

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042925\
 Data File : VL042451.D
 Acq On : 29 Apr 2025 17:37
 Operator : SY/MD
 Sample : Q1665-07DL 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-1-3242025DL

Quant Time: Apr 30 01:23:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 18 02:14:00 2025
 Response via : Initial Calibration

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

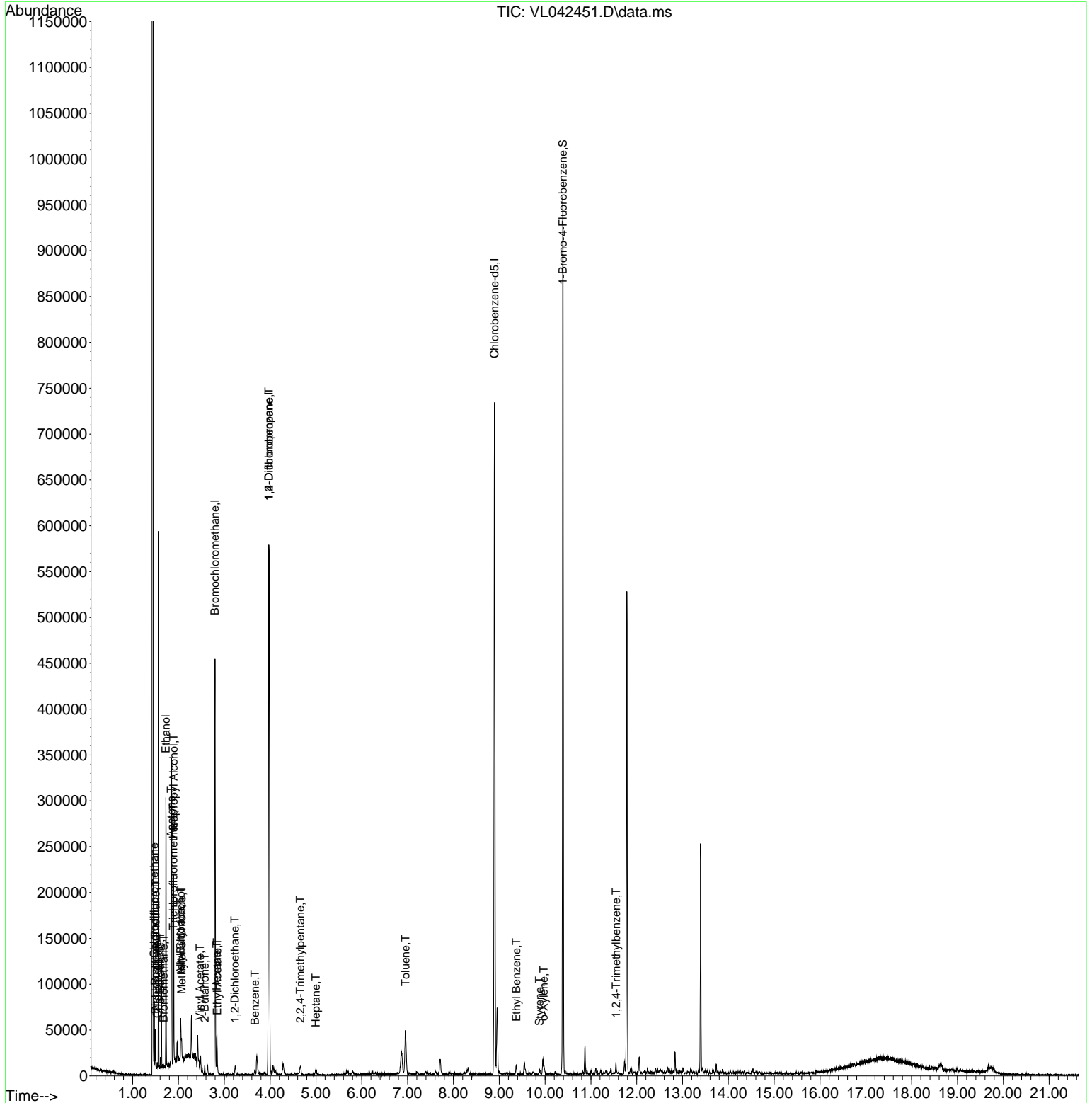
Internal Standards						
1) Bromochloromethane	2.797	49	116268	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.972	114	307149	10.000	ppbv	0.01
55) Chlorobenzene-d5	8.895	117	260772	10.000	ppbv	0.01
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.390	95	230005	10.733	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.300%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.502	85	2557	0.124	ppbv	93
3) Chlorodifluoromethane	1.470	51	16756	0.857	ppbv #	61
4) Chloromethane	1.535	50	1596	0.196	ppbv #	69
6) Bromomethane	1.680	94	149	0.039	ppbv #	8
9) Propene	1.492	41	3728	0.418	ppbv	89
10) Heptane	4.994	43	838	0.033	ppbv #	1
11) Trichlorofluoromethane	1.887	101	1551	0.079	ppbv #	62
13) Ethanol	1.725	45	99875	70.537	ppbv	75
15) Acetone	1.842	43	107854	5.667	ppbv #	81
16) 1,3-Butadiene	1.606	39	1522	0.167	ppbv #	46
17) tert-Butyl alcohol	2.049	59	16691	0.708	ppbv #	88
19) Isopropyl Alcohol	1.894	45	84766	8.017	ppbv #	36
20) Methylene Chloride	2.069	84	3055	0.410	ppbv #	91
21) Allyl Chloride	2.049	41	5640	0.429	ppbv #	78
23) Vinyl Acetate	2.470	43	2885	0.374	ppbv #	50
25) Ethyl Acetate	2.849	43	2944	0.063	ppbv #	73
26) Hexane	2.839	57	7600	0.400	ppbv #	41
34) 2-Butanone	2.570	43	5426	0.223	ppbv	96
36) Benzene	3.671	78	3299	0.100	ppbv	95
37) 1,2-Dichloroethane	3.234	62	2395	0.120	ppbv #	87
39) 1,2-Dichloropropane	3.972	63	87837	7.115	ppbv #	23
44) 2,2,4-Trimethylpentane	4.658	57	4356	0.076	ppbv #	30
53) Toluene	6.956	91	32058	0.806	ppbv	99
58) Ethyl Benzene	9.374	91	1871	0.036	ppbv	93
60) o-Xylene	9.972	91	3798	0.091	ppbv	98
61) Styrene	9.882	104	1303	0.065	ppbv	95
74) 1,2,4-Trimethylbenzene	11.549	105	3330	0.063	ppbv #	59

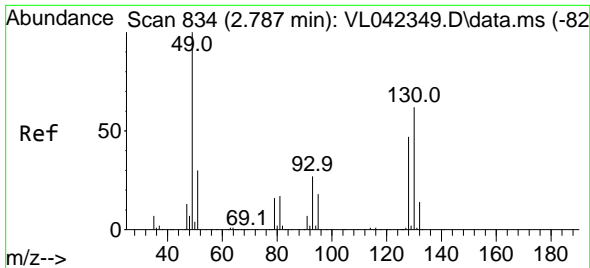
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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 IA-DUP-1-3242025DL

Quant Time: Apr 30 01:23:43 2025
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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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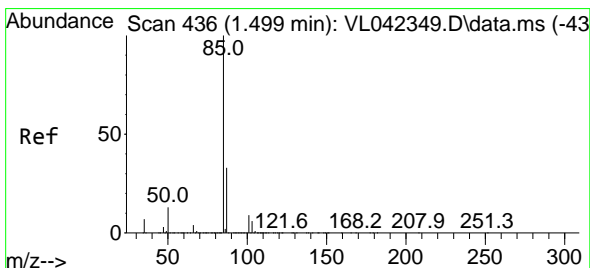
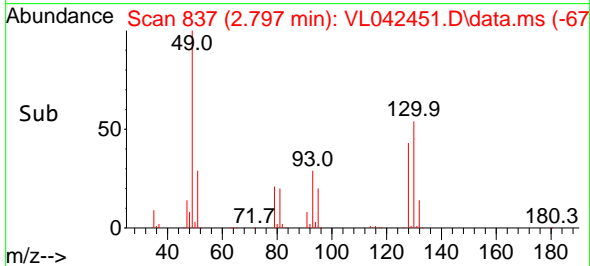
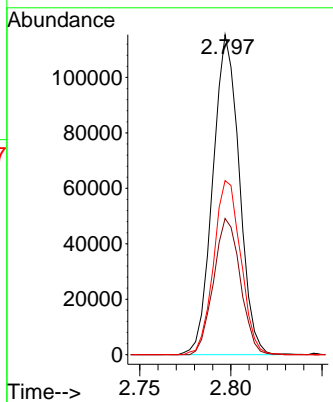
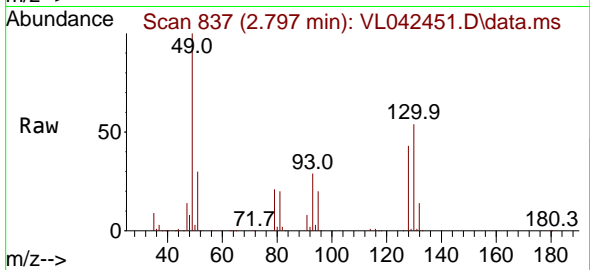




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.797 min Scan# 81
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

