

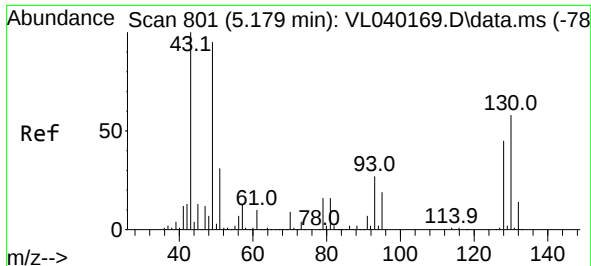
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL021623\
 Data File : VL040187.D
 Acq On : 16 Feb 2023 21:02
 Operator : SY/MD
 Sample : 01550-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-05

Quant Time: Feb 17 03:32:30 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL021523AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Feb 15 17:01:01 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	5.192	49	928356	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.658	114	2424322	10.000	ppbv	0.01
55) Chlorobenzene-d5	11.478	117	2129210	10.000	ppbv	0.01
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.789	95	1625332	9.283	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	92.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.719	85	47092	0.272	ppbv	98
3) Chlorodifluoromethane	2.665	51	33545m	0.302	ppbv	
4) Chloromethane	2.803	50	23166	0.333	ppbv	89
7) Chloroethane	3.189	64	3812	0.172	ppbv	96
9) Propene	2.684	41	1570623	34.744	ppbv	94
10) Heptane	7.584	43	254879	2.369	ppbv #	26
11) Trichlorofluoromethane	3.558	101	30278	0.195	ppbv	100
13) Ethanol	3.250	45	124716	29.968	ppbv	96
15) Acetone	3.459	43	8522505	76.252	ppbv #	85
17) tert-Butyl alcohol	3.893	59	549980	5.396	ppbv	100
19) Isopropyl Alcohol	3.594	45	129141m	2.431	ppbv	
20) Methylene Chloride	3.931	84	246118	4.230	ppbv	92
26) Hexane	5.211	57	665616	7.462	ppbv #	38
27) Carbon Disulfide	4.118	76	104895	0.927	ppbv	94
29) Chloroform	5.275	83	71504	0.467	ppbv	91
30) Cyclohexane	6.603	84	94849	1.354	ppbv	92
34) 2-Butanone	4.787	43	913462	7.638	ppbv	98
35) Carbon Tetrachloride	6.500	117	6221m	0.043	ppbv	
36) Benzene	6.369	78	473890	2.512	ppbv	98
44) 2,2,4-Trimethylpentane	7.333	57	7680888	24.389	ppbv	93
50) 4-Methyl-2-Pentanone	8.198	43	74905	0.403	ppbv	100
51) 2-Hexanone	9.552	43	716038	5.014	ppbv #	83
52) Tetrachloroethene	10.626	164	78000	1.324	ppbv	95
53) Toluene	9.230	91	1156774	5.725	ppbv	99
58) Ethyl Benzene	12.095	91	430751	1.665	ppbv	95
59) m/p-Xylene	12.355	91	1178170	5.142	ppbv	94
60) o-Xylene	13.069	91	520150	2.359	ppbv	98
62) Isopropylbenzene	14.040	105	64043	0.202	ppbv	99
64) n-propylbenzene	14.931	120	33712	0.430	ppbv	85
72) 4-Ethyltoluene	15.204	105	169181	0.694	ppbv	98
73) 1,3,5-Trimethylbenzene	15.362	105	140740	0.621	ppbv	94
74) 1,2,4-Trimethylbenzene	16.114	105	514924	2.067	ppbv #	70

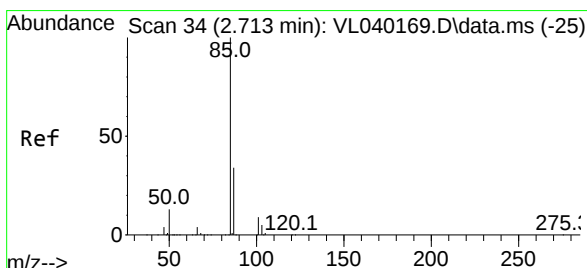
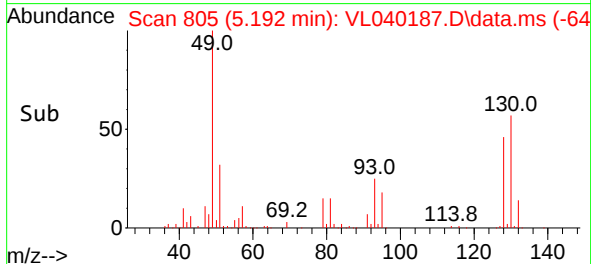
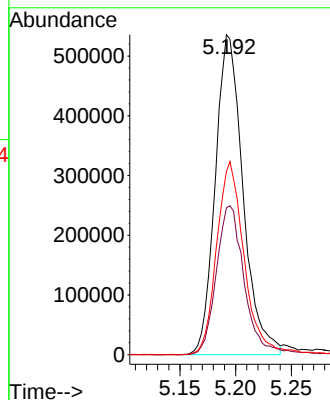
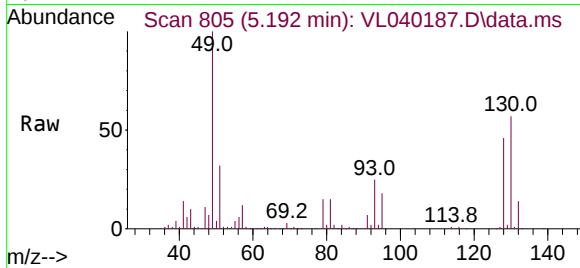
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.192 min Scan# 80
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

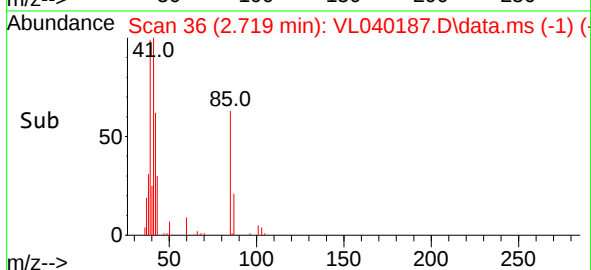
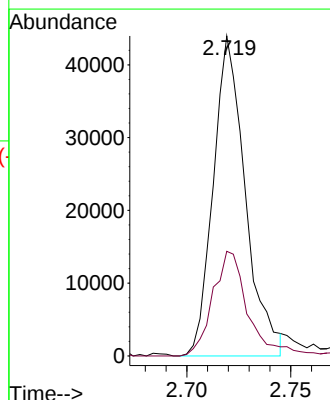
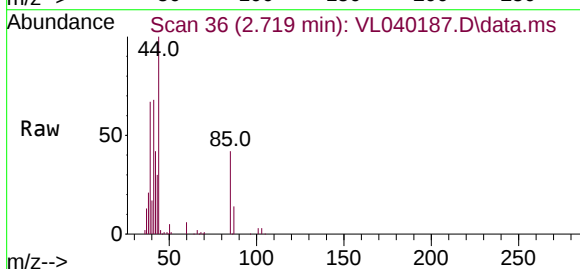
Instrument :
MSVOA_L
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SVP-05

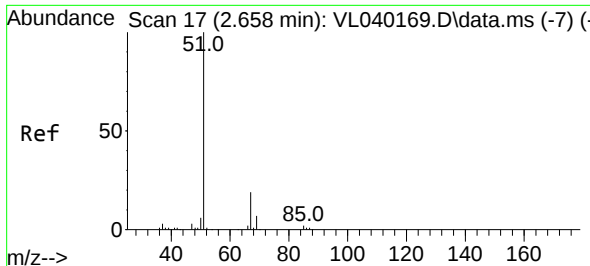
Tgt Ion: 49 Resp: 928356
Ion Ratio Lower Upper
49 100
128 47.6 24.1 72.3
130 61.0 30.9 92.8



#2
Dichlorodifluoromethane
Concen: 0.272 ppbv
RT: 2.719 min Scan# 36
Delta R.T. 0.006 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 85 Resp: 47092
Ion Ratio Lower Upper
85 100
87 32.7 27.0 40.6

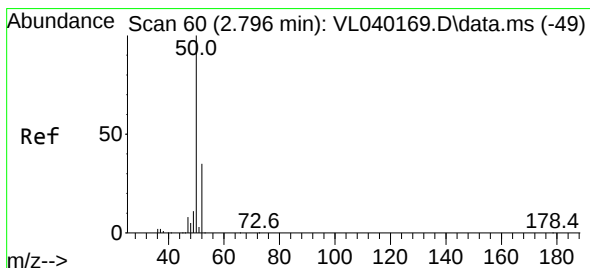
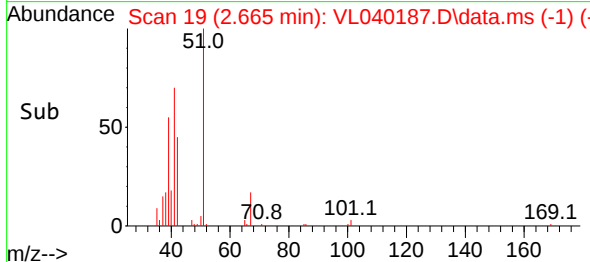
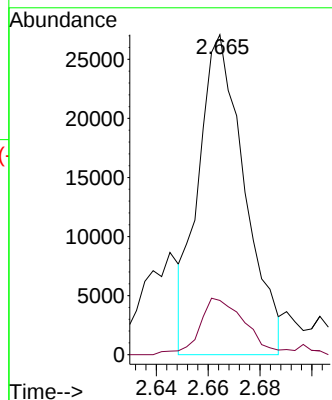
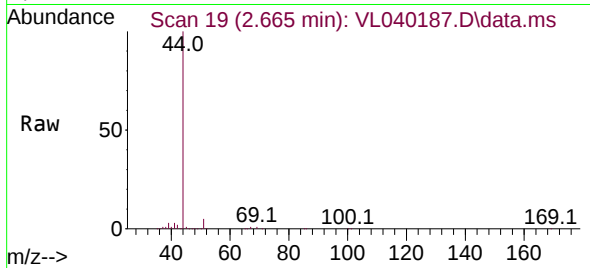




#3
Chlorodifluoromethane
Concen: 0.302 ppbv m
RT: 2.665 min Scan# 19
Delta R.T. 0.006 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

