

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL011923\
 Data File : VL040118.D
 Acq On : 19 Jan 2023 18:10
 Operator : SY/MD
 Sample : 01223-04 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VP-4DL

Quant Time: Jan 20 02:08:45 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL011623AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Mon Jan 16 14:40:47 2023
 Response via : Initial Calibration

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

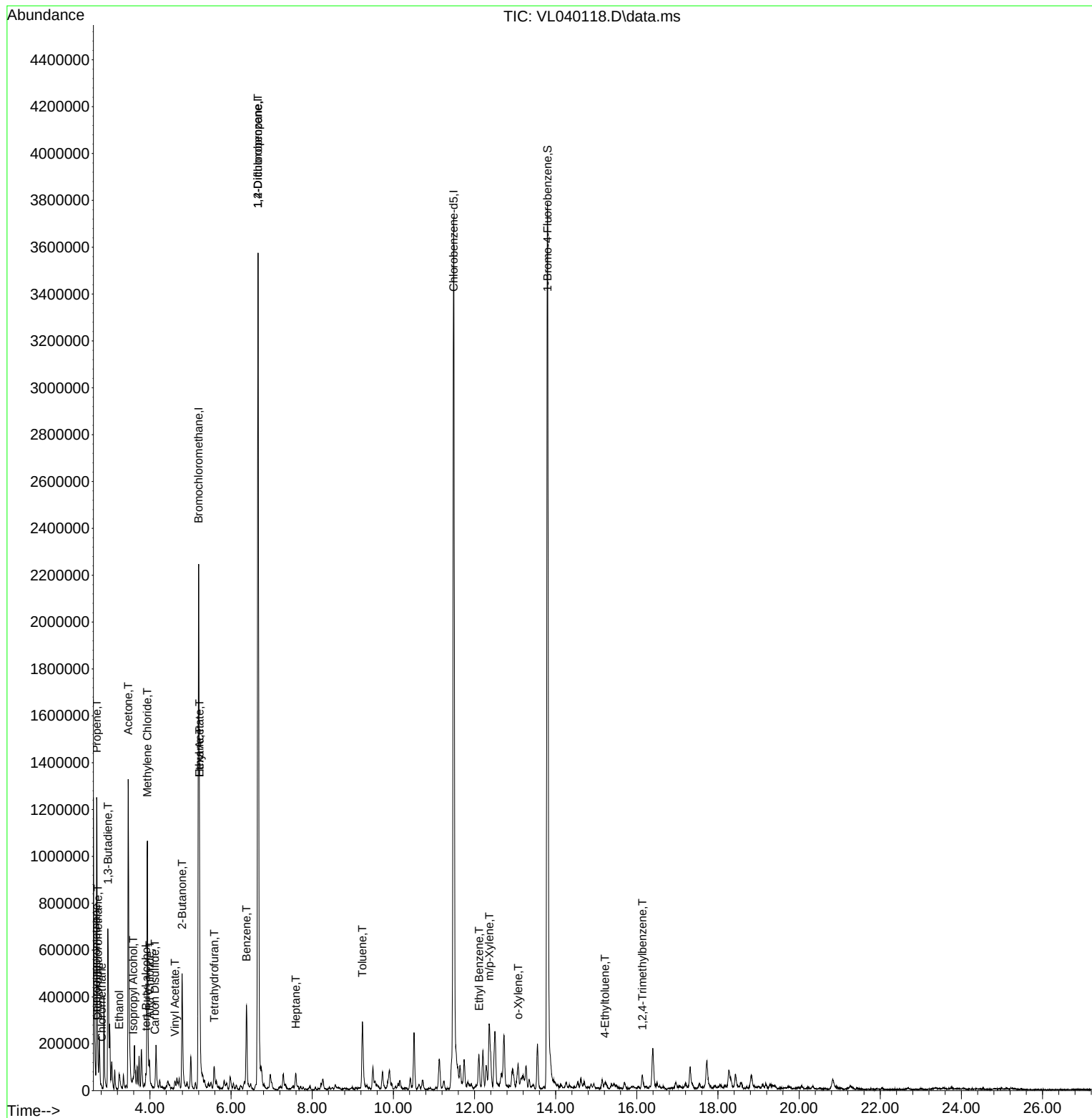
Internal Standards						
1) Bromochloromethane	5.198	49	1053516	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.664	114	2795431	10.000	ppbv	0.01
55) Chlorobenzene-d5	11.487	117	2531220	10.000	ppbv	0.01
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.799	95	2024921	9.625	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.300%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.722	85	11780	0.064	ppbv	89
3) Chlorodifluoromethane	2.671	51	4920	0.039	ppbv #	80
4) Chloromethane	2.812	50	5028	0.064	ppbv #	88
9) Propene	2.687	41	522101	9.945	ppbv	95
10) Heptane	7.594	43	17646	0.146	ppbv #	46
13) Ethanol	3.240	45	42282	8.750	ppbv #	38
15) Acetone	3.465	43	1376418	10.894	ppbv	96
16) 1,3-Butadiene	2.964	39	172667	2.931	ppbv #	75
17) tert-Butyl alcohol	3.902	59	17268	0.147	ppbv #	94
19) Isopropyl Alcohol	3.587	45	32457	0.525	ppbv #	90
20) Methylene Chloride	3.935	84	342433	6.143	ppbv	92
21) Allyl Chloride	3.992	41	4459	0.055	ppbv #	17
23) Vinyl Acetate	4.616	43	10031	0.245	ppbv #	47
25) Ethyl Acetate	5.221	43	209779	0.942	ppbv #	83
26) Hexane	5.221	57	257643	2.645	ppbv #	43
27) Carbon Disulfide	4.127	76	16379	0.130	ppbv #	75
34) 2-Butanone	4.793	43	610312	4.616	ppbv	99
36) Benzene	6.381	78	309615	1.497	ppbv	96
39) 1,2-Dichloropropane	6.664	63	707643	8.745	ppbv #	23
41) Tetrahydrofuran	5.584	42	57762	0.757	ppbv	92
53) Toluene	9.237	91	225353	1.021	ppbv	99
58) Ethyl Benzene	12.111	91	120573	0.427	ppbv	98
59) m/p-Xylene	12.362	91	271655	1.070	ppbv	91
60) o-Xylene	13.076	91	37861	0.157	ppbv #	31
72) 4-Ethyltoluene	15.214	105	10235	0.038	ppbv #	69
74) 1,2,4-Trimethylbenzene	16.137	105	29641	0.111	ppbv #	65

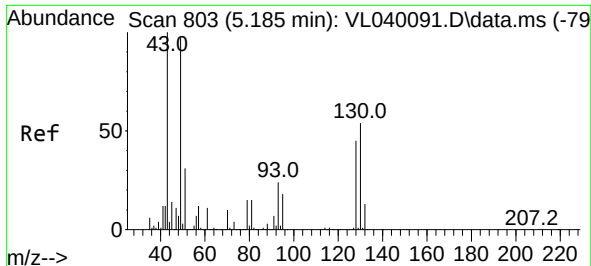
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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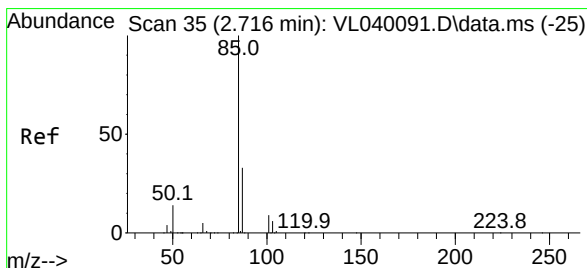
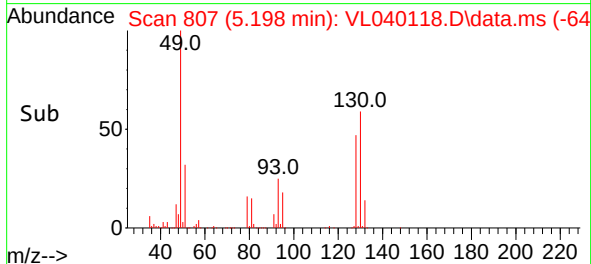
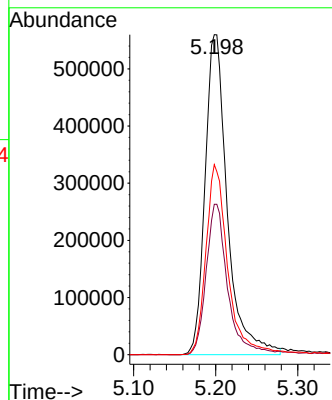
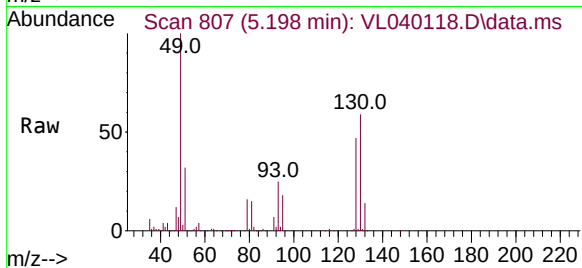




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.198 min Scan# 80
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

