 1,3,5-Trimethylbenzene	34.946	105	75538	5.4226	ppbv	100
57) 1,2,4-Trimethylbenzene	35.866	105	64053	5.5127	ppbv	100
58) m-Dichlorobenzene	36.141	146	32290	5.0234	ppbv	100
59) p-Dichlorobenzene	36.310	146	27763	5.2541	ppbv	100
60) o-Dichlorobenzene	37.124	146	29345	5.1277	ppbv	100
61) 1,2,4-Trichlorobenzene	40.854	180	12270	4.7222	ppbv	100
62) Hexachloro-1,3-butadiene	41.650	225	28878	4.5745	ppbv	100

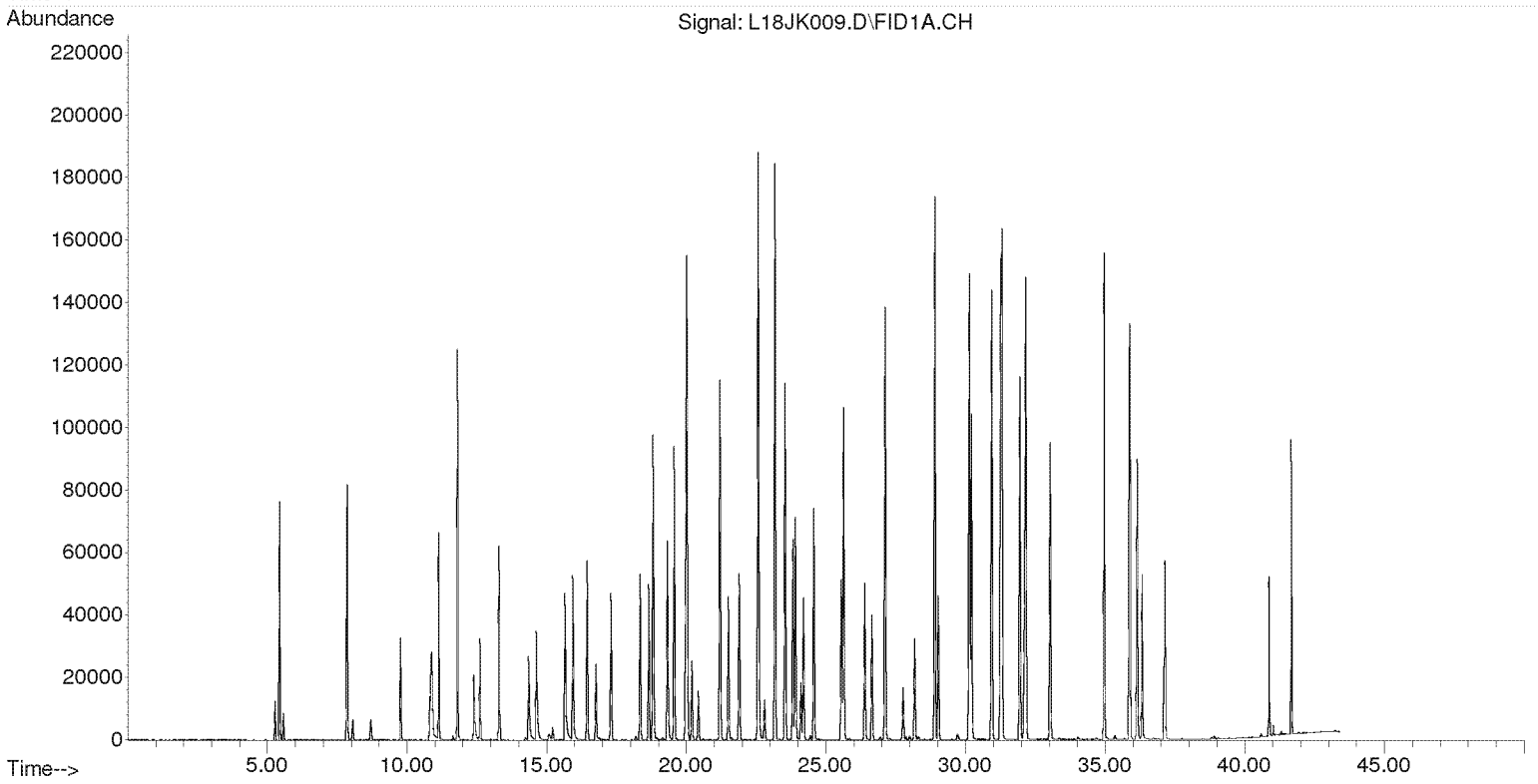
(#) = qualifier out of range (m) = manual integration (+) = signals summed

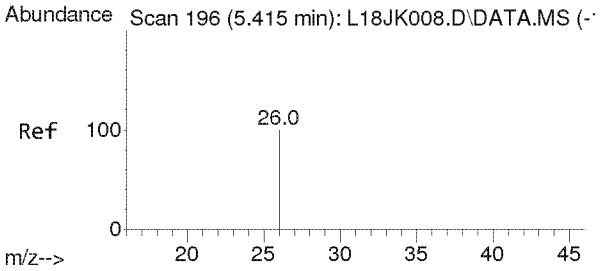
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK009.D
Acq On : 12 Oct 2018 1:41 am (#1); 12 Oct 2018 1:36 am (#2)
Operator : MAH
Sample : 1810019-CAL5
Misc : 80ML IS 7L07001,8J11005 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 12 09:30:18 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

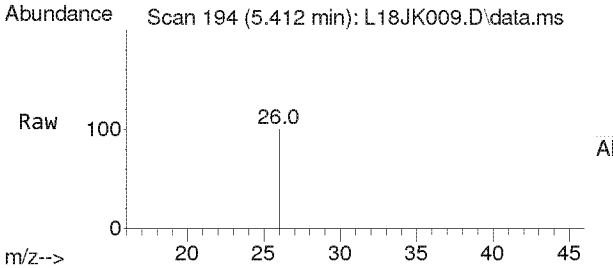


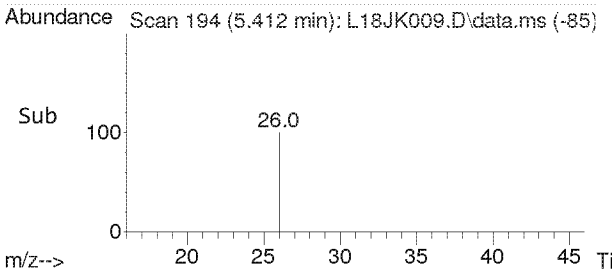


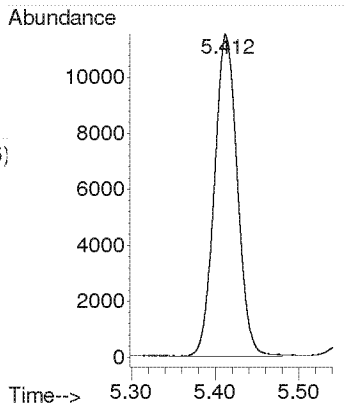


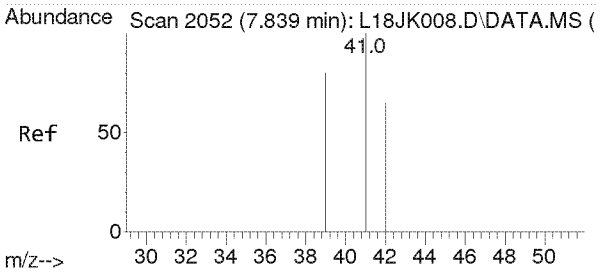
#2
Acetylene
Concen: 4.361 ppbv
RT: 5.412 min Scan# 194
Delta R.T. -0.002 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 26 Resp: 21774





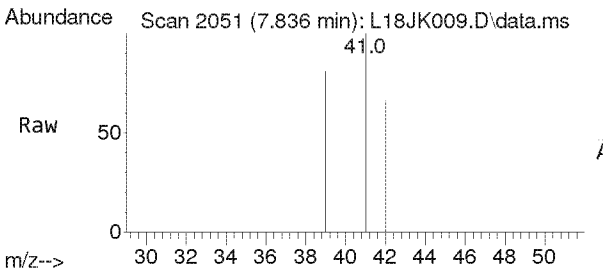


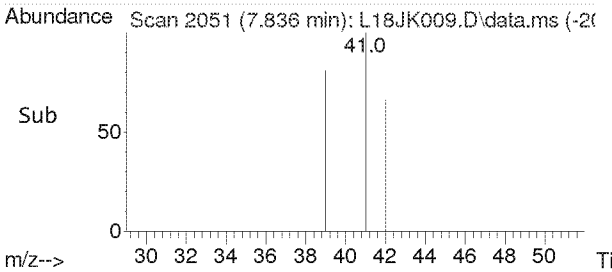


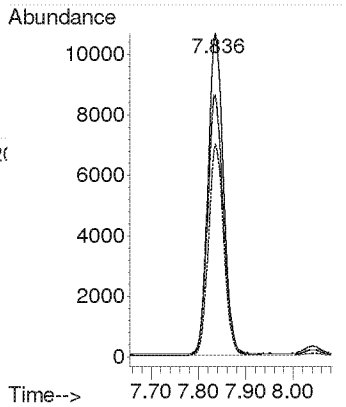
#3
Propylene
Concen: 4.639 ppbv
RT: 7.836 min Scan# 2051
Delta R.T. -0.003 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

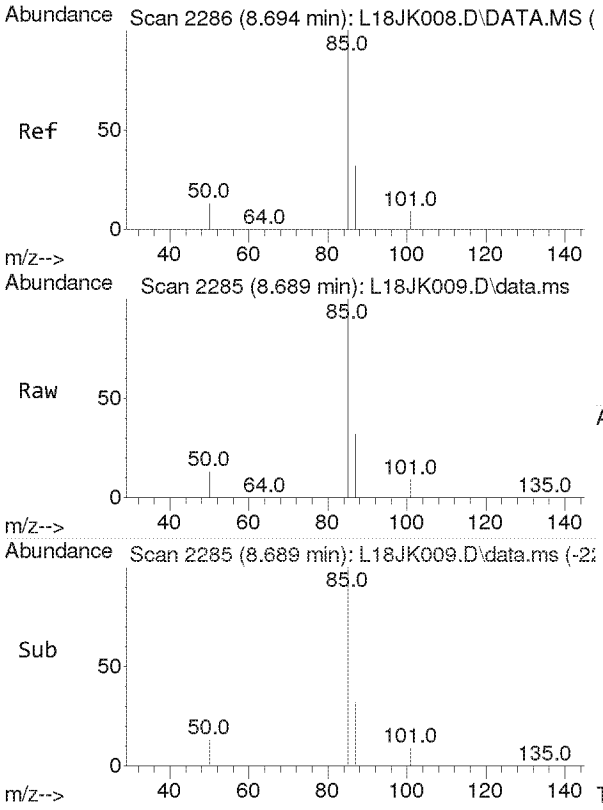
Tgt Ion: 41 Resp: 24021

Ion	Ratio	Lower	Upper
41	100		
39	80.5	65.0	97.4
42	65.4	52.3	78.5





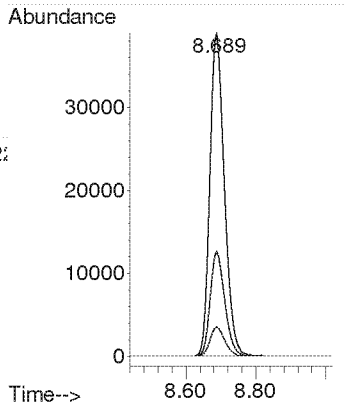


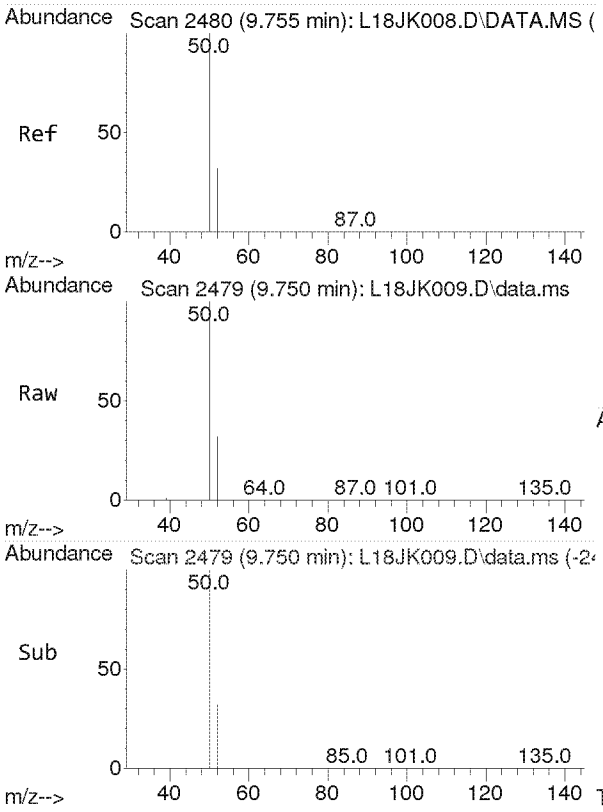


#4
Dichlorodifluoromethane
Concen: 4.675 ppbv
RT: 8.689 min Scan# 2285
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 85 Resp: 111344

Ion	Ratio	Lower	Upper
85	100		
87	32.4	25.8	38.8
101	9.0	7.2	10.8

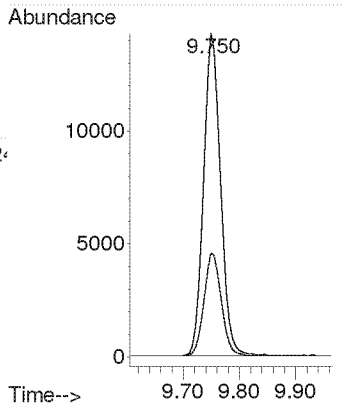


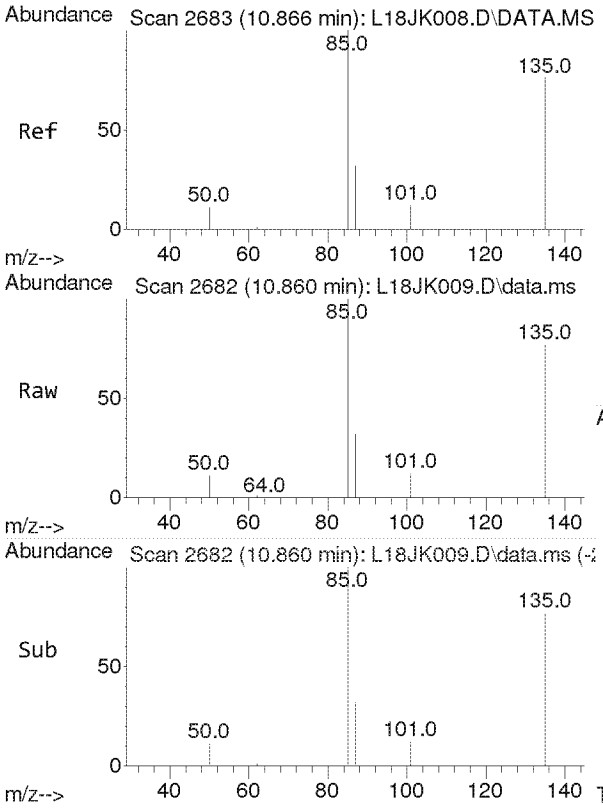


#5
Chloromethane
Concen: 4.745 ppbv
RT: 9.750 min Scan# 2479
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 50 Resp: 29917

Ion	Ratio	Lower	Upper
50	100		
52	32.4	25.8	38.6

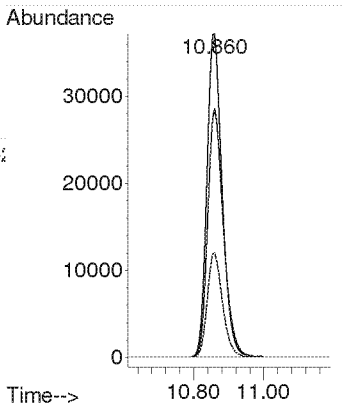


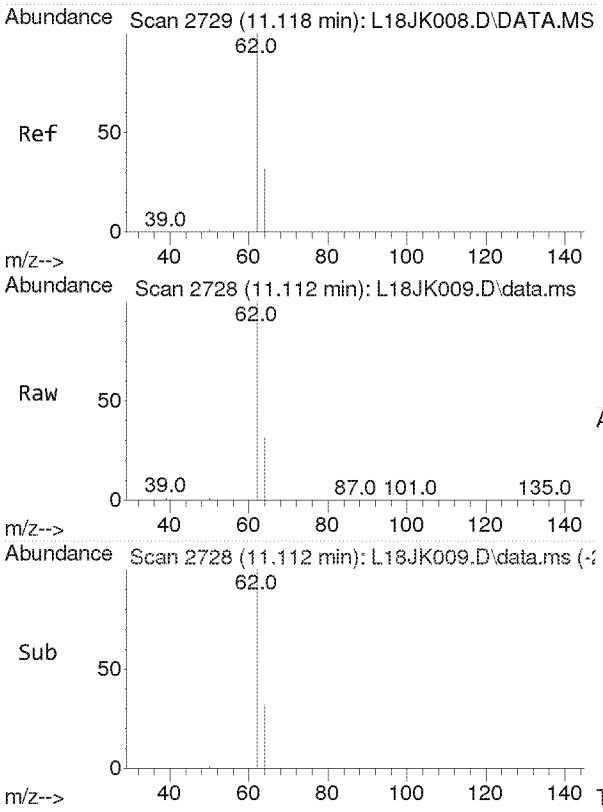


#6
Dichlorotetrafluoroethane
Concen: 5.296 ppbv
RT: 10.860 min Scan# 2682
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 85 Resp: 111202

Ion	Ratio	Lower	Upper
85	100		
135	79.8	63.7	95.5
87	32.3	25.7	38.5

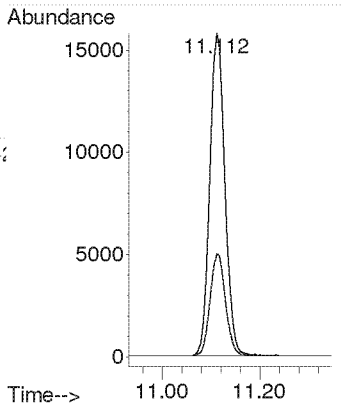


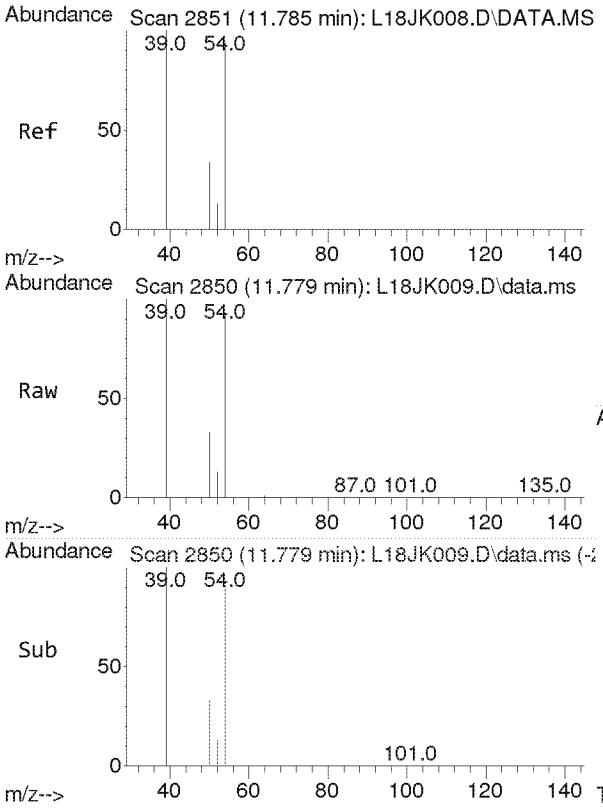


#7
Vinyl Chloride
Concen: 4.948 ppbv
RT: 11.112 min Scan# 2728
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 62 Resp: 33829

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.6	38.4

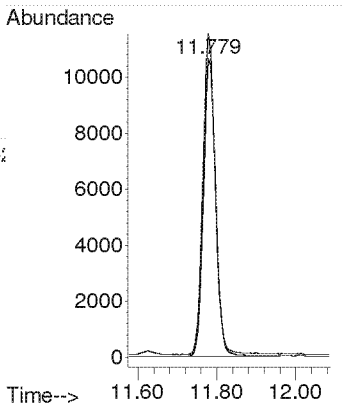


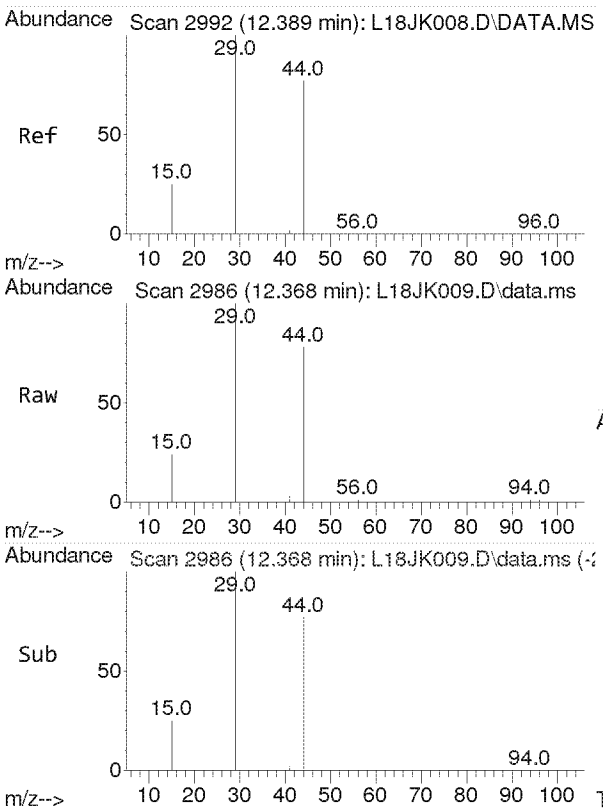


#8
1,3-Butadiene
Concen: 4.838 ppbv
RT: 11.779 min Scan# 2850
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 54 Resp: 22758

Ion	Ratio	Lower	Upper
54	100		
39	108.3	87.0	130.4

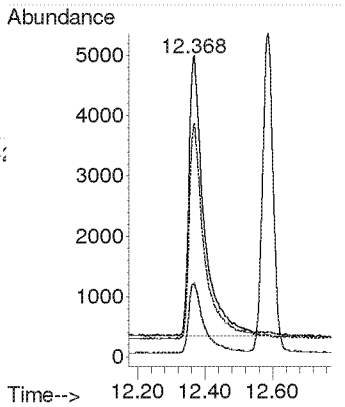


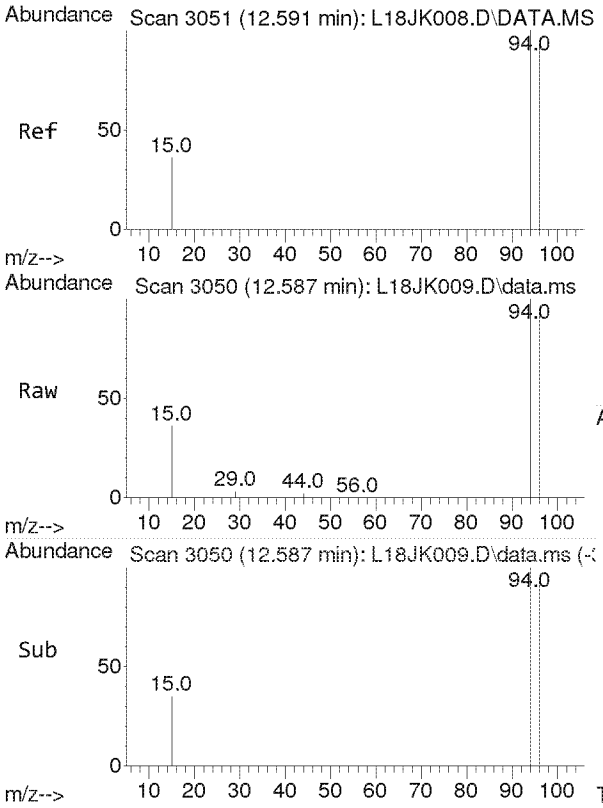


#9
Ethylene oxide
Concen: 4.995 ppbv
RT: 12.368 min Scan# 2986
Delta R.T. -0.021 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 29 Resp: 14639

Ion	Ratio	Lower	Upper
29	100		
15	24.9	20.1	30.1
44	78.4	62.6	93.8

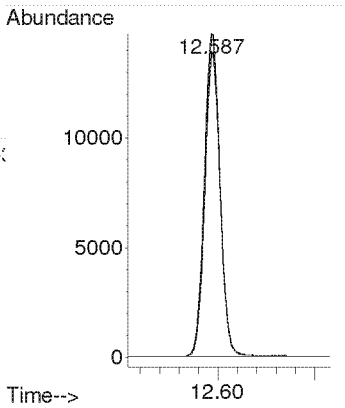


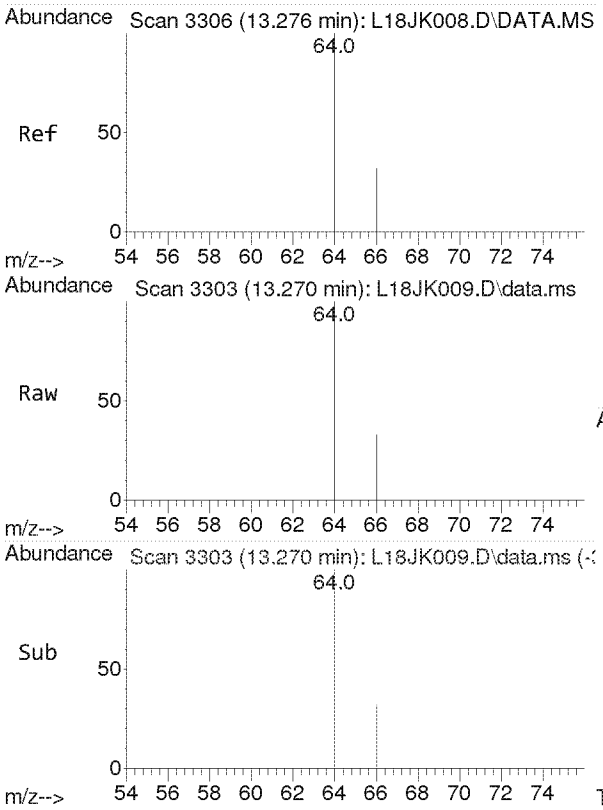


#10
Bromomethane
Concen: 4.868 ppbv
RT: 12.587 min Scan# 3050
Delta R.T. -0.004 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 94 Resp: 32490

Ion	Ratio	Lower	Upper
94	100		
96	94.1	75.5	113.3

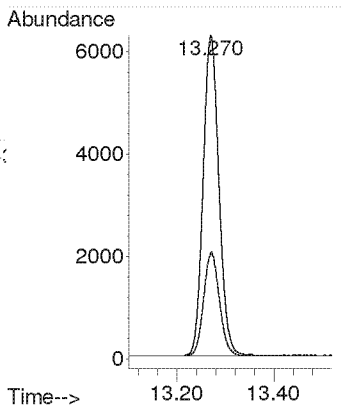


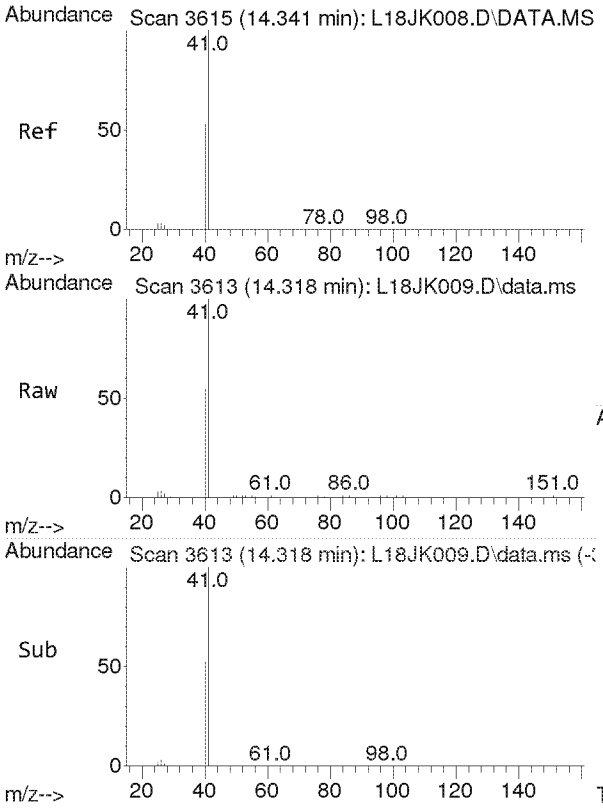


#11
Chloroethane
Concen: 4.809 ppbv
RT: 13.270 min Scan# 3303
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 64 Resp: 14137

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.8	38.6

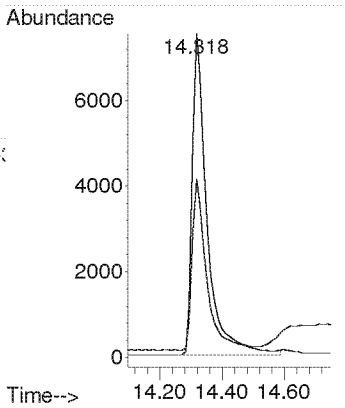


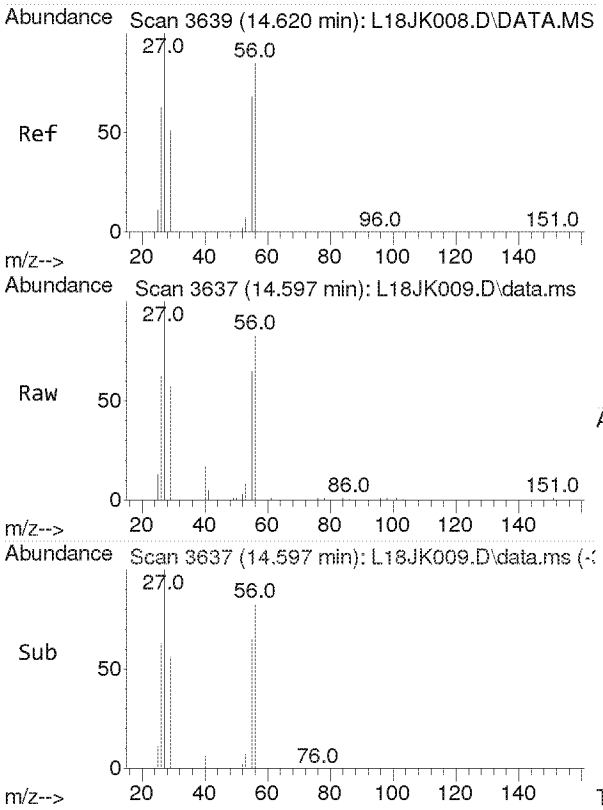


#12
Acetonitrile
Concen: 4.638 ppbv
RT: 14.318 min Scan# 3613
Delta R.T. -0.023 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 41 Resp: 24750

Ion	Ratio	Lower	Upper
41	100		
40	52.7	43.1	64.7

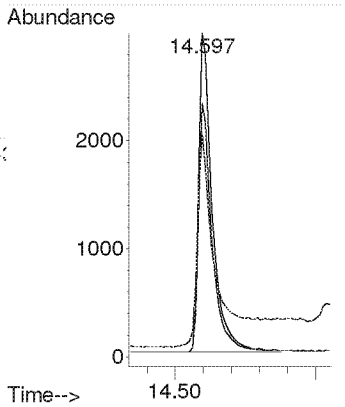


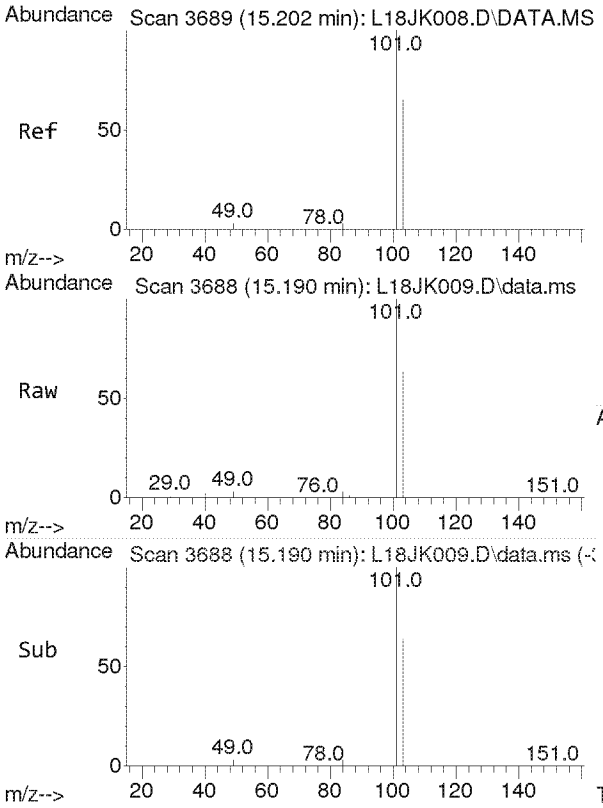


#13
Acrolein
Concen: 4.113 ppbv
RT: 14.597 min Scan# 3637
Delta R.T. -0.023 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 56 Resp: 9914

Ion	Ratio	Lower	Upper
56	100		
55	77.4	61.9	92.9
29	103.7	49.2	73.8#

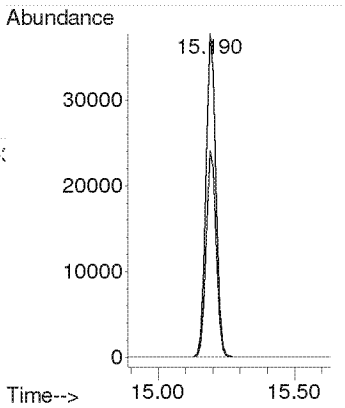


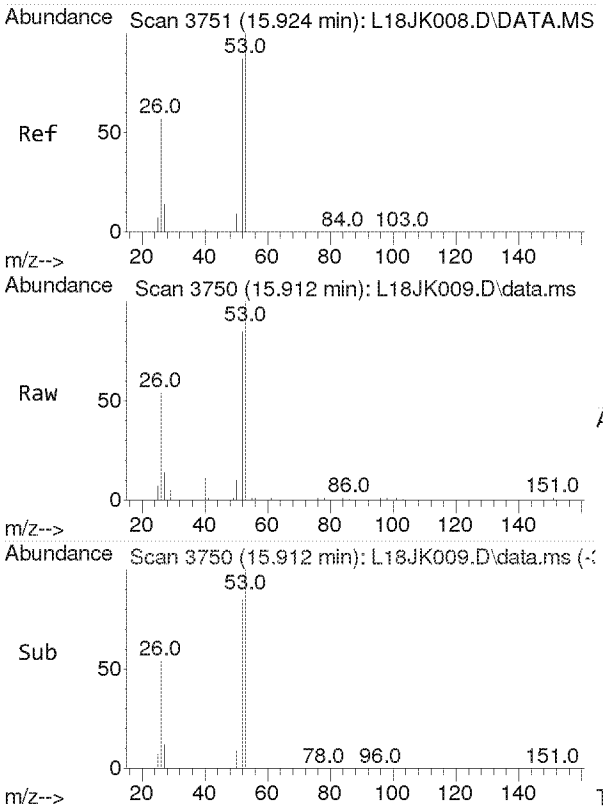


#14
Trichlorofluoromethane
Concen: 4.571 ppbv
RT: 15.190 min Scan# 3688
Delta R.T. -0.012 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:101 Resp: 93938

Ion	Ratio	Lower	Upper
101	100		
103	64.5	51.8	77.6

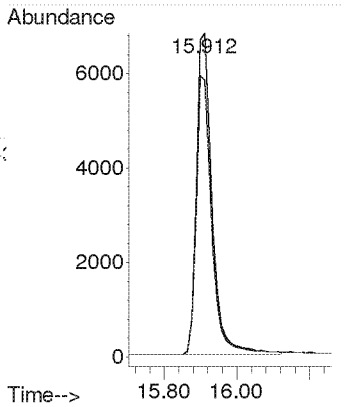


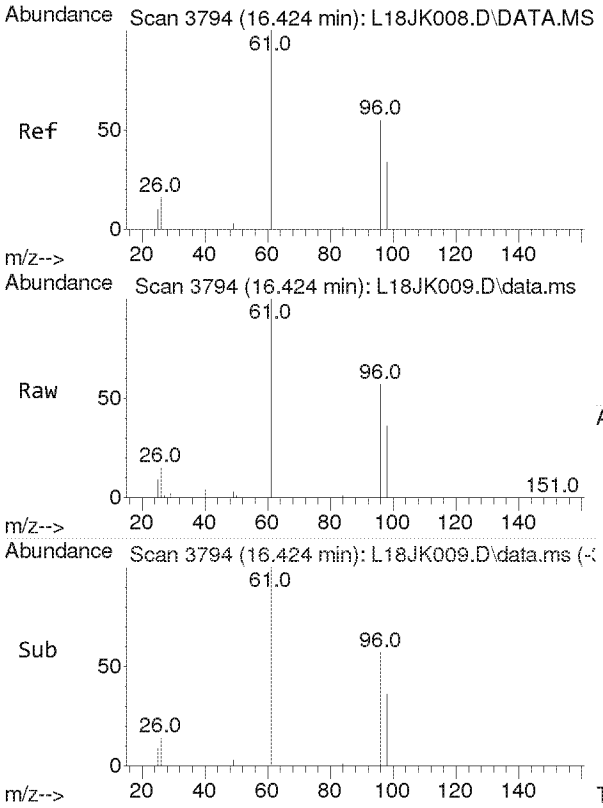


#15
Acrylonitrile
Concen: 4.954 ppbv
RT: 15.912 min Scan# 3750
Delta R.T. -0.012 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 53 Resp: 20027

Ion	Ratio	Lower	Upper
53	100		
52	86.9	69.7	104.5

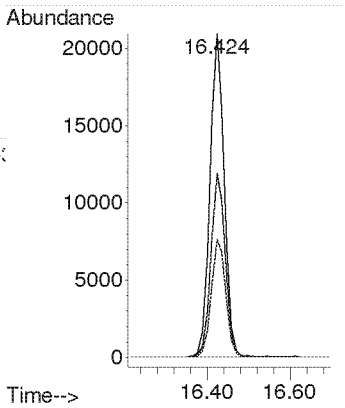


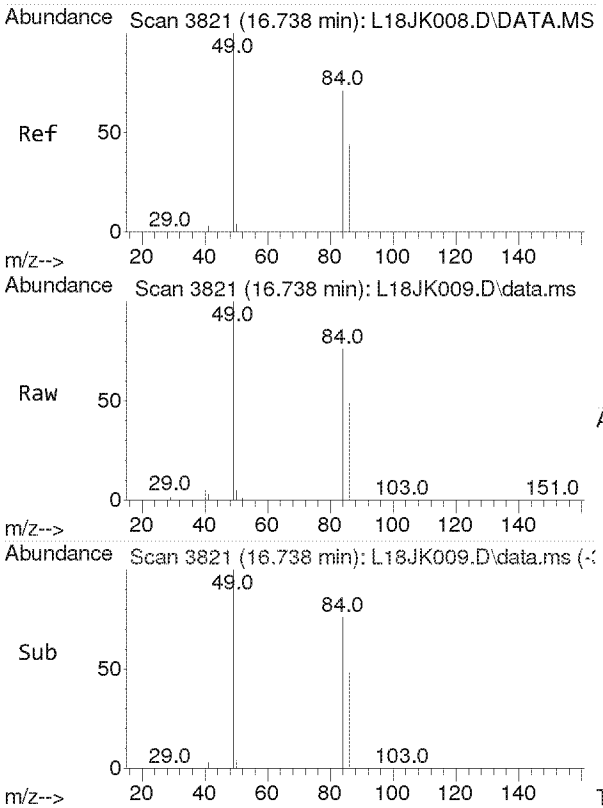


#16
1,1-Dichloroethene
Concen: 5.382 ppbv
RT: 16.424 min Scan# 3794
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 61 Resp: 49350

Ion	Ratio	Lower	Upper
61	100		
96	57.3	46.1	69.1
98	36.9	29.4	44.2

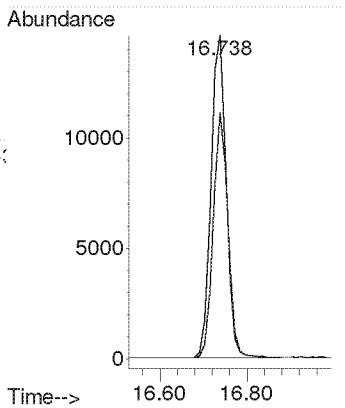


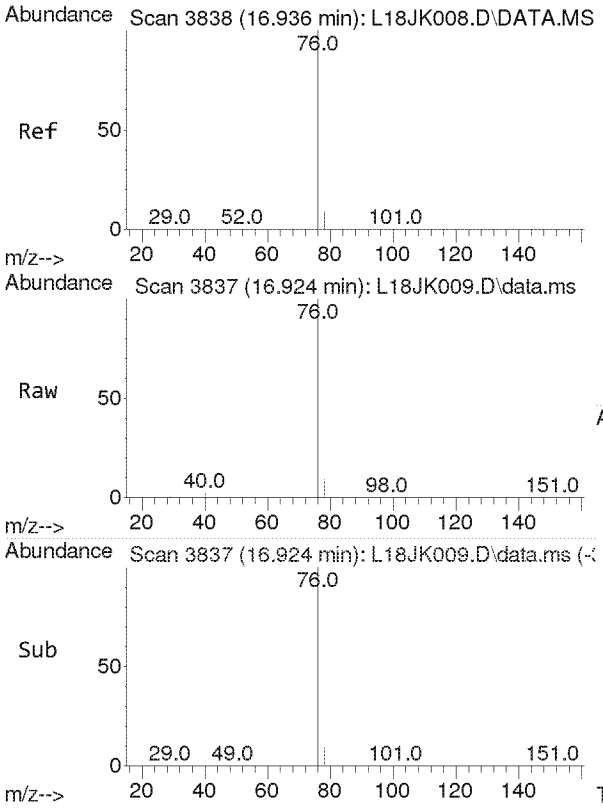


#17
Methylene Chloride
Concen: 5.313 ppbv
RT: 16.738 min Scan# 3821
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 49 Resp: 35115

Ion	Ratio	Lower	Upper
49	100		
84	74.0	51.9	96.5

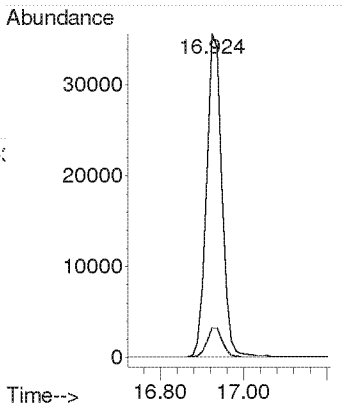


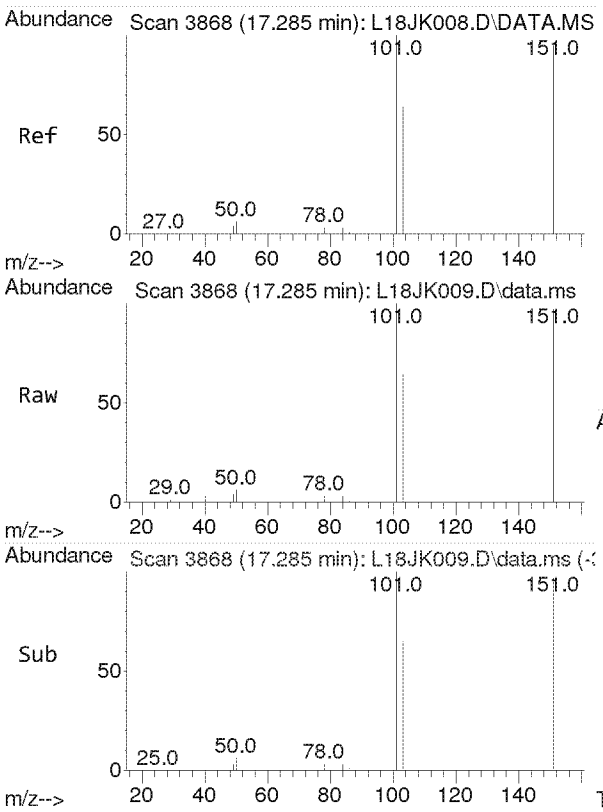


#18
Carbon Disulfide
Concen: 4.877 ppbv
RT: 16.924 min Scan# 3837
Delta R.T. -0.012 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 76 Resp: 91316

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.3	10.9

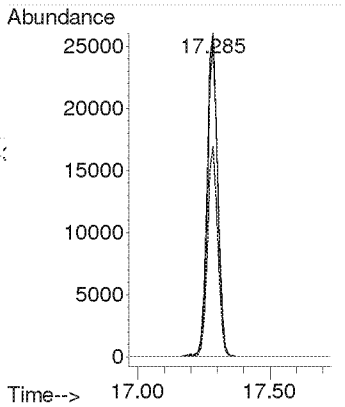


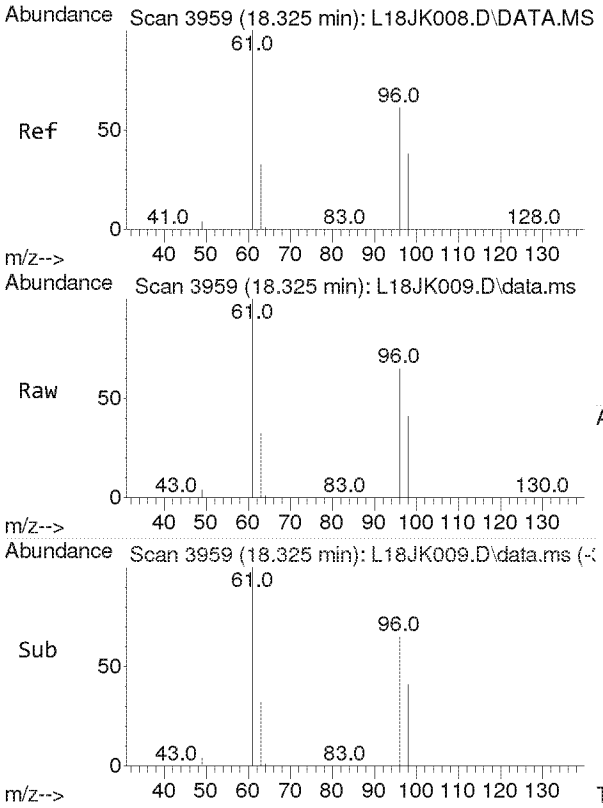


#19
Trichlorotrifluoroethane
Concen: 5.021 ppbv
RT: 17.285 min Scan# 3868
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:101 Resp: 71071

Ion	Ratio	Lower	Upper
101	100		
151	95.6	76.8	115.2
103	64.1	51.4	77.2

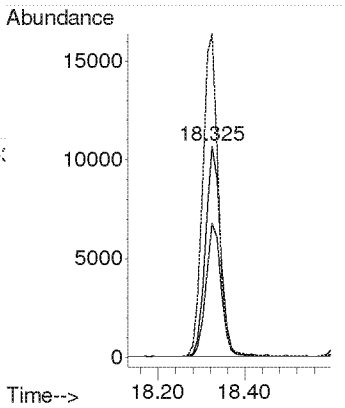


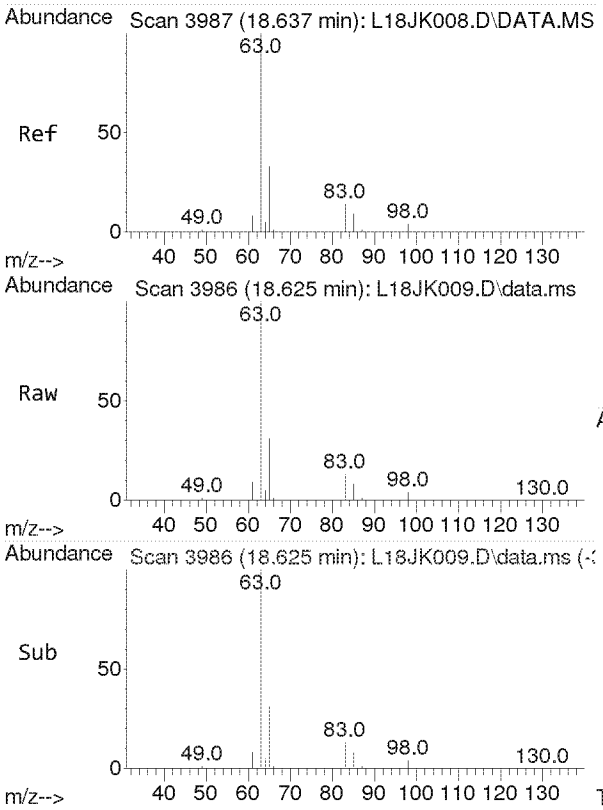


#20
trans-1,2-Dichloroethylene
Concen: 5.033 ppbv
RT: 18.325 min Scan# 3959
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 96 Resp: 25712

Ion	Ratio	Lower	Upper
96	100		
98	63.7	50.9	76.3
61	157.2	125.0	187.6

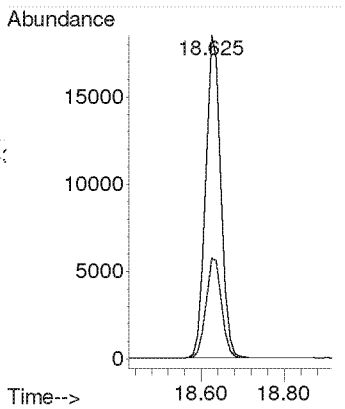


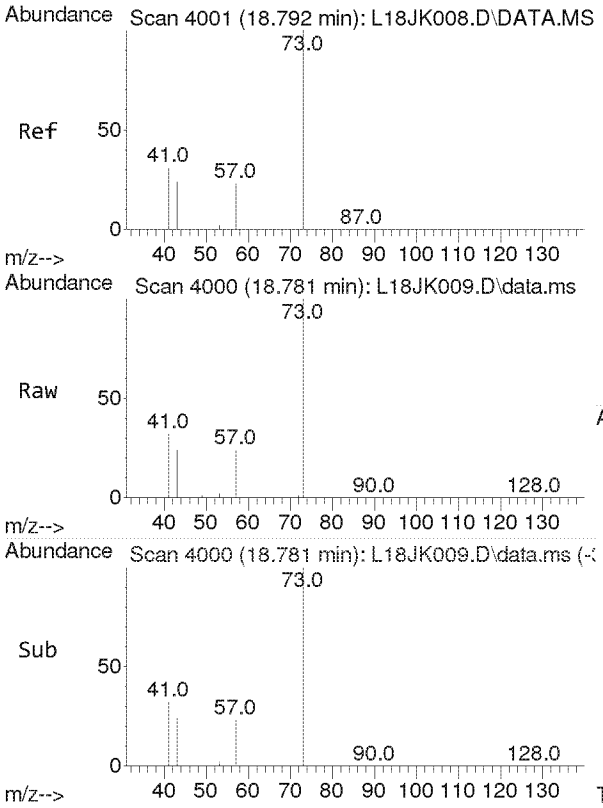


#21
1,1-Dichloroethane
Concen: 5.243 ppbv
RT: 18.625 min Scan# 3986
Delta R.T. -0.011 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 63 Resp: 46760

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.7	38.5

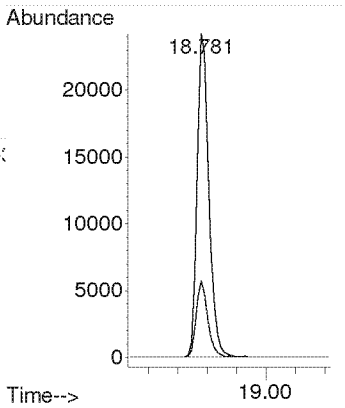


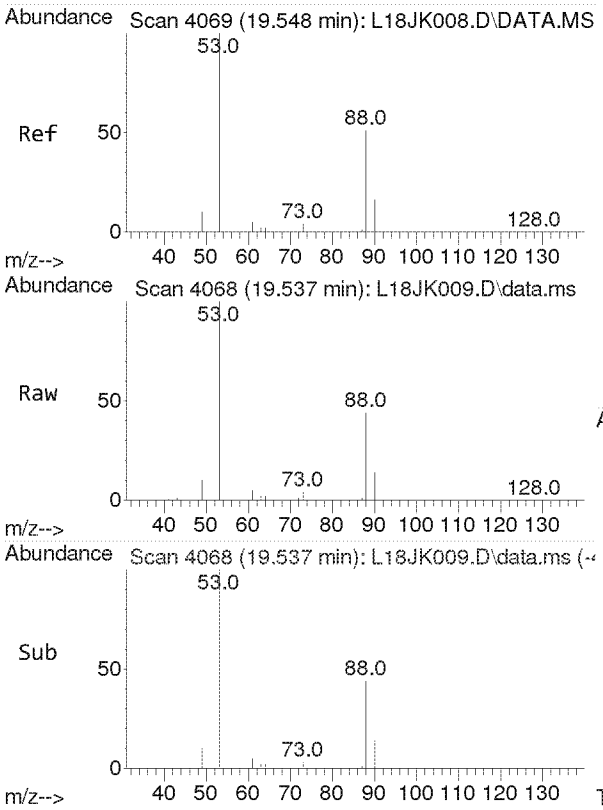


#22
Methyl tert-Butyl Ether
Concen: 4.792 ppbv
RT: 18.781 min Scan# 4000
Delta R.T. -0.011 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 73 Resp: 67250

Ion	Ratio	Lower	Upper
73	100		
57	22.9	18.4	27.6

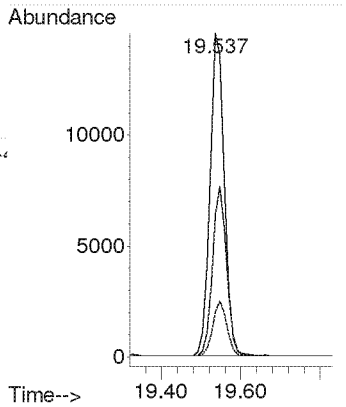


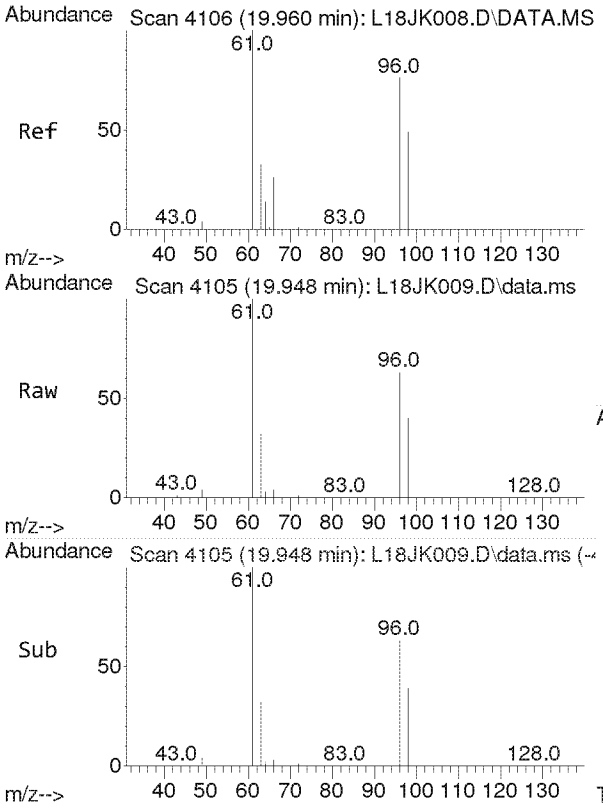


#23
Chloroprene
Concen: 5.495 ppbv
RT: 19.537 min Scan# 4068
Delta R.T. -0.011 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 53 Resp: 36828

