

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043221.D
 Acq On : 18 Nov 2025 19:58
 Operator : SY/MD
 Sample : Q3650-06
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Nov 19 01:39:24 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

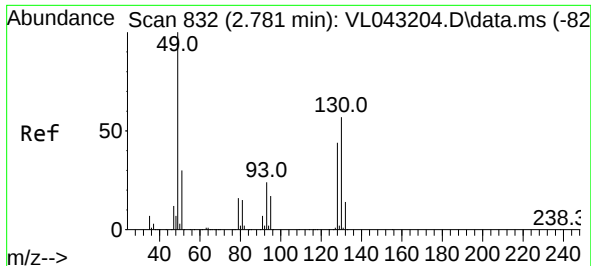
Compound		R.T. QIon		Response	Conc	Units	Dev(Min)

Internal Standards							
1) Bromochloromethane		2.787	49	92120	10.000	ppbv	0.00
33) 1,4-Difluorobenzene		3.955	114	243218	10.000	ppbv	0.00
55) Chlorobenzene-d5		8.875	117	191077	10.000	ppbv	0.00
System Monitoring Compounds							
68) 1-Bromo-4-Fluorobenzene		10.370	95	142616	10.182	ppbv	0.00
Spiked Amount		10.000	Range	65 - 135	Recovery	=	101.800%
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane		1.499	85	5645	0.434	ppbv	90
3) Chlorodifluoromethane		1.476	51	4620	0.362	ppbv	93
4) Chloromethane		1.534	50	2297	0.473	ppbv	92
9) Propene		1.486	41	1850	0.341	ppbv #	1
12) 1,1,2-Trichlorotrifluo...		2.140	101	436	0.044	ppbv #	65
13) Ethanol		1.722	45	4898	2.567	ppbv #	38
15) Acetone		1.835	43	31117	2.431	ppbv	100
16) 1,3-Butadiene		1.602	39	645	0.113	ppbv #	60
17) tert-Butyl alcohol		2.046	59	1121	0.067	ppbv #	3
19) Isopropyl Alcohol		1.887	45	4362	0.603	ppbv #	1
20) Methylene Chloride		2.059	84	5113	0.619	ppbv #	91
23) Vinyl Acetate		2.457	43	980	0.063	ppbv #	87
25) Ethyl Acetate		2.826	43	3084	0.112	ppbv #	88
26) Hexane		2.823	57	2923	0.242	ppbv #	52
34) 2-Butanone		2.560	43	4026	0.234	ppbv	100
35) Carbon Tetrachloride		3.758	117	818	0.044	ppbv #	63
36) Benzene		3.651	78	2521	0.108	ppbv #	84
39) 1,2-Dichloropropane		3.952	63	65346	7.665	ppbv #	24
53) Toluene		6.936	91	1576	0.057	ppbv #	21
66) Benzyl Chloride		11.532	91	170	0.036	ppbv #	65

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

Quant Time: Nov 19 01:39:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

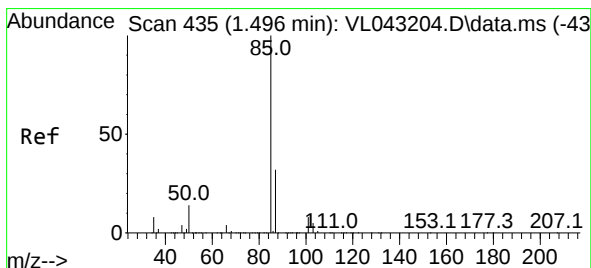
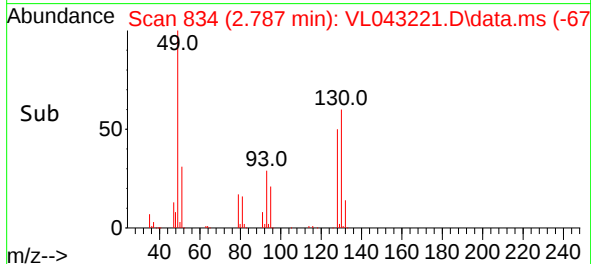
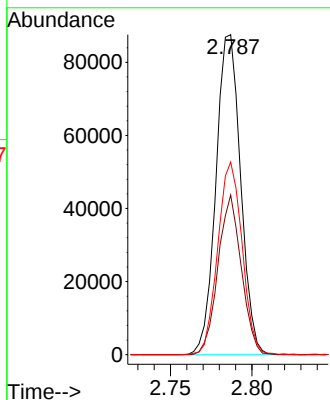
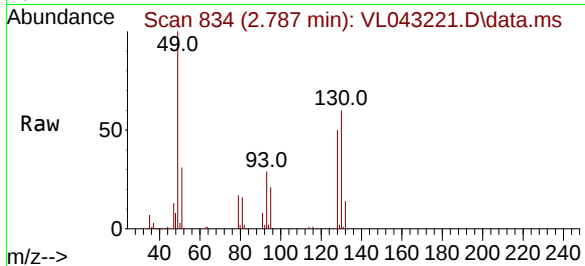




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 81
Delta R.T. 0.006 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

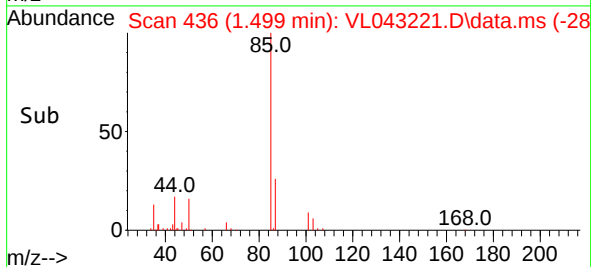
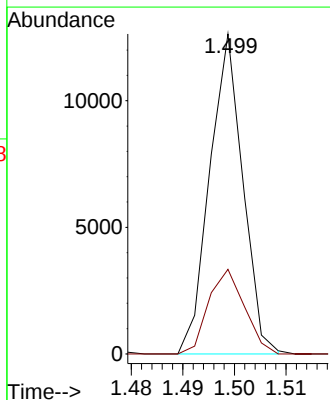
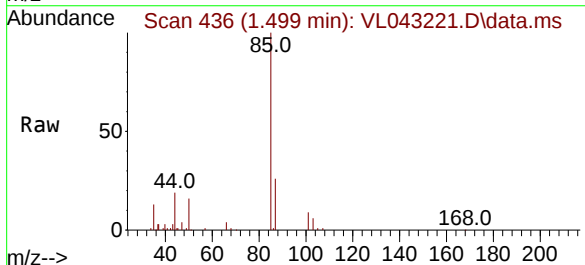
Instrument :
MSVOA_L
ClientSampleId :
OA1

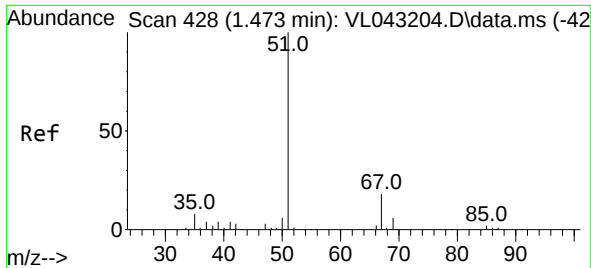
Tgt Ion: 49 Resp: 92120
Ion Ratio Lower Upper
49 100
128 47.0 23.0 69.0
130 59.4 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.434 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 85 Resp: 5645
Ion Ratio Lower Upper
85 100
87 26.4 25.4 38.2