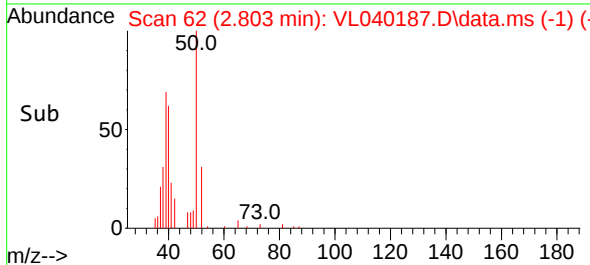
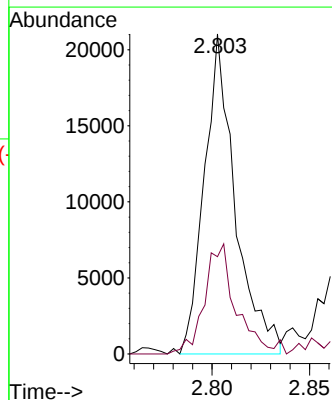
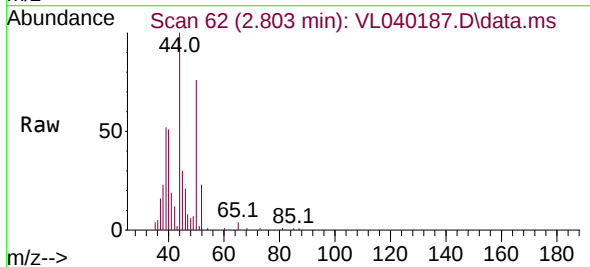
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

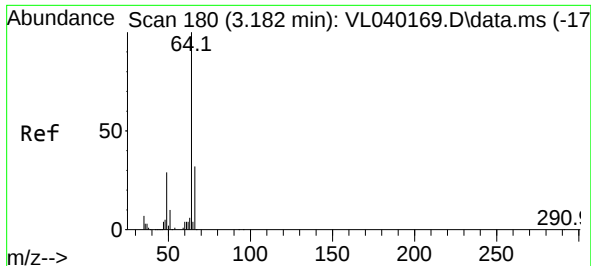
Tgt Ion: 51 Resp: 33545
Ion Ratio Lower Upper
51 100
67 20.2 15.4 23.2



#4
Chloromethane
Concen: 0.333 ppbv
RT: 2.803 min Scan# 62
Delta R.T. 0.006 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 50 Resp: 23166
Ion Ratio Lower Upper
50 100
52 29.0 28.3 42.5

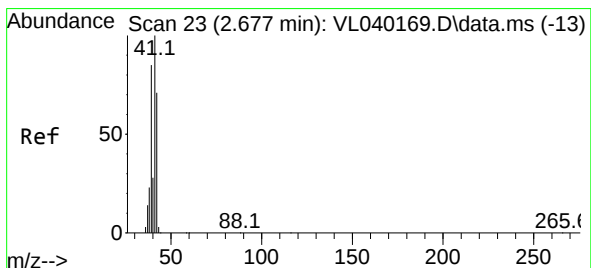
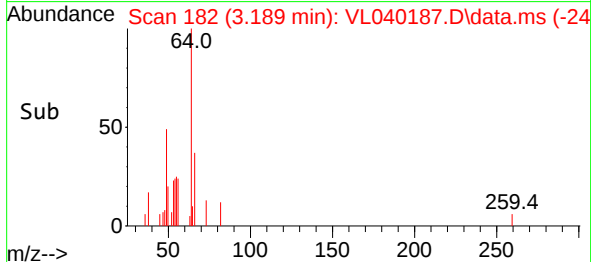
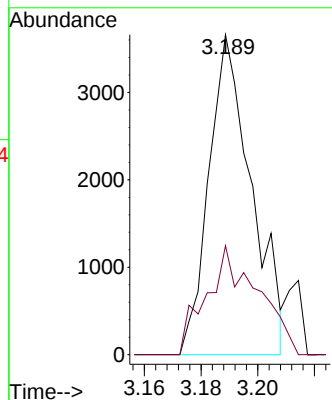
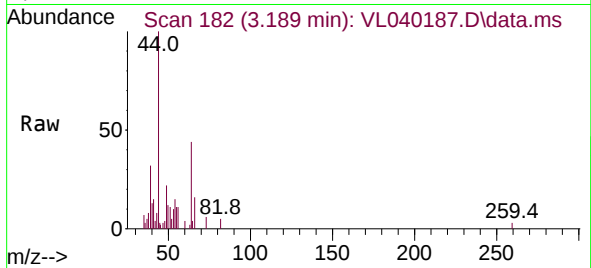




#7
Chloroethane
Concen: 0.172 ppbv
RT: 3.189 min Scan# 11
Delta R.T. 0.006 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

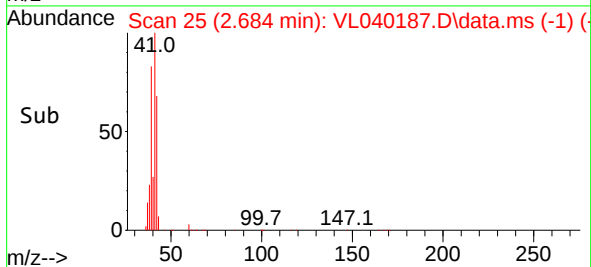
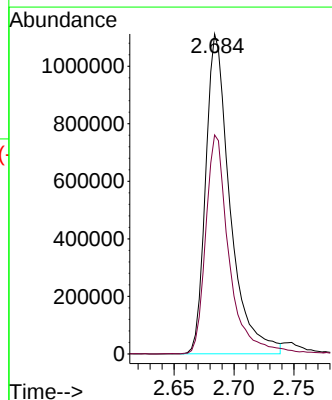
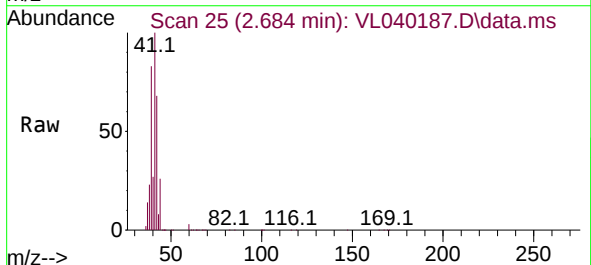
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

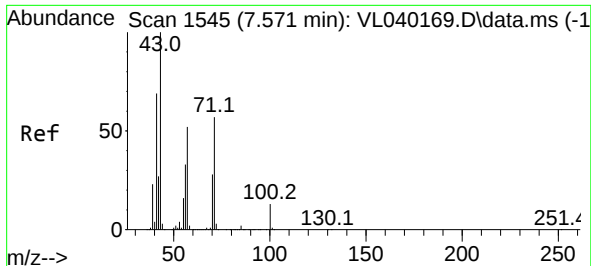
Tgt Ion: 64 Resp: 3812
Ion Ratio Lower Upper
64 100
66 34.0 25.4 38.2



#9
Propene
Concen: 34.744 ppbv
RT: 2.684 min Scan# 25
Delta R.T. 0.006 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 41 Resp: 1570623
Ion Ratio Lower Upper
41 100
42 66.4 56.9 85.3

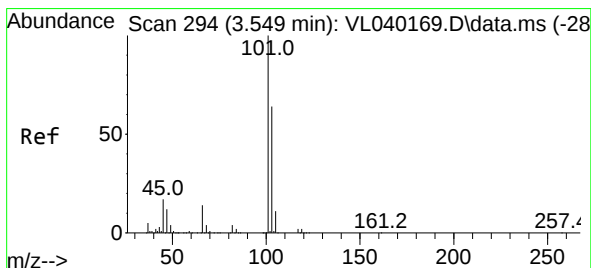
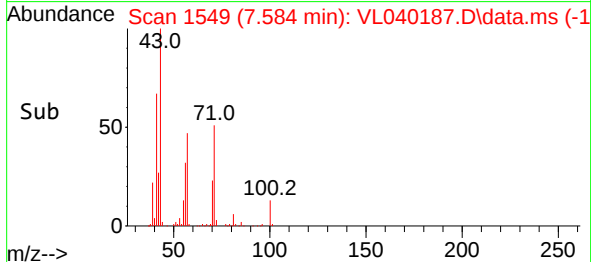
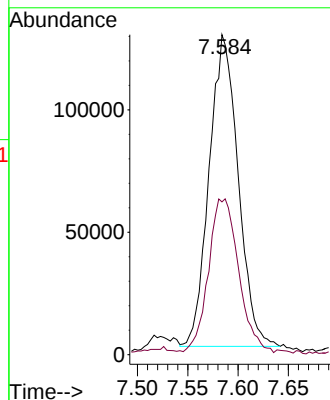
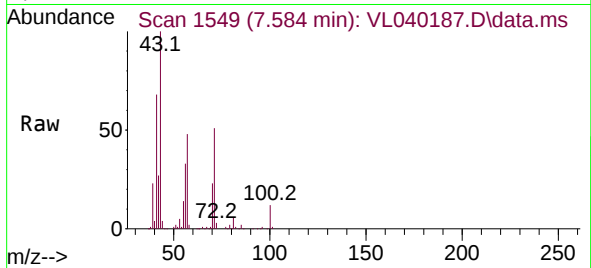




#10
Heptane
Concen: 2.369 ppbv
RT: 7.584 min Scan# 11
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

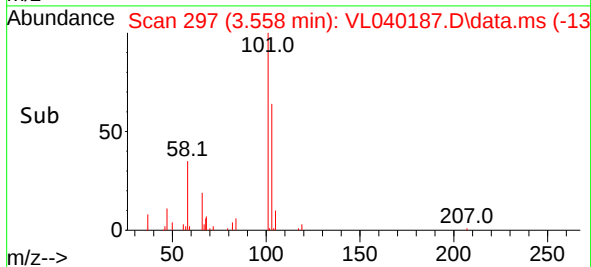
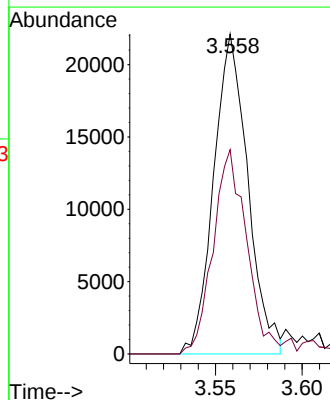
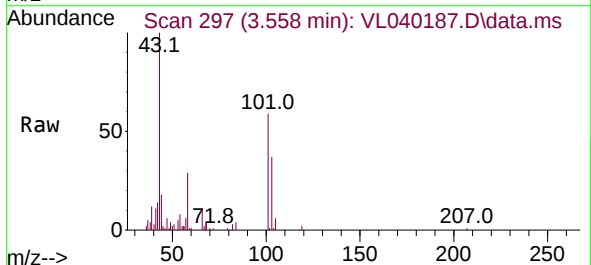
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

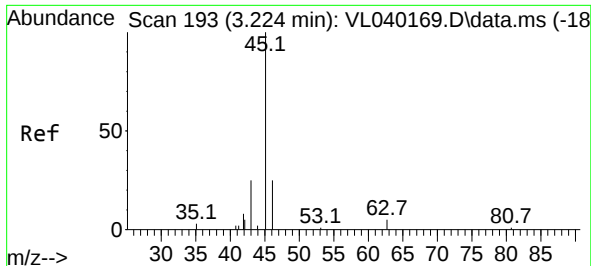
Tgt Ion: 43 Resp: 254879
Ion Ratio Lower Upper
43 100
57 0.0 41.4 62.2#



