

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL092122\
 Data File : VL039655.D
 Acq On : 22 Sep 2022 4:15
 Operator : SY/AP
 Sample : N4669-08
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

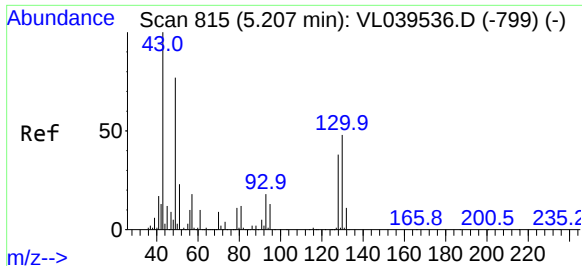
Instrument :
 MSVOA_L
 ClientSampleId :
 C0PG0

Quant Time: Sep 22 08:26:28 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Mon Sep 19 14:26:28 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.221	49	953242	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.680	114	2441405	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.491	117	2314531	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.799	95	1752872	10.145	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	= 101.500%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.761	85	22561	0.204	ppbv	91
3) Chlorodifluoromethane	2.684	51	101609	0.898	ppbv #	69
4) Chloromethane	2.845	50	22132	0.324	ppbv	94
9) Propene	2.735	41	26402	0.511	ppbv #	76
10) Heptane	7.606	43	7389	0.061	ppbv #	1
11) Trichlorofluoromethane	3.597	101	1066180	7.790	ppbv	100
13) Ethanol	3.275	45	5369487	1364.004	ppbv	71
15) Acetone	3.497	43	3361957	31.695	ppbv	99
16) 1,3-Butadiene	2.996	39	19695	0.366	ppbv #	20
17) tert-Butyl alcohol	3.922	59	58883	0.619	ppbv #	62
19) Isopropyl Alcohol	3.616	45	1703965	31.515	ppbv #	93
20) Methylene Chloride	3.967	84	43158	0.880	ppbv	99
21) Allyl Chloride	3.925	41	47087	0.652	ppbv #	78
23) Vinyl Acetate	4.648	43	34204	0.713	ppbv #	1
25) Ethyl Acetate	5.234	43	348695	1.508	ppbv #	97
26) Hexane	5.240	57	72910	0.743	ppbv #	1
27) Carbon Disulfide	4.153	76	12242	0.119	ppbv #	71
29) Chloroform	5.304	83	138222	0.975	ppbv	99
34) 2-Butanone	4.819	43	252274	2.104	ppbv	99
35) Carbon Tetrachloride	6.520	117	13261	0.102	ppbv #	78
36) Benzene	6.394	78	28468	0.153	ppbv #	79
39) 1,2-Dichloropropane	6.680	63	603894	8.379	ppbv #	25
41) Tetrahydrofuran	5.587	42	57410	0.780	ppbv #	35
42) Bromodichloromethane	7.282	83	10613	0.075	ppbv #	86
44) 2,2,4-Trimethylpentane	7.349	57	12406	0.039	ppbv #	1
52) Tetrachloroethene	10.638	164	4621	0.065	ppbv #	65
53) Toluene	9.246	91	222739	1.073	ppbv	98
58) Ethyl Benzene	12.118	91	9752	0.037	ppbv	96
60) o-Xylene	13.079	91	18230	0.080	ppbv	81
74) 1,2,4-Trimethylbenzene	16.133	105	14508	0.055	ppbv #	50
76) 1,4-Dichlorobenzene	16.500	146	5892	0.037	ppbv #	1

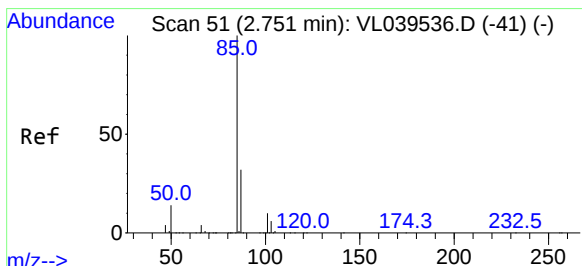
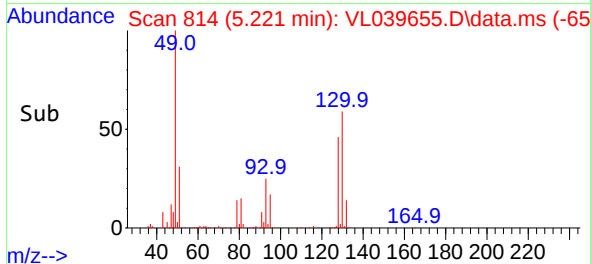
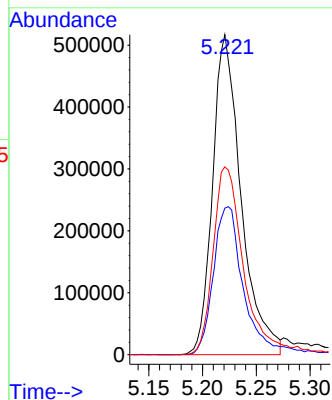
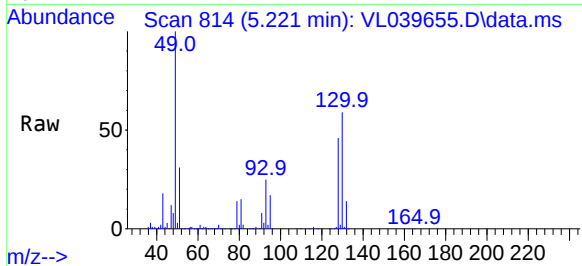
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.221 min Scan# 81
Delta R.T. 0.014 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

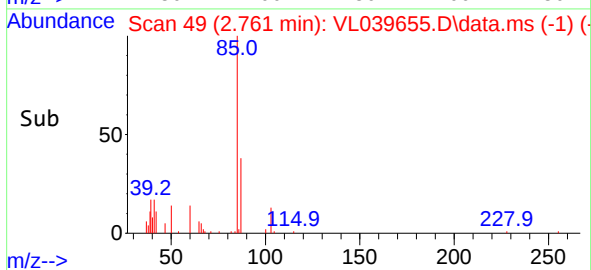
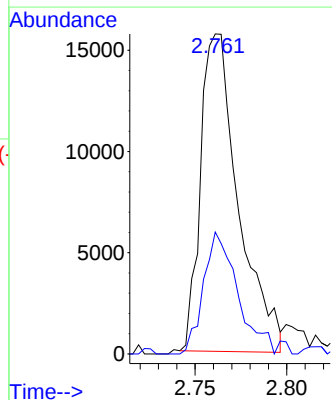
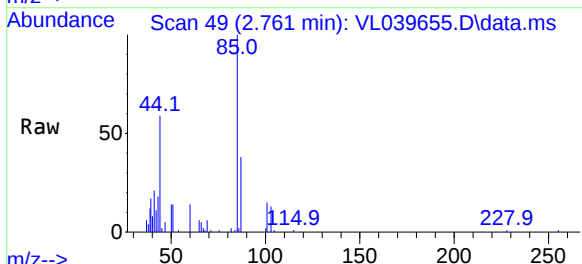
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MSVOA_L
ClientSampleId :
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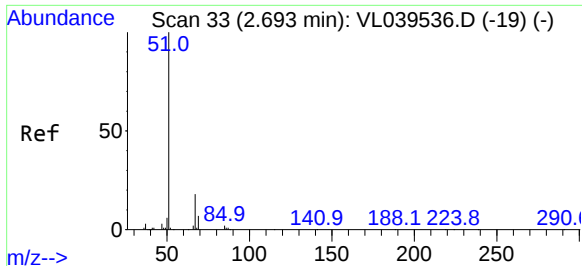
Tgt Ion: 49 Resp: 953242
Ion Ratio Lower Upper
49 100
128 50.6 26.7 80.0
130 65.2 34.3 102.8



#2
Dichlorodifluoromethane
Concen: 0.204 ppbv
RT: 2.761 min Scan# 49
Delta R.T. 0.010 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 85 Resp: 22561
Ion Ratio Lower Upper
85 100
87 38.5 26.7 40.1

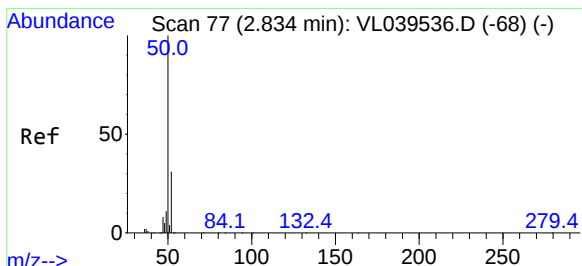
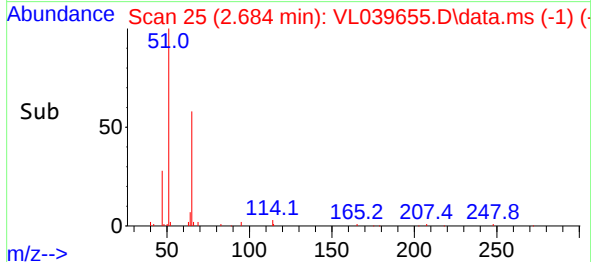
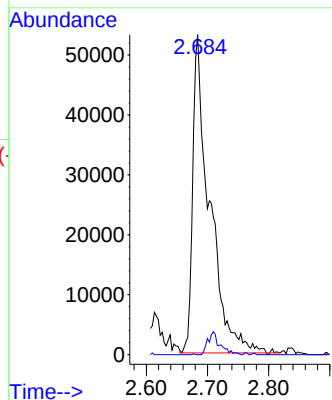
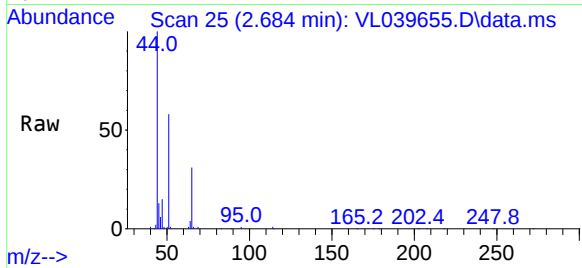




#3
Chlorodifluoromethane
Concen: 0.898 ppbv
RT: 2.684 min Scan# 21
Delta R.T. -0.009 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