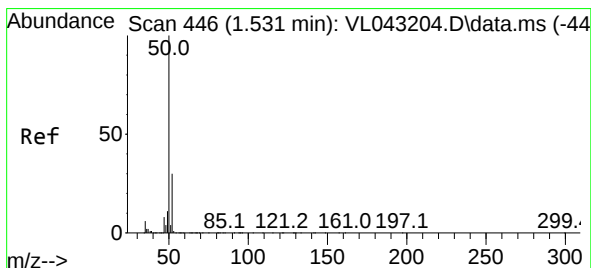
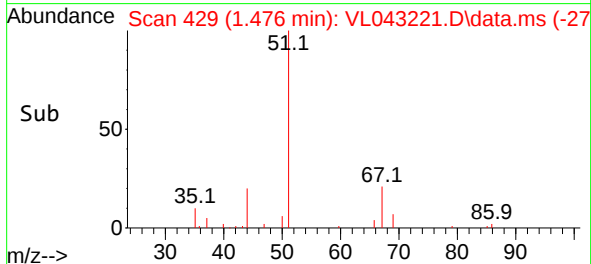
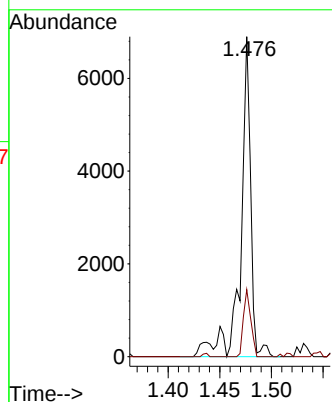
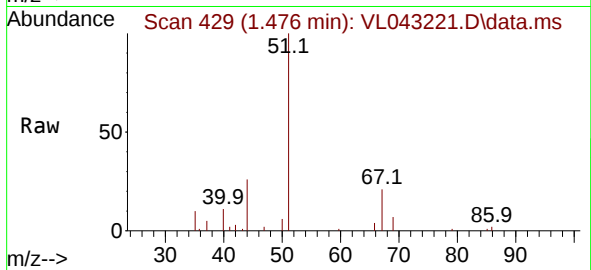




#3
Chlorodifluoromethane
Concen: 0.362 ppbv
RT: 1.476 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

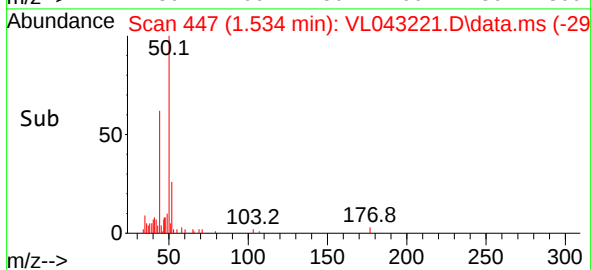
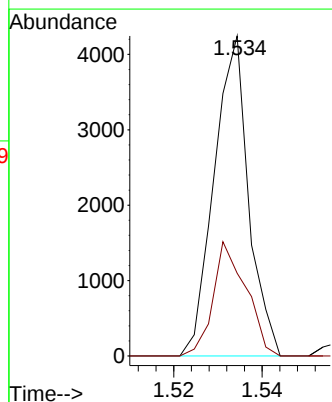
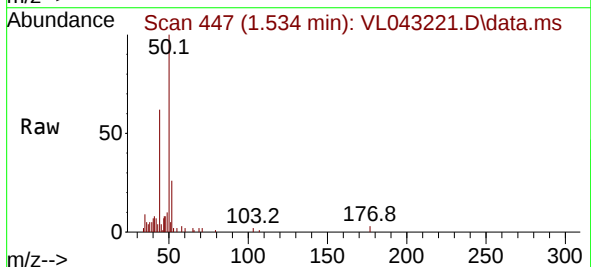
Instrument :
MSVOA_1
ClientSampleId :
OA1

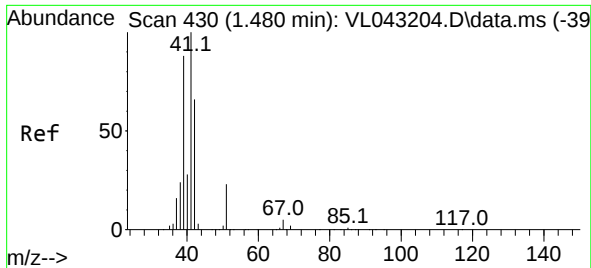
Tgt Ion: 51 Resp: 4620
Ion Ratio Lower Upper
51 100
67 15.5 14.9 22.3



#4
Chloromethane
Concen: 0.473 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 50 Resp: 2297
Ion Ratio Lower Upper
50 100
52 25.9 24.1 36.1





#9

Propene

Concen: 0.341 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043221.D

Acq: 18 Nov 2025 19:58

Instrument :

MSVOA_L

ClientSampleId :

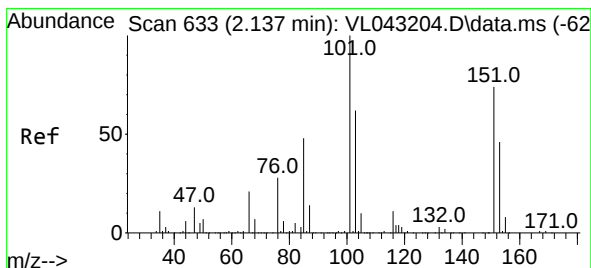
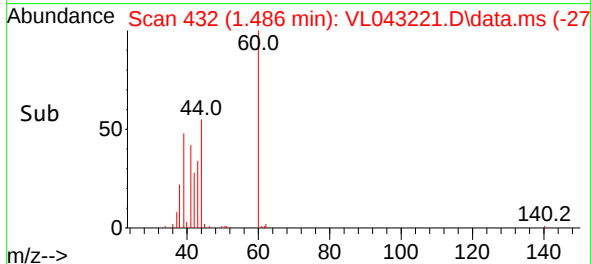
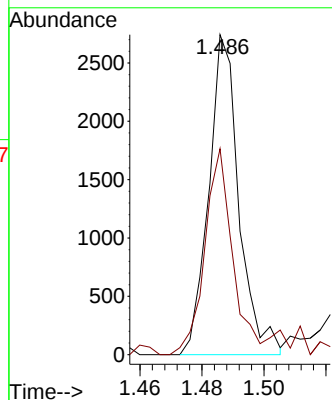
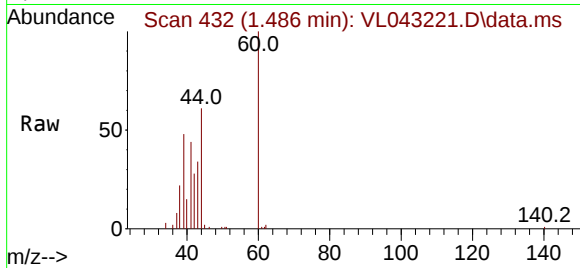
OA1

