

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043219.D
 Acq On : 18 Nov 2025 18:49
 Operator : SY/MD
 Sample : Q3650-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Quant Time: Nov 19 01:38:34 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

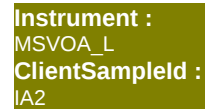
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

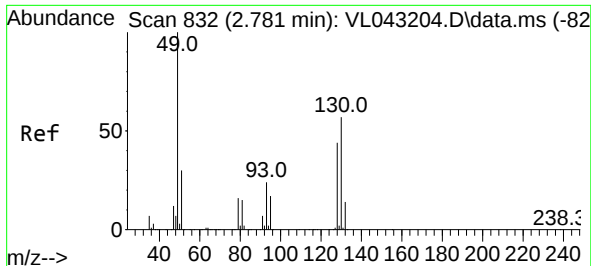
Internal Standards						
1) Bromochloromethane	2.787	49	96487	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	253507	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	197811	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.374	95	148639	10.251	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 102.500%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	6241	0.459	ppbv	94
3) Chlorodifluoromethane	1.476	51	5386	0.402	ppbv #	86
4) Chloromethane	1.534	50	2395	0.471	ppbv #	87
5) Vinyl Chloride	1.486	62	206	0.037	ppbv #	41
6) Bromomethane	1.670	94	103	0.038	ppbv #	4
9) Propene	1.489	41	4862	0.856	ppbv #	1
11) Trichlorofluoromethane	1.502	101	456	0.035	ppbv	95
12) 1,1,2-Trichlorotrifluo...	2.140	101	348	0.034	ppbv #	12
13) Ethanol	1.722	45	22426	11.222	ppbv	94
15) Acetone	1.835	43	390504	29.131	ppbv	99
16) 1,3-Butadiene	1.602	39	499	0.083	ppbv #	12
17) tert-Butyl alcohol	2.043	59	712	0.040	ppbv #	1
19) Isopropyl Alcohol	1.887	45	23947	3.161	ppbv #	1
20) Methylene Chloride	2.065	84	6139	0.835	ppbv #	92
23) Vinyl Acetate	2.454	43	3519	0.217	ppbv #	70
25) Ethyl Acetate	2.832	43	7686	0.266	ppbv #	73
26) Hexane	2.829	57	5923	0.467	ppbv #	64
27) Carbon Disulfide	2.153	76	528	0.041	ppbv #	57
34) 2-Butanone	2.560	43	5222	0.292	ppbv	93
35) Carbon Tetrachloride	3.761	117	870	0.045	ppbv #	85
36) Benzene	3.658	78	2289	0.094	ppbv #	78
39) 1,2-Dichloropropane	3.959	63	33165	3.732	ppbv #	24
43) Methyl Methacrylate	4.868	69	879	0.068	ppbv #	1
53) Toluene	6.930	91	9496	0.330	ppbv #	79
58) Ethyl Benzene	9.357	91	1499	0.039	ppbv	93
59) m/p-Xylene	9.548	91	1741	0.057	ppbv #	31
60) o-Xylene	9.963	91	2199	0.072	ppbv	92
61) Styrene	9.872	104	1446	0.108	ppbv	94
66) Benzyl Chloride	11.532	91	382	0.077	ppbv #	65
73) 1,3,5-Trimethylbenzene	11.199	105	1164	0.037	ppbv #	81
74) 1,2,4-Trimethylbenzene	11.532	105	2600	0.076	ppbv #	59

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

Instrument :
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IA2

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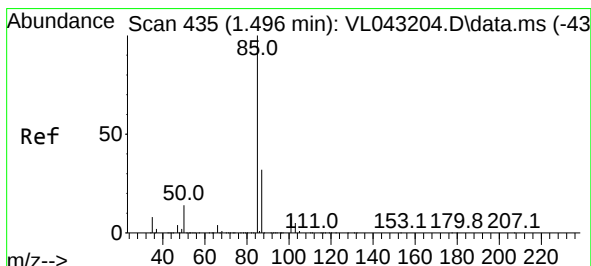
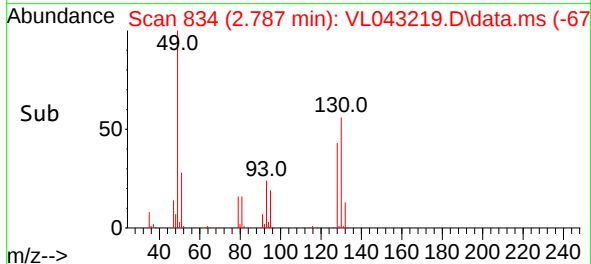
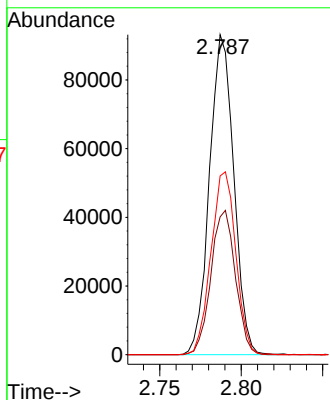
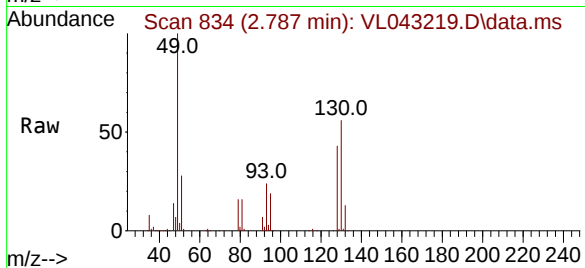




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 832
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

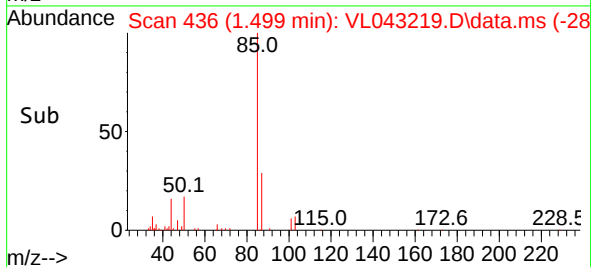
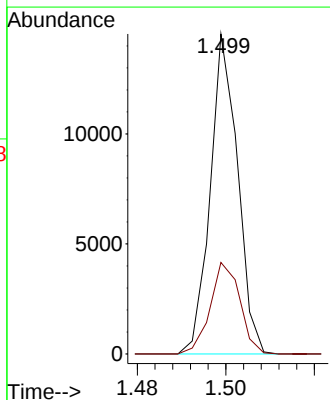
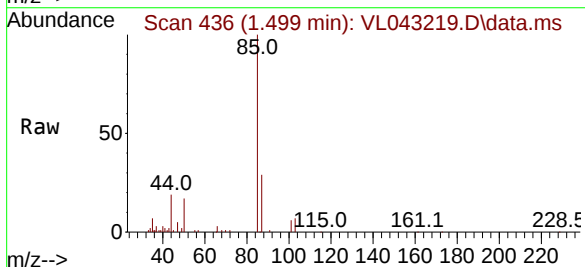
Instrument :
MSVOA_L
ClientSampleId :
IA2

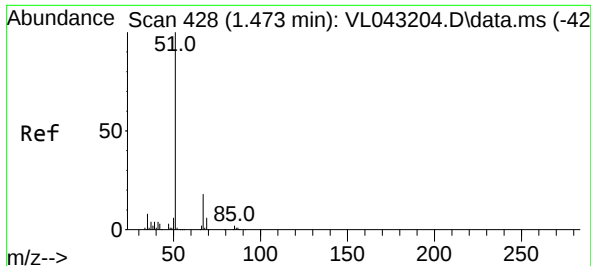
Tgt Ion: 49 Resp: 96487
Ion Ratio Lower Upper
49 100
128 45.5 23.0 69.0
130 58.5 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.459 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 85 Resp: 6241
Ion Ratio Lower Upper
85 100
87 28.6 25.4 38.2

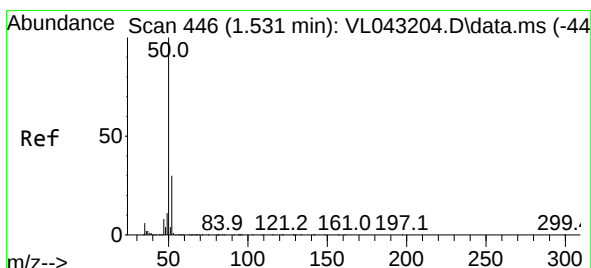
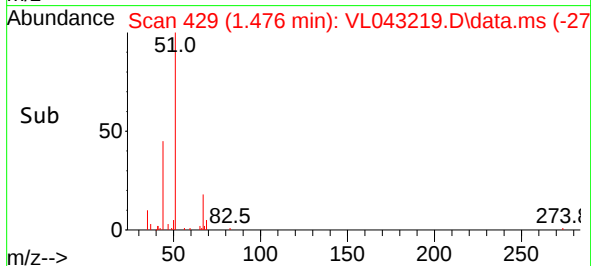
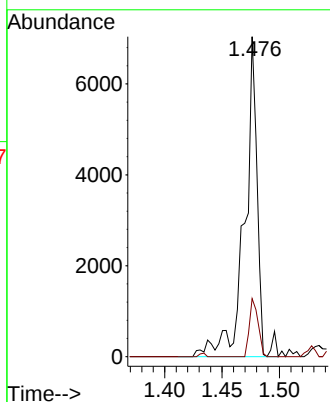
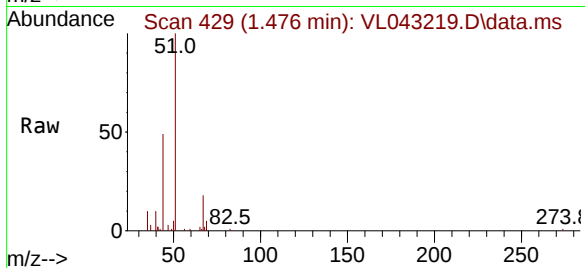




#3
Chlorodifluoromethane
Concen: 0.402 ppbv
RT: 1.476 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

