

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090425\
 Data File : VL042897.D
 Acq On : 04 Sep 2025 19:18
 Operator : SY/MD
 Sample : Q3000-01DUP
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 05 01:25:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Aug 14 02:12:54 2025
 Response via : Initial Calibration

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

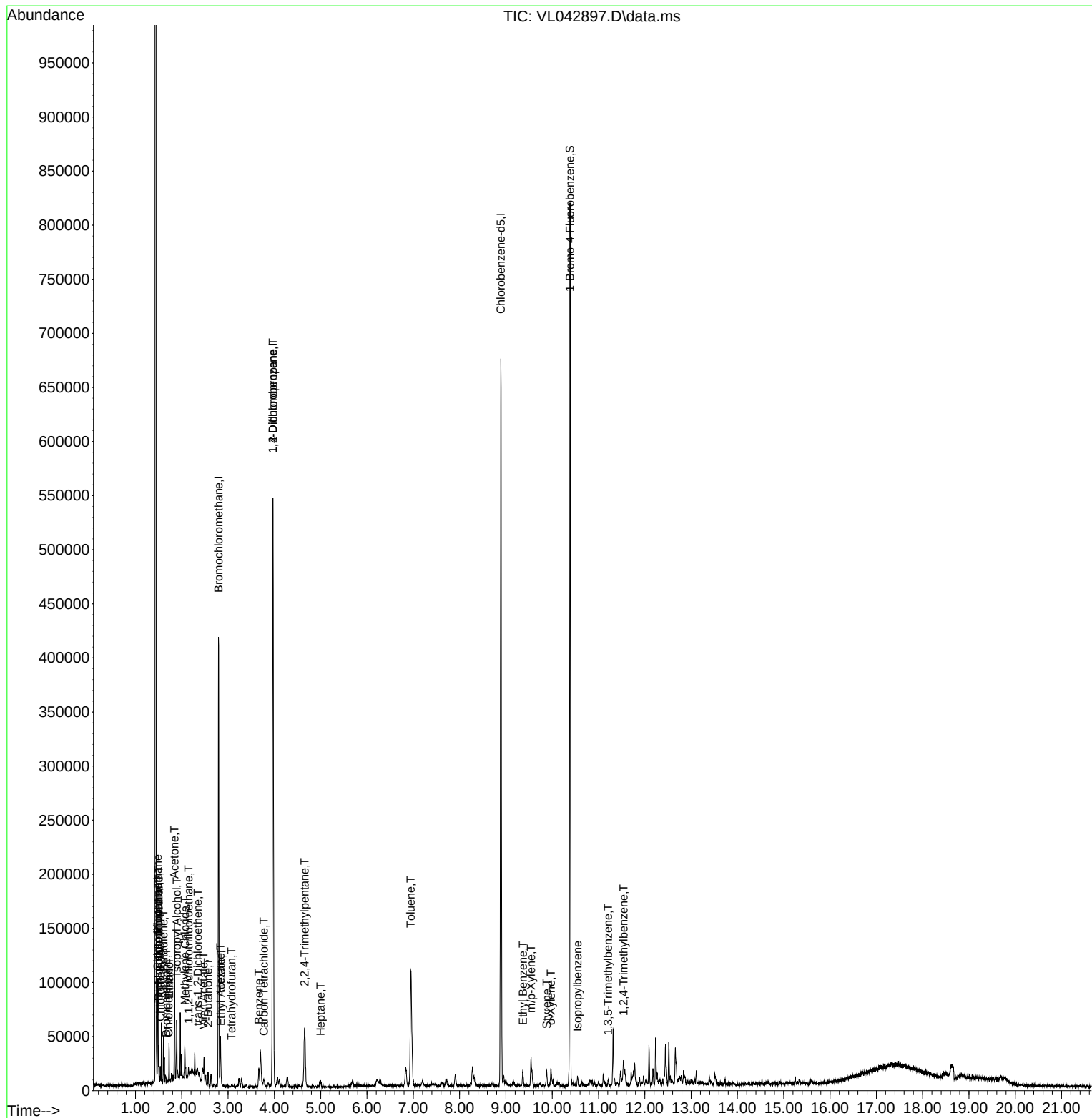
Internal Standards						
1) Bromochloromethane	2.793	49	117843	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.968	114	310691	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.891	117	265064	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.383	95	205770	10.351	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.500%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.502	85	9061	0.525	ppbv	95
3) Chlorodifluoromethane	1.479	51	20277	1.062	ppbv	94
4) Chloromethane	1.534	50	3359	0.482	ppbv	96
6) Bromomethane	1.670	94	109	0.040	ppbv #	36
7) Chloroethane	1.712	64	97	0.036	ppbv #	39
9) Propene	1.486	41	12994	1.576	ppbv	94
10) Heptane	4.998	43	1251	0.057	ppbv #	23
11) Trichlorofluoromethane	1.499	101	821	0.048	ppbv	97
12) 1,1,2-Trichlorotrifluo...	2.143	101	1181	0.087	ppbv	95
13) Ethanol	1.725	45	13239	17.562	ppbv	92
15) Acetone	1.839	43	63502	4.074	ppbv	99
16) 1,3-Butadiene	1.602	39	5916	0.837	ppbv #	39
19) Isopropyl Alcohol	1.890	45	22694	2.437	ppbv #	43
20) Methylene Chloride	2.068	84	4121	0.631	ppbv #	91
22) trans-1,2-Dichloroethene	2.347	96	549	0.079	ppbv #	70
23) Vinyl Acetate	2.466	43	1022	0.048	ppbv #	80
25) Ethyl Acetate	2.848	43	2545	0.067	ppbv #	44
26) Hexane	2.835	57	9544	0.548	ppbv #	56
34) 2-Butanone	2.567	43	7029	0.335	ppbv	98
35) Carbon Tetrachloride	3.774	117	689	0.032	ppbv #	13
36) Benzene	3.667	78	10979	0.369	ppbv #	94
39) 1,2-Dichloropropane	3.968	63	84166	7.746	ppbv #	26
41) Tetrahydrofuran	3.072	42	396	0.034	ppbv #	71
44) 2,2,4-Trimethylpentane	4.651	57	28470	0.564	ppbv #	52
53) Toluene	6.946	91	71772	2.029	ppbv	100
58) Ethyl Benzene	9.367	91	7037	0.150	ppbv	91
59) m/p-Xylene	9.542	91	10557	0.288	ppbv #	100
60) o-Xylene	9.969	91	6210	0.168	ppbv	95
61) Styrene	9.885	104	2260	0.131	ppbv #	27
62) Isopropylbenzene	10.545	105	3881	0.072	ppbv	99
73) 1,3,5-Trimethylbenzene	11.209	105	1739	0.046	ppbv	89
74) 1,2,4-Trimethylbenzene	11.542	105	6178	0.148	ppbv #	63

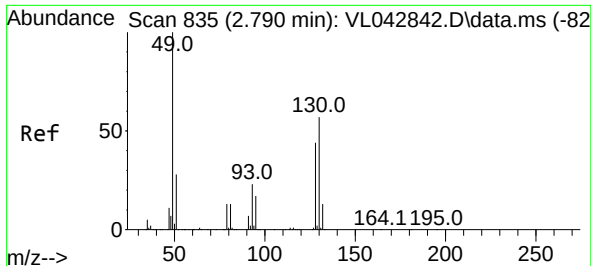
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
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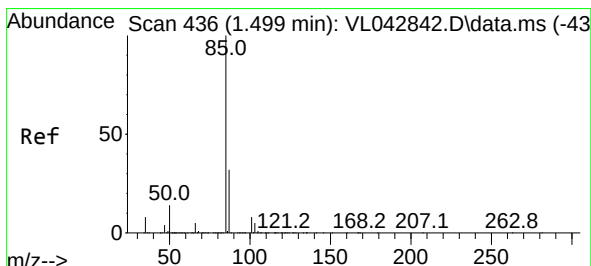
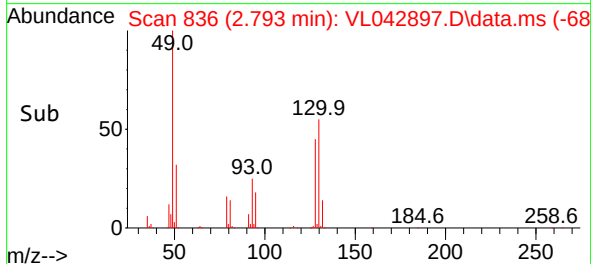
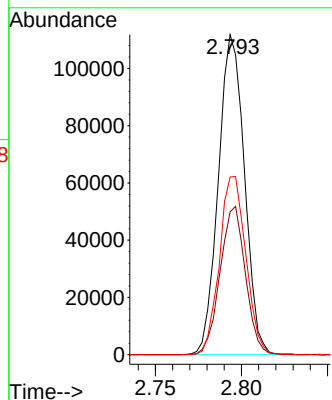
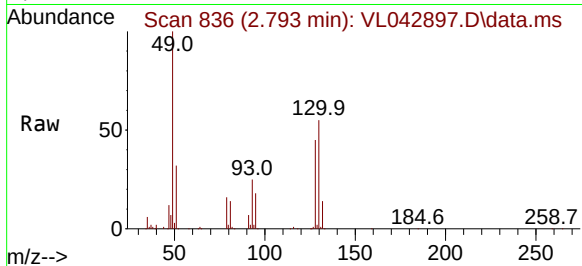




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.793 min Scan# 81
 Delta R.T. 0.003 min
 Lab File: VL042897.D
 Acq: 04 Sep 2025 19:18

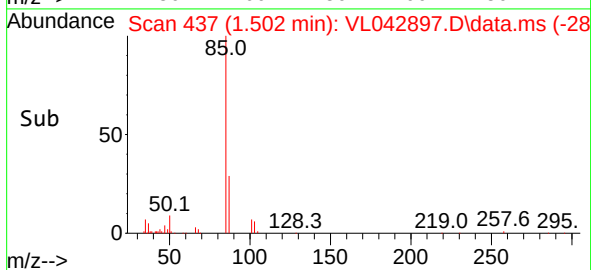
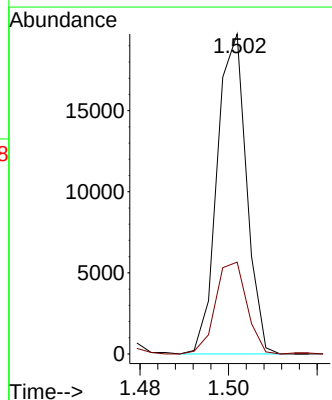
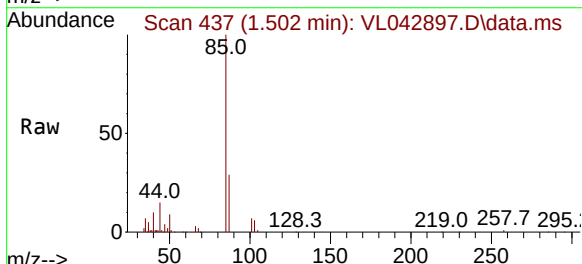
Instrument :
 MSVOA_L
 ClientSampleId :