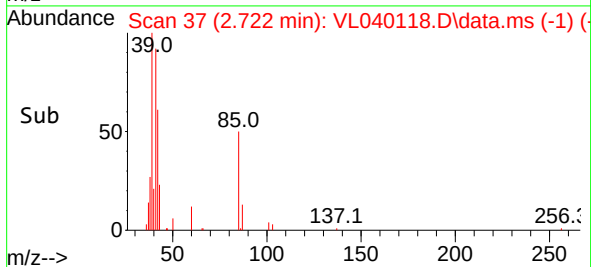
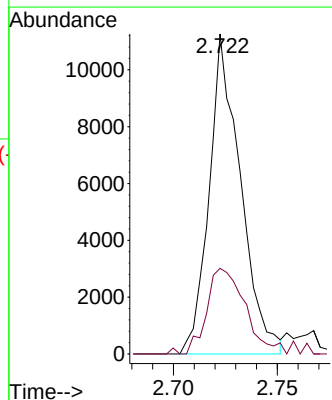
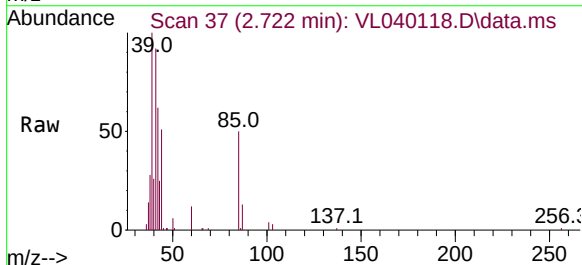
Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

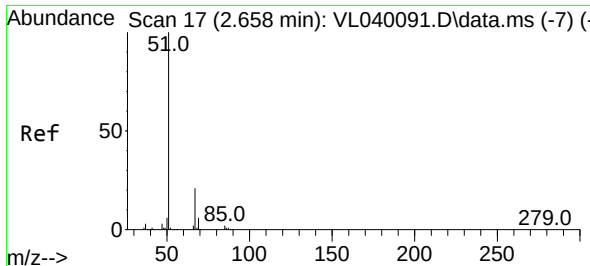
Tgt Ion: 49 Resp: 1053516
Ion Ratio Lower Upper
49 100
128 46.8 23.6 71.0
130 60.1 29.8 89.3



#2
Dichlorodifluoromethane
Concen: 0.064 ppbv
RT: 2.722 min Scan# 37
Delta R.T. 0.006 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 85 Resp: 11780
Ion Ratio Lower Upper
85 100
87 26.7 26.5 39.7

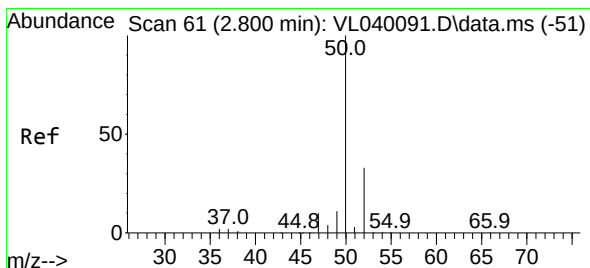
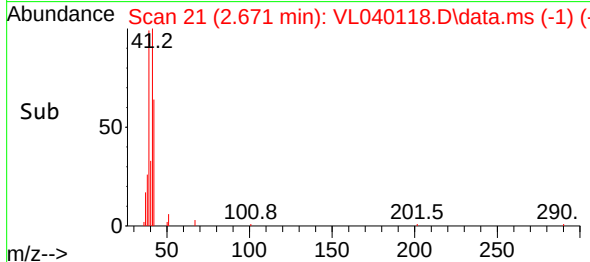
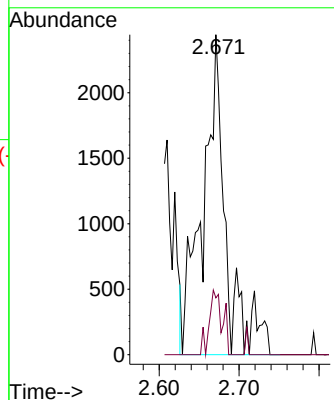
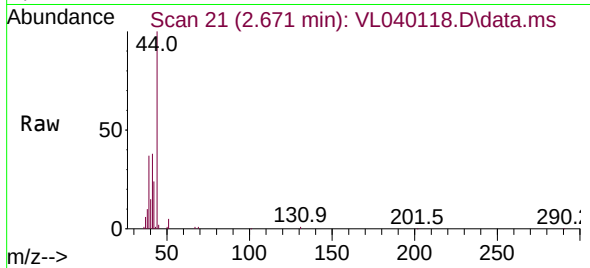




#3
Chlorodifluoromethane
Concen: 0.039 ppbv
RT: 2.671 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

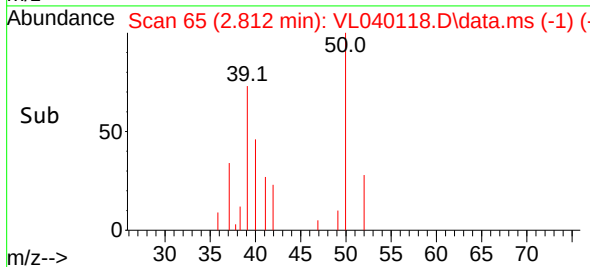
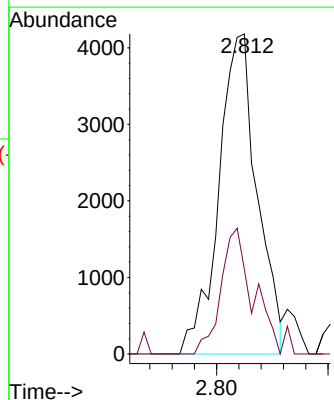
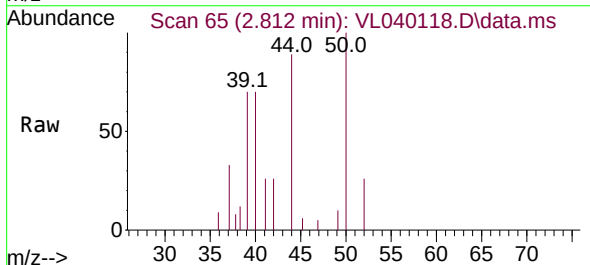
Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

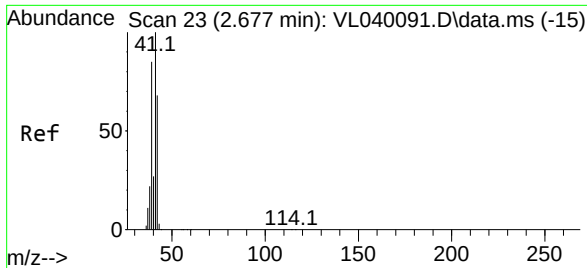
Tgt Ion: 51 Resp: 4920
Ion Ratio Lower Upper
51 100
67 11.4 16.4 24.6#



#4
Chloromethane
Concen: 0.064 ppbv
RT: 2.812 min Scan# 65
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 50 Resp: 5028
Ion Ratio Lower Upper
50 100
52 26.5 26.5 39.7#





#9

Propene

Concen: 9.945 ppbv

RT: 2.687 min Scan# 2

Delta R.T. 0.010 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

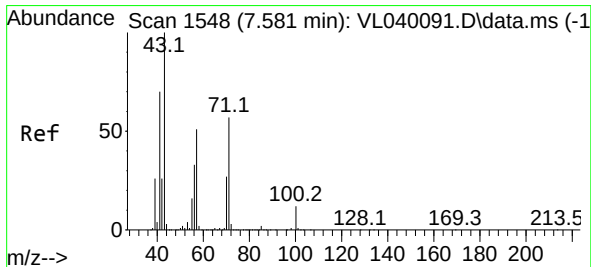
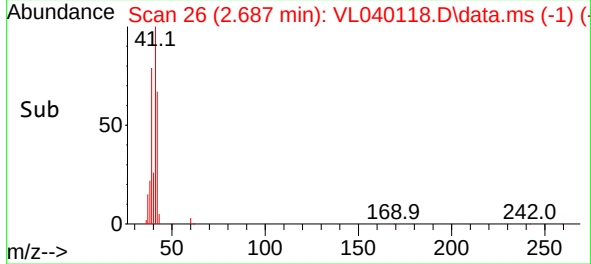
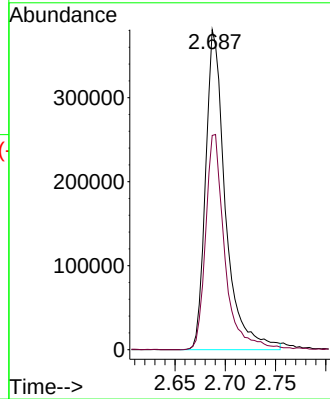
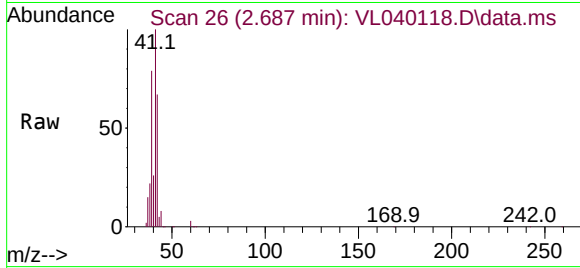
VP-4DL