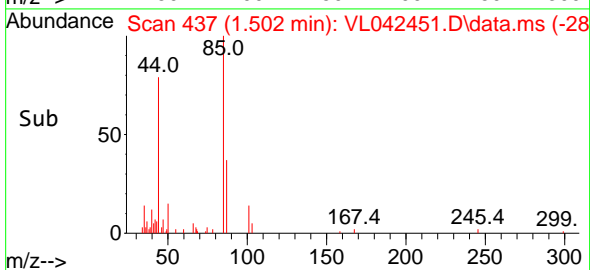
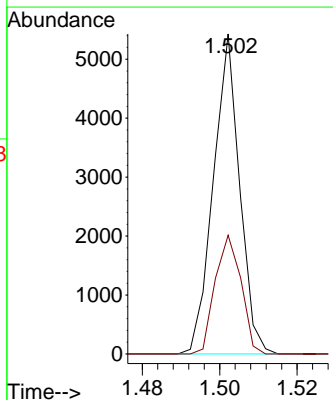
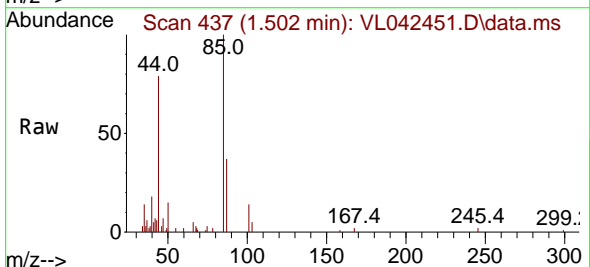
Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

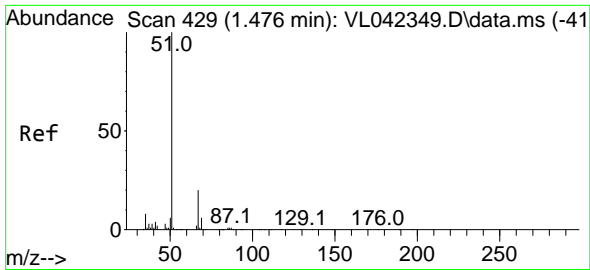
Tgt Ion: 49 Resp: 116268
 Ion Ratio Lower Upper
 49 100
 128 43.0 22.8 68.4
 130 55.7 29.3 88.0



#2
 Dichlorodifluoromethane
 Concen: 0.124 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.003 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 85 Resp: 2557
 Ion Ratio Lower Upper
 85 100
 87 37.1 26.6 39.8

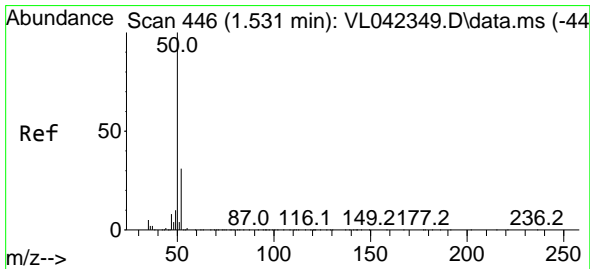
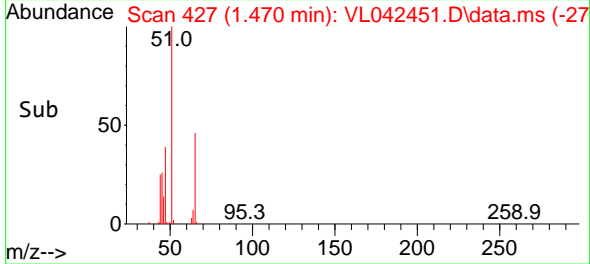
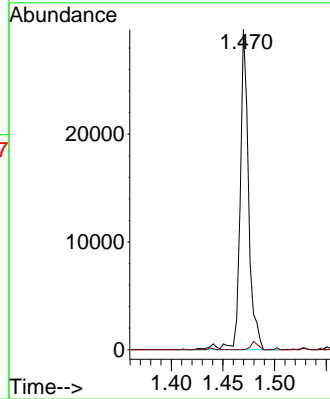
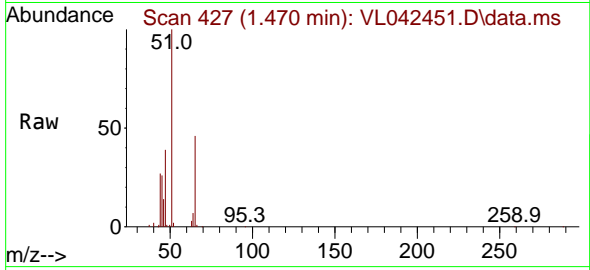




#3
 Chlorodifluoromethane
 Concen: 0.857 ppbv
 RT: 1.470 min Scan# 41
 Delta R.T. -0.006 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

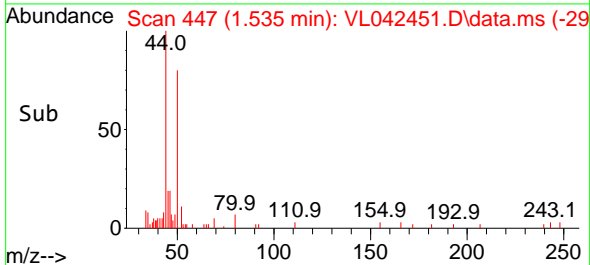
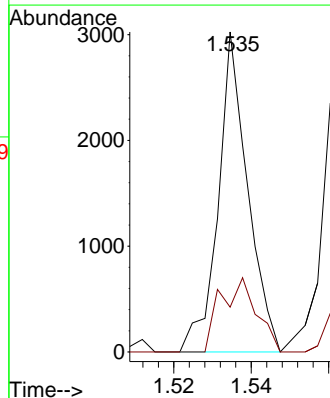
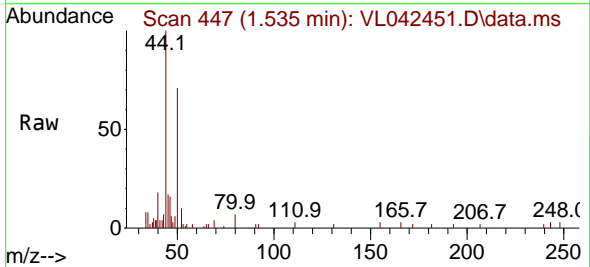
Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

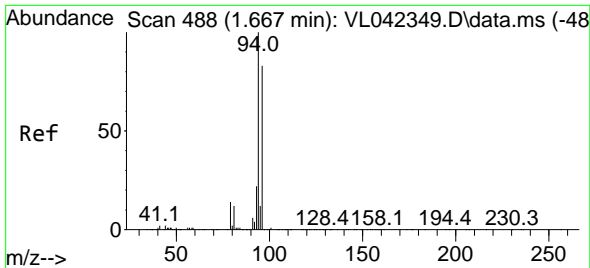
Tgt Ion: 51 Resp: 16756
 Ion Ratio Lower Upper
 51 100
 67 2.3 16.2 24.4#



#4
 Chloromethane
 Concen: 0.196 ppbv
 RT: 1.535 min Scan# 447
 Delta R.T. 0.003 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 50 Resp: 1596
 Ion Ratio Lower Upper
 50 100
 52 14.0 24.7 37.1#

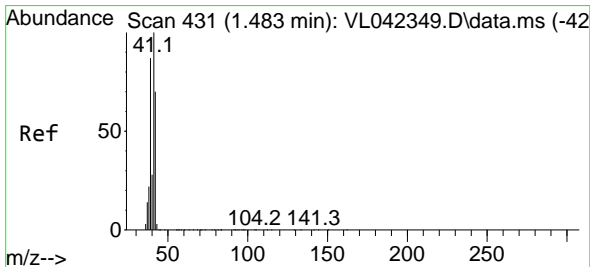
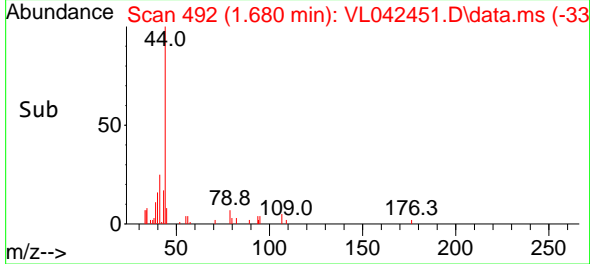
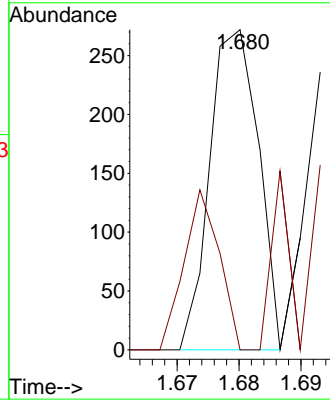
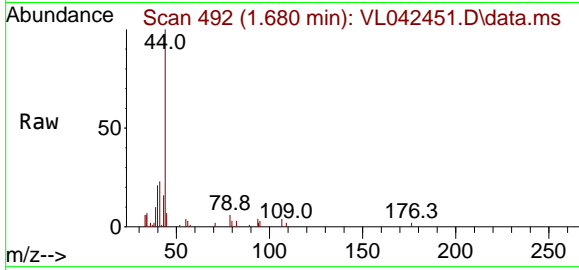




#6
 Bromomethane
 Concen: 0.039 ppbv
 RT: 1.680 min Scan# 491
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

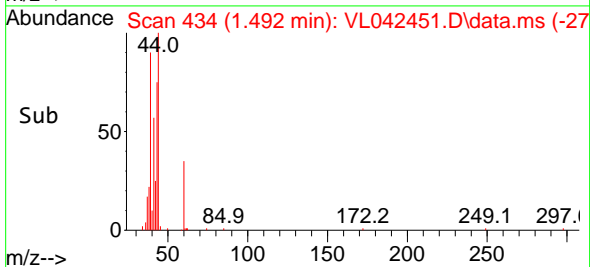
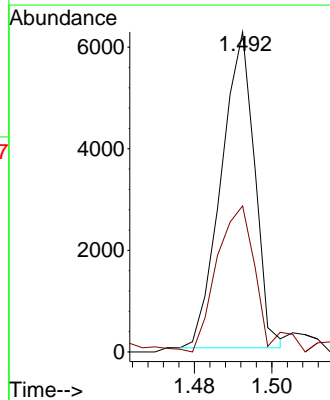
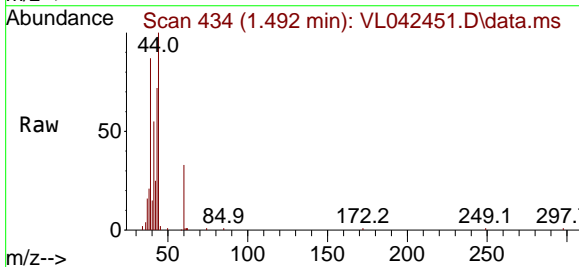
Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