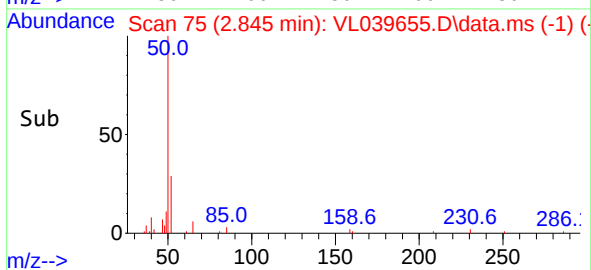
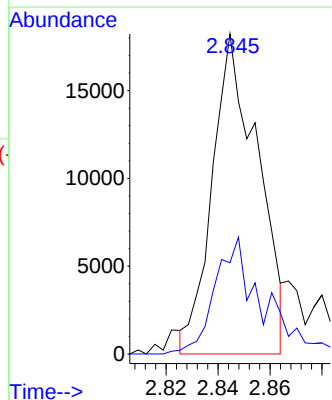
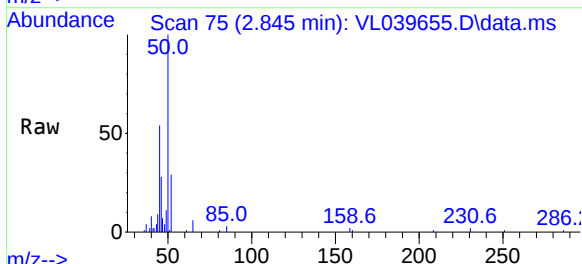
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ClientSampleId :
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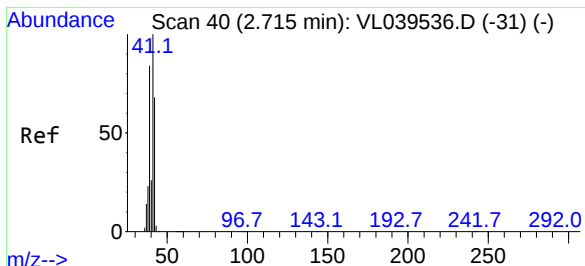
Tgt Ion: 51 Resp: 101609
Ion Ratio Lower Upper
51 100
67 5.4 15.7 23.5#



#4
Chloromethane
Concen: 0.324 ppbv
RT: 2.845 min Scan# 75
Delta R.T. 0.010 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 50 Resp: 22132
Ion Ratio Lower Upper
50 100
52 29.5 26.5 39.7

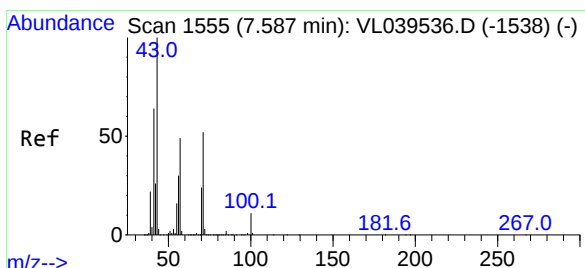
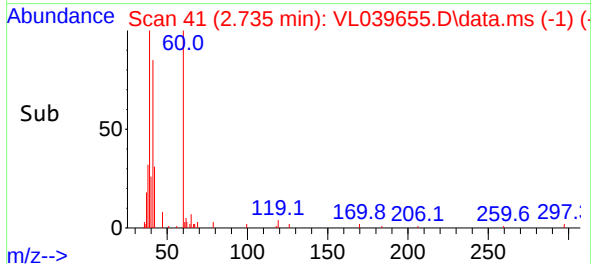
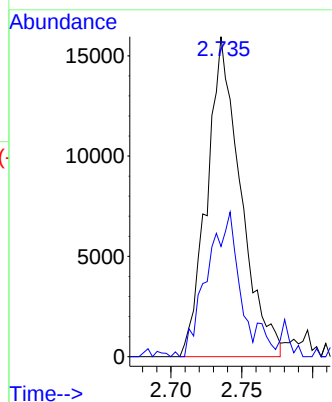
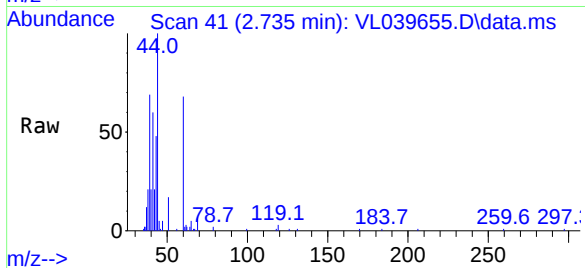




#9
Propene
Concen: 0.511 ppbv
RT: 2.735 min Scan# 41
Delta R.T. 0.020 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

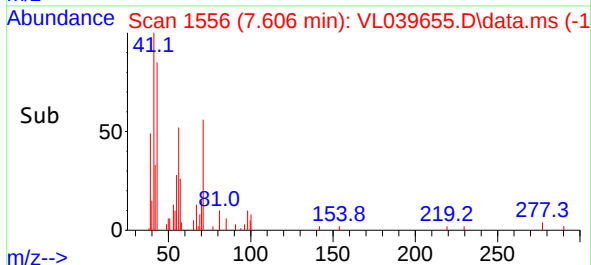
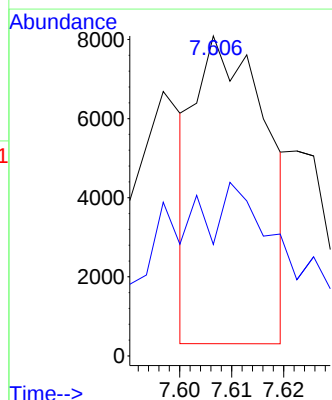
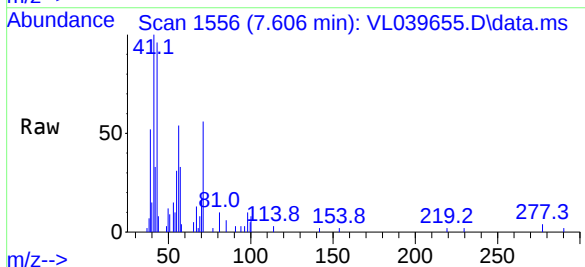
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ClientSampleId :
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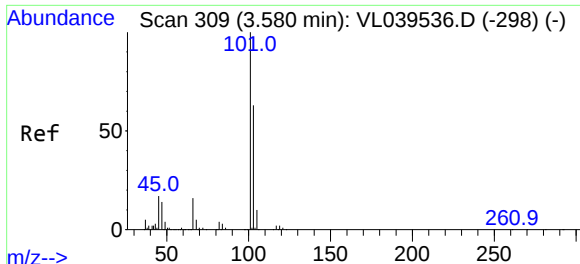
Tgt Ion: 41 Resp: 26402
Ion Ratio Lower Upper
41 100
42 49.6 55.2 82.8#



#10
Heptane
Concen: 0.061 ppbv
RT: 7.606 min Scan# 1556
Delta R.T. 0.020 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 43 Resp: 7389
Ion Ratio Lower Upper
43 100
57 121.5 40.5 60.7#

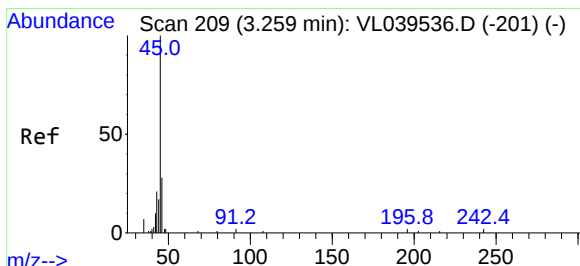
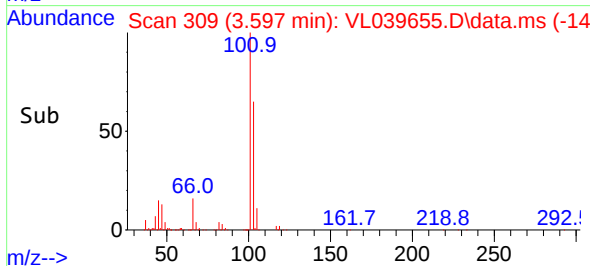
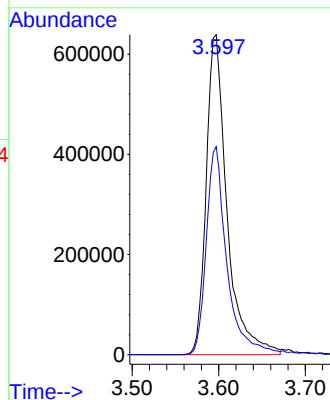
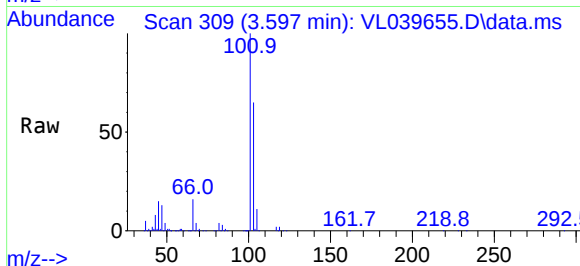




#11
Trichlorofluoromethane
Concen: 7.790 ppbv
RT: 3.597 min Scan# 309
Delta R.T. 0.017 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

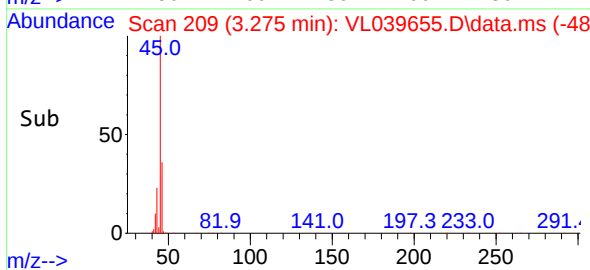
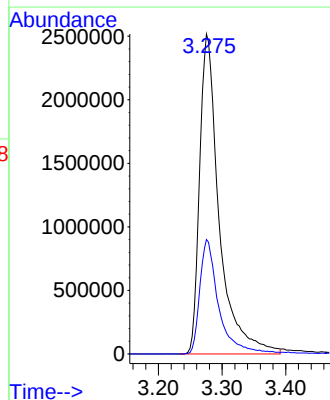
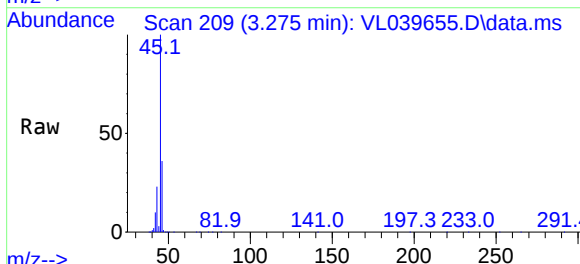
Instrument :
MSVOA_L
ClientSampleId :
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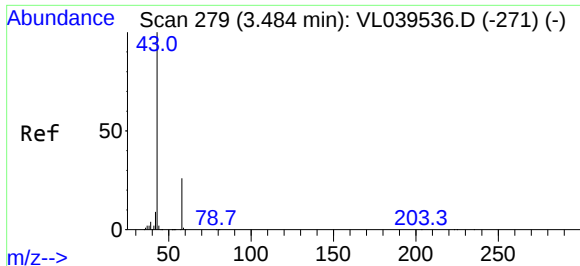
Tgt Ion:101 Resp: 1066180
Ion Ratio Lower Upper
101 100
103 65.0 51.8 77.8



