

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL101525\
 Data File : VL043120.D
 Acq On : 15 Oct 2025 12:45
 Operator : SY/MD
 Sample : Q3247-01DL 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 RR-VOAS-AIRDL

Quant Time: Oct 16 01:17:28 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Oct 15 02:12:58 2025
 Response via : Initial Calibration

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

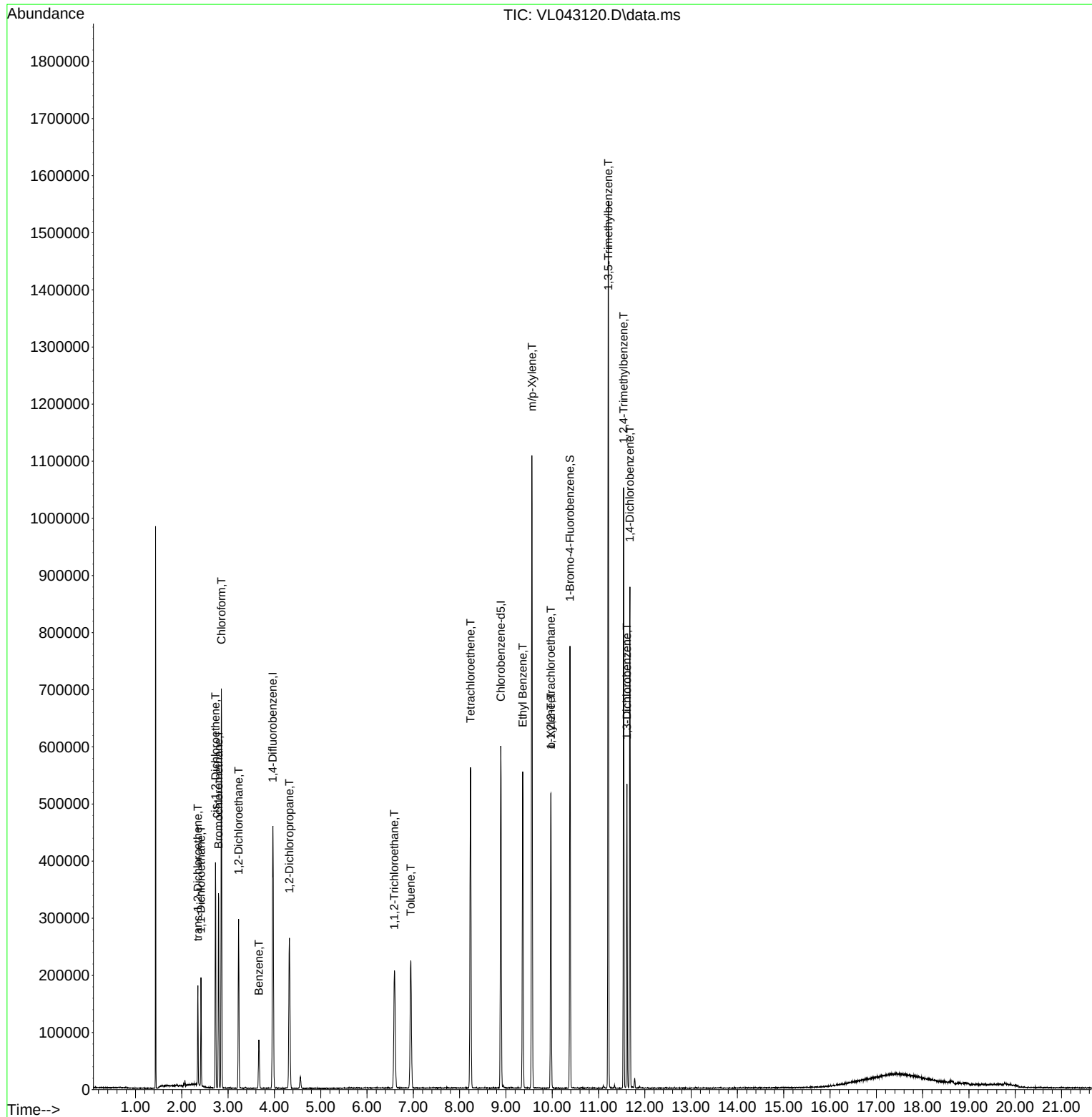
Internal Standards						
1) Bromochloromethane	2.794	49	89576	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	288687	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	249387	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.384	95	203489	10.498	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.000%
Target Compounds						
					Qvalue	
22) trans-1,2-Dichloroethene	2.347	96	25231	4.828	ppbv	96
24) 1,1-Dichloroethane	2.415	63	80788	8.001	ppbv	98
29) Chloroform	2.855	83	283215	14.168	ppbv	99
31) cis-1,2-Dichloroethene	2.729	61	122690	9.313	ppbv	98
36) Benzene	3.664	78	53151	1.955	ppbv #	94
37) 1,2-Dichloroethane	3.227	62	167100	10.668	ppbv	97
39) 1,2-Dichloropropane	4.325	63	78315	7.879	ppbv	90
47) 1,1,2-Trichloroethane	6.590	97	69799	6.502	ppbv	96
52) Tetrachloroethene	8.235	164	96179	9.809	ppbv	93
53) Toluene	6.946	91	171862	5.326	ppbv	100
58) Ethyl Benzene	9.364	91	324415	7.580	ppbv	97
59) m/p-Xylene	9.562	91	505752	14.815	ppbv	98
60) o-Xylene	9.973	91	113752	3.374	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.969	83	101030	4.475	ppbv	100
73) 1,3,5-Trimethylbenzene	11.212	105	604320	17.675	ppbv	96
74) 1,2,4-Trimethylbenzene	11.542	105	383032	10.011	ppbv #	49
75) 1,3-Dichlorobenzene	11.614	146	123658	5.572	ppbv	99
76) 1,4-Dichlorobenzene	11.678	146	203090	9.076	ppbv	98

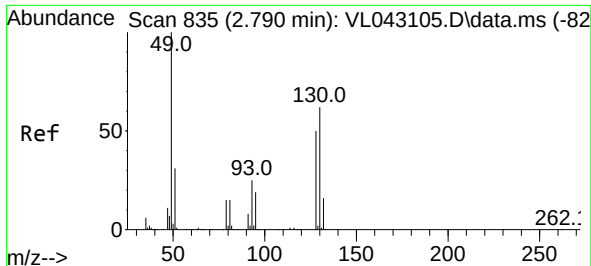
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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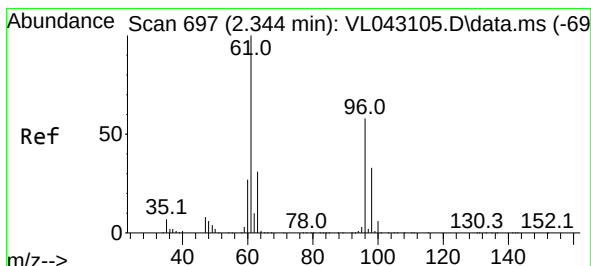
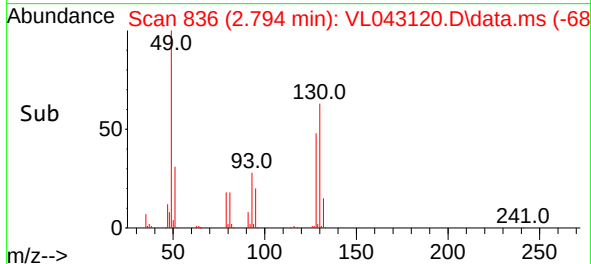
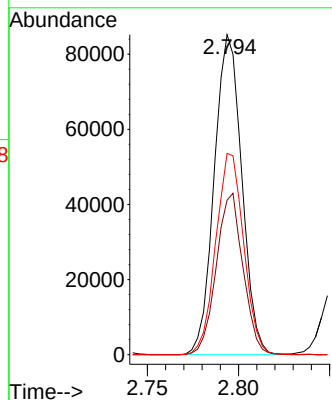
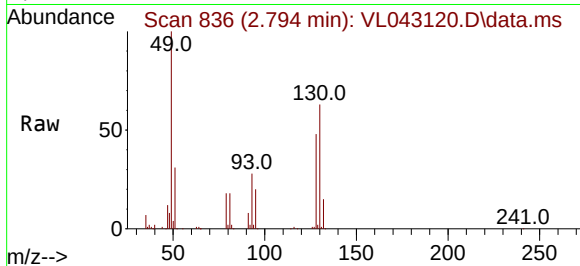




