

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL022123\
 Data File : VL040199.D
 Acq On : 21 Feb 2023 17:50
 Operator : SY/MD
 Sample : 01626-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3

Quant Time: Feb 22 03:25:04 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)

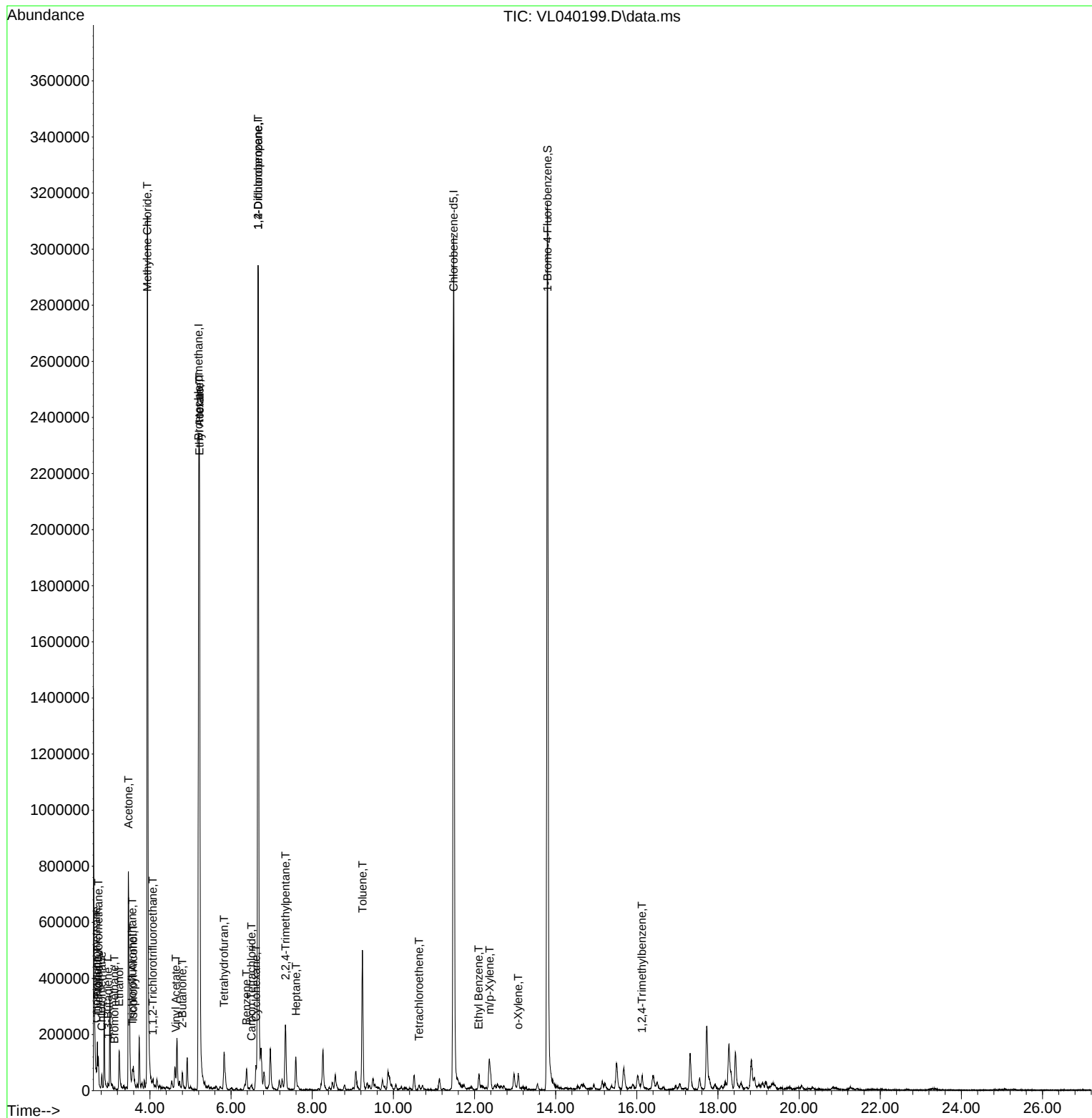
Internal Standards						
1) Bromochloromethane	5.202	49	873999	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.668	114	2252216	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.487	117	1981955	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.799	95	1624923	9.970	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.700%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.732	85	66755	0.410	ppbv	90
3) Chlorodifluoromethane	2.677	51	43914	0.421	ppbv #	89
4) Chloromethane	2.816	50	38798	0.592	ppbv	96
6) Bromomethane	3.124	94	642	0.034	ppbv #	4
9) Propene	2.703	41	30082	0.707	ppbv #	75
10) Heptane	7.600	43	16408	0.162	ppbv #	1
11) Trichlorofluoromethane	3.565	101	30452	0.208	ppbv	97
12) 1,1,2-Trichlorotrifluo...	4.073	101	4572	0.042	ppbv #	45
13) Ethanol	3.243	45	143777	36.697	ppbv	95
15) Acetone	3.468	43	845519	8.035	ppbv	100
16) 1,3-Butadiene	2.964	39	4666	0.097	ppbv #	42
19) Isopropyl Alcohol	3.591	45	67374	1.347	ppbv #	1
20) Methylene Chloride	3.938	84	1061318	19.375	ppbv	94
23) Vinyl Acetate	4.642	43	7438	0.233	ppbv #	79
25) Ethyl Acetate	5.224	43	484468	2.477	ppbv #	76
26) Hexane	5.221	57	714366	8.507	ppbv #	36
30) Cyclohexane	6.616	84	14848	0.225	ppbv #	1
34) 2-Butanone	4.800	43	64960	0.585	ppbv	95
35) Carbon Tetrachloride	6.504	117	6980	0.052	ppbv	89
36) Benzene	6.382	78	57616	0.329	ppbv	95
39) 1,2-Dichloropropane	6.668	63	554764	8.136	ppbv #	25
41) Tetrahydrofuran	5.828	42	16085	0.250	ppbv #	35
44) 2,2,4-Trimethylpentane	7.340	57	189091	0.646	ppbv #	84
52) Tetrachloroethene	10.635	164	1755	0.032	ppbv #	82
53) Toluene	9.240	91	336195	1.791	ppbv	100
58) Ethyl Benzene	12.105	91	44604	0.185	ppbv #	89
59) m/p-Xylene	12.368	91	66704	0.313	ppbv #	41
60) o-Xylene	13.076	91	25944	0.126	ppbv #	61
74) 1,2,4-Trimethylbenzene	16.124	105	13715	0.059	ppbv #	62

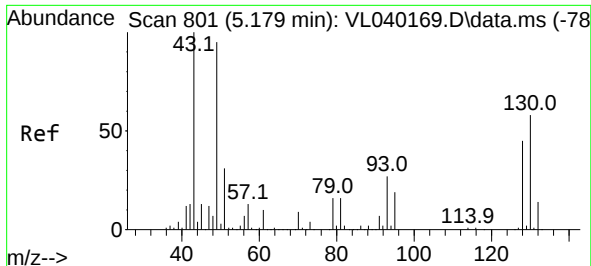
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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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

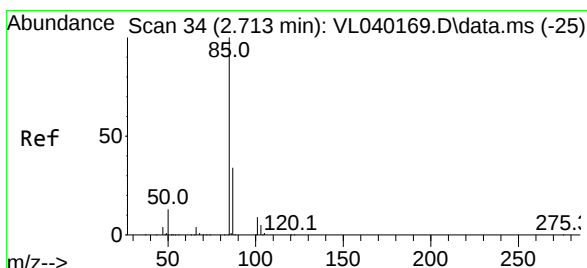
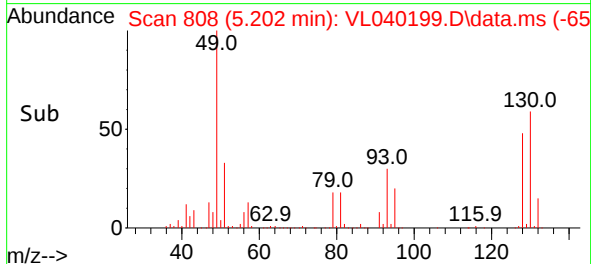
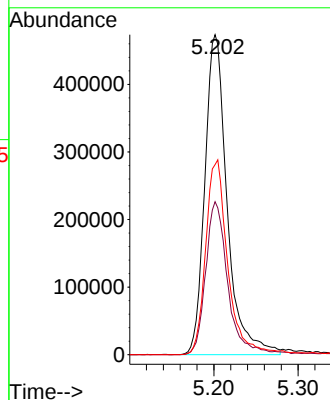
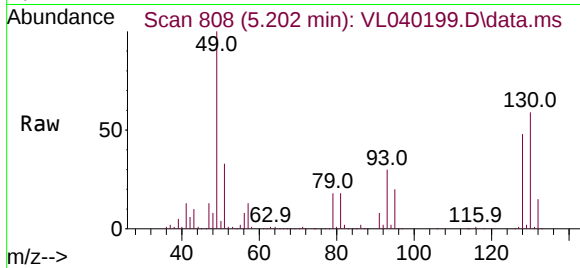




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.202 min Scan# 80
Delta R.T. -0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

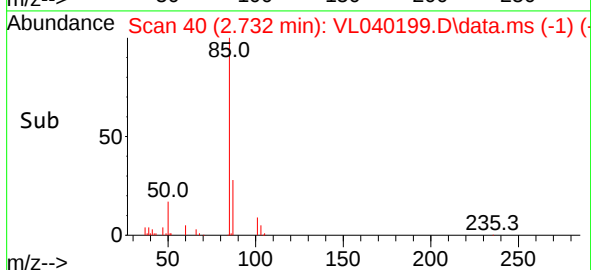
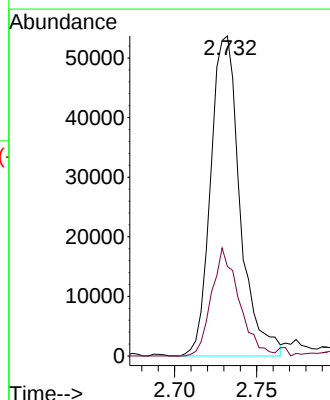
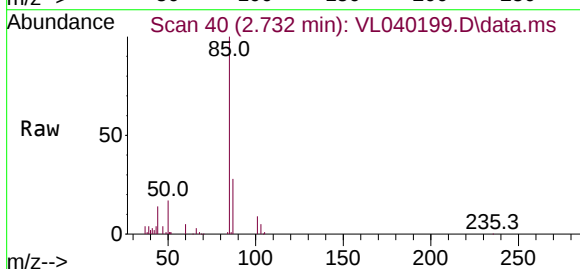
Instrument :
MSVOA_1
ClientSampleId :
IA-3

