

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL062725\
 Data File : VL042678.D
 Acq On : 27 Jun 2025 14:36
 Operator : SY/MD
 Sample : Q2432-01DL 80X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Quant Time: Jun 27 23:05:02 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

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

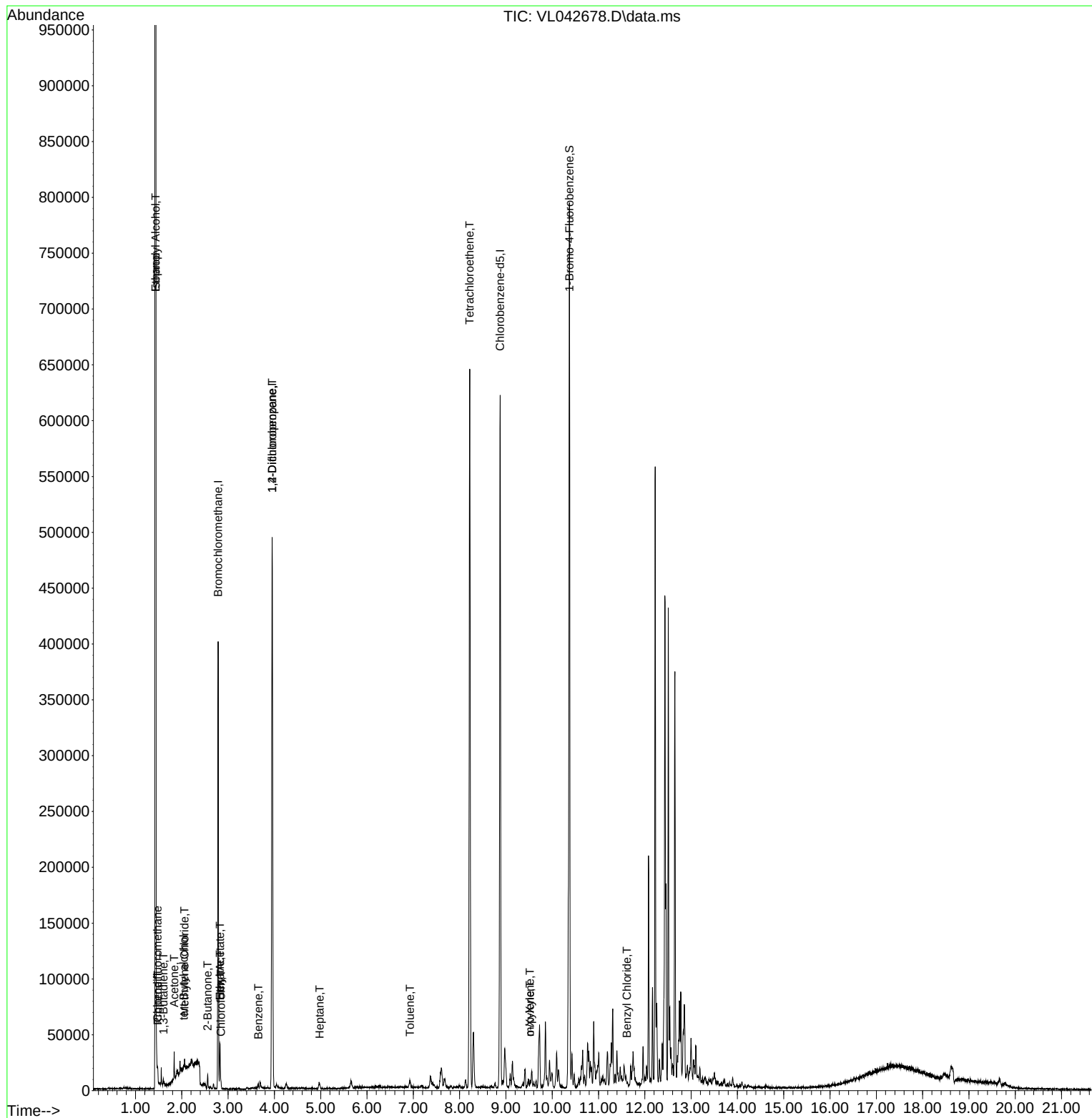
Internal Standards						
1) Bromochloromethane	2.784	49	111786	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	286704	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	252875	10.000	ppbv	-0.01
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	203210	10.720	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.200%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	1.473	51	1410	0.075	ppbv	95
9) Propene	1.482	41	1144	0.150	ppbv #	68
10) Heptane	4.975	43	846	0.039	ppbv #	28
13) Ethanol	1.434	45	165169	181.881	ppbv #	1
15) Acetone	1.835	43	8986	0.667	ppbv	96
16) 1,3-Butadiene	1.602	39	791	0.124	ppbv #	25
17) tert-Butyl alcohol	2.042	59	1311	0.093	ppbv #	89
19) Isopropyl Alcohol	1.434	45	165169	20.519	ppbv #	38
20) Methylene Chloride	2.059	84	1232	0.277	ppbv #	80
25) Ethyl Acetate	2.826	43	6180	0.168	ppbv #	78
26) Hexane	2.826	57	8417	0.503	ppbv #	37
29) Chloroform	2.845	83	1811	0.083	ppbv #	62
34) 2-Butanone	2.557	43	7592	0.371	ppbv	97
36) Benzene	3.654	78	888	0.031	ppbv #	87
39) 1,2-Dichloropropane	3.952	63	71039	6.804	ppbv #	24
52) Tetrachloroethene	8.218	164	116135	11.008	ppbv	98
53) Toluene	6.930	91	1555	0.048	ppbv #	20
59) m/p-Xylene	9.519	91	3173	0.094	ppbv	89
60) o-Xylene	9.519	91	3173	0.094	ppbv	84
66) Benzyl Chloride	11.610	91	342	0.059	ppbv #	83

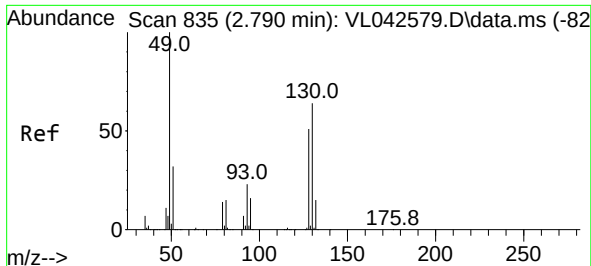
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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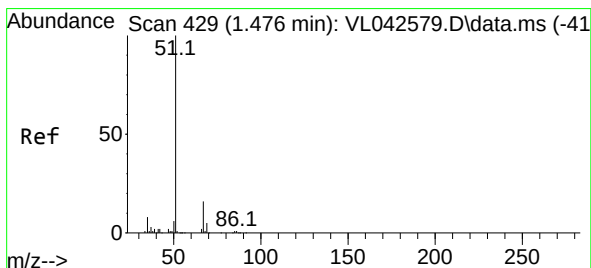
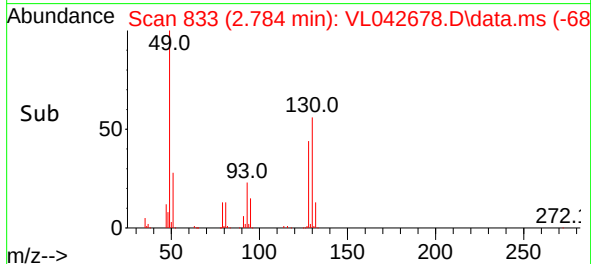
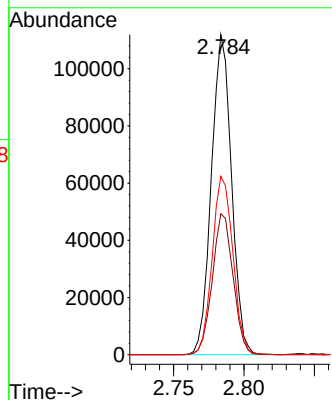
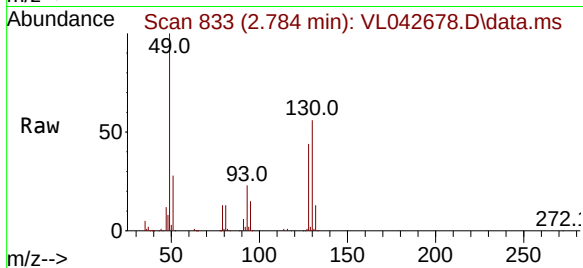




