

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL092425\
 Data File : VL043006.D
 Acq On : 24 Sep 2025 12:44
 Operator : SY/MD
 Sample : Q3154-02DL 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

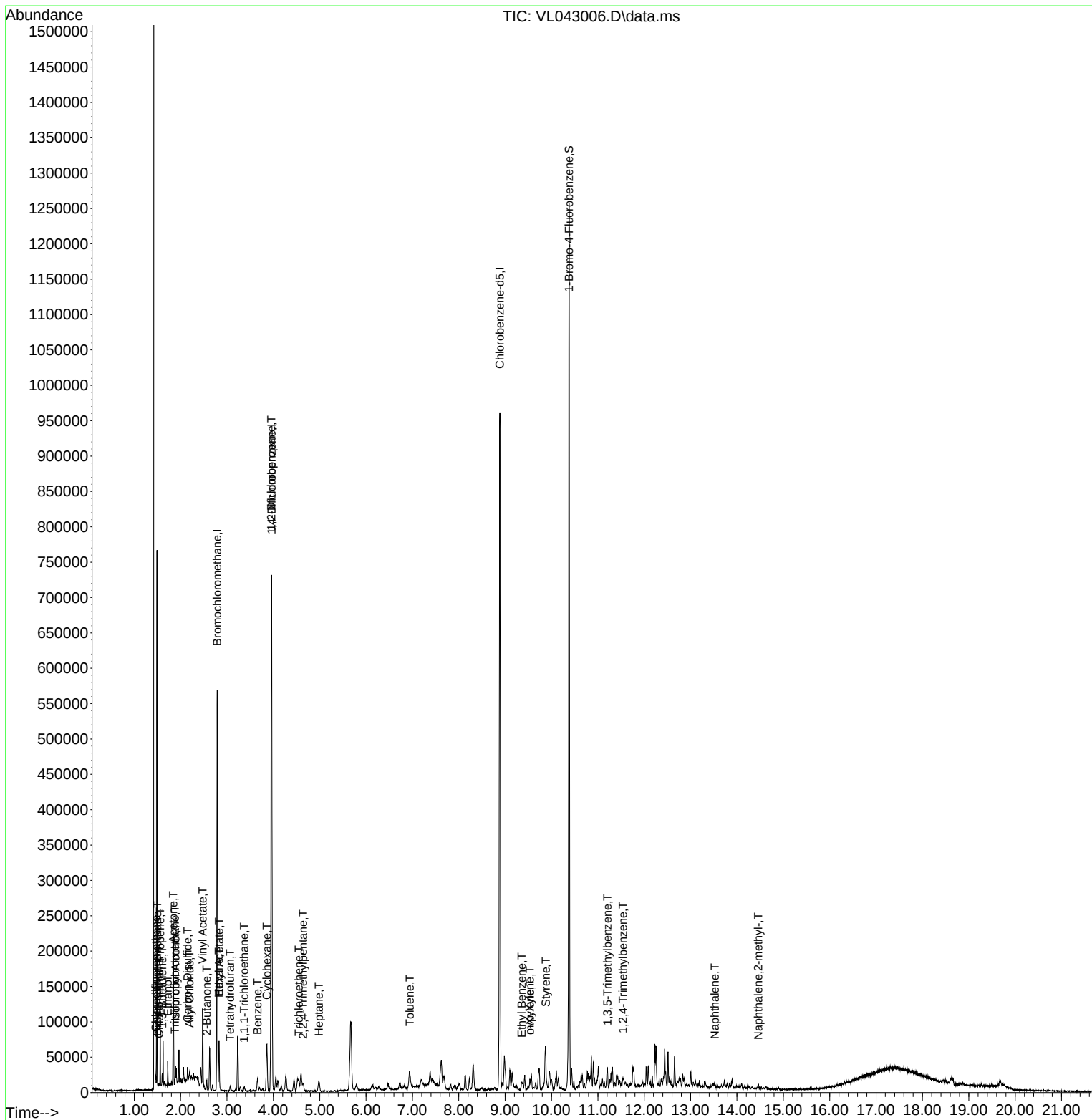
Quant Time: Sep 25 01:54:36 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL092225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 23 02:39:16 2025
 Response via : Initial Calibration

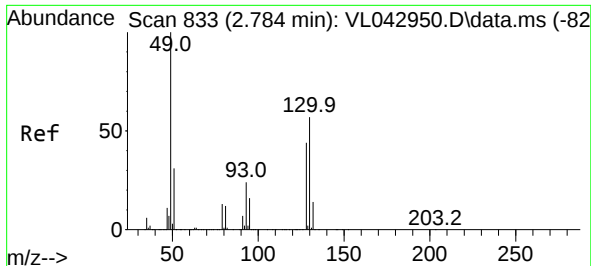
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.790	49	152807	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	451220	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	405509	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	301546	9.962	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.600%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	1156	0.056	ppbv #	74
3) Chlorodifluoromethane	1.466	51	2575	0.101	ppbv #	81
4) Chloromethane	1.534	50	671	0.072	ppbv #	80
9) Propene	1.560	41	10974	0.985	ppbv	98
10) Heptane	4.981	43	5605	0.188	ppbv	92
11) Trichlorofluoromethane	1.877	101	1494	0.075	ppbv	95
13) Ethanol	1.722	45	11321	10.472	ppbv #	35
15) Acetone	1.839	43	65664	3.299	ppbv #	82
16) 1,3-Butadiene	1.602	39	2323	0.247	ppbv #	55
19) Isopropyl Alcohol	1.887	45	9187	0.768	ppbv #	1
20) Methylene Chloride	2.062	84	2719	Below Cal		93
21) Allyl Chloride	2.191	41	1119	0.081	ppbv #	1
23) Vinyl Acetate	2.476	43	31353	1.103	ppbv #	46
25) Ethyl Acetate	2.829	43	11331	0.225	ppbv #	79
26) Hexane	2.826	57	14121	0.616	ppbv #	38
27) Carbon Disulfide	2.152	76	7921	0.385	ppbv #	1
30) Cyclohexane	3.861	84	14319	0.747	ppbv #	92
32) 1,1,1-Trichloroethane	3.369	97	1180	0.036	ppbv #	60
34) 2-Butanone	2.564	43	8873	0.281	ppbv	98
36) Benzene	3.661	78	11417	0.269	ppbv	96
38) Trichloroethene	4.548	130	3152	0.150	ppbv #	83
39) 1,2-Dichloropropane	3.959	63	106964	6.915	ppbv #	25
41) Tetrahydrofuran	3.068	42	2323	0.128	ppbv	97
44) 2,2,4-Trimethylpentane	4.641	57	4700	0.064	ppbv #	43
53) Toluene	6.943	91	6364	0.127	ppbv #	21
58) Ethyl Benzene	9.357	91	4565	0.069	ppbv	93
59) m/p-Xylene	9.535	91	7187	0.137	ppbv #	100
60) o-Xylene	9.535	91	7187	0.137	ppbv	78
61) Styrene	9.875	104	14098	0.568	ppbv	96
73) 1,3,5-Trimethylbenzene	11.209	105	1632	0.031	ppbv #	86
74) 1,2,4-Trimethylbenzene	11.539	105	3695	0.063	ppbv #	60
79) Naphthalene	13.520	128	2103	0.040	ppbv #	88
80) Naphthalene,2-methyl-	14.461	142	2174	0.135	ppbv	97

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

Quant Time: Sep 25 01:54:36 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL092225AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue Sep 23 02:39:16 2025
Response via : Initial Calibration

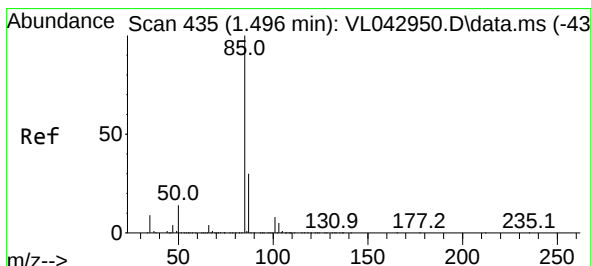
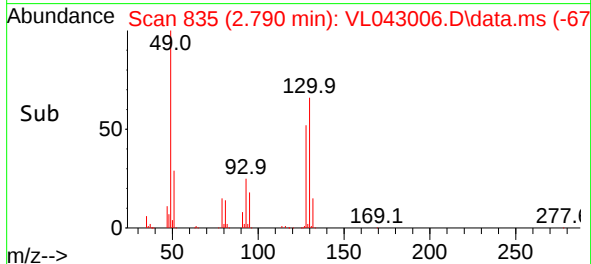
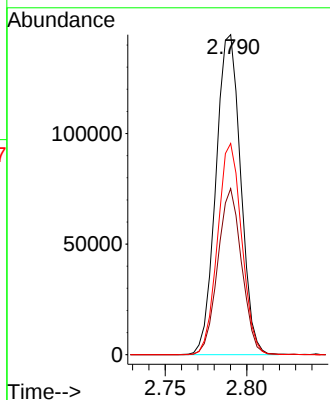
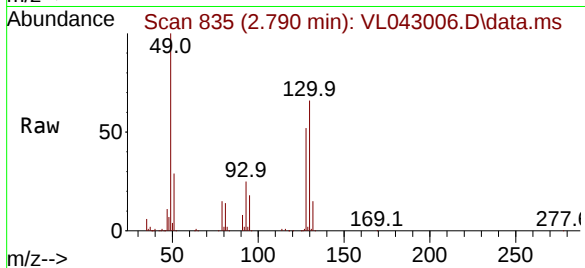




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.790 min Scan# 81
Delta R.T. 0.006 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

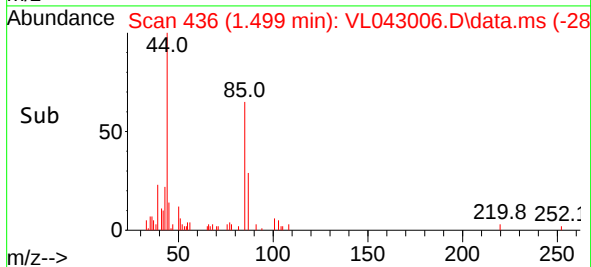
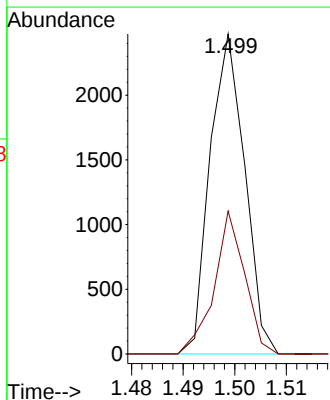
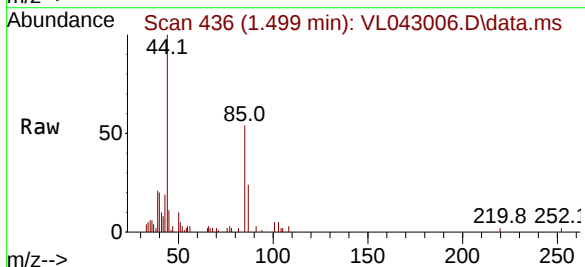
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

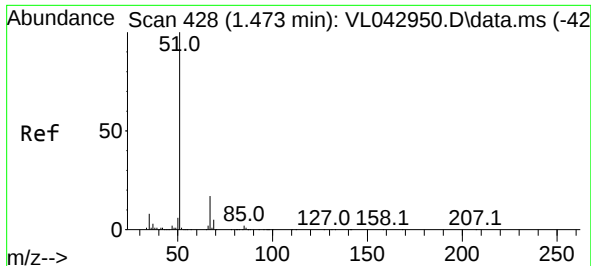
Tgt Ion: 49 Resp: 152807
Ion Ratio Lower Upper
49 100
128 50.1 22.9 68.8
130 64.3 29.1 87.3