Ion	Ratio	Lower	Upper
53	100		
88	51.4	41.2	61.8
90	16.5	13.3	19.9

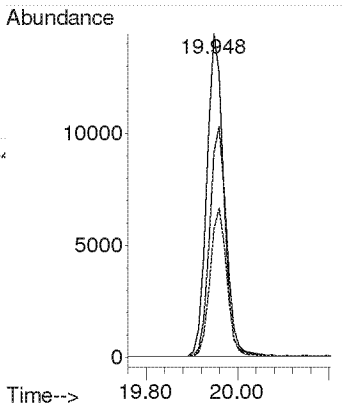


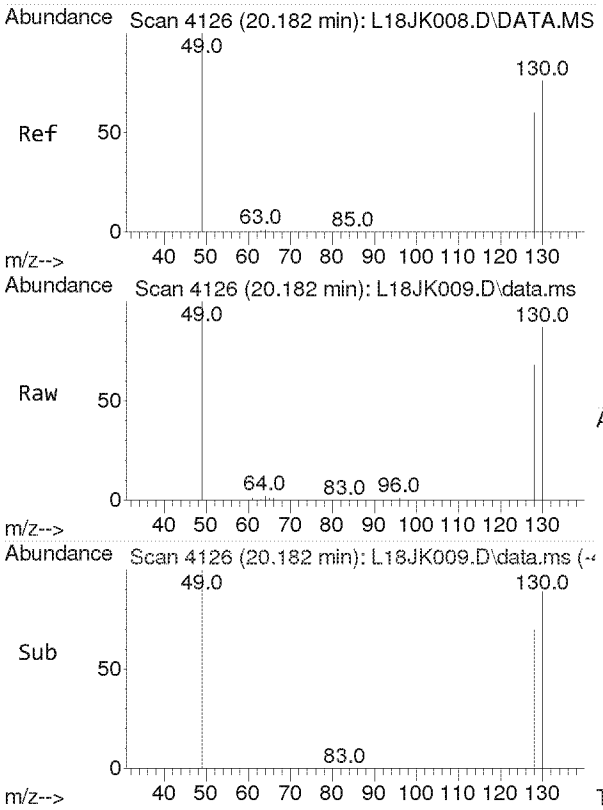


#24
cis-1,2-Dichloroethylene
Concen: 5.169 ppbv
RT: 19.948 min Scan# 4105
Delta R.T. -0.011 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 61 Resp: 36348

Ion	Ratio	Lower	Upper
61	100		
96	72.6	58.8	88.2
98	46.2	37.0	55.4

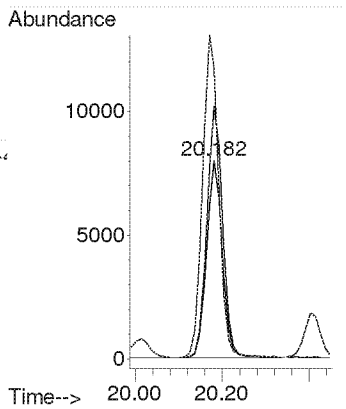


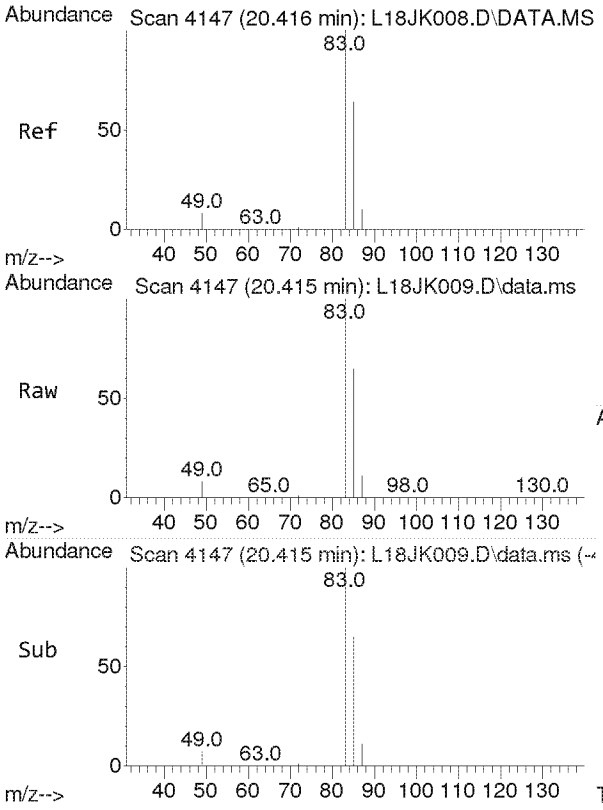


#25
Bromochloromethane
Concen: 5.119 ppbv
RT: 20.182 min Scan# 4126
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:128 Resp: 19890

Ion	Ratio	Lower	Upper
128	100		
130	128.7	103.1	154.7
49	167.4	134.3	201.5

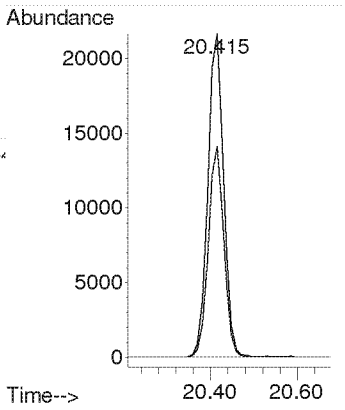


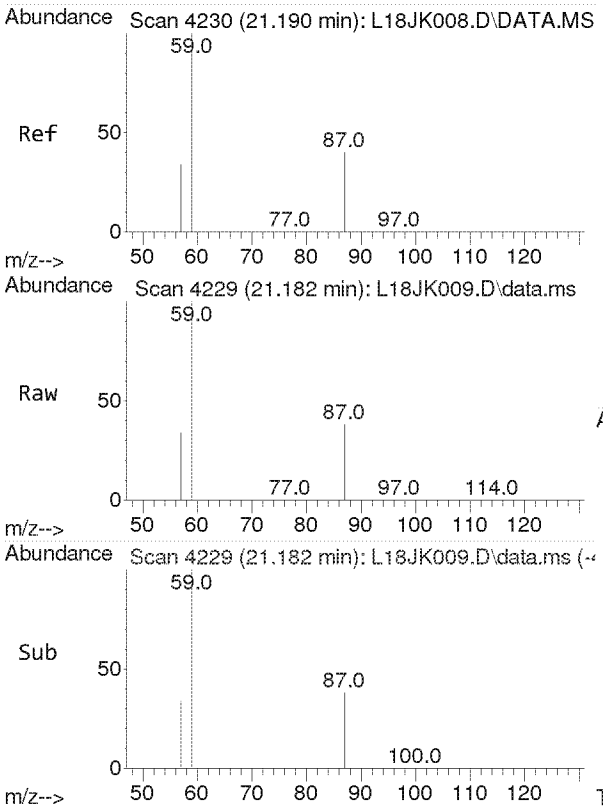


#26
Chloroform
Concen: 5.149 ppbv
RT: 20.415 min Scan# 4147
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 83 Resp: 54105

Ion	Ratio	Lower	Upper
83	100		
85	64.5	51.6	77.4

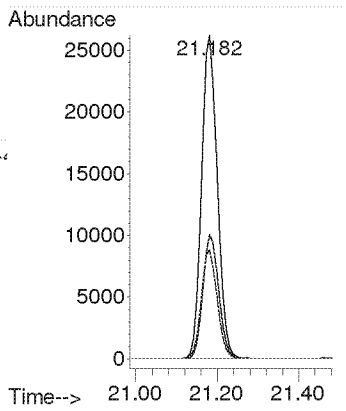


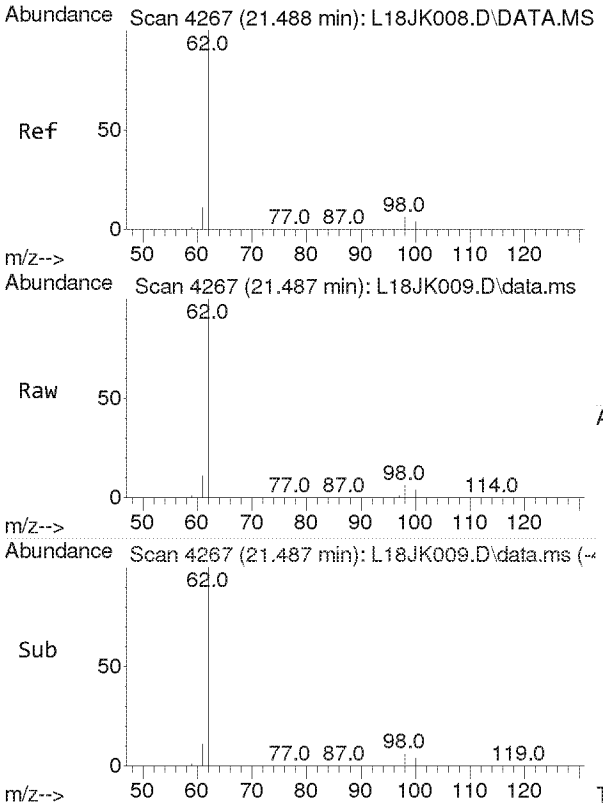


#27
Ethyl tert-Butyl Ether
Concen: 4.805 ppbv
RT: 21.182 min Scan# 4229
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 59 Resp: 69330

Ion	Ratio	Lower	Upper
59	100		
87	38.4	30.8	46.2
57	33.7	27.2	40.8

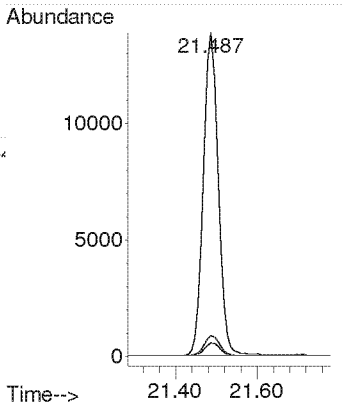


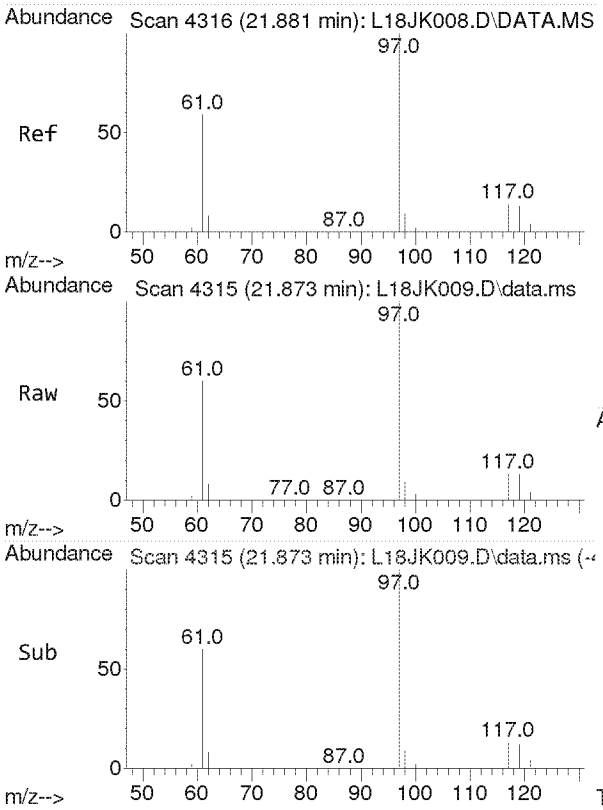


#28
1,2-Dichloroethane
Concen: 5.315 ppbv
RT: 21.487 min Scan# 4267
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 62 Resp: 34897

Ion	Ratio	Lower	Upper
62	100		
98	6.1	4.8	7.2
100	3.9	3.1	4.7

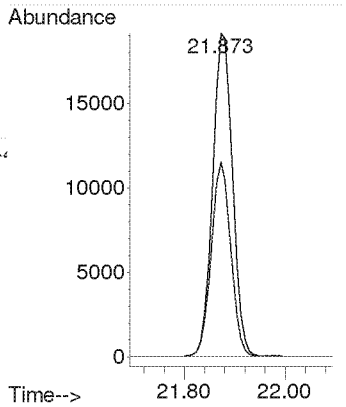


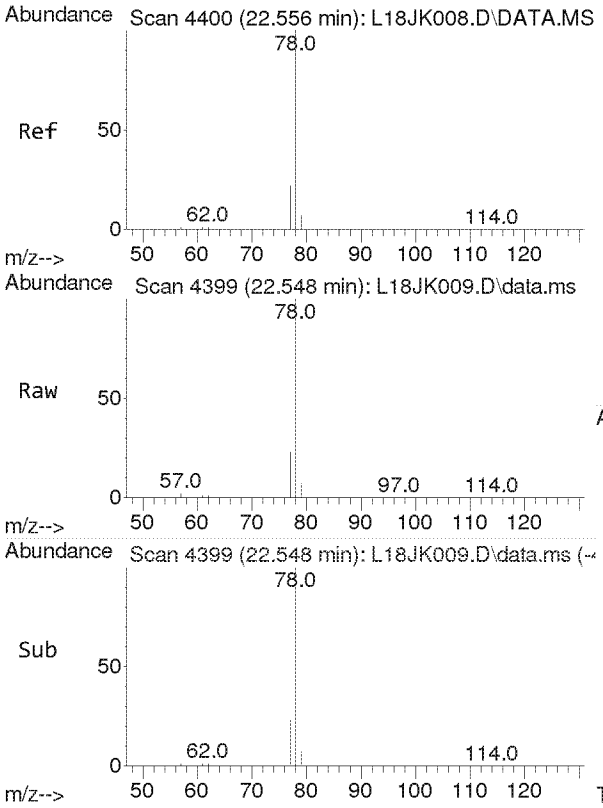


#30
1,1,1-Trichloroethane
Concen: 4.989 ppbv
RT: 21.873 min Scan# 4315
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 97 Resp: 51817

Ion	Ratio	Lower	Upper
97	100		
61	58.8	47.7	71.5

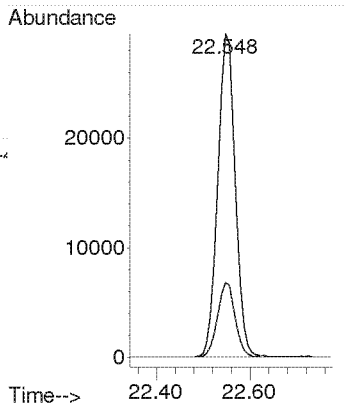


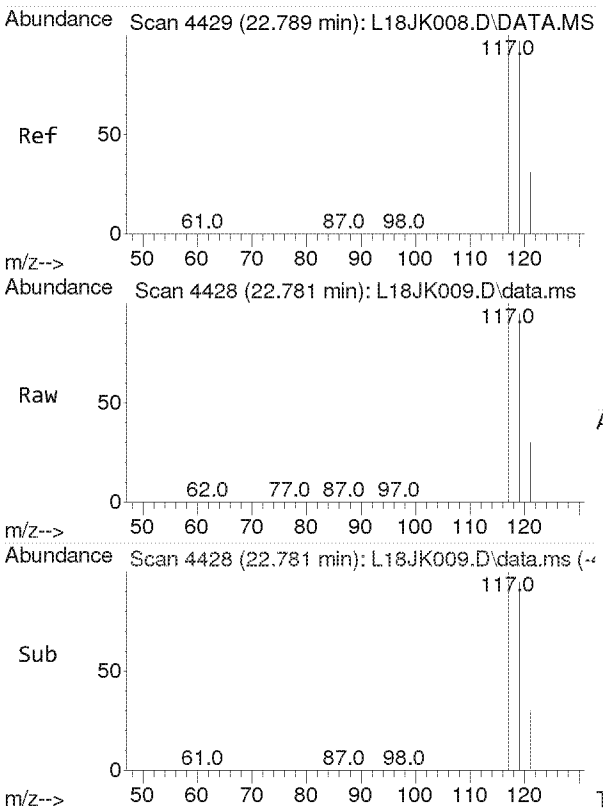


#31
Benzene
Concen: 5.227 ppbv
RT: 22.548 min Scan# 4399
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 78 Resp: 76812

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

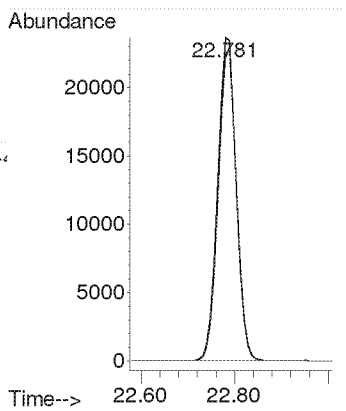


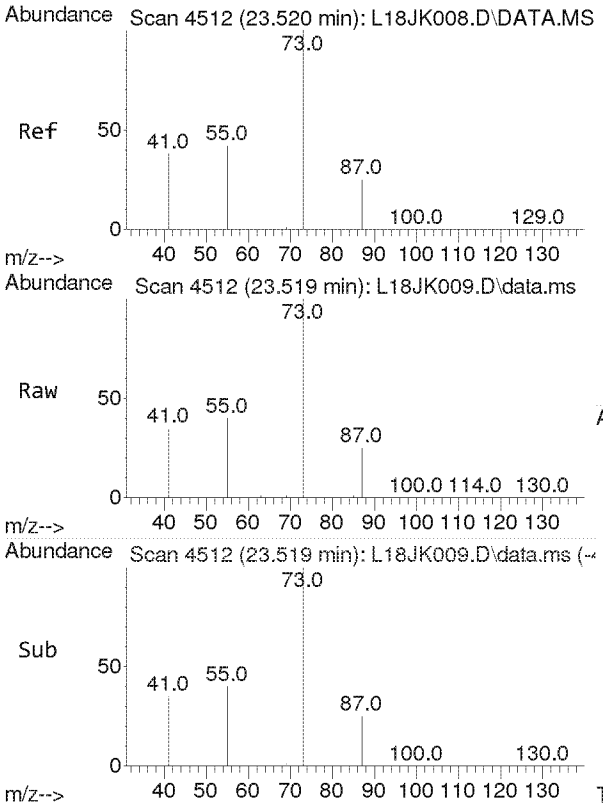


#32
Carbon Tetrachloride
Concen: 5.421 ppbv
RT: 22.781 min Scan# 4428
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:117 Resp: 64310

Ion	Ratio	Lower	Upper
117	100		
119	96.3	77.5	116.3

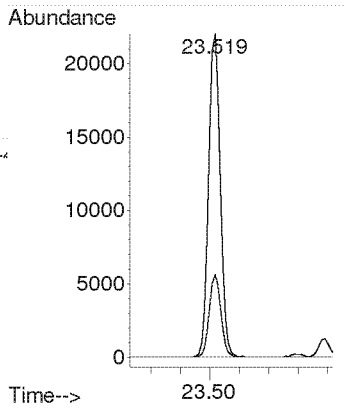


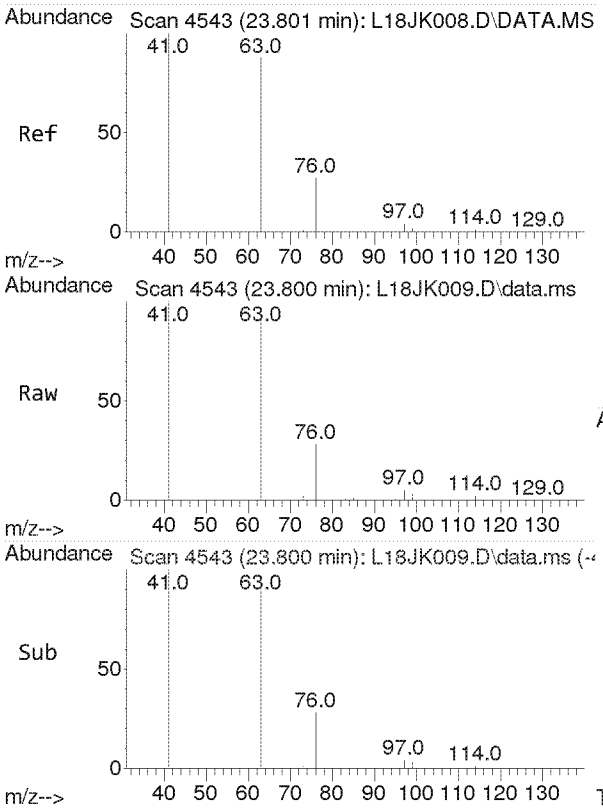


#33
tert-Amyl Methyl Ether
Concen: 4.851 ppbv
RT: 23.519 min Scan# 4512
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 73 Resp: 59784

Ion	Ratio	Lower	Upper
73	100		
87	25.1	20.1	30.1

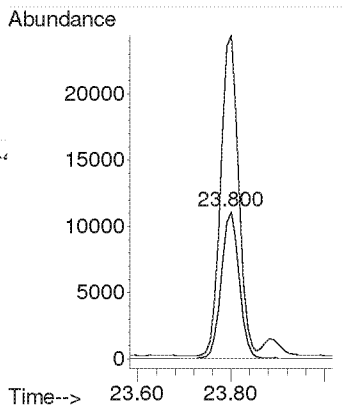


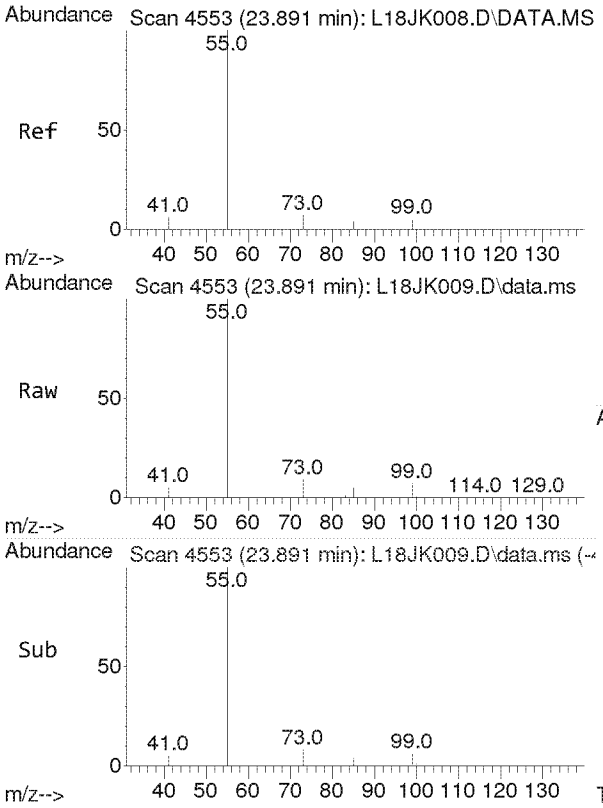


#34
1,2-Dichloropropane
Concen: 5.143 ppbv
RT: 23.800 min Scan# 4543
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 63 Resp: 29055

Ion	Ratio	Lower	Upper
63	100		
41	220.2	177.7	266.5

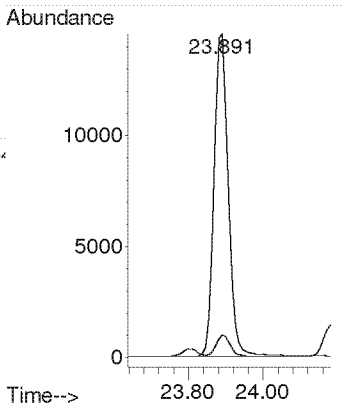


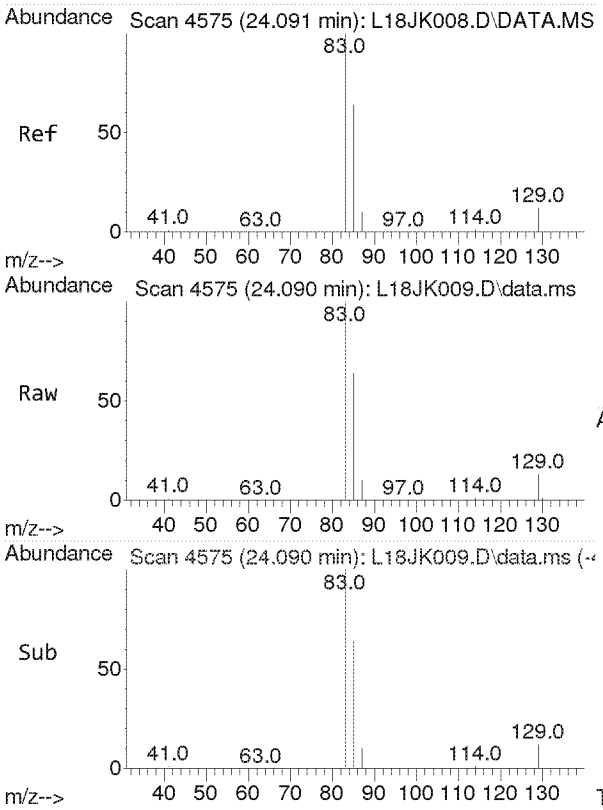


#35
Ethyl Acrylate
Concen: 5.325 ppbv
RT: 23.891 min Scan# 4553
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 55 Resp: 38094

Ion	Ratio	Lower	Upper
55	100		
99	6.3	5.0	7.6

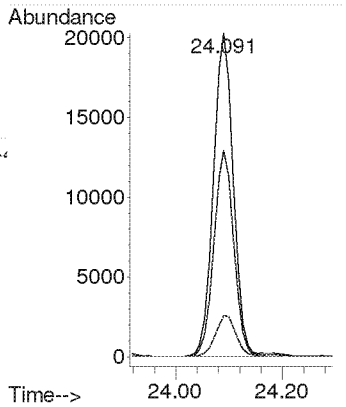


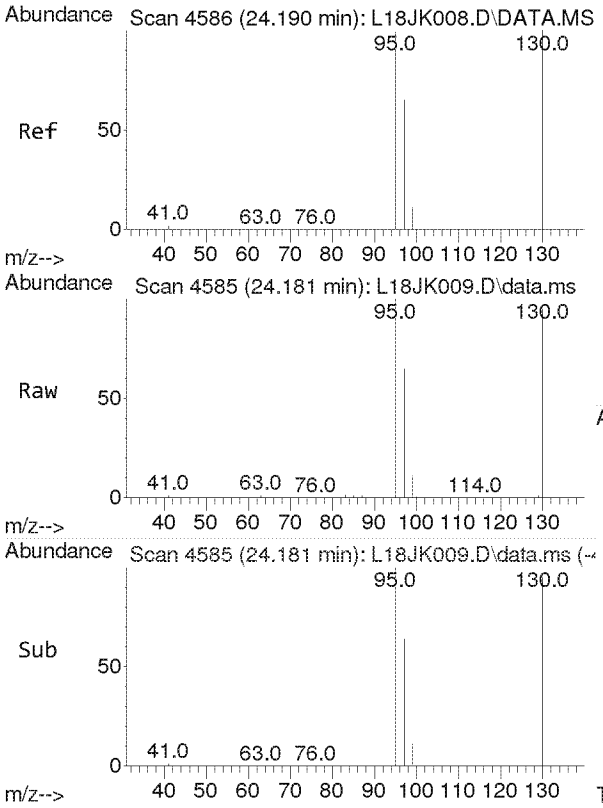


#36
Bromodichloromethane
Concen: 4.847 ppbv
RT: 24.090 min Scan# 4575
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 83 Resp: 52650

Ion	Ratio	Lower	Upper
83	100		
85	63.7	51.1	76.7
129	12.9	10.3	15.5

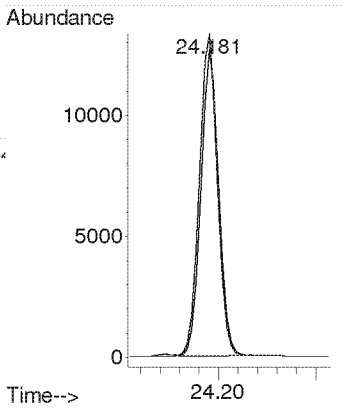


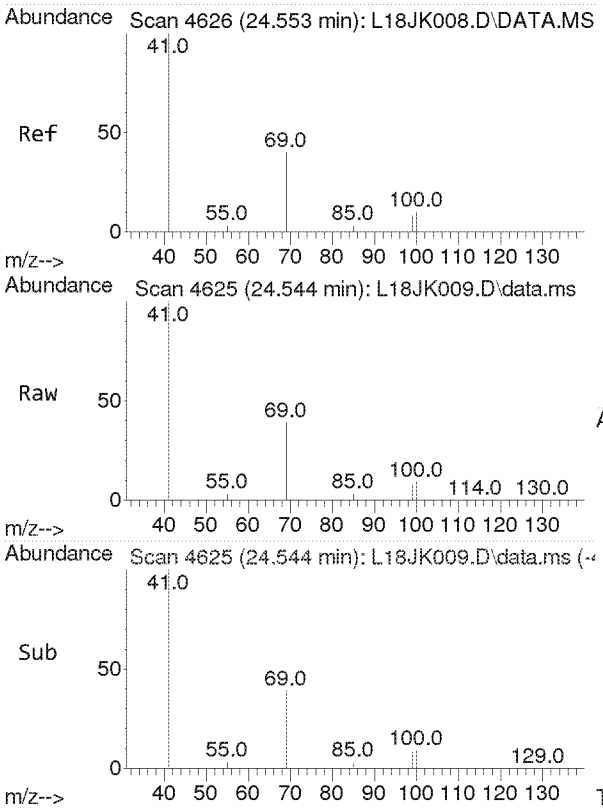


#37
Trichloroethylene
Concen: 4.812 ppbv
RT: 24.181 min Scan# 4585
Delta R.T. -0.009 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:130 Resp: 32370

Ion	Ratio	Lower	Upper
130	100		
95	106.7	85.5	128.3

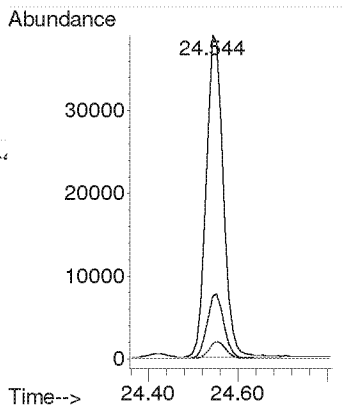


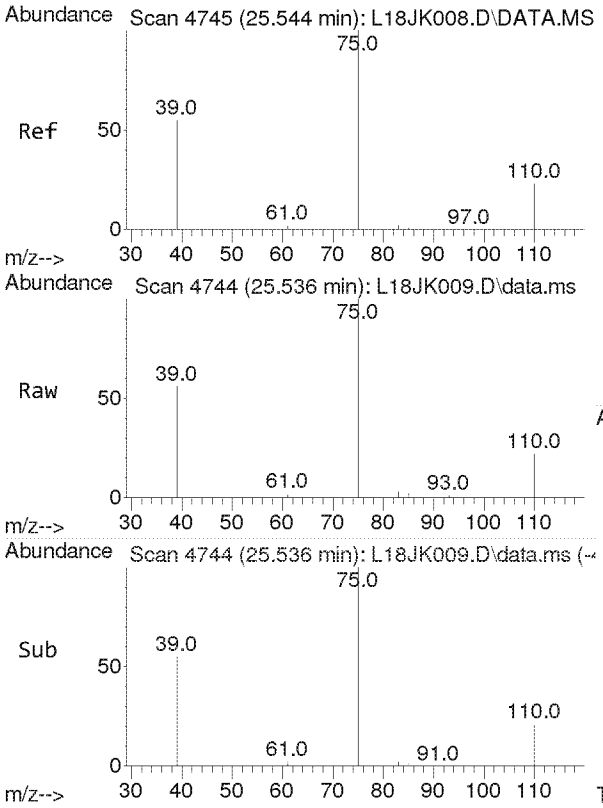


#38
Methyl Methacrylate
Concen: 5.086 ppbv
RT: 24.544 min Scan# 4625
Delta R.T. -0.009 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 41 Resp: 102446

Ion	Ratio	Lower	Upper
41	100		
69	19.9	16.0	24.0
100	5.2	4.1	6.1

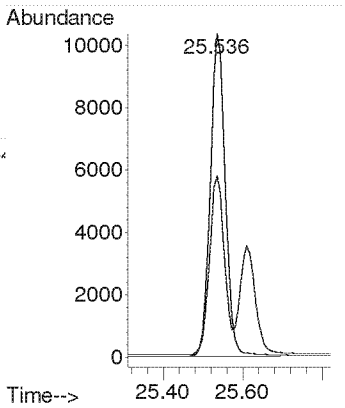


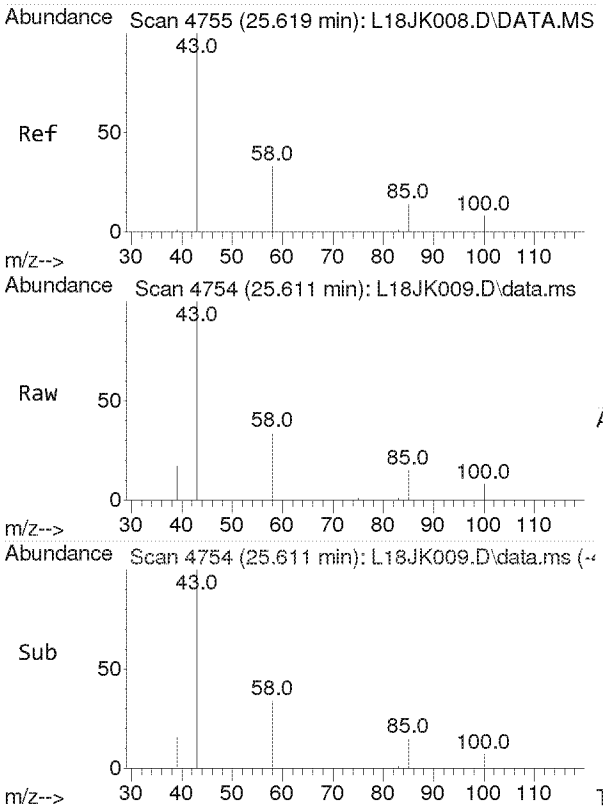


#39
cis-1,3-Dichloropropene
Concen: 5.219 ppbv
RT: 25.536 min Scan# 4744
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 75 Resp: 26926

Ion	Ratio	Lower	Upper
75	100		
39	56.4	44.5	66.7

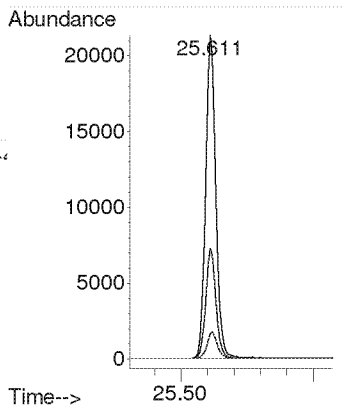


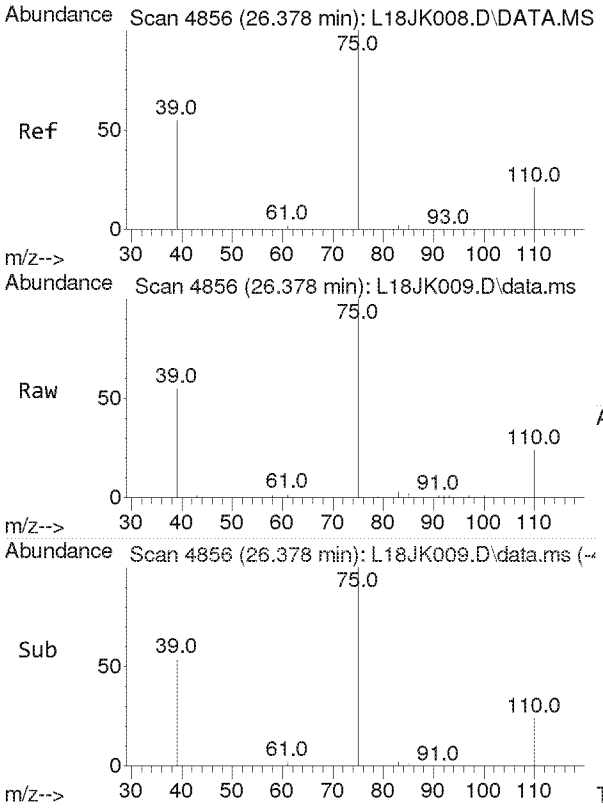


#40
Methyl Isobutyl Ketone
Concen: 4.894 ppbv
RT: 25.611 min Scan# 4754
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 43 Resp: 57319

Ion	Ratio	Lower	Upper
43	100		
58	33.9	26.6	40.0
100	8.0	6.4	9.6

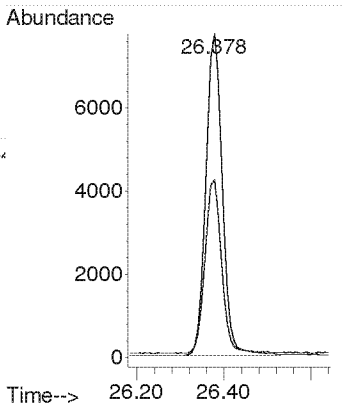


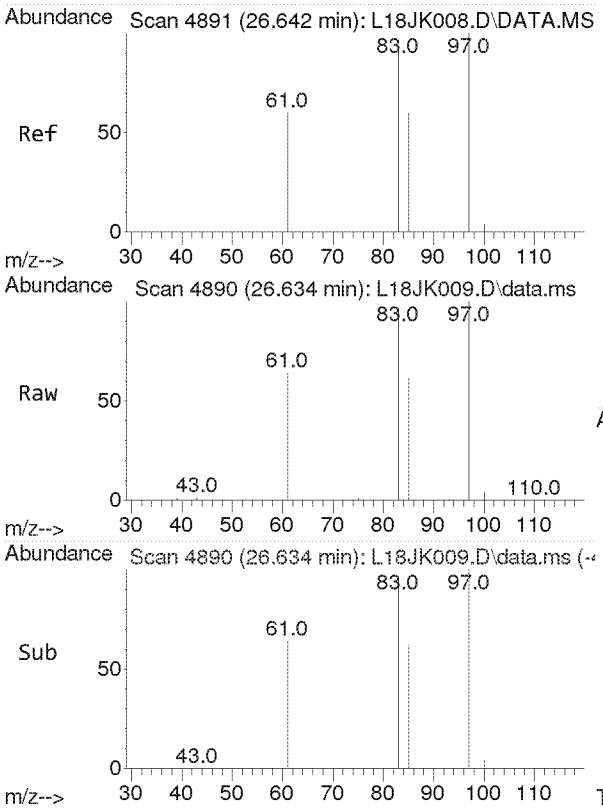


#41
trans-1,3-Dichloropropene
Concen: 5.315 ppbv
RT: 26.378 min Scan# 4856
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 75 Resp: 20077

Ion	Ratio	Lower	Upper
75	100		
39	54.5	44.2	66.4

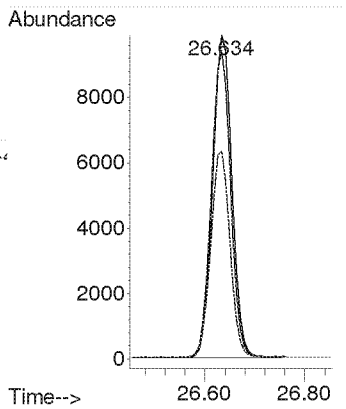


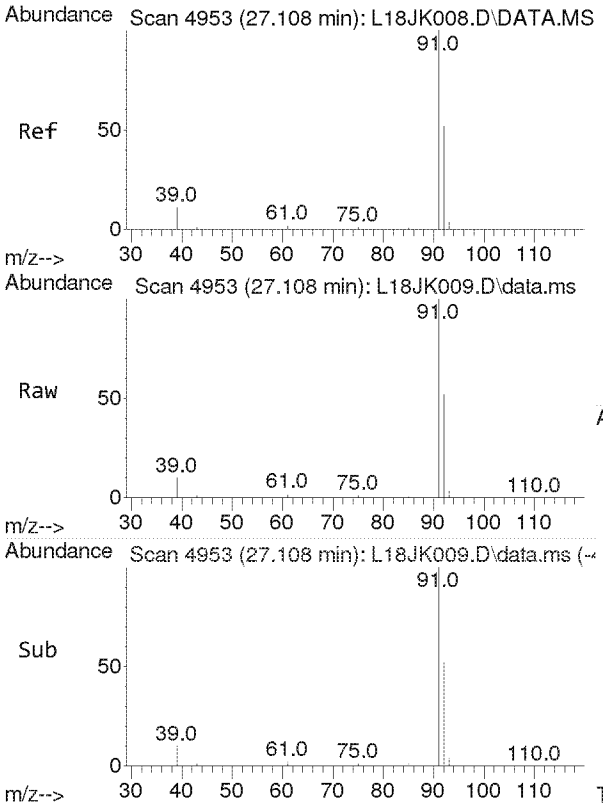


#42
1,1,2-Trichloroethane
Concen: 5.208 ppbv
RT: 26.634 min Scan# 4890
Delta R.T. -0.008 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 97 Resp: 26179

Ion	Ratio	Lower	Upper
97	100		
83	94.9	76.2	114.4
61	64.1	51.7	77.5

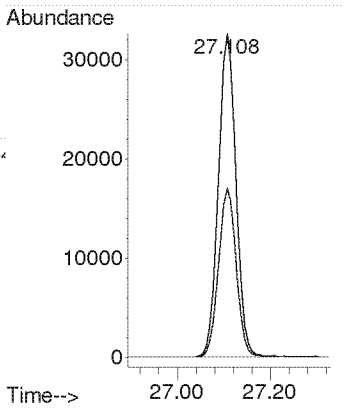


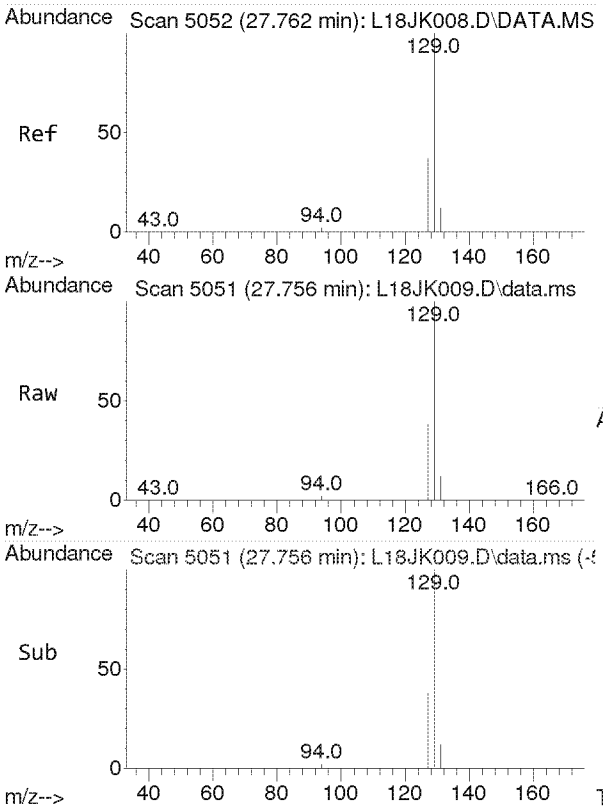


#44
Toluene
Concen: 5.492 ppbv
RT: 27.108 min Scan# 4953
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 91 Resp: 84723

Ion	Ratio	Lower	Upper
91	100		
92	52.4	41.7	62.5

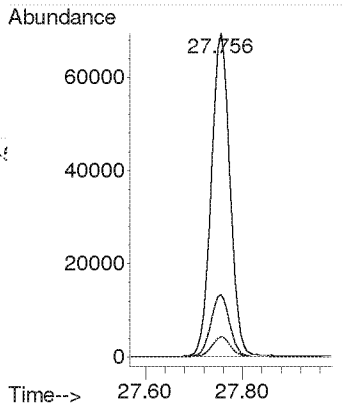


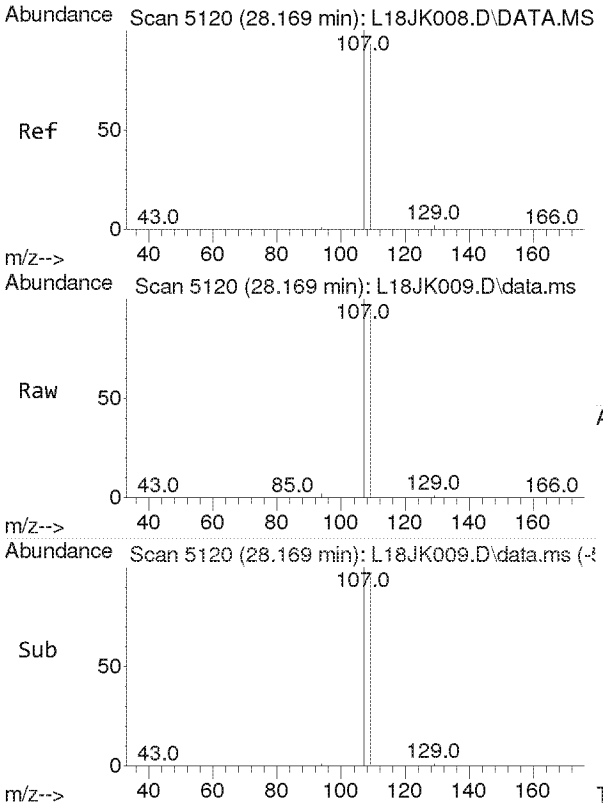


#45
Dibromochloromethane
Concen: 4.975 ppbv
RT: 27.756 min Scan# 5051
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:129 Resp: 185169

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2

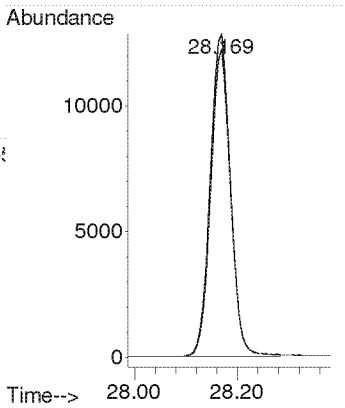


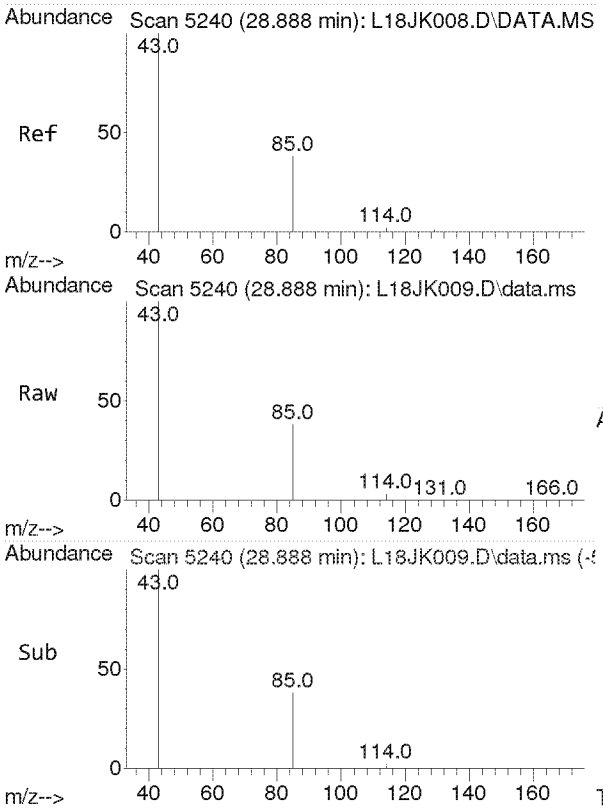


#46
1,2-Dibromoethane
Concen: 5.377 ppbv
RT: 28.169 min Scan# 5120
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:107 Resp: 34710

Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.0	112.6

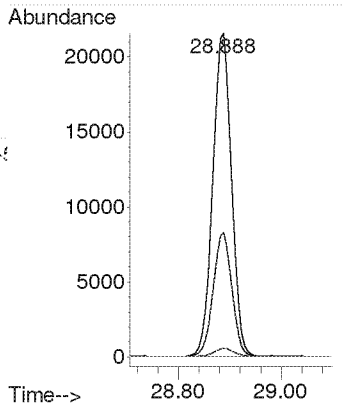


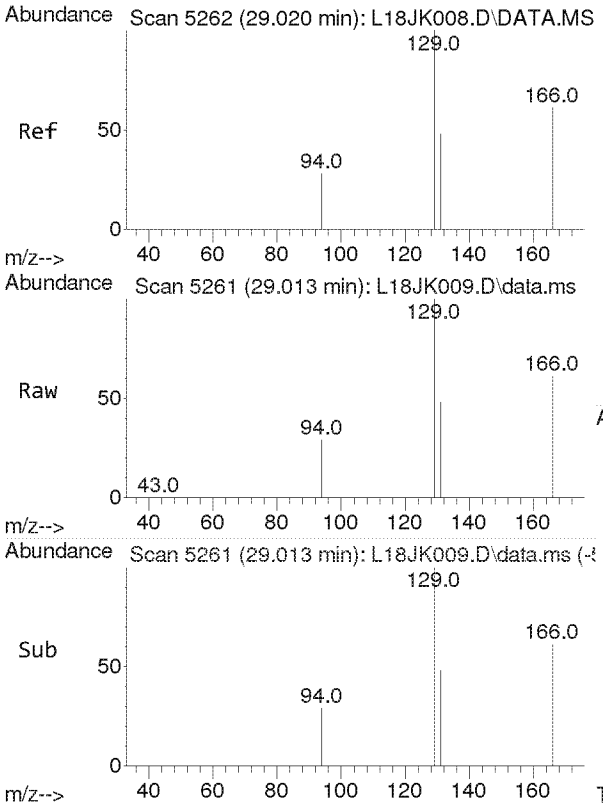


#47
n-Octane
Concen: 5.602 ppbv
RT: 28.888 min Scan# 5240
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 43 Resp: 54171

Ion	Ratio	Lower	Upper
43	100		
85	38.1	30.2	45.4
114	2.4	1.9	2.9

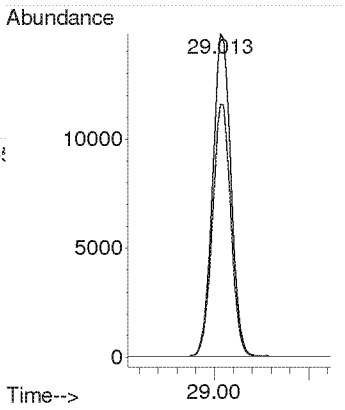


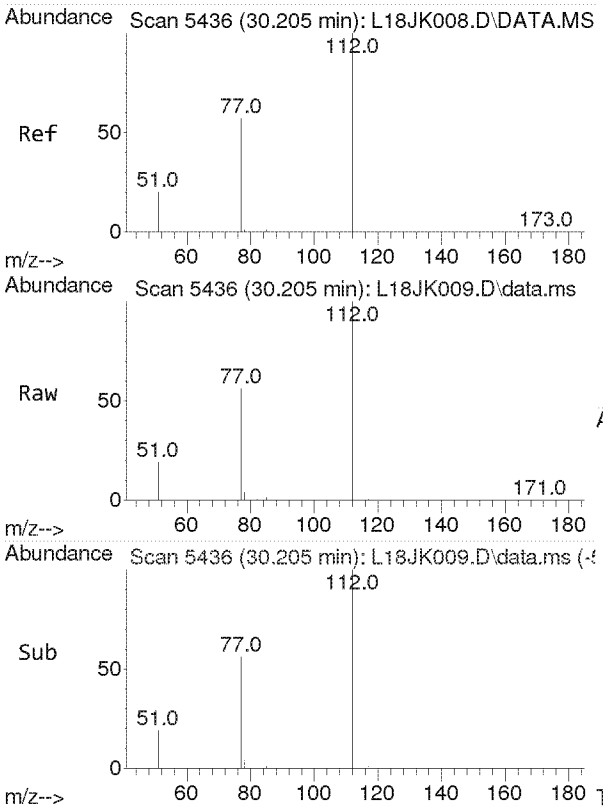


#48
Tetrachloroethylene
Concen: 5.231 ppbv
RT: 29.013 min Scan# 5261
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:166 Resp: 39754

Ion	Ratio	Lower	Upper
166	100		
131	78.3	63.0	94.4

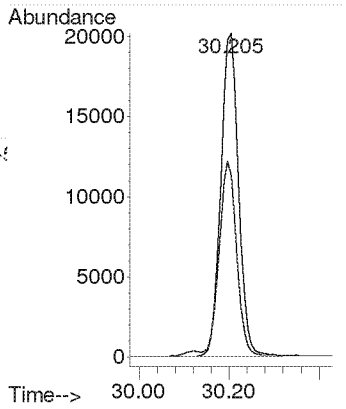


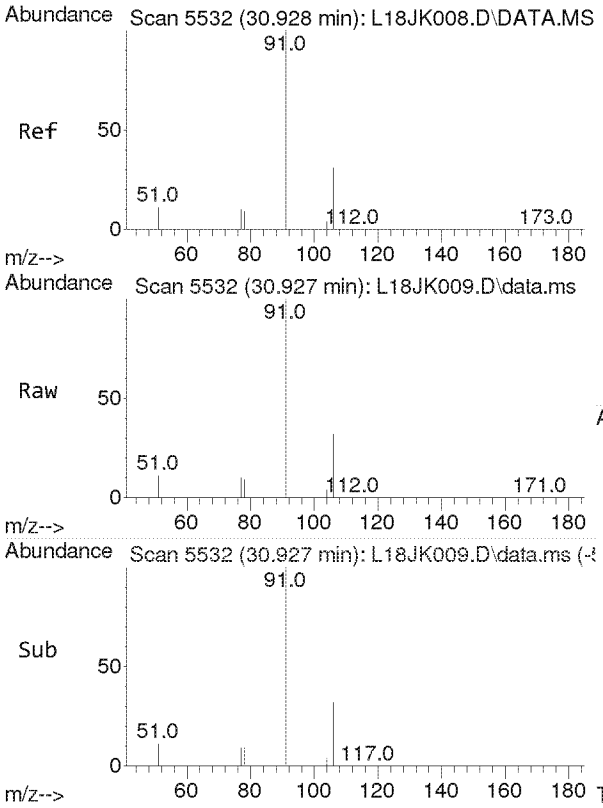


#49
Chlorobenzene
Concen: 5.382 ppbv
RT: 30.205 min Scan# 5436
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:112 Resp: 54864

