

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL101525\
 Data File : VL043119.D
 Acq On : 15 Oct 2025 12:12
 Operator : SY/MD
 Sample : Q3247-01DL 2X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 RR-VOAS-AIRDL

Quant Time: Oct 16 01:16:38 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)

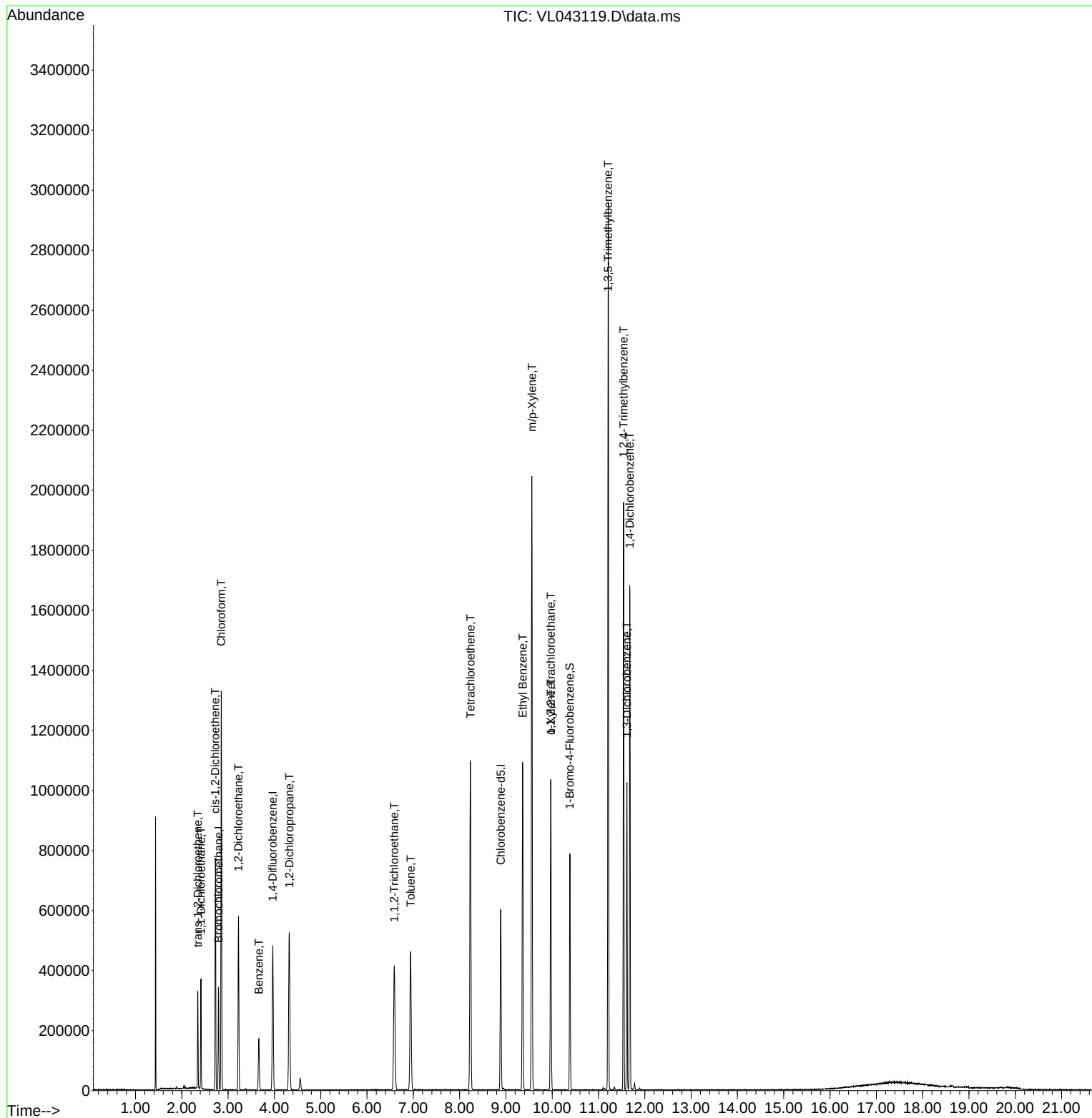
Internal Standards						
1) Bromochloromethane	2.793	49	89788	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	289768	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	254747	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.380	95	209345	10.573	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.700%
Target Compounds						
					Qvalue	
22) trans-1,2-Dichloroethene	2.347	96	50179	9.579	ppbv	97
24) 1,1-Dichloroethane	2.415	63	160183	15.827	ppbv	100
29) Chloroform	2.852	83	551740	27.536	ppbv	100
31) cis-1,2-Dichloroethene	2.725	61	239474	18.135	ppbv	97
36) Benzene	3.664	78	106862	3.915	ppbv	98
37) 1,2-Dichloroethane	3.224	62	333413	21.207	ppbv	97
39) 1,2-Dichloropropane	4.321	63	156136	15.649	ppbv	91
47) 1,1,2-Trichloroethane	6.590	97	144510	13.412	ppbv	94
52) Tetrachloroethene	8.234	164	189850	19.290	ppbv	99
53) Toluene	6.943	91	346344	10.693	ppbv	99
58) Ethyl Benzene	9.361	91	648462	14.832	ppbv	97
59) m/p-Xylene	9.561	91	981688	28.152	ppbv	97
60) o-Xylene	9.969	91	232435	6.749	ppbv	98
63) 1,1,2,2-Tetrachloroethane	9.969	83	199571	8.654	ppbv	99
73) 1,3,5-Trimethylbenzene	11.209	105	1138772	32.606	ppbv	95
74) 1,2,4-Trimethylbenzene	11.542	105	743722	19.029	ppbv #	50
75) 1,3-Dichlorobenzene	11.613	146	244003	10.764	ppbv	99
76) 1,4-Dichlorobenzene	11.678	146	397546	17.393	ppbv	99

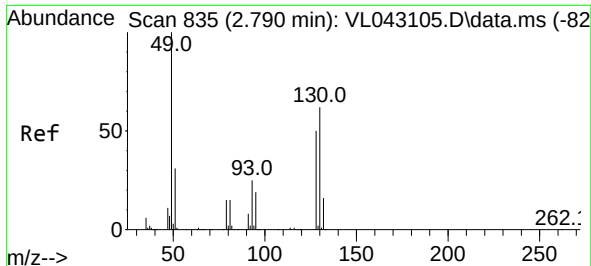
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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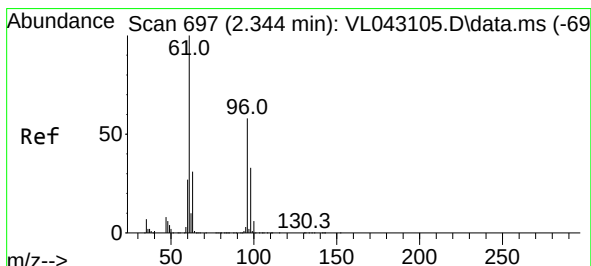
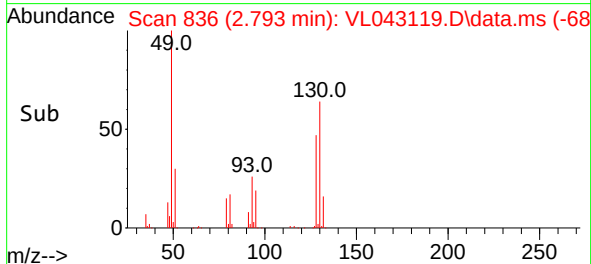
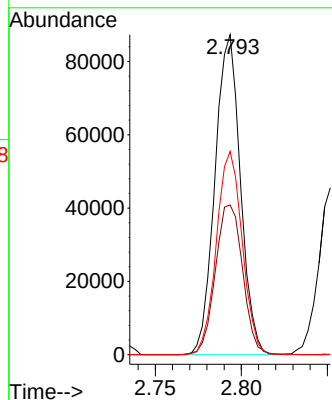
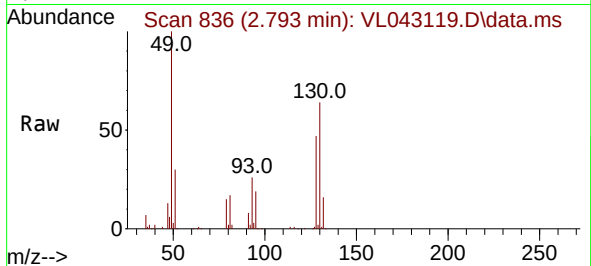