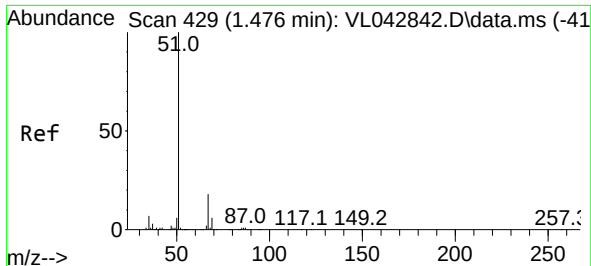
Tgt Ion: 49 Resp: 117843
 Ion Ratio Lower Upper
 49 100
 128 45.1 23.7 71.1
 130 56.4 30.6 91.6



#2
 Dichlorodifluoromethane
 Concen: 0.525 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.003 min
 Lab File: VL042897.D
 Acq: 04 Sep 2025 19:18

Tgt Ion: 85 Resp: 9061
 Ion Ratio Lower Upper
 85 100
 87 28.7 25.3 37.9

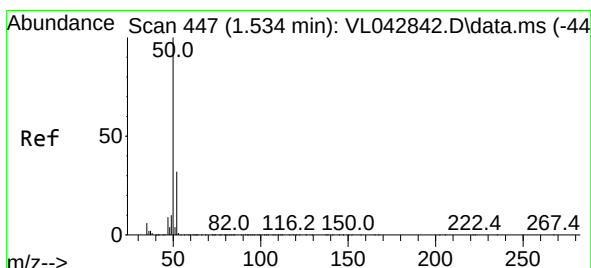
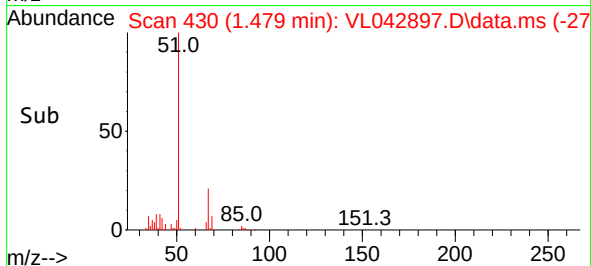
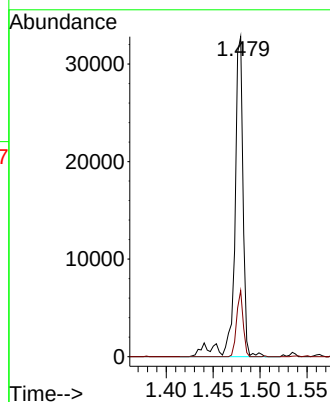
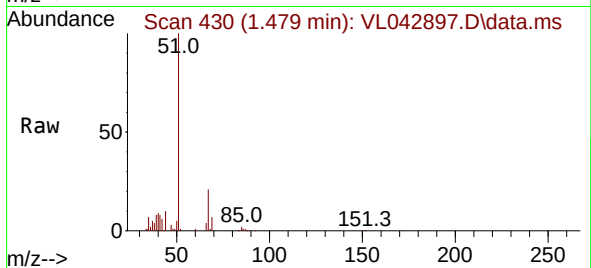




#3
Chlorodifluoromethane
Concen: 1.062 ppbv
RT: 1.479 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

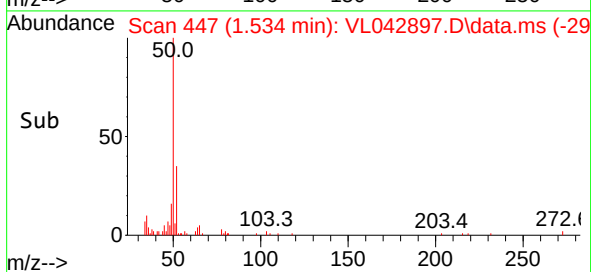
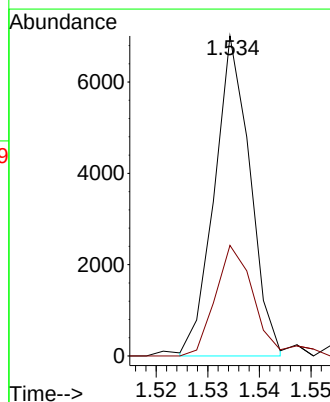
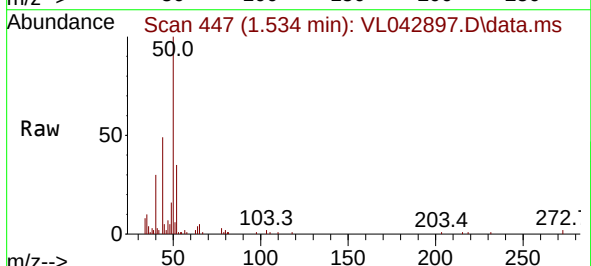
Instrument :
MSVOA_L
ClientSampleId :

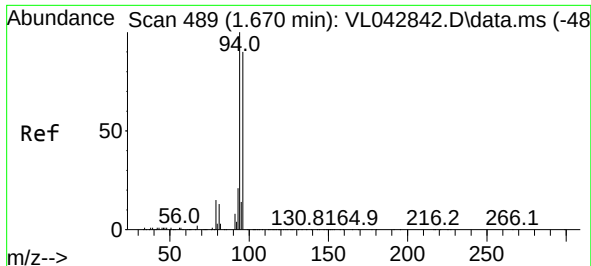
Tgt Ion: 51 Resp: 20277
Ion Ratio Lower Upper
51 100
67 16.1 14.9 22.3



#4
Chloromethane
Concen: 0.482 ppbv
RT: 1.534 min Scan# 447
Delta R.T. -0.000 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 50 Resp: 3359
Ion Ratio Lower Upper
50 100
52 34.9 25.9 38.9

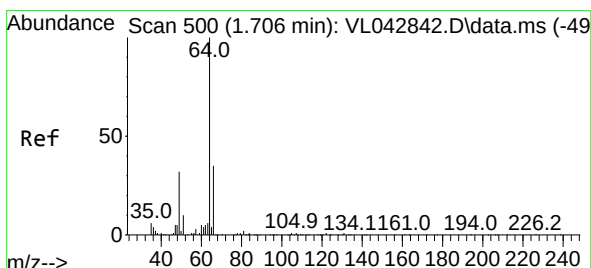
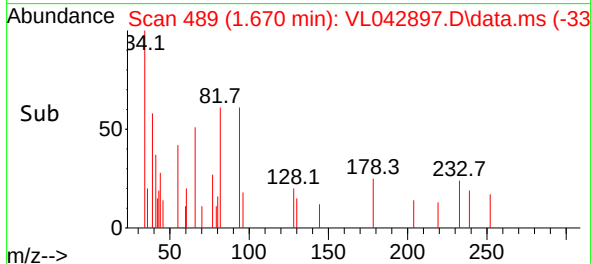
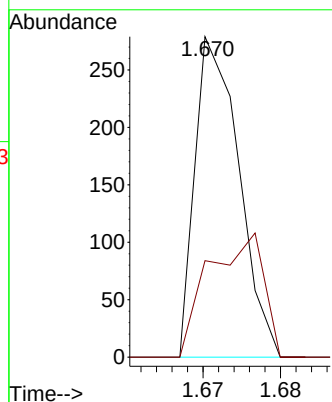
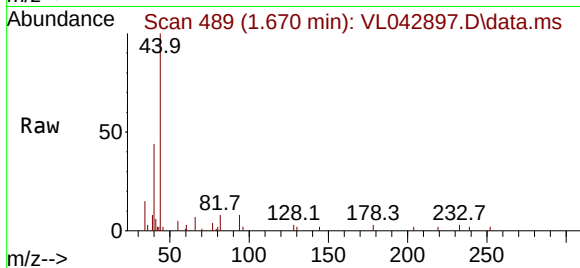




#6
Bromomethane
Concen: 0.040 ppbv
RT: 1.670 min Scan# 41
Delta R.T. -0.000 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

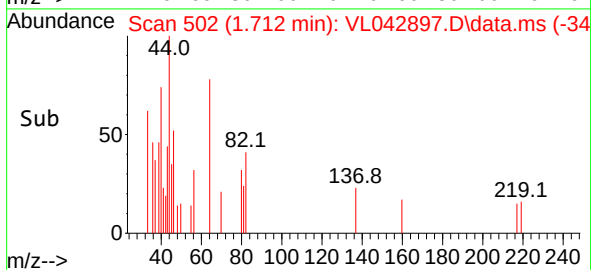
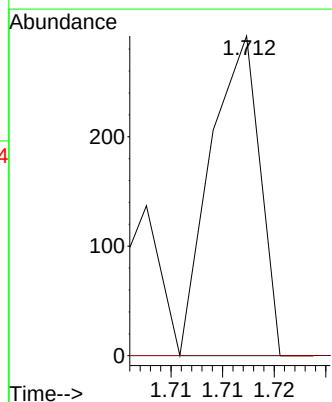
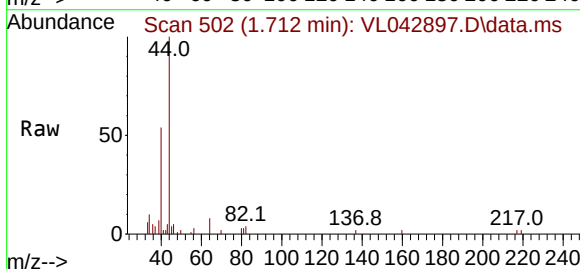
Instrument :
MSVOA_L
ClientSampleId :

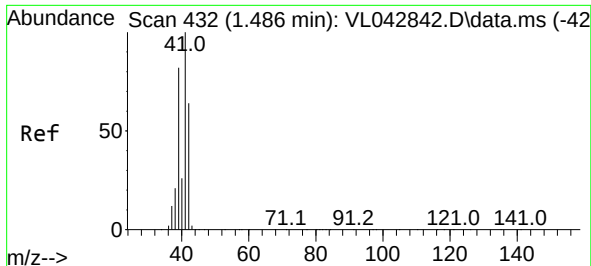
Tgt Ion: 94 Resp: 109
Ion Ratio Lower Upper
94 100
96 30.1 72.1 108.1#



#7
Chloroethane
Concen: 0.036 ppbv
RT: 1.712 min Scan# 502
Delta R.T. 0.006 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 64 Resp: 97
Ion Ratio Lower Upper
64 100
66 0.0 28.6 42.8#





#9

Propene

Concen: 1.576 ppbv

RT: 1.486 min Scan# 41

Delta R.T. -0.000 min

Lab File: VL042897.D

Acq: 04 Sep 2025 19:18

Instrument :

MSVOA_L

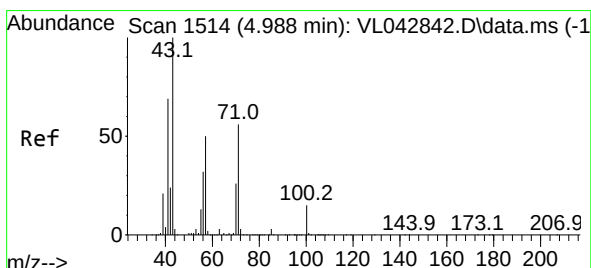
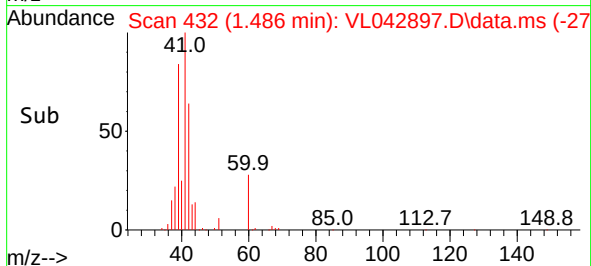
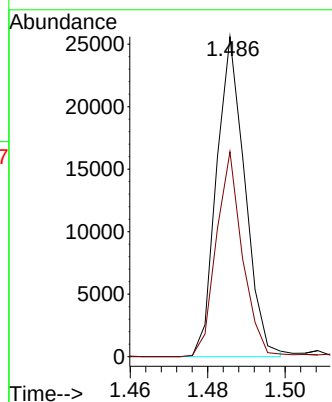
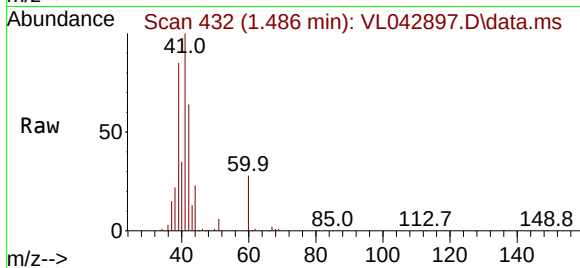
ClientSampleId :