Tgt Ion: 41 Resp: 1850

Ion Ratio Lower Upper

41 100

42 71.0 3.7 5.5#



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.044 ppbv

RT: 2.140 min Scan# 634

Delta R.T. 0.003 min

Lab File: VL043221.D

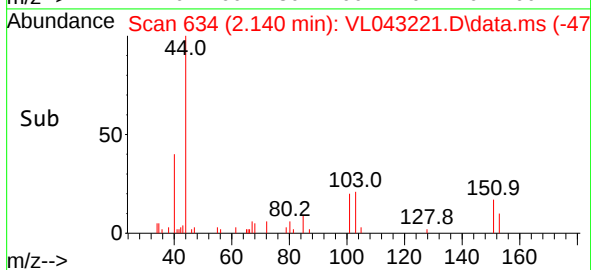
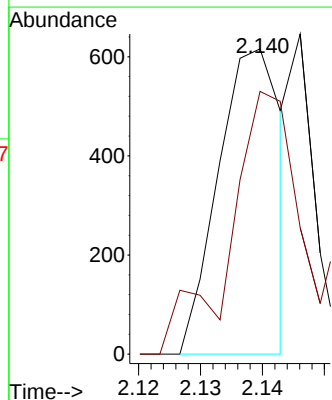
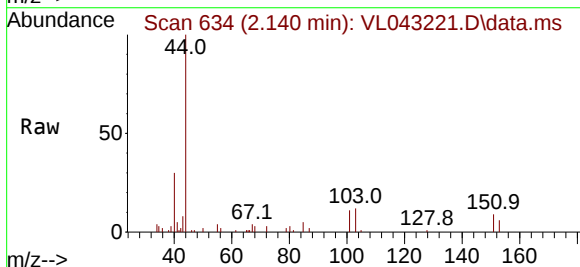
Acq: 18 Nov 2025 19:58

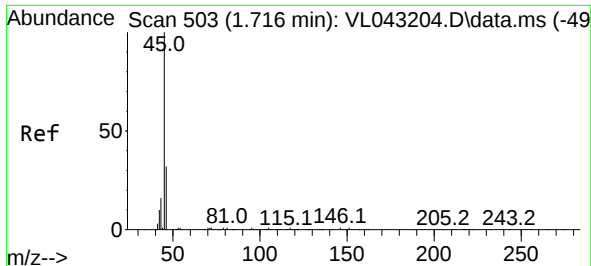
Tgt Ion: 101 Resp: 436

Ion Ratio Lower Upper

101 100

151 103.9 59.2 88.8#

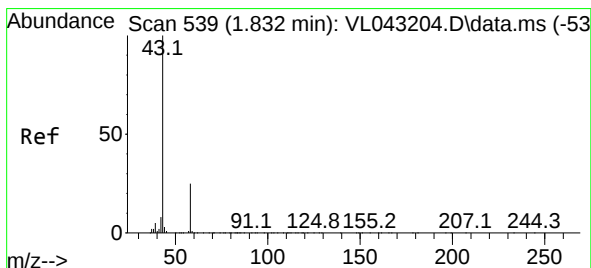
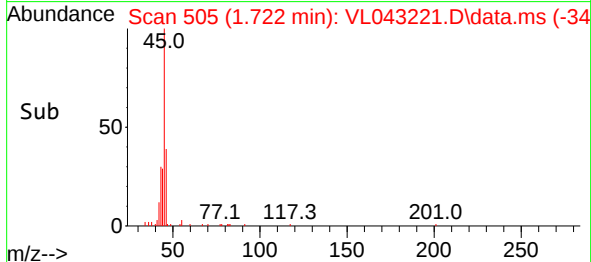
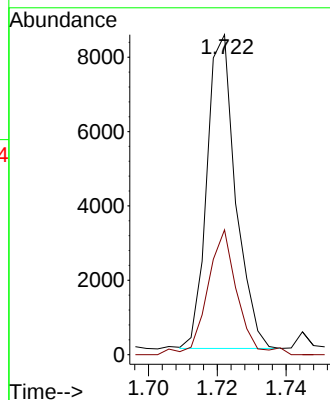
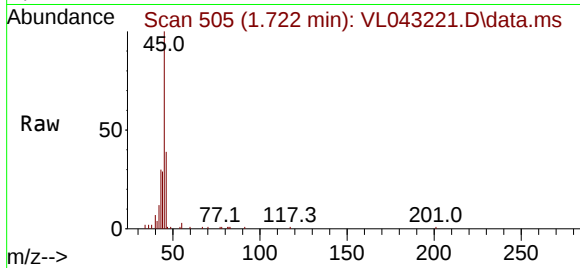




#13
Ethanol
Concen: 2.567 ppbv
RT: 1.722 min Scan# 50
Delta R.T. 0.006 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

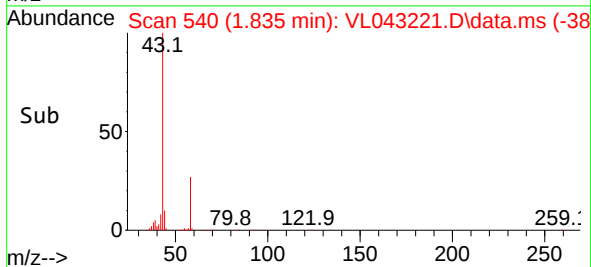
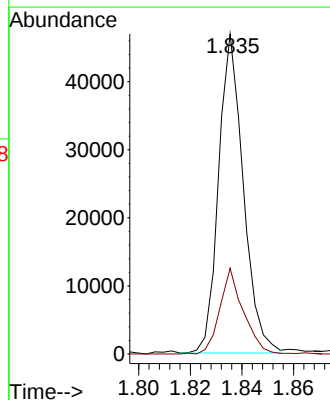
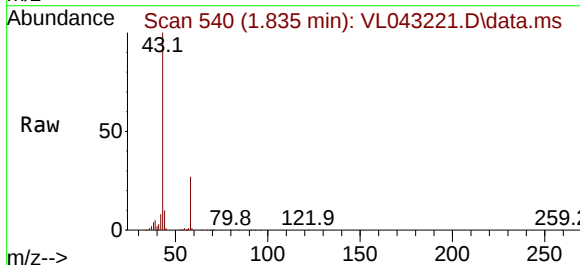
Instrument :
MSVOA_L
ClientSampleId :
OA1

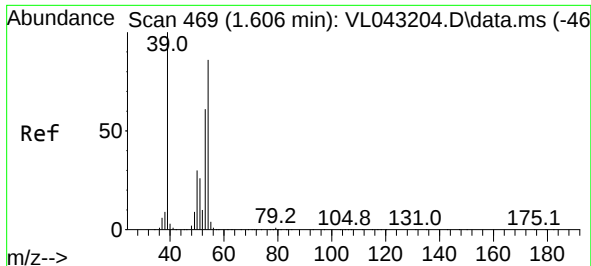
Tgt Ion: 45 Resp: 4898
Ion Ratio Lower Upper
45 100
46 0.0 15.0 59.8#



#15
Acetone
Concen: 2.431 ppbv
RT: 1.835 min Scan# 540
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 43 Resp: 31117
Ion Ratio Lower Upper
43 100
58 25.7 20.7 31.1





#16

1,3-Butadiene

Concen: 0.113 ppbv

RT: 1.602 min Scan# 468

Delta R.T. -0.004 min

Lab File: VL043221.D

Acq: 18 Nov 2025 19:58

Instrument :

MSVOA_1

ClientSampleId :