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.793 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

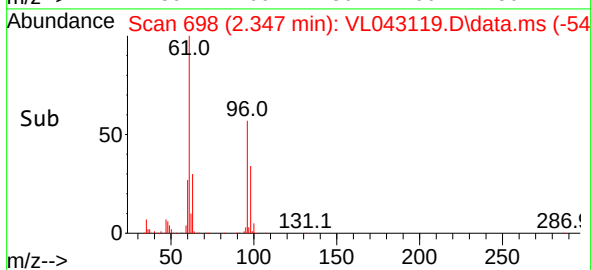
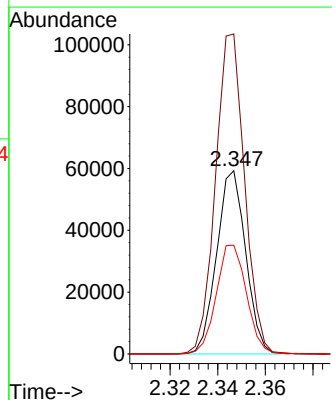
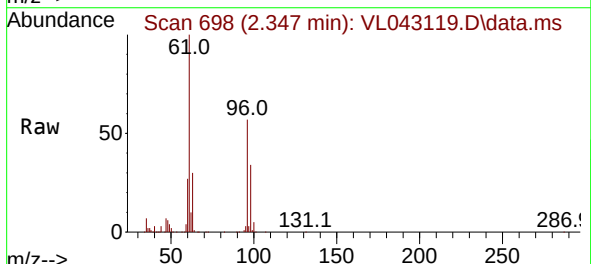
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIRDL

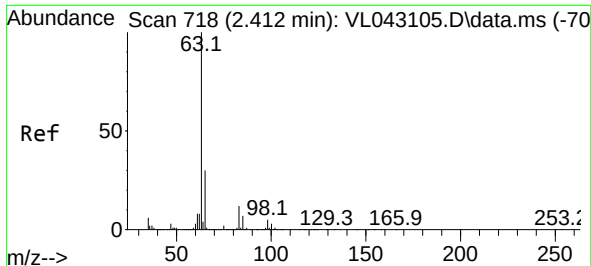
Tgt Ion: 49 Resp: 89788
Ion Ratio Lower Upper
49 100
128 50.2 24.4 73.4
130 64.4 31.0 93.0



#22
trans-1,2-Dichloroethene
Concen: 9.579 ppbv
RT: 2.347 min Scan# 698
Delta R.T. 0.003 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

Tgt Ion: 96 Resp: 50179
Ion Ratio Lower Upper
96 100
61 174.5 137.0 205.6
98 59.3 45.5 68.3

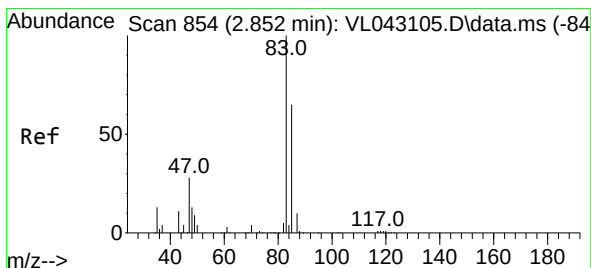
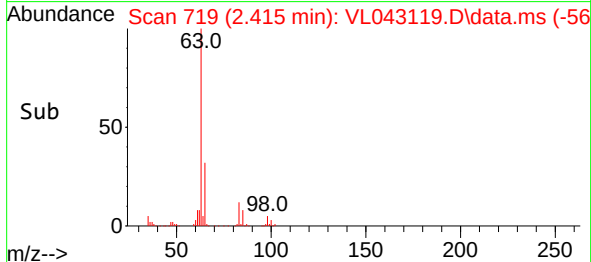
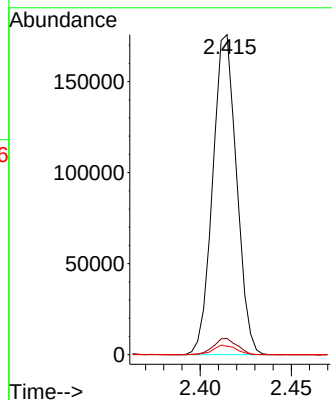
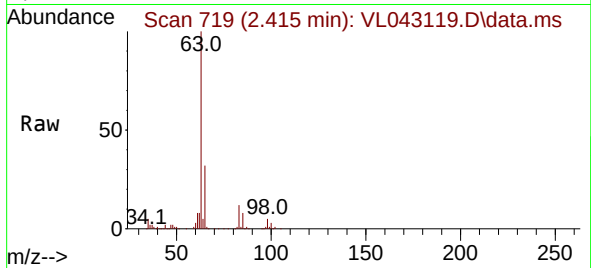




#24
1,1-Dichloroethane
Concen: 15.827 ppbv
RT: 2.415 min Scan# 718
Delta R.T. 0.003 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