Tgt Ion: 41 Resp: 12994

Ion Ratio Lower Upper

41 100

42 61.2 53.0 79.4



#10

Heptane

Concen: 0.057 ppbv

RT: 4.998 min Scan# 1517

Delta R.T. 0.010 min

Lab File: VL042897.D

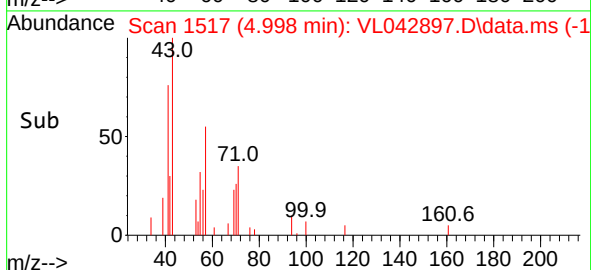
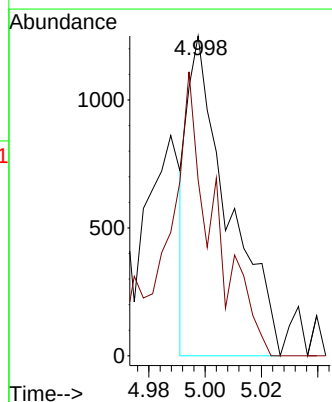
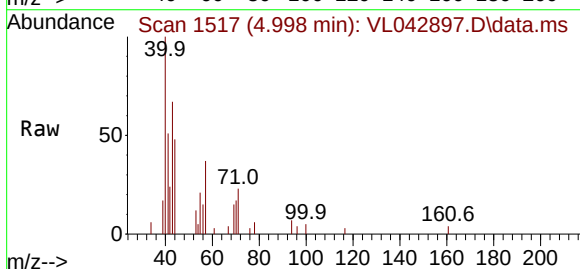
Acq: 04 Sep 2025 19:18

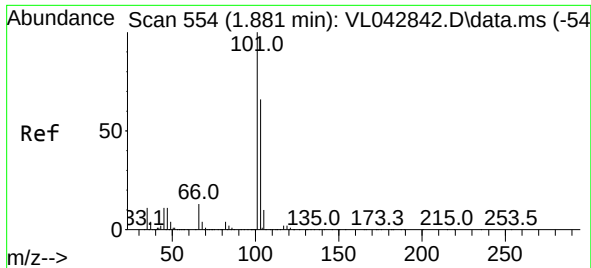
Tgt Ion: 43 Resp: 1251

Ion Ratio Lower Upper

43 100

57 105.5 41.4 62.0#

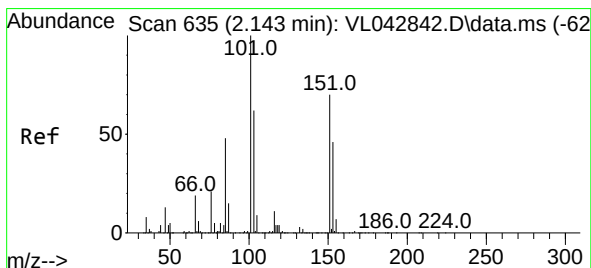
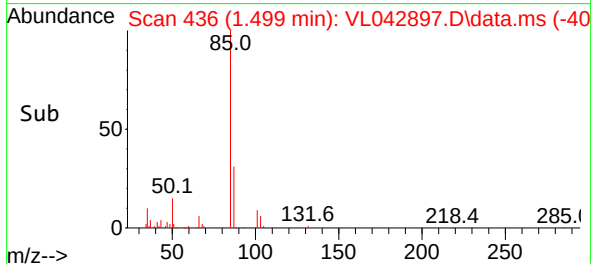
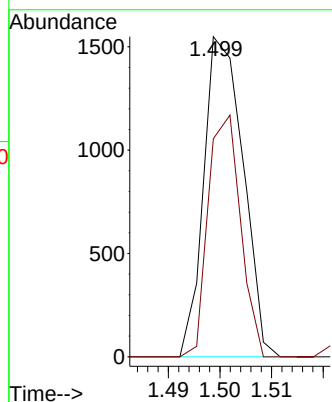
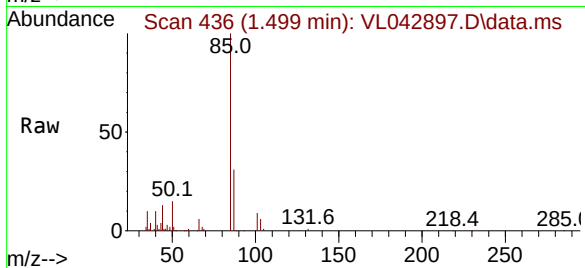




#11
 Trichlorofluoromethane
 Concen: 0.048 ppbv
 RT: 1.499 min Scan# 411
 Delta R.T. -0.382 min
 Lab File: VL042897.D
 Acq: 04 Sep 2025 19:18

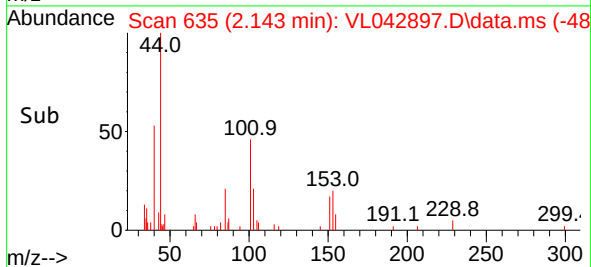
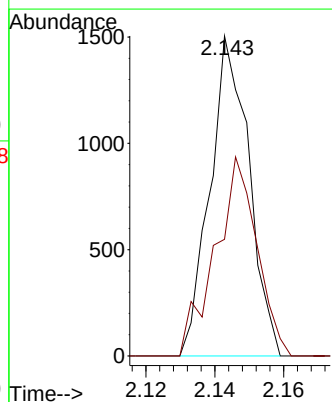
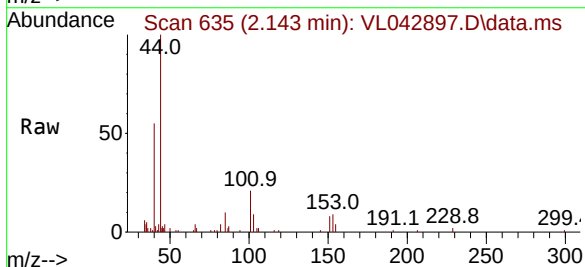
Instrument :
 MSVOA_L
 ClientSampleId :

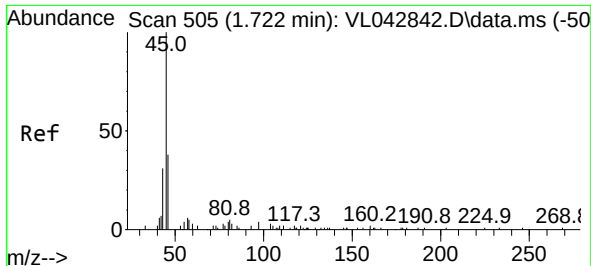
Tgt Ion:101 Resp: 821
 Ion Ratio Lower Upper
 101 100
 103 68.1 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.087 ppbv
 RT: 2.143 min Scan# 635
 Delta R.T. -0.000 min
 Lab File: VL042897.D
 Acq: 04 Sep 2025 19:18

Tgt Ion:101 Resp: 1181
 Ion Ratio Lower Upper
 101 100
 151 66.5 56.4 84.6

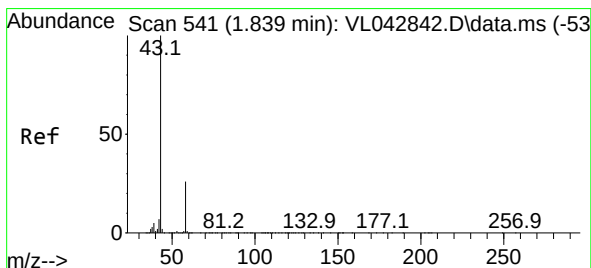
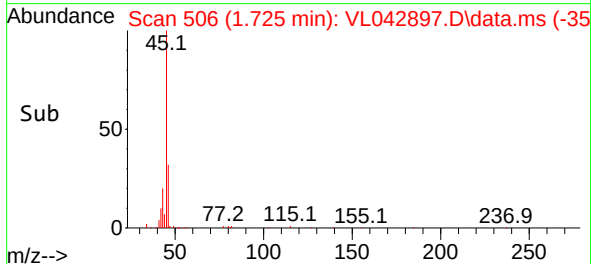
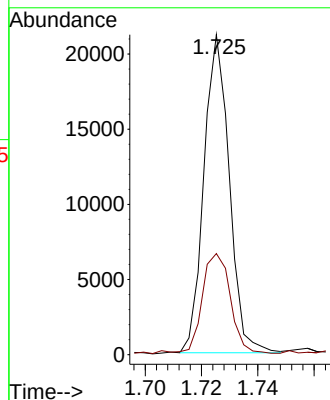
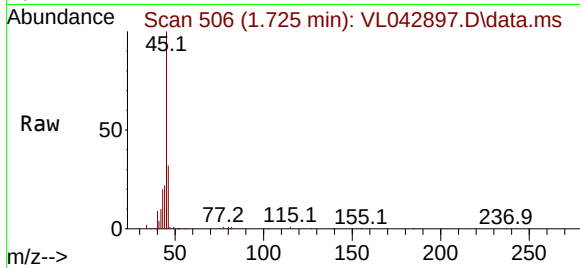




#13
Ethanol
Concen: 17.562 ppbv
RT: 1.725 min Scan# 505
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

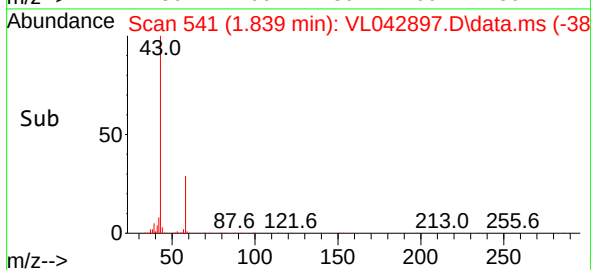
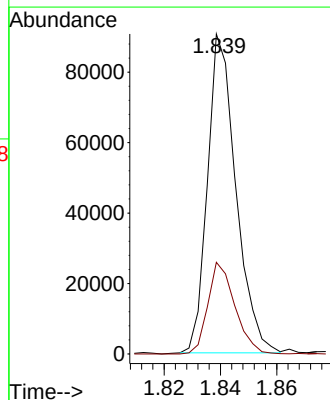
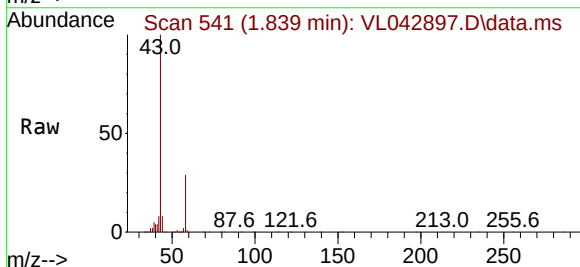
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MSVOA_L
ClientSampleId :