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.794 min Scan# 81
Delta R.T. 0.004 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

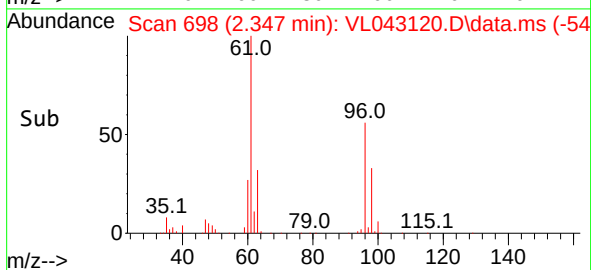
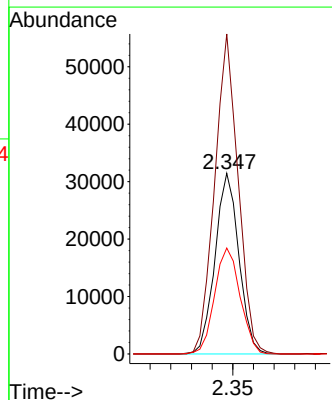
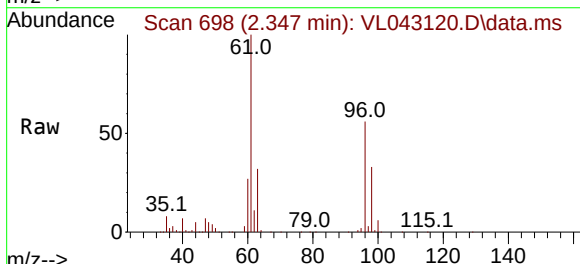
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIRDL

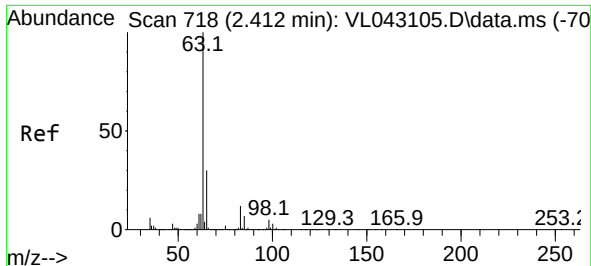
Tgt Ion: 49 Resp: 89576
Ion Ratio Lower Upper
49 100
128 48.9 24.4 73.4
130 63.8 31.0 93.0



#22
trans-1,2-Dichloroethene
Concen: 4.828 ppbv
RT: 2.347 min Scan# 698
Delta R.T. 0.003 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

Tgt Ion: 96 Resp: 25231
Ion Ratio Lower Upper
96 100
61 177.2 137.0 205.6
98 58.7 45.5 68.3

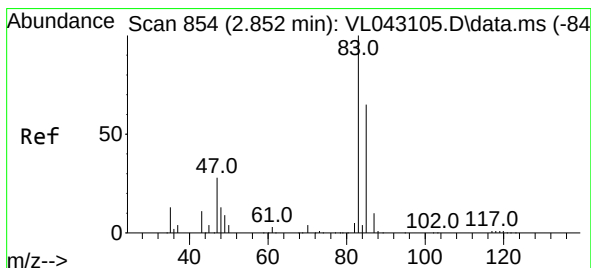
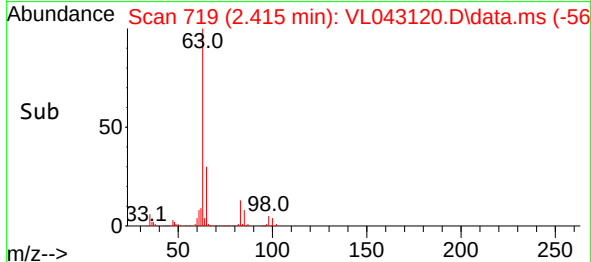
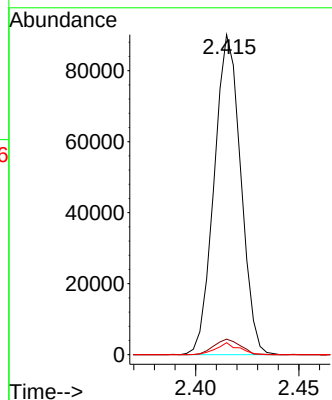
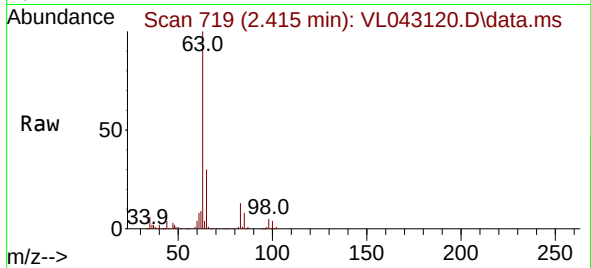




#24
1,1-Dichloroethane
Concen: 8.001 ppbv
RT: 2.415 min Scan# 718
Delta R.T. 0.003 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

