

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL112425\
 Data File : VL043287.D
 Acq On : 24 Nov 2025 17:47
 Operator : SY/MD
 Sample : Q3696-03 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 24 23:43:09 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)

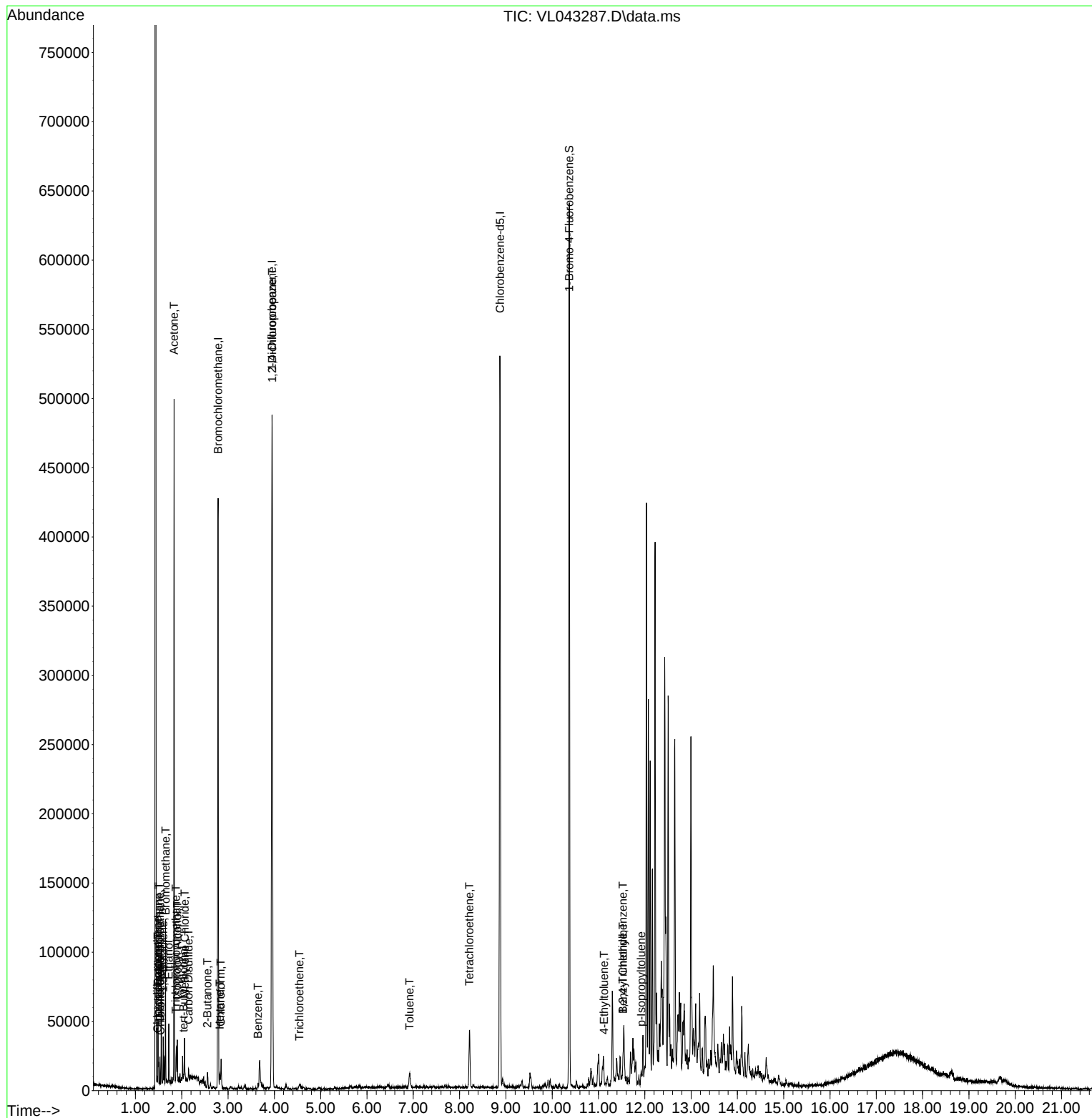
Internal Standards						
1) Bromochloromethane	2.784	49	110236	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.949	114	285613	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	215025	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.368	95	152555	9.679	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	3980	0.256	ppbv	91
3) Chlorodifluoromethane	1.477	51	3924	0.257	ppbv #	74
4) Chloromethane	1.535	50	212	0.036	ppbv #	85
6) Bromomethane	1.651	94	244	0.079	ppbv #	1
8) Dichlorotetrafluoroethane	1.525	85	556	0.043	ppbv #	17
9) Propene	1.483	41	6307	0.971	ppbv #	1
11) Trichlorofluoromethane	1.875	101	4396	0.292	ppbv	97
13) Ethanol	1.719	45	13758	6.026	ppbv	93
15) Acetone	1.833	43	202668	13.233	ppbv	100
16) 1,3-Butadiene	1.600	39	4258	0.624	ppbv #	24
17) tert-Butyl alcohol	2.040	59	1653	0.082	ppbv #	71
19) Isopropyl Alcohol	1.901	45	2205	0.255	ppbv #	36
20) Methylene Chloride	2.062	84	4492	0.228	ppbv	84
26) Hexane	2.820	57	2082	0.144	ppbv #	49
27) Carbon Disulfide	2.147	76	3842	0.260	ppbv #	1
29) Chloroform	2.842	83	860	0.042	ppbv #	67
34) 2-Butanone	2.554	43	7585	0.376	ppbv	98
36) Benzene	3.645	78	1222	0.045	ppbv #	90
38) Trichloroethene	4.538	130	440	0.041	ppbv	90
39) 1,2-Dichloropropane	3.953	63	72748	7.267	ppbv #	23
52) Tetrachloroethene	8.212	164	7855	0.772	ppbv	97
53) Toluene	6.917	91	4703	0.145	ppbv #	47
66) Benzyl Chloride	11.526	91	580	0.108	ppbv #	72
69) p-Isopropyltoluene	11.921	119	2422	0.039	ppbv #	78
72) 4-Ethyltoluene	11.122	105	1220	0.030	ppbv #	55
74) 1,2,4-Trimethylbenzene	11.526	105	5710	0.154	ppbv #	51

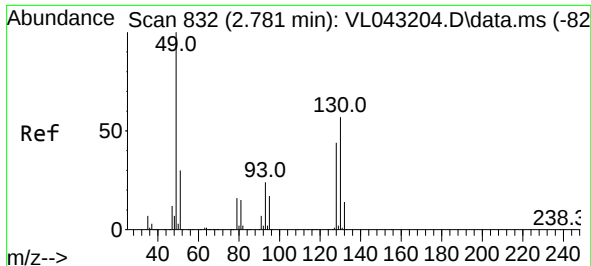
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
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Quant Time: Nov 24 23:43:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
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Response via : Initial Calibration

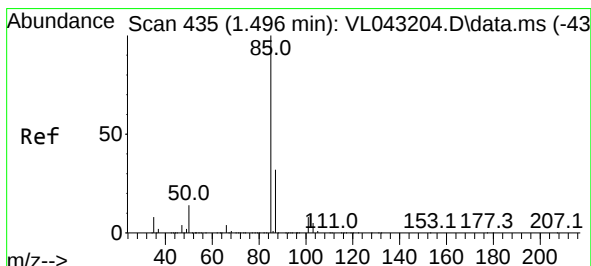
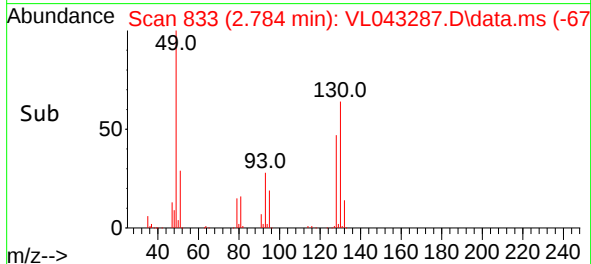
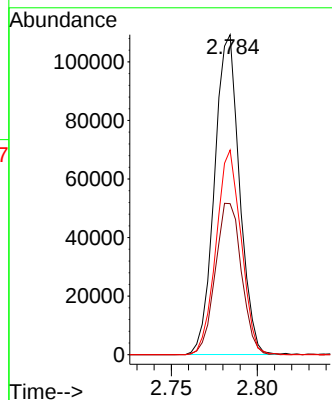
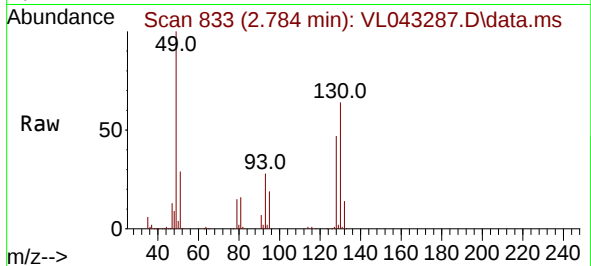