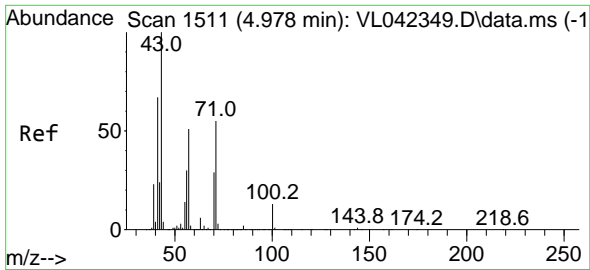
Tgt Ion: 94 Resp: 149
 Ion Ratio Lower Upper
 94 100
 96 0.0 66.2 99.2#



#9
 Propene
 Concen: 0.418 ppbv
 RT: 1.492 min Scan# 434
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

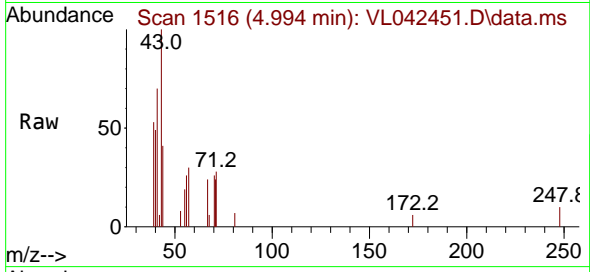
Tgt Ion: 41 Resp: 3728
 Ion Ratio Lower Upper
 41 100
 42 61.4 56.2 84.4



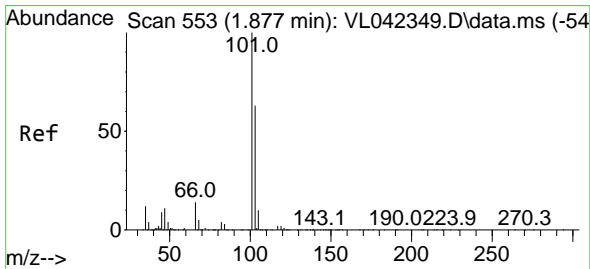
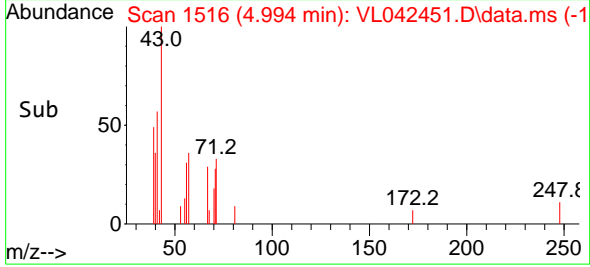
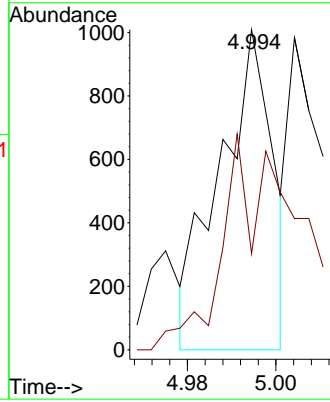


#10
 Heptane
 Concen: 0.033 ppbv
 RT: 4.994 min Scan# 11
 Delta R.T. 0.016 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-1-3242025DL

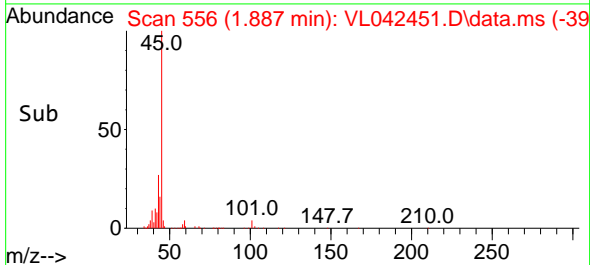
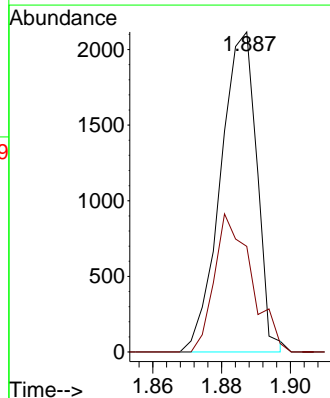
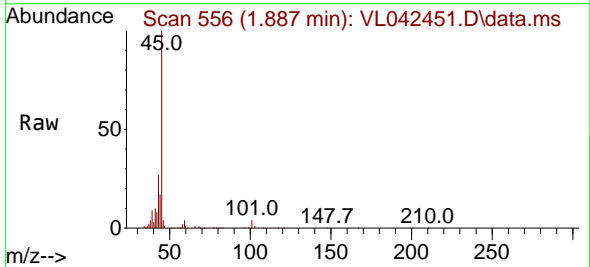


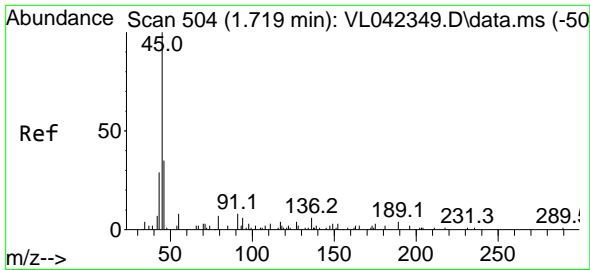
Tgt Ion: 43 Resp: 838
 Ion Ratio Lower Upper
 43 100
 57 118.3 39.9 59.9#



#11
 Trichlorofluoromethane
 Concen: 0.079 ppbv
 RT: 1.887 min Scan# 556
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 101 Resp: 1551
 Ion Ratio Lower Upper
 101 100
 103 33.0 50.1 75.1#

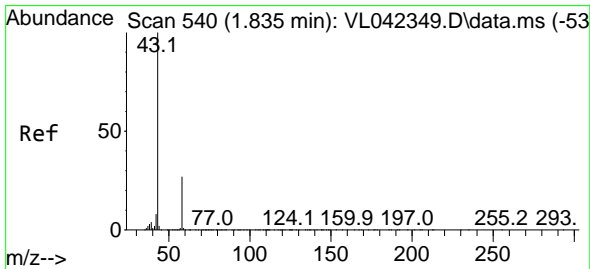
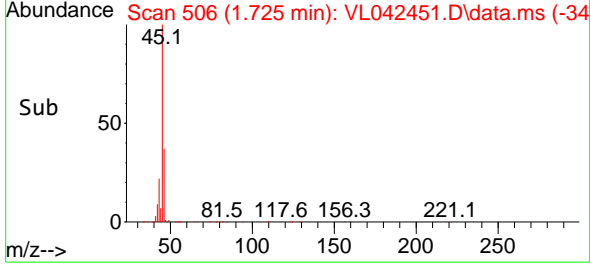
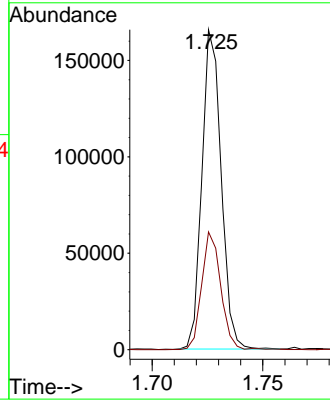
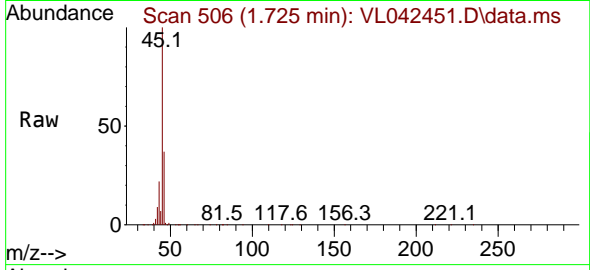




#13
 Ethanol
 Concen: 70.537 ppbv
 RT: 1.725 min Scan# 504
 Delta R.T. 0.007 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

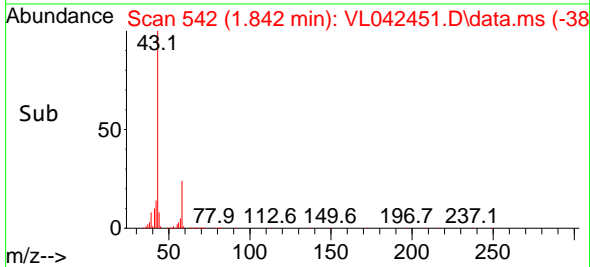
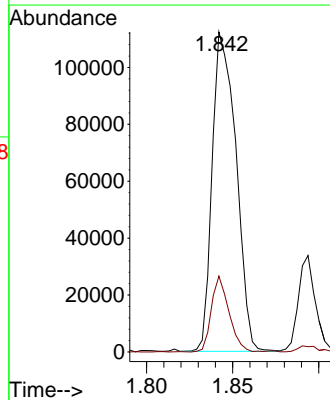
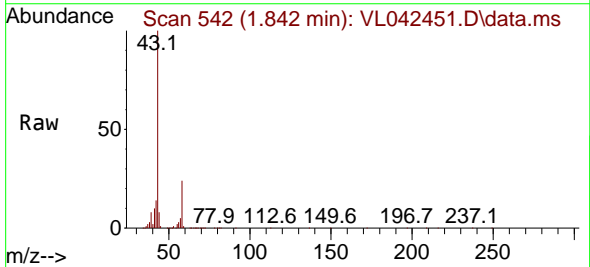
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-1-3242025DL

