

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051223\
 Data File : VL040425.D
 Acq On : 12 May 2023 19:31
 Operator : SY/MD
 Sample : 02785-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: May 15 00:48:26 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Apr 13 14:37:02 2023
 Response via : Initial Calibration

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

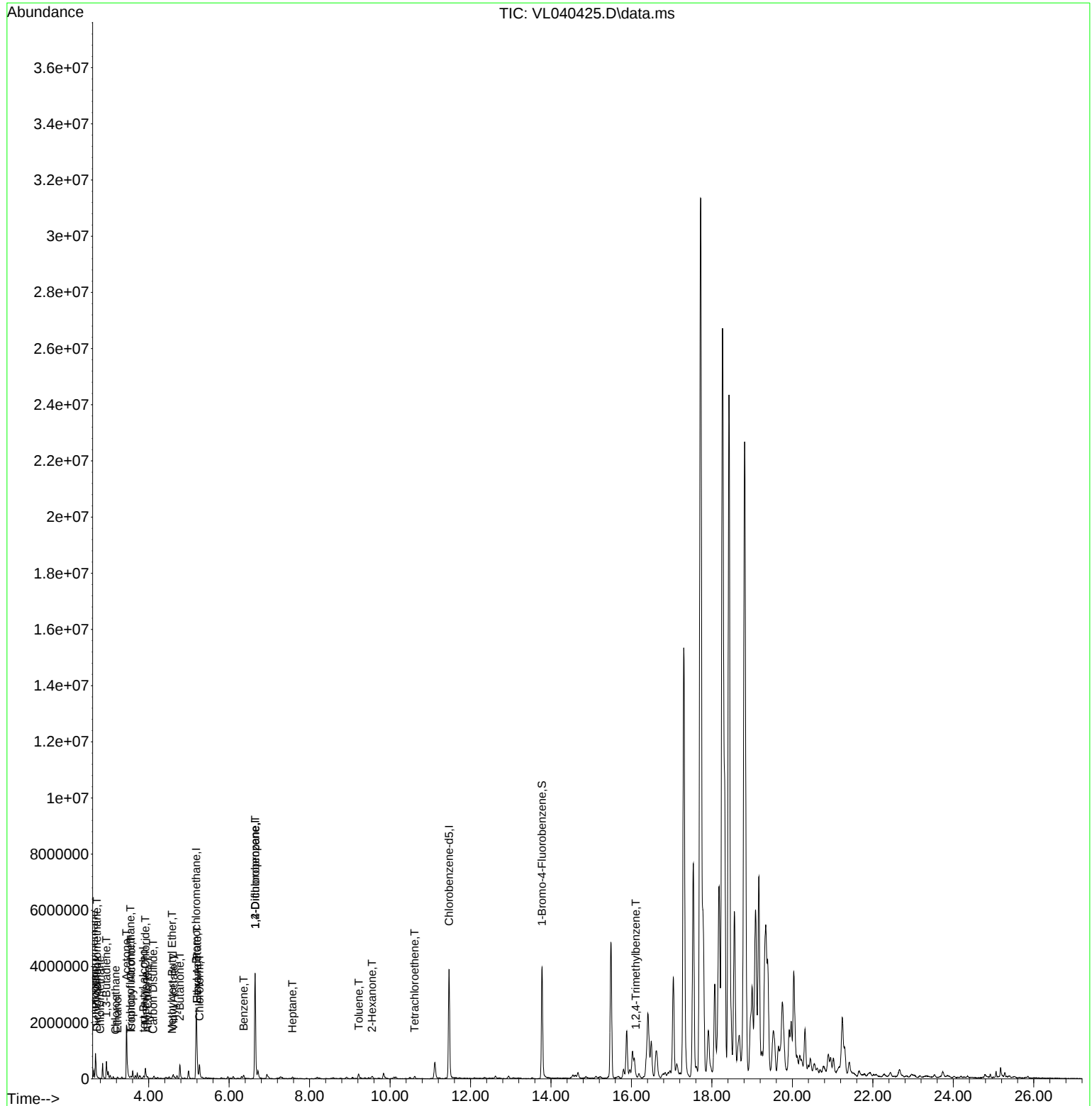
Internal Standards						
1) Bromochloromethane	5.182	49	1078630	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2685589	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.468	117	2480029	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.774	95	1975363	9.632	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.300%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.713	85	30257	0.156	ppbv	92
3) Chlorodifluoromethane	2.636	51	109036	0.774	ppbv #	62
4) Chloromethane	2.796	50	11647	0.131	ppbv	96
7) Chloroethane	3.179	64	1671	0.060	ppbv	91
9) Propene	2.678	41	345124	6.198	ppbv	97
10) Heptane	7.571	43	8198	0.065	ppbv #	14
11) Trichlorofluoromethane	3.546	101	12869	0.065	ppbv	96
13) Ethanol	3.227	45	56931	12.247	ppbv	99
15) Acetone	3.449	43	1947339	12.747	ppbv	95
16) 1,3-Butadiene	2.951	39	205157	3.245	ppbv #	40
17) tert-Butyl alcohol	3.870	59	50078	0.357	ppbv #	91
19) Isopropyl Alcohol	3.568	45	58187	0.835	ppbv #	90
20) Methylene Chloride	3.922	84	118053	1.935	ppbv	95
21) Allyl Chloride	3.976	41	3430	0.040	ppbv #	1
23) Vinyl Acetate	4.616	43	170899	4.394	ppbv #	93
25) Ethyl Acetate	5.205	43	175118	0.681	ppbv #	78
26) Hexane	5.205	57	244237	2.254	ppbv #	34
27) Carbon Disulfide	4.108	76	25610	0.183	ppbv #	59
28) Methyl tert-Butyl Ether	4.581	73	5889	0.053	ppbv #	73
29) Chloroform	5.263	83	295083	1.528	ppbv	96
34) 2-Butanone	4.777	43	530389	3.663	ppbv	98
36) Benzene	6.362	78	97240	0.444	ppbv #	90
39) 1,2-Dichloropropane	6.645	63	686401	7.962	ppbv #	25
51) 2-Hexanone	9.555	43	62641	0.386	ppbv #	98
52) Tetrachloroethene	10.613	164	9421	0.137	ppbv #	62
53) Toluene	9.221	91	119779	0.516	ppbv	98
74) 1,2,4-Trimethylbenzene	16.111	105	22059	0.070	ppbv #	64

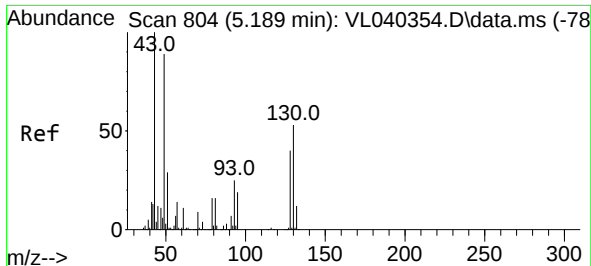
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 15 00:48:26 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Thu Apr 13 14:37:02 2023
Response via : Initial Calibration

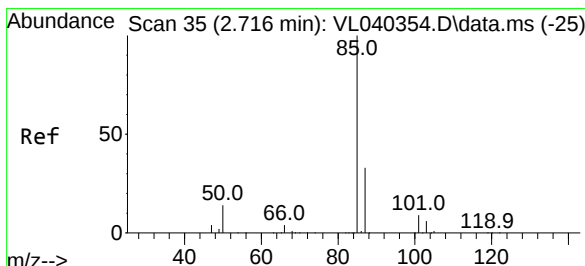
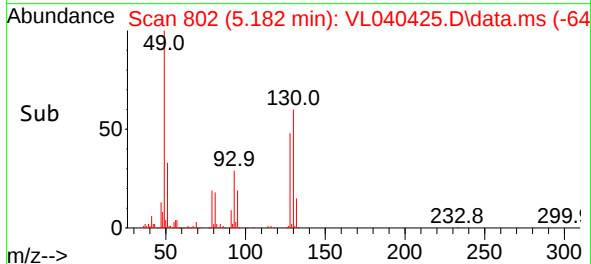
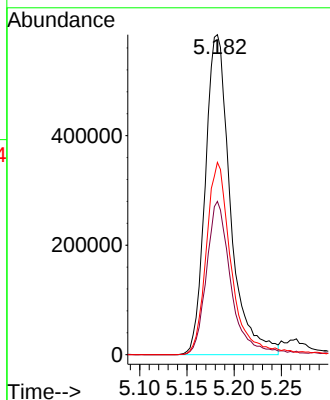
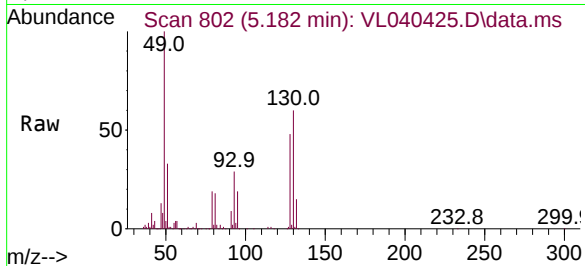




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.182 min Scan# 80
 Delta R.T. -0.007 min
 Lab File: VL040425.D
 Acq: 12 May 2023 19:31

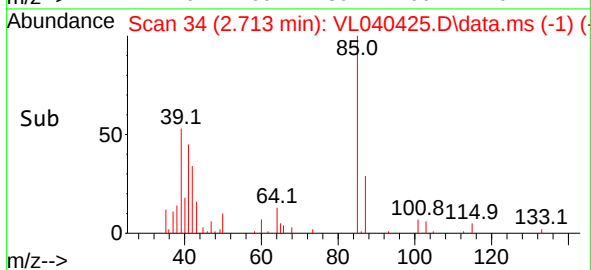
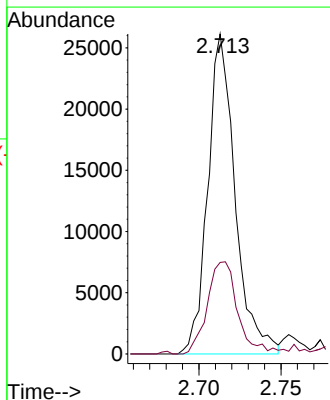
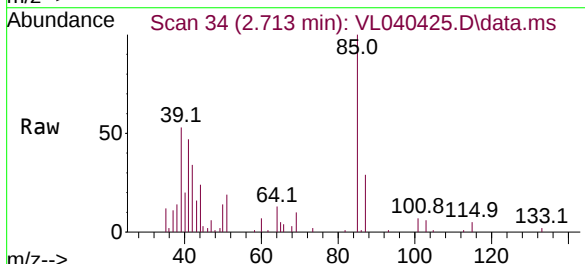
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

