

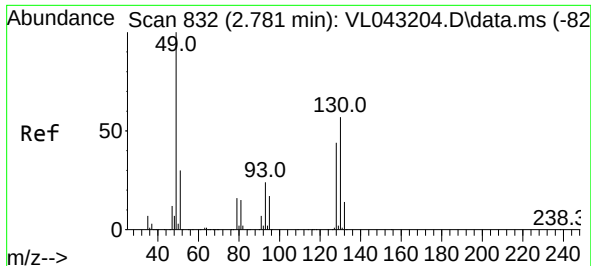
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111925\
 Data File : VL043236.D
 Acq On : 19 Nov 2025 13:17
 Operator : SY/MD
 Sample : Q3626-02 2X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 9A-SG-2

Quant Time: Nov 20 00:04:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	2.784	49	105026	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	292365	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	227868	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	164621	9.856	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.600%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	3866	0.261	ppbv	98
3) Chlorodifluoromethane	1.476	51	3836	0.263	ppbv #	78
4) Chloromethane	1.531	50	507	0.092	ppbv	91
9) Propene	1.486	41	5369	0.868	ppbv #	1
10) Heptane	4.978	43	1685	0.092	ppbv #	75
11) Trichlorofluoromethane	1.878	101	5081	0.354	ppbv	91
12) 1,1,2-Trichlorotrifluo...	2.140	101	389	0.035	ppbv #	40
13) Ethanol	1.719	45	12902	5.931	ppbv	96
15) Acetone	1.836	43	116398	7.977	ppbv	98
16) 1,3-Butadiene	1.603	39	1886	0.290	ppbv #	12
17) tert-Butyl alcohol	1.884	59	1973	0.103	ppbv	95
19) Isopropyl Alcohol	1.884	45	51704	6.271	ppbv #	73
20) Methylene Chloride	2.062	84	8662	1.334	ppbv	92
23) Vinyl Acetate	2.451	43	1684	0.096	ppbv #	58
25) Ethyl Acetate	2.823	43	7855	0.250	ppbv #	84
26) Hexane	2.826	57	10226	0.741	ppbv #	44
27) Carbon Disulfide	2.150	76	5334	0.379	ppbv #	1
29) Chloroform	2.845	83	39446	2.011	ppbv	98
30) Cyclohexane	3.846	84	731	0.063	ppbv #	1
34) 2-Butanone	2.557	43	5651	0.274	ppbv	95
36) Benzene	3.655	78	4112	0.147	ppbv	97
38) Trichloroethene	4.532	130	617	0.056	ppbv #	57
39) 1,2-Dichloropropane	3.956	63	72302	7.055	ppbv #	26
52) Tetrachloroethene	8.218	164	7582	0.728	ppbv	89
53) Toluene	6.927	91	4988	0.150	ppbv	97
58) Ethyl Benzene	9.348	91	1800	0.041	ppbv	97
59) m/p-Xylene	9.542	91	1102	0.031	ppbv #	31
60) o-Xylene	9.960	91	1842	0.052	ppbv	91
61) Styrene	9.862	104	673	0.044	ppbv #	28
74) 1,2,4-Trimethylbenzene	11.533	105	1982	0.051	ppbv #	57

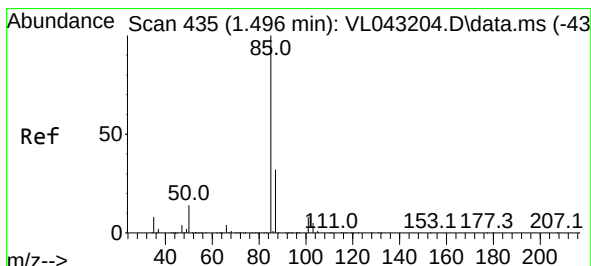
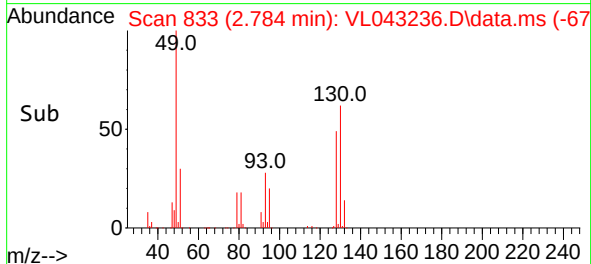
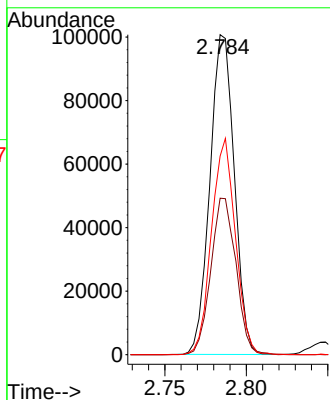
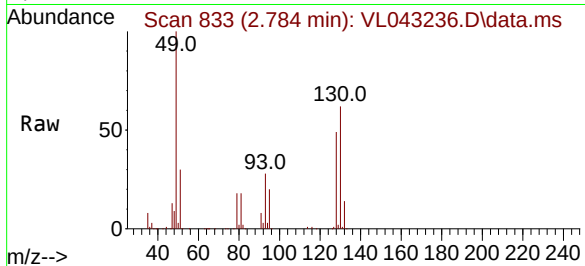
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 832
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

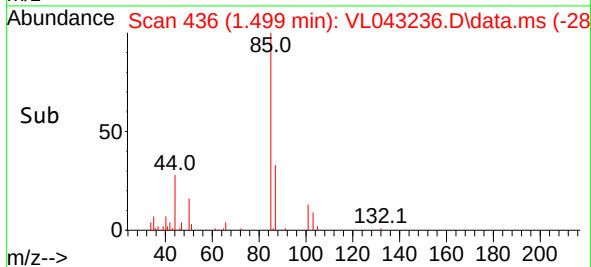
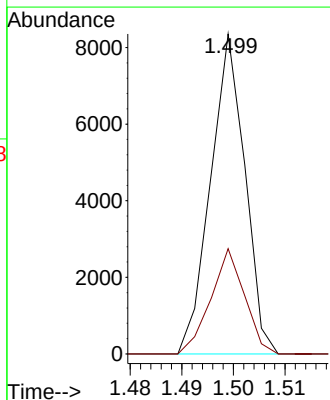
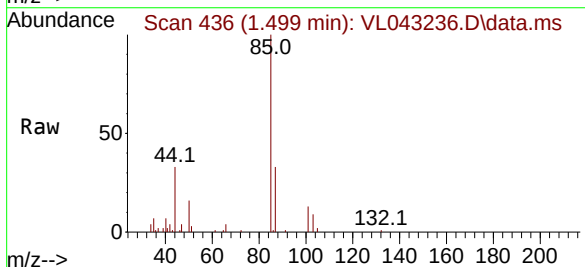
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MSVOA_1
ClientSampleId :
9A-SG-2

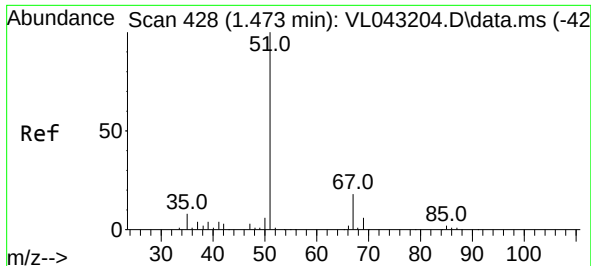
Tgt Ion: 49 Resp: 105026
Ion Ratio Lower Upper
49 100
128 50.2 23.0 69.0
130 66.3 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.261 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 85 Resp: 3866
Ion Ratio Lower Upper
85 100
87 32.9 25.4 38.2

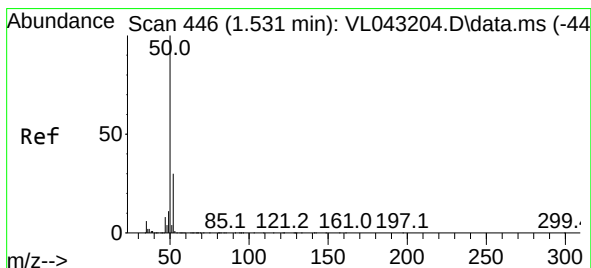
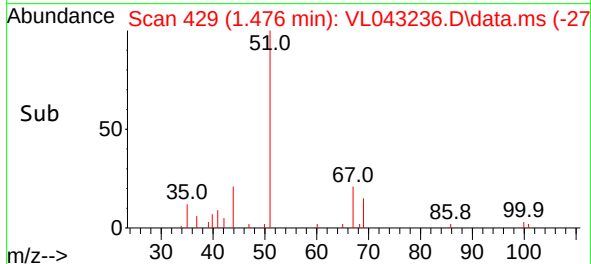
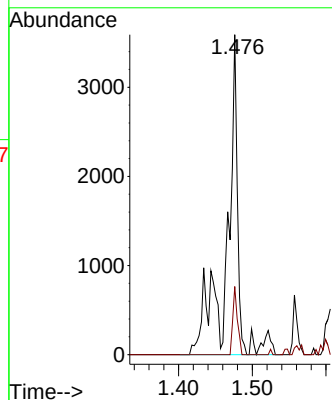
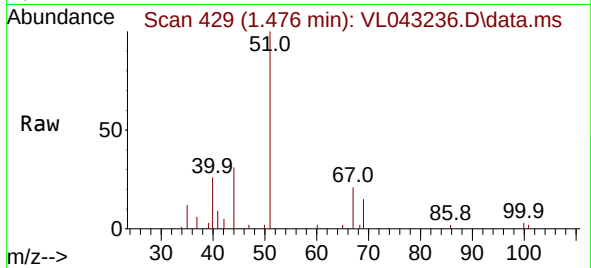




#3
Chlorodifluoromethane
Concen: 0.263 ppbv
RT: 1.476 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