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.784 min Scan# 811
 Delta R.T. -0.006 min
 Lab File: VL042678.D
 Acq: 27 Jun 2025 14:36

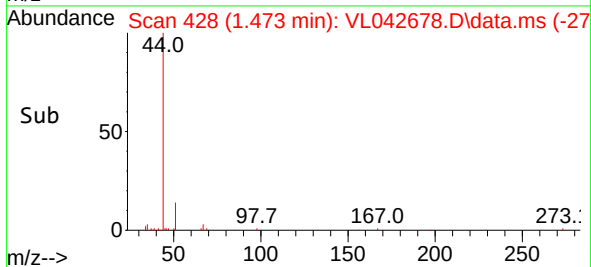
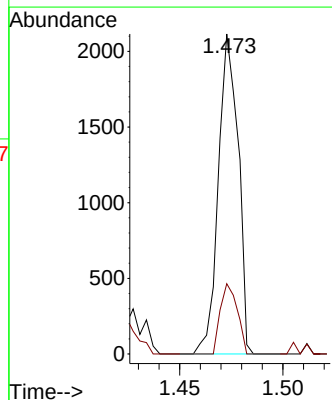
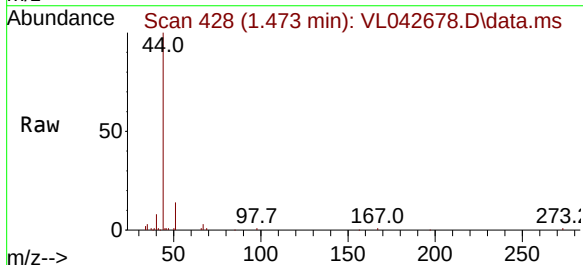
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

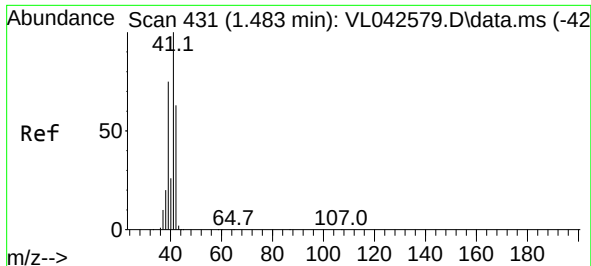
Tgt Ion: 49 Resp: 111786
 Ion Ratio Lower Upper
 49 100
 128 45.2 24.2 72.6
 130 57.2 30.4 91.2



#3
 Chlorodifluoromethane
 Concen: 0.075 ppbv
 RT: 1.473 min Scan# 428
 Delta R.T. -0.003 min
 Lab File: VL042678.D
 Acq: 27 Jun 2025 14:36

Tgt Ion: 51 Resp: 1410
 Ion Ratio Lower Upper
 51 100
 67 18.9 13.4 20.2





#9

Propene

Concen: 0.150 ppbv

RT: 1.482 min Scan# 41

Delta R.T. -0.000 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

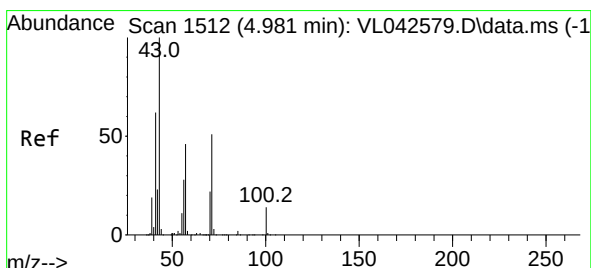
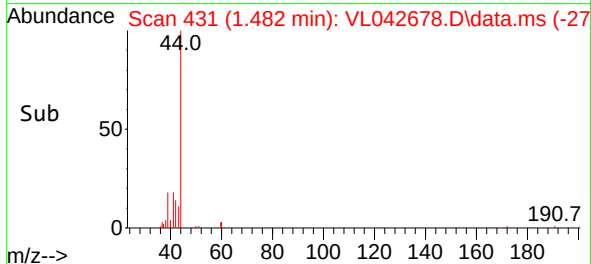
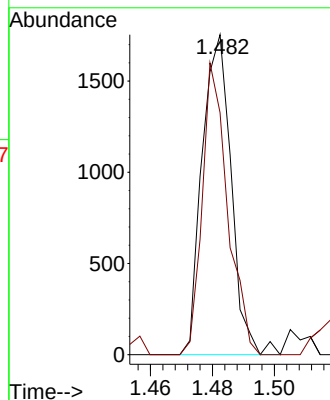
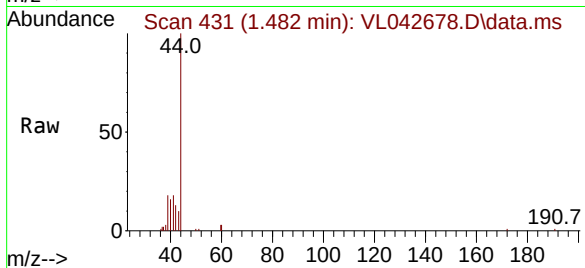
SV1DL

Tgt Ion: 41 Resp: 1144

Ion Ratio Lower Upper

41 100

42 92.5 53.3 79.9#



#10

Heptane

Concen: 0.039 ppbv

RT: 4.975 min Scan# 1510

Delta R.T. -0.007 min

Lab File: VL042678.D

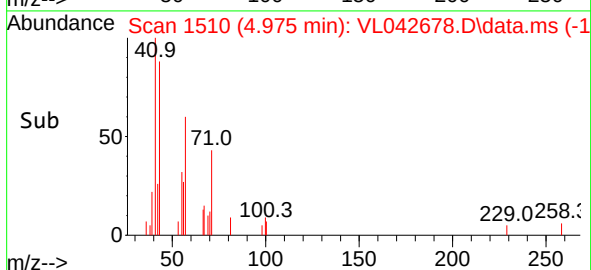
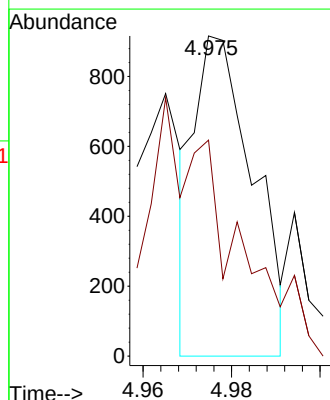
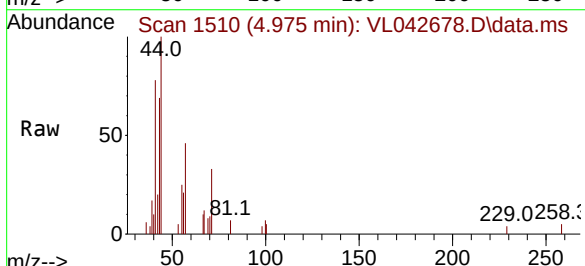
Acq: 27 Jun 2025 14:36