Ion	Ratio	Lower	Upper
112	100		
77	59.1	47.4	71.2

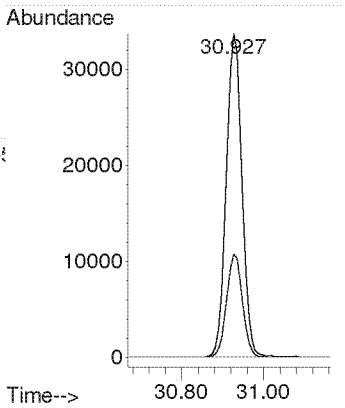


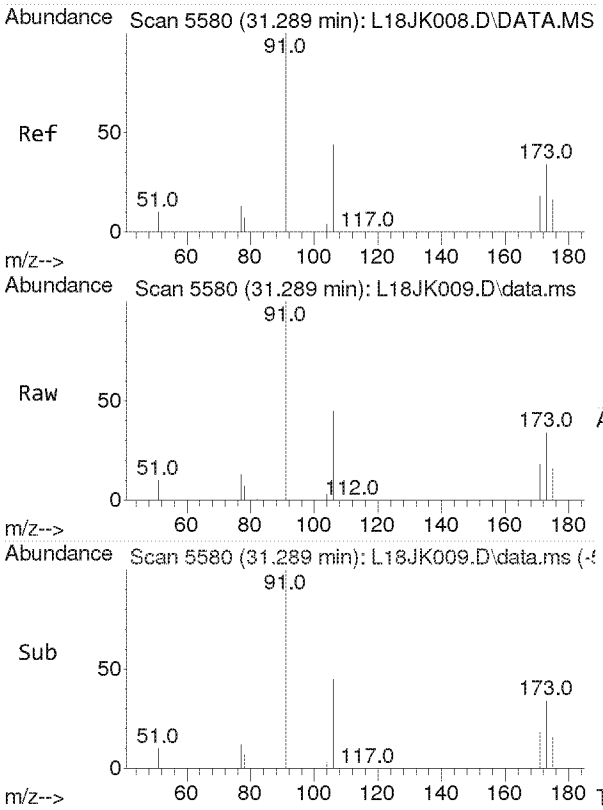


#50
Ethylbenzene
Concen: 5.525 ppbv
RT: 30.927 min Scan# 5532
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 91 Resp: 89853

Ion	Ratio	Lower	Upper
91	100		
106	32.0	25.4	38.2

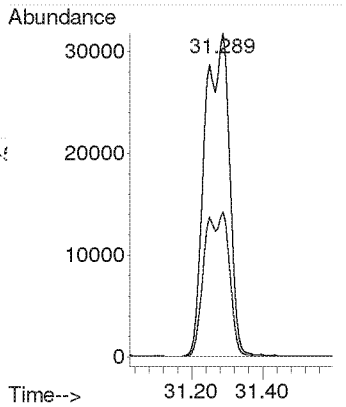


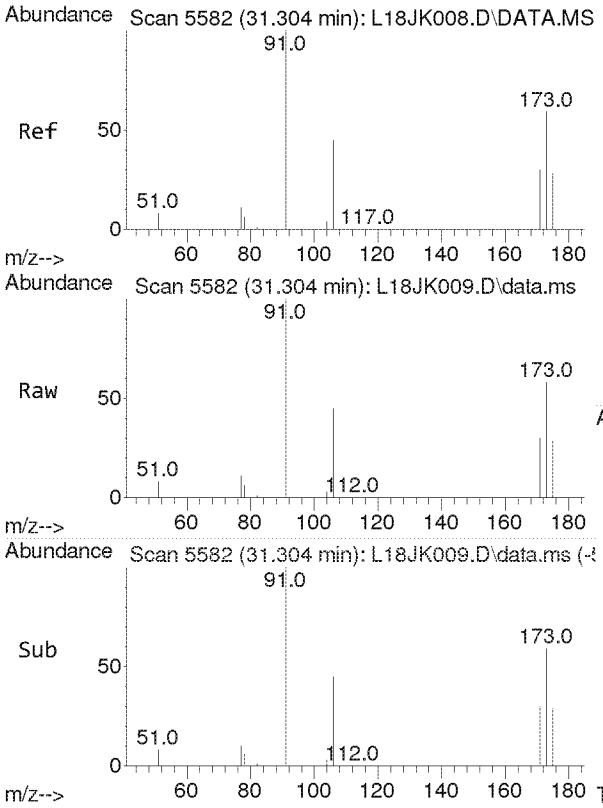


#51
m,p-Xylene
Concen: 10.713 ppbv
RT: 31.289 min Scan# 5580
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 91 Resp: 151050

Ion	Ratio	Lower	Upper
91	100		
106	45.7	36.3	54.5

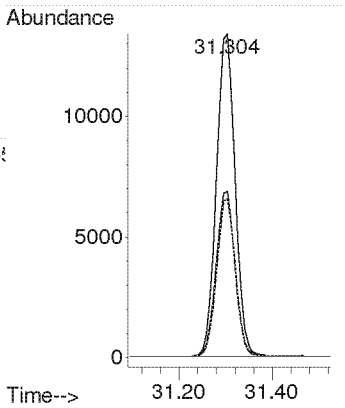


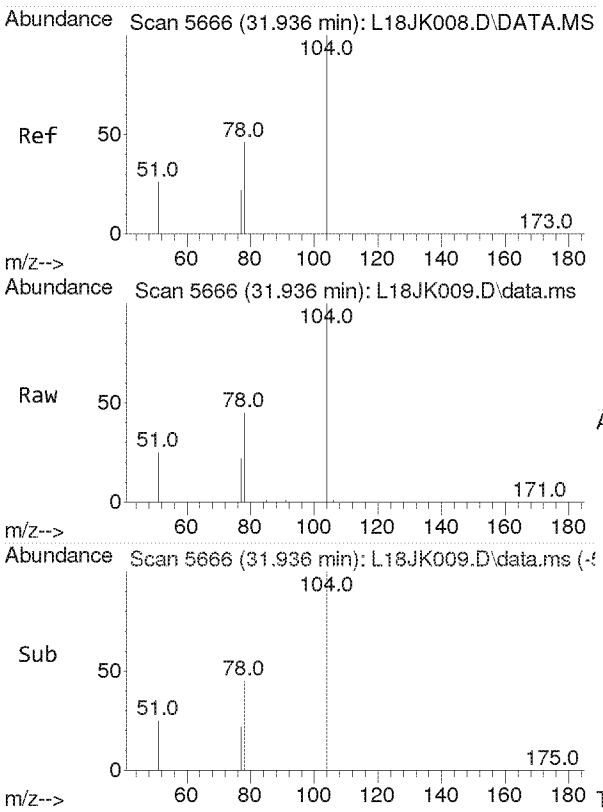


#52
Bromoform
Concen: 5.065 ppbv
RT: 31.304 min Scan# 5582
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:173 Resp: 37050

Ion	Ratio	Lower	Upper
173	100		
171	51.3	41.1	61.7
175	49.0	39.2	58.8

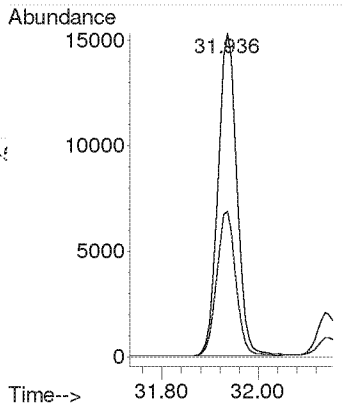


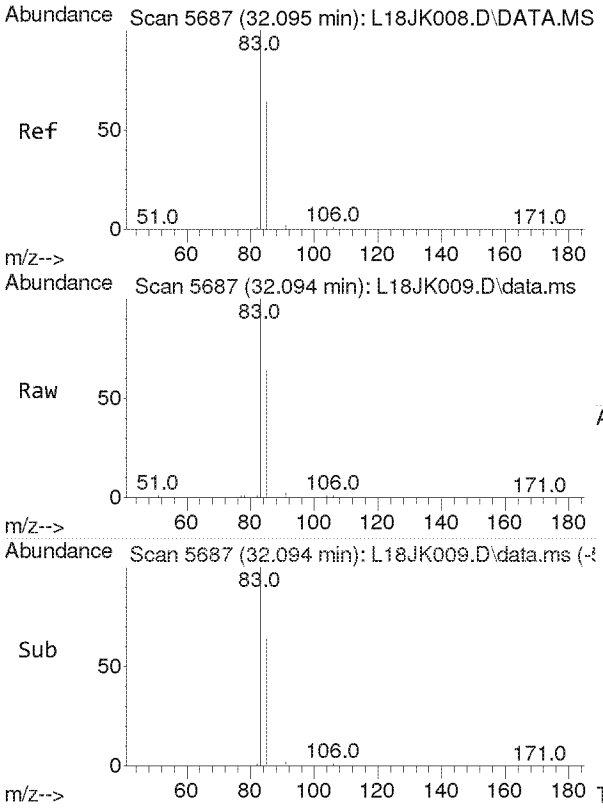


#53
Styrene
Concen: 5.474 ppbv
RT: 31.936 min Scan# 5666
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:104 Resp: 41551

Ion	Ratio	Lower	Upper
104	100		
78	45.2	36.6	54.8
103	0.0	0.0	0.0

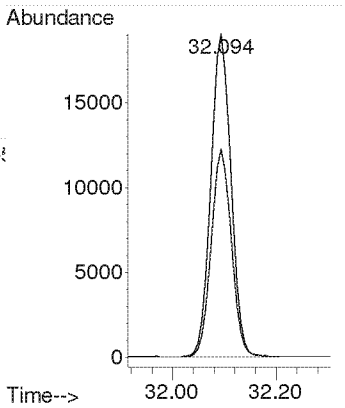


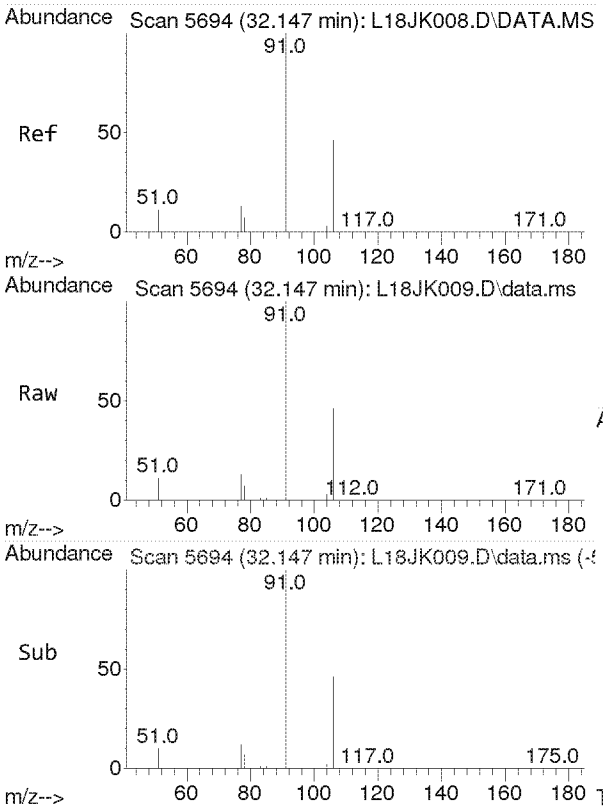


#54
1,1,2,2-Tetrachloroethane
Concen: 5.282 ppbv
RT: 32.094 min Scan# 5687
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 83 Resp: 50746

Ion	Ratio	Lower	Upper
83	100		
85	64.4	51.4	77.2

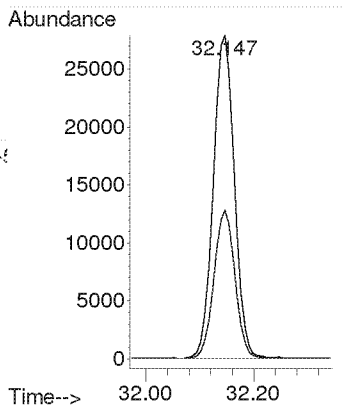


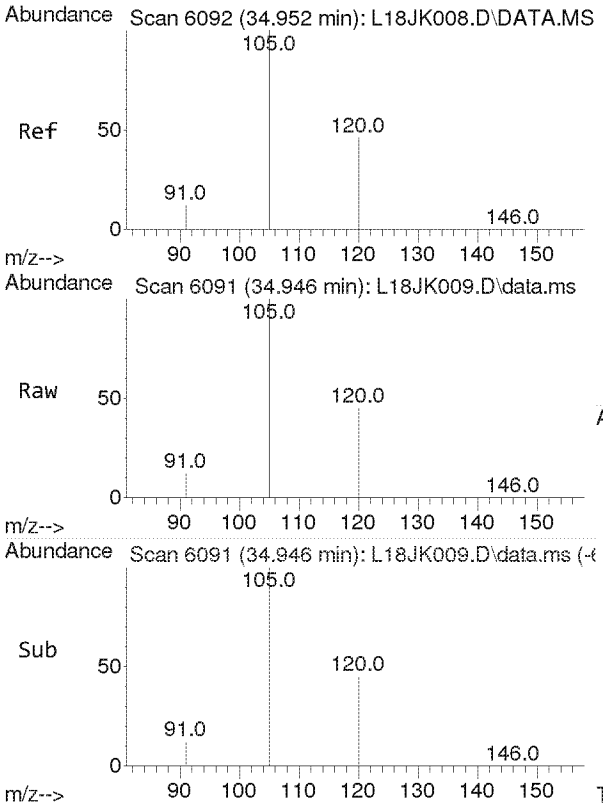


#55
o-Xylene
Concen: 5.526 ppbv
RT: 32.147 min Scan# 5694
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion: 91 Resp: 75224

Ion	Ratio	Lower	Upper
91	100		
106	45.6	36.4	54.6

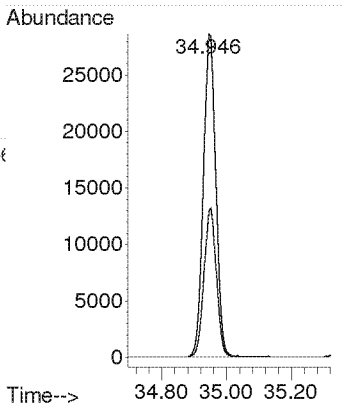


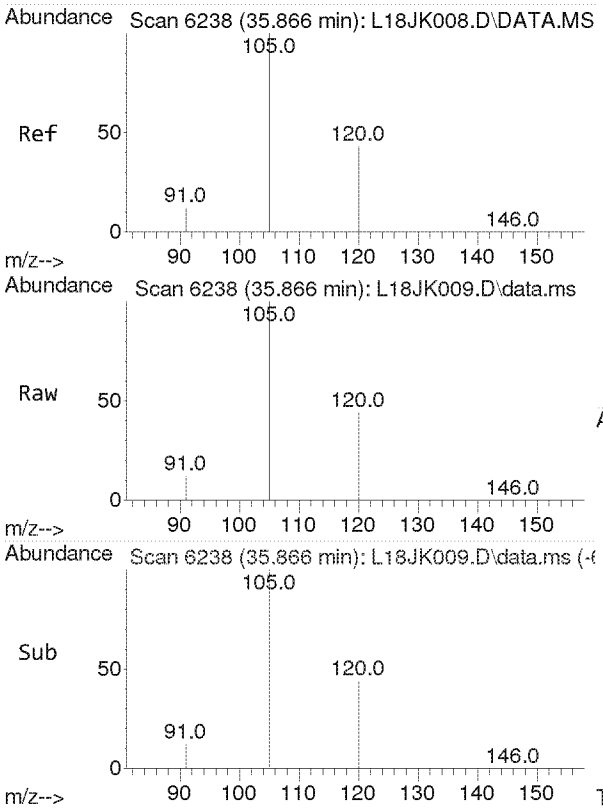


#56
1,3,5-Trimethylbenzene
Concen: 5.423 ppbv
RT: 34.946 min Scan# 6091
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:105 Resp: 75538

Ion	Ratio	Lower	Upper
105	100		
120	45.8	36.5	54.7

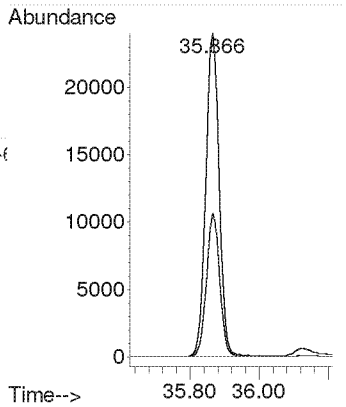


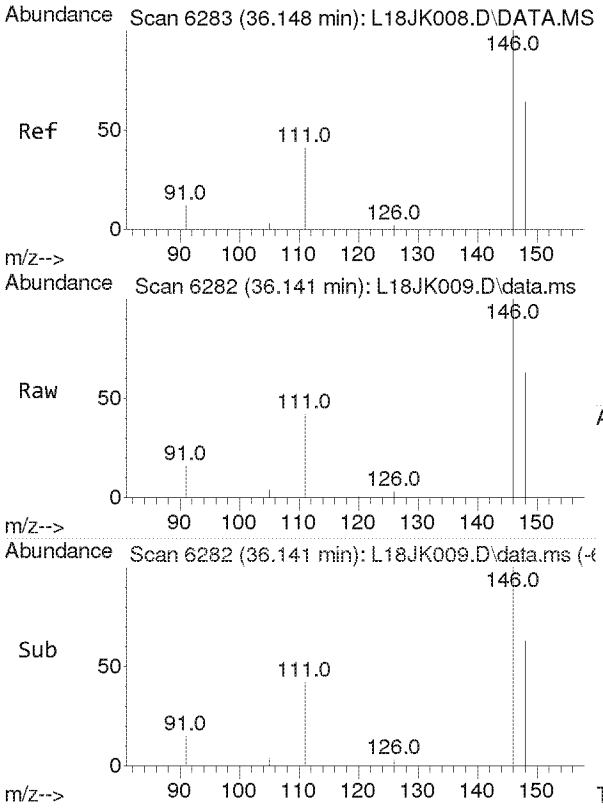


#57
1,2,4-Trimethylbenzene
Concen: 5.513 ppbv
RT: 35.866 min Scan# 6238
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:105 Resp: 64053

Ion	Ratio	Lower	Upper
105	100		
120	43.6	34.7	52.1

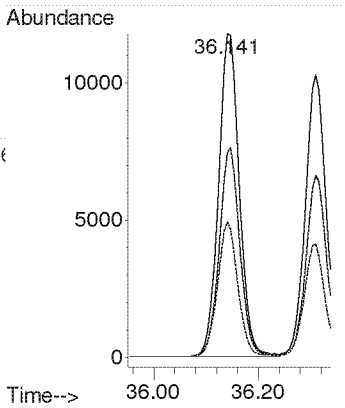


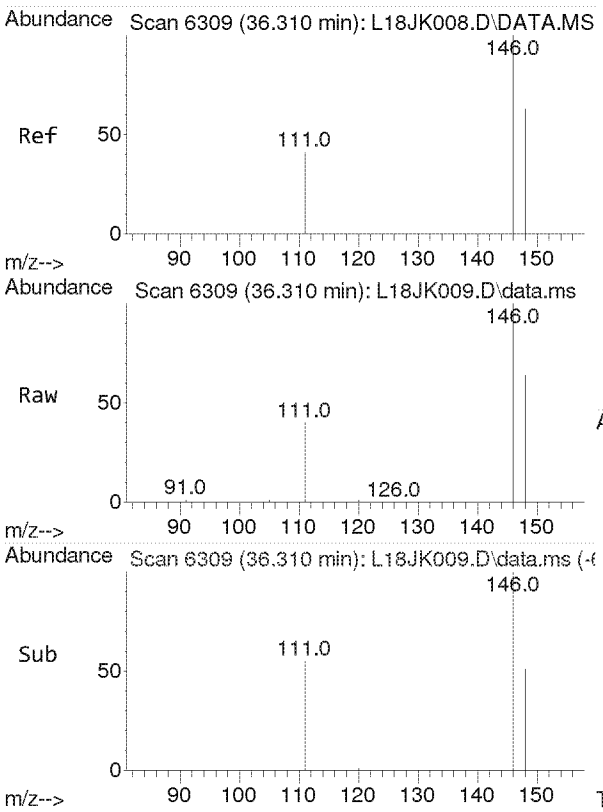


#58
m-Dichlorobenzene
Concen: 5.023 ppbv
RT: 36.141 min Scan# 6282
Delta R.T. -0.006 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:146 Resp: 32290

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	41.0	32.9	49.3

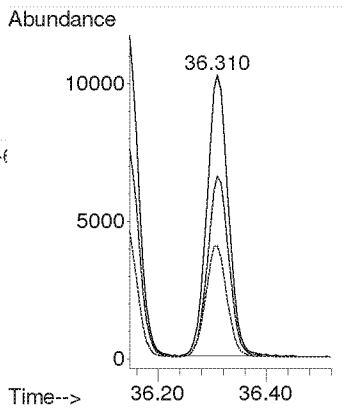


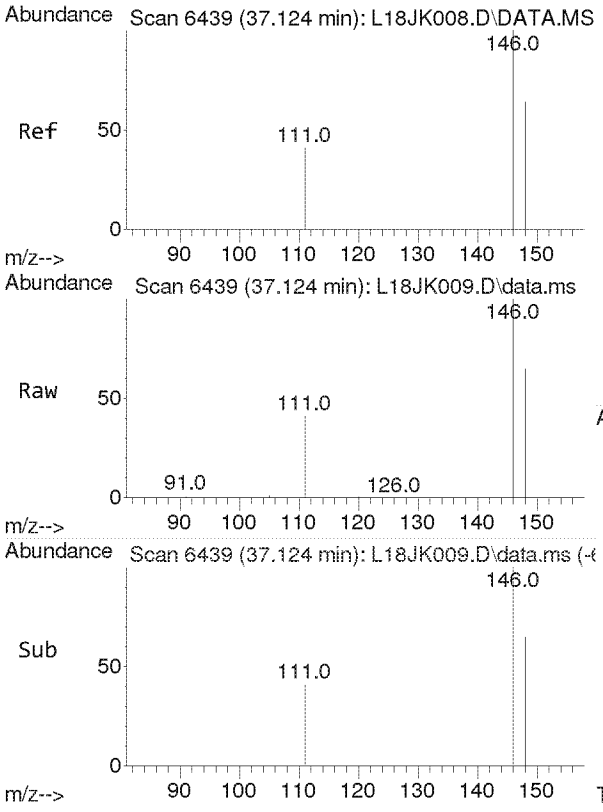


#59
p-Dichlorobenzene
Concen: 5.254 ppbv
RT: 36.310 min Scan# 6309
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:146 Resp: 27763

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.2	76.8
111	39.8	31.8	47.8

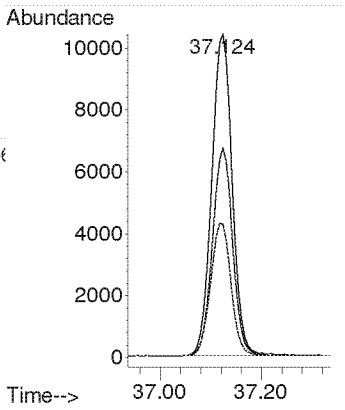


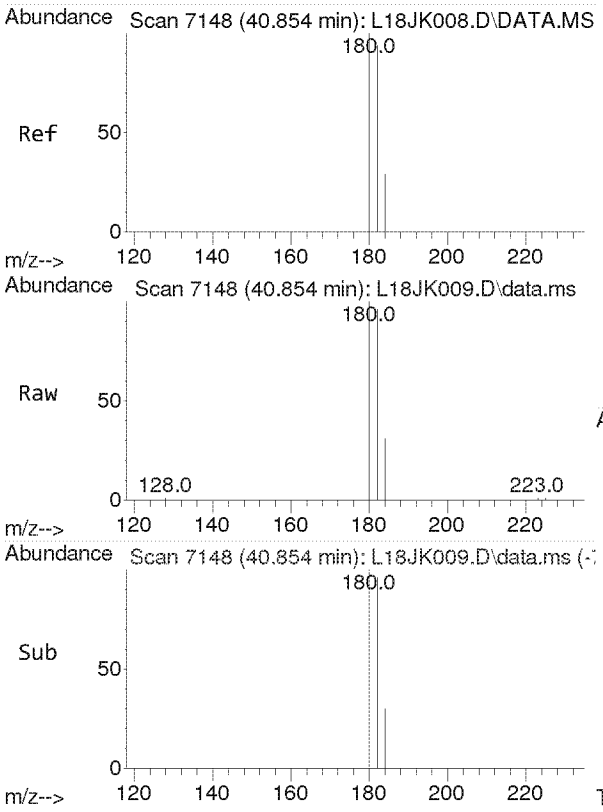


#60
o-Dichlorobenzene
Concen: 5.128 ppbv
RT: 37.124 min Scan# 6439
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:146 Resp: 29345

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.1	76.7
111	41.4	33.4	50.2

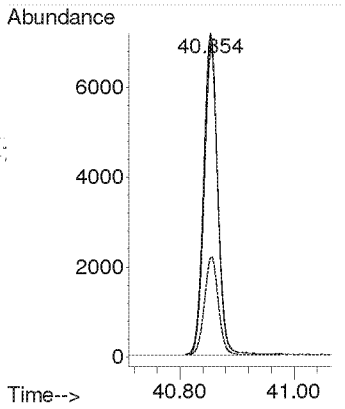


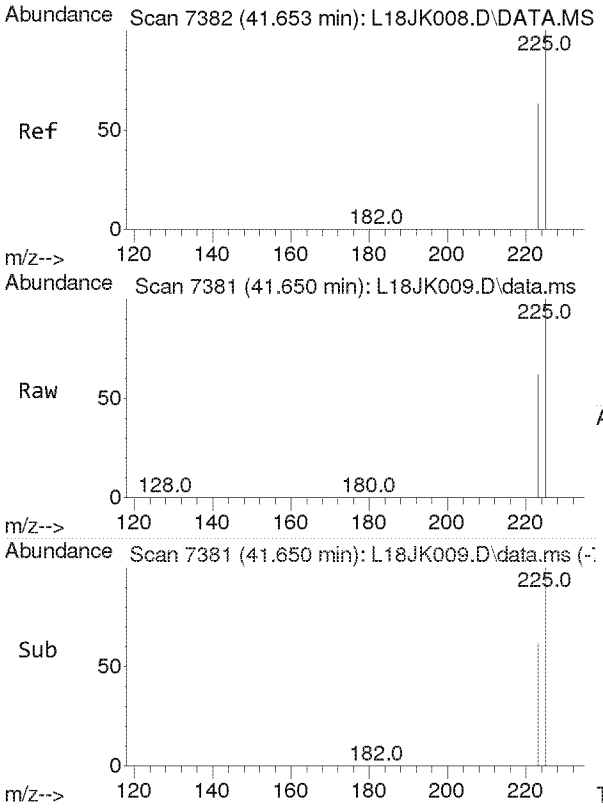


#61
1,2,4-Trichlorobenzene
Concen: 4.722 ppbv
RT: 40.854 min Scan# 7148
Delta R.T. -0.000 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:180 Resp: 12270

Ion	Ratio	Lower	Upper
180	100		
182	95.3	76.5	114.7
184	30.5	24.4	36.6

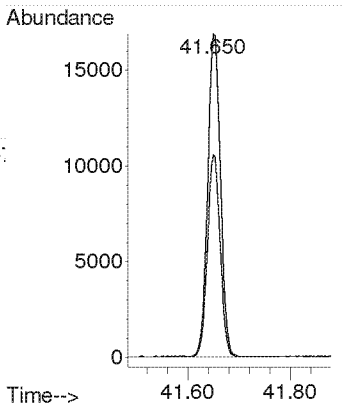




#62
Hexachloro-1,3-butadiene
Concen: 4.575 ppbv
RT: 41.650 min Scan# 7381
Delta R.T. -0.004 min
Lab File: L18JK009.D
Acq: 12 Oct 2018 1:41 am

Tgt Ion:225 Resp: 28878

Ion	Ratio	Lower	Upper
225	100		
223	62.6	50.2	75.4



Analytical Standard Record

Eastern Research Group

8J11006

Description:	10.0 ppbv ICal	Expires:	11/10/18
Standard Type:	Calibration Stan	Prepared:	10/11/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	10/11/18 16:30 by MH

canister# 3238

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.0102	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.0101	ppmv
1,1,2-Trichloroethane	79-00-5	0.0102	ppmv
1,1-Dichloroethane	75-34-3	0.0103	ppmv
1,1-Dichloroethene	75-35-4	0.0109	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.0094	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.00968	ppmv
1,2-Dibromoethane	106-93-4	0.0103	ppmv
1,2-Dichloroethane	107-06-2	0.0103	ppmv
1,2-Dichloropropane	78-87-5	0.0101	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.00976	ppmv
1,3-Butadiene	106-99-0	0.00984	ppmv
Acetonitrile	75-05-8	0.00918	ppmv
Acetylene	74-86-2	0.0091	ppmv
Acrolein	107-02-8	0.00816	ppmv
Acrylonitrile	107-13-1	0.0095	ppmv
Benzene	71-43-2	0.0103	ppmv
Bromochloromethane	74-97-5	0.0102	ppmv
Bromodichloromethane	75-27-4	0.0096	ppmv
Bromoform	75-25-2	0.0097	ppmv
Bromomethane	74-83-9	0.0102	ppmv
Carbon Disulfide	75-15-0	0.0101	ppmv
Carbon Tetrachloride	56-23-5	0.0112	ppmv
Chlorobenzene	108-90-7	0.0103	ppmv
Chloroethane	75-00-3	0.01	ppmv
Chloroform	67-66-3	0.0102	ppmv
Chloromethane	74-87-3	0.01	ppmv
Chloroprene	126-99-8	0.0104	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.0103	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.0101	ppmv

Reviewed By 10-31-18 Date

Analytical Standard Record

Eastern Research Group

8J11006

Dibromochloromethane	124-48-1	0.00948	ppmv
Dichlorodifluoromethane	75-71-8	0.0098	ppmv
Dichloromethane	75-09-2	0.0108	ppmv
Dichlorotetrafluoroethane	76-14-2	0.0111	ppmv
Ethyl Acrylate	140-88-5	0.01	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.00948	ppmv
Ethylbenzene	100-41-4	0.0101	ppmv
Ethylene oxide	75-21-8	0.0102	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.00952	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.0194	ppmv
m-Dichlorobenzene	541-73-1	0.00934	ppmv
Methyl Isobutyl Ketone	108-10-1	0.00934	ppmv
Methyl Methacrylate	80-62-6	0.0096	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.00968	ppmv
n-Octane	111-65-9	0.0103	ppmv
o-Dichlorobenzene	95-50-1	0.00956	ppmv
o-Xylene	95-47-6	0.0101	ppmv
p-Dichlorobenzene	106-46-7	0.00986	ppmv
Propylene	115-07-1	0.00972	ppmv
Styrene	100-42-5	0.00986	ppmv
tert-Amyl Methyl Ether	994-05-8	0.0097	ppmv
Tetrachloroethylene	127-18-4	0.0102	ppmv
Toluene	108-88-3	0.0103	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.01	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.0101	ppmv
Trichloroethylene	79-01-6	0.0096	ppmv
Trichlorofluoromethane	75-69-4	0.00942	ppmv
Trichlorotrifluoroethane	76-13-1	0.0104	ppmv
Vinyl chloride	75-01-4	0.0103	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
7J25026	TO-15 Primary Stock Standard	10/17/17	** Vendor **	10/17/18	10/25/17 10:58 by MH	120
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	60

Reviewed By — Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK010.D
Acq On : 12 Oct 2018 2:44 am (#1); 12-Oct-18, 02:38:51 (#2)
Operator : MAH
Sample : 1810019-CAL6
Misc : 80ML IS 7L07001,8J11006
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 12 09:31:03 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	51652	4.8000	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.158	114	123937	5.0200	ppbv	0.00
43) IS-Chlorobenzene-d5	30.121	117	86165	4.7700	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.414	26	43901	8.4149	ppbv	100
3) Propylene	7.833	41	48690	8.9996	ppbv	100
4) Dichlorodifluoromethane	8.683	85	223100	8.9641	ppbv	100
5) Chloromethane	9.750	50	60387	9.1658	ppbv	99
6) Dichlorotetrafluoroethane	10.855	85	222516	10.1406	ppbv	100
7) Vinyl Chloride	11.112	62	69030	9.6625	ppbv	100
8) 1,3-Butadiene	11.780	54	47496	9.6628	ppbv	99
9) Ethylene oxide	12.355	29	30177	9.8542	ppbv	99
10) Bromomethane	12.588	94	65634	9.4118	ppbv	100
11) Chloroethane	13.268	64	28317	9.2183	ppbv	100
12) Acetonitrile	14.304	41	50027	8.9717	ppbv	99
13) Acrolein	14.595	56	19639	7.7979	ppbv	99
14) Trichlorofluoromethane	15.200	101	185614	8.6435	ppbv	100
15) Acrylonitrile	15.898	53	40080	9.4885	ppbv	99
16) 1,1-Dichloroethene	16.422	61	97360	10.1608	ppbv	100
17) Methylene Chloride	16.736	49	69431	10.0527	ppbv	100
18) Carbon Disulfide	16.934	76	182582	9.3319	ppbv	100
19) Trichlorotrifluoroethane	17.283	101	141644	9.5762	ppbv	100
20) trans-1,2-Dichloroethy...	18.323	96	50528	9.4660	ppbv	100
21) 1,1-Dichloroethane	18.634	63	91738	9.8442	ppbv	99
22) Methyl tert-Butyl Ether	18.779	73	138009	9.4100	ppbv	100
23) Chloroprene	19.546	53	74238	10.6012	ppbv	100
24) cis-1,2-Dichloroethylene	19.946	61	71323	9.7069	ppbv	99
25) Bromochloromethane	20.180	128	38726	9.5388	ppbv	100
26) Chloroform	20.413	83	105630	9.6196	ppbv	100
27) Ethyl tert-Butyl Ether	21.183	59	141245	9.3686	ppbv	100
28) 1,2-Dichloroethane	21.489	62	68091	9.9241	ppbv	100
30) 1,1,1-Trichloroethane	21.874	97	104495	9.8177	ppbv	97
31) Benzene	22.549	78	150653	10.0044	ppbv	100
32) Carbon Tetrachloride	22.782	117	127672	10.5025	ppbv	99
33) tert-Amyl Methyl Ether	23.512	73	119567	9.4688	ppbv	100
34) 1,2-Dichloropropane	23.802	63	57161	9.8740	ppbv	98
35) Ethyl Acrylate	23.883	55	79276	10.8144	ppbv	100
36) Bromodichloromethane	24.092	83	101991	9.1624	ppbv	100
37) Trichloroethylene	24.182	130	63843	9.2626	ppbv	100
38) Methyl Methacrylate	24.545	41	211223	10.2347	ppbv	100
39) cis-1,3-Dichloropropene	25.536	75	54392	10.2882	ppbv	99
40) Methyl Isobutyl Ketone	25.611	43	117089	9.7565	ppbv	99
41) trans-1,3-Dichloropropene	26.378	75	41812	10.8023	ppbv	98
42) 1,1,2-Trichloroethane	26.634	97	51429	9.9840	ppbv	99
44) Toluene	27.107	91	169295	10.5587	ppbv	100
45) Dibromochloromethane	27.756	129	369590	9.5537	ppbv	100
46) 1,2-Dibromoethane	28.169	107	69562	10.3671	ppbv	99
47) n-Octane	28.887	43	113409	11.2848	ppbv	99
48) Tetrachloroethylene	29.013	166	78615	9.9528	ppbv	99
49) Chlorobenzene	30.197	112	109368	10.3222	ppbv	99
50) Ethylbenzene	30.927	91	185304	10.9624	ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK010.D
Acq On : 12 Oct 2018 2:44 am (#1); 12-Oct-18, 02:38:51 (#2)
Operator : MAH
Sample : 1810019-CAL6
Misc : 80ML IS 7L07001,8J11006
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 12 09:31:03 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) m,p-Xylene	31.288	91	313211	21.3727	ppbv		99
52) Bromoform	31.296	173	75776	9.9674	ppbv		100
53) Styrene	31.936	104	87480	11.0889	ppbv	#	99
54) 1,1,2,2-Tetrachloroethane	32.094	83	101582	10.1738	ppbv		100
55) o-Xylene	32.147	91	155170	10.9665	ppbv		100
56) 1,3,5-Trimethylbenzene	34.945	105	159372	11.0075	ppbv		100
57) 1,2,4-Trimethylbenzene	35.865	105	136275	11.2842	ppbv		100
58) m-Dichlorobenzene	36.141	146	67027	10.0326	ppbv		100
59) p-Dichlorobenzene	36.310	146	57708	10.5075	ppbv		100
60) o-Dichlorobenzene	37.123	146	61307	10.3070	ppbv		99
61) 1,2,4-Trichlorobenzene	40.853	180	25428	9.4156	ppbv		100
62) Hexachloro-1,3-butadiene	41.649	225	57413	8.7503	ppbv		100

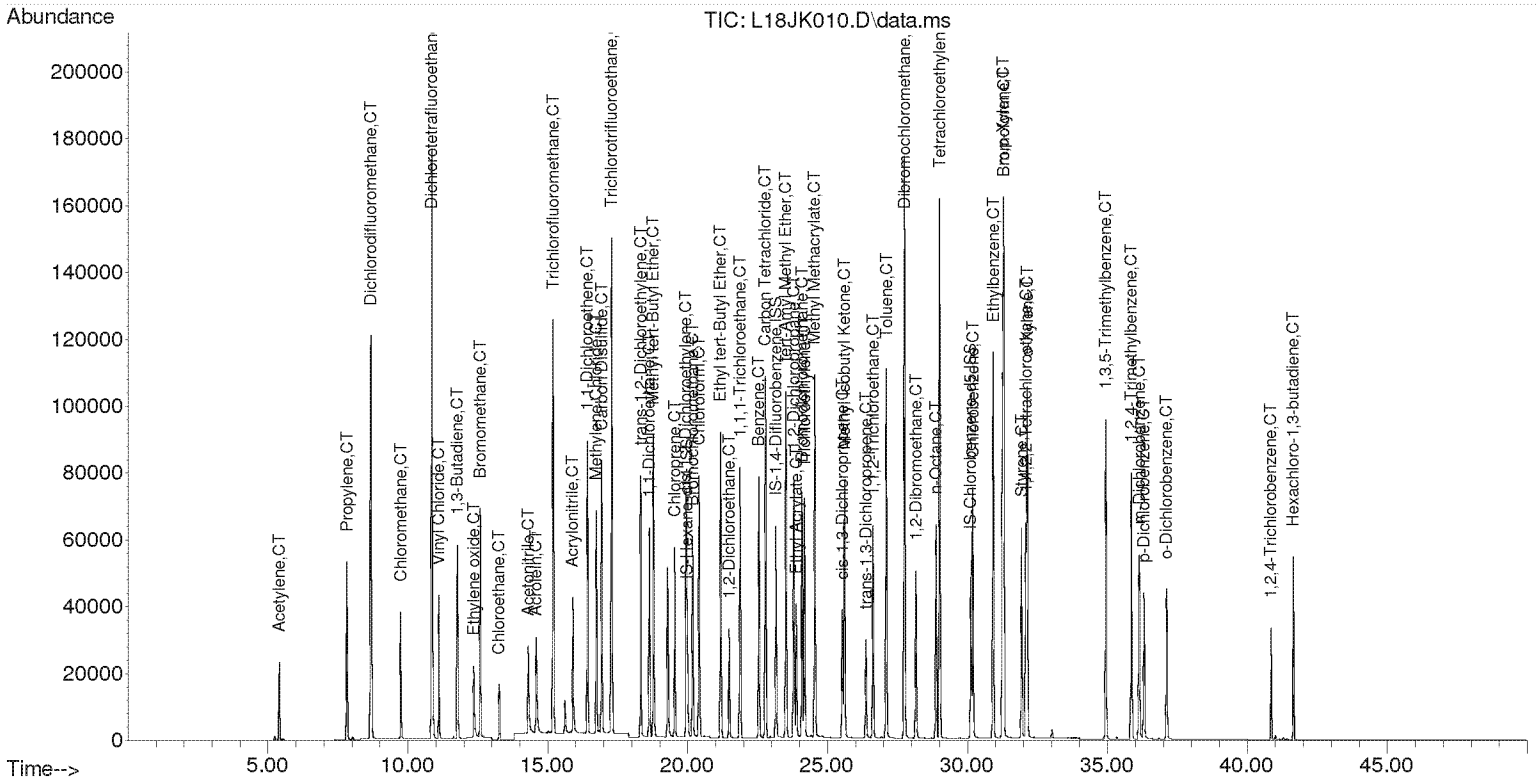
(#) = qualifier out of range (m) = manual integration (+) = signals summed

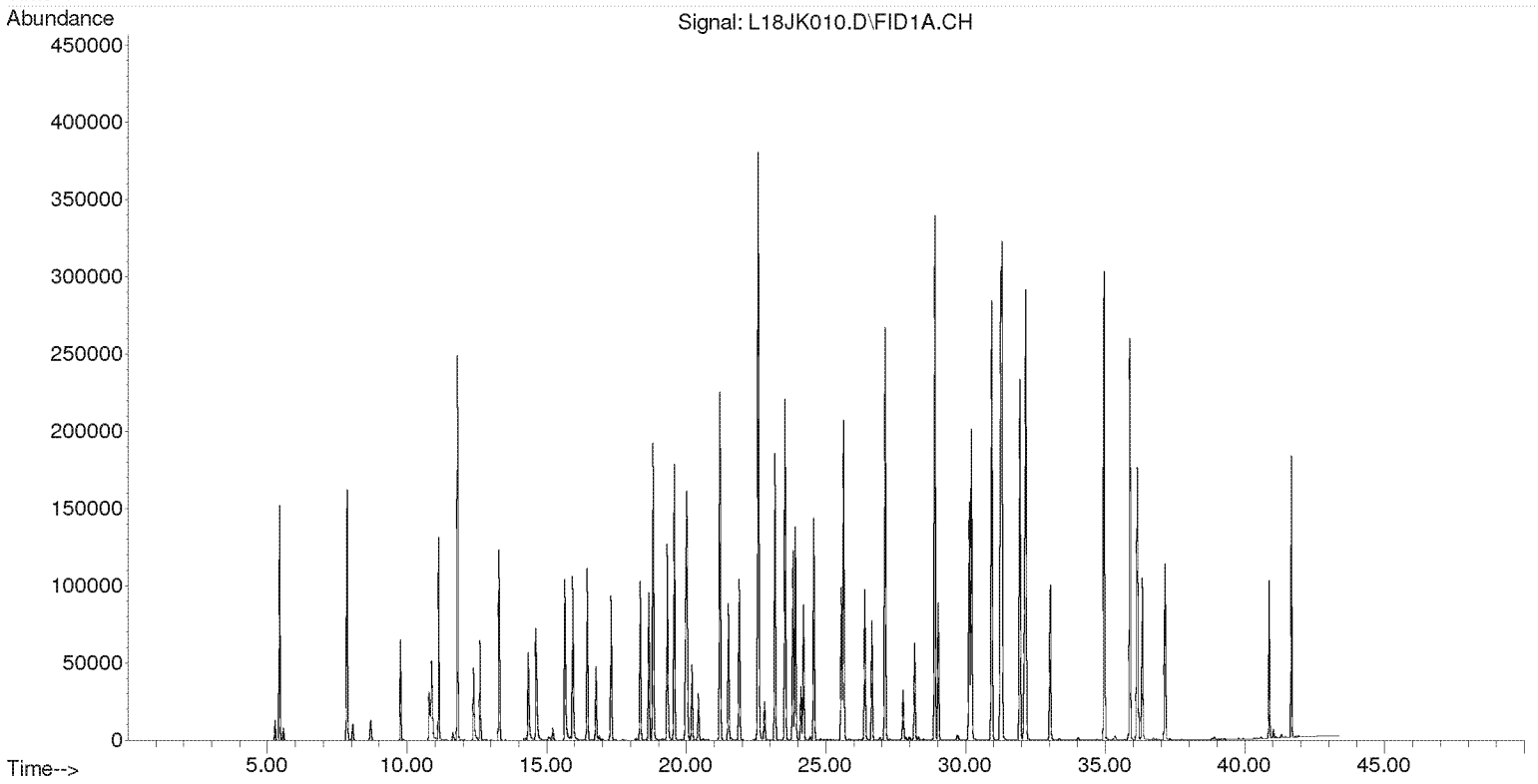
ED_002475_00000113-00222

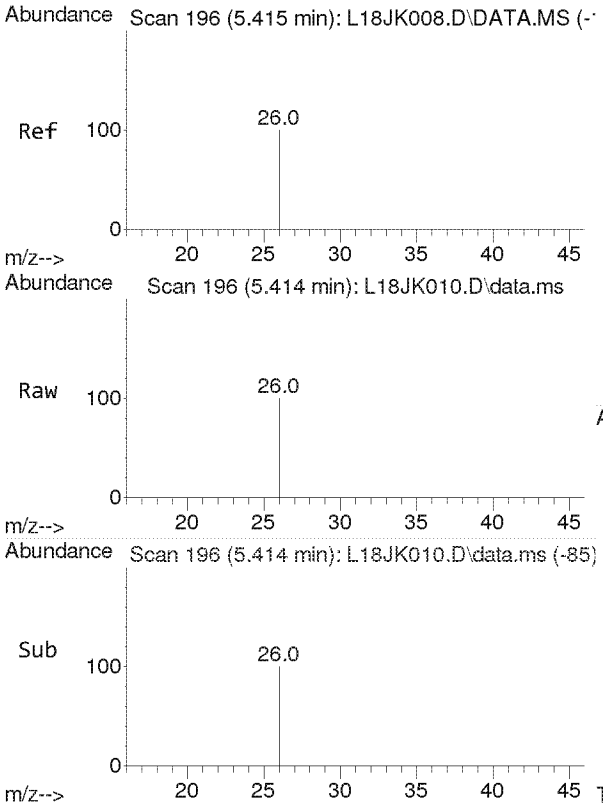
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK010.D
Acq On : 12 Oct 2018 2:44 am (#1); 12 Oct 2018 2:38 am (#2)
Operator : MAH
Sample : 1810019-CAL6
Misc : 80ML IS 7L07001,8J11006
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 12 09:31:03 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:26:57 2018
Response via : Initial Calibration

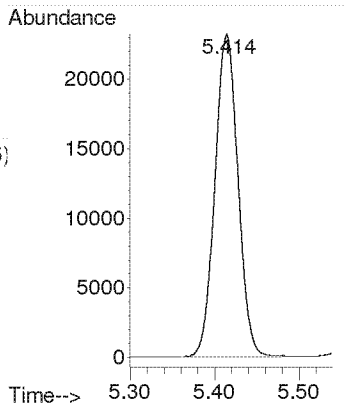


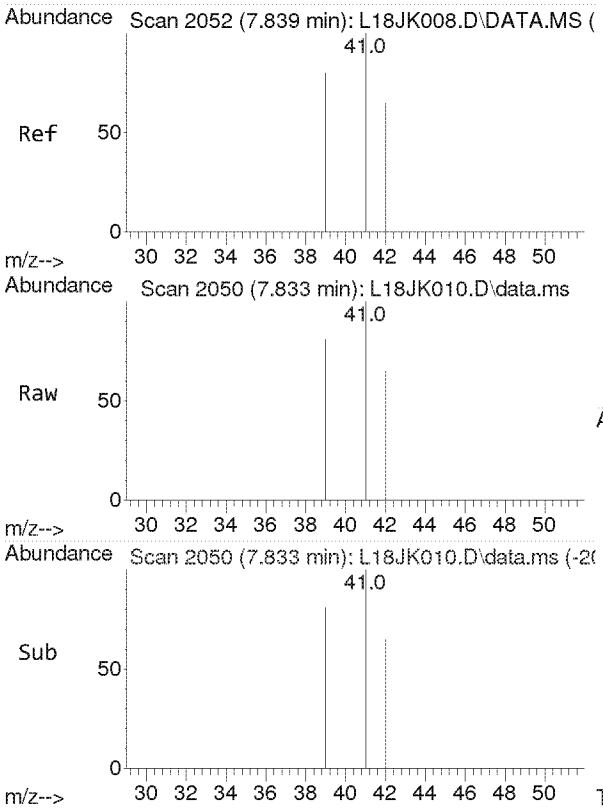




#2
Acetylene
Concen: 8.415 ppbv
RT: 5.414 min Scan# 196
Delta R.T. -0.000 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 26 Resp: 43901

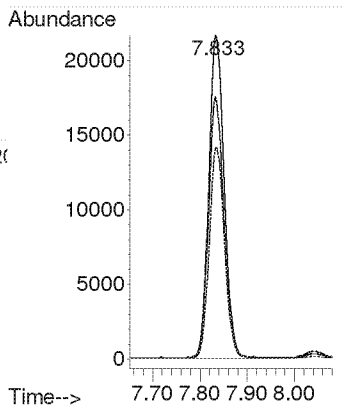


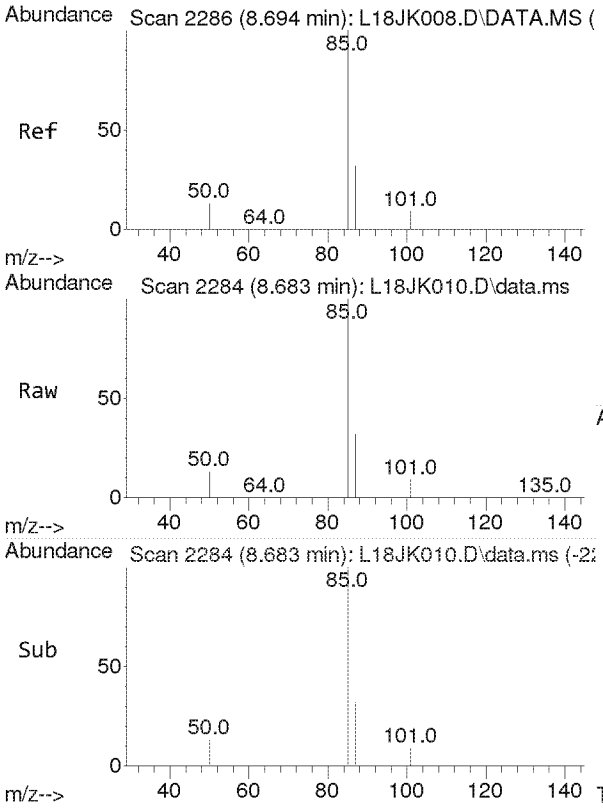


#3
Propylene
Concen: 9.000 ppbv
RT: 7.833 min Scan# 2050
Delta R.T. -0.006 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 41 Resp: 48690

Ion	Ratio	Lower	Upper
41	100		
39	80.5	65.0	97.4
42	65.4	52.3	78.5

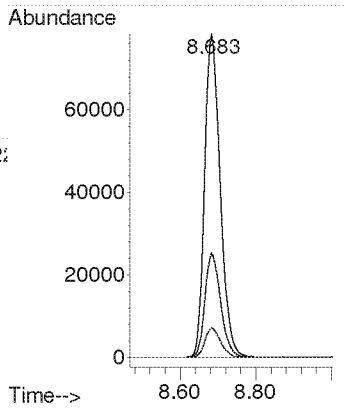


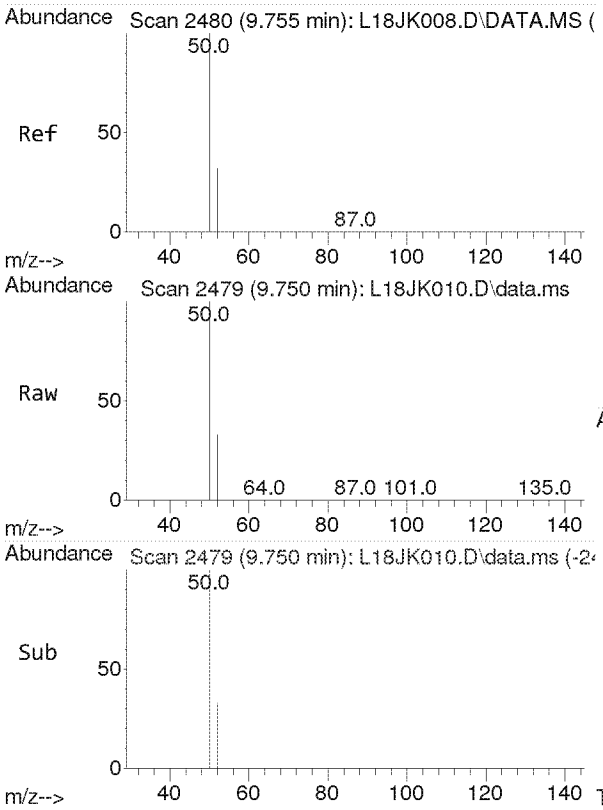


#4
Dichlorodifluoromethane
Concen: 8.964 ppbv
RT: 8.683 min Scan# 2284
Delta R.T. -0.011 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 85 Resp: 223100

Ion	Ratio	Lower	Upper
85	100		
87	32.3	25.8	38.8
101	9.0	7.2	10.8

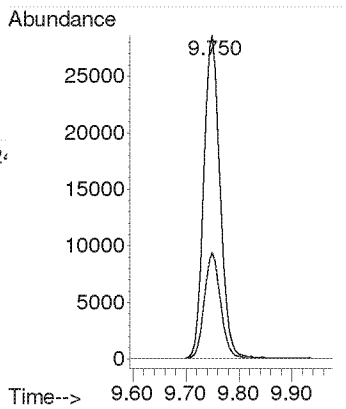


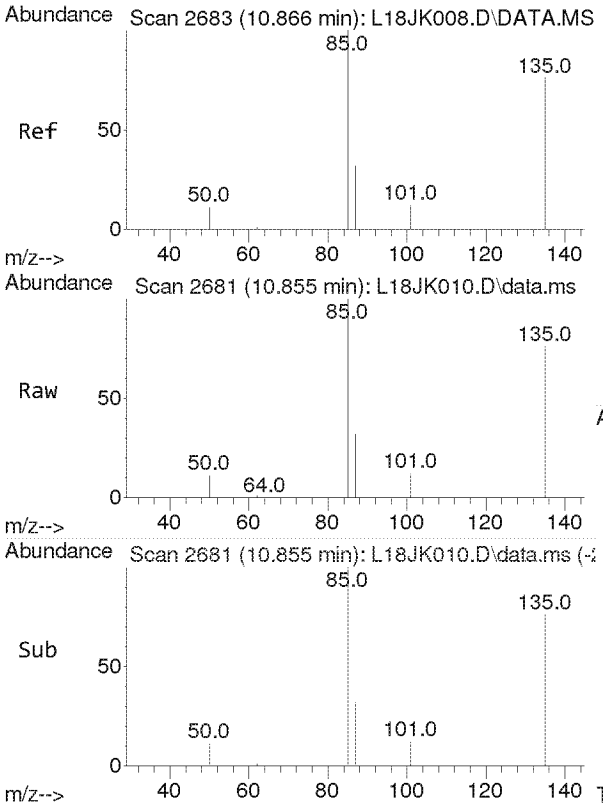


#5
Chloromethane
Concen: 9.166 ppbv
RT: 9.750 min Scan# 2479
Delta R.T. -0.006 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 50 Resp: 60387

Ion	Ratio	Lower	Upper
50	100		
52	32.5	25.8	38.6

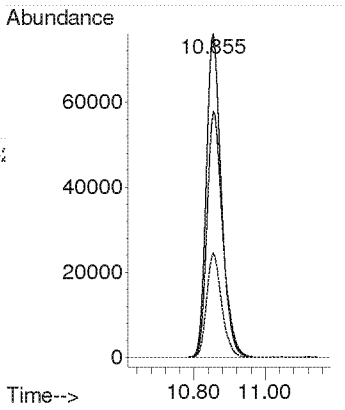


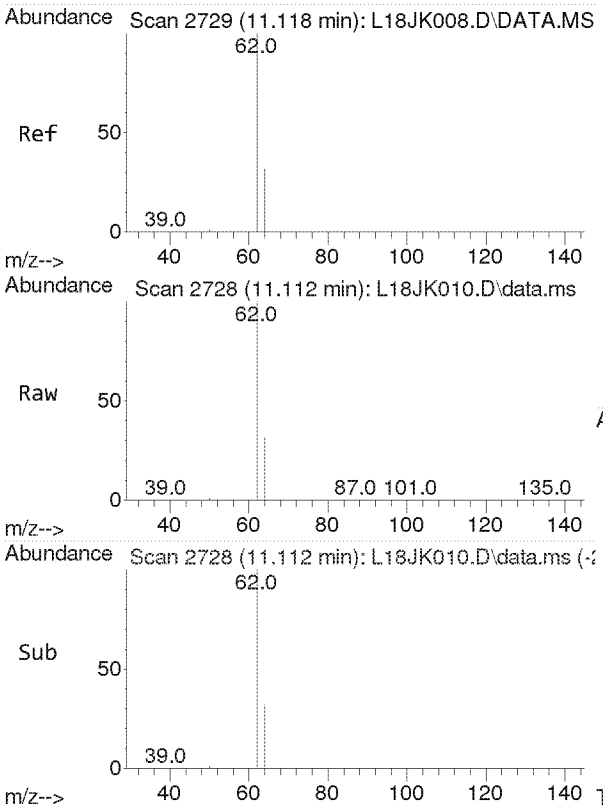


#6
Dichlorotetrafluoroethane
Concen: 10.141 ppbv
RT: 10.855 min Scan# 2681
Delta R.T. -0.011 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 85 Resp: 222516