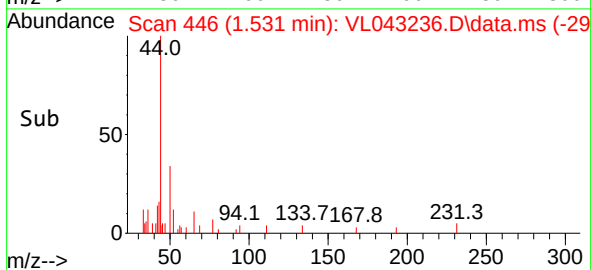
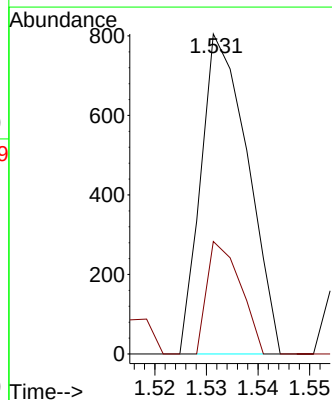
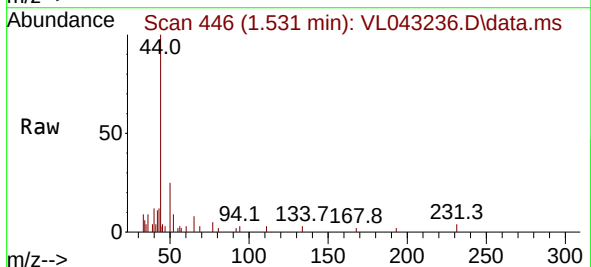
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ClientSampleId :
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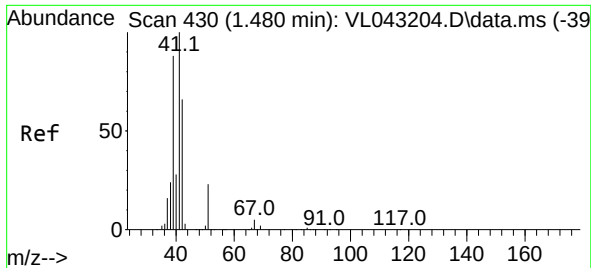
Tgt Ion: 51 Resp: 3836
Ion Ratio Lower Upper
51 100
67 8.7 14.9 22.3#



#4
Chloromethane
Concen: 0.092 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 50 Resp: 507
Ion Ratio Lower Upper
50 100
52 35.2 24.1 36.1





#9

Propene

Concen: 0.868 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Instrument :

MSVOA_1

ClientSampleId :

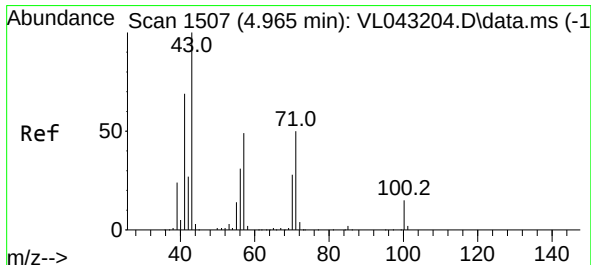
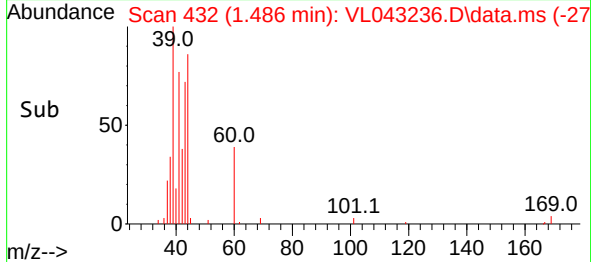
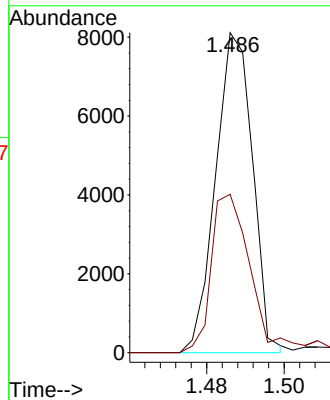
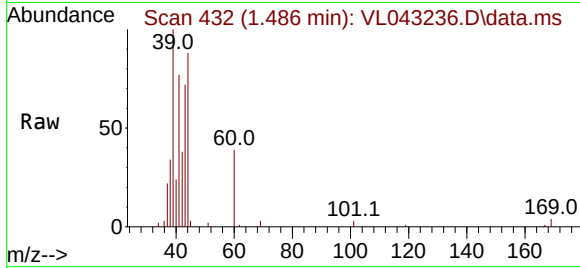
9A-SG-2

Tgt Ion: 41 Resp: 5369

Ion Ratio Lower Upper

41 100

42 55.0 3.7 5.5#



#10

Heptane

Concen: 0.092 ppbv

RT: 4.978 min Scan# 1511

Delta R.T. 0.013 min

Lab File: VL043236.D

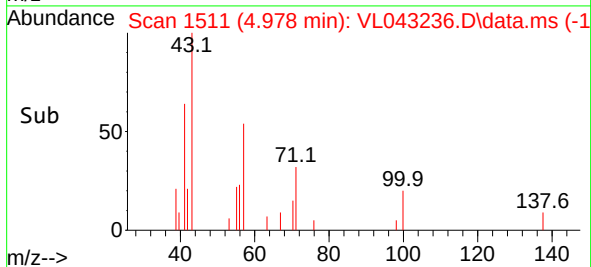
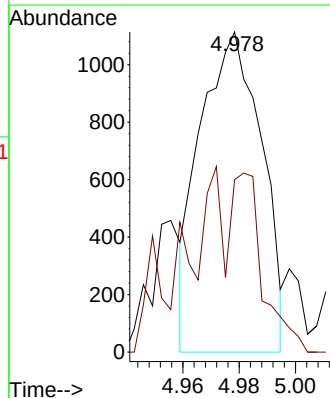
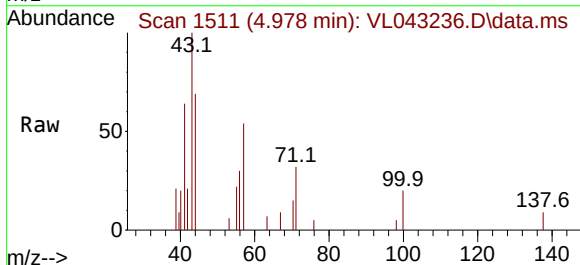
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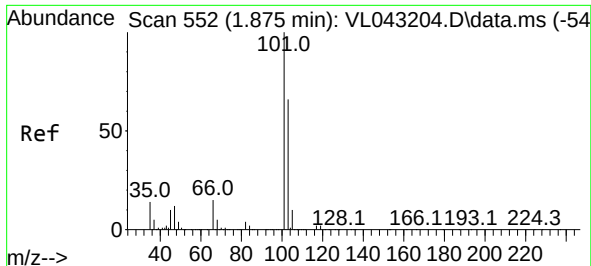
Tgt Ion: 43 Resp: 1685

Ion Ratio Lower Upper

43 100

57 66.9 39.7 59.5#

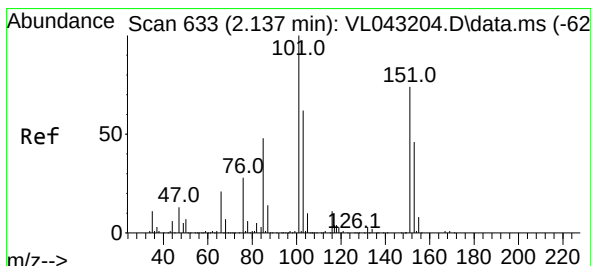
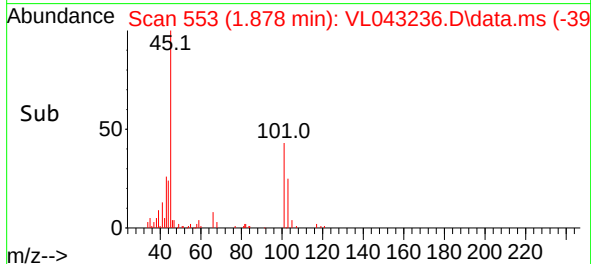
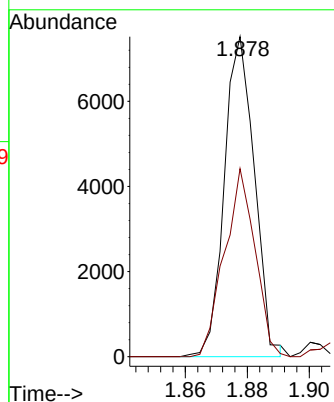
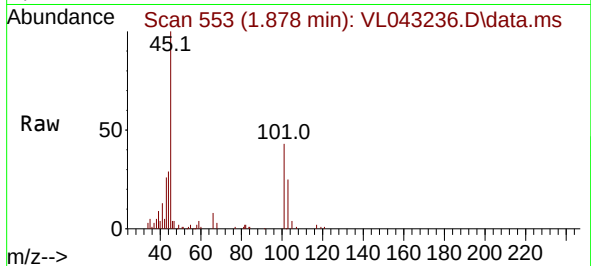




#11
Trichlorofluoromethane
Concen: 0.354 ppbv
RT: 1.878 min Scan# 511
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

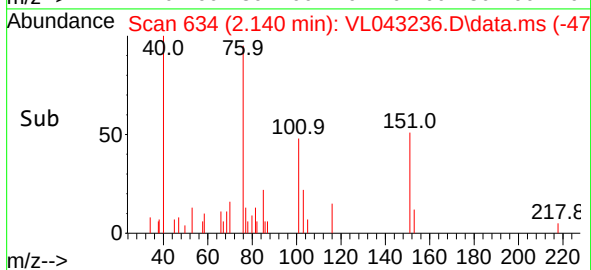
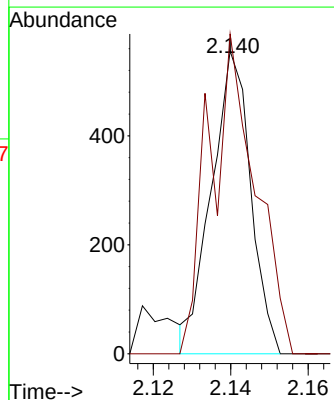
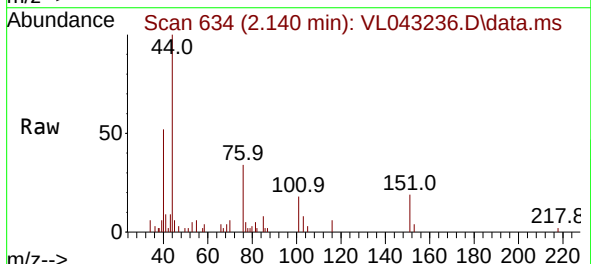
Instrument :
MSVOA_1
ClientSampleId :
9A-SG-2