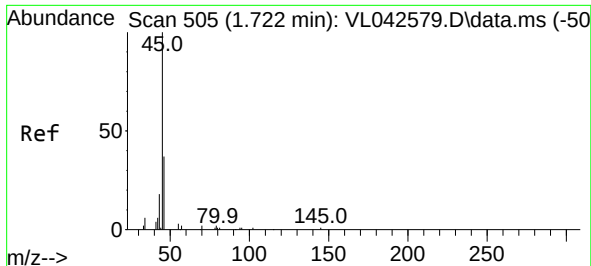
Tgt Ion: 43 Resp: 846

Ion Ratio Lower Upper

43 100

57 0.0 38.9 58.3#

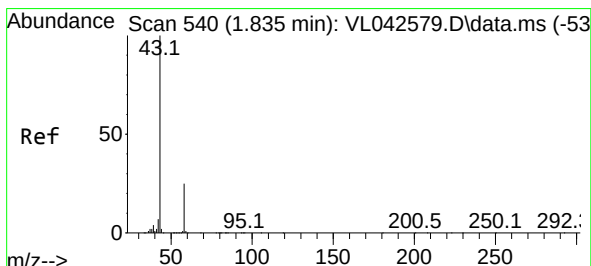
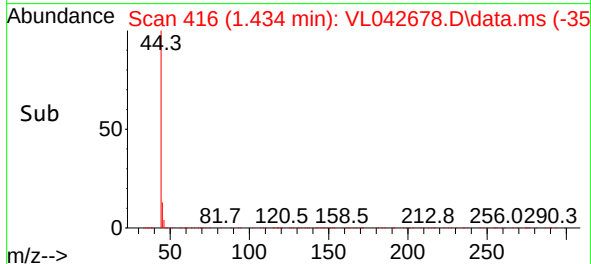
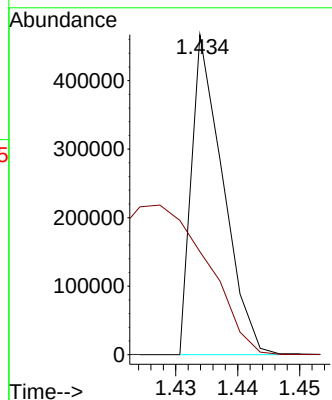
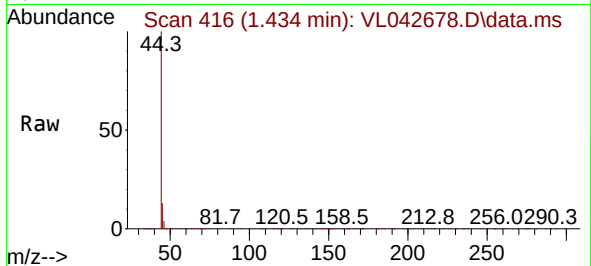




#13
 Ethanol
 Concen: 181.881 ppbv
 RT: 1.434 min Scan# 416
 Delta R.T. -0.288 min
 Lab File: VL042678.D
 Acq: 27 Jun 2025 14:36

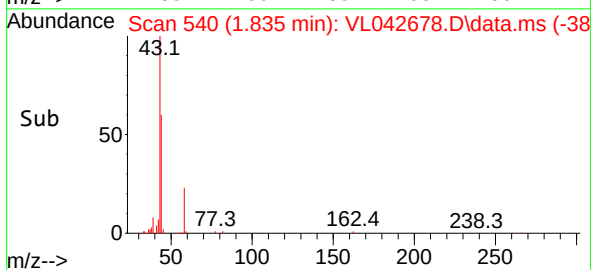
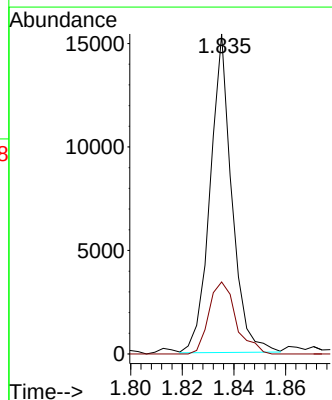
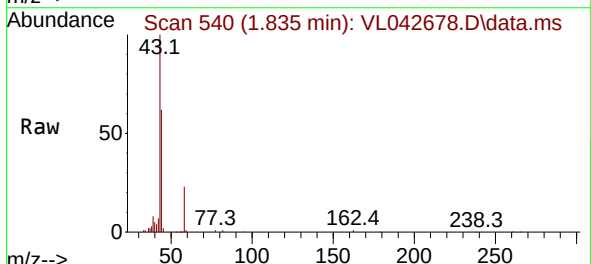
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

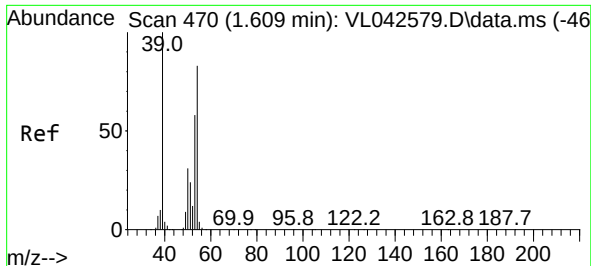
Tgt Ion: 45 Resp: 165169
 Ion Ratio Lower Upper
 45 100
 46 132.1 14.5 58.1#



#15
 Acetone
 Concen: 0.667 ppbv
 RT: 1.835 min Scan# 540
 Delta R.T. -0.000 min
 Lab File: VL042678.D
 Acq: 27 Jun 2025 14:36

Tgt Ion: 43 Resp: 8986
 Ion Ratio Lower Upper
 43 100
 58 28.1 21.0 31.4

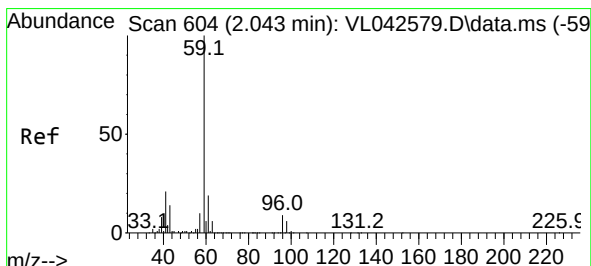
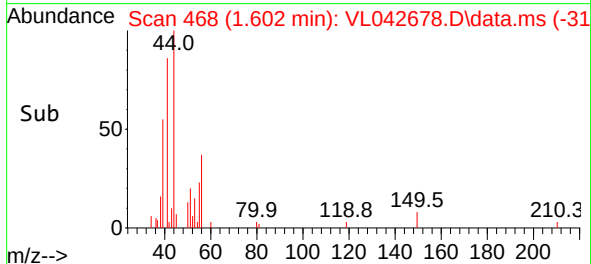
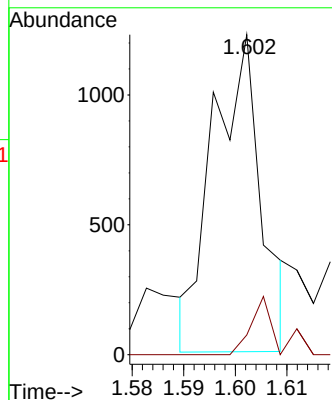
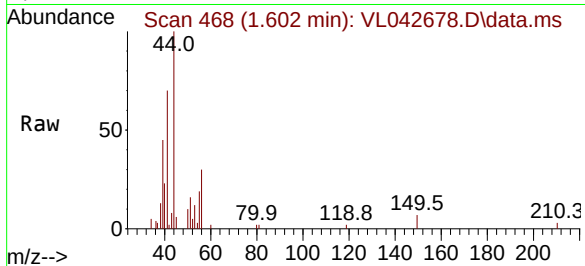




#16
1,3-Butadiene
Concen: 0.124 ppbv
RT: 1.602 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL042678.D
Acq: 27 Jun 2025 14:36