Tgt Ion: 41 Resp: 522101

Ion Ratio Lower Upper

41 100

42 65.8 55.6 83.4



#10

Heptane

Concen: 0.146 ppbv

RT: 7.594 min Scan# 1552

Delta R.T. 0.013 min

Lab File: VL040118.D

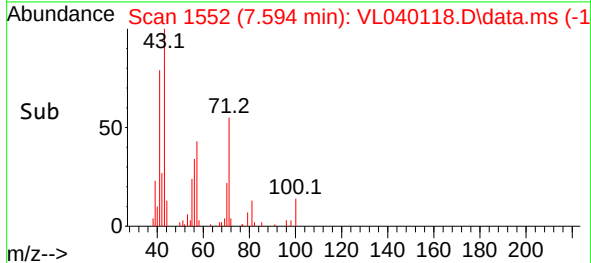
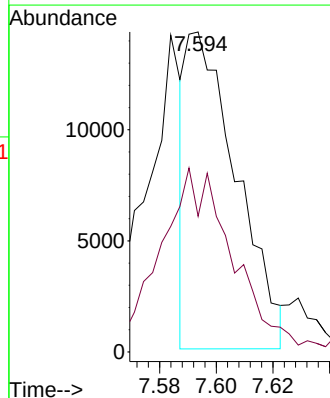
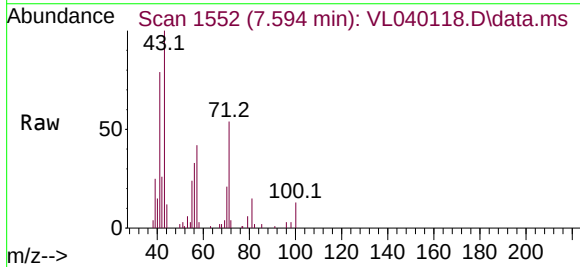
Acq: 19 Jan 2023 18:10

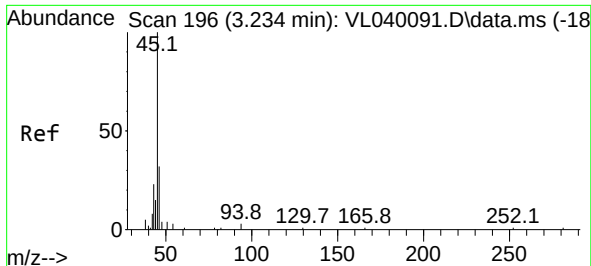
Tgt Ion: 43 Resp: 17646

Ion Ratio Lower Upper

43 100

57 88.7 40.9 61.3#

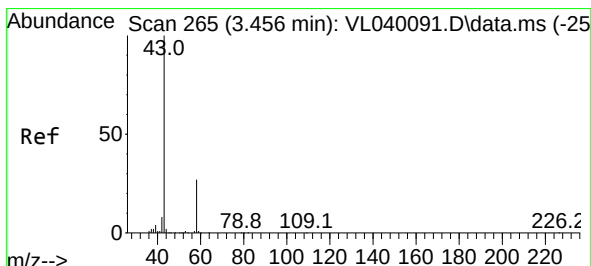
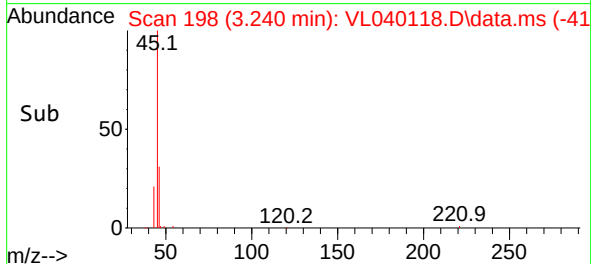
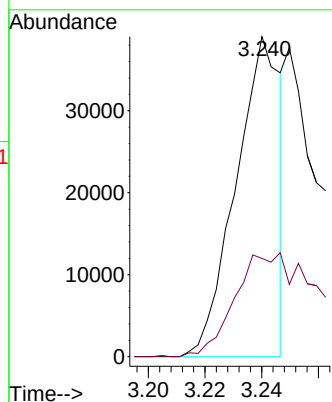
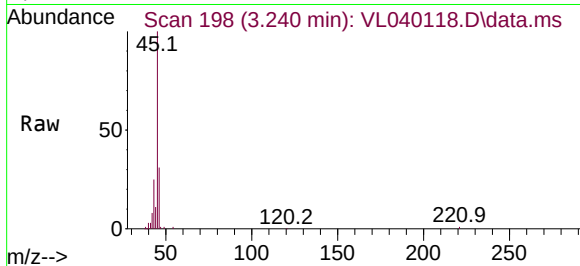




#13
Ethanol
Concen: 8.750 ppbv
RT: 3.240 min Scan# 196
Delta R.T. 0.006 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

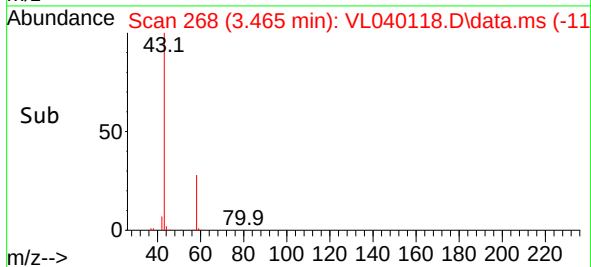
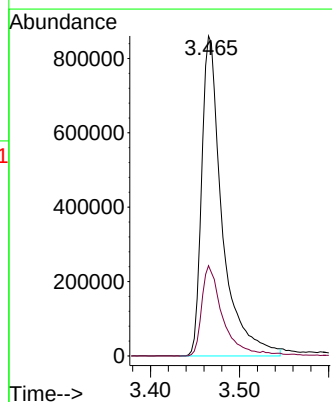
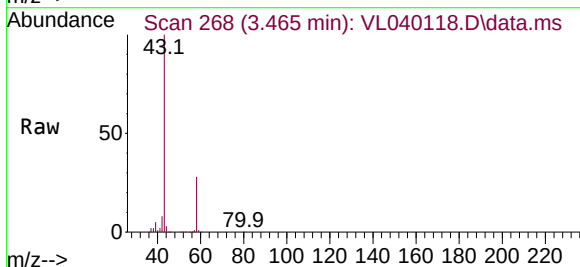
Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

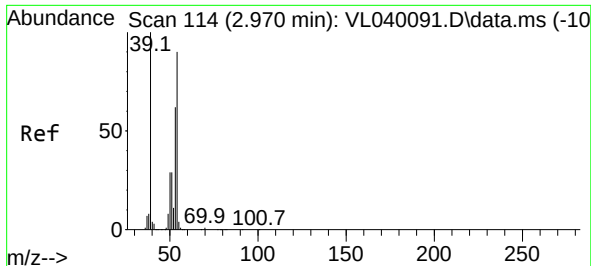
Tgt Ion: 45 Resp: 42282
Ion Ratio Lower Upper
45 100
46 0.0 14.8 59.2#



#15
Acetone
Concen: 10.894 ppbv
RT: 3.465 min Scan# 268
Delta R.T. 0.010 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 43 Resp: 1376418
Ion Ratio Lower Upper
43 100
58 29.6 21.8 32.8





#16

1,3-Butadiene

Concen: 2.931 ppbv

RT: 2.964 min Scan# 114

Delta R.T. -0.006 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

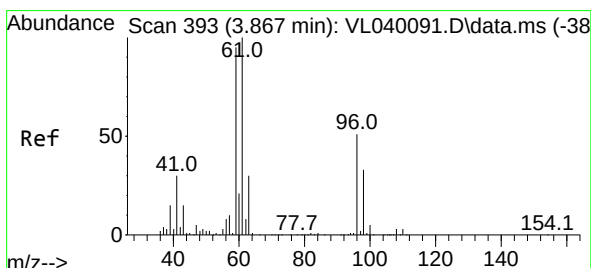
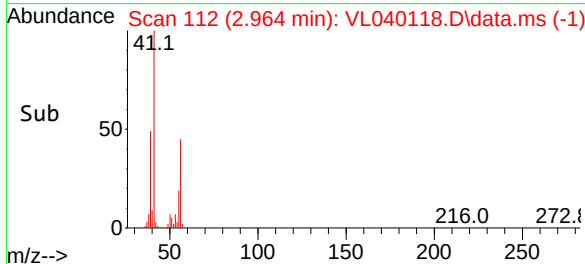
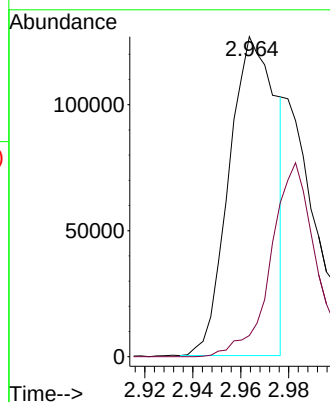
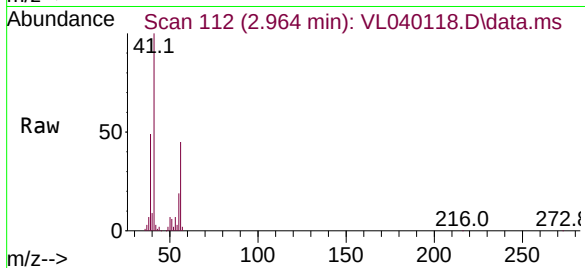
VP-4DL

