

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL022123\
 Data File : VL040201.D
 Acq On : 21 Feb 2023 19:10
 Operator : SY/MD
 Sample : 01626-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-12

Quant Time: Feb 22 03:25:56 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 22 03:17:31 2023
 Response via : Initial Calibration

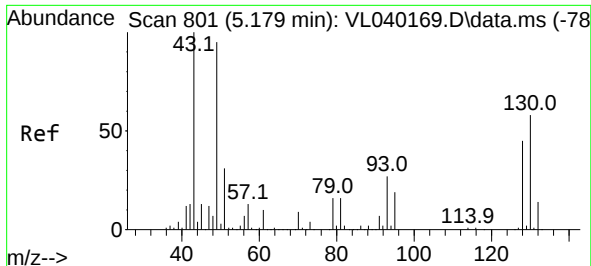
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.198	49	815203	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.661	114	2091920	10.000	ppbv	-0.01
55) Chlorobenzene-d5	11.484	117	1907728	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.793	95	1568228	9.997	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	= 100.000%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.726	85	64952	0.427	ppbv	95
3) Chlorodifluoromethane	2.648	51	369062	3.790	ppbv #	66
4) Chloromethane	2.812	50	29104	0.476	ppbv	91
9) Propene	2.870	41	345840	8.712	ppbv	96
10) Heptane	7.597	43	5266	0.056	ppbv #	1
11) Trichlorofluoromethane	3.565	101	30444	0.223	ppbv	87
12) 1,1,2-Trichlorotrifluo...	4.066	101	4206	0.042	ppbv #	16
13) Ethanol	3.240	45	4523507	1237.824	ppbv	94
15) Acetone	3.468	43	842269	8.582	ppbv	97
16) 1,3-Butadiene	2.964	39	18121	0.404	ppbv #	57
17) tert-Butyl alcohol	3.896	59	16150	0.180	ppbv #	78
19) Isopropyl Alcohol	3.581	45	607599	13.023	ppbv #	98
20) Methylene Chloride	3.935	84	80551	1.577	ppbv	97
23) Vinyl Acetate	4.639	43	2749	0.092	ppbv #	1
25) Ethyl Acetate	5.217	43	66409	0.364	ppbv #	90
26) Hexane	5.221	57	65269	0.833	ppbv #	48
30) Cyclohexane	6.613	84	2567	0.042	ppbv #	1
34) 2-Butanone	4.796	43	35413	0.343	ppbv	93
35) Carbon Tetrachloride	6.500	117	4285	0.035	ppbv	89
36) Benzene	6.378	78	105014	0.645	ppbv	95
39) 1,2-Dichloropropane	6.661	63	520705	8.222	ppbv #	25
44) 2,2,4-Trimethylpentane	7.340	57	61971	0.228	ppbv #	78
52) Tetrachloroethene	10.622	164	1677	0.033	ppbv #	3
53) Toluene	9.233	91	236175	1.354	ppbv	98
58) Ethyl Benzene	12.105	91	38996	0.168	ppbv	100
59) m/p-Xylene	12.384	91	29727	0.145	ppbv #	33
60) o-Xylene	13.079	91	38534	0.195	ppbv	96
66) Benzyl Chloride	16.140	91	1693	0.103	ppbv #	67
74) 1,2,4-Trimethylbenzene	16.127	105	38962	0.175	ppbv #	62

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

Quant Time: Feb 22 03:25:56 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL021523AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Feb 22 03:17:31 2023
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.198 min Scan# 80

Delta R.T. -0.007 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_1

ClientSampleId :

IA-12

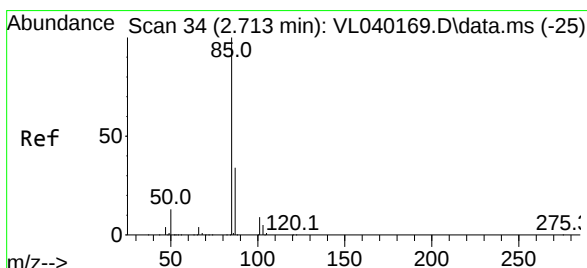
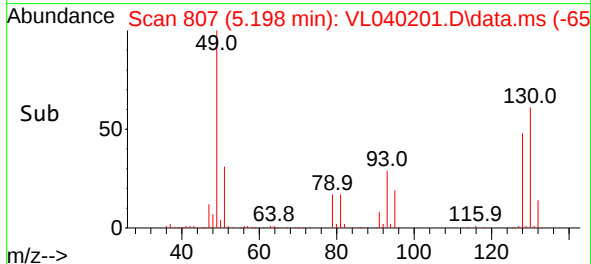
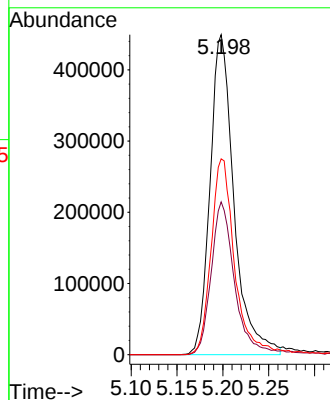
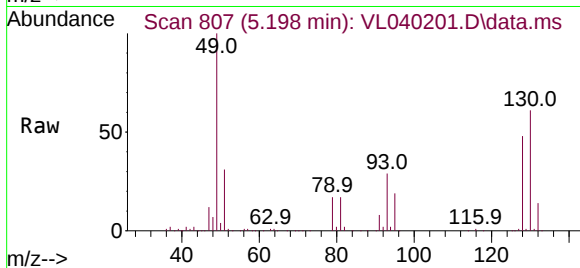
Tgt Ion: 49 Resp: 815203

Ion Ratio Lower Upper

49 100

128 47.9 24.1 72.3

130 61.9 30.9 92.8



#2

Dichlorodifluoromethane

Concen: 0.427 ppbv

RT: 2.726 min Scan# 38

Delta R.T. -0.003 min

Lab File: VL040201.D

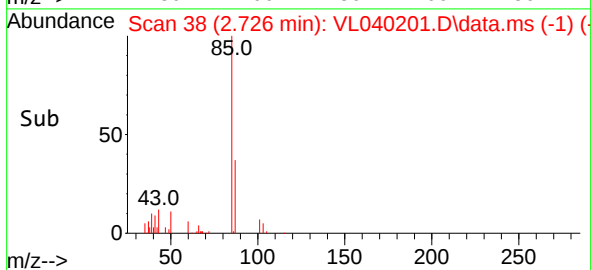
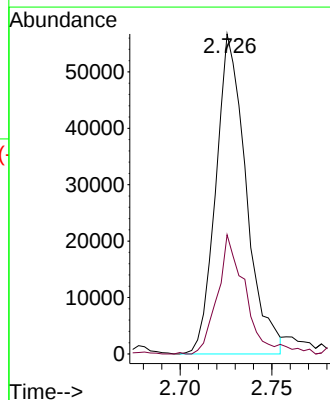
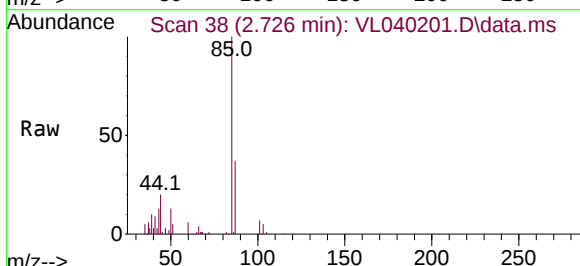
Acq: 21 Feb 2023 19:10

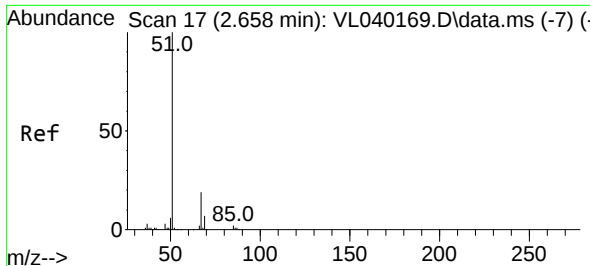
Tgt Ion: 85 Resp: 64952

Ion Ratio Lower Upper

85 100

87 36.8 27.0 40.6

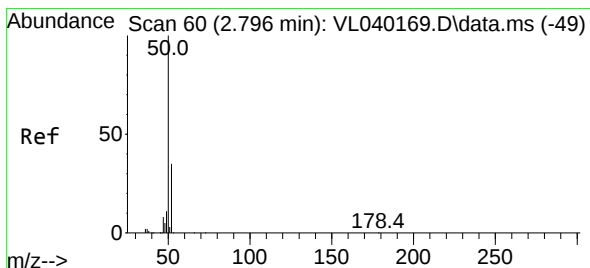
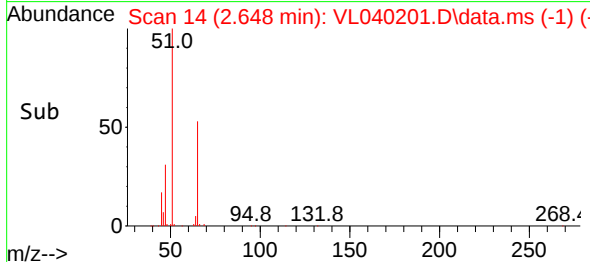
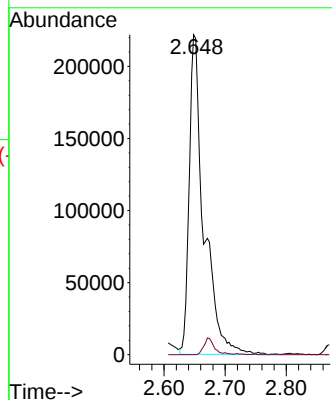
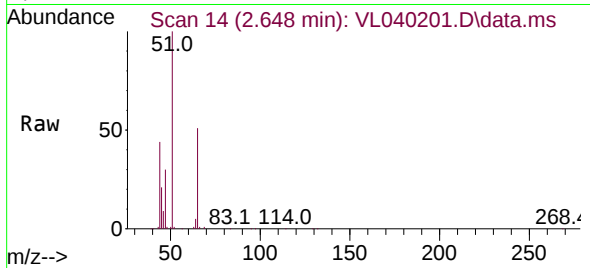