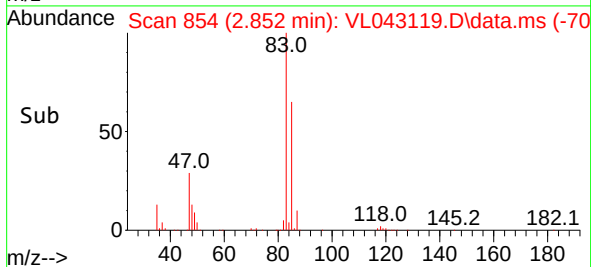
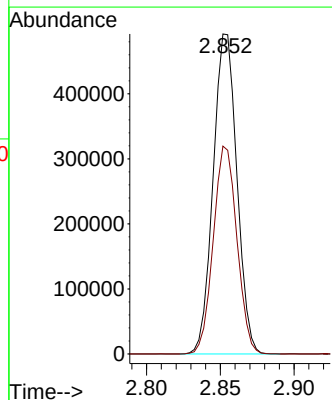
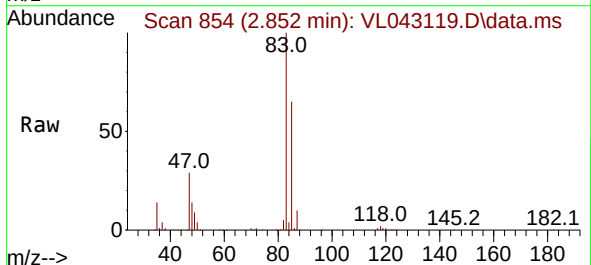
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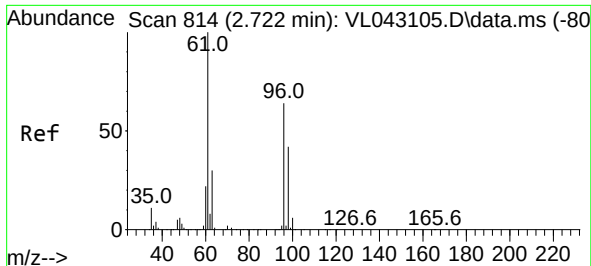
Tgt Ion: 63 Resp: 160183
Ion Ratio Lower Upper
63 100
98 5.1 2.6 7.8
100 2.6 1.5 4.4



#29
Chloroform
Concen: 27.536 ppbv
RT: 2.852 min Scan# 854
Delta R.T. -0.000 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

Tgt Ion: 83 Resp: 551740
Ion Ratio Lower Upper
83 100
85 64.9 51.8 77.6

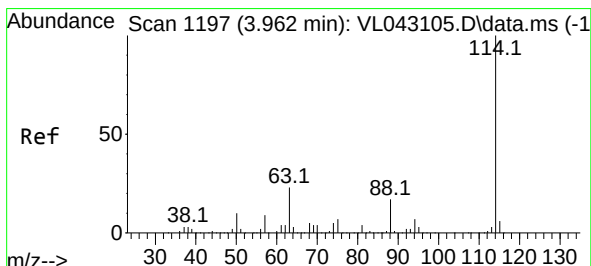
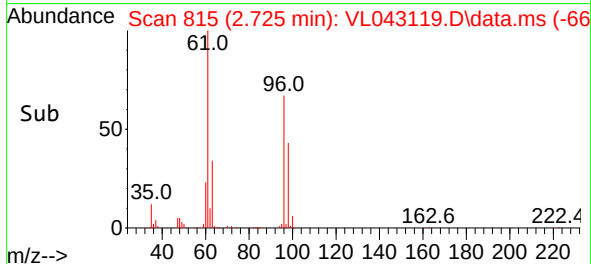
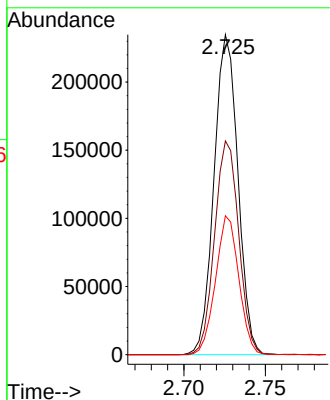
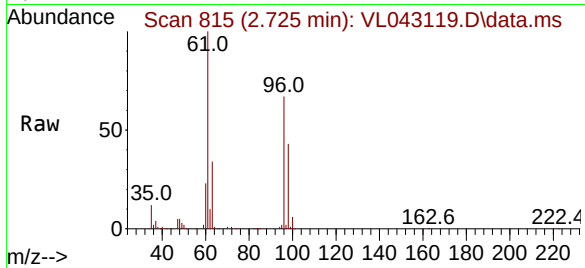




#31
 cis-1,2-Dichloroethene
 Concen: 18.135 ppbv
 RT: 2.725 min Scan# 814
 Delta R.T. 0.003 min
 Lab File: VL043119.D
 Acq: 15 Oct 2025 12:12

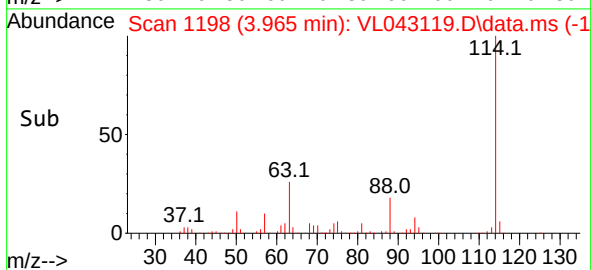
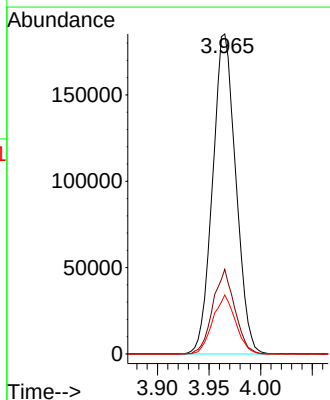
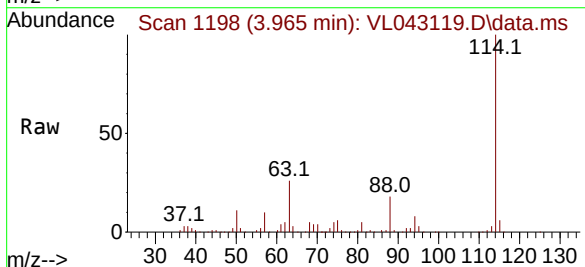
Instrument :
 MSVOA_L
 ClientSampleId :
 RR-VOAS-AIRDL

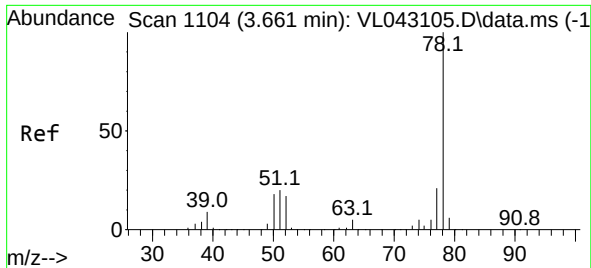
Tgt Ion: 61 Resp: 239474
 Ion Ratio Lower Upper
 61 100
 96 66.8 51.0 76.6
 98 43.4 33.5 50.3



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.965 min Scan# 1198
 Delta R.T. 0.003 min
 Lab File: VL043119.D
 Acq: 15 Oct 2025 12:12

Tgt Ion: 114 Resp: 289768
 Ion Ratio Lower Upper
 114 100
 63 25.1 19.3 28.9
 88 18.0 13.9 20.9