Tgt Ion: 39 Resp: 172667

Ion Ratio Lower Upper

39 100

54 61.8 67.9 101.9#



#17

tert-Butyl alcohol

Concen: 0.147 ppbv

RT: 3.902 min Scan# 404

Delta R.T. 0.035 min

Lab File: VL040118.D

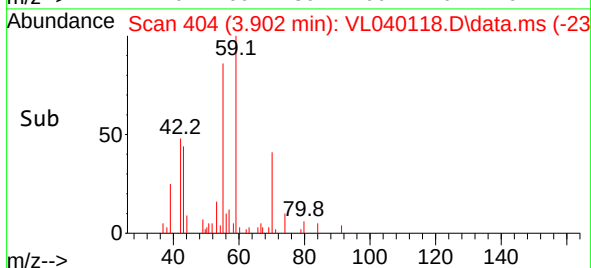
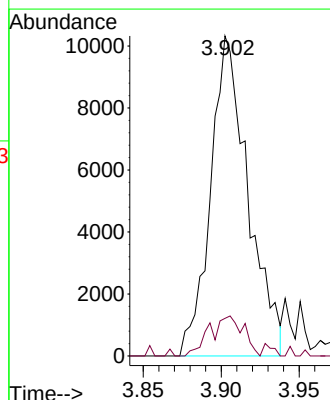
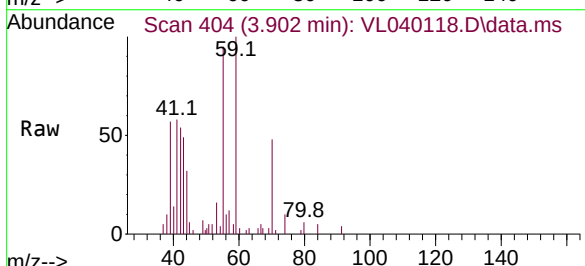
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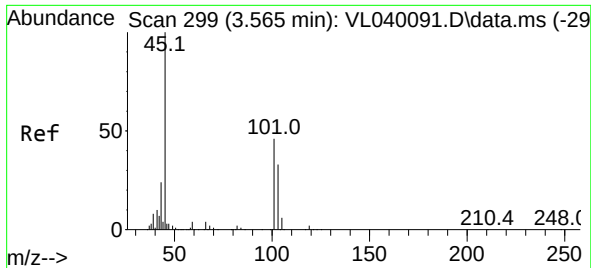
Tgt Ion: 59 Resp: 17268

Ion Ratio Lower Upper

59 100

57 12.9 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 0.525 ppbv

RT: 3.587 min Scan# 306

Delta R.T. 0.022 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

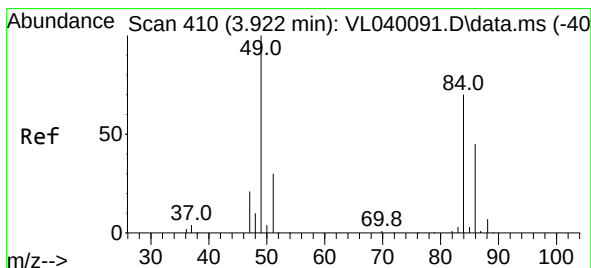
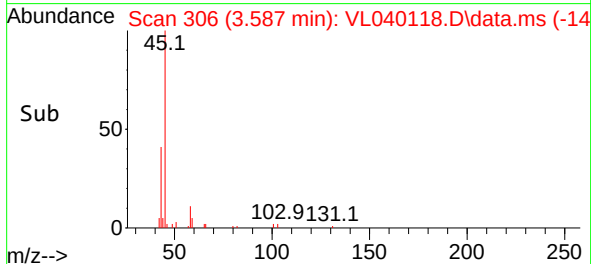
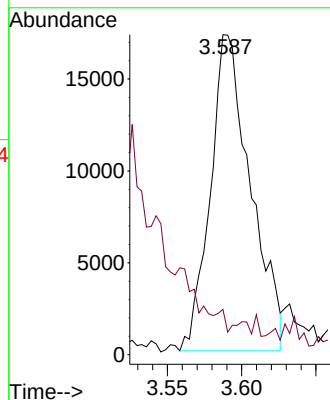
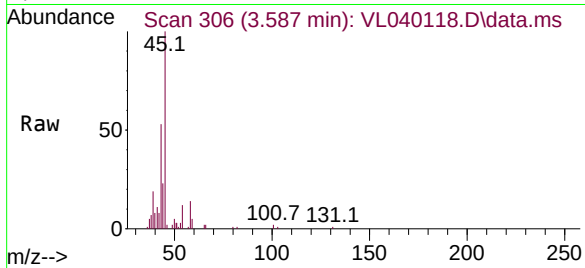
VP-4DL

Tgt Ion: 45 Resp: 32457

Ion Ratio Lower Upper

45 100

58 0.0 2.6 4.0#



#20

Methylene Chloride

Concen: 6.143 ppbv

RT: 3.935 min Scan# 414

Delta R.T. 0.013 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Tgt Ion: 84 Resp: 342433

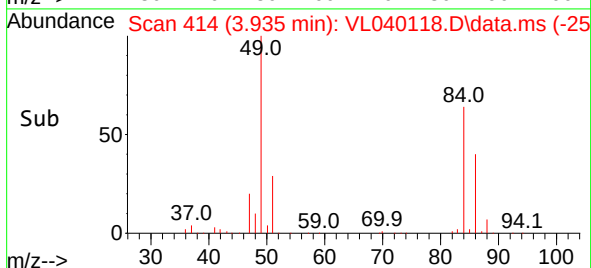
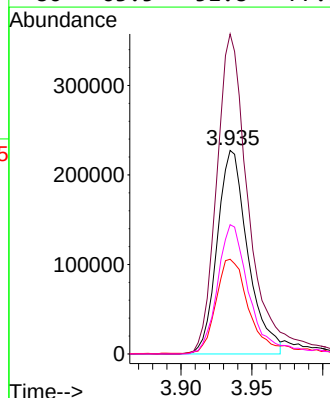
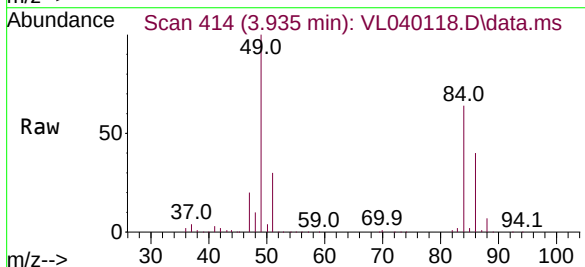
Ion Ratio Lower Upper

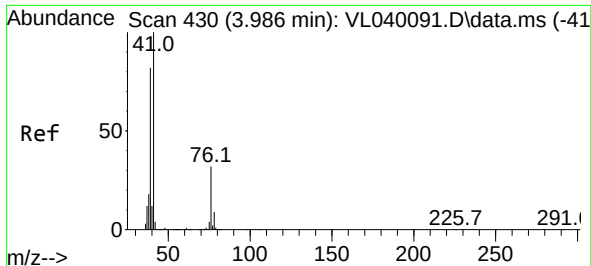
84 100

49 157.2 114.6 171.8

51 46.2 34.3 51.5

86 63.5 51.8 77.8

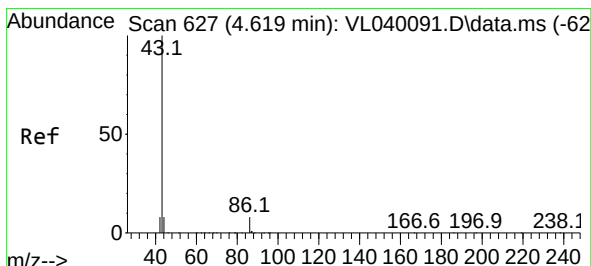
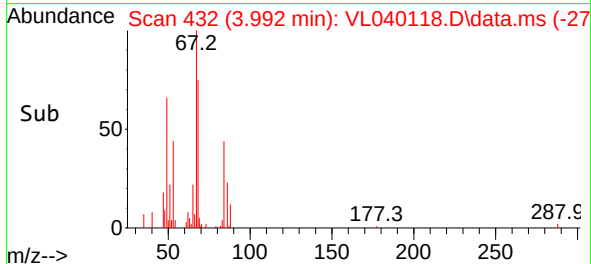
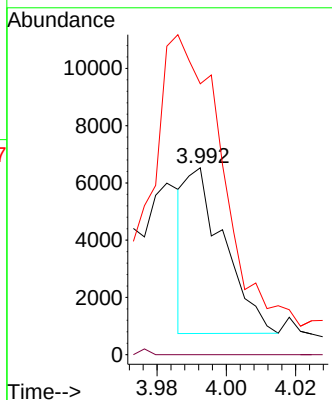
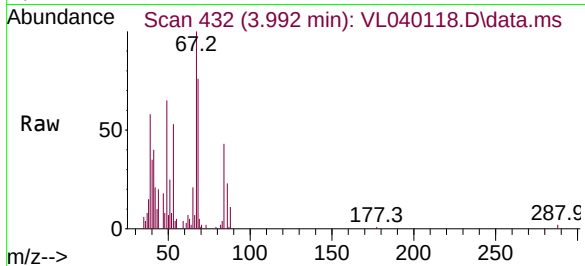




#21
 Allyl Chloride
 Concen: 0.055 ppbv
 RT: 3.992 min Scan# 41
 Delta R.T. 0.006 min
 Lab File: VL040118.D
 Acq: 19 Jan 2023 18:10