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

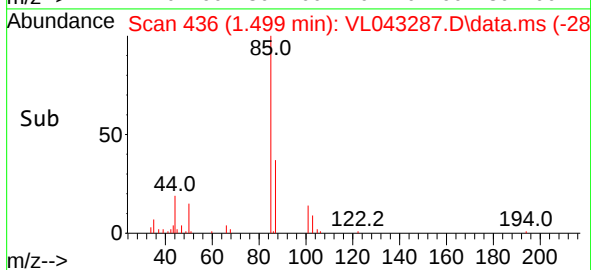
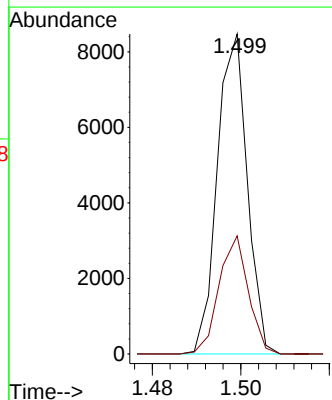
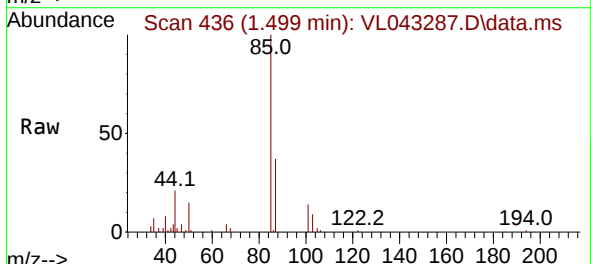
Instrument :
MSVOA_L
ClientSampleId :

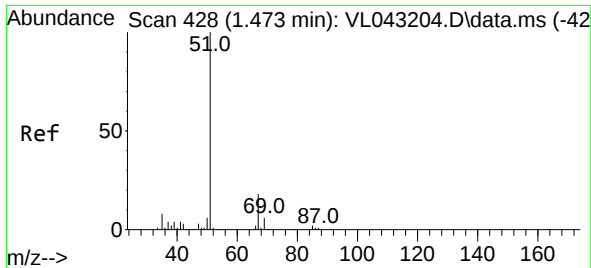
Tgt Ion: 49 Resp: 110236
Ion Ratio Lower Upper
49 100
128 49.8 23.0 69.0
130 64.1 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.256 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 85 Resp: 3980
Ion Ratio Lower Upper
85 100
87 36.9 25.4 38.2

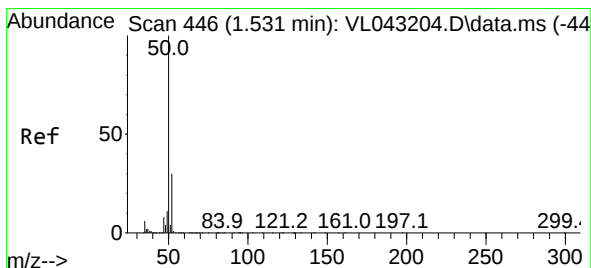
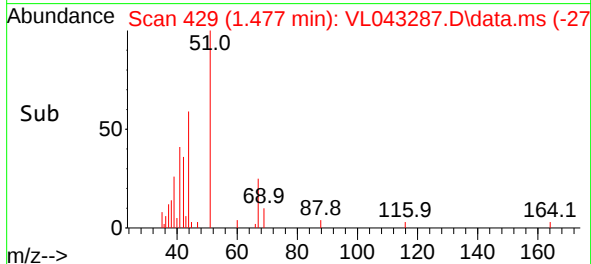
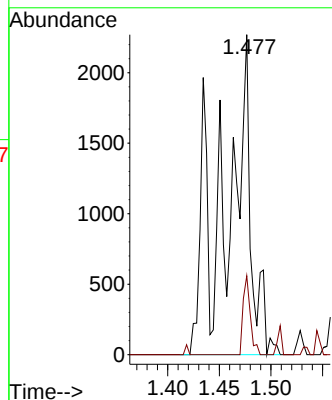
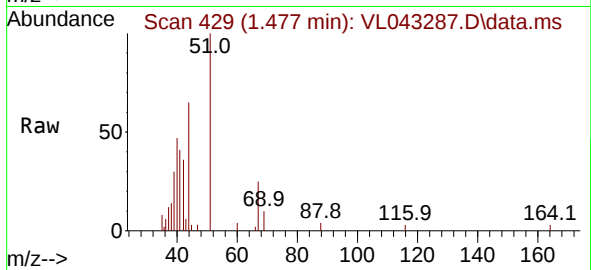




#3
Chlorodifluoromethane
Concen: 0.257 ppbv
RT: 1.477 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

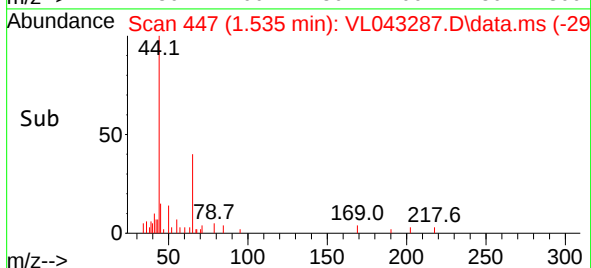
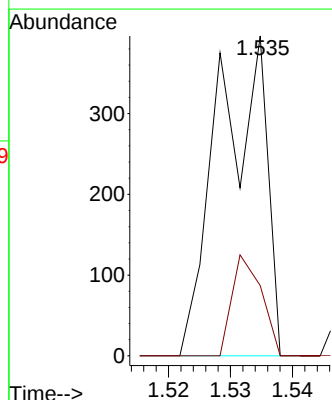
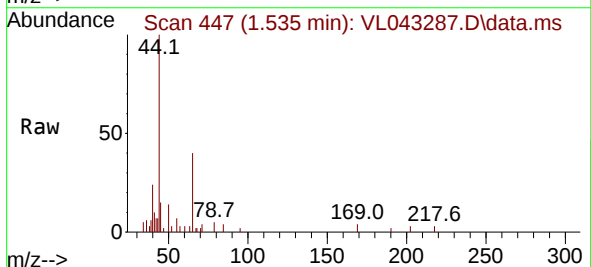
Instrument :
MSVOA_L
ClientSampleId :

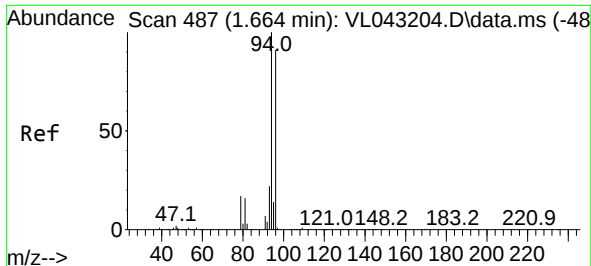
Tgt Ion: 51 Resp: 3924
Ion Ratio Lower Upper
51 100
67 6.9 14.9 22.3#



#4
Chloromethane
Concen: 0.036 ppbv
RT: 1.535 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 50 Resp: 212
Ion Ratio Lower Upper
50 100
52 22.0 24.1 36.1#

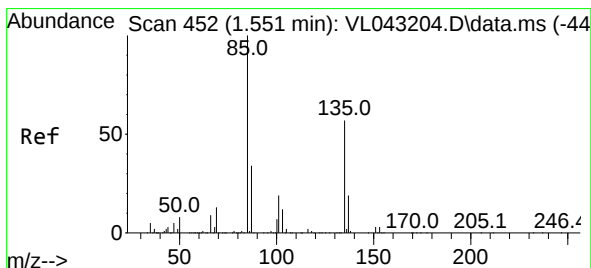
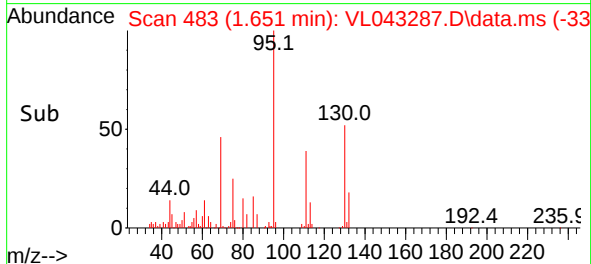
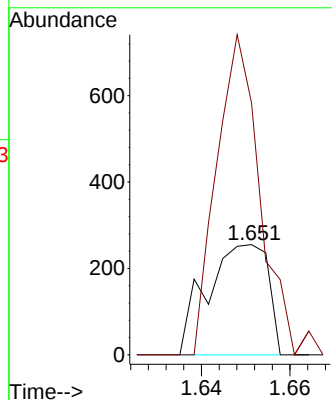
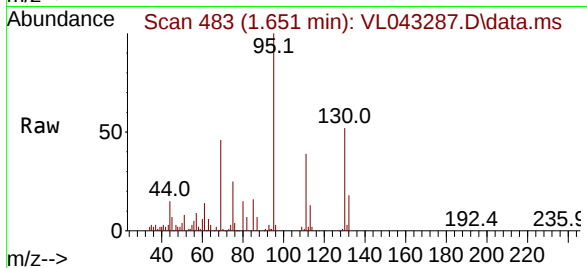




#6
Bromomethane
Concen: 0.079 ppbv
RT: 1.651 min Scan# 441
Delta R.T. -0.013 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

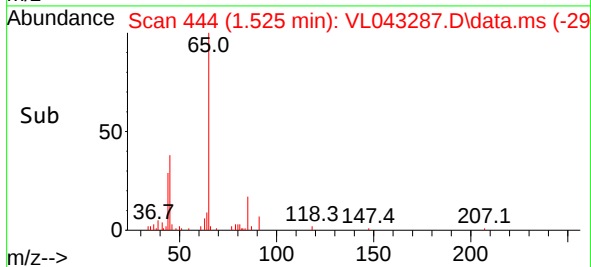
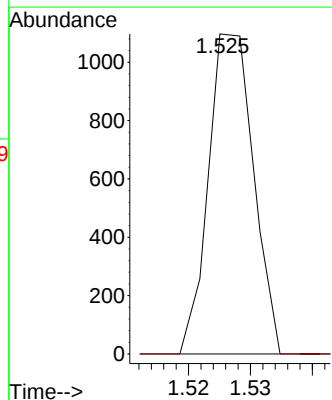
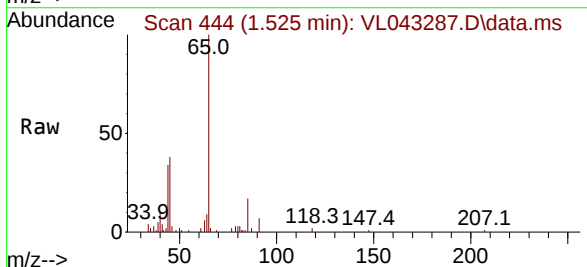
Instrument :
MSVOA_L
ClientSampleId :