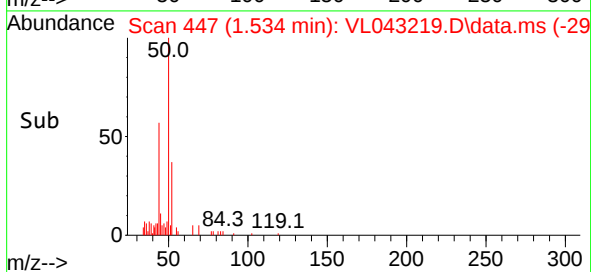
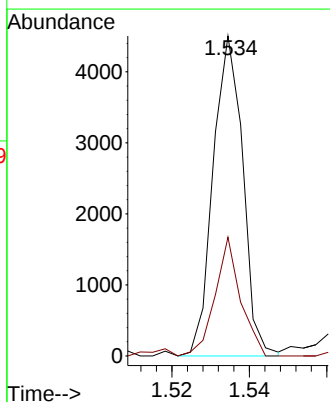
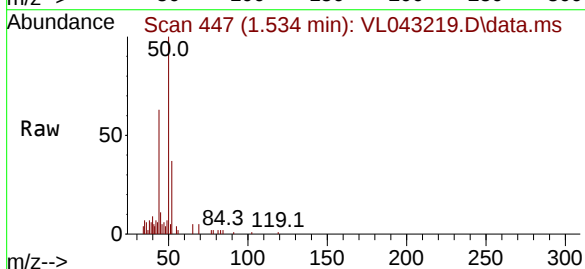
Instrument :
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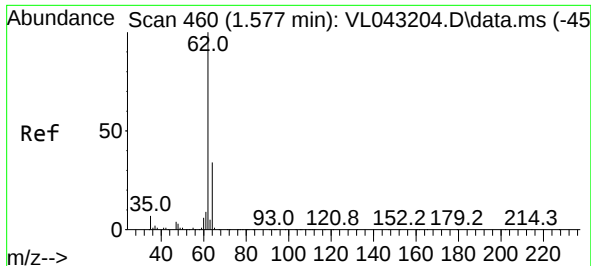
Tgt Ion: 51 Resp: 5386
Ion Ratio Lower Upper
51 100
67 12.4 14.9 22.3#



#4
Chloromethane
Concen: 0.471 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 50 Resp: 2395
Ion Ratio Lower Upper
50 100
52 37.1 24.1 36.1#

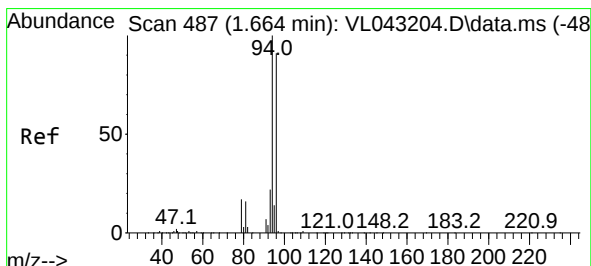
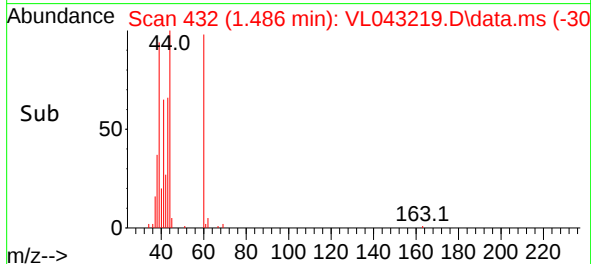
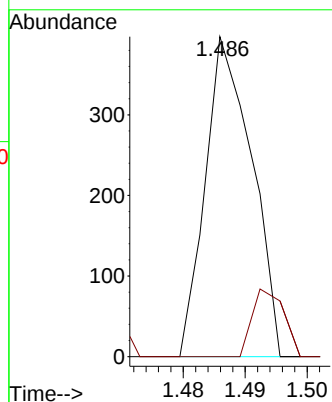
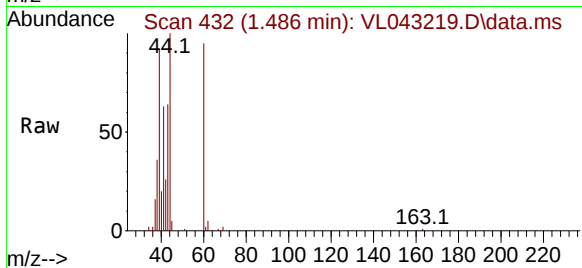




#5
 Vinyl Chloride
 Concen: 0.037 ppbv
 RT: 1.486 min Scan# 41
 Delta R.T. -0.091 min
 Lab File: VL043219.D
 Acq: 18 Nov 2025 18:49

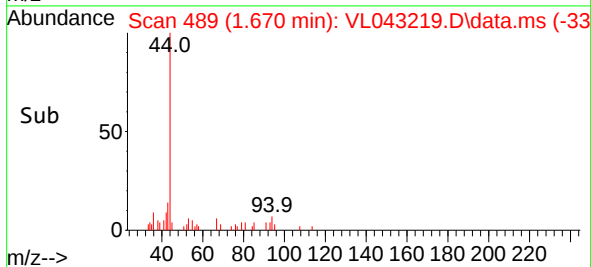
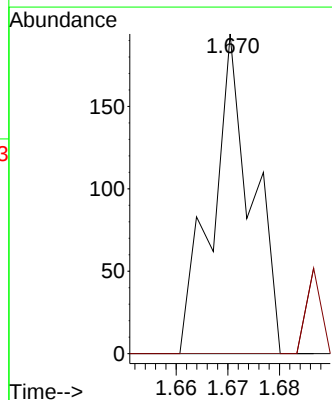
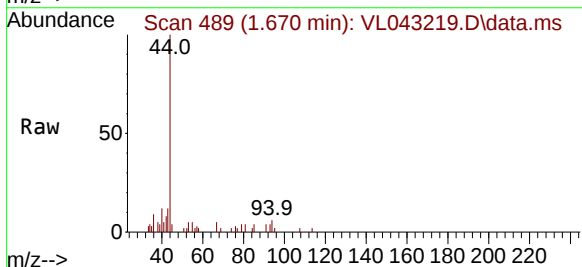
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

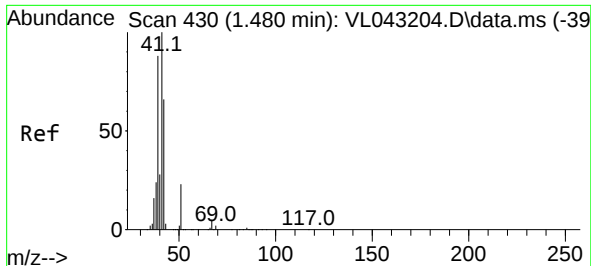
Tgt Ion: 62 Resp: 206
 Ion Ratio Lower Upper
 62 100
 64 0.0 27.3 40.9#



#6
 Bromomethane
 Concen: 0.038 ppbv
 RT: 1.670 min Scan# 489
 Delta R.T. 0.006 min
 Lab File: VL043219.D
 Acq: 18 Nov 2025 18:49

Tgt Ion: 94 Resp: 103
 Ion Ratio Lower Upper
 94 100
 96 0.0 72.9 109.3#





#9

Propene

Concen: 0.856 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.010 min

Lab File: VL043219.D

Acq: 18 Nov 2025 18:49

Instrument :

MSVOA_L

ClientSampleId :

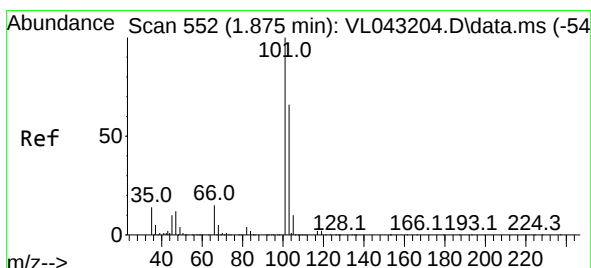
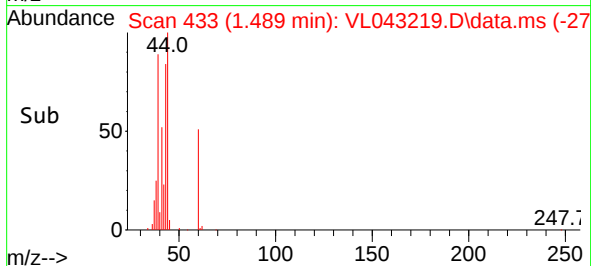
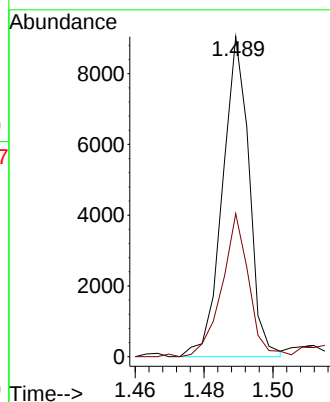
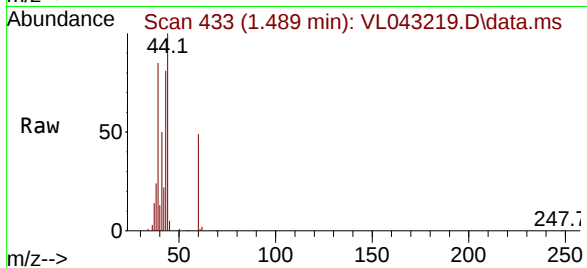
IA2

Tgt Ion: 41 Resp: 4862

Ion Ratio Lower Upper

41 100

42 50.1 3.7 5.5#



#11

Trichlorofluoromethane

Concen: 0.035 ppbv

RT: 1.502 min Scan# 437

Delta R.T. -0.372 min

Lab File: VL043219.D

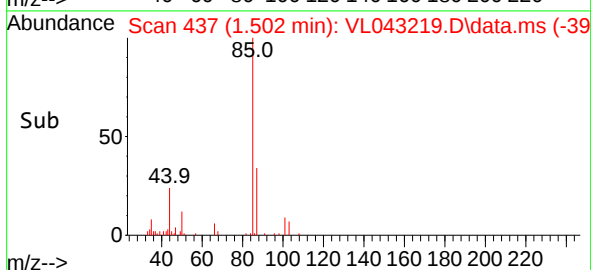
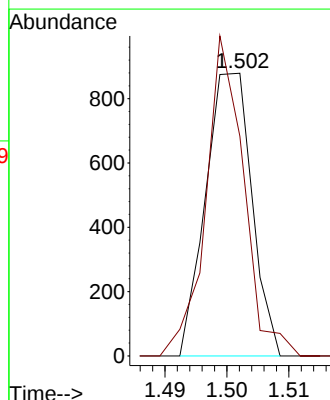
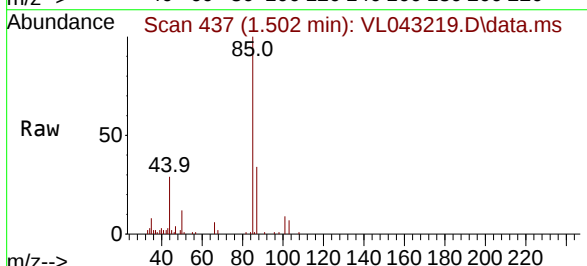
Acq: 18 Nov 2025 18:49