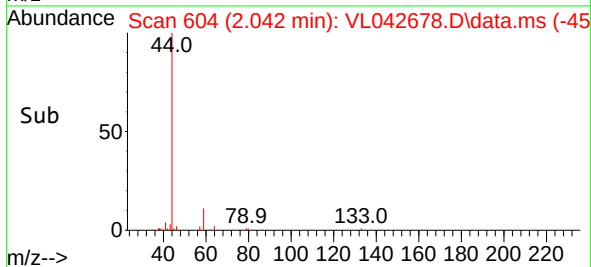
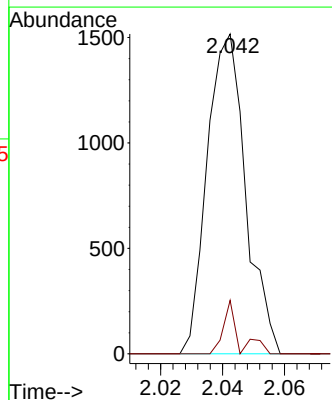
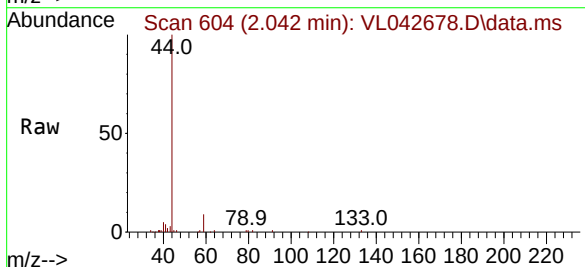
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

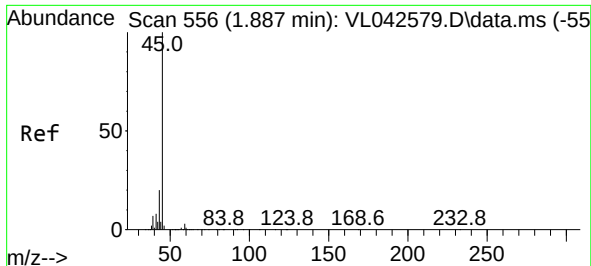
Tgt Ion: 39 Resp: 791
Ion Ratio Lower Upper
39 100
54 9.9 57.9 86.9#



#17
tert-Butyl alcohol
Concen: 0.093 ppbv
RT: 2.042 min Scan# 604
Delta R.T. -0.000 min
Lab File: VL042678.D
Acq: 27 Jun 2025 14:36

Tgt Ion: 59 Resp: 1311
Ion Ratio Lower Upper
59 100
57 6.7 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 20.519 ppbv

RT: 1.434 min Scan# 416

Delta R.T. -0.453 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

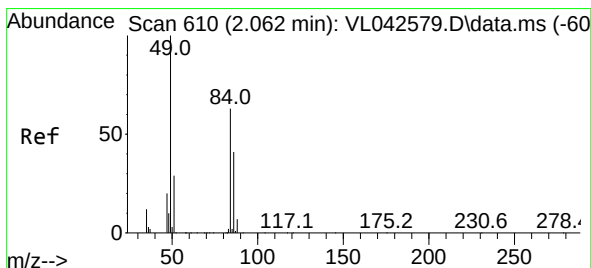
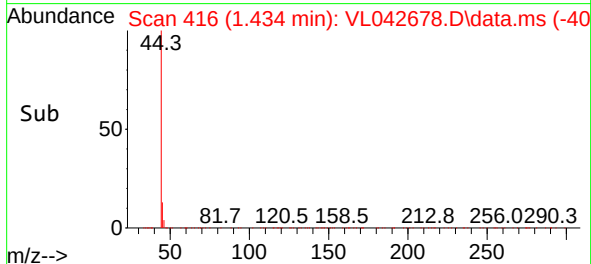
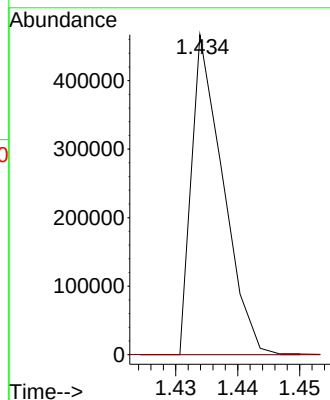
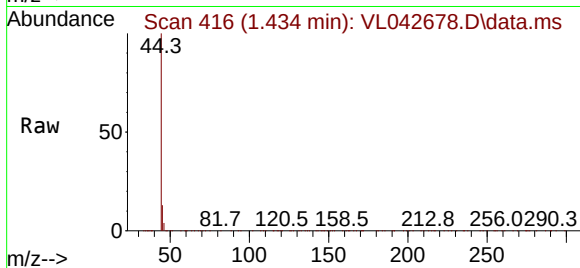
SV1DL

Tgt Ion: 45 Resp: 165169

Ion Ratio Lower Upper

45 100

58 0.1 29.4 44.2#



#20

Methylene Chloride

Concen: 0.277 ppbv

RT: 2.059 min Scan# 609

Delta R.T. -0.003 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Tgt Ion: 84 Resp: 1232

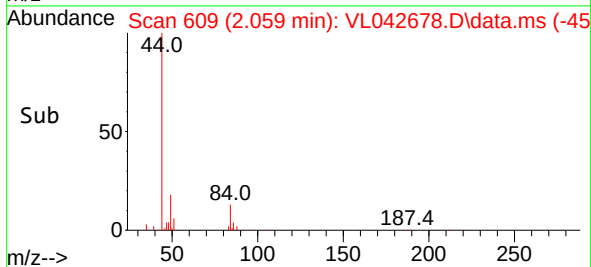
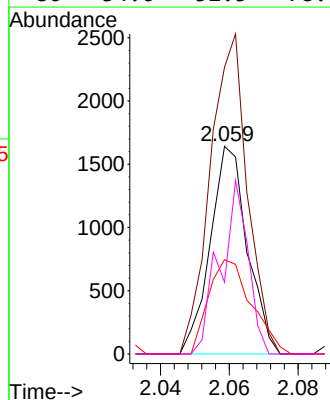
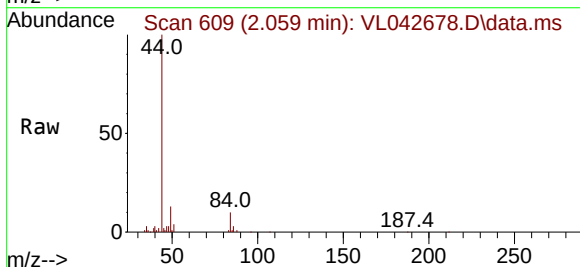
Ion Ratio Lower Upper

