

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042650.D
 Acq On : 19 Jun 2025 11:09
 Operator : SY/MD
 Sample : Q2359-01 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1DL

Quant Time: Jun 20 01:35:49 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	2.806	49	114585	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.981	114	292670	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.904	117	247226	10.000	ppbv	0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	187754	10.131	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.300%

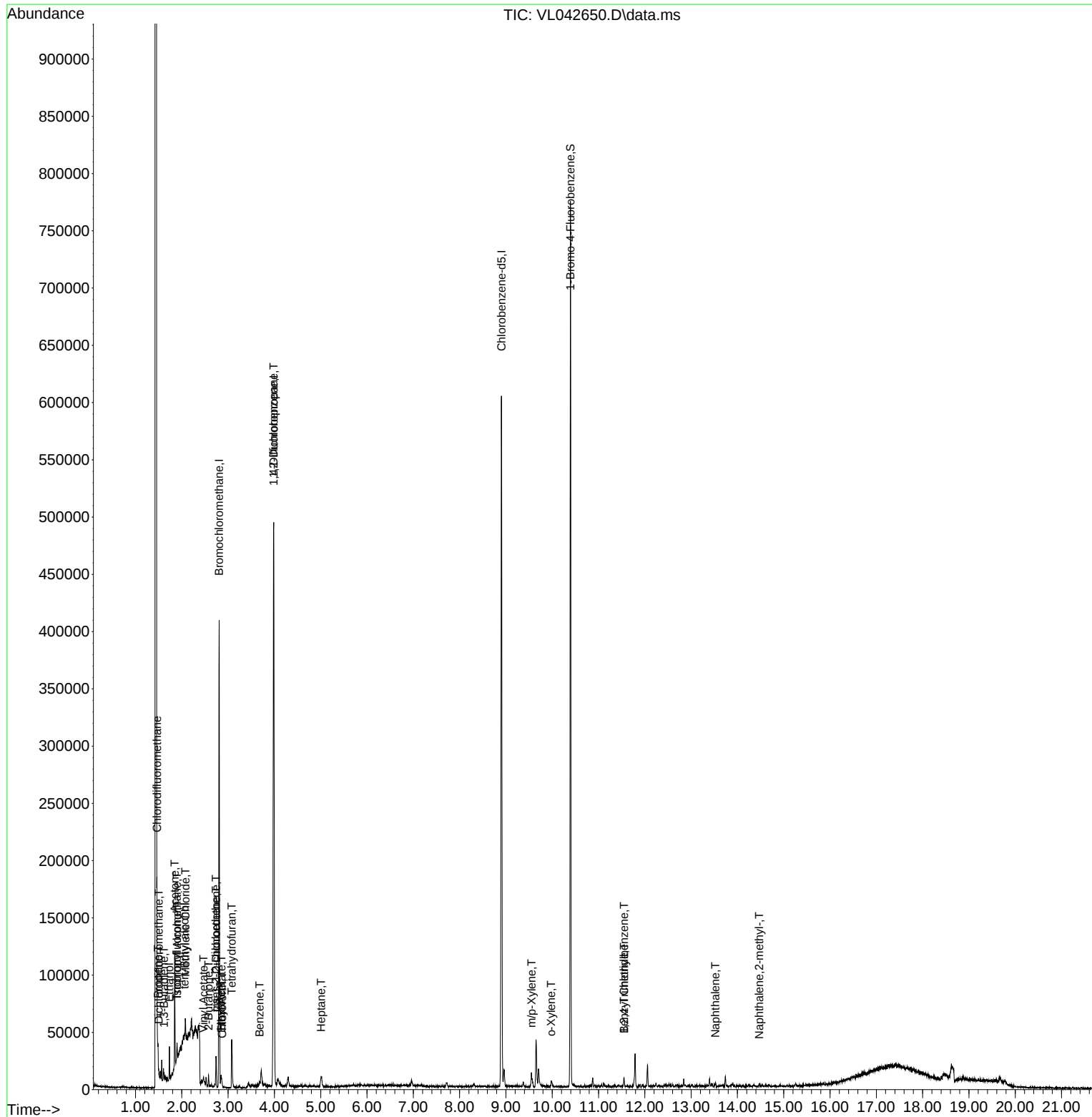
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.502	85	835	0.059	ppbv #	88
3) Chlorodifluoromethane	1.463	51	5449	0.281	ppbv #	68
9) Propene	1.486	41	1289	0.165	ppbv #	61
10) Heptane	5.007	43	1975	0.090	ppbv #	32
11) Trichlorofluoromethane	1.894	101	416	0.032	ppbv	98
13) Ethanol	1.732	45	10418	11.192	ppbv #	39
15) Acetone	1.845	43	44863	3.250	ppbv	100
16) 1,3-Butadiene	1.615	39	733	0.112	ppbv #	13
17) tert-Butyl alcohol	2.059	59	1724	0.120	ppbv #	81
19) Isopropyl Alcohol	1.897	45	3677	0.446	ppbv #	1
20) Methylene Chloride	2.078	84	2468	0.542	ppbv	93
22) trans-1,2-Dichloroethene	2.738	96	5195	0.975	ppbv #	76
23) Vinyl Acetate	2.470	43	3296	0.177	ppbv #	84
25) Ethyl Acetate	2.855	43	4433	0.117	ppbv #	93
26) Hexane	2.848	57	2062	0.120	ppbv #	91
29) Chloroform	2.871	83	714	0.032	ppbv #	58
31) cis-1,2-Dichloroethene	2.738	61	7959	0.507	ppbv	93
34) 2-Butanone	2.576	43	6066	0.291	ppbv	92
36) Benzene	3.680	78	1979	0.069	ppbv #	89
39) 1,2-Dichloropropane	3.984	63	74552	6.995	ppbv #	22
41) Tetrahydrofuran	3.078	42	15426	1.263	ppbv	98
59) m/p-Xylene	9.551	91	4641	0.141	ppbv #	69
60) o-Xylene	9.975	91	1240	0.038	ppbv	70
66) Benzyl Chloride	11.552	91	209	0.037	ppbv #	64
74) 1,2,4-Trimethylbenzene	11.552	105	2335	0.062	ppbv #	54
79) Naphthalene	13.526	128	1607	0.045	ppbv #	87
80) Naphthalene,2-methyl-	14.471	142	751	0.047	ppbv #	85

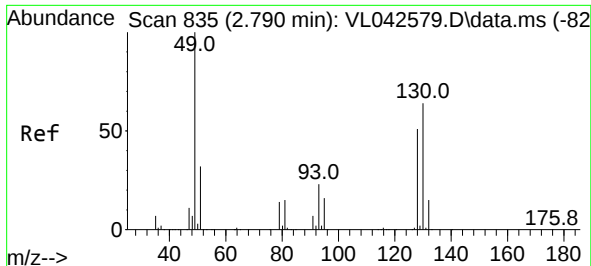
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
Data File : VL042650.D
Acq On : 19 Jun 2025 11:09
Operator : SY/MD
Sample : Q2359-01 10X
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

Quant Time: Jun 20 01:35:49 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

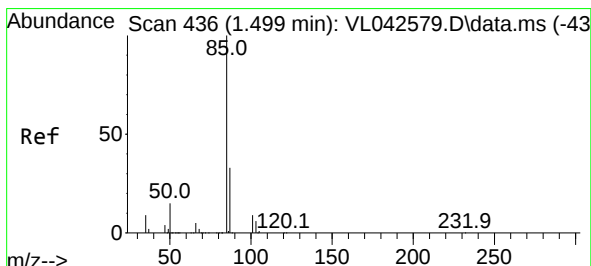
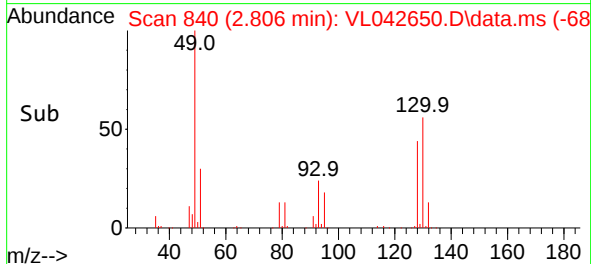
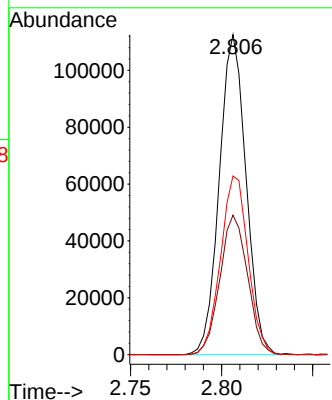
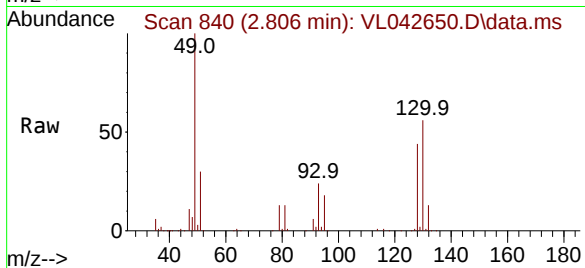




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.806 min Scan# 84
 Delta R.T. 0.016 min
 Lab File: VL042650.D
 Acq: 19 Jun 2025 11:09