#13
Ethanol
Concen: 1364.004 ppbv
RT: 3.275 min Scan# 209
Delta R.T. 0.017 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 45 Resp: 5369487
Ion Ratio Lower Upper
45 100
46 35.4 22.8 91.2

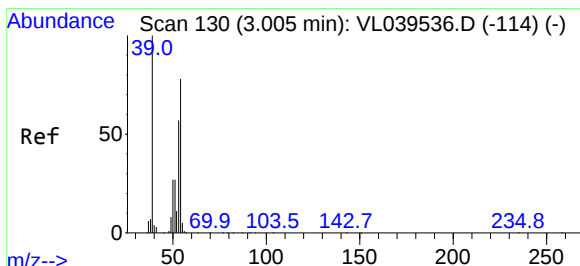
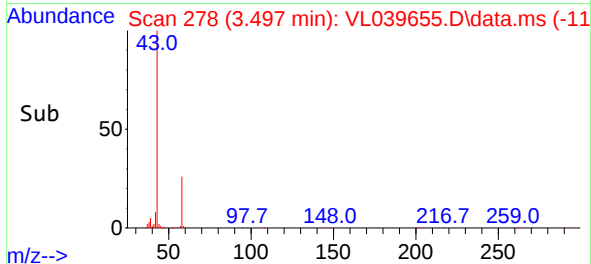
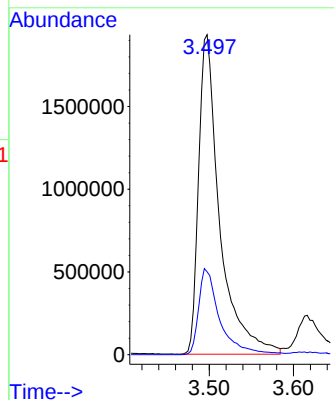
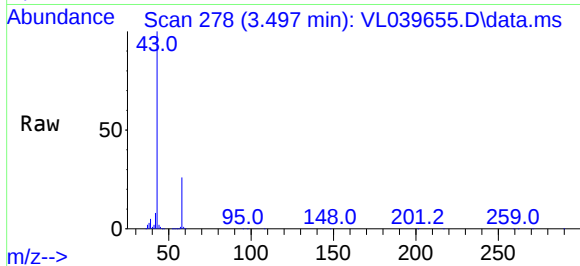




#15
Acetone
Concen: 31.695 ppbv
RT: 3.497 min Scan# 21
Delta R.T. 0.014 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

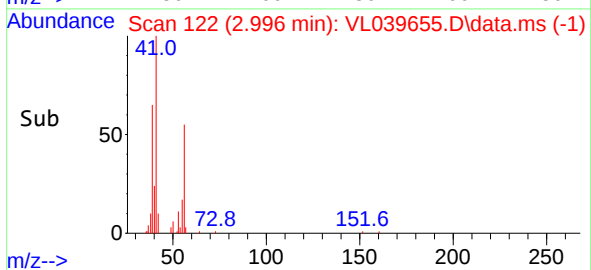
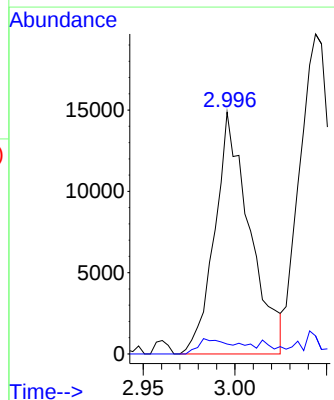
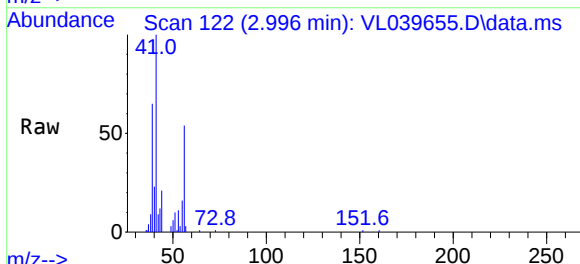
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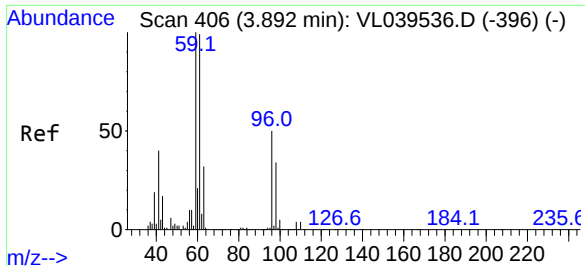
Tgt Ion: 43 Resp: 3361957
Ion Ratio Lower Upper
43 100
58 27.0 21.0 31.6



#16
1,3-Butadiene
Concen: 0.366 ppbv
RT: 2.996 min Scan# 122
Delta R.T. -0.009 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 39 Resp: 19695
Ion Ratio Lower Upper
39 100
54 8.8 63.7 95.5#

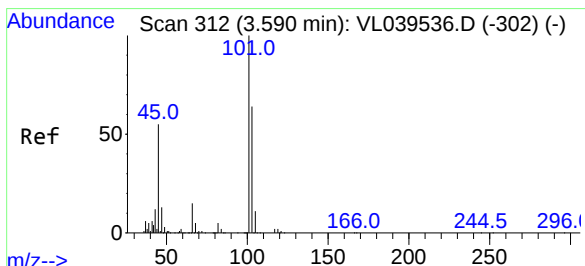
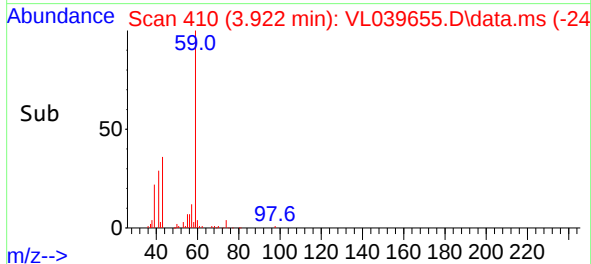
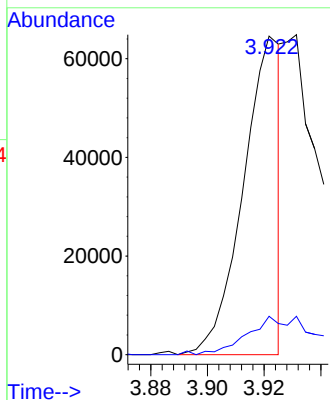
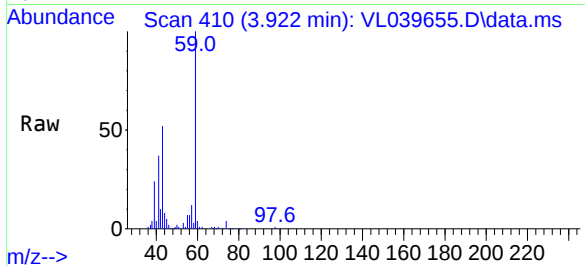




#17
tert-Butyl alcohol
Concen: 0.619 ppbv
RT: 3.922 min Scan# 410
Delta R.T. 0.030 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

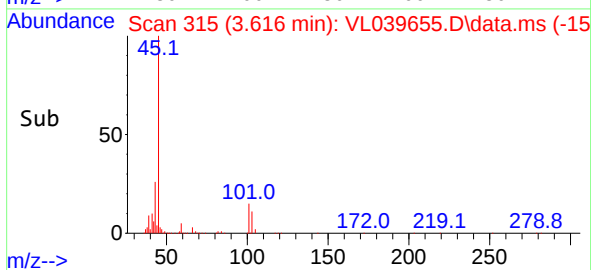
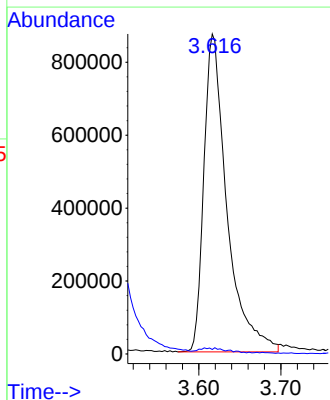
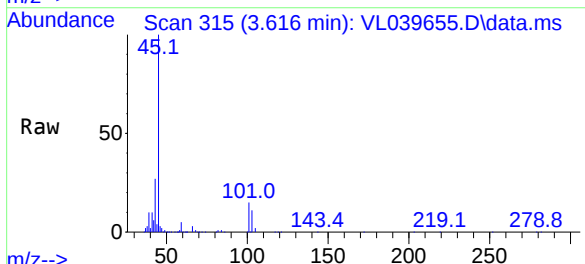
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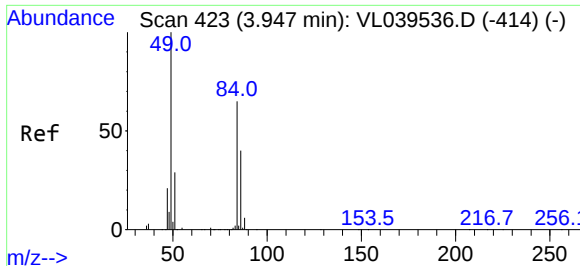
Tgt Ion: 59 Resp: 58883
Ion Ratio Lower Upper
59 100
57 25.1 8.7 13.1#



#19
Isopropyl Alcohol
Concen: 31.515 ppbv
RT: 3.616 min Scan# 315
Delta R.T. 0.026 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 45 Resp: 1703965
Ion Ratio Lower Upper
45 100
58 1.9 3.2 4.8#