#11
Trichlorofluoromethane
Concen: 0.195 ppbv
RT: 3.558 min Scan# 297
Delta R.T. 0.010 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion:101 Resp: 30278
Ion Ratio Lower Upper
101 100
103 63.9 51.0 76.6

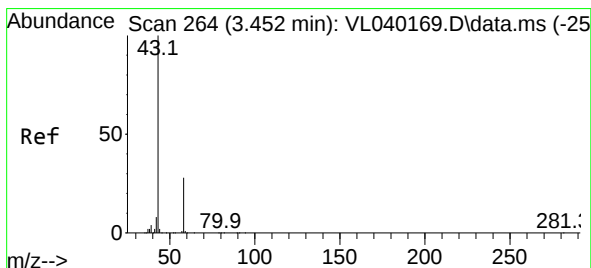
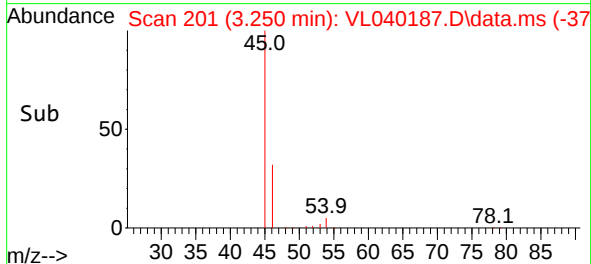
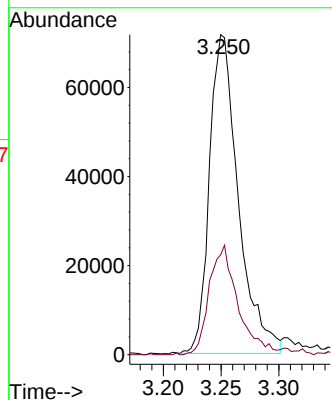
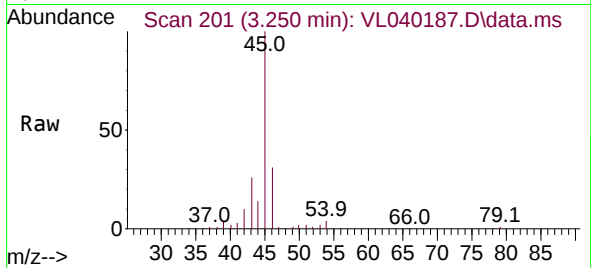




#13
Ethanol
Concen: 29.968 ppbv
RT: 3.250 min Scan# 201
Delta R.T. 0.026 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

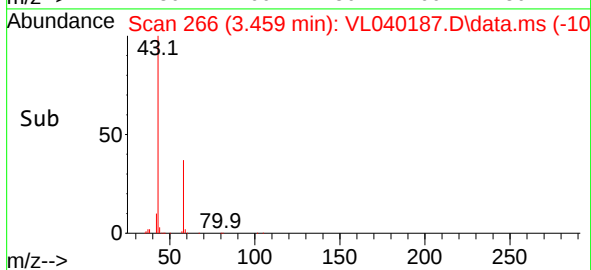
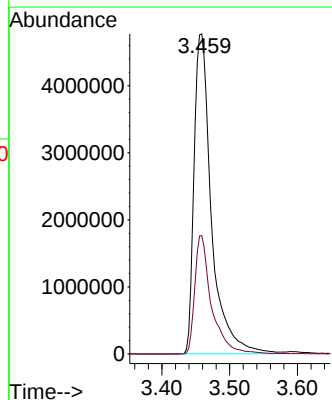
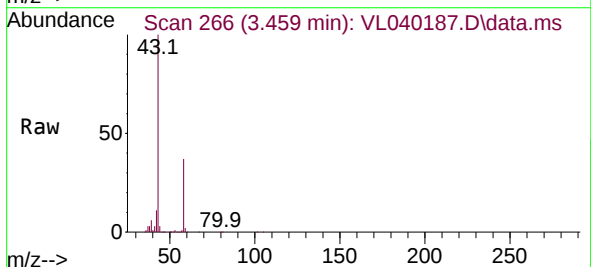
Instrument :
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ClientSampleId :
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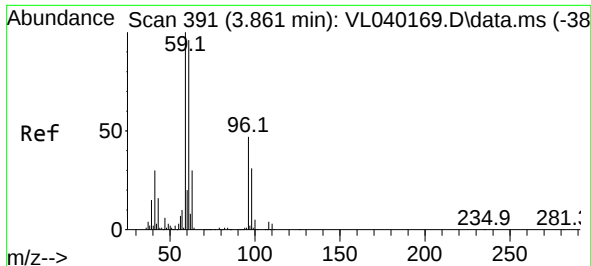
Tgt Ion: 45 Resp: 124716
Ion Ratio Lower Upper
45 100
46 35.4 13.3 53.1



#15
Acetone
Concen: 76.252 ppbv
RT: 3.459 min Scan# 266
Delta R.T. 0.006 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 43 Resp: 8522505
Ion Ratio Lower Upper
43 100
58 35.8 22.4 33.6#

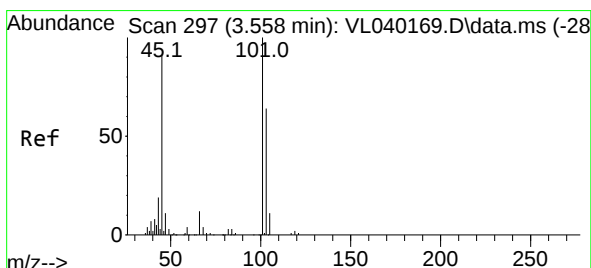
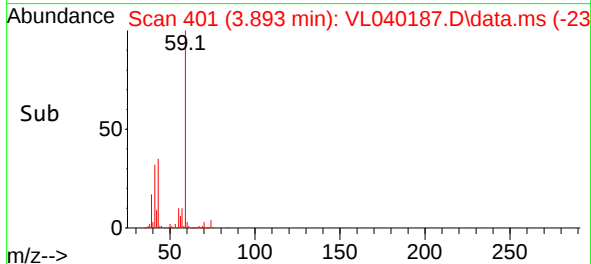
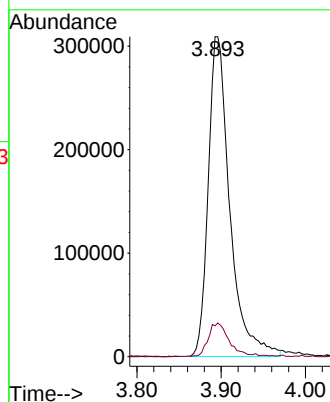
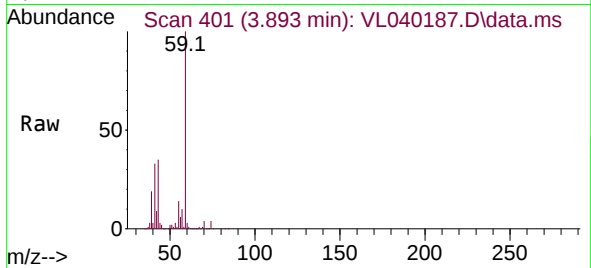




#17
tert-Butyl alcohol
Concen: 5.396 ppbv
RT: 3.893 min Scan# 401
Delta R.T. 0.032 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

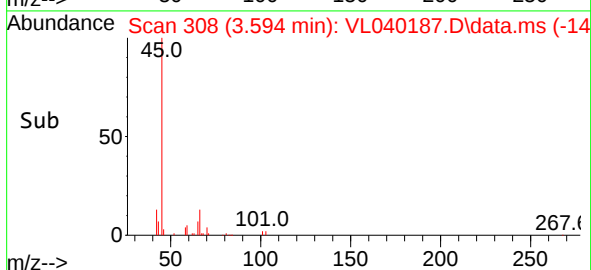
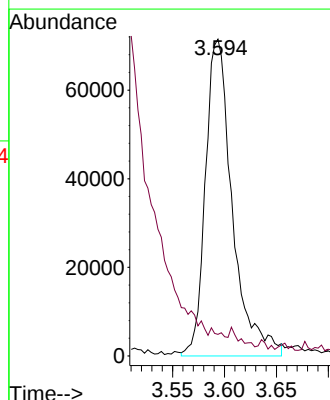
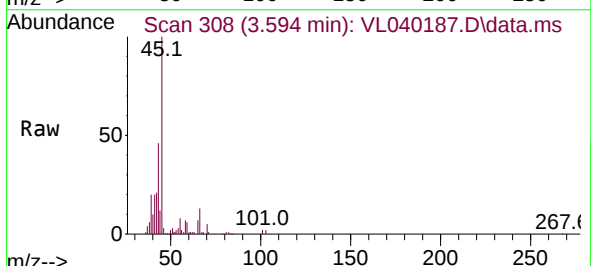
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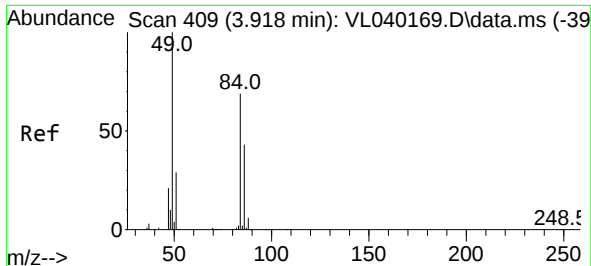
Tgt Ion: 59 Resp: 549980
Ion Ratio Lower Upper
59 100
57 10.7 8.5 12.7



#19
Isopropyl Alcohol
Concen: 2.431 ppbv m
RT: 3.594 min Scan# 308
Delta R.T. 0.035 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 45 Resp: 129141
Ion Ratio Lower Upper
45 100
58 0.0 2.6 3.8#