#2
Dichlorodifluoromethane
Concen: 0.056 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 85 Resp: 1156
Ion Ratio Lower Upper
85 100
87 44.6 24.3 36.5#

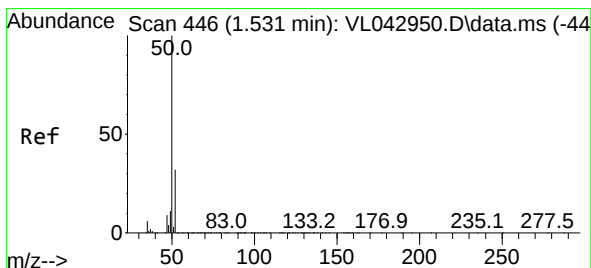
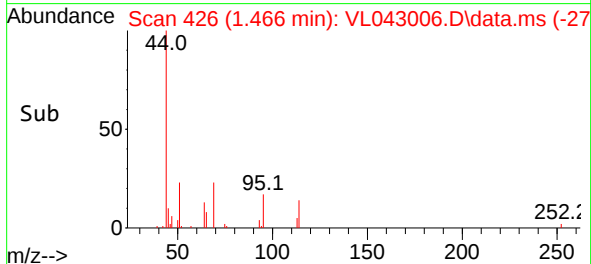
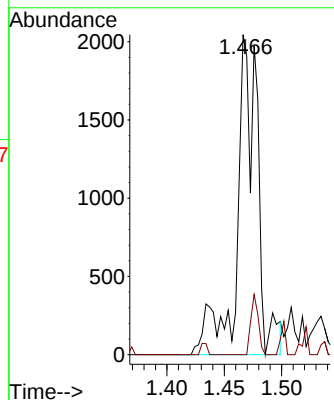
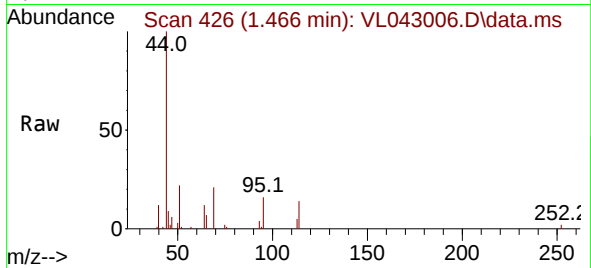




#3
Chlorodifluoromethane
Concen: 0.101 ppbv
RT: 1.466 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

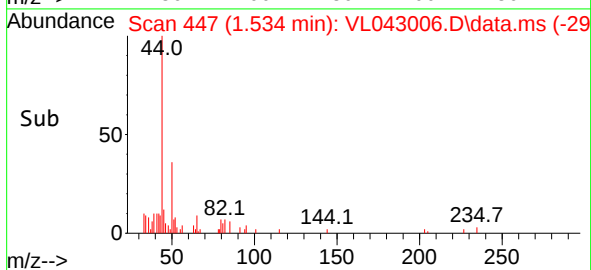
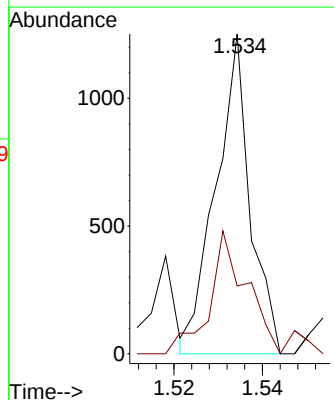
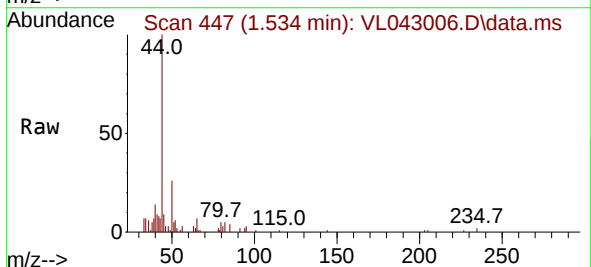
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

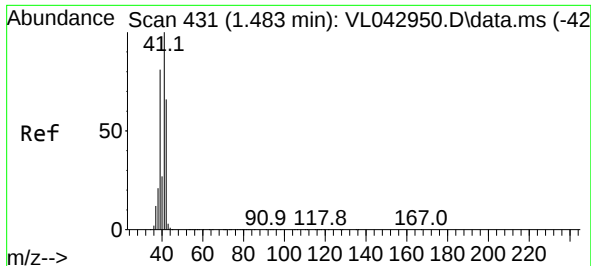
Tgt Ion: 51 Resp: 2575
Ion Ratio Lower Upper
51 100
67 9.1 13.8 20.8#



#4
Chloromethane
Concen: 0.072 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 50 Resp: 671
Ion Ratio Lower Upper
50 100
52 21.2 25.9 38.9#





#9

Propene

Concen: 0.985 ppbv

RT: 1.560 min Scan# 41

Delta R.T. 0.077 min

Lab File: VL043006.D

Acq: 24 Sep 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

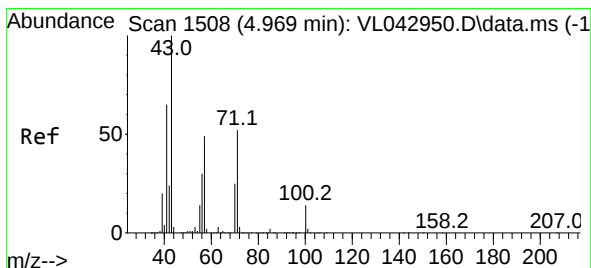
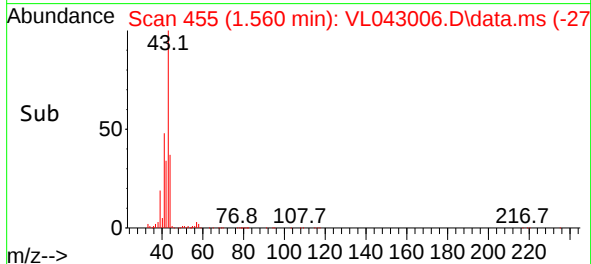
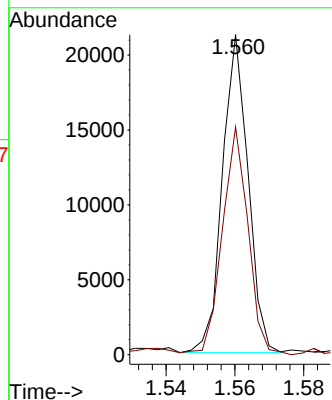
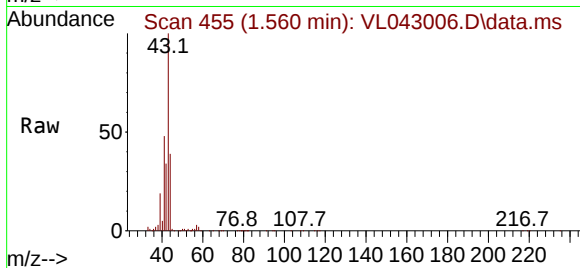
SV2DL

Tgt Ion: 41 Resp: 10974

Ion Ratio Lower Upper

41 100

42 73.3 57.4 86.2



#10

Heptane

Concen: 0.188 ppbv

RT: 4.981 min Scan# 1512

Delta R.T. 0.013 min

Lab File: VL043006.D

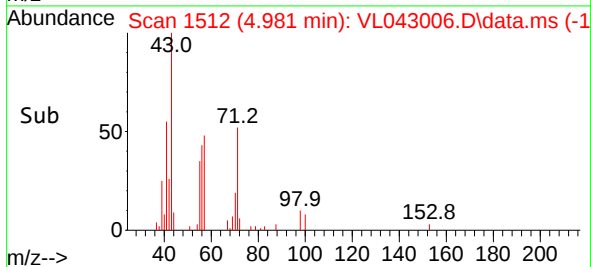
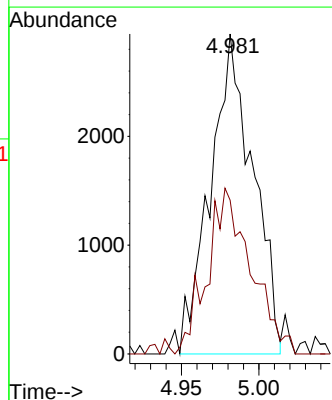
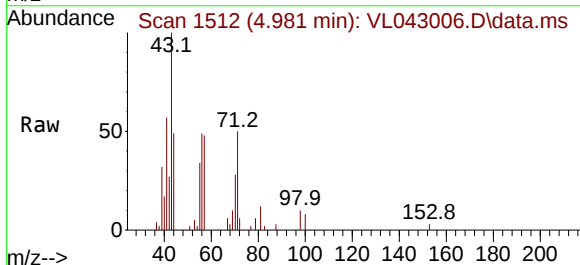
Acq: 24 Sep 2025 12:44

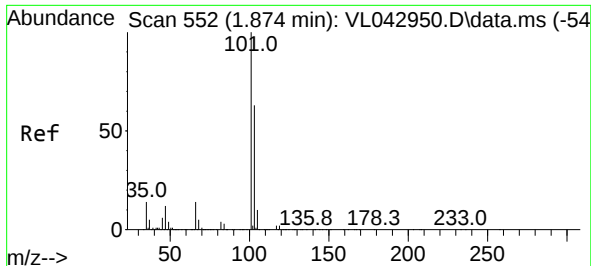
Tgt Ion: 43 Resp: 5605

Ion Ratio Lower Upper

43 100

57 53.9 38.6 57.8

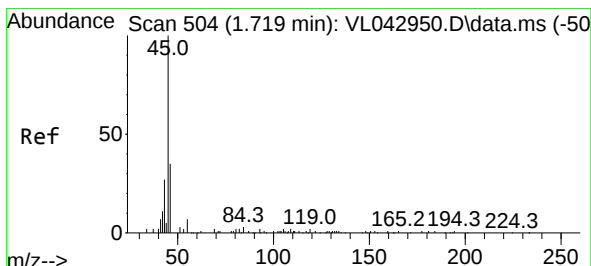
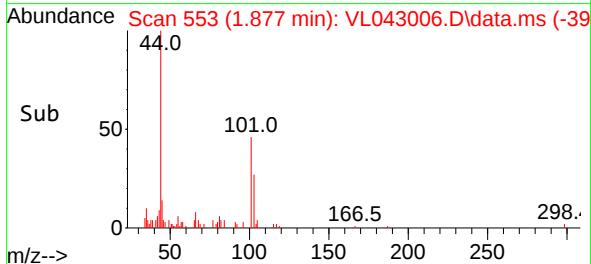
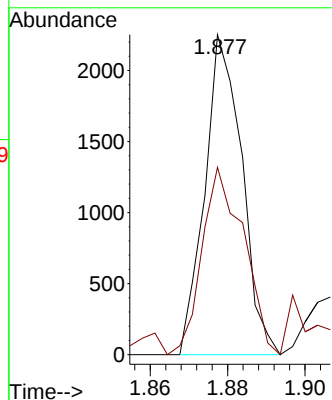
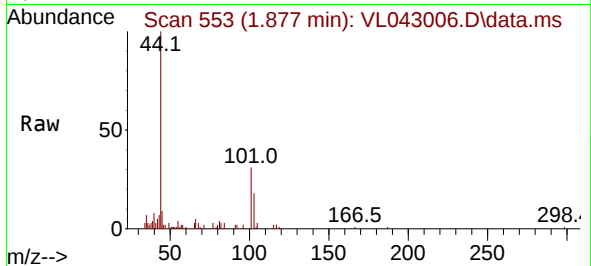