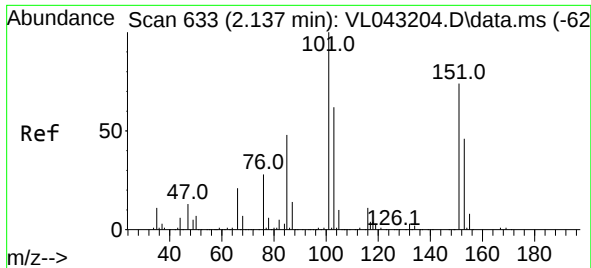
Tgt Ion: 101 Resp: 456

Ion Ratio Lower Upper

101 100

103 69.7 52.6 79.0

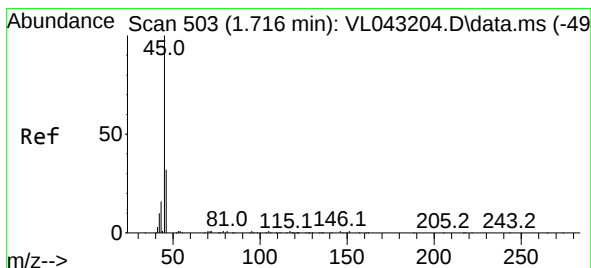
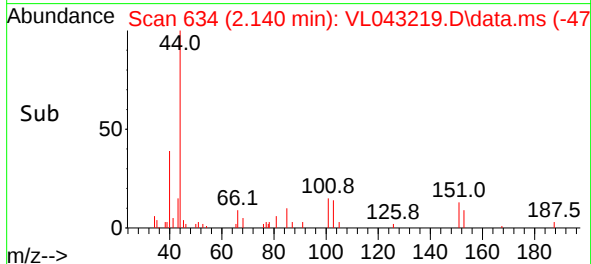
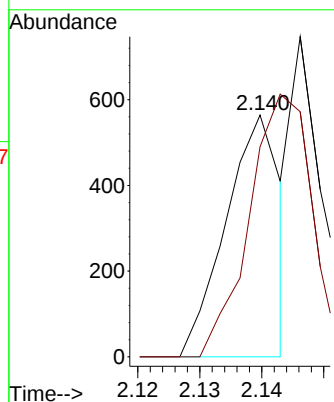
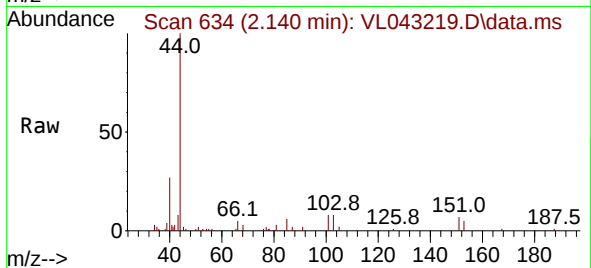




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.034 ppbv
RT: 2.140 min Scan# 61
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

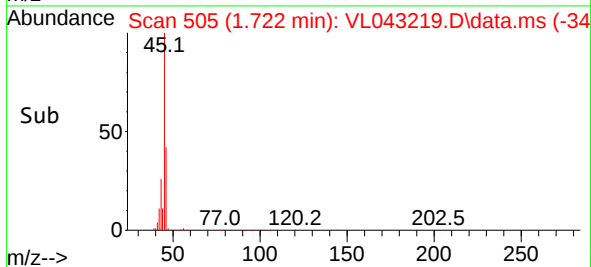
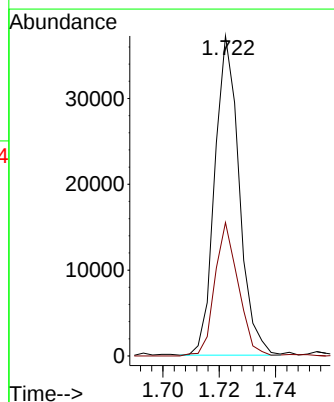
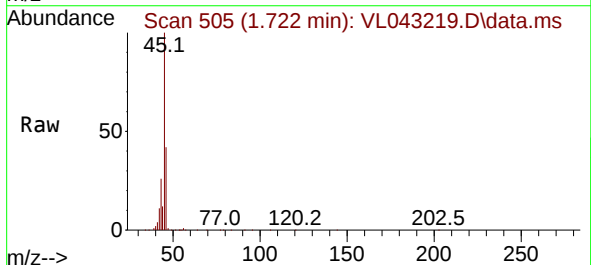
Instrument :
MSVOA_L
ClientSampleId :
IA2

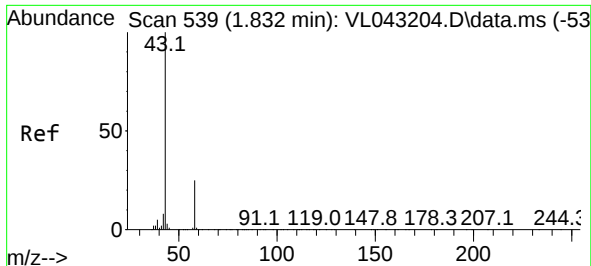
Tgt Ion:101 Resp: 348
Ion Ratio Lower Upper
101 100
151 0.0 59.2 88.8#



#13
Ethanol
Concen: 11.222 ppbv
RT: 1.722 min Scan# 505
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 45 Resp: 22426
Ion Ratio Lower Upper
45 100
46 40.9 15.0 59.8

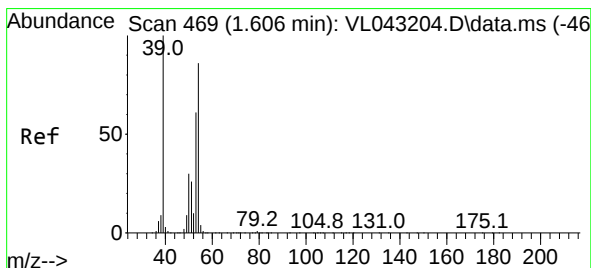
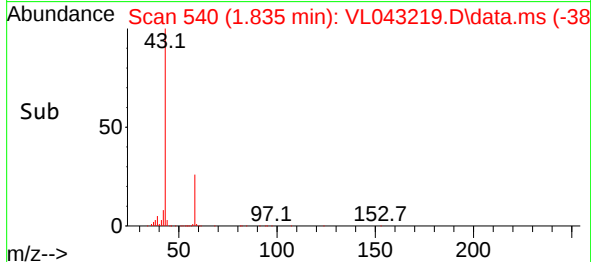
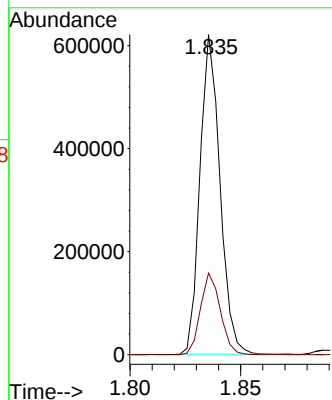
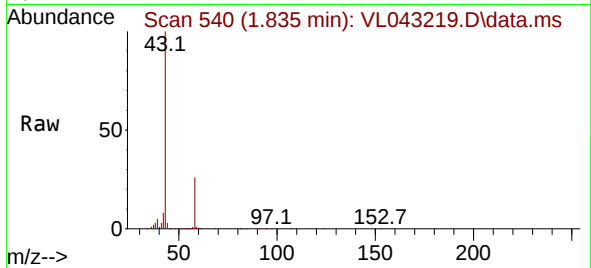




#15
Acetone
Concen: 29.131 ppbv
RT: 1.835 min Scan# 54
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

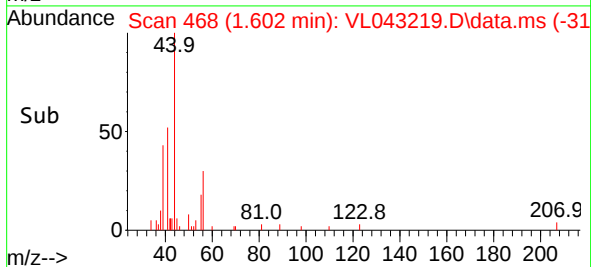
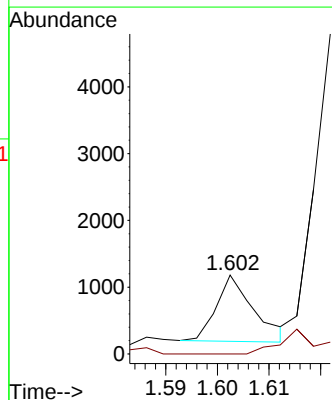
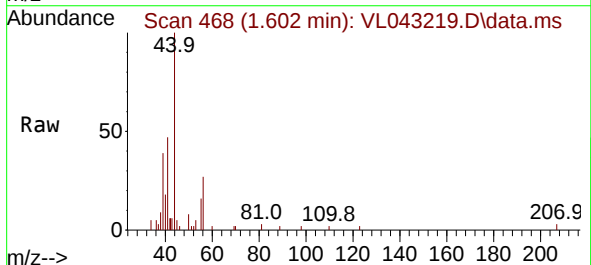
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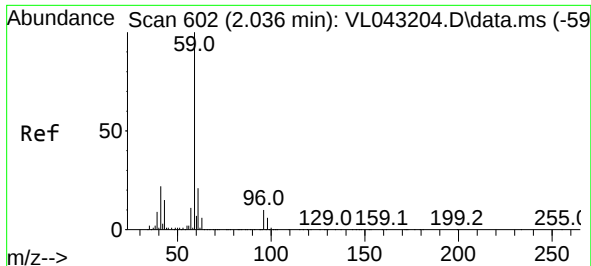
Tgt Ion: 43 Resp: 390504
Ion Ratio Lower Upper
43 100
58 25.4 20.7 31.1



#16
1,3-Butadiene
Concen: 0.083 ppbv
RT: 1.602 min Scan# 468
Delta R.T. -0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 39 Resp: 499
Ion Ratio Lower Upper
39 100
54 0.0 59.4 89.2#