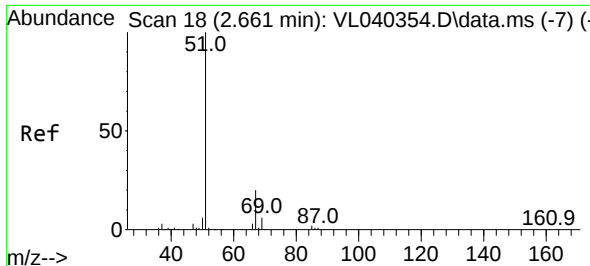
Tgt Ion: 49 Resp: 1078630
 Ion Ratio Lower Upper
 49 100
 128 48.2 23.7 71.1
 130 61.4 29.9 89.8



#2
 Dichlorodifluoromethane
 Concen: 0.156 ppbv
 RT: 2.713 min Scan# 34
 Delta R.T. -0.003 min
 Lab File: VL040425.D
 Acq: 12 May 2023 19:31

Tgt Ion: 85 Resp: 30257
 Ion Ratio Lower Upper
 85 100
 87 28.6 26.6 40.0

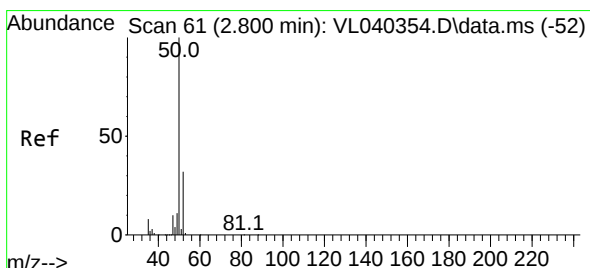
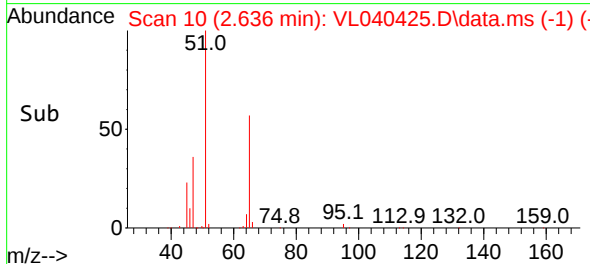
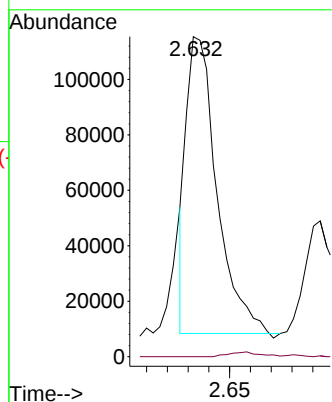
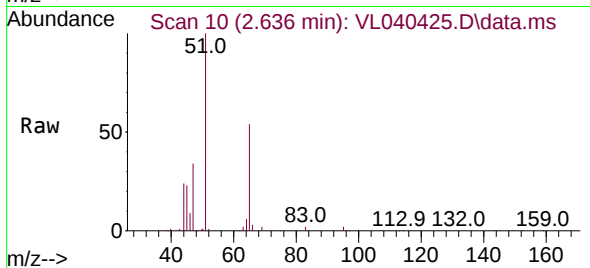




#3
Chlorodifluoromethane
Concen: 0.774 ppbv
RT: 2.636 min Scan# 10
Delta R.T. -0.025 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

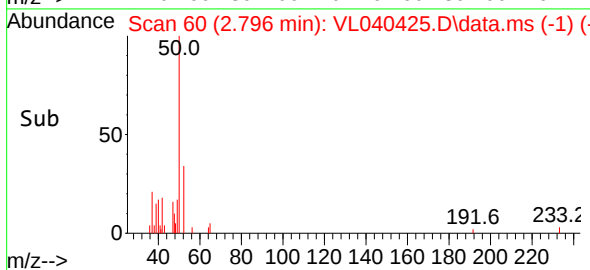
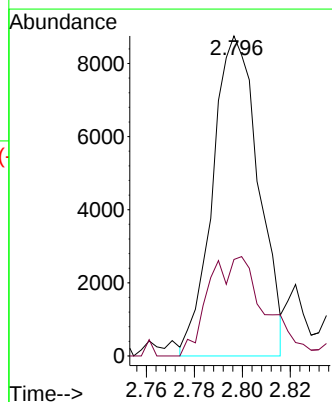
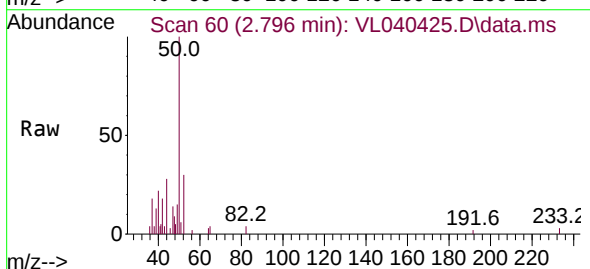
Instrument :
MSVOA_L
ClientSampleId :
SV1

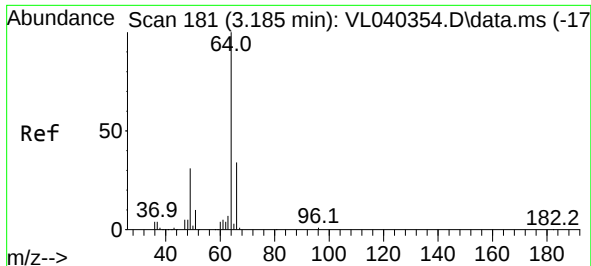
Tgt Ion: 51 Resp: 109036
Ion Ratio Lower Upper
51 100
67 1.9 15.5 23.3#



#4
Chloromethane
Concen: 0.131 ppbv
RT: 2.796 min Scan# 60
Delta R.T. -0.004 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 50 Resp: 11647
Ion Ratio Lower Upper
50 100
52 29.2 25.3 37.9

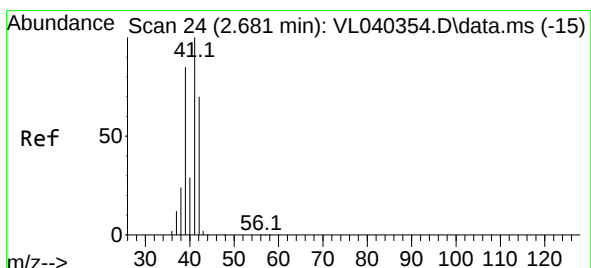
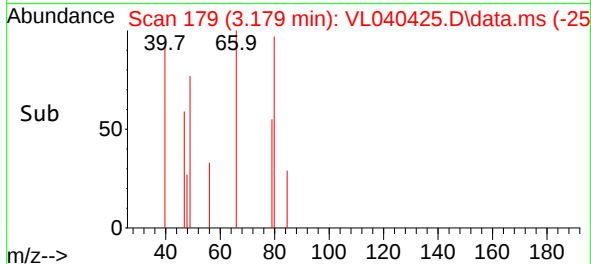
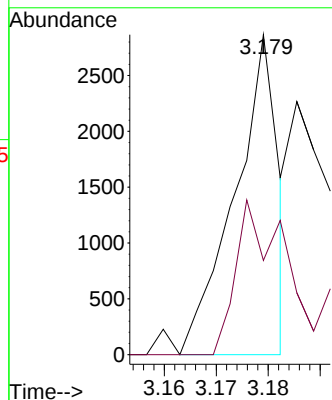
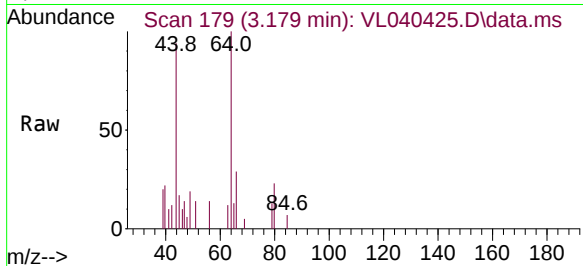




#7
Chloroethane
Concen: 0.060 ppbv
RT: 3.179 min Scan# 11
Delta R.T. -0.006 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

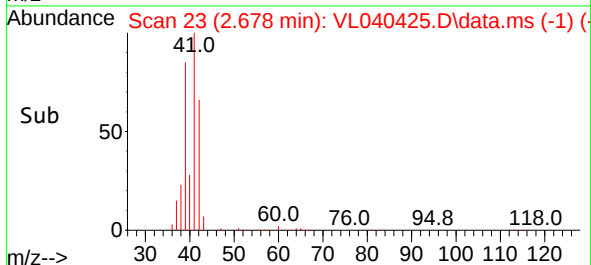
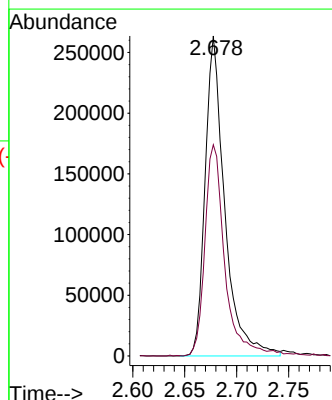
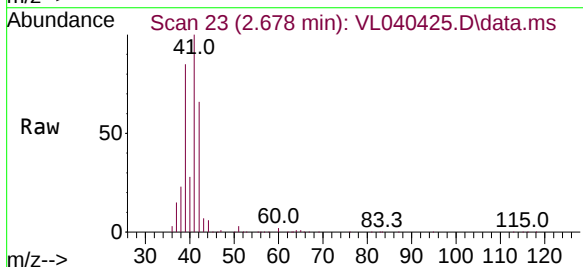
Instrument :
MSVOA_L
ClientSampleId :
SV1