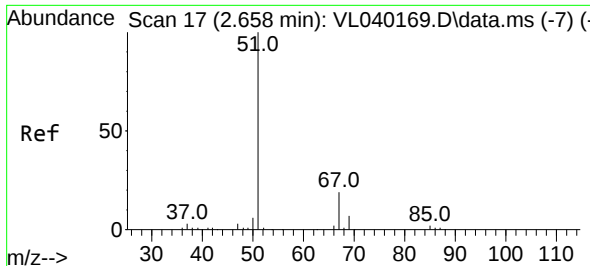
Tgt Ion: 49 Resp: 873999
Ion Ratio Lower Upper
49 100
128 48.5 24.1 72.3
130 61.5 30.9 92.8



#2
Dichlorodifluoromethane
Concen: 0.410 ppbv
RT: 2.732 min Scan# 40
Delta R.T. 0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 85 Resp: 66755
Ion Ratio Lower Upper
85 100
87 28.0 27.0 40.6

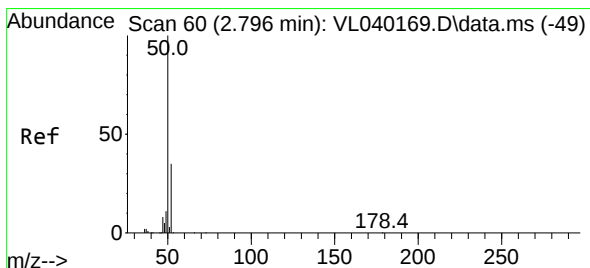
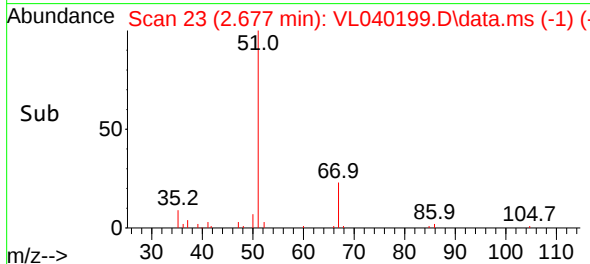
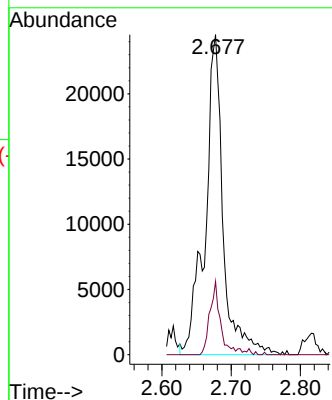
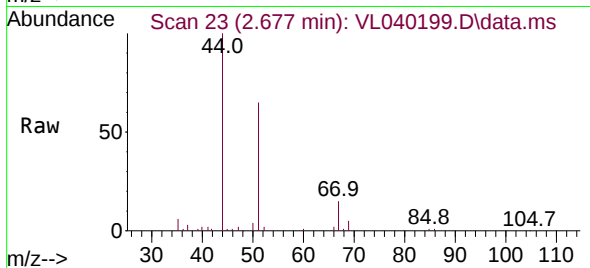




#3
Chlorodifluoromethane
Concen: 0.421 ppbv
RT: 2.677 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

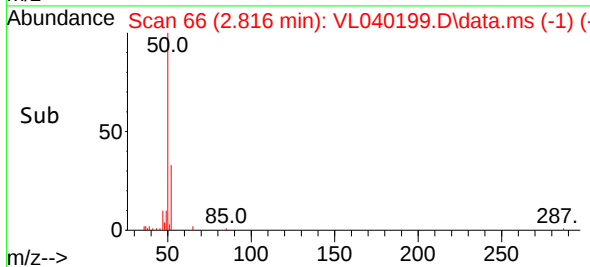
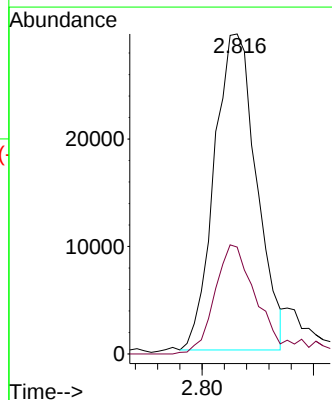
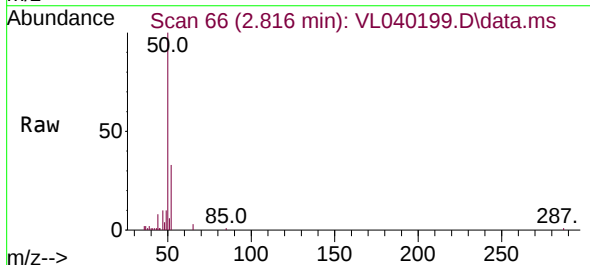
Instrument :
MSVOA_L
ClientSampleId :
IA-3

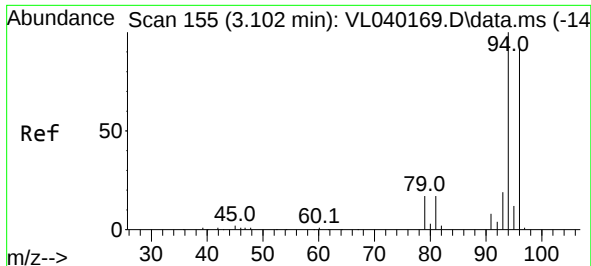
Tgt Ion: 51 Resp: 43914
Ion Ratio Lower Upper
51 100
67 14.3 15.4 23.2#



#4
Chloromethane
Concen: 0.592 ppbv
RT: 2.816 min Scan# 66
Delta R.T. 0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 50 Resp: 38798
Ion Ratio Lower Upper
50 100
52 33.3 28.3 42.5

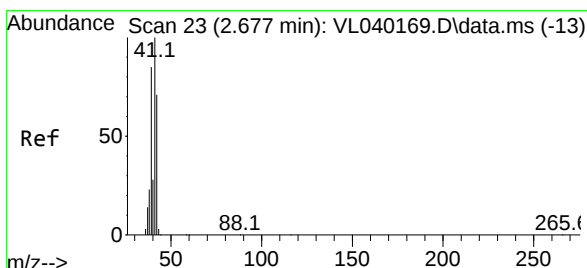
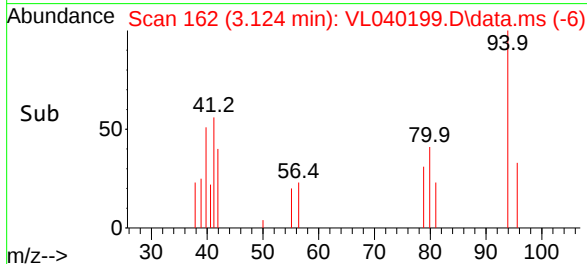
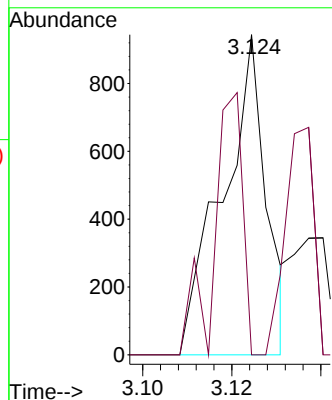
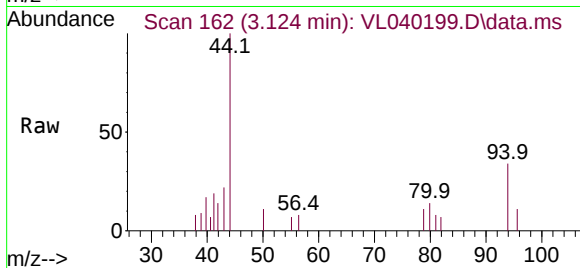




#6
Bromomethane
Concen: 0.034 ppbv
RT: 3.124 min Scan# 1
Delta R.T. 0.000 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

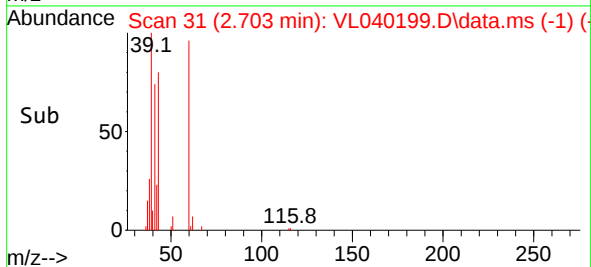
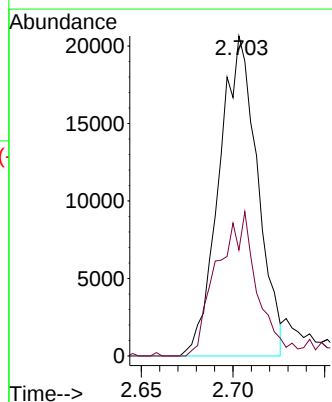
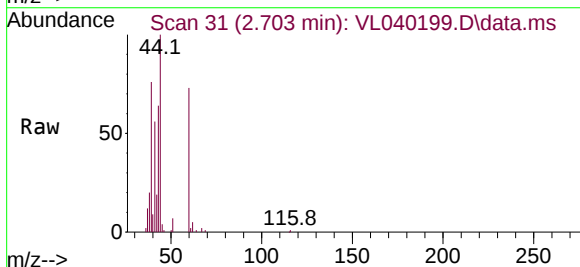
Instrument :
MSVOA_L
ClientSampleId :
IA-3

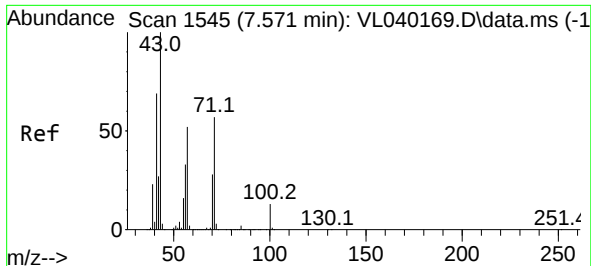
Tgt Ion: 94 Resp: 642
Ion Ratio Lower Upper
94 100
96 0.0 73.4 110.2#



#9
Propene
Concen: 0.707 ppbv
RT: 2.703 min Scan# 31
Delta R.T. 0.010 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 41 Resp: 30082
Ion Ratio Lower Upper
41 100
42 50.2 56.9 85.3#