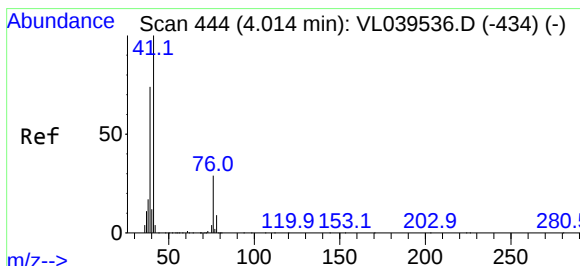
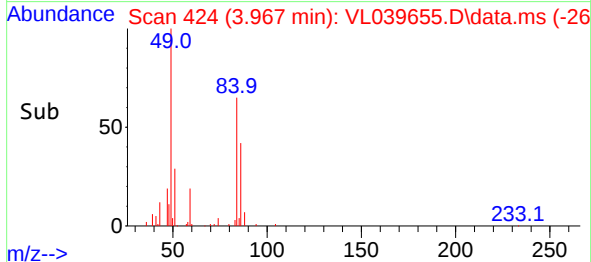
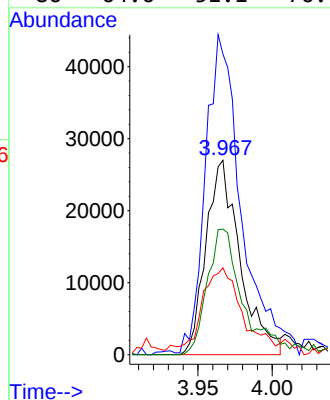
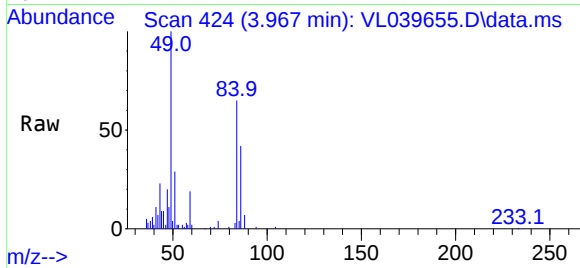


#20
Methylene Chloride
Concen: 0.880 ppbv
RT: 3.967 min Scan# 411
Delta R.T. 0.020 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Instrument :
MSVOA_L
ClientSampleId :
C0PG0

Tgt Ion: 84 Resp: 43158

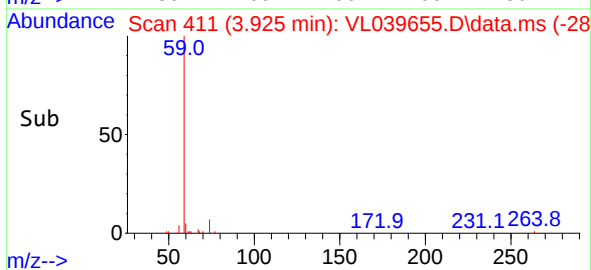
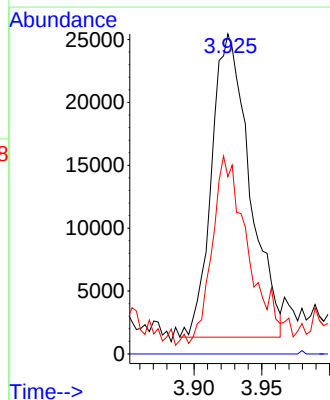
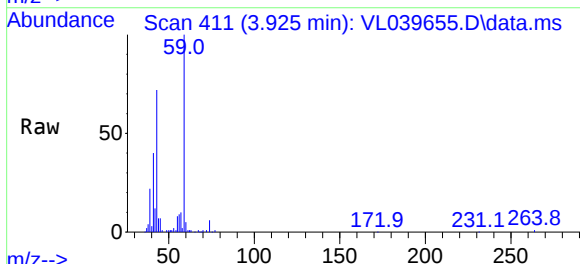
Ion	Ratio	Lower	Upper
84	100		
49	155.0	123.1	184.7
51	40.5	34.4	51.6
86	64.6	51.1	76.7

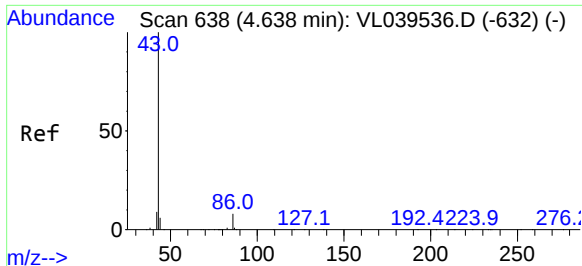


#21
Allyl Chloride
Concen: 0.652 ppbv
RT: 3.925 min Scan# 411
Delta R.T. -0.089 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 41 Resp: 47087

Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.4	36.6
39	71.6	63.5	95.3



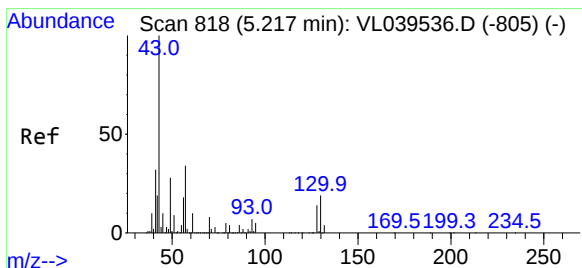
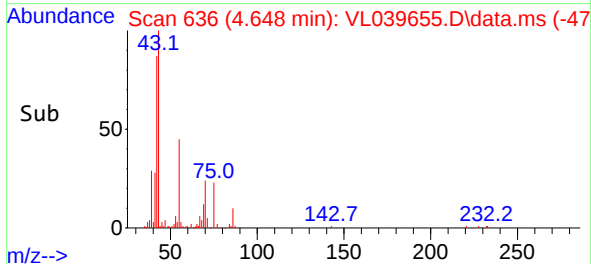
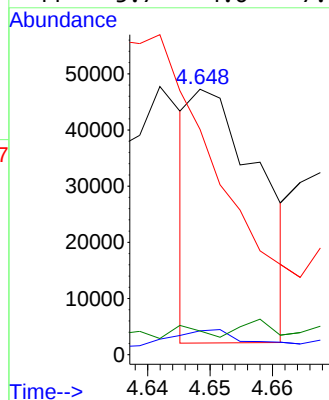
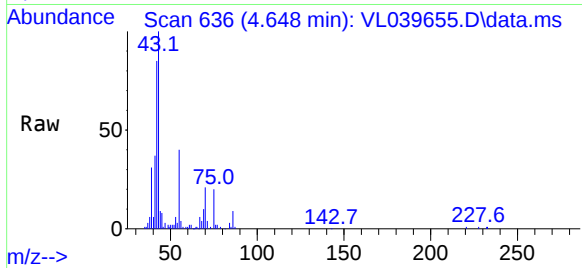


#23
 Vinyl Acetate
 Concen: 0.713 ppbv
 RT: 4.648 min Scan# 61
 Delta R.T. 0.010 min
 Lab File: VL039655.D
 Acq: 22 Sep 2022 4:15

Instrument :
 MSVOA_L
 ClientSampleId :
 C0PG0

Tgt Ion: 43 Resp: 34204

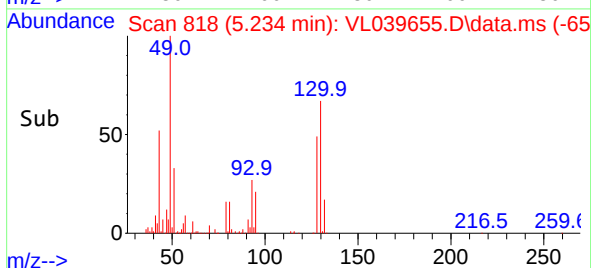
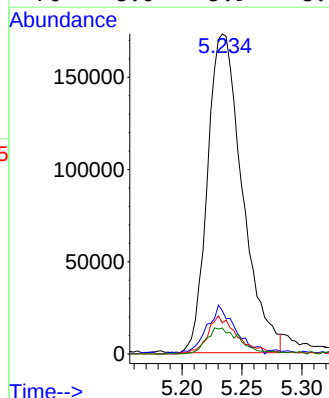
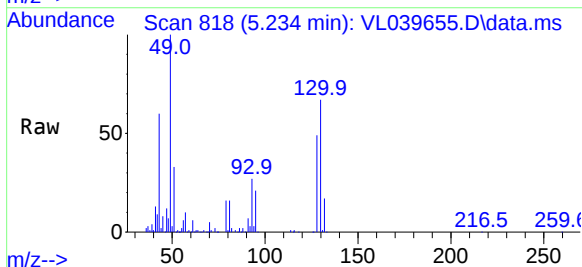
Ion	Ratio	Lower	Upper
43	100		
86	9.9	5.0	7.6#
42	118.7	7.7	11.5#
44	3.7	4.6	7.0#

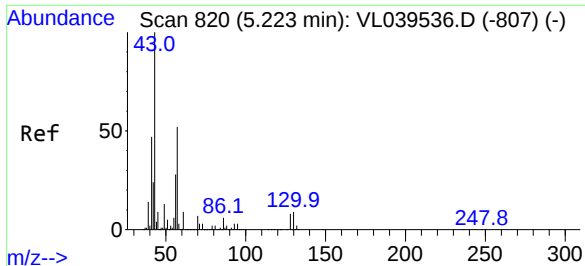


#25
 Ethyl Acetate
 Concen: 1.508 ppbv
 RT: 5.234 min Scan# 818
 Delta R.T. 0.017 min
 Lab File: VL039655.D
 Acq: 22 Sep 2022 4:15

Tgt Ion: 43 Resp: 348695

Ion	Ratio	Lower	Upper
43	100		
45	12.9	8.2	12.4#
61	10.8	8.3	12.5
70	8.0	5.9	8.9

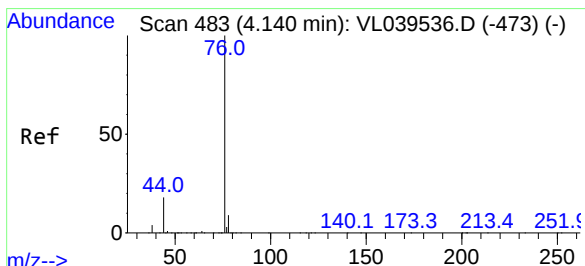
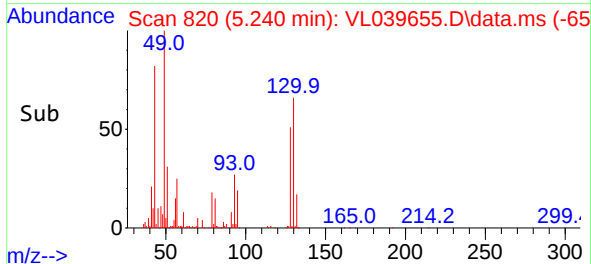
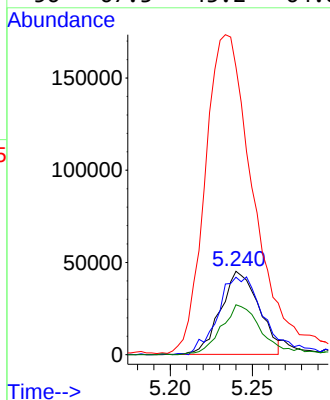
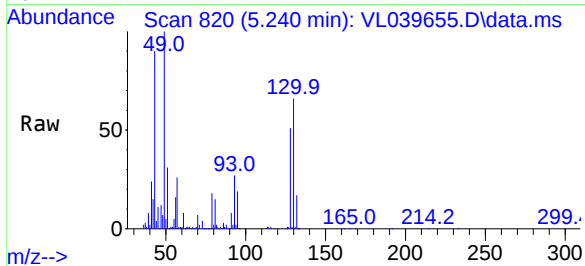