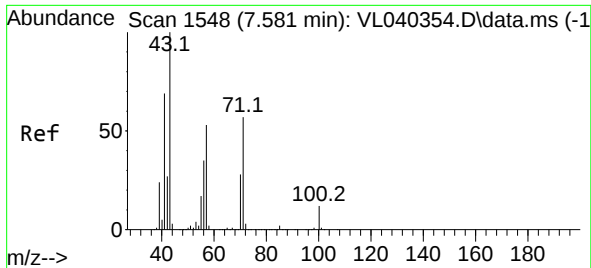
Tgt Ion: 64 Resp: 1671
Ion Ratio Lower Upper
64 100
66 29.4 27.5 41.3



#9
Propene
Concen: 6.198 ppbv
RT: 2.678 min Scan# 23
Delta R.T. -0.003 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 41 Resp: 345124
Ion Ratio Lower Upper
41 100
42 67.8 56.5 84.7

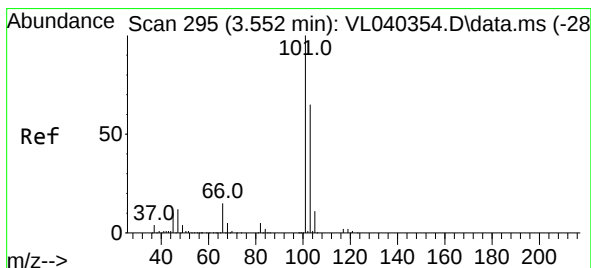
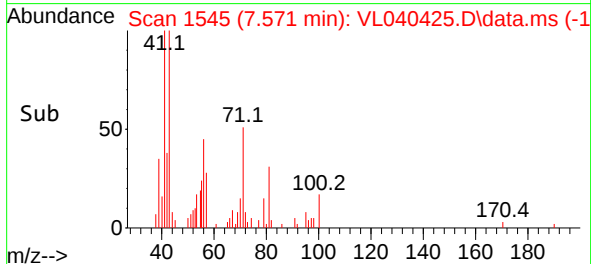
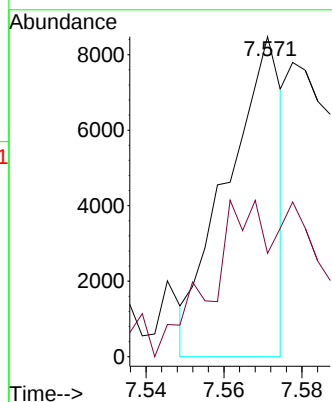
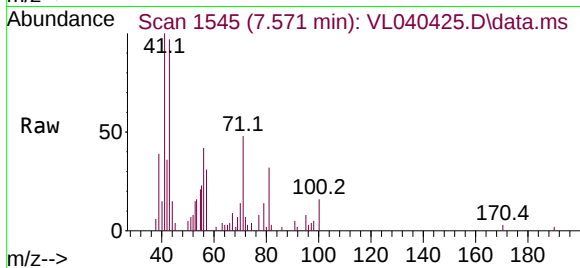




#10
Heptane
Concen: 0.065 ppbv
RT: 7.571 min Scan# 11
Delta R.T. -0.010 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

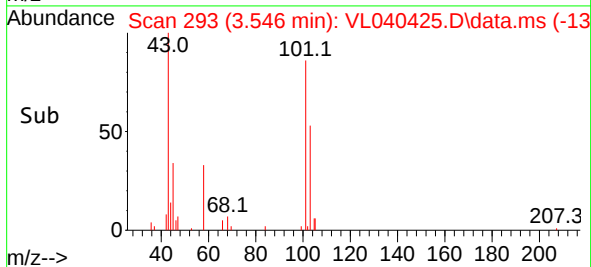
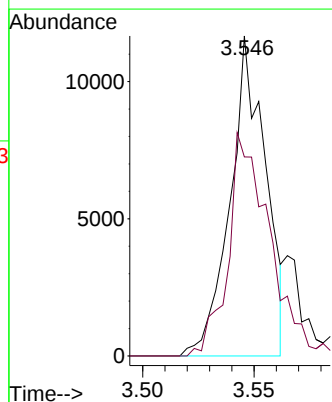
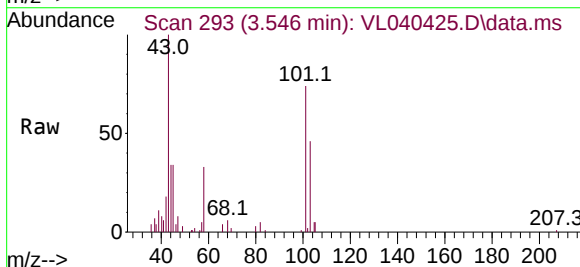
Instrument :
MSVOA_L
ClientSampleId :
SV1

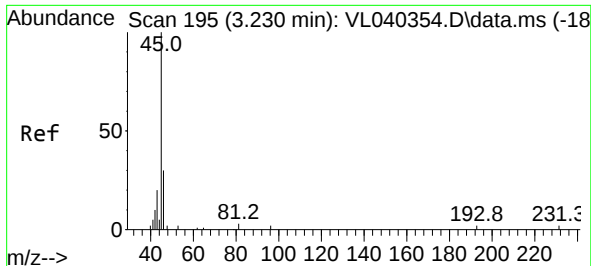
Tgt Ion: 43 Resp: 8198
Ion Ratio Lower Upper
43 100
57 113.7 42.2 63.4#



#11
Trichlorofluoromethane
Concen: 0.065 ppbv
RT: 3.546 min Scan# 293
Delta R.T. -0.006 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion:101 Resp: 12869
Ion Ratio Lower Upper
101 100
103 62.2 52.2 78.4

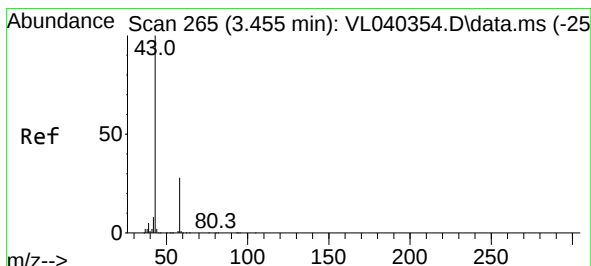
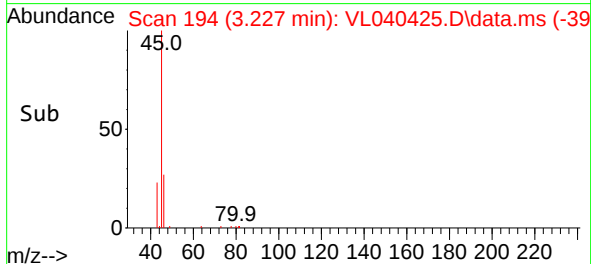
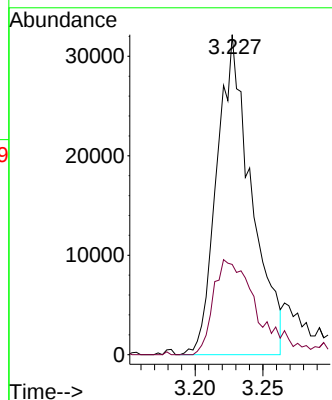
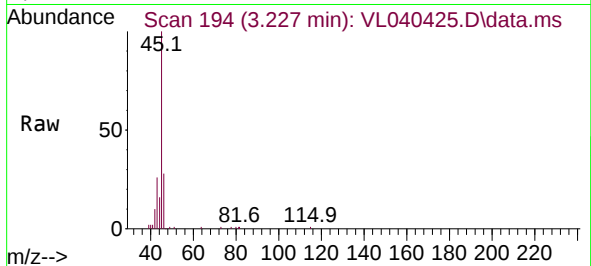




#13
Ethanol
Concen: 12.247 ppbv
RT: 3.227 min Scan# 194
Delta R.T. -0.003 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

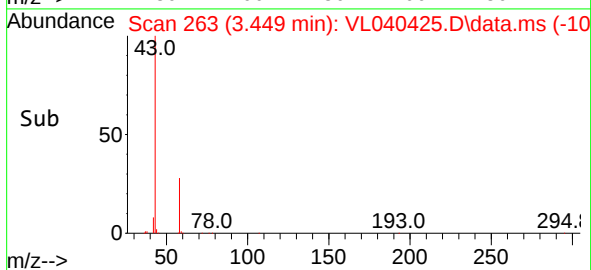
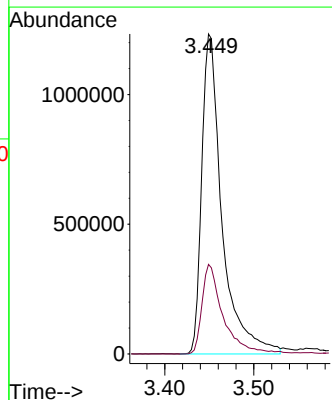
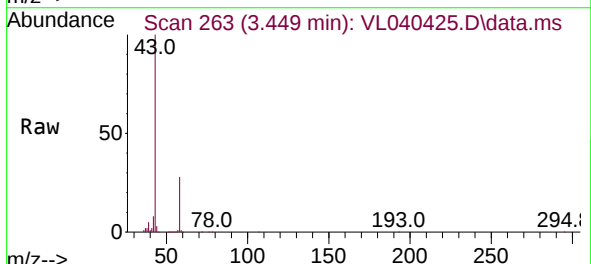
Instrument :
MSVOA_L
ClientSampleId :
SV1