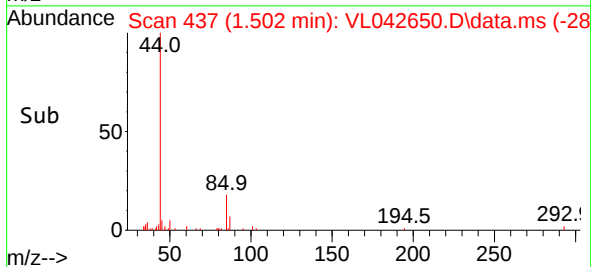
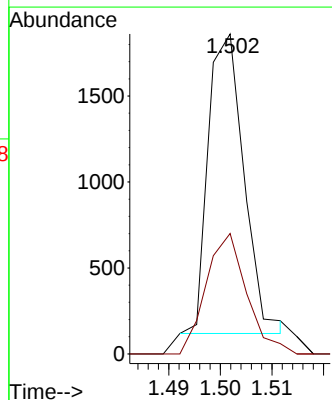
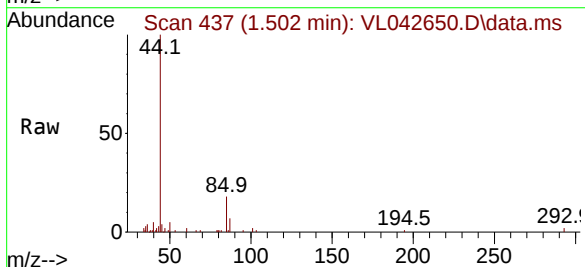
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1DL

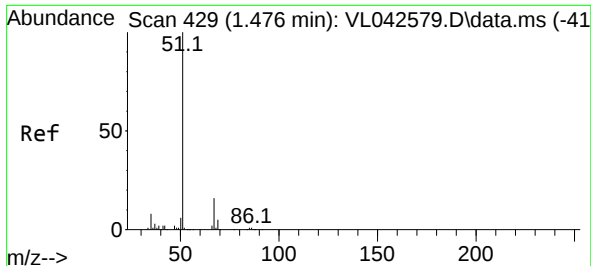
Tgt Ion: 49 Resp: 114585
 Ion Ratio Lower Upper
 49 100
 128 45.2 24.2 72.6
 130 57.6 30.4 91.2



#2
 Dichlorodifluoromethane
 Concen: 0.059 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.003 min
 Lab File: VL042650.D
 Acq: 19 Jun 2025 11:09

Tgt Ion: 85 Resp: 835
 Ion Ratio Lower Upper
 85 100
 87 40.2 26.6 39.8#

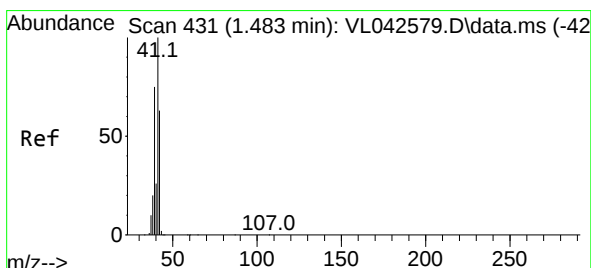
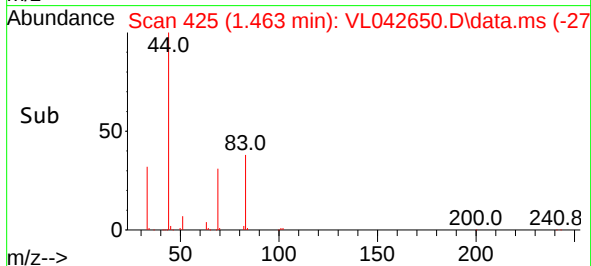
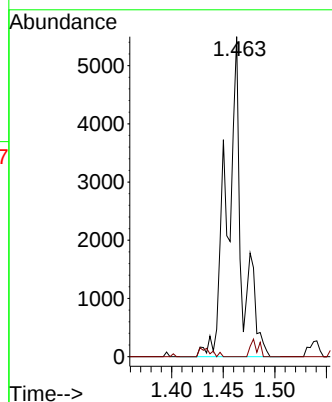
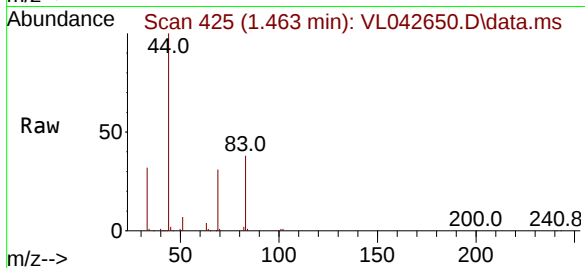




#3
Chlorodifluoromethane
Concen: 0.281 ppbv
RT: 1.463 min Scan# 41
Delta R.T. -0.013 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

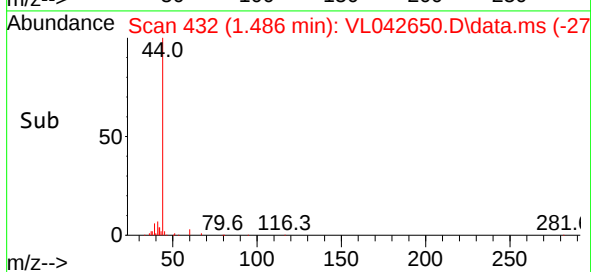
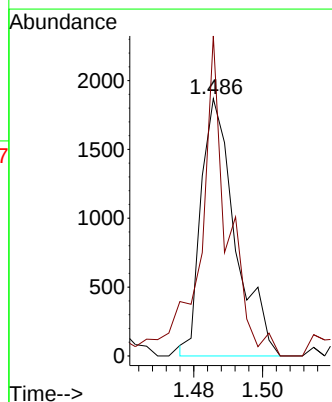
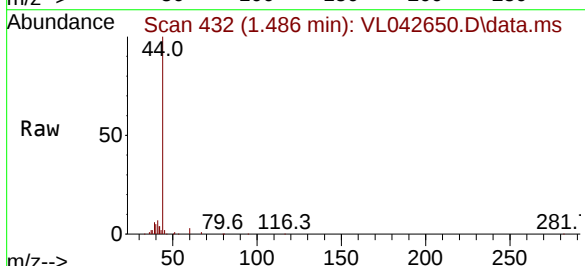
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

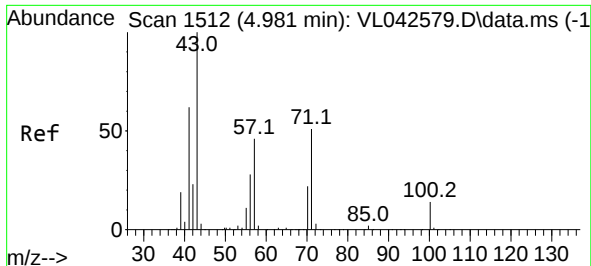
Tgt Ion: 51 Resp: 5449
Ion Ratio Lower Upper
51 100
67 2.8 13.4 20.2#



#9
Propene
Concen: 0.165 ppbv
RT: 1.486 min Scan# 432
Delta R.T. 0.003 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 41 Resp: 1289
Ion Ratio Lower Upper
41 100
42 98.1 53.3 79.9#

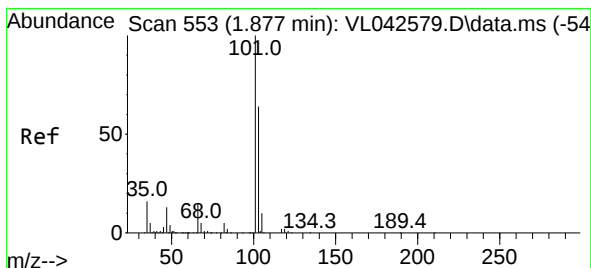
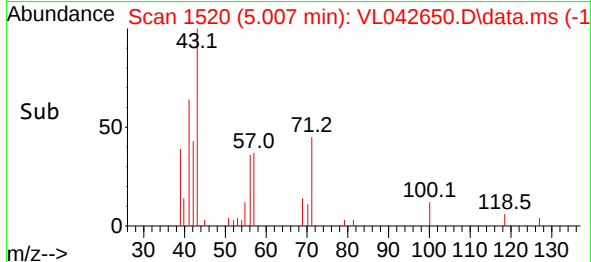
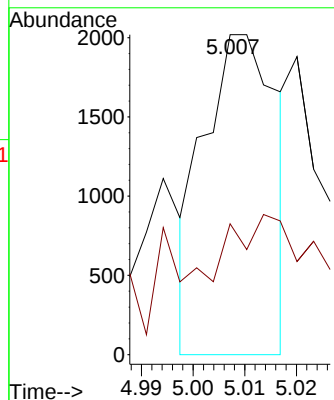
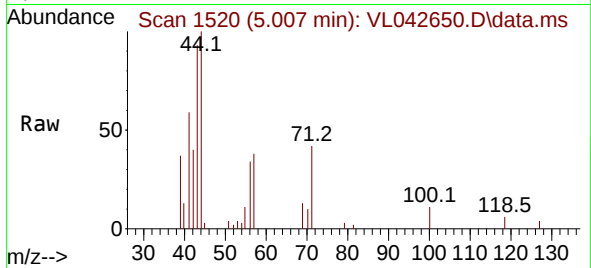




#10
 Heptane
 Concen: 0.090 ppbv
 RT: 5.007 min Scan# 11
 Delta R.T. 0.026 min
 Lab File: VL042650.D
 Acq: 19 Jun 2025 11:09

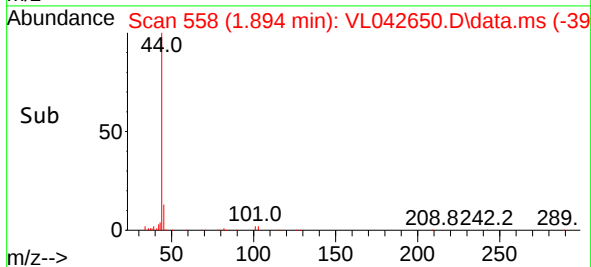
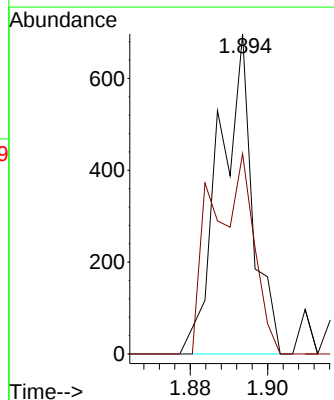
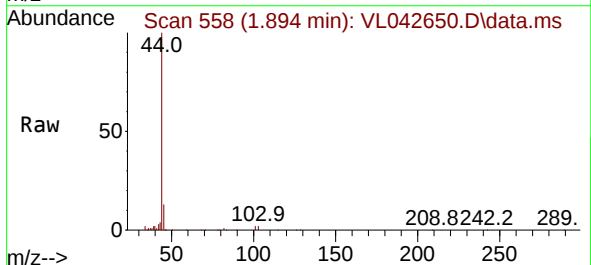
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1DL