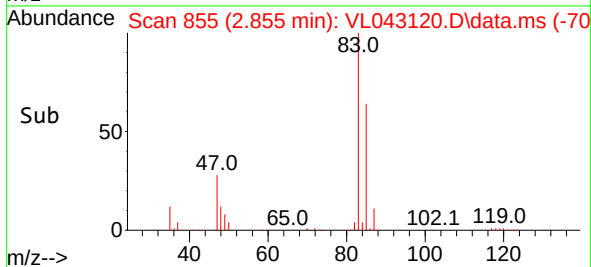
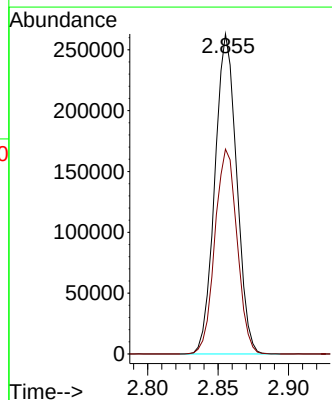
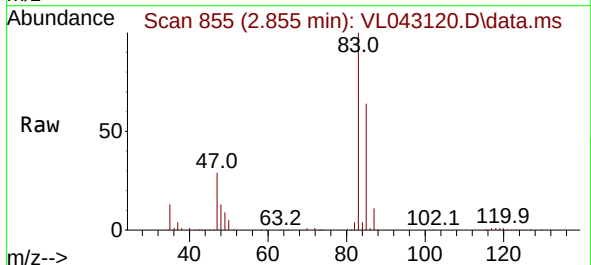
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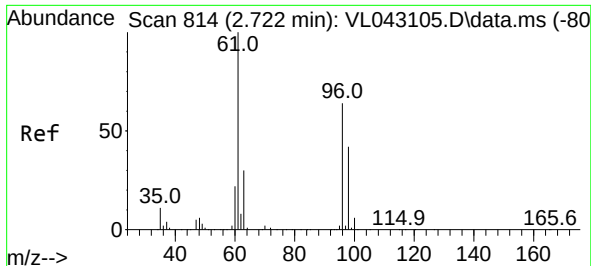
Tgt Ion: 63 Resp: 80788
Ion Ratio Lower Upper
63 100
98 4.9 2.6 7.8
100 3.7 1.5 4.4



#29
Chloroform
Concen: 14.168 ppbv
RT: 2.855 min Scan# 855
Delta R.T. 0.003 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

Tgt Ion: 83 Resp: 283215
Ion Ratio Lower Upper
83 100
85 64.0 51.8 77.6

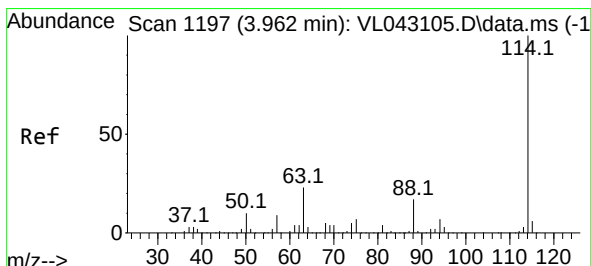
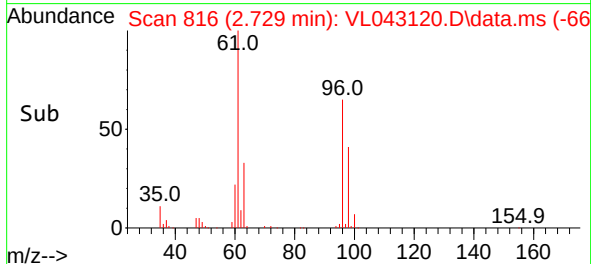
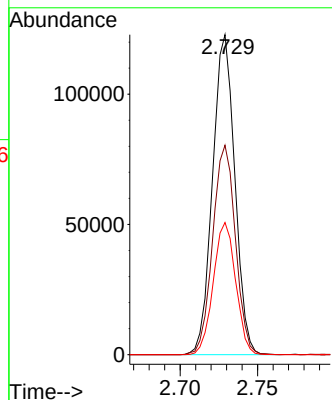
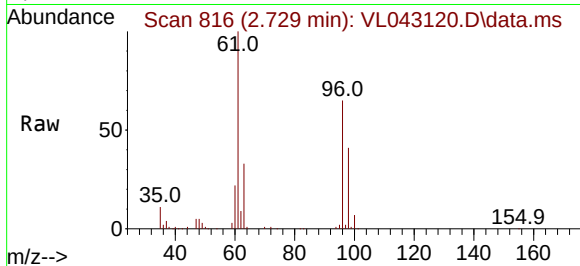




#31
 cis-1,2-Dichloroethene
 Concen: 9.313 ppbv
 RT: 2.729 min Scan# 814
 Delta R.T. 0.007 min
 Lab File: VL043120.D
 Acq: 15 Oct 2025 12:45

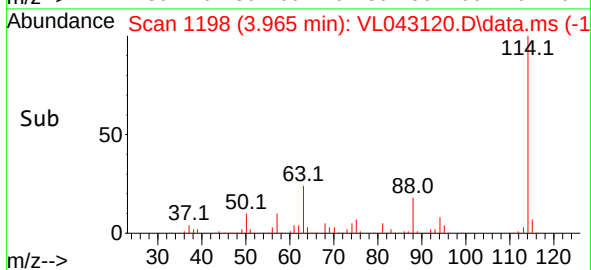
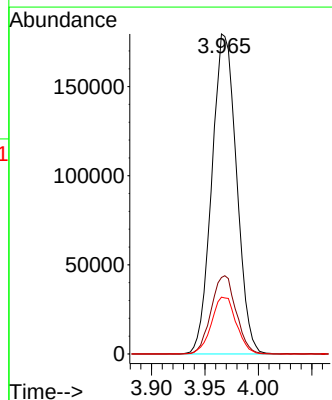
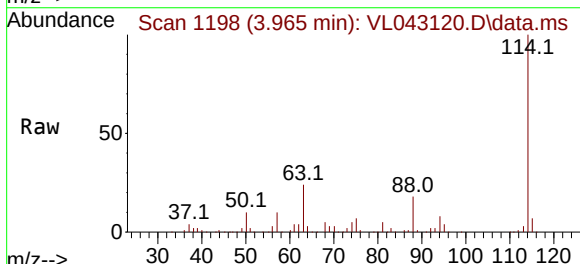
Instrument :
 MSVOA_L
 ClientSampleId :
 RR-VOAS-AIRDL

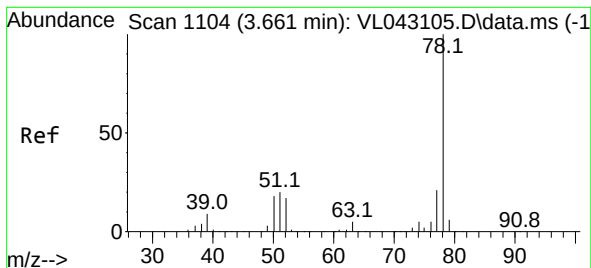
Tgt Ion: 61 Resp: 122690
 Ion Ratio Lower Upper
 61 100
 96 65.4 51.0 76.6
 98 41.3 33.5 50.3



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.965 min Scan# 1198
 Delta R.T. 0.003 min
 Lab File: VL043120.D
 Acq: 15 Oct 2025 12:45

Tgt Ion: 114 Resp: 288687
 Ion Ratio Lower Upper
 114 100
 63 24.7 19.3 28.9
 88 17.9 13.9 20.9