#3
Chlorodifluoromethane
Concen: 3.790 ppbv
RT: 2.648 min Scan# 14
Delta R.T. -0.026 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

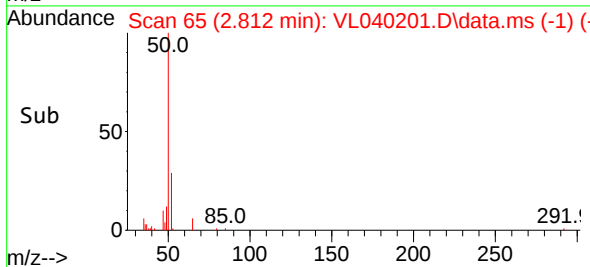
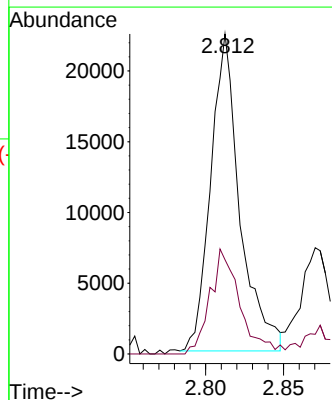
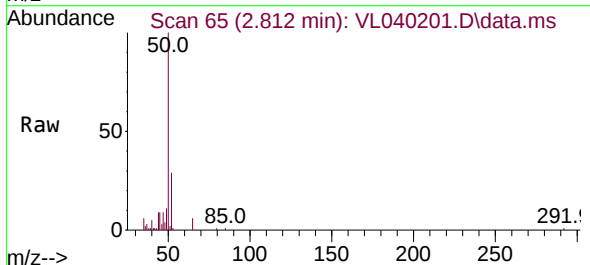
Instrument :
MSVOA_L
ClientSampleId :
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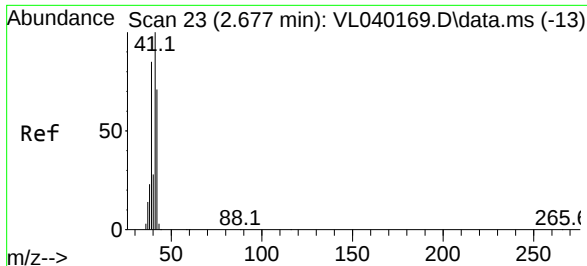
Tgt Ion: 51 Resp: 369062
Ion Ratio Lower Upper
51 100
67 3.9 15.4 23.2#



#4
Chloromethane
Concen: 0.476 ppbv
RT: 2.812 min Scan# 65
Delta R.T. -0.000 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

Tgt Ion: 50 Resp: 29104
Ion Ratio Lower Upper
50 100
52 30.0 28.3 42.5





#9

Propene

Concen: 8.712 ppbv

RT: 2.870 min Scan# 81

Delta R.T. 0.177 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

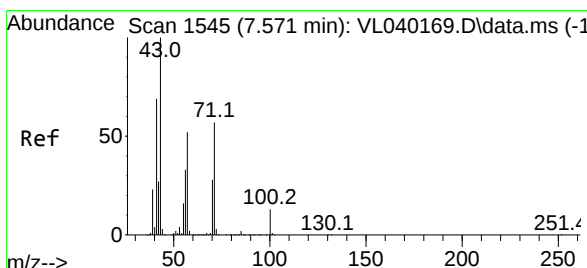
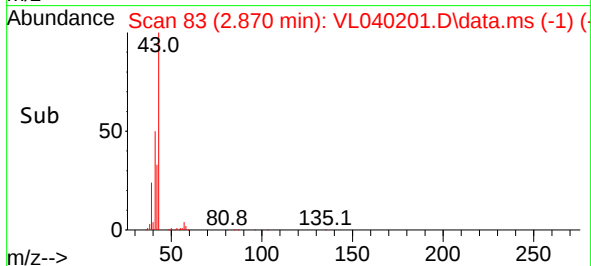
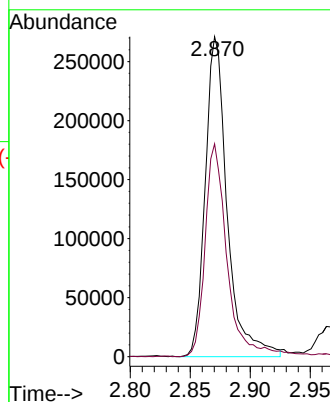
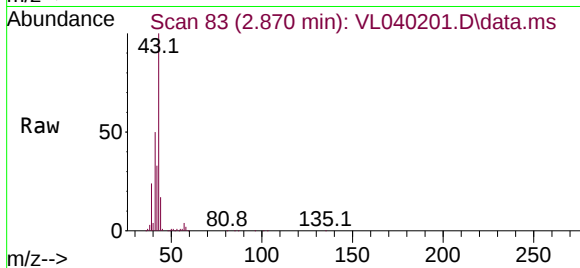
IA-12

Tgt Ion: 41 Resp: 345840

Ion Ratio Lower Upper

41 100

42 67.7 56.9 85.3



#10

Heptane

Concen: 0.056 ppbv

RT: 7.597 min Scan# 1553

Delta R.T. -0.007 min

Lab File: VL040201.D

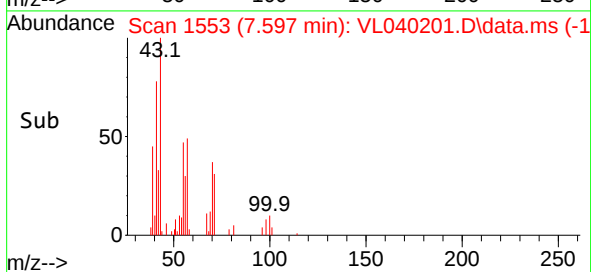
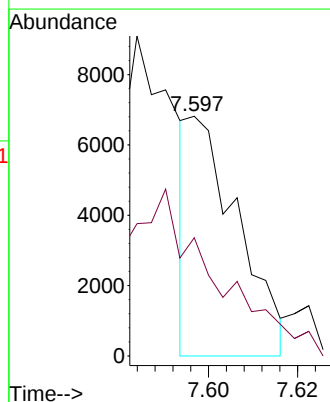
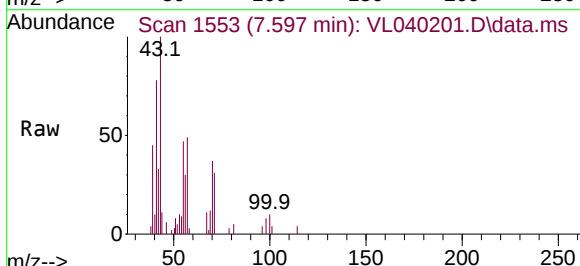
Acq: 21 Feb 2023 19:10

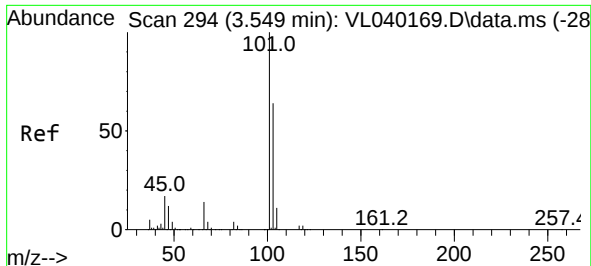
Tgt Ion: 43 Resp: 5266

Ion Ratio Lower Upper

43 100

57 147.7 41.4 62.2#

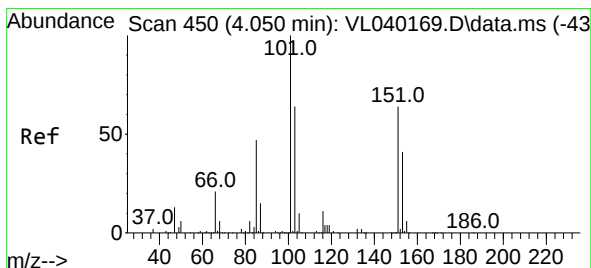
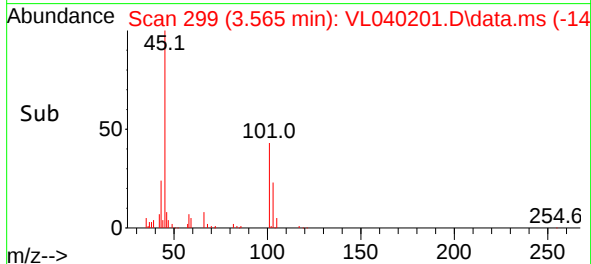
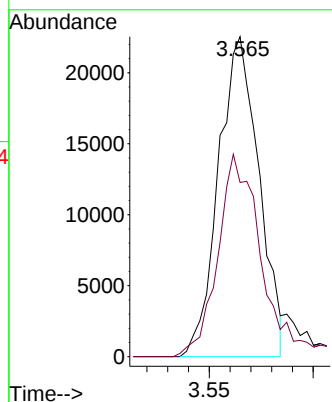
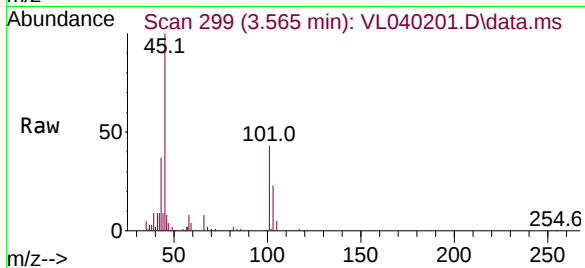




#11
 Trichlorofluoromethane
 Concen: 0.223 ppbv
 RT: 3.565 min Scan# 299
 Delta R.T. -0.003 min
 Lab File: VL040201.D
 Acq: 21 Feb 2023 19:10