Ion	Ratio	Lower	Upper
85	100		
135	79.7	63.7	95.5
87	32.1	25.7	38.5

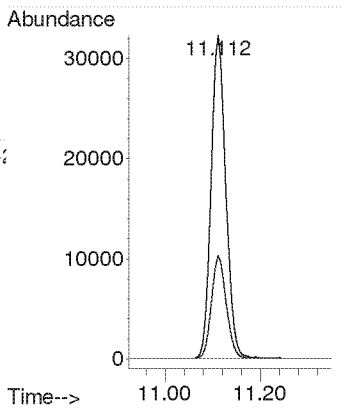


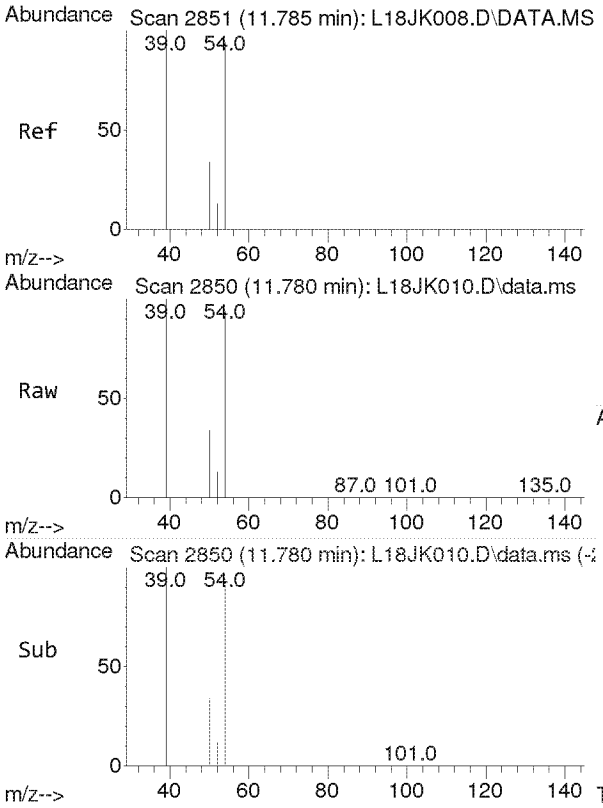


#7
Vinyl Chloride
Concen: 9.662 ppbv
RT: 11.112 min Scan# 2728
Delta R.T. -0.006 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 62 Resp: 69030

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.6	38.4

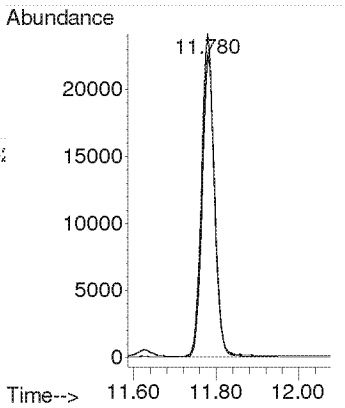


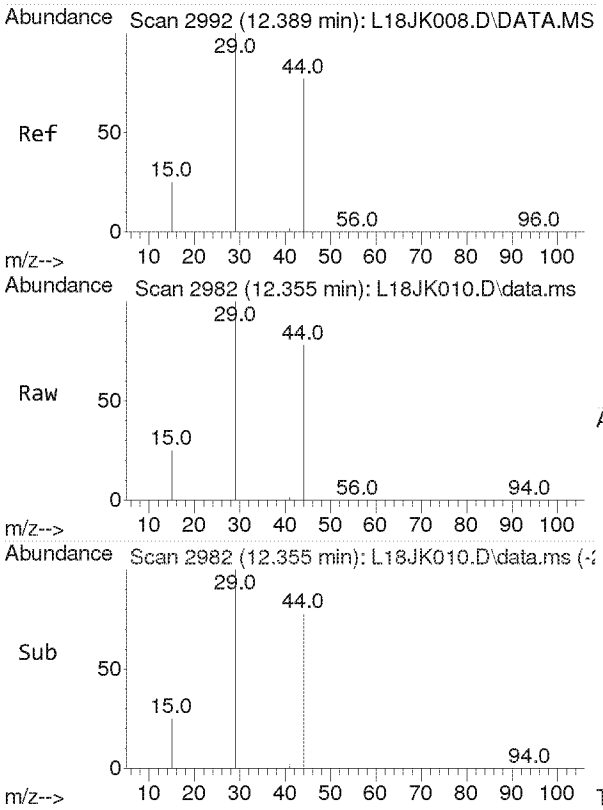


#8
1,3-Butadiene
Concen: 9.663 ppbv
RT: 11.780 min Scan# 2850
Delta R.T. -0.006 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 54 Resp: 47496

Ion	Ratio	Lower	Upper
54	100		
39	107.2	87.0	130.4

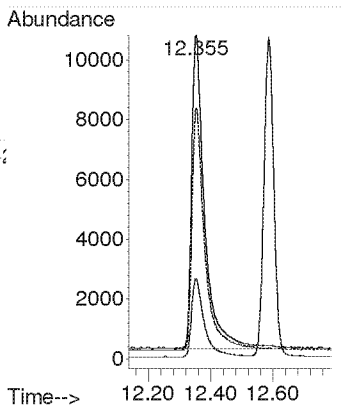


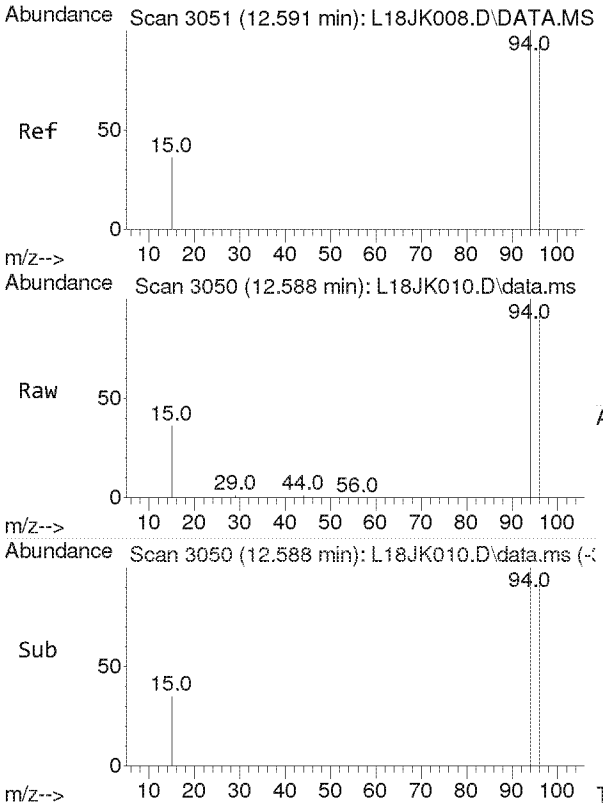


#9
Ethylene oxide
Concen: 9.854 ppbv
RT: 12.355 min Scan# 2982
Delta R.T. -0.034 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 29 Resp: 30177

Ion	Ratio	Lower	Upper
29	100		
15	24.6	20.1	30.1
44	77.8	62.6	93.8

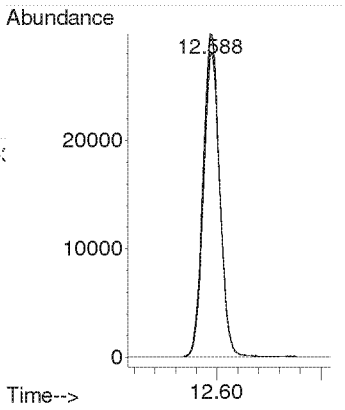


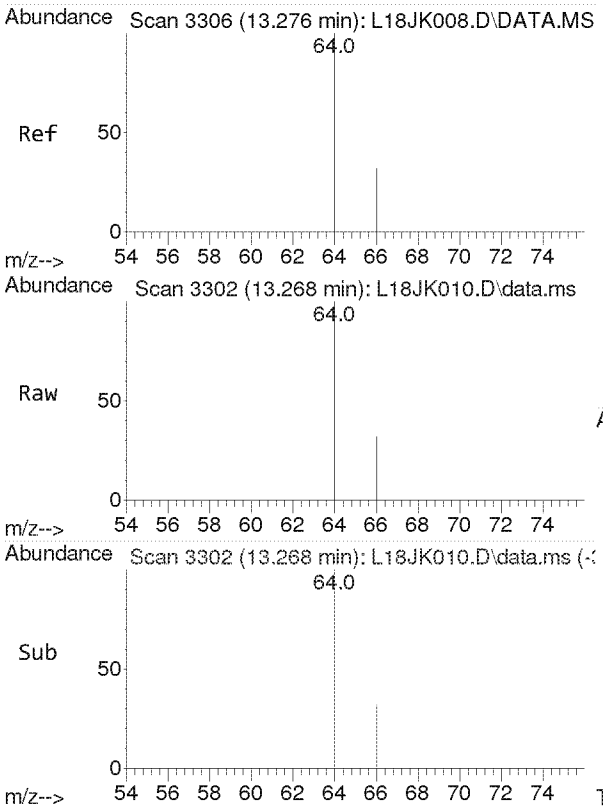


#10
Bromomethane
Concen: 9.412 ppbv
RT: 12.588 min Scan# 3050
Delta R.T. -0.003 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 94 Resp: 65634

Ion	Ratio	Lower	Upper
94	100		
96	94.1	75.5	113.3

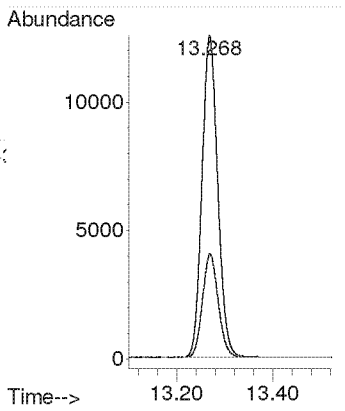


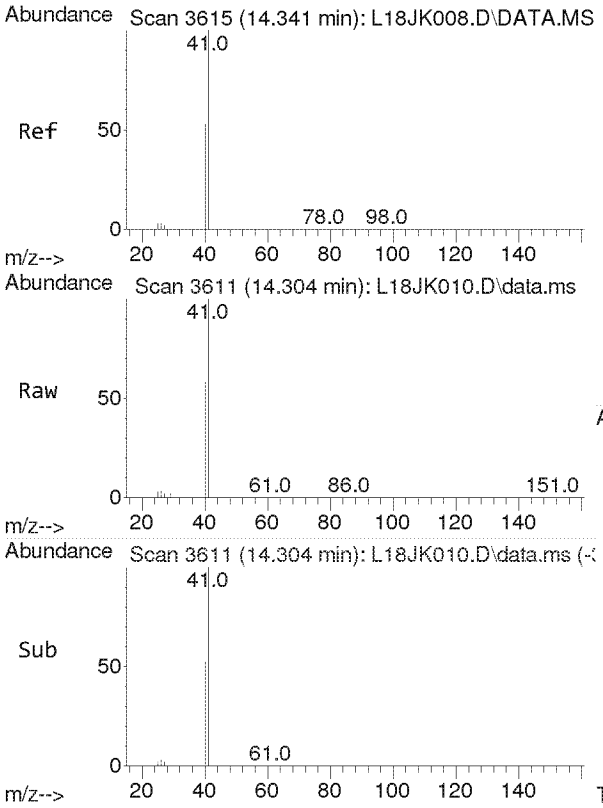


#11
Chloroethane
Concen: 9.218 ppbv
RT: 13.268 min Scan# 3302
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 64 Resp: 28317

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.8	38.6

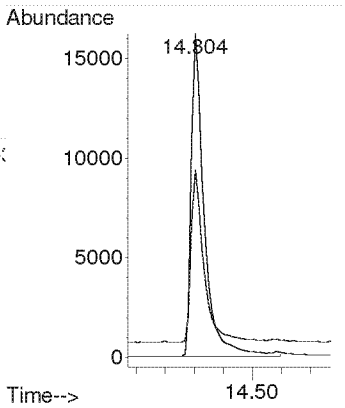


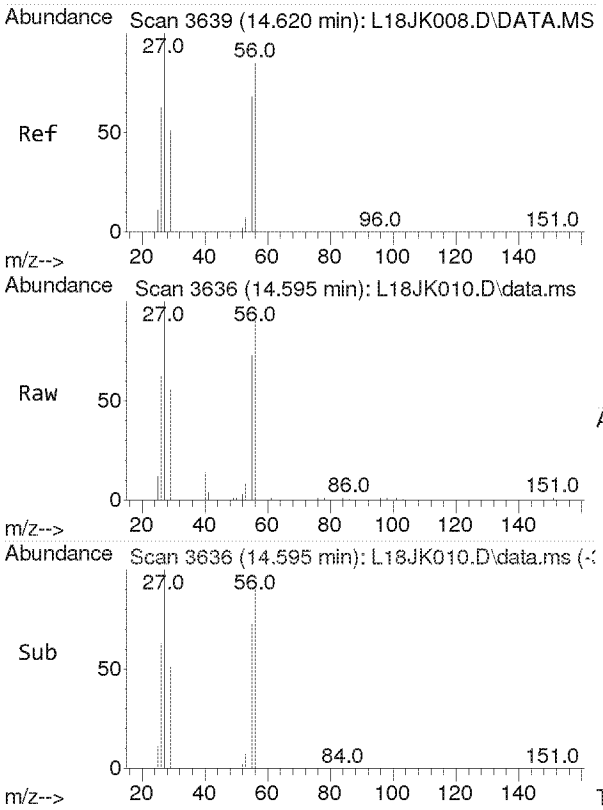


#12
Acetonitrile
Concen: 8.972 ppbv
RT: 14.304 min Scan# 3611
Delta R.T. -0.037 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 41 Resp: 50027

Ion	Ratio	Lower	Upper
41	100		
40	53.4	43.1	64.7

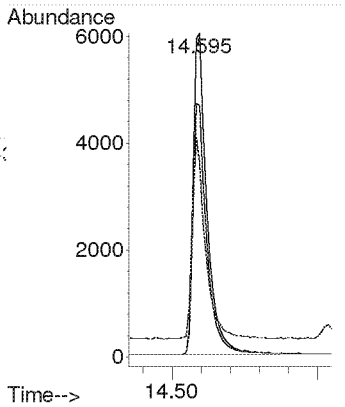


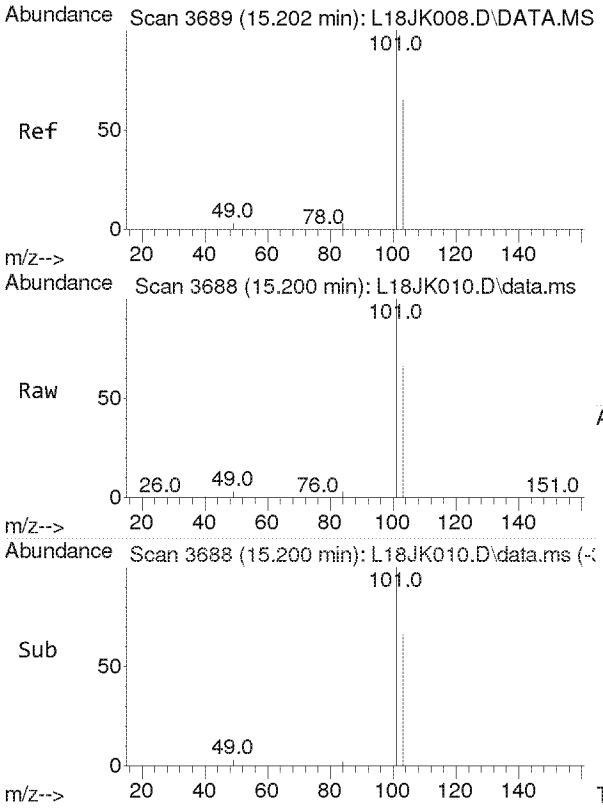


#13
Acrolein
Concen: 7.798 ppbv
RT: 14.595 min Scan# 3636
Delta R.T. -0.025 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 56 Resp: 19639

Ion	Ratio	Lower	Upper
56	100		
55	77.8	61.9	92.9
29	60.0	49.2	73.8

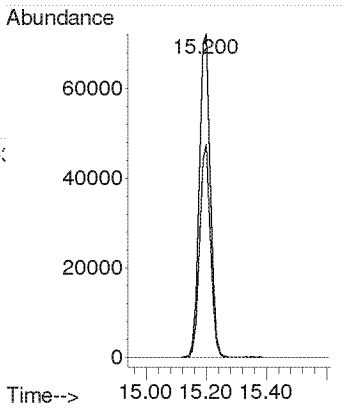


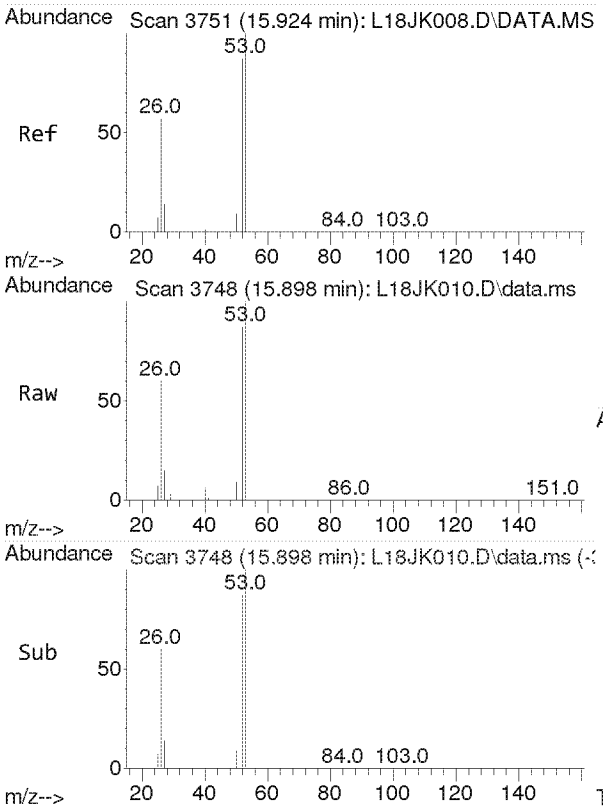


#14
Trichlorofluoromethane
Concen: 8.643 ppbv
RT: 15.200 min Scan# 3688
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:101 Resp: 185614

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.8	77.6

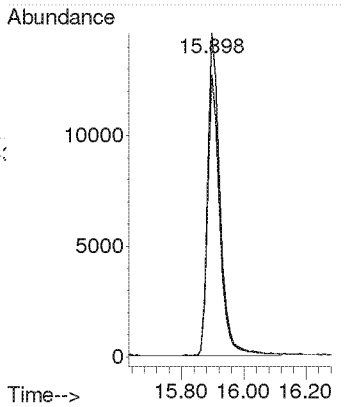


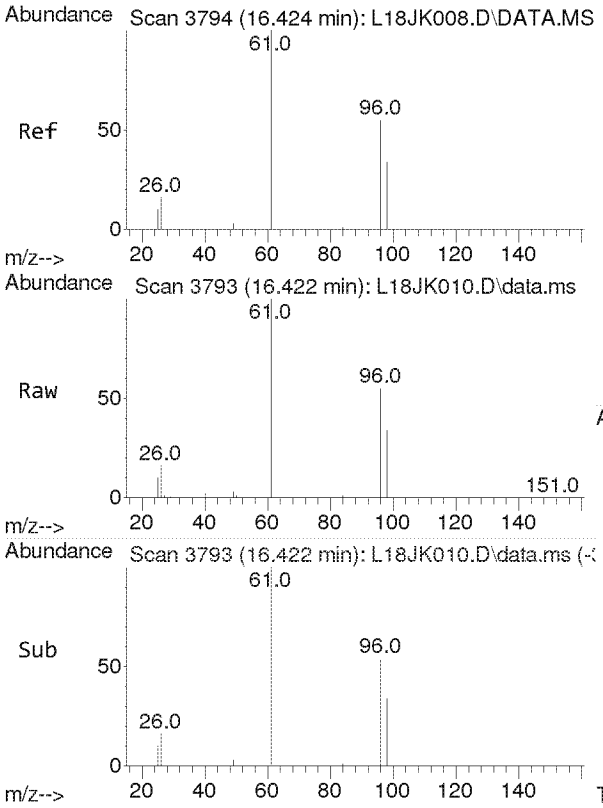


#15
Acrylonitrile
Concen: 9.489 ppbv
RT: 15.898 min Scan# 3748
Delta R.T. -0.025 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 53 Resp: 40080

Ion	Ratio	Lower	Upper
53	100		
52	86.6	69.7	104.5

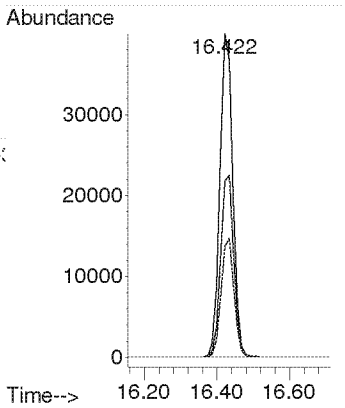


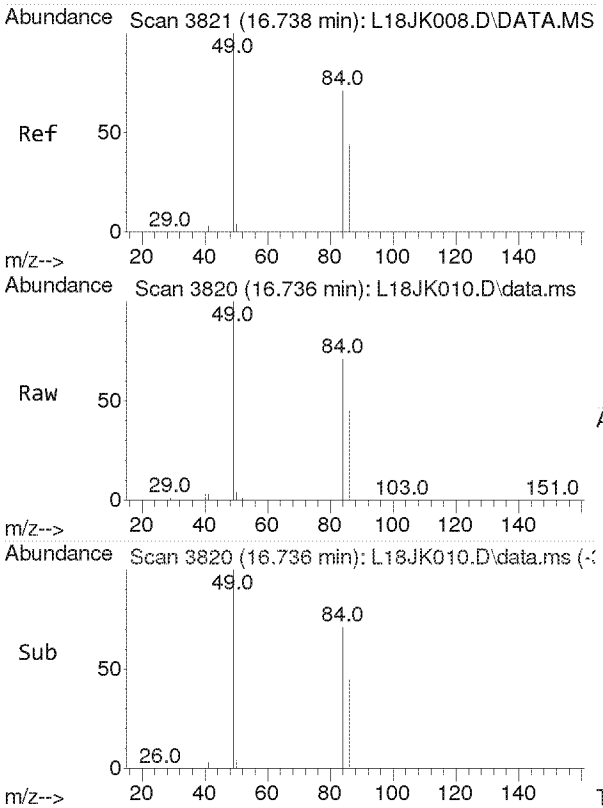


#16
1,1-Dichloroethene
Concen: 10.161 ppbv
RT: 16.422 min Scan# 3793
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 61 Resp: 97360

Ion	Ratio	Lower	Upper
61	100		
96	57.4	46.1	69.1
98	36.9	29.4	44.2

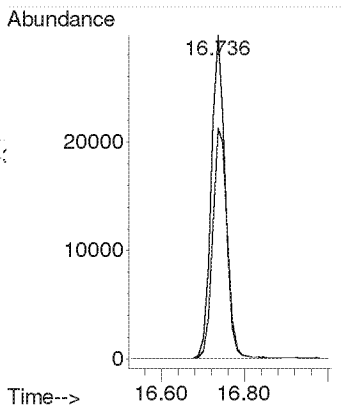


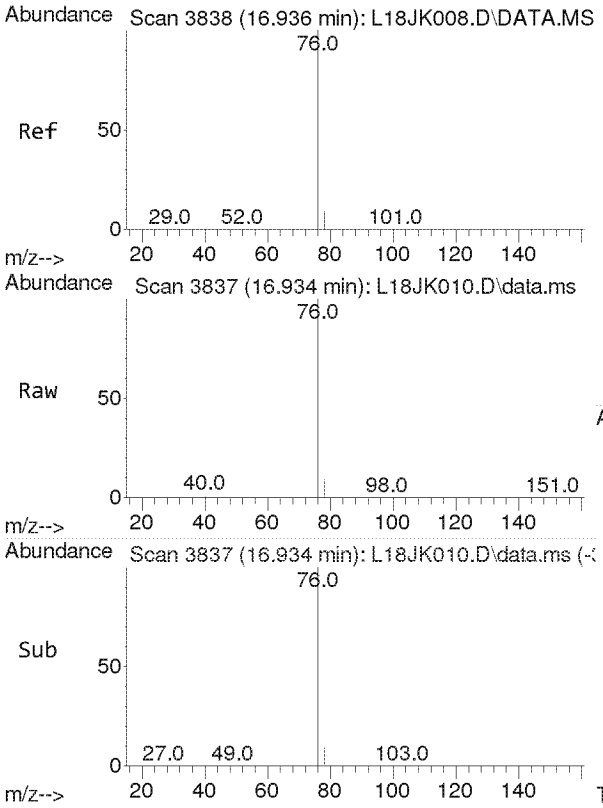


#17
Methylene Chloride
Concen: 10.053 ppbv
RT: 16.736 min Scan# 3820
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 49 Resp: 69431

Ion	Ratio	Lower	Upper
49	100		
84	74.3	51.9	96.5

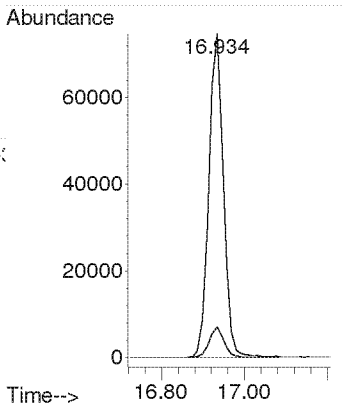


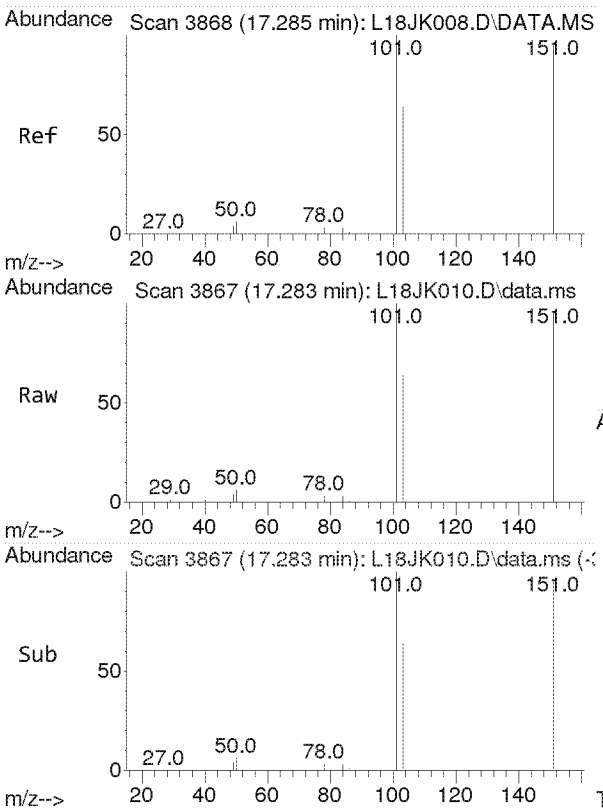


#18
Carbon Disulfide
Concen: 9.332 ppbv
RT: 16.934 min Scan# 3837
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 76 Resp: 182582

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.3	10.9

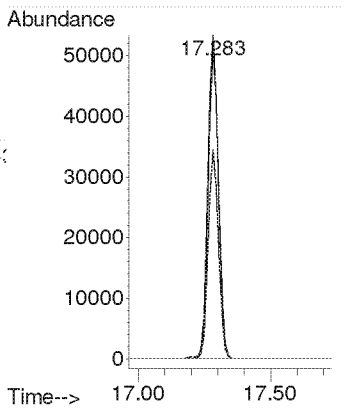


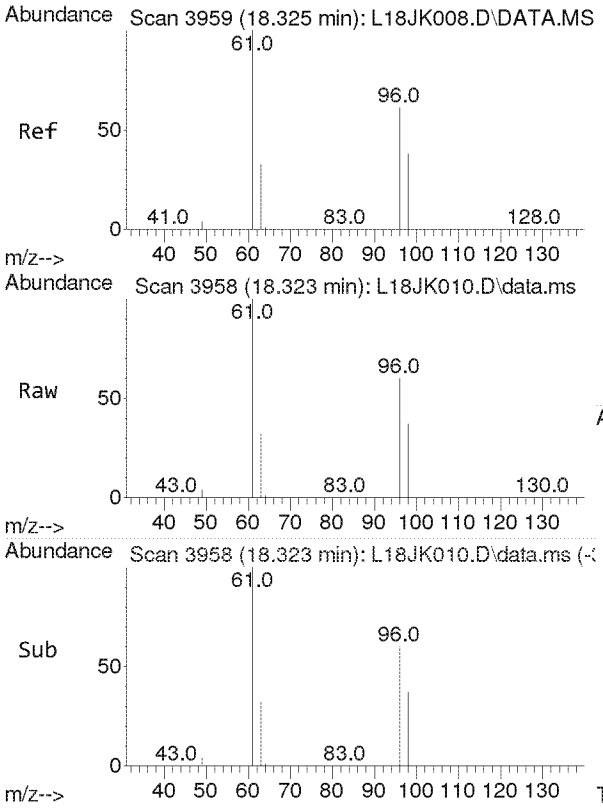


#19
Trichlorotrifluoroethane
Concen: 9.576 ppbv
RT: 17.283 min Scan# 3867
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:101 Resp: 141644

Ion	Ratio	Lower	Upper
101	100		
151	96.5	76.8	115.2
103	64.2	51.4	77.2

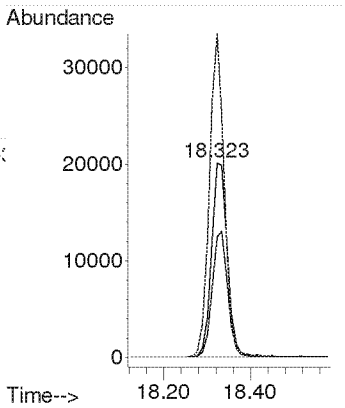


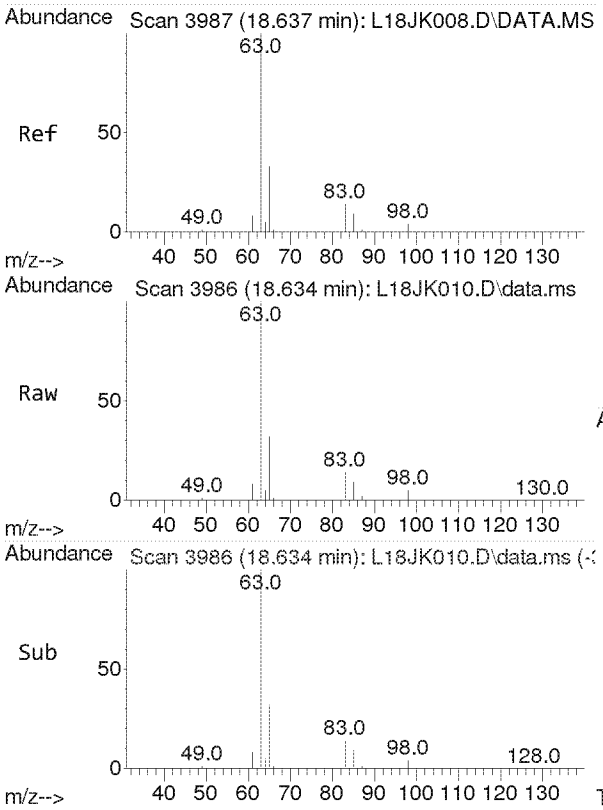


#20
trans-1,2-Dichloroethylene
Concen: 9.466 ppbv
RT: 18.323 min Scan# 3958
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 96 Resp: 50528

Ion	Ratio	Lower	Upper
96	100		
98	63.8	50.9	76.3
61	156.7	125.0	187.6

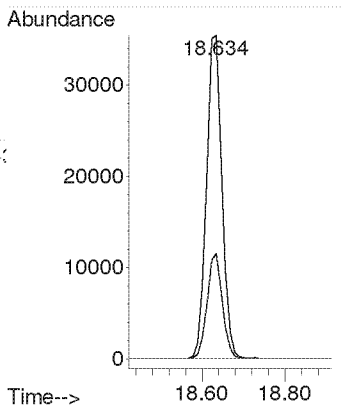


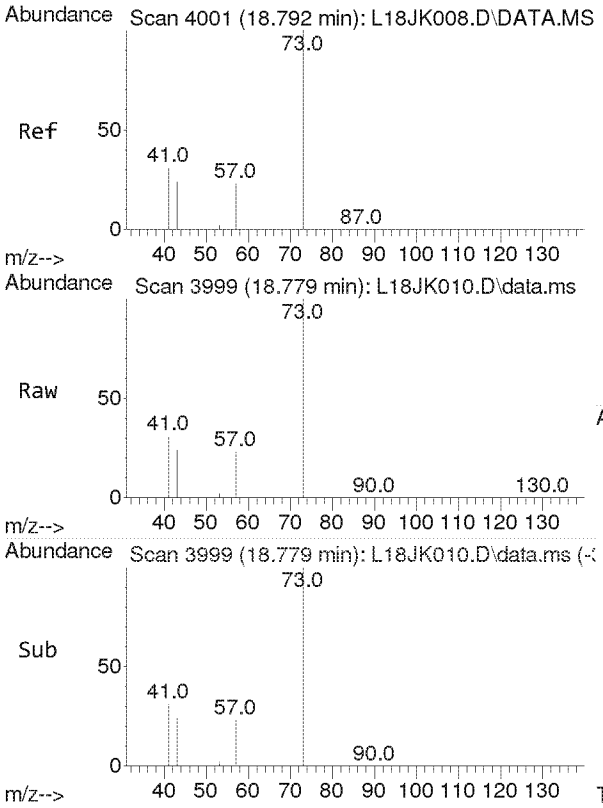


#21
1,1-Dichloroethane
Concen: 9.844 ppbv
RT: 18.634 min Scan# 3986
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 63 Resp: 91738

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.7	38.5

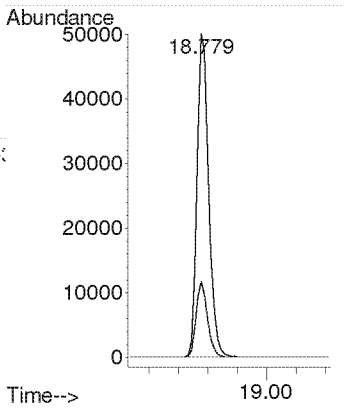


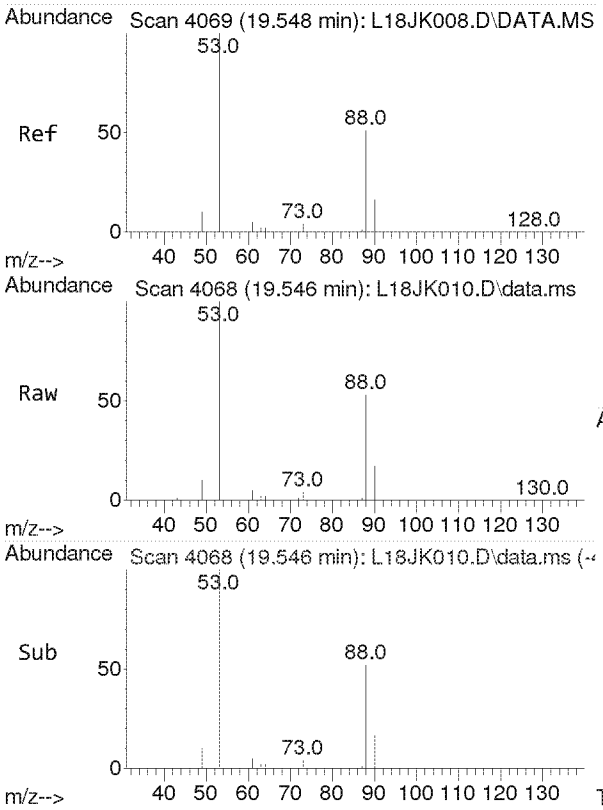


#22
Methyl tert-Butyl Ether
Concen: 9.410 ppbv
RT: 18.779 min Scan# 3999
Delta R.T. -0.013 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 73 Resp: 138009

Ion	Ratio	Lower	Upper
73	100		
57	22.8	18.4	27.6

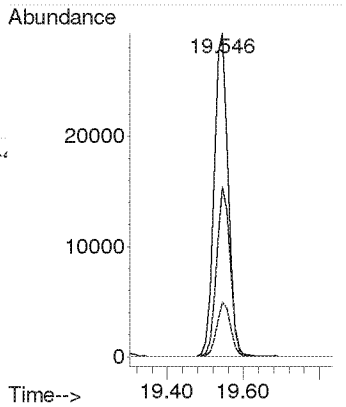


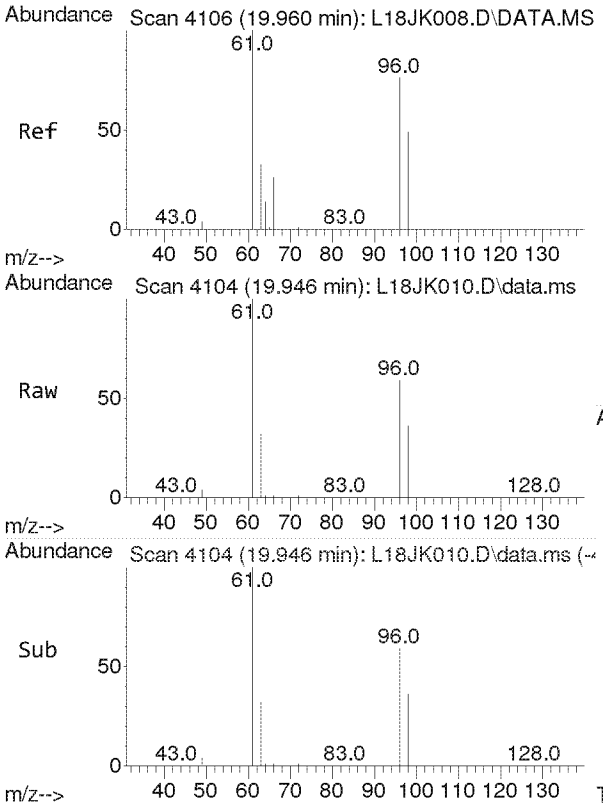


#23
Chloroprene
Concen: 10.601 ppbv
RT: 19.546 min Scan# 4068
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 53 Resp: 74238

Ion	Ratio	Lower	Upper
53	100		
88	51.4	41.2	61.8
90	16.5	13.3	19.9

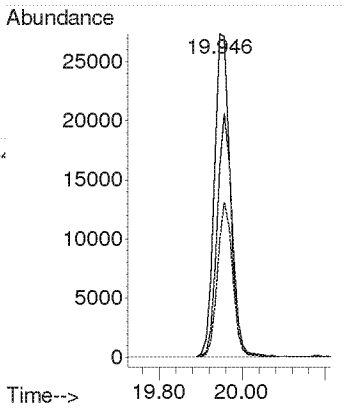


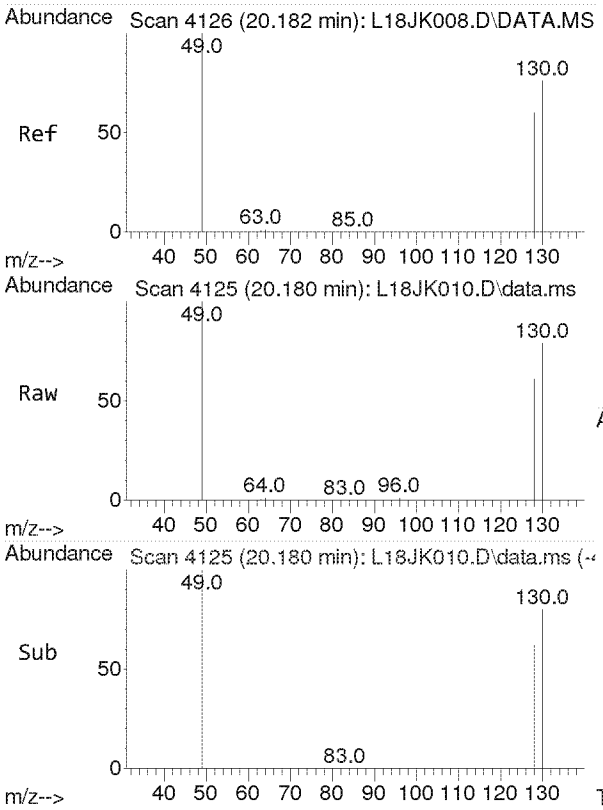


#24
cis-1,2-Dichloroethylene
Concen: 9.707 ppbv
RT: 19.946 min Scan# 4104
Delta R.T. -0.013 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 61 Resp: 71323

Ion	Ratio	Lower	Upper
61	100		
96	71.8	58.8	88.2
98	45.9	37.0	55.4

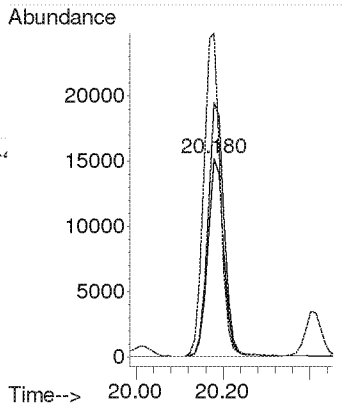


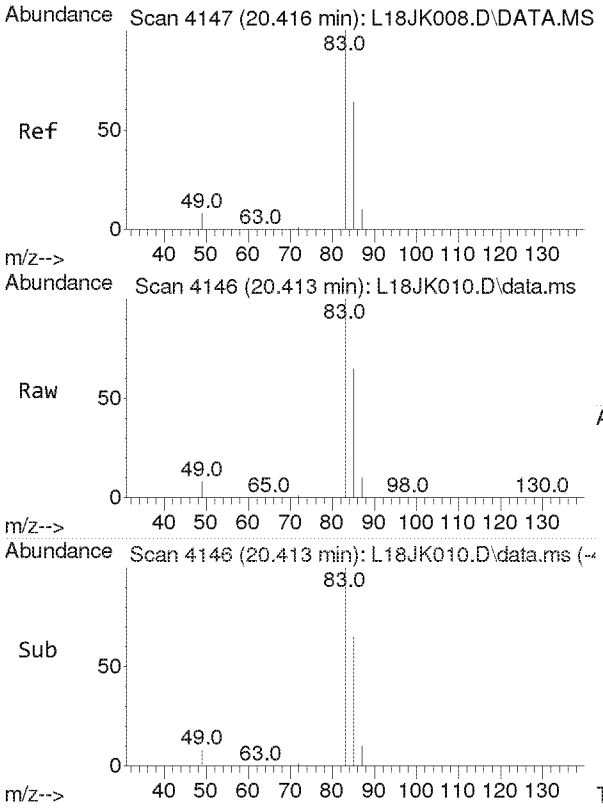


#25
Bromochloromethane
Concen: 9.539 ppbv
RT: 20.180 min Scan# 4125
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:128 Resp: 38726

Ion	Ratio	Lower	Upper
128	100		
130	129.4	103.1	154.7
49	168.0	134.3	201.5

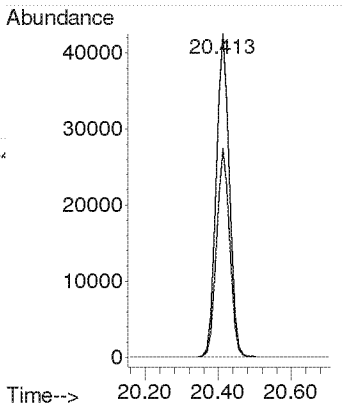


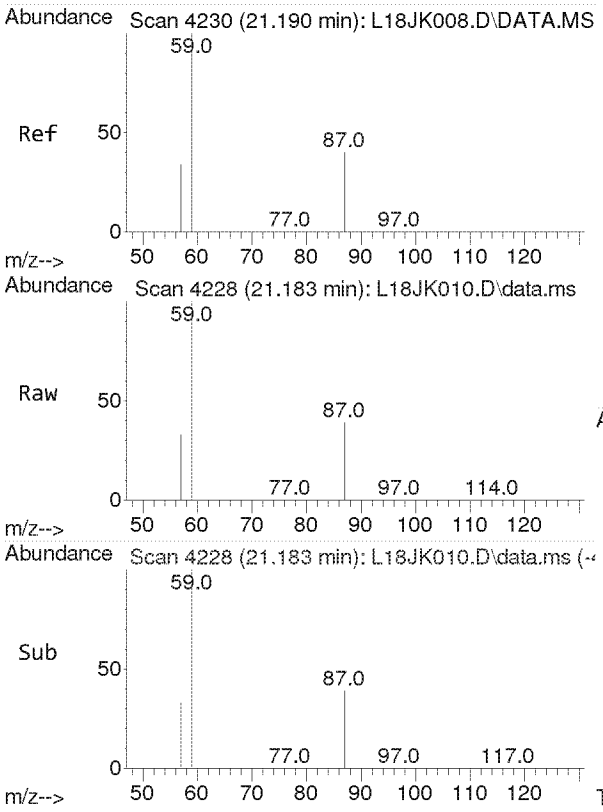


#26
Chloroform
Concen: 9.620 ppbv
RT: 20.413 min Scan# 4146
Delta R.T. -0.002 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 83 Resp: 105630

Ion	Ratio	Lower	Upper
83	100		
85	64.4	51.6	77.4

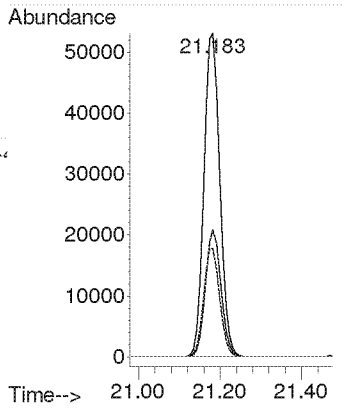


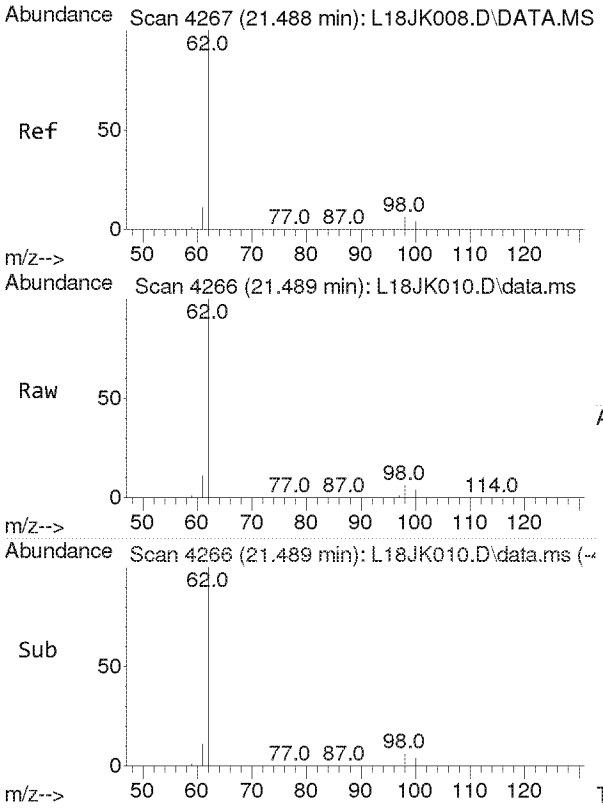


#27
Ethyl tert-Butyl Ether
Concen: 9.369 ppbv
RT: 21.183 min Scan# 4228
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 59 Resp: 141245

Ion	Ratio	Lower	Upper
59	100		
87	38.5	30.8	46.2
57	33.6	27.2	40.8

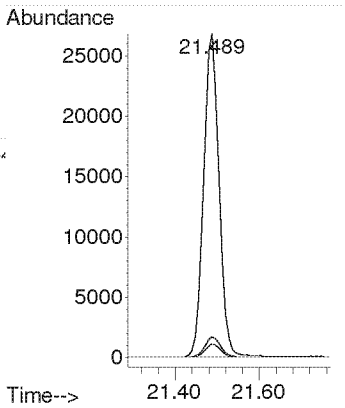


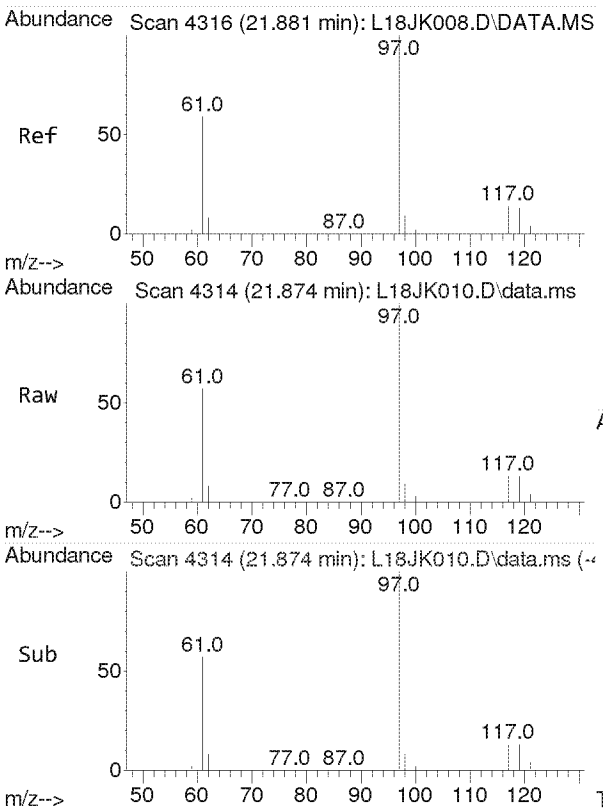


#28
1,2-Dichloroethane
Concen: 9.924 ppbv
RT: 21.489 min Scan# 4266
Delta R.T. 0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 62 Resp: 68091

Ion	Ratio	Lower	Upper
62	100		
98	6.1	4.8	7.2
100	3.9	3.1	4.7

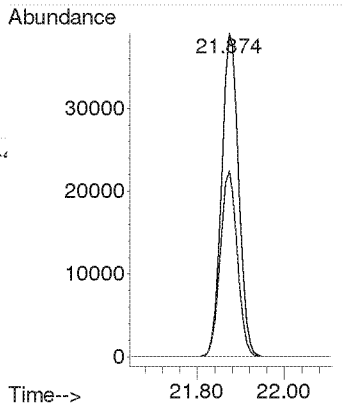


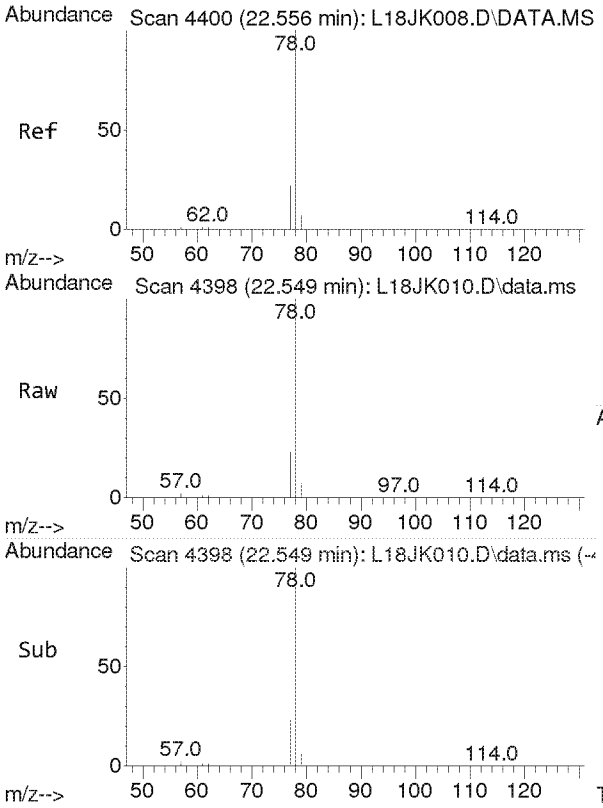


#30
1,1,1-Trichloroethane
Concen: 9.818 ppbv
RT: 21.874 min Scan# 4314
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 97 Resp: 104495

Ion	Ratio	Lower	Upper
97	100		
61	57.4	47.7	71.5

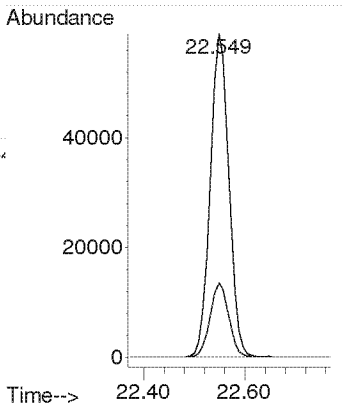


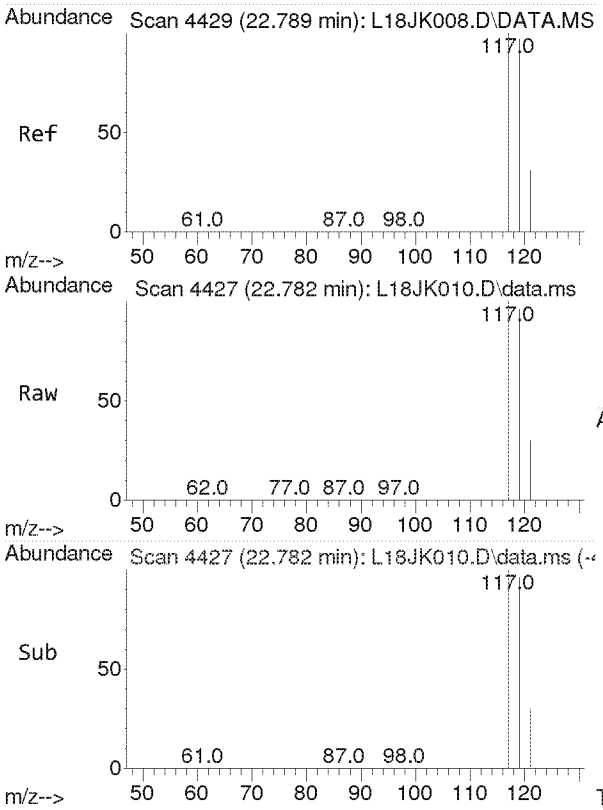


#31
Benzene
Concen: 10.004 ppbv
RT: 22.549 min Scan# 4398
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 78 Resp: 150653

Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.3	27.5

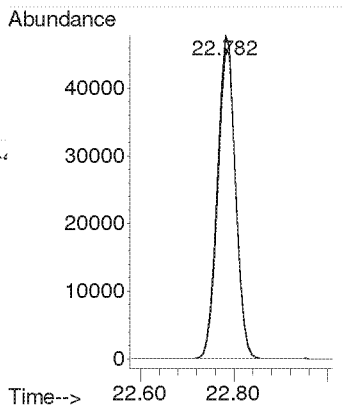


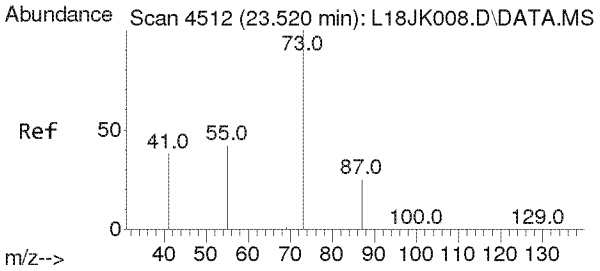


#32
Carbon Tetrachloride
Concen: 10.502 ppbv
RT: 22.782 min Scan# 4427
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:117 Resp: 127672

Ion	Ratio	Lower	Upper
117	100		
119	96.3	77.5	116.3

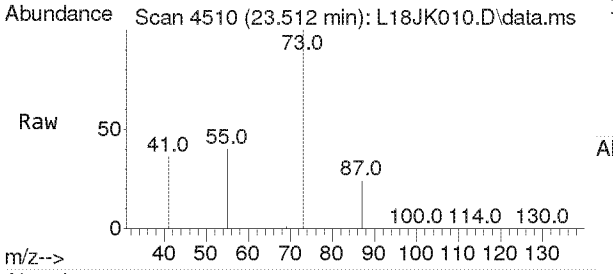


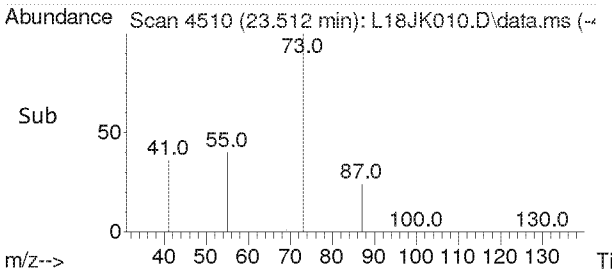


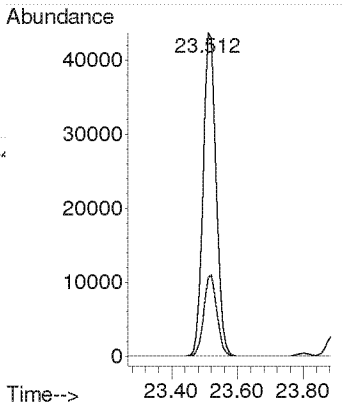
#33
tert-Amyl Methyl Ether
Concen: 9.469 ppbv
RT: 23.512 min Scan# 4510
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

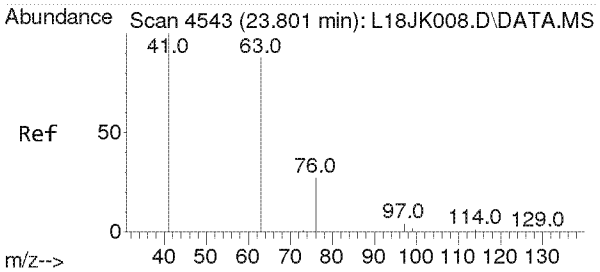
Tgt Ion: 73 Resp: 119567

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1





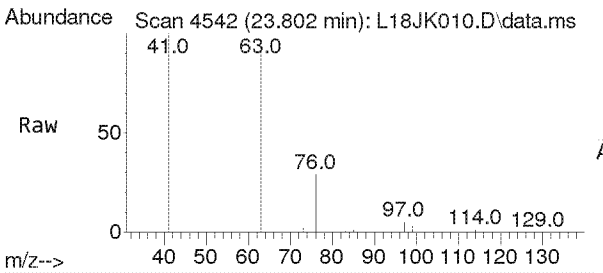


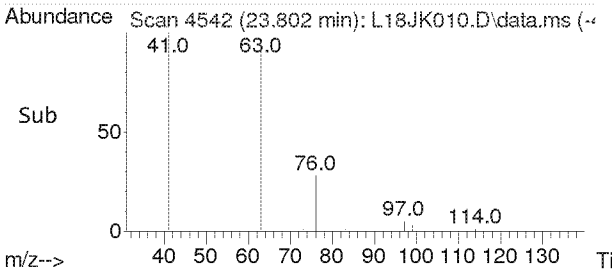


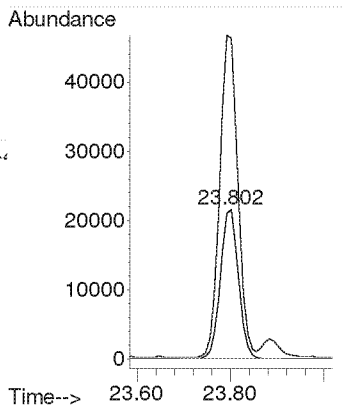
#34
1,2-Dichloropropane
Concen: 9.874 ppbv
RT: 23.802 min Scan# 4542
Delta R.T. 0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

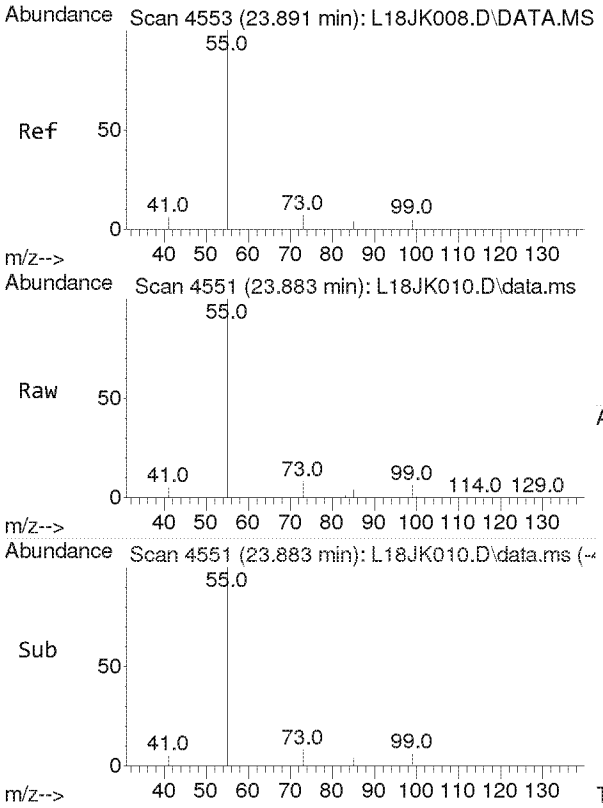
Tgt Ion: 63 Resp: 57161

Ion	Ratio	Lower	Upper
63	100		
41	218.4	177.7	266.5





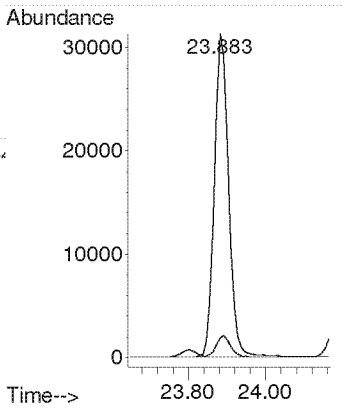


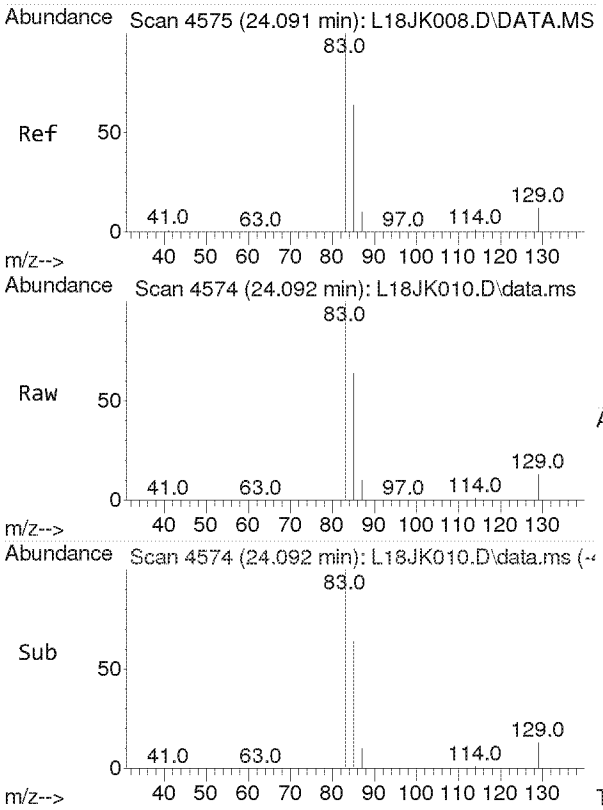


#35
Ethyl Acrylate
Concen: 10.814 ppbv
RT: 23.883 min Scan# 4551
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 55 Resp: 79276

Ion	Ratio	Lower	Upper
55	100		
99	6.3	5.0	7.6

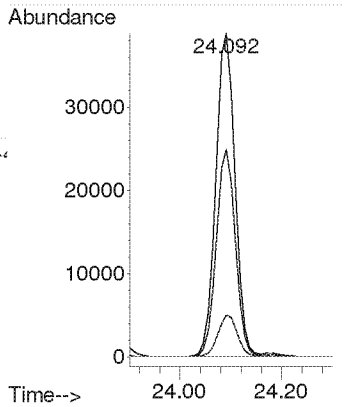


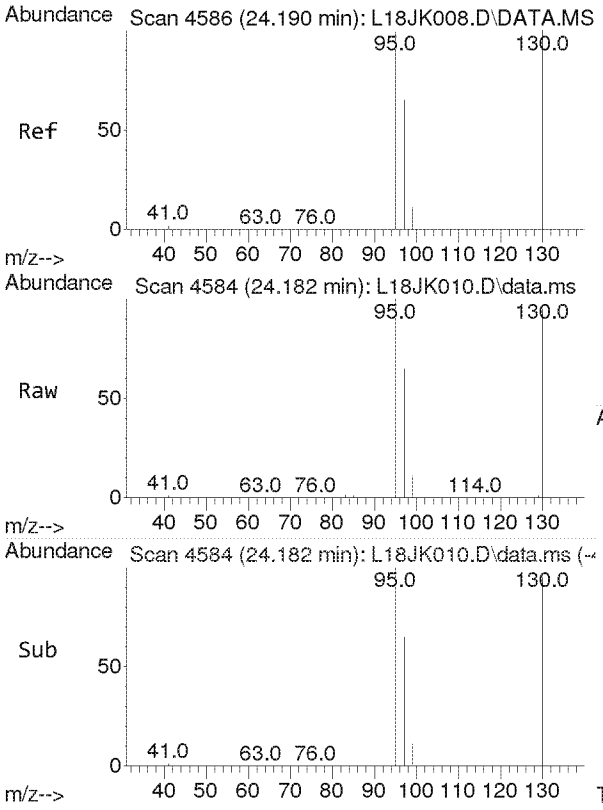


#36
Bromodichloromethane
Concen: 9.162 ppbv
RT: 24.092 min Scan# 4574
Delta R.T. 0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 83 Resp: 101991

Ion	Ratio	Lower	Upper
83	100		
85	63.8	51.1	76.7
129	12.9	10.3	15.5

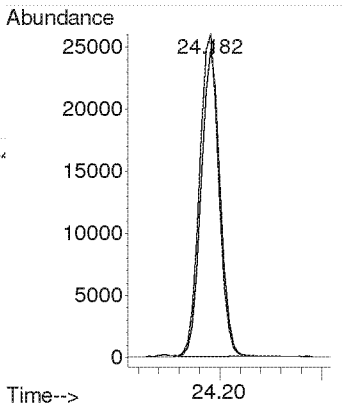


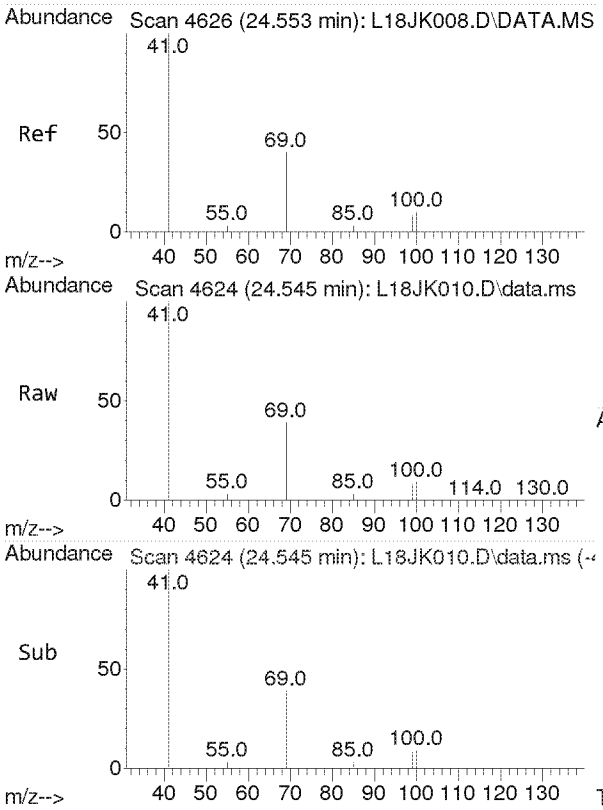


#37
Trichloroethylene
Concen: 9.263 ppbv
RT: 24.182 min Scan# 4584
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:130 Resp: 63843

Ion	Ratio	Lower	Upper
130	100		
95	106.7	85.5	128.3

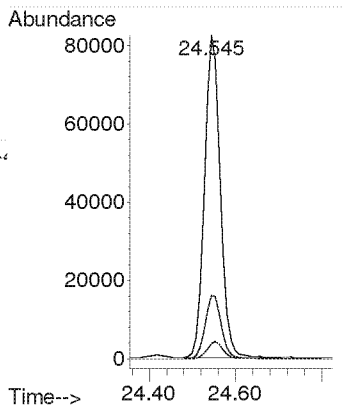


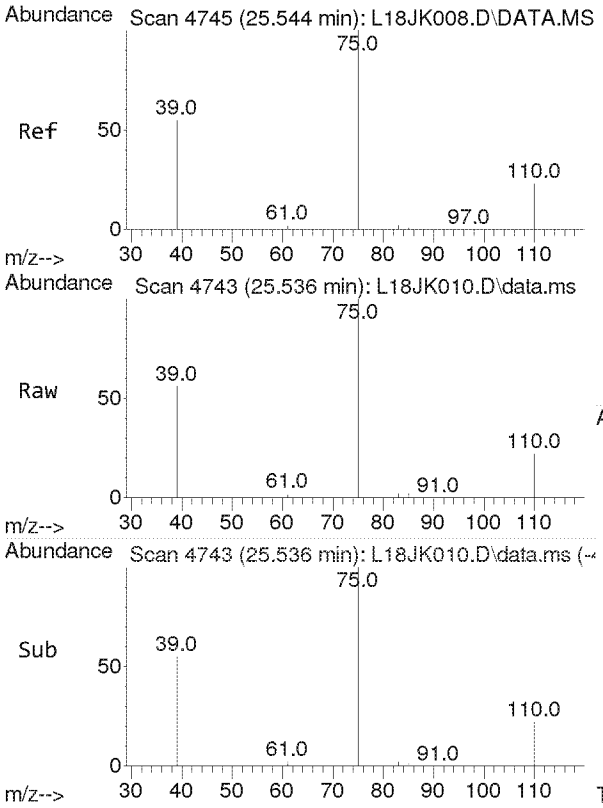


#38
Methyl Methacrylate
Concen: 10.235 ppbv
RT: 24.545 min Scan# 4624
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 41 Resp: 211223

Ion	Ratio	Lower	Upper
41	100		
69	20.0	16.0	24.0
100	5.2	4.1	6.1

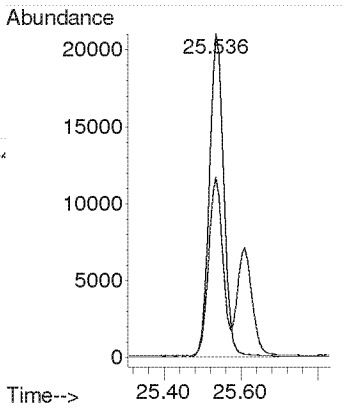


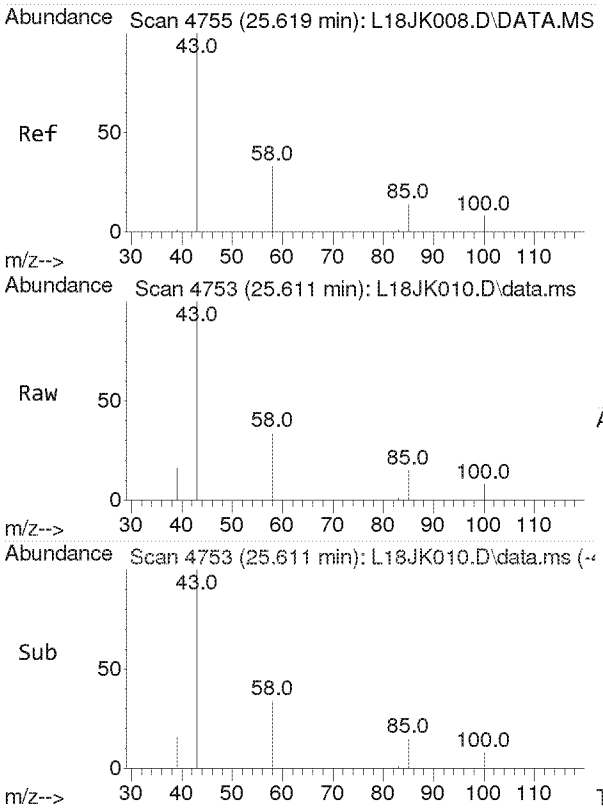


#39
cis-1,3-Dichloropropene
Concen: 10.288 ppbv
RT: 25.536 min Scan# 4743
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 75 Resp: 54392

Ion	Ratio	Lower	Upper
75	100		
39	54.9	44.5	66.7

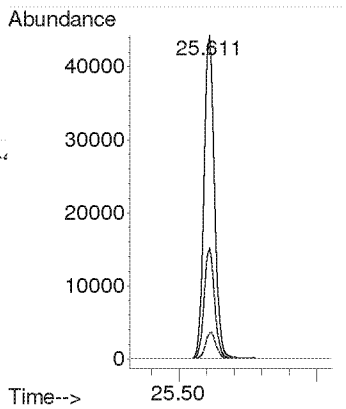


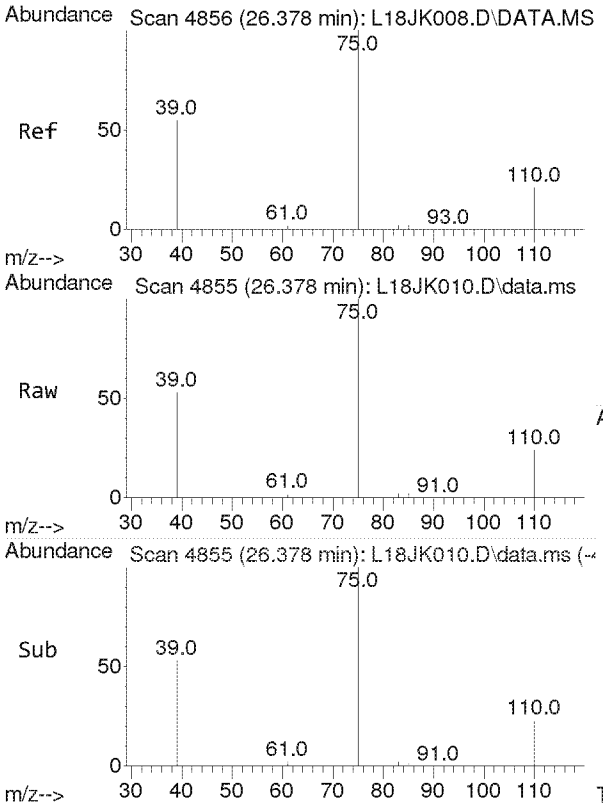


#40
Methyl Isobutyl Ketone
Concen: 9.756 ppbv
RT: 25.611 min Scan# 4753
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 43 Resp: 117089

Ion	Ratio	Lower	Upper
43	100		
58	34.0	26.6	40.0
100	8.1	6.4	9.6

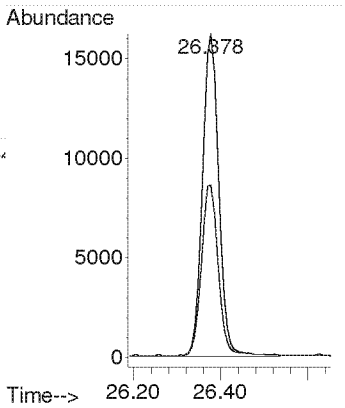


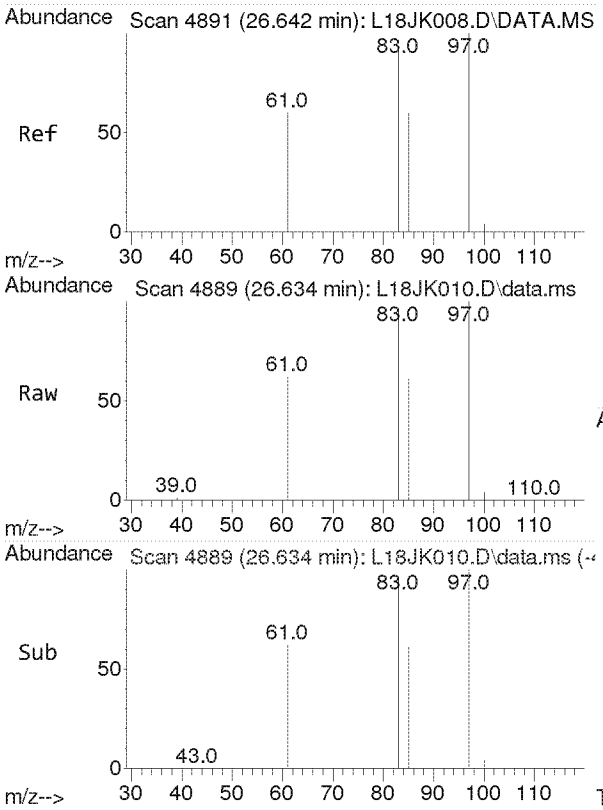


#41
trans-1,3-Dichloropropene
Concen: 10.802 ppbv
RT: 26.378 min Scan# 4855
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 75 Resp: 41812

Ion	Ratio	Lower	Upper
75	100		
39	54.1	44.2	66.4

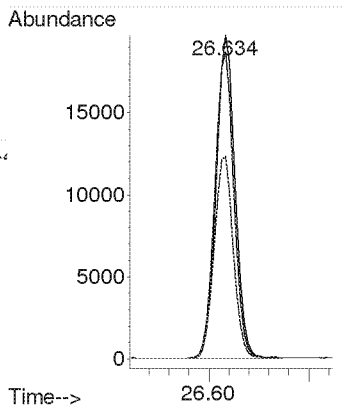


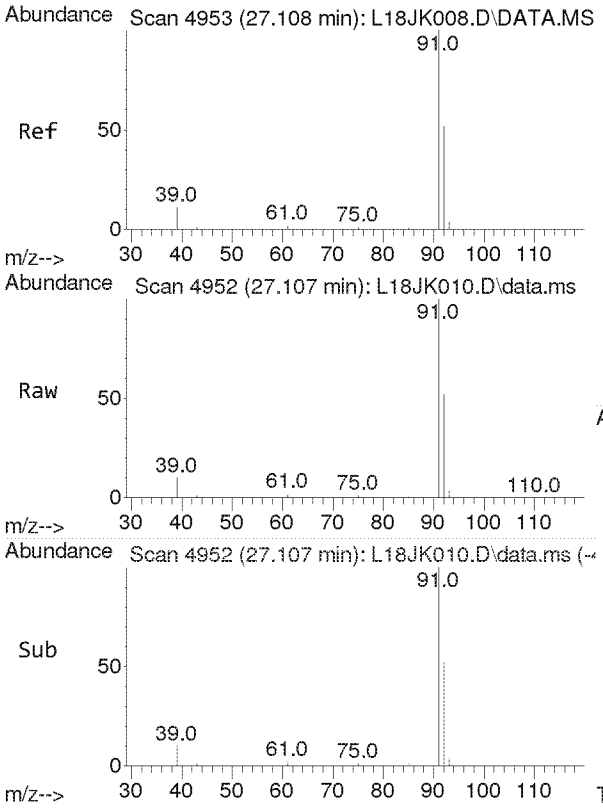


#42
1,1,2-Trichloroethane
Concen: 9.984 ppbv
RT: 26.634 min Scan# 4889
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 97 Resp: 51429

Ion	Ratio	Lower	Upper
97	100		
83	95.1	76.2	114.4
61	63.4	51.7	77.5

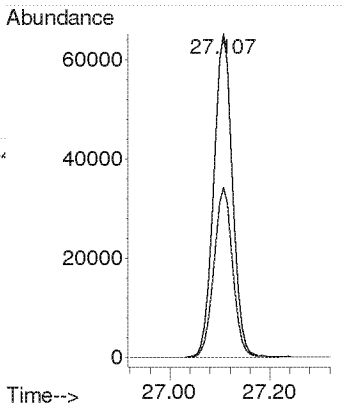


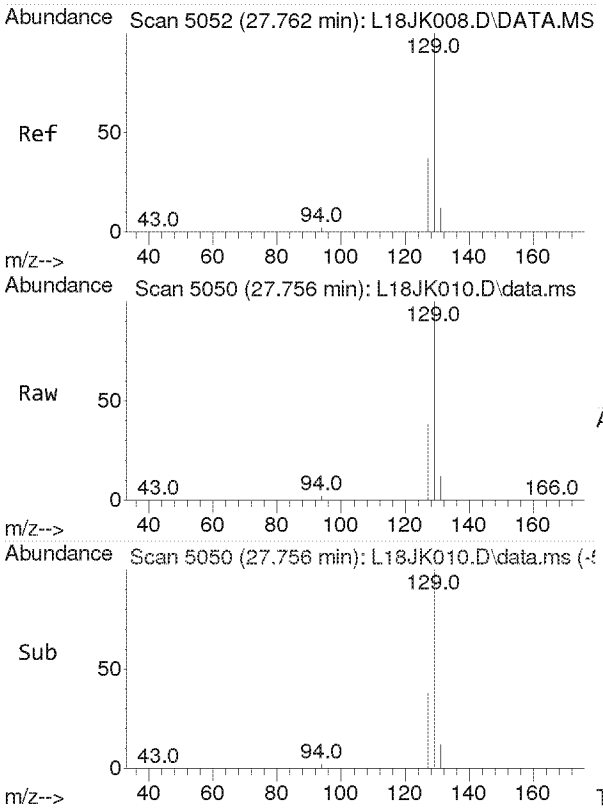


#44
Toluene
Concen: 10.559 ppbv
RT: 27.107 min Scan# 4952
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 91 Resp: 169295

Ion	Ratio	Lower	Upper
91	100		
92	52.3	41.7	62.5

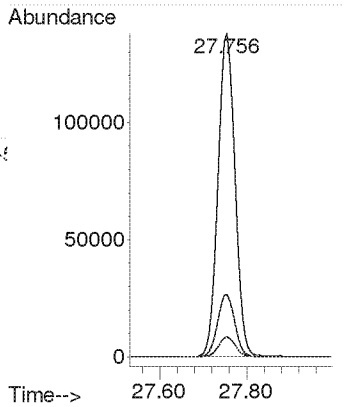


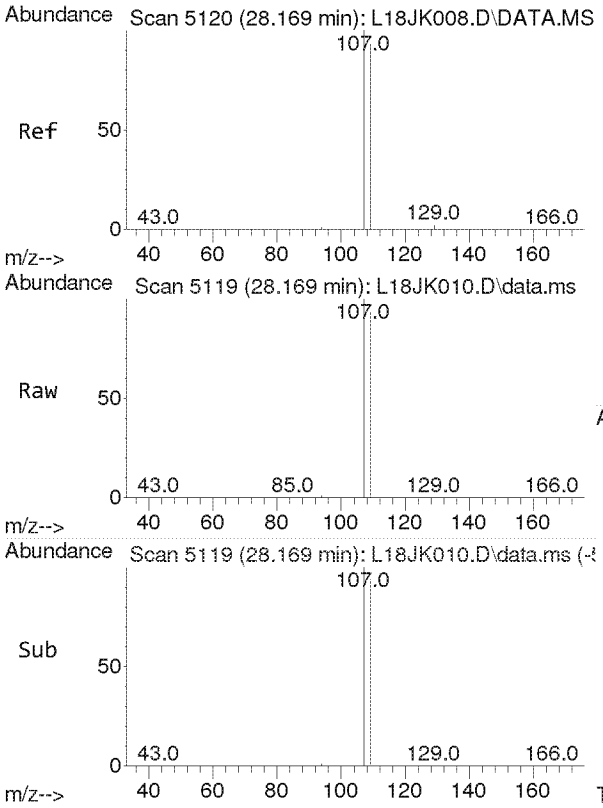


#45
Dibromochloromethane
Concen: 9.554 ppbv
RT: 27.756 min Scan# 5050
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:129 Resp: 369590

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2

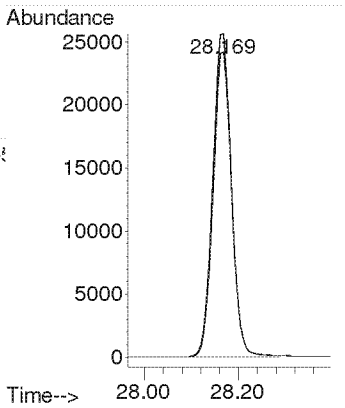


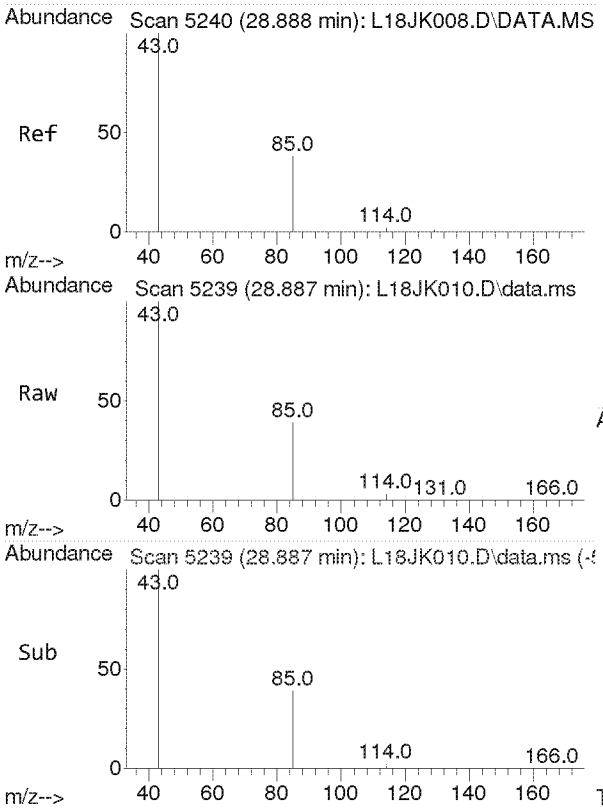


#46
1,2-Dibromoethane
Concen: 10.367 ppbv
RT: 28.169 min Scan# 5119
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:107 Resp: 69562

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.0	112.6

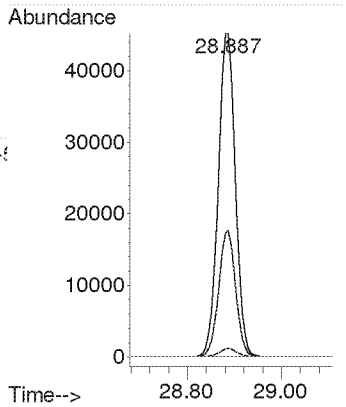


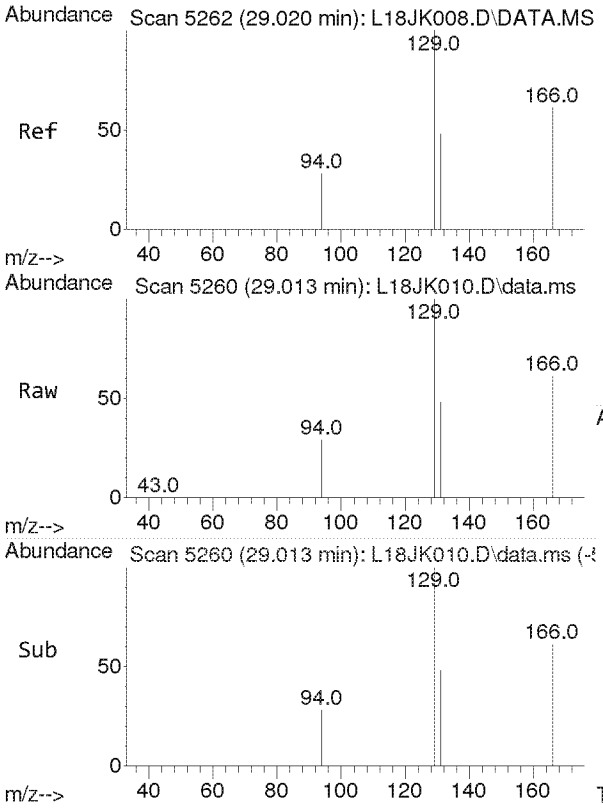


#47
n-Octane
Concen: 11.285 ppbv
RT: 28.887 min Scan# 5239
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 43 Resp: 113409

Ion	Ratio	Lower	Upper
43	100		
85	38.4	30.2	45.4
114	2.4	1.9	2.9

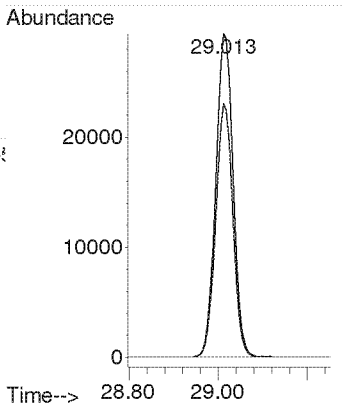


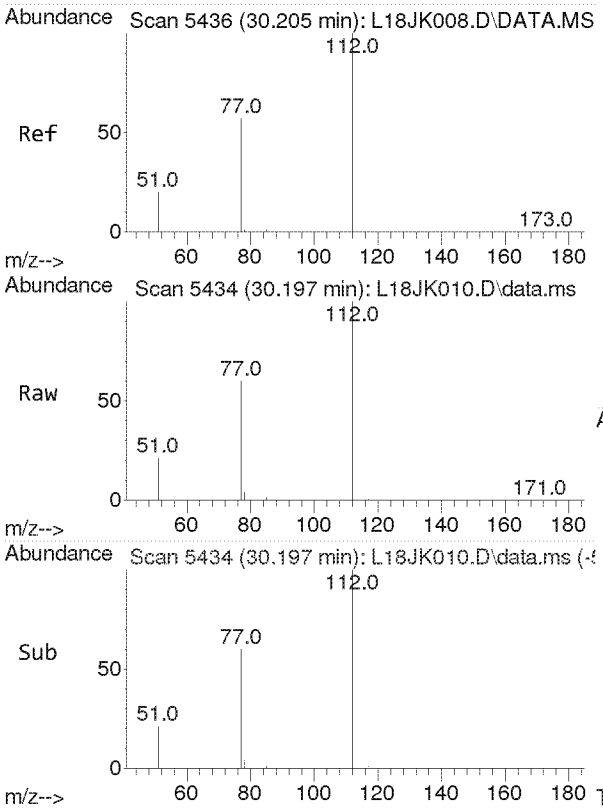


#48
Tetrachloroethylene
Concen: 9.953 ppbv
RT: 29.013 min Scan# 5260
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:166 Resp: 78615

Ion	Ratio	Lower	Upper
166	100		
131	77.9	63.0	94.4

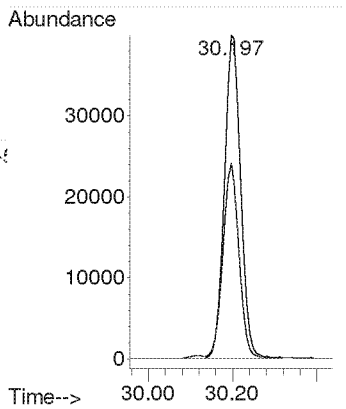


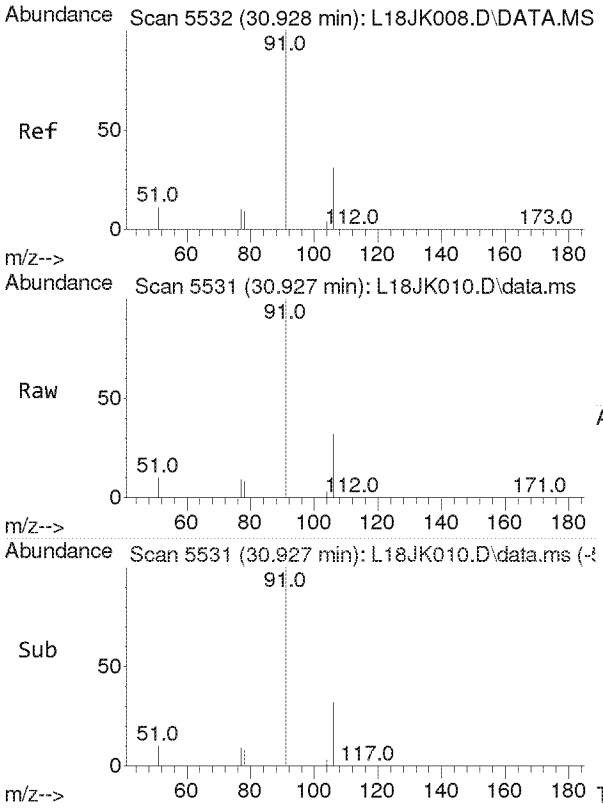


#49
Chlorobenzene
Concen: 10.322 ppbv
RT: 30.197 min Scan# 5434
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:112 Resp: 109368

Ion	Ratio	Lower	Upper
112	100		
77	60.3	47.4	71.2

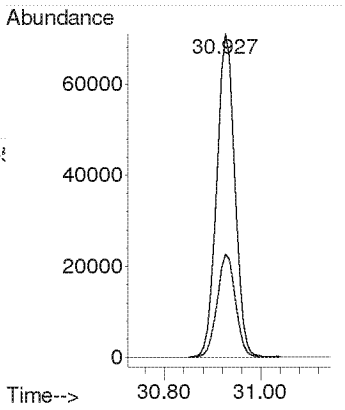


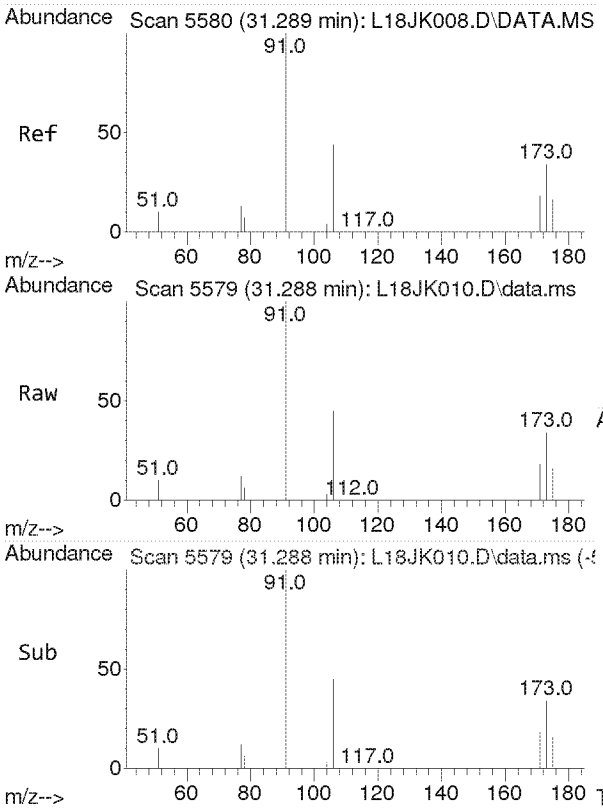


#50
Ethylbenzene
Concen: 10.962 ppbv
RT: 30.927 min Scan# 5531
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 91 Resp: 185304

Ion	Ratio	Lower	Upper
91	100		
106	32.0	25.4	38.2

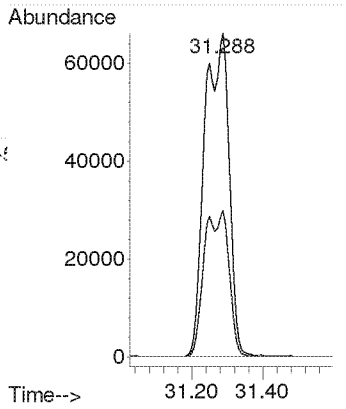


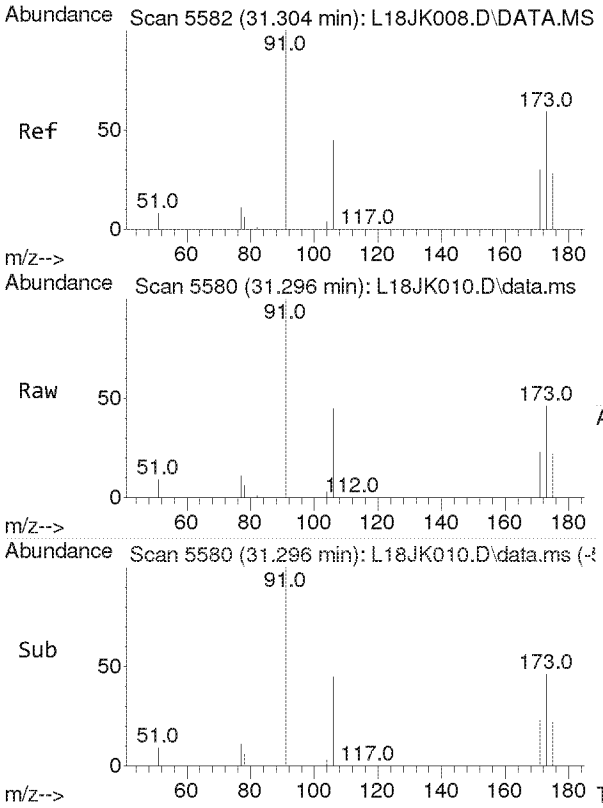


#51
m,p-Xylene
Concen: 21.373 ppbv
RT: 31.288 min Scan# 5579
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 91 Resp: 313211

Ion	Ratio	Lower	Upper
91	100		
106	45.8	36.3	54.5

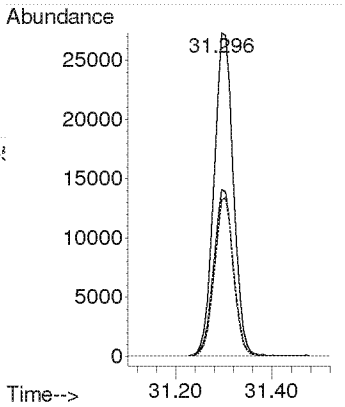


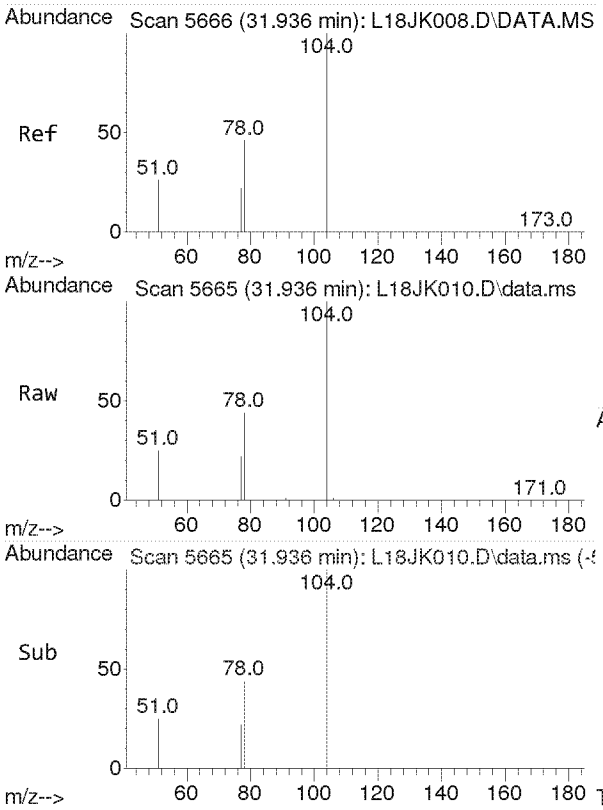


#52
Bromoform
Concen: 9.967 ppbv
RT: 31.296 min Scan# 5580
Delta R.T. -0.008 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:173 Resp: 75776

Ion	Ratio	Lower	Upper
173	100		
171	51.3	41.1	61.7
175	48.9	39.2	58.8

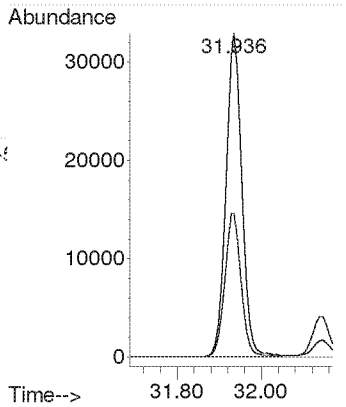


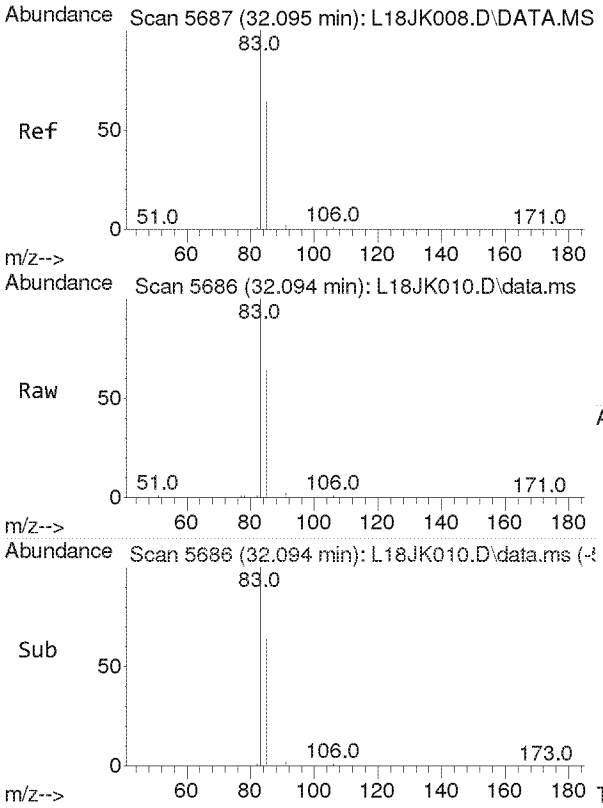


#53
Styrene
Concen: 11.089 ppbv
RT: 31.936 min Scan# 5665
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:104 Resp: 87480

Ion	Ratio	Lower	Upper
104	100		
78	45.1	36.6	54.8
103	0.0	0.0	0.0

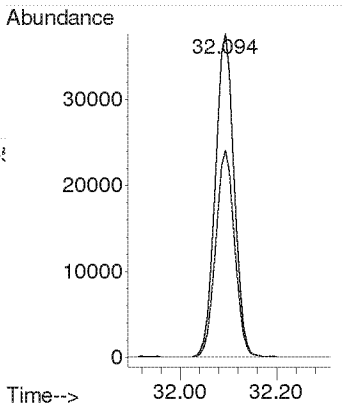


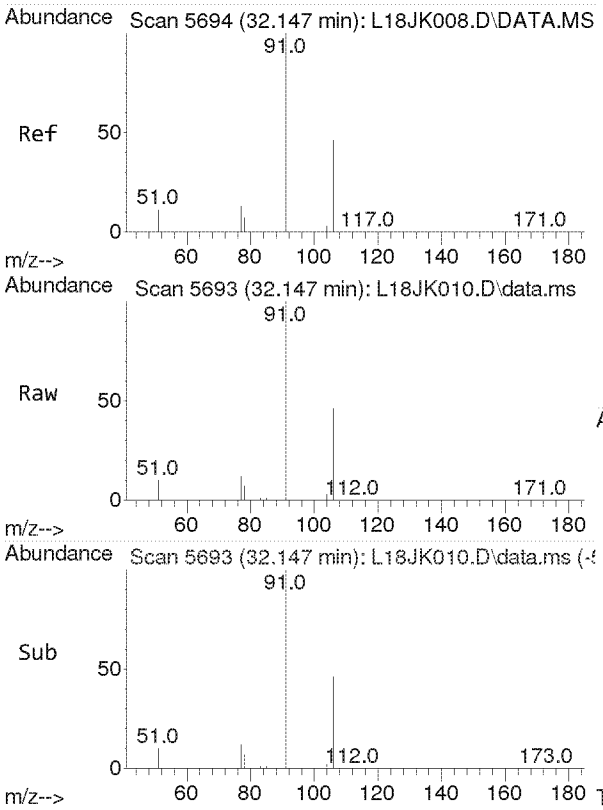


#54
1,1,2,2-Tetrachloroethane
Concen: 10.174 ppbv
RT: 32.094 min Scan# 5686
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 83 Resp: 101582

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.4	77.2

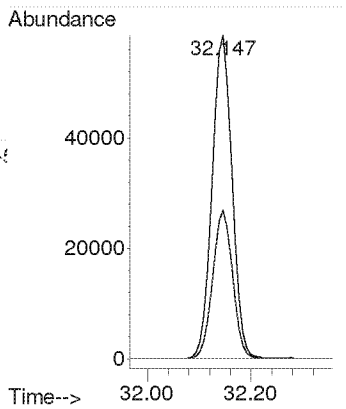


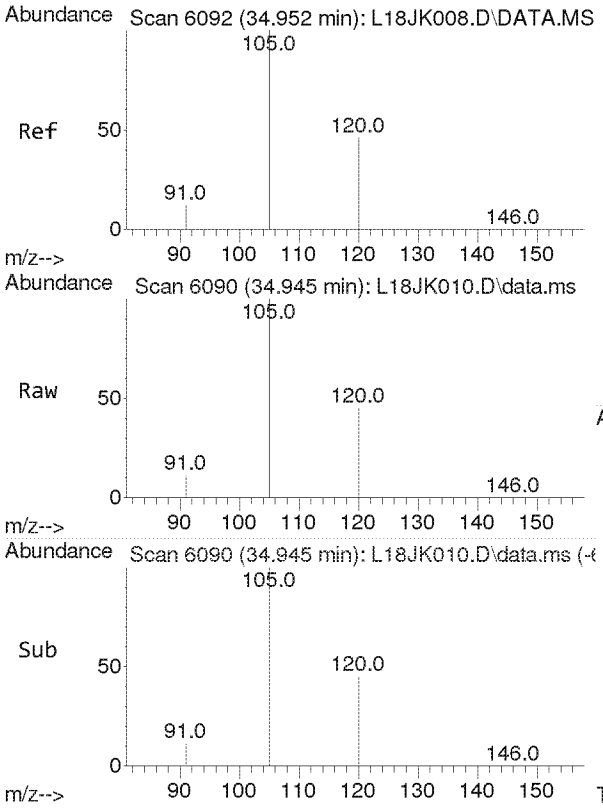


#55
o-Xylene
Concen: 10.967 ppbv
RT: 32.147 min Scan# 5693
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion: 91 Resp: 155170

Ion	Ratio	Lower	Upper
91	100		
106	45.7	36.4	54.6

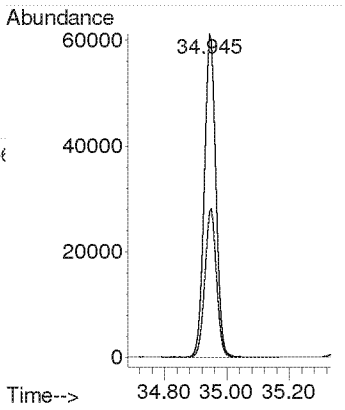


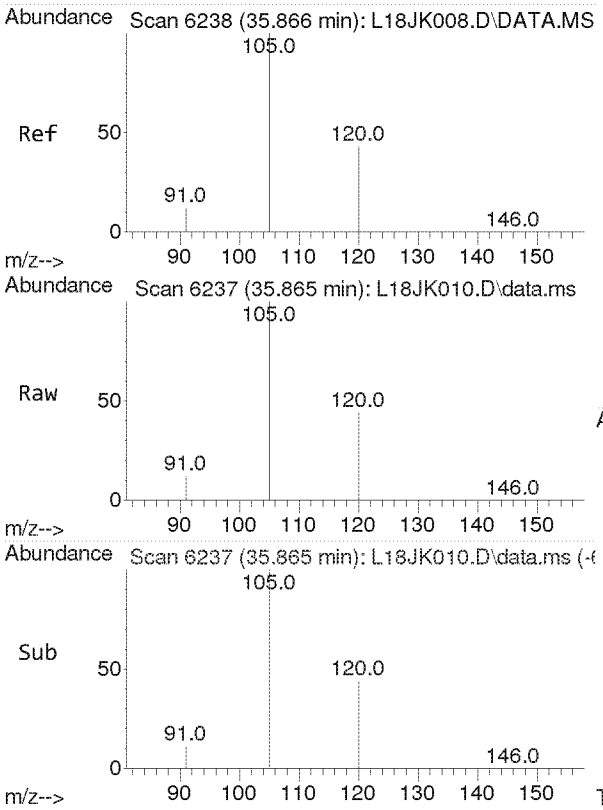


#56
1,3,5-Trimethylbenzene
Concen: 11.008 ppbv
RT: 34.945 min Scan# 6090
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:105 Resp: 159372

Ion	Ratio	Lower	Upper
105	100		
120	45.9	36.5	54.7

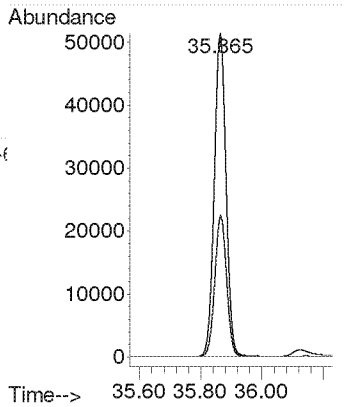


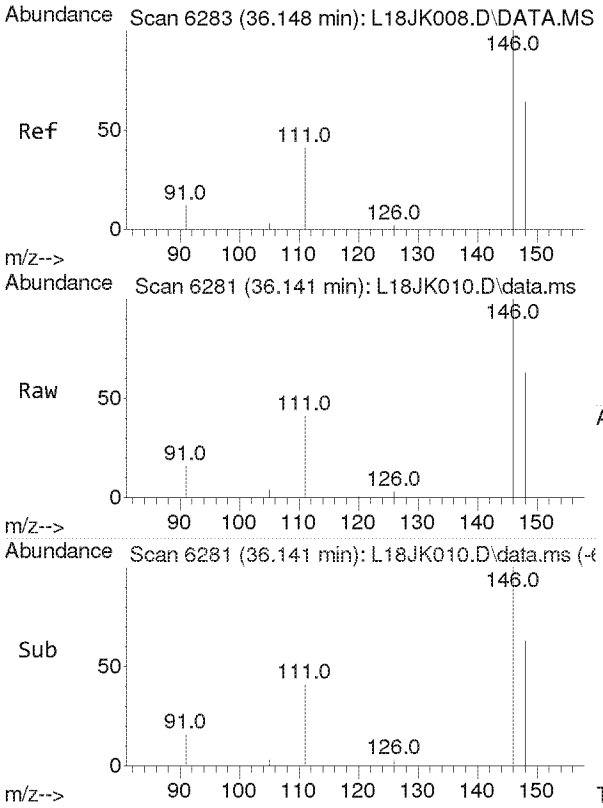


#57
1,2,4-Trimethylbenzene
Concen: 11.284 ppbv
RT: 35.865 min Scan# 6237
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:105 Resp: 136275