#36

Benzene

Concen: 1.955 ppbv

RT: 3.664 min Scan# 1104

Delta R.T. 0.003 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

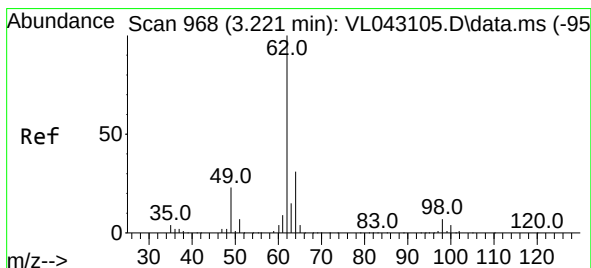
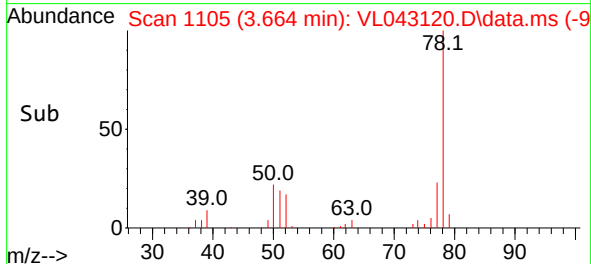
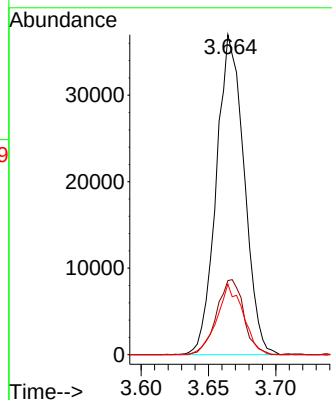
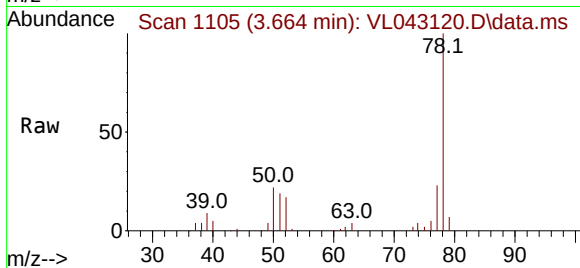
Tgt Ion: 78 Resp: 53151

Ion Ratio Lower Upper

78 100

77 23.2 17.0 25.6

50 22.1 14.6 22.0#



#37

1,2-Dichloroethane

Concen: 10.668 ppbv

RT: 3.227 min Scan# 970

Delta R.T. 0.007 min

Lab File: VL043120.D

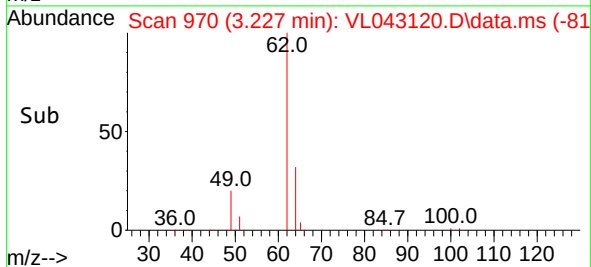
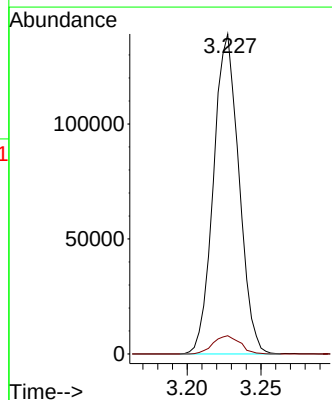
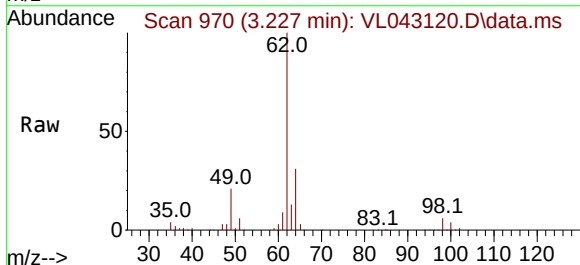
Acq: 15 Oct 2025 12:45

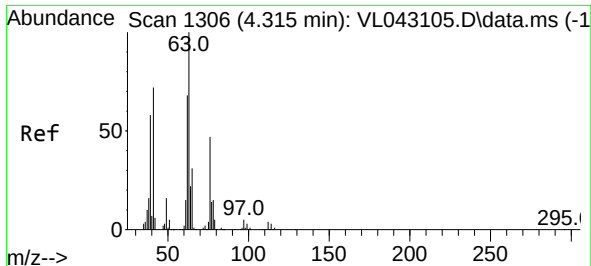
Tgt Ion: 62 Resp: 167100

Ion Ratio Lower Upper

62 100

98 6.0 5.8 8.6





#39

1,2-Dichloropropane

Concen: 7.879 ppbv

RT: 4.325 min Scan# 11

Delta R.T. 0.010 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

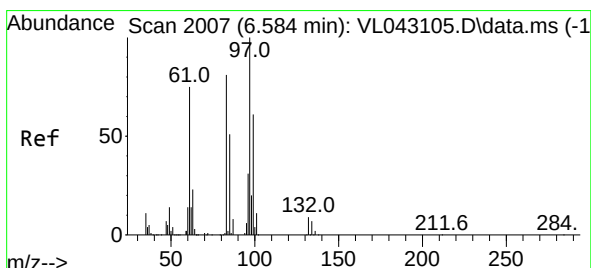
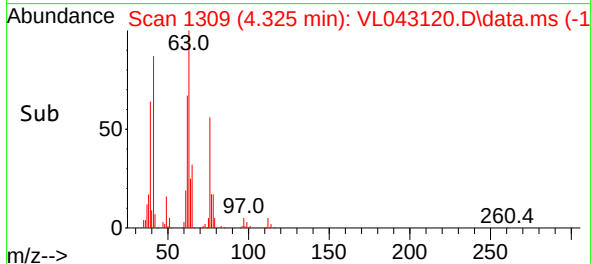
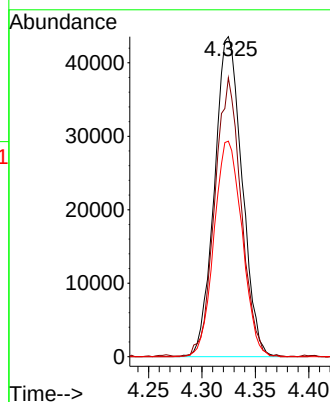
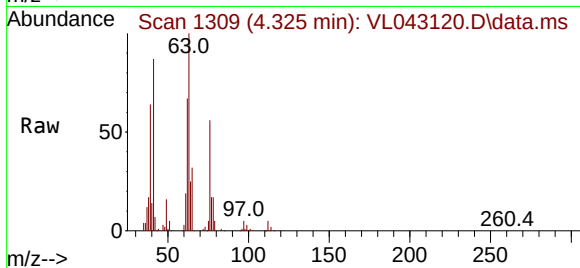
Tgt Ion: 63 Resp: 78315

Ion Ratio Lower Upper

63 100

41 87.0 58.0 87.0

62 67.3 54.7 82.1



#47

1,1,2-Trichloroethane

Concen: 6.502 ppbv

RT: 6.590 min Scan# 2009

Delta R.T. 0.007 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Tgt Ion: 97 Resp: 69799