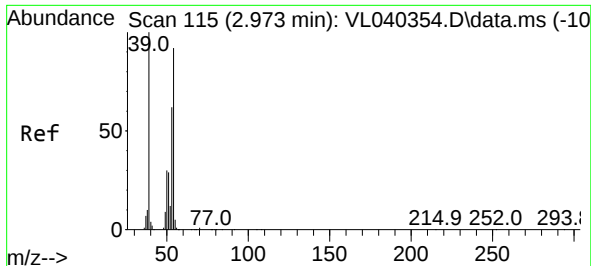
Tgt Ion: 45 Resp: 56931
Ion Ratio Lower Upper
45 100
46 37.7 15.3 61.3



#15
Acetone
Concen: 12.747 ppbv
RT: 3.449 min Scan# 263
Delta R.T. -0.006 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 43 Resp: 1947339
Ion Ratio Lower Upper
43 100
58 30.1 22.2 33.2





#16

1,3-Butadiene

Concen: 3.245 ppbv

RT: 2.951 min Scan# 115

Delta R.T. -0.022 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

Instrument :

MSVOA_L

ClientSampleId :

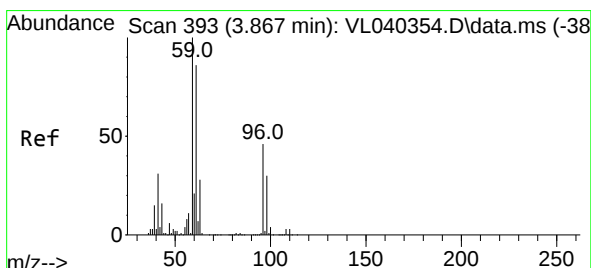
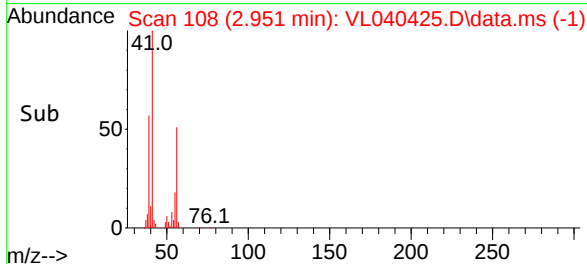
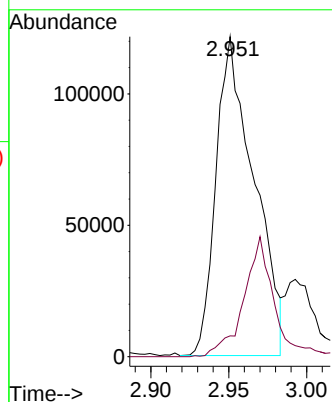
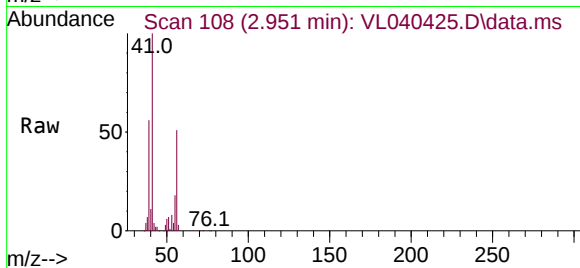
SV1

Tgt Ion: 39 Resp: 205157

Ion Ratio Lower Upper

39 100

54 30.6 68.8 103.2#



#17

tert-Butyl alcohol

Concen: 0.357 ppbv

RT: 3.870 min Scan# 394

Delta R.T. 0.003 min

Lab File: VL040425.D

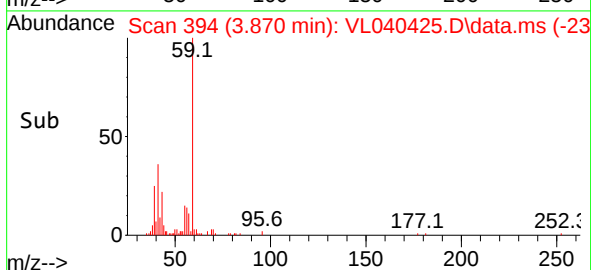
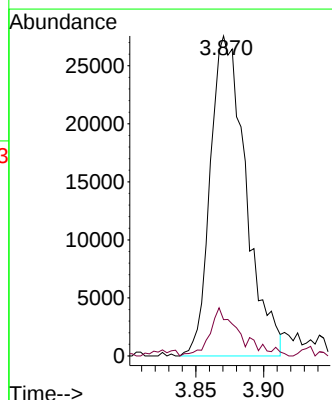
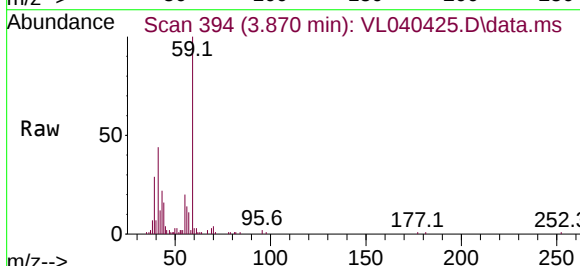
Acq: 12 May 2023 19:31

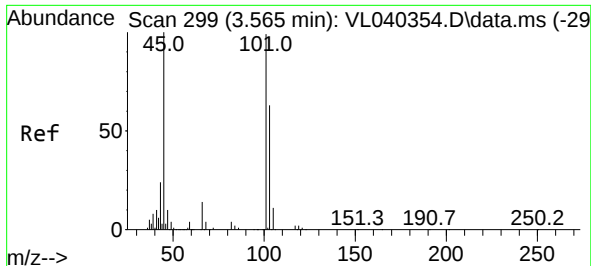
Tgt Ion: 59 Resp: 50078

Ion Ratio Lower Upper

59 100

57 13.8 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 0.835 ppbv

RT: 3.568 min Scan# 30

Delta R.T. 0.003 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

Instrument :

MSVOA_L

ClientSampleId :

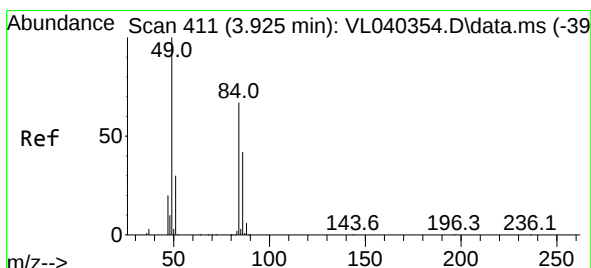
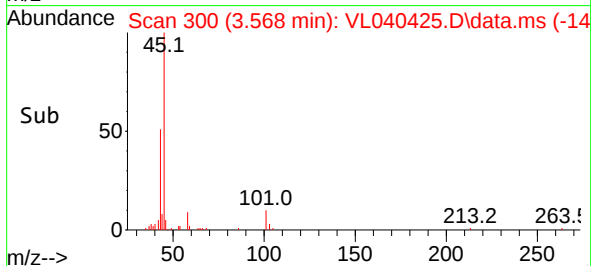
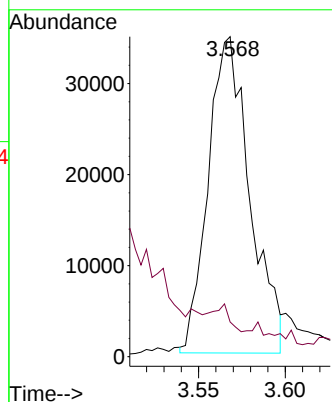
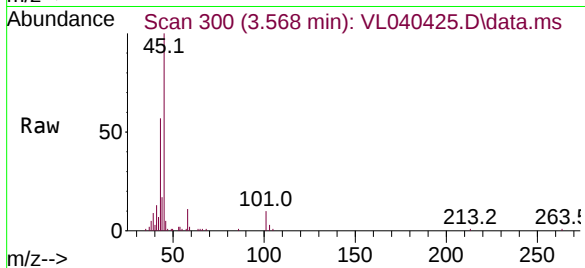
SV1

Tgt Ion: 45 Resp: 58187

Ion Ratio Lower Upper

45 100

58 0.0 2.6 4.0#



#20

Methylene Chloride

Concen: 1.935 ppbv

RT: 3.922 min Scan# 410

Delta R.T. -0.003 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

Tgt Ion: 84 Resp: 118053

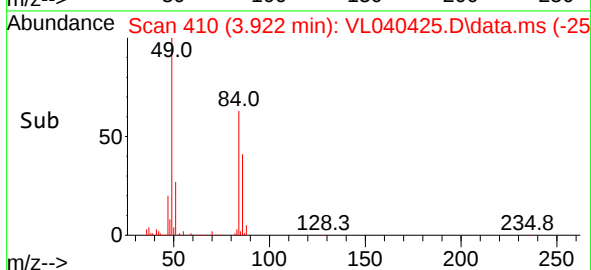
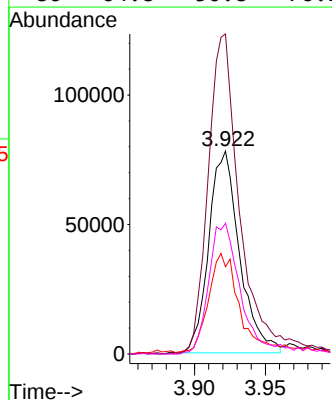
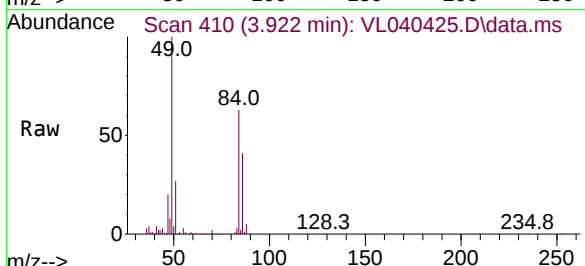
Ion Ratio Lower Upper