Ion	Ratio	Lower	Upper
105	100		
120	43.7	34.7	52.1

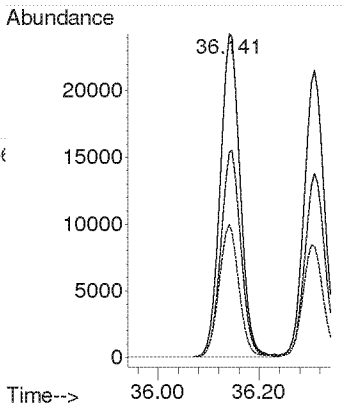


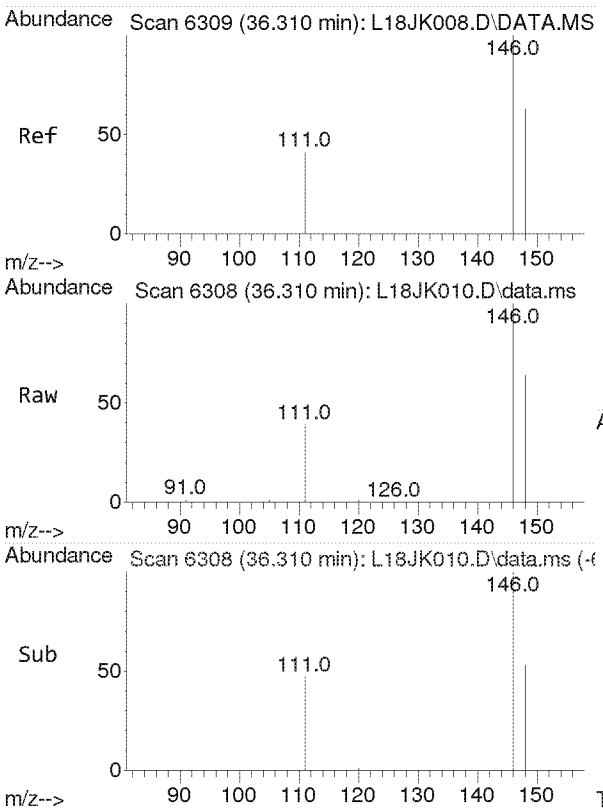


#58
m-Dichlorobenzene
Concen: 10.033 ppbv
RT: 36.141 min Scan# 6281
Delta R.T. -0.007 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:146 Resp: 67027

Ion	Ratio	Lower	Upper
146	100		
148	63.8	51.2	76.8
111	40.7	32.9	49.3

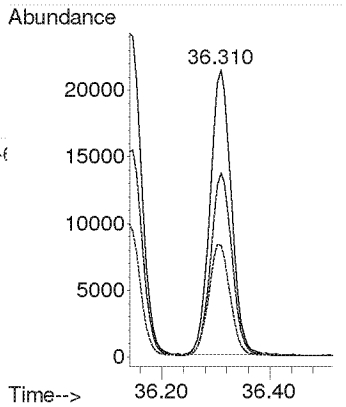


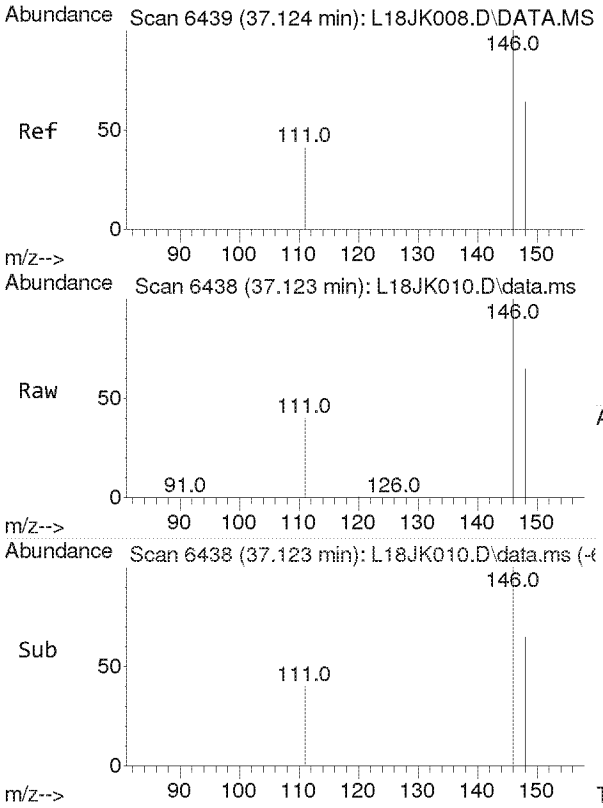


#59
p-Dichlorobenzene
Concen: 10.507 ppbv
RT: 36.310 min Scan# 6308
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:146 Resp: 57708

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	39.6	31.8	47.8

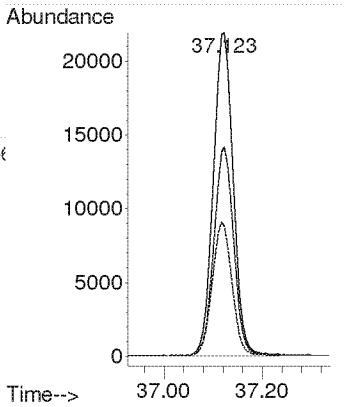


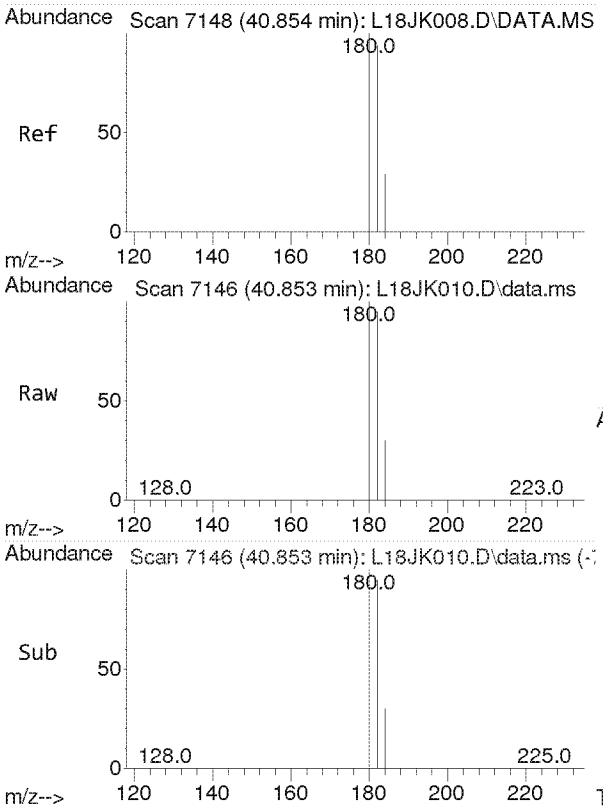


#60
o-Dichlorobenzene
Concen: 10.307 ppbv
RT: 37.123 min Scan# 6438
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:146 Resp: 61307

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.1	76.7
111	41.1	33.4	50.2

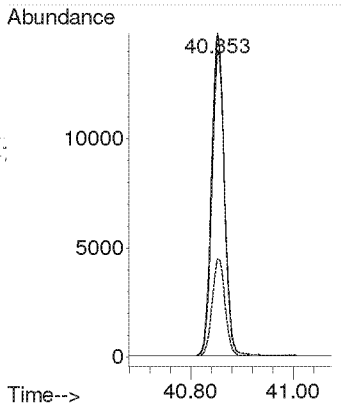


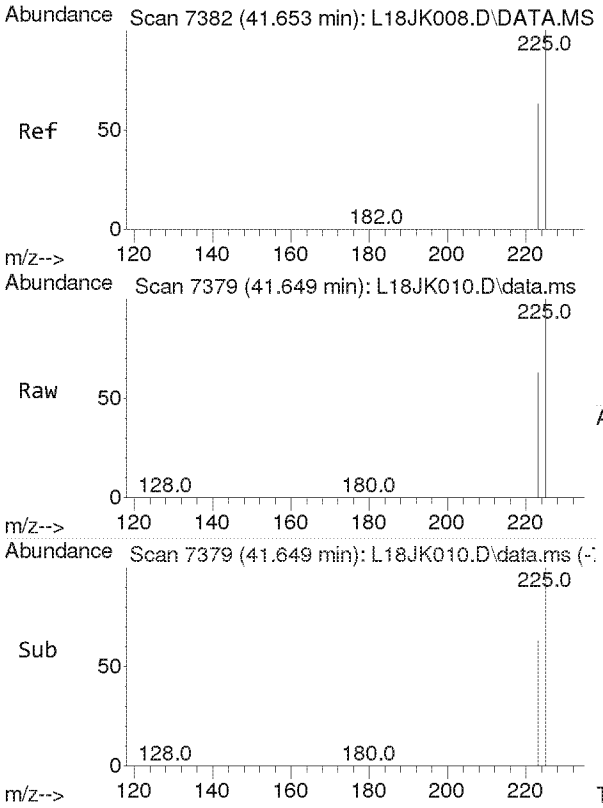


#61
1,2,4-Trichlorobenzene
Concen: 9.416 ppbv
RT: 40.853 min Scan# 7146
Delta R.T. -0.001 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:180 Resp: 25428

Ion	Ratio	Lower	Upper
180	100		
182	95.1	76.5	114.7
184	30.5	24.4	36.6

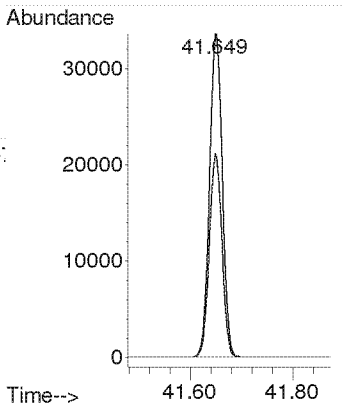




#62
Hexachloro-1,3-butadiene
Concen: 8.750 ppbv
RT: 41.649 min Scan# 7379
Delta R.T. -0.005 min
Lab File: L18JK010.D
Acq: 12 Oct 2018 2:44 am

Tgt Ion:225 Resp: 57413

Ion	Ratio	Lower	Upper
225	100		
223	62.5	50.2	75.4



Analytical Standard Record

Eastern Research Group

8I21008

Description:	2.50 ppbv ICV/CCV	Expires:	10/21/18
Standard Type:	Calibration Stan	Prepared:	09/21/18
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	09/21/18 15:15 by MH

canister# 3249

Analyte	CAS Number	Concentration	Units
1,1,1-Trichloroethane	71-55-6	0.0025	ppmv
1,1,2,2-Tetrachloroethane	79-34-5	0.00254	ppmv
1,1,2-Trichloroethane	79-00-5	0.0025	ppmv
1,1-Dichloroethane	75-34-3	0.00246	ppmv
1,1-Dichloroethene	75-35-4	0.00246	ppmv
1,2,4-Trichlorobenzene	120-82-1	0.00251	ppmv
1,2,4-Trimethylbenzene	95-63-6	0.00237	ppmv
1,2-Dibromoethane	106-93-4	0.0025	ppmv
1,2-Dichloroethane	107-06-2	0.0025	ppmv
1,2-Dichloropropane	78-87-5	0.00253	ppmv
1,3,5-Trimethylbenzene	108-67-8	0.0025	ppmv
1,3-Butadiene	106-99-0	0.00248	ppmv
Acetonitrile	75-05-8	0.00252	ppmv
Acetylene	74-86-2	0.00246	ppmv
Acrolein	107-02-8	0.00238	ppmv
Acrylonitrile	107-13-1	0.00245	ppmv
Benzene	71-43-2	0.00252	ppmv
Bromochloromethane	74-97-5	0.00247	ppmv
Bromodichloromethane	75-27-4	0.00258	ppmv
Bromoform	75-25-2	0.00256	ppmv
Bromomethane	74-83-9	0.00248	ppmv
Carbon Disulfide	75-15-0	0.00249	ppmv
Carbon Tetrachloride	56-23-5	0.00248	ppmv
Chlorobenzene	108-90-7	0.00248	ppmv
Chloroethane	75-00-3	0.00251	ppmv
Chloroform	67-66-3	0.00251	ppmv
Chloromethane	74-87-3	0.0025	ppmv
Chloroprene	126-99-8	0.00246	ppmv
cis-1,2-Dichloroethylene	156-59-2	0.00253	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.00256	ppmv

10-3-18

Reviewed By Date

Analytical Standard Record

Eastern Research Group

8I21008

Dibromochloromethane	124-48-1	0.00257	ppmv
Dichlorodifluoromethane	75-71-8	0.00242	ppmv
Dichloromethane	75-09-2	0.0025	ppmv
Dichlorotetrafluoroethane	76-14-2	0.00246	ppmv
Ethyl Acrylate	140-88-5	0.00254	ppmv
Ethyl tert-Butyl Ether	637-92-3	0.0026	ppmv
Ethylbenzene	100-41-4	0.00252	ppmv
Ethylene oxide	75-21-8	0.00255	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.00255	ppmv
m,p-Xylene	108-38-3, 106-42-3	0.005	ppmv
m-Dichlorobenzene	541-73-1	0.0024	ppmv
Methyl Isobutyl Ketone	108-10-1	0.00254	ppmv
Methyl Methacrylate	80-62-6	0.00254	ppmv
Methyl tert-Butyl Ether	1634-04-4	0.0025	ppmv
Naphthalene	91-20-3	0.0025	ppmv
n-Hexane	110-54-3	0.00248	ppmv
n-Octane	111-65-9	0.00248	ppmv
o-Dichlorobenzene	95-50-1	0.00253	ppmv
o-Xylene	95-47-6	0.00246	ppmv
p-Dichlorobenzene	106-46-7	0.00261	ppmv
Propylene	115-07-1	0.00246	ppmv
Styrene	100-42-5	0.0025	ppmv
tert-Amyl Methyl Ether	994-05-8	0.0026	ppmv
Tetrachloroethylene	127-18-4	0.00248	ppmv
Toluene	108-88-3	0.00244	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.0025	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.00248	ppmv
Trichloroethylene	79-01-6	0.00252	ppmv
Trichlorofluoromethane	75-69-4	0.00248	ppmv
Trichlorotrifluoroethane	76-13-1	0.00246	ppmv
Vinyl chloride	75-01-4	0.00252	ppmv

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
7J04001	TO-15 Secondary Stock Standard	10/04/17	Mitch Howell	09/25/18	10/04/17 09:52 by MH	30
8B27011	Ethylene Oxide Stock Standard	11/29/17	** Vendor **	11/29/18	02/27/18 11:23 by MH	15

Reviewed By — Date: 10-3-17

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK011.D
Acq On : 12 Oct 2018 3:46 am (#1); 12-Oct-18, 03:41:11 (#2)
Operator : MAH
Sample : 1810019-ICV1
Misc : 80ML IS 7L07001,8I21008 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 12 09:36:32 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

TO-3HD

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.472	0.452	4.2	100	0.00
3	CT	Propylene	0.494	0.542	-9.7	100	0.00
4	CT	Dichlorodifluoromethane	2.254	2.261	-0.3	100	0.00
5	CT	Chloromethane	0.602	0.596	1.0	100	0.00
6	CT	Dichlorotetrafluoroethane	1.980	2.200	-11.1	100	0.00
7	CT	Vinyl Chloride	0.643	0.658	-2.3	100	0.00
8	CT	1,3-Butadiene	0.442	0.445	-0.7	100	0.00
9	CT	Ethylene Oxide	0.261	0.306	-17.2	100	0.00
10	CT	Bromomethane	0.629	0.643	-2.2	100	0.00
11	CT	Chloroethane	0.279	0.272	2.5	100	0.00
12	CT	Acetonitrile	0.508	0.466	8.3	100	0.00
13	CT	Acrolein	0.230	0.233	-1.3	100	0.00
14	CT	Trichlorofluoromethane	1.956	1.793	8.3	100	0.00
15	CT	Acrylonitrile	0.386	0.353	8.5	100	0.00
16	CT	1,1-Dichloroethene	0.874	0.913	-4.5	100	0.00
17	CT	Methylene Chloride	0.627	0.623	0.6	100	0.00
18	CT	Carbon Disulfide	1.752	1.758	-0.3	100	0.00
19	CT	Trichlorotrifluoroethane	1.342	1.403	-4.5	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.487	0.470	3.5	100	0.00
21	CT	1,1-Dichloroethane	0.857	0.840	2.0	100	0.00
22	CT	Methyl tert-Butyl Ether	1.326	1.338	-0.9	100	0.00
23	CT	Chloroprene	0.642	0.658	-2.5	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.662	0.631	4.7	100	0.00
25	CT	Bromochloromethane	0.371	0.345	7.0	100	0.00
26	CT	Chloroform	1.006	1.009	-0.3	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.366	1.311	4.0	100	0.00
28	CT	1,2-Dichloroethane	0.633	0.626	1.1	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.418	0.418	0.0	100	0.00
31	CT	Benzene	0.598	0.591	1.2	100	0.00
32	CT	Carbon Tetrachloride	0.477	0.529	-10.9	100	0.00
33	CT	tert-Amyl Methyl Ether	0.490	0.470	4.1	100	0.00
34	CT	1,2-Dichloropropane	0.229	0.225	1.7	100	0.00
35	CT	Ethyl Acrylate	0.291	0.309	-6.2	100	0.00
36	CT	Bromodichloromethane	0.440	0.383	13.0	100	0.00
37	CT	Trichloroethylene	0.272	0.325	-19.5	100	0.00
38	CT	Methyl Methacrylate	0.830	0.845	-1.8	100	0.00
39	CT	cis-1,3-Dichloropropene	0.209	0.230	-10.0	100	0.00
40	CT	Methyl Isobutyl Ketone	0.481	0.461	4.2	100	0.00
41	CT	trans-1,3-Dichloropropene	0.154	0.165	-7.1	100	0.00
42	CT	1,1,2-Trichloroethane	0.205	0.205	0.0	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.883	0.905	-2.5	100	0.00
45	CT	Dibromochloromethane	2.130	1.933	9.2	100	0.00
46	CT	1,2-Dibromoethane	0.371	0.379	-2.2	100	0.00
47	CT	n-Octane	0.550	0.553	-0.5	100	0.00
48	CT	Tetrachloroethylene	0.433	0.439	-1.4	100	0.00

ED_002475_00000113-00256

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK011.D
Acq On : 12 Oct 2018 3:46 am (#1); 12-Oct-18, 03:41:11 (#2)
Operator : MAH
Sample : 1810019-ICV1
Misc : 80ML IS 7L07001,8I21008 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 12 09:36:32 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	CT	Chlorobenzene	0.582	0.583	-0.2	100	0.00
50	CT	Ethylbenzene	0.937	0.942	-0.5	100	0.00
51	CT	m,p-Xylene	0.805	0.794	1.4	100	0.00
52	CT	Bromoform	0.417	0.392	6.0	100	0.00
53	CT	Styrene	0.437	0.422	3.4	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.551	0.392	28.9	100	0.00
55	CT	o-Xylene	0.783	0.803	-2.6	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.814	0.776	4.7	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.684	0.664	2.9	100	0.00
58	CT	m-Dichlorobenzene	0.373	0.345	7.5	100	0.00
59	CT	p-Dichlorobenzene	0.305	0.300	1.6	100	0.00
60	CT	o-Dichlorobenzene	0.336	0.322	4.2	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.157	0.153	2.5	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.384	0.351	8.6	100	0.00

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK011.D
Acq On : 12 Oct 2018 3:46 am (#1); 12-Oct-18, 03:41:11 (#2)
Operator : MAH
Sample : 1810019-ICV1
Misc : 80ML IS 7L07001,8I21008 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 12 09:36:32 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46011	4.8000	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.157	114	110625	5.0200	ppbv	0.00
43) IS-Chlorobenzene-d5	30.126	117	77587	4.7700	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.415	26	10660	2.3539	ppbv	100
3) Propylene	7.839	41	12786	2.6985	ppbv	100
4) Dichlorodifluoromethane	8.694	85	52443	2.4273	ppbv	100
5) Chloromethane	9.755	50	14273	2.4720	ppbv	99
6) Dichlorotetrafluoroethane	10.866	85	51870	2.7332	ppbv	99
7) Vinyl Chloride	11.118	62	15899	2.5776	ppbv	100
8) 1,3-Butadiene	11.785	54	10589	2.4996	ppbv	100
9) Ethylene oxide	12.385	29	7477	2.9927	ppbv	98
10) Bromomethane	12.594	94	15278	2.5347	ppbv	100
11) Chloroethane	13.278	64	6550	2.4483	ppbv	100
12) Acetonitrile	14.341	41	11264	2.3118	ppbv	99
13) Acrolein	14.620	56	5313	2.4112	ppbv	99
14) Trichlorofluoromethane	15.202	101	42627	2.2733	ppbv	100
15) Acrylonitrile	15.924	53	8290	2.2426	ppbv	100
16) 1,1-Dichloroethene	16.436	61	21539	2.5718	ppbv	100
17) Methylene Chloride	16.738	49	14927	2.4826	ppbv	100
18) Carbon Disulfide	16.936	76	41949	2.4980	ppbv	100
19) Trichlorotrifluoroethane	17.285	101	33094	2.5720	ppbv	100
20) trans-1,2-Dichloroethy...	18.325	96	11267	2.4120	ppbv	99
21) 1,1-Dichloroethane	18.636	63	19815	2.4119	ppbv	99
22) Methyl tert-Butyl Ether	18.792	73	32060	2.5232	ppbv	100
23) Chloroprene	19.548	53	15521	2.5227	ppbv	100
24) cis-1,2-Dichloroethylene	19.948	61	15308	2.4121	ppbv	99
25) Bromochloromethane	20.182	128	8158	2.2955	ppbv	100
26) Chloroform	20.415	83	24268	2.5177	ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	32679	2.4952	ppbv	100
28) 1,2-Dichloroethane	21.487	62	14995	2.4701	ppbv	99
30) 1,1,1-Trichloroethane	21.881	97	23014	2.5000	ppbv	99
31) Benzene	22.556	78	32801	2.4908	ppbv	100
32) Carbon Tetrachloride	22.789	117	28917	2.7525	ppbv	99
33) tert-Amyl Methyl Ether	23.520	73	26909	2.4922	ppbv	100
34) 1,2-Dichloropropane	23.801	63	12546	2.4842	ppbv	100
35) Ethyl Acrylate	23.891	55	17302	2.7004	ppbv	100
36) Bromodichloromethane	24.091	83	21800	2.2458	ppbv	100
37) Trichloroethylene	24.181	130	18056	3.0127	ppbv	100
38) Methyl Methacrylate	24.553	41	47280	2.5860	ppbv	100
39) cis-1,3-Dichloropropene	25.542	75	12970	2.8223	ppbv	100
40) Methyl Isobutyl Ketone	25.617	43	25803	2.4324	ppbv	99
41) trans-1,3-Dichloropropene	26.377	75	9032	2.6599	ppbv	99
42) 1,1,2-Trichloroethane	26.632	97	11268	2.4937	ppbv	100
44) Toluene	27.106	91	35937	2.5016	ppbv	100
45) Dibromochloromethane	27.754	129	80818	2.3326	ppbv	100
46) 1,2-Dibromoethane	28.168	107	15405	2.5518	ppbv	99
47) n-Octane	28.886	43	22314	2.4946	ppbv	100
48) Tetrachloroethylene	29.018	166	17713	2.5171	ppbv	100
49) Chlorobenzene	30.202	112	23526	2.4835	ppbv	100
50) Ethylbenzene	30.924	91	38604	2.5328	ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18JK\
Data File : L18JK011.D
Acq On : 12 Oct 2018 3:46 am (#1); 12-Oct-18, 03:41:11 (#2)
Operator : MAH
Sample : 1810019-ICV1
Misc : 80ML IS 7L07001,8I21008 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 12 09:36:32 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

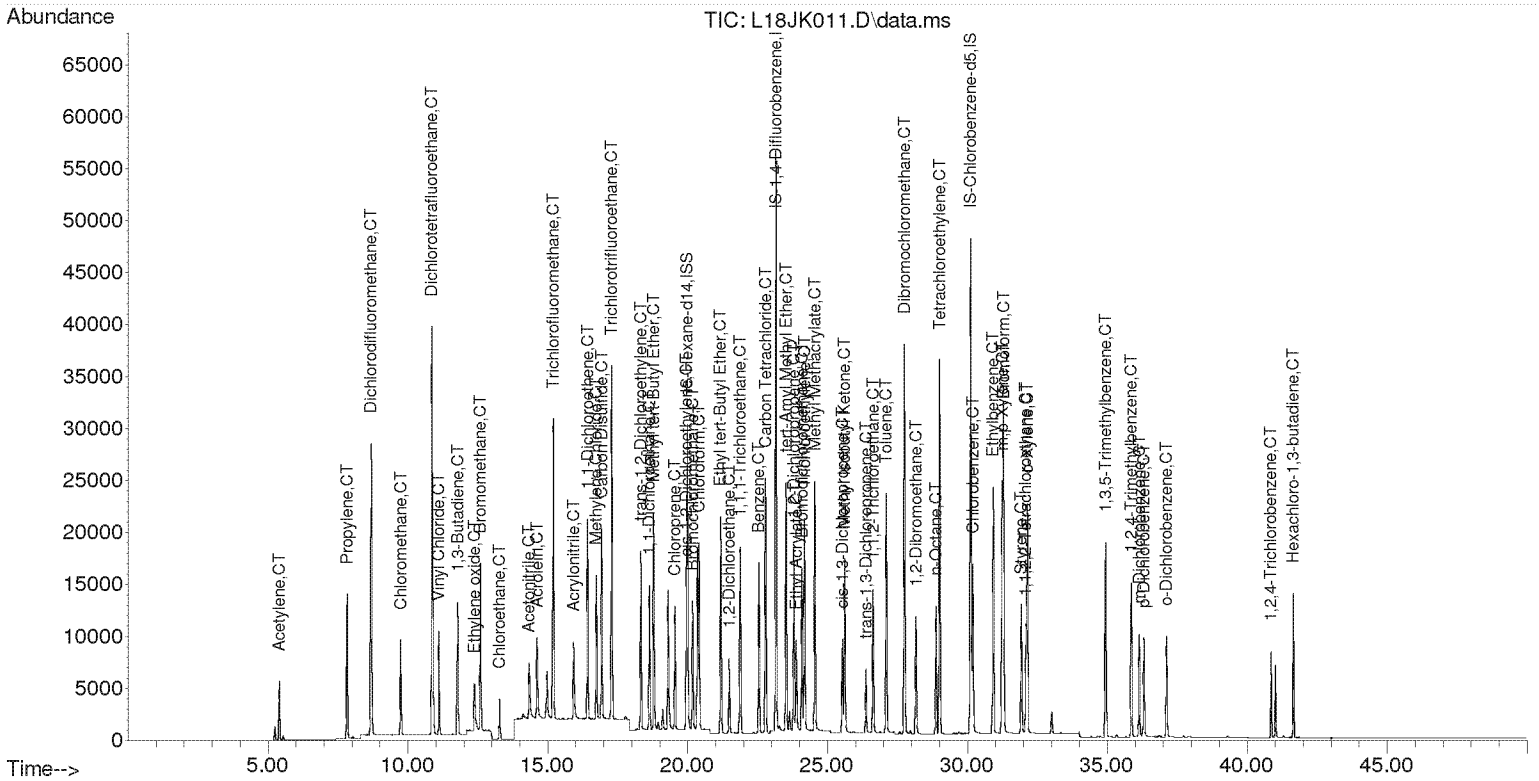
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) m,p-Xylene	31.248	91	64599	4.9344	ppbv		100
52) Bromoform	31.301	173	16341	2.4086	ppbv		100
53) Styrene	31.933	104	17154	2.4124	ppbv	#	100
54) 1,1,2,2-Tetrachloroethane	32.091	83	16206	1.8077	ppbv		100
55) o-Xylene	32.144	91	32113	2.5220	ppbv		100
56) 1,3,5-Trimethylbenzene	34.950	105	31551	2.3830	ppbv		100
57) 1,2,4-Trimethylbenzene	35.864	105	25605	2.3012	ppbv		100
58) m-Dichlorobenzene	36.146	146	13459	2.2168	ppbv		99
59) p-Dichlorobenzene	36.308	146	12753	2.5733	ppbv		100
60) o-Dichlorobenzene	37.122	146	13249	2.4245	ppbv		100
61) 1,2,4-Trichlorobenzene	40.855	180	6255	2.4436	ppbv		100
62) Hexachloro-1,3-butadiene	41.651	225	14546	2.3304	ppbv		100

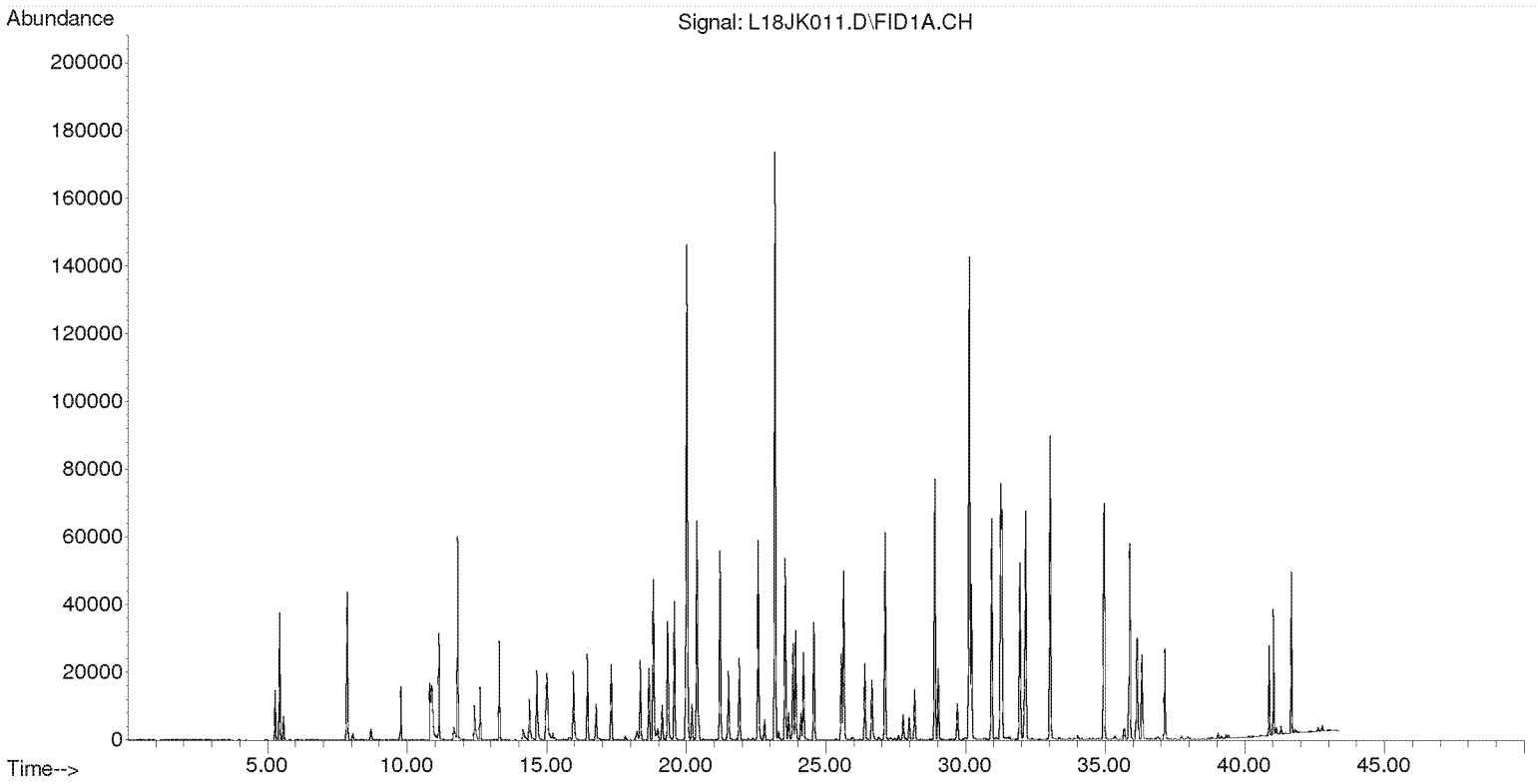
(#) = qualifier out of range (m) = manual integration (+) = signals summed

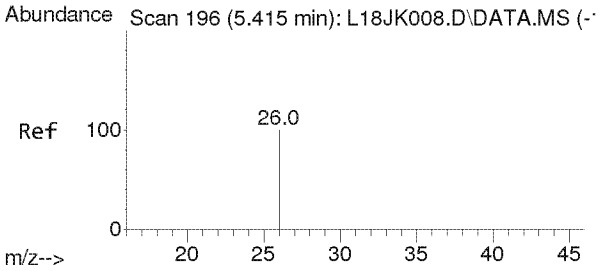
Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18JK\
Data File : L18JK011.D
Acq On : 12 Oct 2018 3:46 am (#1); 12 Oct 2018 3:41 am (#2)
Operator : MAH
Sample : 1810019-ICV1
Misc : 80ML IS 7L07001,8I21008 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 12 09:36:32 2018
Quant Method : C:\msdchem\1\METHODS\8100002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Fri Oct 12 09:33:42 2018
Response via : Initial Calibration

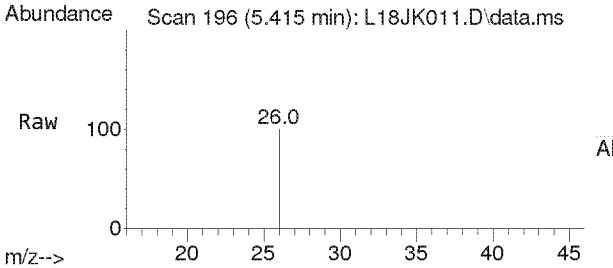


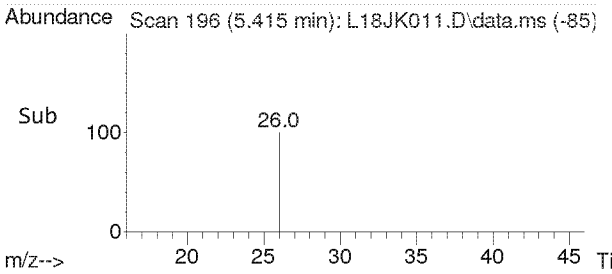


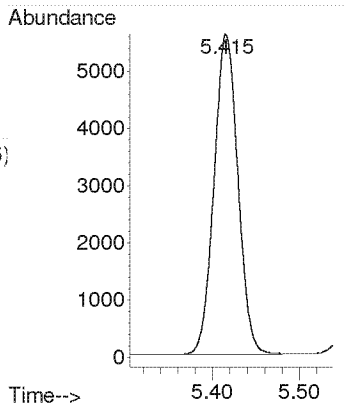


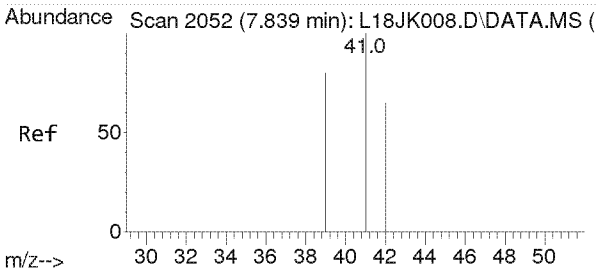
#2
Acetylene
Concen: 2.354 ppbv
RT: 5.415 min Scan# 196
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 26 Resp: 10660





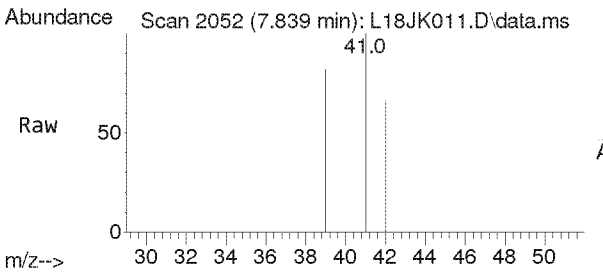


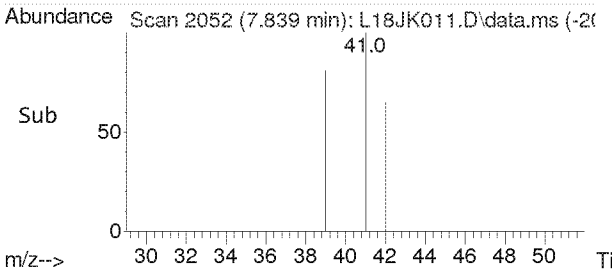


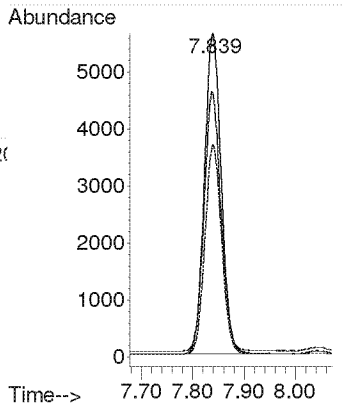
#3
Propylene
Concen: 2.698 ppbv
RT: 7.839 min Scan# 2052
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

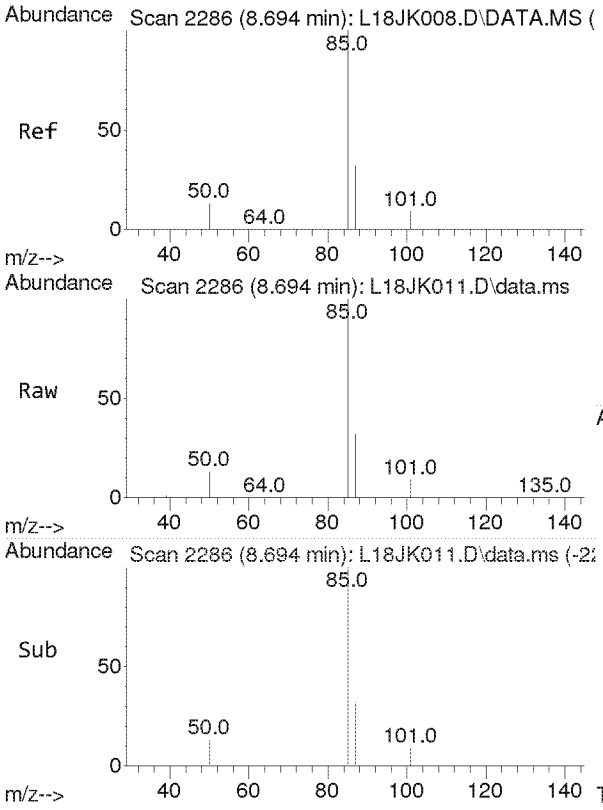
Tgt Ion: 41 Resp: 12786

Ion	Ratio	Lower	Upper
41	100		
39	80.7	65.0	97.4
42	65.4	52.3	78.5





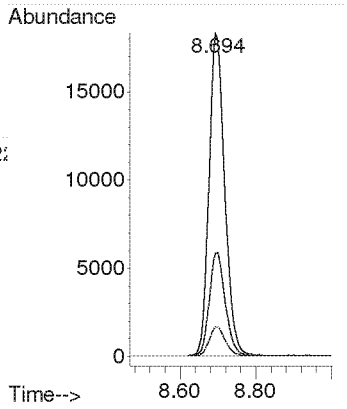


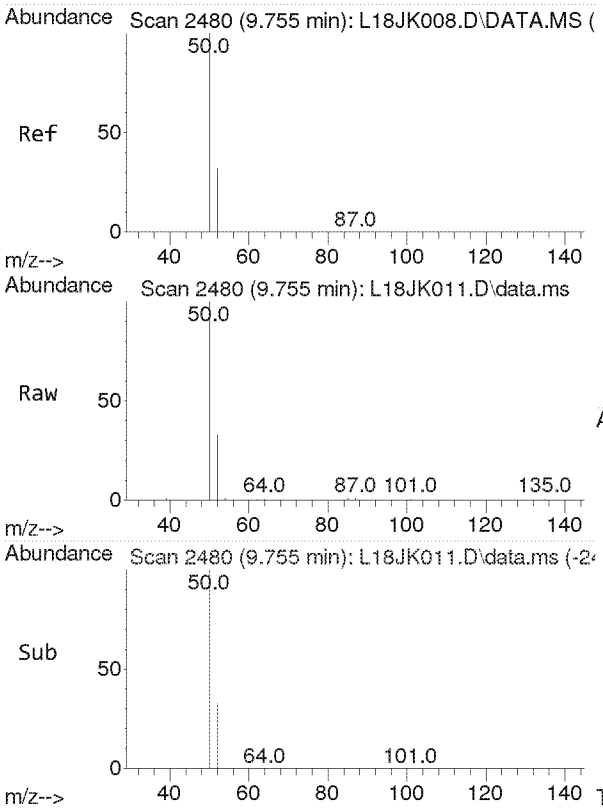


#4
Dichlorodifluoromethane
Concen: 2.427 ppbv
RT: 8.694 min Scan# 2286
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 85 Resp: 52443

Ion	Ratio	Lower	Upper
85	100		
87	32.3	25.8	38.8
101	9.0	7.2	10.8

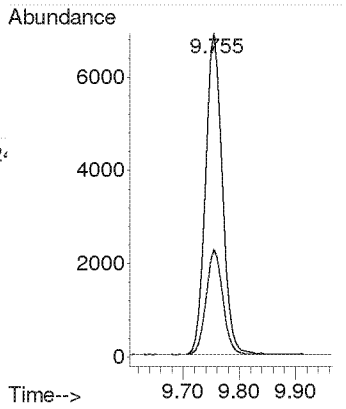


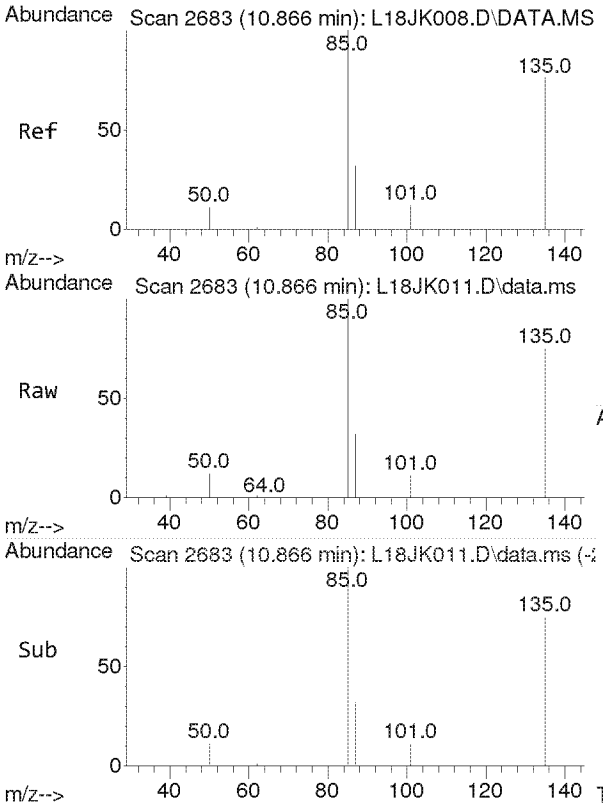


#5
Chloromethane
Concen: 2.472 ppbv
RT: 9.755 min Scan# 2480
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 50 Resp: 14273

Ion	Ratio	Lower	Upper
50	100		
52	32.6	25.8	38.6

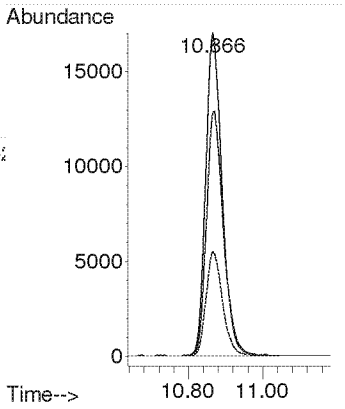


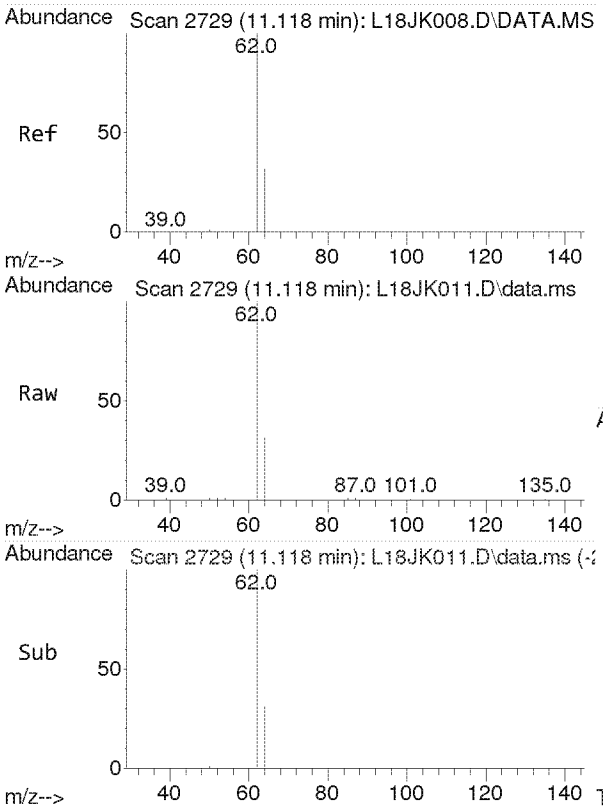


#6
Dichlorotetrafluoroethane
Concen: 2.733 ppbv
RT: 10.866 min Scan# 2683
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 85 Resp: 51870

Ion	Ratio	Lower	Upper
85	100		
135	78.8	63.7	95.5
87	32.4	25.7	38.5

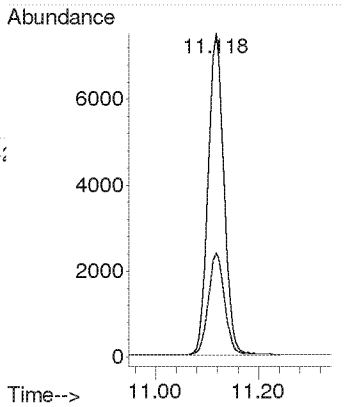


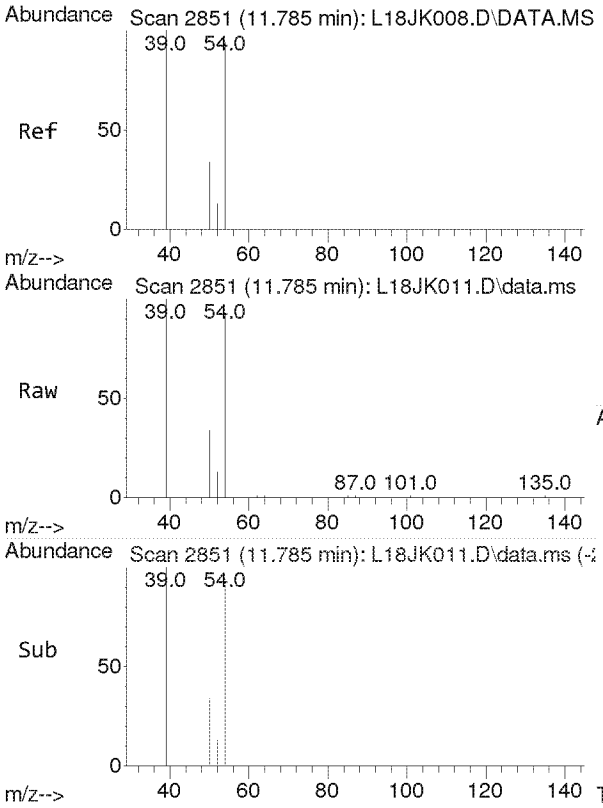


#7
Vinyl Chloride
Concen: 2.578 ppbv
RT: 11.118 min Scan# 2729
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 62 Resp: 15899

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.6	38.4

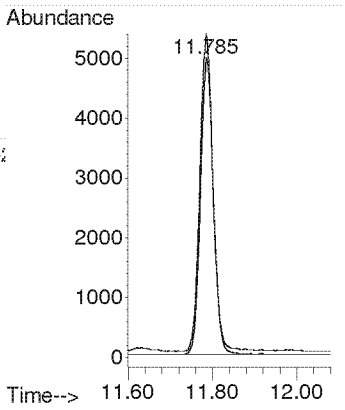


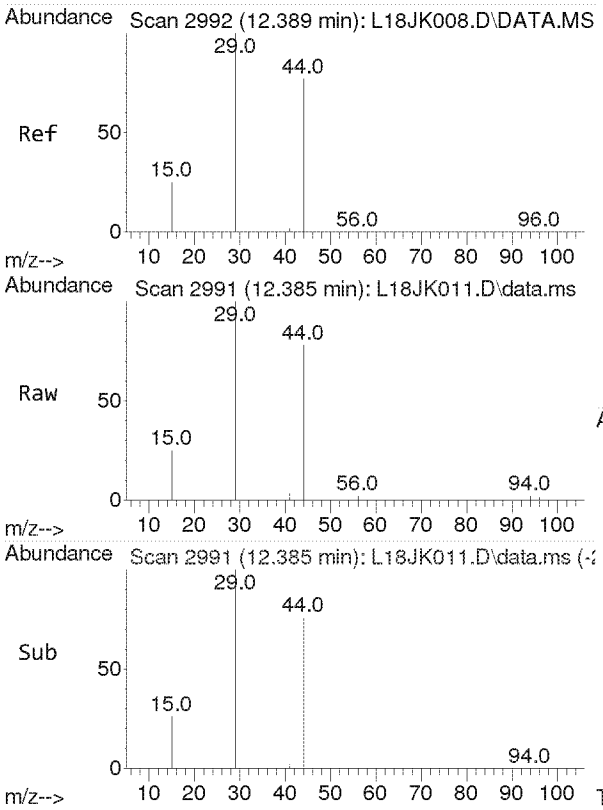


#8
1,3-Butadiene
Concen: 2.500 ppbv
RT: 11.785 min Scan# 2851
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 54 Resp: 10589

Ion	Ratio	Lower	Upper
54	100		
39	108.6	87.0	130.4

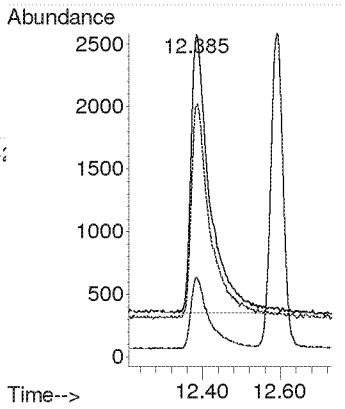


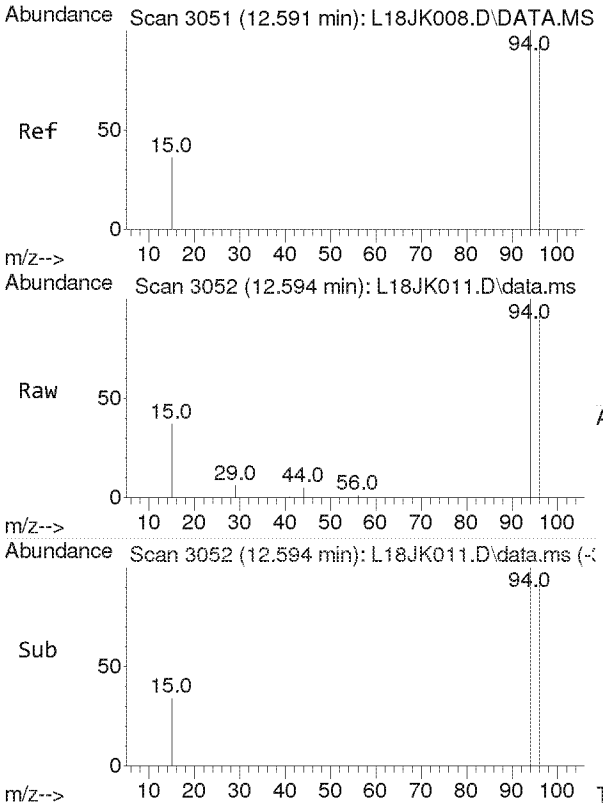


#9
Ethylene oxide
Concen: 2.993 ppbv
RT: 12.385 min Scan# 2991
Delta R.T. -0.004 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 29 Resp: 7477

Ion	Ratio	Lower	Upper
29	100		
15	24.8	20.1	30.1
44	79.8	62.6	93.8

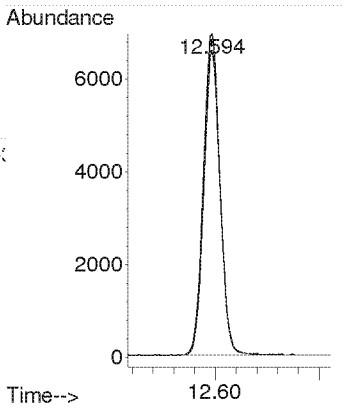


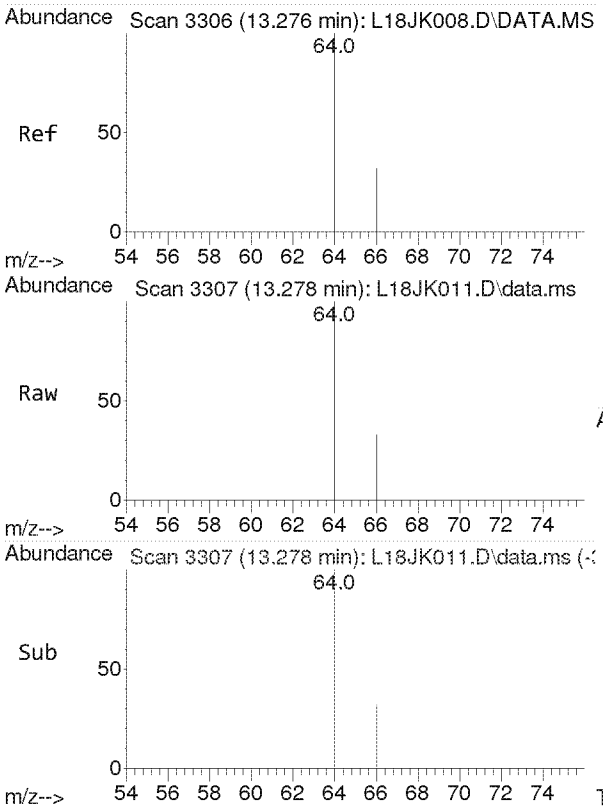


#10
Bromomethane
Concen: 2.535 ppbv
RT: 12.594 min Scan# 3052
Delta R.T. 0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 94 Resp: 15278