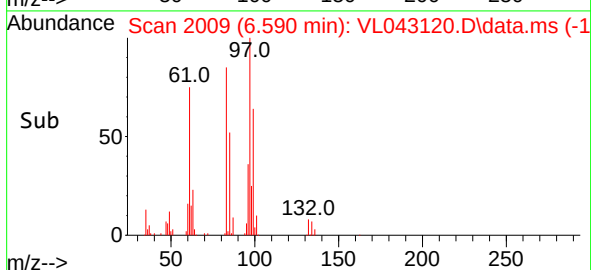
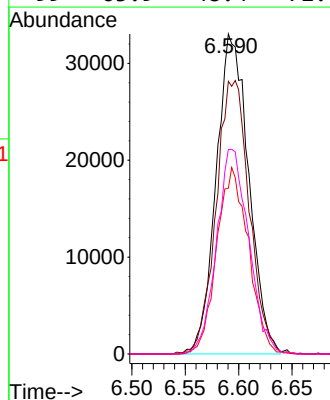
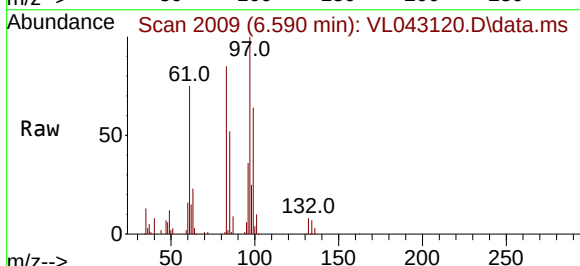
Ion Ratio Lower Upper

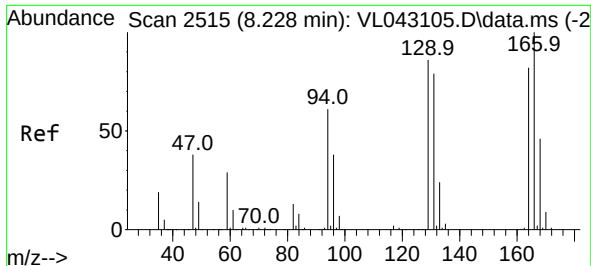
97 100

83 84.8 64.6 96.8

85 51.8 40.6 60.8

99 63.9 48.4 72.6

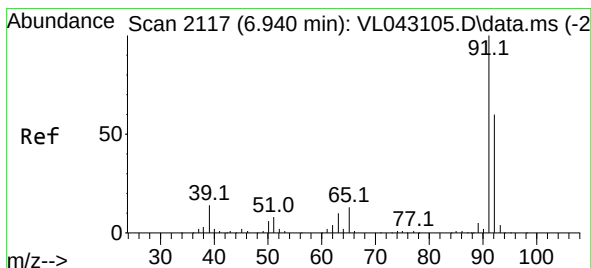
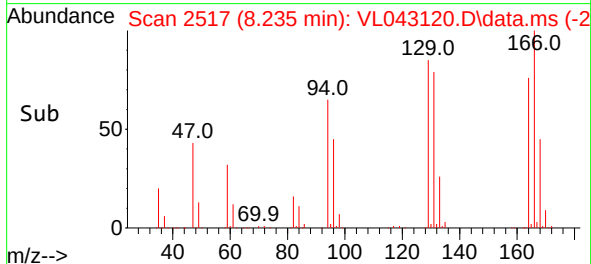
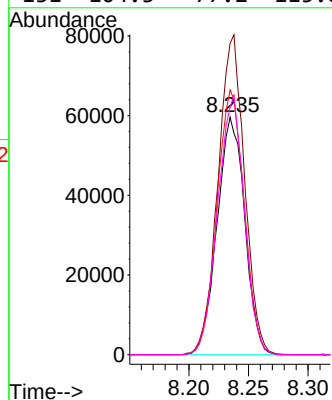
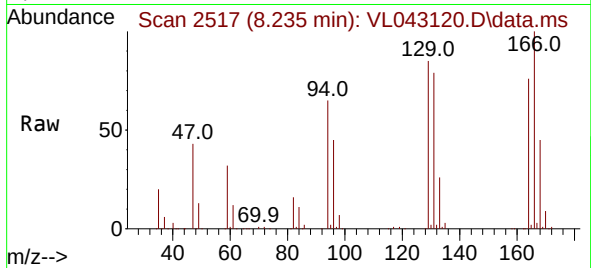




#52
Tetrachloroethene
Concen: 9.809 ppbv
RT: 8.235 min Scan# 2119
Delta R.T. 0.007 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

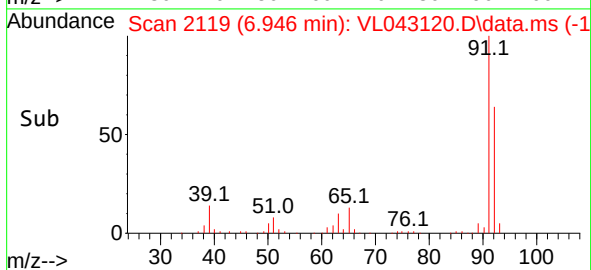
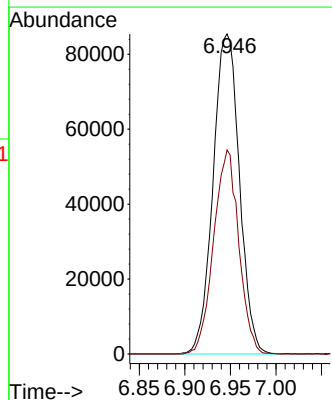
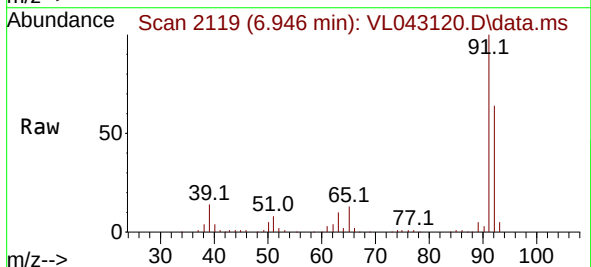
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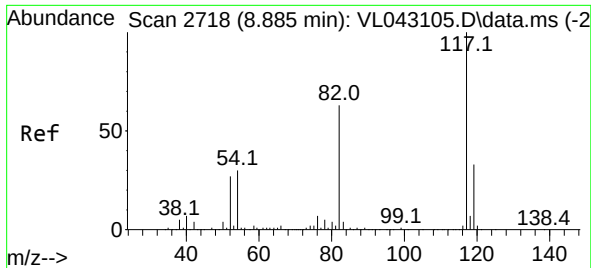
Tgt Ion:164 Resp: 96179
Ion Ratio Lower Upper
164 100
166 131.2 97.6 146.4
129 111.5 84.5 126.7
131 104.3 77.2 115.8



#53
Toluene
Concen: 5.326 ppbv
RT: 6.946 min Scan# 2119
Delta R.T. 0.007 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