#11
 Trichlorofluoromethane
 Concen: 0.075 ppbv
 RT: 1.877 min Scan# 51
 Delta R.T. 0.003 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

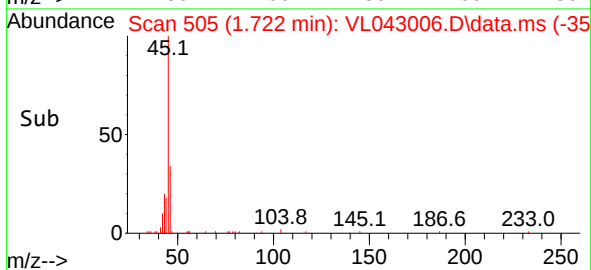
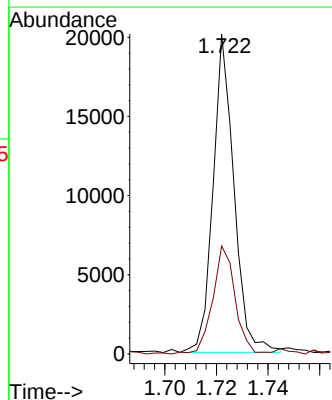
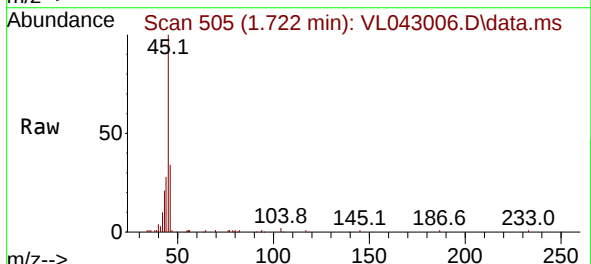
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

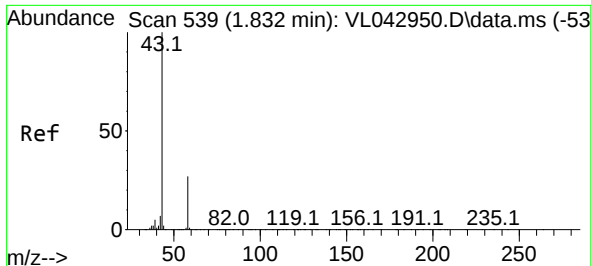
Tgt Ion:101 Resp: 1494
 Ion Ratio Lower Upper
 101 100
 103 58.5 50.1 75.1



#13
 Ethanol
 Concen: 10.472 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.003 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

Tgt Ion: 45 Resp: 11321
 Ion Ratio Lower Upper
 45 100
 46 0.0 16.2 64.6#





#15

Acetone

Concen: 3.299 ppbv

RT: 1.839 min Scan# 541

Delta R.T. 0.006 min

Lab File: VL043006.D

Acq: 24 Sep 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

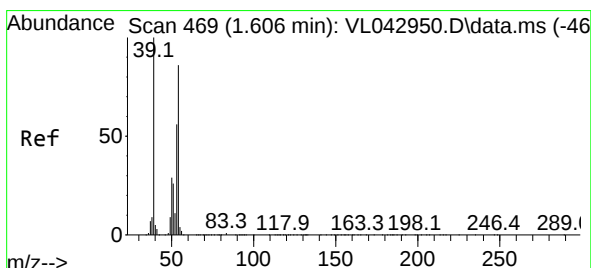
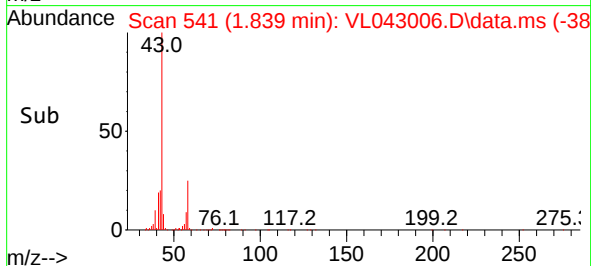
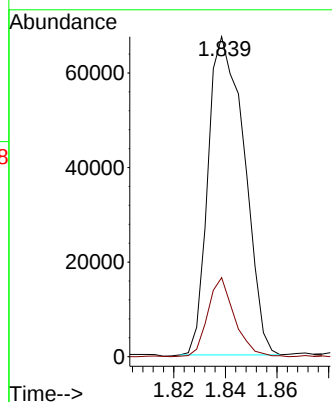
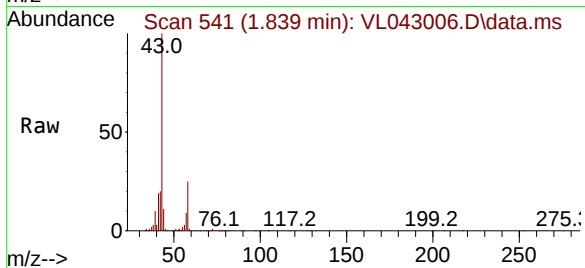
SV2DL

Tgt Ion: 43 Resp: 65664

Ion Ratio Lower Upper

43 100

58 18.6 22.3 33.5#



#16

1,3-Butadiene

Concen: 0.247 ppbv

RT: 1.602 min Scan# 468

Delta R.T. -0.003 min

Lab File: VL043006.D

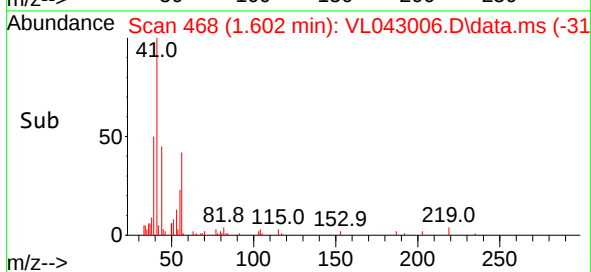
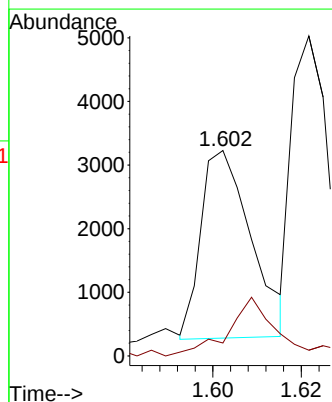
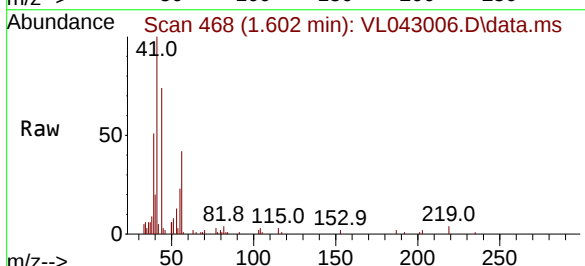
Acq: 24 Sep 2025 12:44

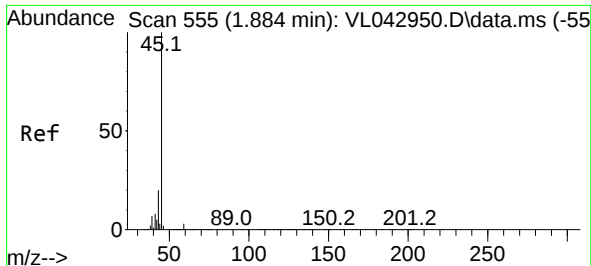
Tgt Ion: 39 Resp: 2323

Ion Ratio Lower Upper

39 100

54 37.2 60.8 91.2#

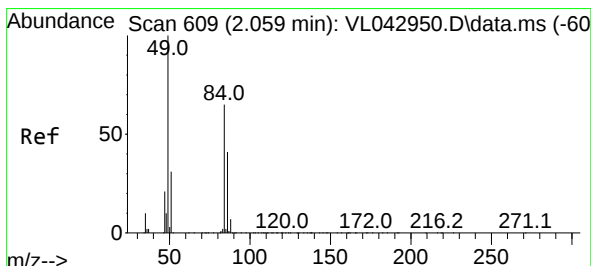
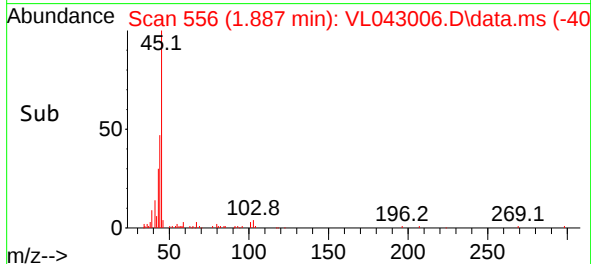
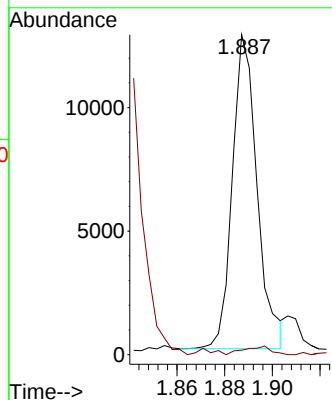
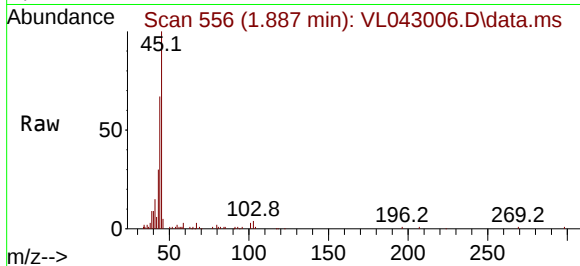




#19
Isopropyl Alcohol
Concen: 0.768 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

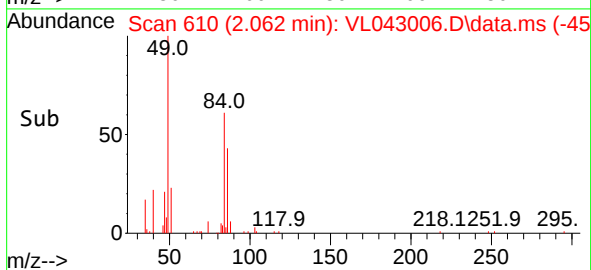
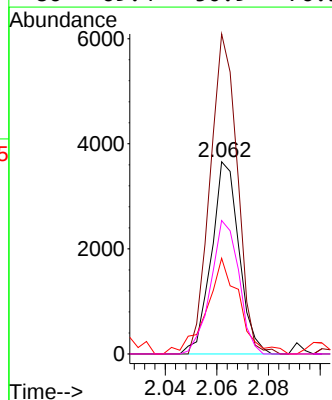
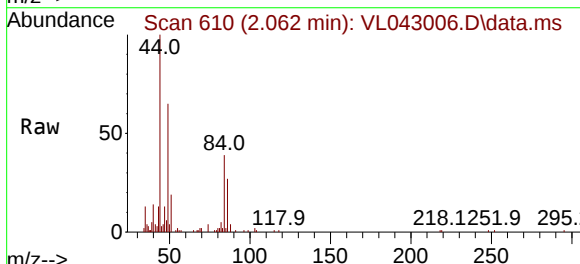
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

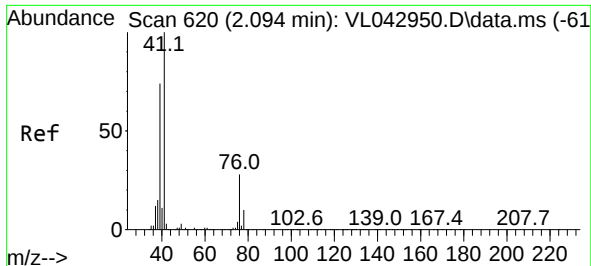
Tgt Ion: 45 Resp: 9187
Ion Ratio Lower Upper
45 100
58 133.4 31.0 46.6#



