

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042660.D
 Acq On : 19 Jun 2025 18:00
 Operator : SY/MD
 Sample : Q2368-02DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DL

Quant Time: Jun 20 01:41:19 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

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

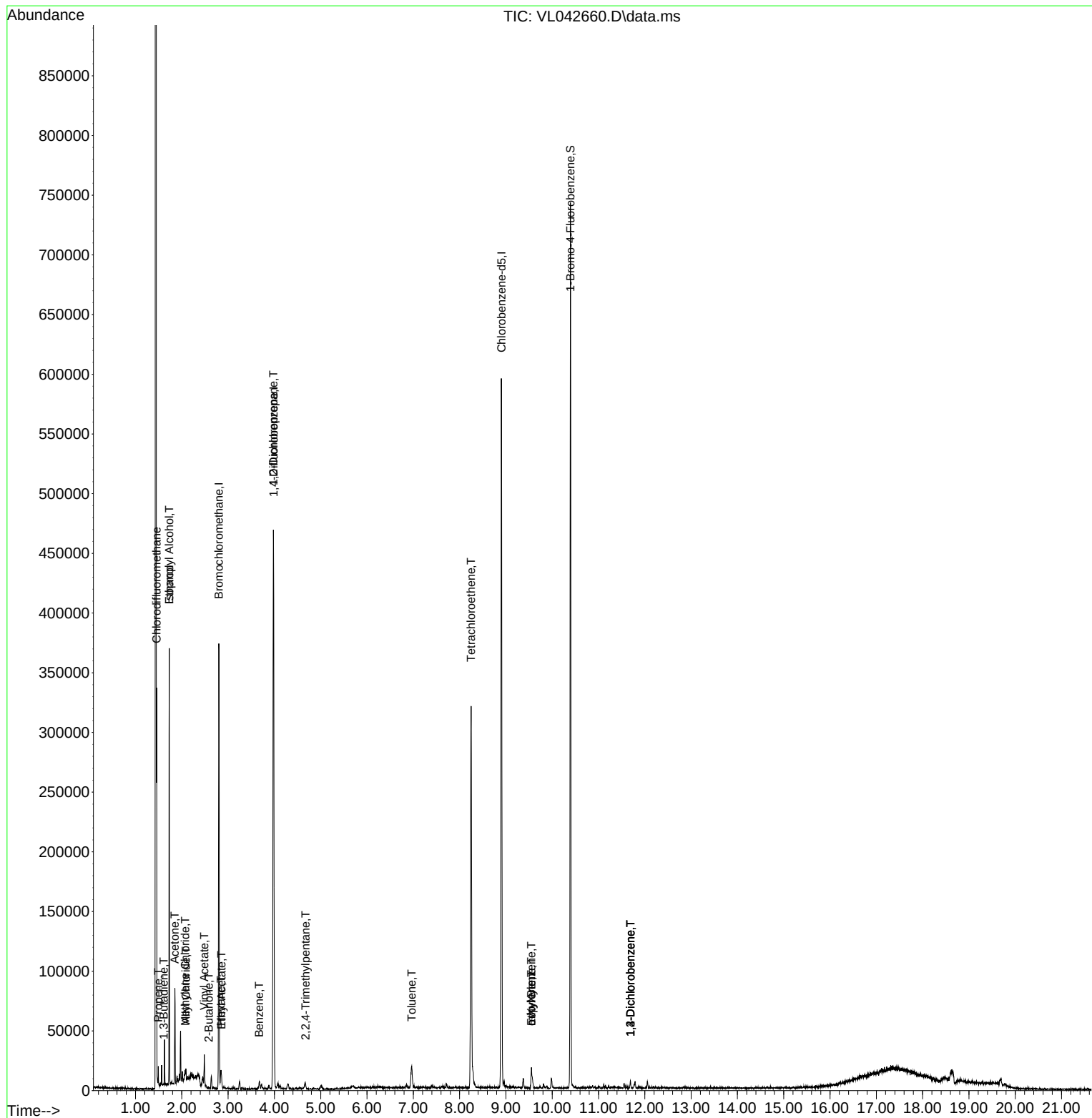
Internal Standards						
1) Bromochloromethane	2.800	49	108048	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.981	114	274999	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.904	117	237440	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	177692	9.983	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.800%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	1.457	51	9191	0.503	ppbv #	62
9) Propene	1.492	41	1258	0.171	ppbv	94
13) Ethanol	1.729	45	121725	138.678	ppbv	98
15) Acetone	1.848	43	19924	1.531	ppbv #	80
16) 1,3-Butadiene	1.609	39	350	0.057	ppbv #	35
19) Isopropyl Alcohol	1.729	45	121725	15.645	ppbv #	40
20) Methylene Chloride	2.072	84	914	0.213	ppbv #	91
21) Allyl Chloride	2.088	41	793	0.086	ppbv #	1
23) Vinyl Acetate	2.486	43	6722	0.382	ppbv #	39
25) Ethyl Acetate	2.855	43	8473	0.238	ppbv #	97
26) Hexane	2.845	57	2590	0.160	ppbv #	46
34) 2-Butanone	2.580	43	845	0.043	ppbv #	76
36) Benzene	3.671	78	2325	0.086	ppbv #	83
39) 1,2-Dichloropropane	3.978	63	69648	6.955	ppbv #	23
44) 2,2,4-Trimethylpentane	4.671	57	1922	0.041	ppbv #	1
52) Tetrachloroethene	8.247	164	56199	5.554	ppbv	94
53) Toluene	6.966	91	12587	0.402	ppbv	97
58) Ethyl Benzene	9.548	91	7894	0.196	ppbv	95
59) m/p-Xylene	9.548	91	7894	0.249	ppbv #	82
60) o-Xylene	9.548	91	7894	0.250	ppbv	77
75) 1,3-Dichlorobenzene	11.691	146	1501	0.066	ppbv	96
76) 1,4-Dichlorobenzene	11.691	146	1501	0.066	ppbv	97
77) 1,2-Dichlorobenzene	11.691	146	1501	0.068	ppbv	95

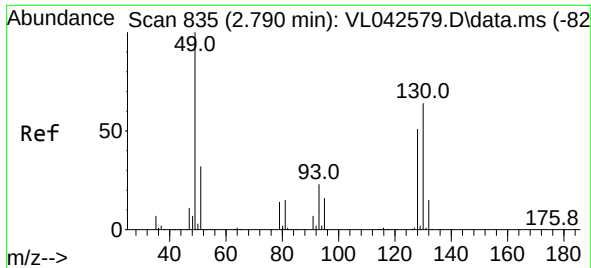
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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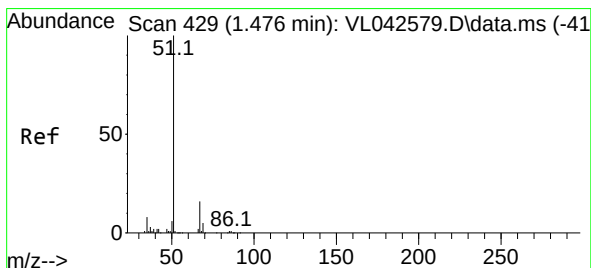
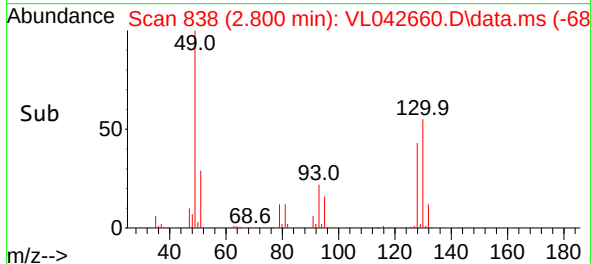
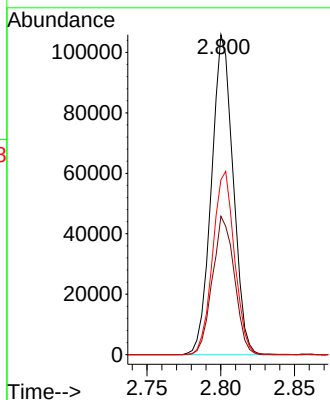
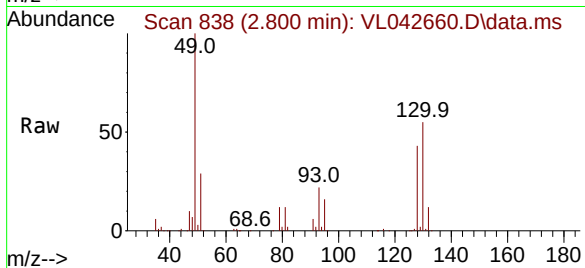




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.800 min Scan# 835
 Delta R.T. 0.010 min
 Lab File: VL042660.D
 Acq: 19 Jun 2025 18:00