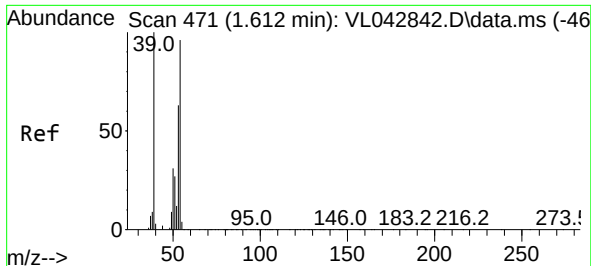
Tgt Ion: 45 Resp: 13239
Ion Ratio Lower Upper
45 100
46 38.8 17.5 69.9



#15
Acetone
Concen: 4.074 ppbv
RT: 1.839 min Scan# 541
Delta R.T. -0.000 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 43 Resp: 63502
Ion Ratio Lower Upper
43 100
58 27.4 22.4 33.6

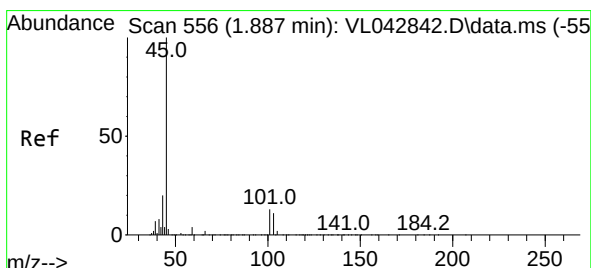
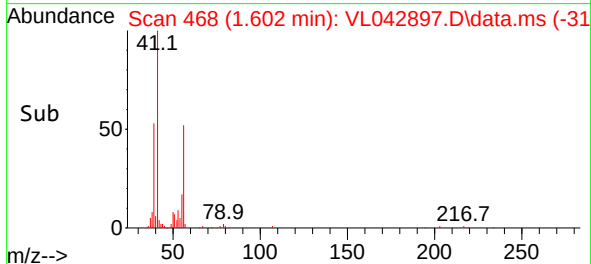
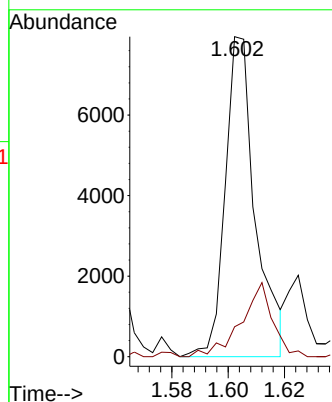
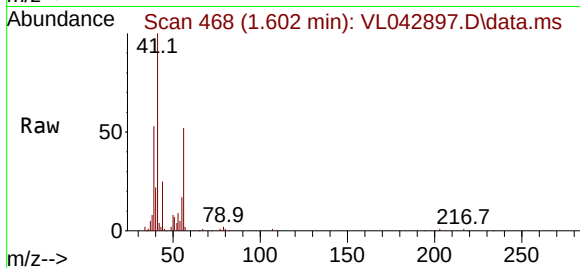




#16
1,3-Butadiene
Concen: 0.837 ppbv
RT: 1.602 min Scan# 41
Delta R.T. -0.010 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

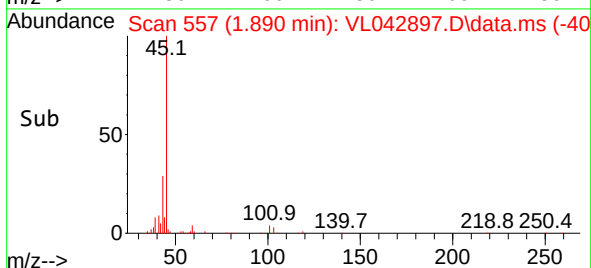
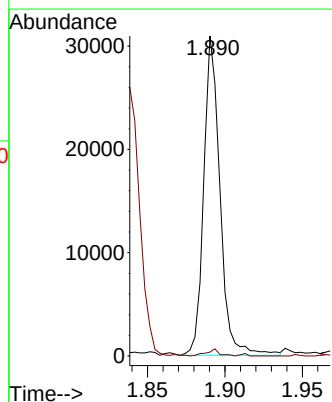
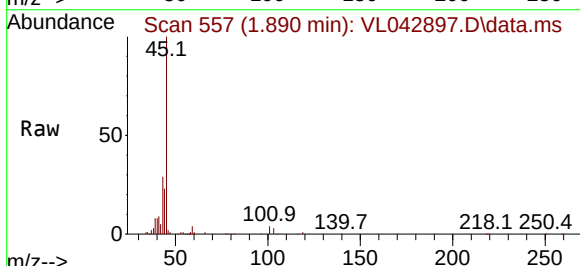
Instrument :
MSVOA_L
ClientSampleId :

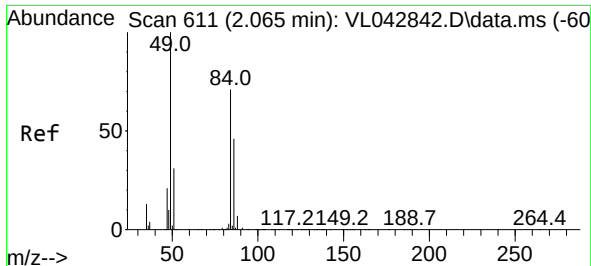
Tgt Ion: 39 Resp: 5916
Ion Ratio Lower Upper
39 100
54 25.8 63.6 95.4#



#19
Isopropyl Alcohol
Concen: 2.437 ppbv
RT: 1.890 min Scan# 557
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 45 Resp: 22694
Ion Ratio Lower Upper
45 100
58 76.6 32.7 49.1#

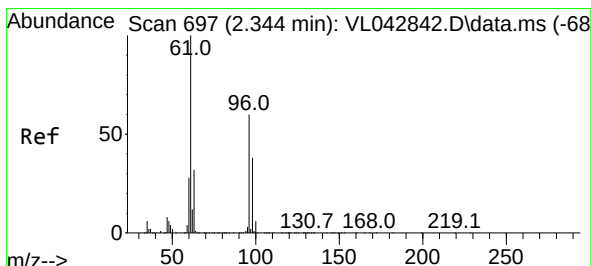
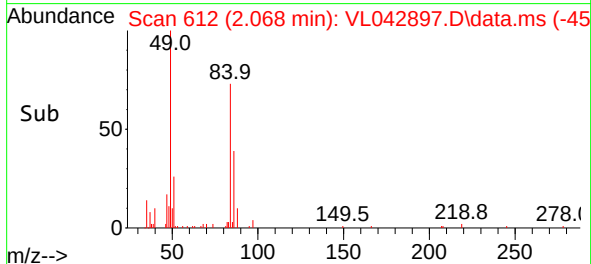
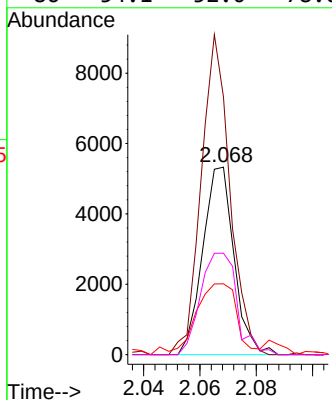
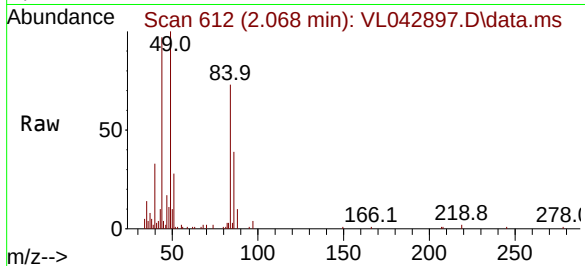




#20
Methylene Chloride
Concen: 0.631 ppbv
RT: 2.068 min Scan# 611
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

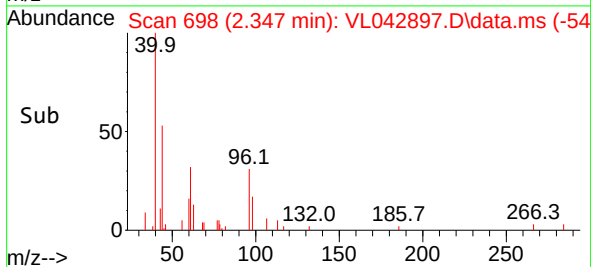
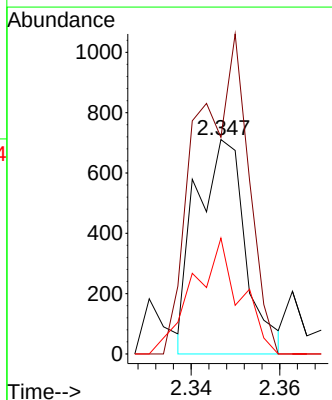
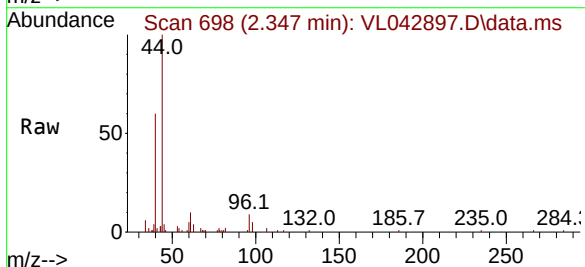
Instrument :
MSVOA_L
ClientSampleId :

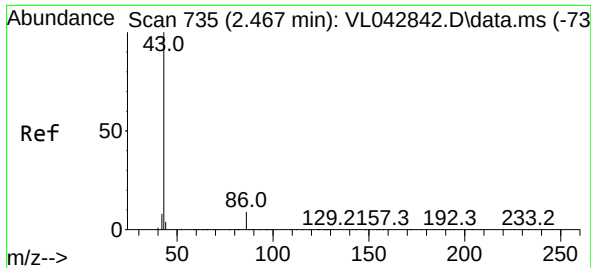
Tgt Ion:	84	Resp:	4121
Ion	Ratio	Lower	Upper
84	100		
49	134.2	112.3	168.5
51	35.8	36.0	54.0#
86	54.1	52.0	78.0



#22
trans-1,2-Dichloroethene
Concen: 0.079 ppbv
RT: 2.347 min Scan# 698
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

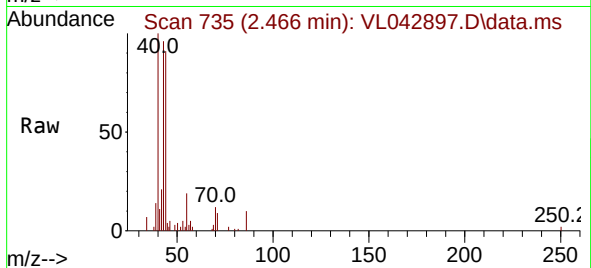
Tgt Ion:	96	Resp:	549
Ion	Ratio	Lower	Upper
96	100		
61	111.3	132.6	199.0#
98	59.5	50.0	75.0