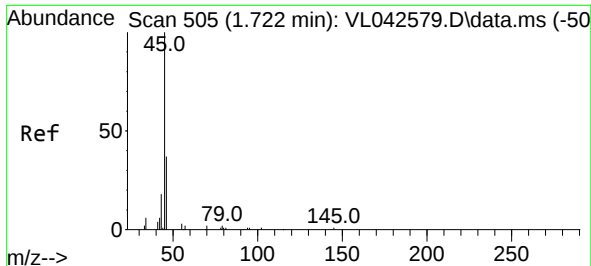
Tgt Ion: 43 Resp: 1975
 Ion Ratio Lower Upper
 43 100
 57 94.8 38.9 58.3#



#11
 Trichlorofluoromethane
 Concen: 0.032 ppbv
 RT: 1.894 min Scan# 558
 Delta R.T. 0.016 min
 Lab File: VL042650.D
 Acq: 19 Jun 2025 11:09

Tgt Ion:101 Resp: 416
 Ion Ratio Lower Upper
 101 100
 103 62.6 51.5 77.3

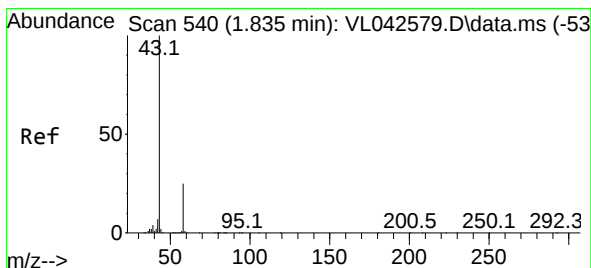
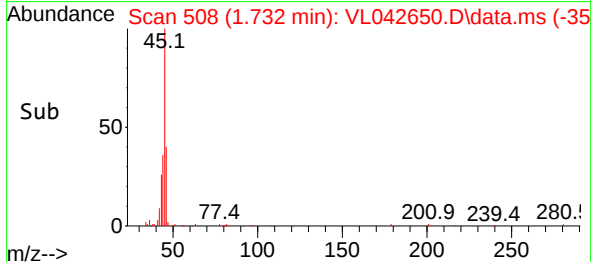
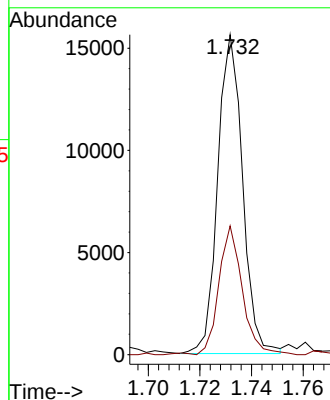
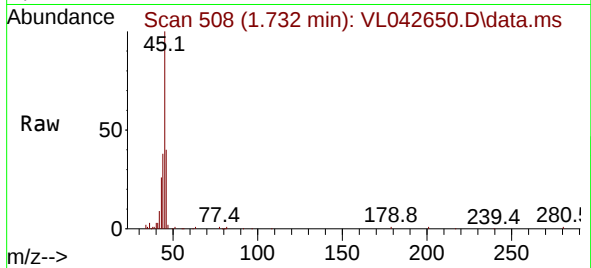




#13
Ethanol
Concen: 11.192 ppbv
RT: 1.732 min Scan# 505
Delta R.T. 0.010 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

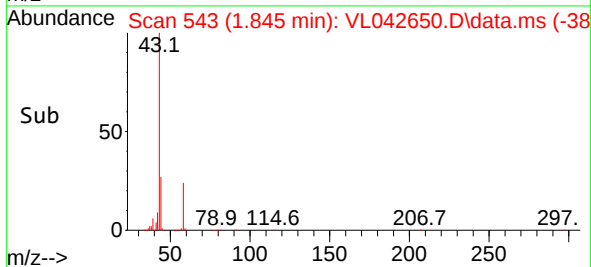
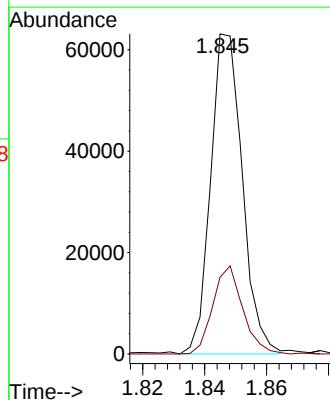
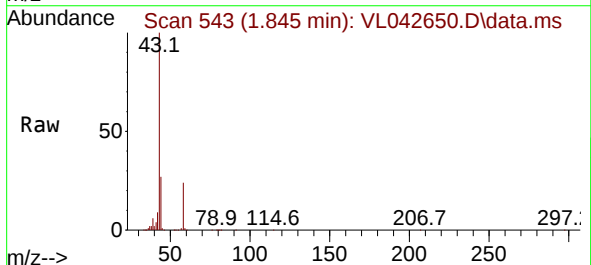
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

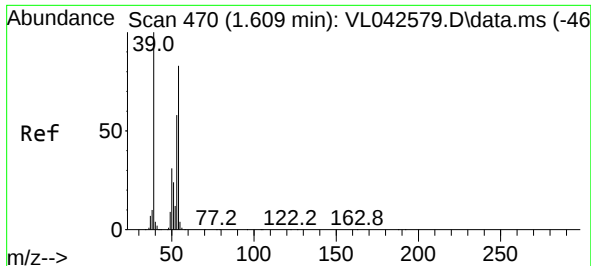
Tgt Ion: 45 Resp: 10418
Ion Ratio Lower Upper
45 100
46 0.0 14.5 58.1#



#15
Acetone
Concen: 3.250 ppbv
RT: 1.845 min Scan# 543
Delta R.T. 0.010 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 43 Resp: 44863
Ion Ratio Lower Upper
43 100
58 26.0 21.0 31.4





#16

1,3-Butadiene

Concen: 0.112 ppbv

RT: 1.615 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

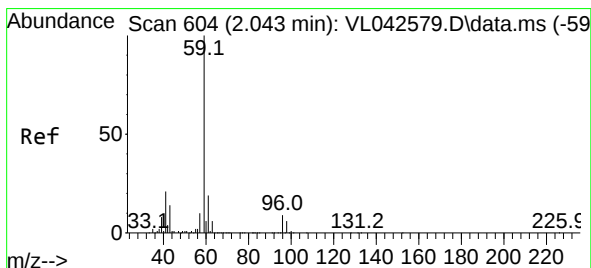
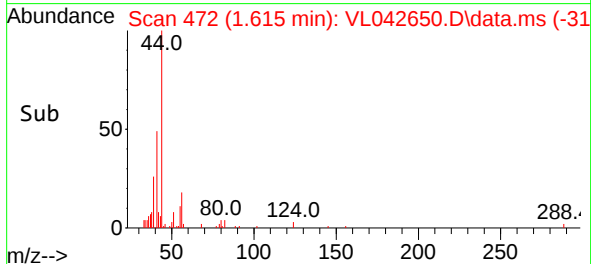
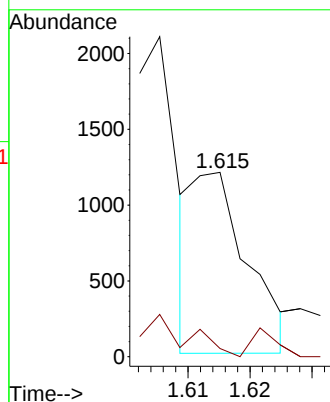
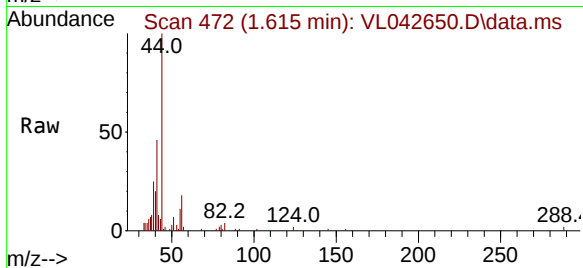
SS-1DL

Tgt Ion: 39 Resp: 733

Ion Ratio Lower Upper

39 100

54 0.0 57.9 86.9#



#17

tert-Butyl alcohol

Concen: 0.120 ppbv

RT: 2.059 min Scan# 609

Delta R.T. 0.016 min

Lab File: VL042650.D

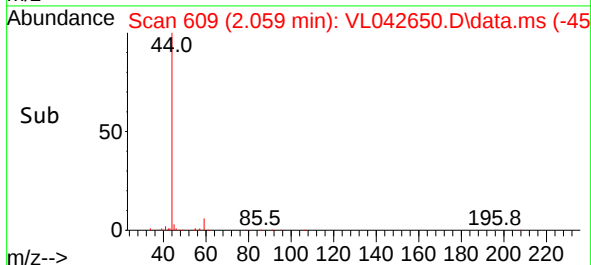
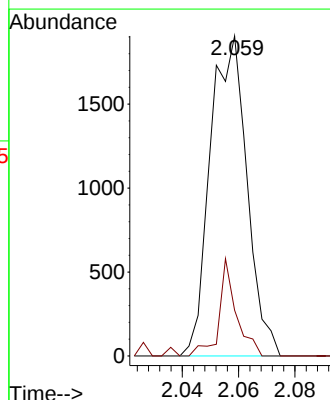
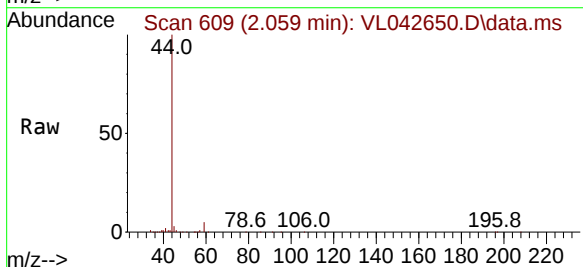
Acq: 19 Jun 2025 11:09