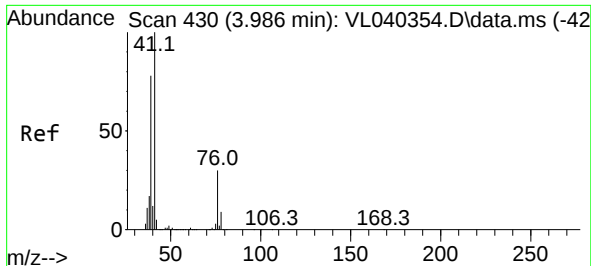
84 100

49 158.2 120.1 180.1

51 42.1 36.3 54.5

86 64.8 50.8 76.2

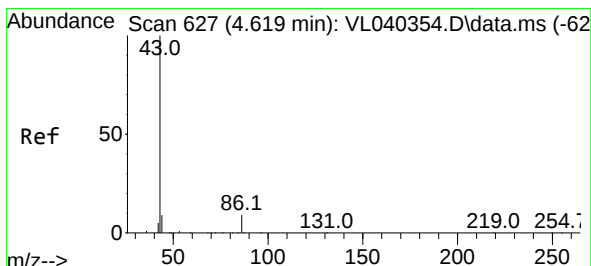
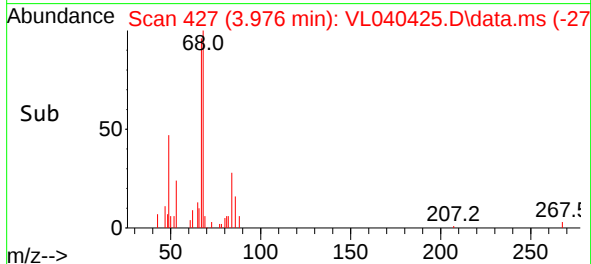
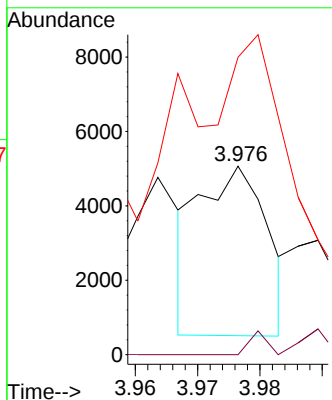
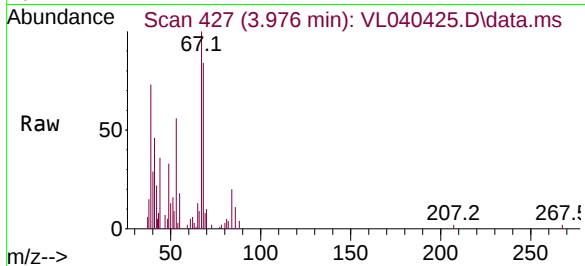




#21
 Allyl Chloride
 Concen: 0.040 ppbv
 RT: 3.976 min Scan# 41
 Delta R.T. -0.010 min
 Lab File: VL040425.D
 Acq: 12 May 2023 19:31

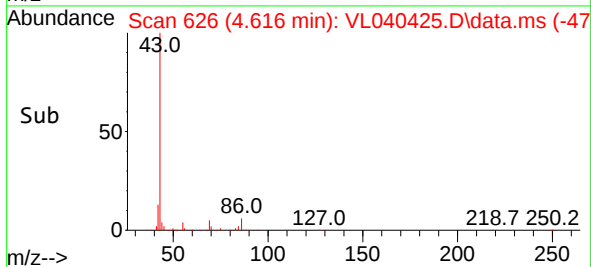
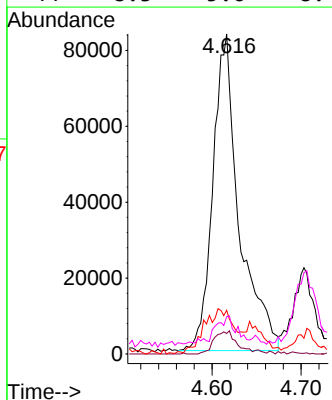
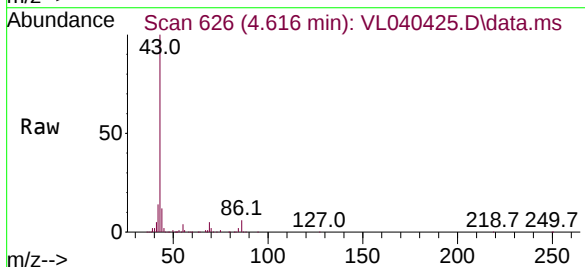
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

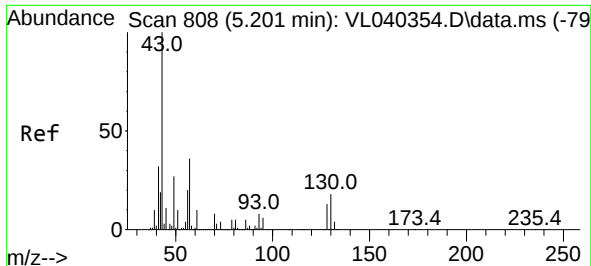
Tgt Ion: 41 Resp: 3430
 Ion Ratio Lower Upper
 41 100
 76 0.0 25.5 38.3#
 39 338.3 64.0 96.0#



#23
 Vinyl Acetate
 Concen: 4.394 ppbv
 RT: 4.616 min Scan# 626
 Delta R.T. -0.003 min
 Lab File: VL040425.D
 Acq: 12 May 2023 19:31

Tgt Ion: 43 Resp: 170899
 Ion Ratio Lower Upper
 43 100
 86 6.5 6.0 9.0
 42 13.0 6.4 9.6#
 44 8.3 5.6 8.4

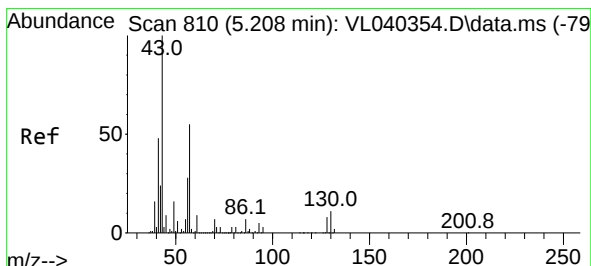
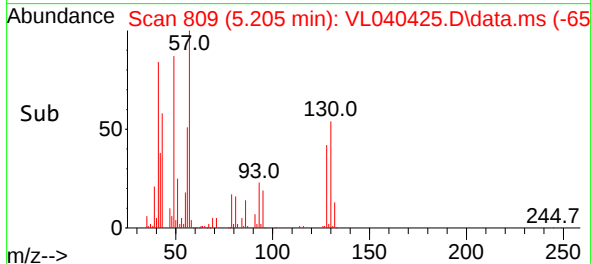
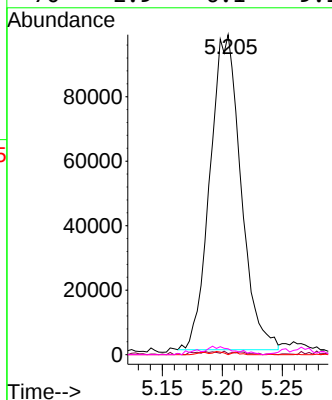
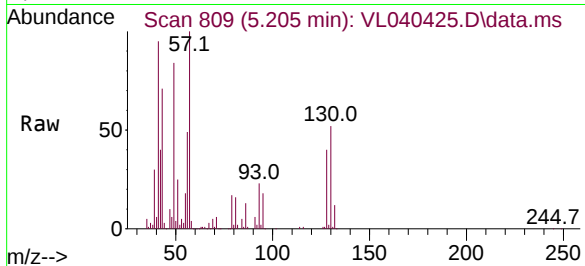




#25
Ethyl Acetate
Concen: 0.681 ppbv
RT: 5.205 min Scan# 809
Delta R.T. 0.004 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

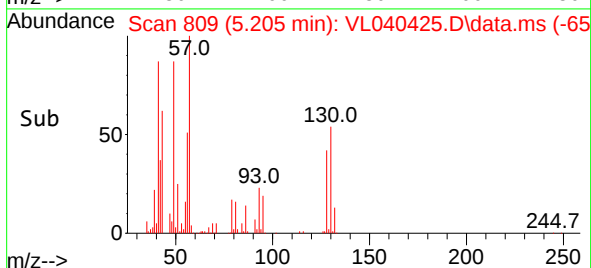
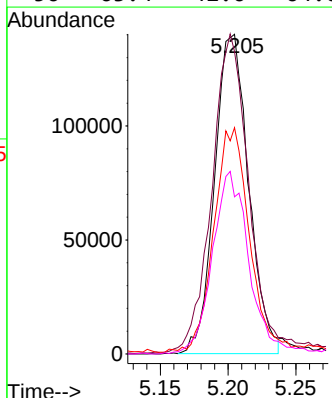
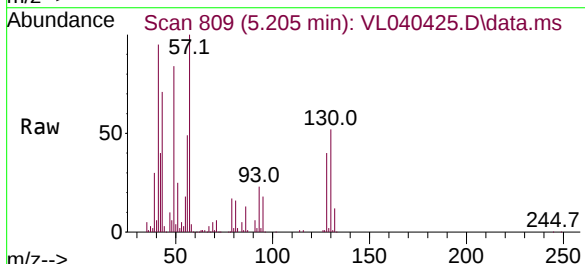
Instrument :
MSVOA_L
ClientSampleId :
SV1

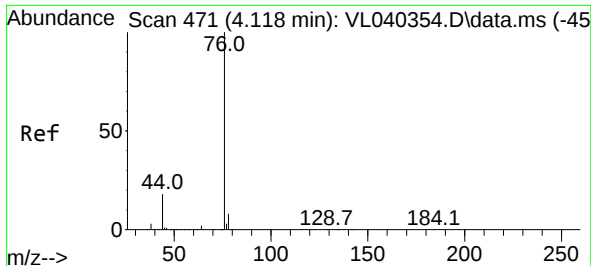
Tgt Ion: 43 Resp: 175118
Ion Ratio Lower Upper
43 100
45 1.4 8.5 12.7#
61 0.8 8.5 12.7#
70 2.9 6.1 9.1#