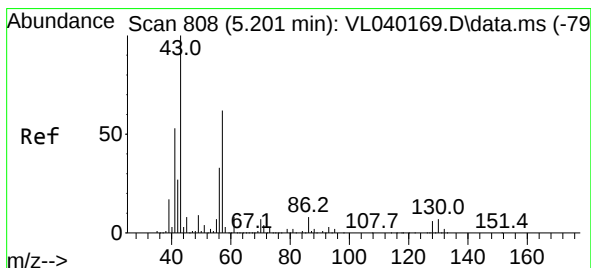
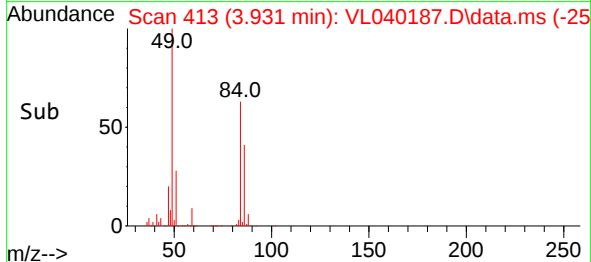
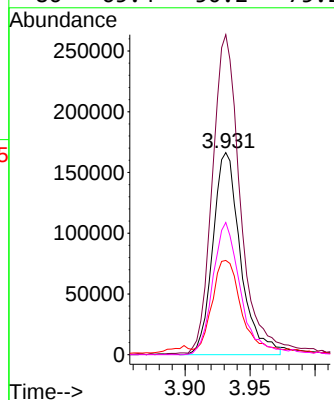
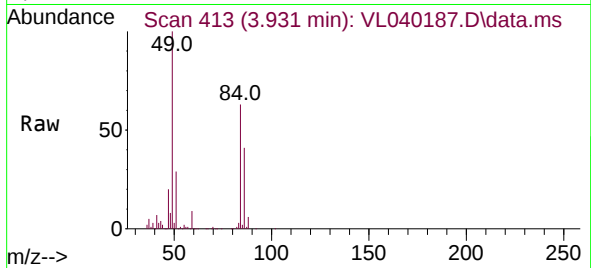


#20
Methylene Chloride
Concen: 4.230 ppbv
RT: 3.931 min Scan# 413
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Instrument :
MSVOA_L
ClientSampleId :
SVP-05

Tgt Ion: 84 Resp: 246118

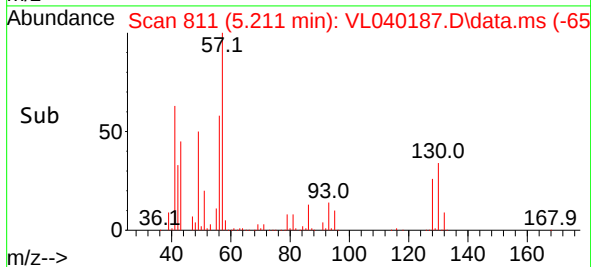
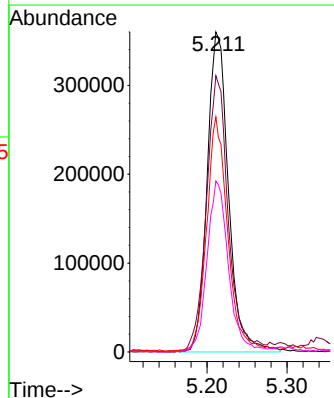
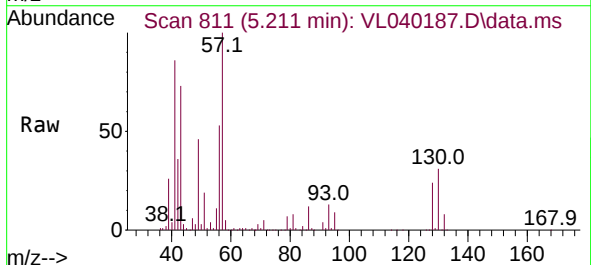
Ion	Ratio	Lower	Upper
84	100		
49	157.5	115.5	173.3
51	43.9	33.1	49.7
86	65.4	50.2	75.2

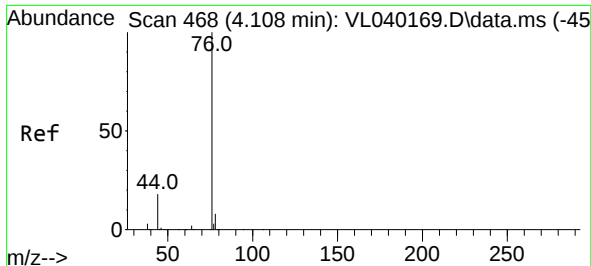


#26
Hexane
Concen: 7.462 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.010 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 57 Resp: 665616

Ion	Ratio	Lower	Upper
57	100		
41	91.4	74.3	111.5
43	72.5	193.0	289.4#
56	54.0	42.6	64.0

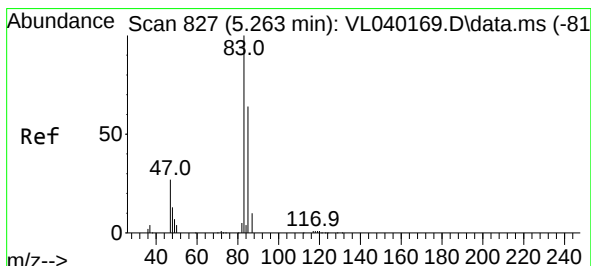
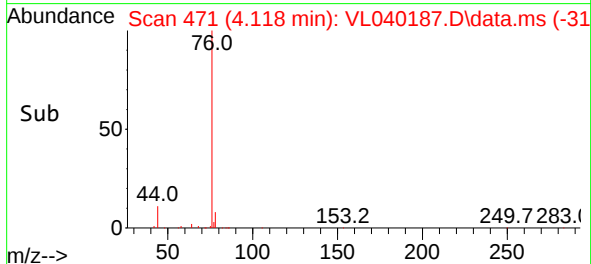
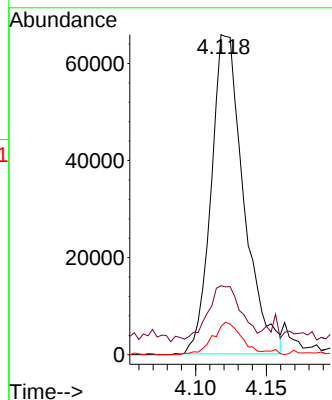
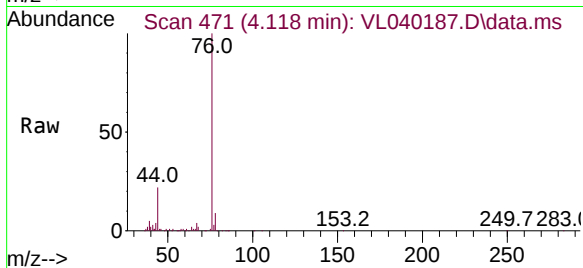




#27
Carbon Disulfide
Concen: 0.927 ppbv
RT: 4.118 min Scan# 41
Delta R.T. 0.010 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

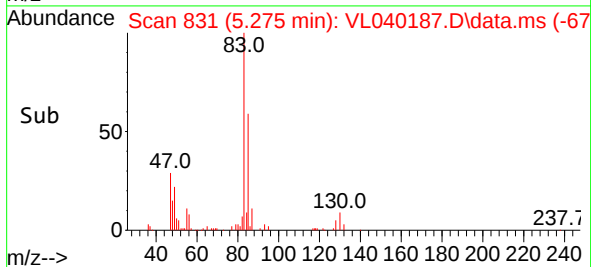
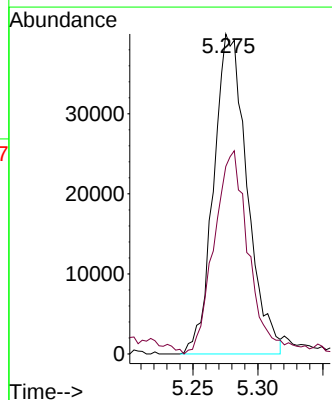
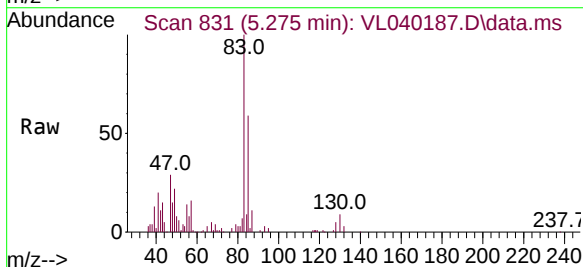
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

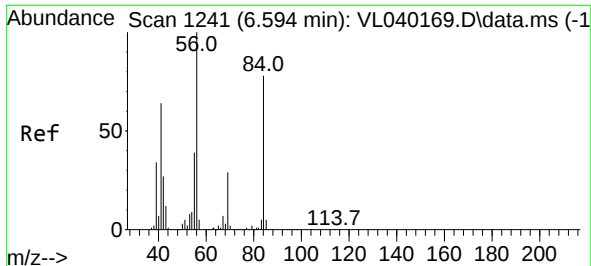
Tgt Ion: 76 Resp: 104895
Ion Ratio Lower Upper
76 100
44 15.6 15.3 22.9
78 10.1 7.7 11.5



#29
Chloroform
Concen: 0.467 ppbv
RT: 5.275 min Scan# 831
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 83 Resp: 71504
Ion Ratio Lower Upper
83 100
85 57.1 51.5 77.3

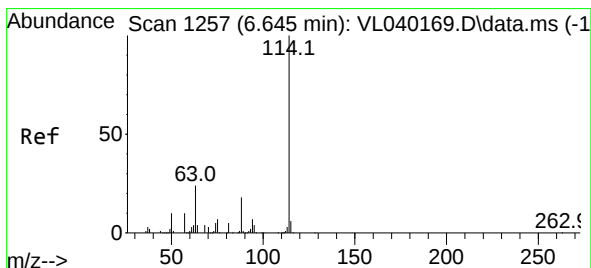
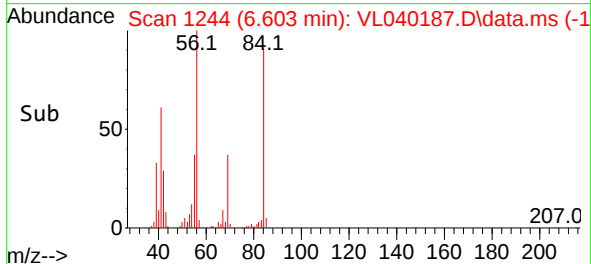
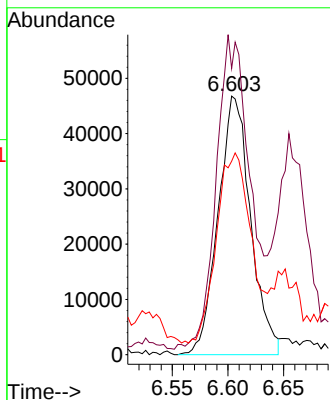
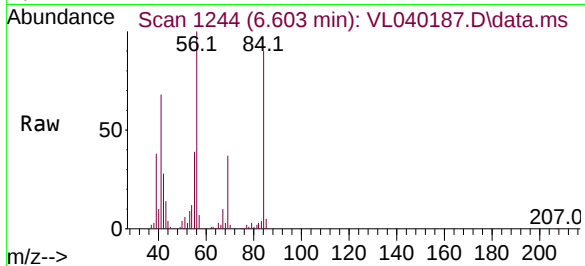




#30
Cyclohexane
Concen: 1.354 ppbv
RT: 6.603 min Scan# 1244
Delta R.T. 0.010 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