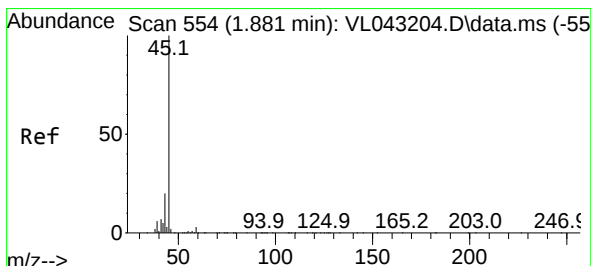
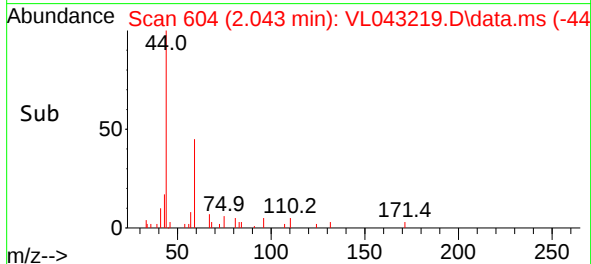
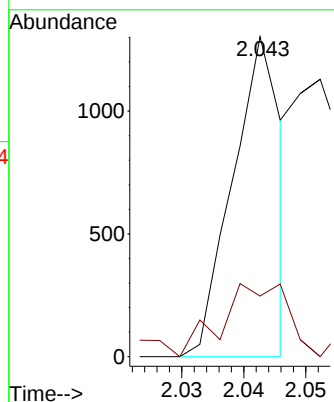
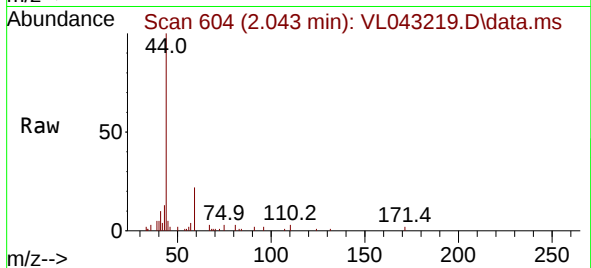




#17
tert-Butyl alcohol
Concen: 0.040 ppbv
RT: 2.043 min Scan# 602
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

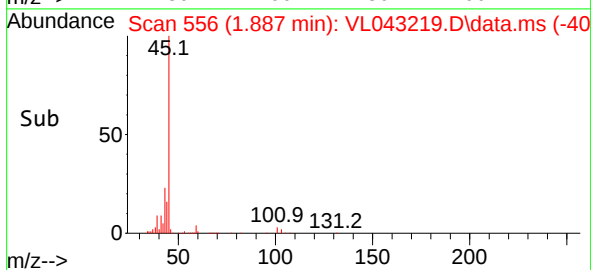
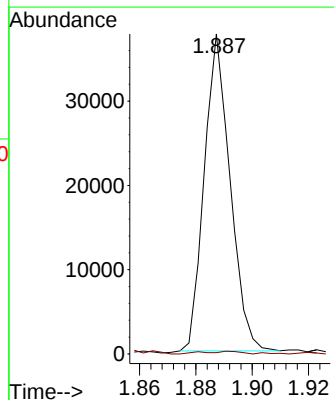
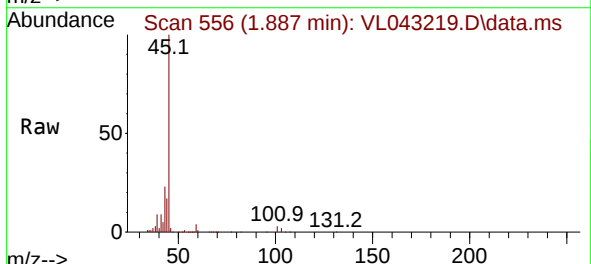
Instrument :
MSVOA_L
ClientSampleId :
IA2

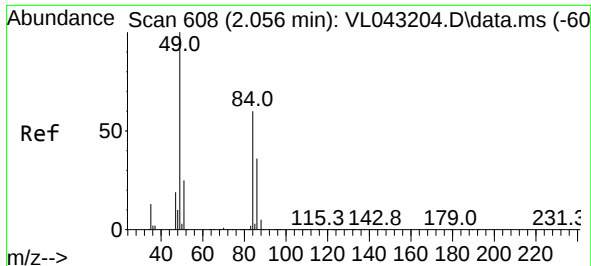
Tgt Ion: 59 Resp: 712
Ion Ratio Lower Upper
59 100
57 54.2 9.0 13.4#



#19
Isopropyl Alcohol
Concen: 3.161 ppbv
RT: 1.887 min Scan# 556
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 45 Resp: 23947
Ion Ratio Lower Upper
45 100
58 413.2 31.3 46.9#

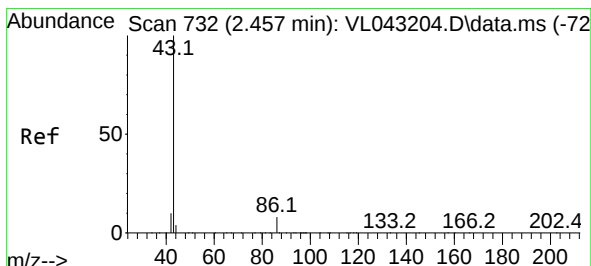
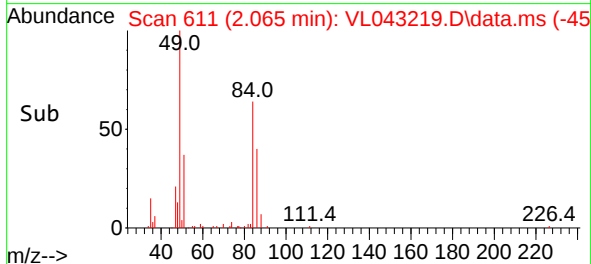
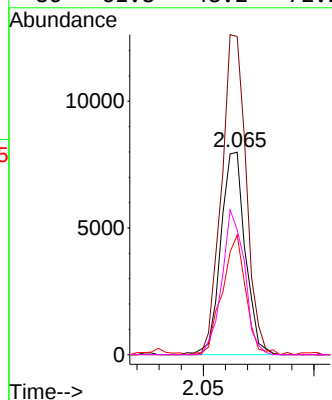
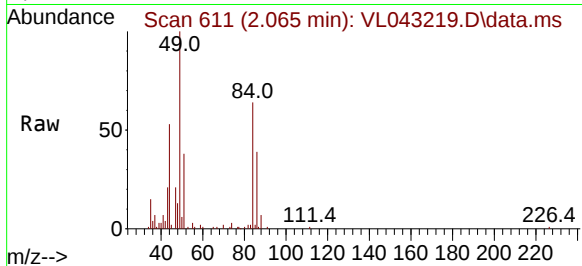




#20
Methylene Chloride
Concen: 0.835 ppbv
RT: 2.065 min Scan# 611
Delta R.T. 0.009 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

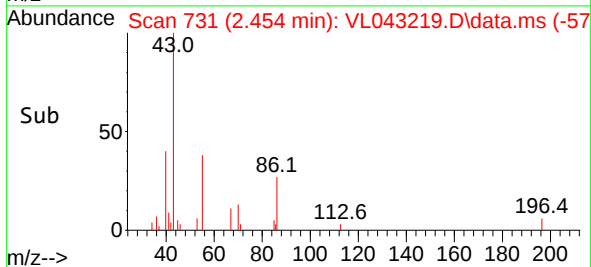
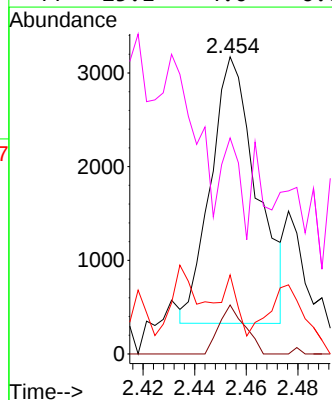
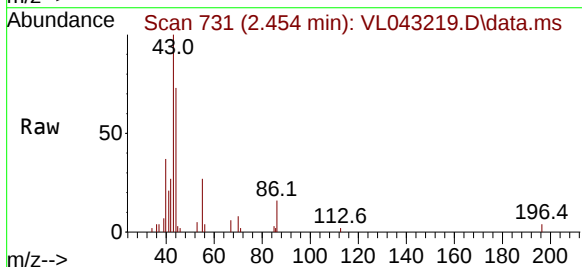
Instrument :
MSVOA_L
ClientSampleId :
IA2

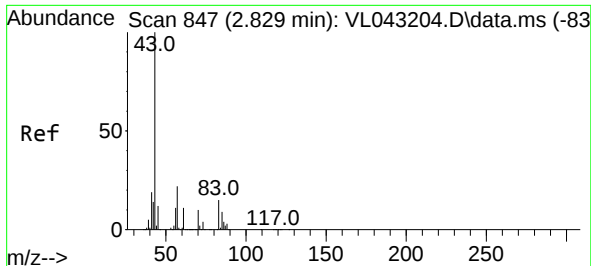
Tgt Ion: 84 Resp: 6139
Ion Ratio Lower Upper
84 100
49 157.3 132.9 199.3
51 59.1 34.8 52.2#
86 61.8 48.2 72.2



#23
Vinyl Acetate
Concen: 0.217 ppbv
RT: 2.454 min Scan# 731
Delta R.T. -0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 43 Resp: 3519
Ion Ratio Lower Upper
43 100
86 19.4 6.2 9.2#
42 5.2 8.0 12.0#
44 25.1 4.0 6.0#





#25

Ethyl Acetate

Concen: 0.266 ppbv

RT: 2.832 min Scan# 847

Delta R.T. 0.003 min

Lab File: VL043219.D

Acq: 18 Nov 2025 18:49

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tgt Ion: 43 Resp: 7686

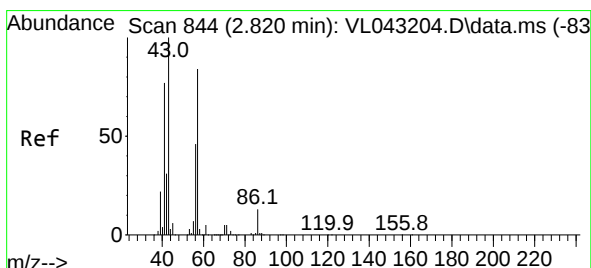
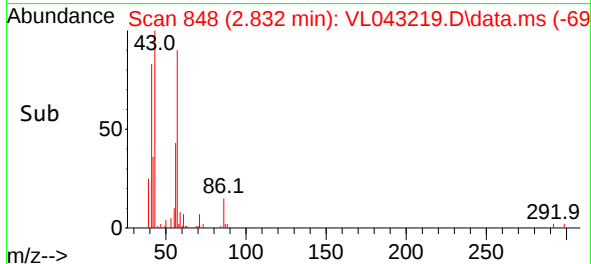
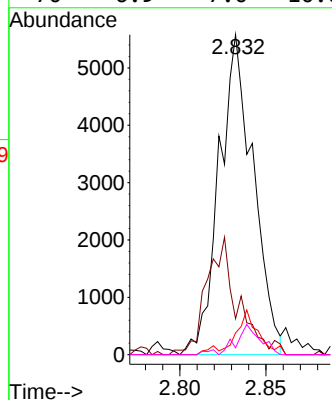
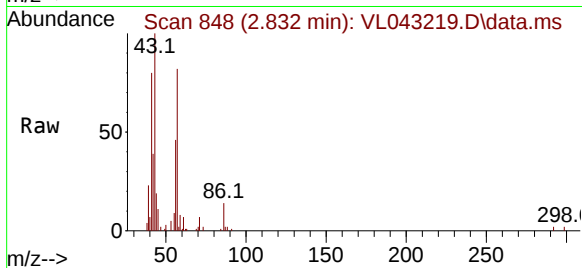
Ion Ratio Lower Upper