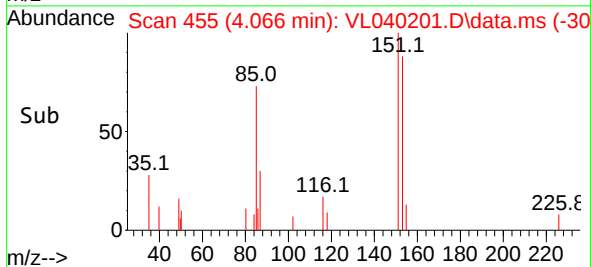
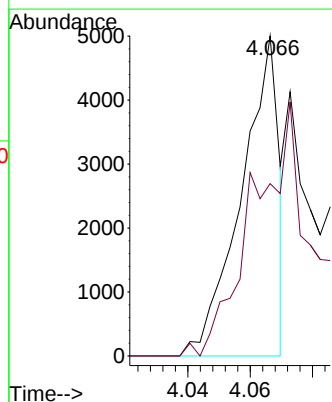
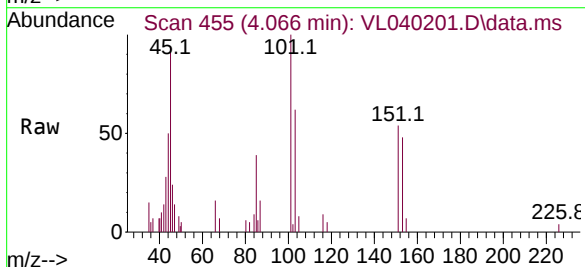
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-12

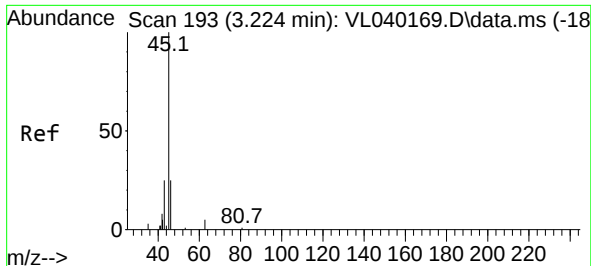
Tgt Ion:101 Resp: 30444
 Ion Ratio Lower Upper
 101 100
 103 53.5 51.0 76.6



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.042 ppbv
 RT: 4.066 min Scan# 455
 Delta R.T. -0.007 min
 Lab File: VL040201.D
 Acq: 21 Feb 2023 19:10

Tgt Ion:101 Resp: 4206
 Ion Ratio Lower Upper
 101 100
 151 0.0 54.7 82.1#

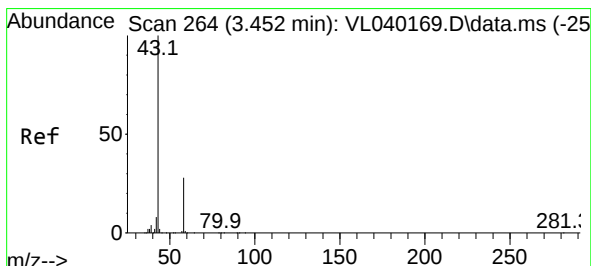
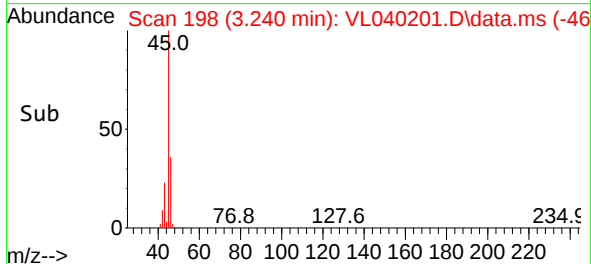
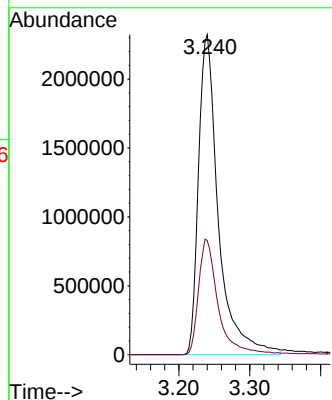
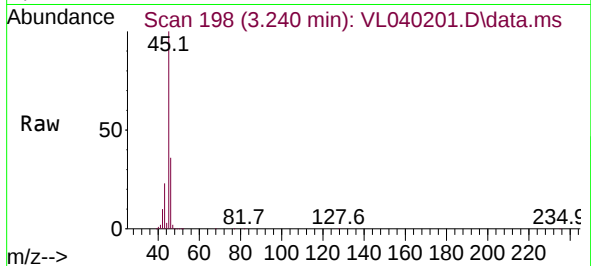




#13
Ethanol
Concen: 1237.824 ppbv
RT: 3.240 min Scan# 193
Delta R.T. -0.010 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

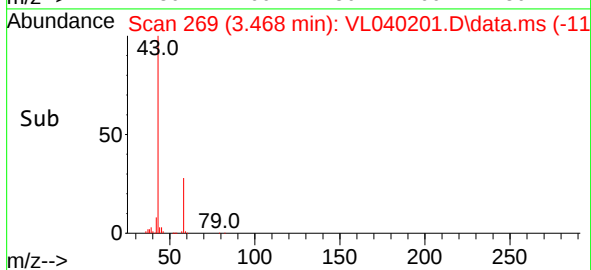
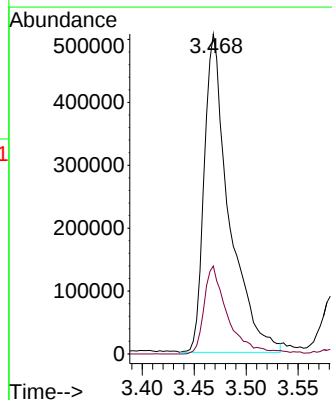
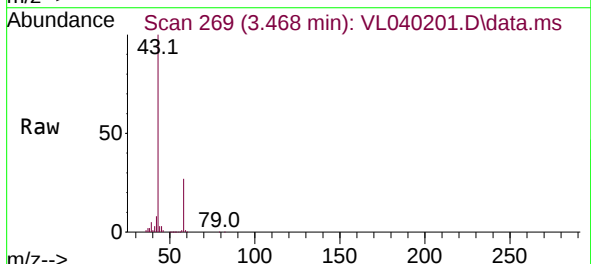
Instrument :
MSVOA_L
ClientSampleId :
IA-12

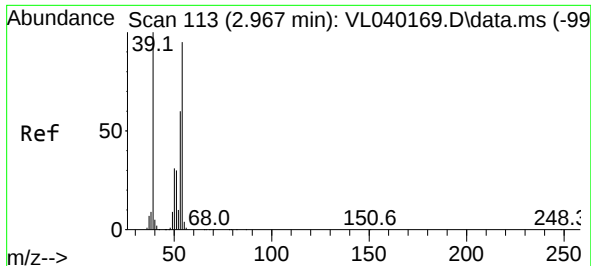
Tgt Ion: 45 Resp: 4523507
Ion Ratio Lower Upper
45 100
46 36.6 13.3 53.1



#15
Acetone
Concen: 8.582 ppbv
RT: 3.468 min Scan# 269
Delta R.T. -0.003 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

Tgt Ion: 43 Resp: 842269
Ion Ratio Lower Upper
43 100
58 26.5 22.4 33.6





#16

1,3-Butadiene

Concen: 0.404 ppbv

RT: 2.964 min Scan# 113

Delta R.T. -0.023 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

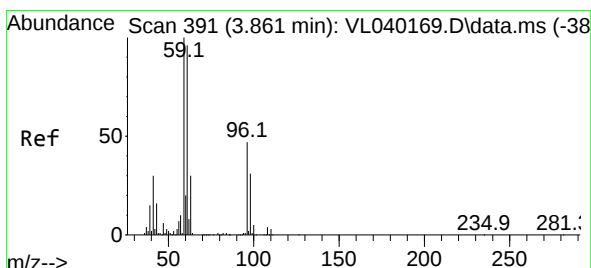
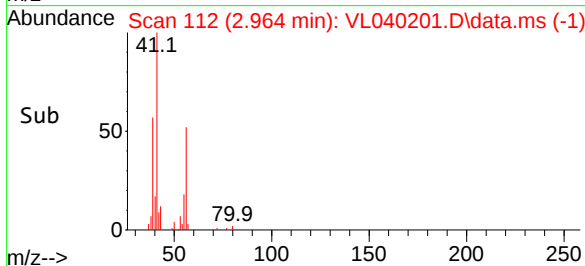
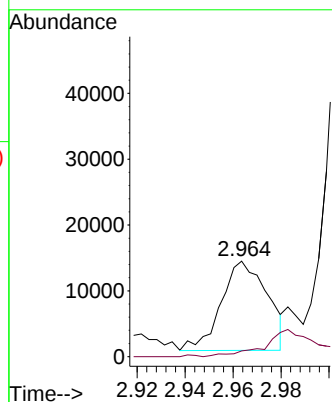
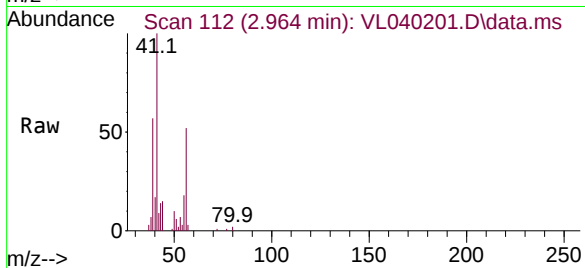
IA-12