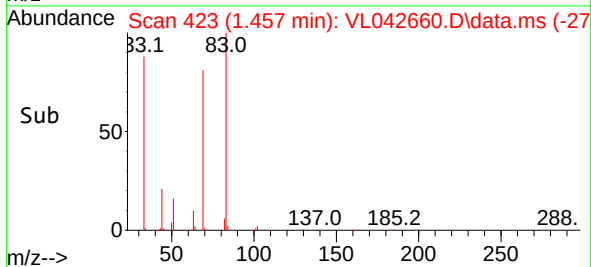
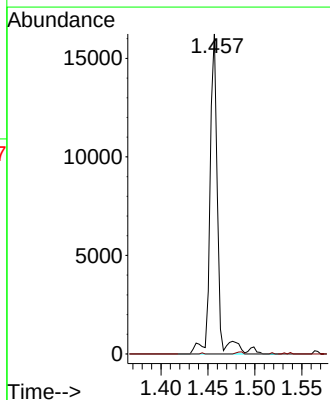
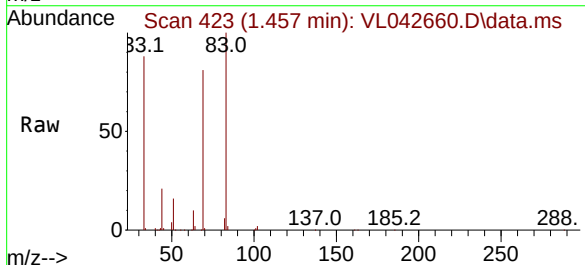
Instrument :
 MSVOA_L
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 IA1DL

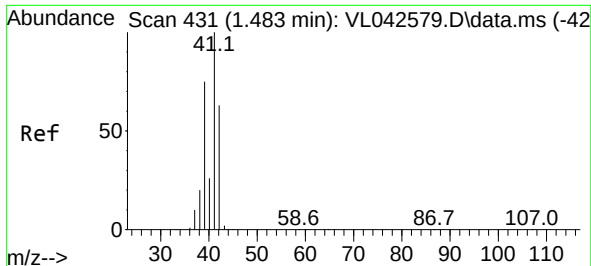
Tgt Ion: 49 Resp: 108048
 Ion Ratio Lower Upper
 49 100
 128 43.8 24.2 72.6
 130 57.7 30.4 91.2



#3
 Chlorodifluoromethane
 Concen: 0.503 ppbv
 RT: 1.457 min Scan# 423
 Delta R.T. -0.019 min
 Lab File: VL042660.D
 Acq: 19 Jun 2025 18:00

Tgt Ion: 51 Resp: 9191
 Ion Ratio Lower Upper
 51 100
 67 0.5 13.4 20.2#





#9

Propene

Concen: 0.171 ppbv

RT: 1.492 min Scan# 41

Delta R.T. 0.010 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Instrument :

MSVOA_L

ClientSampleId :

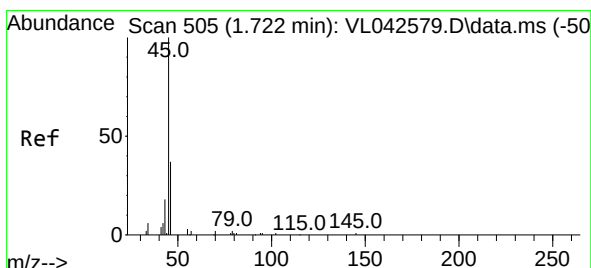
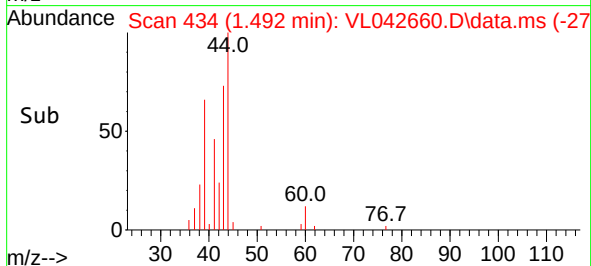
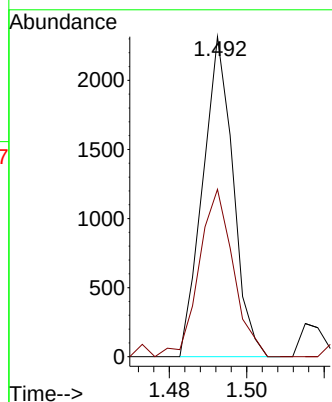
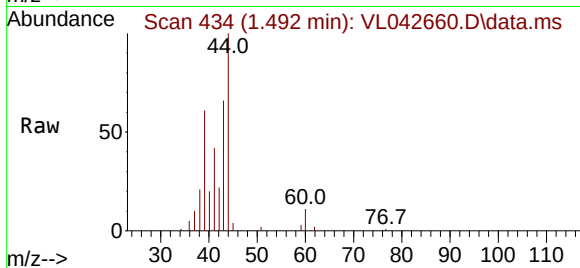
IA1DL

Tgt Ion: 41 Resp: 1258

Ion Ratio Lower Upper

41 100

42 61.4 53.3 79.9



#13

Ethanol

Concen: 138.678 ppbv

RT: 1.729 min Scan# 507

Delta R.T. 0.007 min

Lab File: VL042660.D

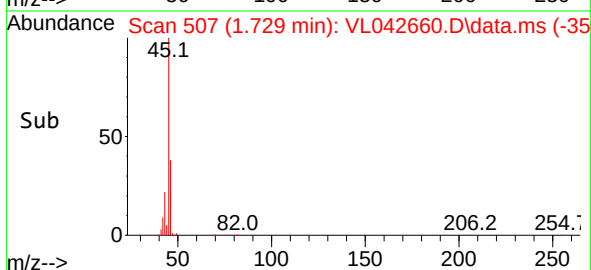
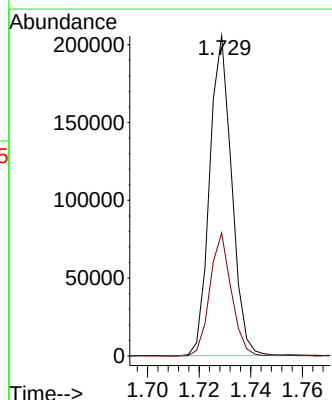
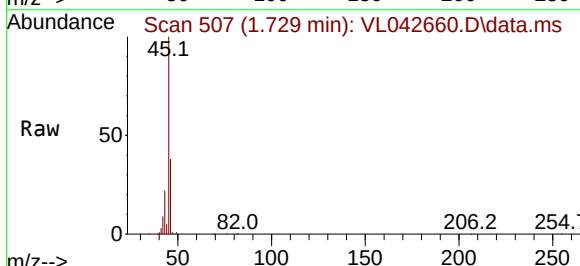
Acq: 19 Jun 2025 18:00

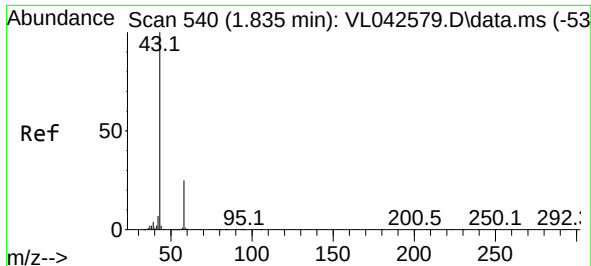
Tgt Ion: 45 Resp: 121725

Ion Ratio Lower Upper

45 100

46 37.7 14.5 58.1





#15

Acetone

Concen: 1.531 ppbv

RT: 1.848 min Scan# 54

Delta R.T. 0.013 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Instrument :

MSVOA_L

ClientSampleId :

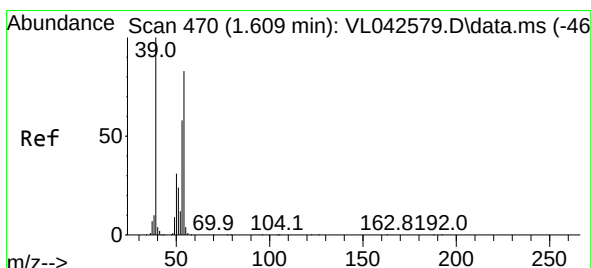
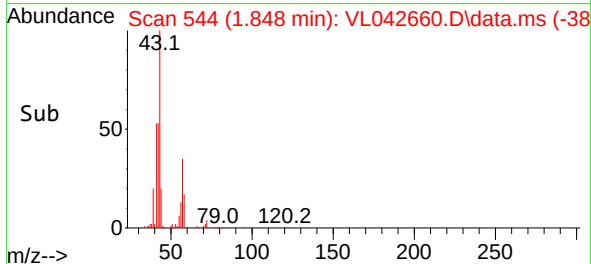
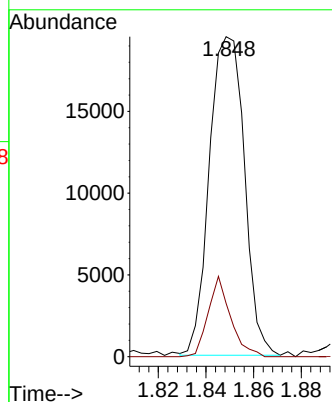
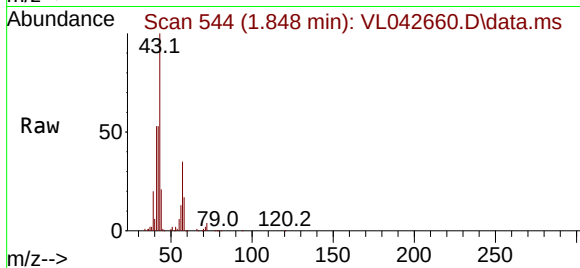
IA1DL