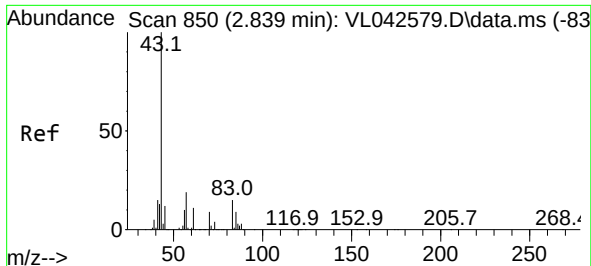
84 100

49 138.1 128.8 193.2

51 45.4 38.6 57.8

86 34.6 52.5 78.7#





#25

Ethyl Acetate

Concen: 0.168 ppbv

RT: 2.826 min Scan# 846

Delta R.T. -0.013 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

Tgt Ion: 43 Resp: 6180

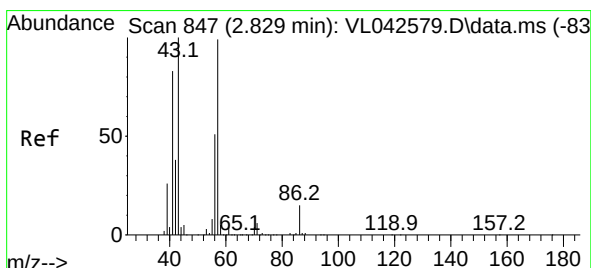
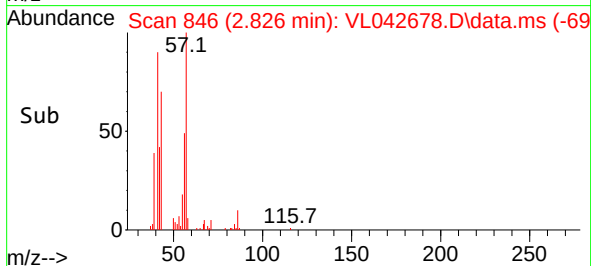
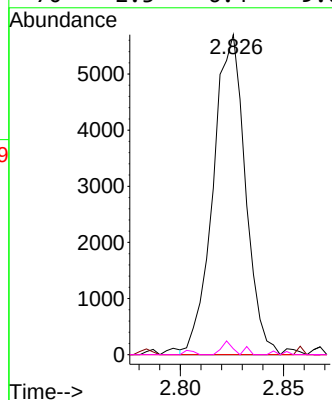
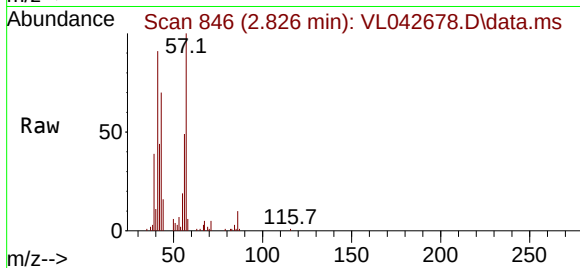
Ion Ratio Lower Upper

43 100

45 0.8 8.2 12.2#

61 0.0 7.1 10.7#

70 2.3 6.4 9.6#



#26

Hexane

Concen: 0.503 ppbv

RT: 2.826 min Scan# 846

Delta R.T. -0.003 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Tgt Ion: 57 Resp: 8417

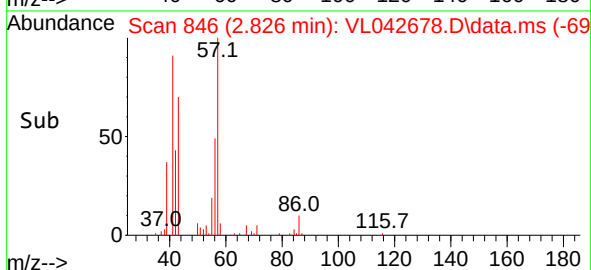
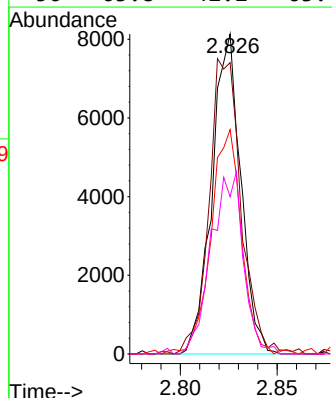
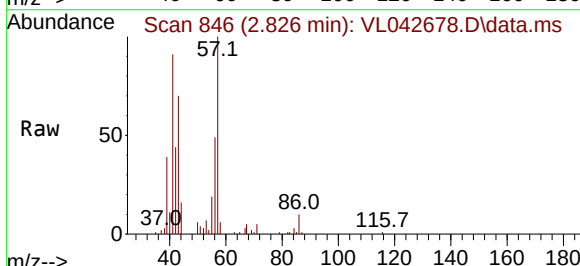
Ion Ratio Lower Upper

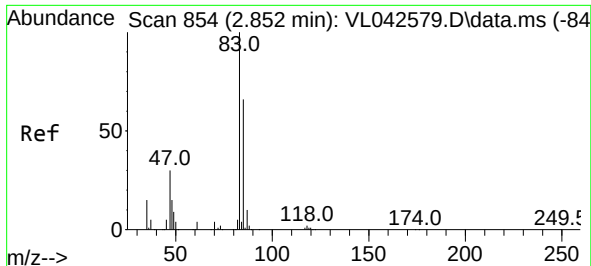
57 100

41 102.6 70.6 106.0

43 74.6 181.1 271.7#

56 63.8 42.2 63.4#





#29

Chloroform

Concen: 0.083 ppbv

RT: 2.845 min Scan# 81

Delta R.T. -0.007 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

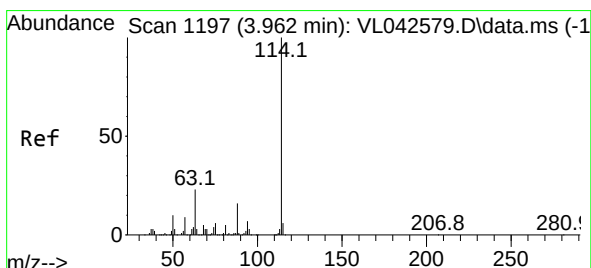
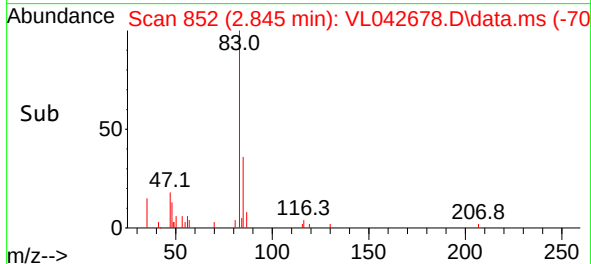
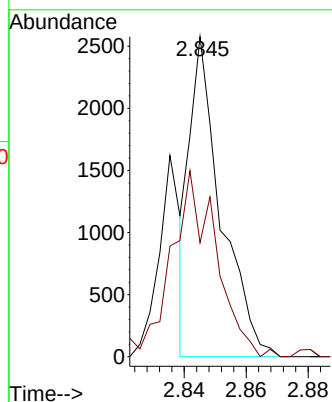
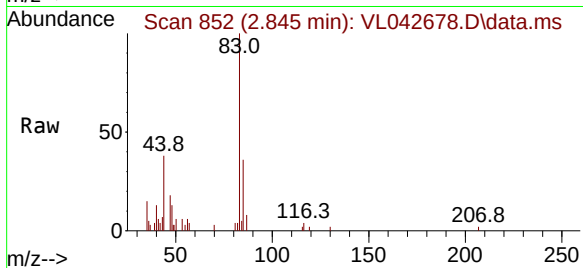
SV1DL

Tgt Ion: 83 Resp: 1811

Ion Ratio Lower Upper

83 100

85 35.7 52.8 79.2#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.010 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

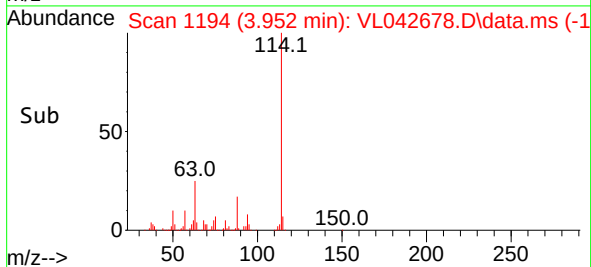
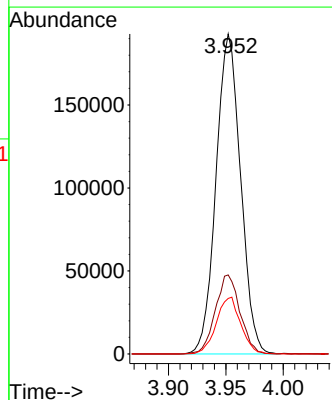
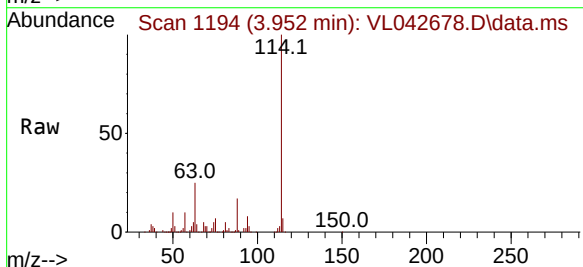
Tgt Ion: 114 Resp: 286704