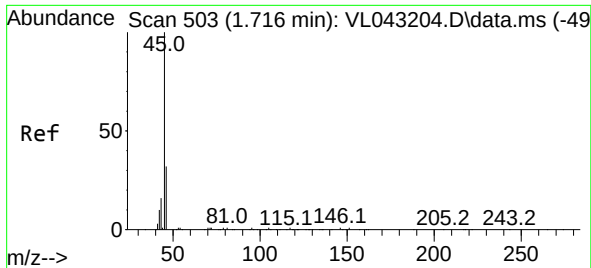
Tgt Ion:101 Resp: 5081
Ion Ratio Lower Upper
101 100
103 58.7 52.6 79.0



#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.035 ppbv
RT: 2.140 min Scan# 634
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion:101 Resp: 389
Ion Ratio Lower Upper
101 100
151 124.7 59.2 88.8#

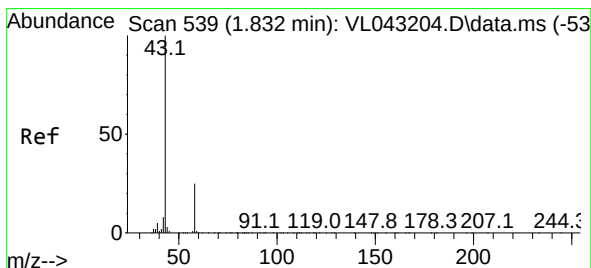
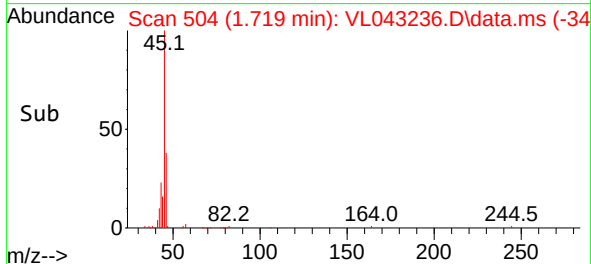
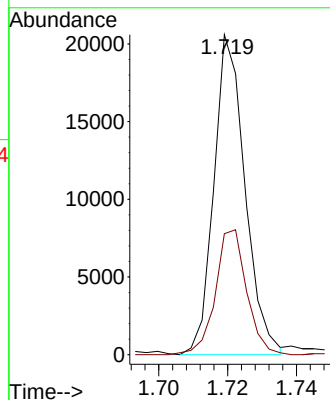
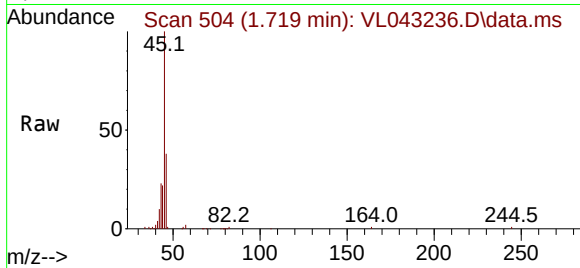




#13
Ethanol
Concen: 5.931 ppbv
RT: 1.719 min Scan# 503
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

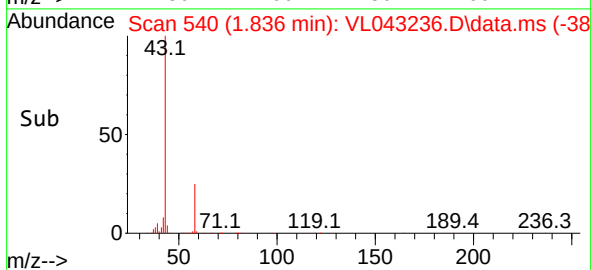
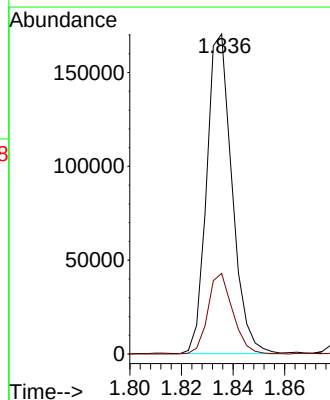
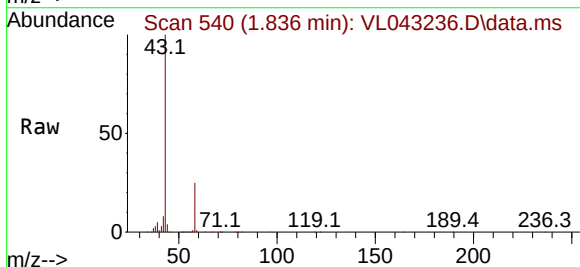
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ClientSampleId :
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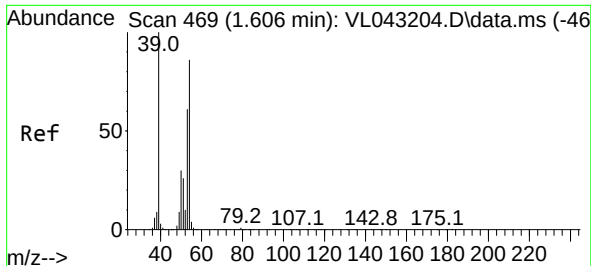
Tgt Ion: 45 Resp: 12902
Ion Ratio Lower Upper
45 100
46 40.0 15.0 59.8



#15
Acetone
Concen: 7.977 ppbv
RT: 1.836 min Scan# 540
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 43 Resp: 116398
Ion Ratio Lower Upper
43 100
58 24.8 20.7 31.1

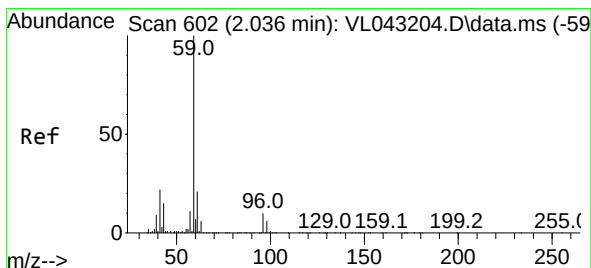
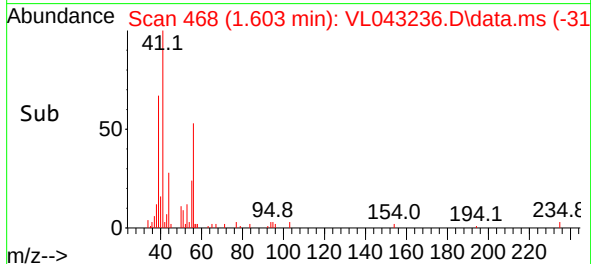
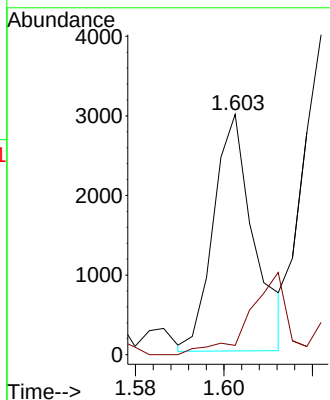
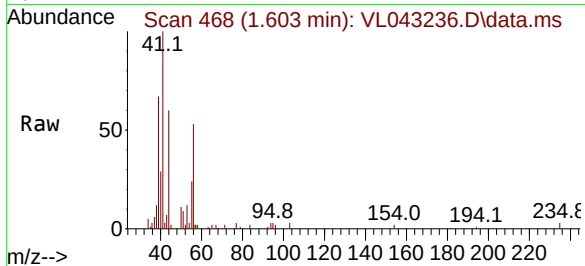




#16
1,3-Butadiene
Concen: 0.290 ppbv
RT: 1.603 min Scan# 41
Delta R.T. -0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

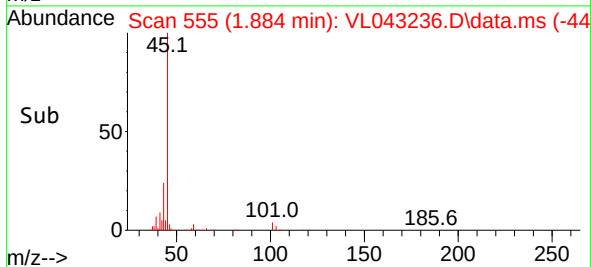
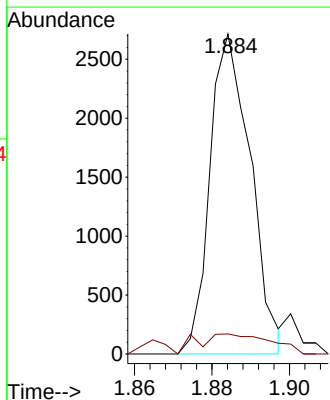
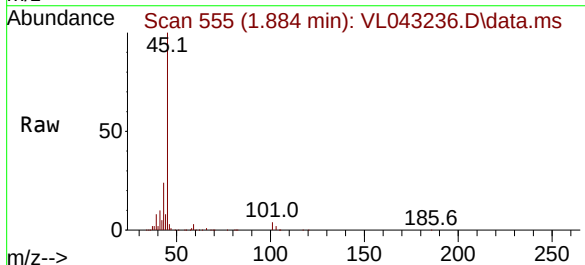
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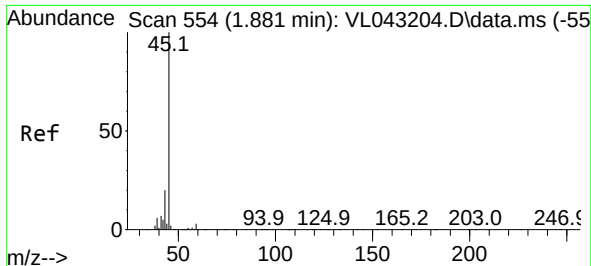
Tgt Ion: 39 Resp: 1886
Ion Ratio Lower Upper
39 100
54 0.0 59.4 89.2#