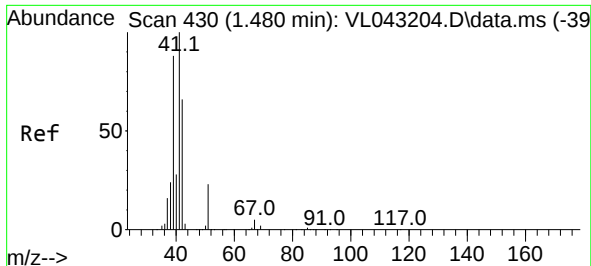
Tgt Ion: 94 Resp: 244
Ion Ratio Lower Upper
94 100
96 228.6 72.9 109.3#



#8
Dichlorotetrafluoroethane
Concen: 0.043 ppbv
RT: 1.525 min Scan# 444
Delta R.T. -0.026 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 85 Resp: 556
Ion Ratio Lower Upper
85 100
135 0.0 52.6 79.0#





#9

Propene

Concen: 0.971 ppbv

RT: 1.483 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043287.D

Acq: 24 Nov 2025 17:47

Instrument :

MSVOA_L

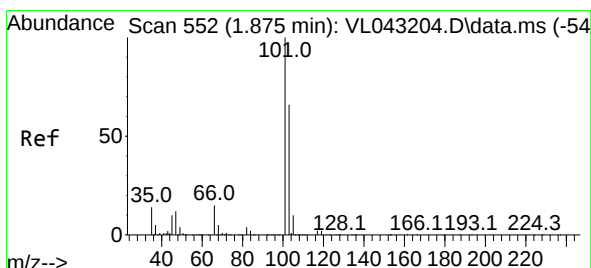
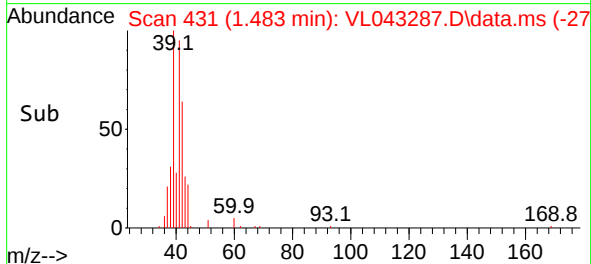
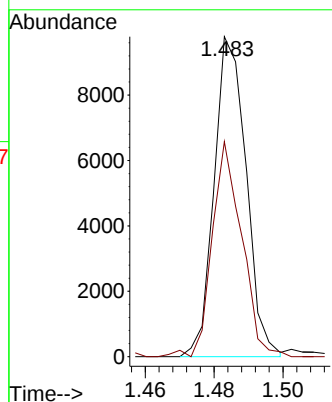
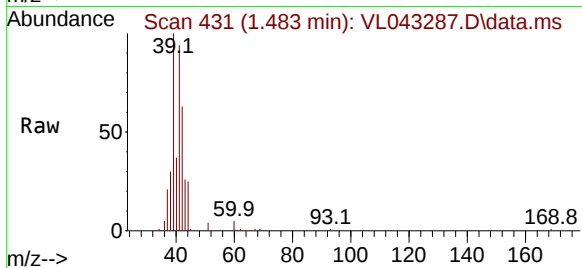
ClientSampleId :

Tgt Ion: 41 Resp: 6307

Ion Ratio Lower Upper

41 100

42 61.9 3.7 5.5#



#11

Trichlorofluoromethane

Concen: 0.292 ppbv

RT: 1.875 min Scan# 552

Delta R.T. 0.000 min

Lab File: VL043287.D

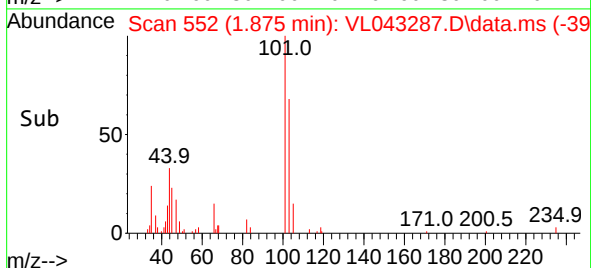
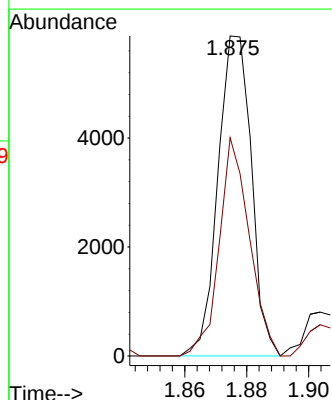
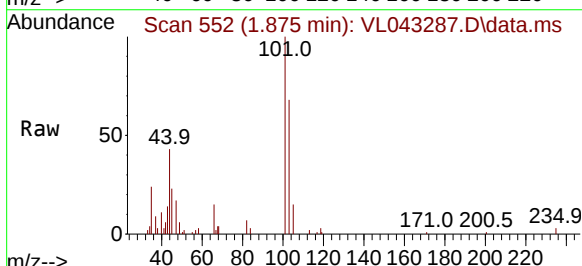
Acq: 24 Nov 2025 17:47

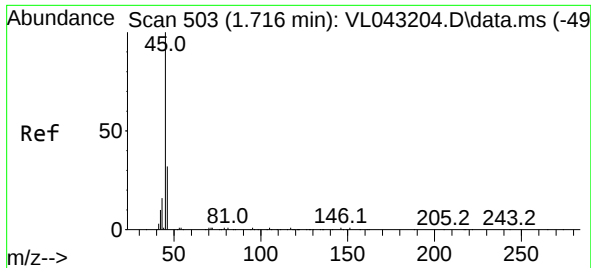
Tgt Ion:101 Resp: 4396

Ion Ratio Lower Upper

101 100

103 68.2 52.6 79.0

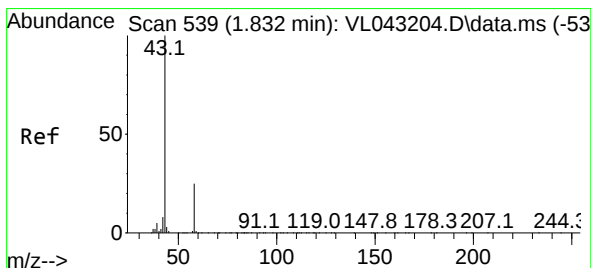
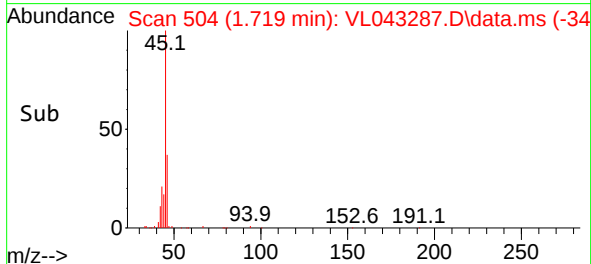
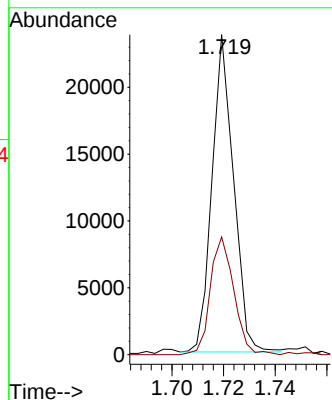
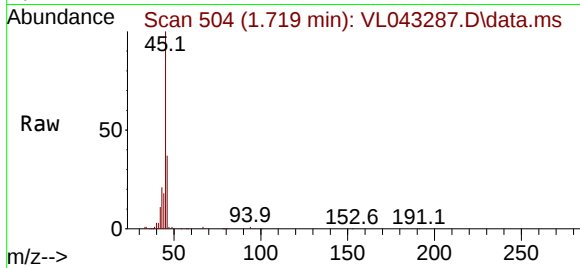




#13
Ethanol
Concen: 6.026 ppbv
RT: 1.719 min Scan# 503
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

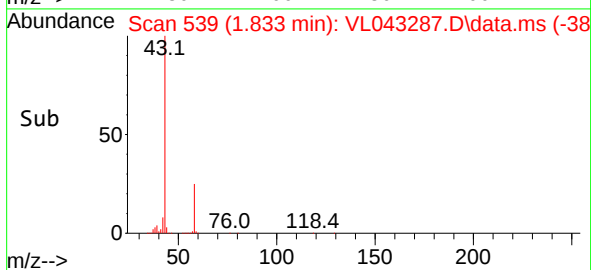
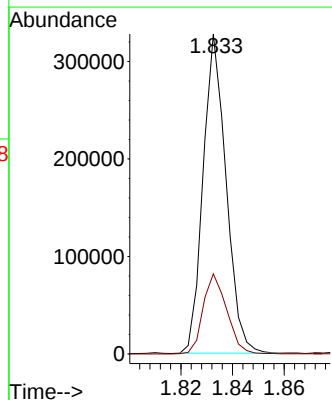
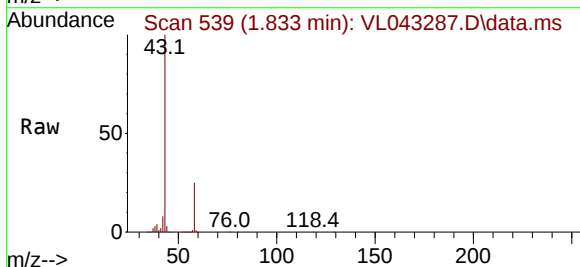
Instrument :
MSVOA_L
ClientSampleId :