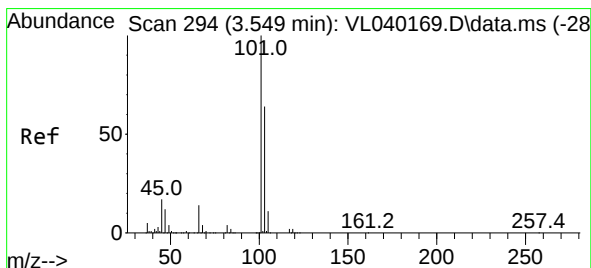
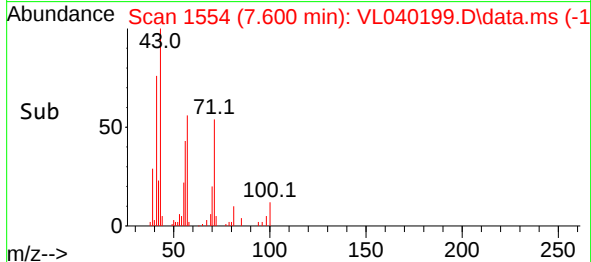
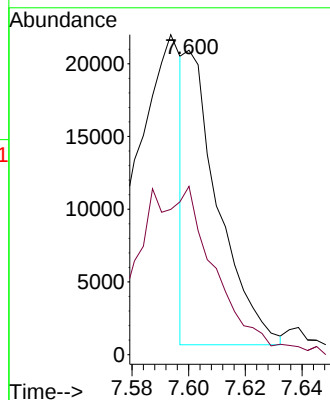
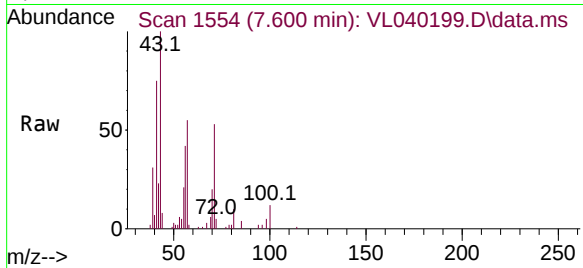




#10
Heptane
Concen: 0.162 ppbv
RT: 7.600 min Scan# 11
Delta R.T. -0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

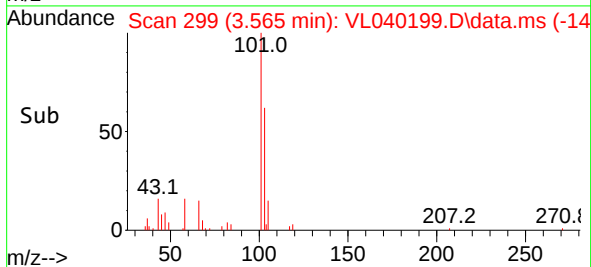
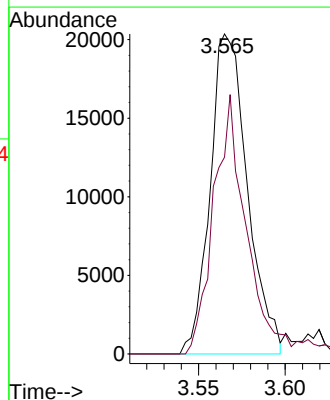
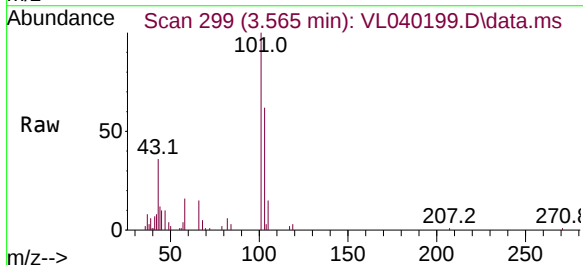
Instrument :
MSVOA_L
ClientSampleId :
IA-3

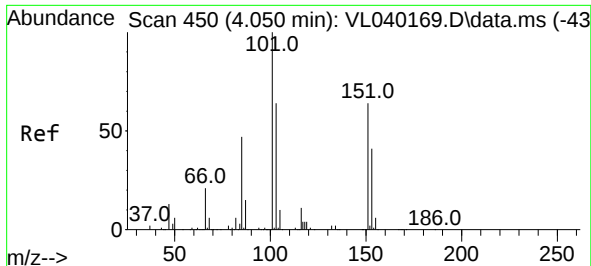
Tgt Ion: 43 Resp: 16408
Ion Ratio Lower Upper
43 100
57 141.5 41.4 62.2#



#11
Trichlorofluoromethane
Concen: 0.208 ppbv
RT: 3.565 min Scan# 299
Delta R.T. -0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion:101 Resp: 30452
Ion Ratio Lower Upper
101 100
103 61.5 51.0 76.6





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.042 ppbv

RT: 4.073 min Scan# 4

Delta R.T. 0.000 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

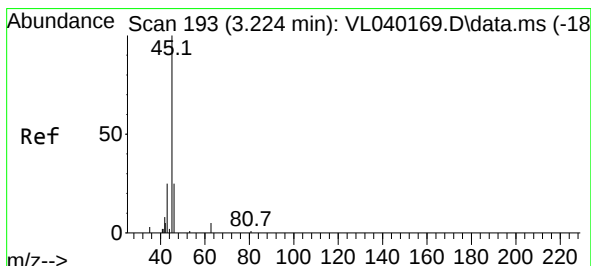
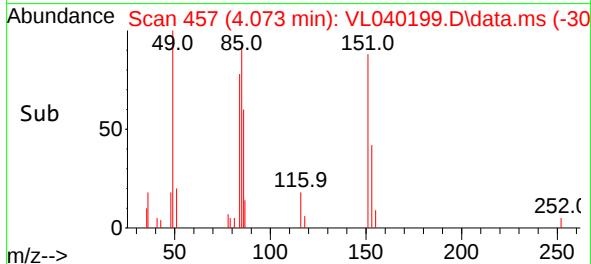
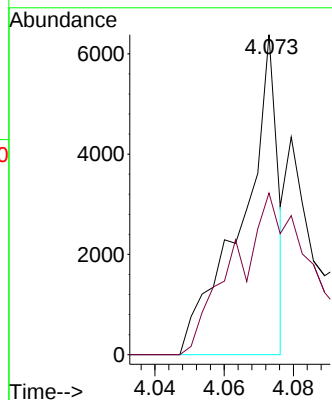
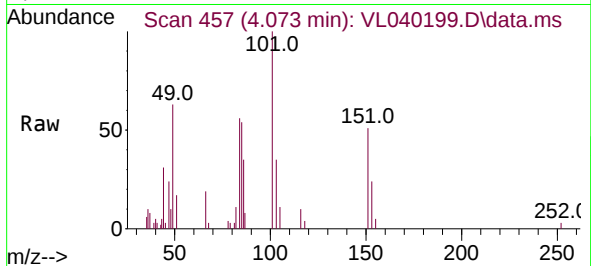
IA-3

Tgt Ion:101 Resp: 4572

Ion Ratio Lower Upper

101 100

151 113.1 54.7 82.1#



#13

Ethanol

Concen: 36.697 ppbv

RT: 3.243 min Scan# 199

Delta R.T. -0.006 min

Lab File: VL040199.D

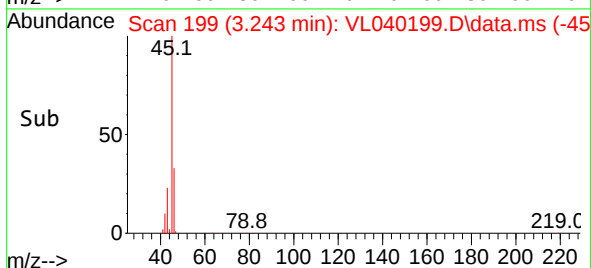
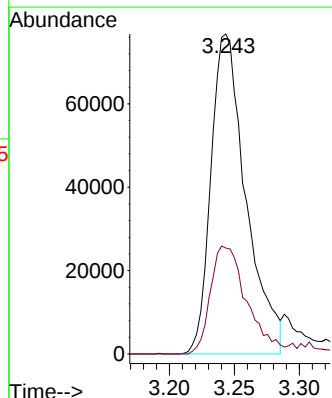
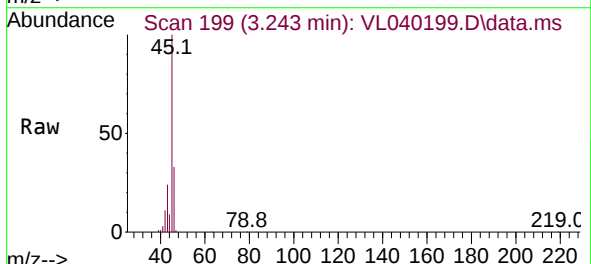
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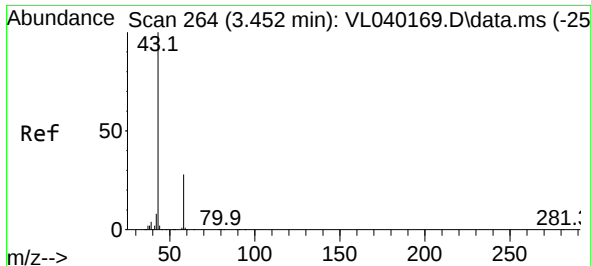
Tgt Ion: 45 Resp: 143777

Ion Ratio Lower Upper

45 100

46 35.8 13.3 53.1





#15

Acetone

Concen: 8.035 ppbv

RT: 3.468 min Scan# 2

Delta R.T. -0.003 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

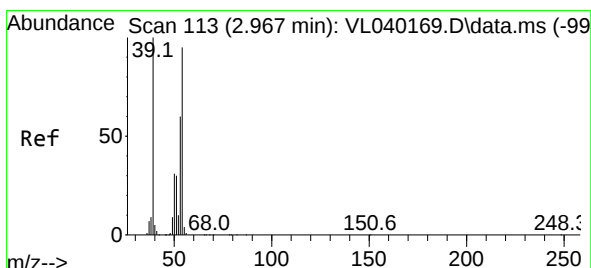
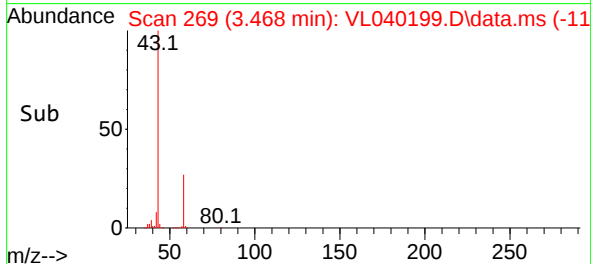
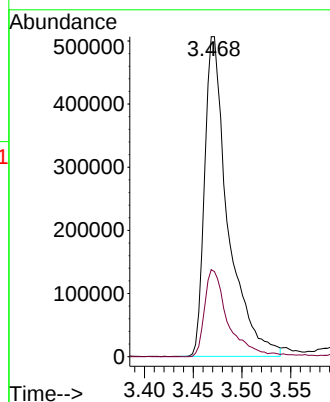
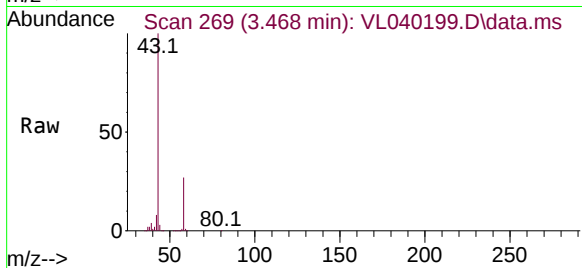
IA-3