#20
Methylene Chloride
Concen: Below Cal
RT: 2.062 min Scan# 610
Delta R.T. 0.003 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 84 Resp: 2719
Ion Ratio Lower Upper
84 100
49 166.5 124.1 186.1
51 47.9 39.8 59.8
86 69.4 50.9 76.3

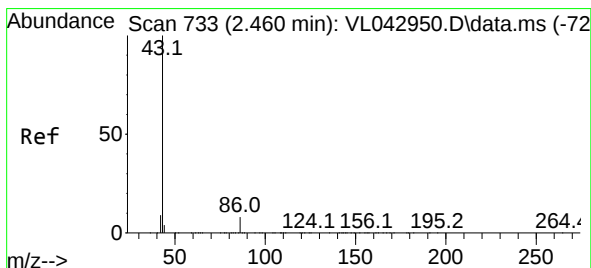
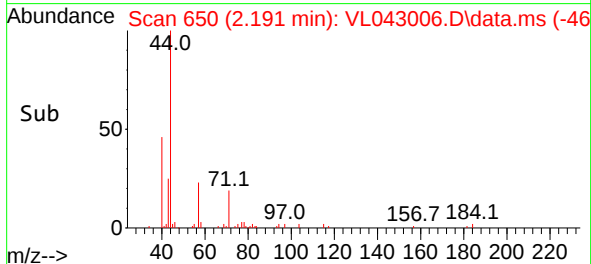
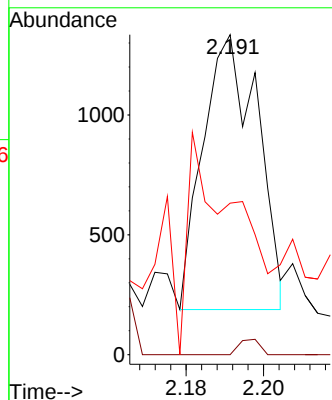
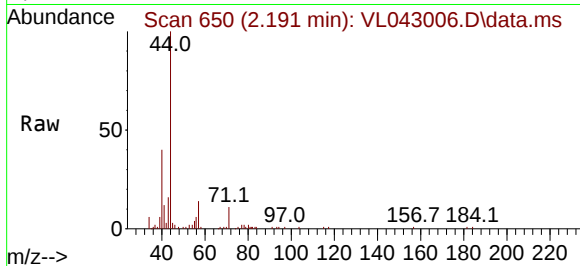




#21
 Allyl Chloride
 Concen: 0.081 ppbv
 RT: 2.191 min Scan# 61
 Delta R.T. 0.097 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

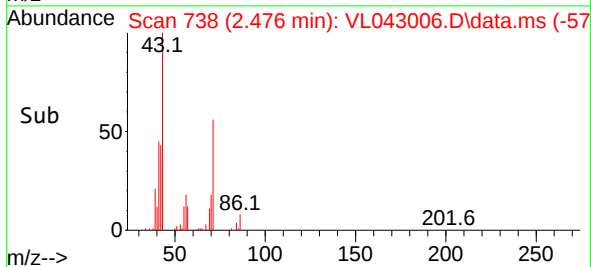
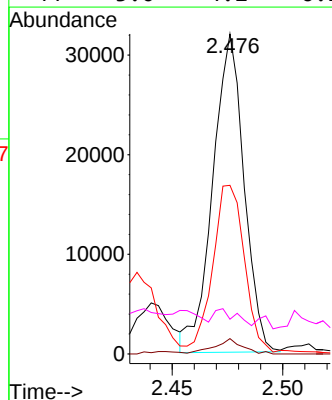
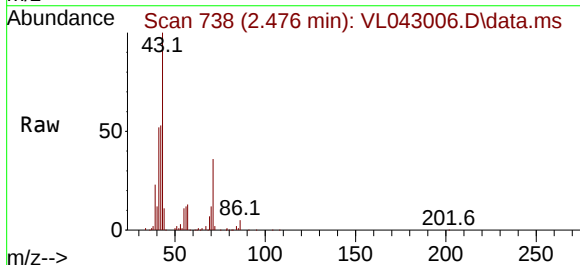
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

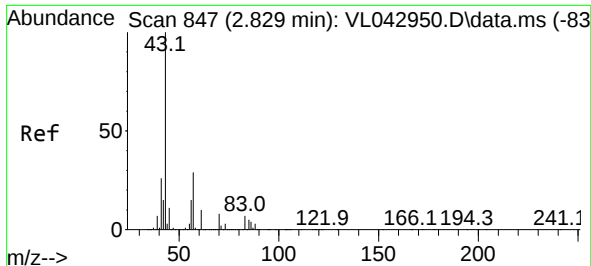
Tgt Ion: 41 Resp: 1119
 Ion Ratio Lower Upper
 41 100
 76 707.5 22.3 33.5#
 39 107.1 61.3 91.9#



#23
 Vinyl Acetate
 Concen: 1.103 ppbv
 RT: 2.476 min Scan# 738
 Delta R.T. 0.016 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

Tgt Ion: 43 Resp: 31353
 Ion Ratio Lower Upper
 43 100
 86 4.9 6.2 9.2#
 42 52.2 7.4 11.0#
 44 3.0 4.2 6.2#

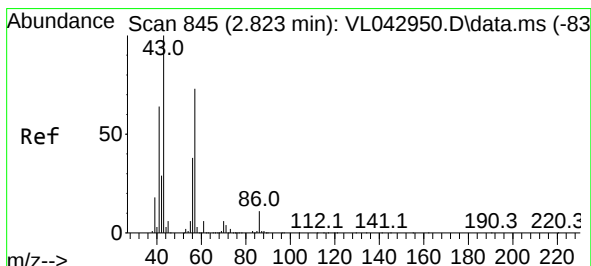
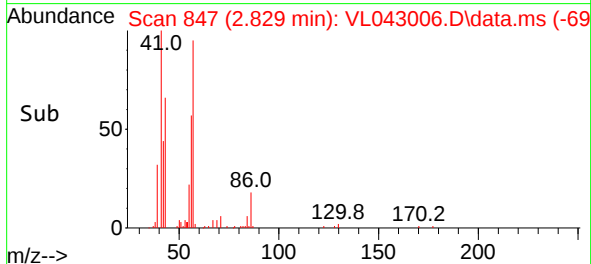
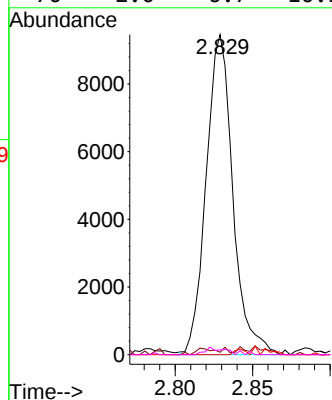
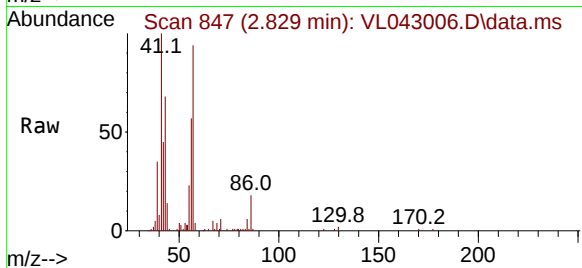




#25
Ethyl Acetate
Concen: 0.225 ppbv
RT: 2.829 min Scan# 847
Delta R.T. -0.000 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

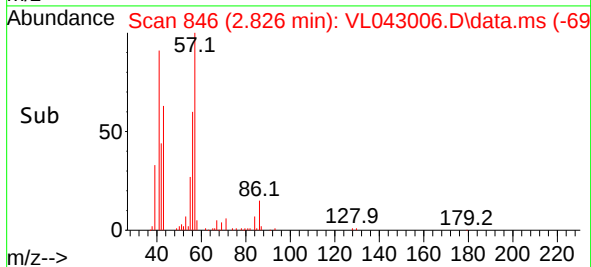
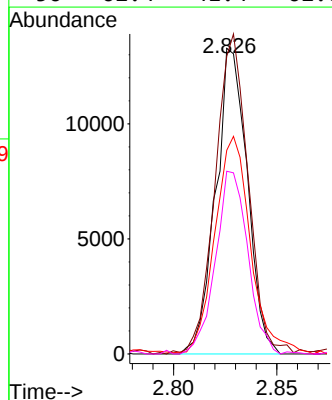
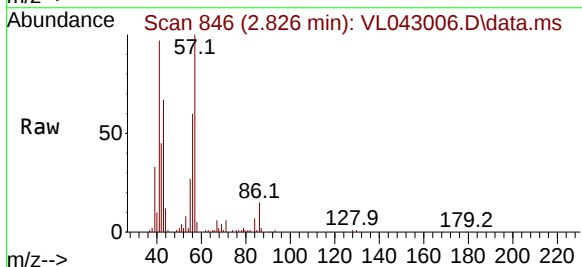
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

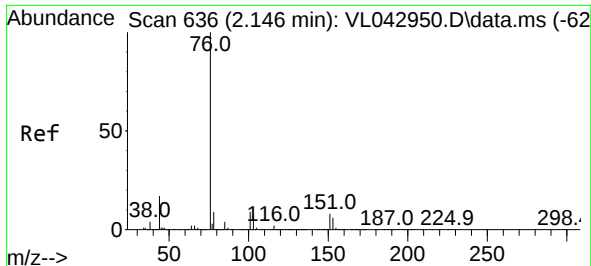
Tgt Ion:	43	Resp:	11331
Ion	Ratio	Lower	Upper
43	100		
45	1.9	7.7	11.5#
61	0.0	7.1	10.7#
70	2.0	6.7	10.1#



#26
Hexane
Concen: 0.616 ppbv
RT: 2.826 min Scan# 846
Delta R.T. 0.003 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion:	57	Resp:	14121
Ion	Ratio	Lower	Upper
57	100		
41	108.4	71.7	107.5#
43	78.7	180.8	271.2#
56	62.4	41.4	62.0#

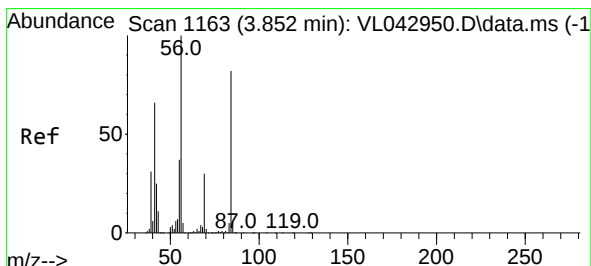
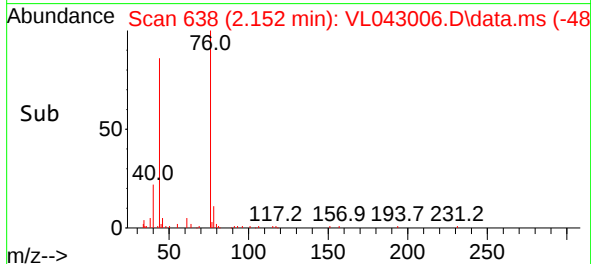
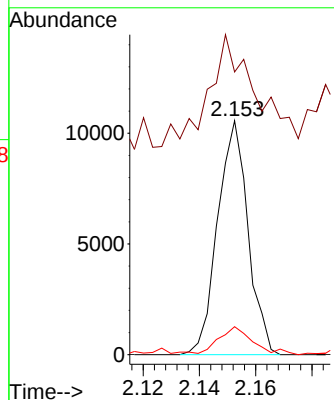
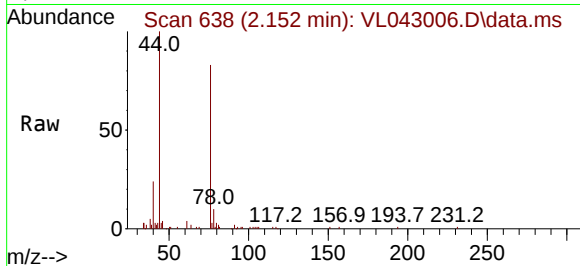