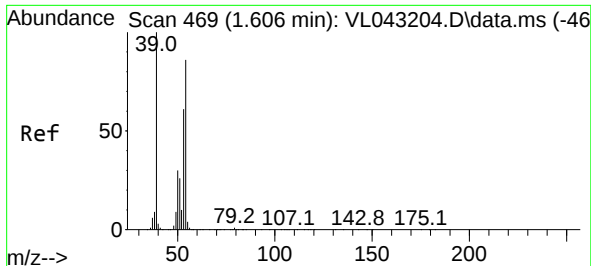
Tgt Ion: 45 Resp: 13758
Ion Ratio Lower Upper
45 100
46 41.3 15.0 59.8



#15
Acetone
Concen: 13.233 ppbv
RT: 1.833 min Scan# 539
Delta R.T. 0.000 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 43 Resp: 202668
Ion Ratio Lower Upper
43 100
58 25.9 20.7 31.1

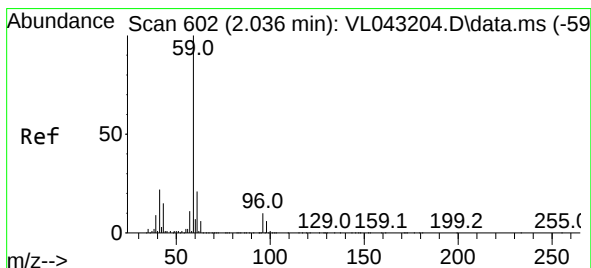
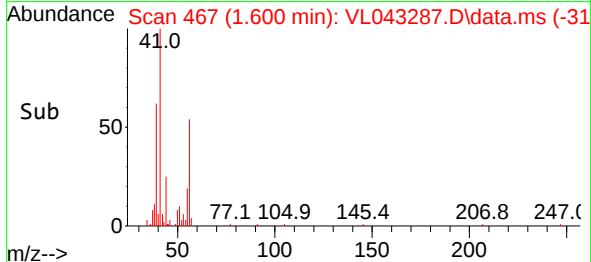
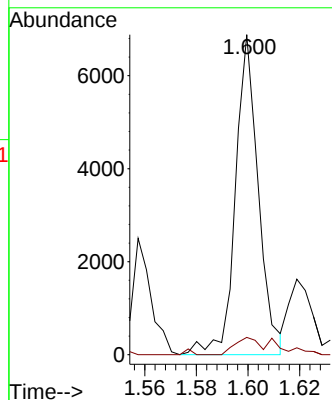
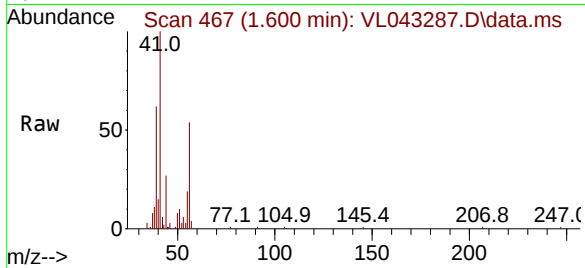




#16
1,3-Butadiene
Concen: 0.624 ppbv
RT: 1.600 min Scan# 41
Delta R.T. -0.006 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

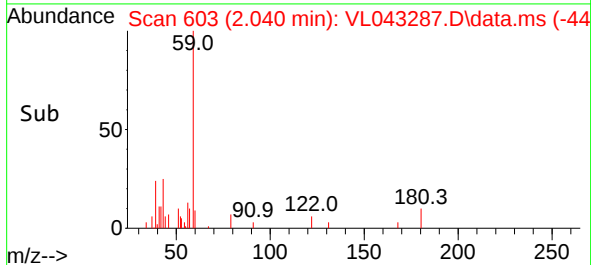
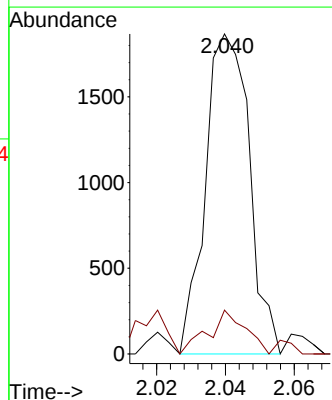
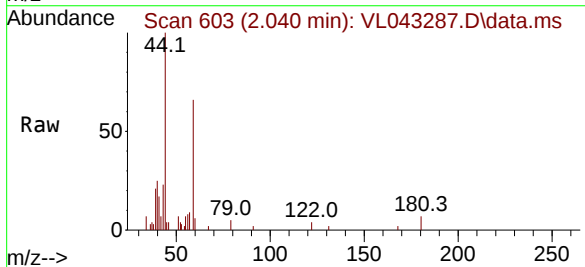
Instrument :
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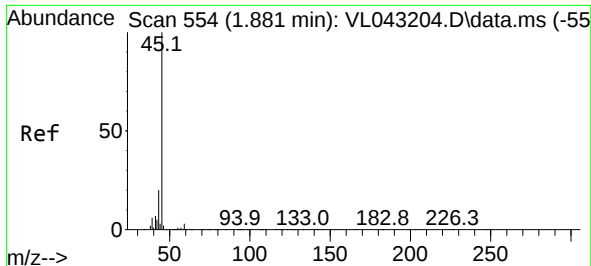
Tgt Ion: 39 Resp: 4258
Ion Ratio Lower Upper
39 100
54 10.1 59.4 89.2#



#17
tert-Butyl alcohol
Concen: 0.082 ppbv
RT: 2.040 min Scan# 603
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 59 Resp: 1653
Ion Ratio Lower Upper
59 100
57 0.0 9.0 13.4#





#19

Isopropyl Alcohol

Concen: 0.255 ppbv

RT: 1.901 min Scan# 5

Delta R.T. 0.020 min

Lab File: VL043287.D

Acq: 24 Nov 2025 17:47

Instrument :

MSVOA_L

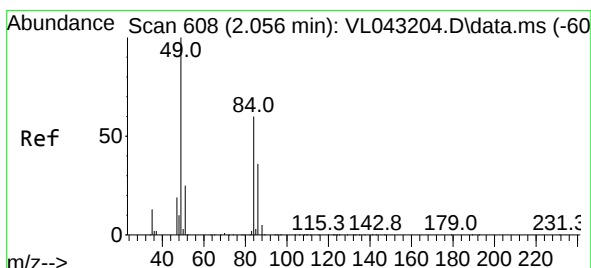
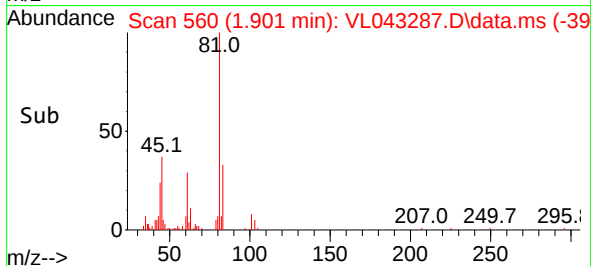
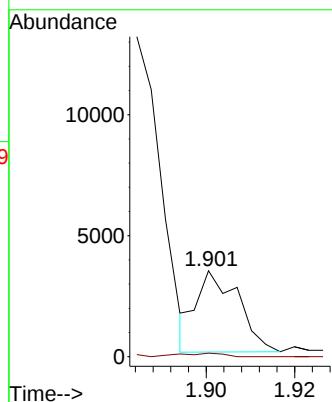
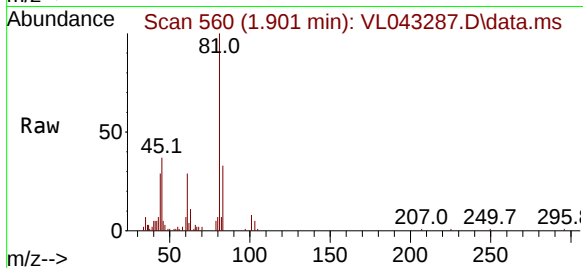
ClientSampleId :

Tgt Ion: 45 Resp: 2205

Ion Ratio Lower Upper

45 100

58 0.0 31.3 46.9#



#20

Methylene Chloride

Concen: 0.228 ppbv

RT: 2.062 min Scan# 610

Delta R.T. 0.006 min

Lab File: VL043287.D

Acq: 24 Nov 2025 17:47

Tgt Ion: 84 Resp: 4492

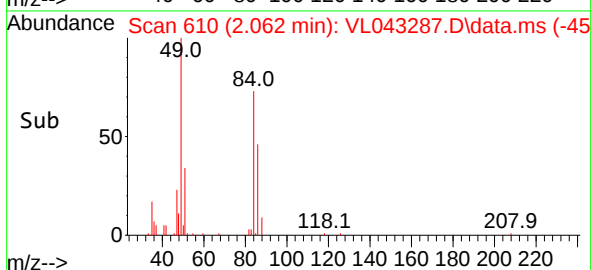
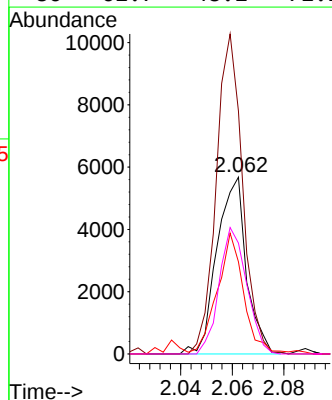
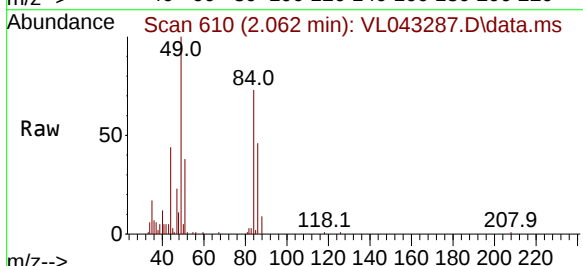
Ion Ratio Lower Upper