#17
tert-Butyl alcohol
Concen: 0.103 ppbv
RT: 1.884 min Scan# 555
Delta R.T. -0.152 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 59 Resp: 1973
Ion Ratio Lower Upper
59 100
57 9.1 9.0 13.4

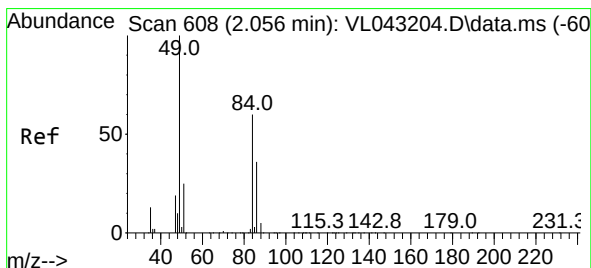
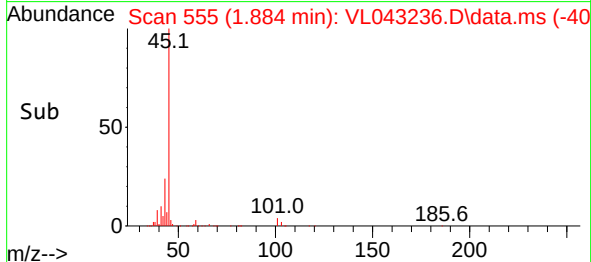
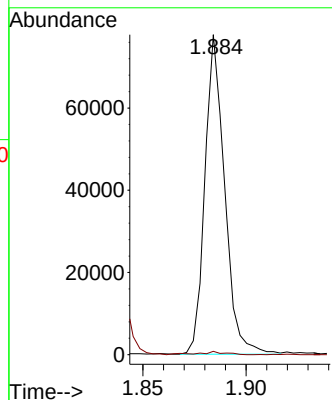
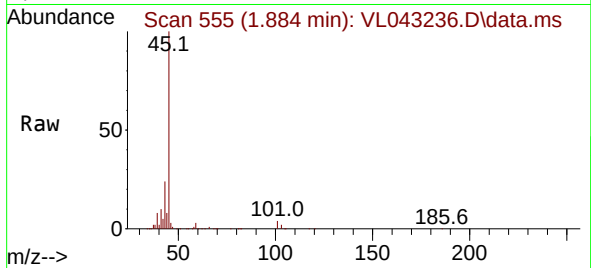




#19
Isopropyl Alcohol
Concen: 6.271 ppbv
RT: 1.884 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

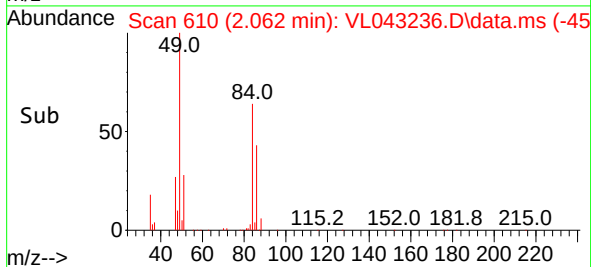
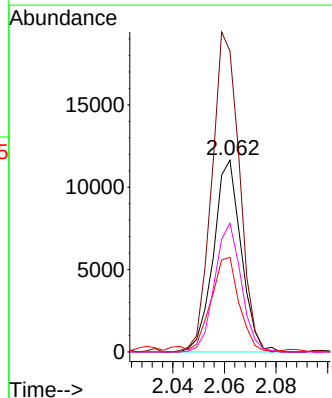
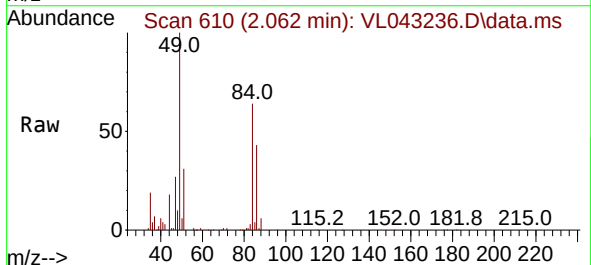
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MSVOA_1
ClientSampleId :
9A-SG-2

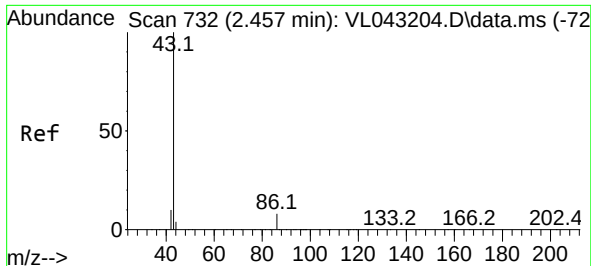
Tgt Ion: 45 Resp: 51704
Ion Ratio Lower Upper
45 100
58 55.7 31.3 46.9#



#20
Methylene Chloride
Concen: 1.334 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.006 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 84 Resp: 8662
Ion Ratio Lower Upper
84 100
49 156.2 132.9 199.3
51 48.8 34.8 52.2
86 67.0 48.2 72.2

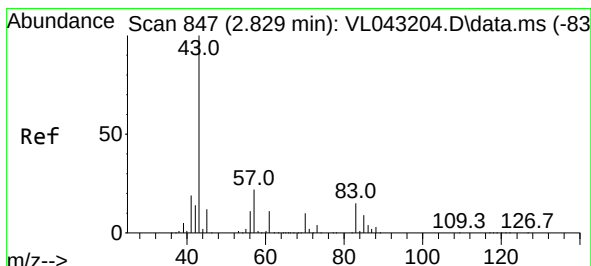
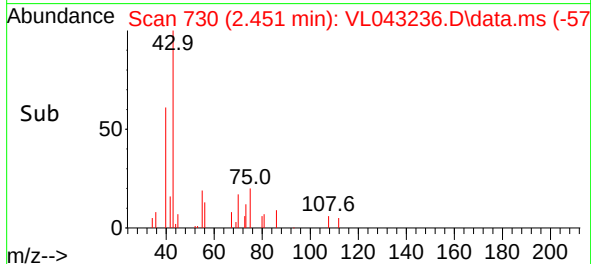
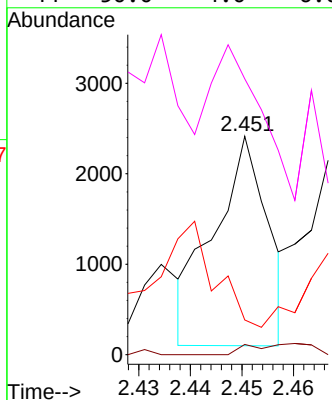
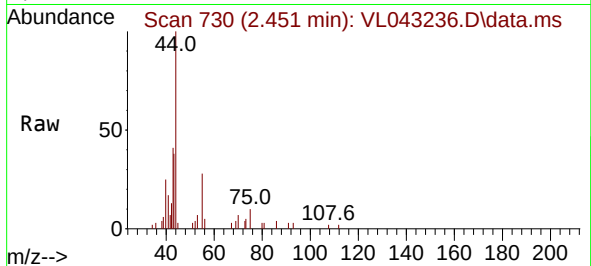




#23
 Vinyl Acetate
 Concen: 0.096 ppbv
 RT: 2.451 min Scan# 71
 Delta R.T. -0.007 min
 Lab File: VL043236.D
 Acq: 19 Nov 2025 13:17

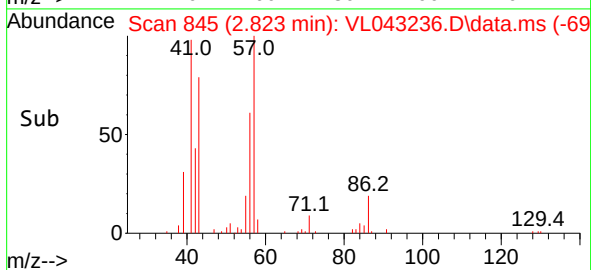
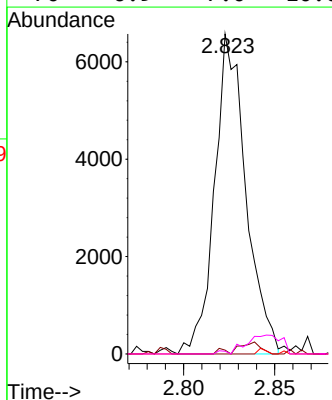
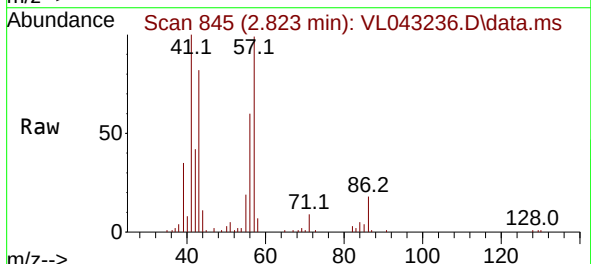
Instrument :
 MSVOA_1
 ClientSampleId :
 9A-SG-2

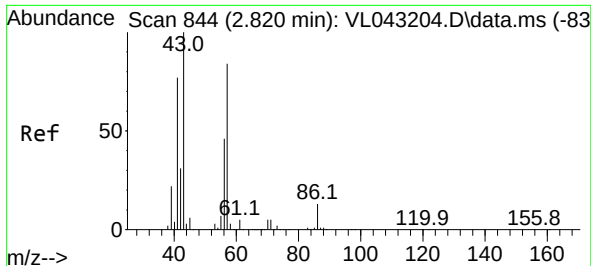
Tgt Ion: 43	Resp: 1684
Ion Ratio	Lower Upper
43 100	
86 7.2	6.2 9.2
42 0.0	8.0 12.0#
44 50.0	4.0 6.0#



#25
 Ethyl Acetate
 Concen: 0.250 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. -0.007 min
 Lab File: VL043236.D
 Acq: 19 Nov 2025 13:17

Tgt	Ion: 43	Resp:	7855
Ion	Ratio	Lower	Upper
43	100		
45	2.9	8.1	12.1#
61	0.6	7.0	10.4#
70	6.9	7.0	10.6#