Tgt Ion: 43 Resp: 845519

Ion Ratio Lower Upper

43 100

58 27.9 22.4 33.6



#16

1,3-Butadiene

Concen: 0.097 ppbv

RT: 2.964 min Scan# 112

Delta R.T. -0.022 min

Lab File: VL040199.D

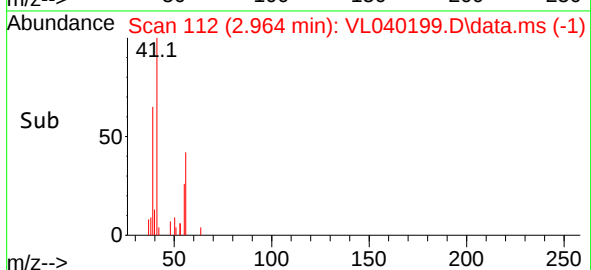
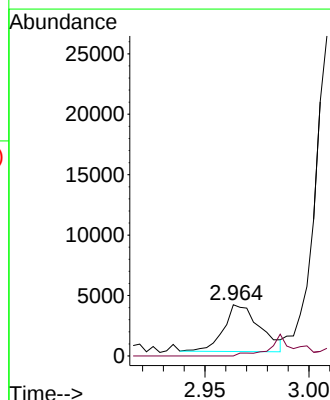
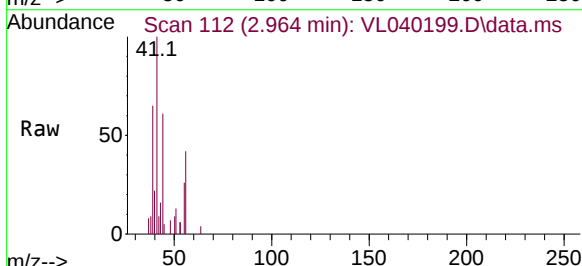
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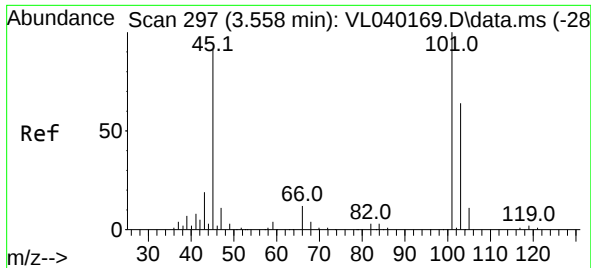
Tgt Ion: 39 Resp: 4666

Ion Ratio Lower Upper

39 100

54 30.8 66.7 100.1#





#19

Isopropyl Alcohol

Concen: 1.347 ppbv

RT: 3.591 min Scan# 307

Delta R.T. 0.010 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

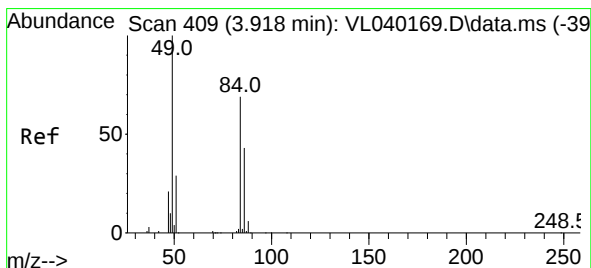
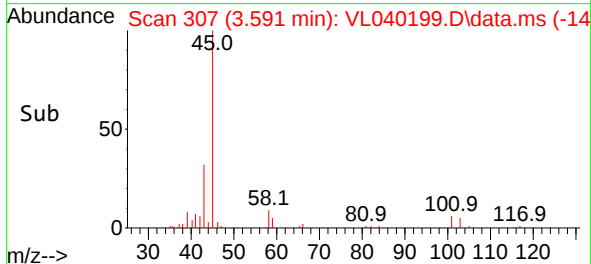
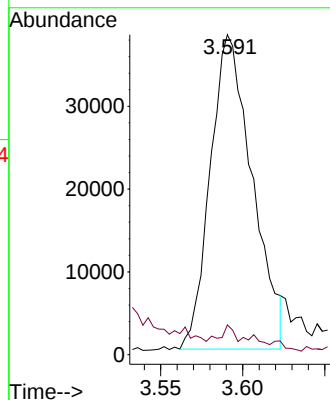
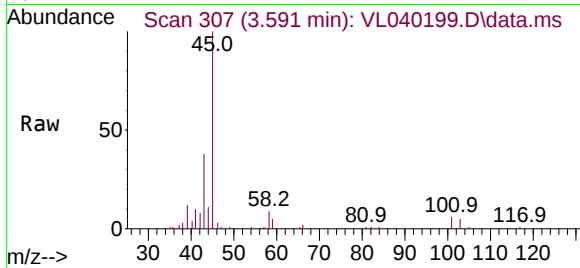
IA-3

Tgt Ion: 45 Resp: 67374

Ion Ratio Lower Upper

45 100

58 350.3 2.6 3.8#



#20

Methylene Chloride

Concen: 19.375 ppbv

RT: 3.938 min Scan# 415

Delta R.T. 0.000 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Tgt Ion: 84 Resp: 1061318

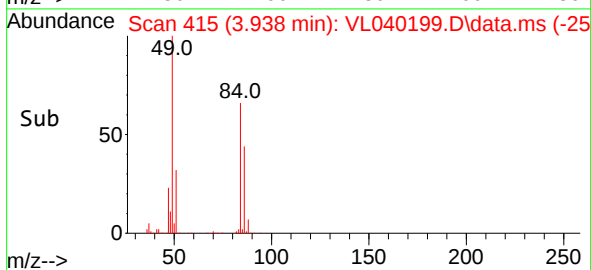
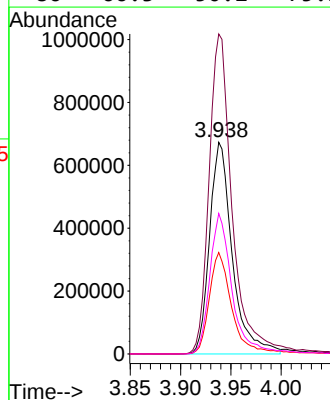
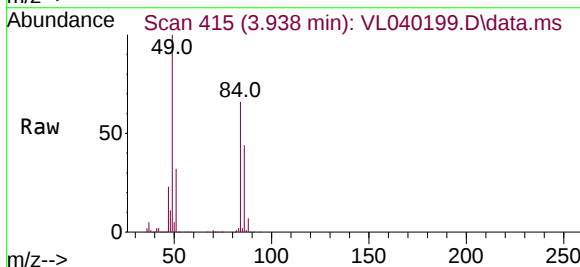
Ion Ratio Lower Upper

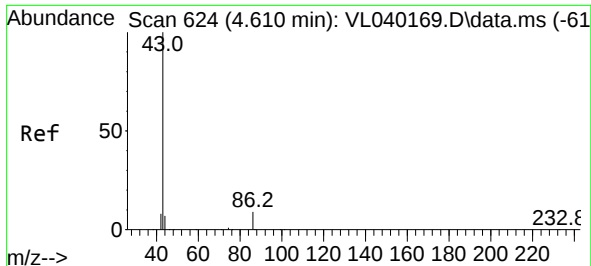
84 100

49 151.1 115.5 173.3

51 47.9 33.1 49.7

86 66.3 50.2 75.2



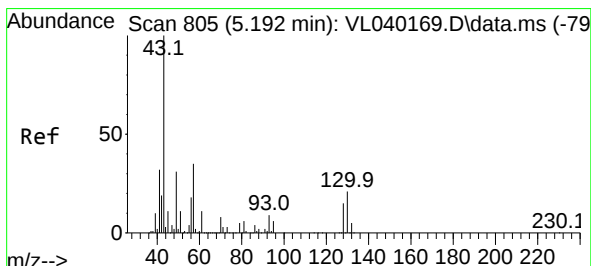
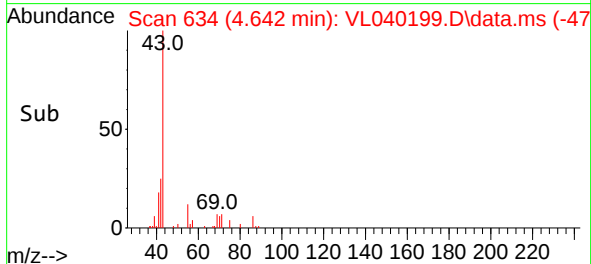
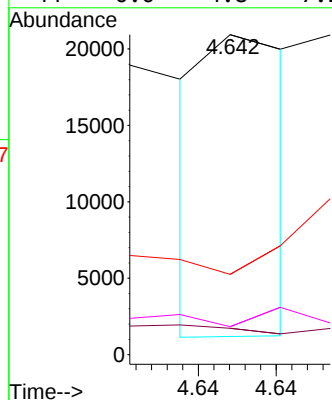
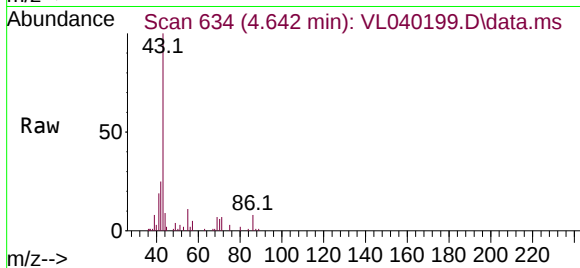


#23
 Vinyl Acetate
 Concen: 0.233 ppbv
 RT: 4.642 min Scan# 61
 Delta R.T. 0.003 min
 Lab File: VL040199.D
 Acq: 21 Feb 2023 17:50