#36

Benzene

Concen: 3.915 ppbv

RT: 3.664 min Scan# 1105

Delta R.T. 0.003 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

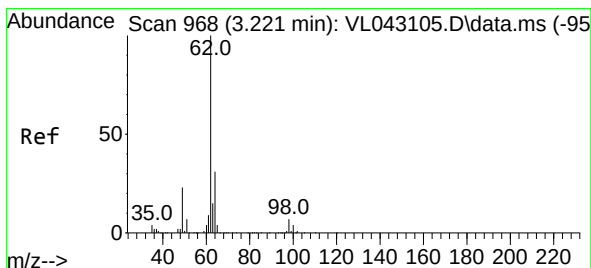
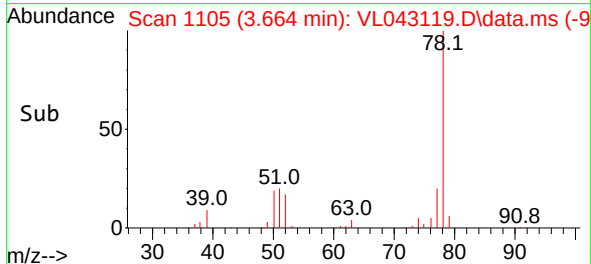
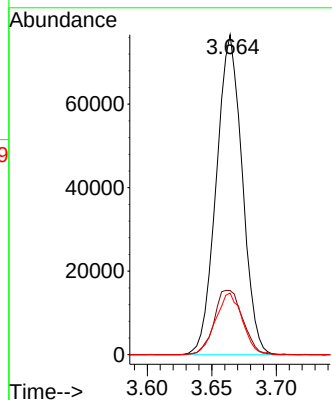
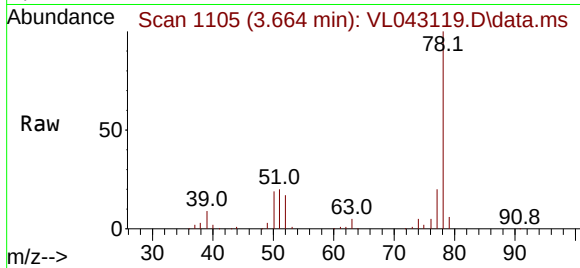
Tgt Ion: 78 Resp: 106862

Ion Ratio Lower Upper

78 100

77 20.1 17.0 25.6

50 19.3 14.6 22.0



#37

1,2-Dichloroethane

Concen: 21.207 ppbv

RT: 3.224 min Scan# 969

Delta R.T. 0.003 min

Lab File: VL043119.D

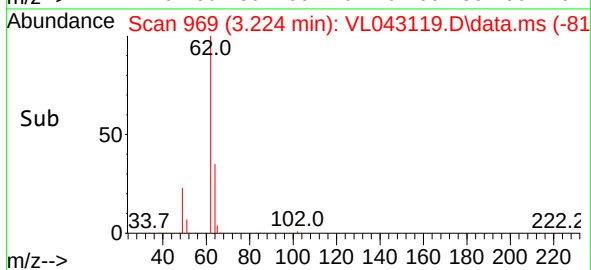
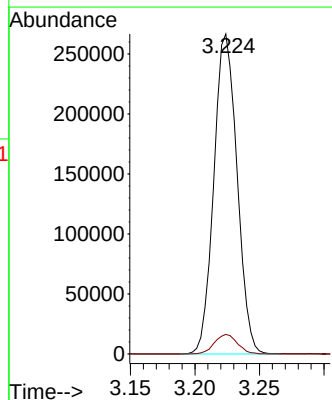
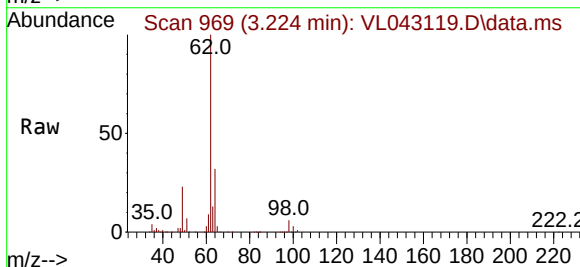
Acq: 15 Oct 2025 12:12

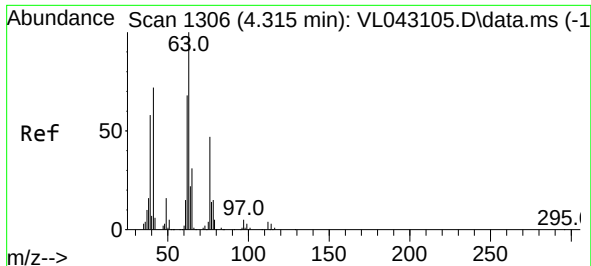
Tgt Ion: 62 Resp: 333413

Ion Ratio Lower Upper

62 100

98 6.0 5.8 8.6





#39

1,2-Dichloropropane

Concen: 15.649 ppbv

RT: 4.321 min Scan# 11

Delta R.T. 0.006 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

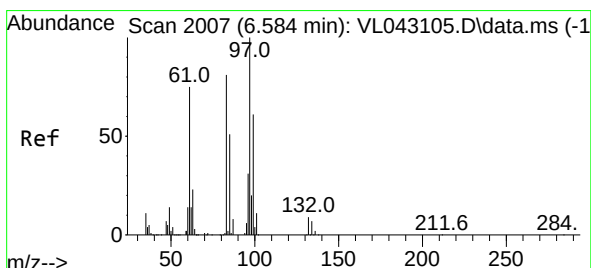
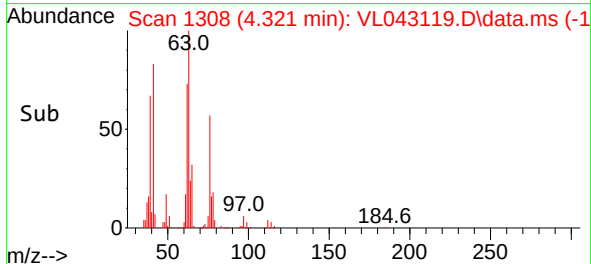
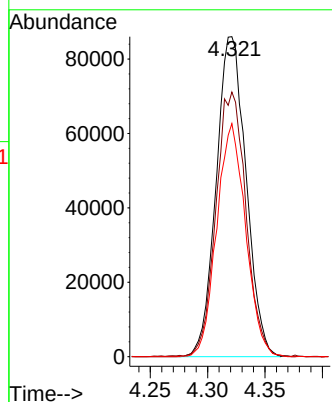
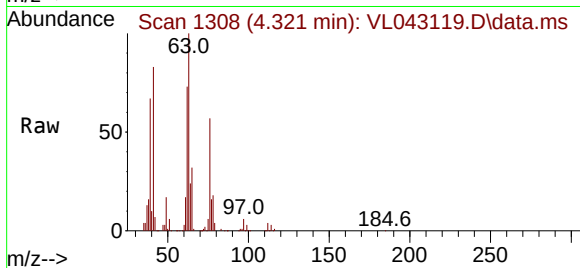
Tgt Ion: 63 Resp: 156136

Ion Ratio Lower Upper

63 100

41 82.4 58.0 87.0

62 72.7 54.7 82.1



#47

1,1,2-Trichloroethane

Concen: 13.412 ppbv

RT: 6.590 min Scan# 2009

Delta R.T. 0.006 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Tgt Ion: 97 Resp: 144510