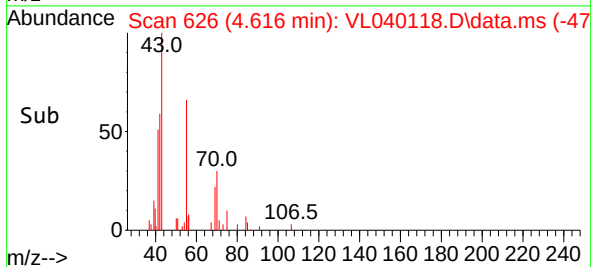
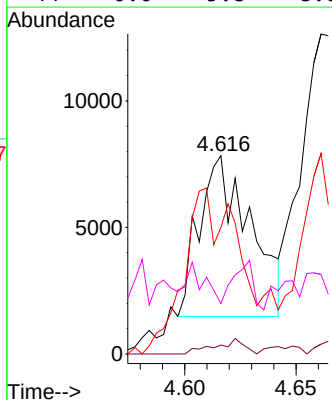
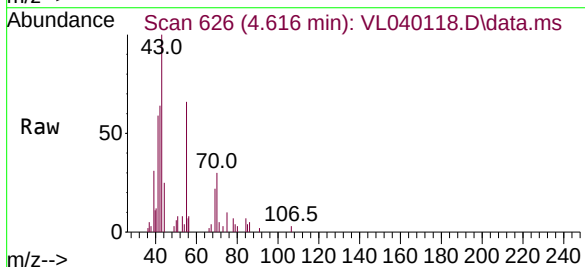
Instrument :
 MSVOA_L
 ClientSampleId :
 VP-4DL

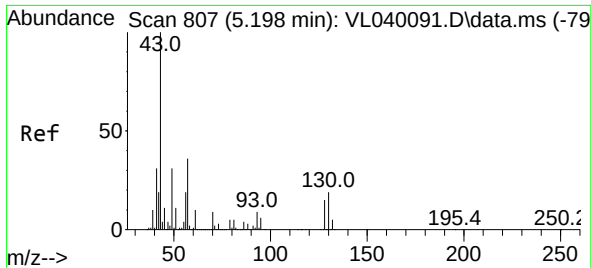
Tgt Ion: 41 Resp: 4459
 Ion Ratio Lower Upper
 41 100
 76 0.0 25.9 38.9#
 39 0.0 66.8 100.2#



#23
 Vinyl Acetate
 Concen: 0.245 ppbv
 RT: 4.616 min Scan# 626
 Delta R.T. -0.003 min
 Lab File: VL040118.D
 Acq: 19 Jan 2023 18:10

Tgt Ion: 43 Resp: 10031
 Ion Ratio Lower Upper
 43 100
 86 5.6 5.6 8.4#
 42 51.4 7.7 11.5#
 44 0.0 5.8 8.8#



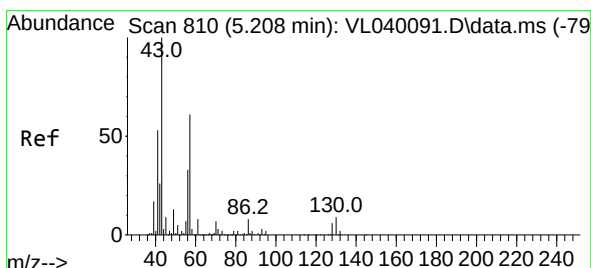
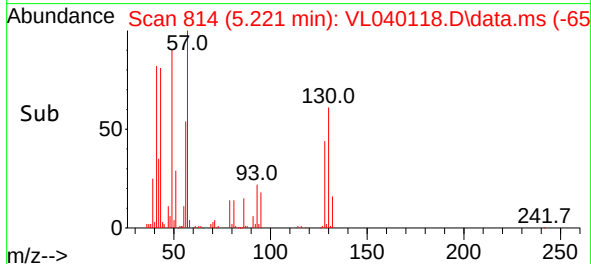
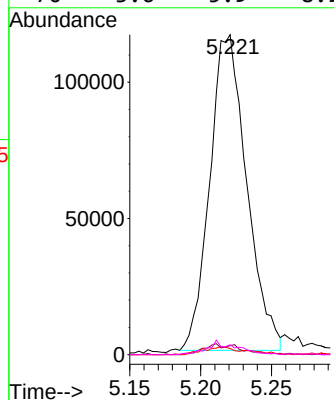
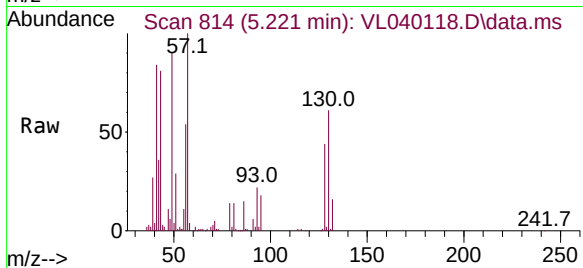


#25
Ethyl Acetate
Concen: 0.942 ppbv
RT: 5.221 min Scan# 814
Delta R.T. 0.022 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

Tgt Ion: 43 Resp: 209779

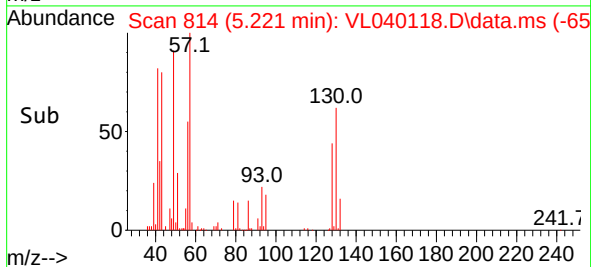
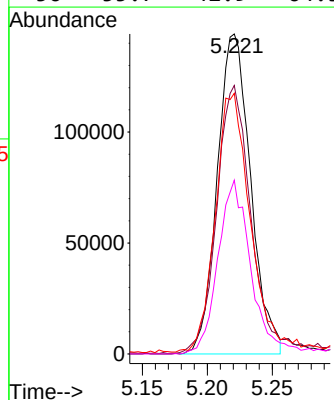
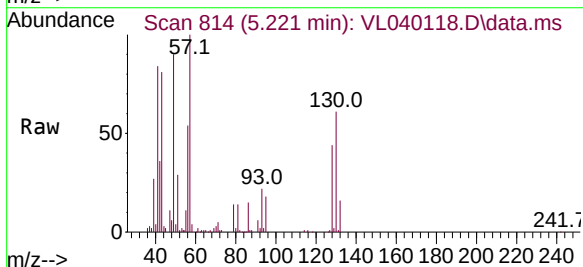
Ion	Ratio	Lower	Upper
43	100		
45	3.6	8.5	12.7#
61	2.9	8.4	12.6#
70	3.6	5.9	8.9#

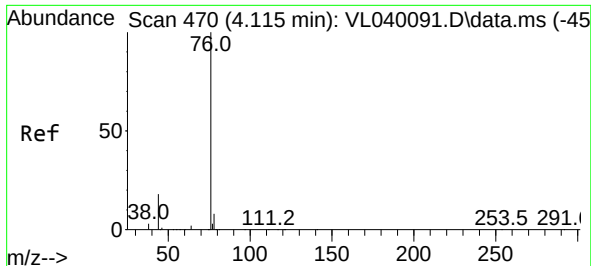


#26
Hexane
Concen: 2.645 ppbv
RT: 5.221 min Scan# 814
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 57 Resp: 257643

Ion	Ratio	Lower	Upper
57	100		
41	87.4	72.2	108.4
43	87.4	192.1	288.1#
56	55.7	42.9	64.3





#27

Carbon Disulfide

Concen: 0.130 ppbv

RT: 4.127 min Scan# 41

Delta R.T. 0.013 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

VP-4DL

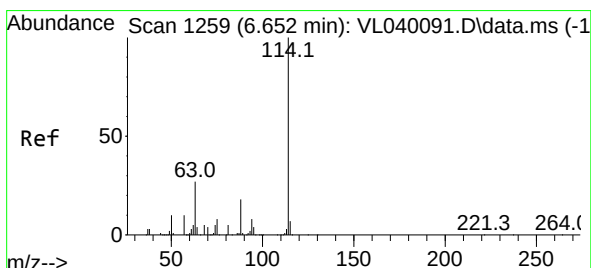
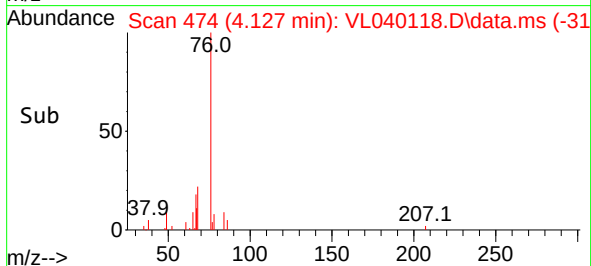
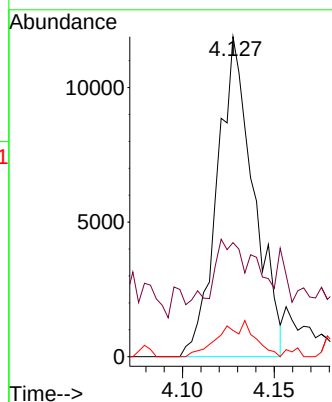
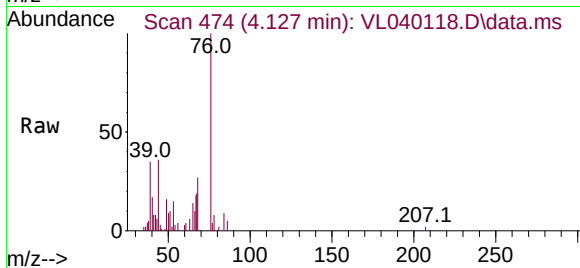
Tgt Ion: 76 Resp: 16379