#26
Hexane
Concen: 2.254 ppbv
RT: 5.205 min Scan# 809
Delta R.T. -0.003 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 57 Resp: 244237
Ion Ratio Lower Upper
57 100
41 112.1 74.8 112.2
43 76.7 192.7 289.1#
56 63.4 42.6 64.0

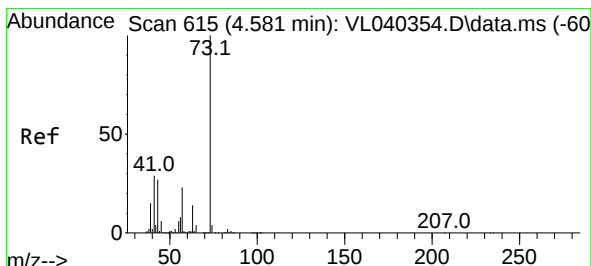
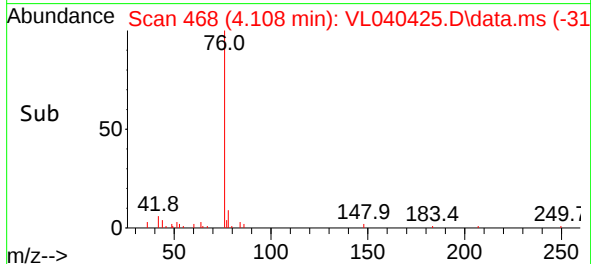
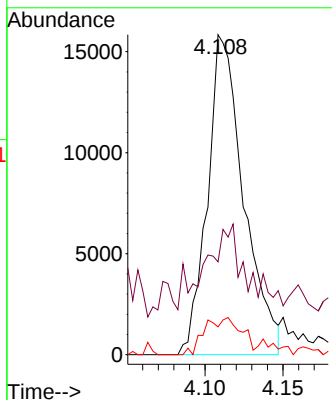
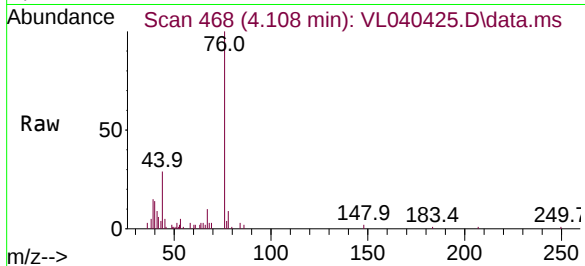




#27
Carbon Disulfide
Concen: 0.183 ppbv
RT: 4.108 min Scan# 410
Delta R.T. -0.010 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

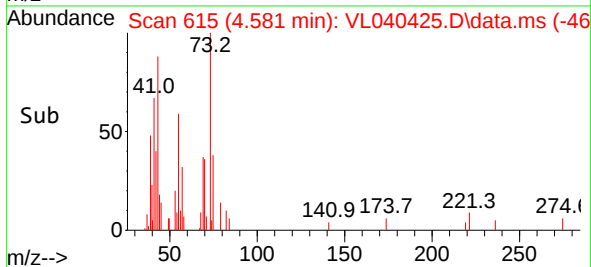
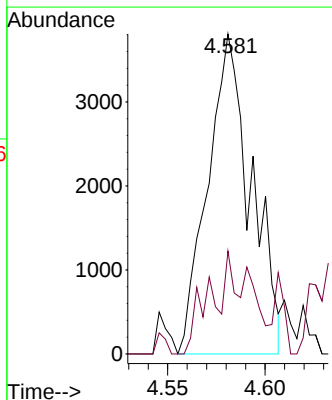
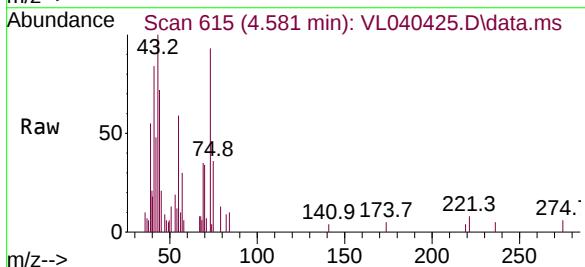
Instrument :
MSVOA_L
ClientSampleId :
SV1

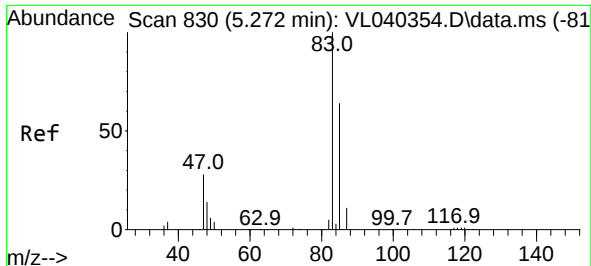
Tgt Ion: 76 Resp: 25610
Ion Ratio Lower Upper
76 100
44 41.8 14.7 22.1#
78 16.8 7.7 11.5#



#28
Methyl tert-Butyl Ether
Concen: 0.053 ppbv
RT: 4.581 min Scan# 615
Delta R.T. -0.000 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 73 Resp: 5889
Ion Ratio Lower Upper
73 100
57 36.2 18.6 27.8#

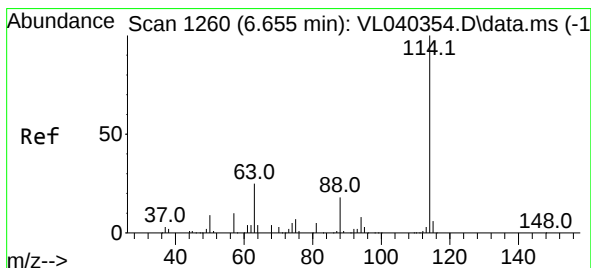
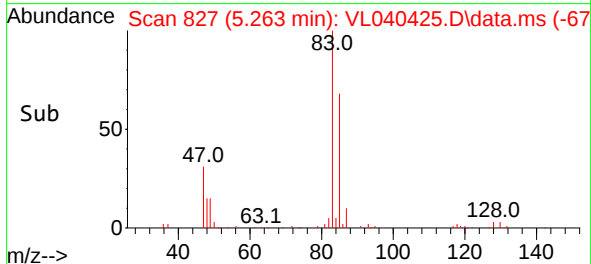
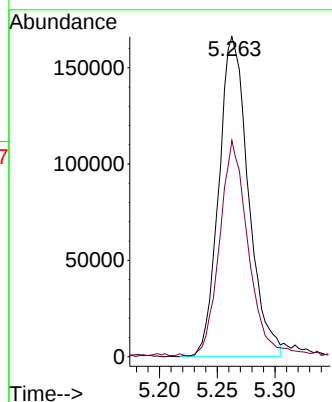
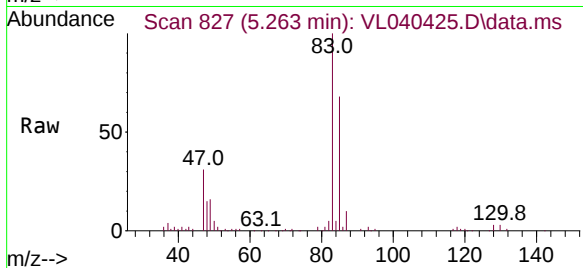




#29
Chloroform
Concen: 1.528 ppbv
RT: 5.263 min Scan# 81
Delta R.T. -0.009 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

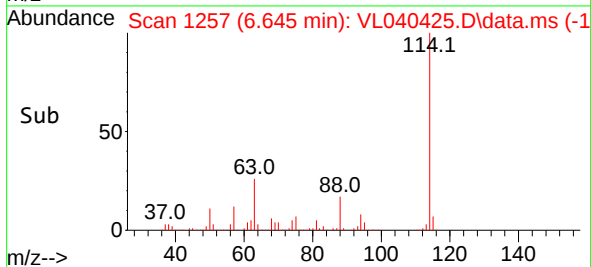
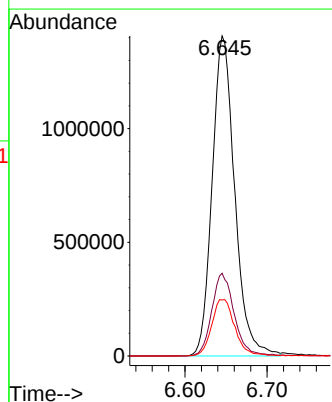
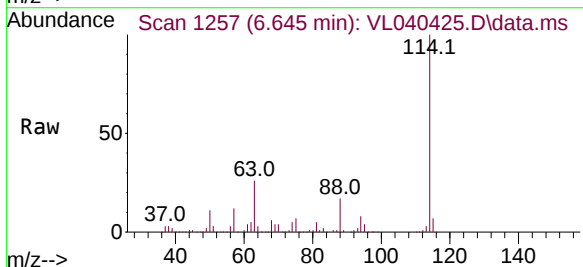
Instrument :
MSVOA_L
ClientSampleId :
SV1

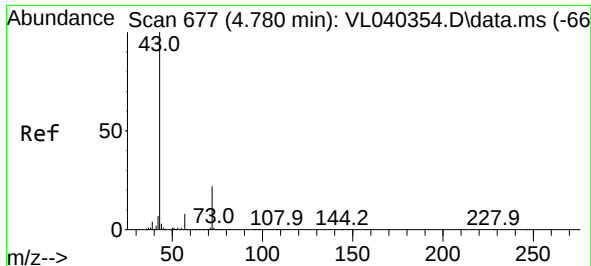
Tgt Ion: 83 Resp: 295083
Ion Ratio Lower Upper
83 100
85 66.7 51.0 76.4



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.645 min Scan# 1257
Delta R.T. -0.010 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 114 Resp: 2685589
Ion Ratio Lower Upper
114 100
63 25.9 21.4 32.0
88 18.2 14.6 22.0