#27
Carbon Disulfide
Concen: 0.385 ppbv
RT: 2.152 min Scan# 61
Delta R.T. 0.006 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

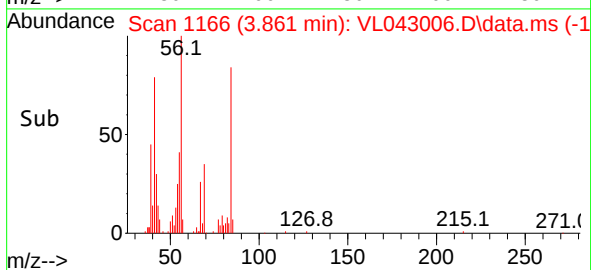
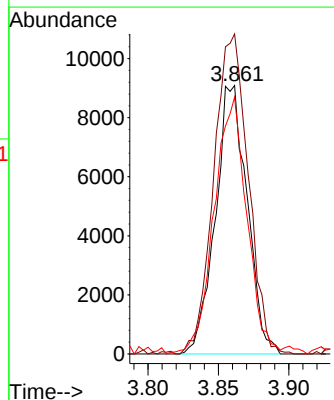
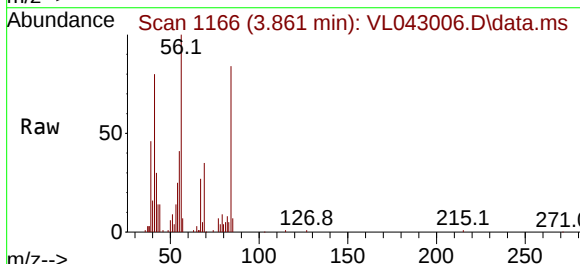
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

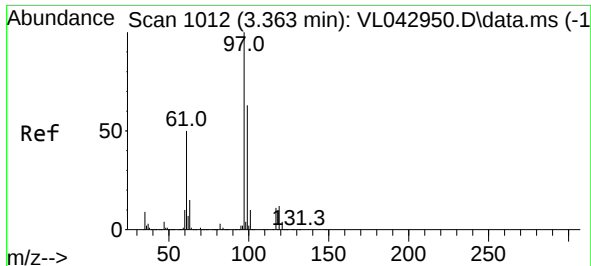
Tgt Ion: 76 Resp: 7921
Ion Ratio Lower Upper
76 100
44 375.5 15.6 23.4#
78 15.7 8.9 13.3#



#30
Cyclohexane
Concen: 0.747 ppbv
RT: 3.861 min Scan# 1166
Delta R.T. 0.010 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 84 Resp: 14319
Ion Ratio Lower Upper
84 100
56 129.0 102.2 153.4
41 99.2 65.6 98.4#

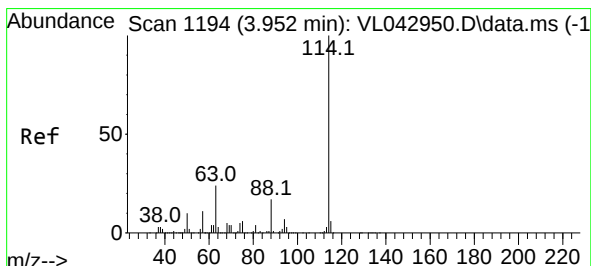
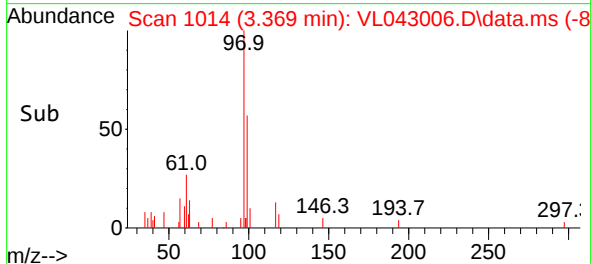
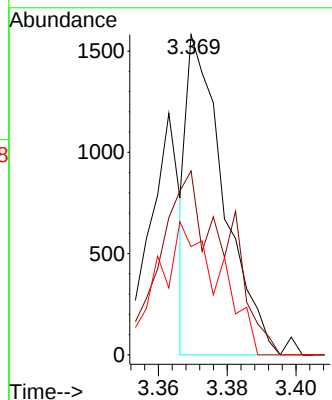
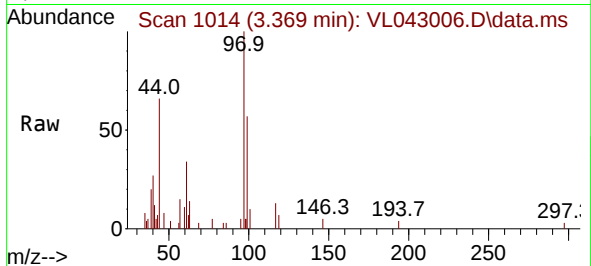




#32
 1,1,1-Trichloroethane
 Concen: 0.036 ppbv
 RT: 3.369 min Scan# 1180
 Delta R.T. 0.006 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

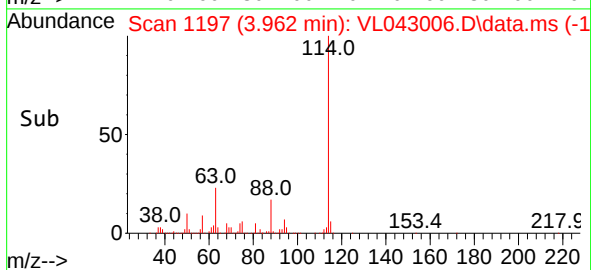
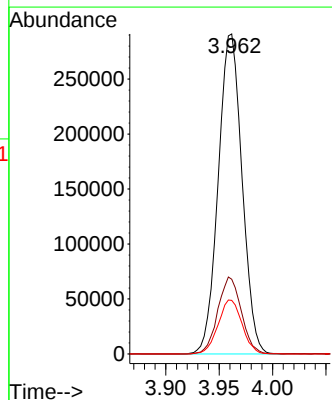
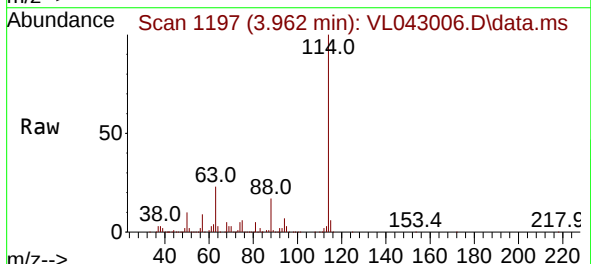
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

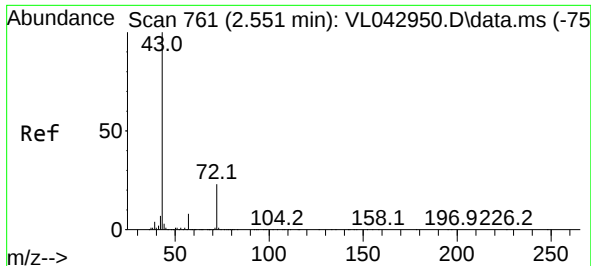
Tgt Ion:	97	Resp:	1180
Ion	Ratio	Lower	Upper
97	100		
99	101.1	51.1	76.7#
61	70.8	39.8	59.6#



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.962 min Scan# 1197
 Delta R.T. 0.010 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

Tgt Ion:	114	Resp:	451220
Ion	Ratio	Lower	Upper
114	100		
63	23.8	19.4	29.2
88	17.0	14.2	21.2

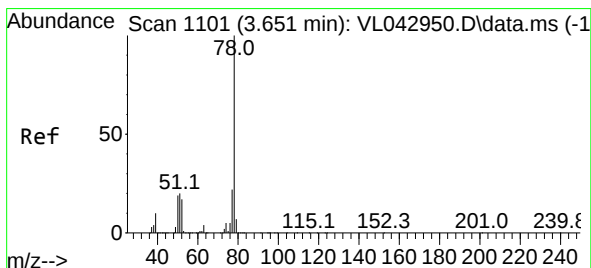
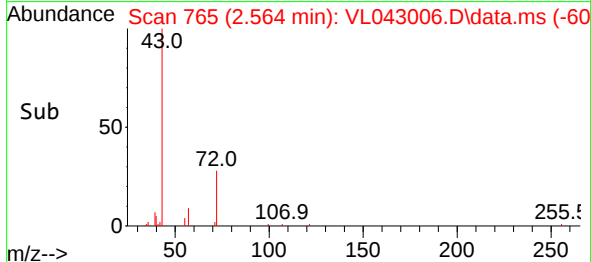
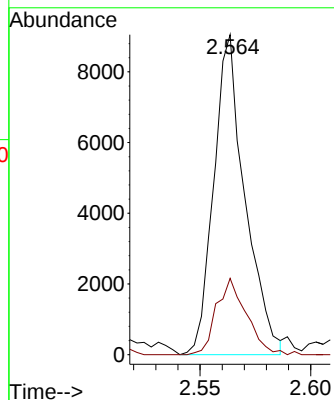
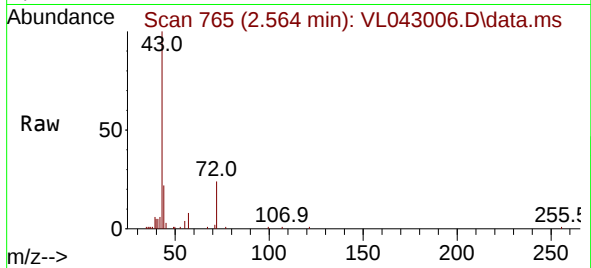




#34
2-Butanone
Concen: 0.281 ppbv
RT: 2.564 min Scan# 71
Delta R.T. 0.013 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

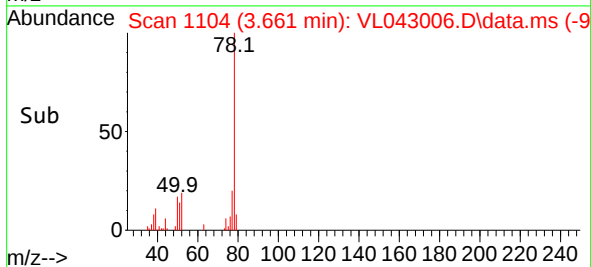
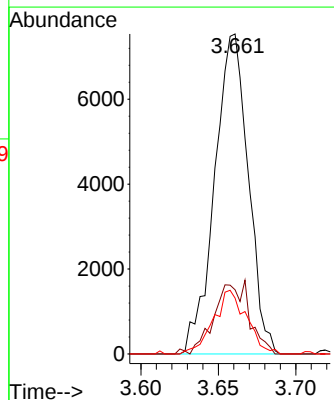
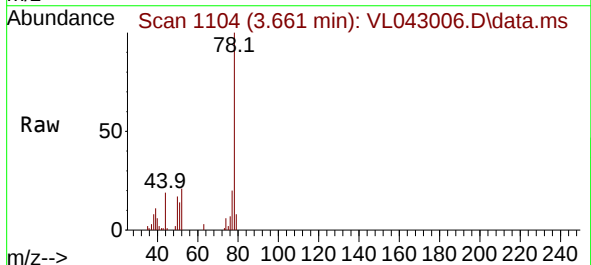
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