#26
Hexane
Concen: 0.743 ppbv
RT: 5.240 min Scan# 81
Delta R.T. 0.017 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

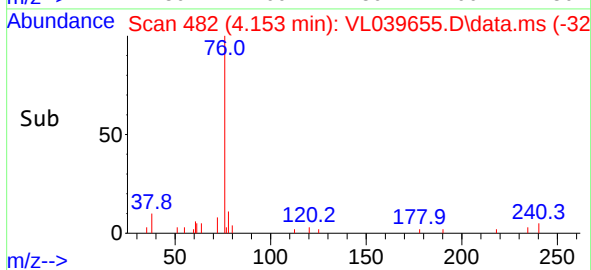
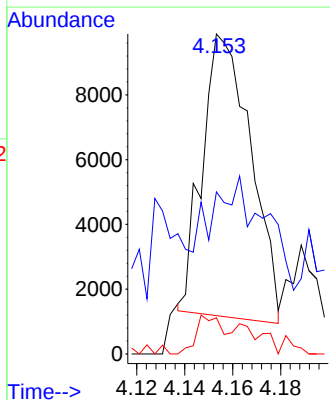
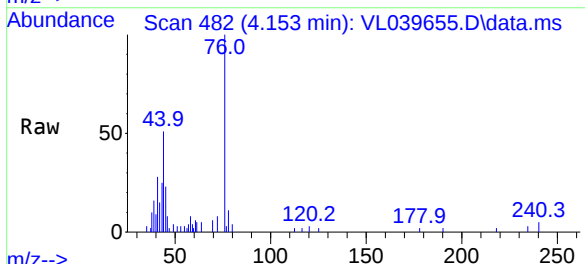
Instrument :
MSVOA_L
ClientSampleId :
C0PG0

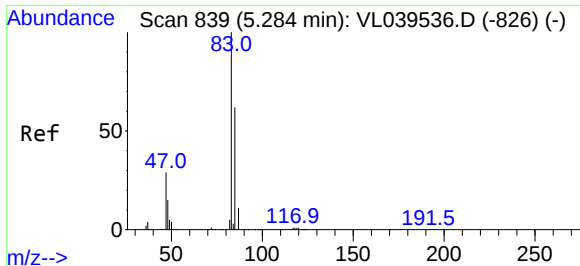
Tgt Ion:	57	Resp:	72910
Ion	Ratio	Lower	Upper
57	100		
41	121.4	76.9	115.3#
43	506.0	191.0	286.6#
56	67.3	43.2	64.8#



#27
Carbon Disulfide
Concen: 0.119 ppbv
RT: 4.153 min Scan# 482
Delta R.T. 0.013 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion:	76	Resp:	12242
Ion	Ratio	Lower	Upper
76	100		
44	33.7	14.6	21.8#
78	15.9	7.8	11.6#





#29

Chloroform

Concen: 0.975 ppbv

RT: 5.304 min Scan# 84

Delta R.T. 0.020 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

Instrument :

MSVOA_L

ClientSampleId :

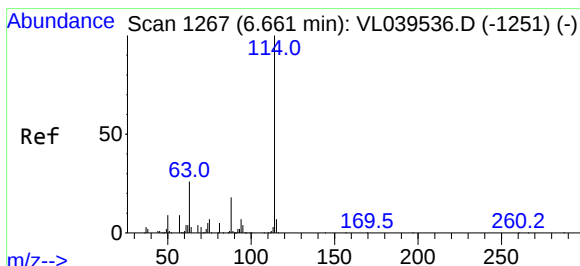
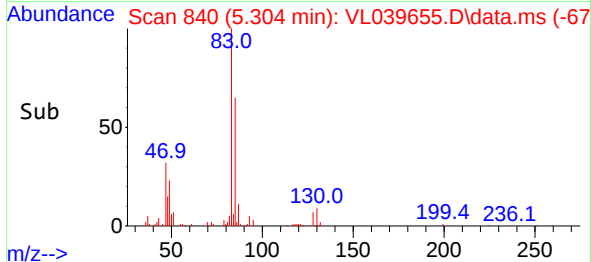
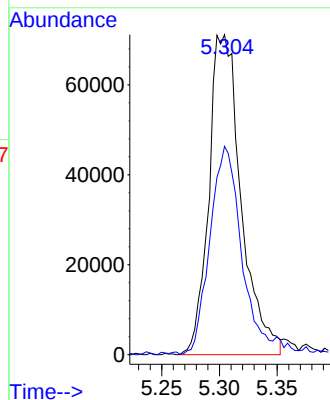
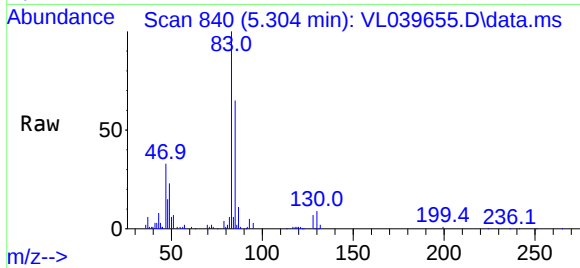
COPG0

Tgt Ion: 83 Resp: 138222

Ion Ratio Lower Upper

83 100

85 64.9 52.8 79.2



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.680 min Scan# 1268

Delta R.T. 0.020 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

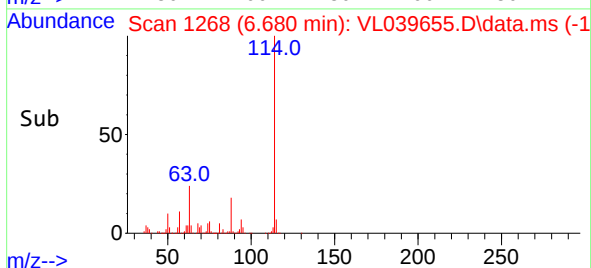
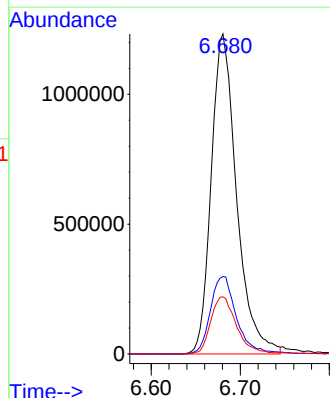
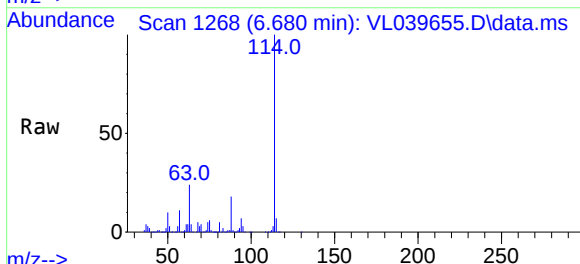
Tgt Ion: 114 Resp: 2441405

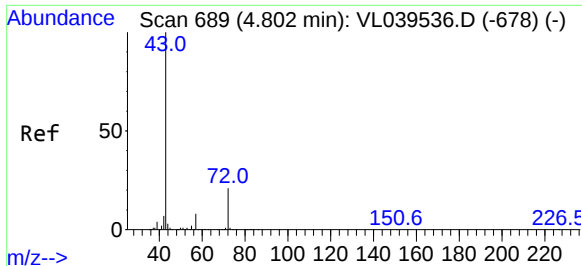
Ion Ratio Lower Upper

114 100

63 25.2 20.2 30.4

88 18.5 14.5 21.7

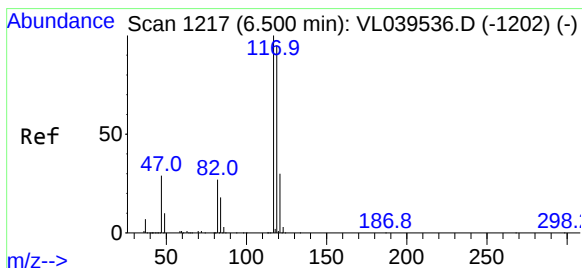
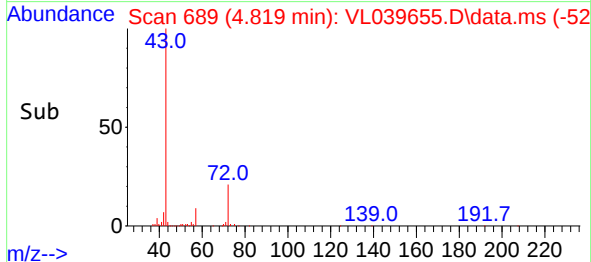
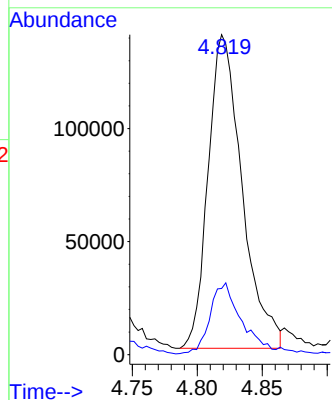
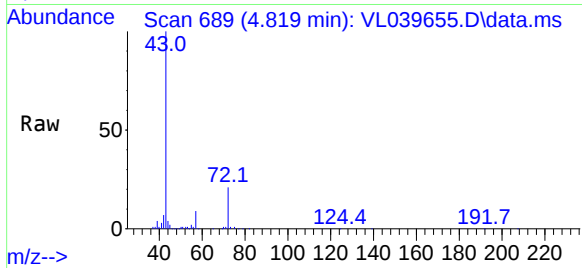




#34
2-Butanone
Concen: 2.104 ppbv
RT: 4.819 min Scan# 61
Delta R.T. 0.017 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