Tgt Ion: 91 Resp: 171862
Ion Ratio Lower Upper
91 100
92 60.7 48.8 73.2

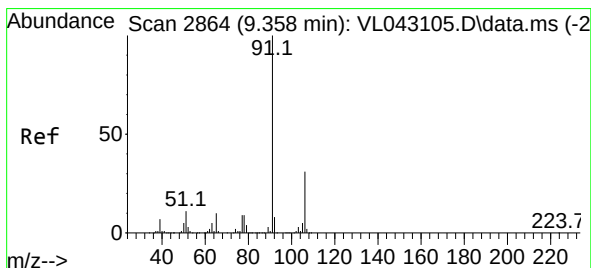
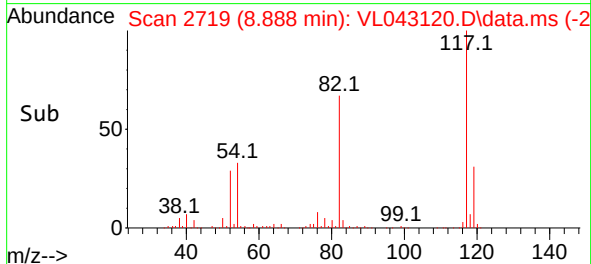
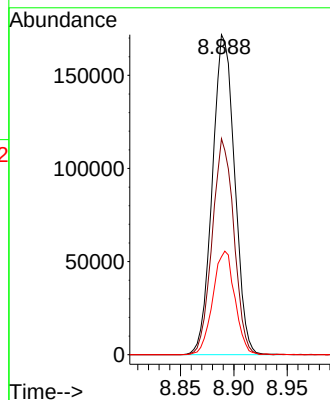
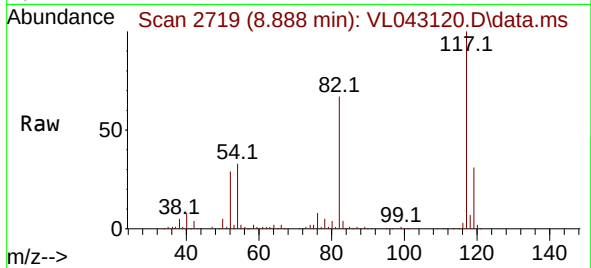




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.888 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

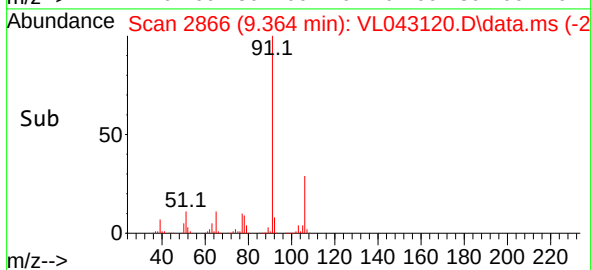
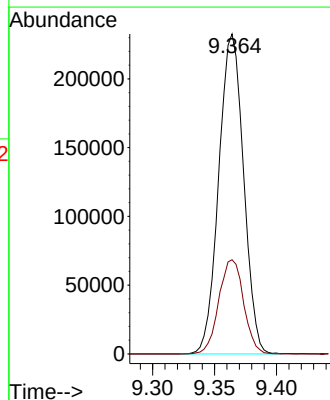
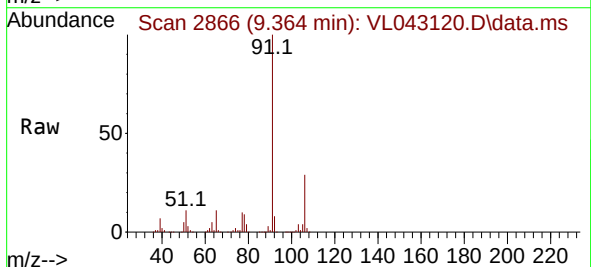
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIRDL

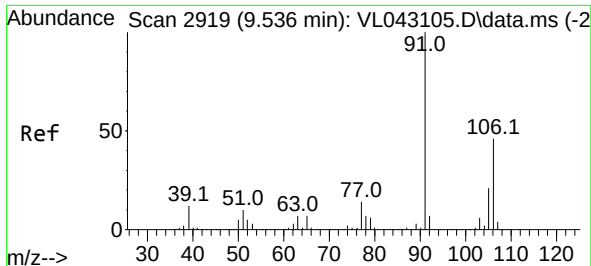
Tgt Ion:117 Resp: 249387
Ion Ratio Lower Upper
117 100
82 65.6 53.8 80.8
119 32.0 25.4 38.0



#58
Ethyl Benzene
Concen: 7.580 ppbv
RT: 9.364 min Scan# 2866
Delta R.T. 0.007 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

Tgt Ion: 91 Resp: 324415
Ion Ratio Lower Upper
91 100
106 29.5 24.8 37.2





#59

m/p-Xylene

Concen: 14.815 ppbv

RT: 9.562 min Scan# 2919

Delta R.T. 0.026 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Instrument :

MSVOA_1

ClientSampleId :

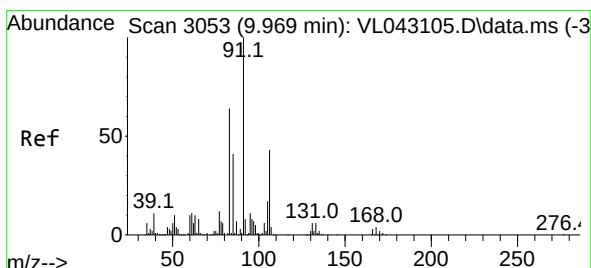
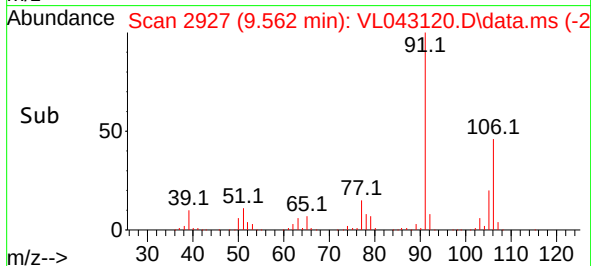
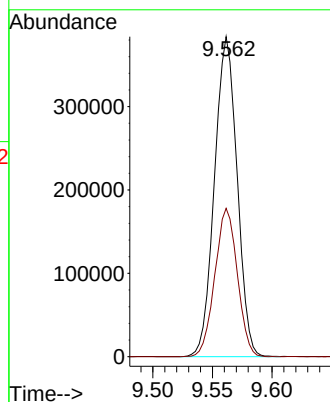
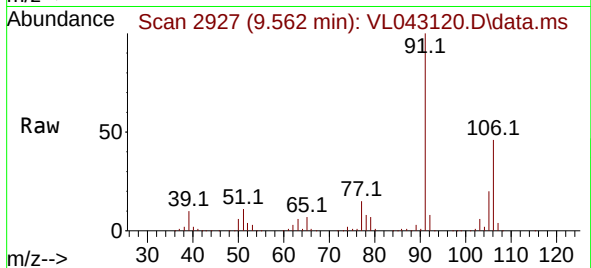
RR-VOAS-AIRDL