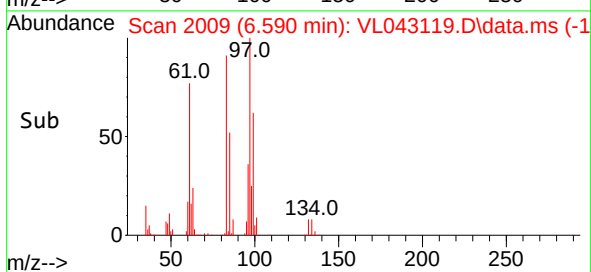
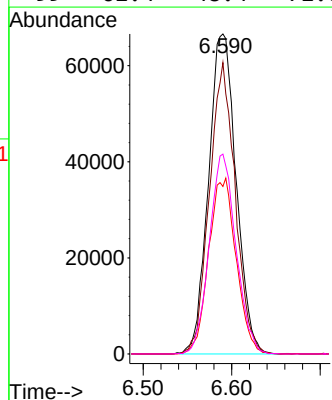
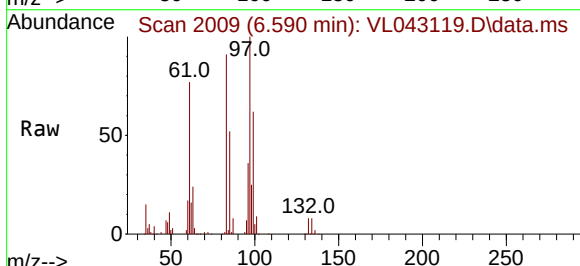
Ion Ratio Lower Upper

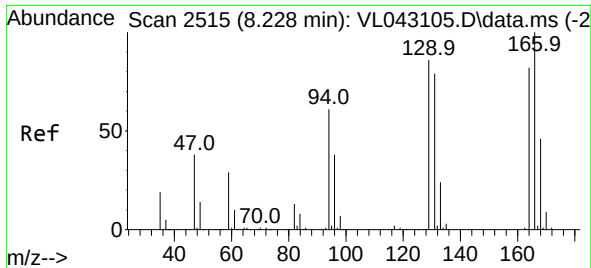
97 100

83 91.1 64.6 96.8

85 52.4 40.6 60.8

99 62.4 48.4 72.6

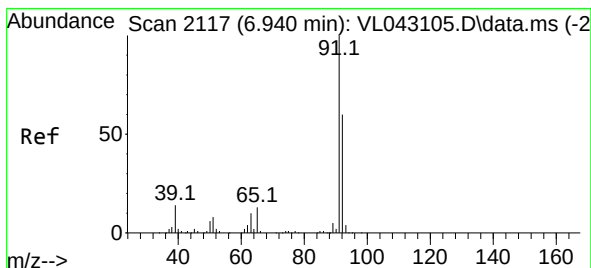
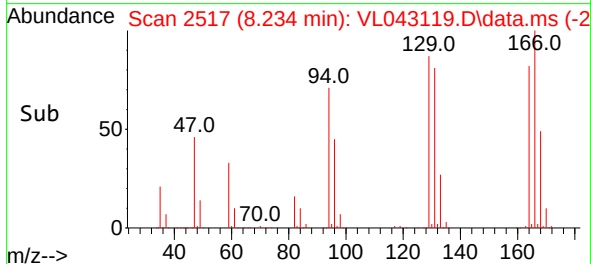
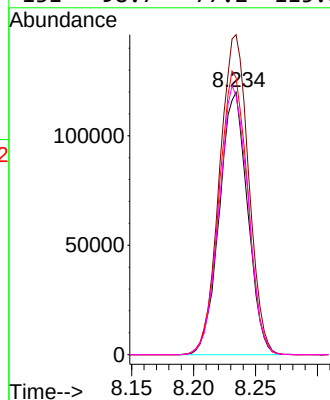
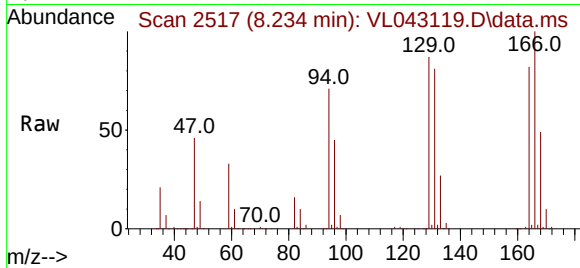




#52
Tetrachloroethene
Concen: 19.290 ppbv
RT: 8.234 min Scan# 2117
Delta R.T. 0.006 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

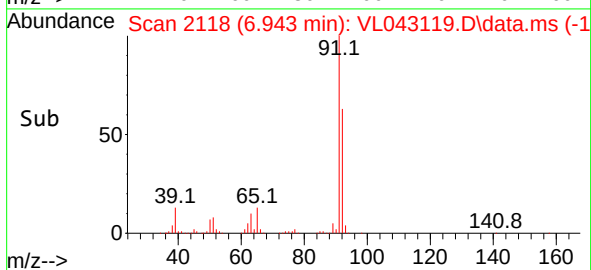
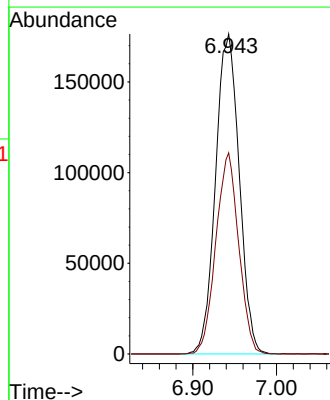
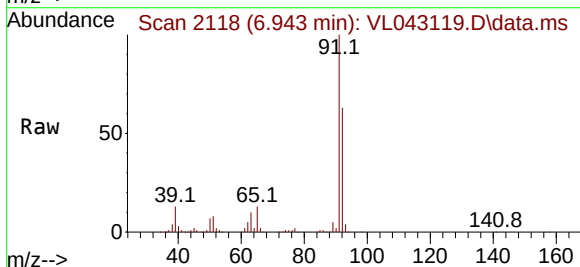
Instrument :
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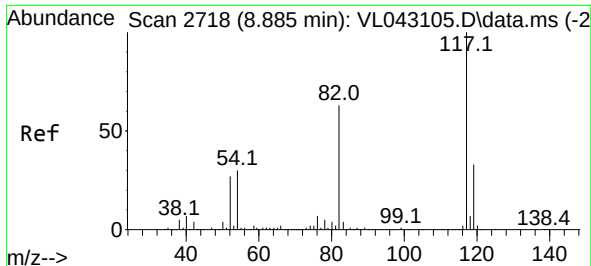
Tgt Ion:164 Resp: 189850
Ion Ratio Lower Upper
164 100
166 122.0 97.6 146.4
129 105.6 84.5 126.7
131 98.7 77.2 115.8



#53
Toluene
Concen: 10.693 ppbv
RT: 6.943 min Scan# 2118
Delta R.T. 0.003 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

Tgt Ion: 91 Resp: 346344
Ion Ratio Lower Upper
91 100
92 60.6 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: VL043119.D