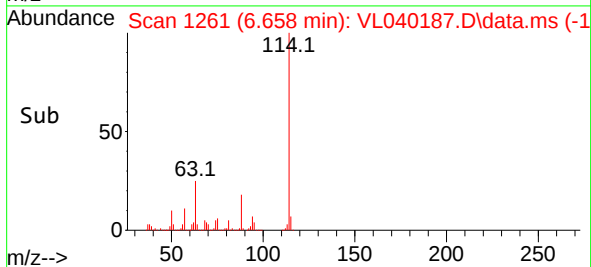
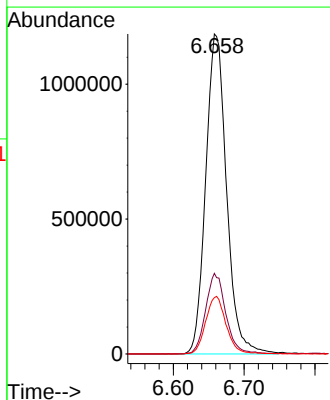
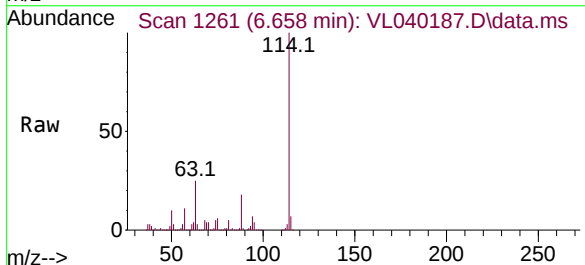
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

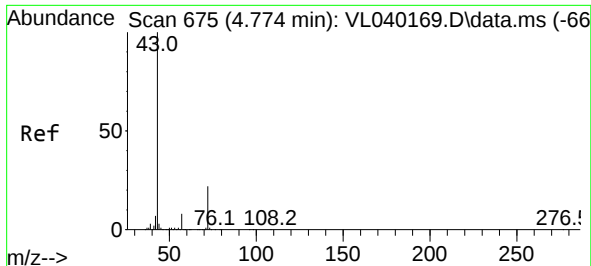
Tgt Ion: 84 Resp: 94849
Ion Ratio Lower Upper
84 100
56 131.2 109.9 164.9
41 97.3 67.8 101.6



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.658 min Scan# 1261
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 114 Resp: 2424322
Ion Ratio Lower Upper
114 100
63 24.6 20.4 30.6
88 17.7 14.3 21.5

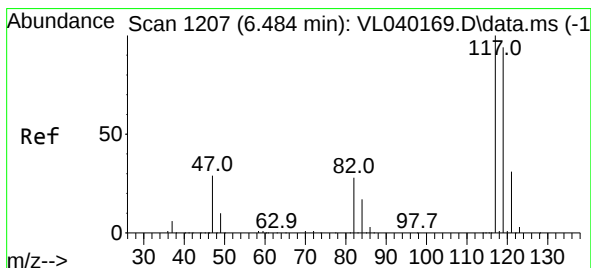
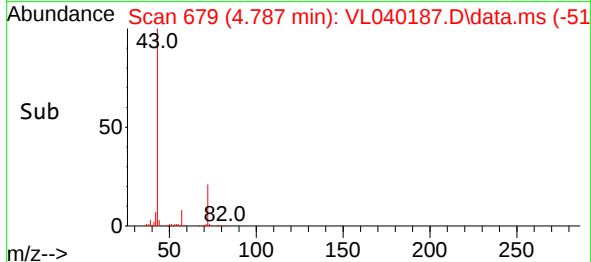
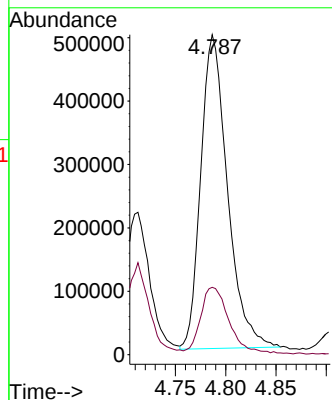
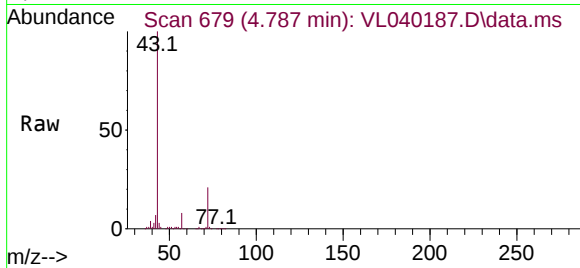




#34
2-Butanone
Concen: 7.638 ppbv
RT: 4.787 min Scan# 61
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

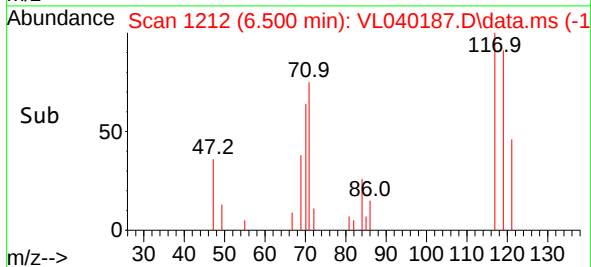
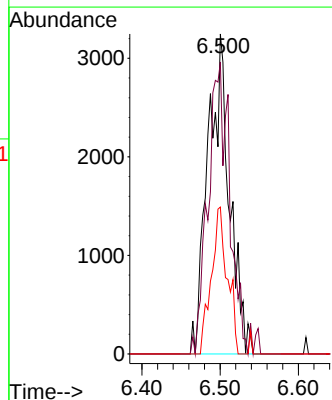
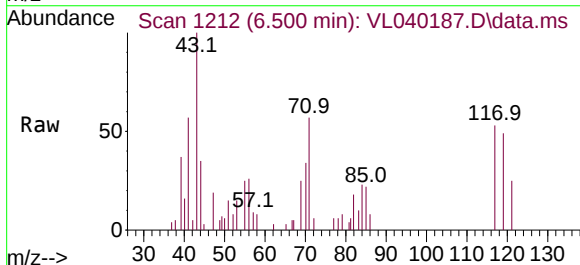
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

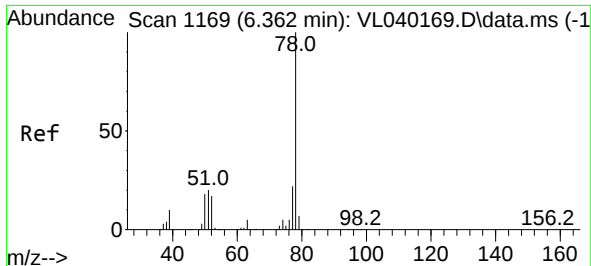
Tgt Ion: 43 Resp: 913462
Ion Ratio Lower Upper
43 100
72 23.1 17.8 26.8



#35
Carbon Tetrachloride
Concen: 0.043 ppbv m
RT: 6.500 min Scan# 1212
Delta R.T. 0.016 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 117 Resp: 6221
Ion Ratio Lower Upper
117 100
119 91.3 75.0 112.6
121 45.9 25.0 37.4#





#36

Benzene

Concen: 2.512 ppbv

RT: 6.369 min Scan# 1169

Delta R.T. 0.006 min

Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

Instrument :

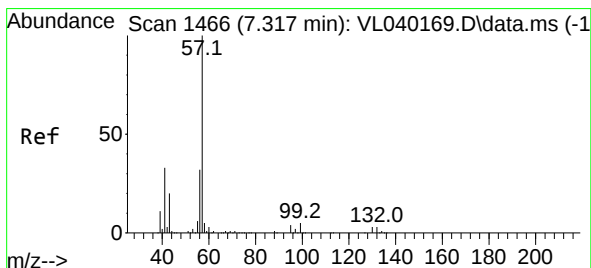
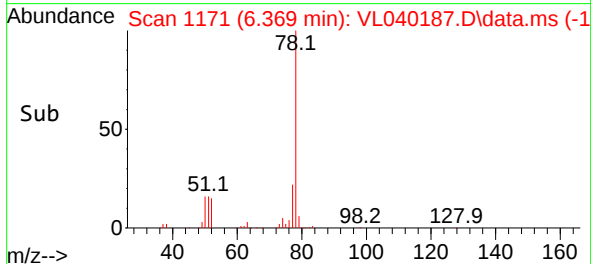
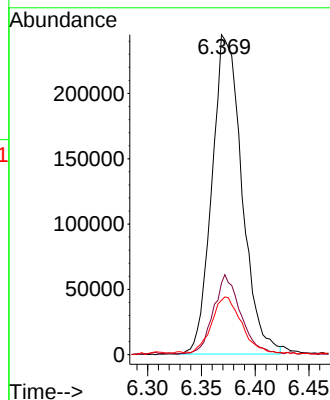
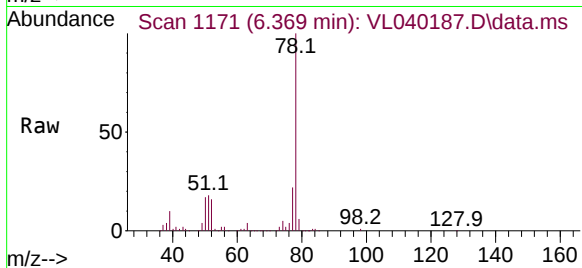
MSVOA_L

ClientSampleId :

SVP-05

Tgt Ion: 78 Resp: 473890

Ion	Ratio	Lower	Upper
78	100		
77	22.0	17.5	26.3
50	16.3	14.6	22.0



#44

2,2,4-Trimethylpentane

Concen: 24.389 ppbv

RT: 7.333 min Scan# 1471

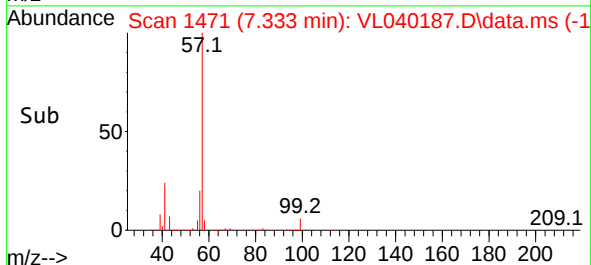
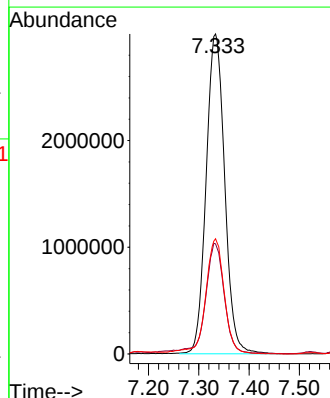
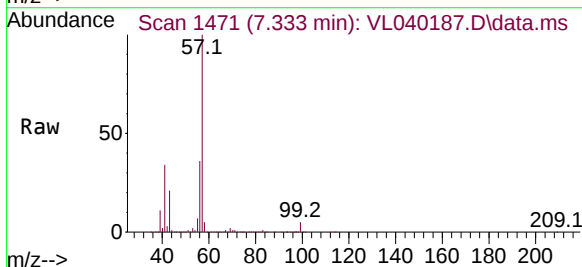
Delta R.T. 0.016 min