Tgt Ion: 91 Resp: 505752

Ion Ratio Lower Upper

91 100

106 46.1 38.0 57.0



#60

o-Xylene

Concen: 3.374 ppbv

RT: 9.973 min Scan# 3054

Delta R.T. 0.003 min

Lab File: VL043120.D

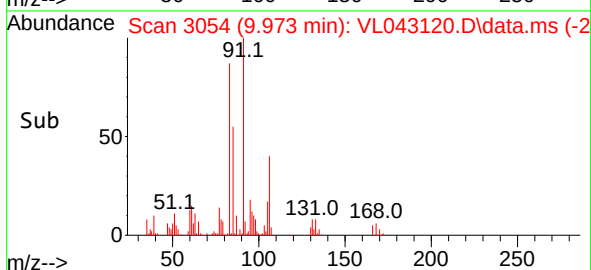
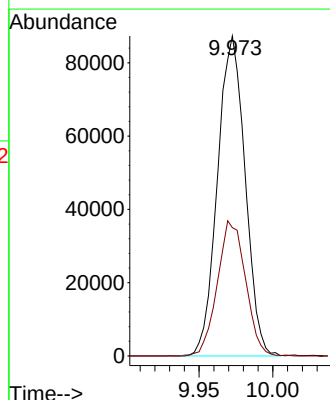
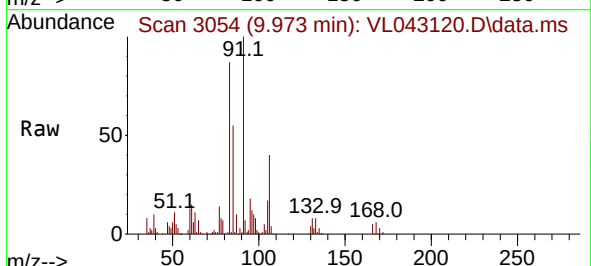
Acq: 15 Oct 2025 12:45

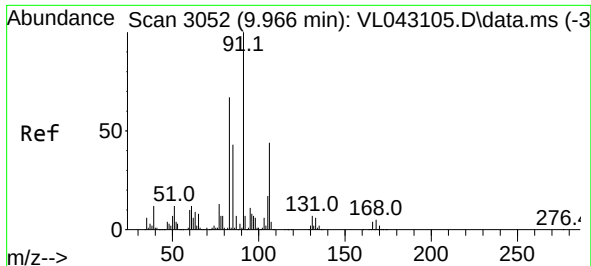
Tgt Ion: 91 Resp: 113752

Ion Ratio Lower Upper

91 100

106 43.0 21.9 65.8





#63

1,1,2,2-Tetrachloroethane

Concen: 4.475 ppbv

RT: 9.969 min Scan# 3052

Delta R.T. 0.003 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

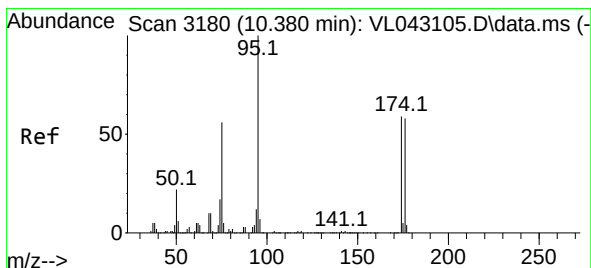
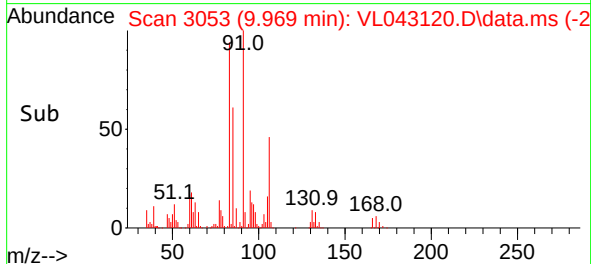
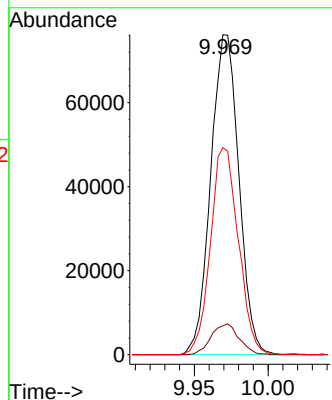
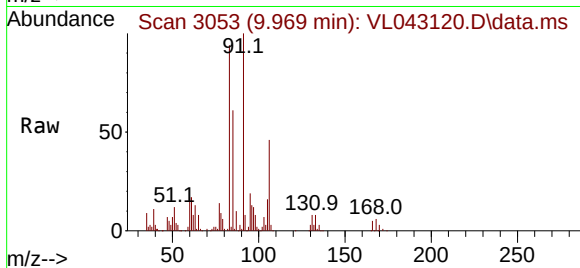
Tgt Ion: 83 Resp: 101030

Ion Ratio Lower Upper

83 100

131 9.5 4.8 14.3

85 64.2 32.0 96.0



#68

1-Bromo-4-Fluorobenzene

Concen: 10.498 ppbv

RT: 10.384 min Scan# 3181

Delta R.T. 0.003 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

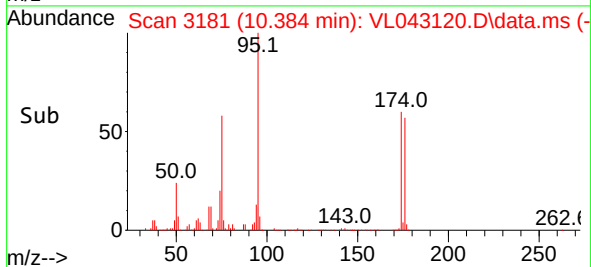
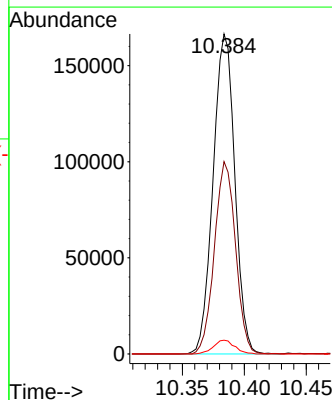
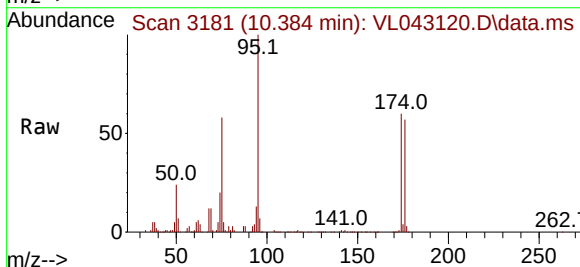
Tgt Ion: 95 Resp: 203489

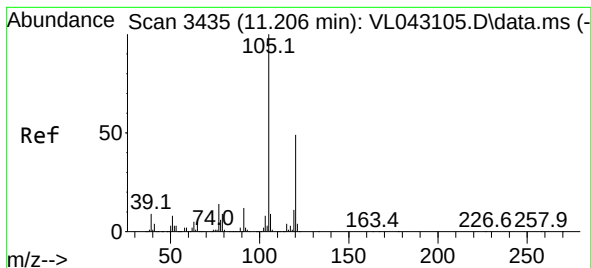
Ion Ratio Lower Upper

95 100

174 58.5 48.3 72.5

175 4.2 3.8 5.8





#73

1,3,5-Trimethylbenzene

Concen: 17.675 ppbv

RT: 11.212 min Scan# 3435

Delta R.T. 0.007 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Instrument :

MSVOA_L

ClientSampleId :