Tgt Ion: 39 Resp: 18121

Ion Ratio Lower Upper

39 100

54 44.6 66.7 100.1#



#17

tert-Butyl alcohol

Concen: 0.180 ppbv

RT: 3.896 min Scan# 402

Delta R.T. 0.010 min

Lab File: VL040201.D

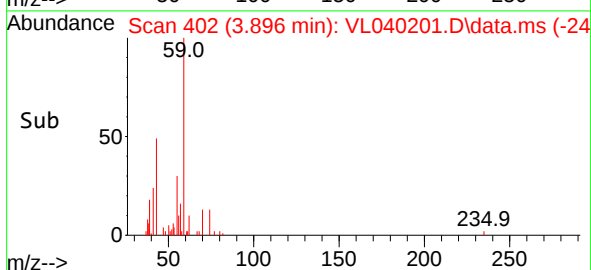
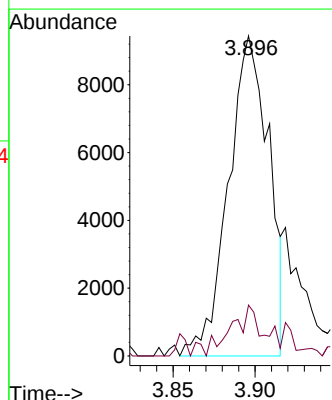
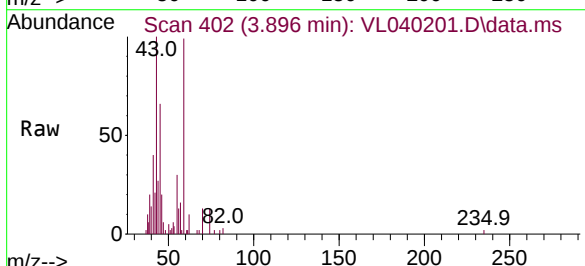
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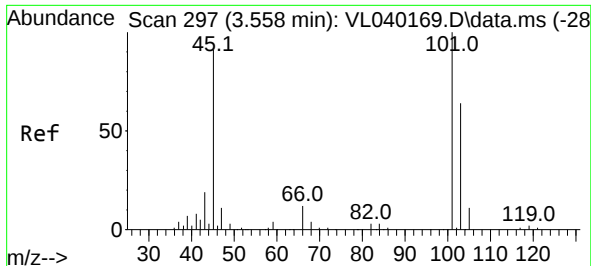
Tgt Ion: 59 Resp: 16150

Ion Ratio Lower Upper

59 100

57 18.9 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 13.023 ppbv

RT: 3.581 min Scan# 304

Delta R.T. -0.000 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

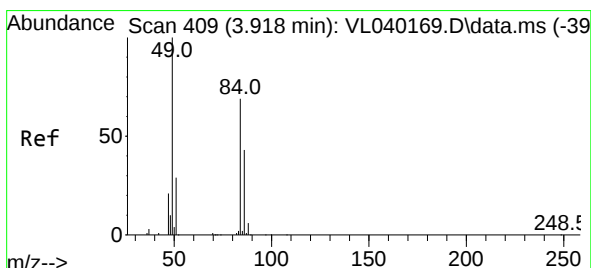
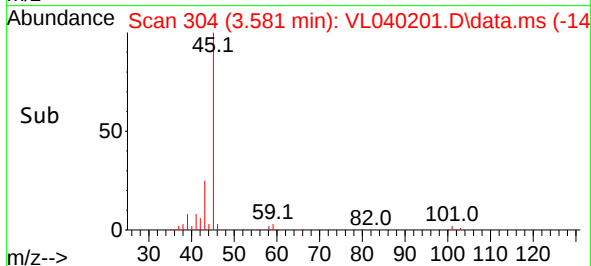
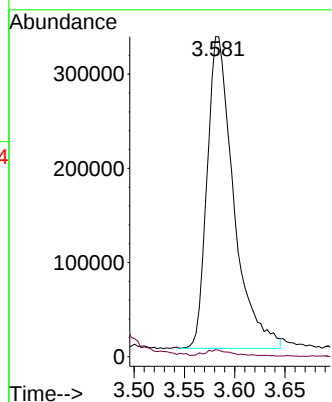
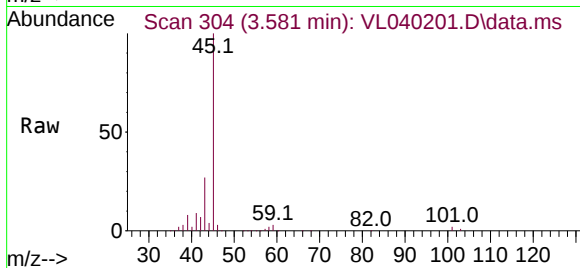
IA-12

Tgt Ion: 45 Resp: 607599

Ion Ratio Lower Upper

45 100

58 2.4 2.6 3.8#



#20

Methylene Chloride

Concen: 1.577 ppbv

RT: 3.935 min Scan# 414

Delta R.T. -0.003 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Tgt Ion: 84 Resp: 80551

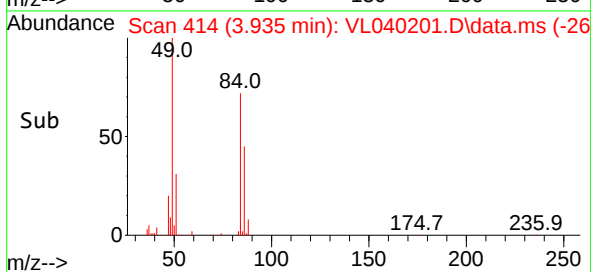
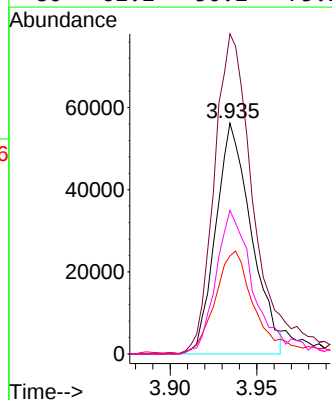
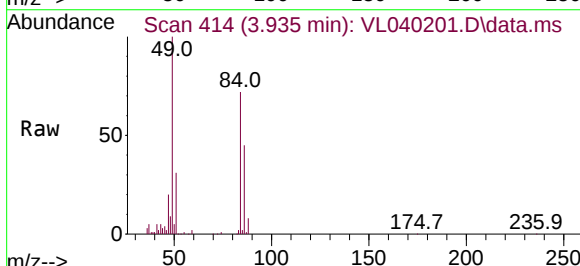
Ion Ratio Lower Upper

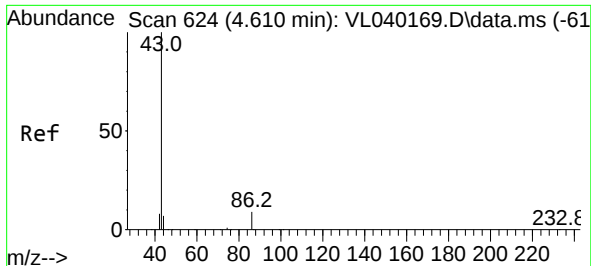
84 100

49 138.4 115.5 173.3

51 42.6 33.1 49.7

86 62.2 50.2 75.2



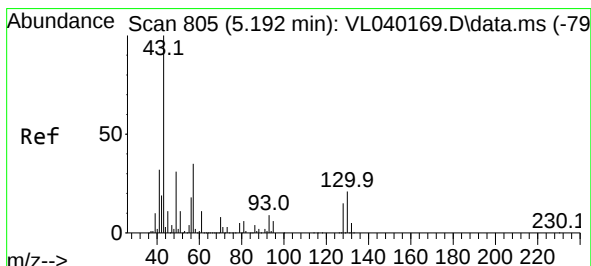
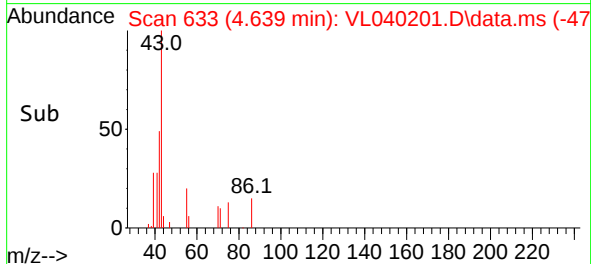
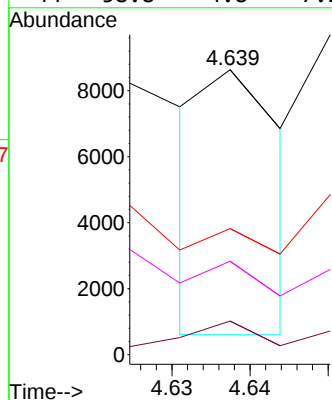
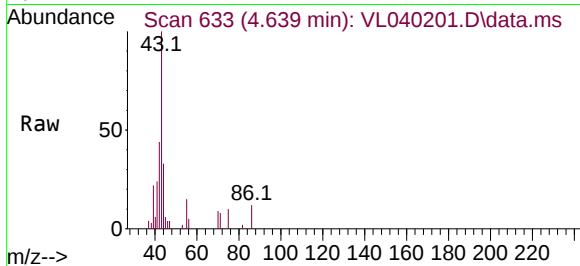


#23
 Vinyl Acetate
 Concen: 0.092 ppbv
 RT: 4.639 min Scan# 61
 Delta R.T. -0.000 min
 Lab File: VL040201.D
 Acq: 21 Feb 2023 19:10

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-12

Tgt Ion: 43 Resp: 2749

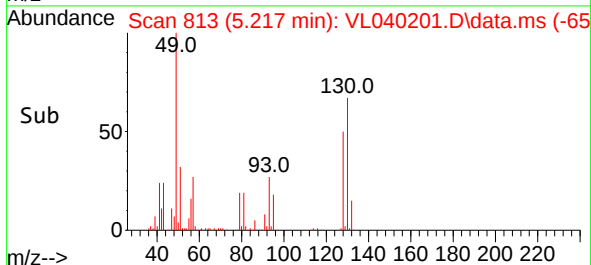
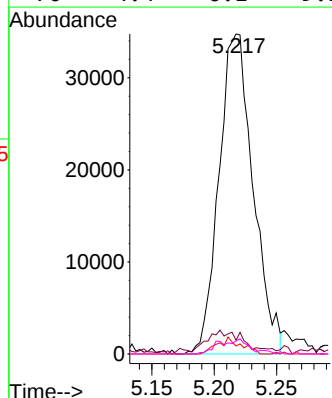
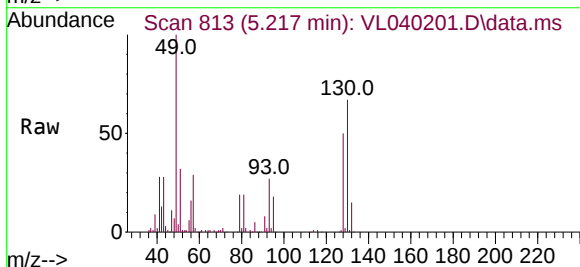
Ion	Ratio	Lower	Upper
43	100		
86	41.8	5.6	8.4#
42	43.2	7.6	11.4#
44	58.8	4.8	7.2#