Tgt Ion: 43 Resp: 19924

Ion Ratio Lower Upper

43 100

58 16.2 21.0 31.4#



#16

1,3-Butadiene

Concen: 0.057 ppbv

RT: 1.609 min Scan# 470

Delta R.T. 0.000 min

Lab File: VL042660.D

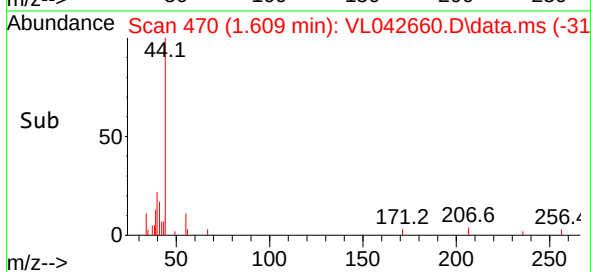
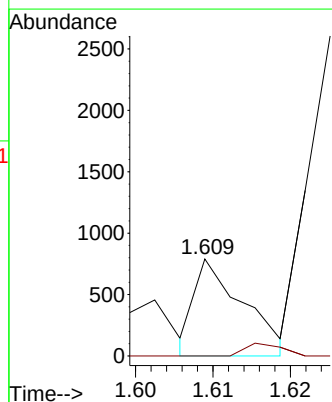
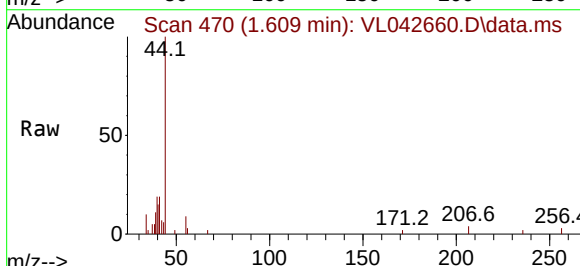
Acq: 19 Jun 2025 18:00

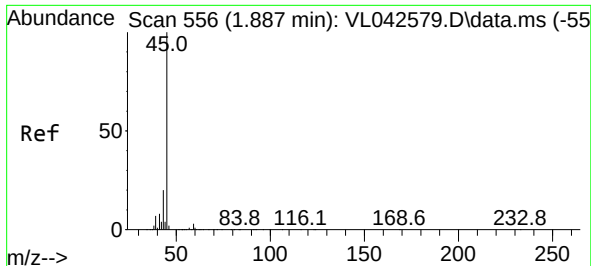
Tgt Ion: 39 Resp: 350

Ion Ratio Lower Upper

39 100

54 18.3 57.9 86.9#

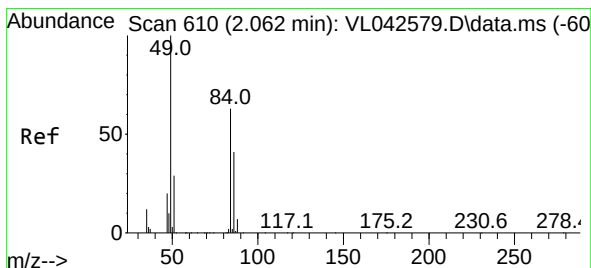
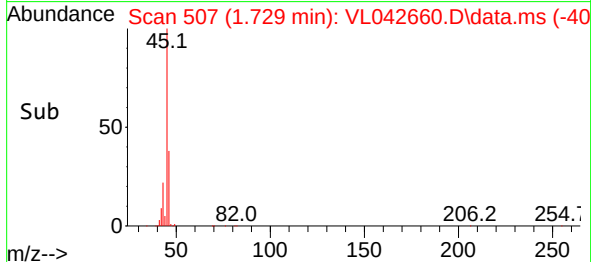
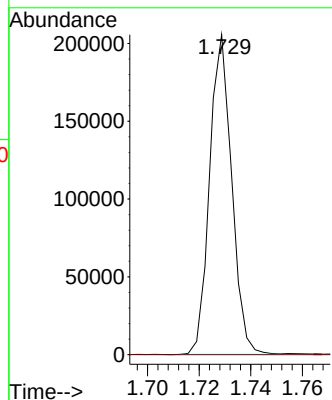
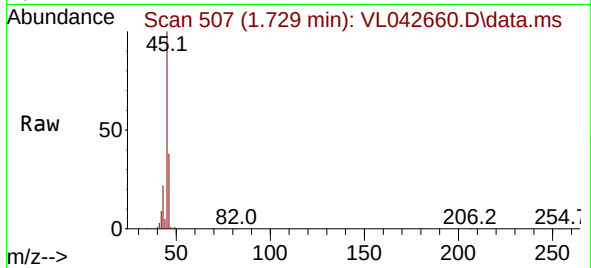




#19
Isopropyl Alcohol
Concen: 15.645 ppbv
RT: 1.729 min Scan# 50
Delta R.T. -0.158 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

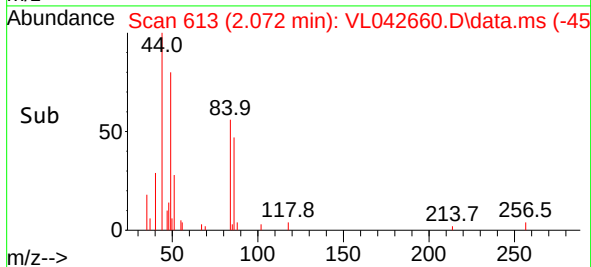
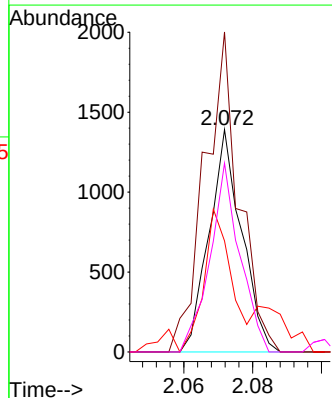
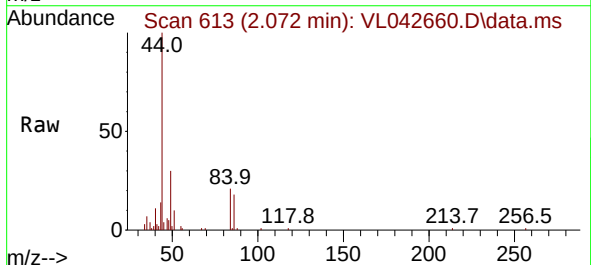
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

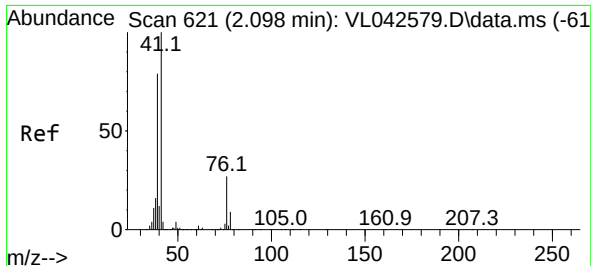
Tgt Ion: 45 Resp: 121725
Ion Ratio Lower Upper
45 100
58 1.1 29.4 44.2#



#20
Methylene Chloride
Concen: 0.213 ppbv
RT: 2.072 min Scan# 613
Delta R.T. 0.010 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

Tgt Ion: 84 Resp: 914
Ion Ratio Lower Upper
84 100
49 154.0 128.8 193.2
51 50.0 38.6 57.8
86 84.9 52.5 78.7#