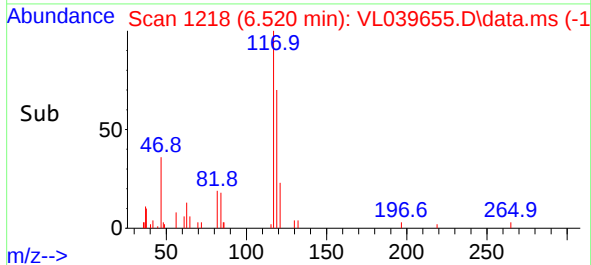
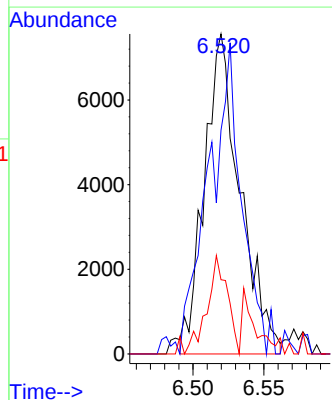
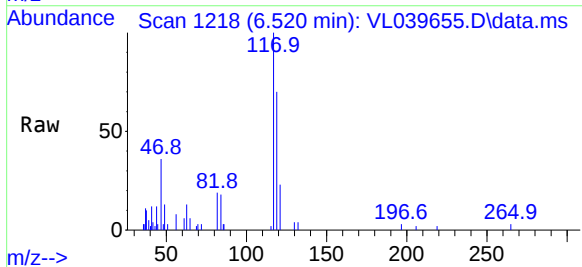
Instrument :
MSVOA_L
ClientSampleId :
C0PG0

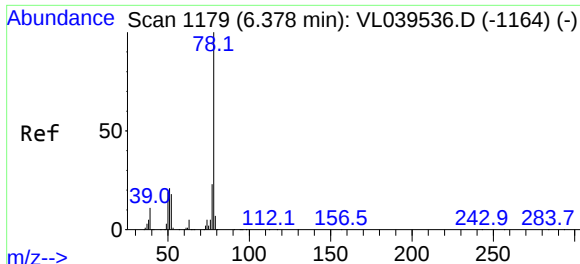
Tgt Ion: 43 Resp: 252274
Ion Ratio Lower Upper
43 100
72 23.0 17.9 26.9



#35
Carbon Tetrachloride
Concen: 0.102 ppbv
RT: 6.520 min Scan# 1218
Delta R.T. 0.020 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 117 Resp: 13261
Ion Ratio Lower Upper
117 100
119 72.3 75.4 113.2#
121 18.8 24.2 36.2#

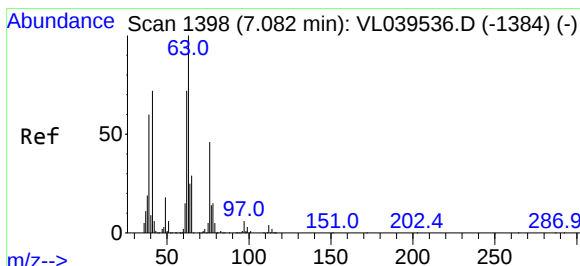
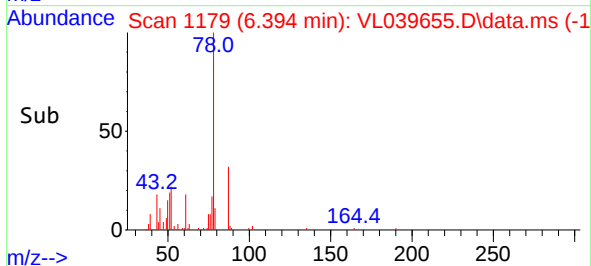
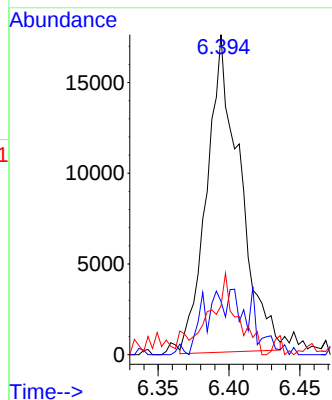
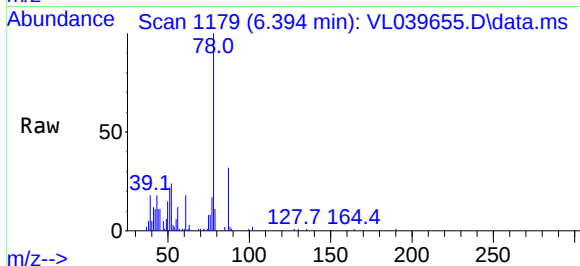




#36
Benzene
Concen: 0.153 ppbv
RT: 6.394 min Scan# 1179
Delta R.T. 0.017 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

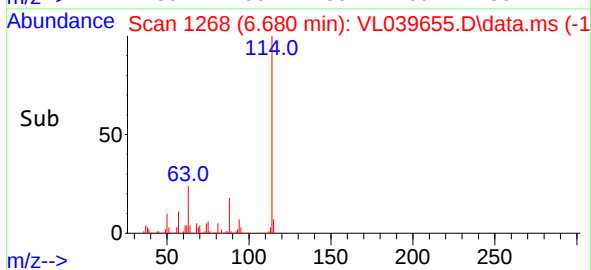
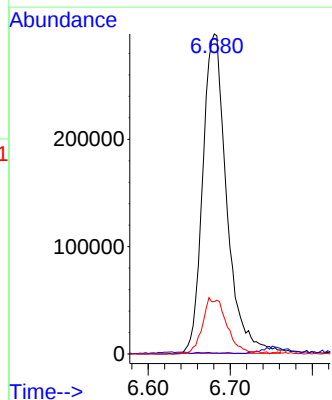
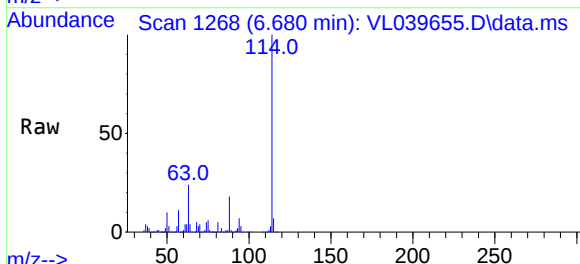
Instrument :
MSVOA_L
ClientSampleId :
C0PG0

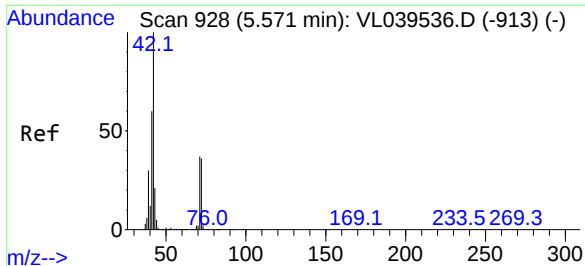
Tgt Ion: 78 Resp: 28468
Ion Ratio Lower Upper
78 100
77 15.4 20.3 30.5#
50 9.4 15.5 23.3#



#39
1,2-Dichloropropane
Concen: 8.379 ppbv
RT: 6.680 min Scan# 1268
Delta R.T. -0.401 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 63 Resp: 603894
Ion Ratio Lower Upper
63 100
41 0.0 59.6 89.4#
62 16.3 51.4 77.0#





#41

Tetrahydrofuran

Concen: 0.780 ppbv

RT: 5.587 min Scan# 91

Delta R.T. 0.017 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

Instrument :

MSVOA_L

ClientSampleId :

C0PG0

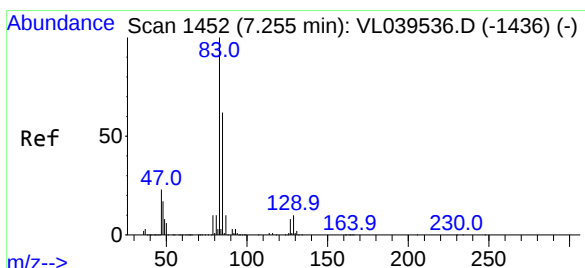
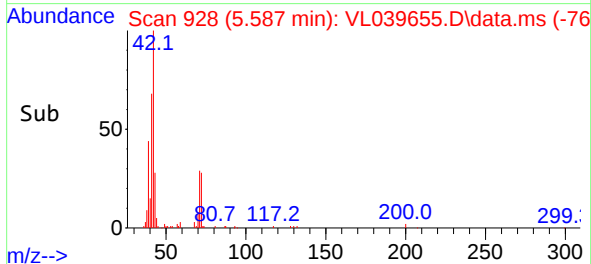
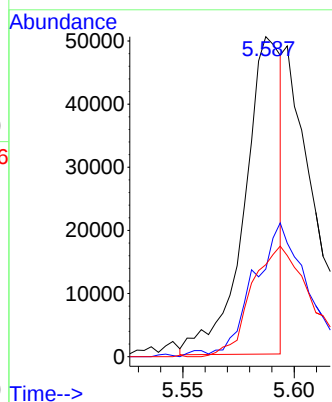
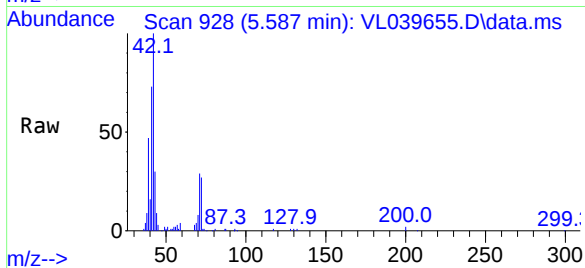
Tgt Ion: 42 Resp: 57410

Ion Ratio Lower Upper

42 100

72 0.0 31.8 47.8#

71 0.0 31.8 47.8#



#42

Bromodichloromethane

Concen: 0.075 ppbv

RT: 7.282 min Scan# 1455

Delta R.T. 0.026 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

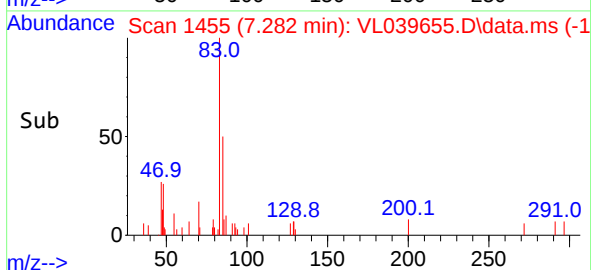
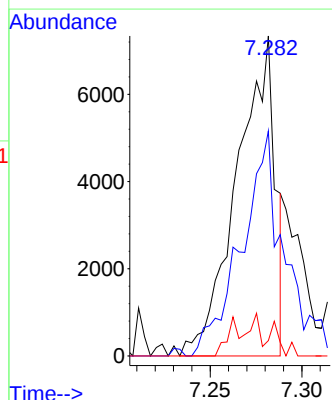
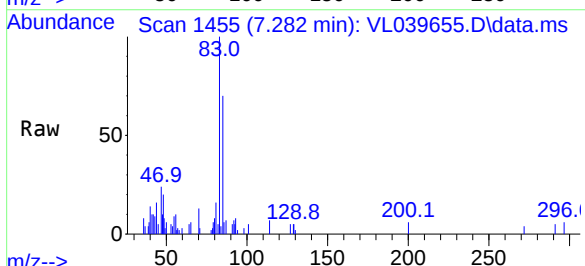
Tgt Ion: 83 Resp: 10613