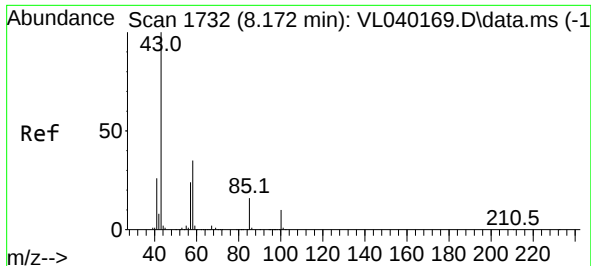
Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

Tgt Ion: 57 Resp: 7680888

Ion	Ratio	Lower	Upper
57	100		
41	35.6	26.2	39.4
56	36.5	24.9	37.3





#50

4-Methyl-2-Pentanone

Concen: 0.403 ppbv

RT: 8.198 min Scan# 1

Delta R.T. 0.026 min

Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

Instrument :

MSVOA_L

ClientSampleId :

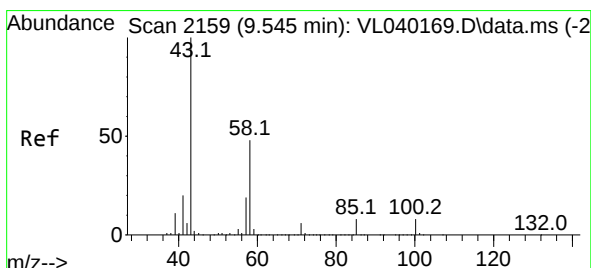
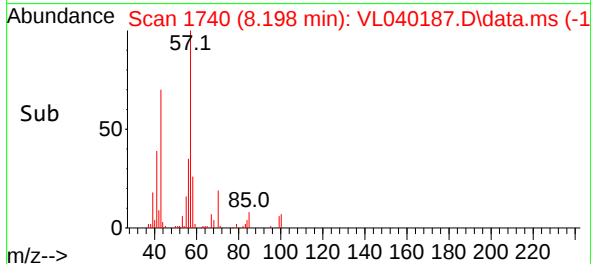
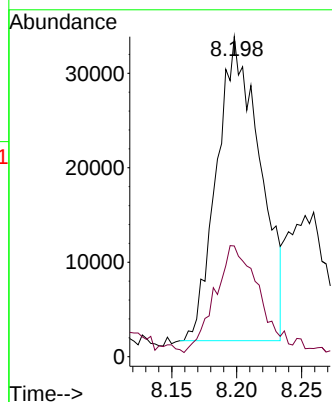
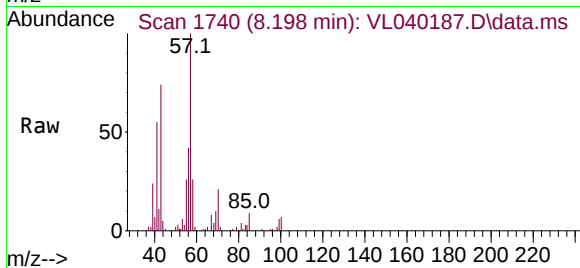
SVP-05

Tgt Ion: 43 Resp: 74905

Ion Ratio Lower Upper

43 100

58 36.8 29.2 43.8



#51

2-Hexanone

Concen: 5.014 ppbv

RT: 9.552 min Scan# 2161

Delta R.T. 0.006 min

Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

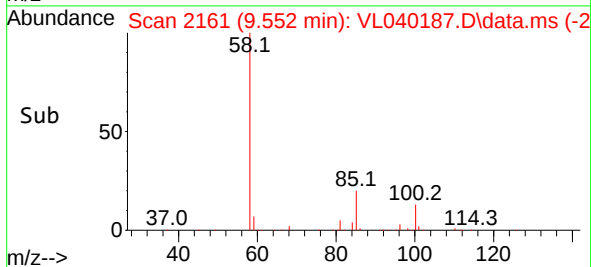
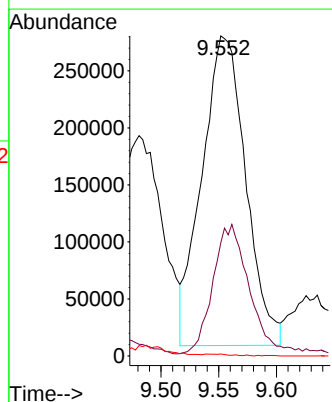
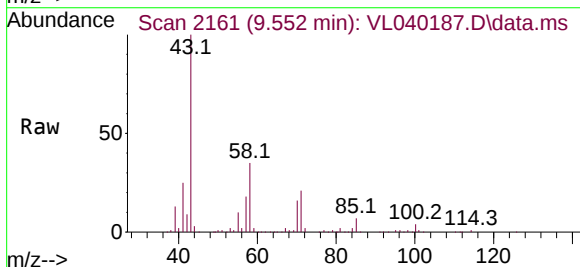
Tgt Ion: 43 Resp: 716038

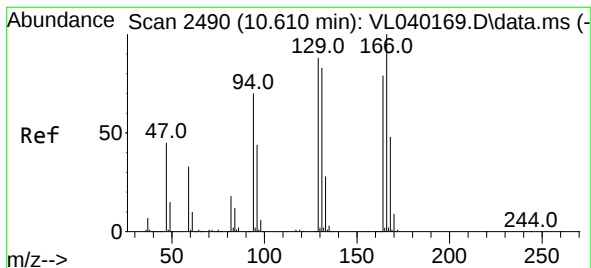
Ion Ratio Lower Upper

43 100

58 37.1 39.1 58.7#

98 0.4 0.2 0.4#





#52

Tetrachloroethene

Concen: 1.324 ppbv

RT: 10.626 min Scan# 2495

Delta R.T. 0.016 min

Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

Instrument :

MSVOA_L

ClientSampleId :

SVP-05

Tgt Ion:164 Resp: 78000

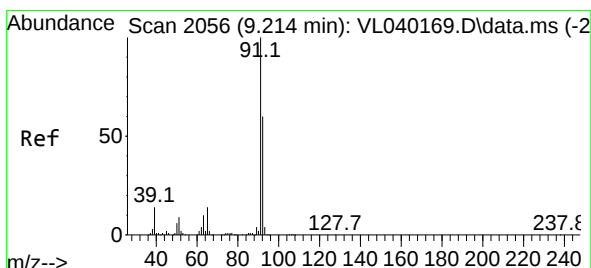
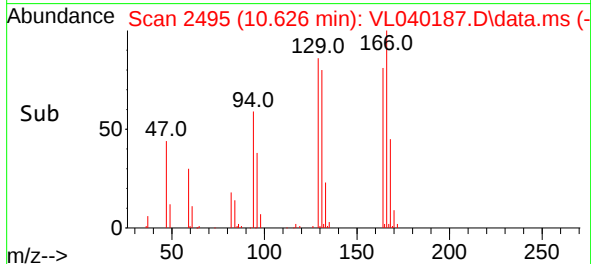
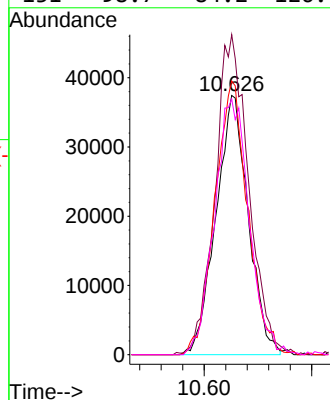
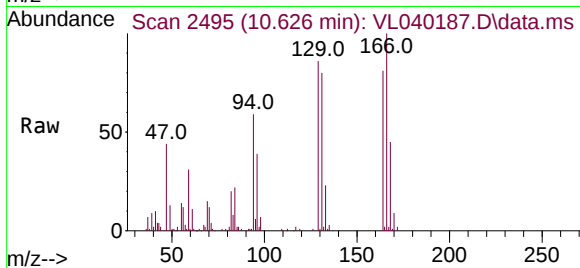
Ion Ratio Lower Upper

164 100

166 122.9 101.5 152.3

129 105.6 89.0 133.4

131 98.7 84.2 126.4



#53

Toluene

Concen: 5.725 ppbv

RT: 9.230 min Scan# 2061

Delta R.T. 0.016 min

Lab File: VL040187.D

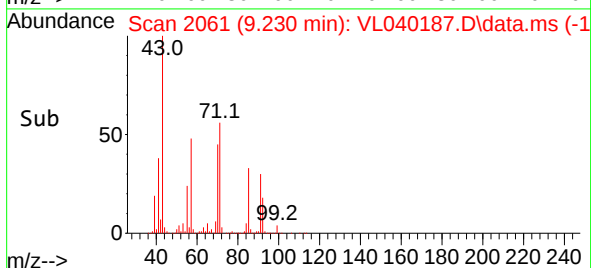
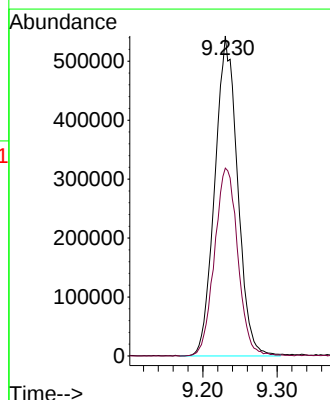
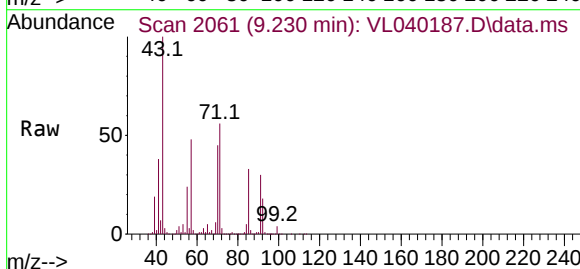
Acq: 16 Feb 2023 21:02