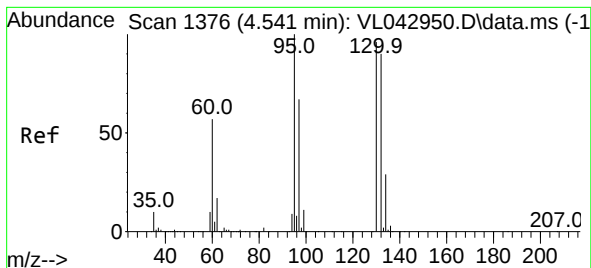
Tgt Ion: 43 Resp: 8873
Ion Ratio Lower Upper
43 100
72 23.0 17.7 26.5



#36
Benzene
Concen: 0.269 ppbv
RT: 3.661 min Scan# 1104
Delta R.T. 0.010 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 78 Resp: 11417
Ion Ratio Lower Upper
78 100
77 20.0 17.8 26.6
50 17.4 15.0 22.4





#38

Trichloroethene

Concen: 0.150 ppbv

RT: 4.548 min Scan# 1196

Delta R.T. 0.006 min

Lab File: VL043006.D

Acq: 24 Sep 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

Tgt Ion:130 Resp: 3152

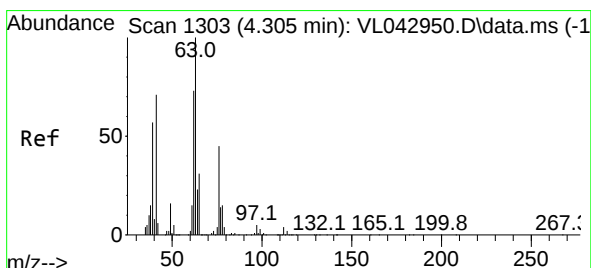
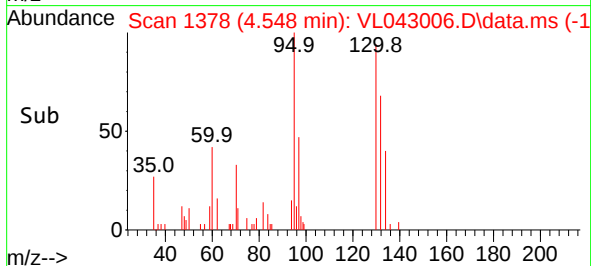
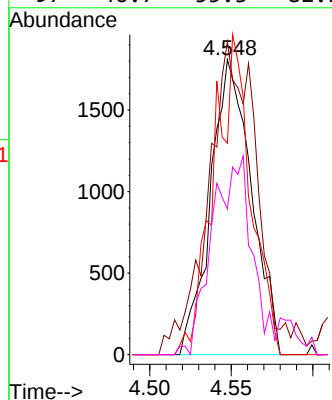
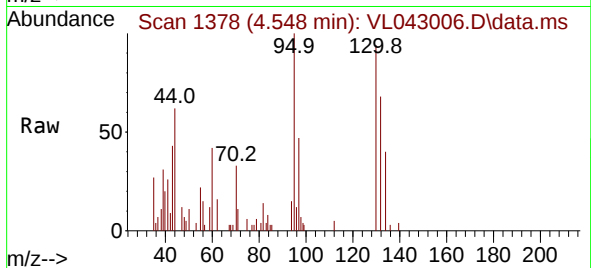
Ion Ratio Lower Upper

130 100

95 97.7 83.0 124.4

132 71.7 74.6 112.0#

97 46.7 55.3 82.9#



#39

1,2-Dichloropropane

Concen: 6.915 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. -0.347 min

Lab File: VL043006.D

Acq: 24 Sep 2025 12:44

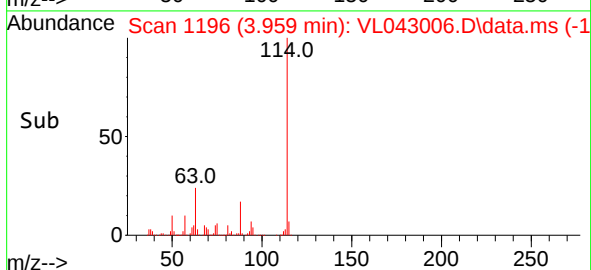
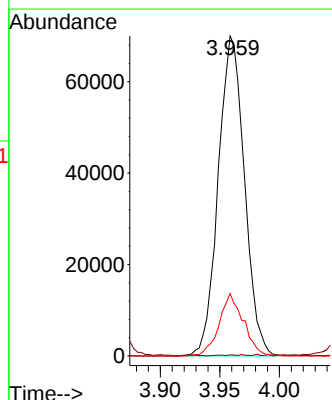
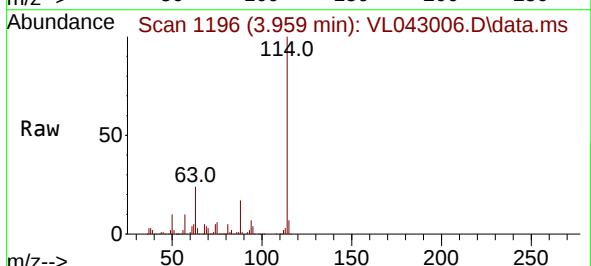
Tgt Ion: 63 Resp: 106964

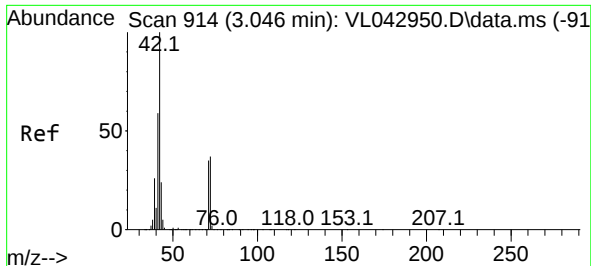
Ion Ratio Lower Upper

63 100

41 0.2 57.5 86.3#

62 19.5 58.5 87.7#

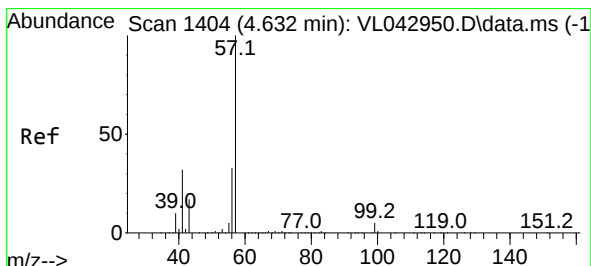
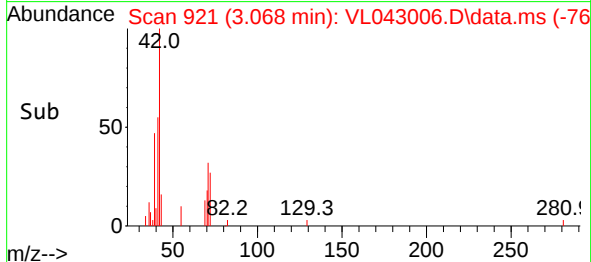
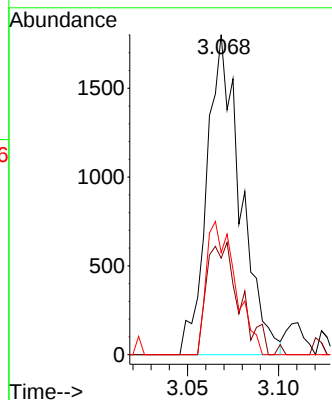
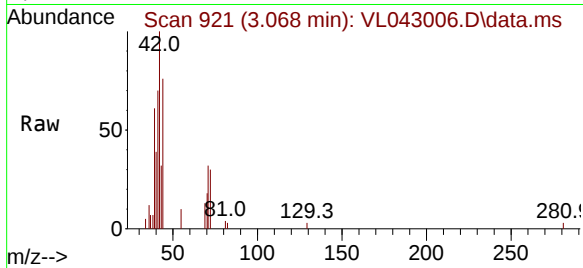




#41
Tetrahydrofuran
Concen: 0.128 ppbv
RT: 3.068 min Scan# 914
Delta R.T. 0.022 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

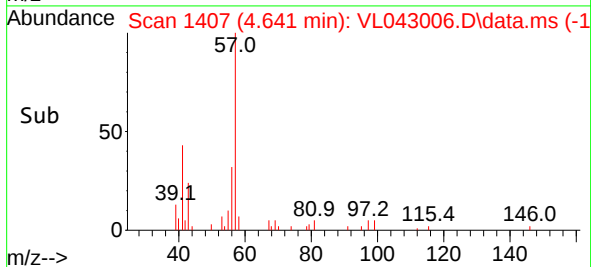
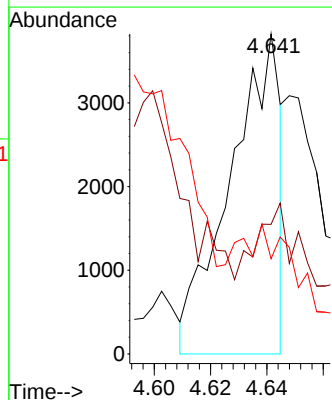
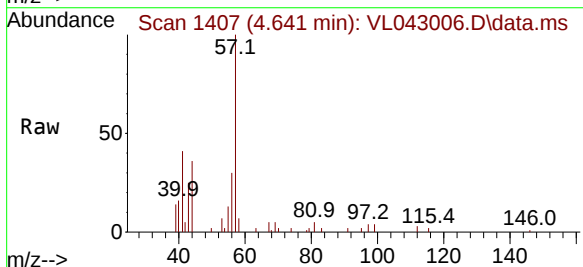
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

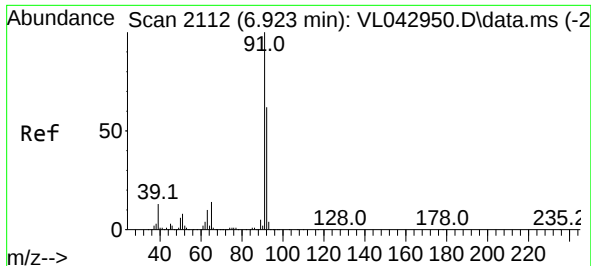
Tgt Ion: 42 Resp: 2323
Ion Ratio Lower Upper
42 100
72 34.1 30.0 45.0
71 35.6 28.8 43.2



#44
2,2,4-Trimethylpentane
Concen: 0.064 ppbv
RT: 4.641 min Scan# 1407
Delta R.T. 0.010 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 57 Resp: 4700
Ion Ratio Lower Upper
57 100
41 63.0 25.5 38.3#
56 0.0 25.8 38.8#

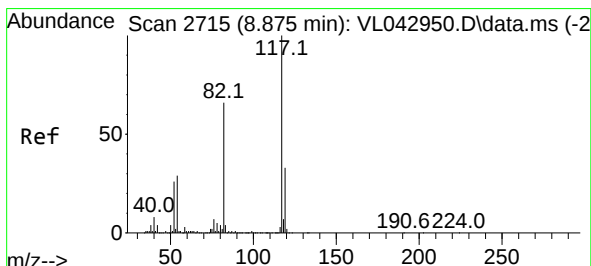
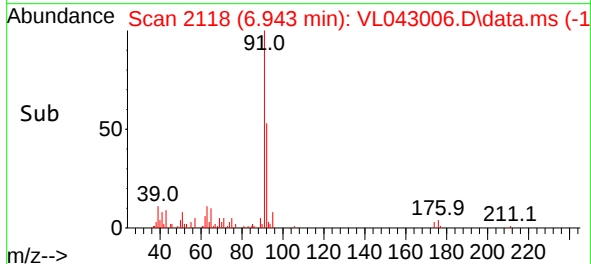
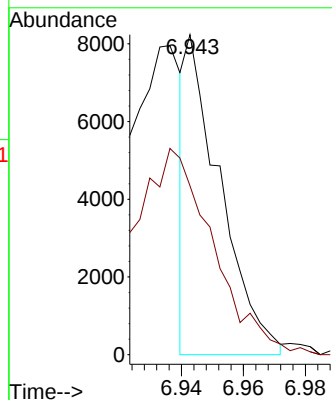
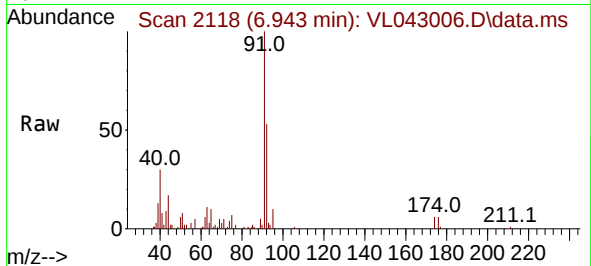