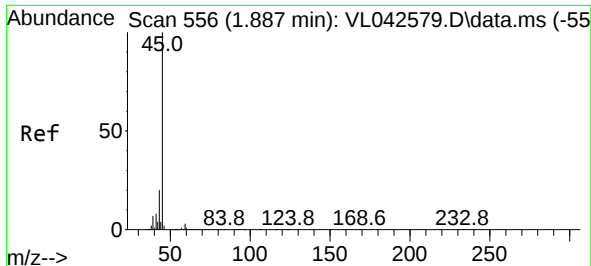
Tgt Ion: 59 Resp: 1724

Ion Ratio Lower Upper

59 100

57 17.9 8.6 12.8#

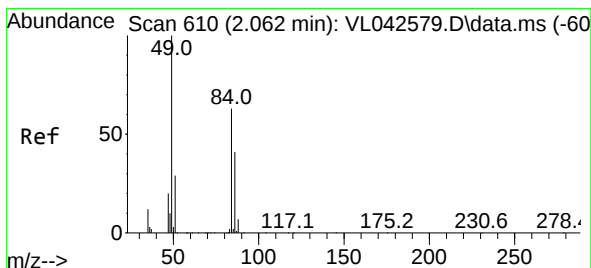
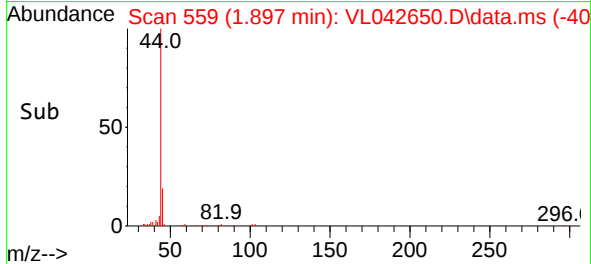
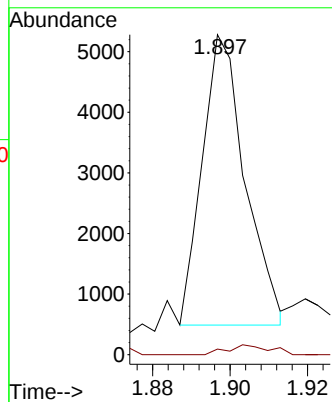
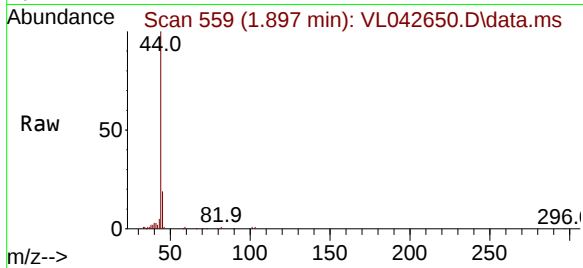




#19
Isopropyl Alcohol
Concen: 0.446 ppbv
RT: 1.897 min Scan# 511
Delta R.T. 0.010 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

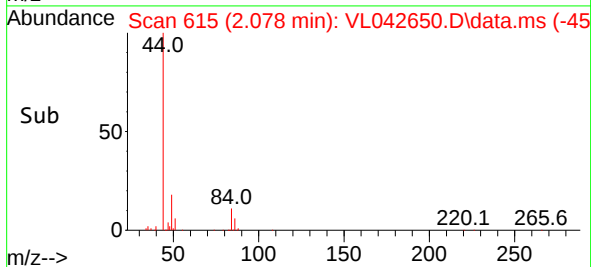
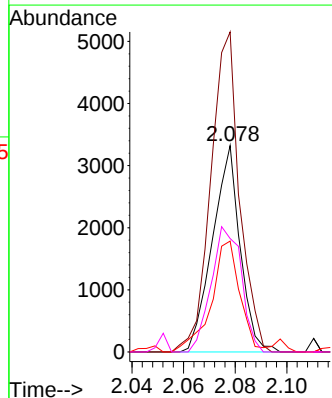
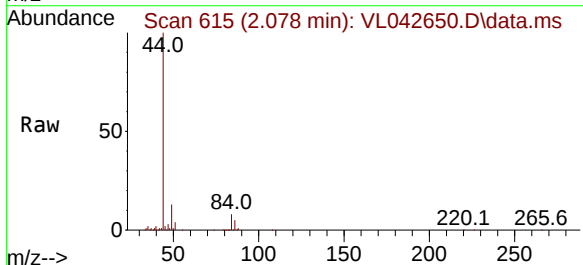
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

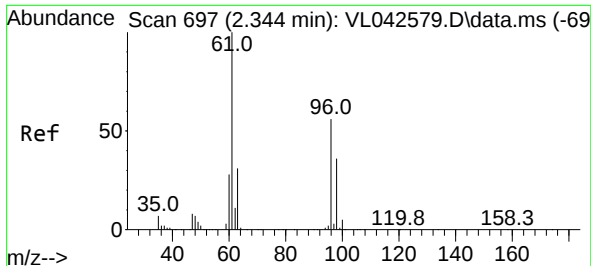
Tgt Ion: 45 Resp: 3677
Ion Ratio Lower Upper
45 100
58 317.4 29.4 44.2#



#20
Methylene Chloride
Concen: 0.542 ppbv
RT: 2.078 min Scan# 615
Delta R.T. 0.016 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 84 Resp: 2468
Ion Ratio Lower Upper
84 100
49 155.0 128.8 193.2
51 51.1 38.6 57.8
86 54.9 52.5 78.7

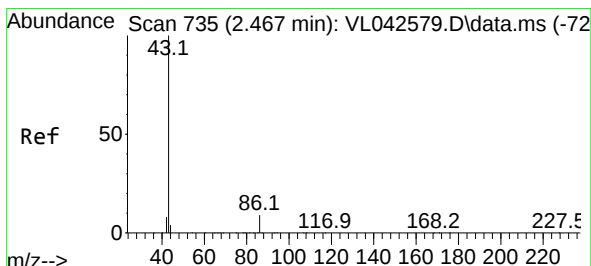
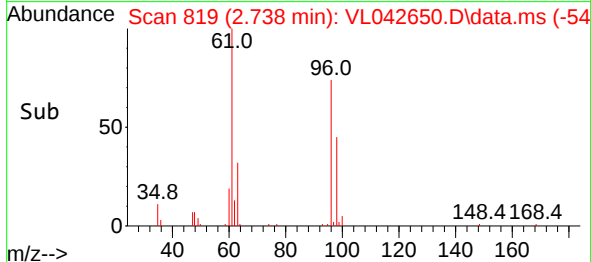
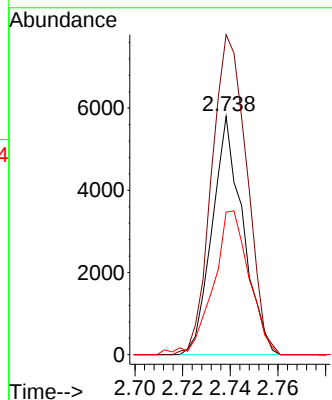
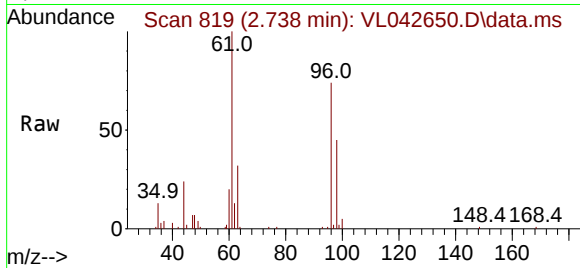




#22
trans-1,2-Dichloroethene
Concen: 0.975 ppbv
RT: 2.738 min Scan# 81
Delta R.T. 0.395 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

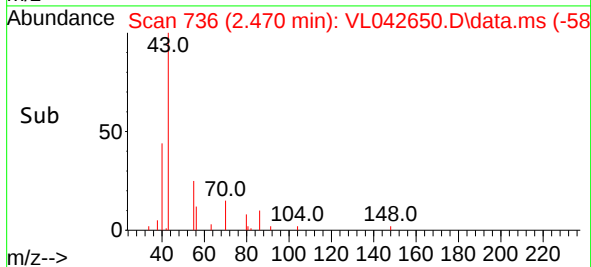
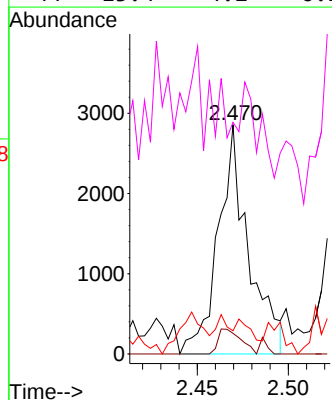
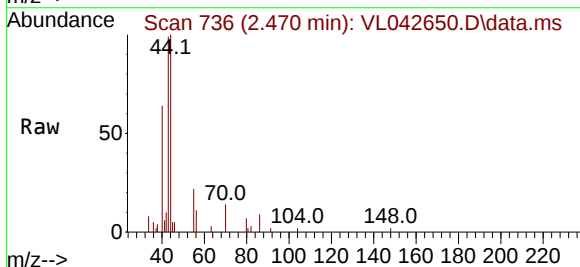
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