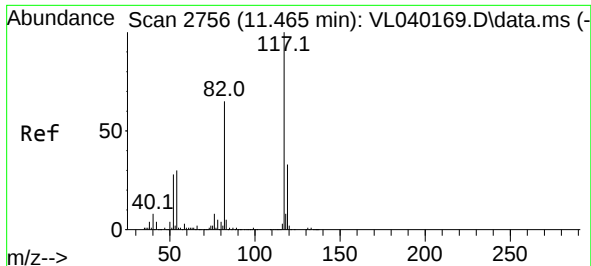
Tgt Ion: 91 Resp: 1156774

Ion Ratio Lower Upper

91 100

92 60.2 48.9 73.3

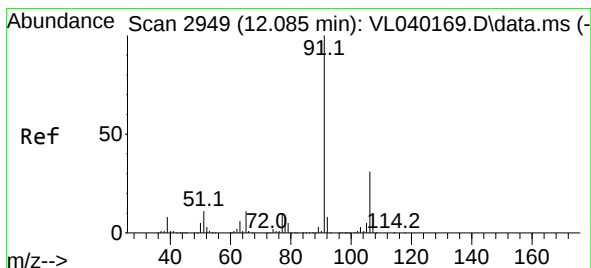
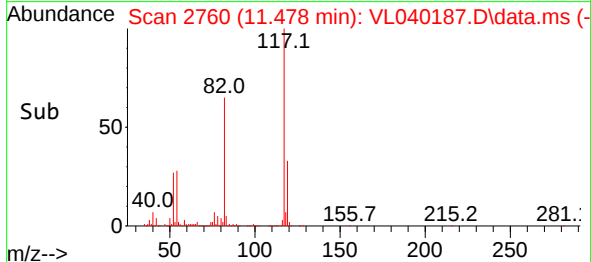
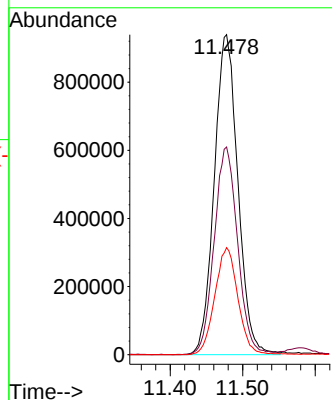
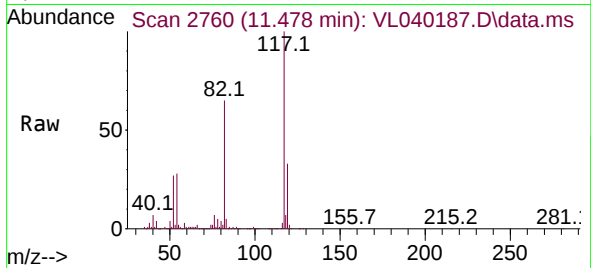




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.478 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

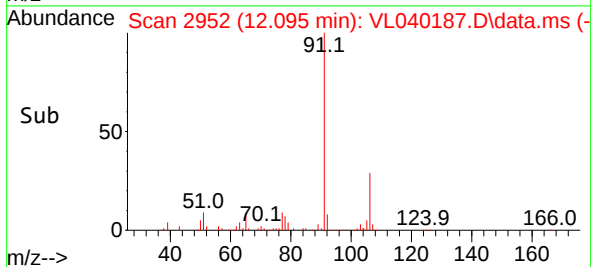
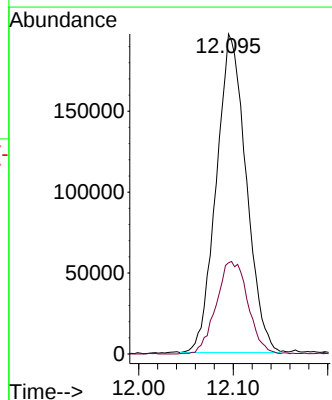
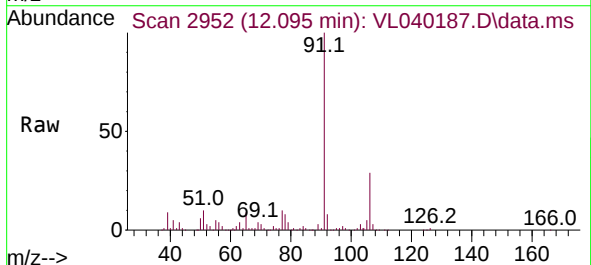
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

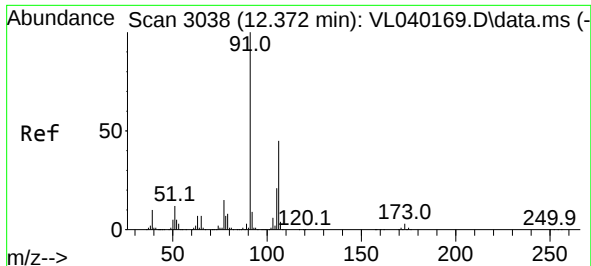
Tgt Ion:117 Resp: 2129210
Ion Ratio Lower Upper
117 100
82 64.3 53.3 79.9
119 33.0 24.6 37.0



#58
Ethyl Benzene
Concen: 1.665 ppbv
RT: 12.095 min Scan# 2952
Delta R.T. 0.010 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 91 Resp: 430751
Ion Ratio Lower Upper
91 100
106 28.5 24.9 37.3





#59

m/p-Xylene

Concen: 5.142 ppbv

RT: 12.355 min Scan# 3033

Delta R.T. -0.016 min

Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

Instrument :

MSVOA_L

ClientSampleId :

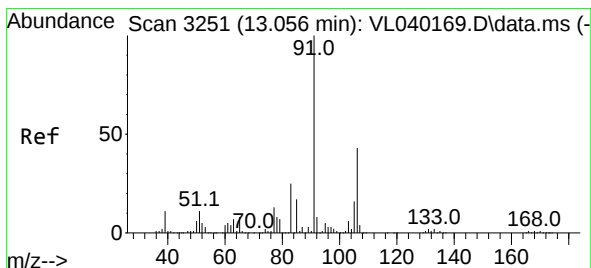
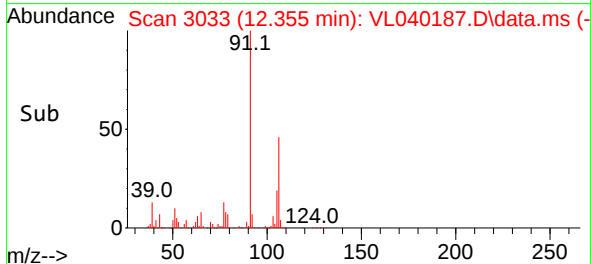
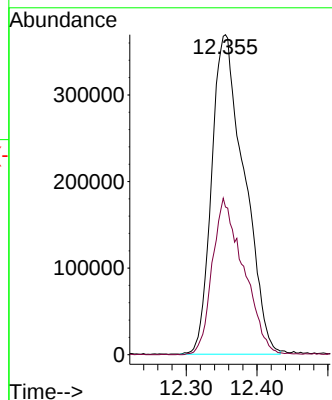
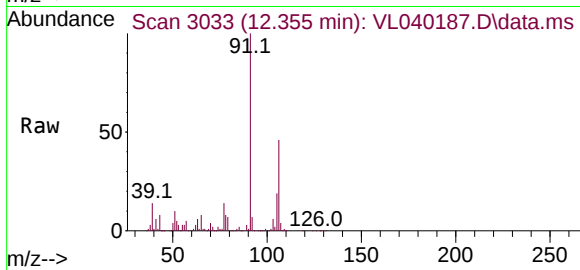
SVP-05

Tgt Ion: 91 Resp: 1178170

Ion Ratio Lower Upper

91 100

106 47.3 34.6 51.8



#60

o-Xylene

Concen: 2.359 ppbv

RT: 13.069 min Scan# 3255

Delta R.T. 0.013 min

Lab File: VL040187.D

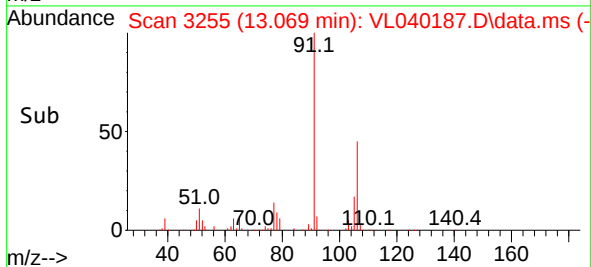
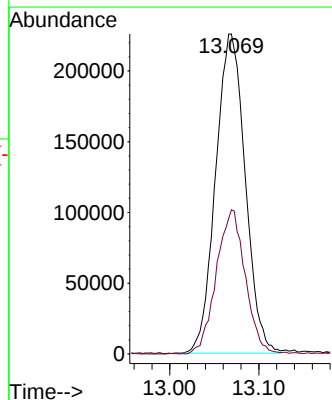
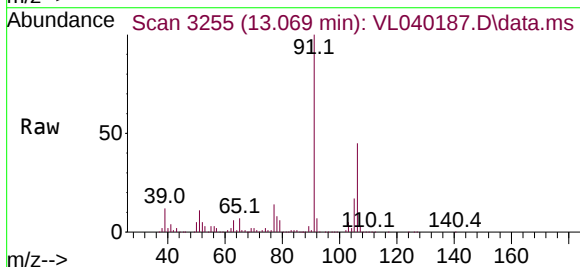
Acq: 16 Feb 2023 21:02

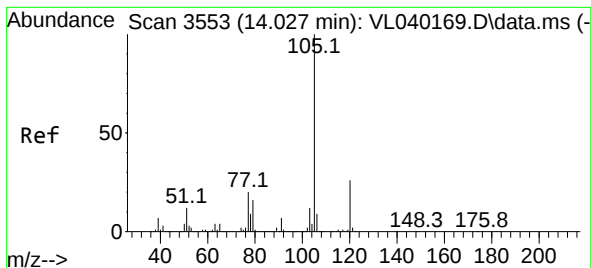
Tgt Ion: 91 Resp: 520150

Ion Ratio Lower Upper

91 100

106 44.5 21.6 65.0





#62

Isopropylbenzene

Concen: 0.202 ppbv

RT: 14.040 min Scan# 3553

Delta R.T. 0.013 min

Lab File: VL040187.D

Acq: 16 Feb 2023 21:02

Instrument :

MSVOA_L

ClientSampleId :

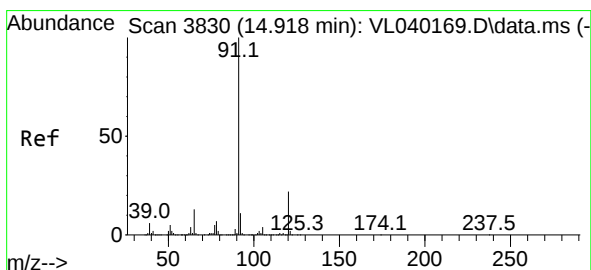
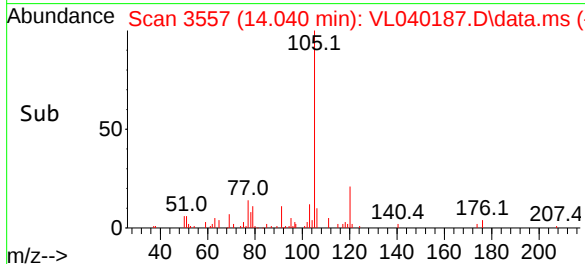
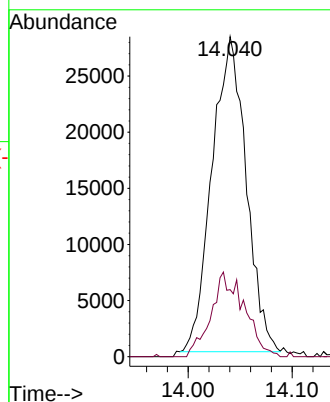
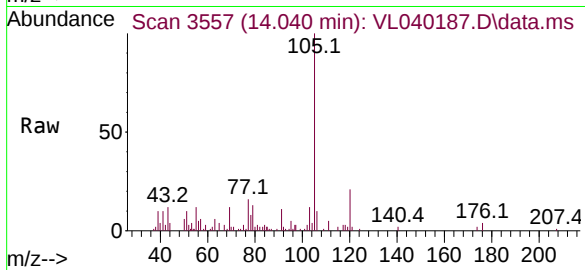
SVP-05