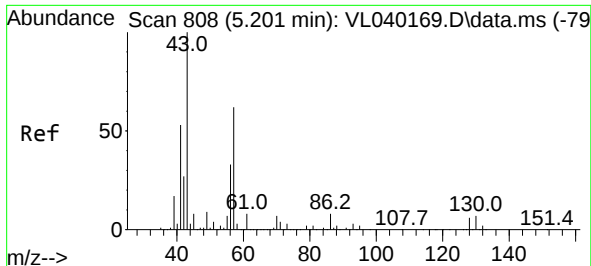


#25
 Ethyl Acetate
 Concen: 0.364 ppbv
 RT: 5.217 min Scan# 813
 Delta R.T. -0.000 min
 Lab File: VL040201.D
 Acq: 21 Feb 2023 19:10

Tgt Ion: 43 Resp: 66409

Ion	Ratio	Lower	Upper
43	100		
45	9.3	8.3	12.5
61	3.7	8.4	12.6#
70	4.4	6.1	9.1#

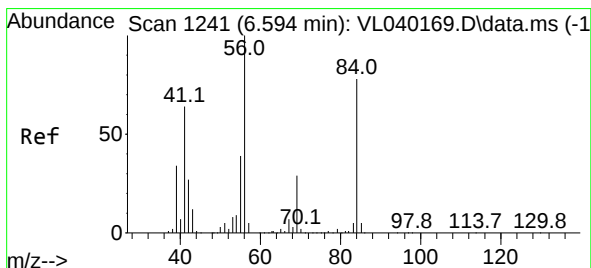
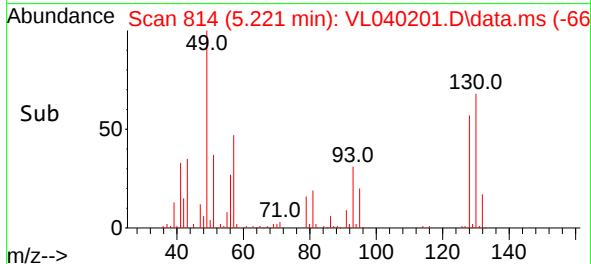
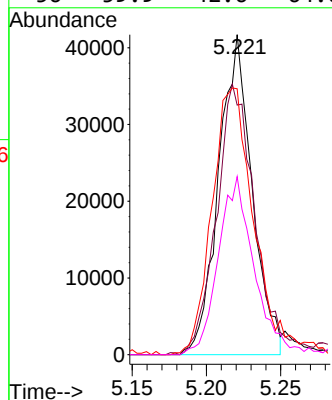
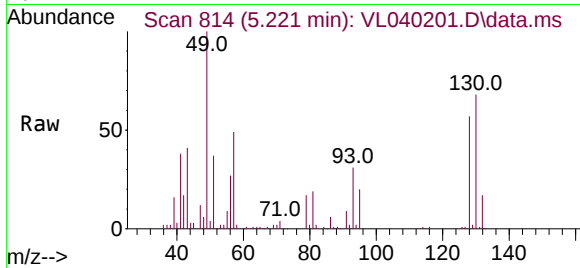




#26
Hexane
Concen: 0.833 ppbv
RT: 5.221 min Scan# 814
Delta R.T. -0.003 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

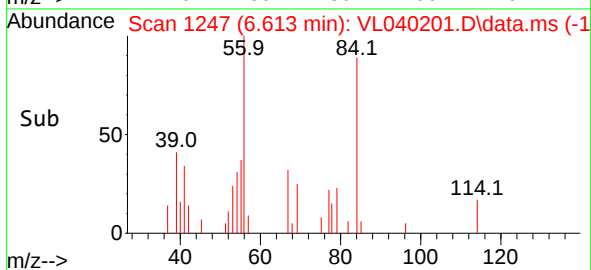
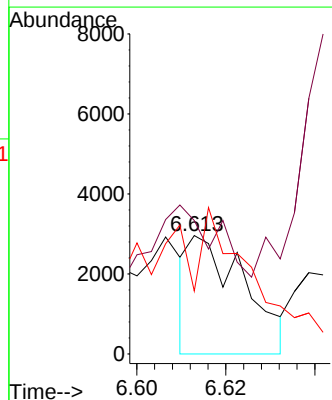
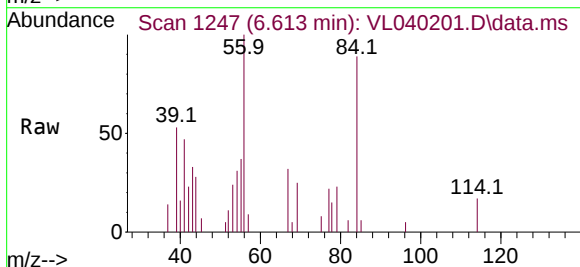
Instrument :
MSVOA_L
ClientSampleId :
IA-12

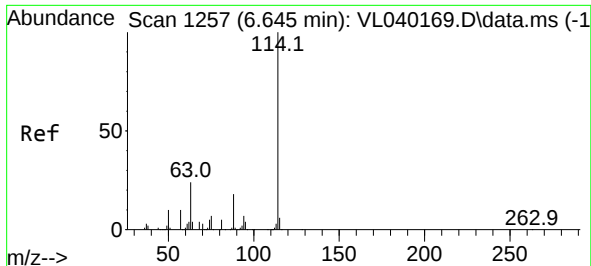
Tgt Ion: 57 Resp: 65269
Ion Ratio Lower Upper
57 100
41 101.8 74.3 111.5
43 108.0 193.0 289.4#
56 59.9 42.6 64.0



#30
Cyclohexane
Concen: 0.042 ppbv
RT: 6.613 min Scan# 1247
Delta R.T. -0.010 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

Tgt Ion: 84 Resp: 2567
Ion Ratio Lower Upper
84 100
56 0.0 109.9 164.9#
41 316.0 67.8 101.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.661 min Scan# 11

Delta R.T. -0.013 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

IA-12

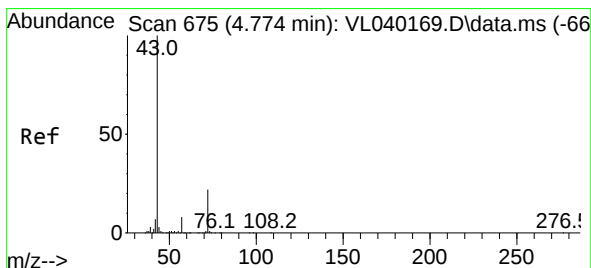
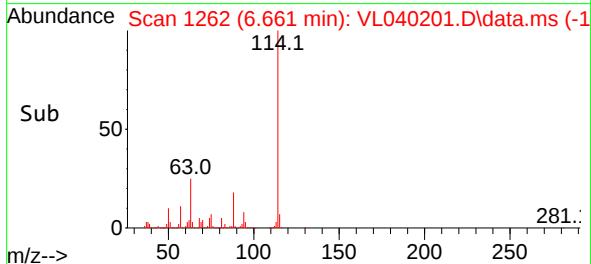
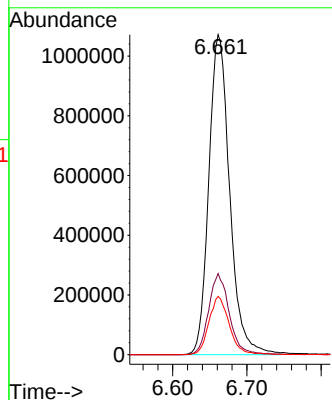
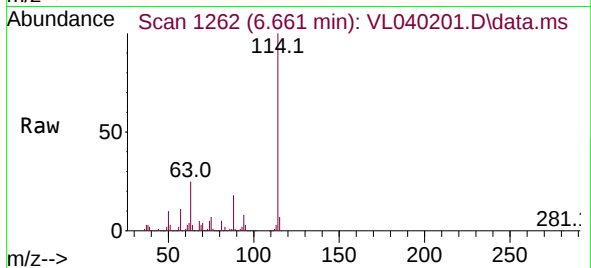
Tgt Ion:114 Resp: 2091920

Ion Ratio Lower Upper

114 100

63 25.2 20.4 30.6

88 17.9 14.3 21.5



#34

2-Butanone

Concen: 0.343 ppbv

RT: 4.796 min Scan# 682

Delta R.T. -0.000 min

Lab File: VL040201.D

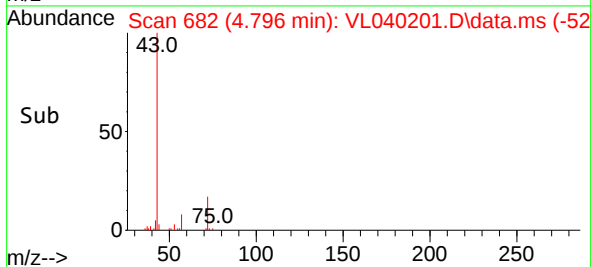
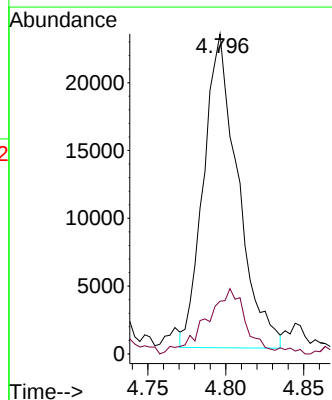
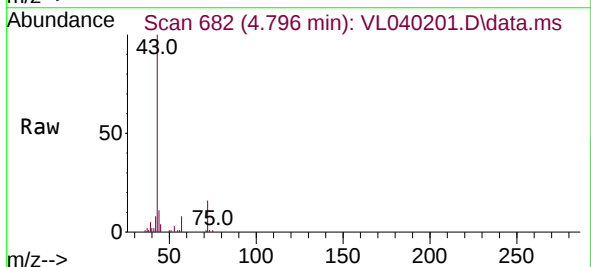
Acq: 21 Feb 2023 19:10