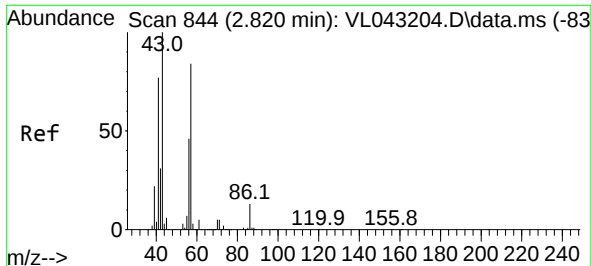
84 100

49 137.4 132.9 199.3

51 50.5 34.8 52.2

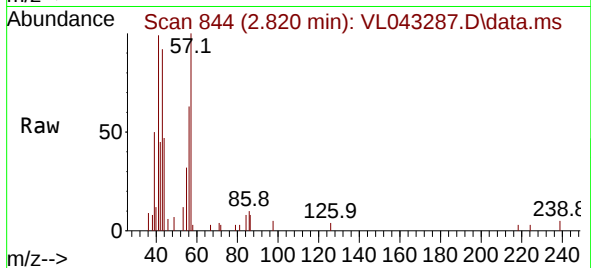
86 62.7 48.2 72.2





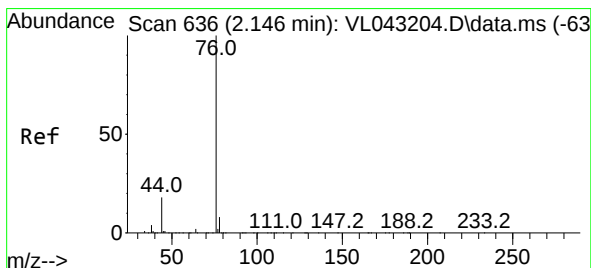
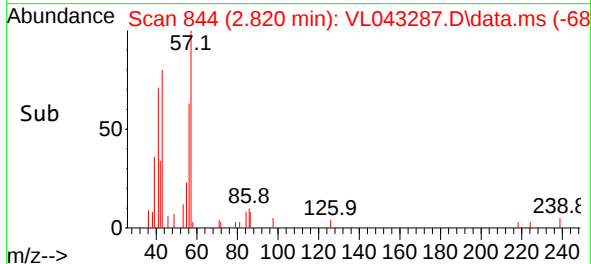
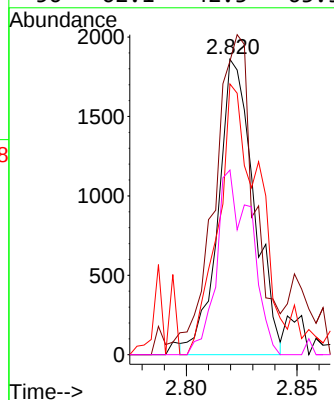
#26
Hexane
Concen: 0.144 ppbv
RT: 2.820 min Scan# 844
Delta R.T. 0.000 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Instrument :
MSVOA_L
ClientSampleId :



Tgt Ion: 57 Resp: 2082

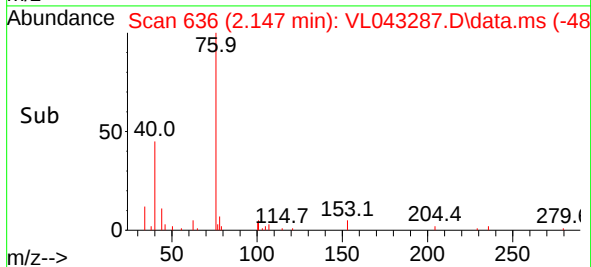
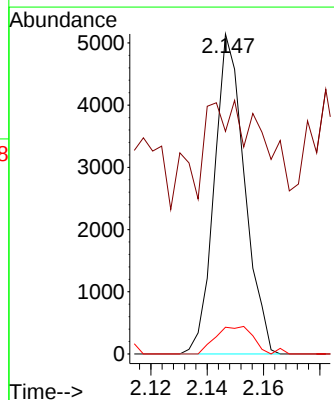
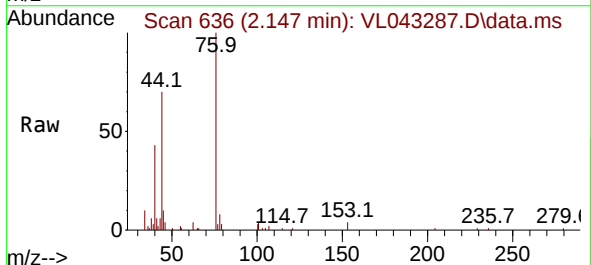
Ion	Ratio	Lower	Upper
57	100		
41	145.3	74.6	111.8#
43	128.0	179.0	268.4#
56	62.1	42.3	63.5

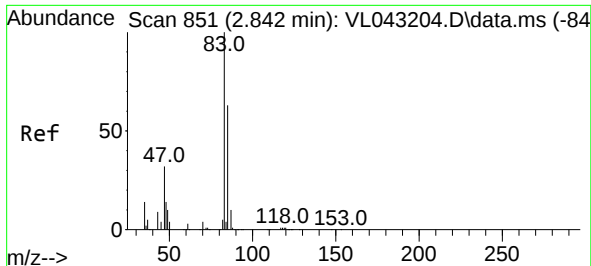


#27
Carbon Disulfide
Concen: 0.260 ppbv
RT: 2.147 min Scan# 636
Delta R.T. 0.000 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 76 Resp: 3842

Ion	Ratio	Lower	Upper
76	100		
44	127.3	16.1	24.1#
78	11.0	9.6	14.4





#29

Chloroform

Concen: 0.042 ppbv

RT: 2.842 min Scan# 851

Delta R.T. 0.000 min

Lab File: VL043287.D

Acq: 24 Nov 2025 17:47

Instrument :

MSVOA_L

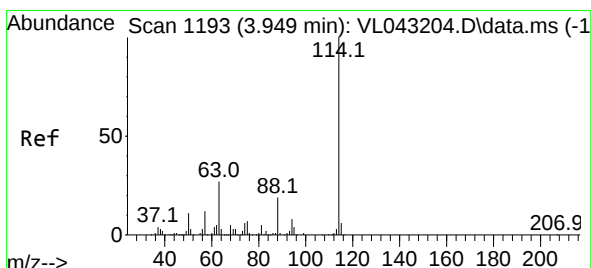
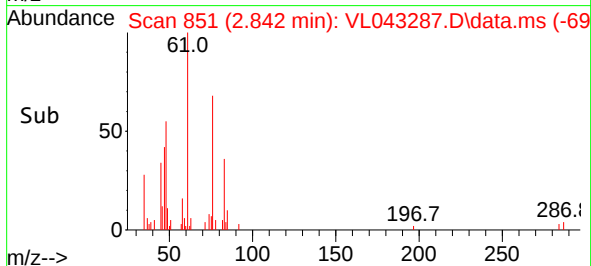
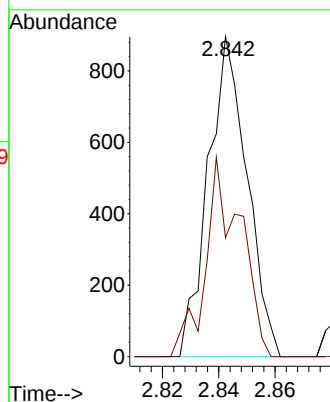
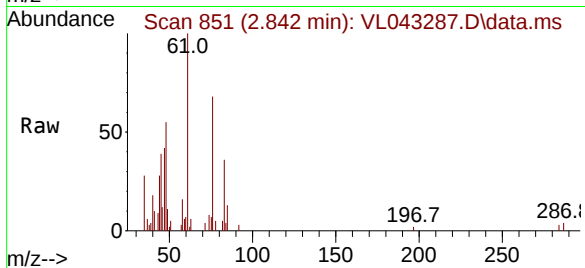
ClientSampleId :

Tgt Ion: 83 Resp: 860

Ion Ratio Lower Upper

83 100

85 37.2 50.5 75.7#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.949 min Scan# 1193