Ion Ratio Lower Upper

76 100

44 35.6 14.9 22.3#

78 10.8 8.2 12.2



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.664 min Scan# 1263

Delta R.T. 0.013 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

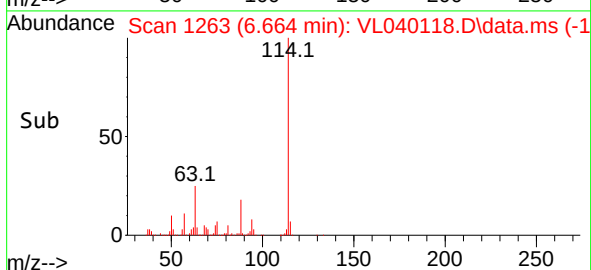
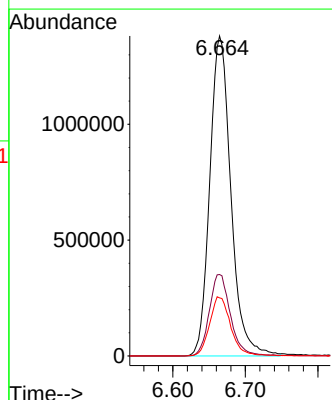
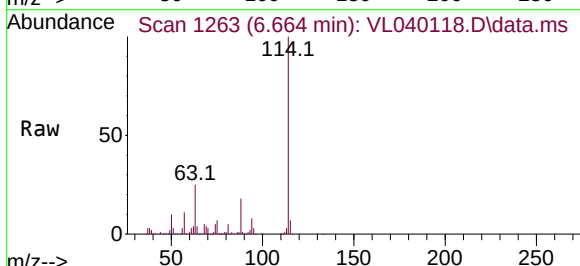
Tgt Ion: 114 Resp: 2795431

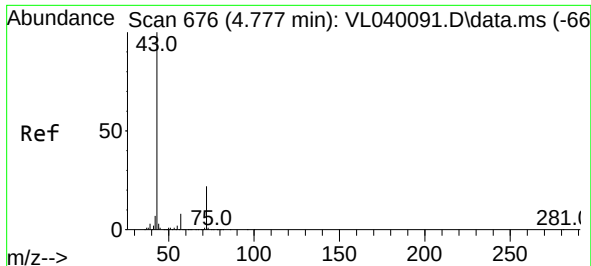
Ion Ratio Lower Upper

114 100

63 25.6 21.8 32.8

88 18.5 14.8 22.2

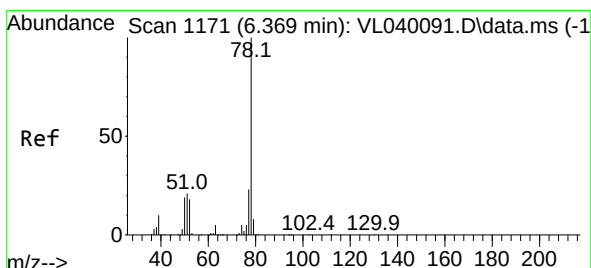
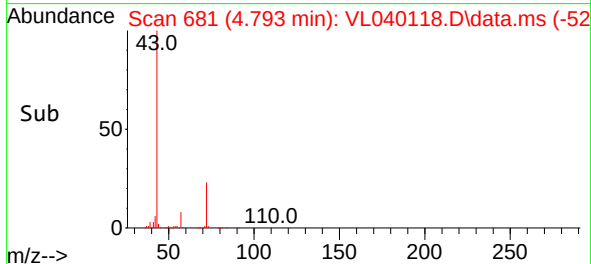
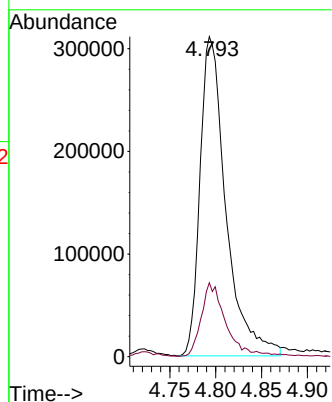
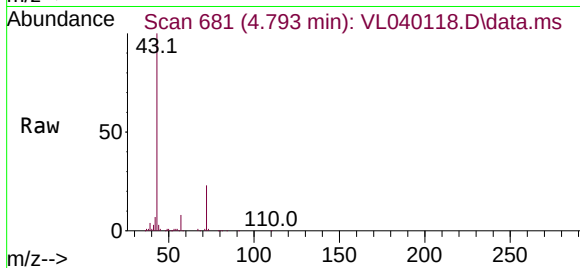




#34
2-Butanone
Concen: 4.616 ppbv
RT: 4.793 min Scan# 61
Delta R.T. 0.016 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

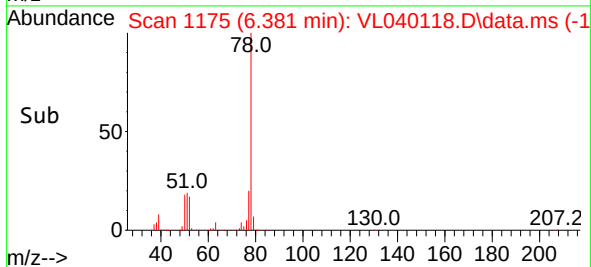
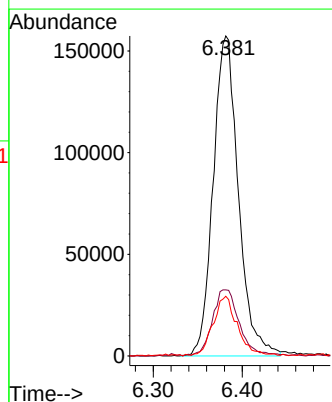
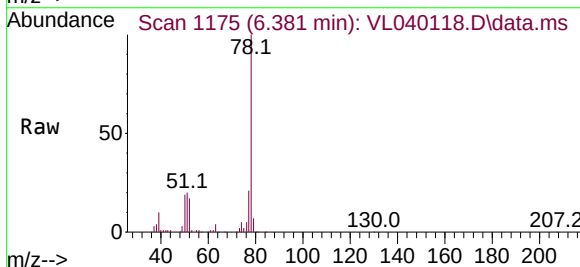
Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

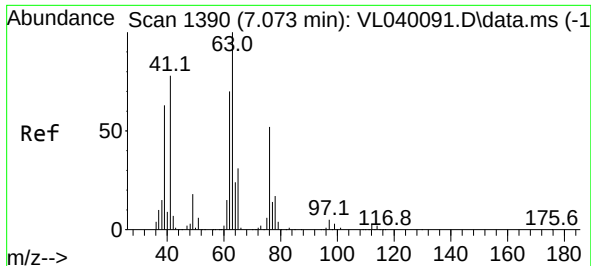
Tgt Ion: 43 Resp: 610312
Ion Ratio Lower Upper
43 100
72 22.6 18.4 27.6



#36
Benzene
Concen: 1.497 ppbv
RT: 6.381 min Scan# 1175
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 78 Resp: 309615
Ion Ratio Lower Upper
78 100
77 20.3 18.1 27.1
50 18.5 15.6 23.4





#39

1,2-Dichloropropane

Concen: 8.745 ppbv

RT: 6.664 min Scan# 11

Delta R.T. -0.408 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

VP-4DL

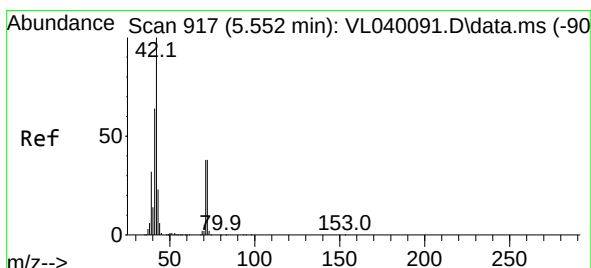
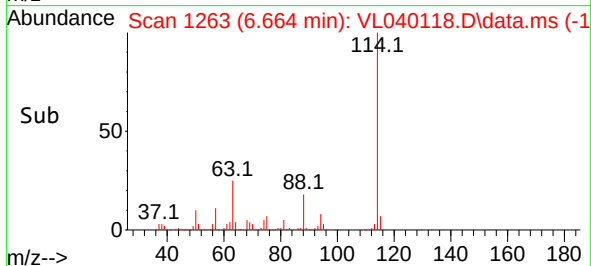
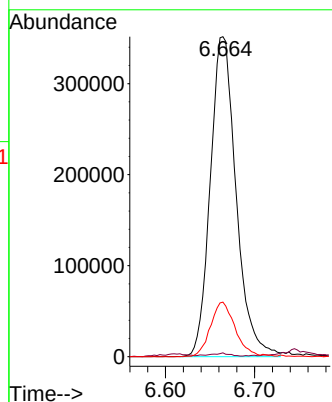
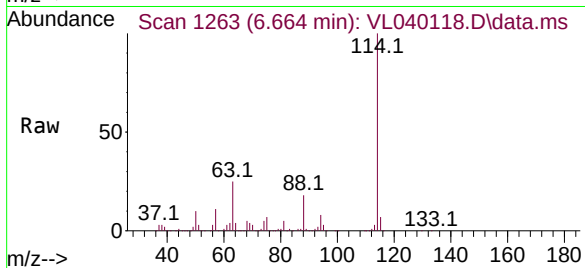
Tgt Ion: 63 Resp: 707643