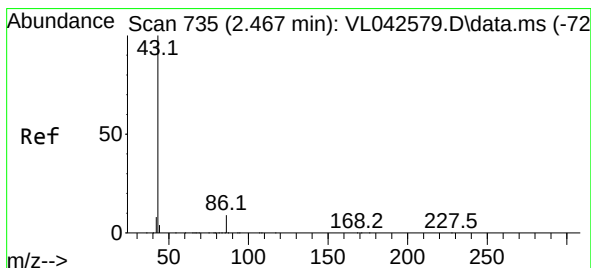
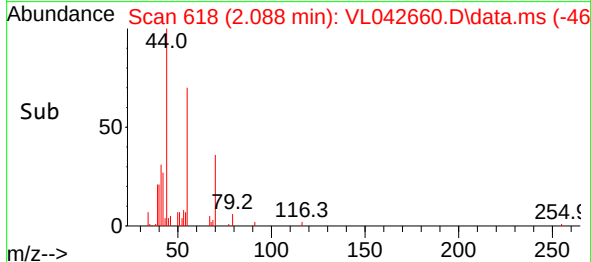
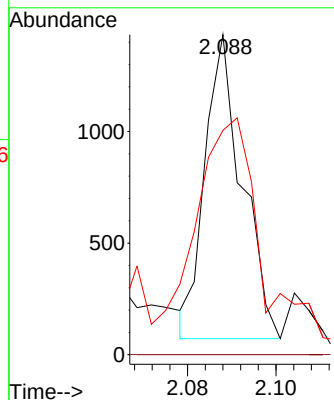
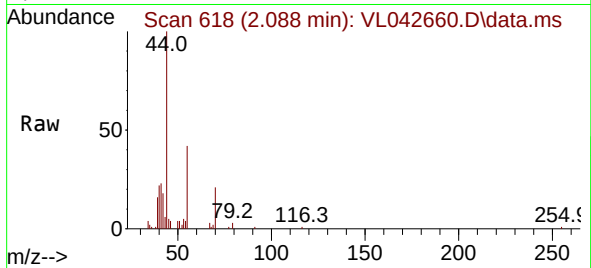




#21
 Allyl Chloride
 Concen: 0.086 ppbv
 RT: 2.088 min Scan# 61
 Delta R.T. -0.010 min
 Lab File: VL042660.D
 Acq: 19 Jun 2025 18:00

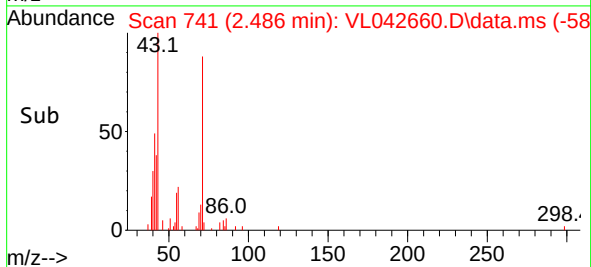
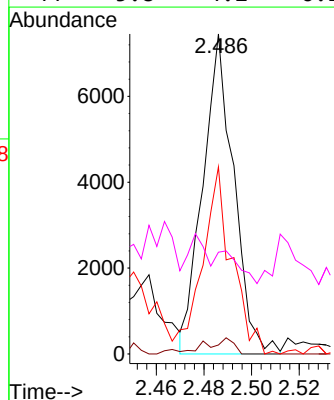
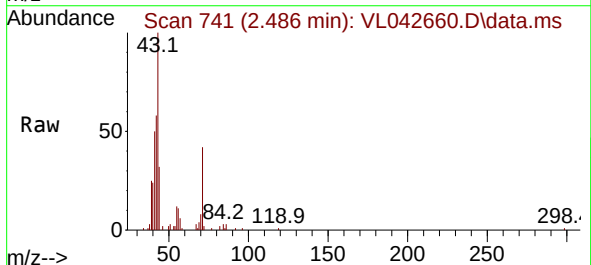
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DL

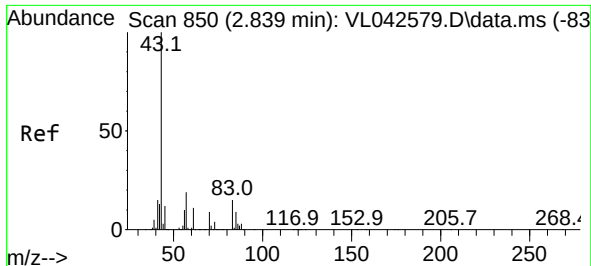
Tgt Ion: 41 Resp: 793
 Ion Ratio Lower Upper
 41 100
 76 0.0 21.2 31.8#
 39 257.0 60.9 91.3#



#23
 Vinyl Acetate
 Concen: 0.382 ppbv
 RT: 2.486 min Scan# 741
 Delta R.T. 0.020 min
 Lab File: VL042660.D
 Acq: 19 Jun 2025 18:00

Tgt Ion: 43 Resp: 6722
 Ion Ratio Lower Upper
 43 100
 86 2.8 6.6 9.8#
 42 58.9 7.0 10.4#
 44 5.8 4.2 6.2

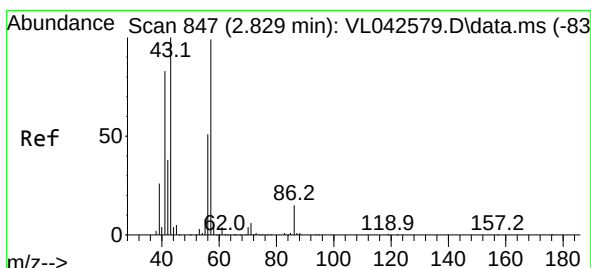
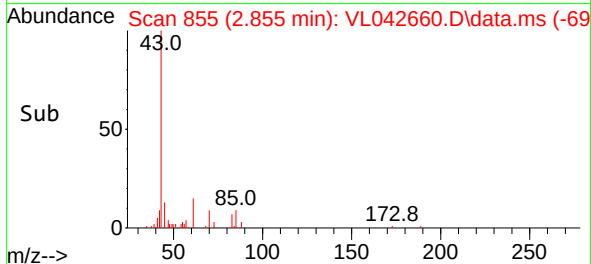
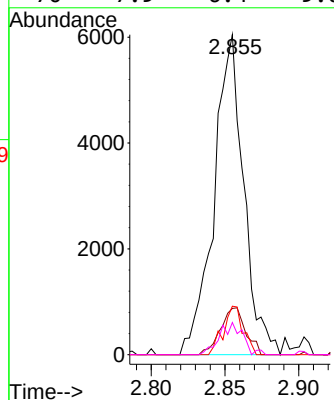
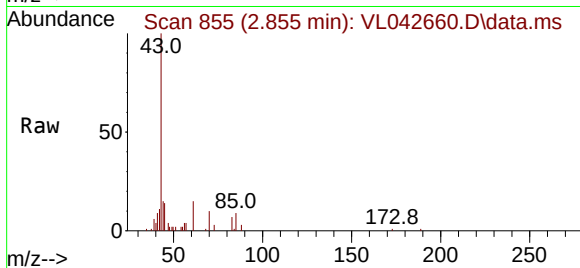




#25
Ethyl Acetate
Concen: 0.238 ppbv
RT: 2.855 min Scan# 81
Delta R.T. 0.016 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

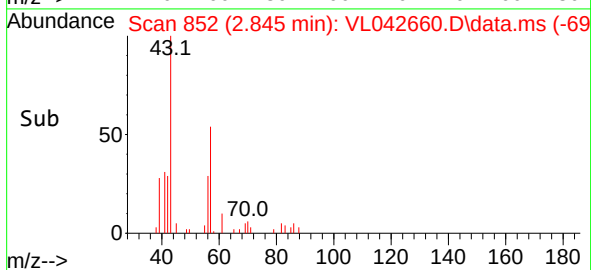
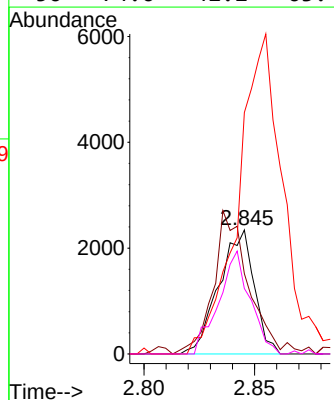
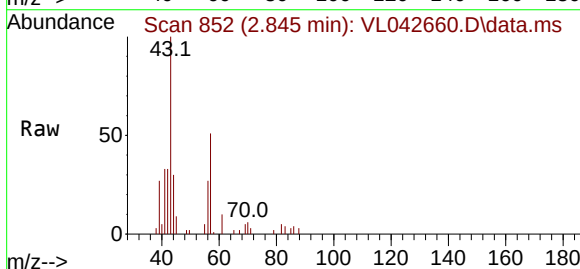
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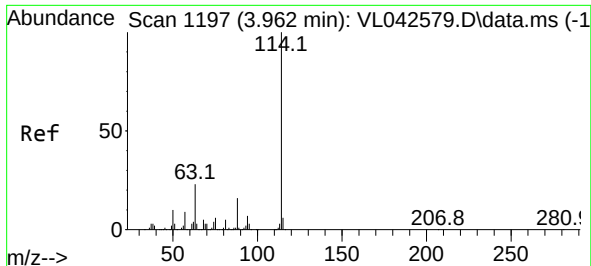
Tgt Ion: 43	Resp:	8473	
Ion	Ratio	Lower	Upper
43	100		
45	12.4	8.2	12.2#
61	10.1	7.1	10.7
70	7.9	6.4	9.6