Delta R.T. 0.000 min

Lab File: VL043287.D

Acq: 24 Nov 2025 17:47

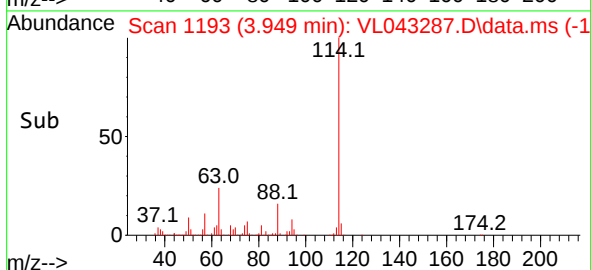
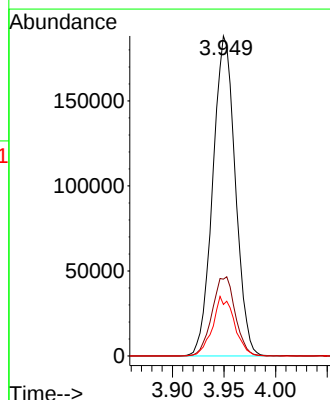
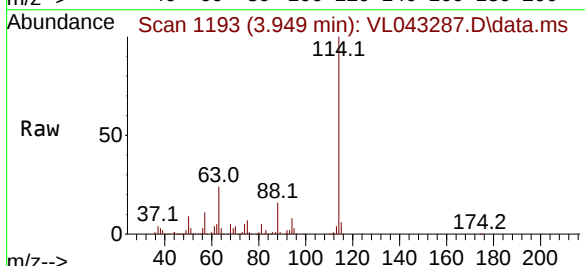
Tgt Ion: 114 Resp: 285613

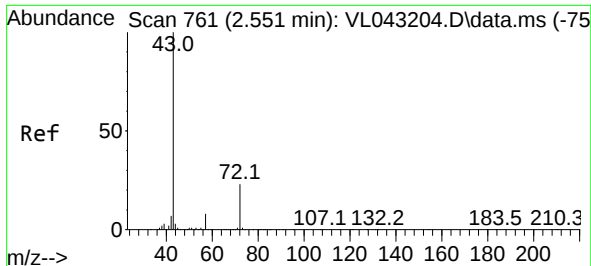
Ion Ratio Lower Upper

114 100

63 25.5 21.0 31.6

88 18.0 14.9 22.3

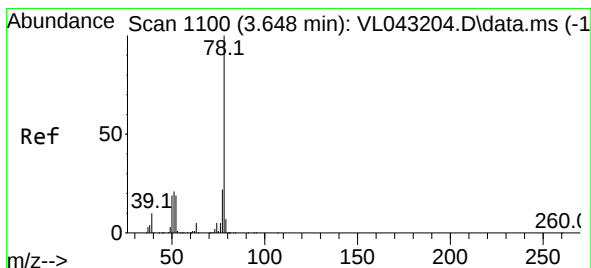
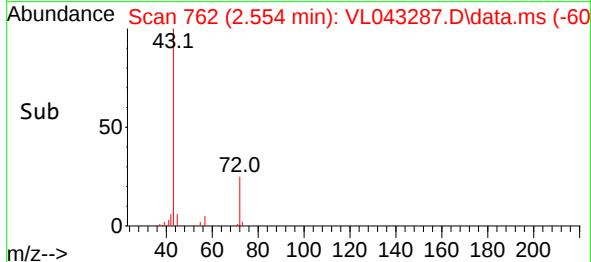
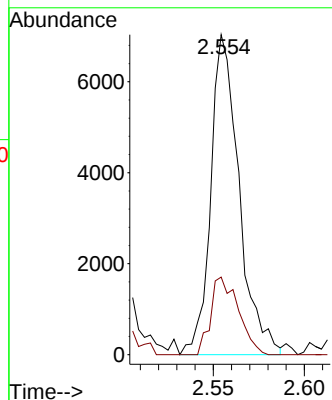
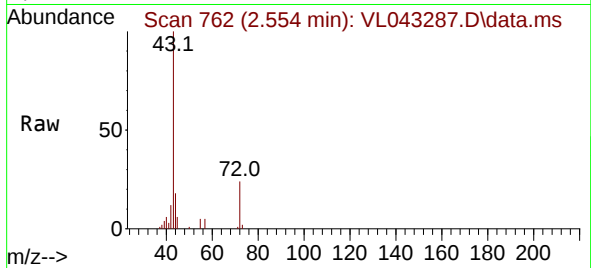




#34
2-Butanone
Concen: 0.376 ppbv
RT: 2.554 min Scan# 761
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

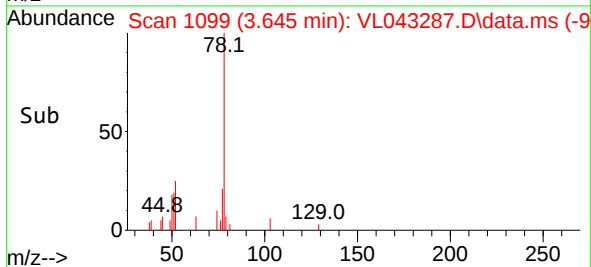
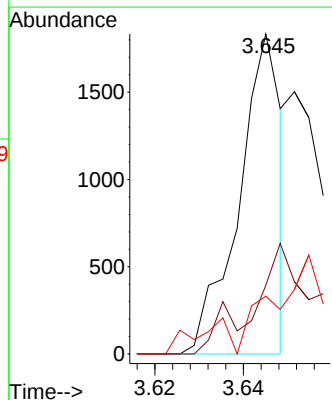
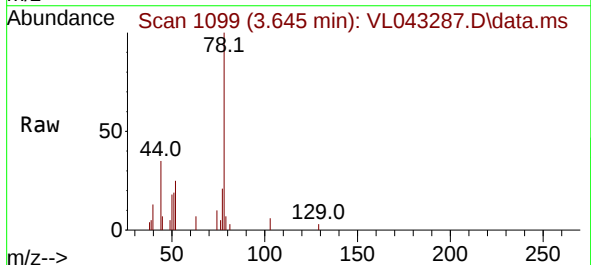
Instrument :
MSVOA_L
ClientSampleId :

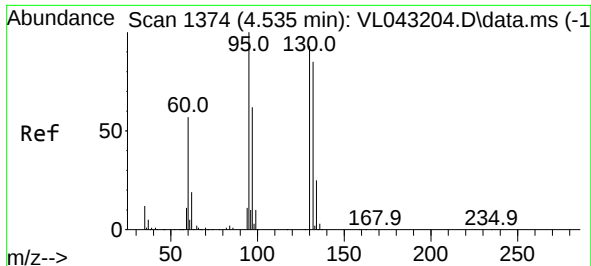
Tgt Ion: 43 Resp: 7585
Ion Ratio Lower Upper
43 100
72 23.7 18.1 27.1



#36
Benzene
Concen: 0.045 ppbv
RT: 3.645 min Scan# 1099
Delta R.T. -0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 78 Resp: 1222
Ion Ratio Lower Upper
78 100
77 21.4 17.5 26.3
50 10.6 15.5 23.3#

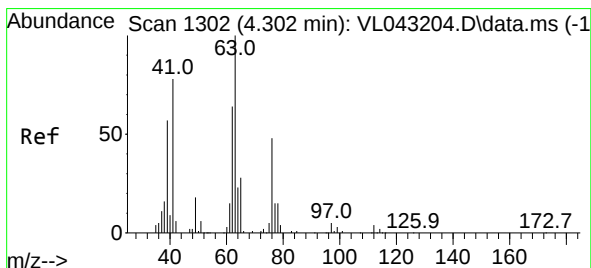
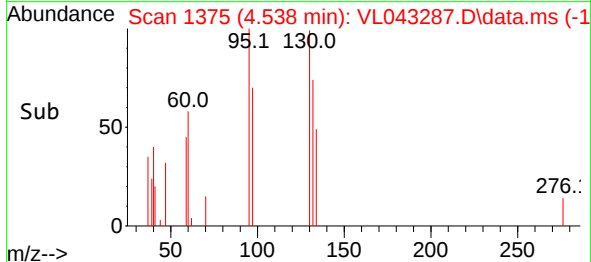
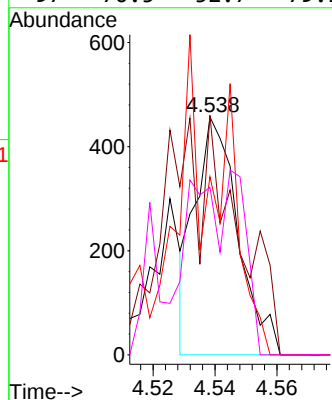
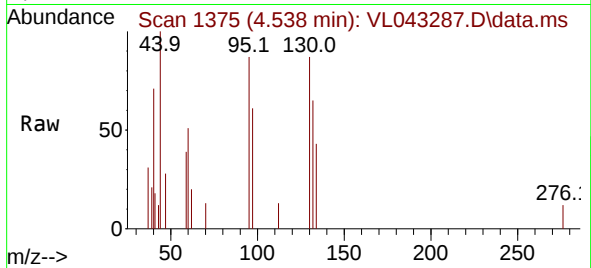




#38
 Trichloroethene
 Concen: 0.041 ppbv
 RT: 4.538 min Scan# 1194
 Delta R.T. 0.003 min
 Lab File: VL043287.D
 Acq: 24 Nov 2025 17:47

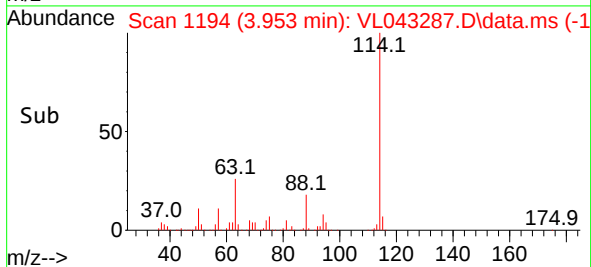
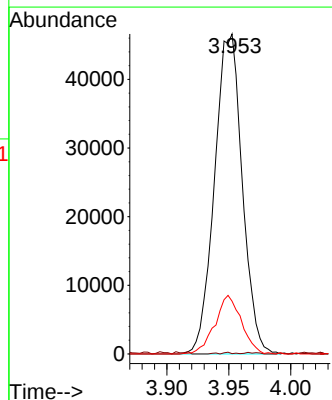
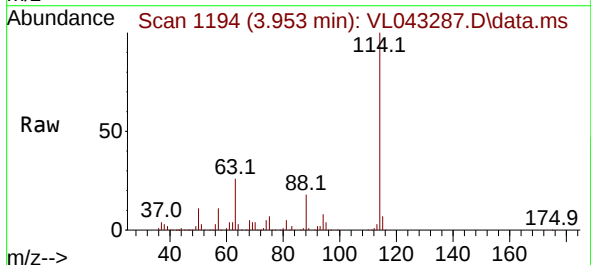
Instrument :
 MSVOA_L
 ClientSampleId :