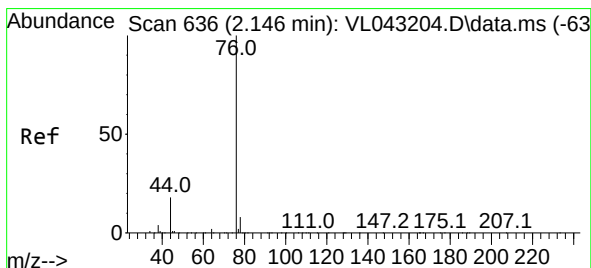
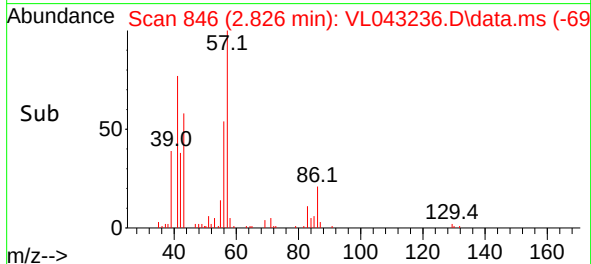
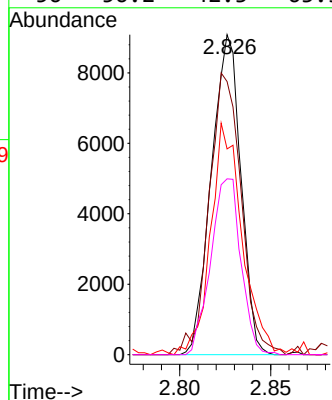
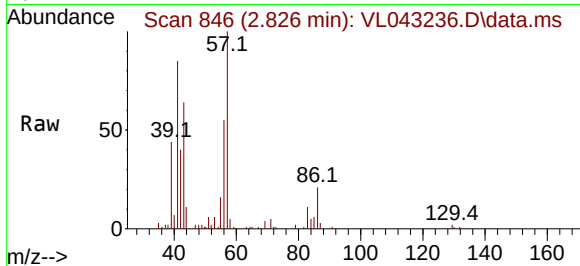




#26
Hexane
Concen: 0.741 ppbv
RT: 2.826 min Scan# 844
Delta R.T. 0.006 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

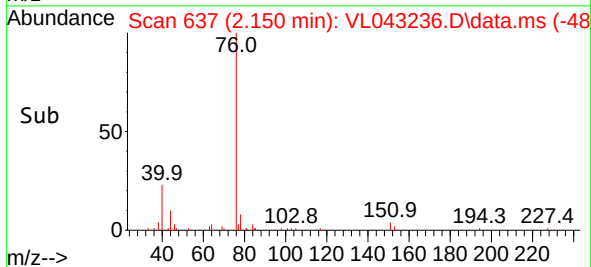
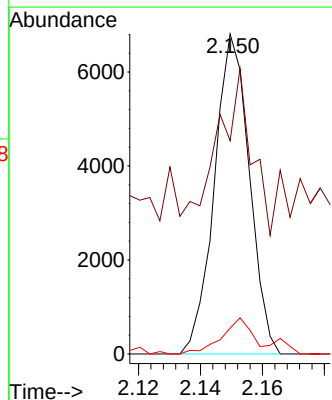
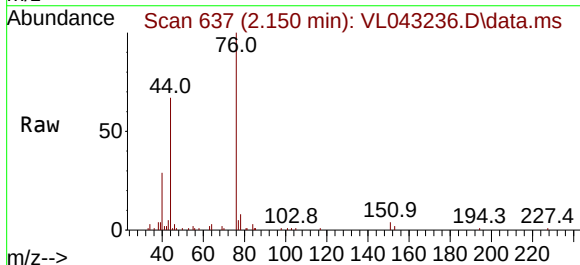
Instrument :
MSVOA_1
ClientSampleId :
9A-SG-2

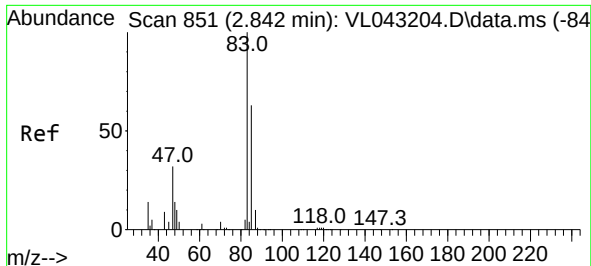
Tgt Ion:	57	Resp:	10226
Ion	Ratio	Lower	Upper
57	100		
41	98.2	74.6	111.8
43	79.0	179.0	268.4#
56	56.2	42.3	63.5



#27
Carbon Disulfide
Concen: 0.379 ppbv
RT: 2.150 min Scan# 637
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion:	76	Resp:	5334
Ion	Ratio	Lower	Upper
76	100		
44	111.0	16.1	24.1#
78	12.2	9.6	14.4





#29

Chloroform

Concen: 2.011 ppbv

RT: 2.845 min Scan# 8

Delta R.T. 0.003 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Instrument :

MSVOA_1

ClientSampleId :

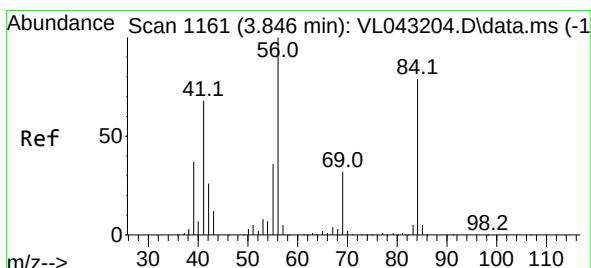
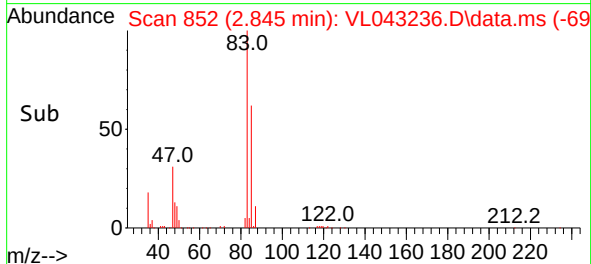
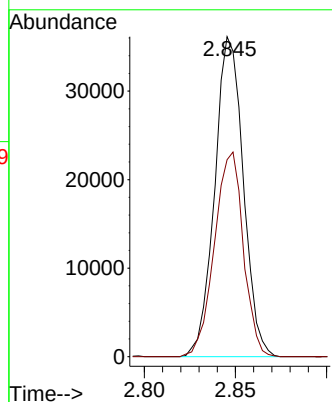
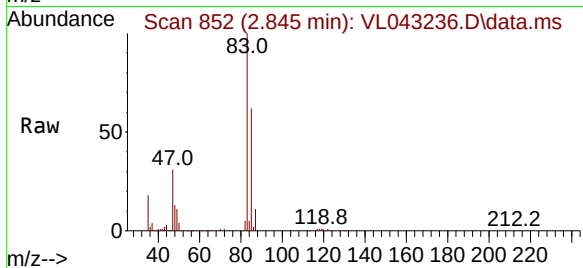
9A-SG-2

Tgt Ion: 83 Resp: 39446

Ion Ratio Lower Upper

83 100

85 61.5 50.5 75.7



#30

Cyclohexane

Concen: 0.063 ppbv

RT: 3.846 min Scan# 1161

Delta R.T. -0.000 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

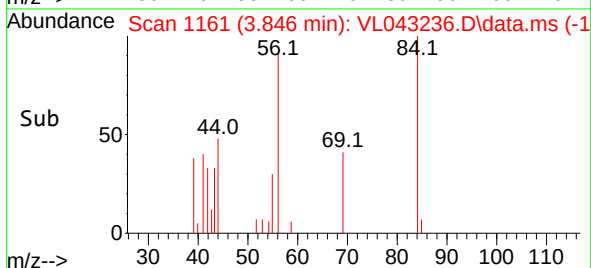
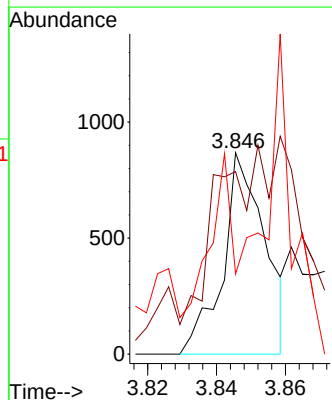
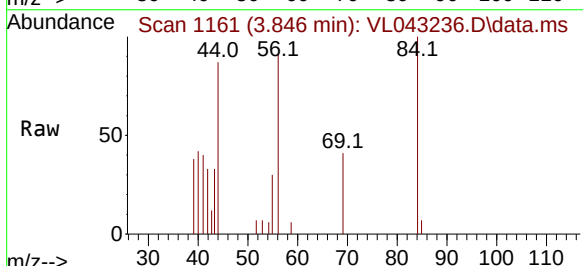
Tgt Ion: 84 Resp: 731

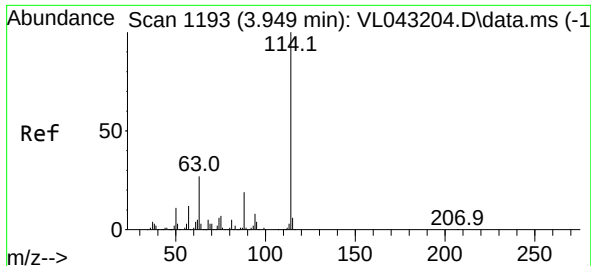
Ion Ratio Lower Upper

84 100

56 0.0 104.7 157.1#

41 0.0 69.0 103.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. 0.003 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Instrument :

MSVOA_1

ClientSampleId :