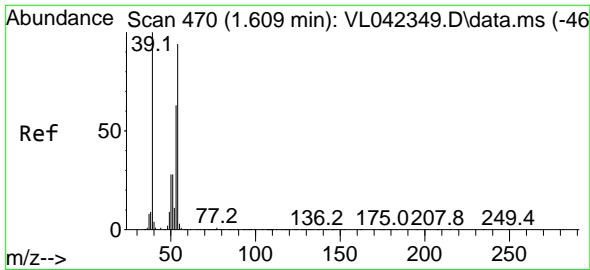
Tgt Ion: 45 Resp: 99875
 Ion Ratio Lower Upper
 45 100
 46 36.8 21.9 87.7



#15
 Acetone
 Concen: 5.667 ppbv
 RT: 1.842 min Scan# 542
 Delta R.T. 0.007 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 43 Resp: 107854
 Ion Ratio Lower Upper
 43 100
 58 17.9 22.4 33.6#

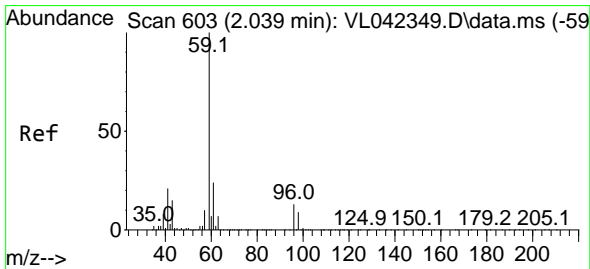
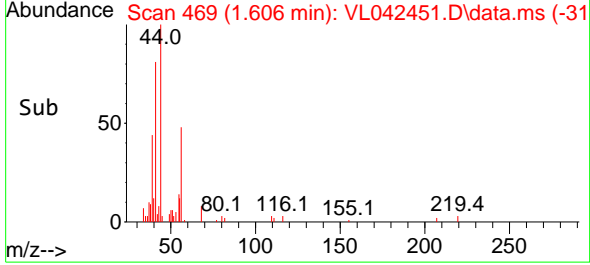
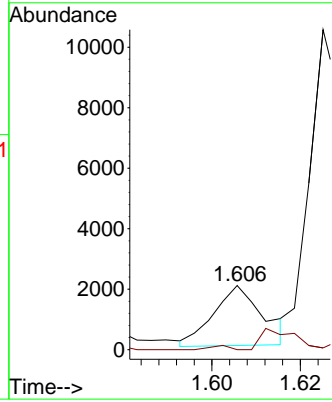
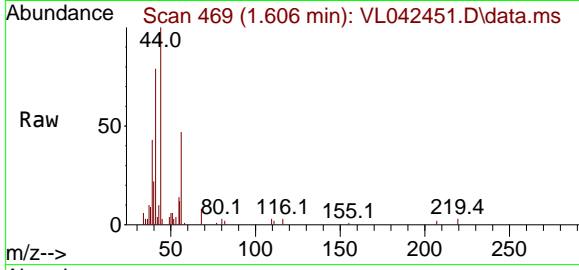




#16
 1,3-Butadiene
 Concen: 0.167 ppbv
 RT: 1.606 min Scan# 40
 Delta R.T. -0.003 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

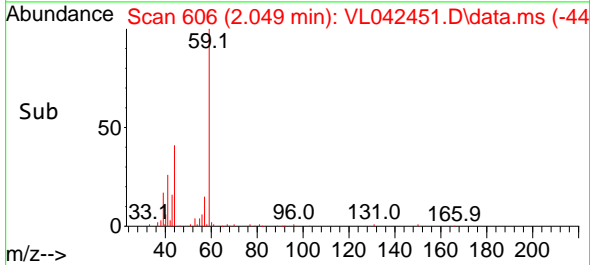
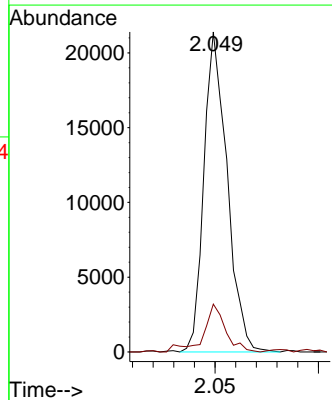
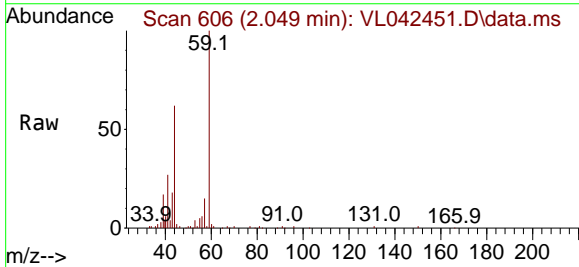
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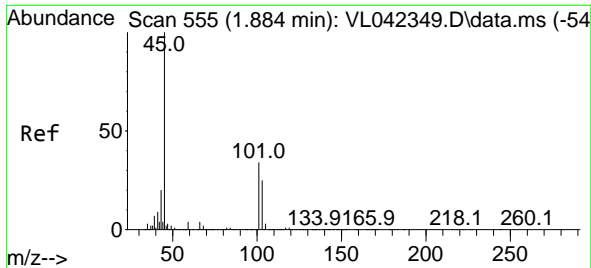
Tgt Ion: 39 Resp: 1522
 Ion Ratio Lower Upper
 39 100
 54 33.4 64.9 97.3#



#17
 tert-Butyl alcohol
 Concen: 0.708 ppbv
 RT: 2.049 min Scan# 606
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 59 Resp: 16691
 Ion Ratio Lower Upper
 59 100
 57 15.5 8.7 13.1#

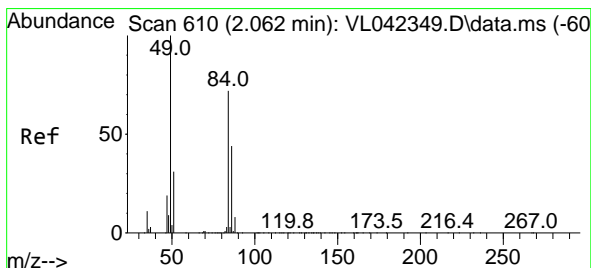
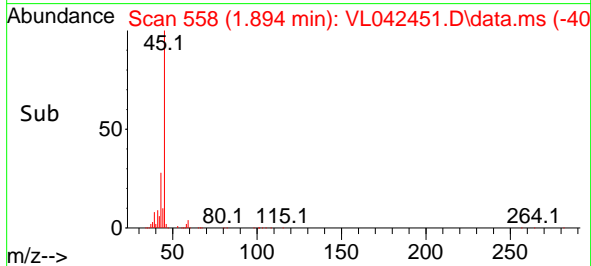
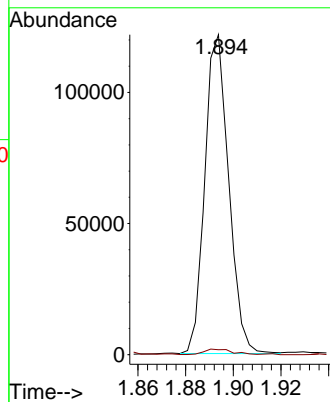
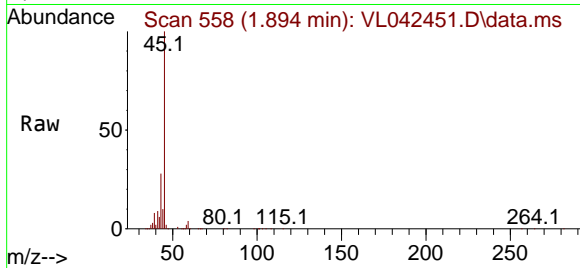




#19
 Isopropyl Alcohol
 Concen: 8.017 ppbv
 RT: 1.894 min Scan# 51
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

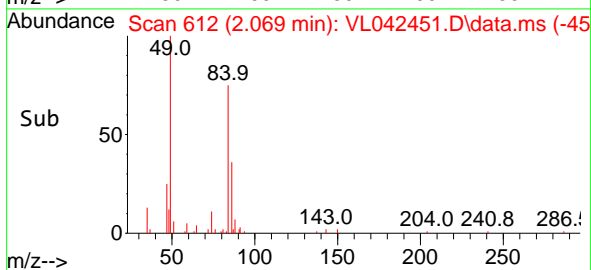
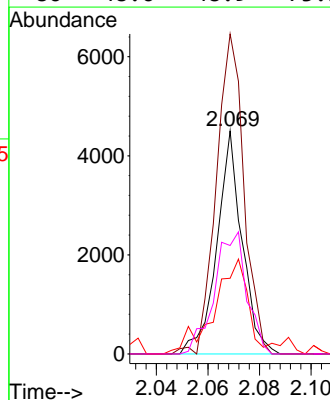
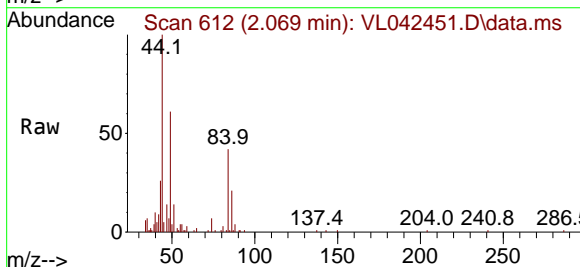
Instrument : MSVOA_L
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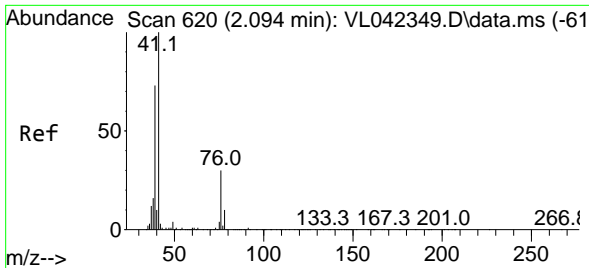
Tgt Ion: 45 Resp: 84766
 Ion Ratio Lower Upper
 45 100
 58 2.1 34.5 51.7#