Acq: 15 Oct 2025 12:12

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

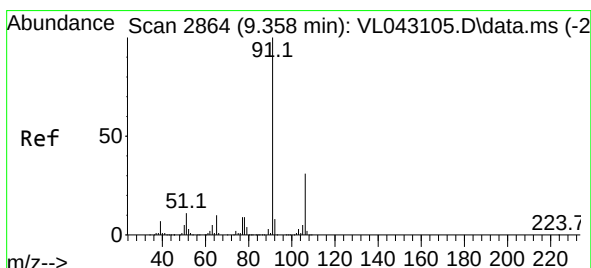
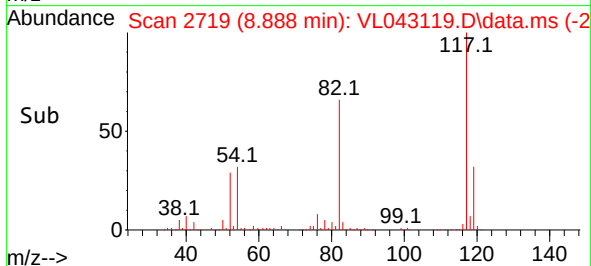
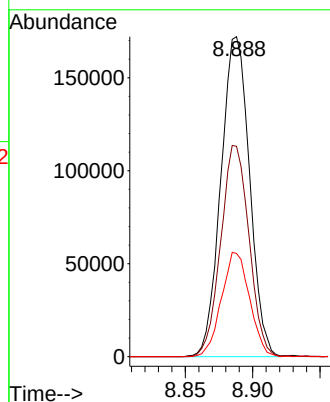
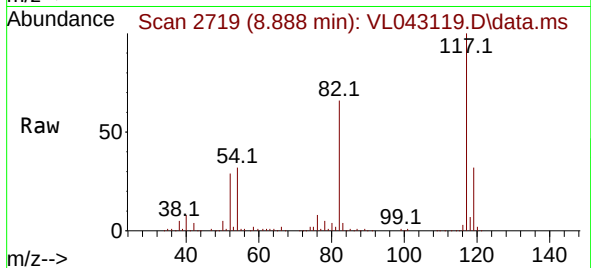
Tgt Ion:117 Resp: 254747

Ion Ratio Lower Upper

117 100

82 65.1 53.8 80.8

119 32.1 25.4 38.0



#58

Ethyl Benzene

Concen: 14.832 ppbv

RT: 9.361 min Scan# 2865

Delta R.T. 0.003 min

Lab File: VL043119.D

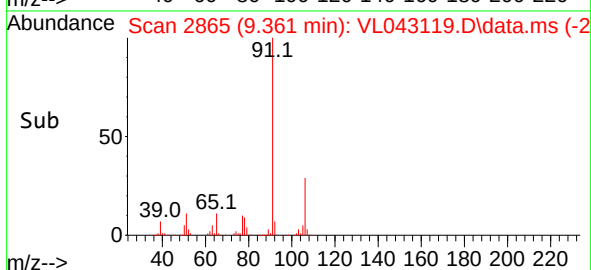
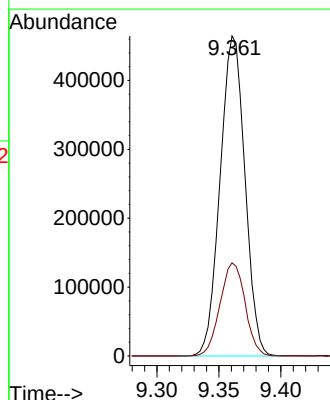
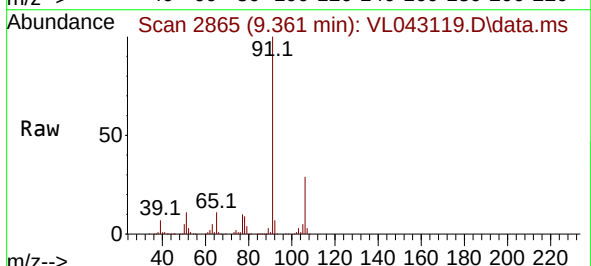
Acq: 15 Oct 2025 12:12

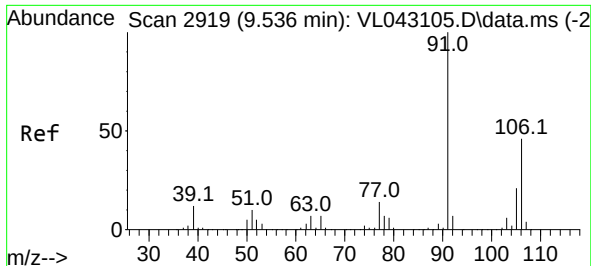
Tgt Ion: 91 Resp: 648462

Ion Ratio Lower Upper

91 100

106 29.1 24.8 37.2





#59

m/p-Xylene

Concen: 28.152 ppbv

RT: 9.561 min Scan# 2919

Delta R.T. 0.026 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Instrument :

MSVOA_1

ClientSampleId :

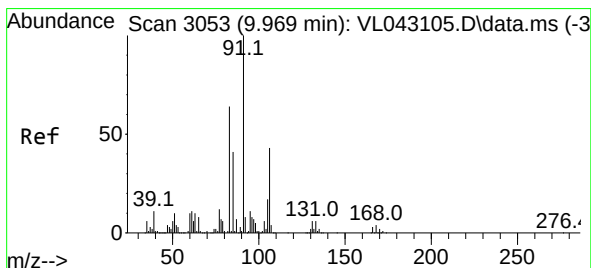
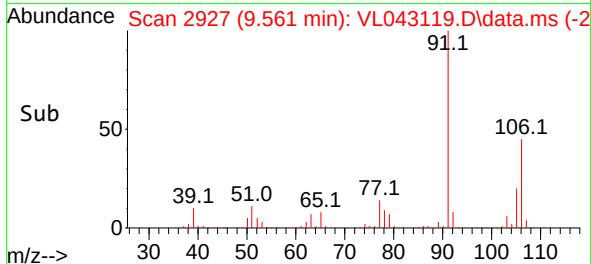
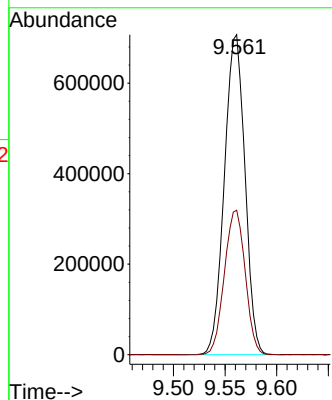
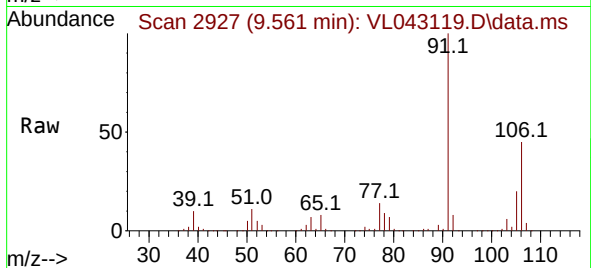
RR-VOAS-AIRDL