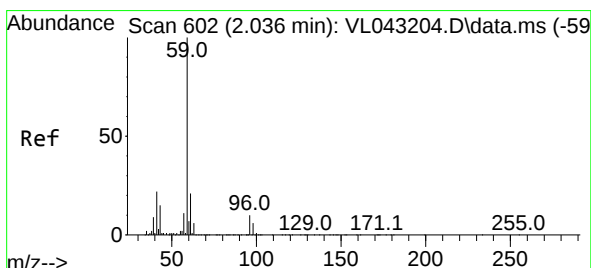
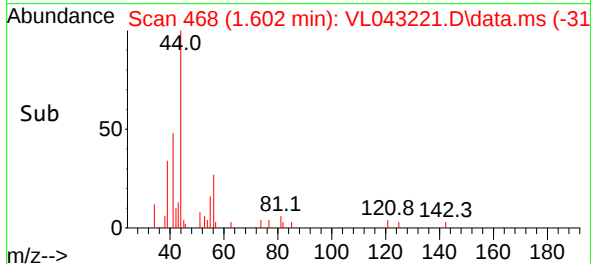
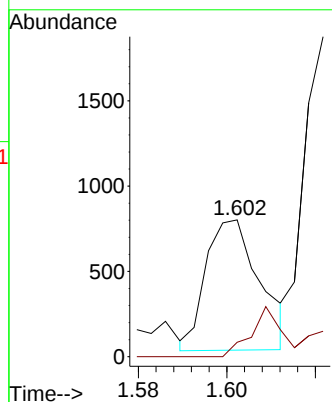
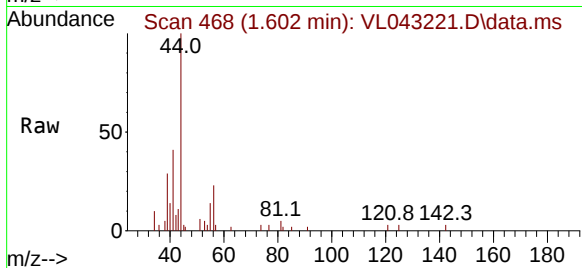
OA1

Tgt Ion: 39 Resp: 645

Ion Ratio Lower Upper

39 100

54 40.2 59.4 89.2#



#17

tert-Butyl alcohol

Concen: 0.067 ppbv

RT: 2.046 min Scan# 605

Delta R.T. 0.009 min

Lab File: VL043221.D

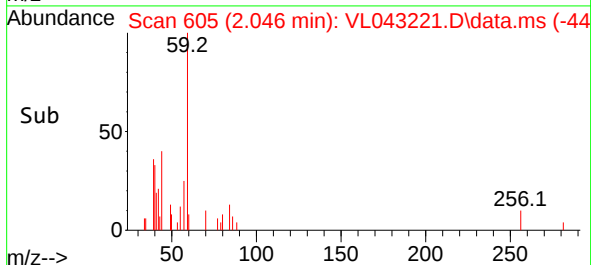
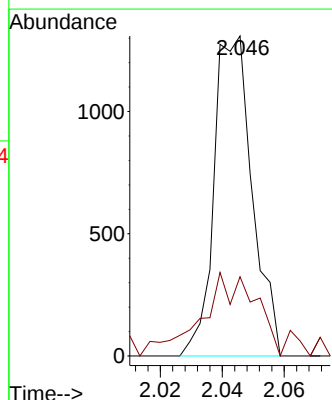
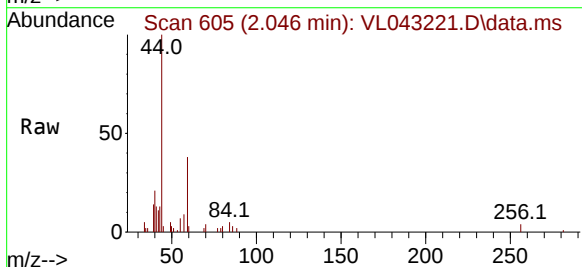
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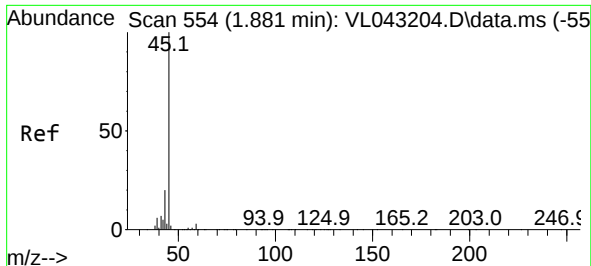
Tgt Ion: 59 Resp: 1121

Ion Ratio Lower Upper

59 100

57 48.3 9.0 13.4#





#19

Isopropyl Alcohol

Concen: 0.603 ppbv

RT: 1.887 min Scan# 5

Delta R.T. 0.006 min

Lab File: VL043221.D

Acq: 18 Nov 2025 19:58

Instrument :

MSVOA_L

ClientSampleId :

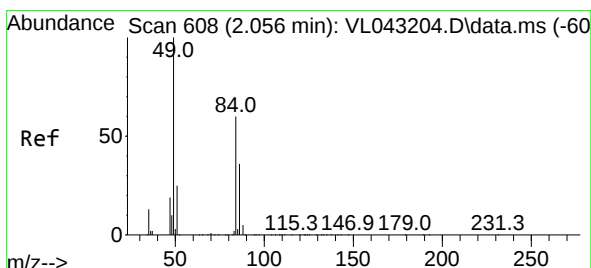
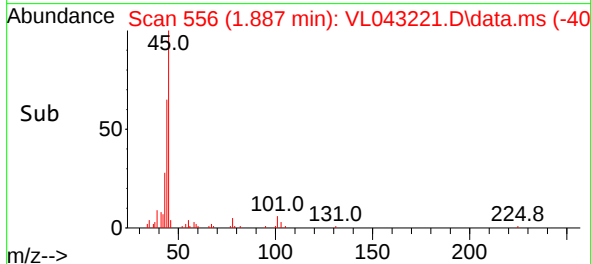
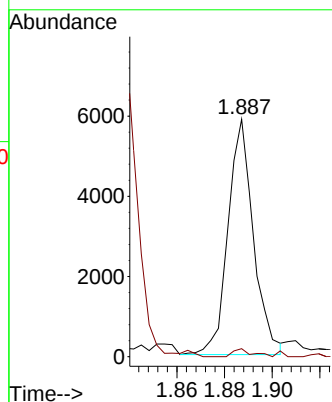
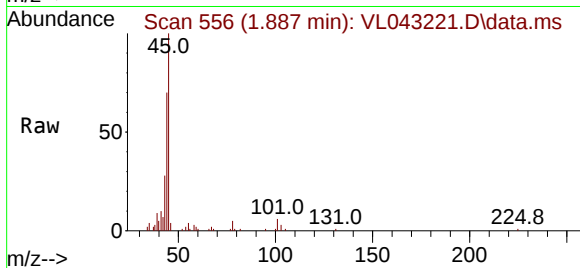
OA1