#20
 Methylene Chloride
 Concen: 0.410 ppbv
 RT: 2.069 min Scan# 612
 Delta R.T. 0.007 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 84 Resp: 3055
 Ion Ratio Lower Upper
 84 100
 49 143.5 111.6 167.4
 51 31.2 35.1 52.7#
 86 48.6 48.9 73.3#



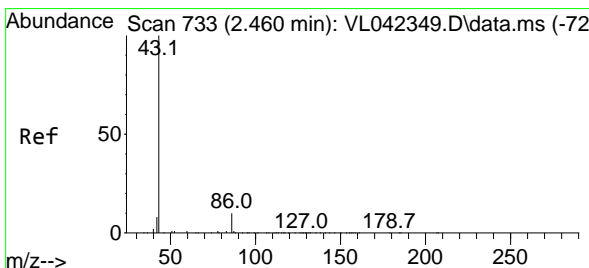
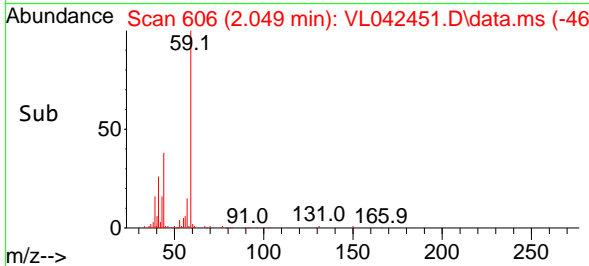
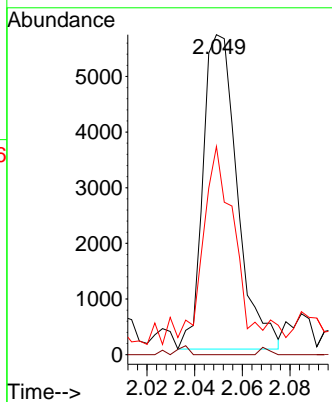
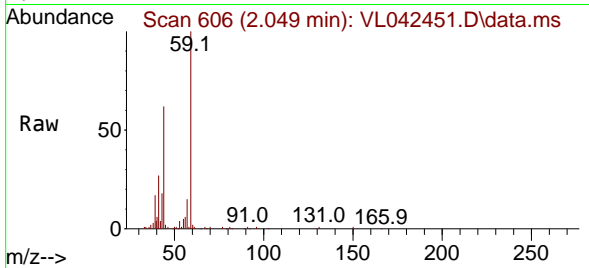


#21
 Allyl Chloride
 Concen: 0.429 ppbv
 RT: 2.049 min Scan# 606
 Delta R.T. -0.045 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

Tgt Ion: 41 Resp: 5640

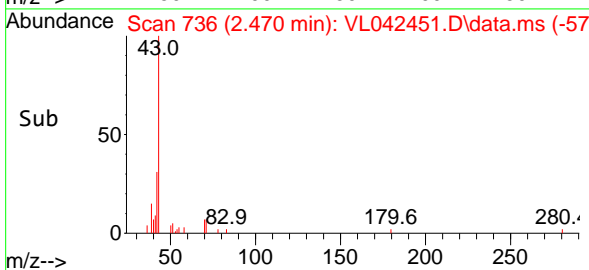
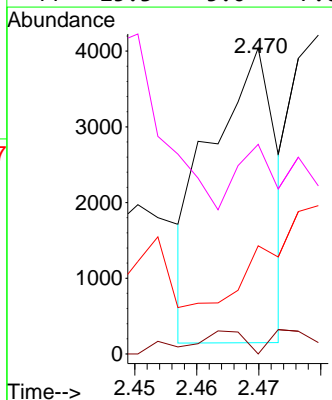
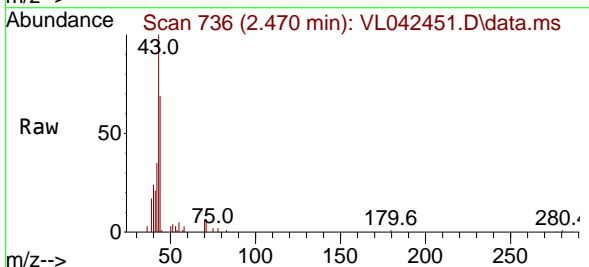
Ion	Ratio	Lower	Upper
41	100		
76	1.2	24.8	37.2#
39	83.0	60.6	90.8

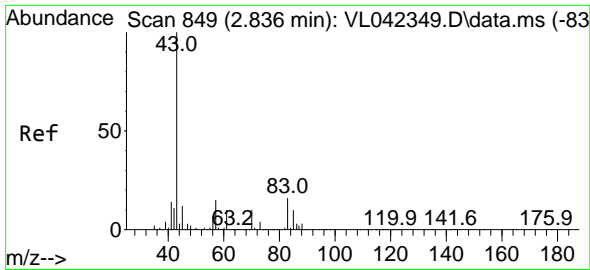


#23
 Vinyl Acetate
 Concen: 0.374 ppbv
 RT: 2.470 min Scan# 736
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 43 Resp: 2885

Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.5	9.7#
42	35.0	7.8	11.8#
44	25.3	5.0	7.6#



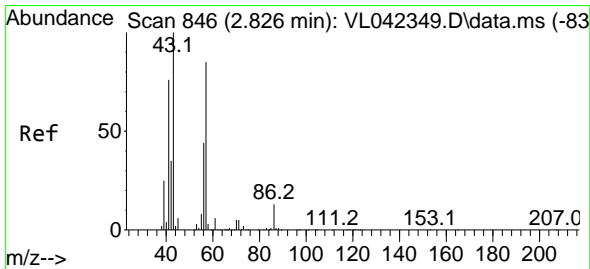
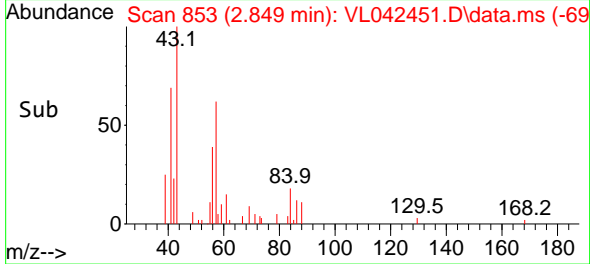
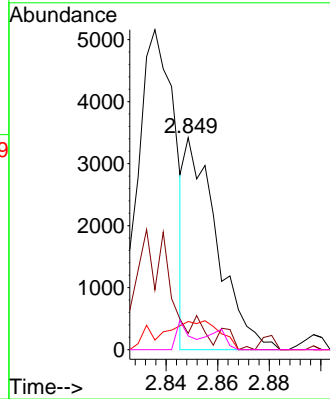
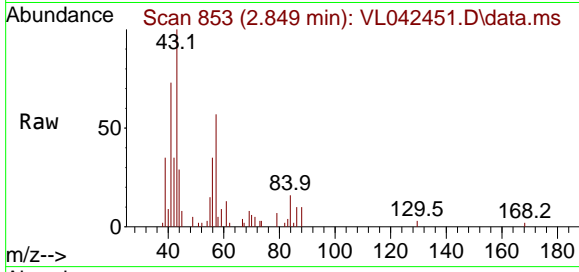


#25
 Ethyl Acetate
 Concen: 0.063 ppbv
 RT: 2.849 min Scan# 81
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-1-3242025DL

Tgt Ion: 43 Resp: 2944

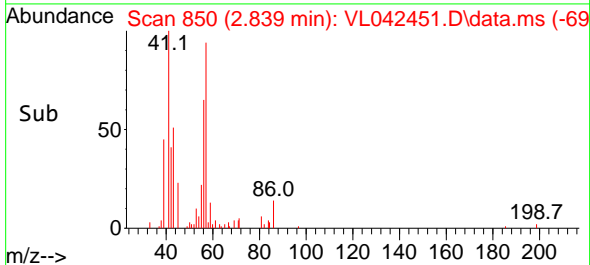
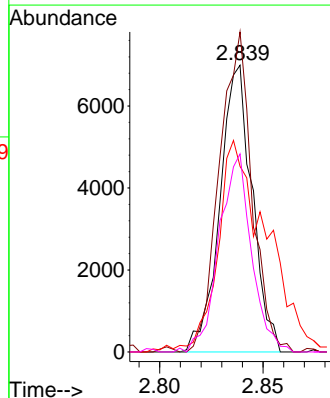
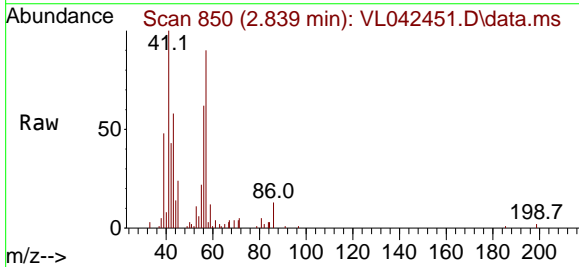
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.3	12.5#
61	25.2	7.3	10.9#
70	11.3	7.0	10.6#

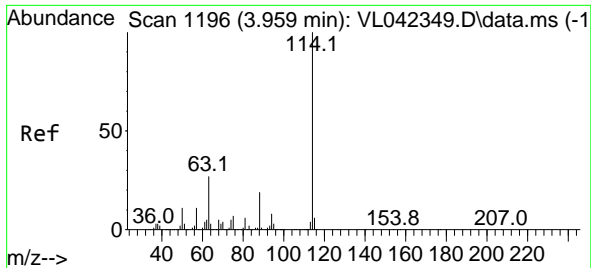


#26
 Hexane
 Concen: 0.400 ppbv
 RT: 2.839 min Scan# 850
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 57 Resp: 7600