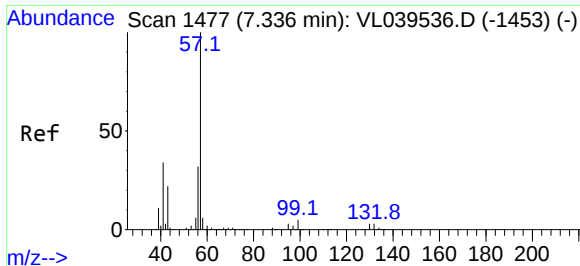
Ion Ratio Lower Upper

83 100

85 74.3 50.7 76.1

127 4.8 6.6 9.8#





#44

2,2,4-Trimethylpentane

Concen: 0.039 ppbv

RT: 7.349 min Scan# 1476

Delta R.T. 0.013 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

Instrument :

MSVOA_L

ClientSampleId :

C0PG0

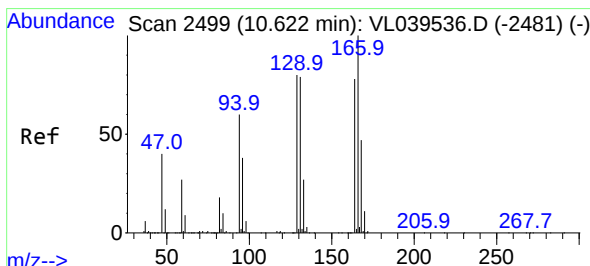
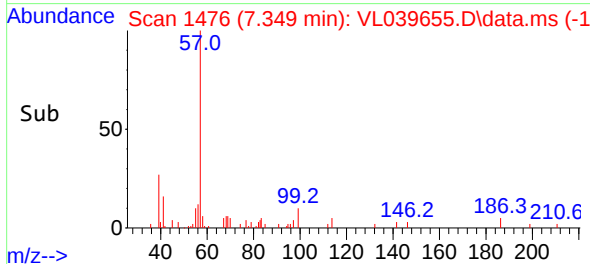
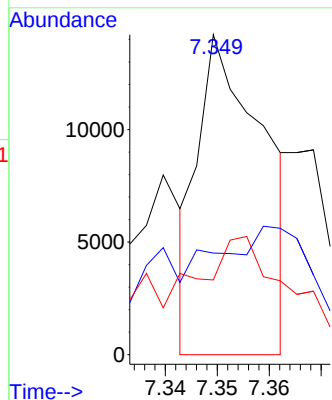
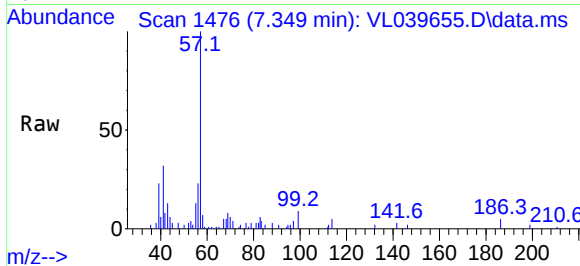
Tgt Ion: 57 Resp: 12406

Ion Ratio Lower Upper

57 100

41 121.3 27.4 41.2#

56 97.7 24.5 36.7#



#52

Tetrachloroethene

Concen: 0.065 ppbv

RT: 10.638 min Scan# 2499

Delta R.T. 0.017 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

Tgt Ion: 164 Resp: 4621

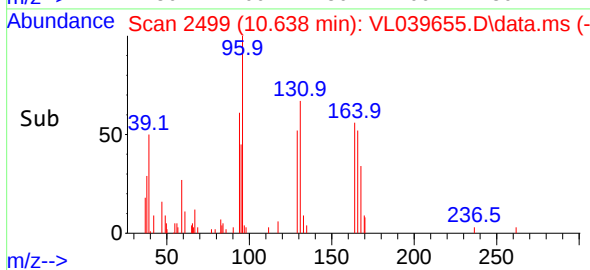
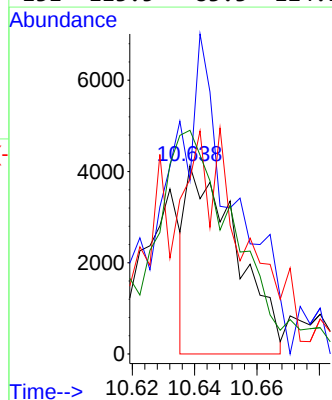
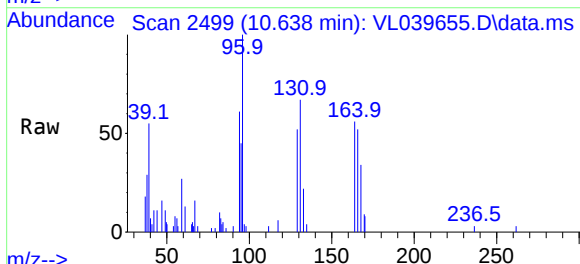
Ion Ratio Lower Upper

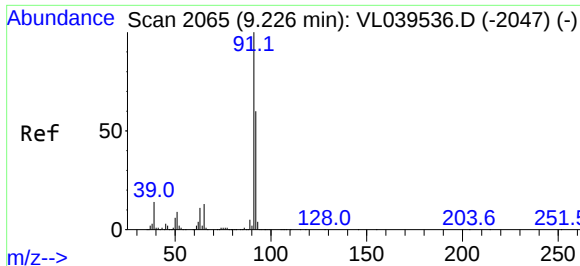
164 100

166 66.2 102.2 153.2#

129 68.3 85.8 128.8#

131 113.5 83.3 124.9





#53

Toluene

Concen: 1.073 ppbv

RT: 9.246 min Scan# 2065

Delta R.T. 0.020 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

Instrument :

MSVOA_L

ClientSampleId :

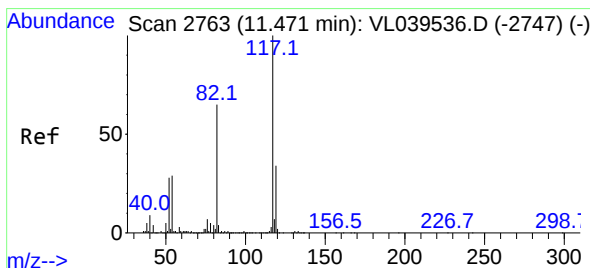
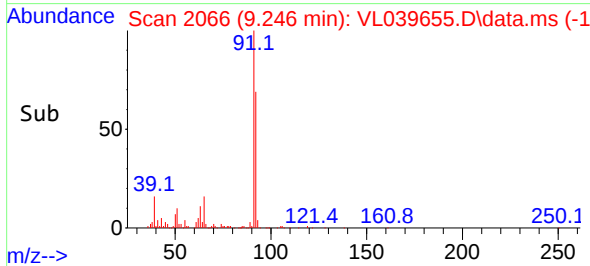
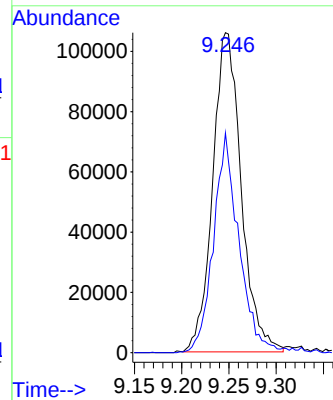
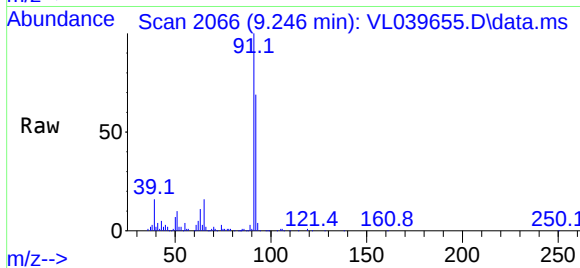
C0PG0

Tgt Ion: 91 Resp: 222739

Ion Ratio Lower Upper

91 100

92 61.8 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.491 min Scan# 2764

Delta R.T. 0.020 min

Lab File: VL039655.D

Acq: 22 Sep 2022 4:15

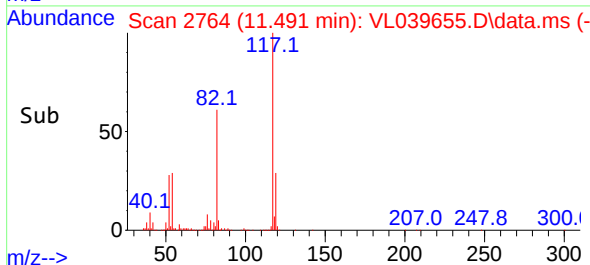
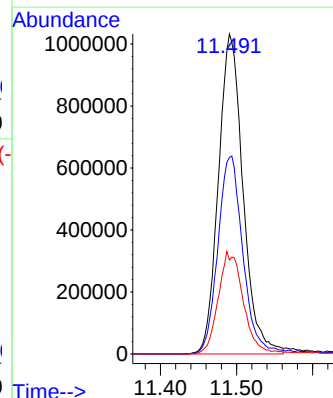
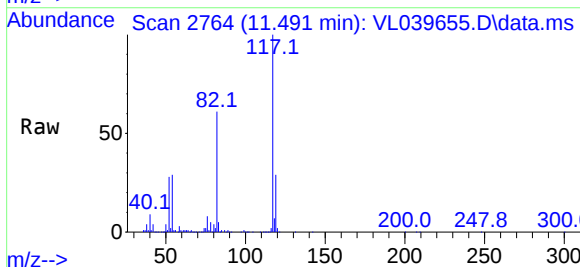
Tgt Ion: 117 Resp: 2314531