Ion	Ratio	Lower	Upper
94	100		
96	94.5	75.5	113.3

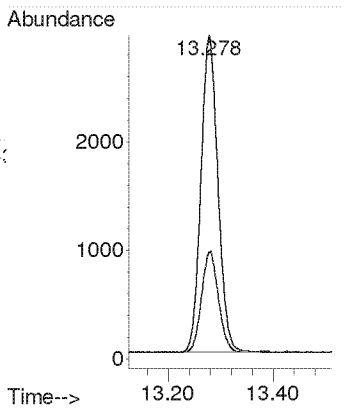


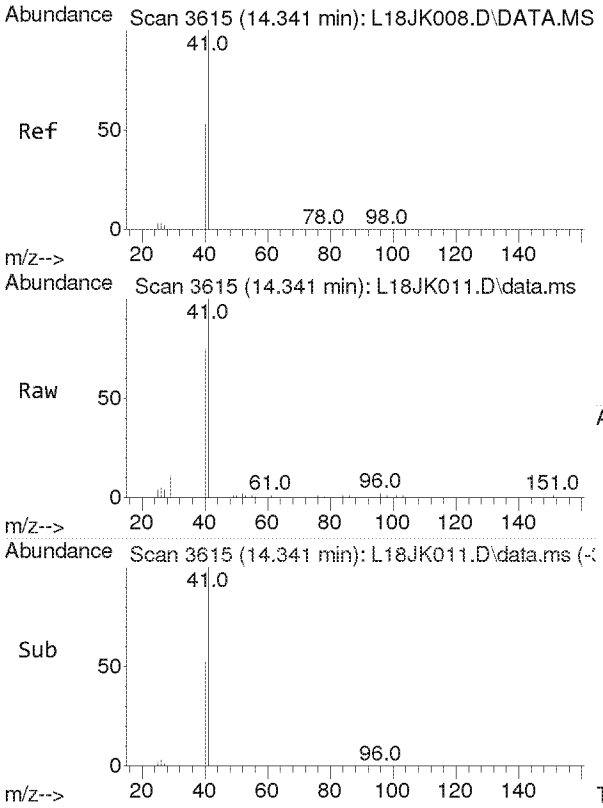


#11
Chloroethane
Concen: 2.448 ppbv
RT: 13.278 min Scan# 3307
Delta R.T. 0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 64 Resp: 6550

Ion	Ratio	Lower	Upper
64	100		
66	32.0	25.8	38.6

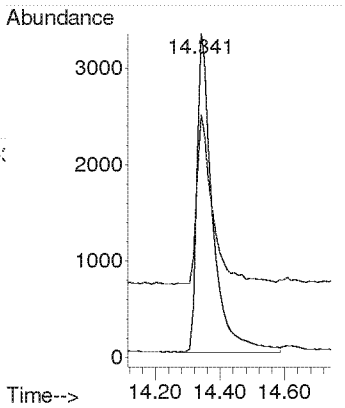


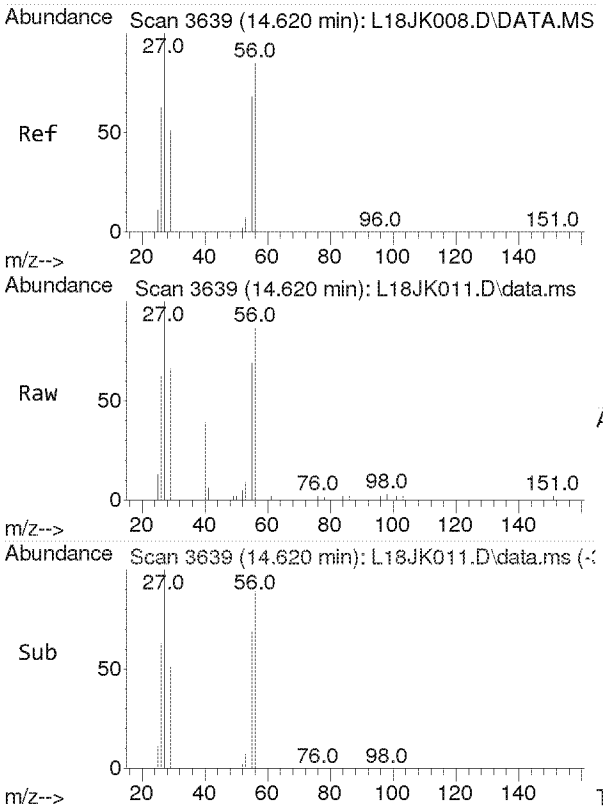


#12
Acetonitrile
Concen: 2.312 ppbv
RT: 14.341 min Scan# 3615
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 41 Resp: 11264

Ion	Ratio	Lower	Upper
41	100		
40	53.0	43.1	64.7

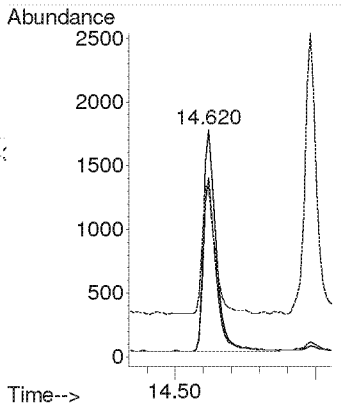


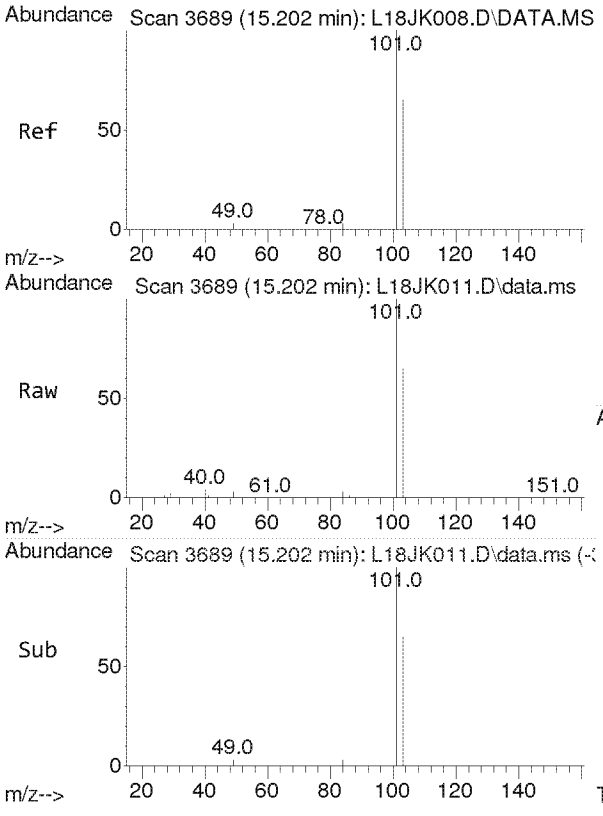


#13
Acrolein
Concen: 2.411 ppbv
RT: 14.620 min Scan# 3639
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 56 Resp: 5313

Ion	Ratio	Lower	Upper
56	100		
55	78.2	61.9	92.9
29	61.6	49.2	73.8

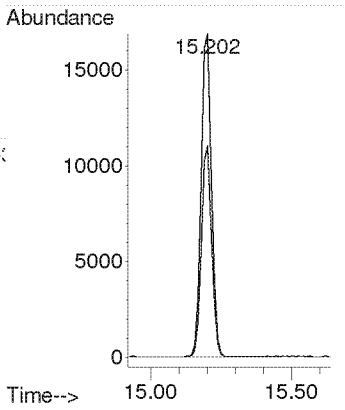


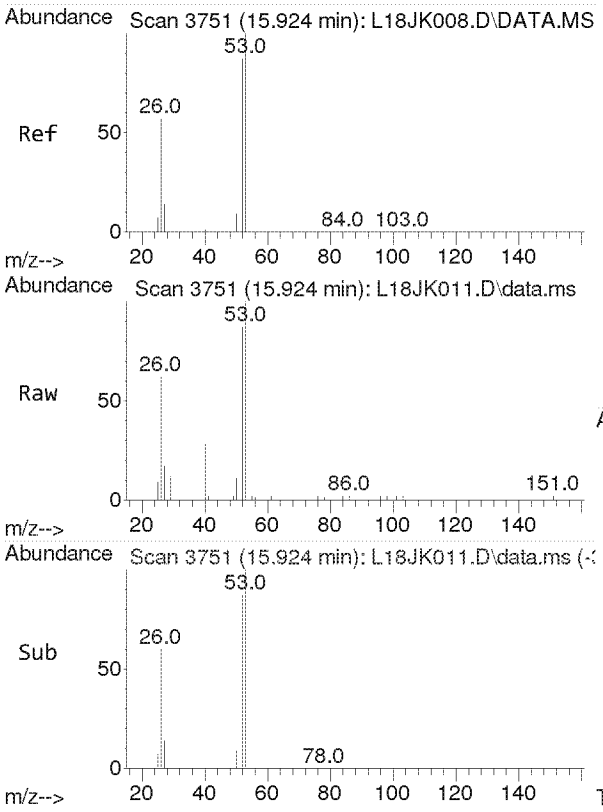


#14
Trichlorofluoromethane
Concen: 2.273 ppbv
RT: 15.202 min Scan# 3689
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:101 Resp: 42627

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.8	77.6

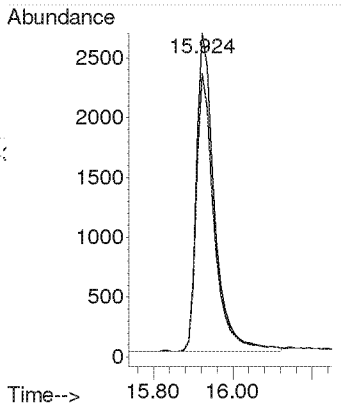


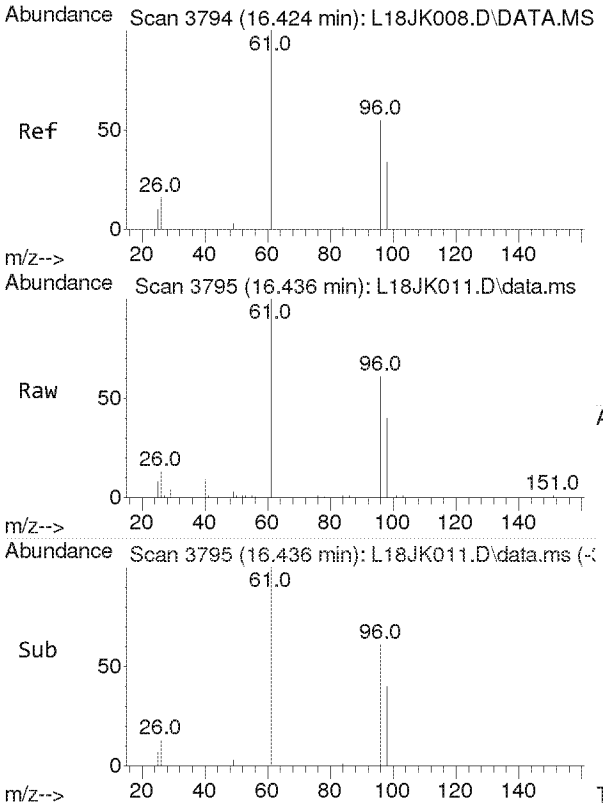


#15
Acrylonitrile
Concen: 2.243 ppbv
RT: 15.924 min Scan# 3751
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 53 Resp: 8290

Ion	Ratio	Lower	Upper
53	100		
52	86.8	69.7	104.5

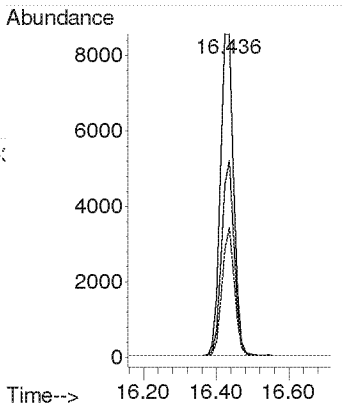


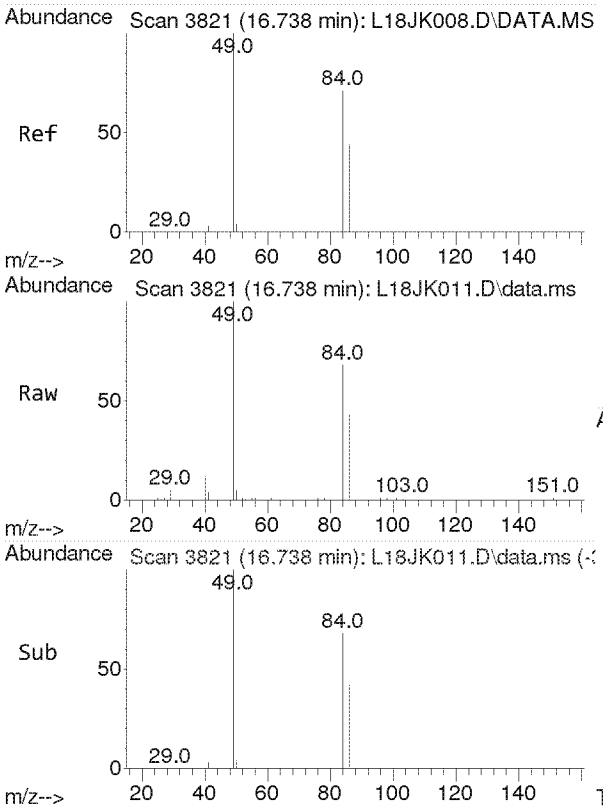


#16
1,1-Dichloroethene
Concen: 2.572 ppbv
RT: 16.436 min Scan# 3795
Delta R.T. 0.012 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 61 Resp: 21539

Ion	Ratio	Lower	Upper
61	100		
96	57.4	46.1	69.1
98	37.2	29.4	44.2

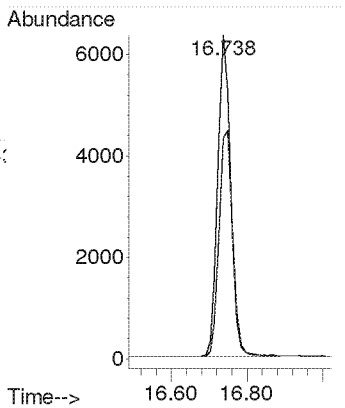


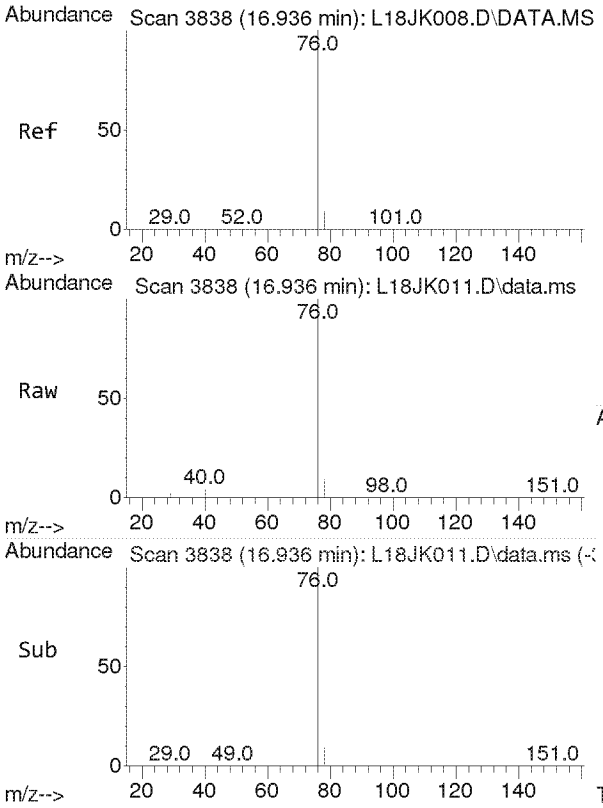


#17
Methylene Chloride
Concen: 2.483 ppbv
RT: 16.738 min Scan# 3821
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 49 Resp: 14927

Ion	Ratio	Lower	Upper
49	100		
84	73.9	51.9	96.5

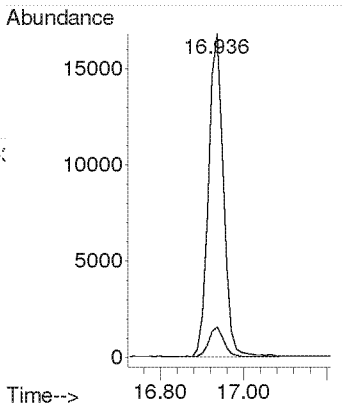


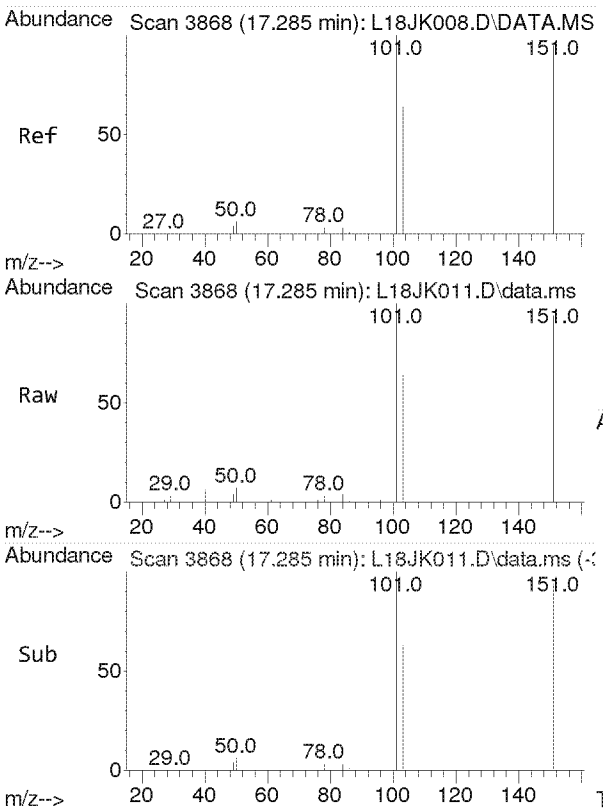


#18
Carbon Disulfide
Concen: 2.498 ppbv
RT: 16.936 min Scan# 3838
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 76 Resp: 41949

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.3	10.9

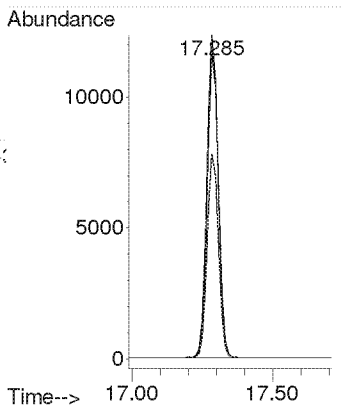


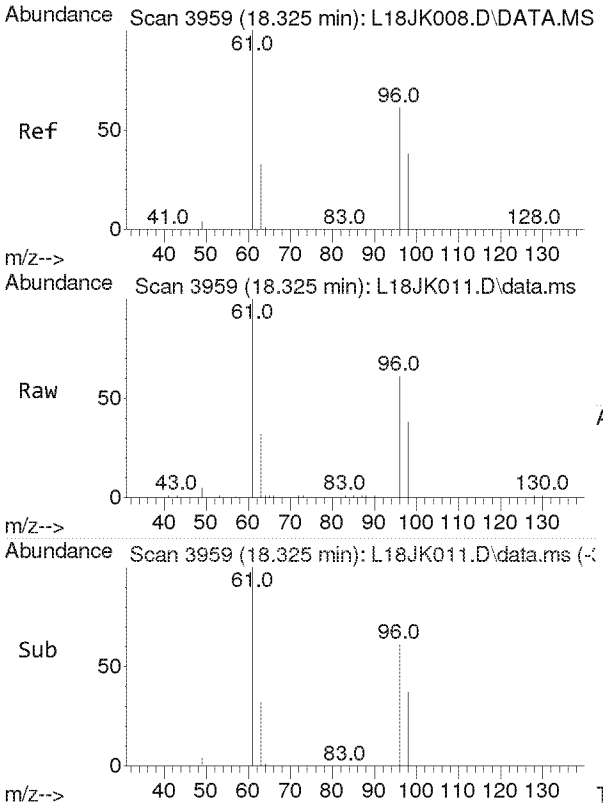


#19
Trichlorotrifluoroethane
Concen: 2.572 ppbv
RT: 17.285 min Scan# 3868
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:101 Resp: 33094

Ion	Ratio	Lower	Upper
101	100		
151	95.6	76.8	115.2
103	64.1	51.4	77.2

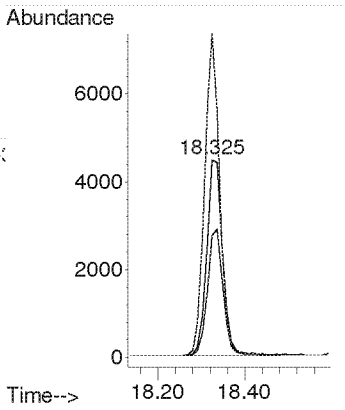


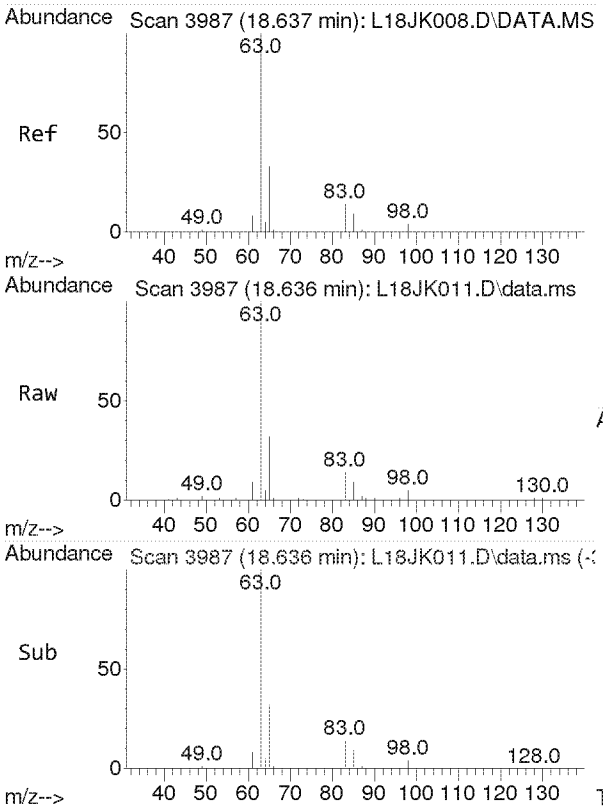


#20
trans-1,2-Dichloroethylene
Concen: 2.412 ppbv
RT: 18.325 min Scan# 3959
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 96 Resp: 11267

Ion	Ratio	Lower	Upper
96	100		
98	63.3	50.9	76.3
61	155.4	125.0	187.6

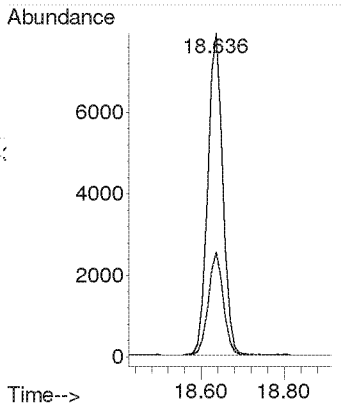


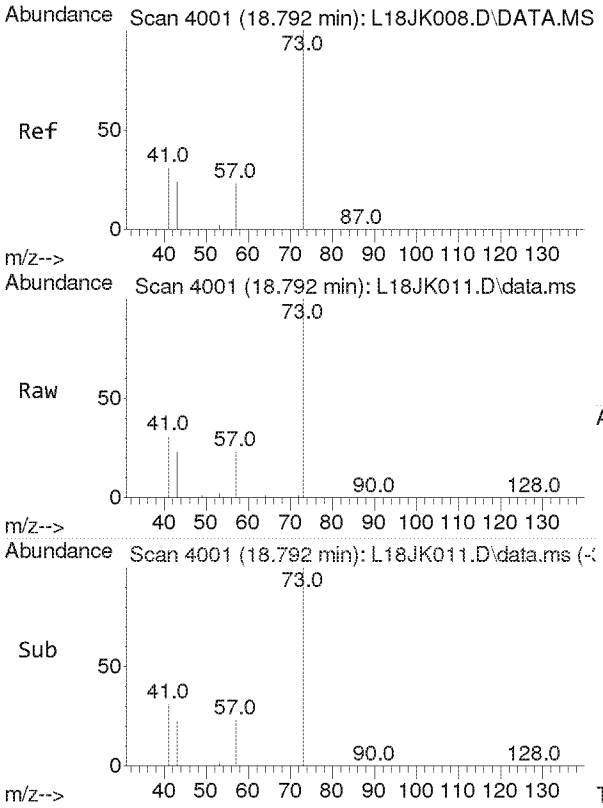


#21
1,1-Dichloroethane
Concen: 2.412 ppbv
RT: 18.636 min Scan# 3987
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 63 Resp: 19815

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.7	38.5

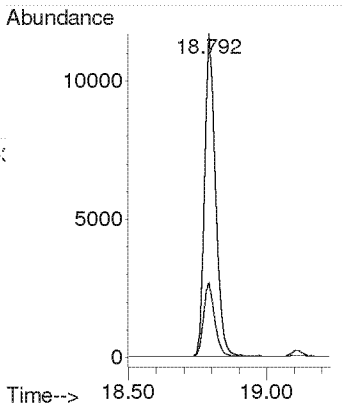


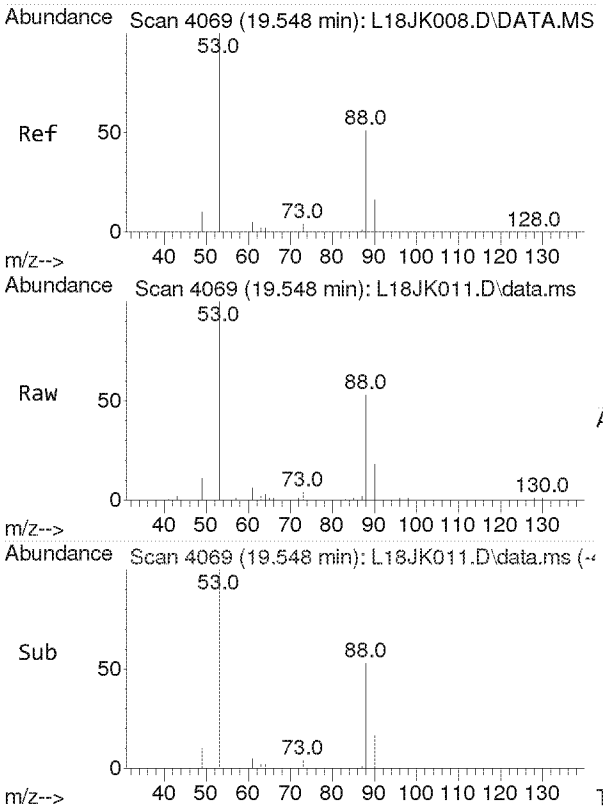


#22
Methyl tert-Butyl Ether
Concen: 2.523 ppbv
RT: 18.792 min Scan# 4001
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 73 Resp: 32060

Ion	Ratio	Lower	Upper
73	100		
57	23.0	18.4	27.6

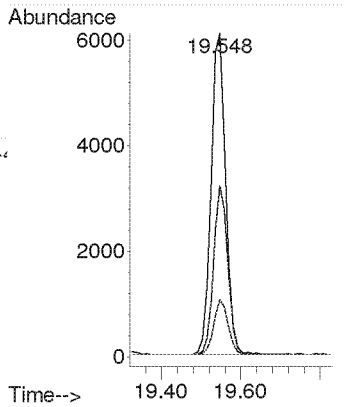


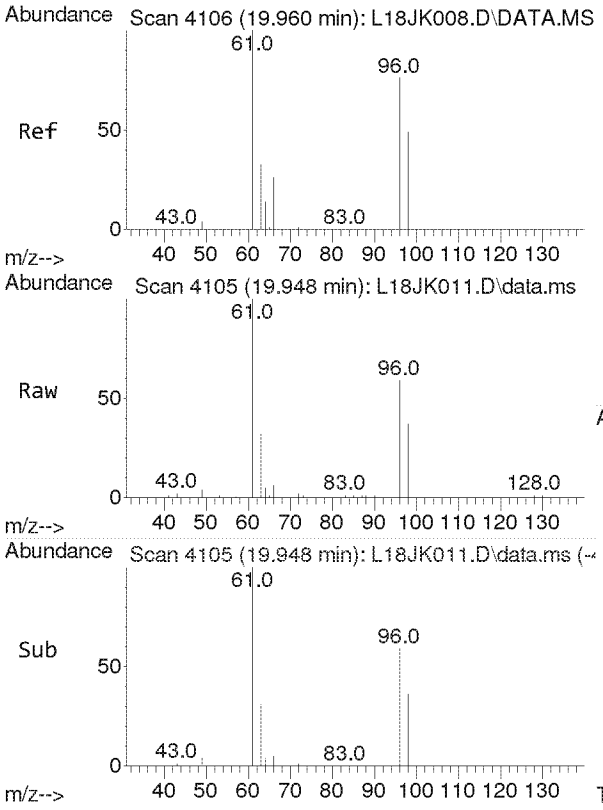


#23
Chloroprene
Concen: 2.523 ppbv
RT: 19.548 min Scan# 4069
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 53 Resp: 15521

Ion	Ratio	Lower	Upper
53	100		
88	51.3	41.2	61.8
90	16.7	13.3	19.9

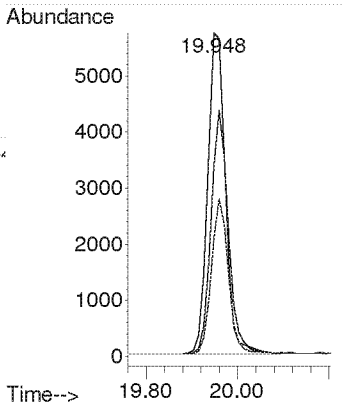


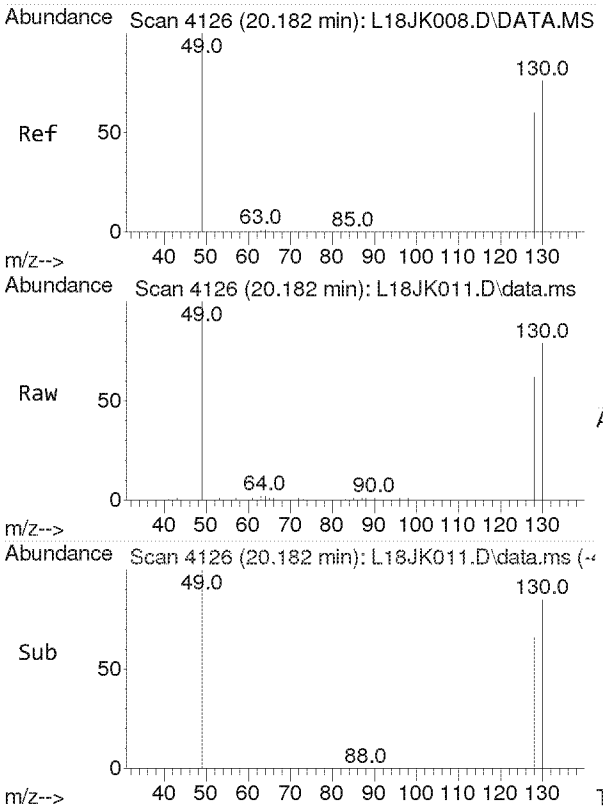


#24
cis-1,2-Dichloroethylene
Concen: 2.412 ppbv
RT: 19.948 min Scan# 4105
Delta R.T. -0.011 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 61 Resp: 15308

Ion	Ratio	Lower	Upper
61	100		
96	74.3	58.8	88.2
98	46.5	37.0	55.4

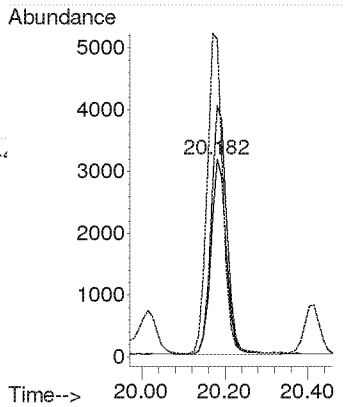


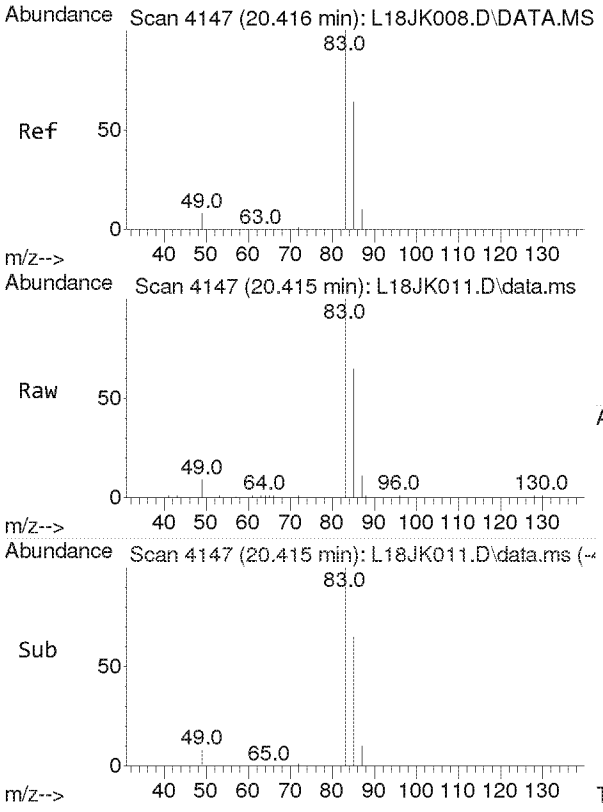


#25
Bromochloromethane
Concen: 2.296 ppbv
RT: 20.182 min Scan# 4126
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:128 Resp: 8158

Ion	Ratio	Lower	Upper
128	100		
130	129.1	103.1	154.7
49	168.0	134.3	201.5

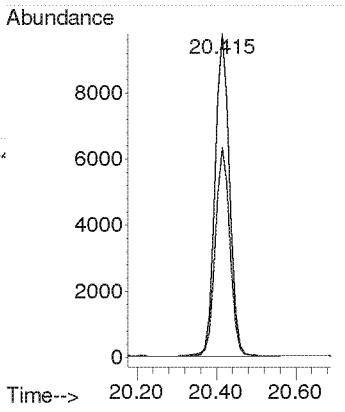


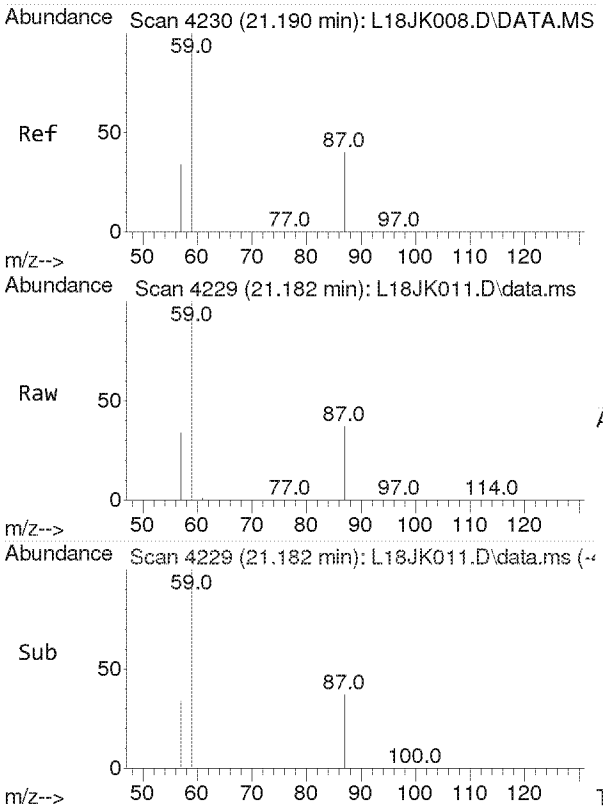


#26
Chloroform
Concen: 2.518 ppbv
RT: 20.415 min Scan# 4147
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 83 Resp: 24268

Ion	Ratio	Lower	Upper
83	100		
85	65.5	51.6	77.4

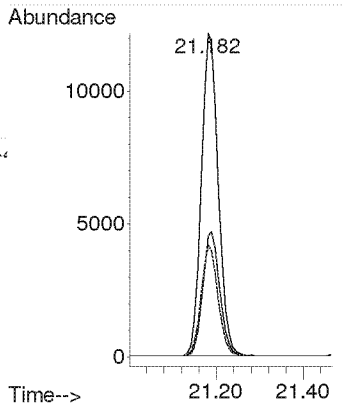


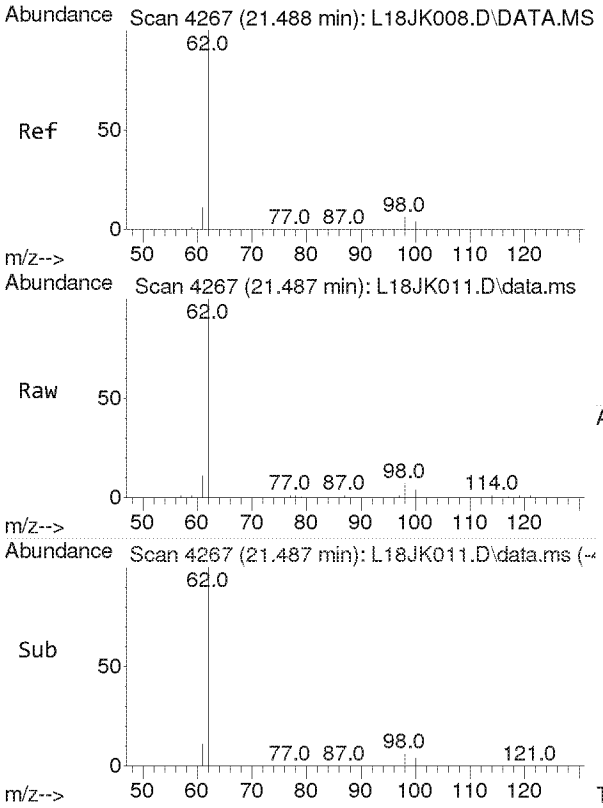


#27
Ethyl tert-Butyl Ether
Concen: 2.495 ppbv
RT: 21.182 min Scan# 4229
Delta R.T. -0.008 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 59 Resp: 32679

Ion	Ratio	Lower	Upper
59	100		
87	38.5	30.8	46.2
57	33.9	27.2	40.8

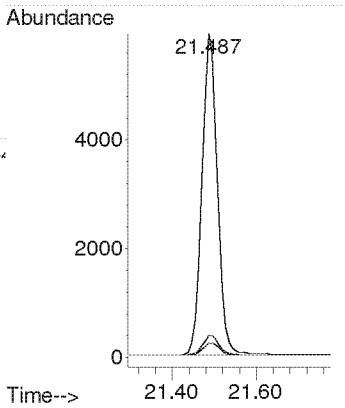


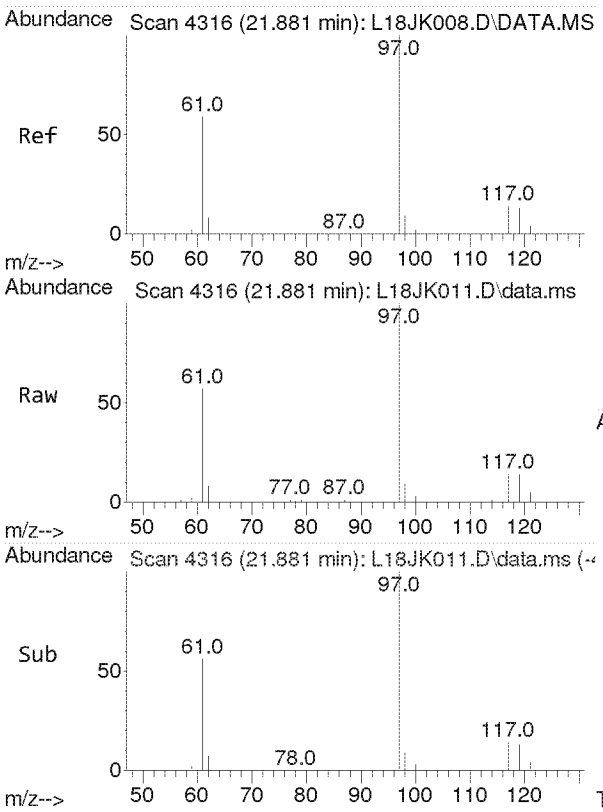


#28
1,2-Dichloroethane
Concen: 2.470 ppbv
RT: 21.487 min Scan# 4267
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 62 Resp: 14995

Ion	Ratio	Lower	Upper
62	100		
98	6.3	4.8	7.2
100	4.0	3.1	4.7

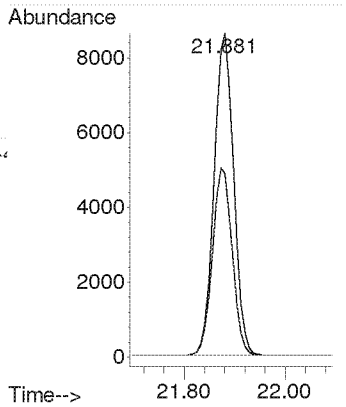


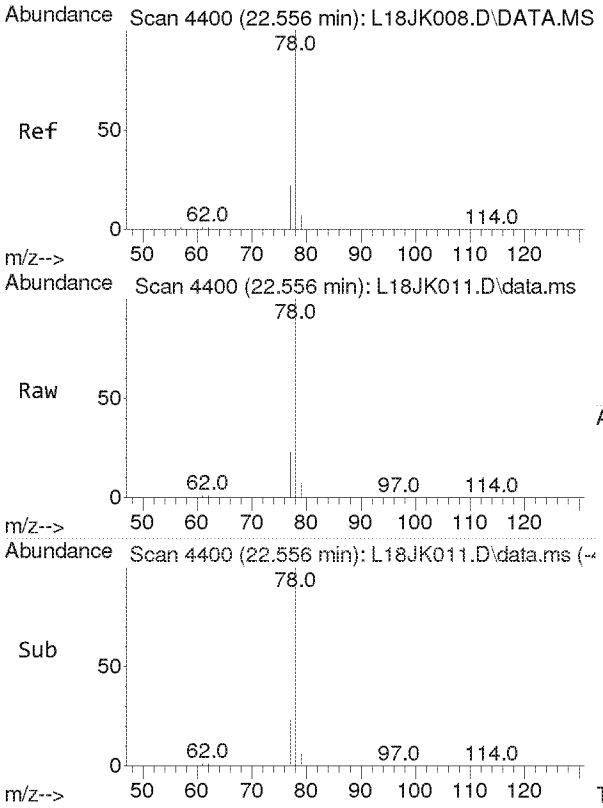


#30
1,1,1-Trichloroethane
Concen: 2.500 ppbv
RT: 21.881 min Scan# 4316
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 97 Resp: 23014

Ion	Ratio	Lower	Upper
97	100		
61	58.6	47.7	71.5

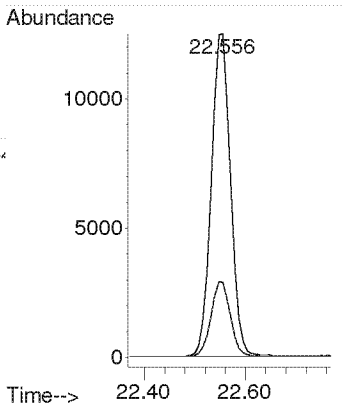


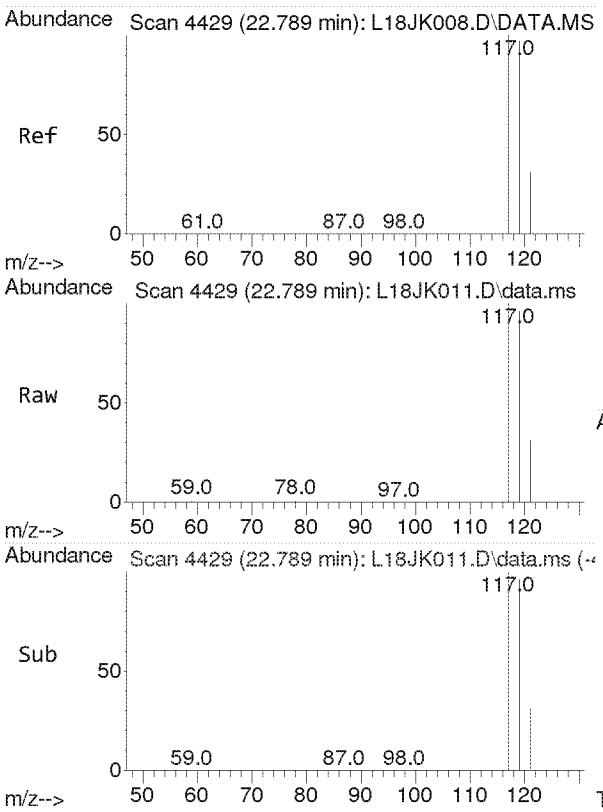


#31
Benzene
Concen: 2.491 ppbv
RT: 22.556 min Scan# 4400
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 78 Resp: 32801

Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.3	27.5

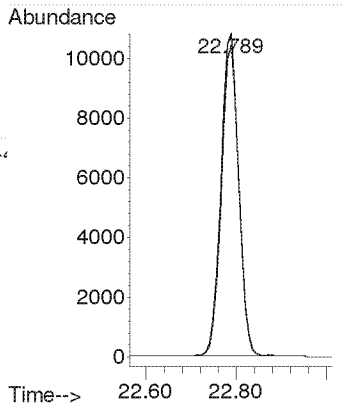


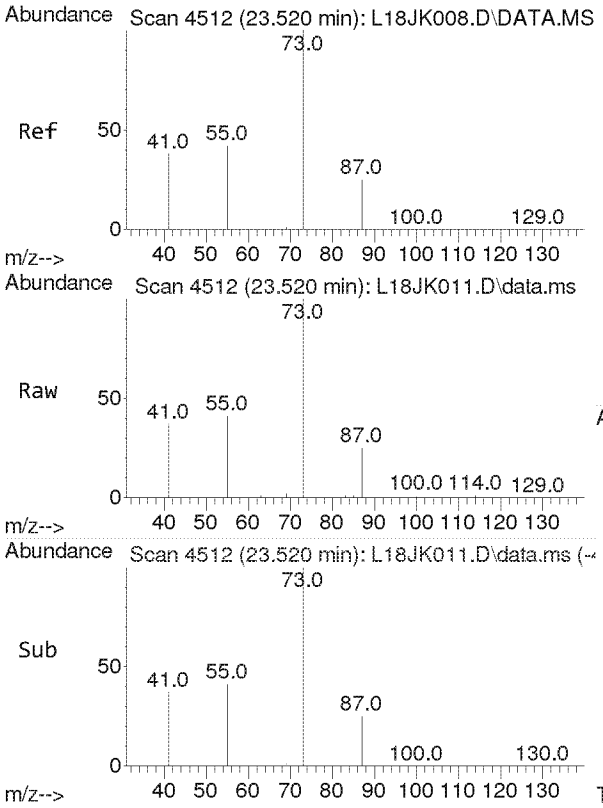


#32
Carbon Tetrachloride
Concen: 2.752 ppbv
RT: 22.789 min Scan# 4429
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:117 Resp: 28917

Ion	Ratio	Lower	Upper
117	100		
119	96.1	77.5	116.3

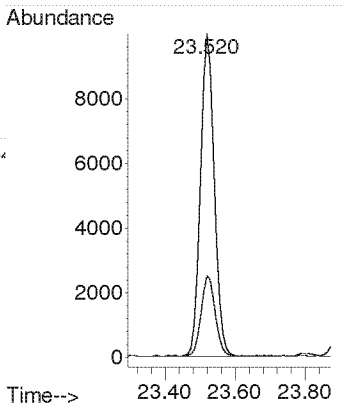


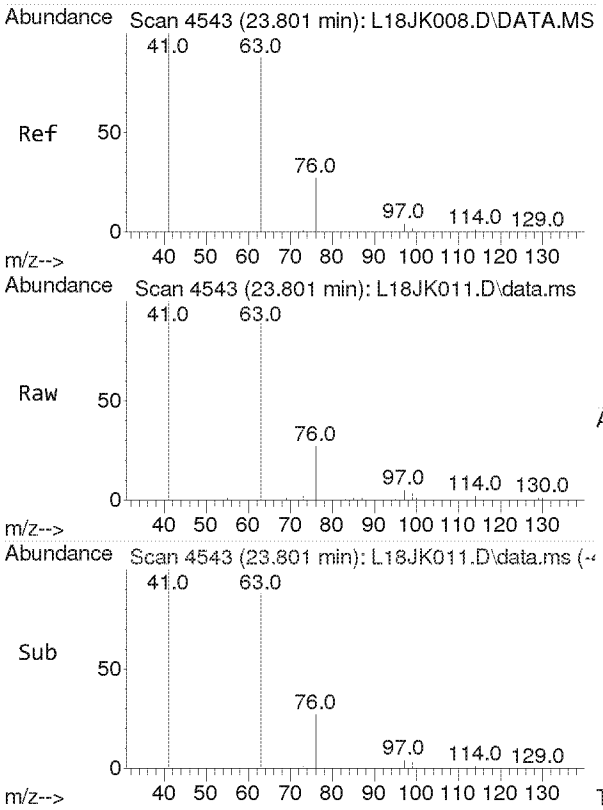


#33
tert-Amyl Methyl Ether
Concen: 2.492 ppbv
RT: 23.520 min Scan# 4512
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 73 Resp: 26909

Ion	Ratio	Lower	Upper
73	100		
87	25.2	20.1	30.1

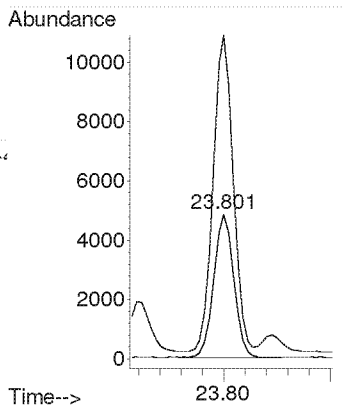


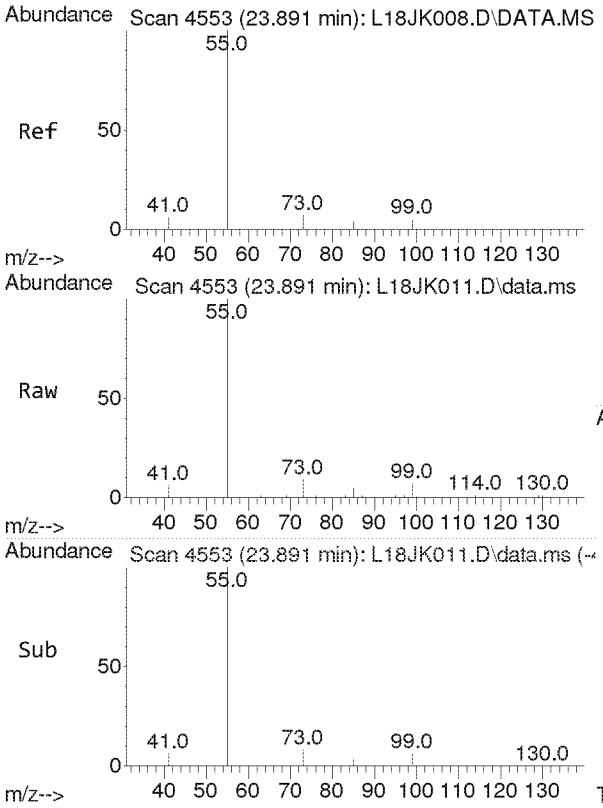


#34
1,2-Dichloropropane
Concen: 2.484 ppbv
RT: 23.801 min Scan# 4543
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 63 Resp: 12546

Ion	Ratio	Lower	Upper
63	100		
41	222.6	177.7	266.5

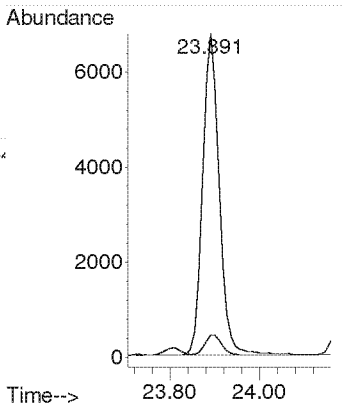


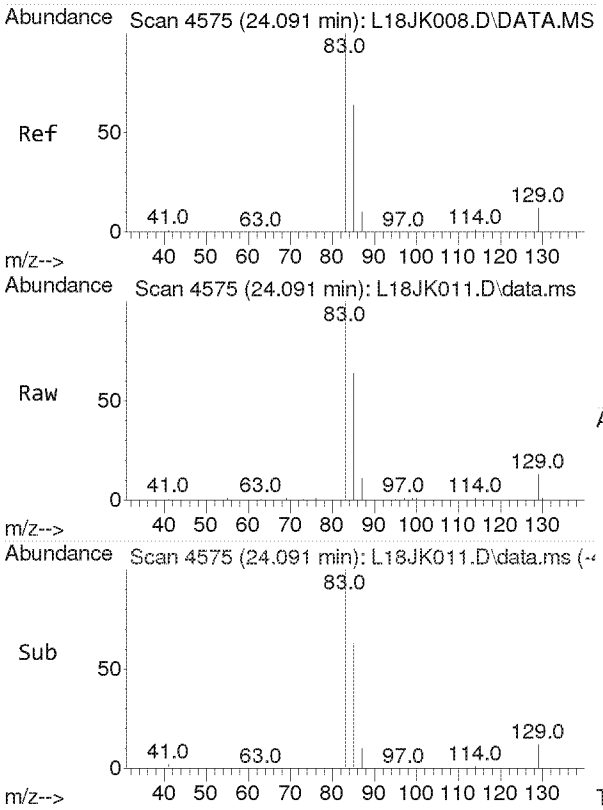


#35
Ethyl Acrylate
Concen: 2.700 ppbv
RT: 23.891 min Scan# 4553
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 55 Resp: 17302

Ion	Ratio	Lower	Upper
55	100		
99	6.3	5.0	7.6

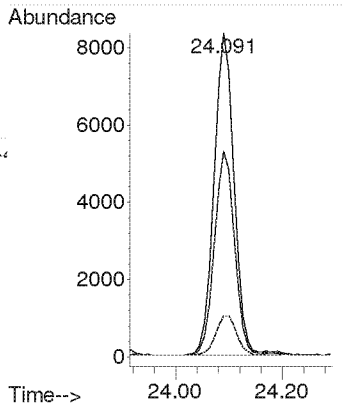


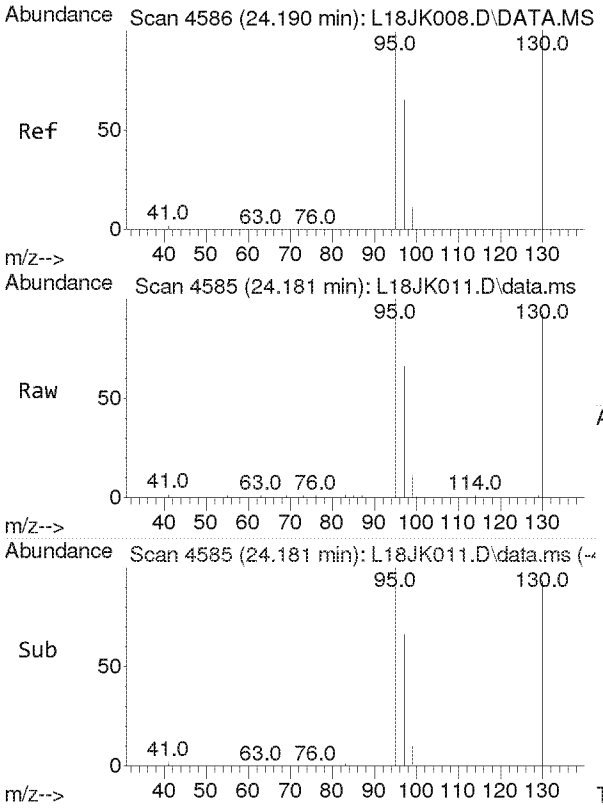


#36
Bromodichloromethane
Concen: 2.246 ppbv
RT: 24.091 min Scan# 4575
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 83 Resp: 21800