#26
Hexane
Concen: 0.160 ppbv
RT: 2.845 min Scan# 852
Delta R.T. 0.016 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

Tgt Ion: 57	Resp:	2590	
Ion	Ratio	Lower	Upper
57	100		
41	118.0	70.6	106.0#
43	336.7	181.1	271.7#
56	74.6	42.2	63.4#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.981 min Scan# 1197

Delta R.T. 0.020 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Instrument :

MSVOA_L

ClientSampleId :

IA1DL

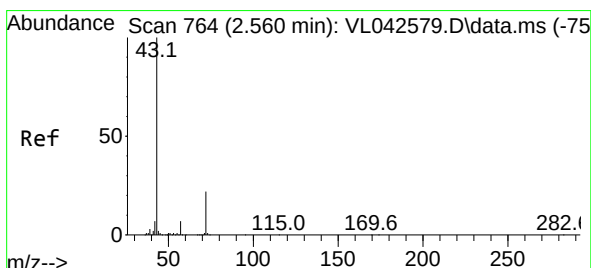
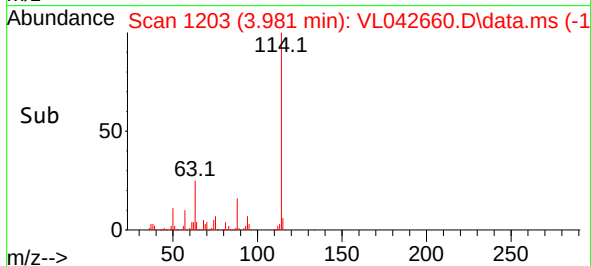
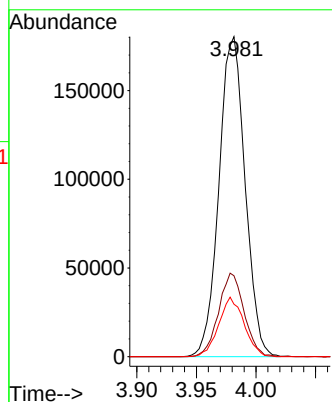
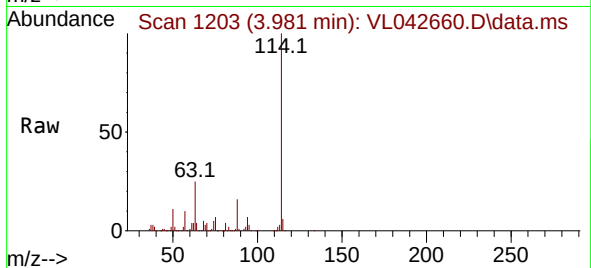
Tgt Ion:114 Resp: 274999

Ion Ratio Lower Upper

114 100

63 25.5 19.0 28.6

88 18.0 13.6 20.4



#34

2-Butanone

Concen: 0.043 ppbv

RT: 2.580 min Scan# 770

Delta R.T. 0.020 min

Lab File: VL042660.D

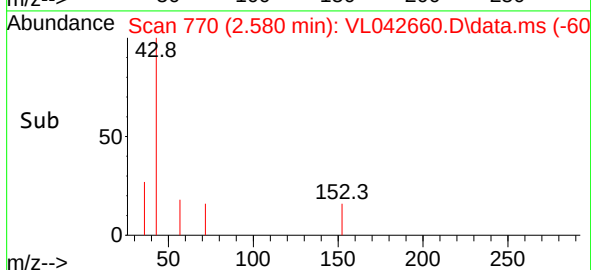
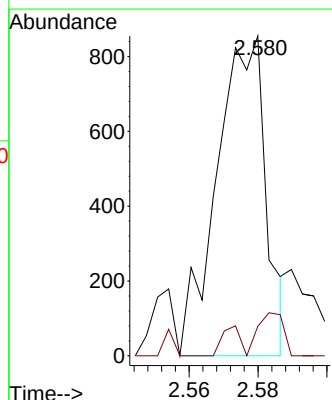
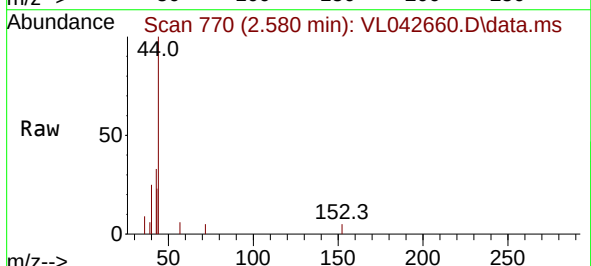
Acq: 19 Jun 2025 18:00

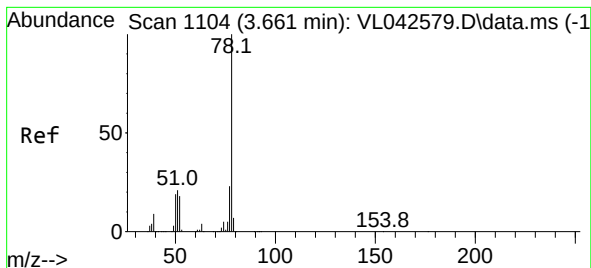
Tgt Ion: 43 Resp: 845

Ion Ratio Lower Upper

43 100

72 10.4 17.7 26.5#





#36

Benzene

Concen: 0.086 ppbv

RT: 3.671 min Scan# 1104

Delta R.T. 0.010 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Instrument :

MSVOA_L

ClientSampleId :

IA1DL

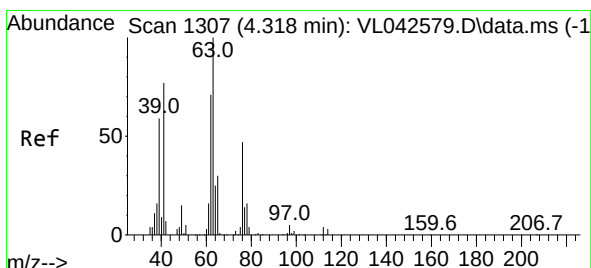
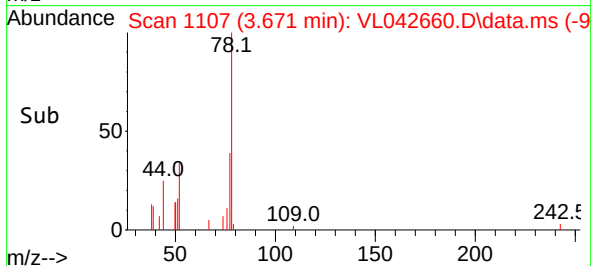
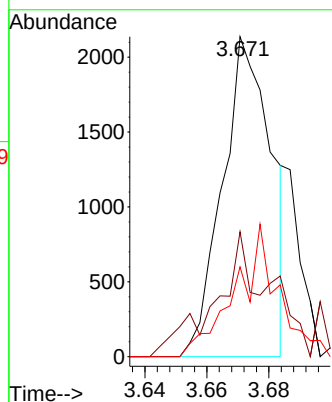
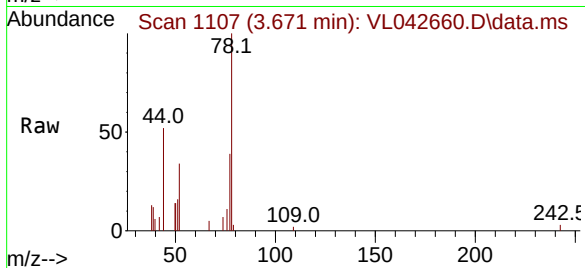
Tgt Ion: 78 Resp: 2325