43 100

45 34.8 8.1 12.1#

61 9.7 7.0 10.4

70 6.9 7.0 10.6#



#26

Hexane

Concen: 0.467 ppbv

RT: 2.829 min Scan# 847

Delta R.T. 0.010 min

Lab File: VL043219.D

Acq: 18 Nov 2025 18:49

Tgt Ion: 57 Resp: 5923

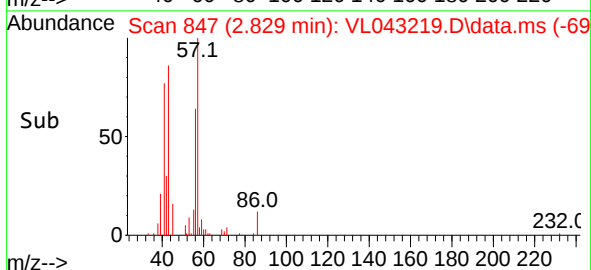
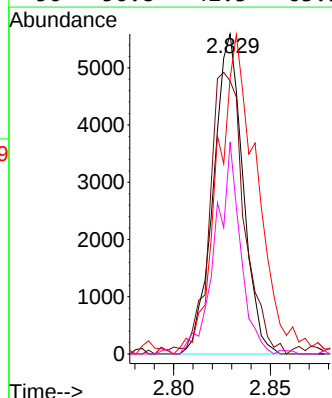
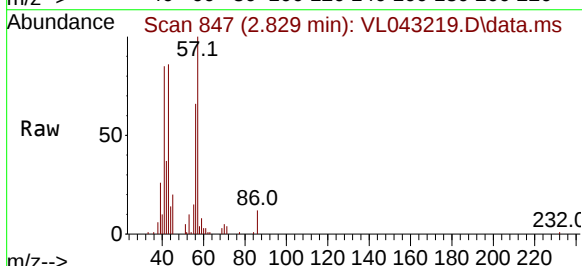
Ion Ratio Lower Upper

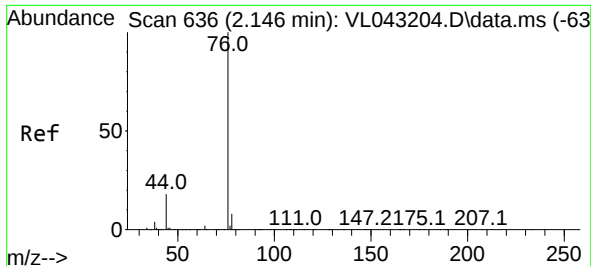
57 100

41 105.1 74.6 111.8

43 137.4 179.0 268.4#

56 56.8 42.3 63.5

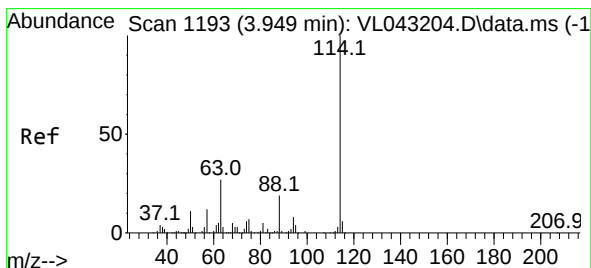
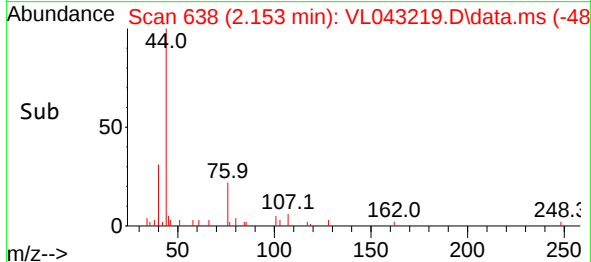
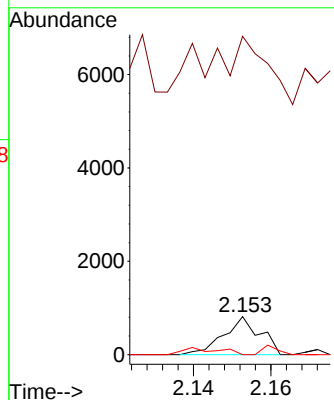
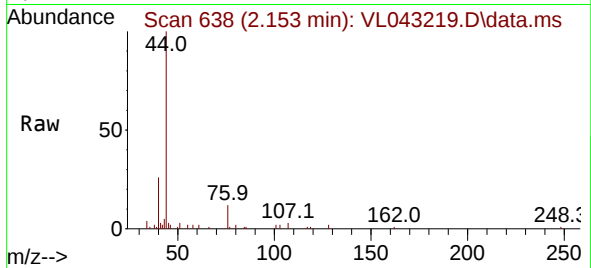




#27
Carbon Disulfide
Concen: 0.041 ppbv
RT: 2.153 min Scan# 61
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

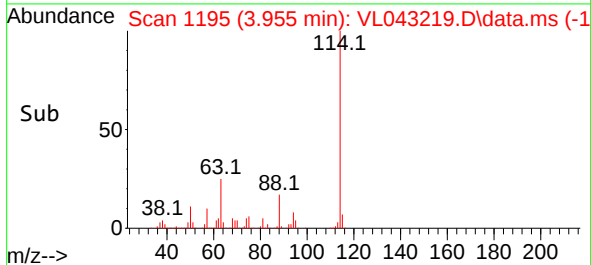
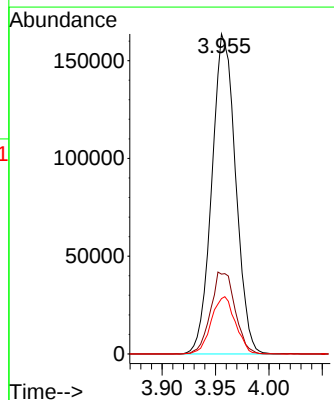
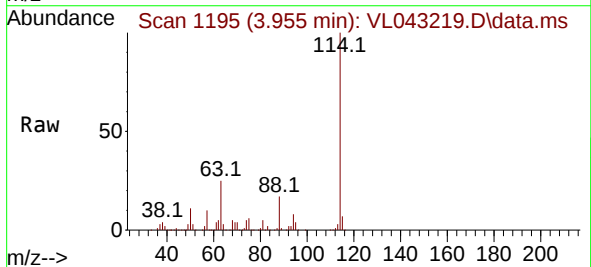
Instrument :
MSVOA_1
ClientSampleId :
IA2

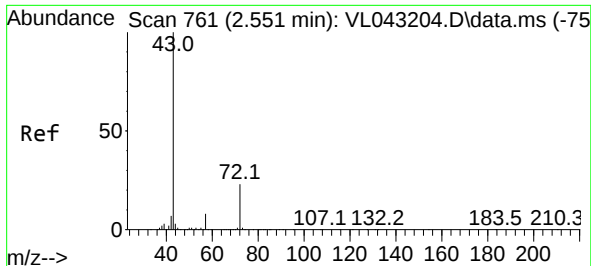
Tgt Ion: 76 Resp: 528
Ion Ratio Lower Upper
76 100
44 0.0 16.1 24.1#
78 28.8 9.6 14.4#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.955 min Scan# 1195
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 114 Resp: 253507
Ion Ratio Lower Upper
114 100
63 26.3 21.0 31.6
88 18.2 14.9 22.3

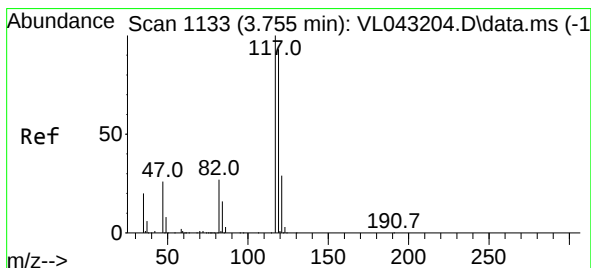
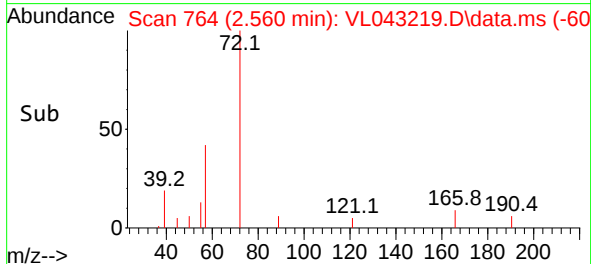
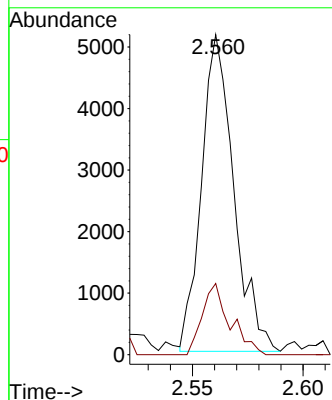
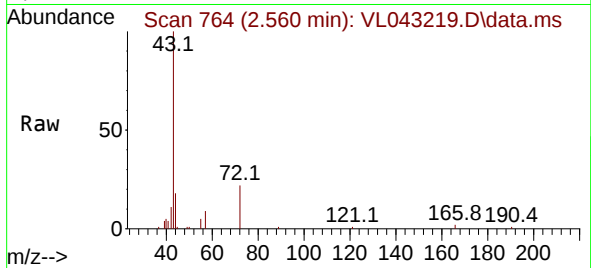




#34
2-Butanone
Concen: 0.292 ppbv
RT: 2.560 min Scan# 764
Delta R.T. 0.010 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