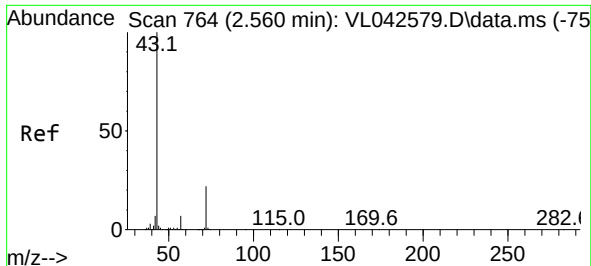
Ion Ratio Lower Upper

114 100

63 24.8 19.0 28.6

88 17.6 13.6 20.4

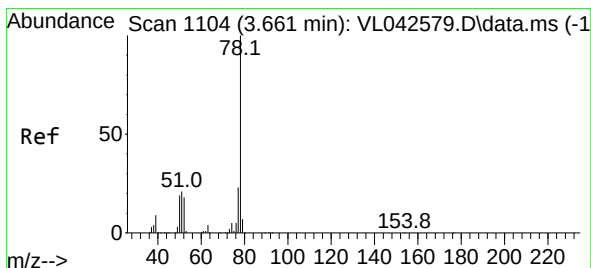
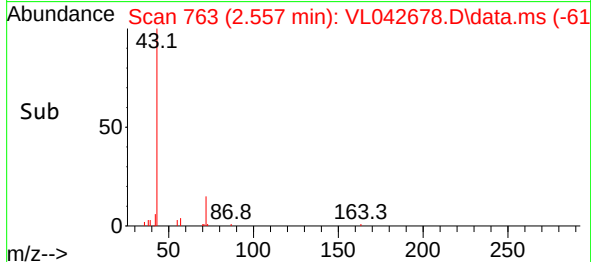
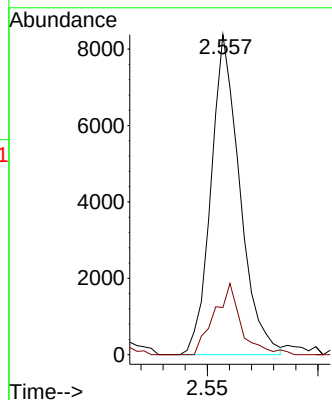
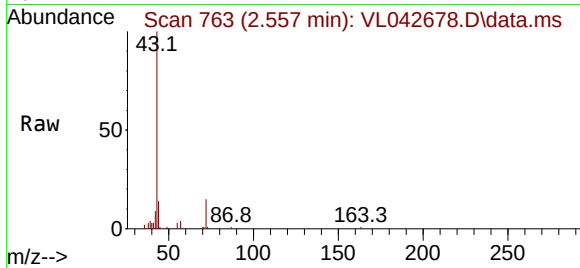




#34
2-Butanone
Concen: 0.371 ppbv
RT: 2.557 min Scan# 7
Delta R.T. -0.003 min
Lab File: VL042678.D
Acq: 27 Jun 2025 14:36

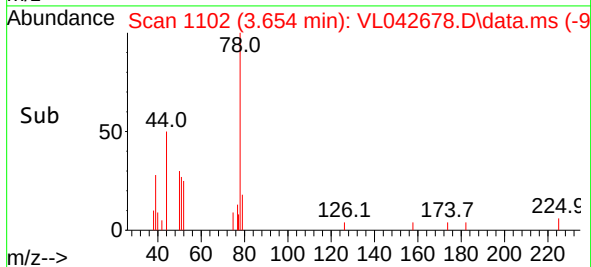
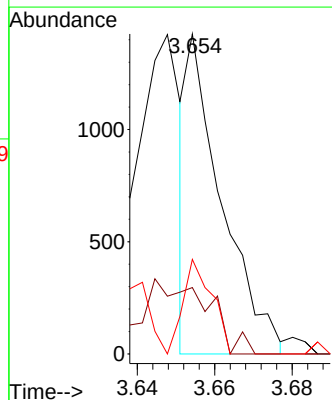
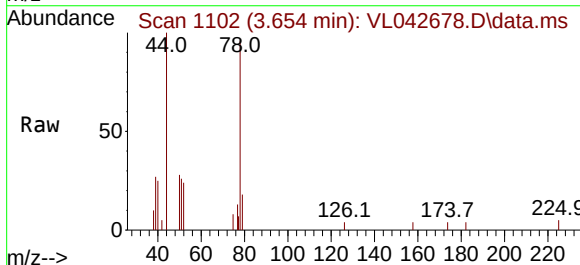
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

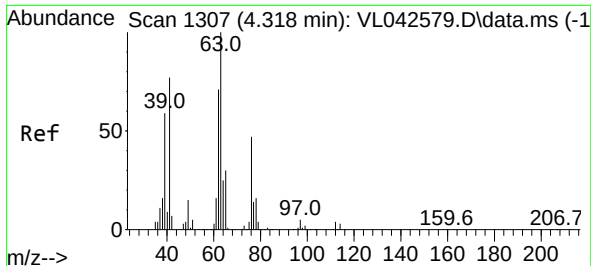
Tgt Ion: 43 Resp: 7592
Ion Ratio Lower Upper
43 100
72 20.8 17.7 26.5



#36
Benzene
Concen: 0.031 ppbv
RT: 3.654 min Scan# 1102
Delta R.T. -0.007 min
Lab File: VL042678.D
Acq: 27 Jun 2025 14:36

Tgt Ion: 78 Resp: 888
Ion Ratio Lower Upper
78 100
77 21.6 18.2 27.2
50 30.7 15.2 22.8#





#39

1,2-Dichloropropane

Concen: 6.804 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.366 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

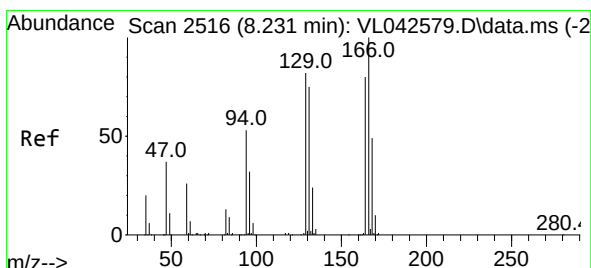
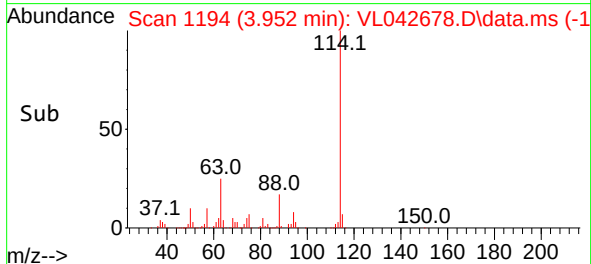
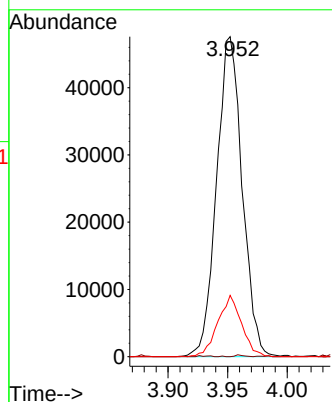
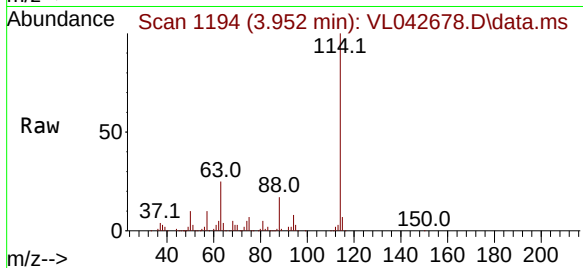
Tgt Ion: 63 Resp: 71039