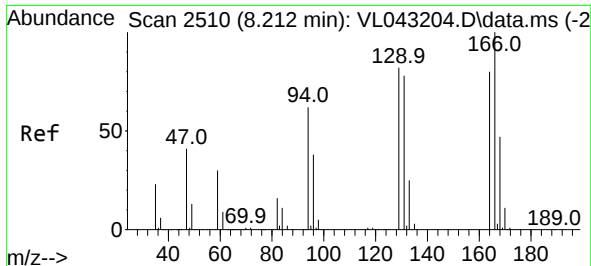
Tgt Ion:130 Resp: 440
 Ion Ratio Lower Upper
 130 100
 95 100.7 85.7 128.5
 132 74.8 73.4 110.0
 97 70.5 52.7 79.1



#39
 1,2-Dichloropropane
 Concen: 7.267 ppbv
 RT: 3.953 min Scan# 1194
 Delta R.T. -0.349 min
 Lab File: VL043287.D
 Acq: 24 Nov 2025 17:47

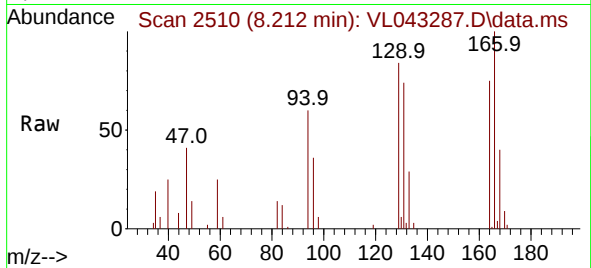
Tgt Ion: 63 Resp: 72748
 Ion Ratio Lower Upper
 63 100
 41 0.0 62.6 93.8#
 62 16.5 51.0 76.6#



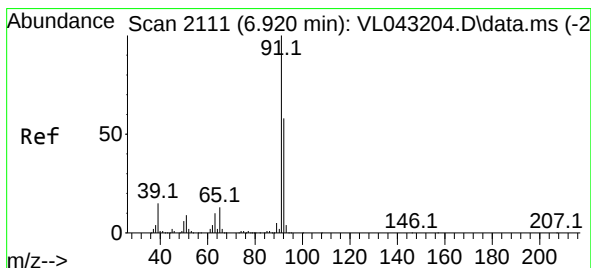
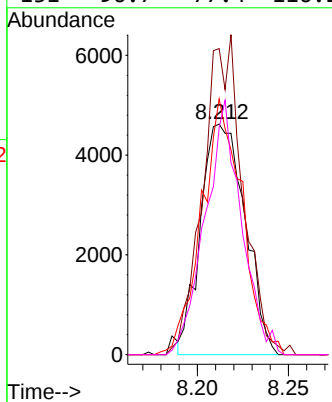
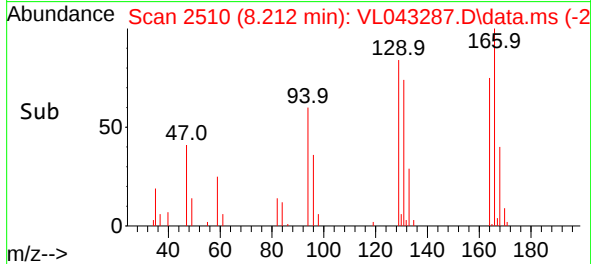


#52
Tetrachloroethene
Concen: 0.772 ppbv
RT: 8.212 min Scan# 2110
Delta R.T. 0.000 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

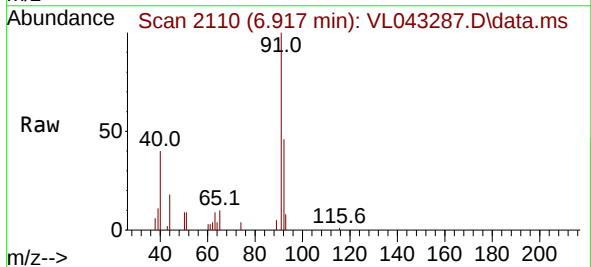
Instrument :
MSVOA_L
ClientSampleId :



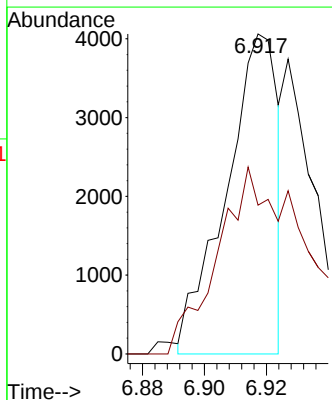
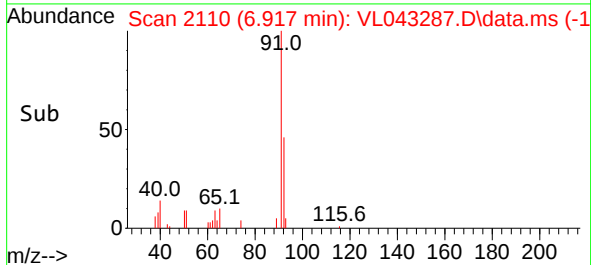
Tgt Ion:	164	Resp:	7855
Ion	Ratio	Lower	Upper
164	100		
166	129.0	99.4	149.2
129	105.1	81.8	122.8
131	96.7	77.4	116.2

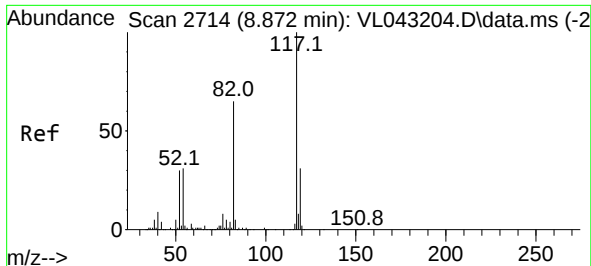


#53
Toluene
Concen: 0.145 ppbv
RT: 6.917 min Scan# 2110
Delta R.T. -0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47



Tgt Ion:	91	Resp:	4703
Ion	Ratio	Lower	Upper
91	100		
92	98.7	47.4	71.0#

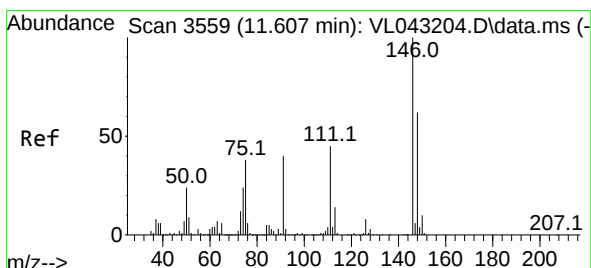
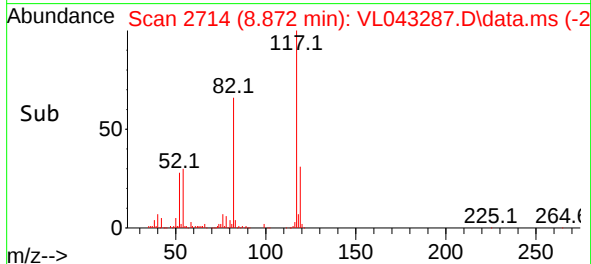
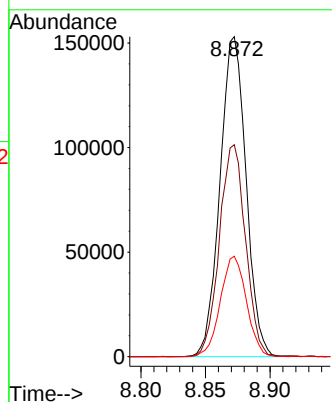
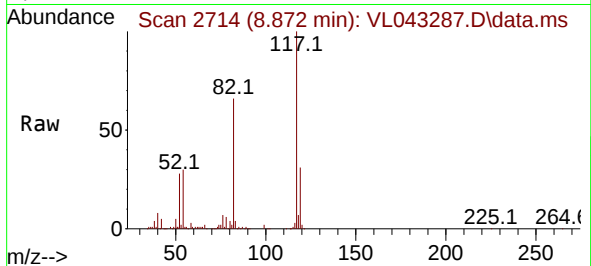




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.872 min Scan# 21
Delta R.T. 0.000 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