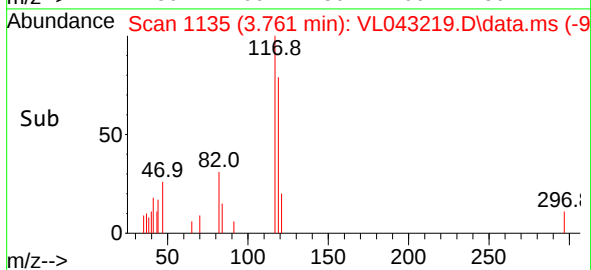
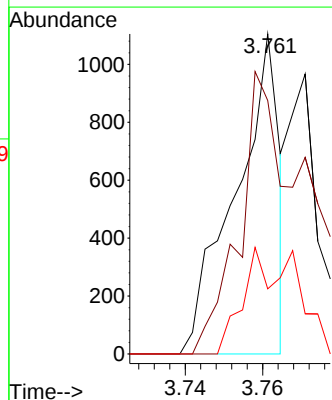
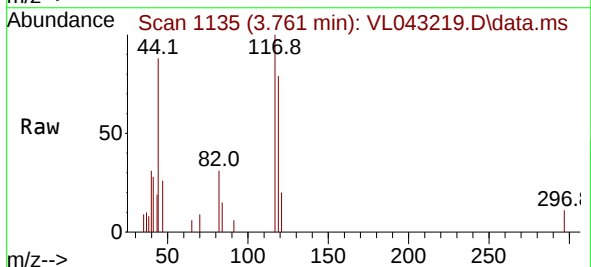
Instrument :
MSVOA_L
ClientSampleId :
IA2

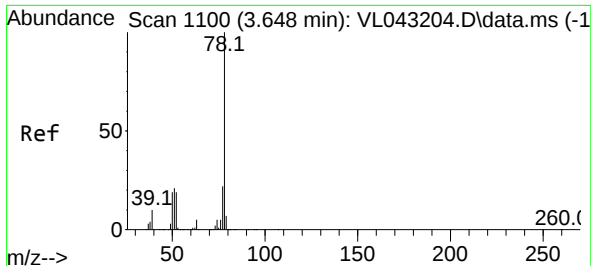
Tgt Ion: 43 Resp: 5222
Ion Ratio Lower Upper
43 100
72 19.3 18.1 27.1



#35
Carbon Tetrachloride
Concen: 0.045 ppbv
RT: 3.761 min Scan# 1135
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 117 Resp: 870
Ion Ratio Lower Upper
117 100
119 79.2 74.6 112.0
121 20.4 23.2 34.8#

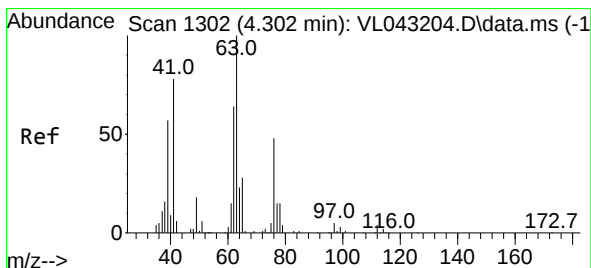
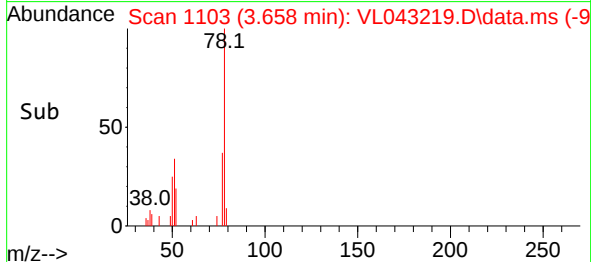
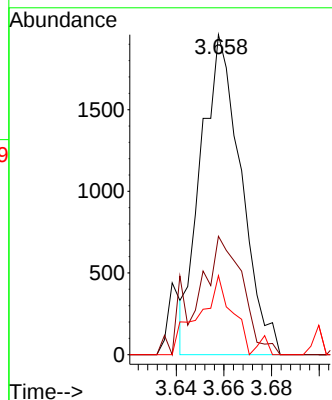
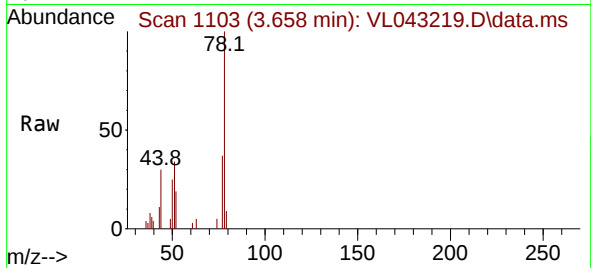




#36
Benzene
Concen: 0.094 ppbv
RT: 3.658 min Scan# 1103
Delta R.T. 0.010 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

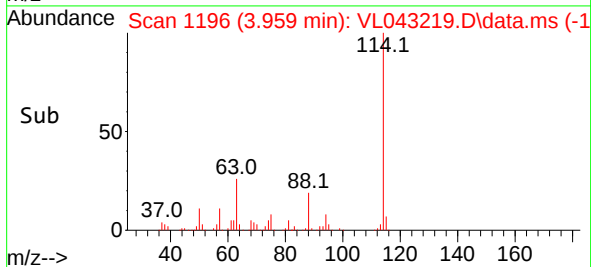
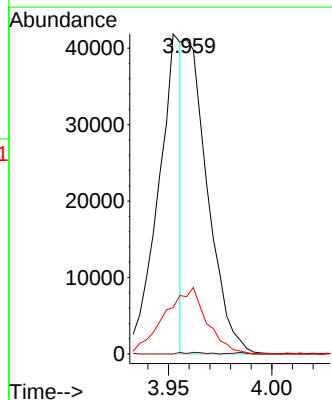
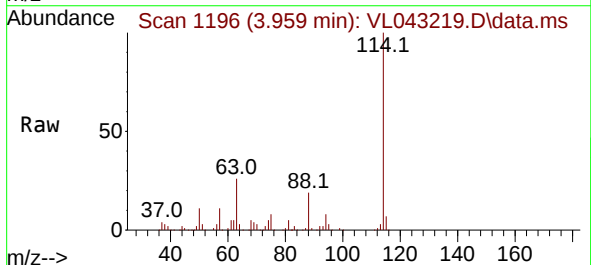
Instrument :
MSVOA_L
ClientSampleId :
IA2

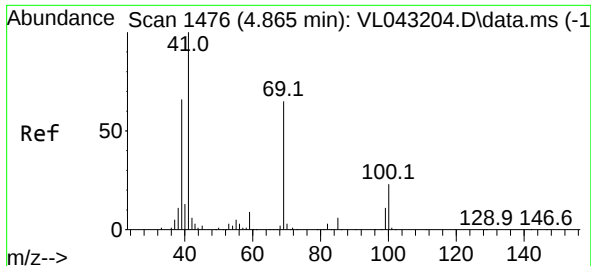
Tgt Ion: 78 Resp: 2289
Ion Ratio Lower Upper
78 100
77 37.0 17.5 26.3#
50 24.7 15.5 23.3#



#39
1,2-Dichloropropane
Concen: 3.732 ppbv
RT: 3.959 min Scan# 1196
Delta R.T. -0.343 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 63 Resp: 33165
Ion Ratio Lower Upper
63 100
41 0.2 62.6 93.8#
62 18.3 51.0 76.6#

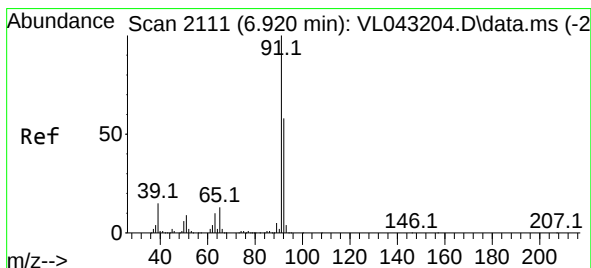
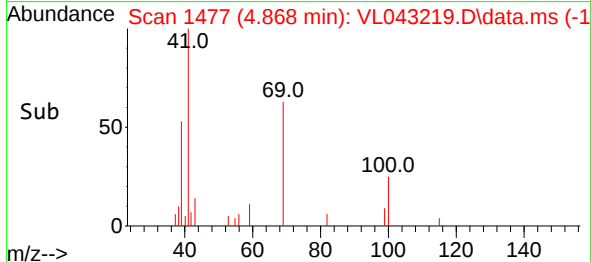
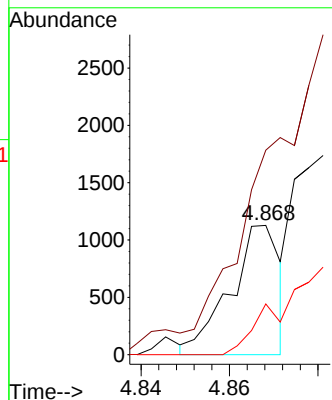
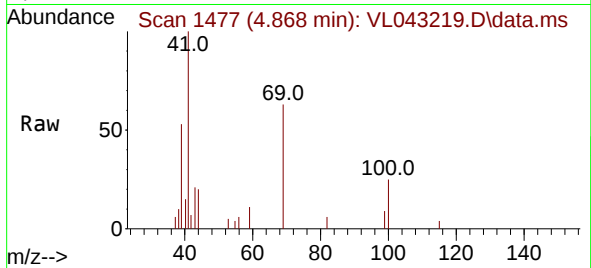




#43
Methyl Methacrylate
Concen: 0.068 ppbv
RT: 4.868 min Scan# 1477
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

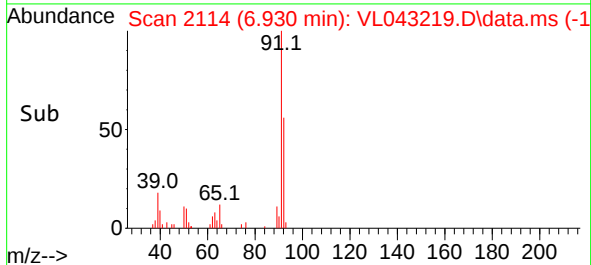
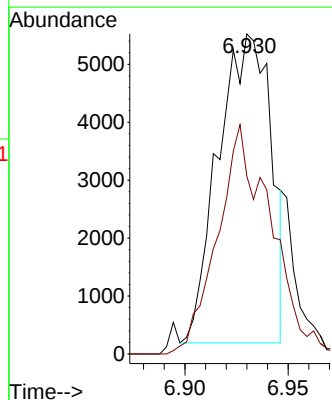
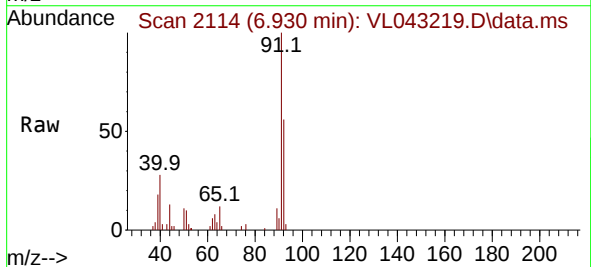
Instrument :
MSVOA_L
ClientSampleId :
IA2