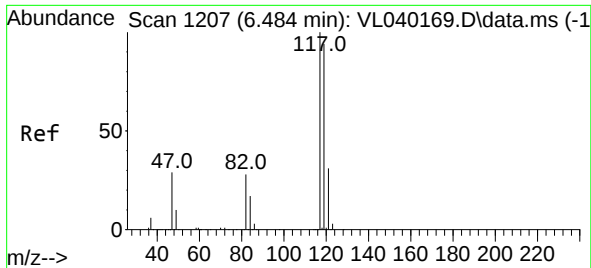
Tgt Ion: 43 Resp: 35413

Ion Ratio Lower Upper

43 100

72 25.5 17.8 26.8

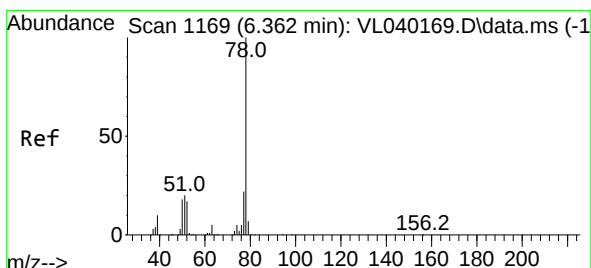
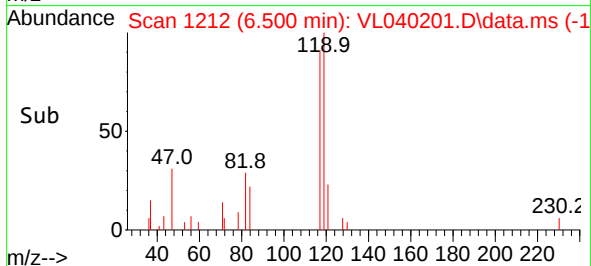
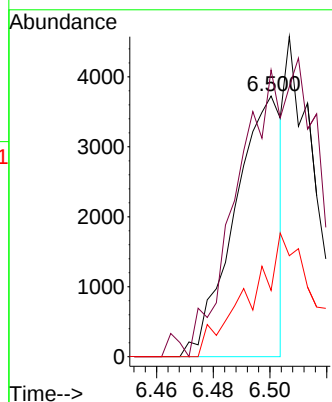
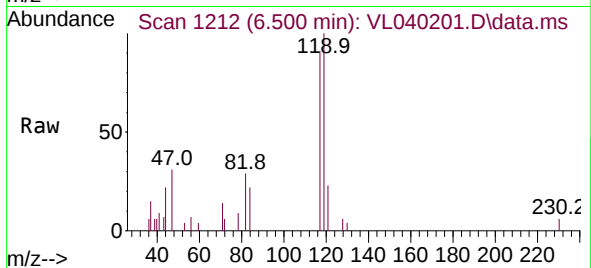




#35
Carbon Tetrachloride
Concen: 0.035 ppbv
RT: 6.500 min Scan# 1174
Delta R.T. -0.013 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

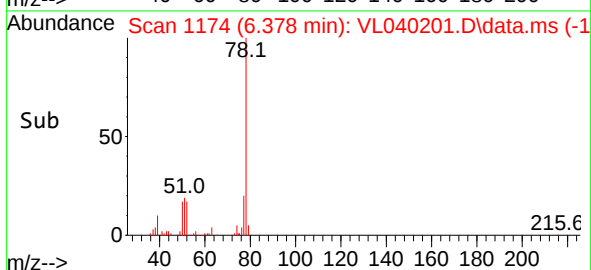
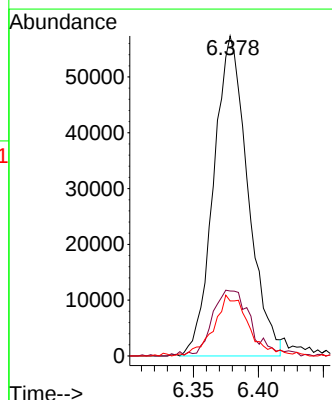
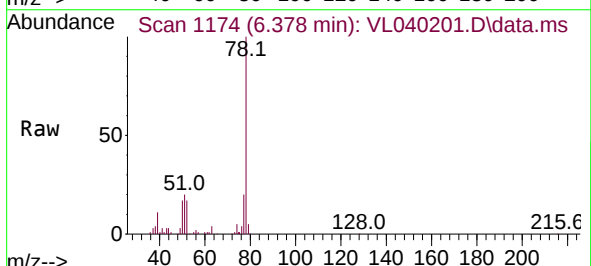
Instrument :
MSVOA_L
ClientSampleId :
IA-12

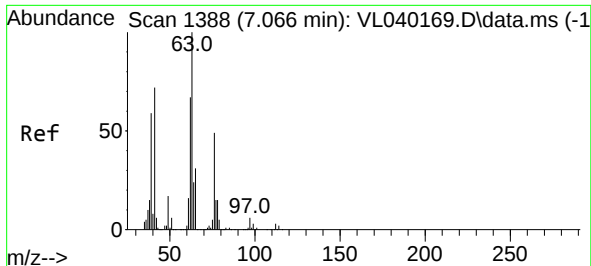
Tgt Ion:117 Resp: 4285
Ion Ratio Lower Upper
117 100
119 104.6 75.0 112.6
121 25.4 25.0 37.4



#36
Benzene
Concen: 0.645 ppbv
RT: 6.378 min Scan# 1174
Delta R.T. -0.010 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

Tgt Ion: 78 Resp: 105014
Ion Ratio Lower Upper
78 100
77 18.9 17.5 26.3
50 16.6 14.6 22.0





#39

1,2-Dichloropropane

Concen: 8.222 ppbv

RT: 6.661 min Scan# 1

Delta R.T. -0.434 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

IA-12

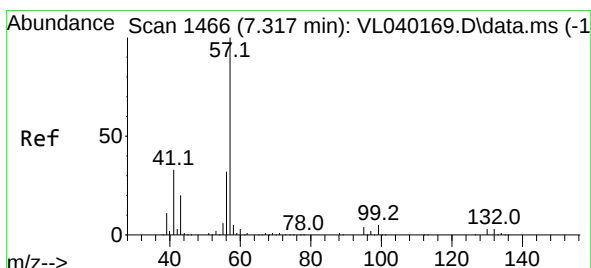
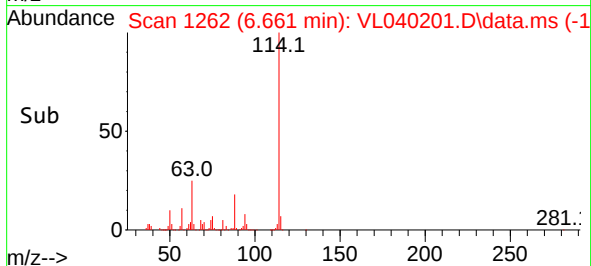
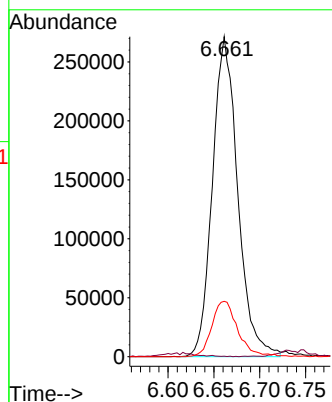
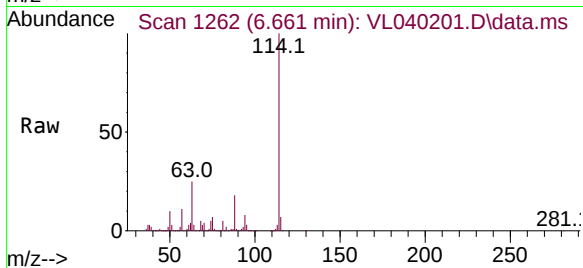
Tgt Ion: 63 Resp: 520705

Ion Ratio Lower Upper

63 100

41 0.0 57.6 86.4#

62 17.3 54.0 81.0#



#44

2,2,4-Trimethylpentane

Concen: 0.228 ppbv

RT: 7.340 min Scan# 1473

Delta R.T. -0.007 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

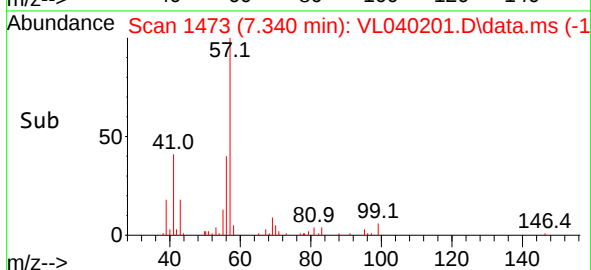
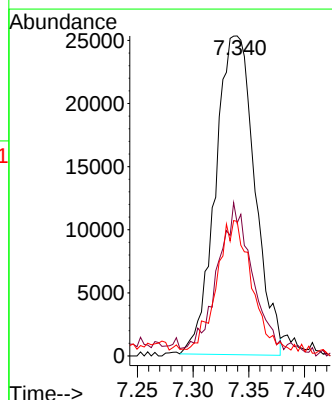
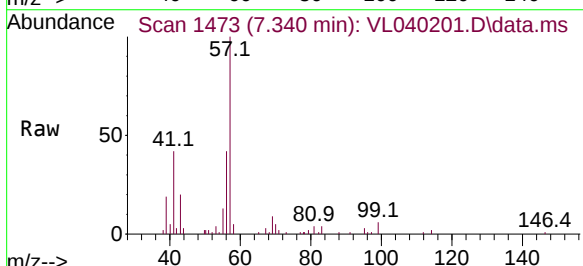
Tgt Ion: 57 Resp: 61971