Ion Ratio Lower Upper

78 100

77 29.7 18.2 27.2#

50 28.1 15.2 22.8#



#39

1,2-Dichloropropane

Concen: 6.955 ppbv

RT: 3.978 min Scan# 1202

Delta R.T. -0.340 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

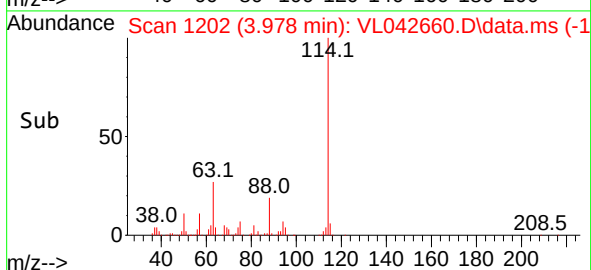
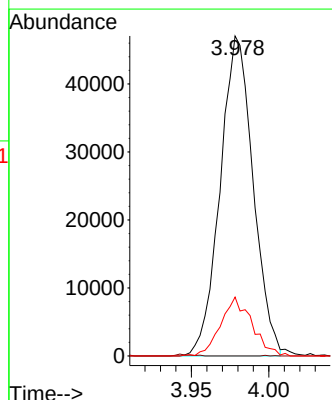
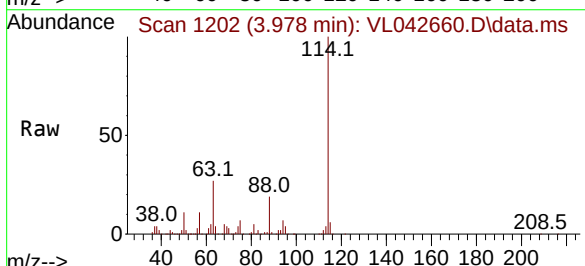
Tgt Ion: 63 Resp: 69648

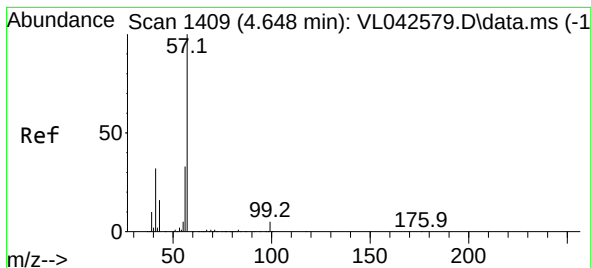
Ion Ratio Lower Upper

63 100

41 0.0 61.8 92.6#

62 18.4 56.6 85.0#





#44

2,2,4-Trimethylpentane

Concen: 0.041 ppbv

RT: 4.671 min Scan# 1416

Delta R.T. 0.023 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Instrument :

MSVOA_L

ClientSampleId :

IA1DL

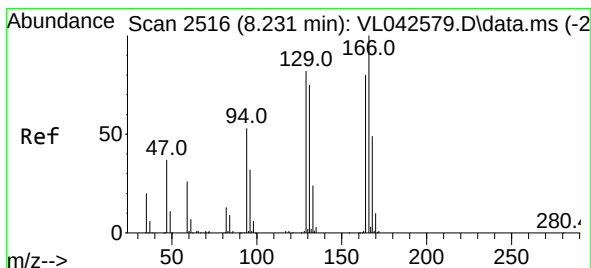
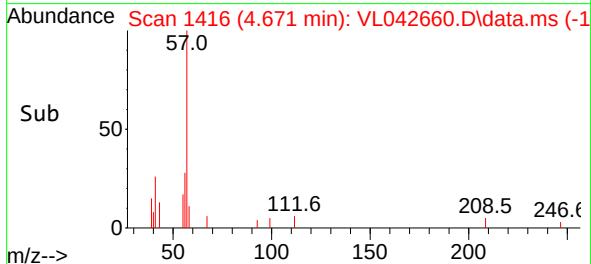
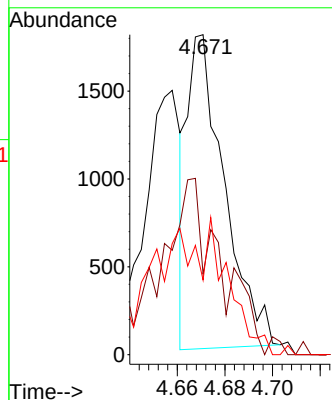
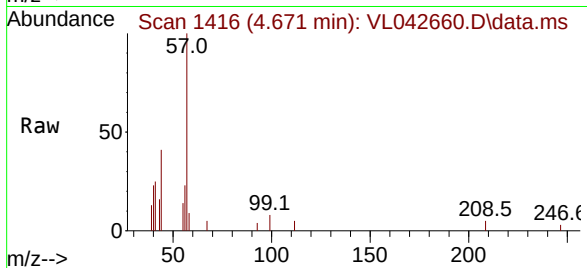
Tgt Ion: 57 Resp: 1922

Ion Ratio Lower Upper

57 100

41 115.9 26.1 39.1#

56 93.6 25.9 38.9#



#52

Tetrachloroethene

Concen: 5.554 ppbv

RT: 8.247 min Scan# 2521

Delta R.T. 0.016 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Tgt Ion: 164 Resp: 56199

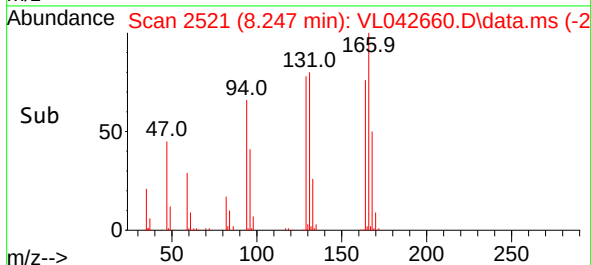
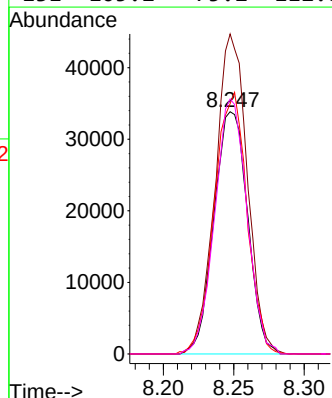
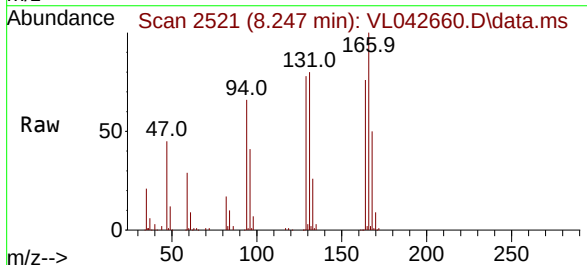
Ion Ratio Lower Upper

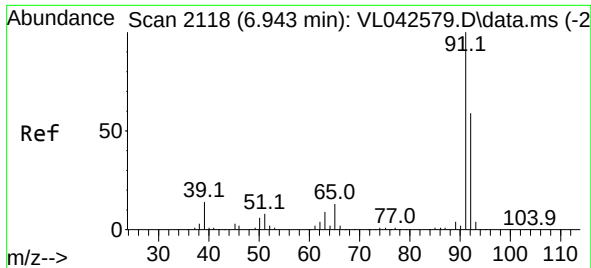
164 100

166 132.1 100.0 150.0

129 102.8 82.2 123.4

131 105.2 75.2 112.8

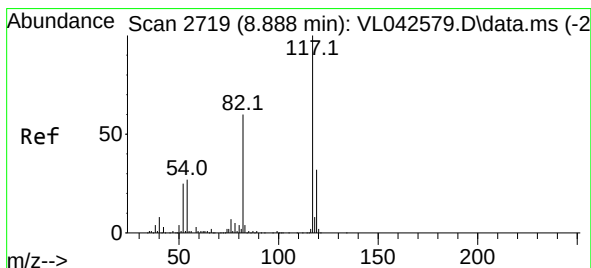
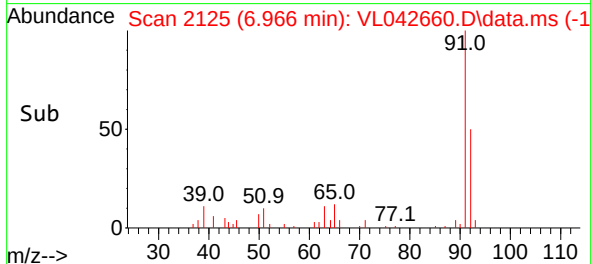
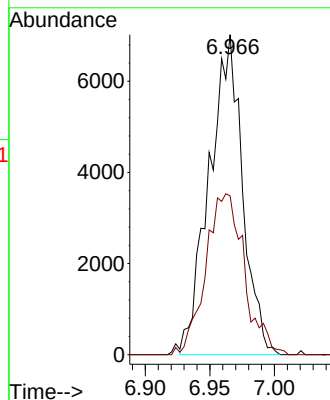
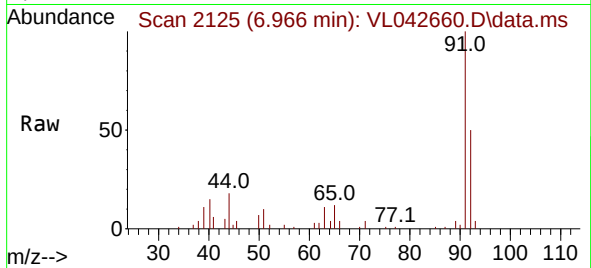