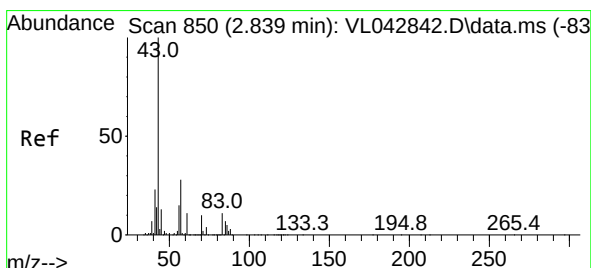
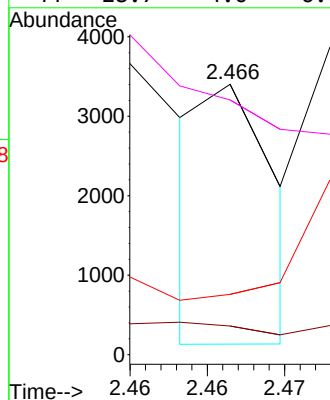
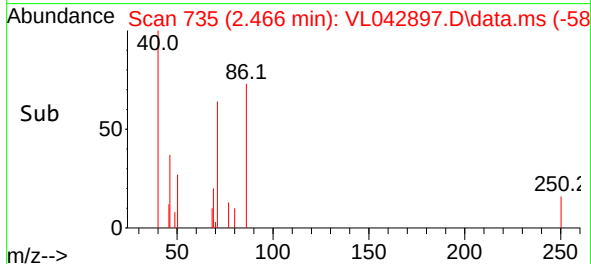


#23
 Vinyl Acetate
 Concen: 0.048 ppbv
 RT: 2.466 min Scan# 71
 Delta R.T. -0.000 min
 Lab File: VL042897.D
 Acq: 04 Sep 2025 19:18

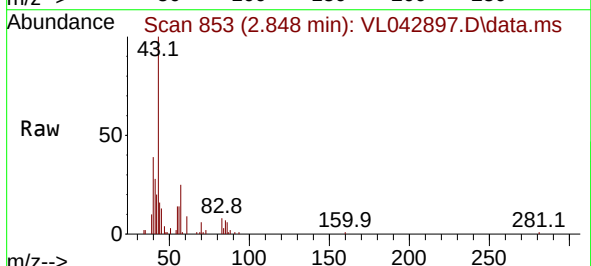
Instrument :
 MSVOA_L
 ClientSampleId :



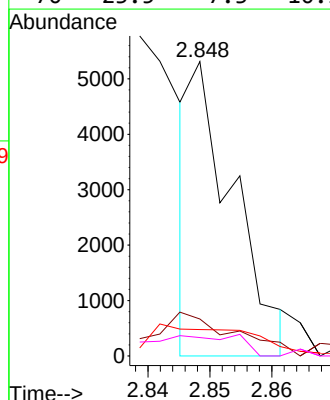
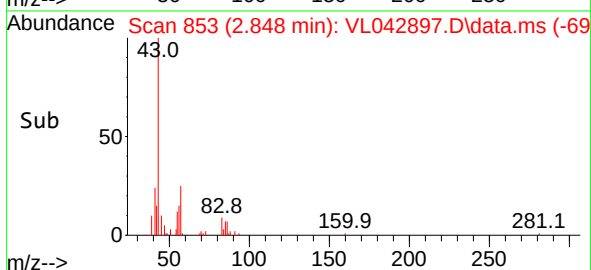
Tgt Ion:	43	Resp:	1022
Ion	Ratio	Lower	Upper
43	100		
86	8.7	6.6	9.8
42	5.8	7.0	10.6#
44	28.7	4.0	6.0#

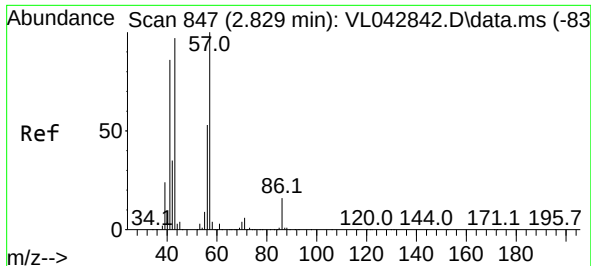


#25
 Ethyl Acetate
 Concen: 0.067 ppbv
 RT: 2.848 min Scan# 853
 Delta R.T. 0.010 min
 Lab File: VL042897.D
 Acq: 04 Sep 2025 19:18



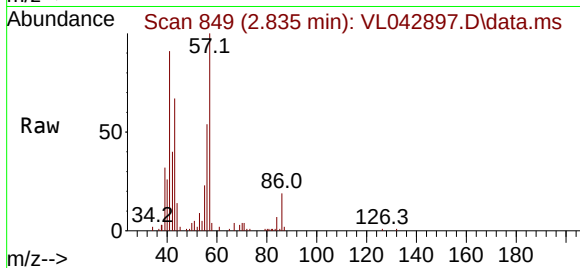
Tgt Ion:	43	Resp:	2545
Ion	Ratio	Lower	Upper
43	100		
45	37.6	8.1	12.1#
61	28.3	7.4	11.2#
70	23.5	7.3	10.9#



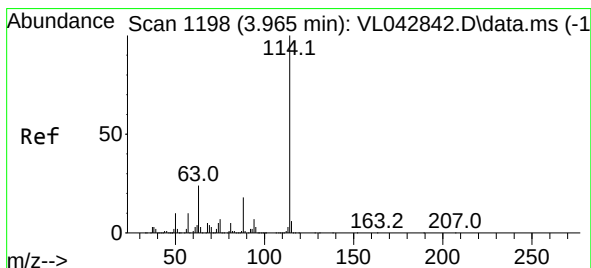
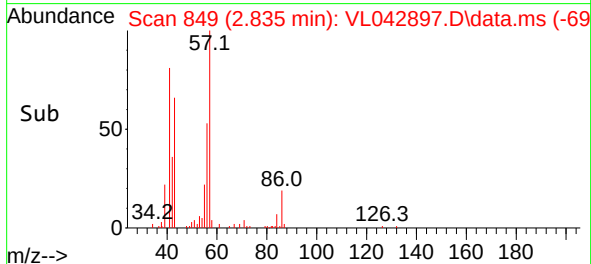
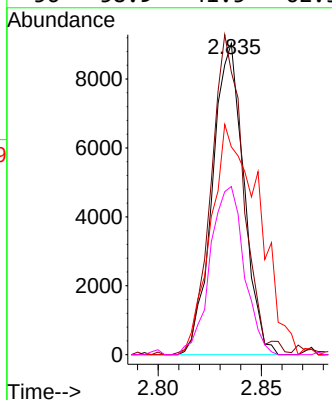


#26
Hexane
Concen: 0.548 ppbv
RT: 2.835 min Scan# 847
Delta R.T. 0.006 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Instrument :
MSVOA_L
ClientSampleId :

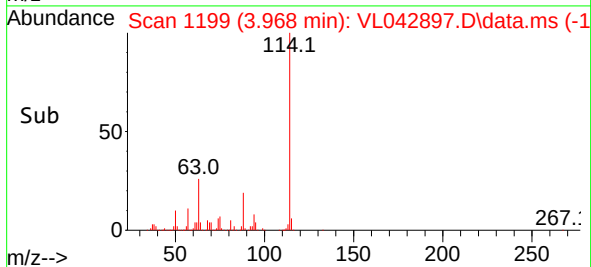
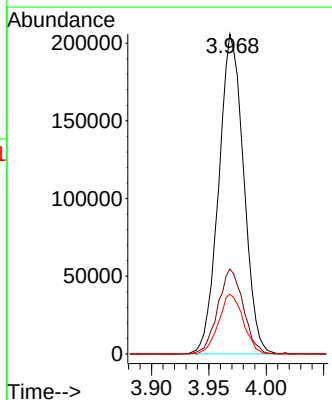
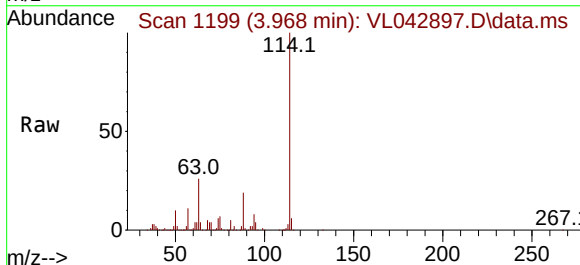


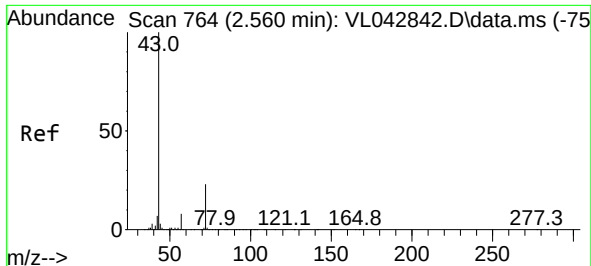
Tgt Ion: 57 Resp: 9544
Ion Ratio Lower Upper
57 100
41 107.9 68.6 103.0#
43 115.5 168.5 252.7#
56 58.9 41.5 62.3



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.968 min Scan# 1199
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 114 Resp: 310691
Ion Ratio Lower Upper
114 100
63 27.1 19.7 29.5
88 18.5 14.4 21.6

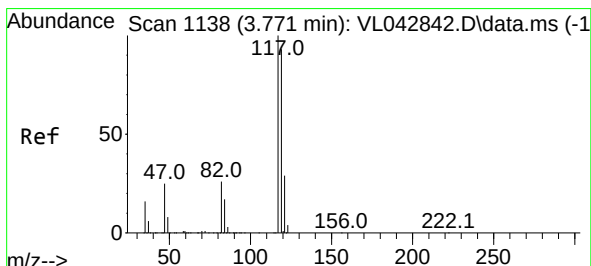
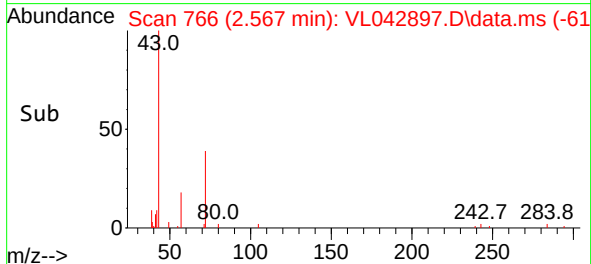
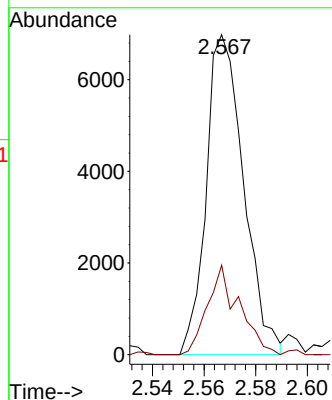
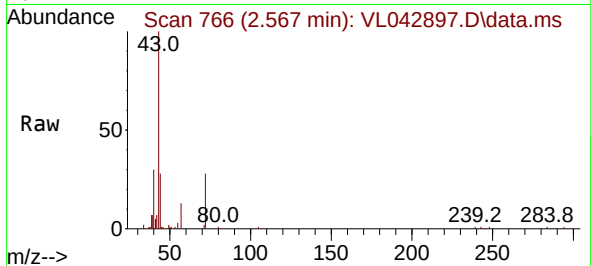