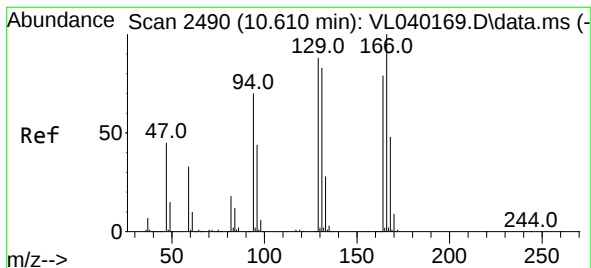
Ion Ratio Lower Upper

57 100

41 46.9 26.2 39.4#

56 41.4 24.9 37.3#





#52

Tetrachloroethene

Concen: 0.033 ppbv

RT: 10.622 min Scan# 2494

Delta R.T. -0.019 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

IA-12

Tgt Ion:164 Resp: 1677

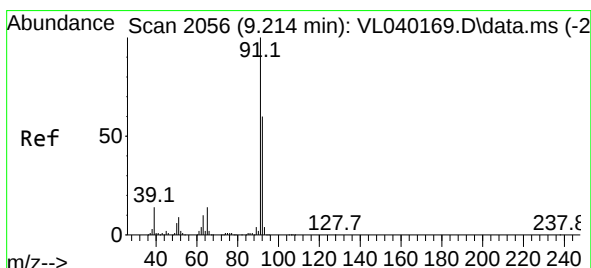
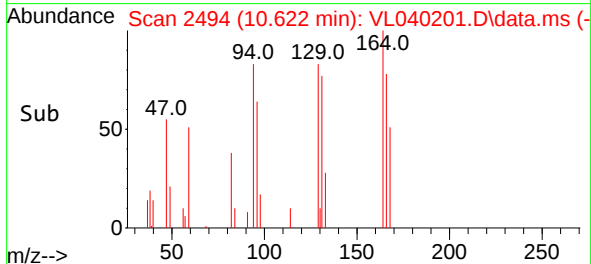
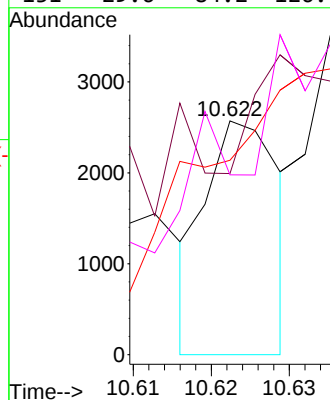
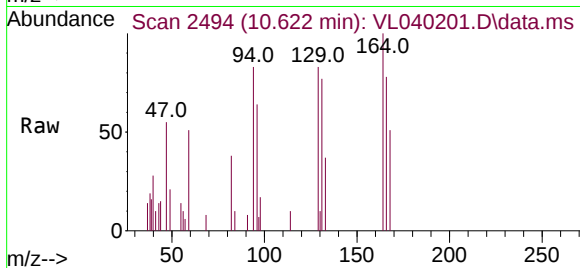
Ion Ratio Lower Upper

164 100

166 0.0 101.5 152.3#

129 0.9 89.0 133.4#

131 29.6 84.2 126.4#



#53

Toluene

Concen: 1.354 ppbv

RT: 9.233 min Scan# 2062

Delta R.T. -0.013 min

Lab File: VL040201.D

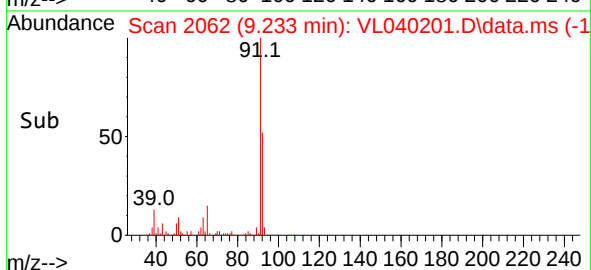
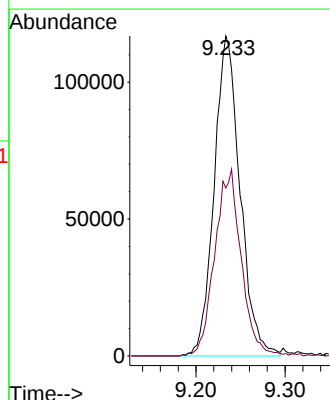
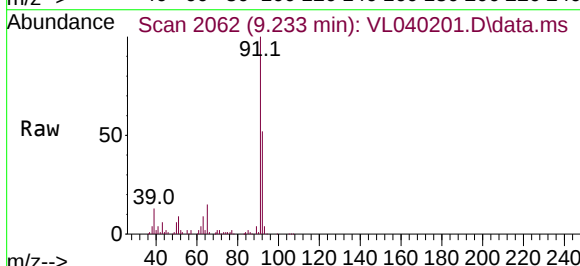
Acq: 21 Feb 2023 19:10

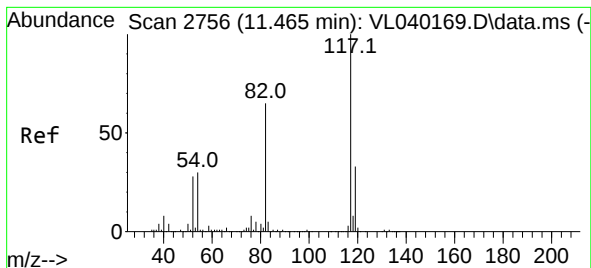
Tgt Ion: 91 Resp: 236175

Ion Ratio Lower Upper

91 100

92 59.7 48.9 73.3





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.484 min Scan# 21

Delta R.T. -0.010 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_1

ClientSampleId :

IA-12

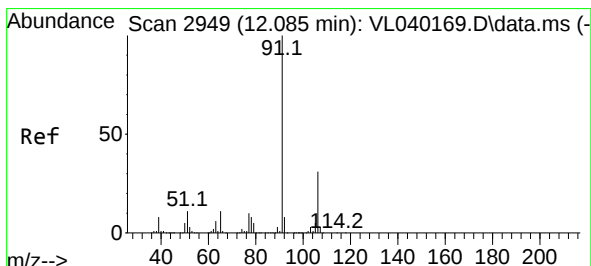
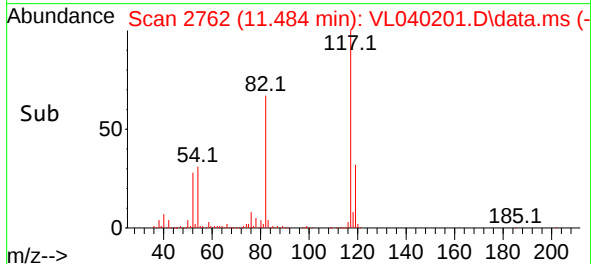
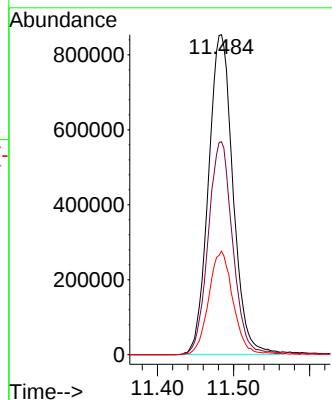
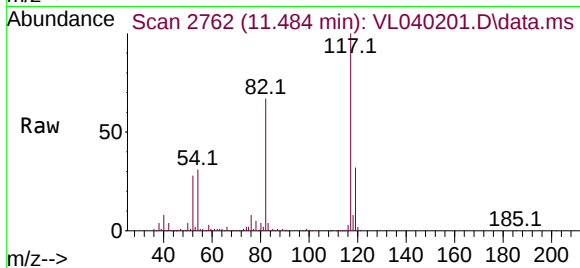
Tgt Ion:117 Resp: 1907728

Ion Ratio Lower Upper

117 100

82 67.5 53.3 79.9

119 32.5 24.6 37.0



#58

Ethyl Benzene

Concen: 0.168 ppbv

RT: 12.105 min Scan# 2955

Delta R.T. -0.013 min

Lab File: VL040201.D

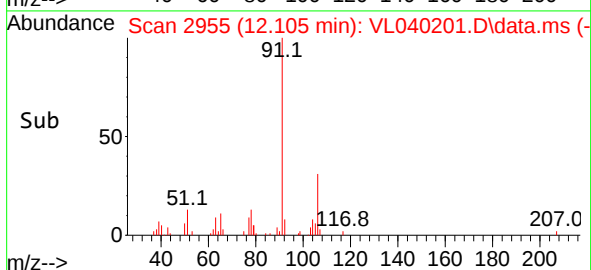
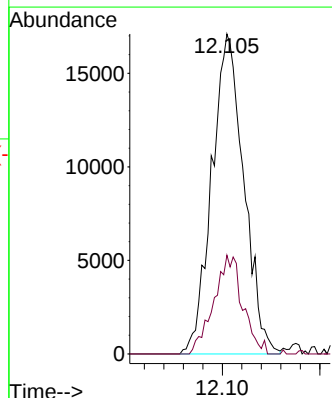
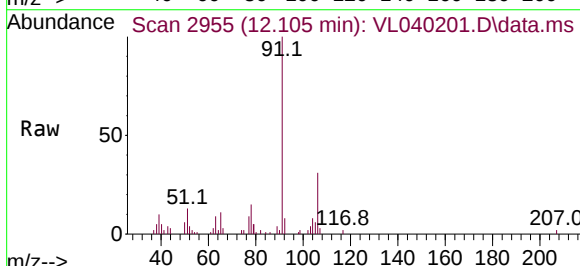
Acq: 21 Feb 2023 19:10