Tgt Ion: 45 Resp: 4362

Ion Ratio Lower Upper

45 100

58 183.7 31.3 46.9#



#20

Methylene Chloride

Concen: 0.619 ppbv

RT: 2.059 min Scan# 609

Delta R.T. 0.003 min

Lab File: VL043221.D

Acq: 18 Nov 2025 19:58

Tgt Ion: 84 Resp: 5113

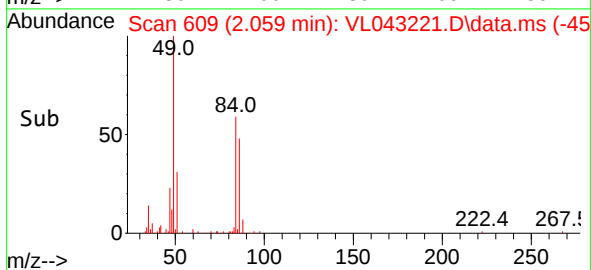
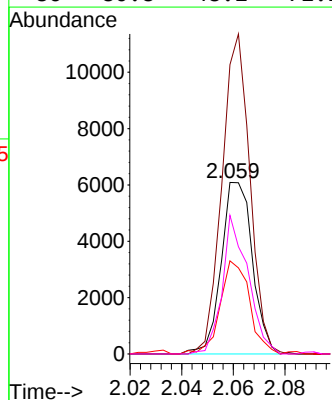
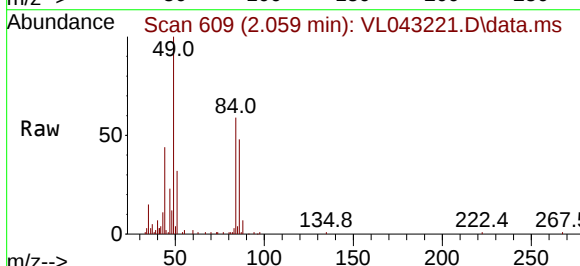
Ion Ratio Lower Upper

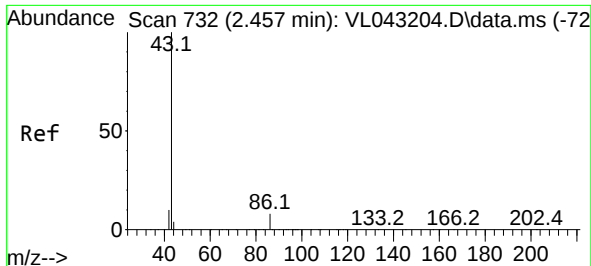
84 100

49 167.3 132.9 199.3

51 54.3 34.8 52.2#

86 80.8 48.2 72.2#



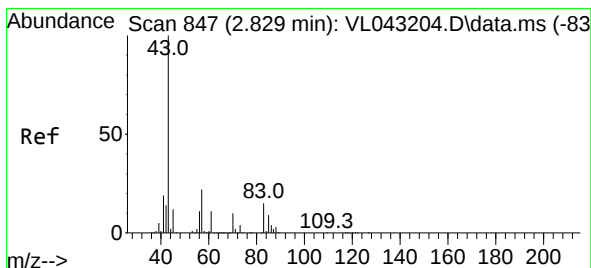
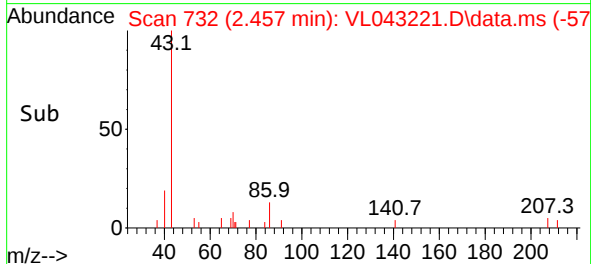
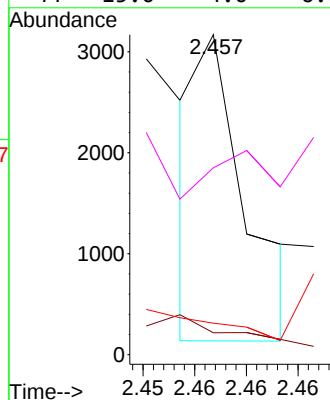
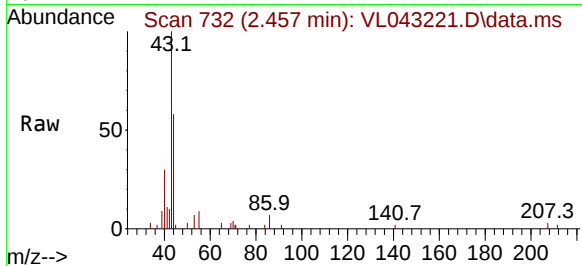


#23
 Vinyl Acetate
 Concen: 0.063 ppbv
 RT: 2.457 min Scan# 71
 Delta R.T. -0.000 min
 Lab File: VL043221.D
 Acq: 18 Nov 2025 19:58

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Tgt Ion: 43 Resp: 980

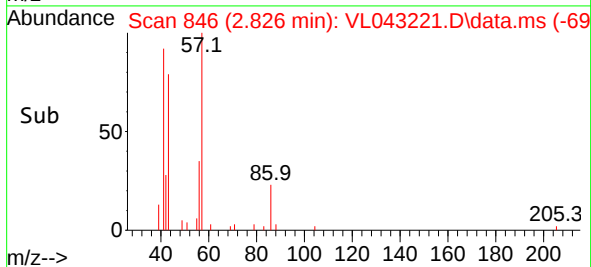
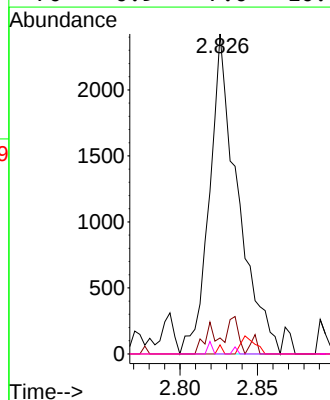
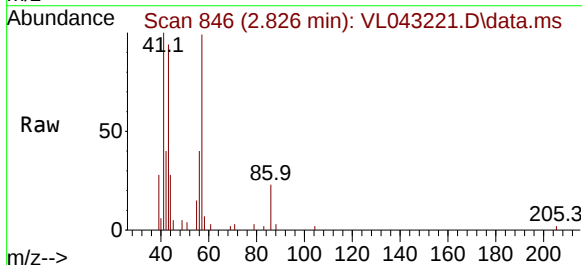
Ion	Ratio	Lower	Upper
43	100		
86	3.1	6.2	9.2#
42	8.3	8.0	12.0
44	15.0	4.0	6.0#

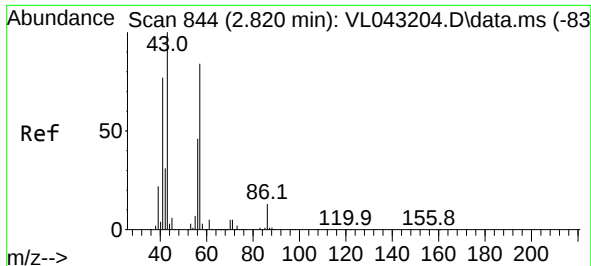


#25
 Ethyl Acetate
 Concen: 0.112 ppbv
 RT: 2.826 min Scan# 846
 Delta R.T. -0.004 min
 Lab File: VL043221.D
 Acq: 18 Nov 2025 19:58

Tgt Ion: 43 Resp: 3084

Ion	Ratio	Lower	Upper
43	100		
45	10.1	8.1	12.1
61	3.2	7.0	10.4#
70	0.9	7.0	10.6#