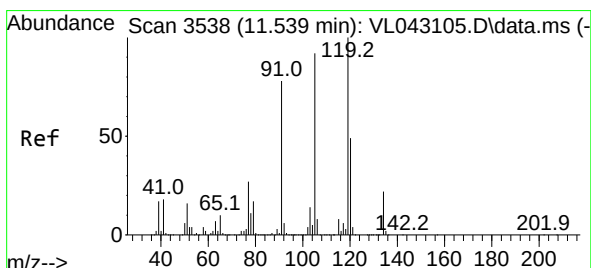
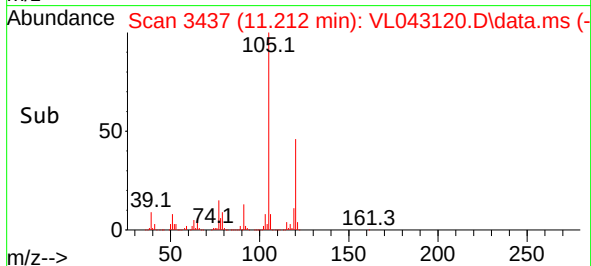
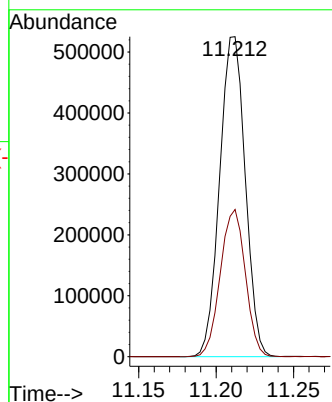
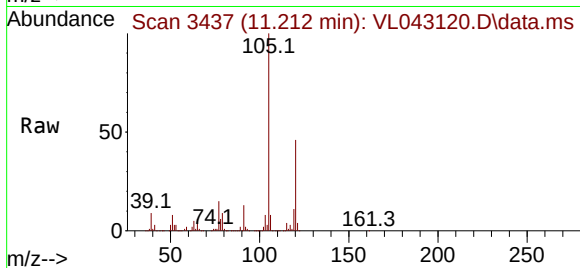
RR-VOAS-AIRDL

Tgt Ion:105 Resp: 604320

Ion Ratio Lower Upper

105 100

120 46.0 39.0 58.6



#74

1,2,4-Trimethylbenzene

Concen: 10.011 ppbv

RT: 11.542 min Scan# 3539

Delta R.T. 0.003 min

Lab File: VL043120.D

Acq: 15 Oct 2025 12:45

Tgt Ion:105 Resp: 383032

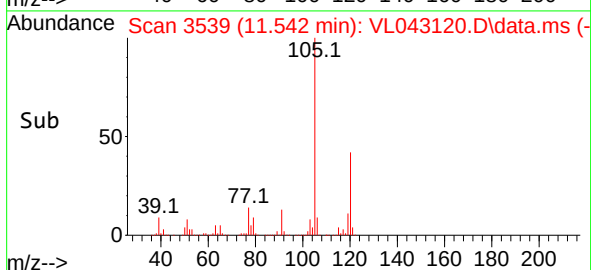
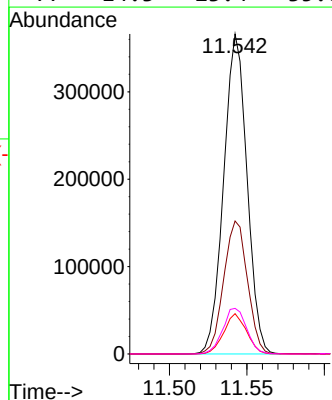
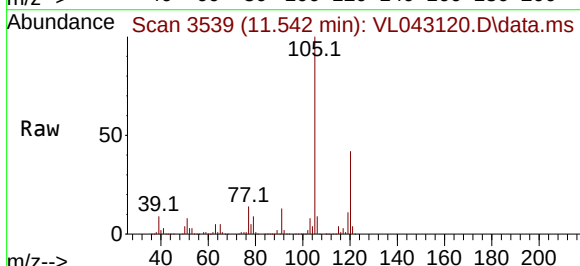
Ion Ratio Lower Upper

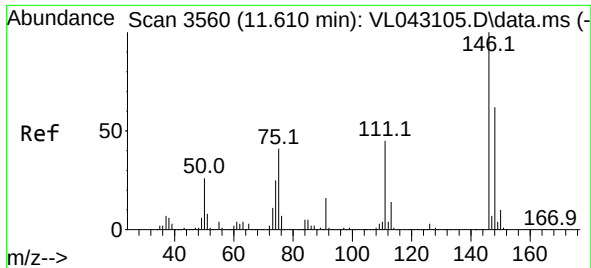
105 100

120 41.5 42.8 64.2#

91 12.6 68.3 102.5#

77 14.3 23.4 35.0#

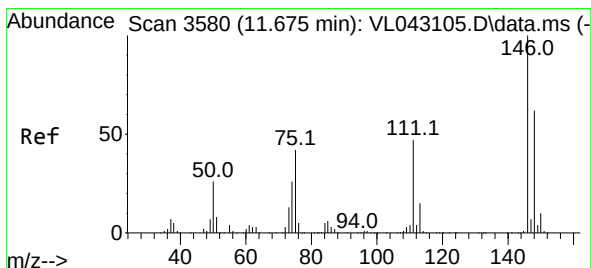
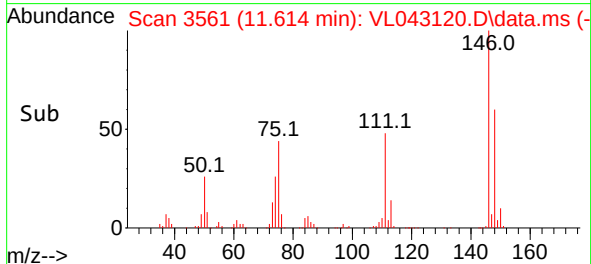
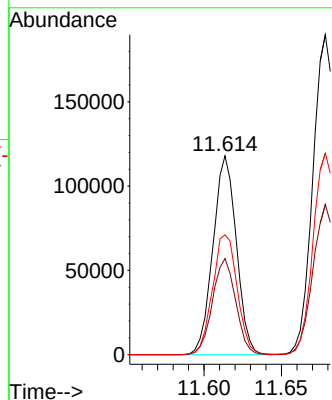
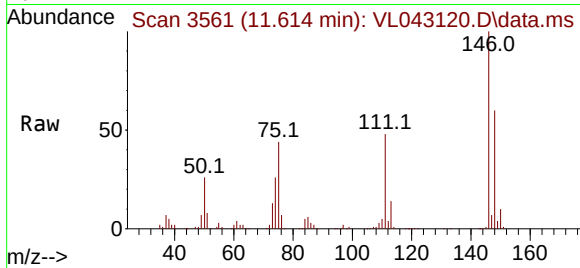




#75
1,3-Dichlorobenzene
Concen: 5.572 ppbv
RT: 11.614 min Scan# 3561
Delta R.T. 0.003 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIRDL

Tgt Ion:146 Resp: 123658
Ion Ratio Lower Upper
146 100
111 47.9 23.3 69.9
148 63.7 31.6 95.0



#76
1,4-Dichlorobenzene
Concen: 9.076 ppbv
RT: 11.678 min Scan# 3581
Delta R.T. 0.003 min
Lab File: VL043120.D
Acq: 15 Oct 2025 12:45

Tgt Ion:146 Resp: 203090
Ion Ratio Lower Upper
146 100
111 46.5 22.4 67.0
148 64.2 31.6 94.7