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3

Tgt Ion: 43 Resp: 7438

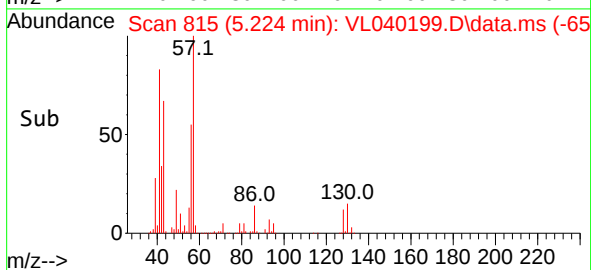
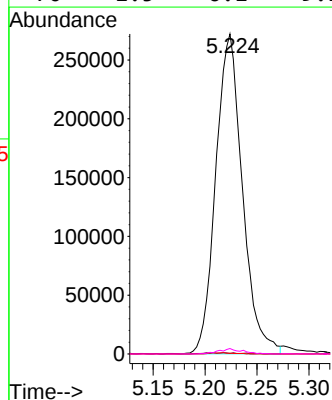
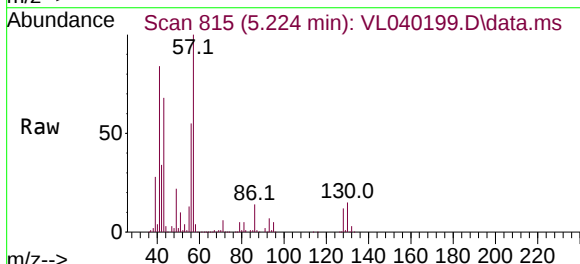
Ion	Ratio	Lower	Upper
43	100		
86	12.7	5.6	8.4#
42	0.0	7.6	11.4#
44	0.0	4.8	7.2#

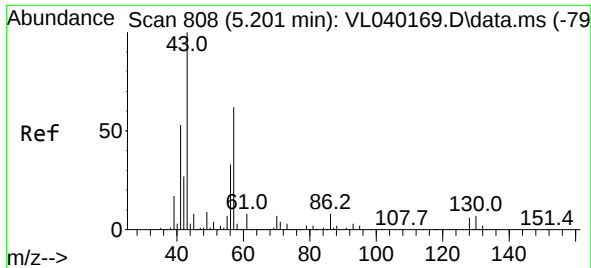


#25
 Ethyl Acetate
 Concen: 2.477 ppbv
 RT: 5.224 min Scan# 815
 Delta R.T. 0.006 min
 Lab File: VL040199.D
 Acq: 21 Feb 2023 17:50

Tgt Ion: 43 Resp: 484468

Ion	Ratio	Lower	Upper
43	100		
45	0.5	8.3	12.5#
61	0.3	8.4	12.6#
70	1.5	6.1	9.1#

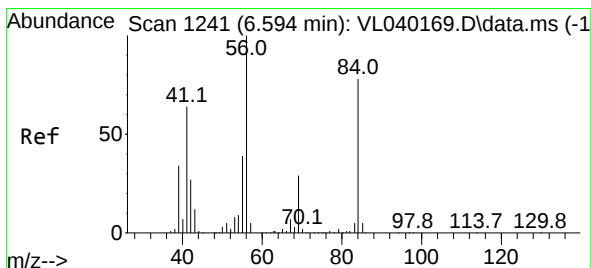
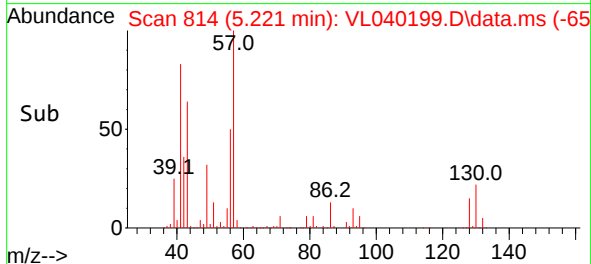
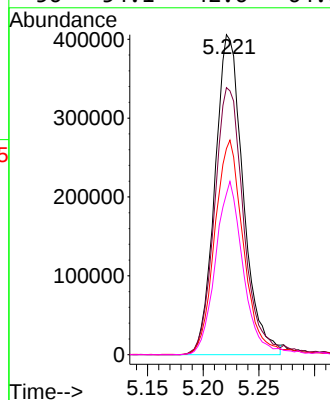
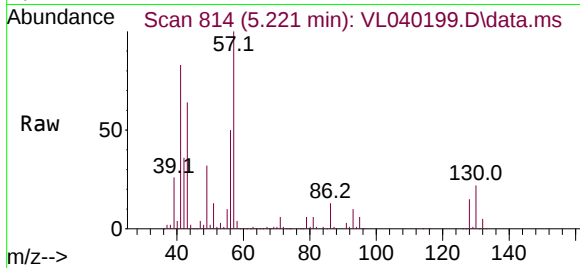




#26
Hexane
Concen: 8.507 ppbv
RT: 5.221 min Scan# 814
Delta R.T. -0.003 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

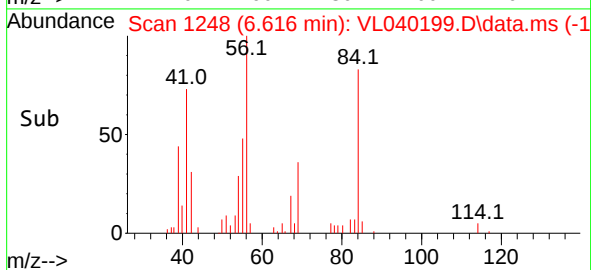
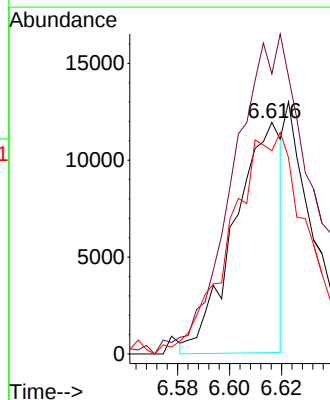
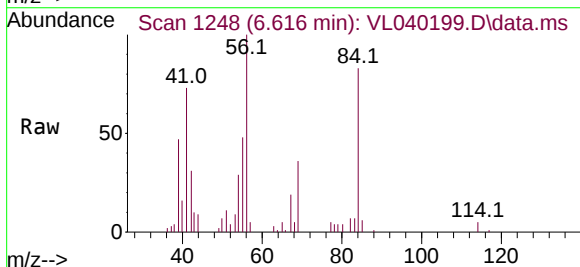
Instrument :
MSVOA_L
ClientSampleId :
IA-3

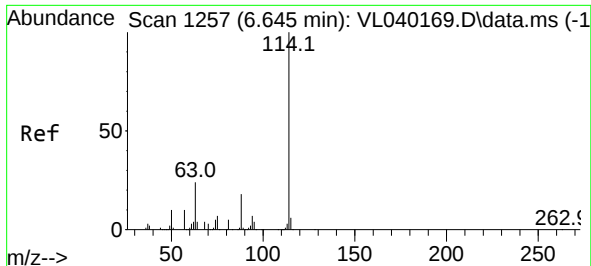
Tgt Ion: 57 Resp: 714366
Ion Ratio Lower Upper
57 100
41 88.1 74.3 111.5
43 69.2 193.0 289.4#
56 54.1 42.6 64.0



#30
Cyclohexane
Concen: 0.225 ppbv
RT: 6.616 min Scan# 1248
Delta R.T. -0.006 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 84 Resp: 14848
Ion Ratio Lower Upper
84 100
56 0.0 109.9 164.9#
41 0.0 67.8 101.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.668 min Scan# 11

Delta R.T. -0.006 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

IA-3

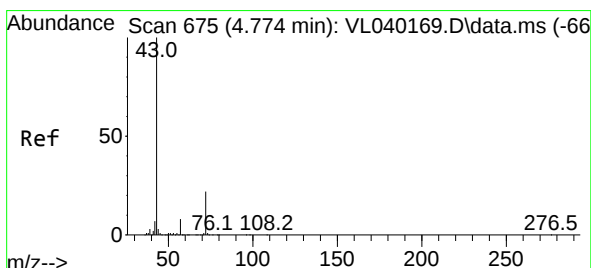
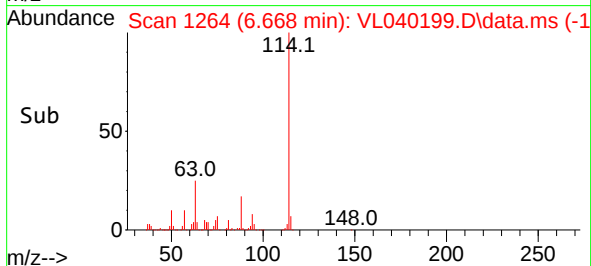
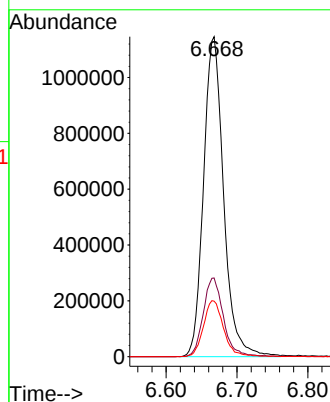
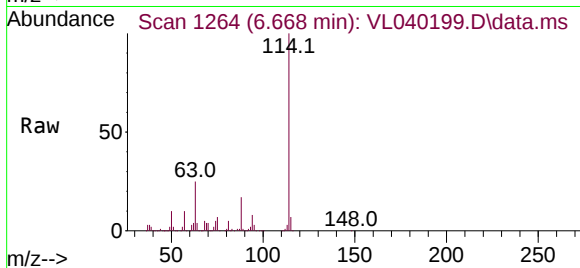
Tgt Ion:114 Resp: 2252216