#53
Toluene
Concen: 0.402 ppbv
RT: 6.966 min Scan# 2118
Delta R.T. 0.023 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

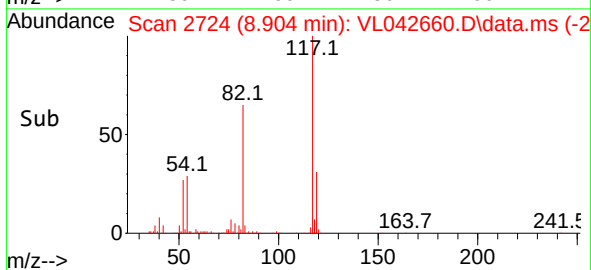
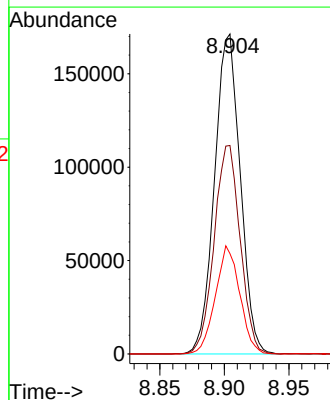
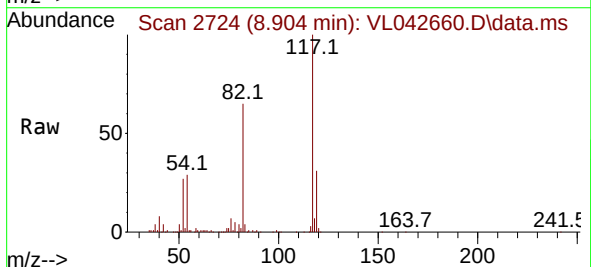
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

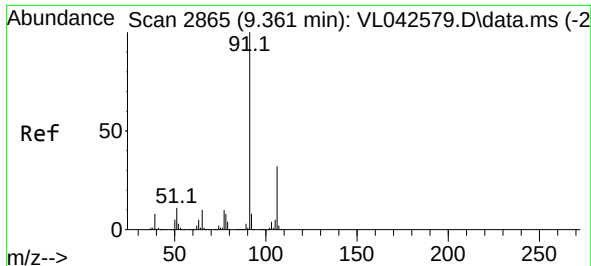
Tgt Ion: 91 Resp: 12587
Ion Ratio Lower Upper
91 100
92 58.3 48.2 72.4



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.904 min Scan# 2724
Delta R.T. 0.016 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

Tgt Ion: 117 Resp: 237440
Ion Ratio Lower Upper
117 100
82 65.8 51.2 76.8
119 32.0 26.3 39.5





#58

Ethyl Benzene

Concen: 0.196 ppbv

RT: 9.548 min Scan# 2923

Delta R.T. 0.188 min

Lab File: VL042660.D

Acq: 19 Jun 2025 18:00

Instrument :

MSVOA_L

ClientSampleId :

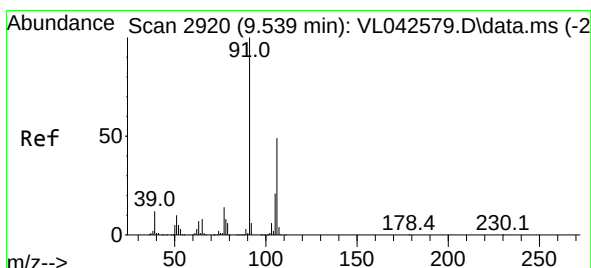
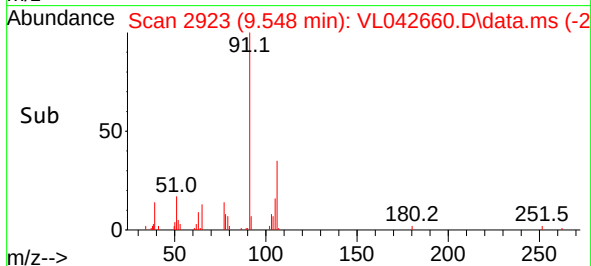
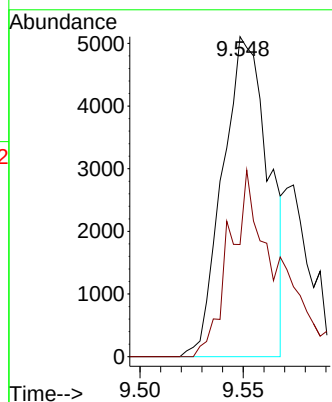
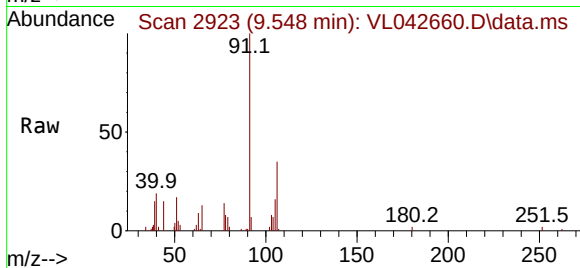
IA1DL

Tgt Ion: 91 Resp: 7894

Ion Ratio Lower Upper

91 100

106 35.0 25.9 38.9



#59

m/p-Xylene

Concen: 0.249 ppbv

RT: 9.548 min Scan# 2923

Delta R.T. 0.010 min

Lab File: VL042660.D

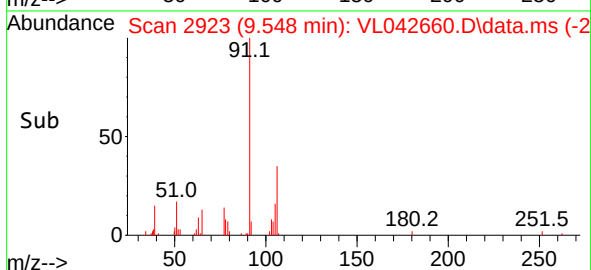
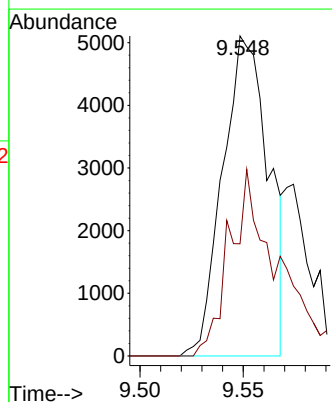
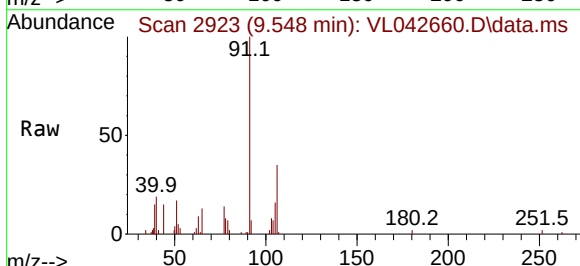
Acq: 19 Jun 2025 18:00

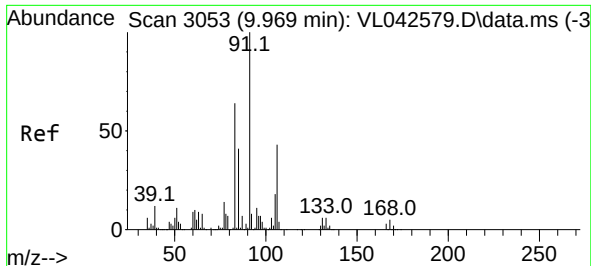
Tgt Ion: 91 Resp: 7894

Ion Ratio Lower Upper

91 100

106 60.8 38.8 58.2#

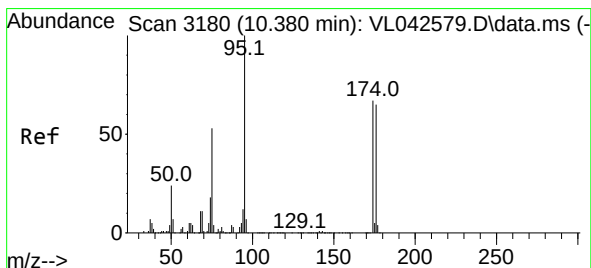
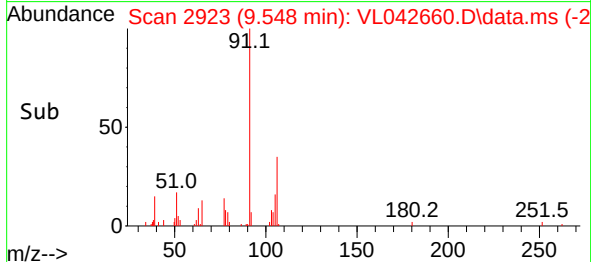
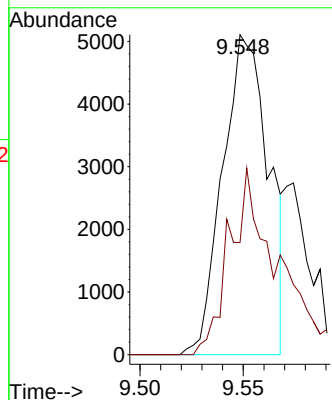
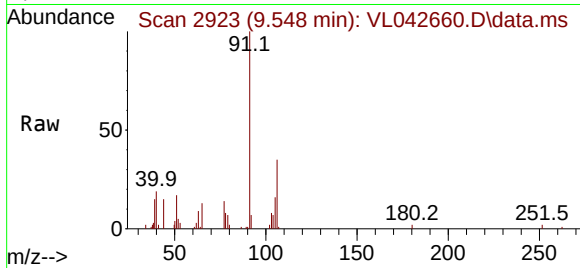