Tgt Ion: 91 Resp: 981688

Ion Ratio Lower Upper

91 100

106 45.6 38.0 57.0



#60

o-Xylene

Concen: 6.749 ppbv

RT: 9.969 min Scan# 3053

Delta R.T. -0.000 min

Lab File: VL043119.D

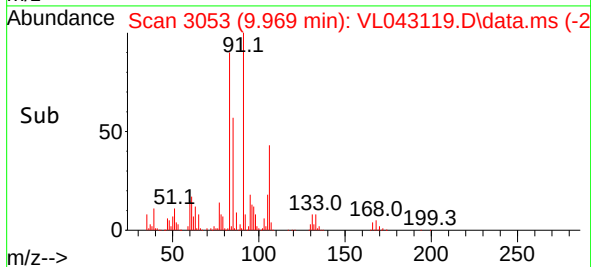
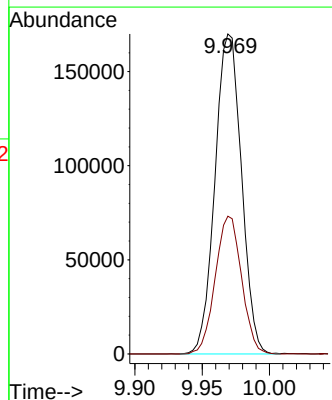
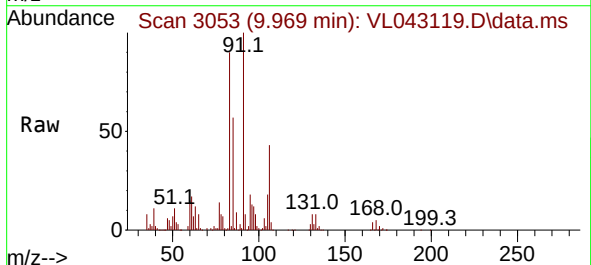
Acq: 15 Oct 2025 12:12

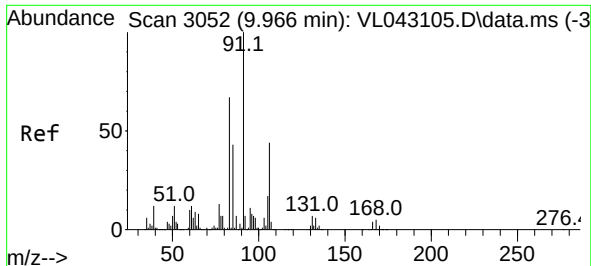
Tgt Ion: 91 Resp: 232435

Ion Ratio Lower Upper

91 100

106 42.7 21.9 65.8





#63

1,1,2,2-Tetrachloroethane

Concen: 8.654 ppbv

RT: 9.969 min Scan# 3052

Delta R.T. 0.003 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

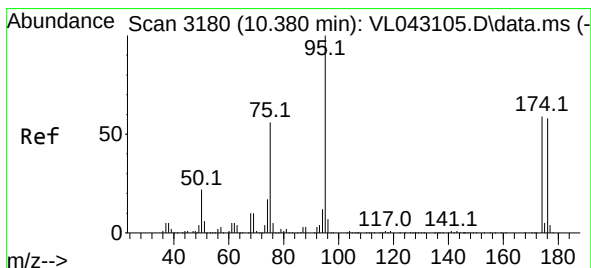
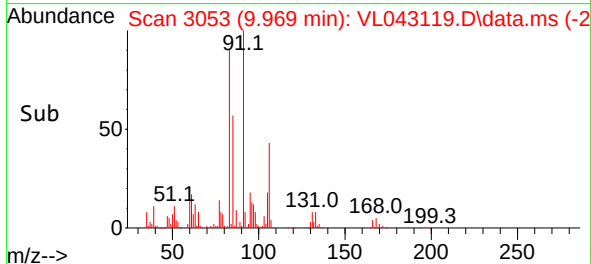
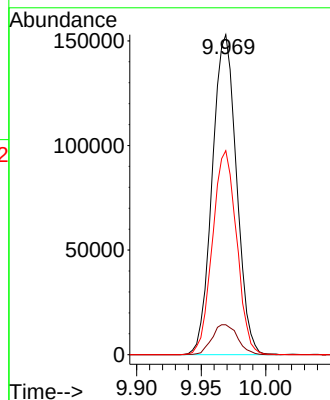
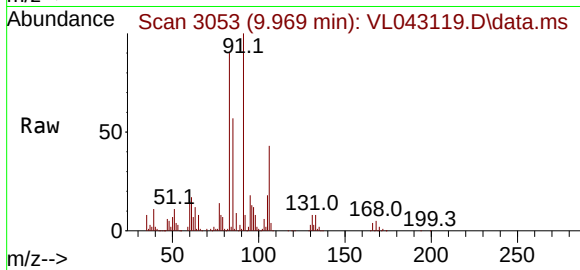
Tgt Ion: 83 Resp: 199571

Ion Ratio Lower Upper

83 100

131 9.9 4.8 14.3

85 63.6 32.0 96.0



#68

1-Bromo-4-Fluorobenzene

Concen: 10.573 ppbv

RT: 10.380 min Scan# 3180

Delta R.T. -0.000 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

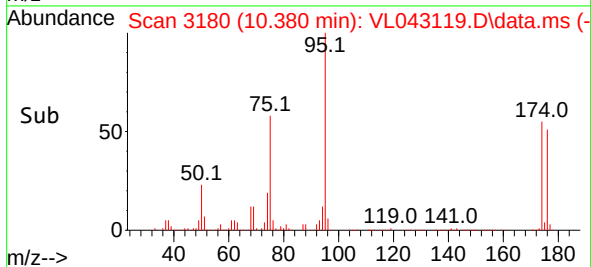
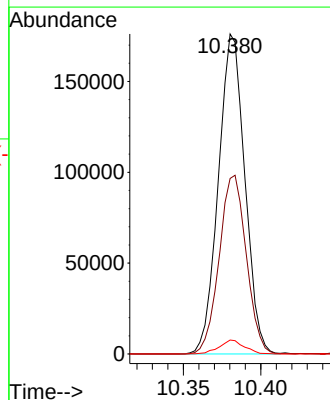
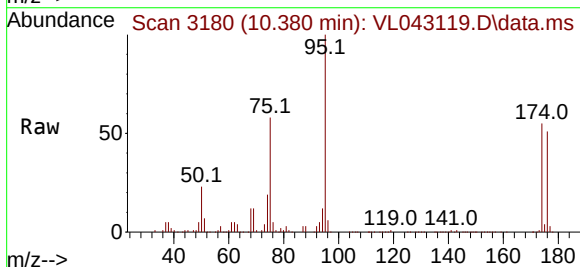
Tgt Ion: 95 Resp: 209345