Ion Ratio Lower Upper

114 100

63 25.0 20.4 30.6

88 17.7 14.3 21.5



#34

2-Butanone

Concen: 0.585 ppbv

RT: 4.800 min Scan# 683

Delta R.T. 0.003 min

Lab File: VL040199.D

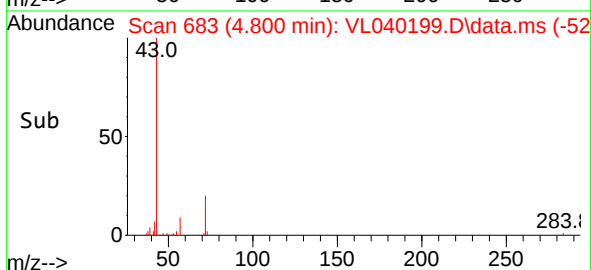
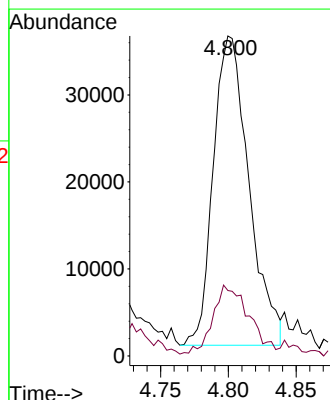
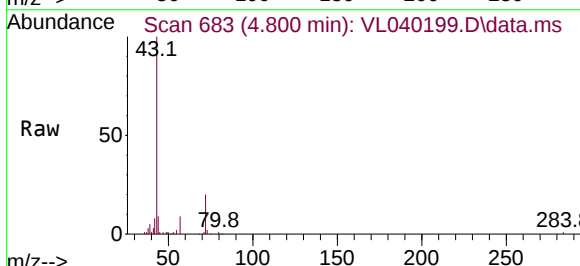
Acq: 21 Feb 2023 17:50

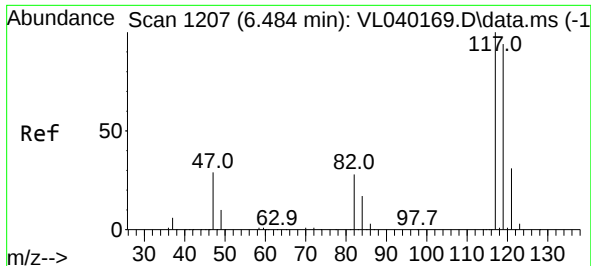
Tgt Ion: 43 Resp: 64960

Ion Ratio Lower Upper

43 100

72 24.7 17.8 26.8

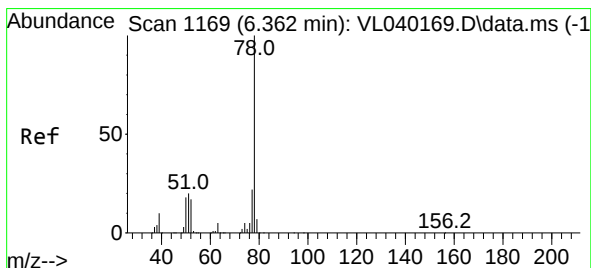
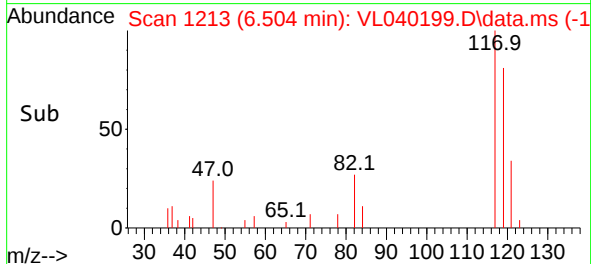
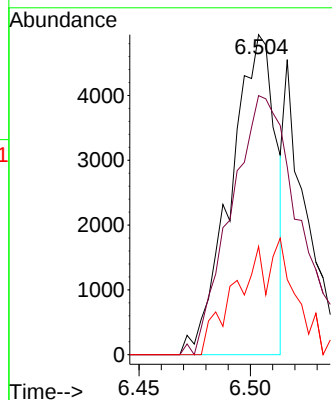
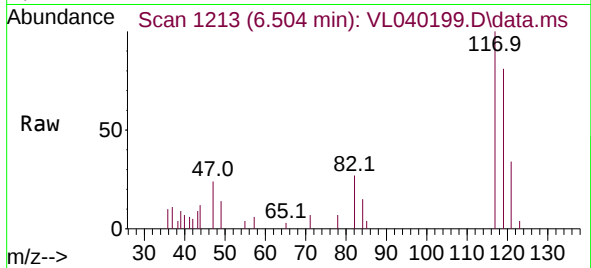




#35
Carbon Tetrachloride
Concen: 0.052 ppbv
RT: 6.504 min Scan# 1175
Delta R.T. -0.010 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

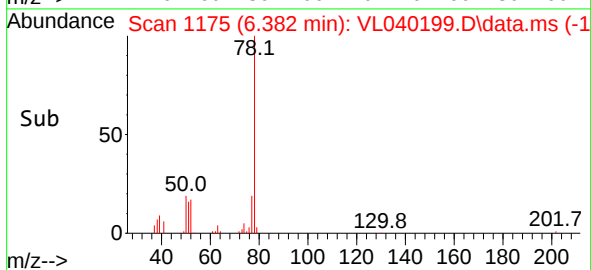
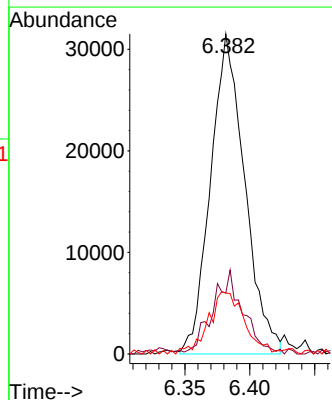
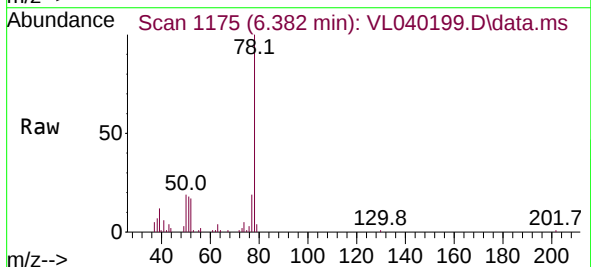
Instrument :
MSVOA_L
ClientSampleId :
IA-3

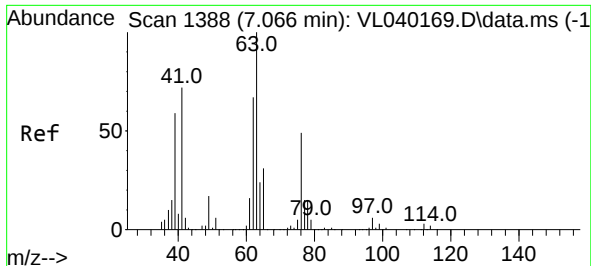
Tgt Ion:117 Resp: 6980
Ion Ratio Lower Upper
117 100
119 80.9 75.0 112.6
121 33.8 25.0 37.4



#36
Benzene
Concen: 0.329 ppbv
RT: 6.382 min Scan# 1175
Delta R.T. -0.006 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 78 Resp: 57616
Ion Ratio Lower Upper
78 100
77 18.0 17.5 26.3
50 18.2 14.6 22.0





#39

1,2-Dichloropropane

Concen: 8.136 ppbv

RT: 6.668 min Scan# 1003

Delta R.T. -0.428 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

IA-3

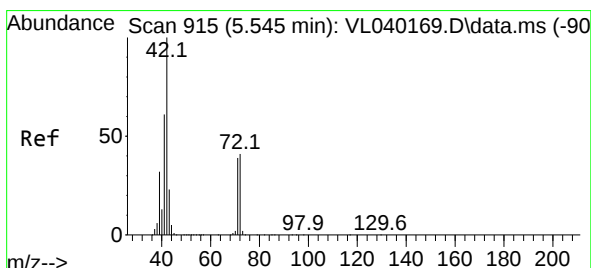
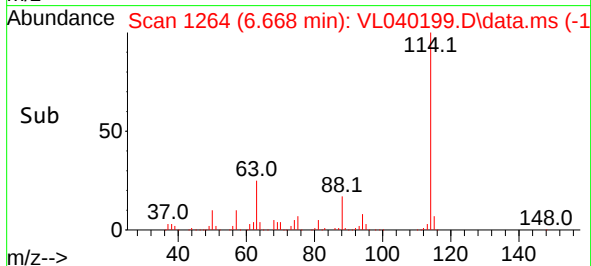
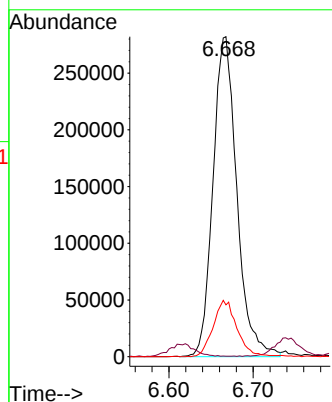
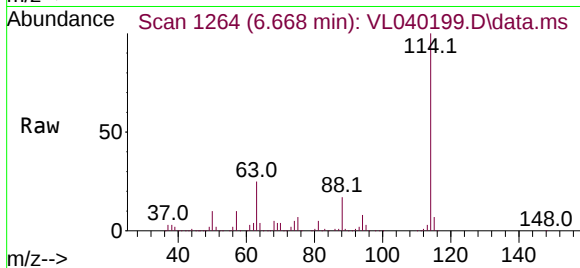
Tgt Ion: 63 Resp: 554764

Ion Ratio Lower Upper

63 100

41 0.0 57.6 86.4#

62 16.2 54.0 81.0#



#41

Tetrahydrofuran

Concen: 0.250 ppbv

RT: 5.828 min Scan# 1003

Delta R.T. 0.257 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

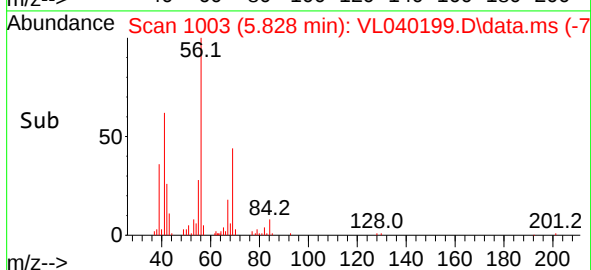
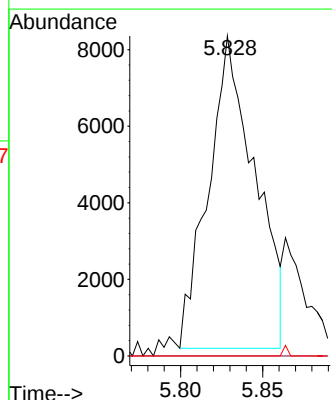
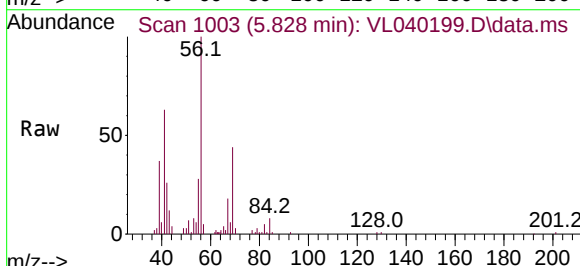
Tgt Ion: 42 Resp: 16085