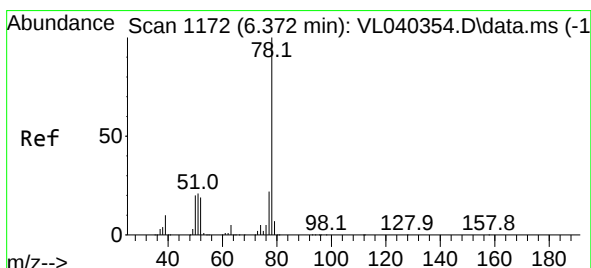
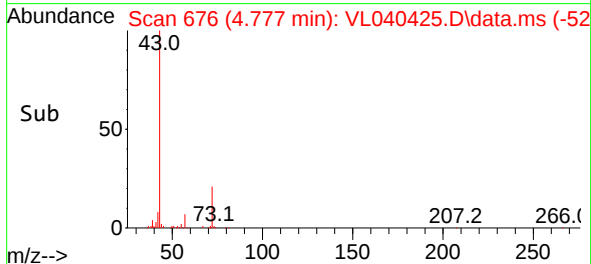
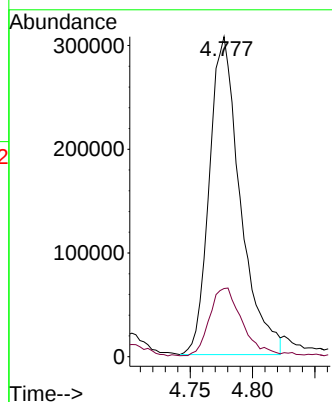
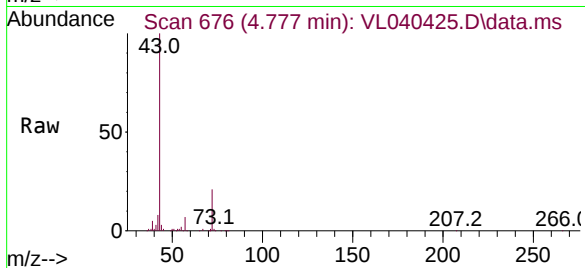




#34
2-Butanone
Concen: 3.663 ppbv
RT: 4.777 min Scan# 61
Delta R.T. -0.003 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

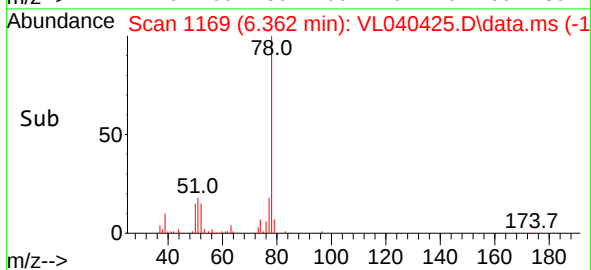
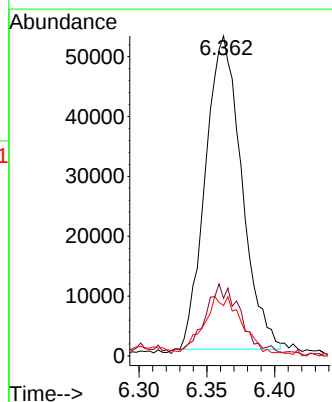
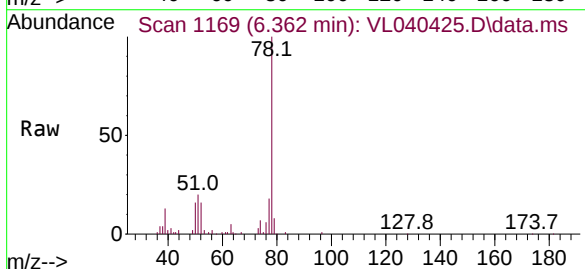
Instrument :
MSVOA_L
ClientSampleId :
SV1

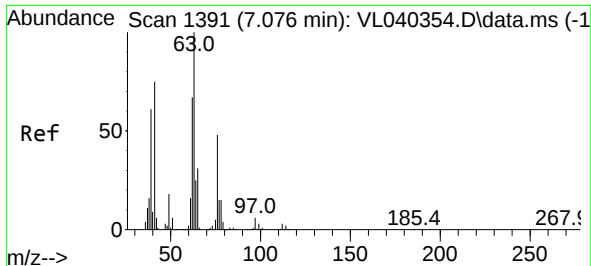
Tgt Ion: 43 Resp: 530389
Ion Ratio Lower Upper
43 100
72 23.9 18.4 27.6



#36
Benzene
Concen: 0.444 ppbv
RT: 6.362 min Scan# 1169
Delta R.T. -0.010 min
Lab File: VL040425.D
Acq: 12 May 2023 19:31

Tgt Ion: 78 Resp: 97240
Ion Ratio Lower Upper
78 100
77 17.4 17.8 26.8#
50 14.7 15.6 23.4#





#39

1,2-Dichloropropane

Concen: 7.962 ppbv

RT: 6.645 min Scan# 11

Delta R.T. -0.431 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

Instrument :

MSVOA_L

ClientSampleId :

SV1

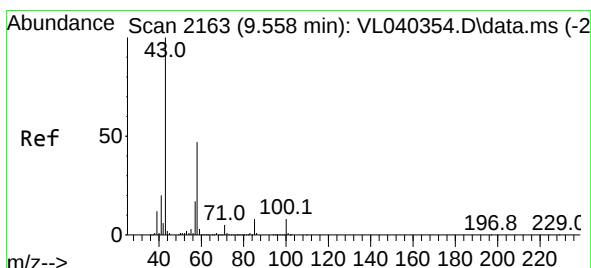
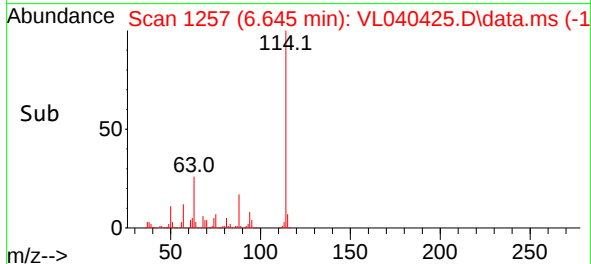
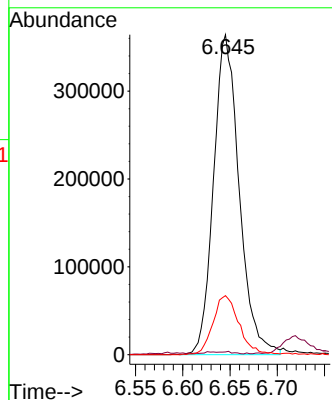
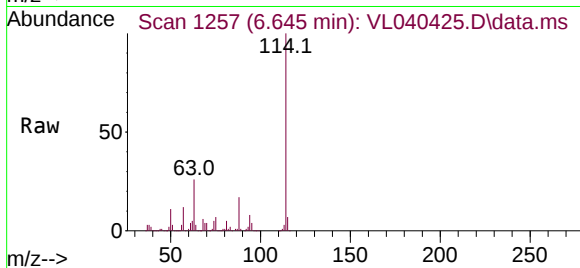
Tgt Ion: 63 Resp: 686401

Ion Ratio Lower Upper

63 100

41 0.4 59.6 89.4#

62 18.5 53.9 80.9#



#51

2-Hexanone

Concen: 0.386 ppbv

RT: 9.555 min Scan# 2162

Delta R.T. -0.003 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

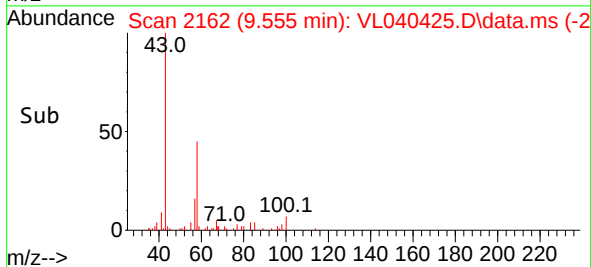
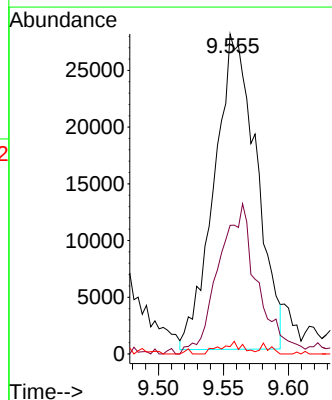
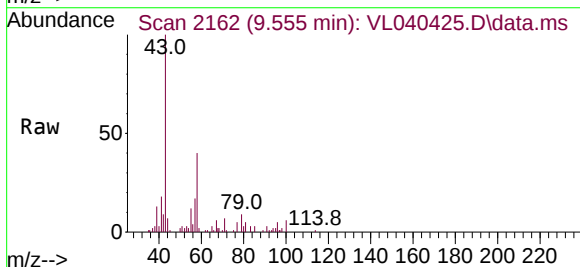
Tgt Ion: 43 Resp: 62641

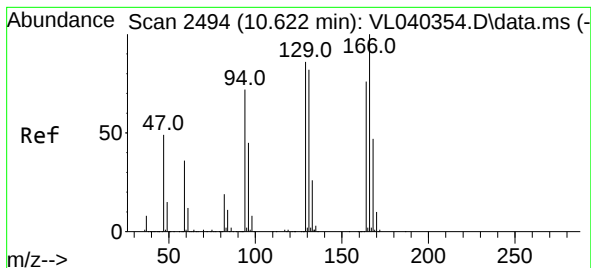
Ion Ratio Lower Upper

43 100

58 46.6 38.3 57.5

98 2.8 0.4 0.6#





#52

Tetrachloroethene

Concen: 0.137 ppbv

RT: 10.613 min Scan# 2491

Delta R.T. -0.009 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion:164 Resp: 9421