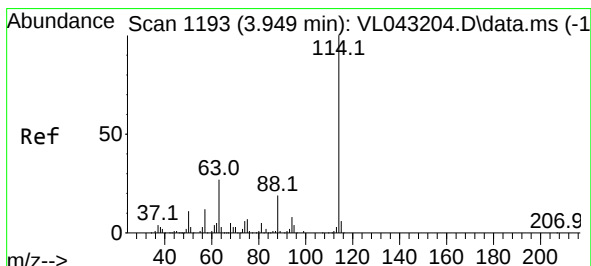
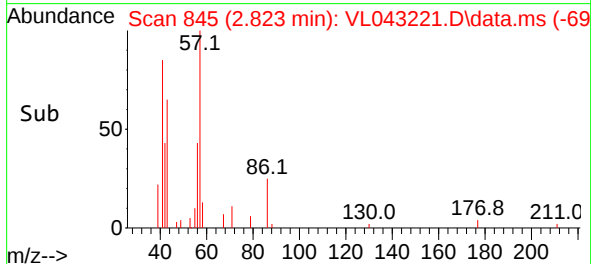
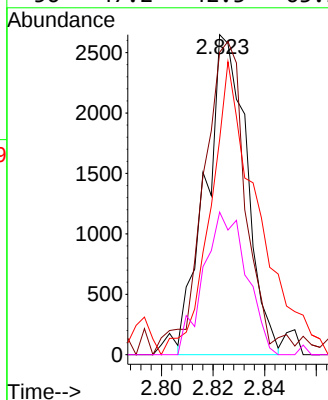
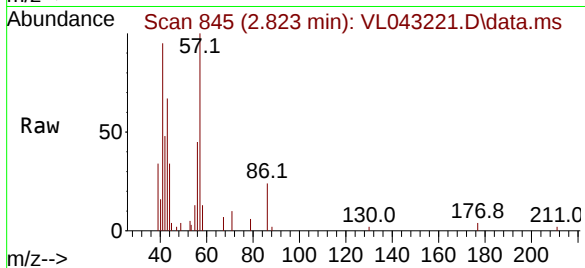




#26
Hexane
Concen: 0.242 ppbv
RT: 2.823 min Scan# 844
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

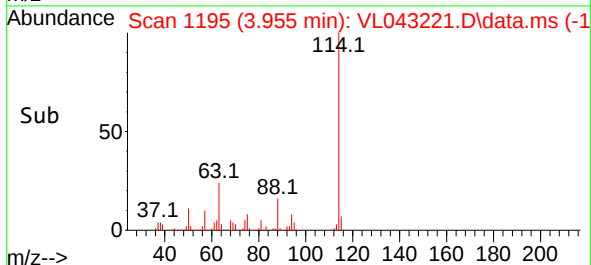
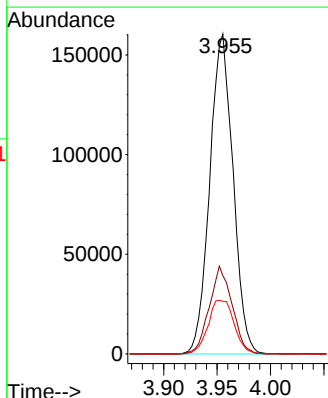
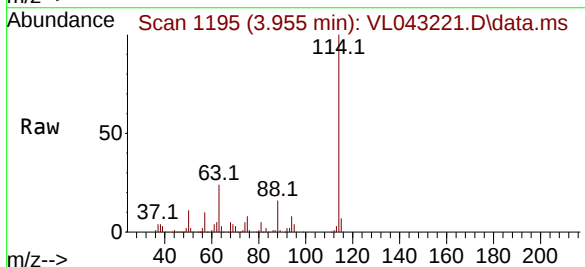
Instrument :
MSVOA_1
ClientSampleId :
OA1

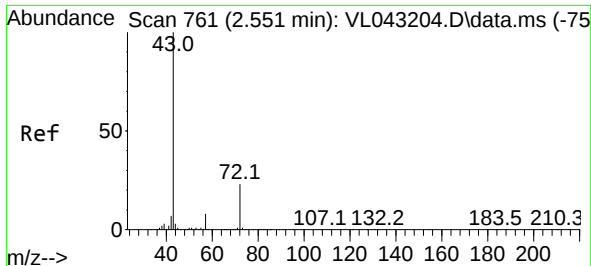
Tgt Ion: 57	Resp: 2923
Ion Ratio	Lower Upper
57 100	
41 106.5	74.6 111.8
43 107.9	179.0 268.4#
56 47.2	42.3 63.5



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.955 min Scan# 1195
Delta R.T. 0.006 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion:114	Resp: 243218
Ion Ratio	Lower Upper
114 100	
63 26.9	21.0 31.6
88 18.7	14.9 22.3

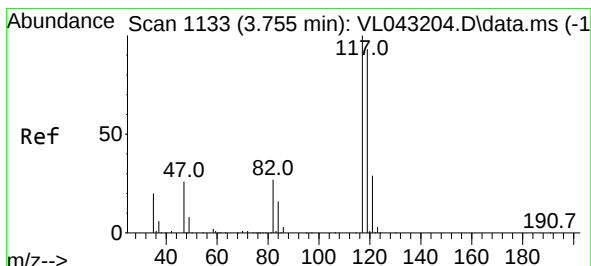
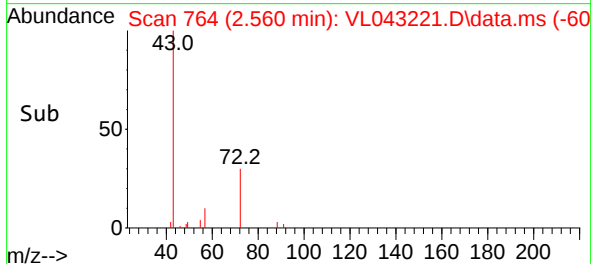
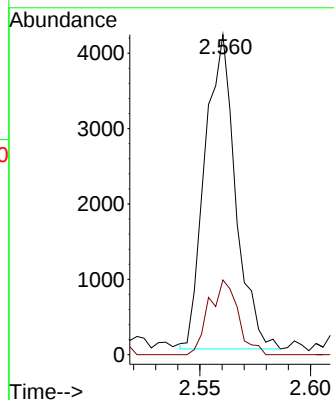
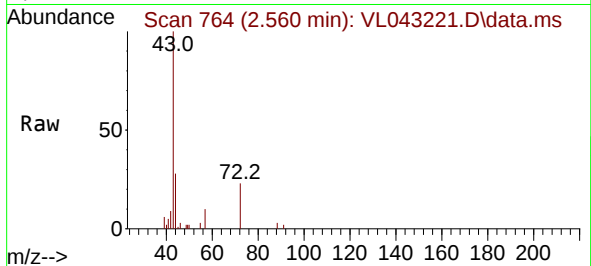




#34
2-Butanone
Concen: 0.234 ppbv
RT: 2.560 min Scan# 764
Delta R.T. 0.009 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