Tgt Ion:105 Resp: 64043

Ion Ratio Lower Upper

105 100

120 26.2 20.3 30.5



#64

n-propylbenzene

Concen: 0.430 ppbv

RT: 14.931 min Scan# 3834

Delta R.T. 0.013 min

Lab File: VL040187.D

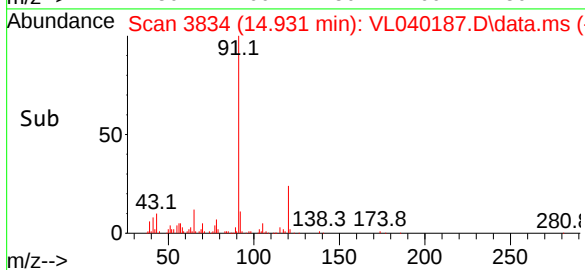
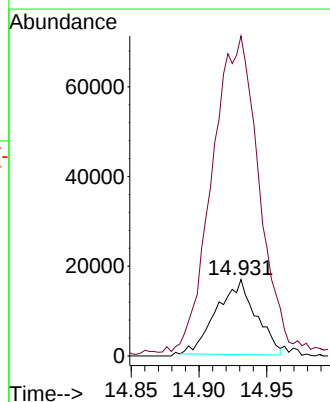
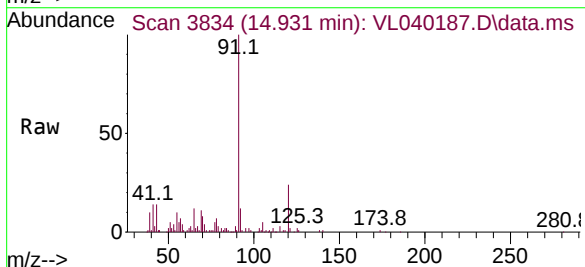
Acq: 16 Feb 2023 21:02

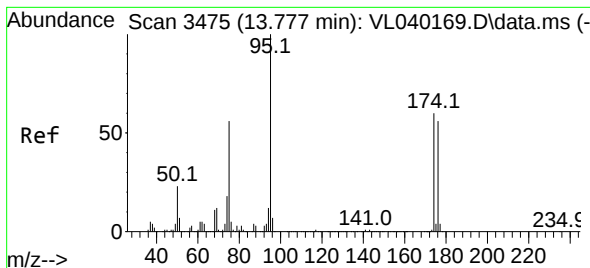
Tgt Ion:120 Resp: 33712

Ion Ratio Lower Upper

120 100

91 529.0 389.8 584.8

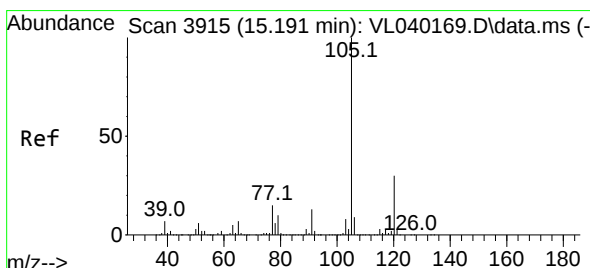
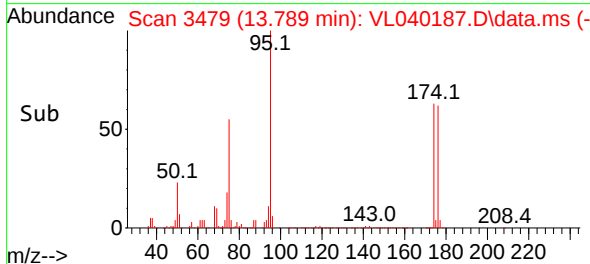
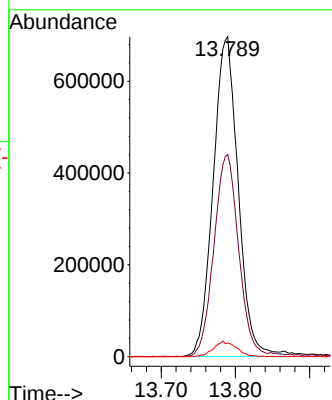
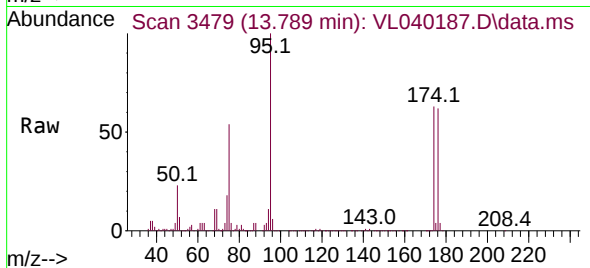




#68
1-Bromo-4-Fluorobenzene
Concen: 9.283 ppbv
RT: 13.789 min Scan# 3479
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

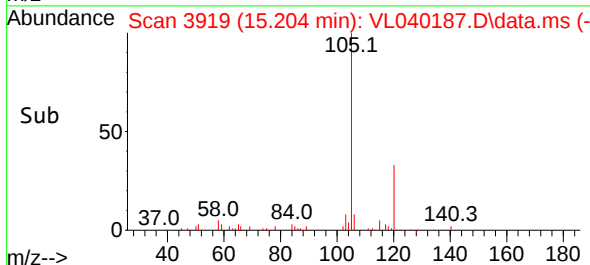
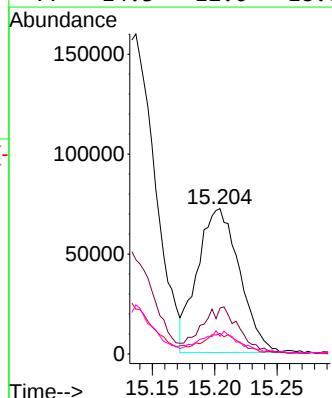
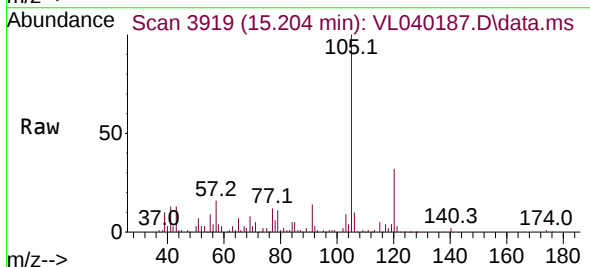
Instrument :
MSVOA_L
ClientSampleId :
SVP-05

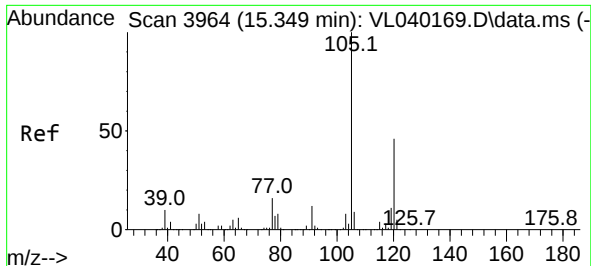
Tgt Ion: 95 Resp: 1625332
Ion Ratio Lower Upper
95 100
174 63.8 48.2 72.2
175 4.5 3.4 5.2



#72
4-Ethyltoluene
Concen: 0.694 ppbv
RT: 15.204 min Scan# 3919
Delta R.T. 0.013 min
Lab File: VL040187.D
Acq: 16 Feb 2023 21:02

Tgt Ion: 105 Resp: 169181
Ion Ratio Lower Upper
105 100
120 29.3 23.2 34.8
91 11.9 11.3 16.9
77 14.3 12.0 18.0

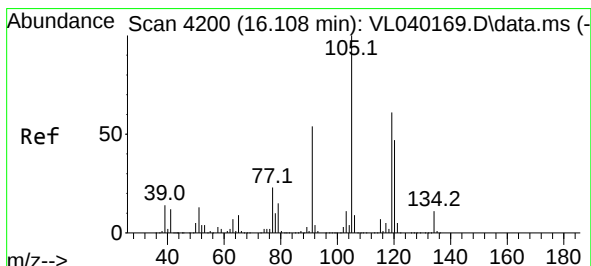
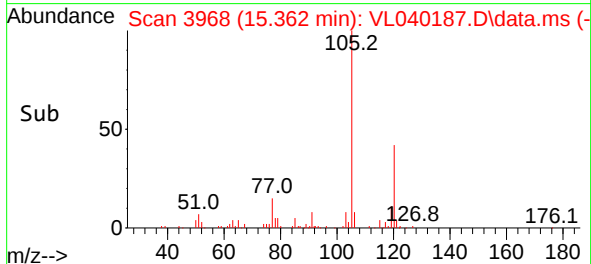
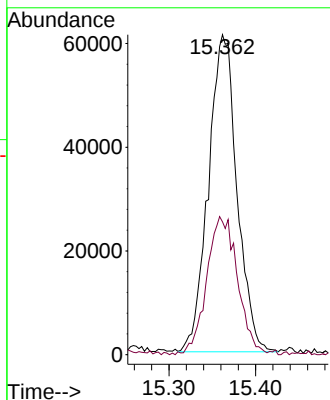
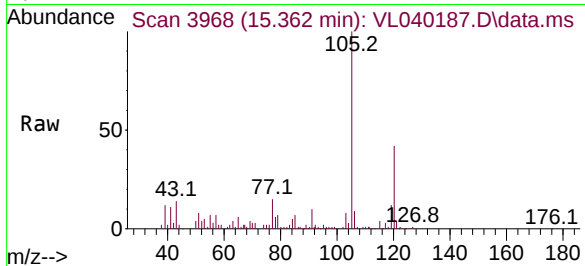




#73
 1,3,5-Trimethylbenzene
 Concen: 0.621 ppbv
 RT: 15.362 min Scan# 3968
 Delta R.T. 0.013 min
 Lab File: VL040187.D
 Acq: 16 Feb 2023 21:02

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-05

Tgt Ion:105 Resp: 140740
 Ion Ratio Lower Upper
 105 100
 120 41.9 36.8 55.2



#74
 1,2,4-Trimethylbenzene
 Concen: 2.067 ppbv
 RT: 16.114 min Scan# 4202
 Delta R.T. 0.006 min
 Lab File: VL040187.D
 Acq: 16 Feb 2023 21:02

Tgt Ion:105 Resp: 514924
 Ion Ratio Lower Upper
 105 100
 120 44.0 37.9 56.9
 91 12.2 43.7 65.5#
 77 15.9 18.3 27.5#