9A-SG-2

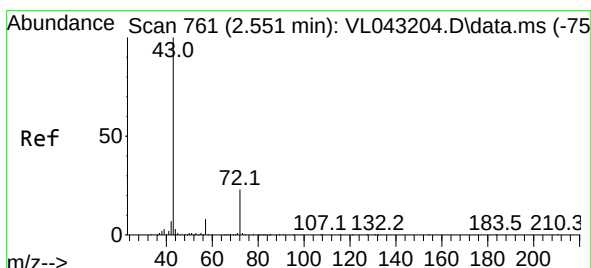
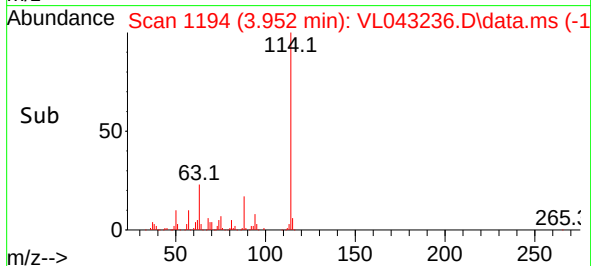
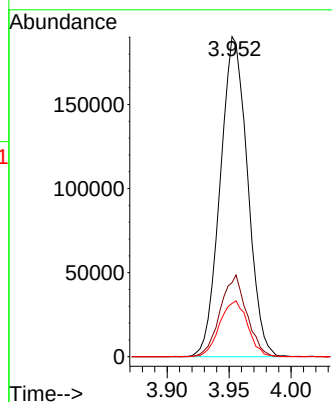
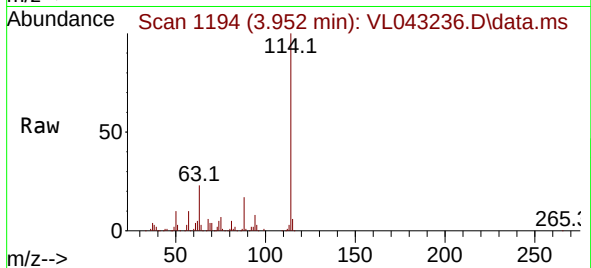
Tgt Ion:114 Resp: 292365

Ion Ratio Lower Upper

114 100

63 24.8 21.0 31.6

88 17.9 14.9 22.3



#34

2-Butanone

Concen: 0.274 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.006 min

Lab File: VL043236.D

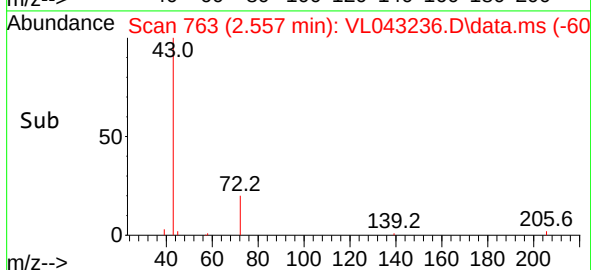
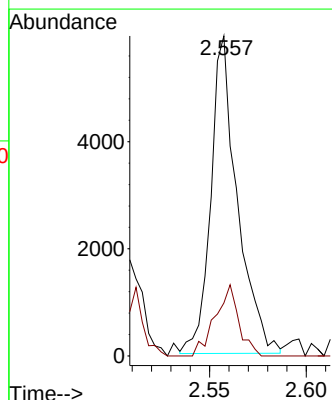
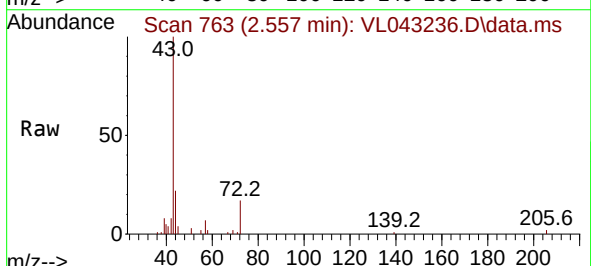
Acq: 19 Nov 2025 13:17

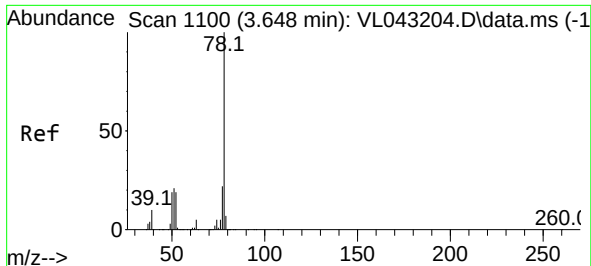
Tgt Ion: 43 Resp: 5651

Ion Ratio Lower Upper

43 100

72 20.0 18.1 27.1





#36

Benzene

Concen: 0.147 ppbv

RT: 3.655 min Scan# 1100

Delta R.T. 0.006 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

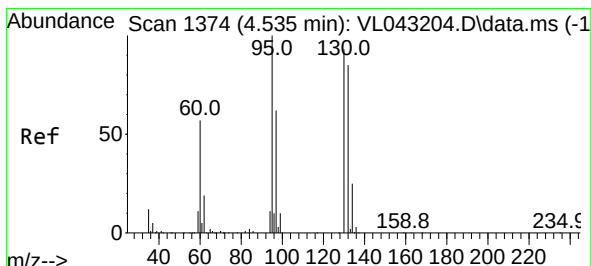
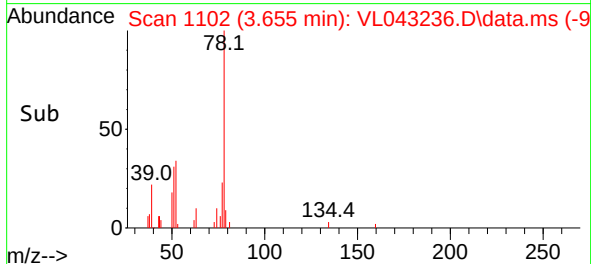
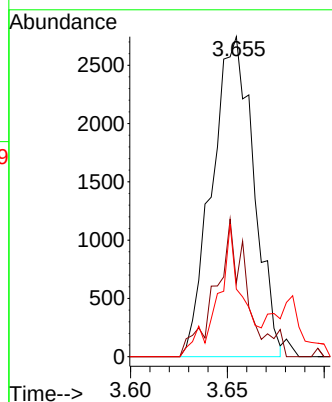
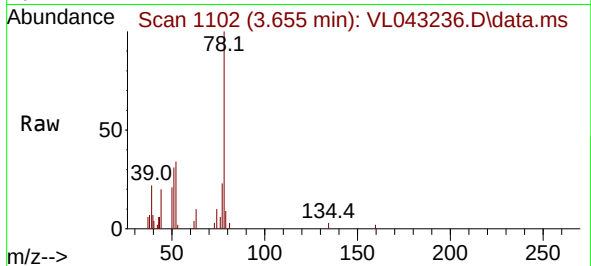
Instrument :

MSVOA_1

ClientSampleId :

9A-SG-2

Tgt Ion: 78	Resp: 4112
Ion Ratio	Lower Upper
78 100	
77 23.0	17.5 26.3
50 21.1	15.5 23.3



#38

Trichloroethene

Concen: 0.056 ppbv

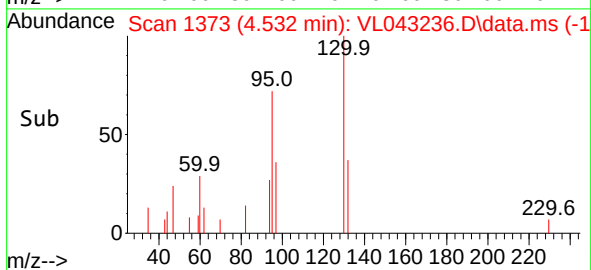
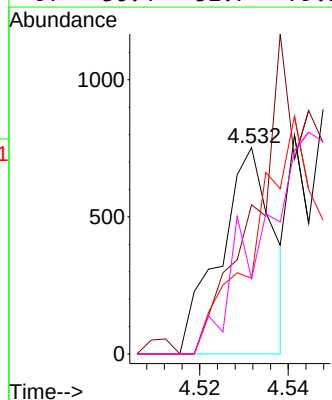
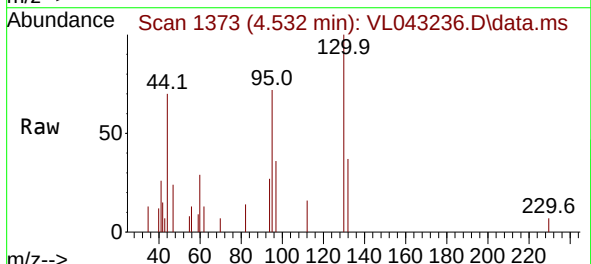
RT: 4.532 min Scan# 1373

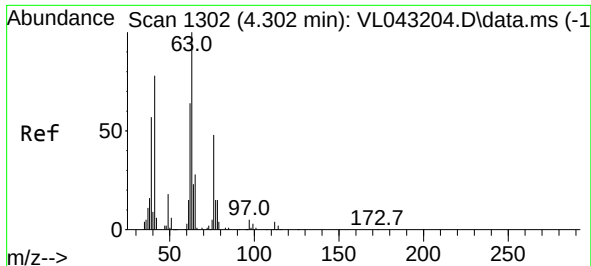
Delta R.T. -0.003 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Tgt Ion: 130	Resp: 617
Ion Ratio	Lower Upper
130 100	
95 72.2	85.7 128.5#
132 36.7	73.4 110.0#
97 36.4	52.7 79.1#





#39

1,2-Dichloropropane

Concen: 7.055 ppbv

RT: 3.956 min Scan# 1195

Delta R.T. -0.346 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Instrument :

MSVOA_L

ClientSampleId :

9A-SG-2

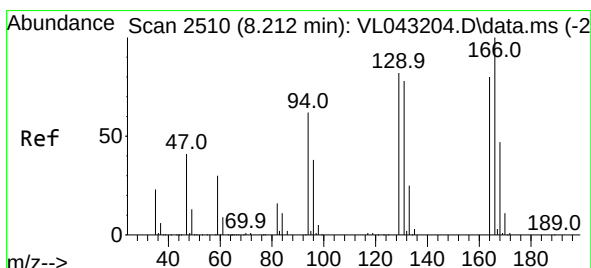
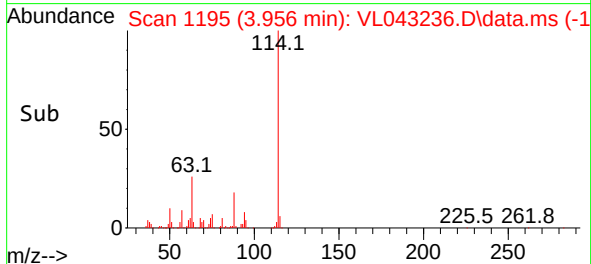
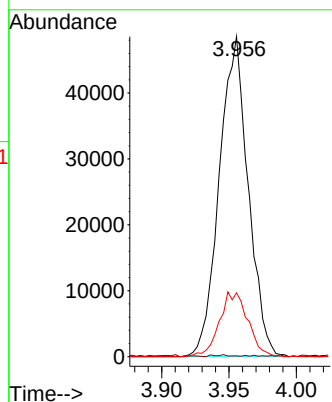
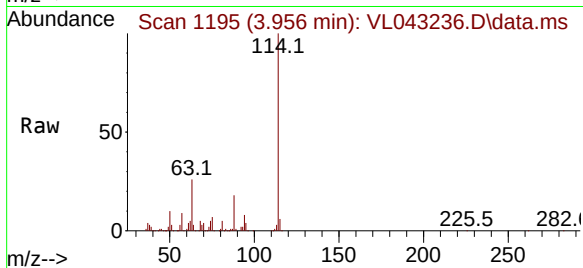
Tgt Ion: 63 Resp: 72302