#53
Toluene
Concen: 0.127 ppbv
RT: 6.943 min Scan# 2112
Delta R.T. 0.019 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

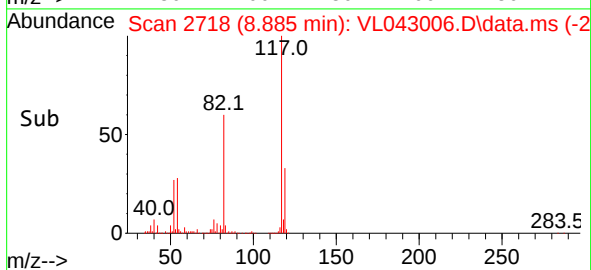
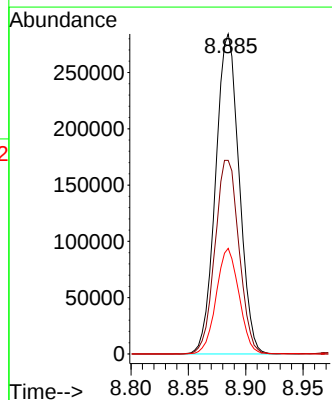
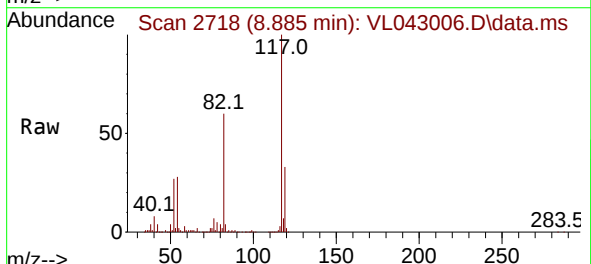
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

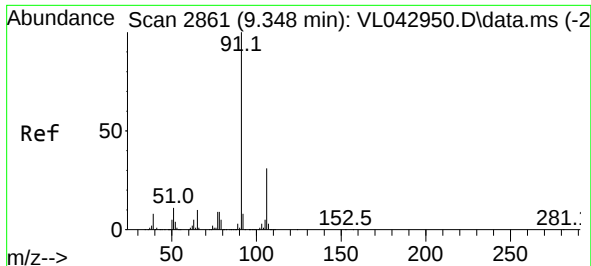
Tgt Ion: 91 Resp: 6364
Ion Ratio Lower Upper
91 100
92 0.0 48.2 72.2#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.885 min Scan# 2718
Delta R.T. 0.010 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 117 Resp: 405509
Ion Ratio Lower Upper
117 100
82 61.9 52.8 79.2
119 32.1 26.5 39.7





#58

Ethyl Benzene

Concen: 0.069 ppbv

RT: 9.357 min Scan# 21

Delta R.T. 0.010 min

Lab File: VL043006.D

Acq: 24 Sep 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

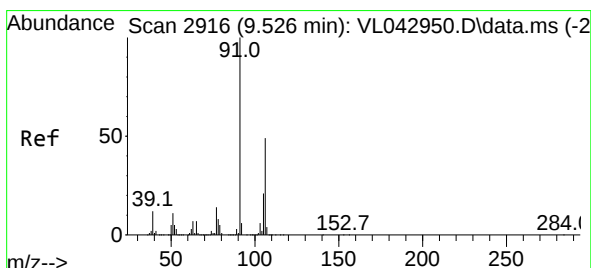
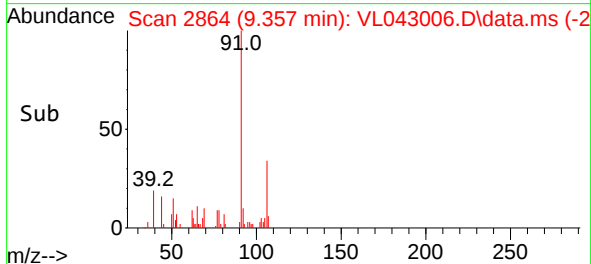
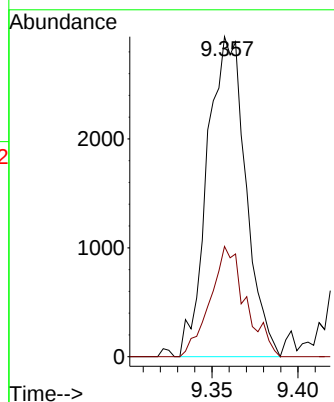
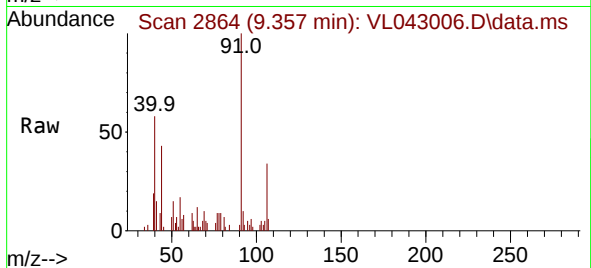
SV2DL

Tgt Ion: 91 Resp: 4565

Ion Ratio Lower Upper

91 100

106 34.4 24.6 37.0



#59

m/p-Xylene

Concen: 0.137 ppbv

RT: 9.535 min Scan# 2919

Delta R.T. 0.010 min

Lab File: VL043006.D

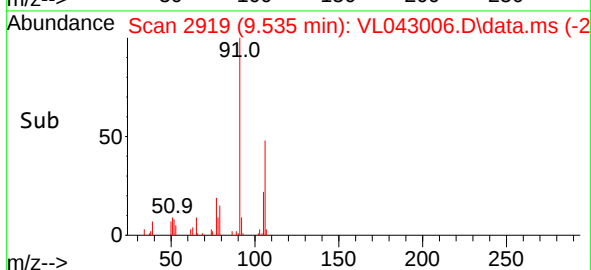
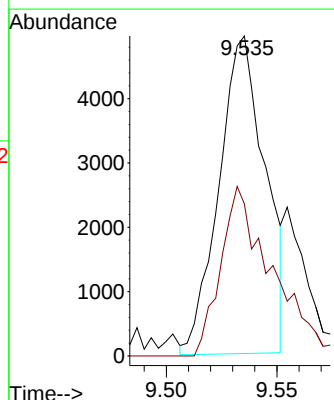
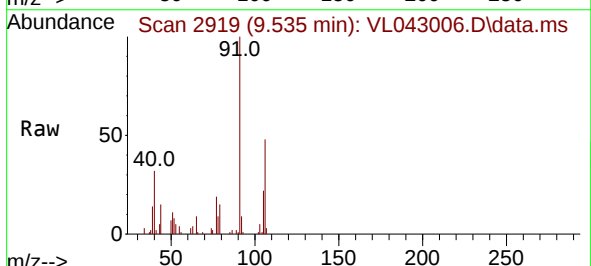
Acq: 24 Sep 2025 12:44

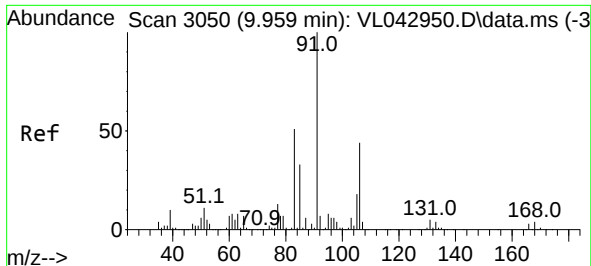
Tgt Ion: 91 Resp: 7187

Ion Ratio Lower Upper

91 100

106 59.2 0.0 0.0#

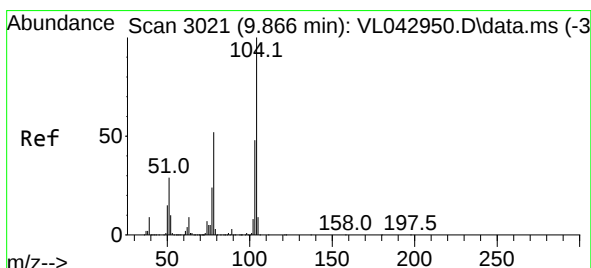
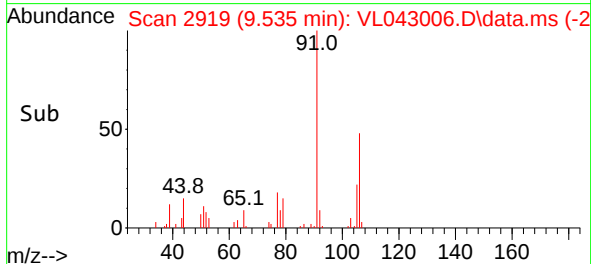
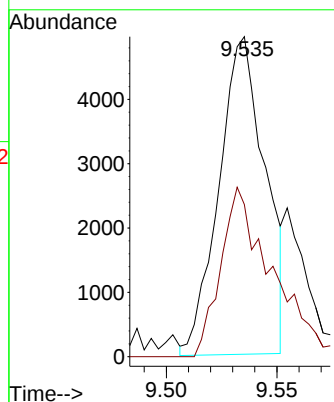
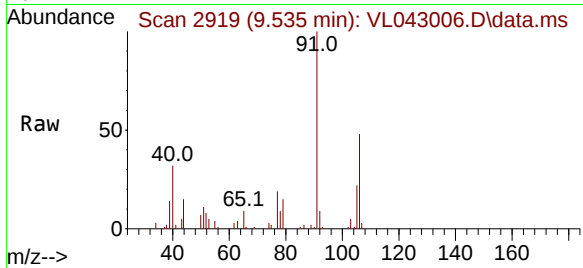




#60
o-Xylene
Concen: 0.137 ppbv
RT: 9.535 min Scan# 2919
Delta R.T. -0.424 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

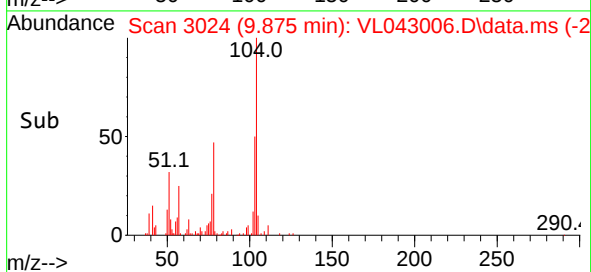
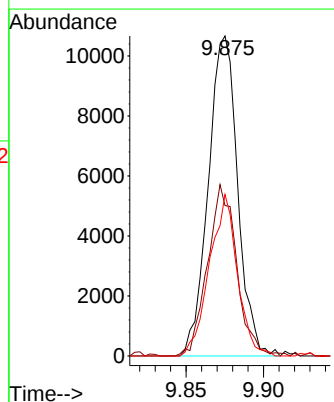
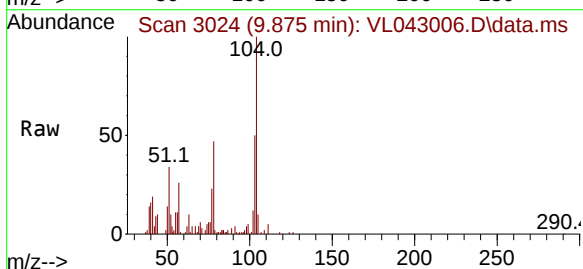
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