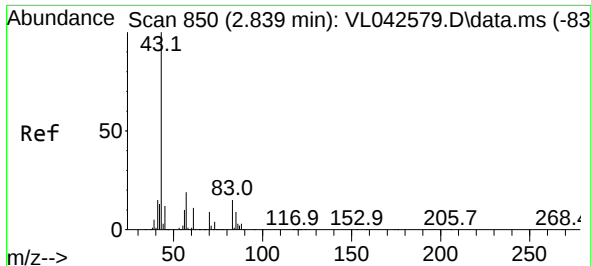
Tgt Ion: 96 Resp: 5195
Ion Ratio Lower Upper
96 100
61 134.3 142.6 214.0#
98 59.8 51.0 76.4



#23
Vinyl Acetate
Concen: 0.177 ppbv
RT: 2.470 min Scan# 736
Delta R.T. 0.003 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 43 Resp: 3296
Ion Ratio Lower Upper
43 100
86 9.0 6.6 9.8
42 0.0 7.0 10.4#
44 13.4 4.2 6.2#

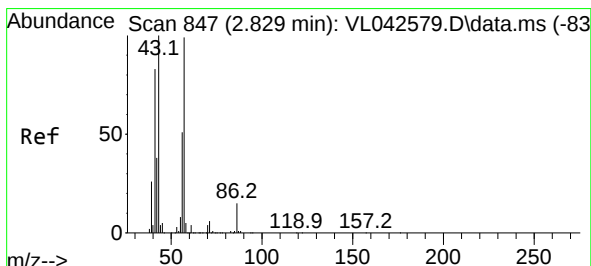
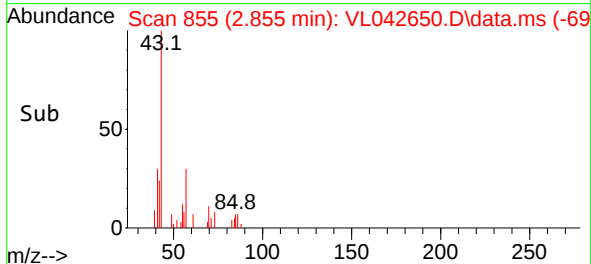
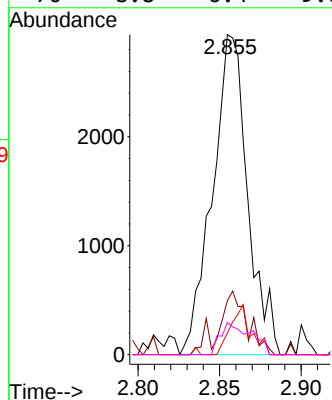
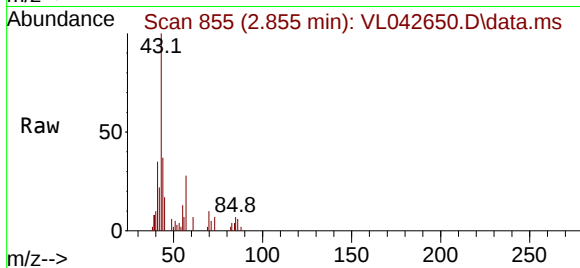




#25
Ethyl Acetate
Concen: 0.117 ppbv
RT: 2.855 min Scan# 811
Delta R.T. 0.016 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

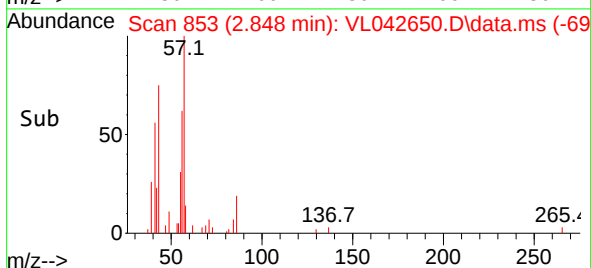
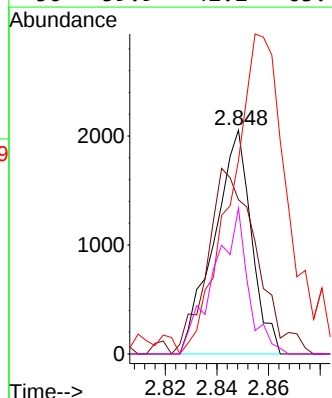
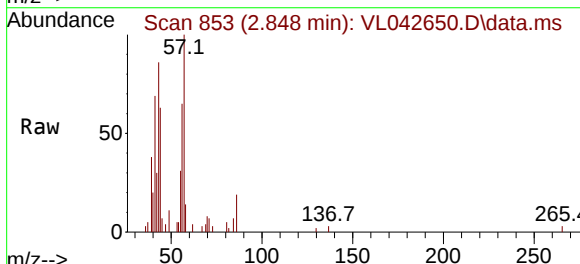
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

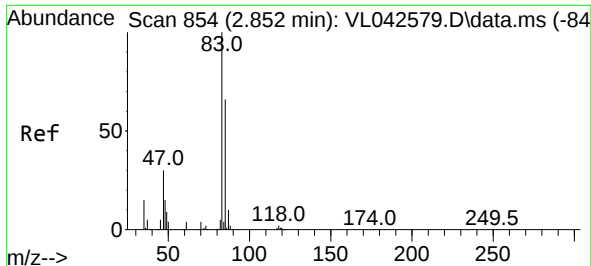
Tgt Ion: 43	Resp: 4433
Ion Ratio	Lower Upper
43 100	
45 16.5	8.2 12.2#
61 8.9	7.1 10.7
70 8.8	6.4 9.6



#26
Hexane
Concen: 0.120 ppbv
RT: 2.848 min Scan# 853
Delta R.T. 0.019 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 57	Resp: 2062
Ion Ratio	Lower Upper
57 100	
41 115.1	70.6 106.0#
43 227.5	181.1 271.7
56 59.9	42.2 63.4





#29

Chloroform

Concen: 0.032 ppbv

RT: 2.871 min Scan# 819

Delta R.T. 0.019 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

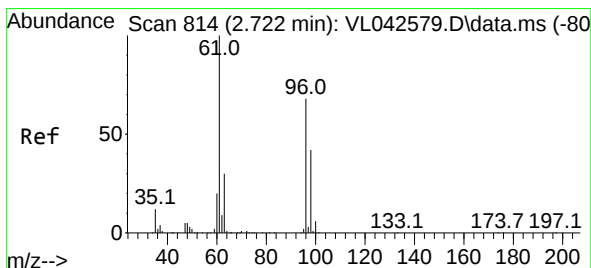
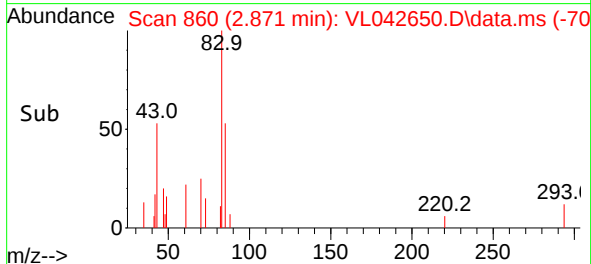
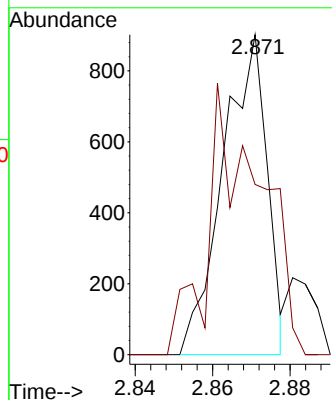
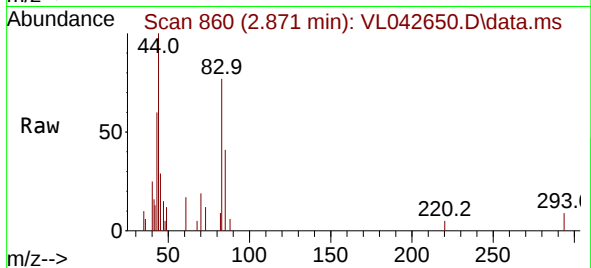
SS-1DL

Tgt Ion: 83 Resp: 714

Ion Ratio Lower Upper

83 100

85 32.8 52.8 79.2#



#31

cis-1,2-Dichloroethene

Concen: 0.507 ppbv

RT: 2.738 min Scan# 819

Delta R.T. 0.016 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

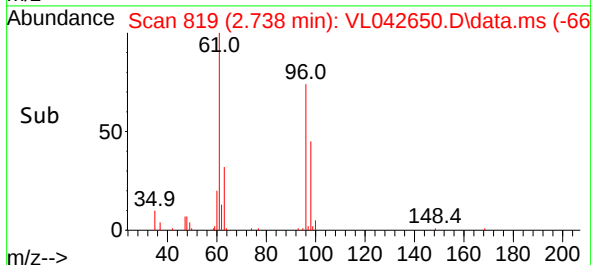
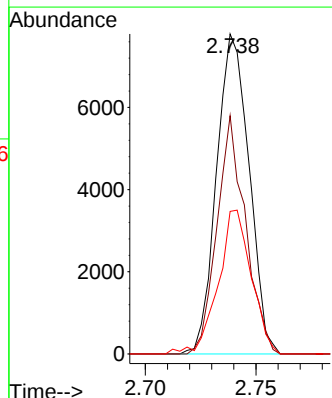
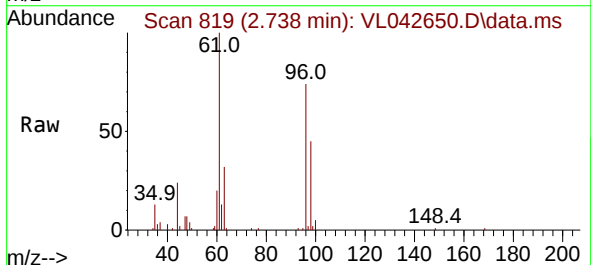
Tgt Ion: 61 Resp: 7959