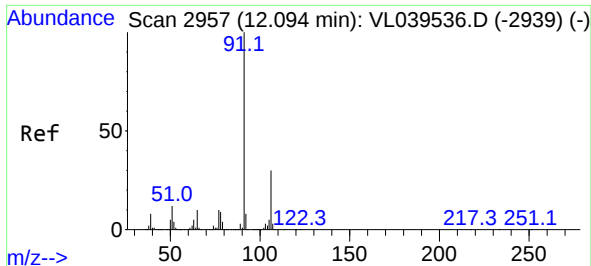
Ion Ratio Lower Upper

117 100

82 64.3 50.8 76.2

119 33.2 24.1 36.1

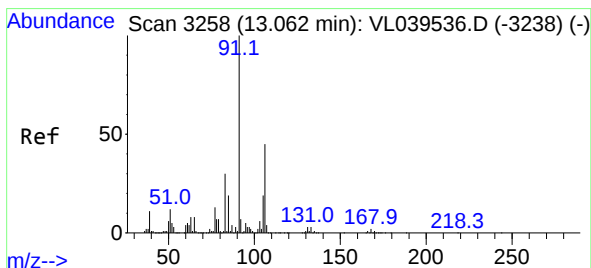
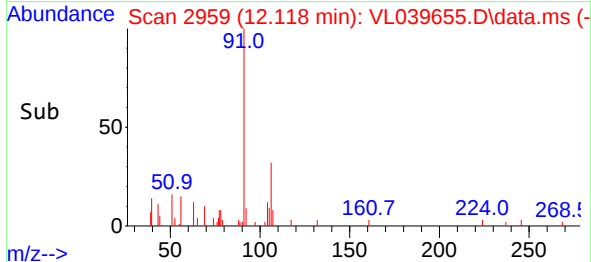
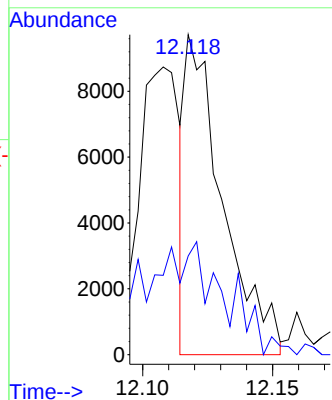
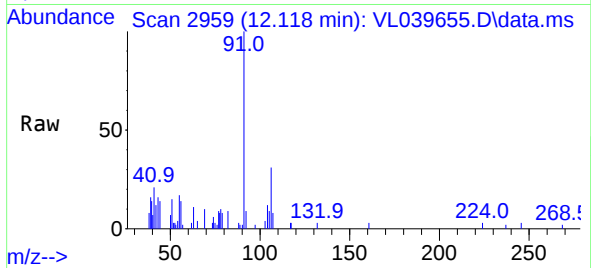




#58
Ethyl Benzene
Concen: 0.037 ppbv
RT: 12.118 min Scan# 2957
Delta R.T. 0.023 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

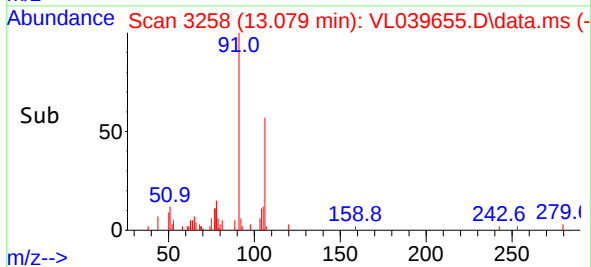
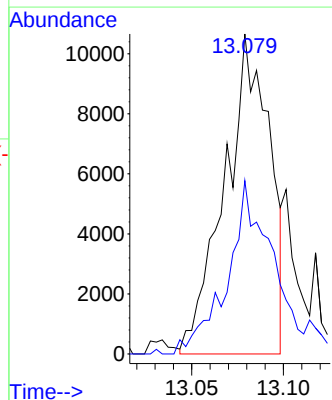
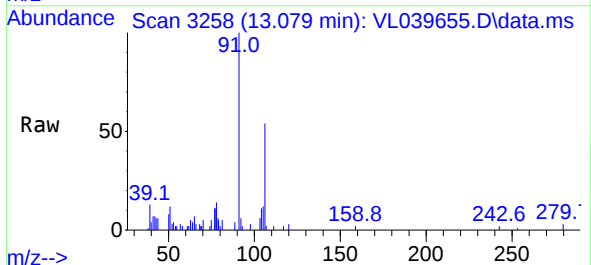
Instrument :
MSVOA_L
ClientSampleId :
C0PG0

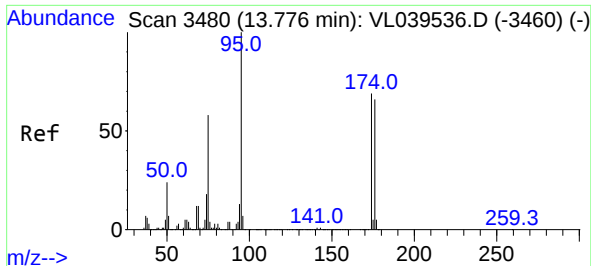
Tgt Ion: 91 Resp: 9752
Ion Ratio Lower Upper
91 100
106 29.3 25.4 38.0



#60
o-Xylene
Concen: 0.080 ppbv
RT: 13.079 min Scan# 3258
Delta R.T. 0.017 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 91 Resp: 18230
Ion Ratio Lower Upper
91 100
106 57.0 22.4 67.3

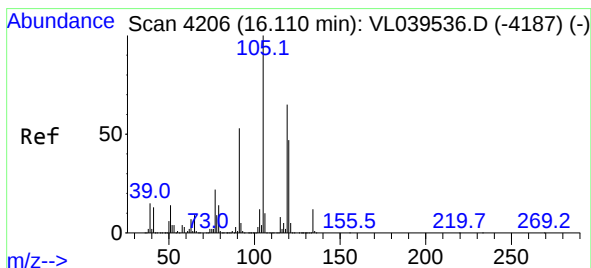
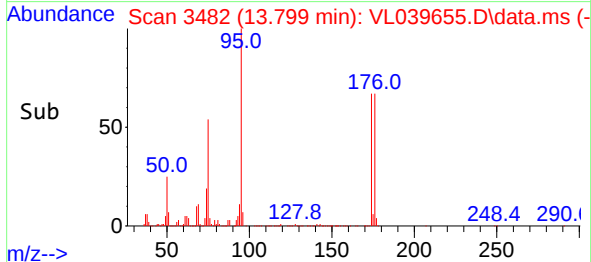
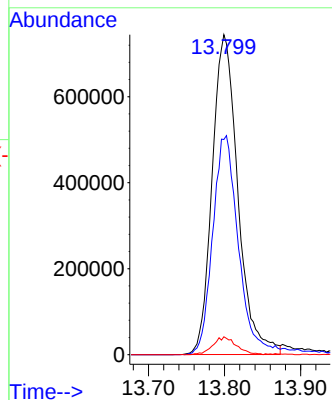
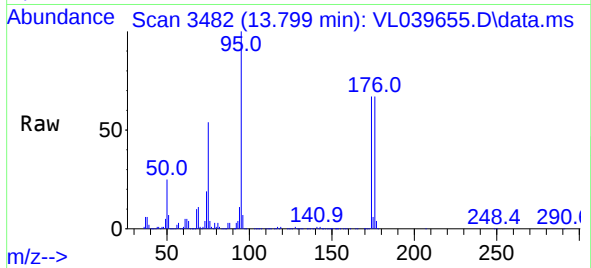




#68
1-Bromo-4-Fluorobenzene
Concen: 10.145 ppbv
RT: 13.799 min Scan# 3482
Delta R.T. 0.023 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

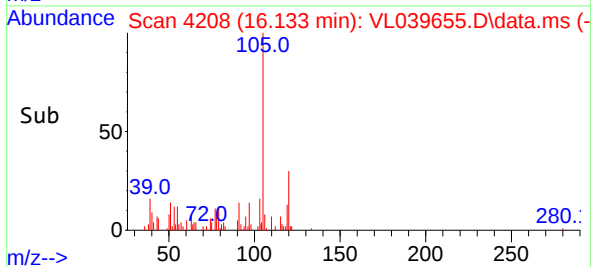
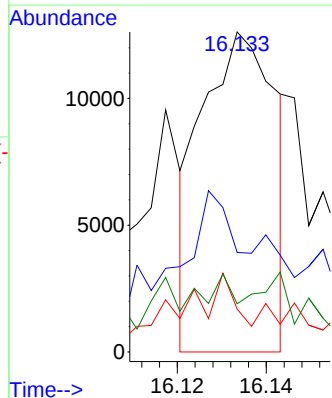
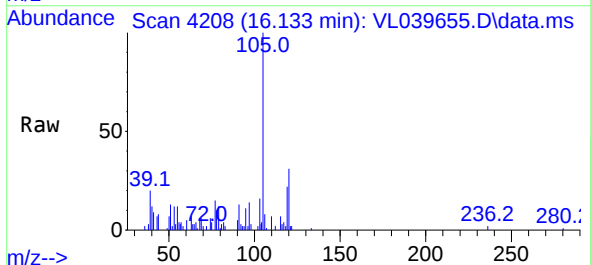
Instrument :
MSVOA_L
ClientSampleId :
C0PG0

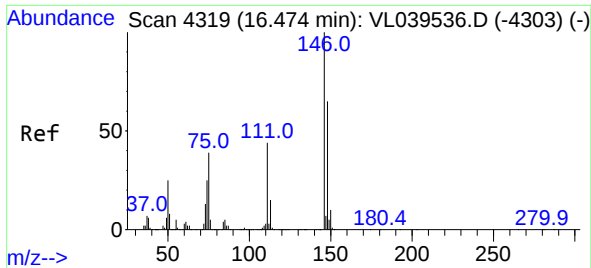
Tgt Ion: 95 Resp: 1752872
Ion Ratio Lower Upper
95 100
174 71.4 55.9 83.9
175 5.1 4.2 6.4



#74
1,2,4-Trimethylbenzene
Concen: 0.055 ppbv
RT: 16.133 min Scan# 4208
Delta R.T. 0.023 min
Lab File: VL039655.D
Acq: 22 Sep 2022 4:15

Tgt Ion: 105 Resp: 14508
Ion Ratio Lower Upper
105 100
120 14.1 39.5 59.3#
91 11.0 39.2 58.8#
77 5.3 17.2 25.8#





#76
 1,4-Dichlorobenzene
 Concen: 0.037 ppbv
 RT: 16.500 min Scan# 41
 Delta R.T. 0.026 min
 Lab File: VL039655.D
 Acq: 22 Sep 2022 4:15

Instrument :
 MSVOA_L
 ClientSampleId :
 C0PG0

Tgt Ion:	146	Resp:	5892
Ion	Ratio	Lower	Upper
146	100		
111	182.1	22.9	68.8#
148	219.8	33.6	100.8#