Ion	Ratio	Lower	Upper
57	100		
41	113.7	77.9	116.9
43	111.5	208.4	312.6#
56	69.9	43.1	64.7#



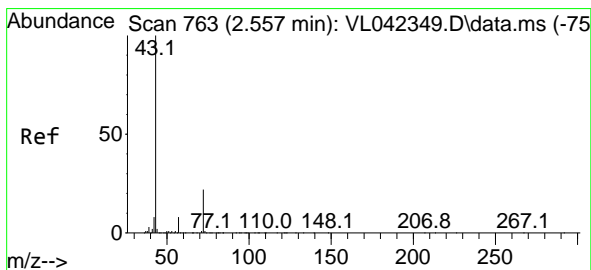
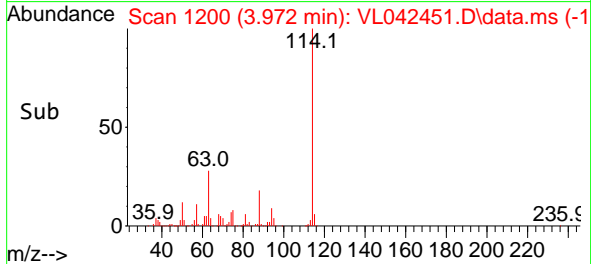
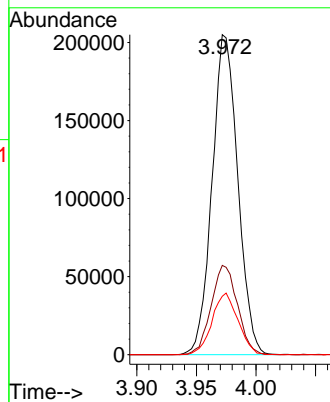
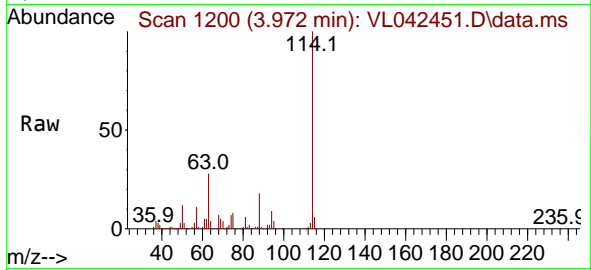


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.972 min Scan# 1196
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

Tgt Ion:114 Resp: 307149

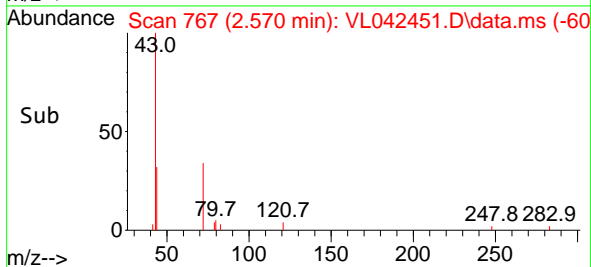
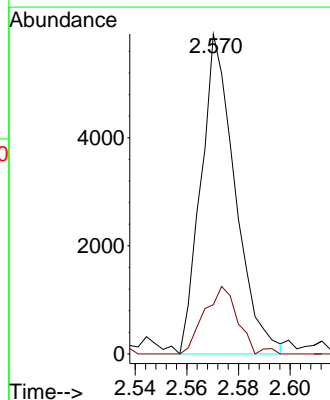
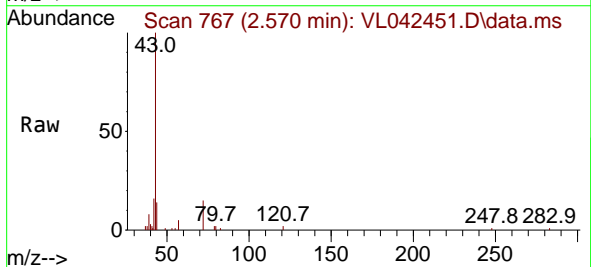
Ion	Ratio	Lower	Upper
114	100		
63	28.6	21.8	32.6
88	19.5	15.5	23.3

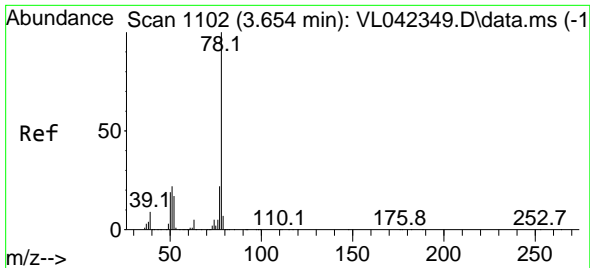


#34
 2-Butanone
 Concen: 0.223 ppbv
 RT: 2.570 min Scan# 767
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 43 Resp: 5426

Ion	Ratio	Lower	Upper
43	100		
72	20.8	18.2	27.2

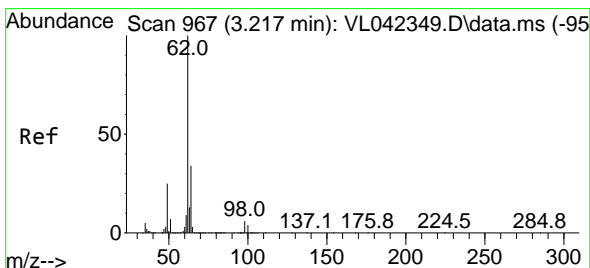
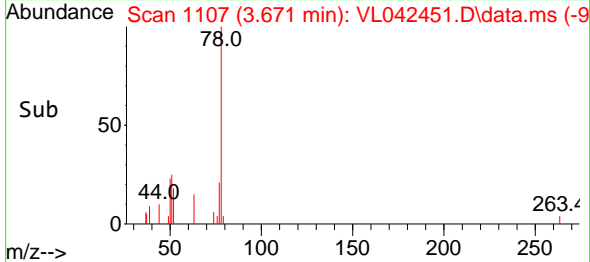
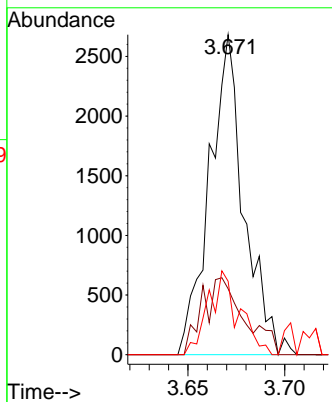
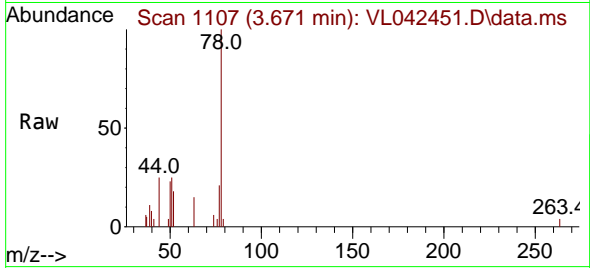




#36
 Benzene
 Concen: 0.100 ppbv
 RT: 3.671 min Scan# 1107
 Delta R.T. 0.016 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

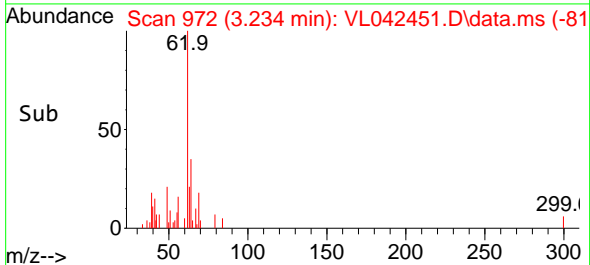
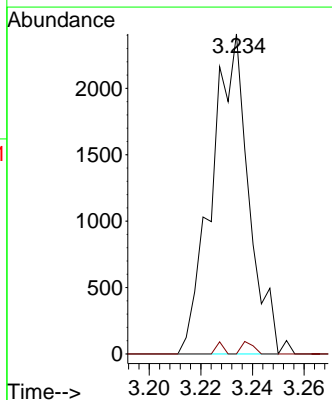
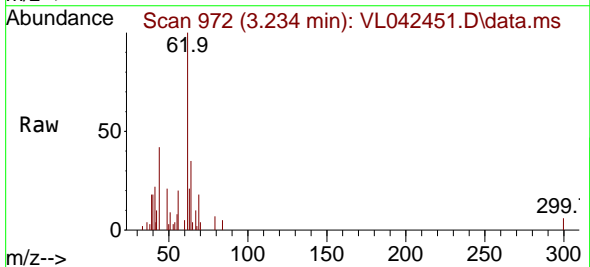
Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

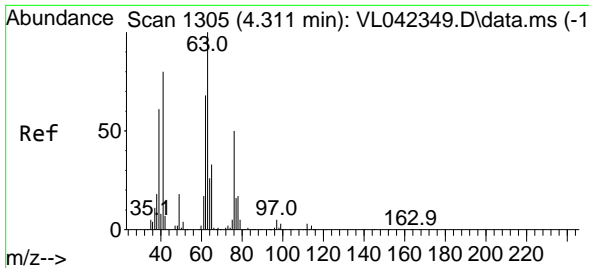
Tgt Ion	Resp	Lower	Upper
78	100		
77	20.6	17.4	26.0
50	23.0	15.5	23.3



#37
 1,2-Dichloroethane
 Concen: 0.120 ppbv
 RT: 3.234 min Scan# 972
 Delta R.T. 0.016 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion	Resp	Lower	Upper
62	100		
98	2.0	5.1	7.7