#34
2-Butanone
Concen: 0.335 ppbv
RT: 2.567 min Scan# 70
Delta R.T. 0.006 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

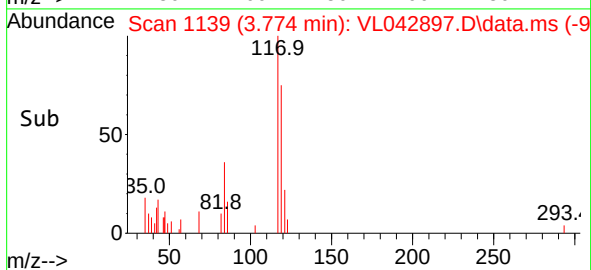
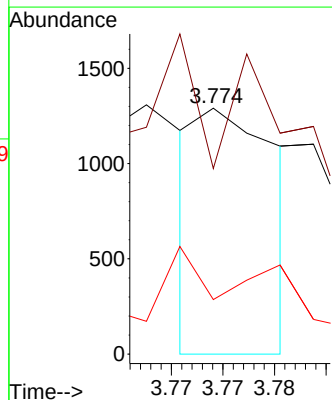
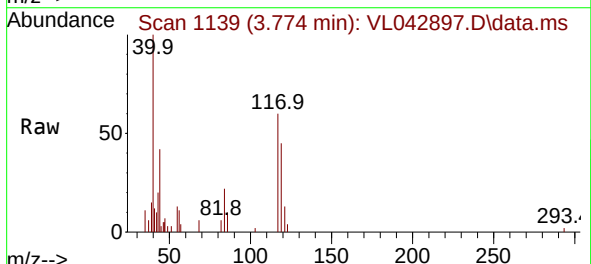
Instrument :
MSVOA_L
ClientSampleId :

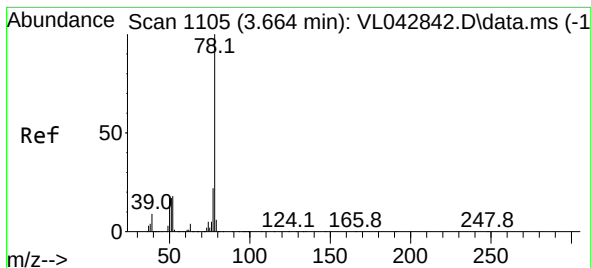
Tgt Ion: 43 Resp: 7029
Ion Ratio Lower Upper
43 100
72 24.3 18.6 28.0



#35
Carbon Tetrachloride
Concen: 0.032 ppbv
RT: 3.774 min Scan# 1139
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 117 Resp: 689
Ion Ratio Lower Upper
117 100
119 0.0 74.7 112.1#
121 0.0 23.2 34.8#





#36

Benzene

Concen: 0.369 ppbv

RT: 3.667 min Scan# 1106

Delta R.T. 0.003 min

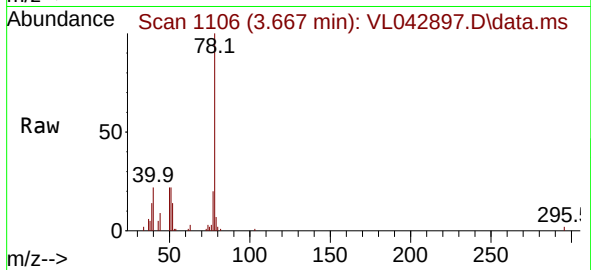
Lab File: VL042897.D

Acq: 04 Sep 2025 19:18

Instrument :

MSVOA_L

ClientSampleId :



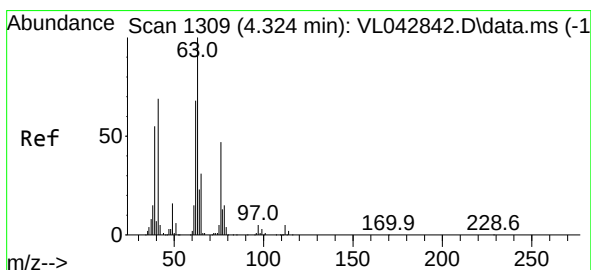
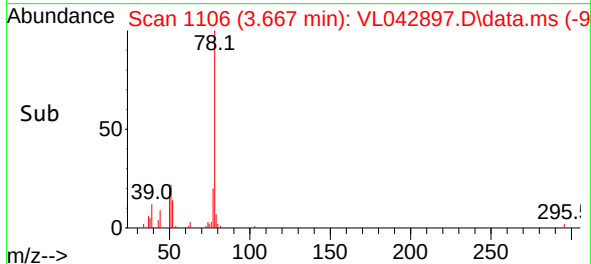
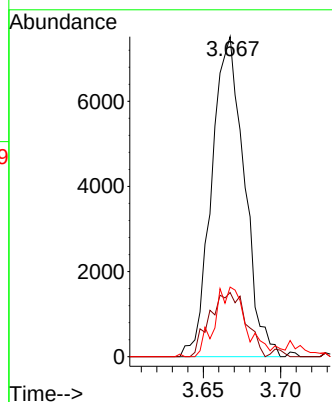
Tgt Ion: 78 Resp: 10979

Ion Ratio Lower Upper

78 100

77 20.1 17.7 26.5

50 21.0 13.9 20.9#



#39

1,2-Dichloropropane

Concen: 7.746 ppbv

RT: 3.968 min Scan# 1199

Delta R.T. -0.356 min

Lab File: VL042897.D

Acq: 04 Sep 2025 19:18

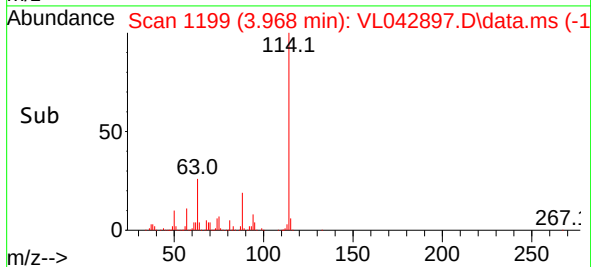
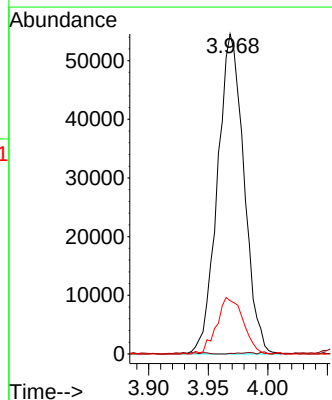
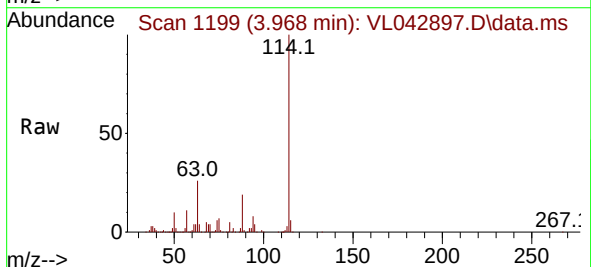
Tgt Ion: 63 Resp: 84166

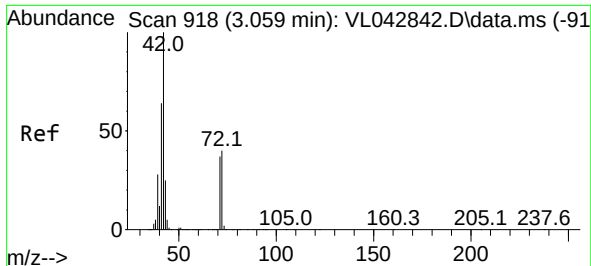
Ion Ratio Lower Upper

63 100

41 0.1 55.0 82.4#

62 16.6 54.4 81.6#

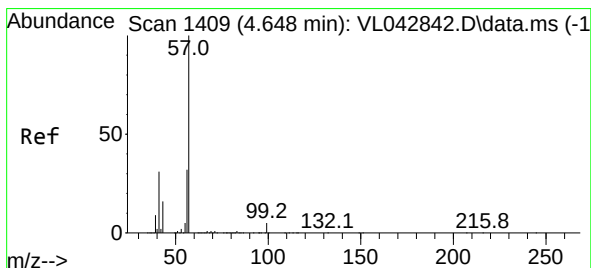
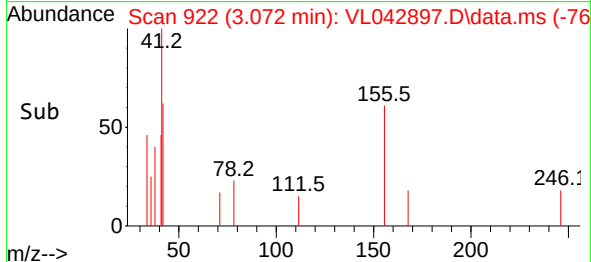
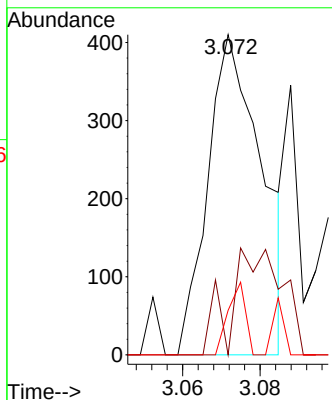
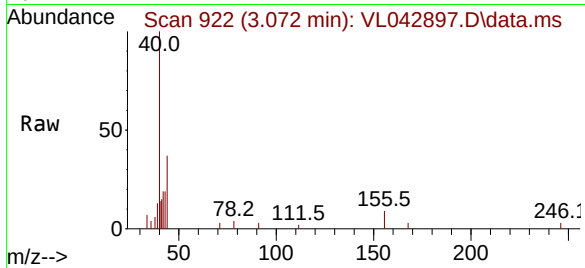




#41
Tetrahydrofuran
Concen: 0.034 ppbv
RT: 3.072 min Scan# 918
Delta R.T. 0.013 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

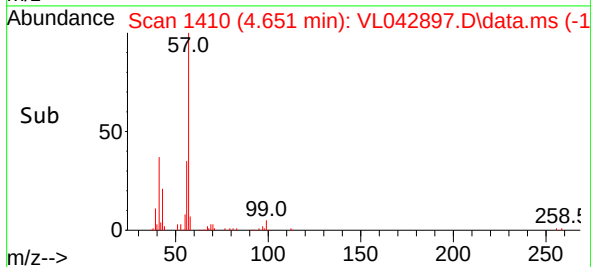
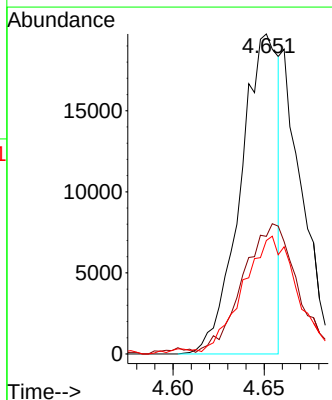
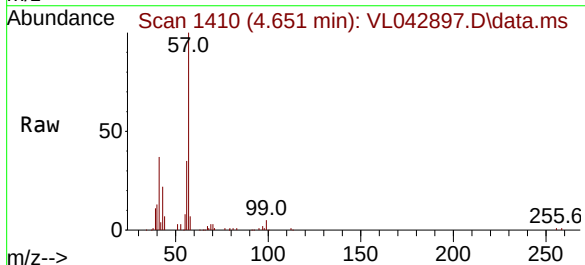
Instrument :
MSVOA_L
ClientSampleId :