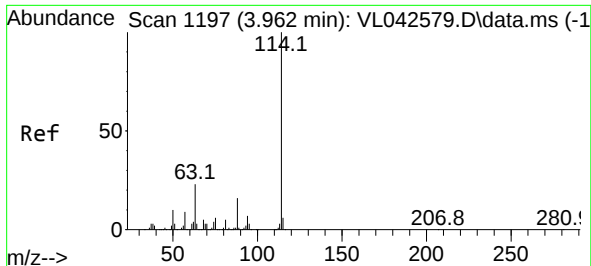
Ion Ratio Lower Upper

61 100

96 74.5 54.5 81.7

98 44.5 33.4 50.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.981 min Scan# 1197

Delta R.T. 0.019 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

SS-1DL

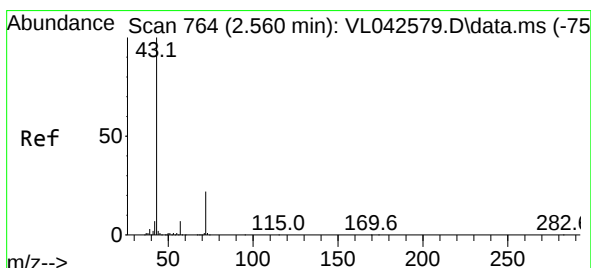
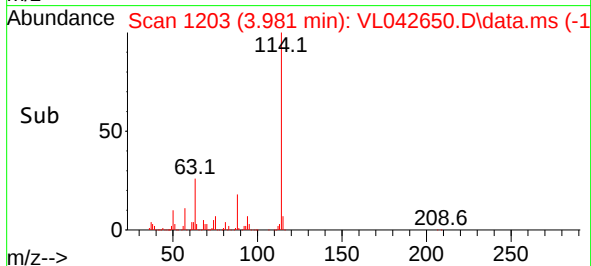
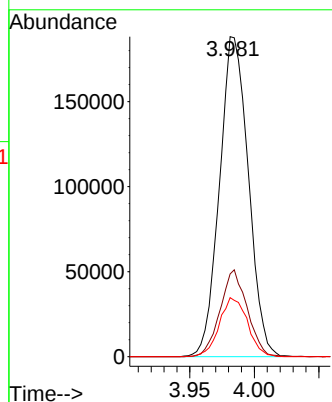
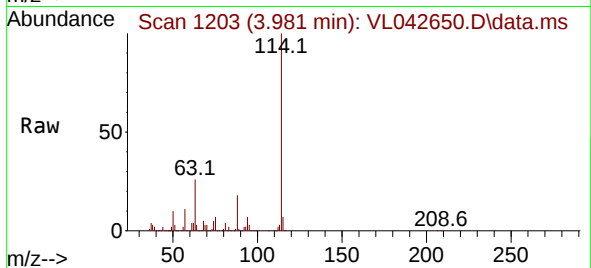
Tgt Ion:114 Resp: 292670

Ion Ratio Lower Upper

114 100

63 25.6 19.0 28.6

88 18.0 13.6 20.4



#34

2-Butanone

Concen: 0.291 ppbv

RT: 2.576 min Scan# 769

Delta R.T. 0.016 min

Lab File: VL042650.D

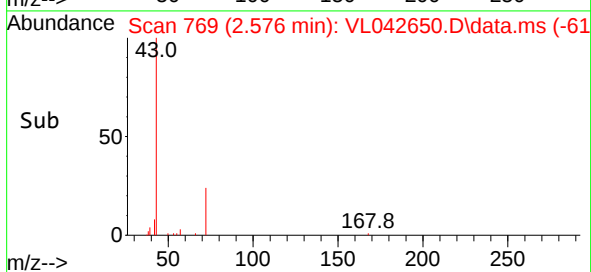
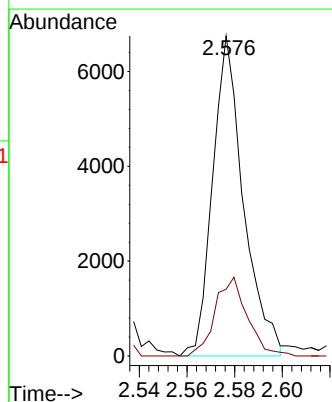
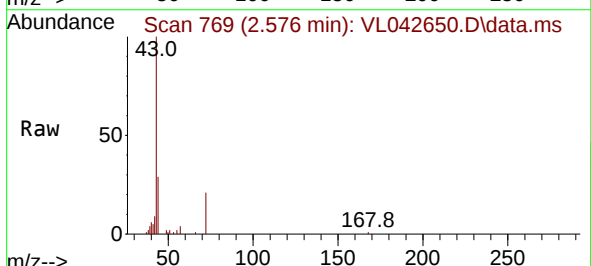
Acq: 19 Jun 2025 11:09

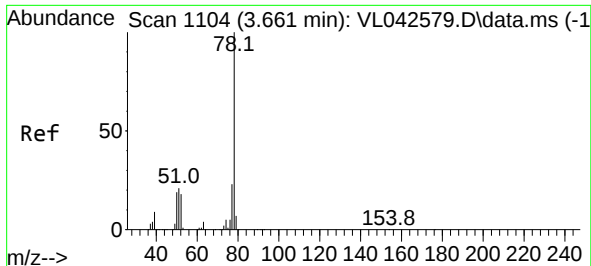
Tgt Ion: 43 Resp: 6066

Ion Ratio Lower Upper

43 100

72 25.7 17.7 26.5

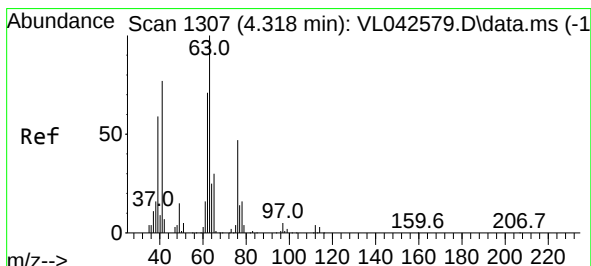
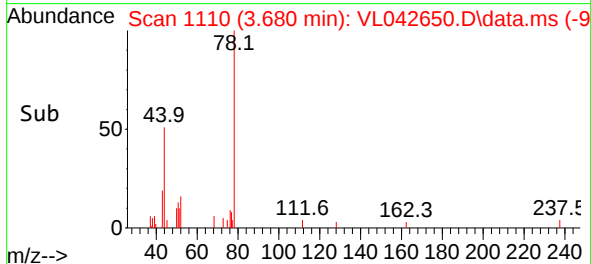
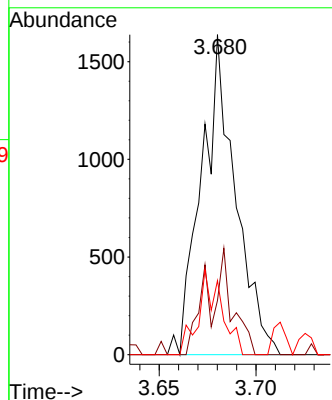
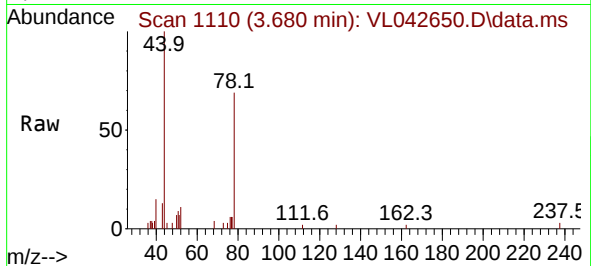




#36
Benzene
Concen: 0.069 ppbv
RT: 3.680 min Scan# 1110
Delta R.T. 0.019 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

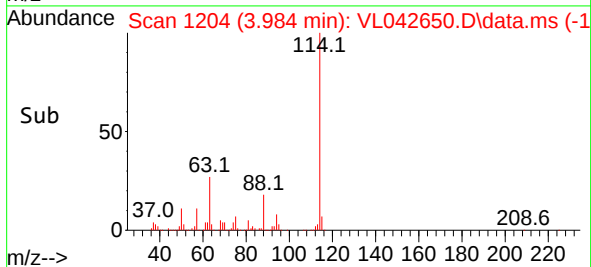
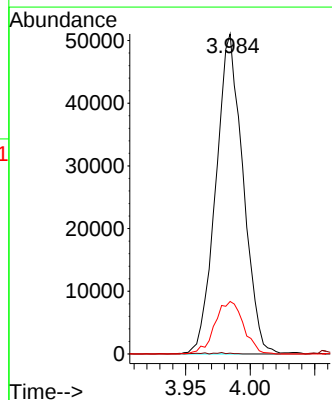
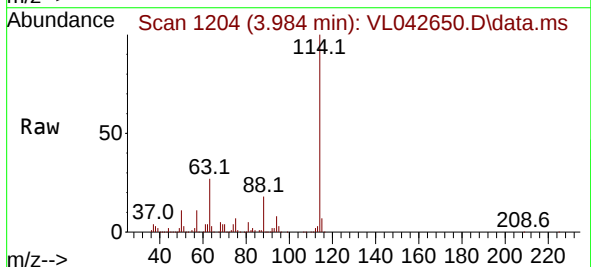
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

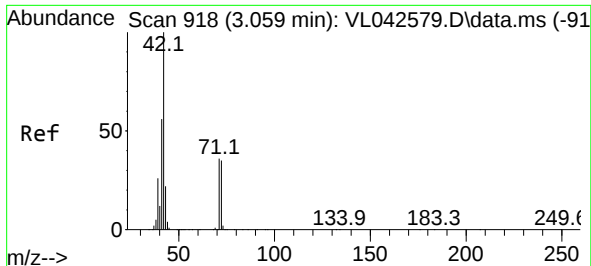
Tgt Ion: 78 Resp: 1979
Ion Ratio Lower Upper
78 100
77 17.0 18.2 27.2#
50 23.1 15.2 22.8#