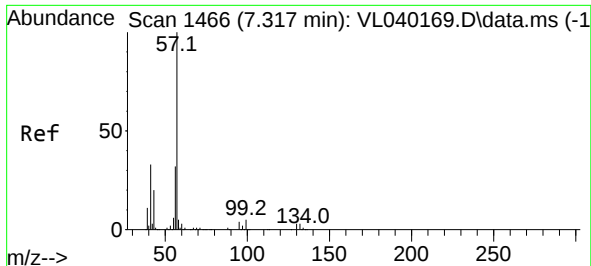
Ion Ratio Lower Upper

42 100

72 0.0 33.0 49.4#

71 0.0 31.4 47.2#





#44

2,2,4-Trimethylpentane

Concen: 0.646 ppbv

RT: 7.340 min Scan# 1466

Delta R.T. -0.006 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

IA-3

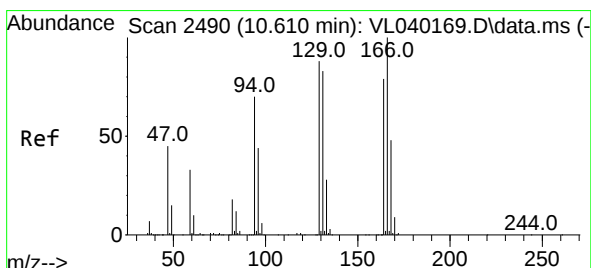
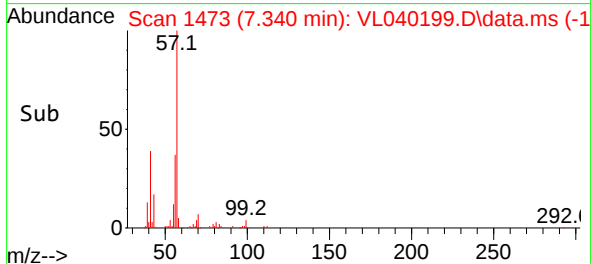
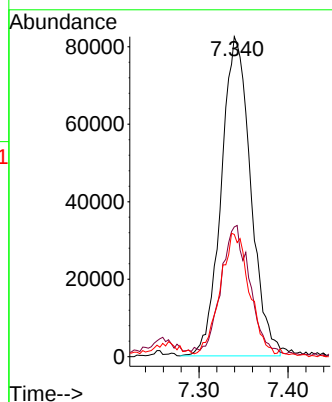
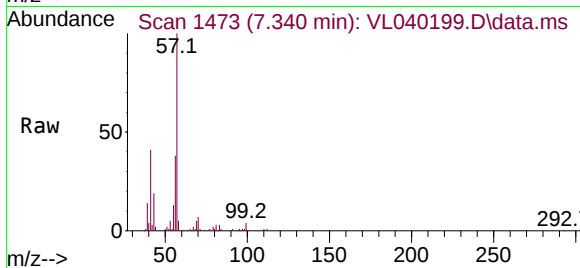
Tgt Ion: 57 Resp: 189091

Ion Ratio Lower Upper

57 100

41 41.3 26.2 39.4#

56 40.3 24.9 37.3#



#52

Tetrachloroethene

Concen: 0.032 ppbv

RT: 10.635 min Scan# 2498

Delta R.T. -0.006 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Tgt Ion: 164 Resp: 1755

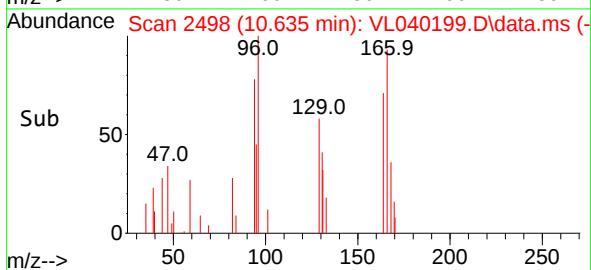
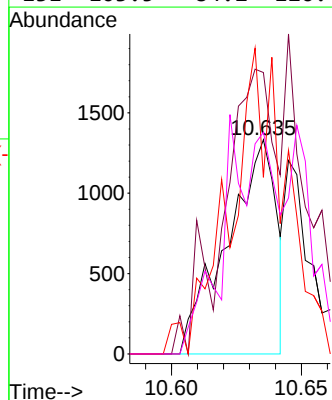
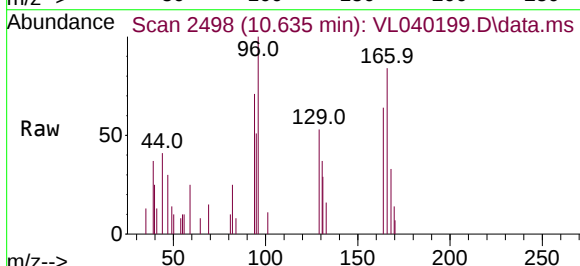
Ion Ratio Lower Upper

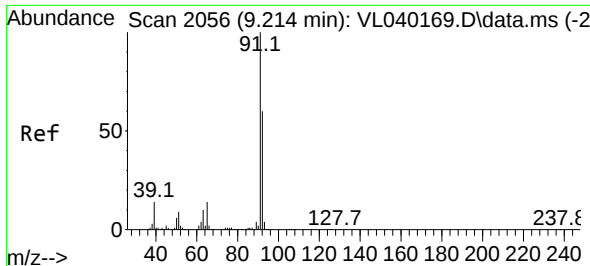
164 100

166 113.5 101.5 152.3

129 67.8 89.0 133.4#

131 103.5 84.2 126.4

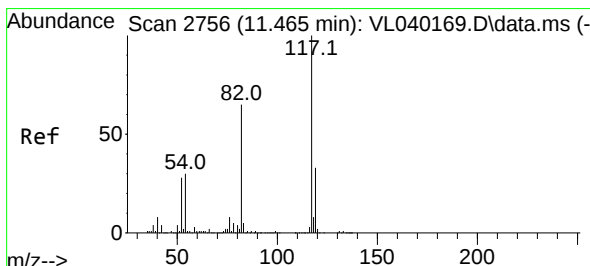
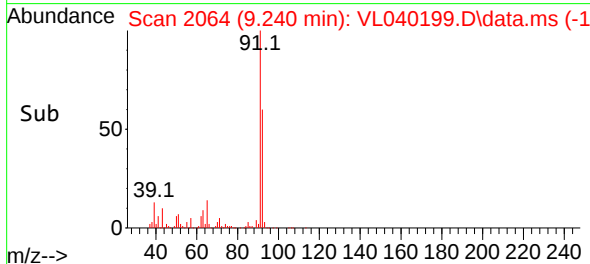
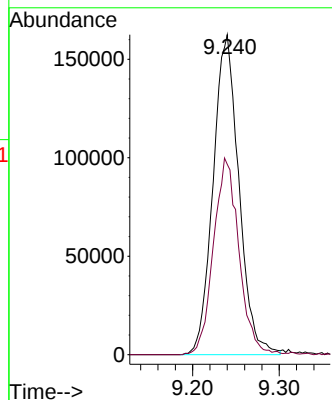
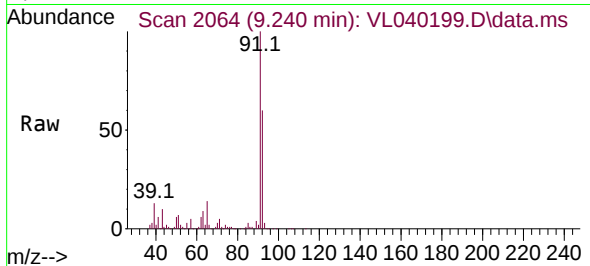




#53
Toluene
Concen: 1.791 ppbv
RT: 9.240 min Scan# 2056
Delta R.T. -0.006 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

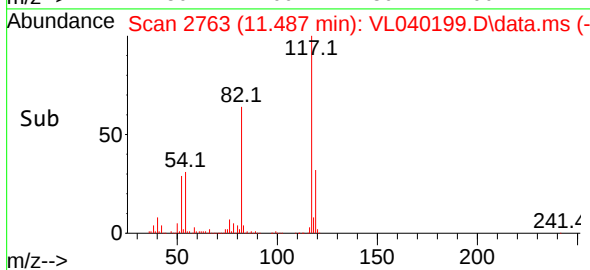
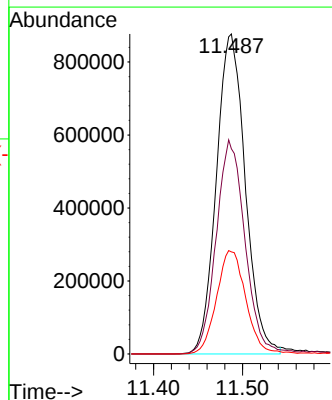
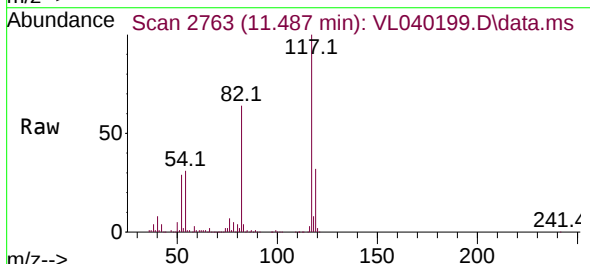
Instrument :
MSVOA_L
ClientSampleId :
IA-3

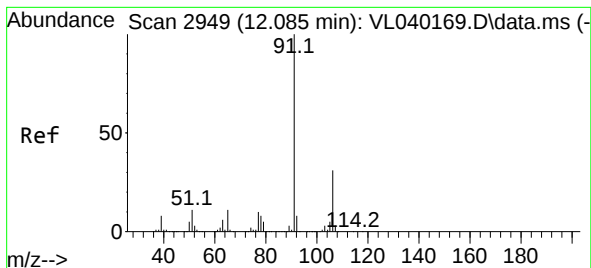
Tgt Ion: 91 Resp: 336195
Ion Ratio Lower Upper
91 100
92 60.9 48.9 73.3



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.487 min Scan# 2763
Delta R.T. -0.006 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 117 Resp: 1981955
Ion Ratio Lower Upper
117 100
82 67.6 53.3 79.9
119 32.7 24.6 37.0