Ion Ratio Lower Upper

63 100

41 0.2 62.6 93.8#

62 20.0 51.0 76.6#



#52

Tetrachloroethene

Concen: 0.728 ppbv

RT: 8.218 min Scan# 2512

Delta R.T. 0.006 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Tgt Ion:164 Resp: 7582

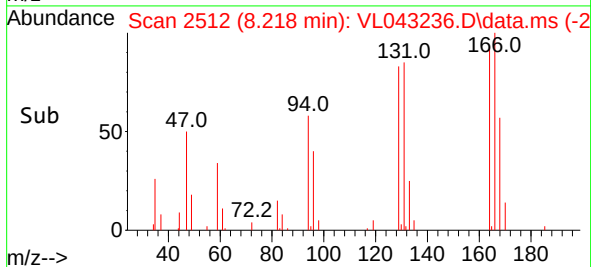
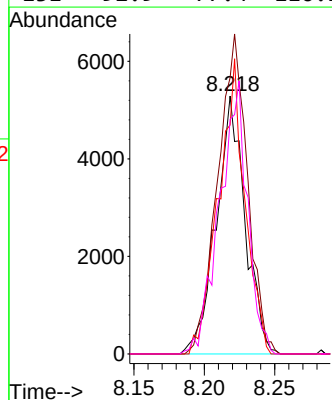
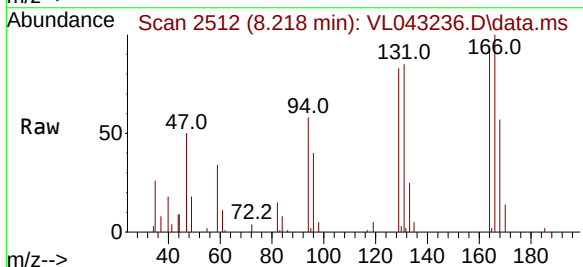
Ion Ratio Lower Upper

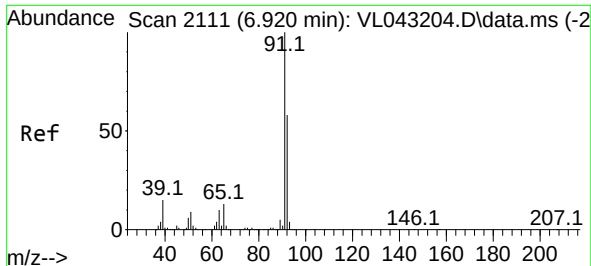
164 100

166 107.1 99.4 149.2

129 88.8 81.8 122.8

131 92.9 77.4 116.2

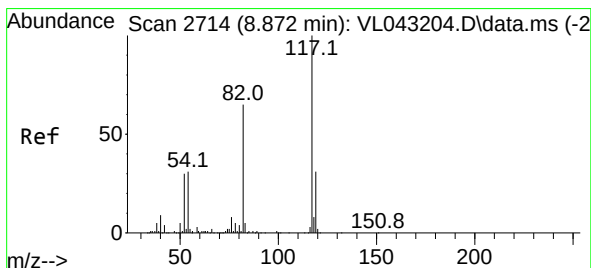
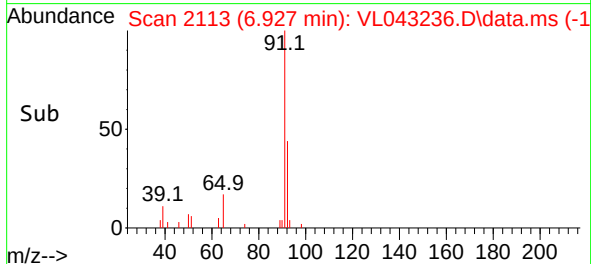
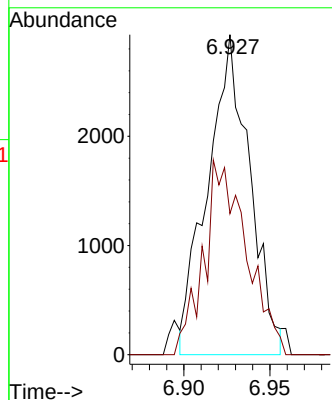
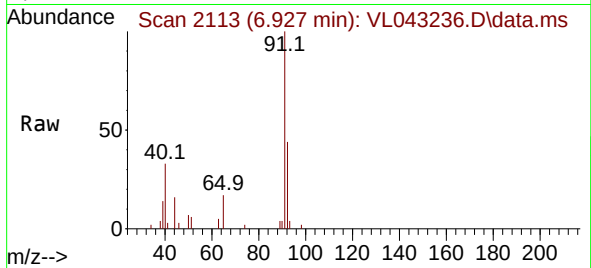




#53
Toluene
Concen: 0.150 ppbv
RT: 6.927 min Scan# 2111
Delta R.T. 0.006 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

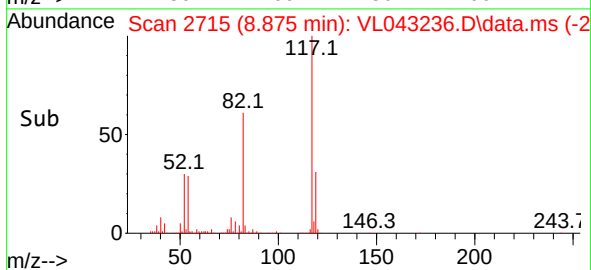
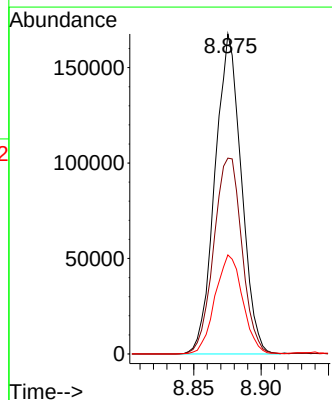
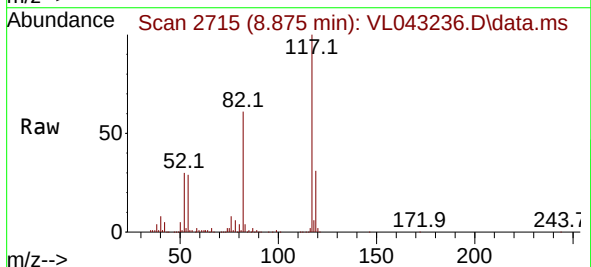
Instrument :
MSVOA_1
ClientSampleId :
9A-SG-2

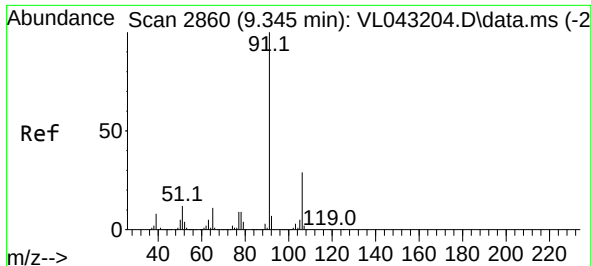
Tgt Ion: 91 Resp: 4988
Ion Ratio Lower Upper
91 100
92 61.3 47.4 71.0



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2715
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 117 Resp: 227868
Ion Ratio Lower Upper
117 100
82 65.8 56.1 84.1
119 32.5 25.0 37.6

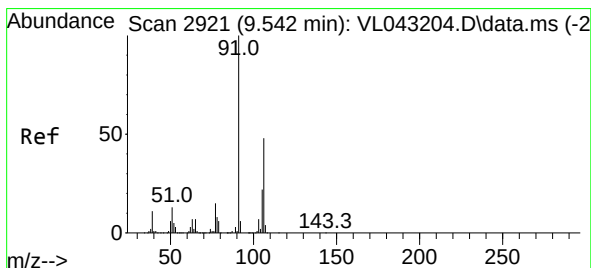
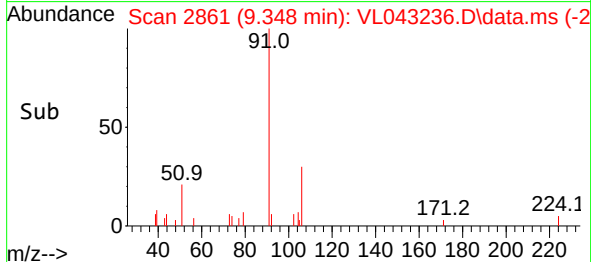
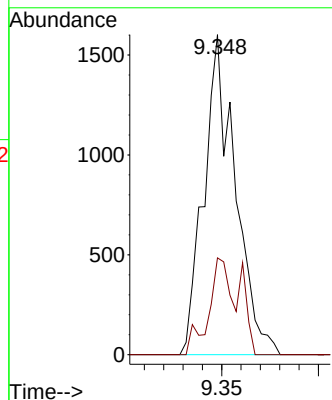
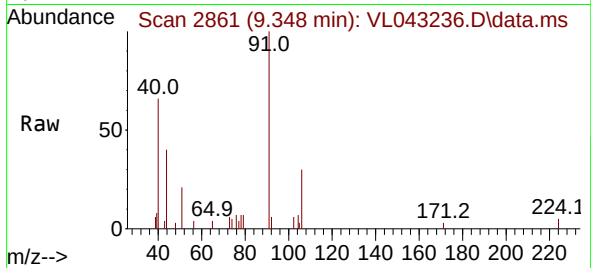




#58
Ethyl Benzene
Concen: 0.041 ppbv
RT: 9.348 min Scan# 2861
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