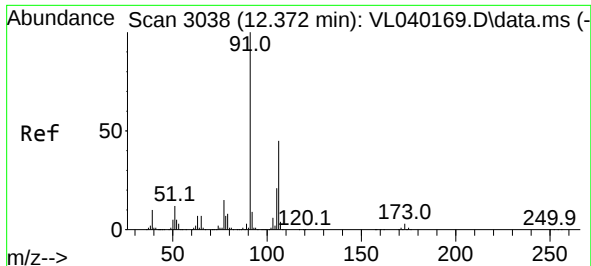
Tgt Ion: 91 Resp: 38996

Ion Ratio Lower Upper

91 100

106 30.8 24.9 37.3





#59

m/p-Xylene

Concen: 0.145 ppbv

RT: 12.384 min Scan# 3042

Delta R.T. -0.013 min

Lab File: VL040201.D

Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

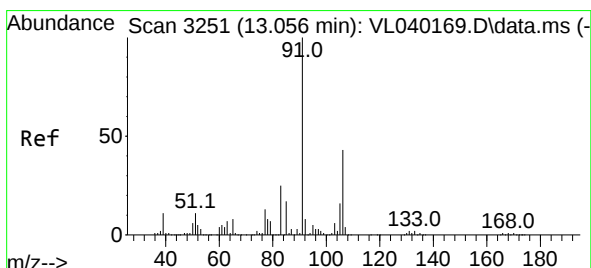
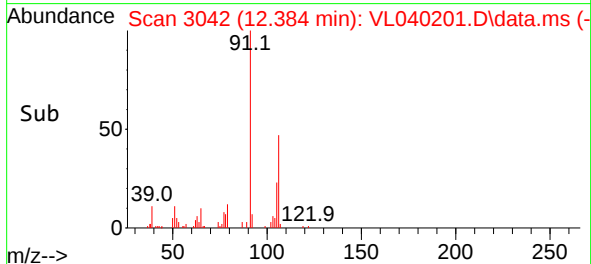
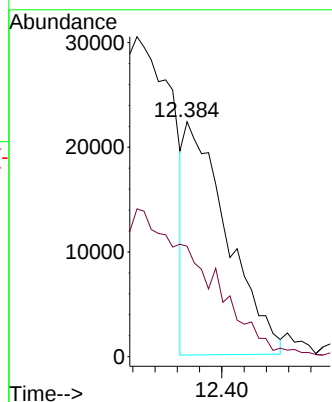
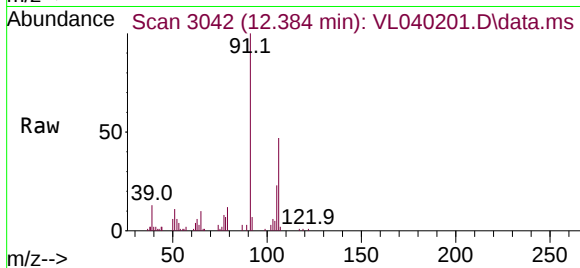
IA-12

Tgt Ion: 91 Resp: 29727

Ion Ratio Lower Upper

91 100

106 0.0 34.6 51.8#



#60

o-Xylene

Concen: 0.195 ppbv

RT: 13.079 min Scan# 3258

Delta R.T. -0.007 min

Lab File: VL040201.D

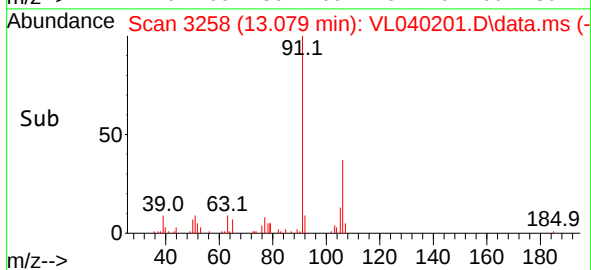
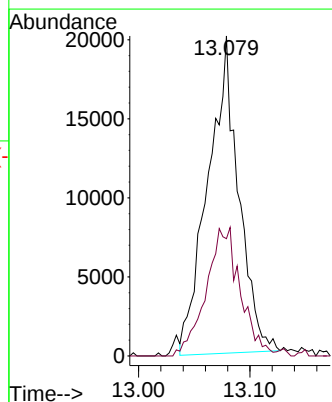
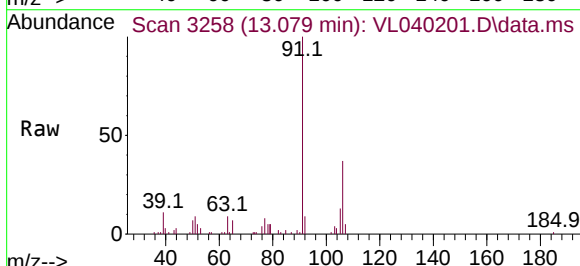
Acq: 21 Feb 2023 19:10

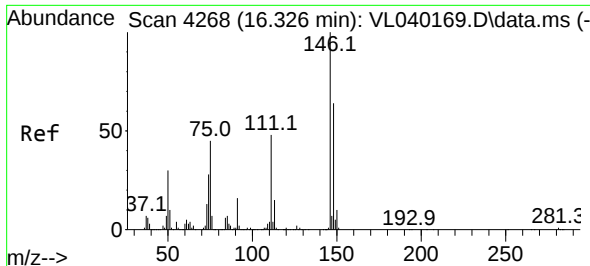
Tgt Ion: 91 Resp: 38534

Ion Ratio Lower Upper

91 100

106 46.0 21.6 65.0

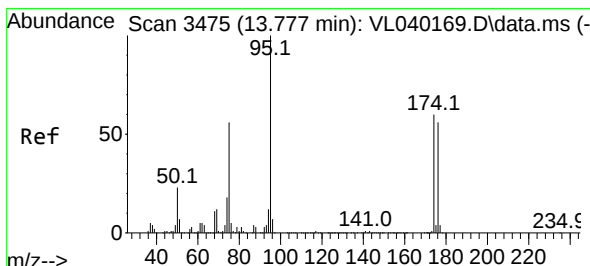
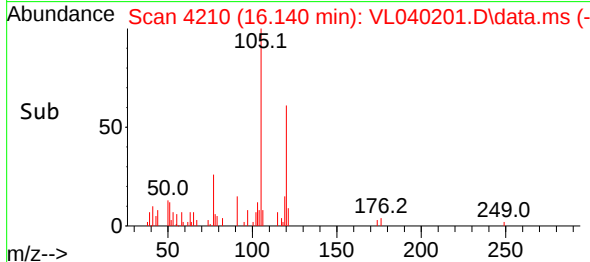
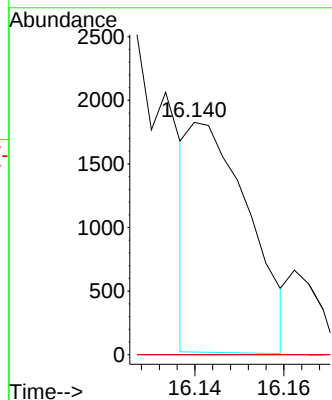
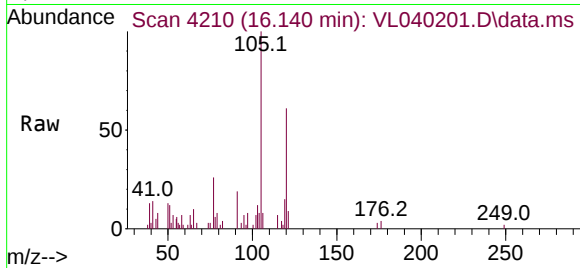




#66
Benzyl Chloride
Concen: 0.103 ppbv
RT: 16.140 min Scan# 41
Delta R.T. -0.219 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

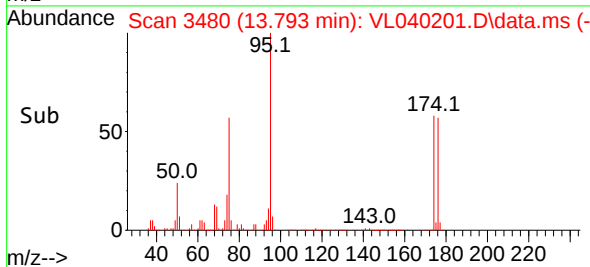
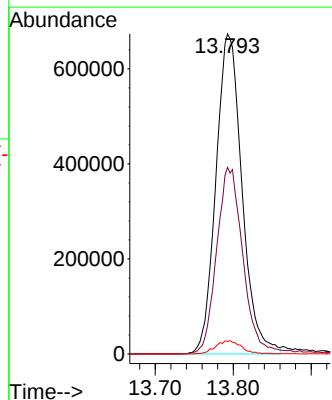
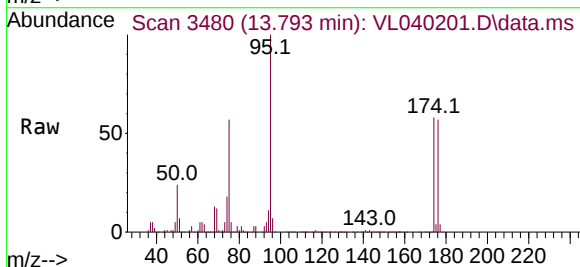
Instrument :
MSVOA_L
ClientSampleId :
IA-12

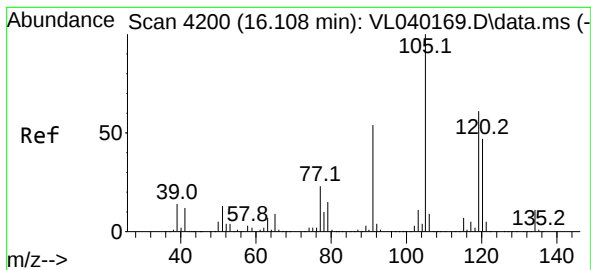
Tgt Ion: 91 Resp: 1693
Ion Ratio Lower Upper
91 100
126 0.0 13.1 19.7#
128 0.0 4.1 6.1#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.997 ppbv
RT: 13.793 min Scan# 3480
Delta R.T. -0.013 min
Lab File: VL040201.D
Acq: 21 Feb 2023 19:10

Tgt Ion: 95 Resp: 1568228
Ion Ratio Lower Upper
95 100
174 60.1 48.2 72.2
175 4.2 3.4 5.2





#74

1,2,4-Trimethylbenzene

Concen: 0.175 ppbv

RT: 16.127 min Scan# 41

Delta R.T. -0.010 min

Lab File: VL040201.D

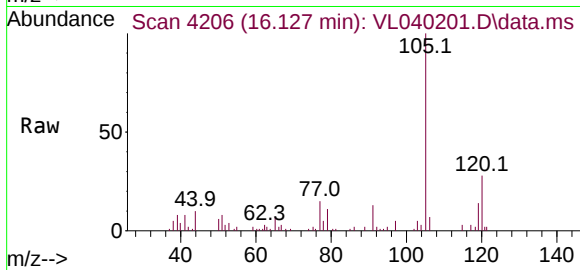
Acq: 21 Feb 2023 19:10

Instrument :

MSVOA_L

ClientSampleId :

IA-12



Tgt Ion:105 Resp: 38962

Ion Ratio Lower Upper

105 100

120 30.7 37.9 56.9#

91 12.2 43.7 65.5#

77 14.3 18.3 27.5#