Ion Ratio Lower Upper

63 100

41 0.3 62.2 93.4#

62 17.0 55.8 83.8#



#41

Tetrahydrofuran

Concen: 0.757 ppbv

RT: 5.584 min Scan# 927

Delta R.T. 0.032 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

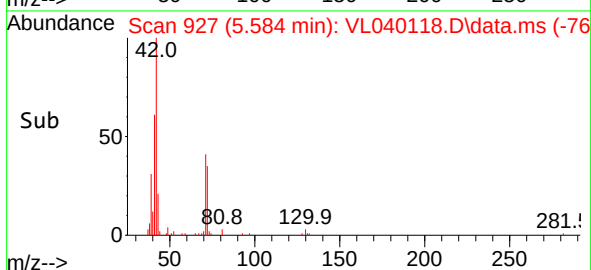
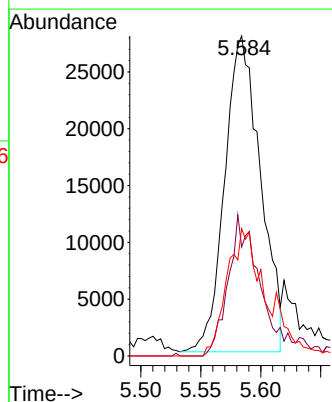
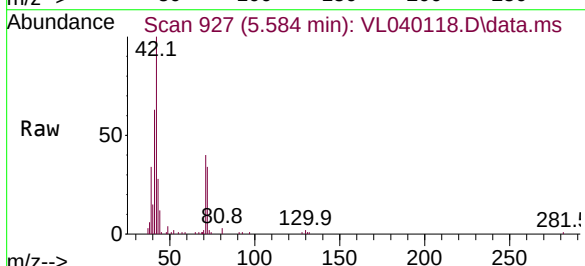
Tgt Ion: 42 Resp: 57762

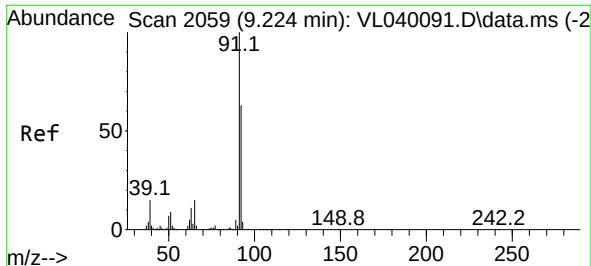
Ion Ratio Lower Upper

42 100

72 43.4 31.9 47.9

71 45.5 31.4 47.2

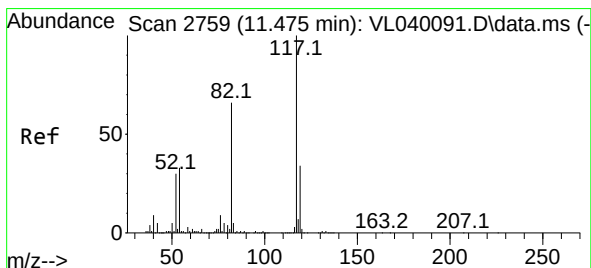
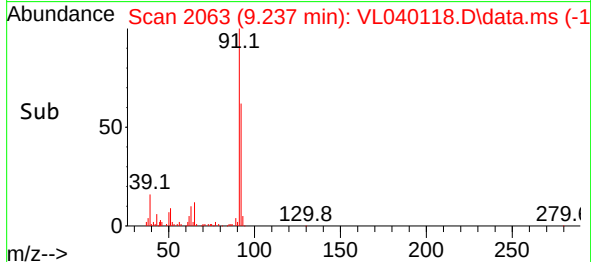
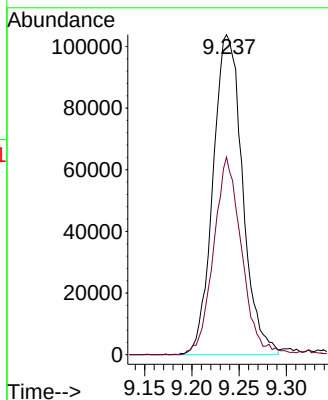
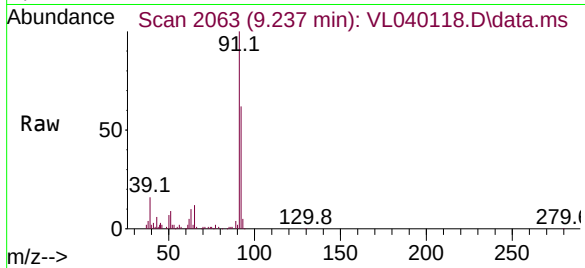




#53
Toluene
Concen: 1.021 ppbv
RT: 9.237 min Scan# 2059
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

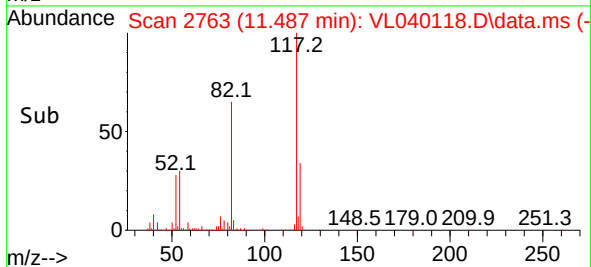
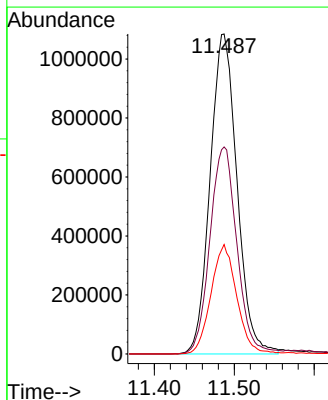
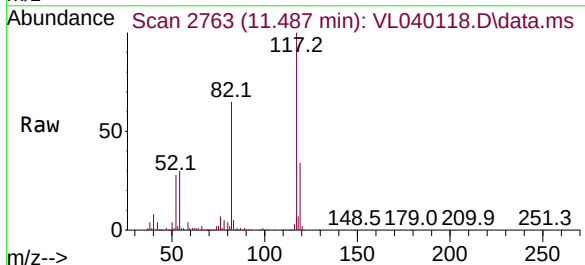
Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

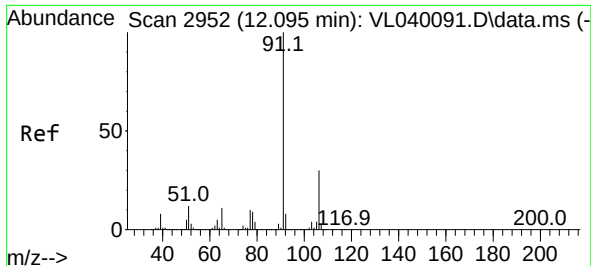
Tgt Ion: 91 Resp: 225353
Ion Ratio Lower Upper
91 100
92 59.6 48.3 72.5



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.487 min Scan# 2763
Delta R.T. 0.013 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 117 Resp: 2531220
Ion Ratio Lower Upper
117 100
82 65.2 54.4 81.6
119 33.2 26.8 40.2

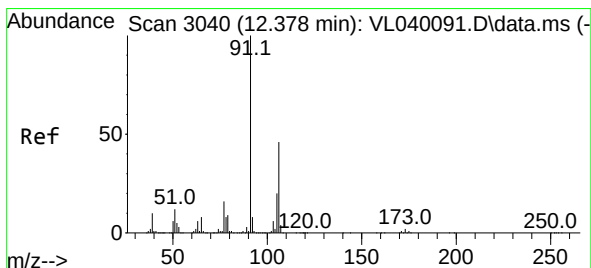
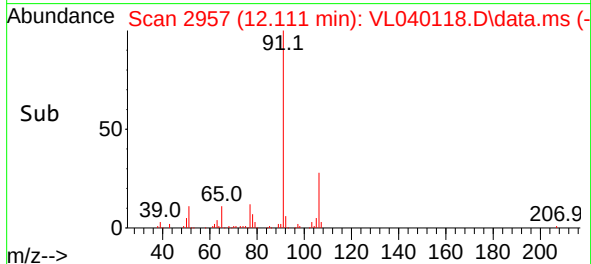
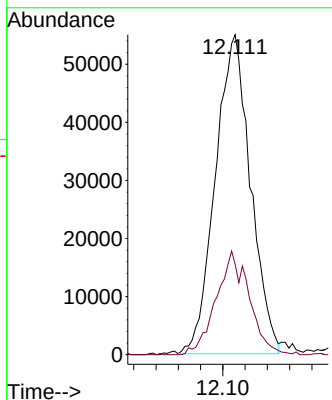
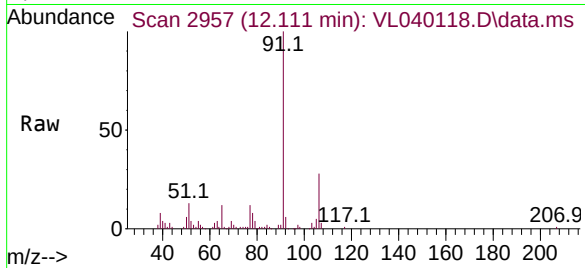




#58
Ethyl Benzene
Concen: 0.427 ppbv
RT: 12.111 min Scan# 2957
Delta R.T. 0.016 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