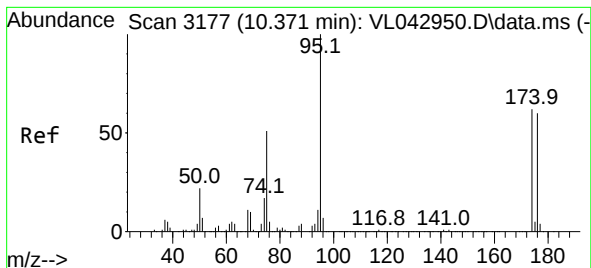
Tgt Ion: 91 Resp: 7187
Ion Ratio Lower Upper
91 100
106 59.2 22.4 67.0



#61
Styrene
Concen: 0.568 ppbv
RT: 9.875 min Scan# 3024
Delta R.T. 0.010 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion: 104 Resp: 14098
Ion Ratio Lower Upper
104 100
78 53.2 39.9 59.9
103 47.7 36.9 55.3

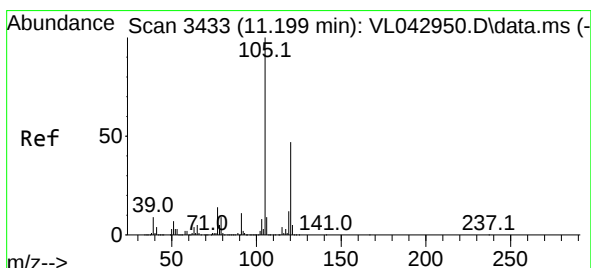
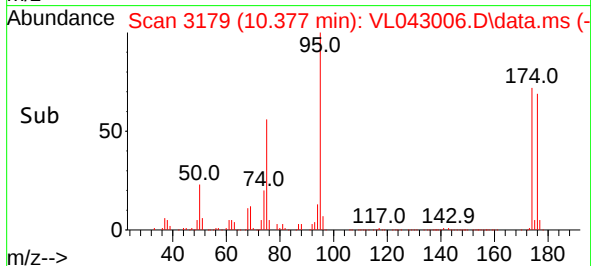
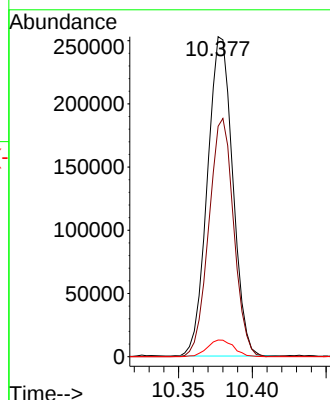
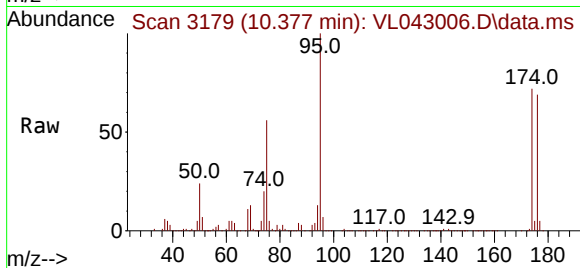




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.962 ppbv
 RT: 10.377 min Scan# 3177
 Delta R.T. 0.006 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

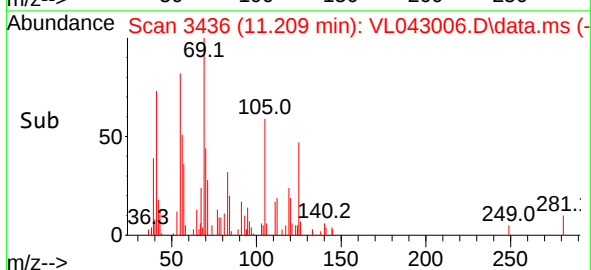
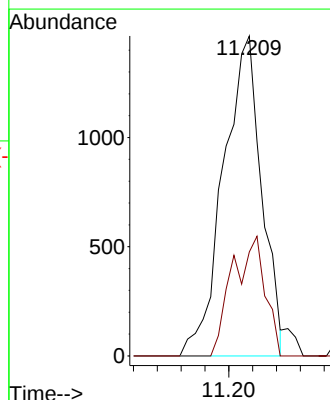
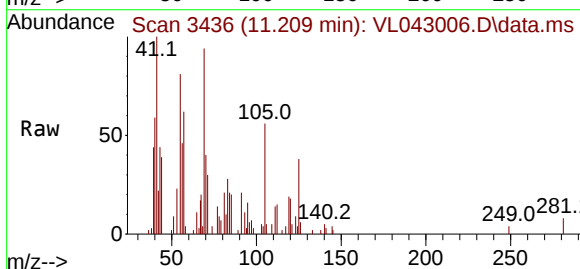
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

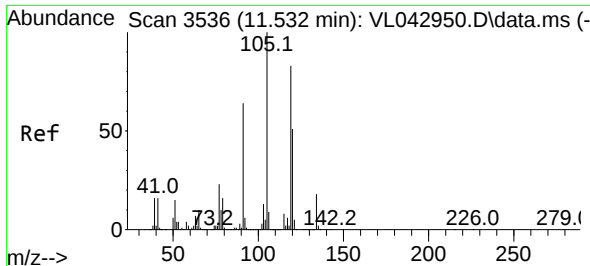
Tgt Ion: 95 Resp: 301546
 Ion Ratio Lower Upper
 95 100
 174 73.6 51.4 77.2
 175 5.5 4.0 6.0



#73
 1,3,5-Trimethylbenzene
 Concen: 0.031 ppbv
 RT: 11.209 min Scan# 3436
 Delta R.T. 0.010 min
 Lab File: VL043006.D
 Acq: 24 Sep 2025 12:44

Tgt Ion: 105 Resp: 1632
 Ion Ratio Lower Upper
 105 100
 120 37.8 38.0 57.0#

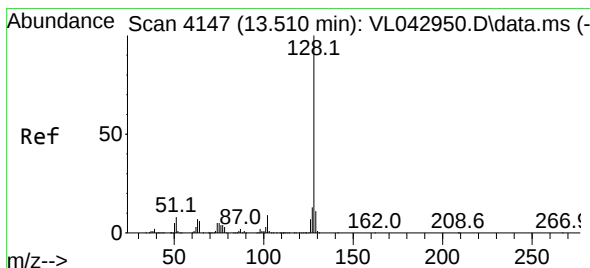
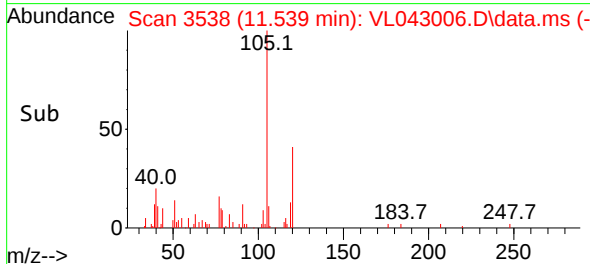
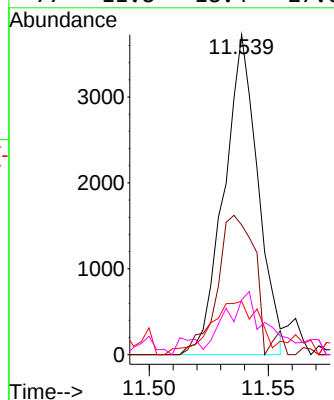
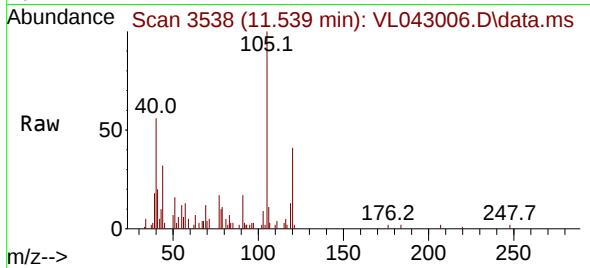




#74
1,2,4-Trimethylbenzene
Concen: 0.063 ppbv
RT: 11.539 min Scan# 3536
Delta R.T. 0.006 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

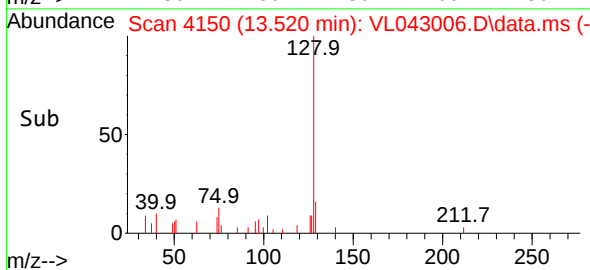
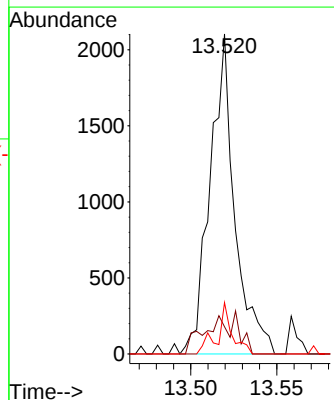
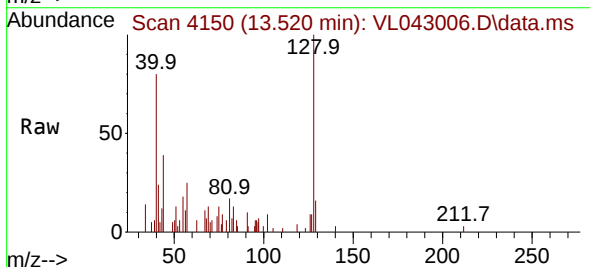
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

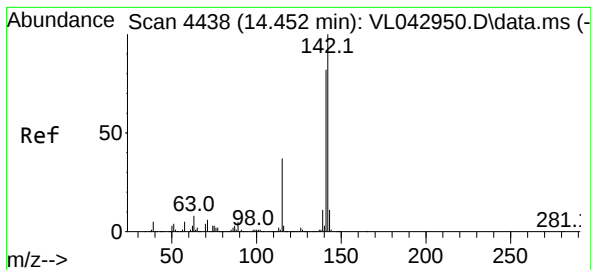
Tgt Ion:	105	Resp:	3695
Ion	Ratio	Lower	Upper
105	100		
120	40.5	40.9	61.3#
91	13.2	51.2	76.8#
77	11.8	18.4	27.6#



#79
Naphthalene
Concen: 0.040 ppbv
RT: 13.520 min Scan# 4150
Delta R.T. 0.009 min
Lab File: VL043006.D
Acq: 24 Sep 2025 12:44

Tgt Ion:	128	Resp:	2103
Ion	Ratio	Lower	Upper
128	100		
127	8.5	10.6	15.8#
129	16.1	9.0	13.6#





#80

Naphthalene, 2-methyl-

Concen: 0.135 ppbv

RT: 14.461 min Scan# 44

Delta R.T. 0.010 min

Lab File: VL043006.D

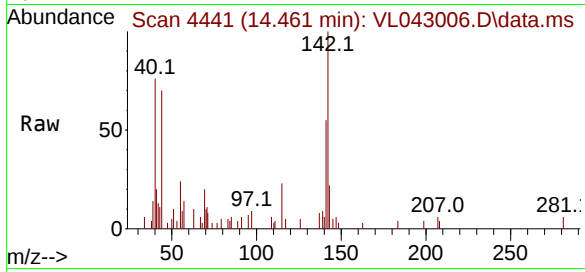
Acq: 24 Sep 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

SV2DL



Tgt Ion: 142 Resp: 2174

Ion Ratio Lower Upper

142 100

141 77.9 65.1 97.7

115 35.4 28.9 43.3