#39
1,2-Dichloropropane
Concen: 6.995 ppbv
RT: 3.984 min Scan# 1204
Delta R.T. -0.334 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 63 Resp: 74552
Ion Ratio Lower Upper
63 100
41 0.2 61.8 92.6#
62 16.4 56.6 85.0#





#41

Tetrahydrofuran

Concen: 1.263 ppbv

RT: 3.078 min Scan# 91

Delta R.T. 0.019 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

SS-1DL

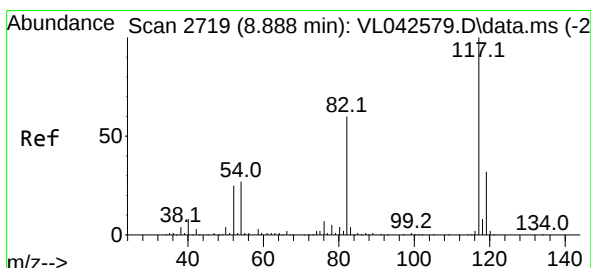
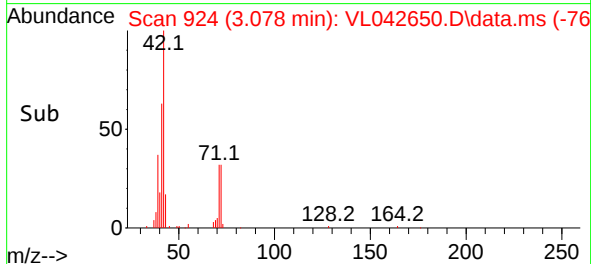
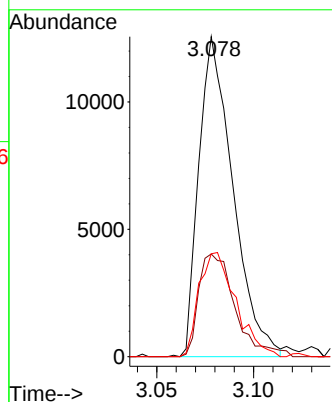
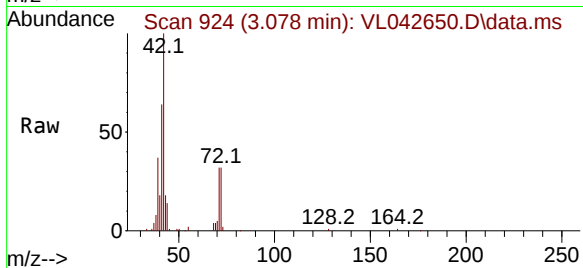
Tgt Ion: 42 Resp: 15426

Ion Ratio Lower Upper

42 100

72 34.1 28.9 43.3

71 35.3 28.5 42.7



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.904 min Scan# 2724

Delta R.T. 0.016 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

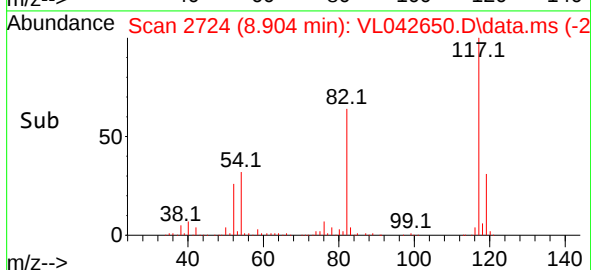
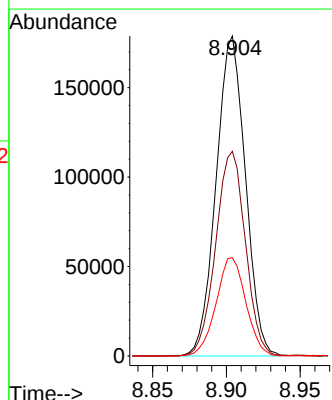
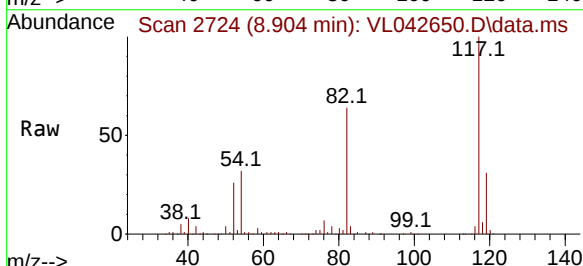
Tgt Ion: 117 Resp: 247226

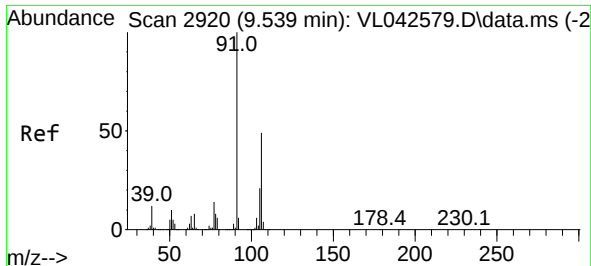
Ion Ratio Lower Upper

117 100

82 64.8 51.2 76.8

119 31.5 26.3 39.5





#59

m/p-Xylene

Concen: 0.141 ppbv

RT: 9.551 min Scan# 2924

Delta R.T. 0.013 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

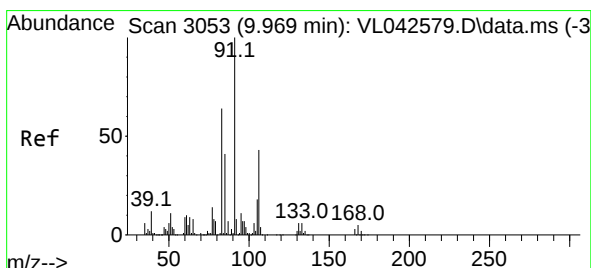
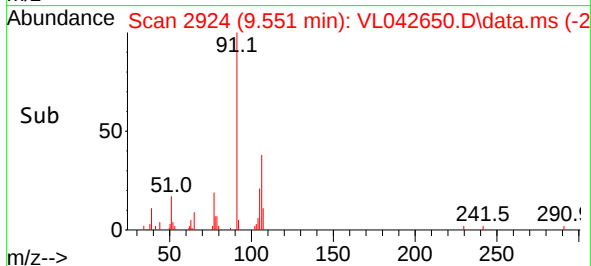
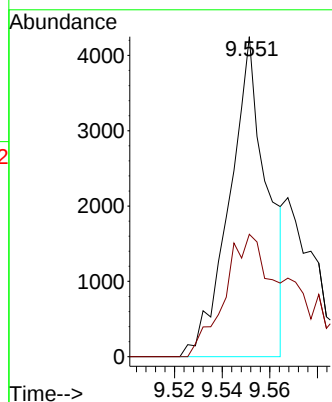
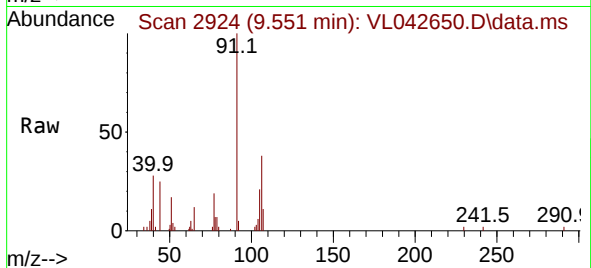
SS-1DL

Tgt Ion: 91 Resp: 4641

Ion Ratio Lower Upper

91 100

106 69.6 38.8 58.2#



#60

o-Xylene

Concen: 0.038 ppbv

RT: 9.975 min Scan# 3055

Delta R.T. 0.006 min

Lab File: VL042650.D

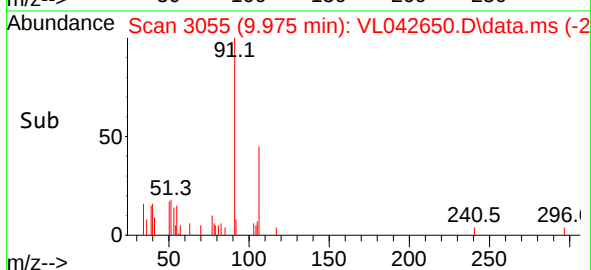
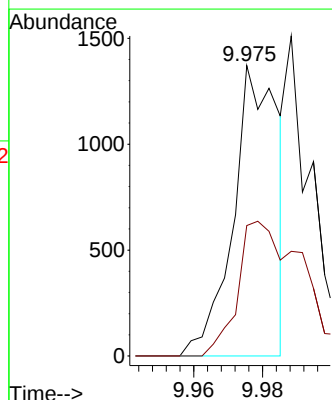
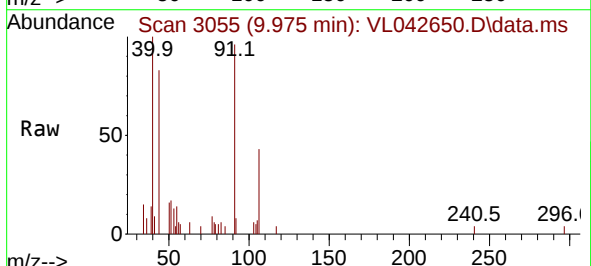
Acq: 19 Jun 2025 11:09