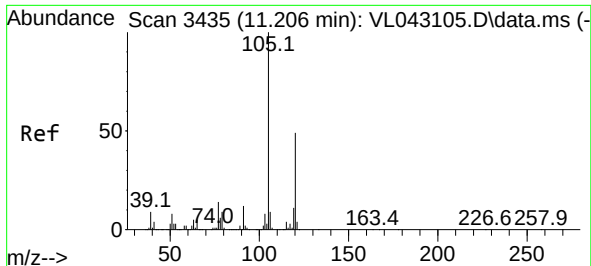
Ion Ratio Lower Upper

95 100

174 57.3 48.3 72.5

175 4.1 3.8 5.8

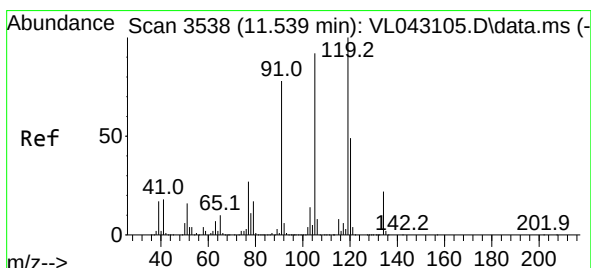
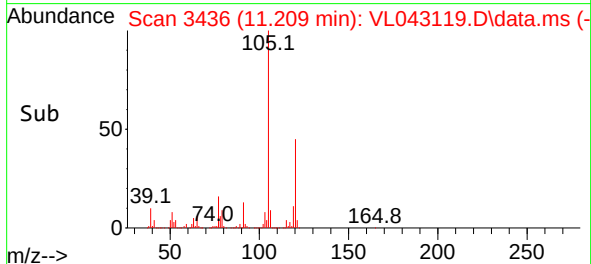
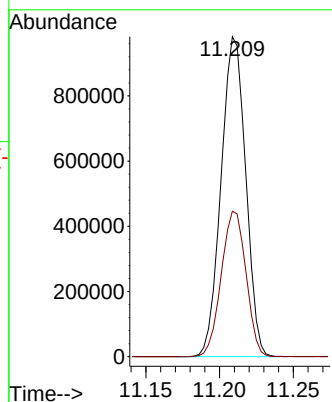
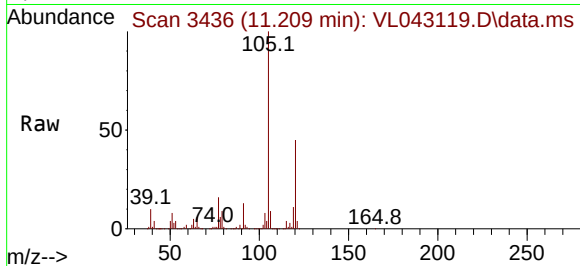




#73
1,3,5-Trimethylbenzene
Concen: 32.606 ppbv
RT: 11.209 min Scan# 3435
Delta R.T. 0.003 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

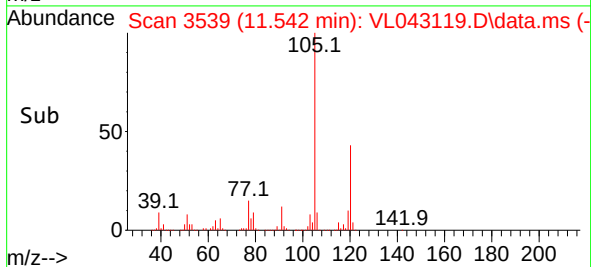
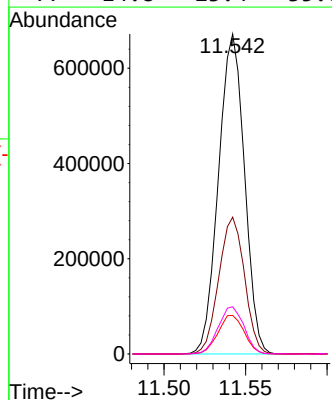
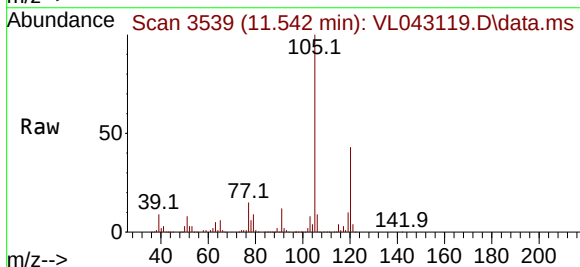
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIRDL

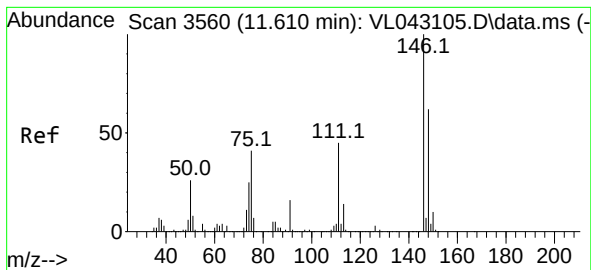
Tgt Ion:105 Resp: 1138772
Ion Ratio Lower Upper
105 100
120 45.5 39.0 58.6



#74
1,2,4-Trimethylbenzene
Concen: 19.029 ppbv
RT: 11.542 min Scan# 3539
Delta R.T. 0.003 min
Lab File: VL043119.D
Acq: 15 Oct 2025 12:12

Tgt Ion:105 Resp: 743722
Ion Ratio Lower Upper
105 100
120 42.7 42.8 64.2#
91 12.1 68.3 102.5#
77 14.8 23.4 35.0#





#75

1,3-Dichlorobenzene

Concen: 10.764 ppbv

RT: 11.613 min Scan# 3560

Delta R.T. 0.003 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIRDL

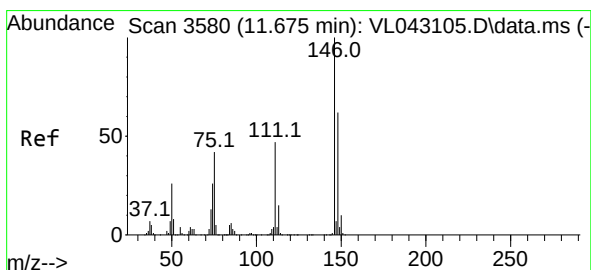
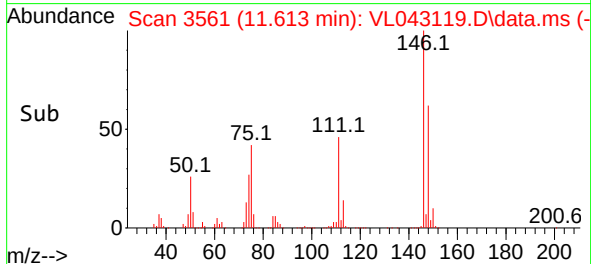
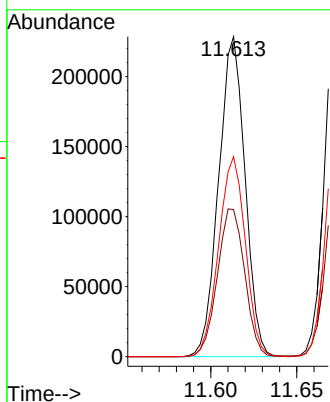
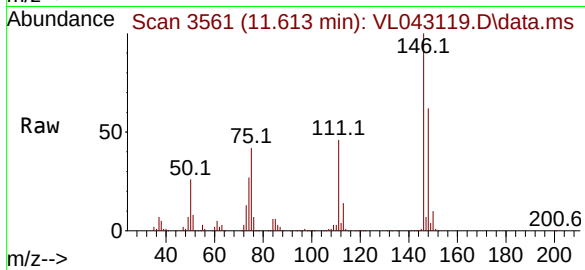
Tgt Ion:146 Resp: 244003

Ion Ratio Lower Upper

146 100

111 47.8 23.3 69.9

148 63.3 31.6 95.0



#76

1,4-Dichlorobenzene

Concen: 17.393 ppbv

RT: 11.678 min Scan# 3581

Delta R.T. 0.003 min

Lab File: VL043119.D

Acq: 15 Oct 2025 12:12

Tgt Ion:146 Resp: 397546

Ion Ratio Lower Upper

146 100

111 46.3 22.4 67.0

148 63.3 31.6 94.7