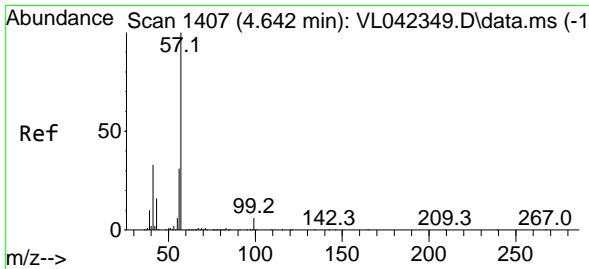
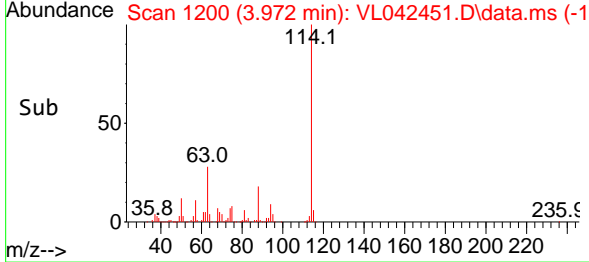
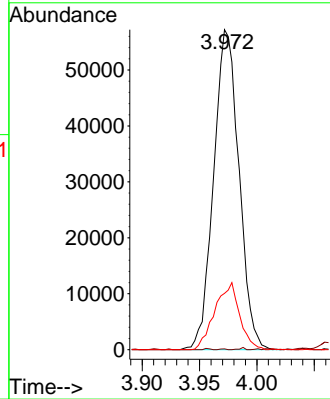
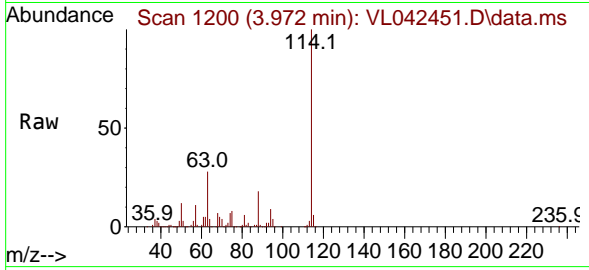




#39
 1,2-Dichloropropane
 Concen: 7.115 ppbv
 RT: 3.972 min Scan# 1111
 Delta R.T. -0.340 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

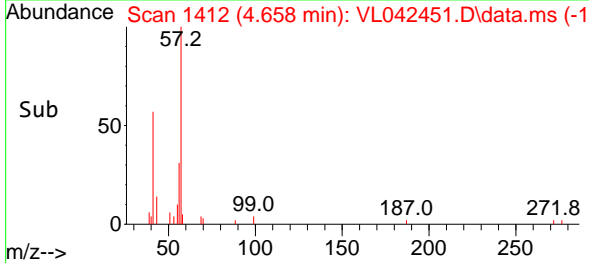
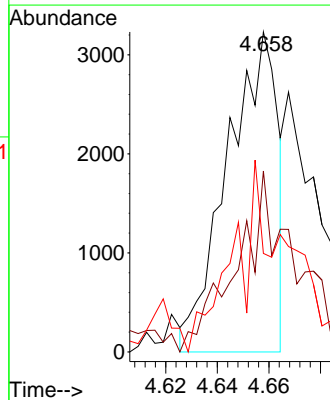
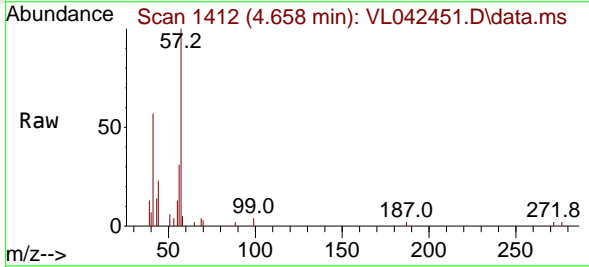
Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

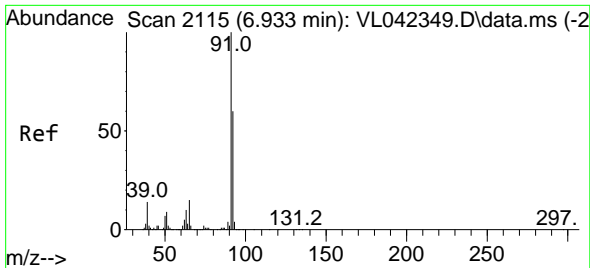
Tgt Ion	Resp	Lower	Upper
63	100		
41	0.6	64.2	96.2#
62	17.6	54.3	81.5#



#44
 2,2,4-Trimethylpentane
 Concen: 0.076 ppbv
 RT: 4.658 min Scan# 1412
 Delta R.T. 0.016 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion	Resp	Lower	Upper
57	100		
41	72.5	27.2	40.8#
56	73.4	25.7	38.5#

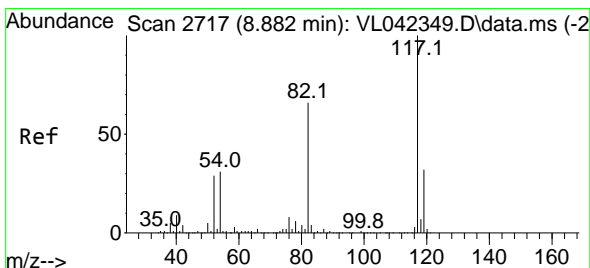
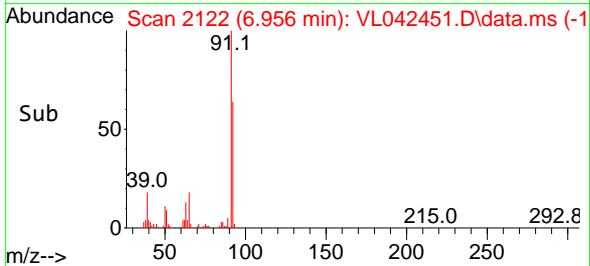
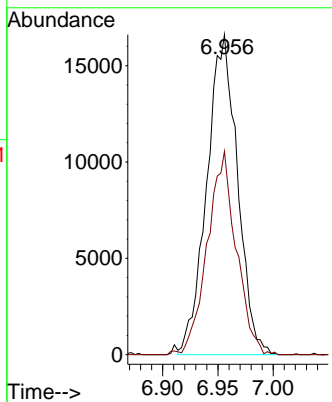
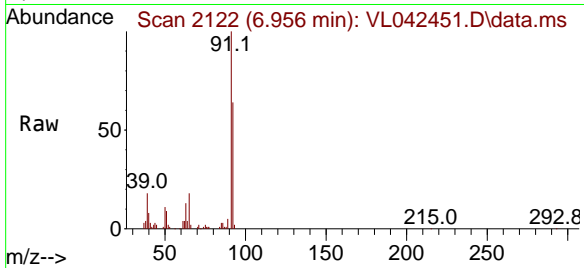




#53
 Toluene
 Concen: 0.806 ppbv
 RT: 6.956 min Scan# 2115
 Delta R.T. 0.023 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

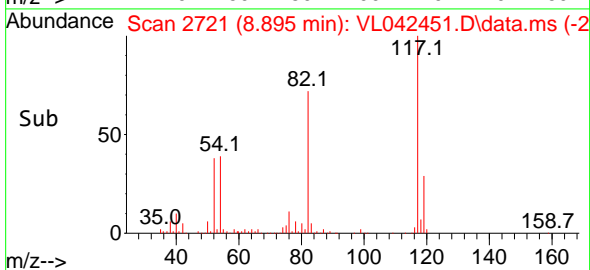
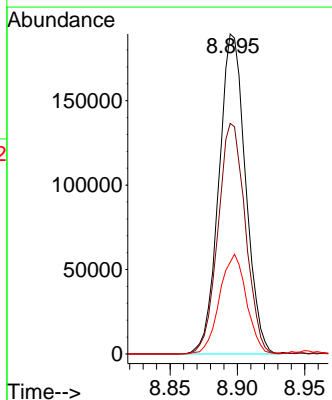
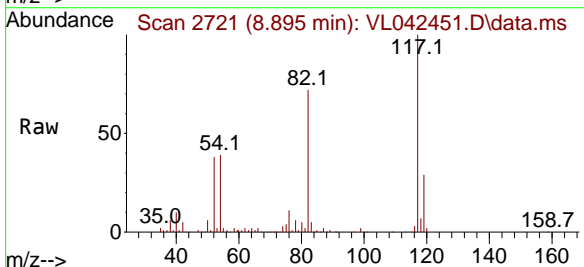
Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

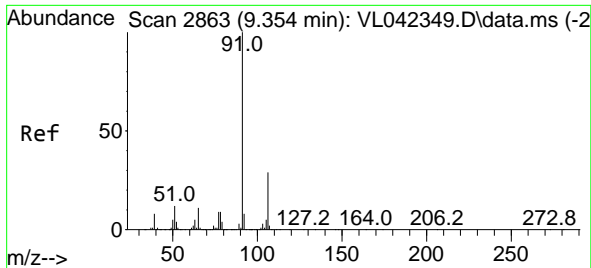
Tgt Ion: 91 Resp: 32058
 Ion Ratio Lower Upper
 91 100
 92 59.8 48.2 72.4



#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 8.895 min Scan# 2721
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Tgt Ion: 117 Resp: 260772
 Ion Ratio Lower Upper
 117 100
 82 74.0 57.8 86.6
 119 31.5 25.2 37.8