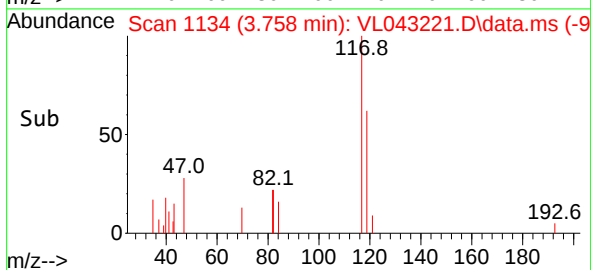
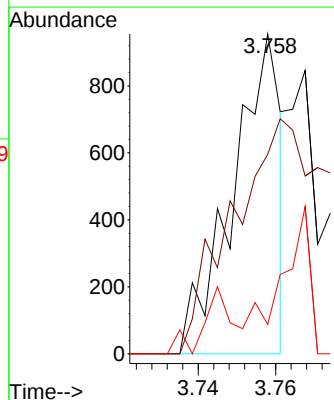
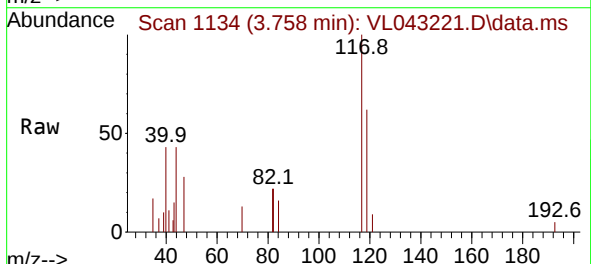
Instrument :
MSVOA_L
ClientSampleId :
OA1

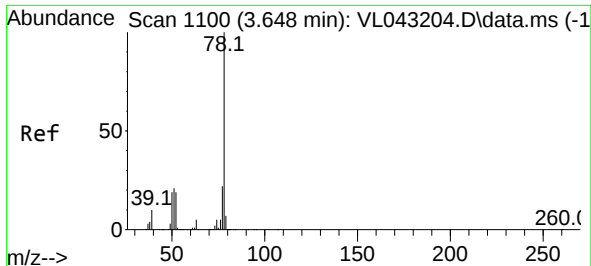
Tgt Ion: 43 Resp: 4026
Ion Ratio Lower Upper
43 100
72 22.5 18.1 27.1



#35
Carbon Tetrachloride
Concen: 0.044 ppbv
RT: 3.758 min Scan# 1134
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 117 Resp: 818
Ion Ratio Lower Upper
117 100
119 62.4 74.6 112.0#
121 1.7 23.2 34.8#

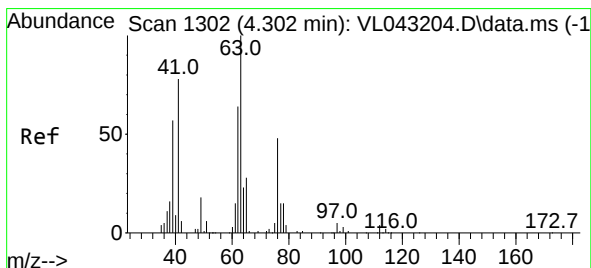
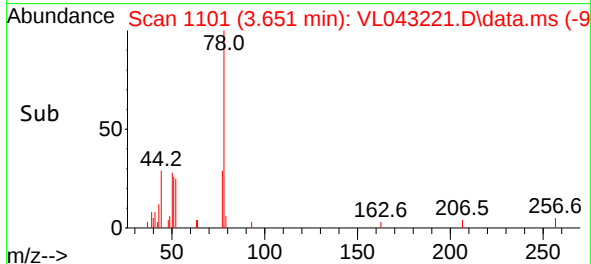
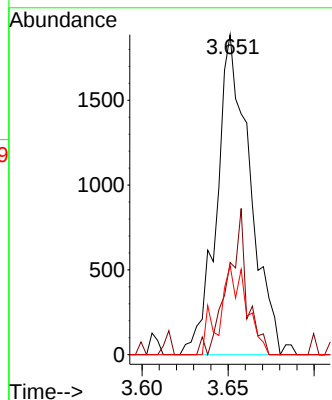
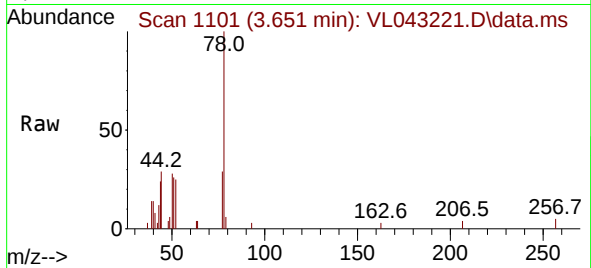




#36
Benzene
Concen: 0.108 ppbv
RT: 3.651 min Scan# 1100
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

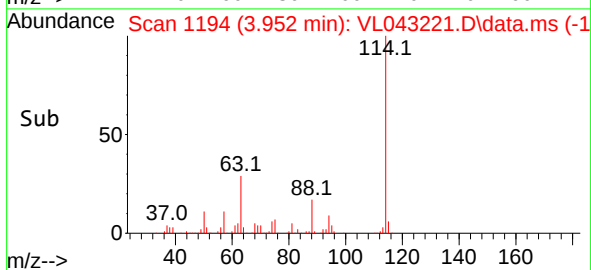
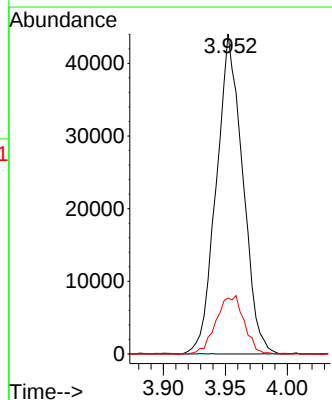
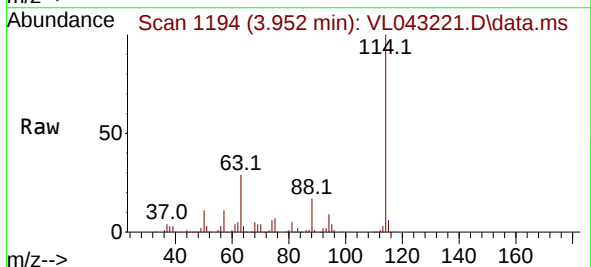
Instrument :
MSVOA_L
ClientSampleId :
OA1

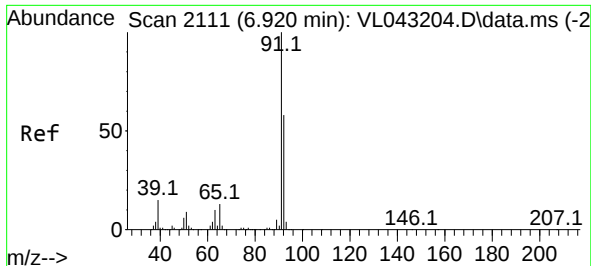
Tgt Ion: 78 Resp: 2521
Ion Ratio Lower Upper
78 100
77 28.8 17.5 26.3#
50 27.8 15.5 23.3#



#39
1,2-Dichloropropane
Concen: 7.665 ppbv
RT: 3.952 min Scan# 1194
Delta R.T. -0.350 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 63 Resp: 65346
Ion Ratio Lower Upper
63 100
41 0.3 62.6 93.8#
62 17.5 51.0 76.6#