Ion Ratio Lower Upper

63 100

41 0.0 61.8 92.6#

62 19.1 56.6 85.0#



#52

Tetrachloroethene

Concen: 11.008 ppbv

RT: 8.218 min Scan# 2512

Delta R.T. -0.013 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Tgt Ion:164 Resp: 116135

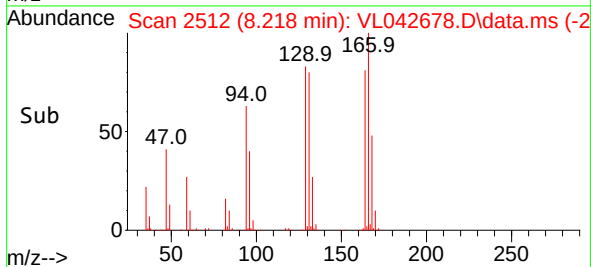
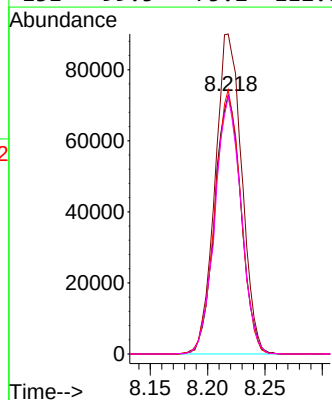
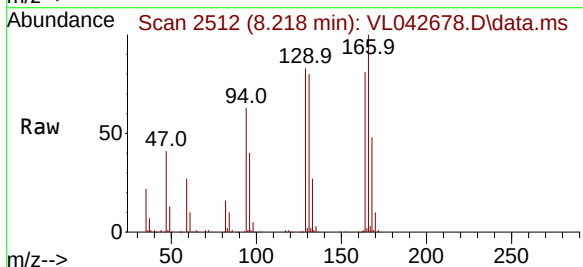
Ion Ratio Lower Upper

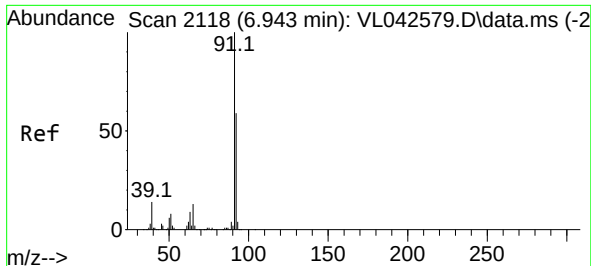
164 100

166 123.8 100.0 150.0

129 102.2 82.2 123.4

131 99.5 75.2 112.8





#53

Toluene

Concen: 0.048 ppbv

RT: 6.930 min Scan# 2114

Delta R.T. -0.013 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

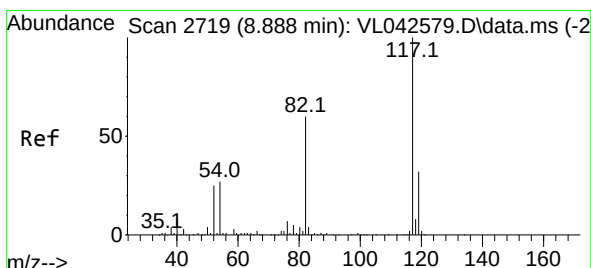
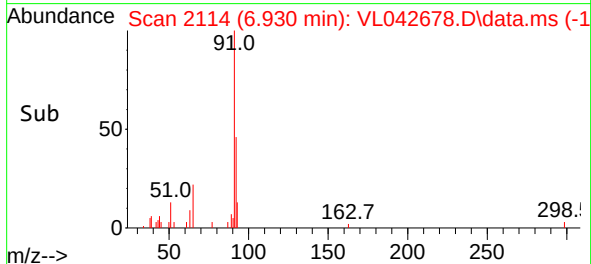
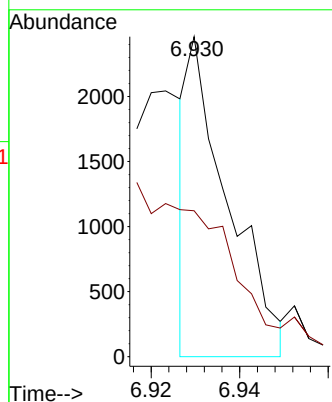
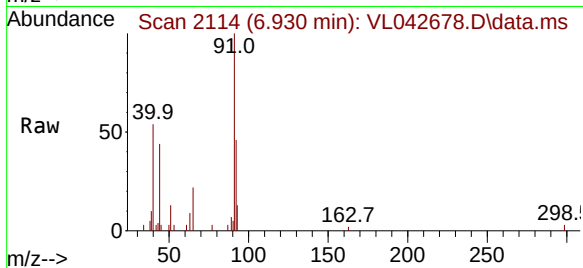
SV1DL

Tgt Ion: 91 Resp: 1555

Ion Ratio Lower Upper

91 100

92 0.0 48.2 72.4#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.875 min Scan# 2715

Delta R.T. -0.013 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

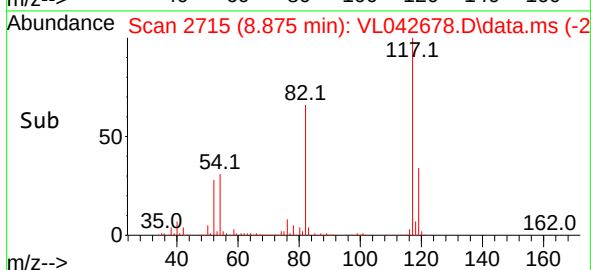
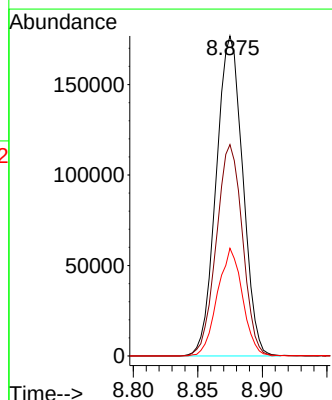
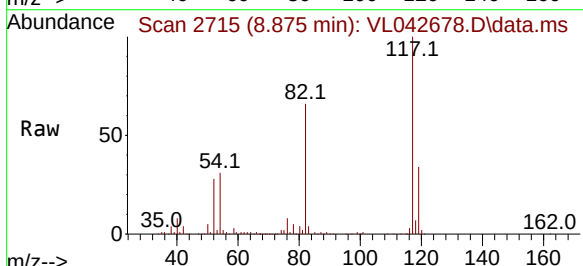
Tgt Ion: 117 Resp: 252875