#58

Ethyl Benzene

Concen: 0.185 ppbv

RT: 12.105 min Scan# 2949

Delta R.T. -0.013 min

Lab File: VL040199.D

Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

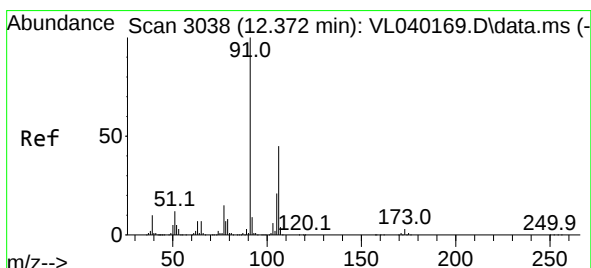
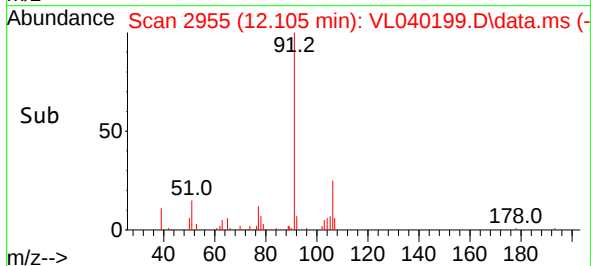
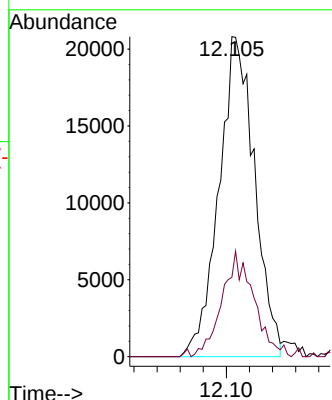
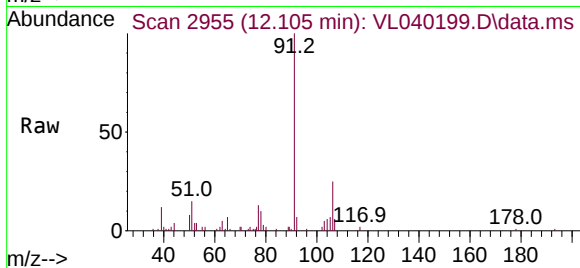
IA-3

Tgt Ion: 91 Resp: 44604

Ion Ratio Lower Upper

91 100

106 24.8 24.9 37.3#



#59

m/p-Xylene

Concen: 0.313 ppbv

RT: 12.368 min Scan# 3037

Delta R.T. -0.029 min

Lab File: VL040199.D

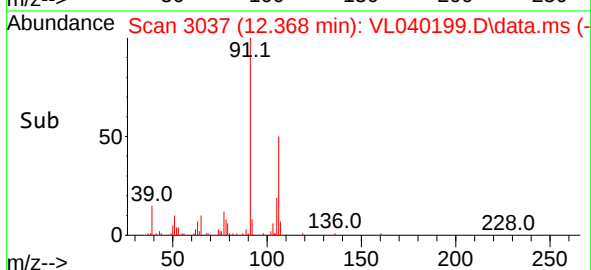
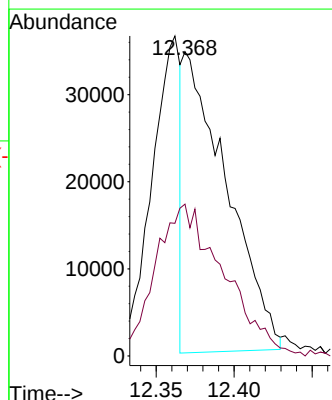
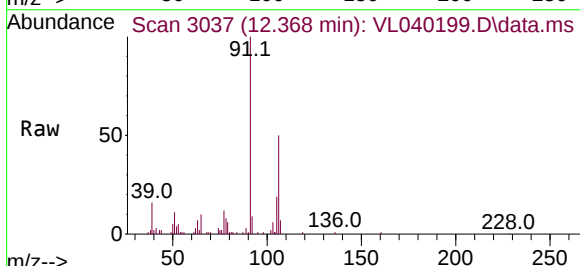
Acq: 21 Feb 2023 17:50

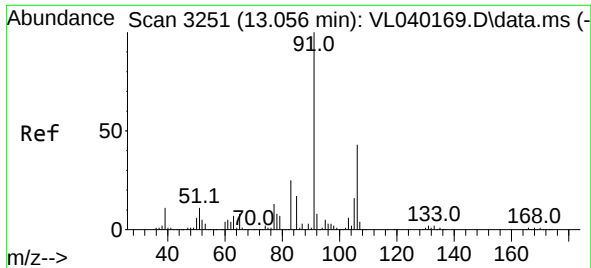
Tgt Ion: 91 Resp: 66704

Ion Ratio Lower Upper

91 100

106 80.8 34.6 51.8#

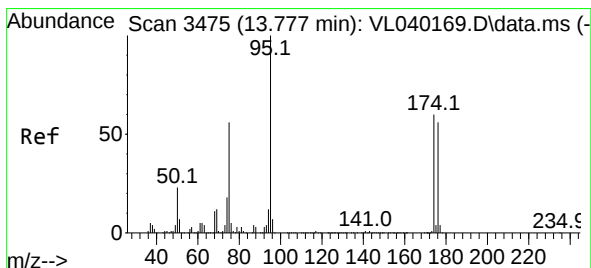
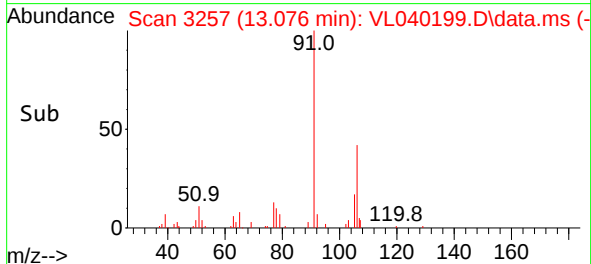
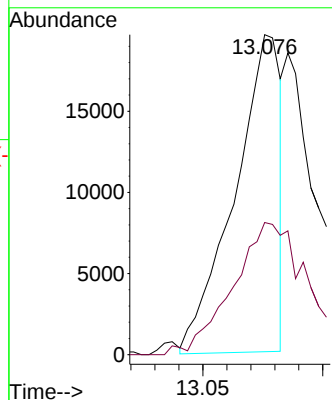
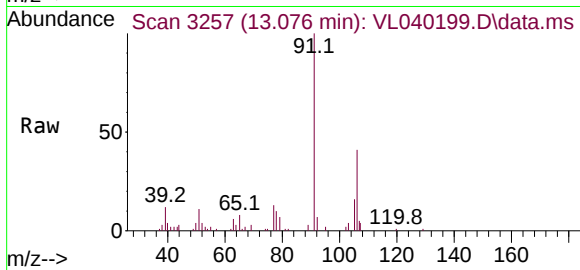




#60
o-Xylene
Concen: 0.126 ppbv
RT: 13.076 min Scan# 311
Delta R.T. -0.010 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

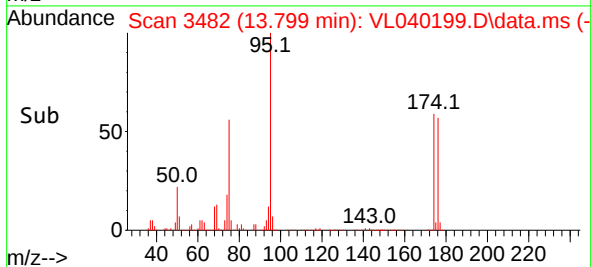
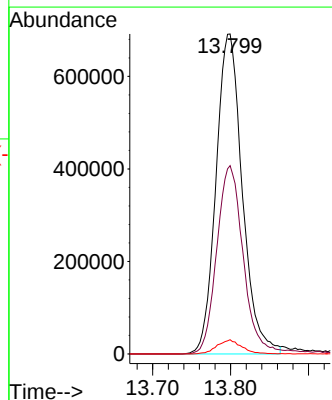
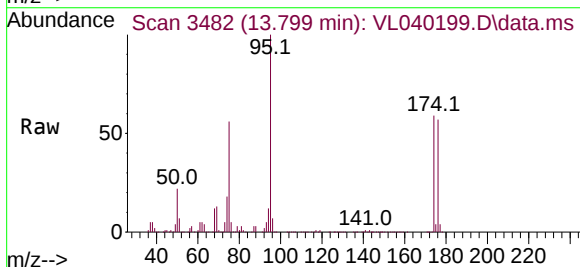
Instrument :
MSVOA_L
ClientSampleId :
IA-3

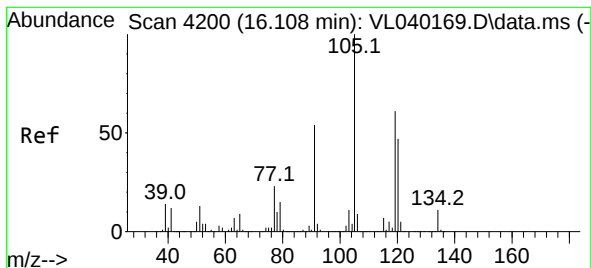
Tgt Ion: 91 Resp: 25944
Ion Ratio Lower Upper
91 100
106 68.6 21.6 65.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.970 ppbv
RT: 13.799 min Scan# 3482
Delta R.T. -0.006 min
Lab File: VL040199.D
Acq: 21 Feb 2023 17:50

Tgt Ion: 95 Resp: 1624923
Ion Ratio Lower Upper
95 100
174 59.7 48.2 72.2
175 4.3 3.4 5.2





#74

1,2,4-Trimethylbenzene

Concen: 0.059 ppbv

RT: 16.124 min Scan# 41

Delta R.T. -0.013 min

Lab File: VL040199.D

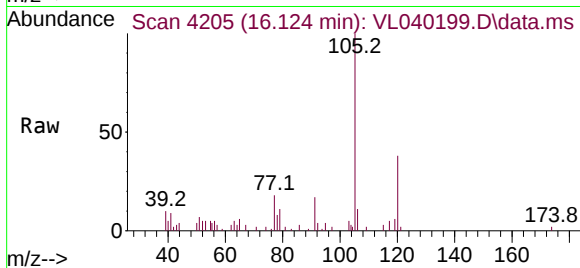
Acq: 21 Feb 2023 17:50

Instrument :

MSVOA_L

ClientSampleId :

IA-3



Tgt Ion:105 Resp: 13715

Ion Ratio Lower Upper

105 100

120 32.9 37.9 56.9#

91 10.0 43.7 65.5#

77 15.0 18.3 27.5#