#60
o-Xylene
Concen: 0.250 ppbv
RT: 9.548 min Scan# 291
Delta R.T. -0.421 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

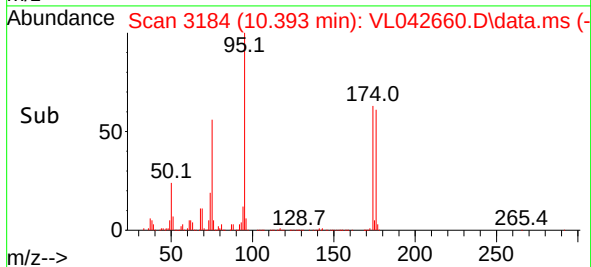
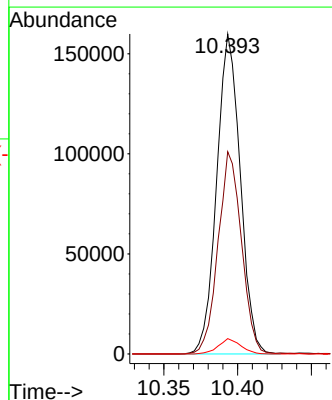
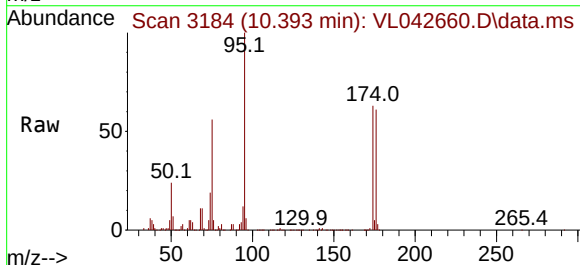
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

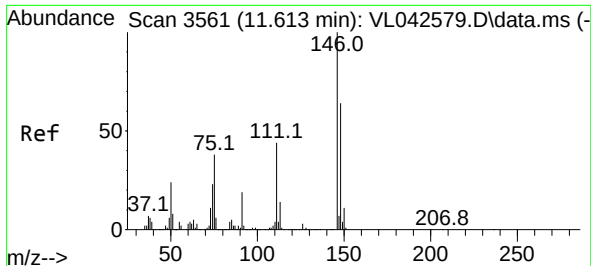
Tgt Ion: 91 Resp: 7894
Ion Ratio Lower Upper
91 100
106 60.8 22.9 68.5



#68
1-Bromo-4-Fluorobenzene
Concen: 9.983 ppbv
RT: 10.393 min Scan# 3184
Delta R.T. 0.013 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

Tgt Ion: 95 Resp: 177692
Ion Ratio Lower Upper
95 100
174 63.1 53.1 79.7
175 4.6 4.2 6.2

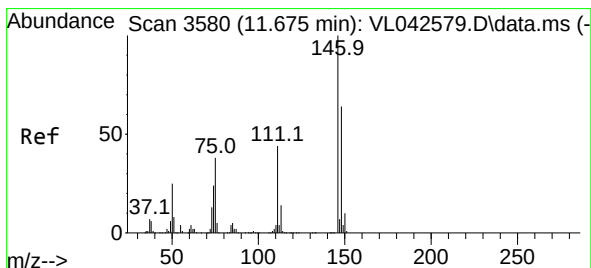
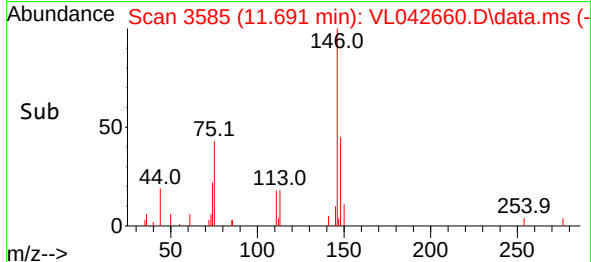
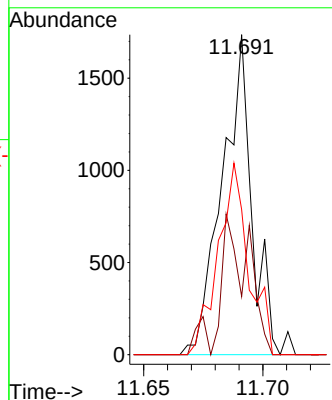
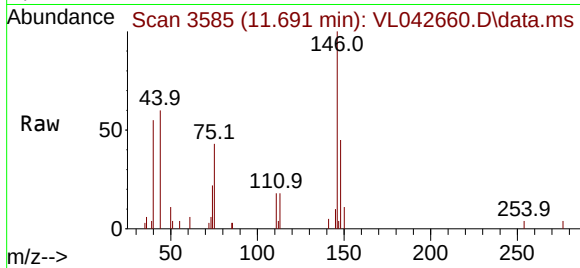




#75
1,3-Dichlorobenzene
Concen: 0.066 ppbv
RT: 11.691 min Scan# 3585
Delta R.T. 0.078 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

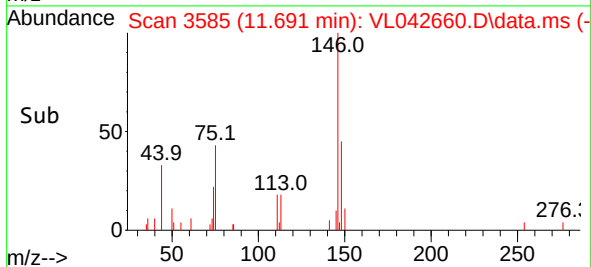
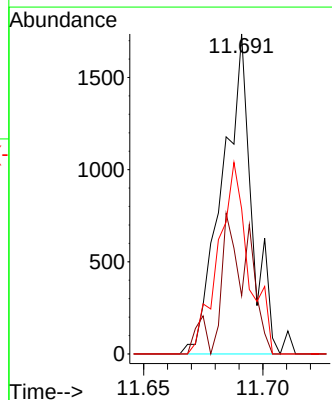
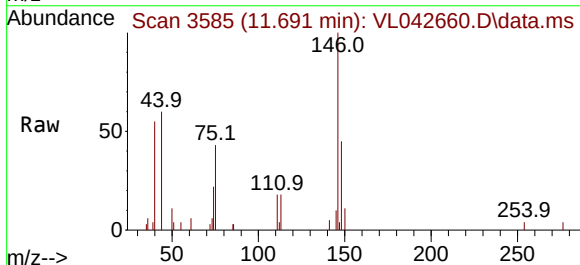
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

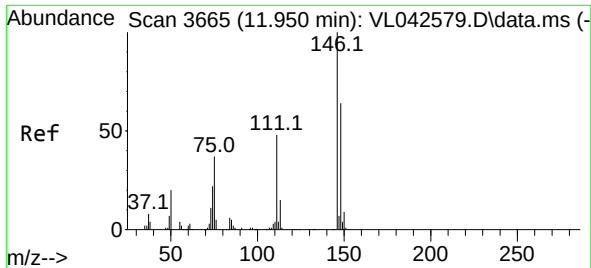
Tgt Ion:146 Resp: 1501
Ion Ratio Lower Upper
146 100
111 42.4 22.4 67.3
148 61.3 32.0 96.2



#76
1,4-Dichlorobenzene
Concen: 0.066 ppbv
RT: 11.691 min Scan# 3585
Delta R.T. 0.016 min
Lab File: VL042660.D
Acq: 19 Jun 2025 18:00

Tgt Ion:146 Resp: 1501
Ion Ratio Lower Upper
146 100
111 42.4 21.6 64.8
148 61.3 32.1 96.5





#77
 1,2-Dichlorobenzene
 Concen: 0.068 ppbv
 RT: 11.691 min Scan# 31
 Delta R.T. -0.259 min
 Lab File: VL042660.D
 Acq: 19 Jun 2025 18:00

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DL

Tgt Ion:	146	Resp:	1501
Ion	Ratio	Lower	Upper
146	100		
111	42.4	23.1	69.3
148	61.3	32.1	96.3