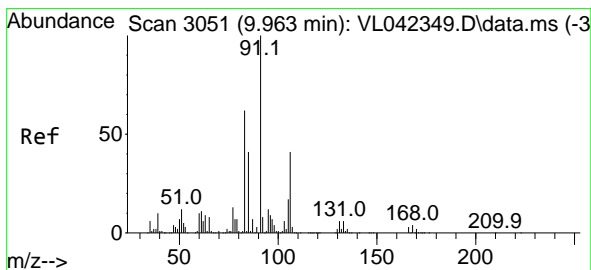
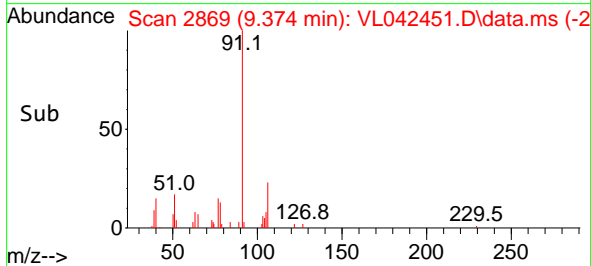
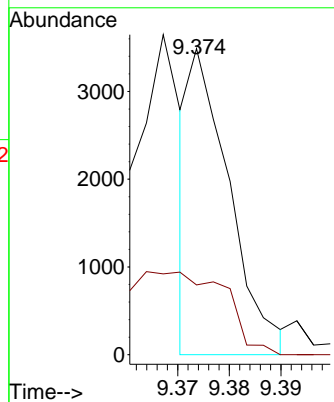
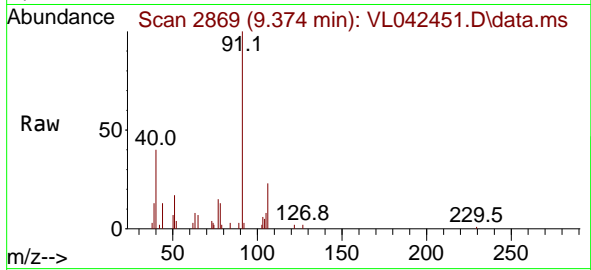




#58
 Ethyl Benzene
 Concen: 0.036 ppbv
 RT: 9.374 min Scan# 21
 Delta R.T. 0.020 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

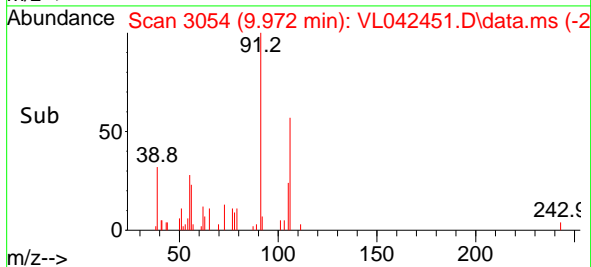
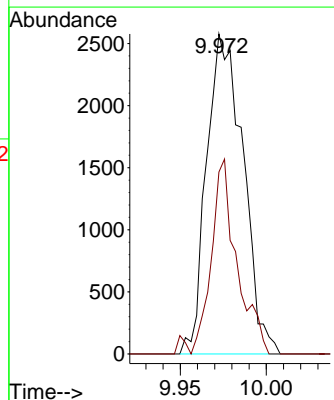
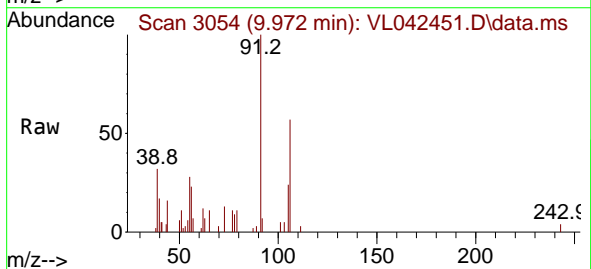
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-1-3242025DL

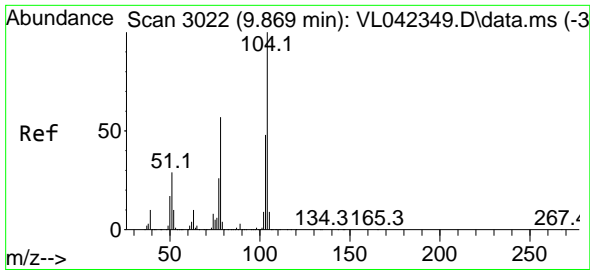
Tgt Ion: 91 Resp: 1871
 Ion Ratio Lower Upper
 91 100
 106 24.9 23.0 34.4



#60
 o-Xylene
 Concen: 0.091 ppbv
 RT: 9.972 min Scan# 3054
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

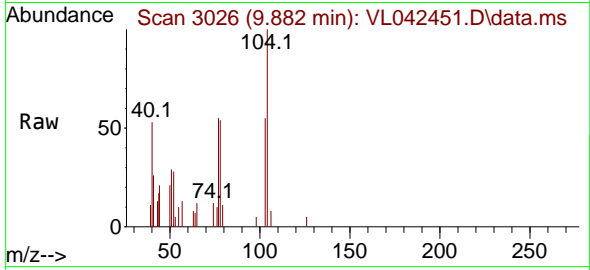
Tgt Ion: 91 Resp: 3798
 Ion Ratio Lower Upper
 91 100
 106 43.5 21.1 63.4





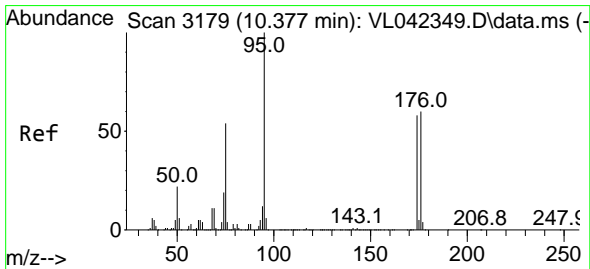
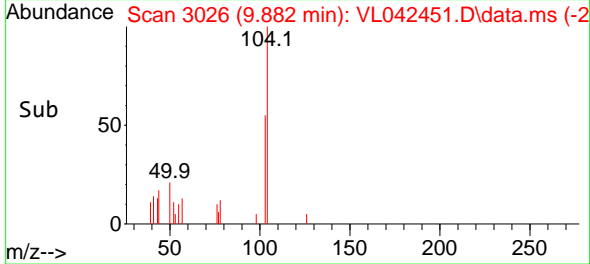
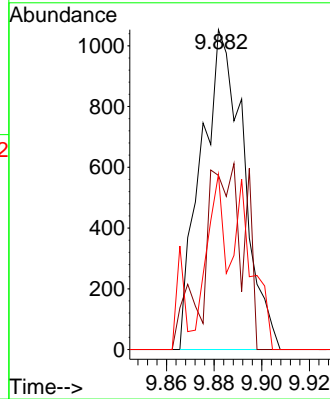
#61
 Styrene
 Concen: 0.065 ppbv
 RT: 9.882 min Scan# 3026
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Instrument : MSVOA_L
 ClientSampleId : IA-DUP-1-3242025DL

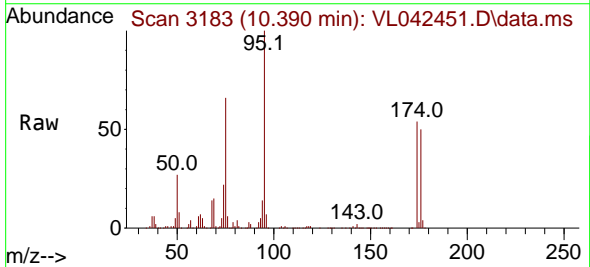


Tgt Ion: 104 Resp: 1303

Ion	Ratio	Lower	Upper
104	100		
78	54.4	44.6	66.8
103	52.6	37.4	56.0

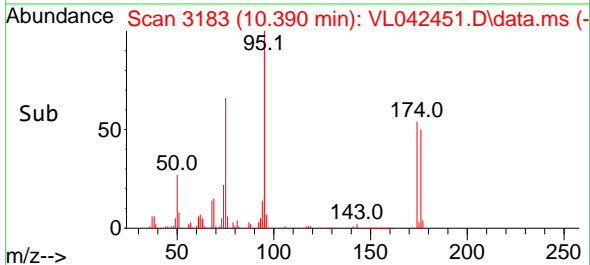
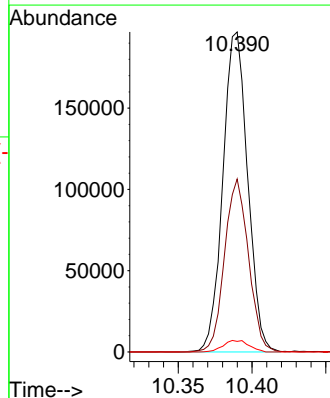


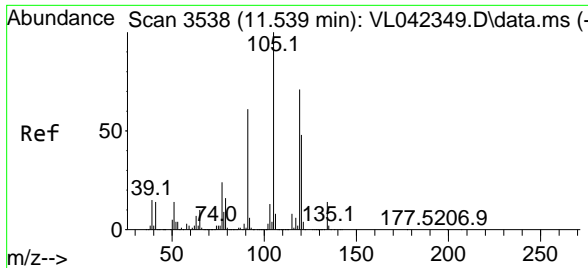
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.733 ppbv
 RT: 10.390 min Scan# 3183
 Delta R.T. 0.013 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37



Tgt Ion: 95 Resp: 230005

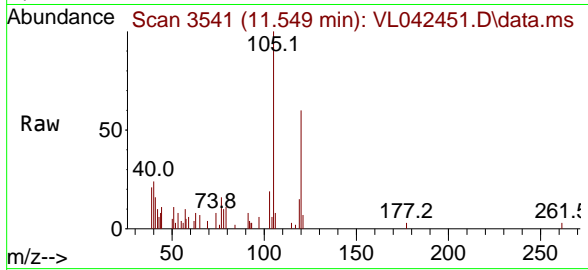
Ion	Ratio	Lower	Upper
95	100		
174	52.2	48.5	72.7
175	3.8	3.7	5.5





#74
 1,2,4-Trimethylbenzene
 Concen: 0.063 ppbv
 RT: 11.549 min Scan# 31
 Delta R.T. 0.010 min
 Lab File: VL042451.D
 Acq: 29 Apr 2025 17:37

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-1-3242025DL



Tgt Ion:105 Resp: 3330

Ion	Ratio	Lower	Upper
105	100		
120	59.7	38.1	57.1#
91	8.5	48.8	73.2#
77	15.7	19.0	28.4#