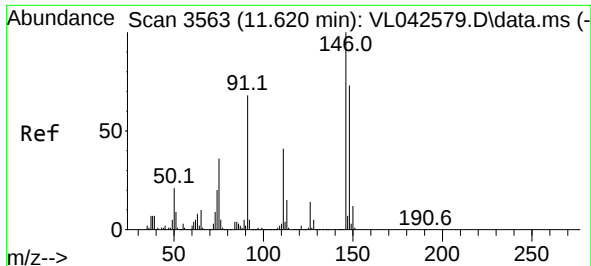
Tgt Ion: 91 Resp: 1240

Ion Ratio Lower Upper

91 100

106 65.6 22.9 68.5

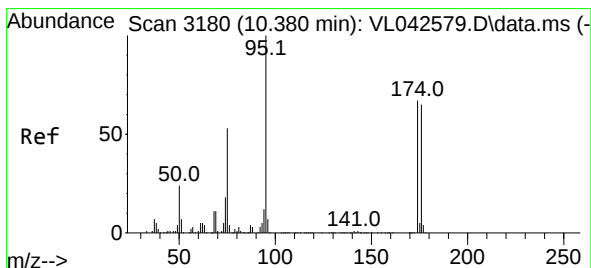
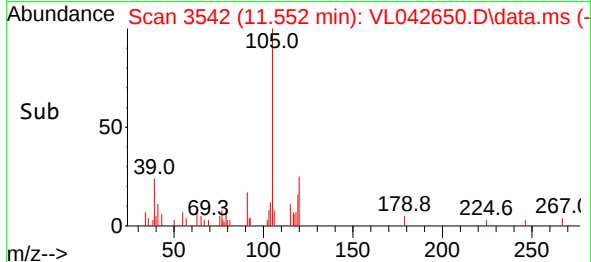
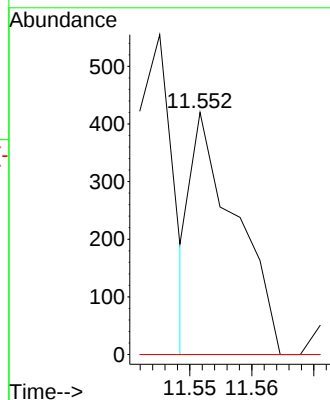
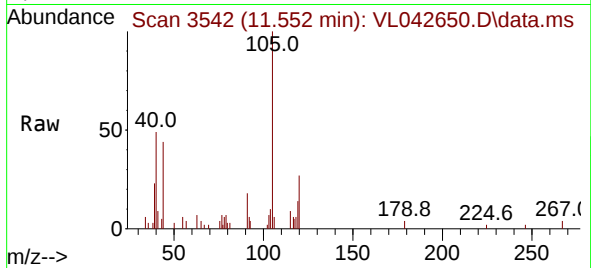




#66
Benzyl Chloride
Concen: 0.037 ppbv
RT: 11.552 min Scan# 3184
Delta R.T. -0.068 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

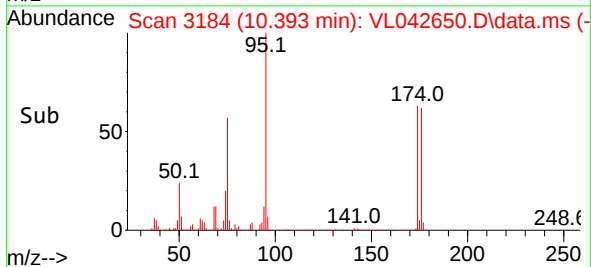
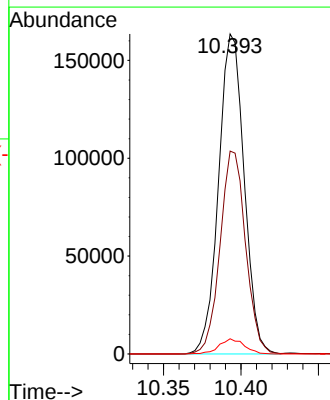
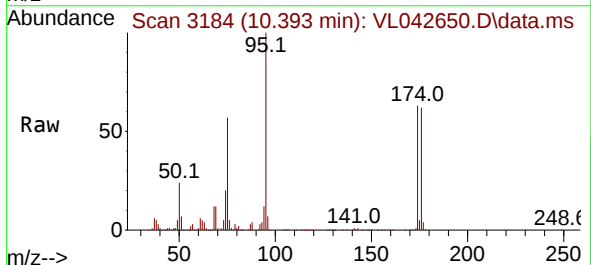
Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

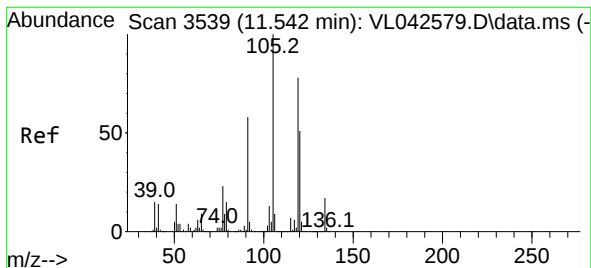
Tgt Ion: 91 Resp: 209
Ion Ratio Lower Upper
91 100
126 0.0 15.1 22.7#
128 0.0 5.0 7.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.131 ppbv
RT: 10.393 min Scan# 3184
Delta R.T. 0.013 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Tgt Ion: 95 Resp: 187754
Ion Ratio Lower Upper
95 100
174 63.4 53.1 79.7
175 4.7 4.2 6.2





#74

1,2,4-Trimethylbenzene

Concen: 0.062 ppbv

RT: 11.552 min Scan# 3542

Delta R.T. 0.010 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

SS-1DL

Tgt Ion:105 Resp: 2335

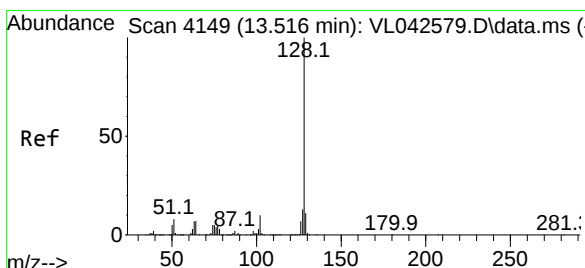
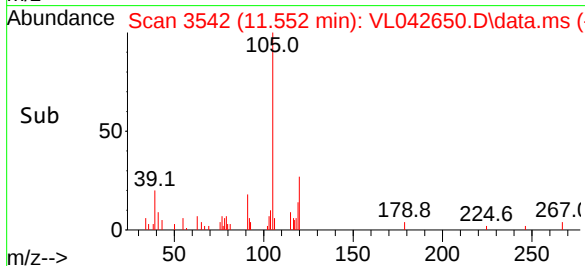
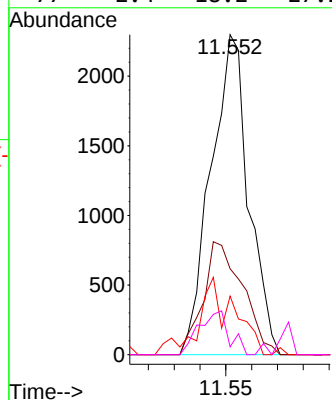
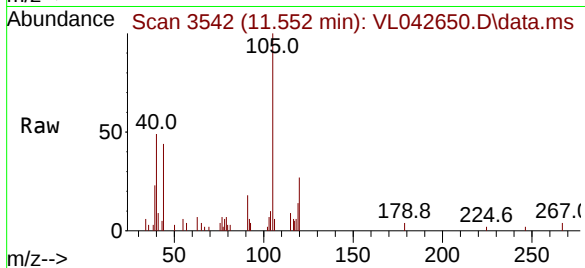
Ion Ratio Lower Upper

105 100

120 26.8 40.8 61.2#

91 16.1 46.8 70.2#

77 2.4 18.2 27.2#



#79

Naphthalene

Concen: 0.045 ppbv

RT: 13.526 min Scan# 4152

Delta R.T. 0.010 min

Lab File: VL042650.D

Acq: 19 Jun 2025 11:09

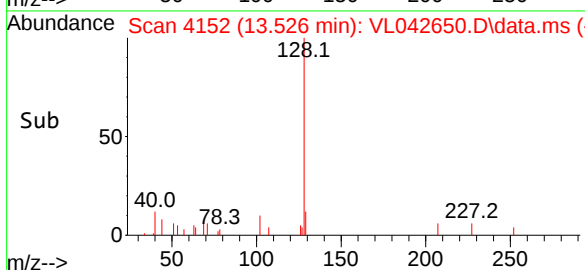
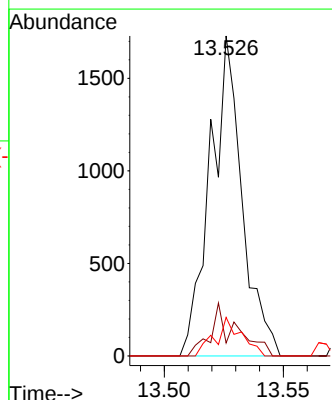
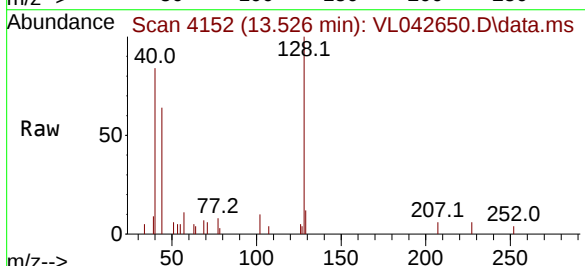
Tgt Ion:128 Resp: 1607

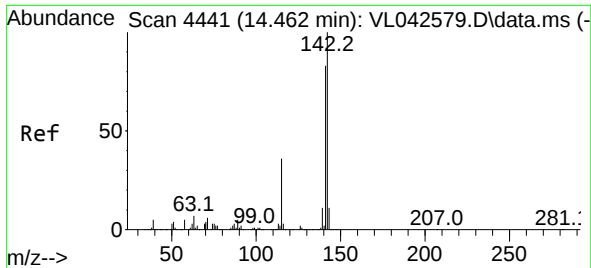
Ion Ratio Lower Upper

128 100

127 4.0 10.2 15.4#

129 12.0 8.8 13.2





#80
Naphthalene, 2-methyl-
Concen: 0.047 ppbv
RT: 14.471 min Scan# 4444
Delta R.T. 0.010 min
Lab File: VL042650.D
Acq: 19 Jun 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
SS-1DL

Tgt Ion	Ratio	Lower	Upper
142	100		
141	90.4	66.2	99.4
115	52.7	28.3	42.5