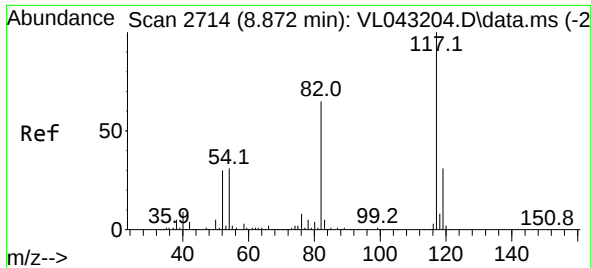
Tgt Ion: 69 Resp: 879
Ion Ratio Lower Upper
69 100
41 0.0 126.7 190.1#
100 0.0 28.6 43.0#



#53
Toluene
Concen: 0.330 ppbv
RT: 6.930 min Scan# 2114
Delta R.T. 0.010 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 91 Resp: 9496
Ion Ratio Lower Upper
91 100
92 75.1 47.4 71.0#





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.878 min Scan# 21

Delta R.T. 0.006 min

Lab File: VL043219.D

Acq: 18 Nov 2025 18:49

Instrument :

MSVOA_L

ClientSampleId :

IA2

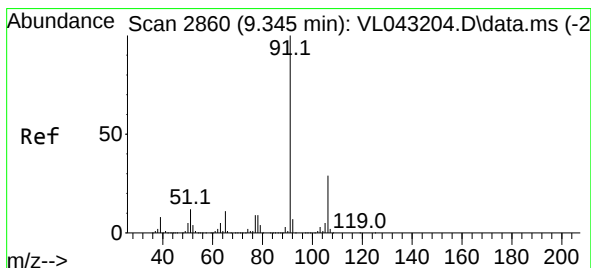
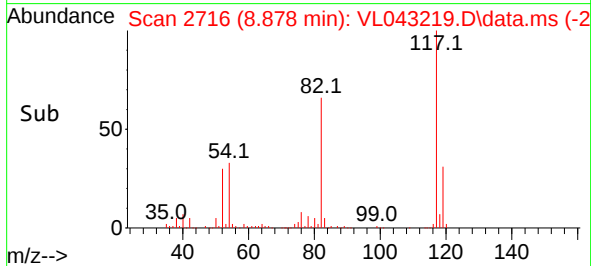
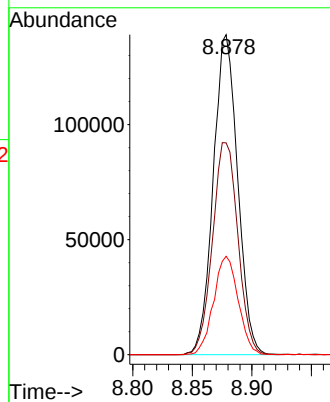
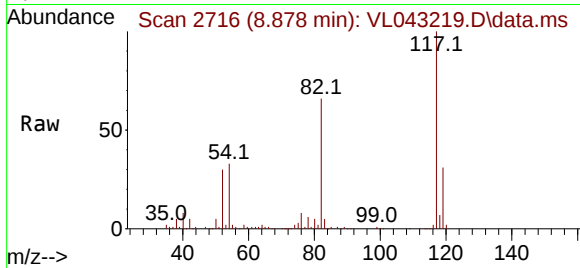
Tgt Ion:117 Resp: 197811

Ion Ratio Lower Upper

117 100

82 69.2 56.1 84.1

119 31.1 25.0 37.6



#58

Ethyl Benzene

Concen: 0.039 ppbv

RT: 9.357 min Scan# 2864

Delta R.T. 0.013 min

Lab File: VL043219.D

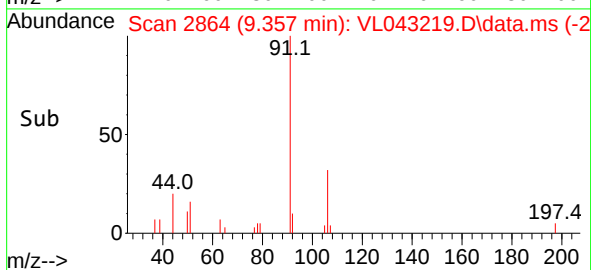
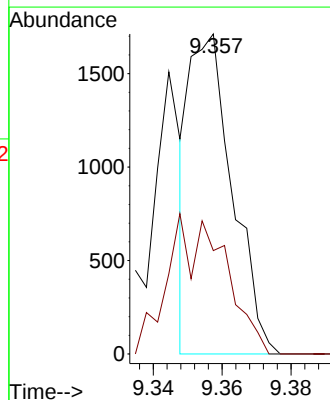
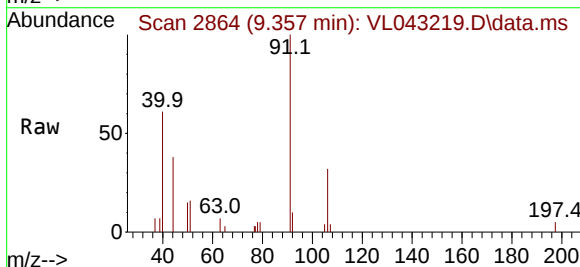
Acq: 18 Nov 2025 18:49

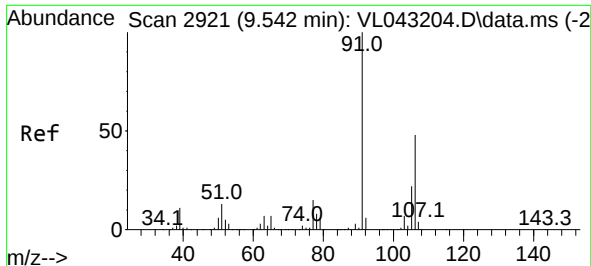
Tgt Ion: 91 Resp: 1499

Ion Ratio Lower Upper

91 100

106 32.3 22.8 34.2





#59

m/p-Xylene

Concen: 0.057 ppbv

RT: 9.548 min Scan# 2921

Delta R.T. 0.006 min

Lab File: VL043219.D

Acq: 18 Nov 2025 18:49

Instrument :

MSVOA_L

ClientSampleId :

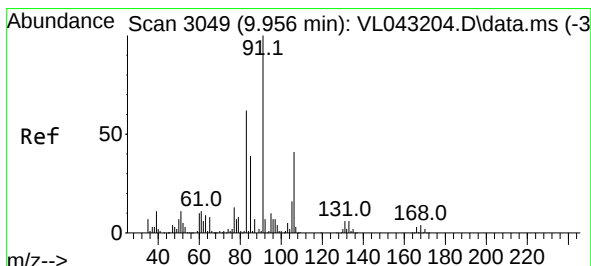
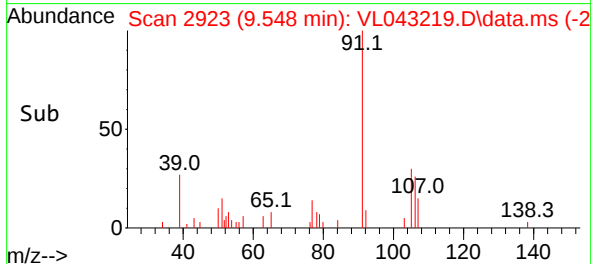
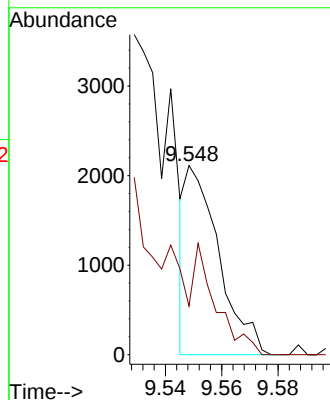
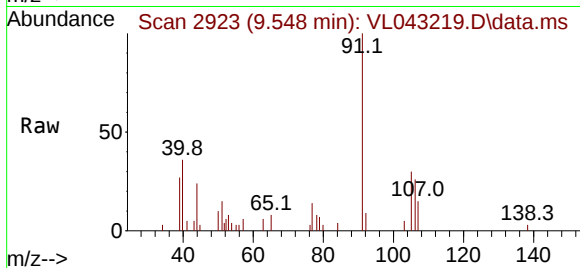
IA2

Tgt Ion: 91 Resp: 1741

Ion Ratio Lower Upper

91 100

106 0.0 36.1 54.1#



#60

o-Xylene

Concen: 0.072 ppbv

RT: 9.963 min Scan# 3051

Delta R.T. 0.006 min

Lab File: VL043219.D

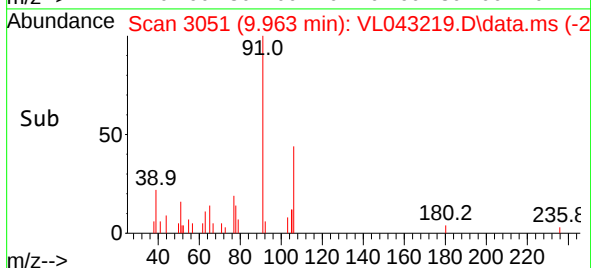
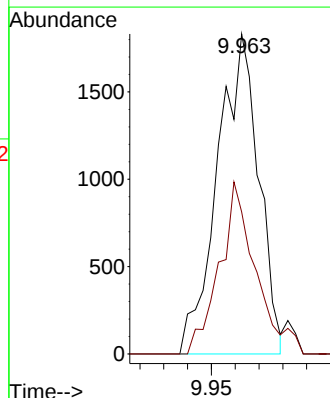
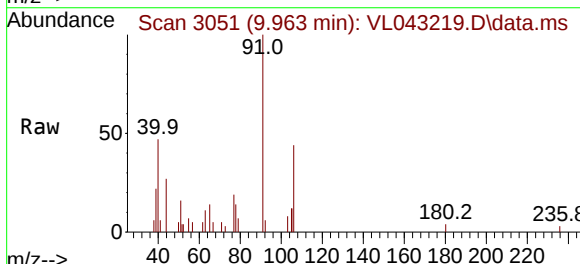
Acq: 18 Nov 2025 18:49