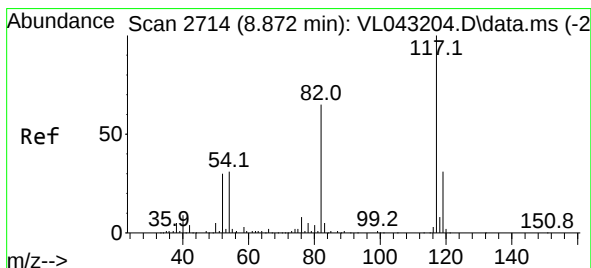
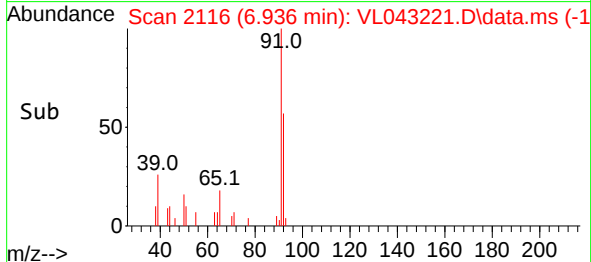
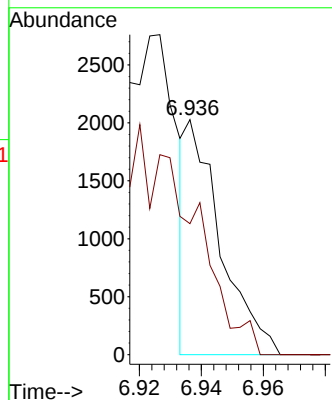
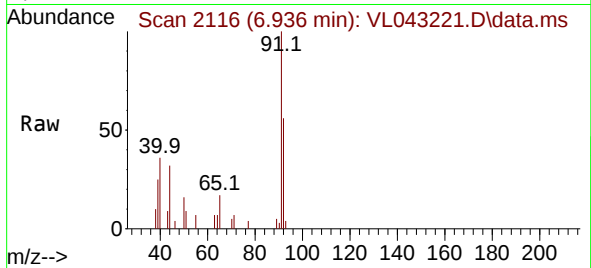




#53
Toluene
Concen: 0.057 ppbv
RT: 6.936 min Scan# 2111
Delta R.T. 0.016 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

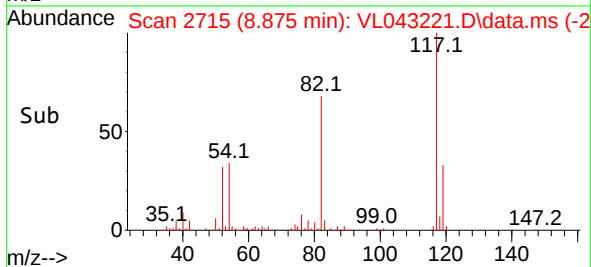
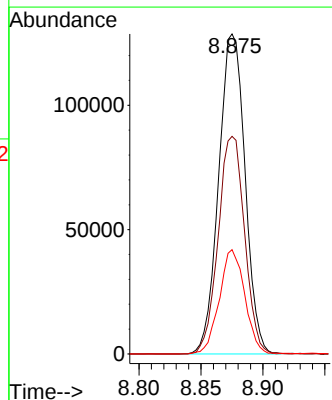
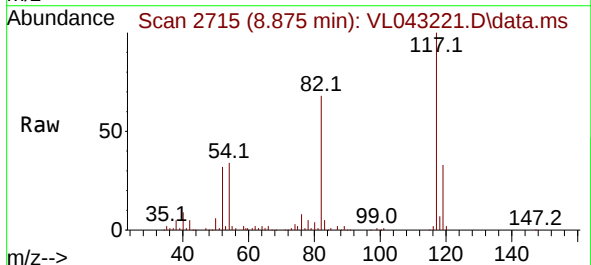
Instrument :
MSVOA_L
ClientSampleId :
OA1

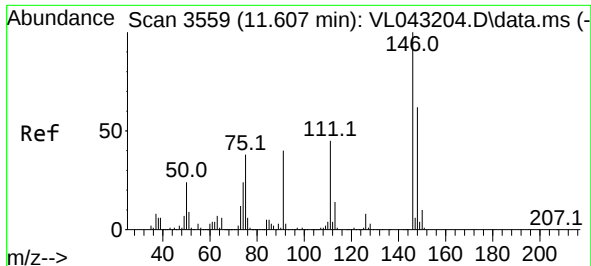
Tgt Ion: 91 Resp: 1576
Ion Ratio Lower Upper
91 100
92 0.0 47.4 71.0#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2715
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 117 Resp: 191077
Ion Ratio Lower Upper
117 100
82 68.0 56.1 84.1
119 31.5 25.0 37.6

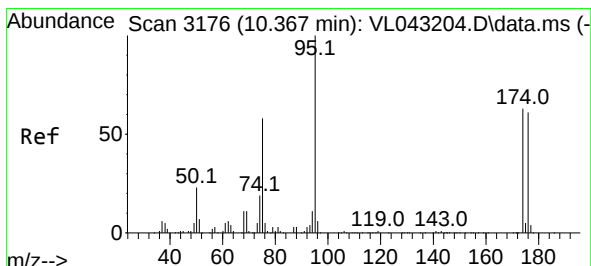
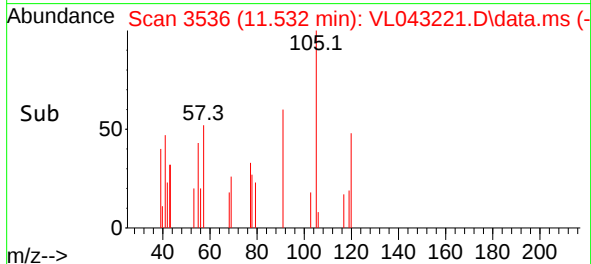
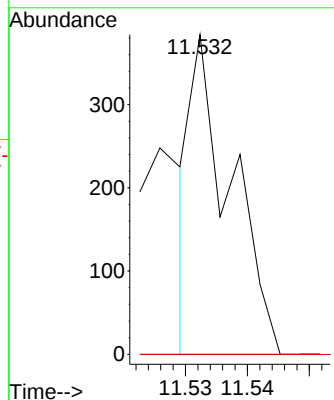
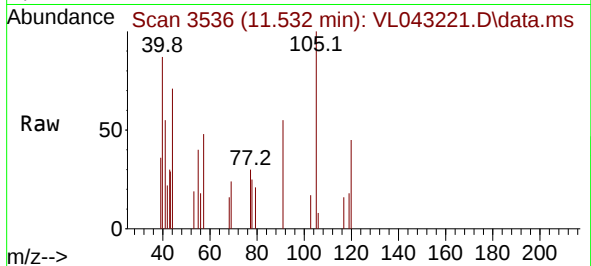




#66
Benzyl Chloride
Concen: 0.036 ppbv
RT: 11.532 min Scan# 3177
Delta R.T. -0.075 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 91 Resp: 170
Ion Ratio Lower Upper
91 100
126 0.0 14.4 21.6#
128 0.0 4.6 6.8#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.182 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. 0.003 min
Lab File: VL043221.D
Acq: 18 Nov 2025 19:58

Tgt Ion: 95 Resp: 142616
Ion Ratio Lower Upper
95 100
174 59.0 50.2 75.2
175 4.5 4.1 6.1