Ion	Ratio	Lower	Upper
83	100		
85	64.0	51.1	76.7
129	13.0	10.3	15.5

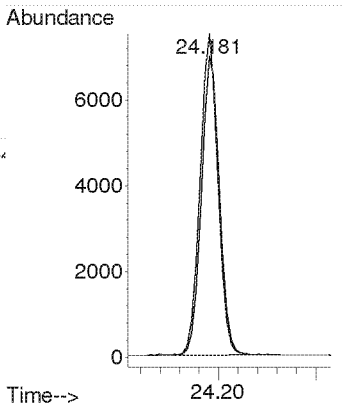


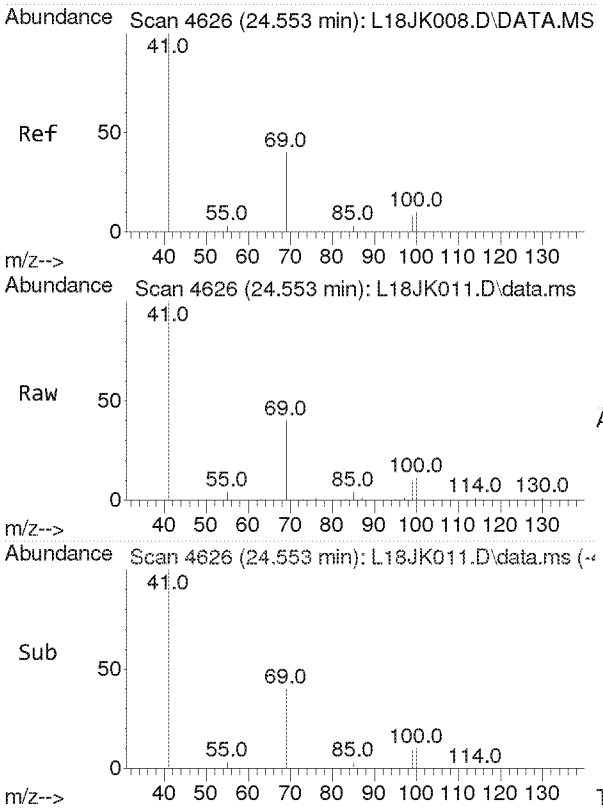


#37
Trichloroethylene
Concen: 3.013 ppbv
RT: 24.181 min Scan# 4585
Delta R.T. -0.009 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:130 Resp: 18056

Ion	Ratio	Lower	Upper
130	100		
95	107.0	85.5	128.3

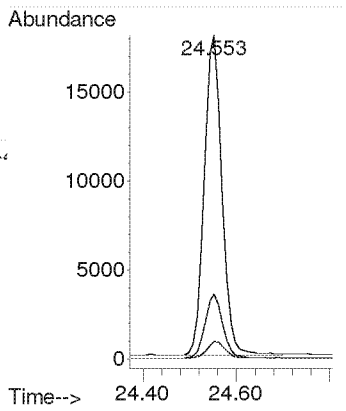


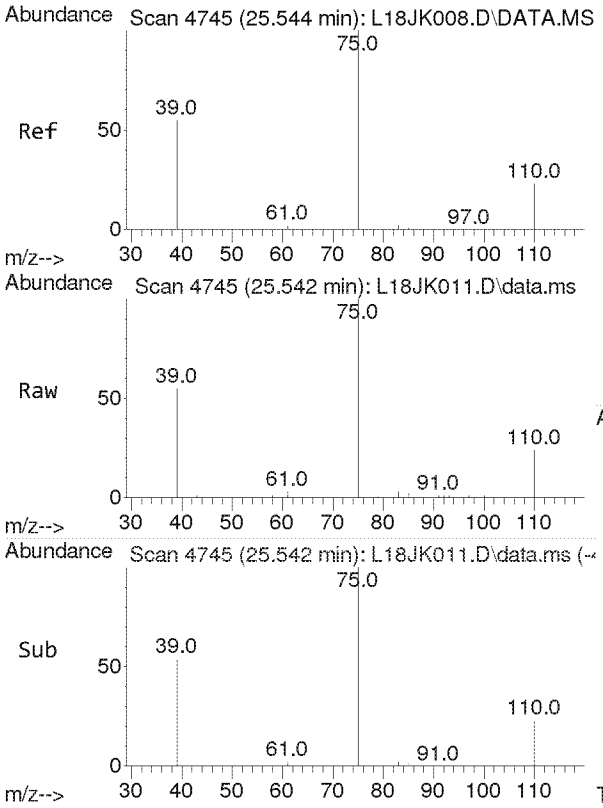


#38
Methyl Methacrylate
Concen: 2.586 ppbv
RT: 24.553 min Scan# 4626
Delta R.T. -0.000 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 41 Resp: 47280

Ion	Ratio	Lower	Upper
41	100		
69	19.8	16.0	24.0
100	5.2	4.1	6.1

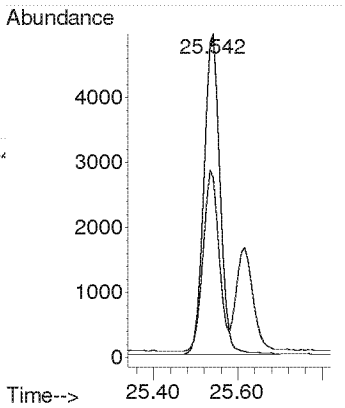


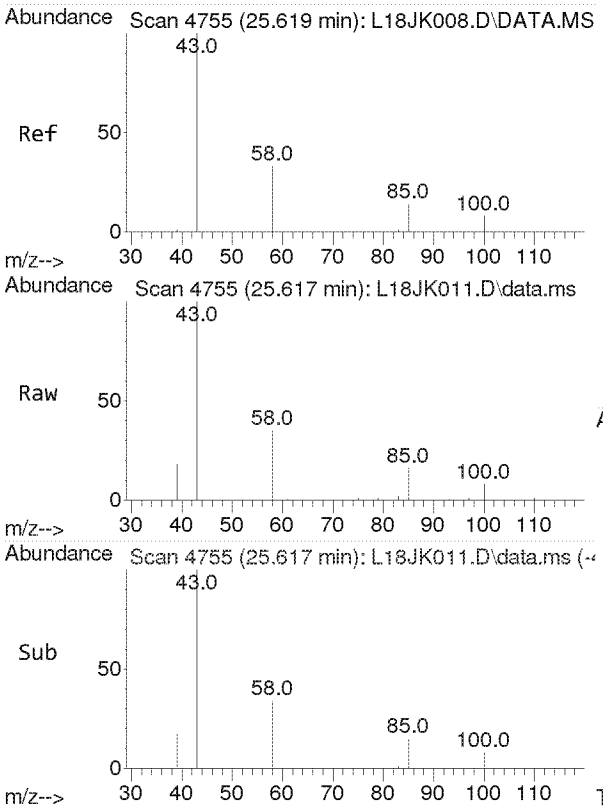


#39
cis-1,3-Dichloropropene
Concen: 2.822 ppbv
RT: 25.542 min Scan# 4745
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 75 Resp: 12970

Ion	Ratio	Lower	Upper
75	100		
39	55.7	44.5	66.7

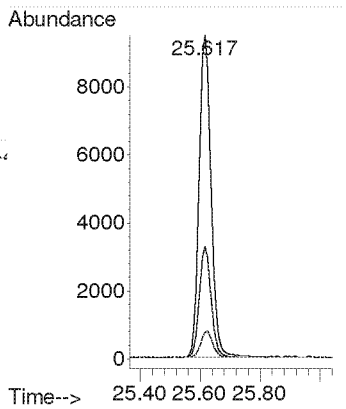


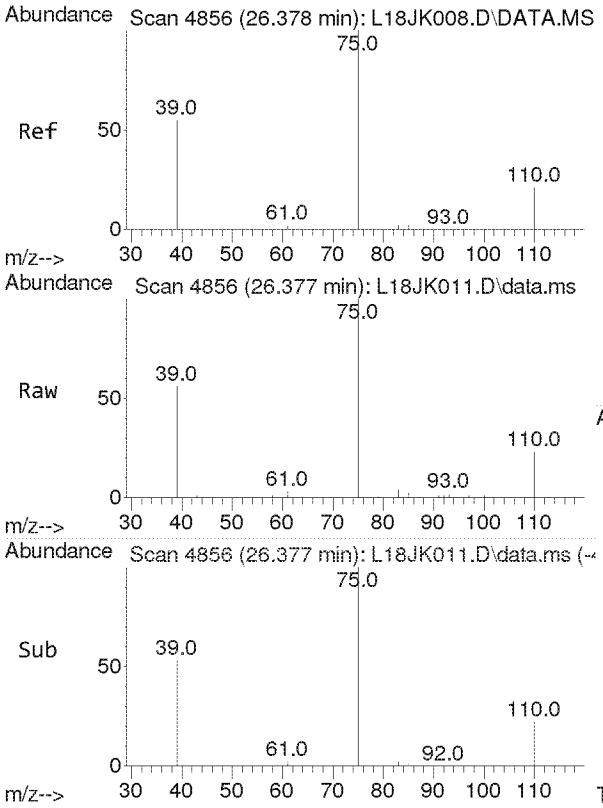


#40
Methyl Isobutyl Ketone
Concen: 2.432 ppbv
RT: 25.617 min Scan# 4755
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 43 Resp: 25803

Ion	Ratio	Lower	Upper
43	100		
58	33.9	26.6	40.0
100	8.0	6.4	9.6

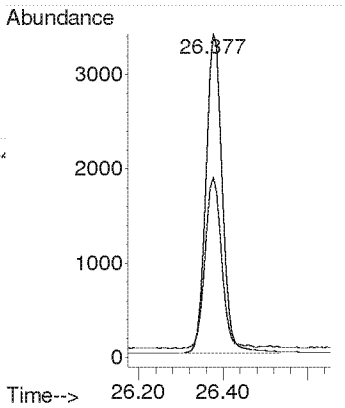


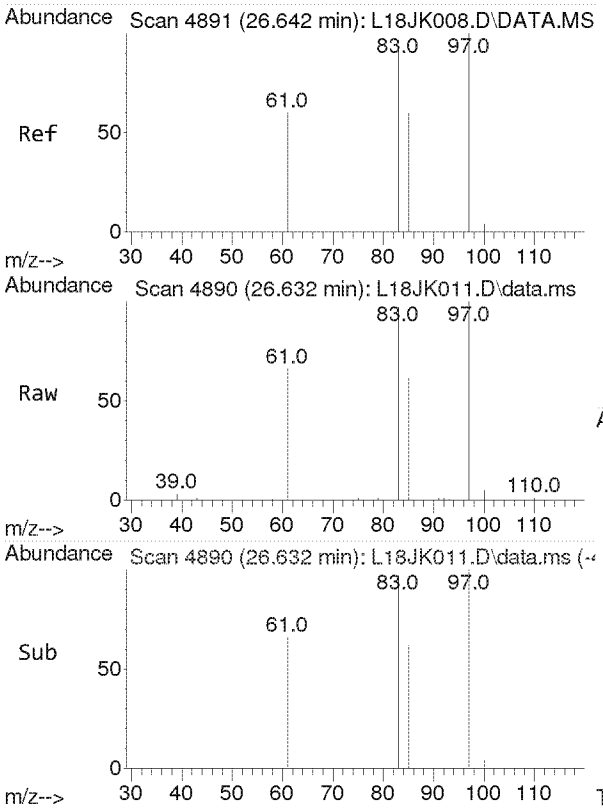


#41
trans-1,3-Dichloropropene
Concen: 2.660 ppbv
RT: 26.377 min Scan# 4856
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 75 Resp: 9032

Ion	Ratio	Lower	Upper
75	100		
39	54.6	44.2	66.4

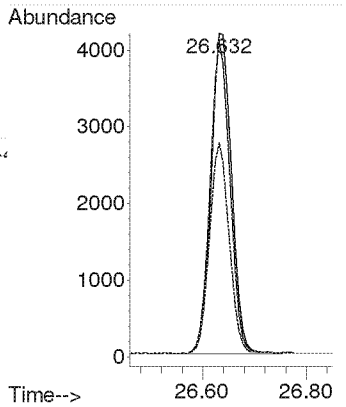


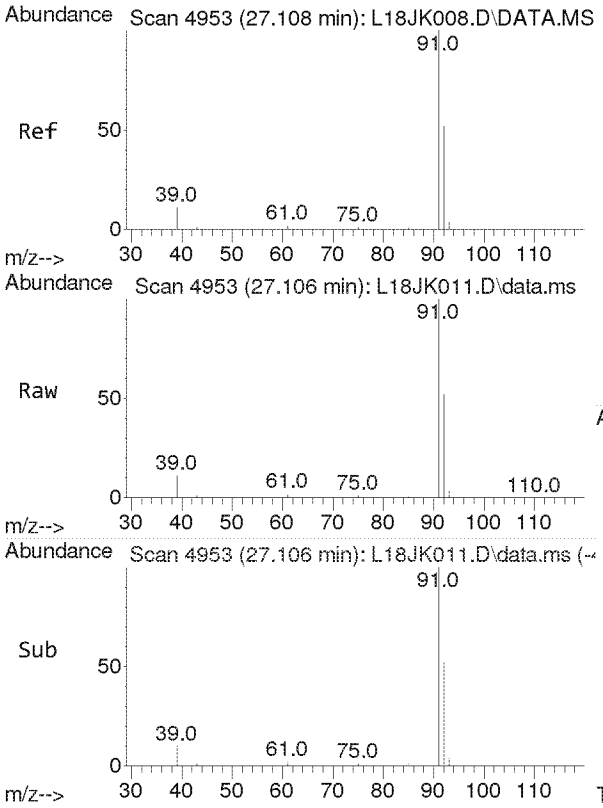


#42
1,1,2-Trichloroethane
Concen: 2.494 ppbv
RT: 26.632 min Scan# 4890
Delta R.T. -0.009 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 97 Resp: 11268

Ion	Ratio	Lower	Upper
97	100		
83	94.9	76.2	114.4
61	64.2	51.7	77.5

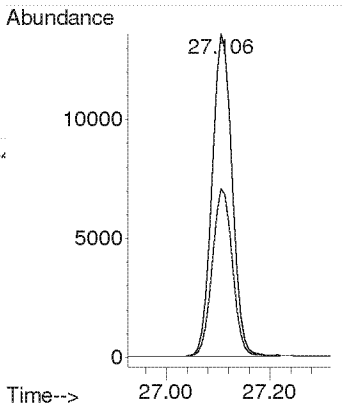


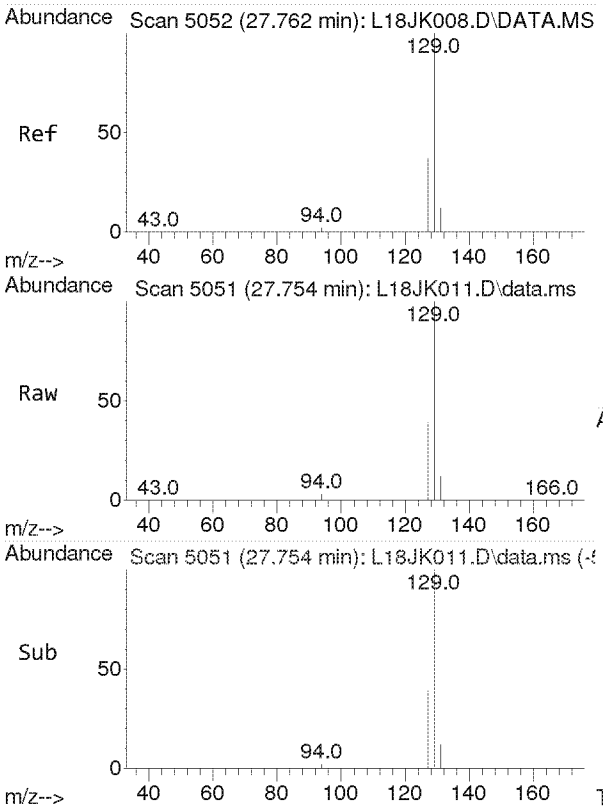


#44
Toluene
Concen: 2.502 ppbv
RT: 27.106 min Scan# 4953
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 91 Resp: 35937

Ion	Ratio	Lower	Upper
91	100		
92	52.2	41.7	62.5

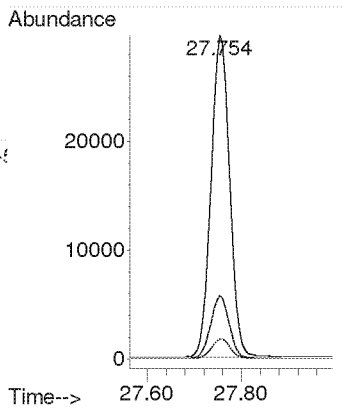


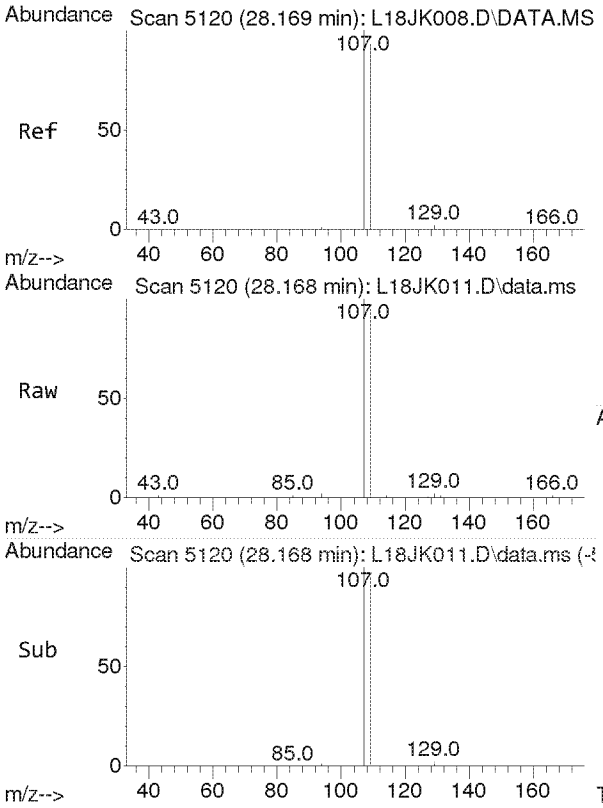


#45
Dibromochloromethane
Concen: 2.333 ppbv
RT: 27.754 min Scan# 5051
Delta R.T. -0.008 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:129 Resp: 80818

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2

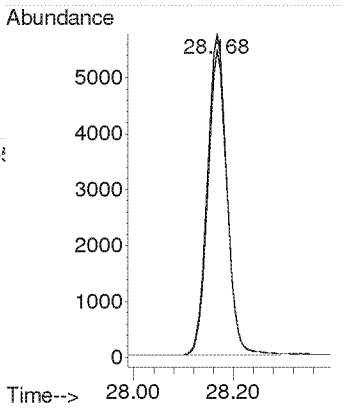


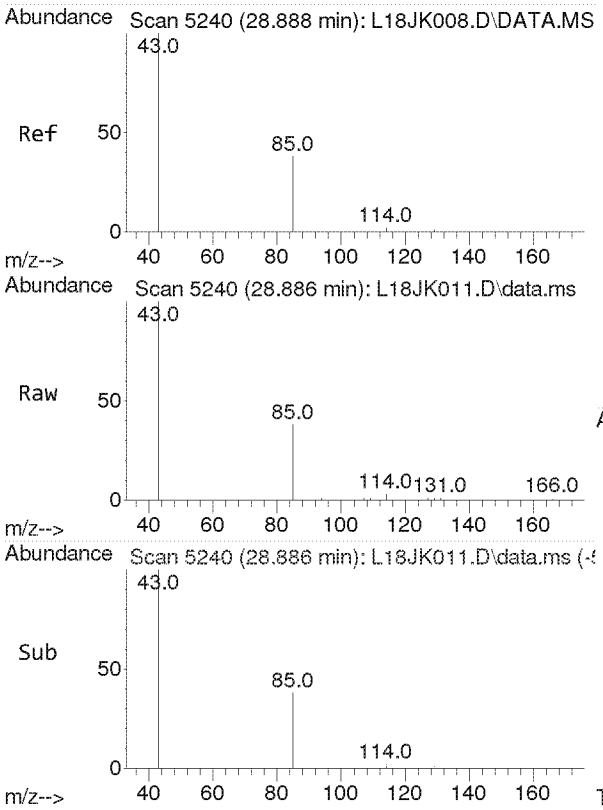


#46
1,2-Dibromoethane
Concen: 2.552 ppbv
RT: 28.168 min Scan# 5120
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:107 Resp: 15405

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.0	112.6

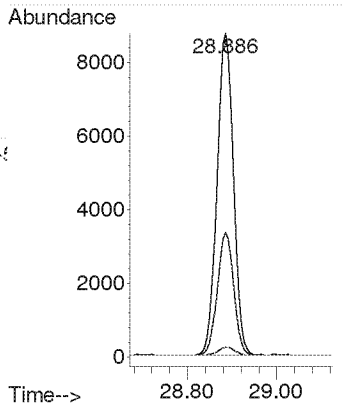


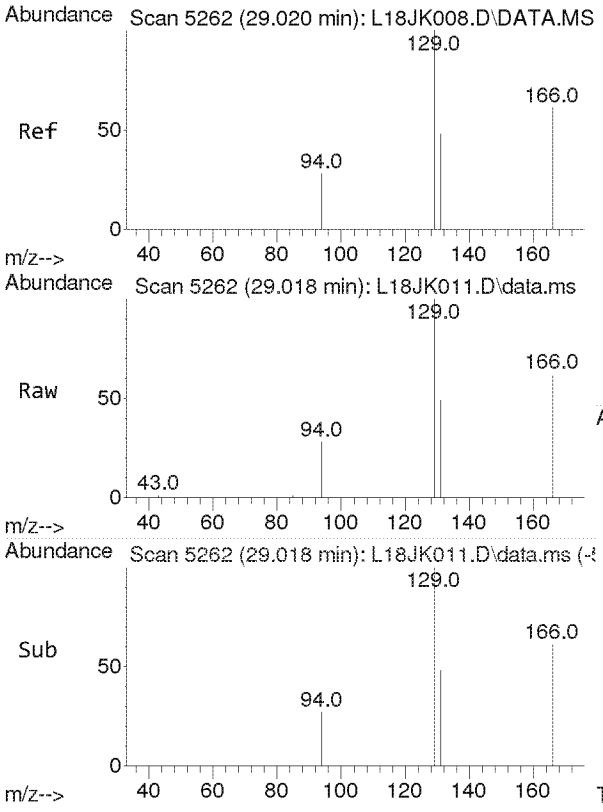


#47
n-Octane
Concen: 2.495 ppbv
RT: 28.886 min Scan# 5240
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 43 Resp: 22314

Ion	Ratio	Lower	Upper
43	100		
85	37.7	30.2	45.4
114	2.4	1.9	2.9

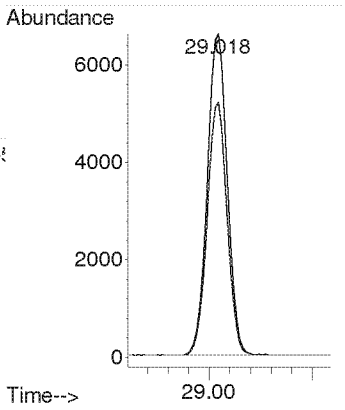


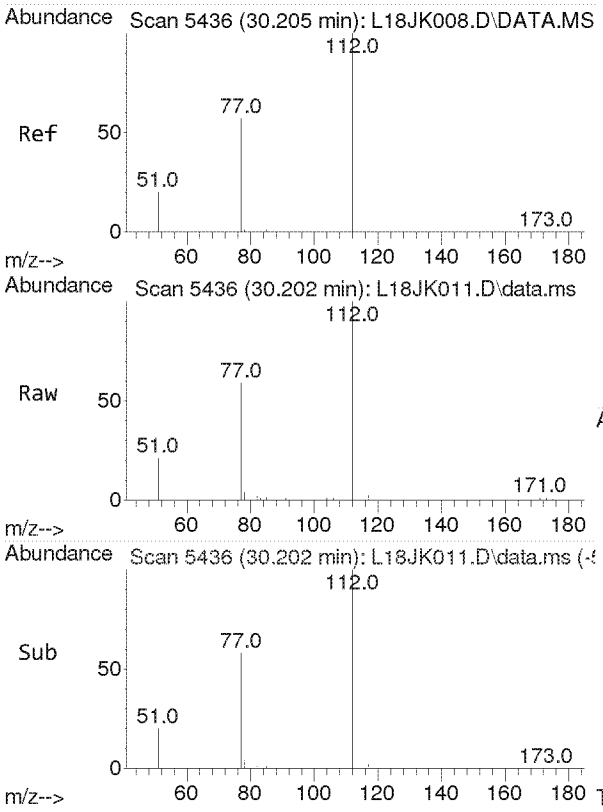


#48
Tetrachloroethylene
Concen: 2.517 ppbv
RT: 29.018 min Scan# 5262
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:166 Resp: 17713

Ion	Ratio	Lower	Upper
166	100		
131	78.6	63.0	94.4

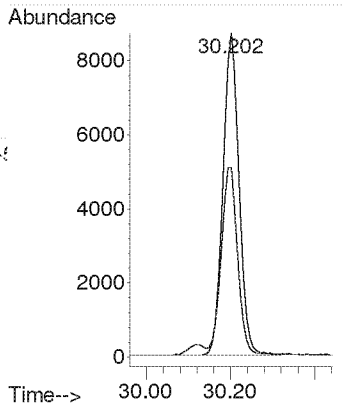


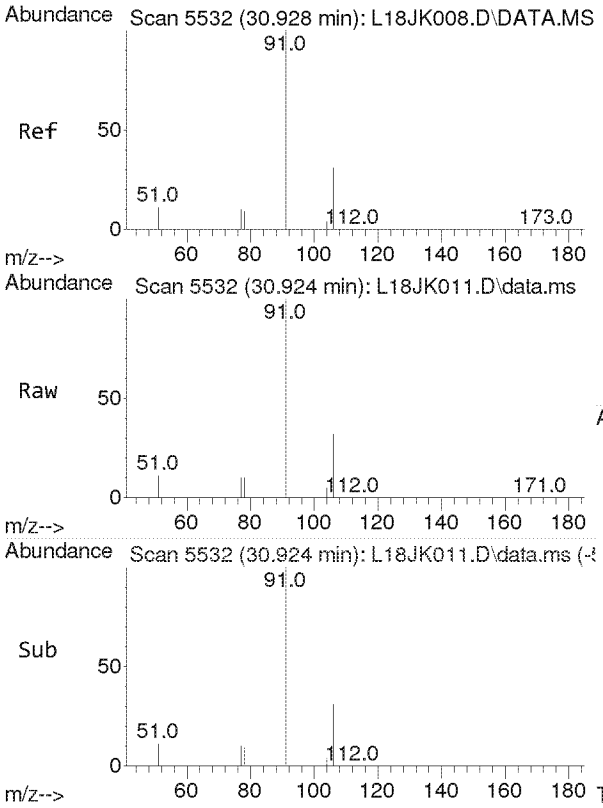


#49
Chlorobenzene
Concen: 2.483 ppbv
RT: 30.202 min Scan# 5436
Delta R.T. -0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:112 Resp: 23526

Ion	Ratio	Lower	Upper
112	100		
77	59.0	47.4	71.2

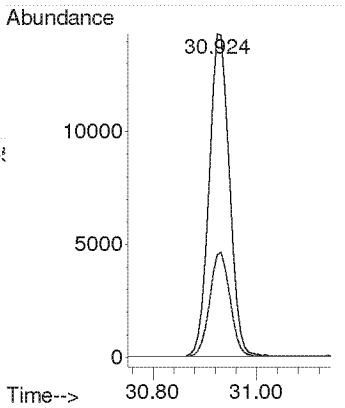


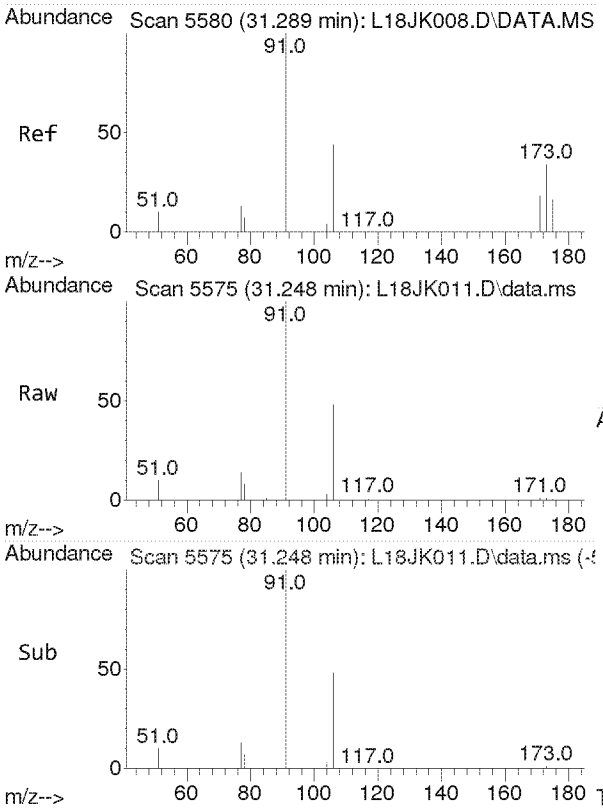


#50
Ethylbenzene
Concen: 2.533 ppbv
RT: 30.924 min Scan# 5532
Delta R.T. -0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 91 Resp: 38604

Ion	Ratio	Lower	Upper
91	100		
106	32.1	25.4	38.2

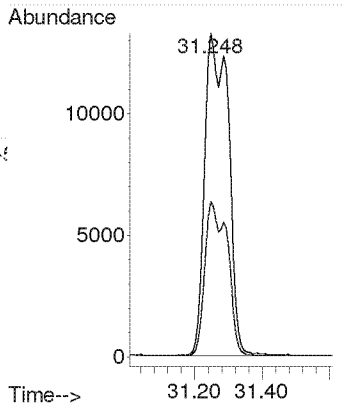


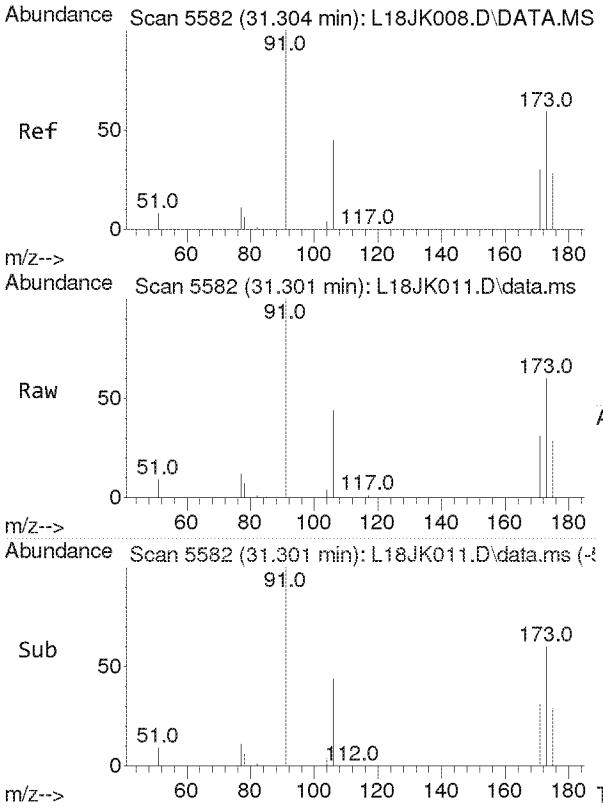


#51
m,p-Xylene
Concen: 4.934 ppbv
RT: 31.248 min Scan# 5575
Delta R.T. -0.041 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 91 Resp: 64599

Ion	Ratio	Lower	Upper
91	100		
106	45.6	36.3	54.5

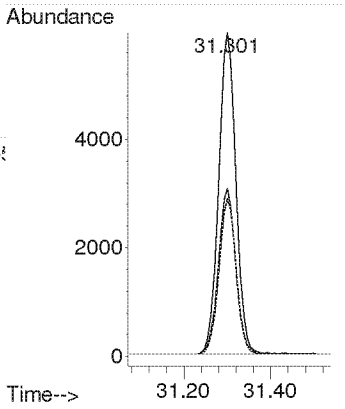


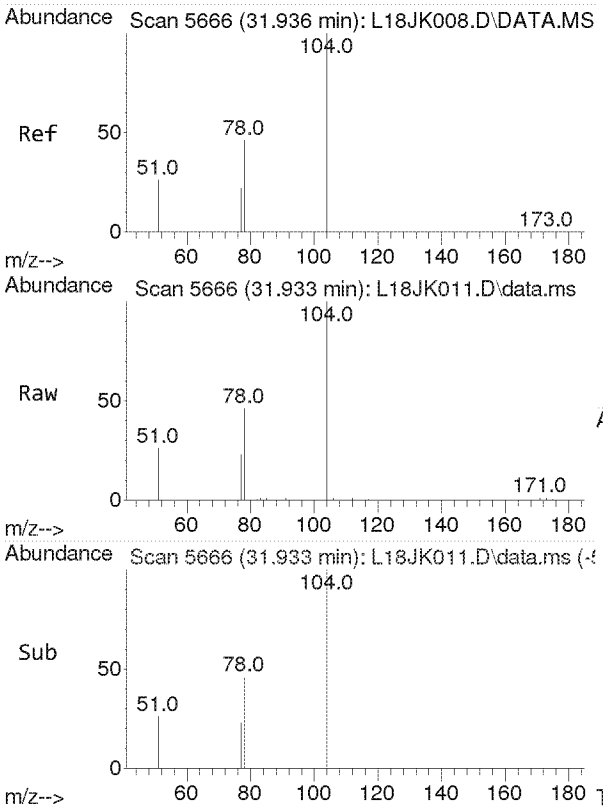


#52
Bromoform
Concen: 2.409 ppbv
RT: 31.301 min Scan# 5582
Delta R.T. -0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:173 Resp: 16341

Ion	Ratio	Lower	Upper
173	100		
171	51.2	41.1	61.7
175	48.7	39.2	58.8

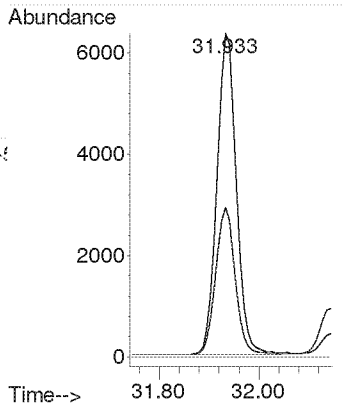


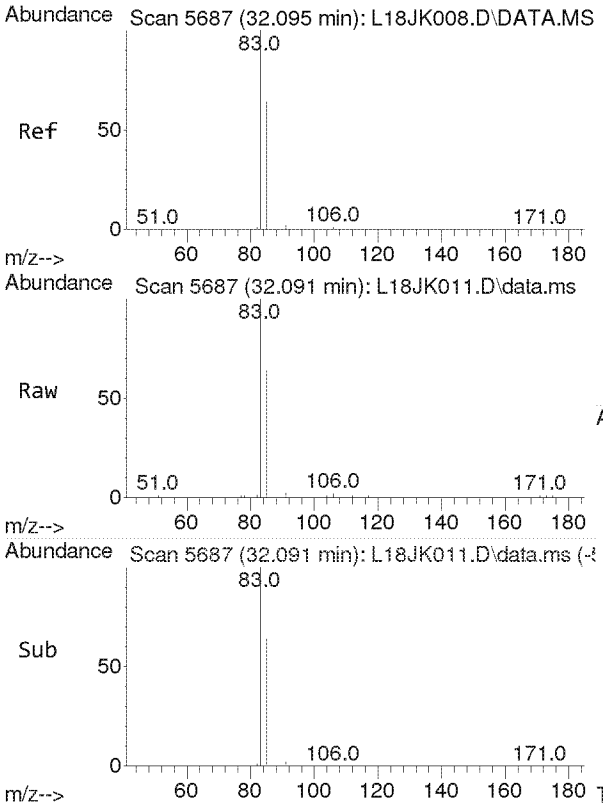


#53
Styrene
Concen: 2.412 ppbv
RT: 31.933 min Scan# 5666
Delta R.T. -0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:104 Resp: 17154

Ion	Ratio	Lower	Upper
104	100		
78	45.9	36.6	54.8
103	0.0	0.0	0.0

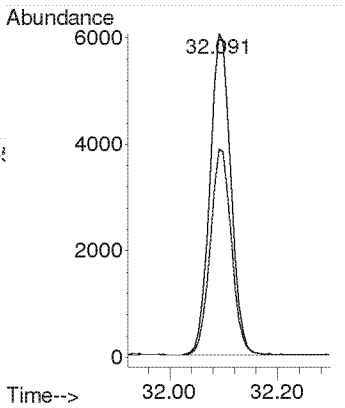


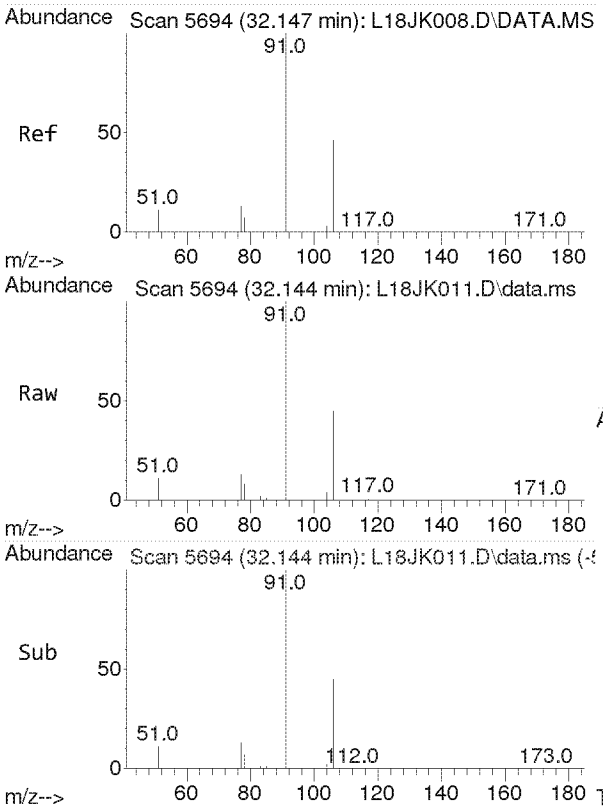


#54
1,1,2,2-Tetrachloroethane
Concen: 1.808 ppbv
RT: 32.091 min Scan# 5687
Delta R.T. -0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 83 Resp: 16206

Ion	Ratio	Lower	Upper
83	100		
85	64.6	51.4	77.2

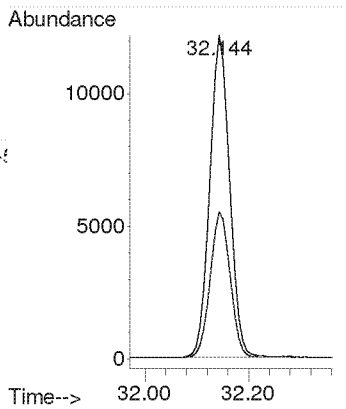


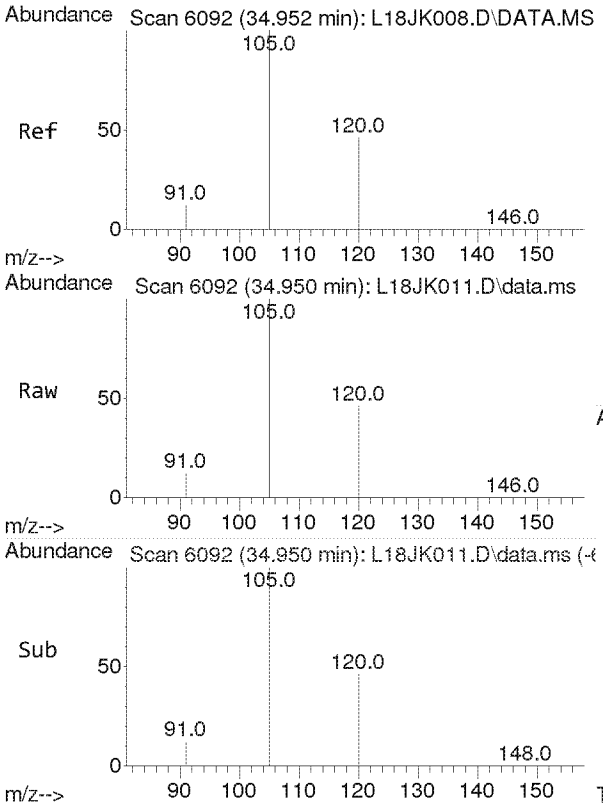


#55
o-Xylene
Concen: 2.522 ppbv
RT: 32.144 min Scan# 5694
Delta R.T. -0.003 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion: 91 Resp: 32113

Ion	Ratio	Lower	Upper
91	100		
106	45.5	36.4	54.6

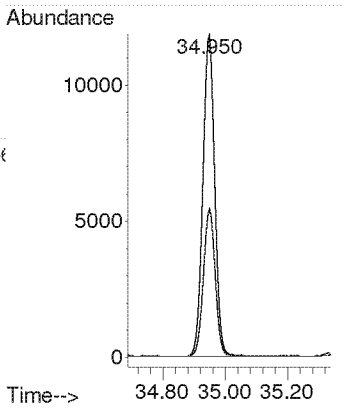


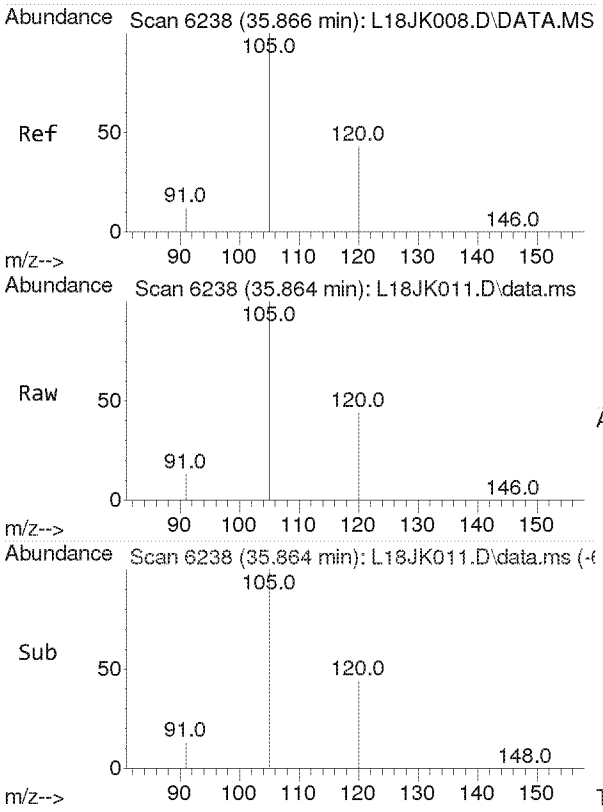


#56
1,3,5-Trimethylbenzene
Concen: 2.383 ppbv
RT: 34.950 min Scan# 6092
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:105 Resp: 31551

Ion	Ratio	Lower	Upper
105	100		
120	45.7	36.5	54.7

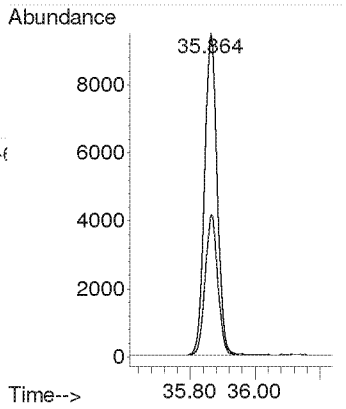


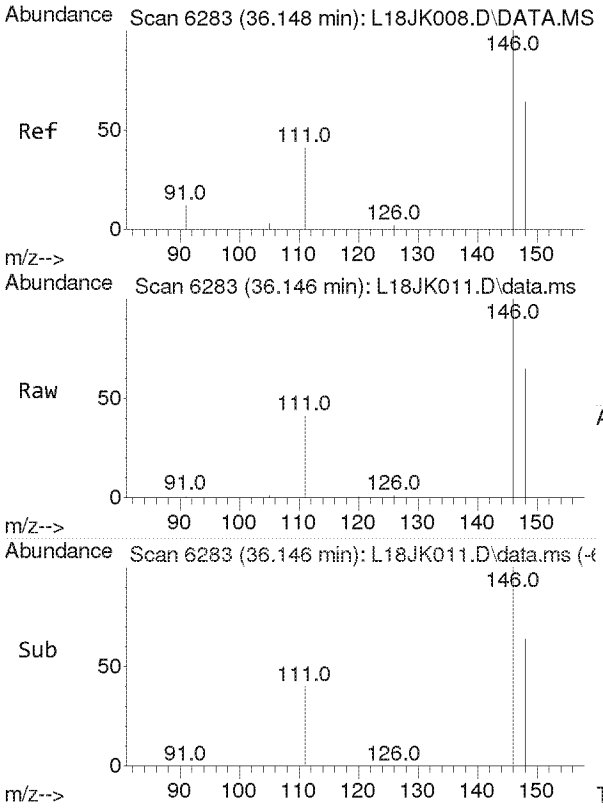


#57
1,2,4-Trimethylbenzene
Concen: 2.301 ppbv
RT: 35.864 min Scan# 6238
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:105 Resp: 25605

Ion	Ratio	Lower	Upper
105	100		
120	43.5	34.7	52.1

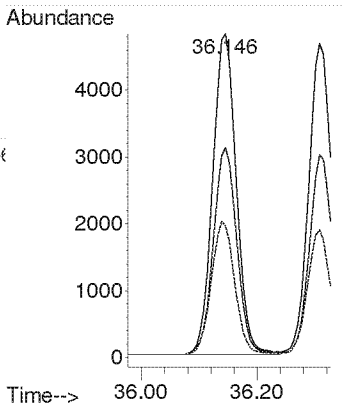


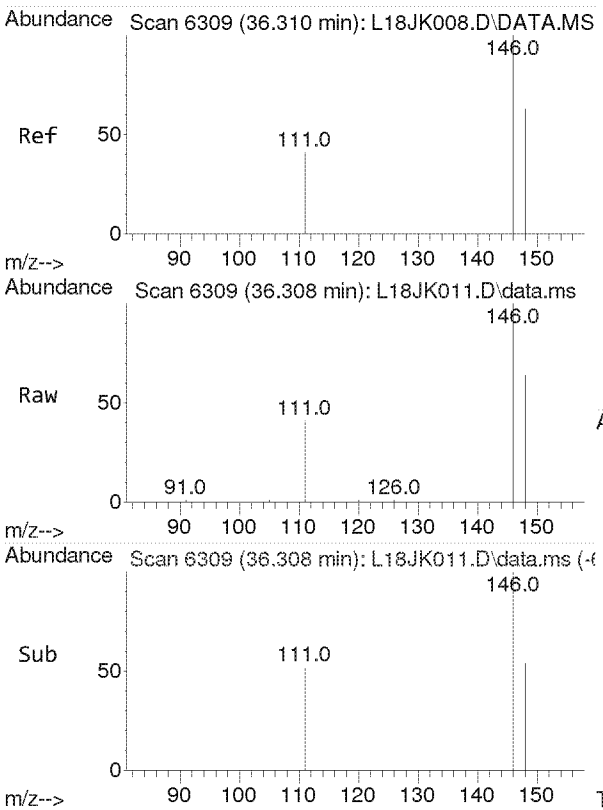


#58
m-Dichlorobenzene
Concen: 2.217 ppbv
RT: 36.146 min Scan# 6283
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:146 Resp: 13459

Ion	Ratio	Lower	Upper
146	100		
148	64.4	51.2	76.8
111	41.5	32.9	49.3

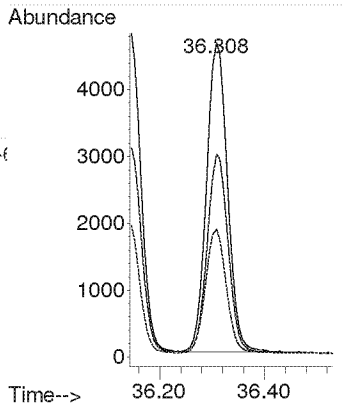


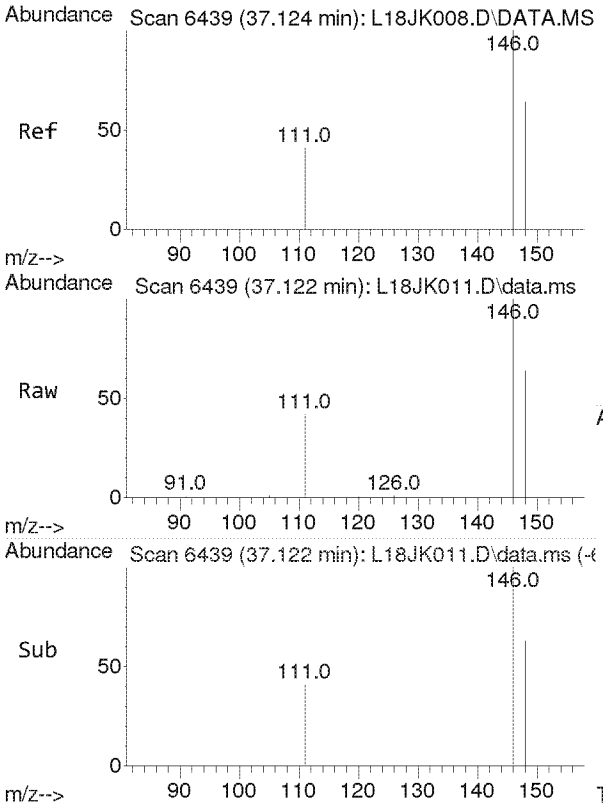


#59
p-Dichlorobenzene
Concen: 2.573 ppbv
RT: 36.308 min Scan# 6309
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:146 Resp: 12753

Ion	Ratio	Lower	Upper
146	100		
148	63.8	51.2	76.8
111	39.8	31.8	47.8

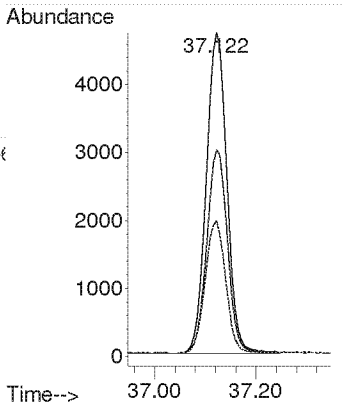


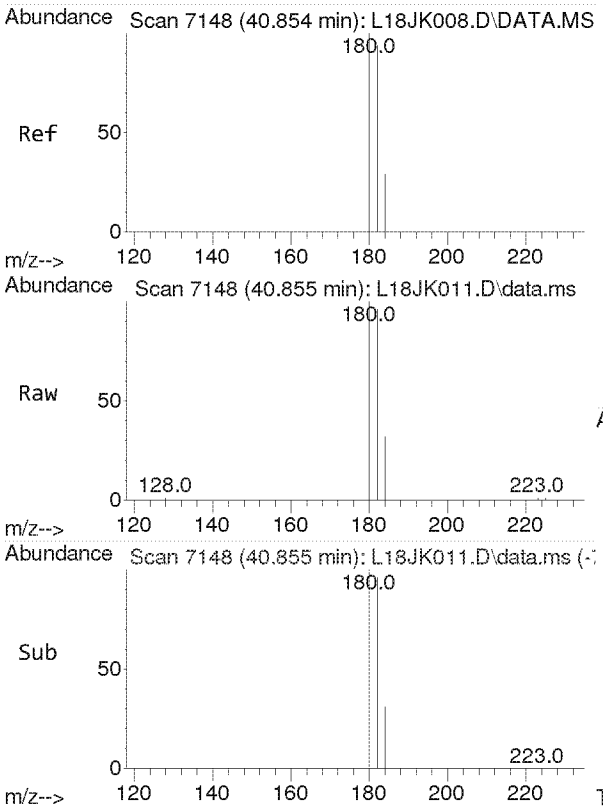


#60
o-Dichlorobenzene
Concen: 2.425 ppbv
RT: 37.122 min Scan# 6439
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:146 Resp: 13249

Ion	Ratio	Lower	Upper
146	100		
148	63.6	51.1	76.7
111	41.4	33.4	50.2

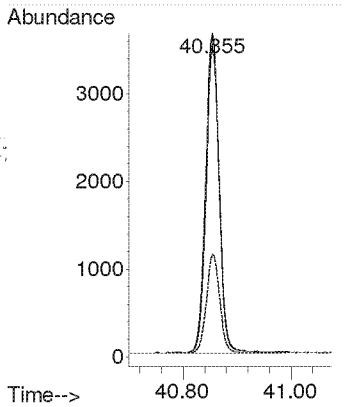


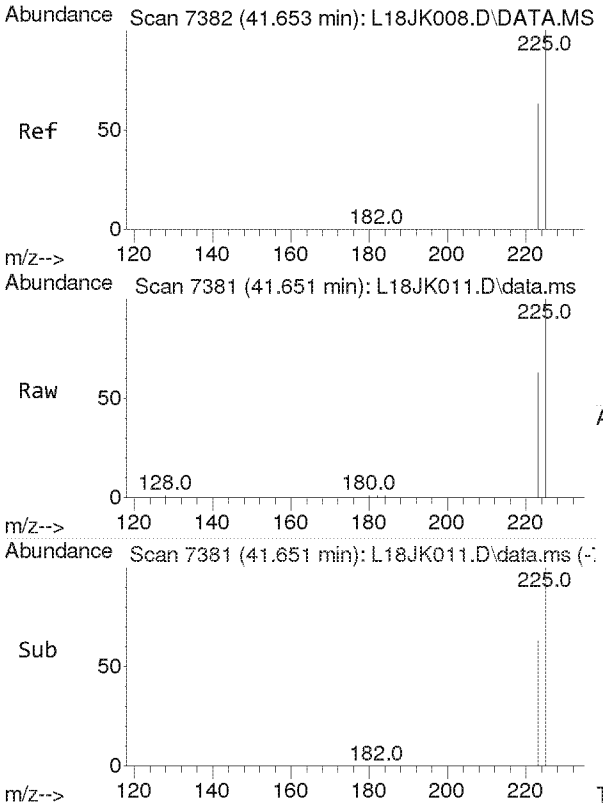


#61
1,2,4-Trichlorobenzene
Concen: 2.444 ppbv
RT: 40.855 min Scan# 7148
Delta R.T. 0.001 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

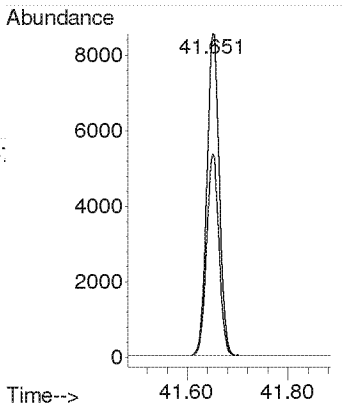
Tgt Ion:180 Resp: 6255

Ion	Ratio	Lower	Upper
180	100		
182	95.5	76.5	114.7
184	30.9	24.4	36.6





#62
Hexachloro-1,3-butadiene
Concen: 2.330 ppbv
RT: 41.651 min Scan# 7381
Delta R.T. -0.002 min
Lab File: L18JK011.D
Acq: 12 Oct 2018 3:46 am

Tgt Ion:225 Resp: 14546

Ion	Ratio	Lower	Upper
225	100		
223	62.6	50.2	75.4