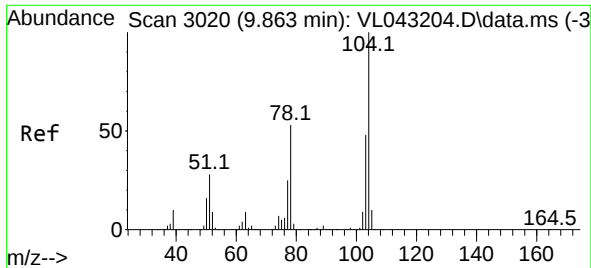
Tgt Ion: 91 Resp: 2199

Ion Ratio Lower Upper

91 100

106 47.1 20.9 62.8

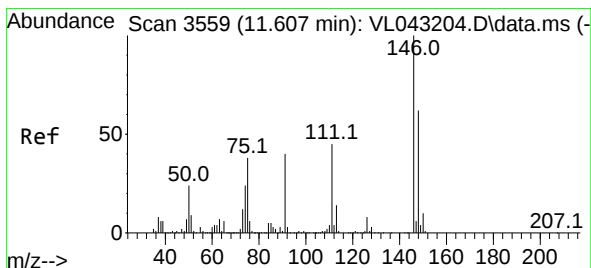
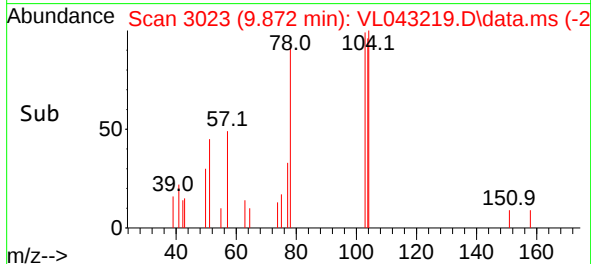
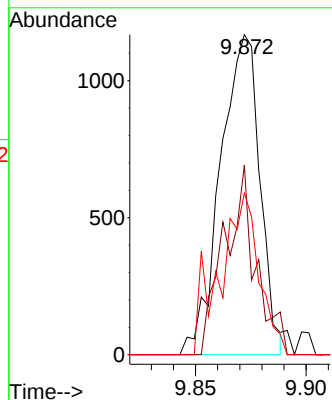
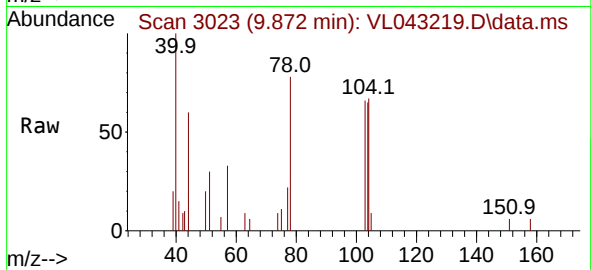




#61
Styrene
Concen: 0.108 ppbv
RT: 9.872 min Scan# 3020
Delta R.T. 0.010 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

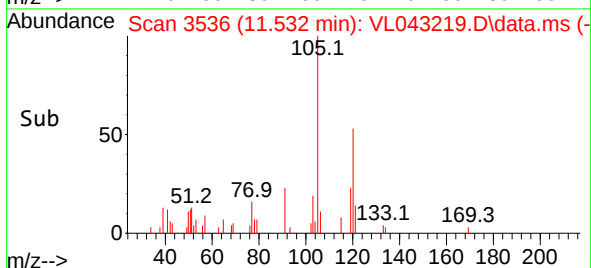
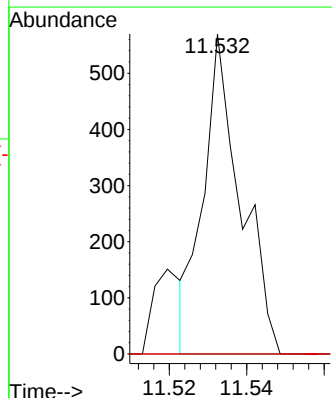
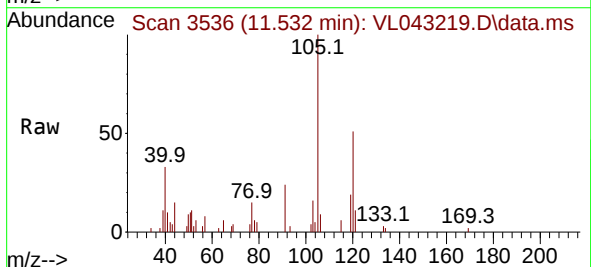
Instrument :
MSVOA_L
ClientSampleId :
IA2

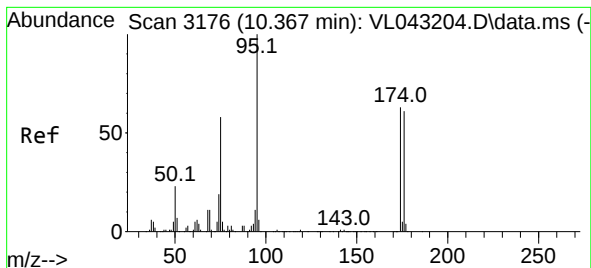
Tgt Ion:104 Resp: 1446
Ion Ratio Lower Upper
104 100
78 47.4 42.1 63.1
103 50.1 37.2 55.8



#66
Benzyl Chloride
Concen: 0.077 ppbv
RT: 11.532 min Scan# 3536
Delta R.T. -0.075 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

Tgt Ion: 91 Resp: 382
Ion Ratio Lower Upper
91 100
126 0.0 14.4 21.6#
128 0.0 4.6 6.8#

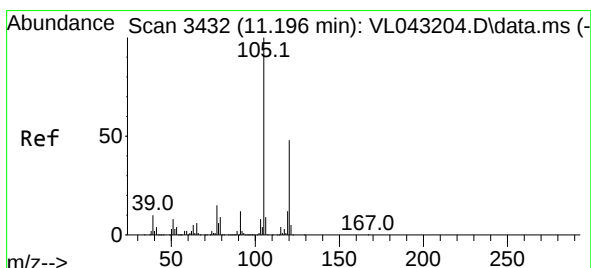
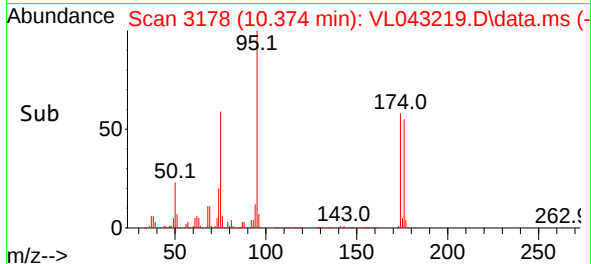
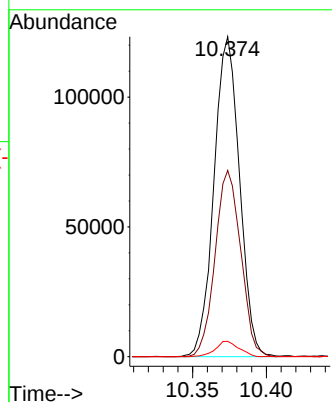
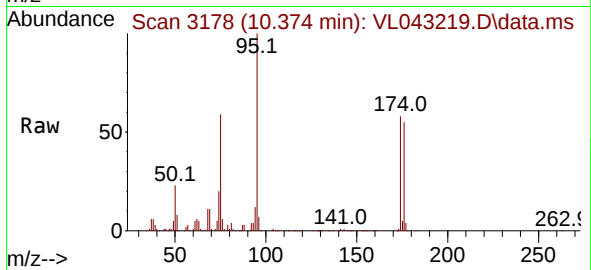




#68
1-Bromo-4-Fluorobenzene
Concen: 10.251 ppbv
RT: 10.374 min Scan# 3176
Delta R.T. 0.006 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

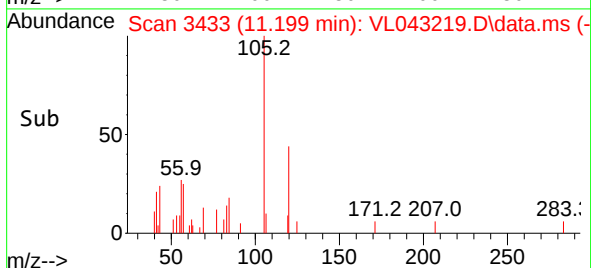
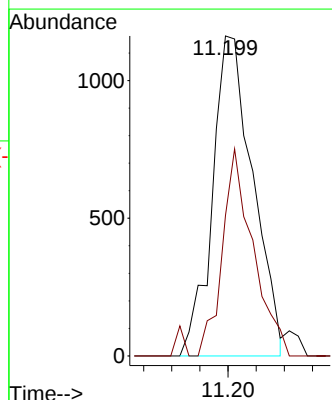
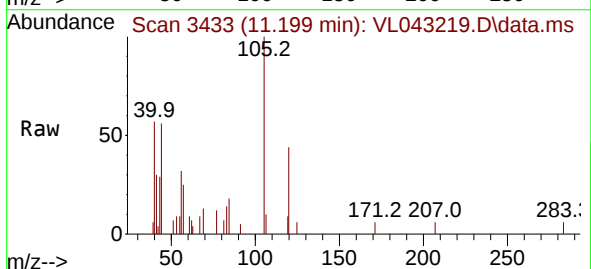
Instrument :
MSVOA_L
ClientSampleId :
IA2

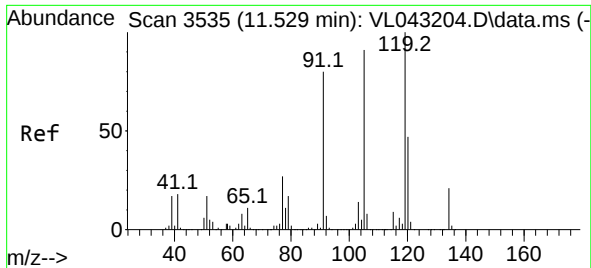
Tgt Ion: 95 Resp: 148639
Ion Ratio Lower Upper
95 100
174 58.3 50.2 75.2
175 4.4 4.1 6.1



#73
1,3,5-Trimethylbenzene
Concen: 0.037 ppbv
RT: 11.199 min Scan# 3433
Delta R.T. 0.003 min
Lab File: VL043219.D
Acq: 18 Nov 2025 18:49

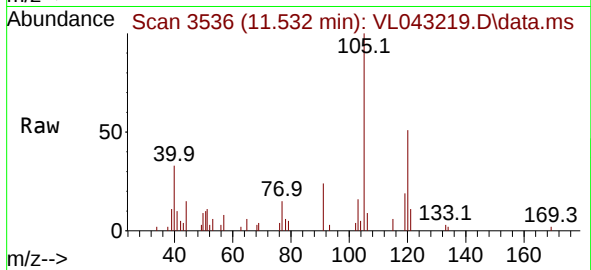
Tgt Ion: 105 Resp: 1164
Ion Ratio Lower Upper
105 100
120 35.5 38.6 57.8#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.076 ppbv
 RT: 11.532 min Scan# 31
 Delta R.T. 0.003 min
 Lab File: VL043219.D
 Acq: 18 Nov 2025 18:49

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2



Tgt Ion:	105	Resp:	2600
Ion	Ratio	Lower	Upper
105	100		
120	50.9	41.7	62.5
91	23.5	70.0	105.0#
77	15.4	23.8	35.8#