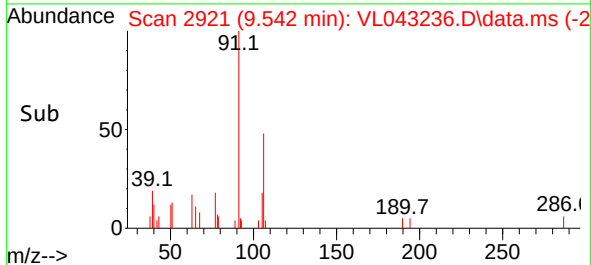
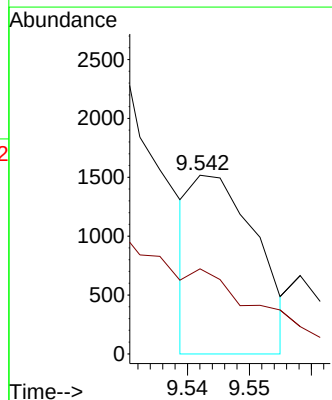
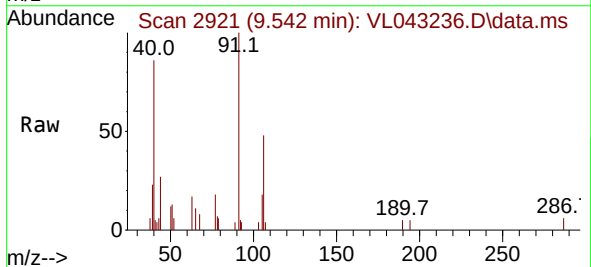
Instrument :
MSVOA_1
ClientSampleId :
9A-SG-2

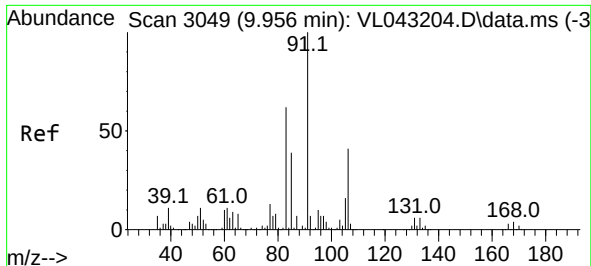
Tgt Ion: 91 Resp: 1800
Ion Ratio Lower Upper
91 100
106 30.3 22.8 34.2



#59
m/p-Xylene
Concen: 0.031 ppbv
RT: 9.542 min Scan# 2921
Delta R.T. -0.000 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 91 Resp: 1102
Ion Ratio Lower Upper
91 100
106 0.0 36.1 54.1#

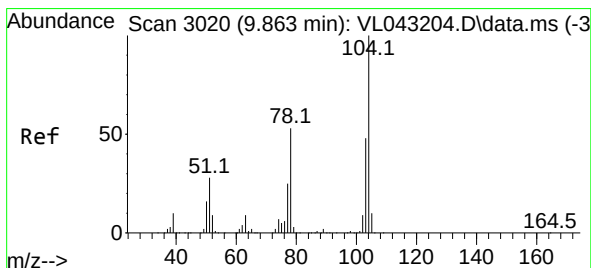
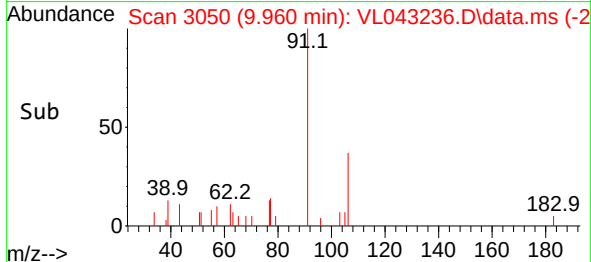
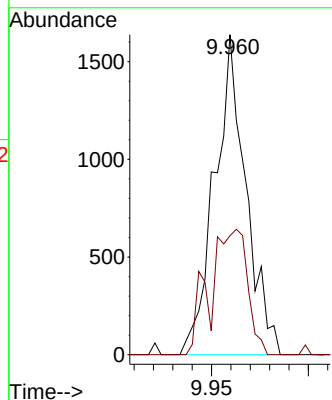
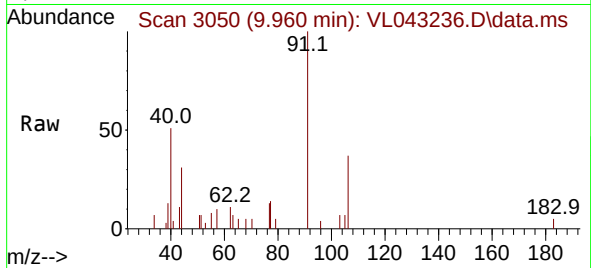




#60
o-Xylene
Concen: 0.052 ppbv
RT: 9.960 min Scan# 3049
Delta R.T. 0.003 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

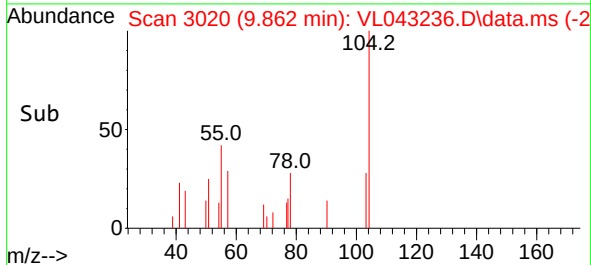
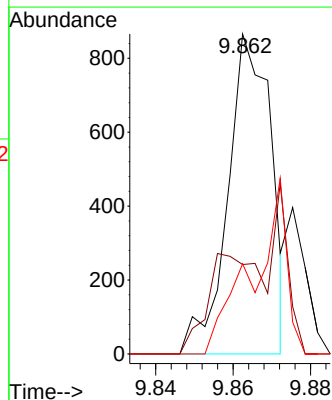
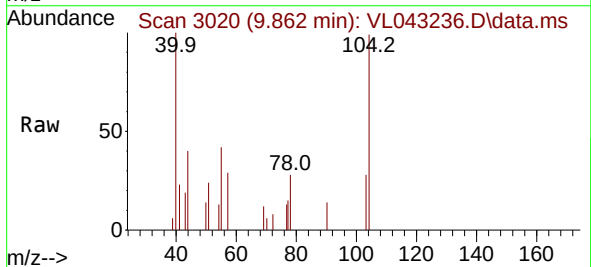
Instrument :
MSVOA_1
ClientSampleId :
9A-SG-2

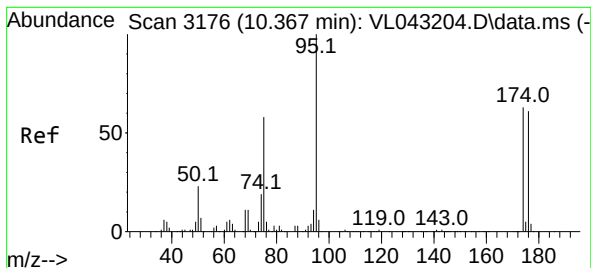
Tgt Ion: 91 Resp: 1842
Ion Ratio Lower Upper
91 100
106 47.5 20.9 62.8



#61
Styrene
Concen: 0.044 ppbv
RT: 9.862 min Scan# 3020
Delta R.T. -0.000 min
Lab File: VL043236.D
Acq: 19 Nov 2025 13:17

Tgt Ion: 104 Resp: 673
Ion Ratio Lower Upper
104 100
78 0.0 42.1 63.1#
103 0.0 37.2 55.8#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.856 ppbv

RT: 10.371 min Scan# 3177

Delta R.T. 0.003 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Instrument :

MSVOA_1

ClientSampleId :

9A-SG-2

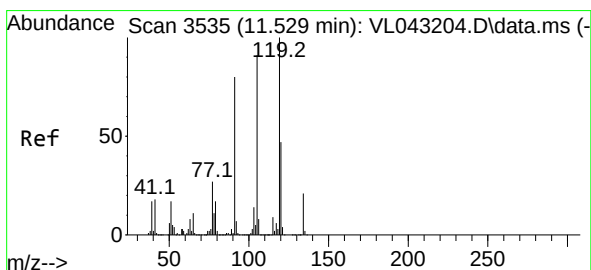
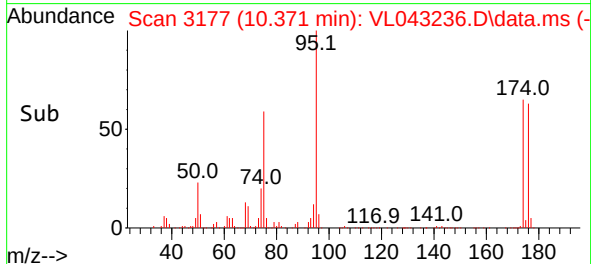
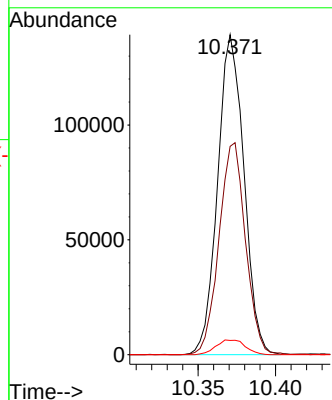
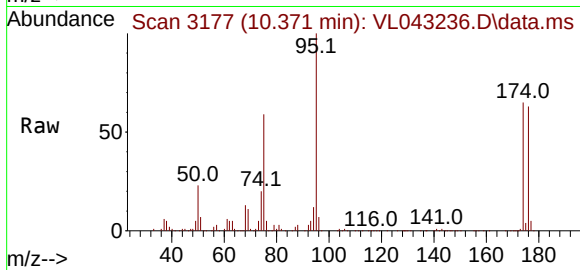
Tgt Ion: 95 Resp: 164621

Ion Ratio Lower Upper

95 100

174 66.9 50.2 75.2

175 5.1 4.1 6.1



#74

1,2,4-Trimethylbenzene

Concen: 0.051 ppbv

RT: 11.533 min Scan# 3536

Delta R.T. 0.003 min

Lab File: VL043236.D

Acq: 19 Nov 2025 13:17

Tgt Ion: 105 Resp: 1982

Ion Ratio Lower Upper

105 100

120 42.7 41.7 62.5

91 25.8 70.0 105.0#

77 16.3 23.8 35.8#