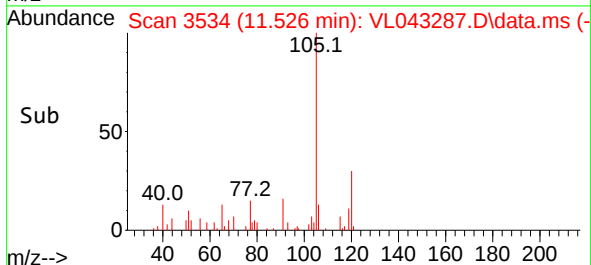
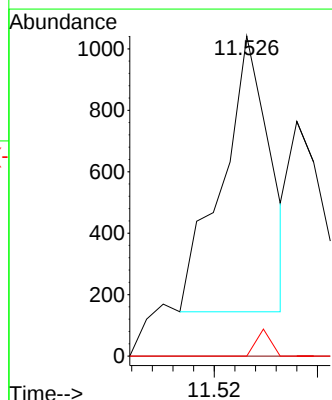
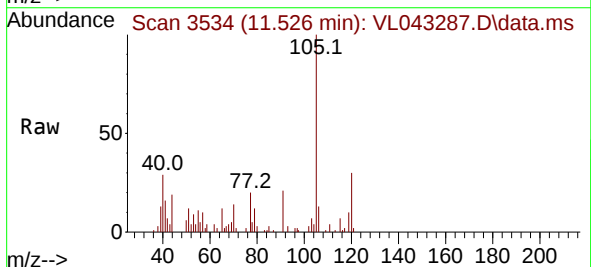
Instrument :
MSVOA_L
ClientSampleId :

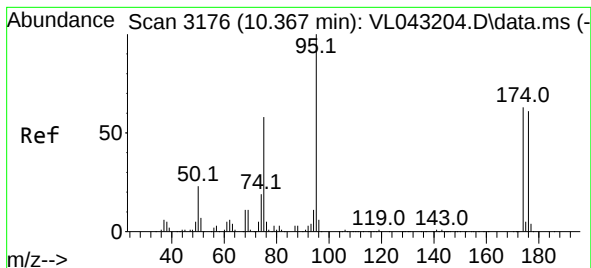
Tgt Ion:117 Resp: 215025
Ion Ratio Lower Upper
117 100
82 66.3 56.1 84.1
119 31.5 25.0 37.6



#66
Benzyl Chloride
Concen: 0.108 ppbv
RT: 11.526 min Scan# 3534
Delta R.T. -0.081 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion: 91 Resp: 580
Ion Ratio Lower Upper
91 100
126 2.8 14.4 21.6#
128 2.8 4.6 6.8#

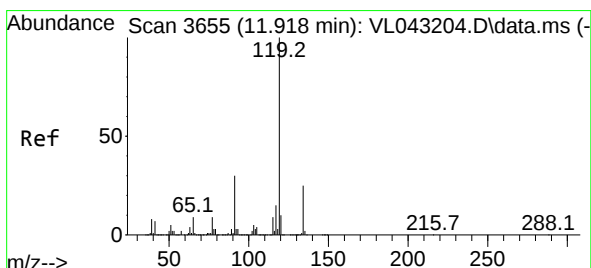
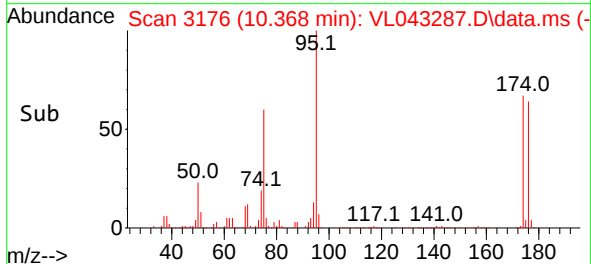
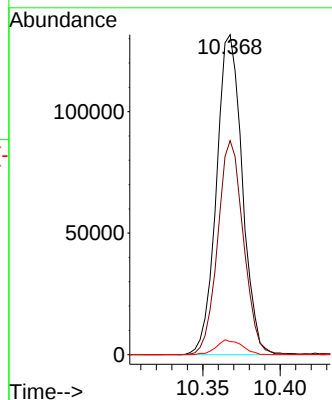
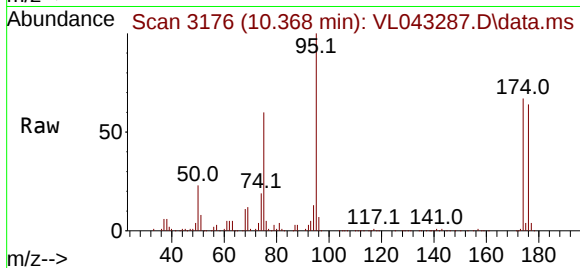




#68
1-Bromo-4-Fluorobenzene
Concen: 9.679 ppbv
RT: 10.368 min Scan# 3176
Delta R.T. 0.000 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

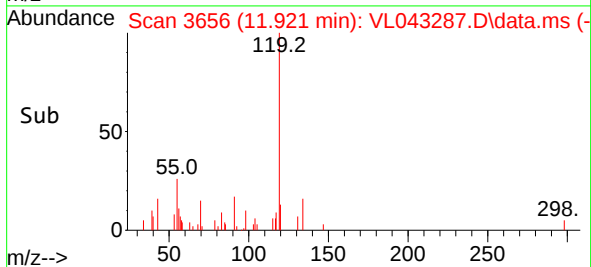
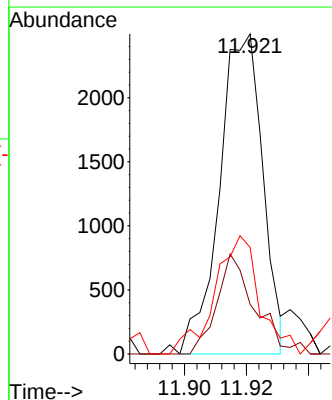
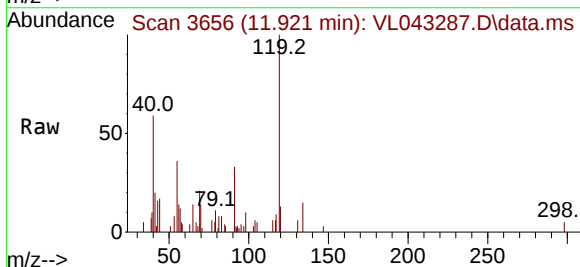
Instrument :
MSVOA_L
ClientSampleId :

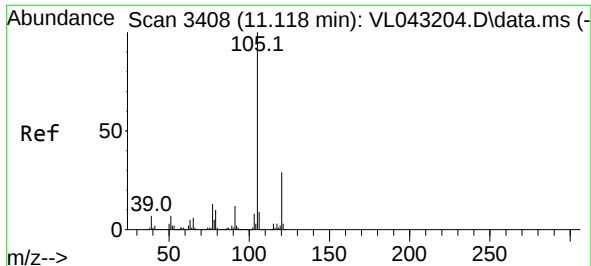
Tgt Ion: 95 Resp: 152555
Ion Ratio Lower Upper
95 100
174 67.1 50.2 75.2
175 4.6 4.1 6.1



#69
p-Isopropyltoluene
Concen: 0.039 ppbv
RT: 11.921 min Scan# 3656
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

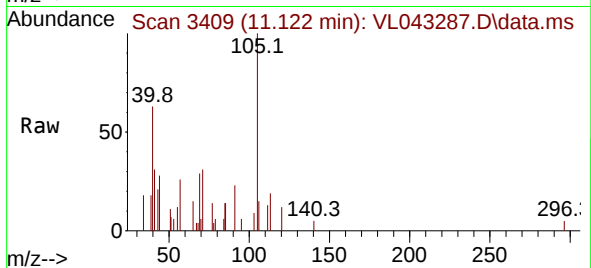
Tgt Ion: 119 Resp: 2422
Ion Ratio Lower Upper
119 100
134 27.6 20.2 30.2
91 49.2 23.8 35.8#



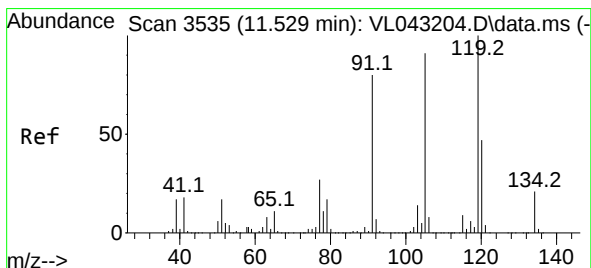
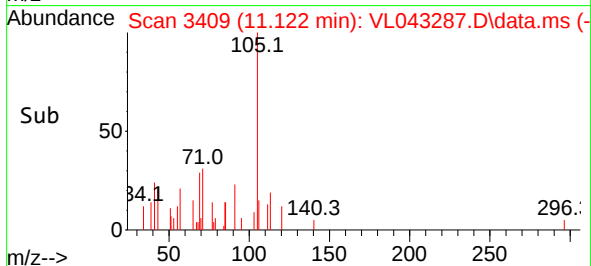
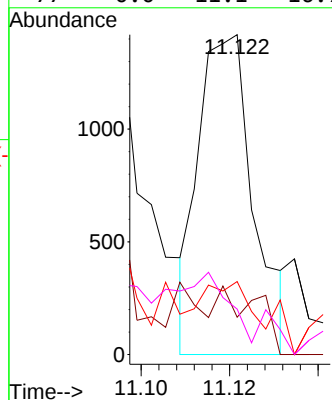


#72
4-Ethyltoluene
Concen: 0.030 ppbv
RT: 11.122 min Scan# 3409
Delta R.T. 0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Instrument :
MSVOA_L
ClientSampleId :



Tgt Ion:	105	Resp:	1220
Ion	Ratio	Lower	Upper
105	100		
120	0.0	23.8	35.8#
91	0.0	10.3	15.5#
77	0.0	11.1	16.7#



#74
1,2,4-Trimethylbenzene
Concen: 0.154 ppbv
RT: 11.526 min Scan# 3534
Delta R.T. -0.003 min
Lab File: VL043287.D
Acq: 24 Nov 2025 17:47

Tgt Ion:	105	Resp:	5710
Ion	Ratio	Lower	Upper
105	100		
120	31.8	41.7	62.5#
91	20.7	70.0	105.0#
77	19.8	23.8	35.8#