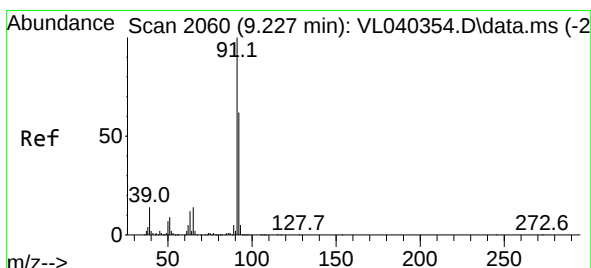
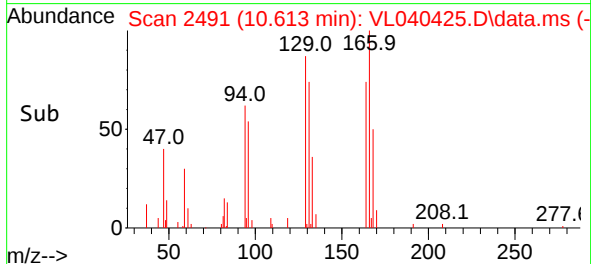
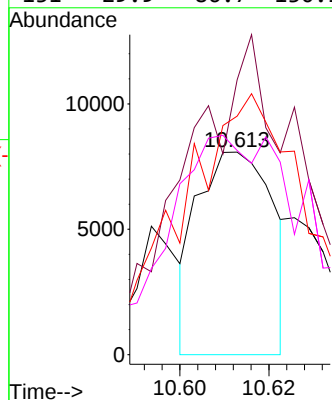
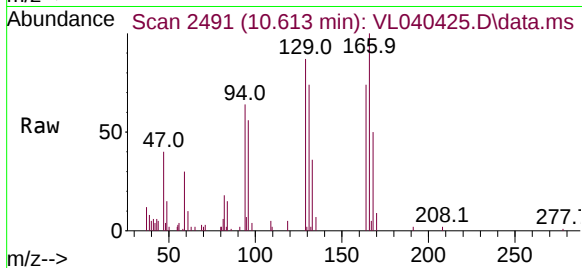
Ion Ratio Lower Upper

164 100

166 89.8 105.2 157.8#

129 118.4 90.3 135.5

131 29.9 86.7 130.1#



#53

Toluene

Concen: 0.516 ppbv

RT: 9.221 min Scan# 2058

Delta R.T. -0.006 min

Lab File: VL040425.D

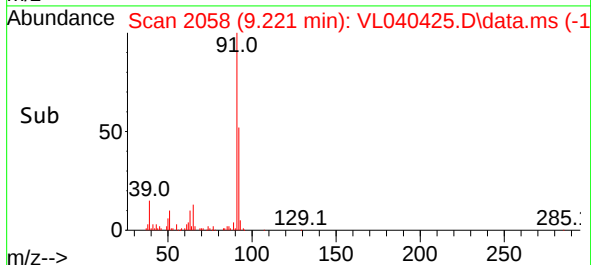
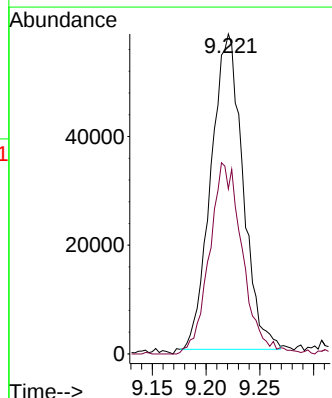
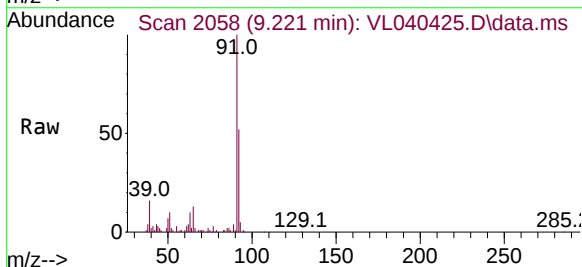
Acq: 12 May 2023 19:31

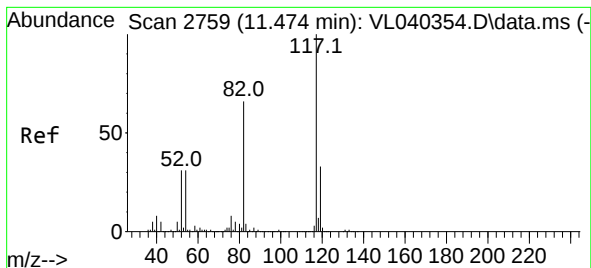
Tgt Ion: 91 Resp: 119779

Ion Ratio Lower Upper

91 100

92 62.6 48.9 73.3





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.468 min Scan# 21

Delta R.T. -0.006 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

Instrument :

MSVOA_L

ClientSampleId :

SV1

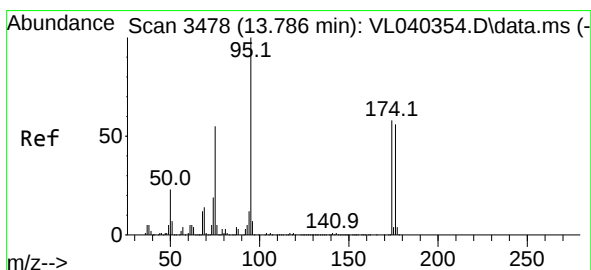
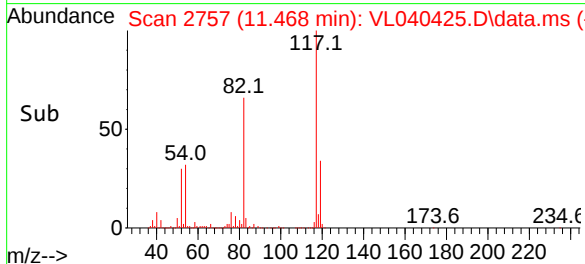
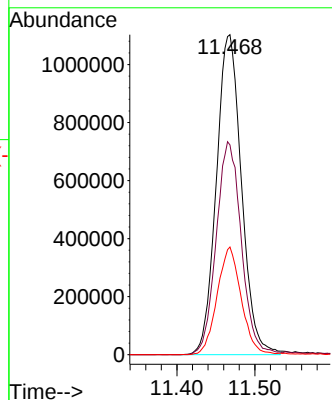
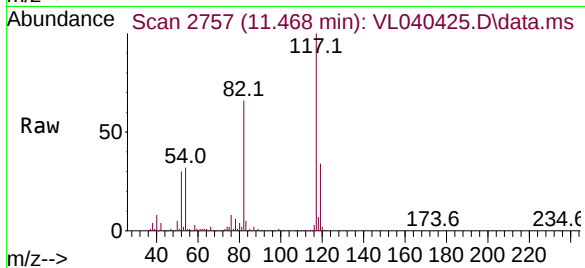
Tgt Ion:117 Resp: 2480029

Ion Ratio Lower Upper

117 100

82 67.6 52.5 78.7

119 32.4 24.3 36.5



#68

1-Bromo-4-Fluorobenzene

Concen: 9.632 ppbv

RT: 13.774 min Scan# 3474

Delta R.T. -0.012 min

Lab File: VL040425.D

Acq: 12 May 2023 19:31

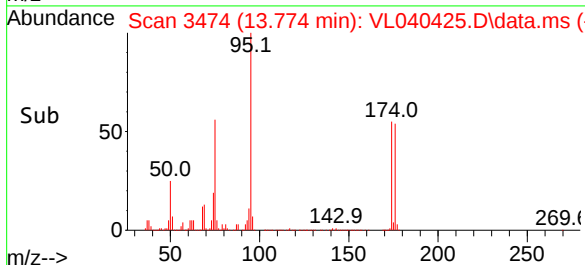
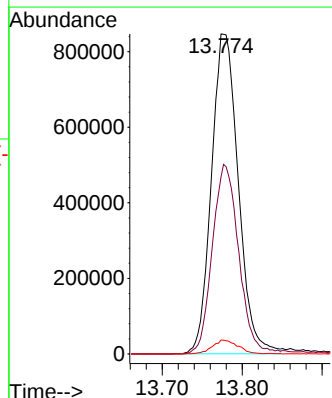
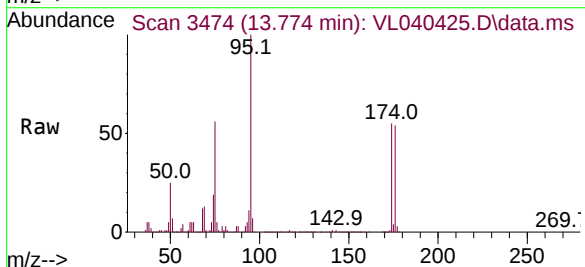
Tgt Ion: 95 Resp: 1975363

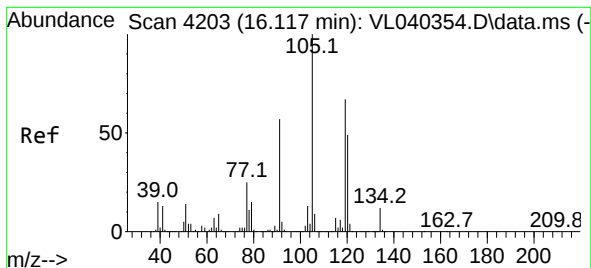
Ion Ratio Lower Upper

95 100

174 59.5 47.2 70.8

175 4.3 3.5 5.3





#74

1,2,4-Trimethylbenzene

Concen: 0.070 ppbv

RT: 16.111 min Scan# 41

Delta R.T. -0.006 min

Lab File: VL040425.D

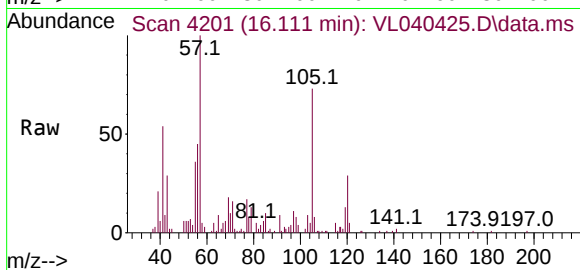
Acq: 12 May 2023 19:31

Instrument :

MSVOA_L

ClientSampleId :

SV1



Tgt Ion:105 Resp: 22059

Ion Ratio Lower Upper

105 100

120 38.6 38.9 58.3#

91 8.3 46.0 69.0#

77 21.0 20.0 30.0