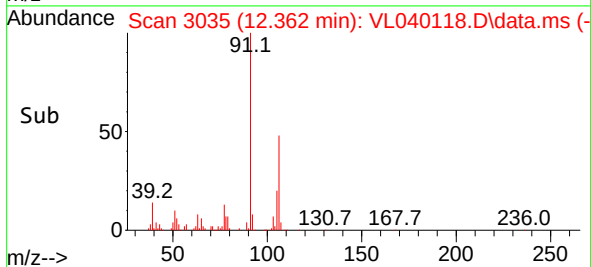
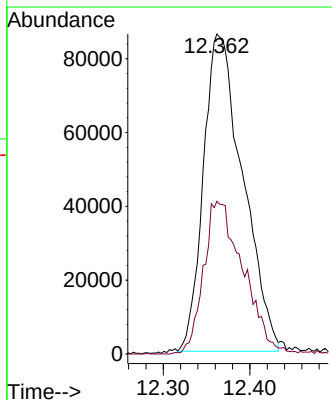
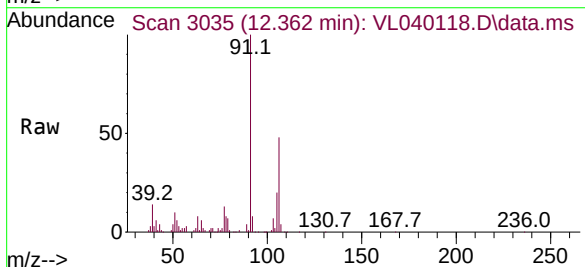
Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

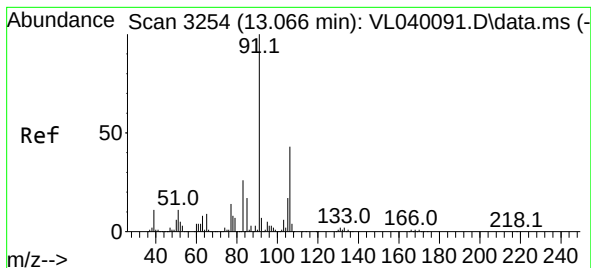
Tgt Ion: 91 Resp: 120573
Ion Ratio Lower Upper
91 100
106 28.3 23.7 35.5



#59
m/p-Xylene
Concen: 1.070 ppbv
RT: 12.362 min Scan# 3035
Delta R.T. -0.016 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion: 91 Resp: 271655
Ion Ratio Lower Upper
91 100
106 48.7 34.2 51.4





#60

o-Xylene

Concen: 0.157 ppbv

RT: 13.076 min Scan# 31

Delta R.T. 0.010 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

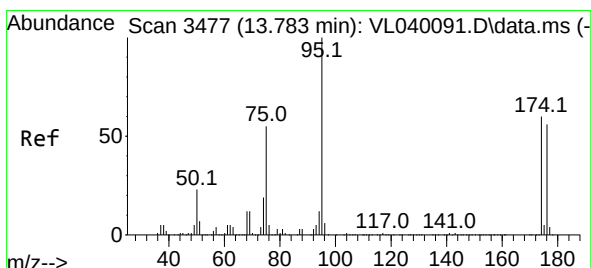
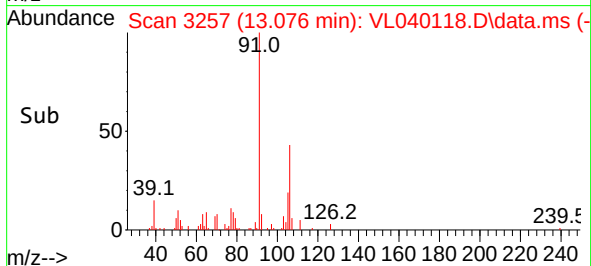
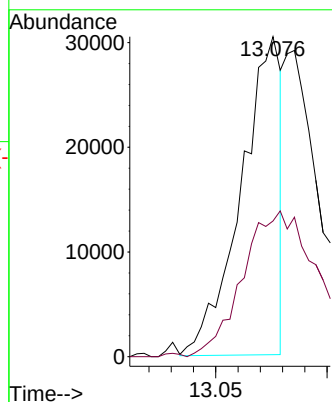
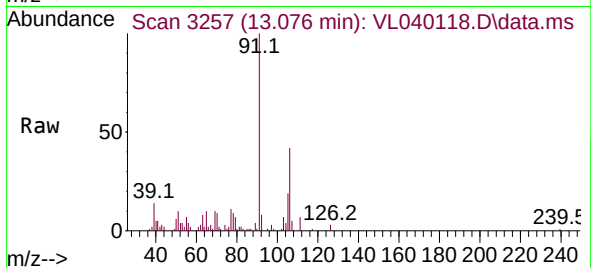
VP-4DL

Tgt Ion: 91 Resp: 37861

Ion Ratio Lower Upper

91 100

106 87.4 21.6 64.8#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.625 ppbv

RT: 13.799 min Scan# 3482

Delta R.T. 0.016 min

Lab File: VL040118.D

Acq: 19 Jan 2023 18:10

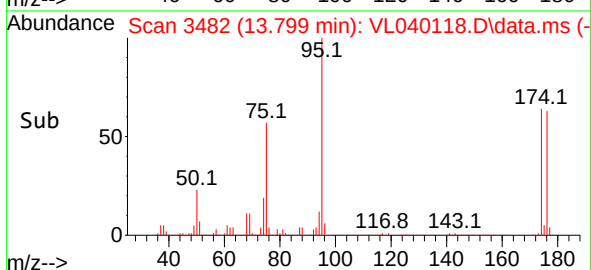
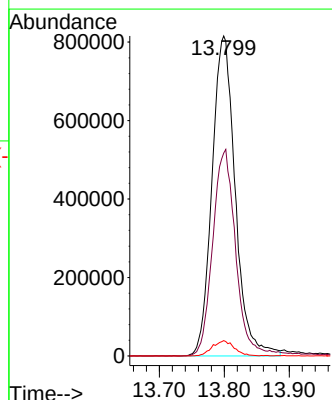
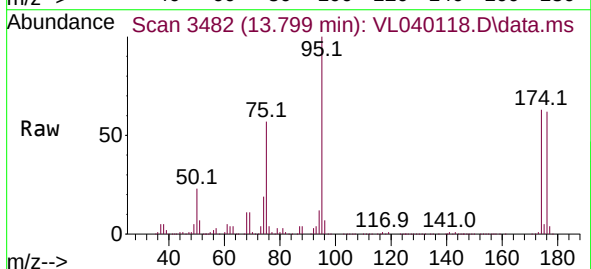
Tgt Ion: 95 Resp: 2024921

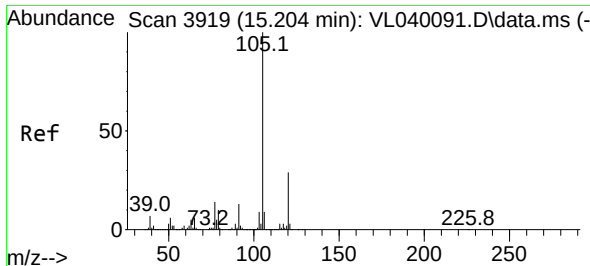
Ion Ratio Lower Upper

95 100

174 64.9 47.7 71.5

175 4.7 3.4 5.2

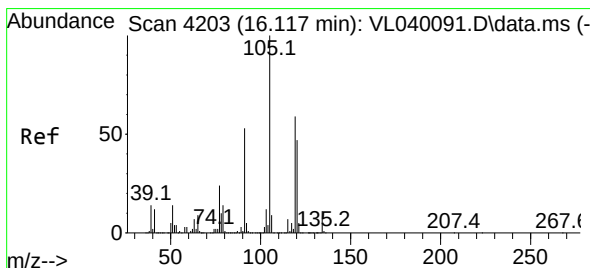
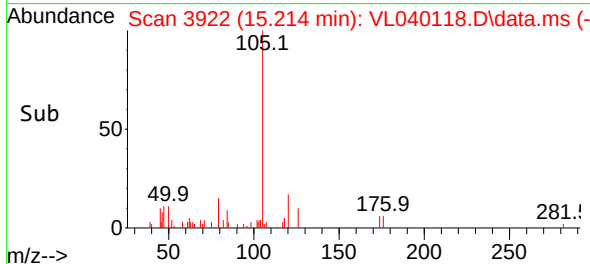
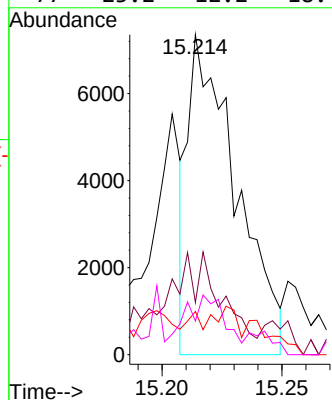
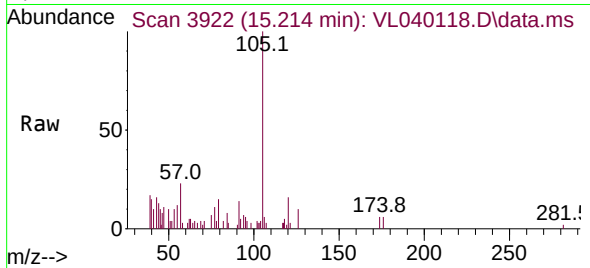




#72
4-Ethyltoluene
Concen: 0.038 ppbv
RT: 15.214 min Scan# 3919
Delta R.T. 0.010 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Instrument :
MSVOA_L
ClientSampleId :
VP-4DL

Tgt Ion:105	Resp:	10235
Ion Ratio	Lower	Upper
105	100	
120	46.1	23.1 34.7#
91	31.7	11.2 16.8#
77	23.2	12.2 18.4#



#74
1,2,4-Trimethylbenzene
Concen: 0.111 ppbv
RT: 16.137 min Scan# 4209
Delta R.T. 0.019 min
Lab File: VL040118.D
Acq: 19 Jan 2023 18:10

Tgt Ion:105	Resp:	29641
Ion Ratio	Lower	Upper
105	100	
120	36.9	38.0 57.0#
91	10.6	42.1 63.1#
77	15.3	19.3 28.9#