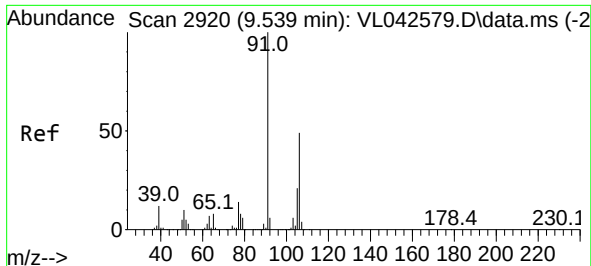
Ion Ratio Lower Upper

117 100

82 65.2 51.2 76.8

119 31.9 26.3 39.5





#59

m/p-Xylene

Concen: 0.094 ppbv

RT: 9.519 min Scan# 2914

Delta R.T. -0.020 min

Lab File: VL042678.D

Acq: 27 Jun 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

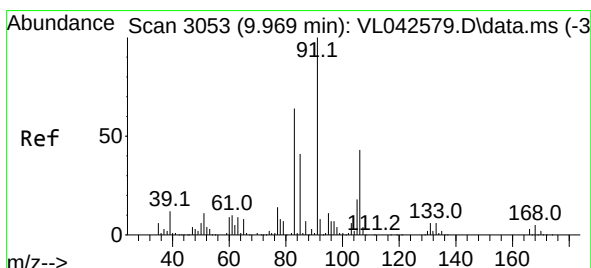
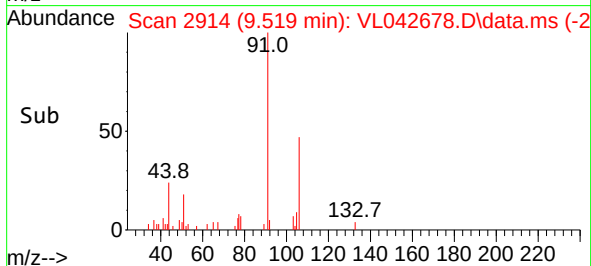
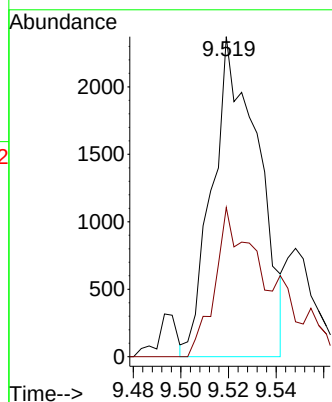
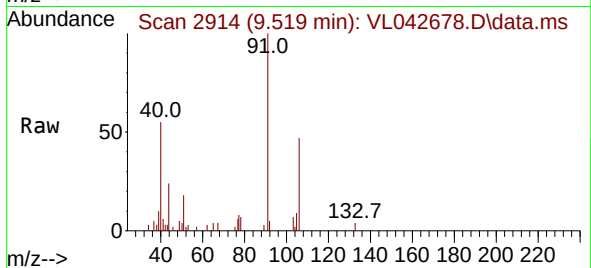
SV1DL

Tgt Ion: 91 Resp: 3173

Ion Ratio Lower Upper

91 100

106 56.0 38.8 58.2



#60

o-Xylene

Concen: 0.094 ppbv

RT: 9.519 min Scan# 2914

Delta R.T. -0.450 min

Lab File: VL042678.D

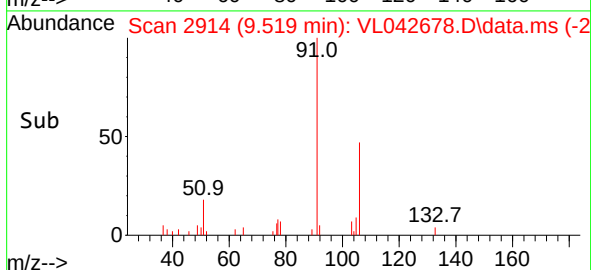
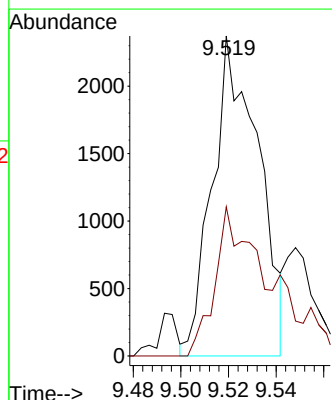
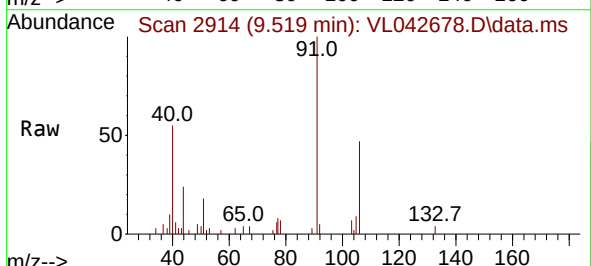
Acq: 27 Jun 2025 14:36

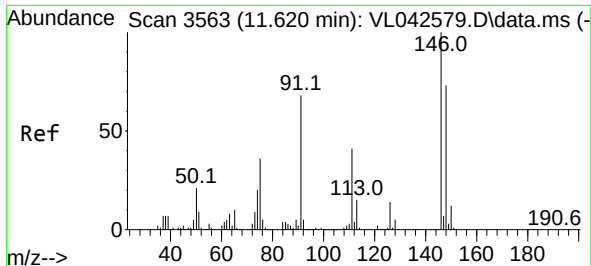
Tgt Ion: 91 Resp: 3173

Ion Ratio Lower Upper

91 100

106 56.0 22.9 68.5

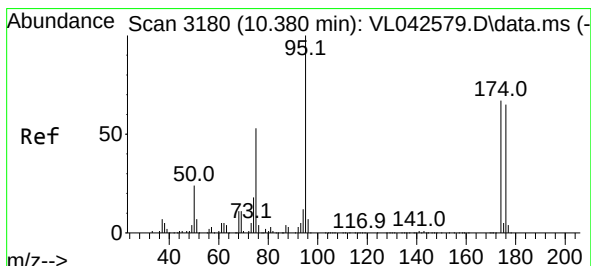
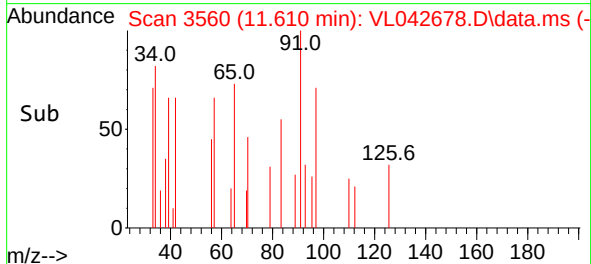
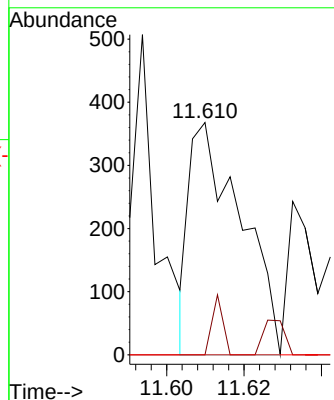
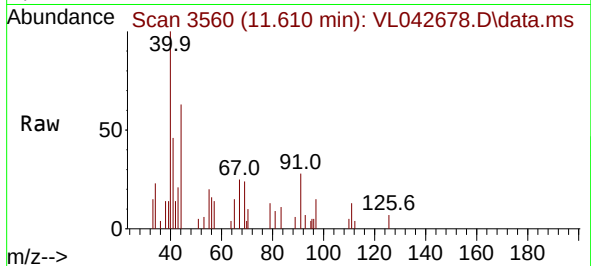




#66
Benzyl Chloride
Concen: 0.059 ppbv
RT: 11.610 min Scan# 3177
Delta R.T. -0.010 min
Lab File: VL042678.D
Acq: 27 Jun 2025 14:36

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tgt Ion: 91 Resp: 342
Ion Ratio Lower Upper
91 100
126 11.7 15.1 22.7#
128 0.0 5.0 7.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.720 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. -0.010 min
Lab File: VL042678.D
Acq: 27 Jun 2025 14:36

Tgt Ion: 95 Resp: 203210
Ion Ratio Lower Upper
95 100
174 61.9 53.1 79.7
175 4.6 4.2 6.2