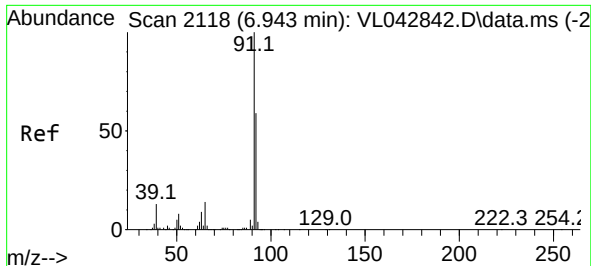
Tgt Ion: 42 Resp: 396
Ion Ratio Lower Upper
42 100
72 32.1 32.6 48.8#
71 10.9 30.0 45.0#



#44
2,2,4-Trimethylpentane
Concen: 0.564 ppbv
RT: 4.651 min Scan# 1410
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 57 Resp: 28470
Ion Ratio Lower Upper
57 100
41 60.8 24.8 37.2#
56 54.7 25.5 38.3#

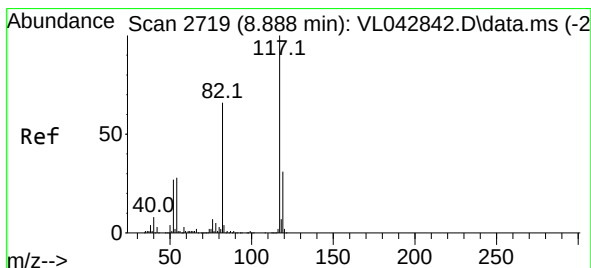
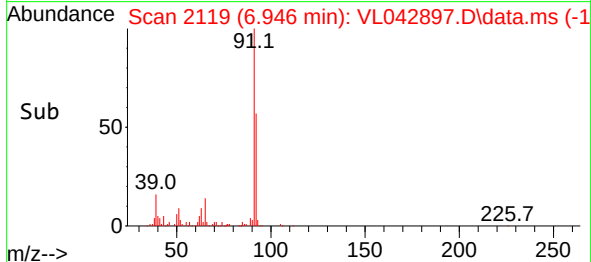
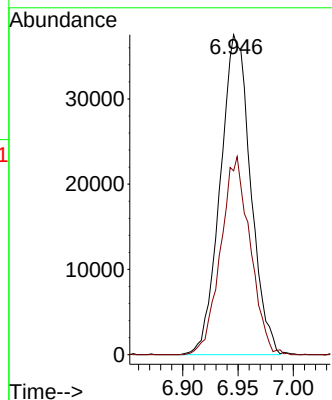
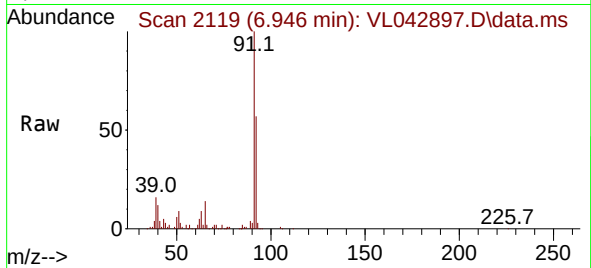




#53
Toluene
Concen: 2.029 ppbv
RT: 6.946 min Scan# 2118
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

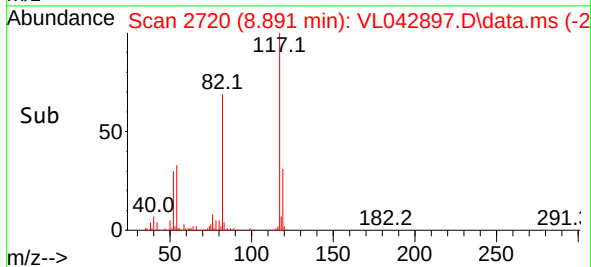
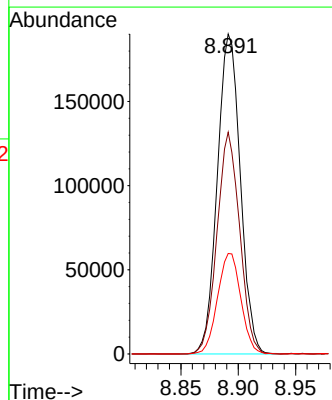
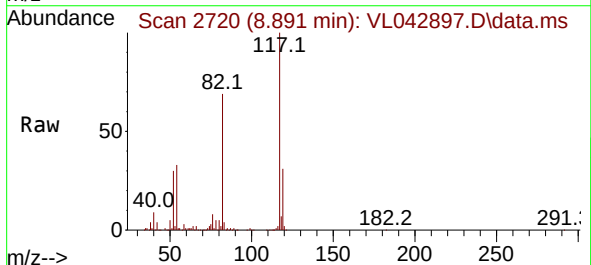
Instrument :
MSVOA_L
ClientSampleId :

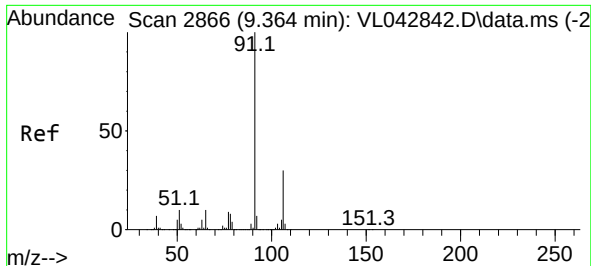
Tgt Ion: 91 Resp: 71772
Ion Ratio Lower Upper
91 100
92 60.0 47.8 71.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.891 min Scan# 2720
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 117 Resp: 265064
Ion Ratio Lower Upper
117 100
82 68.1 54.6 81.8
119 31.8 25.9 38.9

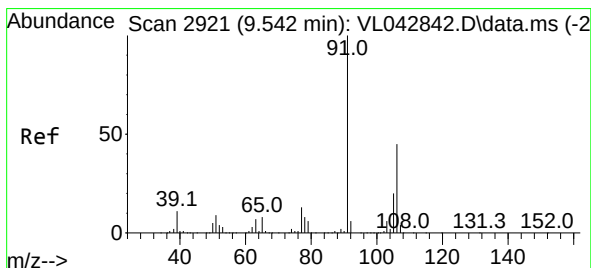
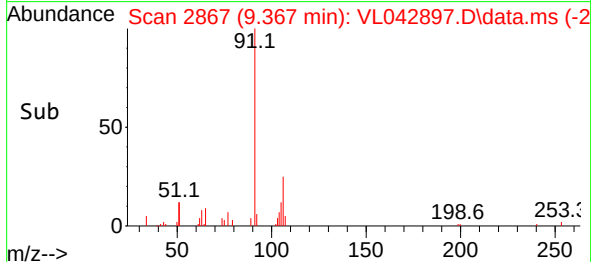
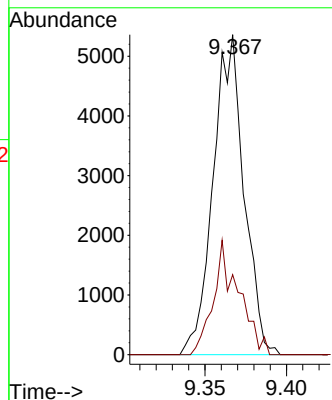
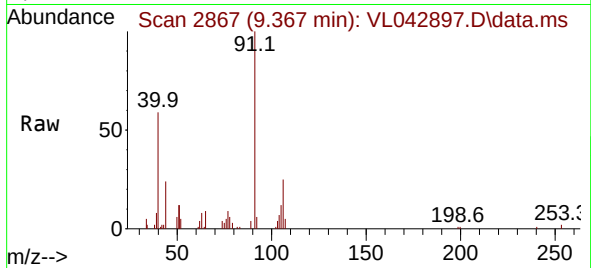




#58
Ethyl Benzene
Concen: 0.150 ppbv
RT: 9.367 min Scan# 2867
Delta R.T. 0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

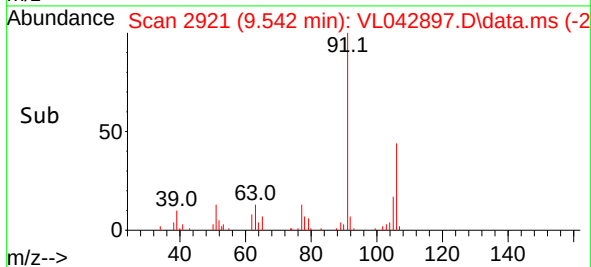
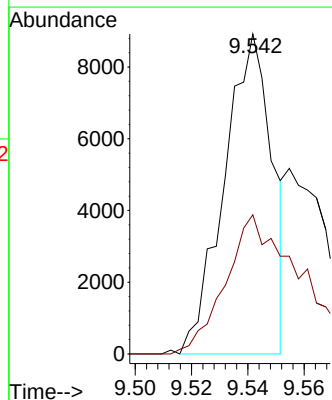
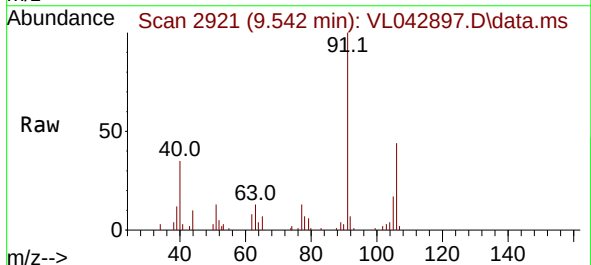
Instrument :
MSVOA_1
ClientSampleId :

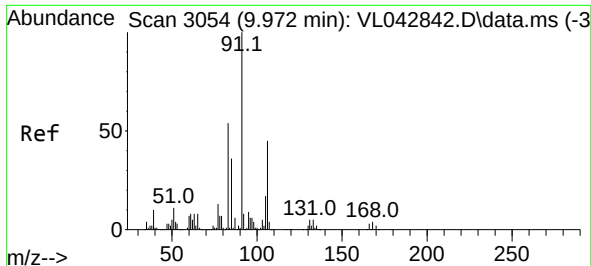
Tgt Ion: 91 Resp: 7037
Ion Ratio Lower Upper
91 100
106 25.0 23.9 35.9



#59
m/p-Xylene
Concen: 0.288 ppbv
RT: 9.542 min Scan# 2921
Delta R.T. -0.000 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 91 Resp: 10557
Ion Ratio Lower Upper
91 100
106 67.1 0.0 0.0#

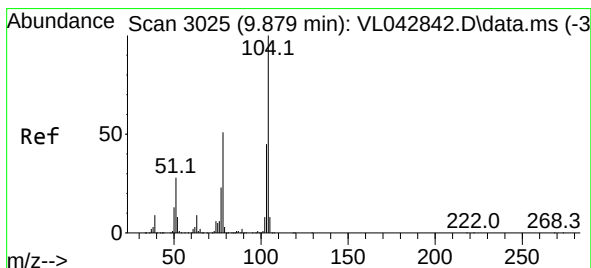
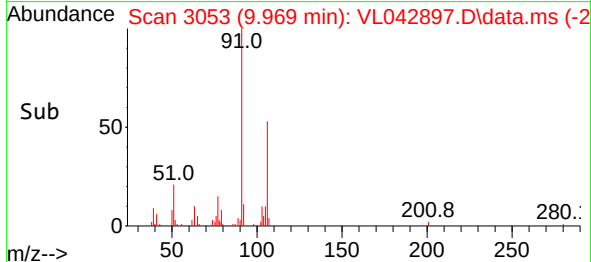
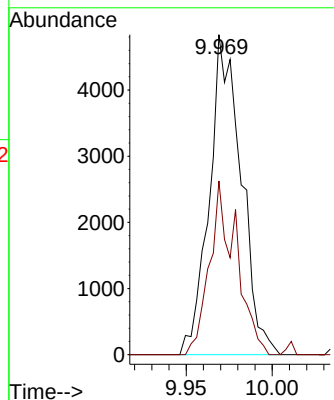
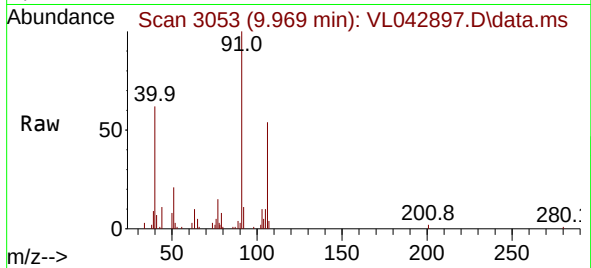




#60
o-Xylene
Concen: 0.168 ppbv
RT: 9.969 min Scan# 3053
Delta R.T. -0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

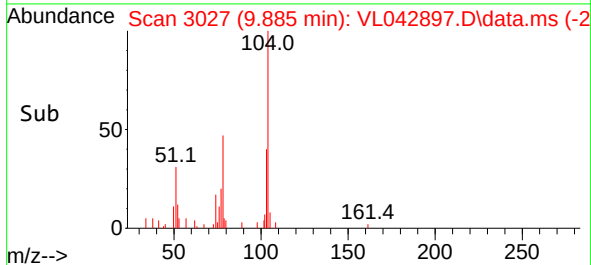
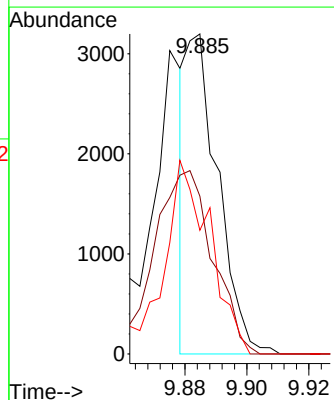
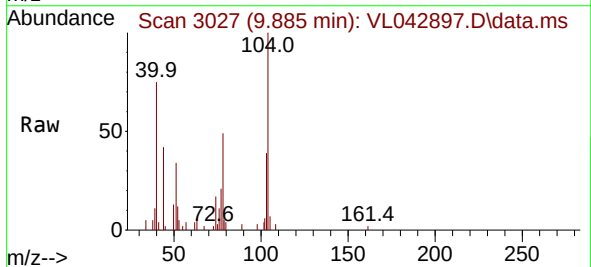
Instrument :
MSVOA_L
ClientSampleId :

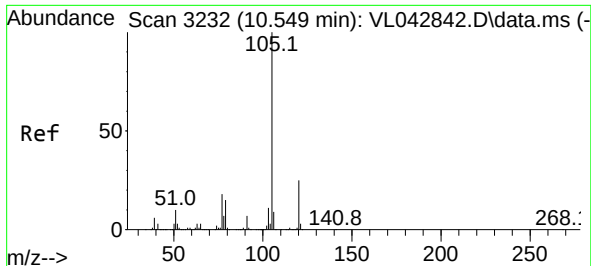
Tgt Ion: 91 Resp: 6210
Ion Ratio Lower Upper
91 100
106 46.6 21.8 65.4



#61
Styrene
Concen: 0.131 ppbv
RT: 9.885 min Scan# 3027
Delta R.T. 0.006 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

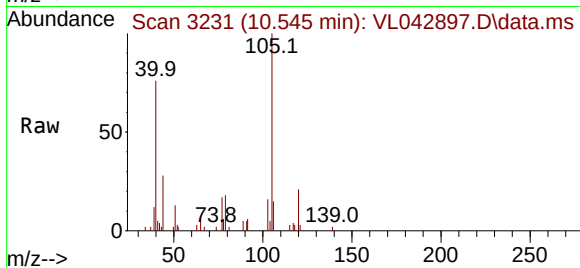
Tgt Ion: 104 Resp: 2260
Ion Ratio Lower Upper
104 100
78 107.9 40.6 61.0#
103 89.7 37.7 56.5#



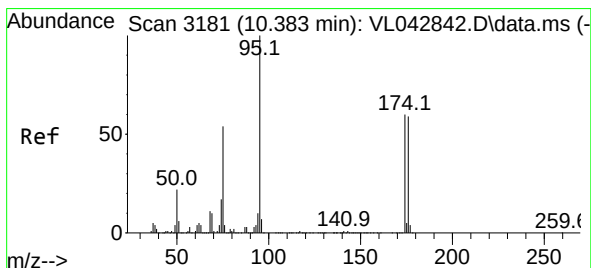
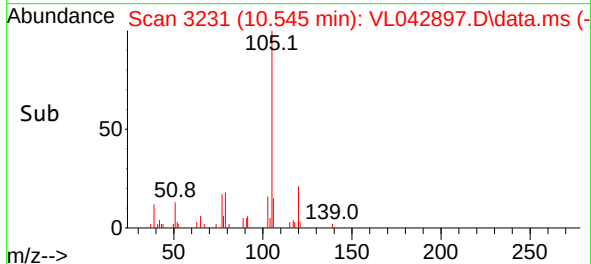
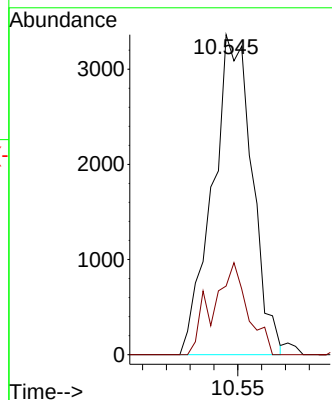


#62
Isopropylbenzene
Concen: 0.072 ppbv
RT: 10.545 min Scan# 31
Delta R.T. -0.003 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Instrument :
MSVOA_L
ClientSampleId :

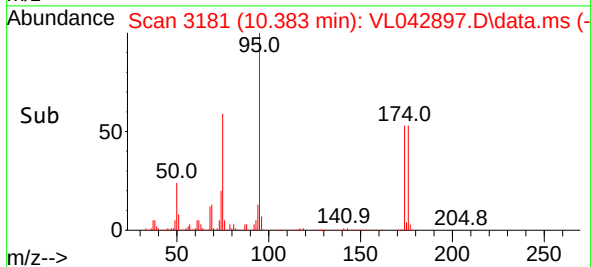
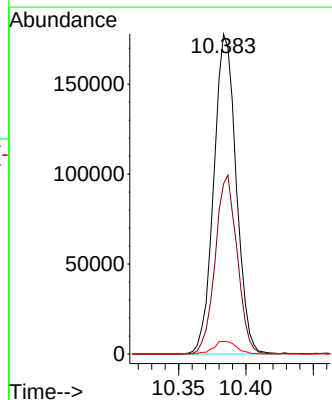
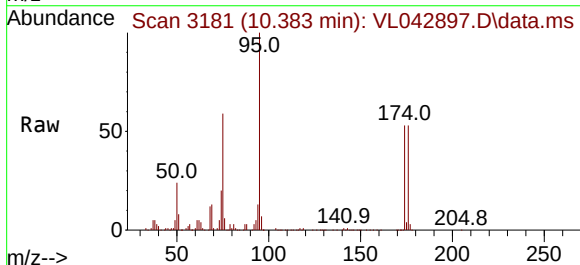


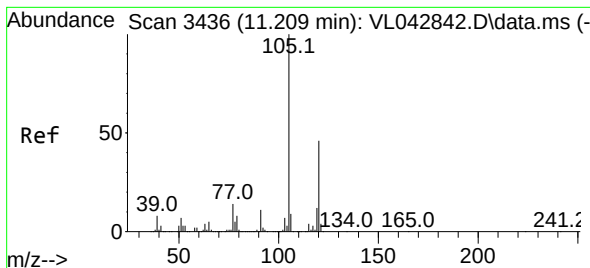
Tgt Ion:105 Resp: 3881
Ion Ratio Lower Upper
105 100
120 25.3 20.6 30.8



#68
1-Bromo-4-Fluorobenzene
Concen: 10.351 ppbv
RT: 10.383 min Scan# 3181
Delta R.T. -0.000 min
Lab File: VL042897.D
Acq: 04 Sep 2025 19:18

Tgt Ion: 95 Resp: 205770
Ion Ratio Lower Upper
95 100
174 54.8 48.4 72.6
175 4.1 3.8 5.8





#73

1,3,5-Trimethylbenzene

Concen: 0.046 ppbv

RT: 11.209 min Scan# 3436

Delta R.T. -0.000 min

Lab File: VL042897.D

Acq: 04 Sep 2025 19:18

Instrument :

MSVOA_L

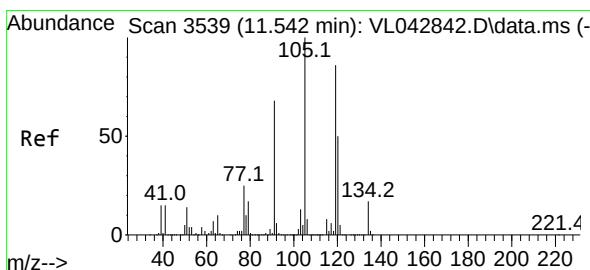
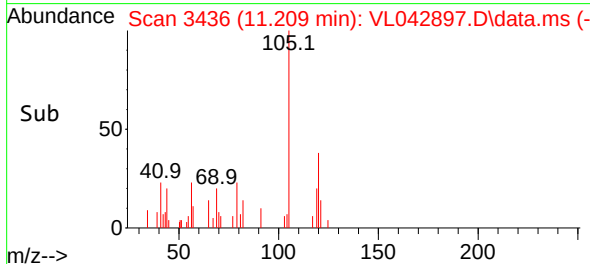
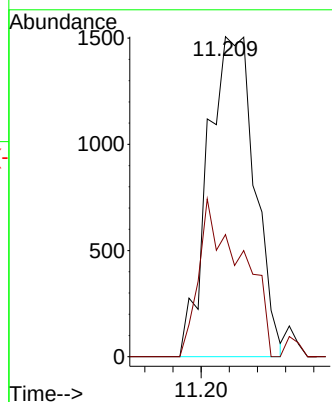
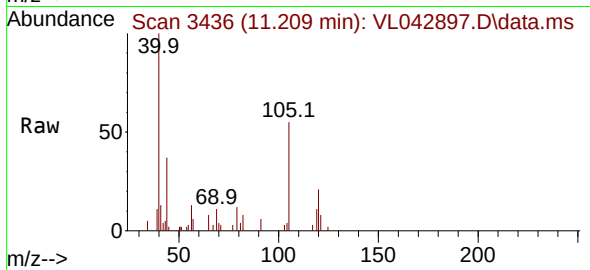
ClientSampleId :

Tgt Ion:105 Resp: 1739

Ion Ratio Lower Upper

105 100

120 38.2 36.6 54.8



#74

1,2,4-Trimethylbenzene

Concen: 0.148 ppbv

RT: 11.542 min Scan# 3539

Delta R.T. -0.000 min

Lab File: VL042897.D

Acq: 04 Sep 2025 19:18

Tgt Ion:105 Resp: 6178

Ion Ratio Lower Upper

105 100

120 35.2 39.8 59.6#

91 21.6 54.2 81.4#

77 16.6 19.8 29.6#

